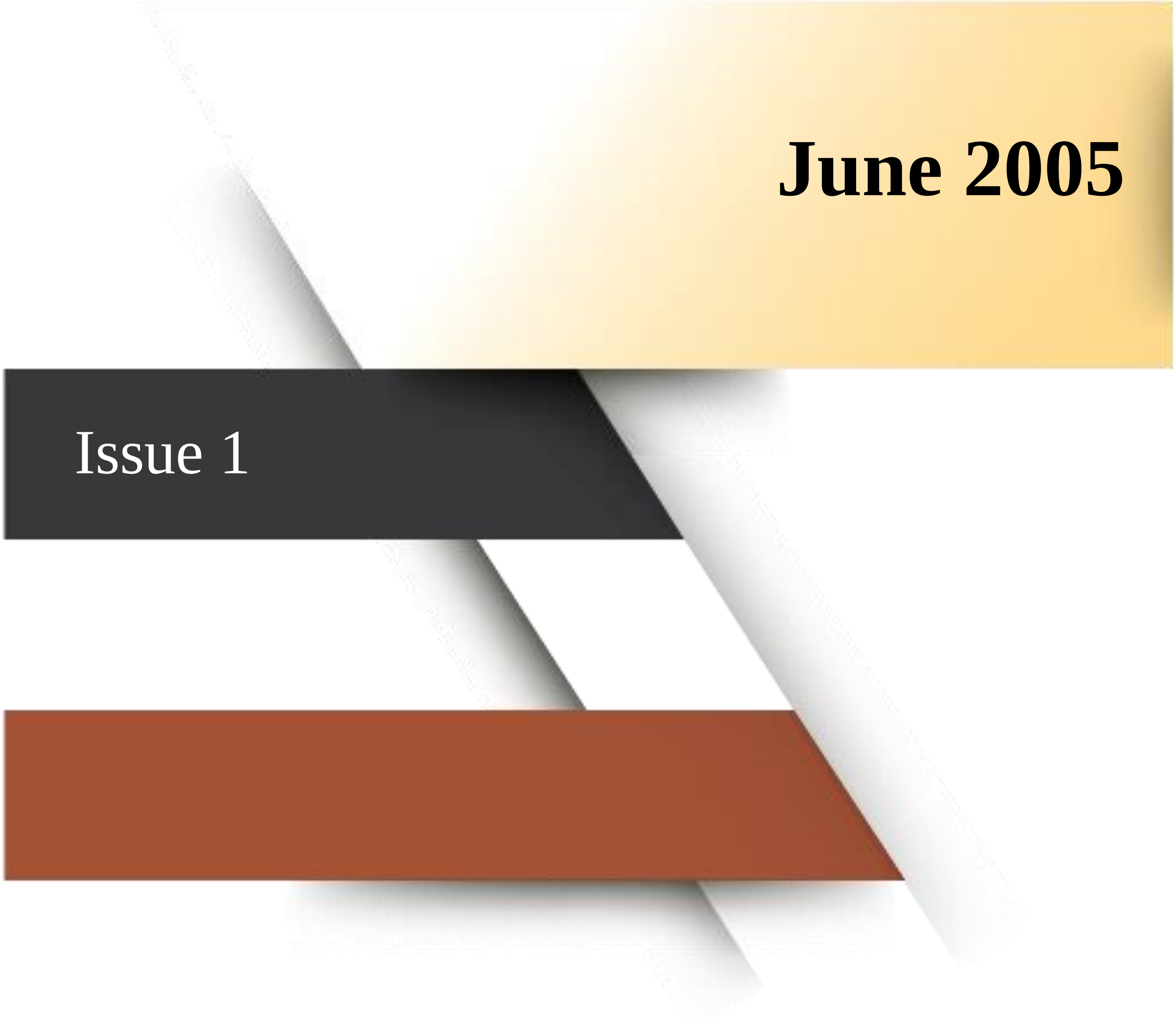
INTEGRAL REVIEW

A Transdisciplinary and Transcultural Journal For New Thought, Research, and Praxis



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Editorial
Integral Foundations

Introducing the First Issue of *Integral Review (IR)*

We are proud to offer the first issue of *Integral Review (IR)*, a new journal to publish works on qualitative change and development in different spheres of life, under an integral perspective. "Integral" stands for a worldview, paradigm, epistemology or general approach that encompasses multiple perspectives and dimensions, holism, and integration. Efforts to take integral approaches are finding their way into many avenues of academic and professional discussion as well as into practical application in a variety of fields. It is our intention to make a significant contribution to the discussion and research in this area through publication of articles which have been thoroughly discussed and reviewed by the editorial committee as well as by external reviewers. Articles will be either openly peer reviewed or will go through a blind review process, according to the authors' wishes.

"We" stands for a group of people who have joined together for this common endeavor after several years of internet exchange and discussion. Other than a few individual personal meetings, it has been a virtual community, focused on discussing the integral approach. We came together at the initiative of Sara Ross, who founded ARINA Inc., which is IR's publisher, and formed an editorial committee as a subgroup of ARINA for publishing *IR*.

This journal is offered as an open-access, free publication. We are using a Creative Commons copyright licensing approach that permits copying and distribution of IR's contents when attribution to publisher and author is included, but does not permit commercial use of contents without the publisher's permission.

The articles in IR are in English or other languages. In the case of non-English texts there is a summary in English in addition to a traditional abstract in English.

From beginning to end, the production and release of this internet journal has been, and will continue to be, an honor to participate in. Our reward is the motivation and satisfaction that can be drawn from cooperating across continents, cultures and disciplines in a meaningful project. As well, we will find reward in the feedback, active engagement and the contributions of readers, and we have designed mechanisms to facilitate this.

The Afterword for this inaugural issue will take an experimental, interactive form. When readers click the Afterword link in the Table of Contents, they will arrive at a public log-in portal to one of ARINA's forums. There, readers will find an Afterword discussion space ready for discourse about this issue, issues it raises, etc. In addition to the Afterword, there are Author Roundtable forums for discussion of specific articles, and various authors will participate to varying degrees or at least "drop in" and visit.

On the Contents of Issue # 1

For this first issue of *IR* we decided to present (as much as possible) our own positions within the larger integral conversation by publishing texts representing our different approaches, personal backgrounds and professional fields. Additionally, we invited some other professionals to contribute to this issue. We aim to step back a little in succeeding issues to leave plenty of room

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for more authors from around the world.

In this first issue, we start with a lead article by the editorial committee of *IR* itself. In it, we attempt to present the essence of our understandings of “integral” and “integral paradigm.” According to the integral principle of balancing unity and diversity, Sara Ross, president of ARINA, and Reinhard Fuhr, editor-in-chief of *IR*, describe what we might call our first attempt to define a common denominator for understanding “integral” in the course of introducing readers to IR and its mission. Its mission is conveyed by discussing the meanings we give to the terms used in the journal’s entire title. This is then complemented by contributions from individual members of the editorial committee. These committee members point out their personal emphases and viewpoints of “integral” in the context of their personal histories and respective professional fields, in agreement with or deviance from the main body of the article.

Jean Gebser may be considered as the intellectual father of integral thought and discussion. In a very concentrated form, Kai Hellbusch, a Gebser expert from Germany, presents the main assumptions of this extraordinary scholar by explaining “consciousness structures” as the very basis of all experience, perception and thinking. Hellbusch then summarizes the main characteristics of Gebser's spectrum of worldviews, from archaic to magic to mythic to rational to integral.

In the next article, Jan Inglis and Margaret Steele, from Canada, develop and explore a concept they call *complexity intelligence.* They draw on a broad range of literature to support putting forward the term complexity intelligence as a requirement for the work of *cultural coaches.* These cultural coaches represent a new kind of change agent, whose major task is to facilitate bridging the gap between different developmental paradigms within social contexts.

Michael Basseches, of the USA, complements approaches to the integral discourse by describing it as a psychological phenomenon of intellectual development that he calls dialectical thinking. Its dialectical dynamic, summarized here from his previous research, is distinguished from uses of the term *dialectic* found in philosophical traditions. He offers a genuine philosophical approach to the psychology of integrated thinking, and transforms the meaning of dialectic into an organizing principle of such thought. He emphasizes its importance for our world in different domains of life, how it could be supported in different professional fields, and the limits of these endeavors.

Sara Ross, also from the USA, has summarized the findings of her many years of intensive research on the general characteristics of human dynamics. She offers a set of fundamental premises, illustrated and supported by a process model. She grounds these principles theoretically and in human experience, and from this succeeds in conveying general fractal patterns on a very high level of generalizability. These universal patterns and principles can then be used to understand developmental processes and inform integral methodologies in all areas of practice.

Anne Starr and Bill Torbert, USA, devote themselves to describing what they call “triple-loop awareness,” a human capacity that is potentially crucial for radical changes in terms of the integral paradigm. This concept has a few predecessors that are referred to, such as Bateson's “Level III Learning” or the “witnessing” consciousness in Eastern philosophies. The authors aim to go beyond merely talking about triple loop awareness by engaging readers in a way that aims to elicit such awareness. They involve readers by means of case studies, real life experience, and offer exercises in the course of reading itself.

Although we want to cope with the challenge of not dividing theory from praxis, personal background from subject matter, or the concrete from the general, we do have to emphasize one or the other in the articles. The following articles then put the more concrete, practical and/or personal issues into the foreground.

Thus Russ Volckman, USA, a consultant and trainer for leadership development, interviewed Thomas Jordan, from Sweden. Jordan has a long history of experience in research and praxis on workplace conflicts and as a consultant for conflict management and prevention. He has worked with personnel within the Swedish government, and reports in the interview on results from a recent research project: He wanted to identify integral qualities of mind and personality in people holding important positions in organizations. This investigation produced very interesting results for our understanding of the nature of integral consciousness.

Jonathan Reams, from Canada, approaches the challenging task of outlining the foundations for an integral leadership theory. His approach describes and then utilizes elements of integral theory to contextualize existing leadership theories, and makes distinctions about what sets an integral approach to leadership apart.

How can integral perspectives and approaches be applied in praxis? This is shown by Reinhard Fuhr and Martina Fuhr, from Germany, in their article on an "Integral Gestalt-Approach to Therapy and Counseling." They merge the once revolutionary ideas and concepts of Gestalt therapy by F.S. and L. Perls and P. Goodman from the 1950's with further developments of this approach, and with the most recent concepts on personal and social development. They then demonstrate on the basis of their long-term experience what integral therapy and counseling may look like in praxis.

When reflecting on what we have assembled for this first issue, it looks like a solid and challenging bulk of material which may not always be easy to digest, but which hopefully answers a few questions about the quality and scope of our intentions, and of what we call the "integral paradigm." Many of the articles will simultaneously raise new questions, so that it looks as if we are confronted with a kind of hydra when dealing with integral thoughts and experience. But we are sure that this hydra will turn out to be a benevolent and exciting creature that will continuously challenge our efforts, creativity, and mutual support. Of course, we would love to involve as many readers as possible in this adventure.

Reinhard Fuhr
(Editor-in-chief)

Jonathan Reams
(Co-editor)

Integral Review and its Editors

Sara Ross, Reinhard Fuhr, Michel Bauwens,
Thomas Jordan, Jonathan Reams, and Russ Volckmann

Abstract: In this introduction to *Integral Review's* inaugural issue, we explain the meaning we give to the title of this electronic journal which is open-access, both refereed and peer-reviewed, and why that meaning is important for us in today's world. The draft of the basic article, which was intensely discussed among the members of the editorial committee, was written by Sara Ross and Reinhard Fuhr,[1] and following it, other members of the editorial committee added their personal emphases in reference to the integral paradigm as well as their (critical) evaluation of the premises made in the basic article. Thus Thomas Jordan offers a set of categories and criteria for integral qualities which turned out to be most important in practice and evaluation processes. Michel Bauwens makes distinctions about the multi-perspectival nature of the integral paradigm, points out ways to avoid four different kinds of reductionism, and highlights layers of awareness. Russ Volckman emphasizes the connection between the diversity of worldviews and methodologies, which allow us to also integrate recent developments in behavioral approaches in his professional field of organization and leadership development. Jonathan Reams emphasizes the new, transcendent quality of an integral approach that enables us to use different qualities of "reflection" flexibly and - as we have a meta-framework of human perceptions and values - to recognize everybody's truth and feel compassionate with it. We then close with a discussion of the relationship between *Integral Review* and the mission of its non-profit publisher, ARINA, Inc.

Key words: change agents, complexity, consciousness development, Gebser, integral, integration, paradigm, research, social change, transformation, Wilber.

An Approach to the Integral Paradigm and the Meaning of the Journal's Title

Sara Ross and Reinhard Fuhr

We have a lot we want to share with our inaugural readers in this space as we have charged ourselves with the task of conveying, in the clearest possible manner, what *Integral Review* (IR) is all about. To shine a brighter light on that, here and there we may briefly mention what it is not about. In other places, we introduce differences in the way we as individual editors interpret the terms that describe IR. The value in doing this transparently, here, is to model how IR can be a spacious-enough vehicle for our diverse processes of interpretation, which continue to change as we do. For the most part, however, we use this space to define the concepts used in the Journal's title. We expect IR will have relevant appeal across a broad readership of change agents around the world.

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[1] Sara Ross is president of ARINA, Inc. and coordinator of IR, Reinhard Fuhr is editor-in-chief of IR.

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The Integral Paradigm

The Meaning We Give *Paradigm*

Integral Review represents an approach to the Integral Paradigm. We inherit the word *paradigm* from the Greek language, and a standard American dictionary[2] definition captures its simplicity: an example, a pattern, especially an outstandingly clear or typical example or archetype.

This simplicity can easily be clouded by forgetting that patterns and archetypes are not the concrete, tangible things we see or words we hear. We can only infer them. They are like our physical skeletons that shape our human form, but are not themselves visible to the eye. This means we have to infer the "patterns, examples or archetypes" from what we observe, by looking for the deeper structures.

In addition to this, ”paradigm” has also come to refer to a specific scientific school's or a discipline's philosophical and theoretical framework (ibid.). IR's approach is, however, not restricted to one special discipline or scientific school, it attempts to encompass many different disciplines and formulate meta-theoretical positions.

All these words to define *paradigm* are as revealing or unrevealing as looking at a shadow on the cave wall: we see some contours of reality but not reality itself. We make this attempt in order to invite you, the reader, to develop alertness to the paradigmatic patterns—particular approaches to reality—detectible across the broad range of subjects IR covers. As a whole, articles in IR will be highly diverse clothing under which, and through which, the integral paradigm can become evident. This is because the integral approach represents a philosophy, meta-theory and a general pattern with particular qualities that can show up in every subject, and we have an editorial commitment of our best efforts to assure that it does. At the same time, we are in an experiential learning process: we will learn how to pioneer an approach to the integral paradigm in journal form by doing it.

The Meanings We Give *Integral*

Jean Gebser

The reasons this effort is important to us lie in the meaning we have for *integral*. We inherit this concept from Jean Gebser, an unconventional philosopher, who was born in Germany and finally settled down in Switzerland after many years of travel. He spent about 20 years examining virtually every field of human endeavor to discern the qualities of integral perception (Gebser 1985), acknowledging the challenge representing it, because "... this worldview goes beyond our conceptualization." In our attempts to define the integral worldview we are confined by the limitations of our language reflecting layers from earlier worldviews that do not apply to the integral view.[3]

It is a challenge to describe a new and relatively rare worldview: its "birth-pangs" first came into evidence only a century ago (Keckeis, 1985, xx). Gebser built his concept of an integral paradigm (as we would say nowadays) on *structures of consciousness,* which determine the "lenses" through which we perceive reality right from the beginning. These structures of consciousness are related to and shape virtually every human experience including our ways of reasoning. According to Gebser, they emerge from the universal mind or primordial consciousness (*Ursprung*), and form patterned structures that we would now call holarchies (according to Arthur Koestler's term): one stage of patterns building on the other, and through each more developed stage all the previous stages shine through and are available. Thus Gebser identified the five stages: archaic, magic, mythic, mental and integral.

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[2] Merriam-Webster's Collegiate Dictionary, 10th Ed.

[3] See also Kai Hellbusch's article in this issue.

The integral paradigm itself is characterized by Gebser mainly in that it allows us to reconnect to the primordial origin again, but in a conscious and differentiated way. The world is no longer an object, we can now gain an intimate relationship to the world, in particular as an integral perception is no longer restricted by a particular concept of time, of either-or dichotomies or of one perspective of reality only: it is holistic, multiperspectival and multidimensional.

We can see through the individual phenomena we perceive and discover the greater *gestalt*. This gestalt principle, which is also an essential concept of the theory of Gestalt therapy as it was founded by Frederick S. Perls, Laura Perls and Paul Goodman (Perls et al. 1951), says that we can understand the individual phenomena of life in their deeper meaning by grasping the whole gestalt. A gestalt is more and something else than the sum of the individual components that we can connect in linear progressions (see figure 1).[4] It is *becoming* a whole that integrates the different parts by intuiting their very essence. In order to perceive in this integral way it is important that we *experience* the phenomena concretely. And we can only experience them in the *here and now,* in real-time. This holistic way of perceiving and gaining knowledge is not possible without seeking within ourselves, too, in relation to our environmental field (Gebser 1985, 99, 141, 268). Thus we are able to see through the surfaces and discover the basic patterns, and thus to relate the world's external processes and behaviors with the internal worlds'.

These few remarks on a most unusual and unconventional thinker may already indicate what fascinating and yet difficult task lies ahead of us when we attempt to realize, implement and further develop these ideas in different fields of knowledge and practice – and also which kinds of resistance in ourselves and in others may be provoked by the integral way of thinking and experiencing.

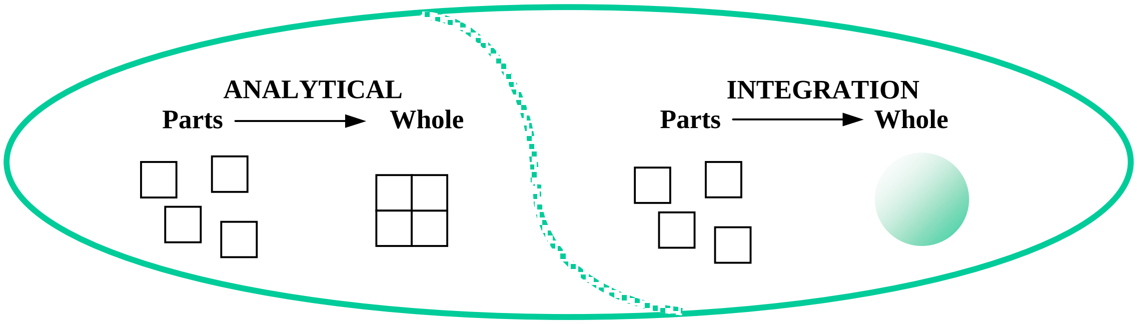

Figure 1: Analytical and holistic thinking

Ken Wilber and other Authors

Another approach to the integral paradigm – which is actually connected to Jean Gebser's theory – goes back to Ken Wilber. In spite of the fact that Wilber's work, widely spread in the world as it is, has been discussed very controversially, and in spite of the fact that he has been reduced to the leader of a new transpersonal or spiritual movement by quite a few "Wilber groups," many of us who are engaged in editing and/or writing for this journal owe a debt of gratitude, especially to his main work *Sex, Ecology and Spirituality* (1995) or *Integral Psychology* (2001). Even though we may disagree with, have to digest, and/or modify some of his propositions, he offers some rich and inspiring thoughts and ideas. Wilber attempted to synthesize many developmental theories from East and West in order to conceive of an encompassing meta-theory on evolution and development and the integral paradigm. Like Gebser, he considers development as an unfolding of Spirit and as a continuous spiral process within the individual, biological, cultural and social units, as well as organizations throughout their life cycles. And this developmental process may be seen and explored from at least four perspectives: an individual and a collective perspective, both in terms of an internal and an external view, resulting in the four major perspectives of one and the same reality.

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[4] See also the German Handbook on Gestalt therapy (Fuhr, Gremmler-Fuhr, Sreckovic [eds.] or an English textbook (Woldt, Toman 2005 [eds.] 2005)

As this multiperspectivity opens new horizons for studying questions of personal and social significance in nearly all fields of life, practically and scientifically, we are also challenged to design and apply new research approaches and methods (connecting e.g. phenomenological and hermeneutic approaches with empirical studies and systems theory). There is no doubt, however, that the external perspectives strongly dominate in research, study, and praxis across the disciplines in our days. It will be a great challenge for those who form and contribute to IR to rebalance this lopsided view and if possible to *integrate* different perspectives when approaching professional fields. Probably there will be quite some controversial discussions on the scientific dignity of these different approaches. We may notice this, in particular, when we attempt to give the internal perspective (which concern human impulses and feelings, imaginations and beliefs or the cultural value systems, role taking and expectations in our societies) the same importance as the external approaches oriented towards empirical criteria only (see also Wilber 1998).

The evolutionary and developmental processes themselves have been explored in great depth by Ken Wilber and many other authors. These developmental processes can be studied in view of many different dimensions like emotions, reasoning, ethics, behavioral patterns, social competencies and structures, organizational and political structures, ways of living - to name but a few. All theses dimensions are considered to be aspects of the whole gestalt as explained before, and they are correlated with one another. It seems to be one of the greatest challenges in individual and cultural life, including of course those engaged in making this journal, to integrate all these different aspects of development.

According to Wilber and many other authors like Maslow, Selman, Erikson, Piaget, Kohlberg, Kegan, Loevinger, Cook-Greuter, and of course also Gebser himself (including many developmental theories from the East), the developmental processes do not form a lock-step march in a linear continuum within every person or society, but rather show some variety in when, if, and how they manifest. Regardless of individual variety, these stage patterns in different domains of life can be distinguished. As a result, we can notice different paradigms operating in the double meaning of the word as explained before: distinct methods of gaining knowledge of reality on the one hand, and basic philosophical and meta-theoretical assumptions on the other hand. These dynamics develop as holarchies, (mentioned briefly, earlier), i.e. they transcend and integrate their previous basic structures as they become more complex. Thus we arrive at a spectrum of development which can be reconstructed and studied from different perspectives of reality.

The co-founder of the Club of Rome and founder of the Club of Budapest, Ervin Laszlo, adds another perspective to this on a well-founded scientific basis. After lifelong research he comes to the conclusion that the world's civilization quickly moves towards a bifurcation in the course of a "macroshift" we are actually in (Laszlo 2003). Whether a critical amount and quality of transformational shifts to new paradigms (and in particular to a new worldview he describes and which we might call *integral*) in all fields of personal and public life can be initiated may, according to Laszlo, be an existential, though open question of survival in our global village.

One of the central topics in IR will at any rate be devoted to the further investigation of processes along the spectrum of development indicated above and to the possibility of supporting such transformational processes in research and praxis.

The Meaning of the Journal's Title

In this section, we want to explain what we mean word by word by the title of the journal: "Transdisciplinary and Transcultural Journal for New Thought, Research, and Praxis." This affords us a nice opportunity to ease into the more concrete language that characterizes the rest of this article.

"Integral"

Our perceptions of the world—our worldviews—are organic, whole-person dynamics that we operationalize in whatever ways we can to meet our purposes. As several of us editors discussed how to make the integral paradigm evident in the IR, and how to talk about it in this introduction, we surfaced multiple ways of *referring* to it.

One of us has particular appreciation for the simplicity of the dictionary definition of *integral*: essential to completeness; lacking nothing essential. This simple definition would refer to our hope that every IR article attempts to evidence the integral paradigm by covering its topic with the comprehensive depth, dimensional span, scales, and contexts necessary to convey its whole complex nature, to the extent possible in this medium. One of us would say the foregoing captures the meaning of "an integral approach," and another says we can avoid prescriptive problems if we use the notion of "integrally informed approaches."

We exchanged cautions that we need to beware of the natural human tendencies to make highly abstract concepts, such as "integral," into concrete "things." This can lead to confusing maps with the territories they point to. Yet it's helpful to model and experiment with new ideas in concrete ways: it is part of the process of integrating them as they make more and more sense to us through usage and peer review. Yet another editor wishes to avoid the perfectionism implied in the dictionary definition above, and prefers to stress the *intention* to be more complete, and the polarity of daring to take a clear perspective while also having the greater whole in view. He articulates a quality of *integral* that is implicit throughout this article, and deserves to be expressed. People find that integral approaches give them a completely new horizon of meaning making, defining a new existential sense of life by expanding the perceptions of connectedness; these approaches may make it much easier to make sense of our complex world.

Ultimately, all those words are meaningless if we don't get down to the practical matters of our real work in the world, and this is what we hope IR will be very much about. In that direction, IR has practical, integral criteria it applies to its work of journal production. Likewise, it has distilled from them the several general criteria we have agreed upon for works published in IR, as follows:

- They reflect or pay attention to the range of different worldviews and meaning-making processes that operate in people, and thus understand some of the processes and patterns that are evident in, and across, various phenomena.
- They demonstrate a sensibility for developmental dimensions and processes through-

out the human lifespan.

- They indicate some kind of orientation toward facilitating translative as well as transformative development in various domains of life. By translative, we mean enlarging the views, attitudes, and competencies of individuals, groups, communities, etc., within the level of their existing paradigms. By transformative, we mean catalyzing and supporting learning processes that facilitate the development of new paradigms and their qualitative capacities.

“Review”

“Review” in IR’s title means the active verb form of *review* because this publication is not a passive instrument that produces reviews of what is going on in the world. We treat it as an active verb because IR as a whole must attempt to fulfill the third criteria above in its own presentation. It, too, has the intention of fostering translative and transformative experiences by the way it engages its readers in both content and dialogue.

Review as an action includes all the familiar meanings of the term: to view, examine again, to look back on something with a retrospective gaze, to examine critically or deliberately, to evaluate, etc. These actions help us make sense of our experience—the process of our meaning-making—so that we can adapt to and learn from it. They help us notice unique features that we want to make sense of. And they help us detect patterns and common processes that may appear across differently clothed human experiences. The diverse actions included in the process of review are fundamental for people engaged in change efforts of all kinds, from the self and other individuals, to the organizational and institutional, to the general social and political domains. This is because we are not just *acting upon* others and our world; we are *interacting with* everyone and everything.

To facilitate active review processes for readers, authors, and editors alike, IR may include a feature not typically found in journals: an Afterword. This will be a place where we can offer reflective observations and sometimes questions about the issue contents and how they inform each other. It will be an opportunity to point to patterns and archetypes at play within and across articles. It will be a creative space for emergence of whatever inspirations we might have to foster our individual and collective reflection on the reading experience. It will be one structural mechanism within the IR to encourage dialogue within ourselves and among all of us. Perhaps it will lead to a Letters to the Editors feature where such dialogue may take place publicly.

The Afterword for this inaugural issue will take an experimental, interactive form. When readers click the Afterword link in the Table of Contents, they will arrive at a public log-in portal to one of ARINA’s forums. There, readers will find an Afterword discussion space ready for discourse about this issue, issues it raises, etc. In addition to the Afterword, there are Author Roundtable forums for discussion of specific articles, and various authors will participate to varying degrees or at least “drop in” and visit.

There are more meanings we give IR’s use of the action verb, review. The familiar meanings we listed above tend to orient us to looking at things “outside” ourselves. In the spirit of fostering concrete experiences to feed our integration processes, we always encourage the attention directed outward to flow back around to ourselves. This can remind us to examine how processes going on inside of our own skin are similar to processes going on “out there.” Without the essentials of self-reflection and reflexion, we would miss the prerequisite of integrating: *experiencing* our experiences in their very essence. Just reading about things in the abstract does not contribute to integration; the subjects we read about need to be engaged reflectively and reflexively, at minimum. Thus, *review* in this journal's title is an activity to engage.

We are aware that this wide-ranging discussion of our approach to the integral paradigm does not result in any crystal clear definitions, and may even invoke some frustration in a reader. Concrete experiences of frustration are natural responses to polarities we tend to experience when we want to understand something new and it does not fit neatly into familiar categories: they are natural catalysts for self-reflection, a way to re-view. The foregoing explication of the meanings we give the *Integral Review's* main title goes well beyond just our meanings and a title. We hope it gives you, as our reader, a concrete flavor of what the activity of an integral review can include.

"Transdisciplinary" and "Transcultural"

We deliberated long and hard about how much of a mouthful we wanted to allow IR's subtitle to become, and why. In the end, we decided each of its individual bites was necessary to augment the main title and convey our intentions for the nature of the Journal in a meaningful way. Predictably, we begin by defining what we mean by *trans*-. The first dimension of its meaning is traditional: across, beyond, and/or through. It can evoke images of humans' first transcontinental trading routes centuries ago, or railroads, or air flights. They crossed through geopolitical boundaries and spanned great distances across land, and above and beyond both those social and natural boundaries. The second dimension of *trans*- is that by its boundary- and scale-spanning nature, it changes how we customarily think about and do things. Its essential nature is transformative. Thus, we mean *trans*- in the dictionary sense of across, beyond, and through, so as to change. The next question is, change what?

First, as we begin to address that question, it will be useful to refer to Figure 1, where we illustrated a whole as "seen through" by an integral perception. A sphere like the one in this section's heading symbolizes it. In this discussion, the sphere can represent the whole problem or issue that needs to be addressed, for example, by a change agent. What is *changed* by a transdisciplinary approach is how we see the problem or issue, and where we stand in relation to it. A transdisciplinary approach is pragmatic, making the real world problem or issue the anchor that grounds efforts to address it. The problem or issue will be defined in terms of what it needs, regardless of geopolitical and institutional boundaries, and discipline, expertise, or biases of change agents or agencies, who will use and draw upon whatever resources, disciplines and knowledge bases are available and appropriate.

IR's transdisciplinarity is suggested by the range of articles' subjects covered in this inaugural issue. With the possible exception of any given special issue we may publish, every issue of IR will span multiple traditional categories and boundaries, to foster in all of us an integral perception of the wholes we are all trying to address as change agents.

The IR is intentionally transcultural in two ways. The first is most readily apparent, by its international editorial staff, its multi-language inclusion of articles, and its world-wide availability as an open-access electronic journal. We hope this quality will improve all our capacities to notice and work with difference arising within and from our cultural milieu. This does not refer only to group, national, and regional differences. IR's transcultural orientation may also illustrate that we often exist in a variety of cultural milieus, one at home, another at work, another at a place of faith-meeting, and another in our civic life. Developing a conscious awareness of the transcultural qualities in our own lives can inform how we notice and work with other kinds of cultural differences, *so that* we can surface new ways to work with them.

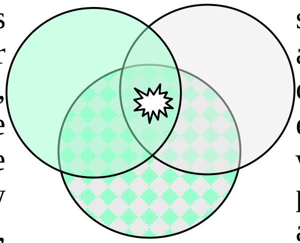
Sometimes this means we adopt more than one approach to accomplish an objective. That was our editorial decision as we considered the two different norms in use for producing peer-reviewed journals, as IR is. In Europe, a frequent custom is that the reviewers' and authors' identities are not anonymous to the other. In the U.S., the norm of academic journal publications is that the authors' identities are stripped from the manuscripts in a "blind" review process, in an effort to remove certain sources of bias on the part of reviewers, and the reviewers' identities are likewise anonymous to the authors. These two schemes are founded on very different assumptions, and IR has adopted the policy that it will accommodate both, based on author request.

At other times, there may be more challenging issues that require more creativity, adaptation, and a deliberate process to apply integral criteria. Such was another transcultural question we encountered as we prepared this issue of IR: What is an integral approach to the different cultural values placed on language that is variously called gender-neutral or inclusive? What is the integral approach when the very structures of some languages are inherently shaped around masculine- and feminine-gendered nouns (e.g., German and French). Several of us living in North America have lived through and been changed by the decades of inclusive language becoming the cultural norm, to the point of being broadly institutionalized in many contexts. In Western Europe, sensitivity about the use of inclusive language also exists, it has not been made a staunch cultural norm that pervades the spoken and written word everywhere and is therefore used more flexibly, especially given the constraints of some languages. How this question was resolved editorially will become evident to readers of IR in the course of reading it.

Secondly, IR is transcultural by its orientation to drawing attention to the individual and social patterns evident across cultures. Such attention is a resource for noticing and working with and within different cultures when it can discern the universal patterns that may be operating *beneath* apparent surface differences. This orientation echoes our earlier discussion of abstract patterns and paradigms. The ability to see and work with cultural difference is complemented by the ability to also see where there are additional human patterns operating in conjunction with them. This is a contribution often made by cross-cultural studies, and there are additional ways to study patterns that can significantly inform change agents' work. Both abilities are complemented by the pragmatic orientation discussed earlier, that of designing efforts that address the whole complex problem or issue as the anchor that grounds our work.

"New Thought, Research, and Praxis"

Rather than discuss our meanings for these terms—thought, research, and praxis—we will take a different approach in this section, and explain why. Integral Review is a transdisciplinary resource where all articles attempt to reflect to some degree the main criteria mentioned earlier. Those criteria apply whether authors share reflections on experience or discuss extensions, critique, or applications of a theory, report any kind of socially significant research, or describe practical methods to tackle a particular problem. To the extent that articles can approach the criteria, we expect that every article will be a contribution to new thought, new research, and new praxis. This is because integral approaches are yet rare in our world, and IR's mission is to encourage, solicit, and publish authors who take an integral approach to today's complex challenges.



We have inherited the three separate, abstract categories of thought, research, and praxis through the language of compartmentalized worldviews that developed them in times past. They are useful to employ in IR's subtitle for at least two reasons. First, they are familiar terms and in wide use, and thus they easily communicate the scope of the Journal's coverage. Equally important, they keep in the front of our attention the ongoing invitation to increasingly perceive, practice, experience, and write and read about them as the whole they can be through an integral perception. Rather than explicate this notion with another abstract discussion that has no integrative benefit, we make two open invitations to our readers. The first invitation is to engage in your own active, self-reflective inquiry into the meanings you assign each of these terms. Beneath those first-layer meanings, what assumptions are supporting them? How do you describe to yourself the nature of each concrete activity—thought, research, practice—and where you find their intersections? We invite you to test with your own lived experience our hypothesis that these are—at the level of their most basic essence—parts of a whole that is awaiting integration.

The second, equally open invitation is to write a short or long reflective story about how you tested this hypothesis we offer, and what you found out from your own experience, whether or not it happens to support our hypothesis. Share with all of us what you learned from the process, and how you think it might be useful—or has since been useful—in your approach to life and work. Whether in an issue of this Journal or on its publisher's website, we want to publish your personal research testing this proposal, and be able to report on a collection of such stories. It is one of the foundational research questions for an integral approach, and part of IR's mission is to publish socially significant research for the sake of the common good. We invite you into the co-creation of new thought, research, and praxis.

Defining "Integral"

Thomas Jordan

Four years ago I made a serious effort to define the meaning of "integral" in terms of a set of criteria that could be used to assess whether a perspective is integral or not. My point of departure was the field of integral politics and the need to describe the characteristics of an integral political perspective. I came up with nine items on a checklist. Some fellow "integralists," in particular Jim Turner and Sara Ross, offered constructive comments and alternative formulations of some of the items. The resulting product is ARINA's "integral evaluation process." I still feel it captures the essence of integral meaning-making, i.e. integral as a consciousness structure, rather than as the name of a particular kind of theoretical framework. So my contribution to a conversation on defining what we mean by the word "integral" is this checklist. I do hope the checklist will be a fruitful starting-point for an *integral* discussion about the meaning of "integral," rather than as a final statement.

The Integral Evaluation Process

1. Motivations

Do goals and aspirations reflect a mindset that is committed to the well being of "the whole," where even appropriately-focused specific interests and allegiances are always situated and pursued within a consciously overarching world centric frame?

2. Visions and Strategy

a. Is the strategy free from dualistic thinking in the sense of pitting an idealized vision of what ought to be, against a depreciating image of what is, in favor of a processual and integrative approach to learning, social change, etc.?

b. Does the perspective underlying the strategy view others as “objects” of the strategy's action, or does the strategy's design treat them consistently as the subjects of their own experience?

c. Does the strategy incorporate first-, second-, and third-person research and practice where possible?

3. Self-awareness

a. Is there a well-developed awareness of the nature of the perspective used in the process or task being undertaken, with awareness of the characteristics of this perspective in relation to other perspectives?

b. Is there evidence of non-attachment to one's own identifications with standpoints, i.e., an absence of defensiveness in relation to other views?

4. Identifications (self-embeddedness)

a. Is the meaning-making free from an adversarial stance, i.e., the tendency to regard other parties as the cause of significant problems who must therefore be defeated or brought under control?

b. Is there a fluid and open-ended relationship to identifications with collectives on the whole scale from one's own family, organization, faith community, professional practice or discipline, ethnicity, etc. to humanity as a whole, sentient beings in general, and the physical environment?

5. Interpretations of the world around us and in us

a. Does the worldview (the narrative describing the situation(s) of concern and causal relationships in its environment) reflect a profound awareness of the existence of complex systems, contexts, and causational layers and webs that influence the behavior of individuals and groups and explain the specific forms of events and conditions in society?

b. Does the worldview draw on an understanding of the limitations and dynamics of prevailing levels of development in the social systems and leadership that are related to the focus of concern?

c. Are proposals adapted to existing levels of development or meaning-making, so that any social processes or structures that are recommended will have good chances to function as intended, given where the people and culture are?

d. Is the perspective sensitive to the dialectic between (1) the need to create stable and well-adapted holding environments for existing meaning-making systems, so that these can be expressed in benign forms; and, on the other hand, (2) the facilitation of transformation to levels of meaning-making that are more competent in solving problems?

Beyond Perspectives, Reductionisms and Layers

Michael Bauwens

As indicated before, the concept of integral is an umbrella term that can encompass different interpretations, though I believe that they share a commonality: that they are multi-perspectival, i.e. aim to combine not just one worldview, but several, or is meta-paradigmatical, incorporating more than one just one paradigm. The term transdisciplinarity is also closely related: it is not only the juxtaposing of different disciplines in one research project, but an attempt to transcend the partial approaches into a unity, an attempt to go "beyond" the different disciplines.

As my own contribution, I would like to offer some more perspectives on the concept of integral.

The Place of the Integral Approach

Let's have a look at the first table:

	Parts	**Whole**	**Includes**
Difference	Postmodern approaches		Subjects and Objects
Similarity		Integral Approaches	Subjects and Objects
Similarity	Analytical Sciences	Systemic Sciences	Objects Only

This table is an attempt to show how the integral approach is related to other approaches. We can recognise two axes: one distinguishes attention for the 'whole' from attention to the 'parts;' the other distinguishes attention to similarities and 'structural unity' between different phenomena, from attention to difference.

All four approaches are valid in our attempt to understand 'reality.' The classic materialist approach is based on the reduction of any phenomena to its constituent parts, which are then studied separately. The idea of course is that such analysis is eventually followed by a synthesis, but the synthesis is always secondary, and for all practical purposes is often abandoned, since scientists have become hyper-specialised in their disciplines, and have difficulty understanding other specialised domains. It is still the mainstream approach in the hard sciences, and very important in the social sciences as well. The result is a fragmentation of our knowledge and worldviews.

Current emphasis on the whole gives us the systemic sciences such as cybernetics, the system sciences proper, self-organization theory, chaos and complexity theories. In such an approach, a part is only considered through its function for the whole. Furthermore, it is always objective, there is no attention for its separate subjectivity, intention, will, etc...

From the world of philosophy have come the postmodern approaches. These approaches stress that any worldview is dependent on perspective, that no part of a system can understand the whole. Therefore, it rejects 'grand narratives' for their hubris of taking an imagined godlike position of a part claiming to be able to know the whole. Postmodern approaches, also called post-structuralist, reject structuralist approaches, which look at structural unity, and like the systemic sciences, forget the subject. Postmodern approaches stress 'difference,' no 'thing,' no 'object,' no 'subject' exists apart from the field or system it is part of, and in fact, is defined by its difference from the other things in the same field.

The Integral approach can be seen as a reaction against the limitations and unforeseen effects of the previous methods. Unlike analytical science, it focuses on the whole. Unlike systemic approaches, it always includes the subjective component. Unlike postmodern approaches, it does not shy away from integrative 'grand narratives.' But it has also learned from the other approaches: that no attention to the whole can violate the truth of its parts, from the systemic sciences, that the whole is more than the sum of its parts, from the postmodern, that the integral is just another limited perspective, albeit a useful one. Integralism should therefore never be seen as a totalising, 'imperialistic' approach, but as another, integrative, multiperspectival way to look at the world. In fact, it can be said that any individual is an integrator, is a different composite, of his/her understanding of reality. But the specific effort, methodology, of the integral forces its practitioner to a more conscious effort to integrate as large a portion of truth as possible. Moreover, because it also knows the limitations of any individual perspective, it stresses that dialogic methods, involving intersubjective meeting of minds, can yield greater relative truth still.

Avoiding Reductionisms

Let us now look at the next table:

	Individual Aspects	**Collective Aspects**
Interior Aspects	Subjective field: The subject / the self	Intersubjective field: Spirituality / Worldviews
Exterior Aspects	Objective field: Technological artifacts as extensions of the body	Interobjective field: Natural Systems / Political, economic, organizational systems

As explained before, Ken Wilber has offered a synthesing way of looking at reality, by stressing the need to cover the following aspects of reality; subjective, intersubjective, objective, interobjective.

An advantage is its comprehensiveness. There are few other integrative approaches of such a large encompassing scope. Looking at any phenomena from those different angles is a very comprehensive way of looking at the world. It is also a tremendous way to avoid different kinds of reductionisms:

- The objective reductionism of the analytical sciences, reducing any whole to its material parts, in a permanent attempt to explain the more complex by the less complex, the immaterial by the material, the subjective by the objective. While such a reductionist and analytical approach yields tremendous value, it is also at the same time an impoverishment.
- The interobjective reductionism of the system sciences, which also do not integrate the subjective component, again reducing reality to its materiality, or rather to its 'functionality.'
- The subjective reductionism of any 'idealistic' approach that takes the human will, or divine will, as paramount, without sufficient attention to its grounding in intersubjective and interobjective systems and in materiality. More recently this tendency emerges as cognitive reductionism, where reality is reduced to the cognitive apparatus of the human.
- The intersubjective reductionism of some postmodern approaches, where everything is reduced to its constituent fields, for example language. In such an approach, materiality is often forgotten, everything becomes a 'discourse.'

Recognizing Layers

This is an interpretation of the integrative that resonates particularly in the context of my personal evolution.

Humans are layered persons. We have an instinctual apparatus and corresponding reactions, we have an emotional apparatus, a mental apparatus, a transmental ‘witnessing’ apparatus, at the very least. But because of our civilisational evolution, these different layers are far from well integrated. There has been a lot of unconscious ‘repression’ of our earlier layers, especially by mental layer, resulting in many individual and collective pathologies. As I see it, every human being should at some point in life, undertake a ‘regression in the service of the ego,’ i.e. make a voyage of discovery into the repressed aspects, undertake a ‘dark night of the soul.’ An important aspect of the integral approach is its developmental aspect, a focus on the fact that humans, societies, systems, evolve from the simple to the complex, from one historical formation to another. By uncovering this development, making the unconscious conscious, we become more whole, more integrated. Thus an integral approach obtains a ‘transparency’ in terms of our functioning, an ability to recognize ‘where we are coming from,’ not only historically, but ‘here and now:’ which layer is active, and ‘is it appropriate.’ In our particular civilisation this means a growing capacity to grasp reality as ‘a whole,’ and understanding how our different layers operate simultaneously. We can go beyond the ‘cognicentrism’ that is our common cultural lot. This is how I interpret Thomas Jordan’s contribution as well: through our own comprehension of our perspective, we can better understand other perspectives, and thus achieve a growing meta-perspectivity.

Conclusion: The Integral defined

To conclude, in my understanding, an integral approach is one that;

- respects the relative autonomy of the different fields, and looks for field specific laws,
- affirms that new levels of complexity cause the emergence of new properties and thus rejects reductionisms that try to explain the highly complex from the less complex,
- tries to formulate level-specific laws that relate the objective and subjective aspects, refusing to see any one aspect as a mere epiphenomena of the other,
- is subjective-objective in that it always relates the understanding of the objective, through the prism of a recognised individual perspective in general,
- and attempts to correlate explanations emanating from the various fields, in order to arrive at an integrative understanding; in this sense it is a hermeneutic discipline focusing on creating meaning.

Diversity in Worldviews and Methodologies

Russ Volckman

I would like to elaborate a bit on the notion of paradigm and its implication for my own interest(s) in presenting within these pages, as well as working with others whose contributions will surely enrich our explorations. Paradigm may be identified as a worldview of a particular school of thought. It has also been suggested to imply a methodology associated with that worldview.

This link between worldview and methodology is key to linking thought, research and praxis.

The behavioral school that dominated academic psychology and other social sciences in the 1960s and 1970s held a particular worldview that we can only study what we can measure. This led to the use of methodologies that provided opportunities for measurement, including experimentation with animals, laboratory experiments with human subjects, and the use of tools such as games, electronic devices and self-assessment instruments.

In academia this gave way to postmodernism and the relativism of its extreme expression, a topic amply discussed by Ken Wilber. There can be little doubt that an integral perspective is one that intends to draw on the validity of postmodernism and other philosophies and perspectives while leaving behind those elements that can be transcended and not included. And, while the term integral can be interpreted in a variety of ways, I assume it to mean a theoretical approach that seeks to examine what can be observed and what cannot, what can be measured and what cannot. Further, it is an approach that is concerned with development. My familiarity with it is based on reading the work of Ken Wilber and those who have built on his contributions.

Personally, as a graduate student and, later, faculty member in universities I found myself resisting and even reacting against behavioral approaches. I focused my energy on personal awareness and change through various humanistic psychologies, including gestalt therapy, body therapies and various other workshops and training. I demeaned the behaviorists and ignored their work — until I began looking at and working with organizations, teams and leaders.

In learning to become a change agent in the field of organization development I found that there had been a robust use of behavioral approaches to understanding change in organizational systems. The leading journal in the field was even titled, *The Journal of Applied Behavioral Sciences*. This journal continues to be published in association with the National Training Laboratories, an historic leader in the development of organization development practitioners (in Arlington, Virginia, and Bethel, Maine, USA) and describes itself as follows:

> With diverse audiences in mind, *The Journal of Applied Behavioral Science* publishes a variety of material designed to help individuals and organizations promote positive, successful change. The specific goals of the journal are to
>
> - Present a range of conceptual frameworks that explain, predict, and illuminate the implications of action
> - Describe social inventions, intervention techniques, consultation activities, emergent innovations, and educational practices
> - Employ the full range of social science
> - Examine underlying values, assumptions, biases, and beliefs associated with various forms of change…
>
> The Journal of Applied Behavioral Science's articles keep up with the evolution of the field, ensuring that you'll receive the best and latest analysis on the spectrum of social change. (http://www.sagepub.com/journal.aspx?pid=217)

This statement is a far cry from what I thought about narrowness of the behavioral sciences forty years ago. I am struck by the similarities in missions of that—and probably other—journals that are equally interested in the marriage of theory and methodology. What JABS and IR have in common is commitment to the discovery of approaches that both broaden and deepen our understanding of the dynamics of change in human systems. How they may differ is in the hypothesis that there is an approach, which can integrate diverse worldviews and methodologies.

Organization Development and related fields continue to hold as important that which can be measured. The field (theory and practice) has focused on what can be directly observed. Nevertheless, organization development practitioners have had a long interest in that which cannot be measured. I am reminded of Bob Tannenbaum's presentation at the 1982 OD Network Conference in reference to consultants' reliance on tools: "The most important tool you bring is yourself." In this sense, organization development has been a leader in looking at multi-disciplinary approaches to organizational and individual development and change.

It is from this field that we find concepts and methods related to culture and spirit at work. Practitioners have long sought methodologies that promote awareness and learning, working with diversity, promoting ethics and the capacity of organizations to create cultures in which individuals could be whole, healthy, creative and capable human beings while being productive and engaging actively with change. As such, it has been a field of study and practice that has reached out to many fields for inspiration and guidance: psychology, sociology, political science, anthropology, history, philosophy, ethics, biology, ecology, physics, mathematics, art, music and theater. Consequently, it is likely that an integral perspective will be embraced by this eclectic field of study and practice and that there is evidence that it already is by some.

I do not anticipate that Integral Review will become or be seen by others as just another journal about change. I believe we are challenged and committed to making the Integral Review relevant to theory and practice and to the world in the way described in this article. As such we will need to be able to address an audience and fellow explorers who have not only cultural diversity and diversity of world view, but diversity of capacity to engage with and learn from what we present. This is an extraordinary challenge of relevance and I suspect this will be a significant element of our own learning curve.

It is with this spirit of inquiry, openness and exploration in practice that the Integral Review offers a focus on change in human systems and for each of us as individuals. It is with this commitment to inquiry and discovery on every level of our endeavors that we provide opportunities to focus on development and change from an integrally informed perspective, as my friend and colleague Jonathan Reams likes to say. My own interests are on the application of this approach to the field of leadership studies. We have a wonderful opportunity to discover and demonstrate the relatedness of integrated, that is integral, approaches to change and development in how we understand what it is to be a leader and in how leadership emerges in human systems. To include ourselves as whole beings, with our own worldviews, behaviors that emerge in the context of how we hold cultural values and engage with systems provides us with an opportunity for a gestalt that will emerge no matter what our particular focus. That challenge is as much for me as it is to the readers and other writers of this journal. It is exciting to be part of this.

Transcendence and Compassion

Jonathan Reams

In reading over the introductory text of this article, I was struck by one passage that captured the heart of my interest in the so-called "integral paradigm." In discussing Jean Gebser's opening of the field, he is quoted as characterizing the difficulties in representing integral by saying that "this worldview goes *beyond our conceptualization*." I wrote my dissertation on the *Consciousness of Transpersonal Leadership*, and in it I explored the limits of rational analytical thought. Being exposed to a hermeneutical view of understanding, which recognizes the inherently reflex like action of thought as it reflects on lived experience, I came to see rational analytical thinking as a secondary process rather than a generative one. Thus the process of conceptualizing as a form of analytical thinking is inherently removed from, or less than the integral world view Gebser points to.

For me, this implies that the integral way of looking at things is generated from a level of consciousness, or paradigm beyond those elements which it aims to integrate. This is important, as trying to integrate conceptual frameworks with a meta-framework in the way integral theory does cannot be done with the same conceptual process. This notion comes from many sources basically stating that in order to change, comprehend fully, or make meaning out of something, one needs to engage this process from a level qualitatively beyond that of the object of attention.

So my understanding of the value of the integral paradigm emerges from this view of its central operating premise pointed to by Gebser. How that value is expressed or utilized by proponents of the integral paradigm varies, but from what I have read about it, I have found it to be the most comprehensive way of integrating all strands of inquiry. At the same time, I have also experienced that its complexity and sophistication lend to its being misunderstood, misrepresented, and reduced to that which the user can grasp. This is the proverbial not seeing the forest for the trees, and seems to me to stem from moving away from the core of integral beyond conceptualization into trying to ground integral in the concepts that arise from it.

It is in this sense that I resonate with the “trans” in the subtitle of the journal. I tend towards the connotation of trans that fits with “meta,” as in a meta-framework, or a meta-conceptualization. This is the transcendent aspect, that for me is the ground, the starting place of the unmediated immediacy of our lived experience. Out of this source we can generate conceptualizations, as we utilize rational analysis to reflect on this experience. The mindfulness an integral approach points to is to keep our attention from being trapped within the confines of the models or images these conceptualizations create, and then mistaking them for the thing they represent.

Thus the notion of being “integrally informed” appeals to me in this way. I recognize that my grasp of integral theory in all its glory is limited - both inherently in that it is beyond conceptualization, and in a more pragmatic way that it is not the sole focus of my life’s work. So I like to see that what I do and how I think is informed by this integral paradigm rather than that I have somehow grasped it and can design integral interventions and such. This is not to say that these things are not possible, and it is my hope that this journal will provide a vehicle for engaging in a common discourse to explore how people are applying this paradigm in their activities in the world. It is just for me to recognize that this view is still very much new and emerging, and in a state of open flux and experimentation to find out how to make use of it in practical ways.

One practical way this has shown up in my life was triggered by distinctions we can make between reflection, self-reflection, and reflexion. The layers of taking something experienced as implicit, tacit, or the self as subject, and using these methods to allow perception, assumptions and image/world view to be make explicit, or an object of awareness, has been an important and valuable process in my life. It has enabled me to move the ground of my actions in the world. I would say that I began (in my adult life) acting from a non-reflective place where my actions emerged primarily as an automatic reflex, conditioned by factors such as upbringing, culture, education and even genetics. Gradually, I was able to reflect on the external conditions of my life in a way that brought about a desire for change. This led to self-reflection and eventually having action and choice emerge from examining the links between attitudes and their effect on the way the world showed up for me. Later on, I began to be more grounded in reflexion, in an ongoing witnessing, experimenting, and inquiry about how I can make better choices about utilizing this dynamic.

What that has led me to is how I experience the integral paradigm. I experience it as a heart of compassion. This compassion shows up for me in the ability to see that everyone is living some truth. Having a ground beyond the inherently limited conceptualizations of these truths enables me to see past my own projections about those truths. Having a meta-framework allows me to see the context within which that truth has validity, and its limitations or boundaries. These things enable my rational analytical processes to act in service of this heart of compassion. It is my aim to have this journal serve as a vehicle for the ongoing unfoldment of collective capacity to operate in the world from this heart of compassion.

Conclusion

We have now reached the end of this present explication of our meanings, not only of the journal's title, but also this article's. Through each article herein, this inaugural issue, itself, is a further explication of meanings we have shared; we expect it may add depth and contrast as grist for the mills of your integral reviews. Over the course of time, we hope the abstract notion of the integral paradigm will gradually result in new concrete, essential experiences, and thus foster further integration. We hope new concrete meanings of *re-view* take root in all of us during our authoring, editing, and reading experiences of engaging each IR issue. And we're hopeful that as IR attracts a wide range of authors and readers, and additional competencies and diversity on an editorial board, that we co-create a substantive contribution to support translative and transformative change in our shared world. We anticipate that we all will gradually realize more and more of the transformative potentials of transdisciplinary and transcultural approaches, right down here on the ground where complex social change occurs and more of which is sorely needed.

IR's Relation with its Publisher's Mission

Integral Review is the formal publishing arm of ARINA, Inc., a 501(c)(3) non-profit corporation that was organized in 2004 in the U.S. to carry out its global mission. ARINA's mission is to model, teach, research, publish, promote, and institutionalize holistic, integral understandings and processes that are incorporated into efforts to address complex issues within individual, social, and global needs. Its service area is the planet, and its tax-exempt purposes are the public good (charitable), educational, and social scientific research. Integral Review will be the site of original publication of integral research and project evaluations carried out under ARINA's auspices. IR furthers ARINA's mission by publishing the just-mentioned work along with other works that meet its criteria, resonate with its philosophy, and fulfill its publication purposes.

The acronym ARINA stands for some core ideas that we have explicated in this introduction to IR: Acting / Researching / Integrating Associates Network. Please visit ARINA's website at www.global-arina.org to learn about its range of resources and activities and to associate with us.

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Biographical information about editorial committee members is located on Integral Review's website www.integral-review.global-arina.org.

Jean Gebser: Das integrale Bewusstsein

Kai Hellbusch

Zusammenfassung: Um den Begriff des integralen Bewusstseins bei Jean Gebser deutlich werden zu lassen, werden die Bewusstseinsstrukturen in ihrem konzeptionellen Stellenwert erläutert, bevor jede einzelne vorgestellt wird. Die Kenntnis der bisherigen Bewusstseinsstrukturen ist Voraussetzung für die Kenntnis des integralen Bewusstseins, das sich aber nicht in der Integration des Früheren erschöpft, sondern seine eigene Aufgabe hat: die Realisierung der Zeit, also die Konkretion der den Bewusstseinsstrukturen zugehörigen Zeitformen. Dadurch entsteht eine neue Freiheit, die als bewusste Annäherung an das Göttliche, den „Ursprung“, zu verstehen ist.

Schlüsselwörter: Bewusstseinsstrukturen, Mutation, integrales Bewusstsein, Konstitutionstheorie, neue Wirklichkeit, Zeit.

Abstract: The Swiss-German philosopher Jean Gebser is introduced as the first to describe the integral worldview in detail. The author sketches Gebser's biography, explains his basic assumption of a universal consciousness from which basic structures of consciousness emerge, and describes the different stages of consciousness development from archaic to magic to mythic to mental to integral. The integral structure of consciousness is presented in its main characteristics as an attitude towards the world, to ourselves and in particular to time.

Key words: Structures of consciousness, mutation, integral consciousness, universal origin (*Ursprung*), new reality, time

Warum Gebser?

Die Rede von einem neuen Bewußtsein, das häufig als *integrales Bewusstsein* bezeichnet wird, ist geläufig. Das Wort integral ist verführerisch, denn es erinnert an Ganzheit, Zusammenfassung, Komplettheit, und es wird auch in diesem Sinne verwendet, z.B. von Wilber, aber auch von etlichen weniger bedeutenden Autoren, die sich um Neues bemühen.

Gebser hingegen benutzt den Begriff in einem sehr speziellen Sinne. Diesen Sinn zu verstehen, ist aus zwei Gründen wichtig: zum einen hat Gebser den Begriff allererst eingeführt, seine Begriffsbestimmung ist also das „Original“; zum anderen birgt dieser Begriff einen besonderen Zugang zur Welt, der sonst verschlossen bliebe. Gebsers Bewusstseinsstrukturen sind etwas ganz Einzigartiges, das es sonst in der Kulturtheorie nicht gibt, und sich mit ihnen vertraut zu machen, kann einen echten Orientierungsgewinn in der heutigen Welt bedeuten. Zudem sind es so wenige, dass sie leicht zu überblicken sind, und sie sind gleichzeitig so schwierig zu verstehen, dass ihre Erkenntnis eine Herausforderung darstellt. Vor allem aber sind sie sehr wirklichkeitsgerecht. Dadurch bieten sie eine vorzügliche Voraussetzung, um unsere Welt besser zu verstehen und zugleich eine neuartige Grundlage, auf der fruchtbringende Forschung stattfinden kann.

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Wer war Jean Gebser?

Jean Gebser war ein deutscher Philosoph, der 1905 in Posen geboren wurde und 1973 als eingebürgerter Schweizer in Bern starb. Einige Stichworte zu seinem Lebensgang: 1929 Aufbruch nach Italien, dann Wanderungen in Südfrankreich, 1931-1936 in Spanien, persönliche Bekanntschaft mit Garcia Lorca, Picasso und der ganzen Clique der spanisch-französischen Avantgarde, übersetzt zeitgenössische spanische Lyrik und schreibt sein erstes Buch: *Rilke und Spanien*. 1937-1939 nach der Flucht aus Spanien in Paris. Ab August 1939 dauernder Aufenthalt in der Schweiz, zuerst in Ascona, Verbindung mit dem Eranoskreis C.G. Jungs, später in Burgdorf und Bern. Seine Hauptwerke entstehen: *Abendländische Wandlung* (1943), *Ursprung und Gegenwart* (1949-1952), *Asien lächelt anders* (1968), *Der unsichtbare Ursprung* (1970). Dozent am psychologischen Seminar des Institutes für angewandte Psychologie in Zürich. 1967 Honorar-Professor für vergleichende Kulturlehre an der Universität Salzburg.

Gebser lebte ein schillerndes, unstetes Leben mit vielen Wanderjahren, war geistig ungewöhnlich eigenständig, gehörte philosophisch keiner Richtung an und besaß nie eine dauerhafte Anstellung, die ihm ein sorgenfreies Leben gewährt hätte. Daher fehlte ihm auch die Möglichkeit, seine Konzeption der Bewusstseinsstrukturen so breit auszuführen, dass sie einen größeren Bekanntheitsgrad hätten erlangen können. Gebser hatte zu seinen Lebzeiten durchaus berühmte und einflussreiche Freunde, aber auch die konnten seinem Werk nicht das Gehör verschaffen, das es verdient. Die Gründe für die relative Unbekanntheit seines Werkes sind vermutlich mannigfaltig; sicherlich gehört dazu eine ganz spezifische Schwierigkeit, die dieses Werk demjenigen macht, der es kennenlernen möchte. Zu dieser Schwierigkeit, die mit der Möglichkeit des Nachvollziehens zusammenhängt, gehört der Begriff der Bewusstseinsstrukturen.

Was sind die Bewusstseinsstrukturen?

Gebsers Begriff der Bewusstseinsstrukturen besagt anderes, als man es sonst vom Wort Bewusstsein kennt, und es ist von essentieller Wichtigkeit, dass man die Bedeutung der Bewusstseinsstrukturen und ihren Stellenwert versteht, wenn man die Rede vom Integralen Bewusstsein verstehen will.

Gebsers Bewusstseinsstrukturen sind so etwas wie Brillen oder vielmehr: virtuelle Ganzkörperkontaktlinsen, durch die wir die Welt immer schon und notwendigerweise sehen. Wir können also keinen Blick auf eine vermeintlich wirkliche Welt werfen, weil wir immer durch irgendwelche Bewusstseinsstrukturen die Welt wahrnehmen. Alle unsere gebräuchlichen Einteilungen des Menschlichen – wie Gefühl, Intellekt, Triebe, Wille, Empfindung usw. – sind für Gebser abhängig von der uns dominierenden Bewusstseinsstruktur. Und natürlich auch alle Formen des Geistigen, die wir im Laufe der Geschichte benannt haben, wie das Denken, die Vernunft, der Logos, der Verstand, die Ratio usw. Wenn die Bewusstseinsstrukturen allem zugrunde liegen, bedeutet dies, dass wir nicht von *einer* schlechthin menschlichen Geistesqualität sprechen können, z.B. von dem Menschen als „vernünftigem Wesen“ wie in der Aufklärung oder als „das den Logos besitzende Tier“ des Aristoteles oder dergleichen. Diese Bezeichnungen drücken nicht allein die Tatsache aus, dass der Mensch an einem Geistigen teilhat, sondern sie bezeichnen durchaus konkrete Attribute des Geistigen, die immer mit logischem und gerichtetem Denken zu tun haben, wie jeder weiß, der sich mit der Philosophie der Aufklärung oder mit der griechischen Philosophie beschäftigt hat.

Die These von genau einer wesentlich menschlichen Geistesfähigkeit, bzw. ihre Widerlegung, ist keineswegs trivial, wie man meinen könnte, wenn man sich vor Augen hält, dass es seit Kant doch etliche philosophische, psychologische und neurobiologische Konstitutionstheorien gibt, die alle davon ausgehen, dass der Mensch sich seine Welt macht und nicht eine fertige Welt zur Kenntnis nimmt. Aber der Gedanke der *verschiedenen* Grundlagen und Fähigkeiten zu solcher Konstitution, also dessen, was bei Gebser Bewusstseinsstrukturen heißt, ist immer noch neu. Damit bringt Gebser eine *Dynamik* in unser Menschenbild; er überschreitet so die *Statik* der Vorstellung eines Menschen an sich, wie sie sich durch unsere gesamte Kulturgeschichte zieht. Dieser dynamische, variable Konstitutionsgedanke Gebsers spielt vor allem in unserer *Lebenswelt* noch keine Rolle, im besonderen nicht in der Politik: dort beruft man sich gern auf die Menschenrechte und andere Aspekte des aufgeklärten Menschen, somit auf ein Produkt unserer abendländischen Kultur, das wegen seiner Beschränkung auf *ein* wesentliches Merkmal des Menschen – seine „Vernunft“ – von sehr eingeschränkter Allgemeinheit ist, auch wenn es gerade den gegenteiligen Anspruch stellt.

Gebser versteht also unter Bewusstsein in der Hauptsache diejenige Ausstattung des Menschen, die die Grundlage für alle Selbst- und Weltwahrnehmung bildet, und das eben auf verschiedenartige Weise, je nach geltender Bewusstseinsstruktur. Ohne dieses Bewusstsein gibt es kein Gefühl, keinen Gedanke, keine Sozialität, keinen Gegenstand, ja überhaupt keine Welt für den Menschen.

Gebser greift damit tiefer als viele andere. Seine einzigartige Konzeption der Bewusstseinsstrukturen geht nicht davon aus, dass es eine Welt gibt, die vom Menschen mehr oder weniger gut wahrgenommen wird, sondern dass die Welt erst vom wahrnehmenden Menschen hergestellt wird, und zwar in verschiedenen Zeiten und in verschiedenen Kulturen ganz unterschiedlich.

Wie und wo wirken Bewusstseinsstrukturen?

Ganz entscheidend für das Verstehen der Gebserschen Konzeption ist die Tatsache, dass die konstatierten Bewusstseinsstrukturen – die archaische, die magische, die mythische und die mentale – sich in der Geschichte nicht ablösen, sondern dass sie sich überdeterminieren – wie er es nennt. Das bedeutet, dass keine der Strukturen durch das Auftauchen der neuen verschwindet oder aufgehoben wird, sondern dass sie nur in ihrem Geltungsbereich eingeschränkt werden, dass alle Bewusstseinsstrukturen somit gleichzeitig wirken. Diese Charakteristik ist ein großer Unterschied der Gebserschen Konzeption zu entfernt vergleichbaren Konzeptionen unserer Tradition, beispielsweise zu Hegel. Bei Gebser stehen alle separierbaren Sektoren des Kulturellen in einem Zusammenhang, und dieser Zusammenhang ist immer auch abhängig von allen entstandenen Bewusstseinsstrukturen.

Außerdem gibt es bei Gebser eine klare Parallelität von Phylo- und Ontogenese. Was sich also in der menschheitlichen Entwicklung vollzogen hat, vollzieht sich in jedem einzelnen Menschenleben wieder. Jede einzelne Bewusstseinsstruktur wird im Laufe eines Menschenlebens akut und beherrschend.

Bei der Entwicklung und Etablierung der Bewusstseinsstrukturen gibt es jeweils eine Periode der *Effizienz* und eine der *Defizienz*. Erstere dient der vollständigen Entwicklung aller Möglichkeiten der jeweiligen Bewusstseinsstruktur, während die Periode der Defizienz eine Verkrustung des Erreichten bedeutet, seine Übertreibung. Qualität und Quantität, also Maß und Masse charakterisieren die zwei Hauptphasen jeder Struktur. Die defiziente Periode, die immer an übermäßiger Quantifizierung und an Erschöpfung des jeweils wirksamen Qualitativen zu erkennen ist, bietet als Positivum die Gewähr der Entstehung einer neuen Bewusstseinsstruktur.

Woher kommen nun aber die Bewusstseinsstrukturen?

Der Quell aller Bewusstseinsstrukturen ist für Gebser das Geistige, das Göttliche, das er auch den Ursprung nennt (daher der Titel seines Hauptwerkes *Ursprung und Gegenwart*). Alles Wesentliche und Entscheidende – und somit auch das, aus dem Neues entsteht – ist für Gebser gekennzeichnet durch seine Ursprünglichkeit. Der Ursprung bedeutet für Gebser das Grundphänomen schlechthin, er ist das Geistige, das zeitlos, bzw. vor oder über aller Zeit und Zeitlosigkeit ist und das alle Bewusstseinsstrukturen aus sich entlässt.

Das Entstehen der Bewusstseinsstrukturen aus dem Ursprung geht für Gebser also mit einem Ur-Sprung vonstatten, plötzlich sind sie da. Um dies auszudrücken, spricht Gebser von Bewusstseinsmutationen; das Realisationsfeld dieser Mutationen ist das menschliche Bewusstsein, und ihr Resultat ist eine jeweils veränderte, verwandelte Wirklichkeit.

Der Mensch assimiliert sich also mit seinem Bewusstsein an die jeweils neuen Arten des Geistigen, die dem Ursprung entspringen. Er ist dabei *nachholend*, der *Träger* der Ereignisse und das Manifestations*objekt* des Geistigen. Gebser geht dementsprechend davon aus, dass es eine quasi subjektive Seite in diesem Geschehen gibt, dass also das Geistige die neue Bewusstseinsstruktur von sich aus freigibt oder sie aus sich herausstellt. Wenn also eine neue Bewusstseinsstruktur da ist, wirkt sie schon an sich und treibt den Menschen an, sie zu realisieren. Das ist zugleich eine Entlastung und eine Verpflichtung.

Wichtig ist dabei vor allem, dass eine gegenseitige Zueinander-Bewegung stattfindet, dass das Angebot und die Verpflichtung der Bewusstseinsmutation aufgenommen und beantwortet wird. So wird auch ein weiteres Kennzeichen der Mutationen verständlich, das besonders in Umbruchzeiten wie der unseren vernehmbar ist: ihr Aufgabencharakter. Die neue geistige Struktur zu entwickeln und zu fördern, ist den Menschen aufgegeben, sobald die vorherige vollständig realisiert worden ist. Die Notwendigkeit, die nicht mehr tragenden und lebensfördernden defizienten Bewusstseinsformen zu überwinden, gebiert so die Realisierung der neuen Bewusstseinsstruktur.

Die einzelnen Bewusstseinsstrukturen

Die Kenntnis der einzelnen Bewusstseinsstrukturen ist für das integrale Bewusstsein, das in unserer Zeit realisiert werden soll, unabdingbar.

Die archaische Bewusstseinsstruktur

Die archaische Struktur ist die am schwierigsten zu beschreibende und zu verstehende, denn sie hat am wenigsten Distanz zum Ursprung. Nur diese Distanz, diese Differenz, ermöglicht ja die Beschreibung irgendwelcher Spezifika.

Gebser hält die archaische Struktur für sehr ursprungsnah, ja er meint, dass sie anfänglich mit dem Ursprung selbst identisch war. Kennzeichnend für die archaische Struktur ist die Identität von Mensch und Welt.

Die magische Bewusstseinsstruktur

Auch das magische Bewusstsein ist ein sehr frühes Stadium der Bewusstseinsentfaltung, aber es ist leichter zu evozieren als das archaische, weil die magischen Komponenten in unserer Welt leichter zu identifizieren und häufig anzutreffen sind, meistens in negativer Ausprägung. Vor allem aber *begann* mit der magischen Struktur die erste Etappe der Bewusstwerdung, nämlich die große Aufgabe des Menschen, durch Distanzierung die Unmittelbarkeit einer „natürlichen" Lebenswelt zu durchbrechen und sich seine spezifisch kulturellen Welten allererst herzustellen und damit sich seiner selbst und seiner Welt bewusst zu werden. Diese Aufgabe zieht sich durch alle bisher überblickbaren Strukturen und sie erreicht ihren Höhepunkt in der Vollendung der Welt als Gegenüber in der Renaissance.

Aus der archaischen Welt geschieht also jener erste entscheidende Schritt des Menschen zu einem dämmernden Bewusstwerden, der die magische Struktur einleitet. Hier löst sich der Mensch zum ersten Male aus seiner vollständigen Naturverhaftetheit, und es setzt ein erstes Bewusstwerden ein, das noch durchaus schlafhaft ist: es beginnt ein erstes Gegenübersein von Welt und Mensch. Damit taucht auch die Notwendigkeit auf, „nicht mehr nur in der Welt zu *sein,* sondern die Welt *haben* zu müssen", wie gesagt, der Beginn einer Entwicklung, die ihren Höhepunkt in der Renaissance fand. Der Mensch beginnt jetzt,

> ... ein Einzelner zu werden, eine Unität, die in der Welt vorerst noch nicht die Welt als Ganzes zu erkennen vermag, sondern jeweils nur die Einzelheiten oder Punkte, die sein noch schlafhaftes Bewusstsein treffen und die dann jeweils für das Ganze stehen. Die magische Welt ist somit auch die Welt des „pars pro toto", in dem „der Teil für alles" stehen kann und steht. Und die Wirklichkeit des magischen Menschen, sein Bezugsgeflecht, sind diese […] voneinander geeinzelten Gegenstände, Geschehnisse oder Taten, die beliebig miteinander vertauscht werden können: eine Welt des […] sinnreichen Zufalls, nämlich eine Welt, wo alles dem Menschen Zufallende von wirkender Gültigkeit ist, da zu allem und unter allen ein Bezug besteht. […] Der Mensch antwortet auf die ihm entgegenströmenden Kräfte mit den ihnen entsprechenden eigenen: er stellt sich gegen die Natur, er versucht sie zu bannen, zu lenken, er versucht, unabhängig von ihr zu werden; *er beginnt zu wollen.* Bannen und Beschwörung, Totem und Tabu sind die […] Mittel, mit denen er sich von der Übermacht der Natur zu befreien versucht. Trieb und Instinkt entfalten sich und bringen ein durch sie bedingtes und betontes Bewusstsein hervor, ein naturhaftes vitales Bewusstsein […]. Hier, in diesen Befreiungsversuchen des magischen Menschen aus der Eingeflochtenheit und der Gebanntheit in der Natur, mit der er anfänglich noch eins ist, hier beginnt der seit jener Zeit nicht mehr endenwollende Kampf um die Macht; hier [schon] wird der Mensch zum Macher. (Gebser GA II, 88f.)

Das Eingeflochtensein des magischen Menschen in die Natur und das Leben in und mit Einzelheiten bewirkte auch die eigentümliche Raum- und Zeitlosigkeit des magischen Menschen, ebenso wie seine ganz andere Palette an Fähigkeiten, als sie dem heutigen Menschen als normal zugesprochen wird. Gebser nennt hier vor allem die Telepathie und verweist auf Abbildungen magischer Menschen, auf denen die Figuren eine Kopfaura besitzen, sowie solche, auf denen mundlose Gesichter abgebildet sind.

In der heutigen Welt verdiene, so Gebser, das Magische in zweifacher Hinsicht besondere Aufmerksamkeit. Einerseits sei die Gefügtheit der Welt, die Wirksamkeit des magischen Vital-

Konnexes eine Realität, die anzuerkennen sei. In diesem Sinne versteht Gebser die sogenannten Zufälle, die im Leben geschehen: sie zeigten

> ... jene tiefste Gefügtheit des Lebens, die eben doch noch die Kraft hat, unsere Reaktionen zu richten oder zu lenken, so dass wir dieser Gefügtheit nicht entgehen können“. (Gebser GA VI, 364)

Dies ist die *magische* Gefügtheit des Lebens, die immer zur Geltung kommt, ob man sich ihrer bewusst ist oder nicht, und sie gilt natürlich genauso bei den unerfreulichen wie bei den freudigen und beglückenden Begebnissen. Wie mächtig diese Gefügtheit ist und wie unfraglich wir in solchen Gefügen stehen, lässt sich z.B. bei den Familienaufstellungen (und natürlich auch an den anderen Aufstellungen) nach Hellinger erleben.

Auf der anderen Seite gibt es in unserer Welt viele Verführungen zum Magischen, das ohnehin schon in den meisten heutigen Menschen vielfach überbetont ist. Daher ist es – bei aller Anerkennung der magischen Welt – ganz und gar unstatthaft für einen heute verantwortlichen Menschen, das Magische in sich so weit zu stärken, dass es bestimmenden Charakter annimmt. Gebser spricht besonders hinsichtlich der massenpsychologischen Phänomene des 20. Jahrhunderts von der „reaktivierten magischen Disponibilität des heutigen Menschen“. (Gebser GA II, 104) Stattdessen kommt es darauf an, sich des Magischen bewusst zu sein und *mit*, nicht aber *in* der magischen Welt zu leben. Das magische Geschehen spielt sich in der naturhaft-vitalen, ichlosen und raum- sowie zeitlosen Sphäre ab, und diese fordert eine Preisgabe unserer heutigen Bewusstseinsfähigkeit.

Heute kann man vor allem *defizient* Magisches reichlich beobachten: das Zurücksinken in ichlose und raum- und zeitlose Situationen findet sowohl in den zahlreichen Massenveranstaltungen statt, wie auch in vielen tranceorientierten esoterischen Übungsformen, welcher Tradition auch immer, sogar in der Techno-Musik. Auch das fanatische Vertreten bestimmter Ideen ist defizient magisch, genauso wie das Streben nach Macht über die Natur durch Technik und auch die Besessenheit von der Sexualität, denn das Magische ist wesentlich auf der Ebene des Vitalen und Triebhaften angesiedelt.

Dies bedeutet, dass eine besondere Aufmerksamkeit dem Magischen gegenüber angemessen ist, es bedeutet aber auch, dass die magischen Aspekte in das Ensemble der Bewusstseinsstrukturen zu integrieren sind.

> Nur wo die magische Struktur heute im einzelnen noch trieb- und instinktgesichert sich auswirkt, erfüllt sie ihren eminenten und lebenspendenden Wert.“ (Gebser GA II, 105)

Deutlich wird ein gelungenes Integrieren des Magischen an einem entspannten Verhalten zur Sexualität, an der Nichtanfälligkeit für Schlagwörter und -ismen aller Art und auch an der Fähigkeit zum guten Horchen, auf äußere und innere Stimmen. Das Akustische ist stark magisch gefärbt. Entsprechend ist Hörigkeit defizient magisch.

> Gehören, Gehorchen, Hörigsein sind immer Unterstellungen unter die Macht, die wir den Dingen, Geschehnissen oder Menschen sei es besitzlüstern, sei es autoritätsgläubig, sei es sexuell […] zubilligen“. (Gebser GA II, 105f.)

Um hier das rechte Maß zu finden, ist es nötig, um das Magische und seine Macht zu wissen.

Die Realisationsform, die Gebser dem Magischen zuschreibt, ist das *Erleben*. Dieser heute wieder so hochgeschätzte Begriff impliziert oftmals einen „Ganzheitsbezug", der aber vielmehr ein Einheitsbezug sein dürfte. Ganzheit kann in Gebsers Sinn nur durch die Integration von Verschiedenem entstehen, während dem Magischen die Einheitlichkeit schon an sich zu eigen ist, ohne dass ihr eine Differenzierung vorausginge.

Die mythische Bewusstseinsstruktur

Die Aufgabe des mythischen Bewusstseins besteht in der Entwicklung der Psyche, der Bewusstwerdung der Seele. Seele meint hier ein inneres Bild-Bewusstsein, nicht aber das personale Zentrum – die Seele in *diesem* Sinne wird erst mit dem mentalen Bewusstsein Wirklichkeit.

Die mythische Welt ist nicht sehr leicht von der magischen zu unterscheiden, besonders wenn vor allem geschichtlich entfernte Völker oder konkrete Ethnien im Zentrum des Interesses stehen. Das liegt vor allem daran, dass mit der magischen Bewusstseinsstruktur die große Aufgabe der Bewusstwerdung begann, die immer noch besteht und der also auch das Mythische und das Mentale unterstehen. Zudem ist die Außenorientierung des Magischen dafür verantwortlich, dass grundlegende Formen der Weltbewältigung entwickelt wurden, die auch in der mythisch dominierten Zeit weitergeführt wurden. Der Bereich der Macht ist daher im Mythischen keineswegs beschnitten oder verlassen; Macht ist auch für dieses Bewusstsein ein Kennwort. Die mythische Struktur führt also das fort, was in der magischen zum Programm geworden war: das Herauslösen des Menschen aus seiner Natürlichkeit. Die spezifische Leistung des mythischen Bewusstseins in diesem Programm ist das Bewusstmachen der Zeit als der nicht-örtlichen und nicht-räumlichen Dimension der Natur, und das bedeutet gleichzeitig die Schaffung der menschlichen Voraussetzung für ein Zeit-Bewusstsein: die Schaffung, also die Bewusstwerdung der Seele.

Das Mythische ist daher auf keinen Fall zu verwechseln mit Magischem plus Mythos. Es stellt vielmehr eine eigene Qualität dar, die durch die Entdeckung der Innenwelt, der Seele geprägt ist. Auch wenn das Magische zu Zeiten der entwickelten mythischen Struktur noch sehr stark präsent ist und sich in vielen kulturellen Erscheinungen des Mythischen als sehr lebendig aufweisen lässt, ist es dennoch „überdeterminiert" durch den neuen Sinn des Mythischen.

Die *Polarität* ist das wesentliche Kennzeichen des Mythischen, und sie drückt auch den Dimensionengewinn aus und damit das Neue, den Fortschritt gegenüber dem Magischen.

> War die archaische Struktur der Ausdruck der nulldimensionalen Identität und der ursprünglichen Ganzheit, war die magische der Ausdruck der eindimensionalen Unität und naturverwobenen Einheit – so ist die mythische Struktur Ausdruck der zweidimensionalen Polarität. (Gebser GA II, 113.)

Die Signatur, die Gebser dem Mythischen zuordnet, ist daher – und weil die mythische Struktur zu einer Bewusstwerdung der Seele, also der Innenwelt führt – der

> ... *Kreis*, der stets auch Symbol der Seele war. Der geeinzelte Punkt der magischen Struktur erweitert sich zu dem zweidimensionalen, die Fläche einschließenden Ring. Er umfasst alles Polare und bindet es ausgleichend ineinander". (Gebser GA II, 113)

Das perfekte Symbol des Mythischen ist daher das chinesische Tai-Chi: die Polarität im Kreis.

Einen deutlichen bildlichen Ausdruck für das mythische Bewusstsein findet man immer dann, wenn dargestellte Figuren nicht mehr mit einer Aura, sondern mit einem Mund versehen sind. Um dem Mythos seine sprachliche Gestalt zu verleihen, ist der Mund nötig.

Das Mythische ist überhaupt eminent sprachlich. Alle sprachliche Kunst ist daher stark daran gebunden. Dichtung kann zwar andere Bewusstseinsstrukturen ausdrücken, aber sie kann sich nicht vom Mythischen lossagen, ebenso wie die Philosophie sich nicht vom Mythischen ablösen kann, solange sie sprachlich bleibt.

Die Realisationsform des Mythischen ist das *Erfahren*. Das Entdecken der Seele ist ein Erfahren, und so sind Erkundungs-, besonders Meeresfahrten häufige Mythologeme. Diese können erst entstehen, wenn die Seele sich bildet, und die Seele braucht sie zu ihrer Bildung. Erfahrung ist immer

> ... polhaft, weil das Erfahren nicht nur ein Erleiden ist, also etwas, das uns geschieht, sondern gleichzeitig stets auch halbbewusste zwielichtige Handlung. (Gebser GA II, 344)

So ist durch das Erfahren der erste Schimmer eines Ich-Bewusstseins gegeben. Durch Erfahrung kommt man zur Einsicht; dies

> ... unterscheidet jede Erfahrung von dem bloß punkthaften Erleben und auch vom nur kausalen Verstehen, und es ermöglicht das bewusstseinsbildende Erinnern, das immer ein innerer Vorgang ist. (Gebser GA II, 344.)

Die außerordentlich große Macht der Erinnerung für das mythische Bewusstsein findet seinen Ausdruck auch im Ahnenkult, der in von diesem Bewusstsein bestimmten Kulturen immer anzutreffen ist. Und auch das Erinnern verknüpft das Mythische mit dem Dichterischen, denn die Erinnerung, Mnemosyne, ist die Urmuse. Die Polarität von Wachheit und Traum ist ebenfalls Zeichen des Mythischen.

Auch das Mythische ist heute überall zu finden: der Sinn für Geschichten und das Sichverlieren in Geschichten und im Imaginären sind häufige Erscheinungen, wenn auch oft auf das Verfolgen von Fernsehfilmen und -serien reduziert. Bei den Kindern findet man es noch in seiner wahren, lebensförderlichen Ausprägung. Die Mythenforschung durch und nach C. G. Jung hat gezeigt, wie sehr allgemeine Symbole wirksam sind. Sie hat aber auch in bestimmten Kreisen zu einer Inflation des Symbolischen und des Psychischen geführt, die genauso defizient ist wie die Sucht nach Geschichten. Das Handeln aus dem Herzen, das hingegebene Glauben sind mythisch.

Die mentale Bewusstseinsstruktur

Bei Gebser bezeichnet das Mentale diejenige Bewusstseinsstruktur, die unsere Welt nach wie vor bestimmt, wenn auch vor allem in ihren defizienten Ausformungen. Er benutzt das Wort mental, weil es durch seine Abkunft vom griechischen Wort menos, das „Vorsatz, Zorn, Mut, Kraft“ bedeutet, und vom lateinischen mens, das „Absicht, Zorn, Mut, Denken, Gedanke, Verstand, Besinnung, Sinnesart, Denkart, Vorstellung“ bedeutet, das Wesentliche dieser Struktur ausdrückt.

Mit diesen Inhalten sieht Gebser bereits das Entscheidende gegeben: die grundlegende Novität ist das In-Erscheinung-Treten des *gerichteten Denkens.* Das gerichtete Denken ist nicht mehr polbezogen, sondern es ist

> ... objektbezogen und damit auf die Dualität, diese herstellend, gerichtet, und erhält seine Kraft aus dem einzelnen Ich. (Gebser GA II, 128.)

Das Moment des Sinngebens und Richtens ist also von außerordentlicher Bedeutung für die mentale Welt, wie Gebser auf vielfältige Art nachweist: Das Richten, etwas richtig und recht machen, bedeutet immer auch, einem Phänomen Sinn zu geben. Viele Sprachen haben ein gemeinsames Wort für Richtung und Sinn. Seit alters her und vielleicht durch die unterschiedlichen Hemisphären des Gehirns begründet, ist

> ... die linke Seite die Seite des Unbewussten, des Ungekannten; die rechte Seite dagegen die Seite der Bewusstheit, der Wachheit. In welchem Maße sich diese Wertung verstärkte, geht daraus hervor, dass in den heutigen europäischen Sprachen »rechts« eben nicht nur einfach rechts, sondern auch „richtig [und] gerade“, im Sinne des Zum-Ziel-Führens, bedeutet.

Das Griechische hat als die erste Sprache, die die Entstehung des mentalen Bewusstseins ausdrückt, auch als erste die Schriftrichtung von links nach rechts genommen. Ältere Sprachen wurden von oben nach unten oder von rechts nach links geschrieben. Auch das Einsetzen eines festen Rechts, einer Gesetzgebung, ist ein „Akt, der nur durch ein erwachtes Bewusstsein vollzogen werden kann“. Insofern sind die großen Gesetzgeber wie Moses, Lykurg und Solon zugleich Wegbereiter und Ausdruck des entstehenden mentalen Bewusstseins. Hiermit einhergehend sind sie aber auch Begründer oder Verstärker des Patriarchats, denn die rechte Seite steht auch für das männliche, das Recht für das väterliche Prinzip. (Gebser GA II, 134f.)

Mit dem neuen mentalen Bewusstsein entsteht auch eine neue Stellung des Menschen zur Welt, und sein Selbstverständnis gegenüber dieser Welt verändert sich: die Welt des mentalen Bewusstseins ist erstmals ausdrücklich

> ... *eine Welt des Menschen;* das will sagen, es ist eine […] Welt, in welcher „der Mensch das Maß aller Dinge“ ist (Protagoras); in welcher der Mensch selber denkt und dieses Denken richtet; und es ist eine Welt, die er misst, nach der er trachtet, eine materielle Welt, eine Objektwelt, die ihm gegenübersteht. (Gebser GA II, 132.)

Die Welt des Menschen ist also auch die Welt als Gegenüber. Was mit dem Magischen begonnen hatte: Abstand zur Welt zu bekommen, vollendet sich im Mentalen, indem die Welt als das Andere, und das heißt: als Gegenüber angesehen wird. Die räumliche Orientierung und die Betonung des Materiellen und des Messenden und damit des Messbaren sind typisch für die mentale Perfektionierung dieser Außenorientierung. Auch der Aspekt der Quantifizierung gehört zu dieser Betonung des Messenden; er ist durchaus nicht erst mit dem Defizienten der Neuzeit verknüpft, das in Galileis Maxime, alles messbar zu machen, zum Ausdruck kommt, sondern er gehört zum Mentalen und erscheint dementsprechend schon in dessen Anfang. So stand über Platons Akademie der Satz: „Nur wer der Geometrie kundig ist, möge eintreten“. Gaia, die Mutter Erde, ist für den mentalen Menschen ein messbares Objekt geworden.

Die Vollendung der Aufgabe des mentalen Bewusstseins, die vollständige Eroberung und Meisterung des Raumes, wurde in der Renaissance geleistet, als die Perspektive voll entwickelt und handhabbar wurde. Das ist bei Leonardo geschehen, nach all den Vorversuchen, die nicht nur die bildende Kunst seit dem Mittelalter bestimmten, sondern die auch zur Entdeckung der *Landschaft* geführt haben. Dieser uns so selbstverständliche Begriff setzt ein perspektivisches Bewusstsein voraus, das keineswegs eine Selbstverständlichkeit ist. Gebser benutzt das später immer wieder gern zitierte Beispiel von Petrarca, der bei der Ersteigung des Mont Ventoux eine große Erschütterung erlebte, die er 1336 in einem Brief mitteilte. „

> Diese Darstellung ist für die damalige Zeit ein geradezu epochales Ereignis, denn sie bedeutet nichts Geringeres als *die Entdeckung der Landschaft*, und in ihr kommt ein erstes Aufleuchten jenes Raum-Bewusstseins zum Durchbruch, das in der Folge grundlegend die Stellung des europäischen Menschen in und zu der Welt verändert. (Gebser GA II, 40.)

Aber nicht nur die Realisierung des Raumes war ein Kennzeichen der mentalen Bewusstseinsstruktur, sondern auch die Schaffung eines der Verantwortung fähigen Ichs. Alle Verantwortung setzt ein gefestigtes Ich voraus, und diese Errungenschaft ist heute in unserer Gesellschaft, die der individuellen Person so wenig Wert einräumt zugunsten ihrer Gebrauchbarkeit für wirtschaftliche Prozesse, in Gefahr, verloren zu gehen. Mit dem mentalen Bewusstsein entstehen also neue Weltwirklichkeiten: so auch die Fragen und Konstellationen, die uns heute noch als selbstverständlich erscheinen, wie die Frage nach der Wahrheit, nach Realität, nach „Welt“. Eine weitere Neuigkeit ist das Empfinden für Wahrheit und Gerechtigkeit an sich. Es entstanden nicht nur die logischen und die ethischen Grundsätze, sondern auch die entsprechenden psychischen Konstellationen, die uns heute ganz normal erscheinen; daran erkennt man auch die immer noch währende Dominanz des mentalen Bewusstseins. So wurde z. B. immer gelogen, aber das Schamvolle am Lügen ist ganz und gar mental. Für eine „gute Geschichte“ wird aber noch immer ohne Scham gelogen, und Kinder eines gewissen Alters lügen auch ganz ohne Scham, wie es für ein magisches oder mythisches Bewußtsein völlig in Ordnung ist.

Die integrale Bewusstseinsstruktur

Das integrale Bewusstsein, das also die Neuigkeit ist, die in unserer Zeit zur Realisierung drängt, ist nicht leicht zu fassen. Gebser benutzt zur Kennzeichnung *aller* Bewusstseinsstrukturen Charakteristika, die das mentale Bewusstsein kennzeichnen, und er versieht sie mit Präfixen, die verschiedene Stufen des Noch-nicht – oder des Nicht-mehr – ausdrücken, wie prärational für die magische Struktur, irrational für die mythische, rational für die mentale und arational für die integrale Struktur, die immer die Vorsilbe a bekommt (aperspektivisch usw.). Bezüglich des Integralen entsteht dadurch der Eindruck, es sei wie Gott in der negativen Theologie nur über Negationen annäherbar, auch wenn Gebser deutlich darauf hinweist, dass „die Vorsilbe 'a' nicht im Sinne des *Alpha negativum*, sondern in dem des *Alpha privativum*“ zu verstehen sei, also nicht verneinenden sondern befreienden Charakter habe. (Gebser GA II, 25.) Dieser Eindruck der Negation ist nur aus mentaler Perspektive richtig; aus dieser Perspektive ist er auch gerechtfertigt, weil das Mentale eine Art Vollendung des Menschen, nämlich seine Vollendung unter Fortschritts- und Herrschaftsaspekten, darstellt. Aber Gebser belässt es nicht bei den Kennzeichnungen, die auf den Eigenschaften des Mentalen beruhen, sondern er entwickelt zum Zwecke der erwünschten Antizipation des integralen Bewusstseins auch eine eigene Begrifflichkeit. Diese Begriffe können hier nicht erläutert werden; nur einen dieser Begriffe möchte ich nennen, weil er das Wesentliche – wie ich finde – sehr schön ausdrückt.

Vorher aber noch eine Bemerkung zu der generellen Schwierigkeit, etwas so fundamental Neues wie eine neue Bewusstseinsstruktur wahrzunehmen: Dem Menschen ist also aufgegeben, das in seltenen Momenten seiner Geschichte – seiner individuellen wie seiner Gattungsgeschichte – erscheinende Neue in seinem Bewusstsein zu realisieren. Diese Aufgabe ist außerordentlich schwierig, denn das wirklich Neue sieht, wenn es erstmals wahrgenommen wird, überwirklich und übernatürlich aus, weil es von der alten Bewusstseinsstruktur wahrgenommen wird. Und vor allem sieht es nicht nur so aus,

> ... sondern von jener alten Bewusstseinsstruktur aus betrachtet *ist* es *über* ihrer Wirklichkeit, *ist* es tatsächlich *über* ihre Natur hinaus.

Deshalb sträuben sich die Menschen, es wahrzunehmen, und sie machen den Versuch, es dem Alten anzugleichen. Dadurch aber verliert es

> ... seinen Echtheits- und Wahrheits-Charakter. Bei diesen Versuchen, das Neue vom Alten her mit den alten Begriffen erklären zu wollen,

ist man natürlich ständig der Gefahr von Missverständnissen und Missdeutungen ausgesetzt. Um diese Misslichkeiten zu vermeiden und um der Ursprünglichkeit des Neuen gerecht zu werden, hält Gebser es für unumgänglich, sich über das bisher Entwickelte klar zu werden. Auch diesem Zweck gilt seine Untersuchung der älteren Bewusstseinsstrukturen. (Gebser GA II, 71.)

Dennoch reicht eine bloße Kenntnis der älteren Bewusstseinsstrukturen nicht aus: Der besondere Anspruch Gebsers besteht gerade darin, dass jeder die Bewusstseinsstrukturen bei sich selbst wiederfindet und so ihre Existenz bestätigt. Gebser nennt dies *Konkretion*. Das ist natürlich ein besonders hoher Anspruch: der ganze Mensch ist hier gefragt, mit all seinen Erlebnis- und Erfahrungsmöglichkeiten, mit seiner ganzen Fähigkeit, sich selbst zu durchschauen, indem er sich klar und durchsichtig wird. Dieser Anspruch lässt den intellektuellen und wissenschaftlichen Umgang mit der gesamten Konzeption als ungenügend erscheinen und trägt daher wesentlich dazu bei, sie nicht in die Wissenschaft, also auch nicht in die akademische Philosophie, hineinzulassen.

Die Integration der älteren Bewusstseinsstrukturen ist derjenige Aspekt des integralen Bewusstseins, der relativ leicht zugänglich ist. Sie, die Bewusstseinsstrukturen, sollen jedem, der am integralen Bewusstsein teilhaben will, durchsichtig werden, ihr Wirken soll gesehen werden, unsere Teilhabe an ihnen soll bewusst werden, und wenn das gelingt, ist ein gewisser Schritt zum integralen Bewusstsein getan. Dass dies aber gelingen kann, ist von bestimmten Fähigkeiten abhängig, und hier kommt der angekündigte Begriff ins Spiel.

Dieser Begriff und eine dieser Fähigkeiten ist nämlich das *Wahren*, das nicht nur wahrnehmen heißt, auch nicht nur gewahr werden, was ja schon eine gewisse Anerkennung des Wahrgenommenen impliziert, sondern zu dem auch ein Wahrgeben gehört, also ein zugewandter, bejahender, wenn man so will: liebender, auf jeden Fall aber ein aktiver Aspekt des Menschen, der da wahrnimmt und wahrgibt. Das Wahren gilt Gebser als die Realisationsart des integralen Bewusstseins, es entspricht also dem Erleben des magischen, dem Schauen und Erfahren des mythischen und dem Folgern und Vorstellen des mentalen Bewusstseins.

Das Wahren als Realisationsform des integralen Bewusstseins bedeutet auch die große Neuigkeit, die der so gewahrten Welt zu eigen ist: sie ist nicht mehr die Welt als Gegenüber, wie sie mit dem magischen Bewusstsein zuerst entstand und wie sie vom mentalen Bewusstsein perfektioniert worden ist. Mensch und Welt nehmen jetzt eine andere Beziehung auf, die von einem innigeren Bezug und neuartiger Transparenz geprägt ist.

Die Welt als Gegenüber und der ihr entsprechende Mensch sind also zu überwinden, bei Gebser und übrigens auch bei einem weiteren großen Philosophen, der in seiner wahren Leistung noch immer nicht dargestellt worden ist, obwohl eine Unmenge an Literatur über ihn existiert: bei Nietzsche. Die große Klammer, die bei Gebser die drei Bewusstseinsstrukturen des Magischen, Mythischen und Mentalen zusammenhält, zeigt, dass die Realisierung der Welt des Integralen einen besonders großen und deutlichen Schritt darstellt, dass sie eine echte Veränderung des Humanum bedeutet.

Wodurch zeichnet sich das integrale Bewusstsein nun hauptsächlich aus? Es hat wie jede Bewusstseinsstruktur seine Aufgabe, und diese Aufgabe besteht in der Realisierung der *Zeit*, des Zugleich, wie Gebser sagt.

Um diese Realisierung zu bewerkstelligen, müssen alle den Menschen mitkonstituierenden Zeitformen anerkannt werden; man muss also den Mut aufbringen, die prärationale magische Zeitlosigkeit ebenso wie die irrationale mythische Zeithaftigkeit und den mentalen Zeitbegriff als wirkend anzuerkennen und sie entsprechend zu leben. Mut ist dazu nötig, denn es verlangt eine erhebliche Selbstdistanzierung und damit Selbstüberwindung, die dazu zwingen, das vertraute Selbstgefühl, das man sich im Laufe der Jahre erworben hat, zu verlassen. Das Ergebnis dieser Anerkennung bezeichnet Gebser als *Zeitfreiheit*, was nicht etwa bedeutet, dass man sich dieser früheren Zeitformen entledigt, die ja jeden Menschen mitkonstituieren, sondern Zeitfreiheit heißt zuerst einmal ein *Freisein zu* den früheren Zeitformen. Diese Art Freisein, die Gebser hier meint, geht aus der Konkretion – wie eben erwähnt auch ein Begriff, der zum integralen Bewusstsein gehört – und der Integration aller Zeitformen hervor; es kann daher nur von einem Bewusstsein geleistet werden, das sich „über" die bisherigen Zeitformen zu stellen vermag. Auf diese Art erfolgt – so Gebser – eine bewusste Annäherung an den Ursprung. (Gebser GA III, 388) Er bezeichnet daher die Zeitfreiheit sogar als „die bewusste Form des ursprünglichen Vorzeithaften" (Gebser GA III, 482), und stellt damit einen sehr weiten Horizont für das integrale Bewusstsein her, der mit den hohen Formen spiritueller Erleuchtung vergleichbar ist.

Durch diese Realisierung eines wesentlichen Aspekts jeder Bewusstseinsstruktur, nämlich der ihr entsprechenden Zeitform, sind die Bewusstseinsstrukturen im Ganzen realisiert und transparent. Daher ermöglicht die Zeitfreiheit, die durch das Integrieren der verschiedenen Zeitformen erreicht wird, den Zugang zu dem, was Gebser „das Geistige" nennt: „das Befreitsein von der Zeit" bedeutet „das Freisein zum Geistigen" (Gebser GA III, 402f.) Dieser Begriff des Geistigen bezeichnet bei Gebser die Region, die alle Bewusstseinsstrukturen aus sich entlässt; in anderer Terminologie ist dies das Göttliche oder auch Gott, welche Bezeichnung Gebser allerdings nur im Kontext des mentalen Bewusstseins verwendet, wohl wegen der väterlichen Konnotationen.

Selbstverständlich hat das integrale Bewusstsein sehr viele andere Aspekte, die fasslicher sind als der Zeitaspekt, auch solche, die man mit Bezug auf das mentale Bewußtsein benennen kann. So überschreitet das integrale Bewußtsein die rationale Eindeutigkeit und das dualistische Entweder-Oder des mentalen Bewusstseins, es lässt die Welt als vielfältig strukturiert und komplex erscheinen, es öffnet die Augen für die vielen verschiedenen Wahrheiten, die da sind und gesehen werden wollen. Jedes einzelne Ding, jedes Material, jede Tonart und natürlich jeder Mensch ist eine solche Wahrheit.

Daher mutet der starke Bezug des integralen Bewusstseins zur Zeit, den ich hier betone, zunächst ungewöhnlich an. Gebser stellt das integrale Bewusstsein auch in unmittelbare Nähe zum Satori und zum universalen Bewußtsein Aurobindos, die ja beide ohne einen solchen ausdrücklichen Zeitbezug beschrieben werden. Ich halte es aber gerade in bezug auf die lebensweltliche Ausrichtung der Gebserschen Bewusstseinsstrukturen für sehr hilfreich, diesen Aspekt zu betonen, weil man durch ihn die gesamte Lebenswirklichkeit auf einmal anspricht. Die verschiedenen Zeitbezüge, an denen wir teilhaben und in denen wir stehen, machen unser gesamtes Leben aus; sie finden nicht im Kopf statt, sondern sie sind wir selbst im Ganzen.

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Jean Gebser: Das Integrale Bewusstsein
Jean Gebser: The Integral Consciousness

Original article in German by Kai Hellbusch
English Summary by Reinhard Fuhr

Summary

The Swiss-German philosopher Jean Gebser was probably the first to describe an approaching paradigmatic transformation in the general development of consciousness to an integral world view. The foundation of this phylogenetic and ontogenetic development, from archaic to magic, mythic, mental and integral, is Gebser's concept of consciousness structures. These are given to us as the overall view of ourselves and the world around us in relation to all dimensions of human experience and thinking. These basic structures of consciousness emerge through an evolutionary process, building one upon the other in personal and human history. Whenever one basic structure has become incapable of solving the challenges of life, a new structure is generated. All of these structures have their roots in the timeless, divine origin of everything (*Ursprung*).

Very close to the universal consciousness is the *archaic* structure which is difficult to describe as there is barely any distance between them: humans and the world are identical.

The *magic* structure marks the first step toward a waking human consciousness, introducing a difference from its origin. This is still an ego-less obedience characterized almost exclusively by unreflected *vital experience*. In its deficient form, magic consciousness results in serfdom and in collective trance as in military and many esoteric movements.

The *mythic* structure is characterized by *conscious experiencing:* the soul experiences something. Time becomes conscious and we live in a two-dimensional polarity of the surface expanse. Its deficient form is the inflation of symbolism and an addictive use of tales.

In the *mental* phase of consciousness development thinking is goal oriented and the world is conceived as an object. As the capacity to construct a meaning is developed we start thinking in legal categories, explore space, all of which requires *logical reasoning*. The deficient form of this structure is a dissociation from the unity of experiencing and thinking by overemphasizing mental logic.

The *integral* structure that is newly appearing on the horizon of consciousness development only looks transcendent from the commonly held mental view. At the integral stage all structures are integrated - not only in perceiving the exterior world but also in oneself, which is the reason why this structure is not accepted in science. The world is no longer merely an object. Instead, we establish an intimate relationship between ourselves and the world, which by our perception confirms its very existence. The main challenge of this structure is that consciousness transcends the different tenses by *realizing time* and the fact that we live in continuous timely relations. The integral consciousness is multiperspectival and transcends either-or dichotomies: we become aware of the universal whole which is shining through everything.

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Complexity Intelligence and Cultural Coaching:
Navigating the Gap Between Our Societal Challenges and Our Capacities

Jan Inglis and Margaret Steele

Abstract: In this article, we present the term *complexity intelligence* as a useful moniker to describe the reasoning ability, emotional capacity and social cognition necessary to meet the challenges of our prevailing life conditions. We suggest that, as a society and as individuals, we develop *complexity intelligence* as we navigate the gap between our current capacities and the capacities needed to respond to the next stage of complex challenges in our lives. We further suggest that it is possible to stimulate and support the emergence of *complexity intelligence* in a society, but we need a new form of social change agent - a *cultural coach*, to midwife its emergence.

Key words: complexity, reasoning ability, emotional capacity, social cognition, adult development, social change, cultural coach.

Introduction

We are living in complex times and are part of complex systems that our past experiences and training may not have prepared us to understand. In fact, as Kegan (1994/2000) suggests, we may well be “cognitively and emotionally mismatched” to respond to the mental demands of modern life. As we move more fully into a global society, it seems that all our systems are in chaos: our local economies, our health system, the environment, our community life, and often, at times, our own personal lives. We are living in a rapidly changing society. Indeed, as Vaill (1989) suggests, we seem to be living in a state of “permanent white water” and as Toffler (1970) observed nearly 35 years ago, these times are not just like a second Industrial Revolution, but are more like a second great divide in human history – parallel to the movement from barbarism to civilization!

This “great divide in human history,” this monumental shift in life conditions has placed increasing stress on local and global leadership. It is clear that habitual linear thinking is not helping leaders deal with pressing issues such as stimulating the local economy, protecting the aquifer, providing housing choices for our elderly populations or responding to global violence, famine or inequities. Even well-intentioned approaches to governance that include public participation in decision making often fail to grapple with the complexity of issues and end up creating polarized debate and divisiveness. People keep looking for simple approaches to things that are complex.

In using the word *complex,* we are referring to the interconnected and unpredictable nature of issues in a world technologically and thus socially connected across time and space in a way much different than we experienced even 20 years ago. To respond to this complexity, Commons, Danaher-Gilpin, Miller, and Goodheart (2002) suggest that many modern issues require reasoning ability at the metasystematic stage. This stage is broadly similar to Torbert’s (2004) Strategist stage – a stage presently attained by only a small percentage of citizens or

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leaders.[1] Clearly, there is a wide gap between the societal challenges facing us in the 21st century and our collective capacities to effectively respond to them. This gap is severely threatening our survival as a species.

As part of the evolutionary process, humans routinely find themselves faced with challenges that exceed their capacities. This is a natural part of growth and evolution and occurs in all realms of the human experience, whether that is physical, mental, emotional, spiritual or interpersonal. But, what happens when the challenges in our life threaten our very deep-seated perception of "how the world works?"[2] In other words, what happens when there is a gap between our operating beliefs of how the world works and the contradictory evidence presented by what we observe in the world around us? What happens to societies when this manifests as large gaps between existing capacities and the capacities needed to respond to societal challenges? In this paper, we suggest that *complexity intelligence* emerges as we make the transition through these gaps. We also suggest that it is possible to actively stimulate and support the emergence of *complexity intelligence* in our society, but we need a new form of social change agent - a *cultural coach*, to midwife its emergence.

Our intent in defining the term *complexity intelligence* is to offer a simple phrase or moniker for practitioners working in the area of social change. We acknowledge the many inspiring individuals and programs in the field of social change and feel that an accessible concept based on rigorous research and contemporary theory is needed to capture the essence of this work. Our concept of complexity intelligence draws on the interrelated fields of adult development, integral theory, transformational learning, complexity theory, dialogue, deliberation and action research. We suggest that social change agents should be familiar with this body of work in designing public processes to support the emergence of complexity intelligence. These theories do not need to be taught conceptually for complexity intelligence to be developed. In fact, in many cases they should not be taught, but rather should be embedded in experiential learning and application. Complexity intelligence is a natural human capacity that will emerge, given the appropriate balance of challenge and support.

The Concept of Complexity Intelligence

Definition of the Term

We consider *complexity intelligence* to be both a capacity and a process. In general terms, it is the capacity to respond to the demands of current life challenges and it is also the process of developing this capacity. To capture its inherent dynamic evolutionary process, we should be using the verb *intelligencing*, but for ease of reference, we are considering both the capacity and the process to be described by the term *complexity intelligence* or, simply, CI.

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[1] In two samples, Cook-Greuter (2002) reports less than 7% of the adult population in the U.S. and less than 3% of U.S. managers and supervisors operate at this level or higher. In a third sample she reports that 20% of managers and consultants in the U.K. are operating at this level or higher but qualifies this finding by suggesting the higher number is "likely due to self-selection bias" (p. 34).

[2] We are using the phrase "how the world works" to name the habitual lens used to construct, perceive and explain experiences. It has a similar intent to other terms such as: "stage of development" (Wilber, 2001, Beck & Cowan, 1996), "meaning-perspective" (Mezirow, 1991), "meaning-making" (Kegan, 1982/1996), "levels or waves of human existence" (Graves, 1974) etc.

As a capacity, CI is defined to be the integration of the reasoning ability, emotional capacity and social cognition required to function at the level of complexity demanded by current life challenges.

As a process of negotiating transitions, CI includes: (1) recognition that a gap exists between the life conditions currently facing us and our current operating beliefs and assumptions of how the world works (e.g. our practice of enforcing Christmas and Easter as public holidays in areas where large percentages of the population are not Christian); (2) perseverance to stay engaged in the gap with the resulting confusion, contradiction and frustration as we disembed from our familiar operating beliefs; and (3) exposure and openness to a new conceptual framework that helps validate the recognition of this gap.

Complexity Intelligence and Adult Development

In the literature on positive adult development, there are many references and cross-referenced charts describing the various lines, quadrants and domains of human development.[3] In defining CI, we focus on three of these: reasoning ability, emotional capacity and social cognition, or, in other words, reasoning ability in a social context. By describing CI as “reasoning ability in a social context,” we want to make clear that it is not reasoning ability alone (or reasoning ability of the isolated individual alone) that is the crux of complexity intelligence but it is the combination of this ability along with the emotional maturity to access and apply that ability in an interpersonal context. This definition of CI is consistent with Rosenberg’s (2004) reference to the three domains of cognition, emotional orientation and social context and corresponds to Kegan’s (1994/2000) use of the term *knowing.*[4]

A key notion behind the concept of CI is integration. Individuals may have a very high level of reasoning capacity, e.g. operating at the metasystematic or paradigmatic level identified by Commons et al (2002), but if they have not also developed the necessary emotional capacity and social cognition, they will not have the CI needed to operate at the level demanded by prevailing life conditions. This may then show up as a gap between the ability to talk *about* a belief conceptually and the ability to embody it. This can be confusing to others, unless they are willing to look under the content of *what* someone is saying to the structure of *how* they think and accomplish tasks in the world. People are walking around all the time with this type of “integrity gap” and not quite able to see it enough to name it or remediate it. This is a gap of integration - something we can all experience at our growing edge. An integrity gap is often falsely assumed to be an indication of moral corruption, a static judgment that is not helpful, as it does not inquire into the transitional nature of change. Having an integrity gap creates a tendency to feel off centre and a need to hide, avoid, or pretend, making it difficult to be fully present,[5] creative and responsive.

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[3] Wilber (2000) identifies a minimum of two dozen lines of development in *Integral Psychology*. Kegan (1994/2000) uses three (logical-cognitive, social-cognitive and intrapersonal-affective) and in an interview with Russ Volkmann (http://www.leadcoach.com/newsletter.html#fresh), James Flaherty identifies six streams he uses in his work (cognitive, emotional, relational, somatic, spiritual and integrating).

[4] “This kind of "knowing," this work of the mind, is not about "cognition" alone, if what we mean by cognition is thinking divorced from feeling and social relating. It is about the organizing principle we bring to our thinking and our feelings and our relating to others and our relating to parts of ourselves.” (Kegan, 1994/2000, p.29)

The transition from one understanding of "how the world works" to another is not a smooth linear process, as we know from observing children in their development. We watch them struggle to make meaning of new challenges that exceed their current capacities. For instance, a child is unable to differentiate the letter "d" from the letter "b" in his printing until he has internalized the meaning of the spatial concepts of midline, right and left. As a culture we have anticipated the developmental transitions of childhood and accepted the need for supporting them. This acceptance has allowed us to design learning environments that respect children's different learning capacities.[6] However, we have not yet offered the same consideration to adults in transition. This is probably because, as a culture, we are still embedded in the belief that human development ends with the transition from adolescence to adulthood.

If we assume that once we reach adulthood, development stops, then we are likely to also assume that all adults have the same capacities to integrate their cognitive, emotional and social domains in order to be able to respond to complex situations in a similar and capable manner. This universal "one brush stroke does all" lens could be the root of much of our personal, social and political frustration. It does not let us see the gaps in our own and others' capacities and thus we judge the behaviors as purposeful sabotaging, or permanent incompetencies, instead of respecting them as natural developmental challenges common to us all. That which is invisible to us is not available for conscious intervention. As the literature on positive adult development becomes more widespread in the culture and as we begin to understand the nature of what occurs during transitions, we can hope to see an increase in awareness of the need to support us all in our transitions.

While it is our belief that complexity intelligence is a natural human capacity that appears to have no upward limits, in this paper, we confine our focus to the complexity intelligence required to respond to the dilemmas and transitions currently facing us in the Western World. We see the bulk of the population basically in the transition from Piaget's formal operations to post-formal operations.[7] Of course, the actual transition facing individuals will vary, depending on their life context. Using Torbert's (2004) action-logic terminology, some will be making the transition from Expert to Achiever, some from Achiever to Individualist and others from Individualist to Strategist and beyond. Each transition requires a different set of capacities and anyone working with social change needs to be aware of this difference.

Complexity Intelligence and Societal Development

So far, we have described complexity intelligence as it relates to individuals, but the term can be readily applied to societies as well. It is important to recognize that it is the interaction between the culture and the individual, not just the individual alone that is the locus of social change. Globally we are sitting in the midst of interconnected societies with unresolved problems such as homelessness, AIDs, famine, global warming etc. and the complexity intelligence has not yet emerged to meet these challenges. There is a large gap between these types of societal challenges and our collective capacities to respond to them.

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[5] The authors consider "being present" a core element of complexity intelligence. It means being able to track the interconnected shifts in emotions, meaning-making and physiological reactions in the moment.

[6] This need has become visible to us although it was not as overtly recognized in childhood education 100 years ago.

[7] Piaget's description of stage change is similar to that described in the transitions from order 3 to order 4 (Kegan, 1982/1996), and the two-step transition from Achiever to Individualist to Strategist (Torbert, 2004), orange to green to yellow (Beck & Cowan, 1996) or abstract to systematic to metasystematic (Commons et al, 2002).

We define a society with complexity intelligence as one that has institutionalized structures in place that support the collective reasoning ability, emotional maturity and "inter-societal"[8] capacity to respond to current societal challenges. If enough of the population of a given society could develop complexity intelligence, they would have the capacity to reason and reflect together and commit to a process of public deliberation or generative dialogue out of which adaptive responses to problems could emerge. Such a society would have the emotional maturity to face the enormity of the global challenges facing it without "numbing out" or splitting into reactive camps. And, it would have the "inter-societal" capacity to truly operate from a worldcentric perspective.

Navigating the Gap

In much of the popular literature on human development, there is a lot of attention given to identifying the stages of development. We want to focus on the space in between these stages. In defining complexity intelligence as a process of negotiating transitions from one stage to the next, we have identified three characteristics of this process: (1) there is a recognition that a gap exists between our operating beliefs and the current conditions facing us; (2) there is the perseverance to stay engaged in the resulting confusion, contradiction and frustration as we disembed from familiar operating beliefs and navigate the gap; and (3) there is exposure and openness to a new conceptual framework that validates our recognition of the gap.

The navigation itself is a natural process. Pushed and pulled by an evolutionary imperative, what Freire (1993) refers to as "the ontological vocation to be more fully human," humans naturally navigate the gap that arises when current operating beliefs no longer make sense of contradictory life conditions. This happens routinely throughout the human lifespan, as illustrated by the following examples. A child initially believes all her attempts at speaking are encouraged, but then realizes that some speaking is considered "swears" and she is punished. An adolescent has to negotiate the transition from a belief that parental routines create comfort and stability to a belief that some parents' routines are also suffocating them. Adults grapple with shifts of meaning from believing their investments in retirement savings plans will support them in their old age through watching investment funds collapse as some of these companies are exposed as fraudulent. They begin to question if security can come from financial investments alone or if the human bonds of a strong community may offer greater protection in old age or debility.

In all these examples, the transition from the old way of understanding "how the world works" to a more complex way of understanding begins with the recognition of a gap. This recognition is supported by the awareness that there is another way of looking at things – i.e. a new conceptual framework. One cannot ignore the contradictions but it takes great perseverance to stay in this place of confusion and frustration until a new way of understanding emerges. Even though the new view eventually "transcends and includes" the earlier view, to use Wilber's (2000) phrase, the transition process is not an easy or simple one.

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[8] "Inter-societal" is a term used to expand on the interpersonal domain for individuals. Societies also must develop the capacity to deliberate together at a global level to respond to complex global issues.

Often, we may not even recognize that a gap exists. For example, a person who operates from an assumption that social problems are due to those with power oppressing those without power may blame the "system" as it must be perpetuating this imbalance. With this operating belief firmly in place, such a person does not see the history of interconnected social structures that underlie complex issues such as homelessness. Instead, she seeks solutions to problems of human suffering by righting the wrong through "aid to victims." What happens then to a person who holds this belief when, after years of fighting for more shelters for the homeless, she sees those shelters going unused while homeless people still remain sleeping under bridges and on park benches? Perhaps she will continue to hold onto the belief, continuing to blame the system for not providing enough in the form of aid to victims. If the gap between what she believes and what she sees happening is not too great, she may simply ignore it, defend it or make slight adjustments without challenging the assumptions of the familiar lens of "how the world works." She may infer that it is not the view that is limited but she just needs to advocate harder or in a different way to ensure aid to victims. On the other hand, if the gap is large enough that it becomes visible and difficult to live with, the recognition of the gap will ignite the evolutionary imperative and the individual will be forced to deal with the dialectical challenge of resolving contradictory awarenesses. This could lead to a shift in worldview to allow an awareness that effective action requires more from government policy than simply providing "aid to victims." It may also require working with a wide variety of approaches related to housing and health as well as other interconnected systems such as economic development and employment.

In our modern society, we often find ourselves face to face with those who hold different beliefs and values. When we add to this, the confusion and contradictions brought on by rapid changes in technology, we truly do find ourselves in a state of "permanent white water." In such fast moving waters, there is understandable confusion, vulnerability and exhaustion as we feel ourselves losing our footing in our old way of understanding before there is any solid ground emerging to form the foundation of a new comprehension. One of our journal entries describes it this way:

> Part of what I know I need is to be able to process that gap that I am sensing, in order to unfreeze my responses. So I need to sort it, chew on it, make meaning of it, validate my intuitions and then the next time I am much less fumble-minded about it, less reactive and take it less personally. I can then see through the whole matrix of it and respond effectively at the time. It is like a new neurological pathway has been made.[9]

This journal entry illustrates how the reasoning capacity is struggling to make sense of what is occurring, the emotional capacity is stuck in a feeling of "fumble-mindedness" and the social cognition is "frozen" until some integration happens. If the reasoning ability begins to make sense of the situation without integrating the emotional and social aspects, there could be inconsistency between espoused theory and theory in use.

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[9] Author's personal journal entry

Supporting the Emergence of Complexity Intelligence Through Cultural Coaching

Providing Support to Navigate the Gap

If we are saying that complexity intelligence naturally emerges as an adaptive response to complex conditions, why has it not emerged in response to the undeniably complex conditions of our modern world? Could it be that the gap between our current understanding of how the world works and the challenges we are facing is too big of a gap to navigate? While it is healthy for a challenge to be slightly greater than current capacities as it motivates us to grow, if a challenge is too great, it can overwhelm us and retard our development. If this is our current societal dilemma and if we are, as Kegan suggests "in over our heads," what, if anything, can we do to stimulate the emergence of complexity intelligence to disclose this gap and support the navigation through it? Indeed, can its emergence be stimulated, nurtured and supported? Questions such as these are drawing much interest and attention by theorists and action researchers committed to public issues work. Rosenberg (2004) and Ross (2002) both suggest that designed pedagogical approaches to public processes can lead to an increase in the capacities we are defining as complexity intelligence. These pedagogical approaches can be a way of supporting openness and exposure to new conceptual frameworks.

There must be an appropriate balance between challenge and support. If the challenge is perceived as too great, there needs to be an increase in support to allow growth to occur. How do we provide that support and what form would it take? Could we stimulate the emergence of complexity intelligence with a designed process following what Kegan describes as "life's natural curriculum" offering the right amount of challenge and support?

When individuals experience a gap, they have a variety of sources to turn to for help – personal therapists, life coaches etc., all of which could be called "gap specialists." Many of these professionals specialize in supporting individuals to navigate the gap between formal operational and post-formal operational although they may not formally name their work as such. Through assessment and appropriately designed interventions, these professionals support individuals to adjust to their life situations or co-create more fulfilling circumstances. The shortcoming of this work is that it is done in the privacy of a therapist's office, as if each individual's issues existed separately from their culture.[10] The work of individuation from a specific clients' pathology or "dysfunctional" family could, from a broader lens, often be viewed as the normal evolution from one cultural worldview of how the world works to another one more appropriate for the current situation. For example, is a client's lack of identity and confidence to compete in a highly entrepreneurial market after being laid off, due to an unhealthy relationship with a dominant conservative father who did not allow much self-expression? Possibly, as of course all individuals must become conscious of their own path and influences. At the same time, however, this client is also an example of a culture struggling with a shift in worldview from one that values loyalty to tradition, morality and group standards to one that values personal initiative, practical efficiency and change.

For many individuals, personal therapy has been a great source for improving individual capacities for personal awareness, emotional bonding, sense of belonging, authentic expression, adequate body-mind integration to stay present and the ability to understand and empathize with others who are different. These capacities are essential conditions for complexity intelligence to emerge and for engaging effectively in public processes. However, personal therapy, working as it does mainly at the level of the individual or family, cannot, by itself, effect social change. This is because the locus of change must include the culture.

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[10] The book entitled *We've had a hundred years of psychotherapy and the world's getting worse* by Hillman and Ventura (1992) challenges the hope that has been held that individual transformation would have been enough to change the world.

Coaching Societies Through the Gap

Clearly, there are plenty of resources for an individual in distress to access. But where does a society or a culture turn when it needs "therapy?" There is a need for a body of practitioners who can, as Kegan says "throw a sympathetic arm of disciplined friendliness across the burdened shoulders of contemporary culture."[11] Such practitioners, we are calling *cultural coaches* - change agents who support the transformation of dysfunctional societal issues. This is not easy work and requires deep commitment, personal maturity and a thorough understanding of adult development, social systems and the process of public deliberation and dialogue. Individuals interested in cultural coaching should participate in a developmental learning process that is designed to stimulate the large perspective and capacities needed to meet complex 21st century issues. Well-trained, experienced cultural coaches would create carefully designed processes with the right mix of challenge and support to encourage public awareness, inquiry and reflection. Over time, a cadre of cultural coaches could stimulate and support the culture to evolve to the next stage in its development. This work needs to be approached with deep integrity. Personal therapists are aware of the power they hold in relationship with their clients. Their capacities are built and evaluated based on principles and professional codes of ethics. This must also apply if one is to be a coach of cultural transformation with the acknowledgement that this is life work with no endpoint in the learning/evolving process.

In our culture, the locus of change has been identified very much with the individual and it needs to shift to include both the individual and the culture and the relationship between them. By supporting the emergence of complexity intelligence in individuals, we are supporting the evolvement of the organizations and communities where they work and live. Of equal, if not more importance, by supporting complexity intelligence of the culture we are also supporting the evolvement of individuals, as the culture is the holding environment for development.

We have defined a society with complexity intelligence as one that has institutionalized structures that support the collective reasoning ability, emotional maturity and "inter-societal" capacity to respond to existing complex societal challenges. A society with complexity intelligence as its centre of gravity has social infrastructures in place that develop and support the collective capacity to reason and reflect together; to be emotionally responsible in facing the enormity of our local and global challenges without splitting into reactive camps; and to truly operate from a worldcentric perspective.

How do we support the emergence of complexity intelligence in our culture and how do we institutionalize it in our society? First, as one approach, we suggest that cultural coaching must become institutionalized as a recognized profession, just as personal coaching and personal therapy have become recognized professions in the individual domain. Secondly, we suggest that processes intended to support the emergence of complexity intelligence must be well designed. Too often, we expect that simply by gathering people in one room to talk about some complex issue that these collective capacities for dealing with the task at hand will just appear.

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[11] Kegan (1994/2000, p. 3)

The Importance of Designed Processes

Our concept of complexity intelligence draws on the interrelated fields of adult development, integral theory, transformational learning, complexity theory, dialogue, deliberation and action research and inquiry. In designing public interventions, cultural coaches would draw on their knowledge of this theoretical framework. For example, program design can be informed by complexity theory. Public processes can be designed to support the process of self-organizing inherent in complex adaptive systems. Eoyang and Olsen (2001) suggest there are three conditions which, in their interrelationship, influence a system to self-organize: (1) creating a container i.e. the intent and support for dialogue and deliberation; (2) surfacing diversity and differences which allows creativity to flow; and (3) increasing the frequency of transforming exchanges so feedback loops can reveal the consequences of our choices and also inform us as to who “we” are.

In our opinion, the design of public processes should also be informed by recent work by Torbert (2004), Ross (2002) and Rosenberg (2004). Torbert’s approach to action inquiry provides an effective structure for aligning outward effectiveness with inner integrity in real time by increasing awareness of our inner process, building mutuality through how we speak to others and developing sustainability through how we organize. Ross (2002) has done extensive work in designing a developmental approach to complex public issues based on a framework of deliberative democracy, integral theory, human development, transformation theory, timely action inquiry and consciousness studies. In a recent paper on public deliberation,[12] Rosenberg advocates for public processes that develop the “cognitive capacities, emotional orientation and social context” for democratic deliberation.

If attempts to bring citizens together to grapple with complex social issues are not designed to consider the diverse worldviews, capacities and complexities, the best in people will not be brought forward, and participatory projects will flounder, leaving people frustrated and eventually apathetic. Rosenberg indicates that most citizens do not have the capacity to engage in deliberative democracy as they lack many of the cognitive, emotional and communicative capacities to participate effectively in this work:

> A good deal of research on small group behavior and communications provides evidence of people’s evident inability to understand and fairly consider other people’s perspectives, to think critically about their own position or the social conventions to which they adhere, or think about problems creatively and generate novel alternatives.[13]

Rosenberg also suggests many citizens lack the ability for empathy and bonding with their community to allow for the commitment required for deliberative democracy. If adults differ in these essential components of complexity intelligence then there is a lack of autonomy and equality, necessary ingredients according to Rosenberg for democracy. As the complexities of our public issues increase, we will have to address the fact that we need to develop complexity intelligence to respond, understand and engage with these issues and with each other.

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[12] Rosenberg (2004).

[13] Rosenberg (2004, p. 4)

Concluding Remarks and Suggestions for Ongoing Inquiry

In concluding this paper, we want to emphasize that human beings and societies are naturally adaptable. With the right combination of challenges and support, they will naturally evolve the capacities to meet the demands of existential conditions. However, in times of rapid change and in the absence of adequate support, large gaps can occur between the capacities needed to respond to life's demands and the actual capacities that have developed. Such is the case today where we seem to be living, as Vaill (1989) suggests, in a state of "permanent white water" and there is a large gap between the capacities needed to respond to our societal challenges and the capacities we have developed.

In this paper, we present the idea of *complexity intelligence* as a useful concept to frame our current global situation and our efforts to remediate it. We define complexity intelligence as the capacity to respond to the demands of life challenges and also the process of developing this capacity. In individuals, we consider complexity intelligence to be the integrated reasoning ability, emotional maturity and social cognition necessary to meet the demands of life. We define a society with complexity intelligence as one that has institutionalized structures in place that support the collective reasoning ability, emotional maturity and inter-societal capacity to respond to existing complex societal challenges. We suggest that complexity intelligence emerges as we navigate the transition from one set of operating beliefs about how the world works to a more expanded set of operating beliefs transcending and including the former. This process begins with the recognition of a gap between our beliefs of how the world works and the life conditions we observe around us. Perseverance is required to stay engaged in this gap along with the resulting confusion, contradiction and frustration as we disembed from our familiar beliefs. Also, there must be exposure to a new conceptual framework that helps validate the recognition that a gap exists.

We believe it is possible and, indeed, necessary, to stimulate the emergence of complexity intelligence in society, but we believe a new form of social change agent is needed to midwife its emergence. We call this new change agent a *cultural coach* and recognize this work requires deep commitment, personal maturity and a thorough understanding of the parameters of social change. Well-trained and experienced cultural coaches could design processes of public dialogue and deliberation that would support the transformation of dysfunctional societal issues. Over time, a cadre of cultural coaches could stimulate and support the culture to evolve to the next stage in its development. For social change to be lasting, we believe that it is imperative that cultural coaching becomes institutionalized as a recognized profession, just as personal coaching and personal therapy have become recognized professions in the individual domain.

Questions for On-going Inquiry

There are several big questions threaded through this article. Some partial answers have been posited and yet many questions remain. How prevalent is the awareness that there is a gap between the challenges facing us as global citizens and our capacities to respond to them? If we are aware of the gap, how willing are we to stay engaged with the resulting confusion, contradiction and frustration to allow complexity intelligence to emerge? Do we have enough time? In fact, the largest question of all may well be will we, as a species, continue to evolve in a healthy adaptive manner? What are the conditions that will support that evolvement? How will we know whether an adaptation is advantageous or not? Will there be a threshold or limit to the amount and speed of complexity that we are experiencing as some suggest? Can posing and pondering these questions be done with vitality and inspiration? We look forward to continuing this exploration and invite comments and feedback on this article.

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The Development of Dialectical Thinking As An Approach to Integration

Michael Basseches

Abstract: This article offers a description of dialectical thinking as a psychological phenomenon that reflects adult intellectual development. While relating this psychological phenomenon to the various dialectical philosophical perspectives from which the description is derived, the article conceptualizes dialectical thinking as a form of organization of thought, various aspects of which can be identified in individual adults' approaches to conceptualizing a range of problems, rather than as one particular stream of intellectual history. The article provides a range of examples of dialectical analyses, contrasting them with more formalistic analyses, in order to convey the power, adequacy, and significance of dialectical thinking for the sorts of challenges that this journal embraces. It suggests that events in all areas of life demand recognition of the limitations of closed-system approaches to analysis. Approaches based instead on the organizing principle of dialectic integrate dimensions of contradiction, change and system-transformation over time in a way that supports people's adaptation when structures under girding their sense of self/world coherence are challenged. Higher education and psychotherapy are considered as examples of potential contexts for adult intellectual development, and the conditions that foster such development in these contexts are discussed. The article as a whole makes the case for consciously attempting to foster such development in all our work as an approach to integration.

Key words: dialectic, development, transformation, constitutive relationships, interaction, multiple systems, open systems, metasystematic, epistemic adequacy, dialectical thinking, dialectical philosophical perspective, dialectical analysis, psychotherapy, higher education

Introduction

In this article, I present a description of what I have called dialectical thinking that was first written two decades ago.[1] My goal is to present it in a way that suggests its power, adequacy, and significance for the challenges that this journal is dedicated to embracing. I refer the reader to other work (Basseches, 1978, 1980, 1984, 1989) for a full exposition of the philosophical argument, the research methodology for recognizing elements and examples of dialectical

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[1] Editor's note: See the author's discussion beginning on p. 49 that describes his use of the term dialectical thinking as psychological phenomenon.

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thinking and assessing individuals' capacity for dialectical thought, and the empirical findings, all of which support my claim that dialectical thinking reflects adult intellectual *development.* Pending examination of that work, I invite the reader to critically evaluate the philosophical position reflected in this article. For readers who cannot embrace this philosophical position, it may be more appropriate to use my description as a diagnostic tool for recognizing dialectical thinking in the thinking of others, than as defining a goal to pursue. However, this article is offered to all theorists, researchers, and practitioners who share the goal of fostering integrative thinking, and as a plausible account of the sort of intellectual development that all our work ought to promote.

Power, Significance, And Adequacy

Let me begin by offering a couple of scenarios of situations in adult life in which dialectical cognitive organization would make a difference in how meaning is made of phenomena. I hope these examples will provide an initial feel for what I include within the scope of dialectical thinking, as well as its implications. In each example, I will start with two non-dialectical, but not unusual, ways of thinking about the problem at hand, and then contrast them with a third, dialectical alternative.

Mary, Helen, and Judy are all mothers of daughters. Each mother has held a set of values that have guided her efforts to raise her daughter. Now, the daughters have grown up and each of them is rejecting many of her mother's values.

Mary is very troubled. She sees only two possible interpretations. If her values are right, she has failed as a parent in not having successfully transmitted those values to her daughter. On the other hand, if her daughter's values are right, the whole foundation of the way Mary has lived her life is wrong, and Mary neither deserves nor is likely to receive her daughter's respect.

Helen, however, is shrugging the matter off. She reasons that values are totally arbitrary and irrational anyway. All people have their own values and live their lives by them, and who's to say which ones are right and which ones are wrong. The important thing is to respect others, even if they have different values. Helen respects her daughter in spite of their differences.

Judy begins to think about the matter by looking at the evolution of values in historical perspective. She reasons that human values change over the course of history as old values interact with changing environmental circumstances. People need values in order to decide how to act, but in acting according to their values they change the world, and the changed world in turn leads to the development of new values. Judy understands her daughter's values as resulting from the interaction of the values Judy tried to share with her and the experiences of the world that her daughter has had but Judy herself never had. Judy says to herself,

> Instead of assuming either that I am wrong or that my daughter is wrong, I can try to see what I can learn for my future life from her values borne of her experience. I can also see how she has learned from my values and transformed them to keep up with the times.

Mark, Howard, and George are college juniors. They are feeling very frustrated about three years of the routine of tests, paper assignments, and grades. They worry that going through this process has taken its toll, undermining their love of learning.

Mark is confused. Based on his own experience, it seems to him that students would learn much more if they were given more freedom to pursue their own intellectual interests, rather than being required to take standardized tests and complete standardized assignments. On the other hand, he assumes that the college is run by experienced educators, who must have determined that the use of tests and assigned papers to measure and grades to motivate is the soundest educational method.

Howard is angry. He locates the cause of his own demoralization and that of his fellow students in teachers' illegitimate presumption that they can pass judgment on students' ideas. He believes that much of grading is subjective and that teachers use their power to impose their own personal tastes on what students think and how students write. Although Howard doesn't accept it as educationally legitimate for teachers to dictate what students should learn and then to evaluate them by subjective standards, he does accept that that's the way the system works. He has decided that he wants to make it through the system, and has cynically dedicated himself to cultivating the art of giving teachers what they want.

George begins to analyze the problem by locating the college within the larger society of which it is a part. The college is expected to perform a certification function for that society, providing transcripts that other social institutions can use in their selection processes. But the college is also expected to provide students with a good education. The problem that he and Howard and Mark are experiencing reflects a contradiction between the certificational and educational functions of the college. The need to provide certification (grades) to the outside leads the college and its faculty to employ practices that may not be educationally optimal (i.e., standardized assignments). Similarly, the concerns with providing a good education leads to practices that may not be certificationally optimal (i.e., grading students on subject matter where completely objective evaluation is impossible). George reasons that this contradiction will only really be resolved when the basic relationship of the colleges and universities to society is transformed. He decides that he will devote his time at college to trying to learn all he can that might help him contribute to that kind of transformation of educational institutions. He accepts that in the meantime he will be given standardized assignments and grades and will have to make compromises just as his teachers do between what is educationally and certification ally optimal. But he is resolved not to lose sight of his own educational goals.

In my view, the example of “dialectical thinking” in each of the above cases reflects a power, significance and adequacy that is not present in the non-dialectical alternatives. I will consider the nature and bases of this adequacy in later sections of this article. However, first, I will discuss the sources of my conception of dialectical thinking.

My understanding of dialectical thinking as a psychological phenomenon is derived from a conception of a dialectical philosophical perspective. I will now describe this philosophical perspective in a way that indicates its underlying unity. In doing so, I will take the liberty of casting a net that in some ways may be broader and in other ways narrower than those nets intellectual historians might cast. My net may be broader in that I am grouping ideas and ways of thinking under the heading "the dialectical philosophical perspective" based merely on their philosophical and psychological similarities rather than establishing a "tradition" by demonstrating actual historical connections among ideas and thinkers. My net may be narrower in that I do not try to hold within it the various pre-Hegelian forms of thought that were called dialectical, whereas intellectual historians might advance accounts of the continuity between pre-Hegelian and post-Hegelian uses of the term.

The Dialectical Philosophical Perspective

I view the dialectical perspective as comprising a family of world outlooks, or views of the nature of existence (ontology) and knowledge (epistemology). These world outlooks, while differing from each other in many respects, share a family resemblance based on three features: common emphases on change, on wholeness, and on internal relations.

Dialectical ontologies emphasize (1) that what is most fundamental in reality are some ongoing processes of change; (2) that in the course of these ongoing processes of change within existence as a whole, forms of organization emerge that have a coherence that cannot simply be accounted for by the nature of the parts that are organized within these forms (the forms are temporary and may disintegrate or give way to more complex forms of organization); (3) that everything that exists is in relationship to other things and that these relationships are internal to the nature of the things themselves-they are part of what makes the things what they are (and as a thing's internal relations change, its nature changes) .

Similarly, dialectical epistemologies emphasize (1) that both individual and collective knowledge are essentially active processes of organizing and reorganizing understandings of phenomena; (2) that in these knowing processes there emerge individual and collective conceptual systems that give the knowledge a coherence that cannot simply be accounted for by the specific concepts, ideas, and facts organized within them; (3) that concepts, ideas, and fact exist in relationships not only to other concepts, ideas, and facts but also to the lives of the knowers who employ them. These relationships determine the meaning of the concepts, ideas, and facts, and as these relationships change, the meanings of concepts, ideas, and facts also change.

What ties together the emphases on change, wholeness, and internal relations in dialectical world outlooks is the concept of dialectic. This concept underlies both dialectical world outlooks and the particular approaches to analysis that constitute dialectical thinking.

The Idea of Dialectic

Dialectic is *developmental transformation (i. e., developmental movement through forms) that occurs via constitutive and interactive relationships.* The phrase "movement through forms" is meant to distinguish such movement from movement within forms. To illustrate this distinction, consider what happens when a road is built from one city to another. The road has a certain form to it, and the form of that road regulates the movement of the vehicles traveling between those cities. Thus, we may take this movement of the vehicles as movement within forms. On the other hand, the movement or change associated with the decay of the road, the emergence of trouble spots in terms of accidents or traffic jams, and the process of building a new and better road with a different form to replace or supplement the old road can be seen as a movement through forms. Through the notion of movement through forms, or “transformation” the definition of dialectic relies upon and presupposes both the notion of movement and the notion of form and focuses on a particular relationship between them. Describing this movement through forms or transformation as developmental implies that there is a certain direction to it. This direction is usually associated with increasing inclusiveness, differentiation, and integration.

The definition relates this developmental transformational movement to constitutive and interactive relationships. A relationship may be understood as a connection. Although a relationship is often thought of as a connection between things, where the things are taken to exist prior to the relationship, the phrase "constitutive relationship" is meant to indicate the opposite-the relationship has a role in making the parties to the relationship what they are (cf., “internal relations,” above). The adjective "interactive" implies that a relationship is not static but is characterized by motion or action of the parties upon each other.

Our example of the road will also serve to illustrate the concepts of constitutive and interactive relationships. Constitutive and interactive relationships can be identified among the builders of the road, the road itself, and the users of the road and their vehicles. The road is constituted not only by its interaction with road-builders (who build it) but also by its relationship with the vehicles that travel on it. For if no vehicles were permitted to travel on it, it would no longer be a road. It would perhaps be a road that had been converted to a mall. Or if only airplanes traveled on it, it would be a runway rather than a road. Thus, its being a road depends on its particular relationship to vehicles. Likewise, it is clearly relationships with roads that make road-builders road-builders. It is also, though perhaps less obviously, relationships with roads that make vehicles vehicles. Vehicles are vehicles because they have the capacity to transport one someplace, and the extent to which they have this capacity is dependent on the extent to which suitable thoroughfares exist.

The relationship between the vehicles and the road is interactive, as well as constitutive, in that the vehicles change the road and the road changes the vehicles. This should be clear from the previous discussion of road decay or wear (vehicles changing the road) and of developing trouble spots on the road that cause accidents to the vehicles (the road thus changing vehicles).

Once again, as was mentioned earlier, this interaction between road and vehicles leads to the transformation of the whole situation described earlier in terms of the building of a *new* road. This is the sense in which the transformation occurs via constitutive and interactive relationships. Thus the movement whereby a new road is built as a result of the interactive and constitutive relationships among the previous road, the road-users and their vehicles, and the road-builders, may be seen as an instance of dialectic.

Dialectical Thinking and Dialectical Analyses

Dialectical ontologies view existence as fundamentally a process of dialectic. Dialectical epistemologies view knowledge as a process of dialectic. Because dialectical thinking derives from a general world outlook, individual dialectical thinkers are likely to view both existence and knowledge dialectically. But it is possible to hold a dialectical view of one realm and not the other or to view neither realm as a whole in a fundamentally dialectical way but to think dialectically about particular phenomena. Most generally, we can say that dialectical thinking is any thinking that looks for and recognizes instances of dialectic and that reflects this orientation in the way in which it engages inquiry. Orienting toward dialectic leads the thinker to describe changes as dialectical movement (i.e., as movement that is developmental movement through forms occurring via constitutive and interactive relationships) and to describe relationships as dialectical relationships (i.e., as relationships that are constitutive, interactive, and that lead to or involve developmental transformation).

Formal operational thinking as described by Piaget can be understood as efforts at comprehension that rely on the application of a model of a closed system of lawful relationships to the phenomenal world. In contrast, dialectical thinking can be understood as consisting of efforts at comprehension relying on the application of a model of dialectic to the phenomenal world. These latter efforts may be termed dialectical analyses, in contrast to formal analyses. I am suggesting that dialectical thinking is an organized approach to analyzing and making sense of the world one experiences that differs fundamentally from formal analysis. Whereas the latter involves the effort to find fundamental fixed realities – basic elements and immutable laws – the former attempts to describe fundamental processes of change and the dynamic relationships through which this change occurs.

Dialectical analyses can be found in the history of a wide range of intellectual disciplines, representing the natural sciences (Provine; Feyerabend; Horz et at), social sciences (Jay; Kilminster; Mandel) and humanities (Jameson; Adorno and Horkheimer). They have been used to support political stances ranging from the very conservative (Hegel) to the revolutionary (Marx and Engels). To illustrate the role of such analyses in intellectual history, I will consider briefly aspects of the dialectical analyses found in the work of Karl Marx and Thomas Kuhn. Then I will discuss dialectical analyses in day-to-day life.

Marx (1967) started with the observation that people collectively interact with nature so as to produce what they need to perpetuate themselves. He referred to this process as labor. In any particular society, this productive and reproductive activity takes a particular form (mode of production) and is characterized by a particular structure of social relations (relations of production) among the participants. Marx analyzed the history of production as a dialectical process in which many aspects of economic, social, technical, and intellectual life are all interrelated within a form of organization inherent in the existing mode and social relations of production. Tensions develop within these interrelationships as the form of productive life continues over time until eventually these tensions lead to the creation of a whole new mode of production that replaces the previous one. Marx described the replacement of feudal society with capitalist society as an instance of this kind of dialectical transformation and predicted the replacement of capitalism with communism

Kuhn's book, *The Structure of Scientific Revolution*, provided a dialectical analysis of the history of science. He argued that within a scientific discipline, research is shaped by what he called a *paradigm.* A paradigm binds together implicit assumptions about the phenomena being studied with assumptions about the methodology appropriate for studying those phenomena and with methods of defining problems and recognizing solutions. However, a paradigm at its root is a particular piece of research yielding a particular insight, which serves as a model for other researchers. According to Kuhn, research following a paradigm tends to produce anomalies—findings that are not easily reconciled with other knowledge in the field. When enough such anomalies are produced to make scientists within the field uncomfortable, new alternative paradigms are advanced that compete with the dominant paradigm for followers. A scientific revolution has occurred when a new more comprehensive paradigm, with a new set of assumptions, a new methodology, and a new way of defining what constitutes a research problem and what constitutes a solution attracts enough followers to become dominant and to define the nature of the field.

In the cases of Marx and Kuhn, dialectical analyses were presented as alternatives to formal analyses in classical economic theory and philosophy of science, respectively. These formal analyses assumed that a single set of fundamental laws of economic behavior in one case and fundamental rules of evidence for scientific hypotheses in the other case were universally applicable. Neither the constitution of the economic laws by the existing social relations of production nor the possibility of transformation to new modes of production in which economic behavior was different was recognized by classical economic theory (Smith). Similarly, neither the constitution of rules of evidence by paradigms currently popular within scientific communities nor the possibility of reorientation of sciences to paradigms with new rules of evidence was recognized by confirmationist (Reichenbach) or falsificationist (Popper) philosophies of science.

We can find many examples of problems of adult life that, like scientific problems, may be approached in relatively formalistic or relatively dialectical ways, with differing outcomes. Consider, for example, the choice of a marriage partner. If I were to adopt a formalistic approach to analysis I might start with the assumptions that I am who I am and that there are one or more people out there who are "right" for me. I might proceed to analyze my personality traits and to try to logically deduce the traits a partner should have to be compatible. Courtship would then consist of evaluating potential partners to see if they have the desired traits and testing my hypotheses about the traits required for compatibility. Notice that the formalistic approach begins with the assumption that people have fixed traits and that the goodness of a relationship is systematically determined by a matching of traits.

A dialectical approach might begin with the assumption that my traits are not fixed and that the relationships I enter will shape who I become as much as they are shaped by who I am and who my partner is. Here, courtship would involve entering relationships with potential partners, being open to being changed by relationships. We would then need to evaluate whether the relationship is evolving in ways that allow both of us to develop as individuals while it continues to develop as a relationship.

The alternatives of formal analysis and dialectical analysis may also be applied when a relationship breaks up. If I adopt a formal approach, I might try to explain to myself why the relationship ended by choosing among the following three interpretations.

a. I was inadequate as a partner.
b. My partner was inadequate as a partner.
c. We weren't really right for each other, and we made a big mistake in choosing each other.

If I adopt explanation (a), the result is likely to be an increase in pain resulting from lowered self-esteem. If I adopt explanation (b), the result is likely to be a great deal of anger at my partner, which, among other things, will make it much harder for us to get back together in any sense. If I adopt explanation (c), the result is likely to be my devaluing a great deal of what was beautiful and valuable in our relationship for as long as it lasted, as well as possible hesitancy to make future commitments. I may say, "If I thought this person was right for me and I was wrong, it means I can't trust my own judgment."

In contrast, if I take a dialectical approach to analyzing the break-up, I am likely to look for how experience both within and outside of the relationship has led us to grow in different directions, so much so that we would be hampered by remaining so tied to each other. The assumption is that a relationship can reach a point where it tends to interfere with the development of one or both of the partners rather than helping them to grow further and growing with them. This kind of analysis is likely to make it easier, rather than harder, to deal emotionally with the breakup. It also is likely to facilitate our working together to strengthen or rebuild the relationship. If we don't blame each other and don't treat the relationship as a mistake, but instead treat the occurrence as a natural function of human development, we are more likely to ask, "How does the relationship need to change in response to the changes it has brought about in us in order for it to continue?" If we do this, a developmental transformation of the relationship rather than its continued disintegration is more likely to occur.

Another example of the difference between formalistic and dialectical approaches may be found in the analysis of value differences between parents and their children with which I introduced this paper. There a formal analysis (Mary's) led to a choice between viewing oneself as having failed as a parent or as unworthy of one's daughter's respect. The dialectical analysis (Judy's) viewed the problem in the context of a dynamic approach to the evolution of values. Similarly, in the example of frustrated college students, the formal analysis (Mark's) assumed that problems in the college's procedures derived from an educational theory. This analysis led to the two choices of either rejecting the wisdom of one's teachers or discounting one's own perceptions as incorrect. The dialectical analysis (George's) interpreted the problems as reflecting tensions in the interrelationship of various aspects of the institution's functions and led to a recognition of problems facing teachers and students alike, as well as of potentials for the institution to be transformed.[2]

In each case, a dialectical analysis does not preclude a formal analysis. We may believe that relationships change and that people change and still ask questions about what makes partners compatible and how individuals can learn to be better partners. We may believe that values change over time and still ask ourselves if our daughter's view or our own view is more adequate on any particular value disagreement. We may trace problematic procedures at a college to fundamental contradictions among its functions and still inquire as to the educational impact of those procedures.

However, the capacity for dialectical analysis makes it possible both to see the limits and to see beyond the limits of the context in which we apply formal analysis. For example, in the matter of finding a marriage partner, I may hypothesize that I am a serious person and would have trouble getting along with someone who was not equally serious. But a dialectical perspective would prepare me for the possibility that in getting to know a very playful new friend I may reverse my thinking about compatibility and find I get along better with someone who can help me to laugh and play. I may even transform my prior assumptions about myself and find, that I am a fun-loving person. I might then either (1) look back at my prior seriousness as simply an emotional defense and understand the interpretation of myself as serious as itself a useful product of the historical moment, or I might say (2) "No, I really was a serious person then and now I am a fun-loving one." While (1) reflects a dialectical *epistemological* perspective on the evolution of self-knowledge over time through interaction, (2) reflects a dialectical *ontological* perspective on the evolution of personality through interaction.

In *each* of the cases discussed above, I think the dialectical analysis has a power that is absent in the formal analysis. At the same time, the dialectical analysis can make use of the power provided by the formal analysis. Marxian economic theory may make use of the classical economic theory's clarification of the laws of human economic behavior under capitalism but also analyze the potential and actual transformations of those laws. Kuhnian analysis can make use of philosophical clarification of the rules of evidence employed within the paradigm that dominates a discipline, while simultaneously analyzing historically how that paradigm achieved hegemony and where it is likely to confront its limits.

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[2] While the focus in this section is the contrast between formal and dialectical analyses, Helen and Howard’s thinking in these examples represent a “relativistic” alternative to both. Relativistic approaches often avoid the constraints that formal analyses impose, but they do so at the expense of eschewing the possibilities for integration that are present in dialectical analyses. While the discussion of the relativist alternative is beyond the scope of this analysis, see Basseches, 1984 for a fuller analysis of its structure, strengths and weaknesses.

As stated above, dialectical analyses of courtship, break-ups, intergenerational value disagreements, and frustrations of college do not preclude formal analyses. But with respect to social reasoning it is important to note that in each case dialectical analyses provide alternatives to views of the problem that are destructive to self or others. In one of the examples, the mother's formalistic analysis leaves her with two emotionally self-destructive alternatives. The dialectical analysis provides an alternative that affirms the self within the context of historical change. In other cases, the constraints of formal analysis are oppressive to other people. The "formalistic" approach to courtship, which attempts to evaluate the traits of potential partners, may be experienced by a potential partner as a barrier to emotional closeness as well as to the partner's influence. The "dialectical" approach, which anticipates the possibility of development resulting from interaction with partners, is, in contrast, likely to be experienced as a warm invitation to interact.

In general, formal analyses that establish categories of analysis from the thinker's own perspective tend to remain relatively impermeable to the differing perspectives of others.[3] Dialectical thinking, in contrast, is actively oriented toward shifting categories of analysis and creating more inclusive categories, in response to the perspectives of others.

Costs of Dialectical Approaches

I do not want to present dialectical thinking as either an intellectual or psychological panacea. Dialectical analyses are not without costs. The willingness to question the permanence and intransigence of the boundary conditions of a problem and to ask about situations that lie beyond those boundaries characterizes each of the dialectical analyses cited above. In one case, the boundaries were the capitalist form of production; in another, existing paradigms; in a third, existing conceptions of one's own personality; in a fourth, the social conditions in which one's moral principles were formed; and in a fifth, the assumption that educational practice follows from educational theory. In questioning these boundaries, we may be questioning precisely those points of reference that provide us with a sense of intellectual stability and coherence about our world.

To think dialectically, is, in a certain sense, to trade off a degree of intellectual security for a freedom from intellectually imposing limitations on oneself or other people. The open-mindedness thus gained is extremely important from the perspective of a concern with sociocognitive development because it facilitates the joining in collective meaning-making efforts with others whose reasoning is shaped by very different world-views or life-contexts. However, if our concern were only with individual psychological well-being, and not with sociocognitive development, we might not be so quick to advocate this tradeoff. It might well depend on the likelihood of the individual being able to organize life in such a way as to avoid encountering events that shatter particular sources of intellectual security.

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[3] This problem is analogous to an oft-discussed problem of social research. When researchers deal with data by sorting subjects' responses into categories predetermined by the researchers, this excludes the possibility of the subjects contributing from their own perspectives to the definition of the problem and the shape of the results.

We face sources of limitations other than intellectual ones, and other sources of pain as well. In the example of the relationship breaking up, loss of the reassuring presence of someone one loves and whom one may have expected to spend one's life with is painful, usually excruciating, no matter how one thinks about it. Dialectical thinking cannot free one from that pain. However, the kind of formalistic analysis of the break-up that I presented before intellectually reinforces the pain. It adds to the pain of loss the self-punitive pain of failure or inadequate judgment or the divisive pain of blame and hatred. The dialectical analysis is more likely to allow one to experience the pain as loss and to mourn the loss. At the same time the pain of loss may be counterbalanced by an emotionally positive intellectual awareness of (1) order in the developmental process, (2) new discovery, and (3) the opening of new possibilities.

In the case of the Marxian analysis presented above, if one is embedded in the midst of a capitalist economy, whether as a government economic advisor or as an individual laborer and consumer, it may seem far more worthwhile to spend one's time analyzing the laws of that economy formalistically than analyzing how it got to be that way, how it maintains itself, and where it could be going, dialectically. Granted, not being able to imagine what living under different laws of economic behavior would be like is a limitation; but needing to live among other people, all operating according to the current laws, poses a more serious limitation. Again, if we were arguing solely about individual welfare, the tradeoff between analyses that help one make predictions given boundary conditions that are unlikely to change in the near future and analyses that might help one to change or prepare for change in those conditions would be tough to evaluate. But from the point of view of humanity, as a socioepistemic subject, involved in an ongoing pursuit of truth, the added power made possible by the capacity for dialectical analyses seems important to recognize. While recognizing the importance of seriously addressing the question, “Who has time for what kind of dialectical analyses, and when,” I do want to claim that dialectical thinking is an important phenomenon of adult sociocognitive development.

To review, the following general characteristics of dialectical thinking have been cited above.

1. Dialectical thinking is thinking that looks for and recognizes instances of dialectic-developmental transformation occurring via constitutive and interactive relationships.
2. Dialectical thinking is philosophically rooted in a family of world outlooks in which knowledge and existence are viewed as essentially dialectical processes and in which change, wholeness, and internal relations are emphasized.
3. Dialectical analyses draw attention to the limits of the contexts in which formal analyses are applicable.
4. As a result, dialectical analyses have a power to deal with relationships and transformations beyond the boundary conditions of a formal analysis, while still making use of the power of the formal analysis within those boundaries.
5. Dialectical approaches are more permeable than formalistic approaches to the perspectives of other people who may define a problem in fundamentally different ways.

Dialectic as an Organizing Principle

The organizing principle for formal operational thought is the structured whole, or system. In contrast, the organizing principle for dialectical thinking is the dialectic. If we equate the notion of form in the definition of dialectic with that of structured whole or system we see how the concept of dialectic builds upon, but is more complex than, the concept of system. Dialectic refers to the developmental transformation of systems over time, via constitutive and interactive relationships.

Thus, whereas formal thinking is systematic, dialectical thinking is metasystematic. In formal operational thought, an underlying (closed) system organizes a *logic of propositions* into a coherent whole. It enables the thinker to deal systematically with various propositions and their necessary interrelationships. It also makes possible the analysis of phenomena that can be effectively modeled as comprising closed systems. But the closed-system model is not adequate for problems requiring analysis of (1) multiple systems and their relationships to each other, or (2) open systems that undergo radical transformation.

In contrast, in dialectical thinking, an underlying model of dialectic organizes a *logic of systems* into a coherent whole. It enables the thinker to deal with various systems and their relationships to each other over time dialectically. The model of dialectic does provide a basis for analysis of (1) multiple systems and their relationships to each other, as well as (2) open systems that undergo radical transformation.

In dialectical thinking, what it is that remains recognizable across a range of changes is the historical process as an evolving whole. Any change at all, no matter how radical, can be equilibrated if it can be conceptualized as a moment in a dialectical process of evolution. New events are integrated within a dialectical conception of a process as later steps in the evolution of that process; old constructions are conserved- they remain part of the process of dialectic- although their historical role is reconstructed in the light of subsequent transformations.

For example, consider this dialectical analysis of sex roles. Systematic regularities have existed throughout history in male and female sex roles. In each era, the description of regularities in male and female sex roles has led to abstractions about how women's nature and temperament is on the whole different from men's. As a result of a range of changes in society (e.g., overpopulation), phenomena began to occur more regularly that were discrepant with traditional sex roles. The abstract models, as well as social norms and laws that are based upon and support those models, were then viewed as no longer adequate. Contradictions or tensions emerged in the system of sex role-regulated behavior including demands for political, social, and economic equality of the sexes. These contradictions will only be resolved as new more developed conceptions of maleness and femaleness emerge that are consistent with a greater range of male and female activities and with equality between the sexes (see Gilligan 1978, 1982).

The basis of the equilibrium in this way of thinking are (1) the assumption that/change is what is most fundamental; and (2) the ability to conceptualize changes as (a) emergences of contradictions within existing systems and (b) formations of new, more inclusive systems. The nature of maleness and femaleness is not viewed as fundamental; it is seen as likely to change through history. At any point in time it may be useful to conceptualize the regularities in male and female roles, but these conceptualizations are meaningful as part of a historical process in which they will be challenged and transcended.

A closed-system model of sex-role behavior, which claims that such behavior derives from fundamental immutable laws of male and female temperament, must necessarily ignore or attempt to suppress what begin as anomalies and later become new patterns of behavior by males and females, if the equilibrium of the system is to be maintained[4] (i.e., if maleness is to continue to be recognized as maleness and femaleness is to continue to be recognized as femaleness). In contrast, a dialectical model can incorporate such anomalies and new patterns while maintaining equilibrium by recognizing them as developments in the continuing dialectic of the relations of the sexes.

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[4] Note the arguments of the “Moral Majority” here.

I have argued elsewhere (1980, 1984) that dialectical thinking describes a post-formal level of cognitive organization. This argument is based in part on the fact that dialectic as an organizing principle builds upon (and treats at a level of greater complexity by integrating with the dimension of change over time) the concept of system, which is the organizing principle of formal operations. The argument is also based in part on the greater equilibrating power (ability to maintain recognizable continuity in the midst of a broader range of change) of dialectical cognitive organization vis-a-vis formal operational organization. But it should be clear from the above example that my view that dialectical thinking is a necessary advance in equilibrium is also based on the general ontological assumption that people will be confronted with anomalous events that do not conform to prior closed-system laws.

In the natural sciences, this general ontological assumption amounts to the assumption that scientists will have to deal with scientific revolutions (Kuhn). In the life sciences and social sciences, it amounts to the assumption that the phenomena dealt with are highly susceptible to rapid and radical change, which scientists will need to comprehend. In day-today life, it amounts to the assumption that for making practical decisions, closed systems (including moral systems) that are constructed on the basis of limited data and from limited perspectives will be inadequate. Social life is complex and requires multiple perspective-taking. People will be confronted with new data and new perspectives, and it is important that their cognitive structures leave them open to taking these new data and perspectives into account, accommodating to them, and dealing with them constructively. Confrontations, in science and in life, with phenomena that demand recognition of multiple interacting systems and radical transformation of systems, will point out the limits of formal thinking and stimulate the construction of more dialectical forms of reasoning.

Facilitating the Development of Dialectical Thinking

The above assumptions imply the importance of dialectical thinking to the achievement of cognitive equilibrium. This does not, however, imply that all adults in fact achieve this level of equilibrium. Research indicates that just as all adults do not fully develop formal operations, so they all may not develop dialectical thinking. Whether individuals do develop dialectical thinking depends on both environmental factors and developmental characteristics of the person.

First of all, fully developed dialectical thinking presupposes something like what Piaget calls formal operations. The ability to organize the world into an abstract consistent systematic pattern is a prerequisite to proving an account of how such patterns evolve and change. It is certainly possible to recognize the ontological and epistemological centrality of change, as well as the power of relationships, without organizing the world into systems. In fact, these recognitions may constitute preformal precursors and dialectical thinking. However, to do more than assert the importance of change and relationship—to actually describe the course of dialectical change over time—requires the ability to describe the temporary patterns of organization systems that constitute moments in dialectical processes.

When adults systematize the world (1) using sets of fixed categories, and (2) holding to static ontological and epistemological assumptions often associated with formal thought, their maintenance of cognitive equilibrium depends on their power to seal themselves off from anomalous data and discrepant viewpoints. For example, with respect to the analysis of sex roles above, individuals may attempt (1) to force others to conform to their notions of sex-appropriate behavior, or (2) to isolate themselves from individuals whose behavior does not conform, in order to maintain their systematic understandings of the nature of masculinity and femininity. These strategies are surely not optimal from the point of view of a concern with expanding human sociality, but they may succeed in the short term if the individuals employing them are powerful enough. However, if adults cannot seal themselves off from discrepant events, they are likely to experience frustrations and conflicts resulting from the limits of fixed categories of thought for addressing a changing reality.

When this happens one of two things is likely to occur. Either the adults will reject formal operational thinking and resort to less logical forms of thought, or the adults will begin to reorganize their formal operations within the context of the more adequate organization of dialectical thinking. A combination of personal support, exposure to diverse perspectives, and opportunities for careful, critical reflection will facilitate the latter outcome of Inglis and Steele’s (in this issue) description of "complexity intelligence." The description of dialectical thinking as an approach to modeling events is clearly more specific in some respects, while the authors' definition of complexity intelligence is more specific in other respects.

I would like to consider briefly the categories of practice mentioned in that article. The authors mention personal therapy and coaching as examples of professions intended to support development at the individual level, while they also suggest that "cultural coaching" be institutionalized as the practice of creating containers for dialogue, exploration of diversity and differences, and opportunities for transforming exchanges. On the one hand, as someone who has practiced psychotherapy for over 20 years, and spent much of the time engaged in the training and supervision of clinical psychologists in psychotherapy, I would have to say that the authors' view of this profession is somewhat over-idealized. While some in the profession may aspire to stimulate complexity intelligence, it is probably a minority of the profession who define their role in anything like this way, and an even smaller minority that practices in the ways the authors describe. (I have written extensively on this topic-- See Basseches, 1997a, 1997b, and 2002). At the same time there are also several professions that come to mind, in which at least a substantial minority of practitioners might view themselves as engaged in something quite like the practice of "cultural coaching" as defined by Inglis and Steele. Higher education is one example of such a profession, but there are probably quite a few others such as politics and journalism.

In the remainder of this article, I will consider this range of contexts -- with a focus on higher education and psychotherapy as institutionalized examples at the individual and cultural levels. I will address the question, “What conditions must prevail and be widely available to adults if they are to serve as effective contexts for the development of dialectical thinking?” Several hypotheses suggest themselves.

First, these institutions must not be content to maintain a discourse simply at the level of "established facts." For example, institutions of higher education must present students with multiple frames of reference-multiple justifiable coherent ways of interpreting facts based on diverging assumptions-that can be contrasted to each other. This experience is likely to lead students to recognize the active, relativistic nature of the process of interpretation, a crucial recognition in the movement from formal to dialectical forms of cognitive organization.

Similarly, students should not be presented with single "correct" methods of discovery.

Rather, alternative paradigms for research should be contrasted, and all methods should be open to question based on their appropriateness to various human goals. The recognition of the relativity of the very process of research (i. e., the construction of facts) to alternate modes of interpretation forms a crucial foundation for development of dialectical thinking.

At the same time, educational institutions should not be content to leave students in the transitional swamps of relativism. Students should recognize that there are multiple ways of looking at things. However, it is also important to recognize that these multiple ways of looking at things, along with the people who look at things in these ways, interact with each other over history. Advances in human knowledge occur when people succeed in synthesizing valuable aspects of different perspectives so that they function together as a whole, just as advances in history occur as the people who look at things in different ways learn to live together harmoniously.

Multiple conflicting frames of reference and multiple points of view must be presented to students as facts of life and as crucial moments in dialectical processes. But while these facts of life are presented as facts to be recognized, they must not be presented simply as facts to be accepted. Rather, each instance of conflicting points of view must be presented to students as an epistemological challenge-a challenge not only to the student but to the faculty as well. It should not be expected that the student will meet the challenge by resolving such conflicts in the course of the semester, or perhaps even in his or her lifetime, but it should be recognized that to be a seeker of truth means to try. For it is through the efforts of those who have taken on the challenges of trying that knowledge has advanced.

Finally, educational institutions must provide personal support for development, or, as Perry (1978, 267) has put it, educators must share "in the costs of growth." They must recognize the pain of letting go of a world where every question has a right answer and either authorities or logic can be counted on to provide the correct answers, to slowly build a world where the only answers one will have are those one has struggled for—a world where in many cases one will struggle and not find any at all and where in the rest of the cases the answers one finds new questions. Educators must at least acknowledge their own pain, which comes of being dedicated to truth.

For if teachers hold up a bravado of confidence and comfort, students have to cope not only with their own pain but also with the feeling there is something wrong with them for feeling this pain when their teachers appear to breeze through a relativistic world so nonchalantly, in command. Beyond acknowledging their own intellectual pain sharing it with students, educators can actually share in students' if not by holding hands, at least by holding minds. Educators will themselves with many more opportunities to revel in the joys of students' growth-to share the release of emancipation that occurs the students realize new degrees of freedom-if the educators are willing to share in growth's costs.

Now let us compare the institution of higher education, a context in which the shared social commitment to rationality is normally taken for granted but where the need for personal support is too often ignored, with psychotherapy, a context in which the reverse is often true. Psychotherapy is another context in which the development of dialectical thinking in adults may be fostered. In this context, one finds more prevalent recognition of the importance of providing personal support at times when the individual's sense of coherence in the self and world are under attack. However, a greater understanding of, and more explicit commitment to, dialectical rationality on the part of therapists would make psychotherapy a more effective context for development.

The modal source of threat to self/world coherence is somewhat different in psychotherapy and higher education, although there is also significant overlap. Whereas in higher education the challenges to one's way of making rational sense of things are likely to come from exposure to alternative ways of making rational sense, in psychotherapy aspects of one's experience of self and world which are internally in tension with one's ways of making sense are more often the source of the challenge. Comparable to the educator's task of balancing supporting students' realization of the existence of alternative ways of looking at things with the awareness of possibilities for growth from the interaction of perspectives is the therapist's task and supporting both openness to discrepant aspects of one's experience and the desire to build a coherent sense of self and the world that integrates these discrepant "irrational" experiences. While in the social setting of higher education the shared commitment to rationality is built upon to maintain the balancing act between doubt and integration, in psychotherapy a commitment to suspending the demands of rationality is needed to protect the dialectic from "rationalization" and to maintain clients' openness to their own experience. Nevertheless, a commitment to the client as a rational meaning-maker is equally important to support the client's integrative tendencies and capacities, within which dialectical thinking can develop as a crucial tool.

Within higher education, the relationship between theorizing and practice is perhaps analogous to the relationship the therapist must maintain between the client's rational capacities and the fuller reality of the client's experience-in-the-world. The positive effects of the educational process are likely to be limited insofar as it is divorced from practical concerns. If one only studies the systematizations of science and philosophy as abstract objects rather than attempting to systematize the dynamic contradictory realities of life beyond the laboratory and the classroom (students' own lives and those of others), encounters with the discrepant may be limited. On the other hand, if (as happens in much preprofessional education), practical problems are addressed but the definitions of the problems are taken uncritically, from a single point of view, discrepancies may also be avoided (especially if the point of view is that of powerful elements of society-elements strong enough to impose the order of a static system on the lives of others.)

Conclusion

Looking back at what I wrote 20 years ago, I continue to believe that we have no choice but to seek patterns, build patterns, and live within patterns. But I agree with Inglis and Steele, and the others whose work they cite, that the processes of disequilibrium emerging with the patterns are so pervasive that attempting to maintain and rebuild coherence at every organizational level is extremely difficult work for all of us.

Looking back, I also noticed that in my example of a dialectical approach to courtship, marriage, and breakup, I moved subtly from use of the pronoun "I" to use of the pronoun "we." In doing so, I also subtly neglected that possibility of a relationship that one partner approaches dialectically, while the other approaches it with a relatively fixed and resistant-to-change model of what marriage should be. Living, in the twenty years in between, through the pain of such a marriage and its breakup, has sensitized me to the more general pervasiveness in the world of a particular type of an encounter. These can be characterized as encounters between those adopting more dialectical or integrative perspectives, and those who cherish structures, however magnificent, in ways that lead them to defend those structures at the expense of being able to take in what is left out. I invite, indeed implore, the readers of and contributors to *Integral Review*, to attend to and to develop the theory, research and praxis of such encounters.

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Toward An Integral Process Theory Of Human Dynamics: Dancing The Universal Tango

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Abstract: This article is an outline toward developing a fuller process theory of human dynamics aimed at practical applications by a diverse audience. The theory represents a transdisciplinary synthesis of a universal pattern and integrates humans' projection dynamics with complex systems dynamics. Five premises, presented in lay language with examples, capture basic elements involved in the meta process of human development and change: reciprocity, projection, development's structural limits, oscillations, and structural coupling. Based on a fractal dialectical pattern that shows up wherever complex systems are involved, the theory's applications are scalable. It could be useful for personal development, public policy design, issue analysis, and systemic action on intransigent issues. It may be a complementary adjunct to developmental stage theories because it deals in an accessible way with the processes involved in stage transitions. Throughout the article, its practical relevance at some individual, social, and political scales is illustrated or mentioned. Readers interested in individual and social change may gain a sense of the human dynamics involved in it, and thus the potential usefulness of a process theory that describes what goes on in human change and development.

Key words: developmental process, dynamics, fractal, human development, integral, meta pattern, meta process, metasystems, oscillations, physics, processes, process theory, projection, psychology, public policy, public issues, reciprocity, reciprocal interaction, social change, structural coupling, systems, tango, universal

> *Everybody knows the world is made up of processes from which patterns emerge, but we seldom give pause to what this means.*
> *~ J. A. Scott Kelso (1995, 3)*

Introduction

This article outlines an integral process theory that attempts to capture and integrate the meta pattern of dynamic processes involved in individual and social change and development. It offers a window into the processes of human dynamics, akin to the "black box" installed in a modern aircraft that tells what operations the aircraft has performed to adjust to flying conditions, pilot instructions, and its own mechanical functions and malfunctions.

The idea to formulate this in terms of a theory is a result of realizing I could no longer write about some subjects of social significance without having it—and some, though not all, of its implications—already spelled out in an independent and transdisciplinary way. Its genesis was

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this last year's series of attempts to produce manuscripts I was excited about, only to abandon them because they did not succeed in developing the subjects in writing as robustly as my thinking off-paper did. Each subject needed a lot of foundation laying before I could launch into it. I found myself trying to squeeze in references to only parts of this pattern, which just obscured it and packed its "building blocks" like sardines in a can. My central subjects were left no room to develop into the depth of social analysis I was aiming for in the first place. Through discussion with colleagues, I came to realize the whole set of premises my thinking has been based on for quite a while constitutes a theory, and it needs independent description as such. Thus, this article's origin is self-serving and functional. I offer it because I believe it can serve others in functional ways, too.

The theory's origins are not easy to relate as briefly as this article's origins. Overall, it is the result of my last twenty years' processes of integrating an eclectic range of reading and study with my continuously evolving experiences in all domains of life and intense exploration and integration of them. Periods of individual and family counseling awakened and sharpened my attention to projection dynamics and how they change. Myriad syntheses became platforms for subsequent ones, resulting in the scaffolding represented here. This process theory of human dynamics describes my own process in arriving at it, too. Milestones in my understanding in recent years included:

- Several years of intense study of over a dozen developmental theories and internalizing the human story they tell with the stories that life tells;
- Internalizing *how* our structures of operating[1] involve our entire function *as* whole, undivided organisms;
- Recognizing the concepts of reciprocal interactions and structural coupling are formal terms for the personal micro and macro processes of development I observed in my own functioning as well as in my family, one-on-one ministry, and public action research. Together, they led to developing my theory of how to foster individual and socio-political development – that development progresses *while and by* engaging in complex interactions (which I later found Vygotsky (1978) saying too);
- Integrating all the foregoing with why Bateson (2000) says cybernetic systems are the units of evolution
- And finally, delightfully, having the last explanatory "chunk" that tied it together for me fall into place via Laszlo's (2003) physics, and Wolff & Haselhurst (2005) recently tied the bows in it.

According to Commons and Richards (2002, 2), developmental theories need to address three dimensions of behavior: "a) what behaviors develop and in what order, b) with what speed, and c) how and why development takes place." This article addresses the third dimension: the how and why of development. It is about a *process* theory of development that refers to and requires developmental theories' specific insights. This dimension is often missing in developmental theories because "developmental psychology as a whole has been concerned with what develops and in what sequence" (Commons & Richards, 2) and has been largely silent about the processes involved. Complementary to the work of those authors, this approach to a process theory of human dynamics helps to fill that void.

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[1] Instrumental for my understanding were Rosenberg (1988; also see 2002) and Michael Commons' work with his numerous colleagues (see references).

A Way To Peer Into "black boxes"

For many people, trying to understand human behavior can engender a desire to "peer into the black box" of individuals, groups, communities, organizations, governments, and societies. For those of us committed to fostering healthier individual and social relations and development, there is a fundamental need to understand the processes underlying them. Processes and the patterns they create have explanatory power for understanding how and why things happen as they do. Since the meta pattern's processes transpire at all scales, the theory may be useful to a broad range of interests, which include but are not limited to personal, socio-political, and theoretical, e.g.:

- For people who want to increase their self-awareness and its reflexion, it could facilitate new noticing of specific inner and outer dynamics and learning more about one's own motivations, assumptions, reactions, choices, and the learning process itself.
- For those who develop policy or organize approaches to address complex issues, it could be a complementary framework to recognize patterns that can hold intransigent issues in place as well as open them to healthier conditions.
- For those who study or use theories with universal stages of human development, this could complement them with an organic look at the dynamics involved in stage-transition processes.[2]
- For those who study complex systems and wonder how they correlate with developmental psychology or even describe humans, this may be an introduction.
- For those who think and write about human issues and design methods to address them, the theory may serve as a foundational set of assumptions from which to launch analyses, and enable them to focus more directly on their specific subject matter because some of the basic assumptions can be referenced rather than explained anew.

The meta pattern captured in this theory shows up in all systems' dynamics at all scales of time-duration, breadth, and depth. In terms of humanity and time, it ranges from an instant, to the duration of reading this article or being in a meeting, to the lifetimes of individuals, organizations, and societies. In terms of breadth, its dynamics occur in our individual selves just as they do in dynamics between and among individuals and social groupings, our cybernetic systems, and our socio-cultural systems. In terms of depth, it is inherent in the nested layers of systems and metasystems, from individuals all the way up through their societies and beyond.

One implication is that we all participate in the processes and contribute to the pattern because they are inherent in how we function, interact, and develop. Yet, it is often difficult to notice things we are embedded in doing. Noticing patterns involves stepping back from things a bit. My aim for this article is offering an opportunity to step back, and to make transparent (a) the dynamics that make up the pattern I call the universal tango, (b) the many scales on which we are dancing that tango, (c) the "how" of the dance, and (d) the significance of observing the underlying processes in the "black box" of change and development.

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[2] E.g., Kegan's subject-object, Graves' theory of human emergence, life conditions and value systems, Wilber's integral theory, quadrants, and holons

Outline of The Process Theory

Introducing the Meta Pattern It Describes

The outline I am presenting is based on the synthesis I described earlier, of years of eclectic study and observations, analyses, and reflections on processual patterns in myself, others, and the world we live in. I encountered evidence of the pattern everywhere in these domains whenever I "saw through the costumes" it dresses in across scales of time and space. Whether dressed up as anthropology, biology, chaos and complexity, education, human energy systems, history, neurology, philosophy, physics, political science, psychology, or theology, I found (as did Kelso 1995) that a range of fields describe the similar processes and patterns. I noticed, as did Van Eenwyk (1997, 13), that "analytical psychology and physical and mathematical science all employ virtually identical metaphors to understand particular phenomena." A dynamic meta pattern shows up, and in Kelso's terms, I gave pause to what it means. Condensed in one place here, it may give pause to others, too.

To convey this with practical applications in mind, I discuss it in tandem with a case to illustrate it at familiar personal and interpersonal scales (while I also take reasonable opportunities to indicate its broad application at all scales). I choose this focus for three reasons. First, we have in common our lived experience of the personal and interpersonal scales. Second, I have a conviction born of my own experience that when we (a) discover and become intimately acquainted with the dynamics going on in our selves, and (b) recognize how those dynamics play out in our interpersonal lives with others, that (c) we are far better equipped to recognize and understand dynamic processes of many kinds going on everywhere else and thereby transfer the learning. This is how we learn to "peer into the black box" of human dynamics. Finally, I hope by discussing it at these familiar levels that this article will be meaningful beyond any intellectual exercise.

To offer readers a sense of the theory's applicability to other scales of experience, I periodically refer to dynamics reported in a short, web-accessible booklet. The result of participatory research with youth on the issue of substance abuse, it includes an approach to addressing the issue at the community level that reflects some understanding of this meta process.[3]

While I want this outline of a theory to indicate the rigor that produced it, my purpose in this brief article is its general introduction, not its theoretical defense. Therefore, my writing style is non-technical and I confine theoretical supports to footnotes that represent the broad transdisciplinary supports and foundations. My aim is to make this outline accessible so it is useful for (a) noticing and unpacking dynamics' layers and relationships (b) ongoing reflection on what can be learned from them (in order to integrate the learning), and (c) eventually transferring the learning to perceptions of other events.

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[3] See *The problem behind the problem of youth substance abuse: What can we do?* (Ross, 2000) at http://www.global-arina.org/readpublish/reading_room/read_room_commpol_develpmt/Problem_behind_problem%20youth_drugs%20booklet.pdf.

Premises Of This Process Theory

The theory describes one overall meta pattern I call the universal tango. As Kelso suggests above, patterns emerge from the processes that comprise them. I describe this pattern through five straightforward premises about its processes' qualities. My introductory-level outline of those premises is accompanied by the phased introduction of a model that depicts each premise's *role* in this pattern of human dynamics. The premises are:

1. It takes (at least) two (of something) to tango.
2. Whatever we don't tango with directly (but could), we put "out there."
3. There are limits to what we can tango with, and they diminish as we develop.
4. There are common dynamic processes involved in dancing the tango
5. Something new emerges from each and every tango.

These premises are like different zoom-angle lenses on qualities of the whole pattern. They represent its dynamic processes. Although they have item numbers for convenient reference, they should not be viewed as a linear sequence of steps because they are not steps at all, but rather premises about a whole. They aim to "reveal the whole elephant" by touching on key aspects of it. This is an important point that is easy to forget when we read in a linear, sequential fashion.

Premise 1: It takes (at least) two (of something) to tango.

Nature, including our thinking and our personal experience, is full of what we call two-ness, dualities, or polarities.[4] The old dance saying that "it takes two to tango" is a useful reminder that we are never with "just ourselves" but rather we are always in interactive relation *with* our selves, others, and our larger environments. Interactive relations are characterized by continuous, dynamic feedback and feedforward processes or loops that connect the people and systems involved.

This first premise is that various forms of interaction of one with another are existential characteristics of being human. Such interactions are always going on at all scales of functioning we can identify. This is the universal dynamic of *reciprocity*.[5] It takes at least two of something to tango, and there are always tangos going on. For example, from the conditions that give rise to teenagers' stress[6], to their reactions to that stress and their ways of coping with it,[7] to rewards of various kinds for supporting a political candidate, to the "tit for tat" behaviors between nations and other groups, the recursive feedback and feedforward loops characterize humans and all open systems. These dynamics look different—they "wear different clothes"— depending on contexts, scales, and how we adjust our zoom lenses to notice them. However, once the clothes are removed, once we look inside the "black box," we see the same dynamic pattern operating below the surface.

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[4] Systems from cells to humans to societies to galaxies and beyond are a part of and in relation (two-ness) to other systems, and even movement has relations to itself. New physics' understandings of the nature of matter posits waves of motion in two directions, in-coming and out-going (Haselhurst & Wolff, 2005).

[5] Different terms are employed by various fields to refer to reciprocity dynamics, e.g., the human universal called reciprocity (Brown 1991), the reciprocity complex (Gouldner 1977), reciprocal perturbations (Maturana & Varela 1987), the reciprocal dynamics evidenced in brain research that apply to interpersonal, socio-political, and economic behaviors (Cory 2004), the reciprocal interaction of the universe's domains (Laszlo 2003), etc.

[6] *The problem behind the problem*, p. 4.

[7] Ibid. pp. 5-6

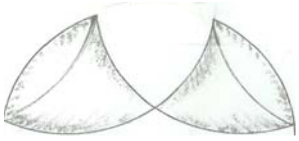

Figure 1

In Figure 1 an organic double funnel represents this premise, with dynamic and symbolic significance. Like one of the basic movements in the tango, it has resemblance to the figure 8 and also hints at strange attractors and the infinity symbol. In applications of this model, the funnel stands for the system we are focusing on at a particular moment in the course of trying to understand something. Its open "ends" indicate the (at least) two-ness of relationships with things beyond our immediate focus (which might be, e.g., our self, teenagers under stress, the juvenile court system, the community, etc.). Though hidden from our view, within any system's bounds there is a tremendous amount of dynamic activity going on.

Application of Premise 1

What happens when we act *as if* we do not realize it takes at least two of something to tango, yet there's always a tango going on? I can illustrate this with the case of my earliest self-aware recognition of this dynamic. About fifteen years ago, I was in the internship phase of a training program for the one-on-one ministerial work I do. I knew from the way she dispassionately characterized her way of "doing life," while introducing herself to the group of interns, that the supervisor who was assigned to me was not the one I wanted to work with. I asked the program director to assign me to a different supervisor, explaining I perceived in advance we would be a mis-match. Told that all staff were fully booked and reassignment was impossible, I discussed with the supervisor my willingness to give the supervision relationship a fair try even though she was not my preferred choice. She reciprocated by saying she would do her best with me and for me. At the end of the internship, we wrote our respective, customary supervisor and supervisee evaluations. Mine focused on what I learned about myself and my way of doing that ministry, the subjects explored or discussed in our supervisory sessions, and was silent about my experience of relating with her, as if it had not been important. Her evaluation of me was also silent about our way of relating, but included a distorted reference to things I had shared with her about the transparency I experienced while working with retreatants: she wrote that I reported those experiences as being "opaque." I brought the error to her attention, and she corrected it before flying back home. We did not together investigate its roots. What had been happening between us? Over the next weeks, I was on an inner crusade to unpack our tango.

It became my first *consciously aware* encounter with the amazing reciprocity involved in a coping mechanism. I discovered that I had been "taking care of *her*" throughout the internship. I did this by not saying that I felt neither "met" nor "heard" by her, and that it had become pointless to explore anything very meaningful in our sessions. The tango lesson was this: at the time, I thought I was simply "taking care of *me*" by withholding explorations I would find meaningful to share with her only if she could live into the supervisory function of meeting me where I was. It was only when I realized that I took care of me *by* taking care of her, that I saw the reciprocal dynamic. Instead of taking responsibility to express my dissatisfaction and thereby let her take responsibility to hear and respond to it, I took care of her, and the program too in a way, by my silence. I suspect she sensed this on some level, yet like me, she was not transparent in expressing her experience. Thus, a misapplied "opaque" emerged in her evaluation writing.

We were doing a tango, but *acting as if* we each were alone on the dance floor, like only one end of the funnel in Figure 1, *as if* severed from the real interaction between us.

How many of our tangos—as an individual, an organization, a nation—are characterized by acting as if we are alone on the dance floor? From the developmental perspective, we spend a great deal of our adult lives carrying forward a perception we developed when we were younger, an atomistic feeling of being alone in a big world we have to navigate alone. It is a natural part of the developmental process to operate on this subtle, often-unnamed assumption. This first premise can support reflection and analysis on our assumptions about our interactions and dynamics within our selves and with others at any scale. Applicable to every instance and situation, this can help us discover where we operate as if we assume we are doing life's many tangos alone. While there is truth in the saying that "our perceptions are our realities," it is also true that rarely do our perceptions take in all the realities that comprise our world. It is possible to learn how to take in more of them. As the case suggests, we understand our selves and our experiences to a greater degree when we can recognize, learn from, and consciously engage the reciprocity dynamics we're embedded in.

Premise 2: Whatever we don't tango with directly (but could), we put "out there."

Despite any subtle, deeply-seated—and transformable—existential assumptions that we navigate life within our own isolated orbit, we do not. We are not only dynamic open systems as represented by the organic funnel, but we also exist in a multitude of larger contexts with which we are always already in mutually co-creative and sustaining interactions. To represent this in the model, I add two multi-dimensional "wholes" or environments that organically give the funnel its shape. Premise 2 focuses on a particular kind of relation with our environments (and they are discussed more in later premises).

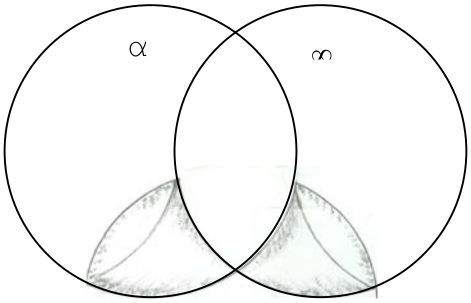

Figure 2

This second premise shines a bit of light on usually invisible dynamics we experience to point to their relation to premise 1 and their place in this overall pattern. They are usually invisible because we assign meaning to events that affect us in some way, and meaning is an invisible subjective thing. As humans, we participate in two large domains or systems: those with well-developed language and therefore thought, meaning-making, consciousness, etc., and those without.[8] Languaged thought helps us assign meaning to complex events and to communicate that meaning to ourselves and others. Given that we inhabit such large domains, it's a big world we live in, and none of us can take it in all at once, or sort out meanings all at once; sometimes we just do not want to. Ironically, there are also aspects of our selves, others, and our environment that we *have* taken in and *do* know about, but we are not yet *consciously* aware of *what* we know of them, i.e, it is not languaged thought. The case example illustrated how I kept from myself the knowledge that I took care of my needs *by* taking care of (what I perceived as) my supervisor's need to avoid facing (what I experienced as) her inability to meet and hear me where I was. I did not tango with what I knew somewhere inside, but *could* have; instead, I put it "out there" somewhere.

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[8] This premise reflects a coordination of psychology's insights into projection with biology's and other complex systems sciences; the physics' version of the "mechanisms" of projection can be found in Laszlo (2003). I believe one implication of having our feet in both domains is that we need to coordinate our assumptions about them when we are paying attention to things that may appear specific to one or the other domain. For example, in Miller's (1995) seminal work on living systems theory, he observes that despite their vast differences in size and complexity, there are [at least] eight levels of living systems: cell, organ, organism, group, organization, community, society, and supranational system. All of the systems have the same 19 critical subsystems with distinct functions to process information, matter, and energy in various combinations he identifies, and all exhibit a common set of systemic characteristics. On the other hand, Maturana & Varela (1987) point out that in addition to treating individual humans as the organismic systems they are, we must also consider our identities as "components of [our] linguistic

Projection is a concept used to describe such things we do not tango with *directly*. It's a complex dynamic, especially because our languaged thought underlies so much of our ability to assign meaning to events. Things have meaning when they affect us. Things that affect us are—in systems' terms—interacting with us (and our meaning-making). All interactions involve a tango, and humans have ways of choosing whether to dance directly or indirectly. By contrast, other mammals seem to respond immediately *and* directly to environmental impacts, e.g., the fight or flight instincts. The purpose of premise 2 is to introduce that projection dynamics are part of our system dynamics and the universal tango we do. It extends projection's significance beyond the psychology field that first explained it, to include its place in a universal set of processes.

Projections can have a co-dependent aspect. It is common to refer to co-dependent coping mechanisms, such as I displayed in the case, as *dysfunctional.* They are also highly functional, because this is how we filter out what we feel we cannot yet deal with if it does not feel safe to do so. Yet that very language, "filter out what we feel we cannot yet deal with" refers to only half of the reciprocity complex. Fifteen years ago, my limited awareness of *how* I was taking care of me with my internship supervisor was also just half of the dynamic. It is essential to learn how to look for the "loose ends" if we want to peer into our black boxes. Oftentimes, projections are some of those loose ends, and they show up at many scales, including that of nations.

Projection "wears different clothes" depending on the context and focus. The case example helps to illustrate the logic of the process, which might help us to notice it. The basic logic is: what we do not take in, we put "out there." It is analogous to this: we keep inside our houses those things we want to preserve intact, and we place whatever we don't want to preserve, e.g. trash or garbage, outside in a garbage can or compost pile. Sometimes this is called *bracketing reality*, putting limits on what we want to deal with, and it can show up in different ways. Some of the teenagers I did research with used drugs and alcohol to bracket the reality of unmanageable stress, an *overt* way of dancing with reality. But, if the reciprocity complex of recursive feedback loops cannot complete overtly, then it will complete *covertly*. This is because there are no "loose ends" in whole system dynamics. The covert dynamic called projection is analogous to a movie projector that puts the story out onto a screen so we can see it when it feels safe enough to do so.

Another analogy for projection's logic is sunlight shining on a tree that then casts a shadow on the ground. Our *knowing* is like the sunlight, *what* we know but do not take into our conscious

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domains" and recognize that "human social systems exist also as unities for their components in the realm of language" (198). In other words, human social systems derive from our capacity for linguistic behavior, and as individuals we have characteristics of both domains. Therefore, "any analysis of human social phenomena that does not include these considerations will be defective, for it negates the biologic roots of those phenomena" (199).

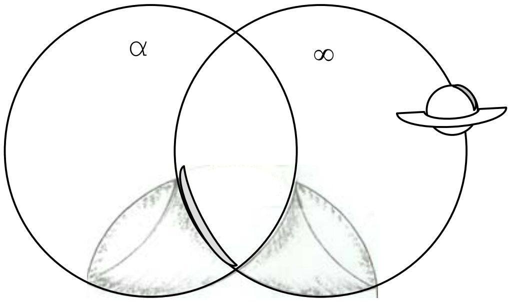

Figure 3

awareness and interact with has substance like the tree, and we find a place to "put it"—to project it "out there" somewhere—until we are ready or need to notice its shadow. Our human growing edges always include learning to recognize what we project about our selves somewhere else "out there." I believe there is a correlation between the amount of projection we do and the degree to which we also perceive ourselves navigating life alone. Thus, in the model, the planet Saturn represents any place "out there" we park things we do not tango with overtly, and its corresponding shadow is indicated behind the open ends of the funnel.

Implications of Premise 2

Images and models are one thing, and our real life system dynamics are another. What happens in projection and where do things really end up? There are different ways to consider this, and a common one is that, from a Jungian perspective, the shadow ends up in our unconscious, and the disowned *emotion* of whatever we do not dance with will flavor our perceptions of other people, events, systems, or beliefs. Thus, my supervisor probably projected her resistance to naming our mutually opaque relationship by putting the opacity "onto" (the way she heard) my experience with retreatants. In a corresponding way, I projected my assumption there was no resolution to my dissatisfaction by taking care of her: I had a lot at stake in that internship and did not want to risk the consequences of finding no satisfactory resolution. When we perceive we have something at stake, emotion accompanies the perceived risk. A way of noticing projections is by attending to *all* of our emotions, which alert us to their presence, and "recognizing the emotions that accompany projections begins the process by which they can be withdrawn from others" (Van Eenwyk 1997, 101).

As dynamic systems we have a lot of self-preserving or self-optimizing mechanisms, and in the context of projection, of course, one of them is that, at a systemic level, we do not allow ourselves to consciously know what we know we feel. This seems to reinforce subtle assumptions of navigating life in our own lonely orbit, and the reciprocal feedback/feedforward loops "go underground." In his discussion of the transference aspect of projection, May (1983, 19) defines transference as "*the distortion of encounter*" (emphasis in the original). The same is true of the overall dynamic of projection, because "participating [in relationship] always involves risk" (20) and the "norm of relationship…is grounded in the nature of man [sic] as such" (18). Risk avoidance distorts our encounters by handling our part of the tango covertly, rather than overtly.

Until we withdraw projections from "out there," conflicts (at some scale, perceived or real, internal and/or external, covert and/or overt) usually arise because some unresolved tension (e.g., lack of safety) underlies why we projected in the first place. At those times, we are not transparent about whatever seems to be practically or emotionally at stake. What we usually have at stake is a relational concern of some kind. (In severe cases it can be our relation to our own survival.) In the case example, I was more concerned about my relation to graduating from the overall training program than I was concerned about my ways of relating with its internship supervisor. Conflicts can bubble up from within these layers of different priorities, and this has as much significance for socio-political patterns as it does for personal ones to ferret out the layers.

In reflecting upon our experiences, can we trace the connections among our (a) experiences of emotions that arise, (b) the context in which they arise, and (c) what we have at stake, relationally? And if we reflect on an experience where we did not directly attend to those emotions at the time, what was the nature of the inhibitions we decided to live with? Did they represent a risk to some “bigger” layer of relationship? At our current stages of social-cultural development, we can find it a challenge to detach from our familiar concepts enough to recognize the pervasive roles projections play from interpersonal to local to international issues. One of several reasons it is hard is that projection is still an obscure concept for many people. This theory’s emphasis on its systemic role in human dynamics suggests the importance of learning how to notice its dynamics in a supportive way.

Premise 3: There are limits to what we can tango with, and they diminish as we develop.

This premise is described in a variety of ways in the fields of developmental psychology, anthropology, biology, and history. In familiar talk we refer to people having “filters” that limit what they are able to perceive, react to, or process, i.e., what they are able to tango with. This is a natural developmental process of the whole human being, and these perceptions of the world change as we grow and mature. As children, we may have believed stories that a stork delivered families’ newborn babies to them, or that Santa Claus and reindeer delivered toys worldwide. These were simple, concrete things we could picture, no more outlandish than many of our storybooks, and the arrivals of babies and toys were very real. We were unable at that age to recognize the stories as family myths, which is a more abstract concept. Our “filters” prevented a tango with the idea of a family myth.

As we mature into adulthood, we develop new, usually more abstract, ways to understand how the world works. Yet, regardless of specifics, as users of language and therefore thought, our filters are constructed in a basic way. William James (1997, 26-27) put it succinctly: “The first thing the intellect does with an object is to class it along with something else [that it resembles]…. The next thing the intellect does is to lay bare the causes in which the thing originates” [so there is an explanation for it]. And the next process we go through, whether consciously or not, is deciding what the thing *means* to us. This process of classifying, explaining, and deciding about meaning potentially develops us as we have more and more experiences. At any point in our individual and collective lives, we operate with some system of making-sense-of-things, which for all of us could be called a “filtered view” of the world. We can’t tango with things we can’t perceive because we haven’t developed the capacity yet. What we do not recognize, we do not tango with—like the concept of myth for a child. Instead, we believe storks deliver new babies.

The easiest way I know to describe *why* there are limits to what we can perceive is with arithmetic, in which adding numbers is the starting point. We know we cannot do multiplication unless we first can add. We cannot do division if we cannot multiply and subtract. Each task requires ability to perform the less complex tasks that build up to it. If we never learn any arithmetic beyond adding and subtracting, we will not have any way to conceive what multiplication and division are, what they are good for, or what they might *mean* to us. For example, if I am a street vendor selling individual fruits of several kinds, and quite a few remain unsold toward the end of the afternoon, the difference between knowing how to add and knowing how to multiply could have significant meaning for my livelihood. If all I know to do is add, I will keep selling them individually to whoever wants one or some, and leftovers may rot unsold, earning me no money. If I know how to multiply, I might change strategies and bundle the remainder into bags of various quantities of fruit. I could calculate the selling price of each bag, and in the remaining time need only a few customers to sell the remaining inventory at full price while it is fresh. I may even sell out earlier this way and get to go home sooner. Multiplication would have *meaning* for me.[9]

Relating premise 3 to the previous one on projection, there is a structural-limit source of projection. Similar to—but different from—premise 2, whatever meaning an individual or social system cannot process due to developmental limits is projected "out there" onto some other person, event, system, or belief. The teen substance abuse issue—and most other issues—illustrates this in various ways. An obvious one is our societal habit of delegating away to agencies "out there" the responsibility to deal with the "presenting symptoms" of issues. We do this even though we individually and collectively co-create and sustain such issues by our personal and institutional behaviors against the backdrop of the cultures we sustain. At certain stages of socio-cultural development, an example is populations' projections of heroic or father images on leaders they expect to defend and protect them from outside threats, and enemy images on those who are feared. The structural-limits source of projection is particularly noticeable when groups that act the same way toward others are variously called "freedom fighters" or "insurgents," depending on who is talking about them. Limits on what we can tango with in a complex world play roles in the issues and conflicts.

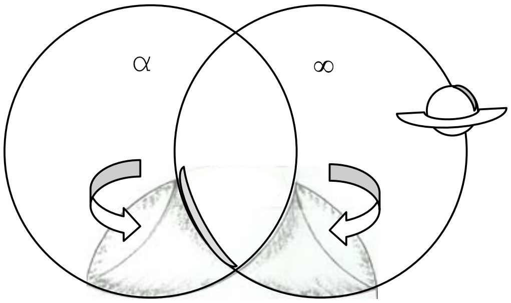

Figure 4

As signs for modeling the dynamic of doing life's tangos, and to signify limits to how much we can dance with at a particular time, in Figure 4 curved arrows that originate in the "wholes" of our environments indicate the smaller amounts we actually dance with in the funnel of life experience. Many limits diminish as we develop capacity for more complex interactions (like fancier dance steps), and if those limits decrease, we can perform a variety of fancier dance steps with more dance partners. We learn to dance *while* we dance, an idea developed more fully in premise 5.

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[9] The math illustration is more than just an analogy. Arithmetic and mathematical operations do structure the increases in complexity of the tango-dancing we can do (Commons, Trudeau, Stein, Richards & Krause, 1998). The complexity of the meaning-making tasks we can perform, like dance steps, sets the furthest limit of what we can tango with at a particular time. This is because we do our tango with only the dance steps we *can* perform; anything more complex, like a myth for a child, is not perceptible because it requires more complex steps to "see" it at all.

Interim Summary – The Tango As Universal Learning Process

This meta pattern can be characterized as the universal learning process operating at every scale imaginable.[10] The premises of the theory describe the main dynamics going on in the "black box." From a certain vantage point we may begin to see a familiar, basic simplicity in the whole process. It is about the ways we learn, the *process* of learning. This kind of processual learning goes on with physically manifest systems such as human beings and the planetary environment, and with less tangible systems of projection and our institutional and cultural holding environments. We are thoroughly immersed in this dialectically-evolving process that constructs and deconstructs at the same time. It takes myriad forms at its different scales, for good or ill, but the same patterned process pervades our existence[11] and always constructs some form of learning. Learning always involves some structural change in some aspect of a system or person, something new. Figure 5 represents this as a new sphere emerging in the process.

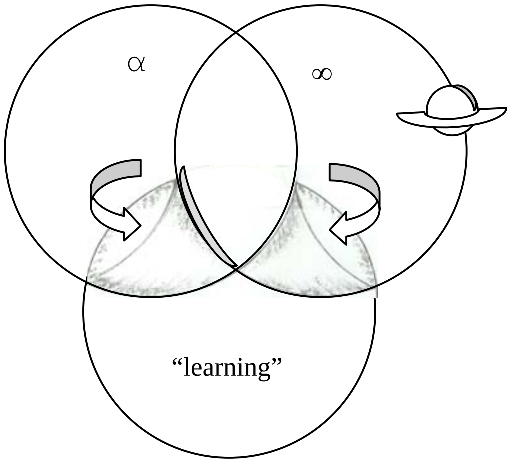

Figure 5

Premise 4: There are common dynamic processes involved in dancing the tango.

This premise focuses on *how* this dynamic learning process looks at a micro level, as compared to the relatively macro treatments thus far. The transformative learning field has provided essential insights into what humans do in the learning process, but does not seem to peer into the black box of *how* the underlying process looks and works. The process of determining what to dance with in life events (or what to park on Saturn) is the same *kind* of process we experience in our decision-making. Some decisions are much more complex than others, yet the *patterned process* is the same. This premise looks more closely at that pattern. If we perceive a decision lies between two options (e.g., yes/no, go/stay) there could be fewer factors to consider to come to the decision. If we perceive there are more than two options, there is a more complex bundle of variables to juggle. If a decision has several viable options and each option depends on contingencies, there are yet more layers of complexity to process in order to arrive at a decision (or a set of related decisions). A pause for reflection on a past decision we made between more than two options likely reveals a pattern of many back-and-forth interior movements (oscillations) to consider all the probable or possible costs, benefits, and consequences of any one choice. People construct many more options than, for example, other mammals, by virtue of having language. The more options we perceive, the more processing we have to do before we get to the end. Our common sense tells us that we can't know what we'll decide until we have decided it. A *dynamic process* is required.

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[10] Here, *learning* means more than knowledge-acquisition in a formal (and formerly traditional) education sense, and in another way perhaps literally means the universe's recursive process of all-knowledge-acquisition-and-storage/retrieval/creation (see Laszlo 2003).

[11] This dialectical process is described across numerous fields, e.g.: Taylor's (1989, as cited in Mezirow 1991) model of transformative learning; per Riffert (2002), Piaget's genetic epistemology and Whitehead's process philosophy; Commons et al's various work in hierarchical complexity, Maturana & Varela's (1998) biology; Thelen & Smith's (1994) systems dynamics of the development of cognition and action, and Laszlo's (2003, 74) physics. The inclusion of projection is essential, in my view, to understand the structure of human dynamics without systemic "loose ends" otherwise left out of the process's equation.

This deliberative process illustrates in familiar terms the kind of process used by complex systems to determine what to dance with. The process is comprised of oscillations that move between at least two poles.[12] These could be characterized as possible choices. The oscillations may feel chaotic (when they are noticed, because very often they are not, i.e., in projections or where reflexive capacities are not developed). This is because the complexity of the process lies—in a scenario of conscious decision-making, for example—in perceiving, comparing and processing the implications of the various poles' *meanings* to us. In the process of assessing meanings, we may end up negating and transforming past beliefs and assumptions (Mezirow 1991). Such assessments are sub-processes nested within the overall process. Internal system dynamics like these can invoke the metaphor of computers: inputs and outputs processed through back-and-forth recursions at lightening speeds, faster for less complex problems, a bit slower for more complicated ones.

The process creates something new: a selection of new meaning, new insight, a decision (which might be a decision to not make a decision), discarding a former assumption and constructing a new one, etc. The process can co-create something else that is new: the capacity to coordinate more variables in a more complex way (changing the limits of what we can dance with, Premise 3).[13] By its conclusion, the process results in excluding some potentials in favor of others.

As a fundamental characteristic of dynamic systems, the oscillating process transpires at all scales, thus it has a fractal nature. Fractals are self-similar patterns that repeat at different scales, some from tiny to huge in size, and/or from extremely short to very long time-spans; the kind of pattern depends on where functions are similar (Kelso 1995). The vastly different scales can make them tricky to notice until we have practice at looking underneath the clothes that dress events and processes. To understand and apply this process theory (which is also fractal), systems' dynamics in general, and how these processes relate to functions at personal, social, economic, and political scales, it is very useful to learn to see *fractal patterns*. This can take a lot of the mystery out of things that seem very complicated, and contribute appropriate assumptions, order, and consistency to our analyses, evaluations, and reflections on experience.

The most accessible learning, perhaps, comes from our own laboratories of reflexive attention to the processes we use already, for example, in identifying how we feel about a disturbing interaction, figuring out (preferably with others) what is happening in a confusing situation, and decision-making. Cory (2004) emphasizes that the universal tensions between self-interested and empathetic acts are embedded in our constitution, and are "tugging and pulling against each other" (30) from the "smallest interactions, the vignettes, of everyday personal life" (26) to the scale of our social, political, and economic systems. These recurring oscillating processes "repeat themselves through the establishment of tensions of opposites, their resolution, and the subsequent appearance of new tensions between the resolution and new possibilities" (Van Eenwyk 1997, 16). They are the "basic moves" of the tango: it doesn't exist without them.

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[12] These poles form and operate in similar fashion, although called by different names, such as: attractors in chaos/complexity terms (Kelso 1995; Van Eenwyk 1997); archetypes in terms of the psyche's dynamics (Jung 1964; Van Eenwyk 1997); behavioral tensions (Cory 2004); and wave function ensembles related to a given species (Laszlo 2003). Based on the observations I have made of my own processing, and consistent with Commons & Richards (2002), as we develop our capacity for more complex tasks, the *kinds* of attractors we perceive (Kelso 1995) change radically both in nature and number, and they can include complex nests of additional poles to process.

[13] These can develop a high degree of complexity, e.g., dialectical reasoning described by Basseches (in this issue)

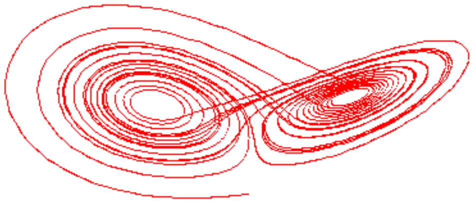

Figure 6

Premise 4's dynamics are the primary window for us to peer into *how* the "black boxes" of humans and their societies look inside as they dance. The tango exists in a multitude of interactions with other individuals, other cultures, other social structures, and their own selves. In their dances they conduct ongoing, often complexly nested, patterned, oscillation processes, acting like the "engine" of learning, change, development, and yes, deaths. For a look at a basic oscillation (from atmospheric dynamics) this link includes an animation of Figure 6's image of oscillation dynamics as the Lorentz attractor [14] and different views into the nested oscillations comprising it. http://www.levitated.net/daily/levLorenzAttractor.html

Premise 5: Something new emerges from each and every tango.

This premise points to the dialectical nature of the meta pattern, that the dynamics of the tango's processes create something new by virtue of happening at all. This is the *nature* of all life's tangos, because they are creative. The entire process reflects the synergy of "(1) the environments acting on the system, (2) the interacting elements involved, and (3) what emerges from the interactions" (Kelso 1995, 17-18). In the process model:

(1) the environments acting on the system [or meta system]
    a. are represented by the two spheres on either side
    b. the system that the environments "act on" (trigger, influence, constrain, liberate, etc.) is represented by the model's funnel
(2) the interacting elements involved
    a. are indicated by the curved arrows heading into the funnel's openings
    b. include the elements from the environment and the system's (funnel) elements
    c. and the "intersection" where the real dance takes place is signified by the starburst added to the model in Figure 7 below
(3) what emerges from the interactions
    a. is something new
    b. and it takes a variety of "forms" depending on what we're studying, its nature, time span we're considering, etc.

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[14] This image is copied from a document at http://encyclopedia.lockergnome.com/s/b/Lorenz_attractor licensed under the GNU Free Documentation License (GFDL), which means that you can copy and modify it as long as its entire work (including additions) remains under this license. http://www.gnu.org/copyleft/fdl.html

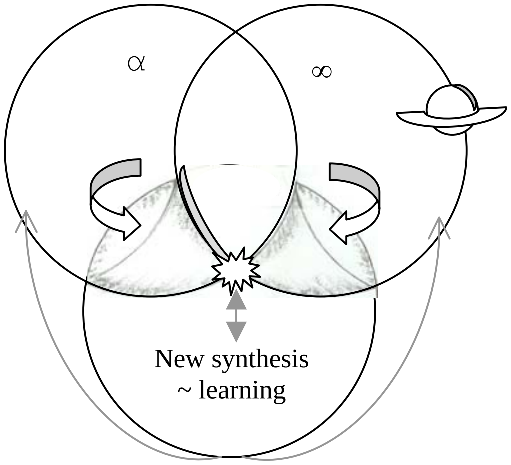

Figure 7

The significance of the tango's dynamic at all scales of time and space is immense: creation is learning how to happen all the time everywhere. From the perspectives of process, learning, and conscious awareness, all events *matter*, no matter how small. Helping us to *look for, notice, and use* this insight in new ways is a primary motivation for sharing this theory, and earlier points attempted to illustrate the implications at personal, interpersonal, and other social scales.

Application of Premise 5

My experience with the internship supervisor suggests some of the sorts of new things that may develop in a context like that. While the most significant new structural change in me was the learning that emerged from my crusade to understand what had been happening with us, it was throughout all our interactions that I built up, tore down, and built up something new in a recursive fashion. From hope to doubt, from invested trying to feeling unheard, from exploration to withdrawal, from resisting failure in relating to accepting it, from projection of self care to the explicit self care of confronting her error. It took interactions that created all of those new movements to create enough motivation in me at a systemic level to "bifurcate" into the new action of the crusade that, itself, was another series of diverse dynamics that restructured my understandings.

The new "things" that emerge from our tangos can include new systems. For example, if my experience with the supervisor had been very different, we might have created an enduring friendship characterized by mutual transparency (a new social system, as compared to the short-term, institutionally-created supervisor-supervisee system). The way we were structurally coupled did not result in dynamics for that possibility to emerge.

Teenagers developed a thorough description of how they and their substance abuse were structurally coupled with the cultures and institutions of their families, peers, schools, and communities (Ross, 2000). They were bound in such a way that the options they could access and make decisions about were severely limited. Their recursive learning from interaction upon interaction with those systems, in many cases, took the form of re-choosing their decisions to stick with their existing coping mechanisms for dealing with that stressful tango.

These examples hint at the significance of *structural coupling* (Maturana & Varela 1987) for change and development. Called by different terms, the dual-dynamic is inherent to complex systems, showing up wherever systemic processes are described.[15] The rather thorough treatments it receives in such works make for highly recommended reading. Often referred to as the diachronic and synchronic dynamics, which are always discussed together, it is *the structural dynamic of evolving development*. This concept is essential for understanding what's in the black box. This dynamic tango will challenge many of us to think in more fluid, systemic-process terms to understand its role in change, development, and overall evolution. In basic terms, it refers to the connective relationship between interacting systems and the new structures that emerge *in each* by virtue of the interaction. It accounts for *how* new “things” emerge. The concept of *structural coupling* supports attention to both our selves and our partners in every tango at every scale: we trigger changes in each other with every interaction and something new is created, for good or ill. It may be more projections parked on Saturn, it may be new capacities for more complex diplomacy and policy- or decision-making, it may be new social systems that are more generative or more destructive for people within them. This concept can reinforce the importance to place on every tango and what it creates.

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[15] e.g., Bateson, 2000; Kelso 1997; Laszlo 2003; Riffert 2002; Thelen & Smith 1994; Van Eenwyk 1997; Whitehead 1960.

The Universal Scale of The Tango

For this introduction to be complete, it needs to refer at least minimally to this meta pattern’s literally universal depth and scale, developed in somewhat lay-accessible ways by Laszlo (2003), Wolff & Haselhurst (2005), and Bohm (1999). Applied at that depth and scale to this outline’s model, the environmental sphere on one side would signify what Laszlo calls the virtual domain of the universe, and the other environmental sphere would signify what he calls the manifest domain. The manifest is the domain of the entire physical universe, while the virtual domain is not as easy to consider because its virtual contents are described in physics terms[16] that do not resonate very much with those of us outside the math and physics fields. An important caveat: the model is visually misleading because these two domains are not really separated in a such a bounded way, although the model represents their interactivity by the spheres’ overlap. By contrast, the latest physics would have us understand their thorough “entanglement” rather than any kind of compartmentalization (Laszlo 2003; Wolff & Haselhurst 2005). This structural coupling of the two domains is the universal tango at the highest known scale of dynamics and analysis.

Laszlo lays out the virtual domain’s intimate role everything, which includes individual and social change and development. This article shines only a little light on that role through a last illustration from its case, which briefly recapitulates the overall tango. Where did my sudden insight come from, after my internship and subsequent crusade to understand what was happening? What conditions enabled my crusade to begin? During the internship, I was not raising the question, thus I was not receptive to learning where I had hidden my own secret. I was structurally coupled in a very unsatisfying system that I didn’t see a way out of if I wanted to complete the program. Once it was over, I was “free” again and wanted to learn more about that tango. My searching oscillations processed all the information that seemed available to me, and accumulated many dead ends of possible explanations.…then, Wham! There the insight was, in an instant, and I knew it was true, and it resulted in a new structure of understanding in me. I had to get to the point of looking for what I had parked on Saturn to understand the missing part of the reciprocal dynamic: taking care of me *by* taking care of my supervisor. One of the virtual domain’s functions is storing what we park on Saturn (in the form of their wave functions, like attractors). Once I was finally open to reclaiming it, I could “attract it back home.” This is because, as Laszlo describes, each individual act, thought, etc., generates its own wave function (an expression of its attractor dynamics) and these attractors’ “records” reside in the universal and cumulative “memory” which is the virtual domain.

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[16] e.g., wave function, wave interference pattern, scalar field, and others

As Laszlo suggests, there is much more we can understand about change and development in the manifest domain when we understand its tango with the virtual. I believe these contemporary physicists' and philosophers' work has major implications for how we understand many kinds of connections, how we construct our beliefs, how we understand more about the "black box" of the tango, and for practical applications of this integral process theory. Wrapping up this discussion at the universal scale, Laszlo (2003) explains these domains' tango in the same terms as the systems discussed earlier, in "a two-way process" (74): "the two domains evolve in reciprocal interaction" (106-107) establishing the template for needing two to tango and creating something new by virtue of doing the dance in the first place.

Scaling The Model's Environmental Spheres to Applications

The fractal nature of this process theory derives from the fractal scales of the tango it describes. Thus, the environmental spheres that dance with a system, metasystem, or group of metasystems will be different depending on the scale of attention, the context giving rise to a particular set of inquiries, and users' purpose(s) for exploring past, current, and/or potential dynamics.[17] Figure 8 illustrates the nesting of systemic tangos. It shows, using the case example, that tangos don't exist in isolated orbits any more than we do. They *are* the activity throughout and among systems related at different scales.

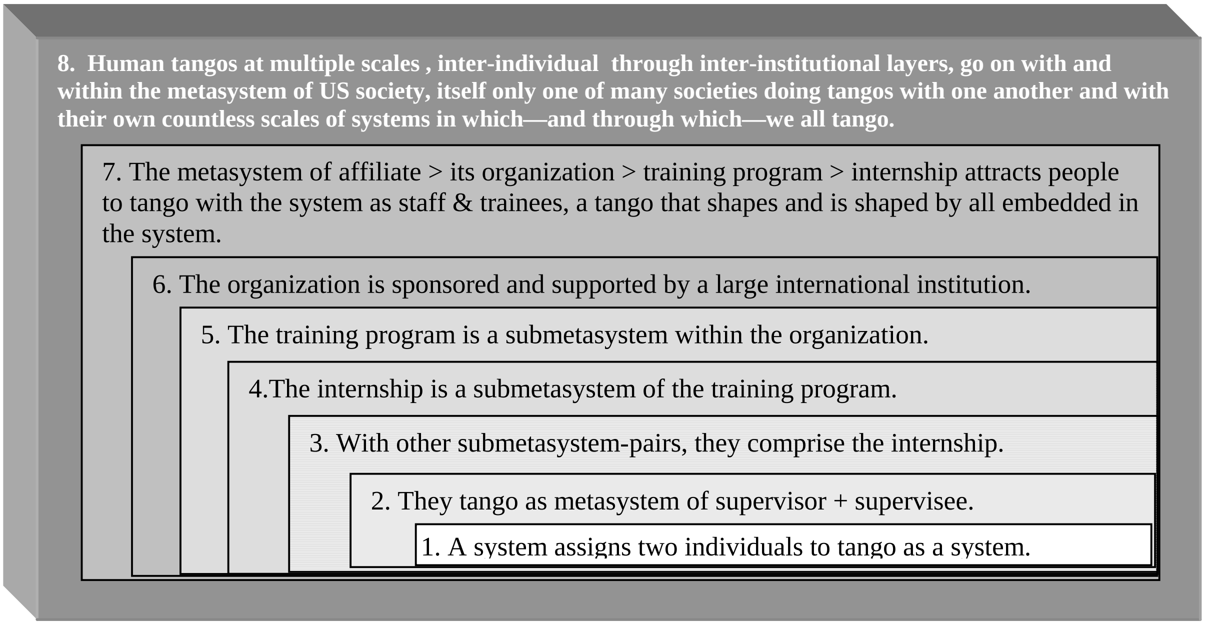
8. Human tangos at multiple scales , inter-individual through inter-institutional layers, go on with and within the metasystem of US society, itself only one of many societies doing tangos with one another and with their own countless scales of systems in which—and through which—we all tango.
7. The metasystem of affiliate > its organization > training program > internship attracts people to tango with the system as staff & trainees, a tango that shapes and is shaped by all embedded in the system.
6. The organization is sponsored and supported by a large international institution.
5. The training program is a submetasystem within the organization.
4.The internship is a submetasystem of the training program.
3. With other submetasystem-pairs, they comprise the internship.
2. They tango as metasystem of supervisor + supervisee.
1. A system assigns two individuals to tango as a system.

Figure 8: A partial model of the metasystemic setting of a supervisor-supervisee tango.

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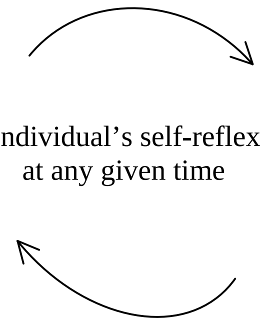
[17] Purposes may be as varied as the users that have them, and can include, e.g., self-reflexion, 1st, 2nd, and 3rd person action inquiry and analysis, design and design-evaluation of systemic intervention processes, identifying recursive adjustments needed in intervention strategies, evaluation of intervention processes' impacts, comparisons and assessments of other frameworks, etc..

Table 1 is a way to convey an example of elements the environmental spheres may include (described *generically* for example's sake) when the theory's premises are scaled to focus on an individual's self-reflexion process (focal systems at any scale are signified by the model's funnel). But the contents of the table need to be situated in the meta process of dynamic recursions that create something new, which enters into the recursive processes already underway (tangos): nothing here is static. Systemic environments that have done and are currently doing tangos (∝)[18] with the system(s) getting our focus, are recursively placed in relationship with the environmental elements (∞) the system perceives as available to tango with.

Table 1: Example of Environmental Elements Scaled to a Specific Focus

Environmental Sphere ∝ ***Have done or currently doing***	**With Focus On System Of:**	**Environmental Sphere β** ***Perceived as available***
Pre-existing, developing, or to-be-developed self-awareness of: ~ personal & social history, including nuclear family's and larger culture's shaping influences, past & currently held belief systems & coping mechanisms ~ felt constraints of behaviors and projections embedded in culture of relevant adjacent systems, ~ current triggers giving rise to reflexion ~ operating assumptions in context of triggers ~ etc.	 An individual's self-reflexion at any given time	~ *Perceptions and assumptions (i.e., the stories I tell my self)* of what exists and what is at stake beneath current triggers in the layers of systems in my environment, and these in relation to: ~ the meanings assigned to triggers ~ perceived environmental constraints on responses ~ perceptions of current capacities to tango ~ existing or potential support systems for new tangos ~ etc.

Summarizing The Process

This outline of a process theory of human dynamics distills a universal pattern down to five premises about its integrated processes to help us understand what goes on in the "black boxes" of individual and social processes at all scales. An important caveat is in order, too, with respect to the model: it is a *static* representation, offered via a limited medium, of *integrated not separate* processes taking place in *multi-dimensional environments over time,* which further *develop in time* by virtue of their interactive processes. Thus, the environmental spheres, the something new/learning sphere, the arrows, the funnel, the starburst, and Saturn and its shadow, are merely icons for the dynamic realities they signify.

As a whole, the aim of this presentation is to make the following interdependent ideas accessible to a wide audience.

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[18] i.e., have been and currently are *structurally coupled*

- Premise 1, *It takes (at least) two (of something) to tango,* reminds us we cannot regard any individual or system of any kind as isolated in its own orbit, but rather seek out where the reciprocity dynamics are happening, and expect to find layers of them, like ripple effect interactions.
- Premise 2, *Whatever we don't tango with directly (but could), we put "out there,"* has significant implications. It reminds us we need to learn how to recognize projections, to keep an eye out for those that get parked on Saturn, to be alert to look for and reclaim them, and consider the conditions and potentials for projection dynamics in all our human undertakings. It highlights projection because it seems little-known or recognized outside the field of psychology, even though it plays phenomenal roles wherever human beings are concerned. If this premise gained traction, supportive human development methods that help people and societies recognize and reclaim their projections, along with the creation of healthier holding environments so fewer projections develop, might become higher on social change agendas.
- Premise 3, *There are limits to what we can tango with, and they diminish as we develop,* calls our attention to learning about and applying some basic understandings of structural limits germane to human and social functioning. The adult developmental psychology and transformative learning fields, which are as instrumental in this premise as complexity sciences, demonstrate their own limits in various ways, yet they are some we need to keep referring to, developing further, and integrating with other fields of research and practice.
- Premise 4, *There are common dynamic processes involved in dancing the tango,* encourages us to learn how to adjust our zoom lenses appropriately to look for and notice the dynamics going on all the time. It encourages us to decenter our attention enough to notice fractal patterns that can help us transfer our learning about how things work in black boxes at many human scales. It gives us some ways to start noticing our own "inner" dynamics, which can help us discover our own projections, assumptions, etc. This premise can help us make sense of how these dynamics affect what we want to learn, understand, or support, because the processes *are* what comprises whatever we consider our focus. Nothing is standing still inside the black boxes.
- Premise 5, *Something new emerges from each and every tango,* emphasizes the massive co-creative learning laboratories in which, with which, and as which we exist. It reminds us we need to find ways to identify and consider the complex range of environments interacting and/or coupled with anything we study. It challenges us to take a dynamic, processually-integrated approach to all phenomena, because all phenomena are dynamic processes in an ongoing pattern of co-creative evolution.

Conclusion

If Kelso is right, that everybody knows the world is made up of processes from which patterns emerge, but we seldom give pause to what this means, I hope this article is an opportunity to give pause. I have shared what this means to me, and what I believe it could mean for others. I also believe this theory fills a void because it transcends boundaries of specific fields of study and practice, and offers a synthesis of some of their essential knowledge to general audiences. It illuminates the process dynamics that co-construct the dialectical meta pattern of development itself, and integrates "the stages of" development with "the process of" development. It places projections in the forefront of attention as some of our key individual and collective tango partners and integrates them with system dynamics. As a transdisciplinary distillation, the theory puts a tool of developmental process analysis into the hands of people who want to understand and use what goes on in the "black box" of human dynamics.

As an experiment in distilling a lot of information that I, and others, can refer to and further develop, I have made my best effort to keep this introduction as accessible and accurate as possible. I do not know if I struck a useful balance, and I welcome suggestions for improving the theory's structure and integrity, its alignment with lived experience and the bodies of knowledge that inform it, and its usefulness. I am also eager to both test the sufficiency and deepen the explication of the premises, and I hope others will participate in that discourse.

At the level of application, I hope it fosters new understandings to support holistic inquiry into, analysis of, and action on a wide array of complex individual and socio-political issues we need to address across the planet. And I especially hope it contributes to efforts to explore, discuss, notice, articulate, and integrate the significance of interrelated dynamic patterns doing their tangos all around us and within us. These are my hopes, and although the uni-directional language of this writing has its limitation when the subject is *process* dynamics, we can engage in the tango of discourse at an experiential learning level and watch our new tangos unfold.

> *Language was never invented by anyone only to take in an outside world. Therefore, it cannot be used as a tool to reveal that world. Rather, it is by languaging that the act of knowing, in the behavioral coordination which is language, brings forth a world. …We find ourselves in this co-ontogenic coupling, not as a preexisting reference nor in reference to an origin, but as an ongoing transformation in the becoming of the linguistic world that we build with other human beings.*
>
> *~ Maturana & Varela (1987, 234-235)*

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Timely and Transforming Leadership Inquiry and Action: Toward Triple-loop Awareness

Anne Starr and Bill Torbert

Abstract: Drawing from situations in business, art, leadership education, and home life, this essay experiments with diverse ways to communicate the experience of triple-loop awareness. Contrasting it with single- and double-loop feedback in a person's awareness, the triple-loop supposedly affords the capacity to be fully present and exercise re-visioning, frame-changing timely leadership. The essay presents an encompassing theory of time and of its relationship with our own capacity for awareness. The experiment concludes with the reminder to readers that a first reading is like walking around the base of a mountain. The authors invite readers to try out one of the uphill paths of being with these experiments with a different kind of attention.

Key words: action-logic, awareness, inquiry, leadership, learning, re-visioning, timely action, theory of time, transformation, triple-loop

Introduction

This essay consists of a number of qualitatively different example-experiments to communicate the experience of triple-loop awareness, which supposedly gives participants in any social process the capacity to be fully present and to exercise re-visioning, frame-changing leadership in a timely fashion.

In order to begin displaying and playing with the distinctions and relationships among single-, double-, and triple-loop inquiry and action, the first several mini-essays are portraits of particular situations in business, art, leadership education, and home life. The final experiments occur in the course of presenting a more encompassing theory of time itself.

Our aim is to point toward the qualities of triple-loop awareness, even though we will also claim that the experience of triple-loop awareness is always more than thought or words. We hope to illustrate this experience vividly enough to interest you in the new freedom, mutuality, power and efficacy such awareness-in-action promises.

Overall, this essay will, of course, interweave us, the authors, and you our readers, through the resonances among all of these example-experiments and your own experiments with your attention as you read and amidst your other activities. Initially, of course, you may find yourself reading in the habitual linear sequence of the journal layout, perhaps doing some incremental, single-loop learning about the concepts discussed.

Eventually, if you wish, you may choose how to approach the article more playfully, weaving your attention back and forth among the portraits, seeking to encompass a whole new pattern of thought or to find just what this approach reconstructs about your way of thinking and acting.

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This may possibly catalyze (the beginning or acceleration of) a longer-term double-loop change in your thinking-in-action (or action-logic).

…Or perhaps, you may find yourself playing with the very attention you are using during this reading (in one exercise we will explicitly ask you to do this) – thus possibly experiencing what we call triple-loop inquiry and awareness as you read.

Brief Illustrations of Triple-loop Inquiry and Awareness in Action in an MBA Leadership Workshop

In the closing two minutes of an MBA Leadership Workshop on a February evening of 2005, a student says, “We’re beginning to get the idea of single-loop learning, where you see you didn’t get the result you wanted during a conversation, or in hitting the nail you’re trying to drive into a beam, so you make little corrective changes in your way of talking or listening or hammering, and sometimes you pretty quickly get the result you were hoping for. Several of us have told good stories of just listening a little more carefully and then asking a question about what the other’s saying, and feeling the whole ‘weather’ of that relationship change…”

“And I think a lot of us have a feel for double-loop learning too (and why it’s less usual, but more important for a good leader to be able to do), where sometimes you realize the wood’s so hard you’d better switch to a screwdriver and screw or, say, change what result you’re even trying to get in your conversation. So, those are starting to make a little sense…”

“But what’s this triple-loop idea that – whether in our own 1st-person awareness, or in a 2nd-person conversation within a team, or in a much larger 3rd-person social organizing process – we can sometimes change, not just our specific actions, and not even just our overall strategies, but also (and somehow, supposedly most powerful of all) our very present awareness so that we feel our own presence and that of everything around us?” (pause, before student continues)

“…Actually, our consultant, Grace, gave our Learning Team a good example of single-, double-, and triple-loop learning tonight, but we still can’t see how the triple-loop part works. She pointed out that a room temperature thermostat is built to permit the occupants to set a limit such that the furnace then turns off or on at the limit, making repeated single-loop changes from off to on or vice versa at that limit.”

“Of course, the thermostat is also built to permit occupants to change the limits, and she said that’s an example of a double-loop change -- changing the parameters.”

“When we asked her what triple-loop change would be in that example, she said triple-loop change is when, in February in Boston, an occupant blows a gasket and flies to Costa Rica for a week. (Laughter from the class) But, you know, like how are we supposed to do something like that at work in the middle of the day?”

The instructor pauses, surveying the class, and nods to one member who looks like excited words are about to emerge. She says she thinks she’s recognized a triple-loop awareness generating phenomenon on a relatively large social scale, as she’s been listening. She speaks of being visually ravished by some e-pics her sister in New York City has sent her of the Christos’ Orange Gates installation in Central Park.

“It’s taken 26 years since conception to get done,” volunteers another student, “And it’s only up for two weeks before they take all 7,500 gates and orange flags down again.”

“It’s got people from all over the country coming,” said another. “Even Europeans.”

"And," the original speaker pipes in again, "I read where they say the biggest miracle of all is that it's getting millions of New Yorkers to wake up with a goofy smile on their faces and rediscover their center. Central Park seen as though for the first time. A kind of "waking up" where you and the phenomenon become unusually present to one another, passing through our perceptual and conceptual filters with less distortion and more wonder than ususal. Don't you think that, after they come down, those orange gates may wake a few of them up again later by their very absence? Are they powerful enough to portend a new period of hope after the nightmare of 9/11?"

"Maybe the Orange Gates are a good example of all the preparation that can go into a few moments of truly timely action on a spiritual/historical scale," the instructor adds weightily. "Think of how short a time it took for Socrates to have his final inquiring conversation with his friends before ending his life by drinking the hemlock, yet how long that event has been re-awakening inquiry within Western civilization. Do you think the flavor of the Orange Gates will inspire re-awakening inquiry for as long as that? In the meantime, we still have the question about how to generate this kind of experience in the middle of a work day. Right now, it seems to me, the timely action is to end class. Can we do so without ending this fresh feeling of inquiry-in-action?"

Definition, Figure, Mathematical Analogy, and Experiential Test

During the following class, the instructor offers a number of scholarly, definitional statements about single-, double-, and triple-loop awareness, such as:

> First-order change is incremental, involving behavioral adjustments. …Second-order change refers to change in cognitive frameworks underlying the organization's activities… Third-order change …give(s) organization members the opportunity to transcend schemata (and to) recognize how this schema and all schemata limit as well as guide understanding. …Third-order change… presumes experience that is transconceptual. (Bartunek & Moch, 1994, 24-25)

Translating, he explains that triple-loop awareness re-presents a change in consciousness. It is the simultaneous awareness of all 4 territories of experience – of the outside world, one's own behavior, one's own feelings and thoughts, and at the same time, a kind of witnessing of all this. It can be called presencing (Senge et al, 2004). Triple loop awareness occurs in any moment when there's an attention distinct from the mental thinking, from the physical sensing, and from the objects of perception, infusing them all with an immediacy that is at once passionate, dispassionate, and compassionate. You're more likely to have these experiences when you put yourself in a position where you're on the edge of your known reality – on the not-necessarily-comfortable threshold between the known and the unknown. The instructor also offers the following skeletal illustration of single-, double-, and triple-loop feedback to go with the definition (see Figure 1).

The instructor suggests that objects in the external world are solid, earth-like, distinguishable and countable in interval/ratio terms (how many chairs in the room, how many dollars in my wallet, how many apple pies made). By contrast, the world of sensations and behaviors is describable and enactable in liquid, moving, ordinal, sequential terms (to cook a pie, first you do this, then that). The world of thought and strategy functions in airy, symbolic, nominal, relational, systems terms (e.g. a conceptual map). And the world of attention engages us with the entire aesthetic continuum from the fire-like, noumenal, non-dual origin of the empty light of attention itself, through our nominal categories of thought into the ordinal priority and sequence of our actions, to the interval accounting of the results we achieve.

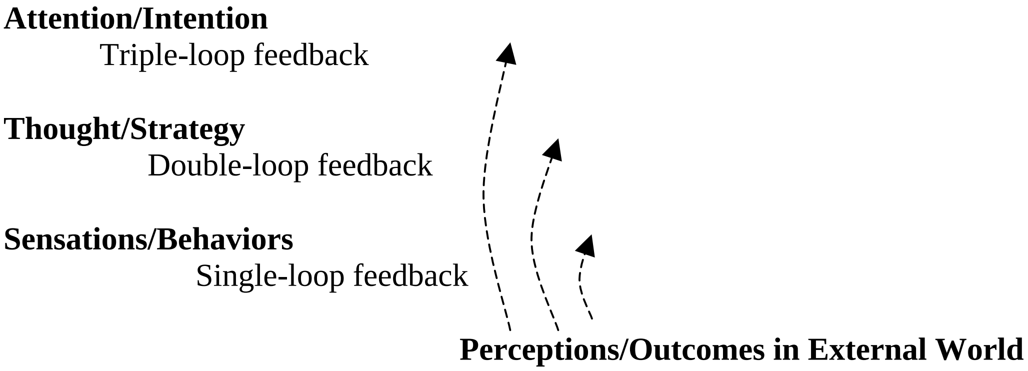

Figure 1: Single-, Double-, and Triple-Loop Feedback Within a Given Person's Awareness

In this context, the instructor offers the class what he calls a first-person experiment in generating triple-loop transconceptual, noumenal experience. He hands out single sheets of paper with the following instructions and asks everyone to spend the next three minutes listening to themselves "playing" silently with its suggestions, as we now suggest our readers do:

0. Zero. Origin. Noumenon.

> *Imagine that you are present in the present… that you can feel your own presence and other presences around you now…*
>
> *How do you "imagine" this?*
>
> *Are you merely thinking about these words as you read, or are you actually trying to feel yourself from the inside, becoming more aware of how your body feels now?*
>
> *And, as for the other presences around you, are you becoming more aware, not just of the meaning of these words as you read, but also of their physical presence as ciphers on this page?*
>
> *And the other people around you or the chair you're sitting on? How are you feeling their presences?*
>
> *How does this waking up to your own and others' presence in the present feel?*
>
> *How are you doing it?*
>
> *Is "doing it" changing the pace and the way you read?*
>
> *Can you "keep doing it" if you close your eyes?*
>
> *Or are you "just reading" again?*

Gleaned from an On-line Community of Practice Conversation among Developmental Consultants

Continuing our lightning-quick switches of frame, we turn from passionate, physical illustrations of triple-loop awareness (thermostats and orange gates) and from dispassionate intellectual illustrations of triple-loop experience (definitions, models, and an experiment with the mathematics of experience) to a compassionate, emotional illustration of how a professional organizational consultant, executive coach, or couples therapist can listen to clients. This statement was offered by Steve March in an e-mail conversation among a group of professionals dedicated to learning more about "integral theory and practice."

"I can *listen for clients' thematic patterns or patterns of action* during the meeting and propose or enact alternative patterns. This sort of listening and intervention can generate some important single-loop learnings on their part that can help clients improve their situation and the effectiveness of their interactions."

"A second more subtle and more difficult way I can listen to clients is to *listen to their way of listening* – in particular to what they *aren't* listening to. From this kind of listening I may suggest and try out with them a whole new practice that can help them make a double-loop change in their action-logic and embody that change in their way of listening."

"A third way of listening is to hear both of the levels already mentioned and at the same time to listen to my listening of the client's listening. How is the client showing up in my total experience? What am I feeling – emotionally and somatically? How am I being triggered? Who am I being such that this is the client I experience? I find, more and more, that this last question orients the unfoldment of my coaching."

Single-, Double-, and Triple-Loop Learning Interweaving in the Same Event

Single-, double-, and triple-loop learning may all occur in the course of the same momentary experience. For example,

> *"I've been talking and fighting and weeping with my wife all night long and into the morning hours, trying gently and patiently to reassure her that, despite whatever vibes she thought she saw between me and another (also married) woman at the other end of a long dinner table from where she was seated when we dined at our friends yesterday evening, I do love her and have no intention of leaving her.*
>
> *"As the morning continues without resolution, beyond exhausted, I remember a friend once saying that if all the different things you're trying aren't working, you should try the last thing you would ever think to do in this situation (thus, freeing yourself from the grip of your false assumptions).*
>
> *"Right now, that would mean getting angry at my wife. I can't imagine how that would reassure her, nor can I imagine what I have to be angry about. Then I remember that I have recently been teased about never getting angry. Maybe I can never imagine why I should be angry, but maybe I actually am angry without realizing it. Maybe I am rationalizing away an anger I'm not letting myself feel.*
>
> *"I realize intellectually that I may be at my assumptive limit. And I'm certainly exhausted – at my physical/emotional limits. So, not even knowing what I will say, I start*

> *making an angry roaring sound, and, to my surprise, hear myself yelling at her that she doesn't trust me and my love for her. That feels totally true to me. She immediately quiets down, begins to weep in a different way, as do I, and we're out of the cycle."*

Here, the speaker finally accepts the single-loop feedback that he is not reaching his goal of reassuring his wife. He next remembers a different, rationally preposterous strategy that is outside his current action-logic (double-loop feedback). He begins to rationalize about the strategy rather than acting on it, then sees that that's what he's doing (triple-loop feedback that changes his awareness). He then acts in a way that validates the single-loop learning by achieving the original goal, as well as in a way that validates the double-loop learning by the very uniqueness-for-him of the action, and that continues the triple-loop learning for a few moments of spacious high wonderment, seeing himself seeing, hearing himself speaking, and feeling the transformative alchemy work through them both.

Interweaving a Theory of Time with a Theory of Developing Awareness of Time

In recent work (Chandler & Torbert, 2003; Torbert, 1991; Torbert & Associates, 2004), a group of our colleagues have been highlighting a three-dimensional theory of time (and this theory is also either implicit or explicit in a number of other works related to quantum physics and consciousness research [e.g. Priestley, 1964; Malin, 2001; Purser & Petranker, 2003; Senge et al, 2004]). As we will see below, developmental theory traces the path by which people can come 1) to interweave single-, double-, and triple-loop awareness; 2) to experience the three dimensions of time (or the six dimensions of space/time; and 3) to engage in powerful, vulnerable, transforming, and timely leadership action.

One of the basic ideas of the three-dimensional theory of time-experiencing is that we are ordinarily 0-dimensional time beings, altogether time-oblivious (e.g. when engaged in a repetitive task, when driving and daydreaming, when enthralled by what we are reading, or when asleep). In addition, we are episodically 1-dimensional time beings, aware of linear chronological time (e.g. when waiting impatiently for someone who's late, or when rushing to meet a deadline). These may be named zero-dimensional time-awareness and one-dimensional time-awareness.

In its most sophisticated forms, one-dimensional time-awareness can be cultivated into an awareness of psychological and historical patterns that inform current actions (this type of sophistication is found also in the historical theories of evolution and development that have characterized both the social and natural sciences during the 20th century).

One-dimensional time awareness of sequential passing time permits us potentially to act, then identify a gap between act and intended outcome, then adjust one's action, and achieve one's goal (maybe), thus doing single-loop learning. Developmental theory and research (see Table 1) suggest that only a minority of managers and executives develop to the Achiever action-logic where they are capable of reliable single-loop

Table 1: Seven Leadership Action-Logics (adapted from Rooke & Torbert "Seven Transformations of Leadership" *Harvard Business Review* April 2005, with permission)

Action Logics	% of 4,310 research sample profiling at this action logic	**Characteristics**	**Strengths**
Opportunist	**5%**	*Wins any way possible.* Self-oriented, manipulative, "might makes right." Masters the outside world.	Good in emergencies or brief sales opportunities.
Diplomat	**12%**	*Avoids overt conflict.* Desperately wants to belong. Masters own behavior to fit group norms	Good as supportive glue within an office.
Expert	**38%**	*Rules by logic and expertise.* Always seeks the rational way. Masters some professional field of thought.	Good as an individual contributor.
Achiever	**30%**	*Meets strategic goals.* Juggles managerial duties and market demands. Uses single-loop feedback to work effectively with teams.	Well-suited to managerial roles; action and goal oriented.
Individualist	**10%**	*Interweaves competing personal and company action logics.* Encourages public reflection, creates unique structures to resolve gaps between strategy and performance.	Effective in venture and consulting roles.
Strategist	**4%**	*Generates organizational and personal transformation.* Exercises the power of mutual inquiry, vigilance, and vulnerability to generate double-loop change.	Effective as transformational leaders.
Alchemist	**1%**	*Inquires, listens, and acts.* Integrates material, social, and spiritual transformation through triple-loop awareness.	Good at generating society-wide transformation.

learning in the midst of ongoing action (Torbert & Associates, 2004; Rooke & Torbert, (2005). An even smaller percentage of adult professionals are measured as Strategists who reliably engage in double-loop learning and reliably generate successful developmental transformation (Rooke & Torbert, 1998). And only 1% transform to the Alchemist action-logic that is devoted to sustainable moment-to-moment triple-loop learning and awareness. Double- and triple-loop awareness introduce us to the second and third dimensions of time, which are hidden within durational or passing time.

The second dimension of time can be imagined geometrically as orthogonal to linear durational time from the past to the future, passing through the present. From the point of view of our ordinary (zero or one-dimensional) temporal awareness, the present is a vanishingly small instant that can never be grasped because it is past by the time that its sensations, thoughts and feelings register within us. Is there a different quality of awareness that permits a timeless, conscious experiencing of the present – a quality of awareness that permits us to live nowhere but the present… inhabiting the eternal present in all of its unfolding fullness… experiencing a sense of our own presence and of other presences around us even while remembering something, or focusing on a particular task, or imagining a possible future? When smelling a flower, or facing a sunset, or embracing (and being embraced by) a beloved, many of us are occasionally graced by contemplative moments of harmony and communion… a conscious experiencing of presence-sensitivity-receptivity in what feels like an "eternal now" (in Latin this was called the "Nunc Stans," the "Standing Now"). Similarly, we may experience vivid moments of disharmony as when we "see" that our practice contradicts our own espoused principle. But, paradoxically, these eternal moments of "time out of time" usually soon fade.

A third dimension of time can again be imagined as orthogonal (the Z axis) to the plane defined by chronological time (X axis) and eternity (Y axis). The three-dimensional "volume" of time can be imagined as holding all possibilities, all the potentialities of the future and the still-hidden meanings of the past, some of which emerge into the present (become act-ualized) and then pass into linear, historical time, through a translation process that quantum physics now describes as a "quantum collapse" (Ho, 2001; Malin, 2001).

> What is actual… consists of both objects and subjects in a dance, or flow. Each new subject is constituted in part by antecedent actualities, but each new moment of experience, in addition to its physical constituents, is also a *creative subject* which exercises its freedom and creativity to unify *in the moment* its constituent completed moments of experience. Each object is an expired experience…; *and then* these objects provide the raw material for subsequent subjects… And so the cycle proceeds from subject to object to subject to object (de Quincey, 1999, 99).

Is there really a different quality of awareness that goes beyond a deepened sense of presence in the present to sensing oneself as a creative subject actively participating in midwifing an emerging future (Senge et al, 2004)? As a first taste, we offer the following meditation written in January 2005 by Maria, a woman in her thirties, who had been a member of a spiritual group seeking such heightened awareness, but had recently recognized that it was fraudulent and that she was being manipulated into donating a large proportion of her time and money to an organization in which she shared no control. Now faced with questions of love, marriage, and faith tradition (she Catholic, her fiancé Islamic), she writes:

I'm tired of pretending
    To believe what I don't
I'm tired of pretending
    I'll do what I won't.
I'm tired of pretending
    I want what I "ought"

I'm tired of pretending
  To be what I'm not.

I'm ready to see
  What I previously couldn't.
I'm ready to want
  What I want, though I "shouldn't."
I'm ready for answers
  That come from me.
I'm ready, so ready
  To finally be free.

Here, the writer seems very much "on the edge" of her known reality – on the not-necessarily-comfortable threshold between the known and the unknown, between the present and the future. Is she really ready as she says she is? In the passion, dispassion, and compassion (for herself) of writing this meditation, she may have momentarily been truly experiencing a birthing of triple-loop awareness. Yet her previous "pretending" had surely not all been intentional pretending. Often, no doubt, she had been convinced at the time that she wanted what she "ought." Has the experiential awareness of simultaneous completion with the past and emptiness of the future (not more of the same) lasted beyond the writing of the meditation? Does it return often? Or has the memory of the writing replaced her live experiencing of presence on the verge of the volume of possibility?

The following story from an autobiographical course paper illustrates a longer visit to this world of surprising presencing, followed by the writer's reflections on the aftermath:

> *My older brother became ill, a reality almost impossible for me to accept as he was amongst my greatest life allies.*
>
> *I visited him in Mill Valley and when there saw his terrible degradation. He didn't recognize me, mistaking me for a nurse though I had called to announce my arrival only 30 minutes before. I followed him into his office where he announced authoritatively, looking at his calendar, "My sister is due here at 11:00." Self-medicating, he had frightening overdoses with alarming falls and dangerous accidents in the kitchen. His pitifully thin body was bruised and cut where he had hurt himself.*
>
> *Toward the end of my short visit I sat with a circle of his close friends, the hospice nurse and him. I was stunned and devastated, uncertain of myself. His friends were half-playfully chastising him, complaining about how difficult he was and how they worried about him, which he bore with his usual blend of humor, charism and humility. In the midst of hearing all this, the thought came to me: I will come back to live with him and take care of him. I said so right then and the clarity of my statement and power of my intention were like the quiet birth of a new reality.*
>
> *I went back to Boston and moved as if watching myself from above. I did not know how I would do it but knew I would with a certainty that was as though it were already true. My boss, who normally complained if I wanted to take any time away from work, didn't even question me. I seemingly effortlessly found someone to live in my house indefinitely. Two technical people emerged and with grace and patience, connected me*

> *remotely to what I needed for work. Twelve days after I returned from San Francisco, I flew back there to live.*
>
> *Thus began five of the most intimate, terrifying, hilarious, and grief stricken months of my life. I only worked when my brother didn't need me and learned a new trust that time would cooperate with what had to be done. As it turned out those five months were incredibly prolific and financially rewarding, and I found I liked my work more than ever before. I loved my brother's created extended family and with their help learned how to take care of him. In some ways this was my most satisfying creation: it was instantaneous in conception and fell into place like magic - its heart energy so strong and its intention so clear, nothing would stop it. It felt to me like a magician time, where the conception is the creation and time folds to meet any contingency.*
>
> Quite apart from the profound personal experience that this was for me, it was also an unprecedented experience of a new kind of power. Being a constitutional worrywart, I was accustomed to thinking with limitation – seeing the barriers (in the "real" world) associated with attaining my desires (in "here") as overwhelming. The emotional shock of this situation gave me a power and clarity I had not experienced before. Instead of seeing limitation, I saw only my intention and knew there were any number of ways it would be met. My desires and the real world were interacting in real time (the present). I never forced a connection or answer, but instead *knew* that things would fall into place. This felt physically like operating from above myself with infinite flexibility to play/enact in the world "below". I should also say that I have not summoned this kind of power since then – unfortunately, not even to write this paper (Anonymous, 2004, with permission).

Here, we hear of a prolonged experience of a purportedly altered state of consciousness generated in part, it certainly seems, by the emotional shock this woman experienced in the face of her brother's imminent death and in part by defining for herself a very practical role to play that kept her entrained in the ongoing daily presence of this most dramatic of human transformations. While it was going on it gave her an unprecedented freedom of action and self-determination. But as she says, this extraordinary time also ended, and did not leave her with a reliable capacity to recreate that state.

Is it even conceivable that there is a spiritual/political/scientific/business inquiry and practice aimed at generating an ongoing triple-loop awareness that transforms outcomes through changing the quality of one's actions, of one's action-logics, and of one's very attention? To what degree can what kind of a spiritual community of inquiry support one's efforts toward a trans-conceptual awareness that can host all three dimensions of time – 1) the "line" of mundane, durational activity; 2) the archetypal, eternal, fractal "circles" of time that durational activity embodies; and 3) the "volume" of possibilities, from which spontaneous, imp-possible, trickster-ish violations of past pattern are drawn? These questions carry us beyond the boundary of this short article. Let us instead contemplate one more example of a particular business leader who seems to integrate action and inquiry on an ongoing basis.

Warren Buffett, an Exemplar of Triple-loop Awareness and Action?

For the many who believe that material success in business and life requires opportunistic cutting of corners, it may come as a surprise that we will tout one of the richest men alive as an intuitive practitioner of single-, double-, and triple-loop learning for whom integrity, mutuality, sustainability, and inquiry are truly primary in his life and work. We are speaking of none other than the Oracle of Omaha, investor Warren Buffett. Buffett's entire theory of value-based investing requires constant inquiry into specific companies, as well as mutual inquiry with the leadership of those companies, rather than formulaic responses to the stock market or particular industries. His approach also relies profoundly on self-oriented inquiry, in order to know the edges of what he calls one's "circle of competence" as precisely as possible and not make investments outside it.

Buffett approaches the companies he invests in as partners he wishes to relate to over the longest possible term, rather than as subordinates he can dominate or fleece in the short-term. He does the same with his shareholders at Berkshire Hathaway annual meetings, with reporters, and with business students. Rather than pontificating, he turns each encounter into an opportunity for open inquiry and gains trust through his self-deprecating humor and honesty. His basic principle of conversation and political practice is simple: "Never lie under any circumstances." (The *principle* is simple; *living up to it* is a complex work of art.) Or, as his friend Charlie Munger puts it, "One of the reasons Warren is so cheerful is he doesn't have to remember his lines."

But, the reader may ask, in what ways is Buffett transformational? He appears to have done much the same things his entire adult life. He has lived in the same home and eaten the same junk foods most of that time. Early on, he created a financial vehicle to give the vast preponderance of his fortune away and has stuck with it. And most of his close friends claim they've never known anyone who remains more the same.

True (although the very idea [not to mention the actual practice] of giving your fortune away before you've even earned it is a wee bit unusual and would require a huge personal transformation for many a businessperson). Yet it is also true that Warren's wife Suzie brought him out of his introverted self in a new way and taught him how to make friends across wide differences during his twenties and thirties. He's also changed from the Republican to the Democratic Party, a pretty unusual move. And in the past decade he's gone from being virtually a lone investor to being one of the largest employers in the US.

But perhaps the most striking, virtually instantaneous reversal of frame on a large scale that Buffett has accomplished occurred in 1991 when Shearson-Lehman fired its CEO as an ethics scandal broke. Buffett (a large shareholder) received a call early one Friday morning asking him to step in as interim CEO and try to rescue the company. By Sunday evening, he was closing in on choosing a permanent successor through an inquiry he had begun with senior management, and had met with the press for hours that afternoon, answering every question as honestly as possible. His presence, integrity, and collaborative inquiry transformed the credibility of the company almost instantly and it was saved.

And how about Warren's and Suzie's and Irene's act of transforming the notion of a romantic triangle? We usually imagine a romantic triangle as a temporary, unsustainable way of secretly cheating. But these three created a romantic triangle that was mutually honest, respectful, loving, publicly-acknowledged, and sustained until Suzie's recent death. Obviously, such an ongoing relationship is potentially susceptible to any number of jealousies and two-on-one power plays, unless all three persons continually enact each of the three couple relationships within the larger frame of concern for the unique triangular relationship as a whole. (If readers are interested in evidence for this characterization, or just in sheer inspiration, we recommend that you order a copy of the 2004 Charlie Rose PBS interview with Suzie Buffett only months before her death.)

A final indication, both humorous and serious, of Buffett's trans-egoic perspective on his activities is his final letter to his Berkshire Hathaway shareholders, which he has already written and which will be released the day after his death, continuing his frame-changing leadership. It begins, "Dear Shareholders, Yesterday I died. This is bad news for me but not for you…"

Conclusion

This essay has consisted of a number of qualitatively different experiments to communicate the experience of triple-loop awareness, which supposedly gives participants in any social process the capacity to be fully present and to exercise re-visioning, frame-changing leadership in a timely fashion. The examples have been drawn from particular situations in business, art, leadership education, and home life. We have also presented an encompassing theory of time itself and of its inextricable relationship with our own capacity for awareness.

If you have reached this point in the article after having read straight through it, please recall our admonition in the introduction that it is unlikely you will have yet achieved a satisfactory sense of comprehension, completion, and conclusion. Reading the article once through is like walking around the base of a mountain. Now, perhaps, your attention can try one of the uphill paths toward the peak of this little mountain of meaning (Daumal, 1974). What would it mean to play with the very attention we are exercising as we read, as we suggested in the introduction?

In other words, to what degree may it be possible to live, on an ongoing or many-times-a-day-returning basis, within in a six-dimensional horizon of conscious inquiry into the life and death of particular events, particular thought-episodes, and particular feelings, as well as of the sense of fractal patterns among them, not to mention the subjectively presencing origin toward whom our attention turneth when we seek through our winters and into our springs?

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Good, Clever and Wise: A study of political meaning-making among integral change agents

Thomas Jordan in an Interview with Russ Volckmann

Abstract: Thomas Jordan discusses the intellectual and research foundations that have led to his creation of a consciousness development model. In interview research that he conducted among selected personnel in Swedish defense and security agencies, Jordan has focused on three key skill sets: consciousness skills, self-awareness and embeddedness or identification. From this he has identified seven characteristics that show up in various patterns among those he interviewed. The first three—good, clever, and wise—are key characteristics. The next four follow from them: curious, inventive, modest and handy. These show up in variable combinations among these integral change agents involved with promoting change within political institutions.

Key words: Integral, change agent, consciousness, skills, political, meaning-making.

Q: *While your work historically has been focused on conflict management, since about 1998 you've been writing about development and politics while drawing on diverse theoretical approaches to do that. We're going to be considering the work you're currently doing. As a way of starting us off, what brought you to this work?*

A: The research I'm finishing now is about integral change agents, primarily in governmental organizations. I tried to find individuals who make sense of themselves, their aims and their world in terms of what we technically would call late post-conventional meaning-making. These are people who are unusually aware, sophisticated in their understanding of causality and have a deep, personal engagement with some kind of existential values—values that serve the whole, rather than some partial interest.

I'm doing this research with project financing from the Swedish Emergency Management Agency. That means I am focusing on people who work with societal security issues in a very broad sense (see Table 1). Some of them work with defense policies and others with internal security, for example, addressing how we can prevent society from disintegrating into a situation where we have a lot of street violence. All of the people I have interviewed in this project are in some way engaged with issues involving how we keep a decent society.

Table 1: Positions of Those Interviewed

SOME RIGHTS RESERVED

Profiles of Interviewees	
Positions	**Total**
Officials and experts at ministries of the Swedish government	5
Senior officials in Swedish government agencies	5
Police officers in various functions	4
Officials with policy making and organizational development tasks, City Office of Gothenburg, Sweden's second largest city	2
High-ranking officer in the Swedish Armed Forces	1
Consultant working for the Swedish Armed Forces and Police	1
University professor	1
Total	19

Q: Is this a significant new step for you?

A: There is a very straight line from what I have been doing for the last 20 years or even more. I have always been rather obsessed with trying to understand why the world looks like it does and why things happen the way they do. I have a very deep interest in understanding the inequalities in the world and finding some way to work with reducing suffering.

I started out trying to understand the world through economics, economic geography and similar sciences. Then I moved to looking more at how human consciousness works and to use that as a perspective for understanding societal conflicts on various scales. I've spent a very long time getting familiar with and learning to use theories on adult development and consciousness development in order to make them into tools for understanding political development and processes of various kinds. Thus, it's quite natural that I end up working with these issues.

Q: As a way of laying a foundation it might be useful for us to take a look at what are those models and constructs that have been significant for the work you're doing now.

A: I've always been interested in psychology as a way of understanding how people behave in social interactions. In the mid '80's I read two books that turned my whole conceptual framework upside down. One of them was Stanislav Grof's *Realms of the Human Unconscious.* The other was Ken Wilber's *Up from Eden***.** They were very significant in different ways for the development of how I have been approaching these matters. Perhaps Wilber's book is more relevant to what I am doing today than Grof's.

The most important thing with Wilber's book was that it painted a vision of human history—cultural history, societal history—that focuses on the relationship between structures of human consciousness development on the one hand and societal systems, structures and cultures on the other hand. Reading that book gave me a key I had been looking for to understand politics. It started a process in which I quite systematically went to Wilber's theoretical sources.

I've focused mostly on the research-based sources. I've spent many years reading the research on adult development, ego development, consciousness development, and ego transcendence. In this very rich literature there are of course some researchers who have been more important to me than others. Among my favorites are Robert Kegan and the whole area of ego development psychology with Jane Loevinger, Lawrence Kohlberg, Michael Basseches, Robert Selman, Bill Torbert, Susann Cook-Greuter and a lot of other people.

So the research I have been influenced by has focused on cognitive development and ego development. I'm also very influenced by spiritual traditions, primarily Buddhism.

One very important person for me was Trungpa Rinpoche whose books I read early on. He influenced my thinking very much. I've been reading a lot of Buddhist literature, mainly Tibetan and Zen Buddhism, Thich Nhat Hahn, for example. Like Wilber, I find it very productive to make use of the Western traditions of empirical psychological research into meaning-making structures and Eastern traditions about how human consciousness actually works.

Q: *Has this resulted in your developing a framework for integrating these?*

A: Yes. I spent quite a lot of time trying to put together many different models and dimensions of consciousness development. Wilber talks about lines of development and tries to relate different models to each other by saying that they focus on different aspects of consciousness development. But Wilber has been quite reluctant to spell out details or delve into the more intricate aspects of how those different lines of development relate to each other and what it means when you look at them in an interrelated way.

It has been an important personal project for me to try to develop a conceptual framework for putting those different dimensions of consciousness development to work when I'm trying to understand such things as security policy reasoning or how people generally behave in various kinds of conflicts, like workplace conflicts.

What I have is not at all a finished framework, but I find it very productive to think about consciousness development in terms of three different aspects, three different approaches into the field. The first is related to what we could call *consciousness skills.* That is what the theories about cognitive development are very much about—for example the complexity in how you construct causality in the physical, social and psychological worlds. It is about such things as role-taking: what skills you have in imagining how differently other people think; or capacity to construct and use abstract, subtle and paradoxical concepts.

There are very many different models discussing various aspects of cognitive and consciousness skills, not only the cognitive part of it in a narrower sense, but also what is generally called emotional intelligence: how you can use your way of relating to people, use your empathy, using your tone of voice and such things in order to influence what happens in communication and relationships.

Q: *What do you mean by cognitive? We may tend to associate that with "intellectual" and it sounds like you're going beyond that.*

A: Cognition is not only discursive thinking, but also involves other types of mental representations and information processing, such as imaginal and symbolical processes. It includes the way you make images of things that happen, for example. It is about everything that goes on in your mind in terms of your thoughts about things, the way you make story lines out of what happens in your life, the way you think about things, the way you reason about cause and consequence and so on. So cognitive for me is really a very broad category and has a very broad spectrum of development as well.

When we look, for example, at Jane Loevinger's ego development theory and stages, we can see how—in the course of development—language becomes more and more differentiated. In early stages of ego development you have access to a very simple and crude repertoire of concepts and words in order to discern and describe inner states and what happens in the environment. Developing an increasingly differentiated repertoire of concepts and symbols is a key aspect of cognitive development. It allows a person to discern nuances, ambiguity and complexity.

Q: It has to do with the capacity to differentiate?

A: That's one important aspect of cognitive development, yes.

Q: So far, cognitive is about thought and the capacity to differentiate with greater complexity, as well as emotional intelligence. What would you add to that?

A: Cognitive processes include the whole imaginal realm of using non-verbal symbols and images. Academics may have a tendency to focus on rational thinking, but in understanding how people function in daily life we need to pay attention to how people make sense of events by creating stories. These stories make little use of logical analysis, but draw on metaphor, mythical themes, dramaturgical figures and so on.

Q: And what would you add to the arena of consciousness skills?

A: Unfortunately there is too little empirical research into development of skills in the realms of feeling, intuition, sensory-motor reflexes and pure action. We learn more by imitation than by intellectually understanding and many skills we use in highly purposeful ways cannot be articulated in discourse. So I hope we will see an expansion of knowledge about consciousness skills related to emotion, imagination, intuition, action, etc.

Q: Consciousness skills is the first aspect. What's the second one?

A: The second is *self-awareness.* I use the term self-awareness with a very specific meaning, in a very specific sense. I mean the capacity or presence you have in relation to your own on-going subjective processes. What's going on in yourself? I think this can be best understood if you are somewhat familiar with Robert Kegan's subject-object framework. He talks about the very important aspect of human development where you are able to take different things as objects for reflection, as objects for awareness.

Self-awareness means that you notice that you have certain patterns of thought operating in you. You can take your own thinking operations as an object of awareness. You can look at your patterns of thinking. You can reflect on those patterns. You are aware that those patterns happen in your mind. The same goes for other types of subjective processes such as emotion, the attitudes you develop toward other people, towards your wishes and cravings and so on—all the things that the spiritual traditions work with.

Q: Would it be fair to say that consciousness skills as you are describing them relate to our life conditions and self-awareness is their interiority or is there a more complex relationship between the two?

A: They are very strongly interrelated. The distinction is somewhat artificial, but if you look at skills and you look at the theories describing different kinds of consciousness skills, they always emphasize increasing complexity and increasing sophistication in those skills. But self-awareness has not very much to do with increasing complexity and increasing levels of sophistication, but more with actually noticing that certain things are going on in yourself. You are no longer a captive of your own subjective processes, but you can develop a witnessing ability. The witness self, which spiritual traditions talk a lot about, is the principle operating in self-awareness. You develop more and more of an ability to witness your own subjective processes.

That's central in understanding, for example, how people behave in conflicts. Some people are not really aware that what they feel towards another person is a process going on inside themselves. They tend to feel that when they dislike a person that is a direct consequence of that person having bad qualities. But persons who in a very clear way are aware of this process as going on inside themselves can differentiate between their own psychological processes and the inherent characteristics or the processes going on in other people.

I would say that skills have more to do with the level of capacity you have for understanding complex systems and so on, whereas self-awareness has more to do with your presence in relation to your own processes. In Buddhism and other spiritual traditions when you start meditating you start observing your thoughts, the mind streams going on in your own consciousness. That doesn't necessarily mean that when you can differentiate your witnessing ability from the cognitive processes going on in your mind, that you can look at the thoughts floating up in your mind and that those thoughts are very sophisticated. They can be quite simple.

Persons at a very simple level of cognitive development can develop a high level of self-awareness, but that doesn't mean that they automatically are particularly skilled in understanding complex systems of causation and so on. There is a point in differentiating between skills on the one hand and self-awareness on the other hand. They tell us very different things about how a person's consciousness operates. I think there are many monks in the Buddhist tradition, for example, who have very high levels of self-awareness, but not very high levels of sophistication in their consciousness skills. They weren't trained in sophisticated thinking operations. But since they know their thinking processes are subjective, they are perhaps not so inclined to be convinced that they already know everything, which is of course a great advantage.

Q: *What is the third area?*

A: The third I tend to call either *self-embeddedness* or perhaps a more accessible term: *identification.* The first two dimensions or aspects describe what you can do, but not what you *want* to do. Self-embeddedness includes those lines of development that have to do with what you find important, what you identify with, how you identify yourself. What kind of self image you have, what kind of value systems you are embedded in, what kind of morals you feel committed to and so on.

In the self-embeddedness aspect of consciousness development we find, for example, Robert Kegan's or parts of Jane Loevinger's ego development models. We also find models related to moral development or collective identifications. That's a very interesting aspect: what kind of collective you feel you are a part of. We also have Spiral Dynamics with the emphasis on value systems. What values do people identify with?

I think it's important to differentiate those three aspects of consciousness development, because no one of them can be reduced to the other.

Q: *As I understand the framework that you've put forth so far, you're suggesting that these three areas are useful ways to cluster lines of development and to begin to think about the relationships among lines of development, is that correct?*

A: Yes, exactly. They constitute a framework that may offer tools that can help us understand unique patterns of meaning-making. One of the criticisms I have about taking stage models too seriously—any of the different brands that are around—is that they may reduce our sense of the uniqueness among individuals or cultures. With a more open-ended framework defining different lines of development and formulating questions, rather than focusing on the definition of discrete stages, we can have much more openness towards understanding what is unique about meaning-making patterns of a certain individual or a certain group. And that's very valuable.

Q: *In one of your papers, you differentiate between idiographic and nomothetic approaches to research. Are you basically arguing for this framework to support an idiographic approach?*

A: I think nomothetic and idiographic approaches are necessary, but I feel that there has been too much emphasis on nomothetic approaches, that is approaches that try to develop theories that are universally valid and describe reality in, for example, a stage model. Idiographic approaches use theory in order to understand unique circumstances and unique individuals. I think that we need more of that if we want to be able to carry out really good empirical research on these matters.

Q: *The idiographic approach basically allows us to use theory to help us understand what is happening for an individual or in a current situation in some social system. Is that true?*

A: Yes.

Q: *By being able to use theory to help us create distinctions in a social system for ourselves and others we have an applied approach to creating change—well, first to creating meaning and presumably by creating meaning, then to creating change, be it the resolution of a conflict or the development of more capacity within a particular social system?*

A: Yes, that's how I see these things. I think that in order to be really useful for working with the real world our theoretical frameworks have to be very context sensitive. They have to be adaptable and flexible in order to make it possible to understand the variations and the nuances in what we encounter and identify what are the really relevant aspects of what is going on out there. If we who work with theoretical development in the integral paradigm want to be useful for a wider world we have to go in that direction—not only—but also in that direction.

Q: *Returning to these three elements or aspects in the framework you're using, you've also talked about the interplay among them, the relationships among them. I'm wondering if you have any construct or any framework for talking about that process, that dynamic?*

A: Not really. Only that I find it very productive to have these distinctions in the back of my mind when I interpret interviews, when I look for patterns in meaning-making of, for example, a political party or a group in a conflict—how they make sense of what is happening in their world. Then I find that this theoretical frame allows me to recognize the patterns operating in a very differentiated way. I have not, at least yet, tried to theorize very much about that in terms of a general theory about how these different aspects of development relate to each other. It might possibly be done, but I think we haven't come very far yet.

Q: *How do you use this framework to begin to talk about integral politics or to make meaning in looking at situations involving politics from an integral perspective?*

A: I've spent a lot of time looking into all those different theories about consciousness development in order to fashion tools for understanding societal processes, in particular conflicts of various kinds. I was invited to one of the early meetings at the Politics branch of the Integral Institute almost five years ago. I found it very interesting and productive to think about the concept of integral politics. What would integral politics be?

Some people regard integral politics as a kind of ideological framework that would replace existing ideologies by transcending them and integrating various kinds of values. I tend to think about integral politics not so much in terms of the content, the concrete opinions and policies, but rather in terms of the structure of meaning-making. I think even an integral community will have different political camps: integral conservatives, integral liberals, integral social democrats, etc. The key issues have to do with the ability to balance the spectrum from egocentric to world-centric concerns, the ability to perceive and handle systemic complexity and the capacity to reflect on the patterns of meaning-making.

Q: *This is how your framework is applied?*

A: Yes. One of the ideas that I had is that we shouldn't just try to develop a conception of integral politics by theoretical reasoning, by deducing integral politics out of some kind of basic principles. I found it attractive to use what we academics call an inductive approach, namely to search for people who have spontaneously developed a capacity for integral meaning-making and then study how these people think about politics. How do they think about their role in politics? How do they go about trying to change things? That has been an idea that has been with me for five or six years, but I didn't have the opportunity to do a project until two years ago.

Q: *And that's what you've been engaged in since?*

A: Yes, that has been one of the projects I've been carrying out for the last two years. What I could do at first was to explore meaning-making in Swedish defense and security policies. I also did a research project on how people think about what keeps the society decent, i.e., meaning-making in internal security policies. In the course of these two research projects, I had an opportunity to interview about sixty people in various positions in Swedish political and administrative organizations. I got to know quite a lot of people and to meet some very interesting individuals.

In the course of those projects, I thought I could recognize a group of very interesting individuals. I tried to look at them with a mind schooled by the theories I've been working with for a long time now. I thought I could discern certain patterns that fit quite well with certain aspects of consciousness development theory.

So, the background to this project is that I had an initial image of the existence of a group of interesting people active in Swedish authorities, government departments and other organizations. I wanted to have a closer look at them in order to learn how they think about what they're doing, how they define what they find engaging in what they do and how they go about trying to work for change in a complex society. This would be a way to learn about what integral politics might be in practice.

These are not people who have joined university courses in cognitive development theory or anything like that. They don't have a vocabulary for reflecting on and talking about themselves in that way. But they display many of the characteristics described by, for example, Torbert's model for ego development among leaders or Loevinger's, Kegan's and other theories. I devised a strategy for finding and interviewing such people in order to learn more and to use this material to develop a—perhaps I shouldn't say best practice model, but something like that. I want to assemble a portrait of how we can conceive of political change and political work as alternative politics or integral politics. That's what I'm deeply engaged in right now.

Q: *Before we go into the study itself in terms of the variables you were just talking about, can we go back to your identification and selection of these individuals? The way I'm interpreting what you are saying is that these are people that, when you talked with them, gave you some indication that they had developed to some higher capacities in the three areas of your framework having to do with consciousness skills, self-awareness skills and* *their relationship or levels of identification with what's important in their world, their value systems, their self-embeddedness, is that right?*

A: Yes.

Q: Were you able to identify the individuals that you thought might be valuable to talk with in this study because you intuitively picked this up or were there some specific things that helped you select the people that you would include in this study?

A: Well, I had some points to start from that I knew were important and that I could look for in people. So, for example, I looked for people who felt a personal engagement in some kind of world-centric values; that was one of the points. I also looked for people who had a certain kind of interest in complexity. They have a good understanding of complex reasons and interdependencies behind what happens and also a sense for complex consequences. That's not as common as you might think when you look at how people go about their tasks in organizations—commercial or governmental.

Q: Would this piece about complex consequences relate to moving past linear causality into systemic and meta-systemic causality?

A: Yes, exactly. That's exactly what I was after. And a third very important factor was what Wilber could call vision-logic, which I conceive of as the ability to perceive and understand systems of meaning-making—individual and collective systems of meaning-making. This involves people having an intuitive or explicit ability to understand that perspectives or systems of meaning-making are actually very important causes for how people act.

Some of the people I've found have a natural ability to recognize that a person acts in such and such way because they are identified with a certain self image, certain values or they have a certain way of reasoning about causality and so on. That has very, very important consequences for their attitudes towards other people. These are people who have a very low propensity for making enemies out of other people. Even though other people may act in ways they disapprove strongly, they see the underlying reasons for their behavior and, therefore, they don't blame people in the same way that many others would. But these are, of course, very, very complex issues we are going into now.

Q: Was there anything having to do with spirituality or morality that distinguished these people?

A: Few of these people actually talk about spirituality. A few of them do, but most of them don't.

Q: What meaning do you make of that?

A: I'm not sure of how I would define spirituality. You can have two quite different ways of looking at it. One definition of spirituality emphasizes the sense of being in connection with some kind of greater presence or power. It is a very feeling-oriented sense of spirituality. Another aspect of spirituality is more in terms of ego transcendence—you feel committed to a perspective that goes far beyond your own ego and your egoic needs and interests. For these people I'm studying, I think the second aspect is more pronounced and more important in understanding how they operate. These are not people who talk a lot about God or something like that, but some of them are in fact like Bodhisattvas…

Q: *How do you mean they're like Bodhisattvas?*

A: A Bodhisattva in the Buddhists world view is an enlightened person who has chosen to stay among humans and to work for other people's enlightenment and liberation from suffering. In particular, the last part is very relevant for many of these people. They have a very, very deep personal commitment to work for other people's liberation from suffering in various forms. This motivation is central to how these individuals choose to work, what kind of positions they look for, what kinds of organizations they belong to and what kinds of tasks they feel are important to engage in.

In a close-to-the-ground sense, these people are like Bodhisattvas. Maybe they don't wallow in cosmic consciousness and feel at one with the world soul and such things, but in a very sincere and personally grounded way they are deeply engaged in working for the good of the whole and working to alleviate human suffering. In that way I feel they quite closely fit into the image of the Bodhisattva.

Q: *Having selected the people that you were going to interview, what were you hoping to gather from the interviews?*

A: I wanted to invite these people to tell me about how they conceive of what is important. How do they make sense of how social and political processes function? How did they choose to work with and for change? Also, a particularly important question in this research, how do they handle resistance and inertia, because these kinds of processes are very difficult? They are trying to influence and work with governmental policies and large organizations. They work with foreign policy questions, social policy questions, crime and so on. You don't change things very rapidly when you are working there. So, how do they go about using their commitments, their understanding of complexity and their understanding of other people's patterns of meaning-making in order to devise change strategies? That was one very important topic.

Q: *Were you using the interviews in part to confirm what you had determined, that these people had the consciousness skills, self-awareness skills and awareness of self-embeddedness and to go beyond that to describe their meaning-making in these areas?*

A: You can say mostly the latter. My own personal purpose with this research project is to pinpoint and create a differentiated image of how these people make sense of what they are doing, what their motives are, how they work and also to learn from it, of course. I wanted to go beyond, as you said, these conceptions in order to differentiate and find more nuances in what we are looking at.

Another important purpose with this project is to actually document and show to people that you can make sense of politics in this way. These are real people. They are working in real organizations. They have been doing it for years and years and they actually make sense of their work in this way. There are interesting aspects of how they do this that we could all learn from. So, the target group for my research is not so much the general public, but people who are somewhere in these regions themselves. Here they can get a mirroring of what they are intuitively striving for, but perhaps have not articulated for themselves.

So, I am trying to articulate a kind of underlying logic that some people operate with. I don't think we can teach people at early conventional levels of ego development to develop in this way, but we can smooth the path for people who are already on the way with their own momentum.

Q: It sounds like the way you found these people is that you used your network very effectively. You talked to people you knew who referred you to people they knew and so forth?

A: Yes, that's right. And I tried to describe in simple terms what I was looking for. Of course, I couldn't know beforehand if the person I was going to interview actually fit into the target group. Some of the people I interviewed really didn't, but that was also very valuable because it helped me to make differentiations. Looking at how a person with a low level of awareness of his own subjectivity reasons about the resistance his efforts encounters, for example, gives me a better sense of what is characteristic of the people who actually have a high level of self-awareness. The contrast is valuable for discerning patterns.

Q: How many people did you interview totally?

A: I have interviewed 19 people in this project, but I also interviewed over 50 people in the earlier projects. Some of those people, reasoned in a way that allowed me in this project to draw on those interviews as well. So, there is a core group and then a wider reference group.

Q: And the 19 are the people who show a vision-logic level of development?

A: When you work with real people and real interviews, the differentiations don't get so very clear-cut. What I'm doing is to develop a kind of assembled portrait of a way of making meaning that some people operate with to a very large extent and some other people operate with only partially. There's a spectrum here of some people who very well fit into the model or image I'm assembling and there are some people who partly fit into it. There are a few people who don't fit into it very much at all. So, I have 7 or 8 persons who to a very large extent are similar to the image I'm assembling, whereas the rest to various degrees live up to those different characteristics.

Q: Having done these interviews, what are some of the conclusions that you've gleaned from this work?

A: I like being a bit drastic in order to grab people's attention. So, what I have been doing is to start with a very simplified description of this group of people in terms of seven characteristics or traits which I used one word each for. I go on to explain what I mean by those different words and give examples of them with quotes from the interviews.

Q: What are the seven characteristics?

A: They are divided into two categories that grew out of the analysis work over time. There are three characteristics that seem to be fundamental and they are not very much of a surprise when you compare them to consciousness development theories. Those three most fundamental characteristics I call '*Good,*' '*Clever,*' and '*Wise.*' These are people who are good, clever and wise.

'Good' means here that these are people who are strongly committed to some world-centric or holocentric values. However, anyone would say that they are committed to values that are universal. One of the challenges here is to sort out what is actually specific to this group of people in how they construct what is 'good.'

Perhaps it would be to go too far in this interview to delve into the theoretical differentiations here, but what is central is that they have an autonomous set of values that is clearly differentiated from particular story lines. They don't use a great story that points out who is good and who is bad in order make sense of what happens in the world, which would be a mythic-rational pattern of meaning-making. These people also do not use some kind of monological rationality where they use *one* particular ideology or perspective to interpret the world or make sense of what is good and bad. You can show this in their reasoning by looking at how, for example, they are very clearly able to be quite critical of their own country, their own organizations, the policies that their own organizations carry through and so on. They all have a quite distinctly felt autonomous value system to compare with all the time. This value system is clearly differentiated from concrete actors and organizations.

Q: You've called it world-centric. Is it a value system that is transcendent in a sense?

A: Well, this is also simplification.

It is quite useful for talking about these things to differentiate between egocentric, socio-centric and world-centric values. You can go on and talk about cosmos-centric values, for example, but that's not very useful here. It is sufficient to distinguish between three different levels. Egocentric values are values that relate to the individual, to the person. I try to maximize my own advantages and interests as far as I can. Socio-centric values make the interest of a particular collective the center of motivation, whereas world-centric values refer to what is good for the whole.

Q: In this group were you able to distinguish how they related to egocentric values differently than others who would not fit into this group?

A: Yes. That's a very interesting area of exploration, which I think you have to approach in a couple of different ways. One of them is that these are people who don't have very strong ego needs. They are not very strongly motivated by getting acceptance, collecting admiration from other people, gaining status and so on. In that way, they are quite mature people. They don't define themselves in terms of an idealized ego they have to live up to and get recognition for from other people.

Their egocentric needs are not very strong, but of course, they have them. They have needs for recognition. They have needs for a secure life situation. They have needs for doing meaningful work and so on. But the world-centric values, the existential, principled or universal values they feel committed to constitute a broad frame within which they can try to satisfy their egocentric needs.

There is an interesting relationship between the egocentric and world-centric needs in these people, because they somehow get fused. When you feel a deep, personal commitment to universal values, it also becomes a personal need for you to be able to serve those values, to work for them and to realize them. If you are unable to do so, you feel dissatisfied. If you are able to do it, you feel satisfaction. An important part of the egocentric needs becomes conditioned by the commitment to world-centric values.

Another interesting thing is that these values are not always very clearly articulated among these people. So, it's not always that they can report a list of, "Those and those are the values I feel committed to and that are the compass for what I am doing." But in the course of the interview, you nevertheless get a very strong sense that these people have a kind of internal compass which points out the direction for them to work, but they have not always been able to formulate in concepts, words and discourse what this compass is about. This is theoretically interesting because, in my interpretation, it points to something significant: a world-centric value orientation is not a product of discursive thinking. It seems it is rather a result of a felt commitment and a commitment to 'the Good', a commitment to the health of the whole. But you cannot so easily pinpoint what that means. You cannot make an ideology of it. It is more like a feeling than a discourse. I find that very interesting and would like to explore this theme further.

Q: *Does this have implications for how you would describe self-awareness and self-embeddedness for these people?*

A: This is a very important aspect of self-embeddedness, of course. That's the aspect of consciousness development that most covers the characteristic 'good' here. So, you can use that aspect to discuss what is happening here.

Self-awareness is important for goodness in the sense that these are people who have a clear sense of what are actually their egocentric needs and interests. Therefore, they are able to consciously decide how they should balance their own egocentric interests and needs towards the broader commitment that they have to the good of the whole. So self-awareness is a very important element in creating some kind of solidness in this goodness that these people display.

There is also a last aspect of the characteristic 'good' which is quite self-evident when you think about it. These are people who often feel it is important to work with values. Values are a field of work for them. They find values important and they often engage in organizational change projects that have to do with developing a clear conception of values, of making people reflect on values and develop value systems and so on.

Q: *Would you give an example of that?*

A: One example is a teacher at the National Police Academy in Stockholm who spends a lot of time trying to raise awareness, start discussions and to influence the way the education program is built up in order to emphasize such aspects as respect for people who have a weak position in the society, what that means when the police is out working on the streets and so on. That is one example. There are very many other people who engage in trying to build reflection on values into the organizational culture and structure in various ways.

Q: The second was 'clever.'

A: With 'clever' I mean mainly what we talked about before: a systemic understanding of causality, going beyond linear conceptions of how things happen into a systemic conception of causes and consequences. These are people who are described by others as having some kind of 'strategic overview,' people who can perceive large systems and interactions between different parts of systems, between part and whole and whole and part and between different kinds of systems. Most important—and this is not very simple to put words to—is that these are people who, wherever they go, expect there to be complex causes and consequences of everything. That's not so common as one would think in a society with very highly educated people in authorities and in other organizations. For people to actually use an ongoing awareness of there being complex causes and consequences is not as common as I would have hoped.

Q: Would you give an example of that?

A: Well, when you start talking with these people about a particular project or problem they are working with, they often start with giving a broad background. They talk about changes happening in the society: globalization, the role of the media, technologies, value systems. All those things are long-term processes that change the very conditions for the work they are doing. That's very typical.

They don't narrow down their focus of attention on a small part of the problem. They see the problem in a much broader context. In particular, they have a very keen sense of long-term changes going on, that you have to be aware of those changes and to adapt existing structures and policies to those changed processes. That could be, for example, long-term demographic change in birth rates, migration and settlement patterns that change the conditions for social welfare policies, crime and value formation. It could be how new information technologies change the conditions for political activism and political violence. It could be how the structure of military and civil defense has to adapt to fundamental structural changes in the global security policy system, and so on.

Q: Anything more about 'clever'?

A: These people usually have a long time horizon. They think in terms of slow change processes and they develop a certain patience. They know that these are processes that take a long time. They can contribute to push those processes a little bit in some kind of direction, but can't expect to achieve radical changes fast. They often engage in change processes that can take a long time.

What is also typical of these persons is that *because* they perceive systems and regard the characteristics of how systems operate as important causes for what happens, they see systems and structures as important fields of work. So, when we look at the 'good' aspects of these people, they like working with values. When we look at the 'clever' aspects of these people, they like working with systems. They like working with how their own organization operates as a social and administrative system. They like working with principles on a large scale.

Q: As your description of this is unfolding, I get a picture of people who are working within a set of strongly held values, but not looking for a completion. They realize they're in an on-going, organic, dynamic process that probably never ends.

A: Yes, and if we think about the historical development of politics in the Western world or in the world in general, we know that very much of the political dynamic that has developed comes from political movements having utopian visions of what society ought to be like—the Marxist movement, the Neo-Liberal movement and so on. But these integral thinkers, so to speak, don't find it meaningful to make a blueprint of what a society ought to look like and then try to implement this blueprint. They know that these organic, slow processes are very complex. There are very many conditions and interdependencies in those systems. Therefore, it is meaningless to make a blueprint of what solution would be ideal.

Instead, they look at those complex dynamic processes going on and start thinking about how we can introduce some elements into these processes so that they go in a different direction than they do now. How can we push this complex dynamic system in a certain direction? And then, what does it look like in ten years? It's probably nothing we could have expected because we cannot foresee how these processes are going to unfold in the future.

Q: That sounds a bit like 'wisdom'?

A: Yes, in a sense. 'Wise' means here, as I said, vision-logic, the ability to take systems of meaning-making as an object of attention. These are people who are well aware that people make sense of themselves and politics, for example, from within a certain kind of perspective. This has a lot of consequences. One is that these people are not embedded in one particular ideology or perspective, but they can shift among perspectives. They can use more than one perspective for understanding things and they are *interested* in the contrast between different perspectives. It also means that they usually have a certain sense of the characteristics of their own perspective. They know that their own system of interpretation has limitations. That also means that they are open to learning in a way that a more conventional meaning-making system is not open to.

Q: How do you see the implications of this?

A: Well, the consequence of being wise is that these are people who are quite interested in initiating processes that might lead to transformations of meaning-making patterns. They think about how they can create a process or situation that invites people to re-evaluate their values or interpretations and so on.

Q: *Did you come across an example of a strategy that was successful in doing that?*

A: There are small and large examples of that. A small-scale example is that I can be working in an organization and realize that people around me or people for whom I am the boss may be very concerned with their self-image. They may be anxious about being exposed as incompetent. That means that they close down communication. If you understand that aspect of other people's meaning-making systems, you can start by trying to create safe spaces and trusting relationships so it becomes possible for other people to relax a little bit, open up and then start to engage in processes where they look with more openness toward, for example, critical feedback. People who are very defensive are not very keen on doing that.

At a larger scale, we have people at the Swedish Department of Foreign Affairs who are looking at strategies for involving the entire corps of diplomats in the Swedish establishment in reflective processes on values. They are trying to find a good way of locating and describing individual diplomats who have acted in a way conceived of as being representative of a value-oriented foreign affairs administration. They want to present those examples as something you can discuss as a way of developing a clearer sense of the deeper purpose of being a Foreign Affairs official, in terms of values, for example.

Q: *I find it absolutely fascinating in that context that people are even willing to engage with each other in looking that carefully at questions of values.*

A: There is a lot of resistance as well, so it's not all a rosy picture.

Q: *Okay, we have 'good, clever, and wise.' Those are the first three categories and those were the fundamentals, right?*

A: Yes, and we can take the remaining four much more rapidly because they actually follow from those three. But I find it useful to point the spotlight at some of those traits or characteristics as well.

The fourth one is '*curious*.' These are people who are curious. That follows from the wise aspect. They are aware of the limitations in perspectives and systems of meaning-making. That means that they are often strongly process-oriented.

They are interested in working in a way that invites people into inquiring processes. They don't believe that they already know everything that needs to be known. They don't believe that they or any other people already have all the solutions. They are interested in how we create processes where we can learn and discover more in order to find better solutions to central problems.

One of the main sources of frustration for these people is when they encounter people who resist inquiring processes. They are frustrated with processes in which people only criticize or have ready-made solutions to everything. They feel very uncomfortable in organizations where there is no space for searching for more and deeper knowledge, where you can toss ideas around, where you can look at the drawbacks and advantages of a certain suggestion and where you can collaboratively develop new solutions. That's a quite important aspect of these people, this 'curious' trait.

Q: *And something that calls forth their wisdom hopefully.*

A: Yes, they are strongly interrelated.

Q: *And the fifth item?*

A: The fifth is that these people are "*inventive*". A more academic term would be "generative." Because they have this autonomous value system, they have an internal compass that points out their direction. That means that they very often generate new ideas about directions one could go in. They identify needs for change and they also come up with lots of ideas about what could be done. They are not embedded in existing structures, but they have cognitive freedom to think about possibilities, because they have differentiated their values from the existing structures.

These are people who are interested in change and have ideas about change. That is not always comfortable for large organizations to have. It means that they might land in conflicts and often land in dilemmas about, "…in what sense should I be loyal with the decisions already made and in what sense should I work for change even though there is already a policy?" But these people are generally very aware of this tension between the need to be loyal to democratically made decisions, on the one hand, and on the other hand to look for room to maneuver where they *can* push policies in new direction. That's the fifth aspect.

The sixth is that these are people I would like to call "*modest*." They don't have very strong needs for being visible, for getting attention, for getting recognition. They like it when they get it, but they are not *craving* attention and recognition. That means they have a kind of inner freedom to be solution-centered. They use several words and metaphors that capture this orientation in images. They talk about themselves as catalysts, as matchmakers, as enzymes and so on. They think of themselves as being actors in complex processes where it is not so important that, "I get credit for things, but I can contribute to better solutions for going in the direction of the values I find important…" and so on. If other people see this, good and well. If other people don't see this that is not so important, because they are satisfied anyway. So, these are people who often are not very visible to the general public. They work behind the scenes and they are quite content to do so.

Q: *And the seventh?*

A: The seventh is that these people are "*handy*." That's the English word I found closest to the Swedish word I am using. These are people who are quite pragmatic. They have a high level of social skills—emotional intelligence, social competence and so on. Because they have a good sense of how other people think, they are also quite able to be effective in evading other people's defenses and finding new ways to move things around.

Q: Handy generally means that people can do things in the material world. Fix a clock or a lamp or an automobile. They are adept.

A: Yes, that is what I'm after, at least metaphorically. It is a practical skill in getting things to work.

Q: Isn't this Platonic in the sense that society needs people with differing sets of capabilities?

A: Yes. I don't personally believe that these are things anyone could learn given enough time. I personally think that this also involves in-born talent. That is, of course, only an amateur theory of mine. But when I look around, I think that some people have the kind of natural talent for developing these kinds of skills and propensities whereas other people would have a very, very hard time or wouldn't even want to go in that direction.

Q: So, this is the nature/nurture issue?

A: Of course.

Q: What are the implications of that for integral politics?

A: I don't know if the implications are that far reaching, because any position you could take on nature/nurture has us back to the present moment where such development processes, if they are possible for all people, nevertheless move so slowly that it doesn't make a difference. In terms of our lifetime and our children's lifetime, we will live in a world with very unevenly distributed awareness, consciousness skills, identifications and so on. The people who have the inner freedom to put their talents and resources to work for the general good should have as good conditions as possible to do so effectively. That's somehow the way I think of it.

Q*: Where are you going from here with this research?*

A: I'm going to take a break from researching for a while and work more in the outside world, outside the university. I'm actually trying to put some of these things into action in terms of teaching and workshops for practitioners in various fields, but also in real world political processes. It could be smaller or larger issues.

I have some collaborative relationship with people at the Department of Foreign Affairs and allied authorities. I also work with the Crime Prevention Council here in Gothenburg, which is a very interesting organization with second tier people in it. They are presently concerned about an acrimonious debate going on about graffiti and how authorities should deal with young people who engage in illegal graffiti.

It is very interesting to think about how we can create inquiring processes for people who have diametrically opposed views on the best policy to follow here. If we can create processes that open up people's perspectives and make it possible to take in that there are different types of reasoning, we could apply it to this problem. So, those are some things I will do in the next few years. Maybe later I will go back to research and write up some more theoretical things. I would like to do that, but for the moment, I'm inclined to engage in more practical activities.

Q: *Do you anticipate that the training and development programs that you want to develop would draw on the research you've done in this project?*

A: Certainly, very much. I do think in terms of creating a course for people who work with strategic change as leaders or as change agents in order to focus attention on skill development in this area. So, that's a direct implication of this research project. I think I have a quite distinct and clear picture of what kinds of skill development areas need to be included in such a program.

Q: *Given what you said about nature and nurture, what would be some examples of skill development that you think can be nurtured?*

A: First I think that it's important to find the right people, to find people who do have a good basis to build upon. Then I think that these seven traits or areas can be made the object of attention in a workshop or program as inquiring processes— inquiries into value systems, your own value system, how you relate to value issues, what you find important and how you work with value systems. Participants can focus on what this systemic understanding of causality actually means in their own fields of work. They can engage in processes that foster vision-logic capacity for perceiving and comparing perspectives. I don't expect it to be very difficult to develop a very meaningful training program.

Q: *One part that I would wonder about is the selection of the participants, because it sounds like you're suggesting that there are people who are ready and can take advantage of this and people who are not.*

A: I think it's not so very difficult to describe this course in such terms that the suitable people recognize, "This is what I've been looking for. This is something for me." Whereas people who are not really mature or right for this kind of project would say, "This sounds fluffy, it is probably a waste of time." So, I don't think that is very difficult. The most difficult thing is how to make such a training program known to the people who might benefit from it. You probably need to have patience and make use of informal networks of contact at the beginning and start from there, using the snowball effect.

Q: *Finally, Thomas, what have you learned about yourself in relation to the model that you have created?*

A: Well, I have certainly obtained a set of differentiations that allows me to orient myself more keenly in any kind of change project. I sometimes have a tendency for developing grandiose plans, and this framework reminds me to attend to complexities, use my energies where they have a fair chance of achieving something worthwhile and then let go of ambitions that simply go beyond what is possible at the time being. I think the framework helps me manage my own resources in a more efficient way.

Q: *Thank you, Thomas.*

A: Thank you.

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What’s Integral about Leadership?
A Reflection on Leadership and Integral Theory

Jonathan Reams

Abstract: This article provides an introduction to the idea of integral leadership. It describes the basic premises of integral theory, focusing on the four quadrants, levels or stages of development, and lines or streams of development. It briefly examines the relationship of consciousness to leadership, and then provides an overview of the history of leadership theory from an integral perspective. It then suggests a distinction between an integrally informed approach to leadership and integral leadership, and closes with questions deserving further inquiry.

Keywords: integral, leadership, consciousness, development, transpersonal.

Introduction

What’s integral about leadership? I hear the term “integral” being applied to just about everything these days. There is integral psychology, integral ecology, integral education, integral kabbalah, integral politics, integral naked, and even this journal, the *Integral Review*. Leadership is no exception to this phenomenon. There are seminars on integral leadership, academic programs on it, marketing slogans based on it, and essays aiming to define it. Integral seems to be the buzzword of the times in many circles.

All this talk about integral this and integral that leads to assuming some widespread common understanding of what integral means. While there does seem to be a basic common cognitive knowledge of the main aspects of integral theory, what it means to apply the theory (let alone naturally embody an integral consciousness) is at best a project just beginning, and at worst a rationalization for private agendas. This state of affairs makes for a broad spectrum of offerings on the subject. For my part, in this article I will present observations on my experience with both integral theory and leadership theory, and speculate on implications that have emerged for me. I have engaged in an ongoing personal inquiry in both of these areas, and it is my hope that these reflections will open up space for the inquiry of others as well.

So why do I care enough to write about this? As I think back, I realize that there has been a thread, or trajectory in my life that has brought me to pursuing this question. Early on in life I was exposed to notions of leadership somewhat indirectly. I grew up on a farm, and my father was involved in agricultural politics, as well as some local church leadership issues. I seldom witnessed any of this activity directly, but it did seem to seep into the implicit context informing my early development. Looking back on early experiences with friends and neighbors, at school and so on, I can see how I wrestled in my own way with a question – how could groups of people accomplish things together?

Of course at such an early age the ways of doing such things was implicit for me. As I matured and had children, I came to be more involved in community activities, especially around their education. I found myself in positions of leadership, not from seeking them, but because nobody else seemed interested, or able to do the job. Experiences like these led me to begin questioning why others seemed confounded by the demands of such positions.

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Eventually, such questions led me to the formal academic study of leadership. My involvement in community activities (I never actually worked in a business or organization) continued to reveal that people tended to operate from levels of consciousness inadequate for the situation. My formal study of leadership confirmed this, and also began to reveal a way to deal with the situation as I read of attempts to cultivate leadership.

Concurrent with this trajectory in my life was another one, and I have only recently been able to begin consciously integrating the two. I recall an evening conversation with a friend when I was 19. In the course of our discussion of esoteric topics, he stated that he wanted the ability to bend spoons psychically like Uri Geller. This drew out of me a response that I wanted the ability to change consciousness. While it has taken decades to realize the implications of that unanticipated pronouncement, it reflected a deep drive within me. It led to taking up a spiritual practice and eventually to pursuing a concurrent academic agenda (along with my course work in leadership studies) in the field of consciousness studies. My dissertation research (on *The Consciousness of Transpersonal Leadership*) began an attempt to integrate these threads, and has informed my understanding of the relevant issues in leadership and in integral theory.

In the course of my studies, I came across integral theory as a comprehensive framework for understanding the context for what I been learning and experiencing. For instance, I had wondered how to understand the seemingly competing truths of various theories on leadership over the last hundred years. I wanted to see the complexity of thought that has emerged as a coherent whole. I also wondered how the implications of a spiritual or transpersonal perspective could become meaningful and relevant in the context of figuring out how people could accomplish things together. It is these questions that will guide my reflections in this article.

To provide a snapshot of how I view these questions today, I will lay out what I view as the essential elements of integral theory, my thoughts on the development of leadership theory in this context, and then make a distinction between integrally informed and integral leadership in order to try and sort out what is integral about leadership. In making this distinction, I hope to find a useful way to distinguish why I would talk about integral leadership apart from all of the other ways of discussing it.

Integral Theory

Integral theory has as its goal to contextualize the "truth" about everything – that is, to show the domain of validity of any theory – its truth and its limitations, as well as the relationship of the theory to other theories.

> "An integral vision" - or a genuine Theory of Everything - attempts to include matter, body, mind, soul, and spirit as they appear in self, culture, and nature. A vision that attempts to be comprehensive, balanced, inclusive. A vision that therefore embraces science, art, and morals; that equally includes disciplines from physics to spirituality, biology to aesthetics, sociology to contemplative prayer; that show up in integral politics, integral medicine, integral business, integral spirituality. (Wilber, 2000b. p. xii)

Grounded in the work of Ken Wilber and those who have influenced his work (such as Jean Gebser, James Mark Baldwin, Jurgen Habermas, Abraham Maslow and Sri Aurobindo), it seeks a level of integration that has historically played out in debates between competing points of view. This is as true for the field of leadership theory as it is in hard sciences such as physics, or in the social sciences.

It is this capacity of integral theory to contextualize things, place them in a framework, that has been most useful for me as I have endeavored to understand the questions articulated above. I have found great value in the recognition of integral theory (in a way similar to post-modernism) that everyone is in some way right in their view. This validation of multiple truths has enabled me to hold my relationship to others with a more humble attitude. At the same time, knowing that each view also has its limitations, that all truths are not *equally* right, (not as present in post-modernism) has helped me understand, in very specific ways, how and why some views are more useful than others in a given context.

A core aspect of integral theory that resonates with me is how Wilber's conception of it is guided by a fundamental principle of wholeness. For me, this wholeness represents a transrational way of framing things. Gebser's (1985) notion of integral consciousness as being a "world[view] (that) goes *beyond our conceptualization*" (emphasis in the original, p. 267) points clearly to its being beyond our rational analytical mode of knowing the world. My experiences from spiritual practice, research in transpersonal areas of consciousness studies and psychology, as well as studies in hermeneutics and quantum physics have all reinforced and validated this view of the fundamental nature of wholeness.

To look more closely at integral theory I will focus on three fundamental aspects of the model that have been useful to me; the four quadrant model, levels or stages of development, and lines or streams of development.

The Four Quadrant Model

In my life I have encountered many varied points of view, most of which do not tend to agree with mine. At the same time I often perceive an underlying commonality in experience with others. As I struggled to understand why this was the case, coming across this aspect of Wilber's articulation of integral theory was very useful. With the four quadrant model, I could see how others were tending to emphasize different aspects of the wholeness of their experience in perception. This model shows that any phenomenon can be characterized along a pair of axes, a continuum between poles of internal and external aspects, as well as individual or collective aspects. Table 1 shows how these four quadrants map out the different domains.

The upper left hand quadrant covers the interior individual aspects of experience, and are intentional. This quadrant includes areas of study such as psychology. The lower left hand quadrant covers the interior collective aspects, and describes the cultural world space, and includes the interpersonal domain of relationships. The upper right hand quadrant covers the exterior individual, and is behavioral in its focus. It also covers the physical sciences such as physics, chemistry, geology etc. Finally, the lower right hand quadrant is the exterior collective, or social system, and includes approaches like sociology.

Table 1: The Four Quadrant Model
(Adapted from Wilber, 2000)

	Interior	**Exterior**
Individual	Intentional	Behavioral
Collective	Cultural	Social

The holistic principle underlying the integral model shows up here as a fundamental interconnectedness. Wilber (1996) notes that "a pathology, a 'sickness,' in any quadrant will reverberate through all four quadrants, because every holon has these four facets to its being" (p. 138). An example he gives is of a society with slave wages for dehumanizing labor (lower right quadrant), reflecting in low self-esteem for laborers (upper left quadrant), and corresponding dysfunctions in brain chemistry (upper right quadrant), leading to alcohol abuse becoming institutionalized (lower left quadrant). Thus a dysfunction that shows up most prominently in any one quadrant is also present in the entire system.

Levels or Stages of Development

The most helpful aspect of integral theory for me has been the concept of stages of development. Having a way to clearly distinguish stages of the evolution of a host of aspects of human nature (more on this in the next section) has enabled me to make coherent meaning out of previously baffling experiences. It has also helped me work more effectively with other people, taking into account how to communicate in ways that will make sense for them at a given stage of development.

Developmentalism is a key element of integral theory. The process of development is one of a fusion or identification with one level, a differentiation from or transcendence of that level, and an integration and inclusion of the new level. This process, while fluid, tends to stabilize or center itself around definite stages, or levels that are clearly recognizable. A number of theorists have set out models of development, based on extensive research, that Wilber has drawn on for his integral model. While there are differences in the number of stages listed in some models, and differences in terms of what lines of development is being looked at (ego, cognitive, moral, emotional, spiritual etc.), there is remarkable similarity in the overall patterns discerned by researchers.

A good description of the process of how our self sense develops comes from Robert Kegan (1994, 1982). Kegan describes how two basic personality structures relate to each other as development evolves. One structure is our sense of self as an object, something which one can consciously examine, suspend, or have a relationship with. The other is our sense of self as subject, or the structure from which we construct order from experience. The relationship between the subject and object fluctuates. Overall, this relationship is dynamic and evolving continuously in various dimensions. Within this dynamic evolution, there are periods of relative stability during which the self has a period of identification with each level, or order, of consciousness.

> Subject-object relations emerge out of a life-long process of development; a succession of qualitative differentiations of the self from the world, with a qualitatively more extensive object with which to be in relation created each time; a natural history of qualitatively better guarantees to the world of its distinctiveness; successive triumphs of 'relationship to' rather than 'embeddedness in.' (Kegan, 1982. p. 77)

This qualitative differentiation allows for distinct qualities and characteristics to be recognized as gains of each level. The "more extensive object" that we gain the capacity to be in relationship to at each level continually enlarges our capacities for acting in the world.

An example of a developmental model that illustrates this process comes from Bill Torbert (2004). His research has identified eight distinct levels of development, or what he calls action-logics. At each level, a new organizing principle, or action-logic emerges as the self as subject from which one makes meaning and order out of experience. What had previously been the operating logic of the self as subject at the previous level is now a self as object, or an object of reflection, governed by the new operating principle. Thus the development of each stage transcends and includes what came before.

One begins at the impulsive level, where impulses rule behavior. At the second level, needs rule impulses, making an object out of what was the self as subject. At the third level, norms from society rule needs. At the fourth level a person has the norms of society as an object, and is ruled by a craft logic, or expert mentality. A person moves to level five when the self as subject operates through system effectiveness, and has craft logic as an object to relate to. Level six brings a capacity for reflexive awareness that rules the need for system effectiveness. At level seven, a self-amending principle rules reflexive awareness, and at level eight, process (an interplay of principle and action) rules over the self amending principle. From these descriptions, the "more extensive object" Kegan talks about is illustrated through the progressive expansion of what one is capable of having a relationship to rather than being embedded in.

Lines or Streams of Development

I noted above that the concept of developmental stages applies multiple aspects, or lines of human nature. In each of these lines, also sometimes described as streams of development, the process of evolving from simple to more complex relationships to these aspects of our human existence is similar to the one described for our self sense. Examples of other lines of development are intellectual, emotional, relational, spiritual, ethical, aesthetic, physical. Note that these relate to the individual quadrants, internal and external, the latter since there are corresponding behaviors associated with the internal streams. Thus the "the *overall self*, then, is an amalgam of all these 'selves' insofar as they are present in you right now . . . all of them are important for understanding the development or evolution of consciousness." (Wilber, 2000a. p. 34)

One implication of differentiating the various streams of development is that it helps us understand how we can be at different levels of development in different areas of our lives. We can have very well developed intellectual capacity, with poor moral development. Or we can have high levels of emotional and interpersonal development, but have stunted spiritual development. A central line of development is that of consciousness. My early interest in working with consciousness and my later formal study of the subject makes it is worth explicit attention on its own.

Consciousness

Consciousness is a core aspect of integral theory. Consciousness is seen as a fundamental component of reality by many researchers in fields like transpersonal psychology, quantum physics, and even leadership. Debashis Chatterjee (1998) notes that consciousness is not the result of processes in the human brain, but rather "an integral, unchanging entity characterized by the qualities of wholeness and indivisibility" that orchestrates all of the complex tasks of the human brain. In this context, even our self sense, or identity, is shaped by our level of consciousness.

Chatterjee goes on to explain that while;

> there can be various states of consciousness, . . . these different states do not alter the fundamental nature of consciousness. . . it is not consciousness that changes, but it is our

> way of becoming conscious that changes from one human being to another. (Chatterjee, 1998, pp. 35-6)

This reflects the self's personal *experience of* consciousness as changing, contrasted with the impersonal *nature of* consciousness itself as unchanging.

One way Wilber describes the developmental levels of consciousness is in terms of a ladder, with the rungs representing the different levels, or stages of consciousness. First, the rungs themselves represent the various levels of consciousness as fulcrums, or centers of gravity in the stages of consciousness. It is the self sense, identity, or ego, that climbs the ladder. This self has complex levels of development within itself, but tends to be centered around one particular rung at any given time. As this self climbs the rungs on the ladder, it gains a perspective, or world view corresponding to that rung. Thus there is the ladder, the self that climbs the ladder, and the world view from each rung.

Consciousness and Leadership

The intersection of consciousness with leadership is where the trajectories of my own life have come together. In doing my dissertation research, I came across a number of authors who had undertaken similar lines of inquiry. Chatterjee (1998) goes on to say that "leadership is not a science or an art, it is a state of consciousness" and that "we can now begin to grasp the phenomenon of leadership as the field of awareness rather than a personality trait or mental attribute" (p. 24). Harald Harung (1999) has done studies of leadership based on Transcendental Meditation. Harung's primary principle is "that how people perform, individually and collectively, is fundamentally controlled by one factor – human development" (p. 7)

In a study of world class leaders, Harung, Heaton, Graff, and Alexander (1995) describe how peak performance was related to experiences of higher states of consciousness. Findings showed that, compared to people in a normal population, a significantly higher percentage of world class performers had frequent experiences of higher states of consciousness. Descriptions of these experiences also listed heightened awareness as the major focal point. Harung et al. also noted a generalizability of peak performance to a wider range of activities, indicating that these higher states of consciousness were not tied to specific forms of activity or training.

Torbert's work, described earlier, provides another example of the relationship between consciousness development and leadership capacity. A long term study done by Torbert and associates clearly showed that the success of organizational transformation efforts was dependent upon the level of consciousness of leadership. In order to handle the complexity of change required for organizational transformation today, a level seven consciousness was required in CEOs.

These few examples of the centrality of consciousness to both integral theory and leadership point to the seeds of an integral approach to leadership that will be discussed later. In some ways they represent the result of a century of thought on the subject of leadership.

A Brief History of Leadership Theory

The brief introductory overview of integral theory provided above follows one of the main trajectories of inquiry in my life, the development of consciousness. The other main trajectory has been around understanding leadership. As I have moved along this trajectory, a question that has arisen for me is; how did leadership theory get to the place where it is beginning to take an integral perspective? This section will follow this question by examining some of the main themes of leadership theory over the last century. Along the way I will apply the integral framework to the different theories. While there are many attempts to synthesize current and historical understandings of leadership, they often attempt this integration from the same level of consciousness as the theories they are integrating. This leads to a lack of perspective essential to the integration. Applying an integral framework to an examination of leadership can provide the necessary meta-perspective to move beyond current theories towards pointing out what an integral approach to leadership might look like.

An Integral Perspective on Leadership Theory Development

The four quadrant model of the integral framework can provide a useful way to look at how tensions in leadership theory development have emerged over time. The fundamental holistic principle underlying the integral perspective reminds me not to fit theories neatly within a quadrant. Instead, I have come to recognize that they represent lenses that frame our perception along certain lines. Actual experience always encompasses all four quadrants. Thus in leadership studies, the lens of leader's character and traits emphasize the upper left quadrant, or the intentional realm. Leader behavior and style shifts attention towards the upper right, or behavior quadrant. Cultural issues such as role expectations, implicit or explicit group norms and values are the focus attention of the lower left or cultural quadrant, and organizational structure issues generally emphasize the lower right, or social quadrant.

Examining the history of leadership theory along the axes of the four quadrant model, I see a tension between internal aspects of leadership, seen in areas such as traits and qualities on the individual side, and culture and communication on the collective side, with external aspects such as skills and behaviors for the individuals, and organizational structure and position for the collective. Also, there is a tension along the vertical axis that runs from the individual or agency aspect of leadership at the top to the communal or collective aspect at the bottom. This continuum is seen clearly in the history of leadership theory. There is a fundamental tension between the effect and role of the individual and the effect and role of a host of other factors including followers and their relationship to leadership, as well as to the context, situation, or environment.

Trait Theory

A hundred years ago, the value of the individual and the role of groups were hotly debated. While followers of Marx pointed to economic and social class factors in the progression of society, and followers of Darwin looked to the nature of biology as a determining factor, William James was defending "the notion that individual human beings can and do make a difference in the course of history" (Harter, 2003. p. 4) and that the study of such individuals is a valuable contribution to leadership.

This set the stage for some of the first systematic attempts to study leadership in the beginning of the 20th century, and contributed to the development of a trait oriented theory. Trait theory is also known as the "Great Man" theory, or the heroic model of leadership. It posited that by identifying the innate qualities and characteristics possessed by great social, political, and military leaders, one could find appropriate kinds of people to hold the reigns of power. (Northouse, 2001) This theory focused leadership almost exclusively in the upper left quadrant, with it being about individuals and their innate, intentional qualities and characteristics.

Style Theory

As time went on and people examined the trait approach to leadership theory and application, its limits became more apparent. For one thing, the growth of business in North America and elsewhere led to an increasing need for people in positions of management that entailed leadership capabilities, and there were not enough "Great Men" to go around. Thus there was a shift in emphasis in leadership theory from the "Great Man" personality trait that was innate, to the need to see leadership in terms of styles of personality and behavior that could be learned. This moved leadership theory into a focus on the upper right quadrant.

The style approach to leadership conceptualizes leadership as a "form of activity" and focuses on what leaders do and how they act. This includes the actions of leaders toward subordinates in various contexts (Northouse, 2001). A limitation of this shift in perspective from an integral view is that it fragmented leadership theory by not connecting the interior trait aspects of leadership with the exterior behavioral aspects.

As the style approach was developed over time, it identified two broad categories of leader behavior; task and relationship, expanding attention into the lower right quadrant as well as the upper right. Several important studies done in the 50's and 60's (e.g. Ohio State, Blake and Mouton) examined ways leaders mixed task and relationship to create a particular leadership style. This move into the relational aspects was also influenced by the concurrent growth of group dynamics approaches to leadership.

Group Dynamics Theory

While this move from trait to style still primarily focused on the individual, others were looking at the role of group dynamics in leadership, moving down the vertical axis into the collective domain. A definition that emerged in the 1930's stated that "Leadership is personality in action under group conditions. . . . It is also a social process" (Rost, 1991. p. 47). Rost describes how during the 30's the influence of sociologists recognized that leadership had a huge relational aspect – that leaders did not lead in a vacuum, but that they were dependent on the group. This group dynamic view of leadership continued to gain prominence during the 40's and 50's, in part fueled by the impact of the famous Hawthorne studies.

Situational Leadership Theory

As the study of leadership progressed, the limitations of trying to explain all leadership through theories that emphasized either the individual or the group became apparent to some researchers. Hersey and Blanchard developed the situational approach to leadership theory in the late 60's. This approach was based on the premise that different situations demand different kinds of leadership (Northouse, 2001). In the situational approach, a leader assesses the development level of subordinates and matches his or her leadership style (a mix of directive and supportive elements) to the subordinates needs in the particular situation. This represents a step towards being more sensitive to the context of leadership, an important integral principle, and indicates beginning to include the lower right quadrant in the picture. It should also be noted that what is meant by development level of followers is not necessarily the same as the levels of development of consciousness used in integral theory, but do represent a line of development, making distinctions between levels of capacity in people.

Other Theories

Other leadership theories have emerged over the last 30 years or so that looked for ways to better address the increasing complexity of the topic as researchers kept questioning the gaps between existing theories and experience. Contingency theory, similar to situational theory, looked to match the traits of leaders (upper left) with the context (lower right). This theory suggests that a leader's effectiveness depends on how well the leader's style fits the context, and that effective leadership is *contingent* on matching a leader's style to the right setting (Northouse, 2001).

Path-goal theory was the first leadership theory to strongly emphasize the leader/follower relationship through its focus on the level of motivation of the follower (lower left quadrant focus, also introducing a line of development, motivation). This theory was a kind of contingency approach that emphasized the relationship between the leader's style and the characteristics of the subordinates and their work setting (Northouse, 2001). As a style approach (upper right quadrant) rather than a trait approach, it sees that appropriate behaviors can be taught, and is thus less dependent on the traits of the leader and more amenable to training.

The psychodynamic approach is an attempt to explore the emotional factors at play within the leader-follower relationship. This brings another line of development into the picture, and has been developed more recently by Goleman (2002, 1995). From an integral perspective, emotional intelligence makes an important distinction of a key element of the interior aspects of leadership.

Transformational leadership was introduced by Burns (1978) and is concerned with inspiring or motivating followers to achieving higher levels of moral conduct and value based actions. It involved assessing followers' motives, satisfying their motivational needs, and treating them like full human beings. Transformational leadership introduces more lines of development, values and morals, into leadership theory.

Another aspect of an integral view of leadership development is the movement from egocentric views through ethnocentric ones, to worldcentric views. Some of the early trait theories centered on a very egocentric view of leadership. As group dynamic approaches became more popular, the good of the group brought a more ethnocentric view into prominence. An example of a worldcentric approach to leadership can be seen in Greenleaf's (1977) servant leadership model, which placed the leader as servant, not primarily of the needs of the individual or company, but of the greater good of humanity. (See review of Greenleaf biography in this issue). Some of this worldcentric level of development can also be seen in transformational leadership.

More recently, there have been a number authors exploring new territory about how to look at leadership and organizations. Most of these new theories have arisen as theorists began to explore more advanced levels of development that recognize a need to respond to the complexity of the post-modern world with new ways of thinking that can meet these challenges. Thinkers such as Margaret Wheatley (1993), Peter Senge (1990, 1999, 2004), Ronald Heifetz (1994, 2002), Debashis Chatterjee (1998), Harald Harung (1999), Dee Hock (1999), Joseph Jaworski (1996), Harrison Owen (2000), Robert Rabbin (1998), Bill Torbert (2004), and Peter Vaill (1996), have all aimed to expand how we view leadership. These explorations have ventured into areas such as consciousness, spirituality, and new scientific theories. They have taken leadership theory into new territory, and help to bridge between older views of leadership and an integral approach to leadership.

Outlining an Integral Approach to Leadership

Having examined some basic principles of integral theory and then the development of leadership theory over the last century, I now turn to outlining what I perceive as the basic elements of an integral approach to leadership. The various leadership theories just examined cover the broad strokes of the territory for understanding the evolution of thinking on leadership, but none puts them all together. Not only that, none of them is grounded in a meta-framework able to contextualize and understand the value of each aspect of and approach to leadership, as well as their relationships to each other. What further distinguishes an integral perspective on leadership is that it also refers to a very specific set of developmental capacities that transcends how leadership has been seen up until now.

In laying out an integral approach to leadership, I want to distinguish between two variations. One is to talk about an “integrally informed” approach to leadership and its development. The other is to talk about “integral leadership.” The integrally informed approach has a broad appeal, can be used by a wide spectrum of people, and sets the stage for some very strategic approaches to leadership development. Integral leadership in and of itself refers to a very specific level of development and set of capacities being present in a leader.

Integrally Informed Leadership

In the integrally informed approach, the integral model is utilized by and for leaders across the spectrum of developmental capacities. The advantage this has is that it makes the integral model accessible to those who wish to benefit from its strengths. Strategies for leadership development programs can benefit from understanding the need to address the four quadrants, recognizing specific lines of self that need growth, and tailoring all of this to the levels of development of those in such programs. An example of this is how the U.S. Military Academy at West Point “has updated their curriculum and pedagogy so that it now accounts for a cadet’s level of self-development. . . . awareness of levels is primarily a tool for increasing *instructor* awareness and effectiveness” (Putz and Raynor, 2004. p. 13).

A challenge or drawback of this approach is that the capacity to gain intellectual understanding of the integral model can outstrip the ability to actually engage and act from an integrally informed perspective. Anyone using the integral model will comprehend and act on it in a way that is filtered by the leading edge of their developmental capacity. This can lead to a reduction of the concepts and principles of the integral model. This is further complicated by the issue of disparities in development along different lines within a person. These factors can produce a false sense of having grasped the integral model, and misusing it as a tool to justify actions that are less than integral in their scope or intention.

My own initial encounter with the integral model was of great benefit in understanding one situation in particular. At the time I was finding myself continually at odds with a person from whom I had taken over a leadership position in a small community non-profit organization. When we explored the foundation of our understanding of the mission of our organization, we appeared to see things the same way. Yet when we would act on that understanding, clear differences in interpretation would emerge. This led to constant frustration, and confusion for members of this organization dealing with the discrepancies in action and resulting conflict. For a long time I tried to understand this phenomenon without success, until I read through a section of Wilber’s *Integral Psychology* that described the relationship of different developmental worldviews. A light went on, and I could see how the similar language between us was being implicitly interpreted and acted upon in very different ways. This insight allowed me to stop banging my head against the proverbial wall, and begin to take a different approach that, while not totally resolving the situation, allowed me to make significant progress.

The integrally informed approach to leadership can make useful distinctions and bring insight into situations. A growing number of programs are utilizing the integral model to guide how they approach leadership development. Notre Dame University's Mendoza College of Business has begun an Executive Integral Leadership Program (www.nd.edu/~execprog/programs/eilp/). The Leadership Circle (www.theleadershipcircle.com) has begun using a 360 assessment tool that is grounded in the integral model. The number of such programs, as well as consultants and businesses that will make use of the integral model is bound to keep rising, as early adopters continue to have success in meeting the complex demands of leadership development today.

The other variation for approaching integral leadership is often viewed as being a more "elite" approach, as it says that integral leadership is not simply about being informed by integral theory, but is about displaying the level of development necessary to perceive and act from an integral place within oneself.

Integral Leadership

So now I come to the punch line – what's integral about leadership? How does integral leadership distinguish itself from any other kind of leadership? Also, why is it important or even necessary? What can one do as an integral leader that they could not do as any other kind of leader? These are big questions, and to answer them in full is beyond the scope of this article. What I can do is offer a perspective that distinguishes integral leadership in a very specific way, to introduce it as a concept. I can also point to areas for further exploration that take the convergence of these trajectories and project them out. In the end, integral leadership may be both invisible and obvious at the same time. It may exist around or in us, and yet not have the need to appear, or be recognized, unless circumstances elicit it.

To get started, I will draw on a distinction made by Putz and Raynor (2004). They delineate a view of integral leadership in the context of challenges for business to sustain growth in two areas, their existing core business competencies and simultaneously secure future growth through radical innovation that opens up new markets. "We call the ability to manage through paradox – to navigate the apparent irreconcilable demands of creating a sustainable growth business – *Integral* leadership" (p. 2). In examining the essential nature of what is being called for with integral leadership, they say that "the systematic development of the psychological maturity – rather than the intellectual capability" (p. 7) is key to the capacity for integral leadership.

Looking back at the discussion of levels of development, there is clear evidence that this is what is being described as psychological maturity. Kegan's (1994) work identifies five levels of consciousness. Putz and Raynor have adapted this to leadership capacities. Their description provides a specific set of conditions related to an integral consciousness and how it applies to leadership.

Table 2: Levels of Self Development and Leadership (Putz and Raynor 2004, with permission)

Level of Self Development	**Subjective Self-Understanding**	**Leadership Strengths**	**Leadership Weaknesses**
1) Impulsive	"I" am my impulses (like a very young child) and unable to take the perspective of others	None	Leaders not found at this level of development
2) Egocentric	"I" am my needs and desires -able to manage my impulses and to take the perspective of others, but motivated solely by my own needs and desires	Aggressive, "can do" personality	Destructive to teamwork and initiative ("my way or the highway")
3) Interpersonal	"I" am defined by my relationships and social roles – what is "right" is defined by rules, regulations and proper authority (chain of command)	Strong team player and supporter of organizational vision	Independent thinking, mediating competing relationship demands, e.g., boss, family, subordinates
4) Autonomous	"I" create my own identity, inclusive of but not defined by my roles, relationships and the expectations of others	Better able to take independent action and mediate competing relationship demands, e.g., boss, subordinates	Rigid self-identity that is associated with current success and threatened by fundamental change
5) Integral	"I" am a continually evolving person who is *aware* of development in myself and others; "I" have a flexible sense of identity that embraces complexity and paradox on a personal level (not just intellectually) but nevertheless has clear values and boundaries	More adaptive to fundamental change without threat to personal identity; better able to support the self-development of others, and understand oneself in a multi-paradigmatic way	Flexible self-identity may be confusing or threatening to subordinates; might push others to grow before they are ready

Putz and Raynor note that "an Integral leader is able to objectively assess how one's own identity tends to be formed within the frame of a true but partial paradigm and is more capable of evolving their sense of self-identity as required in the face of paradoxical change" (p. 11). This capacity to reframe identity is one way in which integral leadership sets itself apart from other kinds of leadership. This ability also only emerges in specific circumstances, with the above example from the world of business describing the paradoxical nature of such circumstances. These paradoxical circumstances are such that other levels of leadership are not able to meet the challenge, making integral leadership necessary in order to be successful.

When conditions of this nature arise, they are in essence asking a leader to be of two minds, literally, in order to manage the paradox. A leader will need to operate from a level five (See Table 2) consciousness, and choose to construct an appropriate identity, or mind, for operating in each pole of the paradox. An identity, or mind, will be constructed (utilizing a level four consciousness as a tool, or an object of reflection) with specific capacities, tendencies and strengths to engage the world, chosen for best dealing the particular pole of the paradox it is designed for. The leader will then construct another mind with the same process to deal with the other pole of the paradoxical situation. They will then be "of two minds" which can be confusing for those working closely with them! Yet it is this very capacity that is essential to handling the level of complexity brought about by the paradoxical situation.

This ability to be of two minds elicits a question. Who or what is choosing the design and doing the operating of those minds? This question speaks to the heart of the notion of integral consciousness. The lead article in this issue of *Integral Review* discusses Jean Gebser's opening of the integral paradigm, and he is quoted as characterizing the difficulties in representing integral by saying that "this world[view] goes *beyond our conceptualization*" (1985. p. 267). In turn, this leads into transpersonal realms, and notions of the soul. The burning question for me then becomes, what is the nature of this transpersonal beingness, and how does it show up at all of these different levels of consciousness, in leadership, and in our everyday lives?

Conclusion, or at least a pause for now

I now come to the end of this article, and pause to summarize where I have been and where it might lead. Writing this article has enabled me to reflect on two major trajectories in my life – leadership and consciousness. Excursions into the realms of integral theory and the history of leadership theory provided the background in these areas, and led to looking at their convergence in the notion of integral leadership. The question that titles this article, what's integral about leadership, now has the beginnings of a provisional answer. Fleshing out this answer is a subject for future consideration, as is the relationship between transpersonal consciousness to leadership.

So is there something to all the buzz about integral you name it? I find myself of two minds on the question. When I delve into the heart of the issue, I feel that yes, there is something of inestimable value behind the buzz. When I encounter it in the world, whether in application, discussion, or debate, I am not always so inclined to give my hearty approval. This could mean that we are all simply in the early stages of moving into this paradigm, and have not yet distinguished clear markers of its presence. It could at the same time reflect my own struggle to manifest a self in the world in an integral way. These are open questions for me, and reflections on these and other such questions will have to await a future issue of *Integral Review*.

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Ein Integraler Gestalt-Ansatz für Therapie und Beratung

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Zusammenfassung: In diesem Text stellen wir unseren Ansatz für Psychotherapie und Beratung auf dem Hintergrund des integralen Paradigmas dar. Wir erläutern zunächst kurz vier Anforderungen an ein integrales Konzept in diesem professionellen Bereich: Umgang mit Komplexität und Vielperspektivität, Berücksichtigung gerichteter, vieldimensionaler Entwicklung, Orientierungs- und Sinngebungsfunktion, Realisierung relationaler Qualitäten in der Arbeit. Nach einer Begriffsbestimmung von „Therapie", „Beratung" und „Bildung" charakterisieren wir das seit vielen Jahren von uns entwickelte Konzept für den Integralen Gestalt-Ansatz unter den Fragen nach (1) den Intentionen und Aufgaben von Therapie und Beratung, (2) der Gestaltung der Kommunikation und Beziehung, (3) der Art der Problemdefinition und dem Umgang mit Diagnostik sowie (4) den Strategien und Methoden - alle unter Rückkopplung an die zuvor erläuterten Anforderungen an ein integrales Konzept.

Schlüsselwörter: Psychotherapie, Beratung, intentionaler Dialog, Gesprächszyklus, Beziehung, holarchische Entwicklung, Phänomenologie, Hermeneutik, Problemidentifikation, Diagnostik

Abstract: In this text we present our approach to psychotherapy and counselling on the background of the integral paradigm. We shortly explain four major requirements for such an integral concept: handling complexity and multi-perspectivity, considering directed and multi-dimensional development, offering orientation and meaning, relational qualities. After defining the terms „psychotherapy", „counselling", and „education" we present our concept for the Integral Gestalt Approach which we have developed and evaluated for many years by dealing with four questions: (1) the intentions and tasks of therapy and counselling, (2) the formation of communication and relationship, (3) the specific way of defining problems and using diagnostics, and (4) the strategies and methods - all related back to the major requirements of an integral concept.

Key words: therapy, counselling, intentional dialogue, cycle of contact, relationship, holarchical development, phenomenology, hermeneutics, disidentification, problem identification, diagnostics.

Eine paradigmatische und gesellschaftliche Herausforderung

Eine immer unübersichtlicher und komplexer werdende Welt stellt uns vor neue Herausforderungen und Orientierungsprobleme. Deshalb wachsen gleichzeitig auch der Bedarf und das Angebot an Therapie und Beratung. Dieses psychosoziale Feld ist jedoch selbst nicht weniger komplex und unübersichtlich. Als schon seit vielen Jahren praktisch tätige Berater und Psychotherapeuten und im akademischen Bereich Forschende und Lehrende forderte uns dies heraus, nach neuen Möglichkeiten der Orientierung und Konzeptentwicklung zu suchen. Jede dieser neueren Beratungs- und Therapieschulen und Ansätze wie klientenzentrierte, systemische, hu-

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manistisch-psychologische sowie ressourcen- und lösungsorientierte Beratung und Therapie fanden wir zwar interessant und hilfreich, aber sie blieben auch immer etwas schuldig: sie betonen bestimmte Aspekte - und vernachlässigen andere. Auch die Versuche „integrativer“ Ansätze haben uns insofern nicht überzeugen können, als sie zwar oft theoretisch oder forschungsmäßig gut begründet sind (Grawe 1995, Petzold 1998), aber die zugrunde liegenden Paradigmen entweder nicht ausreichend mitreflektiert werden, oder sie mit den philosophischen und metatheoretischen Grundannahmen des Integralen Paradigmas nur teilweise vereinbar sind.

Solche Grundannahmen konnten wir schließlich selbst auf der Grundlage der Philosophie von Jean Gebser, der Synopse vieler Entwicklungstheorien durch Ken Wilber sowie der Theorie der Gestalttherapie zusammenstellen und in langjähriger Praxiserfahrung und eigenen Forschungen weiterentwickeln.[1] Es war und ist immer noch ein intensiver Prozess der philosophischen und (meta-)theoretischen Reflexion, der Praxiserprobung und eigener (Selbst-)Erfahrungen - und dies im ständigen Wechselspiel -, was uns schließlich zu dem hier in aller Kürze dargestellten Konzept geführt hat. Dabei werden wir zunächst vier grundlegende Anforderungen an den Ansatz formulieren und dann das eigentliche Praxiskonzept unter vier Fragenkomplexen darstellen.

Anforderungen an das integrale Praxiskonzept

Die Anforderungen an unser Praxiskonzept für den Integralen Gestalt-Ansatz für Therapie und Beratung (meist zu „Ansatz“ oder „Integraler Ansatz“ gekürzt) möchten wir zu vier Komplexen bündeln:[2]

1. *Umgang mit Komplexität, Vielperspektivität und Widersprüchlichkeit*: Dies sind wesentliche Herausforderungen unserer Zeit, nicht nur im beruflichen und persönlichen Alltag, sondern auch durch die exponentielle Zunahme an Informationen, Erkenntnissen, technischen Möglichkeiten und Entscheidungsalternativen. Die Aufgabe des Ansatzes muss daher auf konzeptioneller ebenso wie auf praktischer Ebene Antworten geben auf Fragen wie: „Wie können wir in der komplexen, oft verwirrenden Welt zurecht kommen?“ oder „Wie komme ich mit den vielen Widersprüchen in der Welt und in meinem Umfeld klar?“ und „Welche persönlichen, ethischen sowie politischen Entscheidungssituationen ergeben sich daraus?“
   Gleichzeitig müssen wir immer wieder sinnvolle Formen der Reduktion dieser Komplexität und Widersprüchlichkeit finden, zumal wir nicht mehr zu eindimensionalen Ursachenerklärungen wie in früheren Zeiten zurückkehren können.
2. *Gerichtete, vieldimensionale Entwicklung über die gesamten Lebenszyklen*: Diese ist heute in einer Weise möglich, die in der Vergangenheit nur einzelnen Menschen offen stand, und auch nicht unbedingt erforderlich war. In individueller, gemeinschaftlicher, ökologischer und

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[1] Siehe hierzu „Veröffentlichungen“ unter www.gestaltzentrum.de.

[2] Ausführlicher hierzu in Fuhr & Gremmler 2004 und www.integrale-studien.de. Anregungen zur Formulierung dieser Anforderungen und zum Textentwurf insgesamt verdanken wir auch Thomas Jordan (siehe den Leitartikel in diesem Heft).

politischer Hinsicht scheint sie heute jedoch mehr denn je zwingend notwendig zu sein, wenn wir den Herausforderungen der Gegenwart und Zukunft auch nur ansatzweise gerecht werden wollen.[3]
Diese Art der Entwicklung kann aber nicht nach überkommenen linearen Denkweisen konzipiert werden, sie muss der Komplexität und Vielschichtigkeit Rechnung tragen. Darüber hinaus ist Entwicklung als *gerichtete Entwicklung* hin zu größerer Vielfalt, Komplexität und Einheitlichkeit zu verstehen; gleichwohl kann sie nicht *determiniert werden,* ist also letztlich immer *ergebnisoffen*. Bei dieser Entwicklung spielen überdies eine Vielzahl von Dimensionen des Menschseins eine Rolle.

3. *Orientierung und Sinngebung*: Ein Integrales Praxiskonzept muss in der in jeder Hinsicht unübersichtlichen Welt Angebote der Orientierung und Sinngebung in allen wichtigen Lebensbereichen machen können, ohne auf allzu konventionelle Glaubenssysteme zurückgreifen zu müssen. Dies betrifft also etwa Berufsfindungs- und Neuorientierungsprozesse ebenso wie ökonomische Formen oder Partnerschaftsmodelle und Lebensziele sowie existenzielle Entscheidungsprozesse.
4. *Realisierung der Beziehungsqualitäten alles Lebendigen*: Es wird zunehmend deutlicher, dass jeder Einzelne, jede Gemeinschaft und Nation in ein Kommunikations- und Beziehungsgeflecht eingebunden ist, und dass jede (neue) Technologie und praktische Entscheidung oft unüberschaubare Konsequenzen für den jeweiligen engeren und weiteren Kontext hat.[4] Ein Integrales Konzept muss daher neue Modelle für zwischenmenschliche Austauschprozesse und Beziehungsentwicklung anregen. Hierzu können wir auf vielfältige Konzepte aus der dialogischen und systemischen Tradition, u.a. der Gestalttherapie, zurückgreifen, diese weiterentwickeln und integrieren.

Diese generellen Anforderungen schlagen sich auf vielfältige Weise im Praxiskonzpet des Ansatzes nieder, wie wir beispielhaft verdeutlichen werden. Beginnen wir aber zunächst mit einigen Anmerkungen zu den Begriffen “Beratung”, “Therapie” und „Pädagogik“ aus einer Integralen Perspektive.

“Therapie”, “Beratung” und “Pädagogik”

In einer Welt vernetzenden und ganzheitlichen Denkens ist es nicht so leicht, klar zwischen Beratung, Therapie und beratenden Tätigkeiten im Rahmen von Bildungsarbeit zu unterscheiden, wie dies in vielen professionellen und öffentlichen Kontexten üblich ist und gefordert wird. In all diesen Settings geht es darum, dass Einzelne, Gruppen und andere soziale oder organisationale Einheiten durch „Experten” unterschiedlicher Art in ihren Anliegen, Herausforderungen, Problemen und Schwierigkeiten sowie bei ihren Entwicklungsinteressen angeleitet und unterstützt werden. Die Experten übernehmen dabei spezielle Aufgaben und Funktionen, für die sie qualifiziert sind. Natürlich unterscheiden sich die Anforderungen und professionellen Kompetenzen, je nachdem, ob die Experten mit Menschen mit schwerwiegenden psychischen und sozialen Problemen arbeiten, oder ob sie eine Abteilung in einem Produktionsbetrieb umstrukturieren helfen, oder ob sie Schülern bei der Lösung von Mathematikaufgaben helfen. Diese unterschiedlichen Anforderungen und Kompetenzen stellen jedoch ein Kontinuum dar, das beispielsweise von der Klärung sachlicher und fachlicher Probleme bis hin zur Arbeit mit tiefgehenden psychischen Beeinträchtigungen einzelner Personen reichen kann. Aber die Beschäftigung mit einem sachbezogenen Thema kann rasch zu biographisch bedingten Problemen hinführen und umgekehrt. Da kommt es dann nicht nur auf die jeweiligen Kompetenzen des Experten an, sondern auch auf den Vertrag zwischen ihm und den Klienten, der mit darüber entscheidet, wie weit man sich einlässt und wo Grenzen gezogen werden sollen. Trotzdem sind die Grenzen zwischen Therapie, Beratung und Pädagogik oder Erwachsenenbildung fließend, auch wenn die Vorstellung, dass Lehrende in Bildungsinstitutionen sich auch oder vielleicht sogar in erster Linie als Berater verstehen müssten, ähnlich ungewohnt ist wie die, dass Beratung und Therapie als eine besonders intensive und nachhaltige Form des Lernens verstanden werden könnte.

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[3] Siehe hierzu z.B. Laszlo (2003).

[4] Siehe auch hierzu z.B. Laszlo (2004).

Aus all diesen Gründen scheint es uns gerechtfertigt zu sein, ein Basiskonzept für Therapie *und* Beratung einschließlich aller beratenden Aufgaben in Bildungszusammenhängen zu entwerfen. Auf diesem Basiskonzept können dann Spezialisierungen für unterschiedliche professionelle Felder mit unterschiedlichen Aufgaben und Anforderungen aufgebaut werden. Die professionellen Funktionsträger (Berater, Therapeuten, Dozenten etc.) nennen wir dabei einheitlich "Mentoren", diejenigen, für die die Dienste der Mentoren in Anspruch nehmen, bezeichnen wir durchgängig als "Klienten", und wir meinen in jedem Fall Personen beiderlei Geschlechts oder auch Gruppen und andere soziale Einheiten.

Dieses Basiskonzept für soll anhand von vier Fragenkomplexen erörtert werden (siehe auch Abb. 3):

1. Intention und Aufgabe des Ansatzes,
2. Kommunikations- und Beziehungsgestaltung zwischen Mentor und Klient sowie die Rollenfunktionen, die jeder der Beteiligten dabei einnehmen kann,
3. Art und Weise der Problembestimmung und Diagnose sowie
4. Strategien und methodische Vorgehensweisen.

Begründet sind die Vorstellungen unseres Praxiskonzepts einerseits in den allgemeinen und speziellen Prämissen und Prinzipien eines Integralen Ansatzes, und andererseits in unseren langjährigen Praxiserfahrungen in Therapie, Beratung und Pädagogik in verschiedenen Berufsfeldern (mit einem Schwerpunkt im Non-Profit-Bereich sowie in Bildungs- und Gesundheitsinstitutionen).

Das Praxiskonzept

1. Intention und Aufgaben

Die Anliegen des Praxiskonzepts für den Integralen Ansatz besteht erst einmal darin, Orientierung, Anregung, Unterstützung und Begleitung bei allen möglichen Herausforderungen und Schwierigkeiten zu bieten. Darüber hinaus geht es aber auch um Lern- und Entwicklungsprozesse, d.h. *lernende Weiterentwicklung* in persönlicher, sozialer, ökologischer, organisationaler oder politischer Hinsicht soll initiiert und unterstützt werden. Eine Notwendigkeit, sich weiter zu entwickeln, wird von den Personen, die Therapie oder Beratung aufsuchen, zwar oft empfunden. Allerdings gehen die Erwartungen meistens in die Richtung von veränderten Verhaltensweisen, neuen Strategien und Problemlösungen, weniger in Richtung grundlegender Veränderungen oder gar krisenhaften Lernprozesse. Trotzdem gehen wir davon aus, dass jedem Menschen und jeder Gemeinschaft auch ein grundlegendes Entwicklungsstreben eigen ist, auch wenn es nicht im Vordergrund des Interesses stehen mag.

Polarität des Akzeptierens und Veränderns

Unser Ansatz hat somit eine doppeltes Anliegen, die einen polaren Gegensatz bildet: Zu akzeptieren, was ist, und gleichzeitig grundlegende Veränderungen anzustreben. Die Notwendigkeit zu grundlegender, nachhaltiger Veränderung ist darin begründet, dass sich Schwierigkeiten im Lebensalltag von einzelnen und sozialen Einheiten sehr häufig daraus ergeben, dass alte Gewohnheiten und Muster wirksam werden, die der gegenwärtigen Situation und den neuen Herausforderungen nicht angemessen sind oder sogar destruktiv wirken. Auf gesellschaftlicher und globaler Ebene besteht an dieser Notwendigkeit zu grundlegendem Wandel in den meisten Lebensbereichen eigentlich kein Zweifel mehr, doch diese Einsicht auch auf sich selbst und die eigenen sozialen Bezugsgruppen anzuwenden, scheint sehr viel schwieriger zu sein.

Der Mentor muss sich also einerseits in den Klienten einfühlen, ihn vorbehaltlos unterstützen und Partei für ihn ergreifen, und er muss andererseits als *Change Agent* wirksam werden können. Die meisten Beratungs- und Therapieschulen setzen auf den einen oder anderen Pol, und dies nicht ohne Grund; denn diese Polarität auszubalancieren, ist keine leichte Aufgabe: wir müssen als Mentoren empathisch sein und Verständnis zeigen, gleichzeitig müssen wir uns auch für grundlegende Veränderungen der Reaktions-, Verhaltens-, Beziehungs- und Lebensmuster stark machen. Wenn wir Menschen, die in Schwierigkeiten sind, dabei allerdings mit dem ausdrücklichen oder heimlichen Imperativ entgegentreten, dass sie sich wandeln müssten, provozieren wir leicht Widerstände aller Art.

Perspektivenwechsel und "dritte Instanz"

Bei diesem Balanceakt hilft das Integrale Prinzip der Vielperspektivität, hier besonders im Hinblick auf die verschiedenen *Bewusstseinsmodi*: es geht darum, sich identifizieren zu können mit der aktuellen Situation und dem eigenen Erleben sowie mit dem des Klienten, dann aber wieder herauszutreten und sich zu disidentifizieren und den Bewusstseinshorizont zu erweitern, damit die größeren Zusammenhänge, die anderen Parteien in einem Konflikt, die sachlichen Bedingungen und die Prozesse in den Blick kommen, in denen sich die Klienten selbst und auch der Mentor mit den Klienten befinden. Es geht hierbei also nicht nur um den Wechsel der Perspektiven, sondern auch darum, dafür verschiedene Bewusstseinsmodi verfügbar zu haben und diese den Klienten verfügbar machen zu können. Dabei spielt die Fähigkeit zur *Disidentifikation,* das Sich-Lösen aus der unmittelbaren Erfahrung (ohne den emotionalen Kontakt dazu zu verlieren), eine herausragende Rolle.

In vielen Traditionen, die sich mit Bewusstseinsentwicklung befassen, wird in diesem Zusammenhang vom *inneren Zeugen* oder auch von der *dritten Instanz* gesprochen. Diese dritte Partei ist akzeptierend und wohlwollend, aber keineswegs unkritisch, sie ist weder verwickelt noch kühl distanziert. Daher kann sie dabei unterstützen, sich immer wieder aus Verstrickungen und Reaktionsbildungen zu lösen und (wieder) Zugang zu erweiterten Sichtweisen, zu Mitgefühl und zu eigenen Ressourcen zu finden. Die dritte Instanz ist also der innere *change agent par excellence,* da er sowohl das, was ist, mitempfindend akzeptieren, als auch für grundlegende Veränderungen die Energie und Richtung vorgeben kann. Ein zentrales Anliegen dieses Ansatzes ist es, dass auch der Mentor den Zugang zu dieser dritten Instanz immer wieder findet, diese Instanz eine Zeitlang für den Klienten übernehmen und dem Klienten selbst Zugang dazu ermöglichen kann.

Entwicklungsperspektiven

Bei diesen Herausforderungen spielen persönliche und soziale Entwicklungsprozesse neben den sich ständig verändernden materiellen, institutionellen und politischen Bedingungen eine wichtige Rolle. Wir können hier nur auf die vielen Entwicklungsmodelle, die Synthesen von Ken Wilber (z.B. 1996, 2000) oder unsere eigenen Modifikationen und Anwendungen dieser Entwicklungsmodelle auch für den Kontext von Beratung und Therapie hinweisen.[5] Thesenartig zusammengefasst geht es um Folgendes: Die Entwicklung von Personen und sozialen Einheiten vollzieht sich stufenmäßig und in vielen verschiedenen Dimensionen über den gesamten jeweiligen Lebenszyklus. Die Stufen bilden Holarchien: die jeweils höhere Stufe transzendiert und umfasst wesentliche Strukturen der vorhergehenden Stufen. Diese Stufen können als unterschiedliche Paradigmen charakterisiert werden, die trotz aller kulturellen und persönlichen Varianten wesentliche gemeinsame Merkmale aufweisen. So kann man beispielsweise präpersonale Paradigmen von personalen unterscheiden und diese jeweils wieder untergliedern, wie dies auch schon Jean Gebser vollzogen hat: vom Archaischen zum Magischen zum Mythischen zum Rationalen zum Integralen. In Anlehnung an diese paradigmatischen Stufenfolgen von Gebser (1995) und die differenzierteren von Wilber (2000) und in deren Modifikation hat sich nach unseren Erfahrungen die in Abbildung 1 dargestellte Holarchie für die Arbeit mit Erwachsenen sehr bewährt. Für Kinder und Jugendliche und für klinische Zwecke müssen die präpersonalen Stufen sicher weiter differenziert werden, und einige Theoretiker glauben, dass auch der Integrale Stufenbereich weiter zu gliedern ist.[6]

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[5] Siehe auch den Einführungsartikel in dieser Ausgabe.

[6] Siehe z.B. Daniel Stern (1992) im Hinblick auf das Kinder- und Jugendalter und Commons & Richards (2002) für den Integralen Bereich.

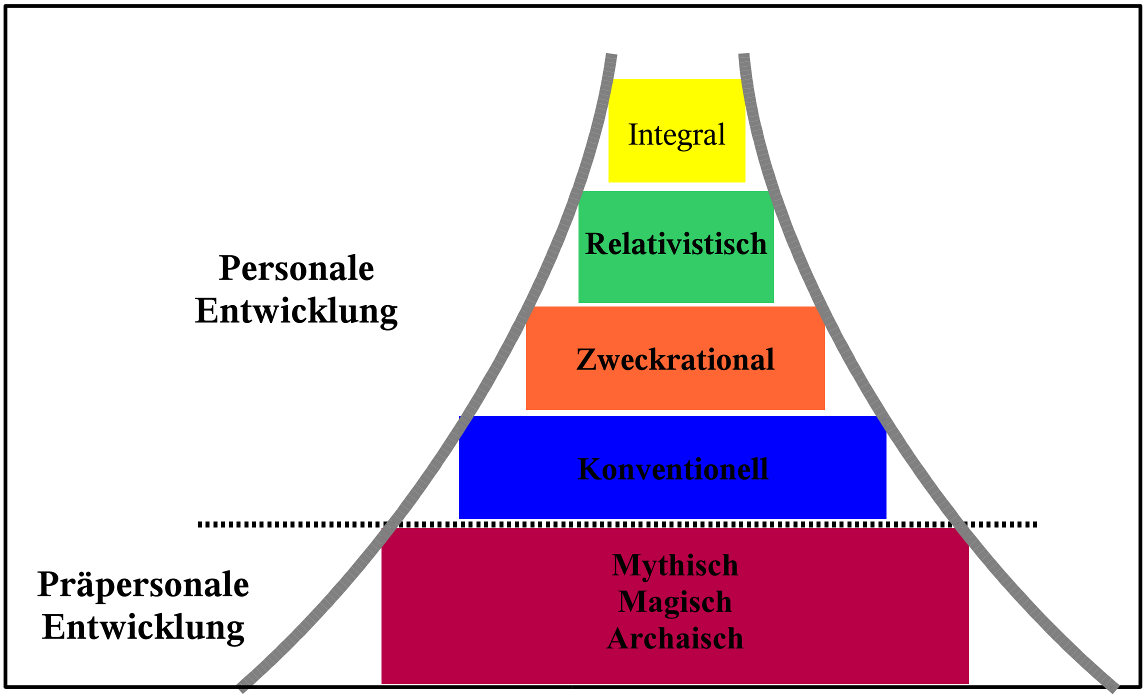

Abbildung 1: Fünf Stufen oder Paradigmen der Entwicklung

Dieses Spektrum der Entwicklung kann man unter *verschiedenen Entwicklungsdimensionen* betrachten. So entwickelt sich das *Weltbild* vom Magisch-Mythischen zum Konventionellen, Rational-Erfolgsorientierten und Relativistischen zum Integralen (Abb. 1). Damit wandeln sich auch die *moralischen Einstellungen und Handlungsweisen* vom Ego-Zentrischen und Gruppenbezogenen zum umfassenderen Soziozentrischen hin zum Weltzentrischen und Universellen. Das *Selbstverständnis* entwickelt sich von der starken Selbstbezogenheit der präpersonalen Paradigmen über ein Selbst, das sich vor allem als Rolle in einer überschaubaren Gemeinschaft versteht, über ein sich selbst reflektierendes Selbst, ein sensitives Selbst, das mit möglichst vielen Anderen mitempfindet, bis hin zu einem Selbst, das all diese vorherigen Selbstverständnisse im Wesentlichen integriert hat und jeweils autonome Entscheidungen fällt und verantwortet. Auch die *Denkweisen* wandeln sich in diesem Spektrum der Entwicklung vom vorkausalen zum monokausalen Denken, dem zufolge es nur *eine* richtige Ursache für Probleme gibt, hin zum multikausalen Denken, das mehrere Ursachen anerkennen kann, zum systemischen Denken, bei dem nicht mehr nach einzelnen Ursachen, sondern nach Dynamiken, die bestimmte Probleme hervorbringen, gefragt wird, bis hin zu vernetzendem Denken, das die Verflechtungen vieler solcher Dynamiken und die verbindenden Muster erkennen kann.

Ähnliche Entwicklungsdimensionen können aufgezeigt werden für die Gefühlswelt, das ästhetische Empfinden, das Verständnis von Sexualität und Liebe, von Spiritualität, aber auch für eher kollektive Phänomene wie Kommunikationsweisen, Formen der Beziehungsgestaltung, oder der Lebensgestaltung und der Institutionalisierung.

Da also eine Aufgabe unseres Ansatzes in der Moderation von Entwicklungsprozessen besteht, ist es wichtig für den Mentor, sich zu vergegenwärtigen, in welchem Paradigma er sich selbst und der Klient gerade bewegen. Das schlägt sich nicht nur im Problemverständnis oder im Reflexionsvermögen und in vielem anderen nieder, sondern auch in der Erwartung des Klienten an den Berater. So kann in ihm vor allem der „Helfer in allen Lebenslagen" gesehen werden, oder jemand, der einen nur unterstützen muss, das eigene Durcheinander zu klären, damit man seine autonome Entscheidungsfähigkeit wiedergewinnt, oder er wird als Begleiter bei grundlegenden krisenhaften Umwälzungsprozessen angesprochen usw. Und natürlich bewegt sich auch der Mentor vorwiegend in einem bestimmten Paradigma, aus dem heraus er mehr oder weniger Schwierigkeiten hat, den Klienten zu verstehen und mit ihm in Kontakt zu kommen.

Die Verwendung dieses Entwicklungsmodells, das wir hier nur kurz angerissen haben, wird dadurch noch komplizierter, dass wir es normalerweise nicht mit einheitlichen Stufenausprägungen und in sich stimmigen Paradigmen zu tun haben, da sich die Entwicklung in vielen Dimensionen vollzieht und es bei diesen dimensionalen Entwicklungsprozessen große Unterschiede geben kann. Daraus erwachsen dann innere Spannungen und Konflikte bei Personen und in sozialen Einheiten. Außerdem kommt es immer wieder vor, dass wir zeitweise auf frühere Stufen im Spektrum regredieren oder „Ausflüge" auf Entwicklungsstufen machen, die weit über dem liegen, was uns normalerweise verfügbar ist. Mehr als eine Orientierung für ein hochkomplexes Geschehen können diese Entwicklungsvorstellungen also nicht leisten, aber diese Orientierung kann von großem Wert für die Gestaltung der Prozesse sein.

Die Aufgabe unseres Ansatzes entpuppt sich also auch hier wieder als mehrschichtig: zum einen muss sich der Mentor bewusst sein, dass nicht nur grundlegende Erwartungen an seine Rolle entwicklungsabhängig sind, sondern auch die Fähigkeiten der Klienten zur Verantwortungsübernahme und zur Reflexion der eigenen Schwierigkeiten und Verhaltensweisen. Er muss darüber hinaus in der Lage sein, sich auf die jeweiligen Paradigmen einzustellen und auch eventuelle Diskrepanzen zu erkennen und zu akzeptieren. Vor allem aber muss er die Klienten dabei unterstützen, solche paradigmatischen Möglichkeiten und Begrenzungen zu realisieren und sie nicht innerlich oder äußerlich zu verleugnen oder zu bekämpfen. Zum anderen hat er die Aufgabe, Entwicklungsanstöße zu geben, damit sich die Klienten lernend im Rahmen des Spektrums weiterentwickeln können.

Transformative und translative Lernprozesse[7]

Diese Entwicklungsprozesse können sich nun auf die Erweiterung und Optimierung der vorhandenen Einstellungen und Kompetenzen im Rahmen ein und desselben Paradigmas beziehen - dann sprechen wir in Anlehnung an Ken Wilber von *translativen* Lern- und Entwicklungsprozessen. Oder es kann sich um grundlegende Wandlungsprozesse von Einstellungen und Kompetenzen in den verschiedenen Dimensionen auf allen Stufen der Entwicklung handeln - dann sprechen wir von *transformativen* Prozessen, bei denen alte Gewohnheiten und Muster erkannt und überwunden werden.[8] Transformative Prozesse sind sehr oft von Turbulenzen und Krisen begleitet, die der besonderen Beachtung und Unterstützung bedürfen. Normalerweise finden transformative Prozesse allerdings auch viel seltener statt als translative, wobei Krisen (die ja häufig in der Therapie und Beratung zur Sprache kommen) transformative Prozesse auslösen und unterstützen können.[9]

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[7] In den USA wurde ein Konzept zur *Integral Transformative Practice (ITP)* auf der Grundlage der Arbeiten von Michael Murphy und Ken Wilber entwickelt, das jedoch einen ganz anderen Schwerpunkt als unser Ansatz hat: dort geht um die Integration von Übungen für die persönliche und spirituelle Entwicklung (siehe z.B. Ferrer 2003), während unser Ansatz für die ganz normale professionelle psychotherapeutische und beraterische Praxis und Theorie-Entwicklung gedacht ist und den Schwerpunkt auch nicht auf die spirituelle Entwicklung legt (siehe Fuhr & Gremmler-Fuhr 2005).

Bei transformativen, also Paradigmen überschreitenden Entwicklungsprozessen, kann man wiederum zwei Arten unterscheiden. Prozesse der *Nachentwicklung* und solche der *Weiterentwicklung*. Bei Nachentwicklung geht es um das Nachholen von Reaktionsweisen, Kompetenzen und Einstellungen in bestimmten Dimensionen, die sich nicht organisch und in Balance mit der Gesamtentwicklung der Person oder sozialen Einheit entwickeln konnten wegen schwieriger Lebenssituationen, Deprivationen oder gar traumatischen Ereignissen. Dabei haben sich bestimmte Defizite, Fixierungen und Störungen herausgebildet, die es soweit wie möglich aufzuarbeiten gilt. Als ein paar Beispiele seien starke Selbstwertprobleme, Schuldkomplexe, Abgrenzungsschwierigkeiten, Suchtphänomene, Machtdynamiken, regressive Abhängigkeiten oder paranoide Vorstellungen und Verhaltensmuster genannt. Bei einer Weiterentwicklung geht es um gegenwärtige Veränderungswünsche und -notwendigkeiten, um das Bedürfnis, im Leben und in den Beziehungen grundsätzlich etwas ändern zu wollen, sowie um existenzielle Sinnfragen.[10]

Wie wir eingangs feststellten, bewegen wir uns bei diesen Entwicklungs- und Lernaufgaben auf einem Kontinuum zwischen Psychotherapie oder sogar Psychiatrie einerseits und fachlich-sachlicher oder organisatorischer Beratung andererseits. Je nach Ausbildung und Interessenschwerpunkt und eigenen Entwicklungsprozessen und -problemen werden sich die Mentoren mehr der einen oder anderen Aufgabe zuwenden, sich hierfür qualifizieren und unter entsprechenden Vereinbarungs- und Vertragsbedingungen arbeiten. Es wäre jedoch wünschenswert, dass in jedem Fall das *gesamte Spektrum der Entwicklungsmöglichkeiten* vertraut ist, da man sonst allzu leicht entweder die Schwierigkeiten der Klienten verkennt oder sie beispielsweise auf bestimmte “Störungen” fixiert, obwohl es ihnen um ganz andere Anliegen geht.

Erfolgskriterien

Woran und wie überprüft man nun, ob die Aufgaben erfüllt und Intentionen realisiert werden? Auch diese Frage fordert vielschichtige Antworten heraus. Während diejenigen Therapie-

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[8] Dieser Unterschied zwischen translativ und transformativ ist manchem Leser vielleicht aus der Entwicklungstheorie Jean Piagets bekannt: Assimilation und Akkomodation. Häufig wird der Begriff „transformativ“ allerdings nur für den Wandel vom „postmodernen Relativismus“ hin zum integralen Paradigma verwandt (z.B. Mezirow 2003 oder die *Integral Transformative Practice* des Esalen Instituts), nicht jedoch für *alle* Paradimgenwechsel im Spektrum holarchischer Entwicklungen.

[9] Allerdings sieht es ganz so aus, als ob wir vor der Notwendigkeit transformativer Prozesse im großen Stil stehen, wenn die weltweiten Krisen in nahezu allen Bereichen des Lebens nicht zur Überlebensfrage werden sollen (siehe hierzu u.a. Laszlo, 2003).

[10] Siehe hierzu auch Fuhr (2001, 2003).

und Beratungsansätze, die einem anderen als dem Integralen Paradigma zuzuordnen sind wie psychoanalytische, verhaltens- und lösungsorientierte oder systemische Ansätze, relativ klar angeben können, wann eine Beratung oder Therapie erfolgreich und „ihr Geld wert“ ist, sind wir nur in der Lage, Kriterien zu nennen, die im Rahmen rational-erfolgsorientierten Denkens als vage und kaum überprüfbar gelten. Der Ansatz hat natürlich auch eine Dienstleistungsfunktion und daher sind Erfolg und die Zufriedenheit der Klienten ein wichtiges Kriterium. Aber eben nicht nur, denn Entwicklungs- und Lernprozesse machen nicht immer - und vor allem nicht rasch - zufrieden und glücklich.

Sicher ist es wichtig zu überprüfen, ob der Klient nach der Therapie/Beratung klarer sieht, ob sich sein Selbstwertgefühl gesteigert, sein Zutrauen in seine Kompetenzen erhöht, sich Symptome verbessert, verworrende Beziehungen und Konflikte im Team geklärt wurden usw. Solche Erfolge sind relativ leicht einschätzbar und teilweise sogar objektivierbar.

Dann kommen aber Kriterien hinzu, die eben der anderen Intention des Ansatzes entsprechen, zu nachhaltiger Entwicklung beizutragen. Unter diesem Gesichtspunkt heißt das allgemeine Kriterium schlicht: „Ist Bewegung in die Erstarrungen und Fixierungen gekommen?“ Viele (wenn nicht vielleicht sogar die meisten) Probleme und Unzufriedenheiten rühren aus erstarrten Gewohnheiten und Mustern, die den gegenwärtigen Herausforderungen nicht mehr gewachsen sind und kreative Anpassungsprozesse erschweren oder unmöglich machen. Wenn solche Erstarrungen gelockert wurden, die Klienten flexibler wurden in ihren Einstellungen, Verhaltensmustern und Reakionsweisen, ist viel im Sinne eines Integralen Ansatzes erreicht. Dabei sollten die „Bewegungen“ auch eine Richtung haben: hin zu mehr Komplexitätsbewältigung, zu mehr Freiheit und (Mit-)Verantwortung in den Entscheidungen, mehr Blick für das jeweils größere Ganze, mehr Bewusstheit usw.

Solche Qualitätskriterien zu überprüfen ist in Auswertungsgesprächen möglich, die immer wieder einmal durchgeführt werden, besonders natürlich zum Abschluss einer Beratung oder Therapie, aber auch zwischendrin, wenn man einen Scheideweg erreicht hat, im Prozess stecken geblieben ist oder der Jahresrhythmus solche Zwischenbilanzen nahe legt. „Prozessevalution“ heißt das Zauberwort; diese liefert jedoch kaum objektive Daten, aber doch nachvollziehbare Ergebnisse; vor allem kann sie den Lernprozess selbst wieder neu anstoßen und ausrichten.

All dies sind keine geringen Herausforderungen an den Mentor ebenso wie an die Klienten. Um in dieser Weise produktiv arbeiten zu können, sind bestimmte Grundbedingungen erforderlich, allen voran die Gestaltung einer vertrauensvollen und respektvollen Beziehung.

2. Kommunikations- und Beziehungsgestaltung

Bei dem zweiten Fragenkomplex, unter dem wir unseren Ansatz darstellen wollen, geht es darum, wie die Gesprächssituationen selbst gestaltet werden. Wir brauchen hier nicht die für die Profession üblichen und selbstverständlichen Bedingungen zu erläutern wie den Vertraulichkeitsschutz, Bewahrung der Integrität der Klienten durch den Mentor und umgekehrt, Vertragsklarheit etc. Besondere Aufmerksamkeit gilt jedoch der Gestaltung der Kommunikation und Beziehung. Hier können wir auf eine Reihe bewährter und theoretisch begründeter Konzepte zurückgreifen: Martin Bubers „Philosophie des Dialogs“; Carl R. Rogers' personzentrierte Gesprächsführung; das Prinzip der „selektiven Authentizität“ aus der Themenzentrierten Interaktion von Ruth C. Cohn („Was der Mentor mitteilt, muss authentisch sein, aber er sollte keinesfalls ungeprüft alles mitteilen!“); insbesondere aber Modelle der Gestalttherapie-Theorie wie der „Kontaktzyklus“ und die „Kontaktfunktionen“ und schließlich unser Konzept des „Meta-Dialogs“.[11]

Relationale Bedingungen

All diese Konzepte und Modelle legen es nahe - und die Erfahrung bestätigt dies immer wieder nachhaltig - dass Lernprozesse generell, besonders aber diejenigen, die nach diesem Integralen Ansatz ausgelöst werden, bestimmte Bedingungen für Kommunikation und Beziehung erfüllen sollten. In zusammengefasster Form geht es dabei um folgende Aspekte:

- Lernprozesse geschehen zu einem erheblichen Teil als Kontaktprozesse zwischen Personen und ihrer Umwelt, und deren angemessene und kreative Gestaltung entscheidet wesentlich darüber, ob Klienten überhaupt etwas lernen können, und ob dieses Lernen nachhaltig wirkt.
- Erkenntnisse, Wissen und Einsichten lassen sich nicht „vermitteln“ oder gar „beibringen“. Diese entstehen im Austauschprozess selbst - sie werden also jeweils neu in der Situation geschaffen. Damit ist kein Verzicht auf schriftlich oder mündlich überlieferte Erfahrungen und Erkenntnisse gemeint, aber auch diese müssen jeweils von uns neu „erfunden“ und integriert werden, sonst können wir sie nur als mehr oder weniger schädliche Fremdkörper „schlucken“.
- Das Kommunikations- und Beziehungsklima wird jeweils mit gelernt, ob wir dies wollen oder nicht, denn es wird mit den Lernereignissen zusammen neurologisch verankert. Wenn wir also etwas unter Angst lernen, lernen wir die Angst mit und aktivieren sie wieder, wenn wir das Gelernte anwenden sollen.[12] Es geht also wesentlich darum, in der Gesprächssituation selbst und auch längerfristig für Sicherheit zu sorgen, und zwar nicht nur für die Klienten, sondern eben auch für den Mentor, denn in Unsicherheit und Angst verliert auch dieser einmal seine Geduld und Kreativität oder sein Engagement.
- Kreatives und nachhaltiges Lernen im Austausch mit anderen geschieht an den Kontaktgrenzen. Mentor und Klient müssen sich jeweils neu an diese Kontaktgrenzen herantasten und sie möglichst nicht allzu häufig überschreiten, da dies Verletzungen mit sich bringen kann. Aber sie sollten auch nicht zu weit von den Kontaktgrenzen entfernt bleiben, da sonst wichtige Potentiale verloren gehen.
- In der Beziehung zwischen Mentor und Klienten etabliert sich sowohl eine Hierarchie, als auch eine Heterarchie. Die Hierarchie ergibt sich aus den unterschiedlichen Rollenfunktionen und dem notwendigen Machtgefälle zwischen dem Mentor als Experten und dem Klienten. Heterarchie heißt hier: die Gesprächspartner begegnen sich als Personen auf gleicher Ebene mit gegenseitigem Respekt.

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[11] Siehe Fuhr & Gremmler-Fuhr (2004), besonders Kapitel 3.

[12] Hierzu z.B. Spitzer (2002).

Intentionaler Dialog und Meta-Kommunikation

Das Kommunikations- und Beziehungskonzept für diesen Ansatz lässt sich wohl am besten als „intentionaler Dialog“ zusammenfassen:[13] Die Gesprächspartner haben die Intention, sich u.a. im Sinne der o.g. Kriterien zu begegnen, aber sie respektieren es auch, wenn diesem Bemühen Grenzen gesetzt sind und eine kontaktvolle Begegnung nicht möglich ist. Dabei sollte der Mentor natürlich der erste sein, der dieser dialogischen Intention Ausdruck und Gestalt zu geben versucht.

Unerlässlich dabei ist, dass die Möglichkeit zur Meta-Kommunikation verfügbar ist. Auch wenn die Möglichkeiten der Reflexion - und vor allem der Selbst-Reflexion - eingeschränkt sein mögen, so besteht doch fast immer die Möglichkeit, sich über die Art der Kommunikation und Beziehung auszutauschen. Dazu bedarf es meist jedoch der Anleitung. Da zwischenmenschlicher Austausch ein äußerst sensibler und störanfälliger Prozess ist, wie viele Kommunikationsforscher und Systemtheoretiker glaubhaft belegen, gehören Missverständnisse, Verstörungen und Konflikte zum Alltag, auch in Therapie und Beratung. Sofern wir sie thematisieren und immer wieder konstruktiv klären können, tragen sie meist sogar zur Intensivierung der Lernprozesse und der Beziehung bei. Aber eben diese Klärung ist immer wieder notwendig und sollte ganz selbstverständlich zum Austauschprozess gehören.

Wichtig für den Integralen Ansatz scheint es uns auch zu sein, dass sich die Gestaltung der Kommunikation und des Beziehungsgeschehens möglichst an der Normalität orientiert; das heißt, dass sowohl spezieller Sprachjargon („Psycho-Sprache“), ärztlich-therapeutische Fachausdrücke oder Begriffe aus der Systemtheorie etc. wenig oder nur in aufgeklärten Formen verwendet werden und ungewöhnliche Kommunikationsmethoden und Techniken sehr sparsam eingesetzt werden, sofern sie überhaupt notwendig sind. Denn es geht - wie zuvor erläutert - um Nachhaltigkeit: der Gesprächsprozess selbst sollte auch immer als Modell für den Alltag gelten können, wenn auch sicher in modifizierter und weniger intensiver Form, aber doch in der grundsätzlichen Qualität. Auf diese Weise können Erkenntnisse, die dabei gewonnen werden, viel leichter in den Alltag übertragen und integriert werden.

3. Problembestimmung und Diagnose

Problemdefinition, Mustersuche und Sinnfindung

Der Bestimmung des Problems im weitesten Sinn wird in unserem Ansatz eine wichtige Bedeutung beigemessen. Erst wenn klar ist, was den Klienten in welchen Situationen und in welcher Hinsicht berührt, bedroht, Sorgen macht, unter Druck setzt oder zu Entscheidungen nötigt, können wir „der Sache auf den Grund“ gehen, die wiederkehrenden Muster herausarbeiten und nach dem Sinn eben dieser Muster suchen, bevor sich dann in der letzten Phase eines Gesprächs Alternativen und Lösungsansätze oft wie von selbst ergeben (siehe auch Abb. 2). Bei einem vieldimensionalen und vielperspektivischen Ansatz kann es natürlich nicht *die* („richtige“) Problemformulierung geben, sondern wir müssen uns entscheiden, aus welchen Perspektiven wir das Problem vor allem fokussieren wollen: aus einer subjektiven Innenperspektive, aus der Perspektive der Verhaltensweisen der Beteiligten, der Wertorientierungen und sozialen Normen oder der faktischen Bedingungen. Prinzipiell können alle Perspektiven berücksichtigt werden, aber eine wird sich vermutlich als wichtiger erweisen als andere. Dies ist meist davon abhängig, wo Klienten am ehesten eigene Handlungsspielräume erkennen können, denn es hat wenig Sinn, Probleme mit viel Aufwand zu präzisieren, an denen ohnehin nichts zu ändern ist, weil größere Kräfte am Werk sind. So lassen sich aufgrund ein und derselben Ausgangssituation dann Probleme auch auf den verschiedensten Konkretisierungsebenen formulieren, also auf individueller, sozialer, institutioneller oder gesellschaftlicher und politischer Ebene. All dies sind (möglichst gemeinsame) Entscheidungsprozesse von Mentor und Klient.

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[13] Siehe hierzu Martina Gremmler-Fuhr (2004).

Wenn das Problem formuliert ist, kann man sich ein Stück weit davon und von der aktuellen Ausgangssituation distanzieren, ohne den emotionalen Kontakt dazu zu verlieren. In dieser *disidentifizierten* Perspektive (nach Möglichkeit mit Unterstützung einer „dritten Instanz“) können wir dann überfällige Gewohnheiten oder erstarrte Muster erkennen, die sich wiederholen, hochschaukeln, verstärken oder verdrängt werden - um im Untergrund weiter zu wirken. Das Erkennen und Akzeptieren solcher Muster - Verhaltensmuster, Reaktionsmuster, innerer (psychodynamischer) Muster, Beziehungsmuster, gruppendynamischer Muster usw. - ist ein Kernstück des Ansatzes; denn diesen Mustern kommt eine Schlüsselfunktion sowohl für translative als auch für transformative Lernprozesse zu. Sie können analog zu den Tiefenstrukturen einer Sprache verstanden werden. Aus diesen Tiefenstrukturen werden immer wieder neue Sätze generiert, und - wenn die Tiefenstrukturen erstarrt und nicht mehr angemessen sind - dann eben auch antiquierte oder unverständliche Sätze. Solche Grundmuster aufzudecken ist oft unangenehm, peinlich und frustrierend, denn es handelt sich beispielsweise um unrealistische Selbst-Auf- bzw. Selbst-Abwertungen, Schulddynamiken, Totschweigen von unangenehmen Tatsachen im eigenen Leben oder in dem einer Institution, um „Schwarze-Peter-Spiele“, Machtdynamiken (ohne dass wirkliche Macht zu verteilen wäre), Delegationen von ungelebten Anteilen an Beziehungspartner (die dann bekämpft werden) und vieles andere. Es bedarf daher der besonderen Unterstützung und der existenziellen Bestätigung durch den Mentor, um solchen Erkenntnissen nicht auszuweichen und sie akzeptieren zu können, denn nur dann können wir sie verändern.

Bevor solche Veränderungs- und Wandlungsprozesse jedoch greifen können, ist es meist erforderlich, dass wir die Probleme mit den ihnen zugrunde liegenden Muster *verstehen,* dass wir ihren Sinn ergründen. Wir gehen davon aus, dass jede inzwischen noch so abstruse Gewohnheit und jedes noch so zerstörerische Muster einen Sinn ergibt. Häufig liegt dieser Sinn darin, dass es Reaktionen auf schwierige Situationen in der Vergangenheit waren, die sich verfestigt haben.

In dieser dritten Phase des Prozesses geht es also darum, die größeren Zusammenhänge zu ergründen. Diese können historisch begründet sein, sie können in der Funktion, die ein Team in einer größeren Organisationseinheit hat, in einem Tabu oder in einer unmöglichen Aufgabe liegen, die eine soziale Einheit unter Stress setzt usw.

Bei der Suche nach Sinnzusammenhängen können wir rasch an Grenzen stoßen, nicht nur, weil sie etwa für die Klienten peinliche Fakten ans Tageslicht fördern, sondern auch weil die Vertragsbedingungen für die Beratung oder Therapie nicht gegeben und die Kompetenzen des Mentors nicht gewährleistet sind. Aber wir können immer bis an diese Grenzen gehen und ggf. auch gemeinsam neue Grenzziehungen vereinbaren.

Wenn dann einige plausible Sinnzusammenhänge gemeinsam heraus gearbeitet und erkannt worden sind, steht der Entwicklung neuer Perspektiven und Handlungsmöglichkeiten nichts mehr im Wege.

Diagnostik

Diese Art der Problembestimmung, der Mustersuche und der Sinngebung eignet sich sowohl für Therapie, als auch für Beratung im engeren Sinn. Zwar werden die Arten der Probleme stark variieren, je nachdem, ob wir etwa in einem psychiatrischen oder organisationalen Kontext arbeiten. Und jeweils können auch andere Modelle und Erklärungsansätze herangezogen werden, sei es aus der Psychoanalyse, der Verhaltenstherapie, der Systemischen oder humanistisch-psychologischen Therapie und Beratung oder aus Modellen der Organisationsentwicklung. Entscheidend für diagnostische Vorgänge im Rahmen des Ansatzes sind jedoch die folgenden Prinzipien und Kriterien:

- *Diagnose wird als ein Prozess verstanden, der immer wieder einmal durchgeführt wird.*
  Es gilt also nicht der Grundsatz „erst die Diagnose, dann die Behandlung“, sondern Diagnose ist ein Teil des gemeinsamen Beratungs- und Therapieprozesses. Damit stoßen wir allerdings sehr rasch an die Grenzen etwa eines Gesundheitssystems, in dem „Behandlungen“ nur aufgrund von eindeutigen Diagnosen mit „Krankheitswert“ finanziert werden. Hier müssen wir wohl in vielen Fällen Kompromisse eingehen.
- *Diagnose ist ein gemeinsamer Prozess zwischen Mentor und Klient.*
  Soweit wie irgendwie möglich versucht man, Verständigung zu erzielen, denn nur eine Diagnose, die von beiden Seiten akzeptiert wird, kann den Lern- und Entwicklungsprozess anregen und Richtungen weisen. Auch hier stößt man manchmal an Grenzen, wenn ein Einverständnis nicht oder nur schwer möglich ist und vielleicht sogar die Bereitwilligkeit zur Verständigung fehlt. Dann gibt es nur noch die Möglichkeit, die unterschiedlichen Positionen zu respektieren und die Konsequenzen zu akzeptieren, die beispielsweise in der Beendigung der Zusammenarbeit bestehen können.
- *Diagnosen erfolgen vielperspektivisch, vielschichtig, und sie legen Defizite ebenso offen wie Ressourcen.*
  Weder geht es also beispielsweise bei Einzelpersonen als Klienten nur darum, die Defizite aufzuführen (wie sie etwa in den Kriterienkatalogen von DSM und ICD stehen), noch nur um die Identifikation von Ressourcen, wie sie etwa von lösungsorientierten Ansätzen und der „positiven Psychologie“ favorisiert werden. Wir brauchen sowohl die Ermutigung durch das Bewusstsein vorhandener, aber nicht ausgeschöpfter Kompetenzen, als auch die Erkenntnis, dass Defizite vorliegen oder rigide und destruktive Muster wirksam sind. Diese beiden Aspekte - Defizite und Ressourcen - auszubalancieren, ist eine wichtige Aufgabe des Mentors, zumal viele Klienten dazu neigen, entweder nur das eine oder das andere wahrhaben zu wollen.

Das Entwicklungsspektrum, Erkenntnisse über translative und transformative Lernprozesse, die Möglichkeiten, zu regredieren oder auch wichtige Entwicklungsschritte überspringen zu wollen, all dies sind neben den verbreiteten psychologischen, gruppendynamischen, organisationalen oder sozialen Modellen wertvolle Hilfen dabei, die Unausgewogenheiten im lebendigen Geschehen zu erkennen, zu benennen und zu akzeptieren, damit wir uns immer wieder auf den Weg machen können - Klient und Mentor gemeinsam und jeder Klient für sich.

4. Strategien und Methoden

Am Schluss der Charakterisierung des Praxiskonzepts soll die strategische und methodische Vorgehensweise zusammengefasst werden. Wir haben solche strategischen und methodischen Aspekte schon mehrfach angedeutet und wollen sie hier nun kurz systematisch darstellen.

Dialogorientierter Austausch

Im Zentrum der Vorgehensweise steht das Gespräch, das sich soweit wie möglich an den Prinzipien und Kriterien des intentionalen Dialogs orientiert. Dies ist, wenn man so will, die Methode der Wahl. Aber solch ein Dialog sollte ja mehr einer Haltung und Einstellung entsprechen, als einem methodisch geplanten Vorgehen, denn die Art der Kommunikation und Beziehungsgestaltung ist immer auch Modell für alltägliche Umgehensweisen. Deshalb würden wir keine Maßstäbe für einen „optimalen“ Dialog oder Kontaktprozess angeben wollen, da dies sonst leicht mit einer Technologie der Gesprächsführung verwechselt werden könnte. Missverständnisse, Irrtümer, Irritationen, Konflikte und gelegentlich auch handfeste Streitigkeiten gehören zu unserem Miteinander dazu und können sehr konstruktiv sein, wenn die Grundprinzipien des intentionalen Dialogs nicht verletzt werden. Immer steht uns ja auch die methodische Möglichkeit der Meta-Kommunikation zur Verfügung.

Die Bedeutung des Dialogs als methodische Orientierung beim Vorgehen ergibt sich auch aus der Erkenntnis, die die Begründer der Gestalttherapie Frederick S. und Laura Perls sowie Paul Goodman (1951) erstmals formulierten: im aktuellen Kommunikations- und Beziehungsgeschehen spiegeln sich die Probleme und Schwierigkeiten des Klienten aus dem Alltag oft auf die eine oder andere Weise wider. Wir sind dann also quasi mitten im Geschehen, das die Probleme im Alltag bereitet, und können es gemeinsam auf ganz lebensnahe Weise untersuchen. Darin liegt ein unschätzbares Potential.

Natürlich können sich auch die Probleme des Mentors im Beratungs- oder Therapiegeschehen widerspiegeln. Deshalb ist es unverzichtbar, dass Mentoren eine Aus- und Weiterbildung genossen haben, in der sie gelernt haben, sich selbst zu reflektieren, ihre eigenen Muster und Macken zu erforschen und darüber hinaus zu lernen, wie man mit diesen Mustern und Macken in Bewegung und in einem kontinuierlichen Lernprozess bleiben kann.

Phasen des Gesprächs

Wie schon mehrfach angedeutet, konzentrieren sich das Gespräch und die gemeinsamen Aktivitäten nach anfänglichen Klärungen und Vereinbarungen darauf, die Situation gründlich zu erforschen, bevor sie interpretiert wird und neue Perspektiven entwickelt werden (Abb. 2). Eine besondere Herausforderung dabei ist es, die Anliegen und Situationen, die Klienten einbringen, nach der *phänomenologischen Methode* zu untersuchen. Es geht darum, die inneren und äußeren Wahrnehmungen in der Situation (wieder) zu realisieren und sie sehr deutlich von Interpretationen zu unterscheiden. Wer etwa ein akademisches Studium absolviert hat, musste lernen, Theorien zu rekonstruieren und mit ihnen zu jonglieren, obwohl sie kaum noch etwas mit Erfahrungen, geschweige denn den eigenen, zu tun hatten. In den meisten wissenschaftlichen Disziplinen herrscht zwar das hehre Prinzip: „Erst die Datensammlung, dann die Interpretation", dennoch werden Deutungen sehr rasch als Fakten ausgegeben: „Dies ist eine Übertragung, jenes ist eine Verdrängung der Aggressionen"; auch in der Politik glaubt man, über die Motive anderer Menschen, besonders der Gegner, gut Bescheid zu wissen, und gibt sie als Fakten aus. Deshalb ist mit der Unterscheidung von phänomenologischer Bestandsaufnahme und Interpretation eine große Herausforderung verbunden. Aber sie ist auch deshalb so wichtig, weil diese phänomenologische Bestandsaufnahme die empirische[14] Basis für Verständigung darstellt. Über Interpretationen und Erklärungsmodelle lässt sich dann trefflich streiten.

Bevor wir zur Sinnfindung kommen, empfiehlt es sich, die Tiefenstrukturen zu erschließen, also die Muster herauszufiltern. Man kann sich darüber streiten, ob dies nicht schon ein interpretativer Schritt sei. Wir zählen die Erschließung von Mustern jedoch noch zur Bestandsaufnahme, denn dabei bündeln wir die empirischen Daten und fügen sie zu Mustern zusammen. Dabei ist allerdings auch oft einige Fantasie erforderlich, die durch kreative Methoden angeregt werden kann. Damit wären wir dann beim Übergang zur eigentlichen Interpretationsphase, in

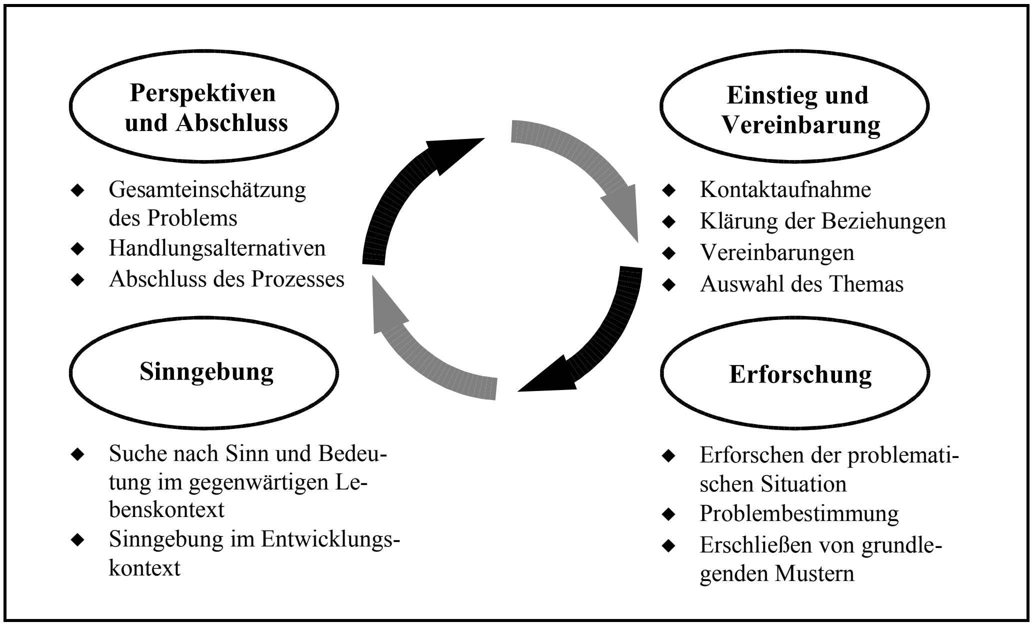
Perspektiven und Abschluss
◆ Gesamteinschätzung des Problems
◆ Handlungsalternativen
◆ Abschluss des Prozesses
Einstieg und Vereinbarung
◆ Kontaktaufnahme
◆ Klärung der Beziehungen
◆ Vereinbarungen
◆ Auswahl des Themas
Sinngebung
◆ Suche nach Sinn und Bedeutung im gegenwärtigen Lebenskontext
◆ Sinngebung im Entwicklungskontext
Erforschung
◆ Erforschen der problematischen Situation
◆ Problembestimmung
◆ Erschließen von grundlegenden Mustern

Abb. 2: Gesprächszyklus für Integrale Beratung

der wir Erklärungen suchen für die „Muster, die verbinden“,[15] um dadurch den tieferen Sinn zu finden und zu erfinden.

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[14] „Empirisch" ist hier im eigentlichen Sinn gemeint, nämlich als „erfahrungsbezogen".

Den Abschluss bilden dann die Entwicklung von Einstellungs- und Handlungsalternativen sowie die abschließende Reflexion und Beendigung des gemeinsamen Beratungs-/Therapieprozesses.

Natürlich wird diese Phasenfolge in der Praxis nicht strikt eingehalten, es geht vor und zurück, und manchmal sind mehrere Schleifen notwendig, bis man zu einem befriedigenden Ergebnis gelangt. Aber dieses am Kontaktzyklus der Gestalttherapie angelehnte Modell ist eine sehr gute Orientierung für diesen vielschichtigen, komplexen und manchmal auch verwirrenden Prozess.

Methodeneinsatz

Abschließend sollen einige uns wichtig erscheinende Gesichtspunkte zum Umgang mit Methoden und Techniken noch einmal hervorgehoben werden:

Prinzipiell können alle Methoden, die für dieses professionelle Feld entwickelt wurden, zur Verwendung kommen. Allerdings gelten die grundlegenden Prinzipien des Dialogischen, der Entwicklungsorientierung, der Vielperspektivität und Vielschichtigkeit. Von daher ergeben sich einige Kriterien und Gefahrenhinweise für den Einsatz von Methoden:

- Methoden sollten so verwendet werden, dass sie sich nicht *zwischen* den Kontakt von Klienten und Mentor stellen. Entscheidend ist der unmittelbare Austausch, den man leicht vermeiden oder fremdsteuern kann, wenn man durch Methoden Strukturen setzt, die die normalen Sensibilitäten und zwischenmenschlichen Umgangsformen außer Kraft setzen. Beispielsweise ist es sehr problematisch, wenn eine Nähe und Intimität hergestellt wird, die der Beziehung und Situation eigentlich nicht angemessen ist. Aber gerade solche Methoden haben eine hohe Verführungsqualität.
- Methoden sollen eigenständige und nachhaltige Lern- und Entwicklungsprozesse der Klienten unterstützen. Alltagsnahe Methoden erleichtert die Integration, exotische erschweren sie oft.
- Viele experientielle und konfrontative Methoden[16] können Turbulenzen und tief gehende Erschütterungen auslösen, sowohl bei einzelnen, als auch in sozialen Einheiten. Sie sind daher mit größter Vorsicht zu verwenden und nur unter kompetenter Anleitung. Wenn Klienten zu heftig mit eigenen Erfahrungen, Gefühlen und „Wahrheiten“ konfrontiert werden, insbesondere, wenn dabei auch noch traumatische Erfahrungen berührt werden, können Re-Traumatisierungen und Dissoziationen die Folge sein.
- Methoden sollten als *Experimente* im Sinne des Gestalt-Ansatzes verstanden werden: die Klienten erproben etwas, nicht um es zu können, sondern um neue Erfahrungen zu sammeln. Bei jedem Schritt dieses Experiments wird daher die Aufmerksamkeit auf die gegenwärtigen Erfahrungen gelenkt, und dem entsprechend werden sie modifiziert. Sobald etwa größere Ängste entstehen und Grenzen gespürt werden, sind diese erst gründlich zu erkunden, bevor

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[15] Dies war der Begriff von Gregory Bateson, dem großen Anthropologen des 20. Jahrhunderts und „Vaters“ der Systemtheorie.

[16] Ausführlicher hierzu: R. Fuhr (2001).

man nächste Schritte tut. Denn Widerstände werden als Energien betrachtet, die in eine andere Richtung gehen, als die Beteiligten dies vielleicht geplant hatten. Diese Widerstände können uns den Weg zu wichtigen und tiefen Einsichten weisen. Es handelt sich dabei also um viel zu wertvolle Phänomene, als dass man Widerstände „durchbrechen“ oder „überwinden“ sollte.

Fazit

Fassen wir die wichtigsten Aspekte des Integralen Ansatzes als Landkarte zusammen (Abb. 3): Diese Art der Therapie und Beratung gehört sicher nicht zum Mainstream im professionellen Feld, schon gar nicht, wenn die allgemeine Maxime in Richtung rascher Effizienz, spektakulärer Methoden und Erlebnisqualitäten und messbarer Qualitätsmerkmale geht. Sicher gibt es eine Reihe von konzeptionellen Ansätzen, die in die Richtung des hier dargestellten Ansatzes

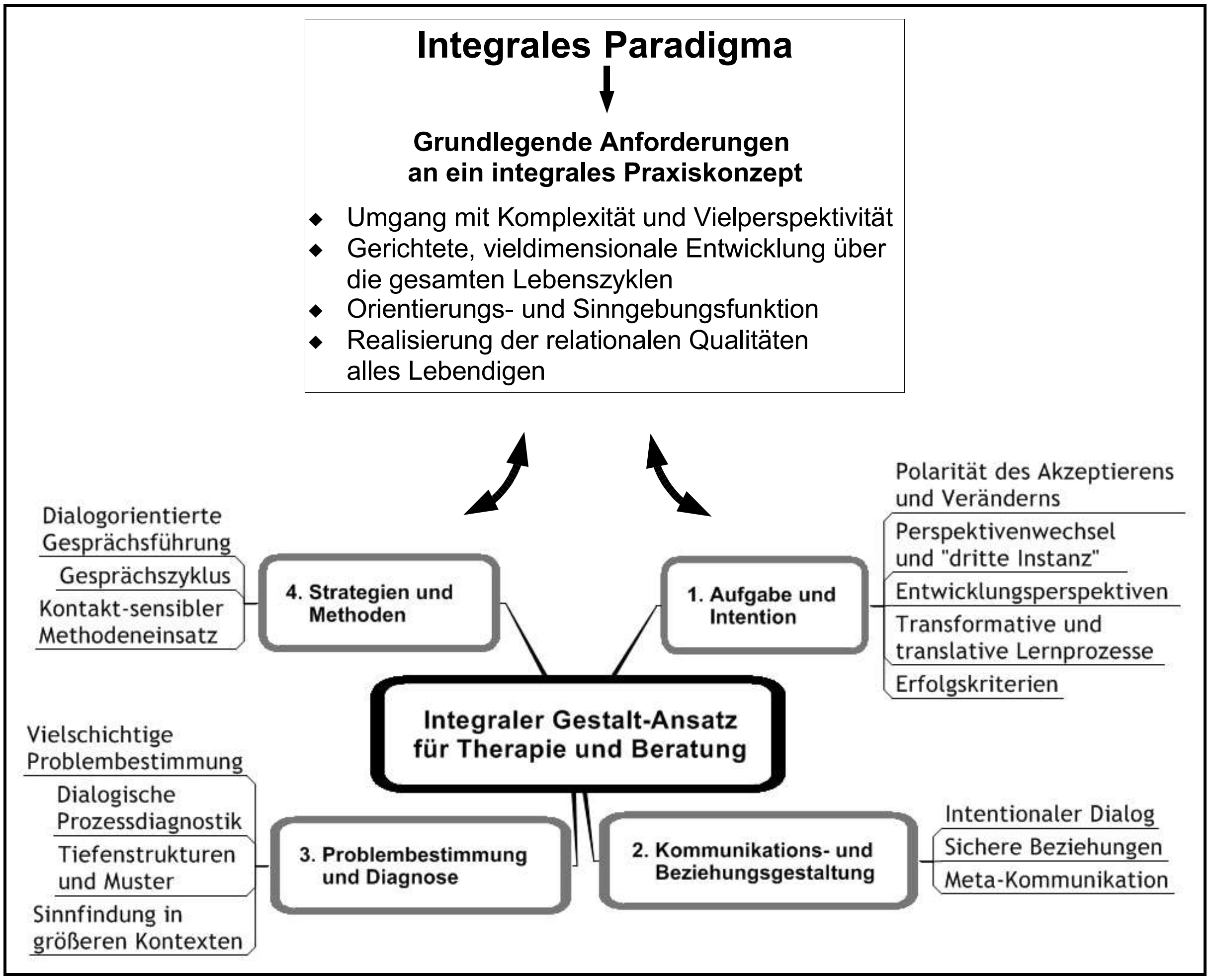
Integrales Paradigma
Grundlegende Anforderungen an ein integrales Praxiskonzept
Umgang mit Komplexität und Vielperspektivität
Gerichtete, vieldimensionale Entwicklung über die gesamten Lebenszyklen
Orientierungs- und Sinngebungsfunktion
Realisierung der relationalen Qualitäten alles Lebendigen
Polarität des Akzeptierens und Veränderns
Perspektivenwechsel und "dritte Instanz"
Entwicklungsperspektiven
Transformative und translative Lernprozesse
Erfolgskriterien
1. Aufgabe und Intention
Dialogorientierte Gesprächsführung
Gesprächszyklus
Kontakt-sensibler Methodeneinsatz
4. Strategien und Methoden
Integraler Gestalt-Ansatz für Therapie und Beratung
Vielschichtige Problembestimmung
Dialogische Prozessdiagnostik
Tiefenstrukturen und Muster
Sinnfindung in größeren Kontexten
3. Problembestimmung und Diagnose
2. Kommunikations- und Beziehungsgestaltung
Intentionaler Dialog
Sichere Beziehungen
Meta-Kommunikation

Abbildung 3: Übersicht über die Komponenten des Integralen Gestalt-Ansatz für Therapie und Beratung

weisen wie etwa die personzentrierte Gesprächsführung eines Carl R. Rogers (in der ursprünglichen, von ihm entwickelten Form - 1983), oder die Gestalttherapie in ihren Weiterentwicklungen,[17] oder das Konzept von Thomas Jordan (2002). Es bedarf also einiges an Pioniergeist, um im Sinne des Integralen Ansatzes arbeiten zu können. Dem entsprechend gibt es bisher auch kaum Ausbildungen dafür (eine Konzeption für solch eine Ausbildung darzustellen, wäre ein eigener Artikel). Meist müssen Aus- und Weiterbildungen individuell bei einzelnen Trainern zusammengesucht oder in Eigenstudien realisiert werden. Aber das könnte ein kreativer Weg zu neuen Ufern sein, der aufregend und vielleicht sogar sehr nachhaltig wirksam werden kann. Dazu braucht man dann eine große Portion an Geduld, Toleranz, und Risikobereitschaft. Es wäre daher hilfreich, wenn sich mehr von denjenigen, die in dieser Richtung arbeiten wollen, zusammenfinden und sich gegenseitig unterstützen könnten

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[17] Siehe hierzu z.B. Fuhr, R., Sreckovic, M. und Gremmler-Fuhr, M. (Hrsg.) (2001); Woldt, A.L. und Thomas, S.N. (eds.) (2005).

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Reinhard Fuhr, *Dr. phil. From 1975-2004 he was teaching and doing research at the department of education, University of Göttingen. He is a Gestalt therapist and trainer for the Integral Gestalt approach, author and co-author of many books and articles on Gestalt therapy, the Integral Gestalt Approach, counselling and living learning as well as personality development. Besides being the editor-in-chief of* Integral Review *he is an associate editor of* Gestalt Review.

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Ein Integraler Gestalt-Ansatz für Therapie und Beratung
[An Integral Gestalt Approach for Psychotherapy and Counselling]

Reinhard Fuhr und Martina Gremmler-Fuhr

Summary

In this text we present our concept of psychotherapy and counseling in the frame the integral paradigm as we understand it. We briefly explain four requirements for a professional concept of this kind: the elaboration of complexity and multi-perspectivity, intentional development within an holarchical spectrum, offering orientation and meaning making structures, and realizing the relational quality of life as well as enacting intentional dialogues. We then discuss the differences and commonalities of the terms “psychotherapy,” “counseling” and “education” or “continuous training,” and we argue that they form a continuum with a major common basis as well as specialized competencies and strategies required. Even “teaching” increasingly requires a great amount of counseling by teachers and trainers nowadays, if they want to take into account what recent research on learning processes has proved. Our practical concept for the Integral Gestalt Approach which we have developed and evaluated over many years in quite different professional fields, from university seminars to health institutions, is then explored under four sets of questions or categories:

1. *Intentions and tasks*: The main task of the approach is considered to be the handling of the polarity between accepting whatever is on one hand, and supporting development processes along the specter of development on another hand. A major challenge here is to discover an “inner witness” or a “third position” that is able to empathetically acknowledge whatever is, without being entangled. Utilizing a developmental model of a holarchy with five levels, or paradigms, from pre-personal to conventional to rational to relativistic to integral has been very helpful in accomplishing this. We distinguish between translative and transformative learning processes which may be initiated – translative meaning an increase in competencies, transformative meaning a change of paradigms in one or more dimensions of individual or social development. The main criteria for success of the praxis is considered to be whether rigidified patterns or frozen structures can be turned to become fluid again, thus enabling clients to be involved in new and sustainable processes of learning and self-organization.

2. *Communication and mentor-client relationship*: Great emphasis is given to the realization of “intentional dialogues” and the establishment of safe and reliable mentor-client relationships, as these are considered to be the most favorable conditions for challenging learning processes, especially as, according to new research findings, relational qualities are learned along with the contents of any learning process.

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3. *Problem definition and diagnostics*: Problems can be defined on the basis of phenomenological exploration from many perspectives and at many levels of abstraction. Underneath these problems we may look for deep structures like repetitive dysfunctional patterns which then are investigated for their original meanings in wider contexts like personal history, social and organizational environment etc. Diagnostics are applied in the shape of recurrent mutual evaluation processes (in comparison to the staunch norm of "diagnosis before treatment"). Phenomena and deep structures are clearly differentiated from interpretations and explanations; traditional diagnostic models may be used by carefully adapting them to this integral approach.

4. *Strategies and methods*: Intensive contact processes guided by a four-phase model with a priority on exploration and self-reflection before the search for new perspectives and alternative solutions is considered to be the central method. Additional methods are designed in a way that they are close to normal live experiences in order to support the transfer of sustainable learning processes. Although trainings for this integral approach can build on a few established approaches to therapy and counseling, pioneering work is necessary as such an integral approach is still marginal. Therefore intensifying the networking of these pioneers is recommended.

Figures for the text

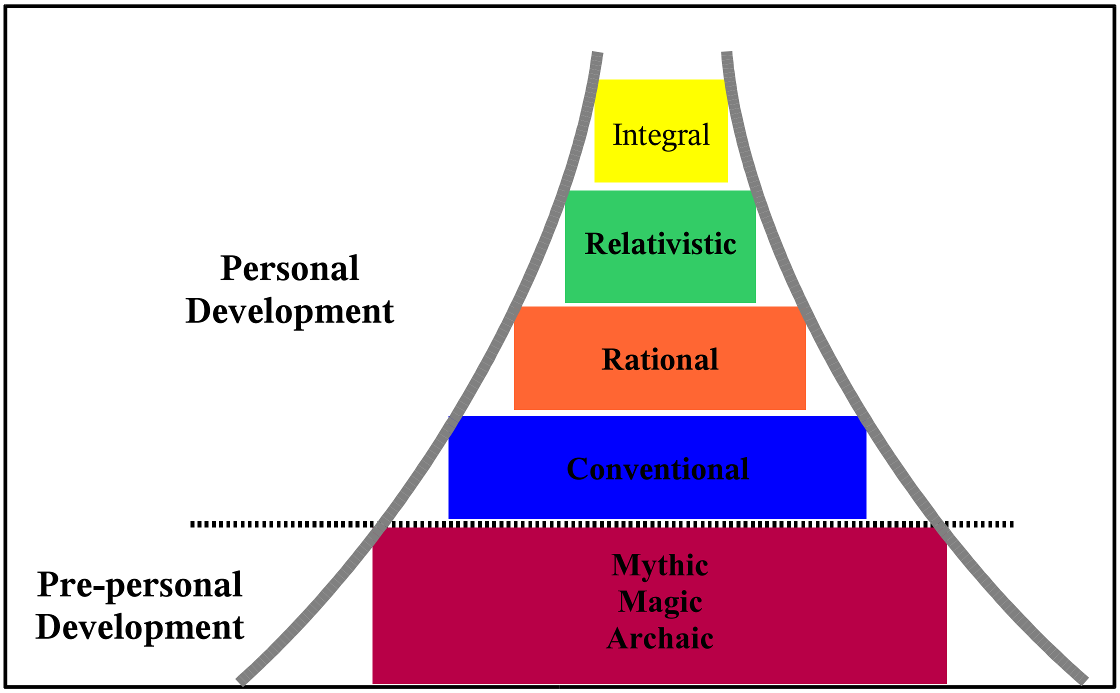
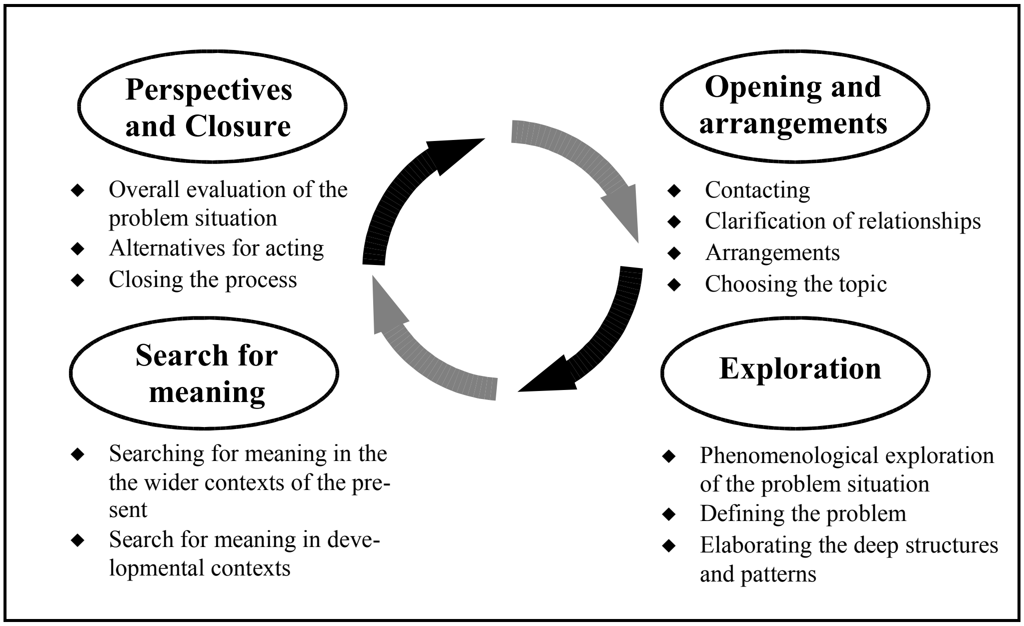

Integral
Relativistic
Rational
Conventional
Mythic
Magic
Archaic
Personal Development
Pre-personal Development

Fig. 1: Five stages or paradigms of development


Perspectives and Closure
Opening and arrangements
Search for meaning
Exploration

Perspectives and Closure

- Overall evaluation of the problem situation
- Alternatives for acting
- Closing the process

Opening and arrangements

- Contacting
- Clarification of relationships
- Arrangements
- Choosing the topic

Search for meaning

- Searching for meaning in the the wider contexts of the present
- Search for meaning in developmental contexts

Exploration

- Phenomenological exploration of the problem situation
- Defining the problem
- Elaborating the deep structures and patterns

Figure 2: Cycle of contact in counseling and therapy

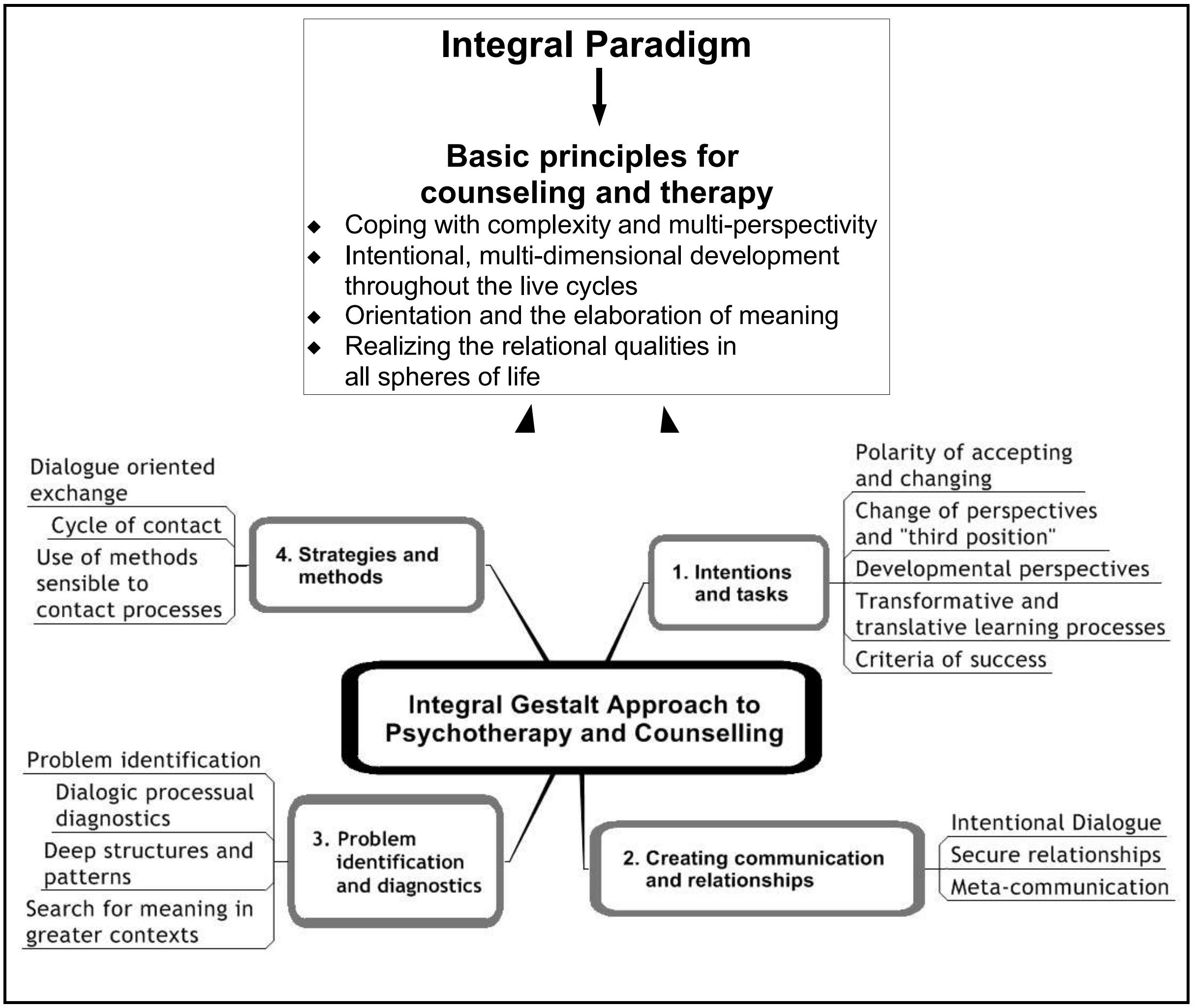

Integral Paradigm
Basic principles for counseling and therapy
◆ Coping with complexity and multi-perspectivity
◆ Intentional, multi-dimensional development throughout the live cycles
◆ Orientation and the elaboration of meaning
◆ Realizing the relational qualities in all spheres of life
Dialogue oriented exchange
Cycle of contact
Use of methods sensible to contact processes
4. Strategies and methods
1. Intentions and tasks
Polarity of accepting and changing
Change of perspectives and "third position"
Developmental perspectives
Transformative and translative learning processes
Criteria of success
Integral Gestalt Approach to Psychotherapy and Counselling
Problem identification
Dialogic processual diagnostics
Deep structures and patterns
Search for meaning in greater contexts
3. Problem identification and diagnostics
2. Creating communication and relationships
Intentional Dialogue
Secure relationships
Meta-communication

Figure 3: Survey on the Integral Gestalt approach to therapy and counseling

Book Reviews

Laszlo, E. (2004). *Science and the Akashic Field: An Integral Theory of Everything*. Rochester, Vermont: Inner Traditions International

Ervin Laszlo may be well known to many readers as a far sighted author; he was a founding member of the Club of Rome, founded the Club of Budapest, was affiliated with many Universities around the world, was nominated for the Nobel prize and he published many interdisciplinary books on questions of utmost relevance to those who are engaged in the realization and further development of the integral paradigm. And yet this is an unusual book.

Science and the Akashic Field is a most challenging attempt to summarize the foundations of a "theory of everything" on a solid *scientific* basis. His attempt stands in contrast, as Laszlo explicitly maintains, to Wilber's *Theory of everything* – as "... he does not offer such a theory" - which is, as we will see, not quite fair (p. 2). Laszlo builds his claim on his 40 years of interdisciplinary research as a professor of philosophy, systems theory and futures studies. At the core of his theory of everything is the *connectivity hypothesis*. In simple terms it means: in our universe (and in all other universes) everything is connected with everything in the information-conserving and information-conveying cosmic field of the quantum vacuum. This vacuum fills most of the universe (not matter!), and the vacuum preserves all information ever generated without any need of time and space or a medium. Therefore the total sum of information is immediately available everywhere and at any time if it can be "received" and decoded by resonance. Of course, Laszlos says, amoebas have more resonance with other amoebas than with human beings and vice versa. But in principle the experience of all predecessors can be used by every form of life and evolutionary challenge. This also means that evolution is *not* essentially based on trial and error, as the probability that life could have come to existence only in this way would virtually be zero.

Laszlo calls this quantum vacuum with all universal information the Akashic field or A-field, according to the Indian philosophy's concept of the Akashic Chronicle and along with thousands of years of the knowledge of sages, particularly in the East. This A-field cannot be observed, but its effects can be observed, measured and evaluated by scientific methods; and Laszlo quotes quite a number of examples and proofs of theses effects from cosmology to quantum physics, biology and consciousness development. Most of it is written in a way that even someone like me who is not very familiar with quantum physics, the leading edge of biology research and the details of complexity theories, can somehow understand. It is still not quite easy food.

The consequences of this basic hypothesis are far reaching:

- Consciousness and matter are just two aspects (interior versus exterior) of one and the same existential ground of everything (here and at a few other places Laszlo comes to quite similar conclusions as Wilber in spite of his initial devaluation of him). There is a free floating primary consciousness and unstructured energy field which continuously evolves and generates the manifold forms of our universe (among innumerable other universes).
- Nothing we experience and think is lost, it is available for all times, and others can built on it if they link with it through resonance with the corresponding wave functions.
- The root of our knowledge is not conserved in our brain or mind but in the A-field where everything is available (a thought that also turns up in Sheldrake's theory of morphic fields –

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another challenging theory which is usually ignored or depreciated by traditional science - and is not mentioned by Laszlo either).
- Evolution is “directed:” from the original primary consciousness and unstructured energy field to continuously more complexity and coherence; i.e. evolution is neither wanton nor determined and produces its own unfolding.

This theory may throw new light on many problems and phenomena of our lives, as Laszlo explains in an exemplary way: the brain – mind problem, the question of immortality (only the contents of our consciousness are immortal, nothing else), para-psychological phenomena and altered states of consciousness etc.

This book takes up many threads that show the way towards an integral paradigm, and to an encompassing and interdisciplinary theory at a very abstract and yet substantial level. Laszlo connects these strands in what I would interpret as a kind of legacy in the shape of a coherent and awe inspiring whole. Of course there remain many questions and gaps in his theory of everything - or rather: many very fascinating questions can be generated on this basis.

One of the most important questions for me would focus on what this could mean for learning, transformation and social change. For example, it has been obvious for a long time now that we cannot fill the minds of students (and those of people in general) with new ideas and knowledge like an empty bucket. Instead, incorporating Laszlo's idea, we have to produce the best conditions for resonance with and realization of the knowledge readily available in the A-field. This would be of utmost relevance to all educational endeavours from school teaching to community development; we would have to motivate ourselves and others to produce new knowledge of our own and link it with our experience on the basis of what is available; and we could dispose of most of our training programs and methods that aim at “transporting” knowledge into the heads of learners. Many alternative and humanistic pedagogic approaches from Paolo Freire to Ruth Cohn or Confluent Education and the insights of new neurological research findings which all tend towards similar conclusions could be incorporated with Laszlo' theory. How this could be done in a way that promises to be much more meaningful and effective than traditional as well as modern “technical” approaches to learning would indeed be a huge field of research and further studies.

And of course strong resistance will also be provoked by this theory of everything, and we will have to find ways of handling it. When asking a distinguished and rather open-minded neuroscientist whom I know personally, whether he could tell me anything about the assumption that the roots of our knowledge may not be stored in the brain functions and in our minds but rather in a readily available field of knowledge in the quantum vacuum to which we may establish resonance, his reply was short: “This sounds like a rather abstruse theory and of little use for me!” I will still continue to discuss this topic with him, as my resonance with Laszlo's theory of everything was a different one indeed.

Reinhard Fuhr

Ferrer, J. N. (2002). *Revisioning Transpersonal Theory. A Participatory Vision of Human Spirituality* Albany, NY: State University of New York Press

People will want to dismiss this important book by Jorge Ferrer. Because Ferrer writes by carrying us through his thought *process*, there are many easy ways to dismiss it. In the beginning, he embroils himself in the familiar epistemology-ontology nightmare of postmodernism; and not surprisingly, despite his numerous "turns" to integrate the partiality of the one by moving toward the other, he fails to extricate this philosophical *Excaliber.* In the meantime, he builds a strong critique of the Cartesian moorings of other transpersonal models, by highlighting Wilber's and faulting it for the same problem: having built an ontological model based on a priori principles, and failing to negotiate the subject-object divide.

The SDi people[1] will (and have) dismissed Ferrer's book as a kind of last gasp attempt to salvage the pluralist perspective – the singular square on the board game of a current transpersonal culture of critique that says "do not pass Green."[2]

In objection to the perennialist's notion of an absolute structure of transpersonal development, Ferrer introduces a "participatory" component of spirituality: "… transpersonal phenomena are participatory events that involve ways of knowing that are presential, enactive, and transformative."

Ferrer claims his participatory model repairs two important fault-lines of the perennialist versions of how we "know" namely, the Myth of the Given (one cannot know "things as they are"), and the Myth of the Framework (the spectrum of spiritual experiences cannot be described by any one set of a priori (deep) structures). By incorporating the three features of the participatory model, we come to see instead that; 1) we *participate* **in** the ways things are (presential),[3] 2) we each constitute a unique set of human development through our *participatory situation with/in the world* (enactive),[4] and 3) participatory knowing is transformative.[5]

Ferrer's intentionally transparent exposé into a more pluralistic version of transpersonal theory was for me a pleasure to read. His writing engaged me, as if we were having one of those endless conversations that go through the night. And then, as if the dawn had come around, and roused us from the seriousness of our philosophical sleep, Ferrer stretches out his pluralistic thought, to "relax into a spiritual universalism." In the last chapter, which reads like a coda, he writes:

> In this book, I have introduced a participatory spiritual pluralism as a more adequate metaphysical framework than the perennialism typical of most transpersonal works. … I should stress here that I do not believe that either pluralism or universalism per se are spiritually superior or more evolved. And it is now time to make explicit the kind of spiritual universalism implicit in the participatory vision.

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[1] "Spiral Dynamics-Integral" community who have incorporated Don Beck's version of Spiral Dynamics (itself a digest version of the work of Clare Graves' research on human development) into Wilber's AQAL (All-Quadrants, All-Levels) model of integral theory.

[2] Consider, for example, Ken Wilber's comment to Daryl Paulson's about the book (quoted in Paulson's review at http://wilber.shambhala.com/html/watch/ferrer/index.cfm/).

[3] Participatory knowing is knowing by presence or by identity … in a transpersonal event, knowing occurs by virtue of being (p. 122).

[4] Participatory knowing … is an enaction, the bringing forth of a world or domain of distinctions … p. 123

[5] ... a transpersonal event brings forth the transformation of self and world … and in turn draws forth the self through its transformative process in order to make possible this participation. p. 123

> There is a way, I believe, in which we can legitimately talk about a shared spiritual power, one reality, one world, or one truth.
>
> … my sense is that *the dialectic between universalism and pluralism, between the One and the Many, displays what may well be the deepest dynamics of the self-disclosing of Spirit.*[6]

"Ahhh," I sighed, as I reached out and stretched with him, "why didn't you just say so in the first place?" I hope Ferrer is planning a sequel – picking up in the next book where he's left us with this one.

Bonnita Roy

Frick, D. (2004). *Robert K. Greenleaf. A Life of Servant Leadership.* San Francisco: Berrett Koehler

I picked up a biography recently, tired of books on leadership, developmental theories, integral theories and the like that have been the staple of my reading diet for too long now. At the same time, I didn't stray too far from my usual interests. Last year, I read Robert Greenleaf's *Servant Leadership*, and was inspired by his vision of being a servant first, and then from that orientation of service choosing to lead. His thoughts on the subject appeared to have as integral a perspective on life and leadership as anyone I had come across. My interest thus piqued, I was curious to gain insights into this perspective from understanding the life behind them.

Don Frick's approach to biography veers from the standard account of the noteworthy life. He gives the reader a glimpse into the man behind the philosophy of servant leadership that has inspired many through vignettes that often focus as much on the context of Greenleaf's life as the events. The reader is taken through many tangents that serve to illuminate small aspects of the picture. Tales of Eugene Debs, the socialist presidential candidate and union activist, of Theodore Vail's presidency at the communications giant American Telephone and Telegraph (AT&T), (where Greenleaf worked for over thirty five years), the Quaker movement in America during World War Two, and a host of other fascinating sidelights all illuminate the context in which Greenleaf's thinking developed.

Frick does provide descriptions of interesting events and activities in Greenleaf's life. His rapid rise within AT&T, his influence on a wide range of ventures; such as the reorganization of IBM under Thomas Watson Jr, the early formation of T-groups and the development of personnel assessment and training. The cast of characters Greenleaf met with and learned from reads like a whose who of the times. His influence on the formal leadership at AT&T through a succession of Chief Executive Officers was enormous. His seminal influence on many projects that he consulted on, and his founding of the Center for Applied Ethics (later the Robert K. Greenleaf Center for Servant Leadership) serve to further magnify the impact of the quality of his thinking and presence.

Impressive and fascinating as all of this is in itself, it is only the gateway Frick provides to invite the reader into glimpses of the depths of Greenleaf's being. What drew me on in this narrative was the way Frick enabled me to feel like I was on the inside, temporarily able to perceive the world like Greenleaf. And what did I perceive in those moments? I saw life as a continuous inquiry into wholeness. Greenleaf described his philosophy as a “hole in the hedge” approach to life. Whenever he encountered anything of interest, he would slip through the hole in the hedge of everyday life and perceptions, and explore how some new person or idea could reveal another component of the deeper wholeness.

---

[6] pp. 99-101

From this deeper encounter with Greenleaf the man, his seminal thinking on leadership came to life for me. I could now see the notion of the servant as leader, being a servant first who then chooses to lead, as an outgrowth of how Greenleaf lived his own life. This journal’s lead article and Kai Hellbusch's contribution discuss Jean Gebser’s opening of the field of integral thinking. There he is quoted as characterizing the difficulties in representing integral by saying that “this world[view] goes *beyond our conceptualization*.” In the writings of Robert Greenleaf, and the description of his life that stood as a testament to this writing, there is a clear presence of a wholeness beyond our capacity for conceptualization. Frick’s biography manages to provide glimpses of this wholeness as it took form in Greenleaf’s life, and in this way appears to me to be as good an example of what it is to be integral as any I have encountered.

Jonathan Reams

INTEGRAL REVIEW

A Transdisciplinary and Transcultural Journal For New Thought, Research, and Praxis

June 2006

Issue 2

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Editorial

Another Step: The Evolution of Integral Review

Welcome to the second issue of *Integral Review*. Since our inaugural issue one year ago, we have expanded our horizons and perspectives in many ways. It has been a pleasure to make new acquaintances with authors submitting to IR, work with a growing cadre of outside reviewers, and welcome a new member to our editorial committee. These activities have generated plenty of learning for all of us involved—authors, reviewers and editors—and have fueled our evolution as a journal.

We would like to take a moment to express our sadness at the sudden passing of our former Editor-in-chief, Reinhard Fuhr, this past December. As the one who had the initial conception for this journal, Reinhard articulated its vision, and guided the first issue to fruition. He mentored and initiated me into this world of editorial process and perspective, and many times in the past months I have reflected on how he would recommend handling situations. I regret not having had more time to benefit from his wisdom. Thomas Jordan, who knew Reinhard personally, has provided us with a memorial reflection that provides some insight into his character and accomplishments. The editorial committee of *Integral Review* gratefully dedicates this issue in memory of Reinhard.

We would also like to welcome Bonnitta Roy to our editorial committee. Bonnie had been an outside reviewer for IR and we are glad that she accepted the invitation to join us in this work. You can learn more about her on the Editors page.

Finally, we look forward to the launch of AQAL: Journal of Integral Theory and Practice. The publication of this new journal from the Integral Institute/Integral University will add another voice and venue for public discourse on all things integral. While conversations with AQAL's editor-in-chief have revealed differences in the specific missions of IR and AQAL, we share a common vision for furthering high quality public discourse on integral approaches to human endeavors. Starting with our next issue, IR will publish reviews of and/or responses to articles that appear in AQAL. This offers a peer reviewed venue for the exchange of ideas to extend and develop integral discourse.

The process of accompanying authors (including ourselves) through processes of reflection and revision has been full of learning for myself and the IR editorial committee. This work has facilitated new insights into how the concept of integral is understood and applied. In turn, these insights add to our repertoire of ways to support authors' efforts to communicate their thoughts, research and praxis. This iterative and ongoing process of action inquiry guides IR's work, and frames the ideas and experiences described in this issue, like a series of snapshots in the evolution of integral perception, understanding and application.

On the Contents of Issue #2

This issue of IR opens with a short mixed genre piece entitled *It is I Who both Breaks and Binds.* Andrew Campbell shares a combination of art, process, email exchange, and photography that offers glimpses into the creative process and invites revisiting and reflecting.

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Next is a short piece by Mark Gerzon, *Integrity, Integral Vision and the Search for Peace*. Mark offers an integral vision for handling conflict. He points out how this integral approach is based in integrity and wholeness, and offers practical examples of how conflict can be transformed.

This is followed by a reflective piece from Nathan Harter, *The Springs of Leadership*. Nathan invites us to expand our notions of leadership activity to include contemplation. He introduces us to *ensimismamiento* as a core practice of leadership that sets it apart from the more mechanical tasks of such roles.

We then offer two pieces by Sayyed Mohsen Fatemi. In *Passionate Winking*, he offers us a creative mix of poetry and philosophy. This piece takes the reader back and forth between modes of discourse, opening up a window into his world. The companion piece, *Avenues of Mysticism*, well, it is poetry, so I'll keep any interpretations to myself!

From these shorter works, we turn to Russ Volckmann's interview with Ian Mitroff, titled *A Transdisciplinary Mind*. In this interview, Mitroff reveals the path he took through life, and how various influences helped open him to more integral perspectives. The transdisciplinarity of his mind is clearly evident throughout, as when he shows why the entire notion of disciplines is an increasingly incoherent and dysfunctional way to organize knowledge. This fascinating interview also covers his work as the father of crisis management, and his research into the spiritual side of corporate America.

For an integral approach to organizational learning, Wendelin Kupers offers *Integrales Lernen in und von Organisationen*, a German language article that invites us to take learning in and of organizations as a relational event and integrative process. He applies an integral framework to notions of learning and how they can be applied in organizations, and introduces useful distinctions that help us perceive the value in organizations actually learning.

Nathan Harter offers another look at the contemplative side of leadership with *Voegelin's Ladder*. Here he argues that leadership implies spirituality, and uses an early notion of development found in the work of Eric Voegelin to provide a framework for relating the two. He shows how spirituality manifests as purpose and aspiration, making it practical and relevant for understanding and practicing leadership.

More Perspectives, New Politics, New Life: How a Small Group Used The Integral Process For Working On Complex Issues is the title of Sara Ross's report on a small research project conducted with a group of citizens wishing to address issues of local concern. It outlines background to the process and the steps involved in it, and then how the group used those steps to generate new perspectives on their issues and for some, their lives. This article complements a longer research report included in this issue of IR.

Another application of integral thinking is presented in my (Jonathan Reams) interview with Karen Kho, *Plain and Integral*. Karen describes her work in the green building industry in California, where she and her colleagues have been able to adapt and apply integral thinking, perspectives and frameworks to their work. The success and growing interest in the work done there demonstrates the value of utilizing integral approaches for practical challenges.

Michel Bauwens' French language article *Le Peer to Peer: Vers un Nouveau Modèle de Civilization* introduces his hypothesis about the birth and emergence of a new social formation, called "peer to peer." He believes that this has profound implications for the transformation of our current form of market economy. His description covers peer to peer modes in both production and governance.

Sara Ross presents *Perspectives On Troubled Interactions: What Happened When A Small Group Began To Address Its Community's Adversarial Political Culture* as a more detailed companion to *New Perspectives*. This extended length research report includes a literature review, methodology, and significant detail on the impact this process had on individual participants. The insights gained from this research have wide ranging value and could be applied in many domains.

Finally, we close with Tom Murray's *Collaborative Knowledge Building and Integral Theory: On Perspectives, Uncertainty, and Mutual Regard*. This article applies Murray's understanding of how integral theory's approach of methodological pluralism positions it to deal with the "epistemological indeterminacy" that impacts all knowledge building communities. He provides detailed critiques from examples of current public discourse in the integral community, and then shows how issues of mutual understanding, agreement, and regard impact these exchanges. He provides useful distinctions for understanding theory building issues, and suggests practices to improve the quality of discourse in integral theory development.

The process of generating this second issue of *Integral Review* has been rich and rewarding. We hope that you will find value in the range of offerings presented here, and share your discoveries with friends and colleagues. We have authors who are already at work on submissions for issue 3, and look forward to speeding up our publishing schedule. We will also be happy to entertain publication of responses to the articles IR publishes, and hope to make this a robust forum for integral dialogue.

Jonathan Reams
(Editor-in-chief)

In Memoriam: Reinhard Fuhr

Thomas Jordan

With the premature death of Reinhard Fuhr (1939-2005), the community of integral scholars lost one of its most earnest and grounded members. Reinhard spent thirty years as a teacher and researcher at the Department of Education at the University of Göttingen, Germany. He was also a gestalt therapist and a prolific author of books and articles on gestalt therapy (primarily in German), mostly together with his wife Martina Gremmler-Fuhr.

Reinhard applied integral frameworks in three interrelated fields, namely gestalt therapy, pedagogy and conflict management. Reinhard and his wife Martina worked closely together on using integral perspectives to expand and develop gestalt therapy and to enrich the field of communication in conflict management. Together they wrote a comprehensive and innovative textbook on conflict management (Fuhr & Gremmler-Fuhr, 2004), where the integral perspective is used to discuss levels of development in interpersonal communication and where integral principles are used to discuss the processes of conflict resolution. Reinhard also invested considerable energy in developing an integral approach to his own academic field, that of education (see the list of selected publications below). Most of Reinhard's and Martina's work is unfortunately not available in English. One small exception is a little gem of an article on the phenomenon of emotional reactivity in conflicts, where an integral framework is used in a creative way (Fuhr & Gremmler-Fuhr, 2003).

In his role as a lecturer at the university of Göttingen, he introduced many students to integral frameworks and supervised a number of undergraduate theses drawing on integral theory. A small community of former students formed over time and there is good hope that we will hear more from some of them in the future.

I came to know Reinhard as a person who combined a thorough familiarity of integral theory with a capacity for independent critical reflection, grounded in his very long experience with clinical work. Reinhard would not be swayed by lofty and grandiose ideas and visions, but always looked for ways of integrating what is with what might be. I am sad that he didn't get another twenty years, who knows what riches he might have been able to offer us . . . But I gratefully receive what he offered and also look forward to Martina's coming work, e.g. a doctoral dissertation on relationships from an integral perspective.

Selected publications

Fuhr, Reinhard (2004) *Integrale Pädagogik - eine konkrete Utopie*. Göttingen: Pädagogisches Seminar. [English: Integral pedagogy - a concrete utopia.]

Fuhr, Reinhard (2005) 'Qualitätswandel in der Pädagogik. Wege zu einem Integralen Gestalt-Ansatz im Bildungsbereich,' *Studien zum Integralen Gestalt-Ansatz, Schriftenreihe des Gestalt-Zentrums Göttingen*. [English: Quality change in education. Paths to an integral gestalt approach in the field of education.]

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Fuhr, Reinhard & Dauber, Heinrich (2002) *Praxisentwicklung im Bildungsbereich - ein integrativer Forschungsansatz,* Bad Heilbrunn: Klinkhardt. [English: Development of praxis in the field of education - an integrative research approach.]

Fuhr, Reinhard & Gremmler-Fuhr, Martina (2000) 'Grundlinien eines integralen Konzeptes der Persönlichkeitsentwicklung im Rahmen von Ken Wilbers Evolutionsphilosophie,' *Transpersonale Psychologie und Psychotherapie,* 1, 11-36. [English: Fundamentals of an integral framework for personality development according to Ken Wilbers evolution philosophy.]

Fuhr, Reinhard & Gremmler-Fuhr, Martina (2002, 2nd ed.) *Gestalt-Ansatz*. Köln: Edition Humanistische Psychologie. [English: The gestalt approach.]

Fuhr, Reinhard & Gremmler-Fuhr, Martina (2003) 'Reaction Formation: An Integral approach to Fights and Conflicts,' *Gestalt Review, 2*, 147-170.

Fuhr, Reinhard & Gremmler-Fuhr, Martina (2004) *Kommunikationsentwicklung und Konfliktklärung. Ein integraler Gestalt-Ansatz.* Göttingen: Hogrefe. [English: Development of communication and conflict resolution. An integral gestalt approach.]

Fuhr, Reinhard & Gremmler-Fuhr, Martina (2005) 'Integrale Therapie und Beratung. Eine Fibel für den Integralen Gestalt-Ansatz. Studien zum Integralen Gestalt-Ansatz,' *Schriftenreihe des Gestalt-Zentrums Göttingen.* [English: Integral therapy and counselling. A manual for the integral gestalt approach.]

It is I Who both Breaks and Binds

Art ~ Prose ~ Photography

By Andrew Campbell
with Sara Ross

Spanda is the vibration or pulsation of pure consciousness; it is the rhythmic cycle of emanation and dissolution. Although this power is one it is both expansion and contraction. It may be subject to a eulogistic hymn or a philosophical analysis. It is you radiantly manifest – you make all things unfold; contemplating yourself you contemplate the universe. As you pulsate, inebriated with the juices of aesthetic delight of your own nature, the phenomenal world emerges into manifestation.

Ambadas (Artist) *The Hindu* October 30th 1988

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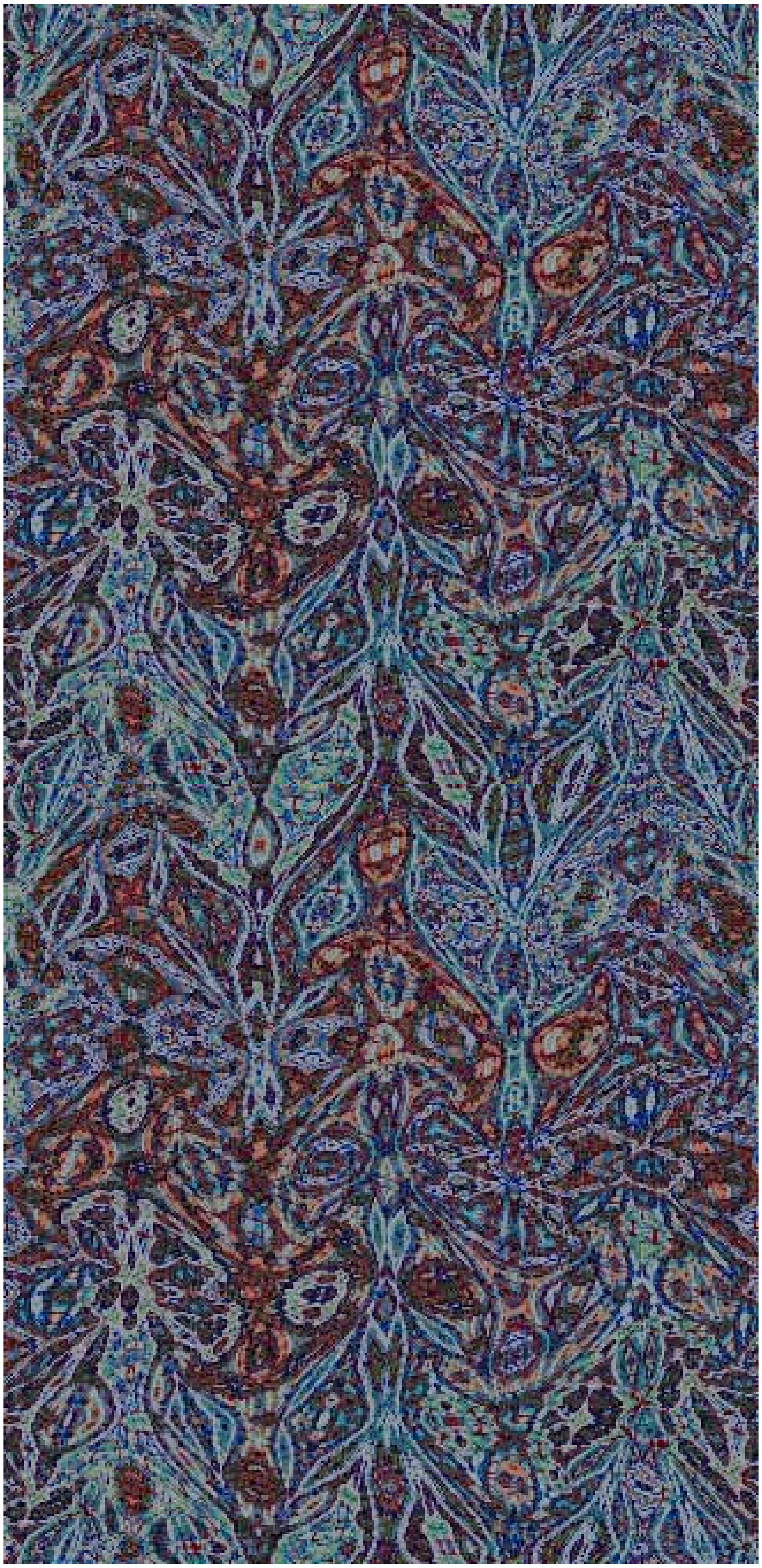


It is I Who both Breaks and Binds

Artwork from an original by Sara Ross mediated and entitled by Andrew Campbell

Last evening seven or so pink doves settled into the top of a tree to bathe in the light of the sun. I cannot think they wanted or needed the warmth. So I say they wanted to simply sit in the light of the sun. It takes a certain mindfulness to see they are the sun, and that in each black eye is each bright sun – many in one >< one in many.

I have taken a chalk i(n)mage you sent me this summer. I have both pulled and pushed it, broken it and repaired it with light and electricity, choice and chance so that it is irreversibly what you see. It is no more than what you see and no less than what you see. It is its own perfection and so it matches your own perfection.

I spread it over the one page for you, like a carpet and I doubled it and joined it, which you will see can become a method of movement in itself ;-) in that it is a path and feet may walk upon it to eternity and it can never be worn out. It is an irreversible outcome of your creative essence.

My part is no more than that of a humble 'carpet maker' - you... a wandering princess who commands the sun be made so and put before her bare feet.

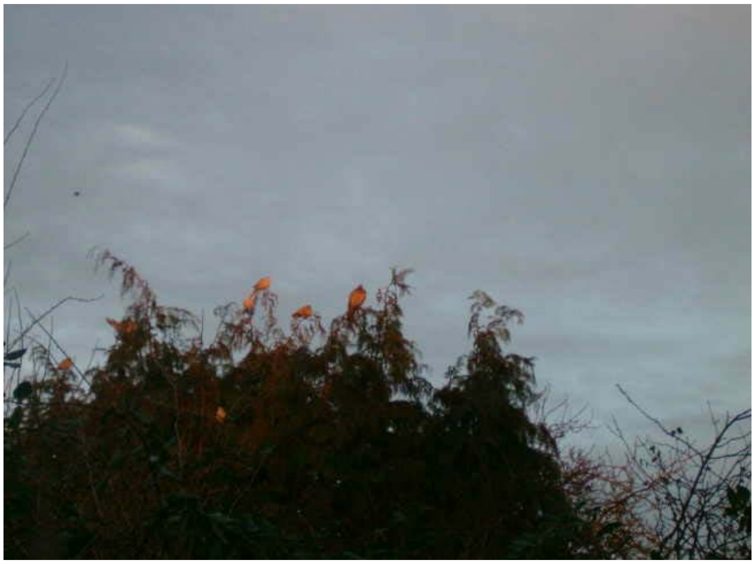
Love,
Andrew x

Andrew!
What you have done and what you have said about how you have done it is profound . . . is manifesting what Ambadas wrote. . . . is the ever unfolding and enfolding movement of cosmos . . . rolled out before us in an exquisite carpet of energy that unfolds and enfolds and it is all one coherent story telling itself, doing itself, becoming itself. . . beyond these words, I am speechless with savouring it All. . .!

Love,
Sara UX

The carpet is a single thought, your single thought. I merely unfolded what was enfolded and sprinkled some colours into it. Every thought is like this carpet and every carpet contains ten thousand more thoughts. As you might journey into such a pattern of patterns, you might become mesmerized by it all and you would have to let go of all your thoughts and sense impressions, and you might become tired, and you might fall asleep and then all the ten thousand become ten thousand more each upon and within each and so on, but they might appear in such a dream-moment as just one thing, say, seven doves sitting in the winter sun, waiting for the dark knowing that the song of the song is in the morning.

Love,
Andrew xx



seven doves in a winter tree

Oxford, January 2006

Andrew Campbell Trained under the visionary artist Leonard McComb, D.Phil., R.A. (Keeper of Pictures) at Oxford and London and studied as a pupil of Mnr. A.M. de Lange, M.Sc., Goldfields, Pretoria, RSA - the discoverer of the Seven Essentialities of Creativity. My artwork is an integral part of the project known as Presence and Presencing, viewable at the www.dialogonleadership.org web site.
Email: ACampnona@aol.com

This piece is a co-creation in the style alluded to by Ambadas out of the Hindu traditions when he wrote, "Art to me is a happening and performance, an instant plunging, flirting ;-) and merging, with life, with both its being and becoming it. All that is here is but a charge in celebration. Things, objects are only focal points of here and now, in a whole that stretches infinitely, the feeling of unlimited envelopes, something mystical in a sense. Like a dancer, who performs, not for herself but for the spectator. The dancer is the spectator and the dance."

Integrity, Integral Vision and the Search for Peace

Mark Gerzon

> *The purpose of life is . . . to know oneself. We cannot do so unless we learn to identify ourselves with all that lives.*
> — *Mohandas K. Gandhi*[1]

I have never seen a conflict in which everyone could see the *whole*. On the contrary, I have only experienced conflicts in which some, and usually all, of the "part-ies" were identified with the "part." They were, literally, "partisan."

This is the basic human condition, the natural worldview of organisms that are born, live and die as seemingly separate entities. When our bodies shout "Me first!" — we listen. We are wired to survive, and to put our survival before others (an instinct which can be trumped by only one other: protecting our offspring). As a natural extension of our survival instinct, we tend to care more about the welfare of those near and dear to us than those who are, by whatever definition, far away. Our language provides convenient words for each: the first we call "us;" the latter, "them."

The challenge of integrity—or integral vision, which literally means "seeing" or "holding" the whole—is to balance this very natural allegiance to the part ("partisan") with an allegiance to what it is but a part *of*.[2]

If we think of a conflict which affects us—whether personal, professional or political—we notice that we tend to be more identified with "I" than "you," and more with "us" than "them." This tyranny of pronouns not only affects our tongue; it is in our cells. Integrity is our fallible, human attempt to counteract this in-built self-centeredness by cultivating a whole-centeredness. (It is worth nothing that in English the word "partisan" is used very often, particularly in election years, but that we have no word for "wholisan").

This intention toward integrity—from the Latin *integer*, meaning "undivided, untouched whole—is our first, critical step toward transforming conflict. Because of our commitment to "hold" or to "see" the whole conflict, we can become part of the solution to the conflict rather than just adding our energy to it.

At a dialogue retreat for US House and Senate staff in the summer of 2002, for example, a veteran chief of staff for a Democratic congressman pulled me aside. "We have been told to oppose all Republican amendments," she whispered to me. "I am told that they have been told to oppose all Democratic amendments. I really have a problem with that." Then, looking over her shoulder to make sure no one was listening, she added: "*I don't think that's leadership*!"

---

[1] Mohandas K. Gandhi, *Bread labor: The gospel of work* (Ahdmedabad:1960), cited in "Political Engagement and Service Learning," by Dilafruz Williams, *Encounter* 15:2 (Summer 2002), p 9.

[2] I am grateful to Ken Wilber for conversations over the years that have helped me understand the concept "integral," and to apply it to my own thinking about leadership.

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This middle-aged African-American woman, like so many leaders with whom I have worked around the world, sensed the need for political leaders to hold themselves to a higher standard. She believed that leadership meant more than automatically taking one “side” against the other. She wanted the US House of Representatives, the institution to which she was dedicating her professional life, to be “the people’s house.” For this reason, she wanted both Democrats and Republicans to work for what was best for America, not just what was best for their own party.

Integrity in the House of Representatives can make the difference between a partisan free-for-all and a coherent bipartisan legislation. In your house or mine, it can make the difference between endless squabbles that lead nowhere and a family life that moves through conflicts towards greater understanding and harmony. Similarly, in organizations and communities, integrity in leadership can make dialogue highly productive and pull remarkable synergy out of the jaws of conflict. Just as it is hard for our representatives to care for the whole House, so is it hard for parents to care for the whole *family*, or for a mayor to care about a *whole* town, or a CEO to care about a whole *company*, or for a president or prime minister to care about a whole *nation*. (No wonder it often seems to utopian to believe that we can care for the whole *world*!)

To apply this concept of integrity to your own life, think about a recent conflict in which you have been involved, and you will notice how partisanship was absolutely central to it.

- After a period of little communication, my brother and I finally agreed to meet to try to work through an incident that happened at a family gathering. It had been so unpleasant that it left us feeling estranged for months. When we recalled the incident, he remembered the part when I had shouted and been rude, and I remembered the parts where he had been arrogant and judgmental. Each of us, however, had “forgotten” our own misbehavior until the other pointed it out.
- When planning the retreats for the US House of Representatives in the late 1990s, the Democrats referred repeatedly to arbitrary and unfair decisions by the Republican majority. But the Republicans defended themselves by pointing out that, during the several decades when the Democrats were the majority party, they had done the same things.
- In April 2004, Americans’ doubts whether the war in Iraq made sense increased sharply, in large part because it was the deadliest month since the war itself. 136 American troops died between April 1 and April 30. (To make matters worse, photographs leaked to the press of flag-draped coffins being shipped home only increased the number’s emotional impact.) During the same month, at least 1,361 Iraqis were killed—a ratio of Iraqi to American deaths of just over 10 to 1. Despite the exponentially higher figure of non-American deaths, however, it was not cited as a reason to question the war. The reason cited was the much smaller number of American deaths.[3]

(Note: For most of the Arab world, of course, the numbers have precisely the opposite weight: they do not focus on the American deaths, but on the deaths of fellow Muslims. War is almost always fueled by the symmetrical blind spots of the combatants who, naturally, identify more with “our” deaths than “theirs.”)

In each of these three cases, we can see the human tendency to magnify the meaning of one’s own pain or loss or hurt and to minimize the other’s. Integrity as a value stands for our commitment to recognize this human tendency and to transcend it, as best we can, in order (following Gandhi) to "learn to identify with all that lives."

---

[3] “Iraqi death toll much higher,” Lee Keath, DC 5/1/2004

Just as a whole number (or integer) is different from a fraction, the whole is different than a part. The challenge of integrity is to recognize that, while each of us come from a particular part, healing conflict requires that we seek to identify with the whole. As astronaut Russell Schweickart put it after repeatedly circling our small planet, we need to identify with "the whole thing."

For those of us who have not spun around the planet like a whirling dervish, identifying with "the whole thing" remains elusive on every level of our lives. In families, we marry or are born into a particular role (first-born child, second wife, etc.). In schools, we are enrolled in the system in very different ways (student, teacher, administrator, etc.). At work, we have very different job assignments and fit into the hierarchy in specific roles (chief financial officer, vice president for marketing, director of R&D, etc). And in public life, we all have different economic interests and political affiliations (lobbyist, legislator, citizen activist, etc).

On this level of assigned roles, we are *expected* to view the whole through the lens of the part. To put it in the language of our era, we are "hardwired" and "programmed" to be partisan in virtually every conflict of our lives. We are supposed to take sides with *our* part against the *other* parts. So the most fundamental dilemma of leading through conflict is how to hold the whole in our hearts while, at the same time, tending to identify much more strongly with one part than another.

During my training as a family therapist, for example, one of the most basic lessons my supervisors taught me was to identify with the whole family, not with a particular member. It is so easy to enter a "family system" and, usually unconsciously, feel very close to one person—say, the lonely teenager whose parents are critical of him or her. If family therapists get "sucked in," and consequently see everything through the eyes of one family member, it is unlikely that they will be effective.

Whether the "whole" is a family, an organization or a community, it is tremendously difficult to truly grasp it. "If only our company knew what we knew," said one CEO, who was lamenting his organization's efficient information flow. What stopped them from "knowing what they know" was the inability of the entire organization to be aware of the whole.

I recently consulted with an organization that consists of Americans and Israelis, both Palestinians and Jews, and in my interviews with them I consistently heard the same refrain:

- "No body seems to get the whole picture."
- "They see only their part, not the whole organization."
- "We are suffering from myopia… we can't see past our noses."
- "Isn't there some way we can all get on the same page?"

The bad news was: they were all seeing the same organization through different lenses. But the good news was: they knew it. Even though they were not succeeding at "seeing from the whole," [4] at least they were committed to trying.

Integrity, the intention to identify with the whole, does not mean that we have to blur the distinctions between the parts. On the contrary, it means learning to see them more clearly, or more "holistically."

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[4] Peter Senge, Joseph Jaworski, C.Otto Scharmer, Betty Sue Flowers, *Presence: Human Purpose and the Field of the Future* (New York: 2004), Chapter 3.

"Wait a minute!" someone shouted at me, in one of my recent workshops. "In a world where someone who hates me can blow me and my family up at any moment, when 'smart bombs' or 'suicide bombers' can attack without warning, how do you expect me to identify with the whole? There's 'us' and there's 'them.' Doesn't my survival and my safety depend on knowing the difference?"

Of course the answer is yes. But *knowing* the difference and *identifying* with the difference are two different things. The more we identify with the part, the less clearly we will see the whole. We are safer if we know our "enemies" very well. And knowing them very well requires that we learn to see them clearly, not through the distortions of our partisan lens.

Integrity grows out of the humbling realization that there are many ways of seeing the world, and that we cannot take our worldviews for granted. Doing so blinds us to the possibility that our worldviews may be incomplete, skewed or—to oversimplify—"wrong." If this is so, then no matter how noble our intentions may be ("freeing the people," "creating jobs," "protecting human rights," etc.), everything we do will backfire.

The challenge of developing this kind of integrity is captured beautifully by a 10-year-old who, one week after the attacks on the World Trade Center, wrote the following:

> Last Monday it was easy to be open-minded. All we had to do was listen to other people's ideas at recess. But this Monday, we all wonder, can we be open-minded? Can we comprehend, listen to, and reflect on all sides of the story? And more than that, can we understand the conflict and what got us to where we are now?[5]

While many North Americans and Europeans contracted in fear, others, like this 5th grade student, reminded themselves to open their hearts. They recommitted themselves to the path of seeing the whole—of integrity.

To practice integrity, we must ask ourselves three questions:

- How I am connected to the world outside the borders that define "us?"
- How does what we call "us" and "them" fit together into a larger whole?
- How can I become more aware of "the whole thing?"

When we ask these questions, and live the answers, we are practicing integrity. We are developing integral vision. And, I believe, we are making a modest but significant contribution to peace and justice on this small and precious planet.

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[5] Niki Singh, "Becoming International," *Educational Leadership* October 2002, page 60.

The Springs of Leadership

Nathan Harter

Abstract: Leadership denotes activity, if not strenuous activity. Yet in its own way contemplation is an activity—an activity arguably at the root of leadership, which this meditation seeks to justify.

Keywords: Activity, contemplation/meditation, *ensimismamiento,* leadership, nature.

I

In the season of dogwood, I drag out the pieces of an old father's day gift—a hammock—so I can read outdoors, reclining. I find it easy on my back and, after so many weeks of winter, easier on my spirits. There I take up books on leadership, books of theory and of philosophy. Soon I stop reading, lost in my own reflections and staring up through the boughs of the flowering tree, falling asleep, as my thoughts become increasingly irresponsible, deranged. Study becomes meditation, mediation becomes a nap.

The literature on leadership emphasizes striving, the pursuit of goals, the accomplishment of tasks. Leaders constantly do things. If they are not task oriented, then they are relationship oriented, but leaders are always oriented outward, representative of purpose. They communicate a vision. They resolve conflict. They transact and transform. They are symbols of what yet needs to be done. In a manner of speaking, leaders are especially future oriented, warning about threats and promising hope.

Leaders can be imagined as that vital impulse, whatever it is, the inner drive that characterizes life. Just as the dogwood competes for water and light, striving, so also groups and teams compete for bigger budgets and status. The metaphor is never far from the surface: images of natural selection, the survival of the fittest, and nature red in tooth and claw. The philosophers Arthur Schopenhauer and Friedrich Nietzsche both tried to penetrate the commotion of life. What force or power lay behind it? The Greek called it entelechy. The Christian called it providence. These Germans decided to call it "will"—a single abstract relentless tendency in living things to survive, thrive, and persist. The struggle to exist pits organisms against each other. Selfish genes make adaptations, cooperating where they might, competing where they must.

Plant life low to the ground finds itself in shadow to the leaves of taller plants, which in forest competition grow taller still and spread their sun-catching leaves. Lower plants must flourish where trees cannot grow, or they must live in the shade, or live off of the dominant trees as vines, even perhaps slowly creeping and swallowing the trees, like kudzu taking back the sunlight, forcing the trees to hold them up, reversing the hierarchy. In his book *The Accursed Share*, Georges Bataille describes the restlessness in nature to absorb energy and protect itself, even prolong itself, to the point that life completely detaches itself from the dirt and moves. You and I are evidence of that!

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The most obvious use of these metaphors from nature exists in business, where doctrines of capitalism emphasize growth, competition, adaptation, uncertainty, and self-interest. Firms "capitalize" on the individual strivings of employees, channeling their natural proclivities into a corporate body with a single, abstract mission: to garner profit. Firms compete with other firms. Management negotiates with labor. Industries lobby governments. From the springs of appetite, we seem to have built an enormous autopoietic system devoted to everlasting change in a process of renewal. And the vital impulse in these various operations is the leader.

At the heart of nearly any definition of leadership is change. Leaders bring about change. Change is ascribed to them. They are the change agents, the ones who stimulate, direct, and sustain energy. They keep our human systems whirling. They feed progress.

Other sectors regard leadership in much the same way. In the military, of course, leaders orient themselves to conflict, to withstanding the onslaught and to conquest. That crafty Florentine, Niccolò Machiavelli, advised generals and politicians always to study war, especially in times of peace. One must never rest. It is no coincidence that in addition to his political handbook titled *The Prince*, Machiavelli wrote *The Art of War*. Today, politicians prefer to be seen as strong, allied with the military, war-time leaders, commanders in chief, hawkish—patriotic most in seasons of struggle. It helps when they can cite previous military service. Politicians will even borrow militaristic imagery to wage wars on poverty and combat illegal drugs. Few candidates promise to do nothing while in office. They promise to fight for their constituents.

Leadership exists for the sake of activity.

What then am I doing lying on a hammock, face to the sun, watching the layers of dogwood bob and weave? This is most passive, the antithesis of leadership. Somebody probably ought to rouse me to exertion. What good am I, suspended from a rope, swaying in the breeze? The book face down on my chest is likely to be about leadership, since that is what I teach. Catching up on my reading is the laziest of races. How can one catch up while lying down? But I am not even reading now. I am gazing at the underside of leaves, the flecks of blossoms, and the gaps of sky between them. I am absorbed in the texture, somewhere between thought and dreaming.

It occurs to me, this too is nature. Life is not all "eat or be eaten." Maybe I was laboring under an illusion, the pace of nature's conflicts being imperceptible. Trees do not grow abruptly. They stretch slowly. Their roots wriggle over time. Their girth expands in small rings. Their lives are measured in decades. To the naked eye, nothing of the tension is apparent. It all seems so tranquil. A cardinal calls from the rooftop. Bees hover. Grasses bask and bend. Maybe images of struggle overstate the case. Even in the motion I do detect, there is more of the dance than of domination.

When artists approach nature's beauty, they often respond to its momentary order, its balance. They usually celebrate what is, rather than what is passing away into corruption or pushing out of concealment. There is something thrilling in the whale that arcs out of the water. It rises from the sea and massively thrashes back into the sea, but for an instant in the air it instills awe.

Maybe the beauty derives from our awareness as observers that such moments are transitory. Maybe we celebrate the experience knowing how brief it is. We are already nostalgic for it, rather like touching the face of a child or lifting a peony. This too shall pass. Nature grinds and shivers and bores and splits, but in that wild flux—and we soon learn, because of that wild flux—there is a beautiful thing. Call it what you will, the impulse of vitality has yielded remarkable diversity and treasures.

I do not think that spiders admire the orchid. Orchids do not admire the spider's web. Nature is busy. So far as we can tell, only human beings notice and value the incredible display. It is within our powers and apparently our powers alone to admire. And a part of our appreciation originates in our longing that it stay. We hate to see the fish swim away into deeper waters. We regret the collapse of our favorite redbud tree. We spend weeks each spring waiting impatiently for the crocus. We schedule vacations in the autumn in order to drive through the wooded hills, so we can experience the colors and the damp smells. We stand perpetually on tiptoe, even straining our necks at the office to look at the weather outside. Is it a sunny day? Human beings regard it as our unique privilege to notice nature as something of a pageant. We are its audience.

So, in my hammock, attuned to my garden and gate, I serve this purpose. I am being distinctly human. Part of me is, anyway. Part of me is yielding to my own natural rhythms, alleviating my aching back and falling asleep; perfectly natural. In fact, I am between being part of nature, on the one hand, and experiencing nature, on the other hand—both within the environment and separated in my consciousness from it. I am both participant and observer. I am suspended in a tension, just as my body is suspended by the tensions in the rope.

I like the feeling. I enjoy the perspective. Where then in leadership studies, with all of the havoc and hubbub, do we find ourselves in that state, suspended and appreciative, fleetingly grateful, largely passive? As students of leadership, we can read stories about leaders, biographies and case studies. In that sense, we are not far removed from hero-worship…oh, maybe more realistic, even skeptical, assured of keeping things in perspective. But we still talk endlessly about exemplars, citing the same paragons: Gandhi, Mother Teresa, MLK.

That alone is an indulgence. If all we do is read their narratives and thrill at their heroism, then how is that different from spending an afternoon reading dime novels or watching adventure flicks? We are being entertained. We are witnessing leadership as something exterior, part of an exterior reality. That is different from what I have been trying to describe, an interior reality. As I laze on my hammock, I am not just being entertained by nature. I am experiencing it differently, deeply.

The philosopher Ken Wilber would refer to it as the translogical eye of contemplation.

Meditation is assisted by nature. It includes me serving as a witness to what nature has wrought. It also includes pondering my place in the flux. It includes using the imagination. It is more active than it seems from the sidewalk. Neighbors probably wonder when I actually work. But done properly, freely, meditation of this sort draws so many thoughts and ideas and memories together into new and creative combinations that some of my most satisfying and productive breakthroughs have originated in the twilight of consciousness, after reading a powerful passage and then halting long enough to consider it.

In a sense, I am very much like the dogwood, seemingly languid on a spring day while working beneath the surface, imperceptibly, strengthening my grip on the soil.

II

Leadership denotes activity. Unlike nature, however, leadership derives from choices that people make. Whatever role there might be for impulse, instinct, appetite, desire, and habit, at least one part of leadership includes choosing to do one thing, rather than another. Somewhere in the process, a participant exercises freedom.

When a person in position of authority carries out the commands of superiors, without initiative, without making any unique contribution, we would be hard pressed to say that he or she is leading in any meaningful sense. That person is an extension of somebody else's will, an instrument, a tool, a flunky. We expect for leadership to contain a spark of individual creativity. A leader brings something to the table. Where does that spark come from? In the relentless pace of human organization, when does the leader interject that contribution?

Warren Bennis, writing *On Becoming a Leader* in 1989, made an interesting observation. "The importance of reflecting on experience, the idea that reflecting leads to understanding, came up again and again in my conversations with leaders." Leaders periodically withdraw, even if only to take a deep breath and really think about a problem. They emerge from such moments resolved. Something happens in the stillness. José Ortega y Gasset called it *ensimismamiento*, a phase of disengagement, solitude—not to escape life's predicament, but to ponder it in peace. In short, leaders meditate. It can happen quickly. Or it can take a year-long sabbatical. In any case, it seems to be an integral part of forming purpose. Call it a retreat, call it visioning, call it prayer, call it recharging your batteries. For busy leaders, it is the pause that refreshes.

Life has a way of scurrying ahead. Work expands to fill the available time. There is always more to do. "What have you done for me lately?" Customers expect results. Supervisors need quantifiable measures, deliverables. A really talented leader is in demand.

I never get tired of the story of an efficiency expert who told the manager to fire that guy in the corner office who never seems to be doing anything. He sits all day staring out of the window with his feet up on the desk. "I seem to recall," replied the manager, "that he was sitting just that way when he came up with an idea to save this firm a quarter million dollars. He stays."

Without *ensimismamiento*, leadership can be reduced to technique, schedules of reinforcement, manipulation, the causal relation between something the leader says or does and something the follower does in response. Leadership is a collision of human particles, reduced to mathematical formula, like fluid dynamics. One can turn then to the science of leadership. What makes leadership uniquely human, however, and more of an art, is the experience equivalent to what I enjoy lying on my hammock. I get to suspend overt activity and become quiet.

Meditation has its risks. A person might come away with nothing. There are no guarantees that it will produce. It is, if anything, a letting go of such expectations. At such times, one is living, in the memorable words of Hannah Arendt, without banisters. Meditation can also veer a person away to other things, to distractions, even to sleep, where deeper powers of the psyche cavort. That is not an altogether bad thing. Worse, meditation might impress upon a person some new idea—an innovation, reform, repentance—conscripting the conscious leader to take up a new burden, a challenge. Meditation just might demand exertion. The risk is that meditation issues in a call for leadership.

Be careful what you wish for. You just might get it.

We have little reason to believe that the rest of nature experiences purpose. The more mechanistic models of nature say that organisms have their functions within a system, and that's just about it. There is no doubt, on the other hand, that human beings do experience purpose. And it is my job as a teacher to emphasize the value of these experiences and to give my students opportunities to have these experiences, to knock the chocks away from the wheel, to disengage the clutch, to drift in a state of wonder and doubt. Students learn to right themselves. First, I want them to submit themselves, subject themselves to these disorienting experiences, inasmuch as education consists in a series of such experiments.

Happily, our very human capacity to gaze on nature, to watch it without asking anything more from it, assists in the process of meditation. It is a meditation to see it snowing outside or to stop and smell the roses. Nature invites us to come away and lose ourselves in its texture and depth.

Nature draws us away from struggle and routine. Where else do we go when we stare into a roaring fire or gaze at a rippling stream? We turn from Doing to Being and then return to Doing more richly, or at least refreshed.

It is my contention that leadership as such originates in solitude, private unstructured reverie, even dreams.

III

The Christian tradition depicts at least three women named Mary. Mary, the mother of Jesus Bar-Joseph, observed her remarkable young son and pondered these things in her heart. Mary, the sister of Martha, attended Jesus as a houseguest, not by scurrying about the house getting things in order, but rather by sitting and listening to him. Mary Magdalene in the garden, after searching in vain for the corpse of Jesus, stood outside the empty tomb weeping. Moments of passivity, yet moments of drama. Perhaps unlike the quarrelsome men in his entourage, they had chosen the better part.

We are each of us suspended in the world. Occasionally, we ought to slide the book down, remove the pen, cock our head to one side, and take our thoughts into the wilderness of a hundred rustling dogwood blossoms, for a kind of alchemy where troubles turn to gold and we find purpose sufficient for the day.

I want my leaders to use a hammock.

Nathan Harter *left the practice of law in 1989 to become a college professor at Purdue University, where he teaches organizational leadership. In 1995, he was promoted and tenured in the School of Technology for his work in southeastern Indiana. His first book on leadership theory is being published by the Purdue University Press. The father's day hammock was given to him by his children, Nathan, Elijah, and Kalyani, with some assistance from his wife, Karin.*

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Passionate Winking

Sayyed Mohsen Fatemi

Discombobulated and deluded in the chamber of inductive and deductive imagination,[1] a moment of illuminative philosophical reflection passionately winked at me bringing an intuition.

My cerebral cortex and my limbic system marshaled their desire and ebullience right in front of the window of intentionality[2] way beyond Husserl's conception of consciousness.

The excitement phase[3] of intriqueness honked the horn of engrossment for the urge to consummation.

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[1] Inductive and deductive arguments refer to two different processes of reasoning. In induction, the reasoning is done from particular to the general. Although the conclusion is supported by the premises in induction, it does not necessarily follow from the premises and its truth is not guaranteed by them. In deduction, a conclusion follows necessarily from the premises. There are minor and major premises in deductive argument and the conclusion is born out of these two premises. Here these processes are linked to imagination so imagination is broadly used here as a 'noun' (linguistically speaking) for the adjectives inductive and deductive. This also opens up a new discussion on the relationship between reasoning and imagination.

[2] Husserl (1965) made this concept famous. Before him, his teacher, Franz Brentano used the concept and he borrowed the term from some medieval philosophers (McAlister, 1976). In phenomenology, intentionality refers to the thesis that every conscious act has an object. The act is called 'intentional act' and the object 'intentional object.' The term gains its significance because it undercuts the metaphor of mental 'contents' (as in a theater, an image explicitly used by David Hume (2003), for example). Therefore, conscious acts are not self-contained contents that are unknowingly coordinated with the movements of our bodies. Intentional conscious acts are among various acts. Here, the concept is pinpointed, yet it is distinguished from the one used by Husserl.

[3] This is a term used by William Masters and Virginia Johnson (1966, 1961) who studied human sexual response and used the laboratory setting to learn about physiological changes during sexual arousal (see Crooks & Baur (1999) for a discussion). Excitement phase refers to the first phase of the sexual response cycle, in which engorgement of sexual organs and increases in muscle tension, heart rate, and blood pressure occur. This is used here analogically to indicate the commencement of the act. Notice the word 'consummation' right afterward and its implications of fulfillment, completion, and achievement. So the language of sexuality is associated with the language of philosophy.

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The lips of my curiosity pressed the thighs of sagacity away from Strawson's[4] conceptual analysis and Quine's denial of Kant's synthesis.[5]

The kiss of perspicacity smacked so vociferously that it brought the sex flush of my privileged access[6] in the plateau of abundance. The heart rate of my sensation became united with the palpitation of my understanding. They both exceeded transcendental hermeneutics and warmly embraced the Heideggerian one.[7]

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[4] Peter Freerick Strawson called his metaphysics 'descriptive.' He insisted on indicating that it was only to be construed as an analysis and description of our conceptual framework and not of reality-in-itself. He introduced systematic metaphysics into current British philosophy through his book *Individuals* (1959) where he argues that only after the recognition of the primary category of 'persons,' we can consider the distinction between mind and body. Persons are not conglomerates of minds and bodies, and we can talk of minds and bodies only because we first have a way of specifying the different attributes of a person. The reference is made here to a form of sagacity whose analysis can not even be done by Strawson's conceptual framework.

[5] The reference is made here to Quine's (1960) attack on Kant's (1998) distinction between 'analytic' and 'synthetic' sentences. According to Quine, there are no indubitably 'necessary' statements or beliefs, just those that happen, at a particular point in our knowledge and interests, to hold a relatively protected place in the overall system of our beliefs for ostensibly practical reasons (see Miller (1998) for a discussion).

[6] A term used by philosophers to refer to the point that only a person knows directly what is in his/her mind without having to observe his/her behavior. This is also indicative of the point that mind has a unique characteristic in that one and only one person can and must experience what is going on. Here this has been preceded by the introduction of sex flush, a term from the psychology of sexuality which refers to a pink or red rash that appears on the chests or breasts during sexual arousal. So the sex flush has been used metaphorically and analogically to serve as a preamble for the introduction of the concept of privileged access as if privileged access sprung from somewhere. The plateau of abundance pinpoints the opulence and profusion of the privileged access and its happening. The plateau is also a term used by Masters and Johnson (already explained) for the second phase of the sexual response cycle, in which muscle tension, heart rate, blood pressure, and vasocongestion increase.

[7] In his book, *Being and Time* (1962), Heidegger suggested that life is like a text, and the purpose of our lives is to understand that text. He tries to 'uncover' the hidden meanings in our experience in his hermeneutical phenomenology. He rejects the scientific tone of Husserl's phenomenology and prefers to talk about the structures of life itself, including our profound sense of history, which defines human life. Heidegger was a student of Husserl. And therefore a phenomenologist. Phenomenology refers to the study of human consciousness. The use of the word 'transcendental' in Husserl and also Kant means the basic and the only rules with which we 'constitute' our world. Husserl attacked all forms of relativism and tried to develop a transcendental hermeneutics that discovers the basic rules of all experience (see Bauman (1978) for a discussion).

The rapture of the intelligibility cuddled the velvet of joy apart from the every day discourse.

The yearning for embracing the reality bloomed in the havoc of Hume's exegesis[8] and I felt ascended towards the plains of epistemology.[9]

Was this intuition, inspiration, reason, senses, or experience? Maybe none, maybe all. Maybe it was ineffable. But it is incorrigible.[10]

The blooms of my contemplation had their ornate intercourse with the sunlight of enrichment.

The refraction period was quick. No resolution phases[11] whatsoever.

I could see the incessantly smothering kisses of mystical insights coil around my consciousness, of course not in a Freudian sense.[12]

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[8] I use this here as a critique of David Hume's (2003) thesis that there is no knowledge of right and wrong and no rational defense of moral principles. These are based on sentiments or feeling and, as such, can not be defended by argument.

[9] The study of human knowledge, its nature, its sources, its justification.

[10] Philosophical term which refers to the point that we can not be mistaken about our mental states. There is a distinction between privileged access and the incorrigibility. The first means that the person knows what is in his/her mind without having to observe his/her behavior; the second means that he/she knows for certain and beyond the possibility of error. This is used here as an indication of a thing that can not be mistaken.

[11] Refractory period happens in the male after orgasm during which he can not experience another orgasm. The resolution phase of the sexual response cycle as outlined by Masters and Johnson is the fourth phase in which the sexual systems return to their non excited state. This is used here to metaphorically discuss the continuous process of an intelligible ecstasy versus a temporal enjoyment such as that of a sexual one.

[12] Freudian taxonomy of consciousness, pre consciousness and unconsciousness does not have any room for the placement of mystical experiences as discussed in there. Superficially, it might be subsumed under one division of his category related to sublimation. However, this is epistemologically unknown to Freud and his classification of the consciousness. (See Ha'iri (1992) for a discussion of the arguments of the existence of such consciousness).

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Avenues of Mysticism

Sayyed Mohsen Fatemi

I walked through the avenues of mysticism amidst the dark nights of despondency when the nightmares of failure, fiasco, annihilation, devastation, and delirium ferociously echoed in the dismal channels of desperation and frustration, when the fulcrum of being was paralyzed by the antagonizing impediments and the havoc of the mansion of life.

I walked through the avenues of mysticism and searched for the houses of peace where the erosion of anxiety and the mirages of certainty pine away.

I saw a man who was selling pomegranates of joy to the hearts of people at the cost of a sincere smile quite different form the ostentatiously hypocritical ones that can often be found in the metropolitan cities.

I saw a woman who was giving away cascades of lilacs and baskets of sweet basil munificently and generously to open up the incarcerated hearts.

I saw gazelles of sensibility running free in the realms of tigers.

In avenues of mysticism, jasmines teach eloquence and water lilies offer philosophy, the chosen would walk on water and the elite would break the moon and exceed the sun.

In avenues of mysticism, people share the nakedness of the heart and never get lost in the alleys of alienation. There is not a dead end, or a shut off. Nor any cul-de-sac or impasse.

In avenues of mysticism, people use the express train of bliss and bring the news of awareness without any need to C.N.N. or A.B.C. or C.B.S. In avenues of mysticism, the petals of the flowers act as correspondents and report the latest happenings not in utilitarian ways.

In the avenues of mysticism, the subordinate clause sits by the main clause without any shame or doubt. Even the compound sentences turn out to be prepositions afterward.

In avenues of mysticism, prayer serves as a panacea far better than any amphetamine, barbiturates, and PCP or thrill pills.

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A Transdisciplinary Mind: An Interview with Ian Mitroff

By Russ Volckmann

Abstract: Known more widely as the “Father of Crisis Management,” University of Southern California professor Ian Mitroff came to the work of Ken Wilber and integral theory over two decades ago. No one else has brought an integral perspective to the fields of management and organization theory for as long as Mitroff. In this interview he talks about the development of his theories, the people he has worked closely with, his spiritual development and the streams of his work, including his research on spirituality in organizations. While his involvement with Wilber’s Integral Institute is not what he would like it to be, he sees there the potential to develop an institution that addresses the politicization and failures of our institutions of higher education. In the face of the crisis in leadership, integral and transdisciplinary approaches have the potential for making a positive difference as we are faced with the dissolution of distinctions that underlie how we make meaning in the world.

Keywords: crisis, integral, leadership, psychology, spirituality, systems, transdisciplinary

Introduction

One of the striking aspects of Ian Mitroff’s work is his ability to engage phenomena through a variety of lenses. There are several ways to approach the study and development of complex issues and systems. We can look at them through the lens of a particular discipline, e.g., physics, biology, sociology, or philosophy. We can take an interdisciplinary approach that brings together the views of several disciplines at the same time, e.g., what does change look like through the perspectives developed by various disciplines. We can take a multidisciplinary approach whereby representatives of various disciplines try to find common ground on a subject. Finally, we can take a transdisciplinary approach. According to Nicolescu (Manifesto of Transdisciplinarity, 2002)

> *…transdisciplinarity concerns the dynamics engendered by the action of several levels of Reality at once. The discovery of these dynamics necessarily passes through disciplinary knowledge. While not a new discipline or a new superdiscipline, Transdisciplinarity is nourished by disciplinary research; in turn, disciplinary research is clarified by transdisciplinary knowledge in a new and fertile way. In a sense, disciplinary and transdisciplinary research are not antagonistic but complementary. (45)*

As I will show, and as the interview bears out, such an approach is very much in the spirit of, if not identical with, that taken by Ian Mitroff in his work.

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I wanted to interview Ian Mitroff because of the many facets of his work related to organization change and development, managing and leading in the face of complexity, working and thinking in organizations, all subjects that have been important in my own career. Over the years I have found in his contributions insights that many of us continue to struggle to define and consider in our work. An example of this is how to bring together the internal, external, individual and collective considerations of Ken Wilber's work in the study of phenomena and in building approaches for change and development individually and in organizations and communities. While the depth of Ian's work cannot be represented in one short interview such as this, I believe we have here a useful overview upon which to build. And I hope to have the opportunity to do so in the future.

It is probably coincidental that Ian Mitroff and I spent some of the same years at Berkeley—during the 1960s. We both graduated from college in 1961, he at the University of California at Berkeley and I at Monmouth College (now University) in New Jersey. We both began our Masters programs at Berkeley in 1961, he in Engineering and I in Political Science. He completed his Ph.D. in 1967, thus demonstrating a high level of focus and commitment, while I dragged out those luxuriously political and social student years and the agony of writing my dissertation until 1974. While Ian was on the faculty at the University of Pittsburgh (Pennsylvania) and building a strong academic career, including collaborations with a number of very talented original thinkers in their fields, I taught at the University of Arizona and got enmeshed in the human potential movement of gestalt, neoReichian, transactional and various other therapeutic modalities. Ian went on to a long and continuing career at USC where he has been active, not only as an academic, but in applying his work to the real world of corporations and government. Ian's list of publications is quite extraordinary. I dropped out of an academic career gradually, went back to school for a program in humanistic psychology in order to work with change and development in government and business organizations and limited my publishing to pieces in small periodicals oriented to change agents.

The parallels and differences in our careers are significant. Ian offers a transdisciplinary perspective to work those impacts throughout the United States and the world. My own efforts have been somewhat transdisciplinary—and even more so in the last ten years. What I find in Ian's work is an early focus with a transdisciplinary perspective that has been influenced to an important degree by the work of Ken Wilber. I came late to Ken Wilber. Ian has taken to heart the integral approach of Ken Wilber and applied it to his own life on many levels. This is not to say that Wilber is his only influence, but that it has been an important one that I suspect Ian has applied even more to his own life than solely to intellectual pursuits. In the latter it shows up in his transdisciplinary perspective and some use of the four quadrant model as a lens on the things that have interested him.

In 1983 Ian wrote: "Ken Wilber is a young scholar of immense potential. He has already produced a highly significant set of books that explore the notion of mind across both Western and Eastern viewpoints." (Stakeholders of the Organization Mind). In fact, Ian has expressed his respect for Wilber's work more consistently and longer than any other academic I have discovered.

In addition to Wilber, he has cited such significant influences as West Churchman (Systems Theory), Russ Ackoff (Systems Theory), Bruno Bettleheim (Psychotherapy), Norman O. Brown (Philosophy), Joseph Campbell (Mythology and Comparative Religion), Sigmund Freud (Psychoanalysis), William James (Psychology and Philosophy), James Hillman (Archetypal Psychology), Carl Jung (Archetypal Psychology), Herbert Marcuse (Philosophy), Erich

Neumann (Archetypal Psychology), and Marie-Louise von Franz (Archetypal Psychology). The range is wide and exciting. Another area he and I have in common is our interest in Hillman, von Franz and Jung. In the early 1980s he was using their work in his writing and his work with clients. This interest in archetypal psychology and Jungian personality theory was something I shared and used, as well, during that same period, including the publication of an article on Jungian archetypes and organization change. And while his work seems to have focused on individuals and large (corporate) systems, I was working with individuals in smaller organizations, most often at the team or project level.

Since completing his Ph.D., his work has focused on crisis management. In fact, he has been called the "Father of Crisis Management." Yet the concept of crisis management seems too narrow to capture how he has integrated thinking from systems theory, psychology, philosophy, organization theory, leadership and a number of other disciplines. The titles of his books suggest the scope of his work. Here are some examples of his books that suggest the range of his attention:

The Subjective Side of Science, 1974
Stakeholders of the Organization Mind, 1983
Business Not as Usual, 1987
Break-Away Thinking, 1988
We're So Big and Powerful Nothing Bad Can Happen To Us, 1990
Framebreak, 1994
The Unbounded Mind, 1995
The Essential Guide to Managing Corporate Crises, 1996
Smart Thinking for Crazy Times, 1998
A Spiritual Audit of Corporate America, 2000
Managing Crises Before They Happen, 2000
Crisis Leadership, 2004
Why Some Companies Emerge Stronger and Better from a Crisis, 2005

Ian Mitroff has had the career my mother would have wished for me. In this conversation, with a bow to Frank Visser who wrote so well about Ken Wilber's intellectual career using a stage approach (Ken Wilber: Thought as Passion, 2003, Albany: State University of New York Press.), I have tried to put Ian's transdisciplinary career in perspective.

Russ Volckmann

Intellectual Foundations

Q: You have an unusual career path. You began in engineering and moved from there to become a professor in USC's highly respected business school, the father of crisis management and an organization theorist concerned with the inter-dynamics of individuals and their relationships with the systems where they work. You added to that a focus on spirituality in corporate America. Your work includes organizational systems, Jungian archetype psychology and personality theory, the four-quadrant model of Ken Wilber, ways to challenge assumptions and a whole lot more. Then there are your *frequent op ed pieces in newspapers where you critique politicians and policy. If nothing else, this suggests that you're having a very full life.*

Perhaps we could use an exploration of the phases in your career and the major intellectual layers that you chose. In the spirit of Frank Visser, we could begin with Mitroff I. That was your post sputnik era interest in engineering. At Berkeley you majored in engineering physics as an undergraduate and also obtained an M.S. in structural engineering. Your Ph.D. at Berkeley involved a shift to engineering psychology with a minor in the Philosophy of Social Sciences. You did a dissertation about a computer simulation of human decision-making. Here you seemed to be exploring what became the title of one of your books, The Subjective Side of Science. *What were the important intellectual aspects of your work during this period?*

A: I have to back up and give a little bit more background. I essentially went into engineering because growing up I was good in math and science and for a poor kid, the first one in my family ever to have gone to a university, I literally did not know what other careers there were where one could make a good living. It was only when I got to the university that I really learned that there were all these other worlds and interests.

In high school I liked everything. It wasn't just math and science, but I liked literature, you name it. When I got to the university, I didn't think much about it because I really didn't know that universities are like most institutions: they are really not well-rounded places. They force you in many ways to choose a single discipline.

First of all, universities are organized around disciplines, which is an antiquated if not counterproductive way of organizing knowledge. Most academics really have never thought that the disciplines are just one way of organizing knowledge. That's all they are. They take them as basic elements that have descended from the heavens. But they are only political units that are there to meet basic psychological safety reasons. Most people need the certainty and security they provide.

I remember when I was a sophomore-engineering student and we were required to take a one-year course in social sciences; we had some fascinating lecturers. One was Louis Feuer. It was the first time I was ever exposed to Marx and to Freud. I remember the day in this big lecture hall of 200 people that we were talking about Freud. I had never even heard of Freud. We were reading Freud's introductory lectures to psychoanalyses on dreams. I found it utterly fascinating. But when I looked around the room, I saw disinterest at best and more often than not, sheer disgust. The reason for the disgust among my fellow engineering students was their attitude, "What the hell did this have to do with engineering!" It was nonsense to them since you couldn't put it in a formula. I found that attitude so abhorrent to me that that was really the beginning of my eventual departure from engineering.

I got a Ph.D. with a three and a half year minor in the philosophy of social science from West Churchman. West was in a business school of all places, because although he was a philosopher he wanted to teach philosophy to applied social scientists. My minor became my real major. However, I'm glad that I actually did go all the way through engineering, because I have a quantitative structured side. But without philosophy, I wouldn't be able to do things such as crisis management or most things, which are not only inter- but also transdisciplinary.

I not only don't believe in the disciplines, but I am an enemy of them because again, it is just one way to organize knowledge. Increasingly, it's a highly dysfunctional way. It's no accident why interdisciplinary efforts are extremely hard to get going in universities. It's no accident that people like Ken Wilber wouldn't find a home in a conventional university within a single department. That's a real tragedy.

That is the background and the reason why I finally ended up taking the three and a half year minor in philosophy of social science—which by the way, the U.C. Berkeley College of Engineering did everything in its power to talk me out of and put up hurdles, because they didn't understand what the hell did that have to do with engineering. I tried to explain to them what I was doing. For some reason or other as a young kid—even in my mid 20's getting a Ph.D.—it hit me that philosophy was the most general of all things to study and I just kept it going. That was probably just as well that I didn't go to a philosophy department because that would have been just as disciplinary and killed off the search for general knowledge. That's a brief summary of my background.

Q: *You make it very clear that being a scholar in a university is a real challenge.*

A: Yes, but it's more than that. First of all, most people in universities are not really scholars. I consider myself more of an intellectual because of all the reasons I just listed. I do have disciplinary training and I have widely studied the disciplines. But they are artifacts. Most people think of them as real things. They're not. They are artifacts. But secondly, a very narrow interpretation of scholarship takes place in universities that is not for a broader public or for the problems of the world. It's mainly for other members of the narrow community. Frankly, I'm not interested in that and it turns me off. It's for the same reason that I'm not a member of any organized religion. It's just too narrow for what I am.

Q: *You mentioned your work with West Churchman. What was it about his work that you found was inspiring?*

A: A number of things, although I didn't know it at the time. Churchman was one of the few people at Berkeley—he obviously had an enormous intellect—who had a real systemic view of human knowledge. He was one of the developers of the systems approach. I've talked to Ken Wilber about this. Ken doesn't really mention Russ Ackoff and West Churchman as developers of the systems approach. I do think that Ken's notion of systems is even broader for the reason that it includes spirituality. Churchman didn't get that part until later in life when he was confronting his own demons, largely around alcoholism through AA. But it's kind of strange since his mentor, E.A. Singer, Jr., was one of William James' best students. If James were alive today, he and Ken Wilber would have a powerhouse relationship. I have no doubt about that. They would be talking with each other and interested in one another.

Churchman was one of the most powerful intellects on the Berkeley campus. At Berkeley you had all of these Nobel Prize winners and top professors running around, but West was truly different than all of them. He was deeper. He was very smart and, in addition, he was wise. He just attracted students. He was a magnet. He was a magnet for all the students like me who had been hurt by all these disciplines.

The disciplines are like Chinese foot binding. They attempt to bind the mind. They are almost like cults. If you look at what goes on in Ph.D. education, a lot of it I just call sheer indoctrination. And too much of it is fear based.

You come out of most Ph.D. programs terribly afraid to do anything out of the mainstream. That's important when we talk about what I did in spirituality or crisis management. Most people, whether they are tenured or not—in fact they are tenured—would not do certain studies because they are horrendously afraid of what the rest of the profession would think of them. They are terrified. So the built-in censorship is incredible. We talk about authoritarian regimes around the world and authoritarian organizations. One of the biggest is the contemporary university. I will say it and I won't make friends. I think most academics are like sheep and they're not really independent. Even though they supposedly have the luxury of academic freedom, they are afraid to use it.

Q: *I'm sharply aware that I laid out my plan for this interview in somewhat of a linear fashion and having read as much of your work as I have, I should have known better.*

A: Well, would you have a linear interview with Ken Wilber?

Q: *Right, exactly.*

A: Everything is related to everything else, it doesn't matter where you start or end.

A Whole Systems View

Q: *This formative phase of your work when you were opening up to all of these new disciplines and perspectives seemed to transition as you moved into academia and began publishing. Your focus became a deeper question of the relationship between the workings of the human mind and emotions and scientific and technological innovation and creativity. I wonder if this is Mitroff II, because this is a time when you seem to be saying things that people are still struggling to express in the literature today. Here you seem to take an organic systems view of organizations and roles, whether they are internal or external, that are played out in these systems. It's here that you advocate for nonlinearity and a transdisciplinary theory of inquiry.*

A: I wouldn't necessarily call it Mitroff I or II. It may be a sense of maturity or just reading more and deepening my understanding of concepts or my appreciation of them. I think that was always there, at least in my mind it was. It wasn't necessarily always expressed because things unfold, but all that stuff was back in my getting my Ph.D. and this three and half year seminar which met every week on the philosophy of social science.

That was not a conventional philosophy of science. We read Jung and Freud. We might have read Ken if he'd been more available. I think Ken was just starting out at that time, so he wasn't there. I, independently of my mentors, discovered Ken Wilber. One of the things—I mean everybody has strengths and weaknesses—about West Churchman's greatest strengths was that he was very intuitive. He was very smart, but he was much more of a thinking type: his dissertation was in symbolic logic. Again as I said, he was an alcoholic; he openly acknowledged he was in AA. He came to spirituality later in life, really realizing that spirituality was the most powerful force of all. But he still came to spirituality mainly through a rationalist perspective where the concept of God plays a prominent role. God is the guarantor of knowledge. But that's very abstract; that's impersonal. That's not necessarily a kind, loving God. It's certainly not a God that helps one in recovery, to manage life's problems, a giver of goodness and so forth.

Q: *In this early period of writing is where you begin to present your admiration of Wilber's work and you take what I would call a developmental perspective of human psychology and the idea of the path of transcendence. During this time, you formed professional relationships—and perhaps they went beyond that—with Ralph Kilmann and Dick Mason, who I think was at the University of Arizona. I noticed his preface to Stakeholders of the Organizational Mind was written in Tucson where I taught in the early 70's. You began to coauthor a lot of works with Mason and some with Kilmann over a number of years.*

A: I was very selective, very particular. Dick Mason was also a student of West Churchman, so we had a common vocabulary. Dick and I met when we were both at Berkeley.

When I went to the University of Pittsburgh, my first job, Ralph Kilmann came there a few years later from UCLA and he was very smart. Ralph was brilliant and we shared a lot of interest in Jung. The point is these were people with whom I could talk. One of the difficulties of going through and doing this is that you are lonely in a way. Most people are trained at best to be positivists. They learn a mixture of crude empiricism and crude rationalism, but West and Wilber are way, way beyond that. It's like saying, what's a methodology for human inquiry that's founded on an integral approach? I mean, most people aren't even aware of the question, let alone how to respond. Ralph was a kindred soul; we did a lot of pioneering work together. We wrote a lot of papers.

Q: *In this early time when you published Stakeholders of the Organizational Mind, which I think is a most extraordinary book for its time, Dick Mason wrote the preface, referenced Basho and wrote Haiku. This suggests possibly that your collaboration was more than just an intellectual relationship.*

A: It was more than that, sure. It was partly spiritual or developmental or whatever you want to call it. *Stakeholders of the Organizational Mind* was an attempt to look at the fragmentation in the social sciences and to think, rather naively, that one could heal it. It's like reading one of Ken's passages years ago—don't ask me which one, but I remember—he was naïve enough, he says this laughingly, to think that his overarching framework would be embraced by all the people he put into his framework. If anything they were hurt and insulted because every one of them wanted to think that they were the whole picture and to be relegated to a quadrant or to a particular level was not only crushing, but made them mad as hell.

Let me put it this way. Over the years, I don't know how many Ph.D. dissertation committees I've served on. Almost without exception all of my colleagues, except for maybe West, have this mantra: Take a problem that the student has, it's really not their problem, it's a problem of the discipline. Every dissertation advisor encourages the student to whittle it down, to narrow it down, to bite off a small chunk so it's do-able. ***No one asks them ever to be expansive.***

My mantra is: Take an issue or a problem and expand, expand, expand it until you reach the limits of your comfort zone, where you can no longer expand it or your intellectual powers break down. You don't know what to say; it becomes meaningless, and so on. The point is no one goes the other way. It's like Ken saying, "It's turtles all the way up and turtles all the way down." Russ Ackoff said, "If there are no limits to expansion, there is no limit to atoms." But most people don't get that and it's part of the mantra of current university positivism that one will eventually come to the atoms of human knowledge or whatever it is.

Well, those are only concepts. Most people don't understand that what they're proposing is not just an epistemic strategy, but also a psychological one. They're telling us about their comfort zone. Most people are not comfortable with wholes or holons or whatever you want to call them, but they are only comfortable with very small atoms. Why does the modern university or most organizations attract and develop a preponderance of atomists? Except for the sociology of knowledge or philosophy, at times, no one asks that question. It's just part of their background oxygen.

Q: When you were writing Stakeholders of the Organizational Mind, how would you describe the state of your own spiritual development?

A: I wouldn't say it was particularly great because I really didn't know much about it. I came at it more from philosophy. Philosophy was a substitute for me for the particular religion into which I was born, and really didn't have a lot of meaning for me. So I never called myself a religious person. I think I was on a spiritual quest without knowing it at the time. That's really what it was. To say I went to study philosophy because I felt uneducated or undeveloped is true, but I think the spiritual part of it was unknown to me at the time. I think I had some awareness that it was partly spiritual, but it certainly wasn't developed.

Father of Crisis Management

Q: Then the next phase as Mitroff III sees you for the first time being recognized publicly as a father, the Father of Crisis Management. During this period you're collaborating a lot with Ralph Kilmann, Thierry Pouchant and others. It seems like a remarkable transition, because here you're taking these larger concepts and you're beginning to apply them to what is unthinkable or unknowable. Would you comment on that?

A: That's partly true. Part of it is that I took a one-year sabbatical leave of absence from University of Pittsburgh and went to the University of Pennsylvania Wharton School where Russ Ackoff was. (Russ was one of West Churchman's first students.) While I was there, I was part of an applied research center and one of the clients we had was McNeil Pharmaceuticals, a division of Johnson & Johnson. McNeil made Tylenol and I worked with the executives there on a very interesting project around assumption analysis.

When the Tylenol poisonings occurred I was truly shocked. I was personally hurt, because I knew these executives and they were good people. This light went on in my head. I just knew instantly that something—call it crisis management, whatever—was now going to be a prominent feature of today's world. It's like once these things happen, you always have airport metal inspections. You never go back. They become marker events.

Partly I was bored. I had done *Stakeholders of the Organization Mind*. Now, what more, what new was I going to do? I was thinking of leaving academia to go into a leadership position or something. I was really bored with the academic world. Lo and behold, along comes this new thing and I realized that, oh my god, it's literally now going to be an important feature of the world. When you build a world that is so interconnected, the time of system's approach has arrived. An interconnected world is imminently susceptible to disruption.

The sad thing is when you see 9/11 and Katrina. Most of what happened in Katrina was predictable, including the poor response of the government and FEMA and all the rest of that. It shows how little learning has occurred in 20 or so years since I got into this thing. It's pitiful. We oscillate between frantic fear of being overwhelmed and then doing nothing.

You don't want to get me into what I think of the current administration: It is the worst that I have ever seen in my life.

Anyway, there is another part that also comes out of William James: the world is a laboratory. You learn by going out to the laboratory. One of the ways I learned crisis management was doing a lot of consulting. Most academics don't really understand applied research. That's how I got highly sensitive confidential data that I wouldn't have been able to get any other way—by going in and doing crisis audits and talking to hundreds of executives in all kinds of organizations.

The one area where I would critique Ken is I don't think Ken is sufficiently aware of the intricacies of organizations. I know that's not his primary concern, but I think that would give an added flavor and dimension to his work. One of the things that were very important to Churchman is implementation. For William James and West you don't just have a true proposition or assertion about the world, but you have something that is true if and only if you're able to make changes in the ethical quality of our lives. That means that ethics and implementation are integral to knowledge. It's not like most of my colleagues say, "Oh well, I have a true statement and I'll just tack ethics and implementation on at the end." Oh no, ethics is there right in the beginning, in what we call true and what properties we observe as true or characteristic of human beings.

So ethics is built right into our very theories and facts, if you want to call them that, at the very beginning. Also, you don't have a truth unless you are able to make a change in the world. What good is it to say I have a theoretical solution for how to end poverty and world hunger if I can't do anything about it? That's a partial truth at best. So the point about crisis management: it's not just going out into the world; it is not only learning from the phenomenon that is out there integral with the world, but learning how to make a difference in the quality of the world.

What is so frustrating still is that we know a lot of the reasons why crises happen and even what to do to avert or to lessen the impacts of many of them. Yet we still have all these barriers. That's why you want to say integral politics and integral this and that are so important because the main lesson—you know Ken and Albert Einstein have both said that problems cannot be solved at the level of development or the language in which they are first presented.

Q: *Or created, yes.*

A: So you have a problem like Katrina because it's the fault of a system in its lack of development; it cannot be solved at that level. That is one of the primary lessons of Katrina in applying the thinking of Ken. Katrina shows you can only solve social problems—depending on what you mean by solve—on a higher level of human and social development.

Q: *One of the people that you were actively involved with, both in the area of crisis management and later in the area of ethics is Thierry Pouchant.*

A: Thierry was a student of mine at USC. He was a very good student—very bright and a very nice person, a very good person, a good soul. Thierry and I still stay in touch.

Integral Spirit

Q: *In Mitroff IV you were active with the early years of Wilber's Integral Institute, you published The Spiritual Audit of Corporate America and you participated in the formation of the American Management Association's Management, Spirituality and Religion group*.

A: The *Spiritual Audit* represented the fact that I've been doing crisis management for all these years and, while intellectually exciting because it's so complex, it is a downer in many ways because bad things are happening. For years I've been wondering, actually angry, and asked why no one had gotten out there and done a good empirical study of spirituality in a setting where most of us spend the majority of our waking hours. I did not want to ask—as the typical studies have done—how many times a day do you pray or what the practices are? I, frankly, was bored with that. What does that tell you?

I was more interested in what **meaning** spirituality and religion had for people and how organizations could practice it without blowing up and fractionating all the employees. I was absolutely astounded that no one had done that. Finally, one day I said, okay, my energy is now there. I'm going to get out and do a series of interviews. I had a collaborator on the east coast, Elizabeth Denton, and I went out and did sixty interviews. At one point I remember talking with my good friend and colleague, Warren Bennis who said, “Come on Ian, you've done enough with twenty interviews. You know what you are going to find.” I said, “You're right Warren, but the interviews are so rewarding that I can't stop doing them.”

Q: *Speaking of those interviews, you defined what you mean by spirituality based on what you got from the interviews, what people told you spirituality was for them.*

A: Right. It was not my definition because I'm now aware that one of the first issues, spirituality, religion and Ken's work, is to have a better grasp of the multiple meanings of the definition. The reason I get defensive is that constantly I'm asked by people, "What's your definition of spirituality?" I have to correct them and say, "You know, it's not mine." What I knew instinctively is that I did not have to ask people what their definition was. You get a definition by asking people what meaning 'blank' has for them. Here's the academic mind: they first have to have a definition of what they're studying before they study it. If you had a perfect definition, for crying out loud, you wouldn't need to study it. It's just absolutely insane. But those are people who have low tolerance for ambiguity. This is not incidental.

Q: Maybe I've fallen into that trap on the subject of leadership, which I'd like to talk with you about, but I want to note the definition that emerged from your study. Spirituality was the basic desire to find the ultimate meaning and purpose in one's life and to live an integrated life. Is that a fair summary?

A: That's part of it, but the other part was this feeling of cosmic connectedness. I didn't use the word 'cosmic', and these are not theologians or systems people, but ordinary people who had a sense that the universe was a seamless fabric; it was interconnected. That's one part. Secondly, they didn't believe that it was just here, the result of pure blind mechanism. There is a force, a god, call it what you want, behind it or an expression of it. Third, we were put here to do good, to find meaning and purpose in our lives. There were ways to say that God or whatever you call it is an ultimate ground or guarantor for being and it has consequences. A lot of people, not everybody, said if you believe this, your business had to do good. It had to produce ethical products and services.

Q: Let me quote from the book about that because here is where you manifest that integral perspective of the individual and relationship to the culture in the system. You say,

> The data suggests strongly that those organizations that identify more strongly with spirituality or that have a greater sense of spirituality have employees who are less fearful for their organizations, are far less likely to compromise their basic beliefs and values in the workplace, perceive their organizations as significantly more profitable and report that they can bring significantly more of their complete selves to work, especially their creativity and intelligence, two qualities that are especially needed if organizations are to succeed in today's hyper competitive environment.

A: Yes, that kind of summarizes it, which is what previous studies or non-existent studies hadn't done. Here's another point of it. I didn't say it, but I would say it now, is that among the many qualities in which academic institutions or departments are lacking, first of all they don't have a sufficient enough systemic or integral vision or philosophy, but they're lacking sorely in any spiritual development. I'm convinced everybody in the world ought to be in therapy or in some spiritual program. That's a given. But I think universities sorely need it, because if you take what Ken and other people take seriously, you cannot have anything pretending to be knowledge independently of these paths and states of development. Ken says it many times, he can tell a person's level of development by their definition of leadership. I can tell a person's level of development by their definition of knowledge: what they regard as true, good or beautiful or however you want to put it. So everything is a reflection, by definition, of our development.

Q: *Interestingly since the early 80's, you've been really an advocate of people paying attention to Ken's work. I'm wondering if you can say a little bit about how your relationship with Ken has evolved over the years and what you think we need to be paying attention to around his work?*

A: That's a good question. A few years ago, I can't remember after what book I read, I was tempted to call him on the telephone. I got his number and as one knows, Ken is notorious in not returning phone calls. But I did happen to get his email and said I'd like to come and meet him. I trekked out to his home. He had been living up in the mountains behind Boulder and we spent a day together. Then I came back for the first of the integral business meetings.

Ken is a most unusual, if not daunting character and I say that with great affection. I know very few other people who could seclude themselves for that amount of concentrated energy for his writing. I've said to him in writing and in person, every time I read one of his books, I feel like two-thirds of it I've already heard. But it's not just sheer repetition; it's like a deeper appreciation. He goes over it, but something is added each time, so it's enriched.

I haven't found anybody as comprehensive as Ken Wilber. There well could be; it's not that I know everything, but I read a lot and look for comprehensive minds. I got that when I was taking this three and a half year minor because there was not only West Churchman there, but also one of his teachers, Thomas Cowan. Cowan constantly scoured the intellectual landscape for people who were deep and comprehensive. Tom Cowan would have found him above all people. Tom Cowan was a professor of jurisprudence. He read James Joyce because in *Finnegan's Wake* Joyce has a lot to say about the law.

But there was no one else when Ken's work came out. I read his original grid of internal/external and then the individual and the organization and how he got there by literally one day sorting on the floor all these different religious traditions and voila, this framework appeared to him. He had Don Beck's work and you could see the states of development West and East. Some people have obviously hinted about this before, you know, the people that had come before Ken that he cites, but I didn't find anybody else. I wish that Ken were closer. I'd have more frequent contact, but I do understand that Ken would literally be besieged if he took all the speaking engagements. I wish he would selectively come out and speak in a few highly select gatherings.

Q: *How would you describe your relationship to Integral Institute and Integral University?*

A: They are not as close as I would like them. I have just fallen out of the loop and I don't know why, because I would really like to be more involved for a lot of reasons. The most fundamental is that I don't think I would describe a university as a university any longer unless it was integral in a deep way. I certainly would not describe something as knowledge or, let's put it this way, it's a lower form of knowledge. In that sense, it fails. The current university almost never asks—almost like our political institutions—why they are such failures. Some do, but you can say why, with all this knowledge of crises, have we failed to have this impact in the world?

It's as my wife reminds me, and I know it myself, the opening passage of A.A. Milne's *Winnie The Pooh* has Christopher Robin dragging Winnie the Pooh down the stairs. He's dragging Winnie by its foot and with each step down the stairs, Winnie's head is going bump-bump-bump. As this is happening, Winnie is thinking to himself, if only my head could stop bumping, maybe he could figure a better way of coming down the stairs. Well, that's kind of symptomatic of our times, except the bumps are big: wars, pollution and all the problems we have. Again and again, there are really illustrations that the problems we have are the direct consequences of the current level of development or low level of development and as such they cannot be solved at that level.

The Challenge of Development

Q: *Let's talk about the idea of development for just a minute. You've mentioned William James and of course he had his developmental model about the intellectual or cognitive development of students that he's studied. He found that in the course of a four-year college education, they would develop one level. There have been some follow-up studies with engineering students in Colorado and Pennsylvania, for example, that affirm this pace of development that occurs in higher education. So, in terms of development, do you see a great hope for verticality?*

A: Yes and no. Let me back off and give you a philosophic musing about that. It also comes from William James because I ruminate a lot about this. I get epiphanies. One of the famous passages of William James—I'm not sure whether it's varieties of religious experience or his essays on pragmatism—but he has this passage where he says, "Imagine that we were present at the moment of creation and the creator put this basic bargain or question to you." The creator says, "Now, I can give you a universe that is completely fixed, determined. There will be no good, no evil, your actions will make no difference, or I can give you a universe that is open, uncertain, your actions will make a direct difference. What do you choose, choose wisely." James chose the latter. Hold that thought and let me bring it together with another thought.

If you read modern physicists, they are really doing scientific metaphysics. They're taking Einstein, and extrapolating to the whole of the universe. They don't really understand that by doing this they're being metaphysical. They just think they're being imaginative. There is a guy at Penn State (Lee Smolin?) who proposed using evolutionary biology coupled with cosmology. The outcome is that universes are continually being born, this guy speculates. Every time a universe is born, the fundamental physical constants get reset; like the ratio, the mass, the electrons, and protons. That affects whether stars and living things get born and so forth and so on.

I'm walking down the street one day and I said, "Why in the hell is it that we only have these big picture speculations from physical scientists? Why shouldn't the social sciences do the same? Here's the thought that came to my mind and I shared part of it with Ken one time. Suppose every time a universe is born, the ratio of good to evil is reset. We're apparently in a universe where the ratio of good to evil is slightly larger than one, but it seems like it's very close. I can't prove it, but I feel it. Back to William James, it's a real struggle. We don't know for sure whether goodness will triumph. Now, let's take it one step further. Here is the next step in the epiphany: Suppose every time a universe is born, it takes more or less time to transcend the stages of human development. So we're in a universe where it takes—you talk to Ken—roughly seven years of hard work to transcend, if you can, each stage. Well, given the span of the human lifetime, that's not much time for us to develop much.

So you can speculate. Suppose we were in a universe where it only took three or so years to span a level? What would that universe be like? We can't jump to one of those other universes. We can't do time travel, yet. Nonetheless, the ethical, moral imperative is, no matter what universe you're in, always act to increase the ratio of good to evil. Do everything you can to engage in transcendence in the universe where you find yourself. Maybe those principles, I'm just saying, are themselves indicative of different levels. But the point is that we almost never have that kind of conversation. Because we don't, we—all of us, including me—we fall into despair.

Q: *It's like we're living in a period where all those things, at least in our generation, we were raised to believe in about what this nation and its fundamental values are being challenged.*

A: I started off as a very poor kid, I mean really poor. I would not be where I am, well-off, with my wife, if I hadn't been born in California, had not gone through the University of California, gone to Berkeley, where I had almost free tuition, where I could take out student loans which were forgiven—in effect I got a free education. So, do I begrudge paying taxes? No, I really don't and I'm offended…

Q: *I saw a bumper sticker that said, "I'm a Democrat, please tax me."*

A: Yes, well I'm a recipient. I wouldn't be here were it not for the benefits of the state of California. I had to work hard and I had to have brains, but to give tax breaks to the super wealthy, what does that represent? When you talk about sliding back regression to the lower levels of development; that is so pathetic.

I think probably the most important question—because I know a lot of my liberal west side friends in L.A. have almost given up hope—they see this as the end of the American Empire, which may not be the worst of all things. Stop being the world's bully. They are in despair that the changes wrought by the Bush Administration may do irreversible or irreparable damage to the U.S. I'm afraid of that. What Katrina showed: poor, mostly black people like rats—I think that had a profound impact visually on even a lot of conservative Republicans. They too, are disenchanted. Whether that will translate in voting or whatever, that's another thing.

Q: *What you seem to be advocating, for example, in your book Crisis Leadership, is a shift from being reactive to being proactive in dealing with all of the crises and the issues that we're faced with.*

A: But here's the rub: You cannot be proactive. The word proactive is a low level way of saying higher development. Most people really get hung up on hierarchy. It's a post modernism politically correct crap where they think of rigid hierarchies. It's a bad word, so they don't want to say something is better than or worse than anything else. **By avoiding better or worse, in fact, they are saying it's better to avoid better or worse. So they've just done it. That's the irony of their position.** It's not only relativism, but also postmodern crap! They think post modernism is 'better than.' It is the only correct way. You can't be proactive unless you've reached a different stage of development.

What's Next?

Q: *Given this history, what are you working on now and where do you see your next phase going*?

A: I'm working on a variety of both popular and more intellectual books. I wouldn't say scholarly. You have to go out into the world of big publishers with agencies. One is a book on un-reality. The main title would be *America the Delusional*. My wife has a Ph.D. in education and she worked at the Pittsburgh public television station with Fred Rogers [Mr. Rogers—a popular children's program]. We're working on a very popular book applying Fred Rogers to the world of work. That's a more popular way to talk about a lot of the stuff that is really too difficult for most people to read. Although they need it, they avoid it. I work between a variety of projects and they are all interesting to me. I do have good students. I enjoy teaching. But what I think is really, really key is we have to get more integral universities and integral this and that. We really do.

Q: *I've heard that Integral University just established a relationship with the Fielding Institute [Santa Barbara, California]…*

A: That's interesting because Fielding is adult education.

Q: *…at the master's program level.*

A: That's good enough and that's a good start. I think Fielding is a viable alternative.

Q: *One of the challenges that is continually being cited since the 80's and many of your comments today have suggested is that we face a crisis of leadership in our society and in our businesses. Can you comment on what you see as being important for the future development of leaders and leadership in our organizations today?*

A: I think I've said it. The current leadership, again, is an expression of the current development of society and of organizations. What did we hear on national news this week? Verizon or Cingular is cutting back on their promised pensions to workers, even though they have the ability to pay them, because they are anticipating risk—or whether it is greed or whatever. There are exceptions for a few specialized organizations like Patagonia and some very special enlightened leaders who I think are more spiritually developed.

Q: *Like Herb Kelleher?*

A: Yes. People like that. Yvon Chouinar, the guy who runs Patagonia, just wrote a book, *Let My People Go Surfing*. He knows he has the kind of people who are dedicated and will not take advantage of the organization. How would you explain what he is about to, say, the head of GM because Ford and GM are failed companies now.

We could turn around the world and say certain societies are failed countries. They just don't work. Take Mexico. Maybe take us. They're failed. Largely, today's current organizations have failed. They reached the end of their lifecycle. They reached the end of the assumptions or the conditions to which they were responsive, mainly that level of development, World War II. But they have not made the transition to the 21st century. Bush is even farther back than that. He's in extreme regression. One of the things going on is this debate over intelligent design. It's laughable because there is a form of intelligent design. You want to talk about terms of integral philosophy that does make sense, but not in the ways that is being currently framed.

Q: *It's like the skeptics say evolution is not a theory; it's a fact.*

A: Yes, but even scientists don't get it. I accept evolution. It accounts for things pretty well. But what is it that sets the mechanism in place? Why do we live in a universe where evolution is possible? That's the way for me to frame it. How a "higher power" (or what) intervenes and at what level and I don't know? And then jump to, it intervenes because we have these complex mechanisms and intelligent design or the creation shows that people don't understand systems development! Therefore, it must have come into being all at once with all its properties—you can't have a conversation with people who believe this. One of the worst things I think has happened in this country, and I'm a part of it too, is that we're unable to converse now across the divides. I've never seen it so divisive, never in my lifetime. Have you?

Q: *No.*

A: Not even during Reagan and Nixon, not even at the height of the Cold War, not even at the height of the Vietnam War, which was divisive. Maybe because we've had 40 years of such division, I don't know. Do we have a basis for hope that we will transcend this? All I can say is, I really hope we do. I hope we have hope. I don't know what else to say.

Q: *Transdisciplinarity, not just in the academic sense, seems to be at least a theme that is something you would advocate. Do you have any notion of a transdisciplinary agenda or anything like that?*

A: I think it is the integral program and ideas that we've talked about. It's integral in terms of the scope of knowledge and the scope of the development of people and of humanity. So I'd say Ken's integral philosophy is a theory of transdisciplinary knowledge and development. It's one and it's as good as I know. I don't know of any others.

Most people have a low level meaning of interdisciplinary. They think, "Oh well, maybe I learn x and I learn y and I do joint studies of x and y together." That's not what Churchman's notion of interdisciplinary is. Every concept in every field of knowledge and every branch of knowledge **presupposes all** of the concepts or at least some of the concepts of every other field. That's very different. Take physics! You don't do physics as much as physicists would like to believe without human beings that are organized into communities. The laws of physics maybe are just "out there" but as far as they are known, they are known by people.

Q: This is an affirmation of a theme that I think you expand on and develop very well in Stakeholders of the Organizational Mind and the application of that seems to be what the integral approach is all about.

A: There is one place where I do disagree with Ken and I've talked to him about it. I do agree when he locates the 'it' in the exterior. If I go back to my first book, *The Subjective Side of Science*, yes there is an external world. I don't doubt that. But that external is only meaningful because there is an 'I', and internal world.

I don't like the words subjective, objective. I want to totally ban them from the vocabulary. They are outdated. Yes, there is a world that people regard as "it." That's the crucial point; **people regard it as it.** It does not regard it as it. That means there are people on the internal, left hand side that regard the external world as it. The right hand side is impersonal and objects and all the rest of that. But that's really a continuum. It's true that there are different senses of the right hand side; there are different concepts of the world and spirituality. I accept that, but it is misleading.

Q: One way that I think he's been trying to make that distinction more recently is that he would see in the lower right quadrant phenomena like communication, for example. But the means, the mechanisms, the computers, the telephones or what have you, of communication that are taking place, those are all artifacts.

A: I agree with that. I agree. Artifacts mean they are human artifacts. They are not artifacts of nature. The concept of nature itself is a human artifact. You could say the concept of the human body is now an artifact. In fact, in reality we are on the way—make no doubt about it—to becoming cyborgs. There is no doubt in my mind. What will happen if there is a line or lines when we will cross over and what will it mean to be human? The thing I would say about the internal and external dimension and even the 'I, we', those things are not only in flux as they have never been in human history, but more and more they are design possibilities. I'm not sure they are not also design nightmares. Mainly, that line is being manipulated and eroded by human beings.

Q: *There is an item in Ray Kurzweil's newsletter today that there is a meeting of people addressing the question of the legal aspects of people who are part human, part machine…*

A: …but my point is when is it going to be that we're going to have things that you can't even say are part what? That's almost quaint—their question. They're not looking far enough ahead. Here's what the intelligent design people don't get: that's not the problem. It's dumb redesigns that we are faced with when we got through all these redesigns of people.

Q: *Ian thanks. I look forward to your next book.*

A: Thank you.

Integrales Lernen in und von Organisationen

Wendelin Küpers

Abstract: Bezogen auf das integrale Models von Ken Wilber untersucht der Beitrag die Bedeutung des Lernens in und von Organisationen. Nach einer Darstellung der Relevanz und des Grundverständnisses des Lernens im Organisationskontext, werden integrale Dimensionen des Lernens dargestellt. Im Einzelnen werden die verschiedenen Sphären eines inneren-subjektiven und äusseren-„objektiven“ Lernens des Einzelnen als auch ein gemeinschaftliches Lernen und Lernen im System auf der kollektiven Ebene dargestellt sowie deren interrelationaler Zusammenhang diskutiert. Schließlich beschreibt der Beitrag noch integrale Lernprozesse sowie integrale Gestaltungsfelder zur Förderung des Lernens in den verschiedenen Bereichen. Abschließend spricht der Artikel noch Schwierigkeiten und Probleme an sowie nimmt im Fazit ein perspektivischen Ausblick vor.

Keywords: Integrale lernprozesse, integrale theorie, organisatorisches lernen.

Abstract: Related to the integral model of Ken Wilber, this paper investigates the role of learning in and of organisations. After describing the relevance and basic understanding of learning in the context of organisations, integral dimensions of learning will be outlined. In particular learning in the sphere of an inner-subjective and exterior-objective learning of the individual and a communal learning and learning within a system on the collective level as well as its interrelations will be discussed. Afterwards integral learning processes and various measurements for enhancing integral learning in the different sphere will be discussed. Finally, difficulties and problems will be addressed and in conclusion some perspectives and implications are presented.

Keywords: Integral learning processes, integral theory, organizational learning.

Einführung

Der folgende Beitrag versucht die integrale Vision und Philosophie von Ken Wilber auf den Bereich des Lernens für Organisationen zu beziehen. Dabei werden sowohl die lernrelevanten Bereiche des Ichs, der Gemeinschaft bzw. der Kultur sowie des Systems in einem umfassenden, ausgewogenen und dennoch spannungsreichen Beziehungskontext betrachtet. Integral bzw integrieren bedeutet dabei ein differenzierendes und zugleich zusammenzuführendes, vereinigendes und vernetzendes Vorgehen. Gemeinsamkeiten werden so zusammengebracht, ohne die Unterschiede und Spezifika zu leugnen. Diese integrale Orientierung versteht sich mit Wilber dabei nicht als eine endgültige oder festliegende Anschauung oder gar als einzig mögliche. Sie ist vielmehr nur eine Sichtweise, die aus verschiedenen wissenschaftlichen Disziplinen unterschiedliche Erkenntnisse und Forschungsergebnisse berücksichtigt und auf kohärente Weise einbindet sowie in einem evolutionären Gesamtzusammenhang betrachtet (vgl.

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Wilber 2000a, S. 14). Das Entwicklungsverständnis einer integralen Evolution versteht sich dabei nicht als starre, lineare Leiter, sondern als „eine fließende Angelegenheit mit Spiralen, Wirbeln, Strömungen und Wellenbewegungen – und einer fast unendlichen Anzahl multipler Modalitäten (vgl. Wilber 2000a, S. 18). Gerade dieses pluralistisch-integrale Verständnis ist für die Potenziale und dynamischen Prozesse des Wissens und Lernens wichtig. Denn Wissens- und Lernprozesse sind wesentlicher Teil der menschlichen Bewusstseinsentwicklung und evolutionären Transformation: „Die Dialektik des Fortschritts zeigt sich darin, dass mit dem Erwerb von Problemlösungsfähigkeiten neue Problemlagen zu Bewusstsein kommen.“ (Wilber 2001, S. 249). Zudem generiert der sozial-evolutionäre Lernvorgang selbst auf jeder Entwicklungsstufe neue Ressourcen, die neue Dimensionen der Knappheit und damit neue historische Bedürfnisse bedeuten (vgl. Wilber 2001, S. 249).

Eingebettet in diese evolutionären Gesamtzusammenhänge konzentriert sich der folgende Beitrag insbesondere auf den Bereich des Lernens in und von Organisationen. Den Konzepten eines „organisationalen Lernen“ bzw. der „lernenden Organisation“ wird in der aktuellen betriebswirtschaftlichen Forschung und Wirtschaftspraxis eine zunehmende Bedeutung für die Entwicklungsfähigkeit und für die Bewältigung des Wandels von Organisationen beigemessen (vgl. z. B. Argyris/Schön 2002; Brentel 2003; Eberl 1996; Huber 1991; Lembke, 2004; Wiegand 1996). Ist die Einsicht der Bedeutung des Lernens erst heute gewonnen worden? Haben Mitglieder von Organisationen nicht bereits früher gelernt? Warum ist ein integrales Verständnis des Lernens gerade gegenwärtig relevant? Um auf diese Fragen zu antworten, werde ich im Folgenden zunächst kurz in den Kontext und die Relevanz von Lernprozessen in Organisationen einführen. Aufbauend auf die Relevanz und das Grundverständnis des Lernens in und von Organisationen werden danach integrale Dimensionen des Lernens im Einzelnen und in ihrem Zusammenhang dargestellt sowie integrale Lernprozesse, Gestaltungsfelder sowie Probleme diskutiert. Ziel dieser Ausführungen ist es, die Bedeutung eines integralen Lernens im Organisationszusammenhang aufzuzeigen, damit diese zu einer lebendigen Wirklichkeit werden können.

Kontext und Bedeutung des Lernens in Organisationen

Selbstverständlich wurde schon immer in den Betrieben gelernt und gelehrt, gab es Lehrende und Lernende (vgl. Münch 1995, S. 88). So wurden bereits seit langem Organisationen als „Lernorte“ verstanden, die als soziale Kontexte das Lernen von Individuen beeinflussen und innerhalb derer Maßnahmen der Aus- und Weiterbildung insbesondere der Personalentwicklung ansetzten. Handelt es sich also bei organisationalem Lernen um einen „alten Wein in neuen Schläuchen“? Was erklärt die aktuelle Bedeutung des Lernens von und in Organisationen, die eine besondere Resonanz sowohl in der organisationalen Wirtschaftspraxis wie in der Organisationsforschung gefunden hat?

Für die Organisationspraxis ist die besondere Relevanz der Thematik u. a. auf organisationsinterne wie sozio-kulturellen Veränderungsprozesse rückführbar. Diese Veränderungen vollziehen sich einer durch große Unsicherheit gekennzeichneten Umwelt. Neben der Entwicklung neuer Informations- und Kommunikationstechnologien sowie grundlegender Veränderungen betrieblicher Organisationsformen und Wissens- und Wertschöpfungsprozessen ist es eine Intensivierung des Innovations- Wettbewerbsbedarfs, der einen steigenden Veränderungsdruck ausübt.

Es kommt zu einem „Wandel des Wandels“ (Mann 1993, S. 14ff), der durch wachsende Komplexität bestimmt ist (vgl. auch Klimecki/Probst/Eberl 1994). Diese äußert sich in der Vielfalt von vernetzten Einflussfaktoren und Ereignissen sowie einer beschleunigten Dynamik des Wandels. Veränderungsprozesse gestalten sich auch zunehmend diskontinuierlich, also unabsehbar und sprunghaft. Bewährtes Wissen, herkömmliche Routinen oder stabile Organisationsgefüge werden durch ständig neue Anforderungen in Frage gestellt. Mit immer neuen Projektaufgaben, Stellenwechseln und Fluktuationen von Organisationsmitgliedern gehen vielfältige Schwankungen einher, die eine kontinuierliche Zusammenarbeit wirkungsmächtig beeinflussen. Schließlich sind Wandlungsprozesse zunehmend nicht linear und finalistisch, sondern entfalten sich eher spiralförmig und mit offenem Ende (vgl. Weick/Quinn 1999, S. 382).

Diese Einflusskräfte und neuen Bedingungen des Wandels bringen es mit sich, dass Organisationen sich von der Vorstellung absoluter Beherrschbarkeit, sicheren Prognosen und einmal festgelegter, weil zu einem bestimmten Zeitpunkt tauglicher Verhaltensmuster verabschieden müssen. Damit gehen Unsicherheiten und Ungewissheiten über die gegenwärtige Situation sowie zukünftige Entwicklungen einher. Auch müssen sich Organisationen zunehmend mit gegensätzlichen und paradoxen Anforderungen (z. B. Stabilität und Flexibilität; Kooperation und Kompetition) und Ambiguitäten auseinandersetzen (Handy 1994; Müller-Stewens/Fontin 1997). Schließlich gehen von Veränderungsprozessen und -maßnahmen systemische Rück- und Wechselwirkungen aus, die besondere Herausforderungen nicht nur an die Planung, die Organisation und die Führung, sondern an alle Organisationsmitglieder stellen.

Anbetracht dieses dynamischen und drängenden Kontextes werden von dem Konzept einer „lernenden Organisation“ bzw. „organisationalen Lernens,“ Möglichkeiten erwartet mit den damit einhergehenden Herausforderungen konstruktiv umzugehen. Denn die beschriebenen externen und/oder internen Herausforderungen können durch die Organisationen nicht (mehr) in herkömmlicher Weise begegnet werden (vgl. Dodgson 1993, S. 376). Um wirtschaftlich in dem beschriebenen Zusammenhängen zu überleben und sich weiterzuentwickeln ist eine Selbstevolution der Akteure und Lernprozesse in Unternehmen erforderlich, d.h. umfassende Entfaltung ihres emotionalen, körperlichen und geistigen Potenzials.

Neben einem “Verlernen“ (Hedberg 1981), also dem Überwinden von alten Routinen und Wissensstrukturen sind integrale Lernprozesse notwendig, um ganzheitliche Orientierungen und Entwicklungsprozesse in und von Organisationen zu gewinnen. Erst so vermögen es Organisationen der paradoxen Anforderung zu genügen, einen „stabilen Wandel“ zu organisieren und eine effektive Selbst- und Umweltanpassung zu realisieren. Mit anderen Worten: Lernen ermöglicht, dass Organisationen ihre eigenen Strukturen so arrangieren können, dass sie einerseits die Identität der Organisation gewährleisten. Andererseits aber auch soviel Spiel- und Entwicklungsräume behalten, um die eigenen Selbstfestlegungen überraschbar bzw. variabel zu halten und auch wieder auflösen oder verändern zu können. Denn das Erleben und die Selektion von Diskontinuitäten, Unterbrechungen und Etablierung neuer Kontinuitäten bzw. Variationen ist eine Bedingung der Möglichkeit des Lernens (vgl. Kranz 2000, 124). Die Leitbilder eines „organisationalen Lernens“ bzw. einer „lernenden Organisation“ versprechen so zu einer Bewältigung des organisationalen Wandels beizutragen. Denn sie vermitteln dem Unternehmen Möglichkeiten zur Entwicklung bzw. Aktivierung notwendiger und Gestaltungs- und Anpassungspotenziale.

Für die Organisationsforschung stellt organisationales Lernen ein wachsendes und zunehmend bedeutsames Forschungsfeld dar. Mit seiner Offenheit und Ambiguität sowie dynamischen und positiven Konnotation und Qualität als Beobachterkategorie, erlaubt der Lernbegriff

Organisationsforschern scheinbar einen gemeinsamen Problembezug und Diskussionsbasis zu finden. Wie der Kulturbegriff, organisiert der Lernbegriff unterschiedliche Interpretations- bzw. Betrachtungsweisen und verschiedene Verwendungs- bzw. Erkenntnisinteressen in einer Debatte.. Von dem Konzept erhofft man sich Organisationen bzw. organisationale Lernprozesse und hierbei wirksame Einfluss- und Vermittlungsgrößen in deren Komplexität besser zu verstehen und zu erklären. Für Praxis und Forschung zeigt die Fülle der Literatur und Rezeption zum Thema einen großen Bedarf an Reflexion, um die sich real vollziehenden Veränderungen zu bewältigen bzw. theoretisch aufzuarbeiten (vgl. z. B. Reinhardt 1995, S. 314).

Das integrale Modell kann dazu einen wertvollen Beitrag leisten. Ein integrales Verständnis von Wissen und Lernen ist für die betriebswirtschaftliche Theorie und Wirtschaftspraxis relevant, weil damit;

1. die begrenzte Auffassung herkömmlicher Ansätze und deren Mangel an integralem Entwicklungs- und Transformationsverständnis überwunden und ein erweitertes und zugleich vertieftes Verständnis von Wissens- und Lernprozessen gewonnen werden kann,
2. eine integrale „Gesundheit“ in Organisationen auf horizontaler und vertikaler Weise als notwendig erkannt und lebensweltlich konkret entwickelt werden bzw. eine Transformationspraxis zu dessen Verwirklichung aufgezeigt wird,
3. Perspektiven für eine nachhaltige Integration von spezifischen Wissens- und Lernprozessen in Organisationen zugänglich werden,
4. spirituelle Dimensionen, die meist vernachlässigt oder nicht beachtet werden aber für Organisationen und ihre Mitglieder von grundlegender Bedeutung sind (vgl. Hawkins 1991) berücksichtigt werden können,
5. Möglichkeiten integraler Organisations- und Managementformen als eine spirituelle Praxis sich eröffnen (vgl. Butts 1999; Conger et al. 1994; Dehler/Welsh 1994; Bolman/Deal 1995).

Grundlegend kann eine integrale Ausrichtung von Lernprozessen in Organisationen und ihren Mitgliedern dazu dienen, deren aktuellen wie auch zukünftige Herausforderungen in den Lebenswelten von Organisationen zu bewältigen. Bevor im Weiteren das integrale Modell von Wilber auf Lernprozesse in Organisationen bezogen wird, gilt es zunächst zu klären, was unter Lernen im Allgemeinen und unter „organisationalem Lernen“ im Besonderen zu verstehen ist.

Grundverständnis des organisationalen Lernens

Allgemein führt Lernen über Erfahrungsprozesse zu einer überdauernden Verhaltensveränderung und neuen Fähigkeiten bzw. Erlebnis- und Handlungsmöglichkeiten im Verhältnis zur Umwelt (vgl. Angermeier/Bednorz/Schuster 1991, S. 27; Bower/Hilgard 1981, S. 32). Es hat also sowohl innere wie äußere Bezüge, die wiederum beide in umfassendere Kontexte eingebettet sind. Grundlegend kann Lernen als die Fähigkeit charakterisiert werden, bestehende Denk- und Handlungsmuster zu revidieren und sich dabei zielgerichtet Veränderungen anzupassen bzw. neue Orientierungen zu entwickeln. Dabei beschränkt sich der Lernprozess nie nur auf abgrenzbares „Wissen“ als Lerninhalt bzw. -ergebnis, sondern umfasst immer auch die gesamte (Lern-)Situation mit all ihren Vorkommnissen, Aktionen und Reaktionen, z. B. Ressourcen, Freiräume, Kommunikationsstrukturen, Anwendungsmöglichkeiten, Feedback zu Lernerfolgen (vgl. auch Bertels 1997, S. 58). In einem erweiterten Sinn kann Lernen sogar als eine Art und Weise zu „sein“ überhaupt verstanden werden (vgl. Vaill 1998).

Erkenntnisse über Ursachen und Prozesse sowie Wirkungen des Lernens wurden in unterschiedlichen Lerntheorien systematisiert. Damit wurde versucht ein je spezifisches Verständnis von Lernprozessen sowie Prognosen über Lernergebnisse und Lernfortschritte zu gewinnen. Entsprechend können verschiedene, z. B. behavioristische, kognitivistische sowie konstruktivistische Lerntheorien unterschieden werden, auf deren Einordnung und Gefahren eines Reduktionismus noch zurückzukommen sein wird.

Wenden wir uns hier nun dem spezifischen Lernen in und von Organisationen zu. Die wissenschaftliche Diskussion und Anwendungspraxis der „lernender Organisation" und „organisationalen Lernens" ist durch Heterogenität und Vielschichtigkeit sowie durch das Fehlen einer einheitlichen, allgemein akzeptierten Theorie bzw. Konzeption gekennzeichnet (vgl. Hennemann 1998, S. 9f.; Eberl 1996, Huber 1991, Wiegand 1996). Nachfolgende Definition integriert verschiedene Ansätze (vgl. u. a. Probst/Büchel 1998, v. Krogh/Ichijo/Nonaka 2000) und folgt dabei einem anwendungsorientierten Verständnis der Organisationstheorie, welches zur Lösung praktischer Probleme beizutragen versucht.

Organisationalem Lernen meint einen Prozess zur Erhöhung und Veränderung der organisationalen Wissensbasis, der wiederum die Problemlösungs- und Handlungskompetenz verbessert sowie Verhaltensweisen von und für Mitglieder innerhalb der Organisation erweitert.

Diese praxisorientierte Definition beinhaltet einzelne Kriterien, die im Folgenden kurz erläutert werden. Eine organisationale Wissensbasis bezeichnet die in einer Organisation verfügbaren Wissenselemente (z.B. Fakten, Regeln, Rezepte, Routinen, Normen, Standards etc.) und ihrer Beziehungen. Wie eine Art „organisationales Gedächtnis" (vgl. Walsh/Ungson 1991) bestimmen diese auch unbewusst das Denken, Entscheiden und Handeln von Organisationen und ihrer Mitglieder mit. Für ein bewusste Bearbeitung müssen die Inhalte dieser Wissensbasis von den Organisationsmitgliedern allerdings verstanden, bearbeitet und gedeutet werden sowie als anerkannt, verknüpfbar und nützlich gelten. Organisationales Lernen verändert und restrukturiert nun diese gemeinsamen Orientierungsmuster oder schafft neues Wissen. Kompetenzen zur Lösung von Problemen und zum Handeln umfassen Qualifikationen zur Erfüllung bestimmter Ziele oder Aufgaben. Dazu gehören neben fachlichen Kenntnissen auch Gestaltungs- und Umsetzungsfähigkeiten wie emotionale und soziale Kompetenzen. Über organisationale Lernprozesse können diese Kompetenzen gewonnen oder weiterentwickelt und so verbessert werden. Schließlich erweitert sich durch das organisationale Lernen auch das Repertoire der Möglichkeiten der Organisation (vgl. Wiegand 1996, S. 15). Damit können sich Organisationen und ihre Mitglieder nach Innen und nach Außen flexibler ausrichten und agieren.

Aus ökonomischer Sichtweise ist das Ziel des Lernens von Organisationen zum Leistungsprozess des Unternehmens beizutragen (vgl. Dodgson 1993, S. 378). Damit soll die Überlebens- und Wandlungsfähigkeit in einem von Wettbewerb bestimmten Marktkontext gesichert und gefördert werden. Organisationales Lernen zielt dabei im Besonderen auf eine Strategieentwicklung, Strukturgestaltung und Weiterentwicklung von Markt-, Kunden- und Umweltbeziehungen (vgl. Sattelberger 1991, S. 13), um das Handlungs- und Innovationsvermögen und damit Wettbewerbsvorteile zu gewährleisten. Das Lernen in und von Organisationen dient dabei auch einem kritischen Hinterfragen bereits vorhandener Regeln, Praktiken, Kompetenzen und relevanter Organisationsprozesse (vgl. Hennemann 1998, S. 163ff.). Auch unterstützt es den Aufbau von zukünftigen Kernkompetenzen bzw. Aktionsspielräumen und die Bereitstellung alternativer Lösungsansätze. Schließlich zielt es auf die Entwicklung grundlegender Lernpotenziale und -fähigkeiten. Diese dienen gerade in Zeiten einer sich radikal wandelnden internen und äußeren Umwelt der Organisationen auch als Vorsorge gegen Unsicherheiten der Zukunft. Dass über diese ökonomischen Bestimmungen hinaus, auch erweiterte Möglichkeiten einer individuellen, sozialen und kulturellen sowie systemischen Transformationspraxis gewonnen werden können, soll die nun folgende Darstellung integraler Dimensionen des Lernens in und von Organisationen zeigen. Zunächst wird dazu eine ganzheitliche Wirklichkeitssicht des Lernens und danach das integrale Modell vorgestellt und für das Lernen im Organisationszusammenhang fruchtbar zu machen versucht.

Holons und Holarchien: Die ganzheitliche Wirklichkeit des Wissens und Lernens

Grundlegend wird mit dem integralen Modell von Ken Wilber wird eine multidimensionale Integration angestrebt, welche die Wirklichkeit als ein Zusammenhang von Teilen und eines Ganzen versteht (Holon). Jedes Holon, das simultan eine innere und eine äußere Dimension hat, besteht also zugleich aus Ganzheiten und Teilheiten die in einem offenen Kontext miteinander verbunden sind. „Es gibt kein Ganzes, das nicht auch zugleich Teil von einem anderen Ganzen wäre, und dies setzt sich unendlich fort.“ (Wilber 2000, S. 41). Wilber (2001, 63ff) beschreibt vier Grundvermögen von Holons: Selbsterhaltung, -anpassung, -transzendenz und -auflösung. Zudem emergien Holons also lassen wie aus ihrer Vernetzung neue Eigenschaften und Konfigurationsmuster i. S. zunehmender Ganzheit/Teilheit entstehen (vgl. Wilber 2001, 71ff). Dabei transzendiert und inkorporiert jedes emergierende Holon seine(n) Vorläufer (vgl. Wilber 2001, 77ff). „Alle Grundstrukturen und Grundfunktionen werden bewahrt und in eine größere Identität aufgenommen“ (Wilber 2001, 78).˙ Das Niedrigere setzt zudem die Möglichkeit des Höheren, das Höhere setzt die Wahrscheinlichkeit des Niedrigeren (vgl. Wilber 2001, S. 80f).

Bei all dem bestimmt die Anzahl der Ebenen die Tiefe der Hierarchie, wobei jede weitere Evolutionsstufe zu einer Vertiefung führt. Dabei unterscheidet Wilber zwischen einer horizontale Translation der Oberflächenstruktur und einer vertikalen Transformation der Tiefenstruktur (vgl. Wilber 2001, S. 86). Während Hierarchien durch eine wachsende holistische Kapazität verstanden werden und Heterarchien als nicht-hierarchische Interaktion der zu integrierenden Elemente aufgefasst werden (vgl. Wilber 2000, S. 31), implizieren Holarchien, eine Balance des Hierarchischen (qualitative Ebenen) und des Heterarchischen (wechselseitig verbundenen Dimensionen). Dass das Wirkliche zugleich ein Ganzes und Teil (anderer Ganzheiten) ist, kontextualisiert auch die Wirklichkeit – und damit das organisationale Wissen bzw. Lernen und die lernende Organisation – in einem offenen (ko-evolutionären) Zusammenhang (Holarchie). Holarchien ko-evolvieren in Feldern von Feldern von Feldern (vgl. Wilber 2001, S. 91f), wobei Mikro und Makro auf allen Ebenen in Beziehung und Austausch miteinander stehen (vgl. Wilber 2001 S. 94).

Grundlegend nimmt die schöpferisch emergierende Evolution die Richtung zunehmender Differenzierung, Vielgestaltigkeit, Komplexität und systemischer Organisation ein. Das Zusammenwirken von Differenzierung (neue Teil- und Vielheiten) sowie Integration (neue Ganz- und Einheit), welches das Muster von Holons ausmacht *ist* dabei seine integrative Kohärenz (vgl. Wilber 2001, S. 97) die zugleich durch eine zunehmende Strukturierung, relative Autonomie bestimmt wird (vgl. Wilber 2001, 100f). Das gemeinsame Muster aller Evolution und Höherentwicklung ist dabei eine „Holarchisierung“ (Wilber 2000, S. 52), bei dem

Teilcharakteristika in einem umfassenderen Sinn einer kohärenten Einheit zusammengeführt und verknüpft werden.

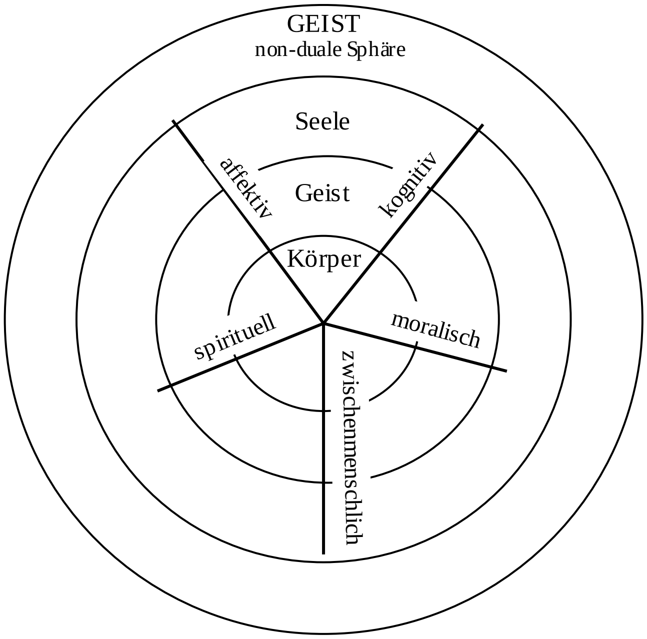

Abb. 1: Die Holarchie der Entwicklung (vgl. Wilber 2001a, S. 59).

Folgende Abbildung zeigt ein entwicklungorientiertes Modell der Holarchie bei dem die Ebenen als Bewusstseinsstufen als Körper, Geist, Seele und GEIST (als non-duale Seinsweise) – die sich alle aufsteigend integrieren – von verschiedenen Entwicklungslinien oder -strömungen, z. B. emotional, kognitiv, moralisch, zwischenmenschlich, spirituell durchzogen werden.

Bei Menschen können verschiedene Strömungen unterschiedlich ausgebildet und entwickelt sein. So können sich Mitarbeiter und Führungskräfte in Organisationen in ihrem Alltagsleben gleichzeitig auf verschiedenen Ebenen und Entwicklungsniveaus bewegen (vgl. Torbert 1994; Küpers 2004). Auf die Bedeutung dieser Ebenen und Linien der Entwicklung für das Lernen in und von Organisationen wird noch zurückzukommen sein.

Grundstruktur des 4-Q-Modells und Lernsphären

Die Bedeutung einer integralen Sicht von Lernen in und von Organisationen kann mit Hilfe des 4-Quadranten Modells von Wilber (1997, 2001) erschlossen werden. Aufbauend auf dem zuvor beschriebenen holonischen Wirklichkeitsverständnis, schlägt Wilber als wesentliche Differenzierungen vor zwischen innerlichen und äußerlichen sowie individuellen und kollektiven Quadranten zu unterscheiden. Die sich daraus ergebenden vier Quadranten sind die vier Dimensionen jedes Holons. Diese stellen zugleich je eigene „Welten“ (Binnen-, Handlungs-, Mit- sowie Sach-/Umwelt) mit je spezifischen Dimensionen dar. Folgende Abbildung zeigt die Grundstruktur des Modells mit einigen beispielhaften Bestimmungen hier angewandt für die Organisation.

Die oberen beiden Quadranten beinhalten die individuellen Sphären des Einzelnen. Während der obere linke (Bewussteins-) Quadrant (I) sich auf die Binnenwelt des intentionalen, denkenden, fühlenden und wollenden Subjektes („Ich“) bzw. Qualitäten des Individuellen bezieht, umfasst der obere rechte (Verhaltens-) Quadrant (II) die Handlungs- und Wirkwelt des Individuellen („Mein, Es“). Diese ist neben äußere materiellen-biologischen Manifestationen des Verhaltens auch durch handlungspraktische Dimensionen des Wissens, Kompetenzen und

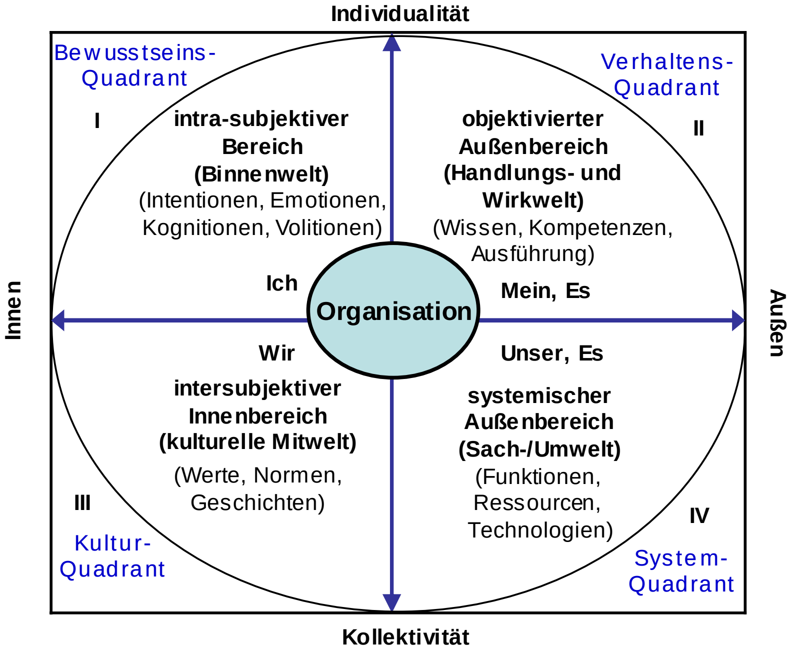
Individualität
Bewusstseins-Quadrant
Verhaltens-Quadrant
I
II
intra-subjektiver Bereich (Binnenwelt)
(Intentionen, Emotionen, Kognitionen, Volitionen)
objektivierter Außenbereich (Handlungs- und Wirkwelt)
(Wissen, Kompetenzen, Ausführung)
Ich
Mein, Es
Organisation
Innen
Außen
Wir
Unser, Es
intersubjektiver Innenbereich (kulturelle Mitwelt)
(Werte, Normen, Geschichten)
systemischer Außenbereich (Sach-/Umwelt)
(Funktionen, Ressourcen, Technologien)
III
IV
Kultur-Quadrant
System-Quadrant
Kollektivität

Abb. 2: Grundstruktur und beispielhafte Bestimmungen des Vier-Quadranten-Modells für Organisationen.

Ausführungsweisen bestimmbar.[1] Diesen oberen Bereichen des Individuums bzw. des Individuellen stehen mit den beiden unteren Quadranten kollektive Sphären gegenüber. Der untere linke (Kultur-) Quadrant (III) verweist auf die gemeinschaftliche Sphäre („Wir), also auf eine innere, sozio-kulturelle „Mitwelt.“Dieser wird durch den unteren rechten (System-) Quadrant (IV) funktionaler Zusammenhänge in der äusseren Sach- bzw. Umwelt ergänzt („Unser, Es“). Als Spalten betrachtet, repräsentieren die beiden rechten Quadranten die Felder objektiven bzw. objektivierenden Außenaspekte: das obere i. S. der Einzelphänomene, das untere i. S. vernetzter Systemphänomene. Die beiden linken Quadranten stehen dagegen für die Felder der Innerlichkeit: Das obere verweist auf die „individuelle Innerlichkeit,“ während das untere ein „kollektives Innen“ repräsentiert.

Diese analytischen Differenzierungen und dualistische Konzeption ist selbstverständlich nur ein verständnisförderndes Konstrukt, das nicht beansprucht die „Wirklichkeit“ wiederzugeben. Wie eine Landkarte ist dieser integrale Bezugsrahmen für eine Orientierung und Klärung der einzelnen Elemente und Dimensionen des Lernens sowie ihres Verhältnisses zueinander förderlich. „In realitas“ ist der Bereich des Subjektiven und deren Innenwelt unaufhebbare mit dem „Außen,“ der Handlungs- und Wirkwelt verbunden, wie auch die Außendimensionen des Individuellen immer auf dessen „Innen“ zurückverweisen. Auch gibt es kein gemeinschaftliches Kollektiv ohne einen funktional-strukturellen Systemzusammenhang wie umgekehrt. Zudem bedingen und beeinflussen sich die individuellen und sozialen kollektiven Gesamtbereiche wechselseitig.

Angewandt auf das Thema des Lernens und Bezug zu den einzelnen Quadranten können entsprechend spezifische *Lernsphären* unterschieden werden. Quadrant I bezieht sich auf das

subjektive Lernen, während der Quadrant II ein „objektives“ Lernen im Handlungsbereich impliziert. Auf der kollektiven Ebene verweist der Quadrant III auf ein zwischenmenschliches

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[1] Die Zuordnung des Wissens in den oberen rechten Quadranten ist hier eine bewusste handlungsspezifische Schwerpunktsetzung, die für den Organisationskontext zweckhaft erscheint. Selbstverständlich ist das Wissen immer auch eine innere mentale Repräsentation (Quadrant I), ein soziales Vermögen (Quadrant III) sowie ein systemische Ressource (Quadrant IV) (vgl. auch Romhardt 2002). Ähnliches gilt für die Kompetenzen, die es auch in den anderen Sphären gibt. Hier sind damit die im Handeln und Verhalten sichtbaren Äußerungen von Individuen gemeint.

Lernen oder eine gemeinschaftliche Lernkultur, während der Quadrant IV sich auf ein „inter-objektives“ Lernen bezieht, welches Funktionen im äußeren Systemzusammenhang umfasst.

Wie bereits erwähnt, können den vier Bereichen verschiedenen Personalpronomen zugeordnet werden:.

- Die individuell-innerliche Sphäre (Quadrant I) korrespondiert mit dem lernenden „Ich“
- Die individuell-äußere Sphäre (Quadrant II) entspricht dem Lernqualitäten eines „Es“ (engl. It) und „Mein.“
- Die sozial-innerliche Sphäre (Quadrant III) meint das lernende „Wir.“
- Die kollektiv-äusserliche Sphäre (Quadrant IV) steht für Lerndimensionen eines systemischen „ES“ (engl. „Its“) und „Unser.“

Entsprechend gibt es eine jeweilige „Ich-Sprache“ und eine „Wir-Sprache,” die methodischen nach einem „Verstehen“ bzw. Interpretieren fragt (was bedeutet es für mich/für uns?) sowie eine „Es- oder Objekt-Sprache,” die nach einem Erklären und Kausalitäten fragt

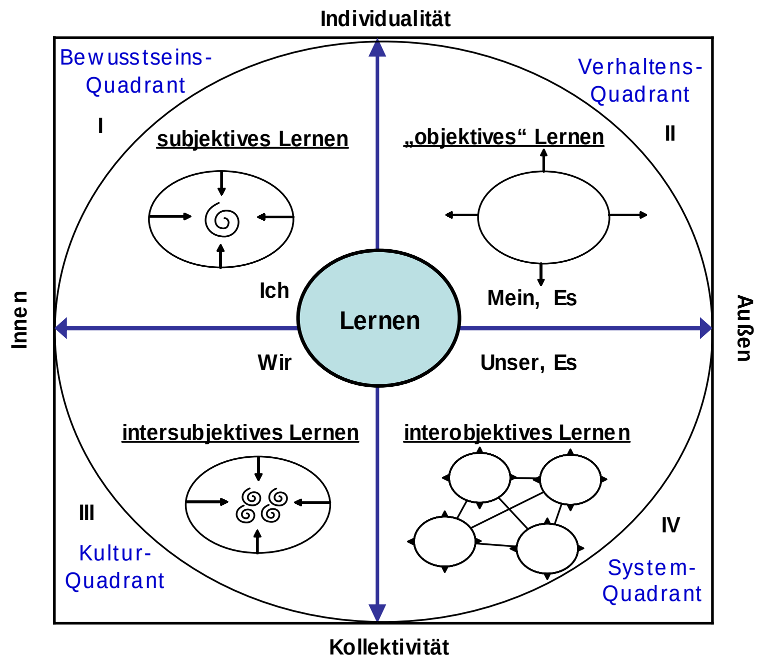
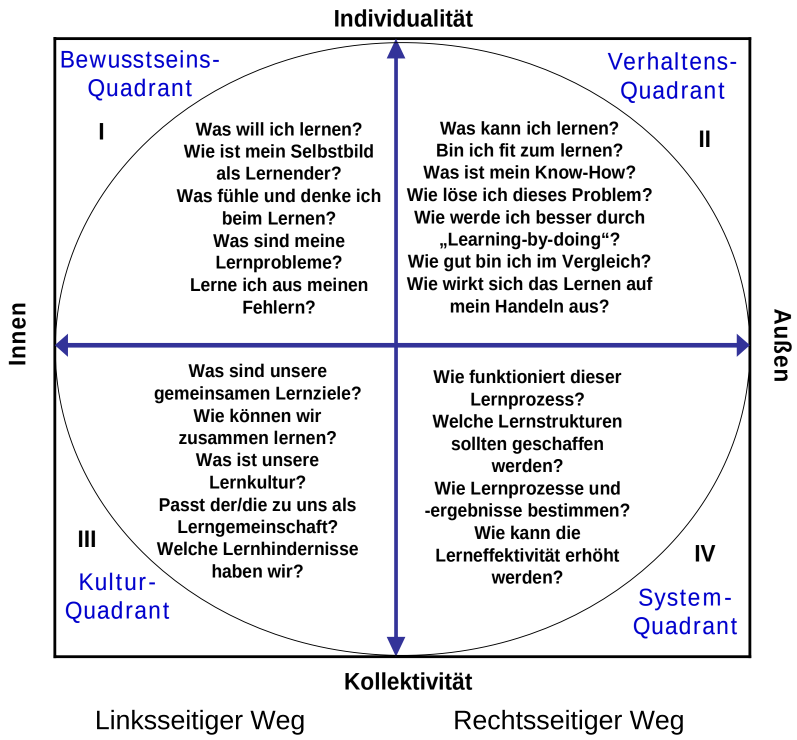

Individualität
Bewusstseins-Quadrant
I
subjektives Lernen
Verhaltens-Quadrant
II
„objektives“ Lernen
Ich
Lernen
Mein, Es
Wir
Unser, Es
Innen
Außen
intersubjektives Lernen
interobjektives Lernen
III
Kultur-Quadrant
IV
System-Quadrant
Kollektivität

Abb. 3: Die Lernsphären im integralen Quadrantenmodell.


Individualität
Bewusstseins-Quadrant
I
Verhaltens-Quadrant
II
Innen
Außen
III
Kultur-Quadrant
IV
System-Quadrant
Kollektivität
Linksseitiger Weg
Rechtsseitiger Weg

Was will ich lernen?
Wie ist mein Selbstbild als Lernender?
Was fühle und denke ich beim Lernen?
Was sind meine Lernprobleme?
Lerne ich aus meinen Fehlern?

Was kann ich lernen?
Bin ich fit zum lernen?
Was ist mein Know-How?
Wie löse ich dieses Problem?
Wie werde ich besser durch „Learning-by-doing“?
Wie gut bin ich im Vergleich?
Wie wirkt sich das Lernen auf mein Handeln aus?

Was sind unsere gemeinsamen Lernziele?
Wie können wir zusammen lernen?
Was ist unsere Lernkultur?
Passt der/die zu uns als Lerngemeinschaft?
Welche Lernhindernisse haben wir?

Wie funktioniert dieser Lernprozess?
Welche Lernstrukturen sollten geschaffen werden?
Wie Lernprozesse und -ergebnisse bestimmen?
Wie kann die Lerneffektivität erhöht werden?

Abb. 4: Typische Fragen innerhalb des Vier-Sphärenmodells angewandt auf das Lernen in und von Organisationen.

(was tut es, wie funktioniert es?) (vgl. Wilber 2001, S. 187). Gemäß diesen verschiedenen Sprachen stellen sich für jeden Bereich typische Fragen, hier beispielhaft angewandt auf das Lernen in und von Organisationen:

Methodisch betrachtet, geht der linksseitige Weg mit seiner Orientierung auf der individuellen Seite eher dialogisch-interpretativ, hermeneutisch und bewusstseinserforschend vor. Demgegenüber folgt die rechtsseitige Ausrichtung eher einem monologisch-erklärenden, empirischen, positivistischen und formorientierten Ansatz.

Entwicklungsebenen und –linien des Lernens

Mit einem holonischen Verständnis eines integralen Lernens können zudem die zuvor erwähnten verschiedene Entwicklungsebenen und -linien berücksichtigt werden. In allen Lernbereichen gibt es demnach verschiedene Niveaus von *Bewusstheitsebenen* z.B. materielle, körperliche, seelische, geistige Stufen des Lernens. Auch sind verschiedene *Entwicklungslinien* des Lernens zu unterscheiden. Diese zeigen verschiedene Medien oder Bereiche der Entwicklung des Lernens, z.B. moralische, kognitive, emotionale oder ästhetische Dimensionen sowohl des Einzelnen wie des Kollektivs. Grundlegend kann analog zu den verschiedenen individuellen Entwicklungslinien auch eine Binnendifferenzierung von organisationsspezifischen Bewusstheitsstufen und Entwicklungslinien des Lernens angenommen werden. Genauso wie individuelle Entwicklungslinien können sich auch organisationalen Linien der Entwicklung im Innen und Außen sich gegenseitig verstärken oder blockieren. Auch hier gibt es also unterschiedliche Entwicklungsniveaus und -geschwindigkeiten der verschiedenen Bereiche. Mit den unterschiedlichen Bewusstheitsebenen und Entwicklungslinien ist ein „*Lernholon*“ auf eine agentische, also handlungsorientierte Identität des Einzelnen und eine kommunale Identität des Kollektivs wie auch auf eine subjektive Identität und eine objektiven Identität ausgerichtet. Folgende Abbildung zeigt diese Ebenen und Linien eines solchen „Lernholons“ im graphischen Zusammenhang.

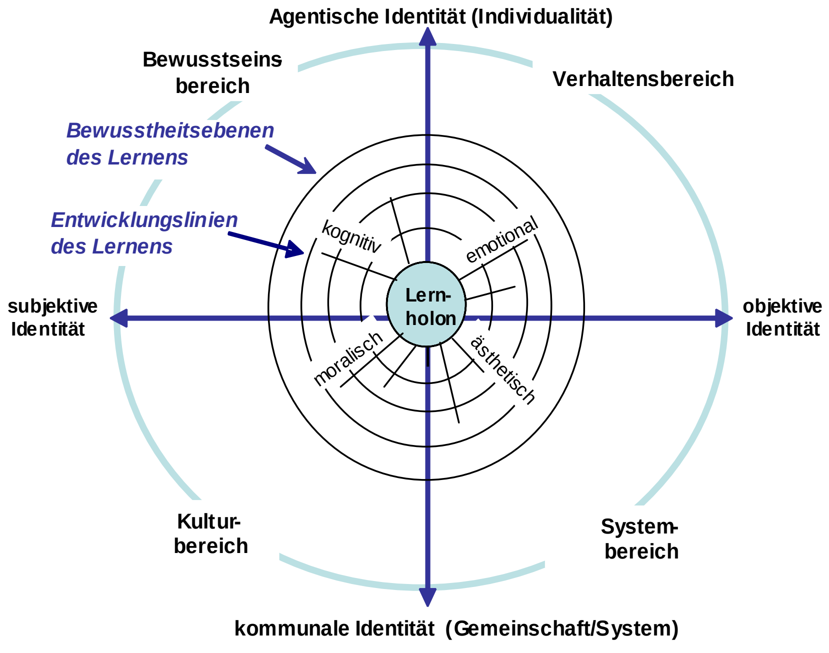

Agentische Identität (Individualität)
Bewusstseins bereich
Verhaltensbereich
Bewusstheitsebenen des Lernens
Entwicklungslinien des Lernens
kognitiv
emotional
Lern-holon
moralisch
ästhetisch
subjektive Identität
objektive Identität
Kultur-bereich
System-bereich
kommunale Identität (Gemeinschaft/System)

Abb.5: Bewusstheitsebenen und Entwicklungslinien des Lernens.

Da sich diese Stufen der Bewusstheit und die Linien der Entwicklung in Organisationen je nach Primat und Ausrichtung mit-, gegen- aber auch unabhängig voneinander sowie mit je eigenem Tempo und Dynamik entfalten (vgl. Wilber 2001, S. 58), ist die Gesamtentwicklung des Lernens und der Organisation oft unausgeglichen. Mit der Differenzierung von

Bewusstheitsstufen und Entwicklungslinien werden zudem einseitige Orientierungen herkömmlicher Lernansätze erkennbar und überwindbar.

Reduktionismen beim herkömmlichen Lernverständnis

Wie bereits erwähnt, beeinflussen und durchdringen sich die verschiedenen Bereiche des Lernens in ihrer realen Konkretion wechsel- und auch gegenseitig. Zwischen allen Quadranten bzw. Lernsphären gibt es damit vielfältige Verflechtungen. Eine isolierte Betrachtung einzelner Bereiche bleibt unzureichend da die vier Bereiche immer in einem ganzheitlichen Zusammenhang unter Beachtung ihrer Interdependenzen zu sehen sind. Dies macht auch eine kritische Betrachtung herkömmlicher lerntheoretischer Ansätze deutlich, welche verschiedene Arten von Reduktionismen zeigen, die sich einseitig nur auf bestimmte Quadranten, Ebenen oder Linien fokussieren.

Während kognitivistische Ansätze Lernen als internen Informationsverarbeitungs- und Repräsentationsprozess von Erfahrungen des Einzelnen (Quadrant I) verorten, der zu einer Veränderung von Kognitionen (z.B. Präferenzen, Annahmen, Urteile) führt, sehen behavioristische Ansätze Lernen im Zusammenhang eines bloß äußeren Reiz-Reaktionsmechanismus der über Konditionieren das Verhalten beeinflusst werden kann (Quadrant II). Beim Konstruktivismus gibt es verschiedene Spielarten die sich jeweils auf verschiedene Sphären beziehen. Nach dem radikalen Konstruktivismus bilden lernende Subjekte die Wirklichkeit nicht einfach ab, sondern erzeugen sie selbst. Das Lernen ist demnach informationell geschlossen, d.h. Information werden nicht von Außen (Umwelt) aufgenommen, sondern selbst vom Subjekt (Quadrant I) auf der Grundlage seiner neuronalen Ausstattung (Quadrant II) erstellt. Lernen wird so zu einem aktiv-konstruktiven, selbstgesteuerten Prozess. Demgegenüber gehen Sozialkonstruktivisten von der Annahme aus, dass Lernen sich als (Interpretations-)Produkt einer Gemeinschaft (Quadrant III) ergibt, deren Mitglieder bestimmte Werte, Denktraditionen bzw. Interpretationspraktiken oder Arbeitsweisen miteinander teilen. Demnach bringen soziale Konstruktionen (z. B. Vorstellungen, Vorurteile, Urteile, Meinungen aller Art) wirklichkeitsschaffende Erkenntnisse und das Lernen hervor, d.h. Wirklichkeit wird hergestellt, indem auf eine bestimmte Art und Weise über sie gesprochen wird und dabei vielfältige Beziehungen koordiniert werden. Nach der neueren Systemtheorie ist Lernen als eine funktionale Systemleistung zu beobachten, die über eine wirklichkeitsschaffende leitdifferenzfolgende Unterscheidungs- und Kommunikationspraxis von sozialen Systemen stattfindet (Quadrant IV).

Mit den erwähnten Ausrichtungen wird die Gefahr verschiedener Reduktionismen deutlich. Ein *Kognitionsreduktionismus* ignoriert oder unterschätzt den äusseren Handlungsbereich (II) ebenso wie die wichtigen sozialen (III) und systemischen (IV) Einbettungen und Vollzüge des Lernens. Demgegenüber blendet ein behavioristischer *Verhaltensreduktionismus* die Innendimensionen des Einzelnen (I) und des Kollektivs (III) aus. Damit sind die wichtigen Fragen nach der Rolle des Bewusstseins, der Intentionalität sowie der Bedeutung und der Werte ausgeschlossen (vgl. Wilber 2001, S. 170, 178). Auch eine einseitige Ausrichtung auf neuronale Prozesse als der materiellen Basis des Lernholons (*materialistischer Reduktionismus*) isoliert das Lernen und dekontextualisiert es z. B. von der sozialen Lernkultur (III). Werden andererseits alle Holons des Inneren (I + III) auf die äußere untere Seite reduziert (*Funktionsreduktionismus*) wie bei der Systemtheorie oder in Technologieansätzen des Lernens, kommt es zu einer monologischen Vereinseitigung. Diese lassen mit ihrem reinen Beobachtungsstandpunkt und objektivierenden Beschreibung des Lernens als Funktion keinen Platz mehr für das Subjekt (I) und die Gemeinschaft (III) mit deren spezifischen Innenwelten.(vgl. Wilber 2001, S. 174).

Mit dem integralen Ansatz kann der einseitige Fokus der meisten Ansätze des organisationalen Lernens auf kognitiv-rationale oder funktional-systemische Vorgänge überwunden werden. Denn aus integraler Sicht ist Lernen immer auch ein psychodynamischer und emotionaler Erfahrungsprozess (vgl. Scherer/Tran 2001, Küpers/Weilber 2005). Daher müssen innere Dimensionen (Quadrant I) mit in ihrem Einfluss auf das Handeln und Verhalten (Quadrant II) immer im Zusammenhang mit den kollektiven Bereich (Quadranten III + IV) betrachtet werden. Beispielsweise tragen Emotionen nicht nur jede sprachliche Kommunikation und Interaktion, sondern sind auch Bedingung für jede zwischenmenschliche Kooperation (vgl. Maturana 1994, S. 30f.; Ciompi 1997, S. 250, 310f.). Denn ohne eine durch ”absichtliches oder intuitives emotionales Einstimmen” hergestellte gemeinsame Basis bleibt eine kognitive Mitteilung ”praktisch wirkungslos” (Ciompi 1997, S. 311). Zudem spielen Emotionen auch für das Lernen eine wichtige, energetisierende (z. B. Interesse, freudige Antizipation, Stolz auf Lernleistungen) oder lähmende (z. B. Angst, Stress, Ärger) Rolle. Auch hängt die Wirksamkeit des Lernens von der emotionalen Dynamik, die sich in Interaktionsprozessen entfaltet sowie von der Entwicklung und Praxis emotionaler Kompetenzen (vgl. Salovey/Mayer 1990; Goleman 1997, 1998) ab.

Im Weiteren werden die einzelnen Sphären besprochen und anschließend im Zusammenhang betrachtet. Zunächst werden die beiden Innen- und dann die beiden Außendimensionen kurz beschrieben. Wobei als Grundmuster das Innen als Bewusstsein und Tiefe, das Außen der Dinge als Form und Oberfläche bestimmt werden kann (vgl. Wilber 2001, S. 148).

Die einzelnen Quadranten bzw. Sphären des Lernens

Sphäre I : Inneres Lernen des Einzelnen (individuell-innerlich)

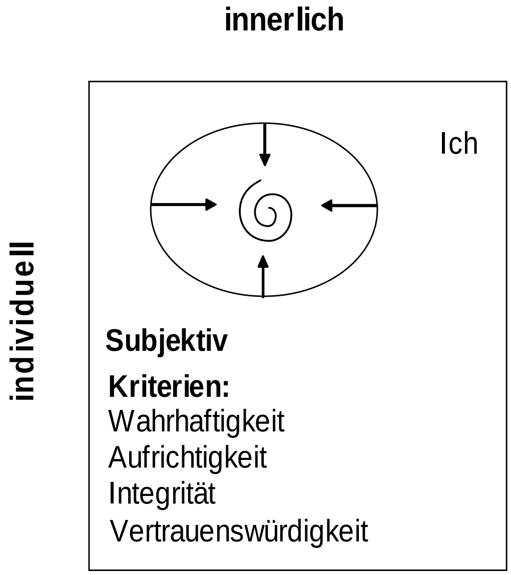


Abb. 6: Kriterien der Sphäre des Inneren Lernens (individuell-innerlich).

Inhalt und Zugang

In dieser Sphäre wird Lernen als Erfahrung eines intentionalen Subjekts („Ich“) verstanden. Diese Sphäre eines inneren Lernens umfasst sowohl Körperempfindungen, Gefühle wie auch Gedanken des Einzelnen als subjektiver Erfahrungsbereich. Inhaltlich kommen hier also die persönlichen (Lern-)Bereitschaften und Einstellungen und grundlegenden Werthaltungen sowie Lebenserfahrungen zusammen. Ein Zugang zu diesen Bereich kann durch bewusstes Selbsterleben und Selbstbetrachtung (Introspektion) gewonnen werden. Die hier notwendige Selbstuntersuchung kann durch Erkenntnisse der Phänomenologie, Methoden der Psychologie und Praktiken der Kontemplation bzw. Meditation unterstützt werden. Die zu diesem Bereich ko-respondierenden spezifischen Gültigkeitskriterien zur Überprüfung von Aussagen sind: Wahrhaftigkeit, Aufrichtigkeit, Integrität, Vertrauenswürdigkeit.

Lernen in und durch das Handeln („learning by doing“) stellt einen zentralen Lernprozess des Menschen dar. Analog zu der von Romhardt (2002, S. 59) beschriebenen Sphäre des „inneren Wissens“ macht dieser Bereich eines „inneren Lernens“ deutlich, dass wir uns als Menschen tief leiblich und emotional wahrnehmen und kognitiv verstehen müssen, um in wahrhaftiger Art und Weise nach Außen wirken zu können. Zur Praxis eines aufrichtigen und integeren wie vertrauenswürdigen Seins müssen Innen und Außen sinnvoll korrespondieren. Mit anderen Worten: Ohne ein reifes inneres Lernen kann kein wirkungsvoller äußerer Lern- und Gestaltungsprozess in Organisationen gewonnen werden. Damit stellt dieser Bereich eine wesentliche Grundvoraussetzung für das Lernen in und von Organisationen dar, wobei dabei auch Gefahren und Probleme einer einseitig individuums-zentrierten Ausrichtung zu beachten sind.

Beispiele von Gefahren und Problemen in diesem Bereich:

- Unterdrückung körperlicher Empfindungen (z. B. Stressbelastungen, Schmerz) und Verdrängung von Gefühlen (z. B. Angst, Aggressivität).
- solipsistische Selektivität kognitiver Inhalte und Prozesse (z. B. bestimmte Denkmuster, Rationalisierung von Motivation).
- Schwierigkeiten die innere Wahrhaftigkeit, Aufrichtigkeit und Integrität im (ökonisch-lebensweltlichen) Außen und Kollektiv zu leben, was u.a. zu emotionalen und kogntiven Dissonanzen führen kann (vgl. Küpers 2006).
- Egozentrische Ausrichtung des Lernens verkennt gemeinschaftliche und systemische sowie „weltzentrische“ Dimensionen und Perspektiven.

Sphäre II: Objektiviertes Lernen des Einzelnen (individuell-äußerlich)

Inhalt und Zugang

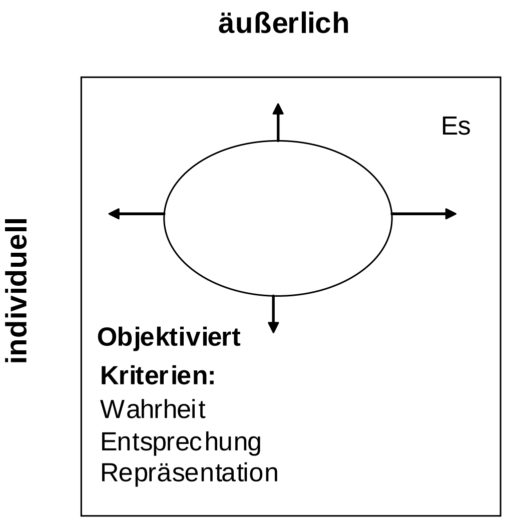


Abb. 7: Kriterien der Sphäre des objektivierten Außenlernens.

Dieser Bereich umfasst materielle, objektivierbare Vergegenständlichungen (vgl. Wenger 1998, S. 52) und organische-neurologische, also körperliche Grundlagen sowie äußere Standards für das Lernen des Einzelnen. Es beinhaltet die objektivierten Äußerungen des Einzelnen in Form von sich im Handeln manifestierenden und im Verhalten wirksam werdenden oder in ihren Folgen sichtbaren Kompetenzen und Motivations- und Entscheidungspraktiken. Ein Zugang zu diesem Bereich wird über erfahrungswissenschaftliche Methoden des Empirismus insbesondere der Verhaltenswissenschaften sowie Verfahren und Erkenntnisse der Neurowissenschaften gewonnen. Der Einzelne entwickelt in Auseinandersetzung mit den äußeren Bezügen Konstrukte, die Voraussetzung zum Urteilen in

Differenzierungen z. B. richtig/falsch, gut/schlecht oder wahr/unwahr sind. Damit können äußere Lernzustände und –prozesse beschrieben sowie deren Nützlichkeit bzw. Effektivität bewertet werden. Die Überprüfung äußere Zustände können dabei nach Kriterien bzw. Ansprüchen auf „Wahrheit," Entsprechung und Repräsentation erfolgen.

In dieser Sphäre geht es in Hinblick auf das Lernen insbesondere um eine Entwicklung und Verständigung über „objektiv" im Verhalten sich äusserenden Wissen, Vermögen und Kompetenzen. Darin wird das Lernen äußerlich praktisch und wirksam und vermittelt den ökonomisch relevanten Bezug zur Performanz und Leistungsprozessen. Zu der Aus- und Weiterbildung, Pflege und Entwicklung von verschiedenen Kenntnissen und Fähigkeiten, kommt auch der Aufbau einer methodischen Lernfähigkeit i. S. eines „lernenden Lernen," auf das noch im Rahmen integraler Lernformen zurückzukommen sein wird.

Die Problematik dieses Bereichs liegt beispielhaft darin:

- dass der äußerer Zustand im Organisationskontext nur nach ökonomischen Messgrößen, wie Nützlichkeit, Produktivität, Leistungseffizienz etc. bewertet wird.
- das Lernen der Agenten in Organisationen nur ökonomisch bestimmten Entsprechungslogiken folgen kann.
- dass die Repräsentation von Wissen und Lernen Kategorien benötigt, die von dem inneren leiblich-emotionalen Lernprozessen entfremden können.
- Einzelhandlungen ohne Verbindung zur Gemeinschaft und Kultur bleiben oft isoliert und nur begrenzt effektiv.
- Aktionismus ohne systemische Einbettung, führt zu fehlenden „Anschlüssen."

Sphäre III: Gemeinschaftliches Lernen / Lernkultur (kollektiv -innerlich)

Als Bereich des Zwischenmenschlichen und der kulturellen Rahmenbedingungen umfasst diese Sphäre die vorherrschenden sowie identitätsbestimmenden Erzählungen, Konventionen, und Regeln für Gruppen und Gemeinschaften. Die tradierten, wandelbaren, zeitspezifischen, auch über Symbole und Artefakte erfahrbaren Wertvorstellungen, Normen und Überzeugungen prägen das Erleben, Denken und Verhalten von Mitarbeitern. Gemeinsame Wahrnehmungen, Bedeutungen, semantische Standorte, kulturelle Praktiken als intersubjektive Muster im Bewusstsein beeinflussen maßgeblich die Lernkultur einer Organisation. Lernen wird dabei zu einer sozialen Leistung in einem gemeinsam geteilten Kontext. Zugang zu diesem Kulturbereich kann über eine verstehensorientierte Einfühlung von Innen und hermeneutischen Rekonstruktion des gemeinsam geteilten Kulturraums gewonnen werden.

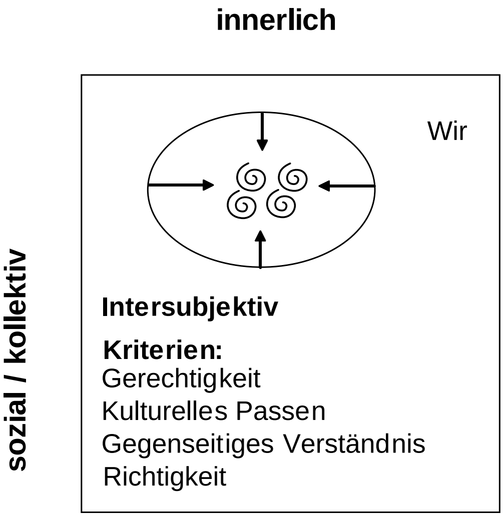


Abb. 8: Kriterien innerhalb der Sphäre der Lernkultur (sozial-innerlich).

Auf der Basis eines gegenseitigen Verständnisses darüber, was als „richtig" und „gerecht" gilt, organisieren die Mitglieder einer Kultur ihr Zusammenleben. Angepasstes

Verhalten wird dabei oft belohnt, während Abweichungen ggfl. sanktioniert werden. Die leitenden Überprüfungskriterien dieses Bereichs sind dabei Gerechtigkeit, kulturelleres Passen, Gegenseitiges Verständnis sowie Richtigkeit.

Eine gemeinsame (Lern-)Kultur ist eine grundlegende Voraussetzung für die Entwicklung einer integralen Lernpraxis in Organisationen. Ist sie nur eingeschränkt vorhanden oder von lernbehindernd gestaltet, kann sich ein integrales Lernen nur sehr begrenzt entwickeln. Nur auf dieser kollektiven (Lern-)Basis können ein organisationsweites Lernen und damit die Entwicklungsfähigkeit einer Organisation entstehen. Diese Sphäre ist auch der Entstehungs- und Gestaltungsort für lebendige *Lerngemeinschaften*. Diese Gemeinschaften des Lernens sind als Formen integraler Lernpraxis in besonderer Weise geeignet innovative und integrale Wissens- und Lernprozesse in Organisationen zu fördern (vgl. Brown/Duguid 1991; Küpers 2003; Wenger 1998, Wenger/Snyder 2000; Romhardt 2002). Denn als Keimzellen für die Entwicklung und Verlebendigung einer integralen Lernpraxis werden in ihr die individuellen, kollektiven sowie "harten" und "weichen" Faktoren in einer ganzheitlichen Weise berücksichtigt. Damit stellen Lerngemeinschaften wichtige Medien eines kollektiven und integralen Lernens dar und tragen der Komplexität und Dynamik des lernökologischen Zusammenhangs in besonderer Weise Rechnung. Dabei können sich praktische Lerngemeinschaften i. S. eines „Aufeinanderzulernens" (Wiegand 1996, S. 409) am besten in überschaubare, kleine Gruppen realisieren. Die Entstehung von miteinander geteiltem Gruppenwissen kann jedoch auch zur wissensbezogenen oder abteilungsegoistischen Abgrenzung gegenüber anderen Gruppen oder der Gesamtorganisation führen, was gruppenübergreifende Wissensweitergabe und organisationsweite Lernprozesse erschwert.

Die Problematik dieses Bereichs liegt darin:

- „Kultur" als „weicher" und zugleich tief verwurzelten Bereich und fragliche instrumentalisierbare Gestaltungsvariable für ein sozio-technokratisches Management ist nur begrenzt steuer- bzw. wandelbar, bzw. erfordert eine hohen Planungs-, Überzeugungs-, Kommunikations- und Kontrollaufwand.
- kulturelle Werte sind nicht als etwas beliebig Verfügbares und lassen sich nur begrenzt und allenfalls mittelfristig verändern.
- Gerechtigkeit, gegenseitiges Verständnis und Richtigkeit sind anspruchsvolle Kriterien die intersubjektiv immer neu zu verhandeln und zu bestimmen sind.
- Kulturelles Passen kann nicht ohne systemische Passungen gewonnen warden.
- Gruppendynamik und Group-think kann lernbehindernd sein.

Sphäre IV: Lernen im System (kollektiv-äußerlich)

Dieser kollektiv äußerliche Bereich enthält interobjektiven Strukturen, Funktionen und Prozesse des Kollektivs bzw. Systems. Der Zugang erfolgt methodisch-konzeptionell über eine Beobachtungsperspektive, mit der das Verhalten, Funktionen, Leistungen und Wirkungen sozialer Entitäten und deren (Lern-)Relationen erfasst werden. In diesem Systembereich geht es entsprechend um strukturelle Passung von Kommunikations- und Organisationsstrukturen und -prozesse sowie eine Sicherung der Funktionalität von Gruppen oder ganzen Organisationen.

Der Bezug zum Lernen ist hier insbesondere durch die technologische Infrastruktur, Ressourcen Zertifizierungen sowie weitere systemischen Zusammenhänge für das Lernen von und in Organisationen gegeben. Werden Organisationen als lernende „Entitäten" verstanden, kommt gerade diesem überpersonalen Bereich eine wichtige Bedeutung zu. Die

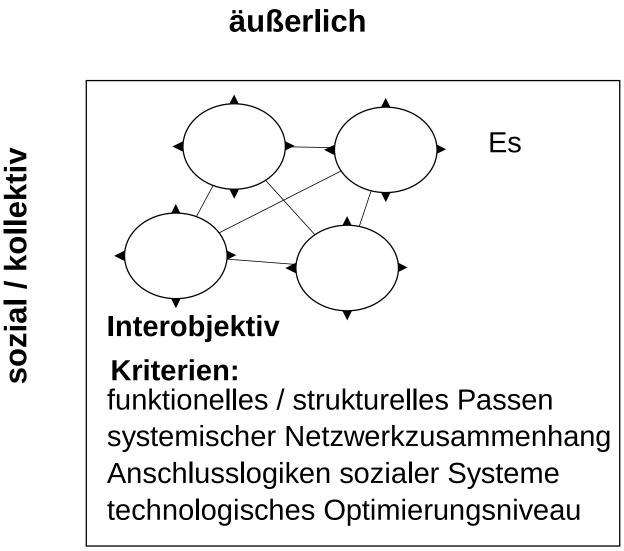

äußerlich
sozial / kollektiv
Es
Interobjektiv
Kriterien:
funktionelles / strukturelles Passen
systemischer Netzwerkzusammenhang
Anschlusslogiken sozialer Systeme
technologisches Optimierungsniveau

Abb. 9: Kriterien innerhalb der Sphäre des Struktur- und Systemlernens (sozial-äusserlich).

Gültigkeitskriterien sind hier neben dem funktionalen bzw. strukturellen Passen ausgerichtet auf systemische Netzwerkzusammenhang, Anschlusslogiken sozialer Systeme und ein technologisches Optimierungsniveau.

Organisationen und ein Lernen in und von ihnen sind ohne funktionale Strukturen bzw. Prozesse sowie grundlegende systemische Bedingungen nicht denkbar. Allerdings dominiert die Orientierung auf diesen Bereich häufig die Wirtschaftspraxis. So basieren viele Investitionen und der Einsatz von Instrumenten und Technologien auf dieses äußerliche Funktionssystem. Durch eine damit einhergehende Vernachlässigung der anderen Bereiche kann es zu einer Veräußerlichung des Lernens ohne individuelle und soziokulturelle Tiefe oder einer „Alles-und-jedes Ganzheitlichkeit“ (Flachlandholismus) kommen. Damit können sich Potenziale eines integralen und lebendigen Lernens des Einzelnen wie von Lerngemeinschaften nicht entfalten.

Die Problematik dieser Sphäre liegt in folgenden Gefahren:

- Entindividualisierung, Objektivierung und Entfremdung des Lernens Einzelner und Gemeinschaften.
- Instrumentelle Funktionalisierung bzw. Entwertung von subjektiven (Lern-)Erfahrungen.
- Fehlender Kulturbezug zum Lernen in Gemeinschaft.
- Fixierung auf Technologien und äußere Ressourcen.

Interrelationaler Zusammenhang der Sphären

Wie schon zuvor beschrieben, sind die vier (Lern-)Sphären bzw. Quadranten nicht getrennt voneinander zu sehen. Sie haben vielmehr vielfältige Wechselbeziehungen zueinander. Alle vier Bereiche des Lernens mit all ihren „Wirklichkeiten“ bzw. Perspektiven entwickeln sich immer im Zusammenhang. Ein integraler Ansatz berücksichtigt diese komplexen Wechselzusammenhang und reich strukturierten Interrelationen (vgl. Wilber 2000a, S. 66). Keine einzelne Sphäre lässt sich auf eine andere reduzieren (vgl. Wilber 2001, S. 164).Zwischen Außen und Innen sowie Individuellem und Kollektiven bestehen somit enge Korrelationen und eine lebendige Wechselwirksamkeit. Nur wenn alle Felder gleichermassen und gleichwertig berücksichtigt werden, können Organisationen und ihre Mitglieder zu einem integralen und damit nachhaltigen Lernen kommen. Gerade zur Lösung von Aufgaben und Problemen im Organisationsalltag sind sowohl die inneren wie äußeren Dimensionen des Lernen Einzelner notwendig. Zudem müssen sowohl eine innere Lernkultur bzw. -gemeinschaft sowie äußere, funktionale Lernstrukturen bzw. -systeme zusammen geschaffen, angeboten, koordiniert und weiterentwickelt werden. Folgende Abbildung zeigt die Wechselbeziehungen zwischen den vier Lernsphären und ihren Welten im Zusammenhang.

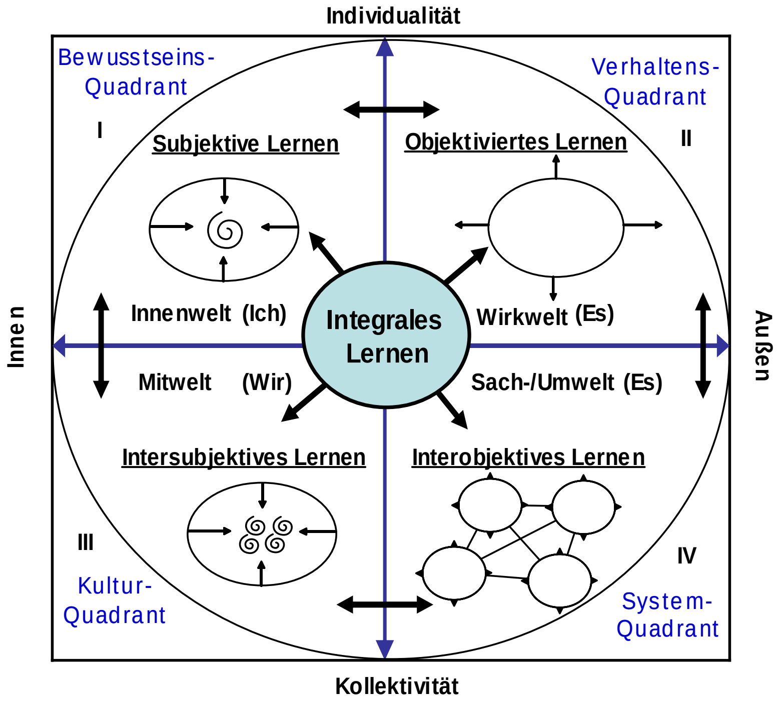

Individualität
Bewusstseins-Quadrant
Verhaltens-Quadrant
I
II
Subjektive Lernen
Objektiviertes Lernen
Innen
Außen
Innenwelt (Ich)
Wirkwelt (Es)
Integrales Lernen
Mitwelt (Wir)
Sach-/Umwelt (Es)
Intersubjektives Lernen
Interobjektives Lernen
III
IV
Kultur-Quadrant
System-Quadrant
Kollektivität

Abb.: 10 Wechselbeziehungen zwischen den vier Lernsphären

Diese Wechselrelationen werden zudem durch integrative Dynamiken und Wachstumsdynamiken Entwicklungsstufen und -linien und einen übergreifenden “*integralen Zyklus*“ (vgl. Edwards, 2005; Cacioppe & Edwards, 2005a,b) energetisiert und koordiniert.

Als ein holonistischer Prozess, ereignet sich Lernen in und von Organisationen somit als innerer und äußerer, individueller und kollektiver Zusammenhang, der die verschieden Quadranten sowie der Entwicklungsstufen und -linien in einem dynamischen Gesamtzyklus umfasst. Werden jedoch einzelne (Lern-)Sphären nicht hinreichend beachtet, kommt es zu Ungleichgewichten und Pathologien.

Konkrete Beispiele wären:

- Introspektions- und Reflexionsvermögen ohne hinreichende soziale Kompetenzen oder Kommunikationsfähigkeiten.
- Ausgeprägte kognitive (Lern-)Fähigkeiten ohne Beachtung ihrer Grenzen oder emotionaler Aspekte bzw. Kompetenzen (emotionale Intelligenz).
- Gruppen mit guter Lernkultur ohne Weitergabe oder funktionalen Anschluss an Gesamtorganisation.
- Informations- und kommunikationstechnologische Unterstützung von Lernprozessen (z. B. Computer Based Training), die von ihren Anwendern abgelehnt warden.

Eine parallele Betrachtung und gleichwertige Berücksichtigung der Themen, Potenziale und Probleme in allen genannten Sphären ist eine wesentliche Voraussetzung für eine differenzsensible integrale Entwicklung und Lernpraxis, die erst ein gelingendes innerliches und äußerliches Wachstum von Organisationen und ihren Mitarbeitern ermöglicht.

Mit dem integralen Modell können so verschiedene spezifische Qualitäten für lernende Organisationen eingeordnet werden (vgl. auch Pedler/Burgoyne/Boydell 1991, S. 127):

- Lernen aus eigenen Reflexionen und Erfahrungen (Quadrant I).
- Entwicklung von Lernfähigkeiten bzw. probierendes „Learning by doing“ (Quadrant II).
- Aufbau einer Lernkultur und gemeinschaftliches Lernen von und mit anderen (Quadrant III).

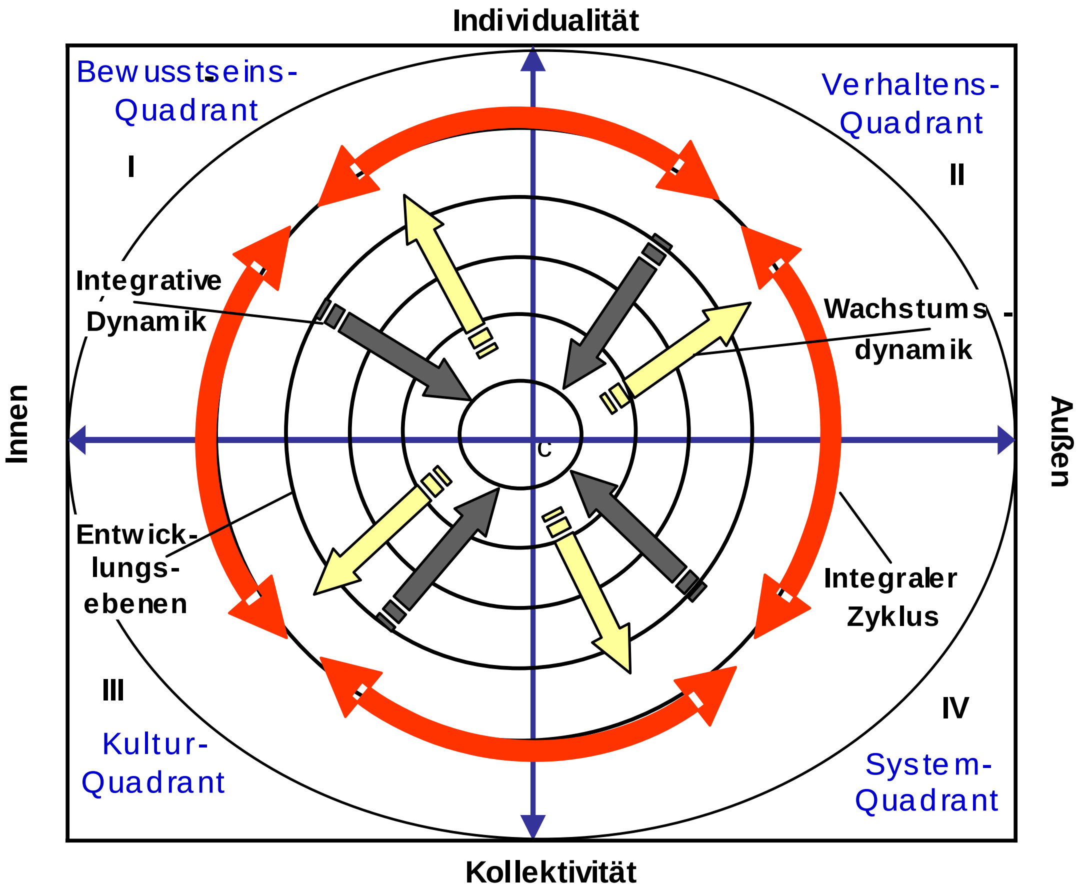

Individualität
Bewusstseins-Quadrant
I
Verhaltens-Quadrant
II
Integrative Dynamik
Wachstums-dynamik
Innen
Außen
C
Entwicklungs-ebenen
Integraler Zyklus
III
Kultur-Quadrant
IV
System-Quadrant
Kollektivität

Abb. 11.: Integraler Zyklus, Wachstums- und Integrationsdynamiken des Lernholons (vgl. Edwards, 2005)

- rasches und effektives Übertragen bzw. Vermittlung von Wissen und Lernerkenntnissen in der Organisation als Gemeinschaft und System (Quadrant III, IV).
- Unterstützung des Lernens durch moderne Informations- und Kommunikationstechnologien (Quadrant IV).

Individuelles und kollektives Lernen im integralen Zusammenhang

Mit einem integralen Verständnis wird auch die wichtige Klärung der Lernträger und -ebenen in Organisationen gewonnen, der Frage also, wer in Organisationen auf welchen Ebenen lernt?

Einerseits vollzieht sich das Lernen als ein Geschehen von Einzelnen. Probst und Büchel (1998, S. 20) definieren individuelles Lernen als: „Veränderung im Verhalten oder im Verhaltenspotenzial ... hinsichtlich einer bestimmten Situation, die auf wiederholte Erfahrungen ... in dieser Situation zurückgeht, vorausgesetzt, dass diese Verhaltensveränderung nicht auf angeborene Reaktionstendenzen, Reifung oder vorübergehende Zustände zurückgeführt werden kann“. Sie sehen dabei diesen Lernbegriff als Funktion von folgenden verschiedenen Dimensionen: 1. der Erkenntnismöglichkeiten im Sinne von kognitiven Kategorien, 2. der Intelligenz, 3. der Erfahrung im Sinne von sozial vermitteltem Wissen und eingelagerten Fähigkeiten sowie 4. der historisch gewachsenen und situativ unterschiedlichen Bedürfnis- und

Motivlage des Einzelnen. Dazu kommen die Interessen und Werthaltungen einzelner Lernender einer Sache gegenüber sowie der individuell verschieden wahrgenommenen Schwierigkeitsgrade des Lerngegenstandes. Individuell Lernende nehmen Informationen auf, wandeln sie in Wissen bzw. erweitern eigene kognitive Strukturen um, darauf aufbauend, mittel- bis langfristig bessere Handlungsergebnisse zu erreichen. Die durch das Handeln erzielten Resultate geben dem einzelnen Lernenden Auskunft darüber, ob Lernfortschritte tatsächlich gemacht bzw. eine bessere Bewältigung der (Daseins-)Realität möglich geworden ist.

Holonistisch betrachtet, realisiert sich individuelles Lernen also auf bzw. durch alle Quadranten. Es manifestiert sich als Zuwachs an innerem Vermögen (z. B. kognitiver Komplexität), an äußerer Handlungskompetenz, an der ausgefüllten Rolle in einer Gemeinschaft oder am Grad seiner formal-institutionellen Operationalisierung. Ein individuell integral Lernender berücksichtig all diese Perspektiven und „tetra-evolviert“ sich lernend entsprechend.

In Ergänzung zu den genannten individuellen Lernprozessen gibt es jedoch auch Organisationszusammenhänge und Problemarten, die eine kollektive Lernform benötigen. Ein kollektives Lernen dient u. a. zur Lösung von Problemen, die sehr komplex sind, d.h. die nicht mit der individuellen Verarbeitungskapazität und individuellen Wissen allein gelöst werden können. Bei komplexen Problemen gibt es zudem häufig keine Entscheidungskriterien für eine „richtige“ Lösung, da kein bekannter Lösungsweg besteht und die Anzahl der notwendigen Bearbeitungsschritte weitgehend unbekannt ist. Um Komplexität zu bewältigen ist oft auch eine reflexive Veränderung von organisationalen Lerngewohnheiten (z. B. überholte Formen der Informationsbeschaffung, -selektion und -verarbeitung) erforderlich, was ein gemeinschaftliches Lernen erfordert. In solchen Lernzusammenhängen stehen dann nicht individuelle Motive, Bedürfnisse, Erfahrungen oder Werthaltungen bzw. Handlungen und Gemeinschaftsbezüge , sondern übergreifende Orientierungen und Erfahrungsbezüge, sozial verbindliche Entscheidungsverfahren oder eine normative Ordnung (vgl. Probst/Büchel 1998, S. 20) sowie Regeln und Standards (vgl. Kieser/Beck/Tainio 2001) im Vordergrund.

Hinsichtlich der Lernträger wird der organisationale Lernprozess also von Individuen getragen und entwickelt, ist aber auch partiell personen-unabhängig (z. B. über kollektive Wissensbasis oder Praxis- bzw. Lerngemeinschaften) organisiert. Das Lernen in Organisationen ist damit mehr und anderes als die Summe individuellen Lernens, denn er muss öffentlich kommunizierbar, transparent und konsensfähig sein. Zudem kommen auf der systemischen Ebene spezifische apersonale Dimensionen (z. B. die erwähnten äußeren Bedingungen, Strukturen, Ressourcen und Technologien des Lernens) zum Einsatz.

Integral betrachtet sind individuelles und kollektives Lernen mit ihren verschiedenen Sphären vielfältig und holonistisch miteinander verflochten. Damit ist das Lernen des Einzelnen zwar eine notwendige, keineswegs aber eine hinreichende Bedingung für organisationales Lernen. Einerseits ist individuelles Lernen als eine Rekonstruktion und Reorganisation von Erfahrungen immer schon sozial gestaltet (vgl. Elkjaer 1999). Andererseits sind „überindividuelle“ Elemente des organisationalen Lernens mit dem individuellen Handeln und intersubjektiven Wissen zu verbinden (z.B. zur Koordination organisationsinterner Zusammenarbeit, Einsatz von Technologien).

Der Unterschied zwischen individuellem und kollektivem Lernen liegt in der Art der Konstruktion von Wirklichkeit bzw. holonistischen Perspektive mit der geschaut wird. Diese bilden sich einerseits aus den Bedürfnissen, Motiven und Werthaltungen einzelner Organisationsmitglieder (I) und ihres Wissen und Handelns (II); andererseits aus der kollektiv geteilten Praxis mit anderen Organisationsmitgliedern (III) und ihres systemischen Funktionszusammenhangs (IV).

Organisationale Wirklichkeitskonstruktionen, also gemeinschaftliche Verständnisse über Geschehnisse innerhalb und außerhalb der Organisation, entstehen nur dann, wenn die Individuen bereit sind, ihre individuellen Konstruktionen, Perspektiven und deren Wissen und Erfahrungen in kollektive Aushandlungs- und Organisationsprozesse einzubringen und damit sich selbst wie anderen ermöglichen, neue Lernerfahrungen zu machen (vgl. Probst/Büchel 1998). Umgekehrt kann es nur eine lernende Organisation geben, wenn die individuellen und gruppenbezogenen Lernprozesse hinreichend berücksichtigt und integriert werden.

Lernen vollzieht sich somit auf den Lernsphären des Individuums wie – auf einer Mesoebene der Gruppe bzw. Teams (Kasl et al. 1997; Imel 1996) und der Organisation (vgl. Crossan/Lane/White 1999). Während auf der Ebene des Individuums über weitgehend unbewusste Intuition (z.B. über Erfahrungen, Bilder) und bewusste, individuelle Interpretation (z.B. über mentale Modelle) gelernt wird, tritt in Gruppen noch gemeinsames Interpretieren und eine Integration (z.B. über Interaktion, Geschichten) hinzu, die wiederum auf der Organisationsebene durch eine Institutionalisierung (z.B. über Routinen, Regeln) erweitert wird. Folgende Übersicht zeigt die verschiedenen Ebenen im Zusammenhang von Niveaus, Prozessen und Inputs/Outputs.

Niveau	**Prozess**	**InPut/OutPut**
Individuum	Intuition	Erfahrungen Bilder Metaphern
	Interpretation	Sprache kognitive Karten Konversation/Dialog
Gruppe	Integration	geteiltes Verstehen wechselseitige Anpassung interaktive Systeme
Organisation	Institutionalisierung	Routinen diagnostische Systeme Regeln und Prozeduren

Abb. 12: Prozesse und Niveauebenen des Lernens in Organisationen (vgl. Crossan/Lane/White 1999, S. 525).

Zwischen diesen Prozessen kann es zu vielfältigen Vor- und Rückbewegungen von neu zu Lernendem und bereits Gelerntem kommen. Ein entsprechender „feedback/forward-Prozess“ lässt neue Ideen und Handlungen vom Individuum zur Gruppe bis hin zum Organisationsniveau fließen. Gleichzeitig kann Gelerntes von der Organisation zur Gruppen oder Einzelebene zurückwirken („Feedback-Prozess“) und dabei das Denken und Handeln der Personen betreffen. Folgende Abbildung zeigt diese Zusammenhänge mit Bezug auf die genannten Lernprozesse.

Diese dynamischen Beziehungen können allerdings eingeschränkt werden. So kann es beispielsweise schwierig sein, ein Lernen, das auf der Organisationsebene institutionalisiert ist, zu verändern. Auch können bestimmte Lernprozesse auf unterschiedlichen Ebenen irrelevant werden sowie Prozesse des „Feedback“ oder „Feedforward“ behindern.

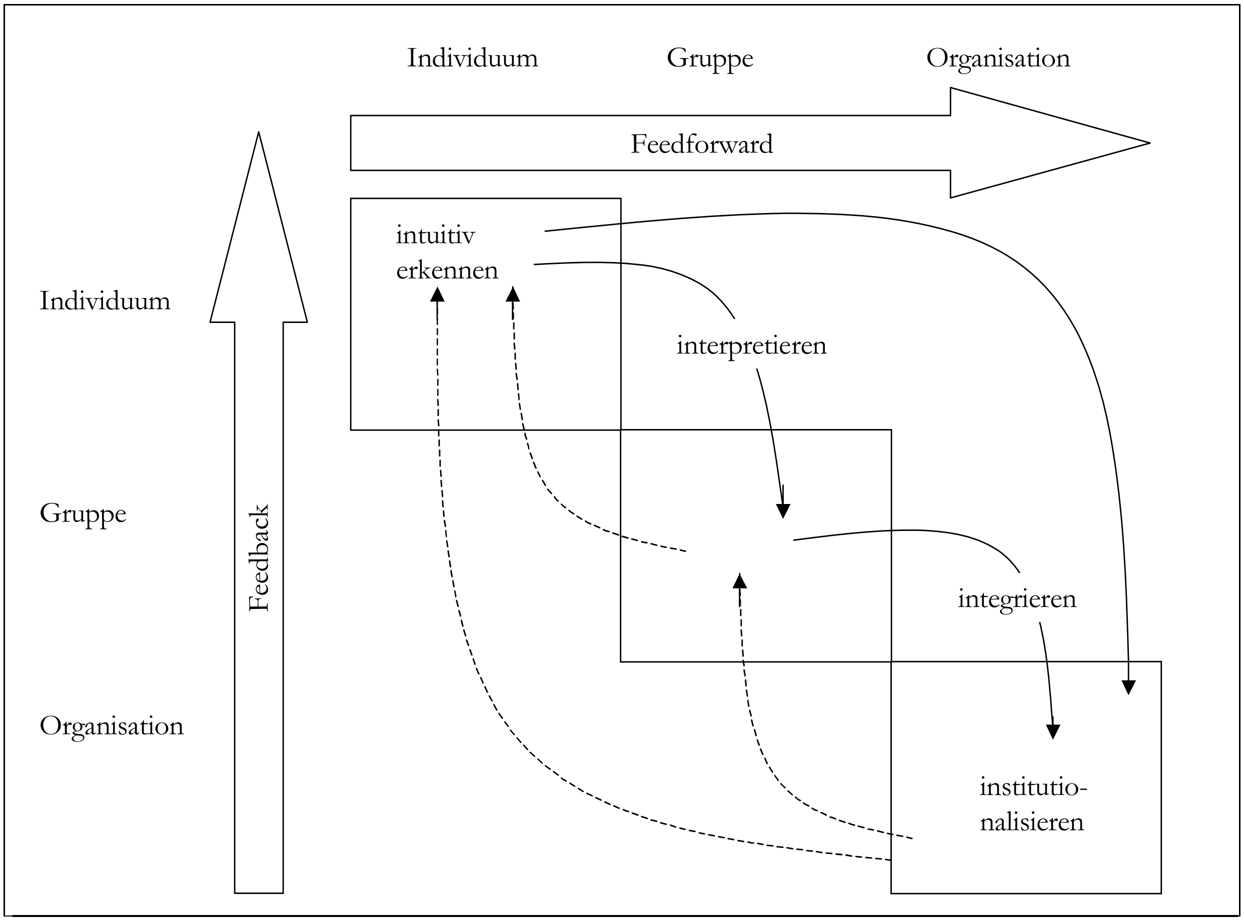


Abb. 13 Organisationales Lernen als dynamischer Prozess (vgl. Crossan et al. 1999, S. 532).

Lernformen und -prozesse

Mit dem zuvor diskutierten Modell kann ein integrales Lernen bestimmt werden, als ein Prozess, bei dem subjektiv-innere und handlungsbezogenen-äussere Dimensionen des Einzelnen verbunden sind bzw. zusammenwirken mit sozio-kulturellen inneren sowie funktional-systemischen äußeren Wirklichkeiten. Nun gilt es dieses Verständnis in Bezug zu bestehenden Lernprozessen zu stellen. Dazu werden zunächst eine einflussreiche Einordnung verschiedener Prozesse des Lernens vorgestellt und dessen höchste Form, die eines reflexiven Meta-Lernen im Verhältnis zu einem transformationalen Lernen und einer Visionslogik diskutiert. Zur Klassifizierung verschiedener Lernzyklen wird von Argyris (vgl. 1976; 1982), in der Nachfolge von Bateson (1972; 1983), zwischen Lernen 1. Ordnung, dem sog. „Einfach-Schleifen-Lernen“ („Single Loop“) und einem Lernen 2. Ordnung. dem sog. „Doppel-Schleifen-Lernen“ („Double Loop“) unterschieden. Dazu tritt, als eine Art Meta-Ebene des Lernens, das sog. „Deutero-Lernen“.

1) *Lernen erster Ordnung („single-loop-learning“)* ist ein Lernen durch Fehlerkorrektur, welches sich innerhalb eines gegebenen Satzes von Regeln bzw. vorhandener Handlungstheorien vollzieht. Es führt zum Wissen, welche Arten von Programmen und Verhaltensweisen in bestimmten Situationen zu welchen Resultaten führen (Anpassungs-

oder Verbesserungslernen). Ein Beispiel wäre ein Qualitätsprüfer, der einen Defekt in einem Produkt entdeckt, diesen den Entwicklern meldet, die dann die Produktspezifikationen ändern, um den Fehler zu beseitigen. Ein single-loop-Lernprozess bleibt damit langfristig auf einem gleichen Entwicklungsniveau. Die Betonung liegt auf “techniques and making techniques more efficient” (Usher/Bryant 1989, S. 87).

2) *Lernen zweiter Ordnung („double-loop-learning“)* zielt statt auf spezifische Aktivitäten oder Verhaltensweisen auf eine fortgesetzte Verbesserung allgemeiner Regeln und Normen, also der verhaltenssteuernden Handlungstheorien selbst. Es impliziert eine Revision von Zielen, Prämissen und Werthaltungen und damit auch Modifikationen oder ein Auswechseln des Bezugsrahmens („reframing“). Dies kann auch mit einem „Verlernen“ überholter Verhaltensregeln oder Muster oder auch Abschaffung etablierter Regeln einhergehen. Als ein „Veränderungslernen“ hat es längerfristig wirksamere Konsequenzen für die Organisation als das bloß anpassungsorientierte Lernen erster Ordnung. Dieses „Veränderungs- oder Neulernen“ kann z. B. dazu führen dass der zuvor beschriebene Qualitätsdefekt nicht nur ausgeglichen, sondern zur Entwicklung einer Zusatzqualität des Produktes oder des Service führt. Oder bezogen auf das Strategiefeld „Markterschließung“ findet ein double-loop-Lernen statt, wenn ein Zulieferunternehmen, das ein innovatives Produkt erfindet, lernt mit eigenen Marketingstrategien zur Vermarktung aufzutreten. Das Doppel-Schleifenlernen ist dann notwendig, wenn Praktiker und die Organisation informierte und reflektierte Entscheidungen für das Design und die Umsetzung von Veränderungsprozessen bzw. zur Überwindung von Ineffizienzen in der Organisation machen wollen.

3) Das *Meta-Lernen („deutero-learning“)* setzt die Kenntnis und Fähigkeit zum Single- und Double-Loop-Learning sowie deren Beeinflussung voraus. Auf dieser Lernebene wird die organisationale Lernfähigkeit selbst zum Gegenstand des Lernprozesses. Dabei wird z. B. der Leitfrage gefolgt: „Ist unser Wissenserwerb und unsere Lernpraxis überhaupt angemessen zur Erreichung unserer Strategien?“. Es fragt also nicht danach, ob „die Dinge richtig getan,” sondern „die richtigen Dingen getan“ werden. Als ein „lernendes Lernen“ analysiert und hinterfragt es die bisherigen Lernvorgänge im Hinblick auf den Lernkontext, das Lernverhalten sowie die Lernerfolge oder -misserfolge (vgl. Bateson 1983, S. 378ff). Mit einem solchen „Verständnislernen“ können lernfördernde bzw. -hemmende Faktoren bestimmt und die Wandlungsfähigkeit sichergestellt werden. Lernen wird somit auch zu einem ständigen Prozess der übereinstimmenden Überprüfung von Organisationsprozessen bzw. -strukturen und äußeren Umfeldeinflüssen. Als höchstentwickelte Form des organisationalen Lernens kann es in einem selbstorganisatorischen Entwicklungsprozess münden, welcher sich rekursiv dieses Lernens bedient.

Folgende Abbildung zeigt die einzelnen Zyklen im Zusammenhang:

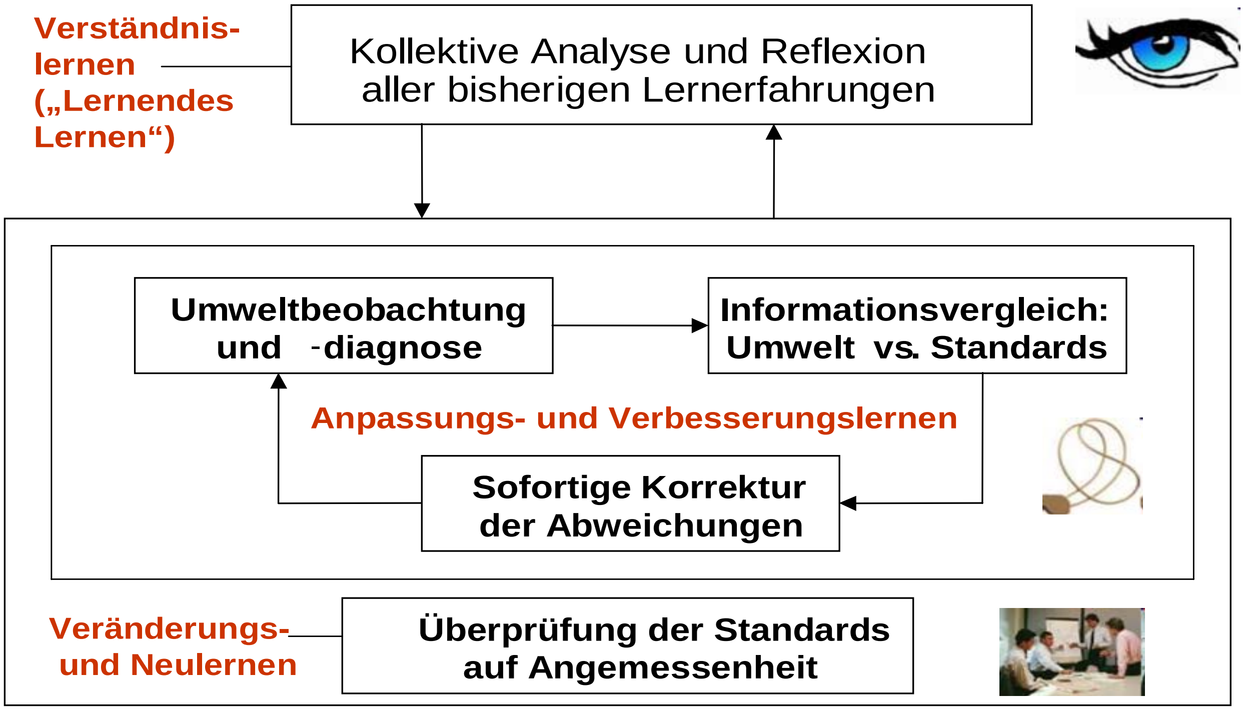

Verständnis-lernen („Lernendes Lernen“)
Kollektive Analyse und Reflexion aller bisherigen Lernerfahrungen
Umweltbeobachtung und -diagnose
Informationsvergleich: Umwelt vs. Standards
Anpassungs- und Verbesserungslernen
Sofortige Korrektur der Abweichungen
Veränderungs- und Neulernen
Überprüfung der Standards auf Angemessenheit

Abb. 14: Lernzyklus (in Anlehnung an Argyris 1994, S. 8).

Mit der Selbstreflexion beim Deutero-Lernen wird ein Wissen über vergangene Fehler und Lernprozesse (z.B. aus dem Verbesserungs- und Veränderungslernen) gesammelt, bearbeitet und kommuniziert. Dieses reflektierende Lernen überwindet reines Anpassungs- oder Veränderungslernen, erhöht das Problemlösungspotenzial der Organisation und führt zu grundlegenden Veränderungen der Handlungs- und Kommunikationsmuster überhaupt.

Erst ein solches reflexives Lernen ermöglicht es einer Organisation, nicht nur lernend fortzuschreiten, sondern sich zielgerichtet und lernbereit zu entwickeln und eine generelle organisationale Lernfähigkeit sowie flexible Gestaltungsformen aufzubauen (vgl. Sonntag 1996, S. 69). Während Single-Loop-Lernen nur auf das Handeln und die Aktionsstrategien bzw. -systeme (Quadrant II + IV) zurückwirkt, erreicht das Double-Loop-Lernen auch verhaltenssteuernde Einflussgrößen, insbesondere auch innerlich individuell und

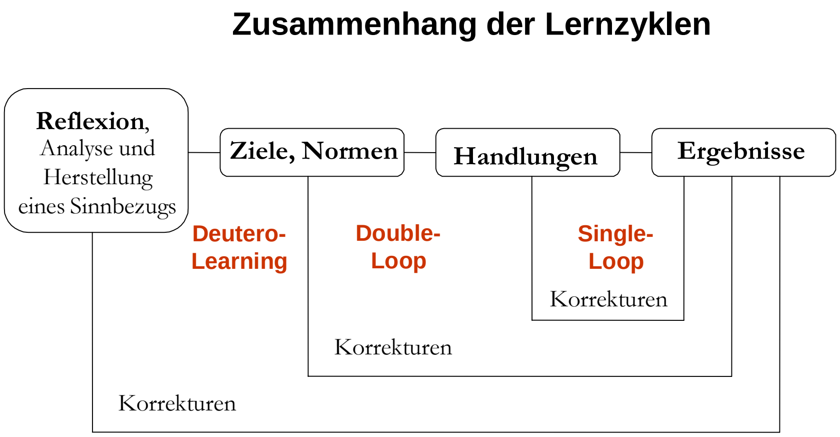

Zusammenhang der Lernzyklen
Reflexion, Analyse und Herstellung eines Sinnbezugs
Ziele, Normen
Handlungen
Ergebnisse
Deutero-Learning
Double-Loop
Single-Loop
Korrekturen
Korrekturen
Korrekturen

Abb. 15: Der Zusammenhang organisationalen Lernens (in Anlehnung an Probst/Büchel 1998, S. 38).

gemeinschaftlich bestimmte Ziele (Qudrant I + III). Doch erst beim Deutero-Lernen als übergreifendes Prozesslernen kommt es zu fundamentaler Reflexion, Analyse und Restrukturierung der leitenden Regeln, Normen sowie des übergreifenden Sinnbezugs selbst, die alle anderen Lernprozesse voraussetzt und inkludiert. Folgende Abbildung zeigt diesen Zusammenhang:

Damit verweist das „lernende Lernen“ (Deutero-Learning) auf eine integrale Lerndimension vertikale Transformation (vgl. Wilber 2001, S. 86). Umfassender als ein translationales Lernen, das eine bestimmte Oberflächenstruktur nur horizontal verändert, verwandelt ein transformationales Lernen auch die Tiefenstruktur (vgl. Fuhr/Gremmler-Fuhr 2005), welches auch neue Formen der holonischen Ebenen und Agenzen emergieren lässt.

Bezug zwischen Deutero-Learning als Meta-Lernpraxis und der Visions-Logik

Als eine Lernform auf einem Metaniveau („second tier“) verweist das Deutero-Learning auf eine integrale Visionslogik. Diese auch als Schau- oder Netzwerklogik bezeichnete Orientierung (vgl. Wilber 2001, 234ff, 319ff) stellt die höchstentwickelte rationale Stufe im Kontinuum der Bewusstseinsentwicklung vom magisch-mythologisch, mythisch-rational bis zum rationalen Denken dar. Wie kann diese Visionslogik verstanden werden?

Indem ich diesen Beitrag schreibe und Sie ihn lesen, verwenden wir in gewisserweise die Schau-Logik. Wir versuchen dabei nicht nur rationale Gewissheit über einzelne Sachverhalte oder Argumente zu gewinnen, sondern sie auch zusammen zu vergegenwärtigen. Damit können wir entscheiden, ob und wie diese sich als eine Vision (von Wahrheit) zusammenfügen. Schau-Logik kann dabei auch mit Widersprüchen umgehen und Gegensätze vereinigen. Als ein nicht-lineares Vermögen, ist es fähig auch scheinbar unvereinbare Dinge oder Themen in einem neuen oder integraleren Holonzusammenhang zu verknüpfen. Während der Verstand, d. h. die Ratio bzw. die formal- operative Intelligenz perspektivisch einseitig, sich spezialisierend, trennend und analysierend ist, integriert die Schau-Logik die verschiedenen Perspektiven, in einer multiperspektivischen synthetischen und interdisziplinären Weise, i. S. einer „integrierenden Vernunft“ (Wilber 1997, S. 331).

Mit der Schaulogik besteht nach Wilber auch das Potenzial zu globalen Organisationsformen bzw. Kultur zu kommen, die zu noch höheren Formen evolvieren können (vgl. Wilber 2001, S. 235). Die Weltsicht bzw. den Weltraum der Schau-Logik kann als „existenziell“ und „zentaurisch“ bestimmt werden. Der Zentaur ist ein mythisches Fabelwesen, das halb Mensch halb Tier, als Symbol für die Integration von Körper und Geist steht. Die zentraurische Schaulogik vereinigt somit in sich Physiosphäre (Materie), Biosphäre (Körper) und Noosphäre (Geist) als nächster Schritt einer globalen Transformation (vgl. Wilber 2001, S. 322).

Die integrative Kraft der Schaulogik wurde bereits vor Wilber vielfach beschrieben. So hat Jean Gebser eine umfassende Untersuchung zu dem von ihm als „integral-aperspektivisch“ genannten Bewusstseins vorgenommen (vgl. Gebser 1953). Konnte bereits die vorausgehende Stufe rational-perspektivische Orientierung verschiedene Perspektiven einnehmen, vermag erst der integral–aperspektivische Geist alle Perspektiven zusammen zu betrachten und zu integrieren. Dieses aperspektivische Denken der Schaulogik erfasst dabei die holonische Kontextualität integraler Strukturen und Prozesse in einem übergreifenden Zusammenhang. Auch wenn alle Perspektiven zusammenhängen und keine als endgültig gelten kann, führt dies nicht notwendigerweise in einen Relativismus. Vielmehr kann so eine neue Transparenz und die

Möglichkeit von weiterführenden Emergenzen in einer umfassenderen Dimension gewonnen werden.

Die so gewonnene weltzentrische Perspektive wird daher von Gebser (1953) als „universal-integral," „weltoffen“ und „welttransparent“ gesehen. Schaulogik folgt somit einer weltzentrischen Ausrichtung, die ein postkonventionelles Stadium anstrebt, also die Verwirklichung einer rechtlichen, moralischen und politischen Freiheit. Dies ist für all diejenigen zugänglich ist, die willens sind, sich weiterzuentwickeln und bereit sind global zu denken und eine transpersonale Dimension im Verbund mit vorpersonalen und personalen auch kritisch-rationalen Sphären in ihr Leben zu integrieren (vgl. Wilber 2001, S. 320, 321). Ein Einüben und fortwährende Integration der Schaulogik in und durch ein das Lernen kann zu einer solchen integralen Sicht und Praxis in besonderer Weise beitragen.

Integrale Gestaltungsfelder

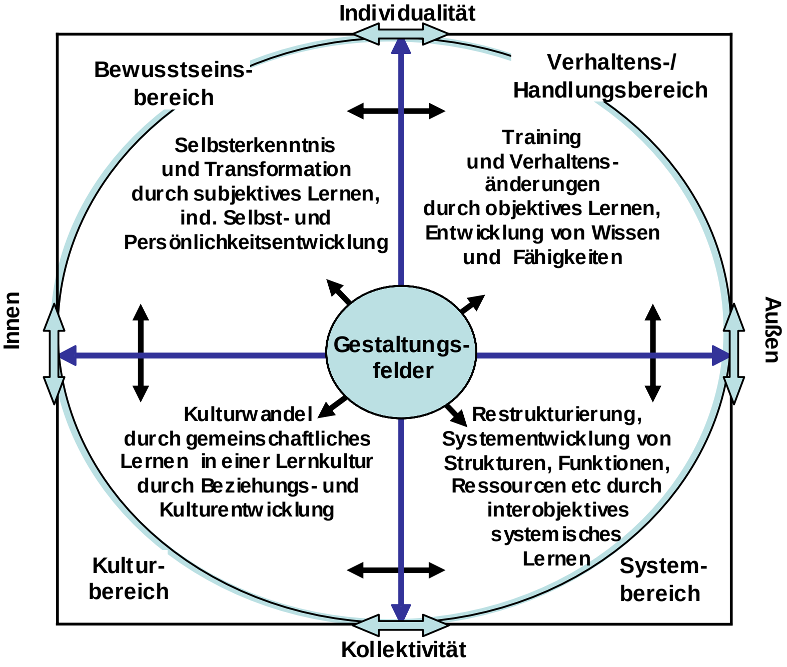

Individualität
Bewusstseins-bereich
Verhaltens-/ Handlungsbereich
Selbsterkenntnis und Transformation durch subjektives Lernen, ind. Selbst- und Persönlichkeitsentwicklung
Training und Verhaltens-änderungen durch objektives Lernen, Entwicklung von Wissen und Fähigkeiten
Innen
Außen
Gestaltungs-felder
Kulturwandel durch gemeinschaftliches Lernen in einer Lernkultur durch Beziehungs- und Kulturentwicklung
Restrukturierung, Systementwicklung von Strukturen, Funktionen, Ressourcen etc durch interobjektives systemisches Lernen
Kultur-bereich
System-bereich
Kollektivität

Abb.: 16 Beispielhafte Gestaltungsfelder innerhalb der vier Sphären und ihr Zusammenhang.

Die vier Quadranten stellen spezifische Gestaltungsfelder dar, die miteinander abgestimmt werden müssen, um die Entwicklung einer Organisation integral und nachhaltig zu gestalten. Folgende Abbildung zeigt verschiedene Gestaltungsmöglichkeiten in den einzelnen Sphären in ihrem Zusammenhang.

Im Folgenden werden einige beispielhafte Maßnahmen zu den einzelnen Gestaltungsfeldern hier nur kurz aufgelistet:

Zur Förderung von lernunterstützender Selbsterkenntnis und subjektiven Lernens (Sphäre I) dienen z. B.:

- Selbststudium und subjektives Erfahrungslernen (z. B. durch Übungen zur Wahrnehmung, Kontemplation und Meditation).
- Techniken zum Selbstmanagement (z. B. für Umgang mit Lernstress und -schwierigkeiten sowie emotionalen und kognitiven Dissonanzen).
- Reflexion und Weiterentwicklung eigener Wertvorstellungen (z. B. in einem persönlichen Mission Statement oder Lerntagebuch).

Lernrelevante Verhaltensänderung und Entwicklung von Wissen und Fähigkeiten (Sphäre II) können gefördert werden z. B. durch:

- Aus- und Weiterbildung von Wissensinhalten und Kompetenzen (z. B. Erlernen von Lerntechniken, Problem-Lösungsverfahren, Konfliktlösungsfähigkeiten etc.).
- Ermöglichung von Selbstwirksamkeitserleben durch Handeln und Handlungsspielräume.
- Massnahmen der individuellen und handlungspraktischen Personalentwicklung (z. B. Coaching, Trainings on-, off- the-job).

Ein lernspezifischer Kulturwandel und gemeinschaftlichen Lernens (Sphäre III) kann unterstützt werden z. B. durch:

- Förderung von Team- und Gruppenlernen (z. B. durch Gruppenmoderation, Feedback, Intervision etc.).
- Gemeinsame Reflexion und Weiterentwicklung der Werte und Normen der Organisation (z. B. Organisations- bzw. Abteilungsleitsätze).
- Maßnahmen der kollektiven Personal-, Team- und Organisationsentwicklung (z. B. gruppendynamisches Training).
- Aufbau und Entwicklung von Lerngemeinschaften.

Zur Entwicklung einer nachhaltigen Lernkultur ist eine kooperativ-kommunikative (Lern-) Kultur anzustreben (vgl. Kropp 1997, S. 423),

- die nach Ausgleich von Machtverhältnissen und Reduktion von Abhängigkeiten beteiligter Interessengruppen auf der Grundlage von Handlungsspielräumen, Entwicklungsförderung, (Fehler-)Toleranz und Offenheit strebt und dabei.
- verschiedene Einzel- und Kollektivinteressen auf der Basis von Gerechtigkeit, Fairness und Gleichheit, i. S. Gleichwertigkeit anerkennt und konfliktaustragenden Ausgleich anstrebt.
- bei Verhandlungen einem kooperativen Dialogprinzip, d. h. einer verantwortungsvollen Beteiligung möglichst aller Betroffenen folgt.
- versucht eine sinnstiftende und vertrauensorientierte Arbeits- und Lernwelt zu fördern.

Eine Restrukturierung und Systementwicklung der Organisation (Sphäre IV) kann z. B. gefördert werden durch:

- Verbesserung funktionaler Strukturen und Prozesse (z. B. Optimierung des organisationalen Designs der Aufbau und Ablauforganisation sowie von work-flow-Prozessen).
- Massnahmen zu lernförderlichen Wandelprozessen (z. B. Techniken des Change-Managements).
- Funktionales, lernorientiertes Wissensmanagement.
- Einsatz von lernrelevanten Informations- und Kommunikationstechnologien.
- Strategische Ausrichtung und Bewertung von Leistungsprozessen die durch Lernen generiert warden.

Probleme und Grenzen

Um ein integrales Lernen zu verwirklichen, sind mögliche Schwierigkeiten und Probleme zu beachten, die ich hier abschließend anspreche. So können Lernbarrieren (vgl. Schüppel 1996, S. 107ff.) und lernbehindernde Organisationskulturen bzw. -strukturen (vgl. Antal/Rosenbrock 2001) die Entwicklung integraler Lernformen stark einschränken. Zu den Lernhindernisse gehören z. B. die bevorzugte Wahrnehmung von direkten Reizen und kurzfristigen Feedbacks gegenüber indirekten und langsam verlaufenden langfristigen Prozessen oder eine fehlende Verknüpfung von persönlichen Erfahrungen und organisationalem Lernen (vgl. Senge 1996, S. 28f). Neben dem Aufbau von lernunterstützenden Strukturen und Prozessen kommt auch der Vermeidung und dem Abbau von Hemmnissen und Demotivatoren (vgl. Wunderer/Küpers 2002) wachsende Bedeutung zu. Die Etablierung und Wirksamkeit integraler Lernpraktiken kann auch durch „Kurzsichtigkeiten“ des ökonomischen Denkens eingeschränkt werden (vgl. Levinthal/March 1993, S. 101f.). Dazu gehören z.B. die Ignorierung einer langfristigen Perspektive oder des größeren Systemzusammenhangs, in dem sich das Lernen in und von Organisationen vollzieht. Zudem können auch „Lernfallen“ auftreten, die sich durch eine einseitige vergangenheitsorientierte Ausnutzung des Bestehenden (z.B. lerneinschränkendes Festhalten am status quo) oder Ausrichtung nur auf zukunftsgerichtete Entdeckung von Neuem ergeben. Als problematisch können sich auch die Sicherstellung einer organisationsdienlichen Verwendung von erlerntem Wissen und Können und die dauerhafte Aufrechterhaltung von lernpraktischen Anwendungsprozessen erweisen (vgl. Hennemann 1998, S. 207) So besteht die Gefahr das auch „schlechte“ oder für die Organisation schädliche Verhaltensmuster gelernt werden (vgl. Levitt/March 1988). Des Weiteren sind die verbreitete und realitätsferne Vernachlässigung von Machtfragen (vgl. Coopey 1995) und die mikropolitische Dimensionen des Organisationslernens problematisch. Organisationslernen baut auf einer individuell, sozial und systemisch konstruierten Homogenitäten auf (z. B. Begrenzung auf hierarchiekonforme Inhalte) und ist auch daher nicht wertneutral, sondern immer auch ein politischer Prozess. Auch besteht die Gefahr des Missbrauchs der Lernkonzepte zur Erweiterung der Managementkontrolle oder Legitimierung von personalpolitischen Maßnahmen aufgrund fehlender Lernbereitschaft oder -fähigkeit. Des Weiteren kann es nur für eine optimierende Ausnutzung der Mitarbeiter als Human-Ressourcen (vgl. Schneider 1999; Steyaert/Janssens 1999) fungieren, welches nicht die Entwicklung humaner Potenziale zu sehen versteht (vgl. Casse 1994; Kumar Kalra 1997).

Bei vielen Ansätzen des organisationalen Lernens wird auch die Rolle der Top-Führungskräfte überbetont bzw. einseitig privilegiert, was die Vielfalt von anderen Akteuren z.B. im mittleren Management (vgl. Nonaka 1994) oder (informelle) Lerngemeinschaften unterschätzt. Zudem sind die gewandelten Rollen und Aufgaben der Führung hinsichtlich der Förderung der Lernbereitschaft wie -fähigkeit bei den Mitarbeitern zu beachten. Führungskräfte sind demnach Auslöser und Förderer individueller und kollektiver Lernprozesse. Als Trainer, Coach und Berater werden Führungskräfte damit zu Dienstleistern ihrer Mitarbeiter (vgl. Doppler/Lauterburg 1995, Kostka/Krämer 1997), um so zur Entwicklung einer lernenden Organisation beizutragen. Führungskräfte müssen dabei zu “dienenden Führern” werden. (vgl. Kofman/Senge 1995; Spears, 1995). Dabei ist auch das Lernen von Führungskräften selbst (vgl. Burgoyne/Reynolds 1998) sowie ein Lernen von in Praxisgemeinschaften stärker zu berücksichtigen.

Fazit und Perspektive

Ich habe in diesem Beitrag versucht die Bedeutung eines integralen Umgangs mit Wissen und Lernprozessen in Unternehmen darzustellen. Aufbauend auf dem Modell von Ken Wilber wurde das Lernen als Teil-Ganzheit (Holons) mit Bezug zum Organisationskontext beschrieben. Dazu wurde Wilbers holonisches Quadrantenmodell und dynamische Entwicklungslinien auf das Lernen in und von Organisationen angewandt sowie integrale Lerndimensionen diskutiert. Wie deutlich wurde, kann ein Lernen von und in Organisationen kein „Patentrezept“ sein, dass ohne betriebsindividuelle Anpassung eingeführt und verankert werden kann. Damit bleibt eine einfache Generalisierbarkeit und Instrumentalisierbarkeit von Lernkonzepten fraglich und unzureichend (vgl. auch Roehl/Wiegand 1998, S. 21). Jede Organisation muss vielmehr in Abhängigkeit ihrer ganz spezifischen Betriebsgeschichte, Mitarbeitern sowie bestehenden Kultur und externen Sach- und Umwelt ihren eigenen Weg des Lernens und damit des Wandels finden (vgl. Nevis/DiBella/Gould 1995).

Entscheidend für eine lebendige Ausgestaltung eines integralen Lernens und Entwicklung einer „gesunden“ Organisation wird es sein, die Dimensionen, Funktionen, Zwecke und Prozesse sowie Bedeutungen und Implikationen des Lernens auf einer integralen Basis zu gründen. Um diese im Arbeitsleben zu verwirklichen sind auch unterstützende Aktivitäten (vgl. Kriger/Hanson 1999)[2] und integrale Koordination und Evaluation aller Maßnahmen erforderlich.

Anwendungspraktisch wie forschungsbezogen stellt die „In-Beziehung-Setzung“ und Übertragung des Lernens zwischen den verschiedenen Quadranten bzw. deren Sphären eine besondere Herausforderung dar. So gelte es den Zusammenhang von Quadranten und Entwicklungsstufen und –linien des Lernens noch tiefergehend mit einer integralen Methodologie zu untersuchen, gleichmassen die Perspektiven der ersten, zweiten und dritten Person (Singular und Plural) systematisch berücksichtigt Aufschlussreich wäre es auch verschiedene *Typen* des Bewusstseins, z. B. Persönlichkeitslerntypen oder verschiedene geschlechtsspezifische Lernstile auf verschiedenen Entwicklungsebenen vertiefend zu erforschen. Des Weiteren wären leiblich-sinnliche sowie narrative Dimensionen des impliziten Wissens und Lernens im integralen Zusammenhang zu erforschen (vgl. Küpers 2005).

Zu untersuchen wären auch weitere, umfassendere Lernebenen, wie z. B. inter-organisationales Lernen (vgl. Prange 1996) zu berücksichtigen. Dabei vollziehen sich Lernprozesse zwischen einzelnen Organisationseinheiten oder in Netzwerken verbundenen Organisationen. Dazu können bereichsübergreifende Gruppen (z. B. Strategieteams, Projekt- oder Koordinationsgruppen) gebildet werden, die eine „Durchmischung“ und Kombination von Mitarbeitern unterschiedlicher Bereiche bewirken. Damit kann es zur Nutzung von größeren Wissens- und Erfahrungskontexten sowie zu einer Institutionalisierung von Freiräumen für kollektives Lernen kommen, in denen gemeinsam neue Routinen entwickelt werden können (vgl. z. B. Wilkesmann 1999). Noch umfassender sind überbetriebliche Netzwerke bei denen Unternehmen, z. B. zur Entwicklung von Produktions- und Innovationsprozessen, lernend in intensiven Austausch- und Kooperationsbeziehungen mit Kunden und Lieferanten und teilweise auch mit Wettbewerbern und Forschungseinrichtungen stehen (vgl. z. B. Braczyk 1998). Dem schließen sich Horizonte einer Erforschung eines interkulturellen und globalen Lernens von und in Organisationen an (vgl. Brunold 2004).

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[2] Kriger/Hanson (1999, S. 312) benennen folgende Unterstützungsmassnahmen: 1 Behavior consistent with values, 2 Creating a climate where morality and ethics are truly important, 3 Legitimizing differing viewpoints, values, and beliefs, 4 Developing imagination, inspiration, and mindfulness, 5 Letting go of expectations that are unrealistic, 6 Acknowledgement of the efforts and accomplishments of others, 7 Creating organizational processes that develop the whole person ± not just exploiting current talents and strengths).

Noch immer gibt es zum Konzept des organisationalen Lernens viele offene Fragen und zu wenig Antworten (vgl. Schreyögg/Eberl 1998). Für Praxis und Forschung sind daher weitere Umsetzungsmöglichkeiten und eine vertiefte Reflexion über organisationales Lernen und auch dessen ethischen Grundlagen bzw. Implikationen (vgl. z.B. Snell 2001) notwendig, um die sich real vollziehenden Veränderungen und den damit einhergehenden Wandelprozess zu bewältigen bzw. theoretisch aufzuarbeiten.

Für die Zukunft besteht daher hinsichtlich der weiteren Auseinandersetzung mit Formen eines integralen organisationalen Lernens bzw. integraler lernender Organisation ein hoher Bedarf an interdisziplinärer, theoretische wie empirischer Forschung sowie konkreter Praxisanwendung. Erst dann können deren potenzielle wie faktische Möglichkeiten, aber auch Grenzen systematisch aufgedeckt und praktisch erprobt werden. Das hier vorgestellte Modell bietet dabei ein wichtiges Orientierungsheuristik für die Entwicklung und Praxis eines integralen Lernens von und in Organisationen. In gewisserweise ist eine integrale Praxis in und von Organisationen inhärent lernorientiert. Reife integrale Organisationen sind lernende Institutionen, da Integralität über deren Perspektivierung ein ständiges und umfassendes Lernen auf mehreren Ebenen impliziert. Denn eine integrale Reflexion und integrales Handeln sowie integrale Gemeinschaftsentwicklung und Kommunikation sowie integrale Struktur-, Funktions- bzw. Systementwicklung beinhalten bzw. bewirken fortwährende Lern- und Bildungsprozesse.

Mit einer solchen integralen Lernorientierung und entsprechenden Transformationspraxis wird es möglich, dass lernende Organisationen und ihre Mitglieder zu kreativeren, offeneren und sinnstiftenden Orte bzw. Träger werden, die zu integrierten ganzheitlichen Entwicklungsmöglichkeiten und nachhaltiges Wohlergehen (vgl. Küpers 2005a) beitragen.

Abschließend möchte ich Sie einladen, mit dem vorgestellten Modell selbst zu experimentieren und eigene (Lern-)Erfahrungen damit zu machen und mit anderen zu teilen. Zur konkreten Umsetzung können Sie als Leser in ihrem Umfeld damit anfangen. Sie können sich z. B. fragen, wo und wie Sie für sich in ihren aktuellen Kontext eine integrale Lernpraxis verwirklichen können. In welchen Sphären wünschen Sie sich eine weitere praktische Einübung oder einen vertieften gemeinschaftlichen Erfahrungsaustausch? Wie lernen Sie innerlich und äußerlich und wie kann dieses Lernen verbessert werden? Wie können Sie Ihre Erfahrung für ein integrales Lernen in Ihre konkrete Lebenswelt einbringen oder vorleben? In welcher (Lern-) Kultur leben Sie und wie könnte diese integraler gestaltet werden? Können Sie sich bestehenden Lerngemeinschaften in ihrer Organisation anschließen oder selbst dazu beitragen solche zu entwickeln? Wie gehen Sie mit funktionalen Systembedingungen und -prozesse sowie strukturellen Lernhindernissen um? In welchem Verhältnis stehen die verschiedenen Lernsphären zu- oder gegeneinander? Welche weiteren Fragen, Potenziale aber auch Schwierigkeiten sehen Sie für die praktische Umsetzung und mit wem können Sie sich darüber austauschen?

Ich wünsche Ihnen gutes Gelingen und Freude auf Ihrem Weg eines integralen Lernens und würde mich über Rückmeldung von Ihnen als Chance für ein gemeinsames Lernen freuen.

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Integrales Lernen in und von Organisationen
Integral Learning in and of Organizations

Wendelin Kupers

English Summary

Organizational learning has become increasingly vital in today's complex, uncertain, and dynamic business environments. As organizational contexts are increasingly fragmented, equivocal, and constantly changing, learning is seen as a medium for more effective and flexible action. Accordingly, organizational learning has gained academic and practice-oriented currency over the last twenty years as a preferred model for development and management of change.

The current growth of research goes along with a feeling of a lack of clarity, consensus (e.g., Kim, 1993; Crossan et al., 1999) and even growing confusion (Tsang, 1997; Edmondson & Moingeon, 1998). Comprehensive review articles (e.g., Dodgson, 1993; Fiol & Lyles, 1985; Huber, 1991; Levitt & March, 1988; Cohen & Sproul, 1996; Robey et al., 2000) have discussed different aspects of organizational learning and its reinterpretation (Stewart, 2001), being an affirming oxymoron (Weick & Westley 1996) and its various ambivalences (Fenwick, 1995; Coopey, 1995; Steiner, 1998; Küpers 2005).

The purpose of this article is not to provide another comprehensive review of the subject, but to suggest a more integral understanding of the learning process. Often, the complexities of the inter-relational learning processes are ignored, oversimplified or touted as panaceas to be used. It seems that researchers and practitioners do not actually know what a ´Learning Organisation´ "is" or what 'organizational learning' essentially implies (Abernathy, 1999. p. 40). What becomes evident is that the learning organisation will only be a learning one—conceptually as well as practically—when it is not stuck with discussing reifying definitions or mechanistic, systemic or organic modeling of what a learning organisation "is" as an "entity," but to take learning in and of organisations as an relational event and integrative process.

Understanding and enacting learning in organisations demands a comprehensive and integrative framework that is suited to investigating complex, inter-related processes of learning in the context of organisations. For developing such integral understanding of learning within and of organisations, the following article explores how integrative dimensions constitute and influence the learning processes in organizational settings.

Integral theory—as outlined by Ken Wilber—provides an appropriate over-arching approach for such an undertaking. With its perspectives of individual and collective orientations, both in terms of internal and external views, it provides an encompassing meta-theory for approaching the learning process in organisations. Particularly, the four quadrants representing the spheres of an interior-agency or self and consciousness (I), an exterior agency or behaviour as enactment (Me; It), an interior-communal or cultural (We) and an exterior-communal or system (Its) can be applied to such learning. This becomes particular relevant because in many conventional approaches to learning in organisations the exterior and objective perspectives on individual and collective behavior (It, Its) have become the prevailing canon in dominant functionalist approaches.

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However, to understand learning as a “four-quadrant affair” requires us to also embrace the left interior dimensions i.e., inner meaning. Conversely, also the inner lives of leaders and the collective spheres of learning need to be seen as co-determined by the behavioral and exterior dimensions. To see the domains only as parallel or to privilege one quadrant over another, is to disturb the delicate integration, co-evolutionary relationality, and interconnectedness of an effective learning practice.

Furthermore, each of the quadrants is marked by a series of different developmental levels or stages and lines of development, which are relevant for understanding learning processes. Again, this dynamic integral embrace corresponds to many reductionistic approaches of organizational learning that often follow only cognitive lines, which explains the prevailing difficulties in integrating embodied tacit knowledge and emotional dimensions and wisdom (Küpers, 2005). Unpacking the significance of “levels and lines” means that a learner can be at a fairly high level of development in some lines (i.e., cognitive), at a medium level of development in other lines (i.e., interpersonal), and at a fairly low level in yet others (i.e., emotional or moral).

With all this, for developing an integral understanding and practice of learning, what is needed is an approach that considers “All Quadrant, All Level, All Lines” (AQAL). This is because it is in all these four domains, level and lines and their interrelations that learning in and of organisations takes place.

Furthermore, quadrants, levels and lines are energized by the dynamics of growth and integration and by what can be called the *“Integral Cycle”* (Edwards, 2005; Cacioppe & Edwards, 2005a,b). This energizing integral cycle is a coherent and dynamic system that co-ordinates the interaction between the four quadrants and the holonic developmental levels and lines. It offers an inclusive model of holarchic involutionary and evolutionary development in particular. With its capacity to analyze, categorize and synthesize the concept of an integral cycle of learning, it is a way of representing the mutual interpenetration of the quadrants, levels and lines and their constituent structures, growth and the dynamic relationships in-between.

The article is organized as follows. After describing the relevance and basic understanding of learning in the context of organisations, a holonic understanding of reality and a brief critique of various reductionisms of learning, different integral dimensions of learning will be outlined. In particular, learning in the spheres of the individual in inner-subjective and exterior-objective learning, a communal learning, and learning within a system on the collective level will be examined. For each of these spheres, features, criteria, problems and their interrelations are outlined.

The relationship between individual and collective learning in and of organisations and different forms and processes of learning will also be discussed. One focus is given to the relation between double loop-learning as a kind of meta-learning and vision-logic cognition as described by Wilber. Afterwards, various practical implications and specific measurements for enhancing integral learning in the different spheres will be discussed. Finally, difficulties and problems will be addressed and in conclusion some perspectives and their implications presented.

As a reminder of our life-world’s multifaceted wholeness and multi-dimensionality, an integrative methodology and orientation related to learning is likely to serve as a helpful antidote to partial views, one-sided approaches and reductionistic “flatland ontologies” (Wilber 2000).

As organizations make the transition to meet today’s challenges, they must consider which aspects of the learners’ consciousness, behaviour and competent action, as well as cultural and system-related issues of learning are being impacted in order to set priorities and enact practices.

With this, an integral approach is an essential presupposition for effective learning process. I hope that this paper presents some ideas for such a comprehensive and integral understanding and practice for learning in and of organisations.

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Voegelin's Ladder[1]

Nathan Harter

Abstract: Leadership has non-logical aspects. One of these is spirituality. Voegelin's Ladder provides a context for studying spirituality as a part of leadership. What it reveals is that spirituality arises at the intersection of the human with the divine. Spirituality expresses itself as purpose and aspiration, which a leader embodies.

Key words: Great Chain of Being, leadership, spirituality, Voegelin, Eric.

> "Man is a ladder placed on earth and the top of it touches heaven.
> And all his movements and doings and words leave traces in the upper world."
> - Martin Buber (quoted in Hitt, 1992, p. 3).

Introduction

It is possible to reason about non-logical things. Leadership is one example. Leadership involves non-logical things. Emotion, for example, tends to be thought of as non-logical, yet there has emerged a tremendous interest in something called emotional intelligence. John Gardner once wrote that "in the tasks of leadership, the transactions between leaders and constituents go beyond the rational level to the nonrational and unconscious levels of human functioning" (1990, p. 14).

The literature is full of claims to the effect that leadership involves non-logical things such as passion and desire, as well as mystery, propaganda, and illusion. This would be true in any context, e.g. military, politics, business, and religion. Human beings have feelings, appetites, epiphanies, and tastes, and these can be overwhelming. We should respect them and not dismiss them as residual defects that triumphant Reason will eventually root out or repair. To a large extent, some of these non-logical aspects are the very things that give life savor, meaning, and purpose. Even so, non-logical features can be studied in a logical fashion. That is part of the mission of leadership studies, i.e., to study in a logical fashion the non-logical features of leadership—leadership abstracted from context. To do this, it helps to work within a frame of reference, a schema.

This paper describes a schema developed by the philosopher Eric Voegelin (1974/1990) for depicting a hierarchy, a ladder (if you will) of a range of human aspects. It shows that humanity has its non-logical features, but it also organizes these features in developmental levels, according to a logical structure that can be useful in conceptualizing the persons engaged in leadership—their complete nature as both logical and non-logical beings. With this schema,

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[1] This paper is an adaptation of chapter 13 from the author's 2006 book on leadership, *Clearings in the Forest* (Purdue University Press) The author thanks his reviewers and the editor of this journal, Jonathan Reams, for their gracious and insightful comments during the review process.

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students of leadership can incorporate the non-logical aspects of a person in juxtaposition to the logical, which we shall refer to as rational/analytical thought. In other words, from within one of the levels on the ladder, we will begin to see it all.

Spirituality qualifies as a non-logical feature of human life. Issues of spirituality pertain to that which is at the higher reaches of consciousness. Given the interest by leadership scholars in matters spiritual—and given the confusions that easily arise when trying to discuss them logically—the following paper begins to frame an answer to the question: “What does it mean to speak of higher things?” To get there, we must adopt a mental model distinguishing the upper from the lower. Voegelin’s ladder does just that.

A word of caution is immediately necessary. Rational/analytical thought, as we are calling it, cannot completely fathom reality. Certain aspects of life are impervious to its scrutiny. “The heart,” wrote Pascal, “has its reasons that Reason does not know.” Freud, for example, studied hidden non-rational drives in the psyche. LeBon studied non-rational drives in the mob. Edmund Burke referred to sentiment, Kierkegaard, to faith, and Schopenhauer, to the will. Reason has its place, but it quickly finds itself subordinated or set aside in actual experience, and even though most people believe it is worthwhile to apply reason to non-logical things for purposes of study, reason can never thoroughly grasp or contain it. As Ken Wilber was to put it, relying on Kant and Nagarjuna, rational arguments attempt “to use the eye of mind to see that which can be seen only with the eye of contemplation” (1998, p. 21).

It takes an integrated vision of human nature to depict for rational/analytical thought that requires the eye of contemplation. Kenneth Boulding (1956) suggested a handy way of understanding this. There is what he called an image we use to operate in the world. Part of it is conscious, the part we pay attention to, like the part of a building that shows up at night in flashlight. Part of it is unconscious, the part we could pay attention to, if we choose to do so, like the parts of a building that are presently dark to us, but which we could see if only we move the flashlight. The third part of the image is subconscious, a part we cannot pay attention to, like the parts of a building behind the façade, where the flashlight cannot penetrate. All three parts affect behavior (p. 54). The trick is discerning what lies behind the façade. Boulding believed that the rest must be left to inference.

Are the things behind the façade all the same? Are all non-logical features of leadership alike? They are largely opaque to us, behind the façade and easy to cluster together in our imagination. Should we refer to all of it as the subconscious? Henri de Lubac (1944/1949) complained, “How often the supraconsciousness is confused with the infraconsciousness!” (p. 383). Supraconsciousness and infraconsciousness make a fine and volatile distinction. There are in a sense two types of things behind the façade: similar in being non-logical, but otherwise at opposite ends of a spectrum or ladder. Voegelin’s ladder depicts something at the higher reaches of consciousness and something at the lower reaches of consciousness, at the fringe or twilight of ordinary human consciousness, and both are non-logical aspects of human behavior.

In order to portray Voegelin’s ladder, we make two immediate distinctions. First, we distinguish the façade from that which lies behind the façade. Second, we distinguish what lies behind the façade between supraconsciousness and infraconsciousness.

Below and above

An integrated vision of human nature will capture non-logical aspects of those who engage in leadership. Not everything that is non-logical is the same. Voegelin’s ladder attempts to differentiate these aspects vertically, with categories below rational/analytical thought as well as above. At the lower reaches of consciousness would be things that we normally call material, biological, lower needs and drives, such as instincts, appetites, the will to power, and so forth. Writers who emphasize these non-logical things (e.g. Freud, LeBon, Burke, Kierkegaard, Schopenhauer) are trying to explain the foundations of phenomena such as leadership. Why do those we refer to as leaders feel compelled to lead to begin with and why do those we refer to as followers respond?

How far back into the material stuff will the explanation go? We might talk about impulses or urges. We might examine the psychological effects of a leader's height, health, resonant voice, posture, alpha animal traits signaling a primate coping-mechanism for the community, and so forth. The hypothesis is that humans tend to lead and follow in response to sub-rational forces, such as fear or fascination. Curious students can go back of psychology to genetics, evolutionary biology, chemistry even, I suppose, and electricity. This "downward" path looks at leadership as an outward phenomenon of a deep, organic process attributable ultimately to the impulses of vitality. The search is for causal explanations at the most basic level.

A distinct variation of this path is the power of myth. Writers on leadership such as Bruce Mazlish (1990), James Hillman (1995), and C.F. Alford (1994) have treated this variation with dexterity and depth. From within this variation come works on soul, which is different from spirit. In simplistic terms: soul is lower than spirit, a repository of myth and archetype, further below even rational/analytical thought, though higher than our vegetative and inorganic natures (see e.g., Wilber, 1998, pp. 162-166; Wilber, 2000, pp. 193-197).

As students entering the investigation from the rational/analytical level, we can describe a vertical line, with paths going up and down, in both directions. The first path, the one we have already started to describe (which de Lubac labeled "infraconsciousness") probes downward, toward the material foundations of human behavior. The second path goes in the opposite direction. With de Lubac, we can call this path supraconsciousness, and it includes things we normally understand as aesthetic, moral, if not religious. It refers to a higher calling, a larger purpose, things such as destiny and vision, as though humans are beings with free will who aspire to something above or beyond themselves. Writers who emphasize these non-logical things are trying to explain the way that humans set goals and dream dreams. What are folks wanting to achieve? What do they hope to gain? Are we all part of something beyond our daily survival? Is there something more? This second path, traveling up our vertical line, looks at leadership as the means for fulfilling some cluster of aspirations. It is in a word teleological.

The characterization of one path going down while the other path goes up connotes superiority, a hierarchy, as though going up were nobler, more elevated than the other. Our language is full of similar metaphors equating "up" with "better." It would be unnecessary to accept that connotation. James Hillman has written extensively on behalf of going down—not toward the material specifically, such as organic chemistry, but toward myth and the soul (see e.g., Hillman, 1975). Down is good, too. That is why it might seem more acceptable to speak of going *deeper*. That has a different connotation.

We must be careful, because the point of Voegelin's ladder is to examine what lies beyond the vantage point of rational/analytical thought, for purposes of study, and not to regress completely to the lower levels, renouncing what lies above.

Studies of leadership that move downward are perfectly legitimate. They form part of a complete treatment of the subject. We all have much to learn from the study of infraconsciousness. There is a non-logical foundation to human behavior. It is out of that foundation that humans emerge as they are. A thorough understanding of it can only help the cause. To highlight one example, Bernard Bass reports that several studies indicate leaders possess higher energy levels than non-leaders. Energy is an infraconscious factor that appears to be relevant to leadership (1990, pp. 89-90).[2]

It is our purpose in this paper to move in the other direction, upward, toward the spiritual—not to repudiate what lies below, but rather to seek to understand what seems to lie above. It too is comprised of the non-logical, and it too (in my opinion) can be studied rationally…up to a point. Chester Bowling, to cite one example, refers to a "nonrational epistemology" about leadership because the spirit lies in the "noncognitive realm" (2001, p. 370). How then do we show that realm?

Voegelin's ladder

The image of a vertical line to order our thinking in this way received an explanation in a little known essay by Eric Voegelin. In the *Southern Review* (1974), he published "Reason: The Classic Experience." His article included an appendix, where he set out a table to show what he called "levels in the hierarchy of being" (1974/1990, p. 290).

Table 1. Voegelin's Ladder

	Person	Society	History
Divine Nous	↑		
Psyche Noetic			
Psyche Passions			
Animal nature			
Vegetative nature			
Inorganic nature			
↓ Apeiron -- Depth			

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In Voegelin's words:

> The arrow pointing down indicates the order of formation from the top down. The arrow pointing up indicates the order of foundation from the bottom up…. The order of formation and foundation must not be inverted or otherwise distorted…. (*Id.*, p. 290)

According to his principle of completeness, we must understand and appreciate each of the levels and not isolate any one of them. The ladder goes a long way toward illustrating what it would mean to have a comprehensive understanding of leadership: all of the cells on the ladder would be filled. Doing so would purportedly connect everything together. He saw no advantage in reductionist models.

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[2] No one can ignore the material factors of leadership, whatever the context. In reference to Napoleon III, Bass has quoted Emile Zola: "A grain of sand in a man's flesh and empires totter and fall." (1990, p. 155) Bass then considered the effects of ill-health on leaders at the onset of World War I, plus specific crises in the American presidency attributable to physiological conditions. Later, he foresaw the importance to leadership studies of breakthrough findings in genetics (1990, p. 911).

Human beings operate at all levels simultaneously; these are simply different ways to approach the same reality.[3] In other words, we are at one and the same moment physical objects operating according to physical laws—inorganic, vegetative, and animal—as well as psychological creatures with passions, beliefs, and imaginations (*Id*., p. 268). Voegelin insists on humanity's participation in the complete hierarchy of being and refers to it as our "integral nature" (*Ibid*). We fully occupy a reality between the two poles of transcendence at the top and the *apeiron* at the bottom. The temptation to pick one level and insist that it must be the *only* level he calls "hypostasis." It is a reductionist fallacy—unnecessary, for one thing, and unresponsive to the evidence (*Id*., p. 290; Harvey, 2001, p. 378; see Wilber, 1998, pp. 38 & 56f). As the Spanish philosopher once wrote: "The sole false perspective is that which claims to be the only one there is" (Ortega, 1923/1961, p. 92).

Not everyone agrees with this position. There are writers who do choose one level, one way of understanding, and declare the rest to be illusory. "Language of 'higher things' rationalizes behavior," they might argue, "cloaking it in legitimating words, almost to the point of deceit." They hold that claims of spirituality in leadership are little more than a pious fraud. Borrowing from Karl Marx, John Dirks refers to this as the opiate hypothesis, which holds that "spirituality of work represents a corporate attempt to mollify workers into accepting and cooperating with essentially oppressive and exploitative work conditions" (2000, p. 2; see also p. 6).

For purposes of illustrating hypostasis further, Jacques Barzun mentions an 18th century book titled *Man as Machine*, followed in the next century by the declaration of man as an automaton. Since then, he writes, "man has been portrayed as a chemical, glandular, and electrical machine, [even] predestined and worked by the instrumentality of cells and genes." (2000, p. 367) Christian apologist Francis Schaeffer famously attacked this line of thinking in *Back to Freedom and Dignity* (1972/1982).

Voegelin's ladder makes room for many "viewpoints" so long as no one view presumes to exclude the rest. It allows for the possibility that leadership, as a phenomenon in reality, can be studied profitably at any one of the levels, from multiple perspectives.

Leadership < > Spirituality

At the pinnacle of Voegelin's ladder we would find that level where we can start to make sense of spirituality. This highest level implicates or refers to something even higher, beyond which we cannot go, transcending humanity. The highest level represents the point where humanity intersects with the divine. For that reason, it will have to remain incomplete, tinged with mystery, allusive.

Despite its inscrutability, we have to take spirituality seriously and do our best to understand it, for several reasons (see generally, Harter, 2004).

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[3] Ken Wilber uses the imagery of a ladder to illustrate a progression, which is not incompatible with Voegelin's purpose inasmuch as Voegelin speaks from a higher rung on the ladder that includes everything that came before. His is a static model, not a dynamic model. For Voegelin, the perspective embracing all of the levels simultaneously matches the highest levels in Wilber's ladder of consciousness. For a discussion of the ladder as a progression, see Wilber, 2000, chap. 9.

a) There has been a revival of interest in spirituality among academics in management, organizational behavior, and leadership studies, so we have to take some account of their work.
b) Academics have become increasingly interested largely because spirituality has been invoked by leaders and followers as meaningful, if not determinative, for their experiences of leadership (Cavanaugh & Bandsuch, 2002; Harvey, 2001; Mitroff & Denton, 1999).
c) Leaders and scholars alike have examined the possibility that spirituality has instrumental value (Mitroff & Denton, 1999, p. 86). Corinne McLaughlin assembled multiple findings, concluding that "[s]pirituality could be the ultimate competitive advantage" (2002, citing Mitroff).
d) It is not just a competitive advantage. Spirituality pertains to morality and ethics. (Marsden, 1997, p. 85; see generally MacIntyre, 1981/1984) Debates and investigations into the origins and validity of moral claims frequently refer to spirituality. Cavanaugh & Bandsuch (2002) even argue that virtue should be the benchmark for spirituality in business.
e) At the very least, claims of spirituality deserve as much respect as other diverse claims in a pluralistic society (Marsden, p. 86). It will not do to bar them at the gate.

What people are saying…

Spirituality is hard to define. Different traditions offer versions. Frequently, people who claim to experience the spirit simply refuse to give more than a vague description, saying that such things are ineffable. They are, in the words of Ken Wilber, "attempting to use the eye of mind to see that which can be seen only with the eye of contemplation" (1998, p. 21). What does he mean by that?

As a practical matter, how does a person discern various levels on the ladder? Wilber finds a corresponding "mode of knowing" for each of the three dominant levels of matter, mind, and spirit, which he refers to as the eye of flesh, the eye of mind, and the eye of contemplation (1998, p. 18). Thus, if we want to know anything, we must use the appropriate mode of knowing (*Id*., p. 155ff). To understand the spiritual dimension of leadership, therefore, we must use what he calls the eye of contemplation, which can be difficult. Specifically with regard to leadership, however, a number of writers have made the attempt, directly or indirectly.

In other words, leadership studies already includes attempts to connect leadership with spirituality, even though these writers do not explicitly place their attempts within a schema like Voegelin's. Without knowing it, they have been searching the higher reaches of Voegelin's ladder to illuminate or explain leadership behavior.

We might justifiably imitate Aristotle, who in similar situations would look around to find what people are already saying about a topic. For the sake of brevity, I restrict myself here to a few writers. Their remarks do not actually *prove* the importance of this non-logical, supraconscious realm, but they do illustrate a widespread belief in its importance among people who have spent considerable time reflecting on leadership.

The reader might notice in these remarks a tendency of the writers to speak of leaders in isolation from their relationships, following the model of leadership in which individuals influence others toward desired goals and objectives. Leadership was about the leader—his traits, behaviors, and styles. For a long time this has been a conventional way to talk about leadership.

A number of critics have since disparaged such "great man" approaches to the study of leadership, challenging the assumption that when studying leadership we can meaningfully study only the leader (e.g., Lee, 1991/1993). Nevertheless, the following writers did work within that tradition. For this reason and for reasons cited elsewhere, so shall I (Harter, 2003).

Many of these authors refer to the leader's "higher" purpose. The leader is not to be merely utilitarian, using or deploying followers in order to achieve results. Rather, a leader answers to a higher calling, grounded in something sublime, transcendent, or holy, and it is that fealty, that dedication which positions her to lead others. What exactly are they saying when they say things like this?

In what follows, the authors do not always use the explicit language of spirituality, and that is my point. They *implicate* spirituality.

Certain Christians writers can be seen to urge the connection of leadership with spirituality. They are usually explicit. John Maxwell has made a career in the Christian publishing industry by beginning with scriptural precepts and drawing conclusions about what leadership is (or ought to be). Let it not go unsaid in this place that much of the literature is unapologetically anti-intellectual, grounded in fundamentalist dogma—which does not mean that it is necessarily wrong or useless. Among intellectuals from within the Christian tradition, Irving Babbitt and Richard Weaver made similar claims about leadership, and their voices have been too long neglected in leadership studies (Panichas, 1996/1999, chap. 5). Nevertheless, Christianity is not the sole basis for connecting spirituality and leadership.

Not all of the persons writing about spirituality have a religious perspective. Some are simply groping for words that intend much the same thing as spirituality. Their work is secular. Peter Koestenbaum sets out in his book on *Leadership: The Inner Side of Greatness* to show that by pursuing greatness we "ennoble human nature and strengthen our societies" (1991, p. xi). Toward that end, leaders engage in transcending (even mystical) visions at a higher level perspective (*Id*., chap. 5). Kouzes and Posner use comparable language. They urge leaders to be forward-looking and inspiring. "If a leader displays no passion for a cause, why should others?" (1987, p. 21). Thus, by describing a lofty vision, leaders "ennoble those who work on its behalf [and] elevate the human spirit" (*Id*., p. 117). James MacGregor Burns describes transforming leadership as raising leader and follower "to higher levels of motivation and morality" because followers are to be lifted or elevated into their better selves (Burns, 1978, pp. 20, 41-46). Peter Vaill considers spirituality to be a requisite of visionary leadership, such that "all true leadership is indeed spiritual leadership" (1989, p. 223).

Charles Handy insists that "life is about more than surviving—there could be something glorious about it, it could contribute to a better world. That leaves one with a personal challenge, to do something glorious with one's life. It is also, I believe, a challenge for every organization and every business" (1998, p. 118). In addition to these voices are books on spirituality reviewed recently in *The Leadership Quarterly* (2001). Let us take a closer look at what all of these writers are claiming.

In the next section, this paper will attempt a synthesis, rarely attributing specific claims to specific sources. This is my attempt to combine the many loose associations of leadership with spirituality to which this paper has just alluded into a more coherent treatment, so that we reach an answer to the question raised earlier, namely "what does it mean to speak of higher things?"

Leadership *implies* spirituality

Leadership, like spirituality, is a relationship grounded in a purpose, and that purpose reflects the aspirational character of its participants. Participants experience and respond to the tension of existence. Leadership originates in a desire to change the present, to improve something about one's existence and bring it into alignment with an ideal, no matter how slight. Leadership embodies those aspirations, representing a level of faith we have as humans that together we can participate in approximating those ideals. Aspiration justifies leadership.

Humans obviously aspire. They envision a future that is different, better somehow, from the one they presently occupy. They believe things can get better. And rather than sit around hoping for that to happen on its own accord, like manna from heaven, humans tend to get up and do something about it. They participate in trying to improve the world. This drive to realize better days takes shape, moving from need to idea to purpose, and then humans get down to work. To the extent they work together toward some common purpose, issues of leadership become comprehensible. The very existence of common or collective purpose makes leadership possible. According to Mary Parker Follett, common purpose is what makes leadership intelligible (1919).

This purpose—whatever it is—belongs to the spiritual realm, no matter how mundane. It might not be so overtly religious as praising one's God or winning salvation for the soul, but it belongs to the spiritual realm regardless. Within that spiritual realm of dreams, desires, designs, and decisions, we may try to make a profit, assault an enemy ridge, or pass legislation. It could be any one of a number of objectives. Spirituality does not have to be restricted to lofty or vague ideals.

The question arises whether all human aspiration derives from the realm of spirit. To the extent that spirit infuses all things down through the ladder, then the answer would be "yes"—but it is important to recognize that the aspirations at the lowest levels will seem unremarkable, if not crass. To say that feeding the body and taking a nap reflect our spiritual being stretches the ordinary meaning of "spiritual." We could as easily ascribe these aspirations to the level immediately above, such that the animal nature shapes the vegetative, and the emotional shapes the animal, and the rational/analytical shapes the emotional, and so on, with the spiritual font becoming increasingly apparent and unfiltered the higher one goes.

Another question arises about aspirations we would declare to be unethical or evil. Could it be spiritual to desire the extermination of a rival clan, for example, or the assassination of its leader? Superficially, to the perpetrator the choices might seem praiseworthy and, yes, spiritual, resulting in fame, apotheosis, and an eternal reward of bliss. Nazi prison commandants, suicide bombers, and Hutus wielding machetes all might have considered themselves fulfilling some high purpose. Most of us today would not be satisfied with that assessment, which is why I would characterize their condition as a spiritual disease—a term coined by F.W.J. Schelling and elaborated by Voegelin elsewhere.[4]

With this in mind, one long term project for a pragmatic leader, it seems to me, would be sorting through these various aspirations, reconciling most, rejecting some, and prioritizing them into some kind of coherence. That coherence ultimately fits into the coordinates of two classic questions of self-awareness: (a) who am I? And (b) why am I here? All purposeful action presumes to derive from how we are oriented with regard to identity and vocation. Consequently, so too would leadership presume to answer those questions, for both the leader and the followers.

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[4] On the origin of the term "pneumopathology," see Day, 2003, pp. 11-12. See also Voegelin, 1990, pp. 278ff. The topic of pneumopathology however exceeds the scope of this paper.

Max Scheler, writing extensively on spirit, regarded it completely as "guidance and direction" (1928/1961, pp. 62 & 68). Spirit sublimates drives or instinct by detaching a person momentarily from the immediate press of events (dictated by the infraconsciousness and its encounters with the world) to contemplate another way, another possible condition, which it then pursues by channeling energy. Spirit inspires leaders to realize a vision and permits them to inspire followers to do the same. In this way, leaders experience spirit within themselves and evoke spirit in others.

Suppose that a leader articulates a vision about the kind of shipping department she expects to be supervising at a manufacturing facility. That is her purpose. She is painting a verbal picture of the future she wants to bring about, and she is trying to get her subordinates in the shipping department to share that vision, to buy in to it, so that together they can work to make it a reality. That is the typical kind of aspiration in leadership studies—worldly, narrow, common. No one disputes that some leaders articulate more elevated visions, such as world peace and eternal bliss, so the point I am trying to make is that they are in essence the same thing. It does not really matter how lofty the goal. The supervisor has taken a piece of the whole vision for a better world (where everyone profits and workers go home proud of their labors, while customers experience delight) and has applied that to a specific set of circumstances, for a specific set of people and a specific task. Her vision is part of a larger vision. And that's okay.

The literature on leadership and spirituality appears to be asking leaders and the scholarly community to take seriously the spiritual dimension of even the most mundane projects, to contemplate the way in which a leader's immediate vision fits a larger vision. "Are you building a cathedral or just cutting stone?"

That is what I understand the literature to intend.

A prescription

Voegelin's ladder depicts a hierarchy in which higher levels form the lower ones. Lower levels constrain what the higher levels can do. And as the levels get higher on the chart, levels that are *relatively* lower actually resist formation and (in a manner of speaking) push back. Animal appetites frequently crowd aside rational thought, as Maslow rightly understood; rational thought has for its part been clever stigmatizing spirituality as delusion or superstition. What lies below resists what lies above. Part of what this journal intends, as I understand it, is the restoration of hierarchy (or in the vocabulary of Wilber "holarchy"), as a matter of prescription, reestablishing the rank order, so that first and foremost a leader is attuned to her purpose, subordinating her powers to that purpose, with each descending level forming the levels that fall below it. To do that, she must be aware of the constraints placed upon her ambitions by these lower levels. Aspiration that is oblivious to real world constraints is un-realistic, overweening (we might say), at risk of becoming utopian, oppressive, even stupid.

Just as the stone resists shaping, requiring the violence of the chisel or the abrasion of corundum in order to embody the sculptor's image for it, so also throughout the hierarchy will lower levels resist the higher. For this reason do we have to remind ourselves that "the spirit is willing, but the flesh is weak." To the extent that the spiritual purpose of leadership influences followers, it must bring them into alignment or confluence, overcoming resistance by cascading from above, from aspiration down to rational/analytical thought, down to the passions, through the animal nature. Leadership that neglects this work will struggle, if not fail, as followers yield here and there to their own weaknesses and generally drift away from the task at hand. In shades of Douglas MacGregor's Theory X, leadership would be the shaping or ordering of these levels (in oneself and in others) toward achieving a purpose—a discipline, if you will.

Leaders sometimes neglect this work and lose sufficient mass. In this sense, their leadership seems airy, detached, and ultimately fantastic. Reality gets away from them, and their vision reveals itself to be nothing more than a dream. By way of contrast, leaders sometimes undertake this work of trying to shape lower levels to make them conform without respecting inherent limitations, driving folks to exhaustion, abusing their trust, and creating warps, monstrosities. A Khmer Rouge, to cite one tragic example, devoted extraordinary resources to imposing widespread equality and uniformity.

Both the ineffectual utopian and the cruel slave driver share this in common: they do not take seriously the reality of their situation and work with it.

It is true that people in their personal lives usually fail to hold this hierarchy together in good order, knowingly or not, which is one reason they respond to leaders who do. Voegelin's ladder is almost a template for patterns of domination, as persons operating from a higher level are more likely to lead. I would not push the analogy too far. It does however tend to reinforce the claim that people are likely to follow leaders with integrity, where integrity means the *integration* of the entire person, up and down the ladder. And, ordering the whole thing—transcending and including the rest—is the spirit, a force and criterion of order (Voegelin, 1974/1990, p. 265).

Students of leadership would be advised for the sake of thoroughness to consider the role of spirituality in leadership. Voegelin's ladder assists in that project.

Summary

We are human beings trying to understand human behavior. At some point in our ruminations, we are obliged to make plain our anthropological framework. *What does it mean to be human?*

Scholars are inclined to value rationality, and they should. Scholars themselves tend to be very smart, and as scholars they tend to be rewarded for their intelligence, so they come to rely heavily on their intellectual powers—their rational/analytical powers. Rationality lies at the heart of their work. To complement this, in academic settings I must make controversies surrounding the limits of this kind of reason explicit.

Another reason to make these controversies explicit is the methodological assumption behind many investigations in rational choice and game theory that participants in social interactions are thoroughly rational. This is an assumption—a useful assumption, in many instances—but an assumption, nevertheless, which we would do well on occasion to doubt, in deference to the empirical evidence that leadership is just as largely non-logical, if not more so.

These controversies gave me an excuse in this paper to make plain one anthropological framework, namely Voegelin's ladder, which presents a broad and variegated image of humanity. This framework not only assists in the study of leadership, as for example in classifying previous research, it also suggests a way of structuring prescriptions for leadership. Studies and advice that take a more integrated view of humanity are more closely aligned with experience.

Promptings of the spirit form aspirations, which take shape in the mind of a leader as purpose that will depend on rational/analytical thought to design and then execute a plan in light of existing constraints. Spirituality informs ethics, which in turn relies on our intellectual powers to prepare a response to the demands of a paramount reality. To the extent we are going to teach others how to lead, therefore, we should in my opinion ground their ambition in their life's vocation and equip them intellectually to integrate their whole life and their circumstances as a precondition for their attempts to lead. Otherwise, leadership is little more than messing in the lives of those who have their own callings and dreams.

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More Perspectives, New Politics, New Life: How a Small Group Used *The Integral Process For Working On Complex Issues*

Sara Ross

Abstract: This article reports on a small research project with citizens who wanted to address their community's chronically adversarial behaviors and atmosphere. It complements a longer research report on the same project, which is also published in this issue of *Integral Review.* The project used a structured public discourse process, The Integral Process For Working On Complex Issues (TIP). This article supplies background on TIP's origins, then focuses on two areas. First, it explains the process steps used in the project in conjunction with the issue that participants developed by using them. Second, using examples from participants' experiences of transformative impacts from their work in the project, it reports on two themes that underlie the main impacts and outcomes. The group worked on an issue about how its own intentions and tones needed to be chosen carefully if participants wanted to improve the adversarial local culture. The article includes links to "products" the group created in the course of its work. The themes were about dissolving "us versus them" mindsets and behaviors, and the liberation of being able to use multiple perspectives (as compared to only one point of view). This article is aimed at a diverse audience of individuals and organizations interested in promoting healthy individual and social change by addressing complex public issues and relationships. A brief epilogue sketches how TIP embeds criteria of integral theory.

Key words: action inquiry, complex issues, deliberation, decision-making, group process, political culture, public discourse, public relationships, replicable, The Integral Process For Working On Complex Issues, transformative.

Introduction

When a small group of citizens used a structured public issues discourse process to identify and begin to address a local issue of concern, the outcomes were productive, hopeful and even transformative. As a small group of volunteers in a research project, they chose to dig into their concerns about the adversarial climate of the local community, using "The Integral Process For Working On Complex Issues" (TIP).[1] During and after the six-week project, they experienced significant insights into the issue. These insights and the outcomes of their work had valuable implications for the community's future. They also had meaningful and in some cases transformative impacts on other areas of participants' lives. This article highlights the main steps involved in launching work on a complex issue by discussing this specific case. Because the

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steps are replicable, I hope to indicate how they apply to a broad range of other issues and contexts in addition to those in this case example.

Audiences that might have a practical interest in what happened during this project may include citizens and citizen-activists, public officials, public agencies, non-profit organizations, and foundations with missions to address public issues and/or public relationships. Practitioners and consultants in the fields of deliberative democracy, group dialogue, conflict resolution, and public policy may also find it of value.

As an introduction to the project and some of its findings, this article focuses on the TIP steps the group used, and how those steps enabled participants to select an issue of their choice and work on it productively. That work took place within the context of a small research project I conducted. Although this public issues version of TIP is designed for community-wide use, the project had limited research goals that did not include community-wide implementation. They were to: (a) find out what changes, if any, participants experienced that could be associated with their participation in this structured public issue process; (b) learn about the issue that participants would select, analyze, develop, and deliberate during the project; and (c) study what happened within the culture of the small group of participants. This article complements my longer qualitative research report,[2] which does not discuss the process and methods in detail.

To tell the project's story, I begin with some background information on the experiences and observations that led me to develop this process for working on public issues. Then I introduce three of the project's dimensions. One of those is the set of process steps and their purposes, to show how they function in complex issues work. Another is the local issue that participants selected to work on, concerning their community's adversarial political culture. These first two dimensions intertwine, so I discuss them together. Those foundations need to be set before I, thirdly, introduce two of the major themes in the transformative impacts that participants reported. In the conclusion, I briefly summarize the project outcomes and suggest some of the implications of the project that may be relevant to this article's audience.

An Introduction to the Process

This section provides some brief historical background on TIP and my motivations for having developed it. About 20 years ago, I was at a stage in my life when I could begin to invest energy in my local county's civic affairs and issues. The most fascinating and troublesome feature I observed was that the same knotty issues and concerns were talked about year after year, even from one decade to another. As is true everywhere, different issues concerned certain populations more than they concerned others, and the large range of issues was much the same as people throughout the U.S. and other Western countries talk about. Some of those issues were localized concerns, some were regional, and some were at state and national levels. People who were talking about these issues included citizens on the street, those who participated in ongoing community leadership programs, local officials in villages, townships, and county offices, social service agencies, and active members of the business community. Despite all the talk, virtually nothing happened to address those perennial concerns. I did a lot of listening to the *nature* of that talk as well as the issues. I began to analyze what was going on and why, imagined what needed to be different to shift the chronic inertia, and experimented with my early ideas.

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[2] A more comprehensive research report is included in this issue of Integral Review, entitled *Perspectives On Troubled Interactions: What Happened When A Small Group Began To Address Its Community's Adversarial Political Culture*. That report includes traditional research elements of literature review, theory, methodology, etc. This qualitative research with human subjects used an informed consent process and obtained signed, informed consent forms from each participant. It gathered data through the six weekly sessions as well as individual interviews with the participants both before and after that series of sessions. The project took place in a small city in Ohio. The eight participants ranged in age from 31 to 57 years and had a wide variety of educational backgrounds.

When I spent a number of years associated with Kettering Foundation as an independent action researcher, I learned that people in communities around the U.S. were talking about their issues and concerns in ways that were similar to communities in my county. I estimate that I have worked with and listened to more than a thousand citizens over all of these years, and the same patterns have shown up across all the talk about public issues. When my association with the Foundation began in the early 1990s, some of its folks were in the early stages of sharing how they helped people talk about issues. They had found that it was important to “name and frame” public issues so that citizens could deliberate about public policy concerns and other “wicked problems.” Concurrent with ongoing volunteer work in my local area, I did both short- and long-term action research and extended workshops with groups of people from over a dozen communities that the Foundation attracted to its community politics program. The processes to name and frame issues were messy and frustrating affairs for many of these citizens, and the results of trying to have community deliberations about the issues were often unproductive.

Informed by my independent studies in several disciplines and my ongoing analyses of public issues, I pursued my own theoretical and action research agendas to develop and test methods for working on complex issues. I wanted to use the familiar patterns of issue-talk and transform them through orderly, comprehensive, and productive methods. My larger goal has been to help people give complex issues and questions the kind of attention and systemic action they need.

My years of experience taught me that the Kettering Foundation is right. Issues do need to be named and framed. Yet, through my research on and analyses of the nature of public issues and the usual patterns of issue talk, I developed three convictions. One is that those tasks need to be approached and performed far differently than Kettering’s method. This seems most important if the goal is to produce the multiple, high-quality issue frameworks that foster real deliberation and decisions about action at each phase of serious work on issues. Another is that additional steps need to identify the layers of complexity within typical public topics. There is more involved than often meets the eye, and those layers need to be treated as the nested issues they really are, and get addressed as such. The third conviction is that truly deliberative decision-making is essential to develop the scope of systemic action that complex issues and questions need. It has an important role in organizing, adjusting, and evaluating action. All of these are essential—that is, *integral*—to the thoroughness of efforts to address complex social systems. With these prerequisites met, I hypothesize that we should see some meaningful social transformations—in our issues-talk, communities, organizations, and more—because we will have the tools and insights we need to address the issues and questions we are concerned about. This is the overall purpose of TIP.

The process itself had previously been through field-testing, and this project was for implementing it to a limited extent. Its unique issue-framing process, which can be used as a standalone task, has been used a number of times over recent years. This project was the first time since field testing that I implemented the sequence of TIP’s steps up to and including its approach to issue-deliberation. Since this project was done with only one small group rather than in a community-wide setting, this implementation did not extend beyond the deliberation.

Deliberation is often called “weighing carefully.” This is a process of oscillating back and forth to carefully consider the pros, cons, and implications of multiple options. The oscillations take place inside and among individuals. If we are looking for them, they may be observed as zigzags within individual thoughts and focused, deliberative group discussions. This oscillating dynamic is a universal quality of decision-making. Indeed, we reach decisions by deliberating. Deliberations are intermediate points within processes to address complex issues: they are not end-points. This is because, if we are serious about addressing their roots and remedies in earnest, most issues require that the *polis* is engaged and involved over time—not as a one-shot deal. That includes individuals, groups, and institutions or agencies that have anything to do with a particular issue: those that support its existence, those who are affected by it, and those who can change the factors that have sustained the issue as a problem.[3]

For these reasons, TIP is designed for replicable, widespread use. It can also be tailored to organizational settings, where complex issues and questions have the same core qualities as public issues, and often need the same kind of systemic attention. It is beyond the scope I have set for this article to discuss the processes involved to scale and implement TIP in these and other contexts.

The Process Steps

This section begins with a brief orientation to the five main steps that were used over the six weeks of the project. Following that overview, in one sub-section per step, I discuss the step and the issue-work the group did in it. Each sub-section begins by repeating the general description of the step, and then describes the step’s purpose and outcome before introducing the group’s work. For some steps, I provide a narrative about the group’s work. For others, I allow the group’s work to speak for itself by providing a link to an actual product or incorporating a product into the article. Due to its limited size and purpose, this project did not use all of TIP’s steps or all of the processes within them; however, it did include the most essential ingredients for beginning to work on any issue.

Orientation to the Steps

This section conveys that TIP’s basic structure is sequential. The sequence goes progressively deeper into issues so that their many facets can be identified, understood, and addressed. This is a valuable orientation to keep in mind: TIP steps go vertically deeper in order to achieve meaningful focus and effectiveness. This is different than processes that move horizontally from problem identification to solutions. This reflects TIP’s assumption that (a) the nature of complex issues means that there are no quick fixes to them, and (b) that many distinct facets need tailored attention if an issue is to be addressed at its roots, i.e., systemically.

This project used the following steps.

- Identify all the topics of concern within the bounds that the group has set for itself, e.g., community, region, organization, etc. Map how they interconnect and impact each other. Select a topic to focus on first.

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[3] The subjects of *why* and *how* to engage and involve the polis are critically important and they warrant a full discussion in a separate writing.

- Identify the issues that are components of that topic. Select one of those issues. Identify the internal and external factors that support that issue’s continued existence.
- Identify all the possible reactive and proactive actions that could have positive impacts on the issue and that can be done by an array of diverse individuals, groups, and institutional actors. Select one of the actions that has high potential to make a meaningful change in the issue and that will require decision-making before it can be implemented effectively.
- Develop several viable, diverse approaches toward deciding upon that action, using the template provided to include all competing perspectives toward each approach. Produce a brief issue booklet about this question that needs deciding.
- With the aid of the issue booklet, deliberate all the pros, cons, and real world consequences and trade-offs involved with each approach, and articulate priorities, decisions, and the reasons for them.

The selection activities within the first three steps are illustrated in Figure 1. Its dotted images are intended to convey that at each step, a group selects one facet to work on at a time, out of many possible facets. This is like selecting one ingredient out of a stew. Figure 1 implies that a lot of diverse efforts are involved to work on all the ingredients of an issue. An issue’s complex make-up requires a lot of activity to dismantle it—just as a lot of collective activity has created and sustained the issue in the first place. The TIP steps are designed to unpack the ingredients that go into creating an “issue stew” so that people can be methodical, realistic, and thorough about their social change efforts. Ideally, many people work to address different ingredients, and TIP assumes at least some levels of concurrent activity in all of its steps except the first one. To stay within this article’s focus, I do not give these levels of concurrent activity more attention beyond this acknowledgement that they are important for effective social change efforts and that TIP assumes them.

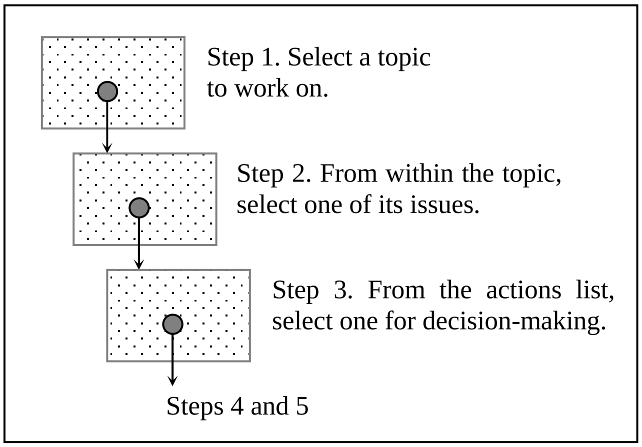
Step 1. Select a topic
to work on.
Step 2. From within the topic,
select one of its issues.
Step 3. From the actions list,
select one for decision-making.
Steps 4 and 5

Figure 1: Selection activity in steps 1 – 3.

The Main Process Steps

Step 1

The first task in this step is to identify all the topics of concern to the group, or group of groups, that convenes. Once that is done, several simple processes map people’s perceptions of the topics and their understandings of how the topics connect and affect each other. The purpose of step 1 is for a group to make a well-considered selection of one topic to focus on first.

In the first part of the step, the group in this case identified 39 topics as concerns. In my combined role of facilitator and recorder, I wrote on the wide flip charts whatever they mentioned. I did not edit any statements, nor did I invite or permit any discussion, for example, to find out if everyone agreed that something was a concern. The principle here is that all concerns are legitimate and have to be included, even if someone in the group does not agree with what someone else contributes. A concern is a concern and cannot be negated. This group seemed quite homogenous as people energetically cited their concerns. These centered on land-use and growth-related topics, many facets of the troubled communications and behaviors within the community, and some other social issues. Once they believed that they had reached the point of identifying everything, we did a brief process to notice different qualities that the topics had, based on how they were described thus far. The participants considered if the topics were about peoples' attitudes or values, and/or about human behaviors, and/or about how the community's systems or institutions were (or were not) functioning. Later, when we had moved to a process to cluster the topics, we noticed that the troubled communications cluster was weighted more heavily with attitude and behavioral qualities, and the land-use and growth-related cluster was more weighted as community system qualities.

To prepare them to do that clustering, participants first had to consider and identify which topics were interconnected with others. The simple connections that need to be identified at this stage are usually two basic types: cause and impact, i.e., one topic that is a problem contributes to another topic that is a problem. This was a thoughtful, though quick, linear process for the group to complete, with me drawing arrows to and from whatever topics they told me to connect. The outcome of identifying these interconnections was a map of the territory that concerned them. It indicated which topics were causing more problems than others. Such maps can show people that serious attention to one well-chosen topic of concern can affect many other concerns. This is usually helpful to note, so that the map does not seem to be overwhelming. Instead, people can use it as an ongoing reference tool that they update as they address their concerns; it can provide a meta-view of improvements, changing conditions, and adjusted priorities.

In their initial, raw form, such maps are usually a messy spaghetti-weave to look at, and this group's was no exception. Yet, that mapping needed to inform the group's choice of which topic to select. Thus, the next task helped to sort out the mapped topics by developing visual clusters or "icebergs." The group identified which topics were more like the tip of an iceberg, and which topics were more like an underlying base of support. The topics that are in the base of the iceberg will normally provide a practical range of starting points to choose from because they tend to represent causal factors rather than symptoms. This exercise is not for analyzing topics with any depth; it is a light-touch method to facilitate choosing a first topic to start with. Figure 2 illustrates the general approach to developing iceberg clusters.

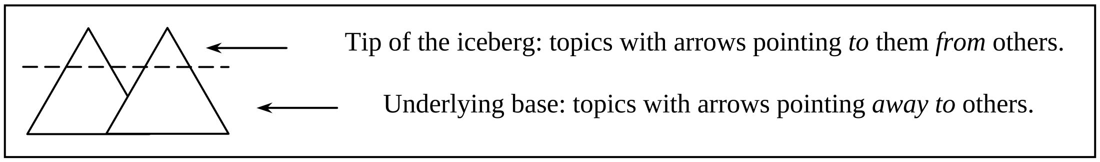
Tip of the iceberg: topics with arrows pointing *to* them *from* others.
Underlying base: topics with arrows pointing *away to* others.

Figure 2: Developing topical iceberg cluster(s).

As they discussed which topics were more like the tip of an iceberg, people in this group distinguished the three clusters mentioned earlier. Step 1 does not require or invite participants to identify or analyze the relationships between clusters. In this case, the group had a catalyst to try to analyze the relationships. One person observed that the cluster of land use-related topics reflected consequences and symptoms of recent years' changes in the growing community's former status quo. Another person observed that the other cluster, associated with the strains that characterized local public life, reflected issues of process: "how we get the job done, relate, and communicate, how we do things, how things are working or not working.” Once these characterizations were in the conversation, participants seemed to feel impelled to figure out how to name the gap between the clusters: What *was* the missing link that would transform one cluster’s strains *so that* the iceberg of symptoms and consequences in the other cluster could get whittled down? The group could not figure out the answer to that question, but it did identify that the missing link would need mutual education of officials and citizens, and that it was hard to make the connection between the clusters when there was such a lack of communication in the community. This group ended its step 1 work when it selected its topic. Since these seemed to stand in the way of addressing all the topics of concern, participants selected: “the troubled interactions between the government and the people.” (Click here to view the outcome of the group’s work in step 1).

Step 2

Once a topic is selected, the next step begins with identifying the issues that comprise that topic. From among them, one is selected as a specific issue to address in earnest. Methods in this step help people identify all of the factors they can about what sorts of things support that issue’s continued existence. Step 2’s purpose is to develop a thorough understanding of the issue. Its outcome is a summary issue description that orients the next steps of work.

In the first part of this step, people articulate why the topic specifically concerns them and how it matters to them at all. Then they unpack the ingredients of the topic. There is no *single* way to describe why a topic is a problem that should be addressed, because it is really made up of a collection of causes, influences, and problematic impacts. These separate ingredients in the topic’s stew need to be specifically identified, because each of them is usually an issue unto itself that needs attention.

In order to sort through the causes and impacts of troubled interactions between government and citizens, participants in this case needed to tell some of the stories of their experiences. This was because the topic held quite a “charge” for some of the participants, given their very difficult history in the community. Once it finished this task, the group had deepened the topic of troubled interactions by identifying that “the issue, the problem with that is that citizens are unaware, frustrated, and therefore powerless, uninvolved, and misinformed.” This became the temporary working title of the overall issue they wanted to address. Their summary issue description (below) would further develop it and explain the reasoning that led from the topic to this issue.

The next task was to identify all the factors that held that issue in place *as* an issue that needed attention. The group worked with three basic elements to develop its understanding of the problem, and members of the group included themselves in these. The first element was all the attitudes, assumptions, and biases that different individuals and groups of citizens, officials, and public servants had, or seemed to have, about each other. The next element was all the concrete behaviors that supported the issue; in other words, all the things that people were doing that kept it propped up as a problem. These included behaviors of individuals, cliques of citizens, and government policies and administrative actions, and of course, they related to many of the attitudes in the first element. The third element was to identify the things that individuals or the government did *not* do—but *could*—that supported the issue’s existence by their absence. Those included behaviors and policies, too. All together, those elements gave the group a vivid understanding of why their issue was a legitimate public issue. Step 2’s work ended with the preparation of a neutral, non-blaming summary issue description, as follows.

How do we improve interactions between government and people in ways that reduce frustration, increase information exchange, and foster citizen participation and cooperation in their government?

The nature of the problem. The government and some of the people of the city and the surrounding area are increasingly alienated and adversarial. People who are troubled by this relationship, and the interactions that characterize it, are those who tend to be active in civic affairs. There is a long history of mistrust and conflict between groups, which has gone unaddressed.

Why this is a problem. For many active citizens, this adversarial relationship has a major negative impact on their quality of life. Active citizens need to feel at home in their community, rather than shut out of meaningful participation in civic affairs by their own government processes. As citizens of a democratic nation, they need to be involved in the rule-making and decision processes that impact their investments in their quality of life. Those investments include relationships, property values, and concern for the welfare of the whole community in the near and long term. Adversarial dynamics destroy relationships and entrench beliefs that "who ever does not agree with me, is against me." In a civilized 21st Century community, it is a public problem that citizens are feeling and acting like enemies toward one another.

Effects of the problem. Some active citizens end up feeling trapped in frustration, anger, or confusion. Some feel unaware of things they need to know. Others drop out of active engagement in civic affairs to avoid the frustration. Others spend large amounts of time and money to get their views included on the public decision-making agenda. Some fear retribution for getting involved in issues or for having views that differ from local officials and other citizens. Some are discouraged that the situation will not get better. There is risk of inconsistent and less effective official decisions when processes do not build in time to consider the full range of short- and long-term impacts. Such decisions can deepen divisions, and cost time, effort, and tax dollars to address their "fallout." Such unintended consequences have included lawsuits, ill will, lost trust, and small problems becoming big problems. In the adversarial atmosphere, viable solutions can go unexplored or be torpedoed if the wrong persons offer them. Mutual mistrust results in behaviors that widen the existing divisions. For example, some citizen requests for public information go unfilled, some feel the need to have a witness to certain conversations, some people quit speaking to each other, and some people who are not on "the right side" fear and/or have experienced a range of unfavorable treatments by city employees or official groups serving them at taxpayer expense. These cumulative effects result in some exemplary elements of the city government's mission going unfulfilled.

Causes of the problem. Both the processes of government and the attitudes of citizens—outside of and inside government—need to evolve, because both have trapped the community in troublesome patterns. Both government and citizens operate in ignorance of what all the "others" deal with and are concerned about. The community does not know how to handle its inherent diversity in non-adversarial ways.

Step 3

Once an issue has a clear summary description, it is ready for step 3's task to identify all the possible reactive and proactive actions that could have positive impacts on the issue. These amount to an action-system that would need diverse individuals, groups, and institutional actors to implement it. The purpose of this step in a larger setting is to do the first layer of organizing, launching, and coordinating action to address the issue. That includes volunteer activity and policy work, and starting work on at least one initial issue question that will need public, deliberative decision-making.

In this small project, the outcome of this step was confined to selecting one of the actions that would have high potential to make a meaningful change in the issue *and* that would require deliberation. For this group, the purpose of deliberating was to give them several experiences. They were: (a) to go through the process to prepare an issue for deliberation in step 4, (b) to have the experience of deliberative decision-making in step 5 *as if* they were the community,[4] and (c) to begin imagining how such deliberations could benefit the larger community and its issues.

The summary issue description, above, served as the basis and inspiration in step 3 to brainstorm all the possible actions of every kind that could address the issue. Its three pages' worth of diverse actions at all levels of the community revealed to the group that there were no magic wands involved to address the issue: just a lot of well-tailored actions of the right kind—inventive, mundane, and technical—by enough diverse players. The actions needed to add up in two ways. They needed to add up to ending the multitude of supports that held the issue in place. They also needed to include a comprehensive array of new actions and policies that would add up to proactive supports for a more positive political culture and system for public business. This potential action-system indicated a wide variety of voluntary actions that individual citizens, groups, and the government could take. At the same time, there were a significant number of proposed changes to public policy and administrative procedures. Some of them would need serious public attention, deliberation, and decision-making.

For this project, the group's last task in step 3 was to select one of the proposed actions that met TIP's criteria for when a question or issue requires deliberative decision-making.[5] As with most of the choice-points required in TIP, the group had to weigh priorities to select one. With such a large list of important items, this was challenging. So, this group began by highlighting four actions that it would choose from. Couched in the form of open-ended, neutral issue-questions, they were:

- How do we involve the whole community in deciding changes to zoning codes?
- Who needs to be included and considered in deciding zoning variances?
- How do we ensure transparency and access to all public information?
- How do we ensure accountability and protections in cases of retribution?

During step 2's work, I had begun to question if the group was as homogenous as participants' earlier assessments indicated, and to question my earlier assumptions about this, too. Then, and during some of step 3's discussions, I suspected that several people had somehow developed misplaced assumptions about the project's purpose. A few comments seemed to infer that this group would decide how to resolve whichever issue was selected. One small group could not resolve such an issue, of course. And, although subtle at this stage, I was picking up that there were different perspectives about *how* to approach whatever that action might be. I was able to digest all the implications of these signals after step 3's first session, although it would have been better if I could have explored them with the group with more immediacy. Those dynamics may have been in the mix at the point, above, when the task was to select a specific issue-question to work on. Rather than select one of those four questions, the group deviated from that task. Spontaneously, the discussion began to broaden and it was sprinkled with some new questions. These included: Why do we mistrust them? How do we understand the role and responsibility of government? How do we understand the roles and responsibilities of citizens?

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[4] This project tailored TIP's design to accommodate the limitations of a small group working on a public issue, since such a group cannot make decisions that require many other people's perspectives and experience.

[5] These criteria are beyond this article's scope to include here.

A group may have a mixture of reasons to depart from a task. It can be as simple as not really understanding the task in the first place, feeling resistance to making a choice, and/or other dynamics. Thus, I always pay close attention at such junctures. Rather than insist that they finish the task, it was more important to let this new discussion unfold a little bit to listen to what was going on. Then, we reached the end of the session's allotted time. Step 3's final task of selecting an issue-question would have to wait until the next session, even though the participants felt discontented with the confusion they created during their final discussion.

I believe that a unique combination of factors led the group into its task-avoidance and confusion. People were juggling the emotional charges of the issue, along with the unusual high-level nature of the issue, along with the different assumptions mentioned above, along with an underlying *group level* issue that had not yet been identified: I sensed that there was an invisible "elephant in the room" that had to be identified so that productive work could resume. The dynamics indicated to me that a fifth issue-question had to join that list.

Between Steps 3 and 4

The discussion that closed the last session had continued to reflect some negative judgments of officials and other citizens. These had shown up in the earlier steps, and had quite understandable origins in historical community events. Half of the participants later referred to this as "the negative tone." If such a tone flavored efforts to foster positive change in an adversarial political culture, it would fail by being quite like the very culture it wanted to change. Ingredients of the invisible elephant in the room included the contradiction between (a) the group's expressed desire to improve the community atmosphere and interactions and (b) the tone that characterized a number of participants' attitudes—and then the silence about the contradiction. The most recent discussion suggested that participants were not of one mind about how, why, and when they should engage their overall goal, much less of one mind for choosing one of the four issue-questions they prioritized.

Some of the participants talked about this during the individual interviews after the end of the sessions. One of them mentioned that she had been aware of some differences among group members' orientations, but she had figured since everyone shared the overall goal to improve things in the community, that those differences would not really matter. By the end of the project, she had concluded that such differences would probably have repercussions if they had not been addressed directly.

The benefit of that last discussion was that the participants' diversity of key questions and confusion came out in the open. There were clear signs that the earlier sessions' opportunities to voice a wide range of emotions, along with their origins, had not lessened the strong influence of those feelings. These factors would make it easier for me to introduce them to their elephant.

I decided to begin the next session with an extra discussion before the group would choose which issue-question to work on in the remainder of the project. I would call attention to the dynamics I had been observing, and recommend a shift of focus. The shift would be from addressing the overall community issue at this stage, to first address the within-the-group differences. Unaddressed, I suspected those differences would make it hard to succeed in anything they wanted to do later on the community issue.

It is a potentially transformative process whenever we shift our focus from just paying attention to issues "out there," to also examining our own perspectives and assumptions "in here" before and/or while acting. This is called action inquiry.[6] For many people, it is an unfamiliar personal experience and an uncommon group experience. I felt an ethical imperative, for the sake of the group and the overall community issue, that we address the elephant in the room, even if it was hard for me to communicate to the participants what I was hearing and sensing, and why it led me to the conviction that it was important to shift the focus. With this goal in mind, I prepared some supplemental handouts for the next session, hoping they would facilitate the upcoming discussion about this elephant.

I would call the elephant a "tone and intention" issue-question. By tone, I meant the personal judgments that underlie human speech and behaviors. Judgments can be negative, or positive, or simply non-existent when someone feels genuinely neutral about things. Many times, people are unaware that their silent judgments—negative or positive—come through loud and clear as the tone within their speech and behaviors. Some of the participants in this group had negative judgments, while some exhibited no active judgments at all. The negative tones were influential in creating the group's atmosphere (just as they were in creating the community's atmosphere). By the term intention, I meant whatever we *intend* to have happen. Intentions reflect the *motives* that guide behaviors, and these motives underlie the tones of our speech and behaviors. In this group, there were mixtures of motivations that showed up in the contradictions described earlier. In times of change, it is very natural to have conflicting intentions, and we should always expect them in ourselves and in others. In this case, some were reactions to the past (e.g., "we feel the need to punish them first") and they conflicted with sincere intentions to work for a better future. Deliberating about a tone and intention issue-question would help participants sort out their mixtures of intentions and decide how they wanted to use them.

We spent some time at the beginning of the next session to discuss all of this. The rationale for working on their own tones and intentions seemed sensible to participants, at least on the surface. Possibly assisted by whatever trust-levels they had developed toward me, they agreed to shift their focus. It seemed to make sense that their own tones and intentions would affect other people if they tried to improve the community's adversarial atmosphere. The group developed new wording to capture the question they would work with. The wording reflected the idea about the impacts of the group's tone and intention on their larger issue of concern, expressed in these terms: "What kinds of relationships do we, as a group, want to have around the issue of troubled interactions with and among citizens, officials, and public servants?" With step 3's task completed, the group was ready for the next step.

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[6] See: Bill Torbert & Associates. (2004). *Action inquiry: The secret of timely and transforming leadership.* San Francisco: Berrett-Koehler.

Step 4

Step 4's premise is that (a) people have a serious, specific question about taking action and (b) the question is more complex than one that just needs a debate between yes or no. The question must be one that could have multiple answers to either choose from or to intermix as a tailored response to the question. Its purpose is to make this complexity explicit so it can be worked with. In step 4, people develop several viable and distinctly different approaches toward taking action. These approaches need to ensure that all competing perspectives toward each approach are likely to be included. The process of developing such an "issue framework" creates an informed basis for deliberating about such a complex decision. The outcome of step 4 is a brief issue booklet about the question that needs deciding. It includes the reasons for asking the issue-question and a neutral presentation of the diverse possible approaches to it. The booklet serves to educate people about the issue, and people refer to it as a resource as they deliberate.

When a group has an array of tones and intentions to deliberate, as in this case, people can weigh how each option may contribute to or detract from an overall goal. Then, they can carefully choose conscious strategies in advance of any action. This can reduce the odds of people self-sabotaging their own efforts once their active work begins. This is especially valuable when the stated goal is to transform an adversarial political culture and there are some bitter feelings about it to begin with.

In its fourth step, the group developed four very different approaches toward the tones and intentions it could take, using TIP's template for issue framing. Each approach was a different way to respond to the question, "What kinds of relationships do we, as a group, want to have around the issue of troubled interactions with and among citizens, officials, and public servants?" The idea of asking about the kinds of relationships came from the group's recognition that intentions and their tones *flavor* relationships. Thus, the titles given to the four approaches reflected a different flavor, as follows.

> Approach 1: The intention and tone of preparing to organize an "us vs. them" campaign to get the changes we want.
>
> Approach 2: The intention and tone of preparing to take an "it's the law" approach to enforce needed changes.
>
> Approach 3: The intention and tone of preparing to take a positive "strategic encouragement" approach to get changes rolling.
>
> Approach 4: The intention and tone of preparing to take a fully collaborative community-wide approach to work on changes.

Although they always have qualitatively different subject matter, all approaches use the same outline to develop that content, using the following sub-headings.

1. We might favor this approach if we assume that…
2. This approach to the overall issue would be best because…
3. Examples of how we would prepare for taking this approach.
4. This approach may be worrisome, because…
5. Trade-offs that would be involved, including impacts on the kinds of relationships we want.

As introduced earlier in this article, deliberation refers to the natural oscillations of the decision-making process that goes on inside of people and groups all of the time. Those natural processes often take place rapidly and unconsciously under the surface, unless there is a major decision that we take our time to make. Then, we are more likely to notice that we are weighing the pros and cons of doing something. To weigh the pros and cons of just one thing is like having a debate between two possible answers. When the question is more complex because there are more than two possible answers and we have many consequences and what-ifs to consider, our internal oscillations can seem like a mish-mash. This can make it quite difficult to even articulate all of the options, much less the pro-and-con zigzags that swim in the mix. To lend coherent order to such messy decisions, each section of an approach, indicated by the sub-headings above, offers distinctly different opportunities to notice and shed light on those zigzags. Once identified, they can become active agents in the process of informed decision-making.

With this project's focal shift to intentions and tones, the processes in steps 4 and 5 proved to be the most meaningful and in some cases transformative for the participants, based on what they said in interviews afterward. The following description of step 4's work emphasizes the process of taking multiple, other perspectives while developing approaches to any issue. I recommend that readers look at each of the four, one page-long approaches the group developed, (click here), for two reasons. One is that they are lively and descriptive, which should make this discussion more meaningful. Another is that they offer a glimpse at the potential value of "politically *in*correct" language to deepen understandings of certain issues.

In order to do the step 4 tasks, each separate perspective has to be developed into an approach that is tailored to the question a group will deliberate later. This means "putting on" different vantage points, akin to putting on a different pair of glasses to see things differently until the next pair of glasses is put on. A chief benefit from step 4 that participants identified was *that* TIP provided distinctly different perspectives to work with. Since it is common for people to think and behave automatically from their own, customary view of things, it was a new experience to discover that *multiple* perspectives could be purposefully used to look at the same question. They found that each perspective had real legitimacy based on experiences, current conditions, assumptions, and needs.

To develop the perspective into an approach, participants first had to identify what that perspective would assume about "how things work." With my coaching support, they came up with two or three assumptions that seemed to underlie each perspective regarding their issue. Each set of assumptions had a different-sounding tone, which created the approach's flavor. For example, one assumption included in Approach 1 (the combative, "us vs. them" perspective) was "They're out to get/beat us." An assumption in Approach 2 (the legalistic perspective) was "We cannot trust our government officials." In contrast to these, an assumption in Approach 4 (the collaborative, community-wide flavor) was "Other citizens and city officials want good public relationships, good decisions, and effective processes just as much as we do." Since different assumptions result in different tones, intentions, and behaviors, developing the assumptions was the first task to do on each approach. Keeping the approach's perspective "on," participants developed the reasoning to explain why the approach made good and legitimate sense; this further develops the unique flavor of the approach. Then, they imagined and described concrete actions with that flavor that could address the overall community issue. These actions served as examples of how they might implement the tone and intention of each distinct perspective if it were used.

The second part of developing an approach so that it will generate oscillations that foster deliberative decisions is to *take off* the perspective that flavors the approach, and to put on as many *other* perspectives as possible that would find the approach worrisome for any reason.

Under the sub-heading, “This approach may be worrisome, because,” TIP’s template takes a very systematic approach to ensuring that all imaginable worrisome aspects are included in the approach. This is crucial for all public issues because such issues affect many different people who are in different circumstances, and not all of them will “be in the room” when such issues are deliberated. However, with this group’s focus on its own tone and intention, I followed my intuitive decision to facilitate this part of the task by relying entirely on what the participants would come up with on their own. Without any prompting from TIP, they would surely know what things would be worrisome to *them* if they adopted any of these different tones and intentions in the larger community.

The final part of developing an approach is to identify the real-world trade-offs that would be likely if the approach were taken. At least several of these have to be identified for inclusion in the issue’s booklet. They need to describe likely, concrete consequences for diverse people if the approach is implemented. This is because different people and groups, their self-interests, and the common good are impacted differently by different actions. We all do not have the same settings, concerns, values, or responsibilities. Thus, trade-offs illustrate real impacts that could be experienced from different angles, including individuals’ long-term hopes for the overall issue. A list of viable trade-offs not only keeps the issue tied to on-the-ground realities; it also further informs and strengthens the deliberative oscillations as people consider the future impacts of any decisions.

The group put on and took off all of these very diverse perspectives without judging or discussing the merits or demerits of the approaches they were developing. This is an important discipline, because it is unproductive to jump ahead before an essential tool is ready: deliberations have to wait until there is a complete issue booklet. Thus, these participants immersed themselves in each task at hand in order to create a meaningful and realistic vehicle that would serve their deliberations in step 5. These four approaches, combined with the summary issue description and some other material, formed the issue booklet that they used in the last session of the project.

Step 4 freed each person to give full voice to a wide range of distinctly different concerns without feeling pressure to advocate for any one of them. One participant reflected later on how the two steps—framing the approaches as a group, and then deliberating them as a group—served an important function.

> I was just thinking of the insight that we tend not to do that kind of decision-making in groups. To say, “Here are our options, let’s describe each one very thoroughly without trying to judge them, and then take a break, and come back to it and try to evaluate and judge. But only after we’ve really understood what each one of them means.” It’s a process that takes the competition out of it, up front, so people aren’t feeling they have to argue their point. They’re just describing each one, and people can suspend their opinions long enough to detail each piece of it. So, it seems like it brings some perspective, as well as it drops the intensity; they don’t feel they have to fight all the time for their particular thing.

They did not have to change their opinions in order to do this step, nor did they “lose” themselves by putting on and taking off perspectives that were different from their familiar favorites. To the contrary, they were preparing an orderly way to *use* all perspectives. As it turned out, this process of purposefully donning other perspectives helped many of them discover more about themselves, others, and their options for ways to operate in the world.

Step 5

With the issue booklet in hand, step 5 puts all the preparation to work. It is a deliberation of all the pros, cons, and real world consequences and trade-offs involved with each approach. Its outcome is an informed group of people that can articulate priorities, decisions, and the reasons for them. The outcome can include identifying new factors, e.g., if more information about the issue is needed, if more people need to be involved, and even if any other questions need to be deliberated before the current decision can be finalized or before things can really move forward.

There are several basic purposes of the deliberative decision-making process (and there can be more than several, depending on the issue and its scope). The first basic purpose is to reveal and understand the issue's complexity. The complexity reflects many different perspectives and the issue's impacts on different interests, concerns, needs, and real or potential conflicts of various kinds. To discover the complexities of an issue while deliberating it is a collective learning process, and it is always wise to do the learning before making decisions.

The next basic purpose is to identify the actors that are involved with the issue in any way, as thoroughly as possible. Actors will be individuals, groups, and organizations and institutions of various kinds, depending on the issue. They may be involved in a variety of ways, for example, by: (a) the impacts on them when the issue is addressed (and not addressed), (b) their resources or lack of resources, (c) significant changes they would have to make to implement or adjust to the issue being addressed, and/or (d) other facets of the issue that come to light *by virtue of* identifying the actors that are really involved. All of these factors matter, *if* the issue is to be addressed effectively.

A final basic purpose of deliberative decision-making is to lay the informed foundations and directions for organizing and coordinating complex work on the issue and the layers that are revealed in the process. This is because the kinds of issue-questions that need to be deliberated are often part of a systemic "whole" that requires much more than a one-time meeting or technical remedies.

For the project group's issue-question, the complexity was different. The primary purpose of its deliberation was to find out "where they landed" on the question, without needing to take any action at all to implement it. It was essentially an action inquiry. They would inquire into themselves, the local situation, and one another, to consider how different tones and intentions could impact public relationships if they flavored future actions. Another purpose that I hoped it would serve was to enable participants to imagine how deliberation, in general, could be used in the community to address the topics of concern that they had identified earlier.

The earlier negative tone was missing by the time this group began step 5. Two persons later expressed their surprise at this "dramatic" group shift. I think the explanation lies in the insightful observation made by the participant quoted above: the process of framing different approaches seemed to dissipate the negative energy.

As it concluded its deliberative session, the overall preference of the group was the tone, intention, and action-examples of the fourth approach (community-wide collaborative work) that it deliberated about. This was because the actions that could implement that approach would hold the greatest potential to foster *un*troubled interactions in the community: it would change the workings of public relationships and decisions. The group pragmatically recognized that there would be issues or situations when such a higher-level approach would not fit or succeed, in which case the next lower approach could be appropriate to try. It identified that there may be cases where none of the last three approaches could work and the first approach would be needed as a last resort.

The content and quality of the group's thoughtful deliberations are best reported by allowing them to speak in their own voice. I believe this is especially so in this case, because it was a groundbreaking event: people conducting a truly deliberative action inquiry about their tones and intentions and how their decisions would impact an already-troubled community. Their work was characterized by the rhythmic back and forths of deliberation's interactive reasoning. In that session, they demonstrated the capacities to remain focused, build constructively on one another's contributions, and arrive at well-reasoned conclusions tailored to their personal styles and the community's history and context. Click here to read the report on their deliberative session, which I prepared and edited for them from the session's audio recordings. It conveys the unique character of deliberative dynamics more effectively than any of the words I have written to describe it.

Transformative Impacts

The purpose of this section is to introduce two of the major themes that reflect significant impacts participants discussed at length during my final interviews with them.[7] In the first of two sub-sections, I draw from two participants' experiences to discuss the theme of transforming "us versus them" mindsets and behaviors. Then I develop the theme of liberation, also through highlighting specific participants' experiences. This theme showed up in personal and interpersonal dealings, public and private. These two themes merged to underlie a unique community project that two members of the group began to plan after the last group session. All of these influences could be expected to have some positive direct and indirect impacts on the adversarial community atmosphere over time.

"Getting Off Our Horses"

The negative tone that had been apparent in the group was initially introduced into the group dynamics by several people. They had had an accumulating number of disturbing experiences dealing with city hall and certain groups of citizens over the years they had lived in the community.[8] Each of them had a different kind of history in the community and different levels of activity. I cite only two of them because they were more influential within the group and the way they described their changes illustrate this theme best. One of them, who I will call Larry, had lived in the city for only a few years. In that time, he had trouble getting public information from officials to help him solve various problems and to inform his voting decisions. Along with those frustrations, he was concerned about the community being overdeveloped with both residential and commercial buildings. He had never attended a public meeting or been visibly active, but he considered himself very active by virtue of his considerable mental, residential, and child-rearing investments in community life. The other was a long-time activist who I will call Janet. She was involved in various ways in community organizing, citizen referendum initiatives, and lawsuits against the city to overturn or prevent certain official decisions. Janet and Larry began the project with points of view about local affairs that were quite similar to the first and second approaches that the group deliberated. Approach 1 was the tone and intention of an "us versus them campaign," which was how Janet and others had been using legal mechanisms for a long time. Approach 2 was the legalistic tone and intention of forcing officials to change through passing new laws and exercising vigilant oversight over and enforcement of existing laws. Larry's perspective toward officials reflected a combative, heavy hand of the law tone. Both Larry and Janet were convinced that officials routinely made questionable deals and violated administrative and zoning ordinances to the detriment of the community, relations with at least some citizens, and democratic process in general.

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[7] Descriptive portraits of all participants are included in the longer research report in this issue, referenced in this article's footnote 1. They report the changes in people's levels of hope and motivation before and after the project, and convey more information about how each person experienced the process and applied its benefits.

[8] An analysis of how this tone "infected" the tone of the group is included in the longer research report.

In our individual interviews before the group work began, each of them explained in detail the local issue that concerned them the most. They described how they understood the causes of the issue, what should be done about it and by whom, and what they would do if they were in charge of making sure the issue was dealt with. In brief, Larry's remedy centered on requiring officials to disseminate *all* public information to citizens in a timely, accessible way. Thus equipped, citizens could "take the power back from the government" and control the community development directions and decisions. Janet had been thinking for a long time about what she would do to address the zoning-related issues (the real or suspected back room agreements, strategic appointments to the zoning appeals board, manipulations of the code, and outright violations). She would start a neighborhood congress system to be a defense mechanism, a counterforce against the city's power. It would select and support new candidates for public office that would support the congress's agenda. She wanted to ensure that the voice of a huge number of citizens was too strong for officials to dismiss, and believed such a congress was the only hope to alter the traditional dynamics and get a different caliber of public officials into office.

Those sketches capture how Janet and Larry began the project. They ended it very differently. In Janet's terms, it was time for everybody—citizens (including her) and officials—to "get off their horses," to step out of the vicious cycle of playing offense and defense with no end in sight. She would not build a defense mechanism against the city, but rather, something very different. For Larry, it was to "quit looking at it like an us versus them thing, because it's not an us versus them: it's a 'we.'" He no longer thought in terms of citizens ("us") taking the power back from the government ("them").

How did their experiences in this six-week project transform their long-held perspectives? A thorough explanation would include their self-reports about their thinking, their biographies, how they internalized all of the discussions and activities during the group sessions, and life events that were going on while they were having and reflecting upon their project experiences. It would also require a great deal of theoretical discussion, including the tone and intention issue, TIP's design, and adult development psychology. In the space of this short, general article, my explanation will simply draw from the main experts: the people who had the actual experience. I offer a synthesis of their reports about getting off their horses. The process of "laying down arms and coming to the peace table" was the way another participant described this shift.

Their first step in this transformation was noticing *that* they had been thinking like aggressive warriors. They had not seen it this way before. They had felt like victims of others' behaviors, and thus justified in taking a defensive stance. They had not realized that their defensive stance behaved just like an offensive stance. This was like finding out they had been playing a different role than they thought they had been. The idea of *role* was instrumental here.

Once they recognized that they had been in an aggressive role (mentally and in their concrete actions), they had a natural reaction to that discovery. They did the kind of mental role-playing that most adults can do: they imagined how their aggressiveness would trigger undesired reactions in others. Those reactions would seem to be defensive, but of course, they would be aggressive, too. In this way, they realized how they participated in a cycle of adversarial tones, intentions, and relationships, but, as Larry said, "I don't want to feel like an outsider to another group of people." Neither of them wanted that. Since they were now aware of their own roles in supporting many of the situations they did not like, they became open to alternatives.[9]

Fortunately, the group process that elicited these experiences and insights was simultaneously introducing them to a range of alternatives. They discovered for the first time that there *were* alternatives. They simply had not known that their view of reality was not really "all bundled up together" in one, unpleasant way. They did not have to be stuck where they were, and they could look at alternatives. They found out that they could step out of the vicious cycle, first mentally, then physically. The alternatives indicated that there were different ways to do this, so they would not be stuck in any single approach at all. This was a liberating discovery.

As is often the case, along with that liberation came feelings of insecurity, taking forms that reflected each person's uniqueness. For example, Janet said that although "getting off the horses first" was necessary, "it's not something that I am personally real comfortable about. It makes me nervous. I feel safer on the back of my horse. And I'm sure that they probably do, too." As a novice in civic affairs, Larry's fears were different: "I don't know if I've got what it takes to be able to do it mentally, physically, or verbally, so it kind of scares me." These and other participants found creative and further-liberating ways to experiment with and ease into their discoveries.

With these internalized understandings that "we need to act the way we want them to act" Larry and Janet took different paths. Larry's is reflected in the next section. Janet and another participant dove into early planning for a substantive, long-term goal to develop a "neutral platform" for non-adversarial community "network mechanism" that could include citizens from every part of the community, city officials and departments, and area groups and organizations. They planned to begin by conducting focus groups throughout the community to research and test their ideas and integrate them with what they would learn from others. Their intention was to foster communication and informal issue deliberations on an ongoing basis, so the "community organism could know itself" and begin to learn how to recognize and deal with its issues before they became situations that tore the organism apart. This did not seem to have a pie-in-the-sky idealism. Rather, it reflected the realism of the group's deliberative conclusions, that diverse approaches should be tailored to address conflicts that arise from time to time. They wanted to build an infrastructure to support local communications and information exchange, and proactively reduce unnecessary conflicts. Such a mechanism would support efforts to work through the inevitable future conflicts, too.

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[9] There are important things to understand about how and when people *can* become open to alternatives at all; regrettably, they are beyond the scope of this article to discuss.

Liberated By Taking Multiple Perspectives

The discovery that they could consciously select from among multiple perspectives in forming their own thoughts—about anything—was the high point for some of the participants. Reports from Larry and a woman I will call Sue showed how thoroughly life-changing it was for them. There are both nuances and pronounced differences in how each person used their new insights. For the sake of brevity, I will highlight only Sue and Larry, and do so without discussing all of the differences I heard during their interviews.

There are, however, two differences about this case's issue-focus to point out at the beginning of this section. As I mentioned earlier in the article, people have been "framing" public issues for a long time; there are some different methods for doing this, including TIP's in recent years. A customary design is for one person or one group to develop the approaches into an issue booklet for *others* to deliberate the issue. In other words, most often, people do not experience both steps 4 and 5, above. Another difference is that if this project group had selected one of its four, prioritized issue-questions in step 3, before the tones and intentions surfaced as an issue, this transformative theme may have never developed, at least not in such life-changing ways as it did for Sue and Larry. The difference in this case was that the tone and intention issue invited a different kind of deliberative activity: self-reflective inquiry. By self-reflective, I mean that there was an explicit need for people to move their attention back and forth from the issue *within* them to the community issue in front of them, in order to reflect upon the implications of each possible choice of intentions and their tones. Unfortunately, our social settings rarely provide such transformative opportunities.

How were these experiences liberating to Larry and Sue? They released them from a trap. Although this played out differently for each of them, the common trap was to be wedded to one way of looking at things. As they both said, they didn't *know* there was any other way to look at and react to things. Many of us do not. This is reminiscent of the saying, "If you find that you are digging yourself into a hole, the first thing to do is: stop digging." That is easy for a critic to say, yet it does not consider this: what if digging is all we know *how* to do? What if we do not even know *how* to stop it? This could be like electric current without an on/off switch installed: the electricity just keeps flowing. These people were elated to discover that they could switch; they could look at and react to things in life quite differently.

The first step was to realize *that* they had been looking at and reacting to things in one way. An analogy may illustrate what this seemed to be like for them. If we never encountered any reflective surfaces—mirrors, glass windows, pools of water, etc.—and if we did not have arms and hands with which to touch our own faces, and if we never talked about seeing, how would I know that I *had* eyes? How would I know *how* I saw things at all? I suspect I would not even think about seeing, but rather just take it for granted, because neither I, nor our culture, had a concept of it to think about it with. Just so, many people do not have a concept of, or a way to, notice that they have a point of view. Often, we assume whatever we think *is* the way reality is. This is reminiscent of another saying: "Our perceptions are our reality." It is often true. We often *are* our points of view and so we have no reason to give them a second thought, just like the eyes that I am unaware of in the analogy. Both Larry and Sue made this point, that they had not had any *concept* about their own perspectives. The group process provided the concept for first realizing *that* they had perspectives. Simultaneously, as described above, they learned that there were other perspectives than their usual ones. This contrast supported their discovery that they had been using the same perspective to view things in life, even when it was not getting satisfying results. With the structured support and resources of the process as a starting point, they began running numerous joyful experiments in this liberating territory of multiple perspectives.

The group's focus on tone and intention was instrumental for *bringing home inside* what it *meant* to them to explore and use different perspectives. Larry's early experiments were with his family, and he found that it meant a whole new world of information that he could mine from within himself and share with others. He told me how his whole thought process had changed, and with it, his behaviors. An immediate benefit was that he became more approachable to his wife and children, who now clearly enjoyed being with him. Rather than reacting to things out of old habits, he took time to look at things from different perspectives—his own new inventory and those he imagined others might have—to find out what a whole situation might be about. He would ask questions now, and in a non-threatening way. All of this also meant a way to help others mine information from within them. One of several examples he gave was reading books with his elementary school-aged children. He would suggest they pause at various points in a story, and talk about what perspective a character was using at that particular point. Then they would imagine what *other* perspectives might the character take, and how would the story be different then? He found he could directly transfer his learning from TIP to any other domain in his life, including educating his children so they would not live in the trap he had just emerged from.

This played a major role in transforming how he wanted to address the issue of citizen access to public information and community development: it erased the dividing lines between "us" and "them." For the first time, he was viewing the entire community as a "we" without those dividing lines. For him, it had become a system in which to exchange as much information as possible about points of view and respect them *as* valuable information, even when they were different or conflicted. He would respect those differences. With his experience of becoming un-wedded to one point of view, he wanted to help other citizens appreciate the information-value of differences and respect them, too. The exchange of viewpoints *as* essential information became a main criterion, in his view, for developing a healthy community.

For Sue, bringing home the learning about using multiple perspectives meant exciting new ways to approach all of her interpersonal dealings and her modest social change efforts. She integrated those new insights into her thinking about the issues she was most passionate about, nationally and locally. I do not discuss details of her experience here because I think the following observation eliminates the need to do so. I observed that although there were significant differences in her and Larry's interests and "where they were coming from" in general, before and after the project, she used her learning in ways that were similar to Larry, but from a different angle. Her palpable excitement was that she now had ways to decide what approach to take with individuals, groups, or organizations: she could "handle it according to *who that person is*." She developed a detachment from her own preferences that enabled her to assess a situation in a more comprehensive and realistic way. She could consider the person or persons involved, their individual and/or institutional constraints, the individual and social needs that people were trying to meet or were unaware of, and base her strategic approaches on who the people *are* that she was or was going to be interacting with. She was running experiments with her grown children, extended family, and friends in the community who were concerned about the same issues she was. Our interview was punctuated by a phone call from one of her children, whose reaction to a recent interchange with her was so positive that he called spontaneously just to tell her he loved her. With a laugh, she told me, "See? It's because of how I approach the situation!” Her new sense of general empowerment was both exciting and liberating because she felt equipped with new powers of discernment. These fed her creativity for conceiving new ways to help others learn how to use multiple perspectives, to see others’ conditions with new eyes, and to see how systemic complexity needed to be addressed. She saw this as the best hope for breaking certain kinds of cycles that trap both citizens and their societies.

In this group’s community, with its troubled interactions between citizens and their government, there was a long history of “us versus them” dynamics and entrenched positions that clashed in important issues. What happened during this project has potential to influence changes in that political culture. As I write this, it has been almost six months since the end of this research project. I have not returned to the community—a follow-up study is decidedly alluring—and thus, I cannot report further than this about the transformations that participants experienced.

Conclusion

This article divided its focus between the steps of “The Integral Process For Working On Complex Issues” that I used in this research project and discussed it with the group’s work on an issue, and the two predominant themes that emerged from the participants’ final interviews. A brief summary of the project’s outcomes may help to pull these subjects together and summarize this reporting. Those outcomes include both the participants’ perspectives and my own, as the researcher.

A first outcome is finding that a number of participants connected their increased sense of hope and motivation toward the community’s issues to learning that there are processes and methods for dealing with issues and diverse perspectives on them. That was particularly meaningful because it included learning that perspectives can be distinguished and worked with, with productive implications for the issues, i.e., there were reasons to hope. Another outcome was that the negative group tone had a dramatic shift into a productive, positive tone, apparently as a natural byproduct of the process itself. Although a small, self-selected group is not representative of any larger population, for this group concerned about the negative local culture, to experience a dramatic shift even at this micro level was significant and hopeful. Participants learned about ways to anticipate and accommodate multiple perspectives on issues and within their own intentions and tones. They developed their own conceptions of how they could use their learning, and/or described how they were already using it to meet their interests and affect their own and others’ experiences. A new small group formed to develop a freshly conceived approach to a community network mechanism, which it hopes will facilitate positive change in the adversarial political culture over time.

From my perspective as researcher, the unexpected outcomes of this project were (a) the tone and intention issue itself, and related to that, (b) the project’s impacts on participants. As far as I know, it was groundbreaking for a group to conduct an individual and collective reflection that inquired into intentions and tones using deliberative methods. The impacts and learnings that the participants internalized and used within such a short time are the most significant changes—personally, socially, politically—that I have ever seen in my years of working with individuals, groups, and communities.

Of the countless public issues that I have had the privilege to work on with other citizens—on the ground “live,” as intentional action research, and in assorted educational settings—I never had the occasion to work on a tone and intention issue. Although this was the first opportunity, it was not the first time or place that I saw a need for people to address their public relationships and attitudes.

Some years ago, I summarized my thinking about how to address complex public issues in such a way that efforts would foster healthier evolution of individuals and their political cultures and social institutions. Based on the experiences that I had accumulated at that point, I prioritized that thinking based on the importance of conditions that show up often, not just in this project's site community. To date, I still agree with the first item in that summary.[10]

> Address the community's most presenting or hidden needs first, those which, if left unaddressed, would likely sabotage other efforts.
>
> - Troubling relationships and their history
> - Assumptions about capacity, knowledge, power, leadership, inclusivity
>
> a. Provide a method for recognizing them because people need to become conscious of them before they can intentionally work through them.
>
> b. Provide a method for working through them because the [likely] alternative is paralysis or regression (p. 2).

Because of this study's findings, I have institutionalized the tone and intention issue: TIP's methodology now incorporates it as a specific option for groups to discern using before addressing other issues. Whether or not existing troubled relationships or misplaced public assumptions appear to characterize a political culture, in these decades of rapid change, with their clashes of worldviews, expectations, and competitions over rights and resources, the potential for an increasing number of tone and intention types of issues is, itself, a pervasive—if unrecognized—socio-political issue. Thus, this small study seems important because it documents that at least in this case, using TIP helped people and may help their community. Further studies on tone and intention issues at larger scales could make vital contributions to how we understand and foster healthy social change.

In recent months, researcher Richard Harwood has been traveling the United States to promote and discuss his book, "Hope Unraveled: The People's Retreat and Our Way Back."[11] He reports, "people can no longer see or hear themselves reflected in politics and public life…. They abhor this retreat, but feel lost about what to do… [We need to] square with the reality of people's lives…tap into people's desire to be part of something larger than themselves…affirm our commitment to hope."[12]

I first heard about Harwood's book as I was concluding this study's fieldwork. I had been hearing how much *more* hope and motivation participants had in our closing interviews. A number of them who had felt lost and hopelessly shut out of their community's life at the beginning no longer felt so by the end. Further action research could indicate if the methods used in this study would be effective to implement Harwood's prescriptions. They might fill such prescriptions while people are addressing their issues and *being* their communities' new politics and public life—not just reflected in them, but enacting them, themselves.

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[10] Ross, S. (2000, July). *An integral approach to public issues and changing the culture*. An unpublished manuscript.

[11] Published in 2005 by Charles F. Kettering Foundation.

[12] http://www.theharwoodgroup.com/book/index.html

***Sara Ross, Ph.D. (Cand.)**, has written her dissertation and is (refreshingly close to) graduating with her doctorate in Interdisciplinary Studies with a concentration in Public Policy/Administration, specializing in Political Development. She had been dividing her time between that program and her role as president of ARINA, Inc. She is an associate author of the book referenced in this article (Action Inquiry), and lives near Cincinnati, Ohio, U.S. Email: sara.ross@global-arina.org.*

Epilogue

For readers who are interested in integral theory as promoted by Ken Wilber and his Integral Institute, and who are curious about the qualities that make TIP an integral process, this section points out those connections in the steps described above. For brevity's sake, I confine this correlation to only those steps, and I assume that readers of this final section are already familiar with integral theory. Therefore, I do not define its basic terms that I refer to below. TIP does not use the theory's jargon, and its incorporation of "all quadrants, all levels" is natural, since all issues inherently include them.

Step 1. Meeting people wherever they "are," it invites concerns to be expressed in whatever terms reflect the way people already think about them. Then people identify the topics' chief (apparent) characteristic(s). These may be individual and/or collective attitudes or values (left hand quadrants), and/or the behaviors of individuals and/or social systems (right hand quadrants).

Step 2. The selected topic is broken down into its concerns, impacts, and causes; in effect, all of its integrated quadrants and levels. Whichever of those is selected to work on as an issue, is analyzed in terms of the all quadrant/all level elements that support its existence. If a "human behavior issue" (i.e., any issue where individuals' behaviors are "problems") is selected, it gets extra, developmentally tailored attention and investigation into complex causes, but it is beyond my scope to discuss how that happens here. Participants develop an integral understanding (a "portrait of the issue") that integrates the left- and right-hand quadrants and pertinent levels of worldviews that comprise it by their presence or their absence.

Step 3. An integral array of all quadrant actions and assumptions on the issue addresses the relevant developmental (individual and social) levels involved. Its analysis identifies how individual and collective attitudes and behaviors will be interactively improved or changed by each of the new actions and changes proposed. Criteria for the kind of decisions that will require multi-perspectival deliberation promote integral attention to social change and its challenges.

Step 4. The issue-framing template embeds the distinctly different perspectives of all developmental levels' concerns, values, and stakes in the issue, tailored to the specific issue that is framed. The framing process invites reflective consciousness by identifying underlying assumptions and walking in the shoes of all perspectives without judgment.

Step 5. Deliberations engage all the perspectives on an issue and the tensions of diverse, possible actions on different parties' life conditions, values, and agendas. Depending on the complexity of the decision or issue, deliberations can result in integral or meta-system approaches to address the issue. All quadrants and all levels' interiors and exteriors are inherently worked with, and worked through, in this method.

I hope that this overview, read in conjunction with the body of the article, responds to any basic questions about how TIP has correspondences with integral theory, for those who are interested.

Plain and Integral: An Interview with Karen Kho

By Jonathan Reams

Abstract: Karen Kho describes her work in the Alameda County Green Building Program. She covers the application of an integral framework to working with a variety of stakeholders in the residential building industry. This work includes a stakeholder analysis, rating program, educational materials and guidelines. How the program expanded beyond Alameda County is also covered.

Keywords: Green building, integral, residential home building.

Four or five years ago I heard about some work that David Johnston was involved in as a consultant, applying an integral framework to developing the green building industry in Alameda County in the east San Francisco Bay area. Green building is a term used to cover a variety of practices focused on creating environmentally responsible, energy efficient and healthy places to live and work. In the fall of 2004, I was doing some consulting work in that area, and heard that he was going to be speaking on the topic at the Integral study group that takes place at the California Institute for Integral Studies. I attended the talk he gave, which was followed by a wonderful presentation from Karen Kho, who works for the Green Building program in Alameda County. Her presentation was a balance of theory and application that grounded the integral perspective in a real world application.

A year later, in thinking about interesting topics for Integral Review, Karen's presentation and brief paper came to mind. I asked her if she would be interested in telling more of the story of the Green Building program, and how it has spread beyond Alameda County. The following is the result of two interviews and some further back and forth between us.

As I interviewed Karen, what revealed itself clearly was how an integral awareness was engaged in a very pragmatic endeavor, and that there was a current underneath all of the activity weaving it together. The glimpse of this awareness that came between the lines sat with me long after the interviews.

Jonathan Reams

Q *I'd like to begin by asking about your background. What brought you into the area of green building practices?*

A I started off as an environmentalist, a conservation major in college until I realized that environmental problems were really tied up with developmental problems. So I studied international development. In retrospect, I'm not sure I learned much about development, except that well-intentioned people could easily make things worse rather than better. Instead of going overseas, I decided to stay closer to home and become an urban planner. Planners attempt to integrate different disciplines like economics and sociology, and to work with people from many different sectors. Before coming to the Green Building

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program, I worked in transportation, community development and urban sustainability. My work has centered on social change, of one kind or another, and I have always been interested in knowing what makes some approaches more successful than others.

Q *This was a question floating in the back of your mind.*

A Yes. When I'm engaged in the actual work I do not have a lot of time to think, I'm putting out fires and implementing a program from day to day. It takes an effort to step back and ask—how effective is this program? Is it accomplishing what we're hoping to, or are we pushing ahead because the course got charted a long time ago? I have always been a student of development in the broadest sense—interested in what makes things work for individual people, families, cities, as well as society as a whole. Observing the dynamics of development has been fascinating.

Q *In reflecting on why some things work better than others, what did you discover along the way?*

A Speaking from the context of community development, two things come to mind. First, the more people that are engaged, and the more diverse their perspectives, the more potential there is for positive change. Second, the more that a community is able to tap into local creative thinking, the more it can generate solutions tailored to its unique circumstances. There's a stark difference between a community that has confidence in its own ability to innovate, vs. those that look outside for experts or money or off-the-shelf solutions. I believe the true art of community development comes in facilitating unity-through-diversity and fostering creativity.

Q *I agree. So how does integral theory fit into this for you?*

A Even though I completed my formal education a decade ago, I continued on a path of self-directed study. I find most people are either in the world of practice or in the world of theory, but I need a foot in both. As Paolo Lugari, the Colombian visionary, says, "There is nothing as practical as a good theory." What fuels my learning is the question: What are the universal principles that can explain how the world works? I had been seeing correlations between healthy self-development, a good relationship, a productive office and a sustainable community. Well, when I came across integral theory it provided a lens to focus on the dynamics of development. You can't remedy complex social problems by only looking at the external factors. You have to understand the values or motivations of people.

Q *What were your early efforts at utilizing integral theory for creating solutions to the problems that you were facing?*

A My early efforts at using integral theory were basically "testing it out" to see if it correlated with strategies that I knew from experience were successful. I believe there's a lot of good work being done by people who have never heard of integral theory, but if they are successful, most likely they are doing things in an integral way. They have an intuitive understanding of how to do things in an integral way.

Q *They may not have the lingo but they're doing the work.*

A Exactly.

Q *You currently work for the Green Building program in Alameda County. How did that program get started?*

A The Green Building program in Alameda County got off the ground in the late 1990's. In Alameda County a portion of landfill fees are set aside for outreach programs to reduce waste, such as promoting recycling and composting. Green building became a priority area because 20-30% of the waste comes from the construction and demolition of buildings.

When the Green Building program was started, the initial activities included giving grants to build demonstration projects and organizing public lectures. The demonstration projects were not having a broader impact, because the builders doing most of the construction weren't even paying attention to them. So my colleagues hired David Johnston as a consultant to help reach a broader audience.

Q *So, there was an awareness that the conventional methods for getting people to change their practices were not working. How did the integral approach and the consulting that David did influence the program?*

A I don't think there's a common understanding about what constitutes an "integral" approach. What I mean by integral is that one considers both technological, quantitative factors and social or qualitative factors. And you are working with the key stakeholders in an appropriate way. For the Green Building program, this meant reaching out to the mainstream builders, who are doing most of the construction. You can't point fingers at the building industry; you have to engage builders and understand how they work.

Q *That was the fundamental premise that enabled all of this work to flow?*

A Yes. I think the thing that David really brought to the program was an ability to tap into values, motivation and culture—Wilber's lower left quadrant. He was instrumental in bringing together key groups and tapping into the reasons that they might be motivated to do green building. Initially that included production builders and city officials.

Q *To create a value proposition for those groups that would make them say okay, I'll come to the table.*

A That brought them to the table initially. Over time, we need to deliver on what we promise. You are circling around the quadrants in a sense. First, you generate interest and focus on understanding values and motivation. Then you need to provide services and meet the needs that have been identified. As people get engaged in the program's activities it may shift their sense of who they are and what they're doing You might even find that someone who was rabidly opposed to green building becomes its most enthusiastic proponent.

Q *That idea of moving around the quadrants makes sense. If you started with their motivations and the value system and then asked them questions like what do you need, what would help you, and then on the external side delivered individual information, put together structures and facilitated things like meetings with the regulators. It's like you say, it helps them understand their relationship better, and opens up a different developmental level of conditions where they can come back and say now we need this as well.*

A Yes that's how it can work. As things are unfolding, I pay attention to where are we in the cycle. Do we need to stimulate a group's motivation again and remind people why they should care about green building? Or are people really engaged and hungry for more information? One of the things we're working on now is a rating program. It was not a priority when the program started. But now it's something people want. They are ready for it.

Q *It sounds like it is kind of an evolutionary or developmental process where you were able to meet some basic foundational needs and wants, and as those settle in and take root a new set of needs occurs.*

A Right. The need may have shifted to another quadrant or to another group. In the fall, I was spending a lot of time developing material for the production builder group. Now we're working with remodeling contractors. It's a constant process of balancing activities and keeping the overall picture in mind.

Q *How do you use the integral framework now?*

A Aside from David I don't work with anyone who speaks in Spiral Dynamics colors or integral lingo. The language can be a real stumbling block. But as I started mapping out integral theory against the daily reality of promoting green building, I realized that there was a very simple way to capture the essence of it. I found a way to communicate "integral" without using any jargon.

What I did was take Ken Wilber's Four Quadrants and distill them into four questions that anyone can understand. Who? What? Why? and How? *Who* addresses the intentional and subjective—it speaks to self or group identity, *Why* examines values, motives, cultural norms and worldviews. *What* leads you to behaviors, products that are created. And *How* elicits the rules, roles, social systems and organizations that make those behaviors or products possible.

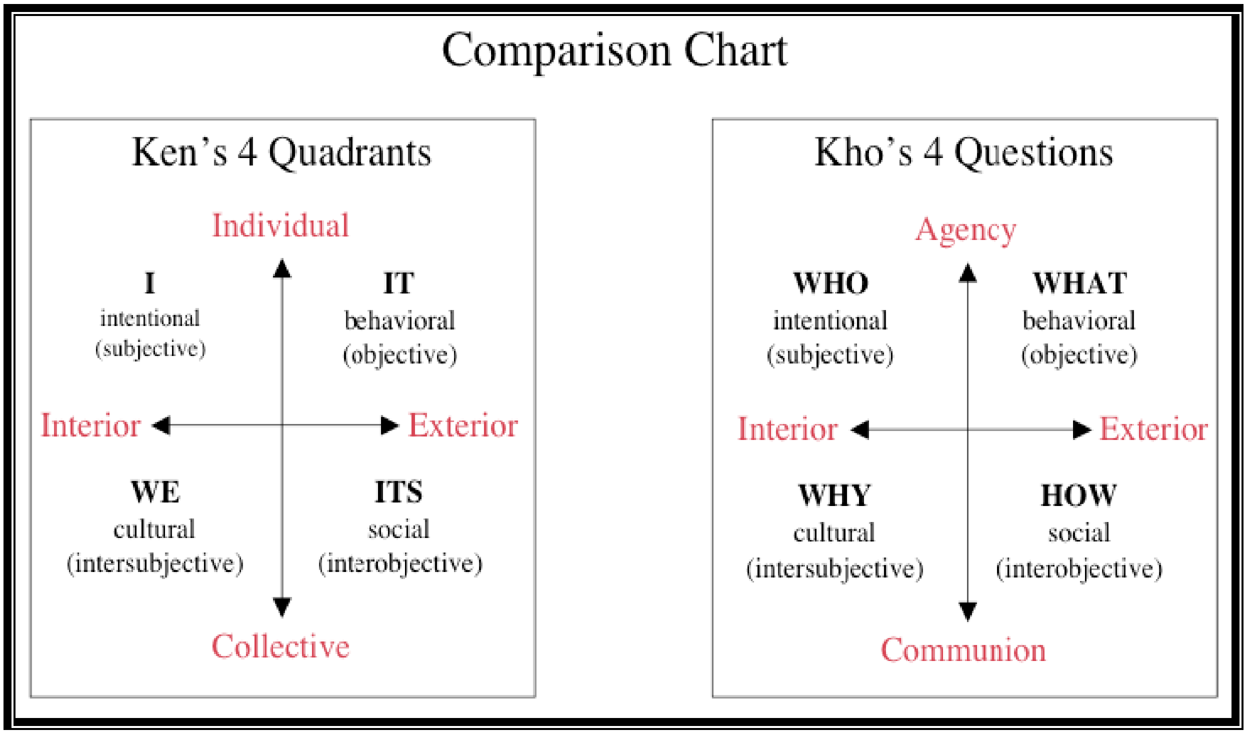

Comparison Chart
Ken's 4 Quadrants
Individual
I
intentional
(subjective)
IT
behavioral
(objective)
Interior
Exterior
WE
cultural
(intersubjective)
ITS
social
(interobjective)
Collective
Kho's 4 Questions
Agency
WHO
intentional
(subjective)
WHAT
behavioral
(objective)
Interior
Exterior
WHY
cultural
(intersubjective)
HOW
social
(interobjective)
Communion

Figure 1: Comparison of Wilber's 4 Quadrants with Kho's 4 Questions.

Q *Okay, those are very basic questions that anyone can relate to. How do you apply them?*

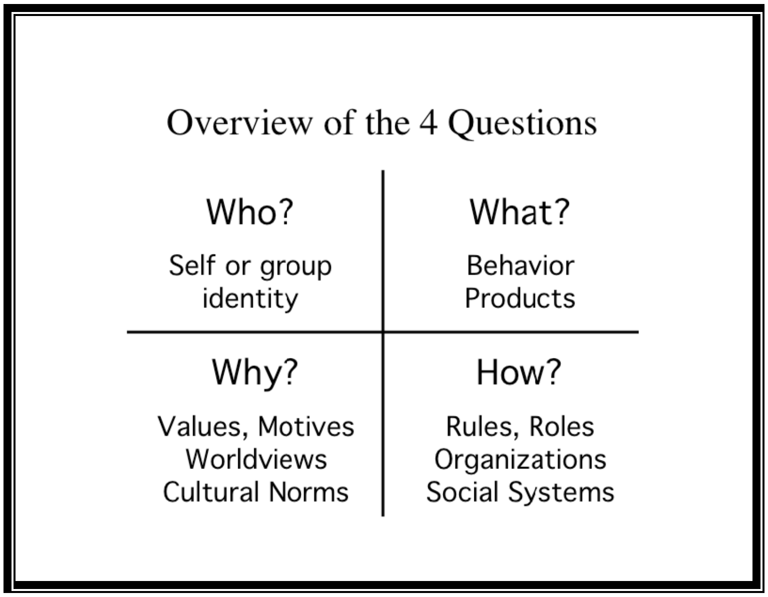
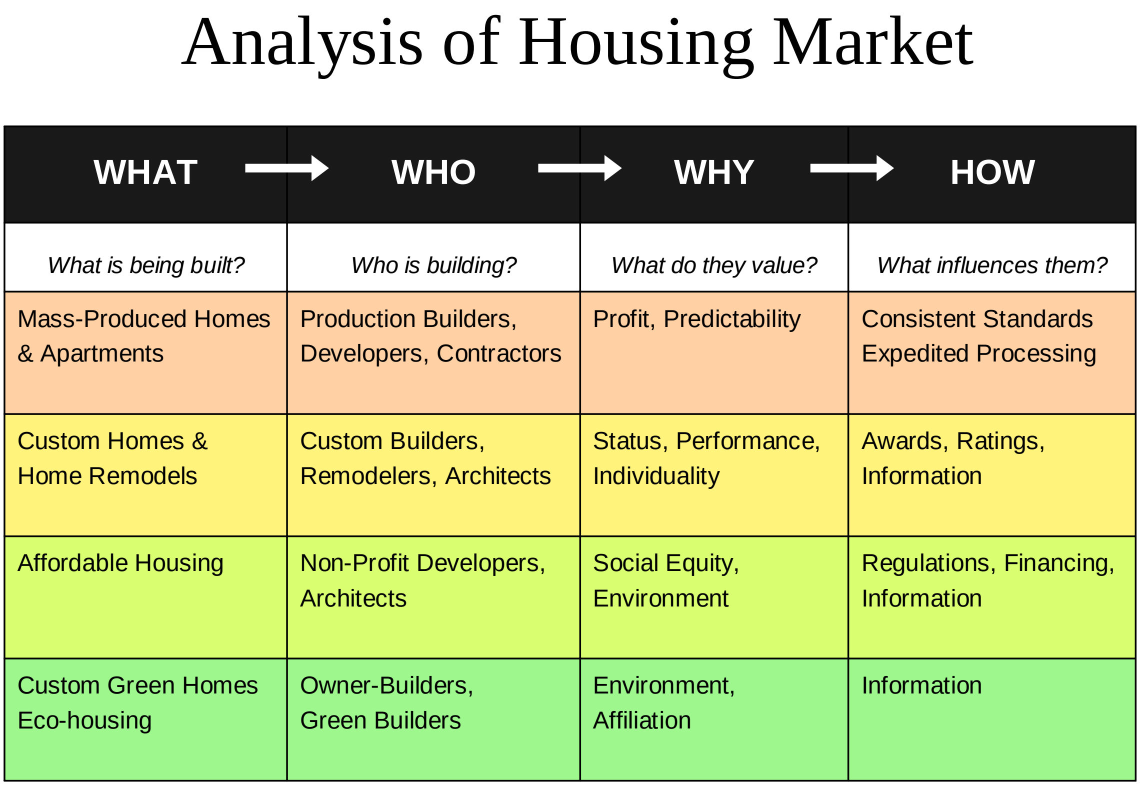

Overview of the 4 Questions
Who?
Self or group identity
What?
Behavior
Products
Why?
Values, Motives
Worldviews
Cultural Norms
How?
Rules, Roles
Organizations
Social Systems

Figure 2: Overview of the 4 Questions.

A As I described earlier, I use this framework to evaluate what needs the most attention in our green building program. I am often asked to speak to groups that want to start a green building program. So I incorporate the four questions into the process.

It's quite a common practice in business development or community development to conduct a stakeholder analysis. I've taken that framework and embedded it with an integral structure—the four questions. When you've completed the stakeholder analysis, you have a good idea about the points of leverage. From there, you can create a program of action.



Analysis of Housing Market

WHAT →	WHO →	WHY →	HOW
What is being built?	*Who is building?*	*What do they value?*	*What influences them?*
Mass-Produced Homes & Apartments	Production Builders, Developers, Contractors	Profit, Predictability	Consistent Standards Expedited Processing
Custom Homes & Home Remodels	Custom Builders, Remodelers, Architects	Status, Performance, Individuality	Awards, Ratings, Information
Affordable Housing	Non-Profit Developers, Architects	Social Equity, Environment	Regulations, Financing, Information
Custom Green Homes Eco-housing	Owner-Builders, Green Builders	Environment, Affiliation	Information

Figure 3: Results of Stakeholder Analysis.

In the case of green building, we are concerned about what kind of housing is being built. First, you identify the types of housing being built in a community and list them by the quantity of production. Second, you identify the stakeholder groups that are building each type of housing. Third, you examine the values or motives of each group, and last, you consider what will influence each stakeholder group to "green" their activities. So you start with What, then shift to Who, then to Why and then to How. The chart above shows what this analysis looks like in our county, and for California overall.

Q *On your stakeholder analysis chart you show that the custom builders and remodeling contractors tend to be more interested in status, performance and individual creativity as where the mass production homebuilders want profit and predictability. There would be very different motivations for these groups.*

A Right, and it's not that homebuilders would turn down the opportunity to gain recognition, but it's not the prime motivator for them. We promote tours that showcase homes constructed with green building practices. These tours are much more popular with the architects and the remodelers than with the production builders. The remodelers appreciate the opportunity to showcase what they've done and get more business. In recent years, the production homebuilders have had waiting lists for homes that have not even been constructed yet, due to the housing shortage in California. We included a couple of their homes in the tours but it has not been a key leverage point for them.

Q *How do you develop a program based on the stakeholder analysis?*

A In Alameda County the program evolved dynamically, in response to the needs that arose. First, we needed to define green building and debunk misconceptions – so we developed green building guidelines. After the guidelines were published, people wanted to know where to buy products and who to hire to do the job. Then building professionals needed training and we had to address the supply of green building products. So, the program elements came together incrementally. If you are building a new program from scratch, you need to start with a stakeholder analysis so that you identify the right target groups. But the way you build your program will depend on the resources and opportunities unique to the situation.

When I speak to cities that are starting a new program, I give them an outline of the elements they should consider based on what we've found to be effective. What they choose to focus on will depend on what kind of building is taking place in their community. The good thing is that they don't have to develop the tools and practices from scratch, as we did. But what can't be substituted is the local groundwork of convening key stakeholders and developing shared values and motivations. (The lower left quadrant work). Every community needs to do that for themselves.

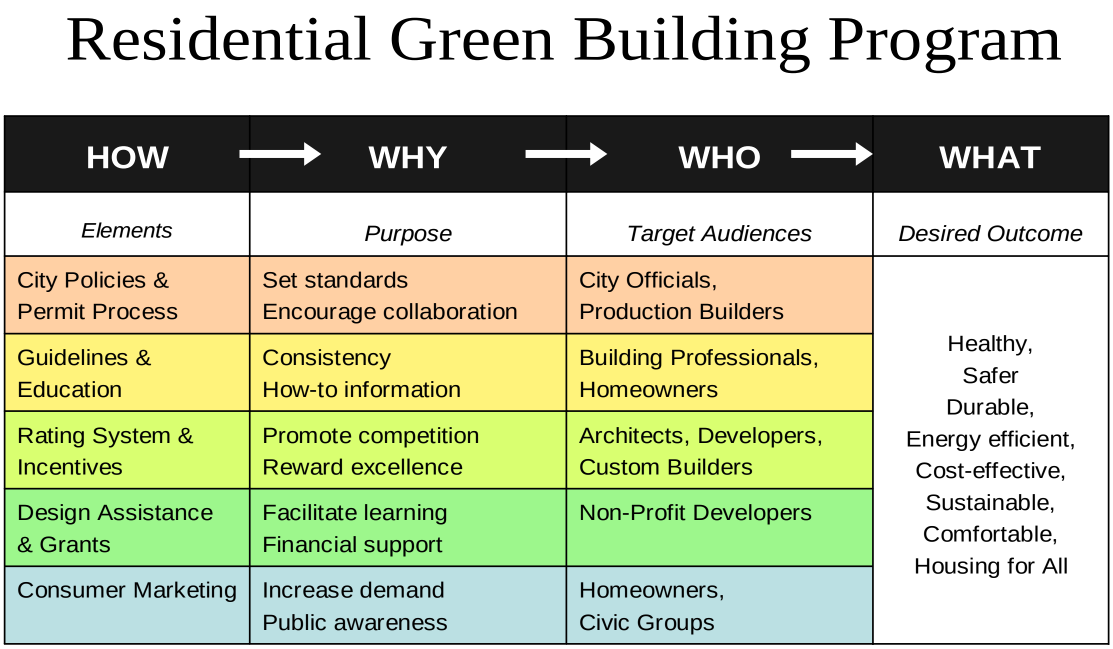
Q *Could you highlight the main elements of the work that the Green Building program does?*

A As you can see on the chart below, the main elements are policies, guidelines, ratings/incentives, technical assistance/education and consumer outreach.

We work with all the cities in Alameda County by providing recommendations on what policies they should adopt for their own buildings as well as private sector buildings. Often we find ourselves bridging between the cities and the builders. Builders feel that cities are over regulating everything that they're doing and that getting a project approved costs far too much money and time. Many cities, especially the more mature ones, feel that the builders ought to be required to do more. They both have valid concerns, but they usually don't communicate in a non-adversarial way. We often serve in an intermediary role.

I'm speaking primarily about the residential sector because it's more complex—and accounts for more construction. We developed three sets of residential green building guidelines, because each one addressed a different stakeholder group. They differ in their construction methods, their motivations, and their business models. Production building is predominant in the east part of the county. So, we work with large-scale builders to identify practices appropriate for them. The west part of the county is mostly built out, so you see a lot of smaller projects and remodeling. And in the multifamily sector, there are many non-profit developers, with very different needs and constraints than the production builders or remodeling contractors.

Once we had released the guidelines, people wanted to know how much you had to do in order to call a project "green." So, we created the Green Points rating system to help builders track what was in their project, and cities to know what was being proposed. We offer grants and incentives based on how well a project scores, either based on their residential Green Points score or commercial LEED rating.



Residential Green Building Program

HOW →	WHY →	WHO →	WHAT
Elements	*Purpose*	*Target Audiences*	*Desired Outcome*
City Policies & Permit Process	Set standards Encourage collaboration	City Officials, Production Builders	Healthy, Safer Durable, Energy efficient, Cost-effective, Sustainable, Comfortable, Housing for All
Guidelines & Education	Consistency How-to information	Building Professionals, Homeowners	
Rating System & Incentives	Promote competition Reward excellence	Architects, Developers, Custom Builders	
Design Assistance & Grants	Facilitate learning Financial support	Non-Profit Developers	
Consumer Marketing	Increase demand Public awareness	Homeowners, Civic Groups	

Figure 4: Program Development.

We offer a full range of educational programs—tailored to each of the stakeholder groups. Sometimes these are developed in conjunction with a partner organization like Build It Green or the local chapter of the US Green Building Council. We also provide free technical assistance to certain projects, to help reduce the learning curve. This has been helpful for city or county public works staff to learn to manage civic green building projects and incorporate green building into standard practice. We've also found it helpful for nonprofit developers.

Q *How are you able to have an impact in the multi-family housing market? What has been your best leverage point with that stakeholder group?*

A We have had a really good relationship with non-profit developers because they don't need to be convinced of the importance of green building. The barriers for them are technical knowledge and financing. They wanted a lot of information—everything you need to know to decide if a green building practice will be appropriate for your project or not.

Q *All in two pages.*

A Exactly. And so unlike our other two guidelines, the one for the multifamily buildings is a 200 page reference document. The project manager can bring the two-page summary to the team meeting with their architect and subcontractors. We gathered up the technical information that would otherwise take them a long time to find. We do not have a product like that for the production homebuilders. Even if we did produce one they wouldn't take the time to read it.

Q *So, how do you reach that market? What kinds of support or information are you able to provide for them?*

A The production builders who are doing green building want to be seen as quality builders. They want to maintain a good reputation. They see that more and more cities are asking about green building and they don't want to get left behind.

Q *It is part of staying up with the most current trends and having a reputation for quality that is seen as a long-term advantage for those builders.*

A Right. The main motivation for production builders to work with us is that we provide a bridge to the cities. There are lots of cities around the state that are looking at what we're doing and copying. So they want to help shape what we're doing because it might have a larger impact.

Q *How much has the public had an impact on this? Have they started asking for this more and more?*

A What we hear from the production builders is that the public is not asking for green building yet. It's probably due to the lack of information, but also the housing shortage in California. Consumers have not been picky about what they buy, at least not recently. In the past, we have sponsored public lectures and workshops, and organized home tours. But in the coming year we will be focusing on consumer marketing. Now that we have provided education to the builders and created awareness on the supply side, we can put more attention on generating demand.

Q *How has the success of the green building program in Alameda County started to attract interest from other counties in the Bay Area or elsewhere in California, and what has that led to?*

A We have made all our educational materials available to cities and counties in California and beyond. Most of them do not have the resources to work with the stakeholder groups and technical experts. We made a commitment to our builder committee that we would promote consistency among local jurisdictions. They don't want to go to other communities and have to deal with different green building standards. So, we are active throughout the state.

I helped start a network of public agencies with existing and nascent green building programs. It began with eight or nine active programs in the San Francisco Bay Area, but it has drawn people from as far away as Fresno and Truckee. The group meets quarterly, and now a sister chapter has formed in Southern California. There are almost 70 jurisdictions involved, and more contacting us every week.

We, Green Building in Alameda County, see ourselves as a seed organization that jumpstarts activity in green building and develops the resources that are needed. Since our program is geographically restricted to Alameda County, we look for other organizations that might be a more appropriate long-term home for the resources that we develop. For that reason we helped found Build It Green, a California non-profit organization that is promoting green building. Build It Green has taken over several of our programs, such as a certification program for building professionals, home tours, and a database of green building products.

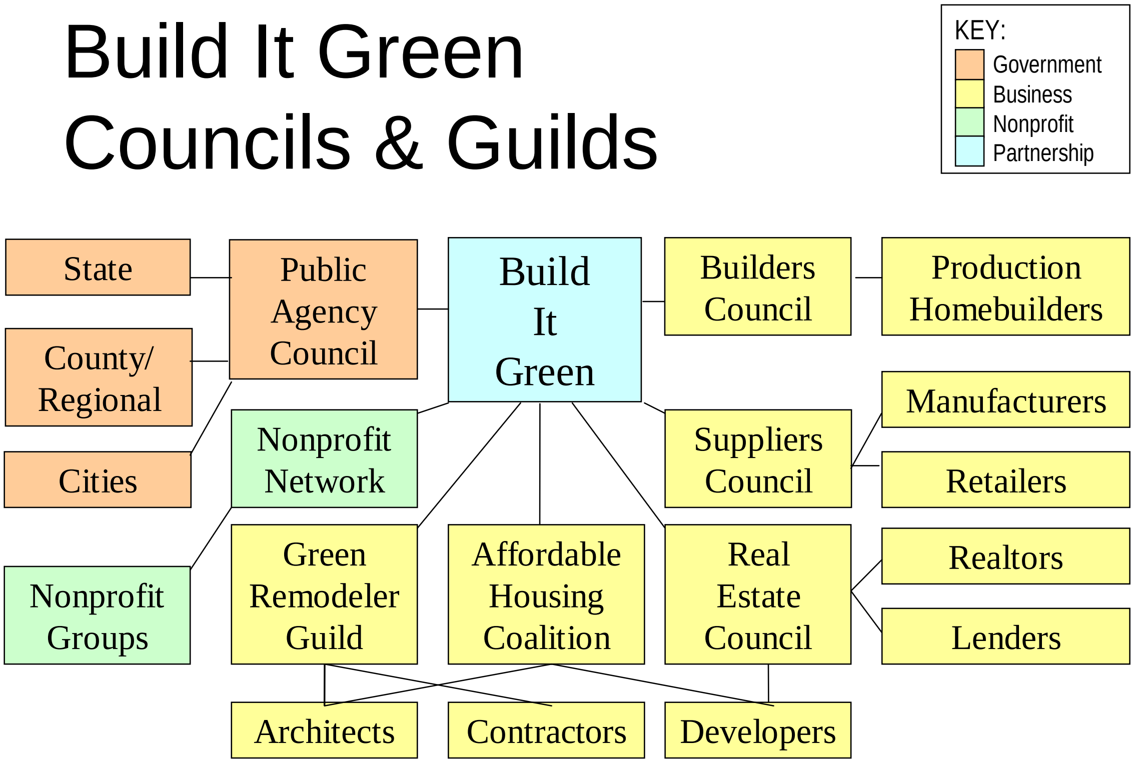

Build It Green
Councils & Guilds
KEY:
Government
Business
Nonprofit
Partnership
State
County/ Regional
Cities
Public Agency Council
Build It Green
Builders Council
Production Homebuilders
Manufacturers
Retailers
Suppliers Council
Nonprofit Network
Nonprofit Groups
Green Remodeler Guild
Affordable Housing Coalition
Real Estate Council
Realtors
Lenders
Architects
Contractors
Developers

Figure 5: Build It Green councils and guilds.

We (Green Building in Alameda County) have also been interested in fostering interactions among different stakeholders in the green building market. So, we have worked closely with Build It Green in convening and facilitating the formation of other stakeholder councils. I mentioned the network of public sector green building programs earlier – this group comprises the Public Agency Council of Build It Green, with chapters in Northern and Southern California. We supported the formation of a Green Remodelers Guild in Alameda County, which included graduates from our Certified Green Building Professional programs. The Remodelers Guild is now a council of Build It Green.

In addition to the Public Agency Council and Green Remodelers Guild, there are a Suppliers Council, Builders Council, a Nonprofit Network, the Real Estate Council, and an Green Affordable Housing Coalition. Those groups are self-directed. For instance, the remodelers meet ten times a year, and they want to learn from each other and bring in experts on various topics. The suppliers group is looking at ways to get some of the green building products to market and removing barriers. Each group has its own interests. Build It Green provides a forum for all of them; it is becoming the social glue.

Q *It is very clear from your description to see how it has organically blossomed. From something that was seen to work, people have been attracted to it, and it's been able to meet multiple stakeholder needs in a way that continues to grow in a very positive and successful way.*

A Yes. And I hope that in the next couple of years Build It Green will be able to encourage more interaction among these different councils. Each of the stakeholder groups needed time to coalesce around core values, to develop their own mission statements or sense of purpose and priorities.

Q Their own culture and identity. The left hand quadrant things.

A Right. And now there is interest in bringing some of these groups together. Build It Green is hosting a summit for all the guilds and councils under at its umbrella in the fall of 2006.

Q That sounds like a fairly large undertaking.

A It will be.

Q But you only have marginal involvement with Build It Green yourself?

A Actually I'm involved with most of the councils because many of them evolved from our development and outreach committees in Alameda County. I like to keep track of the issues and objectives for each group so that we can keep our program current and up to date.

Q It is sort of like research for your own Green Building program, just to have the pulse of what is current in those communities and stakeholder groups.

A I also keep an eye out for potential conflicts, because they often arise in groups, especially when groups are in the early formative stage.

Q It sounds like there is some awareness of the developmental process of each stakeholder group or guild, that they have to go through this on their own. And having gone through that in the Alameda County program you can provide a level of mentoring for those to happen.

A Yes. Something like that. But in addition, I think it comes back to the integral perspective, whether we call it integral or not. There are more and more people who are becoming involved in this green building movement, so the leadership of the whole initiative is very dispersed. It is not focused on Green Building in Alameda County or any one organization. It is now spread out among the many people who have become interested and stepped up to the plate. I think it's important to make sure things move forward in an integral way. There are always individuals who are less tolerant or open to other value systems. They can create or exacerbate differences among groups rather than seek integration. So, that is one of things that I look for.

Q Can you describe the figure 6 for me?

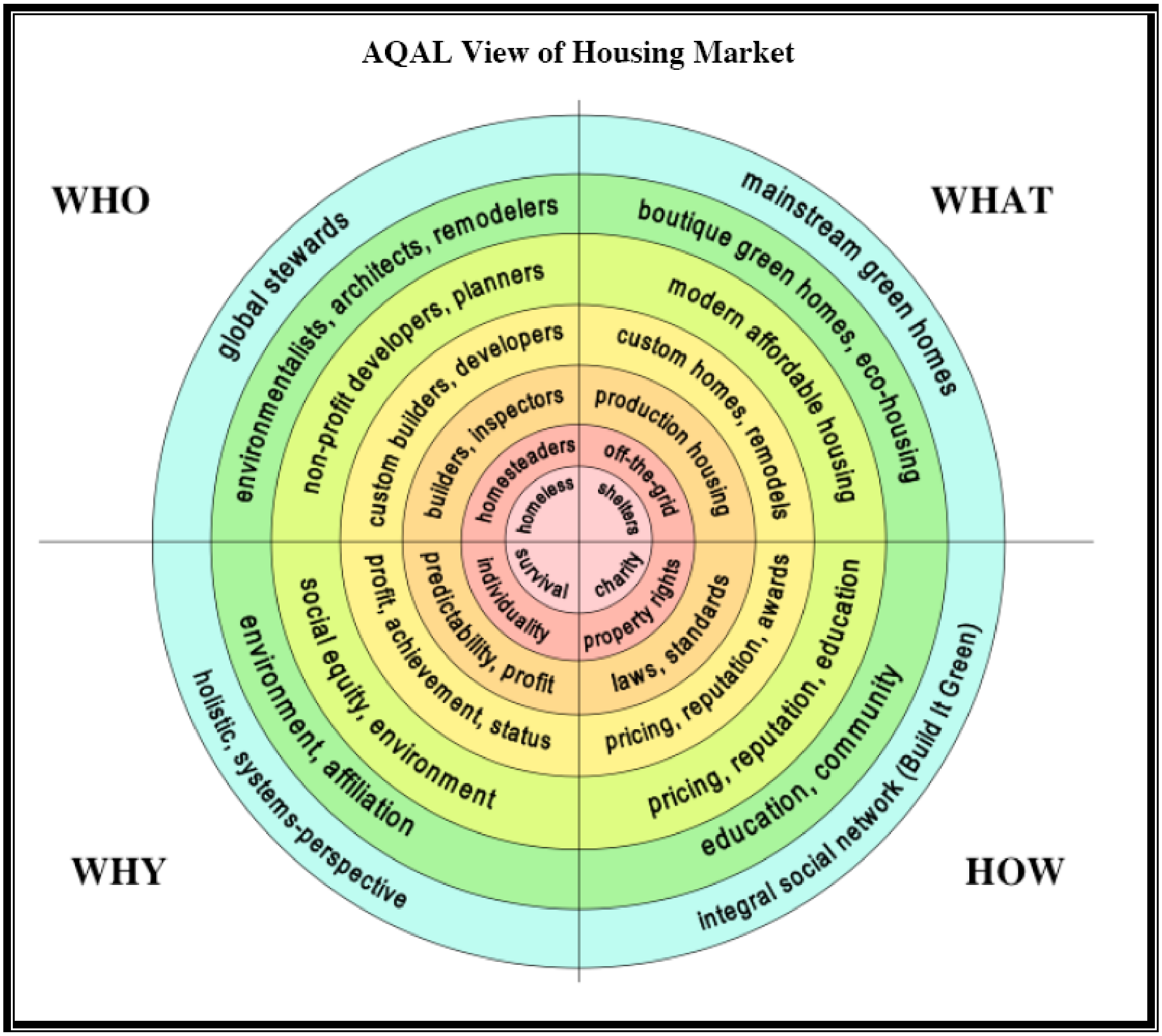

AQAL View of Housing Market
WHO
WHAT
WHY
HOW
global stewards
environmentalists, architects, remodelers
non-profit developers, planners
custom builders, developers
builders, inspectors
homesteaders
homeless
mainstream green homes
boutique green homes, eco-housing
modern affordable housing
custom homes, remodels
production housing
off-the-grid
shelters
survival
individuality
predictability, profit
profit, achievement, status
social equity, environment
environment, affiliation
holistic, systems-perspective
charity
property rights
laws, standards
pricing, reputation, awards
pricing, reputation, education
education, community
integral social network (Build It Green)

Figure 6: AQAL View of Housing Market.

A The way the graph is constructed, if you look at the middle four rings, from production housing out to the eco housing, that's where our green building program has focused. That covers the market transformation program. How are we going to "green" housing in Alameda County? If you look back at our stakeholder analysis and how that led to the green building program then you will see all those different stakeholder groups and the elements of our green building program in those four rings. Then I added in the center to rings of housing types that are "below the market" so to speak. There is no open market for those sorts of things. But they fill in the full picture of what is being built.

Q *So, in looking at all of this, how do you measure success?*

A There are different ways that we measure success. We look at how many of our cities are actively promoting and encouraging green building. We also look at how many people we're attracting to our trainings, and whether have we have been able to engage all the key stakeholders. Maintaining a channel of communication with the production builders is a sign of success. We don't have much quantitative information, such as the number of houses built, at this point. That will come later as the rating program matures. We are seeing success in the left-hand quadrants first, and expect that to show up in the right hard quadrants later (the number of green buildings). Sometimes people get narrowly focused on looking only at the number of buildings.

I think that another gauge would be local capacity building. When we got started there were only a few environmental groups promoting green building—before it was even called green building. Now we're working with realtors, mortgage brokers—people who are involved in a lot of transactions around housing. I think that's a sign of success.

Q *What would be the most challenging thing you're experiencing now in terms of what's going on with the program?*

A The most challenging thing is keeping all of the stakeholders in the fold and fending off the tendency to go to one end of the spectrum or the other. For hard-core environmentalists, we are never green enough. And for some building industry stalwarts we are interfering with the "free" market. The forces of polarization are very strong. In California, we have the whole gamut. We have the most liberal groups that you can find, as well as a very conservative building industry association. I think in other parts of the country, the stakeholder spectrum is not as wide, or it may be weighted towards one end or the other.

Each group has a tendency to do whatever is most comfortable and familiar for them. And there is a time when those strategies are appropriate. For builders it is to focus on the economics, and to fight change. For government it is to regulate. For environmentalists it is to protest and fight industry. It is difficult to hold the space where there is common ground.

Q *Are you hopeful that the work of Green Building in Alameda County and Build It Green will be able to continue holding this common space open and support the sustainable evolution of the building industry?*

A Absolutely! We have our ups and downs, but overall we are seeing more acceptance of green building and increased collaboration.

Q *Thanks for taking the time to share all of this with our readers.*

A Thanks for your interest! It has been a pleasure.

Le Peer to Peer:
Vers un Nouveau Modèle de Civilisation

Michel Bauwens

Abstract: Le « peer to peer » est la dynamique intersubjective caractéristique des réseaux distribués. Le but de cet essai est de montrer qu'il s'agit d'une véritable nouvelle forme d'organisation sociale, apte à produire *et* échanger des biens, à créer de la valeur. Celle-ci est la conséquence d'un nouvel imaginaire social, et possède le potentiel de devenir le pilier d'un nouveau mode d'économie politique, voire d'un nouveau type de civilisation. Pour cela, nous allons d'abord définir le P2P, décrire en bref ces manifestations, et le différencier d'autres modalités d'échange intersubjectif tel que le marché, la hiérarchie, l'économie du don.

Comme principale modalité P2P nous distinguons: Les processus de production P2P, comme troisième mode de production, qui n'est ni géré par un mode hiérarchique ou par l'état, ni répondant à des impératifs de profit ou qui sont modulés par le biais des prix. Les processus de gouvernance P2P, qui gouverne ces processus de production. Les formes de propriété P2P, qui sont destine a empecher l'appropriation prive de cette production pour le commun.

Afin d'examiner les characteristiques de cette nouvelle dynamique sociale, nous utilisons la typologie intersubjective de l'anthropologue Alan Page Fisque, qui distingue: 1. l'échange égalitaire (Equality Matching), c..a.d l'economie du don. 2. La relation d'autorité (Authority Ranking) tel qu'elle s'exprime dans le mode hierarchique. 3. le marché (Market Pricing). 4. la participation commune (Communal Shareholding).

En conclusion, nous examinons les possibilites d'expansion de ce nouveau mode sociale et son insertion dans l'economie capitaliste, en nous nous posons la question: le P2P peut-il etre concu comme alternative sociale et economique aux modeles existants.

Keywords: capitalisme, cognitif, Economie, Internet, Politique, Societe de l'information, Reseaux.

Abstract: "Peer to peer" is hypothesized as a new social formation with intersubjective dynamics characteristic of distributed networks. This is shown to have profound implications for the transformation of our current form of market economy. To demonstrate this, I initially will define P2P, and carefully distinguish it from other modes of production and governance such as reciprocity-based gift economies, markets etc.. Peer to peer dynamics are associated with a series of important processes: Peer production as a third mode of production, peer governance, and Universal common property regimes.

In order to examine characteristics of this new social dynamic, I use the intersubjective typology of the anthropologist Alan Page Fisque, who distinguishes: 1. leveling exchange (Equality Matching), the gift economy. 2. The relation of authority (Authority Ranking) such as it is expressed in the hierarchic mode. 3. The market (Market Pricing). 4. The common participation (Communal Shareholding).

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In the end, I look into the possibilities of expansion for this new social formation, which holds great promise for a reform of our polity towards more participation. I conclude the article with an examination of the integrative nature of P2P.

Keywords: Capitalism, cognitive, economy, internet, policy.

Introduction

La plupart des lecteurs sont familiers avec le concept de 'peer to peer' dans le domaine technologique, et spécifiquement, en tant que technologie de base pour le partage de fichiers, et connaissent les nombreuses controverses suscitées par l'échange (en fait: le 'partage') de contenus musicaux et audiovisuels. Notre propre conception du peer to peer, ou 'pair à pair' est bien plus large. Il s'agit en fait d'une dynamique intersubjective caractéristique des réseaux distribués. Le but de cet essai est double, il faut montrer tout d'abord que le peer to peer est une véritable nouvelle forme d'organisation sociale, apte à produire *et* à échanger des biens, à créer de la valeur. Mais nous chercherons également à établir que le peer to peer a le potentiel pour devenir le pilier d'un nouveau mode d'économie politique, voire d'un nouveau type de civilisation. Pour cela, nous allons d'abord définir le P2P, décrire en bref ces manifestations, et le différencier d'autres modalités d'échange intersubjectif tel que le marché, la hiérarchie, l'économie du don.

Définition Préliminaire du P2P

Le P2P est la dynamique humaine intersubjective à l'œuvre dans les réseaux distribués. Un réseau distribué n'est donc pas 'centralisé' (tel que les anciens réseaux téléphoniques), ou même décentralisé (comme le système des aéroports américains, organisé autour de hubs obligatoires). Un réseau distribué peut avoir des nœuds plus importants que les autres, mais ceux-la ne peuvent être obligatoires et n'ont pas d'autorité sur les agents / participants. Des exemples récents sont l'Internet et les *réseaux routiers*. Avec ce système, les agents sont donc autonomes, libres d'agir et de contribuer (et donc aussi: de se retirer, de ne pas participer), et ne sont pas soumis ni contrôlés par une autorité hiérarchique, ni motivés par des signaux économiques comme le 'prix' ou le 'salaire.' Pour que naissent ce type de relation intersubjective, les agents doivent être considérés comme équipotentiels, 'égaux en puissance', ayant la capacité de contribuer sans sélection préalable, et sont généralement unis autour d'un projet commun, 'un objet'. Il s'agit de ce que certains sociologues ont pu appeler une 'socialité orientée vers un objet'

L'émergence du P2P

La définition préliminaire peut paraître abstraite, mais le phénomène s'étend dans tous les domaines de la vie sociale. Le but n'est pas ici de donner une description exhaustive, comme je l'ai fait ailleurs (http://integralvisioning.org/article.php?story=p2ptheory1) mais de donner une idée de son énorme étendue. Il ne s'agit donc certainement pas d'un phénomène marginal, mais bien d'un phénomène émergent et interconnecté qui est caractéristique des secteurs de pointes de la société contemporaine (technologies, échange et production de savoirs).

Le P2P est premièrement la base infrastructurelle du système économique contemporain, c.a.d. du "capitalisme cognitif." L'Internet et le Web sont aujourd'hui la base même de la communication et de la coordination des processus dans les entreprises, ainsi que de la communication du public. Son architecture a été spécifiquement conçue comme un réseau « point a point ». D'autre phénomène liés sont le partage de fichier, par le biais duquel le concept de peer to peer est apparu pour la première fois dans la conscience publique; le 'grid computing,' le réseau mondial sans fil en construction (le Wireless Commons), et bien d'autres. Une nouvelle génération de 'Communicateurs Viraux' permettent de créer des réseaux distribués sans infrastructure préalable: ce sont les ressources supplémentaires de chaque 'participant' qui la créent.

Le P2P est aussi une nouvelle infrastructure médiatique. La Toile – renforcée par les développements connus sous le vocable Web 2.0, et plus spécifiquement les blogs et les wikis – facilite la publication sans intermédiaire industriel; ce phénomène de démocratisation de l'édition et de l'expression créative est également en train de s'étendre au domaine audio, par le biais du podcasting, et même à la vidéo, avec le webcasting. Toute la chaîne de production/publication, de distribution, et de 'consommation /utilisation' a été profondément « désintermédiée » (une nouvelle intermédiation est en train de se faire, mais ne passant plus par les acteurs classiques des médias de masse). Cette nouvelle infrastructure est en partie complémentaire des médias de masse, mais fonctionne aussi comme alternative, par les forces sociales et politiques n'ayant pas accès aux médias traditionnels. Nous sommes entre de plein pied dans l'ere des post-media.

En troisième lieu, et en restant toujours dans le domaine technologique, le P2P est devenue l'infrastructure collaborative mondiale. Il est aujourd'hui possible, avec une grande panoplie d'outils de cooperation, non seulement de produire des biens immatériels, mais aussi de faire du 'design' d'objets matériels, et même de partager (diffuser?) ces derniers, des groupes autonomes de la société civile se montrant désormais en mesure de faire de la production sans l'intermédiaire d'usines ni d'entrepreneurs. Il suffit de jeter un coup d'œil sur la modélisation graphique des 'technologies de coopération' de Howard Rheingold[1] (2003), pour se rendre compte de l'énorme développement et de la maturité de ce nouveau domaine. Pour le grand public, ce sont les outils de la famille Wiki qui sont les plus connus.

Il y a un quatrième aspect fondamental qui n'est pas technologique, mais légal. La General Public License, utilisée par le mouvement du logiciel libre, permet de créer des 'biens publics' qui ne peuvent pas être appropriés par des acteurs privés. Des outils similaires ont été développés pour la création de contenus créatifs, comme l'initiative des licences Creative Commons.

Passons maintenant à un deuxième niveau, celle des pratiques sociales et voyons ce que les processus P2P ont déjà produit. Premièrement, la sphère infrastructurelle elle-même a été créée en très grande partie par des processus de production P2P. L'Internet ne pourrait tout simplement pas fonctionner sans les logiciels libres. Des 'collectifs cognitifs' autonomes et collaboratifs ont créé non seulement des programmes, mais des millions de pages de contenu coopératif, dont le plus connu est probablement l'encyclopédie gratuite Wikipedia. Le deuxième mode de transports aux Etats-Unis, le car-pooling, se fait par le biais de ces mêmes principes. Des centaines de milliers d'internautes partagent leurs ressources informatiques (mémoire, fichiers, etc.) pour des projets d'intérêt public. Notons aussi l' essor du journalisme participatif et citoyen, dans un contexte de déclin généralisé des médias traditionnels. On peut donc bien parler, comme l'a fait déjà Yochai Benkler (2006), d'un troisième mode de production, qui n'est ni géré par un mode hiérarchique ou par l'état, ni répondant à des impératifs de profit ou qui sont modulés par le biais des prix, dans un marché compétitif. Yochai Benkler, par le biais d'une analyse des coûts de transaction et d'information a pu démontrer que lorsque les coûts de départ sont distribués (outillages informatiques de millions d'utilisateurs) ou faibles, les processus de 'peer production' sont en fait plus efficaces que le marché. Cette peer production crée donc des biens publics informationnels, les "Information Commons," et est lie à l'émergence des mouvements politiques de défense du Commun, bien analysés par Philippe Aigrain dans son livre Cause Commune. Il s'agit de tous ces mouvements qui visent à protéger les biens communs contre l'appropriation privée abusive: mouvements contre les prix prohibitifs des médicaments du Sida, protection de la propriété commune des ressources naturelles et contre la biopiraterie, mouvement pour l'accès libre à l'information scientifique, etc.

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[1] Howard Rheingold and the Cooperation Project. Technologies of Cooperation. May 27, 2006 URL = http://www.rheingold.com/cooperation/Technology_of_cooperation.pdf

Il est clair que tous ces projets de production commune doivent également être gérés. La 'peer production' est donc inévitablement liée à de nouvelles formes de gouvernance: la 'peer governance', dont l'Internet même est un exemple. Quel est aujourd'hui le mouvement politique qui a émergé globalement, qui ne dispose ni de médias classiques et arrive pourtant à mobiliser des centaines de milliers de personnes? C'est évidemment le mouvement altermondialiste. Ces acteurs utilisent principalement l'infrastructure P2P pour s'organiser, et ont adopté des nouveaux principes de gouvernance P2P. Contrairement à d'autres mouvements politiques du passé, ces aspects 'égalitaires' n'ont pas diminué, mais se sont renforcés au travers des années. Des observateurs on également noté que les nouvelles luttes sociales, prennent la forme de 'coordinations.'[2] Implicite dans les nouveaux formats politiques est le refus de la 'représentation', c.a.d. de la délégation permanente du pouvoir.

Le P2P possède également des aspects 'culturels' très marquants, ce qui constitue un troisième niveau, représentant une nouvelle subjectivité et des nouvelles constellations de valeur. L'aspect le plus connu en est celui des nouvelles attitudes de travail, telles que les a décrites Pekka Himanen dans son livre sur "L'éthique des Hackers." Moins connu du grand public, on trouve aussi une évolution des pratiques religieuses et spirituelles, visibles là où les vérités pré-établies sont rejetées, ainsi que les formes autoritaires d'organisation qui les véhiculent (par example le format hierarchique de l'Eglise Catholique). Nombreux sont déjà les 'peer circles,' spécialement parmi les mouvements néopaiens, un phénomène des grandes villes occidentales, mais qui est également perceptible dans d'autres traditions. Il s'agit aujourd'hui de développer une 'spiritualité contributive et participative' à travers des communautés de 'pairs', et non de suivre des traces établis de façon autoritaire.

Quelques Clarifications et Caractéristiques Importantes

Les processus P2P sont essentiellement liés à des pratiques de participation 'maximale.' A partir de la création des sociétés de classe inégalitaires on pourra décrire l'histoire de la civilisation humaine comme une histoire de la participation. Nous citons John Heron:

1) civilisation inégalitaire sans participation dans le domaine du pouvoir politique

2) civilisation sur base d'égalité formelle qui accepte la participation politique grâce à un système de représentation

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[2] La forme politique de la coordination. Maurizio Lazzarata. 9 juin 2004. URL = http://multitudes.samizdat.net/article.php3?id_article=1446

3) processus d'élargissement de la participation dans divers autres domaines. C'est évidemment la phase actuelle.
4) Ce vers quoi l'évolution sociale devrait tendre si les processus P2P deviennent dominants: civilisation participative généralisée basée sur la création du Commun et sur la participation équipotentielle de tout un chacun [3]

Il peut donc y avoir bel et bien des pratiques hiérarchiques dans les processus P2P, mais l'important est alors de savoir si l'existence d'éléments hiérarchique est employée pour promouvoir la participation, ou pour consolider l'existence d'une élite permanente. Par exemple, si un groupe de PDG crée un réseau collaboratif, il est probable que le processus a pour but de renforcer le pouvoir mutuel, non de l'ouvrir à une participation équipotentielle de tout un chacun. Par contre, les éléments hiérarchiques tel que le système d'adresse DNS, ou l'emboîtement hiérarchique des couches de protocole TCP/IP, ou le modèle client/serveur du Web, n'élimine pas la participation généralisée, mais la rend possible.

L'élément d'équipotentialité est crucial pour comprendre les processus P2P. Dans les processus sociaux modernes, la connaissance est en quelques sorte démocratisée, mais en même temps elle est aussi soumise à des processus de validation institutionnalisée. Participent à des projets ceux dont la connaissance et l'expertise a été validée préalablement. Par exemple, pour écrire dans une revue scientifique, on doit démontrer son expertise formalisée par un diplôme, faire référence à ses écrits préalables, puis être jugés par des pairs. Dans les nouveaux processus de création de connaissance P2P, il n'y a pas de sélection préalable, pas de restriction aux 'membres' de l'institution. La participation est ouverte, et c'est dans le processus de coopération même, que le triage se fait 'à posteriori.' Généralement, les processus de création de valeur d'usage, comme le logiciel libre, sont donc ouverts à tous, à condition que l'équipotentialité soit présente, c.a.d. la capacité de coopérer dans ce contexte spécifique. Ainsi aussi, la Wikipedia est ouverte à tous.

A l' University of Openness une application très radicale des principes P2P qui est avant tout basée sur l'échange de savoir, et sur la recherche de savoir en commun, tout un chacun peut créer une faculté, devenir un étudiant de cette faculté,etc. Les facultés disposent également d'une bibliothèque coopérative et diffuse, c.a.d. les livres de chacun mis à la disposition de tous. La validation est communautaire, se fait par le biais de l'intelligence collective dont dispose la communauté (et dont les membres sont informés également par les autres modes de validation institutionnelle). Notons que la participation à des projets P2P peut être automatique: l'option par défaut devient alors la participation, et les ressources individuelles sont considérées comme communes 'à priori.' C'est la non-participation qui apparait donc comme élective. Par exemple, dans l'échange de fichiers, la participation est impliquée par la mise à disposition de sa propre mémoire dans le réseaux; concernant la méthode de diffusion à bande large BitTorrent, toute personne téléchargeant un fichier partage automatiquement ses propres ressources non utilisées. Les processus de P2P pratiquent donc en général des procédés de capture automatique, ainsi de nombreuses petites ressources distribuées font-elles naître des méga-projets, dépassant de loin les capacités de mobilisations des entreprises, même multinationales.[4]

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[3] Communication personnelle avec John Heron, July 2005

[4] La typologie de Alan Page Fiske

People use just four fundamental models for organizing most aspects of sociality most of the time in all cultures. These models are Communal Sharing, Authority Ranking, Equality Matching, and Market Pricing. Communal Sharing (CS) is a relationship in which people treat some dyad or group as equivalent

Dans quelles mesures les processus P2P peuvent ils être distingués de la socialité de réseaux, tel que décrite par Manuel Castells (2001)? Cet auteur ne distingue pas clairement les différents types de réseaux, et nous rappelons que les processus P2P sont caractéristiques des réseaux *distribués*. Prenons l'exemple de Marx observant la naissance du modèle industriel: il aurait pu décrire uniquement les usines, les relations autoritaires à l'intérieur de l'usine. Mais en même temps, les ouvriers créent une nouvelle culture de résistance, des coopératives, mutualités, syndicats et partis politiques populaires. Ces dernières pratiques ont durablement changé la société capitaliste et créé un modèle dans lequel l'économique a été, en tout cas pour un temps, soumis à des priorités sociales (le modèle social Européen ou Rooseveltien). L'approche P2P ne se contente donc pas d'analyser la socialité générale de notre société en réseaux, mais les processus spécifiques qui ont une intentionnalité participative, qui sont une réaction, une résistance et une création sociale vis à vis de la socialité de réseaux généralisée. L'objet des processus P2P est implicitement et explicitement de créer du Commun, et non du marché ou de l'état.

Il faut donc distinguer nettement les processus participatifs purs, résultant dans la création du Commun, de processus qui 'emploient' l'infrastructure P2P, mais tentent de l'approprier dans

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and undifferentiated with respect to the social domain in question. Examples are people using a commons (CS with respect to utilization of the particular resource), people intensely in love (CS with respect to their social selves), people who "ask not for whom the bell tolls, for it tolls for thee" (CS with respect to shared suffering and common well-being), or people who kill any member of an enemy group indiscriminately in retaliation for an attack (CS with respect to collective responsibility). In Authority Ranking (AR) people have asymmetric positions in a linear hierarchy in which subordinates defer, respect, and (perhaps) obey, while superiors take precedence and take pastoral responsibility for subordinates. Examples are military hierarchies (AR in decisions, control, and many other matters), ancestor worship (AR in offerings of filial piety and expectations of protection and enforcement of norms), monotheistic religious moralities (AR for the definition of right and wrong by commandments or will of God), social status systems such as class or ethnic rankings (AR with respect to social value of identities), and rankings such as sports team standings (AR with respect to prestige). AR relationships are based on perceptions of legitimate asymmetries, not coercive power; they are not inherently exploitative (although they may involve power or cause harm).

In Equality Matching relationships people keep track of the balance or difference among participants and know what would be required to restore balance. Common manifestations are turn-taking, one-person one-vote elections, equal share distributions, and vengeance based on an-eye-for-an-eye, a-tooth-for-a-tooth. Examples include sports and games (EM with respect to the rules, procedures, equipment and terrain), baby-sitting coops (EM with respect to the exchange of child care), and restitution in-kind (EM with respect to righting a wrong). Market Pricing relationships are oriented to socially meaningful ratios or rates such as prices, wages, interest, rents, tithes, or cost-benefit analyses. Money need not be the medium, and MP relationships need not be selfish, competitive, maximizing, or materialistic—any of the four models may exhibit any of these features. MP relationships are not necessarily individualistic; a family may be the CS or AR unit running a business that operates in an MP mode with respect to other enterprises. Examples are property that can be bought, sold, or treated as investment capital (land or objects as MP), marriages organized contractually or implicitly in terms of costs and benefits to the partners, prostitution (sex as MP), bureaucratic cost-effectiveness standards (resource allocation as MP), utilitarian judgments about the greatest good for the greatest number, or standards of equity in judging entitlements in proportion to contributions (two forms of morality as MP), considerations of "spending time" efficiently, and estimates of expected kill ratios (aggression as MP). (source: Fiske website http://www.sscnet.ucla.edu/anthro/faculty/fiske/relmodov.htm).

l'économie marchande. Ainsi, l'ensemble du capitalisme cognitif repose aujourd'hui sur l'infrastructure communicationnelle P2P; les processus collaboratifs intra- et inter-entreprises seraient impossibles sans leur emploi; certaines entreprises, que nous appelons 'netarchiques' reposent explicitement sur la facilitation et l'exploitation des processus participatifs, tel que Amazon, Google, eBay etc. L'idéologie du 'Bottom of the Pyramid development,' visant à une extension du marché vers les tout pauvres, est en quelque sort inspire par certains principes P2P. Plus loin, nous développerons les différences entre les processus P2P et le marché.

Récapitulons Quelques Principes Supplémentaires:

- le P2P n'est pas sans structure, mais possède des structures dynamiques et changeantes, selon les différentes phases de constitution d'un projet.
- le P2P n'est donc pas sans 'autorité' mais l'autorité y est dynamique, fonctionnellement spécialisée, souvent avec un leadership collectif, gardien des valeurs et de la vision du projet, mais dont l'influence dépend de l'engagement concret. L'hierarchie 'volontaire' est en general constituee d'un leadership ideologique et historique, c.a.d. les 'concepteurs' du projet, et d'un leadership de competence meritocratique.
- la communication n'y est pas formalisée dans des processus de haut en bas et réciproquement, mais y est intégrée aux 'protocoles' même du système.
- La coopération doit être libre et non forcée, et soit le retrait, soit le 'forking', la création d'un nouveau projet, doit être possible à tout instant.
- Si les systèmes hiérarchiques sont caractérisés par le panoptisme, autrement dit la capacité réservée à la hiérarchie de voir le système dans son entièreté; les processus P2P sont caractérisés par l'holoptisme, lequel signifie la capacité de chaque membre de voir le tout, aussi bien horizontalement (avec les autres participants), qu'avec le développement du système dans son entièreté. La transparence est inscrite dans le protocole même et accessible par les outils informatiques et la communication libre. Ces qualités sont exprimées dans des 'collectifs cyber' reposant sur une collaboration globale. Notons que la qualité d'holoptisme nous permets de distinguer le P2P des processus sociaux des insectes, où les participants n'ont pas cette capacité, et peuvent être sacrifiés au système; cette même qualité permet de distinguer le P2P des processus marchands, dans lesquels les individus n'ont pas accès à la connaissance du système dans son entièreté ,et sont seulement engagés dans leur propre transaction.

Si il n'y a pas à proprement parler de hiérarchie, de structure ou d'autorité fixe dans les processus P2P, où est donc le pouvoir? Le pouvoir est dans la communauté, et cette communauté est non-representationelle. Elle refuse donc de déléguer ces pouvoirs. Ce que ces processus participatifs veulent éviter, c'est l'émergence d'un « individu collectif » dans le sens de Louis Dumont, qui peut se détacher des participants (tel l'entreprise ou la nation), et acquérir ses propres stratégies de pouvoir, éventuellement à l'encontre de ces propres membres. En éliminant ainsi les signaux de la hiérarchie et du marché, les projets Communs ont besoin de signaux qui doivent venir des relations sociales elles mêmes. Il y a donc la validation communautaire par le biais de multiples techniques d'auto-évaluation permanente; il y a l'invention de protocoles technologiques indépendants, qui vont tenter d'objectiver cette validation, par exemple, le protocole de Technorati.com qui permets de distinguer les entrées de blogs à partir de leur utilité démontrée par l'usage réel. Ce sont le résultats des ces algorithmes qui vont fréquemment faire un arbitrage 'objectif'.

Notons finalement le processus de dé-marchandisation. Les projets communs produits par le biais des processus sociaux P2P, ne sont généralement pas destinés à la vente, il ne s'agit pas de 'produits' proposés à un marché. Ils sont faits pour leur valeur d'usage. L'usage qui en est fait est lui-même le principal outil pour déterminer la valeur d'un projet et des protocoles informatiques peuvent être utilisés pour la mesurer.

Pour qualifier de processus 'peer to peer', nous pensons qu'il est justifié d'y ajouter une caractéristique morale, une 'intentionnalité', qui doit être celle de la participation et de la création du Commun. En effet il est possible de créer des projets collaboratifs fermés à la participation, et il est également possible de produire des produits sans viser de mettre la valeur d'usage en Commun. Il y aujourd’hui un nombre de sites ou des firmes privées qui rémunèrent les meilleures solutions à certains de leur problème, même si le processus de production de ces solutions est le fait de 'collectifs cyber' en compétition, comme l'intentionnalité est ici de 'vendre' la solution, cela peut être au plus un procédé 'partiellement P2P.'

Le P2P et les Autres Modes Intersubjectifs

Afin de pouvoir distinguer cette nouvelle formation sociale d'autres modes intersubjectifs de création et d'échange de valeurs, nous employons la typologie de l'anthropologue Alan Page Fiske.

Il distingue quatre types de relations intersubjectives: 1) l'échange égalitaire (Equality Matching); 2) la relation d’autorité (Authority Ranking); 3) le marché (Market Pricing); 4) la participation commune (Communal Shareholding).

Notons que toute civilisation est un mélange de ces quatre types d'intersubjectivité, mais qu'en général, un mode domine et 'modèle' les autres. Ainsi, le mode tribal a été identifié avec la dominance de l'échange égalitaire, ou l'économie du don. La société tribale est dominée par l'appartenance à la lignée, et les liens y sont crées par le biais du don. Le don crée obligation et lien social.

Les civilisations agricoles ou féodales sont dominées par le principe d'autorité ou d'allégeance et possèdent une économie tributaire basée sur la relation de force. Aujourd'hui le mode capitaliste est évidemment dominé par l'échange via le marché et le lien salarial, qui est une relation de dépendance.

Notre hypothèse est donc que le peer to peer représente une nouvelle formation sociale base sur la participation commune.

Voyons en quoi cette nouvelle formation sociale diffère des trois autres modes, et pourquoi il s'agit d'un mode de 'participation commune.'

Premièrement, le P2P n’est pas basé sur une réciprocité directe. Il n’y a pas d’échange. La production dépend essentiellement de la volonté de chacun de vouloir participer dans le projet commun. Pendant le processus, il n’y pas de processus de dépendance car il n’y a pas de salaire. L’utilisation de la production commune est encouragée, et chaque nouvel utilisateur est en fait une ressource pour le système. Il n’y a donc pas de Tragédie du Commun, dans le sens ou il ne peut y avoir sur-utilisation du système. Finalement, le produit final est un bien commun qui est mis à la disposition de tous. C’est donc bel et bien un système de non-réciprocité et toutes les analyses qui veulent faire de l’internet une économie de don sont erronées.

Deuxième point: le P2P n’est pas un marché. Il n’y a pas de relation salariale et de commande hiérarchique, car il n’y a pas d’entreprise. Les produits ne sont pas vendus sur le marché (bien que cela soit permis par les licences) et, puisqu’il n’y a pas de tension entre l’offre et la demande dans le contexte d’un bien infiniment reproductible, il n’y pas de régulation par les prix. La production P2P ne produit pas de marchandise.

Ceci ne veut pas dire que le P2P n’est pas profondément impliqué dans l’économie de marché. Pour les entreprises, l’utilisation de logiciel libre est un moyen de fortement diminuer les coûts; ces mêmes entreprises sont à l’affût de l’innovation ainsi générée, et peuvent même financièrement soutenir des projets. Tout simplement, l’économie cognitive ne pourrait fonctionner sans l’appui des technologie P2P (l’internet, le web), sans l’innovation diffuse, sans les techniques participatives dans le management des projets. Les processus participatifs créent une nouvelle sphère du capitalisme, une nouvelle fraction du capital qu’on pourrait appeler ‘netarchique.’ Il s’agit d’entreprises dont la valeur ne dépend ni de leurs ressources matérielles (comme dans le capitalisme industriel), ni de leurs ressources intellectuelles (comme dans le capitalisme cognitif), mais de leur capacité à créer des plateformes participatives (Ebay, Google, Yahoo, Amazon) ou d’agencer l’apport de la participation dans l’enrichissement des services et produits.

Les deux erreurs d’interprétations sont donc de considérer la peer production comme une expression du marché, ou de ne voir que les aspects ‘immanents’ du phénomène P2P, sans en voir les aspects transcendants, les aspects qui dépassent le marché et l’économie politique du capitalisme.

Le P2P a donc une double nature: par le biais de son infrastructure informatique distributive et collaborative, il est instrumentalisé par le capital. Mais le P2P ne peut se réduire à cette instrumentalisation. Elle est une initiative du monde civil pour sortir de la dichotomie marché-etat, offrant un troisième mode d'organisation sociale.

En effet: 1) cette même infrastructure renforce l'autonomie du monde civil; 2) son mode de production ne répond ni à des impératifs de marché, ni à une hiérarchie étatique ou corporative; 3) son mode de gouvernance non hiérarchique se sépare de celui des entreprises, mais aussi du mode étatique; 4) Sa mise en commun de la propriété intellectuelle rend impossible l'appropriation privée et crée un 'troisième domaine social.'

Le P2P changent également profondément la relation hiérarchique. Le P2P est méritocratique et n’est plus basé sur la relation de dépendance du régime salariale mais plutôt sur un leadership distribue et changeant. L’identité, la réputation de l’individu y dépendent de sa contribution au commun et de la reconnaissance de cet apport par la communauté. Le grand choix de l’individu est désormais: de suivre un projet existant avec un leadership déjà constitue (même s’il est mouvant et changeant), ou de créer son propre projet.

L'extension du Mode P2P Dans le Monde de Demain

Nous voulons ici réfléchir à une extension possible du mode P2P, et de son articulation présente et future dans la société. Il serait faux de réduire l’extension du P2P au domaine de l’immatériel.

L’extension des modes participatifs sont une fonction des réseaux distribues, donc d’une extension des processus de distribution. La distribution de l’intellect tout d’abord. Le P2P est fonction de l’abondance d’intelligence collective, et de son surplus qui ne peut être réduit à son emploi dans l’entreprise par le biais de la relation salariale. Toute extension générale du niveau de l’éducation, des moyens mis dans la recherche et l’innovation, sont favorables à son extension.

La distribution des moyens de productions, du capital fixe ensuite. Dans la mesure ou les ordinateurs et les réseaux continuent leur expansion, les possibilités de capitalisation distribuées, c’est à dire la création de réseaux sans apport de capital centralisé, augmentent. L’explosion que nous voyons aujourd’hui dans la sphère médiatique, pourrait se produire dans certains secteurs de la production matérielle, selon les progrès de la ‘desktop manufacturing’ (‘production chez soi’), qui vient de démarrer aux Etats-Unis, avec des entreprises de support tels que eMachineShop.com, iFabricate.com, etc. En outre, partout ou la production peut être distinguée en deux phases, immatérielles et matérielles, la possibilité théorique d’une extension du participatif existe dans la phase de conception des produits et services. C’est évidemment déjà le cas dans le secteur des logiciels, ou de nombreuses entreprises de service, capitalisent sur les logiciels libres.

La distribution du capital financier ensuite. C’est le facteur le plus délicat et difficile à envisager, puisqu’il y a une extraordinaire concentration des ressources dans ce domaine. Cependant des nouveaux mécanismes comme la Banque ‘P2P’ Zopa, un système bancaire sans intermédiaire, pointent vers les solutions futurs.

Le développement de la sphère non-reciprocité pure sera aussi dépendante d’une série de mesures politiques, tels que le revenu universel garanti. Une telle politique, qui permet de sevrer le lien trop direct entre travail et salaire, permettra à de nombreuses personnes de rejoindre, pendant des tranches choisies de leur vie, des projets de production participatives en dehors de la sphère marchande. C’est probablement la mesure la plus importante pour enrichir durablement nos sociétés.

Recapitulatif: Les Aspects Integraux et Integratifs du P2P

Les processus P2P sont donc généralement associés à une production de valeur, la 'peer production.' Ces processus P2P n'ont pas comme finalité le profit, mais la valeur d'usage. Pourquoi ce mode peut-il être considéré comme intégratif par rapport à la situation précédente? Autrement dit, le P2P est-il régressif, ou, au contraire, reprend-il les avantages des modes précédents, tout en les améliorant ?

Le P2P est tout à fait compatible avec un mode de production industriel et post-industriel, et est même plus productif que celui-ci dans certaines conditions. Le P2P n’abolit donc pas la complexité du monde économique. Il n’est en aucun cas, un retour en arrière. Il permet en fait à l’économie du marché de profiter de son innovation et de son extension. Nous avons également insisté sur le fait que la vocation du P2P n’est pas d’exister seul, mais de devenir le format ‘dominant’ dans une nouvelle configuration qui englobe les quatre modes intersubjectifs.

Comme il s’agit ici d’une hypothèse sur le futur, nous ne pouvons qu’offrir une réflexion. Nous avons développé ailleurs trois scenarios. Dans le scenario ‘négatif,’ le P2P est entièrement instrumentalisé par le modèle dominant. Les dispositifs propriétaires y sont renforces, mais la propriété physique y est remplace par des formes de propriété basées sur des licences (abonnement, location de services). Dans ce scenario, décrit par Jeremy Rifkin (2001) dans The Age of Access, il y a perte de liberté d’usage, car les licences sont beaucoup plus restrictives que la propriété matérielle, et limitent l’usage que l’on peut faire de la production immatérielle. Pour réussir, il faut créer une rareté artificielle, par le biais d’une législation renforce sur la Propriété Intellectuelle, et par l’intégration de logiciels de contrôle empêchant la reproduction de la matière première digitale. C’est évidemment le scénario soutenue par Microsoft et l’OMC, qui détruirait le Commun. Il s’agit d’une forme de ‘féodalisme informationnel’ tout à fait réactionnaire car il détruit les possibilités productives et la création culturelle du nouveau système. En plus, il crée une dichotomie, une nouvelle inégalité entre ceux qui auront accès aux réseaux et aux licences, et ceux qui en seront exclus.

Deuxième scénario: la cohabitation pacifique entre le système économique dominant et la sphère P2P. Un modèle historique en serait la cohabitation entre la sphère commune des paysans aux Moyen-Age, ainsi que l’existence d’une Eglise disposant de ses propres domaines avec une forme de propriété collective, et le système féodal. Dans la Sangha bouddhique de l’Asie du Sud-Est, nous voyons comment l’on peut se mouvoir de la sphère féodale (et aujourd’hui: marchande) vers la sphère monacale, comme font aujourd’hui les programmeurs entre leur travail pour les entreprises et leur production libre. C’est donc en effet la situation actuelle mais elle est, selon nous, instable, car nous ne voyons pas comme un système qui détruit sa propre base productive, c’est à dire la biosphère elle-même, peut durer indéfiniment.

La question essentielle est ici la survie du marché sous la forme ‘capitaliste.’ En fait, la situation nous parait être la suivante: il y a abondance immatérielle (c’est la sphere du P2P ‘pure’); il y a abondance dans l’appareil productif (le modèle industriel nous permets de produire à outrance), mais il y a limitation des ressources naturelles Les reformes proposées par les adhérents du courant du capitalisme ‘naturel,’ c.a.d. Paul Hawken (2000), David Korten (2000), Hazel Henderson (1995) pourraient constituer une piste alternative. Celles-ci vont dans le sens d’une obligation d’intégrer dans le système économique les coûts d’externalisation par rapport à l’usage de la biosphère. Nous devons arriver soit à une économie à croissance zéro (décrite par l’économiste Herman Daly (1997) concernant cet usage de la biosphère (et dans un esprit d’équité, à une décroissance en Occident, décrite par l’économiste Serge Latouche (2004)). Le deuxième aspect important est l’intégration des coûts sociaux, des couts d’une reproduction sociale qui ne réduit pas des milliards d’êtres humains à la misère.

La première priorité renvoie à une attitude participative envers la nature, ce qui fait partie d’un changement dans les constellations de valeur dans le sens du P2P; la deuxième renvoie à une intégration de la gouvernance humaine dans les processus économiques. Nous devons donc imaginer un futur ou le marché lui-même est informe par les principes P2P. Prenons exemple du commerce équitable. Ici, le marché est extrait de la pure sphère du pouvoir, et les nouveaux intermédiaires négocient avec les producteurs pour connaitre leur besoin en terme de reproduction sociale digne. Ces demandes sont alors compare à ce que le marché peut ‘porter.’ Le résultat: les consommateurs payent un peu plus, les intermédiaires gagnent un peu moins, mais les producteurs gagnent mieux et dignement leur vie. Ceci parce que le marché est ici ‘in-formé’ par ce processus de négociation participative. Le marche est soumis a un processus d’arbitrage P2P.

Poursuivons notre démarche de questionnement ‘integratif’ du P2P. Nous avons démontré les aspects intégraux de la production P2P. Quand est-il de la gouvernance ? Cette gouvernance est bien plus démocratique et efficace que les modèles précédents, mais ceci sans abolir les bienfaits de la démocratie représentative. Au contraire, la participation, jusqu’ici limite au vote, est généralisée, puis étendue vers les sphères non-politiques, comme la production de valeur économique, et vers la culture, par le biais de la production autonome post-médiatiques.

Quand est-il du mode de distribution P2P, c.a.d. les biens communs informationnels ? En effet, les 'produits' sont rarement vendus sur le marché mais sont la plupart du temps mis gratuitement à la disposition des utilisateurs et du public, sous des formes propriétaires nouvelles, de 'bien public' ou 'bien communautaire,' "non-étatiques." Il s'agit ici d'un nouveau mode de propriété, la 'peer property,' qui est ni celui de la propriété privée (et donc exclusif et privatif), ni collectif et étatique (où l'individu est 'soumis' aux impératifs de l'état ou de la collectivité), mais commun (tous les individus y ont un droit égal). Ce nouveau mode n'abolit pas la propriété privée ou étatique, mais en ajoute un troisième qui reconnaît l'apport individuel (donc un des aspects clefs de la propriété prive), tout en transformant la notion du collectif transcendent (la propriété étatique qui externalisent la propriété commune), en 'commun immanent.' Les deux plus importants aspects des nouveaux modes de propriété commune sont donc 1) l'attribution individuelle; et 2) le concept du 'share-alike.' qui est l'obligation de continuer à mettre à la disposition du public tout travail d'amélioration.

Le P2P est en outre une avance considérable dans l'interrelation entre l'individu et le collectif. Une des caractéristiques de la prémodernite est la vision holistique ou l'individu n'existe que par la collectivité. La modernité invente l'individualisme, mais aux prix d'une atomisation de l'individu. Dans le peer to peer, nous retrouvons entièrement l'individu libre, mais conçu dans son interconnexion avec les autres. Rien n'est perdu de l'individualisme, mais on réintègre l'aspect relationnel constitutif de l'être humain, par le biais du commun. La fragmentation postmoderne de l'individu retrouve une integration par le projet des projets communs.

La où l'universalisme de la modernité faisait table rase des différences, le commun participatif les reconnaît pleinement. Tous les mécanismes communs des processus P2P ont pour but d'empêcher la création de groupes transcendants au dessus de la communauté vivante des producteurs.

Quand est-il des aspects 'négatifs' de l'émergence des processus P2P ? Ils se trouveront probablement dans ses problèmes d'apprentissage, surtout au niveau de la gouvernance. L'absence de structure claire peut parfois cacher des structures de pouvoir. Il y a toute une problématique d'appropriation privée qui reste entière. Que faire de l'appropriation par des entreprises de tout ce travail en commun ? Doit-il profiter à toute la communauté ? Comment les processus de gouvernance autonome peuvent-ils s'intégrer dans la structure de pouvoir existante? Certains protocoles communautaires ne risquent-ils pas renforcer la médiocrité, plutôt que le génie individuel ? Le chantier du P2P est donc ouvert et nous allons découvrir non seulement ses bienfaits, mais les nouvelles problématiques et tensions que son émergence engendre.

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Pour Plus d'Informations:

- Le bulletin signalétique associé (dont l'archive est consultable à http://integralvisioning.org/index.php?topic=p2p
- Une version plus complète de l'essai, en anglais, est consultable à l'adresse suivante: **http://integralvisioning.org/article.php?story=p2ptheory1**

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Le Peer to Peer:
Vers un Nouveau Modèle de Civilisation
Peer to Peer: Towards a New Model of Civilization

Michel Bauwens

English Summary

This article presents and summarizes a hypothesis about the birth and emergence of a new social formation, called "peer to peer," which has profound implications for the transformation of our current form of market economy.

Peer to peer is the intersubjective dynamic at work in distributed systems, i.e., a type of network that goes beyond decentralization, because hubs are no longer obligatory, thereby giving an unprecedented amount of control to the agents involved. Such peer to peer dynamics are associated with a series of important processes:

- Peer production, as a third mode of production, where decisions do not arise from market allocation or corporate management, but arise from the free cooperation of producers. It is mostly associated with the production of free and open source software, but is expanding to the totality of the immaterial sphere and even beyond.
- Peer governance, as the new methods of governance that are being experimented with in these kinds of projects.
- Universal common property regimes: the resulting use value is not sold on the marketplace for its exchange value, but is freely available to those who need it.

The precise characteristics of peer to peer (P2P) processes are described (such as its holoptism, anti-credentialism, etc.), and it is carefully distinguished from other modes of production and governance such as reciprocity-based gift economies, markets, etc. P2P is identified as a modern form of 'Communal Shareholding,' following a comparison with anthropological models of intersubjectivtiy, i.e., the relational models proposed by Fiske.[1]

The fourfold intersubjective typology of Alan Page Fiske distinguishes:

1) Equality Matching, where individuals make sure that reciprocity occurs, and that was the basis of the tribal gift economies, and where the key question was 'to belong or not to belong.'
2) Authority Ranking, where individuals are ranked according to priority, which was the basis of agriculture-based feudal-type civilizations.
3) Market Pricing, where goods and services are exchanged according to a pricing mechanism, the basis of the capitalist economies.
4) Communal Shareholding, whereby resources are held in common, each contributes according to willingness and ability.

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[1] Fiske, A. P. (1993). *Structures of social life.* New York: Free Press.

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In the last part, we look into the possibilities of expansion for this new social formation, which holds great promise for a reform of our polity towards more participation. I conclude the article with an examination of the integrative nature of P2P.

Michel Bauwens *has played a major role in the digital revolution of his home country Belgium, where he is known as an internet pioneer. He created two dotcom companies, was (eBusiness) strategic director for the telecommunications company Belgacom, and 'European Manager of Thought Leadership' for the U.S. webconsultancy MarchFIRST. He co-produced the 3-hour TV documentary 'TechnoCalyps: the metaphysics of technology and the end of man', and co-edited two French-language books on the 'Anthropology of Digital Society', and was editor in chief of the Flemish digital magazine Wave. He now lives in Chiang Mai, Thailand, where he created the Foundation for P2P Alternatives (P2PFoundation.net). He taught the Anthropology of Digital Society for postgraduate students at ICHEC/St. Louis in Brussels, Belgium and related courses to Payap University and Chiang Mai University in Thailand. He can be contacted at michelsub2003@yahoo.com*

Perspectives On Troubled Interactions: What Happened When A Small Group Began To Address Its Community's Adversarial Political Culture

Sara Ross

Abstract: This study investigated fostering political development (as defined in the report) through an integration of adult development, public issues analysis, and structured public discourse. Entitled The Integral Process For Working On Complex Issues (TIP), that multi-session discourse methodology includes issue analysis and framing, deliberation, and organizing systemic action. Its issue-framing template helps users generate multiple approaches to issues that reflect different levels of complexity and incorporate the conceivable human and institutional perspectives and environmental life conditions. The small group used the discourse process to select a public issue of concern and to begin to address it. It was about how to change the community's adversarial political culture. They conducted a deliberative action inquiry into their own tones and intentions toward that issue as the starting point to address it, and did deliberative decision-making on that basis. The political reasoning and culture of the group developed during the study, evidenced by the group's work and changes that participants experienced. The study is the first of its kind in several respects, which are: (a) to use this public discourse process as part of the research methodology, (b) to perform this kind of empirical research on public discourse and deliberation, and (c) to foster political and adult development while addressing complex issues. This extended length research report departs from traditional journal article formats not only by its length but also by integrating its report of findings with analyses of the processes that resulted in the findings. It is complemented by a shorter article in this issue of *Integral Review*, which describes the steps of the process and the major themes evident in participants' experience.

Key words: action inquiry, adult development, hierarchical complexity, perspectives, political culture, political development, transformative learning.

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Introduction

Unexpected, instructive, and transformative things happened when a small group of citizens decided it wanted to begin to address its community's chronically troubled interactions between citizens and local government, and between groups of citizens. Participants in this study used six sessions of a structured public issue discourse process to investigate the roots of the issue, discover and work with priorities, and deliberatively weigh the powerful roles their own tones and intentions would play in any efforts to address the overall issue.

In this first detailed report of findings from the recent study, I aim to tell a "whole story" in such a way that a variety of people may notice at least a few places where this research—and the ideas and praxis behind it—could offer something relevant and interesting to their own endeavors. That variety of people could range from individuals interested in personal and interpersonal development, to various kinds of consultants, change agents, and practitioners including those in deliberative democracy, to theorists and action researchers, to public officials, administrators, and policy makers.

My focus in this report is on what happened in connection with participants' experiences with the issue they worked on during the process. This extended report includes theory, praxis, and analysis. Praxis involves the process of surfacing a unique public issue about attitudes toward—and strategies for—social change, and the small group and individuals' experiences of beginning to work on the issue. Narrative descriptions and qualitative analyses explore what happened with the issue, with the group, and with the individual participants. To support my effort to convey what happened in terms of its whole story, I include a substantive theoretical section before that reporting begins. I believe that readers who wish to skip over that section will glean interesting things from the rest of the story.

The purpose of the study was three-fold: (a) to find out what changes, if any, participants experienced that could be associated with participation in the structured public issue discourse process; (b) to learn about the issue that participants would select, analyze, develop, and deliberate during the process; and (c) to study what happened within the political culture of the small group of participants.

As the method to organize this report, it has the following framework. It begins with a background section in two parts: one that discusses the larger context of the research, followed by one that discusses my research interest and situates it in relation to the literature. That discussion identifies both the void to which this study begins to respond and the research questions posed for the study. The second section discusses the theoretical perspectives underlying the study's methodology and the report of findings. That section serves as an overview of the fields, key theories and areas of praxis. It includes discussion of developmental dynamics in relation to the methodology. Building on those foundations, that second section has a subsection related to the political importance and implications of the study participants' issue. This entire second section provides a foundation for understanding the study as a whole from an applied-theory standpoint. It also enables me to be more efficient in discussing the findings later in the report.

In the third section, the report on the study begins by introducing my research perspective and information about the study participants and data collection methods. It provides a brief overview of the project's design to orient readers for the rest of the section. In this part, my discussion has two major levels of reporting: one at the group level, and one at the level of individual participants. The group level reporting follows the chronological sequence of the discourse process methodology. Its subsections discuss what happened in each group session, generally using the same pattern: introductory description of a session, a report on its work and dynamics, and usually some reflective or theoretical analysis. Analyses of what happened at the group level close that reporting before shifting the focus to the individual participants. The subsection that reports on what happened for participants includes brief, individual portraits of some of their experience and various qualitative analyses. (This section does not report on the two major themes that showed up in participants' experiences; those are reported in the shorter, companion article in this issue of *Integral Review*.) After a summary discussion of the study, the report ends with describing the study's limitations, recommendations for further research, and my conclusion.

Background

Larger Context of the Study: Political Development

This research reflects the junction of long-term interests I have pursued in tandem. One is putting into use systematic methods to address complex public issues, including conflicted ones, so that their component layers can be addressed systemically, and another is supporting individuals' personal development and communities' socio-political development. These reflect my commitment in research and praxis to fostering political development.[1]

Consistent with the dictionary and Stephen Chilton (1988, 1991), I define *politics* as all our ways of relating to others, to groups, to formal and informal institutions, and (unlike Chilton or the dictionary) to the environment. Chilton defines political development in terms of the political culture, comprised of the publicly common ways of relating. In his theoretical work, he writes, "*Political development is defined in this work as a specific form of change in the political culture of a society.* The political cultural system, not the individual or social systems, is the locus of development" (Chilton, 1988, p. 28, emphasis in the original). The first conditions of political development, then, are the human adaptive capacities for increasingly more competent, principled, and appropriate publicly common ways of relating.

Existing political cultures need to develop beyond their present stages of effectiveness in order to address systemic, interrelated issues at all. As that is long-term change, it is important to begin work sooner rather than later to change the political cultures that support and sustain challenging—and often quite troubling—issues. Complex issues are not "things" in themselves that exist independent of the dynamics that give rise to them. They are better understood as *complexes*, metasystems made up of the complicated, interacting dynamics of multiple other systems. Individuals and groups, social institutions, and their cultures play interactive roles in all social issues; thus, they are instrumental actors in efforts to address issues.

Chilton (1988, p. 14) writes, "Locating political development in the cultural system admits several sources of change: change due to cognitive-developmental forces; change due to social inertia; and change due to hegemonic control over available cultural alternatives." According to my reasoning, it follows, then, that if:

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[1] Most often in the political science and international development literature, where the term *political development* is used, it refers to institutions. My use of the term includes institutions but is not confined to them. Therefore, I refer to and discuss only Chilton's work with regard to political development because we share the same orientation.

1. structured public issue analysis and discourse can foster participants' individual development while and by addressing complex issues of concern, and
2. thus alter social inertia by actively addressing those issues, and
3. the discursive processes lead to new politics by both the nature of the processes and new systemic approaches to action and institutional change that they equip people to engage, and
4. the process iterations extend over time, gradually resulting in new publicly common ways of relating,

then political development will be fostered. This is a long-term strategy-agenda. A fundamental prescription in this agenda is that its methods to address issues must afford opportunities that are conducive for developing new competencies *over time* in the culture, in individuals and groups, and in their institutions. If methods support this prescription, then people might make qualitatively different contributions to their own quality of life, their interactions, their institutions, their environments, and the challenging issues that often pervade them.

Research Context and Interest

This study grows out of my overarching research interest to develop and use the *how to's*—the structured analysis and discourse methods—that might advance political development *while* and *by* addressing complex issues and questions. The methodology I used in the study was a replicable, structured process I developed almost six years ago, the design of which is grounded in years of public issues analyses and action research, understandings of adult development and dynamic systems, the roles of action inquiry and deliberation, and other foundations. Its design embeds assumptions that its methods need to invoke, utilize, encourage, motivate, develop, and use humans' capacities as they confront complexity in issues that concern them. Its central *function* is to enable people to identify and work on the systemic layers of complex issues.

Working on complex issues in such ways invites reflective thinking. This and other capacities mentioned later are both *products* and *agents* of using such methods to foster political development. As one of the capacities that play simultaneously product-and-agent roles, reflective thinking

> introduces the *capacity* to reason and make conclusions about ill-structured problems at a more complex level. [From the point of introducing this capacity, there is a traverse], with the actual development of reflecting thinking skills, and [their] eventual functional use in everyday life, dependent on application of this capacity to complex knowledge dilemmas so as to construct reflective thinking skills over time (Fischer & Pruyne, 2003, p. 176).

Reasoning about and reflecting upon such issues or problems is an important way to interact with the environment. The sciences that study dynamically complex adaptive systems, including biology, psychology, and anthropology, have shown that humans and their social systems can evolve to greater complexity as they interact with changes in their environment. Fields of genetic epistemology, other branches of cognitive science, and education have studied human cognition developing the capacity to perform more complex tasks as it interacts with the environment. Information about *how* we humans and other systems do this is crucial to know if development is to be fostered.

The Model of Hierarchical Complexity (MHC) was developed and refined over the last twenty-some years. It was recently posited as a formal theory (Commons & Pekker, Submitted), and makes a significant advance beyond just describing stages of development and what capacities develop during them. Applicable across human cultures, species, and even computer simulations, among its other contributions to the behavioral sciences and developmental research, this mathematical theory accounts for each step of transition in development in any domain. It does this by assigning to every task an order of hierarchical complexity, resulting in objective measures irrespective of the content, context, or performer of a task. The model "replaces the old, flawed empirically based ideas of developing mental structures" (p. 3). This makes an important, potential contribution to inspiring more research into how to foster human development, particularly since "the traditional notion of developmental stages has been hopelessly mired in empirical problems that have led to its abandonment by many as a coherent measure (see discussions by Brainerd, 1978 or Broughton, 1984)" (p. 3). As a comprehensive developmental theory, the MHC accounts for "a) what behaviors develop and in what order, b) with what speed, and c) how and why development takes place" (Commons & Richards, 2002, p. 2). An important implication is that we need not hazard guesses nor make leaps of logic to attribute cause when we want to study and explain why development occurs in individuals and their social groupings at any scale. This is because the sequence of hierarchical task construction is mapped out, and "there are no intermediate complexity task actions" (Commons & Pekker, Submitted, p. 4). Rather, each discrete step of each increase in performance is identifiable and measurable, both within and across domains of activity, such that "one need not posit as a cause spurts in brain development" (p. 4), for example, or other causal explanations that do not account for the dynamics of development's "how and why." The MHC is essential for grounding assumptions in this study's methodology. However, although it includes the how and why, and general issues of support, contingency settings, and other general factors, it does not, itself, include applications or methods.

Relatively little research has been done to investigate methods to foster adult development that will demonstrate capacities beyond those possible at the more common adult stage of formal operational logic. Alexander's research with prison populations and children using Transcendental Meditation (TM) techniques (Alexander, Heaton & Chandler, 1994, p. 59) and numerous other studies have documented "that TM produces distinctive physiological, psychological, and sociological effects (Orme-Johnson & Farrow, 1977; Chalmers, et al., 1989)" (p. 65). One longitudinal study of TM practitioners showed a substantive number of the student experimental subjects at Maharishi International University scoring at postformal levels (p. 62). As discussed by both Alexander et al and Torbert (1994), the TM studies reflect different assumptions about the how and why of adult development than, for instance, Commons et al, cited earlier. They center on different hypotheses about the role of effort in development: "From the perspective of Vedic Psychology (Maharishi, 1972, p. 18:8) any individual effort hinders the experience of transcending and diminishes the realization of natural and balanced personal development" (Alexander et al., 1994, p. 62). Since complex issues require effort to address them, this research has little bearing on methods used to foster political development.[2]

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[2] The studies concentrate on sole individuals' meditation practice in the isolation of their own minds and beings. Given the evidence that organisms develop in the course of their varied interactions with their entire environment, an investigation into the culture of the university community where TM was embedded as an individual practice could produce some interesting findings. For example, how does a presumably non-adversarial "institutional atmosphere" and Vedic norms in the "cultural atmosphere"

The literature on fostering critical thinking and transformative learning in adults (e.g., Brookfield, 1987; Cranton, 1994; Freire, 2002; Mezirow, 1991; Taylor, Marienau & Fiddler, 2000) is germane to this study in its subject matter, since the process embeds opportunities for critical insights to develop and be used. There are signs that adult developmental perspectives are beginning to converge with the adult learning field (Hoare, 2006), and this may extend such efforts beyond their traditional settings. In the meantime, the methods used in educational venues do not transfer well to the public sector and voluntary citizen work on public issues.

Literature that is germane to my research would reflect the premise that human development, transformation, adaptation—different labels for the same dynamics—emerge and transpire in social settings and interactions and in response to the larger environment. From my perspective, rather than treat such development as an isolated individual endeavor, it should be regarded as a dynamical political process because it inherently involves our ways of relating to self, others, and the world. Another criterion for literature related to this research is recognition that our complex issues arise and exist as *complexes* that manifest and reflect the myriad ways that people, their institutions, and their processes are (or are not) relating with respect to them. Complex issues are more than just the "thing" that their labels suggest and that people debate (e.g., conflict, poverty, unemployment, education reform, etc.). As complexes, they are made up of many issues and they need various layers of integral attention, analysis, decision-making, action, coordination, and evaluation extended over the long term.

Thus, more germane here are intentional practices that "treat not just individual persons, but all social systems from brief conversations to intergenerational institutions as capable of developmental transformation" (Torbert & Associates, 2004, p. 218). A small body of research validates that specific practices involved in action inquiry—whether used in educational or organizational settings, or in informal groups—can foster adults' postformal development into more complex capacities (Rooke & Torbert, 2005; Torbert, 1994; Torbert & Associates, 2004). They do this by the way they direct people's attention into the tasks involved in this practice of "learning from the four territories of experience through action inquiry" in the course of daily life (Torbert, 1994, p. 199). Action inquiry's powerful effectiveness and broad transportability are among factors that led Torbert to conclude, "the only political principle that invites the potential transformation of everyone's perspective is the principle of inquiry" (Torbert, 1991, p. 236).

A look at those four territories of experience can help to make the connection with inquiry's role more evident.

- First territory. *Outside events*: results, assessments, observed behavioral consequences, environmental effects.
- Second territory. *Own sensed performance*: behavior, skills, pattern of activity, deeds, as sensed in the process of enactment.
- Third territory. *Action-logics*: strategies, schemas, ploys, game plans, typical modes of reflecting on experience.
- Fourth territory. *Intentional attention*: presencing awareness, vision, intuition, aims (Torbert & Associates, 2004, p. 22).

Torbert et al's theory and praxis of developmental action inquiry bears on processes to foster political development, regardless of issues' subject matter. However, complex issues involve

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serve as the kind of "contingency setting" that is conducive to individual development (see Commons et al., 2005)?

substantive additional factors that require additional processes, which may or may not embed action inquiry. These refer to the criteria I mention above. Specifically, these include down-to-earth analyses of issue-layers. These engender layers of complex decision-making and priority setting, and systemic action by institutions and citizens in various configurations and contexts. Much of that structured and unstructured work is voluntary, is systemically joined with policy-making dimensions, and requires deliberation for complex decisions about both voluntary and official action.

Thus, my review of the literature turned to other sub-fields including public participation with deliberative dialogue and methods for addressing group or moral conflicts. I will confine the focus here primarily to deliberation-related issues. The literature indicates that the "how and why" of public deliberation is still little understood: "The field of public deliberation and our knowledge about this phenomenon is nascent, and much remains uncertain" (Williamson & Fung, 2004, p. 3), largely because "empirical research has lagged behind theory and practice" (Delli Carpini, Lomax Cook & Jacobs, 2004, p. 315), a gap that some have already attempted to explain (e.g., Levine, Fung & Gastil, 2005) and that I will not repeat here. Until fairly recently, when public deliberation or deliberative democracy was discussed or theorized about, the underlying assumption was that deliberation was, or would be, actually taking place among citizens convened for that purpose. Part of the problem in some deliberation research seems to be the absence of criteria for what constitutes deliberation, under what conditions it occurs, and for what purpose. Questions about deliberation are surfacing that challenge earlier assumptions and give rise to new hypotheses. Complicating the matter, clear agreement about the definition of deliberation is not evident (Delli Carpini et al., 2004), nor is there a scheme to understand its various contexts and purposes, qualitative variances, or explanations for them. These are signs of the still-new status of deliberative democracy as a subfield of political theory: it was only "around 1990 [that] the theory of democracy took a definite deliberative turn" (Dryzek, 2000, p. v).

Two recent reviews of the empirical literature on deliberative democracy's practices (Delli Carpini et al., 2004; Ryfe, 2005) provide thorough discussion of the state of the subfield, its challenges, and its questions and I refer to some of them only in summarizing this section.

Beyond the literature's discourse, numerous "civic entrepreneurs" have been pursuing their own initiatives which are "vital laboratories of public deliberation," including: Center for Deliberative Polling, Citizen Juries, National Issues Forums, AmericaSpeaks, Study Circles Resource Center, Public Conversations Project, Viewpoint Learning, and others (Williamson & Fung, 2004, p. 12). Some of that work uses multiple, more loosely-structured, quasi-public sessions over long periods (Saunders, 1999, 2006) or single sessions (Pearce & Littlejohn, 1997) to explore and improve conflicted relations or issues. Despite all the activity, little empirical work has been done to study how in-person deliberation influences later behavior and political beliefs Burkhalter et al., 2002)" (Gastil, 2004, p. 309). Findings from a combination of two different studies that used NIF as civic education to explore a social cognition model led to a conclusion was that "it would be a mistake to increase the quantity of NIF and similar programs without simultaneously devoting sustained attention to improving their quality" (Gastil, 2004, p. 327).

I have previously presented (Ross, 2002; Ross, 2005) the way I integrate developmental understandings into my theory and methodology, including the process for framing issues so that they can be deliberated. Important additions to the literature on deliberation that also have a developmental perspective have been made by Rosenberg (2002, 2004a, 2004b, 2005) and his former graduate student, Winterstein (2005). Its close relation with my research makes it important to discuss Winterstein's dissertation research. He produced a developmental stage model of discourse based on Piaget, Kohlberg, and Rosenberg's (1988, 2002) previous work, and participated with Rosenberg in two small studies. One involved college classes, one involved residents in a community. Doing his reporting before all transcriptions and data analyses were complete, he tendered the conclusion that people must be operating at the systematic stage in order to deliberate, and that his study participants' capacities and their discourses were not nearly systematic: therefore, they could not and did not deliberate in the studies. Rosenberg's recent work has not yet included final reports on the two studies introduced by Winterstein, but he has been asserting that citizens cannot deliberate and challenging assumptions about deliberation's possibilities. The main contribution of these authors' work, in my view, is their developmental perspective entering the discourse on deliberation.

My research interest and methodology include but are not confined to public deliberation, but I do not find literature that extends beyond deliberation to address the scope of my research. Therefore, I mention below some purposes cited for public deliberation to create a broader context for it here.

Buttom & Manson (1999) derived from their studies that the prevailing orienting purposes of convening deliberative gatherings reflect a range: educative, consensual, activist/instrumental, and conflictual. Levine et al. report that despite the countless deliberative efforts over many years, the idea of action as a purpose is a new idea now occurring to some convenors. Actions come out of decisions to act, and although many writers do not discuss citizen action at all, some do regard the general purpose of deliberation to include decision-making or common ground that can inform policy decisions, e.g., Macoubrie (2004), Mathews (1999), Lee (2003), Rosenberg (2005), and Winterstein (2005). Others have taken the thinking further into specific needs, advocating for deliberative decision-making to characterize how we coordinate our intentions and actions to guide our future actions (den Hartogh, 2004), to address future stakes (Karlsson, 2005), grapple with issues concerning science and technology in relation to governance (Farrell, 2003) and concerning the global environment (Dryzek, 2000; Laslett, 2003; Stern, 2005). Some view the benefits so vital as to advocate for the institutionalization of deliberative techniques and norms at the level of national government (Levine et al., 2005; Williamson & Fung, 2004) and international agency and development efforts (Daubon, 2005; King, 2003). One motive for this advocacy is to exploit such techniques' potential for reconstructing boundaries and transcending differences that manifest in violence between and among communities, a necessity for "any ethical enterprise aimed at constructing moral and political community" (Lee, 2003, p. 22). All of these purposes are relevant to my research and to the research agenda for public deliberation.

I classify the chief elements of that research agenda as process-structure issues and the informed application of developmental understandings. Those who have recognized the need for structured processes, although they do not provide methods, include Dryzek (2000), Gastil (2004), Levine et al. (2005), Macoubrie (2004), Rosenberg (2005), Ryfe, (2002), and Winterstein (2005). Habermas summarizes the elemental importance of structured processes or procedures when he writes, "'Dialogical' and 'instrumental' politics can *interpenetrate* in the medium of deliberation if the corresponding forms of communication are sufficiently institutionalized. Everything depends on the conditions of communication and the procedures that lend the institutionalized opinion- and will-formation their legitimating force" (Habermas, 1998, pp. 245, emphasis in the original).

In order for future research to identify “particular keys, strategies, or patterns of talk” that assist “successful deliberation” (Ryfe, 2005, p. 60), informed application of developmental understandings need to underlie both assumptions about deliberation and the design of discourse structures for it (Rosenberg, 2005; Winterstein, 2005). A new ingredient in the discourse is the argument recently introduced by Rosenberg and Winterstein, described above. That stance counters others’ assumptions and assessments, including my own, and also Ryfe’s (2002, p. 5) conclusion that “it is not then, that people cannot deliberate, it is simply that they often don’t in these forums.” Public deliberation is unlikely to occur outside of well-designed structures.

Ryfe (2005) suggests that findings indicate the need to revise images assumed by deliberative theorists. Those efforts need to include a great deal of boundary crossing in two areas summarized by Ryfe (2005): (a) “Despite its breadth, the empirical study of deliberation is not yet very rich or deep. More integration across disciplinary boundaries would be useful” (p. 64); (b) “Moreover, the theory of deliberative democracy needlessly remains removed from its practice” (p. 64) and practitioners of deliberation, empirical scholars, and theorists “might gain from greater interaction” (p. 49). That would facilitate the new learning needed to fill the glaring void apparent in the discourse, because “finally, and perhaps most importantly, we must learn more about what deliberation actually looks like. It simply will not do to place the very practice under investigation into a black box” (p. 64).

Thus, I have located a void, wherein no work or research has been conceived, designed, or conducted that reflects this paradigm for fostering political development. This present study makes an original contribution to social knowledge that begins the long process of responding to and filling that void.

My research interest in this study was to answer these questions.

1. What changes, if any, would participants experience that could be associated with their participation in the process? If any changes were experienced, did they involve discernible changes in any of their action-logics[3]?
2. What could be learned about the public issue that participants would select and develop during the process?
3. What would happen during the process, if anything, in the political culture of the small group?

Theoretical Perspectives Underlying the Methodology

I include this section as a foundational reference for understanding the study as a whole and my interpretations of its findings. Included below are the major theoretical perspectives that are embedded in the methodology. As a whole, this section is an overview of key, interrelated premises in some other fields that underlie both the research methodology and my analyses. It includes a subsection to introduce why participants’ *tone and intention* issue was important from this vantage point on theory and praxis. I believe the inclusion of these foundational ideas, here, helps my discussions to be more efficient later in the report.

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[3] The term *action-logics* is defined in the next section.

Integrating Diverse Concepts and Practices as Dynamics of Political Development

In this section, I integrate important concepts within theories of motivation, transformative learning, nonlinear dynamics, action inquiry, and adult development. By integrating the dynamics that those concepts represent, I can then relate them to the study's methods and practices for issue analysis, action inquiry, deliberation, and decision making. The objective is to convey a holistic understanding of the dynamics of adult development as they pertain to my methodology, and to political development in general. This should elucidate key aspects of my paradigm of fostering political development using structured approaches for working on complex issues by showing the integration of the dynamic development of the adult and the political in a hopefully seamless fashion. To arrive at a seamless whole requires that I first identify the "parts" and dynamics comprising it. Therefore, this discussion involves a great deal of detail to accomplish its purposes. I believe the effort supports my goal to make the study's reporting more efficient and to make at least parts of the overall report meaningful to diverse audiences.

Despite the concept's obscurity, conation and its dynamic role in human development (Maslow, 1987) and transformation (Mezirow, 1991) are important considerations for understanding choices of behavior. In addition to being an important dynamic to integrate here, I also draw upon it later in the report in connection with study participants' levels of hope and motivation. Both Maslow and Mezirow describe conation as an intensity of desire companioned by the free choice to act on it. Conation heightens in the process of learning experiences that have transformative qualities. For example, a new insight that significantly re-frames a former assumption about how things work in some area of life-interest is typically followed by the strong desire to put the insight to active use. Thus, transformative learning involves intentions toward new activity, and "behavioral intentions involve conative, cognitive, and affective [i.e., emotional] dimensions" (Mezirow, 1991, p. 14). In that light, the participants' tone and intention issue—where tone is understood as *imbuing* behaviors—was about behavioral intentions, and it involved those dimensions of conation, cognition, and emotion. A key tenet of transformation theory is that as people gain insights into new perspectives, they are motivated to act out of them with a new sense of empowerment (Mezirow, 1991). To complete that picture, it is important to incorporate environmental factors into considerations of these "behavioral intentions." This is because (a) human behaviors *are* interactions with the larger environment, and (b) intentions are formed in the context of that larger environment. The findings from this study make it important to situate transformative learning events in the larger frame of the politics of adults developing their interactions within, and with, their environment.

A Synthetic Logic

To provide the rationale for the analytic categories I use later in this report, and so that I can discuss the findings as a coherent whole, I begin with a synthesis of Mezirow's three dimensions of transformative learning's intentions. Then I use that synthesis as a starting point to map a logical progression that explicates the important concept of *action-logic* and the generic conditions for developing insights and new action-logics.

According to Mezirow, behavioral intentions involve insights into new perspectives (cognition), motivation to act (conation), and a new sense of empowerment (affect, or emotion). Motivation theory demonstrates how these dimensions are inseparably intertwined, and establishes conative energy as an inherent human quality, not confined to specific learning events:

> In a certain sense almost any organismic state of affairs whatsoever is in itself also a motivating state. [Others seem to assume] that a motivational state is a special, peculiar state, sharply marked off from the other happenings in the organism. Sound motivational theory should, on the contrary, assume that motivation is constant, never ending, fluctuating, and complex, and that it is an almost universal characteristic of practically every organismic state of affairs" (Maslow, 1987, pp. 6-7).

That theory pivots on humans' and other organisms' natural drive to satisfy needs, putting the *process* of gratifying needs center stage. The different stages of human development demonstrate different needs to strive to meet (Maslow, 1987). New needs arise as a new stage if the basic needs of the previous stage have been met. Organisms are motivated to strive to meet their basic needs, which are ends unto themselves *because* they are basic needs. Because these "ends are intrinsically, and in themselves, valuable to the organism, it will therefore do anything necessary to achieve these goals" (p. 35). The striving, the motivation to strive, the gratification of basic needs, and any frustration or depression at not satisfying basic needs, are *affective* (p. 42). Therefore, conation is an emotional dimension. On that basis, Mezirow's formula above can be slimmed to two dimensions: behavioral intentions involve (cognition) + (conation/emotion).

Maslow's explication of the cognitive dimension and its *needs* is valuable for understanding development and transformation, for integrating understandings of their dynamics, and for interpreting what happened in this study. He refutes prevalent connotations of the cognitive as being the arena of dry intellect, and illuminates how humans have basic cognitive needs. Those needs are vital because cognitive capacities are vital to meet other basic needs: "it is clear that any danger to [cognitive capacities], and deprivation or blocking of their free use, must also be indirectly threatening to the basic needs themselves" (p. 23). The basic cognitive needs are the "desires to know and to understand." Further, "the gratification of the cognitive impulses is subjectively satisfying and yields end-experience….Insight is usually a bright, happy, emotional spot in any person's life… the desire to know and to understand are themselves conative" (pp. 23-25). On this basis, Mezirow's formula slims even further: behavioral intentions involve (cognition/conation/emotion).

This unity supports the framework I use below to integrate notions of transformative learning events with *development.* Further, it supports a whole-person model of development by not carving up human experience into compartments such as moral, cognitive, emotional, value systems, etc. (or even drawing thick lines between the personal and the political). Others have already framed dynamics of human development in holistic, non-compartmentalized terms. These include, for example, theories of action inquiry (Fisher, Rooke & Torbert, 2000; Torbert & Associates, 2004), the biological basis of cognition (Maturana & Varela, 1998), cybernetics (Bateson, 2000), emergent cyclical (Graves, 2005), hierarchical complexity (Commons & Pekker, Submitted; Commons & Richards, 2002), motivation and personality (Maslow, 1987), nonlinear dynamics of cognition (Thelen & Smith, 1994), process psychology (Roy, 2000), and subject-object differentiation (Kegan, 1982). Of those, Fisher et al, Commons et al, Graves, and Kegan identify discrete stages of development. Of those stage theories, two of them—action inquiry and hierarchical complexity—are explicit about the fractal levels at which, and the different domains in which, different stages of performance actually operate concurrently in a person's life.

Since I interpret some of the findings in terms of domains of life, I need to indicate why, and that, transformative, developmental events and their dynamics show up both at small and larger scales, and in single domains and across multiple domains. My coverage is directed to the limited needs of this report; others in addition to Commons et al. and Torbert et al. have documented this (e.g., Burleson & Caplan, 1998; Dawson, Xie & Wildon, 2003). In developmental theory, the term *domains* refers to context-categories we may create to distinguish different environments where activity takes place, such as home, work, community, or governing. For more specificity, relevant sub domains within them can be identified.[4] My discussion will draw from both action inquiry and hierarchical complexity and embed nonlinear dynamics. For the logic presented below, I employ Torbert's conception of action-logics. Action-logics are distinguished by their hierarchical complexity of tasks, as described in the MHC that I discussed earlier.

The following logic provides a context or framework for my later discussions. It begins with the now-unified rendition of Mezirow's transformative learning dimensions: the behavioral intentions involve (cognition/conation/emotion). Those dimensions unite in a natural synthesis, where:

1. (conation/cognition/emotion) → why people act as they do (i.e., behavioral intentions)
2. People *form* and *use* logics of action
3. These are the *dynamics of undertaking* human action. → decisions about acting/reacting
4. This is about the *process* of human activity. → comprised of continuous decision dynamics
5. Human activity is made up of events that happen.
6. People often experience events as being "chunks" of discrete, identifiable happenings yet events (at many scales) seamlessly constitute all human experience.[5] Thus, events and experience are inseparable, like two sides of the same coin of human existence. (Sometimes events are treated as external happenings; if so, that overlooks the multitude of happenings going on within individuals. Both kinds of events co-constitute human experience. The contradiction dissolves if event/experience is viewed as a seamless whole, which is the viewpoint here.)
7. Every event/experience (however brief) co-forms/in-forms people's decisions (aware-ly made, or not) about *how* to inter-act with it.

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[4] Bateson's (2000) concept of *cybernetic system* is superior to *sub domain* when discussing how action-logics develop to greater complexity. While it is beyond my scope to delve into, for present purposes, activities in sub domains can be *loosely* related to cybernetic systems. Bateson's complex system of thought, which he called a "cybernetic epistemology" (p. 467), understood cybernetic systems as the "units of evolution" (p. 466). This bears on why I believe it is important to report some of the study's findings in terms of domains and sub domains.

[5] This view is consistent with Whitehead's (1960) cosmological view of reality as process.

8. *How* people inter-act with their event/experience reflects the above dynamics of *forming* and *using* a logic of action, i.e., an action-logic.

9. *Forming* and *using* an action-logic involves a decision-making process (aware, or not).

10. People decide to inter-act a certain way *only if* it is logical *to them* to do so.

11. If people assume (implicitly or explicitly) that they do not have a free choice to inter-act—for whatever reason(s)—then they will *perceive* that certain decisions are not possible. 'Impossible decisions' are illogical, by definition, and people do not choose or make them.

12. A decision/choice of inter-action will be logical *only if* it makes sense in a given event/experience.

13. What makes sense depends on how people (a) *perceive the environment* of the event/experience they may inter-act with (e.g., threatening, supportive, creative) and (b) *perceive the benefits* of a potential inter-action.

14. If they perceive a "match" between the environment and potential benefits, people will naturally desire—be motivated—to inter-act with the event/experience.

15. If people do not perceive a match, they are unlikely to be motivated (and may inter-act, in effect, by deciding to *not* inter-act directly with the event/experience.)

16. The *way* that people perceive the environment and potential benefits is shaped by whatever action-logic they *form* and *use* toward an event/experience + its environment + its benefits.

17. Action-logics rest on assumptions about possible options for inter-acting and achieving desired ends.

18. If people do not (or cannot) assume/perceive certain options, then the options do not exist, *for them*. (Then their action-logics reflect repetitive patterns in decision-making about how to inter-act with event/experiences, based on existing assumptions/perceptions.)

19. People encounter possibilities for new options in the form of *insights* that arise during or after their inter-actions with one or more event/experiences.

20. When people actively inquire into new insights, their new perception of now-new options may lead them to *form* and *use* new action-logics because a new, *now-logical* possibility has appeared in sight.

The Dynamic Process of Developing Action-Logics

Consistent with transformation and some adult learning theory, this logic indicates that *insights* are like seeds from which transformative change *may* develop. Such change includes new assumptions and transformed perspectives (Brookfield, 1987; Cranton, 1994; Freire, 2002; Mezirow, 1991; Taylor et al., 2000; Torbert, 1994). When we have an insight, we may "see our way into" new perspectives, which are ways of viewing things. Perspectives are not, however, disassociated from action-logics: rather, the two are as inseparably intertwined as conation/cognition/emotion. According to the Model of Hierarchical Complexity, a person's

> perceptions of the world (and the stimuli in it) are influenced by frameworks. These frameworks embody the individuals' conditioning history, including cultural, educational, religious, political, and social backgrounds, among other factors. These combined frameworks are referred to as one's perspective. Perspectives differ in terms of hierarchical complexity. As the hierarchical complexity of an individual's response to task demands increases (i.e., as complexity of performances goes up), the individual is increasingly likely to have taken many such perspectives into account (Commons,& Rodriguez, 1990) (Commons, LoCicero, Ross & Miller, 2005, p. 1).

Perspective transformation is not a lateral or translative shift in how people operate. Rather, it is an integral dimension of developing qualitatively different *action-logics* (Torbert & Associates, 2004). An action-logic reflects the framework a person has about how things seem to work in a given situation or in general. Thus, action-logics can show up at the scale of an event/experience as well as the scale of a more pervasive world-view (Fisher et al., 2000). All development follows a progressive logic of actions, which are made up of tasks of increasing hierarchical complexity (Commons & Pekker, Submitted). When we have an insight in a particular domain of effort, it may help us internalize a more complex-than-before set of connections about how things work in that domain. Although only some action logics use *reflective* thinking, the basic dynamic in the organism is akin to this: "reflective thinkers do not take knowledge as given, but instead they evaluate it and then combine it in novel and complex ways to construct and evaluate new ways of understanding and knowing" (Fischer & Pruyne, 2003, p. 178). If the more complex connections get made, one action-logic gives way to the next hierarchically complex action-logic. Through the lens of that next action-logic, perspectives can "see more." If the new insight is used, transformative learning has taken place, at least in the domain in which it arose. At different stages of development, people have correspondingly different capacities, affecting if or how they may reflect on and transfer learning from one domain to others (Fischer & Pruyne, 2003). Thus, if or when transformative learning takes place, it may remain confined to only its original domain, or may extend across to others.

The concept of transformative learning needs to be situated in the context of development's hierarchical complexity, because what can be considered as transformative can be qualitatively different: it depends on how complex a person's action-logic is in that domain. For example, a child will have a zero-loop action logic of helpless, repetitive whining, such as: "I want my teddy bear." The child may pitch the whining at higher and lower volumes in revised efforts to get a response (*quantitative* change, not qualitative). The whining may get no response from the environment (the teddy bear does not magically appear in the child's arms, a caretaker does not deliver it from another room in the house, etc.). *If* the child is motivated enough, the desire for the teddy bear, possibly combined with the visual memory of someone bringing it previously, may connect as an insight, inspiring and further motivating the child, who begins to actively look for the teddy bear. This adaptation in response to no-outcomes-from-whining would be transformative learning for that child in that sub domain: the zero-loop behavior of whining transformed into a new, single loop action-logic: “My teddy bear (still) is not here; I look for my teddy bear.” By contrast, this behavior change would not represent transformative learning if a lazy older person whined for someone to deliver a meal over to the easy chair, but finally got up and got the meal independently. The older person already had the capacity to exercise single-loop behavior change in that sub domain of being hungry while sitting in the easy chair.

Several of these concepts are combined in Table 1. Column 1 illustrates the concept of domain by an analogy of using a radio station and media in increasingly complex ways. Column 2 indicates the number of feedback loops (sometimes called learning loops) each action-logic uses, and introduces the action-logic titles I use in this report. Column 3 indicates differences in adult action-logics in terms of the contents included in feedback loops. It shows the quantitative increases in the type of activity that each loop includes. These loops can be thought of as a lasso, with each larger lasso encompassing more than the previously-sized lasso could. As column 3’s heading suggests, these loops encompass (quantitative increase) progressively more territories of event/experiences (qualitative differences) as its sub-columns are read from left to right.

Finally, Table 1 (click here) portrays how development that is typically thought of as stages that a person may develop through over a lifetime, it is a pattern of action-logics that transpires throughout lifetimes at larger and smaller scales. The pattern behaves like “mini-stages of development” in all event/experiences, as I intend for the whining child and the radio analogy to illustrate. This indicates that these self-similar (*fractal*) patterns are processes—like building blocks—of all development into increasing complexity. This is one important implication of the Model of Hierarchical Complexity. Row 5/0 across the bottom of the table is my attempt to indicate this, although within the confines of one table, it is difficult to illustrate one pattern that appears at all scales. As incremental capacities get added, from left to right in that row, the feedback loops’ activities operate as the *transition steps* required to develop the next higher action logic at any scale (see Commons & Richards, 2002 and Commons & Pekker, Submitted). *Scale* is almost infinite; it can refer to a set of thoughts, an event/experience, a skill, a domain, a life-world (worldview, paradigm), a society, an era, etc. Every time we reach a new synthesis (sub-column 5/0) regardless of scale or activity, we have developed a new paradigm for operating “there”—we completed the *quantitatively required* transitions (Commons & Pekker, Submitted) to operate at a more complex action-logic (or stage of performance). Then, as we use that new action-logic, our activity that uses it gets classified in sub-column 0. This simply means that the end of one full set of integrated learning transitions, once they are consolidated, places us in potential readiness to begin a new learning cycle from within our new, more complex action-logic.

The foregoing points were that people develop new action-logics in the course of active life, that action-logics pertain to all domains and scales of human activity, and that there are different action-logics that reflect varying degrees of complexity. Below, I describe four “full stage” adult action-logics that are relevant to this study’s findings. It does not give illustrations of the transition steps between the full stages because to do so would unduly extend this section. These action-logics are *structures* of behaviors and reasoning, which is a different way to think about human behavior. Therefore, under each description, I include one example of study participants’ *content* that uses each different structure, to show the differences in the action-logics’ hierarchical complexity between each stage. The examples come from asking participants what they thought of or meant when they heard or used the term "community." Each meaning would underlie (be the *logic* of*)* how they *acted* with regard to community. I use both Torbert et al.'s and MHC's (the Model of Hierarchical Complexity) names and descriptions for these stages because they are complementary and familiar to different audiences. See Torbert & Associates (2004) and Commons et al. (2005) for fuller descriptions. A critical reminder is that people employ different action-logics situationally, depending on the event/experiences they find themselves in and the level of hierarchical complexity they have already developed (or are ready to develop).

Abstract/Diplomat. Uses stereotypes and clichés; uses quantifiers when describing things (all, most, none, some); talks about variables of time, place, act, actor, state, type; makes categorical assertions ("we all know that"); seeks group membership, status, is loyal to in-group; saving face is important.

> Example: "People. You think of people involved and people activity and places where the community can go to feel safe and spend time together. Most communities do not have that anymore."

Formal/Expert and Achiever. Argues using empirical or logical evidence; logic is linear (if…then, because, thus, therefore); seeks causes and solves problems based on one input (causal) variable; dogmatic; accepts feedback only from objectively acknowledged masters; uses longer-term thinking to achieve results.

> Example: "This community is, basically the [name of local city] area because we have the boundary lines of [names three counties] that meet the city boundary; therefore, that area would be this community." [empirical boundaries as input variable, logic based on their relations]

Systematic/Individualist. Coordinates multiple variables or factors and uses them as input to recognize systems of relationships; forms matrices to illustrate relations; situates events and ideas in larger contexts (present and historical); relativism may show up while juggling these multiple relations; is less inclined to judge; systems are formed out of relations; starts to recognize self as system and notice own shadow.

> Example: "I don't know how to mention this but the word community has a lot of meaning because we are looking to developing a residential community here at [work site] so we have been going around to meetings trying to put community, create community, to develop a housing community here at [site of employment]. The word 'community' has a specific meaning in that context, in terms of an intentional, planned place to live, work, and have relationships with people." [system]

Metasystematic/Strategist. Integrates systems, constructing metasystems, which can take the form of higher principles that coordinate systems coherently; principles go beyond rules, customs, and exceptions; reflects on and compares systems and perspectives coherently (meta-analytic), and is aware that people's perspectives depend upon their action-logics; recognizes perspectives as systems, and multiple perspectives as metasystems; coordinates short-term goals with long-term process orientations.

> Example 1: "I just think of community as a group of homes or people living in homes that are in *x* amount of numbers where they go to the same school, that you see one another, and you are a part of paying either city taxes or county taxes [system] and those taxes go to whatever things that you participate in publicly in that area [system]. That is how I see a community" [metasystem that coordinates relations of systems].
>
> Example 2: "I guess, you know, I think about this community more in terms of what we talked about, the [site] community per se, and all of the different constituencies that were included in there. I guess I kind of felt a part of that community, if you will. I think that could be translated a lot of different ways, in terms of community. I think it maybe changed my perception, that it includes a lot of different parties coming from different perspectives [who] a lot of times you don't really perhaps think about that have an interest in an issue or a topic, or whatever." [metasystem of parties with different perspectives and interests]

This section has been a long, dense traverse to arrive at its simply stated conclusion about where these theoretical perspectives lead. Human interactions with the environment are continuous event/experiences that happen all the time at numerous scales. Decisions about how to inter-act derive from whichever action-logics a person has available and other factors that influence motivations. The more territories of experience that a person can inter-act with, the more complex that interactive action-logic is and can become. My theory for fostering political development uses that foundation as a basis to build into methodologies all the territories of experience that are practical within given tasks that are needed to address issues. Thus, event/experiences that introduce and use more territories of experience are part of my overall methodology.

To give some indication of this integration, Table 2 lists main practices of the method's issue-work with their action inquiry elements. This is shown within the same columnar format as Table 1, with the incrementally more complex action-logics from left to right. While it is not easy to indicate process dynamics in a static table, or how they are woven through the method in various iterations, Table 2 indicates that the pattern built into the methodology is a fractal that is self-similar to Table 1's developmental pattern. It indicates the progressive looping of more elements to (hopefully) arrive at a major synthesis, a new decision point. The decision point/synthesis in Table 2 corresponds to Table 1's last cell at row 5/0 in column 5/0. There are several smaller decision points within the process, indicated by an asterisk. Each one represents that the group has created and must inter-act with an event/experience before work can continue.

Table 2. Integration of Method's Main Practices With Action-Logics and Action Inquiry.

Main Practices Within Methodology In Relation to Developmental Sequence in Table 1					
0	**1**	**2**	**3**	**4**	**5/0**
Map topics of concern; select one *	Convert topic to an issue * and gain insights R, I	Develop * systemic analysis of the issue, and gain insights R, A, I, AI	Describe multiple action-logic approaches to address issue, and gain insights R, A, I, AI	Deliberate * tensions within and across the multiple action-logics, and gain insights (R), A, I, AI	Deliberative decision-making outcome(s) R
		Create an issue action-system, and gain insights R, A, I			
		Select one systemic action to work on 1st *			
^ Issue Analyses ^			*^ Frame ^ the options*	*^ Perceive ^ landscape of options*	*^ Synthesize*
Action Inquiry's four practices weave through most tasks in this group discourse method. The four codes used above are: R-Re-framing; A-Advocating; I-Illustrating; AI-Actively Inquiring					

The Importance of Inquiring Into and Deliberating About Tone and Intention

The purpose of this section is to discuss why the tone and intention issue was critical for this group to inquire into. As Table 4 in a later section will indicate, one of the participants raised some fundamental inquiries in a mid-point discussion. In one instance, for example, "Why do we think they don't do what we want them to do?" In another, "So why do we distrust them?" The inquiries were why do *we* do something, not, why do *they* do something. Other participants did not engage the queries into why do *we,* which would mean examining some assumptions and beliefs. Nor did I, in my role as facilitator, invite them to; my activity during their impromptu diversion from task was to observe what was happening among them. I observed that they did not naturally move into an inquiry into *why do we* (or *why do I)* even in the face of the direct questions. Instead, they moved away from inquiry.

The practice of inquiry bears directly on why the tone and intention issue was important to deliberate. The method's overall design embeds the role of inquiry into an integral array of factors that make up the layers of issues. In a social context, an issue represents a collective perception of a complex, a complicated set of "stuff" going on that people want to change. Factors that contribute to perceptions of an issue include people's intentions, assumptions, beliefs, values, biases, concerns, needs, hopes, and life experiences, as well as larger social factors. The collection of those individual factors (intentions, assumptions, beliefs, values, etc.) contributes to an individual's *perspective* on an issue.

The Politics of Tone and Intention

Every attempt to address issues is political, because it intends to impact the ways of relating in and among the *polis*: the people who contribute to an issue, those who are affected by the issue, and those who have governance roles in any dimension of the issue. For people to realistically conceive of undertaking complex action to address issues, and for the actions to have the necessary integral change-making potential (where integral is understood as *essential to completeness*), an effective political change process must rest on and reflect a certain set of principles. These are implicit in the methodology, and this section is for making some of them explicit.

Torbert's (1991) explication of his action inquiry paradigm gives a coherent rendering of the principles most important to emphasize here. Habermas' (1979) communicative action theory and Freire's (2002) pedagogy for critical consciousness are consistent with these. Torbert shows a concise, building-block logic of why inquiry is an essential political activity. Three of the principles are the traditional ones of liberty, equality, and fraternity. He adds two more: inquiry and quality, as the first and last principles in the hierarchy. He recombines all of these to construct his new paradigm. He asserts, "we are missing a fourth political principle—a principle never before recognized as political—the principle of inquiry. The only political principle that *invites the potential transformation of everyone's perspective is the principle of inquiry*" (Torbert, 1991, pp. 236, emphasis added). This principle is *primary*, followed by peerdom, which combines the principles of fraternity and equality "without the sexist connotation of fraternity" (p. 234), and liberty. Quality is the "quaternary political principle, approached only in the context of the commitment, attention, and skill cultivated through ongoing practice of the first three principles" (p. 234).

In any setting, liberty and peerdom (equality and fraternity, combined) are *not necessarily* givens: perceptions and realities of whether or not they operate depend largely on the culture's operative—not espoused—action-logics. Without liberty and peerdom, people find it difficult to meet their needs, and motivation (conation) to decide to do something that seems impossible to do is naturally depressed. Maslow explicates what is at stake.

> There are certain conditions that are immediate prerequisites for the basic need satisfactions. Such conditions as freedom to speak, freedom to do what one wishes so long as no harm is done to others, freedom to express oneself, freedom to investigate and seek for information, freedom to defend oneself, justice, fairness, honesty, and orderliness in the group are examples of such preconditions for basic need satisfactions. These conditions are not ends in themselves but they are *almost* so since they are so closely related to the basic needs, which are apparently the only ends in themselves. Danger to these freedoms is reacted to with emergency response as if there were direct danger to the basic needs themselves….Secrecy, censorship, dishonesty, and blocking of communication threaten *all* the basic needs" (Maslow, 1987, pp. 22-23, emphasis in the original).

Toward completing this discussion about the importance of the tone and intention issue, I emphasize my earlier point, that every attempt to address issues is political because it *intends* to impact ways of relating in and among the polis. Thus, intention plays an inherent role in all political activity. Our intentions may be unconscious or implicit, or conscious or explicit. Interpreted in terms of Kegan's (1982) work, if we are not conscious of having certain intentions because we are embedded in them, they often *have us* and they govern our tones, assumptions, behaviors, etc. Conversely, if we are conscious of our intentions, we can *have* them without our actions necessarily being governed by them; this is because we can inquire into and modify them. If we are aware of our intentions, they are explicit in our private thinking. Often, they *seem* to remain in that private domain. However, when they flavor our speech and behaviors, they are no longer private, even though we may assume that they remain private if they are not spoken. The point, illustrated in this study, is that tone and intention's flavor enters the discourse whether intended or not. However, this can be brought into the public domain purposefully, and consciously be made explicit there, simply by speaking about them to others.

To articulate actual intentions publicly is an intensely political act. If such acts do not already characterize the publicly common ways of relating—the political culture—the acts *change* the politics (the ways of relating) *by* being acts done in public. Thus, both knowing and stating our intentions toward social change play a political role in fostering change. The kinds of intentions we have will flavor the kind of change we foster. If we have a commitment to foster positive change, we are wise to inquire into and examine our intentions so our tones, assumptions, and actions are consistent toward that goal. This is one reason why inquiry is the primary political principle and practice.

By exposing the participants to their tone and intention issue, illustrating how it showed up, and explaining why it was crucial to address, we together opened the space for them to own the value of inquiring into it in a structured, deliberative way. As Table 2's columns 3 and 4 indicate, issues are framed into diverse approaches driven by different action-logics (perspectives) on the issue. It is just as legitimate to deliberate about tone and intention as it is to deliberate about any traditional "out there" public issue. The logic that I give here shows that tone and intention are inherently political and are among the factors that make up issues. Thus, tone and intention is a public ("out there") issue, it is complex because multiple action-logics construct it and multiple approaches to address it are possible, the approaches embed competing tensions, and "this tension must be worked off by the participants' own efforts" (Habermas, 1996, p. 17). This is the classic formula for when deliberation is called for.

Paradigm of Deliberative Action Inquiry

The idea and practice of developing several approaches to a public issue so that people can deliberate about it are not new, at least in the U.S.[6] As a process of thoughtfully weighing differences, deliberation is associated with a transformative quality (Mathews, 1999) and playing a role in the sometimes decades-long process from citizen's earliest awareness of issues to arriving at a "public judgment" about them with a will to make policy changes on them (Yankelovich, 1991, p. 64). Thousands of single-session meetings for public deliberation have been convened over the last two decades. Even so, as I mentioned earlier, a change in orientation from talk to action is only beginning in the minds of many practitioners who convene them (Levine, Fung, & Gastil, 2005). In my years of doing contracted research for Kettering Foundation—in community politics action research and performing a longitudinal study—I found few signs of what my program area called "real" deliberation, and no evidence of systemic action on issues. These are natural outcomes in the absence of (a) a rigorously systematic theory and practice for issue-framing that embeds real tensions to deliberate at all, and (b) a metasystematic understanding of the layers of complexity involved in issues with processes for systemic action to be conceived. Real deliberation requires focus on the bona fide tensions resulting from different life experiences of people employing different action-logics. With a rigorous issue-framing system to help ensure such focus, real deliberation's talk does not include blaming, polemics, diagnoses, opining, and off-topic tangents that are otherwise quite common in unstructured talk—an incoherence akin to a spontaneous discussion participants in this study had (shown in Table 4 in a section below). When the deliberation is focused, people's naturally deliberative, nonlinear oscillations among and between the embedded tensions (Ross 2005) have the environment they need to elicit insights, inform and shift assumptions, and take in more of the territories of experience the issue involves. When the process is designed for the possibility, the deliberative product can lead to a metasystem of action-systems that a well-focused issue needs. The methodology used in this study reflects these improvements to deliberative practice.

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[6] National Issues Forums is celebrating its 25th anniversary in 2006 (See www.nifi.org).

When a deliberative framework enables people to weigh several choices of action-logic-driven perspectives that they could adopt toward their own tone and intention, it is an opportunity for individual and collective processes of reflection.[7] Such occasions offer a structured event/experience to step back, perceive, reflect on, and weigh—in an orderly way—several approaches or scenarios. Each of those include different assumptions and different territories of experience. Those territories include our individual and collective intentions, strategies, behaviors, and desired impacts. Table 3 (on the next page) indicates the complex array of nonlinear dynamics that go on within a group that is really deliberating a framework based on developmental action-logics.

Inquiring into our assumptions and suspending them long enough to explore alternative assumptions and their implications are fundamental activities in accounts of critical reflection and transformative learning (e.g., Brookfield, 1987; Cranton, 1994; Fischer & Pruyne, 2003; Mezirow, 1991; Taylor et al., 2000; Torbert & Associates, 2004). Critical reflection liberates the individual and the community by making themselves observable or transparent to themselves (Badillo, 1991), and such transformative potentials are commonly associated with positive social evolution (e.g., Earley, 1997; Habermas, 1979; Morrow & Torres, 2002; Torbert, 2000). When individuals or groups can turn their reflections back onto themselves, they form a relationship between themselves and their reflections. This is called being *reflexive.* In Earley's discussion of reflexion's role in personal and societal evolution, he calls it "the most advanced form of self-reflexive consciousness" (1997, p. 323). In sum, critical reflection's "significance cannot be sufficiently accentuated" (Badillo, 1991, p. 32).

This structured approach to critical reflection using a paradigm of deliberative action inquiry with the multi-perspectives of a range of action-logics to deliberate about, enables people with different reflective capacities to conduct a meaningful issue-inquiry together. When the issue has an array of tones and intentions to deliberate, as the study participants did, people can weigh how each option may contribute to (or detract from) an overall goal, and conscious choices about them in advance can reduce the odds of self-sabotaging efforts once the active work begins. This is especially essential when the stated goal is to transform an adversarial political culture. Political development requires the landscapes afforded by "event structures" that embed the principles of inquiry and quality and the "multi-paradigmatic nature of human consciousness/reality" (Torbert, 2000, p. 75). Fischer and Pruyne (2003) summarize these last notions when they write "reflective thinking…depends on environments that support high-level abstract thinking about multiple perspectives" (p. 185), and the key factor … does not seem to be education in general, but a certain *kind* of education—a focus on reasoning about ill-structured problems" (p. 189). Participants' disparate tones and intentions toward achieving a common goal certainly represented an ill-structured problem in this study.

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[7] The same things are true for any other issue, although *tone and intention* issues *explicitly require* three-loop learning, which always incorporates intentions in its deliberations across the four territories.

Table 3. Structure for the Nonlinear Dynamics of Deliberative Action Inquiry.

Feedback loop complexity built into approaches' perspectives (i.e., their basic action-logics) ↓	Concurrent 1st person 2nd person 3rd person feedback loops during deliberation ↓	**0** Encounter reasons, assumptions & actions involved in approach	**1** Frame/advocate/illustrate one's own pro/con concerns (i.e., action-logics formed & used toward the issue)	**2** Frame/advocate/illustrate/inquire into issue-concerns of other's concerns (present & absent) (i.e., other action-logics formed & used toward the issue)	**3** Coordinate the issue's pro/con tensions within the approach	**4** Coordinate the issue's pro/con tensions across all approaches	**5/0** Synthesize/ Decide
Feedback loops → across territories of deliberative action inquiry		**0**	**1**	**2**	**3**	**4**	**5/0**
1st Approach 0-loop abstract	1st individual						
	2nd group						
	3rd issue						
2nd Approach 1-loop formal logic	1st individual						
	2nd group						
	3rd issue						
3rd Approach 1-loop formal logic	1st individual						
	2nd group						
	3rd issue						
4th Approach 2-loop systematic	1st individual						
	2nd group						
	3rd issue						

The Study

Research Perspective

The study was based on qualitative research methods, using individual interviews, participant observation integrated with action research, and my reflections as the researcher and process facilitator. The study was informed by the theoretical perspectives described earlier, which are embedded in the methodology.

Participants and Data Collection

The population of interest was any adult who lived, worked, or felt invested in the selected U.S. community. The site selected was a small city and the areas adjacent to it, referred to below as “the community.” All eight participants lived and/or worked in the community. They engaged in the informed consent process for research with human subjects and signed the appropriate forms indicating their informed consent to participate. They ranged in age from 31 to 57 years, with educations ranging from two persons with general education diplomas and some post-secondary education, to three with Master’s degrees.

Fieldwork spanned approximately three and a half months and included individual pre-process interviews, six consecutive weekly group sessions, and individual post-process interviews, all audio-recorded. Process methods used during the group meetings varied by session, with the following sequence of general tasks.

1. Identify all the topics of concern in the community and why they are concerns. Map how and why they connect with each other.
2. Select a priority topic to focus on. Using the steps provided, select one of the issues derived from that topic, and analyze why it exists, its impacts, and the factors that support its continuance.
3. Identify a systemic array of reactive and proactive actions tailored to address the issue.
4. Using criteria provided, select one of the actions that will require complex decision-making about its implementation.
5. Using the template provided, develop several viable, diverse approaches toward deciding upon that action; product a brief issue booklet about the question that needs deciding.
6. With the aid of the issue booklet, deliberate all the pros, cons, and real world consequences and trade-offs involved with each approach, and articulate decisions.

What Happened for the Group

The discourse process, formally entitled *The Integral Process For Working On Complex Issues* but called *FreshAir* for this project, is referred to below either by the acronym TIP, or simply as, the process. It is derived from a general model that I had developed based on my prior action and theoretical research. Its functional purposes and their theoretical underpinnings are not further discussed here (but see Ross 2002). Its template for first developing and then deliberating approaches to issues explicitly includes distinct action-logics that complex issues evoke in various people, depending on how the issue does, or may, affect them.[8] These action-logics are characterized by capacities to perform tasks at different levels of hierarchical complexity as shown in Table 1. TIP embeds these disparate voices in various of its sub-processes, providing a structured method, context, *and the real-world reasons* for people to engage with each voice, even if it is not “theirs” on a particular issue. Some of those real-world reasons have to do with the individual’s own concerns, inviting some first-person (self) action inquiry. Others have to do with discussing the existence and validity of other persons’ concerns about the issue (second- and third-person action inquiry), inviting social perspective-taking, in Selman's (1980) terms, which expands the territories of event/experience.

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[8] While a maximum of four action-logics are reflected as the individual approaches to deliberate, within each approach the other common, adult action-logics are given voice by reflecting their concerns or objections to each approach.

Sessions' Methodology, Analyses, And Discussion

The group's issue about tones and intentions evolved gradually, and this narrative begins by telling the story of that evolution. Every complex issue arises from a particular context. While a *tone and intention* issue could seem generic on its surface, that issue, too, emerged out of not only the design of the discourse process itself, but also out of the gestalt produced by a particular combination of factors. These included the research context, the individuals involved in it and their unique contexts, group dynamics in the various subjects and steps of the process, community history, and the local political culture that concerned participants.

Session One

The unusually thorough quality of the work that participants did in their first session laid the foundation for the rest of the process and their eventual issue. They began by identifying 39 topics of concern. As they discussed which topics were more like the tip of an iceberg (as compared to the deep base of an iceberg) they were able to separate the topics into two distinct clusters. They characterized one cluster as consequences and symptoms. It was associated with recent years' changes in the community's status quo, with those differences in the quality of life feeling like a threat. They recognized that all of the topics of concern in that cluster were directly or indirectly affiliated with local land uses. The other cluster was associated with the strains that characterized local public life and showed up in the relations of the public with its government and in the relations between local governments. They characterized that cluster as containing issues of process: "how we get the job done, relate, and communicate, how we do things, how things are working or not working." In that cluster laid the roots of the eventual tones and intentions issue they worked on. At that early stage, words they used as part of some topics' descriptions included angst, trickery, tension, strain, and other terms to describe what contributed to the strained relations, from their perspectives.

At that juncture, the next task was to select one topic of priority concern to work on in more detail in the next session. The process steps do not require or invite participants to identify or analyze the relationships between any topic-clusters they develop. In this case, however, once people saw and discussed the distinctly different nature of each cluster they had created, there was a seemingly natural desire or movement to articulate "the gap" between the two clusters. What *was* the missing link that would transform one cluster's strains *so that* the pile of its symptoms and consequences in the other cluster could get whittled down? A difficult effort, the most they could do at that point was name that the community needed a process to connect the two clusters, which was hard to do when there was a lack of a sense of community and a lack of communication. Not only did the community seem to have such a gap; at that point, the group discovered it also had one. Its gap was not finding a satisfactory way to "name" its priority concern, that missing link or process between the two clusters.

My job as facilitator in this process was to help people share and build their knowledge base together. My role did not include imposing my own thinking or analyses on the participants. Although it left some of them feeling dissatisfied to stop short of selecting a clear topic, they were tired and we had reached the end of that session's allotted time. With assurances that the next session would begin where this one left off, I suggested that once I typed up their work, that seeing it in an orderly format could help them identify and select the topic.

I believe a combination of factors probably made it hard for the group to coalesce around a way to name the new topic of concern situated between their clusters. First, at an analytic, developmental level, their two clusters represented huge systems. To conceive of a way to name that nexus would be a difficult task of metasystematic complexity in a new domain of issue analysis. Public issue analysis is not something that participants were accustomed to doing, and they would need more time to think, whether or not any of them used metasystematic thinking. Next, at a content level, some of the individuals had expressed which topics they had the most concern about, while others did not have a stated preference. As they tried to name the new topic, they may have been struggling to assure that the already-identified topics of greatest concern would still be accommodated. In their concerns about getting to the roots of the difficult relations and consequences of them, I had some sense that it was almost like they were searching for a “magic bullet,” a quick way to make that missing link appear. If people harbor hopes for such rescues, it can naturally lead them to avoid making a commitment to a possibly sub-optimum choice. Finally, there are choice-points like this throughout the process, and it is not always comfortable for participants to engage them.

Session Two

As the next session began, participants felt no closer to finding words to describe that topic, yet everyone felt that they shared the same grasp of what they meant, even though it did not yet have words. That was sufficient for me to suggest that we just dive into the steps to turn the topic into an issue, which would be a more specific set of concerns that they could work on through the rest of the sessions. It takes a thoughtful process to get from the broad, implicit generalizations of a topic (whether it has words to label it, or not) to identifying a specific issue or problem. Regardless of what kind of topic concerns people, it has identifiable impacts and causes that people can cite from experience, or that they fear they will experience. Some or all of those may be bona fide issues that can be worked on. For this group to sort through the impacts and causes of this hard-for-them-to-name topic, its discussion included anecdotal stories that unpacked it and revealed more about the concerns.

One person reported that his stances on certain issues in the community seemed to put him on the police department’s list of people to track and then harass with traffic tickets over minor things. Another reported that family members had said the city’s atmosphere had been antagonistic across the forty years they had lived there. Some people reported a number of frustrating, unsuccessful attempts to get basic public information from City Hall. Some told the stories of citizen referendum efforts over the years, and how each one left more damaged relations in its wake regardless of which side “won.” Despite citizen outcries, mostly in connection with land use issues, successive city administrations would pursue their own agendas. There were chronic difficulties in obtaining official explanations for decisions or creating opportunities for dialogue about them, either before or after they happened. The community politics seemed to be summed up by a resident (not participating in this study) who posted to an electronic bulletin board: “It’s hard to live here in the middle of the ‘Hatfields and McCoys.’ I try to stay in the background and not say much so I don’t risk the venom and being labeled.” I trusted that the study participants were not exaggerating the community’s troubled interactions.

Citizens' complaints about others in their community have been common in all the years I have done public issues work. They represent only some of the facets of any community's whole story. This discourse process is designed to flesh out the whole story from as many perspectives as possible to elicit as much balanced insight as possible, and therefore as much capacity to address issues as possible. The group in this non-public project did not have that benefit. Some of the participants contributed to achieving some balance by introducing actual or potential cases of officials' frustrations with citizens, and including other citizens' perspectives. For example, in the third session a participant asserted: "They're sitting around having the same meeting [that we are], by the way."

Us and *them* language was prominent in the early sessions. Yet, I heard these people describing more than common complaints. I heard them, and they heard themselves, describing in detail a very uncomfortable political culture that permeated a great deal of daily life, and the quality of that life. Through their explanations of impacts and causes, participants defined their key issue of concern, using these terms: "The issue, the problem is that citizens are unaware, frustrated, and therefore powerless, uninvolved, and misinformed." Moments later, the group coalesced around a name for the elusive umbrella topic this problem referred to: "the troubled interactions between government and the people." The group adopted this as its orienting topic. It seemed to capture the *cause* of the gap between their first session's clusters. It was at the heart of troubling things that were—and were not—happening in the community.

By the time these milestones were reached, we did not have enough session time remaining for the last step: to summarize their work into a fuller description of the issue. One person suggested that they could work on the summary from home before the third session, and all agreed. The process book had an example for reference, modeling the factual, unbiased style to use when describing an issue. This seemingly clear closure to the second session masked some things going on beneath the surface.

During the week, I received the summaries drafted by (only) two of the participants, giving me a clue. Rather than a neutral issue summary derived from the group's work, one person drafted a page akin to a manifesto that proclaimed "power to the people" in a democracy. It echoed comments that the person had made in the last session, and prescribed what citizens should do to "take the power back" from the "power elite." It told me that this person had both missed the purpose of the issue summary, and was operating on an erroneous assumption. Its tone of victimization and aggression was similar to the tone that another participant's comments sometimes had. It seemed to me that at least one, and possibly, two participants had misconstrued the research project's objectives and the overall purpose of the discourse process. We were entering the turn toward the group's tone and intention issue.

Session Three

I inserted some discussion time at the beginning of the third session so we could surface assumptions about the project and the process, and the neutrality with which issues are treated in both. It answered a couple persons' previously unasked questions and seemed to afford more clarity in general about what we were doing, and why. In the course of that discussion, the person who wrote the manifesto-type issue summary explained why it sounded the way it did. One reason was the perception that the group was quite homogenous, that everyone seemed on the same page about motivations and what they wanted to be different in the community. The inference seemed to be that if the group had a shared goal, then it was appropriate to summarize the issue with prescriptions for addressing it. The underlying assumption seemed to be that everyone would agree on the same prescriptions because their ultimate goals were similar.

To that stage of our work, I too had been viewing the group as homogenous. Discussions in this session began to shift my perception. One outcome of this first discussion was that the manifesto-writer said that it clarified for her why the issue's summary description had to be neutral and not prescribe solutions, and also that the rawness of so many bad experiences made it "probably impossible to *feel* neutral."

The agenda for this session was very straightforward. The first task was to freely brainstorm all the conceivable actions that could be taken by anyone, or any entity, in the community, to directly address the issue the group had selected. The group produced a long, diverse systemic action to-do list. Some actions were voluntary things that individuals, groups, or government could do. Some would involve administrative policy changes for local government, the newspaper, and schools. Most of them would involve public policy changes of different kinds, including how facets of local government operations were structured. The purpose of this step is to generate a comprehensive inventory of what systemic change on a public issue could require if it is undertaken.

The next task was to select only one of the actions that met the basic criteria provided in the process book. If an action met those criteria, it would signal that the action amounted to a sub-issue of the overall issue, and that it needed special attention and decision-making. The criteria help people recognize the kinds of changes that should ideally be deliberated: to decide about why an action should be done, about whether it should be done, and/or about how it should be done. Such explorations indicate the hallmark of which issues to deliberate, that they have no simple answers. Deliberative decision-making about such changes is important if they are to be understood, well designed, accepted, supported, and successfully implemented. On the surface, the selection of one action from such a list is a straightforward task. In reality, such decision-points involve some messiness, because to give priority to one subject of importance means weighing the consequences of not choosing other perhaps equally important options. (However, when many people are involved, concurrent work on a range of issues is possible.) Some groups doing issues work experience such decision-points as a dilemma, to various degrees.

At times taking circuitous routes, and with my prodding to assess which actions might be more likely to address the group's fundamental concerns sooner than others', participants' discussion surfaced the following list to choose from. Each selection was cast in the form of a question that could be deliberated. They were:

- How do we involve the whole community in deciding changes to zoning codes?
- Who needs to be included and considered in deciding zoning variances?
- How do we ensure transparency and access to all public information?
- How do we ensure accountability and protections in cases of retribution?

Narrowed down from all the possible choices on their earlier list of actions, this short list of concrete issues confronted the group with another dilemma: which one should be the issue that the remaining three sessions would focus on? Rather than briefly and informally deliberating about these four options, choosing one of them, and ending the session at the two-hour mark, the participants veered far away from that task. They began an important discussion of a very different ilk.

The discussion illuminated that participants were not of one mind about how, why, and when they should engage their overall goal, much less of one mind for choosing one of the four issue-questions they prioritized. From one perspective, the discussion was like an ordinary conversation among citizens that might take place almost anywhere. However, its context and timing made it noteworthy. It took place *instead of* making a key decision. Experience over the years has taught me to pay close attention when a group avoids a task. It usually signals that something is going on, unnamed, that needs to come to the surface. It could be something as simple as not really understanding the task to be done, or something much more complex. Thus, this was an important discussion to emerge, and I did not redirect their focus back to the task.

All of this meant that we closed the session in a state similar to the first one, with the group unable to make a selection. This time, however, the reasons for that state were very different. I spent the next days immersed in analyzing the session's discussion and the cumulative group dynamics, pondering how to introduce participants to the invisible "elephant in the room" I saw emerging: the dynamics that indicated that a tone and intention issue had to be on that list.

Emergence of the Tone and Intention Issue

As the event/experience that brought the issue to the surface, the discussion's content merits a closer look, for its own sake as part of this study into what happened, and also as a basis of comparison for what happened later. To highlight an instrumental pattern within the discussion and the political dynamics in the group, I introduce and use the Triangle Model of Responsibility (Schlenker, Britt, Pennington, Murphy & Doherty, 1994). For reading the transcript below, it can contribute a layer of coherence. The participants' discussion lacked coherence in the traditional sense, since they were unable to coordinate and reflect on the relations among the myriad points they raised (or their assumptions). The triangle model explicates some of those relations, and in doing so, coordinates the kinds of foundational issues of accountability and responsibility that happened to be reflected in the group's four issue-questions above. The model posits that responsibility is an essential part of holding people accountable and that accountability entails "an evaluative reckoning" (p. 634) that judges self and/or others. It asserts, "there are no exceptions" (p. 635) to the requirement that to make an evaluative reckoning, "the evaluator has information about three key elements and the linkages or connections among them" (p. 634) "*as perceived* by the individual who is making the judgment" (p. 638, emphasis added). Those elements are

> (a) the *prescriptions* that should be guiding the actor's conduct on the occasion, (b) the *event* that occurred (or is anticipated) that is relevant to the prescriptions, and (c) a set of *identity images* that are relevant to the event and prescriptions and that describe the actor's roles, qualities, convictions, and aspirations (Schlenker et al., 1994, p. 634, emphases in the original).

The elements defined by Schlenker et al. are couched in language that implies judging specific instances and individual actors, and they need to be generalized to apply to the participants' discussion. For example, 'actor' would apply to the class of citizens, the class of officials, or the government, and 'event' would apply to classes of events. The image of a triangle is ideal for suggesting the tensions among and between the three elements. When an "audience" is judging a situation comprised of those elements, the authors reflect that added dimension to the triangle by calling it "the accountability pyramid" (p. 635). Their explication of the model and the significance of different weights that an evaluative judgment can place on the elements' linkages is worthwhile reading, although it is beyond my scope to discuss it here. Their notion of the pyramid is germane because much of the participants' discussion reflected various judgments on others' situations, resulting in quite an assortment of such pyramids. This was because participants *perceived differently* the prescriptions, relevant events, and identity images evoked during the discussion.

With regard to the foregoing three elements of evaluative reckonings, each participant statement below that I classified that way illustrated that the person had particular perceptions of prescriptions, events, and identity images (for whatever actors it referred to). The purpose of using that model in this analysis is not to show simple support for the model. It calls attention to both positive and negative evaluative statements, and contrasts judgments with other kinds of statements. In the process of using those categories to assess statements, attention picks up on other features that could be obscure without a method to sharpen the comparisons. For example, the *scale* of participants' attention ranged from prescriptions, events, and roles at the level of citizen and official *minutiae* to larger questions of roles and responsibilities. The *scope* ranged from personal levels of distrust to political philosophy. The *type* of statements ranged from searching questions, to balanced observations, to judgments, to prescribing a decision for the small group to make about a hypothetical candidate. The *focus* shifted from arriving at non-judgmental observations to moving away from them back into judgment, like the "patterned set of influence links among members" discussed by Arrow, McGrath & Berdahl (2000, p. 43). Prescriptions, events, and identity images focused predominately on "them." Some statements in the discussion reflected negative judgments along the lines of similar statements made in the first two sessions. Half of the participants later referred to this as a "negative tone." Albeit understandable, if such a tone flavored efforts to foster positive change in an adversarial political culture, it would fail by perpetrating the very culture it purportedly wanted to change. The dichotomy between the group's expressed desire to improve the culture and the tone that characterized a number of participants' attitudes—and the silence about that dichotomy—was the invisible elephant in the room.

The discussion ensued immediately after I asked the group which of the four issue-questions (above) it wanted to select. Table 4 classifies the chronological flow of statements using the elements of the Triangle Model of Responsibility, where applicable. It is a basis for comparing the coherence, in tone and intention, with the group's later, deliberative discussion.

Table 4. Excerpts From Session 3 Discussion.

Participant Statements **Triangle Model Elements: P = Prescriptions E = Events I = Identity Images**			
Statements	**P**	**E**	**I**
Maybe we should be asking what do we expect government to do for us, what do we want them to do, what should they provide us, what's the best way to do that and not anything else. And beyond that, get out of other activity, like the development business. A lot of people feel they shouldn't be in it.	✓	✓	✓
It's a human thing, it's a personal thing: they've been elected, they're right. Period. Period. There are two ways you look at our form of government, either they're responsible to do what the people want or the government's structured so if people don't like it, they can vote you out.	✓	✓	✓

Participant Statements **Triangle Model Elements: P = Prescriptions E = Events I = Identity Images**			
Do we think it’s a power thing? Why do we think they don’t do what we want them to do?			
Because they often *do* do things we don’t want them to do.	✓	✓	✓
But why do they do things we don’t want them to do?			
Because they’re right.	✓	✓	✓
There’s a debate around government issues about to what extent do you do just what the people say and to what extent do I, as an elected official, take what people say and factor it in with what I know and experience and make the best decision I can….I think there’s a legitimate other condition there that says it’s my obligation to synthesize information and make decisions and act in what I perceive is in the community’s best interest, even if it’s different from what [some people say].	✓	✓	✓
That is a tension a leader deals with. And I also think there are things you have a perspective on, of what’s best overall for the city, that another tension is what’s best for the city as opposed to what’s best for people that live [nearby contested issues]. And that’s a tension they deal with. So where does the distrust come in? We know these are issues they deal with. So why do we distrust them? [pause] I admit they’ve done some bad things...	✓	✓	✓
And why do they mistrust [citizens] too, right? Because there’s mutual distrust, isn’t there?			
Yes, oh yeah.			
Yeah, they’re sitting around having the same meeting we are, by the way. What you just said is the basis of their [effort to meet citizens].			
[Facilitator] So if we’re asking how do we understand the role and responsibility of government, so the city, conversely, could be asking how do we understand the role and responsibilities of citizens? N___, I’m remembering you telling of a conversation with the city manager, and him asking if it’s the city’s job to educate citizens.			
Yeah.			
[Facilitator] So it sounds like there are some mutual questions, and the them is us, and the us is them: we’ve met the enemy and it’s us?			
Right.			
I have to wonder why at meetings people don’t discuss or ask questions. It almost seems as though the manager comes up with the answer he thinks is cool, and says here, I’ve done all this research and this is what you have to do if you want a happy city. And everyone on council nods,	✓	✓	✓

Participant Statements **Triangle Model Elements: P = Prescriptions E = Events I = Identity Images**			
and if any of them asks him to explain or if they could have more facts, they're accused of slowing things down or grandstanding. But policy is actually being developed by maybe one or two individuals, and of course they're the experts because, after all, they're getting paid 90 thousand dollars plus per year.			
[Facilitator] So, if you had a policy to require discussion of decisions before they're made, etc., it'd be information you don't have now.			
Right. And it should be part of the job description of the city manager, which is a big and responsible job, is that he be flexible in terms of goal setting, that it's not just his goal.	✓	✓	✓
See, this has been literally, and I'm serious now, I got into this with [a city staff person] in a fun discussion, and he pointed me to a text that's 200 years old. People have been arguing about this subject for 200 years: the responsibility of a person to do what the people want in a democracy.	✓	✓	✓
[Facilitator] But you're [the group] talking about what specific structural changes are possible to alleviate the problems you've identified. This is not up at the philosophical level.			
What problems are you talking about?			
[Facilitator] The first sentence of the summary description you came up with last week.			
Citizens' communication…			
The interactions, being alienated, adversarial.			
Part of what it comes down to though, the reasons for those is because of past experiences. And it's one thing to say they want people to call them at city hall, but it's like, what happens when you call? And then if you call them and this happens, is when you feel apathetic and adversarial. It's one thing to say we should do this, this, and this, and they should do that, that, and that, but if they're not going to do that, that, and that, then it doesn't matter if you do this, this, and this. Sometimes it's like you're in a twilight zone.	✓	✓	✓
I was suggesting a connection between elected officials not feeling it's their responsibility to do what people want, a correlation between that and the adversarial. If you want to get to the root, that's it: "I'm elected; now I'm the boss. Elected representatives can't possibly know what everyone wants, so they do their best. Vote me out if you don't like it." His argument is valid. I don't agree with it.	✓	✓	✓
One option could be a public forum to talk about what are the			

Participant Statements **Triangle Model Elements: P = Prescriptions E = Events I = Identity Images**			
responsibilities.			
I don’t understand. You brought up the point we can’t go in and strong-arm them. They’ve been strong-arming us for 200 years. We gave them the power, now we’re asking for the power back. We want more control of what you do. You’re saying I can’t ask for this because I might offend somebody. At this point, I could care less about offending them. The issue is getting power back to the people, to make them more confident to come to vote, to feel like they got control. You have to go back and take some power back and limit what their responsibilities are. See, I don’t have a good trust factor.	✓	✓	✓
It all boils down to they hold all the cards right now and the only card citizens hold is that they go to the ballot box. Citizens have to be able to talk to each other to develop their own sense of where they are, what they want. It has to be really grassroots [like neighbors talking and saying] “let’s find a candidate who will do these 5 specific things for us.” Maybe if we [this group] make a list of 5 things we want a candidate to do… This group can come up with the list, we’re a ‘neighborhood’ right now.	✓	✓	✓

Why did participants veer so far away from their task of selecting a specific issue to work on, when it would be a concrete starting point to address their pressing concerns? It is unlikely that a single explanation could account for it, given the diverse participants and group dynamics. Perhaps the options felt too objective or positive to resonate with some of the people. For example, comments in a later session surfaced both the attraction to punitive action and the revulsion toward collaboration: “It [one of the approaches] is not *mean* enough. We feel the need to punish before we feel clear to build new relationships,” and another was, “We all will have to overcome habits and even our personal revulsions.” Perhaps a sense that it would be a concrete beginning, like a commitment from which there was no turning back, induced some resistance. Resistance can take numerous forms at such points. An insight into dynamics that happen “not infrequently, especially at the point of decoding concrete situations” (Freire, 2002, p. 156) may apply here.

> It is just that in facing a concrete situation as a problem, the participants begin to realize that if their analysis of the situation goes any deeper they will either have to divest themselves of their myths, or reaffirm them. Divesting themselves of and renouncing their myths represents, at that moment, an act of self-violence. On the other hand, to reaffirm those myths is to reveal themselves. The only way out (which functions as a defense mechanism) is to project onto the coordinator their own usual practices: *steering, conquering, and invading* (Freire, 2002, pp. 156-157, emphasis in the original).

In this setting, any such projections were not onto me (with my facilitative role loosely corresponding to Freire’s training coordinator above), but perhaps onto the “them” of city officials. Whether or not that was the case, perhaps they needed me to give them a set of clear criteria to launch and guide the selection process. Perhaps because the process had increasingly narrowed the focus so that discrete issues were identified, that focus acted like a magnet that attracted all the diverse, internal stances to the surface. Perhaps, as with groups in other settings, they simply could not bring themselves to commit to one direction when there were several to choose from; especially when, in this case, they had questions and implicit assumptions just now surfacing. Coordinating all of this, without an intentional process-container to assist, can be a complex task involving the three distinct kinds of coordination described by Arrow et al. (2000, p. 42). Groups’ coordination tasks are: that of “interactional synchrony” or action; that of shared meanings and norms, i.e., understanding; and that of “adjusting purposes, interests, and intentions,” i.e., goals. The discussion certainly indicates that these factors were uncoordinated by the group at that point. However, the benefit in this case was that the diversity and confusion were out in the open. There were clear signs that the earlier sessions’ opportunities to voice a wide range of emotions, and their reasons, had not lessened those feelings’ strength. These factors made it easier for me to introduce them to their elephant.

Sessions Four and Five

Formulated as an open-ended question, the overall issue they wanted to address was by now entitled: “How do we improve interactions between government and people in ways that reduce frustration, increase information exchange, and foster citizen participation and cooperation in their government?” It would not require a huge leap in logic to connect that issue of interactions with the importance of individuals’ tones and intentions. However, given the group’s orientation toward *others’* objectionable attitudes and behaviors, the group needed a process to re-orient its attention. That process had to do two things. First, it needed to introduce *that* there was an elephant in the room, and what it was made up of. Then, it needed to persuade the group that the issue of tones and intentions was a bona fide *complex issue* to add to their short list, and select from five, rather than from the original four. I intended to make a strong case for doing first things first, and recommend they choose this one.

Arrow et al’s (2000, p. 43) work on small groups as complex systems supports the issue’s importance as the first one to address. Using their formulation, the tone and intention issue was a “global variable,” defined as “the global structure or pattern generated by the interaction of local variables [which] in turn constrains the future behavior of these local variables.” The authors describe the coordination tasks of a group (those listed above), as local variables. The implications of this interactive, mutually-shaping dynamic “between micro- and macro-system levels” (p. 44) for the future of a group are significant, and suggest the level at which interventions are effective.

> Each global variable (or, more accurately, the system that all of the local variables jointly reflect) may have subsequent effects on *all* aspects of the group’s local activity….When [the group members] are dissatisfied with the state of the group, or when outsiders notice and comment on problems in the group as revealed by global variables, this is a cue to change something. However, global variables cannot be changed directly—what needs to be changed is the local dynamics that give rise to them. Action identification theory (Vallacher & Wegner, 1987) suggests that when groups receive negative feedback from the

> environment, they are cued to focus on lower-level subtasks, rather than higher-level group tasks, as a locus for corrective action (Arrow et al., 2000, pp. 165-166).

To shift the issue-focus from a traditional community issue to an individual cum group issue for explicit action inquiry was to situate corrective action on such lower-level subtasks. For the fourth session, I prepared several handouts to present the logic of working on the tones and intentions within the group. I began the session with sharing my reflections on the previous week's discussion, introduced the elephant in the room, and walked through several handouts with them. I stated that they had a choice of which issue to select. In the previous sessions, they had developed their own logic for the four issues listed above. Now, I introduced the logic behind the new issue of tones and intentions, via another handout that listed a short series of logical statements to build the rationale. Two of those statements follow.

> Our attitudes shape our behaviors toward others. While we feel angry, frustrated, mistrustful, disrespected, and shut out, we risk flavoring our approaches to introducing this issue with those feelings. If we let those adversarial feelings dominate us, we are likely to provoke adversarial reactions in others, and keep the vicious cycle of troublesome relationships going. Since our overall goal is to end adversarial divisions and processes, we are wise to step back and carefully choose which feelings and motivations we want to flavor our public efforts.
>
> If we frame and deliberate this issue for ourselves, we should be able to accomplish three things.
>
> - Figure out what kinds of chain reactions may be set in motion if we take different approaches to introducing the overall issue.
> - Find ways to keep our feelings in perspective so we can have them, but they don't "have us" at the expense of our effectiveness on this issue.
> - Align our intentions and purposes to reach a well-considered decision (agreement, shared sense of direction) about the kinds of public relationships we want to have as we introduce this issue, and what strategies might support them.

The rationale (which addressed both the local and global variables, discussed above) seemed to be sensible to participants at least on the surface, possibly assisted by whatever trust levels they had developed toward me; they agreed to focus on the new tone and intention issue. Agreements at that time were accompanied by reactions ranging from surprised confusion, to understanding, to appreciation. That range that showed up in participants' retrospective reflections on that turning point, including the excerpts from three persons below.

> Yeah, that really blindsided me. Once it was done, it made good sense. But it wasn't what I was expecting and I wasn't sure why it was at that point in the process. After it was said and done, it seemed vital to do that, but it almost seemed like it was tacked on or that it wasn't the original intent. And I didn't understand it at all.
>
> You were seeing more the personal attitudes and the words. The words that were coming out, they were more agitated or aggressive, and it became more personal like, in their own little, what you feel inside. Well, I would probably include me, also. And it was getting away from what the topic or issue was. So I think that's why we had to get rid of that

> undertone first. And you started asking a few questions, then kind of fleshed that, and then I started seeing it.
>
> I think it really helped focus our energies in one direction in one approach. And I think we struggled prior to that [with] these topics that we weren't really sure which were the best one.

Once the group committed to this new direction, we spent time developing the precise issue-question to describe it. They couched it in these terms: "What kinds of relationships do we, as a group, want to have around the issue of troubled interactions with and among citizens, officials, and public servants?"

The remainder of the fourth session, and all of the fifth, were spent developing four very different approaches toward tones and intentions, using the process's standard issue-framing template. This produces an issue booklet that introduces the issue and contains the descriptions of each approach, which are introduced below with the sixth and last session. The importance of a group process to deliberate about tone and intention, and its relevance when the group wants to make positive change in the larger political culture was discussed earlier in this report.

Session Six

This last session that was planned for the group was devoted to the deliberation, structured by several discrete segments. It included the processes of opening the deliberative session, deliberating the tensions embedded *within* each approach, followed by deliberating the tensions *across* all the approaches, and the final process of closing the deliberation. Opening the session included reviewing the ground rules, and participants' articulating their personal stake in the issue they were about to deliberate. In the closing process, participants reflectively evaluated the thoroughness of their deliberations, summarized their conclusions and reasons for them, and reflected on the deliberative process and its effects on them.

Before listing the four approaches to its tone and intention issue that the group deliberated, I summarize the layers of activity that brought them to that point, to refresh the memory of its evolution from the processes described earlier.

1. The overall issue of concern was entitled, How do we improve interactions between government and people in ways that reduce frustration, increase information exchange, and foster citizen participation and cooperation in their government?
2. From the systemic action array it created to respond to that umbrella issue, the group initially identified four priority sub-issues from which it needed to choose one to work on in the remaining project sessions. All of them were good candidates for deliberative decision-making at a later community level and each would address a different facet of the many-faceted overall issue.
3. As the group veered from the task of selecting one of those four, evidence of a tone and intention issue emerged in its discussion.
4. It agreed to select the tone and intention issue as the one that it would develop and deliberate during this limited project. This issue was entitled: What kinds of relationships do we, as a group, want to have around the issue of troubled interactions with and among citizens, officials, and public servants?

5. The titles given to the four approaches to that issue-question were as follows.
    a. *Approach 1:* The intention and tone of preparing to organize an “us vs. them” campaign to get the changes we want.
    b. *Approach 2:* The intention and tone of preparing to take an “it’s the law” approach to enforce needed changes.
    c. *Approach 3:* The intention and tone of preparing to take a positive “strategic encouragement” approach to get changes rolling.
    d. *Approach 4:* The intention and tone of preparing to take a fully collaborative community-wide approach to work on changes.
6. Although they had qualitatively different content, all approaches were developed using the same outline to develop that content, indicated by the headings, below.
    a. We might favor this approach if we assume that…
    b. This approach to the overall issue would be best because…
    c. Examples of how we would prepare for taking this approach.
    d. This approach may be worrisome, because…
    e. Trade-offs that would be involved, including impacts on the kinds of relationships we want.

The most striking thing I noticed as the group convened and got settled for this session was the difference in the quality of its overall energy. I had expected that some sharper tones would still be evident, as they had been during the several previous sessions. This time, the energy seemed clear and open, ready, and free of any sense of struggling. That quality characterized the entire session. Two persons later expressed their surprise at this “dramatic” shift in the group. I reflected on possible explanations for this.

From some of their comments at the end of deliberating and in the subsequent interviews, I gathered that the process of developing the sharp clarification of several possible perspectives on tone and intention (to create their issue to deliberate) had contributed to the change in energy. In addition to providing an orderly structure for deliberation, the separately described, distinctly different perspectives perform that clarification service. That new clarity can lend explanatory power to understand and sort out the confusing din of internal thoughts. It is often hard for people to slow down their thinking enough to even notice their mental zig-zags of internal decision-making attempts to choose among scarcely-conceived, unarticulated options. All of the participants but one referred in some degree to the explanatory benefit of approaches based on distinct perspectives. For example, the person who had drafted the earlier manifesto realized that:

> I guess I’ve [now] looked at these things as separate things, which I probably hadn’t before. I didn’t think of them as separate, to choose this way or that. In one way, they were all bundled up together and this pulled them apart and kind of examined each one individually. And I probably hadn’t examined each individual [one]: “Well, what if I did this and not the other, what would I gain?” Seeing it like this, with the one, two, three, four, you know, I can see the differences in those.

The passage of time between beginning to develop the approaches in the fourth session, and arriving at the sixth session, may have cleared some of the sharper-toned energy. It may have been cathartic for participants with a lot at stake in this issue to have all of their sentiments, concerns, and hopes formally legitimized. By including those in the course of developing all the components of each approach, the process legitimized a wide range of diversity—the participants' and others'—even before getting to the stage of deliberating.

The content and quality of thoughtful deliberations are best reported by allowing them to speak for themselves. This unique event/experience deserves to speak in its own voice. It was a group of people conducting a truly deliberative action inquiry into their tones and intentions, within the two-layered context of (a) larger concerns for the adversarial political culture and (b) being intentional about potential impacts on that culture. For this reason and to convey the deliberation's own whole story, the Appendix is the session report that I prepared from the transcripts and sent to the participants. In contrast to the discussion segment included earlier as Table 4, the smooth undulations of deliberation's back-and-forth, interactive reasoning, which is observable in the report, indicate the sea-change in the group's coherence. Participants demonstrated the capacity to remain focused, build constructively on one another's contributions, and arrive at well-reasoned contextual conclusions about how, when, and why they may use the various tones and intentions in the community.

Those conclusions happen to reflect the pattern suggested by action identification theory, which was introduced earlier in the sessions four and five section.[9] That framework describes the pattern of shifting from higher-level tasks to lower-level ones as the effective place to make course corrections when environmental feedback indicates corrective action (Vallacher & Wegner, 1987, as cited in Arrow et al. 2000, p. 166). The group reflected this pattern in the situational hierarchy it developed for when and why it would employ actions derived from each of the approaches to tone and intention. By process design (shown in Table 3), the approaches follow a progressive sequence of action-logics with increasing complexity, i.e., the first approach was the least complex, and the fourth approach was the most complex. For example, it demands far less skill for a group to organize a campaign among like-minded people against something (the first approach) than it demands of several individuals, groups, and various entities to succeed at negotiated solutions that meet the requirements of multiple, diverse, vested interests (the third approach). Overall, the group preferred the fourth approach because it held the greatest potential effectiveness to foster *un*troubled interactions in the community by changing how public relationships and decisions were structured and conducted. As the deliberation's summary describes, the group pragmatically recognized that there would be issues or situations when a higher-level approach would not fit or succeed, in which case the next lower approach could be appropriate to try. It identified that there may be cases where none of those higher-level approaches could work and the first approach would be advisable as a last resort.

Discussion

I have two analyses of the development the group exhibited over the course of the sessions. I refer to Arrow et al's work, cited earlier, to emphasize the system level at which these remarks apply. The observable development pertains at the dynamic group level, at the level of the "global variable," which is the "global structure or pattern *generated by the interaction of local variables* [which] in turn constrains the future behavior of these local variables" (2000, p. 44, emphasis added).

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[9] Other theoretical frameworks, including developmental ones, would have explanatory power for this common pattern. In the space of this report, it seems sufficient to use only the one that has already been introduced.

Analysis 1

The first development, already suggested above, is that the sharper combined energy of distressed concern, confusion, judgment, and frustration transformed by the end of the process. That earlier negative tone, as several participants called it, gave way to freer, open, pragmatic, and as the next section indicates, hopeful energy. "Us versus them" tones derive from dualistic action-logics that view event/experiences in such terms, pitting in-groups against out-groups. As findings from the post-interview inquiry into hopes and motivations reveal (reported in next section), the group dynamic resulted in a complex set of negative feedback loops until the last session of the process. Participants who did not, themselves, bring a negative tone toward city officials or other citizens, developed an un-voiced, inwardly negative attitude toward the several participants who *did* voice their negative judgments about officials and other citizens. Rather than articulate the attitude or associate it with specific individuals, it was safer to refer to the negative tone as "the group's" or "the people in the group."

It is worth a brief discussion to unpack how a layer of projected attitudes feeds the loops that gives a group's global variable its character. Projection is a normal part of humans' nonlinear system dynamics (Van Eenwyk, 1997). Its psycho-logic is that whatever attitudes or beliefs that an individual has but does not recognize, or is unwilling to claim as his or her own, will be unconsciously assigned elsewhere: for example, to other individuals, groups, societies, etc. In this group's case, and likely in many others, projection of attitudes played a silent role in constructing the overall negative tone. The loop began with several individuals' critical, frustrated statements and the tones that accompanied them. These were directed at the community's officials and other citizens: the "them." If no other people had a reaction to these statements, there would not have been a negative feedback loop at all. However, four people *did* have reactions (see the next section). They developed a negative attitude toward the negative attitudes of others, creating a dynamic loop of negativity. One of those four said that he adopted a negative attitude toward officials based on what he heard from others. The result was four people with negative tones toward (primarily) officials, and four people with negative attitudes toward those negative tones. *The original three "negative" people did not mention or seem to perceive any negative tone at all in their group experience.* The perception of negative tone resided in only four other people. My analysis is that those four were sufficiently embedded in their negative attitudes toward the others' negative attitudes that they projected the responsibility for negativity onto the three vocally-negative people. The silence that accompanied so much of this non-verbal dynamic is a natural dimension of the Cognitive Thermodynamics understanding of communication within or across species, which recognizes a "dynamic complex information circuit" that does not require verbalization (Malcolm Dean, personal communication, February 2006). In summary, the feedback loops were comprised of spoken judgments toward officials and unspoken judgments of those judgments. Seven of eight participants' judgments characterized the global variable of group tone, a dynamic information circuit indeed.

These human system dynamics account for how, on a surface level, only three individuals with negative tones, in a group of eight people, could have so much power to influence. In reality, seven of the eight people constructed and maintained the negative tone. Only one participant consistently held a non-judgmental attitude toward all people in the group, the group itself, and in the community. That person's earnest, inquiring influence was not sufficient to alter the dynamic feedback loop that the others were maintaining at the level of the global variable. The Appendix and the individual portraits in the next section demonstrate that the feedback system became transformed by different attitudes and energy. The pluralistic tone the group ended with indicates the global variable of tone developed to a systematic action-logic by the end of the process.

Analysis 2

Equally significant, the other observation compares the level of task complexity the group faced at the end of the first session and how it handled it, with the level of the task complexity the group completed at the end of the last session. As that first session closed, the group had failed to achieve its self-set task to conceive an encompassing way to describe the missing process or approach that could unite its two major issue-clusters (or systems) of concern. There seemed to be the intuition that there had to be a way to describe this, but the group could not complete that task, which I identified earlier as having a metasystematic level of complexity that was beyond the group's reach. By contrast, in the last session's work, the group constructed a metasystematic approach as a product of its deliberating about tone and intention. Tones and intentions were not treated as ethereal, "soft and fuzzy" ideas detached from embodied action, but as the bases of concrete actions. Thus, the group deliberated about diverse concrete actions and their possibilities and impacts at the same time as it deliberated about the tones and intentions that may govern the strategies for them. This deliberative action inquiry spanned the four territories of experience (see Table 1) that were involved. The situational hierarchy of approaches to action that it developed through its deliberative reasoning is a tailored metasystem that unites the two original issue-clusters *by* addressing concerns about them. By the end, the group successfully conceived a complex response that completed—and qualitatively exceeded—the earlier task that had eluded it in the first session. The process of deliberating through progressively more complex approaches apparently gave it the tasks of increasing complexity it needed to arrive at an action-logic of higher complexity. That metasystematic capacity to combine disparate systems of actions to construct a new, comprehensive approach is the paramount demand if systemic issues are ever to be addressed as such.

What Happened for Participants

By devoting the foregoing space to an emphasis on the group and issue levels, I have attempted to set a meaningful context for this section about the individual participants. The scope of this report is set to focus on the tone and intention issue, which emerged from within the entire process and cannot be entirely divorced from that origin. In this section, I strive for an appropriate balance in reporting on what happened for participants within that scope. This scope-setting precludes the depth of reporting and discussion on each participant that seriously interested readers may wish to have. Reporting included below presents much less than their experience as a whole, yet inherently reflects it.

This section begins with short narratives that include participants' reports about what happened for them. After each paragraph about a participant is my brief reflective analysis and observations about that individual's participation. Following those findings, there is short section to report how participants assessed their levels of hope and motivation toward the overall issue of the adversarial political culture, then a concluding discussion.

Individual Portraits of Participants

In the individual interviews I conducted with participants after the last group session, I asked what their understandings were about the reasons for the last session's deliberative decision-making about the tone and intention issue. I also inquired into what each person learned or otherwise got out of the process, if anything, and how they could use what was learned or gained from it, if anything.

One section of the interview was devoted to exploring how participants were thinking and feeling about various dimensions of the overall issue that they identified. That issue was entitled, "How do we improve interactions between government and people in ways that reduce frustration, increase information exchange, and foster citizen participation and cooperation in their government?" I asked one question, each, about hope and about motivation as that section of the interview began and ended. Those questions were as follows.

1. If we had taken the group temperature on this issue at the beginning of our sessions (once it was identified), how would you have rated your personal sense of hope about it changing for the better? Why?
2. Back then, how would you have rated your personal motivations to address the issue? Why?
3. How does that [set of work and experiences] affect your motivation for wanting to address this overall issue? Why?
4. What is your sense of hope, now, for successfully addressing this overall issue? Why?

The presentation sequence below is organized on the basis of those participants reporting relatively fewer to relatively greater personal impacts or learnings.

Participant 1

Hope, before. "I don't think there's much hope. Not hopeful at all. Because of history. Over and over and over and over again. Not history one time, but history over and over. And not just history with [Site], but history with politicians and government and how things work. You just got to know how things work."

Motivation, before. "Well, if it's hopeless, I'm not going to be very motivated to put my time and energy into it, cause you get geared up a little bit, and you think well, maybe, you know. Then you think, oh yeah right, okay. And then the reality comes in again."

Immediately after the deliberation, this first person commented that it did not change her feelings on things, but "it's helped to clarify them and to verbalize them better." Beyond that, she did not report that anything was meaningful about working on the issue, and said she "was lost the whole way." However, she also said, "I understood in that when you're communicating, that what tone you set can, changes the outcome…all that kind of stuff, I understand all that." Yet shortly thereafter, she also said "So, to me, changing the tone wasn't going to make any difference. Now, changing the approach…" When I asked, "What's the relation between the tone and approach? Is there one?" she responded, "I think so. One approach is knocking on the door. And you can knock using different tones. So, one is a piece of the other, I guess. And, so, I don't know." Perhaps related to her identifying that one action can be done using different tones, she reported that "I've only just evolved to the understanding that people need something, a plan, whether [or not] it's *the* plan, they needed something that says here's an idea of a plan to follow, otherwise they'll go crazy about it. That just became concrete in my experience with my board. So I'm supposing there are things from this experience that helped me come to that understanding, but I couldn't be specific as to what."

Motivation, after. "Slightly motivated, but again, as we talked before, I'm not going to get involved in politics in this town because unless you are willing to jump in 100% and put it out there and be willing to bank everything on it…. You can jump in and take a chance of winning, or you can stick your finger in and know it's going to be chopped off. I need my fingers. So, I'm just not going to go there to do that."

Hope, after. "Obviously, the problem's getting bigger and bigger, and hope gets less and less. Not hopeful. Because of this interaction [in the project] I have looked at some things, as far as I will, gone back to reading the opinion page, and that's the same old shit. Nothing. Oh yeah, that's good. It's like I thought it was."

Participant 1. Analytical Reflection and Observations

Compared to the other participants, this person was the least engaged in the issue. One objective sign of this showed up in the session and interview transcripts: she did not ask any questions, nor express curiosity or wondering about anything; rather, she consistently made declarative statements. Most of them were complete, logical thoughts, indicating a formal action-logic. The apparent absence of curiosity also appears above, as she was content to end her thinking with its unresolved contradictions. One of the several individuals whose own tone helped to surface the issue, this person's past experiences had led her to confine her community activity to volunteer efforts that did not interface with city officials. She indicated several times that the tone issue lay with city hall and it was a "futile effort" because "we don't have any control over the reality of politicians" and she was sure that that would not change. She was explicit about not feeling personally related to the issue or invested in it. She had no logical basis for engaging the issue. The issue that she *was* interested in, as she discussed it in both interviews, reflected a small but significant change in her strategy for addressing it. It did not appear that she was aware of the transition underway from formal to systematic action-logic in that domain that her descriptions reflected. It may be that the reflective nature of the tone and intention issue affected her in ways that she did not notice. Unlike the first interview, in the second one she made several self-reflective statements (one is included above) that were transitions to or fully reflecting systematic thought.

Participant 2

Hope, before. "Hmm, not very hopeful, I'd have to say. I'm pretty pessimistic. From what I was hearing, it had been that way for a long time. I'd heard about various different kinds of attempts to try to change the interactions. I know N___ a little better [than others], and I respect her, and to hear her say stuff coming from city hall doesn't make sense sometimes and there really is this kind of antagonistic interaction. And I think also, too, because people who were trying to make changes had such high emotions about it, and such negative emotions."

Motivation, before. "Not hopeful so, I'd say, not motivated at all to slightly motivated. Because I was there and bothering to think about it and interact, so that's some motivation. Although, whether I was motivated to be there and interact because I was hoping to change the issue, or because I was getting other things out of it, that was probably more accurate reasons for my motivations."

Immediately after the deliberation, and iterated in the interview, this person expressed appreciation for learning the value of long-term thinking. She explained that she came to that by the deliberation helping her to "understand that there are multiple options to choose from with tone, and people can make a better choice if they thought through what the likely outcomes of those choices would have been." Apparently making some new connections, she explained, "I probably wouldn't have thought it through to that degree. I would have just said, 'Am I going to take a friendly tone or am I going to take a more aggressive tone?'" She said the "whole deliberating about tone thing helped me keep that more in mind, how the tone I take and the intention I have when interacting with other people can affect the outcome, apart from what the words are actually saying, and that's been really valuable." Even though "the process is bigger than easily fits in my head," she learned the value of using different steps to "understand what people think is a problem, which of those are just surface parts of other problems, and looking at who the problem affects and where they originate from."

Motivation, after. "I would say, up to slightly motivated. But there's so many other things beside that would affect motivation, because more options, some of them just little steps, but still steps toward improving the situation, and I think then it's probably the just the emotional part of people feeling more empowered as a group maybe like brought me along with it."

Hope, after. "I'd still be slightly hopeful, because it seems more possible now. And I think just getting people to think about the kind of relationships they want when they interact is maybe a step in right direction, and taking the focus away from all the wrong, all that problematic specific issues, and more on something maybe they can affect, the interaction between them and another individual."

Participant 2. Analytical Reflection and Observations.

As a recent arrival in the community, this person exhibited a neutral yet engaged attention to the issue that was unaccompanied by history or apparent biases. Throughout her first interview, her discussions about issues relied upon formal logic, some of them in transition to systematic stage. As the statements above indicate, the value she placed on tone and intention at both the general and interpersonal levels has a utilitarian, goal-directed, single-loop nature: it can affect "outcomes." However, she formed new systems of relations: she did not isolate outcomes from a process of collective and individual reflection that would support better choices to arrive at those outcomes. Rather, she developed full systematic connections between reflection, actions, and outcomes. She seemed to associate long-term thinking with the reflective acts of "thinking through" and "keeping in mind." A number of her statements in the second interview, and the new insights reflected in them, indicated she was using the insights into several issues in a double-looped systematic action-logic.

Participant 3

Hope, before. "I would probably be not hopeful at all or slightly hopeful, because it was really a very decisive split, it seemed like. I mean, it seemed like a lot of frustration, a lot of past efforts, a lot of dead ends, a lot of frustration. And it was very personal for a lot of the group, the temperature sounded pretty high on the personal front. So, I would have thought not hopeless, but it was going to be a struggle."

Motivation, before. "To me it probably would be at the other end of the extreme, very motivated. I guess I like a good fight. I don't know. I'm a champion of hopeless causes."

Immediately after deliberating about tone and intention, this person reported how it shifted him out of "being caught up in" the earlier group tone: "In the beginning, it was all directed at specific individuals, it's grown to a bigger picture. It was easy to get caught up in that. Now it's more refreshing." He felt that the purpose of re-framing things in terms of "how do we really want to address this issue" was about "how we wanted to be representing ourselves in our intentions." He thought that that accounted for the "pretty dramatic shift out of the combative mentality," and used the analogy of "warring parties going to the peace table." What changed for him in the deliberation was the refocusing, that "it wasn't so much the individuals as the process and the system [so] instead of griping at individuals or events, step back, and it grew into a bigger issue," and "that's how it changed for me." He reported that he "learned or relearned being a little more appreciative of different perspectives." Extending that further, "I think it maybe changed my perception, that community includes a lot of different parties coming from different perspectives, [who] a lot of times you don't really perhaps think about, that have an interest in an issue." He views a business as a community with underlying issues, and "very much learned, I think, how to get all of the issues and how they're potentially interconnected."

Motivation, after. "I think it would still put me in that pretty motivated to be involved, because I think the way that we framed it and the way that we ultimately ended up looking at it, it seemed like a solvable problem, a worthwhile problem to spend energy and effort on that could be used as a model for a lot of communities and relationships."

Hope, after. "I think coming out of it, it would be pretty hopeful, because I think [after] that real frustration and divisiveness, I sensed people had a sense of hope and a new approach, a new way of looking at it. I don't think it's any less of a, I mean it's going to take some real effort, but I felt very hopeful that if people proceeded with that, that they would have some success with it. So, I probably have flipped, going in and coming out of it."

Participant 3. Analytical Reflection and Observations

As someone who did not live in the community, but worked in it without involvement in the community life, this person also exhibited an apparently neutral yet engaged attention to the issue that was unaccompanied by history or apparent biases. While he said that he had gotten caught up in the group tone, that was not observable by his tone and behaviors in the sessions. Retrospectively, I could tentatively link one joking suggestion he had made about "throw the bastards out" to his feel of being caught up. It appears that, for him, being caught up in the tone developed out of group conversations with a narrower than usual (for him) focus on concrete individuals and events, which happened to reflect others' negative experiences and led to the group tone. Statements he made in sessions and the interview indicated that his usual orientation is at the system level of processes. Thus, it was "more refreshing" when the tone and intention issue eventually rose to that level. Through internalizing these event/experiences, his conception of *community* developed to the metasystematic level, as did his reflections on the discourse processes that complex issues need.

Participant 4

Hope, before. "Probably would say slightly hopeful, because I feel like some people were very pessimistic about the problem, feeling like it was so deep, so intense. And I feel I'm relatively new, and I don't really know what's going on, so I need to take some of that, they've got a lot more knowledge and experience than I do, so I have to take some of that on faith. But also, generally, as a person, I am optimistic, and think there are usually solutions to things if people are willing to work on it and engage with it. So, that would modify that a little bit for me."

Motivation, before. "Probably I'd say slightly motivated, because it wouldn't be the issue I would pick necessarily, it's not the thing I feel a great deal of passion about. Probably mostly because I'm new and because I'm so involved in what's happening here [at place of work and residence], my available time is really low."

Immediately after deliberating about tone and intention, this person preceded her reflection on the deliberative experience by referring to the course of the six weeks. She said, "I've learned a lot. I don't know that much has changed tonight, but I understand more about each approach, the options, what are the dividing lines. Breaking them apart and looking at them as separate strategies is helpful, to pull them apart." She viewed the purpose and contribution of deliberating as "clarifying and focusing." That came out of the processes that "help[ed] the group really wrestle with the pros and the cons of each one…to talk it out enough that people understood them and kind of wrestle with the reasons why to do it and not to do it, so that the group was making some intentional choices. Instead of falling into a default habit, they were really looking at their options and choosing one." For her, personally, "the thinking about intentionally choosing a tone to respond from is helpful." She was able to reflect on and describe the session methods and their progressive purposes, and reported that with further thought and the support of the materials, she thought she could transfer her learning and the process to other group environments for working on issues and decision-making on them.

Motivation, after. "Probably bring it up to moderately. Yeah, I would say having the list of actions, but also more than that, having a sense of who else is interested, or having connections with some of those people, that, partly it's the concept of what happened, partly it's the relationships of the process of what happened, that could make me feel more motivated."

Hope, after. "Somewhere between slightly and moderately. I think that it feels a little more hopeful, because I think people made some of the connections, they've thought through things a little more. They're not stuck in that place of just being reactive, that they've given it a lot more thought and have more perspective. But I also know how hard it is to make real, deep changes like that, and how the change that needs to happen depends on others changing their behaviors, as well as the individuals changing their behaviors, and that's always a hard thing to do. And it feels like such a big, intense, deep, issue, that I don't really feel, don't think that I can be too hopeful, because it will take a lot of time and a lot of work to really change. So, I guess it depends on what time frame you put on it, for successfully addressing it. I would say at least 10 years, that it would take at least that long to see really transformative change. I could see smaller steps in the next, like, two or three years, but significant change seems like it would take that long, 10 years. But I don't really know, I've never been to a city council meeting, I don't know… it's just based on those interactions."

Participant 4. Analytical Reflection and Observations

As suggested by the more distanced references above to “they” (as compared to “we”), this person did not carry a personal stake in the issue. She was one of the two participants who had recently moved into the community, and exhibited an apparently neutral yet engaged attention to the issue that was unaccompanied by history or apparent biases. Her observable behaviors during the deliberative session and her statements suggest that her internal stance toward it was as an interested participant-observer of the process. Her various observations and interpretations indicate that viewing issues and interpersonal dynamics at systematic and sometimes metasystematic levels was familiar territory. Even so, “I was surprised to see the group moved so far… especially since I missed the session right before the final session, for me it felt like a really dramatic change.”

Participant 5

Hope, before. “Oh, I was very hopeful, because that was a very powerful group. I don’t know N___ or N___, but I think I knew everyone else. And if they decided that’s what they wanted to work on, it would get done.”

Motivation, before. “Mentally, very motivated. Physically, like, am I going to put the time into it? I’d say moderately motivated, at the beginning. Maybe moderately, or even kind of depressed, maybe even slightly motivated. I mean in my mind, I think yeah, this really needs to be done, but it’s been so nasty lately, am I actually physically going to do it? Ah, it’s just, you get depressed with all the issues, and the attitudes, and stuff. And a lot of these people are my friends, personal friends. So, I’m limited. I have access in a certain way, but I’m limited in a certain way, too. So, yeah, beats you down. What am I going to say, what am I not going to say. Kind of gets you tired.”

Immediately after deliberating about tone and intention, this person could say only that she “just learned a lot. I don’t know how it’s changed. It’ll take me a while…” Later, she was able to answer her earlier confusion about why we did the tone and intention issue, reflecting, “Well, now, it makes sense that there’s different attitudes or ways to approach this problem and that’s an integral part of what the problem is. So it was confusing to me why we didn’t even start off with something like that, or at least, it would be a part of all this. But that it *is* the problem, it *is* the tone, that’s what we’re objecting to, is the way things are done. Some of it is what things are being done. And that addresses that, that we need to act the way we want them to act.” For her, “one of the best parts about it [deliberating] is getting at the different perspectives. Like I said, you can get lost in yourself…. But it wasn’t apparent to me how it would affect the solution. I thought, well, we’re all going in the same direction, so it doesn’t matter. We just have different energies. But I think it would have made a huge difference in the end. This is a way to articulate that.” Although she did not elaborate, she reported, “I found words for articulating feelings.” She valued “getting insights onto perspectives,” and learning the “universal tones, [which] I find real interesting,” and “that things are complex but they can be divided, and that there’s lenses that you look through things and try to separate them.”

Motivation, after. “Well, it just reminds me that it’s just a lot of work. And towards the end, I felt more energized and willing to put in the time. I thought, let’s pick one of these, and do something. I’m quite motivated. I felt reminded about things and felt energized that there’s other people interested in it, even if they're coming at it a different way and for different reasons, that's fine. I thought, okay, maybe it's time to put more effort in it. I don't know…seemed like it was a way of putting words to things I was feeling, once you have the words, and you can work with it, so it makes it more concrete and more focused."

Hope, after. "I'm very hopeful, because, it's a perfect time with change in [city] administration, I have the time, it's inspiring, all these powerful people that are interested, so, I think, maybe we will see something good."

Participant 5. Analytical reflection and observations

An established and very active resident of the community, this participant did not contribute to the negative tones in the group. Her contributions took the form of searching questions, introducing perspectives of officials, and other balanced forms of engagement in the discussions and deliberation, indicating her metasystemic action-logic in this domain. Her use of "we" indicates that she felt very much a part of the group and the community, neither distant nor detached. She had a long-standing concern to figure out a way for city officials to "know what the community feels," and had not been able to conceive one. This was closely related to the gap the group had in the first session, unable to conceive how to connect its two clusters. After participating in this issue's work, she did construct a metasystematic connection in the form of the principle, above, that "we need to act the way we want them to act," and developed a long, sophisticated line of metasystematic reasoning about what it would take, and why, for city officials to know how the diverse perspectives in the community could be heard in un-manipulated, un-biased ways, and acted upon.

Participant 6

Hope, before. "I guess between slightly and moderately, because I thought well, something might come out of this, that it'll work, or I wouldn't have gone to the meetings."

Motivation, before. "Well, I'd say very motivated. But only if I could figure out something to do that I thought would really work, and that, I can't do it myself. [Because] I'm just built that way. I'm a glutton for punishment. I don't know what to say. You know, in a sense, you beat your head against the wall a lot of the times. But sometimes you don't. And when you do get some kind of a breakthrough, it's really worth it."

Immediately after deliberating about tone and intention, this person shared a lengthy reflection, which included the earlier quote ("I guess I've [now] looked at these things as separate things, which I probably hadn't before…."). Her interview was sprinkled with reflective insights, some perspective-taking, and conclusions drawn from the experience, perhaps summed up when she saw the issue as the way to get to root causes and "that if we were more agreeable, we'd be more agreeable regardless of who the 'we' was or what the subject was. If we were being agreeable, maybe we'd find agreement." She had been considering the issue, and what she wanted to do about it, in the almost seven weeks between the interview and the last session. "I think what came out of that session, was that in order for tensions to be lessened, it can't start out, anyway, as an adversarial thing." Referring to a post-deliberation, long-term plan and design for a community network she embarked on with the participant in item 5 above: "The goal is to remain as neutral a platform as possible. And that's changed. I mean, I began, because the situation is adversarial now, feeling the need to, basically, build a defense mechanism….But the activity of getting off the horses first, I think, is probably necessary. It's not something that I am personally real comfortable about. It makes me nervous. I feel safer on the back of my horse. And I'm sure that they probably do, too. But, I think that if everybody gets off their horses, then I think maybe we'll be able to…we'll just have to see how it goes… we won't be any worse off than we are now." She reported that much of the process was "foreign" to her way of thinking and she felt confused. "But sometimes when you're confused, then you're walking somewhere you're not used to walking. Maybe it was a pattern of discovery to have everyone walking around confused for a while so you reorganize your thoughts. That was one of my conclusions."

Motivation, after. "Oh I'm probably equally as, probably a little more motivated than I was before. I'd say I'm very motivated, because I sense there'll be more helpers, and every time I get people talking to me they seem they're on the same page, they may be more or less organized about what to do about it, but I think if it can be intelligently set up, a mechanism intelligently set up so people can access it easily, I'm pretty convinced."

Hope, after. "I don't know, I'll give it a shot. I mean, why not hope, you know? I'd say between moderately and very. Very hopeful is pretty sure of success. I don't think so. [But] I think we have a shot at it, and there's a lot of reasons it could run of out steam, not because it can't work, but because it ran out of steam. I really think it could work. I just do."

Participant 6. Analytical Reflection and Observations

This person was a long-time active member of the community, often involved in citizens' various campaigns. She was one of three whose experiences had contributed to the negative tones that others experienced. The early openings she exhibited after the deliberative session were likely nurtured along by her close association with the friend-participant who recognized that "we need to act the way we want them to act." It seems likely that the openings and unbundling of the perspectives done in the last session prepared the ground to internalize her friend's insight, and to fertilize ideas for a new communication system in the community and actions based on that new principle of interpersonal relations. That new project conception is a meta-system that integrates the one's desire for a system for officials to know how the community feels, and the other's desire for a system for the "community organism" to "know itself." She demonstrated systematic action-logics in general issue discussion and about the community organism knowing itself. Her action-logic in the domain of troubled interactions transformed from formal logic's "us vs. them" framings, to the systematic level, accounting for the radical change in her tone.

Participant 7

Hope, before. "I would have been slightly hopeful. But not really hopeful, because I started listening to people in the very beginning, a lot of people, and they were so gung ho and so advocate about their issues, you know. It was like just so stern, this is how it is, this how it's going to be, you can't get anything through this way, and it was just… And so I didn't think it would be very hopeful, that they would turn, because they were so, you know. They were just like me, if I have a set thing in my mind and that's the way I've thought for years and years and years. I just didn't feel very hopeful, that was why."

Motivation, before. "I would have been slightly motivated. I don't think I would have been too motivated as far as the group was concerned. Actually, I didn't think I'd get that much out of the group per se, I thought I'd get more out of the actual processing of the work we would do, but not necessarily the individual people because, there again, it goes back to the first, because everybody was so stern about their ideas."

Immediately after deliberating about tone and intention, this person echoed another's comment that it helped to clarify and verbalize things better, then stated that "I came with an open mind. I can just see things a little clearer, how to deal with a lot of different things." Reflecting on how she reacted once the issue was introduced in the fourth session, she conveyed that she had been assuming "this is how everybody acts: cut and dried. And this is the issue. That's when I noticed it, not till you brought it up, then I could see it." The experience with the issue seemed to offer her both a mirror and a window. "I'm like the group, I mean, I have my ways, I'm set in my ways. A lot is, maybe, because it's all I know how to do, and that kind of gave me some other avenues. After I've used all the traditional ways that I've always done, I can back up and say, you know, there are some other ways to approach this." Along with a number of statements about feeling "excited," she told anecdotes of recent interpersonal experiences, and anticipated future scenarios, of using what she had learned. "My kids, I've been using some of this stuff on them. [One of them] just called to tell me he loves me! Because it's how I approach the situation! (laughs) It's how I approach the situation. I'm very stern and I have my ways. I always used to be like, really, like a taskmaster. But what I've been doing here lately, I've been using what's upstairs…. Basically, I'm thinking more of, not so much the feeling—I mean I have the feeling and the compassion—but it's how I deal with it intelligently, how I approach it intelligently. Because I can feel compassion for it, I can feel motivation, all those things, but that doesn't mean that I'm going to get or be able to deal with those issues just because I feel that way. I've learned that there are different ways that I can handle a situation, and not necessarily *my* way, but how to handle it according to who that person is."

Motivation, after. "I would think very motivated, because it just kind of gets me a little bit excited as to, you know what to do. It's just like you were asking the question before, if you knew what was going on, why didn't you do something about it? You didn't know. But now that you know, you kind of have a ground-laying thing. It's just not all, 'Well, this is the right approach.' There's many ways to take that approach. It's kind of like stepping back and being able to look at it. We don't plan to live here very long. But if things come up, which I think they will in the community we plan to go to, I think I'll be a little more aware, I won't be so anxious to jump on a bandwagon. I'd be more inclined to look at the issue to see how it affects everybody. So, it's kind of motivating me, because I know how to do it."

Hope, after. "I think it's moderately hopeful, because I just saw a small portion of the people who are really involved in what's going on, on the issues in [Site]. And from what I saw there, you know, I saw a lot of hope. I saw like, the little lights come on. I saw some of them who were diehards [come] to the point now, 'Well, maybe there is.' And I think some of them said, 'Well, maybe there is another way to do it.' So, I feel pretty hopeful, as to some of the issues that will come out of it, some of the things."

Participant 7. Analytical Reflection and Observations

As she stated, this person came with, and she exhibited, an open mind during the sessions. Several years before, she had been active in an organized effort with other citizens on the 'winning side' in one issue, but she seemed to regard it as a functional activity that did not carry a lingering or sharp edge. Her activity and experience in the community was otherwise unconnected to city issues, and she did not have a basis for sharing the negative tone others had. Her excitement was in discovering that she had new options that transformed her assumptions that there was only once stance available to take in situations. Now she was "intelligently" tailoring her tone, intention, and behavior to situations she found herself in. The event/experiences of working with the different action-logics while developing the issue's approaches and playing a participant-observer role in the deliberation seemed to open these windows. Her thinking about issues of concern had already demonstrated metasystemic conceptions. Now, her anecdotes indicated that this early stage of enjoying and experimenting with her budding metasystematic capacity in the pervasive domain of interpersonal relations had a focus on watching the different approaches she could adopt, in relation to how they met and adjusted to the perspective and situation of whomever she was having an interchange with. Her phrase, "to handle it according to who that person is" was a consistent element in her anecdotes and future scenarios. Her delight in this new way of being was palpable.

Participant 8

Hope, before. "Temperature-wise? Freezing. *[not hopeful at all?]* No. *[Slightly hopeful?]* No, because after seeing over 200, 2,000 years of the same things going on, what does that tell you?"

Motivation, before. "Really not motivated. Confused and scared. *[So, if you were confused and scared, you wouldn't be motivated?]* Right. I would be motivated to the point that I needed to find out more information, so I would probably start digging for more information. Would I act on it? No."

The last participant to present here was unable to attend the last two group sessions due to family illness and another emergency. He was a fully active participant in the first four sessions, and was one of those who brought a combative tone into the group. He considered himself an active member of the community, although he reported that he had never attended any public meetings or citizen efforts before. His active-feeling investment was getting its first public manifestation with participation in this project. His vociferous complaint was the frustrating lack of information he could get from the city when he needed it to inform his various decisions. The need for information and people's rights to have it was a passionate mantra. Initially, he had some confusion about the tone and intention issue, fearing that it would mean his perspective would not be permitted. The fear was allayed during his participation in the first of the two sessions that developed the issue's approaches. When he missed the following session, I sent him (and the others) the full issue booklet, which he used to study new handouts and the remaining approaches. When he had to miss the deliberation, he studied its written report and summary.

By his use of these experiences, he transformed the meaning he gave to "information." "Yeah, how to define the issue. I kind of speculated it was information, because this is what I felt. Before I started this program [the research project] I pretty well gave up, I threw my hands up, said we're not going to beat government. But … now I can understand, when I don't understand something, I look at it from every angle." After relating a conversation to serve as an example of how it had changed his conversations, he explained, "I normally wouldn't do that. I would pick something to say, and then I would pick it apart, and build on it. I didn't do that. I actually stepped back and looked at it from different angles and different ways of thinking….And said, ‘this is what I would think about and these are the things I would consider [if I were you in this situation].’” He found that when he developed these new systematic-level conceptions that he was creating new information for himself and others to use in decision-making. “This gives you more access to information, because you got to look, you have to think, you have to analyze things more, listening to yourself, so you actually get more information. So, it helps tremendously because you’re building your knowledge level, and building a better understanding of what all has to go on to be in this universe, to even be here. I mean, it’s amazing.”

Motivation, after. “I’m more motivated to try to make changes. I would say between moderately and very, because I wanted something better for my kids. And I want something better for my wife. I don’t want to just come to a house. And be in a house with a couple friends on the block. And I don’t want to feel like an outsider to another group of people. I would like us all to feel the same, like this is our home, and have a good time and experience each other. Because *I* want to. I would like to make the changes. But I’m kind of scared to do it. I don’t know if I’ve got what it takes to be able to do it mentally, physically, or verbally, so it kind of scares me.”

Hope, after. “I would say, moderately, because the more people I get involved with and speak with, hopefully at some point they would see that these are the changes that need to be made and be willing to help me, to get them done. Because I really don’t see nothing coming out of it [if] we’re going in there turning wheels, covering issues we’ve been covering, yeah it might change for today, I’m not looking for here and today. We can change it one day, one week, one year, ten years, I want to change it.”

Participant 8. Analytical Reflection and Observations

This person maintained his passionate mantra about the need for information, but with qualitatively new meanings and ways to access it, including self-reflection. Its application extended to other people, including city officials: the information everyone in the community needed was knowing each other’s opinions and what angles they had looked at in arriving at them. From his earlier stance, he arrived at the conclusion that “I gotta quit looking at it like an us versus them thing, because it’s not an us versus them: it’s a ‘we.’” He no longer wanted to exist in an in-group/out-group divide. His anecdotes revealed that he had begun to take the perspective of multiple people in one situation and put them in relation with each other. He had “more concern for other people.” He found that this practice of stepping back to look at different angles resulted in stepping out of the strong emotions that previously held sway over his tone and behaviors. “I got more tones. Before, I was pretty limited. Two tones. Their side, and my side. That was it. I’m using it with my wife. I’m using it with my kids. In the process, I’m getting better. I’m learning different ways of thinking and acting. So, it’s helped me with my family, and my life. I use it every day, in my way of thinking and living. It’s changing me. It’s going change me. I’m curious to see what I’m going to be like in another 20 years.” He had emerged from a self-described behavioral prison where he felt confined to a dark present, and developed a longer-ranged orientation. I had the sense that he had been open to finding such an escape for a long time, but had not had the kind of event/experiences that would help him discover that there were alternatives. His escape from the dualisms of linear thinking was a grateful change. Participating in the process “gave me a little spark to live, because for a long time, I just wanted to give up and die. It actually gave me a reason to live now.”

Summary Of Findings At The Individual Portraits Level

These individual portraits of what happened for participants indicate five potentially-progressive categories that are meaningful from the perspectives of both adult and political development. Table 5 illustrates those categories. All participants are included in the first category because they reported having at least one new insight, during or after participating in the process, which bore a connection to their participation. Seven people indicated by discussion that they had at least one specific idea of how they could use the new insight(s) in a future situation. I treated that as *learning* and included the persons in that second category. Four participants reported taking new forms of action that were based on new assumptions or insights connected to their participation, and they are included in the third category. The fourth category accommodates one person's unique experience, which evidenced a meaningful change in her action-logic that appeared to be confined to one domain of her activity, based on her self-reporting. The final category is for the two participants who evidenced operating from a new action-logic in what I categorize as their life-world. I use the term life-world to indicate that the new action-logic affected multiple domains of their activity, based on their self-reporting.

Table 5. What Happened For Participants.

Person	Frequency distribution of persons in impact-count clusters 100%	Total Impact Categories Per Person	1. Had new insight(s)	2. Had idea(s) for using new learning in future	3. Reported new actions based on new assumptions	4. Evidence of a new action-logic in one domain	5. Evidence of a new action-logic in life-world
1	12.5%	1	✓				
2	37.5%	2	✓	✓			
3		2	✓	✓			
4		2	✓	✓			
5	12.5%	3	✓	✓	✓		
6	37.5%	4	✓	✓	✓	✓	
7		4	✓	✓	✓		✓
8		4	✓	✓	✓		✓
Impact Item Counts		22	8	7	4	1	2
Frequency distribution of impacts in each category			100%	87.5%	50%	12.5%	25%

All of the participants demonstrated increased complexity in their thinking in one or more areas or domains. One-half of the participants' behaviors and activities (not just thinking) reflected substantive changes, based upon different operating assumptions that they developed. This is evidence of transformative learning (Cranton, 1994; Mezirow, 1991; Torbert & Associates, 2004). The most dramatic of those impacts involve the three participants that had already begun to operate with new action-logics. Valuable for the individuals personally, there also are broader positive impacts from such development. Viewed through a quantifying lens, the change in the one person who developed a new action-logic in only one domain (that could be identified from data) has potentially far-reaching impacts for the community population and its adversarial political culture. Within the domain of community, she changed her action-logic in its sub domain of citizen organizing and activism. Where she had been a force in efforts that opposed city actions, she "got off her horse" and began the long-term investment in the non-combative system-change effort mentioned earlier. The two people who evidenced development to new life-world action-logics were extending their benefits, and anticipating further extensions, in the majority of the domains identified in Table 5.

Across the participants, there was a diverse range of domains where they foresaw that the learning could be applied, and/or where they had actively begun to employ it. Table 6 classifies those seven domains and indicates which participants cited them as either anticipated or active applications. The symbol ✓ indicates that a participant anticipates a domain, and the symbol ☑ indicates that a participant described doing new activity in a domain.

Table 6. Domains in Which Participants Could, Or Did, Use Learning.

Person	Domain Total Per Person	1. Inter-personal (in general)	2. Family	3. Employed Work	4. Meetings (any)	5. Community or sub-communities	6. Group(s) (any)	7. Other issues (in general)
2	3	✓				✓	✓	
3	3			✓		✓		✓
4	2						✓	✓
5	4	✓				☑	☑	✓
6	3	☑				☑	☑	
7	4	☑	☑	N/A		✓		✓
8	5	☑	☑	N/A	☑	✓		☑
Counts Frequency distribution	24 100%	5 20.8%	2 8.3%	1 4.2%	1 4.2%	6 25%	4 16.7%	5 20.8%
Current ☑Frequency distribution	11 100%	3 27.3%	2 18.24%	--	1 9%	2 18.23%	2 18.23%	1 9%
Anticipated ✓Frequency distribution	13 100%	2 15.4%	--	1 7.7%	--	4 30.75%	2 15.4%	4 30.75%

What Happened With Participants' Hope And Motivation

In Table 7, I report their ratings in response to the questions I posed about their hope and motivation. The questions used a simple, four point scale for both categories of *hope* and *motivation:* 1 = not at all; 2 = slightly; 3 = moderately; 4 = very. Participants exercised the option to use half points when they wanted that refinement to be reflected in their response. For simplicity, the table uses *before* and *after* headings to distinguish the timing differences the ratings refer to.

Table 7. What Happened With Hope and Motivation

Participant	Sense of Hope		Sense of Motivation	
#	Before	After	Before	After
1	1	1	1.5	2
2	2	2	1.5	2
3	1.5	3.5	3.5	3.5
4	2	2.5	2	3
5	4	4	2	4
6	2.5	3.5	4	4
7	2	3	2	4
8	1	3	1	3.5
Totals	**16.0**	**22.5**	**17.5**	**26.0**

As reported in their individual portraits, participants explained the reasoning behind the ratings they assigned to their levels of hope and motivation. Table 8 summarizes their explanations.

Table 8. Categorical Explanations for Hope and Motivation

	Reason for Level of Hope		Reason for Level of Motivation	
Rating	Before	After	Before	After
Very 4.0	P	O P S	M S	M P P S S
Between moderate-very 3.5		PT S		I M S
Moderate 3.0		I P PT		P S
Between slight-moderate 2.5	O P S	PT S		
Slight 2.0	NH NT NT NT	P PT	I I M NT NT S	I NH PT S
Between none-slight 1.5	NT		I M NH S	
None 1.0	NH NH	NH	I	

I – Issues around investment at personal level (either limited or liberating)
M – General motivation by nature, interest in issue
NH – Negative history, historical trends
NT – Negative tone of people in group/community
O – Other reasons
P – Positive personal qualities of people in group
PT – Positive tone of people in group
S – Discovered new system or method to address issues

What happened for participants at these individual levels, and the work they collectively produced, changed the “global variable” of the group’s tone, which developed to the systematic level. The group’s deliberative conclusions at end of last session reflected a metasystem of tones and intentions, and situational approaches that coordinated them (see Appendix). A new group of two formed on the basis of a metasystematic, executable plan for an approach to social change

Summary Discussion

In the multiple layers of event/experiences involved in this study, participants' learning ranged from noticing some influence in the evolution of a new understanding, to diverse actionable and employed new insights and action-logics. One of the hopeful and motivating insights gained by most participants was that there are processes and methods for dealing with complex issues and diverse perspectives. As both products and agents of the process's impacts, participants' levels of hope and motivation, and the overall group tone, realized positive development. Some of this was a result of that insight into the existence of processual methods, some was appreciation that negative tones could transform, and some was a result of learning that there are a range of perspectives and tones. Participants who had new learning about multiple perspectives and tones developed various conceptions of how they could use, or described how they were already using, that information to meet their interests and affect their own and others' experiences. Positive feedback loops of insights and actionable learning developed within the group and within the participants. The group-level competency developed sufficiently to conceive a complex, metasystematic approach toward addressing positive change in the local political culture. Participants developed more complex action-logics in either self-reflection, a concept, a principle, a sub domain of activity, and/or their life-worlds. Some of those changes were already having positive influences on people beyond the group. A new small group formed to develop and implement a newly-conceived metasystematic approach to a community network that holds possibilities for change in the adversarial political culture over time.

What happened here transpired in the context of an intentionally-designed, structured discourse process for working on complex issues. As the vehicle that introduced new event/experiences, the process itself was an integral part of what happened. It was a higher-level system in which this group system functioned. It enabled both the negative tones and the subsequent positive tones to develop and play their roles in participants' experiences. The progressive building-blocks of session-methods increasingly narrowed the group's attention, beginning with abstract topics of concern, and ending with up-close-and-personal concerns at concrete levels of tones to take in interactive contact with others in the community. It was a vehicle for participants to co-create their event/experiences, assumptions, motivations, alternative perspectives, and a wider range of free choices to act. In the course of the process, the political culture of the group transformed, a microcosm of the macro-level problem that concerned many of them in the larger community. There were overall higher levels of hope and motivation toward improving the adversarial political culture, and new, more adequate conceptions of approaches to dealing with it.

Limitations Of The Study

The primary limitation of this study is its low number of participants, which precludes drawing any inferences from the findings. Related to that issue, the sample's limited demographic and cultural diversity is a limitation. Another limitation is that no participants began the process with concrete or abstract levels of action-logics, and the process may have been a very different event/experience for persons with those action-logics, including the possibility that they may have dropped out before it was completed.

Recommendations for Further Research

Research into socially significant impacts of using this discourse process for working on tone and intention, and other more traditional complex issues, should be designed to overcome the limitations of this study, mentioned above. Comparative studies between tone and intention issues and traditional public issues should be designed to discover how impacts on participants and groups correlate with the specific subject of the issue selected to work on. Findings here suggest that a study should be designed to investigate if a tone and intention issue needs to arise organically from within the process of addressing larger issues, as it did in this study, or if the issue can be introduced as an issue unto itself that people are motivated to engage. If so, how would such introductions be designed? Another research question is that of investigating and comparing impacts on people when a group only deliberates an issue, versus a group both developing the approaches and deliberating them as this group did.

International relations expert Harold Saunders recently published another book on his work, “Politics Is About Relationship: A Blueprint for the Citizens’ Century” (2006, Palgrave MacMillan). His loosely structured sustained dialogue process developed out of watching the slow evolution of relational change over the course of dialogues between conflicted parties, which spanned years. This small study introduces the research question: how might parties to such dialogues be beneficially impacted if their efforts are preceded by a more tightly structured process, such as this, that specifically guides people through a triple-loop action inquiry into their own tones, intentions, alternative possible strategies, and assessments of potential impacts of those various strategies? How might deliberating tone and intention issues, in general, affect populations in conflicts and brewing conflicts?

In recent months, researcher Richard Harwood has been traveling the United States to promote and discuss his book, “Hope Unraveled: The People’s Retreat and Our Way Back” (2005, Charles F. Kettering Foundation). He reports, “people can no longer see or hear themselves reflected in politics and public life…. They abhor this retreat, but feel lost about what to do… [We need to] square with the reality of people's lives…tap into people's desire to be part of something larger than themselves…affirm our commitment to hope” (Harwood, 2005). Further research could indicate if the process used in this study provides a method to implement those prescriptions.

Two of the participants in this study suggested that the process should be customized for use in two other areas: family systems work, and child education. Both of them believed the value of discriminating between discrete perspectives and tones that family services and educational methods are silent about would make a significant contribution to people’s well-being and interpersonal relations and effectiveness.

Further research would be valuable to investigate how to institutionalize tone and intention issues as a liberating discipline that could embed deliberating multiple perspectives into child education, family services, and political development efforts at various scales to address complex issues.

Conclusion

Of the countless public issues I have had the privilege to work on with other citizens—on the ground "live," as intentional action research, and in assorted educational settings—this occasion of working on a tone and intention issue was rich with new experience and findings, and beneficial impacts on participants and others who share some of their life-worlds. Although this was the first opportunity to actively work with that issue, it was certainly not the first time or place that I saw the need for it. Some years ago, I summarized my thinking about "those elements that are necessary in considering how a public can address complex social or political issues in such a way that the evolution of the culture and the structures it supports might be assisted" (Ross, 2000, p. 1). The summary was based on experiences in public issues work that I had accumulated at that point. The first element that I treated began as follows.

> Address the community's most presenting or hidden needs first, those which, if left unaddressed, would likely sabotage other efforts.
>
> - Troubling relationships and their history
> - Assumptions about capacity, knowledge, power, leadership, inclusivity
>
> a. Provide a method for recognizing them because people need to become conscious of them before they can intentionally work through them.
>
> b. Provide a method for working through them because the [likely] alternative is paralysis or regression (p. 2).

Whether or not existing troubled relationships or misplaced public assumptions appear to characterize a political culture, in these decades of rapid change, with their clashes of worldviews and expectations, the potential for an increasing number of tone and intention types of issues is, itself, a pervasive—if unrecognized—socio-political issue. For this reason, this small study has socio-political significance because it demonstrates that there is an effective discourse process for people to work on such issues, both in communities and other settings both larger and smaller. As a result of this study, I have institutionalized the tone and intention issue by incorporating it into TIP's methodology as a specific option for groups to discern using before addressing other issues.

By providing the purposeful structure, the processual methods, the context, and the reasons for engaging all voices on an issue, the process used in this study is an institutionalized form of a "liberating discipline" as described by Torbert (2000, p. 80). It provides a method to precisely identify discrete issues and sub issues that comprise larger topics of concern, e.g., in this case the community's adversarial political culture. It legitimizes, respects, and appropriately uses the perspectives emanating from the range of action-logics, to conceive metasystematic combinations of approaches to specific issues, such as tone and intention, that can effectively work on the overall issue. What happened in this study was that diverse forms of human energy, motivation, and capacity were freed and could, or did, begin to engage collaboratively in social change and more complex decision-making processes and action-logics.

Another conclusion I propose is that there are valuable implications for political development, as defined earlier. When we consider the conundrums posed by perennially troublesome issues, an integrated understanding of positive event/experiences, human motivations, and adult development of new action-logics can help us transform hopeless assumptions that things will never change. We have the knowledge of the necessary conditions to liberate the conative dimension of human nature. Now, to develop those conditions is, itself, a universally-germane complex issue that demands priority if we are ever to address the serious challenges that humanity has brought upon itself in every region of the world—and in their populations' publicly common ways of relating.

Such an understanding of conation's role in human existence has much to say about "apathy" and "public disengagement." What might it say about addressing the systemic, underlying issues in conflicted communities and societies? Freeing up people's environments, for example by such methods as used here, would employ the wisdom of identifying corrective actions at the foundational lower-level tasks discussed earlier. Whole-system change, at any scale, must include the level of individual human beings and their motivations to satisfy basic needs. This small study demonstrated some dimensions of why that is so.

Finally, a word about the word *paradigm.* In recent years, "new paradigms" are announced in one arena or another with noticeable frequency. They "tend to emphasize their revolutionary dissimilarity from the paradigms prior to them" (Torbert, 1994, p. 80). The people who study and measure stages of development in the field of developmental theory use the term with a specific, technical meaning. In that domain, a paradigm is measured by the hierarchical complexity of the tasks necessary to construct a new paradigm, just as other stages are measured by the task complexity needed to construct, for example, a linear logic, a system, or a metasystem. The paradigmatic level of development is characterized by its use of methods that are quantitatively and qualitatively more complex and adequate to deal with other clashing or competing systems and metasystems. Their hallmark is socio-political dynamics that can resolve moral questions by engaging all perspectives constructively (Sonnert & Commons, 1994), practices that use all worldviews' perspectives in "recognized complementarity" to the others (Torbert, 2000, p. 80), and public discourses and social levels of organization, including societies, that effectively integrate "all members…[in the] co-construction of solutions" to complex issues (Commons et al., 2005, p. 50). Social, economic, and political issues are metasystem complexes of enormous complexity that are not susceptible to technical remedies. If, as the planet's 21st Century inhabitants, we hope to address them with an effectiveness that exceeds our history to date, we must employ genuinely new paradigms. Torbert's developmental action inquiry and the methodology used in this study operate at the paradigmatic stage. As first, second, and third person discourse methods that depend on all action-logics for their effectiveness, they embed paradigmatic complexity: "When the public discourse is extended in time, has real power, is inclusive, and establishes its own rules and agenda, and when it engages in real co-construction of its rules, agenda and prioritization of assumptions, then the discourse may be paradigmatic" (Commons et al., 2005, p. 50).

Referring to capacities that he associated with his Learning III (which equates to the metasystematic action-logic), a passionate Gregory Bateson had the following convictions.

> If I am right, the whole of our thinking about what we are and what other people are has got to be restructured. This is not funny, and I do not know how long we have to do it in.… The most important task today is, perhaps, to learn to think in the new way….The step to realizing—to making habitual—this other way of thinking—so that one naturally thinks that way when one reaches out for a glass of water or cuts down a tree—that step is not an easy one. And quite seriously, I suggest to you that we should trust no policy decisions which emanate from persons who do not yet have that habit (2000, pp. 468-469).

If we do not currently think that way—and few do—so much more the reason to institutionalize the new field of political development. Its theory and early praxis have potential for such liberating disciplines to begin to permeate our publicly common ways of relating: a new field to develop individuals, institutions, and their cultures while, and by, addressing their confounding complexes of issues. Such liberating disciplines need to be embedded in the way we humans do our important work: living, intending, inquiring, thinking, learning, analyzing, strategizing, relating, transacting, educating, deliberating, policy-making, governing, and being good stewards of our entire ecosystem.

[Editor’s note: The Appendix begins on the next page.]

Appendix

Report of Study Participants' Deliberation

Thinking and Outcomes of Our Deliberative Session

Before starting, we expressed some of our personal stakes in this issue.

- It would certainly be a nicer place to live if these bad feelings weren't here; would certainly be a nicer place for me to live!

- There's an awful lot of time and energy that's really wasted in the current situation. It would be nice to get that off our backs and be able to address specific littler issues that are interesting and often fun to solve, without this impossible monster that underlies things. This matters tonight because we'd like to be successful and have a better environment.

- Even though I don't live in the city limits, it's the closest community to where I live, so if it was a friendlier, happier community, obviously it would benefit me. Also, if there were better relations between government officials and people, government would be more effective and more would get done.

- It would make the community a better place to live. We can't solve all the problems and please everybody, but it would be a good way to establish that there are problems and there are ways to solve them to a certain extent.

- I hate wasting time, energy, and money. And we're doing all of it, a lot of people are: wasting time, energy, and money. We could use it to better serve the whole community.

- It's a case of personally learning, in case I ever find myself in that situation, there would possibly be some ways to avoid doing some of these things…so it's a learning experience.

- We had talked about democracy, and how this may be a failing of democracy. If we can't make democracy work on such a small scale, how can it ever work on a large scale? I want to see it work here because I want democracy to succeed.

- I want to see better government and better community relations. I think it makes a difference. The kind of government people live with affects people as individuals. I care about people who live here, and l live close by; I want it to be better for people.

Using the approaches we developed in our Issue Booklet, we deliberated about the different tones and intentions we could employ toward the overall issue. First, we weighed the pros and cons of each different approach, and imagined what kind of future scenario it would mean for the community if each tone were the dominant one. The following pages summarize our deliberative thinking about each approach.

Approach 1: The intention & tone of preparing to organize an "us vs. them" campaign to get the changes we want

This is the tone and approach of things that are already going on now. It's the status quo, not in the sense of a public campaign, but in the form of people finding others willing to walk into the fire with them over an issue. Such efforts have been organized issue by issue, and stir things up, but have never been organized as a long term campaign to stop the overall nonsense.

Adopting this tone to get changes made would mean people wouldn't want to participate, it's too high-intensity, certainly not worth it for people who never had anything happen to them that they had to fight against.

On the other hand, perhaps with the negative national publicity over the ____ case, this type of approach might tap into existing energies and seem appropriate given the nonsense of [that case], which seems rather emblematic of the larger issue we're concerned about.

The worrisome aspects of this approach are that it means there would continue to be winners and losers, and could make that rift even greater, although we're unsure if it could be greater than it already is. Losers bide their time, because even if someone else wins the battle, the war isn't over. It may just be the nature of the system, to have winners and losers.

But our goal is that we want to help make decisions, not keep opposing decisions or having the *us vs. them* dynamic. We want an "we're all in this together" tone. That would stop the cycle. With this approach, even if a concerted campaign flipped the balance of power, that's all it does: then "us" has the power of the system over "them." All we would be doing is trading places, and that means no change at all.

This approach works best on a specific issue that has a specific yes or no answer, like a "do you want it or not want it?" question. A campaign would have to have a specific and limited goal – such as a movement for a strong mayor, for example, or the _____ battle. It requires defined targets, and only those things would happen that are focused on by such campaigns.

They would create more ill will and tension, and it doesn't seem worth it. Targeted issue campaigns don't lead to general system change. That's what we want, but this just reinforces what is already here. However, if we had a different system, where people have a say in advance about deciding what they want, or do not want, such campaigns would not be necessary, and our relationships wouldn't suffer this long term, sore underbelly after battles.

We agreed this approach is only a last resort if all else fails. In general, we place the highest value on wanting broader change, improving relationships, and being freed of aggravation.

When would it be worth it to head into more aggravation by using this approach? We agree that land use decisions can warrant this, because they are irreversible, and dramatically affect people where they live. Homes are bedrock where people say No.

Looking ahead. The scenario we foresee if our approach to the overall issue were dominated by this tone is that it would just be more of the same: long term conflict, bad feelings, more angry folks, and more of not getting things done. Nothing would change in the long term on either "side."

Approach 2: The intention & tone of preparing to take an "It's the law" approach to enforce needed changes

This approach rests on the assumptions—some of us say knowledge—that government officials are not abiding by existing laws in all cases and circumstances. It is neutral toward our relationships with one another, because we all have to follow the law. If we believe laws are not being followed, our tone should convey we want to find diplomatic ways to get the facts on the table. If laws have not and are not being broken, we need to know that so suspicions can be laid to rest. In the meantime, this tone risks relationships becoming hostile and people taking sides, even if we all regard the law as the bedrock of democracy.

We would like to approach things with the assumption that the law is followed and implemented without favoritism or discrimination toward selected people and issues. We are concerned that patriarchal attitudes of "father knows best" at the government level lead to uneven treatment of people and issues. This approach would lead us to remove such people from office, in favor of those who do what constituents want and who take impeccable care with legal requirements.

While we see the potential for hostile relationships aroused by insisting on lawful behaviors, on the other hand, if such efforts were successful, it would not matter if those who do not follow the law and those who support them became hostile, because they would no longer be in power. We have the right to insist on lawful behavior without apologizing. This tone may generate respect, since it is the way the system is designed to work.

Since this approach does not rest on an *us vs. them* basis but rather on already-spelled out law, it is a firm and diplomatic basis for taking the high moral ground, beyond issues of relationship. It is also possible that if other things happen in the community to improve, that a shift to proper enforcement of the law will be an end result rather than something we need to emphasize specifically. We would not want this legal enforcement tone to dominate everything we do, because in itself, it is not enough.

When we turn this legalistic approach around, we find ourselves ambivalent about judgments between the spirit of the law and the letter of the law. We notice we want to hold government to a strict execution of the law in areas where we fear its misuse or abuse, yet we also want public servants to be more facilitative than rigid and dictatorial in applying the law to citizens in certain cases. If laws aren't serving well as they are written, we need to deliberate to change them, but that needs to be broad-based deliberation, not among only a select few.

Overall, we value the spirit of the law over compliance, a balanced spirit of cooperation and compliance. We value public servants striving to make laws work for all of us without impersonal rigidity. We value both government officials and citizens living within the law without the weight of fear of dictatorial punishment for mistakes.

Looking ahead. The scenario we foresee if our approach to the overall issue were dominated by this tone is characterized by antagonism and even fear, despite efforts we may make to make enforcement neutral. Legal actions of various kinds would sever communications even further. Everyone would have reason to be on constant guard, looking over their shoulders because we were not careful about what we asked for, and got stuck in it.

Approach 3: The intention & tone of preparing to take a positive "strategic encouragement" approach to get changes rolling

The main thing we like about this approach is its positive, non-antagonistic nature, especially by comparison with the first two approaches. It gives us an optimistic feel that we *can* work things out in a way that involves enough give and take from everyone to get a job done without causing problems. It means being proactive, creative, and the potential to get people excited about positive change and looking for the positives everywhere we can, including complimenting officials when they do commendable things. These are underlying modes or tones that we need in order to change the dynamics.

At the same time, there can be a concern that it would be effective in only tiny increments, because overall, it is important that government and relationships be working right. We shouldn't have to negotiate our way to proper operations. However, it does not prevent us from being assertive about what our concerns are, and we can still ground this approach in our root concern so it stays in the forefront.

Even if we adopt this tone willingly, there is a worry about how realistic it is. What incentives do citizens have to offer besides promising to not create an uproar or organize to vote out officials who don't want to engage?

To avoid the potential downside of coming up with exchange offers everyone may not want to live with, we assume this tone includes the necessity of developing good community networking. The voice of many must be brought to the table, not the voice of only a few who are ignorant of what the community wants and is willing to offer in the course of negotiating exchanges.

Toward improving relationships, it changes the tone by the prospect of going to officials and saying: "We know there has been a lot of conflict over the years, we're tired of it, you're probably tired of it too, let's find a better way to work together on things…and when contention arises, let's agree to find tradeoffs we can live with."

However, this approach assumes there is willingness on both sides, and there may not be. Also, while it may make us feel better, it could come across as weak, too, to the other "side." By contrast, if we come from a more oppositional approach, there may be more willingness in others to engage in negotiation.

A benefit of this approach is that it does not narrow options down, but can serve as a springboard for either genuinely more collaborative approaches, or for taking stances suggested by the earlier two approaches if they are needed as backup systems. This provides the tone of an initial overture, and gives all of us the time and opportunity to do our homework and figure out what we bring to the table. It would be a good, educational process for everyone, if this characterized working things out.

One unresolved downside is that some people prefer "ready-resonance" with ideas, letting natural alignments and attractions to visions bring people together, rather than negotiating our way through everything. Realistically, this approach cannot work yet, because we do not have any venues for such conversations to take place. That gap would have to be filled first.

Looking ahead. The scenario we foresee if our approach to the overall issue were dominated by this tone is one of wanting to work together enough that we're all willing to give something to get something. We wouldn't be taking stances of either "yes" all the way, or "no" all the way. We would be breaking through such either/or gridlocks, and finding a third way. We would not be going into every endeavor expecting, or looking for, a fight.

Approach 4: The intention & tone of preparing to take a fully collaborative community-wide approach to work on changes

This is the approach that captures our overall goals, it addresses the overall issue we're concerned about. We want to replace our long history of mistrust with a new pattern of trust and reduced tensions, and have a greater quality of community life. None of the other approaches strive for this directly.

But if any tone portends negotiating from a weak position, this one does. It does not have any strong positions built into it. We may have a concern that it could be easily dismissed or manipulated. At the same time, we're aware that it does not prevent us from using the tones and tools of the other approaches that have some sharp edges, as needed.

The benefit of risking this stance is that it could lead to a broad, long-term framework to get the whole community up to speed, and able to take any kind of action. That means we could work on focused issues, find ways to get people talking, find out and define the issues, and have various meetings facilitated by someone neutral when needed. Along with all this, there would be small group meetings happening all over town that make the web of connections we've talked about, a very empowering prospect.

Once that happens, information starts moving back and forth, and it's harder to steer people down a path where they don't want to go. Once they know what's going on, with communication methods that work, people aren't easily manipulated, if that should be attempted. Starting off with this tone could lead to such wide spread meetings, and they wouldn't be gripe sessions. They could be productive and educational, like learning the aspects of the laws about something of keen interest, for example, for businesses. It could also be the means to the end of fostering community, something we all hold as highly valuable.

Some of us believe that starting off this way could lead to city council finally feeling it has a way to get a broad enough sense of what people want. It needs to feel assured it knows, and this could begin to change the way it thinks about a lot of things, and change the way business gets done, for a lot of reasons.

Despite those positives, we are aware that there are people whose feelings of animosity run deep, and this tone is probably not aggressive enough for them because it holds out little realistic hope that things will change. We could, potentially, lose the prospect of their participation in community change efforts like this. On the other hand, this kind of open approach affords a soapbox for everyone, regardless of what is on their minds. They can all say their piece. In the process of hearing one another, we would begin to find things out that we need to know, that put us at greater ease, etc.

This could be too optimistic, and we might find out that no one is really interested in widespread collaboration to make change, then efforts toward our goals would fizzle. We can only hope that having easy access through such processes would start to encourage more activity. We are telling ourselves that if we threw a big enough party, a lot of people would want to come.

Looking ahead. The scenario we foresee if our approach to the overall issue were dominated by this tone is that there would be a lot fewer "us and them" dynamics. The more connections people began to have with better communication methods among them, the fewer the biases that would remain. We would be changing our perspectives, toning things down, and becoming more tolerant. It would be good for both "sides," and we'd be finding out we can agree on some things even when we disagree on other things, without the tensions and adversity.

Comparing Across the Approaches

After we deliberated the tensions within each of the foregoing four approaches, we looked for any overall tensions among them.

We characterized the differently-toned approaches in terms of which ones block other tones, and which tones are open to others. While we recognized that there can be specific situations where actions based on approach 1 may be practical or necessary, its tone is not one of choice because it pits one group of citizens against another, and acting on that adversarial basis—as we know so well from experience—leaves long-lasting scars on the community and individuals. In that sense, it is in tension with approaches 3 and 4, which have markedly more positive tones. On the other hand, as we said earlier, if we had a system in place where citizens were involved at the early stages of things, this might not be needed.

The second approach to *action* (as compared to just tone) also has potentially legitimate uses that are not necessarily at odds with any of the other approaches, but its tone of distrust blocks healthy relationships and is in tension with approaches 3 and 4, which assume some degrees of trust and willingness between people.

The tone of approach 3 could co-exist to some extent and in certain situations with that of approach 4, but there is tension between their assumptions about who is “at the table,” how they got there, and what brought them there. Approach 3’s tone assumes there are probably fewer people involved directly, and that it could be an elite few who bring others to the table to negotiate the gives and takes of coming to agreements. Its aim is focused more on dealing with specific decisions, than with changing the culture of the community. In that sense, it blocks the full expression of approach 4.

By contrast, approach 4 assumes community issues or questions require some ongoing venues for fully collaborative and community-wide involvement. It is the most open of all the tones that could be adopted. It is not in competitive tension with any of the other tones because their situational uses fit within the openness of approach 4, which indeed, may influence the others toward moderation. It does not imply taking everything on blind faith or being naïve; it accommodates realism and flexibility.

In that vein, we considered how the strong tones of approach 2 would actually “look” and play out in a scenario where approach 4’s tone was dominant. This seemed important because of the charged emotions, judgments, and suspicions that people express either verbally or by not speaking at all to certain people. We imagine the adoption of approach 4’s tone could meet people where they are, wherever they are. Eventually, such a tone characterizing relations should underlie enough new, positive experiences that people’s anger and anxiety levels would gradually diminish. People who would feel more comfortable and secure in tone 2 might relax more as the open tone of 4 leads to more information acquiring and sharing. It should also lead to the feeling of being more supported in general, rather than dependent on only their own efforts to meet needs. We do not foresee that people preferring the tone of approach 2 would feel in tension with or alienated within approach 4.

When we compared the time-and-energy demands implied by enacting each approach, we concluded that each, in its own way, could certainly take time. The tone of the energy expended in approaches 3 and 4 would be generally more positive and satisfying. This would be so because both products and relationships would be held in equal value, not sacrificed for expediency’s sake. We can imagine that proceeding on the basis of approach 4 would initially be heavier in such demands, but that in the long term, it would result in fewer urgent situations to deal with.

Finally, we recognized that another reason that approach 4 has the least amount of tension with the others, is that it does not presume a stance of telling others what to think or inducing them to react in particular ways. Rather, it assumes creating the venues and processes to work with whatever people think, even when it is in tension with others.

Summary of Deliberative Outcomes

The foregoing work helped us formulate the following reasoning and preferences, as we summarized our conclusions about tone-adoption and its relational impacts.

In this group, there is a sincere desire to build community and to be as non-adversarial as possible. We conclude the fourth approach can best support this. Values underlying this consensus include: the importance we place on healing relationships and having more good ones; wanting the democratic ideal to prevail in our community; preferring the benefits of long-term thinking for real change over short-term efforts; higher levels of information-sharing; and the tangible benefits of fostering community for its own sake.

A down-to-earth realism goes along with this. We realize that desire does not preclude using the sharper-edged tools available for doing community business when they are a last resort, or when they would be more practical and effective for particular issues or circumstances. Until we deliberated this issue, we had not been considering that the third approach existed or that it fit anywhere in accomplishing our ultimate goals of addressing the overall issue that concerns us.

We realized toward the end of our deliberations that our focus had shifted considerably with regard to that overall issue, placing less emphasis on government, and more on people. This may be because, as one of us commented, “if we’re worried about being pushed around or some of those other things that seem to be a root of a lot of this issue, the sense of building community gave us a sense of empowerment.” There may be other valuable things to understand about this shift, too. For example, it may be about interplays we intuit between processes we hope the community adopts, and the products they can produce. We did not explore this idea beyond naming that when we use ourselves and each other to solve our problems, we find out not only that we can, but also that our “products” become much more than we aimed for at the start. Another dynamic behind our shift may be quite natural: the shifts that occur as hope takes root, that we become freer to place our attention on the positives as we become less weighed down by the negatives we have struggled with. We talked about the real impacts for changing public relationships by doing very simple, positive things; for example, conveying compliments even to people with whom we disagreed about something else.

We identified that we experienced diverse benefits from deliberating our issue. A significant one was the usefulness of having each approach described separately so we could explore it thoroughly and clearly distinguish it from the other ones. This had value for the sake of considering its tone, practical usefulness, and relational impacts. It also equipped us to weigh it against the others and see how, when, or if it could complement the others.

We concluded that the first approach is like a return to a familiar ground zero, and none of us favor such a return. Our hope is that even if an issue in the future requires such a strategy, that the deeper changes we hope take root across the community will help to prevent it becoming personalized as *us vs. them*. We hope approach 4 helps such issues be seen as just being issues, which we do not need to personally identify with to the point of destroying relationships over them.

We share the assumption that broad community networking is essential to the life of the community, communication and information-flows within it, and our ability to achieve a better quality of civic life overall. We believe there may be quite a period ahead before the spirit of mistrust and adversity dissipates in the community, yet it has to start somewhere. We agree that community life that is rooted in the tone of approach 4 is the "somewhere" it has to start, even if it takes generations.

Preferences for the tone of approach 4 do not overshadow the challenges it represents to us. For a couple of us, the spirit and practice of negotiation reflected in the third approach is more familiar and easier to envision using as an individual. As our issue-framing mentioned, using approach 4 for public business implies citizens learn new skills. Leadership questions arise in connection with sustained commitment and neutrality that ensures truly collaborative efforts to meet others needs as well as our own. We wonder about people's interest levels and ability to see long term change develop gradually, without reverting to inactivity or business as usual. At the same time, we see the third approach as a viable option when the fourth does not work, for whatever reason. A real challenge is suggested by the idea of creating new venues for productive citizen-citizen and citizen-official interactions. Developing a shared imagination for what they need to look like may prove challenging, too.

As our discussions kept showing us, and the foregoing illustrates, deliberating the issue of our own tone led us inevitably to imagining how things would work in practice. How things will work is obviously up to everyone, not just this group. At the same time, our participation in this process leaves us feeling that we have more company now. Things seem pretty hopeful, and we look forward to finding ways to get some wider agreement on what kind of interactions we want to have in the community, and spread that hope in such interactions more widely.

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Collaborative Knowledge Building and Integral Theory: On Perspectives, Uncertainty, and Mutual Regard

Tom Murray

Abstract: Uncertainty in knowing and communicating affect all aspects of modern life. Ubiquitous and inevitable uncertainty, including ambiguity and paradox, is particularly salient and important in knowledge building communities. Because knowledge building communities represent and evolve knowledge explicitly, the causes, effects, and approaches to this “epistemological indeterminacy” can be directly addressed in knowledge building practices. Integral theory's approach (including “methodological pluralism”) involves accepting and integrating diverse perspectives in ways that transcend and include them. This approach accentuates the problems of epistemological indeterminacy and highlights the general need to deal creatively with it. This article begins with a cursory analysis of textual dialogs among integral theorists, showing that, while integral theory itself points to leading-edge ways of dealing with epistemological indeterminacy, the knowledge building practices of integral theorists, by and large, exhibit the same limitations as traditional intellectual discourses. Yet, due to its values and core methods, the integral theory community is in a unique position to develop novel and more adequate modes of inquiry and dialog. This text explores how epistemological indeterminacy impacts the activities and products of groups engaged in collaborative knowledge building. Approaching the issue from three perspectives—mutual understanding, mutual agreement, and mutual regard—I show the interdependence of those perspectives and ground them in relation to integral theory’s concerns. This article proposes three phases of developing constructive alternatives drawn from the knowledge building field: *awareness* of the phenomena, *understanding* the phenomena, and offering some *tools* (and some hope) for dealing with it. Though here I focus on the integral theory community (or communities), the conclusions of the article are meant to be applicable to any knowledge building community, and especially value-oriented groups who see themselves fundamentally as working together to benefit humanity.

Keywords: Applied epistemology, cognitive psychology, ethics, integral theory, knowledge building.

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Introduction

With the founding of the Integral Institute and its satellite organizations, integral theory moves further from "the world of Ken Wilber" and progressively toward a community knowledge building endeavor. The most recent version of Wilber's AQAL theory (phase "Wilber-V") emphasizes multiple perspectives and multiple knowledge building methodologies. This points to an important and, I think, necessary turn in the evolution of integral theory, which heretofore has primarily focused on the task of articulating models, "orienting generalizations," or meta-models describing "what is" (or what seems to be the case), toward an exploration and articulation of method itself—"how we (can) know what is." This turn constitutes a greater emphasis on epistemology vs. ontology—i.e. on the nature of knowledge vs. the nature of "reality" (though integral theory has always concerned itself with both).

At this juncture, it behooves the community to reflect more deeply upon the forms, processes, and styles that it uses to articulate, communicate, and evolve knowledge. Might uniquely "integral" forms or styles emerge and be developed by this community—forms and styles that would serve as exemplars and models for the rest of humanity? The seeds of these issues have been lying around all along, as it is impossible to develop a post-modern or post-post-modern framework without a critical reflection upon process as well as product. But on the whole, these seeds have yet to take root to produce an in-depth and *in-use* framework within the integral community.

"Epistemological indeterminacy" refers to uncertainties, ambiguities, and paradoxes in knowledge and its communication and validation. (If this technical term with its mouth-full of syllables seems overly academic to the reader, mentally substitute the less precise but more digestible phrase "knowledge uncertainty" whenever you see it.) As part of the post-modern transformation of consciousness and culture, we have progressively come to understand, to our frustration, that knowledge is fuzzy, multi-layered, constructed idiosyncratically by each individual, socially negotiated, affected by emotions and biases, and forever subject to revision. This paper examines such multiple sources of this uncertainty, and begins to address how to deal with it. In all domains of modern life, from the family living room, to the seats of national Senates, to the texts produced in "ivory towers," we can observe that many people will acknowledge the fundamentally uncertain nature of knowledge in an *abstract* sense, but that they are bereft of productive ways to *deal with* this uncertainty, and thus overlook or deny it in practical situations.

Collectively, Systematically, Reflectively Dealing with Epistemological Indeterminacy

The term "knowledge building community," as articulated by Scardamalia & Bereiter (1994), is similar to "learning community," as articulated by Senge (1990), and "community of practice," as articulated by Wenger (1998) (though each term emphasizes different phenomena). I use the term "knowledge building community" to emphasize efforts to discover, improve, record, organize, and share knowledge. Knowledge building draws on the collective intelligence of a group engaged in researching, theorizing, critiquing, doing, and synthesizing in order to progressively evolve some body of theory and practice. Though modes and methods can differ widely, all communities of learning/practice/knowledge building share certain elements, with epistemological indeterminacy as one of the important concerns.

This article focuses on the integral community because integral theory's main methodology of methodological pluralism (Wilber 2005a), both highlights the problems of epistemological indeterminacy and suggests new ways of knowledge building that can accommodate it. Methodological pluralism prescribes an openness to multiple perspectives and knowledge finding methodologies. Unfortunately, though individual integral theorists use methodological pluralism to synthesize diverse theories across disciplines, the dialog within this knowledge building community is often not epistemologically sensitive or aware. The same can be said for almost every knowledge building community, and I do not single out the (loosely defined) integral community for its faults but rather for its potential to create something new. Contemporary theories in philosophy, psychology, and sociology contain numerous insights about the nature of epistemological indeterminacy that could benefit collaborative work and knowledge building practice. However, by and large, these insights have yet to be *systematically and reflectively* incorporated into the way that people communicate and collaborate in such organizations or groups, so the full potentials of collective intelligence remain unfulfilled. This article addresses the issue through exploring the following themes.

I hope to engage the reader in envisioning what knowledge building communities would be like if they adopted methods exemplifying key insights and implications from integral theory. Similarly, I ask "what would it be like for an integrally-informed community to build knowledge in a deeply integral way?" (i.e., fully practice what it preaches epistemologically). My thesis is that one of the major aspects of doing so involves a productive, even proactive, approach to epistemological indeterminacy, i.e., collectively developing what we could call "epistemological sensitivity" or "epistemological sophistication:" an in-context awareness of the manifestations, causes, and adaptations surrounding epistemological indeterminacy.

My goal is to seriously consider the problems inherent in realizing such a vision. It will need the support of new practices that allow individuals to identify and respond to common problematic patterns in thought and communication. I will touch on the importance of these themes: social vulnerability and power dynamics, unconscious sources of resistance to awareness, the challenges in justifying the effort required to raise consciousness in groups, and the role of technology in knowledge building. My conclusions and suggestions are starting places to instigate dialog and trial-and-error implementation. Though I propose a variety of ideas, cognitive tools, and methods, it is too much to be practically implemented in total any time soon, and the reader is invited to select aspects of it a-la-carte to consider implementing. Rather than offer end-solutions, I hope to suggest underlying theories and concepts needed for any community to engage in a dialog about their own knowledge building practices.

Themes Covered in this Article

Using a methodical approach to progressively introduce its main elements, the article is organized as follows:

1. I begin by summarizing integral theory's values and methods, highlighting those aspects of integral theory that support productive approaches to epistemological indeterminacy;
2. I illustrate the extent and inevitability of epistemological indeterminacy by examining textual discourses (positions, critiques, and responses) from on-line "communities" of integral theorists;

3. I examine in depth the many and varied causes of indeterminacy in knowledge and communication, as it is only with this understanding that we can address the problems that arise;
4. In the process I show that the indeterminacy can not be removed, but that it can be minimized, celebrated, reflected upon, bracketed, and otherwise dealt with in productive ways;
5. I include a discussion of the various ways that truth claims are evaluated, and an attempt to clarify collective truth-finding vs. meaning-making;
6. I then discuss psychological and social theories that provide tools and perspectives for dealing with indeterminacy (for example, the skill of dialectical thinking and how group vs. individual needs are balanced in knowledge building communities); this leads to a discussion of how the need for certainty leads to social vulnerabilities, which in turn introduces unavoidable ethical considerations;
7. I make specific recommendations for how information and communication can be organized and tagged to ameliorate some aspects of indeterminacy (including "indeterminacy analysis" and "differential analysis," and some recommendations on the use of "cognitive tools" such as wiki technologies);
8. I revisit the specific values and goals of integral theory and provide suggestions for how claims within the integral theory community can be validated and critiqued.

I will frame the discussion in terms of three aspects of collaborative knowledge building: **mutual understanding, mutual agreement, and mutual regard** (this triptych is inspired by Habermas' theory, as explained later). The discussion of *mutual understanding* and *mutual agreement* concerns the inherent uncertainty, ambiguity, and dynamism of knowledge and understanding. Interestingly, the quest for knowledge and understanding has intrinsic *ethical* implications involving the freedom, equality, and authenticity of participants. Epistemological indeterminacy, as it involves increased levels of ambiguity, self-reflection, and openness in dialog, can also increase social vulnerability, which in turn calls for compensating increases in generosity or regard, if the social fabric is to remain robust. The discussion of *mutual regard* looks at approaches to balancing critical rigor, reflective self disclosure, radical openness to the perspectives of others, and an authentic reflection on power and privilege. I will base my arguments on the works of an interdisciplinary collection of theorists including Jurgen Habermas, George Lakoff, Jon Elster, Imre Lakatos, David Bohm, Marshall Rosenberg, Arnold Mindell, Arne Vetlsen, and Hans Kögler, as well as Ken Wilber.

Observations about Integral Theory

Depth and Span of Integral Theory

Though my purpose is to flesh out some methodological implications of integral theory in general, I will focus on the work of Ken Wilber and those colleagues that refer thickly to his work. My hope is that in the end it will be clear that my practical suggestions are broadly applicable to all integrally informed communities (and more generally to all knowledge building communities). Wilber's work is certainly the defining body of work for the integral community, and is one among several contemporary theories that provide a systematic counterweight to the materialistic, objectivist, instrumental, and/or reductionist thought systems that prevail in much of culture, politics, and academia. It does so not merely by critiquing other theories but by proposing an integrative framework that coordinates these theories and also by incorporating subjective and intersubjective matters of self, culture, and spirit. The task of formulating a model or world-view that can accommodate and interrelate scientific, economic, political, social, cultural, religious, ethical, and psychological aspects of the lifeworld is a daunting one, yet Wilber has succeeded at least to a limited degree (another rare example is the work of Jurgen Habermas, which Wilber often cites, and to which I will return).

Integral approaches give equal importance to the subjective and objective aspects of the world. Seen through this lens science and technology are not divorced from questions of meaning, identity, aesthetics, and ethics. Though Wilber's is a "theory of everything," its analysis is deepest and its application is most compelling in the areas related to spirituality and human potential. Wilber has an impressively deep relationship to and experience with contemplative practice, and his primary motivating orientation seems to be giving contemporary validity and meaning to topics including states and stages of consciousness, transcendental aspects of reality, the development of the self, and the facets of human potential. Wilber's theory integrates key insights from dynamic systems theory, theory of mind, sociology, ecology, etc., but does not explore these areas so deeply or thoroughly that theorists in those fields are likely to find new tools, models, or insights for dealing with the complexities introduced by modernity. Rather, they are assisted (or challenged) to relate their work to other fields and larger questions. The integral framework provides "orienting generalizations" from which models or perspectives can be compared and synthesized, and related to the perennial questions of the human condition.

Integralism and Post-modernity

Integral theory positions itself as being at the forefront of (post, or post-post) modern philosophical thought. It does so in the way that many theories purport to be a fresh innovation within their historical periods, but, more importantly in the way that it tries to systematically transcend and include all other theories with an all-encompassing narrative of the evolution of human consciousness and meaning-making (within which it unavoidably takes a privileged role).

The post-modern perspective is characterized by, among other things, a deeper appreciation of the uncertainties, complexities, ambiguities, paradoxes, and unpredictabilities of the life-world. This goes for both the objective world, which is the purview of science and technology, and the subjective worlds of thought, value, feelings, and human ethical considerations. The reliability and authority once given to systems such as religion, science, and governance has eroded, in part as their limitations and failures empirically come to light, but more fundamentally as we understand the inherent unpredictability of complex systems and the fundamental limitations of individual and collective human understanding and problem solving. This new understanding[1] has lead many to varying degrees of relativism, narcissism, solipsism, cynicism, paranoia, defeatism, or despair as the full curse of complexity, unpredictability, or uncontrollability is unveiled. These inevitably show up in discourse, and for the most part, we lack tools to navigate these waters. Even in intellectual communities like the integral community and academic communities of philosophers or psychologists that produce theories *about* epistemology, the *practices* that they use to dialog and build knowledge are largely traditional.[2]

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[1] "New" in the sense that for the first time a substantial proportion of society is grappling with these concepts, some of which had been described in pre-modern times.

In contrast to the voices of post-modern despair and defeat, some, Wilber and Habermas (and myself) among them, contend that the news is not all bad—that humanity's striving for ever deeper or greater levels of understanding and happiness is not hopeless, and that the post-modern understanding can be seen as a necessary though sometimes painful step forward, providing important new tools and insights. These insights help explain past failures in terms of the simplicity or inadequacy of their paradigms.

A Definition of Integral

Before discussing the implications of integral theory for knowledge building we need to attempt to define the goals, values, and methods of integral theory. This is needed because, as discussed later, the methods a group uses to share and validate knowledge depend on the group's goals and values. There is no definitive description of the features or goals of integral or "integrally informed" theories, research, or practice, but the one given here was arrived at through synthesizing a number of sources. I give two descriptions, the first is the integral paradigm or method for knowledge building, called "methodological pluralism" (Wilber, 2005a, 2005b). The second describes the scope and contents of integrally informed theories.

The integral method, or methodological pluralism, is an approach that, "in the presence of apparently incompatible, conflicting, or unrelated data, tries to make a productive, creative synthesis of the divergent elements" with a "gracious, spacious, and compassionate embrace."[3] It takes a "both/and" rather than an "either/or" or "right/wrong" perspective, and assumes that any person or group that has put considerable and sincere effort into discovering knowledge has at least a kernel of truth and deserves consideration. Integral theories are particularly sensitive to multiple perspectives, and claim that we gain an ever-better understanding of a thing through additional (valid) perspectives. It is not simply a relativist or non-rigorous belief that "everyone is [at least partially] right," but rather an understanding that if there are differing ideas they probably come from different perspectives. Thus the point is more that all (sufficiently informed and sincere) *perspectives* are important, rather than that every idea is.

One could say that *all* theorists *think* that they are seriously and graciously considering all of the available information and ideas, synthesizing them, and only discarding those that are truly invalid, and that the integral paradigm is thus rather vapid. To the contrary, one could also argue that Wilber and other integral theorists have a *particularly* inclusive attitude. But we can go a step further to try to characterize the type of inclusivity integral theories have by describing their scope and tenor as follows. I propose that being integrally informed entails the following:[4]

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[2] We speak here of how authors relate their ideas to others, both within the context of a single paper, and in the larger sense that a body of texts is an extended dialog among authors.

[3] Also called the "integrative method" at http://noosphere.cc/integrationParadigm.html. Second quote is from "Introduction", Collected Works of Ken Wilber, vol. VIII, p. 49. "Methodological pluralism" can also be used to refer specifically to the eight methodologies (and eight primordial perspectives) mentioned in Wilber's "Integral Spirituality".

[4] Based on Sex Ecology and Spirituality, A Theory of Everything, and Integral Psychology, and other works by Wilber.

1. An acknowledgment and treatment of the **"big three" ontological domains**: objective (it), subjective (I), and intersubjective (we) (and/or the three cultural value spheres of science, morals, and art; the true, the good, and the beautiful; and/or the dimensions of body/mind/spirit and nature/self/culture).
2. A **holarchical approach** to problem solving that acknowledges and treats multiple holarchical levels (i.e., that when the central concern is with entities at a particular level, entities at higher and lower levels are acknowledged, if not worked out in detail).
3. A **methodological pluralism** is used, which, as described above, tries to incorporate material from as many valid perspectives and methods as are available.
4. **Developmental and evolutionary** processes are incorporated into the explanatory narrative.
5. There is an attempt to discover integrative principles or models that **transcend and include** the various dimensions, levels, and perspectives described above.

Later, in the section on "Practical Implications," I will return to this description/definition in suggesting validity criteria for integral theories. Next, I summarize an analysis of the textual dialog among integral theorists, to illustrate some of the causes, effects, and ubiquitous problems of epistemological indeterminacy, and to support my claim that greater attention to epistemological indeterminacy could benefit this, and other, knowledge building communities.

Examples from Integral Theory Texts

My reference in the Introduction to integral theory moving beyond "the world of Ken Wilber" points in two directions. First is the evolution from one man's theory to a theoretical framework by and for a community of theorists and practitioners. The second is a veiled reference to Frank Visser's web site www.IntegralWorld.net, which was originally named www.WorldOfKenWilber.com, and is currently the largest on-line repository of both validating and critical writings about Wilber's work (it is an independent and "unofficial" Wilber website).[5] The critiques, debates and dialogs on these sites, while containing much insightful material, also contain much that is not satisfyingly exemplary of a community working efficiently to refine and extend a body of intellectual work. That notwithstanding, the issues that I identify below from these on-line texts and dialogs are characteristic of most, if not all, knowledge building communities.

In this section I will anchor the issues I wish to raise in this article with some example quotes by Wilber and his colleagues from books and web sites. The critiques and rejoinders are mostly taken from wilber.shambhala.com (henceforth WSC) and www.integralworld.net (henceforth IWN).[6] Since these web sites concern Wilber's work, most of the critiques are levied Wilber's text (or Wilber himself). This article is not concerned with rigorous analysis of the available responses and counter-responses within the integral community, nor is it concerned with technical debates around the content of integral theory. Also, this article is not about Wilber's work per se, but is about and addressed to any community that uses or extends integral theories. I use Wilber's work and those with whom he textually dialogs as the most salient examples, though these authors comprise a "community" in only a loose sense of the word. The examples given here are anecdotal but sufficient to introduce the issues. Thus, even if the reader does not think there is a *problem* within integral theory discourse, I think you will agree there is an *opportunity* for creative improvement therein.

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[5] A second and more official site at wilber.shambhala.com has less material and less critical dialog, and the third major option for material are the new Integral University and Integral Institute sites, which at the time of this writing are just beginning to post theoretical papers.

[6] The "Reading Room" on the Frank Visser's Integral World web site lists over 150 contributions from almost 50 authors (see http://www.integralworld.net/readingroom.html). The page lists articles in such a way that it is easy to note critiques, responses, and rejoinders to a primary article (note that we are describing a dialog through *articles*, which are typically 5-30 pages long, not a discussion forum dialog composed of (usually quickly composed) paragraphs). That there are about 25 such responses (or responses to responses) attests to a certain level of cross-fertilization of ideas. We can also see from this

Most of the on-line exchanges lie somewhere in the middle of a formal/rigorous to informal spectrum—between the critiques and rejoinders one finds in peer-reviewed academic journals and what one would find in email and chat-room dialog. The on-line material has more "shoot from the hip" critique and more uncritical praise than articles in academic journals. One could argue that because they are offered within an environment with little quality control, that they are poor exemplars for my discussion. I will give several reasons to the contrary. First, Wilber has published very little of his material in peer-reviewed forums. The vast majority of his writings and ideas are available through his books and various (non-peer-reviewed) web sites, and the same is generally true of critiques and responses to his writing; so, these exchanges are representative of a large segment of the extant textual dialog. Second, the concern here is with practical implications to community knowledge building, and much of such knowledge building happens, even in academic communities, in informal ways; so the use of semi-formal exchanges is appropriate to my purposes. A community's knowledge evolution and meaning construction take place in articles, emails, meetings, conversations at the water cooler, etc., with the informal and more personal exchanges being at least as influential as the formal ones. The "epistemological sensitivity" discussed in this article applies to all contexts.

Finally, the integral community, taking Wilber's lead, has a propensity toward informalism, pragmatism, and popularism. Wilber's books are read predominantly by intellectually-oriented progressives and "cultural creatives." The flagship website "Integral Naked" and many published interviews with Wilber have a "hip/chick" informal and trendy style.[7] The Integral Institute is energetically *disseminating* integralism into many fields (politics, business, psychology/therapy, health/medicine, education, etc.) in addition to its knowledge *creation* activities. Though there are indications from Wilber and others that the rigorous or academic side of the work is not taken as seriously by academics as they would like, the community also intentionally incorporates informality into its products and methods. Therefore, my focus on semi-formal exchanges is appropriate to the consciously chosen tenor of this slice of the integral theory community.

I will categorize elements of the various integral theory debates according to whether the contention is about (a) the *content* of an integral theory, (b) the *method* an author uses to arrive at their conclusions, or (c) the style and intent of an author. The table below illustrates how these categories map roughly onto the types of arguments made.

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list that over the last ten years Wilber has written articles responding to a number of his critics or co-theorists. However, some of these authors do claim that Wilber has failed to address certain issues that have been repeatedly brought up.

[7] In audio/video dialogs with other luminaries it is not unusual for Wilber to greet them using terms such as "buddy" and "pal." Wilber is often referred to as "Ken," even in academically-styled articles.

Table 1. Types of Critique.

	Example arguments:
Critiques of content	- Author is inconsistent, - Author is confusing, - Author makes unwarranted assumptions, - Author is inaccurate or invalid, - Alternative framework is proposed.
Critiques of method	- Author uses invalid methods of drawing conclusions, - The method used does not reflect the method the author claims to use - Alternative methods are proposed.
Critiques of style and intent	- Author's intention or purpose is harmful or unethical, - Author is purposefully misleading, hypocritical, or insincere, - Author's rhetorical style is harmful or unethical, - Author has serious character flaws leading to dubious style or intent.

The issues thus map approximately onto my orienting framework of looking at knowledge building in terms of mutual understanding (issues of comprehensibility and meaning), mutual agreement (issues of truth and validity), and mutual regard (issues of ethics and character).[8]

Critiques of Content

First, we will look at what Wilber's critics have to say about his AQAL theory of holons, quadrants, and perspectives.[9] We will also look at how Wilber responds to some of his critics, and vice versa. The arguments in the texts can become quite philosophically intricate, and the brief examples given below are not fair representations of them.[10] My purpose is to characterize some *properties* of the overall debate, rather than their substance and conclusions.

Types of Holons

Much of the disagreement is around sub-categories of holons as described by Wilber and by Kofman (2002). Wilber distinguishes "heaps" (such as a pile of sand) from "wholes," where wholes behave according to his Twenty Tenets. He also treats "social holons," which are collections or communities with particular properties, differently from individual holons. Kofman goes further to differentiate artifacts, leading to four fundamental types of things in the universe (individual, social, heaps, artifacts; Wilber then also uses these distinctions). One of the controversial issues is what types of things (holons) could be said to possess sentience (consciousness, subjectivity, or prehension; note that sentience is not mentioned in the Twenty Tenets).

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[8] Note that issues of content concern *both* comprehensibility and validity, while issues of method are, in the corpus of text, concerned exclusively with valid methodologies.

[9] We will not deal with levels, lines, states, or stages here, as our focus is not to cover the content of integral theory, but to look at its espoused methods and at methods in practice.

[10] For example, Edwards in Through AQAL Eyes Part 1 pg. 3, describes holons as perspectival "points of reference" that are "simply not objective entities”—opening up the unanswered question of exactly what reality *is* made of.

The debates on holon types[11] are largely around the sufficiency of Wilber's definitions of them. Wilber's arguments, and those of others with alternate theories, have the form 1) <holon-type-T> is defined by <characteristics-C>, 2) if an entity is of <holon-type-T> then <implications-I> [i.e., the thing has certain properties, behaviors, relationships with other types of entities, etc.], and 3) specific <examples-E> are given. The arguments against these theories take the form of pointing out new (counter) examples of holons and showing that the critiqued theory makes a false prediction about holons of that type. Among the authors with alternative frameworks, some authors add new categories to better explain unusual examples (e.g., Edwards), and some reduce the number of categories (e.g., Smith). As the authors often admit, the new frameworks fix certain problems but create new ones in the process. Meyerhoff claims that Wilber reformulates his framework in light of the counterexamples offered by others, but does not credit the authors of these productive critiques.

In most cases the disagreements have the same epistemological source: claims are not so much categorically wrong as seen to be invalid under a particular definition or interpretation of a term (a <holon-type>, <characteristic> or <implication>) where the interpretations of the terms varies among authors. Some of the problem arises from *different* definitions of terms, and some from the fact that definitions use "graded" conceptual categories, as discussed later. Also, we can see instances where definitions are modified and claims refined in light of new types of examples not considered before. (This knowledge building dialectic is essentially the same as in Lakatos' *Proofs and Refutations*).

For example, Edwards claims the Kofman-Wilber definition of holons "implies that people are not members of a community or group or society when they fall below the average" (in intelligence or beauty, for example) ("Through AQAL Eyes" Part 1 pg. 36). Let us assume that Kofman would find Edward's critique disagreeable. Kofman might respond that 1) Edwards erred in *not understanding* his definitions and arguments, or 2) his theory is essentially correct but the *way it is described* could be clearer; or 3) his theory is incorrect and should be modified, and that Edward's found *a flaw* in it (and there are of course other possible response types). Edwards' point represents a typical and potentially very useful type of dialogical move that allows knowledge to evolve (though we don't know how it actually affected Kofman's or Wilber's ideas). This is exactly the type of interplay between examples, definitions, and claims that Lakatos describes in *Proofs and Refutations* (1976). Wilber's work has certainly gone through a number of evolutionary phases and refinements, which he claims have been assisted by the feedback of many dialogs.

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[11] See (at IWN unless noted) Meyerhoff Chapter 1, Edwards "Through AQAL Eyes," Smith "The spectrum of holons," Goddard "Further thoughts on holons, heaps and artifacts", Jaron "My Holarchy and the Integration of Robert Pirsig and Ken Wilber" at http://www.moq.org/forum/GaryJaron/What'sWrongWithThisPicture.html.

Four? Quadrants

Another controversy mentioned by many of Wilber's critics has to do with the validity of the four-quadrant model and its descriptions. One issue is the confusion about whether every holon *has* all four quadrants (or can be seen *from* the perspective of each of the quadrants), or whether holons exist *in one* of the four quadrants. For example, Wilber's Four Quadrants diagrams (e.g., p. 62 in Wilber 2000c) show atoms as holons in the "upper right" (UR) (individual objects) quadrant and galaxies as holons in the "lower right" (LR) (plural/social objects) quadrant, but both are holons and can thus be seen from *either* the singular (upper) or plural (lower) perspectives. Wilber has clarified numerous times that the first interpretation is the more correct or fundamental one,[12] yet his descriptions, even up to the recent Kosmos II drafts (Wilber 2005a), also explain things in terms of the second interpretation.

For example, in Wilber (2005a, p. 6) Wilber says "we will take as examples actual occasions (or holons) *in* each of the four quadrants...The upper quadrants refer to individual or singular holons, and the lower quadrants refer to plural, social, or communal holons" (my emphasis). He uses similar statements in many of his texts. Elsewhere in the same text (p. 18) he says "Of course, there are not different holons in the four quadrants; the four quadrants are the four dimensions of every holon. But it is easier and simpler to say things like 'holons in the UR quadrant,' and so on, which is fine, as long as the tetra-nature of any holon is remembered."

Though I understand the usefulness in each interpretation of the holon-vs.-quadrant relationship, and, after a period of confusion, can now "remember" the caveat, I suggest that, given the possibilities of confusion and the controversy this often-left-implicit distinction has raised, in the end it may *not* be fine or simpler to use the same terms in two different ways.[13] I furthermore claim that the debate about whether holons can be said to exist "in" the upper left quadrant, for example, is due to transferring a property of the diagrammatic representation beyond its usefulness, and thus momentarily confusing the map with the territory. Edwards ("Through AQAL Eyes Part 4" and "Another Way of Putting it" on IWN) tries to remedy this problem with a significantly more complex set of diagrams. But the issue of general limitations to diagrams and other conceptual schema is not sufficiently addressed by Wilber's critics.

Primordial Perspectives and Integral Mathematics

Overall, Wilber's work attempts to provide an integrative model incorporating the primary value spheres of the modern life-world, i.e., mind (including art), matter (including science), culture (including ethics), and society (including economics, politics, etc.). His description of these value spheres is often given in terms of the pronouns "I," "it," "we," and "its/they," and his more recent work on "primordial perspectives" and "integral math" notation make heavy use of pronouns. For example, "1p(1p) x 1p(3-p) x 2p(3p)" represents "my first person knows, in a third person mode, your first person," which Wilber says "would simply mean, I am seeing you in an objective fashion" (from Wilber, 2005a, Appendix B).[14] This new work has generated a significant amount of critique and counter-theory on the IntegralWorld web site.

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[12] For example, in "A Suggestion for Reading...", Wilber writes that "molecules are sentient beings ... [that]... can register objects in [their] world (it) has its own prehension (I), can resonate with other molecules (we);" and that "any object can be LOOKED AT from [the] four perspectives, but only sentient holons POSSESS four dimensions or can LOOK FROM four perspectives" and that "social holons do not possess four quadrants." Clear enough, but still confusing for the newcomer.

[13] For another corroborating opinion, see Mcfarlane (A Critical Look at Ken Wilber's Four Quadrant Model (2000) at integralscience.org/wilber.html) also claims that Wilber "is not consistent with his terminology and this leads to considerable confusion," and he gives several examples.

Several authors on the WSO site provide critiques and alternative models. Peter Collins, (in "Clarifying Perspectives, Part 4," WSO) claims that the ability to look at one quadrant from the perspective of another leads to 16, and then 64 distinct perspectives, which he diagrams at length. Mark Edwards ("Through AQAL Eyes part 7," at IWN) claims that Wilber's I-we-it-its framework does not make important differentiations, including differentiating the "you" from the "we" perspective, the "he/she" from the "it" perspective, or the "my" from the "me" perspective. (He claims that each of these constitutes valid perspectives, but in so doing it is not clear that he uses the same sense of the word perspective as Wilber.) He proposes a model that includes subjective, objecting, relative, and possessive pronoun perspectives. In it, first, second, and third person perspectives are extended from singular to plural, resulting in six perspectives. He continues to elaborate his model to produce 42 first-person perspectives, and over a hundred additional perspectives illustrated in about a dozen tables.

Andrew Smith ("The Pros and Cons of Pronouns," at IWN) critiques both Edwards and Wilber in claiming that there are no ontologically distinct second or third (or fourth...) person perspectives, that there are only different classes of first person perspectives. He also agrees with Edwards in differentiating actual perspectives (that a person has) from imagined (or notational) perspectives, which one person imagines or believes another person to have. He then uses his "single-scale hierarchical model" of holons to propose yet another system of I/you/we/it/them/thou perspectives.

Those providing alternates to Wilber's system offer complex, at times bordering on baroque, models that, though perhaps valid, are difficult to assimilate and use. It is not clear yet what practical purposes such systems, including Wilber's integral math, can be put to that would make it worth studying these frameworks to the point of fluency (or even getting a reasonable grasp of them). Models work by articulating key differentiating constructs and integrating them. There are an infinite variety of models possible for any phenomena or domain. The validity of a model depends critically on its usefulness and usability, and thus on its intended use. What problems does it allow us to solve? All of these models are less than clear on this point, making it difficult to compare their validity and usefulness.

In addition, I believe that the importance that these models place on pronouns creates an unnecessary degree of confusion and imprecision, because they lead us to transfer associations or map structures from informal use of language to more formal or ontologically basic arguments. To the extent that we enlist these inappropriate inferences, we engage in another form of confusing the map with the territory.

The Ubiquity of Indeterminacy

Wilber's critics fall prey to the same types of validity, coherence, and understandability problems that they point out in Wilber's works. As in any complex philosophical argument, within *all* of these integral theory articles we can pick out *many* instances where the definition of a term is unclear or where a term seems to be used in contradictory ways. The meaning and implication of statements hinge critically on which subtle shade of meaning is given to certain terms. Whether the arguments of Wilber's critics are *more* coherent, understandable, consistent, etc. and whether they have reworked their own theories in response to counterexamples and critiques *more* than Wilber has, is debatable. Validity-constituting properties such as coherence, understandability, and an open attitude to alternate perspectives and counter examples are important, but can also be illusive. Given the evidence, I would suggest that imbuing every one of one's claims with these qualities is both practically difficult, and, in the extreme, theoretically impossible. However, if one intends to engage in rational dialog in an effort to better understand the world, we *do* have to *attempt* to approach these qualities.

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[14] Wilber notes that "a pronoun is not an actual person but a relative perspective that all actual persons can adopt" (Wilber 2005a, p. 137). He also introduces notation that distinguishes "we/us" from "our."

Wilber Responds in "Kind"

Before moving on, it will be noted that Wilber does acknowledge the *inevitable* difficulties in creating mutual understanding as well as his own part in creating *avoidable* ambiguity, for example:

> The distinction between an individual holon and its social holon...is not as easy to draw as it may first appear...because it is almost impossible to define what we mean by an individual in the first place...there are only holons, or dividuals. On the other hand..." and, later, "This is still somewhat arbitrary...because there are some social holons that seem to act as individual holons...an ant colony, for example (Wilber 2000a, p. 72).
>
> Also, although I tried as hard as I could to make chapter 14 in Integral Psychology...as clear as possible, I am now—given de Quincey's reading of that chapter—worried that I didn't succeed very well at all, so allow me to try to simplify and summarize (From "Do Critics Misrepresent My Position? A Test Case from a Recent Academic Journal, Part II," at WSC).
>
> One of my biggest problems is that, alas, I haven't the time to address all these issues adequately (from "On the mean memes in General, " at IWN).
>
> ...misrepresentation of my work is quite common, simply because there is so damn much of it, and many of my actual positions are buried in obscure endnotes; I have not helped much in this regard, a situation I am doing my best to rectify (as I will explain below) (in "Do Critics Misrepresent My Position?" at WSC).

Critiques of Method

I next move from disagreements about the content of integral theories to disagreements on the *methods* used to develop and validate integral theories. Several authors claim that the methods that Wilber uses to draw conclusions are flawed. For example, M.A. Kazlev[15] accuses Wilber of over-relativism, lacking predictive ability, unfalisifiable conclusions (a-la Popper), misunderstanding of original sources, and insufficient research. Along similar lines, Meyerhoff's book-length critique of Wilber's work offers the largest number of challenges to Wilber's method. Some examples (from the Introductory Chapter and Chapter 8, IWN) include:

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[15] "Ken Wilber's 'integral' method and critique" at www.kheper.net/topics/Wilber/Wilbers_method.html.

> A cornerstone of postmodern understanding is that an overarching integration of knowledge of the kind Wilber attempts is not possible and that a radical plurality of perspectives is a fact of contemporary life. A type of relativism prevails which Wilber believes he has transcended, but which my analysis shows he has not....we cannot hope to have a large-scale model of the kind Wilber attempts.... Hiding behind Wilber's belief that all partial truths must fit together is the debatable assumption that all the partial truths correspond to one true world....Yet the philosopher Nelson Goodman has made a strong argument that there are contradictory truths which cannot be assimilated into one coherent picture of the world.
>
> The assumption is that if a great and influential thinker says something, what they say is supposed to carry authority. It's a curious pre-Enlightenment way of validating statements by reference to authority.
>
> Anyone who reads a lot of academic writing develops straw man radar. The reader senses when the arguments attributed to the author's opponents are being formulated weakly. The problem is, as Rorty says, that 'such neat little dialectical strategies only work against lightly-sketched fictional characters.'
>
> [Wilber] presupposes background points of agreement or orienting generalizations. In each field of knowledge Wilber culls this already-agreed-upon background knowledge and constructs his integral synthesis...assumptions that debating scholars assume to be true as they debate the relevant issues in their fields...I show the extensive and contentious debates surrounding the supposedly already-agreed-upon knowledge that Wilber uses to construct his integral framework.[16]
>
> [there is] a problematic conflation of intellectual and spiritual insight...While Wilber would probably agree that the advanced mystical stages do require leaving rational thought behind, he tries to create in the intellectual sphere a great Whole that preserves the parts; a kind of intellectual Oneness to match the supreme mystical insight into Oneness....one great theory of everything [is] in the wrong direction...Thinking must be seen as a path to spiritual insight through the critical, skeptical and deconstructive questioning that is prominent today in a postmodern world.

It should be noted that Wilber has not yet responded in writing to Meyerhoff's critiques, so one can only guess how he would respond. This is in part because some of Myerhoff's material has only recently been posted. Wilber may of course choose not to respond for any number of reasons. Based on my reading of Wilber and his responses to other texts, I can at least say with some confidence that Wilber would claim that Meyerhoff has misrepresented, simplified, ignored, or does not understand important elements of his written works. In (attempted) fairness to Wilber, I will say that Wilber does not ignore these issues in his writing. In (attempted) fairness to Meyerhoff, it would seem that these methodological issues weigh much more heavily on one who proposes a "theory of everything" than on one who is merely critiquing another's theory.

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[16] Meyerhoff continues: "...while the participants in a given academic debate do presuppose background knowledge which you could cull and call "simple, but sturdy" knowledge, as Wilber wishes to do, it's only because the participants in that debate don't happen to be debating the validity of that background knowledge....It doesn't mean they are not debatable...Is this a piece of "simple, but sturdy" knowledge? Not according to contemporary debates in epistemology...One person's generalized orientation is someone else's point of contention."

Integration vs. Differentiation, and Kettle-Calling

The main thrust of Wilber's theories is to look for integrating generalizations in diverse fields of knowledge, while Meyerhoff's is to point out the (sometimes historical, sometimes inevitable) differences, disagreements, and incommensurability among such theories. However, Wilber also discusses theoretical disagreements and differentiating multiple perspectives, and Meyerhoff also makes his own overarching and integrating claims. It must be said, however, that while Meyerhoff offers some strong arguments against the possibility of a "theory of everything," his own text can be interpreted to include instances of most of the methodological problems he mentions above. These include: overarching models (but not as "large scale" as Wilber's), grounding an argument in authoritative thinkers (e.g., Rorty, White), including value-laden or moral elements in what is presented as a fact-based logical argument, using language to theorize about ineffable or spiritual truths and paradoxes, and attributing simplistic beliefs to others (Wilber) that seem to me to be so obviously invalid that I presume no serious intellectual would agree to hold them (i.e., he is using a form of straw-man argument).

More Indeterminacy

Therefore, notwithstanding the many particular instances Meyerhoff points out where Wilber seems to be inconsistent or where he disagrees with Wilber's conclusions, in a broader sense what he describes very clearly are the real difficulties in: (a) creating conceptual models, (b) coherently communicating a complex matrix of ideas, (c) making truth claims in non-scientific domains, and (d) the inevitable convolution of fact and value (truth claims and ethical claims). That his own text demonstrates many of these fundamental problems is only more proof of the inevitability of these problems (i.e., evidence of the impact of epistemological indeterminacy).

Meyerhoff emphasizes that the human drive to generalize can lead to significant problems, while Wilber emphasizes the utility (if not validity) of this drive. Rather than favor either side of this issue, one can say that most texts and dialogs can do more to avoid the pitfalls of overgeneralization while still accumulating its benefits. Though the fundamental philosophical issues cannot be "solved," some of the problematic aspects of these themes can be ameliorated. This would benefit all. Therefore, though the collective quest for meaning and understanding is fraught with indeterminacy, it is not futile, and it can be engaged with more or less skill.

As a final example of critique of method, Edwards' "The Integral Cycle of Knowledge" (2000, at IWN) emphasizes the postmodern perspective on methodology and validity, which addresses the dialogical and interpretive nature of meaning-making. Unlike the critiques of Kazlev and Meyerhoff, Edwards focuses on Wilber's stated *model* of method, rather than critiquing Wilber's methodology itself. He claims that Wilber's "three strands" epistemological model for knowledge validation is missing a critical fourth strand: an interpretive strand. However, Edwards notes that elsewhere in Wilber's writing he clearly acknowledges the interpretive element of validation. Wilber proposes a three step methodology with the interpretive phase folded into it, while Edwards suggests a fours-step model with the interpretive step clearly separated. Is one method wrong or invalid while the other is valid? Clearly, it is not as simple as this. I will revisit the question of validity criterion further below.

Critiques of Style and Intent

Next, I turn to critiques of Wilber's work that focus on his character or on normative or ethical issues. Below, I give some samples of derogative or inflammatory snippets from various authors. Note that these are selected to characterize this aspect of the overall debates, and are not meant to be fair representations of the average style of any author, or of the average character of the overall dialogs.

Conspiracy Theories and Empires Without Umpires

Some critics criticize those who adopt Wilber's theories, and complain that Wilber and his "inner circle" is "co-opting the whole Integral Agenda," and flag the "danger inherent in relying upon any one person to define and determine Integralism" (Peckinpaugh "Shut-Ins" on IWN) (also see "The Cult of Ken Wilber" by Michel Bauwens, on the IWN). As to whether such complaints are sour grapes or clarion calls, I can not say. There are clearly grains of truth to both perspectives, but I choose not to engage in the more political aspect of the debates. More to the point here are questions about the ethical validity of knowledge building practices. Edwards protests:

> Ken has started a new initiative [on the Integral Naked site] called “The Critics Circle,” and the set up is that a student asks Ken a question that is the student’s understanding of some other person’s criticism [of Ken] and Ken responds. The student courageously tried to summarize 50 pages of reasonably tight argument in a few words...I completely understand that Ken has no time for reading the great amount of critical material on Integral theory that exists on the web and on [the Integral World] site...But...asking others to summarize huge amounts of material and then responding to their potted versions is just not the way to run a “critics circle.”("Some Thoughts on the State of Things," on IWN).

To this Wilber responds by noting that the new Integral Institute website will soon publish a slew of more rigorously debated articles by a wide range of associates of the Institute. From the perspective of the health and evolution of "integral theory" worldwide, it is probably undesirable to have most of the theoretical influence coming from a single person, and to have that person maintaining a firm grip upon their theoretical orientation. However, from the perspective of Wilber (and "his" organization) it makes perfect sense, both logically and psychologically, to focus energies in ways that deepen, expand, and disseminate his theoretical intuitions, while conserving energy and protecting the considerable existing investments from dilution or decay. Very, *very*, few powerful leaders in any area, even in spiritually or ethically oriented projects, have the type of humility and openness to diverse opinions that their detractors claim they should have. However, democratic or decentralized organized groups *can* establish norms and awarenesses that counteract these problems.

Nastiness and Mea Culpa

Wilber has been criticized for his argumentative, polemical and abrasive manner. Many of the statements referred to are in Part 3 and the extensive Endnotes of Wilber's *Sex Ecology Spirituality*. Wilber addressed this issue in the following way:

> [SES] is in some ways an angry book. Anger, or perhaps anguish, it's hard to say which. After three years...of being exposed to [the contemporary style of academic debate which included]..some of the most toxic and venomous writing I have ever seen...in anger and anguish, I wrote SES, and the tone of the book indelibly reflects that." Wilber then notes that comments about SES ranged from calling it "refreshing critique and liberating humor" to "unmannered, rude, and offensive" and adds "No doubt, both sides were right (p. xxi in Wilber 2000; and see also "On Critics, Integral Institute, My Recent Writing" at WSC).

Rather than finding that polemical, abrasive, or dismissive statements detract from an argument, apparently many find such rhetorical features entertaining and convincing. There is no dearth of such statements by others about Wilber and his work. Stabs at Wilber range from Kazlev's relatively innocuous "I can understand where [Wilber] is coming from, and sympathize with it, but I find his position simplistic" to Heron's more colorful "I despair of Wilberians…. People ask me from time to time what I make of Wilber's work. And I have to say, 'Not a lot'" ("A Way out for Wilberians," at IWN).

Character Analysis

Wilber's reflective explanation of his stylistic coarseness, quoted above, may suffice for some, but for others a deeper explanation seems to lie in waiting. Several have engaged in ad-hoc psychological analysis of Wilber, his character, and his unconscious motives. Meyerhoff, in his extensively researched analysis of Wilber's work, traces Wilber's personal history and links it to a hypothesis that a "...core issue of duality or separation and the need to integrate ...[and the] split between science and spirit and the need to prove spirit to science...[and an] aversion to loss and a resulting desire for integration" underlies Wilber's intellectual process (pp. 201, 206). He suggests that since "the great danger for the grandiose is deflation by the intrusion of the real" that the above noted unconscious forces accounting for an "insecurity [that] drives him beyond repetitiveness and caricature to the sarcasm and snideness for which he has been criticized" (pp. 211, 213).

In another psychological analysis, de Quincey asks:

> Why does [Wilber] seem driven to master the domain of reason, to construct an impenetrable intellectual edifice...the impression [is] that this immense rational fortress has been erected to withstand any possible intrusion of ambiguity, paradox, or mystery, and is designed to shut out the messiness of intense feeling. Everything, it seems, must fit (The Promise of Integralism, p. 5, at IWN).

Though Meyerhoff has done his research and is freer to speculate with an objective air, in de Quincey's case one can note a polemical intensity of tone that belies a strong emotional motivation. That he does not reflect upon or disclose his own emotional state makes him subject to his own critique.

Where does one draw the line between ad hominem attacks that, though perhaps rhetorically persuasive, have no bearing on the issue at hand, and psychological analysis that adds insight and meaning to the study of someone's' work? Is it *ever* valid to analyze the personality or personal history of one's rhetorical opponent (especially if one has little intimate knowledge of them)? The answer to these questions are, of course, very context specific but such rhetorical moves are, at a minimum, risky, as one can see with Wilber's tit-for-tat rebuttal to Heron's "I despair of Wilberians…. " article (quoted above):

> Heron tells us...that he has a "self-imposed ordinance," which is "not to spend too much time" in arguments that "typically involve heavyweights slugging it out in absolutist theoretical arenas..." And then Heron delivers...a torrent of propositions landed on each other to build up scores of points...absolutist positions...in a relentless stream... All the while Mr. Heron assures us that [he deplores] the type of "theoretical gun-slinging" which supposedly characterizes all of my writing.

Strong Straw Men

A common critique in any academic area is that one's ideas were simplified or misrepresented. The *ethical* implications come in to the extent that it is stated or implied that the other party *intentionally* misrepresented them, and there is often a flavor of such condemnation in the debates. In his book Meyerhoff (2006) states:

> Anyone who reads a lot of academic writing develops straw man radar. The reader senses when the arguments attributed to the author’s opponents are being formulated weakly. With Wilber, weak formulations are the norm. What he typically does in SES is: refer to some general group of authors such as “the ecophilosophers” or “the multiculturalists,” caricature some part of their views he doesn’t like, and then repeatedly “prove” that they are wrong about the point he’s fixed upon. While reading these pages one wonders who these people are and do they actually believe such simplistic things? (IWN).

Meyerhoff has a similar comment about his *own* critic (in "Reply to Jan Brouwer," who wrote a critique of his book): "Most of my arguments that Brouwer does discuss are reduced to simplifications, similar to the way Wilber treats *his* opponents' arguments." Though Meyerhoff's analysis of Wilber is extensive, and in this way far from a simplification, Wilber might say, and Brouwer does argue, that Meyerhoff selectively chooses Wilber's quotes to make a point, and thus is also guilty of simplification. One could argue that it is no more feasible that Brouwer's 24-page review of Meyerhoff's book will do it justice than that Meyerhoff's single book can do justice to Wilber's twenty books. In all cases, the authors have points to make that they no doubt have some attachment to, select statements as data to support their opinions, and do the best that they can (we will assume) not to misrepresent the other and to critique with integrity. And in all cases, the outcome is less than completely objective, as complete objectivity in authors is not possible. The processes of critique and response are, of course, critical for a community as a whole to weed out over- and under-statements. The point made later in the paper in terms of

"The Believing Game" is that this back-and forth can be more efficient and less like flailing to the extent that authors make efforts to assume each other's perspectives.

The straw-man complaint is also launched by Daryl Paulson in Wilber's defense: "...what is so problematic about Ferrer's [critique of Wilber is that] it lacks all subtlety, it lacks any granularity—it is based on a series of crude distortions of Wilber's complex and inclusive views, reducing them to a series of superficial straw-man arguments that Ferrer then attacks with considerable hostility" (critiquing Jorge Ferrer's critique of Wilber, at WSC).

Wilber's articles "Do critics misrepresent my position" (WSC) and "A suggestion for reading the criticisms of my work" (IWN) likewise complain that his critics misread and misrepresent him, for example:

> My recommendation ... is that [critics] try to separate two very different tasks: (1) presenting their own good ideas in themselves, and (2) criticizing mine. Because [so many of the critics on the Integral World web site] combine their possible truths with a mis-statement about mine, their overall sentences and presentations are FALSE... And this is truly unfortunate, because ....their OWN views are often true and important...Based on that crucial misreading, a series of further misreading follow...[amounting to]...a staggering distortion of my work "A Suggestion for Reading the Criticisms of My Work" (IWN).

In a like-minded rebuttal, de Quincey, in his 13-page rejoinder to Wilber's 23-page response to de Quincey's 30-page critique of Wilber's 303-page book *Integral Psychology* writes: “I was immediately struck by the degree to which Wilber manifested many of the critical failings he had accused me of—not least of which were the ‘misrepresentations,’ ‘distortions,’ out-of-context quotes, ad hominems, and plain factual inaccuracies in his ‘test case’ response.”

This is beginning to sound like a soap opera, for which I can take much credit since I am picking out a few quotes from many pages of more substance.[17] However, one does wonder whether, if so much of this writing is based on distortions or misrepresentations of another's work, whether the whole enterprise is seriously inefficient. But there is more...

Read My Mind

The concern by many authors that others are launching critiques based on simplifications or misrepresentations is certainly a valid concern, and illustrates one of the problems with open-ended internet dialogs without peer review. But in a related posting, Wilber takes a stronger but much more tenuous stance, saying: "...if somebody wishes to criticize [my version of integral theory] specifically, then they must first state it accurately...usually the only way to really understand a theory and criticize it cogently is to do so verbally, in person or by phone, with its originator." Clearly there are some serious problems with this view—so serious and obvious that I wonder whether Wilber thought through the implications of his two-page response before sending it off. Though this may be the way that mutual understanding is created in a student-guru relationship, it is not the criterion normally used in academic or philosophical dialog.

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[17] I will note that over the approximately 10 years of articles on the Integral World web site, that the tone between Wilber and his critics/colleagues seems to have steadily deteriorated (on both sides). The early articles of several authors are, if anything, overly respectful, and even claim a collegial understanding of some of Wilber's foibles, such as the polemical style of Wilber's SES book (e.g., Visser's "The Seven Faces of Wilber").

That people offer simplified examples of each other's works in order to make a point is unavoidable. Debates may have a bit more integrity if a one makes a clear distinction between what an author says (and/or *seems* to imply) and what an author must actually believe, as the latter is a far more speculative claim. For example, Meyerhoff's critique that in Wilber's writing "a type of relativism prevails which Wilber believes he has transcended..." is doubtful. Wilber himself crosses the mind-reading boundary at times, for example: "incredibly, [William] James overlooks the fact that the symbol per se...is itself...immediately experienced or apprehended by the eye of the flesh" (Wilber 2001, p. 63).

That there are inherent difficulties in offering a "correct" interpretation of another's work is clear. In fact, Berge notes that Wilber himself says that "there is no single correct interpretation because no holon has only one context" (from "Who decides what Wilber means" at IWN).

Back to Basics

Before closing this section, I will show several quotes from Wilber's texts that remind us of the underlying intention behind his methodological pluralism—an attitude which has ethical as well as epistemological import:

> I have one major rule: everybody is right. More specifically, everybody - including me - has some important pieces of the truth, and all of those pieces need to be honored, cherished, and included in a more gracious, spacious, and compassionate embrace (from the Introduction to the Collected Works of Ken Wilber, Vol. VIII, p. 49).
>
> ...in other words, all of my books are lies. They are simply maps of a territory, shadows of a reality, gray symbols dragging their belies across the dead page (from Visser, 2003, Forward).
>
> ...This means that the chief activity of integral cognition is not looking at all of the available theories—whether premodern, modern, or postmodern—and then asking, 'Which one of those is the most accurate or acceptable?,' but rather consists in asking, 'How can all of those be right?' (Wilber, 2005a).

Though Wilber may not be open to multiple perspectives on what he *himself* believes, the underlying intention of his integral theory (and all integral theories) contains a type of intellectual generosity. Sometimes, but not always, integral theorists translate this theoretical generosity into a generosity of practice through dialog (spoken and textual). Although in the end (and in the beginning) our fragile human nature places limits on our openness to conflicting beliefs and challenges to our own beliefs, I propose that as communities we can develop tools and practices that nudge us in the direction of a generous spirit.

Discussion of Integral Theory Textual Dialogs

The following general points are summarized from my discussion of the texts I have quoted:

- There is ample evidence that authors have **different meanings** or intentions for the same terms, and even that the same author uses a given term in different ways.

- Some of these differences come from different background **assumptions**, which are **not** always **clearly stated**.
- Many of the disagreements or ambiguities result from the fact that the theories use **discrete conceptual categories** (e.g., types of holons, UL-UR-LL-LR quadrants) and make claims about the objects within each category, but that examples can usually be found that fall between categories that invalidate the theory's claims. Both Wilber's theories and the alternative theories of others are shown to have this problem. Authors blame the problem on the inaccurate, inconsistent, or confusing statements of others, but there is little attention paid to the unavoidable and inherent indeterminacy of all conceptualizing schemes.
- Most conceptual **categories are "graded"** in that things can be assigned along a continuum within the category rather than into the discrete conceptual "boxes" suggested by the concept. Models that make claims, usually of the form "X follows from Y being true," are only true for examples that fall centrally in the categories used.
- Each model is but one attempt to provide meaning to a complex phenomenal space, with countless other alternatives. It is difficult to compare models or evaluate their validity or usefulness when one does not have a clear indication of their **intended use** and what questions they are designed to answer.
- The complex and sometimes **reciprocal relationships between the concepts** of a theory can pose problems in determining a prerequisite-based sequence of ideas explaining the theory. Some claims must be summarized in simplistic, and thus partially inaccurate, ways before other concepts are introduced.
- Theories often run into problems when diagrams are created as **visual representations** of conceptual models. We sometimes transfer properties of the diagrammatic representation itself to the theory, stretching the diagram beyond its usefulness, and leading to an interpretation that confuses the map with the territory.
- One can also create problems by **transferring properties of linguistic systems** to conceptual models, for example in the use of pronouns ("I," "it," "we," etc.) to anchor aspects of integral theory.
- One finds almost universal evidence of a, perhaps unavoidable, form of **hypocrisy**, in which those who pronounce ethical or normative judgments seem guilty of the same infractions that they perceive in others.

Issues in mutual understanding arise from such sources as differing background assumptions, and fuzzy or graded conceptual constructs. Issues in mutual agreement come from two sources. One is disagreement on the *facts or conclusions* of another author's argument. The other is disagreement on the *methods* one has used or on what methods in general lead to valid claims.

Critiques aimed at another's method come in the following forms: over simplification, over generalization, straw man arguments, over-reliance on authorities, relativism, idealism (inappropriate synthesis or postulation of universals), lack of empirical evidence, lack of falsifiabilty, un-provable prior assumptions, internal inconsistency, incoherence, misrepresentation of an author's claims or intentions, and insufficient dialog or participation in a hermeneutic process. However, I illustrate that in almost every case, an author who critiques another's method is guilty of the identical infraction. It may seem that some degree of hypocrisy is unavoidable. Epistemological indeterminacy affects what members of a knowledge building community can reasonable expect of each other, and thus how critiques are dispatched.

One can note that there is nothing even remotely approaching a consensus on the validity criteria that should be used for integrally informed theories, and there is very little dialog about validity criteria. Later I will argue that no single validity or legitimacy criterion is appropriate, but that a triangulation of multiple methods and validity criteria will usually be necessary.

I illustrated a number of critiques of style and intent. In the nastiest cases there were veiled charges that another *intentionally* misrepresented one's argument, which is a more serious and less provable claim than the unintentional misrepresentation discussed above. Charges of misrepresentation usually take the straw-man form that another has portrayed one's argument too simplistically. Wilber noted that one can be on thin ice when they propose to interpret the ideas of another, and he noted how dialog and engagement were important elements of mutual understanding, which in turn is essential to productive critique. He went too far, however, in suggesting that those who could not have a personal or extensive dialog with him were unfit to critique his theories.

I noted several authors who propose psychological character analyses of Wilber. As in the paragraph above on method, I show how authors who sharply criticize the abrasiveness or polemics of other authors are often found guilty of same crimes. However, unlike critiques of method, we cannot say that such dialog attributes are unavoidable in knowledge building. The adage that "those who live by the sword die by the sword" comes to mind in a couple of exchanges where ad hominem implications fly like daggers (or sticky wet noodles) in the wild, wild west of internet cyberspace.

Quotes were selected from this slice of the community of integral theorists to illustrate issues in the areas of mutual understanding, mutual agreement, and mutual regard. Some readers may be thinking "but those critiques against Wilber are correct, the problem is not about indeterminacy!" That would miss the point. My concern here is not with whether claims or counter claims are valid, but in how individuals, and especially communities, deal with diverse perspectives and claims when there is no clear practical empirical or scientific method to settle what is true, and whether integral theory points us to productive approaches. All of the issues raised and illustrated in these quotes point to general issues faced by all knowledge building communities. A similar (though perhaps less colorful) analysis could be done with any knowledge building community, though each would of course have unique characteristics. Also, there is no implication that these issues are easily eradicated or dealt with—they are ubiquitous and entrenched in the way that knowledge building is practiced. In the remainder of this article, I will explore the philosophical, psychological, and sociological elements of these problematic issues.

Indeterminacy in Mutual Understanding, Mutual Agreement, and Mutual Regard

In the previous section, I showed evidence from integral theory community texts of a number of problematic patterns related to epistemological indeterminacy that plague knowledge building communities. I also hinted that, though these issues were complex and to some extent unavoidable, there are things that communities can do to ameliorate many of the problems.

Before I recommend specific solutions, I need to explore the nature of the problems, their causes and effects, by looking at some current theories of mind, group, and knowledge.[18]

Validity Claims and the Entanglement of Understanding, Agreement, and Regard

I will introduce an orienting framework based loosely on Habermas' theories of Communicative Action (Habermas, 1981) and Discourse Ethics (Habermas, 1999). Habermas' work shows that most statements imply four types of "validity claims."[19] The validity claims are claims that we explicitly or implicitly make in communicating some belief. In any statement, such as "your uncle is a communist sympathizer," the most obvious claim concerns the explicit claim of the statement. This is a claim about **truth** of facticity. But, according to Habermas' theory, three other types of claims are implied. The second validity claim is that we are **understood** (i.e., comprehensible). The third is that what we are saying is ethically or normatively **acceptable** (or appropriate). The fourth is that we are being **truthful** (i.e., sincere). Thus when we say something, we are implying four types of things, and are implicitly expected to be prepared to reply to questions or challenges in all four areas. Examples of these four types of challenges are: "that is incorrect, I disagree;" "could you please say/explain that again, I didn't understand;" "that is wrong" (in the ethical/moral sense or in the normative sense that “we just don't do/say that around here"); and "I don't think you even believe that yourself; you are misleading me."[20]

There are several important points of departure starting from Habermas' theory. First, it highlights the importance of mutual understanding as a prerequisite to one's attempts to dialog about what is true (or good, just, or beautiful). Second, it serves as an introduction to Habermas' claim that the true and the right can only be determined through dialog. Third, Habermas shows how *ethical* considerations are at work in all instances and at all levels of communication (the details of his arguments are beyond our scope here). Both the truthfulness and acceptability criteria have ethical implications. Habermas' "Theory of Discourse Ethics" goes further to show how ethical values such as freedom, equality, sincerity, empathy, inclusivity, reciprocity, and integrity are always already implied in acts of communication.

To organize my discussion, I use a framework different than but related to Habermas' four validity claims. I will speak of **mutual understanding, mutual agreement, and mutual regard**. Habermas' work shows how these three areas are mutually interdependent and exquisitely entangled. Clearly, mutual agreement, the collective search for the true (or the good, beautiful, just, or right) requires a certain level of understanding. One can also see that, conversely, mutual understanding is not possible without some underlying level of agreement, some shared assumptions or meanings. That mutual *regard* is completely entangled in both mutual agreement and mutual understanding is less generally acknowledged.

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[18] Much of what I present below is examined in more detail in "Epistemological indeterminacy and collaborative knowledge building: Dilemmas in mutual understanding, mutual agreement, and mutual regard" (Murray, 2006a).

[19] Habermas also calls these communicative, constative, regulative, and representative validity claims. In some of his works, Habermas omits the compressibility/communicative claim in describing this scheme.

[20] This is an extreme simplification of Habermas' theory but sufficient to ground my rhetorical framework.

Habermas believes that, particularly in the post-modern context, iterative dialog is necessary to determining the true and the right. For example, the scientific process is a dialog among peers in which data and ideas are considered. The democratic process involves dialog and debate to determine what to do for the public good. What one thinks is true or right is always open to challenge by hearing new information or coming to understand another's position. However, in order for dialog to productively move us in the direction of the truth (a more valid, even if never complete, truth) or the morally best action, dialog must have certain properties. The most productive dialogs have several properties: (a) all important or relevant points are heard, (b) dissenting opinion is not suppressed, (c) people speak honestly and without hidden agendas, and (d) participants care about each other and the agreed-upon goals, values, and procedures of the group. Of course, such is not always the case, and in real settings these characteristics can be at odds with each other (as when a suppressed minority has to violate an agreed upon procedure to be heard). Also, the pragmatics of such principles can be arduous (e.g., how does one determine which views are relevant?).

The ethical implications here are clear. Attempts at finding mutual understanding and mutual agreement are thwarted and outcomes are systematically distorted to the extent or degree that mutual regard is lacking. Habermas notes that another important property of ideal or productive discourse is that it is reflective. Participants must be alert to how the process itself is going, and whether the process and outcomes reflect their values and goals.

An ideal knowledge building discourse is one that (a) creates mutual understanding, (b) identifies mutual agreement, and (c) embodies mutual regard, and thus (d) moves efficiently and effectively toward valid knowledge useful to all participants. Creating one is difficult for many reasons. I focus on epistemological indeterminacy as a core problematic issue in knowledge building. This focal theme links to related sources of difficulty for knowledge building, including participants' diverse needs and opinions, power dynamics, and cognitive or developmental limitations to what can be discussed in a group.

Having explained the focus on mutual understanding, agreement, and regard, and having argued briefly for their importance and their dependence upon each other, I will explore how epistemological indeterminacy affects each of these three areas.

Indeterminacy in Understanding and Communication

Problems in mutual understanding were quite evident in my analysis of integral theory texts. Authors explicitly showed different interpretations of concepts, and authors faulted other authors for allegedly misinterpreting their own ideas. Understanding will always remain problematic, but what if anything can be done to mitigate the clear and frustrating inefficiencies of the misunderstandings observed in knowledge building communities? First, I explore the nature of the problem. The question of to what extent people can understand each other and communicate meaning though speech or text has been explored extensively in philosophy under the subject of hermeneutics. Mutual understanding has social and intersubjective aspects, and it also has cognitive aspects having to do with how precise or stable any concept can be, even within the mind of an individual. I will touch on all of these topics below, and will begin by examining indeterminacy in ideas at three levels: concepts, statements, and models. Models are composed of statements (relationship propositions), and statements are composed of concepts.[21]

Concepts

Concepts are categories or groupings of objects, events, or other kinds of things (nouns, verbs, properties, and modifiers all point to conceptual categories, e.g., tree, religion, diet, swimming, symmetry, holon, manifest destiny). They are abstract references to a set of things that have something (or some things) in common. Concepts, like all abstractions, never fully describe real instances because real instances have a practically infinite number of properties (or things one could say about them or ways to describe them) while abstractions, by their nature, involve a limited number of properties. For example, the concept "ball" refers only to the ball-like aspects of that thing I am pointing to, and leaves out everything else, including what it is made of and its color.[22] When one describes an individual object using a concept, one is taking a perspective on it. This perspective involves a particular purpose, as when one calls something a "ball" rather than "trash" or "a projectile," which it may also be.

Seminal cognitive research by Rosh and Mervis discovered that human concepts do not usually behave in the manner of "classical" concepts, as they were widely assumed to by philosophers and other thinkers since ancient times (Rosh & Mervis, 1975; Mervis & Rosh, 1981; also noted in Wittgenstein, 1953). A classically structured or defined concept is one with a set of necessary and sufficient conditions, in which it is possible to determine in a clear-cut way whether something is or is not an example of the concept. Most conceptual categories are not classically structured but allow for grey areas, peripheral membership, and other types of indeterminacy. Such categories are called **"graded" conceptual categories**. It turns out that most abstract categories are graded concepts. For example, a person is not either narcissistic or not—they may be "sort of narcissistic," or fall anywhere along a graded continuum. Consider the concept "chair." Bean-bags, toy chairs, benches, broken chairs, are all sort of chairs, and sort of not. There is no classical definition of chair that will cover all of the objects that might normally be thought of as chairs. Thus, when one says something about chairs or narcissism (or any graded concept), there is always some level of indeterminacy as to exactly what one is referring to.

A compounding issue is that definitions of concepts are based on other concepts. So even if one *could* create an air-tight definition at one level, one is thwarted at the next level down. We could imagine having a solid definition of holons in terms of concepts such as "part interchangeability" and "prehension" but these properties are indeterminate concepts. It’s a house of cards all the way down. Also, the network-like and hierarchical structure of meaning relationships poses many problems in written and spoken communication, which is linearly and sequentially structured (for more about this see the MetaLinks project, Murray 2003a, 2005). It is often impossible to design a prerequisite-based sequence of ideas that build logically up to a concept. In most non-scientific matters (politics, philosophy, culture, etc.), the massive interdependence among concept meanings means that attempts to identify or define fundamental constructs or building blocks are rather arbitrary. What is most fundamental and what is secondary or derivative is a matter of perspective.

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[21] This differentiation of ideas into three types is not meant to be rigorous and is done to organize the points of the discussion.

[22] For simplicity my examples are often about physical things, but the analysis is valid for more abstract concepts as well.

A modernist (or structuralist) approach to explaining an idea tries to identify "the best" or most logical prerequisite sequence of ideas. In contrast, a post-modern (deconstructivist) view might reject any attempt to logically build up meaning, and produce a meandering monologue that tries to include all the relevant ideas in an almost arbitrary sequence, assuming that the reader would create their own personal "gist" of the meaning by the end of the text, all the while refusing to nail down or try to define the meaning of any term or idea. But of course, one can do better than either of these caricatured extremes, in what one might call a post-metaphysical, integral, or second tier approach.

Statements

Next, I shift the discussion from the meaning indeterminacy of concepts to the meaning indeterminacy of statements (simple claims or propositions), which are composed of concepts. Consider statements such as "X causes Y" or "X has relation R to Y". Given that most concepts are graded or "fuzzy," then any such statement really implies "***to the extent that*** the object is an X, then …." For example, if one says "holons are sentient" then (unless this is a tautological or definitional statement) one is saying that to the extent that something can be characterized as a holon (has the defining properties of a holon), to *that extent* it can be characterized as sentient. George Lakoff discusses such **graded propositions** that "...contain linear scales [that] define the degree to which a given property holds of an individual...defined by a graded category..." (Lakoff, 1999, p. 288).

Indeterminacy at the level of propositions (statements or claims) is centrally about truth (or validity), and I explore truth and validity in the next section. The *meaning* of a proposition can be problematic and indeterminate, but that indeterminacy comes predominantly from the meaning of its constituent concepts (or from the meaning of the model of which the proposition is a part). Concepts do not have a truth value, so their indeterminacy is restricted to the topic of "mutual understanding" and not "mutual agreement" (e.g., "tree" is neither true nor false, only propositions about trees are). Epistemological issues at the level of models span both types of problems, meaning and truth, more equally. Models are systems of propositions and often propose that "the world works this way," yet it is also common knowledge that models are approximations and abstractions.

Models

Models (including theories, frameworks, ideologies, and other complex idea-systems) are the main foci of debate and division in most communities of policy and action (political, religious, etc.) and in most knowledge building communities (in science, economics, education, etc.). Models and other abstractions are important, even essential, tools in knowledge building. They focus attention on specific elements in a complex field of information and articulate perceived patterns. They provide shared conceptual scaffolding and common reference points for inquiry and dialog. This text explores the indeterminacies and limitations of models, but not, to be clear, as an argument against using models, but rather as an exploration of how these indeterminacies and limitations can be dealt with.

Models, like all generalizations and abstractions, are simplifications that incorporate important features and ignore others. Models are meant to be analogous to objects/processes/events/things/etc., and an analogy can only be taken so far before it is no longer useful (e.g., electrical current in wires is *like* flowing water in pipes, but only up to a point; Newton's law of gravity is correct up to a point, then we use Einstein's law, which in turn may be shown to have limits). A model focuses on a particular set of features that are important with respect to a *particular task or purpose*. Therefore there can be *multiple* models for a given situation or thing, as different perspectives or purposes will highlight and ignore different features (see Bara et al., 2001).

Models, then, are perceived patterns in data or ideas, and as such constitute perspectives. The pattern perceived depends on the angle taken, the observer's location, the filter viewed through, the tools and methods of observation—to speak metaphorically. Some perceived patterns are unproblematic because they seem more objectively real (we might all acknowledge that that is a "tree" over there) and some are unproblematic because the group of people we are speaking with shares some common perceptions of the world. But from the phenomena of Rorschach Tests, in which individuals see images in ink blots, to the phenomena of conspiracy theories, in which groups find questionable causal patterns inside sparse data, we know that the human mind is adept at pattern detection—"to a flaw."[23] Cognitive psychologists have demonstrated numerous ways that the mind "sees" regularities by filling in for missing (or nonexistent) information at many levels of cognitive processing. The point is not that what one perceives, e.g., a tree, is "just" one perspective, or that the tree does not "really exist." The important point is that in addition to the patterns that we easily recognize there may be alternatives perceivable by others.

As George Lakoff explains, we often live happily with *conflicting* conceptual models. "Conceptual systems are pluralistic not monolithic. Typically abstract concepts are defined by multiple conceptual metaphors, which are often inconsistent with each other" (Lakoff & Johnson, 1999, p. 71). For example, "in philosophy, metaphorical pluralism [multiple metaphors for the same concept] is the norm. Our most important abstract philosophical concepts, including time, causation, morality, and the mind, are all conceptualized by multiple metaphors, sometimes as many as two dozen. What each philosophical theory typically does is to chose one of those metaphors as 'right,' as the true literal meaning of the concept" (Ibid., p. 78).

It will be useful to classify models as predictive, explanatory, or organizational. *Predictive* models, as the term implies, allow us to say something about the future, either definitively or probabilistically. *Explanatory* models help us understand *causal* (or at least strong correlational) relationships between things. *Organizational* models neither predict nor explain, but simply help us organize or visualize a set of relationships. Integral theories are, by and large, explanatory and organizational models that are not so much testable representations of reality as they are cognitive tools that allow us to achieve certain ends.

In his book Alchemies of the Mind social scientist Jon Elster "views the ideal of law-like explanation [in] the social sciences as implausible and fragile" (Elster, 1999, pg. 1). Psychology, sociology, ethnography, political science, etc. have had little luck in predicting phenomena, he explains. But they have been very useful in providing *explanations* of phenomena. For example, if we know that a person is an alcoholic, and we find out that her parents were alcoholics, then

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[23] I do not even mention indeterminacies in perception, as illustrated by optical illusions etc.; nor the indeterminacies in the accuracy of memory being documented by psychologists (Roediger & McDermott 1995); nor the work on "bounded rationality" by Kahneman & Tversky (Kahneman et al. 1982), each of which cast its own hue of uncertainty upon truth claims.

(assuming we know a bit more about the personal history) we may think that we have identified a causal explanation. However, knowing that a person is a tea-totaler can also be "explained" by the fact that both of their parents were alcoholics. Explanatory models have this characteristic, in that they tell us something about the way the world works, but not enough to predict what will happen.

Negotiated and Intersubjective Meaning

Over the last century, philosophers and theorists of mind have developed several widely accepted notations about truth and meaning (see, for example, Wachterhuaser's *Hermeneutics and Truth*). First, that all ideas involve interpretation. This is the "hermeneutical axiom" that thought is conditioned by the experiences and context of the thinker. Related to this is the notion that meaning of an idea (a concept, statement, or model) is not determinate but is "negotiated" over time among interlocutors. The meaning of a word exists not so much "in our heads" (and certainly not in some dictionary) as in the intersubjective or hermeneutic space between or among the individuals.

As long as speakers share a common-enough meaning for a concept, it remains unproblematic and rather invisible. But meaning becomes problematized when divergent interpretations meet in dialog. A group may have developed a particular meaning for the concept "consciousness" while another group may have developed an altogether different meaning, where meaning includes what is implicated and associated with consciousness, as well as what one would categorize as having consciousness. Ignoring the divergence in how foundational concepts are interpreted, though common, often results in a significant amount of unproductive communicative flailing.

Importantly, meaning-making involves a dialectic movement between instances (examples or experiences) and generalities (ideas, thoughts, etc.). In *Proofs and Refutations: The Logic of Mathematical Discovery*, Imre Lakatos (1976) illustrates that even in domains as precise as mathematics the meaning of concepts and models has some indeterminacy. Lakatos chronicles the evolving understanding of Euler's formula "V-E+F=2" for polyhedra (the relationship between the numbers of vertices, edges, and faces in three-dimensional objects with flat sides such as cubes, soccer balls, pyramids, etc.). A rather surprising result is that the definitions of the terms as basic as "polyhedra" and "edge" are not unproblematic. As new examples and counterexamples were considered, mathematicians found that either the law or the definitions needed to be refined as their theorems were improved.[24] In all domains, not only the laws/principles/truths evolve, but so do the meanings of even the key foundational concepts (see also Kuhn, 1970). Robust or usable explanations of fundamental concepts must include ample reference to examples.

Hermeneutics and Expertise

Jean Grondin says: "...it is only if one inquires into the underlying motivation of what is being said that one can hope to grasp its truth. In other words, what is the urgency that speaks through an utterance which alone makes its truth claim understandable? This is the prime question of hermeneutics. If one ignores this question...one risks missing the true meaning of what is being said" (as quoted by Hargens 2001 from Grondin's 1995 *Sources of Hermeneutics*). This raises the question of what motivates a critique and when critique is and is not productive.

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[24] This example is similar to the way that Wilber has had to refine his definition of holons and holon types once it was noticed that human artifacts posed special problems in the system of definitions.

The traditional academic process of trying to understand the work of any great thinker (and practically all of Wilber's critics solidly put him on the pedestal of great thinkers before chipping away at his theories or personality) involves an attitude of suspension of disbelief/critique at least in initial stages (though this is more true of *deceased* great thinkers). Thus, with great theorists like Piaget, Goethe, William James, Aurobindo, and Wittgenstein, it is *assumed* they had some deep understanding and that the job of the reader (or academic) is to go through their never-completely-clear, sometimes contradictory statements and ideas (which are acknowledged to have evolved over time through their texts) and construct a sufficiently accurate interpretation that allows us to understand their substantial ideas, insights, and intuitions. Within philosophy it would seem that there are as many texts that argue over what so-and-so *meant* (a process of exegesis) as there are texts that disagree with so-and-so's claims and offer alternative theories (a process of critique).

Because the meaning of a statement (or paragraph, or full text) extends beyond the statement itself, one must always look beyond a piece of text to interpret its full meaning. The "triangulation" of different textual passages and interpretations to produce a stable meaning is characteristic of the hermeneutic process of trying to understand another (imperfect) human being. As the sea mariner needs several bearings to pinpoint a point of land ("triangulation"), we come to understand the fuller, deeper, or broader meaning and implications of something through considering it from different "angles" (perspectives), a process that often requires dialog and dialectic. Another thing one can say is that efforts to improve the understandability of a text or idea are good investments. Understandability and interpretation are improved by including numerous bi-directional links among texts, ideas, definitions, examples, etc.

How one balances efforts to understand (exegesis) with efforts to critique in a process of inquiry is of course a complex open question. What one can say is that the more one can demonstrate that they have delved deeply into and struggled with another's work, the more validity their critique will have. I will return to this theme later in a discussion of negative capability.

The Unconscious

Freud's "discovery" of the unconscious aspects of mind has had a profound impact on how we understand basic human capacities as such as thinking, belief, and action. Epistemological sophistication requires some understanding of the unconscious. Modern attempts to examine the validity of knowledge or beliefs must embrace the problems introduced by non-conscious mental processes. Without adhering to any particular model of mind (there are of course many) we can note that contemporary theories of mind point to a spectrum of awareness to non-awareness (non-consciousness). This spectrum is illustrated with the following levels of consciousness:

- Ideas or mental processes that we are aware of and understand enough to describe (e.g., why I think it is going to rain);
- Ideas or mental processes that we are aware of having but can't satisfactorily describe in words (e.g., my strange but undeniable fear of clowns);
- What we are not aware of but could easily become aware of (e.g., the current sensation in the left foot, or the name of our neighbor's dog);

- That which we could become aware of but only with considerable effort, including difficult to access memories, or awareness that would take considerable mental concentration or training, or an in -depth therapeutic process;
- Mental processes which we could never become aware of (e.g., how we process language or how the retina's signals are converted into images).

The existence of unconscious processes and beliefs creates indeterminacy or grey scales in knowing "what I believe," "what I understand," etc. There are things that "I might know" and that "I believe that I know," as odd as such statements sound. The acknowledged existence of unconscious motives also muddies the water in ethical considerations having to do with free will, choice, responsibility, and accountability.

Messy, But it Works (Until it Doesn't)

With so many sources for conceptual and terminological indeterminacy in every thought and utterance, one might wonder how we ever "know" anything or get anything done. One might wonder whether there is any benefit to examining something so ubiquitous and persistent. In practice, the meaning of concepts and statements usually remains unproblematic and unexamined until our meanings or beliefs clash with another's (or ideas clash within one's own mind). We could not talk or do anything without unconsciously (pre-consciously) taking a large number of assumptions for granted. As society becomes increasingly pluralistic and cosmopolitan, meanings clash more often (or pass in conversation like ships in the night, never meeting) and questions of how we deal with this type of indeterminacy become more important.

In knowledge building, we pay particular attention to meaning. The explicit goal of improving knowledge naturally causes us to question and refine the meanings of terms and the validity of models. New terms and models are introduced consciously, and the creation and stabilization of meaning is more palpable.

Indeterminacy in Agreement, Truth, and Methodology

If we assume that those involved in a knowledge building dialog understand each other sufficiently, the next level of concern is how participants determine what they agree upon, what is true, or what is valid. In trying to understand another person, it is expected that we allow for hypothetical or imaginary realities and possibilities. If someone says "the field is foggy today" in a context where one cannot see this fog, one enters into an imaginative mode where one envisions the fogginess being described. In the understanding process we entertain ideas regardless of whether we think they are true. Whether we agree that the field is indeed foggy is a different matter.

In this section, I shift the focus from indeterminacies in understanding to indeterminacies in truth or in finding agreement. The discussion of "mutual agreement" is not about how to create agreement (for example conflict resolution and formal decision making procedures are outside the scope) but rather about exploring that nature of agreement, and, more specifically, how it is affected by indeterminacy. Agreement is not necessary, or even desirable, in many situations, but having a sophisticated understanding about agreement and validity is important to most collaborative situations.

Truth and Validity

There are a variety of theories of what truth is and how it is determined (for example, see Kikham's Theories of Truth, 1992, for a discussion of how philosophers use varied and even inconsistent meanings of truth). The most common senses of truth are: (a) truth means correspondence with objective reality; (b) truth means coherence with other things that we know (or believe to be true); (c) truth is what everyone, or most people, or experts consense to being true; or (d) truth is based on practical utility (whether a statement satisfactorily explains or predicts and helps us achieve our goals). Though various disciplines may formally use one of these senses of truth more than the others, in practice all individuals and all knowledge building communities (somewhat unreflectively) use a combination of these truth senses to create knowledge and mutual understanding. One's overall sense of whether something is true relies on a combination of all of these elements, and if any one of them is missing, one's certainty is challenged.

Lakoff (1999) argues convincingly that the meaning of "truth" (like all abstract concepts) comes not from a single conceptual core, and not from a transcendental ideal, but from interweaving, multiple, sometimes contradicting metaphors tied to and constrained by embodied experiences. Such "metaphorical pluralism" is the case at both individual and group levels, and is the case even for formal domains such as mathematics and logic. In rigorously or deeply evaluating the truth of a claim, we can not take the meaning or nature of truth for granted. Some philosophers (e.g., see Rorty, 1999) go as far as to say that truth does not exist in any meaningful way, or that it is futile to search for truth. I join with Habermas and others who say that truth's indeterminacy, rather than negating truth, necessitates a more careful awareness of truth-related methods and criteria.

As alluded to in the discussion of Habermas' theory, the concept of "validity" includes the many meanings of truth, usefulness, correctness, believability, appropriateness, etc. and allows us to address questions of truth, meaning, justice, and knowledge building at a general level that includes these many notions. So, I will often speak of the "validity" of a statement or model rather than its truth.

Sources of Validity

Theorists have discovered several things about how validity is imbued or judged. First, validity has a procedural component, such that the method that we use to arrive at a claim is important in determining its validity. Habermas (1981) shows that, though we may not be able to claim that a statement or belief is unequivocally valid, we can develop procedures that steer us toward more valid knowledge and away from invalid knowledge. Second, validity has a communal (intersubjective or socially negotiated) component. Habermas states that society has shifted "the standard of...objectivity...from the private certainty of an experiencing subject to the public practice of justification within a ... community" (Habermas, 2003, p. 249). Given the modern understanding of the fallibilities of human reasoning and communication, we can not guarantee that an individual can make errorless unbiased observations, consider every type of relevant data, and imagine every possible counter-argument that another might make. Thus, knowledge building is unavoidably a collective effort where multiple trials, perspectives, and areas of expertise accumulate to arrive at any general consensus about what is true. Third, the procedural and communal aspects of validity point to the dialectic aspects of knowledge building. New ideas create new questions and cause us to look for data in new places. New claims incite doubt that brings renewed attention to the validity of a claim's justifications. Each new idea asks to be integrated with prior and future ideas, some of which seem incompatible, until another synthesis is found, in an endless process.

Wilber (2001) explains these procedural and communal aspects in terms of three strands of knowledge validation: 1) the instrumental injunction to observe using a particular method, 2) the illuminative apprehension of experiencing the raw data after following the prescribed method, and 3) the communal confirmation gained when (if) many individuals agree that when you follow the injunction of step #1 you do observe those data in step #2. Those who provide arguments to support or refute a claim have to show that their method allows them to "look at the same thing," so-to-speak.

A fourth component of validity is that it is perspectival. As noted above, each concept, statement, or model represents a perspective on reality. When multiple perspectives point toward the same conclusion, we have more confidence in the validity of an idea. Lakoff & Johnson (1999, p. 79) say: "what needs to be avoided...are assumptions that predetermine the results of the inquiry [or] circumscribe what is to count as data...A common method for achieving this...is to seek converging evidence using the broadest available range of differing methodologies."

The perspectival aspects of validity are at the center of Wilber's integral approach. Wilber's analysis of a broad range of knowledge constructing methodologies has lead him to an elegant model that proposes eight types of "primordial" perspectives and an accompanying eight truth-finding methodologies, including: empiricism, systems theory, phenomenology, structuralism, hermeneutics, and cultural anthropology (Wilber 2005). His philosophy of "methodological pluralism" is to acknowledge the importance of all of these ways of finding truth, within a framework that clarifies the limits of each.

The procedural, communal, dialectic, and perspectival aspects of validity add considerable indeterminacy to determining the validity of claims. And so does the fact that there are many types of validity and many meanings/methods for determining the truth of a claim. This means that in some situations it is not enough to dialog about the final "truth" of a claim, and that a meta-dialog is necessary that focuses on how truth or validity are to be determined for a particular group or situation.

Truth and Meaning

Integral theories are models or frameworks with explanatory and/or organizational functions (they tend to have limited power as predictive models). As such, their purpose is more about meaning making than truth finding. They are best compared or validated based on properties such as parsimony, scope, internal coherence, consistency with other theories, and/or usefulness in providing distinctions and syntheses that add meaning—and not based on how their results correspond with objective reality. (This is more true for the philosophical and systems theory aspects of integral theory than of its psychological elements.)

Integral theories tend to be theories about ideas rather than theories about objective data. In Eye to Eye, Wilber (2001) compares "mental-phenomenological inquiry" into subjective and mental phenomena with "empiric-analytic" inquiry into objective or physical phenomena. He applies his analysis to knowledge building endeavors focused on subjective phenomena, for example, determining the meaning of Shakespeare's Hamlet, discovering the meaning of Egyptian hieroglyphics, and Freud's theory of the unconscious. He discusses how inquiry in such mental-phenomenological realms follows the same methods (strands) of knowledge validation as empiric-analytic inquiry, namely the injunction to observe using a specific method and the collective dialogic/hermeneutic processes of assigning meaning to data and validity to conclusions. However, there is one important distinction that Wilber does not make in his discussion that is relevant to the validity of integral theories (and many other theories).

The examples Wilber gives are about inquiry into meanings held by "others" — Shakespeare, Egyptians, or "people in general" (for Freud's theory). These inquiries aim to find some specific answer about something outside ourselves (what Shakespeare or the Egyptians meant, how the mind works, etc.), but integral theory is a tool for us to use to generate meaning or answers. Integral theories propose to create meaning for readers/users to help them answer their own questions. They are general-purpose "cognitive tools" whose scope goes beyond meaning-generation of a particular subject area. They do not claim that "some part of the world is this way" but that "it is useful to look at the world through this lens."

Since I concluded above that meaning-generation, rather than truth-finding, is at the heart of integral theory knowledge building, I will expand a bit on the meaning of the word "meaning," giving three senses of the word, each inclusive of or more general than the prior one. The first sense refers to shared meaning or the meaning of a statement. The second sense is related to how an idea (concept, statement, model, etc.) can have "more meaning" than another idea (to some person or group). Here "meaning" refers to salience, usefulness, or importance, and is related to the quality or quantity of relationships established with other (salient or important) ideas. Ideas also have more meaning if they point to the origins/causes or purposes/ends of things, or involve higher order relationships (Gentner & Stevens, 1983; Johnson-Laird, 1983). In this second sense, an integral or explanatory model is more meaningful if it explains a broader scope of phenomena and ideas. A final sense of "meaning" is as in "the meaning of life" or when an idea has "deep meaning" to us. This implies that the idea is related to things that we value highly or it is related to important life issues. This type of meaning is usually linked to one's sense of identity.

By emphasizing meaning-generation over correspondence to truth in integral theory knowledge building, we are emphasizing the utility aspects of its validity. For many explanatory and organizational models, it is more important to ask if they are useful than if they are true in a strict sense. Falsifiability does not apply as a rigorous test of theory validity as it does in the sciences (Popper, 1935). But this does not have to lead to extreme relativism or the rejection of rigor. Usefulness and accuracy are tightly linked. A theory that does not explain important or common patterns of data has limited usefulness. Myerhoff and others criticize Wilber for his syntheses of whole fields of knowledge, saying that such syntheses are invalid or even impossible because they gloss over important areas of controversy within disciplines. Pointing out counter-evidence and counter-arguments to a specific theory or claim, as Meyerhoff does in his critique of Wilber, is invaluable in a community's attempts to validate a theory. But in going deeper to question the usefulness of the very methodology and enterprise that Wilber engages in, Meyerhoff's critique goes too far. One can profitably ask whether Wilber's synthesis of some field is as good as any other synthesis, or is sufficiently accurate and useful to its intended purpose. But to reject any and all attempts to synthesize, organize, or explain large swaths of complex and conflicting ideas would cripple knowledge building practice.

Indeterminacy and Mutual Regard

There are deep reciprocal relationships between regard and my other topics of understanding and agreement. As one comes to understand another's perspective, one can hardly help but develop empathy for them. Conversely, an attitude of care or respect supports, and at times is necessary for, making an effort to understand another's perspective. A similar reciprocal relationship exists between agreement and regard. Discovering or building agreement fosters solidarity. Conversely, an attitude of care or respect is important as participants forge new agreements or make the effort to discover where they agree.

Unsurprisingly then, mutual regard is highly desired in knowledge building activities and knowledge building communities. The quality and quantity of collective knowledge generated can depend greatly on the level of mutual regard. And so can the strength and integrity of the community itself. But, of course, mutual regard is often difficult to create to the desired level, for reasons too numerous and too complex to even summarize here. My focus is on the interplay between epistemological indeterminacy and ethics (mutual regard). The goal is not to moralize or be ethically prescriptive but to tease apart the important issues to enable awareness, support a group's explicit dialog about these issues, and to inform the design of knowledge building tools and practices.

What is 'ethics'? In a world that can seem rife with materialism, objectivism, and instrumentalism, where the simplest directives of ethical behavior have become lost in a fog of abstraction, complexity, manipulation, and moral relativism, sincere consideration of ethical topics is essential. Yet the topic of ethics is practically taboo in academia, school, politics, science, and "polite company." Therefore, it is worth taking a moment to ground the topic of ethics in some very basic intuitions, to clarify its meaning for the purposes of this discussion. At its core, ethics and morality are about caring and justice, as understood intuitively.[25] Ethics can be about much more than that, as shown in countless philosophical discourses, but without a motivating core of regard, respect, compassion, love, or whatever flavor the caring takes, ethics is empty—both as something one does and as something one theorizes about. Another core element of ethics is that ethical judgment and action take place against a backdrop of self-interest and self-preserving drives, making ethics fundamentally about how one balances one's needs with the needs of others.

Integral Theory and Ethics

Integral theory's core approach of incorporating multiple perspectives and methodological pluralism has numerous implications for ethics. According to Habermas (1999), reciprocal perspective taking is at the core of moral thinking and action. One can differentiate two aspects of being multi-perspectival, one cognitive and the other affective. Cultivating multiple perspectives clearly involves cognitive skills in managing information, complexity, uncertainty, ambiguity, etc. It also involves affective skills because opening to and processing multiple perspectives can be difficult and frustrating. Multiple perspectives can be impersonal (or rational), as when one tries to consider two interpretations of quantum mechanics, and can be personal (or psychosocial), as when one tries to put oneself in the shoes of another. Tolerance for uncertainty and ambiguity includes a kind of emotional intelligence (Goleman, 1995; Matthews et al. 2002). Psychosocial perspective taking often requires putting ourselves in the emotional as well as cognitive shoes or another. It can involve trying on another set of values or imagining an alien historical context.

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[25] One of the main debates in the philosophy of ethics is about whether ethics is about the more cognitive and abstract capacities involved in justice, or about the more emotional capacities involved in caring and empathy. I side with Vetlesen, who shows how both elements are needed equally (Vetlesen 1994).

One's response to a claim is often affected by one's emotional attitudes toward specific people or groups. To associate an idea, especially a new or novel one, with an identifiable author or group contributes significantly to its meaning (or meaningfulness), and we are naturally drawn to build such associations. There is sometimes an emotional (even visceral) resistance to opening up to, not just an idea, but his/her/their idea. In addition, there are challenges to loosening the grip on my idea.

The issues that come up in being multi-perspectival are very much the same as those that arise from epistemological indeterminacy. Indeterminacy is one result of considering multiple perspectives; or we could say that the inherent indeterminacy of knowledge is due to its inherent multiplicity, which is in turn due in part to how one's knowledge is constructed through interactions with many people.

Indeterminacy, socialization, and vulnerability. G.H. Mead’s theory that human identity is constructed largely through social interactions is captured in this quote from Habermas:

> …morality is a safety device compensating for a vulnerability built into the sociocultural form of life [in which people are] individuated only through socialization...[This] profound vulnerability calls for some guarantee of mutual consideration. This considerateness has a twofold objective of defending the integrity of the individual and of preserving the vital fabric of ties of mutual recognition through which individuals *reciprocally* stabilize their fragile identities...To these two complimentary aspects correspond the principles of justice and solidarity respectively [that is, respect for the dignity of each individual and protection of the web of social relationships]. (Habermas, 1999, p. 199).

Epistemological indeterminacy is in part about the inability to be certain or definitive. Certainty is an important human need. A degree of certainty is necessary for action, and lack of certainty often results in cognitive dissonance and unpleasant feeling states. In many contexts, as certainty decreases, as the conceptual ground upon which one's ideas stand becomes more precarious, there is a psychological reaction or impulse to gather in and maintain safety, to narrow concern to near-term issues at the expense of long terms ones, or to focus on individual needs at the expense of group needs (or in-group needs at the expense of broader values). Epistemological indeterminacy, and our imperfect attempts to compensate for it, opens up new horizons of awkwardness and vulnerability for the speaker (or author).

Epistemological indeterminacy increases the exposure to the possibility of being criticized, and increases the opportunities available to the malicious, careless, or indifferent. It expands the potential of the critic to claim that another is naïve, ignorant, wrong, hypocritical, ambiguous, vague, or indecisive. Indeterminacy also increases the potential to give dishonestly positive accounts and manipulative praise. For instance, a person with sufficient motive and skill can recast the story of any life's work (Gandhi's, Hitler's, Elvis', Aristotle's, the Romans', the Mafia's, yours, or mine) as sad and pathetic, a triumphant achievement, narcissistic and contemptible, well intentioned and rational, or ignorant and shallow. The sharp sword of indifferent, insincere, or malicious criticism has no natural bounds, and its power to harm is strengthened by the vulnerabilities of epistemological indeterminacy.

In the overview of integral theory textual dialogs, I noted several things. First, in referring to another author's work it is almost impossible not to simplify (one can never supply the full context), over-generalize, and make selective use of their points to support one's own. Second, in abstract or philosophical discussion it can be practically impossible to avoid some degree of hypocrisy. It was found that in almost every case of one author critiquing another's style, method, or intentions, the author making the criticism was at some point guilty of the same infraction he was leveling against another. Without sanctioning all forms of hypocrisy, overgeneralization, misunderstanding, etc., we can note how epistemological indeterminacy (a) makes it virtually impossible to eliminate such things completely, (b) leaves the door to critique of such things constantly open, and (c) creates new opportunities for deliberate abuse.

Knowledge building progresses through a dialectic of convergent and divergent movements. Knowledge is refined (convergently) as invalid information is rejected and corroboratory information is discovered, leading to an increase in certainty. Alternatively, when knowledge is expanded (divergently) through the discovery of unexplained information or alternative perspectives, certainty is reduced. Uncertainty and indeterminacy are inevitable in inquiry. Therefore, the most truthful statements will often portray indeterminacy, for example: "I should know that but I don't…," "I could be mistaken…," "I was wrong, I changed my mind," "it is too complex for me to understand," and "I find both possibilities equally compelling." Such statements are less likely to be expressed in low-trust situations.

The level of trust within a community affects the degree to which indeterminacy can be reflected upon and negotiated (as opposed to ignored, denied, or defended). The level of trust within a group and the level of courage in the individual compensate for vulnerability. In a high-trust environment, vulnerability is not an odious presence to be repelled but an inevitable reality to be dealt with carefully. Trust, solidarity, and regard support a group's tolerance for uncertainty, ambiguity, and vulnerability. A group's level of trust and its tolerance for uncertainty must be considered in adopting approaches to epistemological indeterminacy.

Power and Dialog

Up to this point, I have been discussing elements of ethics related to individual choice. Responsibility for the ways that people do or don't respect and regard each other lies in part with individual decisions, but also lies in larger systemic patterns that become internalized in individuals and operate unnoticed in our interactions. Thus, a treatment of ethics would be incomplete without mentioning the dynamics of power and privilege. As Hans Kögler (1992) puts it, "every interpretation is grounded in some particular context and...every such context may be permeated by hitherto-unrecognized power structures" (p. 252). When tacit and socially conditioned ways of thinking involve privilege, preference, power, or social control, then our attempt to discover durable truths and just methods is distorted. Power dynamics affect knowledge building communities and practices as significantly as any other type of group or practice.

The naïve approach to power dynamics is to try to eliminate them, usually along with eliminating social hierarchies. But, as articulated in philosophy by Michel Foucault (1998) and in transformative psycho-sociology by Arnold Mindell (1995, 2002), power and rank differentials are inherent to all human interactions. (Importantly, Mindell includes the force of one's personality, context, or message along with socially endowed rank in his analysis of power). Power, hierarchy, authority, and leadership are not negative in and of themselves. In fact, these elements are inevitable in groups and are often essential to effective and just outcomes. Of concern is when these elements are hidden from awareness, unavailable to dialog, or have not been legitimated by the group in some way. The issue is complex because there is no objective standpoint from which to determine exactly what constitutes privilege, injustice, bias, etc., as the current debate over whether men are (also) “oppressed” contests to (and similarly with the debate as to whether Wilber and his close associates have appropriated the field of integral theory).

These difficulties notwithstanding, since power can distort and bias knowledge building in unproductive ways, it cannot be ignored. Power dynamics lead to systematic distortions in communication and knowledge, and can exploit vulnerabilities and erode trust, all of which affect knowledge building. There do exist productive approaches to power dynamics, such as increasing the awareness of power within a community and making explicit use of existing sources of power to further the values and goals of a community (see Mindell, 2002; Rosenberg, 1999). In this article, I do not explore specific methods of dialog and group process, but simply point to dialog, reflection, and other awareness-increasing methods as being critical components in dealing productively with power dynamics in knowledge building.

Cognitive Empathy and Self-Distanciation

In *The Power of Dialog: Critical Hermeneutics After Gadamer and Foucault*, Hans Kögler (1992) suggests that only through a certain perspective taking attitude can one hope to see beyond or behind tacit social power-structures and thus challenge them. He builds upon Habermas' position to emphasize the importance of opening up to the perspective of the other as a way to gain critical insight into one's own biases. Kögler says that such "self-distantiation" (gaining a conceptual distance on oneself) is only possible through the unsettling experience of encountering the, at first incomprehensible, world-views of another. Like Habermas, he emphasizes actual dialog, which is to say that trying to imagine the reasonable or possible perspectives of others from an arm-chair is no substitute for the real experience of encounter. The ensuing tension can rupture the limiting horizons of our pre-understanding. Gaining this more objective perspective and "defamiliarizing" from habitual beliefs requires taking a strong ethical stance to honor the integrity of the other's inner world equally with one's own, and to be authentically curious about that other perspective. As Kögler puts it, one can treat others as "autonomous (co)subjects with a right to their own conceptualizations and self understanding" (p. 203). In other words, when in the uncomfortable position of being confronted with an idea that challenges one's beliefs, rather than immediately critique it, one must sincerely wonder how it could be that the other thinks/believes/feels that way?

In *Perception, Empathy, and Judgment: An inquiry into the preconditions of moral performance*, philosopher Arne Vetlsen (1994) argues that "moral perception rests on the faculty of empathy [which is] indispensable in disclosing the addressee to the subject" (p. 7). He argues that the emotional capacity for empathy is co-equal and necessary along side the cognitive capacities implied by Kant's imperative to understand and treat others as "ends in themselves." Empathy, as a faculty of perception, is a type of attentiveness or receptiveness, and is likened to seeing or listening. Moral perception "gives judgment its object [and is what allows one] to identify a satiation as carrying moral significance in the first place" (p. 4).

Practical Implications and Skills for Dealing with Epistemological Indeterminacy

In describing some theoretical perspectives that lead to a deeper understanding of the causes and effects of epistemological indeterminacy, I separated the concerns into mutual understanding, mutual agreement, and mutual regard. I also indicated that understanding, agreement, and regard were interdependently woven together. Next, we will move on to some tentative suggestions for how the problems and opportunities of epistemological indeterminacy can be approached in practice. As we do so, we will allow understanding, agreement, and regard to fold back into one another in a reintegration that has benefited from the differentiated discussions above.

Because this article constitutes an exploratory inquiry (i.e., an attempt to point out a new area of study by applying an interdisciplinary set of theories to a new subject area) I cannot possibly outline a systematic set of skills, knowledge, and methods to fully address the issues raised. Also, my status as a peripheral participant in the integral theory knowledge building community limits both my understanding of the community and my ability to make specific recommendations. Rather, I will discuss a few important practical points and make a few concrete suggestions applicable to any knowledge building community, as a beginning point for further inquiry.

Several interrelated or interdependent skills will be mentioned. I discuss a number of theories related to dialectical thinking and negative capability, the core skills in processing multiple perspectives. Then I discuss skills that counterbalance these skills, moving from Yin-like to Yang-like factors and skills. These are followed by specific knowledge building approaches that I call indeterminacy analysis and differential analysis. That discussion is followed by an investigation of validity criteria usable for integrally-informed theories. I close the section with a discussion of several other practical recommendations related to dialog and information structure.

Negative Capability, Dialectical Thinking, and "Believing"

I turn next to the skill of "negative capability," a term coined by the poet John Keats, who explained it thus: "that is when man is capable of being in uncertainties, Mysteries, doubts—without any irritable reaching after fact & reason." As Keats knew, being comfortable with ambiguity, paradox, mixed feelings, and conflicting thoughts is useful well beyond the realm of poetry.

Several theorists describe the skills of negative capability in a developmental context. Early theories bearing on the subject include Kohlberg's (1978) articulation of pre- and post-conventional modes of moral thinking, and Perry's (1970) articulation of stages of epistemological sophistication (both of which also involve identity formation).[26] Michael Basseches (1984, 2005) uses the term "dialectical thinking," describing it as a "post-formal" form of thinking developmentally beyond formal thinking and relativistic thinking, where one can not only acknowledge a plurality of viewpoints, but work creatively and critically within them. Dialectical thinking emphasizes processes, relationship, wholeness, and dialectic, over product, reductionist analysis, and fixed/certain results.

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[26] There are many relevant perspectives on these cognitive skills, including: theories of metacognition and self-regulated learning (Winne 2001, Schoenfeld 1985), King and Kitchener's theory of "reflective judgment" (1992, 1994), Schommer-Atkins theory of "epistemological belief systems" (2002), Csikszentmihalyi's theory of Flow (1990), as well as a wealth of research looking at critical thinking skills and creative thinking skills.

Quantum physicist David Bohm developed a form of group dialog (now called "Bohm Dialog; see Bohm, 1996, and related work by DeMare, 1991) in which participants dialog for several hours without an agenda or leader and with the intention to suspend and reflect upon reactive interpretation, judgment, and certainty. One of the goals is to develop "proprioception of thought"—an ongoing and uncritical but [sharp/refined] awareness of the contents of one's own mind that would lead to an awareness of one's biases.

Otto Scharmer (see Senge, Scharmer, Jaworski, & Flowers, 2004) is among a cadre of modern thinkers who analyzes negative capability in terms of "letting go," "letting be," and "letting come." This three-part model provides one way of separating the multiple sub-skills involved in negative capability (though the sub-skills are so tightly interwoven that any attempt to differentiate them is approximate). "Letting go" refers to one's ability to suspend judgment, "bracket" one's assumptions and biases, and temporarily release emotional or ego attachments. "Letting be" points to equanimity—an ability to dwell in the stillness of not knowing for an extended period. "Letting come" refers to the creative (or spiritual) insights that can arise in the process. Scharmer notes that the deeper and more sustained is one's letting go and letting be, the more powerful are the fruits of letting come and implementing the resulting insights and convictions.

Peter Elbow (2005), known for his work in developing new approaches to teaching the skills of writing, critiques the current pedagogical emphasis on "critical" and "skeptical" thinking skills. He claims that, though these skills are important, the academe and the culture at large overemphasize and misuse them. Critical thinking is predominantly directed at others, and too infrequently used to question one's own ideas and world-view. The "disciplined practice of doubting all views" (p. 3) that is held out as a standard for rational thought, rather being a tool for greater understanding and expansion of knowledge, more often becomes a shield for protecting one's own world-view. Why not also have a disciplined practice of trying on all views? He calls this practice the "Believing Game."

Echoing Kögler's theory above, Elbow claims that one gains the right to critique another after first "dwelling with" and "dwelling in" another's words. He notes that "when readers fail to read critically it is not usually that they believe everything, it is that they are unengaged in any way; not dwelling in or critiquing anything" (p. 3). The goal then is to develop both critical thinking and "believing" skills. As Elbow says, one should avoid two extremes: dogmatism, which is to be unskilled at doubting, and skepticism, which is to be unskilled at believing. Because educators (at least at the post-secondary level) already emphasize critical skills, he focuses on developing Believing—the engagement of curiosity and the temporary suspension of disbelief.

In the context of knowledge building, what this implies is that when confronted with an idea that seems "wrong" (and this wrongness will almost always have both a cognitive logical and emotional intuitive aspect to it) the suggested approach is to maintain a curiosity: In what sense is it also true? How might one have come to that conclusion? What perspectives, experiences, and assumptions might lead one to that idea? And also, *Why* might one want to come to that conclusion? What explicit or implicit goals might it be leading up to? What ancillary claims does it entail that are connected with legitimate needs of the other?

In methodological pluralism it is not that "everybody is right;" it is that "anybody could be right," everybody is partially right from their perspective, and, not to forget, "I might be wrong." The skills mentioned above encourage us to see the "golden mean" or "middle path"—the "both/and" inside an "either/or." Integral theory says that an evolving understanding should transcend and include previous valid ideas, not transcend and reject or ignore them simply because they don't fit neatly together. In the section on ethics, I noted that there are affective as well as cognitive skills involved. Suspending judgment, releasing one's own ideas, and taking on the perspective of the other involve emotional intelligence as well as intellectual intelligence. One could say that "negativity capability" has both cognitive and affective components. The affective component is the perceptual-emotional capacity for empathy described by Vetlsen (1994) and the cognitive component is described by Basseches' (1984, 2005) dialectical thinking. This demonstrates another sense in which mutual understanding, agreement, and regard are intertwined.

Skill, Balance, and Group-Perspective

The application of theory to practice requires a judicious weighing and balancing of factors—a skillfulness in understanding the idiosyncratic constraints of each context. For example, it has been noted that epistemological indeterminacy is in some ways inevitable and to some extent preventable. The practical wisdom of epistemological sophistication helps us differentiate the avoidable from the unavoidable (or, more accurately, to distinguish gradations along this continuum) and determine the best attitudes and methods for each situation. This is one important meta-skill. Negative capability and dialectical thinking are two other generic skills (or meta-skills). Below I mention a few additional skills or meta-skills relevant to dealing with epistemological indeterminacy. Groups may benefit from their participants systematically reflecting upon, developing, and practicing these skills.

Group Perspective Taking and Trust

I have mentioned that modern approaches to truth and validity emphasize process over product. A process-based approach to validity focuses on asking questions such as "Were any rules of logic or inference broken?" "Are all the relevant data and perspectives accounted for?" and "Was any bias introduced along the way?" Since addressing these questions requires a significant investment, doing so must be balanced with other needs of the group.

Decision making involves balancing the needs of "me," "us" (my group), and "them" (outside the group). Groups work best when members have the skill of taking the perspective of what is best for the group as a whole, i.e., placing a high value on what furthers the freely-agreed-upon values and goals of the group. This skill can offset the possibility that the values of inclusivity, equality, regard, and freedom will degenerate into narcissistic forms (an over-emphasis on my needs and opinions at the expense of group needs).

It can also be useful to be aware of and explicit about the role or perspective one speaks from, which can change. For example, I can speak to my personal needs, the needs of the group or other individuals in the group (as I understand them), the needs of other groups that co-exist with my group in a socio-political ecosystem, or from a generalized moral perspective of what is ethically right. Needs at every level come to bear on most decisions, and principled decision making is helped when these levels are differentiated (to the extent such differentiation clarifies competing needs). This type of differentiation may also help untangle some questions of ethics and trust.

For each group and situation there may be a degree of trust, mutuality, or regard that lies beyond the limits of safety, rationality, or practicality. Sometimes "watching one's back" or an exaggerated confidence or self-interest is strategically necessary. Trust and tolerance for uncertainty are not things that can be thrust upon a group, or expected or demanded of its members. What is possible in most groups, however, is to reflect from a systems or group dynamics perspective on these issues. For example, it is of little use to prescribe that participants become more trusting of each other, but it may be beneficial for a group to reflect on the general level of trust of its interactions. Discussion could include whether the current level of trust is appropriate to the composition and goals of the group, and if not, what might be done to ameliorate the deficiency. At the practical level, personality style and cognitive/developmental factors place limits on the sophistication and productivity of such meta-level conversations, and in many cases, leadership or facilitation is necessary.

Balance, Yin, and Yang

For the most part, the discussion has focused on the importance of things such as reflection, multiple perspectives, dialog, caring, authenticity, and suspension of judgment, which one could say generally have a Yin (soft, open, yielding, or chaos-friendly) character. Practice and the application of theory require balancing many competing factors, and so I have also hinted at the importance of contrasting Yang-like elements, including: efficiency, accountability, rigor, precision, simplicity, and leadership.

Considering multiple perspectives and working toward mutual understanding takes time and effort, whether it is for the strategic purpose of refining knowledge or for the ethical purpose of including stakeholder viewpoints. Dialog and reflection at a process (or meta-level) likewise take time and effort that might have been spent working directly on the goals of a group. Excessive thinking about thinking, dialoging about dialog, and theorizing about theories can sabotage any collective enterprise (so-called paralysis by analysis). So in practice, a balance must be found between the expansive Yin qualities and the convergent Yang qualities. Exactly what the balance will be and how it is arrived at will differ in every knowledge building community and every context. In the end, deciding what to do may come down to elusive characteristics such as wisdom and character. I do believe that investments in the groundwork of mutual understanding, clarifying values and validity criteria, and/or skill-building will often pay off. Complex social problems, constant change, and clashing cultures and values all lead to an epistemological indeterminacy that cannot satisfactorily be dealt with using the traditional blunt "Yang" approaches of dogma and authority. Yet the "Yin" approaches of inclusivity, consensus finding, leniency, and individual freedom can be over-done as well. The Yang tools of discrimination and sharp focus need to be in the mix, too.

It was mentioned above that certainty is an important human need, and that some degree of certainty is required for action. The need for certainty contrasts with the qualities of negative capability and dialectical thinking explored above. The need to decide and act conflicts with the need to reflect and remain open to possibility. John Dewey (1929) in *The Quest for Certainty*, links the quest for knowledge to a need for certainty sufficient to allow us to take action to solve problems and achieve goals. One could say that a person "believes" something when there is enough certainty to act on the basis of its truth (i.e., knowing and doing are intimately linked).

Wittgenstein (1969), in *On Certainty*, points out that in some contexts certainty is required and to doubt is meaningless, even though truth can not be determined or proven in any satisfactory way.[27]

Uncertainty and complexity create an unhealthy pull toward renouncing or relinquishing responsibility to oneself and community, leading to inertia or lack of action. When does one close the door to new information and possibilities? When does one hold firm to deep-seated values or beliefs? How do members of a community graciously allow that there may be an unavoidable degree of hypocrisy, over-simplification, and bias in others, while still trying to hold each other to some standard of objectivity, truthfulness, and rigor? Again, these are difficult issues and the balance will differ in different contexts, but what is important is that participants make the effort of trying to find a balance that matches their values.

One approach is that suggested by Kögler and Elbow above: genuinely attempt to immerse oneself in the perspective of the other before moving into critique. In our post-modern sophistication, we know that true objectivity is not possible (in, for example, news reporting). Likewise, fully knowing how another feels, what they think, or what they have been through, is impossible. Yet, the contemporary context has not removed the moral burden placed on individuals to try one's best to include an objective perspective in one's thinking repertoire, and to try one's best to take the perspective of others before condemning them.

Cognitive as well as moral burdens are involved. Methodological pluralism and multi-perspectivalism open up a Pandora's box (stirs a hornets' nest?) of epistemological indeterminacy. Or, rather than opening it up, perhaps it forcefully brings the attention to the indeterminacy that lies unacknowledged in all knowledge building. Actually, both are the case, because epistemological indeterminacy can be self-reproducing.

Uncertainty and ambiguity beget more uncertainty and ambiguity. An awareness and understanding of the causes and effects of uncertainty and ambiguity allow an individual or group to step out of the downward spiral and deal productively with them rather than be at their mercy. Such dialog can be quite difficult, and therefore requires clear intention and strong commitment. This is not so different than noting how anger and contempt beget more anger and contempt, or how negligence and indifference beget more of the same. And that it takes a higher level of awareness, understanding of, and control over, anger, contempt, negligence, or indifference to halt the spiral. As noted in Michael Herrick's (2006) *Integral Care* (in a section titled "Fears of Wellness"), introspection and reflective dialog can put us in a variety of disconcerting states. It can call us to greater responsibilities, unveil fears of intimacy and rejection, or challenge one's sense of identity. Epistemological indeterminacy must be addressed at both personal (psychological) and group (leadership and collective intentionality) levels.

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[27] Statements such as "this is my hand," "the earth exists," "I am not dreaming" may sound like empirical statements, but they actually represent assumptions that we must assume in order to engage in any type of action or communication. They (in most contexts) form the bedrock assumptions that form our image of the world and allow us to think in the first place, so to question them is meaningless, because it would undermine the very possibility of questioning.

Indeterminacy Analysis, Differential Analysis and Ontological Commitment

Indeterminacy Analysis

As part of a theory, the author or another party can include an "indeterminacy analysis." This is an analysis of the most important points of uncertainty, ambiguity, or fuzziness in the theory. Doing so would, first of all, reinforce the fact that all models and concepts have some degree of indeterminacy, and that it is not a defect to have them.

Key concepts can be analyzed in terms of fuzzy boundaries, graded concepts, incompleteness, ambiguity, limitations, etc. Key "graded propositions," i.e. important claims that rely on fuzzy concepts, can be noted, along with how the meaning or validity of the claim changes in response to variations in the meaning of its constituent concepts. It will usually be important to note a variety of examples, and how the validity of claims degrades for unusual or boundary examples. For example, the claim "all holons are sentient" would be annotated to show how the claim weakens for uses of "holon" or "sentient" that do not perfectly fit the intended meaning. In a similar way, we can map out the known limits of models, diagrams, etc.; discuss strong and weak contexts of application in terms of the model's intended purpose. Known problematic areas or unexplored territory can be noted.

Differential Analysis

Common responses to disagreement include asserting one's position more forcefully, more clearly, or more persuasively, and such rhetorical moves do have their place. But, following from ideas presented previously, it is suggested that it would be more beneficial for the group as a whole (and probably more beneficial to most individuals in the long run) to begin by stepping back and looking more closely at the nature or source of the non-agreement. When evaluating a model or comparing models, one can "disassemble" their constituents and lay out the components for clearer analysis—a process I will call "differential analysis." Rather than initially responding to an argument or a model "full on," one can first step back or drop to a deeper level (or look "beneath" or "behind" the idea). Deconstructing the elements of an argument allows us to evaluate them individually and identify which elements are problematic or controversial. In a differential analysis one can identify these constituents: (a) basic concepts, ontological dimensions, foundational elements, and principles; (b) key assumptions about "what is true"; and (c) pivotal differentiations, generalizations, and integrations. Such unpacking is as much related to clarifying (and thus contributing to) mutual understanding as it is aimed at finding mutual agreement or dealing with its lack. As it is also a gesture toward more completely understanding another's theory, it relates to mutual regard as well. Differential analysis may seem like a lot of effort, and one's depth of analysis will depend on how one expects to benefit from it. But I maintain that in far too many instances critics jump right into critique when a greater degree of differential analysis prior to critique would greatly benefit the knowledge building community.

Differentiation, Generalization, and Integration

Wilber's integral theory makes heavy use of the concepts of "integration" and "differentiation." For my focus on knowledge sharing and epistemology, I need to re-evaluate the meaning of these terms to make them compatible with current cognitive theories of thought and learning. Using only the two terms "integration" and "differentiation" does not allow enough precision to formulate the arguments. I will single out three fundamental cognitive processes: differentiation, generalization, integration.

- **Differentiation** (or discrimination or specialization)—seeing things (or ideas) that were once considered the same as being in some new way different (or members of different sets).
- **Generalization** (or abstraction)—seeing things (ideas) that were once considered as different as being in some new way the same (or members of the same set).
- **Integration** (including composition)—a coordination of ideas into a larger idea. "Coordination" is more than the union of the parts but a structural integration that gives the parts specific roles or relationships to each other. Integrations may include differentiations, generalizations, and other types of relationships.

I highlight these three processes in part to distinguish "integration," by which I mean the structural coordination of ideas to create a higher level idea, from "generalization," which also results in a "higher level" idea but does not structurally integrate its components. For example, the concept "mammal" can be a simple generalization that creates a set covering dogs, cats, humans, etc.; while the concept of "leadership" can be a complex coordination of ideas including responsibility, collaboration, efficient action, taking charge, consideration, maturity, etc. Below I wish to highlight the usefulness of differentiation and generalization without, or aside from, integration.

Differentiations and Generalizations as Powerful Ideas

A model (or theory) is usually a complex integration of many components and structural relationships. Models are perspectives on their components and/or the world. The theorist has invested considerable time and, through a combination of explicit rational analysis and unarticulated intuitive insights, constructs a conceptual schema. It is as if in proposing a theory one says "it all comes together meaningfully for me like this..." When a theorist presents a model to a community, the recipients must personally deconstruct the elements of the model and reconstruct them in a way that (hopefully but not always accurately or fully) reflects what the theorist intended. This takes effort and individuals and communities have limited cognitive resources. Understanding a model enough to evaluate it takes effort, and adopting it and using it to frame one's own work takes significant additional investment.

The recognition of similarities and differences is the most fundamental function of thought (and, in a biological sense, of life as well). All modes of reasoning, learning, problem solving, etc. rely on this basic cognitive capacity (or capacities). Contrast the simple yet powerful cognitive tools of differentiation and generalization with the more complex, also potentially powerful, cognitive models (theories, schemas, etc) described above. Though models can be powerful integrations of ideas, they carry more cognitive "baggage" and require more cognitive investment than differentiations and generalizations, which are more elementary and singular, and "portable." Models have a top-down quality: they encourage us to look at a chunk of reality in a certain way—they define how things are connected. Differentiations and generalizations have a more bottom-up quality, ready to be re-used in many contexts.[28] They draw attention to new features of a situation.

I have argued for the importance of using multiple models for understanding and problem solving, as each model has its limitations. Each model makes use of a number of important differentiations and generalizations, and integrates these into a larger unit of meaning. In differential analysis, we harvest the maximum benefit from these elements, and judge the full model as a separate step.

In most contexts, the skills of negative capability and dialectical thinking are essential to the process of differential analysis. By first softening the hold of one's own beliefs, and then opening to what new perspective the other might present, we are better able to disassemble the components of a complex belief system and appreciate the partial truths and useful differentiations and generalizations that it contains.

Minimum Ontological Commitment

To finish my discussion of differential analysis I will bring in the principle of "least ontological commitment," a kind of Occam's Razor for knowledge building. The concept of ontological commitment is one of many concepts originally limited to philosophical discourse that has been appropriated by those working in the field of artificial intelligence and its subfields of "knowledge acquisition" and "knowledge representation." Theorists in these fields are concerned with how information and knowledge can be represented digitally—initially for the purpose of enabling machines to "think" and solve problems, but increasingly also for the purpose of allowing humans to encode knowledge in ways that make it widely available, findable, and reusable under various contexts.

Thomas Gruber (1995), in setting out principles for the establishment of base vocabularies and ontologies for knowledge sharing, proposes a principle of "least ontological commitment." To wit:

> an ontology should require the minimal ontological commitment sufficient to support the intended knowledge sharing activities. An ontology should make as few claims as possible about the world being modeled, allowing the parties committed to the ontology freedom to specialize and instantiate the ontology as needed. Since ontological commitment is based on consistent use of vocabulary, ontological commitment can be minimized by specifying the weakest theory (allowing the most models) and defining only those terms that are essential to the communication of knowledge consistent with that theory (Gruber, 1995, p. 4).[29]

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[28] Of course the converse is also true: models can also be re-used in many contexts and differentiations and integrations are ways of looking at the world. But the top-down vs. bottom up analogy is only meant to be suggestive that the more complex constructs are less re-usable or portable and imply a more constrained view of the world as compared with the simpler constructs.

[29] Borst (1997, p. 67) adds that "roughly stated, statements of an ontological theory must be true in every possible world; ontological commitment comprises the set of possible worlds thus allowed by the ontological theory specification....In our opinion, there are two practical dangers: excluding acceptable possible worlds, but also including undesired ones."

Examples

In a manuscript I have under development (Murray, 2006b), I include some alternatives or extensions to integral theory that will illustrate aspects of my suggestions for dealing with epistemological indeterminacy. These alternative models are not thought to be more valid or even useful than already proposed models, but are given to illustrate limitations to existing models and to models in general. They illustrate the following ideas mentioned in this article, summarized below.

- Minimum ontological commitment
- The essential dialectic between examples and abstractions, and the use of central, boundary, and negative exemplars.
- Problems with the non-linear and non-hierarchical relationships among.
- Graded concepts and graded propositions.
- Indeterminacy analysis—i.e., explicit statements about the limits of models and concepts.
- Differential analysis—emphasizing differentiations before integrations.
- Issues in confusing maps with territories 1: Problems with transferring properties of diagrams to a model's interpretation.
- Issues in confusing maps with territories 2: problems with transferring properties of pronouns (I, we, it, etc.) or other linguistic categories to a model's interpretation.

Validity Criteria for Integral Theories

Here I will propose some specific things about integral methodology and the validity of integrally informed theories. Integral theories use methodological pluralism and multiple perspectives to arrive at more encompassing and robust truths or models. Above I argued that the primary job of such theories is meaning-making. I also argued that in any field (and in general) there is no single criterion for truth or validity, and that the overall validity, quality, or agreeability of a claim or model comes from a fuzzy, fluid combination of many senses and sources of validity (though each field or community can agree that certain validity criterion are more important). I also mentioned that the meaning and validity of a claim or model depends on the purpose, use, or task at hand.

Combining all of the above with the earlier definition of "integral," we can say that the validity of an integral (or integrally informed) theory depends upon the degree to which it:

1. Addresses **all levels and quadrants** (i.e., science/morals/art, body/mind/spirit, nature/self/culture); and (for extra credit) does so in a balanced way; i.e., it has sufficient scope (depth and span) or agape;
2. Serves to **integrate** (synthesize) and/or **differentiate** (distinguish or refine) important concepts, sometimes creating new terms/concepts as it does; (and points out important and unacknowledged relationships and connections between fields or perspectives);
3. "**Transcends and includes**" rather than transcending and excluding, previous theories and ideas;
4. Offers a **simple, elegant**, parsimonious, and/or perspicuous way to conceptualize a large number of ideas (i.e., that the orienting generalizations orient rather than confound);
5. Optional (extra credit): Proposes **developmental/evolutionary** causal or teleological explanatory mechanisms.

Adding general validity criteria from the above discussions implies that an integral (or integrally informed) theory depends additionally upon the degree to which it:

6. Includes explicit knowledge about the model's **assumptions, limitations**, fuzzy boundaries, biases, etc.;
7. Is **understandable** (defines terms, is consistent with the use of terms);
8. Has internal **consistency** (in its claims and models);
9. Has external **coherence** (is consistent with other established theories and ideas; that its claims are implicated by a plurality of other models or perspectives);
10. Sites **legitimate sources** for data and theoretical coherence, and facilitates the reader in determining the legitimacy of these sources;
11. Grounds itself in **examples**; includes positive, negative, central, and peripheral examples; is resilient to counter-examples;
12. And finally is characterized by **appropriateness**, sincerity, authenticity, and respectfulness.

Integral theories can be evaluated in these dimensions and can be compared along these dimensions. The above analysis is provided so that when an idea is critiqued the critic can be clearer about what dimensions(s) of validity is being addressed. In the end, the adoption or general acceptance of a theory or model depends not so much on how it is explicitly, mechanically, or formally evaluated in terms of such criteria, but on the personal sense, accumulated over individuals, of how it "fits," "feels," "works" or "makes sense."

More Recommendations

Let's Talk About It

One of the key recommendations is simply for groups to dialog explicitly about the types of issues raised in this article. This means raising context-grounded questions about uncertainty in knowledge, interpretation and bias, validity criteria, how conflict and differences are resolved, social vulnerabilities, trust, and power. Doing so is not easy. It requires certain skills, attitudes, and knowledge, depending on the depth and scope of the discussion. It must be focused on the actual issues at hand and not allowed to stretch too far into abstract philosophy or other tangents. Having individuals take on roles of facilitation or leadership will be necessary in most cases. Skill building or training may be useful in some contexts. Though engaging in dialog at this level is not by any means easy, doing even a tiny bit more of it can be beneficial to most groups. Though the topics may seem abstract and deeply philosophical as presented in this article, in practice much of it comes down to basic skills in listening, authenticity, empathy, and perspective taking.

Such meta-dialog is the collective level of the subject-becomes-object moral and epistemological development that Robert Kegan (1994) mentions in *In Over Our Heads*. In addition to the individual reflections on the properties of the group, the group as a whole (multilaterally) can develop awareness and reflectivity on group behavior. This, combined with a consensus-building process around a group's vision and values, can lead to group-level self-regulation. (This type of awareness is also discussed in Kegan & Lahey's (2001) *How the Way We Talk Can Change The Way We Work*).

Each group can be said to have a collective level of skill in these basic areas. This collective skill level is in part an average of the individual skills of the participants, but also depends on how these skills are supported at a systemic level within the group. Support at a systemic level will (a) allow the existing level of skills in individuals to fully manifest in the group context, and (b) support the practice and improvement of these skills by all, even those with lower-than-average skill levels.

Document Structure and Content

In the 21st century, the vast majority of knowledge building efforts involve digitally stored information and on-line collaboration. Using electronic tools to create and share information gives us new opportunities to systematically support knowledge building. Some sources of epistemological indeterminacy can be managed or ameliorated by making sure the following types of information are included in electronic documents.

- **Ground concepts and models in examples**. As prescribed by instructional design and cognitive theories, examples are best organized explicitly into categories such as typical cases, extreme cases, borderline cases, counter-examples, and analogies; and should be representative of a variety of contexts (Merrill, 1983; Gagne, 1985; Anderson 1983).
- **Include multiple perspectives.** Link ideas to-multiple representations, alternative theories, models, and perspectives. Allow alternative ("crisscrossing" or "spiral") paths through densely connected concepts (see "Cognitive Flexibility Theory," Spiro & Jehng, 1990).
- **Cross-reference conceptual links** (among ideas, concepts, principles, models, etc.).
- **Provide links to related material**, including: sources, examples, definitions, alternative perspectives, etc.
- **Itemize, label, and summarize** (make it easy to skim documents).
- **Articulate assumptions, values, premises**, etc. See "indeterminacy analysis" and "differential analysis" above for some ideas on how to do this.

Cognitive Tools and Information Technology

"Cognitive tools" include templates, procedures, and conceptual models for use in communication and knowledge organization. Well known technologies such as Wikis, discussion forums, and electronic voting form the basis of such tools, allowing groups to create an evolving "knowledge commons," and a significant amount of innovation is occurring in this area. The details of such technology it is beyond the scope of this article, but I explore some of these themes in my work on the Perspegrity project and the Metalinks project (see Murray & Benander, 2005; Murray, 2003b; www.tommurray.us).

A key technical capability, one that is already widespread, is the ability to manage multiple versions of documents. Texts and knowledge bases should be built to allow the knowledge of an individual or community to evolve, so that the current state of thinking is apparent or easily accessible when reading about an idea that has been improved upon. (But older versions should not be discarded, both for historical/archival reasons and because in they end they may turn out to be more adequate than something that succeeded them). Managing multiple versions of documents also facilitates collaborative authoring.

Tools are of little use if a community does not develop and share a set of practices, methods and attitudes associated with the tools and their intended goals. Thus the optimum conditions involve a relatively well-defined (though not closed) community that supports the levels of investment and trial-and-error needed to implement new practices.

Dialog Phases and Moves

Discussion forums can be structured such that points of order or other process-related or meta-dialogic contributions can be tagged as such. Special forums or "rooms" can be created for groups to move to when they want to dialog about group "shadow," trust, or power dynamics. Such tools allow the main discussion, the primary work and mission of the group, to remain "clean" of the machinations of important tangents.

As another example, group work and dialog tends to move through noticeable phases, and each phase has certain constraints or needs that can be supported through facilitation procedures and/or collaborative tools. Such phases include: (a) global questions—to establish the values and goals that bring a group together, (b) clarifications—to build mutual understanding and background information regarding specific issues; (c) preliminary "tweaking" and reality checking—to shore up weak areas and eliminate blind alleys that would otherwise lead to inefficient dialog; (d) Divergent, evaluative, and convergent dialog—that dives into the center of discussion, brainstorming, problem solving, and planning; and (e) Meta-dialog and dealing with indeterminacy—describing process awareness and group self-regulation methods that can be used throughout.

Conclusions

A community of integral theorists is a knowledge building community. Though epistemological indeterminacy (uncertainty in understanding, knowing, and communicating) affects all aspects of modern life, it is particularly salient and important in knowledge building communities. Because knowledge building communities represent and evolve knowledge explicitly, the causes, effects, and approaches to epistemological indeterminacy (EI) can be directly addressed in knowledge building practices. Because knowledge building communities are "communities," one can realistically imagine concrete contexts for studying and dealing with EI.

Because multi-persepctivalism and integral methodological pluralism constitute the core of integral theory methodology, integral theory highlights IE—its manifestations and its problematic repercussions. In my examination of web-based integral theory texts, I noted several problematic elements of the knowledge building community and its practices. It was not difficult to find instances where authors overstated, oversimplified, misunderstood, and misrepresented each other's ideas. Authors were found to be at times hypocritical, overly critical, not critical enough, biased, ambiguous, inconsistent, and even mean-spirited. Or at least a reasonable argument could be made supporting these judgments. "Welcome to the real world," you might say. And indeed, I made the point that the investigated community is not so different than most knowledge building communities in these respects. In addition, the exploration of epistemological indeterminacy has shown that most of these phenomena are to some extent unavoidable and ubiquitous.

But to some extent these phenomena are avoidable. And there are reasons for avoiding them. From the perspective of knowledge building, these phenomena add to inefficiency, inaccuracy, incompleteness, and mistrust. All other things being equal, communities would like their knowledge building to be as efficient, accurate, and complete as is practically possible, and to build trust and social capital with each interaction. In the specific case of integral theory, a failure to deal adequately and directly with EI threatens the integrity of the entire project, since its method is founded on multiple perspectives and its most prevalent topics of inquiry deal with abstract concepts and subjective realities.

That EI exists, that knowledge is socially constructed, perspectival, and evolves; that models are "only maps" of the territory—all this is quite generally recognized in an abstract sense. But less often do individuals or groups identify the specific causes and effects of these indeterminacies, with a goal of ameliorating pervasive problems in the knowledge building process in specific contexts. More often, EI is treated as an unavoidable, undecipherable, and unmanageable nuisance.

In this paper, I propose that participants prudently adapt to the problems of EI to the extent that they are unavoidable, and reduce the problems when this is practically possible. Though it is very difficult to say in advance or in general how much indeterminacy is unavoidable and which manifestations of it are correctible, what can be said with confidence is that epistemological indeterminacy is a phenomenon that people can develop some (or more) understanding of and sophistication with. Though complex and not treated in any explicit way in most communities, its causes and effects can be partially explained, and the resulting understanding could benefit knowledge building communities.

My recommendations can be interpreted as having three phases: awareness of the phenomena, understanding the phenomena, and offering some tools (and some hope) for dealing with it. A first step is for the participants in an integrally-informed community (or any community) to note that EI and its problematic effects do in fact exist for them. A second step is to increase understanding of the relationship between the causes and effects of EI, and to promote dialog within a community that deepens this understanding within particular contexts. A third step is to adopt practices and tools that help deal with EI. Awareness, and to some extent understanding, may lead initially to despair as the extent and inescapability of the problem becomes apparent. People tend to ignore what is not understood or cannot be changed, and so the first two steps of noticing and understanding tacit patterns can be jarring. But my aim is that the complete picture I have presented, along with suggestions for certain tools and methods, will create more hopefulness than despair, and will instigate a productive discussion within the integral theory community about these issues.

Summary

Below I summarize the main points of the article in terms of (a) sources of EI, (b) effects of EI, (c) ethical considerations from EI, and (d) recommendations and tools for dealing with EI.

A. Sources of Epistemological Indeterminacy

Indeterminacy in understanding (interpretation) and agreement (truth or validity) has numerous sources, and dealing with EI requires some level of familiarity with these sources (on the part of leaders or facilitators, if not all participants). The sources of EI include:

The cognitive nature of concepts, claims, and models

- The fuzzy or **graded** nature of *concepts* (terms and categories);
- The **metaphorical** nature of abstract concepts and the radical interdependence of the meaning of one or idea with that of many others, such that none of them is unambiguously primitive (to identify some as primitive is to take a perspective);
- That *statements* (propositions or claims) are indeterminate because their constituent concepts are indeterminate; **claims are true "to the extent that**" the situation referred to corresponds with the most typical or representative exemplars of the conceptual categories used;
- ***Models*, theories and frameworks** are indeterminate because their constituent concepts and claims are indeterminate; and because they, by their nature, are approximate, abstractions, and simplifications over actual occurrences, and the choice of what to leave out depends on one's perspective;
- The meaning of abstractions **depends on references to real examples** (positive, negative, near, extreme, boundary, etc.); yet real examples can never be fully described (again, what properties are ignored depends on one's perspective); there is a dialectic process of refinement between an abstract idea and the set of examples used to explain it.

Psychological and social sources

- **Individuals** bring a variety of **distortions** to their interpretations, including their goals, values, knowledge, history of experiences, and unconscious motivations and biases, making "pure" objectivity impossible;
- The brain creates a "**society of minds**" in that people can entertain or even believe conflicting things or use conflicting models (as conscious beings we are not of "one mind");
- The meaning of a concept, belief, or model is constructed intersubjectively and idiosyncratically; **meaning evolves** in and through individual interpretation and social processes of meaning negotiation; meaning is dynamic, fluid, and distributed.

Philosophical or truth-related sources

- There are many **meanings of truth**, and many criteria for determining validity, and the truth or validity of a claim or model depends on which of these is used (usually these choices are not articulated);
- Validity has **procedural, communal, dialectic, and perspectival elements**, which together can make determining the validity of a claim or model a complex and indeterminate process.
- Integral theories are primarily **organizational or explanatory**, making their validity depend more on issues of **meaning-generation** and practical usefulness than on empirically determined truth. (In the section "Validity Criteria for Integral Theories" I listed a number of criterion).

B. Effects of Epistemological Indeterminacy

We have mentioned several direct and indirect effects of EI:

- If ignored, EI can lead to the production of **invalid, limited, or unusable knowledge**;
- EI increases the **vulnerability** at stake when one articulates one's ideas;
- EI expands the **opportunities for critique** (both valid and malicious or inappropriate);
- Trying to *deal with* EI can create additional pockets of uncertainty and vulnerability;
- Dealing with EI **takes time and energy**, so the benefits of doing so must be weighed against other priorities;
- EI, if ignored, can lead to corrosion of trust and solidarity in a group;
- Dealing with EI effectively takes skill and a **balancing of many factors** if excessive thinking about thinking, dialoging about dialog, or theorizing about theories is to be avoided.

C. Moral/Ethical Factors

Ethical considerations (such as mutual regard) are inextricably woven into processes of building understanding and finding agreement. I showed how understanding, agreement, and regard formed a braided whole, with each element depending on the other. Related points about ethics and affect include:

- **Trust** and mutual **regard** are critical elements to valid knowledge building;
- Mutual understanding and mutual agreement are developed through communicative processes that both presuppose and rely on basic ethical principles such as **equality, freedom, reciprocally, and authenticity**;
- Taking multiple perspectives has **emotional** as well as cognitive challenges, as in temporarily yielding one's own beliefs or trying to empathize with the perspective of someone very different;
- An acknowledgement or awareness of uncertainty is at odds with basic psycho-biological **needs for certainty** and simplicity (and a group's tolerance for uncertainty should be considered in adopting approaches to EI);
- The dynamics of power **and privilege** can have a strong impact on the quality of knowledge building, and thus must be examined;
- Ethical choice relies on the moral perceptive faculty of **empathy**, which is related to a type of perspective taking.

D. Recommendations for Dealing With Epistemological Indeterminacy

How can an individual or group possibly deal with all of the sources, effects, and factors described above as? The simple answer is that we already do—but (usually) not consciously. In everyday interactions with others who have a different opinion or perspective we intuitively scan for all of these factors and deal with the ones flagged as relevant or critical. This can be demonstrated by noting that if we imagine any one of the factors mentioned existing in the extreme, it would be obvious to most people that there was some uncertainty or ambiguity that needed to be accounted for. What we don't do so much is reflect on how we do this, dialog explicitly about how we do it, work to improve how we do it as individuals, or systematically work to improve how we do it in groups. Each person of course has their own very idiosyncratic approach to dealing with EI, and articulating and dialoging about our (mostly tacit) approaches would be quite difficult. But, we are not starting from scratch with the naïve intuitions of participants. Rather, in this article I have presented some established philosophical, psychological, and sociological theories as starting points for individual contemplation and/or systematic group consideration.

The article included these **recommendations** for how groups can deal with EI:

- **Dialog** explicitly about EI, its causes and effects (not as easy at is sounds, and requires commitment, leadership, and patience);
- **Support** the development of the cognitive and affective skills related to **negative capability**, which are also describe as: epistemological sensitivity, dialectical thinking, reflective suspension of judgment, letting go/letting be/letting come, the Believing Game, and dwelling in and with another's words;
- Support the skill of **differentiating the (perceived) needs and goals of self, group**, and outsider/other; and explicitly speaking from each perspective;
- Employ "**indeterminacy analysis**:" the analysis of the most important points of uncertainty, ambiguity, or fuzziness in a model or claim.
- Employ "**differential analysis**:" identifying key differentiations, generalizations, and integrations in a model or claim, with an emphasis on reusable differentiations and generalizations.
- Other recommendations concerned **knowledge representation** (the structure and content of documents and textual dialogs), including the use of **technology** to identify, manage, and ameliorate IE.

Concluding Thoughts on Awareness, Engagement, States, and Stages

My focus has been on the nature of knowledge and knowing as it impacts human collaboration. More specifically, I focus on the indeterminacies, uncertainties, and ambiguities in knowledge and knowing, and how this impacts human efforts to build knowledge. But what was uncovered in the course of exploring this limited territory has broader implications. Awareness and understanding of this aspect of mind is closely related to the broader types of awareness referred to when philosophers and spiritualists speak of contemplative practices and insight. The reflective turn, looking within oneself with an authentic intention of creating a deeper, broader understanding of thought, mind, and heart, leads to a certain set of intuitions regardless of the contemplative practice used. I focus on the phenomena of uncertainty here, but it quickly leads out to perennial topics such as: the intersubjective and collective nature of mind(s); questioning whether mind or "I" (or reality for that matter) exist in the traditional sense; themes of caring, regard, equanimity, and compassion; and the psychological, but ultimately ethical and spiritual, vulnerabilities and openness of the human social condition.

My recommendations point to an experiential and enacted forms of awareness and understanding, not a purely philosophical ones. The concrete practices that reify my suggestions put awareness to work in the world while they develop it. They are contemplative practices, but they are done for the most part in social contexts (for example, dialog and knowledge building practices). Thus, my recommendations are a form of engaged contemplative practice. Socially engaged contemplation forcefully brings in the ethical dimension, which one risks leaving as remote in strictly private contemplative practices.

Wilber's work helps us make clear distinctions between states and stages of consciousness or awareness. Importantly Wilber (and colleague Coombs) have clarified that "a person will interpret [a state or experience] according to the stage that they are at" (Wilber, 2005b, p. 53). The experience of a state of consciousness is colored by our general stage of development and the belief systems tied to that stage. The interpretation of a contemplative or spiritual or ethical experience is as important as the raw experience itself. In this article, I have brought in many theories of mind and group. I do not believe that participants in a knowledge building community all have to become philosophers to be able to deal productively with epistemological indeterminacy. But along with developing awareness of mind and group through experience and practice, it is important to have an adequate understanding or conceptual framework from which to interpret and apply this awareness. Reflection and dialog can lead to important new awareness and experiences, but the transformative potential of these experiences depends on how they are interpreted. The question of exactly which elements of theory or what degree of theoretical depth is most perspicuous is of course an empirical and context-sensitive one. But I hope that the themes that I have outlined provide an adequate starting point.

Developing this type of awareness is not a project for the individual. For one thing, the issues are as much intersubjective as subjective, and thus must be understood from a systemic perspective and investigated through dialog. But more importantly, the patterns of non-awareness and indifference are so ingrained into socio-cultural forms of collaboration that it is only through collective intention that we can hope to change them. Communities can generate this type of collective awareness and wisdom through a solidarity of iterative dialog, trial-and-error practice, and good will.

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Editorial

Continued Growth: Further Expansion for Integral Review

Welcome to the third issue of *Integral Review*. With this issue, we accomplish our goal of producing issues on a semiannual basis, and continue to expand the community of authors, reviewers and readers of IR. With the publication of this issue, we also announce some exciting new additions to IR that we believe will support this community even further.

First, we are pleased to announce the formation of the *Integral Review* Editorial Advisory Board. This Board is a group of highly qualified individuals who have made intellectual and social contributions that are consistent with IR's mission and orientation. These volunteers provide support to the Journal's Editorial Board by extending our community into theirs and playing a mentoring role for our continued growth. We would like to welcome Michael Basseches, Ervin Laszlo, Ian Mitroff, Nancy Roof, Peter Russell, and William Torbert to this Advisory Board. You can find more information about each of these advisors on our website.

Second, we will implement online forum software to host ongoing dialogues on articles published in IR, and we are actively soliciting and supporting participation in such dialogues. IR's home page has a link to information about the initial forums based on selected articles in this issue. Please note that this issue's first article outlines the purposes and various guidelines related to different kinds of forums. We aim to have these dialogues begin in January.

In addition to the intrinsic value that participants in the integral dialogue forums may realize, we believe that these online knowledge building venues may become the basis for future articles, essays, or other types of works to be published in IR. This would become a cycle of original contributions being built upon by the contributions made in these forums, with the outcomes of the dialogues generating new original contributions, which may be built upon by further forums, and so on. This would be organic knowledge building, one quality of an openly collaborative community of inquiry.

I would also like to welcome Tom Murray to IR's Editorial Board. Tom brings a wealth of experience and insight into the arena of knowledge building communities, as he demonstrated in his article in Issue #2. Our capacity to support the dialogues described above has been greatly enhanced by his contributions to the Editorial Board, and we look forward to our continued work together.

As a brief note, I would like to mention that we have not yet seen the launch of *AQAL: Journal of Integral Theory and Practice*. Continued conversations with them have made us aware of some of the larger changes and challenges in the Integral Institute that have continued to have an impact on the expected publication of the journal. Thus, in this current issue, IR has not published reviews of articles from *AQAL* as Issue #2's Editorial anticipated, but we are looking forward to doing so in the future.

On the Contents of Issue #3

As indicated above, Issue #3 begins with an outline of purposes and guidelines for integral dialogue, in Tom Murray's and Sara Ross' *Toward Integral Dialog: Provisional Guidelines for Online Forums*. This piece brings together elements of both authors' experience in dialogue as a

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tool for knowledge building, combining theoretical background with practical examples and guidelines. It will serve as a point of reference for participants in the online dialogues hosted by IR, and its premises are transferable to other settings.

This is followed by a poem from Barbara Nussbaum, entitled *Tomorrow's Sunrise – A Plea for the Future You, Me and We.* To contribute to our reflections, Barbara takes us through a shifting set of perspectives woven together by her sense of our common humanity.

What happens when you bring together a group of people passionate about applying integral theory to international and local community development issues? You get *Four Days in France: An Integral Interlude,* a personal narrative by Tam Lundy on the excitement, enthusiasm and community that arose during this event. This informal report is a lovely mix of scene setting and insightful reflection conveying the spirit of those days.

Next, we have a *Rationale for an Integral Theory of Everything,* a description of the broad vision held by Ervin Laszlo on how this theory of everything could come to be. The brief, introductory article points out the role of science in coordinating our understandings of energy and "in-formation" that are essential to a theory of "every-*thing."* We are happy to have this contribution from one of our Editorial Advisory Board members.

This is followed by my short book review of Nathan Harter's wonderful, recently released *Clearings in the Forest: On the Study of Leadership*. I thoroughly enjoyed both the depth and scope of vision Harter presented in this work, and highly recommend it to those interested in the study of leadership.

Another kind of review comes from Bonnitta Roy, in *The Map, the Gap, and the Territory,* a critical examination of methodological issues raised by two Matthew Rentschler articles on the topic of Integral Art, posted on the Integral University website. Bonnitta's approach aims to takes us deep into the territory of art itself, to deepen how we approach making maps of such territory.

A beautiful example of the process Bonnitta describes is found next in Andrew Campbell's *The Dance Integral*. The opening piece of art came out of a story I told him in an early email exchange, and it continues to reveal layers of meanings and depth for both of us. Campbell writes as an artist about the creative process in a way that is deeply illuminating, and applicable to profoundly deep aspects of our lives.

We then have a German language opinion essay by Roland Benedikter, *Three Avant-garde Currents Within the Contemporary Intellectual Life in the United States – and in Their Relationship to Europe.* The essay, as the title indicates, examines the relationship of American integral thought, represented by Ken Wilber, Andrew Cohen and A.H. Almaas, to what is going on in Europe. These reflections offer a window into possible further dialogue between the continents and strains of thought within them.

Daniel Anderson also examines different strains of integral thought, specifically in Sri Aurobindo's work and its influence on the origins of integral theory. *Of Syntheses and Surprises: Toward a Critical Integral Theory* is a penetrating critique of how historical, contextual issues have played unacknowledged roles in the development of integral theory. He examines the origins of Aurobindo's "imperative to integrate" and offers direction for steps forward toward a critical integral theory.

Michael Commons introduces us to some of his latest thought, which crosses disciplinary boundaries on general intelligence (g) in a paradigmatic model that transcends and includes them. In *Measuring an Approximate g in Animals and People,* Commons outlines some of the background on how theories of intelligence have developed, then indicates how his approach to general intelligence applies across species. This fascinating and controversial piece breaks new ground in the field, and we are pleased to be able to publish it here.

Russ Volckmann has contributed another fine interview, this time with long-time international development practitioner Courtney Nelson. *Integral Development: An Interview with Courtney Nelson* is a wonderful journey through Nelson's life of service with specific cases. He shares how his work in many developing countries led him to realize why the primary emphasis should be placed on human development when designing international aid and economic development programs.

We conclude this issue of *Integral Review* with Bonnitta Roy's *A Process Model of Integral Theory*. This is a substantive work in which Bonnitta brings together Eastern concepts of process with Western ones. It shows how a process *view* can open up new possibilities for understanding aspects of integral theory such as development, cognition, and more, including our own lived experience. This article challenges some very deep assumptions about how integral theory has been developed, and can be mined for a long time to fully reveal its depths.

I am very pleased to see this third issue of *Integral Review* come together the way it has. The variety of pieces, the depth of scholarly work, and the breadth of vision found in these pages should serve readers well.

Sincerely,

JReams

Jonathan Reams,
Editor-in-Chief,
Integral Review

Toward Integral Dialog:
Provisional Guidelines for Online Forums

Tom Murray and Sara Ross

Abstract: This short article announces the launch of an experiment: *Integral Review* (IR) online discussion forums. It introduces their purpose and discusses the intent of the dialog guidelines that we are developing. The guidelines stem from our desire to explore not only integral theories but integral modes of communication and collaboration. We offer some reflections on the kind of culture we hope the forums create, and the dialogical behaviors, attitudes, and knowledge building characteristics that such a culture might exhibit. We describe our initial attempt at articulating guidelines for integral dialogs, expecting that these will evolve through participant suggestions and through the trial and error process of using them.

Keywords: online forums, integral dialog, Integral Review, knowledge building, culture

Introduction

Starting with this issue of *Integral Review* (IR), we will be experimenting with online forums for discussion about papers and other published pieces and topics in the Journal. We have several kinds of forums in mind, each using a different set of guidelines and processes, reflecting different degrees of structure and rigor (all will use the same discussion forum software). These guidelines are experimental and under development. Thus, as we launch these forums, their dialogs will be shaped by a combination of:

1. The focus of the discussion (e.g., a published work);
2. The makeup of participants (sometimes an invited group, sometimes on open group);
3. The guidelines and structure for that discussion (guidelines are described below; structure includes such things as distinct phases of a dialog, each with a different purpose).

We hope that these dialogs will respond to a need that has been developing over recent years. In our complex world, no single one of us has enough knowledge, exposure, and experience to “go it alone” in meeting challenges we are interested in and venues are needed that allow "collective intelligence" to emerge. Online tools have been touted as offering solutions meeting this need, yet productive knowledge building can be elusive in online environments. We need communicative spaces with more sustainability than list-serves usually provide, with their divergent spurts of activity without closure, summary, or further use. We need spaces where we are more than solitary bloggers and blog-commenters, and where participants have a certain level of commitment to engagement and mutual regard. We need spaces that promote helpful critique and feedback to refine knowledge and that build up understanding and relationship, rather than weakening it with shoot-from-the-hip commentary. Our online dialog experiments will be one small step toward addressing these complex concerns.

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IR’s motivation to offer these forums—and perhaps people’s motivations to participate in them—springs from a range of intriguing questions. Some of these are: What does “integral” look like in *action* (in this case communicative action) as well as in theory? What are some of the defining characteristics of an "integral dialog?" What might integral dialog look like "on the ground" as individuals discuss controversial issues, build knowledge collaboratively, or engage in planning and decision making processes? There are many possible answers and visions. Here we describe our starting point for exploring online dialog about *Integral Review* articles and larger issues of theory and practice as approached from an integral perspective. Our goal is not to characterize integral dialog in a definitive way but to engage in the "action inquiry" of discovering its contours through engaged trial-and-error. We look forward to a collaborative co-evolution of these structures and guidelines, and the culture they may create.

Characteristics of Integral Dialog

What does integral theory imply for the properties of knowledge-building dialog processes? (We could ask the same question about integral decision-making processes, a related subject outside the scope of this short article). To clarify what is meant here, we are *not* talking about dialog that references integral theory. One should be able to evaluate a dialog taking place between, say, urban planners or biologists, who know nothing of integral theories, and ask whether the exchange reflects integral dialog characteristics.

The primary characteristics are that *multiple perspectives* are included and transcended, and that *interior realities* as well as exterior realities are valued. These primary characteristics lead necessarily to others, such as: a tolerance and resilience in the face of uncertainty, contradiction, and ambiguity; the presence of multi-perspectival or dialectical reasoning; and an ethic of mutual recognition and regard that compensates for the social vulnerabilities introduced by multiple perspectives and first/second-person revelations. We expand on these characteristics below.

In a general sense the integral method is an approach that, as Ken Wilber says, "in the presence of apparently incompatible, conflicting, or unrelated data, tries to make a productive, creative synthesis of the divergent elements" with a "gracious, spacious, and compassionate embrace" (Wilber, 2000, p. 49). It is not simply a non-rigorous stance that "everyone is right," but rather an understanding that if there are differing ideas they probably come from different perspectives, and all *perspectives* have validity, rather than that every *idea* is right. The distinction between perspectives and ideas is an invitation to enter more deeply into "where someone is coming from" as we respond to their explicit words. This constitutes using a vision-logic or aperspectival form of imaginative reasoning (Wilber, 2000; Feuerstein/Gebser, 1987). This kind of reasoning is used to not only interpret a particular claim but to holistically contemplate what has been heard from, and of, the other and consider the threads of authentic wisdom that may lie beneath or within the claim. Ideally, this leads not to additional layers of troublesome assumptions about the other, but to a curiosity that fuels more dialog and deepens mutual understanding. To transcend and include is to access a view that can hold the validities of many perspectives, but not *necessarily* offer a synthetic overarching model or narrative (a single view) that encompasses them. To transcend and include can also mean discovery that the complexity of a subject can have multiple layers that call for a complex blend of views or approaches. We might say that it is so rare to encounter dialogs that reveal such things, that this alone may be a worthy reason to be curious: to discover what this would look like by developing it first-hand.

Opening up to multiple perspectives, both from other participants and within one's self, exacerbates "epistemic indeterminacy"—the inherent (or revealed) uncertainties, paradoxes, context-dependence, and dynamic unpredictabilities of knowledge and knowledge creation (Murray, 2006a). A set of cognitive skills is needed to work within epistemic indeterminacy. These skills have gone by various names, including: negative capability (Keats, 2004), dialectical thinking (Basseches, 2005), proprioception of thought (Bohm, 1996), the believing game (Elbow, 2005), reflective judgment (King & Kitchener, 1994), cognitive empathy (Vetlsen, 1994), self-distanciation (Kögler, 1992), strategist action logic (Torbert & Associates, 2004), and the metasystematic order of hierarchical complexity (Commons & Richards, 2003). Together we can refer to these skills as "epistemic sophistication" or "epistemic awareness" (Murray, 2006b). Put simply, epistemic sophistication is about how individuals think and dialog about "I don't know," "I'm absolutely sure," "I disagree" and "prove it!" in productive and respectful ways. These skills are found in many individuals, but the challenge of the day is to discover frameworks, methods and tools that support systematic and community-level development and application of these skills.

Integral theory (Wilber, 2000) and action inquiry (Torbert & Associates, 2004) suggest that dialog should include explicit first-person and second-person perspectives along with third-person perspectives. This means that, along with third-person orientations such as describing objective circumstances, finding empirically validated truths, or identifying statistically probable futures, dialog should include an acknowledgment, clarification, and/or exploration of: (a) the values, goals, feelings, etc. of the author or speaker; (b) the relevant relationships among participants; and (c) the values, intentions, and methods that characterize (or should characterize) the collective process. Second-person perspectives are explicitly sought out via inquiry in dialog. (And see Jordan's [2002] Conflict Awareness Mandala for a more detailed model of first, second, and third person perspectives).

In addition to more traditional forms of explanation, analysis, and synthesis, an integral dialog may contain the following types of statements that are not common in traditional academically styled knowledge building dialogs (they are illustrated in informal vernacular, but could also appear as more academically stylized):

- I really don't know. But my current best guess is…
- I have two seemingly opposing thoughts or impulses going on here, which are…
- I was wrong about that. Thanks to your comment I checked it out and …
- The author is a long time friend and colleague of mine, which may bias my opinion.
- You said that you would address my three questions but as far as I can tell, you missed the third. Would you address that one also?
- I felt some frustration and anger upon reading your comment. Let me try to explain…
- Let me see if I am interpreting your position correctly… Do I understand it the way that you mean it?
- Are you making this assumption…?
- Would you be willing to tell me what you think I am saying, as you understand it?
- Both perspectives seem valid to me, and each is valid in a different way, as follows….
- What is our purpose here? Is our process aligned with it?
- I think it is going to be important for us to… because …
- Would some of you like to start a separate discussion thread about how we can make this dialog more productive?

Our guidelines encourage trust and allow for a certain level of vulnerability that we hope will allow participants avoid the polarizing and pontificating styles found in many online venues. We encourage revealing layers of the self and the exploration of topics and questions rife with uncertainty, paradox, and ambiguity. In addition to behaviors that state what is known and advocate for what is wanted, we hope to support behaviors that help participants collaboratively unpack, examine, re-form, and create knowledge (along the lines of "letting be, letting go, and letting come," as suggested by Otto Scharmer, 2006).

This is not an invitation to be slipshod or narcissistic. Our aim is to develop guidelines that will support rigor, clarity, and efficient knowledge creation. Authenticity and transparency can add critical information to knowledge building. If it is done well, it can increase communicative efficiency over the long run. The magic of collective intentionality will manifest to the extent that participants find the subtle balance between rigor and care, challenge and support (or, from Murray, 2006c, integrity and perspective-taking).

Revealing and discussing the topics of interest and concern within and among individuals (i.e., the subjective and intersubjective), and posing ideas in areas of uncertainty, opens one up to social vulnerabilities. These vulnerabilities must be compensated for by the level of trust, integrity, and reciprocity in the dialog space. There are two implications of this trust/vulnerability dialectic: (a) we acknowledge that each individual needs to decide what feels appropriate and safe to communicate, and when to apply any of the guidelines; and (b) the more that participants apply the guidelines (perhaps "courageously"), the more safety, trust, and integrity is created in the dialog space. The level of reciprocity attained, and the degree to which participants own their biases, feelings, cognitive filters, etc., will depend in part on developmental elements of each individual and in part on evolving culture of the group (Ross, 2005).

Thus, the best ways to contribute to the upward evolution of a dialog (and the knowledge it can build) are to: (a) model the Guidelines, (b) gently offer feedback to others to help them understand and apply the guidelines, (c) avoid condemning others who do not follow the guidelines as you interpret them, and (d) help us and the group improve the guidelines. Our hypothesis is that if a group self-selects through a belief that these guidelines are valuable, and if participants agree to make a good faith effort to work within the spirit (not the letter) of the guidelines, then subsequent dialog will benefit.

Parts of Speech

These purposes are advanced through certain types of dialog patterns, or parts of speech (Ross, 2006; Torbert & Associates, 2004). Ideally, they include the following (examples of these appear in the example statements above):

- *Advocating* for a position, perspective, action, etc. (includes first-person feelings, thoughts, concerns, etc.).
- *Illustrating* the worth of whatever is advocated for, using examples (hypothetical or real) to show why the proposal is sensible (includes third-person comparisons, “objective” information, reasonable speculation with reasons given, etc.).
- *Framing,* or *re-framing*, statements in first-person terms to own and claim one's intentions, hopes, etc.

- *Inquiring* into others reactions to what one has said, or inquiring more deeply about what they have said (invites second-person, intersubjective knowledge sharing).

The first two are encountered more often than the last two. The full range of variety—which engages all three "persons" required in integral dialog—is what we hope to encourage. Thus, our guidelines explicitly support the following modes of interaction and inquiry (explained in the next section): self-reflexivity, using affect (i.e., emotional experience) as feedback, authenticity/sincerity/transparency, multi-self perspectives, we-reflexivity, ideal role taking, contradictory perspectives, synthesis/transcending and including/metasystematic perspectives, balancing critique with appreciation and inquiry, and methodology reflection.

Open Forum Guidelines and Integral Dialog Guidelines

Our Guidelines are in two parts. First are *Open Forum Guidelines*, which are basic rules of the road for participants in all *Integral Review* online forums. Second are *Integral Dialog Guidelines* which more deeply support breadth, depth, and integration in knowledge building. We expect to host at least two types of dialogs: dialogs open to anyone, and more structured dialogs with limits on participation. All dialogs would be expected to use the Open Forum Guidelines, and structured or invited dialogs would be asked to also use the Integral Dialog Guidelines (or some variation on them tailored for the situation). One type of structured dialog involves inviting a small number of respected individuals to respond to a paper and dialog with the author (perhaps followed by an open dialog after the official closing of the structured dialog). Another type of structured dialog is to collect a small group of people who agree to more stringent rules of engagement, perhaps responding to a series of prepared questions or engaging in a sequence of divergent and convergent dialog phases.

How can you participate? With each *Integral Review* issue, and occasionally between issues, we will announce which articles (or topics) will have associated dialogs and will describe the guidelines for each dialog. Open dialogs may begin immediately, and anyone can post in their forums. Structured dialogs will usually have limited participation, will begin after leaving enough time for participants to read the article (usually several weeks), and will end after a pre-determined duration (usually 3-6 weeks). Some structured dialogs will have invited participants already chosen at the time of publication. For other structured dialogs we will ask readers to submit requests to participate (along with a little information about themselves) and will create one or more size-limited groups from the set of interested readers. A minimum requirement for non-invited participation is to be a member of the *Integral Review* e-mail announcements list (sign up on http://integral-review.org).

The *Open Forum Guidelines* are straightforward, and are included in the Appendix. Below we describe the *Integral Dialog Guidelines* in two parts. First are concrete "structure and form" suggestions. Second are "attitudes and perspectives" that are meant to set the tone of the dialogs, invite certain types of exchanges, and serve as a reference for meta-dialog aimed to self-correct dialog in process.

Integral Dialog Guidelines-1: Structure and Form of Posts

*Label paragraphs***:** (sequentially through the article/post, e.g., "1, 2, 3"; or hierarchically showing sections; e.g., "3.1.5"). This will help others refer to specific claims or ideas.

Use dialog labels: When useful, we suggest labeling statements or paragraphs with labels such as the ones suggested below, in CAPital letters in front of your statements or paragraphs:

> "FACT:" (or "INFO:"), "OPINION:" (or "HYPOTHESIS:"), "QUESTION:" (or "REQUEST") (to balance advocacy with inquiry and curiosity)

Other possible labels include: SUGGESTION (for how to proceed with dialog or other actions), APPRECIATION (to balance critique with acknowledgement), PROCESS (to discuss the process or tone of the dialog), ASSUMPTION (to identify your underlying beliefs or values), CHAT (to identify tangential posts such as "I second that idea" and "glad to see you here on this forum").

See the guidelines below for more ideas on models for labeling.

Integral Dialog Guidelines-2: Attitudes and Perspectives

Self-Reflexivity (and metacognition). Critically examine one's own values, assumptions, biases, and interests. Reflect on biases that may arise from culture, gender, power-dynamics, etc. (As appropriate, be transparent about these, see transparency below.)

Affect as feedback. Strong reactions, favorable or critical, to another's idea or style are invitations to look inward (with what David Bohm would call "proprioception of thought") and be alert to bias, projection, black-and-white thinking, and other contractions of thought. This is not to advise against vigorous language or strong claims, but a reminder that emotional states may contain important information about conscious or unconscious needs, values, or goals. Discovering the psycho-logic of our projected emotions can lead to self-knowledge-building. We do not suggest that it is always productive to communicate to others what one discovers in such introspection, but propose that it is worth paying attention to.

Authenticity/sincerity/transparency. Make a sincere effort to make known all information that could be relevant to the particular problem under consideration. This might include:

- One's true intentions, interests, needs, feelings, and desires.
- Relationship to the topic (experiences and level of expertise).
- Relationship to the author or participant one is commenting on.

Multi-self perspectives. Individuals are not usually "of one voice." One can explore contradictory internal beliefs; take up opposite sides of an issue; speak from multiple inner voices (e.g., the voice of compassion, the inner defender, the skeptic, the vulnerable child, the voice of higher awareness, etc. See Voice Dialog, and Big Mind Process at www.bigmind.org). One can speak from one's levels of needs/values from the Spiral Dynamics model, e.g., the purple, red, blue, orange, green, and yellow perspectives that arise within one. One can speak from the perspective of one's role, e.g., “in my leadership role as project manager I think… but as a parent of teens I think...and as your friend I think…"

We-reflexivity (and meta-dialog). It may be important to reflect on group relationships and process, to make "points of order," reflect on the quality of the dialog, or discuss the usefulness or meaning of these guidelines.

Ideal role taking. Attempt to understand the argument from the other's perspective. This usually requires a commitment to iterations of dialogue and learning. Making direct inquiries is recommendable, and spares guessing at another’s position. Usually, people welcome opportunities to explain what they mean. This process may require putting one's world view and cherished ideas aside (suspending) to try to enter into the world of the other (or open to a larger space of possibility). This hypothetical role taking can be of participants, or of various stakeholder groups.

Contradictory perspectives. Allow for paradox, ambiguity, and contradictory ideas, and attempt to look for and articulate the questions underneath.

Synthesizing/transcending and including/metasystematic perspectives. Is there a perspective from which the perspectives or "truths" on the table are all true in their own way? Does the complexity of the subject matter indicate that each may be appropriate or necessary in certain contexts (i.e., one size does not fit all)? Have all valid concerns been integrated into a conclusion (i.e., is the conclusion nuanced enough to be adequate)? What are the strengths, weaknesses, and differences among the various paradigms, theories, or worldviews converging in the conversation?

Balance critique with appreciation and inquiry. The cultivation of openness, contemplative "letting go, letting be, and letting come" can, without losing rigor, allow critique to turn into curiosity. Dialog can build upon the strengths in another's position as well as capitalize on the weaknesses in another's position.

Methodology reflection. There is no single or fixed set of criteria for evaluating claims or assertions. People judge the validity of each other's claims differently for different situations. (See methodological pluralism [Wilber, 2006], metaphorical pluralism [Lakoff & Johnson, 1999], and epistemic indeterminacy [Murray, 2006a].) The point is to try to differentiate and be explicit about how we make these judgments (i.e., distinguish various truth/validity/meaning-generating methodologies or criteria). There are many possible frameworks for these differentiations, including:

- Various truth-validating criteria, including: correspondence with objective reality; coherence with other things that are believed; the consensus of experts or group members; practical utility; the authority, legitimacy, or reliability of antecedent information sources. etc.
- From Habermas' validity claims framework: Is your critique about another's claim about its: comprehensibility, truth, moral or normative rightness/appropriateness, or the sincerity/honesty of the author?
- Wilber's information sources of "eye of matter, eye of mind, or eye of spirit;" or his 8 primordial perspectives and methodologies (including phenomenology, hermeneutics, structuralism, and empiricism).

Note that these guidelines are meant to be applied alongside (or over and above) more standard knowledge building values. We do not discuss them here, but precision, rigor, clarity, efficiency, accuracy, logic, and objectivity remain important to productive textual dialog. These more traditional values can be at odds with those implied above (and at odds with each other) and finding a combination parsimonious to each context is a matter of art and wisdom. (In Spiral Dynamics parlance one could say that we are supporting second tier methods of knowledge building, which must by definition transcend *and include* first tier methods.)

Conclusion

In the *Integral Review* forums, we assume that dialog has three primary purposes:

1. *Knowledge building*, i.e., the collective attempt to discover or create ever more adequate knowledge.
2. *Building social capital*, i.e., the community building and networking that occurs as people interact, get to know each other and accomplish something together.
3. *Deepening spiritual or transformational capital*, i.e., in the ways that one grows and develops from interactions with others with different perspectives than one's own, engaging in self-reflection and adaptation.

Online collaborative tools can support both the external behaviors and the internal skills that are needed for integral knowledge building, social capital building, and personal transformation (Murray, 2006c). Such tools and their associated protocols are not guaranteed to benefit every individual, but across a group of individuals a system of small interventions should create a noticeable change on average and over time.

There is a dialectic or reciprocal relationship between human technological artifacts and human development (see Collins, Shukla, & Redmiles, 2000; Vygotsky, 1978); indeed, in all of our human activity (Ross, 2005). The technologies that we create, and the activities we undertake, alter the environment that we operate within and end up creating us as much as we create them. This dialectic occurs mostly inadvertently (we create technologies and undertake activities to solve problems and meet needs, not to change ourselves) but it need not be unconscious. Digital technologies afford unique opportunities to consciously tailor the medium/environment of communication to support evolutionary processes. When imposed hierarchically such tailoring can seem like social engineering, but when created collaboratively it can be empowering and transformative. This is the “opportunity space” we hope to open up with *Integral Review* dialog forums.

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taught, researched, developed, consulted, and published on deliberative dialogical methods to increase capacities for effective analyses, decision making, and systemic action and public policy on complex social issues. Her interests include extending the use of The Integral Process For Working On Complex Issues and investigating how it can be converted to online technology. She is an associate author of Action Inquiry and founder and president of ARINA, Inc. She serves on the editorial boards of two international journals (Integral Review and the International Journal of Public Participation). She lives and works near Cincinnati, Ohio.
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Appendix—Open Forum Guidelines

1. *Use real identities*. All participants are asked to use their real names, no anonymous posts or pseudonyms, please. Include contact information (email and/or home page) in posts.

2. *Be respectful*. Maintain a safe container for the expression of views and the emergence of creative collaboration.

- No attacks or threats. Avoid rumors. Respect those with differing views.
- Respond respectfully to suggestions from designated online facilitators/moderators.

3. *Stay on topic*. Help the forum stay focused and easy to follow.

- No advertising.
- Keep to the focus of the forum in general and the topic specifically.
- (Brief mention or links to of-topic items allowed in the context of on-topic conversations).
- Try to be brief and to the point--or at least *include a summary* of your points at the top of your post.

4. *Cite sources* for facts, e.g., reference books, newspapers, web sites, etc.

5. *Be curious, creative, and open to change.*

- Seek to understand other peoples' perspectives, visions, and needs. Focus on underlying needs rather than specific strategies.
- Be open to the possibility that the experiences of others may transform your opinion.
- Creatively explore strategies that meet as many needs as possible.
- Don't just critique, offer positive alternatives.

6. *Notice, question, and clarify assumptions*. Reflect on possible biases you may have. Help others clarify theirs.

7. Differentiate *facts*/information from *opinions*/ideas/values/needs. Diverse opinions, ideas, and needs are natural and encouraged, but try to identify "facts" that all can agree upon.

Tomorrow’s Sunrise – A Plea for the Future
You, Me and We

Barbara Nussbaum

Written in Santa Barbara,
Near the Brown Pelican Restaurant, Cliff Road
Inspired by Thich Nhat Hanh
Dedicated to Timothy Conway, spiritual teacher

I am the beach open and receptive
Hearing the waves, seeing the birds, enjoying the dogs,
Taking in the rhythm and energy of all I see and feel

We are the excited crests of the sea's waves
Crashing with surprised delight, Unfolding
Releasing life’s exuberant flow gently on the beach

I am the solitary resilient tree trunk
Washed ashore with no roots,
No leaves, no branches and no fruits

We are the confident sea gulls
Flying high with graceful certainty and Joy
Soaring, at times, darting down sometimes, with no clear focus

I am the cluttered pile of debris
Resting on the beach with no obvious pattern
Random wooden shapes that may please the aesthetic eye of a beachcomber

We are the dogs romping freely, flirting
With the waves’ white froth, and delighting
In our repeated forays in and out of the ocean

I am the husky puppy on a leash
Reluctantly being pulled by the owner
Wanting to go home before I am ready to leave

We are the Javanese poodles at the beach restaurant
Enjoying the prawns fed to us by our owner
Oblivious to what other dogs may or may not be eating - elsewhere

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I am the solitary person with my dogs
Delighting in the comfort and joy they bring me
Sometimes wishing that I had a real human being for a companion

We are the carefree 10 year old girls, wearing yellow helmets
Riding scooters on the pavement for fun
Unaware of other children walking five miles to school in Africa

I am the pure sound of the ocean
Loud, passionate and clear
Simply enjoying the way life is

We are the surfers, braving the waves
Sometimes standing, perfectly balanced on the board
Sometimes falling and laughing - ready to try again

I am the gentle wind, carrying the scent
Of the fresh salty seas,
Cooling the faces of the beach's visitors

We are the collective power of the waves
The serene silence of the sea, the tide gently reaching out
To mother earth and each other

I am the sun, shining with full brilliance
Illuminating the ocean in moving diamond shapes
Bringing warmth and radiance to all

We are the devoured prawns,
The unconscious dogs, the well intentioned beach visitors
We are Santa Barbara’s children

We are Africa’s children
Embracing the sun’s gentle light reflected on the ocean at sunset
Hoping that tomorrow’s sunrise, brings compassion to the world.

Barbara Nussbaum *is a writer and currently works at CIDA City Campus in Johnnesburg, South Africa, where she teaches in a masters programme on Social and Economic Transformation. She is passionate about ubuntu, which is a South African indigenous word for our common humanity. Her writings about ubuntu can be accessed on her website: www.barbaranussbaum.com.*
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Four Days in France[1]: An Integral Interlude

Tam Lundy

A Call to Home

When the invitation came, I knew I had to go. A professional gathering on international development, sponsored by Integral University (IU). Like the theory that informed it, the event was itself a bit of a groundbreaker, the first that IU has offered. And so I went, to meet others who are cheerfully greeting the challenge to apply integral theory in practical ways.

Four days in the south of France. In Perpignan, a medieval city on the edge of the Pyrenees. Mediterranean air and ambiance. Palm trees and pink marble sidewalks. The crossroads of French and Catalan cuisine. A traveler's dream. But I was there for the talk. Integral talk.

In Canada, I work in British Columbia (BC) with BC Healthy Communities, a province-wide initiative whose mission is to foster health, well-being and healthy development in communities throughout British Columbia. Over the past year, in my role as Education and Development Coordinator, I have introduced the integral model as a helpful framework to guide our thinking and our practice. And, while community development practitioners and policy makers alike have expressed interest and resonance, there is still much to learn about its practical application. Since this work can be lonely at times the opportunity to talk to colleagues was like a call to home.

And so, in pink and palm treed Perpignan, I spent four days in an integral huddle. My companions and I explored and expanded theory, shared problems and potentials, invited insights into the projects we're involved with, and pushed the edges of our own thinking and practice. As happens when misfits come together, community was quick to coalesce. And the rudiments of an international network took root. It was a good beginning.

The Incredible Thickness of Theory: A Celebration

Integral seminars typically begin with a "theory day"—an opportunity for participants to revisit and review the theoretical foundations of Ken Wilber's integral framework. Recently, Ken's work has itself evolved, from that body of work that has come to be known as "Wilber-4" to the newer material that has emerged with the writing of Integral Spirituality, now acknowledged as "Wilber-5."

Wilber-4, of course, laid the theoretical foundations known as AQAL: all quadrants, all levels, all lines, all states, and all types. Framed by four quadrants, AQAL posits four basic perspectives: interior, exterior, individual and collective. Wilber-5 goes further. While preserving the four native perspectives from which we view the world and experience reality arising (UL, LL, UR, LR), Wilber-5 expands the AQAL map to include eight basic perceptions, or zones. Each zone guides inquiry into the *inside* and *outside* view of the phenomena arising in each quadrant. Participants observed that, weaving together research methods that effectively address

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[1] "A Charette for Dialogue, Innovation, and Visioning" Integral International Development Centre, Integral University. October 15 – 18, 2006. Perpignan, France

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each zone, integral methodological pluralism becomes the paradigmatic foundation from which a truly integral inquiry can proceed.

Next, we leapt into discussion of other important theoretical contributions of Wilber-5. We explored “altitude,” a holarchic measure that describes stage attainment in *all* lines of development. From there we investigated the notion of a “Kosmic address:” the location in the AQAL matrix from which phenomena arise (for example, attitudes, behaviours, social structures, worldviews). The concept of a Kosmic address helps to shine light on the notion that fundamental realities exist independent of co-created social and cultural contexts, making the “myth of the given” harder to uphold. We also reviewed the Wilber-Combs Lattice, clarifying that transpersonal *states* of consciousness can be experienced at any *stage* of development, and that state experiences will be interpreted according to the stage from which they were experienced. This, of course, adds depth to the way we interpret our everyday experiences, even while it expands perspectives on the concept of enlightenment.

We also took some time to explore a topic that continues to confuse and perplex: the relationship between individual and social holons. Examined closely, say some, social holons cannot really be classified as holons at all. As Fred Kofman explains, to qualify as a holon an entity must possess an interior dimension and an exterior dimension, each arising in cultural and systemic contexts.[2] In other words, a holon possesses sentience. We noted that, while individuals possess sentience, a group does not. Rather, while a group or society—as an aggregate of individuals (or holons)—possesses intention and will, these agentic qualities cannot be assigned to the group itself. Groups and societies possess a dominant discourse, not a dominant monad. A clear understanding of the relationships and dynamics among individual and social holons is particularly important for practitioners whose work is centered in the realm of culture (LL) and social systems and structures (LR). We concluded that additional work, both theory building and practice-shaping, is needed in this area.

Integral in Action: Stories from the Edge

This headlong dive into theory helped to frame the discussion that unfolded over the next few days. Our stories drew on a broad range of educational and professional experiences, as economists, lawyers, engineers, geographers, historians, university professors, and as consultants in such diverse fields as international development, business, sustainability, community development, and resource management. Our organizational affiliations were equally diverse, including the World Bank, UNDP, the Inter-American Development Bank, universities, the private sector, various levels of government, and a variety of international and domestic NGO’s. And while our native and learned languages included English, French, Vietnamese, Spanish, Turkish, Estonian, Dutch, German, Russian, Finnish and Kiswahili, there was another language that united us: integral.

Amidst such diversity, it was shared language and concepts that helped us to see patterns amongst the myriad of ways that practitioners are using the integral model in their work-in-the-world. We learned about initiatives that are applying the integral framework in community building initiatives on many continents; these stories took us as far afield as Scotland, Georgia, South Africa, Ethiopia, Nigeria, Bolivia, Venezuela, El Salvador and Canada. And further.

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[2] Kofman, Fred. “Holons, Heaps and Artifacts.” Available at: http://www.integralworld.net.kofman.html

We heard about initiatives that are creating integral knowledge networks, mapping indicators of sustainability and well-being, promoting ethical leadership, building healthy community, teaching sustainable development, managing large-scale economic development projects, and addressing trauma in post-war societies. But while the contexts differ, our stories had a common theme: the promise and potential that an integral perspective brings to the global need for positive change.

Inviting Inquiry and Insight

This promise and potential for positive change was explored further as we broke into small conversation groups. A modified World Café format gave us an opportunity to deepen our dialogue and apply our shared knowledge and experience to emergent and urgent global challenges. Small groups addressed a range of topics arising in earlier discussion: promoting healthy human development, integral responses to HIV/AIDS, leadership in African contexts, and the question of self-other boundaries (no boundary?) in international development work. Conversations were far reaching, seeking practical responses to perplexing problems, as well as the roots of those problems and the dynamics at play within complex issues.

We began to notice certain threads of inquiry that popped up throughout our time together. For those who introduce integral approaches to others, a common question relates to the wisdom of presenting the complete integral framework (AQAL), or a more subtle approach—focusing on quadrants, for example—an approach affectionately known as “integral lite.” And when is it appropriate to invite integral exploration without using the term at all?

Another thread of inquiry led to the observation that in development work, as in most other disciplines, the primary emphasis is on *doing*. In a modern professional landscape, it is our doing that is measured, and it is our doing that is rewarded. But integral theory reminds us of the importance of *being*. And of *becoming*. Seen through an integral lens, our actions are intimately related to our own developmental achievements and the evolving perspectives that they engender, including our perspectives on the relationship between self and other. For instance, developmental activity will look different when it is informed by a sociocentric perspective than it will when it is carried out from a worldcentric perspective. And healthy sociocentric perspectives are necessary foundations for an eventual shift to healthy worldcentric perspectives. Therefore, effective and sustainable development work will pay attention to human development—to being and becoming—not only in the people and communities we work with, but in ourselves as practitioners. Most importantly, perhaps, our developmental attentiveness will be most effective when it includes personal and collective shadow work. Hmmm.

Random Reflections

Our four days have come to a close. We share final thoughts, pose for pictures, and make plans to meet again. Istanbul next year? Yes!

What do I bring home with me? First of all, an awareness that the work I do has a lot in common with the work of my colleagues in other parts of the world. Like Adriana in El Salvador, Yene in Ethiopia, and Will in Australia, my work fosters health, well-being, and healthy development in people, in communities, in regions, in countries. Like Nick in Scotland, William in Canada, and Paul in Egypt, my work attempts to address *all* of the factors that influence health, well-being and healthy development: social, economic, environmental, physical, psychological, spiritual and cultural. Responding to the realities emerging in different corners of the globe, the details might look different but the work is the same. And with an integral map to guide this work, with integral concepts and language to deepen the discourse, the inquiry will continue and the insights will grow.

I also bring home a renewed commitment to use integral language and concepts in my development work in Canada. Some important foundations have already been laid. For example, BC Healthy Communities has adopted an integral capacity building approach, one that addresses the whole person within the whole community. As our website[3] explains, “an integral lens helps us to see important interconnections among people, organizations, and sectors. An integral lens also helps us explore the complex relationship between human activity and the environment. And it helps us to address the interconnections among the multiple determinants of health, well-being and healthy development.

An integral approach to capacity building recognizes that community has four dimensions: individual and collective, interior and exterior. Our Integral Capacity Building Framework and the Integral Map of Community work hand-in-hand, stressing the importance of paying attention to each of these dimensions. With an integral approach, we can unify what is often a fragmented approach to community building, making a bigger difference, a more sustainable difference.

While communities are becoming increasingly aware of the complexity of the issues that they must address, they are less certain how to address that complexity. The integral framework offers a simple yet comprehensive logic model to guide planning, policy making, practice and evaluation. As Albert Einstein so famously said, “we can’t solve our problems at the same level of thinking with which we created them.” The integral model can assist communities to take their thinking and actions to the next level.

Finally, I came away with the insight that integral is only as good as we make it. While it remains a theory, it lives in our heads. When it becomes embedded in our day-to-day practice, it lives in our hearts and hands. Engaging head, heart and hands with integral intention will go a long way toward taking community development work to the next level of thinking and action.

This is our potential. And it is also our learning edge. With the integral framework as both a research and practice paradigm, we will make small experiments, strategic forays into less familiar territory. With the integral framework as a guide, we will make learning and action parallel priorities. We will examine community change contexts in all their complexity, engage dual powers of critical thinking and inner reflection, dig into our deepest wisdom, step back a little to allow next steps reveal themselves. Then, with renewed insight and intention, take brave actions in the direction of our dreams.

Tam Lundy, PhD*, is a consultant, educator, and mentor in the field of human and social development. She has worked extensively with communities and with government, offering leadership and support in capacity building, community consultation and engagement, team and network development, and in planning and evaluation. Tam brings an integral thinking and practice approach to her work as Education and Development Coordinator at BC Healthy Communities. Integrally-informed resources adopted by BCHC include Tam’s* Integral Capacity Building Framework *and* Integral Map of Community*; they can be viewed at* *www.bchealthycommunities.ca*.
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[3] www.bchealthycommunities.ca

Rationale for an Integral Theory of Everything[1]

Ervin Laszlo

There are many ways of comprehending the world: through personal insight, mystical intuition, art, and poetry, as well as the belief systems of the world's religions. Of the many ways available to us, there is one that is particularly deserving of attention, for it is based on repeatable experience, follows a rigorous method, and is subject to ongoing criticism and assessment. It is the way of science.

Science, as a popular newspaper column tells us, matters. It matters not only because it is a source of the new technologies that are shaping our lives and everything around us, but also because it suggests a trustworthy way of looking at the world—and at ourselves in the world.

But looking at the world through the prism of modern science has not been a simple matter. Until recently, science gave a fragmented picture of the world, conveyed through seemingly independent disciplinary compartments. Even scientists have found it difficult to tell what connects the physical universe to the living world, the living world to the world of society, and the world of society to the domains of mind and culture. This is now changing; ever more scientists are searching for a more integrated, more unitary world picture. This is true especially of physicists, who are intensely at work creating "grand unified theories" and "super-grand unified theories." These GUTs and super-GUTs relate together the fundamental fields and forces of nature in a logical and coherent theoretical scheme, suggesting that they had common origins.

A particularly ambitious endeavor has surfaced in quantum physics in recent years: the attempt to create a theory of everything—a "TOE." This project is based on string and superstring theories (so called because in these theories elementary particles are viewed as vibrating filaments or strings), and it uses sophisticated mathematics and multidimensional spaces to produce a single equation that could account for all the laws of the universe. However, the TOEs of string theorists are not the definitive answer to the quest for a unitary world picture, for they are not really theories of *every*-thing—they are at best theories of every *physical*-thing. A genuine TOE would include more than the mathematical formulas that give a unified expression to the phenomena studied in this branch of quantum physics; there is more to the universe than vibrating strings and related quantum events. Life, mind, and culture are part of the world's reality, and a genuine theory of everything would take them into account as well.

Ken Wilber, who wrote a book with the title *A Theory of Everything*, agrees: he speaks of the "integral vision" conveyed by a genuine TOE. However, he does not offer such a theory; he mainly discusses what it would be like, describing it in reference to the evolution of culture and consciousness—and to his own theories. An actual, science-based integral theory of everything is yet to be created.

A genuine TOE *can* be created. Although it is beyond the string and superstring theories in the framework of which physicists attempt to formulate their own super-theory, it is well within the scope of science itself. Indeed, the enterprise of creating a genuine TOE is simpler than the attempt to create a physical TOE. Physical TOEs endeavor to relate together all the laws of

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[1] Excerpted from the enlarged and updated edition of the author's *Science and the Akashic Field,* to be published by Inner Traditions International, Rochester, VT. (February, 2007).

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physics in a single formula—laws that govern interactions among particles and atoms, stars and galaxies: many already complex entities with complex interrelations. It is simpler, and more sensible, to look for the basic laws and processes that *give rise to* these entities, and to their interrelations.

The computer simulation of complex structures demonstrates that complexity is generated, and can be explained by, basic and relatively simple starting conditions. As John von Neumann's cellular automata theory has shown, it is enough to identify the basic constituents of a system and give the rules—the algorithms that govern their behavior. A finite and surprisingly simple set of constituents governed by a small set of algorithms can generate great and seemingly unmanageable complexity merely by allowing the process to unfold in time. A set of rules informing a set of constituents initiates a process that orders and organizes the constituents in time, so that they create more and more complex structures and interrelations.

An integral TOE identifies the constituents of "every-*thing*" and states the rules by which the constituents relate to each other so as to form ever more complex things. It identifies the most basic kind of things that exists; the things that generate other things without being generated by them. Then it states the simplest possible set of rules—algorithms—that explain the emergence of the kind of things we have reason to believe exist. If it succeeds, it will be capable of explaining the origins of every-*thing* in the real world, together with the kind of relations that prevail among them. By extrapolating into the future, it will also be able to explain the kind of developments that are likely to occur: how the existing things transform their relations to each other in time, and transform themselves in the process.

The new physics gives us the basis on which this ambitious enterprise can be attempted. Using the findings of cutting-edge particle and field theories, we can identify the foundation out of which all things are generated without itself being generated by other things. This foundation is the virtual-energy sea known by the name of *quantum vacuum*. We can also draw on a large repertory of laws that tell us how the primary constituents of reality—the particles known as quanta—are generated in, and arise out of, this cosmic foundation.

The currently known laws by which the existing things of the world are generated from the cosmic vacuum are laws of interaction based on the transfer and transformation of *energy*. These laws turn out to be adequate to explain how real things—in the form of particle-antiparticle pairs—are generated in and emerge out of the quantum vacuum, but not how in the course of cosmic eons the surviving particles become structured into more and more complex things: galaxies and stars, atoms and molecules, and on suitable planetary surfaces also into macromolecules, cells, organisms, societies, ecologies, and entire biospheres. In order to account for the ongoing, if by no means smooth and linear, evolution of the existing things, we need to add an element of interaction that is additional to energy. The importance of this additional element is now recognized by more and more scientists. It is *information*—information as a real and effective factor governing evolutionary processes in all segments and domains of the known universe.

Most of us think of information as data or what a person knows. But the reach of information is deeper than this. Physical and life scientists are discovering that information extends far beyond the mind of an individual person or even all persons put together. It is an inherent aspect of both physical and biological nature. The great maverick physicist David Bohm called it "in-formation," meaning a process that actually "forms" the recipient. This is the expression we shall use here.

In-formation is not a human artifact, not something that we produce by writing, calculating, speaking, and messaging. As ancient sages knew, and as scientists are now rediscovering, in-formation is present in the real world and is a decisive factor in the evolution of the things that furnish the real world. When we recognize that “in-formation” is a real and effective factor in the universe, we obtain the basis for creating a genuine “integral TOE.”

The concept of an in-formation- and energy-imbued universe, building itself from simpler beginnings to ever-higher peaks of complexity, is thousands of years old; it has cropped up again and again in the history of thought. It merits being known not only by scientists, but by everyone. First, because it is the key to creating an integral TOE, one that, though not the final word, brings us closer to understanding the fundamental nature of all the things that exist and evolve in space and time, whether they are atoms and galaxies, or mice and men. And second, because the in-formation- and energy-imbued “in-formed universe” is a meaningful universe, and in our time of accelerating change and mounting disorientation we are much in need of a meaningful view of ourselves and of the world.

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Book Review

Harter, N. (2006). *Clearings in the Forest: On the Study of Leadership*. West Lafayette, IN: Purdue University Press.

I spent many years studying leadership as the focus on my graduate education, and have encountered many attempts to describe both leadership and what the study of it is about. My experience of most of that literature was usually disappointment, as authors tended to try more to answer the question than to understand its scope and context. The drive to "know" the subject, to be an "expert" in order to fulfill various motivations or needs, or even the desire to report on research and study that proved useful in certain contexts all left me with a kind of dissatisfaction that the scope of the question, the basis for knowledge, the rigor brought to bear was insufficient to the nature of the subject.

In that context, I recently read Nathan Harter's *Clearings in the Forest: On the Study of Leadership* and found myself pleased to be guided on a journey that spent far more time orienting me to the scope and nuances of this field than placing stakes in the ground to assert positions. Harter's metaphor of taking a walk in the forest, going down into its valley to explore the experience of leadership, and then ascending the slopes along well chosen paths that illuminate the meaning of leadership, helps the reader avoid being unable to see the forest for the trees.

It is this level of Harter's capacity to situate the reader in relation to the subject, both at the level of the entire book, and as he focuses on each specific topic, that brings an integral flavor to it. For instance, at the valley bottom he explores the role of image and imagination in leadership in a way that shows how it goes beyond the limitations of theoretical or symbolic approaches. Then, on the way up the slopes, he chooses a path of examining leadership as a sociological form, noting different qualities of the form, structures it can take and the conditions that it arises in. He begins with simple examples, and moves on to explore more and more complex ones. Examining this complexity, he notes:

> In other words, after taking hold of one little strand in the great ball of reality, we shall have isolated the role of imagination – a nearly transparent moment in human experience – and placed it in larger and larger contexts, by a process of synthesis, until very nearly reaching world-historical patterns of continuity and change (p. 147).

Harter's work is not superficial. He utilizes elements of pragmatism and phenomenology and digs deep into epistemological issues inherent in the study of leadership. At times the reader may wonder where he is going, if he is not lost in his own forest. But some patience and perseverance rewards the reader with a perspective that shows these elements—pragmatism and phenomenology—to be critically involved in such study. Approaches that do not take sufficient account of them are bound to lead to the kind of disappointment I alluded to earlier.

While this is not a traditional approach to examining leadership and its study, Harter does tackle some of its sticky issues, including notions of power, elites, and ethics. Near the end, he

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introduces a relatively obscure framework[1] for introducing the notion of verticality as a way to situate different elements of leadership. This move adds a further element of an integral approach. And the ever evolving nature of an integral approach to the topic is reflected in his closing comments about the study of leadership.

> I have decided that the ambivalence, uncertainty, and "dim perception of the future" that Thompson worries about are inherent, part of the constitution of our study, never to be resolved—at least not without distorting reality. That is my tentative position (p. 186).

Allowing Nathan Harter to be your guide on a journey through the forest of leadership studies is not for the faint of heart, or for those looking for definitive answers on key questions. It is a rigorous hike, rewarded at the top with a view that takes in the whole forest. Standing here and gazing out, I feel the kind of satisfaction that comes from having a view that integrates the breadth and depth of the landscape.

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[1] You can find a description of this framework in issue #2 of *Integral Review*, in Harter's article *Voegelin's Ladder*

The Map, the Gap, and the Territory

Bonnitta Roy

Introduction

Two recent articles by Matt Rentschler posted at Integral University Presents,[1] combine to give the reader examples of how one can take up any given theme, in this case art, and codify it into an AQAL[2] framework. In the first article, *Introducing Integral Art,* Rentschler fits various art "styles" into corresponding quadrants according to the perspectives which generate the styles. In the second article, *Understanding Integral Art*, he describes how the artist can improve his/her self and art, as well as the potential of having the Muse visit more often, by simultaneously working on all lines of development. Alternately, the art critic can apply the AQAL framework and its concept of development along lines, levels, states, types, to improve his/her critical analysis of the author and the work. The overall result is a kind of AQAL primer on art. I have tried reviewing it on those terms—as a simple primer written to introduce the reader to the AQAL model.

Still, Rentschler reminds us that it is important to distinguish an AQAL map of art like the one he is presenting, from the actual territory, "art." But while these two articles demonstrate that Rentschler has a clear understanding about the categories that prescribe the AQAL model, he seems to be unable to make clear distinctions about those "other regions"—the territories—art, integral art, art interpretation, integral art interpretation. There are three major distinctions that I think are germane to his articles, namely:

1. The making of an AQAL meta-map, which requires the systematic arrangement of previous interpretations according to the AQAL model;
2. The exploration of the territory "art," which requires what I call *"gap-diving" into the territory* and reporting back;
3. The elucidation of Integral Art, which requires the "gap-diver" to explore the territory in completely new, a-perspectival ways of seeing, thinking and experiencing, and reporting back in terms of what Gebser[3] calls "a new form of statement."

The making of meta-maps

While there is a certain utility in organizing large amounts of knowledge in a generalized framework, in order to situate the reader with respect to the material, or to orient the reader with respect to the author's own perspective, there is also a great deal of over-simplification that comes with the kind of systematic generalization it requires—oftentimes reducing rich ideas and

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[1] Both articles can be downloaded from http://multiplex.integralinstitute.org/Public/cs/files/35/integral_art/default.aspx

[2] AQAL is an acronym coined by Ken Wilber, corresponding to All Quadrants All Lines, ideas used in his work.

3 Gebser (1985, p. 308)

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complex human endeavor to conveniently distributed categories. This is the kind of approach that produces textbook primers, like those sweeping books on art history that introduce students to the various “art-isms:” expressionism, formalism, romanticism, neo-romanticism, and the like.

Rentschler’s article demonstrates how we can re-align these convenient judgments into AQAL terms. My sense of this, however, is that by doing so we are creating, as it were, a map *twice-removed from the territory.* It seems to me more valuable to describe how those primers failed us in the first place by giving us the impression that entire realms of human endeavor can be easily codified in such convenient terms as “expressionism” or “formalism” *because* they limit their interpretation to mono-logical domains.

It also seems to me that it would be more valuable to re-examine the actual territory, and look with new eyes—eyes that are liberated from the previous modes of interpretation that by *delimiting experience into categories, also limit our experience to those categories.* Not only to reiterate the subjective (in AQAL shorthand, the upper left or UL) aspect of Expressionism, for example, but to show how even Expressionism, which is conveniently judged to be an UL enterprise, is inextricably constituted by, and inimically interweaves itself into, all the other domains. To show that the convenient but partial truth about Expressionism is “it is UL;” but the inconvenient truth about Expressionism, as with all human endeavors, is the constant confronting and testing of limits, stretching and smashing of boundaries—creating and destroying interpretations *all at once.* No art, no artist, no enterprise, no idea, no methodology is ever situated in just one quadrant—however convenient to categorize them in such a way. It seems to me that an Integral approach on Expressionist artists would be to show how the regions of their minds, their work, their culture, their world, are in constant dynamic relationship, continually testing and crossing the tentative boundaries between domains of understanding and spheres of meaning. Doing this would, I believe, help us get closer to their territory.

Gap-diving the territory

Rentschler warns us, toward the end of the second article, “The map, however, should not be mistaken for the territory; the model should never get in the way of the Muse.” The point, well taken, is that there is a gap between the map and the territory, the model and the Muse. Moreover, we *realize there is a gap.* Furthermore, for the first time in history we have the ability to create meta-systemic maps to describe the gap. However, Rentschler’s article is supposedly about art, supposedly about the territory that is art—and therein lays the confusion. These articles are not actually about art, they don’t actually *go there, into the territory*. These articles are exercises in AQAL map making.

To write authentically *about any territory,* such as “art,” one has to *go there*—to take a dive into that gap, plunging toward the territory as deep and as far as one can let oneself go. To extend the metaphor, we have to dive for as long as we can hold our breath—which is the suspension of making convenient interpretations for as long as it takes to touch bedrock. And then—and only then—are we qualified to report back. What was it like? How deep did you go? What did you discover? Did you touch the face of the Muse? “Go on,” I want to shout out to Rentschler, “dive in. Be a gap-diver!”

It is terribly difficult to be a good gap diver. For this we have the words of greater thinkers and writers, greater artists than ourselves. Here are some examples of writing from the territory:

> To be an artist, you need a teacher. And it is for this reason, above all, that I began collecting carpets. Many years ago I began to realize that carpets had an immense lesson to teach me. That as organized examples of wholeness or oneness in space, they reach levels which are only very rarely realized in buildings. I realized, in short, that the makers of carpets knew something which, if I could master it, would teach me an enormous amount about my own art.[4]

> The Chinese sage said that one must grow with the tree. I know nothing truer. … By entering into the object one comes into one's own … and in the work, I found myself.[5]

> In this way the Kimberly rock art of the past has been incorporated within an interpretive schema of the present: the Wandjina on the one hand, repainted again and again over time *becoming one with the present*.[6]

> It is possible—even probable—that a growing, evolving awareness may hold sway, and a society may come to exist in which the integrated, unified relation to the world, in which individual feeling, the form of the world, and the feelings of others, are woven together in a less and less broken whole. *There [must be]… a direct connection between the living structure of the world and the achieved person-ness we experience in ourselves.*[7]

> But sensing that nothing opposes it—supposing that there are also lines and forms as well as colors on the other innumerable planets and suns—it would remain praiseworthy of us to maintain a certain serenity with regard to the possibilities of painting under superior and changed conditions of existence, an existence changed by a phenomenon no queerer and no more surprising that the transformation of the caterpillar into a butterfly, or of the white grub into a cockchafer. The existence of painter-butterfly would have for its field of action one of the innumerable heavenly bodies, which would perhaps be no more inaccessible to us, after death, than the black dots which symbolize towns and villages on geographical maps are in our terrestrial existence.[8]

> Nature is not at the surface but in the depths, and colors are expression of this depth at the surface; they surge up from the roots of the world.[9]

Or we might look to traditions like Japanese calligraphy, where the ink, the painter, the painting, the environment, the past and the present pivot on the here and now, gathering in a field of opening in a moment of ripeness.

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[4] Alexander (1993, p. 15)

[5] Matisse, quoted in Neret (2002, p. 85)

[6] Morphy (1998, p. 59)

[7] Alexander (2004, p. 265)

[8] Van Gogh, quoted in Erickson (1998, p. 168)

[9] Cezanne, quoted in Gebser (1985, p. 486)

Integral Art

In his seminal work *The Ever Present Origin,* Jean Gebser points out a critical distinction between the Rational Level tendency to codify perspectives, that is to arrange any number of perspectives according to their relations in systematic terms (aka, making maps) and the Integral Level which goes beyond the mapping of perspectives, beyond even the making of perspectives, into thinking and experiencing in *a-perspectival ways*. This is a difficult idea to come to terms with if one has already relegated (in one's mind, through various exercises) all of the territory to a map of perspectives. If we have trained ourselves to see everything and everywhere through AQAL eyes, how can we understand the meaning of a-perspectival, or ever come to accepting such a possibility of a-perspectival thinking and experience? The significant question I have then, is how do we get from where we are, to *Integral*; from AQAL to A-perspectival? According to Gebser, we need a new form of statement:

> If we do not decide to risk "upsetting" some persons and things, and indicate the inadequacy of systems with their categorical rigidities, we will not be able to approach the new world reality. … [There] is a clear indication that the qualities of time which are today pressing toward awareness cannot be expressed in mere categorical systems. …We are compelled, in other words, to find a new form of statement.[10]

As Integral writers, we need to be experimenting with new forms of statement. As integral thinkers, we need to go beyond the very horizons of thought and experience we have just recently come to define. Here is where Integral Art comes into play. Every age has their artists to forge the way into the next, to pierce through all our convenient truths into uncharted territory. We need only to be open to what they have to show and tell, despite the dissonance in us it might create, and in spite of all of what we know.

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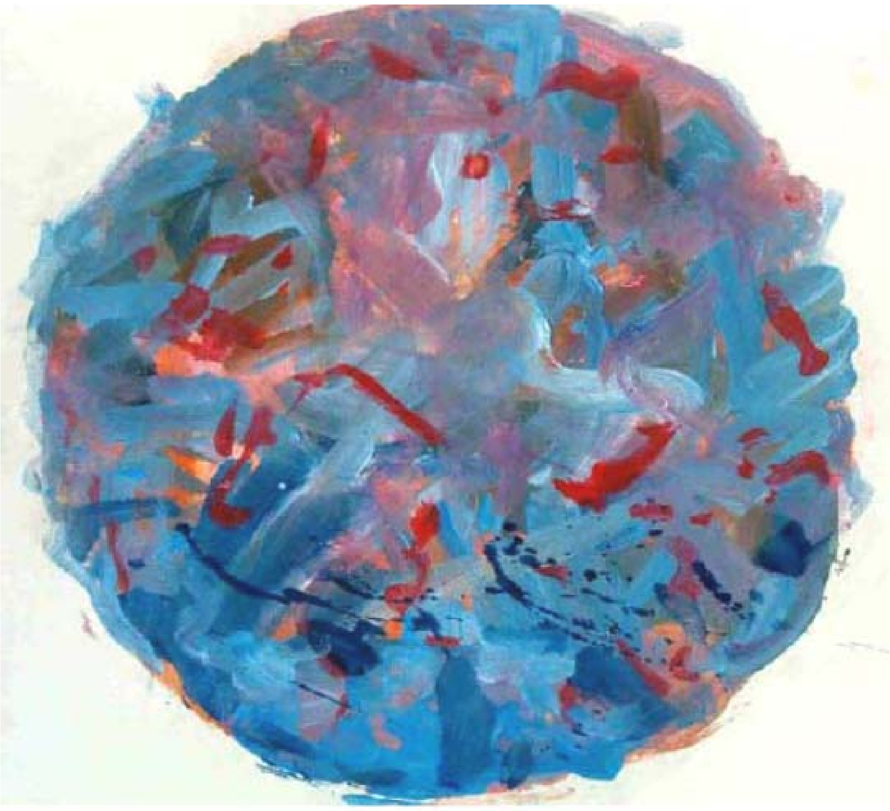
[10] Gebser (1985, p. 308)



Gently Gently Gently

Acrylic on canvas, mounted on paper, 30cm diameter.

Andrew Campbell

The Dance Integral

Picasso wrote that there is no abstract art.

> You just always start with something. Afterwards you can remove all traces of reality. There is no danger there anyway, because the idea of the object will have left an indelible mark. It was what started the artist off, excited his ideas, and stirred up his emotions. When I paint a picture I am not concerned with the fact that two people may be represented in it. Those two people once existed for me but they exist no longer. My vision of them gave me a little emotion, then little by little they became for me a fiction, and then they disappeared altogether, or rather they were transformed into all kinds of problems, so that they became for me no longer two people but forms and colours - forms and colours which nevertheless resume an experience of two people and preserve the vibration of their life (1972, p. 64).

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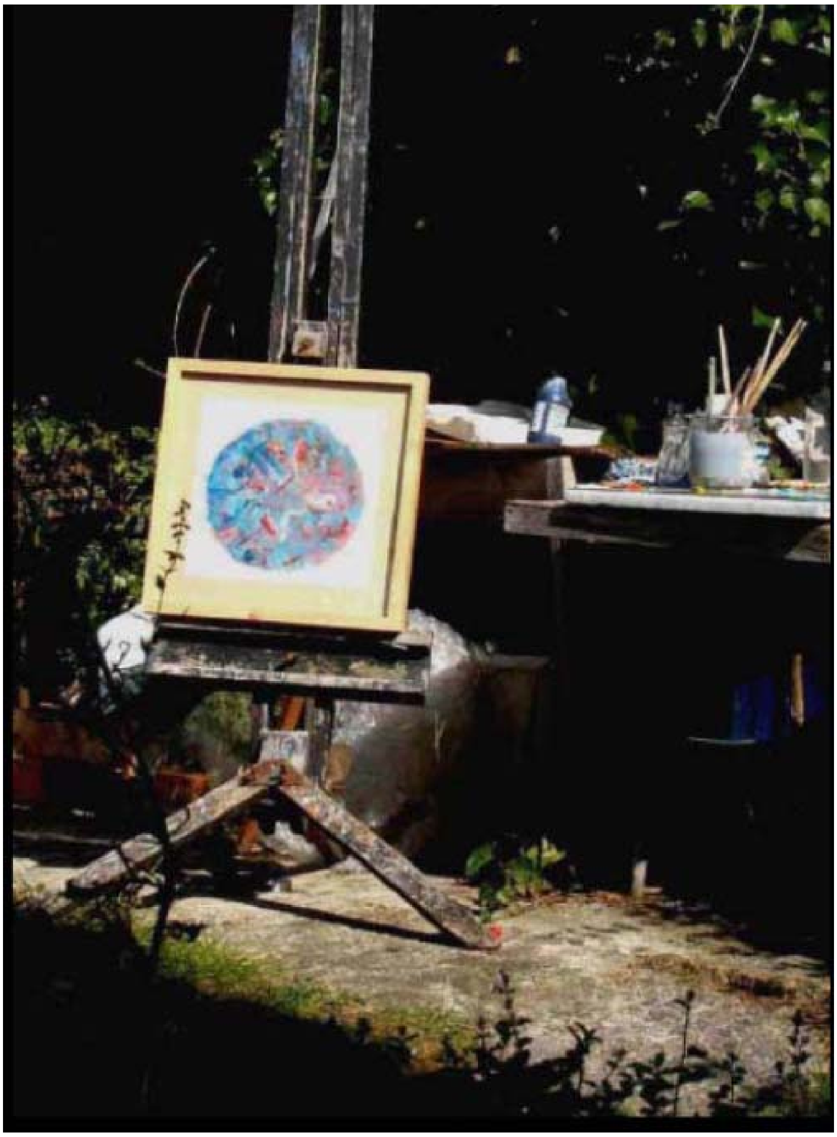


The Painting Table, garden, North Moreton, summer 2006

In the Rich Vibrating Ground

In 1998 I facilitated a three day programme with a group of people; among them was the wife of a wealthy property developer. To give an idea, in 2003-4 he paid himself a salary of 22 million pounds sterling. This young and beautiful woman came up to me in a session break, just prior to my workshop. She briefly explained that she had trained at art school, but had since lost her creativity, despite having a wonderful studio in London. She was, she said, facing the prospect of 'painting' with some dread and anxiety.

I told her about my first teacher, Leonard McComb RA who had, at the age of fifty, destroyed a lifetime's work, describing it as 'frozen.' He then had a moment of metanoia, while 'copying' a small JMW Turner in the National Gallery, a study of 'Mackerel' - seeing, for the first time the way that he had 'captured light' through placing tiny speckles of 'china white' into the translucent ground. His images then 'grew' over a period of years from these small, strangely-incredibly lighted applications of watercolour to ground—sometimes making subjects appear as ephemeral ghosts, transparent. Often he would flick random paint onto the surface, as he worked. The paradox was that they became more stilled, more monumental within the disturbances. So, I suggested she take the water and the paper and *paint with no colour,* since this would have a liberating effect in several directions. I spoke about the way that the water would bring the paper (dead tree fibres) back to life, and it would buckle as if in memory of its own water born life ;-). Liveness essentiality . . . becoming-being. As the conversation progressed, I shared with her that I had no children, and that I had a dog, called Bucket. And that Bucket would curl up and sleep with me, nestling as if he were a child in a womb.

During my workshop on that occasion, I told her and the 30 or so others in the hall about my life and work and learning, about agape as unconditional love (Agape) which I'd come to see as unconditional collapse, which releases free energy. The day passed. I didn’t follow her progress through the session and I never saw her outputs.

Two years later I was invited to attend another group workshop, but not to facilitate, at the same venue. The large manorial barn was already full, and they were about to be addressed by a Benedictine monk. I took a chair, right at the far end of the barn at the back. A man stood up. It was the woman’s husband.

“I would like to point out that man, the one sitting over there. He worked with my wife and me a few years ago, here.” “(Andrew) I would like you to know that my wife has since had a child, and we have given her a middle name, stemming from what you taught us that day, about *love*, her name is Agape.”

I don’t recall that I spoke to the couple during those whole two days either. Shortly after this I broke my association with the consulting group, who had convened the sessions.

In general, I understand all these events as examples of a ‘creative collapse.’ These in turn release tiny quanta of ‘free-energy.’ The trick, I have found, is to follow the ‘free energy’ back to the ground ;-).

In the Poor Vibrating Ground

Recently I shared an intimate conversation with an Integral scholar and practitioner. It involved complex dynamical properties, implied above, but the deepness of the nature of it precludes the kind of narrative given already. Therefore, I will, as Rosch implies it, *slip it to the reader sideways.*

Recently I was in the home of a client who lives, as they say, on the other side of the track. Her life is one of unremitting difficulty, boredom and background intimidation.

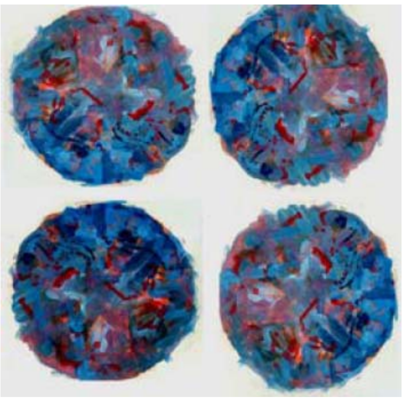
She has noble aspirations, to become a scientist, but she lacks the most basic education, she is saddled with a partner who never works, his friends regularly invade her home where they live on minimal ‘state benefits’ and the life she lives is one of ‘confusion.’ She has two children, a daughter of about three and a son of eight months.

While we were simply *waiting* one day, I was on the floor, playing with the daughter, who was building forms with long coloured lines, the kind that molecular scientists make models of atomic structures from. But it was the child’s development toy. I could see she was deeply involved.

Suddenly, in and out of my peripheral vision, the eight month old began to approach. He was on all fours. Then, his tiny warm hand reached out, and touched me.

It was a shockingly gentle moment, because it became a continuum—just as *a snowflake slides upon its own melting*—he rose up, using me as his ladder, until after just a *little time* he was standing there, just under my face. His face was purest pink—no other word conveys the palpable aliveness. His hair was yellow and his eyes sky blue. Our eyes met and, somehow, his very soul entered. It was as if a Buddha has come to sit beside me, a large mountain beside a tiny one; a large hill next to a small hill.

In this moment I realised that I had ‘suffered’ a Metanoiaical moment. A deeply spiritual happening. The small mountain was the large one and the large one the small—an impossible exchange had taken place. Though the purpose is still unresolved, in the image placed here is a partial resolution.



Gently, Gently, Gently, Four Angels

> I want to paint men and women with that something of the eternal which the halo used to symbolize. Ah! Portraiture with the thoughts, the soul of the model in it, which is what I think, must come. So I am always between two currents of thought . . . to express hope by some star, and the eagerness of a soul by a sunset radiance. Vincent van Gogh (Hammacher & Hammacher, 1982, p. 163).

Anton Ehrenzweig (*The Hidden Order of Art,* 1967) wrote, “the artist when working could produce works and internal states of extreme ‘de-differentiation’” (Glover, 2005). That’s an important word with an equally important meaning for us. De-differentiation is an *all embracing way of looking* and is used, according to Ehrenzweig, by artists to *really see* the parts of a composition as well as see the whole, simultaneously.

A state acquired like that of scattering the attention (like so many seeds of corn into the ground in a farming culture and community, a living into dying and back again in season) to such an extent that it is not even necessarily retained by our conscious memory. Our co-creative work, whatever it is—paintings, writing, compositions—seem to have ‘just happened’ and resolve themselves without conscious intervention. Such an ‘un-looking’ way as this is full of the paradoxical. It is *a new form of vision.*

It could be called paradoxically, the structure of spontaneity. Ehrenzweig considered this ‘non-linear’ (‘polyphonic’) and ‘undifferentiated scanning’ looking and working as being superior to our often over anxious, overtly self conscious and often restricting ‘linear’ ways, and especially our over-intellectual reasoning. Through this suspending (his term), by entering the undifferentiating process, people may contact, even overlap (‘nesting’ and ‘integral’ are technical terms that come to mind), with aspects of themselves that were hitherto unmet in both self and work. (The ‘appearance’ of the/any artwork, its ‘forming’ of itself, is very unimportant, even in art based workshops or retreats. It could be an arrangement of sticks, leaves or ideas.) What matters is the *opening of a new relationship,* a willingness to generate dialogue between the person and his/her deeper self—nature to Nature. Maybe it starts to resonate with those elements in the larger fields, in which he or she lives and operates, so that, Something like a true (more authentic) conversation takes place between the person and his or her own work. This 'medium,' by frustrating the purely conscious intentions you will inevitably bring to the project, allows contact with more submerged parts of his or her own personality and draws them up for contemplation. While we may struggle with (the) new medium, unknown to oneself we wrestle with the unconscious personality revealed by the work – or *work* of art. (David Bohm pointed out long ago that the basis for the word 'Art' was from the verb, *to fit*.) "Taking back from the work on a conscious level what has been projected into it on an unconscious level, (making it *fit* again) is perhaps the most fruitful and *properly painful* result of authentic creativity" (Bohm, 1998).

You and I like the parent as a creator of children, have to accept that their work has an 'independent life' and acceptance of this requires humility and perhaps a little genuine suffering. Hannah Arendt, the pupil of philosopher Martin Heidegger, recognized herself that once we have written or created something and 'let it go' out and into the world by sharing it with others, then we have to accept that we no longer control it, but that we may continue to learn from what others do with it.

> The . . . world begins by making splits, then drawing boundaries, then solidifying these boundaries. Then we fool ourselves into believing what we have made ourselves see. Solidifying boundaries is very comfortable, because it allows us to deny our experience.... We miss the whole system (Bateson, 1978, p. 44).

Some years ago I shared some imagery inspired by Francisco Varela's work, sharing my own ideas, art-work and personality is something I have learned to do in new ways since I became aware of the Internet. Caroline Hegedus (2003, personal communication) said something interesting to me about those works, as she experienced them and as someone who'd met Varela:

> "...my sense was that you 'received' the images rather than making something you 'thought' about.... (and) The fact that you did this on glass is quite intriguing to me also... when I started writing the book on John (Fetzer), I had an image of a glass book that was laying open, and that was a very important image for me as I began to write. I understood it to be about *the process* for the book."

Ehrenzweig explicitly and firmly believed that perception was implicated in both conscious and unconscious mental processes. He puts forward his main thesis that (authentic) artwork has a *hidden substructure*, which can *seem* disruptive, disordered and chaotic only to conscious perception. However, working alongside the gestalt preoccupied conscious mind is what he calls 'unconscious scanning,' where 'depth minds' perceives the hidden substructure beneath. It is this (creative) tension between an apparent surface order and the deeper structure which appears chaotic to the conscious perception, which is the essence of creative and aesthetic perception. (His work should also be read, he advised, with the same kind of 'unconscious scanning.')

I have always kept in mind since the seventies, that creativity is defined by Ehrenzweig as the 'capacity for transforming the chaotic aspect of undifferentiating into a hidden order that can be encompassed by a comprehensive (syncretistic) vision, and that 'conscious surface coherence has to be disrupted in order to bring unconscious form discipline into its own.' However, because this 'unconscious form' cannot be consciously analysed in rational terms, we must rely on our 'low level sensibility' to distinguish 'irresponsible arty-crafty gimmicks from truly creative art ruled by an inner necessity.' David Bohm (1998) said something very similar when he wrote, “For me, giving simple attention – a finer faster process than confusion – is itself the primary creative act.”

> *Imagine an infinite sea of energy* filling empty space, with waves moving around in there, occasionally coming together and producing an intense pulse. Let's say one particular ‘pulse’ comes together and expands, creating our universe of space-time and matter. But there could well be other such pulses. To us, that pulse looks like a big bang; in a greater context, it's a little ripple. Everything emerges by unfoldment from the holomovement, then enfolds back into the implicate order. I call the enfolding process "implicating," and the unfolding "explicating." This implicate and explicate *together* are a flowing, undivided wholeness. Every part of the universe is related to every other part but in different degrees. There are two experiences: One is movement in relation to other things; the other is the sense of flow. *The movement of meaning is the sense of flow* (Peat & Briggs, 1987/2006).
>
> People are essentially polyphrenic.
>
> Schizophrenia is a disease of the human condition, and polyphrenia—the orchestration of our many selves—is our extended health. We have a vast crew within that used to be called sub-personalities. But I think it has more autonomy than that, and we have to speak to 'the cook' and 'the healer' and 'the therapist' within. And 'the mechanic’ . . . And you allow them to come into the forefront, so that local ego and its limiting and habituated structures are pushed aside for the time being . . . It's *who* you bring out of the background into the foreground that makes the difference as to how you feel about things. Or, as Francis of Assisi put it, 'What we are looking for is who is looking'" (Houston, 2006).
>
> “You have taught me to look at nature, very closely” Pupil ;-) 20th Nov. 2006

A few days ago, early in a cold morning I passed by a dead tree, within the branches of which clattered a frantic dove; it rose and fell, rose and fell again, and again. Then it fell out to the ground. I picked it up and I saw its eyes were closed. It was blind. I took it to the open field and threw it into the air, but it flew straight into a tree and fell again. I picked it up a second time. I saw its eyes were still shut. I kissed each eye and each opened, I threw it into the air once more, it flew. It flew away. No miracle. I saw that its eyelids had been frozen together by the coldness.

> Since everyone is different, I cannot give one strategy that will work for everybody. For some, the contemplative path is a real path; for others, who are more kinesthetic, say, it may be a walk or a dance. . . Joseph Campbell used to tell me he got his finest ideas just editing his manuscripts, just crossing out words on yellow pads. So what I'm suggesting is that there are as many strategies as there are people. . . For me, it means getting up at five o'clock in the morning (because I'm a lark; I'm not an owl).... (Houston, 2006)

Brigg’s Reflectaphors

Briggs has worked with both Dave Peat and David Bohm. He thinks his term Reflectaphor is a ‘hinge’ of another form of a ‘hidden order’ both in art objects and also the creative process of the artist herself.

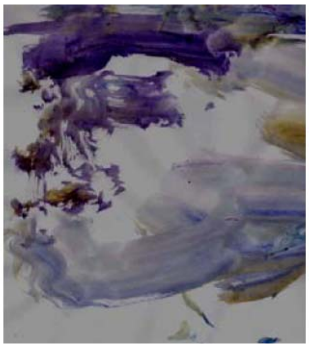
According to Briggs, Bohm stated that matter and energy continually unfold and enfold, appearing in particular (explicate) forms like photons and mountains and then disappearing into the (implicate) background. For Bohm this primordial unending movement from implicate to explicate and back again *implies* the whole. He calls it ‘holomovement’ and considers it primary to all natural law. In a metaphor, an analogous sort of thing seems to happen with meaning.

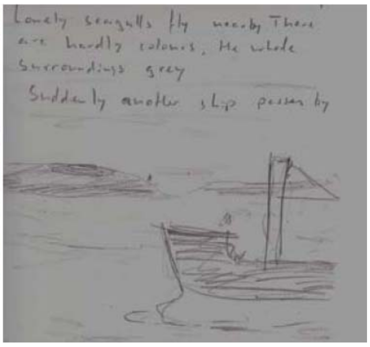
Recently one of the many subtleties of the often paradoxical movement of meaning through metaphor surfaced during a class discussion. I was explaining that I personally experienced the image as a flight of birds in formation very high up and silent, wordless. Then someone in the class pointed out that birds in flight often make quite a bit of noise, also not words, but probably communication of some sort and we realized such an image could also fit the class metaphor. Obviously, taking that angle on the metaphor alters and broadens—in Bohm's terms unfolds and enfolds—one's conception of its meaning. In the movement through the mind of the old conception and the new, one gets a taste of the whole. This suggests the metaphor is meaning as an ongoing process and perception rather than meaning as the conclusions of knowledge.

At present, neuroscience is only beginning to grapple with the immensely intricate questions of how consciousness works. But whatever the specific mechanisms, it seems plausible to generalize that a great deal of conscious processing (including layers of the unconscious and perception) relies on some form of comparison and contrast activity. These comparing and contrasting activities then refold into the background (implicate) levels of the brain to set the stage for further comparisons and contrasts.

The word metaphor comes from the Greek meta and Aryan medhi which mean 'middle, between, among and beyond' and from the Greek, Chore derived from phoros, 'to carry or to bear.' The word 'reflect' comes from the Greek re and flex which means 'bending back or bending again.' Putting these together, a reflectaphor can be thought of as having the quality of *carrying between and beyond by a constant bending back*. One side of the reflectaphor is carried over to the other, but then is reflected or carried back again and, therefore, once again beyond. The comparison/contrast design of the reflectaphor propels this movement, bending the mind back again and beyond, giving no rest in conclusion. Between the elements of a reflectaphor there is no meaning as such; the meaning is the continual revelation what Bohm calls unfoldment and unfoldment of this reflective movement.

> Two further important dimensions of the 'reflect' in reflectaphor will also become apparent as we probe deeper into artistic process and structure. First, a reflectaphor mirrors the apprehender of the reflectaphor so that, as Bohm would say, the observer becomes revealed as the observed. Second, a reflectaphor in the context of a particular artwork is mirroring other reflectaphors in that context and in fact is a reflection of the whole of that context (Briggs, 1987/2006).





Lonely seagulls fly nearby There are hardly colours, the whole surroundings grey

Suddenly another ship passes by

Leo Minnigh PhD, Spain O→ Leo's 'Self ←O→ Portrait' ←O Leo's journal page while being *carried* to me, 2002

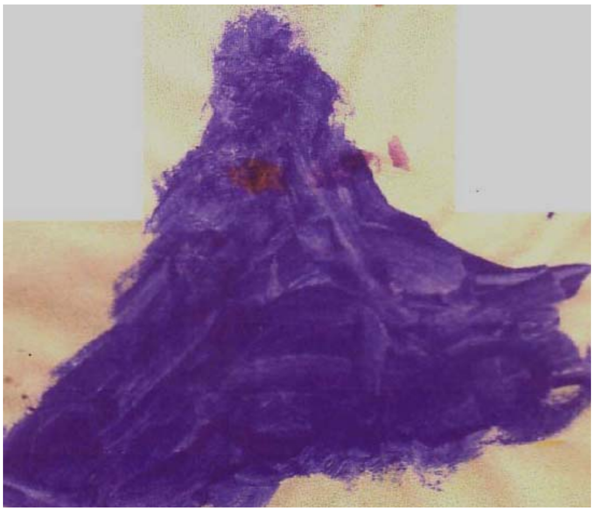
> "I have no idea how that picture I painted appeared, maybe there was something in the strange atmosphere of your garden that day" (L. Minnigh, personal communication, 2003).
>
> "So a moment enfolds all the past? Yes, but the recent past is enfolded more strongly." (Peat & Briggs, 1987/2006).
>
> In the art of painting, reflectaphors exist on a number of levels and are articulated through numerous techniques. For example, reflectaphors can be created when a painting of one thing looks subliminally like another - a building that looks subtly like a face, a range of mountains that is as sensuous as a reclining body (Briggs, 1987/2006).
>
> At times there emanated from people almost palpable extensions of themselves, and certain objects possessed a special dimensionality. A small puddle iridescent with spilt oil and reflecting a patch of mid-western sky would suddenly expand for an endless split-second to encompass my entire universe (Unknown, sculptor, as cited in Briggs, 1987/2006).

This glance of this*other-ness becomes for the artist a touchstone or what Henry James called a 'germ' out of which the piece evolves. The germ might also be thought of as something which serves the artist as a sudden window, opening between the explicate and the implicate. The evolution of the piece out of that germ (a process which Frost described as like *ice riding on its own melting*) is a reflectaphoric evolution, each element emerging in X/Y tension with others. In a peculiar and often quite indirect way, the inspiration for the creation and the thing created began to mirror each other. The initial perception is that some one element idea, memory, melody, contained the whole, and, in the end, the creator produces a form in which each unique element reflects the whole of the piece. Then, since each element in the piece stands or moves beyond itself, the piece as a whole stands beyond itself which, again, is in keeping with the *standing beyond* quality of the piece's inspiration or germ.

The artist's biography also enters strongly into this process. As Rothenberg (1979) has pointed out, many elements of creative works arise out of superimposing remembered or personal experience on to the constraints of the piece. For example, in creating a character, a novelist may adopt personality traits of someone he has actually known or read about as well as his own personality traits, he then finds these traits modified, shaped and coordinated by the imagined events and other characters in his story. The fateful balancing of this unfolding X/Y (which can become exceedingly complex) enters into such important issues as finding the proper 'distance' on the piece, attaining an authentic 'persona' or style and achieving the appropriate voice or tone for the work.

In the evolution of the artwork, the artist doesn't *make choices* according to some analyzable logic or pattern, but chooses elements that feel 'right,' in harmony with the this*other-ness of the germ. In this process, the particular, the individual, the puddle iridescent with oil, the two roads in the woods, the artist's own life becomes the universal. The universal, in turn, is revealed as something immediately present to our senses, the place where implicate and explicate have coalesced.

> The reflectaphor is a hinge between the explicate order of our familiar reality (the grain of sand) and the implicate order (the whole implied by the sand). If we were to observe objects around us as grains of sand, as this*other-nesses, could this provide a new perspective into - evolution? Should our scientific explanations of natural phenomena have a comparison/contrast dynamic between implicate and explicate; between analysis and what lies beyond analysis? Bohm himself has been an advocate of this position. If we were to take such an approach seriously, how would the universe appear to us and how would we perceive nature's laws? Might, for example, the unknown then become a vivid dimension of our experience of the known similar to what happens in metaphor when the unknown emerges out of the junction between the two known terms? In a work of art, only when the unknown or ambiguity is present does one implicitly perceive the whole of the piece and the whole beyond the piece. What would be the role of the observer and the observed in such an X/Y relationship? For ages artists have been portraying the physical world as a reflection of the mind, heart and soul of human beings - and vice-versa. What if the artists are right and the world around us is literally a mirror of our minds (Briggs, 1987/2006).



Mountain Man Acrylics on paper, Unknown (workshop) Artist, 1998

[In this artwork above, one might see that there are two orange ‘marks’ that give to the blue motif the appearance of eyes. What appeared to have happened is that one person had put their partly ‘orange’ picture ‘face down’ on this ‘blue’ one, so leaving a faint imprint. In this way, the blue motif becomes like a Zen mountain, which is somehow now ‘alive’ and has become here a reflectaphor for Brigg’s reflectaphor. When this happens in ‘printing,’ it is called a ‘kiss’ ;-)]

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Drei Avantgarde-Strömungen des heutigen US-Geisteslebens – und ihre Beziehung zu Europa

Three avant-garde currents within the contemporary intellectual life in the United States – and in their relationship to Europe

Roland Benedikter

Zusammenfassung: Die heutigen USA gelten vielen als Vorreiter auf dem Weg zur integrativen Erneuerung von Wissenschafts- und Erkenntnisparadigmen. Dies vor allem im Bereich der traditionellen Kern- und Grundlagen-Wissenschaft der neuzeitlichen Universität: der Philosophie und der historisch aus ihr erwachsenen Psychologien. Seit einigen Jahren ist in den USA in der Tat eine Entwicklung im Gang, welche die Einseitigkeiten des nominalistisch-subjektivistischen Paradigmas der „Postmoderne", welches aus ideengeschichtlicher Sicht die Epoche zwischen 1979 und 2001 geprägt hat, um einen neuen geistigen Objektivismus ausgleichen und beide zu einem neuen, „subjektiv-objektiven" Paradigma integrieren will. Diese Entwicklung findet ihren Ausdruck in drei exemplarischen Avantgarde-Strömungen, die im vorliegenden Beitrag vorgestellt sowie auf Charakteristiken und Wechselbeziehungen untersucht werden. Dabei erweist sich, dass die heutige ideengeschichtliche Avantgarde der USA in Kernterminologie, historischer Kontinuität und Ausrichtung stark pazifisch-asiatisch, aber noch zu wenig atlantisch-europäisch geprägt ist. Das scheint mit ein Grund dafür zu sein, warum diese Avantgarde-Ansätze trotz ihres hochwertigen Anregungs- und Innovations-Potentials im Hinblick auf ein ganzheitliches Wissenschafts-Paradigma für das 21. Jahrhundert noch unübersehbare Schwierigkeiten haben, den atlantisch-europäisch geprägten Hauptstrom des Geistes-, Kultur- und politisch-sozialen Lebens ihrer Gesellschaft zu erreichen. Es zeigt sich, dass der innere Ausgleich zwischen pazifischen und atlantischen Ideen-Einflüssen eine der zentralen Herausforderungen für diese Avantgarde-Strömungen, aber darüber hinaus im Spiegelverhältnis auch für das europäische Kultur- und Gesellschafts-Paradigma sowie für die Entwicklung der integralen Bewegungen auf Weltebene insgesamt ist.

Schlüsselwörter: Integrale Bewegungen, Weltphilosophie, Paradigmen-Erneuerung, Ganzheitliche Wissenschaft, Ideengeschichtliches Verhältnis USA-Europa, Ken Wilber, Andrew Cohen, A.H. Almaas, Freimaurerei, Rosenkreuzertum, Anthroposophie, Theosophie

Abstract: Many intellectuals consider the U.S. of today a forerunner for an integrative renewal of scientific and cognitive paradigms, particularly in the field of philosophy and psychology. Indeed, since a few years there have been tendencies which try to compensate the onesidedness of the nominalistic-subjectivistic paradigm of "postmodernism"—which from a historical point of view characterized the period between 1979 and 2001—by a new kind of intellectual objectivism, and to integrate both

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into a new, “subjective-objective” paradigm. This trend is represented by three exemplary avant-garde currents which are examined in their characteristics and correlations. It turns out that the basic terminology, historical continuity and orientation of these intellectual-historical avant-garde currents in the U.S. are characterized by Pacific-Asian influences rather than by Atlantic-European ones. This seems to explain at least in part, why in spite of their high-quality innovation potential these avant-garde approaches, in view of a holistic science paradigm for the 21st century, still have problems to reach the mainstream of the intellectual, cultural and politico-social life of their society. It becomes apparent that the harmony of Pacific and Atlantic influences of ideas and intellectual traditions poses a central challenge to these three avant-garde currents, but also to the European cultural and social paradigm, as well as to the development of integral currents worldwide.

Keywords: A.H. Almaas, anthroposophy, Andrew Cohen, freemasonry, holistic science, intellectual-historical relationship U.S.-Europe, integral currents, renewal of paradigms, rosicrucianism, theosophy, world philosophy, Ken Wilber.

Einleitung

Wer sich mit dem US-amerikanischen Geistesleben der Gegenwart auseinandersetzt, begegnet heute einerseits der Wiederauferstehung der konfessionellen Glaubens-Religionen seit der weltpolitischen Wende 1989-91, andererseits den Resten des New Age der 1980er und 1990er Jahre. Beide Strömungen agieren tendenziell fundamentalistisch und regressiv; der Unterschied zwischen ihnen ist die tendenziell expansive Haltung der traditionellen Religionen und die tendenziell defensive Haltung des New Age. Darüber hinaus begegnet man heute in den USA aber auch drei grossen, ihrem Anspruch nach integrativ-fortschrittlichen Impulsen, die nach einer „rationalen Spiritualität“ im Sinne eines neuen Gesamt-Paradigmas für die gegenwärtig entstehende erste Welt-Kultur tasten: Einer *philosophisch-wissenschaftlichen* integralen Strömung (*Ken Wilber*), einer *kommunitarisch-intersubjektiven* integralen Strömung (*Andrew Cohen*) und einer *psychologisch-introspektiven* integralen Strömung (*A. H. Almaas*).[1]

Alle diese drei Avantgarde-Strömungen verfolgen das Ziel umfassender geistiger, gesellschaftlicher und politisch-sozialer Erneuerung aus dem Geist einer spirituell angereicherten Aufklärung. Alle drei versuchen, Wissenschaft, Rationalität und Spiritualität in neuer Weise zu integrieren. Alle drei versuchen, sowohl natur- wie geisteswissenschaftlichen und psychologischen Objektivismus mit seinen „postmodern“-subjektkritischen Antigonen zu verbinden. Das heißt: alle drei versuchen eine neue Synthese zwischen „Nominalismus“ und

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[1] Ich nehme die folgenden Kategorisierungen hier vor, um die drei Strömungen einführend zu charakterisieren. Festzuhalten ist, dass damit nur ihre Schwerpunkt-Setzungen typologisch charakterisiert werden. Bei genauerem Eindringen in deren Gehalte wird das Bild selbstverständlich komplexer, und es zeigt sich, dass jede der drei Strömungen auch Elemente der jeweils anderen enthält. So sind bei Ken Wilber genauso psychologisch-introspektive und intersubjektive Komponenten enthalten wie bei Almaas; A. H. Almaas verfolgt genauso seine kommunitarische Gemeinschaftsbildung wie Cohen, während Wilber sich derzeit ebenfalls eine weltweite virtuelle Gemeinschaft aufbaut; Andrew Cohen verweist ebenso wie Almaas und Wilber auf die Notwendigkeit von psychologischem „Shadow-work,“ um geistige Fortschritte zu machen; Wilbers Ansatz geht im Prinzip wie die beiden anderen ebenfalls von einem Vorrang der Praxis geistiger Entwicklung vor philosophisch-wissenschaftlicher Modellbildung und Theorie aus, usw.

„Realismus“ – zwei Strömungen, die mit der Kantiantischen Aufklärung mit weitreichen Folgen auseinandergefallen sind. Alle drei versuchen zu diesem Zweck eine neuartige Verbindung von Wissenschaft, Philosophie, Psychologie und Spiritualität aus Ost und West zu einem ersten Welt-System von Erkenntnis und Praxis, um eine „subjektiv-objektive“, wissenschaftlich-kritische geistige Kultur für das globalisierte 21. Jahrhundert grundzulegen. Und alle drei verstehen sich diesbezüglich als Vorreiter der heute weltweit keimenden „integralen“ Intuition und ihrer sich allmählich transkulturell organisierenden Bewegung, sowie der durch sie mitinitiierten globalen Paradigmenverschiebung.

Angesichts dieser Gemeinsamkeiten, aber auch ihrer nicht zu übersehenden Unterschiede zu europäischen Entwicklungen stellen sich die Fragen: Welcher Wert kommt diesen US-amerikanischen Impulsen der Gegenwart zu? Und wie verhalten sie sich zu den wissenschaftlich-spirituellen Haupt-Strömungen Europas seit dem 18. Jahrhundert?

Die drei Avantgarde-Strömungen

Die USA gelten als die Geburtsstätte des modernen „New Age“, aber auch der Entstehung einer spezifisch „amerikanischen“ Spiritualität. Letztere hat eine komplexe Geschichte, die im Grundmotiv darin besteht, dass die christlich geprägten rosenkreuzerisch-freimaurerischen Wurzeln, die an der „atlantischen“ Wiege der amerikanischen Verfassung von 1776 standen, seit dem Beginn des 20. Jahrhunderts, vor allem nach dem zweiten Weltkrieg immer stärker durch asiatisch-östliche Einflüsse von „pazifischer“ Seite ergänzt wurden. Während die empirisch-christliche Tradition, noch vor der französischen Revolution, als rosenkreuzerisch-freimaurerischer Einfluß mit der amerikanischen Verfassung 1776 die Gründung der USA inspirierte, sich Mitte des 19. Jahrhunderts zunächst mithilfe des britischen Weltreichs als politisch-geistige Weltmission des Angelsachsentums etablierte, und dann nach dem ersten, und endgültig nach dem zweiten Weltkrieg bis heute Selbstverständnis und Mission der USA als Leitmacht des Westens prägte, drangen östliche Philosophie und Weisheit seit der „indischen Renaissance“ Ende des 19. Jahrhunderts zunächst mit Vivekananda und Yogananda, dann mit dem Gedankengut Aurobindos sowie des in den 1930er Jahren im Westen bekannter werdenden Tibet von pazifischer Seite her ein.

Daraus entstand insbesondere mit der 1968er Bewegung ein eigenständiger Humus, in dem östliche und westliche Strömungen in weit intensiverer und offenerer Weise in Begegnung kamen als in Europa. Nach der weltpolitischen Wende mit dem Fall der Berliner Mauer und dem Zusammenbruchs des Kommunismus 1989-91, und noch einmal verstärkt seit dem 11. September 2001 und der damit symptomatisch beginnenden Paradigmenverschiebung von der europäisch-westlichen „Postmoderne“ hin zu einer stärker global-integrativen „Post-Postmoderne“, hat sich diese Begegnung in *drei* große Strömungen ausdifferenziert. Für diese drei Strömungen stehen heute die Signal-Namen ihrer drei großen Pioniere: Ken Wilber, Andrew Cohen und A. H. Almaas. Diese drei Strömungen sind deshalb neuartig, weil sie alle drei Reaktionen auf die neuen, weit stärker als bisher *integralen* (oder „subjektiv-objektiven“) Kultur- und Paradigmen-Anforderungen exakt im *Schnittpunkt* zwischen säkularen und religiösen, natur- und geisteswissenschaftlichen Dimensionen des 21. Jahrhundert sind: Auf die Anforderungen im Zeitalter der globalen „Renaissance der Religionen“ und ihres bereits in Gang befindlichen, latenten Kulturkampfs gegen das Erbe der europäischen „Postmoderne“; auf die einseitige subjektivistische Verengung der akademischen Geistes- und Sozialwissenschaften;

aber auch auf die ebenso einseitige „Neuerfindung des Menschen durch den Menschen“ seitens der objektivistischen Naturwissenschaften.

Die drei innovativen Strömungen des aktuellen US-Geisteslebens strahlen heute in avantgardistischer Weise in die ganze Welt aus - insbesondere auch nach Europa, das vor allem seit der 1968er Revolution traditionell stark unter dem Einfluß von progressiven US-Entwicklungen steht. Sie halten weitgehend freundschaftlichen Kontakt zueinander und tauschen sich aktiv untereinander aus, weil sie sich alle drei als eine im epochalen Kernimpuls, in geistigen Kern und im zentralen Ziel gemeinsame, zum Teil sogar identische Kultur-Avantgarde für das 21. Jahrhundert verstehen. Ihre Ausdifferenzierung erfolgt deshalb bislang nicht vorrangig untereinander, sondern hauptsächlich gegenüber den in den USA noch immer weit verbreiteten Erben und Epigonen des „New Age“, das sie übereinstimmend als regressive, ja inzwischen großteils atavistische, weil *unwissenschaftliche* Vorläufer-Spielart ihrer entscheidend progressiven und innovativen *wissenschaftlichen* Bewegung verstehen. Deshalb bekämpfen sie dieses „New Age“ im Rahmen eines mehr oder weniger offenen Kulturkampfs um eine paradigmatisch neue, progressive kulturelle Leit-Spiritualität für die westliche Kultur des 21. Jahrhunderts auch aktiv, und suchen zugleich seine bisherigen, ursprünglich ebenfalls an Evolution von Spiritualität interessierten Anhänger für ihr evolutives Kern-Anliegen zu gewinnen. Dabei verfolgen alle drei zwar im Kern verwandte, jedoch in ihrer jeweiligen Schwerpunktsetzung unterschiedliche Strategien.

Die Auswahl dieser drei Avantgarde-Ansätze ist im folgenden Essay, der sich auf ausgewählte qualitative Analysen stützt und ausdrücklich keine feldumfassende empirische Untersuchung darstellt, nur symptomatisch und beispielhaft gemeint. Sie erhebt nicht den Anspruch auf Repräsentativität. Denn natürlich sind diese drei Ansätze keineswegs die einzigen ihrer Art, wenn auch die derzeit bekanntesten, umfassendsten und einflußreichsten. Sie stellen demnach eine Art „Spitze des Eisbergs“ dar – nicht mehr, aber auch nicht weniger. Es bestehen darüber hinaus eine ganze Reihe von weiteren innovativen Ansätzen, die in ähnlicher Weise den Weg hin zu einer „subjektiv-objektiven“ „rationalen Spiritualität“ beschreiten. Ich kann diese Ansätze hier nicht behandeln, weil sie den Rahmen des im folgenden Intendierten sprengen würden, und konzentriere mich daher auf die drei genannten Symptom-Ansätze, die auf auch für verwandte Ansätze beispielhafte Weise wesentliche Aspekte einer heute allgemein keimenden *integrativen bis integralen Intuition* in sich verbinden.[2]

Die philosophisch-wissenschaftliche Strömung: Ken Wilber

Die *erste symptomatische Strömung* (mit Zentrierung auf *Philosophie und Wissenschaft*) ist wesentlich auf das „Kleinod der Unterscheidung“ des willensgesättigten *Denkens* ausgerichtet. Durch sorgfältige historisch-analytische Begriffsarbeit und durch Vergleich der Substanz im Prinzip sämtlicher großer Welt-Traditionen in Philosophie, Wissenschaft, Religion und Spiritualität mittels der synthetisierenden Methode von „Orientierungs-Verallgemeinerungen“

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[2] Die vergleichende Auseinandersetzung mit weiteren verwandten Ansätzen ist Teil meines in Vorbereitung befindlichen größeren Publikations-Projekts „A Global History of Integral Thought from the 18th to the 21st Century“ sind (erscheint voraussichtlich 2007-08). Darunter sind, um hier nur einige Beispiele zu nennen, Arthur Zajonc und Stephen Wolinsky (Quantenpsychologie), Steven Harrison (Post-Spirituality) oder die Vertreter des weiter unten nur summarisch genannten Californian Institute for Integral Studies CIIS San Francisco wie etwa Richard Tarnas, Robert McDermott, Jorge Ferrer und andere.

soll eine erste echte Weltphilosophie als Vereinigung von Ost und West begründet werden. Diese soll ihrem erkenntnis- und handlungsleitenden Anspruch nach alle geistigen, religiösen, philosophischen und psychologischen Ansätze, aber auch die Errungenschaften der „Postmoderne“ und der Sozial- und Naturwissenschaften integrieren und zu einem neuen, inklusiven, sowohl subjektiven wie objektiven Wissenschaftssystem der Erkenntnis und der gesellschaftlichen Praxis für das 21. Jahrhundert zusammenführen. Damit ist der heute weltweit bedeutendste „integrale Ansatz“ (unter zunehmend vielen ähnlichen Intuitionen, die mittlerweile das Wort „integral“ inflationär im Munde führen) umrissen; und für ihn steht der Name eines großen Pioniers und Vordenkers: *Ken Wilber*. Wilber, geboren 1949 als Sohn eines US-Armeeangehörigen, Autodidakt und nach eigenen Angaben inzwischen Eingeweihter der höchsten Bewusstseinstufe, hat seit den frühen 1980er Jahren 22 auf verschiedenen Gebieten als bahnbrechend rezipierte Bücher verfasst, die in 30 Sprachen übersetzt wurden. Darunter ist eines der zweifellos wichtigsten philosophischen Werke an der Schwelle zwischen 20. und 21. Jahrhundert: *Eros, Kosmos, Logos. Eine Jahrtausend-Vision* (Frankfurt am Main 2000). Wilber bezeichnet sich selbst ausdrücklich nicht als „Guru“ (wörtlich: „Helfer bei der Austreibung der Dunkelheit“), sondern als „Pandit“ (wörtlich: „Gelehrter“) und als „Begriffs-Krieger“, dessen schicksalshafte Aufgabe es sei, die geistig-begriffliche Vereinseitigung westlicher Kultur durch klares Denken neu zu ordnen und zu klären. Er gilt heute nicht nur als der weltweit führende integrale philosophische Denker, sondern insbesondere wegen seiner bahnbrechenden Leistungen auf dem Gebiet der theoretischen, die Ansätze von Ost und West zusammenführenden inklusiv-ganzheitlichen Psychologie, auch als „Einstein einer neuen, inklusiven Bewusstseinsforschung“. Wilber führt im Internet den vielgelesenen Blog „www.kenwilber.com“ und ist nach Auskunft seiner Verlage seit Jahren einer der meistgelesenen – und sowohl meistveröffentlichten, meistübersetzten und meistzitierten, wie auch meistkritisierten[3] - philosophisch-wissenschaftlichen Sachbuchautoren der Welt. Er begründete in den 1990er Jahren unter anderem das „Integral Institute“ in Denver, Colorado, in dessen Rahmen sein neuer Wissenschaftsimpuls in transdisziplinärer Zusammenarbeit zwischen Wissenschaftlern und Philosophen aus den verschiedensten Disziplinen zum Durchbruch geführt werden soll, und ist seit einigen Jahren dabei, eine eigene „Integrale Universität“ zu akkreditieren (siehe www.integralinstitute.org).[4] Zu seinen Sympathisanten und Anhängern gehören in den USA mittlerweile zahlreiche bekannte Persönlichkeiten aus Wissenschaft, Kunst und Politik, so unter anderem Billy Corgan, Gründer der einflußreichen Pop-Gruppe „The

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[3] Siehe dazu vor allem die Internet-Seite seines Biographen und ehemals wichtigsten europäischen Übersetzers und Freundes Frank Visser: www.integralworld.net.

[4] Kritisch anzumerken ist, dass Wilber seit einigen Jahren die immer wieder zu einem neuen Termin angekündigte Eröffnung immer wieder verschiebt. Auch für die erste Jahreshälfte 2006 wurde die Eröffnung der Privatuniversität erneut angekündigt und wieder verschoben. Zu den Verzögerungen trägt bei, dass sich leitende Mitarbeiter in den Fachbereichen der geplanten Universität aufgrund von Wilbers autoritärem Stil immer wieder nach kurzer Zeit verabschieden (so etwa der ehemalige Mitbegründer der Erziehungswissenschaftlichen Fachgruppe Arthur Zajonc). Derzeit wird noch keiner der Fachbereiche von einer akademisch einigermaßen bekannten Persönlichkeit geleitet. Die richtige Strategie wäre es wohl, Studiengänge in Partnerschaft mit etablierten Universitäten anzubieten, wobei verschiedene Partner-Universitäten gewonnen werden sollten. Die derzeit bestehende Zusammenarbeit mit der US-weit führenden katholischen Universität Notre Dame bei Chicago, für deren „Integral Studies Program“ Wilber gegen Bezahlung seinen Namen verleiht, ohne weitere Kontakte zu pflegen oder an der Entwicklung der Programme teilzunehmen, scheint dafür allerdings ebenso wenig ein zu verfolgender Weg wie seine periodischen Gastvorlesungen an der John F. Kennedy Universität New York.

Smashing Pumpkins“, die Gebrüder Wachowski (Autoren der „Matrix“-Trilogie, für deren DVD-Edition Wilber auf Einladung der Wachowskis den bisher ausführlichsten Kommentar verfaßte) und Politiker wie Bill und Hillary Clinton sowie Al Gore. In Deutschland hat sich in den späten 1990er Jahren ein „Arbeitskreis Ken Wilber“ (www.ak-kenwilber.org) gebildet, der seit Frühjahr 2006 unter dem Namen „Integrales Forum“ auftritt (www.integralesforum.org) und heute Regional- und Fachgruppen im gesamten deutschen Sprachraum unterhält. Er zieht eine wachsende Anzahl von integral und zugleich philosophisch-wissenschaftlich interessierten Menschen an. Wilber ist seit jungen Jahren praktizierender Anhänger des Zen-Buddhismus und lebte seit den 1980er Jahren bis zur Jahrtausendwende in strenger Disziplin und weitgehender Einsamkeit wie ein buddhistischer Mönch. Er seit einigen Jahren ist er zu persönlichen Interviews und zu öffentlicher Lehre bereit, und erst seit der Jahrtausendwende gibt es auch einige Tonbandaufnahmen und Lehrfilme von ihm, die in Internet (siehe http://in.integralinstitute.org) und in fachinteressierten Kreisen kursieren.

Die kommunitarisch-intersubjektive Strömung: Andrew Cohen

Die *zweite* wichtige *Strömung* heutigen US-amerikanischen Geisteslebens (mit Zentrierung auf *Gemeinschaftsbildung und neuem meta-individuellen Bewusstsein*) geht von der Kommunion in einem gefühlsgesättigten *Willen* aus. Durch gemeinsame, vorwiegend kollektiv praktizierte Meditation soll das Ego überwunden und eine durch Wechselseitigkeit verstärkte spirituelle Erfahrung eröffnet werden, welche Rudolf Steiner für das 21. Jahrhundert als eine mögliche Fortschrittsform allgemeiner Entwicklung erwartete und den „Ritus von unten“ nannte. Dieser Ansatz nennt sich „Evolutionäre Spiritualität,“ und für ihn steht der Name eines zweiten großen Pioniers kritisch-geistiger Erneuerung, die von den USA aus weltweit auszustrahlen beginnt: *Andrew Cohen* (geboren 1955 in New York). Cohen schrieb mehrere Bücher und begründete 1991 die international einflussreiche Zeitschrift „What is Enlightenment?“ - und zwar ausdrücklich in der ursprünglichen, im angelsächsischen Raum bis heute gültigen englischen Doppelbedeutung „Was ist Aufklärung?“ und „Was ist Erleuchtung?“, die im deutschen Sprachraum mit den Totalitarismen des 20. Jahrhunderts ideengeschichtlich zum Schaden eines ausbalancierten Kultur-Paradigmas verloren ging (siehe www.wie.org, auf der Cohen auch auf verschiedenen Videos und in Audio-Aufnahmen direkt zu erleben ist). Für diese inzwischen weltbekannte, seit einigen Jahren in eigener Ausgabe auch in deutscher Sprache erhältliche Zeitschrift schreiben Autoren wie Robert F. Kennedy Jr. mit Beteiligung u.a. des Dalai Lama oder Carlos Santana. Darüber hinaus begründete er einen eigenen Studiengang in Assoziation mit einer bekannten US-Privat-Universität, das Graduate Institute in Milford bei New York, das den regulären, US-weit anerkannten Master of Arts in „Conscious Evolution“ vergibt (siehe www.learn.edu/wie/). Cohen erlangte seine persönliche spirituelle Erleuchtung samt der Sicherheit, eine Mission als spiritueller Lehrer für die Entwicklung der europäisch-westlichen Welt zu haben, nach einem frühen Erlebnis mit 16 Jahren schließlich 1986 in Indien. Seitdem ist seine zentrale Frage, was der Zusammenhang zwischen „Aufklärung“ und „Erleuchtung“ in der heutigen Zeit für eine Bedeutung haben könne, und welches die zeitgemäßeste Form für die Verwirklichung von beidem in den entwickeltsten Gesellschaften im 21. Jahrhundert sein kann – individuell und gesellschaftlich. Dabei unterscheidet er zwischen persönlicher und evolutionärer „Aufklärung / Erleuchtung“. Erstere ist individuell, letztere – welche die Zukunft darstellt – ist dialogisch und interpersonal. Cohen begründete Ken Wilber’s „Integrales Institut“ mit und steht mit Wilber in einem ebenso intellektuell-inhaltlich beispielhaften wie öffentlichkeitswirksamen öffentlichen Dialog über die Zukunft von Kultur, Religion, Wissenschaft und Spiritualität, der von vielen „Kulturell Kreativen“ weltweit intensiv verfolgt wird (siehe die inzwischen zehn Lang-Gespräche zwischen Wilber und Cohen zum Problem einer zeitgemäßen, zukunftsorientierten und wissenschaftlichen Spiritualität in: www.wie.org). Cohen versteht sich selbst weniger als Wissenschaftler oder Philosoph, als vielmehr als „Praktiker“ und als Lehrer, dessen Kernmotiv die Verwirklichung eines neuen, für die gesamte Kultur vorausweisenden Bewusstseins mit den Menschen ist, die sich konkret um ihn scharen. Zentren seines Ansatzes der „evolutionären Spiritualität“ bestehen derzeit in New York, Boston, London, Amsterdam, Paris, Frankfurt, Copenhagen und Rishikesh (Indien). Cohen’s innere Entwicklung ging vom Kriya Yoga (u.a. Yogananda) über den Buddismus zum Advaita Vedanta (H.W.L. Poonja), dem er heute in eigenständiger Ausprägung angehört.[5]

Die psychologisch-introspektive Strömung: A. H. Almaas

Die *dritte Strömung* (mit Zentrierung auf *personaler Überwindung des Ego und Durchbruch zum „permanenten Ursprung allen Seins als Selbst“*) ist in ihrem Zentrum auf die (Selbst-) Durchleuchtung und seelische Kultivierung des *Gefühls* als Wahrnehmungs- und Urteilsorgan zentriert. Hier wird durch das Zerbrechen der Ich-Illusion mittels individueller, wesentlich auch tiefenpsychologisch initiierter Selbst-Erkenntnisübung der „Diamant“ des reinen, vor-egoischen Ursprungs der Wirklichkeit als dauerndes ur-intentionales Quellen des Selbst erfahren und anschließend begrifflich angeeignet. Für diese Strömung, auch „Diamanten-Ansatz“ genannt, steht der Name A. H. Almaas (A. Hamed Ali, geboren 1944). Almaas, ursprünglich aus dem Nahen Osten (Kuwait) stammend, studierte in den 1970er Jahren zunächst Physik an der Universität Berkeley, um nach verschiedenen Einsichts-Erlebnissen eine tiefenpsychologisch-therapeutische Gruppen-Praxis in Kalifornien zu eröffnen, aus der sein Ansatz im Lauf der Zeit hervorging. Der „Diamenten“-Ansatz ist eine Mischung aus Sufismus, Psychoanalyse, Objekt-Relationstheorie und verschiedenen Einzelinstrumenten wie dem Enneagramm; er besteht aus einer Mischung zwischen individueller und kollektiver Arbeit, wobei das Verhältnis zum Lehrer zentral bleibt.[6] Almaas schrieb mehrere Bücher, in denen er seinen Versuch der Verbindung von westlicher Tiefenpsychologie, philosophisch fühlender Klärung des Geistes und mystischen Traditionen in großer Klarheit erläutert. Darunter ist die bislang beste und persönlichste Einleitung in seine Spielart der „ewigen Philosophie“, das autobiographische „Luminous Night’s Journey“ („Reise durch die leuchtende Nacht“, derzeit noch nicht ins Deutsche übersetzt, 2000). Wie Cohen versteht sich Almaas weniger als Theoretiker, denn als Praktiker und Guru. Trotzdem legt er einen wesentlichen Teil seines Augenmerks auf die wissenschaftlich-psychologische Selbstdurchsichtigkeit und philosophisch-begrifflich genaue Fundierung seines Ansatzes. Almaas' Schule hat heute ihre Haupt-Zentren in Berkeley und in Boulder, Colorado (der langjährigen Heimatstadt von Ken Wilber). Sie betreibt eine eigene Internetseite unter www.ahalmaas.com.

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[5] Was viele Kritiker jedoch anmerken ist, dass Cohen keinem Pfad über einen substanziellen Zeitraum gefolgt ist. Es gibt auch manche kritische Stimmen, die Cohen die Fähigkeit absprechen, eine spirituelle Gemeinschaft zu leiten. Siehe dazu nun Cohens ausführliche Antwort: A Declaration of Integrity. An open letter from Andrew Cohen to his friends and foes. In: http://www.andrewcohen.org/blog/index.php?/blog/post/declaration-of-integrity, October 18, 2006.

[6] Kritiker bemängeln, dass Almaas sich den „Diamanten-Ansatz“ als rechtlich geschütztes Trademark hat eintragen lassen. Dieses unternehmensrechtliche Schutzverfahren ist für geistig-kulturelle Strömungen unüblich, da diese im allgemeinen ohne Normierung und Kopierschutz arbeiten und es ihnen trotzdem - oder vielleicht gerade deshalb - gelingt, ihr Anliegen bekannt zu machen und über die Welt zu verbreiten. Die Partizipations- und Dialogfähigkeit von Almaas’ Ansatz wird durch dieses Vorgehen jedenfalls eher behindert als gefördert.

Gemeinsamkeiten und Unterschiede

Allen diesen drei Avantgarde-Strömungen heutigen US-Geisteslebens *gemeinsam* ist,

1. Dass sie komplementaritätsorientiert zum akademischen, stark postmodern-dekonstruktivistisch und europäisch-säkular gefärbten Intellektualismus des öffentlichen Kulturparadigmas einen philosophisch begründeten, integral-spirituellen Erkenntnis-Anspruch vorantragen, der auf die gesamte europäisch-westliche Kultur ausstrahlen und ihr Paradigma erweitern und integrativer machen soll;
2. Dass sie dabei in starkem Antagonismus sowohl zum „New Age" wie zu den traditionellen Religionen des „abrahamitischen Komplexes" (Christentum, Islam, Judentum) mit Ausnahme von deren mystischen Anteilen sowie mit Ausnahme östlicher und mittelöstlicher Wege (Buddhismus, hinduistische Traditionen) stehen;
3. Dass sie einen „integralen" Anspruch vertreten, und sich daher mit möglichst vielen fortschrittlichen Denkweisen und Philosophien weltweit, einschließlich der „Postmoderne", kritisch-affirmativ beschäftigen; und dass sie darüber hinaus auch untereinander einen intensiven, auf wechselseitiger Anerkennung und Komplementaritätsbildung beruhenden Dialog zu pflegen versuchen, der allerdings erst in den ersten Stadien steht und nicht ohne Konflikte und Abgrenzungstendenzen innerhalb aller drei Strömungen verläuft;[7]

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[7] Insbesondere der Dialog zwischen Cohen und Wilber ist nennenswert und weist Kontinuität und öffentliche Präsenz auf; weniger entwickelt ist der Dialog dieser beiden Strömungen mit Almaas. Wie ein an integraler Wissenschafts-Entwicklung interessierter Kollege in unserem Briefverkehr zur prinzipiellen Frage der Dialog-Führung zwischen führenden integralen Strömungen meines Erachtens zu Recht kritisch anmerkt, ist es noch offen, inwieweit Dialog und bewusste Komplementaritäts- und Koalitionsbildung in der angestrebten Qualität durchzusetzen sind. „Dass die verschiedenen integralen Strömungen weltweit einen intensiven, auf wechselseitige Anerkennung und Komplementaritätsbildung beruhenden Dialog pflegen, ist trotz vielversprechender Anfänge in weiten Teilen letztlich doch noch eine Utopie. Dies gilt… gerade für den Dialog zwischen Europa und Amerika. Jeder gibt sich natürlich schön dialogoffen, aber warum reden Wilber und Nicolescu, Almaas und Heinrichs usw. eigentlich weder öffentlich noch privat mit einander? Warum kennen sie sich noch nicht einmal vertieft*? Genau das ist das Problem heute, das es keine meta-integralen Dialoge quer zu den verschiedenen Strömungen gibt, die systematisch und weltweit organisiert wären.* Daher ist neben der Dialogbemühung auch wahr, dass sich gleichzeitig jede Strömung doch irgendwie als besser als die anderen, als integraler empfindet. Das ist eine echte Krankheit, von der in meinen Augen gerade auch Wilber sehr ergriffen ist." (Brief an den Autor, 05.09.2006). Der Überwindung des noch bestehenden Dialog-Defizits vor allem in US-europäischer Perspektive und im Hinblick auf die gleichzeitig notwendige komplementäre Ausdifferenzierung sind u.a. mein in Vorbereitung befindliches Projekt „A Global History of Integral Thought" (a.a.O.) sowie mein Buch „Ken Wilber und die Anthroposophie. Elemente für den Dialog" (erscheint voraussichtlich 2007) gewidmet.

4. Dass sie dabei auf je eigenständige Weise in individueller Erfahrung, analytisch-deskriptiver Begriffsbildung wie „harter“, objektiv-empirischer Datengewinnung echtes Neuland im Hinblick auf das nun notwendige „subjektiv-objektive“ Welt-Paradigma des 21. Jahrhunderts eröffnen;
5. Dass sie sich im Kern als „weltzugewandt“, das heißt „realisations- und handlungsorientiert“ verstehen, und daher nicht nur philosophisch-spirituelle, sondern ganz wesentlich auch sowohl allgemein-gesellschaftliche wie insbesondere kulturelle und politische Valenz beanspruchen;
6. Dass sie allesamt von großen charismatischen Pionieren getragen werden, die alle drei noch vergleichsweise jung sind, aber bereits ein beeindruckendes individuelles Fundament für das Neue gelegt haben, das zum Großteil erst noch der Ausarbeitung auf einer breiteren wissenschaftlich-empirischen Basis harrt, für welche die Grundlagen in entsprechenden Universitäts- oder Instituts-Gründungen bereitstehen;
7. Dass sie alle drei stark „pazifisch“ (das heißt: aus östlich-asiatischen Wurzeln gespeist) statt „atlantisch“ (aus europäisch-westlichen Wurzeln hervorgehend) begründet sind.[8] Alle drei haben bislang wenig Berührung zu den die USA nach wie vor geistig, kulturell, politisch und sozial bestimmenden traditionellen okkulten Strömungen des Westens wie Rosenkreuzertum und Freimaurerei sowie deren Seitenströmungen und Fortbildungen, darunter Theosophie und Anthroposophie;[9]

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[8] Die europäisch-westlichen integralen Ansätze, z.B. aus Deutschland und Frankreich, werden in den USA praktisch nicht rezipiert, solange sie nicht in englischer Sprache vorliegen, was bisher nur in Ausnahmefällen gegeben ist. Wilber ist z.B. erst dann auf Gebser gestoßen, als Jahrzehnte nach dem Original eine Übersetzung eines Artikels von diesem angefertigt wurde. Anders steht es mit den Buddhisten und Hinduisten, die konkret damit angefangen haben, persönlich in die USA zu gehen und auch solche amerikanischen Schüler als Lehrer auszubilden, die ihre Ansätze dort angemessen verbreiten konnten.

[9] Inwiefern diese aus Europa stammenden geistigen Strömungen mit ihren in die Vormoderne reichenden Wurzeln im heutigen Sinn als genuin „subjektiv-objektiv“, „integrativ oder gar „integral“ gelten können, muss in philosophisch-ideengeschichtlich exakter Weise erst noch Gegenstand der Klärung sein. Ich habe dazu einige Elemente und Bausteine unterscheidender Urteilskraft im Rahmen der methodisch-systematischen Vorbereitung meines Publikations-Projekts „A Global History of Integral Thought from the 18th to the 21st Century“ (a.a.O.) in verschiedenen europaweit ausgetragenen Seminaren zur Einführung in die weltweiten integralen Bewegungen entwickelt, die aber den Rahmen dieser Abhandlung sprengen würden. Im wesentlichen kann davon ausgegangen werden, dass Integration, soweit dieser Begriff konstruktiven Sinn macht und soweit er in progressiver Weise angewendet wird, stets auf vorgängiger – gesellschaftlicher, methodischer und/oder terminologischer – Ausdifferenzierung beruht, und dass daher „integral“ im aufgeklärten Wortsinn für die Gegenwart stets „Integration auf der Grundlage von vorausgehender Differenzierung“ meint. Wenn dem so ist, dann ist bei Strömungen wie der Freimaurerei und dem Rosenkreuzertum dieses Kriterium zumindest in der Frühzeit ihrer Entwicklung nicht oder nur ansatzweise gegeben, da sie deutlich im vormodern-theokratischen und also im Kern gesellschaftsunitarischen Bereich wurzeln; sie wären daher als „prä-integral“, als „proto-integral“ oder als Vorläuferströmungen der modernen Integralen Bewegungen zu kennzeichnen. Allerdings haben sie zugleich die Entwicklung der Moderne und ihrer ausdifferenzierenden – und darauf aufbauend das integrative Element gerade erst notwendig machenden – Tendenz erstens wesentlich, ja entscheidend mit inauguriert, zweitens bis heute begleitet und sich dabei zu einem Teil der Moderne weitergebildet. Im wesentlichen kann für einen kritischen Gesamtüberblick gelten, dass das integrale Welt-Motiv der Gegenwart wesentliche Schichten und Wurzeln in der europäischen Ideengeschichte zwischen dem 12. und dem 18. Jahrhundert besitzt, die heute massiv, wenn auch weitgehend unbewußt

8. Dass alle drei trotzdem auch für den christlich-rosenkreuzerisch-freimaurerischen Hauptstrom der US-Kultur und für die geistigen Entwicklungen Europas wesentliche Impulse des Neuen darstellen, die hier allerdings entsprechend adaptiert und kontextadäquat neu gefasst werden müssen, um den Hauptstrom der hiesigen ideengeschichtlichen und geistigen Entwicklung zu erreichen, aufzunehmen und zu entwickeln. Bislang wird, eben auch aufgrund der stark „östlichen" Kern-Prägung der drei Ansätze, insbesondere die europäische akademische, öffentlich anerkannte Kultur noch kaum von ihnen erreicht. Insbesondere der wissenschaftlich-philosophische Ansatz Ken Wilbers, der das größte rational-kulturadäquate Potenzial dafür hätte und auch nach dem Willen seines Pioniers ausdrücklich den Eingang in das geltende akademische Paradigma anstrebt, wird derzeit noch weitestgehend von diesem abgewiesen. Das hat seine Gründe zwar nicht ausschließlich, aber *auch* in der bislang weitgehend fehlenden ideengeschichtlichen und okkulten Anbindung an den begrifflichen und ideellen Hauptstrom europäisch-westlicher Erfahrung mit der Gnostik, und an deren heutige, in jahrhundertelangen Prozessen gewachsene Situation.

Es handelt sich um allesamt quantitativ vor Ort eher kleine „communities" mit ihren eigenen inneren Chancen und Problemen, die aber, was ihre Ausstrahlung mittels Medien, vor allem Büchern, betrifft, mittlerweile zu den potentesten und wirksamsten weltweit gehören. Alle drei haben mittlerweile eigene universitäre Studiengangs-Gründungen mit anerkannten Master- und Doktorats-Abschlüssen bereits vollzogen oder sind dazu unterwegs, alle drei sind ideologisch nicht dem traditionellen politischen Spektrum der USA zuordenbar, und alle sind drei bereits einflussreich für die Gesamtfärbung der gegenwärtigen amerikanischen „Paradigmenverschiebung" tätig.

Alle drei Strömungen sind insgesamt Teil der historischen Ausdifferenzierung einer mittlerweile 40 Jahre alten Welt-Kultur-Intuition: der Integralen Intuition. Diese Intuition keimte im 20. Jahrhundert unabhängig voneinander sowohl im Osten, in Europa und im Westen, konnte aber nur in den USA und ihrer vergleichsweise „reinen" Willensgrundierung in Gestalt der Anfänge der Umweltbewegung (vor allem Rachel Carsons: Der stumme Frühling / The silent spring, 1962), der anti-rassistischen Bürgerrechtsbewegung seit den 1950er und 1960er Jahren und schließlich, zusammenfassend, der 1968er Studenten-Revolution und ihrer seelischen Erneuerung der Grundmotivs moderner Gesellschaften: „Freiheit – Gleichheit – Brüderlichkeit" zu jenem avantgardistischen Welt-Gesellschaftsimpuls werden, der von der Universität Berkeley (San Francisco) ausgehend als grundlegender Paradigmen-Schub in die gesamte europäisch-westliche Welt ausstrahlte. Die in den USA seit ihrer Gründung ausschlaggebende innere Dialektik zwischen Pragmatismus und Idealismus war es, die, wie seit jeher, der „natürlichen" Willensspiritualität dieser Kultur ihre Struktur, ihre Entwicklungsgesetzmäßigkeit und ihre intime Zeitgestalt im Zusammenhang zwischen Kontinuität und Wahrheit gab.[10]

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geworden wirken, und auf diefaktisch auch noch die asiatischen Strömungen aufbauen, so etwa Aurobindo, der mutmaßlich erst aufgrund seiner britischen Erziehung auf die Idee kam, seinen in Indien begründeten geistigen Impuls „integral" zu nennen. All dies ist aber aufgrund der Komplexität der in Frage stehenden Sachverhalte und Terminologien hier nicht angemessen zu klären, sondern Gegenstand meines genannten umfassenden Forschungsprojekts, auf das ich den geschätzten Leser hiermit verweise.

[10] Natürlich gab und gibt auch Auroville in Indien, und natürlich gibt eine eigenständige französisch-iberisch-lateinamerikanische transdisziplinäre Bewegung. Trotzdem wurde der integrale Impuls erst durch sein Einsickern in den Humus der „jungen" US-Kultur zu einer weltweit rezipierten geistigen

Entscheidend ist, dass sich dieser „integrale“ Willens-Impuls dann ab den 1970er Jahren in einer folgenreichen historischen Spaltung

1. In die eher erfahrungsorientierten, aber anti-wissenschaftlichen (und dabei durchaus sehr unterschiedlichen) „New-Age“-Strömungen einerseits (de-reflexive Substanz-Strömung der gesellschaftlich enttäuschten „Spirituellen“, die sich in das angeblich „rein Geistige“ zurückzogen und damit das öffentliche Bild von „fortschrittlicher“ Erfahrungs-Spiritualität gegenüber der traditionalistisch-hierarchischen Glaubens-Spiritualität der Kirchen zu bestimmen begannen),
2. Und in die eher erfahrungsfremde, aber wissenschaftlich-kritische „Postmoderne“ andererseits (reflexive Nominalismus-Strömung der progressiven links-intellektuellen Impulse seit 1979 - dem Jahr von Jean Francois Lyotards namensgebendem Buch „Das postmoderne Wissen“ -, welche das säkular-emanzipative Paradigma der Universität und des anerkannten kulturellen Wissens zu bestimmen begannen)

ausdifferenzierte.

Beide: „New Age“ einerseits und „Postmoderne“ andererseits als die zwei antagonistischen Haupt-Epigonen des 1968er Aufbruchs zwischen 1970 und der Jahrtausendwende, haben mit den Terror-Anschlägen fundamentalistischer Extremisten auf das New Yorker Welt-Handelzentrum am 11. September 2001 den Anfang ihres Endes, oder jedenfalls ihres Übergangs in etwas Anderes gefunden. Dieses Ende wurde nicht durch die Anschläge *ausgelöst*, sondern nur *angezeigt*; es war beiden Tendenzen der Ausgestaltung des 1968er Impulses in langwierigen Verfalls-Prozessen bereits seit geraumer Zeit bestimmt.

Was nun seit damals geschieht und derzeit in vollem Gange ist, ist die Auseinandersetzung und gegenseitige Reibung zwischen den Resten der tendenziell schwärmerisch-phantasmatischen „Spiritualität“ des „New Age“ einerseits, den Epigonen der „dekonstruktivistisch“-säkularen ersten Generation der Postmoderne (Jacques Derrida, Jean Francois Lyotard, Michel Foucault, Susan Sontag, Helen Cixous, Richard Rorty) andererseits - und eben den drei genannten „Integralen Bewegungen“, die in avantgardistischer Weise beide Dimensionen verbinden und im Hinblick auf eine wissenschaftlich-reflexive „rationale Spiritualität“ überwinden wollen. In den Berührungen und im Kampf zwischen diesen drei Tendenzen besteht die wesentliche innere geistige Auseinandersetzung der Gegenwart im Bereich progressiver Gesellschaftsströmungen der USA – ein Kampf, der in den USA weit intensiver und härter geführt wird, als er in Europa mit seiner weitgehend eindimensionalen und säkularen Tradition nach dem zweiten Weltkrieg denkbar ist. Diese Auseinandersetzung produziert, derzeit erst noch ganz keimhaft, aber an Intensität zunehmend, weitreichende Errungenschaften für die Entstehung eines neuen, „subjektiv-objektiven“ oder „post-postmodernen“ Kulturparadigmas für die erste Weltkultur des 21. Jahrhunderts – Errungenschaften, die in Europa voraussichtlich erst in den kommenden Jahren, und dann notwendigerweise in anderer Färbung, historischer Traditionslinie und begrifflicher Fassung in den Blick kommen werden.

Ost oder West? Der große Richtungskampf um eine empirische und praktisch-gesellschaftsorienteirte Spiritualität für das 21.

Entwicklungslinie. Zu den historischen Hintergründen,Verflechtungen und Gesetzmäßigkeiten siehe näher mein Projekt „A Global History of Integral Thought“, a.a.O.

Jahrhundert im Innern der US-amerikanischen Kultur der Gegenwart

Bei alledem ist nun ein Aspekt bedeutsam, der nicht übersehen werden darf, wenn die besondere Charakteristik des gegenwärtigen US-amerikanischen Geisteslebens in ihrem inneren Ringen, in Problemen und Chancen richtig aufgefasst werden soll. Dieser Aspekt besteht darin, dass das Selbstverständnis aller drei integralen Strömungen weniger atlantisch, als vielmehr pazifisch ist. Alle drei Strömungen sind am Pazifik verankert (insbesondere in der traditionell „alternativen" und „New-Age" geprägten Bay City Area, ausgenommen Andrew Cohen), der nicht nach Europa, sondern in den östlichen Teil der Welt blickt; und alle drei sind vor allem in ihrem geistigen Kern asiatisch geprägt. Das betrifft weniger die philosophische und tiefenpsychologische Seite, als vielmehr die Induktions-Methodologie sowie die Fachterminologie für jenen Kern spiritueller Erfahrung, welcher das Herzstück aller drei integralen Strömungen darstellt.

Während dies bei Andrew Cohen und A. H. Almaas von vergleichsweise geringerer Bedeutung ist, da ihre Ansätze weniger philosophisch-begrifflich und wissenschaftsterminologisch ausgerichtet sind, ist dieser Umstand bei dem bislang in Ausstrahlung und Systemqualität mit Abstand wichtigsten dieser drei Ansätze: beim philosophisch-wissenschaftlichen Jahrhundert-Entwurf integralen Denkens durch Ken Wilber, von mit ausschlaggebender Dimension. Wilber verwendet in der überwiegenden Mehrzahl nicht seiner philosophischen, wohl aber seiner spirituellen Kern-Begrifflichkeiten asiatische (buddhistische und hinduistische, zum Teil auch alt-tibetische) Terminologien, Unterscheidungsmethoden und Bilder; und er verwendet, mit wenigen Ausnahmen, in der überwiegenden Mehrzahl asiatische Methoden der geistigen Erfahrungsgewinnung und ihrer Interpretation. Was in seinem - aufgrund seines mönchischen Lebens, das sich mit Reisen offenbar wenig verträgt, aber auch aufgrund der Einschränkungen, die ihm seine Immunschwäche-Erkrankung auferlegt, in allen Kernstücken ausschließlich in den USA entstandenen - Werk bislang vollständig fehlt, ist der Kontakt zu den spirituellen Kernbegriffen, Bildern und Riten sowie deren Tradition reflexiver Selbstaneignung seitens derjenigen spirituellen Strömungen, die am Beginn der modernen US-Demokratie standen: des Rosenkreuzertums und der Freimaurerei, aber auch, in späterer Ausprägung, ihrer seit vielen Jahren einflussreichen Misch- und Variantenströmungen (siehe zum Beispiel die öffentlichen Erklärungen der beiden äußeren Widersacher George W. Bush und John Kerry im letzten US-Wahlkampf, beide „nach innen" derselben Gruppe „Skull and Bones" mit Sitz in Yale anzugehören), sowie der Theosophie und der Anthroposophie, die beide ebenfalls bereits traditionell, und in wesentlichen Aspekten aktiv anschließend an die Umfeld-Ströme, eine gewisse Rolle im inklusiven, „subjektiv-objektiven" Geistesleben der USA spielen. Das ist umso erstaunlicher, als Ken Wilbers weltberühmter Buch-Erstling „Das Spektrum des Bewusstseins. Eine Synthese östlicher und westlicher Psychologie" (1977, geschrieben mit 23 Jahren) im Theosophischen Verlag der USA erschien, nachdem es zuvor von 15 anderen Verlagen, darunter zahlreiche auf östliche Weisheit hin orientierte, abgelehnt worden war.

Gerade die stark „pazifische" Innenstruktur des integralen Impulses nun aber scheint seit Jahren ein mit ausschlaggebendes Problem für das Erreichen und Durchdringen des christlich-rosenkreuzerischen Charakters des Gründer-Amerikas und seiner Mainstream-Kultur seitens der genannten drei Avantgarde-Strömungen zu sein – so etwa für die in Zeitdauer und Ausmaß ungewöhnlichen Schwierigkeiten Wilbers, eine eigene Universität zu akkreditieren, aber auch für seine seit der zweiten Hälfte der 1990er Jahre offenbar nicht enden wollenden Probleme, die soziale, politische und gesellschaftliche Realität seines Landes in Gestalt seiner eigentlichen Zielgruppe: der „kulturell kreativen“[11] Bevölkerungsschichten zu erreichen. Es ist in dieser Lage eine historische Synchronie, dass um die amerikanische Mainstream-Kultur und ihre geistig-okkulte Ausrichtung seit einiger Zeit ein erbitterter öffentlicher Streit vor allem im Gefolge des Buchs „Who are we? Die Krise der amerikanischen Identität“(2004) von Samuel P. Huntington ausgebrochen ist. Huntington ist ein sich ausdrücklich und aktiv im Strom der rosenkreuzerischen Gründer-Impulse Amerikas verankernder „spirituell-pragmatischer“ Jahrhundert-Stratege der weiteren Entwicklung, der in elitären Gruppen steht, welche traditionell in Jahrhunderten menschheitlicher Bewußtseins-Evolution denken, von einem nicht nur politisch und militärisch, sondern vor allem geistig für die gesamte Menschheit und ihre Bewusstseinsentwicklung notwendigen Primat der US-Zivilisation für die kommenden Jahrhunderte ausgehen, und aufgrund dieser Denkweise, die sich sehr von dem säkularen „Denken in Wahlperioden“ der europäischen Nachkriegs-Politik unterscheidet, von großem Einfluß auf langfristige Hintergrund-Veränderungen sind. (Vgl. dazu im Detail u.a. die Veröffentlichungen von Bill Clintons Lehrer, dem Arnold Toynbee-Schüler Caroll Quigley, 1910-1977, Professor an der einflussreichen Georgetown-Universität Washington, zum Beispiel sein bekanntestes Werk: „Tragedy and Hope,“ 1966, oder „The Anglo-American Establishment. From Rhodes to Cliveden”, posthum 1981).

Warum soll dieser Aspekt aus ideengeschichtlicher Sicht aber für eine Beurteilung des heutigen US-amerikanischen Geisteslebens, und insbesondere der Tätigkeiten und Strahlkraft der progressiv-integralen Bewegungen in ihm, bedeutsam sein?

Während die drei genannten integralen Impulse noch vergleichsweise übersichtliche Anhängerschaften aufweisen, gibt es in den USA heute auch eine innovative anthroposophieorientierte Strömung, die Rudolf Steiner auf zeitgemäße Weise - in Teilen zeitgemäßer als in Europa, weil vergleichsweise weniger befangen - heute „einfach noch einmal macht“. Siehe z.B. den philosophiehistorischen Bestseller des Philosophie- und Psychologie-Professors Richard Tarnas: „Idee und Leidenschaft. Die Passion des westlichen Denkens“ (1991), der in Grundmotiv und rotem Faden nichts anderes ist als Steiners „Rätsel der Philosophie“ (1913/14) noch einmal von heute aus gesehen, und zwar unter brillantem Einschluß der Entwicklung seit Steiners Tod, insbesondere des 1968er Impulses und der „postmodernen“ Epoche. Unter den Initiativen, die Europa-nahe *und* integral sind, ohne einer der drei oben genannten integralen Strömungen anzugehören, ragt das Californian Institute for Integral Studies (CIIS, siehe www.ciis.edu) heraus. Es handelt sich um eine US-weit anerkannte Privat-Universität, die der Verbindung zwischen traditioneller akademisch-philosophischer Welt, klinisch-psychologischen (vorwiegend transpersonalen) und spirituellen Ansätzen, insbesondere im Rahmen kosmologischer und Bewusstseins-Studien, gewidmet ist. Unter der Leitung des Anthroposophen und führenden Steiner- und Aurobindo-Herausgebers Robert McDermott und unter maßgeblicher philosophisch-intellektueller Einflußnahme von Richard Tarnas vergibt die Universität, die derzeit etwa 1500 Studenten zählt, reguläre Master-Abschlüsse (MSc’s) und Doktorate (PhD’s) unter anderem in Klinischer Psychologie, Philosophie und Bewusstseinsstudien, aber auch in traditionellen Fächern. Das CIIS wurde historisch aus der integralen Bewegung Sri Aurobindos heraus begründet und entstand 1951 als Institut für

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[11] Vgl. dazu näher P. Ray and S. Anderson: The Cultural Creatives, New York 2000; sowie meine 7-teilige Buchreihe „Postmaterialismus – Die zweite Generation“ im Passagen Verlag Wien (2001-2005): www.passagen.at/autoren/benedikter.html.

Asienstudien, wurde aber zwischen 1968 und 1974 von dem Aurobindo-Anhänger Haridas Chaudhuri, einem in die USA emigrierten Bengalen, unter Förderung einflussreicher Rosenkreuzer- und Freimaurer-Kreise zu einem „Institut für Ost-West-Psychologie“ und später zu einem „Institut für Integrale Studien“ umgeformt. Seit dem wachsenden Einfluß des Anthroposophen Robert McDermott in den 1990er Jahren integriert es auch die Anthroposophie Rudolf Steiners sowie verschiedene Ansätze der europäisch-westlichen Tradition immer aktiver mit, darunter das Rosenkreuzertum und verschiedene Strömungen der Freimaurerei, der Kosmologie und der Alchemie, aber auch die proto-spirituellen Ansätze der späten „Postmoderne“ (vgl. dazu näher mein Buch: „Postmodern Spirituality. How To Find A Rational Alternative To The Global Turn To Religion? Dimensions, Developments and Perspectives. An Official Publication of the International Civil Society Initiative for the UN-Decade ‚Education for Sustainable Development 2005-2014’, Section Austria“, in Vorbereitung für 2007) in zwar prinzipiell affirmativer Weise, aber dabei zugleich auf explizit wissenschaftlich-kritischer Grundlage. McDermott und Tarnas haben sich inzwischen, ebenso wie das gesamte CIIS, mit Ken Wilber aufgrund seines Vorwurfs, sie führten den Begriff „integral“ zu Unrecht oder gar in „New Age“ ähnlicher, regressiv-undifferenzierter Manier überworfen. Dabei war Ken Wilbers zweite, über alles geliebte und auf tragische Weise früh verstorbene Frau Treya, der er sein berührendstes Werk, den autobiographischen - und in zentralen Teilen in Dialogform zwischen den zwei Tagebüchern der Eheleute geschriebenen - Welt-Bestseller „Mut und Gnade“ widmete (1991; bis heute das meistgelesene, und am meisten zu empfehlende, einführende Buch zu seiner Weltanschauung), Studentin am CIIS. Tragik und schicksalhafte Verquickung allerorten.

Neben diesen innovativ-transdisziplinären und transspirituellen Ansätzen gibt es aber auch eine sichtbare „klassische“ Anthroposophie, vertreten unter anderem vom ehemaligen Generalsekretär der Anthroposophischen Gesellschaft in den USA, dem weltbekannten Experimentalphysiker Arthur Zajonc, der seit Jahren mit dem Dalai Lama und dem Wiener Erfinder der „Teleportation“, Anton Zeilinger, an einer transdisziplinär-integrativen Ausleuchtung der subjektiv-objektiven „Ur-Wirklichkeit der Welt“ forscht. Es ist nicht zuletzt maßgeblich den geistigen Differenzen zwischen östlichen und westlichen Begrifflichkeiten, Bildwelten, Erfahrungswegen und Interpretationsrastern mit geschuldet, dass Zajonc, der ursprünglich den erziehungswissenschaftlichen Bereich des Integralen Instituts Ken Wilbers mit begründete, sich mittlerweile im Streit von Wilber abgewandt hat. Die wiederholte Äußerung Wilbers, die östlichen Traditionen des Geistes und die westliche Psychologie hätten das „mythische Bewusstsein“ Steiners überholt, aber auch dessen neuere Überzeugung, dass die Zukunft der Spiritualität nicht in ontologischen geistigen Hierarchien, sondern *ausschließlich* in der Unterscheidung qualitativer innerer Bewußtseinszustände bestehe, waren keine Hilfe für den Dialog und den Anschluß von Wilbers integraler Bemühung an den anthroposophisch-theosophischen Strom der USA, der seine Werke ursprünglich mit besonderem Enthusiasmus und in aktiver Förderung aufgenommen hatte.

Drittens gibt es, und das ist von besonderer Bedeutung, in den heutigen USA als unzweifelhaften, eindeutigen und mit großem Abstand einflussreichsten Schwerpunkt der erfahrungsgestützten traditionellen Ströme abendländisch-„wissenschaftlicher“ Spiritualität und ihrer gesellschaftlich-sozialen und politischen Wirksamkeit etwa 5,5 Millionen Freimaurer, den überwiegenden Teil ihrer Weltpopulation, und zwar mit deutlichem Schwerpunkt Rosenkreuzerstrom – Politik. Praktisch alle führenden Persönlichkeiten der heutigen USA sind darin Mitglied oder haben intensive Beziehungen dazu - keineswegs nur die bereits genannten Huntington, Bush oder Kerry. In den USA hat sich historisch – so wie im gesamten anglo-amerikanischen Bereich, wo Anfang des 14. Jahrhunderts (1307-1314) der Templerorden als einziger Weltgegend bewusst *nicht* ausgerottet wurde (Schottland), was den Aufstieg des Angelsachsentums, der „Thin Red Line“, zur Weltherrschaft im19., 20. und 21. Jahrhundert maßgeblich mit impulsierte und stützte – der „alte and angenommene schottische Ritus“ durchgesetzt. Das heißt: Es haben sich hier die „Geist-Realisten“ unter den heutigen, seit dem zweiten Weltkrieg weltweit zwischen Realismus und Nominalismus zweigespaltenen Freimaurern mit großer Mehrheit (und qualitativ nicht vorrangig im Denken oder im Gefühl, sondern auf der Willensebene) durchgesetzt. Dies ganz im Unterschied zu Kontinental-Europa, wo der Templer-Orden historisch unter Philip dem Schönen vernichtet wurde und sich, auch im Gefolge dieser Tat, sowie unter dem Einfluß der Erfahrung der Totalitarismen des 20. Jahrhunderts, nach dem zweiten Weltkrieg bis heute der „Großorient“, das heißt die „Nominalisten“ bzw. die kantianisch-anti-gnostischen und säkularen Strömungen quantitativ und qualitativ durchgesetzt haben. Während erstere die Riten als Realität eines geistigen Ereignisses pflegen, betrachten letztere sie hauptsächlich als Übung guten Willens, und in weiten Teilen nur mehr als halb-mythische Folklore, die in ihrem Kern inzwischen durch die historische Aufklärung überwunden ist.

Der spirituelle Realismus der US-Freimaurerei auf der Grundlage eines stark rosenkreuzerischen Einschlags ist einer der Haupt-Gründe, warum sie zahlenmäßig sowie im Hinblick auf den öffentlichen Einfluß nach wie vor eine große Rolle spielt – beides ganz im Unterschied zu den europäischen Strömungen. Sie ist zweitens ein Haupt-Grund dafür, daß sich im anglo-amerikanischen Bereich, mit Zentrum der heutigen welthistorischen Achse USA-Großbritannien, eine weit engere strukturale Verquickung zwischen erfahrungsorientiert-„subterranen“ und konfessionell-kirchlichen spirituellen Strömungen etablieren konnte – mit viel umfassenderen Möglichkeiten wechselseitiger Einflussnahme und strategischer Koalitionen. Diese charakteristische Verquickung verschiedener „realistischer“ christlicher Ströme, die am Ursprung der USA steht und bis heute einen wesentlichen Aspekt ihres geistigen Zentrums darstellt, wird noch heute jedem aufmerksamen Besucher zum Beispiel bereits an der äußeren, und noch mehr an der inneren Symbolik des Washingtoner Sitzes des US-Parlaments, des „Capitols“, nachvollziehbar. Dort finden sich allenthalben ganz offen rosenkreuzerische Symbole (das heißt in der Interpretation der US-Väter: Symbole der Vereinigung griechisch-römischer - oder „subjektiv-objektiver“ – Geisttraditionen zum „im Willen denkenden“ Christentum). Sie verweisen auf die Kern-Inspiration der amerikanischen Verfassung von 1776, deren Geist bis heute die US-Gesellschaft allenthalben unsichtbar durchdringt und bis ins Innerste prägt. Aber nicht nur am Kapitol, sondern überall im öffentlichen Leben findet sich jene starke Koalition der christlich-freimaurerischen Ströme mit den großen etablierten Glaubens-Kirchen, die auf den durchdringenden Einfluß der europäisch-westlichen okkulten Traditionen hinweist. Man betrachte, nur ein Beispiel unter vielen, die zentralen Kirchen in Philadelphia, dem geistig-institutionellen Ursprungsort der USA (der quäkerische Name der Stadt lautet wörtlich: „Liebe zur Brüderlichkeit“), und man sehe dort die unbefangene Verquickung von katholisch-protestantischem Kreuz und freimaurerischem Zirkel auf *derselben* Kirchenwand! Genau dies ist der okkulte Kern des US-Willenselementes, welches die erste moderne demokratische Gesellschaft der Welt mit der Mission hervorgebracht hat, dass sich in ihr der zunächst individuelle Wille zum „objektiven“ Wahrnehmungs- und Urteilsorgan ausbilden kann, um als „subjektiv-objektiver“ Denkwille *in* der Welt zu wirken. Eine ganz andere Grundhaltung als die Konzeption der „Leere“ in den asiatisch-östlichen Strömungen, die im Zentrum der drei genannten integralen Impulse von Ken Wilber, Andrew Cohen und A. H. Almaas stehen (wobei

Cohen am weitesten eine „Hinwendung zur Welt im Ich“ im innersten Kern seines Praxis- und Denk-Systems etabliert hat, weshalb er heute vielleicht als der „Atlantikfähigste“ der drei „Pazifiker“ gelten kann). Etwas Ähnliches und direkt Verwandtes von welthistorischer Bedeutung politisch-spiritueller Natur findet sich auch im Herzen des „Outback“ Australiens, etwa in den zentralen Kirchen von Alice Springs. Die in jeder Hinsicht stark „objektivistisch“ gefärbte angelsächsische Welt praktiziert überall einen pragmatischen Geistrealismus, keinen Nominalismus, und die USA als ihr heutiges Machtzentrum halten diese Traditionen am lebendigsten, da sie genau wissen, dass von ihr ihr „reflexiver Idealismus“, aber auch die innere Lebensfähigkeit ihrer weltpolitischen Mission abhängen. Es kann kein Zweifel daran bestehen, dass die solcherart auch in das konfessionelle, soziale und politische Umfeld eingedrungenen geistrealistischen Ströme und Motive im Halb-Untergrund nach wie vor eine große Kraft entfalten und überaus lebendig sind – auch dies im Unterschied zum heutigen Europa. Warum? Weil diese Strömungen in den USA im Zeichen von „Kontinuität und Wahrheit“ traditionell weniger den *Ätherleib* (Steiner: „Einen Freimaurer erkennen Sie an der Kultivierung seines Ätherleibs“), sondern eher den *physischen* oder *Willensleib* spirituell kultivieren.

Zwischen letzteren – Anthroposophie und Freimaurertum, sowie dem (nicht zuletzt auch sozialen und politischen) Erstarken gewisser gemäßigt-konfessioneller Strömungen vor allem im Rahmen der Republikanischen Partei, der „gran old party“ (Bill Clinton, siehe seine Autobiographie: Mein Leben, Berlin 2000) – einerseits, und den drei führenden integralen Strömungen – Wilber, Cohen, Almaas – andererseits gibt es nun derzeit einen weitreichenden Konkurrenz- und Richtungskampf um die weitere Entwicklung des US-amerikanischen Spiritualitäts- und Kulturparadigmas. Dieser Richtungskampf besteht in der Applikation zweier verschiedener Färbungen, da die ersteren christlich-atlantisch, die letzteren asiatisch-pazifisch ausgerichtet sind. Beide bringen daher unterschiedliche ideengeschichtliche Linien und Traditionen in die innere Fermentierung des traditionell eher „realistischen“ US-Geisteslebens ein. Dabei haben es die heutigen drei integralen Strömungen weit schwerer, da ihre Linien weit weniger in der US-amerikanischen Leit-Kultur verankert sind. Und obwohl es in den USA seit jeher eine weit stärkere interkonfessionelle und transspirituellen Kooperation zwischen Ost und West als in Europa gibt, bleibt sie hier bisher in vielen Fällen weniger nachhaltig. Das ist mit ein Grund dafür, warum die wechselseitige Rezeption und Durchdringung zwischen den genannten „atlantischen“ und „pazifischen“ Richtungs-Strömungen bisher noch wenig erfolgt ist. Die große Frage für das US-amerikanische Geistesleben ist, ob und in welcher Weise das in den kommenden Jahren überhaupt erfolgen kann, da christliche und asiatische Weltanschauungen zwar zum Großteil dasselbe wollen und in vielen Aspekten komplementär zueinander stehen, sich also wechselseitig bereichern und ergänzen können gerade durch verschiedenartige reflexiv-terminologische und bildhafte Fassungen desselben, sich aber auch in wesentlichen Teilen ihrer „Wege“ widersprechen oder sogar gegenseitig ausschließen. Wenn der deutlich in den „atlantischen“ Strömungen verankerte, ehemalige „Rhodes“-Stipendiat und Quigley-Schüler Bill Clinton neuerdings, wie etwa auf dem Weltwirtschaftsforum Davos im Januar 2006 geschehen, öffentlich das integrale Denken Ken Wilbers promotet, dann ist das bisher einer der wenigen Fälle von öffentlichem Brückenschlag nachhaltiger und langfristig gemeinter Natur; dass zugleich Wilbers Integrale Universität noch immer nicht anerkannt ist, kann auf der anderen Seite als Symbol bisherigen Probleme gelten, den öffentlichen Mehrheits-Mainstream der US-Kultur in seinen Tiefenschichten zu erreichen.

Das Fehlen der Mitte. Die Bedeutung des Richtungskampfs um eine progressiv-integrale US-amerikanischen Spiritualität zwischen historischer Nähe und geistigem Antagonismus zu Europa

Die drei integralen Haupt-Strömungen des gegenwärtigen US-Geisteslebens (Ken Wilber, Andrew Cohen, A. H. Almaas) sind solcherart in einen dreifachen Richtungskampf verwickelt: Einmal in die Abgrenzung zu New Age und traditioneller Religion; zweitens in die Abgrenzung und Anbindung an die etablierte Philosophie und Wissenschaft sowie die kritisch-integrative Fortführung der „Postmoderne;" drittens in die latenten Diversifizierung zwischen „atlantischen" und „pazifischen" Ansätzen.

Ein zentrales Problem vor allem bei letzterem Richtungskampf scheint: Es ist bisher ein Kampf zwischen Ost und West. Die geographisch-historische Mitte, nämlich Europa und seine eigenständigen geistig-okkulten Traditionslinien, ist bislang darin kaum vertreten. Doch Ost und West sind ohne ihr Drittes: ohne die Mitte deutlich unvollständig. Und ein direkter Brückenschlag zwischen ihnen ohne Vermittlung der Mitte und ihrer spezifischen Geistigkeit und Sozialität muss laut Rudolf Steiner in vielen Fällen scheitern. Europa ist bisher in der Debatte um eine neue spirituelle Leitkultur für die USA und „den Westen" insgesamt nicht angemessen präsent; eher handelt es sich der Färbung nach um einen US-internen Kampf – dessen Ergebnisse aber, wie alles, was von der einzigen verbliebenen Weltmacht USA heute ausstrahlt, mit unabsehbaren Folgen für die gesamte europäisch-westliche Welt sein werden. Daher sind diese scheinbaren „kleinen" oder „unterschwelligen" oder „nebensächlichen" Kämpfe von größter Bedeutung und müssen genau verfolgt werden – nicht nur aus ideengeschichtlicher, philosophie- und kulturhistorischer, sondern auch aus sozial- und zeitpolitischer Sicht.

Denn vergessen wir es nie: Die Amerikaner sind Meister im Geschichtenerzählen mit Bildern, inneren und äußeren. Diese bilden auf dem amerikanischen Kontinent eine Einheit der Willens-Imagination (mythisch strukturierter amerikanischer Traum). Von dort aus haben sie medial und geistig-kulturell längst den Innenraum der Welt erobert so, wie die US-amerikanische Zivilisation seit dem zweiten Drittel des 20. Jahrhunderts die äußere Weltherrschaft erobert hat. Die Eroberung der Welt geschieht im 21. Jahrhundert mittels Bildern. Die heutige, im Untergrund noch immer mehr „geistrealistische" als „nominalistische" US-Kultur ist die Erobererin der Welt mittels Imaginationen; und die USA als darauf aufbauendes politisch-gesellschaftliches Gebilde sind diejenigen, die diese Imaginationen strukturieren und ihre Färbung und Gehalt vorgeben (Jean Luc Godard). Die USA haben aber nicht nur die kulturelle, sondern auch, gerade wegen ihres seit dem britischen „Round Table" des 19. Jahrhunderts gepflegten Jahrhundert- und Globaldenkens, die politisch-ökonomische und die militärische Weltherrschaft inne, und manche sagen nicht zu Unrecht, eben in diesem Gefolge auch die religös-spirituelle: verstanden als Herrschaft einer bestimmten Bewusstseinsform, eines bestimmten Ich-Erlebens und seiner spezifischen gesellschaftlichen Organisationsform, der in ihren Basis-Idealen „geistrealistisch informierten" säkularen Demokratie. In jedem Fall werden die USA auf der Grundlage ihrer bestimmenden Einflussnahme auf allen Gebieten - trotz vorhersehbaren Niedergangs oder zumindest Verschiebung gewisser Kernelemente ihres heutigen Status (etwa des absehbaren Endes der Dollar-Hegemonie; siehe dazu näher mein Buch „Globale Paradigmen-Verschiebung. Wirtschaft, Kultur, Politik", mit einem Vorwort von Ernst Ulrich von Weizsäcker; in

Vorbereitung) - die weltweite Entwicklung und das Selbstverständnis progressiv-rationaler Spiritualität, welche allein zur Überwindung des Kampfs der Kulturen fähig sein wird, maßgeblich mit prägen.

Wenn wir also heute genau im Schnittpunkt zwischen Pazifik und Atlantik einen Willen haben, der „wahrnehmend“ wird in einer noch immer stark sozialdarwinistisch, religiös und phantasie-spirituell geprägten Gesellschaftsumgebung, dann müssen wir uns doch als Europäer jederzeit bewusst sein, dass es sich um einen im Kern zutiefst moralischen Willen handelt, der wahrnehmend und zur Erkenntnisform wird, und der derzeit darum ringt, ob dies in phantasmatisch-regressiver oder wissenschaftlich-progressiver, und ob es in atlantischer oder in pazifischer Färbung der Fall sein wird.

Noch einmal: Man darf, wenn man die Zukunft der genannten drei integralen Impulse abzusehen sucht, die heute zu den einflußreichsten ideengeschichtlichen Neuerungen weltweit gehören und von deren Schicksal manches abhängen wird, nie vergessen, dass die USA aus rosenkreuzerischen Impulsen begründet wurden, und dass sie in ihrer inneren biographisch-gesellschaftlichen und geistigen Dialektik immer schon im inneren Gespräch zwischen Idealismus und Pragmatismus gelebt haben: beide leben im Willen.

Wenn die bislang stark „pazifischen“ integralen Strömungen diesen Grund US-amerikanischen Geisteslebens vollends erreichen wollen, benötigen sie eines: die Einbeziehung der Mitte, die Integration der europäischen Ströme geistrealistischer *und* rationaler Spiritualität und ihrer wissenschaftlich-philosophischen Begriffsterminologie. Darin besteht ihre Chance, die Brücke zwischen Pazifik und Atlantik zu schlagen und einen verbesserten Zugang zum Hauptstrom ihrer Kultur zu gewinnen, ohne ihre eigenständigen, neuartigen Charakter preiszugeben. Europäisierung ist deshalb die große Anforderung. Doch bestehen solche Bezüge heutiger progressiver US-amerikanischer Spiritualität zu Europa?

Die Antwort ist wechselhaft. Während Tarnas und auch Cohen stark nach Europa tendieren und dieses als Chance auch für die Entwicklung ihres eigenen Impulses begriffen haben, scheint Wilber bislang nur in ambivalenter Weise daran interessiert. Bezeichnend ist die lakonische Antwort, die er einem der Gründer des „Arbeitskreises Ken Wilber Deutschland“, Gerd Klostermann, 2005 auf die Frage gab, wann Europa stärker in die weiteren Arbeiten von Integralem Institut und Integraler Universität eingebunden werde: „Wenn wir fertig sind.“ Zwar hat Wilbers „Integrales Institut“ inzwischen ein explizites „Outreach-Programm“ nach Europa begründet und führt seit Jahresbeginn 2006 Gespräche über die Abhaltung von Seminaren in verschiedenen europäischen Ländern, was darauf hinweist, dass man begriffen hat, dass die größten nichtamerikanischen integralen Initiativ-Gemeinschaften in Europa zu finden sind. Daß sich diese völlig autonom ohne US-„Abgesandte“ entwickelt haben und den integralen Ansatz mittlerweile eigenständig diskutieren, scheint Wilber zu stärkerer „Kontrolltätigkeit“ in Gestalt von „Exportplänen“ (die ja derzeit in den USA sowohl politisch als auch kulturell und religiös in Mode sind) zu veranlassen.

Wilber scheint sich bislang, im Unterschied zu Cohen und zum Teil auch Almaas, über die Bedeutung der Einbindung jener okkulten Ströme, welcher an der Grundlage der US-Verfassung stehen, noch nicht ausreichend im Klaren zu sein: von Freimaurerei, Rosenkreuzertum und anderen. Ihre Dimension spielt in seinem Werk noch kaum eine Rolle, obwohl von ihnen die Kultur, in der er lebt, abhängt. Deshalb seine Schwierigkeiten, als „Asiate“ an seine eigene dominierende Kultur heranzukommen. Doch von dieser Einbindung wird voraussichtlich ein guter Teil des Schicksals seiner integralen Bewegung und seiner - bisher zweifellos unvergleichlich genialen und weitreichenden - Welt-Philosophie abhängen.

In dieser Lage könnte ein stärkerer Bezug Wilbers zu europäischen Leitströmungen, zum Beispiel der Freimaurerei oder der Anthroposophie, für beide Seiten fruchtbar werden. Ich habe einige Anregungen zu einem solchen produktiven Bezug anhand von ausgewählten Themen und Motiven in meinem Buch „Ken Wilber und die Anthroposophie. Elemente für den Dialog“ (in Veröffentlichung begriffen) zu skizzieren versucht. Müssen sich alle diese in ihrem Anspruch innovativen und „nominalistisch-realistischen“ Ideen-Strömungen - Integrale Bewegung, Freimaurerei und Anthroposophie - in die heutige produktive geistige Komplementärbildung und Ausdifferenzierung zwischen den USA und Europa gestaltend mit hineinstellen? Und wenn ja, in welcher Weise kann dies geschehen?

Seit der Initiative von Jürgen Habermas und Jacques Derrida vom 31. Mai 2003 „Nach dem Krieg – Die Wiedergeburt Europas“ ist auch in Europa eine zusehende Öffnung des kulturellen Leitparadigmas für eine Erweiterung in Richtung progressive Spiritualität zu beobachten, wenn auch die diesbezüglichen Ansätze erst keimhaft sind. Europa braucht hier nun die progressive Anregung aus den heutigen USA, um seine historisch bedingten Tabus zu überwinden (siehe dazu meinen genauere Analyse in meinem Buch: „Postmodern Spirituality. How To Find A Rational Alternative To The Global Turn To Religion? Dimensions, Developments and Perspectives”, erscheint 2007). Und die integralen Strömungen der USA brauchen die kritisch-selbstkritische Haltung Europas, um ihre weitgehend pazifisch-„östliche“ Ausrichtung zu ergänzen und um die „Kontinuität und Wahrheit“ des Abendlandes auszubalancieren. Von den drei genannten integralen Avantgarde-Ansätzen hat dies Cohen bisher vielleicht am besten begriffen. Er hat, wie seine zunehmenden Initiativen und Gastvorträge in Europa zeigen, erkannt, dass gerade unter dem Gesichtspunkt der notwendigen Genese eines subjektiv-objektiven Paradigmas die größten Chancen auf eine kritisch-post-postmoderne Spiritualität genau im Schnittpunkt zwischen den USA und Europa liegen. Die transatlantische Gemeinschaft kritisch-progressiver Spiritualität ist heute mehr denn je die große Zeitforderung – richtig angegangen, nicht im Sinn des Exports oder der wechselseitigen Filialeneröffnung.[12]

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[12] Eher pessimistisch schreibt mir dazu ein befreundeter Wissenschaftler: „Das ist ein schönes Postulat, aber die Wirklichkeit wird vermutlich weniger dialogisch ablaufen - und zwar vor allem im Sinne eines ready-made US-Exports nach Europa, wo dieser, ähnlich wie nach dem zweiten Weltkrieg die Care-Pakete, empfangen werden wird. In der umgekehrten Richtung: Von Europa nach Amerika sieht es in meinen Augen eher düster aus, so dass in den USA die großen pazifischen und atlantischen Einflüsse, wie du sie beschrieben hast, weiterhin neben- und gegeneinander laufen werden. In Europa natürlich auch, weil einerseits die verschiedenen Länder und Sprachgemeinschaften bisher faktisch erst wenig Austausch untereinander hinkriegen, und zweitens, weil dann die proamerikanischen Export-Importierer und die Amerika-kritischen Kontinental-Europäer mit Besinnungstendenzen auf die eigenen Wurzeln auch nicht mehr miteinander können werden. So wird all dies eher zu neuen Teilungen als zu Integrationen der integralen Bewegungen führen, wenn wir nicht ganz massiv Brücken gebaut werden - und zwar Brücken von dreierlei Art: Innerhalb Europas, innerhalb der USA und über den großen Teich, alle zugleich.“ (Brief an den Autor, September 2006). Obwohl dieser Pessimismus ohne Zweifel seine Gründe in der bestehenden Realität hat, wie etwa die oben erwähnten „Exportpläne“ Wilbers zeigen, halte ich es - gerade deshalb - für entscheidend, diese Realität mittels der Anstiftung eines substantiellen, nicht nur kurzfristig auf „Aktion“, sondern langfristig auf Ausarbeitung und Differenzierung geistig-wissenschaftlicher Grundlagen ausgerichteten Dialogs zu überwinden. Siehe dazu näher meine in Anmerkung 12 erwähnten Publikationsprojekte.

Perspektiven zwischen Postmoderne und Post-Postmoderne: Chancen und Probleme

„Das letzte große Hindernis für einen wirklich integralen Ansatz, wie ich ihn sehe, ist die New-Age-Epidemie, die... nun ja, zum Beispiel Magie und Mythos auf die psychische und subtile Ebene erhebt, Ich und höchstes Selbst verwechselt, prä-rational als trans-rational verherrlicht, prä-konventionelle Wunscherfüllung mit postkonventioneller Weisheit verwechselt, das Ich auf ein Podest stellt und es Gott nennt. Ich wünsche diesen Leuten nichts Böses, bloß eines: Mögen ihre Wünsche so schnell wie möglich in Erfüllung gehen, damit sie selbst sehen, wie wenig damit gewonnen ist.“ (Ken Wilber: Einfach Das. Tagebuch eines ereignisreichen Jahres, Eintragung vom 24. Juni 1997. Fischer: Frankfurt am Main 2001, S. 175).

Fassen wir zusammen. Wir haben gesehen: Die drei progressiv-integralen Avantgardeströmungen heutigen US-Geisteslebens, diejenigen von Ken Wilber, Andrew Cohen und A. H. Almaas, haben ihre Stärke in der kritisch-wissenschaftlichen Begründung einer ganzheitlichen, realistisch-nominalistischen „rationalen Spiritualität“. Sie haben wenig Probleme damit, sich aktiv gegenüber dem „New Age“ und seinen zahlreichen, überaus komplex verwobenen Seiten- und Folgeströmungen abzugrenzen, und zugleich andererseits sinnvolle Freundschaften zu vielen zu pflegen, die als Idole des „New Age“ gelten wie etwa zum gebürtigen Innsbrucker Frithjof Capra und zu seinem „Institute for Ecoliteracy“ in Palo Alto (Bay City Area). Die Gegnerschaft zum New Age macht die drei integralen Ansätze zwar für viele an schnellen Schein-Erfolgen Interessierten zu kompliziert, gerade in den USA mit ihrem Willen zu „action and satisfaction“ auch auf diesem Gebiet. Auf der anderen Seite gelingt es diesen Strömungen aber auch, dadurch an Profil zu gewinnen und immer mehr wirklich Interessierte auf ihre Seite zu ziehen; darüber hinaus geben sie damit den verbleibenden Resten des „New Age“ einen selbstkritischen Impuls, der von diesen längst benötigt wird.

Die Herausforderung für diese drei Ansätze besteht heute eher darin, in ihre vorwiegend „pazifische“ Grundierung die abendländisch-„atlantischen“ Traditionslinien aktiv zu integrieren. Dabei ist diese Herausforderung von je unterschiedlicher innerer und äußerer Bedeutung. Während sie bei Cohen und Almaas aufgrund ihrer starken Praxisorientierung und ihres nicht primären Wissenschaftsanspruchs weniger ins Gewicht fällt, ist dies bei dem ausdrücklich philosophisch-wissenschaftsorientierten Anspruch Wilbers auf die historisch fundierte Vorbereitung und Herausarbeitung einer ersten echten Weltphilosophie ein möglicherweise wesentlicher Kern-Aspekt für die weitere „Einbildung“ seines Impulses in die US-amerikanische Kultur. Es ist bislang ein faktisches Struktur-Problem mit potentiell weitreichenden Konsequenzen, dass ein Großteil seiner nicht-psychologisch-spirituellen Kern-Terminologie sowie sein geistiges Selbstverständnis weitgehend asiatisch-pazifisch geprägt sind. Und es ist ein Versäumnis von möglicherweise weitreichenden Folgen, dass Wilber bislang trotz seines Anspruchs auf Integration aller Weltströmungen zwar die großen Philosophien des Abendlandes sowie die Psychologie und die Sozialwissenschaften einbezieht, aber praktisch vollständig die geistigen Strömungen ignoriert, die in demjenigen geographischen Bereich bestimmend waren und bis heute sind, in dem er arbeitet: Rosenkreuzertum, Freimaurertum, Theosophie, Anthroposophie, um nur die wichtigsten zu nennen. Denn die meisten einflussreichen Menschen gerade in den USA stehen in diesen Traditionen.[13]

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[13] Nach 1989-91, und verstärkt nach dem 11. September 2001, scheint für die weitere Entwicklung der modernen Demokratie, aber auch der progressiven Weltgesellschaft insgesamt eine freundschaftlich-

Welches Fazit können wir aus geschilderten Situation des heutigen US-amerikanischen Geisteslebens ziehen? Und wo liegen die Perspektiven?

Ich möchte dazu *fünf* meines Erachtens wesentliche Punkte hervorheben, die zugleich fünf grundlegende *Herausforderungen* darstellen:

Aus ideengeschichtlicher Sicht ist *erstens* bedeutsam der zwar philosophisch-theoretisch gegebene, faktisch aber kaum vorhandene Bezug der drei genannten Avantgarde-Strömungen zur geistigen Kontinuität ihres historisch-geographischen Umfelds. Deshalb kann man in allen drei Fällen bisher faktisch eigentlich nicht oder nur teilweise von einer angemessenen ideengeschichtlichen Einbettung sprechen. Diese wird bislang bei allen drei Ansätzen eher äußerlich durch freundschaftliche Verbindung zu Partnern und mittels der mehr oder weniger kontinuierlichen und umfassenden Einbindung von Dialog-Partnern aus angrenzenden Strömungen hergestellt - beim Zen-Buddhisten Wilber zum Beispiel seitens des konfessionellen Christentums -, denn im inneren geistigen Kernstrom. Das kann in mancherlei Hinsicht ein Vorteil sein; es bleibt aber zu reflektieren, was das aufs Ganze besehen bedeutet.

Zweitens: Strukturdynamisch sind alle drei integralen Zukunfts-Ansätze von großen Pionieren getragen, die alle drei noch leben und maßgeblichen Einfluß auf Wirklichkeit und Impuls ihrer Bewegung in praktisch jedem Detail nehmen. Das bringt im Hinblick auf die soziale, aber damit zusammenhängend auch spirituelle Wirklichkeit dieser Impulse alle Stärken und Schwächen einer Pionierphase mit sich, die in allen drei Fällen unübersehbar sind, und aufgrund ihrer dabei zum Teil kultischen Kulturbildungen, die in europäischen Augen manchmal fragwürdige Erscheinungen produzieren mögen. Die Frage ist, wie es mit diesen Ansätzen nach der Pionierphase weitergehen kann, und wie sie auf ein breiteres Fundament in der internationalen Wissenschaftsszene zu stellen sind.

Drittens: Alle drei Strömungen sind Ausdruck des großen immanenten Ringens zwischen spiritueller Phänomenologie und „säkular-„dekonstruktiver“ Subjektkritik in der gesamten zeitgenössischen europäisch-westlichen Kultur um eine angemessene, zukunftsweisende Integration in Richtung eines „subjektiv-objektiven“ neuen Paradigmas, das als Voraussetzung für die weitere positive Evolution der Bewußtseinsentwicklung der Menschheit angesehen wird. Der Versuch der Synthese von postmodernem (De-)Konstruktivismus mit spiritueller Phänomenologie der Traditionen birgt die Chance auf den tatsächlich großen Durchbruch zu der Weltanschauung, die das 21. Jahrhundert benötigen wird: die subjektiv-objektive Weltanschauung, die zum Beispiel genau und präzise im Werk des jungen Steiner, insbesondere der Philosophie der Freiheit und ihrer Vorläuferschriften, in kongenialer Art grundgelegt ist. Die Frage, wie spirituelle und „postmoderne“ Weltbilder und Erkenntnis-Systeme angemessen zu integrieren sind, ist aber derzeit noch ein offener, in vollem Gange befindlicher Prozeß, der in den kommenden Jahren auf einer breiteren Basis als bisher stattfinden und vor allem die späten

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produktive und aktiv komplementaritätsorientierte Ausdifferenzierung zwischen den USA und Europa nicht nur auf politischem, sozialem und kulturellem, sondern auch auf *geistigem* Gebiet notwendig. Zu den komplexen und vielschichtigen Dimensionen dieser Ausdifferenzierung siehe näher die - allerdings erst noch ganz anfänglichen - Dialog-Versuche meines Buches „Ken Wilber und die Anthroposophie. Elemente für den Dialog“ (in Vorbereitung), aber auch mein Buch „Demokratie für den Irak? Sozio-kulturelle und demokratiepolitische Perspektiven“ (Wien 2005), welches zwei (affirmativ-kritische) Kapitel zu Ken Wilber und zur produktiven Differenzierung Europa-USA in kulturpolitischer Makro-Perspektive enthält; sowie mein in Vorbereitung befindliches Buch „Globale Systemverschiebung. Indizien eines Paradigmenwandels in Politik, Wirtschaft, Kultur, Religion auf Weltebene“ (Arbeitstitel; mit einem Vorwort von Ernst Ulrich von Weizsäcker).

„proto-spirituellen“ Tendenzen der Hauptvertreter der „Postmoderne“ wie Jacques Derrida, Jean Francois Lyotard oder Paul Feyerabend kongenial einbeziehen wird müssen, um seine volle Wirksamkeit kraft Durchdringung auch des akademischen und universitären Bereichs zu erreichen. Das ist derzeit noch nicht ausreichend der Fall. Insbesondere in den jüngsten Stellungnahmen Wilbers dominiert ein stark konfrontativer bis abwertender Ton („Derrida ist tot, und die Zeit der postmodernen Halbstarken, die alles niedermachten und zerstörten, ohne etwas an seine Stelle zu setzen, ist damit endgültig vorbei“), der wenig für die Integration des die Epoche zwischen 1979 und 2001 dominierenden „postmodernen“ Bewusstseins geeignet erscheint.

Viertens: Alle drei integralen Strömungen sind Teil einer integrativen Utopie, die im Vergleich zu den Gründungsimpulsen der USA seit Anfang der 1970er Jahre sehr weitgehend von institutionell-äußeren System-Ansätzen nach innen, zur Entwicklung des Subjekts übergegangen ist. Alle drei stellen die Handlungsebene des Subjekts weit stärker in den Mittelpunkt als die Systemebene, die Eben der Weiterentwicklung der äußeren Grundlagen von Gesellschaft und Demokratie. Sie konzentrieren sich hauptsächlich auf das Bewusstsein des Einzelnen, nicht auf die Veränderung der Systemkomponenten der Gesellschaft. Mit anderen Worten: Sie wollen nicht das US-amerikanische Demokratiesystem als solches entwickeln (das kommt Amerikanern schon traditionell-kulturbedingt wenig in den Sinn), sondern setzen alles auf die „integral informierte Persönlichkeit“, die dann in Wirtschaft, Kultur, Politik und Spiritualität Veränderungen aus subjektiver moralischer Intuition vollziehen soll. Die „Kraft der Utopie“, die am eindeutig atlantischen spirituellen Ursprung der USA als *gesellschaftliche* Vision steht, ist hier in eher pazifischer Art *verinnerlicht* und zu evolutiven Bewusstseinsstufen geworden. Doch aus dem Gesichtspunkt des untrennbaren Zusammenhangs zwischen Ideengeschichte und Demokratie ist die Weiterentwicklung der US-amerikanischen Demokratie heute notwendig - nicht erst seit dem Sieg Bushs über Gore aufgrund des defizitären Wahlsystems oder Huntingtons prekärer Identitäts- und Einheits-Debatte „Who are we“?, sondern auch wegen dem wachsenden Einfluß des „militärisch-industriellen Komplexes“, vor dem bereits Präsident Eisenhower in seine berühmten Abschiedsrede gewarnt hatte, und der wachsenden neokonservativen Tendenz zu einem gesellschaftlichen Unitarismus. Die Herausforderung an die drei integralen Strömungen wird des diesbezüglich in den kommenden Jahren sein, eine genaue Differenzierung zwischen „Unitarismus“ und „Integration“ vorzunehmen und zur systemischen Ausdifferenzierung der gesellschaftlichen Ur-Sphären Wirtschaft, Politik, Kultur und Spiritualität auch auf Systemebene beizutragen.

Fünftens: Insgesamt und zusammenfassend gilt: Auf dem Gebiet der drei genannten integralen Strömungen von Ken Wilber, Andrew Cohen und A. H. Almaas bringen die USA in kritischer Absetzung zum „New Age“ und in Fortbildung der „Postmoderne“ aus ideengeschichtlicher Sicht einige der fortschrittlichsten, hoffnungsvollsten und weitreichendsten Impulse für das 21. Jahrhundert zutage - wenn diese auch, wie nicht anders möglich, noch mit einigen undurchschauten Lokalbedingtheiten behaftet sind. Das Studium dieser drei Ansätze muss allen an den zukünftigen Chancen und Wegen von Welt-Spiritualität Interessierten auch in Kern-Europa wärmstens empfohlen werden. Insbesondere das Werk von Ken Wilber ist ein konkreter Schritt hin zur Entstehung einer ersten echten Weltphilosophie und einer neuen, „subjektiv-objektiven“ Wissenschaft, für die es bisher kaum vergleichbare Ansätze gibt. Es dürfte zu den wichtigsten und richtungsweisendsten am Beginn des 21. Jahrhunderts gehören, und es müsste deshalb gerade von all jenen, die an dem philosophisch-wissenschaftlichen Werk des jungen Rudolf Steiner interessiert sind, zur Pflichtlektüre gehören. Die Begegnung mit diesen drei grossen Strängen wirklicher Zeit-Avantgarde der heutigen USA ist aber auch allen empfohlen, die an einer kulturellen Komplementärbildung und vertieften geistigen Integration durch freundschaftliche Differenzierung zwischen den heutigen USA und dem werdenden Europa interessiert sind.[14]

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[14] Mein Dank gebührt Markus Molz, Universität Luxemburg und Integrales Forum / Arbeitskreis AK Ken Wilber Deutschland-Österreich-Schweiz; sowie Dr. Tom Steininger, Chefredakteur „What Is Enlightenment Magazine“, deutsche Ausgabe, Privatuniversität The Graduate Institute Milford, Connecticut, und Integrale Initiative Frankfurt am Main. Beide haben zur hier vorliegenden Darstellung mittels produktiver Kritik wesentlich beigetragen.

Of Syntheses and Surprises: Toward a Critical Integral Theory

Daniel Gustav Anderson

Abstract: The central concern of this article is how the search for formal structures with universal values functions ideologically, addressing Zizek's claim that East-West syntheses may represent the dominant ideology *par excellance* of global capitalism. To this end, the article offers a Foucaultian genealogy of Integral theory, tracing its origins to the cultural and subjective contingencies of the British Empire, primarily in the work of Integral theory's foundational thinker, Aurobindo Ghose. The article poses a primary critique of synthesis and evolution as mythological keys to Ultimate Reality which suggests that Zizek's critique may have some validity, and offers the potential for a "critical integral theory" as an alternative. Situated in Deleuze and Guattari's concept of becoming, and represented in the ideas and practices of a constellation of thinkers inclusive of Gurdjieff, Benjamin, and Trungpa, the article's view of integration supports radical democracy as presented in the writings of Laclau and Mouffe as a model outcome for social and personal transformational practices.

Keywords: ideology, integral, critical, becoming-other, transformational practice, Aurobindo, Deleuze, Guattari, Ziporyn, Tarthang, Trungpa, Benjamin, Gurdjieff, Laclau, Mouffe, Zizek

Introduction

In *On Belief*, Slavoj Zizek (2001) argues that

> the onslaught of the New Age 'Asiatic' thought, which, in its different guises, from the 'Western Buddhism' (today's counterpoint to Western Marxism, as opposed to the 'Asiatic' Marxism-Leninism) to different 'Taos,' is establishing itself as the hegemonic[1] ideology of global capitalism (p. 12).

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[1] A detailed examination of hegemony as a critical concept is beyond the scope of this paper. Ernesto Laclau and Chantal Mouffe (2001), in *Hegemony and Socialist Strategy*, offer a genealogy of hegemony, a precise mapping of ideology and hegemony as socioeconomic functions, and a theoretically sound means for the cooperation if not synthesis of various social organs working against the flows and currents of Empire, inclusive of ecologically-oriented, gender or race-based, and labor groups—radical democracy. For these reason, Laclau and Mouffe merit a close examination by Integral theorists. In *Passages About Earth*, William Irwin Thompson (1973) explains there is "a unique contribution to the New Age that America, not India, could make, and that contribution [is] politics, the politics of Washington and Jefferson" (p. 178). While under the present state of American Empire, it is difficult to maintain this kind of optimism—will we be "greeted as liberators" by the New Age? In spirit, Thompson's sentiment is in keeping with Laclau and Mouffe's project in its application to a critical Integral theory.

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This critique is clearly intended at least in part for Integral theory—but on what grounds, and why? Specifically, how should Zizek's critique be read in the context of Integral theory?

As a hypothesis to be tested, in his suggestively titled essay "What is Enlightenment?" Michel Foucault gives a prescription for how to proceed with a test of such as a hypothesis as this. For Foucault, critique is not

> to be practiced in the search for formal structures with universal value, but rather as a historical investigation into the events that have led us to constitute ourselves and to recognize ourselves as subjects of what we are doing, thinking, saying. In that sense, this criticism is not transcendental, and its goal is not that of making a metaphysics possible: it is genealogical in design and archeological in method (1984, p. 46).

Taking Zizek's comments above as a hypothesis, the critical question is historical: how did this *search for formal structures with universal value*—typified by the concept of the "perennial philosophy"[2] characteristic of the work of many Integral thinkers—come to be the ideology *par excellance* of the dominant social order, if it is such? Foucault makes an observation here that will have elaborate consequences for this paper: critique that shows everyday realities to be contingent and potentially *nonsense* is potentially transgressive (p. 45) in its recontextualization, a surprise that transforms what comes before it in the way the punchline of a joke fulfills or redeems the set-up that comes before it.

This inquiry suggests that Integral theorists should take Zizek's critique to heart. First, I examine the genealogy of the imperative *to integrate*, demonstrating the implicit ideological investments of Integral theory's foundational theorist, Aurobindo Ghose.[3] Zizek's critique is shown to be a plausible interpretation of Integral theory's ideological pedigree and foundational logic. Second, I propose two criteria that a theory should meet for it to be considered authentically Integral and critical—that is, to be able not only to hold up to an ideological or cultural critique, but to also function *as* an ideological critique and a means of praxis. In short, a critical Integral theory finds ground for the transformations in subjectivity utopian critical theorists such as Gilles Deleuze and Felix Guattari map out and prescribe, which are none other than the outcome of transformational practices Integral theory prescribes, while embracing the surprises arising from an ongoing act of compassion—genuine critique.

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[2] The concept of a "perennial philosophy" is a foundational assumption of much Integral thought; it informs Wilber's discussion of spirituality, for example, from *No Boundary* (1979) beyond *The Eye of the Spirit* (2001a). This concept gained some intellectual currency at the pitch of the Enlightenment with the work of Leibnitz, named by Ziporyn as a thinker still capable of maintaining his credibility as such while making ostentatious universalistic truth-claims about his work, and his claims about the man producing such work (that is, himself as one who is up to the task). The "perennial philosophy" as a concept, then, coincides historically with a moment of uncritical self-fashioning. The relatively early vintage also suggests that the logic of integration as "East-West synthesis" may have circulated among intellectuals long before Aurobindo—and not in the sense of forcing all antiquities into a scheme of Biblical teleology (an ideological "return to roots") as parodied in the paranoid figure of Casaubon. Thus, while it performs a significant function in Theosophy and synthetic Integral theory—functions of popular culture, not philosophy of theory strictly defined—it may also have had some kind of credibility in intellectual culture. Had they the resources, would early holist Edmund Spenser have produced an early Integralism?

[3] The influence of Aurobindo's idea of integration-as-synthesis cannot be overestimated in Integral studies or for cultural production generally, which is one reason why it seems Zizek is not overstating his case, and why his critique deserves a fair hearing. Beyond the direct reception of Aurobindo's writings by an undifferentiated readership and the specialized reading communities in the academy and the professional world, Aurobindo's synthetic gesture has lies behind the foundation of educational institutions such as CIIS, by Aurobindo's disciple Haridas Chaudhuri; and Esalen Institute, co-founded by Michael Murphy, who himself spent a significant period of time at Aurobindo's ashram and popularized Aurobindo's ideas, leading to what became known as the human potential movement and helping invigorate the profitable "Self Help" and "New Age" marketing niches in publishing. Integral theory, arguably a reification or clarification of Integral pedagogy, remains Aurobindian from tip to toe inclusive of thinkers as diverse as Wilber and Thompson. Outside the gestalt of Integral studies, D.P.

The Imperative to Integrate

Brook Ziporyn (2004) opens his book *Being and Ambiguity* with a parody of the project he has undertaken, evoking Foucault's dismissal of a *search for formal structures with universal value*:

> All other books are included in and superseded by this book, which finally reveals the absolute truth about the universe and its application to all possible facets of human experience. The crucial paradigm shift has been discovered which reduces to irrelevance all the bitter struggles of past and present philosophers and theorists in all fields; this discovery has been made by me and explicated in the work you are now holding […] integrated […] so that it is revealed that all were about each other, and resolved into a far richer set of possibilities and vistas of new experience than you had dared hope for (p. xiii).

Ziporyn's riff reads like a send-up of claims not infrequently made in Integral theory. Compare it to a representative selection from a prominent Integral theorist: "Out of this bewildering diversity of views, I have attempted a synthesis, an overall perspective […] To my knowledge, no other book offers this type of overview."[4] In case the reader had any doubt of his parodic

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Chattopodhyaya, arguably the most prominent professional philosopher living in India, has spent much of his career explicating Aurobindo's social thought. Unfortuantely, much of his work is not easily accessible to non-specialists outside South Asia. To adapt a meme attributed to Whitehead: if European philosophy amounts to a footnoting of Plato, Integral theory may very well amount to a conversation about Aurobindo. This bit of context foregrounds Aurobindo's achievement: while philosophers such as Schopenhauer and Nietzsche responded to Asian ideas in European terms, the notion of an "East-West *synthesis*" traces its genealogy to Aurobindo Ghose. Blavatsky, who crystallized this meme and circulated it heartily among the bourgeois of *fin de siecle* Europe in the form of Theosophy, can be credited with (or held responsible for) inventing the cultural phenomenon of "East-West synthesis." This is why a response to Zizek's critique of Integral *theory* (as distinguished from Integral *culture* per se) must begin with Aurobindo, and a cultural analysis should begin with Blavatsky. Approaching Aurobindo's position in the Integral canon from another way, in his Forward to *A Greater Psychology*, Wilber (2001b) credits Aurobindo with synthesizing the Hegelian view of evolution as Spirit-in-action with "ancient wisdom" (p. vi)—a fair judgment—and for this reason, suggests that "[a]ll subsequent attempts at such integrative efforts must […] at least acknowledge Aurobindo's enduring genius and in many ways still unsurpassed efforts" (p. vii).

[4] This is from the second (unnumbered) page of the Preface to Ken Wilber's early popularization, *No Boundary* (1979). Wilber's (2000b) popularization *A Theory of Everything: An Integral Vision for Business, Politics, Science, and Spirituality* is clearly *not* intended for a readership sensitive to the

intention, Ziporyn offers the reassurance that “such claims are nowadays immediately taken as irrefutable signs of crankdom, found only in fanatical and naïve street-corner tracts or deliberately obscurantist New Age self-help manuals” (p. xiii)—and, implicitly, the monolithic Big Books that have provided inspiration for Integral theorists, such as Helena Blavatsky’s *The Secret Doctrine,*[5] Aurobindo’s *The Life Divine*, Alfred Korzybski’s *Science and Sanity,*[6] and, arguably, certain of Wilber’s longer studies.[7]

Ziporyn then makes an unexpected move that transforms what he has written so far: he suggests in the pages immediately following this set-up that *his book may very well present the answer to all questions in a systematic manner*, the seemingly Quixotic “key to all mythologies” satirized in the figure of Casaubon in George Eliot’s 1871 novel *Middlemarch* (the late Victorian vintage of this example as well as its author’s interventions in German idealistic thought are suggestive of the themes that are to follow). By affirming the “punchline” to his own set-up, Ziporyn becomes an authentic Integral thinker,[8] just as writers such as Aurobindo and Ken Wilber, and institutions such as the California Institute of Integral Studies, are dedicated to the project CIIS president Joseph Subbiondo calls making “meaningful wholes.”[9] The first definition listed in the *Oxford English Dictionary* for “integral” cites precisely this holism, while the second designates the method by which wholes are manufactured—synthesizing component parts in order to produce a constitutive unity (note the use of the word “synthesis” in the Integral quotation above). The method of integration-as-synthesis, promoted by Aurobindo and used by many Integral theorists such as Wilber, is a point at which Zizek’s ideological critique strikes home.

If Ziporyn supports holistic thinking and Integral means, why does he parody this tendency toward the synthetic and the systematic in the first place—put another way, why does our current intellectual culture generally tend to be suspicious of Big Syntheses such as those proposed in

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“inevitable signs of crankdom” (per Ziporyn) that the title itself evokes. As a cultural phenomenon, however, Wilber’s title clearly owes a generic or formal debt to Blavatsky’s *The Secret Doctrine: The Synthesis of Science, Religion, and Philosophy*.

[5] Volume II of this text is more preoccupied with a mythology of race than anything in Aurobindo’s oeuvre, to anticipate the rhetorical trajectory of this paper. The same could be said for Tolkien’s fantasy worlds, prepared in the decades following, which is suggestive of the cultural tenacity and pervasiveness of racial typography.

[6] A productive line of inquiry apropos of Korzybski and the project at hand will be to “open up” the “anti-Aristotelianism” of General Semantics by recourse to the directly anti-Aristotelian performance theory of Augusto Boal (1985). Where Korzybski finds the potential for coercion in the dualistic thought patterns he calls Aristotelian (criticized as a straw man argument, but more likely simply a category of convenience), Boal identifies ways in which Aristotle’s model of tragic production is in fact coercive.

[7] That this parody speaks directly to the frustratingly ambivalent position of Integral theory *vis a vis* the academy which, in my opinion, makes it all the more relevant to the conditions of working in this still-emerging discipline.

[8] Ziporyn’s method, while Integral, is not synthetic in the way Aurobindo’s is, and therefore has real potential for the development of a critical Integral theory.

[9] The full text of Subbiondo’s comments regarding the purpose and direction of the Institute from which this quotation is taken is available at http://www.ciis.edu/catalog/presidentsmessage.html. Wilber (2001a) defines Integral practice in similar terms in *The Eye of the Spirit*: “one of the aims of an integral approach (and what we call integral studies in general) is to honor and incorporate each of these extraordinary domains—intentional, behavioral, cultural, and social” (p. 11), corresponding to the four quadrants of his own “key to all mythologies,” itself intended to be a meaningful whole.

the Integral Studies gestalt? One answer explored at length in this paper is that Ziporyn is an Integral thinker but not a synthetic one; a second, more immediately relevant answer is suggested in Ziporyn's self-parody, in the figure of the nineteenth-century idealist, or rather ideologist. "For ethical as well as intellectual reasons," Ziporyn writes, "this kind of self-mythologization, still possible, say, for Spinoza and Leibnitz, and also, more complicatedly but nonetheless unmistakably, for Hegel or Schopenhauer, has been thoroughly discredited, and appears ludicrous to us now" (p. xiii). What has ideology to do with the self-fashioning of intellectuals?[10]

Everything. *Ideology is that which fashions selves,*[11] directly or indirectly, and theorists are not excepted—particularly not when they attempt truth claims on the "perennial philosophy." In *Tarrying with the Negative*, Zizek (1993) gives the example of a nation finding its roots—a phenomenon explored below in the example of Matthew Arnold—as a manifestation of ideology in a moment of political crisis, "*the (national) thing returns to itself*" (p. 148). This return to imaginary roots is actually an alienation from present realities that serves a political (ideological) end. According to Zizek, one aspect of an ideological critique is to "designate the elements within an existing social order which—in the guise of 'fiction,' i.e., of the utopian narratives of possible but failed alternative histories—point toward the system's antagonistic character and thus 'estrange' us from the self-evidence of its established identity" (p. 231). An expedient example: the self-evident identity of the United States is a history of legal or de facto slavery, and of aggressive landgrabbing at the expense of the marginalized—the alternative history suggests that the U.S. has always stood for freedom in the abstract, and that all have always been free to participate in a system of private property and free enterprise. In short, *ideology is a return to imaginary roots, a fantasy mistaken for a perennially-valid reality*.

What motivates the Emperor[12] to lie[13] about his new suit—in fact to insist that this new one is his *traditional* costume, the one he's always worn? The Nietzschean answer is the most plausible, the will-to-power, or will-to-stay-in-power. Wilber might call this phenomenon a "pathological holon." The narrative elements Zizek speaks of, ideological memes, bear with them hierarchies or strata, at minimum the binary offered by most gestalt theories of perception: I see *this* because it is distinguished from *that*. While this and that need each other to exist as such, *this* is privileged as the object and *that* is merely stage dressing. One's ideological investments or will-to-power can be quantified by what-is-seen in this sense. *Theories claiming to answer all questions and enclose all matters ideologically push something or someone aside*—the typical examples being women, workers, the poor, racial minorities, animal life, or any other marginalized stratum.[14]

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[10] Wilber labels this phenomenon of self-fashioning narcissistic, asserting in the perhaps hubristically titled *A Theory of Everything* that the prevalent "Culture of Narcissism is antithetical to an integral culture" (2000b, p. 4).

[11] The view of subjectivity as a product of ideological and hegemonic forces (per Althusser, much of Foucault) dominates this essay, but it does not preclude the idea that subjectivity is actually a precise kind of performance (per Judith Butler). An examination of this issue lies at the heart of a critical Integral theory, but flies outside the trajectory of this paper.

[12] Empire is to be understood here in the sense Hardt and Negri (2001) assign to it in *Empire*, a groundbreaking study that has useful resonances to William Irwin Thompson's concept of noetic polities.

[13] Zizek's reminder that ideology is not always false—that a statement can be objectively true and ideological at once—bears repeating in this context.

[14] In *A Brief History of Everything*, Wilber (2000a) writes, "When any holon in a natural holarchy"—itself a concept I have reason to be skeptical of—"usurps its position and attempts to dominate the whole,

Is it possible that the synthetic method of Integral theory has done this from the start?[15] A genealogy of integration-as-synthesis suggests that it *is* possible, and that this possibility demands critical attention. Aurobindo's adaptation of integration from nineteenth-century English criticism and the cultural impact of Theosophy is the foundational gesture of Integral theory.[16] This synthetic model of integration seeks unities and abstractions that are synthesized on post-Hegelian grounds and with proto-Hegelian assumptions,[17] which leads to hierarchies that

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then you get a pathological or dominator hierarchy—a cancerous cell dominates the body, or a fascist dictator dominates the social system" (p. 25). By contrast, I suggest that all stratified systems are pathological hierarchies by their nature, and that critical Integral theory must aspire to a radical democratic process model, in which the socius (per Deleuze and Guattari, 1987) as a holon is vertically undifferentiated and horizontally specialized, yielding anarchism without anarchy, in a sense. In this way, a position that is anti-heirarchy and pro-holarchy is possible, provided that one is willing to part ways with the distinction between natural and pathological holarchies. Assuming any one given social order is natural or inevitable is, of course, an ideological gesture and is therefore pathological in Wilberian terms. Wilber asserts that "the cure for these pathological holarchies is not getting rid of holarchy per se—which isn't possible anyway—but rather in arresting the arrogant holon and integrating it back into the natural holarchy" (p. 25). The ideological use to which this concept can be put by a "pathological" holarchy, such as the current regime, are legion. The "proper place" Wilber speaks of as the site into which the arrogant holon is to be integrated may very well be Camp X-Ray at Guantanamo, if the "cancer" persists in prescribing its own therapy. The critical question: How does a given holarchy police itself, and police the policing?

[15] Wilber observes that "where we locate Spirit always translates into political agendas" (*The Eye of the Spirit*, 2001a, p. xxii), specifically the agendas of those doing the locating. Where does Integral theory locate Spirit? In "timeless, ever-present awareness, which is said" (by Wilber in this case) "to be nothing less than the actual location of Spirit itself'" (p. 253). Is it possible that speculations such as this on nonduality and subjectivity, regardless of their truth value, can function ideologically?

[16] As a historical matter, Aurobindo's early political practice differed sharply from the ideological investments he exhibits in the criticism and religious writing he produced later in life. The man was a revolutionary. For many years, he wrote extensively against Imperial rule, and was imprisoned for his actions. This was hardly a synthetic conciliation of East and West—this was guerilla war, and another subtext for why a critical Integral theory can begin with Aurobindo. Peter Heeh's (2003) *Sri Aurobindo: A Brief Biography* gives a detailed analysis of this early period of Aurobindo's life, as well as a survey of his role in the political life of modern India. Aurobindo can be presented as a terrorist by right-leaning critics, or a freedom-fighter by those on the left; praised as a Blakean prophet-against-Empire or dismissed as a water-boy for Victoria's footmen. The latter view is perhaps a caricature of the critique presented here because it is from that pattern of Aurobindo's gestures that the synthetic-Integral method arose. Whether Aurobindo became more conservative as he aged, or as he deepened his yoga practice, or if his politics began ambivalently and remained so to the end, are still open questions. Heehs suggests that Aurobindo's political interventions were after 1908 in fact the practice of karma yoga, as was his retirement from politics. Regardless, Heehs reports that "Sri Aurobindo's life after 1920 had little outward incident. A narrator of documented events is left with almost none to relate" (p. 130).

[17] "Hegelian" here does not necessarily reflect the work produced by G.F.W. Hegel in Prussia in the nineteenth century, but does designate the dialectical, idealistic, and conservative thinking implied by his name. In practice, Hegel was clearly a more ambitious, ambivalent, and incomplete thinker than the meme "Hegelian" might allow him to be. In short "Hegelian" should be read culturally and not strictly speaking critically here. Similarly, this position does not reject Michael Basseches's view that dialectical thinking may represent "adult intellectual *development*" (2005, p. 48). While I do not accept the dialectic generally as a means of achieving final and conclusive truths, I do recognize the value of dialectical

prove to be ideological in nature in the scheme of human history Aurobindo[18] presents, in which all of animated Nature is evolving in the sense of making *divinely-sanctioned progress*, suggesting that the status quo is also divinely sanctioned, as is any future order—a position any Empire, that of Victoria or of global capitalism, will find congenial.[19]

Aurobindo's literary criticism is historical in nature; as Peter Heehs (2003) observes, Aurobindo's *The Future Poetry* is effectively an elaboration of Matthew Arnold's 1880 *Study of Poetry* (p. 122). From Arnold and the generation of critics that followed him, the notion of synthesis as an evolutionary process comes into Aurobindo's thinking, and with it the Victorian ideology of race, of "bloods." The details of this ideology yield much insight into the history of the *how* and *why* of integral theory—the means and ends of Meaningful Wholes. Specifically, integration-as-synthesis can be regarded as a product of *fin de siecle* culture,[20] including a specific debt to its race theory and other ideological impulses, and also as a response to said culture.

The Future Poetry is at once a primer on the history of English literature for an Anglophone Indian readership, and a prescription for a spiritualized aesthesis, positing the possibility of a future spiritual and aesthetic renaissance legitimized by an idealistic and ideological reading of this history. The speculations on English poetry included in this volume arose from a matrix of influences Aurobindo could not have avoided in his private tutorship in England or at King's College, Cambridge. Among the most significant of these must have been the literary criticism of Matthew Arnold, England's poet laureate and dominant man-of-letters during much of Aurobindo's formative stay. In Arnold, the reader sees writ large the "return to roots" Zizek identifies as a symptom of ideology at work.

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thinking as a means of learning, specifically learning how to read carefully and think clearly (as Basseches suggests).

[18] The thrust of this genealogy seems to contradict Wilber's view that "Aurobindo was ridiculing and condemning those who think" in a racist fashion ("Forward," 2001b, p. ix), but the question of whether Aurobindo definitively was or was not a racist *personally* is in the main irrelevant to my point. The question at hand addresses Aurobindo's ideological alignment, which is concomitant in this instance with a racist agenda, which can readily be seen outside *The Human Cycle*, the text Wilber cites as anti-racist. Is Aurobindian Integralism ideologically productive of repression? This analysis suggests it may be.

[19] This critique is *not* intended to discourage anyone from taking up the Integral Yoga of Sri Aurobindo as a transformative practice, if one pleases to do so—on the contrary. The workings of Shakti as Sri Aurobindo described them are hardly systematic, synthetic, or oppressive, and the task of the Integral yogin is to open up to this force for the sake of all beings without exception, or in Sri Aurobindo's words "not for the sake of the individual but with an eye to the universal evolutionary process" (*Synthesis*, p. 339). To reject synthesis in favor of surprises is one imperative of this paper; it is also the significance of Aurobindo the poet's writing practice. My use of the name Aurobindo in the main text of this paper, sans *Sri*, is intended to underscore the distinction between Aurobindo the critic, poet, and thinker from Sri Aurobindo the guru and spiritual technologist, a distinction not easily maintained given that Aurobindo's poetry is shot through with Sri's spiritual vision, like teasing Milton-the-Puritan and Milton-the-Poet apart.

[20] English popular culture was rife with anxiety about heredity, demonstrable change over time, and social order, as evidenced by the social impact of Darwinian theory. Arnold's thinking clearly arose in the same cultural matrix that produced Sir Francis Galton's proto-Eugenics, where one's personal characteristics are determined by one's heredity. The pop-science of the period featured phrenology prominently, by which one's personality traits (even spiritual state) could be "read" from one's physical features, which are also determined by heredity.

In “On the Study of Celtic Literature,” Arnold (1962) interprets Humboldtian historical linguistics—demonstrable change over time—reductively, conflating races with language groups, in order to discuss “the pregnant and striking ideas of the ethnologists about the true natural grouping of the human race” (p. 301). “Natural” in this case already anticipates certain characteristic Integral gestures, specifically the assumption that the findings of one field of inquiry will be relevant to another. As languages and species evolve, so do cultures and races by this logic. For Arnold, Arya (denoting an ancient ethnicity) and Indo-European (an ancient language) are interchangeable terms. Arnold sketches out a taxonomy of English literature’s racial heritage qualitatively, taking arbitrarily assigned abstractions with no quantifiable basis as a means of putatively scientific classification. According to Arnold, the

> English spirit, the English genius [can be] characterized […] by *energy with honesty*. Take away some of the energy which comes to us, as I believe, in part from Celtic and Roman sources; instead of energy, say rather *steadiness*; and you have the Germanic genius: *steadiness with honesty* (1962, p. 341).

By contrast,

> [t]he Celtic genius [has] sentiment as its main basis, with love of beauty, charm, and spirituality for its excellence, ineffectualness and self-will for its defect. The Norman genius, talent for affairs as its main basis, with strenuousness and clear rapidity for its excellence, hardness and insolence for its defect (p. 351).[21]

These arise in a composite, according to Arnold, in the English—a lamentable composite. “Our want of sureness of taste, our eccentricity, come in great measure, no doubt, from our not being all of a piece, from our having no fixed, fatal, spiritual center of gravity” (pp. 381-382). And for Arnold, this is not a problem that can ever be addressed through applied inquiry or transformational practice,[22] because this is a linguistic and therefore racial defect of the English, per his Humboldtian speculations.

Aurobindo accepts this racist theory of cultural history that, with one significant exception, matches Arnold’s precisely. In both the exception and the rule, Aurobindo is a product of his ideological environment—an interpretation no more surprising than Aurobindo’s demonstrated incorporation of Victorian translations of Plato in his masterpiece, *Savitri*. The critical culture that embraced the “white man’s burden” of Rudyard Kipling produced the systematically Hegelian idealisms of A.C. Bradley’s 1909 *Oxford Lectures on Poetry*, in which tragic conflict is taken to be a dialectical movement leading to Universal Justice, in which all things without exception have a place, synthesized in a meaningful totality—a presumptive and belligerent culture, willing to speculate authoritatively on the Nature of Reality, Cosmic Morality, and the self-justification of Empire. It is the critical culture that Bradley promoted which gave Aurobindo the most rigorous intellectual training of his life, leaving him with the skill that would make his career as a nationalist and a guru: his ability to write. Along with the Theosophical memes of occult unity of religions then circulating in Europe, Bradleyan criticism offered Aurobindo a reasonable solution to the assumed problem of disunity and disharmony in the English blood-soul: synthesize it, universalize it—in the proto-Darwinian language of the day, it must evolve and progress. Integral theory is born at this moment as a way to resolve the ideological insecurities of the English Empire.

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[21] One may speculate on the similarity of characteristics assigned to the Irish here, and those projected onto “the mystical East” chronotopically—and Cousins’s (1919) comments on Aurobindo’s functional Irishness.

[22] The archetypal lament of Integral theorists—that modern consciousness is fragmented, and a spiritual center of gravity is needed—is of a piece rhetorically with Arnold’s critique of the English ethnic pedigree.

"This peculiar distribution of national capacities finds its root in certain racial characteristics," Aurobindo writes in *The Future Poetry* (p. 47). "We have first the dominant Anglo-Saxon strain quickened, lightened, and given force, power, and initiative by the Scandinavian and Celtic elements. This mixture has made the national mind remarkably dynamic and practical" (p. 47). Arnold had attributed this assumed English practicality to the Normal racial type. This is the only significant way in which Aurobindo differs from Arnold—significant in that it allows Aurobindo a properly dialectical movement, and therefore a means of integration. His position on the Teutonic blood he takes as his thesis; his antithesis is the Celtic stock, "the submerged, half-insistent Celtic, gifted with precisely the opposite qualities"—opposite, as befits a proper antithesis—"inherent spirituality, the gift of the word, the rapid and brilliant imagination […] left to it from an old forgotten culture in its blood which contained an ancient mystical tradition" (p. 48). Of these antitheses, a synthesis arises that directly evokes Arnold's distress over the presumably motley English race: "vehement but embarrassed power, like an imprisoned spirit let out for a holiday" (p. 48).

Further, Aurobindo's dialectical working-out of Spirit through forms, in this case the forms of races, is of a piece with the neo-Hegelianism of Bradley's positions on tragedy, by which characters on stage are figures in the movements of an inevitable, all-consuming, and absolute Universal Justice from which there is no escape. These idealized gestures need not concern themselves with ethnographic reality. As abstractions in a working ideological system, they are formulated to wind around a much more significant and politically viable Ultimate Reality, the most radical "return to roots" possible—and they remain functionally static throughout much of the corpus of Aurobindo's voluminous writings. For example, Aurobindo identifies the spiritual inertia inherent in the Celtic "strain" with the modern Irish. In "Lines on Ireland" (1908), the poet laments the weakness of Irish polity but asserts, "her weak estate/Could not conceal the goddess in her gait" (pp. 7-8)—which functions as "a power within/Directed, like effective spirit unseen/Behind the mask forms, a source/And fund of tranquil and collected force" (pp. 40-42). And in Canto Four of the heroic poem "Urvasie," the poet attributes the "Vedic litanies" to the ancient "Aryan race," a gesture Arnold would have approved.[23]

Aurobindo's inspiration for writing *The Future Poetry* gives some insight into how this return-to-roots functioned *vis a vis* Aurobindo's self-fashioning as a poet and critic. J.H. Cousins's 1918 study *New Ways in English Poetry*, published in India, is a short and idiosyncratic guide to contemporary poetry in English for an Indian readership. In a sense, the Theosophist Cousins sought to celebrate the potential for a kind of "East-West" spiritual synthesis through poetic inspiration in this text. Aurobindo, deeply impressed by it, writes, "the book on every page attracts and satisfies by its living force of style, its almost perfect measure, its delicacy of touch, its fineness and depth of observation and insight, its just sympathy and appreciation" (p. 1). Aurobindo typically reserves this vintage of hyperbole for poets such as John Milton and Percy Bysshe Shelley—poets he believed to be divinely inspired.

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[23] This should not be taken as a sign that Aurobindo sympathized with the rhetoric or practice of the Third Reich, but it is fair to state the obvious, that the double meaning of Arya as "noble" and as a designation for a particular racial group has historically been of great use to the Fascist cause, and that the meme had been in circulation in Europe for a hundred years before 1933.

Cousins (1919) opens his book with a consideration of time and his own moment, opining that the first World War "has produced no poetry," at least none of the sort that bears "any epoch-making prophetic impulse" (p. 2). Even so, "it is not quite true that the war marks, if it does not create, a passing over from one phase of poetical activity to another"—that is, Cousins sees "a new spirit and method animating the poets of England" (p. 3). Cousins is not concerned with, or apparently aware of, the disillusionment with ideology and idealism prevalent in poets who experienced the war, such as Siegfried Sassoon—although he does find opportunity to praise Rupert Brooke, now notorious for treating his very brief war experience with naive sentimentality and rote nationalism. Cousins is not without hope, however; he sees the makings of an Aquarian age of revelatory abstraction in the first attempts of certain poets of the war era: "The minor poet reproduces his or her time; the major poet reveals through himself and his time the true spiritual nature and destiny of the universe. And this is just what these poets have not yet ventured to do" (p. 9). Cousins is working from the same assumptions Aurobindo learned from critics such as Bradley—opening functional common ground between Bradleyan idealism and Theosophical millenarianism—but with sentiments favoring Romantic zeal; for Cousins, the poet is a prophet, an unacknowledged legislator—"The protean creative energy is forever advancing the borders of 'reality.' The great poets anticipate the advance" (p. 15). Cousins seeks to anticipate this anticipation, a task presumably the work of a very great poet, declaring that "the new ways in English literature are breaking through the obstructions of ignorance, and all that hangs thereon, into the broad highway of literary evolution" (p. 15). Cousins takes prophecy as his purpose—he seeks to explain to the groundlings how the Spirit of the Language *moves*. This is pedagogy. Cousins hopes to give

> some temporary indication, however inadequate, of the direction of English literature at the present time and in the immediate past. This necessity has arisen out of a special movement to make education in India both national and rational [—Bradley's imperatives—] by putting it in contact with the vital spirit of literature, instead of starving it on half a dozen stale fragments of the literature of the past that have no interest for Indian youth, and that make the cultivation of good modern English speech impossible (1919, p. xii).

Cousins summarizes the imperatives of popular Theosophy here: the "West" is prepared with technical means, and precise and modern language, while the "East" offers *timeless* or perennial spiritual inspiration.

Cousins's brief chapter on Aurobindo provides some clues into which poet he feels could be up to the task of revealing the ways of God in this new age of poetry he envisions:

> The poetry of Aurobindo Ghose is a meeting-place of Asiatic universalism and European classicalism. It is inspired by the philosophy of the Vedas; but it is shaped and atmosphered like Greece, or the Greece that is dimly incarnate in English poetry (p. 27).

Here is integralism in its form as "East-West" synthesis—Esalen Institute in embryo. Further, according to Cousins, Aurobindo's "eyes perpetually go behind the thing visible to the thing essential, so that symbol and significance are always in a state of interfusion" (p. 28). This is the dialectical working of "perennial philosophy" and inspired language synthesized into one gesture—a synthetic integralism that is a *cosmic* "return to roots." Finally, Cousins relies on the same racial typing Arnold and Aurobindo do, while making it quite personal:

> For a companion to Mr. Ghose's double-sightedness, the simultaneous glimpsing of norm and form, we have to pass beyond the confines of Europe, and listen to the spiritual songs of AE. The Irish poet has not the patience and expansiveness of his Aryan brother, but in heart and vision they are kindred (p. 29).

Cousins identifies Aurobindo Ghose, essentially, as a Celt, in that he bears "the idealistic strain that is one of the most characteristic features of the Irish race" (p. 32)—an assumption that is not illogical, given the preoccupations of both men on "Irishness." Cousins identifies Aurobindo as a first-order teacher and prophet of the modern world on the basis of this theory of racial typing, *a poet capable of revealing, justifying, the reality of the universe to all beings*. On these grounds, Cousins gives Aurobindo credibility in the "East" and "West," synthesized into one *spiritual center of gravity*, to recall Arnold's lament. Aurobindo accepts the views of Cousins that offer him this position of authority. According to Aurobindo, Cousins raises the "possibility" of

> the discovery of a closer approximation to what we might call the *mantra* in poetry, that rhythmic speech which, as the Veda puts it, rises at once from the heart of the seer and from the distant home of the Truth (p. 8).

Aurobindo would spend the rest of his writing career fashioning himself as that seer, and producing some first-rate verse in the process.[24]

The birth of Integral from the spirit of synthesis, to summarize, can be understood in three stages. In the first synthesis, Aurobindo resolves the fragmentation Arnold found in the English soul by means of Bradleyan idealism. The imperative: integrate yourself by recourse to what is highest (read: most abstract) in yourself. Blavatsky had accomplished and popularized the second synthesis: that of the unitary spiritual vision of the "East" and the fragmentary materialism of the "West," including good modern English. The "perennial philosophy" promoted in Theosophy becomes a useful conceptual tool in the third synthesis, which Aurobindo accomplishes in accepting Cousins's criticism (effectively synthesizing the first two syntheses): the Integration of self as an evolution bearing an analogous relationship to that of the cosmos, both as expressions of some supreme being (proto-holism beyond that of Plato's *Timaeus* or *The Faerie Queene* of Edmund Spenser). This is a cosmic subjectivity, and a global "return to roots," to what absolutely underlies the subjectivity of every person and to the putatively universal, always-has-been significance of all religions. *This is the most radical*[25] *ideology imaginable*—no surprise it has popular appeal under Empire.

To illustrate the direct functions of this ideology by example: the nineteenth-century racial theory that Aurobindo uses to speculate on the future development of English literature—and, through Cousins, his place in it—is, as one might predict, integrated into his yogic program as well, and in starker terms. In *The Synthesis of Yoga*, Aurobindo (1971) explains that one

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[24] The conventional Byronic Orientalism of Aurobindo's early fragment, "Khaled of the Sea: An Arabic Romance," suggests that at one point in his life, Aurobindo either uncritically accepted the assumptions about "the mystical East" he absorbed in England, or was at least willing to reproduce them.

[25] Radical, of course, is to be taken exclusively in its etymological sense here.

> may come to the conclusion that mental life, far from being a recent appearance in man, is the swift repetition in him of a previous achievement from which the Energy in the race had undergone one of her deplorable recoils (p. 9).

The spirit behind the culture, like Bradley's Universal Justice, is really *the* Absolute Spirit; this is Cousins's thesis and Aurobindo's. Because the significance of cultural production is synthesized with cosmic significance, the stakes extend beyond the racial heritage of *Hamlet* and *Paradise Lost* toward a global ideological crisis (recalling Zizek), appropriate to the conditions of the British Empire:

> For if the actuality of intellectual achievement is unevenly distributed, the capacity is spread everywhere. It has been seen that in individual cases even the racial type considered by us the lowest, the negro fresh from the perennial barbarism of Central Africa, is capable, without admixture of blood […], of the intellectual culture, if not yet of the intellectual accomplishments of the dominant European (pp. 9-10).

For Aurobindo, *the subaltern may be able to read*—a prospect aided, perhaps, by two authoritative primers on what to read, and how, one each by Cousins and Ghose—*but the subaltern may not write*. Not yet.

This is the kind of bald racism that justifies Empires—abstractions, eternals, and ideals that are mistaken for in-the-moment realities—"mistaken" for a reason. Aurobindo's sole criticism of Cousins's primer echoes the lament of the colonial agent or the outsourced management team: "a finger-post by the way is not enough for the Indian reader, you will have to carry him some miles on the road if you would have him follow it" (*Future Poetry*, p. 2). In fairness, Aurobindo discusses in the next paragraph of the *Synthesis* the possibility for "the advance of backward races" as a general function of spiritual evolution, which again arises as a species of Victorian optimism about technological Progress, inclusive of "the multiplication of labour-saving appliances" (p. 10)—a view that comes under scrutiny in the criteria for a critical Integral theory below. A global, totalizing ideology developed under the global, totalizing conditions of British colonial rule, today, circulates as the meme *par excellance* of total subjective and objective reality in the popular writings of today's Integral theorists, among others.

The broad strokes of this tentative genealogy of *integral*, an *integration* and their concomitant ideological function, while not yet conclusive, are firm enough to suggest that some new directions should be explored in order to understand in an Integral way how subjectivity functions (or is made to function), without simply replicating the hegemonic ideology of Empire. I submit one such direction: the potential for a critical Integral theory.

Toward a Critical Integral Theory

If Integral theory's reliance on synthesis as an evolutionary, cosmic force is to be reconsidered, even revised out of a critical Integral theory[26]—what is available to do the work demanded of that vacated concept? The *OED* gives a subdefinition for "Integral" as *immaterial* (the first use of the word in this sense is recorded in 1651). When explicated, *immaterial* yields two criteria for a theory to be considered both critical and Integral. In place of synthesis, a (critical) Integral theory should aim for a precise kind of praxis, *becoming*, which arises from productive relationships and multiplicities—what Ziporyn calls *transformative recontextualizations*, which amount to surprises.[27] And in place of evolution and concomitant stratification, a critical (Integral) theory calls for revolution—itself nothing short of a miracle, as Zizek observes. The following pages are intended to sketch out how these criteria work in enough detail to open up further, forthcoming inquiry.

The first criterion is the most literal reading of the word "immaterial"—*not strictly or only material*, which also means not precisely "immaterial," since an *idea* of the immaterial is itself a matter, thought-stuff. By no means should Integral theory limit itself exclusively to material questions, bracketing away the transhistorical as inappropriate for inquiry; and by no means should a retreat into the archetypal alternative to strict materialism, the "specifically European disease" of Transcendence (Deleuze and Guattari, 1987, p. 18) into an idea of a Divine, Absolute, Universal Being replace it. Rather, I propose an inquiry into the *intermezzo* between the meat world of perception, of form (*Schein*) and spiritual reality (*Sein*)—a third space Nietzsche connoted with the neologism *untergehn*, which can be suggestively rendered as *to go under* or *to undergo.*[28] *This is a theory of becoming rather than Being, of time and space rather than Structure.* Given the prevailing world order, the business of an immaterial theory is the active, ongoing work of unplugging subjectivity from the complex of late capitalism's desiring-machines.

As the purpose of this criterion is to ensure the Integrality of a given theory, an explication of it will begin with Aurobindo. While he did not reject the more-than-Miltonic role Cousins assigned to him as a potential world-teacher, Aurobindo used his writing of *Savitri* primarily as a means of transformation, of becoming, for himself.[29] Deleuze and Guattari[30] give a precise mapping of this process, according to which a multiplicity or collective "brings a becoming-molecular that undermines the great molar powers of family, career, and conjugality" (p. 233)—the social forms held in place by the strange songs of ideology, such as the fictional "traditional" family or fictional "traditional" marriage, to give two live contemporary examples of instances of ideology as Zizek defines them. To generalize, becoming is transformative in nature, therefore potentially destructive, and potentially liberating.[31] The challenge Deleuze and Guattari describe is to become something other than a belligerent bullet-brained fantasy-enforcing *machine*. Deleuze and Guattari give a series of negations that help explicate what becoming is not. First, it is not a "correspondence of relations," nor a "resemblance, an imitation, or at the limit, an identification" (p. 237). "To become is not to progress or regress along a series. Above all, becoming does not occur in the imagination" (p. 238). In other words, this is a horizontal rather than a vertical, transcendental process, although its significance lies in its vertical (destratifying) potential. "Becoming produces nothing other than itself […] a becoming lacks a subject distinct from itself" (p. 238). Thinking of animal mimicry: the animal one becomes is not a real animal, but the process of becoming-animal has a reality to it. In Aurobindo's case, the question is not whether he did or did not in *reality* become the prophet of the divine Mother, but rather the point is that he experienced (recontextualized) himself as such, became it, by the mediation of his writing practice. In this sense, critical Integral theorists should become prophets against Empire.

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[26] Specifically, neither the key-to-all-mythologies, God-is-on-our-side implications of "the perennial philosophy" as articulated in Aurobindian or post-Aurobindian theory, nor the valence of paranoia (or at minimum neurosis) implicit in the synthetic model of integration according to which *every detail* (all quadrants, all lines) must be accounted for, gridded, and hung on the proper peg of the spectrum of consciousness or its functional equivalent, will ever survive a vigorous ideological analysis.

[27] Ziporyn's punchline can be profitably juxtaposed against the "absurd laughter" Thompson identifies with "mysticism" in *Evil and World Order*. "Laughter then involves detachment, and detachment is a fundamental form of freedom" (p. 56). Thompson's assertions on tragedy, by contrast—"Individuation is the tragic error"—are best elaborated by Boal's (1985) rendering of Aristotelian tragic theory as a mechanism of subjectification, an ideological device.

[28] This amounts to a break with forms of Integral pedagogy that assume a hierarchic or "pyramidal" movement upward that proceeds in predictable stages that has a significant historical precedent in Nietzsche's break with Wagner: "The same human type that raved about Hegel, today raves about Wagner; n his school they even *write* Hegelian.—Above all, German youths understood him. The two words 'infinite' and 'meaning' were really sufficient: they induced a state of incomparable well-being in young men" (p. 634). Nietzsche's polemic points to the role critique must play in any pedagogy, especially an Integral one.

The positive definitions Deleuze and Guattari offer for becoming are equally evocative: "Becoming concerns alliance" rather than filiation (p. 238)—like symbiosis between heterogeneous species, or the relationship between a teacher and collection of students. "Becoming is involutionary, involution is creative" (p. 238), where involution is understood to be something other than evolution. "Becoming is a rhizome, not a classificatory or genealogical tree" (p. 239). These *koans* can be solved by looking at how becoming works, through the example of becoming-writer. According to Deleuze and Guattari, "becoming-animal always involves a pack […], a multiplicity" (p. 239)—in short, a culture. Aurobindo was without doubt among the more cultured Anglophone writers of a generation that included James Joyce and T.S. Eliot32—he *contained* a multiplicity—but more significantly, he had built a culture around himself, through correspondence and the ashram that grew around him in Pondicherry that made becoming possible for all connected with it. Becoming-animal, one of the more conspicuous versions of becoming Deleuze and Guattari present, has little to do with literal animals in this context, except by analogy; in one sense, it is a cipher for becoming-writer. Deleuze and Guattari's examples are strictly literary, inclusive of Kleist (Penthesilea's becoming-dog), Melville (Ahab's becoming-whale), Kafka (Gregor's becoming-insect). In Aurobindo's case, the transformation is not simply narrated in a text, but by his own account a lived experience verifiable by a knowledgeable reading of his writings, which makes his case qualitatively unique. For this reason, he is the picture of the writer-sorcerer in Deleuze-Guattarian diction: "[I]f the writer is a sorcerer, it is because writing is a becoming" (p. 240).

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[29] Some regard reading the poem as a transformational practice as well.

[30] When fully elaborated, Deleuze and Guattari's theory of becoming has many advantages to a critical Integral project beyond those touched upon here. The dynamic they describe between the "sorcerer" and the multiplicity offers a precise tool for explicating guru-disciple and guru-group phenomena, and is also relevant to critical Integral pedagogy and the concerns of Integral leadership models such as Jonathan Reams' (2005) regarding "the level of development necessary to perceive and act from an integral place" (p. 128). Further, the Deleuze-Guattarian insistence that their work is a project, itself a process, is in itself a model for how a critical Integral theory (to use the counterintuitive language I have adopted here) can remain productively irrelevant, and can be a step toward a vertically destratified social holon, the socius—radical democracy.

[31] Erik Thornquist (2006, personal communication) has suggested that the Chaos Theory promises to offer some valuable critical tools for elaborating this theory of becoming in an Integral context.

[32] The reception history of Aurobindo's poems in the Commonwealth and in the United States should be a productive point of study for postcolonialists. How is it that this most English of writers, more English perhaps than the English, still has an ambivalent position in the canon of literature in English?

Becoming defined in this way gives space for the transformational practices valued by Integral theorists without the counterproductive ideological baggage integration-as-synthesis carries, and is therefore a valuable tool for a critical Integral theory. As Dorothea Olkowski (1999) observes, efforts to construct objective narrative models of reality—unified field theories—are doomed to failure as a condition of language, and this may very well be a blessing as well as a challenge. It means learning is possible, if not inevitable, and that the miserable contingencies much of the world endures under neoliberalism and patriarchy are not necessarily inevitable, ideal, or here to stay. It also means that the status quo is constantly inventing new "roots" to return to, making new material to manage the situation at hand. The moment-by-moment work of a critical Integral theory is to keep the edge of critique ahead of the limit of the machinery of Empire's manufacture of saccharine consolation and team spirit.

Becoming is a way to refrain from participating in the subjectivity-games of the status quo, and to pursue a critical agenda, the consideration that beats through the heart of the second criterion, which is a colloquial reading of the word "immaterial"—as *irrelevant*, specifically irrelevant to the imperatives of the regime at hand, and non-profitable or even *unprofitable* as a business venture.[33] This returns us to Zizek's critique of Integral praxis as the hegemonic ideology *par excellance* of neo-liberalism, according to which "the 'Western Buddhist' meditative stance is arguably the most efficient way, for us, to fully participate in the capitalist dynamic while retaining the appearance of mental sanity" (2001, p. 13). John Morrow (1975) anticipated this critique while working for Chogyam Trungpa Rinpoche in 1974, at the inaugural summer session of Naropa Institute: "Macbeth with mindfulness? Buddhist propaganda under the disguise of far-out space awareness techniques, so we can go back to our old reactionary selves, and really enjoy them this time with the new costumes?" (p. 41). Morrow concludes that while this outcome, precisely the one Zizek identifies as reactionary and performative, is precisely *not* what happened at Naropa. Trungpa devised means of keeping his *immaterially* Integral project critical: "There is a particular philosophy of Naropa which is not so much trying to bring" traditions or practices "together, like a spoon of sugar in your lemonade so that it becomes more drinkable, but the point is more like a firework […], there is a meeting point which takes place in a spark!" (p. 18). In short, Trungpa wants to blow the fuses of his students' mental machinery, not to help them appear sane at their office jobs. While it was Integral, this curriculum was not a *synthesis* of Hindu, Buddhist, and psychological skillful means as they were presented at Naropa; nothing was produced, no superstructure, only an immanence, a surprise. Zizek is thinking of Western Buddhist meditation practice as a very relevant and profitable kind of sugar in the sour lemonade of cubicle life; Trungpa, a foundational figure in the history of Western Buddhism, rejects this kind of supplement as another form of spiritual materialism.

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[33] Returning to the "writerly" examples of becoming, in *Moby-Dick* Ahab's hunt for the Whale is a miserable business model—much of his produce is squandered, the slaughter consumed by the sharks that swarm the *Pequod*,—but his project is to "pierce the veil," not to bring intact whale blubber back to Nantucket by the strength of his rhetorical appeal to becoming. Gregor had been supporting his family in "The Metamorphosis" single-handedly until he becomes a dung beetle, leaving the others to fend for themselves and, in fact, metamorphose. Antony squanders a political life, a share in Empire, in order to pursue his masochistic practice with Cleopatra—to borrow a Shakespearean example favored by a true poet of becoming, Helene Cixous. Parenthetically, *The Newly Born Woman*, co-authored by Cixous and Catherine Clement (1986), is an extended meditation on the business of becoming as it relates to issues of gender and language, and features a poetic analysis of Kleist and Kafka as well—authors favored in Deleuze and Guattari's theses on becoming. The explicitly literary nature of these examples is intended to illustrate my point that working toward a critical Integral theory must be taken as an intrinsically valuable project, as a creative endeavor and an act of kindness, rather than a neologism-coining gimmick for selling books and tchotchkes, or filling seminars. There can be no Critical Integral Theory™; this is not a proprietary scheme. Neil Young's 1974 recording "For the Turnstiles" renders this critique in more soulful and more biting terms.

Following this, I suggest that practices functioning as a palliatives to make neo-liberalism taste better, be it a warm feeling of wholeness, a teleology, a totalization, or even in some contexts a therapy—may be of benefit to some in some contexts, but may not have a place in a critical Integral theory. To see how a critical theory might be productively irrelevant to the contingencies of Empire's imperatives, one can use Zizek's prescription for a "Leninist" intervention, a trauma-of-benefit. Consider two examples from Buddhist hagiography: Tilopa cured Naropa by throwing things at his head, and Marpa transformed Milarepa by making a slave of him.

This functions in the same way as Gurdjieff's (1999) stated purpose in the front matter of his novel, *Beelzebub's Tales to his Grandson*: "To destroy, mercilessly, without any compromise whatsoever, in the mentation and feelings of the reader, the beliefs and views, by centuries rooted in him, about everything existing in the world." *By centuries*—time is not necessarily offering an aquarian unfolding of spiritual development in the souls of men; in fact, Gurdjieff's view of history more closely corresponds to Walter Benjamin's than that of Aurobindo. Consider Benjamin's famous image of the "angel of history:"

> His face is turned toward the past. Where we perceive a chain of events, he sees one single catastrophe which keeps piling wreckage upon wreckage and hurls it in front of his feet. The angel would like to stay, awaken the dead, and make whole what has been smashed. But a storm is blowing from Paradise […] This storm irresistibly propels him into the future to which his back is turned, while the pile of debris before him grows skyward. This storm is what we call progress (1968, pp. 257-258).

Rather than imagining in what would be regarded as bad faith that history represents material progress, Gurdjieff recommends cutting away the mental and emotive accumulations of time's industry as they have stratified and territorialized one's subjectivity, and discarding them. He gives 1,238 pages of very difficult and very amusing prose read three times in a particular way[34] as a means of lightening the work of the angel of history, to speak metaphorically. The use of masochistic language—breaking, cutting, dying—in this context is deliberate. Deleuze and Guattari use masochism specifically as an example of a risky home remedy that achieves an end cognate to Gurdjieff's merciless destruction "without any compromise" of the manufactured subjectivity of the reader. They call this end the Body without Organs (BwO).[35] One can make a BwO of oneself intentionally, but the practices Deleuze and Guattari observe—masochism, addiction, anorexia—lead them to caution, "you can botch it" (p. 149). Multiple means for accomplishing the BwO safely and sanely exist within the gestalt of Integral Studies; the Giant Body Exercises that Tarthang Tulku (1977) presents in *Time, Space, and Knowledge* (TSK) is a particularly delightful example, given the resonance in language and methodology. One experiences oneself first as a stratified body, then sees the strata as the nature of space, which reveals their boundaries to be in a sense arbitrary, until finally one experiences oneself as a deterritorialized *body* of space, a BwO. *Surprise*—things are not what they seem, nor does the order of things need to remain as it is.

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[34] Perhaps the most significant aspect of the three readings Gurdjieff recommends to readers of *Beelzebub's Tales* is the motivation to undertake the practice of reading each time through: the wish to be of benefit to others first. This attitude and concrete methods for attaining it, are available in Chagdud Tulku's practical guide, *Change of Heart* (2003). Critical intervention or revolution must be undertaken with this kind motivation.

Conclusion

While the surprise of critical intervention is a break and a local disintegration, it is neither a discontinuity nor a global disintegration. I promote Ziporyn's technique of transformative recontextualization as an *immaterial* alternative to evolution as presented in synthetic Integral theories—a practice that pursues "second-tier" thinking to its logical conclusion.[36] The doctrine of the *Lotus Sutra*, according to Ziporyn, "is not some specific teaching about what the real is"—as is Wilber's attempt in *Sex, Ecology, and Spirituality*[37] to map all knowables objectively, an ambitious and Aurobindian project—"but just the act of opening up and revealing, of bringing teachings together so they are revealed to be versions of one another, one may say of *teaching per se*, that is, the ultimate teaching" (p. 91). As in Trungpa's curriculum at Naropa, the teachings Ziporyn speaks of are assembled in such a way, newly contextualized, as to yield a particular affective result. "Provisional is to ultimate as setup is to punchline. Enlightenment is here equal to humorousness, delusion to seriousness" (p. 97). This is another way of describing the net result of the critical inquiry Foucault (1984) calls for: "an *undoing* of this chronic previous habitual focus or mental grip, or seeing its groundlessness, arbitrariness, in other words, that another set of equally obvious facts, if attended to, change the significance, meaning, *identity* of the token in question" (p. 99).

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[35] A productive line of future inquiry will compare the functions of the BwO relative to transformational practice and concepts such as holons and holarchy as Integral theorists such as Wilber have developed from Arthur Koestler's initial mapping of them.

[36] One may speculate at this point that an upcoming generation of integral thinkers may need to read Aurobindo, for example, in a manner analogous to approaches to Spinoza taken by theorists such as Deleuze, Antonio Negri, and Etienne Balibar—which is to say a recontextualization of the immanent or "immaterial" impulses that saturate the best of Wilber's thought into the interface between subjectivity and the machinery of late capitalism. This is not to suggest that Deleuze, Negri, or Balibar have necessarily revealed the final word on Spinoza, but to illustrate Ziporyn's point that "just the same content, when 'opened up' […], suddenly reads differently without having changed in the least" (2004, p. 93).

[37] A comparative study of Wilber's use of the Buddhist doctrine of relative and absolute truths and Ziporyn's—beyond the scope of this paper—will open up in detail the distinction I am mapping out here in abstract.

To draw this multiplicity of threads together: the BwO is the "punchline" moment to the tedious, territorialized stream of subjective time *that made the punchline possible*. In a sense, this critical intervention is the *Aha!* of the boy as he recognizes that the Emperor, the Empire, really is naked; for this reason it is wholly *irrelevant* to the aims and imperatives of Empire. Significantly, Benjamin's (1968) view of history[38] can be understood as an *immaterially* Integral one, where the despair of the angel witnessing the accumulation of infected detritus we experience prosaically as a lifetime of trips to Wal-Mart is potentially liberated *at any moment* by "a Messianic cessation of happening, or put differently, a revolutionary chance in the fight for the oppressed past" (p. 263). Notice that Benjamin is able to think in terms inherited from Marxism and Lurianic Kabbalah without reducing either to a synthetic whole, or one to the other. This kind of recontextualization is an *immaterial* Integral relationship that is, in a sense, laughed into being as one *undergoes* the surprise. And with it, Deleuze and Guattari's insistence that becoming is *not* an evolution is no longer a potentially anti-Integral gesture, meaning that it is possible for a theory to be both functionally Integral and irrelevant in a critical sense.

To conclude, synthetic Integral theory may very well be what Zizek suggests it is—part of a complex of ideologies that amount to a justification and a means of maintaining and regulating the pathologies of Empire. It need not be this way, however. This theory can emphasize becoming and immanent critique, a microintegrality, rejecting the teleologies of synthesis and evolution and the assumption that anyone's theory can speak to a "perennial philosophy." This may be the best way to understand how transformations in subjectivity can make substantive changes in the socioeconomic machines that themselves make subjects, and how a sane social order can support that practice of transformation. In shorthand: do not posit a coming New Age, an Ultimate Reality, or a "key to all mythologies." Do find the means of making a new age happen, make it happen, and keep it happening.

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[38] It will be worthwhile to consider this reading of Benjamin's view of redeemed time in the light of Tarthang Tulku's vision of Great Time in the TSK series.

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Measuring an Approximate g in Animals and People

Michael Lamport Commons

Abstract: A science of comparative cognition ultimately needs a measurement theory, allowing the comparison of performance in different species of animals, including humans. Current theories are often based on human performance only, and may not easily apply to other species. It is proposed that such a theory include a number of indexes: an index of the stage of development based on the order of hierarchical complexity of the tasks the species can perform; an index of horizontal complexity; and measures of g (for general intelligence) and related indexes. This article is an early-stage proposal of ways to conceive of g in animals and people. It responds to Geary's argument that domain-general mechanisms are essential for evolutionary psychologists. Existing research is used to enumerate domains, such as problem solving behavior in pursuit of food, or behaviors in pursuit of mates and/or reproduction, and itemize identifiable human social domains. How to construct g, across domains and within domains, is described.

Keywords: comparative cognition, domains, evolutionary psychology, hierarchical complexity, g, intelligence, IQ, measurement theory

Introduction

This article introduces a cross-species, cross-domain measurement theory of cognitive performance. Its proposal responds to the current lack of such a theory for the science of comparative cognition, and to evolutionary psychologists' needs for domain-general mechanisms (Geary, 2004). Even though current theories have generally not included this broader scope of intelligence, some of the very first studies of intelligence did address the issue as to whether or not animals could think (Romanes, 1988). Supporting the continuity of animal and human faculties, Darwin (1871) wrote, in concluding the fourth chapter of *Descent of Man*,

> Nevertheless the difference in mind between man and the higher animals, great as it is, certainly is one of degree and not of kind. We have seen that the senses and intuitions, the various emotions and faculties, such as love, memory, attention, curiosity, imitation, reason, etc., of which man boasts, may be found in an incipient, or even sometimes in a well-developed condition, in the lower animals. They are also capable of some inherited improvement as we see in the domestic dog compared with the wolf or jackal. If it could be proved that certain high mental powers, such as the formation of general concepts, self-consciousness, etc., were absolutely peculiar to man, which seems extremely doubtful, it is not improbable that these qualities are merely the incidental results of other highly-advanced intellectual faculties; and these again mainly the result of the continued use of a perfect language. At what age does the new-born infant possess the power of abstraction, or become self-conscious and reflect on its own existence?

Over the last century, part of this inquiry has developed into the field of evolutionary psychology. The concern in this field is for the adaptiveness of a wide variety of behaviors in

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multiple domains. In trying to address this issue, there has been an ongoing debate between modularity of intelligence (Cosmides & Tooby, 1994) versus general intelligence, mostly fought in the realm of human intelligence. In cognitive science, the modularity of mind refers to the idea that the mind is composed of independent, closed, domain-specific processing modules. Sperber (2002) states that Modularity is not just of the mind but of any biological mechanism. It can be envisaged at five levels:

1. At a morphological or architectural level, what is investigated is the structure and function of specific modules, and, more generally, the extent to which, and the manner in which the organism and its sub-parts, in particular the mind/brain, are an articulation of autonomous mechanisms.
2. At the developmental level, modules are approached as phenotypic expressions of genes in an environment. Cognitive modules in particular are hypothesized to explain why and how children develop competencies in specific domains in ways that could not be predicted on the basis of environmental inputs and general learning mechanisms alone.
3. At the neurological level, modules are typically seen as dedicated brain devices that subserve domain-specific cognitive functions and that can be selectively activated, or impaired.
4. At the genetic level, what is at stake are the pleiotropic effects among genes such that relatively autonomous “gene nets” (Bonner 1988) get expressed as distinct phenotypic modules. Genetic modularity is more and more seen as crucial to explaining on the one hand phenotypic modularity and on the other the evolution of specific modules (Wagner 1995, 1996; Wagner & Altenberg, 1996).
5. At the evolutionary level, hypotheses are being developed about the causes of the evolution of specific modules, and of genetic modularity in general. Understanding the causes of the evolution of modules helps explain the known features of known modules and also search for yet to be discovered features and modules.

In humans, the simplest operational definition proposed is that intelligence is whatever intelligence tests measure. In animal intelligence, the modularity view has generally dominated because most animals show no large degree of general intelligence (Locurto, 2004).

I will suggest that there should be some measure of general intelligence (g) (Jensen, 1998; Kanazawa, 2004) for animals. I will also present an alternative process and corresponding indexes that may be used along with traditional measures in humans such as IQ (Intelligence Quotient). This suggests another approach to human intelligence that more closely parallels the assessment of animal intelligence.

This approach will respect modularity and suggest that breadth of intelligence is a better way to summarize the generality of intelligence than the factorial approach of g so popular in academic approaches to human intelligence. Breadth will offer continuity with other animals and incorporate what has become known as the multiple intelligences of Gardner (1983/1993) and of Sternberg (1985). Breadth, which much of this paper leads to defining, will be carefully defined below and distinguished from traditional views of g.

Background of General Intelligence versus Modularity Studies

The concept of intelligence was the brain child of Sir Francis Galton (1869/1892/1962). Intelligence testing has been an empirically driven enterprise, with item selection based on very limited understanding of the domains of human endeavor. Charles Spearman (1904) found that grades of children in different subjects were positively correlated. These correlations seemed to be influenced by a dominant factor, g for "general" intelligence. He developed a model to account for the variation in intelligence test scores consisting of two factors. The first was g, a general factor that governs performance on all cognitive tasks. The second was the factor specific to an individual mental task: the individual abilities that would make a person more skilled at one cognitive task than another. Spearman's theory was too narrow. It did not consider other aspects of intelligence, for example, those corresponding to broad abilities such as spatial visualization, memory and verbal ability usually found through factor analysis.

In 1903-1905, Alfred Binet and Thophile Simon (Binet, 1903; Binet & Simon, 1905) worked on creating a practical way of assessing which children would not benefit from regular instruction for the French Ministry of Education. This was the Binet battery of tests. They did not suggest that that battery measured precisely any single faculty. This was because the battery was aimed at evaluating the child’s general mental development with a heterogeneous group of tasks. Binet had noted that children who had difficulty in school were very often late in developing skills in other fields easily acquired by most students of the same age.[1] In 1917, Robert Yerkes, who was President of American Psychological Association then, developed the Army Alpha and Beta Tests to measure intelligence in a group format. The tests were given to all new recruits in the U.S. military in 1918 onward.

At that time, there was almost no notion of animal intelligence. An exception was E. L. Thorndike, who did a great deal of work in both areas, coming up with the basic laws of learning. Thorndike's (1898, 1911) early studies with animal behavior produced his Law of Effect. That law states that responses to a situation that are followed by satisfying events are strengthened and responses that are followed by unpleasant ones are weakened.

Thorndike and his students began measuring intelligence as early as 1903 (Thorndike, 1904). When the United States entered World War I, Thorndike developed methods for measuring a wide variety of abilities and achievements. During the 1920's, Thorndike (1920, 1927) developed an intelligence test consisting of completion, arithmetic, vocabulary, and directions: the CAVD. This instrument was intended to measure intellectual level on an absolute scale. The logic underlying the test predicted elements of test design that eventually became the foundation of modern intelligence tests.

Thorndike distinguished three broad classes of intellectual functioning. Standard intelligence tests measured only abstract intelligence. The second class was mechanical intelligence: how well one visualizes relationships among objects and understands how the physical world worked. The third class was social intelligence: the ability to function successfully in interpersonal situations.

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[1] Bergin and Cizek (2001) suggest that Binet’s work on measuring intelligence may have influenced Jean Piaget, (he worked for a time in the Alfred Binet Institute in Paris (Gruber & Vonèche, 1977), who later studied with Binet's collaborator Theodore Simon in 1920. But Piaget was more interested in the ways in which errors were made than the scores, leading his inquiry in other directions.

Thorndike proposed that there were four general dimensions of abstract intelligence:

- Altitude: the complexity or difficulty of tasks one can perform (most important).
- Width: the variety of tasks of a give difficulty.
- Area: a function of width and altitude.
- Speed: the number of tasks one can complete in a given time.

Factor Analysis

Factor analysis, a term introduced by Thurstone (1931), is a statistical procedure used to measure relationships among many variables. It allows numerous intercorrelated variables to be reduced to fewer dimensions, called factors. Factor analytic techniques are used to (a) reduce the number of variables and (b) detect structure in the relationships between variables, that is, to classify variables.

Thurstone administered 56 measures (15 hours' worth of tests) to 240 college students to try and determine the basic factors of intelligence. Without computers, it took him six months to compute the results. Thurstone found 12 factors to intelligence but only seven of these were clear enough to name. The one that persists today is g, the first factor.

Not too much has changed since Thorndike's and Thurstone's work. The determination of g from factor analysis takes only seconds now, and that determination is in most statistics programs. The same factors are found over and over, the main one being g, with many secondary factors also occurring. One can now do a Rasch Analysis on items from various intelligence measures, checking to see if they fall on a single dimension. But the scoring of item difficulty is such that items from very different domains will usually fall on a single dimension of difficulty in Rasch, without indicating the domain differences. A Rasch Analysis shows the degree of difficulty (Dattilio, Commons, Adams, Gutheil, & Sadoff, in press). It is a model that produces an objective, additive scale that is independent of the particular items used and of the particular participants tested (Wright & Linacre, 2001). Through the use of probabilistic equations, this model converts raw ratings of items into scales that have equal intervals. The Rasch Model was originally developed for large-scale achievement testing. Its use has since exploded in a variety of disciplines and for a wide range of topics, and it can be used to analyze a large variety of human sciences data (Linacre, 2003).

A scale is produced, on which each item (which is coded for and entered as a raw data point) is placed according to its Rasch "rating," or scaled score. Such a scale can then be used as a type of objective ruler against which to measure the data on items as to difficulty as well as on respondents-ratings. The ruler-like properties of the scaled numbers or Rasch scores that are produced provide some advantages over other scaling techniques. For example, the scale is made up of equally spaced, continuous intervals, that is, it provides a linear, interval measure against which items can be compared. As a result, a change of difficulty of 1 carries the same weight from 0 to 1 as it does from 2 to 3 in the same way that, on a ruler, a change in length of 1 inch, either from 0 inches to 1 inch, or 2 to 3 is the same. Furthermore, doubling on the Rasch scale means the same change in difficulty anywhere along its linear axis. Again, using the figurative ruler example, doubling the distance from 1 to 2 results in an equivalent *magnitude* of change as doubling the distance from 2" to 4." In the case of difficulty, a value of 2.3 is half as severe as a difficulty of 4.6.

The accumulation of "cognitive" testing data and improvements in analytical techniques have preserved g's central role and led to the modern conception of g (Carroll 1993). A hierarchy of factors, with g at its apex and group factors at successively lower levels, is presently the most widely accepted model of cognitive ability. Other models have also been proposed, and significant controversy attends g and its alternatives.

Toward a More Expansive Measure of g

But there have always been problems with these models. Somehow the animal intelligences and the human intelligences have not been systematically connected. Also, there was no known way of determining, without giving people independent items to do, how difficult the items were on an absolute scale.

There is also the problem in comparative psychology with the lack of a good way to compare "how smart" different animals are, and this is also true for people. A science of comparative cognition ultimately needs a measurement theory of how to compare the performances of different species of animals and different groups of people. Current theories are often based on human performances and human norms and may not easily apply to other species. Furthermore, there is also controversy about whether such theories and tests apply to other cultures or if they do, can group comparisons be made. I propose that a theory of comparative cognition needs to include multiple indices. This application is derived from my application of measurement theory to the problem of how smart something is (Commons, Trudeau, Stein, Richards, & Krause, 1998). An index would consist of a numerical scale used to compare variables with one another or with some reference number. In this article, I propose a way to conceive of g in animals and people.

There is controversy within the field of evolutionary psychology as to whether or not g is domain specific or domain general. One of the perspectives on modularity come from evolutionary psychology, particularly from the work of Leda Cosmides and John Tooby (1994). This perspective suggests that modules are units of mental processing that evolved in response to selection pressures. With this view, much modern human psychological activity is rooted in adaptations that occurred earlier in human evolution, when natural selection was forming the modern human species. In contrast to modular mental structure, some theories posit domain-general processing, in which mental activity is distributed across the brain and cannot be decomposed, even abstractly, into independent units. A staunch defender of this view is William Uttal, who argues in *The New Phrenology* (2003) that there are serious philosophical, theoretical, and methodological problems with the entire enterprise of trying to localize cognitive processes in the brain. Part of this argument is that a successful taxonomy of mental processes has yet to be developed. Skottke (March, 2006) argues that general intelligence, g, can be described as the ability of an individual to acquire and apply knowledge. Many studies have shown that g is at least 50 percent heritable and thus, can be passed down from generation to generation (DiLalla, 2000).

Evidence is overwhelmingly against generality. Such evidence is usually expressed in terms of the concept of modularity (e.g., Bonner, 1988). Miller (2000) argues that one of evolutionary psychology's most distinctive ideas is the expectation that the control of human activity is massively modular. The brain evolved so that it is composed of hundreds of distinct psychological adaptations that evolved to solve distinct ancestral problems of survival and reproduction. Cosmides & Tooby go on to state that the rationale for massive modularity has been the supposed trade-off between generality and efficiency:

> As a rule, when two adaptive problems have solutions that are incompatible or simply different, a single general solution will be inferior to two specialized solutions. In such cases, a jack of all trades is necessarily master of none, because generality can be achieved only by sacrificing effectiveness (1994, p. 89).

Modularity is obvious for morphology: animals have distinct limbs, senses, and organs to do different things. Psychological and behavioral control modularity has been less obvious to psychologists, but evolutionary considerations of functional efficiency suggest the brain and behavioral control should be at least as modular as the body.

Geary (2004) has argued that domain-general mechanisms are essential for evolutionary psychologists. Geary proposes that human motivational, affective, behavioral, and cognitive systems have evolved to process social and ecological information (e.g., facial expressions) that covaried with survival or reproductive options during human evolution. Further, he argues that the ultimate focus of all of these systems is to support our attempts to gain access to and control of resources—more specifically, the social (e.g., mates), biological (e.g., food), and physical (e.g., territory) resources that supported successful survival and reproduction over time. In this view, Darwin's conceptualization of natural selection as a "struggle for existence" becomes, for us, a struggle with other human beings for control of the available resources. This struggle provides a means of integrating modular brain and cognitive systems such as language with those brain and cognitive systems that support general intelligence. To support his arguments, Geary draws upon an impressive array of recent findings in cognitive science and neuroscience, as well as primatology, anthropology, and sociology. In addition, Chiappe & MacDonald (2005) argue the need for such a notion to understand human evolution. Note, this paper will *not* address current issues on the psychometric view of intelligence and only review part of the historical context.

Charles Locurto (2004) has been studying the structure of early acquisition of behavior and of stimulus control. He has focused on the structure of individual differences in mouse “cognition.” There are specific mechanisms that are carried across at least some animals such as the structure of the eye and the nature of neural networks, but that does not equate to general intelligence. His findings with mice do not show a robust general factor (i.e., first principal component) that is typically found in human testing. Instead, he observed a more modular structure. The tasks he used in his batteries require a number of sessions to complete. Locurto cites a literature that says that clearer evidence of a general factor may be found if each task is run for only a few trials, thereby capturing early acquisition performance instead of performance following extended training. In response to this literature, Locurto developed a battery in which each task was designed to provide evidence of learning within a few trials. Moreover, each task was distinct in terms of motivation, sensory modality and/or behavior measured, thereby providing a strong test of the presence of a general factor. His results still did not indicate much of a general factor. This work led directly to what is presented here.

Modularity and Domains

Despite the theoretical debates, it is not an all or none proposition. Because values of g may have increased over evolutionary time as new organisms developed, there is a great need for defining g in a way that captures the issue of modularity versus generality in a systematic way.

Modules are similar to the notion of domains. These modules are thought to be related to brain function that is specialized for tasks in a given domain.

Although there are currently no standard ways to define domains, I take the strategy of relying upon existing research to enumerate domains. For example, many animals exhibit certain problem solving behaviors in pursuit of food, and different behaviors in pursuit of mates and/or reproduction. Animals also have different kinds of interaction behaviors with others of their own species. Some animals pair bond, some live in social groups, and some are loners, coming together only to mate.

Domains

In trying to measure g, or a general factor for animals, it would be good to have a list of domains and tasks within those domains that various animals can do. Domains are presently not on any scale. They are nominal. From the animal literature, the domains for most animals are discrete. The major ones I know are:

- Mate selection
- Attachment and caring
- Pecking order
- Prey defense
- Predator action
- Way finding
- Food sharing
- Migration
- Communication
- Social cohesion
- Recognition
- Food selection
- Choice in foraging

Hierarchical Complexity and Stage

The Model of Hierarchical Complexity (MHC) posits that tasks can be ordered as to their hierarchical complexity (Commons, Trudeau et al 1998). It belongs to the branch of mathematics called measurement theory. It formulates a measure of one major kind of task difficulty called *hierarchical complexity*. This measure is different from current measurement procedures in four major ways. First, hierarchical complexity of tasks forms an absolute scale rather than one based on norms, or content. Second, it is formulated in a manner similar to other measures from measurement theory (e.g., Krantz, Luce, Suppes, & Tversky, 1971). Third, it separates the empirical stage of *performance* from the largely analytic hierarchical complexity of tasks. Fourth, rather than basing stage on some inferred mental or logical operations; stage becomes the performances on tasks of a specified hierarchical complexity that are accomplished.

The Model of Hierarchical Complexity (Commons & Miller, 1998; Commons & Richards, 1984a, 1984b; Commons, Trudeau, et al., 1998) defines stage of performance on a task in terms of the order of the hierarchical complexity of the tasks that the performance successfully addresses. Formally, for a task to be more hierarchically complex than another, the new task must meet three requirements. First, a more hierarchically complex task and its required action is *defined* in terms of two or more less hierarchically complex tasks and their required task actions. Second, the more hierarchically complex task *organizes* or coordinates two or more less complex actions; that is, the more complex action specifies the way in which the less complex actions combine. Third, the coordination of actions that occurs has to be *non-arbitrary*; it cannot be just any chain of actions. Each new, task-required action in the hierarchy is one order more complex than the task-required actions upon which it is built (Commons, Trudeau, et al., 1998).

The MHC also may be used to measure the stages of animal or human behavior on this scale. It does so by taking the actions that animals and humans engage in, and ordering the hierarchical complexity of the tasks that those actions successfully address. Stage of performance has the same number and name as the corresponding order of hierarchical complexity of the task it correctly completes. The table below indicates how the MHC describes the orders or stages.

Table 1. Stages described in the Model of Hierarchical Complexity

Order or Stage	**Name**	**What they do**	**How they do it**	**End result**
0	calculatory	Exact–no generalization	Human made program manipulate 0, 1	None
1	sensory & motor	Discriminate in a rote fashion, stimuli generalization, move	Move limbs, lips, eyes, head View objects and movement	Discriminative and conditioned stimuli
2	circular sensory-motor	Form open-ended classes	Reach, touch, grab, shake objects, babble	Open ended classes
3	sensory-motor	Form concepts	Respond to stimuli in a class successfully	Concepts
4	nominal	Find relations among concepts Use designated concepts	Use names and other words as successful commands	Sequences of concepts, designated concepts
5	sentential	Imitate and acquire sequences Follows short sequential acts	Generalize match-dependent task actions. Chained designated concepts	Sequences of designated concepts
6	preoperational	Make simple deductions Follows lists of sequential acts Tell stories	Count random events and objects Combine numbers and simple propositions	Connectives: as, when, then, why, before; products of simple operations
7	primary	Simple logical deduction and empirical rules involving time sequence Simple arithmetic	Adds, subtracts, multiplies, divides, counts, proves, does series of tasks on own	Times, places, counts acts, actors, arithmetic outcome from calculation
8	concrete	Carry out full arithmetic, form cliques, plan deals	Does long division, follows complex social rules, takes and coordinates perspective of other and self	Interrelations, social events, what happened among others, reasonable deals,
9	abstract	Discriminate variables such as Stereotypes; logical quantification; (none, some, all)	Form variables out of finite classes Make and quantify propositions	Variable time, place, act, actor, state, type; quantifiers (all, none, some)

Order or Stage	**Name**	**What they do**	**How they do it**	**End result**
10	formal	Argue using empirical or logical evidence Logic is linear, 1 dimensional	Solve problems with one unknown using algebra, logic and empiricism	Relationships formed out of variables; words: linear, logical, one dimensional, if then, thus, therefore, because; correct scientific solutions
11	systematic	Construct multivariate systems and matrices	Coordinates more than one variable as input Consider relationships in contexts	Events and concepts situated in a multivariate context; systems are formed out of relations; systems: legal, societal, corporate, economic, national
12	metasystematic	Construct multi-systems and metasystems out of disparate systems	Create supersystems out of systems Compare systems and perspectives Name properties of systems: e.g. homomorphic, isomorphic, complete, consistent, commensurable	Supersystems and metasystems are formed out of systems of relationships
13	paradigmatic	Fit metasystems together to form new paradigms	Synthesize metasystems of	Paradigms are formed out of multiple metasystems
14	cross-paradigmatic	Fit paradigms together to form new fields	Form new fields by crossing paradigms	New fields are formed out of multiple paradigms

Measuring an Approximate g

Indexes to Measure g and Variants

Starting with the standard tasks within the standard domains, one can construct an analogue of g. There will be three types of measures: (a) the highest stage of performance attained in each domain (HS) including the highest stage in any domain (HHS); (b) a form of g that is somewhat akin to human g; (c) a derived measure of generality of performance, g breadth (gB).

Highest Stage of Performance Attained in Any Domain

An animal species may be characterized by the highest stage of performance observed with any amount of training on its best task series (HHS). Animals can perform up to the concrete stage, about what eight to ten year old children do. (Examples presented below show how the MHC can be used to compare how smart different animals are).

This first index requires some information as to what the domains are and what the tasks are within each domain. This is the most difficult part of the enterprise because we really do not know the domains well. We know what the tasks accomplish, but we do not have a systematic way to classify domains. Each task has a hierarchical complexity. The highest stage of performance (HS) is just the highest hierarchical complexity of the task that the organism in the species correctly addresses. Then one finds the domain and task in which the highest stage of performance (as determined by hierarchical complexity) occurs (HHS). Note that this falls on the stage scale that runs from 0 to 14. It is one such number.

The Index g

The second index, g, is the average of the highest stage numbers of performance in each domain (HS). This is somewhat akin to human g, but g would separate the highest stage from how broad g would be. The average has advantages of the total g, because the average is less sensitive to failing to include a domain or misidentifying a domain. Note that this average of highest stage falls on the stage scale that runs from 0 to 14.

The Index g-Breadth

The third index called g breadth (gB), measures how broad an organisms’ capability is by using a scheme that uses a renormed g that removes the effects of the highest stage. This renorming does not refer to a sample but to the process of dividing the average of highest stage in each domain (g) by the top stage of the animal (HHS). This renorming takes away the effect of highest stage. Then we have three numbers, the highest stage (HS); the average stage across domains (g); and g breadth (gB).

Within Domain Smarts

Another form of “being smart” is within domains. This within-domain form is like the subtasks within the verbal IQ tasks. The within-domain form shows flexibility of stage of performance (fS) within each domain. One chooses the domain and task in which one wants to measure flexibility, then finds the highest stage of performance (HSdomain) on a wide variety of tasks that occur within that domain (as determined by hierarchical complexity). One then averages the stage numbers of the task performances within the domain. That is g-domain. That is divided by the Hsdomain. Again, this scale will consist of the rational numbers between 0 and 14. That gives gdomain Breadth.

Examples of Comparative Complexity in Selected Domains and Species

As an example of how this works, we can first compare human way-finding to pigeon way-finding, and then include fish, horses and rats. There is a great deal of variability in human way-finding. It may be that this is also true for other primates. Some people seem to always be getting lost, whereas others can go anywhere with the most minimal directions. Such people also may use the sun to find their way. Some orienteers even think they have a sense of north in their head. Pigeons are particularly good at way-finding. They follow features (as many people do) and seem to have a magnetic portion of their brain.

But most way-finding in animals is not as flexible as in humans or pigeons. While we do not understand migration very well in birds and fish, we do know that fish swim to and up the stream where they were born. But they are not particularly good perhaps at finding other places. Birds migrate pretty much along the same routes year after year. They can find their way back to their nests. But as humans, we can make and read maps. We can find our way in any weather. We do it differently and in a more hierarchically complex manner. Humans use maps that may show contours and features such as trails, roads, cliffs, junctions, etc. The differences in complexity of each of these tasks across species could be compared with this model, given some further work in specific areas.

Jay R. Feierman (personal communication) knows horses very well. He says that they are “absolutely dumb” at figuring out problems that were not present in their ancestral environment. The fact that on the open spaces they have a good sense for direction and can always find their way home is an example of a reasonably high stage of functioning in way-finding.[2] But on new problems, they are “terrible.” Feierman says a similar condition exists for rats, whose inborn abilities allow them to be so good at mazes. Maze-like problems were part of the ancestral world of rats. But horses do better across domains than rats. They acquire a much broader amount of information, and can be trained to do a wider variety of tasks.

A second set of examples is about comparing spiders and 11 year old humans. Spiders can build webs and they can wrap their prey, but that is about it. An 11 year old can also make a spider web with a syringe filled with a protein like that in a spider web. However, they can also do all sorts of tasks beyond that. Even though they both can build spider webs, and probably the spider’s is more elegant, the fact is that the human can do so many things spiders cannot.

A third set of examples compares African Grey Parrots, Crows, and other birds. Crows perform at the sentential stage 5 (see Table 1). They sequence nominal stage actions by planning to bend a wire to reach around a corner in a plastic tube to get food. Also at the sentential stage 5, African Grey Parrots sequence words and understand word sequences, distinguishing the difference between the passive voice and active voice. But the African Grey Parrots solve all sorts of problems beyond what Crows do at the sentential stage, such as saying letters and numbers in order, and counting small sets of objects systematically. At the nominal stage 4, pigeons can switch which key they use when a few examples from a class are switched. They form a large number of arbitrary concepts even including such abstract examples as inside and outside. Hence, at the concrete stage 3, their performances are quite broad. They are trained repletely to name classes such as fish (respond quickly) to non-fish (respond slowly). When a few examples are switched so that the class name has been switched from respond quickly to respond slowly, they switch their rate for all members of the class. Sparrows cannot do such things.

The foregoing examples indicate why it is useful to distinguish domains within species, and by describing tasks that are domain specific, they illustrate that similar task domains exist across species. They suggest that animals for the most part do not vary much in their stage of performance within species. This is not true within humans. It is easy to find adults ranging from primary to metasystematic stages. There are also great differences from person to person as to their relative stage of performance on tasks in different domains.

Human Domains

There are a number of issues in examining domains in the context of humans. For example, in the postformal stages (i.e., stages 11 through 14 in Table 1) that develop only in advanced adolescents and adults, there have been very few studies of domain (but see Demetriou, 1998;

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[2] Some primates, especially humans, have huge ranges. Other animals like elephants also have large ranges, and ranges are not linear as compared to migrations.

Demetriou & Kazi, 2001; Kail, 2004). There are at least two studies that measured postformal stages in a few different domains (Commons, Armon, Richards, & Schrader, 1989; King, Kitchener, Wood, & Davison, 1990). In both cases, the first factor was stage, with all the assessments but the Loevinger (1976) loading on it. It was more related to IQ. In each of these studies, a variety of tasks were administered. The Multisystems tasks asked people to compare four stories to each other that differed only in the way preferences or weights were ordered. In some stories, the ordering was transitive and in others that had identical structures, they were not. Table 2 indicates results from a factor analysis of how much each of the following measures loaded on the first "stage" domain.

Table 2. Factor loading on first "stage" factor of a multi-instrument study

Study	Factor Loading
Good-Life (Armon, 1984)	.85
Multisystems (Commons, Richards & Kuhn, 1982)	.75
Moral Judgment (Kohlberg, 1984)	.64
Ego (Loevinger, 1976)	.26

At one time, Piaget and Kohlberg did not think that there were domain specific developmental lags. But almost all the neo-Piagetians do. In developmental political psychology, one might consider the wide range of social domains. There has been a great deal of controversy about the nature of the social domain within the field of human development. Some researchers (e.g., Kegan, 1982; Kohlberg, 1984) held that development occurred roughly simultaneously in all domains and surely within the social domain. Fischer (1980) and many other neo-Piagetians did not think so. Armon (1984) proposed using Aristotle's classification of domains as follows: The True – Logical, Mathematical and Empirical, The Just – Fairness, The Good – Evaluative and Valuing, Beneficence – Caring, and The Beautiful. Here, Caring, Valuation and Justice are treated as all belonging to the social domain.

Social Domains and Subdomains

Each one of the subdomains of the Social Domain can be differentiated by finding people who can perform well in some of them but not others, even single others. What follows is a rough outline of the social subdomains and tasks within them.

Self

There are many bench marks in the development of the self. First, around 18 months, there is reflection on self, differentiation from others, and finally self recognition in a mirror (Bertenthal & Fischer, 1978). There are many disorders of the self, all having a different character. For example, with respect to self image, schizophrenics may think they lack a body. They may perceive the loudness of outside stimuli less than the inside voices. Anorexics may have a distorted body image and deficiency in detecting body aberrations. Narcissists perceive that what is important to them is almost always important to others. With attention deficit disorders, there is inattention to others.

Dyads

Intimacy has all the social perspective taking stages of Selman (1980) as modified by Commons and Rodriguez (1990). At the primary stage seven, one can take the perspective of oneself and one can take the perspective of others but not at the same time and not coordinated. At the concrete stage, decision making leads to agreement between two people based on each person understanding the perspective of the self and other at the same time. Intimacy develops finally at the metasystematic stage to the extent where people can become interdependent without giving up their own identity or dominating another.

Alliance and mutuality has a stage sequence also, paralleling the development of social perspective-taking. For example there is turn-taking in infancy at the beginning of the circular-sensory motor stage two. It has been observed that communicative interaction, as shown by eye glances that begin to take place from the first week, gradually develops into an interaction with sounds where the adult talks and the child is cooing and beginning to play peek-a-boo (Commons, 1973; Lobel, Miller, & Commons, 1981).

Lamb (1991) has show that the development of empathic responses at the beginning of the nominal stage 4 around 18 months is a precursor of moral development.

Triads

During the primary stage, one sees games involving groups of children. These can be small teams as in kick ball, dodge ball or jacks. This becomes the basis for small working groups or small committees. Decision making becomes an issue. Sometimes there is a consensus and the group stays together. Sometimes there is not and the group might split. At the concrete stage, the use of power becomes more apparent.

Committees

At the abstract stage 9, committees come into being. They consist of three or more people but not so large as to be an organization. There are social norms that play a significant role here.

Small Organizations

These can also be formed at the abstract stage 9. They may consist of single purpose large ad-hoc committees and simple non-differentiated organizations without departments. Roles are somewhat differentiated but also quite interchangeable. Such groups are governed by social norms and do not have to be face-to-face.

Small Markets

Small markets are an example of this level of social subdomain. For instance, in developing countries, there are usually open air markets with lots of vendors selling products. Many of the vendors sell the same products. There may be price, quality, and freshness competition. Flea markets are also of this sort.

Organizations

An organization is a group of persons organized for a particular purpose such as a political association or a business. Within organizations there are rules for cooperation as well as for competition among subunits of the organization as is the case with sports teams and candidates.

Public

This is a different kind of activity in which people have an imaginary audience or at least one they cannot see. This first happens at the formal stage 10. This is the lowest stage of performance for politicians, actors, musicians and writers among others who have a special sensitivity as to what works with the public. They are successful at communicating with the "everyman." We say they are successful if they are elected and if they are there more than one term or have more than one movie or album success. This is a domain unto its own. Think of higher stage purveyors like Ronald Reagan, William Clinton, Tom Hanks and the Beatles as exemplars.

Governments and Large Markets

See Sonnert and Commons (1994) for a discussion of the higher stages in the political process. Sara Ross (personal communication, January 2006) suggests one might look at the list of the often-used socio-political domains as shown above. One could relate them to socio-political structures at different stages of development. Then one could come up with stages of performance necessary in those domains to function well within those structures. One could design a semi-structured interview-scenario that included elements we think of as belonging in those domains (moral, interpersonal, etc.). We could use that to probe people's experience, attitudes, etc., in relation to how they think, react, function in regard to certain institutions and also other people who have roles in those institutions. Then one could come up with a score for each domain included in the interview's scenario. One might be able to predict where they could have problems and where they could benefit from further development.

One could conduct an experiment designed to improve performance in socio-political domains, by using Sara Ross's public issues process for example, and do the interview again, and score them. One could see if that intervention broadened them by increasing g, finding out which domains the intervention impacted, person by person. People could benefit personally and collectively, and the intervention could be revised and improved to target certain domains more specifically for more beneficial results.

Societies and Cultures

Some people, such as artists and scientists, have a great understanding of societies. They not only produce original works, but often understand how to market them to the society as a whole. For example of cultures as a whole, we speak of Western culture or Eastern culture.

Other Domains

There are other kinds of domains of knowledge in humans. People seem to vary in how well they do in them, so there might be some modularity associated with them also. A list of such domains includes:

- *Physical Science domains:* These include Physics, Chemistry, Organic Chemistry, Astronomy, Geology.
- *Biological Domains:* These include Biology, Biochemistry, Zoology, Botany, and their subdomains.
- *Analytical Domains:* These include Philosophy (which includes Epistemology, Morality and Ethics, Aesthetic, Logic, Metaphysics) and Mathematics (which includes such areas as Mathematics, Probability and Statistics, and Chaos Theory).
- *Experiential Domains:* There are two major experiential domains; Religion and Spirituality, and Art, Music, Performance, Communication and Persuasion.
- *Physical Skills:* These include sports, dance, military activity, equipment operation, playing instruments among other things.

Conclusion

The issues of modularity and generality in intelligence are not going to go away. This paper has presented one way to address the controversy, to keep modularity but measure general development across domains. Using such measures will help us understand the evolution of animals. It will also make clear that many of the problems people suffer from are not due to “bad’ will, but due to deficits of development in given domains. Such unevenness in development seems to be associated with problems such as criminal activity, substance abuse, etc.

This theory of g may enhance the Model of Hierarchical Complexity’s utility, as a formal theory now supports its development (Commons & Pekker, in press). It may also iterate a few of its key potential areas of value. There are clearly a number of challenges in fleshing out this theory in detail. One way to validate such a system of measurement could be to systematically compare a number of animals using the methods briefly described in this paper. However, it takes a great deal of time to test individual animals or humans on a large set of tasks. Therefore, at least with animals, it is probably best to analyze the tasks they do and how they do them. By determining the hierarchical complexity of the tasks, one can determine the stage of performance, which requires only scoring.

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The Centrality of Human Development in International Development Programs: An Interview with Courtney Nelson

Russ Volckmann

For over forty years Courtney Nelson was engaged in projects in Africa, Asia and the Middle East that were focused on trying to make a positive difference in the lives, work, and organizations of people confronting rapid change, new demands on themselves and their families, and worldwide economic and political forces that few understood. Courtney's integral perspective is evident here as he forges a clear presentation of the relationships among variables in development.

Human development tends to be an afterthought in the design of most development projects. The focus of interventions is likely to be economic development, institutional development, infrastructure development, etc., but the impact of the activities on the level of consciousness of the participants is a secondary concern.

Education is the high road to human development, but even education projects can fail to achieve significant advances in human development. Rote learning, for example, or training narrowly focused on work skills, can miss many potential developmental benefits.

My contention is that if economic, infrastructural, institutional, and educational interventions were designed with the human development of participants as a primary objective, the projects would be more effective and their benefits more lasting. To achieve harmony among the level of human development, complexity of technology, and management style, one would necessarily begin with the developmental stage of the intended workers. One would then select technology that was at the same level or one step above that level and design a management system consistent with the technology and the workers.

Once the three elements are in harmony it would become possible to manipulate policies (incentives), technologies (capital intensity) and human development (through training) to achieve sustainable development one step at a time. This, essentially, is what Singapore has done to create an advanced society with a highly advanced population in the course of a mere two generations.

Courtney Nelson

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Q: Your work history has been quite extraordinary in terms of just the years you've spent involved in development activities in Africa, the Middle East and Southeast Asia in particular. What experiences have helped shaped your perceptions about development?

A: First of all, I am a generalist. Working in a discipline allows one to delve deeply, while being a generalist helps one have a broader view. The hard part is finding employment because organizations are generally looking for people in a disciplinary framework. I have been fortunate in finding a broad range of employment opportunities, but there were times I wished I had a definable, disciplined skill.

Looking back, I find that in one way or another I have had experience with the three main facets of the development process: organization, technology, and human development. Over time, through prolonged exposure, I felt these facets began to fit together.

At the beginning, I was working with a man named Lothar Metzel who was an East European immigrant analyzing Chinese communist pronouncements. At the same time, he was grounding me in Marxist and Leninist literature. The most influential book for me was Karl Wittfogel's ***Oriental Despotism***. Wittfogel was once the number two German in the Comintern in Moscow. After rejecting the Party he used Marxian analysis to study the ways in which the need to control water, either for irrigation or flood control, shaped a number of Asian societies. If a society needs to control water, it forms the kind of relationship between the state and people that can be leveraged for other activities. Only societies where you have such water control can you build massive monuments such as the Great Wall of China or the pyramids. Those achievements required the virtual enslavement of a lot of people.

Such despotic control over society was possible only because water control demands arbitrary organization. Decisions concerning water control measures must be made firmly by an authoritarian entity, they cannot be subject to discussion or debate. This is an extreme case of technology determining organization which, in turn, determines the level at which people must function. Once the mechanisms were in place for managing the technology, rulers could use their complete control over their subjects for building massive projects. Such projects could not be built in the West because, being well watered, outlying vassals could and did break from a kingdom and join the other side if the kingdom made repressive demands.

I found similarities between Wittfogel's theory of hydraulic society and Soviet ways of controlling their people. They used ideology rather than water control. They used the party line to control people at all levels of society. In a hydraulic society, the technology needed for water control enabled, and practically forced, a highly centralized political system, whereas the communist system was based on no such imperative and had to eventually fail.

Later, I spent a year working with state advisory committees to the U.S. Commission on Civil Rights. It was fascinating to see the different means chosen by these voluntary committees to deal with the specific civil rights problems of their own states. I met a great number of admirable people all over the country. Still, it wasn't international and I yearned to be back in the field.

I was fortunate to get an interview at the Ford Foundation. Frank Sutton, a sociologist on the Foundation's staff, was about to open an office of the Foundation in East Africa and needed an assistant in that endeavor. The interview lasted a full day and I was dazzled by the people I met and their sense of mission in developing countries. At the end of the day I met with the personnel director to discuss terms of employment. I said I would go for the fringe benefits; I was so eager for the assignment.

Q: *So you went to Kenya?*

A: Yes, I had a two-year appointment, which became four years. It was a terrific learning experience because I was working for Sutton. Like Metzel, he was an able reference librarian on virtually every topic I took an interest in.

Q: *What most interested you in Kenya?*

A: East Africa has many fascinations. I got very interested in ecological research on wildlife and developed grants in all three countries: Tanzania, Uganda and Kenya. I even learned to fly so I could visit the research stations without devoting a week to each visit. This is when I began to get interested in human development. The Foundation necessarily worked with the elites of these countries. We were engaged in supporting economic planning, Africanization of the civil service, higher education, etc. We had one small project improving the school science curriculum, but our resources did not extend to the point where we could be productively involved in primary or secondary education.

Many of the people we worked with were outstanding. Tom Mboya and Julius Nyerere would have been leaders in any society. They had generally been educated, first at an elite high school, such as Alliance in Kenya, and then sent to Makerere University College for higher education. Many proceeded from there to study overseas. The gap between these people and the man on the street or in the field was enormous. One had the feeling that we were working on the surface of African society, while in the villages and countryside another generation was growing up with the same limitations as their ancestors for centuries past. Moreover, independence and democratization meant it became impossible to support the elite school system, so there was little chance to continue producing the admirable elite such as we knew.

Without much hope of doing anything about it, I tried to discover what made the great disconnect between the "been-to's" (e.g., been to England, been to the U.S.) and the others in their society. I became acquainted with John and Bea Whiting and Bob Levine, all social psychologists from Harvard who were undertaking field studies on child rearing in up-country locations.

A change occurred in the "been-to's" that was more profound than the knowledge that they gleaned from their studies. You would not recognize them as the people from whom you would draw your servant class, for example. They were very different people. One wonders how that can happen from the same population. I started reading child development books with guidance from Sutton, the Whitings, and Bob Levine.

Q: *Human development, not economic or political development?*

A: Yes. Their work fascinated me.

The Foundation decided to send me to Harvard after four years in East Africa. I went to what is now the Kennedy School, but was then the Littauer School of Public Administration. I was able to pick my program. While it was a degree program, the degree was less important than filling in the gaps of my knowledge, because my educational background had been very feeble. At Harvard I took a lot of development courses, economic and others.

I wrote a paper about Julius Nyerere's policy. Nyerere was the philosopher king of Tanzania. He was very personable and well intended—a very fine man without a corrupt bone in his body. At one point he took leave of his presidency and went into the countryside and visited small villages and towns. Then he paused in Arusha and wrote guiding principles for the government, which spelled out education policy, agricultural policy, rules governing the civil service, etc. An example of these principles is that farmers should not get help with their harvesting or planting, because that would constitute exploitation of the laborer. I wrote about his ideas on education, organization of government and things like that. They were well meaning, but many were unworkable.

There were only 100 college graduates and 1,000 high school graduates in the whole country when Tanzania became independent. Yet, Nyerere tried to set up a state-run system. The state machinery was pretty crude. As a result, it led to a lot of corruption and failure.

Somehow, David McClelland heard about my Arusha paper. He invited me to address a seminar he was running at MIT.

Q: *Were you studying with developmental psychologists?*

A: No, I was not working with psychologists at all. I was working with economic development people. I was, however, reading some psychology books, such ***as Stability and Change in Human Characteristics*** by Benjamin Bloom. It showed that the traits that differentiate among people can often be recognized in children as young as three. By age three the path ahead is already visible. That book was influential on me, because the Foundation and other development programs didn't pay any attention to people from zero to three. This was an area that nobody knew how to get to. It seemed to me that while we were working with the advanced, the elite, in countries like Kenya there was another generation of people—like those who we hired as servants—we weren't touching at all.

At that time I also read some work by Israelis who were concerned about child development in Kibbutzim. They were particularly concerned about the different cultural levels that seemed to be produced out of their European and Sephardic populations. The Jews from the Arab countries lagged behind the Jews from Europe.

They were trying to close that gap and so they did a lot of things with different kinds of interventions at a very young age. I think their focus was around age three. They had different control groups involving the Ashkenazi or German/Northern European Jews and the Sephardim, Jews of Spanish or Portuguese descent. There were some comparisons between Ashkenazi experimental and Ashkenazi control groups, as well as Sephardim/Sephardim, Ashkenazi/Sephardim experimental groups, etc. So they tried to figure out what was causing the difference. They found that by intervening and producing an enriched environment for the children, all of them advanced greatly, but the gap between the experimental groups widened. That had a big impression on me because it appeared that so many human traits were established by age three.

Q: *Do you mean that the Ashkenazi still accelerated their learning or their development faster than the Sephardim?*

A: Yes, the Ashkenazi were even further ahead of the Sephardim, although both were way ahead of the control groups that had not had special interventions. That's a very puzzling thing because both of are Jewish populations. That doesn't mean their genetic code was the same, yet it was startling to see that even with extra attention, if everybody got it, the Ashkenazim progressed even further than the Sephardim. This seemed to imply that the book on stability and change in human characteristics was right—that people's potential was set by age three, the time they started on this Israeli program.

Q: *It seems like so many of our developmental programs and theories are built around the idea that anyone can be developed as much as they want to be. What you are suggesting is either the genetic or the environmental factors that we encounter are basically determinants of or set boundaries on that development. Clare Graves makes this point, as well as a colleague of mine, Mike Jay, who says, "Everybody can't be anything they want to be, but they can be everything they can be."*

A: The environment of the first two or three years of life is critically important. I think we often overlook those kids of very young age. In the Kibbutizim they were separated from their parents at a very young age.

Q: *Because they were raised communally, right?*

A: Yes. That's what puzzled them. They had the kids at a very young age, but still there were these differences and the differences would only grow. I still don't know the answer to that one.

Q: *I know you continued to have conversations about human development particularly among children when you were in Beirut and probably elsewhere. What I'm getting so far is that when you are talking about human development as it is among children. I read in one of your papers that this shifted to an interest in adult development.*

A: Yes. When I was in Beirut, I was convinced that the really important development occurs between ages zero and three. As I say, development agencies just were not having an impact on that level at all. Most of my budget was going into agricultural research, agricultural economics, and education. I was able to put little bits of discretionary money into a couple of projects that related to this idea.

One was a study in Oman of mothers' beliefs and practices. We got four Arabic speaking young women to go to Niswah, which was an interior village, spend four months and then move to Sofar, a village on the coast, for another four months. An anthropologist, a psychologist or sociologist from the University of Beirut, guided their methodology. A fairly massive study was produced out of that.

The reason that the intervention happened in the first place was that the infant mortality rate of the kids in Oman was 150 per 1,000. A UNICEF staff member, a Palestinian named Ali Othman, observed that the surviving children had little amulets hung on them in various places and he reasoned that the mothers probably thought those amulets were protecting their children from evil spirits. He came to me and suggested a study of this phenomenon. I funded it through UNICEF. It turned out later that UNICEF can't take that kind of money, but they took it then and used it to fund these young people.

The results were really quite extraordinary, because they demonstrated what the women believed. The child rearing beliefs and practices were just bizarre. They were doing everything they could think of to protect their children against the evil eye and the jinn, but they had no idea or concept of disease, the origins of disease or the importance of keeping a level of sanitation around the child. They were letting kids pick up stuff off the dirt floor and put them in their mouths. They didn't bother brushing the flies from the kids' eyes. In the schools there were about a third of the kids with obvious eye damage. What the mothers were doing was trying to protect the kids against the evil eye and jinn and not against the sources of disease.

It seemed pretty clear evidence that when one is going to intervene in a society at whatever level, one ought to know where they are. You start with the people you are trying to help and where they are in terms of their attitudes, beliefs and practices. Then start figuring out how to change it from there.

The government of Oman at that time—just after the new sultan Qaboos had overturned his uncle—developed the country just as fast as possible. But the projects did not involve the people. They would have big construction projects—airports and roads—but import all the labor from Pakistan and India, because there wasn't any trained labor in Oman. Teachers in their expanded school system were usually Palestinians who used European history books because that's what they had been taught. Even the agriculture research station was producing vegetables that only the foreigners would eat because the locals didn't have them as part of their diet.

The Omani officials said that they learned a great deal from this study about the children, but they would not let it be published because they found it too embarrassing for Oman that these primitive beliefs were so common. UNICEF was there to use the information in crafting their efforts in dealing with children, child development, and child mortality. When I went there 10 or 15 years later, the infant mortality rate had come down to about the level that it was in other Gulf states.

Q: *How big of a drop was that?*

A: It was from 150 per 1,000 down to around 40 per 1,000.

Q: *That's very significant! This was done primarily as a result of this study through a shift in educational systems?*

A: No. I don't know what UNICEF did with the study, but they knew that what they were dealing with was a set of very primitive beliefs. They needed to attack those beliefs and educate the mothers to the importance of disease if they were going to make any real dent in it. Indian doctors staffed the hospitals; many of them couldn't even talk to the people who brought their sick in. Mothers had gone through all of the culturally sanctioned ways of dealing with the disease before they brought them to the hospital. Of course the mortality rate in the hospital was huge, because the children were already pretty far near the end when they arrived. UNICEF probably used this information. I'm not sure. They had it so they could start introducing basic concepts of disease causation.

> ***After forty years in the field of international development, I have concluded that most development strategies are misguided. Human development should be the primary goal of the development process because advances of living standards, health, and knowledge can only be sustained when people progress up the scale of increased consciousness. At present, human development, when it occurs, is a by-product of efforts designed to achieve other objectives, such as income generation, health, environmental protection, institutional development, etc. These are all worthy objectives, but they should be pursued with the primary goal of human development uppermost in mind.***
>
> ***Courtney Nelson***

Q: *How does this link to your interest in adult development?*

A: After this study, Ali Othman's wife, Saniyah, and I were talking. She had a year or so of college level psychology and said that she could produce a book for the mothers of the Levant: Palestine, Lebanon, Syria and Jordan. Women in these countries had a higher literacy rate than those in Oman. They were much more cosmopolitan than the Omanis, who had been shut off from the rest of the world for a very long time. Saniyah produced a book called, ***Your Child Zero To Five***, again with a small grant from me to UNICEF. It became a best seller and went through at least four printings before I lost track of it.

Saniyah emphasized the importance of what happens to the child in the first years of life. The traditional beliefs were that you treated a child like a goat; you kept it healthy, but you didn't try to teach it anything. She was making the point that you need to be consistent in your behavior toward the young. You shouldn't use fear for behavioral control. You shouldn't lie to them. A doctor would say, "This won't hurt" and then stick a needle in the kid and he would jump through the roof. That had a predictable impact on the child's faith in what older people said.

Saniyah also included illustrations of where the baby grows in the womb. I was told that that was one of the most popular features of the book, because many women didn't understand that. For the women of the Levant this was pitched at the right level, because it was done by a woman from that surrounding.

Q: *What were your next steps?*

A: After Beirut, I did an evaluation of Foundation economic planning and management projects in Eastern Africa. Economic planning projects were usually a big success. The relative failures of management projects led me to realize that the institutions left by the British in East Africa were very often not compatible with the beliefs of the people who were running those institutions after independence. For example, in Parliament a tribesman from the Luo tribe would get up and denounce some Kikuyu in the government for giving a fellow Luo a bad performance rating. They had the performance rating system, but it didn't take into account tribal identity, which was more important to them. Tribal morality was more important than the idea of public morality that the British had left. Economic planning, on the other hand, had less of a cultural flavor. In a sense, it was more impersonal than management that deals with interpersonal relationships.

So you have these dual moralities in the same system. This was one of the reasons the British institutions hardly ever took hold and lasted, except in India. India still has a parliamentary system and it's a real democracy. But in other places, British institutions came apart in various ways because they did not take into account personal morality. It was very different from public morality.

Before I left the Foundation, an economist from Harvard, who was running a study at Brookings on development and foreign assistance, tapped me to help President Carter, who was a new president at that time, do a better job of foreign assistance by understanding the problems. My part of the study became an appendix to his work. I was dealing with science and technology.

My assignment was technology transfer, but that was a little limiting. I came out of it with a proposal that a new assistance institution be set up which would work with scientists in developing countries who were at a fairly advanced stage. USAID at that time abandoned a country once it reached a certain level of income, except for Israel. Most of the intellectuals of many middle-income countries were trained in the United States. Then suddenly, boom, they were cut off from their U.S. institutions and were very unhappy about that.

It didn't seem to me to be in America's interest to just lose track of these third world scientists and technologists. The approach I recommended would cater to the middle-income people. It would be organized by field of expertise and would connect American institutions with overseas institutions. We went through a couple of years of planning that. Congress approved of the idea and then didn't fund it, so it died. That was the time when I focused more on the importance of technology in the development process because a lot of people were talking about appropriate technology at that time. It is a very important concept.

Q: *The issue of technology was something Gandhi talked about in India. That's where the whole anti-Videshi movement (resistance to foreign manufactured goods) under Gandhi's leadership emerged. He sought to promote simpler technologies through the Swadeshi movement.*

A: That's right. Gandhi's plan was to introduce simple technology that could be afforded and understood by the people who use it, for example the spinning wheel and weaving of cloth on traditional looms.

Q: *Yes, the spinning wheel is the symbol of it all. It's even on the Indian flag.*

A: That's a very important concept and I don't know that it made much of an impact in or out of India. I don't know how much people changed their development activities.

Q: *At least from a foreign USAID point of view, Americans continued to focus on bringing advanced technology to the third world. Is that a fair assessment?*

A: Yes, I think so. Considering the importance of technology, the notion arose that the technology needs to conform to the level of the people and needs to be appropriate to the level of the people.

Q: *When you say "level" of the people, what do you mean exactly?*

A: I think the concept of levels or stages as in Piaget's work. It is useful in considering, not only human development, but also stages of technology and organization. I can't define these stages precisely, but in defining interventions in a society it is useful to be aware that workers need to understand their technology and that management systems need to be consistent with the stage of the workers. Societies are also at various levels of development, as demonstrated in Michael Barnes' ***Stages of Thought*** (2000). This idea is based on the notion that people in all cultures go through the same pattern of human development. It is not cultural relativism. Japan and the Asian Tigers demonstrate that societies go through roughly the same stages of development, as do their workers. It is even possible for the successful Asian countries to borrow technology, management techniques, and training methods from the West, and vice versa.

In the Gezira, the colonial government of the Sudan of the 1930s took some nomads from the area around the conjunction of the two Niles and put them on a million acre irrigation scheme. They gave these nomads tenancies in the scheme. This was a great boon to them because they also provided education and health services. But after two generations these tenants were doing everything they could to get their children not to be part of the scheme, because it was drudgery. So at the beginning, it was a step up from semi-Nomadism. Then irrigation is commonly recognized as dehumanizing in the fact that you bump your head on the ceiling very early, because there is no room for individual decisions in the application of water. It has to be there when it's needed. The opportunity for individuality to be expressed is zero. That is one level to another, transformation from semi-Nomadism to irrigation. Incidentally, the Gezira Scheme has been recognized as a great success in many evaluations, but I have not seen the human development successes of the project mentioned. I think human development is the principle lesson of the Scheme.

Q: *When you're talking about development in this sense, you're talking about their orientation to modes of production or to education or what? How would you characterize that?*

A: The most persuasive example of the step by step development of a society and its people is Singapore. In Singapore, multinational corporations were invited in at Independence because of the cheap labor and the technology used was quite simple. But then Lee Kuan Yew, the president, put a lot of emphasis on education and training. He forced the multinationals to do a lot of training of their staff and gradually raised the minimum wage. This had the effect of raising the level of technology used because you had to have higher productivity of labor in order to afford to pay the higher wages. That means the laborer had to be more skilled and more educated in order to use the more advanced technology and the wages had to be commensurate with the level of technology that was employed. I don't know what scale one would use to measure this process, whether there were stages or just a gradual change in the abilities of the workers. But after two generations, the Singaporeans topped the world in academic test scores and it enjoys a very high standard of living.

> ***An important element in…human development …is the parallels between levels of human development, levels of organizational development, and governmental organization. That is another way of saying that as the modal level of individuals participating in organizations or societies increases, decision-making devolves downward in the case of organizations, and societies become more democratic, or at least they should for optimal effectiveness. The notion of a parallel structure ideally existing between modal human development and organization is not commonly found in social science literature, although authors like Ken Wilber, Dalmar Fisher and William Torbert have dealt with it to some extent. The implications of this…are that we should not be quick to apply our own standards of democracy and rights to other societies and cultures without understanding their circumstances.***
>
> **Courtney Nelson**

Q: *Are you familiar with Spiral Dynamics?*

A: I'm familiar with the concept, yes.

Q: *Are you really talking about a worldview shift as a sign of development, those worldviews based on one's orientation to self and to other, as well as the standards that one goes by? Standard may not be the right term. For example, we find in lower or earlier stages of development an orientation to personal power and that shifts into an orientation to community standards, rules, ideologies, religious beliefs and so on. This is a complex scheme, but part of what you are talking about is worldview.*

I remember in terms of development in India back in the early 60's, reportedly one of the first things young Indians would get when they started earning a little money was a pair of sunglasses. This of course, shifted their worldview. They saw the world differently through sunglasses. The next thing they would get is a bicycle or a portable radio. I can't remember the sequence of those two, but those were the three new technologies for personal use that they tended to acquire. Each of them, of course, altered their worldview, because with the radio you got music and news and information from a much wider area of the world while the bicycle gave you extraordinary mobility. So that is the kind of shift that I think of in early stages of development for individuals. Does that resonate for you at all?

A: Yes it does. That is very much what is going on. What is hard to do is to relate that to stages of human development and to prescribe what technologies fit what stage.

Q: *Maybe what we're talking about is a shift from pre-modern to modern.*

A: Yes, I think so.

Q: *Can we focus this more on the question of what became your view of the relationship between adult development and organizational and technology development in the third world?*

A: It was a gradual shift. In the mid-1980s I was sent to Indonesia by Harvard to work on a project for selecting and preparing Indonesians for graduate study in the United States. They were to study mostly management and economics. That led indirectly to my going back to Indonesia later to work for the official I had worked for initially. He had been promoted to Minister of the Cabinet. He ran the Secretariat of the President. He observed that the quality of personnel in the Secretariat was much lower than in the planning ministry where he had served before. He wanted me to think with him about what to do about that.

I talked to the department heads in order to find out what their units were doing, whether they made any regular written reports, and what they thought their units should be doing. After we did this investigative process, we decided that modern management is mainly about communications. Therefore, the communication skills of the staff were going to be increasingly important.

According to Presidential pronouncements the first 25 years after independence were devoted to internal development of the country and holding it together. The next 25 years would require that Indonesia be more international. Thus, foreign languages were important. A program was devised to teach English and computer use to 20 young staff members. After they successfully completed the English part, they were sent to Australia where they were given an opportunity to observe how the Australians do the same kind of functions that they were doing in the Secretariat. Then they were asked to write papers making proposals for improving the functioning of the Secretariat.

When those young people came back, the change in them was absolutely extraordinary. In the Indonesian culture, subordinates are not supposed to give advice or recommendations to superiors. These people came back with firm recommendations. They were articulate. They were just extraordinarily able people. They stayed together after that experience and, as far as I know, they are still meeting together. There was certainly adult development involved in this. I didn't expect changes to that extent would occur. It was very surprising to me that they were able to speak right up and weren't forelock-tugging, "I'll do whatever the father tells me to do" characters. They were people with their own ideas and not afraid to say them.

Q: *So that does imply a kind of shift in self-concept and a shift in worldview, as well as learning about cultures and systems other than the ones that they had traditionally been associated with.*

A: Yes—and giving them new tools.

Q: *And the new tools in this case were?*

A: Language and computers.

Q: This in turn affects worldview. Good. As a result of this, when you were thinking about adult development, it sounds like you were thinking about the existing culture, the technology or tools and the individual experience and capacity for learning; does that summarize that?

A: That's right. We weren't creating a revolution with these people, but we were giving them new opportunities and new learning so that they were able to put behind them the kinds of cultural limits that they had had before and to express their ideas. I'm sure they had ideas before, but were not encouraged or permitted to express them in most offices.

Q: Did this lead to a significant shift or effort on your part in trying to expand the way we were thinking about development to include human development?

A: Very much so. This experience was really very successful in my eyes and in the eyes of this Minister. He wanted to see if we couldn't spread this experience throughout the government so that people would get a new kind of retraining.

My ability to work with them was cut off shortly thereafter when Suharto was thrown out of office. The Minister went with him, so nothing happened after that. But these ideas about development and change also permeated a set of consulting assignments that I had from the United Nations Development Program. They had the task of sending out diagnostic teams to figure out what needed to be done to improve the civil service in various countries. They sent me to six countries, starting with Iraq, which was a real hoot.

Q: Why did you say that?

A: We were told when we went there that they didn't want our ideas on economic policy. We were there just to advise them on how to make their civil service more efficient.

Q: Was this under Saddam?

A: Yes. It was right after the Iran/Iraq War and before the Kuwait invasion. They had even abolished their extension service to the farmers. They cut off upward flow of information, so they didn't know what the farmers were thinking, what their possibilities were or anything else. It was "top down everything".

The people we talked to, except for the Ministers, were just scared to death. They saw no possible advantage and a lot of possible disadvantages in talking to us. It was clear that what they really needed was some way to express and to apply themselves more broadly.

People in the universities stayed in the universities and government stayed in government. We recommended things like having consultants to government from the universities and a year off for reflection for senior officials and stuff like that. We suggested better utilization of manpower and a different incentive system so that they weren't rewarded primarily for their loyalty, but they were rewarded for their accomplishments. We were able to say that kind of thing because we were from the U.N.

Most people would hesitate to say things like that. But we couched it well and one of the Ministers told us that he found our report very useful. But then they invaded Kuwait and forget about the rest of it.

In the quest of many of these assignments, it became clear that the transfer of skills and opportunities in the civil service was important, as was the notion that administration is a profession and not just a position. For example, Oman was going through the process of getting rid of the Indians, Pakistanis, and Brits in administration roles and replacing them with Omanis. But the Omanis didn't always understand that that meant they had to know something—not just have the power, but also have skills. Development administration was a skill that could be learned and taught.

Q: *This professionalization of the civil service that you're talking about is exactly the heart of what India was able to sustain from the British colonization—the Indian Administrative Service. That professionalism of the civil service was at the heart of much of India's economic and human development in terms of education and other programs related to social issues that they've had in India.*

A: Yes. They had a highly developed professional class at the top in the administrative service. They had patterns of communicating with one another. The idea of putting a minute or update on the file to capture and maintain information was deeply engrained. That wasn't deeply ingrained in countries that didn't have Britain as their colonial master. Many had oral cultures. That's what was in the President's office in Indonesia—an oral culture. They produced practically no paper.

In an oral culture people can change what they said before, so you have to be tuned in to what they are thinking now, not what they said before. There are a lot of reasons why a written culture is more efficacious, but getting that shift is a big challenge.

The other shift is from being loyal to an individual to being loyal to the service. In most of the non-British former colonies that I visited, the ministers were the heads of their departments in a personal sense. The people working for them were loyal to that minister. The idea of transferring from one ministry to another was not popular, because that would mean shifting one's loyalties. Even communication between ministries was a problem. It would get you nowhere, because the only communication that mattered was upward to the minister.

One of the things that I did in Indonesia and other countries where I was consulting was to try to open lines of communication between ministries, mostly through using computers, budgets and stuff like that. Thereby, the habit of communicating with other ministries became engrained and the loyalty of the person was to the service and not to the minister, whoever he happened to be. That communication thing is worth dwelling on for a few minutes because in Indonesia, they had the Dutch as colonial masters. The Dutch allowed very few people to get a higher education. When they got higher education, they didn't want them back in Indonesia.

Three professional groups emerged from different kinds of training. One group was the military. They were very important in Indonesia and even had economic roles. During the war against the Dutch, Ministries had to run economic activities in order to fund their own functions. The military group is probably the most powerful because they learned to do this well. The second group is the economists. They are also a clique, a very well educated bunch. Most of them had advanced degrees from prestigious American universities. The third group was the technologists. There was an airplane engineer named Habibi who believed you could leapfrog in the development process and go right to the most advanced. Habibi was raised by Suharto, so he had special access to him.

Q: *You're talking about leapfrog in terms of technology development?*

A: Yes, in all senses: technology, education and what not.

Q: *I don't understand the idea of leapfrogging in education development. Can you clarify that a bit?*

A: Have a select group going to the advance levels of education such as Ph.D.'s, and engineering degrees. In other words, they said, "We are just as good as anybody else, so we'll take the leap and get them trained to the highest point and they will come back and work in our modern industry sectors," which was airplane building and ship building.

Q: *So you mean developing a class of technologists and managers to accelerate economic and technology development?*

A: Exactly. They were trying to apply the most modern technology to airplane development and shipbuilding. This was contrary to what economists were saying, because it was creating an island of plenty in terms of technology and money in a sea of people that has otherwise not changed much.

Q: *It was still essentially an agricultural economy?*

A: Agriculture and also the civil service, the merchant class and stuff like that.

Habibi got the money to start these really modern industries. They developed an airplane of their own design. The only customers were the military of their own country. They were customers because the president told them they had to buy from Habibi's industry. It was a huge waste of money, but it was also a distortion of the development process. You got these people who didn't think at all like the common Indonesians, they were modern men, transported into this elite environment. Modernity was the watchword.

Those three cliques communicated mainly internally. In each group, communication was easy because they knew the same terminology and they could trust each other. So there was an economics group that talked in terms that were understandable by any economist. The technologists had their own circle of communication related to technology. The military people had their own style of communications. There were barriers around each of these three groups.

Q: *By barrier, you mean they would not communicate across the boundaries of these groups?*

A: Yes.

Q: *So the barrier could have been a social barrier or the various educational backgrounds these people had?*

A: Yes.

Q: *Were any of the barriers ethnic? Were all of these Indonesians as opposed to Chinese and that sort of thing?*

A: No Chinese, but in some sense they were ethnic in that the Javanese ran everything.

Q: *So all three groups were Javanese?*

A: They were mostly Javanese, yes. The man I worked for happened to be from Borneo. He was of the economist group. When he got his promotion to be a Minister in the Secretariat, the chief economist told him, "Don't do anything for two years." He said, "You're the first non-Javanese and non-military person to hold that position." He was known as a good administrator.

Q: *The barriers were essentially cultural and social?*

A: They were professional. They talked the same language; they had the same value structure. The technologists couldn't understand why these dumb economists didn't want them to have the best aircraft industry and ship building industry that was possible. It didn't make any sense in economic terms, but the technologists didn't speak in economic terms. That is an extreme case where developing means of communication among ministries and among groups was an important step in the development of the whole civil service. You had these isolated blocks and you had to figure out ways in which information routinely circulated among the ministries to break down the barriers between them. That same kind of thing was apparent in Iraq, Oman, all of those developing Arab countries where they had the same deal: being loyal to the individual and not being loyal to the service.

Q: *You're trying to show the link between the organizational, technological and human development processes?*

A: Yes, that's right. It is clear that in designing projects foreign USAID agencies tend to be concerned with outcomes that may be economic, educational or technological. They may introduce new technology for cattle raising or something like that. They tend to be concerned with specific outcomes while letting human development come along behind. They would train the people needed for their particular project, but they didn't start with where the people are and design projects based on their needs. They didn't design technology within the understanding of the people they were assisting.

Q: *It seems to me that in the history of developmental activity, at least on the academic side, if not on the practice side in the field, there has long been attention to questions of educational development, culture change, system development, technology, growth,* *economic and political development. These have all been fields of study, fields of theory development. Presumably each has had some influence on practice in the field. What is the added idea that you are presenting in terms of the relationship between human development, technology development, and organization development in systems?*

A: Designers of development projects should start with human development as a primary objective and then get into the technological, organizational and managerial implications of that.

Q: What would "starting with human development" look like? Would it be a focus on education such as the Indonesian example that you gave? Would it start with early childhood development or maybe all of the above? Is there a whole array of interventions that you have in mind?

A: It is all of the above.

Q: What are the kinds of human development interventions that you think are important for other aspects of development? Where would you start?

A: The human development objective needs to be primary in virtually all projects. When everybody became excited about environmental and ecological values, means were devised for project evaluation to include those values. The same thing could be done with human development. You would just evaluate what is happening to the people in the process of any project, and build human growth into the benefit side of the cost/benefit analysis.

Q: You've given examples where it seemed like human development was part of the evaluation in terms of changes in child mortality rates, the role of the newly educated people in Indonesia and that sort of thing. Recently in the ***Integral Leadership Review****, I published an article about a UNDP leadership program in Africa, Cambodia and five countries in the Caribbean. They found that as they introduced these programs among women in Cambodia, the incidents of AIDS went down. I would think that would be another example of the idea that human development really is an essential part of any kind of development activity.*

A: The message is that you have to start with where the people are, which is what we did in Oman. We started by finding out what the people thought and what they did. Too often, we would go in with the technology to improve health, but we don't get into whether the people understand what we're doing, whether they have any concept at all even of the nature of disease.

Q: Excellent. So this might apply no matter whether the projects were economic, technology or even a political development projects. You gave the example in Africa of the importance of the tribe, that starting there is essential and that too many of the U.S. programs and maybe the U.N. programs as well, have failed to start with an understanding of those beginning conditions?

A: That's right.

> ***The Society for Research in Adult Development (SRAD) is exploring ways to promote its field. If a foundation of virtually any size could be convinced of the importance of making human development concepts better understood, the evolution of the field could be planned.***
>
> ***-Courtney Nelson***

Q: How do you think the adult developmental psychologists can support the development of effective projects?

A: The best way is by starting with interdisciplinary projects. In other words, the psychological development community ought to be looking for other fields of endeavor where their concepts would make a difference. What I see now is people from other fields of endeavor occasionally tapping into stage theories of the psychologists, but they do it without participation of the psychologists. Bill Torbert is a wonderful example of somebody who has really gotten into the stage theory in his work on management. There are other people who have tried to use stage theory, but not very successfully.

Q: Another person who has been applying ideas of stage development is Don Beck. Examples include his work in South Africa at the time of the ending of Apartheid, more recently his work dealing with the issue of the Muslims in the Netherlands and working with both Palestinians and Israelis in trying to make a shift there. The reports I've heard from the Netherlands, as well as the history of what happened in South Africa, suggest that bringing that developmental psychology perspective—at least in the case of spiral dynamics, the Graves concepts—has been a very important piece in development. What you are saying is that in addition to understanding the economic, technology, political, organizational development things, we have to make sure human development is an integral part of any kind of change program in the third world.

A: That's right. I'm not familiar with what Beck is doing, but it sounds as if he's right on what I would think is the right path.

Q: I hope so because any initiative that can make a positive difference in the Middle East is welcome, right?

A: Yes it is, but that's a tough one. Another example of not understanding human development is Bush's notion that you can introduce Democracy everywhere. That's just stupid because it doesn't take into account how people think.

Q: So there are profound policy implications for the things that you are suggesting.

A: Yes.

Q: *What is your path for trying to communicate this to people who have influence on policy? Do you have any plans in that regard?*

A: I don't have plans. I'm not sure how one would do that. Introducing the concepts of stage change to different fields through research projects seems to be one way, but that's kind of a puny way to go about it. I don't know what the best way would be in other fields. It is so clear that introducing democracy in a place where people are going to vote by their sectarian identity and not on the basis of policies or personalities is just stupid. It's going to lead to the predominant ethnic group running everything.

Q: *Yes, or the predominant religious group as in American politics recently.*

A: Yes, we've taken a long time to get over—we may not be over it yet—but there were a lot of wards where if you weren't Italian, don't bother. The race card is still pretty important.

Q: *There are academic studies and studies that can be done by foundations in development projects and things like that. Is there anything else that we should be doing?*

A: Some work in retrospect is one way to go. You'd look at an intervention for whatever its purpose was and then try to figure out what its human development spin-off was. You might be able to evaluate or to rank projects on the extent they had left the participants and people around them better off in terms of worldview and stage of development. Even though that wasn't their main purpose, often you could figure out ways in which to design the project to achieve the same material objectives and also have a human development payoff.

Q: *Courtney, it's clear you've got just a wealth of experience that you've accumulated in your lifetime. Yours is a very important message on development and policy. I hope this interview will help promote that.*

A: I hope so too. I enjoyed talking with you.

A Process Model of Integral Theory

Bonnitta Roy

Abstract: In this article I introduce a Process Model of integral theory, combining Dzogchen ideas and Western works on process philosophy. I make a distinction between Wilber's notion of perspective and the Dzogchen notion of view. I make the further distinction between Wilber's use of process in his writings from what I consider to be a process view. I distinguish epistemological categories of knowing from ontological ways of understanding and propose ways to integrate the epistemological field with the ontological dimension by contextualizing both the ways they are related, and the characteristics that distinguish them. This article outlines the conditions of structural enfoldment and shows how they can help contextualize the limits of structural frameworks. I introduce how process models of cognition, conceptualization and value can be integrated into the Process Model.

Keywords: Dzogchen, epistemological field, Guenther, integral theory, microgenesis, ontological dimension, perspective, process model, states of consciousness, structural enfoldment, structure-stages, view.

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Introduction

In a recent talk on Integral Spirituality in New York City,[1] Ken Wilber highlighted Dzogchen[2] philosophy as one of the world's greatest contemplative systems. He mentioned this at the end of a day focused on talking about the structure-stages he has mapped in his AQAL ("all quadrants, all levels, all lines") framework. Wilber's AQAL model does not contradict Dzogchen thought per se; but, as this article argues, Dzogchen cannot be fitted into its framework. Dzogchen therefore presents a certain challenge to the goal of making the AQAL model a "Theory of Everything." The challenge Dzogchen presents has to do with the notion of *fundamental view*. In *Integral Spirituality* Wilber (2006) writes:

> This **Integral Post-Metaphysics** replaces perceptions with perspectives, and thus redefines the manifest realm as the realm of perspectives, not things nor events nor structures nor processes nor systems nor vasanas nor archetypes nor dharmas, because all of those are perspectives before they are anything else, and cannot be adopted or even stated without first assuming a perspective (p. 58, emphasis in the original).

View is closely related to Wilber's understanding of perspectives, but unlike Wilber's perspectives, *this notion of view* cannot be coded by such things as integral math.[3] We can say, for example, that the *view* through which Wilber's notion of perspectives arises is a *structural view*, since it arises through the structural approach that is the AQAL framework.[4] A structural *view* crosses all perspectival lines; for example, talking about structural levels of consciousness when approaching consciousness as a subject in dialogue (Wilber's example of '*1p x 1-p x 2p*'); or writing about cultural structure stages from a third person point of view (*3p x 3-p x 2p*). Nevertheless, the structural view itself governs what kinds of "things" arise, what kinds of "things" the theory has the capacity to see—beyond which the theory cannot think. Is the structural approach itself a perspective? Or are the perspectives structures? If the former is true, then what kind of perspective *is* a structural approach? How would we do that math? If the latter is true, then perspectives cannot be primary. What is the relationship between the primary perspectives and the approach from which they are derived?[5]

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[1] Ken Wilber and Traleg Rinpoche in dialogue on September 9, 2006 at the Society for Ethical Culture, New York City—sponsored by EVAM Institute.

[2] The term "Dzogchen" is a shortened version of "rDzogs-chen" pronounced so that the initial 'D' is almost silent, and the 'g' makes a softer, almost 'k' sound, and with emphasis on the second syllable. Dzogchen refers to the philosophy and practice of Tibetan Buddhist lineages originating from Tibetan Bon (pre-Buddhist) traditions.

[3] Wilber introduces the notion of integral math in an appendix to Excerpt C (Appendix B. An Integral Mathematics of Primordial Perspectives) which is available online at http://wilber.shambhala.com/html/books/kosmos/excerptC/appendix-B.cfm

[4] None of this is to suggest that Wilber's thought is static. On the contrary, much of what underlies his AQAL model and his theories of structural relations are the kinds of processes that give rise to them. On the other hand, I am making a strong distinction between starting with such a structural view, and working process terms into it, versus reasoning from a process view. The very term "process" has one meaning from a structural viewpoint, and another meaning from a process viewpoint. I believe that the fundamental basis from which Wilber assigns meaning to the term "process" comes from his quadratic orientation, and the taxonomic (structural) relations that describe them holonically. Further on, the article will discern these as *conditions of structural enfoldment*, hence arising from a structural approach. For an example of how these two views on process compare and contrast, see Appendix C: The Process Model "In Conversation" with Ken Wilber on the Mind-Body Problem.

View refers to something more basic and more nuanced. Newton, Einstein and Bohr argued from a common *perspective: third person, objective*. But Classical Physics, Special Relativity, and Quantum Mechanics each have a different *view* of reality. Likewise, just as a structural approach can cross over into different perspectives, so too can a process approach: there can be process-based dialogue on interior experiences as well as scientific observations (*1p x 1-p x 2p*; *1p x 3-p x 2p)* as well as process-based third-person points of view on interior consciousness, cultural values and the like. Structural approaches and process approaches can cover the same territory, through all the various perspectives, yet a process approach will have a completely different *view of reality*.

At the same event in New York City, Traleg Rinpoche suggested, "be mindful of what is your *view*." One of the goals of this article is to help us be more mindful. To help us understand our *view*. My approach is to present an alternative to the structural view in the form of a process view, so we can be more aware not only of the benefits of a process view, but also of the limitations and constraints of a structural view. I will propose a *process view of integral theory*—not *only* to compare and contrast views, but also with the belief that a process view captures more of the Dzogchen intention of *being mindful of our view*.

Language Issues

This article is an introduction to a Process Model of Integral Theory.[6] It is written from a *view* integrating Dzogchen and Western process thought. Like Guenther, I hope to tease you, the reader, into a pure process orientation. This requires adopting a certain attitude—allowing one's mental framework to release its grip on thinking in terms of things, and following me into a world of process or flow in a field of dynamic forces. It requires you to suspend structurally based perceptions to allow for new ways of orienting perceptions.[7]

The challenge a process view presents is not only in the way our thought tends to be, but also in the way our language tends to limit how we *can* think. The English language is a major obstacle in any presentation of process thought—Dzogchen and otherwise. David Bohm (1980) noted:

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[5] According to Wilber's model, the *discipline of structuralism* is a zone 2 (3p x …) investigation of reality "which can be approached with methodologies such as developmental structuralism …. cultural anthropology, neostructuralism, archaeology, genealogy" (Excerpt D, p. 1). I am trying to point to something more fundamental than the self-referential loop of "a zone 2 approach deriving itself." I am referring to something else—the view that originally drives the approach that derives the perspectives; to distinguish that view, for example, from the view that would drive one approach over the other, in this case a process approach, to derive the perspectives. This notion of view, and its relationship to perspectives, is treated again and again in this article, in an attempt to clarify the distinction.

[6] I have included two appendices with this article that focus on illustrating specific points about the Process Model and its relation to Wilber's thought. They are intended to address issues relevant to those readers who want to go deeper into matters that are tangential to the main text, but important to gain a more refined understanding of some of the finer distinctions being made. There is also an appendix with extensive quotes from Herbert Guenther that more fully illustrate some of the distinctions related to his understanding and approach to a process view.

[7] See Appendix B: Guenther Notes.

> . . . every language form carries a kind of dominant or prevailing world view, which tends to function in our thinking and in our perception whenever it is used, so that to give a clear expression of a world view contrary to the one implied in the primary structure of a language is usually very difficult (p. 46).

English is primarily a noun-based one that leads almost exclusively to subject-verb-object constructions—constructions which in turn implicitly lead to a world view in which subjects and objects are separate "things" that require conjoining. In verb-based languages, subject and object are wholly implicit in the verb which is itself sufficient to convey meaning.

Reader and writer therefore share this challenge—not only to suspend our usual ways of interpreting text, but to experiment with new ways of writing it.[8] Both reader and writer need to stretch.

Presentation Issues

An introductory article such as this one hopes to stretch and bridge—new territories and familiar ones. The first step will take up the already familiar structure-stages in integral theory, and show how they can be derived from something deeper; namely, the dynamic fields or processes that generate them. The second step will be to show how and where *states*, as opposed to the structures, map onto the Process Model. The third step will be to give a brief preview of how the Process Model can be used as an orienting map to integrate process-based theories of development, in much the same way that Wilber has used his structure-based map to integrate structure-based theories of development. Each Appendix offers material to support deeper understandings in selected areas without interfering with the flow of the main text. This preview involves incorporating Jason Brown's process-based theories of cognition and value into the Process Model.

This article is written from a view that carries many idiosyncratic connotations within the language I use. It may be helpful for readers to go through the entire article once to simply get a picture of the whole view being presented, and then re-read it with this view in mind to better understand how it informs the language being used. Ultimately, I hope to show you that a process approach to thinking about integral theory—a process *view*—can help expand our understanding of consciousness and the nature of reality beyond what is possible within a structural view. It is a way of thinking that creates extraordinary new potential for understanding development and evolution in relation to consciousness, and can be applied in the designing of new types of transformative practices—all of which constitutes the topics of future articles concerning a process approach to integral theory.

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[8] Experimenting, as Guenther did, with entirely new kinds of language would be a detriment, given the scope an introductory article such as this one. However, Bohm has already done some experimenting with language that might more easily lend itself to a pure process view. Bohm (1980) experimented with a verb based language he called a "rheomode," noting that "in the ordinary mode of language, truth is taken as a noun, which thus stands for something that can be grasped at once and for all or which can at least be approached, step by step" (p. 41). Developing the beginnings of a verb based language allowed him to point to ways in which language could be used to imply and coherently reveal a world view based in the kind of wholeness and process he perceived at the heart of reality.

Process Views

Buddhist/Dzogchen

Buddhist scholastic thought includes an enormous number of structural systems. Generations upon generations of scholars, east and West, have studied them and added to them. As Herbert Guenther (1989) says:

> The earliest Buddhists prided themselves on having reduced the whole of reality to discrete entities and their transitory relations. This made it impossible for them to account for the unity of the human individual and even more impossible to account for the unity of the multifarious programs of his brain/mind. Clearly, there must be something wrong with the initial premises; when they are pursued to their logical conclusions as was done by the Madhyamika thinkers, they are found to be self-destructive. A change in perspective not only was called for but actually took place, ushering in, if not part of, a Zeitgeist that made Buddhism move in a new direction (pp. 23-24).

According to Guenther, Tibetan Dzogchen thinkers made a critical distinction between a reductionistic, self-limiting view, and an open *dynamic* approach. They considered the earlier view as a strictly Indian view that "was structure-oriented and tended toward reduction of reality to a model that could not but rigidify what is better left flexible and alive" (p. 23).[9]

Herbert Guenther is perhaps the only Western philosopher to attempt maintaining the essential Dzogchen view—which is a pure process view—in a Western translation. In order to do this, Guenther had to invent an entirely new language; one that could convey some of the content of Dzogchen ideas on spirituality and reality to the Western mind, without compromising Dzogchen's pure-process view.[10] Guenther combined the deeply intuitive and rigorously hermeneutic language of Heidegger with the mental framework of systems science. Guenther found the language of systems science useful to describe a reality not made of particles, but of deeply dynamic interactions in a field of forces and relations. In Heidegger's work, he saw an opportunity to convey the thoroughly dynamic character of Dzogchen in Western terms in the ways in which Heidegger had endeavored to get beyond the ontic or thing-centered interpretation of reality, to explore a deeper ontological reality.[11] Not surprisingly, Guenther's writing is complex, and despite his extraordinary effort, his work draws a very small audience—although in some circles he is revered for it. This is unfortunate, since his expositions of Dzogchen thought are revelatory.

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[9] See Appendix B: Guenther Notes.

[10] See Appendix B: Guenther Notes.

[11] See Appendix B: Guenther Notes.

Western

Western philosophy also has a rich tradition of processed-based thought. Modern process thought primarily traces back to Alfred North Whitehead's (1978) seminal work *Process and Reality*. Wilber himself has incorporated some of Whitehead's ideas in his notions of prehension,[12] dominant monad,[13] and the like.[14] Across fields of interest, philosophers and researchers—thinkers and tinkerers alike—have benefited from the way Whitehead's process philosophy helps to expand the field of inquiry and thereby deepen our understanding. In this paper, Jason Brown (1991, 1996, 1997, 1998, 2000, 2002, 2005), whose process theories on cognition and value make a significant contribution to the Process Model,[15] can be considered one of the most important new thinkers in the post-Whiteheadian tradition.

Not all process thought stems from Whitehead's work. A process approach can also be seen in works over a wide range of ideas—in Otto Scharmer's (www.ottoscharmer.com) U-Process, Eugene Gendlin's (www.focusing.org) Philosophy of the Implicit, Christopher Alexander's (www.natureoforder.com) Nature of Order, Amy and Arnie Mindell's (www.processwork.org) Process-Oriented Psychology, just to name a few. Recently, Nicholas Rescher (1996) has written excellent primers on the history, characteristics and evolution of process-based thought (see especially *Process Metaphysics*).

On the website for The Center for Process Studies—which hosts current articles exploring the nature of cognition, consciousness and spirituality—process thought is introduced as follows:

> With a foundation in the metaphysical system of Alfred North Whitehead (among others), and a methodology that integrates both speculation and empirical verification, process thought brings its unique metaphysical perspective to bear on many fields of reflection and action. Ultimately, process thought seeks to integrate and reconcile the diverse facets of human experience (i.e., ethical, religious, aesthetic, and scientific intuitions) into one coherent explanatory scheme.
>
> Process metaphysics, in general, seeks to elucidate the developmental nature of reality, emphasizing becoming rather than static existence or being. It also stresses the inter-

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[12] "But the *interior* of the cell contains no proteins, molecules, or organelles at all—it contains sensations, prehensions, proto-experiences, rudimentary feelings, and so forth (a la Whitehead)." http://wilber.shambhala.com/html/books/kosmos/excerptC/intro-3.cfm

[13] "in one sense, an individual organism is a system, because "system" in general simply means "a functional whole;" but this individual system has a center of prehension, whereas a collective system does not—as Whitehead put it, the individual has a "dominant monad." http://wilber.shambhala.com/html/books/kosmos/excerptC/part2-2.cfm

[14] Wilber's more recent writings not only incorporate much of Whitehead's important ideas, but he has also raised several important issues concerning the limitations of Whitehead's process philosophy, especially with respect to the postmodern concern over the intersubjective component of the subjective. Wilber refers us to the intersubjective structures of the LL quadrant which pre-constitute the actual (occasioning) subject. For a discussion on how the Process Model relates to this issue, see Appendix D: Wilber, Whitehead and the Postmodern Condition.

[15] Since this is only an introduction to a process approach to integral theory, I have named the overall approach "the Process Model," in order to "tag" its essential ideas to that title, and to be able to refer back to those ideas, to refer back to its fundamental *view,* as *the Process Model.*

> relatedness of all entities. Process describes reality as ultimately made up of experiential events rather than enduring inert substances. The particular character of every event, and consequently the world, is the result of a selective process where the relevant past is creatively brought together to become that new event. Reality is conceived as a process of creative advance in which many past events are integrated in the events of the present, and in turn are taken up by future events. The universe proceeds as "the many become one, and are increased by one" in a sequence of integrations at every level and moment of existence. Process thought thus replaces the traditional Western "substance metaphysic" with an "event metaphysic" (Center for Process Studies, 2006).

From this description, we can see that process thought is in many ways *inherently integral*, in that it "seeks to integrate and reconcile the diverse facets of human experience into one coherent explanatory scheme;" and in that "it also stresses the inter-relatedness of all entities." From a process point-of-view, substantialist "things" are not only defined by their discreteness, but it is precisely their capacity *to be delimited*, that keeps them as separate—*separated entities*. In the words of Nicholas Rescher (1996):

> An adequate substance metaphysics cannot make do without processes. And at this point one is well en route to joining the process philosopher by acknowledging that the integrity of *things* consists in a unity of *process*—that things are being integrated and consolidated as such by acting in a unitary way in relation to others. Unity is as unity does: The unity of things is a unity of process (p. 57).

Wilber's structural approach to integral theory may not stem from a pure process view, but neither is it a *substantialist theory.* Early on in his writings, Wilber (2000a) makes this very clear: "Likewise, reality might be composed of processes, and not things, but all processes are only processes within other processes—that is, they are first and foremost holons" (p. 42). He underscores this in the first of his twenty tenets governing holons: "*Reality as a whole is not composed of things or processes, but of holons"* (p. 43).

It also seems to be the case that as one begins to work in a more sophisticated way with Wilber's AQAL matrix, there is a natural progression[16]—one aspect of which is moving from a static interpretation of the structures and categories in the model, to a more fluid and dynamic orientation which probes for the underlying processes constituting the basis of the structural interpretation. As Wilber's own ideas evolved, he began to emphasize the primacy of perspectives over holons, as in the quote cited above. Our concern here is not whether or not perspectives are "things" or "processes"—that is merely a reductive argument. Our interest is to identify the overall *basis or view*, the structural territory his map of perspectives is being drawn from, and then to distinguish this from new territory—the territory disclosed through a process based *view*.

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[16] Keith Bellamy describes an "Integral Awareness Developmental Line" that outlines the progression of understanding and utilization of integral theory. He describes phases of; emergence, associating, proselytizing, discerning, and benefiting, ending in a trans-rational relationship with integral theory. (Bellamy, 2006).

Structures and States

Structures in the Epistemological Field

Interior Single	Exterior Single
Interior Plural	Exterior Plural

Figure 1. The Four Quadrants

The basis of all of Wilber's recent work is the 4-Quadrant model. In its simplest form it conveys 4 domains: the interior-single, the exterior-single, the interior-plural, the exterior-plural. It is easy to see that the model is a matrix created across two primary conditions: (1) the condition of being interior or exterior; and (2) the condition of being singular or plural. Thus, as we can see from Figure 1, what contrasts both left-hand quadrants from both right-hand ones, is the condition of being interior or exterior; and what contrasts both upper quadrants from both lower ones, is the condition of being singular or plural.

If we relax the box-like structure and reframe the axes from static, either-or language to more process oriented language, it opens toward a more dynamic representation. From this, we come up with the illustration in Figure 2, in which the arrows depict a kind of tendency, drive, pull, or *movement in the direction of those certain conditions.*

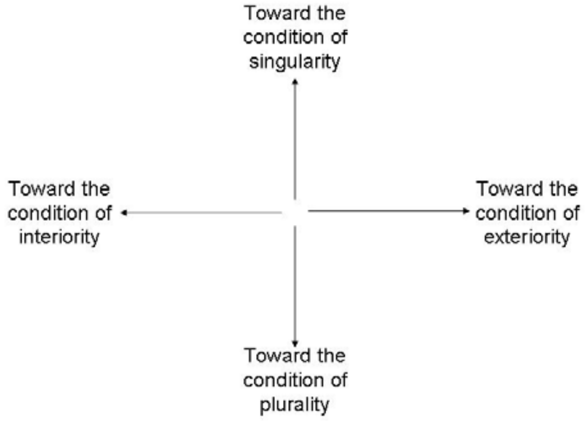
Toward the condition of singularity
Toward the condition of interiority
Toward the condition of exteriority
Toward the condition of plurality

Figure 2. Process View

Figure 2 already suggests that there is something deeper underneath the structural quadrant perspective. It shows that each quadrant is a kind of structure[17] composed of at least *two* tendencies—a tendency toward being interior (or exterior) *and* a tendency toward being singular (or plural).

A process view takes just this kind of approach. Where a structural view "sees," or directs our attention and perception to notice discrete quadrants, a process view "sees" complex relations in a dynamic field. Figure 3 illustrates the field that generates the quadrants. It suggests that there are forces (labeled "interior," "exterior," "one," "many") operating in a field to create an interplay of relations. We

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[17] Of quadrants and structures, Wilber says (in Excerpt D): a structure is a " *holistic, dynamic pattern of self-organizing processes* that maintain themselves as stable configurations through their ongoing reproduction" (p. 2); and quadrants are prior to and somehow occupied by them ("structure" is commonly used in a very broad sense to mean any form, pattern, or agency in any of the quadrants—interior or exterior, individual). The process shows that the quadrants are generated through a dynamic process, and therefore, to the extent that they are considered stable configurations, they can be considered as primary structures.

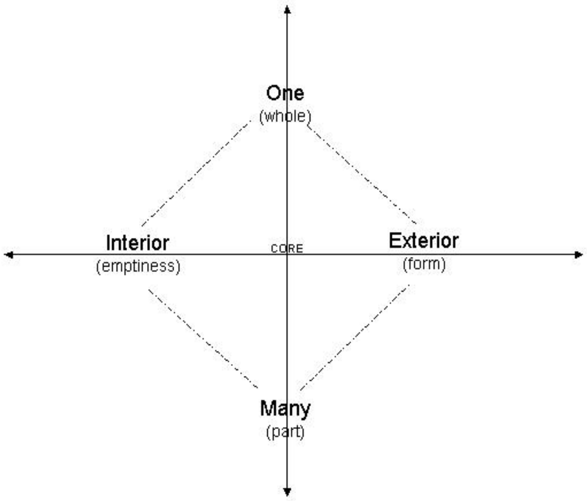

Figure 3. The Epistemological Field

will see that this interplay of relations generates self-world-other—what is known about reality—and therefore it is called the Epistemological Field.

In process language, Figure 3 is described as having two intersecting axes which can be thought of as the two primary valences. Each valence is comprised of a pair of vectors (or forces) acting in opposite directions. The horizontal valence is comprised of the vector pair interior/exterior. The vertical valence is comprised of the vector pair one/many. The vector pairs are considered to be complementary forces, in the sense that they are apparently opposite, but are coupled in such a way that they, in fact, mutually define. Complementary vectors are related in a characteristic way – the more you have of one, the less you have of the other. In the empirical domain, we run into complementarity with such matters like the wave-particle duality, and the relativistic equations between energy and matter. It can be seen that the characteristic of complementarity underlies all dualistic thought. David Loy (1997) writes: [Dualistic thought is] “thinking which differentiates that-which-is-thought-about into two opposed categories: being and nonbeing, success and failure, life and death, enlightenment and delusion, and so on” (p. 18).

The Process Model suggests that *everything* that arises through the dynamic interplay of complementary forces—everything that is generated in this dynamic field, being composed of dualistic categories, has this dualistic nature. This is a critical condition for the kinds of structures that arise there. We tend to interpret these structures—and their taxonomic organization—as somehow precisely delimited; that, for example, once a level in a structure-stage emerges, the lower levels are transcended and included in such a way that the lower can be seen by the higher *in a transparent way.* According to Wilber, this transparent seeing happens because the subject of the prior level becomes the object of the subject of the next level. The Process Model says something different. The Process Model says that since the structure-stages arise in a field of complementary valences, they are *inherently dualistic* and therefore, relations between them are also complementary and self-define—in other words, the relations which delimit the structures, relations such as lower and higher, before and after, whole and part, subject and object—are dualistic.[18]

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[18] The Eastern notion of reality pervaded by dualistic thought closely parallels process thought on the nature of structural relations. Process philosophy considers that any given set of structures that are related, must be internal to a process that generates them (generative process). From a process point of view then, only the generative process exists at a higher order, namely, the generative order which undergoes changes of dynamic natures—changes in forces such as rate—as opposed to differences in static “properties.” Relations between structural properties in turn, are considered to be more like “Cambridge Properties”—a term coined for relations that are not real changes but rather are properties of an event only from a certain *perspective*, such as change in relative motion, all of which depend upon a situated frame of reference. While we are used to identifying perspectival conditions across the quadrants, the

The problem with dualistic thinking, Loy (1997) goes on to say, is that

> although distinctions are usually made in order to choose one or the other, we cannot take one without the other since they are interdependent; in affirming one half of the duality we maintain the other as well. . . . What kind of thinking remains? If all language seems to dualize, in distinguishing subject from predicate/attribute, how can there be such a thing as nondual, or nonconceptual, thinking? Can we get along without dualistic categories? And even if we can, is it desirable? The nature of any alternative—or is it no thinking whatsoever?—needs to be explained, and its feasibility defended (pp. 18-21).

If there is non-dualistic, non-conceptual thinking then it must arise through another kind of process—and the Process Model reveals an entirely new dimension, which will be introduced later in the article. After doing this, I will introduce a new understanding of cognition, which can address the question of the desirability of thought itself. For if we can *understand the process that is "thought,"* then we can better engage its usefulness. *If we can understand the process that is "mind,"* then we can be more *"mindful."*

In summary, the Process Model suggests that conventionally structured experience—including the experience of thinking—is constituted by these fundamental valences, with their four complementary vectors (forces, aspects). The dynamic field in which all this takes place—represented by those fundamental valences, is considered to be the Epistemological Field, because it generates the ways in which we know reality.

I have deliberately chosen the vector labels to be as simple as possible—with as little metaphysical baggage as possible, as it were. However, since they are relevant to some very important metaphysical discussions on spirituality, I have also added the labels emptiness/form and whole/part which correlate to them.[19]

Figure 4 illustrates how the 4-quadrant domains can be seen to arise through a dynamic interplay among neighboring aspects: the interplay between the force, drive, tendency towards, or aspects of interior and one ("interior x one") generates the UL or subjective quadrant; the interplay "one x exterior" generates the UR or objective quadrant; and likewise, "exterior x many" generates the inter-objective quadrant; and "many x interior" the inter-subjective quadrant.

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process model pushes further, and identifies perspectival conditions within the structure-stage lines that occupy the same quadrant.

[19] It is relatively well known that there is a deep spiritual awakening that takes the form of realizing not only *that*, but also *just how* "form is emptiness, and emptiness is none other than form"—a realization that can be described in the process model as *collapsing* the movement along the interior-exterior valence, or, in the words of Mipham, a 16th century Dzogchen author of *The Beacon of Certainty*, *coalescence* of the aspects of interiority and exteriority. The non-dual stage after coalescence can then be described as achieving equanimity of opposites, or return to a fully open dynamic field. There is a similar, but less known phenomenon, with respect to the one-many valence—a phenomenon which on the one hand creates a holarchic (or whole-part) apperception of reality, which gives way to the collapsing or coalescence of the whole-part relations—a theme taken up early on by Plotinus, and in modern times by, among others, David Bohm.

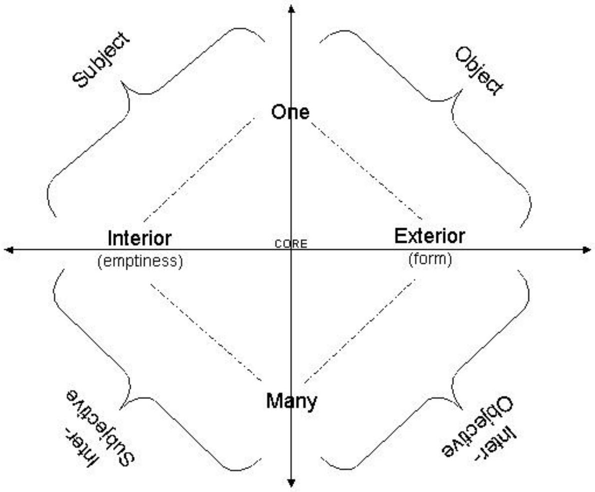

Figure 4. Four Quadrant Domains

Since they are shown to be derived from such a process, the Process Model considers the quadrants to be *structures.* We can also say the quadrants are *primary* structures, since they are derived from simple operations—merely combining two aspects. In other words, we can say that these kind of simple operations are "first-order dynamics." (It will be shown later in the article how more complex structures arise from 2nd, 3rd… nth-order dynamics). We can also add primary operations to primary structures in various ways. For example, when each of the quadrant-structures undergoes a second iteration along the interior-exterior valence, Wilber's 8 indigenous perspectives are generated, namely, the insides and outsides each of the four domains (as he describes online in Excerpt D: The Look of A Feeling[20]). Similarly, Wilber's holarchic organization, or the whole-part relations that prescribe all the various lines in each of the domains, is a second iteration along the whole-part valence. Looked at from this view, the Process Model helps explain the deep coherency in Wilber's model—both the 8 indigenous perspectives and their holarchic organization arise within a single iteration in the dynamic field.

By applying this process of moving through the fields in successive iterations, it can be shown how more complex structures like self-world-other and values/beliefs result from the interplay of these higher-order dynamics. Wilber maps these more complex structures in developmental lines as structure-stages, according to his holarchic understanding of development. The Process Model can show how *all of the structure-stages* are generated by process dynamics operating in this field of valences. A pure process view reaches even further: it has the capacity to integrate, in new ways, models of development that are not limited to structure-stage taxonomies, but arise from a process-oriented approach, such as Jason Brown's theories of Cognitive Microgenesis and his Process Theory of Value, which we will take a brief look at later in this article. In turn, the Process Model reveals new understanding of the very *nature* of development and evolution when these process-based theories are mapped as a coherent whole in the Process Model (in ways similar to how Wilber has organized structural models in his structural AQAL framework).

States in the Ontological Dimension

The previous discussion described the field of valences that generates all the structure-stages. Because here is where the Process Model describes how reality is *known*, we refer to it as the Epistemological Field. But what of the *states* of consciousness—where do they fit? In *Integral Spirituality* (2006, p. 96) Wilber identifies five primary states of consciousness:

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[20] http://wilber.shambhala.com/html/books/kosmos/excerptD/part1.cfm/

1. gross-waking states, such as what I might experience riding a bike or reading this page; or doing bodywork;
2. subtle-dream states, such as I might experience in a vivid dream, or in a vivid “daydream;” or visualization exercise, as well as in certain types of meditation with form;
3. causal-formless states, such as deep dreamless sleep and types of formless meditation; and experiences of vast openness or emptiness;
4. witnessing states—or “the Witness”—which is a capacity to witness all of the other states; for example, the capacity for unbroken attention in the waking state and the capacity to lucid dream;
5. ever-present Nondual awareness, which is not so much a state as the ever-present ground of all states (and can be “experienced” as such).

He goes on (p. 98) to make the following distinctions between *structure-stages* and *state-stages:*

1. States by their very nature are much more amorphous and fluid than structures, this stage sequencing of states is very fluid and flowing, while *structure-stages* are fairly discrete levels or rungs in development.
2. You can peak experience higher states, but as research shows time and time again, *you cannot skip structure-stages, nor can you peak experience higher structure-stages*.

The relationship between the structure-stages and the state-stages lends it self to some fine-tuning in Wilber’s model. In his earlier writings, the state-stages were conceived as being part of a continuum related to the cognitive line in the UL quadrant. However, the notion of accessibility to states, i.e., that all people everywhere, regardless of their structure-stage of development, have access to all the *states of consciousness,* became problematic.[21] The resolution of this problem is understood to be the following:

> The point is that a person can have a profound peak, religious, spiritual, or meditative experience of, say, a subtle light or causal emptiness, but they will interpret that experience with the only equipment they have, namely, the tools of the stage of development they are at (Wilber, 2006, p. 112).

And its representation became known as the Wilber-Combs lattice, (Wilber 2006, p. 90.) in which the state-stages at the top are loosely correlated with the state-stages running in various lines below them. Looking at the Wilber-Combs lattice, we see that the structures that arise in the epistemological field constitute the lower half. What if we imagined an entirely new process plane—and entirely new dimension where the state-structures arise? What kind of dimension would this be? Contrasting the Epistemological Field where structure-stages arise and reality is *known*, the Process Model posits what it calls the Ontological Dimension, where *states of being arise* and “suchness is.”

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[21] Of his earlier work, Wilber (2006) notes, “we early researchers tended to confuse higher states with higher structures, and then stack the higher states on top of the conventional structures. I did so in Up from Eden, where the structures are called “average mode” and the states are called “most advanced mode” (p. 284).

To represent the Ontological Dimension, we add an ontological valence labeled “anterior” and “posterior” as a third axis parallel to the two axis of the Epistemological Field. We can see from Figure 5, that this third axis prescribes a three-dimensional diagram—the two dimensions of the epistemological plane, and the third dimension which is imagined as the plane running directly out the back of the page in the anterior direction, and straight out up from the page in the posterior direction. The Process Model represents the state-stages along the anterior-posterior valence as described in Figure 6. (Figures 5 and 6 can be found in Appendix A: Figures).

Like the Wilber-Combs lattice, the Process Model recognizes that the states of consciousness are of a different sort than the stage-structures of consciousness. But whereas in the Wilber-Combs lattice they are represented as loosely affiliated, through the notion of stages, in the Process Model, the Ontological Dimension is *significantly exceptional from and operates under completely different rules of process than those in the Epistemological Field.* The Process Model suggests that these processual differences *are the significant differences that distinguish the structure-stages from the state-stages.*

The first and foremost difference is that unlike the Epistemological Field, where the forces are complementary, the anterior and posterior vectors of the Ontological Dimension are *entangled*. I use the term “entangled” to convey the characteristics of temporal simultaneity and spatial non-locality; but also to contrast it with the dualistic, trade-off characteristics of complementarity. Entanglement entails omni-directionality, coherence (unity) of event histories and the like. As discussed later in the section on The Conditions of Structural Enfoldment, the Process Model shows how movement in a field of complementary forces (in the Epistemological Field) creates both a spatial and temporal dimension, and with it an arrow of time (event history). In other words, the relations among complementary forces in the Epistemological Field create a local point of view, situated in a sense of “here and now.”

The ontological dimension provides no such spatial or temporal benchmark. The anterior is related to the posterior not as a “before” and an “after,” but as a single simultaneity; a resonant and coherent temporal unity. For example, when I experienced learning algebra as a specific event in time, there was a clear sense of “before I knew algebra” and “after I knew algebra.” This kind of event occurs in the Epistemological Field and correlates to the structure-stages having specific temporal conditions, namely that “*structure-stages* are fairly discrete levels or rungs in development” and “*you cannot skip structure-stages, nor can you peak experience higher structure-stages*” (Wilber, 2006, p. 98).

On the other hand, a peak (peek) experience of a higher *state* of consciousness is an Ontological event—when I have a glimpse of the subtle ground of reality, I experience it both as having come to that realization *in time but also as having re-remembered it as always already having been.*[22] The Ontological now is *significantly different than* the epistemological here-and-now; there is a kind of collapse in the feeling, or apperception of time in the ontological now.

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[22] Heidegger emphasized in many different ways the recollective or remembering that accounts for the ontological difference, as David Michael Levin points out: “So we see that the Lighting of Being gives way to … [a] ‘recollection’ of that more primordial decision, the ontological difference. In such ‘recollection,’ we go down into ourselves—this is the phase of *Erinnerung*—and we attempt to retrieve, on this journey of return, that which has been forgotten. This retrieval is a W*ederholung,* a process of healing integration, of re-membering … (Levin, 1988, p. 386). And of its atemporality, Levin goes on to write: “The past is not simply past, the future not simply future; and the present, therefore, ‘is not shut up within itself but transcends itself towards a future and a past. … Understanding the sense in which the past and future are gathered into their presence, the seer, holding herself open, may accordingly say that

Wilber's finest spiritual writing eloquently captures both the feeling of the "always already" and the ontological "now-ness," as when he writes:

> It is always already undone, you see, and always already over. In the simple feeling of Being, worlds are born and die—they live and dance and sing a while and melt back into oblivion, and nothing ever really happens here in the world of One Taste. … And I-I will be there, as I-I always have been, to Witness the rise and miraculous fall of my infinite easy Worlds, happening now and forever, now and forever, now and always forever, it seems (2000b, p. 623).
>
> … in that unitary seamless sizzling Now, which is this very moment before you do anything at all, it is, quite simply, over. Which means, it has, quite simply, begun (2006, p. 346).[23]

Therefore, as Figure 6 (in Appendix A) shows, a gross state of consciousness "sees" only gross subjects and objects (the posterior view) as arising from other gross level causes (the anterior view), but a subtle level of consciousness "sees" gross *and* subtle level subjects and objects arising from subtle level causes (and so forth for the higher states, not illustrated). In other words, there is a kind of entangled relation that is disclosed between the gross and subtle levels. An ontological experience doesn't see levels stacked up uni-directionally in time. The relations in its generative processes are two-directional. The states are experienced as both *higher and more fundamental—they stack up in both directions at the same time.*

The second difference is that reasoning from the Epistemological Field is inherently dualistic, indeterminate, and unsolvable; it is a kind of reasoning that creates infinite complexity. This accounts for the quintessential characteristic of that field, which is unlimited movement. "Which came first, the chicken or the egg?" is an impossible question. *Questions are not solved* in the ontological dimension—they simply don't arise there. In the ontological dimension it is *clearly seen* that/how the chicken and the egg arise. This "clearly seeing" is not given as a reasoned account of things, it is apperceived in a "feeling of Being-such."[24] This is a simple analogy, but many of our deepest spiritual questions, questions of involution and evolution, the nature of

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she has 'already seen' what is to come" (p. 459). Note also in this sentence, the "open aspect" of the ontological difference—discussed in the following section.

[23] "The presence of what is present is not finally and also something we *face*, rather *it comes before. Prior to all else it stands before us,* only we do not see it because we stand within it. *It is what really comes before us"* (Heidegger, 1968, p. 44).

[24] The distinctions we are making in the Process Model, between reasoning from the epistemological field and understanding Being-as-such in the Ontological Dimension—a distinction between perception and conceptualization of reality on the one hand, and apperception of reality on the other—closely parallels the Buddhist distinction between *vijnana* and *prajna.* Loy (1988) quotes D. T. Suzuki's paper on *Reason and Intuition in Buddhist Philosophy* to help distinguish between the more conventional way of knowing, vijnana, and prajna, that which goes beyond vijnana:

> Prajna goes beyond vijnana. We make use of vijnana in our world of the senses and intellect, which is characterized by dualism in the sense that there is one who sees and there is the other that is seen—the two standing in opposition. In prajna this differentiation does not take place: what is seen and the one who sees are identical [author's note: or alternately, entangled]; the seer is the seen and the seen is the seer (p. 34).

unbounded wholeness, the infinite regressions of the self, and the like, come to us in a similar fashion.

It is very difficult to capture these kinds of ontological relations from a structural view. A process view is more helpful in understanding the nuances of the Ontological Dimension. Take for example, the chicken-and-egg paradox. A structural view can only say that process P generates products (structures) A,B,C; and even if P and A are related in a holarchic way, their whole-part relations are uni-directional. I will show in the conclusion just how a pure process view can legitimately say that P generates A, *and* A actualizes P.

The Relationship between the Ontological Dimension and the Epistemological Field

According to Guenther, the process-dynamics that the Yogacara thinkers used to derive a system of mind/mentation revealed an interplay of human psychospirituality, in terms of two “movements”—one that corresponds to the processes in what we have been referring to as the Epistemological Field, and another that correlates with the ontological dimension. The first movement pertains to conventional ways of thinking; the second, ontological movement is not a kind of thinking, not a movement of mind, but a kind of *ontological encounter—a transformational, not informational, experience.*[25]

In this section of this article I discuss the relationship between the Epistemological Field and Ontological Dimension in more detail. This will help give you a context for the discussions that follow. There are some easy tests to see whether one is reasoning in an epistemological framework or understanding from an ontological view. For those of you who like to read philosophy, you can use the three questions below to test for “epistemological reductions”—i.e., those ways in which philosophers confuse ontological categories by reducing them into (reasoning from within) an epistemological framework. If answers to any of these questions are “true,” then we are reasoning in an epistemological framework (or from an epistemological view).

These tests are as follows:

1. Are the concepts (or perspectives) delimited by an implicit or explicit one/many divide, or, in other words, are they related as wholes and parts?
2. Are the concepts (or perspectives) delimited by an implicit or explicit interior/exterior relation, or, in other words, are they related as subjects and objects?[26]
3. Is there an implicit arrow of time (or fixed starting point) in a narrative perspective?

We can use these tests as guides to thinking about the relationship between the Ontological Dimension and the Epistemological Field. Since the Ontological Dimension cannot be reduced to the Epistemological Field, they must not be considered as being related in any of the above three ways. From this set of questions or tests, we can further distinguish three points that describe how they are not related, and in this manner of elimination, begin to approach how they are related.

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[25] See Appendix B: Guenther Notes.

[26] There is a huge amount of literature exploring just this one relationship, and it reaches a much broader range than even the enormous amount of writing, both East and West, on the subject-object/mind-body “problem,” when one considers the theoretical work being done on the “problem” of observation and perspectives itself in physical science, mathematics, and AI; for a good primer, see Atmanspacher & Dalenoort (1994).

1. The ontological does not contain the epistemological, nor vice-versa; neither should it be imagined that the epistemological somehow arises from the ontological, or vice-versa. Neither can be seen as a greater whole or lesser part in relation to the other.
2. It is a common mistake to construe the ontological as being an interior state, relative to the epistemological, but the relations of interiority-exteriority are strictly epistemological relations.[27]
3. An ontological understanding cannot be elucidated in a narrative form that benchmarks or fixes a starting point. As I will discuss in more detail below, it is this kind of benchmarking that creates an arrow of time. Without an arrow of time in the ontological dimension, we experience reality as being simultaneously in this moment, and always already. An experience of ontological discovery comes simultaneously with an experience of re-remembrance. In addition, it cannot be the case that the ontological comes before (in time), nor after, the epistemological.

We experience the movement in the epistemological field as "mind." There is a Zen story that captures this:

> A monk and three students were walking past a school, where a flag was flying in the wind. The monk asked the students "what do you see?" The first student said "the flag is moving." The second student said "the wind is moving." The third student said, "the mind is moving."

Relative to the experience of "moving mind," the ontological dimension, by contrast, has the feeling/aspect of stillness. However, this "stillness" is not to be construed dualistically (that would be an epistemological reduction); rather, it is a dynamic stillness—like the axel of a cart wheel rolling down a hill. Both the axel and the wheel are moving down the hill together, at the same rate; but relative to the axel, the wheel's surface tread seems to be moving more; the latter due to its relative motions (revolutions) with respect to the "non-moving" axel. The non-dual apperception of movement and the Intellect is a familiar thread in *Mahamudra* text, as Loy (1997) quotes:

> One cometh to know that neither the "Moving" other than the "Non-Moving: nor the "Non-Moving" other than the "Moving" ….

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[27] This distinction is critical to understanding the non-conceptual, non-dual apperception of reality. Without this understanding, one merely keeps chasing apparently deeper and deeper levels of interiority; associated with the capacity to build an infinite series of apparent interior-exterior boundaries in the epistemological field, resulting in the infinite regression of self or source, one distal, and one proximate. The Process Model can help design transformative practices by readily pointing out that the capacities that are useful ways of *knowing about* are different from the paths of *discovering or realizing being-as-suchness.* The Process Model can point us in the direction appropriate to where we want to be going, at any given moment.

> If the real nature of the "Moving" and the "Non-Moving" be not discovered by these analyses, one is to observe: —
> Whether the Intellect, which is looking on, is other than the "Moving" and the "Non-Moving;"
> Or whether it is the very self of the "Moving" and the "Non-Moving" (p. 137).

As this text illustrates, nondual thinking is paradoxically both active and passive. This again, is characteristic of ontological understanding. There is a both/and aspect to the ontological dimension, rather than an either/or, if-more-of-the-one-than-less-of-the-other aspect that conditions epistemological reasoning. From an ontological view (vs. an epistemological perspective) there is the stillness that generates the movement, as the axel supports the wheel, *and* there is the movement that actualizes the stillness, as the wheel contextualizes their *relative movement.* Epistemological reasoning frames this in terms of which comes first, movement or stillness? or which is the greater whole? or imagines a stillness that is interior to an exterior kind of movement. In ontological understanding, as Mahamudra claims, "there is movement of nondual thought, but at the same time there is an awareness of no movement" (Loy, 1997. p. 143).

In addition, nondual thinking is, relative to the dualistic arisings in the Epistemological Field, effortless. Returning to our axel and wheel metaphor, it is as if we configured the axle/wheel to drive another contraption, producing "work." Similarly, conventionally dualistic thought—the incessant mentalese of "monkey mind"—is like taking the free-wheeling state of movement/nonmovement, and attaching it to certain "gears" and getting locked into conditioned perspectives. The stillness in the ontological dimension is therefore seen to be in concert with the movement in the epistemological field—it is only when the movement of the mind is free and liberated that it simultaneously achieves ontological stillness.

> What distinguishes this free and liberated movement "is the utter freedom of the mind to dance freely from one … thing to another, from one set of concepts to a different and perhaps contradictory set. The difference is not necessarily in the concepts themselves—they may be the same—but how effortlessly the mind is able to play with them without getting stuck (Loy, 1988, p. 148).

The notion of getting stuck is applicable to the understanding of peak experiences, versus a deeper understanding of the nondual. Nondual, effortless movement implies free wheeling in the dynamic field of complementary valences, without benchmarking any vector complement, or becoming embedded in any conditioned perspective. Peak experiences, however, are extreme experiences of getting stuck entirely, at one of the extreme ranges of the Epistemological Field. For example, if I get "stuck" at the far interior pole—I can have a peak experience of radical formlessness. If I get "stuck" at the far pole of "one"-ness—I might have a profound Unity experience; or if I get "stuck" at the far exterior pole, I can experience nature mysticism. Peak experiences can be profound and deeply meaningful experiences. They can help disclose the nature of mind, how it moves through complementary poles. However, they are essentially exclusionary experiences—and therefore it is a serious error to interpret them as "the ultimate canister" of reality. For example, for so many of us in the West who are conventionally embedded in a perspective of separate selves, a peak experience of Unity Consciousness is profoundly spiritual—but for someone like Jonathan Livingston Seagull, conventionally embedded in a group morphic field, a peak experience of distinct "I am-ness" can be an equally profound experience. Likewise, for so many of us in the West who are conventionally embedded in a perspective of a "solid world-out-there" an experience of radical formlessness is profoundly spiritual—but for someone brought up in a Buddhist monastery, absorbed into radical formlessness since childhood, the living, throbbing manifest world of sensuality may be experienced as profoundly and ecstatically spiritual.[28]

This difference—the status of altered states—"is the crux of the debate between conventional and transpersonal psychology" (Wade, 1996, p. 191). The Process Model is in agreement with Wade's position in the debate. The power of "altered states," i.e., epistemic peak experiences, is in their ability to point to how the mind works, by interrupting one's habituated, therefore hidden, epistemic thought processes. What we can *correctly learn* from experiences of this sort is the way that reality is constructed through such an epistemic process. What is most commonly interpreted to be the case—incorrectly—is that such epistemic experiences disclose some ultimate, if otherworldly, reality.[29]

The atemporal nature of the Ontological Dimension is responsible for the characteristics of the ontological now-ness, the feeling of always already, and by extension, the identity of movement and non-movement. The ontological also has an a-spatial character, which is experienced as an open dimension.[30] The Process Model warns us that this "openness" is not the same as what we can imagine conceptually as emptiness or radical interiority (subject permanence).[31] This openness, rather, is also something experienced as a dynamic *opening-up-to* what is absent, what is be-coming—a kind of clearing that allows the presencing of Being. Heidegger borrowed a Greek term *aletheia* to describe the kind of ontological truth that is disclosed by an *opening-up-to*:

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[28] There is a great movie that deals with just this situation, *Samsara* directed by Nalin Pan

[29] Wade (1996) writes:

> Plasticity of space and time, the loss of self-boundaries, hallucinations—especially unusual percepts such as light, ineffability, and sensations of infinite energy—are subjectively experienced as a non-Newtonian reality, such as another dimension or spiritual realm.... Sensitives, psychics, athlestes, religious ecstatics, recreational drug-users, survivors of near-death experiences, and many "ordinary" people typically experience altered states—if not by accident, most often for egoic reasons unrepresentative of this [Transcendent] stage. They may never progress through the discipline and noetic development beyond strong imagery and bodily sensations to realize that reality is constructed. Hence, they experience a convincingly real "other" world—and their numbers are legion compared to the small proportion of people operating at the high end of Transcendent consciousness (p. 191).

[30] Guenther (1984) points out the corollary relationship between Being's atemporality and open capacity, in characteristically obtuse ways, among them by describing "Being's dynamic character" as "exhibiting [the] atemporally abiding aspect of … Being's essentially open (that is, nonreductive) character, termed utter openness (stong-pa)" (p. 8).

[31] The Process Model maps out why this is the case, since it shows that emptiness *as* interiority is part of the complementary valences in the epistemological field. The actual exegesis of the relationship between openness, or open awareness in the ontological dimension and the notion of emptiness, is well beyond the scope of this article. Suffice it to say that the Process Model is aligned with the Dzogchen Bon texts in which open awareness is contrasted to both sunyata (emptiness) and the permanent subject that realizes it; for example:

> The tradition of *Authenticity* does not consider phenomena empty because they are unfindable; it sees all appearances as empty because they are one in essence (ngo bo gcig) with mindnature (sems nyid). This is pivotal to understanding Dzogchen's view of the authentic. Neither the merely empty nor the wisdom realizing it can be authentic in the way that, finally, our text will propose that reflexive open awareness is authentic. (Klein & Tenzin Rinpoche, 2006).

> Heidegger [redefines] aletheia: no longer understood as truth, it is now that opening which first grants the possibility of truth. ... Metaphysics asks about this Being (i.e. the ground) of beings, but "does not ask about Being as Being, that is … how there can be presence as such. There is presence only when opening is dominant. To "think this opening" is the future task for thought (Loy, 1988, p. 173).[32]

Finally, according to Guenther (1984), Dzogchen contrasts the two great realms (the Epistemological Field and the Ontological Dimension) in energetic terms. The movement in the epistemological field is imagined to dissipate the extremely high energies that are in a sense "stored" in the open and boundless ontological dimension. Therefore, training the mind to be still builds up greater and greater energies (or higher and higher energetic frequencies) which are required to create stable meditative states. According to Guenther, the two realms are coupled in a very interesting way: although the energy from the ontological is dissipated by the epistemological movement, it cannot be exhausted by the epistemological; rather, all the complexity that thereby arises in the epistemological field from that movement*, actually fuels or recharges the energies in the ontological dimension.*[33]

Well, that is a good story to think on. Let's now investigate some of those complexities that arise in the epistemological field.

The Conditions of Structural Enfoldment

The section, Structures in the Epistemological Field, discussed how primary structures arise in the Epistemological Field through simple operations between vector(aspects). In this section I will show how more complex structures can be seen to arise through 2nd order and 3rd order (and by extension on to… nth order) iterations.[34] In Figure 7 (see Appendix A: Figures) I have drawn

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Just how far the Process Model can take us with regards to highly complex and esoteric themes as those taken up by the best Dzogchen texts, is a challenge for future process thought.

[32] In *End of Philosophy,* Heidegger (1973) writes of this openness in terms of light and its clearing:

> Light can stream into the clearing, into its openness, and let brightness play with darkness in it. But light never first creates openness. Rather, light presupposes openness.
>
> In the Greek language, one is not speaking about the action of seeing, … but about that which gleams and radiates. But it can radiate only if openness has already been granted. The beam of light does not first create the opening, openness, it only traverses it.
>
> We have already reflected upon the fact that the path of thinking … needs the opening. But in that opening rests possible radiance, that is, the possible presencing of presence itself (pp. 384-387).

[33] See Appendix B: Guenther Notes.

[34] "Iterations" simply means one complete revolution through the process field. It is important to note that such a revolution requires a directional component (imagined as either clockwise or counterclockwise

these higher order structures as layers of something like a conch shell growing in a clockwise spiral direction in the epistemological plane. If we imagine the layers growing in both breadth along the interior-exterior valence *and* depth along the one-many valence, we can imagine a conch shell-like structure that grows both wider across the page and thicker as it expands up from the page. The operations that drive the expansion(breadth) in the page-plane represent oscillations along the interior-exterior valence; and operations that drive the thickening(depth) up from the page-plane represent oscillations along the one-many valence.[35] In this way the Process Model gives a dynamic representation of how structure-stages arise—oscillations along the interior-exterior valence(increase in breadth) represent Wilber's phase dynamics wherein "the subject of the prior stage becomes the object of the subject of the later stage;" and the oscillations along the one-many valence(increase in depth) represents the holarchic (whole-part) relations of the structure-stages.

We are now ready to identify the process under which structural enfoldment occurs, namely, (1) through a directional process of iterations (2) within a field of complementary valences (3) deriving interior-exterior and whole-part relations. In Excerpt D, Wilber writes "any integral metatheory might best be guided by three heuristic principles: nonexclusion, enactment, enfoldment" (p. 1). Of enfoldment in particular, Wilber says in Excerpt B:

> Each moment unfolds a new and creative expanse that enfolds and embraces its predecessors… . The prehensive process of unfoldment/enfoldment in any stream could also be called the "natural growth principle" in any stream, and I very much agree with Whitehead that without both an unfolding-creative novelty and an enfolding-loving embrace, it is just damned difficult to account for moment-to-moment existence in any domain at all.[36]

In Figure 7, structural enfoldment is represented by movement in the clockwise direction; and so unfoldment is represented by counter-clockwise movement. Unlike Wilber, however, the

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movement in the field); and that this directional component constrains the kinds of structures that arise. I would also like to make a point of some terminology distinctions that relate to the discussions that follow. Primary structures result from combinations that happen in the field of valences without re-iterative cycles. Quadrant-structures arise from interplay of neighboring aspects without iteration—there is no axis or direction of revolution. An iterative process may be composed of any number of operations through a single revolution, depending on how finely one slices the pie. Theoretically, there are an infinite number of gradations that can be described through any process, from "start to finish" that alternately, can be viewed as a seamless whole. The Process Model attempts to describe individual transformations for each structure that is introduced in its structural counterpart. Therefore, a structure that has been given four developmental stages will be assigned an operator between each step. A secondary structure of this sort will be described as a 2nd order structure of 4th order operations.

[35] I introduce this level of graphic complexity to give the reader a simplified re-representation of the kinds of dynamic interactions that go on in Herbert Guenther's (1984) *Matrix of Mystery*, in which "simultaneously encircling and encompassing oscillating isotropic radiations" radiate outward, creating "omni-directional outward-pushing fields;" the former, he calls "the inextricably connected dynamic nature of homogenous openness and isotropic omnidirectional lucency (stong-gsal dhyer-med), and the latter, he terms the "meaning saturated field of pristine cognitiveness (chos-dhyings ye-shes)" (pp. 49-51) —none of which can be imagined to be limited to a three-dimensional interpretation such as ours, rather, Guenther's graphics requires one to be able to imagine many more multiple levels of dimensional space.

[36] http://wilber.shambhala.com/html/books/kosmos/excerptB/part2.cfm

Process Model suggests that enfoldment, *rather than being essential to an integral view, is conditioned by only a particular view (the structural one) and therefore enfoldment itself needs to be contextualized.*

We can look how different creation stories arise from a different set of enfoldment conditions as a simplified example of how these conditions constrain our notions of reality. For example, if I start at the far end of the "one" vertices and move in a clockwise direction, I arrive at the typical Western scientific view of creation: Starting with the One Singularity, an Exterior world was created and the Many things combined and evolved until Interior consciousness evolved, giving rise to the sense of One self, namely me. Or I can start from the far end of the interior vertices and move in a counter-clockwise direction, and tell a radically different story: Starting at the far pole of Interiority (aka radical emptiness) arises One self in which arises the Exterior world of maya, in which the illusion of Many and separate Interiors (other(s)) namely me. If we "reverse" direction of movement in either of the above two stories, we can create different involutionary narratives. In the first sequence I unfold from, and am part to whole of a greater Exterior reality; in the second sequence, the world unfolds from, and is part to whole of a greater Interior reality.

These are simplistic versions of rich, complex stories shown here to illustrate how using the Process Model can generate the kinds of meta-narratives that are the foundations of our beliefs about reality. To move into a more sophisticated use of the Process Model, we begin by examining how it can support a process theory of cognition—a central issue in any integral metatheory. To do this, we will look in more detail at a modern process theory of cognition, and see how it can be mapped onto the Process Model.

Cognitive Microgenesis

Jason Brown (1991, 1996, 1997, 1998, 2000, 2002) has used the termed *Cognitive Microgenesis* to describe the process-based theory of cognition that he developed through years of clinical research on linguistic pathologies, as well as pathologies and anomalies concerning object relations. Simply stated, cognitive microgenesis says consciousness is a symphony-like process in which innumerably simultaneous "waves" advance from an unarticulated core through discrete steps (micro steps) toward a more and more fully articulated cognition, and then recede back to the core through the same steps. These micro steps are:

Core > Presence > Affect > Image > Object(body) Space > Object(world) Space

Microgenesis describes a process of *articulation*, in the sense of a further and further reaching out from a central core, so that we can say of the above sequence, presence articulates to affect, affect articulates to image, image to Object(body) Space, and that Object(world) Space is the final (or mature) articulation of the cognitive occasion. In addition, the innumerable simultaneously articulating waves do not necessarily reach the same levels of articulation, and are in different phases of advancing and receding—together which constitute the complex landscape of the cognitive occasion. In turn, each cognitive occasion is determined by a particular length or duration over which the microgenies are summed to produce it. Finally, the entire complex landscape of microgenies can be imagined to grow out in a branching structure, like an evolutionary tree, with mature forms arising and receding, with interference and resonance creating something along the lines of what Stuart Kaufmann (2000) calls "a fitness landscape"[37] that lays down both the evolutionary history and the future potentials of cognition. This and many other implications stemming from Brown's theory of Cognitive Microgenesis concern topics outside the scope of this article, but I introduce them to give the reader a summary overview.

These "steps" can be described briefly as:

Core: The unarticulated core is aspectless.

Presence: … is the spontaneous potential of a cognition—the simple feeling of being.

Affect: Cognitions that articulate to affect stage are primordial feelings, like a deep intuitive feeling that has not yet attached itself to an image or word. For example, it is common to wake up from a dream with a clear "feeling" of the dream without being able to ascribe images or words to the dream. For example, instead of being able to say that in the dream "I opened a door," one would be pressed to say "*it was as if* there were a door and I opened it." The affect level "meaning" is clear, but it is only after the fact of awakening that we are required to search for appropriate or sufficient symbolic or linguistic forms for it—and the measure of sufficiency of those attempts can be gauged against the clearly present affect. Affect-level cognitions are not to be confused with "emotions," which are more complex structures.[38] [39]

Image: Image stage cognitions are like dreams that have an image form, thinking in pictures or symbolisms or various sorts, and visual hallucinations (pathological or otherwise); images that are not yet associated with or alternately have become dissociated from, the concretizing operation of object perception.

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[37] The concept of a fitness landscape with respect to a population of cognitive microgenies is a significant hypothesis of the Process Model, with huge implications on the nature of cognitive development and evolution. In *Investigations,* Kaufmann writes;

> [consider] a population of replicators, say viruses or bacteria, evolving on a fitness landscape with many peaks of high fitness, valleys of low fitness, and ridges. In general, if the mutation rate is low enough, a population located at one point on the landscape will have a few mutants, one or two of which are fitter. These will replicate faster than the less fit cousins, eventually replacing them, so the population as a whole will move to the new point of higher fitness on the landscape. If the process is continued, the population will climb steadfastly uphill to a local fitness peak and remain in its vicinity (2000, p. 155).

If we imagine populations of microgenies evolving on a fitness landscape, where the fitness relationships among them are complex patterns over ranges of constructive and destructive interference, we can imagine a process through which cognition advances not only further from the core, but also through novel forms.

[38] The affect level of cognition is strikingly similar to what Gene Gendlin calls "felt-meaning," meaning which is implicit, that is, prior to any explicit forms, such as symbolic or linguistic thought. Here is Gendlin (1997a) describing it:

> Consider a poet, stuck in midst of writing a poem. The poem is unfinished. How to go on? The already written lines want something more, but what? The poet rereads the written lines. The poem goes on, there, where the lines end. The poet senses what that edge there needs (wants, demands, projects, *entwirft,* implies . . .) But there are no words for *that.* It is ah, uh,. . . . The poet's hand rotates in the air. The gesture says *that.*
>
> Many good lines offer themselves; they try to say, but do not say—*that.* The blank still *hangs there*, still implying something *more precise.*
>
> The . . . seems to lack words, but no. It knows the language, since it understands and rejects—the lines that came. … It knows what must be said, and knows that these lines don't say that (p. 17).

[39] Pathologies of the affect stage are paranoias—the feeling/affective layer is not susceptible to objective or rational interpretation that otherwise would present contrary evidence.

Object(body)Space: Further articulation of the cognitive process generates the spatial dimensioning of the kinesthetic body and its perceived "dominion"—that of the will (willing my finger to move, for example).

Object(world)Space: The furthest articulation (or discharge) in Brown's theory of microgenesis. This is the point where cognition has articulated to object orientation that constitutes a world. We shall use our process model to take this articulation two steps further than Brown has proposed.

Brown describes the process of cognitive microgenesis in terms of discrete steps. To map this with the Process Model, the discrete steps of his micro-process can be seen as structures generated by moving through the Epistemological Field. We can easily map the microgenetic steps as enfolded (micro)structures onto our process model and create a model of cognition, as illustrated in Figure 8 (See Appendix A: Figures).

Brown's micro-states are represented as structures that are enfolded in a developmental series, building layers through clockwise movement.[40] Moving clockwise from the central "core," this movement progresses from the "deep interiority" of pure presence toward greater degrees of exteriority, through the steps of affect, image, object(body) space and world. As the microstructures build up like layers of a conch shell, there is a consistent dynamic associated with the progressive exteriorization of cognition. As pure presencing begins to articulate affect and images, a "self" is imputed as being "subject to" affects and images. In conventional cognition we still consider that feelings and dreams are part of our interior, and not somewhere "out there" in the world; yet there are micro-layers delimiting a deeper interior of affect, and an outer layer of image. (We are not our dreams, for example, but we have dreams, i.e., dreams are "exterior" to a deeper presence.)

Moving clockwise in the process model, we progress from "one and interior" toward "exterior and many." This is associated with a persistent dynamic—a progressive loss of agency that correlates with operations along the one-many valence (or the arising of a shared world). The affect level then "recedes" to a new interior layer, as the cognition articulates to image stage, which "emerges" into a new, yet still interior level—we still feel that feelings and dreams pertain to our sense of self and agency, more so than to the world "out there." But as cognition further articulates toward exterior and the first object cognition arises as "body," there is a sense of shared or relational agentic aspects that arises as the notion of internal *will*—the feeling of internal agency—and *intention*—the projection of will out in the world. The body represents the boundary between these two senses of agency, and is itself a combination of the two, since we feel we can will our body to act, but we do not have control over all the activities of the body.

Finally, further articulation of the microgenetic series toward the 'many' generates object(world) space. At this stage, interior agency completely withdraws, as we come to know objects in a world space that operates according to external causation and the independent laws of nature.[41]

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[40] In other words, the conditions of its structural enfoldment are (1) clockwise direction, (2) revolution in a field of valences, (3) deriving interior-exterior and whole-part relations.

[41] This of course describes the microgenry of conventional cognitions based on Newtonian view of reality. We can use the process model to describe trans-conventional cognitions also. For example, out of body experiences can be described as cognitions in which instead of an exteriorizing object-world "outside a receding self" (central agentic node), the self is experienced as outside of the object-world that

Mapping the cognitive microgenetic series onto the Process Model reveals the dynamic operators of cognitive articulation: a) *emergence* characterizes the phase from core to presence; b) *articulation* characterizes the phase from presence to affect; c) *withdrawal* characterizes the phase to image stage; d) *will* characterizes the phase to object(body) space—the final vestige of interior agency in a progressively exteriorizing cognition; and *protraction* characterizes the cognition of object(world) space.

Here is where Brown's theory ends, with the articulation of an independent subject sharing agency with an exterior world. While Brown considers the problem of other selves a condition of object relations, we can utilize the Process Model to continue to map the cognitive process from world(space) or the domain of 'exterior and many' all the way around the Epistemological Field, toward the 'many and interior' and finally back to the 'interior and one.' Proceeding through the Epistemological Field, clockwise from object(world space) and the inter-objective domains, we then generate other selves, or the inter-subjective domain. In the Process Model, the dynamic operator from world to others is *projection*—corresponding not only to the recognition of other human selves, but also associated with the dynamics of primary projections onto non-humans, animals, dolls, amulets, idols, etc. A complete turn ends with the operations between the 'interior and one' which constitutes what Whitehead termed *subjective unification*; or a coherence among parts; namely the experience not of a series of operations, or discrete stages, but a unitary expression of the enveloped parts as one structural whole (aka "self-world-other" or Wilber's co-emergent quadrants).

With respect to a structural view of integral theory, the Process Model asks us to think in terms of micro-steps that are transformationally related through a generative process. We can describe these transformations as operators that generate self-world-other. At a meta-systemic level call it A!. The processes in transformational relation to and generated by A! are:

emergence→articulation→withdrawal(1. will 2. intention)→protraction→projection→unification

Thus A! is the generative process that creates the complex landscape where

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arises within it. Stable out-of-body experiences verify that the conventional subject-object/interior-exterior relations are, as Guenther noted above, "*far from being normative for all experience,*" but dependent upon the conditions of structural enfoldment—the very framework through which cognitions arise. Experiences such as these also verify the notion held by process thinkers, that all relational change within a process—relations between structures, stages, "things"—are more like "Cambridge Properties" than real properties; in other words, they are not real changes, but rather are properties of an event only from a certain perspective, such as changes in relative motion, all of which depend upon a situated frame of reference. A stable out of body experience makes this very real—of numerous experiences of this kind, I have had the opportunity to note how the sounds and kinesthetic aspects of movement still point *to that moving is happening*—like the truck I can see myself driving "down there" from my vantage point of 30,000 feet above the world—but that inference *that something is moving*—is more like an intellectual assumption, since for all intents and purposes, nothing can actually be *seen moving relative to anything else.* That this is the case is consistent with the out-of-body cognition that the world and all its occurrences are happening "in me" rather than there being a "me" that is negotiating within a world "out there;" like the passenger on the train, he cannot "see" that the bag at his feet is moving at 80 miles per hour.

‘presence,’
  ‘presence-affect,’
    ‘presence-affect-image,’
      ‘presence-affect-image-object(body),’
        ‘presence-affect-image-object(body)-object(world),’
          ‘presence-affect-image-object(body)-object(world)-others,’
            ‘presence-affect-image-object(body)-object(world)-others-unity’
              (and their respective, receding counterparts).

are in continual transformational relation. It is important to note that, from a process point of view, these micro-structures are not nested sets, but a much more fluid and dynamic set of articulations in continual transformation. In Brown’s (2002) words:

> Stages in the microgenetic series are not only levels but ancestral minds given up in the growth of new form. A stage that is traversed can also be outcome depending on where the process terminates at a given moment. When a preliminary stage becomes a final one, as in a dream, the stage is part of another mental space. Intermediate levels in this transition are not traversed and abandoned in the progression to endstage, but lay down content at each ensuing segment. *The sequence is not an ascending stairway where each step is bypassed, nor is it like the passage from ice to water to vapor where physical effects on a single element impel it through a series of forms. Rather, the microgeny is like the growth of a sapling to a tree, or a child to an adult, where the form of the juvenile slowly disappears into that of the adult, but that which in the juvenile is unchanging continues long after in maturity to play a shaping role* (p. 46, emphasis added).

The various microstates don’t stack up like the single line-levels representing structure-stage development. Rather, the full landscape of the numerous microstates develops over duration, like evolutionary branching of species develops over deep bio-geologic time. When the structural-stages are represented as a line on which are arranged developmental levels, it is easy to imagine that the later levels both transcend and include the previous levels. There is simply no where to “put” what has been left out, when the paradigm is a series of neatly nested sets. From a pure process view, development does not proceed in neatly nested sets, but through a continuum of transformation that prescribes a kind of evolutionary tree, or a process of later forms branching out from common prior forms. It is a process of iterative parcellation. On any given branch (or within any single microgeny) each later form includes one or more “mutations” or maturational steps, like a root system creating an intricate network of roots, or the cauliflower-like organization of the brain’s surface—innumerable parcels stem from terminal mutations. If we trace a mature form back to the core, we map a single local narrative, along the route from which it came. If we benchmark our developmental story to this local narrative, we “see” a single series of development. Our story has no capacity to “jump” across branches to other, simultaneous events in the larger branching whole. A structure-stage approach is analogous to limiting oneself to only one of the branching routes. Hence, the single line approach used to describe developmental lines in a static, structural framework. Brown (2002) writes:

> Branching is a mode of cognition and evolutionary growth; it is how something new happens. In this way it is at the heart of the creative process. A mutation is a new idea in

> evolution. In cases in which the mutation has an evolutionary impact, it appears as a change in development at a relatively early phase in ontogeny. Although encoded in the genes, the mutation is a downstream change in the developing organism, a disruption at a *subsurface* phase in maturational growth.
>
> New ideas occur in the same way. An idea does not emanate from the play of introspection but is a deviation—a type of conceptual branching—at deeper form-building layers. The idea emerges from below, rises up, and is disclosed to consciousness. Creativity is a flight from deliberation in the service of a concept rising from below. This is also true for the deep appreciation of creative work. One can say, truly, that you discover the creative by falling into its parts and letting them discover you.
>
> Novel configurations in cognition and development are constantly being generated in this way, either to persist and gradually transform the organism or disappear, submerged, in the weight of habit and the flow. Every so often, however, the slow incremental advance of mutations and ideas gives way to a leap in evolution and thought. The mutation transforms the organism as a great idea transforms cognition (pp. 47-48).

The Microgeny of the Conceptual

In the Process Model, the Epistemological Field is imagined as a field of forces, and the microgenesis of *conventional* cognition is a generative process being "driven" in that field from interior to exterior through whole-part transformations. Each cognition discharges to a specific form (a length or breadth that defines its "duration"); its duration in turn determines the cognitive event that arises, whether it be a primordial affect, an image, or a fully exteriorized world—and then each process recedes back to the core through the reverse sequence of microstates. The sum of numerous microstates going out and receding constitutes the full spectrum of what arises as self-world-other. From a structural point of view, we can say that the seven transformational operations that generate this spectrum generate a 2nd order "structure." This 2nd-order structure, S^2, completes itself with the operation of unification. In the Process Model, S^2 itself can be imagined to be subjected to a higher-order level of iterations in the process field. We can do the math as follows:

$S^1\ 1 \rightarrow S^1\ 2 \rightarrow S^1\ 3 \rightarrow \ldots\ S^1\ 7^{\uparrow} \rightarrow S^2$ where S^2 stands in for $S^1\ (1 \rightarrow 7)$ at the next processural level.

We can try to (loosely) map the microgenetic sequence onto a developmental narrative of human cognition. It is difficult to judge just when the human body-mind articulates a presence and affect level of cognition. But it is known that human fetuses dream by the second trimester—which corresponds to S^1 3 or the image level of articulation. Does a dreaming fetus have a sense of "self that dreams?" No. A "sense of self" arises only at S^1 7—the step at which subjective unification occurs. The fetus dreams, but is not "a dreaming self." S^1 7 correlates to the level of concrete operations. This is the level in which the original cognitive drive from core to world, discharges as action or behavior.

Can we then map a process of higher orders of cognition where S^2 is the starting condition (or alternately, S^1 [1-7] is *the set of* starting conditions) which iterates in the process field to generate concepts; and then again values? Again, following Brown, we can map such generative processes. Starting with S^2 another layer of transformation is created as we move a second go-round through the process field. This requires that the cognitive drive to discharge as action or behavior is sufficiently interrupted to propel a new mutation or parcellation over the duration of the microgeny. In other words, an entirely new "family of microstates" branches out, generating the conceptual order. The impulse to discharge as action-in-the-world splits off from a single-choice field towards that actional discharge into a novel series of microstates, constituting an entire range of conceptual enfoldments. Where the bifurcation occurs determines the affect, image, and intentional content of the concept—but the concept itself completely exteriorizes in the "field of the subjective self," which we have assigned the S^2 label. We begin to think our thoughts, bringing implicit feeling "forward" in reflection, in symbolic images or conceptual ideas.

In the conceptual order, concepts themselves fully exteriorize in the way objects had exteriorized, that is, through a withdrawal of agency. As is the case of the "objective world out there," when fully exteriorized (at the rational level), concepts themselves begin to be seen as independent *things* that function by *independent laws such as rules of logic and reason*, just as the object-world is seen to function by *independent laws of nature*. At this level, the primordial temporal and spatial aspects arising in the process field—the original "here-and-now"—acquires a secondary reflective aspect, in the protraction of an independent and abstract space-time field, in which operations are not uni-directional, but theoretically, that is to say, conceptually, reversible and therefore relativistic.

In the microgeny of the conceptual field, there is a kind of interruption or cessura, pointing to a functional neonaty in the higher (neo-cortical) levels of cognition. The act can be interrupted, and reflected upon, conceptually. However, the concepts themselves can reach a level of reification, which effectively discharges the impulse, completes or terminates the generative sequence into a mature form—the conceptualized occasion. It is here, in the conceptualized occasion (as in the lower-order actualized occasion), that the prior infinite potential is discharged into a finite actual, this time resting in a conceptual order rather than in an object(world). Yet this actual is finite in its duration also, and so impermanent, and the process repeats, returning to infinite potential, accompanied by a drive from the core, operating in a field of forces.

We can take this process further afield through yet higher-order transformations, where concepts themselves mediate between immediate apperception-and-action, through speech and other symbolic acts—a higher-order rule of projection, wherein the concept field is exteriorized to shared intersubjective space.

The Microgeny of Value

But what of values? How do they relate to cognition and concept in the Process Model? Consider how Figure 9 (see Appendix A: Figures) illustrates the primary microstates along a spiral path starting from the core at E^1 and ending with the primary quadrant-level components, self-world-other at E^2. From there, a second-order process diverges into microstates along a spiral path ending at E^3. The path $E^2 \rightarrow E^3$ represents the values stream, and completes with the condition of self-world-other-beliefs. Beliefs are rather complex human systems; but the Process

Model suggests that they are systems that arise through a complex web of relations between conditions governing microstates in a process field.[42]

These value-microstates follow a path that parallels the primary cognitive microstates, the path from interior to exterior articulation and through whole-part transformations (parcellation or branching). The values micro-stream goes:

existence > interest > attention > desire > worth > universals > beliefs

According to Brown, the fundamental level of value is existence. What exists for us has inherent value; what has zero value simply never arises. I look out over a springtime meadow, taking in all the colors and textures and aromas. My eye settles on a daisy—not just any daisy, but just this particular one. My mind relaxes in the joyful play of this daisy and I. These are the inherently valuable existents which exteriorize for me over the durations of the cognitive moments. For the bee, bird and butterfly, there are a set of different values, hence a different set of existents.

Primary value then is laid down in the course of the microstates over the various durations of microgenesis. This means, self-other-world arises not as a neutral condition, but already hugely constrained by the conditions of their generative process.[43] Add an affect layer, and existence is imbued with a sense of realness, and *interest in* the real arises. As agency withdraws, value is exteriorized outward as *attention toward* the object(s) of interest. As the values stream further exteriorizes into body(space), attention exteriorizes in the body—the boundary between self and world—as desire. Desire in turn reaches out into the world as desir*e for an object,* and subsequently conceptualized as the object's *worth.* Projection of object worth into inter-subjective space generates the universals (the good, the true, the beautiful). And finally, universals, when incorporated into the self in the process of subjective unification, create the self-system-in-beliefs.

There are extraordinary implications for thinking about values through a process view. This view can be seen to be the same view as the Buddhist notion of root cause. The Process Model can be used to trace beliefs back to root causes in desire, and beneath that, in the nature of mind and cognition. Self-world-other may arise as an inimical triumvirate, but they are not value-neutral. The processes that set down the conditions of their arising, moment to moment, are inherently absorptive of all kinds of conditions determining even the most primitive values. Understanding those conditions can help us design transformative practices for rendering them transparent.

---

[42] Note, because this section deals with the processes of *cognition*, it does not account for the conditions external to consciousness which co-determine of the emerging microstates. It is important to note, however, that the nature of these "external" conditions are neither objects nor other subjects per se, since the process model shows us that objects and other subjects are internal to the cognitive process. What then can these "external" conditions be? In future articles I intend to discuss how the Process Model can help describe them, and serve as a bridge between Integral Theory and some of today's most important new thought on process and generative order.

[43] This is one of the main reasons why deepening your integral practice requires you to delve into the subtle nature of mind-and-world, or simply, MindNature. Practices such as Mahamudra and Tibetan dream work and dark retreats work are designed to render the cognitive processes transparent, so that we are no longer bound by their hidden conditions, but liberated to dance creatively in the dynamic field called "mind."

If we chart both the cognitive and value microstates according to the sequence of operators which drive the cognitive microstates, we can easily see the iterative nature of the process field.

Operator	→	Cognitive Microstate	Value Microstate
		Core	Self (ego)
Emergence	→	Presence	Existence
Articulation	→	Affect	Interest
Withdrawal (1)	→	Image	Attention
Withdrawal (2)	→	Object(body)	Desire
Protraction	→	Object(world)	Worth
Projection	→	Others	Universals
Unification	→	Self(ego)	Beliefs

We can see the parallels in the micro-series illustrated in the following figures:

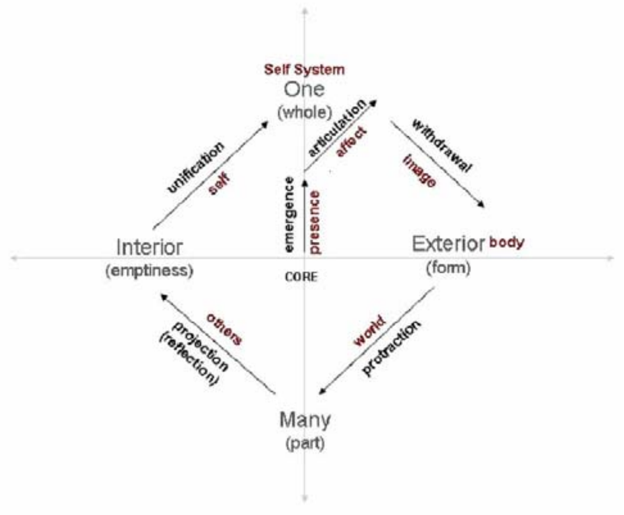

Self System
One
(whole)
articulation
affect
withdrawal
image
unification
self
emergence
presence
Interior
(emptiness)
CORE
Exterior
body
(form)
others
projection
(reflection)
world
protraction
Many
(part)

Figure 10. Self System

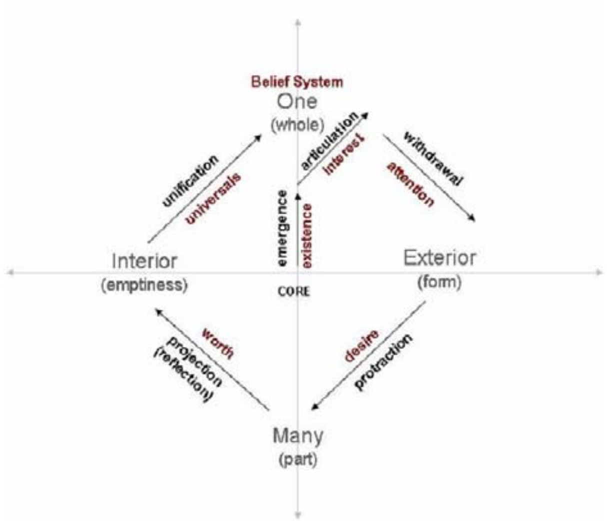

Belief System
One
(whole)
articulation
interest
withdrawal
attention
unification
universals
emergence
existence
Interior
(emptiness)
CORE
Exterior
(form)
worth
projection
(reflection)
desire
protraction
Many
(part)

Figure 11. Belief System

By linking the self-system with its values streams in this way, we can start to look at the genesis of beliefs from a pure process view, namely from the transformations that operate in the wave of cognition from core to world and in return. If these processes are conceptualizable, then it may be the case that they can be made realizable, that is, transmuted into phenomena that can be experienced by the self, rather than properties that condition or constrain the self. This is the Mahamudra path toward liberation.

Conclusion

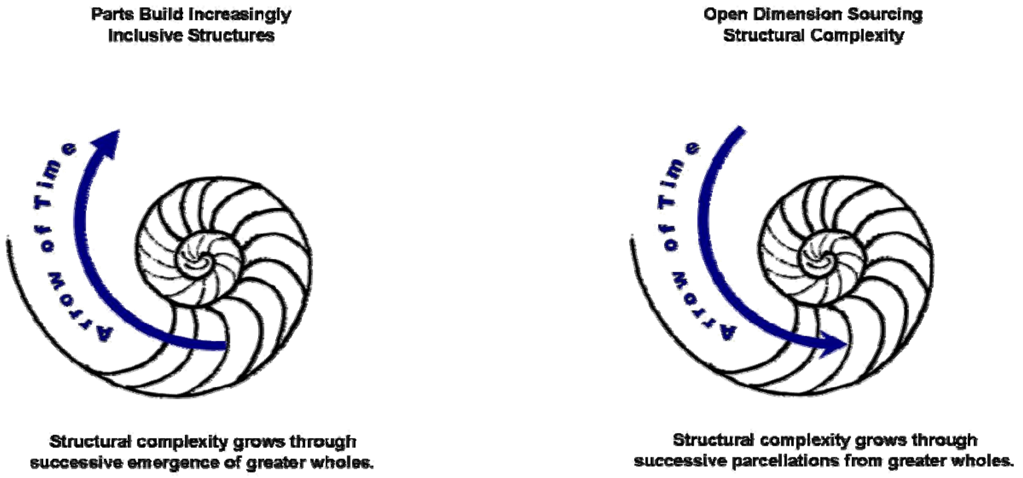
> *I was poking around a shop at the seashore and happened upon a large chambered nautilus. It had been carefully sliced open and mounted so as to display both the inner and outer sides of the same shell side by side. On one side, I saw a succession of chambers that began very small and grew evenly as they followed the graceful arch of the shell's unfolding spiral. To me, each chamber represented a human life, a finite stage in larger development, always followed by another larger than it. Round and round the lives unfolded, spinning the archetypal spiral of cyclic yet infinite development.*
>
> *Next to this spiral of chambers was mounted the outer wall of the same shell. This side spoke of wholeness, for it showed a colorful pattern of strong brown lines that integrated and unified the chambers within. The design was so masterfully executed that it looked as though an artist had picked up a fully grown shell and painted it with a few broad strokes. The brown streaks cut smoothly across the shell's inner chambers as if they weren't there* (Bache, 1990, p. 109).

All of reality presents itself in the way of the nautilus: how nature reveals herself to us is conditioned by the perspective(s) we take, that is, by the epistemic framework we build to receive her. If we have only static structural categories in that framework, nature will reveal herself as a succession of structurally related parts, that is, parts related by the *conditions of structural enfoldment in our framework.* We might hear nature speak, but never hear her sing. There are two video clips on the web that give good examples of conditions of structural enfoldment.

One can be accessed at http://www.youtube.com/watch?v=Zkox6niJ1Wc. It shows a metal plate that vibrates at increasingly higher frequencies. A white sandy substance is dusted on the surface of the plate, and at certain intervals, the white sand creates intricate patterns. The patterns themselves go through a patterned dynamic—some phases of increasing fractal complexity, other times creating a newly simplified, novel pattern. Although the frequency rises at a fixed rate, the patterns "emerge" only at certain intervals. What determines the static appearance of these patterns constitutes the conditions of structural enfoldment of the system. These conditions have to do with the nature of the sand, gravity and the like *but also with the nature of the "operational system" that is experiencing the show*—the sand reveals itself in patterns in ways that we can perceive patterns, and as chaos in ways that we cannot perceive as patterns.

The video of Nate True's Time Fountain, at http://cre.ations.net/creation/44, demonstrates the temporal conditions of structural enfoldment. By creating the illusion of stopping or reversing time, the Time Fountain changes what we experience of the fountain. It is because we benchmark a fixed direction of time, that the illusion is successful—the strobe is designed to take advantage of what we have habitually inferred as being fixed properties of time. Experiments like these point to the limits of our perceptual apparatus. But perceptual illusions of this sort are *only possible because we receive them in a limited frame of reference—one that is temporally conditioned by an arrow of time.* It is not only conceivable, but also possible, to experience our perceptions in a more open, transparent way, where time is not a condition of that experience, but the temporal framework itself is seen to arise within the dynamic field called "mind."

Consider for example, the role of time in the following figures:


Parts Build Increasingly Inclusive Structures
Arrow of Time
Open Dimension Sourcing Structural Complexity
Arrow of Time

Structural complexity grows through successive emergence of greater wholes.

Structural complexity grows through successive parcellations from greater wholes.

Figure 12. Arrow of Time

Both diagrams illustrate a process of structural growth, but the temporal condition of their structural enfoldment—i.e., the arrow of time—is switched between the two. In the first diagram we "see" prior parts building greater and greater wholes. This corresponds to Wilber's structural, holarchical view. In the second diagram we "see" a series of finer and finer parts parcellating from prior wholes. This correlates to Jason Brown's theory of microgenesis. In process language, the former "sees" actuals realizing more of the "original" potential; the second "sees" original potential generating more and more actuals. There is also an "interior-exterior" condition that distinguishes the two views, represented by the spatial regions in the illustrations. The first view "sees" complexity as an ever-expanding evolution into an unbounded aspectless "exterior" wholeness; the other "sees" an unbounded original wholeness penetrating infinite "interior" depth.

If we can agree that there is some truth to both of these views, then it must be the case that each view is *true but partial.* However, since they both arise from a structural approach—within a structural framework which is *itself limited* by the very same conditions of structural enfoldment—that framework cannot show *how* they are true and partial. A structural approach, therefore, is forced to choose one over the other. Only a process approach has the capacity to widen the view beyond the conditions of structural enfoldment, so that they no longer constrain our view, but are contextualized by it. A pure process view, such as a generative process, says that the all of the actual is already *in* the potential as potential actuals. You cannot have, as Rescher (1996) describes below, the notion of an arrow of time pointing to future development, without already having ascribed future actuals as present potentials.

> An important merit of process philosophy is its ability to avert difficulties that afflict substantialism. Consider just one example. Seeing that future things do not (yet) exist, substance metaphysicians have difficulties with the future and cannot confidently accommodate it in their ontology. Process metaphysics avoids this difficulty from the outset. For the processural nature of the real means that the present constitution of things always projects beyond itself into one as yet unrealized future. You cannot claim the arrow is moving now without committing yourself to its occupying a different position in the future. The future has its place within the processural present, seeing that the present is pregnant with the future (p. 54).

Likewise, a generative process says that, simultaneously, all of the actuals reflect their prior "formatted" potential, in the process of realizing (actualizing) themselves. You cannot have, in this instance, the notion of an arrow of time having come from the past potential, without already having ascribed those realized actuals as inherent in that original potential.

Referring then to the set of diagrams above, a pure process approach sees they are saying the same thing, namely that potentials are generating actuals, and actuals are realizing potentials, regardless of the arrow of time—it has been rendered transparent. The whole-part condition between the two has also broken down, since potentials and actuals are *both whole and part to each other*—on the one hand, there is all of the actual potential (but not all of the actual) in the potential, and there is all of the actual (but not all of the actual potential) in the actual.[44] In other words, generative processes are "Janus faced"—they look in two directions at once, inside and outside, past and future, whole and part.

The Process Model goes even further than this. The Process Model shows us that *neither* of the two has the capacity to reason into the ontological dimension, neither has the capacity to address what is your ontological view, since neither has the capacity to go beyond its, and their, conditioned epistemic relations. The problem we face is that our deepest spiritual concerns are ontological ones, and yet we allow our spiritual notions to either flounder around or compete with each other in limited epistemological frameworks. The Process Model points to a different place entirely. It says that although one cannot reason oneself into a deeper ontological view, one's ontological view deepens *from the kinds of ontological encounters we are open to receive.* Furthermore, it warns, the most limiting factor in our ability to *open up* to those encounters is our continual embeddedness in one or another, or even a spectrum of epistemological frames of mind, also known as, "perspectives."

---

[44] This is the explanation of what was proposed earlier, namely that a process approach can legitimately express that P generates A *and* A actualizes P.

This, then, underscores the essential distinction I made at the beginning of this article: a view cannot arise *within or from* a perspective. Rather, *how the perspectives are viewed* arises from a deeper, more fundamental—that is, *ontological*—view. While I consider one of the greatest contributions to integral theory is Wilber's integration of the "Big Three," the "I, We, Its" through the notion of perspectives, I also think the Process Model points out the need to integrate the *Field of the Big Three* (i.e., the Epistemological Field) with the Dimension of the Ontological, through just this notion of view and the role of the ontological that the Dzogchen thinkers have assigned it.[45]

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[45] The Dzogchen notion of *view* is incredibly rich and inherently difficult to describe. I only hope to have been able to give the reader a good sense, first, of what can't at all describe *view*, and secondly, a way to begin pointing out the ontological dimensioning of the notion of *view*. What I have expressed, however, is merely an iota of Dzogchen understanding which posits a state of "authentic open awareness" which corresponds loosely to a state in which there is "no longer a view" or alternately, a thoroughly open view, which Klein and Tenzin Rinpoche (2006) term "authentic open awareness." You can see the connection between this "authentic open awareness," and the ontological dimensioning of *view* in passages such as:

> The view established through reasoning is not the authentic state of open awareness. That state must be described in ontological as well as epistemological terms; hence the conflation, experientially and philosophically, of unbounded wholeness with open awareness. Unbounded wholeness is how and what reality is. In that sense it is an ontological term. Open awareness, fully present to that state of wholeness, is the knowing of it. It is an epistemological unity; open awareness experiencing itself as unbounded wholeness. Establishing the view is not a method for realizing the view (p. 6).

The complexity of Dzogchen thought is nearly incomprehensible. For example, the above passage points to an "epistemological unity;" but the dichotomic mind, according to Dzogchen, is the *vehicle* of knowing. According to Klein and Tenzin Rinpoche, the Dzogchen "resolved" this problem by considering that authentic open awareness is not a consciousness at all.

> Unlike inference and direct perception in classic Buddhist discussions of mind and logic, reflexively authentic open awareness does not take the measure of anything. There is no process of authentication associated with open awareness at all; it is simply, in and of itself, authentic to its own nature. This is possible because, again, open awareness is not a consciousness. This is its unique epistemological characteristic, privileging it over all the other authenticators (p. 37).

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Appendix A:
Figures 5-9

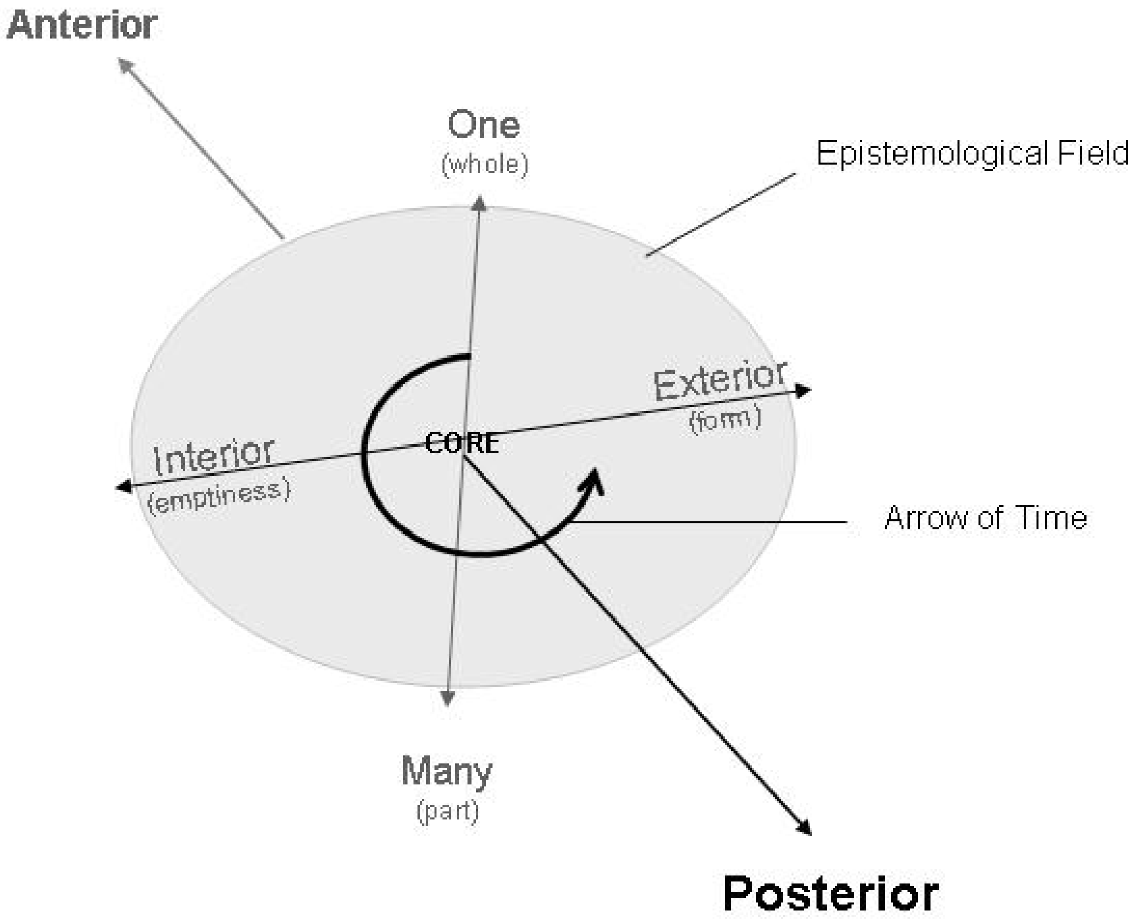
Anterior
One
(whole)
Epistemological Field
Exterior
(form)
CORE
Interior
(emptiness)
Arrow of Time
Many
(part)
Posterior

Figure 5. Ontological Dimension

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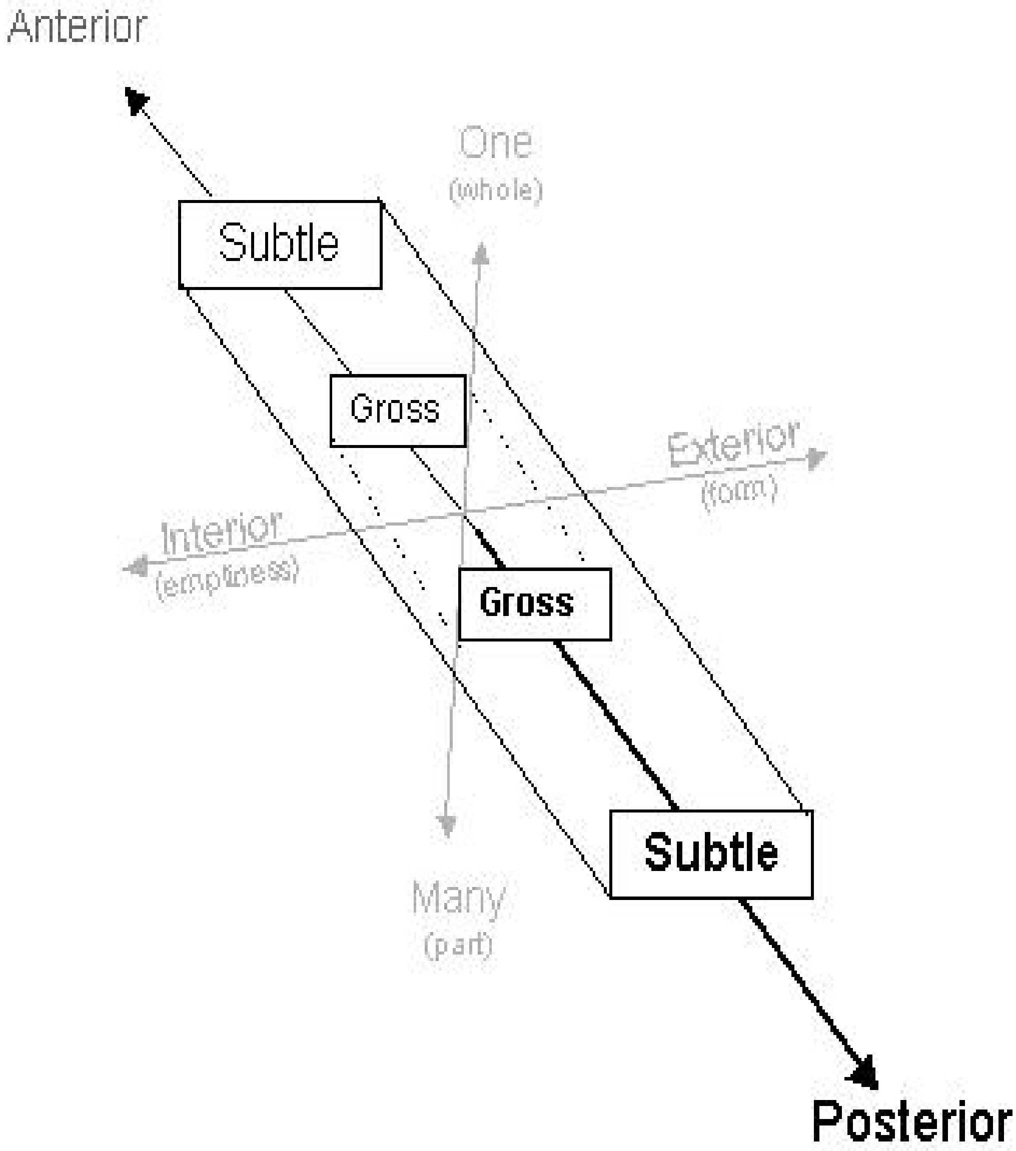
Anterior
One
(whole)
Subtle
Gross
Exterior
(form)
Interior
(emptiness)
Gross
Subtle
Many
(part)
Posterior

Figure 6. States in the Ontological Dimension

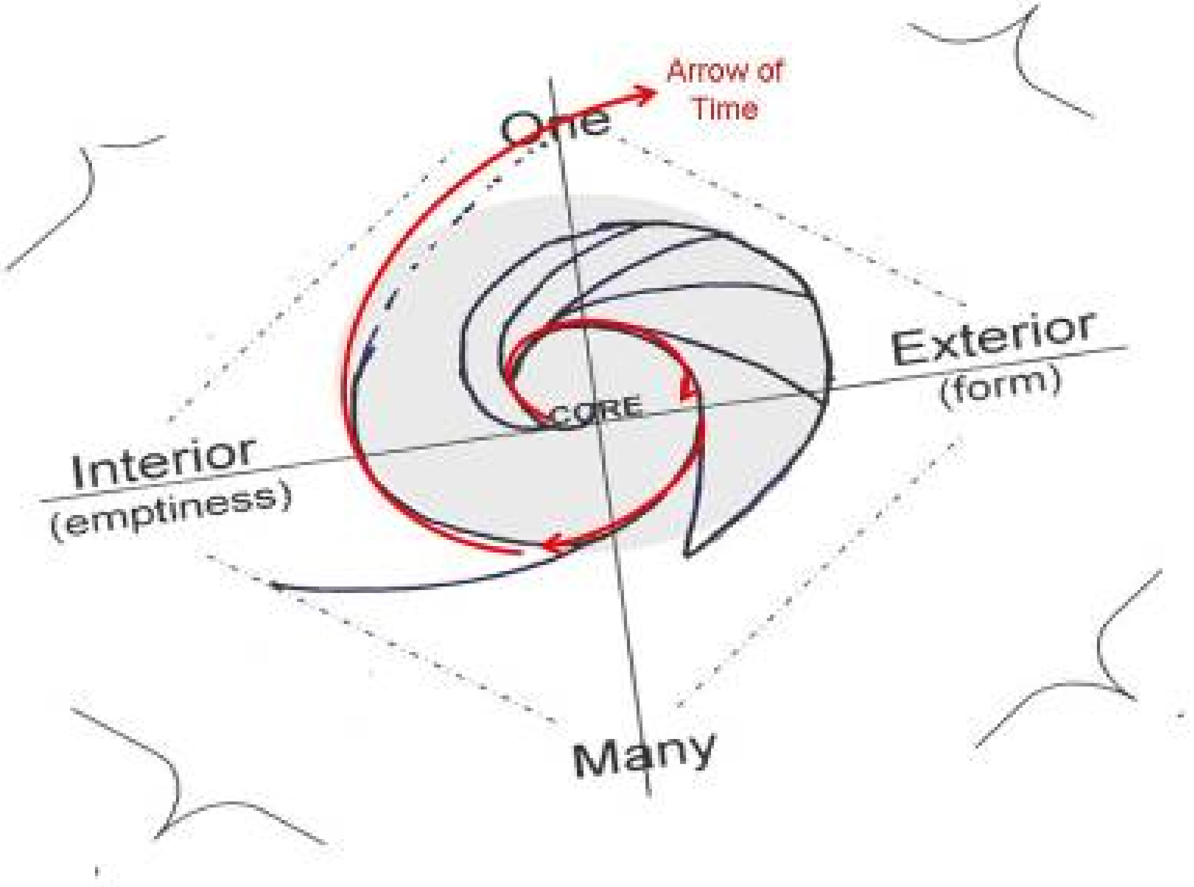
Arrow of Time
One
Exterior
(form)
CORE
Interior
(emptiness)
Many

Figure 7. Structural Enfoldment

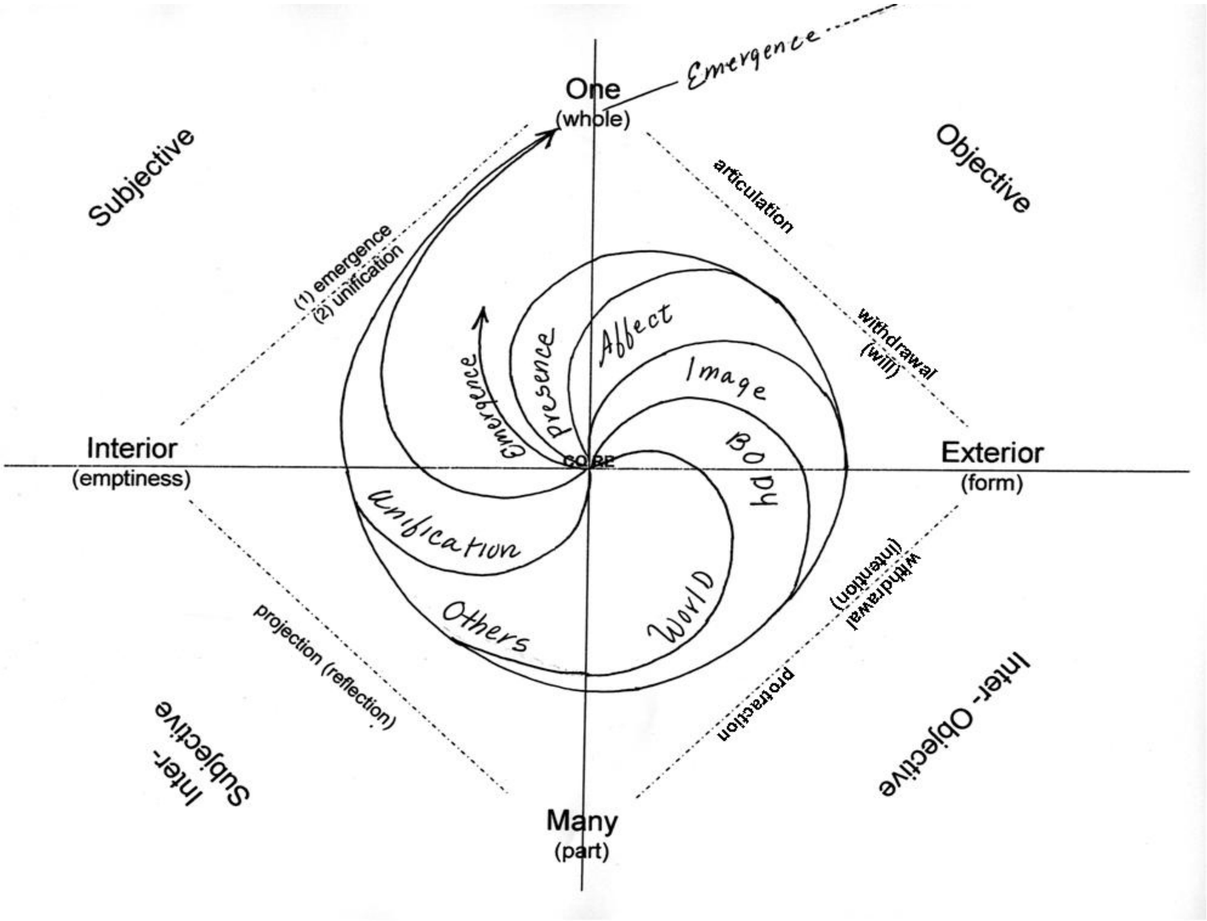
Emergence
One
(whole)
Subjective
Objective
articulation
(1) emergence
(2) unification
withdrawal
(will)
Affect
Presence
Image
Emergence
BODY
Interior
(emptiness)
CORP
Exterior
(form)
Unification
withdrawal
(intention)
Others
World
projection (reflection)
protraction
Inter-
Subjective
Inter - Objective
Many
(part)

Figure 8. Model of Cognition

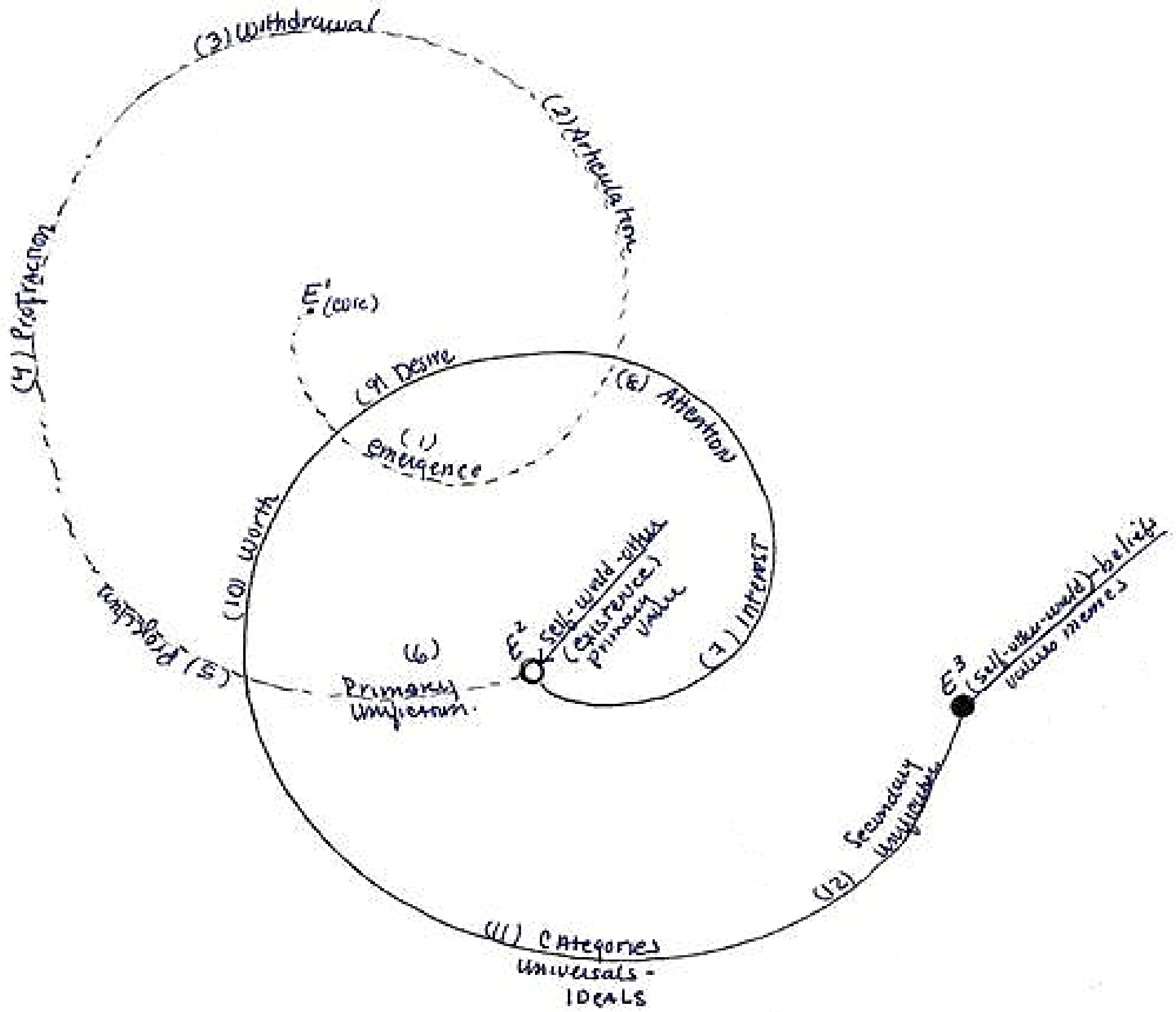
(3) Withdrawal
(2) Articulation
(4) Protraction
E^1 (core)
(9) Desire
(8) Attention
(1) emergence
(10) Worth
self-world-others
(existence)
Primary
value
(7) Interest
Projection (5)
(6)
Primary
Unification.
E^2
E^3
(self-other-world)-beliefs
values memes
(12) Secondary
Unifications
(11) Categories
Universals -
IDeALS

Figure 9. Microgeny of Values

Appendix B:
Guenther Notes

For readers familiar with the work of Herbert Guenther, I have excerpted passages below that contextualize some of the ideas present in the Process Model with respect to corresponding ideas from Guenther's writings. The excerpts below also serve to illustrate Guenther's characteristic style of experimenting with language that could convey pure process thinking.

Footnote 7: Here Guenther (1989) describes the difference between an objectivists' view of process and a pure process view. The objective view starts with discrete objects, describes relations between them, and finally, derives processes to explain those relations. The result is that the processes are prescribed by the objects and then assumed to be the processes that generated the objects in the first place. The Yogacara thinkers created the practice of focusing on directing attention and awareness into the dynamic process—a practice that enabled them to eventually watch the actual creation of objects, and then their relations, in the field of mind/mentation. A pure process view, then, is inimical with the practice of this kind of attention/awareness; for otherwise the view is pre-conditioned and pre-constrained by the very physical or conceptual objects one is attempting to get beneath.

> Objectivists, like other reductionists, are unable to understand the dynamic image of the living individual as it is presented by the Yogacara thinkers through the notion of *yoga*, indicating the process of a person's tuning into the dynamics of life. For the objectivist, nouns, whether they refer to mentation or to a gestalt, … stand for things that are supposed to have properties in and of themselves and stand in relationship to one another independently of any individual's understanding them. However, it is not only the western interpreters of Buddhist thought who started from the objectivists' fallacious premise.
>
> It was the creative approach initiated by the Yogacara thinkers that had the greatest impact on those who came into contact with it. They were not so concerned with the building blocks to which a dynamic system such as mind/mentation might be reduced … . They were mainly concerned with the question of how one could understand oneself in one's psychospiritual development, how one could understand the spiritual way as a process rather than an inert link between two static states. [Thus] the Yogacara thinker's process-oriented view, which emphasizes the human system's process of unfolding, fitted well into the rDzogs-chen view, which emphasizes the system's self-renewal and freedom and expresses a fundamental complementarity in the system's overall dynamics. (pp. 3-4)

Footnote 9: Note the distinction Guenther (1989) makes, below, between earlier versions of mind/mentation which already included dynamic and systemic components, and the new vision of reality. The earlier view considered processes carried on by "discrete atomic entities" and therefore was derived from an atomistic view. The same condition appears in western process philosophy with Whitehead's dominant monad, and Wilber's central agentic nexus. According to Guenther, the later Dzogchen view distinguishes itself as a unitary ongoing process. While both

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systems retain mind/mentation at the center of the individual's life, only the later, process view renders transparent the human being's embeddedness in this operational system.

> The emphasis on mind/mentation, not only as a dynamic factor, but as an operational system, is already present in early Buddhist thought, where it initiated a further probing into the dynamics of the system and paved the way for a new vision of reality and the human being's embeddedness in it. This does not mean that the old model was simply discarded; rather the old model was incorporated into the new one and given a new meaning. With mentation at the center of the individual's life, it was clearly seen that the granular constituents of the overall attitude a person displays toward the world and toward himself were more of the nature of distinct modes of a unitary ongoing process than discrete atomic entities. (p. 2)

Footnote 10: In the following excerpt, Guenther (1984) discloses both the difficulty of languaging the Dzogchen view, as well as his persistent intellectual tenacity for experimenting with language to capture it. His approach is truly extraordinary, since almost all contemporary Buddhist writing, outside of repeating the mythic narratives of the traditions, take a soteriological approach, in which the reader is guided by various "pointing exercises" which are meant to direct the reader to deeper levels of meaning which the text has very little capacity to express. Guenther, on the other hand, attempts to create a text that could disclose "this mystery" through language that could convey the simultaneous interconnectedness of mind/mentation, text, and that which was being "pointed out," namely the operational system, mind/mentation.

> Once one begins to probe the essential insights of this fundamental mystery—as understood by the rDzocgs-chen tradition—one is immediately faced with a seemingly insurmountable obstacle to comprehensibility. We refer to a subtle, pervasive simultaneity of complexity, interconnectedness, and dynamic high-energy processes, which is so alien to any "natural attitudes" that one might well be tempted to give up in despair. … however, we shall have to present the reader with an overall perspective of how this mystery itself is understood to constitute that fundamental, pervasive, unified, holistic process whose highly energized dynamics set up the variety of subprocesses and their associated structures which are so feebly indicated by the term "Reality." In doing so it will be necessary to introduce a number of totality unfamiliar terms, for these name unfamiliar perspectives and insights. Although difficult at first, because the nature of what we are probing is most difficult for thought, it is hoped that mentally moving into this admittedly foreign terrain will become easier as the implications of the interconnections of these new perspectives are drawn out. To aid in this task we will frequently resort to analogies with phenomena and patterns of thought already explored, and hence available, within the Western intellectual traditions of science and philosophy. (p. 3)

Footnote 11: In the following excerpt, Guenther (1984) makes a very subtle but clear distinction between different interpretations of the notion of "das Sein" ("Being"). "Being" for Guenther, (as *gzhi* for the Dzogchen) can never be regarded in itself, cannot be pointed to or pointed out, or even ultimately conceived. Rather "Being" is the open-ing—an ongoing activity, therefore a verb, not a noun. Whereas, for example, "emptiness" is that vast space through which "form" arises, "Being" is the dynamic operation, the "tensioning" of open-ing, through which "emptiness and form" arise apposite.

> Insofar as it [*gzhi*] is the ground and reason for everything, always retaining its thoroughly dynamic character, it is a unified holistic process "responsible" for the variety of structures, things, and experiences that are said to make up Reality, yet it must never be confused nor identified with the variegated nature of that which comes into presence. We will "translate" this most elusive and important term (*gzhi*) as Being, thereby indicating the similarity in philosophical understanding between the rDzogs-chen view of Reality's dynamic holistic *ground* and that of Martin Heidegger's view of Reality's nonreductive, essentially open character termed "das Sein." It is crucial to avoid associating the term Being as we shall use it throughout, with any determinate, isolatable, static essence or thing: indeed, Heidegger named all such associations "ontic" and constantly cautioned against reducing the fundamental dynamics of Being to the ontic. (p. 5)

Footnote 25: There are numerous places in Guenther's works where he writes about the dual character of movement—a sample of which is excerpted below. The Process Model discerns these two movements as the operations in the Epistemological Field on the one hand, and the operations of the Ontological Dimension on the other. The following passage clearly illustrates this correspondence with the subject-object bound consciousness *inside the dichotomic structures* of thought relegated to the one (epistemological), and the transformative experience of open possibility, to the other. Guenther (1989) writes:

> On close inspection, this process [mind/mentation as an operational system] revealed a dual character and movement. The first movement presented a continuous transformation in the direction of what is commonly referred to as "consciousness." It is instrumental in the structuring of one's world experience as it becomes predominantly geared to representational and objectifying thinking. In this manner objects exist for a subject which then "grasps," "manipulates," and "controls" them, In this respect, this renewed emphasis on mentation is not very different from other psychologies of subjective dominance. What is new in this reassessment of the operation of mentation is the recognition that the subject-object structure of thought is an emergent structure *far from being normative for all experience*.
>
> The other movement within mentation presents, as it were, a complete reversal of this trend toward dichotomic thought patterns. Not only is the subject-object structure of thought suspended in this reversal, but the experiencer himself is "changed." He no longer apprehends himself as an isolable entity called "subject" among other entities called "objects," which he has to struggle against and control in a vain attempt to preserve his "splendid isolation." Rather he apprehends himself as a way of being embedded in a life-world of open possibilities. (pp. 2-3)

Footnote 33: It is fascinating to note that, 16 years after Guenther (1984) wrote the following excerpt, Stuart Kaufmann incorporates much the same *view* in his book of theoretical reflections on the nature of the origins of the universe: *Investigations* (2000). In it, Kaufmann hypothesizes a fourth law of thermodynamics, in which spontaneous exergonic (negontropic, or entropy-reducing) and nonspontaneous endergonic (entropic) dynamics are linked into a self-optimizing system.

> Experience-as-such is likened to the cloudless autumn sky, a vast expanse of blue which draws us further and further into infinite realms; its “essence” is self-existent pristine cognitiveness; and its “indication is the lucidity present in the variety of cognitive processes [the former correlating to the ontological, the later to the epistemological—author’s note].
>
> Thus, although we have seen that probing Being’s mystery [i.e., epistemological reasoning] entails moving into rather “alien” terrain, paradoxically this very mystery is always “available” to us [note the aspect of being always already], operating in the all too familiar forms of our cognitive processes. In fact, our cognitive processes are relatively low-level instantiations of Being’s pristine cognitiveness. Yet even such low levels are not present as some finitely fixed amount of pristine cognitiveness. Indeed, as beings endowed with a cognitive capacity, we constitute a special, locally bound nexus, [note: this is the local point of view, or the here-and-now that arises through processes in the epistemological field—as is discussed below], a nodal point on the surface of Being itself, through which the full energy of pristine cognitiveness tends toward optimization … [and is known as] Being’s thrust toward optimization. The thrust itself operates so as to dissipate both locally generated entropy, experienced as the welter of affective disturbances, collectively termed Samsara and locally bound negentropy, experienced as the variety of hypothesized states of bliss and happiness, collectively termed Nirvana. (pp. 9-10)

References

Guenther, H. (1984). *Matrix of Mystery: Scientific and Humanistic Aspects of rDzogs-chen Thought*. London: Shambhala.

Guenther, H. (1989). *From Reductionism to Creativity: rDzogs-chen and the New Sciences of Mind.* Boston: Shambhala.

Appendix C: The Process Model “In Conversation” with Ken Wilber on the Mind-Body Problem

Below is an excerpt taken from Ken Wilber’s online article *Do Critics Misrepresent My Position? A Test Case from a Recent Academic Journal*,[1] dealing with the distinctions he makes within the mind-body problem and his corresponding approaches to resolving them. I have inserted a Process Model interpretation after each section to enable the reader to compare and contrast the two views.

KW: Here are the three different meanings of the mind-body problem that I believe are quite common and that I carefully outline in *Integral Psychology*:

(1) For the average person, "mind" often means my conceptual, willing, and intentional self, and "body" often means my emotions, sensations, felt somatic sense, and so on.

PM: A conventional cognition arises through a process of microgenesis in which “layers” of awareness are laid down in a progressively exteriorizing direction. The deeper interior layers are felt as “mind” and the more exterior articulations as “body.”

KW: (2) For many cognitive scientists and various materialists, "mind" means "brain" and "body" means organism. In this usage, the brain is in the body or in the organism.

PM: Research shows that the deeper layers of the cognitive occasion correspond to activity in the lower, evolutionarily older components of the brain, and progressively more exteriorized cognitions to progressively more recently evolved components, specifically stated:

> The sequence leads from brain stem systems generating a spatial map about the body, to limbic formations elaborating a viewer-centered space of dream hallucination, to a parietal system mediating a three-dimensional object-centered space of (and defined by) the arm’s reach, and finally, through visual cortex, the discrimination of object features and the exteriorization of the object to a position in a world around the viewer. (Brown, 2002, p. 7)[2]

KW: (3) For many philosophers, "mind" means "interiors" and body means "exteriors"—or, in general terms, mind means "subject" and body means "object," so that the mind-body problem ultimately means the relation between subject and object. Explicitly following the great nondual wisdom traditions (such as Vedanta and Vajrayana), I divide this

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[1] http://wilber.shambhala.com/html/misc/critics_02.cfm/

[2] Brown, J. (2002). The Self-Embodying Mind: Process, Brain Dynamics and the Conscious Present. New York: Barrytown/Station Hill.

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meaning into two subdivisions: relative and absolute (as I will explain)—call them 3a and 3b.

PM: "Mind" and "body" are the conceptual correspondents of two regions of the cognitive occasion undergoing transformations in a field of interior-exterior dynamics. The epistemic relations laid down during this process generates a unified "subject" apposite an "object." The ultimate basis of the mind-body problem is more fundamental than at the level of "subject" and "object" —at the level of process operating in a dynamic field of complementary valences. This explains why the great nondual traditions like Dzogchen can argue for a type of awareness that is subject-object-less; because this awareness emerges at the deepest levels of the cognitive occasion, prior to the laying down the epistemic relations that constitute "subject" and "object."

KW: Now, my major point is that all three (or four) of those aspects of the mind-body problem are very important, but each of them has a different "solution," so to speak. … Notice that in each of the three aspects, *both* "mind" and "body" have very different meanings, and I am simply suggesting that we need to be aware of these different meanings.

PM: The major point of the Process Model is that all three (or four) of these aspects can be integrated by a single process view, and therefore resolved in a more straightforward manner, although both "mind" and "body" have very different meanings in discourse.

KW: (1) The first aspect of the mind-body problem is actually something that developmental psychologists have gone a long way toward solving, or at least explaining in a plausible fashion. Those aspects of the mind that we call "conceptual" or "rational"—such as formal operational cognition—and those aspects of the body that we refer to as "impulses" or "felt sensations" or some such, are related in a "transcend and include" fashion. In this particular regard, the mind-body problem is a conflict between two levels in the UL quadrant …

PM: The aspects that developmental psychologists work with depend upon conditions of structural enfoldment, which governs the taxonomic "rules" of whole-part relations in a specific structure-stage direction. The conditions of structural enfoldment arise through dynamics in a field along the one-many valence. The conditions of structural enfoldment that prescribe development in a "transcend and include" fashion are constrained in such a way that lesser parts give rise to greater (more inclusive) wholes. The Process Model suggests that it is equally valid to prescribe development through alternative conditions of structural enfoldment, namely those that are constrained in such a way that greater wholes give rise to (parcellate into) more explicitly articulated parts. In this latter regard, the mind-body problem is not a conflict between levels in a single line, rather a conflict between populations of forms along multiple durations of cognitive occasioning.

KW: (2) For most materialists, of course, the body is not in the mind, the mind is in the body. That is, mind is equated with brain, and since the brain is in the organism (or in the body), then the duality is "solved" by a flatland exclusion of all interiors … [this] is an important aspect of an integral theory of consciousness, because it involves a systematic investigation of the Upper-Right quadrant, including neurophysiology, brain chemistry, neuroscience, and so on. The solution to this aspect is simply more empirical scientific research; I won't say any more about this aspect since it is fairly straightforward in its contours.

PM: Research in cognitive microgenesis supports the theory that both the "mind" and the "body" are generated by a single exteriorizing process, first laying down deeper interior levels felt as "mind," in processes corresponding to lower brain functions, and subsequent more exterior articulations felt as "body" in higher brain functions. The primary conditions of structural enfoldment in this process are such that the body is enfolded in the mind. However, once the cognitive process articulates to subjective unification, the subject supercedes the primary enfoldment, and acts as if it were the fundamental agentic unit. Thereafter, the subject conventionally perceives him/herself as an object in the world, and as a mind inside a body.

KW: (3) Perhaps the most important aspect of the mind-body problem involves the relation of interiors and exteriors, or the relation of subject and object. As indicated, I subdivide this into relative and absolute approaches, based on the nondual traditions (as I will explain in a moment).

PM: The Process Model demonstrates ***that all the aspects of the mind-body problem involve the relation of interiors and exteriors and the conditions of structural enfoldment (which are the relations between wholes and parts)—relations which are more fundamental than and prior to subject and object formulation****.*

KW: In my opinion—the solution to #3a is best handled by a type of Whiteheadian process philosophy,

PM: as in the Process Model's incorporation of Jason Brown's cognitive microgenesis which heavily relies upon Whiteheadian process philosophy

KW: and the solution to #3b is best handled by a type of Zen awakening or satori.

PM: which the Process Model addresses by pointing to the ontological dimension, and the opening of Being through ontological encounter.

KW: … meaning #3b—the transrational or transpersonal aspect of the mind-body problem—which, I suggest, can be solved only by a development of consciousness beyond the rational mind and into the transrational or supramental waves of development (i.e., the final relation of subject and object is fully grasped only in a nondual consciousness).

PM: the final relation of subject and object is fully grasped only outside the epistemological field of perspectives, that is in transrational or transpersonal ways, through an ontological encounter, or ontological view.

KW: What does that actually mean? To begin with, notice that the "Cartesian dualism" that virtually everybody criticizes involves the notion of a mind-subject set apart from, or divorced from, all the body-objects "out there."

PM: "Cartesian dualism," like all dualistic thinking, is generated by dynamic movement in an epistemic field of complementary valences.

KW: The *ultimate* relation of the subject and object is the ultimate meaning of the mind-body problem (i.e., aspect #3b). On the relative or manifest plane, we can "think through" this mind-body problem and arrive at relative solution—namely, a type of Whiteheadian process philosophy. But we cannot "think through" the ultimate solution, because this involves a transformation of consciousness to the nondual state.

PM: Jason Brown's process theory of cognition arrives at a relative solution—one that helps contextualize the structural conditions in various developmental theories of cognition. However, we cannot use any of these theories to ***think through the ultimate solution****, because we cannot reason into the ontological dimension. We can, however, transform our view through an encounter with the ontological dimension of Being—and experience the nonduality of the relative and the ultimate solutions. More specifically, in the ontological dimension we clearly see* ***that the situation of relative and ultimate solutions arises only under epistemic conditions****.*

KW: There is thus a simple "test" for whether I have solved this aspect of the mind-body problem: if I feel that I am on "this side" of my face looking at the world "out there," then I am still held captive by the Cartesian dualism, even if I am thinking nice Whiteheadian thoughts. It is only when there is a profound realization (satori) that I am not merely "in" this particular body-mind looking out on the world, but rather, I am everything that is arising moment to moment—an immediate realization that has no inside and no outside,

PM: A simple test for an ontological awareness is whether there is an implicit interior-exterior or one-many divide anywhere in consciousness. A profound realization is an ontological encounter—a collapsing of and liberation from the dynamics along the epistemic valences. "Body-Mind Drop" is a collapsing of the interior-exterior valence, while the Dzogchen view of Unbounded Wholeness is a collapsing of the one-many valence, where ultimate View and relative view are not two …

KW: …but only an ever-present awareness that is one with all manifestation—that there comes a deep and ultimate understanding of the relation of subject and object—or so claim the great nondual wisdom traditions. That is aspect #3b of the mind-body problem and its solution according to the nondual traditions; and I believe that that is the fourth aspect of the mind-body problem that very much needs to be included in any integral approach.

Appendix D:
Wilber, Whitehead and the Postmodern Condition

In addition to incorporating Whiteheadian process theory into his more recent writings and thought, Ken Wilber has also made important critiques on the inability of Whitehead's process philosophy to incorporate the postmodern emphasis on intersubjective components of subjectivity. In an appendix to his online article *Do Critics Misrepresent My Position*[1] Wilber describes his criticism of Whitehead as "true but partial" and writes of his own thinking as "the move from an incomplete dialogical view to an integral/quadratic formulation," as follows:

> As usual, I am not saying that is wrong; I am suggesting it is very partial. The more I studied the positive aspects of postmodernism, the more I became convinced that in addition to the immediate and monological apprehension of an object by a subject, there were types of knowing and experiencing that, although never leaving a grounding in immediate experience, were so complex and sophisticated—and involved background cultural contexts that never entered awareness as an object that was once subject—that we needed to supplement immediate empirical knowing (or even immediate conceptual knowing) with interpretive, dialogical, paradoxical, ambiguous, intersubjective awareness, an intersubjectivity that is not just a *result* of the interaction between a prehending subject and other prehending subjects, but rather forms the priorly existing space or field in which both subject and object arise, *after which*, the subject then prehends the object in Whiteheadian process terms.

The Process Model takes up Brown's microgenetic theory of cognition, arguably the greatest application of Whiteheadian process philosophy to date, and extends his model so that the cognition occasion includes the establishment of the intersubjective domain prior to the unification of the subject *qua subject* as the imputation of a central agentic self in a self-system.

The subjective self arises from an operation of unification after a series of operations progressively exteriorizing from an aspectless core. The entirety of the self-system process can be seen as a dynamic whole undergoing four undulating phases involving agency, 1) emergence, 2) withdrawal, 3) projection, 4) unification. A primary agentic drive emerges (1) and then begins to withdraw (2) through a process of layering internal-external relations such as affect, image, (object)body and (object)world; after which there is a projection (3) of primary agency into other world-occasioning bodies, constituting the intersubjective domain; only after which there is a primary unification (4) or in eastern terms "imputation" of a subjective self.

Wilber goes on to say, of the limitations of a process approach:

> I am not saying that you can't take a Whiteheadian approach and stretch it to cover strong intersubjectivity; I am saying that it is better to start with intersubjectivity and derive Whiteheadian process as a limited subset of that prior field. In other words, instead of starting with the paradigm of "I see the rock"—which is the apprehension of a Right-Hand object by a Left-Hand subject—let us *start* with a quadratic formulation—which means

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[1] http://wilber.shambhala.com/html/misc/critics_04.cfm

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> that not just subjects and objects (or interiors and exteriors) go all the way down, but *all four quadrants go all the way down*.

While it is true as Wilber states, that both a strong process approach like Whitehead's and an approach that starts with quadrants or domains can derive the intersubjective, Wilber's own statement emphasizes the primacy of a structural view ("let us *start* with a quadratic formation"*)* not a process view. However, his argument as laid out above, does not pertain to the Process Model. His argument is that Whitehead's process view starts with "I see the rock," or with an UL *perspective*. To the extent that Wilber's interpretation of Whitehead's starting point is fair (and there is an entire dissertation in this one remark), then his critique of a monological starting point is true. It is monological to benchmark any one domain in deriving a theory that attempts to contextualize all of consciousness. However, it would be a mistake to make the same assumption about the Process Model. The Process Model doesn't start in the UL or the UR or the LL or the LR—it starts out at a deeper, lower, more fundamental level than the quadratic framework—in the depth and dynamics of *a process view*.

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Editorial

A Growing Community of Inquiry

As we welcome you to the fourth issue of *Integral Review*, we mark the beginning of IR’s third year of publishing a spectrum of academic and other works that—individually and/or taken as a whole—model integral ways of perceiving, thinking, researching, and serving the world we live in. We hope authors and readers are pleased to hear that site visits and article downloads have increased substantially and consistently, particularly over the past six months. We have focused on publishing works that can serve IR's audience as a variety of resources for being critically reflective and effective thought-leaders and change agents—and to inform, support, and challenge readers in new ways. The journey from that beginning two years ago has been rewarding, and today we find a solidly growing community of authors, readers, reviewers and editors contributing to IR’s mission.

Part of this mission has manifested in hosting a series of online dialogues to critically explore selected articles in Issue 3. Over the past four months these dialogues engaged in serious inquiry into the questions raised by the articles they focused on. We thank the authors and participants for their engagement in these forums. Both the content and the process proved to be valuable for learning, and will be the subject of a future report. As with most experiments, these initial ones produced some unexpected highlights as well as some realizations about the challenges and rewards of online dialogues that will inform our next steps.

IR has expanded with the addition of Andrew Campbell as Arts and Creativity editor. Andrew brings a depth of experience with the creative process and fine arts to IR’s editorial board. His regular contributions to the journal continue to invite reflection and exploration of what it means to engage in and be enriched by the creative process.

We are also pleased to see the launch of *AQAL: Journal of Integral Theory and Practice*. The release of four inaugural issues in the first volume has produced a large amount of material on the integral paradigm from the perspective of the AQAL model, enriching the conversation space. Congratulations to Ken Wilber, Sean Esbjorn-Hargens, Matt Rentschler and David Zeitler for their perseverance to bring this journal to fruition.

As part of our goal to foster transdisciplinary discourse and critical public dialogue, IR invites responses to and reviews of articles in a wide range of journals, including AQAL We hope this contributes to cross-fertilizing thought, research, and praxis for healthy change and development in our societies and relations.

On the Contents of Issue 4

We begin this issue with our regular contribution from Andrew Campbell. His *That Matchless Veil of Colour* weaves together insights of the creative process, art and leadership reflected in the intersection of the artistic renderings of Turner and an inquiry into notions of source. The interplay of personal notes, life events, correspondences and quotes with Andrew’s threads of text and well chosen artistic images brings a layered depth to the piece.

Sara Ross contributes a substantial review of Keith Ross’s *Knowing Me, Knowing You: An Integrated SocioPsychology Guide to Personal Fulfillment & Better Relationships.* Her review

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offers a quick synoptic overview of Rice's work followed by a detailed overview of the contents covered. She then goes into an appreciative and critical set of reflections and questions that covers a number of topics that highlight some of the challenges in putting together a work of the scope taken on by Rice.

Keith Rice then responds to Sara's review in a manner that reveals some of the process and context behind the development of his book, and how this process impacted the final product. He discusses the tensions between producing an academic work and something that could be utilized by a broader audience with more of a self-help orientation, as well as addressing Sara's specific concerns with the book.

I then review Bill Joiner and Stephen Joseph's book *Leadership Agility. Five Levels of Mastery for Anticipating and Initiating Change.* My appreciative overview of this book stems from years of study in the field of leadership and my ongoing search for better ways to communicate the critical distinctions that an integral approach can provide.

Next we have a descriptive case study, *Humanity, Forest Ecology, and the Future in a British Columbia Valley: A Case Study* by Stephan Martineau. I have a great appreciation for the story Stephan tells, having lived for twenty years in an adjacent valley with similar challenges. While this story is grounded in the particulars of its own time and place, it also reflects challenges faced anywhere conflicts over resources, rights and values come together in specific issues. I would like to congratulate Stephan and his group for persevering through years of dialogue across diverse interest groups to actually have achieved their first goal of being granted a community forest license.

Following this case study comes *Exploratory Perspectives for an AQAL Model of Generative Dialogue*, Olen Gunnlaugson's piece is an examination of how the AQAL model can offer deeper distinctions to the approach of generative dialogue when it is nested within it. Olen focuses on exploring how Otto Scharmer's description of generative dialogue can be augmented by running it through the filters that AQAL can provide. This produces some useful insights that await application to see how they can contribute to praxis.

Herb Koplowitz offers us a personal yet rigorous reflection on *How I Lost My Mind and Found the Meaning of "Life."* His narrative demonstrates how a moment of insight can open up a new conceptual framework. In this case, the results confront some of our deepest assumptions about life, and offer us an opening into reflecting on our own conceptual frameworks and how they can imprison us.

Transdisciplinarity: Basarab Nicolescu Talks with Russ Volckmann continues Russ' contribution of fascinating interviews that go to the core of issues central to the question of what integral thought can "look like." Nicolescu opens up profound territory in his overview of how transdisciplinarity evolved and differs from interdisciplinary and multidisciplinary approaches to scientific inquiry. Among the many fascinating discussions he goes into levels of reality and how a unity in pluralism exists in his approach.

This is appropriately followed by Zachary Stein's *Modeling the Demands of Interdisciplinarity: Toward a Framework for Evaluating Interdisciplinary Endeavors*. Stein's objective is to contribute to developing a "language of evaluation" that is comprehensive enough to critically analyze the spectrum of "disciplinarities." He examines the complexity involved in such endeavors and offers a developmental science-based taxonomy for evaluation. This is followed by looking at the validity challenges faced. We think he makes a noteworthy contribution to examining individual and group competencies for distinguishing and integrating disciplines, perspectives, and levels-of-analysis.

Finally, we have Gary Hampson's *Integral Re-views Postmodernism: The Way Out Is Through*. This extended-length article tackles the often contentious relationship between postmodernism and perspectives on what it is and does. Gary employs finesse in his theoretical, hermeneutical, and ecological rigor in this project. He offers a depth of analysis and artful choice of approaches that are instructive and illuminating. For example, his analysis challenges assumptions about Derrida and "deconstruction." His work makes a substantial contribution to clarifying this and other common perspectives that—in light of his analyses—appear to be less grounded in reality than is often supposed.

As *Integral Review* continues to pursue its mission though contributions such as the above, I hope that it attracts and inspires a growing community to engage in new thought, research, and praxis through the various forms of participation that we offer.

Sincerely,

JReams

Jonathan Reams,
Editor-in Chief,
Integral Review

That Matchless Veil of Colour

Andrew Campbell

“the key to all of this is love,-”

http://www.dialogonleadership.org/indexPaintings.html
Joseph Jaworski suite, circa 2002
Unknown Artist

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Introduction: Sotto Voce

This essay replaces another that I created.

There is more than *a little sadness* at the events surrounding those “movements” -

They both are far too *complex* to now *lie* before you, the reader.

I quietly go about, re-binding what was broken.

[In a short series of exchanges with an editorial colleague Russ Volckmann, I closed a small collection of “pieces” I’d made for him out of fragments as one, with the following lines, “He asked me what I did, I told him, *I am in the resurrection business.* He blinked and turned away.” It is now open for anyone with inter-*est* to ask Russ how that document, that ended thus, affected him and the *strange reality* that came about shortly after the exchange, concerning the “resurrection” of a friend, Mnr. A.M. de Lange, very shortly after he had apparently *“died” to a community of minds.* Russ may send a “copy” of that document directly, having my *per*-mission, so that “you” can discover how it affects you, *in your turn*.]

What substantially follows begins with some “words” about a river and “Source.” They open Gunnlaugson’s article (in this issue).

Then there are included some ideas of that author’s colleague - set down in small part, so as to make the connections. Again - you will recognise them, from a distance.

(Dear reader, literally as I type the sun rises in my eye - at 6.07 am --)

I am found joining some abiding ideas about “source,” “art,” “leadership,” etc., and it really focuses on a private exchange between Joe Jaworski and I. For that reason alone I have “altered” the private notes a little bit, as we exchanged, because I am deliberately and self consciously assuming I have his *gracious permission* to *draw on his work* as he is mine without expressly asking him for it, rather relying (falling) into the *minor graces* of our shared experiences and expeditions into the sp(l)aces of source and Source, as he falls occasionally and gracefully into mine. So, please accept there are a few changes in our exchanges to the original, for reasons of respect and friendship.

Running alongside this essay’s “main line” is another “branch line” offering a *train of thoughts* which I would like to just mention. It’s an idea from John Seeley Brown at Xerox Parc, concerning “Documents,” which can be described in the same way as imagery, as they also are a powerful *resource* for constructing and negotiating any broadly “social space.”

> The idea of a document as a carrier is a "conduit" metaphor. People talking of information as being "in" books, files, or databases as if it could just as easily be "out" of them and ideas are "down on paper," to "send them along," and so forth. While that captures some aspects it simultaneously hides others (Brown & Duguid, 1995).

The first “opening” image is one that an anonymous (artist) person made during a workshop I led on the topic *Synchronicity* in 2002. It was then incorporated into a suite for Jaworski’s interview with Scharmer. When Joseph saw them in his office he was very happy - and we have been in contact at various times ever since. We share many common inter-ests. This “document” makes reference only to the letter of a few weeks ago which ties in with “local” events at both ends and also an ongoing discourse of light and trees. The work of Rosch is also there, as she has an intuitive feeling for the extremely subtle power of art in this realm.

> **The ultimate source of the Susqehanna River was a kind of meadow in which nothing happened: no cattle, no mysteriously gushing water, merely the slow accumulation of moisture from many unseen sources, the gathering of dew, so to speak, the beginning, the unspectacular congregation of nothingness, the origin of purpose. And where the moisture stood, sharp rays of bright sunlight were reflected back until the whole area seemed golden, and hallowed, as if here Life itself were beginning** (Michener, as quoted in Gunnlaugson, 2007).

Dear Andrew:

Thank you so much for your note of March 26 (2007). I am so distressed that the wood from the heart of the yew has never arrived here at my house. I'm asking ‘P’ to check in and work with you to determine what has happened. I feel badly that you have done so much to get this to me, and for some reason it's never arriving.

On the subject of Source -- this is still at the center of my attention. I'm doing a lot of work in large systems, including organizational systems. I'm looking for the best way to describe Source and the experience of connecting to Source.

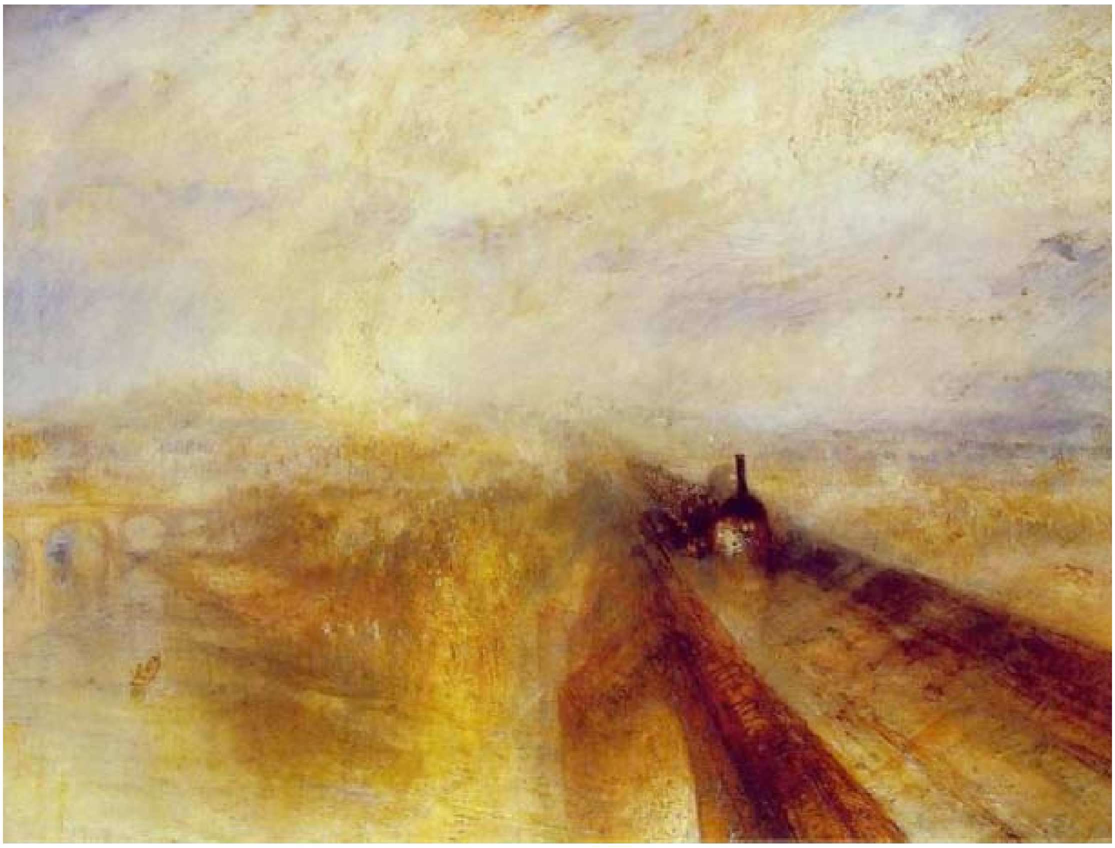
Thank you so much for reminding me of Otto's interview with Eleanor Rosch. I have read a number of Rosch's essays, and I must tell you I agree one hundred percent with you: I have always felt very, very connected to what she is saying. The very first time Otto mentioned her to me, I went and read one of the essays he mentioned and felt it was awesome. I was completely struck by it. She really gets it, and knows how to describe it.

So I can't thank you enough for laying out Rosch's words in your email. I have reread them and will actually use them this week. If you know anything specifically she has written on this, let me know; otherwise, I will just go to the papers that I have and reread them.

Also, thank you so much for your mentioning Van Gogh's Chair. I was deeply touched by what you said there. I completely understand. I completely see.
Thank you.

Love,
Joseph

The Reply



Rain, Steam and Speed - the Great Western Railway, 1844 J.M.W. Turner

Books are not absolutely dead things,
but do contain a potency of life in them to be as active
as that soul whose progeny they are
John Milton, *Areopagitica*

[Dear Joseph]

This week I accompanied to Tate Britain a friend, he happens to have recently been elected a Professor in a Scandinavian university, teaching among other subjects ‘leadership.’ It was the first time he’d experienced historically significant international works of art in a capital City setting.

He/we found among many competent but dull impressions of life and landscape, two small and intense JMW Turner paintings, like the one above. [And from the same late ‘period.’]

As he stood among *all* the paintings he realised that the two Turner images contained the seeds of a deepening, even awakening appreciation, of what we might now describe as, ‘how we find the grace to lead’ - which, reflecting now, may be acts of both an ‘opening’ and a ‘falling.’ And he and I supposed that we do not ‘find grace’ we can only ‘fall into it.’ This is a very different path to the ‘strivings’ of up-hill and down again, characteristic of Sisyphus.

You wrote that you continue to search for “…the best way to describe Source and the experience of connecting to Source.” So, I presuppose to make a connection in that general direction.

> Amongst these (paintings) is a pair which he exhibited in 1826 and 1827. The subject or motif that appealed to Turner: the lawn of a house overlooking the Thames near his riverside home in Twickenham. The theme of the first to be exhibited was early morning, and the view is directed towards the sun which is throwing long shadows across the lawns, on which - the moisture is drying. But then when he came to paint the house in the glow of summer’s evening for the next year’s exhibition he did not, as a later generation of artists would have done, paint from the same angle. He turned his easel round, characteristically once again facing into the sun. (Reynolds, 1969). [Note: This pair is not the pair referred to as earlier viewed in the Tate Britain.]

It will be good, Joseph, if you can print this little image onto some white paper, and keep it with you for a while.

You will maybe see that the image contains effectively two main forces of travel for direction, one is nature’s own and the other is mechanical. - Out from the *field of light* comes the train, the new ‘messenger’ - the [Black] Angel of the 19th century, and way below that hurtling and manifest ‘dark object’ is the river, and upon it a tiny boat. To your left, as you look at the image is ‘upstream’ and to your right is ‘downstream.’ The river is the Thames - a source of inspiration to both Turner and Will’m Blake, alike.

We might reflect how like the train we can become, when we ‘manifest too much’ our ‘intent’ to go upstream and/or even downstream in search of ‘Source.’

Perhaps there is in this imagery, as in nature, an ‘other’ less ‘manifest,’ nearly ‘invisible’ means of ‘carrying meaning’?

This painting fits the description of many others he made, ‘- of nothing and very like.’ [Hazlitt 1816 in Graham Reynolds, Turner, Thames and Hudson, 1969]

I ruminate on the idea that source and its latent capacity is not anything more or less than what Turner ‘placed’ in *his* ‘frames’…

> He directed his interest toward the colour in the visible world, if needs be at the expense of its form. His always present fascination for the immaterial vehicles of colours, steam, smoke, mist helped him to make this choice. So, even in the later ‘finished’ pictures he composes in colour, dissolving, suggesting, and only half defining form… Graham Reynolds, Turner, Thames and Hudson, 1969.

In this way, it seems possible that ‘we’ the viewer and ‘now’ some hundreds of years later, may palpably discern that it is not the ‘elements’ of the picture surface as such that create the vision within us; it is rather that we are ‘opened’ by these creations, and this picture called ‘Rain, Steam and Speed’ there is this - a *case in point*.

It affords us just enough ‘information’ to enter into a new space within it and (our)self, *with-in-held* but undisguised *set- all- about* in its ‘bright shells’ of sfumato[1] and *apparently-lighted-chaos …*

So by degrees it offers the opportunity to become a creator cum artist too - we may continually ‘co-create’ the object anew, as Milton saw of the written object, at every viewing, and that *secures* the subject, which is the point at which we might see how we are ‘like’ the stone bridge, standing in the river in the sky within the air supporting the train both being and not being, thus.

> Finally, with Presencing, my experience is consistent with Wilber’s speculation that “presencing” evokes the “causal state” in as much as Presencing calls upon the spacious and vast causal Bodymind. Here participants begin to experientially make contact with the threshold of emergence, which gives rise to manifest thoughts, ideas, and intuitions that begin to crystallize in our awareness (Scharmer, Dialogonleadership.org, 2004).

This is perhaps an aspect about this particular painting, I mean its way of conveying ‘information’ and potential for ‘meaning’ and scope too for increasing our ‘capacity’?

Turner affords us just enough ‘spaciousness’ for a slip(ping glimpse) or a fall into a *aesthetic kind of grace*, a new understanding of how we manifest ‘awareness,’ bringing, as Senge says it somewhere, *the background for a moment into the foreground* or perhaps as Michelangelo wrote it, “How else am I to ascend to heaven except through the contemplation of beautiful things.”

This then becomes spoken and written as, *awareness-manifesting-us*. In a very literal way, the image has a ‘ground’ and in that ‘ground’ we may project an element of a deeper intent.

We have the opportunity (there is an affordance) to become alive, to live in(to), the image, so increasing our real participation in its own ‘wholeness.’ This is a ‘whole bridge’ between past, present and future - being and becoming, liveness.

In the context of your questions I will quote below from an upcoming paper written with the afore mentioned academic colleague, which is in a large part about ‘wholeness.’

> …In the context of the impressions, images, concepts, feelings and memories that the first iteration has evoked. Simply note what arises, as it is all aspects of ever-present-wholeness. Allow all that arises to flow effortlessly through the stream of awareness, as they require no work on your part. There is no need, indeed no possibility to “figure it out,” or have it all fall into place within some epistemological order” (Reams & Roy, 2007).

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[1] Sfumato is the Italian term for a painting technique which overlays translucent layers of colour to create perceptions of depth, volume and form. en.wikipedia.org/wiki/**Sfumato**

Which passage I think fits and evokes this painting’s largest inner purpose. As does this, some time later in the same paper,

> “Who I am” reflects an ever-present-wholeness in that it is not about “realms beyond” or “something new,” but rather about a transformation of view. There is no way to point to a casual explanation for the occurrence of these views in any traditional sense. For both Starratt and Saunders, the events leading to these extraordinary states of grace, and the very “things” that played their parts, were themselves quite ordinary – a boy, a barn, a fence and its posts; a carnation, sky and ice, a scarf and a pony. For both Starratt and Saunders, the ordinary became extraordinary, because their way of seeing was transformed. Their way of seeing had to become whole for the wholeness that is ever-present to reveal itself in the normal and natural; for the place of grace, that “secret place,” is “where we have always been,” in the normal and the natural. We just need a new way of peering into the normal and the natural. We need a new kind of view (Reams & Roy, 2007).

This sense of a surrendering to involvement of an aesthetic experience of wholeness is echoed in a passage from Turner’s life, in an epic painting with an equally epic title: *Snowstorm - steam-boat off a harbour’s mouth making signals on shallow wate*r*, and going by the lead* has the impact of total immediacy about it. The title continues: *the author was in this storm on the night the Ariel left Harwich* and he was mightily indignant that someone told him that his mother had been through a similar experience and understood what he was getting at. He said,

> I did not paint it to be *understood*, but I wished to show what a scene was like: I got the sailors to lash me to the mast to observe it; I was lashed for four hours, and I did not expect to escape, but felt bound to record it, if I did. But no one had any right to *like* the picture (Reynolds, 1969).

What I read and understand here, now, is that the image *Rain, Steam and Speed* reproduced above is a special “space,” a space of both doing and knowing in some important relational measure, some “Golden proportion” that requires some (in)action of the spectator—that both may bring each other forth, as the one reveals itself to the other, and that other to another is a potentially endless series of recursions, so that we no longer know if the source that is secured in and of this vision is in the viewer or in the object of his or her view or both.

There is a thought or saying; that the thoughts of a genuine mystic can become so intense that they may become actual physical form. Whether they become living form is another thing.

Seeley Brown’s (1995) thinking is re-inserted here to the original document for Joseph, now partially surrounding us,

> New technologies take us through major transformations in the way we use ‘documents.’ We need to see the way ‘documents’ have served not simply to write, but also to ***underwrite*** social interactions; not simply to communicate, but also to coordinate social practices. In particular, new media like the Internet has allowed small or emerging communities to form, though their members were often few, and those few spread over large distances. Consequently, as never before, scattered groups of people unknown to one another, rarely living in contiguous areas, and sometimes never seeing another member, have nonetheless been able to form robust social worlds, some disintegrate; some of those

> might all along have been more imaginary than either real or virtual. Anderson calls the resulting community an "imagined" one. This is no slight. An imagined community is quite distinct from an imaginary community. It is one whose members "will never know most of their fellow members, meet them, or even hear of them, yet in the minds of each exists *the image of their communion* (Brown & Duguid, 1995).

My “thought” is that should a Source become such a form, a living thing, it would manifest itself as eternally recurrent cycling, like a field of grass in the morning, bending and swaying in a breeze - wherein light and water may rise and fall, rise and fall, rise and fall.

A vision: of the single raindrop standing still in the tumult of the storm that we are and at the center of all attention.

“We just need a new way of peering into the normal and the natural. We need a new kind of view.”

> *The ultimate source of the Susqehanna River was a kind of meadow in which nothing happened: no cattle, no mysteriously gushing water, merely the slow accumulation of moisture from many unseen sources, the gathering of dew, so to speak, the beginning, the unspectacular congregation of nothingness, the origin of purpose. And where the moisture stood, sharp rays of bright sunlight were reflected back until the whole area seemed golden, and hallowed, as if here Life itself were beginning.* -- Michener

For Joseph,
Love,

Andrew Campbell: May 2007

Endnotes --

London can be a cold and grey City and the Thames itself can be, at one end, like the Susqehanna River and at the other a sewer - and such a grey muddy creature was the *old father* when we saw those Turners.

My corporeal companion on that cold and wet day a few weeks ago was in the *company* of many more than he knew - or may ever now know.

A friend of Turner’s near the end of his life asked him where he was spending most of his time and Turner replied, “You must not ask me.”

In Cheyne Walk, not far from us as we walked down to Millbank, there lay, quite still now, a small, fragile and yet ferocious (Spirit)(man) -- who carried within himself the endlessly rolling tear in the endlessly rolling storm of Nature’s Creationing -- Which man would wrest from God by twisting his arm? (Self and Mnr. AM de Lange, Private conversation, late May - Post Resurrection ;-)

> The doctor who was present at his death, on 19th December 1852 wrote, “Just before 9.00 am the sun burst forth and shone directly on him with a brilliancy which he loved to gaze on. He died without a groan.... (Reynolds, 1969).

(Dear reader, the sun has just retreated, it is 07.20 am)

All of you

Older than you know:

> I once made a copy of a Michelangelo ink drawing of his great female 'love' Vitoria Colonna.in 1976 at the Ashmolean Museum, Oxford. I made it on a green handmade paper and underneath I set by my hand in red ink, by a typographic method what he had exclaimed in writing a *document,*
>
> "Vorrei voler, Signor, quel chio no voglio,
> Tra 'l foco e 'l cor ghiaccio un vel asconde,
> Che ' l foco ammerza ; onde non correspone
> La penna all'opra, e fa burgiardo 'l foglio..."
>
> I would will, My Lord, what I do not will.
> Between the fire and the ice cold heart a veil is interposed,
> which the fire absorbs; meanwhile what I write
> does not correspond to what I do, and makes a lie of this page...

It is for you all now to find *the source* of that.

Dear reader, **I am finished**, it is 08.26 am.

...An Angel once imparted to me that “art” is to know the right part and measure of any disclosure of what is otherwise hidden, and when to disclose it. So, it is both about time and space. Turner’s titles were “epic.” and were essays or disclosure in themselves; he will teach you much—even in this tiny reproduction. When you see-saw ;-) this Turner, in all its yellow, and the yellowness of the Jaworski image you will be moved and surprised. Why? Because these are the signs of true and deep emergences at the edges of what At calls “the ragged rising vortex.”

I dedicate this to all small children

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Book Review

Knowing Me, Knowing You: An Integrated SocioPsychology Guide to Personal Fulfillment & Better Relationships.

Keith E. Rice. 2006. Victoria, BC: Trafford.

Reviewed by Sara Ross

Keith Rice's book offers 337 pages packed with information and opportunities for reflection. The premise of the work is that "by aligning and integrating previously uncoordinated works of reliable science, [it] provides the means to understand the causes of personal and interpersonal problems." From the understanding so gained, the reader "can then determine the best means of dealing with the issues." Following from that, the purpose of the book is to help readers (a) understand why they and others are the way they are, (b) surmise what they might be able to do if they do not like things the way they are, and (c) develop strategies to have more fulfilling life experiences and relationships.

Rice has ambitious expectations for the reception, perceptions, and outcomes of his first book. Asserting that "This book will change Your Life!!!!" (p. 1), he aims to enable the reader to "have a greater appreciation of the sheer diversity in both your own thoughts and motivations and those of others with whom you have relationships" (p. 5) and aims to "align and integrate the behavioural sciences" (p. 5). He begins with stating his intent to provide an "overarching 'approach' – a *meta-approach,* if you will – to incorporate and align all the other 'approaches'" and use "all the elements of the behavioural sciences and complementary hard sciences" to explain psychology and "group dynamics and the influence of cultures and the societies people live in" (p. 2). A concluding claim is "with the information provided in this book, there can be no more excuses for repeated failures. Now, we must hone our understanding to be ever more precise in the design of our interventions, strategies, and therapies" (pp. 336-337). This review sketches how he executes his agenda, and offers both appreciative and critical reflections on it.

Reporting on the Book

Fittingly, the first of the book's two parts—*Knowing Me*—is dedicated to taking the reader on an exploration of self and the "selves" of the self. The second part—*Knowing You*—covers a range of topics from conflict, to gender, to relationships of the romantic, the parent-child, and the workplace. Each part closes with a section on "troubleshooting."

The first two sections of *Knowing Me* aim to disrupt readers' assumptions about the nature of the "self" and its changeability. Rice introduces Susan Blackmore's concept of "selfplex" as a confluence of memes, and reports her contention that beyond existing as biological machines, what people perceive as "self" is a "mind of physiologically-embedded concepts" (p. 17). With the introduction of the meaning of *memes* as ideas or concepts that individuals consolidate into various schemas that shape their behaviors and beliefs, Rice invites readers to make choices about discarding the schemas that have undesirable roles in their lives.

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Next, Rice introduces the ideas of temperament and personality, using an axis to represent Jung's introversion-extroversion spectrum, then Eysenck's addition of two more axes: one to indicate the stable-unstable spectrum and another, the spectrum of impulse control-psychoticism. Sprinkled in for additional context, Rice includes a few mentions of biological research related to various dimensions of temperament. He provides Eysenck's Personality MiniTest, a fill-in questionnaire for readers' self assessment. Rice offers readers the following advice as the section closes: despite what you may hear from others, there are some aspects of temperament that cannot be "fixed." Readers are encouraged in this section, and others, to internalize that there are some physiological bases of human behavior and a quality of *more or less-ness* with some kinds of individual change, e.g., basic temperament.

The next four sections introduce readers to Self as Identity and identity's place in Robert Dilt's "neurological levels" lineup. Dilts' framework is referred to in various parts of the book to unify dimensions Rice introduces. From environment at its base, the sequence goes to behavior, then skills and knowledge, then values and beliefs, then to identity. Spirituality is at the apex and Rice periodically brings spirituality into the discussion to explain to readers why he does not include spirituality in his overall work. From Dilts, Rice introduces Graves' work popularized as Spiral Dynamics, using much the same kind of language as Beck and Cowan's book, *Spiral Dynamics*. He offers a table for the theoretically inclined, which compares Graves/Spiral Dynamics levels with other stage theories. Another table illustrates how the Graves/Spiral Dynamics levels "sound" in adult thinking about domains of work, home, personal relationship, children, friends, and community.

Five more sections in Part One develop the concept of life conditions' interactions with identity and values/beliefs, the role of memetics, and dynamics of change, including the Spiral Dynamics *gamma trap*. In applying Graves' core concept of life conditions, Rice highlights the concept's dynamism by relating it to Bandura's concept of *reciprocal determinism*. Rice's effort can aid those who want to learn how to think about interactive dynamics of behaviors and social and other environmental constraints. The idea of the multiple "selves" and vMemes (schema in the larger culture) represented by Spiral Dynamics levels is used to introduce origins and nature of memetic conflict. Along the way, Rice brings back into the equation more discussion of temperaments and spectrums and their relation to memetic considerations and more on psychopathology.

By the 13th section, Rice has foundations laid sufficiently to take readers through several models to integrate psycho-logics involved in self-talk, or "Meta-Stating." Such self-talk is a gestalt of confluent factors. They may include the schema with which a person operates, whether a temperamental disposition, psychopathology, environmental interactions and/or circumstances lead a person to attribute causation to self-doing or "out there," and the perennial role of vMemetic factors.

Part One closes with Rice's troubleshooting advice for understanding and coping with stress and related movements across the spectrums he introduced throughout the journey. His *13 Tips for Your Psychological Health* summarize key points in Part One.

Rice introduces Part Two by citing its emphasis on the dynamics in relationships and "how you can influence those who impact upon your Life Conditions," with an acknowledgement that "where you can most influence others is in the Life Conditions their vMEMES will interact with" (p. 193, emphasis in the original). To span its terrain, Part Two introduces additional models, some from Neuro-Linguistic Programming (NLP), some for self-assessments, and some to integrate additional insights from brain research. It, too, dedicates many pages to introducing

Spiral Dynamics' offerings for understanding conflicts, including translating Maslow's hierarchy of needs as the outcomes desired by memetic activity. Along the way, as in Part One, psychological theory is sprinkled in discussions (e.g, Eyesenck's work, Reactive Attachment Disorder).

After its introductory sections, Part Two applies and adds to the concepts introduced throughout the book to discuss gender issues including biological influences, man-woman relationship issues, and child-parent, school, and workplace relationships. These sections are largely constructed with Spiral Dynamics interpretations and recommendations for interactions with others. The Part Two "troubleshooting" finale includes *21 Tips for Managing Relationship Disharmony* which like its Part One counterpart is a summary of key points and advice from Part Two.

Rice's conclusion expresses the hope that as a reader worked through the book's "extensive body of knowledge" that s/he will have "calibrated yourself, others you interact with and the relationships you have with them" (p. 335). On the assumption that clinical psychologists, psychiatrists, and therapists of many kinds will be among his readership, he delivers stern advice:

> You work with some of the most vulnerable people in society but many of the assumptions about human nature your disciplines have worked with in the past are revealed now to be flawed. Please – *please!* – use the knowledge and understanding provided through *Integrated SocioPsychology* to apply your skills and expertise with greater precision (p. 337).

To readers at large, he advises: "you now have great knowledge: use it wisely to make a positive difference both for yourselves and for others" (p. 337).

Keith Rice has high expectations for the impacts of this book upon his readers and how they will employ them. He has supplied a concentrated span of Spiral Dynamics applications, in book form, to a practical range of domains of life domains. He has integrated those dynamics with other psycho-logics to help readers have a fuller understanding of how they and others behave. He includes a page of web-based resources for readers to pursue referenced work in more depth.

Appreciative and Critical Reflections, and Questions

There is much in this book to appreciate from various perspectives. Rice attempts to supply a reader with enough information and examples to begin to understand himself or herself as a dynamic system; a system of different personality tendencies and "selves" or value systems; a system rooted in biological, neurological, and life-conditioned "hard wiring" and variances. For readers who notice these dynamics going on within them, there is a further benefit. Rice's discussions and examples in Part Two pave the way to internalize how systems interact. Taken as a whole, the book could help people develop metasystematic understandings in at least interpersonal domains. These would be worthwhile developmental contributions.

At the same time, it seems that Rice may assume that reading about others' models and selected scientific facts are essential paths to self-knowledge. For some or many readers, such "out there" tidbits may not serve the quest for "in here" knowledge of self (or others). Yet, for those who track with Rice's presentation, this book could help them understand a human being as a system in which many shifting and interactive dimensions are active. Such understanding could support *experiencing* one's own existence as a system. Such experience precedes capacities to notice, reflect on, and begin to make sense of self-complexity. A book that performs such a service deserves praise. His examples may help readers begin to understand “self as system,” a vital part of the journey to multi-perspectival living.

I believe Rice provides a useful introduction to Clare Graves’ conception of value systems and how they show up in relation to life conditions. The presentation seems likely to enable readers to recognize that neither they nor any human being “is” a value system. This means Rice’s readers may be unlikely to label people (as in, “she’s Blue,” “he’s Orange,” “they’re Green”) based on levels of the colorful spiral that is used in popular versions of Graves’ work.

Another service performed by some of the examples is bringing to life the Gravesian concept of interacting with “life conditions,” by applying the concept, not just referring to it. He provides many examples that bring the concept to life, in real-life interactions. It is worth iterating the point made earlier: Rice’s effort can aid those who want to learn how to think about interactive dynamics of behaviors and social and other environmental constraints. Without such thinking, as is often reflected when people talk “in colors,” Graves’ genius in understanding the complex evolution of human behaviors can remain untapped, and Spiral Dynamics-related applications can be shallow, if not harmful.

The positive services performed by Rice’s book seem to be accompanied by some biases, contradictions, confusions, and incomplete efforts to accomplish the aimed-for integration. Some of these are theoretical issues, some of these are developmental issues, and some are a combination of the two. Some are issues that could impact readers and/or their associates in unhelpful ways. These latter are results of the former, and it seems important to mention them here and to raise larger questions that they may imply.

Heterosexual Bias

Alongside its aim to have biology and neuroscience help to integrate the psychological and the social, the book reflects a curious, unnecessary, and unnecessarily consistent, heterosexual bias. Rice does not anywhere in his examination of relationship issues acknowledge or address homosexual relationships. Such a bias is particularly striking, given the sciences the work draws from. This is not raised here as an issue of political correctness. Rather, I suggest the issue is one of (a) putting balanced science at the service of readers and (b) advocating for integral awareness of multiple perspectives and life experiences without blindness to their existence. The failure to acknowledge non-heterosexual experience anywhere in this book while presuming heterosexuality throughout it gives this reader the impression of an implicit bias in the author. *How might integrating perspective-taking with knowledge from the soft and hard sciences help to transform such biases where they exist?*

Other People as Objects

Despite its aim to support better relationships, periodically the book takes an approach that treats other human beings as objects. Such stances are unlikely to support healthy relationship-building. For example: “So now you know what you want from your relationships, how do you tell the other person(s)? . . . [The other person may have] a different vMEMETIC set-up than the memes we’re attempting to infect them with” (p. 219). When I am in a relationship, I tell my partner what I want in our relationship and he does likewise. Such sharings are essential reciprocal exchanges that inform our co-creative efforts to build the relationship and mutual understanding. They would run aground rapidly if either of us were trying to “infect” the other with wanting what we want the other to want. *How might we live into an integral notion of the Golden Rule where relationships are* co-constructed with *others, not* done to *others?*

Simplism of "Infection"

As the foregoing quotation suggests and evident in the book's discussions of them, the concepts of memes and v-memes can be conducive to mechanistic, reductionistic, and/or atomistic applications. These concepts can make the dimensions underlying complex personal, interpersonal, and socio-cultural dynamics seem like "things" that we can label, see, and manipulate. That is not the case. After all, if it were that easy to change such dynamics by infecting others with "things" like memes to make them change, our relationships—and the world—could be free of misunderstandings and conflict already! Mindsets behind such approaches can support manipulating objects, but humans are not objects. The concepts can quickly obliterate the dynamic reciprocal interactions (and their role in development) that Graves' original work illuminated and that Rice promotes. *What might the study and application of Graves' work accomplish (and how might it support integration more generally) if Beck & Cowan's insertion of memetics were detached from it?*

Confusion About Human Development

The book reflects some confusion about human development—what it *means* that Gravesian systems "emerge in symbiotic interaction with the Life Conditions in the Environment" (p. 189). As the excerpts below indicate, this could be like a roller coaster of contradictions for some readers. It could lead to harmful expectations of self and others. The confusion mirrors much of the Spiral Dynamics-related discourse when some say "the entire Spiral is already within" and some say its double-helix dynamics are about persons' gradually maturing development (levels of existence) depending on their contexts (life conditions). Rice adds to the confusion with his interpretation of Beck's "various postings" to the Spiral Dynamics-integral list serve: "Beck . . . does imply that there is a maturational factor in the emergence of vMEMES. He has not said explicitly that vMEMES are programmed to emerge in sequence as someone develops through life, irrespective of the Life Conditions; but the implications are inescapable" (p. 189). His subsequent sorting effort does not resolve the confusions. *How might a community of the interested reach a point of committing to a sustained inquiry where such confusions are unpacked, understood, coordinated, and growth-full to resolve?* Confusing contradictions about the nature of human development run through such examples as the following.

> If the Life Conditions predicate ORANGE thinking, then don't be surprised if there's not much TURQUOISE around (p. 99). As indicated by the assignation of Kohlberg's [stage] 4.5 to Erikson's *Peer Relationships* stage, we would hope that ORANGE would be starting to emerge in the thinking of most young people by their mid-teens. Realistically we know that this is far from being the case. However, that doesn't mean you won't find ORANGE and vMEMES beyond in a secondary school classroom. The reality is that we could take a class of middling ability 15-year-olds and discover all the vMEMES were active – even YELLOW, possibly even TURQUOISE (p. 312)!

> Don't beat your head against a brick wall trying to get someone to become something they can't be or are not ready to be. For example, it's completely unreasonable to expect GREEN thinking from somebody who's never climbed the Spiral beyond RED (p. 329).
>
> Sometimes 2nd Order Revolution can be so powerful it appears we can go up the Spiral by two or more vMEMES almost instantaneously. This is termed 'Quantum Leap' (p. 121). As discussed in Chapter 9, transitions between vMEMES can be near instantaneous. However, in many instances the process can take some considerable time.... (p. 150).
>
> So, the BIG QUESTION: can you self-actualise to YELLOW thinking – or are you trapped in 1st Tier worldviews (p. 97)? If you're not happy with the way things are, can you go meta – self-actualise from YELLOW thinking – to look beyond your own reactions to the Life Conditions (p. 106)? Of course, if you have 2nd Tier vMEMES activated in your psyche, then temperament may not be much of an issue, anyway (p. 139)!

Rice does not tell his readers how he defines the universe of the behavioural sciences. He certainly mentions a number of "elements of the behavioural sciences," but certainly not the "all" that he claims. His grandiose claims sprinkled throughout the book may challenge readers' patience if they are not taken as true. Nonetheless, the work does indicate that he is making valuable connections among models and premises. For readers who can take it all in, his correlation of multiple models could lead to integrated insights about human functioning.

Conclusion

Despite the weaknesses noted here, I believe the book has noteworthy potential benefits to its readers. Some pearls of great price in the book include the discussions and illustrations of systems of relations, e.g., the feedback loops of particular individual behaviors on another, the roles of environment and structure, and the multiple "selves" within one human being. These and other points that Rice makes could enrich ongoing dialogue in a community of the interested. That, in turn, could support and inform Rice's noble efforts. It would support his plea that we must not go on repeating our failures in relationships, politics, law enforcement, business, education, and armed forces' commands. Perhaps it would even encourage more widespread efforts to build and integrate knowledge—of self, of others, and of the social worlds we co-construct and share.

A Reply to Ross

Keith E. Rice

Well, I had to start somewhere…! My Response to Ross

Sara Ross' review is a pretty fair summation of *Knowing Me, Knowing You*.

For all its lofty ambitions and grandiose aims, it is a flawed book. And the principal flaw lies more or less in its genesis.

I set out to outline a structure for what I conceive as *Integrated SocioPsychology* – the aligning and integration of all the different (and differing!) fields in the behavioural sciences. It was a culmination of some eight years' work of mapping various fields in Psychology initially to the Graves Model (popularised as *Spiral Dynamics*) and how that played out through Robert Dilts' *Neurological Levels* and influenced the process of meta-stating (as modelled by Michael Hall). Later, when I came (via my work as a part-time therapist) to deal with biologically-influenced temperament, I used Hans Eysenck's *Dimensions of Temperament* to describe those factors and found, via the work of William Moulton Marston, that they could be linked to certain of the vMEMES *Spiral Dynamics* talks about.

It was intended to be a serious scientific work, capable of standing up to the most rigorous academic scrutiny. Thus, because the social sciences are messy – one of the principal reasons for derision from the "hard science" people! – I was cautious in my presuppositions and assumptions, careful to delineate between validated theory and postulation on my part and I referenced as much as I could. (Hence, the large number of footnotes!) On that basis it was necessarily reductionistic. Spirituality was sidelined to avoid distraction from the focus on what could pass as "scientific."

What became *Knowing Me, Knowing You* was to be a beginning of sorts, a step in the process of developing *Integrated SocioPsychology*. A process to which I hoped others would contribute. Thus, I took the decision not to trademark 'Integrated SocioPsychology' and gave an open invitation on www.integratedsociopsychology.net for interested parties to submit articles, case studies, etc, which would fit broadly within the concept.

From an academic work to a self-help book?

Somewhere along the way I was persuaded to frame it as a self-help book on the grounds that it would widen its commercial appeal considerably.

So large parts of the book were rewritten and a self-help frame imposed on the structure. Much more anecdotal and case study material was introduced and some tools for designing therapeutic strategies were provided.

This partial change in direction created a fundamental flaw which resulted in the elements of confusion Sara describes in her review.

The flaw lies in the dichotomy between given certainties – which I have to provide as a therapist – and the mess of uncertainties – which I have to explore in my other role as a teacher

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of academic Psychology. People coming to me for counselling & therapy want “answers” – certainties which will indeed change their lives. They don’t want to know that Freud thought this, Graves concluded that, Don Beck hinted at the other, Aaron Beck wouldn’t hear of it and maybe, just maybe, the resolution might lie in the work of Kohlberg. (Oh, and by the way, Blackmore’s convinced “soul” is just a memeplex but Wilber’s got a lot of structure in his circumstantial evidence for the affect of “spirit”!)

Thus, *Knowing Me, Knowing You* is fundamentally flawed in its dichotomy between offering self-help certainties and its efforts to resolve a broad-based theoretical approach centred on linking Graves-Eysenk-Dilts.

Initial reaction was mixed, to say the least. Many of the “self-helpers” who tried it found it way too scientific. While I’ve found academics (by and large!) are far too “important” to be seen offering serious consideration to a mere “self-help” book. For a while, I determined to abandon *Knowing Me, Knowing You* and demerge its dichotomy into a “real” self-help book, shorn of most of the science, and a university level text book.

That will still happen – along with a manual for therapists – but more recently I’ve found there is a niche of readership for whom *Knowing Me, Knowing You* really works. They’re high cognitive processors capable of dealing with paradox and uncertainty – arguably 2nd Tier thinkers! – but who either want to address issues in their own lives or want to understand/help others with issues in their lives.

Consequently, I’m still promoting the book and will return to it in perhaps five-six years’ time to update it. There are a number of assertions in it which are made very tentatively indeed, for fear of falling foul of the academic process. I hope that by the time I come to revise it, I’ll have the evidence to make those assertions in a much stronger manner.

1st Tier thinking, 2nd Tier thinking and biases

One area which should be addressed in a revision would be the so-called “gay issue.”. As Sara rightly points out, there is a heterosexual bias throughout *Knowing Me, Knowing You*.

Why? Well, until Sara kindly sent me a preview of her review, it simply hadn’t occurred to me! How ever much homosexuality is no longer considered abnormal by most definitions of “psychological abnormality.” with most recent surveys (e.g., Australia/Canada/USA, all 2003) indicating the number of openly-practicing gay men and lesbians to be very substantially less than the mythical Kinsey figure of 10% of the general population (i.e., between approximately 0.5% and 5%) it is still abnormal statistically. So I’ll excuse my ignorance on the grounds that its relevance didn’t occur to me.

However, for that small figure, for the probably much larger figure of people who try it and abandon it or only engage that way occasionally or are that way in their orientation but don’t come “out” openly, and for the very much larger number of people (friends, family, work colleagues, etc.) who are affected by such orientations in sexuality, it undoubtedly is highly relevant. And Sara is right that a book which purports to change the way we view ourselves and our relationships should take homosexuality into account.

Besides which it would be fascinating to map the work of Letitia Anne Peplau, Celia Kitzinger and other groundbreaking researchers into gay and lesbian relationships into the structure of motivation and relationship dynamics which *Integrated SocioPsychology* explores.

One possible "jumping-off" point for such an exploration might be p. 259 where "maleness" and "femaleness" – Jung's *animus* and *anima* – are considered as poles on a sliding scale rather than biologically-determined absolutes.

Another of Sara's criticisms I take to heart – but possibly not in the way she intends! – is the one of objectification of the other person(s) in a relationship as something (some things?) you do something to. She contrasts this approach with the Integral notion of co-constructing relationships.

Where 2nd Tier thinking predominates in a relationship, then con-construction – what I call *Collaboration* – should be the method of managing difference between partners. However, where 1st Tier thinking is around – particularly below GREEN in the Spiral hierarchy – then people will tend to "do" to others, to infect them (or try to!) with their memes. RED, the most obvious example, has no interest in co-construction/Collaboration. It wants simply to dominate the other(s)!

However, someone whose thinking is led by RED is unlikely to get very far with reading *Knowing Me, Knowing You*! Readers are much more likely to be led by GREEN-plus in their thinking and, therefore, more likely to favour co-creation/Collaboration in their own approach to relationships. Nevertheless, they need to identify, appreciate and have strategies for dealing with people whose approaches to relationships may be very different to their own. I believe *Knowing Me, Knowing You* provides substantial assistance with this.

Because it is written ostensibly as a self-help book for anybody and everybody with reasonable intelligence, *Knowing Me, Knowing You* does not speak as clearly or directly as it could to its natural readership of GREEN-plus thinking. This again is a result of the dichotomy in its aims and a source of the confusion Sara finds in parts of it.

In conclusion…

Knowing Me, Knowing You is a flawed book but I had to start somewhere in my efforts to develop a truly integrated approach to the behavioural sciences. I don't know that, if I were at the starting point again with the insights I have now, I would mix self-help certainties with scientific exploration and postulation.

Having said that, I do think *Knowing Me, Knowing You,* as Sara has indicated, is a very valuable step forward in the direction of aligning and integrating the behavioural sciences. And it does work as a self-help book for 2nd Tier thinking which can handle the elements of paradox and uncertainty the book leaves hanging for further exploration.

Constructive criticism is helpful in honing and refining a work. I will certainly take forward Sara's points (and those others offer) into the eventual update of *Knowing Me, Knowing You*.

In the meantime, I believe it's one hell of a starting point! I hope it gives us some new key points of reference and that others will join with me in developing and expanding the framework.

My thanks to Sara for her many words of encouragement and to Jonathan Reams for the opportunity to present these views here.

Book Review

Leadership Agility.
Five Levels of Mastery for Anticipating and Initiating Change.

Bill Joiner & Stephen Josephs. 2007. San Francisco: Jossey-Bass

Reviewed by Jonathan Reams

There it is, right on the first page of the introduction in big letters – "An Integral Approach." For those of us who have been engaged in learning about and trying to make use of the integral paradigm for a while this phrase can be loaded with expectations. Will this book make it into the mainstream of the field (leadership development) or will the integral message be marginalized and relegated to a few devotees? Will it stay true to our particular conception of integral, or will it frame integral in its own way? These and a host of other questions could arise from reading through the beginning of Joiner and Josephs' book.

For me, an added allure of the book is that it is in my field of study, leadership. Being familiar with many of the challenges present in attempting to bring new and useful distinctions to the discourse in the field, I was curious to see if Joiner and Josephs could do something beyond what was already present in the literature. I was also curious to see if they could communicate an integral approach to leadership development in a clear and accessible way.

On almost all accounts, I found that the authors succeeded in meeting the challenge. Their book is clearly written, well organized, and full of useful stories that illustrate the distinctions they make. It is the distinctions they make and how they organize them that make the book work so well. The structure they provide guides the reader through the five levels of mastery they delineate in a way that makes very clear how each level grows from the previous ones. The big question introduced at the beginning is, Is the approach integral? My view is yes, and this review intends to show why, as well as point to a couple of weaker areas.

What they say

To begin, one of the ever-present issues I encounter when providing authors feedback on their submissions is the need for more context setting. Situating the readers is critical if you wish to have them on the same page with you as you take them on the journey you wish to describe. Joiner and Josephs do this very well. Their introduction clearly sets the stage for what is to come by framing the approach they take, describing some of the journey they took to get there, and being explicit about how to make best use of the sections of the book. They lay out how they see an integral approach by saying that they approach the stages or levels of leadership agility development from both the outside in and the inside out. The outside in involves skill development, focused on three areas: pivotal conversations, team initiatives and organizational initiatives. The inside out involves mental and emotional capacities that enable the above mentioned skills to develop. With these simple distinctions they define the integral territory they will cover.

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Then, in part one they define and illustrate the core competency of leadership agility upon which they base the book. This first pass through the territory does three key things. First, it situates leadership agility in the context of the ever-increasing complexity of the situations leaders encounter in organizations. It briefly describes the five levels of leadership agility; expert, achiever, catalyst, co-creator and synergist. Second, they tell one story, about Ed, a composite character who responds to a situation in five different ways, each illustrating one of the levels of leadership agility. Third, they lay out four core competencies that further define leadership agility. The four are: context-setting agility, stakeholder agility, creative agility, and self-leadership agility. Two capacities comprise each core competency. For context setting agility, they are situational awareness and sense of purpose. For stakeholder agility, they are stakeholder understanding and power style. For creative agility, they are connective awareness and reflective judgment. For self-leadership agility, they are self-awareness and developmental motivation. Finally, they show how each level is undergirded by awareness and intent.

The second part of the book devotes one full chapter to each of the five levels of leadership agility. This is the meat of the book, where the authors go into depth to show the nuances, differences and distinctions present at each level. Each chapter uses three or more case studies to illustrate the various aspects of leadership agility at each level. Each chapter is structured in a similar manner, showing what leadership means to people operating at that level, how they perform in the three areas of pivotal conversations, team leadership and organizational leadership. Then they go into how these cases illustrate the eight capacities forming the four competencies at each level.

The third section of the book discusses how to apply all of this in becoming a more agile leader. A chapter on assessing leadership agility is followed by one on developing it. This is initially done through a set of answers to frequently asked questions about their model, then shifts to describing aspects of growing into a new level of agility, straddling between two levels, and issues of downshifting. They briefly describe to individual readers how to assess their own current level; an example helps to illustrate how to do this. The second chapter in this section discusses how readers might set developmental goals, both within their current level of agility and in developing a new level. This is illustrated by weaving a story through the discussion, which focuses on the power of reflective action. It closes with an analysis of how this story relates to the levels of awareness and intent at the core of the process, and a further story of the power of attentional practice.

Kudos and questions

I was quite impressed with the ability of Joiner and Josephs to so clearly communicate the often-times challenging complexities of understanding developmental stages. I have come to appreciate the ability to make distinctions. There are many to make, and ones that sometimes matter most are often those that are the hardest to convey. Joiner and Josephs make clear and easy work of it. I believe this competency is one of the chief gifts of the book and one that will make the book particularly useful to its readers.

The manner in which they tease out how the different levels function has a simple clarity to it that comes only from long experience. This shows up in the seamless integration of a coherent organizational structure of the contents, in the presentations of the various aspects of leadership agility, in the selection and explication of core competencies, and in the way the stories bring the distinctions to life. I came away thinking that readers' chief benefit may be in not needing to sift through unnecessary verbiage, or possess prior subject knowledge to mine the gems in this book. All of these factors lead me to judge thehe book's approach to be integral in presentation, content and organization—all without reliance upon jargon or any particular model's terminology.

A minor point triggered my attention as I read through the book, and one deeper concern arose. The minor point arose in relation to their claim about Jim Collin's level five leadership. In their very first footnote, they make a distinction between Collins use of the term "level five leader" and their use of level five leadership, saying that their analysis shows it to be only at their achiever level. On page 77, they point to how a leader using achiever level agility was a level five leader in Collin's terms. I am going on second hand knowledge here, but it felt to me that Joiner and Joseph's analysis might have devalued Collin's work in this area (and I regret not having the time to check into this).

A larger issue for me was the third section of the book. After being very pleased with the way the first two sections did their jobs, I expected to find similar clarity and structure to facilitate my self-assessment and development of leadership agility in the third section. The further I read in its two chapters, the more I came away feeling that I was much more left on my own to sort things out. I began to wonder how other readers might sort out their self-assessment from the answers to frequently asked questions and the stories that comprised the bulk of that chapter. The next one on developing leadership agility left me feeling much the same.

Upon reflection, I wonder if here, at the stage where so much energy and effort had gone into creating a clearly communicated and well-structured set of distinctions in the previous sections, the authors could not find an equally elegant way to address the even more complex and thorny question of how to guide a reader through a self-assessment. While I could sort out things for myself, I recognized that previous familiarity with these models gave me an advantage that many readers might not have. From this third section, I came away with the critique that Joiner and Josephs had not mustered the same accessible clarity achieved in the first sections of the book. The work's only weakness seems to be in helping others apply it for themselves.

In the end, I did not feel that this gap in the last section detracted enough from the book to dampen my enthusiasm for what the authors have managed to accomplish. This book can provide leaders and those who wish to be leaders with tremendous tools to enhance and grow in their agility as leaders.

Humanity, Forest Ecology, and the Future in a British Columbia Valley: A Case Study

Stephan Martineau

Abstract: One of the most important and challenging issues facing humanity in the 21st century is the increasingly complex human-ecology interface. This article suggests the potential that integral mediation and integral ecology hold in addressing this interface. It distinguishes two categories of ecological challenges, *removed* and *local tangible* ones, and indicates that they require adapting methodologies to address them. Using a local tangible challenge—a 35-year old conflict over land use issues in the Slocan Valley, British Columbia, Canada—as an example, an integral mediation approach is outlined. First, context is given, both historically and geographically. Then the main capacities employed in the vision-building and mediation process are outlined. The article presents the case in such a way as to emphasize some generalizations, favoring these over a presentation of many case details. It concludes with a brief description of perspectives that are prerequisites in order to successfully apply integral solutions to the human-ecology interface.

Keywords: human-ecology interface, integral ecology, integral mediation

Introduction

A deep breath in, and out. I looked up at the forested mountainside that I could see so well from our front deck, and finally admitted it to myself: this was not going to work. I had spent the last eight years trying to protect this beautiful landscape—a watershed that provided us with the purest of waters—from road building and clearcut logging. From the steep and fragile slopes ran water that could be savored straight from the creeks. Kneeling down to drink its sweet freshness had sustained me many a time, renewing my commitment to do everything I could to help protect it and thereby also the Life in its myriad forms being nourished by it.

The last year had been spent organizing an international conference aimed at raising awareness for the essential importance and fragility of water. This effort had tried to bring all sides to understand that what we still had in terms of water resources was indeed very precious and that it was possible to protect it, while also acknowledging and meeting the varied needs of very diverse populations. The conference was called FLOW: an acronym for both "For Love Of Water" and "For Love of Our Work." A wide-ranging group of 45 speakers and over 350 delegates had come together for what turned out to be a great success from the conference-circuit perspective, leaving participants with a high level of inspiration, new knowledge, and maybe most importantly, connection and networking.

But there was hardly a show from the logging faction of the equation; their absence spoke of failure from my perspective. A true solution would be one that all sub-cultures of our society could embrace and support. In addition to the continued lack of presence from the logging community at this and other related events, I was also becoming increasingly aware of the self-

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centered relationship to life some key environmental organizations often held at their core. The altruism presented to the world was just part of the picture. Beneath the albeit sincere, outer façade hid an alarming competitive spirit of self-preservation that led to ongoing backbiting amongst the organizations themselves as well as between influential players within these groups. I was dismayed to witness a level of animosity between people who actually believed in the same cause that repeatedly resulted in sabotage of great efforts and ideas from within and amongst the environmental groups themselves.

Wow, the mountain was indeed literally steep, and although the integral vistas that could be seen from the top were so clear and majestic, the way there seemed very elusive. As the breath escaped my lungs, tears came to my eyes. I had a contract with this forest, a promise made that included health and wholeness. The year was 2000, the future uncertain.

The environmental challenges we face as a human family standing at the beginning of this new millennium are more complex than ever before. With the advent of the communication revolution over the last 100 years, and the increasing speed at which information now travels, the spectrum of consciousness we span has widened considerably, and this not just on a global scale, but also region by region. Our needs, values, and perspectives are now often hard to reconcile within our own blood families, let alone our bioregions, countries, or continents. Life conditions are changing at an exponential speed creating a climate in which stress and knee-jerk reactions are accepted as the norm. Our political environment is stuck in shortsightedness, averaging a four-year look ahead, when what we increasingly need are 100- and 200-year perspectives. We are indeed living in interesting times, and to navigate them requires a wider and more comprehensive map.

Over the last 40 years our ecological awareness has increased, but along with it so has everything else: our population numbers, consumption levels, deforestation, pollution, and resource depletion, to name just a few of the current environmental challenges. The environmental movement that seemed to be on the upsurge in the 1980s/90s has not succeeded in achieving the level of change it originally aspired to and was driven toward. Why? My sense is that the complexity of the terrain came as a surprise to most. Once we understood the dire present ecological situation, let alone the bleak predictions for our planetary future, we thought environmental sanity was just plain common sense. However, we soon realized that we human beings are an integral part of any ecological solution, and that we are complex beings, to say the least. It was difficult for those of us convinced of a need for greater ecological sensitivity and action stemming from this increased awareness to marry our ideals with our daily lives. In addition to our own challenges of “walking the talk,” we also tripped up over other limitations such as emotional issues, our often narrow perspectives, and our inability to truly come together and work with like-minded people, let alone other-minded individuals with very different perspectives and worldviews. With the immensity of the challenges staring us in the face, many tried to forget what they once so strongly believed in, adapting their worldviews and related life styles to the imperfection of the situation at hand. Others became radicals, boldly and at times loudly embodying their ideas to an extreme, with little regard for others. Yet others became professional activists, working on environmental issues as full-time jobs, applying steady and sustained effort to issues that were often determined by what their organization (employer) could get funding for.

The obstacles and bumps in the road toward a more just, sane and ecologically aware world were harder to overcome than anticipated, and they are still being felt. Human consciousness and our ability to understand it, both in ourselves and in others, lies at the root of our capacity to navigate the environmental issues of the 21st century. And, as mentioned above, these ecological challenges have not decreased over the last 40 years; indeed, they have grown in both scope and level of complexity.

In this article I attempt to demonstrate a way forward and also take a brief look back in order to highlight some of the mistakes that we have made in our efforts toward increasing our levels of responsibility and awareness in relation to the fragile earth that we inhabit. I will use as a case study my experience in environmental activism in the Slocan Valley of British Columbia, Canada.

Integral Ecology

When dealing with any ecological problem we are basically dealing with human beings and their relationship with the natural environment. We—the human species—are the main cause of most present-day environmental problems, and it is therefore essential that we consider ourselves as a central part of any proposed solution in order to encourage its successful implementation.

As we attempt first to understand a problem, and then to figure out possible solutions, we must navigate amongst and appreciate many differing value systems, worldviews, priorities, preferences, habits, needs, fears, reservations, even differing cultural norms, and exterior structural and societal limitations. Given the complexity of one human being, bringing together a group of individuals, possibly even a whole bioregion, province/state or country to agree on a course of action can indeed appear to be extraordinary, if not entirely impossible. And yet, unless we take into consideration *all* that a human being is as an individual and *all* human collectives, an environmental solution, however sound it may be on paper, will fall short of “sticking,” of getting implemented, and achieving any real change.

An integral approach to the human-ecology interface offers a way forward in the midst of all this complexity. This approach honors and integrates all the various values and perspectives. It understands that all of these have something important to say and to contribute. And of course, in order to do this, we need to acknowledge the complexity of individuals and communities, as well as of any given environmental situation. In addition, understanding that it takes more than one individual, worldview, or knowledge base to apprehend the full picture as we endeavor to find solutions, we come to realize that each perspective actually holds some aspect of what needs to be considered in a solution that can be embraced by all. In other words, each perspective holds a jewel. Often this jewel is limited in some way, but it still remains an important part of the way onward and forward. Thus, bringing multiple perspectives together is the challenge, but also the opportunity.

While I have been explicitly informed by an integral framework, my inclusion of this in the case study I describe below has been much more implicit in my work with the core group that has become the Slocan Integral Forestry Cooperative (SIFCo), not all of whom had heard of such an approach beforehand. Some of the core group have since become interested and have learned more about the integral approach. Others have simply been open to it as I have facilitated the group and have worked from a stance of attempting to take into consideration as many facets of the situation as possible: interior *and* exterior realities; individual *and* collective dimensions; how our consciousness and our understanding of the world and ourselves changes and evolves; the past, present and the future; and the many aspects of human nature: body, mind, soul and spirit.

It has been my experience that it is only by using an integral approach that a diverse and divergent collective can come to resolution, a vision, and an action plan forward. Anything less will fall short of solving our present prevailing ecological predicament: actions are becoming less and less optional, and vision alone will solve nothing.

Two Types of Environmental Challenges

We can classify the environmental challenges that we face today into two categories. Each one requires a slightly different approach.

The first category is *removed* challenges. These encompass ecological situations that we are facing indirectly due to their location and/or scale. Examples of this type of environmental challenge are global warming, the protection of ecological and wildlife values in non-human zones, international water exportation agreements, and CFC released into the atmosphere. Because of the magnitude or removed location of these challenges, they are more likely to be viewed impersonally: some individuals will be ambivalent in relation to the problem, others will have no clear opinion, and a very few will have a strong emotional and cognitive response associated with the issue at hand, as well as a sense that they can perhaps make a difference. These kinds of environmental challenges are generally dealt with at policy, political, and organizational levels.

The other category is *local tangible* challenges that affect everyday citizens directly; for example: expropriation of private land for road construction or high voltage electrical lines, displacement of villages in a proposed flood zone by hydroelectric dams, or a polluting industry that moves into a neighborhood. A distinguishing trait of this category is that pretty much every citizen within an affected area will have an opinion that is influenced by strong emotional and cognitive reactions to the issue at hand. An ecological problem within this category is experienced as a very personal issue by most, and dealt with at the communal, personal and local levels. With this type of ecological problem, people generally feel that they have at least a chance to affect change.

The remainder of this paper focuses on the application of an integral approach to a local tangible challenge[1] that affects everyday citizens: the long-standing controversy around forest management in the domestic use watersheds of the Slocan Valley in British Columbia, Canada.

Slocan Valley Forestry – A Case Study

Background

Over the last several decades, the Slocan Valley has become known in British Columbia as a place where the local communities take tremendous interest in the forests and watersheds that surround them. The vast majority of local residents' domestic water supplies come directly from small creeks that tumble down the forested mountain slopes and fragile springs arising from hidden aquifers. These are sensitive water sources on which the local population is dependent for both irrigation and domestic needs. For the last 35 years, competing demands have been placed on the landscape by divergent interests: domestic water licensees, forest workers, forestry companies, outdoor enthusiasts, farmers, First Nations, and the government. The result has been tense relationships, to say the least. After 15 years of dedicated grassroot effort to come up with an alternative to the proposed and planned areas for logging cuts, in 1991 the logging industry, backed by government, began to build roads and log clearcuts in people's watersheds. Protests and ensuing arrests in the valley due to conflicting interests sadly became commonplace. Over the last 15 years, and as recently as 2004, over 120 individuals have been arrested, standing for what they believed to be a just cause: water and ecosystem protection. While arrestees paid personally for taking a stand, the community has paid with social divisions and a sense that the economic future is tenuous. Many tax dollars have been spent for very little return, and the situation is yet to be resolved.

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[1] While making a distinction between *removed* and *local tangible* ecological issues is very helpful, many of the findings discussed in the following on how to work with local challenges can be translated and adapted to working with the removed type of environmental problem.

The Geography – providing a sense of place

The Slocan Valley is a long (over 120 km) and narrow valley consisting of approximately 840,000 acres of land and water. It is situated in the West Kootenay region of Southeastern British Columbia. The rugged Selkirk and Purcell mountains provide a spectacular backdrop for the Slocan Lake at the north end of the valley and the Slocan River that meanders through the south. The high elevation terrain of the steep and broken valley walls is home to alpine meadows, glaciers, and rocky peaks. This combination of forested mountain slopes, high elevation peaks and meadows, all crowning the lake and river, provide stunning natural beauty.

Approximately 6,000 people inhabit the Slocan Valley. They share this land with a wide range of animal species, including grizzlies, black bears, deer, elk, wolverine, mountain caribou, coyotes, lynx, mountain goats, cougars, and bobcats. The Slocan Valley is part of what is known as the only Interior Temperate Rain Forest in the world. The "continental" climate is usually warm and sunny in the summer, and overcast and below freezing in the winter. Average annual precipitation ranges from 30 to 70 inches.

The Population: who came to be here, and when

Historically speaking, the Slocan Valley was first used by First Nations people of whom a small but very active band, the Sinixt, still calls the valley it home. The mining boom of 1890 marked the arrival of early settlers coming mainly from western USA, a hard-working group of people. Many of their descendents still reside in the valley and are associated with one form or another of resource extraction.

Economic activities associated with mining led to the development of roads, ferries, and railways, opening transportation routes for pioneer homesteaders in the early 1900s. These early pioneer homesteaders were mainly of Doukhobor descent. The Doukhobors (meaning Spirit Wrestlers) were a group of Russian peasants who escaped persecution in Russia in 1899. At that time, Leo Tolstoy and his colleagues, the Society of Friends (The Quakers), helped 8,000 of them immigrate to Canada. The persecution in Russia had begun four years before, when at Easter time Doukhobor conscripts, called to serve in the army, laid down their weapons and refused to continue military training, stating that they could not continue participating in the taking of human life. The Doukhobors are Christians; they base their philosophy on two commandments: "Recognize and love God—the spiritual force of Goodness and Creativity—with all thy heart, mind and soul" and "Love thy neighbor as thyself." For over 60 years the

Doukhobors maintained an established communal lifestyle in the Slocan Valley and surrounding areas. This led the Encyclopedia Britannica (1960 edition) to describe them as: "…when living up to the standard of their faith, they present one of the nearest approaches to the realization of the Christian ideal which has ever been attained." In the 1960s external pressures brought an end to their communal life style. Today only about 20% of the Slocan Valley population is of Doukhobor descent. Many of the descendants have joined the resource extraction faction of the valley. The elders are avid gardeners. They still administer their own playschools, youth groups, publications, Russian language classes, community and cultural centers, and heritage sites. They meet regularly for prayer services, spiritual meetings, and cultural festivals.

In the early 1940s, following the Japanese attack on Pearl Harbor, both the United States and Canada relocated people of Japanese descent to what became known as internment camps. Essentially, these people became civilian prisoners of war, even if most of them were already citizens of one of these two countries. Of the 23,000 interned in Canada, 7,500 were sent to the Slocan Valley and placed in six different internment camps. Today, a small number of these so-called "ex-prisoners" and their descendents still live in the Slocan Valley.

In the late 1960s the next major wave of immigration occurred when young migrants, this time from the United States, discovered the Slocan Valley. American men were being drafted as soldiers for the war in Vietnam, and Canada provided a safe haven to avoid the draft and to establish a peaceful existence working with the land. Hundreds upon hundreds traveled north and discovered the Slocan Valley. A colorful array of communes sprung up. Alternative schools were built, food coops and community halls established, most beaches became clothing-optional, and the green plant started growing everywhere. These newcomers talked gender equality, free love, racial equality, and consensus decision-making. Environmental organizations were born. The then-emerging green movement had moved in, and this was the beginning of a 35-year long period of unease and conflict between this new wave of people and the long-established resource extraction faction of the community. A significant percentage of the present population arrived during this time, and many of their children have chosen to stay upon reaching adulthood.

In 1978, another event was to shape the future of the community: a forest company, Slocan Forest Products (SFP), was started up in the Slocan Valley. Until that point, the resource extraction faction of the community had been fairly diversified, and many small saw mills were spread out along the valley. None of these would survive the advent of SFP. Later, this company became the biggest forest product corporation in British Columbia, and in 2004, SFP merged with Canadian Forest Product (CANFOR) to create a new international giant.

In the early 1990s, the last significant wave of migration started and has continued to this day. A new era of "counter culture" individuals arrived, a group deeply established in "green" ecological consciousness, many equipped with higher education and a determined enthusiasm and motivation to do things differently. Among their distinguishing characteristics is a strong interest in a more spiritual life with a committed emphasis on "walking the talk." Vegetarianism, meditation, yoga, raw food, cleansing, voluntary simplicity, organic gardening, artistic expression, creative livelihood, activism, and leisure would become their main activities. They were joined by a growing number of "urban refugees" and semi-retired professionals, many of whom are well educated and financially independent.

This diverse assembly of individuals makes up the Slocan Valley of today, a small group of people (about 6,000) spanning an extremely wide spectrum of perspectives and preferences. Add to this mix a multi-national corporation whose main mandate is the growth of its shares' value on the open market, and a government that in British Columbia is heavily financed by the forest industry, and an interesting situation is a sure result.

The Challenge

The Forest Crisis

In order to fully grasp the situation in the Slocan Valley, one needs to understand something about the land base in British Columbia. The following is a short synopsis.

In British Columbia (BC) 95% of the land base falls under what is called "Crown Land" or in common terminology "public land." The other 5% is private land. Of the 95% public land, 12% is provincial parks. Such parks are protected land. Beyond these, most of the remaining public land is available for timber extraction. How did this come about? In 1865 the government of the day passed a land ordinance making it possible for government to grant rights to timber on public land to private interests without the government losing title to the land. By 1907, government had already granted the rights to timber to private interests on over 20 million acres of land. By the 1940s, the harvest rate of trees in BC had tripled, and the private companies holding the rights to these millions of acres of land had reached the limit of available timber supplies. So the timber industry needed access to more Crown Land. The government of the time got a little nervous about the prospect of future timber shortage, yet did not want to lose the investments made by these big corporations. Thus, in 1947 it decided to amend the Forest Act and to introduce the concept of "Sustained Yield Forestry."

Two very important things came out of the new amendment to the Forest Act: (a) long-term exclusive forest management licenses (later to be named Tree Farm Licenses—TFLs), and (b) regulation of harvest rates. In other words, companies were given additional large parcels of land to manage with a harvest rate set by the government.

Today, two forms of tenure—*area-based Tree Farm* Licenses, and *volume-based forest* licenses—account for over 85% of the volume of timber cut on Crown lands in BC. Almost all area-based TFLs in existence today were granted before 1966, while the volume-based forest licenses were introduced in 1978, the year the Forest Act of 1947 was amended. The latter differ from the TFLs in that government gives these lands to companies, and companies have to cut a certain amount of wood from them every year. Government then gets a stumpage fee from each tree cut. By combining both the TFLs and the volume-based forest licenses, it is evident that fewer than 20 companies control 70% of the volume of timber cut in BC each year.

The Slocan Valley has a Tree Farm License that covers 24% of the land base; the volume-based forest licenses cover another 45% of the land; 24% is provincial parks (double the 12% provincial average for parks); and 5 % is in private lands. In other words, 98% of the land is spoken for; close to 70% is forested land and slated to be cut at some point in the future.

So What's the Problem?

Imagine moving north to Canada, escaping the draft for the Vietnam war, and finding a wild area, scarcely populated and with lots of cheap land available. You are hundreds of miles away from a big metropolitan center, surrounded by clean creeks, rivers and lakes, with four months of sunshine in the summers, and mild winters: a paradise where all your dreams can come true!? All those dreams born in the Berkeley cafes and on the LA beaches... Hundreds of you congregate there, with ideas, visions, and ideals aplenty. The first summer is the best; everyone swims in the river, talks late into the night, and dreams of a new world just about to be created.

Then the deciduous trees and larches begin to turn yellow, the evenings become chilly, and the reality starts to dawn on you that life and the dreams you hold have a few things in between: work being one, personal growth another, and creativity probably the most important. Many relationships go sour, the warmth of the city begins to beckon. Most will leave. But some stay, drawing upon a creativity and dedication they might not have known existed. They build their homes and learn a variety of new skills: growing their own food, building with logs, and slowly getting established. The water line gets hooked up, a one-inch pipeline is buried two feet under the ground so that it won't freeze in the winter; sometimes the lines run thousands of feet, all the way to the closest creek that runs down the forested mountain sides. There, right by the creek, a water box is built to receive the fresh running water; attached to it is the water line, and that's it! The elevation difference between the box and the house creates your water pressure. You turn the tap on in your newly constructed house, and pure creek water flows out. You fill a glass, taste the water, and your life changes… The creek now flows through your veins. The creek water will slowly become 70% of your physical makeup, the average water content of a human body. The effect of this is hard to measure, but it is indeed for many the beginning of a love story. A love story between a people and the water that runs down the mountainside.

Each spring and fall you go to your water box to clean it up, emptying it and removing the sediment that has accumulated at the bottom of the box during the last six months. Back home for a drink of fresh water, the floating sediment you had noticed for the last few weeks in your water is gone. Deep contentment.

And then, one day, it happens. George, your neighbor, calls. He sounds very concerned. He has just gone to check his water box, and half the box is full of sediment. When he turned the tap on at home the water was brown. What is going on? The only way to find out is to walk uphill, following the creek. About two kilometers later you find the cause: A new 160-acre clearcut, with a logging road that has just washed away into the creek. This is sacrilege, this is the end of the world, outrage fills you: "How dare anyone destroy this fragile and faithful creek? This will never happen again! This is my newly found passion: Water is life, I am alive, never again, OVER MY DEAD BODY!" The year is 1972.

And that's only one side of a multi-sided problem. Check out this reality: You grew up here, have spent every day of your childhood roaming the fields, forests and valleys. Your great grandparents first made this their home, immigrating from Sweden in 1894. The stories of their settling, clearing the land, the many mosquitoes, the hard work, discovering the bountiful riches of this land: wildlife for hunting, silver and ore for mining, huge cedar trees for building, salmon and a wide array of fish right there at the tip of their fingers for fishing… all these and many more anecdotes were woven into the stories told to your grandparents, your parents and yourself. You feel embedded in a continuous stream: your family and this land belong together. You love this place, and feel lucky to be here. It is home. You belong here. The few times you have ventured to the city only confirmed this. You are uncomfortable there, out of place, feel pity for those who live and work in stuffy closed-in spaces, who can't call their home their own. Here you step out of your house each morning, look over your pasture and garden, notice a few jobs that need taking care of around the yard and get ready for another day's work of logging. You love working outside, the fresh smell of a newly cut cedar tree filling the air, the noise of your chain saw doesn't bother you, it is familiar. Holding it firmly in your hands as you skillfully clear one tree after the other, you enjoy the sense of power and strength it gives you. You are a hard worker, and the guys at the mill respect you. However, it is not always an easy existence; in many ways it is a tough life. Money is often scarce; and although you yourself don't have a mortgage, you see many of your buddies struggling to make their monthly payments. And then there is increasing talk at the mill of possible closure due to lack of wood. You used to be able to go out and clearcut close to the home in the neighboring side valleys, now you often have a 20-30 km drive to just get to your work site. The valley has changed so much with all kinds of new people arriving. The stream of hippies who arrived in the 70s has been replaced with other waves of newcomers, many who seem to hold similar values as the former group, but are not as obviously "outlandish" – some even have short hair (!). They are fiercely protective of the water running down the mountain slopes and will do pretty much anything to stop you and your buddies from getting in there to do your job. Once in a while they pique your curiosity. Mostly they irritate you, sometimes downright enrage you… with their arrogance, with their very literal way of getting in your way by holding blockades. Who are these people? They pose a threat: to your kids, your job, and most of all YOUR WAY OF LIFE! They speak of logging practices that are "sustainable for future generations," of scientific evidence, and that you have no feelings for the trees. And your response? "What's the problem? I am 4th generation here and there is still plenty of wood! Besides, if I stopped logging, how would I survive? You guys just hang out and protest. Get a job and stop complaining." The year is 1994.

The above brief descriptions are only two snapshots in time representing the life conditions, worldviews and values active in this bioregion. Another one that must be noted, but that I will not attempt to describe myself, is that of the Sinixt, the Native people here in the Slocan Valley. They, like many other Natives, have been subject to enough misrepresentations and I do not wish to risk another non-indigenous portrayal of a nation that was decimated by smallpox in the early 1900s, a nation that have called this land home for thousands of years.

But in impassioned moments they will speak of the fact that they have not yet been recognized by government, a government that had the audacity to declare them extinct in the early 1950s.

In addition to the individual perspectives that are subjective, directed and influenced by a mix of personal, social, economic, cultural and other lenses, there are also some objective facts that contribute to the ongoing conflict in the Slocan Valley. In other words, it is not just human-related, but also a very real one in terms of ecology.[2]

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[2] Worldwide

- With new technology, such as satellite systems, low altitude photography and side-looking radar, scientists have now figured out that the world is losing about 20.4 million hectares of tropical forest annually and that if these figures are not reduced, we will lose all of our tropical forests in about 50 years. http://www.lclark.edu/~jay/Species%20Extinctions.pdf
- More than 10,000 square kilometers of North American ancient forests are clearcut every year. (*Roadmap to Recovery: The world's last intact forest landscape*, Greenpeace, March 2006)
- There are approximately 3,800 million hectares of forest in the world, nearly one third of the planet's land area. http:// forest *ry* .oxfordjournals.org/cgi/reprint/49/1/29.pdf
- Deforestation is second only to the burning of fossil fuels as a human source of atmospheric carbon dioxide. Global estimates on the amount of carbon given off annually through deforestation amounts to 2.8 billion metric tons. Deforestation accounts for at least 25% of the annual emissions of carbon dioxide by humans. http://www.ecobridge.org/content/g_cse.htm

And in British Columbia, Canada

Failed Attempts at Solving the Conflict

The struggle in the Slocan Valley has held a prominent place both in the media and politics for over three decades. Since 1974 the provincial government, in its attempt to solve the issue, has intervened nine times by sponsoring a variety of roundtable initiatives. Some of these lasted for years, involving skilled facilitators from around the province. Each process tried to come up with land-use decisions that would be acceptable to the majority of residents, together costing hundreds of thousands of dollars. Each initiative failed, some to such a degree that the initial division amongst involved parties actually widened during and after the process.

Summarized, the challenge the Slocan Valley faces in regard to its people, water, and surrounding forests thus involves:

1. A 35-year history of controversy over forest management in domestic watersheds;
2. Extreme polarities in perspectives and a wide span of competing values;
3. An exceptionally high degree of awareness by the local population regarding the issues at hand, with very strong opinions on all sides;
4. Deeply entrenched mistrust between various factions of the residents;
5. The historical fact that the BC government has already attempted to solve this issue nine times over the last 35 years, by sponsoring nine different initiatives at a cost of hundreds of thousands of dollars to taxpayers without any success whatsoever; and
6. A global and bioregional context of increasing water scarcity, depleted forest ecology, and declining economy in the forestry sector.

The Initiative: The Slocan Integral Forestry Cooperative (SIFCo)

> *"No problem can be solved from the same level of consciousness that created it."*
> (attributed to Albert Einstein 1879-1955)

In the fall of 2003, the provincial government of British Columbia announced its intention to offer forest tenures to communities as part of a province-wide tenure reallocation process. After 30 years of failed processes, an opportunity arose to start over, to try a different approach, one that would make use of the many lessons learned and take all the players into consideration:

- In British Columbia more than 2 400 square kilometers are clearcut every year. http://www.livinglandscapes.bc.ca/thomp-ok/env-changes/land/ch2.html
- Canadian logging causes almost 2.1 hectares (5 acres) of forest to be lost every minute of every day, principally to feed U.S. demand. *(Bringing Down the Boreal*, Forest Ethics)
- In British Columbia 27,000 loggers were thrown out of work between 1981 and 1991, not by "tree huggers", but by an increasing use of labor-reducing technology in the industry. http://www.sierraclub.org/sierra/199905/media.asp
- While the cut has increased dramatically, almost doubling over the last 20 years from less than 40 to more than 70 million cubic meters per year (Ministry of Forests), forestry has decreased its contribution to the provincial economy by one half, from over 10% to around 5% in the same period (Heaps). http://archive.greenpeace.org/comms/97/forest/jobtree.html
- The logging industry currently employs about 6% of BC's workers, down from 9% at the beginning of the 1980s. http://workinfonet.bc.ca/lmisi/bc-econ/FORESTRY/forestry.html
- B.C. gets only 1/5 as many jobs per cubic meter of timber logged as California and has one of the worst records of job creation in the forestry sector in the world (Pulp, Paper and Woodworkers of Canada) http://archive.greenpeace.org/comms/97/forest/jobtree.html

people, nature, culture, organizations, and corporations. I recognized this announcement as an opportunity to implement an *integral approach to community mediation* in the Slocan Valley of BC. The intention and aim were that an integral approach to a collective conflict could lead to the formation of a Cooperative that would hold tenure over some of the most contested lands and be charged with managing these lands.

If the residents of the Slocan Valley were to be successful in a bid for a community forest tenure, all sides of the ongoing conflict would have to come together under one vision. They would, together, need to change the course of history by replacing mistrust with a new direction that would benefit all members of the community. The social landscape was diverse. It was made up of First Nations voices; a conservative faction made up of loggers, miners and farmers; a highly concentrated and vocal green community; a multi-faith landscape; two internationally recognized environmental organizations; a strong artist community; and a multinational corporation (the main employer) involved in corporate forestry. Would they be able to rise to the challenge?

This new integral initiative would walk already charted territory, territory that had seen all kinds of approaches and processes stumble and fall. Was there a chance of making any headway whatsoever? Could and would an integral approach make a difference in navigating this landscape? Together with a small group of residents, I decided to give it a try.

Guiding principles

First we needed to come up with guiding principles that would start the process of building a foundation of respect for divergent local perspectives. Our initiative is therefore based on the following points of understanding:

1. Residents hold diverse perspectives and value systems in relation to the forest that surrounds them,
2. These perspectives and value systems are guided and influenced by a mix of social, economic, scientific, spiritual, psychological, cultural, political, historical and institutional lenses.
3. Each of these perspectives is valuable and pertinent and must therefore be considered into solutions that will work for all.
4. By including and building upon these perspectives solutions found will be more complete and viable in considering how the community and the forest can interface.

Mediating between trees and all kinds of people!

The problem in the Slocan Valley is specifically related to the interface and interaction between people and the natural environment, and to the myriad value systems and perspectives at play in regards to the issue. Thus, very early in the effort it became clear that a central component of achieving a Community Forest and then managing it in an integral way would have everything to do with our ability to work with people. In other words, success in achieving a Community Forest depended to a large extent on our capacity to navigate amongst and appreciate many differing value systems, worldviews, priorities, preferences, habits, needs, fears, reservations, even differing cultural norms, as well as ecological limitations, corporate interest, and national and local laws.

One of the main criteria to succeed in securing a community forest in BC is to get broad-based community support. Would it be possible for the union, the logging company, the recreation enthusiasts, First Nations, environmental organizations, and the residents to come together under one vision? Given the valley's history, it seemed unlikely. I was excited to try, however: I perceived the situation as a perfect challenge to see if an integral approach could make headway where other less comprehensive attempts had failed. Of course, once a community agrees on a vision, many tasks remain: to identify and negotiate a land base, develop a business and management plan, incorporate as a legal entity, get the government to support the initiative. In all these further aspects, an integral framework has continued to play a major role (I will touch on this briefly further down). However, given the valley's history, it was this first step of getting a diverse and split community to gather behind a vision that seemed to really show how extraordinarily viable and practical the integral perspective actually is. To be sure, the project has been precariously poised between possible success and failure, with one curve ball after the other coming at it. But doors continue to open. People continue to surprise me and I am left with a deepened appreciation and hope for the potential of human beings rising to the challenge of coming up with solutions that require stretching to a different way of seeing a situation and working with it, together and alone.

In addition, because we succeeded in integrating the insights and needs coming from different value systems, the final resulting business and management plans are much more solid and realistic than if we had worked only with a more homogenous sector of the valley population. Bringing multiple perspectives together has, therefore, been one of the main challenges. It has also proven to be one of our greatest strengths, contributing to our Community Forest making ecological, financial, and social sense.

As mentioned earlier, I myself have been explicitly informed by the integral framework, but my inclusion of the framework has been much more implicit in my work with the core group that has become SIFCo, all of whom had not heard of this approach beforehand. Some of the core group have since become interested and have learned more about the integral approach.

In the following I relate the main ways in which I as facilitator, and in many instances also the core group, have utilized the integral framework in our attempt to secure a community forest in the Slocan Valley. Rather than step-by-step activity descriptions, the following are generalized descriptions of the main capacities employed.

Practicing the ability to simultaneously hold and inhabit multiple perspectives.

In order to find a solution to the environmental conflict in the valley, we needed to discover a mutual understanding between diverging viewpoints and interpretations. This was important both to honor and understand the different voices and concerns present, as well as to actually come up with pertinent and comprehensive responses to a very complex issue. By acknowledging and integrating the many differing perceptions of reality held within the community at large, each person could feel understood and respected and begin to contribute to a solution. This required that those of us who met with residents, various interest groups, and the government had to bring flexibility to our use of language, embody a willingness to see and appreciate the healthy aspects of each perspective or set of values, and have the cognitive capacity to actually inhabit a perspective different than our own. Inquiry and deep listening were a central part of the process.

Awareness of and ability to manage people's multi-faceted diversity (multiple "lines").

The awareness that what each person offered to the process and to the group was made up, motivated and defined by a multitude of emotions, beliefs, interpersonal habits, moral and ethical inclinations, physical circumstances, cognitive abilities etc., encouraged me to further develop a key skill: the ability to reframe positions held by others into issues and questions that required attention and that could lead to creative solutions. The awareness of multiple lines also greatly informed my group facilitation efforts. It helped me pay attention to the entirety of each person present, even whilst the focus has foremost been on the cognitive dialogue underway (for example, by creating a physically comfortable situation, a place where people could feel safe emotionally, offering and modeling constructive interpersonal skills, noticing where and when someone needed extra support or consideration etc.)

Commitment to personal growth.

In order to be as fully available as possible to what was unfolding amongst all the parties involved and not get tangled up in one's own shadow or agenda, it has been essential to work toward bringing awareness to our possible attachments and aversions. In addition, the ability to be attentive and present, centered, warm-hearted, empathetic, clear, patient, persistent, and to bring both depth and lightness (often with humor) to the process has proven invaluable. Who we *are* plays at least as great of a role as what we *do*. Of course, all these qualities require a certain level of maturity.

> In the heat of any conflict, one can work on developing the capacity to be present to every aspect of that conflict, while stepping aside from one's own point of view and learning to distinguish one's thoughts, from one's emotions, from one's perceptions, from our conflict partner's point of view, to embrace a broader, more integrated, view – in the words of Thich Nhat Hanh (1987: 1), to *be* peace. (Bowling and Hoffman, 2000. p.23)

Facilitating experiencing the bonds of shared motivations.

While each participant in the process generally sees the world through the lens of their particular perspective on the situation, a collective glimpse into a possible future was made possible by skillfully touching on and addressing what I call the "spine" of the group. In other words, addressing and calling forth that which simultaneously touches a resonant cord in everyone. In our case, this was achieved by addressing the overarching care that each individual held for the well-being of the community and the fact that everyone wants a healthy economy, a healthy ecosystem, and clean water. How each person interprets, expresses, and translates their feeling of care and concern, and the span that this care and concern has, can differ greatly, of course. But these were the threads that ran through each person and that formed the spine of the group. I was thus able to utilize these common, healthy, authentic threads as "elevators," as something to draw upon in order to bring people to an inspired and motivated place that made possible a certain amount of stretching in each participant. It was the articulated vision of a thriving community (both economically and socially) in a healthy ecosystem that brought everyone to see themselves in this vision and thus to support it. In such moments, people did not feel threatened by the vision; rather they could see themselves thriving while being part of something greater than themselves. Of course these experiences were translated differently by different people. For some, the translation ended up in an heroic effort to "save the day;" for another it was translated into "doing the right thing;" for yet another, the motivation laid in saving the water and forests, and gaining a sense of belonging. Each in their own way translated the common human yearning of being part of something meaningful and making a difference.

To enable such a collective bonding experience required using language that communicated directly with each person at close enough intervals so that no one ever felt lost, left out, or disconnected from the emerging mosaic that was being created. As Sean Hargens (2005) points out, it does not work "to take the value set of one worldview and try to force it upon another worldview . . ." (p. 22). This will only lead to unnecessary clashes. Thus, finding the highest common denominator, if only as a collective glimpse here and there, has proven invaluable in reaching agreements.

Balance of empathy/engagement and impartiality.

I have lived in the Slocan Valley for the past 15 years. I love it – the mountains, the creeks, the wildlife. I have knelt down to drink the pure water flowing down the valley sides regularly. This valley inspires and sustains me in many ways; its beauty and ecological health renews my commitment to do everything I can to help protect it and thereby also the Life in its myriad forms being nourished by it. I have attended more meetings than I care to think about, organized protests and conferences. However, I found that a key component to being effective in securing a community forest was that I cared, gave myself fully to the work at hand, and at the same time did not get drawn to the point of identification with and attachment to the process and its outcome. Both empathy and impartiality were essential. The former allowed for the interest, concern and motivation necessary to sink deeply into the process, the latter allowed me to embrace and hold additional perspectives. Without impartiality, I could easily have become useless, losing the larger context and perspective, getting pulled in specific directions, and becoming personally attached and driven. It helped me to approach this project as a case study, as an opportunity to learn how and why it might or might not succeed. This gave me the necessary distance to be effective.

Importance of discernment.

In order to cultivate mutual understanding and a way forward to constructive and comprehensive action, it was necessary that everyone participating in the core group held certain qualities of being. These qualities, attitudes, and capacities proved to be essential in order for us to be able to implement an integral approach in such a divided community. I believe that discerning who has the following qualities and, if possible, recruiting and engaging those particular individuals can be one of the most crucial steps in attempting to implement an integral ecology project on the ground. These qualities, attitudes and capacities are as follows.

- Natural inquisitiveness, an ability and willingness to listen to others.
- Integrity and reliability, where actions are aligned with words.
- A voice of reason to offer to their respective constituency, being respected and carrying a certain influence.

- Flexibility: not too entrenched in a particular value system, not too vested in one's own perspective—personally, socially or professionally.
- An inherent quality of being that includes personal growth as part of the life process, even if only unconsciously.
- Motivation of care and concern for the greater community and ready to seek its betterment.

Notice here that these qualities are found in certain individuals across *all* sub-sections of a community. In other words, they are not value-system dependent. This was invaluable to recognize because it was by engaging individuals with these qualities that we laid the foundation for our future success.

How the core team came to be

Lisa Farr from the EACT Watershed Association and I began by surveying the social landscape and acknowledging the historical conflicts among the priorities people valued most. We then approached two or three individuals at a time, people we identified that held, from our perspective, some of the key qualities mentioned above. We approached them in an inquisitive manner. We were genuinely interested in understanding the insights, information, values, worldviews and knowledge base they each had to offer. In this way we discovered what elements from each sub-culture needed to be included in the overarching direction of our process. We also presented our general vision for a potential community forest tenure in the Slocan Valley, but we didn't present a detailed vision of what the outcome of such a co-creative endeavor could look like. Rather, we briefly outlined the historical conflicts that were present in this bioregion (a topic all could agree on), and then presented the idea of transcending the past, while including the insights gained from what had not worked. We shared our intention of seeking *together* to come up with a vision for the valley within which all the needs (both from the natural and the human worlds) could be met, and the gems held by each sub-group's values would be included. We also communicated very clearly our conviction that by including all of the valuable insights available in the population we would end up with a much more viable way of interfacing with the forest that surrounds us.

These smaller meetings quickly clarified who was a good candidate for the core team, and who wasn't. We made it clear at the onset of these meetings that we were approaching our discussions as a way to learn more about each of the value systems and worldviews held in the variety of sub-cultures in the Slocan Valley. Our intention was that by the end of each meeting, everyone would see value in the project, would not feel threatened by it, and would feel appreciated for what they had contributed and could contribute in the future.

As this process continued we gradually formed a core group, a diverse collective from the very beginning.

What about the forest?

Once we had taken the first step—getting this diverse community to agree on and support a community forest—we developed our business plans and management and governance structures over the next few years. SIFCo's mission statement is "to create and operate a financially sound community forest business that fosters community and ecological health." This is reflected in our methodology and operational plans, which we have articulated for the short, medium, and long term.

On the ecological front we consider and plan for: the overall health of the ecosystem (including soil protection, biological diversity and wildlife, awareness of root and bark diseases); ecosystem restoration; wildlife enhancement projects; management and minimization of wildfire hazard; maintaining wildlife movement corridors; protecting water quantity, quality and timing of flow; protection of riparian ecosystems; and ensuring a successional pattern of multi-layered canopy.

On the economic front we consider and plan for: a diverse range of products, including specialty wood for value-added products; a long-term sustainable yield of harvest; enhancing economic diversity and sustainability of the community; local employment; retraining programs; non-timber forest products; developing partnerships and collaboration with local organizations and businesses; and retaining profits within the community for ecological restoration, community infrastructure and social programs.

On the social front we consider and plan for: inclusive and transparent public involvement; a monitoring and evaluation system, both internally and also involving the broader local public, to continuously improve SIFCo’s performance and maintain public approval; training programs for youth and under-employed; minimizing the visual impacts of harvesting and road building in order to maintain the growing tourism industry and satisfy local residents’ preference to maintain viewscapes; and protection of all identified First Nations cultural heritage features and, if requested by First Nations, an archeological impact assessment for specific areas.

Where we stand now

To date, and needless to say much to our delight, we have experienced that the integral approach we are taking does indeed work! We initiated this process in January 2004 with a small group of volunteers. This group has grown. Loggers, city council, environmental activists, the Ministry of Forest and Range, a variety of local residents and three resident associations have come to agreement on guiding principles, management guidelines, organizational structure, and a plan for future profit distribution of the Community Forest. We have received over 140 letters of support from a variety of non-profit organizations, as well as from government, businesses and individuals that span the full spectrum of values and perspectives. On March 2, 2005 we submitted a preliminary application for a Community Forest Agreement that would cover some of the most contested areas of the Slocan Valley. Our preliminary proposal was accepted December 2005: government offered us a certain amount of land. On September 25, 2006, government surprised everyone by offering us a new invitation, one that gave us the right to double the landbase that we were originally offered. On December 4, 2006, our three-year negotiation came to a conclusion: we agreed to an area of 35,000 acres. On December 7, 2006, we were officially incorporated as a Cooperative under the Cooperative Act of British Columbia. In January 2007, our final application was sent to the government, and in April we heard that our application was in the final phase of being accepted: SIFCo should be tenure holder at the latest in July of this year (2007).

When our application for a community forest is finalized, we will have before us a unique opportunity to further put the integral framework into practice in how the forest and watersheds are managed in an entire ecosystem. Three years ago, a community was extremely divided; very soon, together, a community will be managing the lands that surround them.

Concluding Reflections

Evolution happens a step at a time! This is a crucial reminder when attempting to practice integral ecology. In today's society, an applied integral solution may appear to be less than the most ideal solution imaginable. Why so? Because our minds and imaginations can come up with and envision solutions that are way ahead of where we actually are as a society and human family. A solution must be liveable – it must be "implementable" by those concerned. Otherwise it will remain just a good idea. Thus the achievable common ground of the general population that will live with the solution and actually bring it to life must be taken into consideration; this will determine how far and how fast a solution can actually go. In other words, an applied integral solution essentially takes the concerned population "where it is" and then propels it one step forward. This movement onward and forward may not be as far as some might wish, but it is a step forward nonetheless. Stagnation is replaced with movement that allows us to evolve toward a brighter future.

Understanding evolution from an integral perspective is important for two very practical reasons: first, because some people will tend to react negatively and indignantly to a solution that does not match their conception of the ideal. From a certain perspective, one could say rightly so, as there may be cases where an applied integral solution will seem to fall short of someone's ideal of what can be envisioned; taking into consideration the information at hand on the state of the environment and what is necessary to make a real difference, anything short of drastic and radical measures may seem futile. If we realize this at the onset, we can harness people's very important energy by acknowledging the fact that whatever integral solutions we may come up with to current problems, such solutions are but stepping stones toward yet-to-be more evolved solutions. This can be explained to people who are concerned or reactive. And we can be compassionate with what is agonizing for people who find it hard to settle for anything less than what they deeply believe is necessary. In over a decade of grassroot activism I repeatedly came across the sabotaging effect of immovable perspectives. Such individuals are often highly-motivated by ideals and principles that merit respect. But, by shooting for the moon, they can end up disheartened and, tragically, also with a trashed environment, because the "this or nothing" stance trips up their efforts. The environmentally-engaged activist often sees where we need to go, feels the urgency, but just as often presents solutions that disregard where many other people actually "are." An unwillingness to compromise, and a lack of consideration for how evolution in human consciousness generally takes place (i.e., "a step at a time"), has all too often backfired, with stagnation, alienation and disenchanted burnout being the result. This really is a pity; brilliant plans, models and solutions of what could and should be fall short of ever getting implemented. People are emotionally hurt and discouraged. Integral mediation will attempt to include the invaluable input and driving force of such values in relation to ecological conflict, and simultaneously pay attention to potential obstacles they might pose to an integral solution.

This brings me to my second point: integral solutions need to be constructed at the onset with *ever-evolving mechanisms in place at the core of their systems*. Our world is geared toward stagnation. Change is one of the hardest things to accomplish in society. Every time a change is implemented, there is a whole mechanism that breathes out with it, settling comfortably into a new structure of stagnation. For example, it takes an extreme amount of time and effort to change the building codes of a county so that they start embracing green building technologies. By applying an integral approach one may be able to get a county (or state) to implement a reduction in wood consumption during the construction phase by say 20%. According to leading edge environmental science, the real target to aim for is, say, 70%. However, 20% is better than nothing, and nothing it will be if the demand is for a 70% reduction. An integral thinker/facilitator will know that 20% is not enough. S/he will make sure that there are mechanisms in place for the 20% to become 30% and then 40%, as opposed to putting all the effort toward having the 20% set in stone and sealed by law. That would create yet another benchmark for societal stagnation, one that would require the same or maybe even more energy to move onward when the time comes for the 30% to be brought to the table. And at the speed that things are changing these days, such a time will come sooner rather than later.

In the next few decades, we will be facing some of the most interesting times in recorded history. Times that will challenge us to embrace an ever-complexifying landscape, which will require of us an exponential growth in our ability to navigate the interface between human societies and ecology. Integral mediation and integral ecology offer key perspectives to bring to the table as we begin to implement solutions in response to the planetary crisis we have placed ourselves in, both at the local and at the global level.

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Exploratory Perspectives for an AQAL Model of Generative Dialogue

Olen Gunnlaugson

Abstract: Otto Scharmer's generative dialogue model of the four fields of conversation has been largely applied in organizational settings with the intent of fostering conditions for groups to learn to think together, generate new knowledge and solve the deeper problems that pervade organizational culture. This article introduces elements of Wilber's Integral or AQAL paradigm as an interpretive framework for advancing key distinctions within Scharmer's account of generative dialogue.

Keywords: consciousness, generative dialogue, integral, presencing, reflective dialogue

> *The ultimate source of the Susqehanna River was a kind of meadow in which nothing happened: no cattle, no mysteriously gushing water, merely the slow accumulation of moisture from many unseen sources, the gathering of dew, so to speak, the beginning, the unspectacular congregation of nothingness, the origin of purpose. And where the moisture stood, sharp rays of bright sunlight were reflected back until the whole area seemed golden, and hallowed, as if here Life itself were beginning* (Michener, 1995, para. 65).

Introduction

Like the proverbial Zen finger, Michener's quote directs our awareness to the hidden, yet always present source of life that plays a formative role in shaping us and our manifest world. Whether this underlying source is viewed from the form of a river, an artist's creation or a generative conversation, we are reminded of the significance of the subtle originating processes that are taking place *upstream* from our accustomed horizons of attention. Viewing this analogy within the context of group learning, a pervasive tendency of many groups is to unmindfully invest their attention in the currents of thought, past associations and conditioned habits that invariably surface *downstream* in our spoken discourse. Debate and discussion, though well suited to serving the interests of previous cultural-historical periods, focus primarily on the specific downstream thought *content.* Often this takes place to the exclusion of individuals and the group being aware of the subtle process of thought itself (Bohm, 1996) and the hidden source or blindspot out of which our thoughts and experience originate (Scharmer, 2000). These exclusions may involve process as much or more than they involve content. For example, in traditional debate, well-ingrained strategies to defend or advocate our views arise in part from a focal identification with our beliefs, positions and judgments. As Scharmer has argued, in practice such modes of communication prevent us from noticing what is taking place upstream. According to Scharmer's research on presencing (Scharmer, 2000; Senge, Scharmer, Jaworski, & Flowers, 2004), further upstream lies both tacit embodied knowledge and not yet embodied tacit knowledge (Scharmer, 2001) that emerges through contact with the unmanifest source of our experience.

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Following from Bohmian dialogue[1] (1987, 1996) and the MIT dialogue project (Isaacs, 1993, 1994), Scharmer's framework of generative dialogue (GD) (Scharmer 2000, 2003; Isaacs, 1999) addresses the above modes of attention and knowing within four fields of conversation. Building upon Scharmer's contribution, this article explores a set of distinctions advanced by Wilber's AQAL[2] lens in order to establish new distinctions and orientating generalizations to better serve practitioners and facilitators working with the GD framework. On the whole, this article ventures a series of exploratory perspectives concerning how Wilber's AQAL model can help augment the transformative potential of generative dialogue practice in various contexts of social, cultural, educational and business innovation.

A Brief Overview of Generative Dialogue

Scharmer's account of generative dialogue[3] offers at least two important contributions to the field of dialogue studies[4]. First, as a map of four archetypal fields of conversation that groups can develop mastery of, Scharmer's model (i.e., Figure 1) depicts how individuals and collectives move counter-clockwise from polite discussion (i.e., talking nice) through the field of debate (i.e. talking tough) towards more open, reflective dialogue and finally forms of collective intelligence[5] (i.e., generative dialogue). Scharmer (2001) describes each successive field as representing an increasingly complex pattern of conversation that reveals new forms of explicit (i.e., talking nice; talking tough), tacit embodied (i.e., reflective dialogue) and not-yet embodied tacit knowledge (i.e., generative dialogue). Secondly, GD offers a preliminary framework to honor more traditional forms of organizational and academic discourse alongside the relational and creative dimensions of dialogue, resulting in a more comprehensive map of conversation.

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[1] As a practice, Bohmian dialogue is a way of inquiring into the individual and collective presuppositions, ideas, beliefs, and feelings that ordinarily inhibit communication. Bohm's conception addresses both our underlying assumptions as well as the psychological pressures behind these assumptions. In this sense, Bohm is proposing a basis for creating a new kind of culture where opinions and assumptions are not defended incoherently and people think together (Bohm, 1996).

[2] Wilber's AQAL model has become the shorthand version of his integral approach. AQAL is short for all quadrants, all levels, all lines, all states, and all types (Wilber, 2003a). For the purposes of this article, I have focused on the first four lenses, as I have not found the distinction of types to be that useful in the context of Scharmer's model.

[3] Though Scharmer's framework is by no means exhaustive of the possibilities of conceptualizing communication within groups, it offers an important contribution in accounting for the basic horizontal stages of conversation, group formation processes and rudimentary conversational practices that support personal and collective development.

[4] The proliferation of dialogue across a number of disciplines has arguably given rise to an important field of study in recent years. See Alexander's (2004) dissertation, *Coalescing the Field of Dialogue* for a sound overview of this emerging academic discipline.

[5] Experiences within the fourth field of generative dialogue are reflected in O'Hara's (2003) description of Integral Groups, in addition to other intersubjective methodologies within the emerging field of collective intelligence (Hamilton, 2004).

Within each field of conversation, Scharmer charts a cluster of characteristic ways of listening, orientation to learning in relation to time, habits of attention and speech acts (Scharmer, 2000; Isaacs, 1999) as outlined in Figure 1.[6]

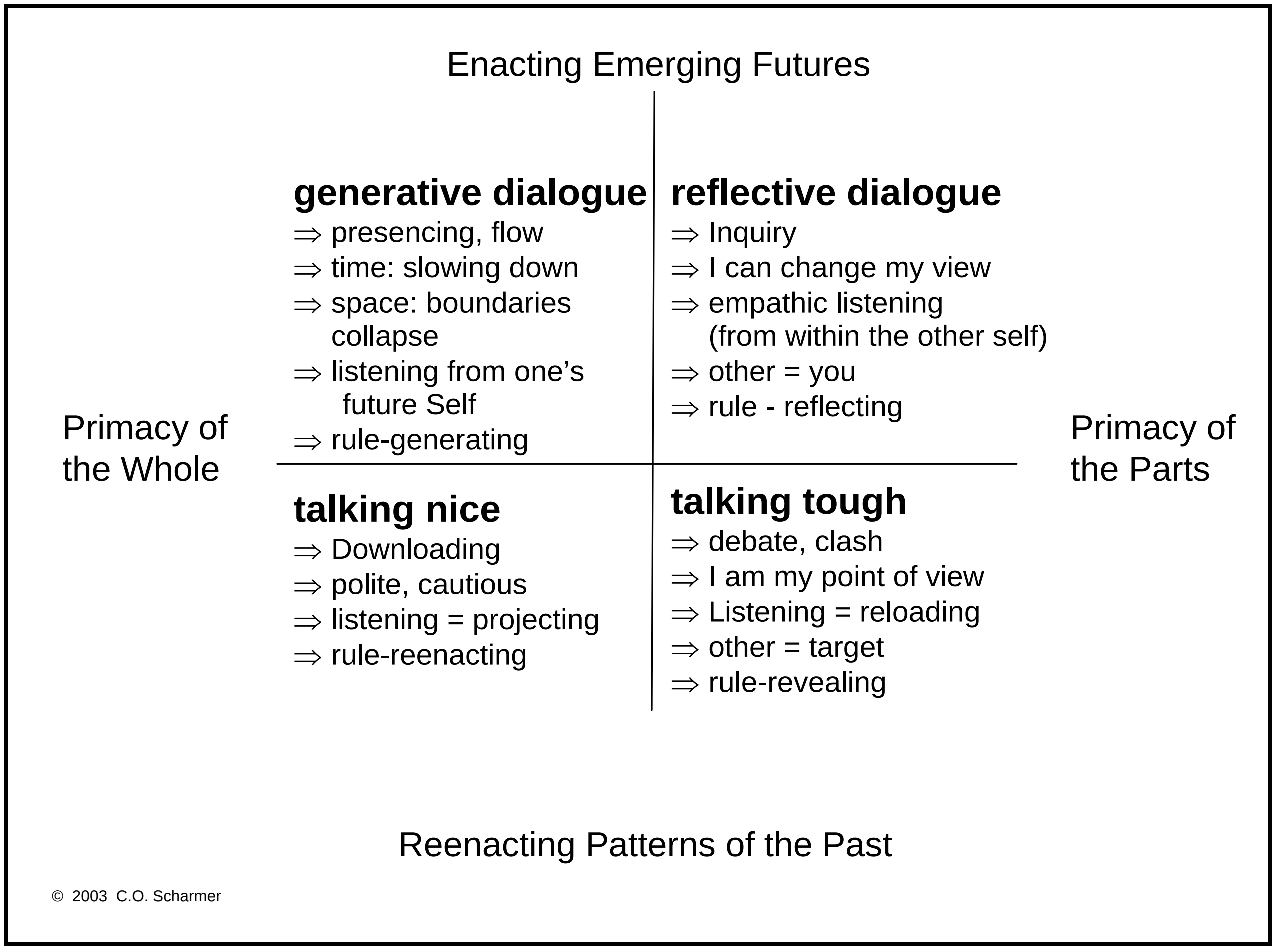
Enacting Emerging Futures
generative dialogue
⇒ presencing, flow
⇒ time: slowing down
⇒ space: boundaries collapse
⇒ listening from one's future Self
⇒ rule-generating
reflective dialogue
⇒ Inquiry
⇒ I can change my view
⇒ empathic listening (from within the other self)
⇒ other = you
⇒ rule - reflecting
Primacy of the Whole
Primacy of the Parts
talking nice
⇒ Downloading
⇒ polite, cautious
⇒ listening = projecting
⇒ rule-reenacting
talking tough
⇒ debate, clash
⇒ I am my point of view
⇒ Listening = reloading
⇒ other = target
⇒ rule-revealing
Reenacting Patterns of the Past
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Figure 1. Four Fields of Conversation

Note. From "Four fields of generative dialogue," by C. O. Scharmer, 2003, Generative Dialogue Course Pack. Copyright 2003 by C. O. Scharmer. Reproduced with permission of the author.

Initially there is often well-intentioned politeness and conformity to past forms of knowing and knowledge building (Scharmer, 2000), which leads to undiscussables (Argyris, 1990) or threads of conversation that participants avoid. This dynamic can arise when participants hold back what they are thinking or feeling and infer meanings upon the contributions of others based on previous interactions or projection. In order to move beyond this initial group pattern, Scharmer points out that individuals need to bring what they are *thinking* into alignment with what they are *saying*. If this initial transition is delayed, it tends to manifest later on with individuals needing to voice their "truth." The challenge in moving from *talking nice* to *talking*

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[6] Scharmer's model is presented in Figure 1 even though all of its dimensions are not explored within this article. For further reference on generative dialogue terminology not discussed here, see Scharmer, 2000, 2003. For expanded accounts of Scharmer's initial model, see Isaacs, 1999; Gunnlaugson, 2006.

tough involves finding skillful ways to share the perspectives one is withholding or naming the dynamic within the conversation that is preventing authentic expression, as the container of the group dialogue tends to be unstable in this field (Isaacs, 1993).

Scharmer locates the conversational norms of argument and debate culture within the second field. Here participants can easily get locked into polarized and expressive views, followed by reactivity and combative listening (Scharmer, 2000). This culture of conversation risks various forms of breakdown (Isaacs, 1999) as individuals become overly identified with their perspectives and felt needs to impart or express their views. In my experience, moving from *talking tough* to *reflective dialogue* depends in part upon being more attentive to one's judgments, thoughts and psychological processes through the practice of "suspension" (Bohm, 1996). Suspension of one's judgments or reactions requires learning to bracket one's views and embrace competing perspectives as important partial illuminations of the larger gestalt of the group subject or issue. Shifts within the second field of conversation take place when participants who are otherwise locked into advocacy begin to collectively practice suspension as Bohm elaborates:

> Suspension is not easily grasped because the activity is both unfamiliar and subtle. Suspension involves exposing your reactions, impulses, feelings and opinions in such a way that they can be seen and felt and also be reflected back by others in the group. It does not mean repressing or suppressing or, even, postponing them. It means, simply, giving them your serious attention so that their structures can be noticed, while they are actually taking place. Suspension may permit you to begin to see the deeper meanings underlying your thought process and to sense the often incoherent structure of any action that you might otherwise carry out automatically (Bohm, Factor, & Garrett, 1991).

Suspension helps groups become more aware of the pervasive tendency to reenact past patterns based on unexamined assumptions, perspectives or beliefs. Similar to meditation, suspension facilitates in-the-moment awareness of our thinking and emotional processes, in turn helping us temporarily shift from a first to third person perspective of the contents of our consciousness. This opens nested creative spaces within ourselves (UL) and the group (LL) to witness these contents as the dialogue process builds. With sufficient practice and duration in the third field of conversation, participants learn about the "structuring, layering or genesis of their experience" (Varela, 2000), which slows down the conversation and in turn helps develop skills of empathic listening and thinking together as a collective.

Following Bohm's *suspension of thought*, Varela's phenomenological gesture of "redirection" (Varela, 2000) helps make the transition from field three to field four. Redirection involves learning to subtly move our attention to sensing the source of the stream of shared meaning of what is trying to emerge through the greater dialogue group as people share their contributions. Put in another way, redirection involves literally redirecting one's attention to the newly emerging content and "to the source of the mental process rather than the objects within it" (Varela, 2000). According to Varela and Scharmer, the gesture of "letting come" is a recursive move of attention that involves being receptive to new meaning, knowledge and insights. As such, when conversations move from the field of reflective to generative dialogue, there is a shift from reflective inquiry into our tacit assumptions to learning to engage with future not-yet-embodied possibilities arising through the practice of *presencing*. Scharmer's analysis of presencing suggests that this threshold between *reflective* and *generative* dialogue is traversed when participants within the group begin to “see from within the source of what is emerging, letting it come into being through us” (Senge et al., 2004, p. 45). Though different catalysts can bring a group across the creative threshold of field three and field four, it often involves a discontinuous shift from suspending one’s thoughts to *presencing* or redirecting one’s attention towards the emerging source of self-transcending knowledge. With practice, generative dialogue helps foster new capacities for collective intelligence as groups learn to cycle through the four social fields.

Generative Dialogue Through the AQAL Lens: Exploring Wilber’s Quadrants Within Scharmer’s Fields of Conversation

Wilber’s AQAL approach rests in his quadrant model[7], which acknowledges four basic co-arising perspective-dimensions of reality: subjective (i.e., the interior of an individual), intersubjective (i.e., the interior of a collective), objective (i.e., the exterior of an individual) and inter-objective (i.e., the exterior of a collective): Summarized as the interior and exterior perspectives of individuals and collectives, each quadrant refers to one of these four perspectives, each of which we can take on any life situation, and so upon any instance within the context of generative dialogue. Unpacking the quadrants within the generative dialogue model as a whole, any *moment* within one of the four fields of conversation is informed by a range of *experiences* (e.g., suspension, presencing, bearing witness), *behaviors* (e.g., advocating, inquiring, making decisions), *cultures* (e.g., the worldviews and values of the participants and group) and *systems* (e.g., guidelines and rules within organizations, classrooms, or learning communities where GD is taking place) that are particular to each of Scharmer’s four fields.

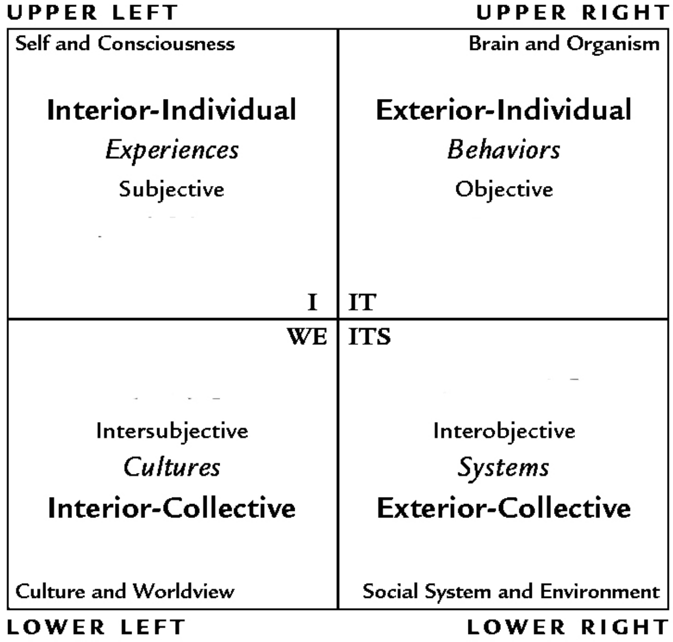
UPPER LEFT
UPPER RIGHT
Self and Consciousness
Brain and Organism
Interior-Individual
Experiences
Subjective
Exterior-Individual
Behaviors
Objective
I
IT
WE
ITS
Intersubjective
Cultures
Interior-Collective
Interobjective
Systems
Exterior-Collective
Culture and Worldview
Social System and Environment
LOWER LEFT
LOWER RIGHT

Figure 2. Wilber’s Four Quadrants

Note. Adapted from http://holons-news.com/fourquadrants.html

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[7] According to Wilber (1997, p. 4), “These four quadrants are a summary of a data search across various developmental and evolutionary fields. I examined over two hundred developmental sequences recognized by various branches of human knowledge – ranging from stellar physics to molecular biology, from anthropology to linguistics, from developmental psychology to ethical orientations, from cultural hermeneutics to contemplative endeavors – taken from both Eastern and Western disciplines, and including premodern, modern, and postmodern sources.”

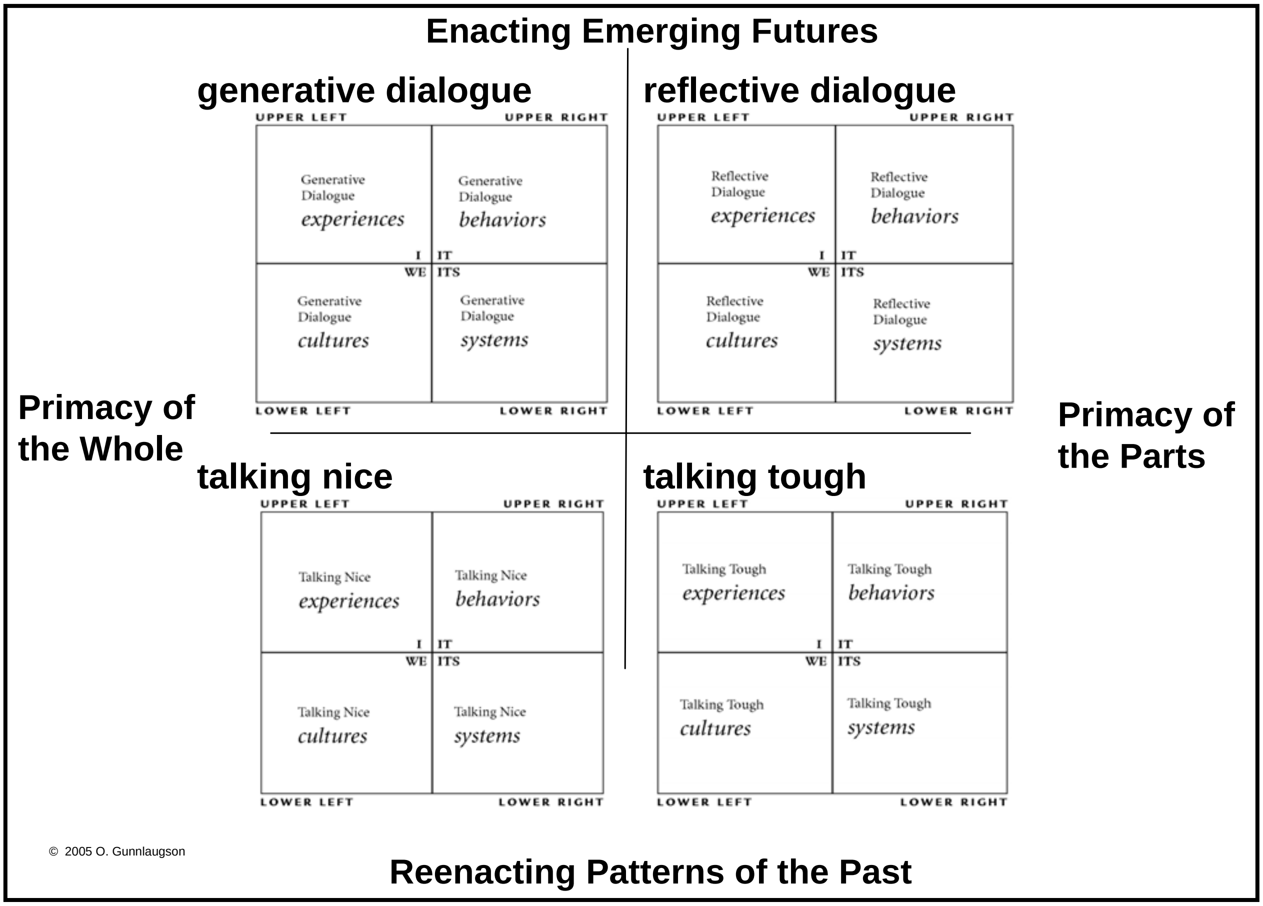
Enacting Emerging Futures
generative dialogue
reflective dialogue
UPPER LEFT
UPPER RIGHT
Generative Dialogue experiences
Generative Dialogue behaviors
Generative Dialogue cultures
Generative Dialogue systems
Reflective Dialogue experiences
Reflective Dialogue behaviors
Reflective Dialogue cultures
Reflective Dialogue systems
I
IT
WE
ITS
LOWER LEFT
LOWER RIGHT
Primacy of the Whole
Primacy of the Parts
talking nice
talking tough
Talking Nice experiences
Talking Nice behaviors
Talking Nice cultures
Talking Nice systems
Talking Tough experiences
Talking Tough behaviors
Talking Tough cultures
Talking Tough systems
Reenacting Patterns of the Past

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Figure 3. Wilber's Four Quadrants Within Each of Scharmer's Four Fields

Note. From "Four fields of generative dialogue," by C. O. Scharmer, 2003, Generative Dialogue Course Pack, Copyright 2003 by C. O. Scharmer, Adapted with permission of author.

Given that each quadrant exerts a relative influence within each social field of conversation, practitioners can call upon these four basic dimensions of their experience in any field of generative dialogue for a *broader* communion with different perspectives of their reality as its arising[8.]

In addition to generating the above distinctions among *Experiences, Behaviors, Cultures and Systems* within Scharmer's four fields, Wilber's quadrant model expands upon Scharmer's

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[8] The quadrant model also offers a practical template to track the blindspots of the GD process more skillfully. When participants know the GD model, they can bring awareness to these four basic dimensions and perspectives in-the-moment to see if there is a territory within the field of conversation that is being ignored or neglected. Perhaps there is a breakdown within the group where the behaviors (UR) of the conversation are keeping the group stuck in *Talking Nice.* What shift in behaviors might serve as leverage points to help the group move to *Talking Tough* or *Reflective Dialogue*? Maybe there is something about the organizational culture (LL) that is constraining the conversation in terms of the tacit rules or guidelines that individuals adhere to. Recognizing this, a skillful group can bring in interventions into the LL to help move the field of conversation towards *Generative Dialogue.*

explanation of how rules evolve through the four fields (i.e., Figure 1). Instead of talking nice being merely about rule-reenacting, we can see via Wilber's four quadrants that rules are being collectively re-enacted within the Lower Right Quadrant, as are the UL experiences, UR behaviors, and LL cultures associated with those rules. If we move to the field of talking tough, it is not just that rules are being *revealed*, but the experiences, behaviors, cultures and systems surrounding those rules are being revealed as well. For reflective dialogue, experiences, behaviors, cultures and systems are being *reflected upon*. And for generative dialogue, experiences, behaviors, cultures and systems are *generated*. Framed in this way, we can honor the evolution of rules or guidelines within groups as well as these broader fundamental dimensions of reality (experiences, behaviors, cultures and systems) where evolution is tetra-unfolding within the generative dialogue process. This distinction becomes particularly significant in ensuring these four vital horizons of emergence within a given conversation are taken into account by the generative dialogue group. Additionally, Wilber's quadrants become particularly significant in the fourth generative field as groups evolve new experiences, behaviors, cultures and systems, ensuring that the full generative potential of the model is exercised.

Another practical example of the quadrants' usefulness is in its comprehensive honoring of diverse and competing epistemologies. An intrinsic bias of constructivist forms of dialogue practice is that they tend to privilege subjective (UL) or intersubjective (LL) ways of knowing as more important than objective (UR & LR) ways of knowing, if objective ways of knowing are believed to even exist[9]. Versions of dialogue informed by constructivist thought tend to rank interpersonal harmony and equality as the highest form of truth making within group life. With the epistemological map offered by the quadrants, it is apparent that this approach to dialogue need not exclude or marginalize other forms of knowing (i.e. particularly objective ways of knowing). In this way, the quadrants prevent generative dialogue from being used as a forum for the exclusive hearing of the values of the sensitive self[10], helping groups move beyond civically egoic forms of "conversational narcissism" (Arnett, 1992) by giving voice to a broader range of first-, second-, and third-person perspectives *within* each of Scharmer's four fields of conversation. Again, the quadrants facilitate the transition to a more integral practice of generative dialogue by honoring the four co-arising dimensions of reality within *all* the four fields of conversation.

"Levels" and "Lines" Informing Generative Dialogue Practice

No problem can be solved at the same level of consciousness that created it – Albert Einstein

In this section I evaluate Wilber's developmental *levels* within the context of various developmental *lines* (Wilber, 2003a), which represent distinct capacities of consciousness. Although there are lines of development running through all of the quadrants, for the purposes of this article, I will focus primarily on those developmental lines within the interiors of individuals and collectives (UL and LL quadrants) that inform GD practice. Given the absence of an empirically supported developmental model that measures the overall level of individual consciousness, it is important to note that *levels* refer to the orders of complexity within a given developmental line (Wilber, 2003a). In other words, as Wilber (2003b) explains, the particular context of development determines what one is measuring as Wilber elaborates:

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[9] With the advent of deconstructive postmodern thought, objectivity or an objective perspective has been radically questioned, and in certain extreme constructivist circles, outright disregarded.

[10] Values of the sensitive self include consensus process, human bonding, ecological sensitivity, egalitarian thinking. As Beck and Cowan (1996) and Wilber (2002) note, the sensitive self places an emphasis on feelings, prohibition of hierarchy, relational, strives for authenticity, sharing, caring community.

> There is no such thing as a level of consciousness: a 'level of consciousness' does not exist by itself, because it is always a level *of some line* that is being measured: there is a level of moral development, a level of self development, and so on, but not a separate thing called a level of consciousness that you can see and measure. Consciousness always has some sort of content, and that content–moral, cognitive, spiritual, psychosexual, linguistic, artistic, etc.–is what you see and measure (p. 2).

Wilber draws on a broad assortment of developmental theorists and expands upon Gardner's notion of "multiple intelligences"[11] with his distinction of *lines* or *streams.*[12]

While not all the higher developmental *levels* of certain key developmental *lines* are capacities that are available to every participant, the later conversation fields of generative dialogue (i.e., reflective and generative dialogue) call upon more complex *intrapersonal* and *interpersonal* capacities of consciousness than the fields of polite discussion or debate.

Given the wide range of critiques against hierarchical models of stage development as privileging some combination of elitist, gender or ethnocentric biases by the researcher (Reeves, 1999), it is perhaps no surprise that dialogue theorists have been reluctant to draw correlations between one's level of consciousness (along specific lines) and one's capacity within different fields of conversation. Nevertheless, not all of the higher developmental *levels* of every developmental line are available to everyone, nor are all developmental lines significant to generative dialogue practice. As the next section outlines, in my experience as a facilitator of generative dialogue, I have found that certain capacities of consciousness offer important contributions to the process and practice of generative dialogue.[13]

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[11] Gardner's seven types of intelligences include: kinesthetic intelligence, musical intelligence, mathematical intelligence, linguistic intelligence, spatial intelligence, intrapersonal intelligence and interpersonal intelligence.

[12] Reflecting on these developmental lines as a whole, it is important to note that the sequential (i.e., horizontal) movement through the fields of Scharmer's model is not to be confused with the movement up through the developmental (i.e., vertical) stages along different developmental lines of Wilber's AQAL model.

[13] Given how little Scharmer's model has been researched, determining what levels of what lines are more pertinent to serving generative dialogue than others remains an open question. In light of the absence of such research, this article attempts to offer a conceptual outline of an assortment of candidates. In my experience, these lines greatly assist and catalyze the emergence of the generative field of conversation. By sketching out a more integrally informed map of the interpersonal and intrapersonal capacities that support the emergence of generative dialogue, my intention is to help point the way to greater mastery of the practice. That said, it is important to note that experiencing the four fields of generative dialogue is not contingent upon individuals being at a high level in a few or all these lines. Each field of conversation emerges out of the larger gestalt of the group interaction, which is greater or is constituted with more complexity than the sum of its parts (individuals). The distinction of lines is

Cognitive Line

Beginning with the cognitive line, we cannot ignore Wilber's notion that the formal stage of cognition (i.e., discursive rationality) does not yet have the capacity to integrate the multiple perspectives with which we are presented by our increasingly interconnected world. That capacity, which Wilber terms "vision logic," becomes available with the emergence of the *postformal* level of cognition. According to Wilber (1995), vision logic is the capacity to allow differences and contradictions to coexist, and in doing this, to see how otherwise incompatible notions can fit together through forms of multiple perspective taking. Indispensable to the fourth field of generative dialogue, the nature of vision logic glimpses how things might "fit" together by weaving perspectives from the multiple currents and systems of meaning and ways of knowing that arise within the generative dialogue process.

Vision-logic is supported by "meta-awareness"[14] (Jordan, 2000), which develops from the practice of suspension. Becoming meta-aware of our experience in conversation helps invite a creative space or clearing to notice emerging meaning or knowledge. In this sense, generative dialogue participants learn to stabilize themselves at a position of meta-awareness that is at least "one level above habitual engagement" (Varela, 2000). If we look to the spoken discourse traditions of debate, the psychological pressure of debate tends to block the emergence of meta-awareness and vision-logic by keeping participants absorbed with the downstream content and context of a given argument. In my experience with debate, this tends to result in polarization of different perspectives, and a tendency to overlook the deeper assumptions underlying the differences or how the differences might be integrated. On the other hand, participants witnessing their reflexes of thought and emotion rather than unconsciously acting out and subsequently identifying with these reflexes characterize the later fields of reflective and generative dialogue. Similar to meditation practice, suspension offers a way station for the self to dis-embed from its habitual identification with the ordinary waking state of consciousness and re-embed within the witness self position. According to Jordan (2003), meta-awareness (like vision-logic) is an advanced form of cognition that can attend to and draw support from a variety of emotional, behavioral and thought content without identifying with such content as who one is and therefore is not prone to being lost in such streams of consciousness.

Emotional Line

In addition to cognition, another developmental line that is relevant to generative dialogue is emotional intelligence. Although many developmental lines develop in a relatively independent way, Wilber also regards developmental lines as "streams" (2000), which is helpful in the case of emotional intelligence, which relies on cognition as well as other neighboring developmental lines. In the field of reflective dialogue, participants begin to invite more relational ways of

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intended to engage those practitioners who are interested in cultivating greater mastery of the capacities that support and enhance the emergence of generative dialogue.

[14] Thomas Jordan (2000) offers a definition of meta-awareness:

> Meta-awareness means awareness of the sensorimotor schematas, emotions, desires and thoughts that tumble through our being. Instead of being had by one's habitual behavioral patterns, emotions, desires and thoughts, meta-awareness means that there is a locus of witnessing in consciousness that can make the behaviors, emotions, desires and thoughts objects of attention (p. 33).

knowing and being through conversation that develop our capacity to embrace differently shaded emotions without necessarily repressing or expressing the emotional content. With practice, generative dialogue groups develop the capacity for a form of collective "emotional alchemy" (Goleman, 1997), where emotional pain is met with collective compassion and openness. However, depending on each individual's stage of development of emotional intelligence and other supportive lines (e.g., moral and cognitive intelligence), there will be a greater or lesser ability within the group to hold conflicting emotions well. Furthermore, generative dialogue develops an individual's capacity to embrace and allow for different shaded emotions, in turn making participants less prone to being emotionally reactive. Yet, once again, there will be individuals who have not yet developed their emotional lines to this degree and so rely on the modeling from others within the group who have. Further advanced forms of emotional intelligence enable participants to not only to imagine what one would think and feel if they were in someone else's shoes, but also to imagine what *another* person thinks and feels (Jordan, 2003). Higher levels of emotional intelligence enable people to be less tangled up and hooked by their own or other's emotions, which helps avoid the marginalization of creative processes through the "tyranny of intimacy" (Arnett, 1992, p. 32) and other forms of group narcissism.

Collective Intelligence Line[15]

The Next Buddha May be a Sangha – Thich Nhat Hahn

As participants explore the latter fields of generative dialogue, they develop the capacity to experience more *interdependent* processes of learning and thinking together. With sufficient practice and duration, participants learn how to sense, listen and think together from the shared source of emerging shared meaning that is arising through the present moment. In moving from the individual-oriented to the collective-oriented fields (i.e., transition from talking tough to reflective dialogue), the boundaries between participants begin to soften through empathic listening, and suspension of thought and judgment, which brings the personhood of the participants into the foreground. When the group passes the final threshold into generative dialogue, the practice of collective presencing gives way to newly emerging forms of *collective intelligence*.

Berkeley professor of cognitive science Eleanor Rosch describes this as a movement from analytic knowing to a form of wisdom awareness she describes as "primary knowing" which involves a "transformation from the subject-object-separation consciousness, towards an order of perception that happens from the whole field, not from within a separated perceiver" (Rosch and Scharmer, 1999, p. 21). According to Rosch, primary knowing requires developing the capacity to literally sense and align oneself with the source of the unclear knowledge emerging from the field itself. In learning to recognize and embody forms of primary knowing, participants develop the skills to support one another in cultivating fields of collective learning that increasingly rely upon collective attention, intention and capacity building within the fourth field stage of generative dialogue.[16] In spite of the absence of empirical research on the subject, interest in collective intelligence and collective methods for learning and thinking together has grown considerably within the past decade[17] (Hamilton, 2004).

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[15] Though AQAL theory does not explicitly identify collective intelligence as a line of development, I have included it here as a preliminary conceptual exploration of both an individual and collective capacity of consciousness that may be later validated by empirical research.

[16] It is helpful to visualize the developmental line of collective intelligence as a developmental capacity of the collective interior (LL) of a group. While all groups can potentially experience different orders or

“States” of Consciousness

Wilber’s (2000) model of “states” of consciousness is derived in part from the world wisdom traditions as well as the more recent field of consciousness studies. According to Wilber (2006), the great wisdom traditions Vedanta Hinduism and Vajrayana Buddhism both maintain that the three *natural states* of consciousness—waking, dreaming, and deep dreamless sleep—correspond with three great *bodies* or waking *realms* of being (gross, subtle, and causal) in daily life. In both traditions, the bodies[18] are said to be the energy support of the corresponding mind or state of consciousness (e.g., the gross bodymind, subtle bodymind, and causal bodymind). Wilber uses the terms “gross,” “subtle,” and “causal” to refer to these three broad states of waking awareness, even though, technically, they refer to the energetic support of those states.

Within the context of generative dialogue practice, as a tentative orientating generalization it is my experience that each of these three states are roughly enacted with the three *transitions* from talking nice to talking tough; talking tough to reflective dialogue; reflective dialogue to generative dialogue. The *gross* bodymind or our conventional waking state is maintained from talking nice to talking tough to the extent that participants are still engaged within their discursive minds and have not yet begun to take a perspective on their own or the collective conversation. The shift from *gross* to the *subtle* bodymind is facilitated by suspension of thought and feelings in the transition from the field of talking tough to reflective dialogue. Opened through suspension, the subtle bodymind is stimulated when groups and individuals slow down to make in-the-moment contact with their thought processes and underlying source. This shift is also similar to what takes place in meditation where one moves from being subject to one’s thoughts, emotions and consciousness to witnessing these contents both individually and as a collective. Finally, with presencing, my experience is consistent with Wilber’s claim that “presencing” evokes the “causal state” (Wilber and Scharmer, 2004) inasmuch as presencing calls upon the spacious and vast *causal* bodymind. Here participants begin to experientially make contact with the threshold of emergence, which gives rise to manifest thoughts, ideas, and intuitions that begin to crystallize in our awareness.

Again, considered in the light of provisional orientating generalizations, these “state” shifts become particularly interesting when viewed from the four quadrants. For within the previous distinction of *GD cultures*, groups go through these state shifts bringing about a movement from

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levels of collective intelligence, some groups are invariably more creative or intelligent than others. Partly this is due to the capacities individuals bring to the field of conversation, but partly also the collective capacities of a group to cycle through Scharmer’s model of generative dialogue and to embody collective wisdom.

[17] For a helpful overview of the field of collective intelligence, I recommend consulting Craig Hamilton’s (2004) groundbreaking article *Come Together: The Power of Collective Intelligence* in the May-July 2004 issue of *What is Enlightenment.*

[18] According to Wilber (2006), for the wisdom traditions, a “body” simply means a mode of experience or energetic feeling. So there is coarse or gross experience, subtle or refined experience, and very subtle or causal experience. In other words, these are *phenomenological realities* that present themselves to our immediate awareness. While everyone has access to all their bodies and the energy of each of these bodies, Wilber notes that not everyone is present to these bodies in the moment.

their *collective* gross bodymind to their *collective* subtle bodymind to their *collective* causal bodymind. More recent theorizing within the emerging field of collective intelligence indicates the formation of a "group bodymind" (Bohm, 1996), "co-intelligence" (Atlee, 2003a, 2003b) or "collective mind" (Hamilton, 2004) when vital thresholds of group experience are crossed. However, none of these collective metaphors take into account the respective shifts in the group *state* of consciousness, leaving out a vital dimension of individual and collective experiences. With the distinction of *states*, we bring attention to the correlative shifts of participants' consciousness in relation to the unfolding field dynamics of conversation and the gesture of moving back upstream to the source of our experience (as depicted in the opening quote).

Just as Wilber (2006) has pointed out, more frequent movement through *state* changes facilitates and quickens the development of *stages* along different developmental *lines*. In this way, generative dialogue, like other methods of collective intelligence[19] can serve the role of an intersubjective (LL) yoga that facilitates individual's temporary change in *state* of consciousness, which over time can help participants develop enduring levels of consciousness along different lines. Experiencing these deeper states in group conversation as a vitalizing dimension of the conversation can help catalyze profound motivation and meaning in the process of conversation as a co-creative practice. As gateways to the temporary emergence of transcendent states of being that often evoke deep feelings of sacred connection with life and the greater cosmos, my experience is that helping groups identify and access these states brings forth the dormant gross, subtle and causal realities that accompany these states.

From experiences facilitating and participating in generative dialogue groups, I have found the framework of *states* helpful as a set of distinctions to recognize and name these state-shifts in their moment-to-moment experience. As Wilber (2003b) frequently comments, regular meditation practice also helps us learn to dis-identify with the *gross* contents of consciousness and in turn free up attention for *subtle* or *causal* contents/realities:

> As meditation deepens, different contents tend to arise, often moving from gross contents (objects of the senses and mental representations of them) to subtler contents (visions, illuminations, bliss) to very subtle or causal contents (vast formlessness, consciousness without an object) (p. 1).

Contemplative practices such as meditation[20] offer an *intrapersonal* (UL) practice for individuals to experience a shift in their *state* of consciousness. As a complementary *interpersonal* (LL) practice, generative dialogue offers a venue to bring about shifts in the gross, subtle and causal *states* of consciousness through conversation. From this perspective, an objective of generative dialogue practice is not to leave behind the conventional or gross states of mind or to label them as egoic and therefore a hindrance. Rather, it becomes important to cultivate the flourishing of all states and their respective bodyminds as portals to a more integral understanding of multiple depths of reality as it unfolds and is co-created through conversation. Consistent with the Vedantic tradition, Wilber (2003a) refers to such a state as “Turiya,” which is the ability to simultaneously *witness* and *experience* all three states and bodies of the gross, subtle and causal. Recognizing that every state has its relative value, but that learning to individually and collectively embody deeper states offer more relative value gives credence to Scharmer’s (2000) reflection on a conversation with Bill O’Brian, “the success of an intervention depends on the interior condition of the intervener” (p. 1). Given that each state of consciousness contains a distinctive self-sense, level of reality and scope of sensitivities, activating deeper collective states through the generative dialogue process invites participants into heretofore unexplored frontiers of knowing, learning and being.

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[19] Other intersubjective methodologies of collective intelligence include Roshi's (2006) *Big Mind*; Cohen's (2004) *Enlightened Communication*; among others.

[20] Wilber (2003b) elaborates on the relationship between different types of meditation and connection with states of consciousness:

> For example, in a type of meditation known as savikalpa samadhi (or mediation with an object of awareness), one can directly (while fully awake) experience the higher reaches of the subtle realm; in states of nirvikalpa and jnana samadhi, one directly experiences the causal realm; in states of sahaja samadhi, one directly realizes the nondual (which we will discuss in a moment). In all of those cases, one is developing one's capacity to experience higher states by converting them into *permanent acquisitions*. States that are normally unconscious have been made conscious; states that are normally temporary have been made permanent (p. 10).

Closing Remarks

As this article outlines, an AQAL interpretation of generative dialogue introduces several new distinctions for GD practitioners to broaden and deepen the scope of their practice. Given the respective influences of the different dimensions of our consciousness within the four fields of conversation of Scharmer’s model, this article initiates a preliminary inquiry and positing of directions to inform further theorizing and research within various contexts of GD practice. Future generative dialogue practitioners will benefit from considering different possibilities for how AQAL interpretations can advance the capacities and potentials of existing groups. Finally, it is my hope that this article will inspire the continued development and refinement of generative dialogue as a transformative practice within the emerging field of collective intelligence.

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How I Lost My Mind and Found the Meaning of "Life"

Herb Koplowitz

Abstract: By integrating philosophical rigor with practical examples and personal history and revelation, the author shares how he ended his quest to understand the concepts of life, mind, and soul and resolved the mind-body problem. The article relates the key insight garnered from Elliott Jaques that triggered a new, internally-consistent conceptual framework or paradigm. Founded on a unitary organism model of life, it replaced the mind-body-soul model. The logic of the new conceptual framework is developed through brief, methodical discussions that juxtapose *choice and judgement* with calculation, Newtonian physics, randomness, and self correction. The paper is grounded in the premise that our attempts to answer a question (e.g. "How do we think and judged?") are hindered by accepting an entity (e.g. mind) whose only evidence is that the question exists. On that foundation, unitary arguments trace the author's dissolution of concepts of mind, body, and soul and the spiritual. General implications of this framework are then applied to terminology and to the origin of life, abortion, and trading one duality for another. In relating some personal implications of this framework in daily life, the author makes the case for the value of simplicity in conceptual frameworks and the clarity that can result.

Keywords: body, choice, dualism, Elliott Jaques, judgement, life, mind, mind-body problem, organical, organism, organismic, soul, unitary

Introduction

I have puzzled about the concepts of life and mind since I was in high school. I suppose I am in good company as philosophers and scientists have been working on these problems for a long time. The mind-body problem, for example, was around before Descartes wondered how a material body and immaterial mind could affect each other. Nothing I read in Western or Eastern approaches really made sense to me. Then, nearly ten years ago, I was given an insight about mind that immediately ended my quest for an understanding of that concept and also gave me clarity about life and soul and, along the way, even changed my understanding of body.

This paper shares that insight and its implications in the hope that the clarity I have gained for myself may be of benefit to readers who might have had the same puzzles that I have had. You may not come to share my point of view, but I hope there is enough clarity in my writing to help you rethink your own.

I will need first to explain the epistemology underlying this paper. My approach to knowledge leads me to consider this paper to be a quest for sense, not for truth. This will set the stage for briefly explaining what had been so dissatisfying for me in what I had read earlier, sharing the insight, and stating what it did for me. I will then explore, in turn, what the insight did for my understanding of the concepts of life, choice, mind, body, and soul. I will close by describing how my new understanding changes how I now think about issues as diverse as the origin of life on earth and on abortion.

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Underlying Framework

The framework for this quest comes from my understanding of Thomas Kuhn's *Structure of Scientific Revolutions* (1962). Kuhn described two distinct activities in science. In "normal science," one extends the range and accuracy of causal laws and facts (e.g., how many species of monkey there are) about some domain of the world (e.g., zoology). In "revolution," one changes the paradigm, the approach one takes in doing normal science (e.g., Darwin's developing the formerly unthinkable concept that a species may develop into a different species). I understand a key aspect of paradigm to be the conceptual framework, the system of concepts through which laws and facts are formulated. As another example, the revolutionary work of Piaget (1971a, 1971b), the Swiss psychologist, was to develop the paradigm he called "genetic epistemology," essentially, the understanding of knowledge as something we construct rather than copy from reality. His paradigm includes such concepts as schema (essentially, a concept), assimilation (interpreting data to fit one's concepts), accommodation (changing one's concepts to fit the data) and equilibration (keeping one's concepts and one's data consistent). When he explored the development of mathematical understanding in children, he was doing normal science.

As I understand it, normal science is the pursuit of objective truth, that which is observable by anyone. Piaget took a ball of clay and rolled it into a snake in front of children of various ages. He observed that a child will, when younger, believe there to now be more clay than there was before and that later in development the child will believe the amount to remain unchanged. Anyone can observe this same fact. It is the observability that makes normal science testable, falsifiable.

But a conceptual framework is a means of making sense of data and is therefore not testable through data. As a psychology graduate student, enthralled by Piaget's model of how we are genetically programmed to mature through a series of stages, I found to my frustration that no fact could convince my behaviourist office mate of the error of his beliefs that environment determines everything psychological. He assimilated everything I said to him to his own behaviourist framework. I now see that he was not wrong but just looked at things differently from how I looked at them. We could argue about which way of looking at things made more sense, but there is no objective means of deciding between the two paradigms.

Think of that gestalt drawing. If I show you how this line outlines the young woman's chin, that will not necessarily alter your view of the drawing as one of an old woman and the line as outlining her nose. The function of a conceptual framework is to help us make sense of data. Kuhn has shown to my satisfaction (though not to that of his critics) that the decision of which of two conceptual frameworks does the job better is subjective.

This paper describes a particular conceptual framework for making sense of psychological data commonly described using words such as "life," "mind," and "soul." My purpose is not to prove the truth of the framework as I do not believe conceptual frameworks are the kind of thing that is provable. Rather, I wish to share how this conceptual framework helps me make better sense of issues that were previously puzzling to me. I shall begin by briefly describing what puzzled me, the insight given to me, and what I mean when I say that the insight resolved the puzzle.

Puzzles, Insight and Resolution

I do not recall if I ever thought of the brain as what thinks. I am fairly sure that in university, if not in high school, it was clear to me that the brain is a piece of meat. It is clearly essential to thinking, as the telescope is essential to astronomy. But it is not the sort of thing that would do something like think anymore than a telescope is the sort of thing that would do something like see. So I assumed it must be the mind that thinks, but this only raises the question of what the mind is.

My first clue that the concept is troubled was that writing is always clearer and more descriptive regarding the adjective “mental” than the noun “mind.” The indices of Piaget’s books, for example, are rife with references to mental activity, exercise, experience, experiments and operations, but of the 29 indexed books of his in my library, only one (1973) has “mind” in its index. Even books with “mind” in their title, e.g., *Frames of Mind* (Gardner, 1983) or *A Whole New Mind: Why Right-Brainers Will Rule the World* (Pink, 2005) may not have the word “mind” in their index.

There are, of course, explicit models of mind. Freud’s concepts of id, ego, and superego form a model of the mind. And in the East, most schools of yoga I have studied have mind as a constituent part of a person along with soul, body and life force. (Some even have two minds, e.g., a sensory mind and a thinking mind.) But what I read of these models was more descriptive of what the mind does than of what the mind is. None of it solved the mind-body problem, how a material body and an immaterial mind can affect each other, let alone how a person’s soul can survive their death.

Life, too, was a concept that puzzled me. I recall reading articles defining life as that which reproduces itself. But the same articles always noted that fire, too, reproduces itself, showing that the definition missed the mark. Davies (2002) has refined that definition, saying “Today, life is regarded as an immensely complex information processing and replicating system.” But even if my lap top and my wife’s PC could make the beast with two backs and thus produce a calculator, I would not consider them to be alive.

And then there was the phone conversation with Elliott Jaques in 1998, give or take. Jaques (1996) was co-creator and major developer of Requisite Organization, an approach to designing and managing organizations that I use in my consulting, and I was fortunate to have a collegial relationship with him. (He is better known for coining the term “mid-life crisis.”) I forget what we were talking about, but he mentioned that he no longer used the term “mind,” that he did not find it useful. What thinks? I think. With what do I think? Well, with what do I live? It is just I who lives and just I who thinks.

This was a transforming moment for me. I felt that a quest had ended, that a puzzle had been solved. When he gave me that nugget, it exploded—not in my brain, not in my mind, but in me—and I could see my way clear through issues that had entangled me for years. Ironically, I gained clarity about “mind” by losing the concept. Moments later, a second puzzle was solved for me. I realized that if I do what I used to think my mind does, perhaps I also do what I used to think my soul does. I immediately understood myself to be all I had, and if I am made up of parts they are not mind and body and soul. (Jaques’s 2002 *Life and Behavior of Living Organisms* expands on the resulting view of the organism.)

I learned a new conceptual framework for mind and soul, one that for the first time made sense to me. That led to a different way of talking about life and related phenomena. Let me now unfold that framework and describe that language. It will be useful to start with life and what only living things can do. That will lead to a model of unitary person or, more generally, unitary organism, which I will contrast with a body-mind-soul model. I will then examine implications of the change of model for several issues.

What Is Life?

Jaques's point was that the organism does what we typically say the mind does. I would include in that list verbs like "feel," "want," "intend,"[1] "judge," "choose," etc. To me, it is clear that only living things do them. When the door squeaks, we may say that the hinge wants oil, but this is a metaphor. The hinge does not feel dry, want oil, intend to get oiled within the hour, judge which is the best way to get oiled, choose that way to act, squeak with the intention of getting oiled, nor search for another way to get oiled if squeaking does not succeed. I hope the contrast is clear between the hinge's "wanting" oil and my wanting peanut butter chocolate ice cream. I do feel hunger, want ice cream, intend to get some within ten minutes, judge which is the best way to get it, choose that way to act, go to the freezer with the intention of getting ice cream, and think of how to get some if the freezer is devoid of it. I use those verbs literally, not metaphorically. Changing the example of a hinge to one of a computer does not change the metaphorical nature of the use of those words. Computers, no matter how complex, do not want, judge, choose, intend or feel.

Realizing that feeling, wanting, intending, judging, and choosing are peculiar to living things made me realize that a living thing is anything that judges and chooses. (I could have chosen the verb from any in that list of gerunds.) I am absolutely clear about this in the animal world. I understand all animals to judge and choose, all animals including humans, apes, cats, goldfish, bees, and even amoebas. I cannot look at a worm and see a mechanism whose behaviour is completely explicable by Newton's laws and the laws of chemistry, nor one that deviates from those laws only through randomness.

I expect the same is true of plants, though I do not have the data to feel as sure or to give as many examples. I believe our choice of grammar is descriptive when we say that a tree puts out roots, that this is an action on the part of the tree. And it just does not make sense to me that chemistry and physics totally explain whether a root goes left or right around a rock. It makes more sense to me that this is a choice the tree makes.

Judgement and Choice vs. Calculation, Newtonian Physics, Randomness, and Self Correction

We speak of "artificial intelligence" and refer to computers as "thinking machines," as though computers can do what we say the mind does. So it may be useful for me to explain more about what is unique about living things. Jaques (Glossary, 1996, p. 140) defined "judgment" as:

> The weighing up of the factors in a problem, interplaying verbalizable knowledge and data and non-verbalized mental processing in relation to each other, in trying to arrive at a decision. (Note this was before he gave up "mind").

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[1] I use "want" to refer to a state of incompleteness that the organism wants rectified. "I want a better wardrobe" means I feel short of some clothes and wish to get some more clothes. An intention is a specific, time-bound means of filling the need. "I intend to get two business suits within a month."

I am not sure how helpful I find that definition, but the concept of "judge" like the concept "see" is so fundamental that it resists useful definition.

I shall compare judgement and choice—hallmarks of life—with calculation, Newtonian causation, randomness, and self-correcting mechanisms.

Calculation vs. Judgement and Choice

Computers calculate, taking inputted data, processing those data through rules set by the programmer, and displaying the results. It is all very logical. Of course, the calculations computers are capable of have become faster and more complex, but thinking is not complex calculating. Calculations have right answers. Put in 2 + 2 and the result had better be 4. Any two computers performing the same calculation will come up with the same answer, or at least one of them is wrong. But when I choose strawberry ice cream and then say it was a mistake, I do not mean that I made a factual error but that it turns out that I would have preferred a different flavour. In the most complex decisions, we count everything we judge relevant to count, measure everything we judge relevant to measure, and perform all of the calculations we judge relevant to perform. We then interpret the results and make our choices. We do not know our reasons for making the choices we make; Freud created an industry on this insight. In most instances, computers are far better at calculation than we are. But we judge and choose. I cannot imagine how a computer would judge or choose.

Newtonian Physics vs. Judgement and Choice

In the late 17th and early 18th centuries, Sir Isaac Newton laid the foundation for all of modern physics. He concerned himself with objects that stand still or move no faster than everyday objects move and which are large enough to be visible and tangible to us, no smaller, say, than a ball bearing but as much larger than that as you would like, even as large as the moon, earth and sun. Newton formulated laws that have been very successful at predicting the movement of such objects under prescribed conditions. Drop a ball bearing from a given height inside a long tube that has had all the air removed from it, and his laws predict with great accuracy how long it will take the ball to fall. Great accuracy, but not total accuracy. If we get our measuring devices fine enough, we will always find random error, some small variation from the predicted time. This is treated as something of a nuisance, the unavoidable effect of a little bit of air's having entered the tube or of a nearby earthquake which moved the bottom of the tube up by a tiny amount, thus shortening the fall of the ball bearing by a small amount.

The conceit in Newton's physics is that if we could just get the conditions perfect, the laws would predict with *absolute* accuracy how long it would take the ball to fall. Einstein took Newton's laws and extended them to cover also objects that move much faster than everyday objects do, even as fast as light moves. This produced subtle but important changes in Newton's laws, but did not alter the assumption that the movement of objects could be predicted with total accuracy, theoretically at least. Einstein was said to have declared, "God does not play dice with the universe."

It is clear that human behaviour is not as predictable as the movement of ball bearings. Simply by knowing a few facts such as the size and shape of a ball bearing, the slope of a ramp, and the coefficient of friction between the ramp and the ball bearing, a physicist can predict with great accuracy how long it will take the ball bearing to roll down the ramp. But if you know my size and shape, the slope of a ramp and the coefficient of friction between the ramp and my shoes, you will not be able to predict how quickly I will go down the ramp. You may be able to predict that the prospect of a free peanut butter chocolate ice cream cone will increase my speed, but if I am dieting it might actually drive me back up the ramp. Whatever type of cause and effect drives my behaviour, it is surely different from the causation Newton described.

Randomness vs. Judgement and Choice

At the same time that Einstein was extending Newton's exploration from the relatively slow to as fast as possible, Heisenberg, Plank, Bohr and others were extending the exploration to the very small, developing a field they called "quantum mechanics." Quantum mechanics differs from Newton's laws, among other ways, in that it holds randomness to be an essential element of the world. When we get as small as a photon, a single particle of light, we can calculate how likely it is that the particle be in a given location at a given time, but we do not know exactly where it will be when.

It would be tempting to tie my unpredictability to quantum randomness as though computer-like processes drive my walking down the ramp with quantum randomness keeping the result from being totally predictable. But organisms are not mechanisms with quirks. You can predict that given the option of peanut butter chocolate and any other flavour of ice cream, I will go for the peanut butter chocolate 99% of the time. But that 1% when I choose something else is not random error. It is because I enjoyed pistachios yesterday and wanted to remember what pistachio ice cream tasted like; or I was cooking with vanilla this morning and was reminded that good vanilla is a rich, deep flavour, and not the absence of flavour; or something in the ice cream shop was reminiscent of something from my childhood—maybe something I am not even aware of that leads me on a whim to ask for strawberry.

Organisms do not act in Newtonian fashion, and adding randomness to Newton does not help.

Self Correction vs. Judgement and Choice

Cybernetics is the study of self-correcting systems, like the thermostat which keeps your house at the desired temperature regardless of the effects of weather. Your thermostat turns on your furnace when your house gets too cold and then turns it off when it is warm enough. It is tempting to link this with the kinds of corrective actions you take in pursuit of a moving target.

The similarities are interesting and have been put to good use in General System Theory (Bertalanffy, 1968) and its applications to human systems such as families (Watzlawick, Bevelas, & Jackson, 1967). Your house's thermostat is a homeostatic mechanism, a device or processes that maintains a norm; so is the way you choose your clothes, warmer ones in winter and lighter ones in summer, to keep your own temperature within a comfortable range. But there is a significant difference between the two. Your house's thermostat does not intentionally act to keep your house at the desired temperature. Rather, it responds to signals exactly as it is programmed to do. If December weather turns unexpectedly warm, uncomfortably warm, your thermostat does not think to turn on the air conditioner. You, on the other hand, will think to pull some summer clothes out of the closet if you are heading for 32 C. weather in Puerto Vallarta. You may also choose to wear a warmer outfit there instead, even though it does not suit the weather, because you will look and feel so right in it at that event.

Your thermostat corrects by following the rules, and if the rules lead it astray from keeping the house at the right temperature, it follows the rules anyway. But humans, and all organisms, are goal driven, not process driven. Of course, you may assume that the thermostat is going to look after the house temperature, and you may allow the house get uncomfortably cold before you take notice and turn the breaker on that the electrician mistakenly left off four hours ago, but you will eventually notice that the house is cold and you will take some action to get it warm again.

Framework

Again, this is an issue of conceptual framework. If it makes sense to you that the unpredictability in my behaviour or yours is like the unpredictability in the movement of a photon, I can give you no scientific evidence to the contrary. I can ask you whether it makes sense to you that photons act outside the law because they change their intentions, if you understand they no longer to want to move left as Newton's laws would predict. But if that is how you make sense of the world, there is no counter evidence that would compel you to change your point of view. As Kuhn (1962, p. 148) said, "The competition between paradigms is not the sort of battle that can be resolved by proofs."

The Mind

What does those things: want, judge, choose, intend, feel, etc.? Previously, I would have said we do them with our minds. I understood mind as the agent of all actions peculiar to living things (except, perhaps, for the strictly biochemical). And this is a common point of view:

- "This book was brewing in my mind over a period of probably nearly twenty years." (Hofstadter, 1980. p. xix)
- "From the start, the [pasta] station was a test of the mind's capacity to hold many things in place without ever having to think about them." (Burford, 2006, p. 120)
- "Now…imagine that your mind wanders away, gets lost, and never comes back." (Gilbert, 2006. pp. 66-67)

In that single moment in that conversation with Jaques, I understood "mind" not to add any meaning or explanation in those sentences. Now I would say:

- "I have been thinking about this book over a period of probably nearly twenty years."
- "From the start, the [pasta] station was a test of the cook's capacity to hold many things in place without ever having to think about them."
- "Now…imagine that your attention wanders away, gets lost, and never comes back."

To specify that the actors in these three scenarios took these actions with their minds adds no new information. Losing my mind has given me only clarity and simplicity. The second set of sentences expresses everything that the first set does and just as clearly, but without use of a phantom entity. "Mind" is used as though it explains how we think, but it only serves to name that which we do not understand.

Science will, with some frequency, hypothesize a substance to account for a phenomenon it cannot otherwise explain. Chemists first used a substance they called "phlogiston" and later one they called "oxygen" to explain fire. Physicists hypothesized a substance they called "ether" to explain how light waves could travel in a vacuum. Sometimes, as in the case of phlogiston and ether, the hypothesis does not pan out; scientists were never able to produce phlogiston or ether, contain it in a jar and find effects it had other than the phenomena they were invented to explain. Sometimes, as in the case of oxygen, the invented substance pans out; we can separate it out from air, put it in a jar, weigh it, combine it with other substances, etc.

It is part of scientists' job to explain natural phenomena. Sometimes they hypothesize substances in the process but, as scientists, they then test the hypothesis. Science is not advanced by explaining fire as the result of phlogiston if the only evidence of phlogiston is that there is fire. That would simply be naming what was not understood and treating the name as though it explained what is not understood.

Jaques referred to forming intentions, judging and choosing as "work," organical (see "Terminology" below) work as opposed to the mechanical work that Newton studied. We do not know how we form intentions, judge and choose. Jaques (2002) referred to how we work as "ineffable:" not observable and not describable. Of course we are learning more and more about how the brain works and we are learning which parts of the brain are most active when we are engaged in various activities peculiar to living things. But biochemistry does not explain wanting, forming intentions, judging, and choosing in the way that physics explains the actions of a computer. A thought may be accompanied by the passing of a nerve impulse across a synapse, but the thought is not the same thing as the passing of the impulse. A memory may be lost when a part of the brain is damaged, but a memory is not that part of the brain nor any chemical or electrical arrangement of a part of the brain. No combination of chemical or electrical phenomena make up a thought, a memory, or desire in the way that an atom of sodium and an atom of chlorine make up a molecule of salt.

One more time, the issue under consideration is one of conceptual framework, not of normal science. I am offering no evidence of causal laws previously unknown. I have not invented a mindometer, placed it against a large sample of humans and found it always to register zero. The data that convince me to consider "mind" as a place holder, a word with no referent, are all consistent with a framework that includes "mind" as an entity; I simply find that those data make more sense to me now that I have no mind. And it makes sense to me that all living things—even amoebae—are much more similar to humans than they are to rocks or computers; all living things, and only living things, feel, want, intend, judge and choose.

The Body

If I have no mind, I have no body either. What would the "I" be that would have a body and what would be left over of the "I" when the body is taken away from it? Analysis leaves just me, not a body and a mind, one corporal, the other ethereal, mysteriously interconnected.

- Not "My body is fat" but "I am fat."
- Not "I have my father's body" but "I'm built like my father."
- Not "I love looking at her body" but "I love looking at her."

Of course, I still have a liver and skin and a stomach, etc., but they do not all add up to a material part of me that is inert until it interacts with my immaterial mind to make me, the person. You cannot lose your mind without also losing your body. My body will exist, but only when I die. At that point, I will cease to exist, and all there will be is my corpse.

Soul and the Spiritual

Soul only became of interest to me once I started studying yoga. (My Jewish upbringing was long on ethics and short on theology.) I have tried to understand what is meant by "soul" or the "spiritual" nature of humans. I believe that when people talk about soul, they address phenomena at three levels:

- the intrapersonal,
- the interpersonal,
- the extra normal.

The *intrapersonal* is what "spiritual" practices such as meditation are said to do for the individual: physical health, mental health, feelings of centeredness, stilling the mind, feeling connected to others, etc. My own experience with these practices was just sufficient to give me a flavour of their potential. I believe these practices are calming and centring. I would not say they still the mind because I am not aware of anything I would want to call a "mind." And I do not believe they stop the process of judging because I believe that is ongoing from birth (or earlier) to death. But I do expect that someone deep in meditation has left the verbal world. They are not trying to re-work the past, they are not caught up in current emotions, and they are not worrying about the future. I expect such disengagement from emotional turmoil would have enormous benefits not only during meditation and immediately afterwards but also potentially throughout the day as one becomes skilled at focusing on what one wants to focus on rather than getting caught in distractions. None of this requires a concept of soul to understand it.

The *interpersonal* is how we feel about and act towards others. Spiritual teachings encourage us to treat others with respect and care and spiritual practices are said to make such behaviour easier. I find these claims credible, but I do not find a need for soul to make sense of beneficial interpersonal relationships. I expect that the survival of any species requires its members to be, on the whole, supportive of each other.

By *extra normal* I mean what may happen beyond the worlds of physics, chemistry and biology (biology understood to include psychology). This includes:

- telecommunication, giving or receiving messages directly soul to soul;
- action at a distance, such as healing someone by thinking of them or praying for them without giving them a physical or chemical treatment or at least informing them that one was going to do this;
- survival of the soul after death as suggested by communication or actions taken from beyond death.

These cases would establish the soul for me as an entity as they are beyond the explanatory capabilities of physics, chemistry and biology. Of course, a paradigm may not be changed just because of one inconvenient fact, but the weight of evidence, a number of anomalies that cannot be accounted for in my conceptual framework but can in another, might lead me to change my understanding of soul. However, I have no convincing evidence that such phenomena happen. I have heard many anecdotes of healing at a distance or of causing a distant object to become heavier, but nothing with the kind of controls that would make those claims credible to me.

Implications

I have described how considering "mind" to be a myth, a place holder, changed my concepts of life, body and soul. But it has had effects on in a number of other areas as well. I find no order or pattern to the implications I am aware of, so I shall simply address them one at a time, concluding with the most personal ones.

Terminology

I have used the phrase "peculiar to living things" in place of what I would previously have called "mental" to describe wanting, judging, choosing, intending, and feeling, and this raises the issue of terminology. When there is no "mind," there is no "mental." I have yet to find a term I can use to refer to what only living things do. Whatever the term is, it needs to relate to living things, to organisms, because that is what takes those actions.

We have no term in English for this. Jaques noted that in the non-living world, an aspect of a mechanism is called "mechanical," so it would make sense to refer to an aspect of an organism as "organical." He was aware that the term "organical" was unlikely to catch on but never found an adequate substitute for it. Von Bertalanffy (1968), the major developer of General System Theory, for similar reasons referred to aspects of an organism as "organismic" which has not caught on any more than "organical." It is easy enough to substitute a reference to the organism ("I," "George," "the dog," etc.) in place of "mind" in describing an instance of feeling, wanting, intending, judging, or choosing. But I lack an elegant way of specifying that the work I am referring to is the organical work, not the mechanical work.

Origin of Life

My understanding of the nature of life has changed my concepts regarding the origin of life. I used to be quite comfortable with the story that a lightning bolt struck a pool of chemicals, fusing some together in new ways, thus creating life. That story just does not make sense to me now because I do not see how life can come from non-life. I could see developments in micro-technology that would allow us some day to build a human corpse from scratch. But I do not get how we could ever start from constituent chemicals and build a living amoeba that feels peckish, wants to consume something, intends to do so within the next five seconds, judges which particle to pursue, and choose to extend a pseudopod just so to capture it. Evolution, the development of new species from older ones, is not at all problematic; this is simply something that has intentions coming from something else that has intentions. But I do not see how something with wants and intentions can come from something without intentions.

If living things are essentially different from nonliving things and life cannot come from non-life, then how did life begin? Jaques used to say, only half jokingly, that in the beginning was life, some of which died in the big bang. My own understanding is informed by Wittgenstein's

(1961, p. 149) statement “It is not *how* things are in the world that is the mystical, but *that* it exists.”

I have always understood him to be saying that if you are going to have a world, it will have some characteristics, some shape, some order to it. The order itself is the subject of science, and so we can ask why gravity exists and why it attracts rather than repels. These are interesting questions for science, and the answers will only raise more questions. The mystical, that which is beyond science, is why there is a world at all. Science can explore the nature of existence but not its cause. How existence itself came about is beyond science.

I believe the same is true of life. I do not see science explaining the origins of life any more than I see it explaining the origins of existence. Wittgenstein had one mystery (existence); I have two (existence and life). While evolution, development of new species from others, makes perfect sense to me, I have more empathy than I used to for the creationists’ doubts about the scientific explanations of the origins of life.

To be clear, those doubts do not drive me to a religious explanation. I am no better off with a god whose origin I cannot explain than with a phenomenon that I cannot explain.[2] I am quite content to leave life’s origins as a mystery.

Abortion

Prior to my insights about mind and life, I was unable to answer the question of when a human life begins. But new thinking about what life is led to new thinking about when a life starts. Now that I consider a living being to be something that feels, wants, intends, judges and chooses, it is clear to me that a fetus is a live human being from the moment it moves spontaneously and perhaps even from conception. This is a most inconvenient understanding for me as it upsets my easy, earlier understanding about abortion.

I still believe that murder lowers trust in a society. But it was clear to me, and remains clear, that we all need the right to remove from us whatever we do not want on or in us whether that be a kidney stone, a tattoo or a fetus. I share Judith Jarvis Thomson’s (1971, p. 51) belief that “having a right to life does not guarantee having either a right to be given the use of or a right to be allowed continued use of another person’s body--even if one needs it for life itself.” (I would now refer to “continued use of another person”.)

I am still working my way through this issue. While I find no doubt that women need the right to remove an unwanted fetus from themselves, I can no longer brush away the concerns of those who argue for the rights of the fetus.

Trading One Duality for Another

I have said that the issues in this paper are conceptual framework issues rather than science issues so that evidence will not resolve disagreements. A rule that philosophers use in cases like this is Occam’s razor: choose the simpler of two explanations. The mindless approach appears to be the simpler one. Philosophers and scientists have wondered how an immaterial mind can get a material body to move and how damage to a material body can cause pain in an immaterial mind.

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[2] I do respect those whose religious beliefs are grounded in their own direct experience of God. Not having had such an experience, it would be empty of me to assume a god just to have an explanation for life or existence.

Jaques claimed, correctly, I believe, to have solved the mind-body problem: no mind, no body, no problem. But in so doing, he created another dualism: living matter vs. non-living matter. For western science, the living organism is composed of chemicals in the same way that non-living matter is. The rules of physics and chemistry apply to our livers as much as they do to our coffee tables. But the point of view I am espousing claims an essential difference between me and my coffee table. We can turn me into something dead, but cannot turn the coffee table into something alive. Nor can we bring life to a computer or to chemicals in a test tube. The effect of the phone conversation was not to make my thinking less dualistic but to trade one dualism for a different one. I started the conversation with Jaques with one type of matter and a mind-body problem, and ended it with no mind-body problem but with two types of matter: living and non-living.

Personal Implications

Losing the concept of mind has had a number of more personal effects on me. The clearest, most significant effect has been philosophical clarity. That one conversation with Jaques has brought much into focus for me that was previously puzzling. What is the mind, what is life, when does human life begin, what is the nature of soul? I have answers to these questions that make sense to me now. How did life begin, how do we exercise judgment? I am now comfortable not having answers to these questions. Philosophical clarity is a quality whose significance depends on how philosophically inclined one is. I take great satisfaction in finally being clear about what mind and life are and I believe I can now think, speak, and write about organical phenomena more clearly than before.

The other effect of the insight is that it leads me to think, write, and speak more responsibly and to experience my accomplishments, my very life, more immediately, not mediated by a brain or a mind. I will illustrate this first with another concept that was clarified by the insight I have described. “Important” was a troubling word for me going back to my adolescence. I was told that dressing well, getting good grades, going to synagogue, etc., were all important, but I could not figure out what “important” meant. These were things I did not want to do, and I could not grasp the property they all were supposed to have in common, importance. I now realize that “Getting good grades is important” means “I want you to get good grades” or perhaps, “Getting good grades is necessary for you to have the kind of career I want you to have.” By describing actions or their results as “important,” those in authority deny their own responsibility, their own values as desires, as the motivation for attempting to change others’ behaviours. Only an organism wants, and the word “important” masks the role of some person in wanting a particular outcome.

Writing that depersonalizes is quite common. Consider this statement, referred to earlier in this paper: “having a right to life does not guarantee having…a right to...the use of…another person’s body” (Thomson, 1971, p. 51)

Compare it to: “having a right to life does not guarantee having… a right to…the use of… another person.”

It is the woman, not her body, which carries the fetus. But we do not seem to be asking as much of the woman if we require her body, not her, to carry it. (And similarly, abortion feels like an action with less consequence if we do not consider it to end the life of a person.)

And consider these sentences:

> If you were asked to name the human brain’s greatest achievement, you might think first of the impressive artifacts it has produced – the Great Pyramid of Giza, the International Space Station, or perhaps the Golden Gate Bridge. These are great achievements indeed, and our brains deserve their very own ticker-tape parade for producing them” (Gilbert 2006, p. 5).

Compare it to:

> If you were asked to name humanity’s greatest achievements, you might think first of the impressive artifacts we have produced – the Great Pyramid of Giza, the International Space Station, or perhaps the Golden Gate Bridge. These are great achievements indeed, and those who built them deserve their very own ticker-tape parade for producing them.

It is humans, people, not their brains nor their minds, who built that pyramid, space station and bridge. To give credit to brains or minds takes credit away from persons.

I no longer depersonalize accomplishments and burdens as I used to. The added responsibility comes from understanding that *I* do all that I do. I cannot blame my bad decisions on my mind or on my brain nor lose credit to them for my good decisions. They were good or bad decisions that *I* made. And similarly, *I*, not my mind or my brain, wrote this paper, designed that training, maintained an interest in epistemology for all of these years, and so on. The insight makes my accomplishments, my very life, more immediate to me, not mediated by a brain or a mind. I hope this also makes me more caring in my actions towards others realizing that it is a person, not a mind or a body, that I affect.

The insight gives me simpler, more descriptive language. I am persuaded by Orwell’s (1946/2000) view that “…if thought corrupts language, language can also corrupt thought (p. 357). …If you simplify your English, you are freed from the worst follies of orthodoxy…and when you make a stupid remark its stupidity will be obvious, even to yourself” (p. 359).

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Transdisciplinarity: Basarab Nicolescu Talks with Russ Volckmann

Basarab Nicolescu (b. March 25, 1942, Ploieşti, Romania) is a theoretical physicist at the Centre National de la Recherche Scientifique (CNRS), Laboratoire de Physique Nucléaire et de Hautes Énergies, Université Pierre et Marie Curie, Paris. He is also a Professor at the Babeş-Bolyai University, Cluj-Napoca, Romania, and Docteur ès-Sciences Physiques (PhD), 1972, Université Pierre et Marie Curie, Paris.

He is the President and founder of the International Center for Transdisciplinary Research and Studies (CIRET), a non-profit organization with 163 members from 26 countries. He is the co-founder, with René Berger, of the Study Group on Transdisciplinarity at UNESCO (1992) and the founder and Director of the "Transdisciplinarity" Series, Rocher Editions, Monaco, and of the "Romanians of Paris", Oxus Editions, Paris.

He is also a specialist in the theory of elementary particles and is the author of more than one hundred thirty articles in leading international scientific journals, has made numerous contributions to science anthologies and participated in several dozen French radio and multimedia documentaries on science.

Basarab Nicolescu is a major advocate of the transdisciplinary reconciliation between science and the humanities. He has published many articles on the role of science in contemporary culture in journals in France, Romania, Italy, United Kingdom, Brazil, Argentina, Japan and in the USA.

Adapted from Wikipedia,
http://en.wikipedia.org/wiki/Basarab_Nicolescu#Biographical_profile

Introduction

There seems to me to be a natural harmony between transdisciplinary and integral approaches to, well, just about everything! Integral Review embraces work in transdisciplinary, developmental and integral approaches in its pages. What more appropriate than an interview with the man, more than any other I know, who has fostered an international transdisciplinary approach from his distinguished position as a leading contributor to theoretical physics.

CIRET (Le Centre International de Recherches et Études Transdisciplinaires) *http://nicol.club.fr/ciret/index.htm (from their website) "is a non-profit organization, located in Paris and founded in 1987. The aim of our organization is to develop research in a new scientific and cultural approach - the transdisciplinarity - whose aim is to lay bare the nature and characteristics of the flow of information circulating between the various branches of knowledge. The CIRET is a privileged meeting-place for specialists from the different sciences and for those from other domains of activity, especially educators."*

One can find a wealth of links to transdisciplinary publications, many of them related to the interface of science and human systems, including public policy, health, sustainability and ecology. Of particular interest is Basarab's publication, Manifesto of Transdisciplinarity *(tr. Karen-Claire Voss. Albany, NY, USA: State University of New York Press, 2002). The* Charter of Transdisciplinarity *can be found at the end of this interview. Translations of excerpts of the*

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manifesto, itself, into several languages can be found on the CIRET website. In addition, two papers, Gödelian Aspects of Nature and Knowledge (Translated from French by Karen-Claire Voss ; published in *Systems : New Paradigms for the Human Sciences , edited by G. Altmann and W. Koch, de Gruyter Verlag, Berlin-New York, 1998, pp. 385-403), http://nicol.club.fr/ciret/bulletin/b12/b12c3.htm#note, and The Transdisciplinary Evolution of the University Condition for Sustainable Development, http://nicol.club.fr/ciret/bulletin/b12/b12c8.htm#note were particularly useful in preparing for this interview.*

I recognize that what we covered in this conversation does little more than open the door to the subject of transdisciplinarity and its application in a wide range of human activity. I hope, one day, to have the opportunity to do a follow-up of this interview and to continue the conversation with this most gracious man who has made such significant contributions to us all.

***Russ**: Your background is in a discipline, in Physics.*

Basarab: Yes. I am a practitioner of theoretical physics, elementary particle physics. I have been doing that since 1965, when I finished my university studies, and I am still active.

Q: You hold positions in both Paris and Romania, is that correct?

A: That's right. In Paris I am at the National Center for Scientific Research, the laboratory is based at the University of Paris 6 "Pierre and Marie Curie," and I am also professor at the Babes-Bolyai University, in Cluj, which is in Transilvania. It's one of the best universities in Romania and Central Europe.

Q: Could you explain how you went from working in quantum theory and subatomic particle physics to transdisciplinarity?

A: The transition was very natural in that I was always fascinated by understanding things—not only learning, producing and, reproducing, but understanding. What I mean by understand is to connect knowledge and being. I discovered slowly that the questions that I had as a quantum physicist were shared by the big founders of quantum physics, like Werner Heisenberg, Wolfgang Pauli and Niels Bohr. These are the three names that had the biggest influence on me. I discovered that for them metaphysics and physics went together, to my surprise.

In my time, in our modern time, things are very different. The splitting of perspectives is very big. These people, like others who were the founders, were extremely cultivated people in philosophy, literature, art, poetry. They even had serious knowledge in philosophy. I was glad to slowly discover in 1975-1976, when I was in Berkeley as a post-doc, they had already discussed the question that had obsessed me.

Niels Bohr had his own program, besides physics, to explain the principle of complementarity in physics and in many other fields like psychology, politics and social life. He spent a lot of time giving talks and writing on this subject. Wolfgang Pauli was a very different person, but also extremely connected with metaphysics. He was very knowledgeable in alchemy and had very serious interactions with Carl Gustav Jung. In fact, Pauli was a patient of Jung when he was young and they began a collaboration and a friendship.

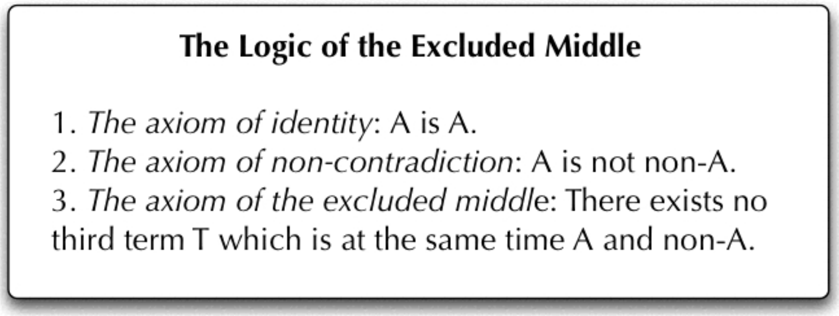
However, the person who most influenced me is Werner Heisenberg. I very much appreciate his writing, *Philosophy: The Manuscript of 1942,* which was published only forty years later in German. To my knowledge, there is no translation in English, but a very good translation in French. I discovered that a lot of things I did myself in transdisciplinarity, like levels of reality, he had already thought about and elaborated with very transdisciplinary notions.

Kurt Godel is also an incredible figure, not only for his theorems of incompleteness, which I was extremely interested in—I read them, and even understood and worked on them—but also for his many other writings and for his less-known side as metaphysician, especially in his correspondence. I am studying the letters which he addressed to his mother in which he developed original thinking about death, meaning of life, about Trinity and about God. He had even a theorem on God's existence, a serious, mathematical theorem which is less known, of course, than the other theorems.

But I was also influenced by philosophers in my way from quantum physics to transdisciplinarity. One of the people that influenced me was Jacob Boehme, about whom I wrote a book entitled, *Science, Meaning and Evolution: The Cosmology of Jacob Boehme.* He was a contemporary of Galileo Galilei's. I wrote this book and it was published in New York with an English translation. This man came from a different stance than Galileo. Galileo was the mark of break between the thinking of the Middle Age and the Renaissance. He was one of the founders, if not *the* founder, of modern physics. But he took the way of splitting culture and science, inventing the role of the universal language called mathematics.

Jacob Boehme went another way, which was not followed by scientists and which was connected with religion. He was a religious man, a Protestant from Bavaria, and he is considered the first German philosopher. Hegel considered him as being his master. He did a lot of extraordinary, interesting and original thinking about complexity in our modern world—about complexity, but connected with our internal life and life of mind and spirit and the external world. He elaborated on a kind of formalism, as form and structure, to discuss the most complicated things we can imagine.

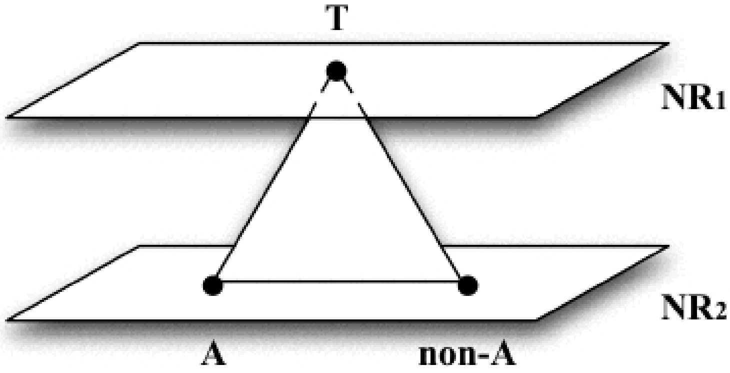
Another person is a contemporary—Stephan Lupasco—who is of Romanian origin but lived in France. He left Romania very early at the age of 16 and became one of the most interesting French philosophers. I became interested in him when I came from Romania, because he had the strange idea of renewing philosophy through quantum physics. Even Bohr, Heisenberg and Pauli didn't go so far as to transform philosophy, not in terms of physics, but based upon ideas, general ideas, which came from the physics of the 20th century and, in particular, quantum physics. Lupasco took most seriously into account paradoxical features of quantum physics concerning reality and he was a great inventor because he proposed a new logic, called the logic of the included middle.



The Logic of the Excluded Middle

1. *The axiom of identity*: A is A.
2. *The axiom of non-contradiction*: A is not non-A.
3. *The axiom of the excluded middle*: There exists no third term T which is at the same time A and non-A.

The Included Middle



The logic of the **included middle** is capable of describing the coherence among these levels of Reality by an iterative process defined by the following stages: (1) A pair of contradictories (A_0 , non-A_0) situated at a certain level NR_0 of Reality is unified by a T_1-state situated at a contiguous level NR_1 of Reality; (2) In turn, this T_1-state is linked to a couple of contradictories (A_1, non-A_1), situated at its own level; (3) The pair of contradictories (A_1, non-A_1) is, in its turn, unified by a T_2-state situated at a third level NR_2 of Reality, immediately contiguous to the level NR_1 where the ternary (A_1, non-A_1, T_1) is found. The iterative process continues to indefinitely until all the levels of Reality, known or conceivable, are exhausted.

In other words, the action of the logic of the **included middle** on the different levels of Reality induces an open structure of the unity of levels of Reality. This structure has considerable consequences for the theory of knowledge because it implies the impossibility of a self-enclosed complete theory. Knowledge is forever *open*.

- Basarab Nicolescu

Q: *That is a very rich history that you have placed before us. Would you contrast transdisciplinarity with the disciplinary, multidisciplinary and interdisciplinary approaches?*

A: Yes. This is very important to clarify from the beginning because these are words, which, even now—many years after transdisciplinarity was introduced—are confused.

In very schematic words, what is it all about?

The starting point is the incredible multiplication of the number of specialized disciplines with time. When the very first universities were founded around the 13th century, we had seven disciplines, which were called *trivium* and *quadrivium*, corresponding more or less to what we call today Exact Sciences and Human Sciences. In 1950, we already had 54 disciplines. It began increasing very fast. In the year 2000 we had more than 8,000 disciplines. These numbers are coming from a very serious poll made by the National Science Foundation. Many of these are taught in American universities. 8,000 disciplines means 8,000 ways to look for reality. It means a catastrophe for knowledge in some sense, because it means there is no more unity of knowledge. Because of that, after 1950, words like multidisciplinarity and interdisciplinarity were very current as a need to reunify and reconnect in the present situation.

In fact, multidisciplinarity was always there, from the founding of universities. What means multidisciplinary? It means I take an object from a given discipline, say a painting by Giotto. I can study it as an object of the history of art; I can study it from the point of view from the history of Europe, from psychoanalysis, chemistry or physics and so on. Throughout my investigation, I am returning to the initial discipline, which is the history of art in our example. Multi-disciplinarity is studying an object from a given discipline with ideas you have from other disciplines, but it remains in a disciplinary context.

Interdisciplinary is completely different. The word became fashionable around 1950. Especially in the U.S. there was a huge development of interdisciplinary thought even inside universities. We have interdisciplinary departments now. The idea was the transfer of methods from one discipline to another. Let me give you a famous example. You study very different phenomena, like how clouds develop and the evolution of stock market actions. You transfer, in this study, methods from mathematical physics and you get a new discipline called Chaos Theory. It is how Chaos Theory appeared—from the transfer of ideas from mathematical physics to the study of meteorology and of stock market actions.

We have here the transfer of methods, but we have also the disciplinary way of dealing with this new kind of knowledge we acquire. Interdisciplinarity still situates in the frame of disciplinarity. More than that, one can give birth to new disciplines, like quantum cosmology. There are many other examples. It's disciplinarity, but extended disciplinarity.

Transdisciplinarity is radically different. It doesn't mean that it's better or hierarchically higher; I don't make hierarchies. I'm speaking about distinctions. Transdisciplinarity is completely different in the sense that it puts the problem of the information that circulates in between disciplines, across disciplines, and even beyond any discipline. The sketch I'm giving is not really a definition, it's just the etymology of the word. “Trans” is a Latin word meaning at the same time, in between, across, and beyond.

If you don’t have the meaning “beyond disciplines”, then transdisciplinarity is no more than a variant of interdisciplinary, due to the fluctuation of disciplinary frontiers. But because it is *beyond* any disciplines, transdisciplinarity is radically different from all the others.

It’s no mystery. What is beyond any discipline? It is, of course, ourselves, the human being. In more sophisticated words, we can say that what is beyond is the Subject. The Subject cannot be captured through formalism. When you want to capture it, it’s an ontological catastrophe, because the Subject is transformed in Object. Transdisciplinarity is coming back to knowledge of the Subject, more precisely of the interaction between the Subject and the Object.

The word “transdisciplinarity” itself is relatively new. The philosopher and psychologist Jean Piaget, who is Swiss, invented this word in 1970 at the Organization for Economic Cooperation and Development (OECD) Congress in Nice, France. The subject of the Congress was methods of teaching in universities. Piaget was very familiar with the psychology of children. It is very important that this started with observing the needs of the children. Piaget talked about fluctuation of disciplinary frontiers and he guessed that from this fluctuation of boundaries, new kind of knowledge is generated. He introduced the name transdisciplinarity for that. From the time when Piaget introduced the word, thinkers like Erich Jantsch, Edgar Morin, Ludwig von Bertalanffy also became interested. Transdisciplinarity was, however, in a kind of sleep for many years, because nobody really succeeded in capturing what this was really about—*beyond the disciplines*.

Here I came, with all my modesty, in 1985 when I published my first book in France. I had published another book in Romania before leaving in 1968. In France, I published a book called *Nous, la Particule et le Monde*. It is a book about quantum physics and the epistemological and philosophical implications of quantum physics, about the thinking of the founders about what reality means. What motivated me the most was that I was puzzled by the fact that the two big intellectual constructions of the 20th century, which are the theory of relativity and quantum mechanics, could not be joined together, could not be reconciled.

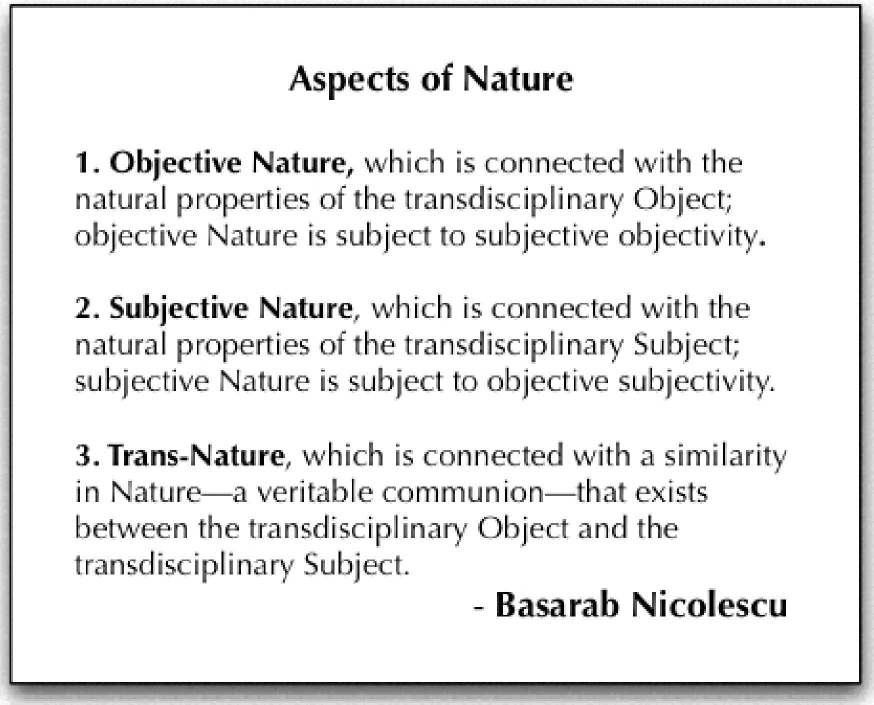
The situation is the same today. It was kind of rupture, a discontinuity. So I tried to understand that. In this framework, I must say that a very big role in my evolution of thinking was my stay at the Lawrence-Berkeley Laboratory, where I spent one year working with Geoffrey Chew, the founder of the Bootstrap Theory. We even produced papers together and we had lots of meetings about the philosophy of physics.

At that moment, Fritjof Capra was there in Berkeley, and he wrote the bestseller, *The Tao of Physics*. I did not agree with the content of this book. I thought *The Tao of Physics* was a very useful book, because for the first time the problem of philosophical and metaphysical implications of quantum physics were shared with the public. But I did not agree, because Capra replaced all the content of quantum physics, in a kind of analogical game, within the philosophy from the East: Chinese, Buddhist, Taoist.

I knew from my own practice with physics and my knowledge of philosophy that, in fact, modern science appeared here in Europe. Galileo Galilei, Newton and Kepler were from Europe. Why from Europe was the big question, which Joseph Needham, the philosopher of science, tried to answer. Why didn't modern science appear in China where they have fabulous thinking and fabulous science?

My idea, and this is why I wrote the book on Jacob Boehme, was in fact that the Christian way of thinking, with making distinctions and with the idea that this world is here for us to take advantage of and to dominate, was the background of modern science. Europeans were able to think about nature, a fact that China refused to do. China refused to cut things, to cut slices of reality. European thinking, founded on Christian religion, adopted the method of slicing reality. We saw emerging the idea that by slicing reality with mathematical methods we will generate the process of understanding all reality. I discovered later that Hans-Georg Gadamer had the same view on the European origin of modern science.

That is why I was in disagreement with Capra, but the disagreement was productive, because we had a lot of discussions with Chew and with many others there and this stimulated me a lot. It was in Berkeley, in fact, that I had the idea that initiated the new way of transdisciplinarity in 1985—the idea of levels of reality. This is a little bit of background.



Aspects of Nature

1. Objective Nature, which is connected with the natural properties of the transdisciplinary Object; objective Nature is subject to subjective objectivity.

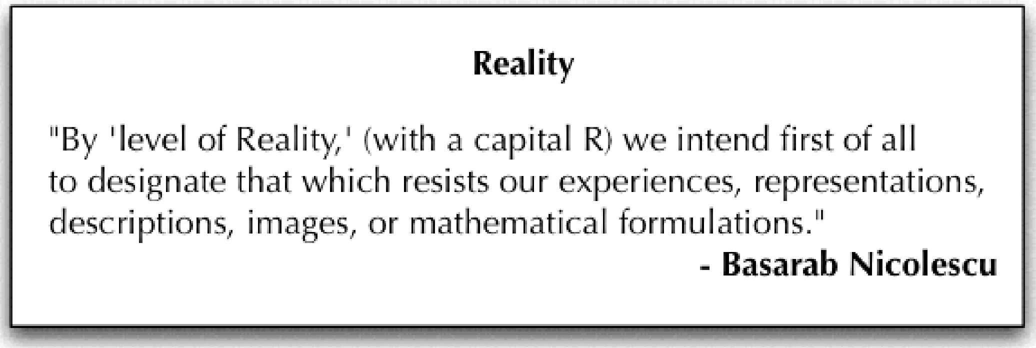
2. Subjective Nature, which is connected with the natural properties of the transdisciplinary Subject; subjective Nature is subject to objective subjectivity.

3. Trans-Nature, which is connected with a similarity in Nature—a veritable communion—that exists between the transdisciplinary Object and the transdisciplinary Subject.

- Basarab Nicolescu

Q: *In what way would you say transdisciplinarity is a metatheory and in what way would you say it's more an attitude, a vision, and a practice?*

A: It's very difficult to say that transdisciplinarity is one thing or another before giving its definition. Transdisciplinarity took long years to formulate, but the methodology of transdisciplinarity was already present in my book I just quoted, *Us, the Particle and the World,* which is not yet translated in English. In this book, I identified three axioms, which are now considered by many researchers around the world as defining transdisciplinarity.



Reality

"By 'level of Reality,' (with a capital R) we intend first of all to designate that which resists our experiences, representations, descriptions, images, or mathematical formulations."

- Basarab Nicolescu

The first axiom is the *existence of levels of reality*. We have to define what levels of reality means. Let’s say, in first approximation, that the laws of quantum physics correspond to a new level of reality in total discontinuity with the laws of nature we knew at the level of our own scale, where Newtonian physics is valid. Newtonian, or classical, physics is applied essentially at our scale of centimeters, seconds, and so on, with extension to planets and cosmic things, towards the infinitely long and infinitely big, like we say.

Quantum physics goes the other direction: infinitely small and infinitely short—extremely small distances and extremely short intervals of time. And there, to our surprise, we discovered laws that cannot reduce to classical physics. That’s the core of all understanding of this revolution. It is the fact that one cannot reduce the quantum laws to the classical laws. We cannot have continuous passage from one to the other. That’s the reason why, in fact, quantum physics and the relativity theory are, in logical terms, a contradiction. It doesn’t mean they contradict facts—they are all perfect for their realm of reality. But it’s a very defined realm— and that’s the point.

In a given region of reality, classical physics is perfect. But if you extend this region, classical physics is working no more, and you discover new laws, which are in discontinuity with the laws of our own scale. That’s more or less how I define levels of reality. If you have levels of reality outside, in the world, in the Object, like philosophers say, we have to have levels of reality in the observer, in who observes this reality. Otherwise, the observer will not understand reality. For example, suppose you are a lover of poetry, and you love a French poet like Lamartine, a classical poet. Anyone can understand his poems. If you want to understand the poems by Mallarme, for example, a big hermetical poet, it’s very difficult. You have to have something like new sense organs inside of you to understand that. It’s exactly the same with quantum and classical physics.

There are levels in ourselves, in our own understanding, representation, languages and so on, and even levels of reality of the Subject. I must add here to the names which influenced me, the name of the big German philosopher, Edmund Husserl. He elaborated the transcendental phenomenology, which is an important way of approaching reality and philosophy. Husserl was a mathematician, which is why I was attracted to him. He was the master of Heidegger. Husserl didn’t call them levels of reality, but he spoke about these different levels in us, in the Subject.

So, I presented to you till now the first axiom, the ontological axiom of transdisciplinarity. “Ontological” in the sense that it’s an axiom about being. Being of the world, and being of ourselves, of the observer, and of the Object—being of the Subject, being of the Object and being of reality. Now, in order to go from one level of reality to another, it's absolutely clear that our usual logic—classical logic, which was invented by Aristotle and which identified the rules of understanding, of our propositions, of our assertions, of our language—would not work. It's very clear that if you judge reality in terms of "yes" and "no", "yes" is right and "no" is wrong. This logic is not valid in quantum physics. That's one of the big surprises.

The usual logic is not compatible with what we see in nature, in the sense that in quantum physics there is a basic feature, which is called the Principle of Superposition. That means that if you have a physical state, which is compatible with physical laws, and you have another state, which is also compatible, you take a combination of the two and this is also compatible. This is expressed by the famous paradox of Schrödinger's cat. In quantum physics, you have a cat that is dead and alive at the same time. You put it in a cage, you put poison nearby, and if the cat is hungry, it will eat the food with poison and will die. If she is clever, she will not eat and will remain alive.

In our world, the cat will be alive or dead. In the quantum world, the superposition is dead and alive at the same time. The Principle of Superposition is the origin of all that is called paradoxes in quantum physics. The big founders like von Neumann and Birkhoff felt from the beginning that there was something fishy about logic and quantum reality. They tried to invent new logics—quantum logics. It was an extraordinary opportunity in the history of culture.

There are mysterious things happening in culture in the sense that in different fields of science and culture, the same basic ideas appear in forms that are very different. For example, Planck discovered quantum physics in December 1900. In the same year, abstract art was founded by Hans Arp. This coincidence is about translating this discovery of reality, which can have different facets in different fields. I say that because logics were believed to be universal, inherent, in some sense, to our own mind, to our neurons. Natural. Nobody thought of other kinds of logics than classical logic. It happened that at the beginning of the 20th century, a great number of non-classical logics began to be formulated—formal logics, axiomatic logics. And Gödel came with his famous theorems. I say that because quantum logic is a basic axiom in transdisciplinarity, namely the included middle logic, which is one variant of this non-classical logic.

What does it mean in simple words without going into technical details? For a normal mind, you cannot say yes and no at the same time, or there is something strange with your way of thinking. But you can have yes and no at the same time if you have at least two different levels of reality. That's a basic fact that I demonstrated in 1985 in the book *Nous, la Particule et le Monde*, and it was a simple solution to all these puzzles of paradoxes. If we are located on a given level with our mind, our representations, our images, we will discover in our formalizations, located on a different level of reality, as a couple of oppositions, yes and no. On our own level, our representations appear as approximations, as sections or projections of something much richer, which are submitted to more general laws. This is the second axiom of transdisciplinarity: In order to go to complex phenomena, you need a non-classical logic, and the best candidate is this included middle logic.

The third axiom of transdisciplinarity is the axiom of complexity. There are many theories of complexity. I noted myself at the Congress in 1992 at the Pontifical Academy of Science, consecrated to complexity in sciences, that no less than 32 different definitions of complexity were given. Most of these variants are not compatible with the existing levels of reality. One of the compatible variants is the one of Edgar Morin. This is in connection with general systems theory, a systemic approach.

From the point of view of transdisciplinarity what we need is complexity, understood as the fact that every level of reality is what it is because it's connected with all the other levels of reality. Reality has a complex structure. Complexity, in this form, is no more or no less than the very old Principle of Universal Interdependence.

If you take these three axioms, which parallel the three axioms of modern science, you get the definition of transdisciplinarity. But this means that we define transdisciplinarity not via a new discipline, but via a new methodology. In other words, we identify transdisciplinarity not with a new discipline, but with a new knowledge—knowledge about what is in between, across and beyond disciplines. For this new knowledge, you need these three axioms—perhaps you need more. I don't know but, for the moment, we need only three. The first time I formulated these three axioms was in 1985 in my book *Nous, la Particule et le Monde*, ten years before the *Manifesto of Transdisciplinarity*.

If you take the three axioms, for the first time you can understand these realms of reality which involves the Subject and involves all of the different aspects of us. This means the individual level and also the social level. We talk about knowledge, which is not neutral. Disciplinary and academic knowledge is by definition neutral, with no values. You are not allowed to introduce values into scientific knowledge. However, transdisciplinarity is not neutral, and involves values, namely humanistic values, which are generated by the interaction of these three axioms.

Q: *You use a definition of reality that includes the concept of resistance. Can you clarify that?*

A: I apply what every scientist applies. In our scientific world, we know that there is something which resists. It doesn't matter what we call it, whether it's nature or laws of nature—there is something inside and outside of us that resists our sense organs. That's how science began: just touching things, looking around and so on. After that, the human being invented the extension of sense organs through instruments of measure. He was thus able to explore the frontiers of nature and reality.

There is a resistance in the sense that in science, for example, we discover new things all the time. From where do we discover? It is not from our mind. It is not from our will. It is because something resists there, outside of our instruments and our sense organs. But it is more than that. There is resistance connected with representations. If I take a tennis ball and say it is a square, this means that I might have slight problems with my mind and I will have to consult a psychiatrist! I must agree that the ball is a sphere. It is true that the ball is a sphere comes from the agreement of the community, but the agreement is connected with the resistance of the fact that every time I have a tennis ball, it is a sphere, not a square.

So there is resistance to images, descriptions and even mathematical formalizations. For example, in more than 40 years of practicing quantum physics, I saw a lot of beautiful theories that disappeared. Why? They were beautiful on a mathematical level, but they were in contradiction with basic facts. It takes only one basic fact to destroy the most beautiful theories—why? Because there was resistance, even in mathematical formalizations. So resistance is a kind of bread we eat every day. Without resistance, we wouldn't discover things. Nature looks like an infinite reservoir of resistance. Is this clear?

Q: *Yes, it is. If there weren't some kind of resistance, we wouldn't even notice it.*

A: Yes. It is important also to distinguish two facts before finishing with the problem of resistance. There is one aspect that is connected with an agreement in a human community. That's the pragmatic part of this resistance. There is also an ontological side that I want to underline, a transpersonal aspect of reality. Even if we agree on something, a small thing appears which destroys our agreement. So, it is transpersonal trans-agreement, beyond agreement. It is not true what some philosophers belonging to some extremely relativist currents are saying that all is a social construction. Some philosophers say that even science is a social construction. Yes, it's a social construction, but not just that. And we capture in transdisciplinarity that this nature, this reality, is the outcome of a kind of agreement inside a community, but it's not only that. We capture also the action of the third, of the interaction term between the Subject and Object.

Q: *Will you clarify the concept of the third?*

A: I prefer to call it the hidden third. Why hidden?

Our modernity—what we call modernity in academic terms—appeared via a split between the Subject and Object. We say there is an Object, there is a Subject that observes it, and in between there is nothing else. That's the basis of what we call classic reality.

I ask you, "What is the object of transdisciplinarity?" and I say that this question has no meaning in the framework in which the knowledge is not about an object, but it's about the interaction between the Subject and the Object. Subject comes back. At the beginning of our interview, I said the Subject comes back via this interaction term between the Subject and the Object, which mediates the interaction between the Subject and the Object. But it's a zone of reality in which there are no levels. No resistance. It's a non-resistant region in reality which is there. We don't know much about it. We know it's rational because we say it is there, but if we want to say what it is, we don't know. We cannot make theories about this third; we cannot make models about it. We know it must be there.

I told you about my fascination with Heisenberg. Many years after I had these ideas and put them in print, I discovered that he had had similar ideas. Originality is not necessarily important. It's nice when you have confluence with other thinkers. In quantum physics, we observe this strange thing: when a given object comes into observation, the rules change, laws change. Why? Because the Subject, by definition, means interaction of our natural scale with a scale which is not at all natural—not in the visible nature. It's in nature, but much deeper. But this confrontation doesn't mean that the subject modifies reality. It is not that. It's that the subject, by its very presence, puts different scales into confrontation. This hidden third is there to mediate. This is the new aspect of what we can call transmodernity. This means we have this third, which means three components of reality: Subject, Object and the interaction term. There are philosophers who taught in this way, like Husserl, Cassirer, Heidegger, Gadamer. They have these ideas of a different kind of metaphysics than the classical metaphysics. So, transdisciplinarity is a new form of knowledge, which is not in contradiction with other realms of knowledge, but it takes on general features from different realms of reality and that is all.

Q: If we're talking about Subject, Object and a mediating factor, the mediating factor is a realm of knowledge that has been neglected historically but which has rich potential in terms of shifting from a material level of analysis to one that is far more dynamic and process-oriented. Is that the case?

A: Absolutely. That's one side of the story. It's not just environment, which mediates the processes. Non-resistance means that it's something rational but cannot be rationalized. I'm speaking sometimes about the sacred, the sacred as being connected with this hidden third. It is not in a religious sense, but in a philosophical sense: rational, but we can't rationalize it. This means sacred is something there, which is irreducible to my thinking, to my theory and my dogmas. It's the basis of respect I have for the other. It's the basis of tolerance and non-dogmatism and love I can have for the other, not just accepting the other as being there. I know that love is an irreducible part of the sacred, using the terminology introduced by Mircea Eliade, the founder of modern history of religions who lived in the United States. This third completes the picture we have as transdisciplinary reality, and is materializing given concrete terms like process theory and many other things. But it's also something beyond any theory.

Returning to your previous question I am saying now that *transdisciplinarity is not a metatheory. It's not a theory at all. It's both science and art. In fact, it is neither science nor art. It's a new knowledge you cannot reduce to old knowledge.* [Emphasis added—RV]

There is an interesting parallel with the methodology and definition of modern science. Modern science, as defined by Galilei and other founders, is the posit of three axioms. The axioms include mathematical universal laws, which are formulated in a non-natural language, which is mathematics. Second, you can discover these axioms through experiment. When we say experiment, we mean given rules for repetition of the same experiment with the same conditions. Third, there is reproducibility. In other words, we have to be able to get exactly the same results if we have the same condition of experiments because we have the same laws.

These three axioms were revolutionary when they were formulated three centuries ago. But they don't exhaust the realm of reality. That's the point with transdisciplinarity. It is a larger field that includes the Subject, which includes subjectivity. We clearly put on the table the value of subjectivity, of feelings, of intelligence in feelings. When I began to speak about things like that about 20 years ago, people were slightly laughing, because I was a physicist speaking about this. Now, scientists like Antonio Damasio, the neurophysiologist, began to discover that feelings and the human body have cognitive value. Transdisciplinarity is about a new type of intelligence, which connects the analytic mind with the feelings and the body. It is connected with personal experience, but not any kind of experience, because the experience in general is chaotic. *In vivo* reality, which is about transdisciplinarity, is not chaotic reality. It's a reality that still has laws and rules and is obeying the axioms I was talking about.

Q: *Is this what has led to the new principle of relativity that you write about?*

A: The new principle of relativity has to do with the fact that every level of reality of the Subject and of the Object, is what it is because all the other levels exist at the same time. What this means is there is coherence. You see reality in the transdisciplinary approach, and reality is not schizophrenic. It's not putting together different levels, but connecting them. This is based on scientific knowledge, because in pure science. We saw incredible coherence between the universe and the infinitely small, the quantum world. It's how quantum cosmology appeared.

Big Bang is a theory uniting the infinitely small with the infinitely long. Because at the beginning, our universe was a small, small thing in which only quantum processes were there. This means that clearly there is a relation, a link between the infinitely small with the infinitely long. This means that if you cut a level by itself, you lose information. In order to keep all information together, the identity of a level of reality is connected with the identity of all other levels and that has great implications. Many other people have extended these considerations, not only to disciplines, but also to cultures and religions. This principle of relativity asserts that every culture is what it is because all the other cultures are there at the same time. Every religion is what it is because all of the other relations are there at the same time. It doesn't mean we're looking for a new religion or new culture—that would be nonsense.

When we speak about transreligion and transculture—these are the two key words in transdisciplinarity, in this field of the principle of relativity—we don't speak about unity in the sense of dogmatic unity. Each religion has to have dogmas in order to speak in a clear way. In culture, you have to have a set of rules to identify American culture, European culture, the various types of cultures. When we speak about transculture, we don't mean one culture all over the world. We say there is unity of cultures, but in a transcendental way. This is similar to what Rene Thom calls a strange attractor. It is like a strange attractor in the sense you have an asymptotic point that is there, but you cannot put your hands on it. If it's very carefully done, we avoid the wrong turns of transdisciplinarity.

Q: *So this new principle of relativity honors all the levels?*

A: Right.

Q: *What is the role of David Bohm's work on implicate and explicate order? How does that relate to transdisciplinarity?*

A: I knew Bohm and I had interactions with him. I met him in California and also in London. There are some connections. His implicate order has to do with the hidden third. It's not identical, but it's connected.

Q: *What about Lazlo's work with the Akashic field?*

A: I know Erwin and I respect his work, but I don't see the connection.

Q: *Why is that?*

A: I don't know. I think that he doesn't take this notion of levels of reality seriously enough.

Q: *Are you familiar with the work of the American philosopher Ken Wilber?*

A: Yes. I've been told I need to meet him, but the opportunity has not come about. Many people say that there are big connections, but I must confess I don't have a lot of knowledge about his work. I was glad to see that the famous art critic Suzi Gablik connected the two theories in her famous book *Has Modernism Failed*. The last chapter is about transdisciplinarity and she connects it with integral theory. I was surprised that she is familiar with transdisciplinarity. She considers it the only new thing that has happened in philosophy and knowledge in this last period. I was impressed, not just because she says such nice things about transdisciplinarity, but it was from deeply inside and genuine and there she connects transdisciplinarity with the theory of Ken Wilber.

Q: *One of the ways that I see a connection is with Wilber's notion of integral methodological pluralism, and it would seem to me that in the transdisciplinary approach, what we're talking about is a methodological pluralism in whatever it is we're approaching.*

A: I have to study his concrete definitions, but based on what you just said, there is a pluralism within transdisciplinarity via the very existence of different levels. The different levels are like different viewpoints you can take on reality, but they're all connected. If you just stay on a level or point of view, you are losing information. It is a strange pluralism in transdisciplinarity, like an oxymoron—unity in pluralism.

Q: *I love it!*

A: It is like the old Hebraic words for God, Elochim. My friend André Chouraqui told me that it is singular and plural at the same time. I think that is what we need. We need a different kind of universal language, in which we have to understand that single and plural go together. The whole point about transdisciplinarity is to take them together.

Q: *Given the ideas of transdisciplinarity have been around 20 years or more, have you seen any significant progress or accomplishments emerge from this approach?*

A: Of course—and fortunately, because otherwise it would mean I invested for nothing. If there is no concrete thing, there is no value, my theories were useless. There are different concrete fields. One field in which there is already a lot is education. I worked many years with UNESCO on a project of applying transdisciplinarity in higher education. We met in a Congress in Locarno in 1997, sponsored by UNESCO. That was the turning point toward practical applications in education. This means renewed methods of teaching in different fields, and introducing transdisciplinarity in universities. I'm proud to say that I succeeded, myself, after many years of fighting in many countries, I now have two possibilities—one in South Africa and one in Romania—to start Ph.D.s in transdisciplinarity. There are many people in the world who are at the intersection of different fields of knowledge and they have no way to do their Ph.D. studies, because there is no department in the world. So all the work I did with many, many friends all over the world was to create these conditions. Slowly they are appearing through applications made by individual professors. They are appearing. You can see it in the last issue (in French) of "Transdisciplinary Encounters," the magazine published by the organization I'm leading, CIRET, on the concrete application in education. In South Africa, they are on the way to do that at Stellenbosch University. There are many places in which there are transdisciplinary lectures; in the U.S., in Romania, in Italy and even in France. Myself I am teaching transdisciplinarity at the Babes-Bolyai University from Cluj-Napoca, in Romania, for doctoral students.

Another field in which I'm very happy to see that it's moving towards transdisciplinarity is the realm of health. There is one important organization in Quebec, led by one of our members, Patrick Loisel, who even founded a transdisciplinary department for health sponsored by the Canadian Institute of Health. It's financed by government and at the University of Sherbrooke, in which he brought together people from different specialties for handicap problems. They are applying transdisciplinarity ideas and *methodology* with the levels of reality, but in concrete terms and in context. They've convinced people that everybody wins with this connection.

The other ways in which transdisciplinarity is applied is in a powerful country of transdisciplinarity, Brazil. The formation of transdisciplinarity among university people, but also different social workers, has been at the University of Sao Paulo for three or four years. In fact, in Brazil, in September 2005, we had the second World Congress of Transdisciplinarity, and to my surprise I saw that more than 50 universities were represented from Brazil. They were not only teaching transdisciplinarity, but using it in organizations of departments and curriculum.

Another way is the problem of law studies. They are especially interested to include the problem of the included middle in the problem of law. This is an important problem.

Q: *So how can other people get involved?*

A: Unfortunately the university is still reluctant, so you get involved through people, through different groups and organizations—NGOs. CIRET is one of them. We have a rich data bank, we give information on the events, we publish research and studies, so we connect with people working on that. My ambition for the next several years is to see that entering into institutions, because institutions need that. Otherwise, universities will disappear. If a university doesn't adopt transdisciplinarity, in my opinion, universities, as we know them from the 13th century, will disappear and be replaced by highly specialized institutions.

Q: *Thank you. You have given us a lot to think about and some challenges to engage with.*

A: I thank you very much because your questions were extremely stimulating.

CHARTER OF TRANSDISCIPLINARITY

Preamble

Whereas, the present proliferation of academic and non-academic disciplines is leading to an exponential increase of knowledge which makes a global view of the human being impossible;

Whereas, only a form of intelligence capable of grasping the cosmic dimension of the present conflicts is able to confront the complexity of our world and the present challenge of the spiritual and material self-destruction of the human species;

Whereas, life on earth is seriously threatened by the triumph of a techno-science that obeys only the terrible logic of productivity for productivity's sake;

Whereas, the present rupture between increasingly quantitative knowledge and increasingly impoverished inner identity is leading to the rise of a new brand of obscurantism with incalculable social and personal consequences;

Whereas, an historically unprecedented growth of knowledge is increasing the inequality between those who have and those who do not, thus engendering increasing inequality within and between the different nations of our planet;

Whereas, at the same time, hope is the counterpart of all the afore-mentioned challenges, a hope that this extraordinary development of knowledge could eventually lead to an evolution not unlike the development of primates into human beings;

Therefore, in consideration of all the above, the participants of the First World Congress of Transdisciplinarity (Convento da Arrábida, Portugal, November 2-7, 1994) have adopted the present Charter, which comprises the fundamental principles of the community of transdisciplinary researchers, and constitutes a personal moral commitment, without any legal or institutional constraint, on the part of everyone who signs this *Charter*.

Article 1:

Any attempt to reduce the human being by formally defining what a human being is and subjecting the human being to reductive analyses within a framework of formal structures, no matter what they are, is incompatible with the transdisciplinary vision.

Article 2:

The recognition of the existence of different levels of reality governed by different types of logic is inherent in the transdisciplinary attitude. Any attempt to reduce reality to a single level governed by a single form of logic does not lie within the scope of transdisciplinarity.

Article 3:

Transdisciplinarity complements disciplinary approaches. It occasions the emergence of new data and new interactions from out of the encounter between disciplines. It offers us a new vision of nature and reality. Transdisciplinarity does not strive for mastery of several disciplines but aims to open all disciplines to that which they share and to that which lies beyond them.

Article 4:

The keystone of transdisciplinarity is the semantic and practical unification of the meanings that traverse and lay beyond different disciplines. It presupposes an open-minded rationality by re-examining the concepts of "definition" and "objectivity." An excess of formalism, rigidity of definitions and a claim to total objectivity, entailing the exclusion of the subject, can only have a life-negating effect.

Article 5:

The transdisciplinary vision is resolutely open insofar as it goes beyond the field of the exact sciences and demands their dialogue and their reconciliation with the humanities and the social sciences, as well as with art, literature, poetry and spiritual experience.

Article 6:

In comparison with interdisciplinarity and multidisciplinarity, transdisciplinarity is multireferential and multidimensional. While taking account of the various approaches to time and history, transdisciplinarity does not exclude a transhistorical horizon.

Article 7:

Transdisciplinarity constitutes neither a new religion, nor a new philosophy, nor a new metaphysics, nor a science of sciences.

Article 8:

The dignity of the human being is of both planetary and cosmic dimensions. The appearance of human beings on Earth is one of the stages in the history of the Universe. The recognition of the Earth as our home is one of the imperatives of transdisciplinarity. Every human being is entitled to a nationality, but as an inhabitant of the Earth is also a transnational being. The acknowledgement by international law of this twofold belonging, to a nation and to the Earth, is one of the goals of transdisciplinary research.

Article 9:

Transdisciplinarity leads to an open attitude towards myths and religions, and also towards those who respect them in a transdisciplinary spirit.

Article 10:

No single culture is privileged over any other culture. The transdisciplinary approach is inherently transcultural.

Article 11:

Authentic education cannot value abstraction over other forms of knowledge. It must teach contextual, concrete and global approaches. Transdisciplinary education revalues the role of intuition, imagination, sensibility and the body in the transmission of knowledge.

Article 12:

The development of a transdisciplinary economy is based on the postulate that the economy must serve the human being and not the reverse.

Article 13:

The transdisciplinary ethic rejects any attitude that refuses dialogue and discussion, regardless of whether the origin of this attitude is ideological, scientistic, religious, economic, political or philosophical. Shared knowledge should lead to a shared understanding based on an absolute respect for the collective and individual Otherness united by our common life on one and the same Earth.

Article 14:

Rigor, openness, and tolerance are the fundamental characteristics of the transdisciplinary attitude and vision. Rigor in argument, taking into account all existing data, is the best defense against possible distortions. Openness involves an acceptance of the unknown, the unexpected and the unforeseeable. Tolerance implies acknowledging the right to ideas and truths opposed to our own.

Article final:

The present Charter of Transdisciplinarity was adopted by the participants of the first World Congress of Transdisciplinarity, with no claim to any authority other than that of their own work and activity.

In accordance with procedures to be agreed upon by transdisciplinary-minded persons of all countries, this Charter is open to the signature of anyone who is interested in promoting progressive national, international and transnational measures to ensure the application of these Articles in everyday life.

Convento da Arrábida, 6th November 1994
Editorial Committee Lima de Freitas, Edgar Morin and Basarab Nicolescu
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http://nicol.club.fr/ciret/english/charten.htm

Modeling the Demands of Interdisciplinarity: Toward a Framework for Evaluating Interdisciplinary Endeavors

Zachary Stein

Abstract: I suggest there are two key factors that bear on the quality of interdisciplinary endeavors: *the complexity of cognition and collaboration* and *the epistemological structure of interdisciplinary validity claims*. The former suggests a hierarchical taxonomy of forms of inquiry involving more than one discipline. Inspired by Jantsh (1972) and looking to Fischer's (1980) levels of cognitive development, I outline the following forms: disciplinary, multi-disciplinary, cross-disciplinary, inter-disciplinary, and trans-disciplinary. This hierarchical taxonomy based on *complexity* is then supplemented by an epistemological discussion concerned with *validity*. I look to a handful of philosophers to distil the general *epistemological structure of knowledge claims implicating more than one discipline*. This involves differentiating between levels-of-analysis issues and perspectival issues. When all is said and done, we end up with a "language of evaluation" applicable to interdisciplinarity endeavors. Ultimately, this suggests an ideal mode of interdisciplinary endeavoring roughly coterminous with Wilber's (2006) Integral Methodological Pluralism.

Keywords: cognitive development, epistemology, integral methodological pluralism, interdisciplinary, language of evaluation, levels-of-analysis, perspectival, transdisciplinarity

Introduction: my agenda

> *"…there are no standards of excellence for interdisciplinary work in general"* (Klein 1990, p. 94).
>
> *"A crucial consequence resulting from the shift in knowledge production from Mode 1 [disciplinary] to Mode 2 [interdisciplinary] bears upon quality control"* (Gibbons, et al., 1994. p.18).

The quotes above are taken from two of the most influential books about interdisciplinarity. They reflect a general concern about interdisciplinary endeavors. How do we detect the "symptoms of quality" in interdisciplinary work (Mansilla & Gardner, 2003)? That is, how do we understand the demands of interdisciplinary work, such that we can know when they have been met? How do we evaluate interdisciplinarity?

Such an evaluation entails more than a description of what passes as interdisciplinary work. Much of the scholarship *about* interdisciplinarity amounts to descriptions of the state of the art (Klein, 1990, 2005; Lattuca, 2001; Gibbons, et al., 1994). This work is important and informs my account. Yet, the thrust of what I have to offer is normative. Not what interdisciplinarity *is*—but

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what it *ought* to be. Of course, we'll have to move from *is* to *ought*, offering some descriptions before issuing some prescriptions.

My plan in this article is as follows. I will look to the descriptive accounts in order to arrive at a loose definition of the phenomenon in question. We'll see just what people think interdisciplinarity is. This will involve a brief historical overview and a discussion of three types of initiatives: interdisciplinary education, problem-focused interdisciplinarity, and synoptic interdisciplinarity.

Then we will go on look at some evaluative accounts. These discuss the demands of interdisciplinary work. The goal here is to tease out the key factors bearing upon the quality of interdisciplinary endeavors. Two factors fall out of the discussion: *the complexity of cognition and collaboration* and *the epistemological structure of interdisciplinary validity claims*.

With the first factor involving the *complexity* of the practices and concepts being employed, we see that interdisciplinarity is not an all-or-nothing thing; there are gradations of interdisciplinarity. We will differentiate four types, each more complex than the next: multi-disciplinary, cross-disciplinary, inter-disciplinary, and trans-disciplinary. Each is a valid and valuable type of engagement. But there are important differences between them, which, as we will see, make them important to distinguish for the purposes of quality control.

With the second factor we find that interdisciplinary endeavors face unique and exacting epistemological demands. In this discussion, issues of *reductionism* take center stage. Here we see that the *unwarranted privileging of certain disciplinary perspectives* is a concern. This concern motivates a more careful and explicit account of the epistemological structure of interdisciplinary knowledge claims. It turns out that there are both *levels-of-analysis issues* and *perspectival issues*, which are not to be confused.

The considerations about complexity give us a hierarchical taxonomy based on the complexity of concepts and practices. The epistemological considerations give us a horizontal taxonomy based on epistemological relations between different types of methodologies. Combining the typologies will give us a robust model concerning the demands of interdisciplinarity.

In short, we will end up with a “language of evaluation” applicable to interdisciplinarity endeavors. This language is capable of disclosing how some interdisciplinary endeavors fall short in terms of complexity and how others flirt with epistemological fallacies. This language of evaluation suggests an ideal mode of interdisciplinary endeavoring, in light of which we may judge those who claim to proceed as such. Wilber's (2006) philosophical position of *Integral Methodological Pluralism* is nearest to this ideal. However, the version I endorse is highly formalized and thus stripped of many Wilber-specific accoutrements.

But first things first: what are we talking about?

On definitional deficits

> *"That's a great deal to make one word mean," Alice said in a thoughtful tone. "When I make a word do a lot of work like that," said Humpty Dumpty, "I always pay it extra."*
> Lewis Carol, *Alice in Wonder Land*. (Quoted in Klein, 1990)

All top American universities boast some species of interdisciplinarity. Most offer interdisciplinary majors of some sort. Some have interdisciplinarity as an aspect of their mission. Interdisciplinarity has garnered the support of elite universities. It has academic credibility. It is also supported outside the academy. There are innumerable organizations that claim it as their *modus operandi*. It is the preferred label for a variety of initiatives, from international NGOs to local artist-cooperatives. The connotation is such that to be interdisciplinary is to be at the vanguard.

So, there is much interdisciplinarity to be found. But the types are so various and the levels of sophistication so variable that the category has become too encompassing. We have put elite think tanks run by people with more Ph.D.s than fingers in the same category as middle school students painting pictures of historical events. Broad categories are not necessarily bad. I'm a big fan of universals. But we need well-behaved words—terminological clarity. Interdisciplinary is ill defined—it's dysfunctional. We need words to work so we can.

Of course, there is a general consensus that interdisciplinary work involves more than one discipline. This is an insufficient answer for a variety of reasons. It is too simple, and mainly aids those who have trouble with prefixes. Moreover, now we are stuck hunting for a definition of *discipline*. Surprisingly, few who are content with the definitional gloss offered above even follow out this next step.

Suppose we follow Gardner (2000) and talk of *disciplines* as concepts and methods for thinking about specific types of questions and phenomena; *concepts* and *methods* that have been cumulatively accepted by experts as providing standards for determining the validity of answers. That works fine: disciplines are *methodological lenses* employed by communities of investigators relative to particular phenomenon. Yet, even if we posit such a definition as correct we are still without a definition of *inter*-disciplinarity. The prefix is the problem.

Inter- as a prefix is generally taken to mean roughly *between* or *among*. Put this together with the definition of discipline offered above, and we are almost back where we started. We know more about *what* we are between and among, but not what it means be this way. I'm *between* breakfast and lunch right now, and *among* my things. Locate me appropriately in the library or science center and now I'm *between* and *among* the disciplines. Put a microscope in one hand, a copy of *King Lear* in the other, and now I'm interdisciplinary!

Thankfully, we don't have to construct a definition out of thin air. It's possible to bootstrap a definition by looking at the "evolution of interdisciplinarity" (Klein, 1990).

Interdisciplinary progenitors: a rough sketch

Humans have always wanted to be know-it-alls. Traditionally in the West philosophers have been the most avid interdisciplinarians.[1] Aristotle delineated various forms of inquiry, such as "Politics," "Poetics," "Metaphysics," etc., and maintained that the philosopher's task was to subsume them encyclopedically. The great schoolmen of the Middle Ages founded the first universities and began labeling things like theology, law, and medicine, as *disciplines* (Klein, 1991, p. 20). But as signified by the prefix, with the idea of the *uni*versity, philosophers still maintained their vision of the *uni*ty of knowledge.

However, with the Enlightenment scholarly and professional specializations began to proliferate exponentially. Here is the birth of science from the womb of modern socioeconomic conditions. The "scientification" of knowledge and the "professionalization" of science resulted in the structuring of the modern university along disciplinary lines. Alarmed by this trend, philosophers began—and haven't since stopped—continually expressing concern about the fragmentation of knowledge. As Klein (1990) notes there have always been impulses "to retain, [and] in many cases, reinstill historical ideas of [the] unity and synthesis [of knowledge]" (p.22). By the 19th century explicitly *interdisciplinary* endeavors were underway.

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[1] We will see that most philosophers are really meta-disciplinarians. But that is ahead of the story.

To make a long and very interesting story short, the modern evolution of interdisciplinarity has been shaped by at least five factors (Apostel, Berger, Briggs, & Michaud, 1972, pp. 44-55). The following list is adapted from Klein (1990, p. 41).

1. *The development of science:*
    - Increasing specialization leading to the intersection of two disciplines, splitting up of an over-ridged discipline, or setting off into new fields, etc.
    - Attempts to define elements common to disciplines.
2. *Student needs:* The result of direct student pressure or faculty anticipation, most of the time as a protest against the parcelization and artificial subdivisions of “reality.”
3. *The need for professional training:* Educational needs based on student demands and in some cases as a result of contracts extending outside the university, therefore being linked with the 4th demand.
4. *Original needs of societies:* Particular needs and new subjects which cannot, by definition, be contained within a single disciplinary frame, such as environmental research.
5. *Problems of university operation or even admission:* The result of increasingly elaborate equipment in research centers and the need for budget management in universities, especially in regard to contract with government or the advent of a major technology such as a computer.

Clearly this is but a sketch of how interdisciplinarity came to be what it is. But even from this cursory glace both the *significance* and the *variety* of interdisciplinary motivations should be noted. We've inherited the unavoidable and crucial task of interdisciplinarity; the goal of this paper is to parse out the task demands. The goal of the next section is to give an overview of interdisciplinarity today.

Today: the lay of the land

Following our historical sketch I'd like to offer a way to define what passes as interdisciplinary today. The general trends and impulses noted above continue on today in three forms of interdisciplinary activity.

Interdisciplinary education (see Kockelmans, 1979; Jacobs, 1989; Wineburg & Grossman, 2000). Some educational initiatives explicitly label themselves as such, accurately or not. Others, like most liberal arts colleges, consider themselves as proponents of “general education,” but are labeled as interdisciplinary by others. Some that receive this label are more akin to professional training programs. The common denominator is the idea of exposing students of any age, *in some way*, to a variety of disciplines.

Problem focused interdisciplinarity (see Gibbons, et al., 1994; Klein, Grossenbacher-Mansuy, Haberli, Bill, Scholz, & Myrtha, 2001). These initiatives blur the lines between academia, business, and government. Here we find think-tanks, NGO's, and specially crafted graduate programs. The common denominator here is the combining of a variety of disciplines, *in some way*, in order to solve specific problems. The problems are various: big ”real-world” issues like global warming; high-level theoretical issues like those found in the complexity sciences; minute problems in some specific discipline likely to be solved via techniques from other disciplines, etc.

Synoptic interdisciplinarity (see Laszlo, 1972; Wilber, 1995; Wilson, 1998): These types of initiatives continue an ancient ambition, striving for “theories of everything.” The common denominator here is the summarizing or utilizing of a variety of disciplines, *in some way*, so as to give an account of very general phenomena, e.g., state of the Sciences, the World, Nature, or the Kosmos.

I see these as the three main areas of interdisciplinary energy. Of course, the lines are not set in stone. The areas bleed into one another. Proponents of synoptic accounts would like to see their theories used to solve problems. Some problem-focused interdisciplinarians have their hands in some educational endeavors. A number of educationalists shape their interdisciplinary curriculums around real problems, or synoptic theories. But generally speaking, when looking at a specific example, it is often best characterized as belonging in only one of these areas.

These labels aid us in our defining of interdisciplinarity. We've seen the history of the motivations, which have become embodied in a variety forms. There are reasons for people to pursue interdisciplinary endeavors. And there are at least three types of endeavors currently being carried out.

However, even if these areas accurately describe the current scene, they tell us nothing about what makes for a better or worse piece of interdisciplinary work. This latter way of viewing interdisciplinarity leads to the evaluative methods this paper targets. So, with our admittedly ambiguous sense of what interdisciplinarity means, we move on.

Interdisciplinarity: admitting the demands and talking about them

> *Too often in discussions of interdisciplinary training one hears calls for breadth, for comprehensiveness. Too often we attempt to produce professionals who have mastered two or more disciplines…. This orientation I will parody as the "Leonardesque aspiration": the goal of creating current day Leonardos, who are competent in all of science. As a training program it is bound to fail…. At its worst it produces a shallowness, a lowest common denominator breadth, an absence of the profound specialization which is essential for scientific productivity*. (Donald T. Campbell, 1969, p. 329)

Now we get to the heart of the matter. We've gathered a rough sense of what passes as an interdisciplinary endeavor. But the word still means too much. Having a label doesn't mean deserving it. We need to develop a shared sense of what *ought* to pass as interdisciplinary work. What are the real demands of interdisciplinary work? It will become clear that the demands are high.

As mentioned in the introduction, we will be comparing several theoretical models concerning the demands of interdisciplinarity. Let's be more specific. What we want could be called a language of evaluation. Yes, we want to sort the good work from the bad. But that task is secondary. First we need a way to justify such evaluations. We need a language that will disclose the symptoms of quality. With the right language, we can isolate and talk about the various properties of interdisciplinary work that bear on their worth. These kinds of languages are everywhere: from rubrics for grading papers to codified sets of professional standards. Languages of evaluation are valuable.

To be very clear: in this paper I don't want to actually begin sorting the wheat from the chaff. I want to begin to find a language we can use to do so. We can't argue about the relative worth of various interdisciplinary endeavors because we haven't decided what's worth arguing about. We need to admit that there are demands and agree on what they are. This entails finding ways to talk about various aspects of interdisciplinarity.

Campbell (1969) speaks to this in the quote above. In a seminal paper on interdisciplinarity he writes of "the profound *specialization* that is essential for scientific productivity" (p. 329). He contrasts this with the "Leonardesque aspirations" of most interdisciplinarians, which result in "shallowness, [and] lowest common denominator breadth" (p. 329). But make no mistake: he offers these critiques while nevertheless admitting the need for true interdisciplinarity. He's just worried about the demands of such undertakings.

To make his point, he outlines how hard it is to have an expertise in *one* discipline. You have to master the unique and specialized languages, the burgeoning bibliographies, proliferating publications, and multifaceted methodologies. Competencies are complicated. Moreover, we don't work alone: *the locus of scientific knowledge is social* (Campbell, 1969).

This is a major point. Disciplines, as mentioned in Gardner's definition above, are like communities. Disciplinary expertise is akin to a kind of membership. One needs certain competencies to participate in the community, but the inquiries undertaken out-strip any one individual. If you speak as an expert you represent your discipline. You speak on behalf of those whose expertise justifies your own.

In light of these considerations, Campbell (1969) noted another demand: overcoming the ethnocentrism of the disciplines. Because disciplines are like communities, they're subject to the same political dynamics. They become insular. They have rights of passage. They get caught up in territorial disputes with other communities: academic politics as usual. Campbell saw this as a major problem. He suggested that instead of Leonardesque aspirations we should have aspirations to collaborate across disciplinary boundaries. The ethnocentrism of the disciplines inhibits this. Ideally, instead of looking to master more than one discipline (which is very hard), we should look to the competencies of others and work towards interdisciplinary knowledge collaboratively. But that's demanding, personally and professionally.

With Campbell's analysis we have begun to see what we're after. The competences of both individuals and groups must be taken into account. In light of even a rough sense of the requisite competencies, it looks like what is required for interdisciplinary work is more demanding than most think. We need to solidify disciplinary expertise, as embodied by individuals in groups, *before* we come to true interdisciplinarity. Most individuals and groups can't pull this off. More often than not, we end up with individuals who have a shallow sense of a bunch of disciplines, instead of individuals who are prepared to collaborate across disciplines as experts established in one.

Modeling the demands of interdisciplinarity

Step 1, Part 1: a hierarchy of competencies

The foregoing discussion indicates why Campbell maintains that interdisciplinarity is a complicated competence. And talking about competencies means talking about hierarchies. A long history of cognitive developmental research suggests that skills and competencies develop hierarchically (Fischer, 1980; Fischer & Bidell 2006). Tasks make demands. Meeting these demands requires skill. In light of this research it's undeniable that less complex skills come to be subsumed by more complex ones. There are stages in the acquisition of any complicated competence. Abilities range across a developmental continuum. Interdisciplinarity, as a very complicated competence, is no different.

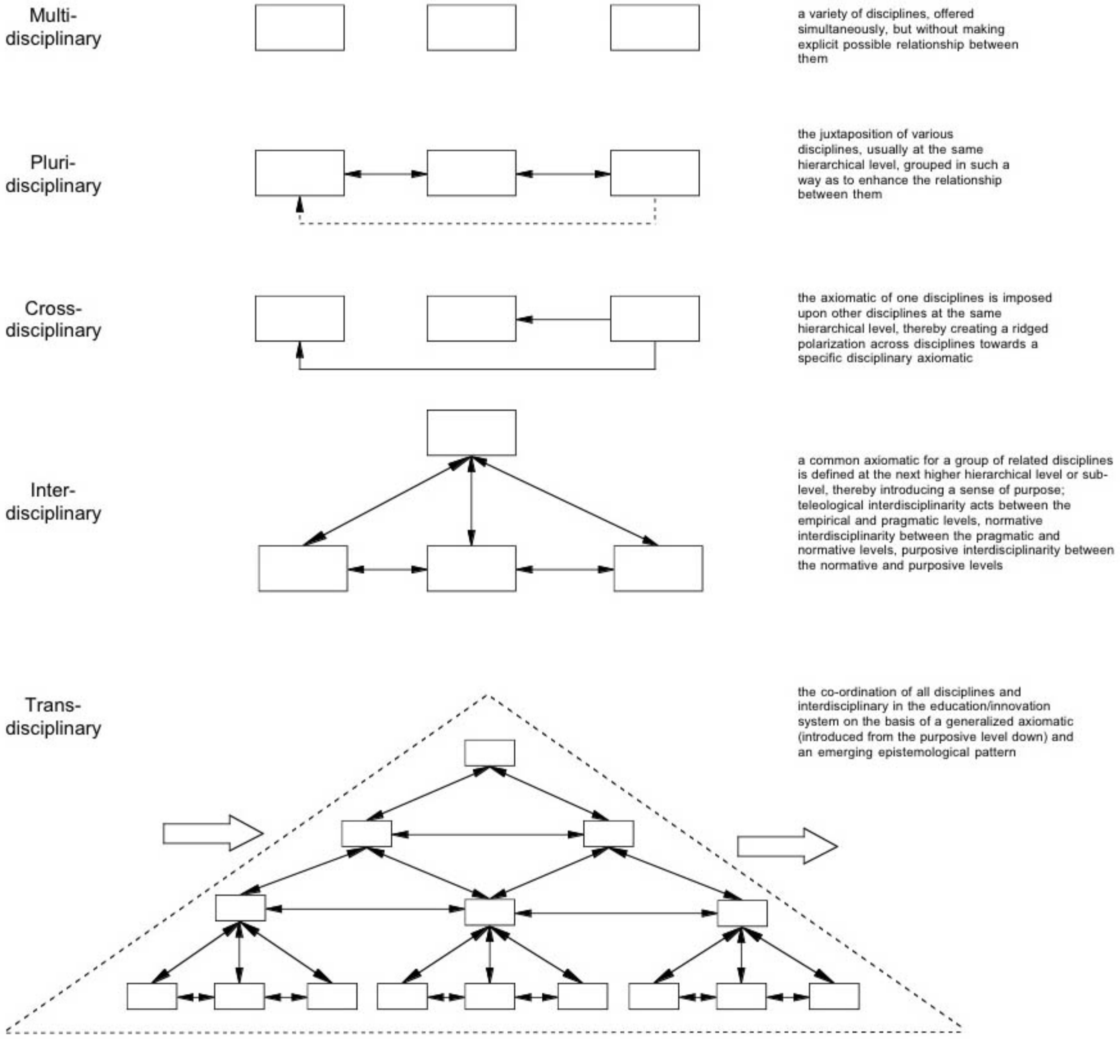
Multi-disciplinary
a variety of disciplines, offered simultaneously, but without making explicit possible relationship between them
Pluri-disciplinary
the juxtaposition of various disciplines, usually at the same hierarchical level, grouped in such a way as to enhance the relationship between them
Cross-disciplinary
the axiomatic of one disciplines is imposed upon other disciplines at the same hierarchical level, thereby creating a ridged polarization across disciplines towards a specific disciplinary axiomatic
Inter-disciplinary
a common axiomatic for a group of related disciplines is defined at the next higher hierarchical level or sub-level, thereby introducing a sense of purpose; teleological interdisciplinarity acts between the empirical and pragmatic levels, normative interdisciplinarity between the pragmatic and normative levels, purposive interdisciplinarity between the normative and purposive levels
Trans-disciplinary
the co-ordination of all disciplines and interdisciplinary in the education/innovation system on the basis of a generalized axiomatic (introduced from the purposive level down) and an emerging epistemological pattern

Figure 1. Successive steps for increasing co-operation and co-ordination in the education/innovation system

From "Towards interdisciplinarity and transdisciplinarity in education and innovation," by E. Jantsh, in G. Berger, A. Briggs & G. Michaud (Eds.), 1972, *Interdisciplinarity: Problems of teaching and research. Proceedings of seminar on interdisciplinarity in universities, organized by the center for educational research and innovation* (pp. 97-121). Copyright 1972 by the Organization for Economic Co-operation and Development. Reproduced with permission of the publisher.

Some have seen this. Jantsh (1972) did. He suggested that interdisciplinarity is best understood as an attainment (see Figure 1). It is a particular type of endeavor with a particular set of demands. He outlined a hierarchy of forms of inquiry, defining each according to the structure and complexity of its practices. He made it very clear that interdisciplinarity is relatively complicated, as compared to say, disciplinarity. He also made it clear that more complex forms of inquiry build upon less complex ones. That is, you can't be an interdisciplinarian before you are a disciplinarian. This is great. We've got the beginnings of a normative account. But his model is not sufficient for our purpose of developing a language of evaluation.

One reason is that he blurs the distinction Campbell alluded to between the two types of competencies involved: the competencies of people and the competences of groups. We need to address both what it takes for an individual to meet the demands of interdisciplinarity and what it takes for a group to do so.

There is also a certain arbitrariness to Jantsh's hierarchy. Why that many levels? Why those structures? There are well-established models outlining the structural properties of cognitive developmental stage growth (Commons, Trudeau, Stein, Richards, & Krause, 1998; Fischer & Bidell 2006). That is, we know what the hierarchical nesting of competencies looks like. We don’t have to guess. Even if we are speculating, we can keep in touch with what we know. In light of these two issues I've revised Jantsh's model. Table 1 displays a *speculative* cross-sectional, hierarchal taxonomy of forms of inquiry based on Fischer's (2006) levels. Competencies of groups are built from various competencies in people, but levels aren't correlatives, e.g., a bunch of multi-disciplinary people don't necessarily form a multi-disciplinary group; a trans-disciplinary group is not necessarily filled with trans-disciplinary people.

Table 1. A cross-sectional, hierarchal taxonomy of forms of inquiry

Form of inquiry	Competencies of people	Competencies of groups
Disciplinary	**Requisite level of cognitive development:** Highly Elaborated Abstract Mappings. Individuals demonstrate understanding of one set of conceptions and one methodological approach. They are able to generate unique questions and contribute new research and findings in this area.	Group is able to produce new knowledge (or confirm exiting knowledge) in a specific discipline by employing one set of concepts and methodologies.
Multi-disciplinary	**Requisite level of cognitive development:** Abstract systems. Individuals demonstrate disciplinary competence, and understand that their endeavors must be related to the endeavors of others in surrounding disciplines. They therefore come to know and use some concepts used in these disciplines.	Group is able to demonstrate disciplinary competence and relate the results produced by surrounding disciplines to its own, and relate its own results to others (e.g., communication between disciplines).
Cross-disciplinary	**Requisite level of cognitive development:** Highly Elaborated Abstract systems. Individuals demonstrate disciplinary competence and know how concepts and methodologies from other disciplines relate to in their own, having mastered some concepts therein. They are able to constructively communicate with those from other disciplines in a problem-focused manner.	Group is able to demonstrate disciplinary competence and to constructively collaborate with groups from other disciplines in a problem-focused manner.

Form of inquiry	Competencies of people	Competencies of groups
Inter-disciplinary	**Requisite level of cognitive development:** Single principles. Individuals demonstrate at least two disciplinary competences. One is primary, yet they are able to employ the concepts and methodologies of other another discipline well enough to contribute to the questions and findings therein. New understandings of the primary discipline result.	Group subsumes at least two disciplinary sub-groups, with one as primary focus of expertise. Capable of solving problems that cannot be addressed by either discipline, typically in a problem-focused manner.
Trans-disciplinary	**Requisite level of cognitive development:** Beyond single principles. Individuals demonstrate at least two disciplinary competences, neither of which is primary. They work and contribute to both and generate unique findings, conceptions, and artifacts as a result of an emergent trans-disciplinary perspective. They are able to communicate with those from a variety of disciplines in a synoptic manner.	Group subsumes at least two disciplinary sub-groups, neither of which is primary. Produces both problem focused and synoptic knowledge, which cannot be reduced to either of the sub-group competencies. It is capable of spawning new disciplines, and reforming existing ones in light of emergent perspectives.

I've based this taxonomy on Fischer's model of cognitive development, which entailed that one of Jantsh's levels be removed (pluri-disciplinary). I've also clearly differentiated the competencies of people from the competencies of groups. The result is a detailed taxonomy of forms of inquiry and their demands on individuals and groups.

With its base in Fischer's established research, the taxonomy is presented as a hypothesis that could be empirically refined and tested. No doubt, it's a simplification. But relative to the rampant *over-simplifications* involved when we apply the label interdisciplinary to everything and anything, I propose this taxonomy as a useful *complexification*.

It also provides the beginnings of a language of evaluation. We can now look at an endeavor and argue about where it belongs in this taxonomy. Moreover, because we can talk about the demands, we don't have to compare the results of two very different forms of inquiry. We can calibrate our expectations. We can more precisely zero in on the symptoms of quality. For example, a group of experts claiming to do interdisciplinary research should be meeting the requisite demands and not just disguising some other form of inquiry with a buzz-word; a group of undergraduates struggling to solidify disciplinary expertise should not be expected to be interdisciplinary, but should strive for multi-disciplinarity and be evaluated accordingly. The words *developmentally appropriate* come to mind.

Step 1, part 2: what about the young ones (and the philosophers)?

There could be concerns that the forgoing scheme is too elitist. What about all the great stuff that happens when students, who are by no means experts in any discipline, are exposed to a wide range of approaches and concepts? Am I suggesting that there should be no such exposure? Am I relegating everyone to parochial disciplinary channels until they've paid their dues? Am I suggesting that we have to be specialist before we be come generalists?

No. I just think we should clarify what is really going on.

Figure 2 offers some clarification. This figure is primarily about how individuals come to acquire capabilities. I am suggesting that *general education* be defined as an exposure to multitudinous *pre-disciplinary* endeavors. I believe that this kind of broad exposure is invaluable. However, at some point, for many people, disciplinarity should be acquired. This means that one limits one's focus for a time. Expertise, and the process of developing it, is exacting. As Campbell said, "we need to gain the profound specialization that is essential for scientific productivity" (1969, p. 326). Only then we can we begin to branch out and relate our expertise to the expertise of others.

This dynamic is illustrated in Figure 2. Various pre-disciplinary arrangements constitute a well-rounded general education. Eventually, disciplinary expertise is acquired. This expertise is progressively supplemented by knowledge of other disciplines. Finally, trans-disciplinary expertise is achieved, where emergent perspectives become available. Meta-disciplinary reflections about epistemological relations between the disciplines, goals of inquiry, etc., should exist alongside the growth of knowledge.

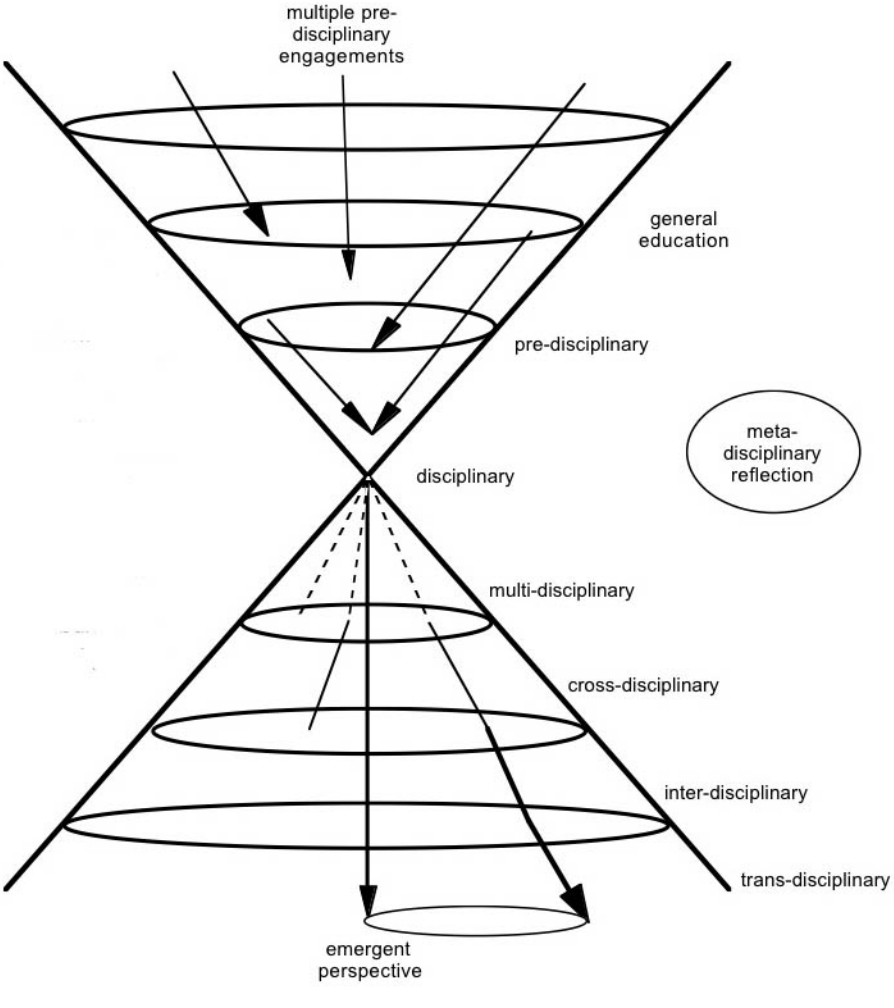
multiple pre-disciplinary engagements
general education
pre-disciplinary
meta-disciplinary reflection
disciplinary
multi-disciplinary
cross-disciplinary
inter-disciplinary
trans-disciplinary
emergent perspective

Figure 2. Funnel of expertise

Also note that in Figure 2 I've singled out the idea of meta-disciplinary reflection. This is also addressed to those feeling claustrophobic about being forced into disciplinary channels. Meta-disciplinary reflections are often neglected. Ideally they would serve to give even the most focused expert a broader view about the nature of their discipline. The goals of inquiry would be put on the table. It would be admitted that other disciplines exist and generate valid knowledge, that each discipline knows only a piece of the world. And so, even the disciplinarian with no interdisciplinary ambitions would take a big view. In many ways this is the role of philosophy.

Moreover, because the demands of interdisciplinarity are so complicated (as we are beginning to see) I claim that meta-disciplinary reflections should accompany endeavors at any level of sophistication. They ought to run in parallel. This means that meta-disciplinary reflections don't sprout out of the top, like trans-disciplinary perspectives. They frame and facilitate. They’re not the capping stone; they're the scaffolds. They're not the product but the catalyst, not the endeavor but its justification. I will say more about this when we discuss Wilber's meta-disciplinary model of integral methodological pluralism.

But first we need an introduction to the epistemological issues.

Modeling the demands of interdisciplinarity: Step 2 - epistemological issues

What have we done so far? We have dissected a vague concept: *interdisciplinarity*. A model has been presented suggesting that there is a hierarchy of forms of inquiry. The claim is that in light of such a model, undertakings that involve more than one discipline can be analyzed and grouped according to the complexity of the concepts and practices entailed. This claim stands even if the demands outlined above are inadequate or inaccurate. The main point is that we need a more precise language with which to talk about these kinds of endeavors. Maybe some other one is preferable. Fine. But *something* like what I've suggested needs to be devised and widely employed.

The same can be said about the models laid out in this next section. The demands outlined above help us diagnose and categorize forms of inquiry involving more than one discipline; some are more complex than others. The demands outlined here help us condemn or condone certain inquiries, regardless of their complexity; some are more valid than others. This second field of considerations is epistemological. And the territory is contested.

There is not one way to view the epistemological tangles surrounding inquiries involving more than one discipline. I base my account around some *very general* issues. I'm laying out the forest and ignoring some of the trees.

We've already met one very basic epistemological difficulty by claiming that multi, cross, inter, or trans-disciplinary work must build upon disciplinary work. We don't have to deal with epistemology *qua* the problem of knowledge, because we've seen that disciplines have their own internal methods of quality control. It's part of what makes them what they are. Remember that Gardner's definition went something like this: disciplines are sets of *concepts* and *methods* aimed at certain phenomena, which have been accepted by experts as providing *standards for determining the validity of answers*. This definition removes some of the most basic epistemological / philosophy of science concerns. For our purposes we'll take the disciplines at their word: they generate knowledge. But what about endeavors involving more than one discipline? How should we characterize relationships between different disciplines?

Jean Piaget (1972) maintained that there are symbiotic relations between the disciplines. None are more primary than others. They feed off one another. The knowledge produced by one is often taken as the data used by another. He also maintained that there is some common core to all science: *structures*, the formalized systems of relations that are required to do any kind of science. Phenomena make sense in light of the structures we posit to understand them. Moreover, he was intrigued by the similarities between the structures posited by the various sciences, and even prophesized their convergence in a kind of universal "genetic [i.e., developmental] structuralism." So homogeneity was grist for his mill. But overall, he saw heterogeneity as a virtue. There is unity in diversity, not just unity.

So despite the fact he saw certain formal similarities between the disciplines, he was still cautious about forcing homogeneity. That is, he was concerned about reductionism. He would have us note the differences between *levels of analysis* and the differences between *the human and the natural sciences*. Piaget's two notes of caution are the two main points covered next.

Step 2, Part 1: levels of analysis

The idea that there are levels-of-analysis issues is widely touted. Roughly speaking it means this: that with regards to some type of phenomenon and from some basic perspective there are different valid descriptions and explanations. A classic levels-of-analysis issue is the relation between physics and biochemistry (see Sellars, 1963/2007). The question here is about the relation between the theoretical concepts and methods of biochemistry and those of physics. We have two disciplines, both setting out from the same basic perspective towards the physical world, but addressing ostensibly irreducible phenomena via distinct methods. I say that the phenomena are ostensibly irreducible because there are many who maintain that the explanatory concepts of biochemistry are in fact reducible to those of physics. The point here is not to take a stand on the issue, but to note the debate. And there are many such debates regarding level-of-analysis issues.

In these debates, according to some, levels-of-analysis issues always amount to this: with regards to some type of phenomenon there are different descriptions and explanations, and only those positing the smallest / simplest / most material,/ etc. are valid. This is suggesting that there are levels of illusion layered on top of some most basic, most real, foundation. We could label this as a type of reductionism. Now, I'm not saying there are no illusions. Nor do I think that all the disciplines are equally valid in their descriptions of phenomena. However, if two disciplines are cooperating in a common endeavor there should not be unwarranted privileging of certain disciplinary perspectives.

This is just to say that we need to be careful when different disciplines get together. As noted by many philosophers, including Piaget (1972), Sellars (1963/2007), Habermas (1984), and Wilber (1995), there is a tendency towards reductionism in interdisciplinary endeavors. This tendency makes levels-of-analysis issues an important addition to our language of evaluation.

The next section deals with another set of distinctions worth preserving.

Step 2, Part 2: the human sciences and the natural sciences

That this topic has its own section may be confusing to some. Many think that this topic is a levels-of-analysis issue. Following Piaget and others, I want to argue that it is not. The idea is this: levels of analysis are different descriptions of phenomena viewed *from the same basic perspective*; while the human and natural sciences actually involve *different basic perspectives*. Kant, Habermas, and Wilber make this point very clearly.

Kant (1787, A 550/N 578) makes a distinction between two *basic perspectives* we can take on human actions. From *the theoretical perspective* (the view of natural science) causes and forces *determine* human actions. Humans are objects nested in systems of causes with other objects. From *the practical perspective* (the view of a participant observer) actions result from the spontaneity of the agent, and occur for reasons typically available to that agent. Humans are subjects reasoning and acting autonomously. For Kant this is an antinomy: both views are equally valid.

Habermas (1984, 1990) concurs. He proposes a model of communicative rationality in which different forms of argumentation and language-use reveal different incontrovertible perspectives on the world. He notes two forms of language use (1990, p. 24), one in which *you say (to yourself) what is the case*, the other in which *you say something to another and establish mutual understanding*. He sees these as indicative of basic perspectives: in the first perspective *we relate to objects*; in the second *we relate to others like ourselves*. No doubt, all sciences involve communications between scientists. But in the human sciences the communicative perspective is ubiquitous; we are necessarily *participant observers*. Natural scientists talk to one another, but not to the objects they study; they take an *overtly objective* view of these phenomena.

Wilber (1995, 2006) gets right down to the point. He posits several “primordial perspectives,” and following Habermas and Kant links them to our most basic pronouns: I, WE, and IT. There is a big difference between relating to objects (I - It) and relating to other subjects (I - thou = WE). He suggests that some of the most important methodological differences between the disciplines hinge around these primordial perspectives. He offers a model based on these perspectives that can serve to scaffold a taxonomy of methodologies.

With these basic ideas the point should be clear. Not all complications that arise in inquiries involving more than one discipline are levels-of-analysis-issues. There are more basic *perspectival issues* as well. The paradigmatic cases of such issues can be found when we try to merge the human sciences with the natural sciences.

For example, medical diagnostics and neurological accounts of the mind entail applying the basic perspective of the natural sciences to human subjects. We set out from a perspective in which we face only objects; here we take an *overtly objective* view of a human. That's fine. We need that kind of knowledge. But more often than not these come to be nested in broader efforts involving multiple disciplines, such as efforts towards healthcare or education. In cases like these we run the risk of denying the validity of disciplines setting out from other basic perspectives, such as richly *inter-subjective* practices like psychotherapy, ethics, or pedagogy. *These* set out from a perspective in which we face other subjects like ourselves. We may gather data and strive for objectivity as participant observers, but when we study humans we never relate to mere objects.

So the human sciences set out from a fundamentally different basic perspective than the natural sciences. Blurring the distinction is not only dangerous; it's fallacious. Human scientists misunderstand their endeavor if they think they can simply treat subjects as objects. I don’t have space to outline the methodological and ethical implications of this (but see Habermas, 1984, 1987, 1990; Wilber, 1995).

Summary of Step 2’s epistemological point

We've seen two different epistemological issues that are relevant to endeavors involving more than one discipline. There are *levels-of-analysis issues*, and *perspectival issues*. Both should be on every interdisciplinarian's radar. And they should be added to the language of evaluation we've been constructing. But before discussing this, I offer Figure 3 as a way of making the epistemological points stand out.

Disciplines set out from different basic perspectives and so face different domains of phenomena, where they home in on different levels of analysis. Inquiries involving disciplines setting out from the same basic perspective deal with levels-of-analysis issues. Inquiries involving disciplines setting out from different basic perspectives deal with perspectival issues.

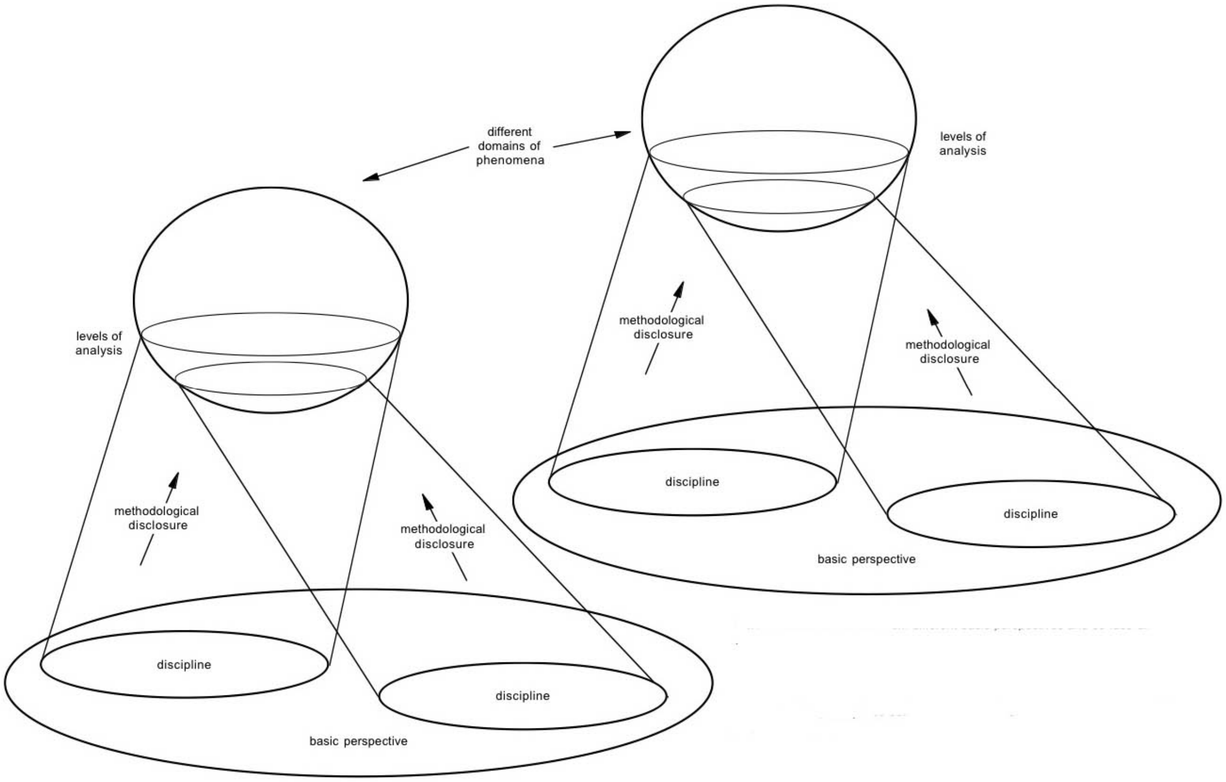
different domains of phenomena
levels of analysis
levels of analysis
methodological disclosure
methodological disclosure
methodological disclosure
methodological disclosure
discipline
discipline
discipline
discipline
basic perspective
basic perspective

Figure 3. Sources of levels-of-analysis and perspectival issues

What Figure 3 adds to our language of evaluation should be clear. We've isolated two epistemologically-salient properties that bear on the worth of endeavors involving more than one discipline: *levels-of-analysis issues* and *perspectival issues*, which are not to be seen as coterminous. We can now argue about how various undertakings fare with regards to *the epistemological structure of knowledge claims involving more than one discipline*.

These reflections also suggest that reductionism is not so simple. If we're striving to envelop various disciplines—as educators, problem solvers, or researchers—we can’t just presuppose that there are privileged perspectives and levels of analysis. If we keep the epistemological issues on the table, then we need reasons for every reduction. We need to account for every level or perspective we ignore. Otherwise, we fall back behind our claim to have employed more than just the discipline we favor. Disciplines demand differentiation *before* they are available for integration. This doesn't mean that everything out there is valid. But to spawn healthy endeavors involving more than one discipline the default epistemic position should be one of open-minded disciplinary tolerance, not one of skeptical disciplinary xenophobia.

Conclusion: Integral Methodological Pluralism

I'll recap the story to this point. We began by noting that the term interdisciplinary means too much. It's over used. In search of a more specific definition, we discussed the progenitors of contemporary interdisciplinarity, which revealed the *significance* and *variety* of interdisciplinary motivations. Moving forward from this historical context we turned to the contemporary scene to see the various forms of what passes as interdisciplinarity today. This rounded out our descriptive account and provided a rough sense of what interdisciplinarity is generally taken to be. However, evaluating interdisciplinary endeavors, of whatever type, requires more than a descriptive undertaking. So the project of building a language of evaluation began where the descriptive accounts left off.

It became clear that the *competencies* of individuals and groups bear upon the quality of interdisciplinary work. By looking to work done in cognitive development, we formed a hypothesis that there is in fact a *hierarchical taxonomy of forms of inquiry involving more than one discipline* (Table 1). By taking the development of competencies seriously (both in individuals and in groups) we effectively differentiated the following set of endeavors, each more complex than the next: multi-disciplinary, cross-disciplinary, inter-disciplinary, and trans-disciplinary.

But this hierarchical taxonomy based on *complexity* was seen to be in need of supplementation by an epistemological taxonomy concerned with *validity*. So we looked to a handful of philosophers to distil the general *epistemological structure of knowledge claims implicating more than one discipline*. This involved differentiating between levels-of-analysis issues and perspectival issues. Perspectival issues concern fundamentally distinct and irreducible stances towards the world: most importantly the difference between standing in relation to *others* vs. standing in relation to *objects*. Levels-of-analysis issues concern differing descriptions of comparable phenomena disclosed from the same basic perspective: e.g., biochemistry vs. physics. These are two *types* of epistemological concerns that arise in endeavors involving more than one discipline. As such, they must be added to any language used to evaluate the quality and validity of these endeavors.

While our lexicon for interdisciplinary evaluation is not lengthy, it is robust.

We've sketched the contours of important competences and fallacies. Understanding these helps us understand what it really takes to be interdisciplinary. Moreover, and to conclude, it also suggests an ideal *modus operandi* for endeavors involving more than one discipline. I claim that the ideal of an Integral Methodological Pluralism (Wilber, 2006) is supported by both the hierarchal taxonomy of competencies and the epistemological concerns.

As it stands, Integral Methodological Pluralism is a meta-disciplinary framework that specifies a taxonomy of disciplines organized around eight primordial perspectives. It's laid out against a backdrop in which cognitive development figures prominently, knowledge is verified procedurally, and reductionism is on the radar as a major concern. All this makes it very close to the account offered here.

But more importantly, and to break slightly with the orthodoxy, I claim Integral Methodological Pluralism is less significant as a *substantive* view (e.g., *exactly this many methodologies*; *only this many levels*, etc.) and more significant as a *formal*, *normative* *perspective* on how we ought to proceed when endeavoring to employ a variety of disciplines. This interpretation is not far from the one proposed by Crittenden (1997), where he suggests that the integral method trumps its substance, and that this method is best understood as a type of *critical theory*. That is, the "Integral Vision" does more than describe how various methods hang together; it offers a *regulative epistemic ideal* in light of which less than integral approaches can be criticized. Similarly, I see Integral Methodological Pluralism as a *normative meta-disciplinary inquiry catalyst* that can be unpacked at any level of competency to insure a healthy manifestation of interdisciplinary energies.

However, what has been laid out in this paper is not contingent upon this interpretation of Integral Methodological Pluralism. I mention it because meta-disciplinary languages of evaluation are in short supply. We should see what's available. And I see it, like I see the work done here, as an attempt to bring clarity to confusion by outlining a meta-disciplinary framework with normative bite. Of course, we need more meta-disciplinary knowledge workers and concomitant institutional structures if any of this is to fly. It is clear to me that new types of inquiry-based future-oriented communication communities will emerge and that meta-disciplinary models will be needed to orient their epistemic endeavors. The more we want and need to know, the more we'll need to clarify to ourselves what we are up to. Quality control becomes paramount as interdisciplinary knowledge production proliferates.

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Integral Re-views Postmodernism: The Way Out Is Through

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Abstract: In this article I re-evaluate the potential contribution of postmodernism to integral theory via integrally-derived perspectives. I identify a premature foreclosure: the underappreciation of postformal modes of thinking (cognitive development beyond Piaget's *formal operations*). I then enact certain forms of postformal reasoning in relation to integral theory. This includes an engagement with such perspectives as complexity theory, conceptual ecology, vision-logic, dialectics, genealogy, critical theory, and construct-awareness. A major theme concerns the dialectical relationship between reconstruction and deconstruction—partly explored through a developmental assessment of contra-indicative discourse by both Wilber and Derrida. Although the territory is complex, the relationship between current Wilberian theory and postmodernism is clearly problematised. I posit that a deeper engagement with postmodernism can lead to an autopoietic deepening of integral theory.

Keywords: autopoiesis, construct-awareness, Derrida, dialectics, Gebser, Green vMeme, integral theory, postformal, postmodernism, recursion, vision-logic, Wilber.

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Introduction

> *You could not discover the limits of soul, even if you travelled by every path in order to do so; such is the depth of its meanin.* (Heraclitus, 42).

Integral theory[1] has the potential to be a valuable conceptual tool for a host of purposes. Its potential would be thwarted or skewed, however, if it is found lacking in sufficient rigour or coherence. Ken Wilber's integral theory, AQAL, has popular appeal, and is panoramic in scope with a firm sense of order. As such, AQAL is a powerful player in the *integral* terrain, and Wilber's theoretic contributions need to be duly considered to advance integral theory in general. In part, this means they need to be brought into adequate dialogue with other pertinent contributions (whether they be termed *integral* or not). Further, the conceptual terrain AQAL broadly *maps* needs to be *explored* in careful detail (Roy, 2006a). From an integral background,[2] I have been exploring such terrain. What follows is a pertinent bricolage[3] chronicling a journey from *viewing* postmodernism—as given—to *re*-viewing postmodernism afresh. Notably, it would seem that certain sections of the integral community hold ideas concerning postmodernism that may well be partial truths at best. I hope this exploration can help dispel any falsity in such pertinacious myths.

In terms of the terminology I am using here, I note that *postmodernism* is a highly contested term, such that it can even be seen to have contradictory meanings. I will not be using the term to infer certain features that might elsewhere be attributed to "late capitalism," for instance. (Late capitalism is still capitalism and should therefore remain mapped within AQAL's Orange vMeme—*modernism*.) Instead, my use of the term in this article is intended at the outset to signify AQAL's Green vMeme, thus including both collective and individual dimensions. The collective dimension is sometimes referred to simply as *postmodernism* in certain contexts and *poststructuralism* in others,[4] whilst the individual dimension refers to *postformal* thought: cognitive development beyond[5] Jean Piaget's *formal operations*[6] (formal operational thought uses if-then linear logics and evidence-citing to make its *arguments*). The potential area is vast and a comprehensive review could not be adequately accomplished in one article. Nevertheless, sufficient openings can be offered to identify and further this liminal terrain. Specifically, the following idea is explored: The way to deepen integral theory is *through* postmodernism (by explicitly thinking postformally), not against it.[7]

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[1] I am using the term *theory* broadly to connote *theoretic narrative*.

[2] Including (a) familiarisation with Wilber's corpus (1995-present), (b) being a member of two face-to-face Wilber discussion groups (2000-2005; London & Sydney) and originator of a third (2001-2002, London) (c) completing a postgraduate course in integral futures (Swinburne University, Melbourne, 2003) (d) core involvement with the Integral Education Forum (2004-2005), (e) participating in an Integral Transformative Practice seminar (2005, Colorado), (f) consulting for the Integral Institute (2005, Boulder)

[3] I am using the term, *bricologe*, as inspired by Kincheloe and Steinberg (1993).

[4] It is sometimes taken as the *philosophical* expression of postmodernism, for instance. Derrida, Deleuze and Foucault are often called poststructuralists, although it is important to note that this is not an identification which they themselves adopted.

[5] The term, *beyond*, can infer a number of possibilities. My default interpretation of the term in this article is in reference to Wilber's "transcend and include."

[6] For an important historical marker in the development of this field, see Commons, Richards, & Armon (1984); for a salient contemporary review, Susanne Cook-Greuter's (2007) website is worth exploring.

The Logic of Integral Vision

In terms of honouring integral theory, many elucidations could be given. Here, I simply wish to highlight the *logos* of logic: There is *logic* to integral vision—in all senses of the word. Firstly, integral conceptualisations foreground the significance of formal reason. Secondly, in this current era—perhaps aptly seen as "the best of times…the worst of times"—there is sense or logic in developing an integral vision—as an eco-social imperative.[8] Thirdly, integral theory carries the promise of cohering postformal logics.[9]

A commonly held default understanding is that integral and postmodern signify very different beasts. In such a characterisation, postmodern connotes incredulity toward grand narratives (à la Lyotard[10]), and a privileging of particularity, sensibility, nonlinearity, flux, liminality, and divergence (via Derrida's différance and déconstruction). In contrast, integral connotes the credibility of (certain) grand narratives, and a privileging of universality, content, linearity, structure, definition, and convergence (coherence and construction). Such a characterisation is reinforced by Wilber's foregounding of the decisive differentiation between AQAL's Green vMeme and those Wilberian vMemes which are theorised as transcending it.[11] Such is the given integral view of postmodernism. It is not, however, the only possible one: Wilberian integral theory itself can be used to identify a different perspective on postmodernism.[12]

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[7] To adequately address the many facets of the subject matter, this article is necessarily relatively lengthy, and also features a few unorthodox "stylistic" elements. Due consideration should be thus given to this with respect to the reader's *mode of participation* (as discussed & facilitated below).

[8] This might be regarded (dialectically) as *the logic of—an integral—logos* or text

[9] On a more personal note, I wish to honour the contribution that Wilberian integral theory has made in my intellectual development. As such, the critique below is not meant to infer an opposition to integral theory, but rather to open up possibilities of deepening it. This process necessarily involves both deconstructive and reconstructive elements, yet I enact both from constructive desire. I will no doubt sometimes stray from the appropriately wavy course I seek to find and follow, but when I do, I hope to be able to discern unruly attachment, and bend my ear toward peers' and colleagues' comments!

[10] Lyotard's (1984) necessarily-translated words are: "In contemporary society and culture—postindustrial society, postmodern culture—the question of the legitimation of knowledge is formulated in different terms. The grand narrative has lost its credibility, regardless of what mode of unification it uses, regardless of whether it is speculative narrative or a narrative of emancipation" (p, 37). In this quotation, Lyotard appears to be describing his understanding of the status of certain discourses of which he was aware at the time he was writing. From the statement alone, it is unclear whether Lyotard's affective perspective on this information is detached, appreciative or regretful. It would, of course, be illogical for the statement to be interpreted as a totalising narrative concerning the fate of *all* grand narratives. As such, even from this iconic—perhaps infamous—statement, there is window of opportunity in which integral narratives, which appropriately *defer* to postmodern considerations, might be open to legitimation from such a nominally futile perspective.

[11] Wilber's Green vMeme includes: postmodernism, which he often refers to as "extreme postmodernism" or "deconstructive postmodernism"; relativism, often referred to as "extreme relativism"; and deconstruction. Its placement—along with all the preceding vMemes—as being located in the "first tier" (of Spiral Dynamics theory) is foregrounded by Wilber, partly through his catchy—fun but derogatory—phrase, "mean green meme." In contrast, the proceeding "second tier," starting with the Wilberian Teal vMeme (formerly known in AQAL as the Yellow vMeme) is mostly rendered as substantively offering the solution to Green's failings and excesses.

Revisioning Integral Logic

Integral theory can be used to re-view postmodernism by way of foregrounding the latter's theoretic agency rather than adopt the default prioritisation of its mapping as object of study. In so doing, postmodernism may reflect back upon integral theory and open up new ways of thinking. In other words, the "way out" from the modern world(view) to integral level(s), integral understanding, integral participation, is *through* including the full contribution that the Green vMeme can offer.

A key to this re-viewing lies in postformal cognition—mapped in AQAL as lying within the upper (i.e., individually- rather than socio-culturally-related) quadrants[13] of the Wilberian Green and post-Green vMeme developmental levels. Put simply, a more distinctive differentiation could be drawn between the object of inquiry and the type of thinking used to inquire. When the commonly-held default interpretation of *postmodern*—as object of inquiry—is regarded, what kind of operation is being performed? Specifically, what developmental level of cognitive mode is being employed to realise such a perspective? Postmodernism, or integral theory—as objects of inquiry—can be viewed from different developmental perspectives, but, to date, in terms of developmental considerations, Wilberian theory has foregrounded the locating of *objects* of inquiry rather than the developmental locating of *modes* of inquiry (epistemologies or methodologies). Whilst Wilber's Integral Methodological Pluralism (Eight Native Perspectives) differentiates epistemologies or methodologies *horizontally*—according to zones or quadrants—it remains unclear which *vertical* developmental levels or waves these perspectives operate from.

In terms of reflexivity, moreover, Wilber (1995) briefly states the following

> What I am trying to do in this book, and what you are trying to do as you read it (or other similar books), is use vision-logic; not just reasonably decide the individual issues, but hold them all together at once in mind, and judge how they fit together as a truth-vision. In other words, vision-logic is a higher holon that operates upon (and thus transcends) its junior holons, such as simple rationality itself (p. 185).

Here, Wilber states that he is trying to use vision-logic, but he does not state whether he is using "early," "middle," or "late" vision-logic.[14] Nor does he substantively elaborate upon which

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[12] By differentiating between, on the one hand, the participatory stance *Wilber* enacts in relation to AQAL, and, on the other hand, *alternative* modes of engagement with AQAL interpretations (such as the *autopoiesis* I am offering here), I am suggesting a manoeuvre that might facilitate a bridging between AQAL and the participatory integral approach identified by Ferrer, Romero and Albareda (2005).

[13] For an explanation of Wilber's four quadrants—a central feature of his integral theory, AQAL, see Wilber (2000a, pp. 67-72) Note will also be made here that Wilber has elaborated *the four quadrants* into *the eight native perspectives* (see 2006b)

[14] "Where the green meme [sic] uses early or beginning vision-logic in order to grasp the numerous different systems and contexts that exist in different cultures, second-tier thinking goes one step further and begins to *integrate* those pluralistic systems into integral and holistic spirals and holarchies (Beck and Cowan themselves refer to second-tier thinking as operating with holons)…

particular postformal cognitive modes he is employing, or explicitly demonstrate such usage. How dialectical is AQAL? In what way complex? What is its relationship to critical theory (see for instance, Anderson, 2006) and critical thinking? How reflexive is it? What genealogies and conceptual ecologies are employed? How (much) has it embraced *the linguistic turn*? Important questions—which this article does not attempt to answer, but rather, put on the map.[15] In other words, the aim of this article is not to comprehensively assess integral theory—specifically AQAL—by means of postformal thinking, but rather to open up discursive spaces or Deleuzian "lines of flight."[16]

A consequence of Wilber's minimal reflexivity on postformal thinking (rather than the copious mapping of postformal thinking) is that there has been a substantive underappreciation or premature foreclosure regarding the potential contribution that postmodernism—in all its guises (not only pluralism, for instance)—might make to integral theory. By re-viewing the contribution of postmodernism or the Wilberian Green vMeme from this different integral perspective—the perspective of postformal cognitive modes—a potential inversion can be identified between the inquiring subject and the object of inquiry, where the inquiring subject changes from a default "integral" thinker (in which AQAL mapping is the primary operation) to a postmodern one (as a postformal thinker) whilst the object of inquiry changes from postmodernism to integral theory in order for integral theory to discern and digest this new reflexivity, and thence to be able to proceed more coherently. The bigger theoretical context all the while remains integral theory: AQAL is being applied upon itself, enacting a certain autopoiesis via the participation mode of the researcher. A theoretic re-searching. New questions arise such as: What new understandings of integral theory might arise from explicitly detailing and employing postformal modes of cognition upon itself? The territory envisaged is vast; hence, at this stage, I can seek only to open up this avenue of thought—to tentatively start to develop a conversation. Yet such a direction has the potential to revise the very fabric of integral theory.

"There are two major waves to this second-tier thinking (corresponding to what we would recognise as middle and late vision-logic)" (Wilber, 2000a, pp. 51-52).

[15] My tentative use of postformal operations in this article does not imply that Wilber does not enact particular postformal operations in particular ways with regards to AQAL. For instance, the breadth of territory covered in AQAL could be associated with postformal vision; the value of its mission potentially legitimised with reference to fuzzy logic and its "*transcendent*" relations, fuzziology and social fuzziology (Dimitrov & Hodge, 2002, p. viii); its systematisation can be viewed in relation to Michael Commons and Francis Richards' Model of Hierarchical Complexity; the eight native perspectives can be seen to be a dialectical development of the four quadrants; Wilber's purported methodology of orienting generalisations could be fruitfully linked to grounded theory, intuitive inquiry and other emerging academic methodologies; his style could be viewed in relation to certain postmodern affectivities; whilst the incorporation of holarchy via Hegel's dialectical principle of *sublation* (Wilber's "transcend-and-include") can also be seen to emanate from a postformal perspective. In a similar way, both formal and pre-formal operations could also be identified. The degree to which Wilber explicitly reflects upon such postformal modes in relation to his writing also needs to be identified: he does this very little, relative to the objects of his inquiry.

[16] The facilitation of such dialogue at this juncture will necessarily involve *particular* assessments which lean towards problematisations with a view to future reconstructions.

Postformal Thinking

Integral theory can be revised toward further coherence by way of postformal cognitive modes if the following turn is made: that these modes are reflexively embodied—enacted as modes of participation—rather than merely addressed (through the enactment of mapping). The operation of mapping can provide a first-stage conceptual reflexivity in certain contexts, and can evaluate participatory characteristics. But qualities of participation also have to be adequately regarded as an important theoretic feature and thus incorporated as part of integral theory. Addressing the developmental levels of engagement and participation could be a major consideration in postformal reasoning.[17]

Postformal thought is discussed primarily in three fields: developmental psychology, education and integral studies. After a very brief overview of some of the features of these three discourses, I will suggest ways to deepen and cohere the territory. I will then outline the way I will be applying postformal cognition to the object of inquiry, integral theory.

Reviewing Postformal Thinking

The term *postformal* first erupted within developmental psychology in reference to possibilities of going beyond Jean Piaget's developmental stage of *formal operations*. Klaus Reigel (1973) was the first to posit a stage beyond formal operations.[18] He referred to it as *dialectical operations*. Two years later, Patricia Arlin (1975a) posited *postformal operations* as a variant theory. The term *postformal* has been in use ever since and refers to a number of theoretical approaches which seek to either (a) posit another stage or stages, level or levels, or complexity attractor(s), in addition to those elucidated by Piaget; (b) problematise Piaget's theory but not developmentalism *per se*; or (c) problematise developmentalism as a whole.

Much of the discourse surrounding the term has been within developmental psychology, notably in the *positive adult development* research community. This has ranged from the mathematical representations of Michael Commons and Francis Richards' (1984, 2002) Model Of Hierarchical Complexity to the critical reflections of John Broughton (1984). Various modes of cognition or operations, types of thinking, qualities, features and/or characteristics have been identified in this discourse as, or pertaining to, *postformal*. These include: complexity, dialectics, creativity, imagination, construct-awareness, problem-finding, reflexivity, dimensionality of systems thinking, contextualisation, holism, openness, unitary consciousness, dialogic consciousness, and wisdom. (Arlin, 1975a, 1975b, 1976; Basseches, 1980, 1984a, 1984b, 1986, 2005; Benack, Basseches, & Swan, 1989; Benack & Basseches, 1989; Broughton, 1984; Commons & Richards, 1984, 2002; Cook-Greuter, 1990, 2000, 2002; Demetriou, 1985; Kegan, 1982, 1994; Kohlberg, 1984; Koplowitz, 1984, 1990; Kramer & Woodruff, 1986; Labouvie-Vief, 1990; Loevinger, 1976; Marchand, 2001; Pascual-Leone, 1984; Powell, 1980; Riegel,

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[17] A fruitful discussion here—beyond the scope of this article—would concern details of the relationship between postformal and formal. Suffice to indicate a working proposal of *postformal* sublating (transcending-and-including) *formal*, so that the reasoning mode of *formal operations* is appropriately honoured. (It has facilitated production of this very article, for example, and should form a significant part of its potential evaluation, too!)

[18] Due regard should be given to the ecology of forerunners to Positive Adult Development research into postformal thought. Notable here is Roberto Assagioli's (1965/2000) *Psychosynthesis*, and Abraham Maslow's (1971) Self-Actualization Theory including his developmental *hierarchy of human needs.*

1973, 1975, 1976; Sinnott, 1998, 2003; Sternberg, 1998; Wade, 1996). The literature also demonstrates a wide variety of conceptualisations regarding the theoretic legitimacy, number, positioning and/or relationship among postformal developmental levels.[19]

The term *postformal* took on a somewhat different usage and meaning in 1993 within the field of education via Joe Kincheloe and Shirley Steinberg (1993) who posited a *socio*-cognitive theory regarding post-formal thinking, describing postformal thought as the socio-cognitive expression of postmodernism. In addition to features identified above with the developmental psychology discourse, they included: critical theory, genealogy, etymology, structuralism, metaphoric cognition, ecological thinking, deconstruction, nonlinearity, holistic causation, and power-awareness. This genealogical thread is still current in the educational literature and in significant ways provides a contrasting perspective to the developmental psychology discourse, although there is a small cross-over between the two fields (Hampson, in preparation).

Meanwhile, Wilber has been writing on postformal thought since 1977, notably in his 1995 *magnum opus—Sex, Ecology, Spirituality*—where he coined the neologism (analogous to postformal thought), *vision-logic*. Postformal thought forms a significant part of AQAL. Both *postformal* and *vision-logic* are used in integral studies discourse—see, for example, Meyerhoff (2006). Through referencing two other *magnum opa—The Life Divine*, by Sri Aurobindo (1914/1960), and Jean Gebser's (1949/1985) *The Ever-Present Origin*—AQAL brings together psychological and socio-cultural components (though in a different way to the education discourse) associating *formal* (as in *formal operations*) with the *modern* worldview, and *postformal* variously with *postmodern* and *integral* worldviews via a developmental and holonic framework described as *integral*.

Developing Postformal Thinking

There are clearly many modes of thinking indicated here and it is beyond the scope of this article to report or discuss the manifold possible interrelationships among these.[20] Yet to facilitate explicit enactments of thinking postformally, I posit that a deepening and a cohering of postformal qualities might be helpful. Both moves (deepening and cohering) can be seen to have affective (embodied) and mental (intellectual) aspects.

In terms of *deepening* postformal thinking—from an affective perspective, a relationship between self-sense and postformal concept could be developed through trust: an *opening up to* the postformal quality in question via affective embodiment (such as via intuition). The mental correlate of this would be to *open up* the postformal concept via the intellect.

For example, if we were to regard the postformal concept of dialectics, we might represent this procedure as:

> (Beginning to) thinking dialectically → engaging with literature on dialectics → thinking (more) dialectically

The generic heuristic algorithm would be:

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[19] Although a discussion of these is beyond the scope of this article, my research does not readily support the regard of AQAL's particular developmental framing of postformal modes as an *orienting generalisation* of the whole literature, but rather supports the viewing of AQAL's framing as one (necessarily contestable) *type* of summarising perspective on it.

[20] Further elucidation is given in "Thinking postformally" (Hampson, in preparation)

Thinking *x*-ly (*n*) → engaging with literature on *x* → thinking *x*-ly (*n+1*)

The example regarding dialectics would thus connect the psychological construct, *dialectical operations*, with the philosophical construct (in its varying interpretations and contestations), *dialectics*.[21] A similar connection would be made between the identification of *complexity* as a construct complicit in psychological development, such as Commons and Richard's Model of Hierarchy of Complexity on the one hand, and *complexity theory*—representing the philosophical dimension—on the other. (In this way, such a relationship between psychological and philosophical constructs could be used in the concretisation of postformal educational theory). The general case can also be seen as hermeneutic circling.[22]

In terms of *cohering* postformal cognitive qualities—a similar framework could be helpful. Conceptual cohering could be facilitated through systematic consideration of the possible ecology of / dialogue among postformal features. A corresponding manoeuvre can be conceptualised with regard to the interpersonal domain, through such dialogic lifeworld practices as Bohmain dialogue and Gangadean's (2007) Deep Dialogue. (Such schemas could also be seen as useful for *intra*personal work).

The net effect of the above could be to better theorize the facilitation of embodying the central theme of this article: namely, to switch priorities from formally addressing postformal cognition (as an object of inquiry) to enacting *thinking postformally* (as a cognitive process of the inquiring or participating subject). Specifically, in relation to the postformal modes outlined in the following section, the following summaries could be given:

- *Deepening postformal thinking*: thinking creatively, reflexively and "embodiedly" about postformal cognition (dialectics, complexity, criticality, conceptual spacetime context)—regarding the object of inquiry (e.g., integral theory).
- *Cohering postformal thinking*: thinking ecologically (dialogically) about postformal cognition (dialectics, complexity, criticality, conceptual spacetime context)—regarding the object of inquiry (e.g., integral theory).

Applying Postformal Thinking

It can be readily seen that there would be many ways to enact postformal thinking. The types of postformal cognition I have selected for this article are related to, on the one hand, my knowledge of, and experience with, integral theory—notably, AQAL—and on the other hand, my research on postformal thought. It is intended to exemplify particular usage of postformal operations whilst facilitating a pertinent development of integral theory.

In terms of my research on postformal thought, I have included certain postformal items that feature strongly in the literature, and with which I have personally come into significant (and ongoing) relationship, namely: genealogy, conceptual ecology, dialectics, critical theory and complexity (see, notably, Basseches, 1984a, 2005; Commons & Richards, 2002; Cook-Greuter, 2000, 2002; Kincheloe & Steinberg, 1993; Riegel, 1973, 1976; Sinnott, 1998; Sternberg, 1998; Wilber, 1995). Each of these have large and varied terrains, and it is beyond the scope of this article to elucidate such domains in detail. Mention, however, will be given to the following three points as markers for more detailed research. Firstly, at least two uses of the term, genealogy, can be found within postmodern discourse: one in reference to complexity theory (see Davis, 2004), and the other in relation to Foucault (see Scheurich & McKenzie, 2005). In this article, I am employing the former. Secondly, substantively different interpretations of the term dialectics can be variously identified—in relation to, for example, the following five major threads: Socratic (inquiry dialectics), Hegelian (dialectical method), Marxist (dialectical materialism), Daoist (Taijitu dialectics) and Derridean (the dialectics of deconstruction). In this article, I am demonstrating an instance of the use of dialectical operations through calling upon an amalgam—a particular conceptual ecosystem—of the above threads. I am using the metaphor of ecosystem (a complex adaptive system) to facilitate the quality of dialectics in my conceptual operations—my participatory engagement with the object of inquiry (in this case, integral theory). Complex dialectics23 would thus seem a suitable signifier for this.[24]

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[21] Also see Basseches (2005)

[22] *The hermeneutic circle* (as advanced by Schleiermacher) denotes the idea that the knowledge of the whole is to some extent already needed in order to understand the parts. A hermeneutic *helix* might perhaps be a better metaphor, as two conceptual dimensions are involved in the learning procedure: a *returning to origin* (represented by the circle of the helix—as viewed end-on) and an *advancement* (represented by the *linear*—if wavy—dimension of the helix, as viewed side-on).

In terms of integral theory, I have focused on particular issues that have not apparently been adequately addressed—notably, the following two concerns. Firstly, from a formal perspective—employing a Cartesian template based on formal Aristotelian logic—the theoretic basis of integral would most likely interpret the concepts of construction (or reconstruction) and deconstruction as adversaries. Whilst not denying the partial truth of such a perspective, dialectical operations can be used to realise finer distinctions. Secondly, formal/modern constructions of theory can be seen to be based on dualistic conceptual templates metaphorically derived from Aristotle, Euclid, Descartes and/or Newton, whilst postformal/postmodern theoretic constructions would be based on conceptual templates which sublate (transcend and include) the aforesaid formal ones (hence contestability over the relationship between theory and narrative from a formal perspective[25]).

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[23] Numerous generative, transdisciplinary concepts are found within complexity theory (I am using the term broadly to encompass chaos theory). These include: emergence (and its relationship to, for example, bifurcation, creativity, nonlinearity, unintended consequences, the irreducibility of quality to simple "quantity," and the identification of "ontological" levels), hysterisis (time lag, internal complexity, historical memory), simple holarchies and entangled holarchies, first cover, sensitivity to initial conditions (the butterfly effect), recursion, indeterminacy (dimensions of intractability, etc.), openness (permeability of boundaries), attractors (e.g., point, curve, manifold, strange) adaptation, autopoiesis (self-organisation), and dynamism ("life" / life). The complexity quality I am foregrounding in this article is recursion (fractals, holography, holonomy).

[24] In relation to the five strands, one might say—at first blush—that: (a) it is an approach to Socrates-like inquiry (yet acknowledging both certain guidance and uncertain outcome); (b) it has the capability of being used as a Hegelian-like systematic method (yet where system is seen as complex rather than mechanical); (c) acknowledgment is given to dialectics identified in the material world (yet, again, where this is not held mechanically, but complexly; also where a complex dialectics is also identified *between* material and conceptual worlds); (d) acknowledgment is given to the spirituality, intuition, complex recursion, and interpenetrative dynamics of dialectics (yet avoiding the fundamentalisation of myth); and (e) the subtle dialectics of text is acknowledged (yet allowing for its enactment to be panoramic).

[25] E.g. the question, "is it a *real* theory?" and comment, "it's just a story" come from such an either/or perspective. Yet, that is not (necessarily) to say that what is left is an indistinguishable blurring: that conclusion would, too, come from an either/or perspective.

These two strands—namely, those aspects of postformal thinking that I am foregrounding, and those aspects of integral theory that I am foregrounding—result in the following sections in this article:

- Thinking Contextually about Integral Theory
    - Sharing Schelling: A Genealogy of Postmodernisms—reporting on a genealogy which links integral and postmodern philosophical tendencies via Schelling as bifurcation point;
    - An Ecology of Integrals—identifying a conceptual ecology of *integral* constituted by six genealogical threads, among which there are commonalities and contestabilities;
- Thinking Dialectically about Integral Theory
    - Deepening Vision-Logic—identifying dialectical operations in the concept of vision-logic, then developing this perspective;
    - Contra-Indications of *Construction*—exploring considerations which run counter to the formal default integral perspective regarding *(re)construction* and *deconstruction;*
- Thinking Critically about Integral Theory
    - Boomeritis: An (un)Critical Americanitis?—raising a question concerning the significance of cultural type—or marked national idiosyncrasy—in relation to postmodernism;
- Thinking Complexly about Integral Theory
    - Nanotextology (A Recursion of Content)—exploring a recursion of the theoretic component of "content" as related to (an interpretation of) a particular poststructuralist understanding of "style"; and
    - Holonomic Nonduality (A Dialectical Recursion)—exploring a recursion of *nonduality* (including the possible connection between this and a recursive dialectical template).

Thinking Contextually About Integral Theory

It's turtles all the way down (Wilber, 1995, p. 35).

Space and time—and metaphorical resonances of space and time—can be used as loci to extend theoretic contextualisations.

Temporalising of the past can be extended in a linear fashion (already evident in integral theory's apt consideration of pre-history, for example). Past times can also be more richly or adequately understood by adopting a genealogical approach (incorporating a bifurcating structure derived from non-Euclidean complexity theory). Possible futures[26] can also be extended in a linear fashion (surfacing the ethics of long-term thinking: due speculative consideration of medium-term, long-term, far and distant futures). And correspondingly, possible future time can be regarded genealogically via conceptualisations regarding the bifurcation of future scenarios. Present time can be conceptually extended through spatial metaphors, via, for instance, the postformal construct of conceptual ecology—a construct which not only enables the dialogical consciousness of holarchical conceptual space, but also local temporality and the metaphorical resonances of organicity and life.

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[26] I draw attention here to the academic field of future studies. As excellent introductions, see, for example, Richard A. Slaughter (2005) and Sohail Inayatullah (2007).

In the first of two sections, a genealogy is described which philosophically links the integral quest and the postmodern quest as two complementary branches. In the second section, a conceptual ecology is identified which contextualises different interpretations of integral. A particular relationship is then chosen to exemplify a pertinent contestability: that between the integrals of Wilber and Gebser.

Sharing Schelling: A Genealogy of Postmodernisms

A starting place to view a less adversarial relationship between *integral* and *postmodern* than that connoted by Wilber and some members of the integral community, is to consider their shared genealogy. Philosopher Arran Gare (2002) has done just that. He presents the following picture: As scientific materialism began to increase in societal power in late 18th Century Europe, a "postmodern" countertradition arose in the footsteps of Giambattista Vico and Jean-Jacques Rousseau. Johann Herder led the way, identifying: suffering caused by abstractions; the need for self-realisation; an appreciation of cultural plurality; the importance of the particular, the sensory, the active; and a purposeful nature. This thread led—via Johann Wolfgang von Goethe—to Friedrich Wilhelm Joseph von Schelling. Like Rudolf Steiner, Wilber (1995), and Jennifer Gidley (in press), Gare identifies Schelling as an inspiration, and a pivot in history. He highlights Schelling's dialectical method and also his understanding of *that, that we are*: an "unprethinkable Being" which precedes all thought and is presupposed by it. Gare then identifies a historical bifurcation stemming from Schelling. One branch leads to the poststructuralists ("poststructuralist postmodernism"), the other to a high-order quest for coherence ("cosmological postmodernism").[27]

In addition to the dialectical nature of the philosophy that lies at the root of the two branches, the branches themselves can be seen as a dialectic between Schelling's *alignment* with Georg Wilhelm Friedrich Hegel on the one hand, and his *critique* of Hegel, on the other.

The branch that proceeds from Schelling's *critique* of Hegel includes Friedrich Wilhelm Neitzsche, Martin Heidegger, Michel Foucault (largely influenced by Neitzsche), Jacques Derrida (largely influenced by Heidegger) and Gilles Deleuze (who retains more influence from Schelling than the others). Somewhat resonant with Roland Benedikter's (2005) seminal work on postmodern spirituality, Gare proffers that, "poststructuralists require Schelling's earlier philosophy or developments of it to sustain their arguments" (Gare, 2002).

The branch which is more *aligned* to Hegel leads to Henri Bergson and Alfred North Whitehead via Charles Peirce and also via Karl Ernst Von Baer's evolutionary theory of nature. Gare identifies this thread as a high-order quest for coherence. Such a quest for coherence is surely central for any integral theory. But surely a greater integral quest would be to attempt to respectfully honour both branches? Although the branches may seem somewhat incommensurable from a formal perspective, a postformal perspective on *integral* might better facilitate such a quest. But what is *integral*? A postformal approach to answering that question might well address the conceptual ecology among different (connected and contested) uses and interpretations of the word.

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[27] Consideration might be given here regarding the nature of the relationship between Gare's genealogy and Wilber's (1995) bifurcation of post-Enlightenment as "Ego" and "Eco."

An Ecology of Integrals[28]

Integral—meaning, "of or pertaining to a whole"—entered the English vocabulary from the Latin, *integer* (via the French, *intégral*) in 1471. In terms of integral theory and correspondent developments, Sri Aurobindo Ghose (1914/1960) used the term to describe a type of knowledge or yoga, as published in *The Life Divine*. Unaware of Aurobindo's usage, Jean Gebser (1949/1985, p. xxix) began using the term (as a conjunct to *aperspectival*) in 1940, culminating in its usage in *The Ever-Present Origin* in 1949.[29] Meanwhile, Haridas Chaudhuri carried the term through from Aurobindo and founded the California Institute of Integral Studies (C.I.I.S) (n.d.) in 1968. Michael Murphy also brought through Aurobindo's integral theory when he co-founded the Esalen Institute[30] (2005) in 1962. He has since adopted the term *integral* with George Leonard, in their *Integral Transformative Practice* (2007). The most popular(ist) integral theorist—Ken Wilber (1997, 2000a, 2000c)—had started using the term by 1997 to describe both his own writing,[31] and thence his institutional frameworks, such as the Integral Institute (2007) including Integral Naked.[32] Global-outreach tertiary institute, Pacific Integral (n.d.), was founded in reference to this genealogical branch, as well as to William Torbert's work.[33] Wilber's genealogical branch entered futures studies via Richard Slaughter (1998). Ervin László (2004) started foregrounding the term in relation to integral science in 2003, competitively using with the same turn of phrase as Wilber—An Integral *Theory of Everything*—in 2004. Global philosopher Ashok Gangadean (2006a) incorporates László's work among others, to form his own dialogical integral approach. Gidley acknowledges Gangadean as part of her quest to "integrate the integrals," notably an exploration of connections between Gebser, Wilber and Rudolf Steiner, the latter of whom she identifies as an integral pioneer (Gidley & Hampson, 2005). Meanwhile, others have furthered representations of C.I.I.S.'s mission, including Robert McDermott, Richard Tarnas (see, for example, 1991), and Jorge Ferrer, the latter of whom has identified a *participatory* integral approach along with Marina Romero and Ramon Albareda (Ferrer et al., 2005), directors of Estel, a centre for personal growth and integral studies in Barcelona (Albareda, n.d.). In addition, William Irwin Thompson (2003)—whilst acknowledging Aurobindo and Steiner—has, for some decades, been running with Gebser's interpretation to foreground a certain artistry: integral *performances* that seek to generate new horizons; such alignment with creativity parallels both Bernie Neville's (1989) Gebserian and archetypal educational approach, and, substantively, Alfonso Montuori's (1997) interpretation of *integral* as a form of disciplined *improvisation*, via the generative metaphor of jazz.[34]

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[28] As *integral* can be contextualised within "an ecology of integrals," so *an ecology of integrals* can itself be contextualized within "an ecology of related terms."

[29] Alan Combs (2005) comments that it remains unclear as to the degree of influence Aurobindo had on Gebser, remarking, "the whole affaire of Eastern influences in Gebser's thought would be an excellent topic for an investigation" (§ *The Inner and The Outer*, ¶ 8).

[30] Beck and Cowan (1996) address Esalen as Green vMeme.

[31] The original edition of Sex, Ecology, Spirituality (1995) does not have an entry for "integral" or "integral …" in its 33-page index, whilst the second edition (1995/2000) does.

[32] To date, the nascent Integral University (2007) has not yet emerged.

[33] Also see below regarding Cook-Greuter's ego developmental model.

From this particular ecological perspective,[35] there are six intertwined genealogical branches of *integral*: those aligned with Aurobindo, Gebser, Wilber, Gangadean, László and Steiner (in respective chronological order of first usage[36]), among which there are varying degrees of commonality and contestation in various dimensions.[37] As such, we may regard the above as an outline of some "semiotic attractors" within a (necessarily complex and dynamic) hermeneutic ecosystem.[38]

Picking up one such inter-branch contestation, let's turn to the relationship between the *integrals* of Wilber and Gebser. Thompson (1996) foregrounds a difference between the two in relation to Gebser's "grand" European sensibility and loving attention to detail. Bonnitta Roy

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[34] Further—in addition to the integrally-oriented *ReVision* (co-founded by Wilber)—there has recently been an upsurge in integral journals—including *Kosmos* (2001), *The Journal of Conscious Evolution* (2005), *Integral Review* (2005), and *AQAL* (2006); there has also been the Gebser Society's *Integrative Explorations Journal* (currently not in print).

[35] Different perspectives are, of course, possible. For instance, although he doesn't mention Gebser or Steiner, Daniel Gustav Anderson (2006) gives an alternate perspective that, "integral theory…remains Aurobindian from tip to toe inclusive of thinkers as diverse as Wilber and Thompson" (p. 63, n. 3). This can be seen to signify an ecology stemming from one root. Other perspectives might dispute inclusion and/or exclusion of various branches for various reasons (see following footnote, for example). Furthermore, I am not claiming this sketch is comprehensive, but rather, a reasonable point of departure. Every framework inevitably comes with a bias, and I apologise to any authors who may feel underrepresented by identifying / constructing this particular genealogy.

[36] Noting that the Steiner branch is via the conduit of Gidley.

[37] Most contestations occur in relation to Wilber's genealogical branch. Possible causes for this include (a) the power base of each branch (see Appendix C), and (b) Wilber's competitiveness over the term, *integral*. For example, the website for Wilber's Integral University (2007) advertises itself with the tagline, "the world's first integral learning community." Apart from the tense-related misnomer regarding the fact that it is not yet in operation, such a claim has the quality of being decidedly competitive with regard to the term, *integral*, in relation to the ecology of interpretative uses of the term as described in this article. Specifically, Sri Aurobindo's thread was established first, Gebser's second and Wilber's third. C.I.I.S was founded in relation to Sri Aurobindo's *integral* (and this relationship has been in continual—if varying—reference to this thread ever since (Wexler, 2005). It would also be difficult not to interpret C.I.I.S., at least in part, as a "learning community." In this way, it could readily be argued that C.I.I.S. was the world's first integral learning community. Two questions arise here: (a) In what specific ways has Wilber (or The Integral University) honoured this understanding concerning C.I.I.S.'s Aurobindian—and thus integral—heritage? and, (b) Given the central utilisation of Aurobindo by AQAL, in what specific ways has Wilber (or The Integral University) detailed a differentiation between C.I.I.S.'s interpretive use of Aurobindo and his own interpretive use of Aurobindo to the extent that he can justify unilateral interpretative usage of the term, *integral*, in the manner described here? Also—although associated primarily with Wilber's integral thread with regard to interpretive usage of *integral*—a further question could be asked with regard to the already-existent integral learning community at Pacific Integral: namely, Would they regard themselves *primarily* as being part of Integral University's learning community to the extent that I.U.'s claim is understood as congruent with their own sense of identity? Such are some of the power relations (AQAL lower right quadrant identifications) regarding the term or meme, *integral*. For further discussion on the current status of *integral*, I would recommend Cowan and Todorovic (2006).

[38] I note that, through publication of this article, I myself am participating in this ecosystem.

(2006a) adds to this line of reasoning. She makes the point that codification / categorisation, such as is dominant in AQAL, is a *mental-perspectival* (rational / formal) operation, and that we need to move beyond this into thinking, experiencing, and expressing in *aperspectival* (integral) ways:

> Jean Gebser points out a critical distinction between the Rational Level tendency to codify perspectives, that is to arrange any number of perspectives according to their relations in systematic terms (aka, making maps) and the Integral Level which goes beyond the mapping of perspectives, beyond even the making of perspectives, into thinking and experiencing in *a-perspectival* ways (p. 28).

Yet, reminiscent of Wilber's *transcend-and-include*, such "going beyond" still has to *include* the mental-perspectival structure of consciousness. But such inclusion can only take place when the structure—Rationality, in this case—has been mastered and given its rightful place, no more, no less—as Gebser (1949/1985) elucidates: "The various structures [of consciousness] which constitute [us] must…become *transparent* and conscious to [us]" (p. 99) and that we need to,

> master the deficient components by [our] insight so that [we] acquire the degree of maturity and equilibrium necessary for any concretion. Only those components that are in this way themselves balanced, matured, and mastered concretions can effect an integration (p. 99).

Notably here, in order to "effect an integration," Gebser refers to three necessary qualities in regard to the other structures of consciousness (such as the mental/rational structure), namely: insight, maturity and balance. I posit that each of these can be fruitfully regarded as conceptual portals (linking philosophical and psychological dimensions) which can facilitate integral modes of engagement—thus linking Gebser's integral theory with Ferrer et al.'s participatory integral theory mentioned above. Moreover, insight, maturity and balance point to (or, perhaps, can be encapsulated as) the *art* of integrality. As Roy indicates, integration needs to be well-crafted: it needs to be artful; artful with a capital *A*.

A question regarding the art of crafting—or the craftiness of artistic licence, perhaps—arises when Wilber's mapping of Gebser's structures of consciousness is addressed, specifically in relation to the detail of the liminal territory between the modern/mental/rational structure and the integral one—the general area constituted by Wilber's (2006b) Orange, Green, and Teal (a.k.a. Yellow) vMemes,[39] "waves" or levels. This conceptual terrain is critical in that it potentially constitutes the transition between where we are now—the modern/rational/formal world(view)[40]—and where we (presumably) want to go—namely, the integral world(view); and so it behoves me, as an explorer of this terrain to describe the following. When Wilber refers to Gebser's model, he often correctly identifies Gebser's structures of consciousnes. However, at other times, especially when he refers to Gebser in a context of other authors, and also notably in his more recent work, his text and charts are often substantively misleading[41] (if one wishes to explore the particular territory rather than operate at the level of "orienting generalisations"[42]). Consider the following indicative statement:

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[39] After Beck and Cowan parted company, Beck and Wilber developed Spiral Dynamics Integral for several years. Wilber's reference to the "yellow meme" dates back to this period—a period Wilber refers to as "Wilber IV" (see Kazlev, 2007). After Beck and Wilber parted company, Wilber adopted his own coloured developmental level system based on the rainbow spectrum (thus negating the interwoven, DNA-like, Caduceus-like helix of cool and warm colours—the *spiral* in Spiral Dynamics—and instead established a *straight* rainbow-based topology). In this, some colours have stayed the same (e.g., Orange and Green); others have changed (e.g., Yellow has become Teal).

[40] Of course, as Wilber (2000c) clearly indicates, *where we are now* is a very complex territory comprising the entire spectrum of socio-cultural developmental levels, variously manifesting across the globe. For instance, he places 40% of "the population" at the mythic level (having 30% of the power), and

> Jean Gebser [amongst others]…believe[s] that the general waves of evolution or unfoldment have included **archaic**, **magic**-tribal, **mythic**-traditional, **modern**-rational, **postmodern**-pluralistic—all of which together are often called "first-tier" waves—and **integral**-aperspectival—which is often called "second tier" (Wilber, 2006a, p. 5, emphasis in original).[43]

This statement is incorrect. Gebser has *not* posited a postmodern-pluralistic stage. Unfortunately, Wilber reinforces this error in various charts and tables frequently propagated at face value by a significant proportion of the integral community. In an iconically glossy insert in Integral Spirituality (Wilber, 2006b, between pp. 68-69) for example, he identifies Gebser's "pluralistic" stage as corresponding with the Wilberian Green vMeme. In an exacerbation of the situation, he also associates Gebser with a "super-integral" developmental level. Such errors also occur in the *Wilber-Combs Lattice*, a key feature in Wilber's latest work (2006b, p. 90). Gebser only elucidated five structures: archaic, magic, mythic, mental and integral. No postmodern pluralism, no "super" marked-up[44] integral. Gebser's understanding instead is that the integral

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30% of "the population" at rational-formal (with 50% of the power) (pp. 9-10). Unfortunately, he does not specify what geographical territory is constituted by "the population," nor does he specify how these figures were derived.

[41] This is a view shared by Matthew Dallman (2006), once art director for Wilber's Integral Institute and researcher into *the archetype of integral*. From evidence in the integral community's *blogosphere* and elsewhere, he is concerned about "the growth of superficial thinking about matters of the world. Contexts are smashed together and collapsed. Entire fields of thought are skimmed over" (Part III: Absurdities & Superficialities, ¶ 12). Evoking postformal languaging as identified by developmental psychologist, Susanne Cook-Greuter, he says that "worldview" understanding requires cognitive depth and *nuance*; "in Gebser, worldviews are poetic, not scientific" (Dallman, 2006, Part III: Absurdities & Superficialities, ¶ 12).

[42] This is the neologistic term given by Wilber (1995, pp. viii-ix) to refer to his "broad brush stroke" theoretical approach.

[43] The use of the phrase, "often called," is disingenuous in that (a) the terms were coined by Beck and Cowan, yet Wilber but does refer to Beck and Cowan in this text as part of his list of "leading theorists of consciousness evolution." Indeed, there has been a substantive change from Wilber IV—e.g., (Wilber, 2000c)—to Wilber V—e.g., (Wilber, 2006b)—with regard to Beck and Cowan and their Spiral Dynamics in that, for example, AQAL no longer identifies developmental levels via the coloured vMemes of Spiral Dynamics; (b) Other than Spiral Dynamics, the only substantive referential point of the use of these terms is Wilber himself. But on what empirical research is Wilber now using these terms if he is distancing himself from the research of Spiral Dynamics? Alternatively, what legitimate justification might he have for disavowing Spiral Dynamics with regard to their research on vMemes yet still utilise that part of their research which distinguishes between two genera of vMemes?

[44] Or super-marketed! (see below for discussion concerning Wilber and the Orange vMeme)

structure follows on, as it were, *directly* from the mental-perspectival (modern) one[45] and that it has various unique attributes or characteristics which infer a "translucence" of—a certain (re)opening up to—*previous* structures rather than the theoretic construction of *further* stages beyond integral. (See Appendix A for further discussion).

An associated contestation between the genealogical branches of Gebser and Wilber's *integrals* concerns the following. As noted above, Wilber often associates Gebser's *integral* with his *vision-logic*, and he elsewhere differentiates *vision-logic* between *early* (relativist) and *later* (dialectical/integral)[46]—a differentiation which has been identified in developmental psychological research, which Wilber references (2000a, pp. 21-22). Such research, however, does not carry a sufficiently unified voice for a call of "orienting generalization" to be legitimately made. There are substantive contestabilities. Piagetian commentator, Helena Marchand (2001), for instance, concludes from her review of the literature,

> The great diversity of theories, and of methodologies … presented by authors who postulate the existence of stages of development beyond the formal operations stage makes it difficult, if not impossible, to get a unified view of the characteristics of this level of thought (¶ 11).

She also cites Labouvie-Vief (1992), for instance, as presenting an alternate theoretic topology of postformal cognition: "The term postformal may not imply a progression in formal complexity. Instead, it could mean that for some individuals, formal thinking forms a base from which thought branches out into more nonformal domains" (1992, p. 221, cited in Marchand, 2001, § *What is the nature of postformal thought?* ¶ 6). Nevertheless, a significant theoretical thread shared by other researchers can indeed be characterised as a transition from relativist to dialectical stages, and it would indeed seem that there is validity in such identification. However, from a postformal point of view rather than an either/or one, this theoretic identification may represent only a partial perspective: this *relativist→dialectical* construction is not an understanding shared by all researchers on postformal thought and *may* form part of a greater understanding rather than be necessarily—or prematurely—put into a competitive conceptual arena. My research of the current state of play indicates that, collectively-speaking, postformal terrain is still (stimulatingly) work-in-progress (Hampson, in preparation).

However, even if we disregard such contestability, Gebser still cannot be legitimately used in this manner to support such a distinction in the socio-cultural (particularly lower left) AQAL quadrants regarding the status of postmodernism. As conversational openings, I see a number of options here. Either, (a) a convincingly detailed in-depth hermeneutic needs to be conducted between Gebser's integral-aperspectival and Wilber's theorizing of socio-cultural stages—this might involve, for instance, either (i) attempting to tease out a distinction between Green and Yellow (Teal) vMemes within Gebser's integral-aperspectival structure, and/or (ii) attempting to tease out a distinction between Orange and Green vMemes within Gebser's mental-rational structure; (b) an appropriate refinement of AQAL holon theory needs to occur, perhaps involving (i) identifying a relationship between Gebser's understanding of *deficiency* and *unbridled relativism*, for example (although there would be substantive implications for the linear orderliness of Wilberian level identification here), or (ii) taking heed of Susanne Cook-Geuter's, Stanislav Grof's or Jenny Wade's comments (outlined below) concerning the radical reflexivity arising from postconventional/integral development; (c) evidencing for this socio-cultural transition should no longer include Gebser but instead should newly establish this territory via other substantive reference (if such a reference were to be found); (d) Wilber's conceptualization concerning the Green/Teal relationship should be abandoned; (e) a substantively pertinent critique should be given of my analysis; or (f) a "craftful" combination of the above! If (d) is identified, an alternative Wilberian concept, *vision-logic*, could be fruitfully used and developed. Such development could use dialectical operations—a postformal mode of reasoning that has even wider implications for integral theory than the deepening of vision-logic. It is this postformal perspective I will now address.

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[45] Via a complex process of decreasing "efficiency" in this structure as it overextends or intensifies via over-quantification—the ratio in rational leading to an undue rationing of consciousness—see, for example, (Gebser, 1949/1985, p. 95)

[46] With confusing contradiction, Wilber states, "I use 'postformal' both ways (as the first major stage beyond formop—namely, vision-logic, and as all levels beyond formop), as context will tell" (Wilber, 2000a, p. 224, n. 14). In this statement, he denotes vision-logic solely with the Green vMeme and implies that vision-logic does not refer to subsequent vMemes, such as his "post-pluralistsic" integral.

Thinking Dialectically About Integral Theory

Dialectical operations[47] can be used to both deepen and problematise integral theory. The former can be achieved via the concept of vision-logic and the interpenetrative play of the visionary logic embedded within the term; whilst the latter can be achieved through counterpointing the default (conventional / formal, non-dialectical) view of the concept of construction with a dialectical view regarding the concept of deconstruction.

Deepening Vision-Logic

In contrast to Wilberian conceptualisations concerning the sharpness of distinction between postmodernism (as Wilberian Green vMeme) and integral (as Teal and beyond), *vision-logic* straddles the Wilberian postmodern/integral divide (2000a). Wilber comments that "signs of the emergence of vision-logic" would be constituted by "movements that would be 'postrational' or 'poststructural' or 'postmodern' in the best sense" (1995/2000, pp. 195-196). The term brings together developmental psychology research on postformal, postconventional (but pre-transpersonal) thought with corresponding socio-cultural perspectives, thus covering both individual (upper quadrants) and collective (lower quadrants) aspects of one holon.[48]

Vision-logic is a neat term (in both senses) as it creatively embraces a number of postformal features simultaneously, evoking a "magic synthesis" (Wilber, 2000a, p. 259, n. 27). Gidley (2006) indicates that academic research often privileges *logic* over imaginative *vision* and consequently does not achieve such a "psychoactive" outcome. It's perhaps also a quintessentially postformal term in that it is a neologism constituted by a dialectic between two contrasting formal concepts—*vision* and *logic*. It is thus variously analogous to William Stern's

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[47] Wilber (2000a, p. 22) indicates that dialectics itself is an important characteristic of postformal thought. This view is supported by Helena Marchand (2001) who concludes that, "the dialectical and the relativist models stand out, because of the influence they exert on the bulk of the conceptualisations of postformal thought." Benack and Basseches (1989), in line with Susanne Cook-Greuter (2002), Wilber and others, identify dialectical thinking as more advanced than relativist thinking.

[48] For Wilber's interpretation of holon theory, see Wilber (1995).

(1938) *unitas multiplex*, Benedikter's (2005) *productive void*, Goethe's *delicate empiricism* (Seamon, 1998), Foucault's (2003) *epistemologico-political*, Dewey's (1919/2004) *end-in-view*, Bussey's (2006) *critical spirituality*, Gangadean's (1993) *meditative reason*, Steiner's (1910/1983) *spiritual science*, and also, perhaps—in more condensed or expanded forms—to Derrida's *différance* (as dialectic between *difference* and *deference)*, Gebser's (1949/1985) *integral-aperspectival*, Hafiz's *God in drag* (1999) and Zhuangzi's (n.d.) *Transformation of Things* (as exemplified by Zhuangzi's dialectical narrative regarding a person's dream that they were a butterfly, in question with an alternate understanding that the butterfly was dreaming the person). The term is inherently "unstable" from a formal perspective, but paradoxically generative and vitalising from a *post*formal perspective in that it can facilitate a spark of cognitive transformation in the reader if the context of the reader is such that the concept is sufficiently *trusted* and given space to internally reside, so to speak. Regarding the *logic* of "cognition" and the *vision* of "integration," Wilber (2000a) refers to various researchers on postformal thought:

> Commons and Richards, Fischer, and Sinnott tend to emphasise the cognitive component of vision-logic (and often its extreme developments), while Basseches, Pascual-Leone, Labouvie-Vief, and Deirdre Kramer highlight more of its dialectical, visionary, integrative capacities. Arieti stressed that vision-logic is an integration of primary and secondary processes—fantasy and logic—and thus it can be very creative (p. 259, n. 27).

In addition to the overall dialectic of the term, Wilber interestingly attributes dialectical thinking itself as belonging to one side of the term—the *vision* side. A complementary understanding would be that dialectics is a type of postformal logic and can therefore be found in the *logic* side of the term: such is the imaginative generativity of the term.

Wilber (2000a) says that "vision-logic can be applied (as can most cognition) to any of the major *levels* (or realms) in any of the quadrants" (p. 261, n. 27). Applying vision-logic as a postformal lens upon itself (through visionary-rational extension), the following possibilities open up:

Vision variously connotes, among other things,

- Seeing as understanding
- Visionary futures-thinking
- Both the sharp focused detail of *central* vision, and the wide-angle, panoramic—"big picture"—soft focus of *peripheral* vision
- Spatial literacy
- Art
- Sensory-perceptual phenomena
- The differentiation of qualities
- Imagination

whist connotations of *logic* variously include,

- Rationality
- Reason, explanation
- Correctness, rectitude, right

- Logos, The Word, words
- Decision-making
- Pattern, form
- Formalism, formality
- Mathematics: the "play" of quantities

Additionally, from a more linguistically-oriented or creative postmodern angle, a characterisation might be to assign *logic* the role of Wilberian horizontal *translation*, the "flatland" of the *plan* view of ex-*plan*-ation; and, conversely, *vision* the role of Wilberian vertical transformation by means of identifying the (Erotic[49]) creativity inherent in the *image* of *imag*-ination (see Wilber, 1995, pp. 59-61). From this perspective, the neologism is metaphorically holonic which adds to its generativity. Meanwhile, from a dialectically-oriented mode of cognition, vision-logic can deepen into a plurality of vision-logics (a plurality still encompassed by the term as *genus).* This could include such domains as:

- Visions and versions of different logics—including:
  - many-valued logics (Malinowski, 1993), including
    - fuzzy logic (Novák, 1989; Zadeh, Klir, & Yuan, 1996),[50] and the related: fuzziology & social fuzziology (Dimitrov & Hodge, 2002), and vagueness (Williamson, 1994)
  - dialectical logic (Adorno, 1990; Ilyenkov, 1977);
- The logic of different visions—the rectitude of plural imaginations[51]—including
  - (post)modern imaginations (Kearney, 1998)
  - the embodied imagination (Johnson, 1992)
  - the theoretic imagination (Weick, 1989)
  - the scientific imagination (Holton, 1998)
  - the geometrical imagination (Hilbert & Cohn-Vossen, 1952)
  - the sociological imagination (Mills, 1959/2000)
  - the philosophy of imagination (Warnock, 1976)

In summary, beautifully situated in the liminal world of a generative, postformal flux gestured by a postmodern-integral dialectic, Wilber's vision-logic is an inspiring neologism which can facilitate cognitive transformation. The above demonstration of such a constructive facilitation—the production of a higher order of (integral) construction (or an intensification of resonance)—has, however, involved a certain (postmodern) deconstruction of the term. The demonstration above can therefore be seen to exemplify possible interpenetrative dialectics between construction and deconstruction.

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[49] Referring to Wilber's AQAL placement of Eros as Creative force of the Kosmos (1995, p. 69; also see pp. 338-341).

[50] In a somewhat reflexive move, I note that fuzzy logic—and thence (holonic) fuzziology (Dimitrov & Hodge, 2002)—could be useful for facilitating the justification of Wilber's linguistic construct, *orienting generalizations* and other such "big picture" languaging inventions.

[51] The correctness of realising imaginations as valuable—inspired by, for instance, the transdisciplinary imagination (Gidley, 2001)

Contra-Indications of Construction

From a postformal viewpoint, *construction* and *deconstruction* can dialectically interpenetrate each other in various ways. To explore this perspective, a *formal* or *conventional* view of the terms—that construction involves a putting together, and that deconstruction involves a taking apart—are taken as given and not further explored. Instead, this section explores contra-possibilities or counter-intuitions.[52]

When we regard the terms, *construction*, *reconstruction* and *deconstruction*, what form of cognition are we using? From a pre-formal perspective we might feel a flood of emotive mythic resonances so that we conflate *construction* and *reconstruction* with *salvation,* and *deconstruction* with *destruction*. From a formal perspective, we might seek to carefully define exactly what the terms "actually" mean so that there is maximal differentiation; from the formal perspective, preformal conflations no longer apply, but *construction* and *reconstruction* still each stand in unequivocal semantic opposition to *deconstruction*. From a post-formal perspective, however, the situation may not (necessarily) be as clear-cut. A deeper understanding would beckon—one potentially calling upon any number of, or combination of, postformal approaches, epistemologies, ways of thinking and modes of expression, chosen (or happened on) by us to form a (non-relativist) "integrality." Such postformal modes of reasoning include thinking complexly, creatively, reflexively, dialogically, ecologically, "embodiedly," "constructivistically," and dialectically. In the following discussion, dialectics is used as an overall structure, whilst attention is given to the constructed nature of language. A transcendence of a simplistic / formal / Orange perspective on *deconstruction* and *(re)construction* is thus effected. In so doing, particular texts from Wilber and Derrida—chosen for their contra-indicative properties—are developmentally assessed to problematise the premise that Wilber's *(re)constructive* approach is necessarily operating at a more mature developmental level than Derrida's *deconstructive* approach. Firstly, an example is given indicating inappropriate destruction in the guise of reconstruction, as text from Wilber is analysed. Secondly, the constructiveness of deconstruction is demonstrated, as text from Derrida is analysed.[53]

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[52] A metaphor here would be to consider the harmonics of a musical tone: *formal* semantic qualities could be understood as the fundamental frequency of the note, whilst the *postformal* dialectical semantics could be viewed as the harmonic overtones. Lest such a metaphor be consequently taken to necessarily signify the superfluity of dialectical semantics with regard to overall "pitch of meaning" (as it were), due regard should be given to the possibility of substantive *change* of "pitch of meaning" caused by particular intensifications of "postformal timbre"—as would be exemplified by the pitch of a note on a wind instrument reaching a bifurcation point and suddenly changing by an octave—through the practice of "overblowing." Another example would be feedback from an electric guitar. Perhaps analogous to an intensification of yin leading to sudden yang (or *vice versa*), the subtler characteristics of phenomena such as musical timbre or dialectical semantics should not be assumed to lack substantive power: *details* regarding integral theory have the potential not only to join up the dots, but also to create qualitatively novel surprises with regard to what *emerges* once the dots are joined up.

[53] The postformal approach I am employing is non-relativist in that substantive qualitative distinctions are made.

Destructive Reconstruction

Wilber uses the term *deconstructive postmodernism*54 and strongly associates it with AQAL's Green vMeme—described by Wilber as the green "meme," "level," "stage" or "wave," alongside the similarly strong associations of *pluralism* and *relativism*.55 Wilber (2000a) confidently asserts that,

> the bright promise of a constructive postmodernity slid into a nihilistic deconstructive postmodernity when the pluralistic embrace turned into a rancid levelling of all qualitative distinctions. Postmodernity, attempting to escape flatland, often became its most vulgar champion (p. 160).

In this vignette, *constructive* is the hero, one associated with bright, hopeful promise; whilst *deconstructive* is the villain, associated with nihilism, rancidity and vulgarity. On the "vulgar" side of postmodernity, he identifies two features: denial of depth and denial of qualitative distinctions. He evidences this via sole reference to two American novels: Ellis' *American Psycho* and Gass's *The Tunnel*—he presents no evidence from non-fictional sources and no evidence from the viewpoint of other nations. He goes on to say that,

> *Constructive postmodernism*…takes up the multiple contexts freed by pluralism, and then goes one step further and weaves them together into mutually interrelated networks. (…By whatever name, pluralistic relativism gives way to integral holism. See especially…Deirdre Kramer, Gisela Labouvie-Vief, Jan Sinnott, Don Beck, Clare Graves, Susanne Cook-Greuter, Kitchener and King, Blanchard-Fields, William Perry, and Cheryl Armon, among others) (2000a, p. 172).[56]

This "one step further" infers the holarchy (or non-dominatory hierarchy) of Wilberian theory, AQAL (1995, pp. 32-78), where constructive postmodernism is the next holarchical level after deconstructive postmodernism. But to what, exactly, is Wilber referring, when he uses the term, *deconstructive postmodernism*? Is he perhaps denying the possibility of *depth* in deconstruction? Is he "denying a qualitative distinction" between *deconstruction* and *deconstructive postmodernism*?

To answer such questions, one might perhaps imagine that Wilber's volume entitled, *A Theory of Everything* (2000c), would hold sufficiently adequate keys. In this, he associates the Green vMeme, *inter alia,* with Derrida,[57] deconstruction,[58] relativism, and the narcissism of—

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[54] I will be not necessarily inferring the absolute lack of utility of the term, *deconstructive postmodernism*; I will rather be problematising its uncontextualised or unreflexive usage, and in so doing, attempt to raise pertinent awareness.

[55] Spiral Dynamics does not map *Derrida, deconstruction, poststructuralism, postmodernism, nihilism,* or *pluralism* or *relativism* (Beck & Cowan, 1996) in (or gravitating toward) the Green (or any other) vMeme. Therefore Wilber's theoretic use of the Gravesian terms, *first* and *second tier,* cannot legitimately be used in AQAL (e.g., Wilber, 2006b, p. 90) to make connective inferences regarding pluralism, postmodernism, deconstruction, etc.

[56] The current article variously refers to most of the authors Wilber mentions here.

[57] This placement of Derrida (published in 2000) would seem to contradict an earlier discussion of Derrida by Wilber, in Sex Ecology Spirituality (1995, p. 601). This is a discussion, I further note, left

and regression in—"boomeritis." Connecting *deconstruction* with *boomeritis*, we can observe the following—potentially revolutionary but unfortunately unsubstantiated—cultural criticism of this developmental level—the Wilberian Green vMeme:

> In green's admirable attempt to go *postconventional*—it has often inadvertently embraced anything nonconventional, and this includes much that is frankly *preconventional*, regressive, and narcissistic.
>
> This strange mixture of very high postconventional memes with preconventional narcissistic memes is boomeritis. A typical result is that the sensitive self, honestly trying to help, excitedly exaggerates its own significance. It will possess the new paradigm, which heralds the greatest transformation in the history of the world; it will completely revolutionize society as we know it; it will revision everything that came before it; it will save the planet and save Gaia[59] and save the Goddess; it will be the most extraordinary. …
>
> Well, and off we go on some of the negative aspects of the last three decades of boomer cultural studies. … Boomeritis has significantly tilted and prejudiced academic studies; it is behind much of the culture wars; it haunts almost every corner of the New Age; it drives many of the games of deconstruction and identity politics; it authors new paradigms daily (p. 27).

What should be made of such heroic words which caution us against war, haunting, and games of deconstruction? A call, it would seem, for boomers to turn from The Dark Side and acquire Wilber's Brave New Paradigm. Yet in such an admirable attempt to "go *integral*," certain shadow questions arise: Has Wilber unwittingly embraced the preconventional

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unrevised for the second edition of SES (2000). Here, Wilber says that, "Derrida is often called on to support the notion that there are no transcendental signifieds at all (only sliding chains of signifiers and endless cultural mediation). But this is a misreading of Derrida. …According to Derrida, the fact that we *can* translate languages to some significant degree means that there are genuine transcendental signifieds … even if all contexts are situated, a great number of contexts are *similarly situated* across cultures. 'Context' does not automatically mean 'relative' or 'incommensurable.' *It often means 'common'…*" (1995, pp. 601-602) In this, Wilber appears to infer that Derrida should *not* be mapped as a "relativist." Wilber does not say in this discussion where Derrida *should* then be located. I have not found a reference where this apparent discrepancy is clarified. Notwithstanding discussion concerning the possible (though apparently unreflexive) postformal embrace of such a paradoxical position, this article will follow the particular subjectivity in Wilber that voices Derrida *as* a relativist, for these reasons: (a) this particular voice or stance of Wilber's appears to be later thinking; (b) it is expressed in the more populist of the two books; (c) it is voiced near the beginning in the main body of text rather than as an endnote.

[58] I have not come across a discussion by Wilber differentiating "Derrida" from "deconstruction" in terms of AQAL mapping.

[59] Interestingly, Beck and Cowan (1996, p. 47) attribute James Lovelock's '*Gaia* hypothesis' to the Turquoise (highest level, second-tier) vMeme—two levels beyond Green. They also identify "Gandhi's ideas of *pluralistic* harmony," "theories of David Bohn [sic]" (see discussion below) and Wilber's *Spectrum of Consciousness* each to Turquoise. (There is no reference to any other Wilber in this regard). The latter is an interesting choice given Wilber's self-distancing from this work, coming as it does from the historical subjective identity he labels, *Wilber I (the Romantic)* (Kazlev, 2007). An implication here would be that Beck and Cowan might have a different theoretical perspective on what Wilber calls "Eco" or "Romantic," and on "pluralistic harmony" and Bohmian theory, and instead attribute such qualities or approaches to the highest evaluation.

languaging of *cowboys and indians*?[60] In what way is Wilber *not* claiming that AQAL will "revision everything that came before it"? and: In what way would the incongruence potentially identified here *not* significantly "tilt and prejudice" integral studies? Then again, perhaps this is not the most important part of the story. Regardless, an emotively stirring scene has been set regarding the paramount significance of what needs to transform: the Wilberian Green vMeme with its "games of deconstruction."[61]

Before such judgements are made, however, perhaps due regard should be given to empirical research concerning attitudes toward the Green vMeme. Natasha Todorovic's (2002)62 careful research into relationships among the Spiral Dynamics vMemes unequivocally concludes that, "it is those with high Orange scores who reject Green most strongly," (p. 3) whilst, "yellow accepts green more than any other system" (p. 3). A conversational opening here, then, might involve an assessment of the developmental value of the integral discourse—exemplified above—can be most adequately be seen to align with. It is worth noting the possibility of "vMeme colonisation." (See Appendix A for further discussion).

Such shadow-work would benefit us all, no doubt. In this regard, what is, might or should be the relationship between integral theory, shadow-work, dialectics and deconstruction? For that matter, *qu'est-ce que la déconstruction*?

Constructive Deconstruction

From a vernacular perspective, deconstruction63 and Derrida go together like two peas in a proverbial pod. To adopt something of a semi-formal approach as mentored by Wilber (Murray, 2006),[64] we might, in addition, also want to turn to that semi-formal of media, the Wikipedia, to get an ordinary-yet-informed perspective on the term.[65] Wikipedia's entry regarding

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[60] If such languaging can be theorized as part of a grand Magician's art—the art of the Spiral (Dynamics) Wizard (able to call upon all vMemes), then why is the teaching of this art not enabled through patient and demonstratively reflexive visibility?

[61] Perhaps *this* is such a game? Am *I* authoring a "new paradigm"? Phone 012-3π45-6789 for *YES* and 987-654π-3210 for *NO*. (N.B. "Extreme Postmodernists" can phone whatever number they like! whilst Reasonable Postmodernists can phone whatever number they like…*within reason*.)

[62] The referenced link (Todorovic 2002) requires a simple membership procedure. For access, follow: http://www.spiraldynamics.org/ → Articles → Advanced Resources → (registration) → "The Mean Green Hypothesis: Fact or Fiction?"Memes and vMemes in SD - the confused language of Spiral Dynamics"

[63] My interest here is not in attempting to establish a formal answer through detailed research (even if that were possible, given the elusive nature of the concept) but in ascertaining what would be a reasonable assumption—on first blush. Derrida's response to the question is given later.

[64] Tom Murray also says, "the integral community, taking Wilber's lead, has a propensity toward informalism, pragmatism, and popularism" (Murray, 2006, p. 9) and I would add to this: the languaging ensemble that is Wilber's style is no doubt an important reference point for expressivity mode; however, due consideration should also be given to the languaging modes of other integral theorists, whose chosen styles of communication may offer additional integral insights and languaging-template openings.

[65] On the Wikipedia page for "deconstruction" (2007a), Derrida is the only person mentioned in the first paragraph and the only deconstructionist mentioned in the first two. Apart from eight other deconstructionists listed in paragraph three, we have to wait until the eighth paragraph before a deconstructionist other than Derrida is mentioned again. In total, Derrida's name appears 73 times. The names of all other deconstructionists put together total 44.

deconstruction clearly indicates that it would be reasonable to assume that in the discursive realm in which Wilber mostly operates, *deconstruction*, first and foremost, refers to Derrida. And what is the object to which *deconstruction* directs its attention? Language. So, as an interpenetration of *integral* and *postmodern*, we might want to answer the following question: In what ways might languaging be mapped across structures of consciousness?

An integrally-oriented developmental psychologist whose work specifically concerns language is Susanne Cook-Greuter (1990, 2000, 2002, 2007). She identifies *the language habit*—the way in which we confuse our experience with our *conceptualisations* of our experience. Somewhat inferring Commons and Richards' Model Of Hierarchical Complexity, perhaps, she refers to Kegan, Basseches and herself regarding, "the fundamental language problem inherent in meaning making and scientific theorizing no matter how many systems are integrated and at what level of hierarchical complexity" (2000, p. 234).[66] She identifies the following features of the language habit:

- It is a universal for humans;
- It is innate but needs modelling in early childhood to emerge;
- It becomes unconscious once acquired;
- "It bundles the flux of sensory input and inner experience into labelled concepts shared with one's speech community";
- "It is so deeply ingrained that speakers of any given language are not aware of the reality construction imposed on them by their language";
- "It can become a barrier to further development if it remains unconscious, automatic and unexamined" (2000, p. 228).[67]

As an opening for further research, a pertinent question arises here concerning possible relationships between Cook-Greuter's identification of *the language habit*, her *construct-aware* developmental level (outlined below), constructivist theories, and *the linguistic turn* of postmodern philosophy, including Derrida's déconstruction.

Drawing upon her doctoral research, Cook-Greuter (2002) identifies numerous developmental stages of language habits as part of her model of ego development, and corresponds these to stages in the Action Logics of William Torbert's Leadership Development Framework. She groups the stages according to the following four levels: preconventional, conventional, postconventional, and transpersonal. Our primary interest here concerns the postconventional level.[68] In this, there are three stages. In ascending order of development, these are:

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[66] She goes on to say, "except for those who study the limits of language professionally, only individuals at the second level of postconventional differentiation seem to appreciate the magnitude of humanity's automatic and unconscious dependence on the language habit for all aspects of living" (Cook-Greuter, 2000, p. 234). She does not make clear here whether "those who study the limits of language professionally" (Cook-Greuter, 2000, p. 234) are solely constituted by linguist specialists, or whether this term covers poststructuralist philosophers, and/or writers and poets, for example.

[67] Indeed, the following question is pertinent here: In what ways can one adequately examine language when the very tool one is using—language—is also the object under investigation? Perhaps, for instance, one needs to deconstruct as one goes—in a spirit of continual construct-awareness?

[68] It is worth also outlining here languaging characteristics from the two most developed of the *conventional* stages, as these bear relationship to the orthodox style expected of academic writing such as *this very* text, or regarding integral community discourse. The first is the *self-conscious* stage (aligned to

- The Individualist stage—aligned to Torbert's Individualist;
- The Autonomous stage—aligned to Torbert's Strategist;
- The Construct-aware stage—aligned to Torbert's Magician (a.k.a. Alchemist or Clown).

The Individualist stage she identifies as *relativistic*. She also relates this stage to *deconstructive postmodernism*, in which truth "can never be found. Everything is relative; there is no place to stand or judge from" (p. 21), whilst those at the Autonomous / Strategist stage "try to do justice to the complexity of life in their verbal expressions" (p. 26) and have "the capacity to see and accept paradox and tolerate ambiguity" (p. 24). Additionally, the shadow side of the self can be acknowledged to a greater degree and therefore a new integration and *wholeness* is possible" (p. 24); they walk the talk. Language clues include complex, flexible syntax, linguistic coherence, linguistic complexity. Lastly, at the most mature of these three postconventional stages, the Magician starts to realise "the absurdity or automatic limits of human map making in the representational domain" (p. 27); that, "all cognition is recognized as constructed" and there is the recognition of "paradoxes inherent in rational thought" (p. 27). And in terms of identifiable features, "the language of Magicians is often complex, vivid, authentic and playful…Magicians express a vast matrix of topics, concerns, questions, insights and commentary cleverly united into one complex sentence structure" (p. 31).

Given this schema, and given the aforementioned primary understanding that deconstructive postmodernism refers to deconstruction and thence to Derrida, one would reasonably assume that Derrida's languaging would be adequately mapped within the relativist, individualist stage. So, Is Derrida an Individualist? Is deconstruction merely relativist?[69] In a discussion regarding a preference between two different language habits—Edmund Husserl's perspectival *univocity* and James Joyce's relativist *equivocality*—John Caputo (1997) reports that,

> Derrida is struck by the self-limitation of both ideas. For unbridled equivocality would breed such confusion that "the very text of its repetition" would be unintelligible, even as perfect univocity, were such a thing possible, would result only in paralysis and sterility…

Torbert's Expert/Technician) (Cook-Greuter, 2002, pp. 15-16). Language habits at this stage indicate that the speaker regards themselves as "ultrarational"—that they have it all figured out. Value is place on the accumulation of facts. There is often a sense of superiority, of one-upmanship, often accompanied by a ridiculing or hostile tenor. The second (the one directly preceding *post*conventional stages) is the *conscientious* stage (aligned to Torbert's Achiever) (pp. 16-20) Language habits at this stage include seriousness, earnest conviction, intellectual scepticism, recognition of complexity, ownership of responsibility, revealing "I" statements, an ability to listen and restate expressions without adding one's own interpretation, asking questions such as "what does it feel like?", suppression of one's shadow through "positive" attitude, time-related terms have an emphasis on the local future and time effectiveness. Cook-Greuter comments that, at this stage, "formal operations are at their peak and rationality, progressivism, positivism and reductionism have their strongholds." (p. 18) Summarising the conventional mindset, Cook-Greuter comments that its major limit "is the acceptance of facts and the external world as real and its blindness to the constructed nature of beliefs, especially the grand myth of conventional science. Although complex scientific analysis is applied, the underlying assumptions of any system are rarely questioned or made explicit. … knowledge, measurement and prediction are taken for granted as means to control nature, self and society" (p. 20).

[69] My judgement at this point is not to attempt to differentiate the gamut of Derrida's *text* from a notion of Derrida's *déconstruction.*

> Deconstruction—as usual—situates itself in the distance between these two. It does not renounce the constitution of meaning and the transmission of scientific ideas…(p. 183).

Caputo reports here that deconstruction is *beyond* equivocity, and so beyond pluralistic relativism. But what of Derrida's (necessarily translated) languaging itself? Let's consider Derrida's (1987/1989) reading of Heidegger and the discourse surrounding Heidegger. In this, Derrida makes a judgement and takes a stand against something he identifies in the discourse. That certain something is *a discrimination against Spirit*:

> Is it not remarkable that this theme, spirit, occupying…a major and obvious place in this [genealogical] line of thought, should have been disinherited…No-one ever speaks of spirit in Heidegger. Not only this: even the anti-Heideggerian specialists take no interest in this thematics of spirit, not even to denounce it (pp. 3-4).

Judging this to be unjust, he asks, "why this filtering out in the heritage, and this discrimination?" (p. 4). He goes on to decisively comment: "This preliminary work has not yet been systematically undertaken—to my knowledge, perhaps not even envisaged. Such a silence is not without significance" (p. 5). Derrida here is operating with/in a *hierarchy* of values—favouring the value of work that is systematically undertaken over work which is not. Derrida then constructively elucidates three arguments concerning Heidegger's avoidance of the term, *spirit*—arguments which give preference to certain perspectives over others. (pp. 4-6).

Derrida's comments here are therefore *not* coming from a relativist perspective. He is making value judgments in favour of a discussion of Spirit and against Heidegger's inappropriate silence on the issue. Furthermore, deconstruction itself is clearly articulated as being *beyond* the relativism of unbridled equivocity: Derrida sees relativism as self-limiting, confusing, unintelligible.

With regard to the following developmental stage, Cook-Greuter (2002) identifies "the capacity to…tolerate ambiguity" and "the capacity to see and accept paradox" as two features indicative of the Autonomous-Strategist ("constructive postmodern") stage (p. 24). With regard to ambiguity, consider the following text from Derrida (1983/1985): "To deconstruct [is] a structuralist gesture… But it [is] also an antistructuralist gesture, and its fortune rests in part on this ambiguity" (p. 2). With regard to paradox, consider the following from Derrida: "All sentences of the type 'deconstruction is X' or 'deconstruction is not X' a priori miss the point, which is to say that they are at least false" (p. 4). These comments therefore align with[70] Cook-Greuter's Autonomous-Strategist stage (at least).

Lastly, in consideration of the most mature of the postconventional stages (i.e. the stages under consideration here)—the construct-aware Magician—consider the Cook-Greuter identifiers of this stage—authenticity, vividness, playfulness and complexity—with regard to the following two Derridean (1997/2001) quotes—the first with particular regard to authenticity:

> In principle, there is no limit to forgiveness, no measure, no moderation, no "to what point?"… Forgiveness is often confounded, sometimes in a calculated fashion, with related

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[70] From a formal perspective, it could be stated that this paper will be employing Cook-Greuter's model as a heuristic, as it will not be conducting the type of sentence completion analysis she used as part of her methodology. It will, nevertheless, be conducting hermeneutic sentence analysis.

> themes: excuse, regret, amnesty, prescription, etc…[but] forgiveness must in principle remain heterogeneous and irreducible (p. 27).

and the following single sentence with its complex structure:

> For if, as I believe, the concept of a crime against the humanity is the main charge of this self-accusation, of this repenting and this asking forgiveness; if, on the other hand, only a sacredness of the human can, in the last resort, justify this concept (nothing is worse, in this logic, than a crime against the humanity of man and against human rights); if this sacredness finds its meaning in the Abrahamic memory of the religions of the Book, and in a Jewish but above all Christian interpretation of the 'neighbour' or the 'fellow man'; if, from this, the crime against humanity is a crime against what is most sacred in the living, and thus already against the divine in man, in God-made-man or man-made-God-by-God (the death of man and the death of God would here betray the same crime), then the 'globablisation' of forgiveness resembles an immense scene of confession in progress, thus a virtually Christian convulsion-conversion-confession, a process of Christianisation which has no more need for the Christian church (pp. 30-31).

Here, in addition to Derrida's vividness of language regarding concerns and insights into matters spiritual—with a sense of appropriate wordplay—we can also see Cook-Greuter's identification of the construct-aware Magician where "concerns, questions, insights and commentary cleverly united into one complex sentence structure." A plausible hypothesis, then, would be to consider that these comments from Derrida centre around the perspective of The Magician—a level *beyond* Wilber's Teal / Integral / "post-postmodern" / Yellow vMeme.

In short, this evidence supports the hypothesis that the above text from Derrida is operating from the construct-aware stage. But what does Derrida (1983/1985) himself say about reconstruction? Is deconstruction negative?

> The undoing, decomposing, and desedimenting of structures…[is] not a negative operation. Rather than destroying, it [is] also necessary to understand how an "ensemble" [is] constituted and to reconstruct it to this end (p. 3).

Derrida rationally differentiates deconstruction from destruction and indicates that deconstruction is a constructive activity. He also explicitly reflexes upon its subtle dialectical quality. His writing demonstrates a high level of developmental maturity, in which deconstruction is recognised and reflexively enacted in a post-relativist, dialectical, construct-aware mode. Derrida and deconstruction are clearly something Other than that signified by Wilber in his use of the term, deconstructive postmodernism.

Thinking Critically About Integral Theory

So a question arises: What might account for such confusion between deconstruction and deconstructive postmodernism? Through attending this question, an anomaly stemming from Wilber's universalising interpretation of the notion of deconstructive postmodernism can be seen to emerge, opening up a conversation concerning possible relationships between critical thinking and critical theory.[71]

Boomeritis: An (un)Critical Americanitis?

Let's turn firstly to Derrida (1983/1985) for an insight into this question: "It is true that in certain circles (university or cultural, especially in the United States) the technical and methodological 'metaphor' that seems necessarily attached to the very word deconstruction has been able to seduce or lead astray" (p. 3). The suggestion here is that the U.S.A. constitutes a substantively *special* case of being "led astray" by the term. Referencing Curler (1982), Ben Agger (1991) continues that there is a distinction to be had—perhaps between Derrida's déconstruction and a certain metaphorical use of the term, or perhaps between Derrida's text and a "methodology" called *deconstruction*—and that this strongly affects the U.S.A.: "Literary critics prise out of Derrida a methodology of textual reading called *deconstruction*. This deconstructive method has spread like wildfire through American humanities departments" (p. 112). Wilber (1995) develops this line of reasoning regarding deconstruction:

> Here was a "literary criticism" made to order for the tenured radicals of the sixties: haven't the wits to build a building? No problem, just blow one up instead. Thousands of Ph.D. dissertations in deconstructionist themes were issued by American universities…
> Deconstruction as a movement never caught on in Germany or France or England (or anywhere else for that matter)…(pp. 721-722, n. 4).

Here, Wilber emotively reinforces Derrida's and Agger's more qualified comments, asserting that deconstruction as a movement never caught on *anywhere* other than in the United States of America.[72] He also seemingly implies that the sensibility of the cultural movement was sufficiently violent to warrant use of—shall we say—a *weapon of metaphorical destruction*—namely, the metaphor of *destroying* a building by explosive detonation (rather than, say, carefully *deconstructing* the aforesaid building, should such demise be warranted).[73] He furthermore implies that such destructive American deconstructionists were insufficiently *intelligent* to *con*struct conceptual "buildings" or structures. An alternative understanding of deconstruction's contribution is offered by integral commentator, Ray Harris (2004):

> The major function of green is to consciously deconstruct values in order to reconstruct them as freely agreed principles. Green is actually a very moral stage. It is orange that is the most amoral. It is orange that tends to unconsciously and destructively deconstruct – green arises to repair the damage (§ *Misunderstanding postmodernism*, ¶ 18).

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[71] And possibly neo-imperialism

[72] It is possible, of course, that Wilber meant "anywhere" in a non-literal, colloquial way—i.e. where he didn't mean *all* places, just *most* places or *all places mostly*… or some variant. It is also possible that his intention was for the reader to take such utterances "with a pinch of salt." But if this were argued, how would the reader be able to distinguish between "serious" intent and "throw-away" comments? Would it depend on the maturity of the reader? Even if such comments were not believed, what (metaphorical) non-verbal communication might be taking place here?

[73] A forerunner to Derrida's *déconstruction* was Heidegger's "positive" *Destruktion*. Such a philosophical genealogy would beckon a yet finer distinction to be made than that being made here.

If this alternate understanding is true, then Wilber's unevidenced text here could be seen as arising from the Orange vMeme, and could be interpreted as his substantive underappreciation of the Green vMeme. The idea that the Orange vMeme can be destructive in this way would be in keeping with Gare's comment earlier concerning the destructive nature of modernity. Wilber, in turn, also substantively critiques modernity, yet his later writings do not foreground the destructive aspects of Orange in relation to those of Green (see Appendix A). A conversation opening here would be: How might we ascertain or evaluate such a distinction between modern-mental-rational and inclusive-integral levels?

American and Other Interpretations

From a slightly different hermeneutic perspective, the following question arises: From whence does such violence emanate? Which AQAL quadrants are implicated here? Lower right power structures? Lower left cultural values? Upper right bodily urges? Wilber's upper left subjectivity? or something tetra-arising? One interpretation is that Wilber appears to be referring to an event occurring in (his) lower left quadrant—in American cultural values.

Interestingly, Ben Agger's (1996) interpretation of the situation is both significantly convergent and significantly divergent from Wilber's. In terms of agreement, Agger reinforces the hypothesis that there is something singularly wayward with America's interpretation of postmodernism and deconstruction. In terms of difference, Agger suggests that, rather than being related to America's *excess* of radical politics, it is actually American culture's *deficiency* in radical politics that is the cause of wilful or careless "ignorance" regarding deconstruction:

> the American reception of postmodernism has tended to ignore postmodernism's stress on the linkage between discourse and democracy, a linkage that I contend is precisely the opening of Derrida's critique of western logocentrism to radical politics. Put differently, the American reception of postmodernism suppresses (or simply never learned) the social and intellectual history of French postmodern theory, which emerged out of the 1968 May Movement as a critique of Stalinist and orthodox-Marxist authoritarianism in preference for a radical micropolitics of everyday life (later to emerge as new social movements theory). Far from turning away from politics, people like Derrida and Foucault viewed their own philosophical work as intensely and obviously political, contributing to the heterodox French left project, especially in ways that embrace the feminist and gay/ lesbian movements (¶ 14).

Could an adequate interpretation of this instance, then, be that the American nation-culture constitutes a "pathological" aberration among the plurality of global nation-cultures, in that it, substantially alone, has interpreted postmodernism as a form of destructive violence against the radical politics of an authentic democracy? a masculinist *straight*-jacketing of meaning—from, shall we say, French fries (delicately-sautéed *postmoderne*)—to McGiveMeGiveMeGiveMeU.S.NewNewsNewsweakNewspeakFreedomNowNow "Freedom" fries?—contributing to an exponential escalation of the prison population of concepts?[74]—a suppression of freedom in the name of freedom?

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[74] Reviewing the prison population in countries of the world, consider the following statistics (figures show prison populations per 100,000 inhabitants): England and Wales 148; Australia 125 ; Canada 107; Italy 104; Germany 94; France 85; Ireland 72; Norway 66; Japan 62; USA 737 (Walmsley, 2007). What

Perhaps not. Perhaps, conversely—as Benedikter (2005) indicates—the U.S., including Wilber's sizable contribution, leads the world in new thinking—in integrating, specifically, "Pacific" or "Eastern" conceptualisations. There is certainly strong evidence that points this way, too. Then again, does it have to be either/or? It is surely not the intention of well-respected American authors to perpetuate neo-imperialist languaging; but, if Wilber's comment is true, and if integral theory, developmental theory or socio-cultural theory seeks to speak from a global rather than a local (i.e., American) perspective—and to a global rather than a provincial (i.e., American) audience—then note might be made that the rest of the world might not have substantively partaken of such a cultural fad as *deconstructive postmodernism*—or, at least, might not have substantively partaken of a "vulgar" *interpretation* of postmodernism. It would seem that the theoretic transition from *modern* to *integral* needs to take into account the importance of different cultural types—specifically addressing the 242 of the 243 nation-cultures that are *not* the U.S. of A. (regardless of how many *sub*cultures the U.S.A. includes).[75] If cultural type or state can skew the normalised theoretic structure of cultural development to the extent indicated above, then such *straight* linear interpretations of AQAL's default theoretic hierarchy of significance between levels of development and cultural type and state become problematic or untenable. Instead, a much subtler, more complex theoretic structure needs to be envisaged, where cultural variants (such as the identification of the AQAL *state* of neo-imperialism regarding the current U.S.) can be seen to be a major player amongst integral elements—the AQAL ecology of types, states, lines, levels and quadrants / native perspectives.

Another view on this would be to address pertinent (lower right quadrant) global power structures. Notwithstanding such considerations, dominant discourse from Wilber suggests that obstacles to embracing Integral Transformative Practice "are not found exclusively in boomers or in Americans. Pluralistic relativism is a universally available wave of consciousness unfolding…" (2000c, p. 31).

This statement could arguably be supported by non-American integral research and/or concerning non-American concerns, such as Olen Gunnlaugson's (2004) research regarding "unhealthy" Green—and its moment of (potential) transformation—in a Swedish college.[76] And, indeed, a picture would seem to be emerging here that, regardless of first (Wikipedic or popular) impressions, an important distinction should be made between Derrida and deconstruction, in that the latter might have been appropriated (or somewhat forcibly *prised out* of Derrida—as Agger has intoned) by humanities departments both in the States—and elsewhere—to become something quite *other* than Derrida's *déconstruction*.

Nevertheless, even where this cultural stage is identified in other countries, it would still appear to be the case that the "virulent" memetic strain of postmodernism seemingly constituted by the term deconstructive postmodernism is found in the U.S. in an unusually high ratio. According to Wilberian theory, this would suggest that the Green vMeme is significantly more prevalent in the States than elsewhere. Yet, Wilber (2000c) indicates that Europe's memetic

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accounts for such a cultural discrepancy with regard to the US? What socio-cultural noospheric/languaging features might there be associated with such a difference? or, put another way: what Wilberian left-hand quadrant correspondences (both individual and cultural) might there be to these Wilberian right-hand quadrant phenomena (both socio-structurally and regarding the physical experiences of prison inmates?)

[75] Noting that this does not necessarily concern other features of postformal/postconventional development, whether in the US or elsewhere.

[76] Notwithstanding its subsequent malaise.

centre of gravity is more advanced than the U.S. and that it has a significantly stronger Green vMeme presence than in the U.S. (p. 119, fig. 6-2). But then, if this is so, why doesn't Europe apparently suffer as much "boomeritis"? What might explain this anomaly, this inconsistency between the two features:

1. The difference between Europe and The States with regard to the strength of the Green vMeme and
2. The difference between Europe and The States with regard to the strength of the Green vMeme pathology of "boomeritis"?

How much is deconstructive postmodernism a function of "boomeritis"? How much a question of American-itis? No doubt, a complex question. But, as the above discussion has perhaps indicated, integral theory might still have a way to go if it is to adequately align, resonate, or become congruent with the complexity of the world. We need to start thinking complexly about integral theory.

Thinking Complexly About Integral Theory

> If Jean Gebser and Sri Aurobindo were alive today we might guess that they would see in the wondrous emergent properties of complex adaptive systems…an opening for the invisible. And perhaps the science of the future will validate such thinking, finding in the influences enfolded in the implicate order or the quantum vacuum field the infinitesimally tiny whispers that pivot us toward our personal and collective fates (Combs, 2005, §*Gebser and Modern Science*, ¶ 9).

Both the butterfly effect of "pivotal whispers" and the "wonder" of complex adaptive systems can be theoretically encompassed by complexity theory. Perhaps if Jean Gebser and Sri Aurobindo were alive today, they might advance integral theory via complexity theory as an integral part of the artful science of the future, and not only validate such an opening into Mystery, but reflexively realize their participation in it through such theoretic evolution.

The considerations explored in the context below follow a specific interpretation of complexity: that of complexity theory with specific reference to the complexity characteristic of (fractal) recursion.

Recursion will first be applied in relation to the notion of substantive content, exploring the idea that qualities of conceptualization and textual style can be viewed as a theoretic recursion of larger "content parcels"; further, that this perspective can be facilitated by the ludic neologism, nanotextology, and that the substantive content of integral theory should be reflected at all (or most) fractal scales—an integral nanotextology.

Secondly, a recursion of nonduality is considered, in which connections between nonduality, dialectics and deconstruction are gestured toward. Address is also given to the relationship between complexity theory and quantum theory via holonomy and David Bohm's explicate and implicate orders.[77]

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[77] For a scholarly critique on Wilber's regard for David Bohm's ideas (and thence for Jenny Wade's), see Falk (2007).

Nanotextology (A Recursion of Content)

Many authors within both integral and postmodern discourse attest to the need to substantively regard languaging. Consider the following, for instance.

> A critical poetics transcending both the empire of reason and the asylum of un-reason has `become an urgent concern…(Kearney, 1998, p. 9).

> No matter how seemingly insignificant, every rhetorical gesture of the text contributes to its overall meaning. How we arrange our footnotes, title our paper, describe our problem, establish the legitimacy of our topic through literature reviews, and use the gestures of quantitative method in presenting our results—all contribute to the overall sense of the text (Agger, 1991, p. 115).

And following Whitehead's call for the production of a diversity of metaphysical schemes, Arran Gare (2002) advocates for

> the development of new abstractions that will allow us to understand the immanent dynamics, intrinsic significance, and the diversity of processes participating in the creative becoming of the world, including ourselves. This is the condition not only for an effective opposition to the destructive imperatives of modernity. It is the condition for overcoming it (p. 50).

Throughout his seminal work, *The Ever Present Origin*, integral theorist Jean Gebser (1949/1985) also refers to the impossibility of fully realising the integral structure of consciousness unless there is a close scrutiny of current concepts, attitudes and modes of thinking—languaging emanating from the mental (modern) structure. From such considerations as these, we can readily ascertain that in order to embody integral understanding, we need to be linguistically-aware. The formal semantic characterisations of the concepts, *style* and *content,* can evolve into a postformal conceptualisation which might not only view them as a dialectically interpenetrating pair, but also as in reference to different recursive *scales* of substantive "content transmission." The alteration of "content chunks" *might* be the major communication conveyor—or "fundamental tone"—but the alteration of format, syntax and terminology can act as writing's metaphorical *non-verbal communication*; and frequently, the "timbre" of such subtext may be such that the fundamental semantic message is substantively changed.[78] (For instance, the hidden curriculum "timbre" of an education system might unwittingly *dominate* its purported "fundamental" mission, as per Gatto, 1992). And if, like Blake (1803/1960), one is able "to see a world in a grain of sand," then one might be able to see an entire integral theory in just one word. Perhaps an integral micropsychology, an integral micropolitics; a linguistic recursion of integrality.

Wilber's thinking can be arguably seen to be primarily conveyed by means of a high-order manipulation of "chunks" of "content."[79] Plausibly the most *stylistically* complex he gets is when he expresses "non-dual realisation," notably his use of spiritual paradox—when he intones, for example: “Aware of color, you are colorless. Aware of time, you are timeless. Aware of form, you are formless.” The conscious employment of postformal paradox is also evident in Gebser’s (1949/1985) writing—such as that between clarity and complexity (a *clarity~complexity*[80] dialectic[81]), as follows:

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[78] See footnote 52 regarding the metaphor of harmonics.

[79] Content, as conventionally understood, can be seen as "chunks" whose *interiors*—e.g., semantics—remain (apparently) undisturbed, unaltered.

> Even where the measurements of contemporary methodologies are based primarily on quantitative criteria, they are all vitiated by the problem of the antithesis between "measure" and mass... Our method is not just a “measured” assessment, but above and beyond this an attempt at "diaphany" or rendering transparent (p. 7).

The content involves an explanation concerning the need for transparency, for clarity. Yet the linguistic style is unorthodox in (at least) three ways: firstly, through the use of quotation-marked “measure”/”measured,” secondly, through reference to a dialectic between it and “mass,” and, thirdly, through use of the neologism, “diaphany.” A take on this apparent paradox is that it remains unresolvable within a mental-perspectival structure but becomes transparent, congruent, within an integral-aperspectival one. The quest or calling for those who seek to move beyond the conventional structure is surely to be able to use such textual *startlement* as a wake-up call rather than as a frustration. More is then said, however, concerning such transparency:

> Our concern is with a new reality—a reality functioning and effectual integrally, in which intensity and action, the effective and the effect co-exist; one where origin, by virtue of "presentiation," blossoms forth anew; and one in which the present is all-encompassing and entire. Integral reality is the world’s transparency, a perceiving of the world as truth: a mutually perceiving and imparting of truth of the world and of [us] and of all that translucces both (p. 7).

This “explanation” does not appear, however, to be an explanation from the point of view of the mental-perspectival structure of consciousness—a “rational” mindset. It is rather, to my reading, an explanation from an integral-aperspectival one. We might wish to pause here and ponder on the etymology of *explanation*. It means, “to flatten out”—as in the *flattening out* of a three-dimensional object to a two-dimensional drawing. Not only is such an “explanation” a reduction from three dimensions to two, but it is a two dimensional ex*plan*ation, a privileging of a “plan” or top-down view, in contrast to the different rendering offered by a side view, an “elevation” perspective. Questions arise: Is such a top-down view aligned with the false transcendence of a disembodied Cartesian thinker? and: What relationship might there be between a depth-revealing elevation and an integral-aperspectival structure of consciousness? A solution might seem to involve a resonance with Gebser’s use of a sphere as metaphor for integral consciousness. In particular, we should note his neologism, *presentiation,* and the unconventional syntax of the verbal configuration regarding *translucent*. The former is suggestive of “making something (fully) *present*” (rather than: absent; partially present; in the past or future; only *apparently* present…). It is also suggestive of *presence*, and *presencing*—a concept which is foregrounded and theoretically extended by Otto Scharmer (2000, 2005). The latter also aligns with the privileging of verbs over nouns (relative to “conventional” discourse) found in both poststructuralist and process (e.g., Whiteheadian) philosophies. Further elevated explanation, depth or diaphany concerning the complex clarity of integrality is perhaps offered when Gebser states,

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[80] The symbol “~” seems suitably suggestive of the interpenetrative qualities of complex dialectics

[81] Clarity and complexity are, of course, not antonyms, yet a fruitful dialectic can be identified between them in this context. This is an indication that dialectics, like most other valuable operations, is an art.

> Whenever the linguistic structure is freed from the perspectival fixity without reverting to linguistic chaos, initial aperspectival, no-longer-rational but arational manifestations are visible. Where the stylistic inversion of rational syntax transforms the sentence…The achronon shines forth and its sustaining-in-truth presupposes that the rational is not just negated but overdetermined, whereby it necessarily foregoes its claim to exclusivity… The mental is reduced to its proper sphere of the conceptual, visible, palpable, and demonstrable, and can no longer function obtrusively, but must open the path, the leap towards verition... (pp. 503-504).

Here, neologisms include: *aperspectivality, overdetermination, achronon,* and *verition.* The rational can only go so far and should not be *over*used but rather be *appropriately* used as part of communication at an integral level. It could be said that his neologism, *verition*, is a vertiginous turn on the conventional, mental structure's *verity*—"being in accordance with reality." One could further "note" that *accordance*—from *accordare*—literally means "being of one *heart*" (noting two semantic harmonics of *being*) whilst an aphesis of such *accord* is a musical "chord." "Verition" might suggest we should not (merely) quest "truth," but rather, *a heartfelt accordion of truth*. Habits of our heart, harmonics of our text, de-/re-constructed. Gebser's words are beautiful but, to many, they are also dense and difficult. Yet, as Agger (1991) says of Derrida: "[he] would defend his own density by arguing that difficulty educates. He would also say that simplicity brings false clarity" (p. 114). Such are the dialectics of clarity. It would appear Gebser might very well agree with him.

Another unorthodox languaging is that offered by integral-global philosopher, Ashok Gangadean (2002, 2006b). He distinguishes between two orders or "technologies" of perceiving, thinking, speaking, being: firstly, an egocentric one, and, secondly, an integral-holistic-dialogic one, and differentiates between these through novel typographical syntax. Namely, he uses "/…/" for egocentric languaging—as in /mind/—and "((…))" for dialogic-global-integral languaging—as in ((mind)). In this way, these textual marks can be used as a micro-integral transformative practice, a startling ((wake-up call)) to partake of an integral spirituality which can be identified in the ((logic)) of each ((word)). Moreover, Gangadean's work explicitly connects integrality with urgent global concerns and spirituality, thus congruently aligning with worldcentric perspectives.

There is no doubt a plethora of postformal-postconventional-postmodern-integral languaging options. But to generalise, one might say that we need tools for our Wilberian left hand quadrants as well-crafted and powerful as those currently in operation—and those being exponentially developed—for our Wilberian right hand quadrants. We urgently need the linguistic equivalent of nanotechnology: we need an integral nanotextology. An example of its use might be demonstrated through postformally exploring the semantic ecology among deconstruction, dialectics and nonduality.

Holonomic Nonduality (A Dialectical Recursion)

In AQAL topology (for example, 1979/2001, pp. 126-144), nonduality occurs at the final stage of (individual) development. Wilber arrives at this understanding through addressing nondual spiritual traditions, notably Zen and Dzogchen.[82] When he writes about the nondual, he tends to do so as the blossoming poetic culmination of much theoretic prose. This format thus mirrors somewhat the model of spiritual development he explicitly discusses. In this release from Wilber's dominant style, the realisation he expresses is in paradoxical reference to the many developmental waves he otherwise discusses—namely, "there's only one wave, and it's everywhere" (1979/2001, p. 142). Further wisdom flows: "It is always already undone, you see, and always already over" (p. 345), and, apparently aligning somewhat to Eckhart Tolle's (2001) *The Power of Now*: "There never was, nor will there ever be, any time other than Now. What appeared as that primal moving *away* from Now was really an original movement *of* Now" (Wilber, 2001b, p. 143). In this context, he is also aware of the limitations of formal theory: "Galaxies rush through your veins while the stars light up the neurons of your night and never again will you search for a mere theory of that which is actually your own Original face" (Wilber, 2000c, p. 141).

This part of his writing has a substantially different quality to the rest of his theoretic writing, which generally has a less poetic, less paradoxical, more technical (and sometimes "polemic") character. As such, his text displays something of a duality. And, although such a comment might appear to be insubstantive in that it refers to style rather than content, such a perspective, as we have seen, is not necessarily a postformal one. Moreover, a proposition I will be exploring below is that the theoretic conceptualisations concerning all stages prior to Wilber's nondual are themselves generally embedded in a dualistic (Cartesian) template. Pertinently, I will explore the metaphoric value of this duality in positing that although Wilber addresses nonduality, his mode of theorising does not honour the potential contribution of nonduality. Moreover, I contend that this is because he has not fully actualised the import of postmodernism's complexity theory—notably the component of recursion, fractality, holonomy.

But first, let's turn to another type of discourse in which nonduality can be found: poststructuralist discourse. One could argue that Derrida's address of the nondual binary of identity and the Other, for example, is central to déconstruction. The logistic structure of dialectics, also, can be seen as being based on a type of nondual premise. Wilberian theory sharply differentiates between final stage nonduality (individual enlightenment) and these other types of nonduality, which are mapped as forming part of the Wilberian Green vMeme—relativistic postmodernism. But is such an absolute differentiation justified?

One of the developmental psychologists Wilber has called upon to support his theory is Jenny Wade. But Wade's (1996) theoretic understanding of nonduality is significantly different from Wilber's. Referring to the holonomic paradigm of explicate and implicate orders—a central contribution of David Bohm to quantum theory—she states,

> The holonomic paradigm posits the existence of (at least) two dimensions of the same reality in a nondual whole—the material manifestation of energy as the explicate order, which is enfolded in, and emanates from, an implicate transparent order of pure energy,

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[82] A cautionary note, though, is given by Roy (2006b) when she concludes: "Wilber's AQAL model does not contradict Dzogchen thought per se; but…Dzogchen cannot be fitted into its framework" (p. 119).

> which is infinite and absolute. … Their conjunction is like the two "sides" of a Moebius ring… (p. 201).

From this understanding, nonduality might not only be "found" at the final stage of individual development, but could permeate the whole integral model. And it would do so via a holonomic paradigm (*holonomic* signifying the generic conceptual template from which *hologram* is linguistically constructed). Holonomy can be seen to be in familial relationship with a non-Euclidean geometric principle found in complexity theory—namely, recursion: the production of fractals. In this way, a type of nonduality could be theorized at any developmental level of integral theory, including postmodernism. This would open a way to exploring, among other things, the theoretic relationship between Derrida's déconstruction and the spiritual deconstruction of the ego. Such a theoretic venture would resonate with the seminal work on postmodern spirituality by integral philosopher, Roland Benedikter (2005), in which the spirituality of poststructuralists—notably, Derrida, Deleuze, Feyerabend, Foucault, and Lyotard is identified, explored and valorised.

Wade also elicits transpersonal researcher, Stanislav Grof (1985), as applying "holonomic metaphysics to developmental theory, beginning with a criticism of Wilber's emphasis on linearity"—quoting Grof as saying,

> As much as I agree with [Wilber] in principle, the absoluteness of his statements seems to me too extreme. The psyche has a multidimensional, holographic nature, and using a linear model to describe it will produce distortions and inaccuracies. …
> My own observations suggest that, as consciousness evolution proceeds [from Authentic to Transcendent consciousness] and beyond, it does not follow a linear trajectory, but in a sense enfolds into itself (Grof, 1985, p. 137, cited in Wade, 1996, pp. 201-202).

Grof seems to making two points here, both concerning holonomy. The first concerns "the absoluteness of…statements."[83] The second concerns the nature of consciousness evolution *from and beyond Authentic consciousness.*[84] The latter understanding—that Authentic and post-Authentic consciousness enfolds into itself—would specifically problematise Wilber's theorizing of levels specifically *for Green and beyond*, whilst the former understanding—concerning the nature of statements—regards the linguistic fabric of theorizing: Wilber's *type* of theorizing.

The relevance of an integral nanotextology can be identified here. Specifically, whilst from a formal perspective the issue of "theorizing type" may be regarded as being "merely style" and thus insubstantive, such simplicity is (most plausibly) untenable from a postformal perspective. Postformally speaking, the type of linguistic constructs employed—the particular qualities in statement construction—form part of the substantive "content." Much poststructuralist discourse implicates the importance of such considerations; through the neologism *nanotextology*, I am attempting to bridge such consideration—formally seen as "style"—with more macro-considerations—formally seen as "content"—via the developmental understanding that postformally, *style* and *content* are holonomically related and therefore both substantive—as, shall we say, *postformal content.* Such a statement, however, is not necessarily to relativistically give such micro and macro postformal content modes equal address, but rather posit that there can be a theoretic framing regarding their connection (or communion) *and* their difference (or agency). Using nanotextology in this instance, the framing of concepts or statements as *absolute* could possibly be seen as a type of Blue vMeme (conformist, technicist or mythic) manoeuvre (a prioritisation of *conceptual fundamentalism* or conceptual *technology*) or as a type of Orange (formal) manoeuvre (a prioritisation of conceptual *definition*), in contrast to, say a post-Orange (postformal) manoeuvre (a prioritisation of conceptual *ecology*).

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[83] And I note here that Grof appears to be implying that *all* of Wilber's statements are too extreme, thus falling into something of an absolutist text

[84] Constituents of Wade's (1996) Authentic stage include identification of the Other, the desire for personal growth, postformal operations, empathy, and respect for diversity (p. 169, Table 9)—features regarded elsewhere as postmodern or Green. See, for instance, Beck & Cowan (1996, p. 260-273).

From this postformal theorizing perspective, other features of Wilber's theorising could be problematised. An example would be his framing of the "Pre/Trans Fallacy" (Wilber, 1980) which *sharply* distinguishes between the pre-formal and the post-formal. Here, the imperative to distinguish sharply and non-paradoxically can be seen as a pre-postformal manoeuvre. In contrast, from a subtler, postformal perspective, Stanislav Grof comments, "the distinction between pre- and trans- has a paradoxical nature; they are neither identical, nor are they completely different from each other" (1985, p. 137, cited in Wade, 1996, p. 202). Here, both conceptual agency (or difference) *and* conceptual communion (or mutual identity) are foregrounded.

A framing that Wade uses in relation to either/or (pre-postformal) thinking is constituted by the metaphor of Newtonian physics: "Regression and transcendence are neither opposite nor the same, though they may appear to be in a Newtonian conceptualisation—and it may be useful to speak of them in those terms there" (p. 202). Elaborating on this, a developmental hierarchy of conceptual templates based on developments in physics can be imagined: using Einstein's theory of relativity and then quantum mechanics as metaphorical templates for types of conceptualisation. Developmental psychologist Jan Sinnott (1998) has made such a move—at least in relation to Einstein. She compares his theory to postformal *relativistic* thought. Although Piagetian commentator Helena Marchand (2001) critiques Sinnott's use of metaphor, I would contend that such a judgment emanates from a *formal* mindset which does not appreciate the theoretical significance of metaphor—such appreciation can be seen as coming from postformal understanding. The theoretical significance of metaphor is indicated, for example, by Alfred North Whitehead—a philosopher whose work sits at the very core of AQAL's evolutionary theory (Hargens, 2001; Roy, 2006b, p. 123; Wilber, 1995, pp. 42, 49, 78).[85] Arran Gare (2002) valorises Whitehead's recognition of the primary role that metaphors play "in thought, language, philosophy, and science" (p. 48). The postformal understanding of the role metaphor plays in languaging, including that of theory, is substantively explored in the seminal work of Lakoff and Johnson (1980/2003; 1999). Their research, which has substantive implications for the sublation of formal thinking, convincingly demonstrates that, "the traditional view of metaphor is empirically false" (1999, p. 118) in that, "metaphorical thought is what makes abstract scientific theorizing possible" (p. 128). From a postformal perspective, metaphor is not mere linguistic ornamentation, but rather, is (varyingly) implicit in the very fabric of all communication.

Given this, an apt metaphor for dialectical thinking might well be quantum theory[86]—connoting an integrative-but-fluxing dialectic between wave and particle. But the window of possibilities here can be seen to extend beyond such physiospherical metaphors to biospherical ones. Much fruitful research in this direction could seed new vital(ising) ideas, "living" concepts, "organic" templates.[87] Jenny Wade can be seen to refer to such a postformal conceptual template in her discussion regarding the theorising of relationships between regression and transcendence or between the preformal and the postformal via a holonomic paradigm:

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[85] I am referring to Eros / Creativity as the universal "drive to integration" (or transcendence) here, and to holon theory. Gertrude Blanck and Rubin Blanck also make a central theoretical contribution.

[86] Sinnott (1998) *does* refer to quantum theory but does not make the particular distinction I am making here.

> The regression/non-regression argument is resolved because it is placed in the context of epistemology outside historical time. This creates a heterarchical conceptualisation of development employing both linear and nonlinear paradigms that *alters the structure of developmental theories that purport to address these levels* (Wade, 1996, p. 202, emphasis in original).

Such a template based on complexity rather than duality could have incisive repercussions for AQAL. Consider, for example, the following constitutional AQAL point of departure:

> If the Kosmos is not holistic, not integral, not holonic—if it is a fragmented and jumbled affair, with no common context or linkings or joinings or communions—then fine, the world is a jumbled mess the various specialities take it to be. But if the world is holistic and holonic, then why do not more people see this? And why do many academic specialities actively deny it? If the world is whole, why do so many people see it as broken? And why, in a sense, *is* the world broken, fragmented, alienated, divided? (Wilber, 2000c, p.41).

Here, Wilber constructs two opposing camps: (a) the camp of fragments, jumble, mess, breakage, alienation, division; and (b) the camp of holism, integrality, holons, linkages, joinings, communions, wholeness. This construction is dualistic: no interpenetration between the two camps is allowed for. But why does it necessarily have to be either/or? A complex-aware theoretic template could embrace *both* camps. Through this, the world could be identified as: whole *and* jumbled, holonic *and* entangled, broken *and* linked—in varying ways. Differentiation could then be identified between contexts where Wilber's general argument is valid and those contexts where it is not. For example, whilst a panoramic perspective might display the suitability of various AQAL orienting generalisations, a local (detailed) perspective—with its specific requirements—might even display *the very inversion* of these same generalisations. As an apt metaphor, consider the following. A traditional dance whose *general* advancement forward is constituted by the specific ("local" / detailed) algorithmic routine of *one step back, two steps forward*, is substantively constituted by both advancement and retreat—though at different recursive scales. From a macro (AQAL-like) perspective, the *one step back* phenomenon would appear as a messy datum interfering with the theoretic elegance of advancing forward; perhaps something even to be eliminated. Conversely, the substantive interest of a dance teacher with a dance student whom was only *stepping forwards*—failing to take a step back each time—would be to focus (perhaps repeatedly) on the instruction to *go backwards*. If this was a common problem, perhaps an academic might then assist in the matter through conducting a detailed investigation into the failure to go backwards among dance students. The whole context here would be the goodness inherent in going backwards, and the inappropriateness of moving forwards. In other contexts, however, Wilber's thrust of argument would be highly pertinent. The issue is one of context and of recursive scale. An integral theory explicitly based on a complexity template could adequately accommodate such differentiation; an integral theory based on a non-complex or non-dialectical complex template could not so readily. Moreover, even where Wilber's general argument is appropriate—as in the indication above that academia could benefit from less specialisation and more transdisciplinarity—complex cross-currents can be identified. Wilber frequently derides Cultural Studies, for example, yet this young academic field has partly arisen via a similar evaluation to the one Wilber makes himself, namely, insufficient connectivity. Cultural Studies is transdisciplinary. And Integral Studies is transdisciplinary. Both are appearing to attempt to counter "traditional" academia's tendency toward specialisation. There is no need for antipathy here.

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[87] Perhaps inspiring and/or apt metaphors regarding the potential significance of possible alteration of conceptual templates might include (a) Edgar Morin's (1999/n.d.) principle regarding, "the mole that digs underground and transforms the substratum before anything is changed on the surface"; (b) Sohail Inayatullah's Causal Layered Analysis where the myth / metaphor layer is seen to underpin the worldview layer which in turn underpins policy and litany layers respectively; (Sohail Inayatullah, 2000, 2004); and (c) the following: Imagine a vector applied near the circumference ("surface") of a wheel; imagine an equivalent vector applied near the centre ("core") of the wheel; even though each vector is similar to effect, the one applied nearer the centre of the wheel will effect a greater rotation of the wheel than the one applied nearer the circumference.

To summarise: Through embracing a complex-aware template,[88] specific AQAL features can be problematised or deconstructed, constructively leading the way to higher orders of integration. Wilber's (1980) Pre/Trans Fallacy, for example, can itself be seen as a (partial) fallacy in the way it is currently conceptualised. The implications of such postmodern theorising for integral theory in general and Wilberian theory in particular are wide-reaching. As Wade (1996) indicates: "The linearity inherent in evolutionary models is a contextual convenience" (p. 200).[89] Such an understanding might lead one to conclude that there is "no way out" from this poststructuralist statement to integral evolutionary theory. One might instead recognise, however, that the way to an integral evolutionary theory that moves beyond dualistic modes of theorising is through embracing the postformal modes of cognition found in postmodernism. In short, the way out is through.

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[88] The interpretive stances constituted by such a template would most probably be in contrasted reference to the modern worldview which has extended and/or over-extended (a) the cosmological estrangement heralded by Copernicus and concretised by Newton, (b) the ontological estrangement initiated by Descartes, and (c) the epistemological estrangement instigated by Kant (see Tarnas, 1991, p. 416-422). Abstract theoretic mantras such as the yinyang-DNA-Ouroboros template elucidated by Clifford Matthews (2002, p. 220-226) could also be generative here.

[89] Such a statement concerning the inadequacy of linear models of development *as a whole* could be seen to be aligned to Grof's comment above regarding the inapplicability of linear modelling *beyond* the Authentic stage if one considers that both can be true from the perspective, say, of different quadrants—where Wade's comment can be seen as a postformal left-hand quadrant understanding, and Grof's as a postformal right-hand quadrant understanding—*or* perhaps of different levels, where Grof's statement arises from a conventional level and Wade's from a postconventional one. Another conversational opening, no doubt.

Conclusion

> *The soul sings of the glory of God inasmuch as it follows its own folds, but without succeeding in entirely developing them, since 'this communication stretches out indefinitely"* (Deleuze, 1988/2006, p. 3).

An integral re-viewing of the developmental wave of postmodernism can highlight the current undervaluation of thinking postformally. Postformal cognition can be enacted in relation to a variety of concerns and interests including integral theory itself. Integral theory thus contains the means to develop itself—a participatory autopoiesis. In this way, the manifold contributions that Wilber has offered to integral theory and its panoramic horizons can be enhanced and reconfigured. AQAL maps contextualism, dialectics, and complexity as postformal features. Integral theory could more reflexively enact such ways of reasoning. By more consciously participating in the ecology of postformal modalities—including thinking contextually, thinking dialectically, thinking critically and thinking complexly—AQAL could be reconfigured, and its metasystematic or crossparadigmatic *geist* could be appropriately furthered in service of the dialogic evolution of integral theory. This article has demonstrated a few uses of such postformal cognitive modes. Regard for all dimensions of embodiment and the metaphoric nature of theorising also need to be duly considered, whilst shadow-work can be fruitfully brought into the fabric of integral theory via the dialectics of deconstruction. Below is a concluding elucidation and possible futuring of these ideas—ends-in-view.

Identification of problems

In attempting to transcend postmodernism, Wilberian integral theory appears not to sufficiently include its contributions. AQAL's current theoretic status of the Green vMeme and its relationship to post-Green conceptualisations is substantively problematic. It would appear this has led to the memetic propagation of myths concerning integrality. The following points can be made.

1. From a vMemetic theoretic perspective, the Green vMeme (postmodernism and postformal thinking) is accepted most strongly by the subsequent Yellow (Teal / integral) vMeme and is rejected most strongly by the Orange vMeme (including modernism and formal thinking), and is also substantively rejected by the Blue vMeme (absolutist thinking). The *mean green meme* can most adequately be identified developmentally as an Orange vMeme perspective. Blue vMeme attitudes can also be associated with the *mean green meme* meme.
2. Gebser does not posit a structure of consciousness between the current *mental-perspectival* one and the emerging *integral-aperspectival* one; he does not identify a deconstructive postmodernism. He cannot therefore be legitimately used in service of AQAL theory in this regard.
3. Uncontextualised association between relativism, deconstruction and Derrida is constituted by substantive mythic elements. Derrida and déconstruction can be legitimately identified as operating from an advanced developmental level. Derrida's potential contribution to integral theory needs to be digested. The developmental maturity

and spirituality of postmodern philosophers such as Deleuze, Derrida and Lyotard need to be adequately addressed by integral theory.

4. There is an anomaly in current integral theorising regarding, on the one hand, the strength of the Green vMeme in the U.S.A. in relation to Europe, and on the other, the strength of the pathology of the Green vMeme in the U.S.A in relation to Europe. This might be evidence of a more endemic theoretic problem. Nation-cultures need to be more adequately addressed.

Summary of re-view

Integral theory itself can be used to address these points, thus effecting an autopoiesis. Specifically, the way to a respectful and internally consistent integral approach can be seen as being *through* the myriad features postmodernism offers, not in substantive antipathy to it. Re-viewing postmodernism from an integral perspective can enhance the adequacy of AQAL, leading to an integral theory which is more internally consistent and respectful.

Whilst appropriately including many and various contexts and dimensions with regard to formal reasoning, postformal reasoning includes substantively different types of cognition to formal thought, including—thinking complexly, contextually, creatively, critically, dialectically, dialogically, ecologically, "embodiedly," linguistically and reflexively. The reflexive enactment of such modalities may consequently alter the conceptual template—the very fabric—upon which integral theory is based.

A forward view

The primary intent in this article has been to open up particular conversations to further facilitate the appropriate evolution of integral theory. As such, the following could variously act as a guiding framework for further research.

Toward an explicitly linguistically-aware integral theory

A central feature of the postmodern developmental wave regards the significance of languaging. Integral theory should take this contribution to heart, deepening its enactment. Notably, reflexive embrace could be given to the following understandings concerning the languaging of theoretic narrative:

a. Its constructed qualities.
    i. Research could be undertaken, for example, with regard to possible relationships between the poststructuralist "linguistic turn," constructivism, and Cook-Greuter's "construct-awareness."
    ii. Developmental constructs and theoretic topologies could themselves be addressed through differentiating between the linguistic signifiers (such as "developmental *wave*") and the underlying topology or theoretic signifieds with which they are associated (for example, linear or non-complex topology).
b. Its metaphorical qualities.
    i. Research could be undertaken regarding the relationship of integral theory to Lakoff and Johnson's work on conceptual metaphor and embodied philosophy.

c. Its complex dialectical qualities.
    i. Research could be undertaken concerning the operation of complex dialectics at the micro-scale of concepts—"integral nanotextology."
d. Its poetic qualities.
    i. Further investigation could be undertaken with regard to the relevance of Gebser's poetic density of languaging for integral theory.
    ii. Further exploration of the relevance of Gangadean's novel typological syntax to integral theory might assist in the evolution of integral theory.

Theoretic narrative can be deepened through its participants (co-creating users, including you and me!) becoming more linguistically-aware—as demonstrated or gestured by the deepening of vision-logic offered in this article.

Toward an explicitly ecological (dialogic-critical-contextual) integral theory

Further research could be conducted in relation to the following various dimensioning contexts of ecological thinking:

a. Critical contexts[90] (contexts of compassionate imperatives), including
    i. Biospherical ecological contexts—at different scales of recursion, especially planetary.
    ii. Social justice contexts—at different scales of recursion. For example, the criticality of integral theorising could be addressed in relation to such power imbalances as those involving the over-extensions of Western, American, Orange vMeme, Anglophone or other hegemonic domains.
    iii. Other ethical, spiritual and futures contexts.
b. Conceptual ecological contexts
    i. Time—genealogies.
    ii. Space—geographies. Chinese integrals, Indian integrals, Spanish integrals, and so forth, could be identified as different *types* of integral, stemming from alternate genealogical threads.
    iii. Conceptual space—regarding both the conceptual ecologies in which *integral* may be appropriately identified (such as amongst *holism, integration, transformation, spirituality*, *planetary consciousness,* etc.), and the (more local) ecology of interpretive uses of *integral* itself (as demonstrated in this article).
c. Social ecological contexts—community-in-dialogue
    i. Voice-in-community—As part of acknowledging the potential role of my voice in this article in relation to the integral community, I have attempted to indicate certain openings to conversation and community dialogue. Further research here thus lies, in the next instance, beyond me.
    ii. Community-in-voice—I also acknowledge the community already *in* my voice, so to speak. I have multiple subjectivities; no-one can logically speak from a position of absolute authority. Consequently, I have attempted to allow a range of languaging here whilst variously maintaining a certain tentativity of tenor. There will necessarily be flaws in this text, so a space has hopefully been left in the

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[90] See also Anderson (2006).

> fabric of my text for the involvement of the Other (such as that *you* might variously identify).[91]

As part of deepening critical awareness regarding integral theory, further research could be undertaken regarding a more comprehensive evaluation of the current situation than was within the scope of this article to conduct.

Toward an explicitly dialectical integral theory

Notions of *construction* and *deconstruction* as necessary adversaries can appropriately be seen to stem from an either/or mindset. Thinking dialectically, their relationship can fruitfully be rather understood as complexly interpenetrating. Deconstructive and reconstructive postmodernisms share one genealogy which itself has a dialectical underpinning. Hence contra-possibilities can be identified: that discourse under the mantle of deconstruction can be constructive and/or appropriate, whilst discourse under the guise of reconstruction can be destructive and/or inappropriate. Derrida's work should not be regarded as antipathetic to an integral approach. There is evidence regarding the maturity of Derrida's discourse; there is also evidence regarding a dissonance between the theoretic content of Wilberian theory and perspectives given toward that content by Wilber. Further research could be undertaken in these regards. Resultant conceptual bridges could further mutual understanding; and a greater, more cohesive (or paradoxically more stable) integral theory could result.

Paradoxical thinking is associated with dialectical thinking. For instance, other parts of my life[92] are not directly congruent with the sensibility expressed in this article. I sit with the paradox contained within the ecology of these different "lines."

Toward an explicitly complex-aware integral theory

I have demonstrated a particular use of the complexity theory element, *recursion*—with respect to both *content* and nonduality in integral theory. Further research could be undertaken with regard to other elements of complexity theory such as emergence, bifurcation, hysterisis, sensitivity to initial conditions, indeterminacy, attractors, and dynamism.

Both differences and similarities could be identified between different fractal scales of construction, such as the construction of theories and the construction of terms; both differences and similarities can be identified between different fractal scales of *de*construction, such as Derridean déconstruction and the deconstruction of the ego.

A conceptual template based in part on complexity theory could facilitate an internally-congruent evolution of integral theory. Further research could explore, for example, in what appropriate ways *pre-* and *trans-* could be identified as distinct yet complexly interpenetrating.

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[91] As Edgar Morin (1999, n.d.) wisely points out: "The adventure remains unknown." One could add: each word is a venture.

[92] For instance, whilst I have been beavering away at this article, my body has suffered from insufficient exercise!

Toward an explicit, dynamically creative integral theory

AQAL places the concept of creativity as a core generic driver ("healthy" transcendence as characterised as Eros) in holonic development-evolution. Numerous theoretic perspectives on creativity could be given. One such perspective is that offered by Arthur's Koestler's (1970) triad of the Sage, the Artist and the Jester.

a. The Sage
    i. Research could be undertaken to facilitate a reflexively wise and compassionate integral theory.
b. The Artist
    i. Research into the *art* of integral might investigate the artfulness involved in all dimensions of participation.
    ii. Research could explore bringing more beauty into the good and true.
c. The Jester
    i. Ludic research could explore the transition from *boomeritis* to *bloomeritis*!

As Wilber (2000a, p. 3) says, "choose your big pictures with care."

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Appendix A: The Green vMeme Attractor: Big Mind, Kind Heart, Healthy Hierarchy

In an Integral Naked advertisement originating from Wilber's Integral Naked website (Integral Institute & Davis, 2007), the following assertion is made concerning the Virginia Tech massacre:

> Ken points out how extreme postmodernism (boomeritis, mean-green-meme) has contributed to an atmosphere in which…the two developmental waves responsible for most terrorist acts…are allowed and even encouraged to flourish. What's needed is…[an] AQAL toolbox with which to be able to prevent, recognize, and effectively address malevolent and terrorist activities. Of particular interest to scholars will be Ken's discussion of the difference between a merely **deconstructive postmodernism** a la Derrida, and a **genealogical/developmental postmodernism** a la Foucault, which paves the way to an Integral view, rather than blowing up the road. (§ *Scholar's Notes (for Advanced Students and Curious Listeners)* ¶ "Postmodernism," emphasis in original)

The explicit foregrounding of association between and the worst U.S. tertiary education massacre in history on the one hand, and Derrida on the other—via a (metaphorical) inference that Derrida *blows up roads*—perhaps indicates something of the nature of the propagation of the *mean green meme.* One might be tempted in this instance to proffer two questions: (a) Could the above advertisement be described as a "vulgar" or even "nihilistic" attack on Derrida? and—in the spirit of furthering inquiry into collective shadow-work—(b) Mirror, mirror on the wall, who is the meanest of them all?

I shall explore such questions by investigating evidence concerning the Green vMeme and its alleged "meanness."

Is *the* M*ean Green Meme* Construction a Mythic Meme?

A significant feature I have noticed in my ten or more years of research into Wilber's work is that there is a significant emotive dissonance between, on the one hand, Wilber's substantive focus on the negative aspects of the Wilberian Green vMeme (substantive in the sense that there is significant repetition and intensity of theme, and that such repetition-and-intensity is not given to any other vMeme by name) and, on the other, the emotive void caused by theoretic over-generalisation—in Wilber, in certain other texts, and in the integral community at large. An example of such text is evident from two quotes from an article in a new journal grounded in Wilberian philosophy. The first:

> One of the main reasons why there is such a thing as Integral Studies, Integral Theory, Integral Psychology, Integral Business, Integral Consciousness Studies, and Integral Art can be understood in terms of multidimensional, multi-level thinking and, furthermore, *being.* As already mentioned, this is what Gebser calls *integral-aperspectival,* what Wilber calls *vision-logic* and what Beck calls *Second-Tier*(Saiter, 2005, ¶ 10).

And the second, regarding,

> a ‘higher’ order of thinking (as in Wilber's vision-logic). As already mentioned, Jean Gebser uses the term(s) ‘integral/aperspectival’ to refer to a similar state of high comprehension. Don Beck follows suit when he describes the manifestation of Second Tier thinking starting with the Yellow vMeme” (Saiter, 2005, ¶ 14).

In both these quotes, the Green vMeme is ignored.

Is vision-logic partly constituted by the Green vMeme? Is aperspectivality partly constituted by the Green vMeme? Is Second-tier partly constituted by the Green vMeme? If the answers are equivalent, this question might be of minor consequence. But the answers are not equivalent. Wilber’s vision-logic *is* partly constituted by the Green vMeme; Spiral Dynamics’ second-tier is not; whilst the Green vMeme is not addressed in Gebser’s aperspectivality (Gebser’s work predates Spiral Dynamics). If the Green vMeme had not been given special treatment by Wilber, then such lack of care as exemplified by these statements might, again, be of minor consequence. But Wilber has emotively set up a deep conceptual division precisely in this liminal territory, a division which is magnified by his popular appeal in the community—and power base (see Appendix C)—so that such a device could divisively begin to assume a mythic (dismissively-defended, under-analysed) status.

Such notion of an under-analysed but virulent *myth of Integral* would be supported by the following casual perusal of an Integral Institute discussion forum on the “koolest” website, *zaadz*. By way of explanation regarding the basics of AQAL, Julian Walker (2007) enthusiastically introduces the audience to Wilber’s *Pre/Trans Fallacy* by way of drawing a chart constituted by three levels: (a) “Preconventional; Prerational; Archaic/Magic/Mythic; Sensorimotor/preop; Purple/Red/Blue” (b) “Conventional; Rational; Rational; Concrete Operations; Orange/Green” (c) “Postconventional; Transrational; Integral; Formal Operations/Vision Logic; Yellow/ Turquoise” (see Table 1).

Table 1. Walker’s Chart

Preconventional	Conventional	Postconventional
Prerational	Rational	Transrational
Archaic/Magic/Mythic	Rational	Integral
Sensorimotor/preop	Concrete Operations	Formal Operations/Vision Logic
Purple/Red/Blue	Orange/Green	Yellow/Turquoise

Numerous fallacies and misplacements are given even in this simple schema. These include the equating of “Formal Operations” with both “Postconventional” and “Vision Logic,” rather than with “Orange” / “Rational.” The most extreme is the conflation of “Green” with “Concrete Operations”—a misalignment—to Green’s disadvantage—by a whole *two* stages. This, indeed, would be something toward the *antithesis* of Wilber’s *Pre/Trans* iteration—namely, this young teacher’s thinking that the Green vMeme was *pre-rational* when in fact it is *post-* or *trans-rational*.[93]

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[93] I am using “transrational” to denote a sublation (*trans*cending-and-including) of *rational* rather than to make a distinction between *transrational* and, say, *postrational*. This usage I am making here is congruent with the categories identified by Walker.

Of course, any student can get details wrong about anything they are learning, or even, unfortunately, about anything they are passing on to others as (informal) teachers. The specific discussion here, though, would concern the possible perpetuation of misunderstanding not through a student's failure to understand something correctly, but because the more experienced teacher's text was itself already confused, conflated, inflated. Wilber's communication that the Green vMeme *transcends the rational* occurs substantively less frequently and less emotively than his stress on the idea that *the Green vMeme is pre-rational—regressive*—and/or *pathological*. As our specific hermeneutic interest here would concern the issue of an inappropriate attack on Green, suspicion would surely be raised by such evidence, and a hypothesis could be posited concerning, let us say, *the Green/Yellow Fallacy*.

Following on from the parting of company between Beck and Cowan, Cowan has been a keen supporter of maintaining the authenticity of Clare Graves' work, on which Spiral Dynamics was originally based. He has furthered this work with new colleague, Natasha Todorovic. Her (2002) research into the Wilberian Green vMeme reinforces this suspicion. She statistically analysed data from over 600 profiles and found the following.

1. "Blue/Orange tends to avoid ambiguity by simplifying interactions into narrow categories" (p. 5)
2. "Individuals centralized in Blue, Orange and the Blue/Orange pairing appear to have a stronger tendency than other systems to reject the Green vMeme" (p. 2)
3. "It is those with high Orange scores who reject Green most strongly" (p. 3)
4. "Those centralized in the Yellow system reject statements describing the D-Q (Blue) system most strongly—NOT Green" (p. 3)
5. "Yellow accepts green more than any other system" (p.3).

She also notes that

6. Clare Graves had modified his view from "monumentous leap" between Green and Yellow to seeing them as more alike than he had previously realized (p. 3)
7. There is no evidence of substantive Green/Red pairing. In fact, "the data shows that when Green increases so does the rejection of Red" (p. 6)
8. There was a significant "yellow false positive" whereby "Selection of statements intended to elicit Yellow appear to be reflecting a more sophisticated form of Orange instead" (p. 3), and that,
9. "The dominant profile for those pegging falsely on Yellow came from the Blue/Orange pairing and from Nodal Orange" (p. 3). In regards to this, she says that, "this might explain much of the 'second tier' elitism coming from MGM [mean green meme] advocates. The Blue need to rank order combined with classism and right thinking minds at Orange, results in a drive to convince self, and others, of living at 'second tier' (if such a thing actually exists!)" (p. 3).

I think it is notable that a scholarly researcher investigating Clare Graves' original data should doubt whether "second tier" actually exists. What justification could there be in the propagation of myths concerning second tier when detailed research problematises such type of propagation?

Coining the term, “Meme-ism”, as a form of spiral classism, Todorovic comments that, “the spread of terminology like MGM has weaponized the previously neutral SD colors and opened the door to prejudice, even hatreds…” (p. 10). She concludes that,

> the most objectionable example of the MGM label in action has been as a capricious stereotyping tool. … This results in intimidation and promotes a habit of labelling then dismissing detractors with negative words wrapped in spiral dressing.
> MGM artificially closes doors to understanding. Inquisitors wield MGM as a
> coercive tool, forcing critics into defensive positions where they must either recant or be diminished through cheap name-calling. It diverts focus from the object or idea under investigation and shuts down important debate (p. 10)—

such debate as this article seeks to facilitate. In so doing, my intention would in no way be to problematise *all* problematisations against the Green vMeme—whether as an entire construct or in terms of its possible constituents—but to draw attention to its problematic use in a non-contextualised, and non-construct-aware fashion, and specifically to point to some—potentially—major theoretic obstacles to its employment as an “orienting generalisation.”

The wordplay “mean green meme” first appears in its own section in *A Theory of Everything* (Wilber, 2000c, pp. 122-125) in which Wilber quotes Beck (unreferenced) as saying, “green has introduced more harm in the last thirty years than any other meme” (p. 123). Wilber takes this to mean: “a culture that tries to ram pluralism and multiculturalism down everybody’s throat is going to come apart at the seams faster than you can say ‘deconstruction’” (p. 123-124). His claim is that Green has damaged Blue infrastructures by way of quoting George W. Bush regarding, “the soft bigotry of lowered expectations.” He speaks harshly of “the highly developed postformal [sic] green wave” which champions “any and every ‘multicultural’ movement;” and of “order-Left imperatives commanding everybody to be sensitive;” of the “nihilism and narcissism of extreme postmodernism;” of “the harsh intolerance of the politically correct thought police;” and says that, “the green meme has been in charge of academia, the cultural elite, and much of liberal politics for the past three decades, but it is now being challenged on all sides” (p. 122-125).

What should be my response to all this? As a concerned global citizen I should surely feel stirred by such righteous indignation; I should surely join a crusade against such evil. Yet, as a non-American, I am unclear as to what precisely he is referring: I have witnessed “mean” actions from some people, for instance, but they’ve tended mostly to be from dog-eat-dog or man-eat-man corporate careerists (if one had to coin a phrase) rather than liberal academics. And I can’t recall that I’ve ever had anything unpleasant *rammed down my throat*—at least, not to my knowledge! Moreover, as a novice liberal academic myself, I wonder whether I am unwittingly part of a nihilistic cult? Indeed, is *this* very article a highly developed but covertly narcissistic *command* to be “green-sensitive”?

But sadly, Wilber offers not one piece of evidence in this section on the “meme green meme” and so I am left none the wiser, though a tad more fearful.

A Discourse Analysis

The following discourse analysis below addresses the contents of the three pages constituting the last section of the first chapter of *A Theory of Everything*, entitled, “The jump to second-tier consciousness" (Wilber, 2000c, pp. 13-16). From my research on Wilber, I consider this to be sufficiently indicative of Wilber's general perspective toward the Green vMeme for the consideration below.

Green vMeme Features Identified

Wilber identifies the following features of AQAL's Green vMeme. (This analysis also indicates the number of respective repetitions of these features within the text in question; and categorisations used for the associated Table 2 are given in parentheses).

- Features framed as substantively negative
  - "Narcissism," "subjectivism," "boomeritis" (narcissism)—10
  - Fighting or "accusing" higher developmental levels—such as against "holism" (competitiveness)—5
  - Inefficiency (inefficiency)—3
  - Competitive nature (competitiveness)—2
  - Expression of feelings (other)—1
  - Deconstruction (narcissism)—1
  - Inverted values (as in, "bend[ing] over backwards" to accommodate)—(other)—1

- Features framed as substantively partial
  - "Pluralism," "relativism" and "pluralistic relativism" (pluralism, relativism)—15
  - Items related to the above—inclusivity, non-universalism, diversity, multiculturalism, antihierarchy, egalitarianism, anti-marginalisation, avoidance of exclusion, redress of social imbalances (pluralism, relativism)—12
  - Nobility (e.g., "noble intent") (other)—2
  - Individualism (other)—1

- Features framed as substantively positive
  - Compassion, sensitivity, care (compassion)—4
  - Civil rights (civil rights)—1
  - Convincing philosophical critiques (worthy text)—1
  - Environmental protection (environment)—1
  - Richness of text (worthy text)—1

This is summarised in Table 2 below.

Table 2. Wilber's Green vMeme identifiers (based on the text analysed)

Identifier	Occurrences in text
Pluralism, relativism	28
Narcissism	10
Competitiveness	7
Compassion	4

Inefficiency	3
Worthy text	2
Civil rights	1
Environmentalism	1
Other	7

A Contrasting Perspective on the Green vMeme

Whilst it is beyond the scope of this current presentation to conduct a comprehensive contextualisation of AQAL's Green vMeme (as indicated above), it nevertheless behoves me to present a certain contrasting perspective as a point of departure for further research.

Noting that the Green vMeme denotes a memetic attractor regarding "green values," it would seem to be an adequate "orienting generalisation" to employ a similar methodological *tenor* to that of Wilber (as previously described in this article). I thus turn to the Wikipedia for an "ordinary-yet-informed" perspective on what *green values* might signify.

Searching Wikipedia for "green values" produces 4 main results, each of which refer to the values of Green political parties. From this, two main sets of values are readily apparent—one from the U.S. Green Party (2000), and the other from general guidelines from European Green Parties.

The ten key values of the U.S. Green Party are

- Grassroots democracy
- Social Justice and Equal Opportunity
- Ecological Wisdom
- Non-violence
- Decentralization
- Community-based economics and economic justice
- Feminism and gender equity
- Respect for diversity
- Personal and global responsibility
- Future Focus and sustainability (Green Party of the U.S., 2000)

The "four pillars" of (many of) the European (and other) Green Parties are

- Ecology
- Social Justice
- Grassroots Democracy
- Non-violence (Wikipedia, 2007b)

It is clear from this presentation that there is no significant correlation between the two sets of articulations of Green values—those by Wilber and those by Green parties.

Whilst Green parties would obviously not intentionally present any negative aspect of Green values (and therefore, a discussion regarding Wilber's critical hypothesis regarding narcissism and inefficiency, for example, could not be directly contextualised here), the contrast to the Wilberian Green vMeme is nonetheless striking.

Firstly, Wilber mentions “environmental protection” only once among the 61 items identified. This is, of course, in contrast to both the popular conception of Green values (where the environment would be identified as the major feature), and it also contrasts the sets of values by Green parties—again, where ecology / ecological wisdom is a major feature. Specifically, it constitutes 25% of *the four pillars*, whilst in *the ten key values* it is given approximately the same weight (the totality of “ecological wisdom,” a major share of “future focus and sustainability,” a share of “personal and global responsibility” and, perhaps mootly, “respect for diversity”). This orienting generalisation contrasts markedly to 2% identified in the analysis of Wilber’s text.

The next feature from Green Party values concerns social justice and economic justice. This term infers the ethics of considering others’ welfare. Wilber does not use this term. He refers to “civil rights” once (2%). He also refers to “diversity” once (2%)—a contrast to the clearly specified “respect for diversity” in the ten key values (10%).

Grassroots democracy, decentralisation and community-based considerations are identified as major players in Green Party values (25-30%), but Wilber does not address this dimension in any way.

Non-violence is also identified as a major Green Party value (10-25%). This contrasts with Wilber’s identification of the feature of “aggressive competitiveness” of the Wilberian Green vMeme (notably with regard to other vMemes).[94] (Although plausibly, the theoretic relationship between these opposites could perhaps be seen as dialectical—aggressive competitiveness being the shadow of non-violence).

It is notable that Wilber does not directly identify personal and global responsibility as a Green value. It is also notable that Wilber does not regard Green’s ethical futures-orientation.

Apparent, too, is the contrast between Wilber’s significant repetition of the terms, “pluralism” and “relativism” and the lack of use of these terms by the brief text above regarding Green parties values. Of course, “pluralism” and “relativism” can be adequately regarded as *philosophical* terms, and Green party values may not be framed in this manner. A more detailed hermeneutical analysis would therefore need to be conducted with regard to *pluralism*—in reference, for instance, to

1. The apparent core *raison d’être* of AQAL (in Wilber IV) to move “beyond pluralism” (Wilber, 2000c, p. 29),
2. Wilber’s recent (Wilber V) use of the term in his “Integral Methodological Pluralism” and
3. Such substantive considerations as being mindful of the relationship between anti-pluralism and totalitarianism (Montuori, 2005).

Regardless, Wilber’s “orienting generalisation” toward the Green value-Meme attractor is substantively different from the orienting generalisation of the Wikipedia public’s perspective on green values. The Green value-Meme attractor can, instead, be seen to be constituted by a philosophic vision of planetary wisdom (which could be characterised as "big mind,"), a substantive spirit of compassion ("kind heart") and a hierarchy of values which clearly prioritises ethical considerations above egocentric financial gain and other vanities ("healthy hierarchy").

---

[94] Wilberian theory variously infers and asserts that Green values aggressively fight against Wilberian-identified higher levels of development, including particular dimensions of spirituality (see, e.g., Wilber, 2006b). It could be argued, however, that many spiritual approaches align most strongly to Green values. By substantively foregrounding the Green vMeme as narcissistic and a major facilitator of global terrorism (see the Wilber-approved quotation associating addressing Derrida with terrorism above), is Wilber then inferring that the Quakers, for instance—whose approach can be reasonably seen to align with the four pillars of the Green party—are significantly associated with, or constituted by, such a *terror-inducing* meme?

Referencing

In the analysed section of Wilber's text, the following references are made.

Wilber refers to Beck / Cowan / Graves research (Spiral Dynamics) three times. I note that Wilber has since distanced himself from Spiral Dynamics, yet incongruently still substantively discusses (a) "memes" and (b) the generic distinction between "first" and "second-tier" thinking, a distinction which Cowan and Todorovic have indicated is substantively contra-indicated by Clare Graves' later work. When he is discussing such phenomena, is Wilber still referring to Spiral Dynamics or not?

In the analysed section, Wilber also refers to Colin McGuinn (1977) once. This is made via reference to Wilber's *One Taste* (2000b). Through this, the reference Wilber uses to critique *academia* (*in toto)* is from *The New Republic,* which is (a) a magazine, (b) politically neo-liberal, and (c) American.

Comments regarding mode of participation

Wilber (2000c) states that "'cross-level' debates are rarely resolved" because "no amount of scientific evidence will convince blue mythic believers; no amount of green bonding will impress orange aggressiveness; no amount of turquoise holism will dislodge green pluralism" (p. 14).

The last point associates holism with the Turquoise vMeme as a contrast to the Green vMeme, yet holism is also one of the core features of the Green vMeme.[95] For example, in accordance with AQAL theory, Sean Esbjorn-Hargens implies that "integral" education (signifying *education theory derived from AQAL*) is developmentally beyond *holistic* education (Esbjörn-Hargens, 2006), inferring holistic education is a Green vMeme approach. AQAL theory would be doubly problematic here in that Scott Forbes (2003) has argued in his seminal work on holistic education that the very *raison d'être* of holistic education is "Ultimacy" (p. 17) a concept sustantively founded on a developmental hierarchy approach—an approach that AQAL substantively posits as antithetical to the Green vMeme.

With regard to the second point, my primary intent in this discourse analysis (or, indeed in this article as a whole) is not to engage in interpersonal bonding; this analysis cannot therefore be attributed to the Green vMeme as per Wilber's comments above. Rather, I am conducting an analysis, which infers the Orange vMeme of Wilber's first point (regarding "scientific evidence"). As such, if one presumes the legitimacy of Wilber's comment, then if this current analysis fails to "convince" the reader, then the reader might well be operating at a Blue vMeme level in this regard—consequently strengthening the plausibility of mythic belief within the integral community. (Of course, Wilber's comment might be misplaced, in which case the above deduction would not be applicable).

---

[95] Wilber differentiates *integral* as a holonic/hierarchical type of holism from *Green* as a "flatland," "monological," non-holonic/hierarchical type of holism, (e.g. Wilber, 2000c, pp. 30-31) but does not directly evidence the substance of this connection between *green holism* and *antihierarchy*.

An end-in-view

Pending adequately referenced critical contextualisation, there is thus sufficient evidence to suggest the contra-indicative plausibility that (a) the memetic construction, *mean green meme*, is substantively mythic (transmitted more by the emotive dogma of received opinion than via the reflexivity of balanced reason), and (b) an alternate characterisation of the Green vMeme could be coined as, “big mind, kind heart, healthy hierarchy.”

Appendix B: The Seduction of Formal Academic Expectations

The seduction of formal academic expectations may have led to the following consequences:

1. My foregrounding of difference to, or differentiation from, Wilber's approach in this article. Whilst this has its merits, it may not sufficiently express the commonalities I might share, nor adequately convey my appreciation of Wilber's panoramic vision and courage. If this is so, I apologise. It is work-in-progress (and, in my defence, the purpose of this article is not to comprehensively address Wilber's work but rather to explore in detail a certain—problematic—territory within it). I look forward to pertinent community dialogue, analysis, deconstruction.
2. Languaging which is less dialectical or deconstructed than I might otherwise have desired. Specifically, my authoring "voice of authority" is privileged over the voicing of uncertainty, tentativity, Mystery, Other.
3. An overall structure which is less complex and more linear than I initially believed would be congruent with my "content chunks."
4. A de-emphasising of artistic and ludic dimensions.

Nevertheless, I have attempted to retain expression of:

1. A moderate variability in voicing—among various formal and non-formal (particularly postformal) modes.
2. A subliminal encouragement, perhaps, for the reader to *slow down* through the punctuation afforded by "generous" footnoting—such slowing being congruent with both the learning afforded by hermeneutic circling (or helixing) and also with the (e.g. Derridean) questioning of the default formal privileging of writing-as-speech above writing-as-writing.
3. A certain allowance or toleration of the loose, fuzzy and open-ended, amidst a formal textual landscape of the privileging of the tight, clear, and "buttoned-down."

Furthermore, lest it be imagined that I engaged in an idealistically formal process in the researching and writing of this article—setting out with totally clear ideas about what I wanted to do and then methodically working my way to achieving them—I present the following points and musings.

1. This article was originally submitted to *Integral Review* as "Interpenetrating Integral and Postmodern Liminalities" and, compared to the current article, had more of an artistic experimental flavour, in my striving for an honouring of Arthur Koestler's (1970) *Jester-Sage-Artist* creativity triad. Due to *Integral Review*'s wisely innovative submission process, however, whereby an initial editorial review is offered prior to formal peer-review, it was clear that the readership, in the first instance, would probably benefit more from a contribution in which the theoretic is foregrounded. Consequently, my "hermeneutic hovercraft" was vacated (!), my poetic density decimated and a more formal structure instituted.
2. One perspective on my process can be identified as a complex dialectic between reason and intuition. The sharp left brain requires the fuzzy right brain; fragrant roses require

smelly manure; and certain method requires a certain madness. Apropos, /technologies/ and their theoretic counterparts reside *within* ((human complexity)), not *vice versa*.

Appendix C: An AQAL Contextualisation

A core concern of Wilber's is the evaluation of the writing of others with respect to the degree to which they have addressed the AQAL dimensions of quadrants, levels, lines, states and types. Certain designations are then given by him, notably whether the writing is "integral"—connoting *full approval by Wilber*—or not; or whether the writing is "integrally-informed," connoting *partial* approval.

I offer the following contextualisation to indicate my particular address of these AQAL dimensions. Given the conclusions of this article, however, it would seem that a new designation of "integrally-*informing*" might be in order—connoting attempts to assist in the cohering and evolution of integral theory.

Eight Native Perspectives (in Quadrants)

1. Upper Left Inside—I have foregrounded somewhat the concept of reflexivity (and its connotations of "know thyself") in this article. I have also offered some personal self-reflections—see, for instance, Appendix B, and the current Appendix. I have attempted, however, not to fall prey to the Wilberian critique of (Green) subjectivism
2. Upper Left Outside—(a) It could be argued that a main object of inquiry in this article—namely, AQAL—is a form of structuralism. (b) Could poststructuralism be fruitfully regarded as sublating (transcending and including) structuralism?
3. *Upper Right Inside*—I have attempted to enact an autopoiesis.
4. *Upper Right Outside*—An important marker of objectivity is careful attention to the details of the phenomena under investigation. With regard to physical phenomena, the procedures and particularities of scientific experiments facilitate such rigour. With regard to noospheric phenomena or noospheric signifiers of physical phenomena, the rigour concerning the discussion of ideas is facilitated in part by the procedures and particularities of scholarly conduct, including referencing. In this regard, I have attempted to reference adequately. I have also attempted to indicate where Wilber has potentially suffered through not employing such evidential rigour.
5. *Lower Left Inside*—I have attempted to weave hermeneutic considerations into the very fabric of this text.
6. *Lower Left Outside*—Further research could be undertaken regarding the propagation of mythic memes within the integral community.
7. *Lower Right Inside*—I am attempting to facilitate a social autopoiesis within the integral community.
8. *Lower Right Outside*—(a) If we regard *global* power structures, then we need to substantively address such identifications as (i) hegemonic / homogenous globalisation (ii) the critical (and shadow-forming) overextension of the Orange vMeme; capitalism; instrumental rationality; the United States' current unique global positioning. (b) If we regard the current global influence of *ideations*, then we could regard both *integral* and *postmodernism* as underdogs, (c) If we regard *integral theory*, then we should address the dominant power position of AQAL across many contexts. In this regard, I note the following:

Power base of the six major genealogical memes whose identity is in substantive relationship with the term, *integral*

—as identified by the following analysis which shows number of texts (articles, etc.) which cite the first 20 pertinent listings identified by Google Scholar[96] via the following phrase:

- Integral “Rudolf Steiner”: 21
- Integral “Ashok Gangadean” 39
- Integral “Jean Gebser”: 71
- Integral "Ervin Laszlo": 72
- Integral “Sri Aurobindo: 100
- Integral "Ken Wilber": 577

Levels

I have taken AQAL developmental levels as a substantive object of inquiry—notably Orange, Green and Yellow/Teal, and have adopted a developmental approach with regard to them. I have also demonstrated a particular usage of developmentalism toward (a) discourse (b) conceptual templates regarding theoretic narrative. To this degree, I have valorised developmentalism. I have also inferred particular value in the construct of *holarchy*.

I have made use of numerous AQAL-identified postformal modes of cognition, such as dialectical operations and complex-aware thinking, in addition to formal reasoning.

I have also made substantive use of text from the following authors—some of whose research form important aspects of AQAL theory (including *Wilber V* AQAL), namely, (a) the cultural theoretic narrative of Jean Gebser; and (b) the developmental models of Susanne Cook-Greuter, Jenny Wade, and Spiral Dynamics (the latter with regard to e.g. (i) “memes” and (ii) “first-tier” / “second-tier” distinction).

I have valorised *vision-logic*.

I have also valorised certain postformal developmental perspectives—including those of theoretic narratives Wilber calls upon with regard to post-Orange levels. I have nevertheless substantively problematised (from different angles) *AQAL* theory regarding *that which lies beyond Orange*, notably regarding the theoretic narrative around the Green / Teal (a.k.a. Yellow) transition.

Lines

Could the following be fruitfully regarded as lines:

- Perspectives on postmodernism?
- Methodologies?
- Postformal cognitive modes?
- Nonduality?
- Deconstruction?

How might *interrelationships* between lines be adequately conceptualised? As conceptual ecologies?

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[96] Retrieved 27 May 07

What might the relationship be between *lines* and poststructuralist *subjectivities* (if we consider the bridging concept of *subpersonalities*, for example)?

States

I have identified *neo-imperialism* as a possible cultural *state* (from a lower right perspective). What other *states* might be identified in the lower quadrants?

The research process necessarily involves a host of gross, subtle and affective states. I particularly note entering creative *zones*; and also the alternation of active and passive states—such as in Otto Scharmer's (2005) *Theory U*—across surprising timescales. Passion is a major mover for me. So is intuition.

Types

It might be helpful to regard global language regions—such as the Anglophone world—as a form of lower left *types*.

Perhaps postformal cognition modes can be regarded as *types* of cognition (at the postformal level).

I type the following: *I suspect I might be the type of person that loves to type.* ☺

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Editorial

A Time of Transition

As we welcome you to the fifth semi-annual issue of *Integral Review* (IR), I would like to point to signs that mark a time of transition for this journal. Some are small, like shifting our table of contents headings to more clearly identify which works are peer reviewed, and changing the spacing between articles' paragraphs. Others are more obvious, like the ability and willingness to publish even longer works than previously, in addition to the ongoing array of works published. Some transitions are in process and less visible. For example, we are working to evolve IR's structure to reflect its degree of engagement from others, and making behind the scene shifts in our ability to better understand and realize the goals we set out to accomplish. We believe we are also becoming more effective in articulating for ourselves and to authors what is required for their work to make significant contributions to the discourse we are supporting (resulting in the publication of fewer peer reviewed articles in this issue). My naming this as a time of transition also reflects a sense of growth in the community of conversation which we are a part of, and how I perceive what lies beyond the horizon.

This feeling of transition arises from several sources. One is seeing the growth in the number of submissions over a broader range of topics that reflect an evolving quality of discourse. Another is seeing submissions begin to draw on and integrate work from past IR articles, furthering the cohesion and coherence of formal discourse within the journal. In essence, there is a feeling of maturation, and there are many signs of growth for the future.

We at IR like to see our mission, (to publish material that applies developmental approaches and employs metasystematic or other stages of integral thinking in the process of doing so), shared by others. One such instance that we are aware of is forthcoming in IR Advisory Board member Ervin Laszlo's journal, *World Futures: The Journal of General Evolution.* With Michael Commons, IR editor Sara Ross is co-editing a special issue invited by *World Futures* on postformal thought and the Model of Hierarchical Complexity, a general theory of development. We look forward to seeing the issue come out in 2008.

Another effort with a mission that resonates with IR's is the emerging field of Integral Studies, which is showing important signs of maturing. I want to congratulate Sean Esbjorn-Hargens and his crew at John F. Kennedy University (JFKU) for gaining formal WASC accreditation (the Western Association of Schools and Colleges, the formal peer review accrediting body for higher education in California) for their new Masters in Integral Studies program. It would be hard to overstate the significance of this accomplishment, and it establishes a basis for bringing greater degrees of academic credibility to Integral Studies.

Another outgrowth of this work is the hosting of a conference, next summer, on Integral Theory by JFKU and Integrate Institute – http://www.holons-news.com/node/86. I know that some of us from IR are planning to participate, and we look forward to meeting some of our

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readers at the conference. These events signal transitions in this community, which is one of those served by IR.

While there is transition and maturation in the air, there is also continuity. Our readership continues to grow steadily, and we are heartened by supportive feedback from many quarters. We are also having a very active discussion in our online forum of Gary Hampson's article from the last issue. While it is an invited forum, visitors can look through the postings here - http://global-arina.org/phpBB/index.php. These forums provide an opportunity to explore topics from IR articles in more depth and engage authors about their work. We are happy to be supporting an active and ongoing community of conversation in this way.

As before, part of our goal is to foster transdisciplinary discourse and critical public dialogue on issues of relevance to our mission. Thus IR invites responses to and reviews of articles, books or other works published in IR and other journals, including AQAL. We hope this contributes to cross-fertilizing new thought, research, and praxis for healthy change and development in our societies and relations.

On the Contents of Issue 5

We begin this issue with what is in many respects a groundbreaking contribution to our understanding of the evolution of consciousness. Jennifer Gidley's *The Evolution of Consciousness as a Planetary Imperative: An Integration of Integral Perspectives* is both a panoramic and an in-depth examination of the evolution of human consciousness drawn primarily from the perspectives of Rudolph Steiner, Jean Gebser and Ken Wilber. Her hermeneutical analysis and integration of their writings on this subject weave a rich and rigorous picture. The scope of this work also covers a range of related fields. We think it sets some strong foundations for moving academic discourse on the evolution of consciousness. Further, the conclusions emerging from this "integration of integrals" offer a tremendous sense of the opportunities for transformation that integral consciousness offers. We are very pleased to publish this monograph and its three equally rich appendices.

Next, Martin Matuštík offers an essay on *Towards an Integral Critical Theory of the Present Age*. This piece builds on work done by past philosophers such as Habermas to identify a three-pronged model of material, socio-political, and spiritual critique of the present age. His model of an integral critical theory offers a way to transcend views that would limit discourse in these domains: he shows how appropriate critiques can be brought to each domain of human needs. This results in showing alternatives to current attitudes that can enable us to address current issues better.

My contribution to this issue of IR is in the form of a lengthy overview and response to Otto Scharmer's book, *Theory U. Leading from the Future as It Emerges. The Social Technology of Presencing*. The overview is intended as a sort of a "Cliff Notes," or highlight version of the book, as well as to entice readers to experience it for themselves.

This is followed by a short reflective essay from Josef San Dou, *Sent to Play on the Other Team*. This piece illustrates how a developmental view along with a different philosophy can make a difference in the lives of children engaged in youth sports. The lessons drawn from the experience are also shown to apply to a wider set of situations in life.

Art and the Future: An Interview with Suzi Gablik by Russ Volckmann continues his series of unique interviews for IR. This conversation covers a wide range of topics related to Gablik's art and art critic career, venturing into the area of integral theory and its potential to help us understand the current world situation. Gablik also challenges us to be realists and walk the fine line between unwarranted optimism about the future and cynical pessimism.

Jan Inglis presents a brief examination of how one area of public discourse is struggling to evolve. In *Reactivity to Climate Change*, she demonstrates that while the content of conversation around climate change appears to have shifted, the underlying structure of the conversation has not. Her examples clearly illustrate how this phenomenon is stuck in a dualistic dynamic, and Inglis offers a possible way forward.

The issue concludes with a collection of short contributions from IR editors. Over the past three years we have learned a great deal about our craft and our roles in helping shape public discourse related to transdisciplinary and integral approaches to theory and practice. Various conversations among us led to realizing that readers, authors and potential authors might find it interesting to hear some of things we individually think about as we reflect on our work with IR.

As *Integral Review* continues through this time of transition, we invite you to engage with us in all the venues we provide: reading and sharing the journal with friends and colleagues, providing feedback and/or participating in our online forums, volunteering as external reviewers, and of course submitting your contributions for publication. We appreciate the continued support that we have had, and look forward to the future.

Sincerely,

JReams

Jonathan Reams
Editor-in Chief
Integral Review

The Evolution of Consciousness as a Planetary Imperative: An *Integration* of Integral Views

Jennifer Gidley

Abstract: In this article I aim to broaden and deepen the evolution of consciousness discourse by integrating the integral theoretic narratives of Rudolf Steiner, Jean Gebser, and Ken Wilber, who each point to the emergence of new ways of thinking that could address the complex, critical challenges of our planetary moment. I undertake a wide scan of the evolution discourse, noting it is dominantly limited to biology-based notions of human origins that are grounded in scientific materialism. I then *broaden* the discourse by introducing integral evolutionary theories using a transdisciplinary epistemology to work between, across and beyond diverse disciplines. I note the conceptual breadth of Wilber's integral evolutionary narrative in transcending both scientism and epistemological isolationism. I also draw attention to some limitations of Wilber's integral project, notably his undervaluing of Gebser's actual text, and the substantial omission of the pioneering contribution of Steiner, who, as early as 1904 wrote extensively about the evolution of consciousness, including the imminent emergence of a new stage. I enact a *deepening* of integral evolutionary theory by honoring the significant yet undervalued theoretic components of participation/enactment and aesthetics/artistry via Steiner and Gebser, as a complement to Wilber. To this end, I undertake an in-depth hermeneutic dialogue between their writings utilizing *theoretic bricolage*, a multi-mode methodology that weaves between and within diverse and overlapping perspectives. The hermeneutic methodology emphasizes interpretive textual analysis with the aim of deepening understanding of the individual works and the relationships among them. This analysis is embedded in an epic but pluralistic narrative that spans the entire human story through various previous movements of consciousness, arriving at a new emergence at the present time. I also discuss the relationship between these narratives and contemporary academic literature, culminating in a substantial consideration of research that identifies and/or enacts new stage(s) or movements of consciousness. In particular, I highlight the extensive adult developmental psychology research that identifies several stages of *postformal thinking,* and recent critical, ecological and philosophical literature that identifies an emerging *planetary consciousness.* In summary, my research reveals an interpretation of scientific and other evidence that points beyond the formal, modernist worldview to an emerging *postformal-integral-planetary* consciousness. I posit that a broader academic consideration of such an *integration* of integral theoretic narratives could potentially broaden the general evolution discourse beyond its current biological bias. The article concludes with a rewinding of narrative threads, reflecting on the narrators, the journey, and the language of the discourse. Appendixes A and B explore the theoretical implications of the emergence of postformal-integral-planetary consciousness for a reframing of modernist conceptions of time and space. Appendix C holds an aesthetic lens to the evolution of consciousness through examples from the genealogy of writing.

Keywords: Aesthetics, evolution of consciousness, futures, Gebser, integral theory, language, macrohistory, narrative, participation, planetary, postformal, Steiner, Wilber, space, time, writing.

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Preface

Before introducing my research, I wish to provide a brief context regarding myself, my interests, and my passion for this research. Although I have been a lifelong, activist-optimist at heart, I am stirred by the urgency of our times and the challenges we currently face as a species. We live in critical times—times of apparently human-created complexities, challenges and unprecedented change. In all the major domains of our lives the seams are beginning to fray.

Environmentally: *We have altered the biosphere to the extent that our planetary homeland*[1] *may in the foreseeable future become increasingly inhospitable for human habitation. The Fourth Intergovernmental Panel on Climate Change has this to say in its November 2007 Report, just released in Valencia, Spain.*

> Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level. (Intergovernmental Panel on Climate Change, 2007, p. 1)

Economically: *We have a growing inequity of wealth distribution both between and within nations. Ervin László (2006) refers to the unsustainability of affluent consumption and the unsustainability of wealth distribution. Referring to relevant global statistics, he summarizes the interrelationships.*

> The richest 20 per cent earn 90 times the income of the poorest 20 per cent, consume 11 times as much energy, eat 11 times as much meat, have 49 times the number of telephones, and own 145 times the number of cars. The net worth of 500 billionaires equals the net worth of half the world population. (p. 16)

Psycho-socially: *With regard to the psycho-social climate, my own research (Gidley, 2005a) in the area of youth futures has uncovered disturbing trends in the mental health and well-being of young people. I ask myself: What is the value of a society if it is making its children and young people sick?*

> Comparative studies (OECD [Organization for Economic Co-operation and Development] countries) indicate that when the figures for all mental health disorders are combined (including ADHD, [Attention Deficit Hyperactivity Disorder], Conduct Disorder, Depression, Anxiety, etc), as many as 18-22% of children and adolescents suffer from one or more of these disorders. (p. 19)

Several contemporary ecologists, educators, philosophers and scientists point to an epistemological crisis—or crisis of consciousness—at the heart of our planetary dilemma (Earley, 1997; Gangadean, 2006a; László, 2006; Miller, 1993; Montuori, 1999; Morin, 2001a; Morin & Kern, 1999; Slaughter & Inayatullah, 2000; Swimme & Tucker, 2006; Wilber, 2001a). Many researchers from a range of interests—such as macrohistory, philosophy, physics and developmental psychology—call on the notion of the evolution of consciousness as a concept

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[1] See Edgar Morin's planetary manifesto *Homeland Earth* (Morin & Kern, 1999).

from which to explore possible ways through our epistemological crisis. At the outset, I wish to situate myself as researcher[2] *within this global systemic shift*[3] *and to dedicate my research to the planetary effort currently underway among critical-scholar-activists—or transformative intellectuals*[4]*—to consciously shift the global epistemic paradigm from one of fear and fragmentation to one of hope and integration. This paper comprises the central analysis section of a larger research project. The larger project begins with the youth problematique—the voices of youth who sense a spiritual vacuum in our society—and the inadequacy of the modernist model of formal education to address our planetary crisis. My research journey then takes me to other, more idealistic, more integral philosophical worlds where I dive into the origins of our human story. It is here that I ask the Foucaultian question.*[5] *Why did Western thought, science and philosophy separate the idea of spirit from humanity in its reconstruction of its own history? This central question inspires and drives my research as presented in this paper. The final part of my larger project returns to my pragmatic ground of action—educational transformation—the educational imperative of postformal-integral-planetary consciousness (Gidley, 2007a).*

1. Introduction

> There are periods in human and cultural evolution when humanity passes through such fundamental transformations that our reality shifts and new patterns of thought are required to make sense of the unfolding human drama . . . The profound transformation we are now witnessing has been emerging on a global scale over millennia and has matured to a tipping point and rate of acceleration that has radically altered and will continue to alter our human condition in every aspect. We must therefore expand our perspective and call forth unprecedented narrative powers to name, diagnose, and articulate this shift. (Gangadean, 2006b, p. 382)

This paper foregrounds the *evolution of consciousness* as a planetary imperative if we are to survive and thrive as a species on our earthly home. The notion that human consciousness *has* evolved is a largely undisputed claim.[6] However, the notion that human consciousness *is currently evolving,* in such a way that we can *consciously participate* in this process, is an emergent theme in academic research. Integral philosopher Ashok Gangadean in the opening quotation encapsulates what many integral theorists have been voicing over the past decade. It is this integral research on emergent movement(s)[7] of consciousness that I am referring to as the

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[2] My complex interests in this research arise from my various roles and experience as a psychologist, educator at both school and university levels, futures researcher and mother.

[3] Philosopher Roland Benedikter uses the term *Global Systemic Shift* to cohere the complex interplay between the different—but coalescing—roots and streams of change reflected in the current political, cultural, religious and economic symptoms (Benedikter, 2007).

[4] See Giroux's critical pedagogical approach: teacher as transformative intellectual (Giroux, 1992).

[5] Based on Foucault's question asked in relation to the Greek, *Gnothi Seauton,* discussed below.

[6] Notwithstanding the evolution vs. creationism debate, still ongoing in education in the USA.

[7] Gebser uses the term *structure* to clearly distinguish from the controversial use in his times of terms such as *stage* or *level*. Wilber, also drawing on the adult developmental psychology research, uses the terms *stage* and *level* to stress the developmental nature of consciousness. Steiner uses similar terms to Wilber. Given the contemporary discussion within integral and transpersonal theory surrounding structuralism and post-structuralism (Ferrer, 2002; Wilber, 2005a)—which space does not allow me to

evolution of consciousness discourse. [8] This research points to the emergence of a new structure, stage(s)[9] or movement of consciousness that has been referred to by various terms, most notably, *postformal*, *integral* and *planetary*.[10]

The major focus of the research reported here is to facilitate a broadening and deepening of the evolution of consciousness discourse, particularly within integral theory. My aim is to contribute to the development and enactment of integral theory, by emphasizing the integration of the whole person through identifying the significance of *participatory* and *aesthetic*—in addition to *conceptual*—theoretic components. This is approached by an interpretive analysis and integration of three significant integral theorists, Rudolf Steiner, Jean Gebser and Ken Wilber.

The research reported here is part of a larger research project,[11] which in itself is part of my broader life-work-passion[12]—within which I have identified a number of complex theoretical and methodological issues and challenges in comprehensively researching the evolution of consciousness. These issues and challenges will be summarized later in this introduction. Briefly, this research began with a broad scan of the evolution of consciousness literature to contextualize it within the broader evolution discourse. This preliminary review exposed several gaps and biases in the discourse to date—as will be discussed further below. This paper seeks to expose some of these gaps and to open new questions in relation to how they might be addressed. Rather

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enter into—I have chosen to use the term *movement(s) of consciousness* as a contribution to this terminological dilemma, when I am not referring directly to the terms of the others. *Movement of consciousness* is a poetic-conceptual phrase that was used by Hegel, Goethe and Sri Aurobindo, to express something of the complexity I am trying to elucidate in *my* contribution to evolution-of-consciousness theory.

[8] By the term *evolution of consciousness discourse*, I am primarily referring to the growing literature from various domains that posit a movement—or movements—or consciousness. A distinction can be made between literature that discuss the evolution of consciousness *per se* and literature that enacts a new type of consciousness without conceptualizing it as such (Gidley, 2007a). This distinction is discussed more fully towards the end of this paper.

[9] Issues surrounding the debate over whether there is one—or several—stage(s) beyond Piaget's formal operations, will be addressed to some degree later in this paper. This is a matter primarily concerning individual psychological development and although there are parallels with cultural evolution, it is also important not to conflate the two domains.

[10] These terms and others will be discussed in due course.

[11] Although the research presented in this paper has been initially undertaken as part of Doctoral research, it became evident that its potential scope will extend far beyond this and several additional post-doctoral papers are already in preparation. (See also Preface).

[12] After two decades of academic and professional experience in psychology and education, I began to engage over the last decade, in futures research in education—mainstream, Steiner and integral (Gidley, 1998b, 1998c, 2002b, 2004a; Gidley & Hampson, 2005, In Press); evolution of consciousness (Gidley, 2002c, 2005b, 2006, 2007b); and the planet-wide impact on young people of globalization (Gidley, 2000a, 2001c, 2001d, 2002a, 2004c). My research uncovered both a *youth problematique*—linked to fragmented and limited worldviews underpinning modernist education models, and the dominant media culture of fear and negative future scenarios—and also ways forward towards futures of active hope and reintegration (Gidley, 1998a, 2000a, 2000b, 2000c, 2001a, 2001e, 2003, 2004b, 2005a, In Press; Gidley & Hampson, In Press).

than attempting an expanded overview of the entire evolution of consciousness discourse, my research engages in an in-depth focus on Steiner,[13] Gebser and Wilber. Based on the theoretic narratives of these three, and much of the evolution of consciousness discourse that will be discussed more fully later, my research takes as its provisional starting point the notion that a new movement of consciousness *is* emerging at the species level, and that it is a planetary phenomenon. However, my research also seeks to broaden the general evolutionary narrative surrounding our human journey, through introducing and integrating the integral theoretic narratives of Steiner, Wilber and Gebser. This reflects a circularity of methodology—referred to as a hermeneutic circle—which does not set out to empirically prove a point, but to deepen understanding. This requires the reader to hold certain questions in mind until the completion of the paper when a deeper understanding is expected to arise. In the penultimate section of the paper, which deals more concretely with the evidence for the emergence of a new movement of consciousness, a more in-depth study of the relevant literature is undertaken.

The paper takes the form of a narrative that I, the researcher, weave from the theoretic narratives of the three authors. The narrative style I am using could be described in a similar way to Foucault's genealogy "as a unique and hybrid blend . . . incorporating accounts based on verifiable "facts" and documents as well as rhetorically-laden arrangement of this material" (Biebricher, 2005, p. 12). The increasing use of narrative in both qualitative research and also the sciences is a postmodern phenomenon, arising from the recognition of the contingent, contextual nature of all "truth claims" (Biebricher, 2005; Bocchi & Ceruti, 2002; Chase, 2005; de Beer, 2003; Denzin & Lincoln, 2005; Heikkinen, Huttunen, & Kakkori, 2000; Poletti, 2003).[14]

In brief, the topic needs to be approached in a transdisciplinary[15] manner, informed by a multitude of theoretical perspectives, yet this often does not occur. My theoretical approach is transdisciplinary, strongly informed by integral theory, futures studies and feminist perspectives. My methodological approach is informed by postformal *bricolage*,[16] a complex, multi-method approach which allows for the organic incorporation of a range of methods and analysis tools at different stages of a research project (Kincheloe, 2001, 2005; Kincheloe & Berry, 2004; Kincheloe, Steinberg, & Hinchey, 1999). Within this, my primary analysis method in this paper is hermeneutics—an interpretive, qualitative research method, which originally developed out of interpretation of Biblical texts. Hermeneutics has been gradually refined during the last two hundred years to become a significant research method for the social sciences, as an alternative to empirical research, which in many cases—such as for this research—is inapplicable. A major feature of hermeneutics is that it involves a circling of understanding between the whole and the parts—and thus in my view is ideally suited to this research, honoring its holonic nature. The hermeneutic circle, also referred to by hermeneutic philosopher Richard Palmer (1969) as a "circle of contextual meaning," (p. 17) is built up in the process of reading the work. As Palmer explains, "somehow, by a dialectical[17] process, a partial understanding is used to understand still further, like using pieces of a puzzle to figure out what is missing" (p. 25). In complex work of this nature, a second reading is always helpful in building the circle of contextual meaning. This material will be further discussed below under theoretical and methodological issues.

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[13] Steiner's work has been particularly undervalued in the integral academic community, perhaps partially related to Wilber's substantial non-inclusion of his work. This is a significant omission given that my research suggests that Steiner was the first researcher to begin writing, early in the 20th century, about the emergence of a new movement of consciousness. This finding is further discussed later in the paper.

[14] As the writings of many postmodern philosophers have demonstrated, many of the claims that have been taken as *facts* in science are informed by multiple contextual factors (such as historicity, culture, gender, epistemological stance, etc) (Benedikter, 2005; Derrida, 1998; Foucault, 2005; Hampson, 2007; Lyotard, 2004). A postmodern search for truth—if there is such a thing—requires a continual hermeneutic dialogue between *truth claims* and contextual variables. My hermeneutic analysis endeavors to discern between *truth claims* and *contextual biases*—particularly where the narratives disagree with commonly-held, scientific *facts*. Potential contextual biases of the three authors and myself are discussed below.

[15] "As the prefix "trans" indicates, *transdisciplinarity* concerns that which *is* at once *between* the disciplines, *across* the different disciplines, and *beyond* all discipline. Its goal is *the understanding of the present world*, of which one of the imperatives is the unity of knowledge" (Nicolescu, 2002, p. 44). Leading researcher in transdisciplinarity, Basarab Nicolescu, posits three axioms of transdisciplinarity: "The existence of levels of reality; the logic of the included middle; the axiom of complexity" (as cited in Volckmann, 2007, p. 82).

[16] The term *bricolage*, is attributed to anthropologist, Claude Levi- Strauss by educational researchers seeking a postformal methodology to account for such factors as complexity, creativity, and multidimensionality (Denzin & Lincoln, 2005; Kincheloe & Berry, 2004). More recently, evolutionary

Because of the potential vastness of this research territory, it has been necessary to limit the focus in a number of ways. In brief, the meta-process of the first stage of the research—which in itself has involved some hermeneutic circling in my own interpretation and understanding—has involved an expansion and contraction through three major steps:

- An exploratory scan of the entire research territory that informs the evolution of consciousness to discern its overall theoretic shape;
- A preliminary evaluation of its scope and comprehensiveness, aimed at discerning gaps and biases;
- A focusing of attention on the gaps and biases that I discerned.

This paper is concerned primarily with the third point. The criteria I have used for exclusion and inclusion of other research are discussed below under methodological issues. As a result of this process, I have chosen to focus primarily on the theoretic narratives contributed to the evolution of consciousness discourse by Steiner, Gebser and Wilber.[18] In this way, I am enacting

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theorists have used *bricolage* as a metaphor for representing evolutionary processes that are beyond reductionism, and accident. The tinkering involved in evolutionary bricolage embraces biological principles of self-organization, emergence and creativity (Montuori, Combs, & Richards, 2004; Varela, Thompson, & Rosch, 1993). Interestingly, from a post-structuralist perspective, Derrida also discusses the value of Levi-Strauss's use of bricolage in critical analysis of all discourse (Derrida, 2001).

[17] The methodology of hermeneutics is of potential value to integral and postformal researchers in that it incorporates several features of postformal thinking—such as complexity, reflectivity, holon theory and dialectics.

[18] I wish to note here that my narrative is infused implicitly with the spirit of Sri Aurobindo's integral project. I acknowledge the significant contribution of his philosophical and spiritual writings to my deeper understanding of the issues discussed in this paper. I have not formally included his work as a major thread however as I do not feel my grasp of his vast work is sufficiently advanced to put it into writing as yet. I believe though that there is strong alignment between his work and those of the other major thinkers presented here, particularly in terms of the emergence of a new structure of consciousness and the significance of our times in witnessing and participating in this. I am also inspired and encouraged

a conscious bias, by privileging narratives that have formerly been marginalized in the evolution discourse.

In brief, my decision to focus primarily on these three researchers resulted from the following considerations:

- All three have made major contributions to conceptualizations of the evolution of consciousness yet have been marginalized in the dominant—predominantly biology-based—discourse on evolution.
- As significant contributors to the integral theory[19] knowledge-base, both Gebser and Wilber are also well recognized in terms of their contributions to the evolution of consciousness, yet Gebser is often better "known" for what Wilber has said about him than in his own right.[20] My own study of Gebser has led to the perception that this is insufficient and that Gebser's original writings have far more to contribute to the discourse than is generally acknowledged.
- Steiner's substantial contribution to the conceptualization of the evolution of consciousness is an unfortunate omission in Wilber's otherwise comprehensive work.[21] Notably, Gebser also overlooked Steiner's work even though there are major convergences between them, as this research shows. Steiner's work has also been

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by the diversity of other pioneering contributors, such as, Pierre Teilhard de Chardin, Henri Bergson and Erich Neumann, as well as contemporaries such as Ervin László, Edgar Morin, Ashok Gangadean, Robert MacDermott, Richard Tarnas, Basarab Nicolescu, Alfonso Montuori, Peter Russell, Brian Swimme and many others who will be included where relevant.

[19] After Hampson (2007), I am using the term *theory* broadly, to connote *theoretic narrative*. The emergent role of narrative as a qualitative methodology will be discussed below.

[20] A further difficulty with Wilber's interpretation of Gebser is that most of his sourcing of Gebser has come from one minor article (Gebser, 1972), or from a secondary source, Feuerstein (1987). Wilber is quite open about this situation, however it does raise the issue of how thoroughly Gebser's original work has been covered (Wilber, 1996a, p. viii; 2000a, p.606, notes 36,37).

[21] Apart from an occasional mention within a list of other people, the main two references to Steiner that I have been able to locate in Wilber's writings include the following, both from *Integral Psychology* (Wilber, 2000b):

> Steiner (1861-1925) was an extraordinary pioneer (during that 'genesis period' of Fechner, Jung, James, etc) and one of the most comprehensive psychological and philosophical visionaries of his time. The founder of anthroposophy, he authored over two hundred books on virtually every conceivable subject. (p. 43)
>
> I am often asked what I think of Steiner's writings. Although I have a great deal of respect for his pioneering contributions, I have not found the details of his presentations to be that useful. I believe recent orthodox research has offered better and more accurate maps of pre-personal to personal development, and I believe the meditative traditions offer more sophisticated maps of transpersonal development. Still, one can only marvel at the amount of visionary material he produced, and his overall vision is as moving as one could imagine. (Note 11, p. 228)

So, although Wilber appears to take a positive view of Steiner's work, he has not embraced it in detail, which unfortunately adds to the marginalization of Steiner's work in integral theory. I must also note that it is not easy to get a meaningful grasp of Steiner's corpus without a great deal of immersion in large volumes of work. This is one of the dilemmas this research hopes to counter-balance.

overlooked by many contemporary integral theorists[22] and in my view deserves more consideration.

- No other substantial academic research has been undertaken that explores the relationships among the works of Steiner, Gebser and Wilber.[23] Although this may not in itself be significant, the richness and depth that is brought to the discourse by an in-depth inclusion of Steiner's and Gebser's original research, alongside Wilber's is highly significant, as demonstrated in this paper.[24] Through my hermeneutic translation efforts, my research creates conceptual *lines of flight*[25] between the three narratives.
- The major thrust of Wilber's writing is cognitive/conceptual.[26] By contrast, the narratives of Steiner and Gebser add important other dimensions to the enrichment of integral theory. Both Gebser and Steiner highlight the importance of participatory[27] enactment of integrality and of the artistic/aesthetic[28] domain in the development of new movements of consciousness. Gebser's approach is also self-reflectively participatory in that he enacts integrality in his very writing.
- My integrative intent is also to offer interlinking counterweights to the main critiques that have been offered to each. Critiques of both Steiner's and Gebser's work are that it is too dense and difficult to read, whereas Wilber's work is easily accessible to contemporary readers. By contrast the critique of cognicentrism in Wilber's work could be complemented by the participatory and aesthetic features of Steiner's and Gebser's narratives.
- From a critical-feminist-*relational*-perspective, I also note that many members of the interpretive communities[29] that are inspired by the works of Steiner, Gebser and Wilber have a tendency toward isolationism with an uncritical focus on what may be *superior* about one theory or another. My interest in this regard is to assist in the building of conceptual bridges between their approaches.

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[22] Several integral philosophers/theorists have indicated the potential value of Steiner's writings to integral theory, including Benedikter, Gangadean, Lachman, McDermott, Ron Miller, Tarnas, and Thompson to name a few.

[23] Comprehensive philosophical research has been undertaken on Steiner and Wilber by Benedikter but this is not yet available in English.

[24] This is part of my broad research interest in *integrating the integrals*.

[25] *Lines of flight* is a poetic Deleuzian term I am favoring, in preference to the more mechanistic notion of conceptual *bridges* (St. Pierre, 2004).

[26] Wilber's work has been critiqued as too cognicentric.

[27] This would extend recent work on the importance of participatory notions in integral theory (Ferrer, 2002; Ferrer, Romero, & Albareda, 2005; Hampson, 2007).

[28] This would also extend recent research on the significance of creative/artistic/aesthetic expression in integral theory (Goerner, 2004; Montuori, Combs, & Richards, 2004; Roy, 2006b).

[29] All three of these authors have large global communities who draw on their work with apparently little conversation between them, either academically or professionally. I do not believe that isolationist approaches any longer serve the planetary community, given that all these approaches have much to contribute to the challenges our planetary community faces.

- Finally, I am interested in introducing to a wider research community my tentative exploration of the relationship between Steiner's heterodox, spiritual-scientific research methods and László's *Akashic*, or *in*-formation, field.[30]

I wish to also make explicit my awareness that some of the heterodox methods and unorthodox findings of Steiner, Gebser and Wilber—from the perspective of a worldview of scientific materialism—may be quite challenging to some formal academic readers. However, my belief in the significance of my research, the support I have found in associated literature and the urgency I feel in relation to our times, leads me to pursue this project of privileging the marginal—regardless. Furthermore, I am confident that my methodology, particularly the hermeneutic contextualization, provides a means of buffering the bias I am deliberately enacting, by making it explicit.

The organization of this paper is structured such that it is a reflection of the theme that it addresses. It is organized with regard to Gebser's five structures of consciousness—archaic, magic, mythical, mental and integral—through which he characterized and enacted integral-aperspectival consciousness explicitly and artistically. My intention is to model Gebser's enactment of integral-aperspectival by using four dimensions of primary content—presented, for academic convenience, as the major narrative followed by three appendixes.[31] While the four dimensions of my article will each foreground one of Gebser's structures—excluding archaic[32]—all five structures will be explored hermeneutically and gradually elucidated throughout all aspects of this four-part article. Within the main paper, which takes the form of a narrative, there are several sections, one[33] for each structure of consciousness. Each of these major sections include the following sub-sections:

- An academic context,
- A discussion of terminology issues,
- A list of key features, some of which are discussed in detail, including some deficient[34] features,
- A summary of contemporary relevance, and
- A section on the transition to the next structure.

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[30] The fact that Laszslo's Akashic Field theory underpins his entire *integral theory of everything* makes this component of my research even more significant (László, 2007).

[31] These four interwoven pieces may, however, be read in the order of preference of the reader, as neither the content nor the style presupposes a linear sequence but rather a spherical counter-illumination.

[32] As will be demonstrated, what is referred to as archaic consciousness is pre-conscious and thus cannot be enacted in an academic paper at least in terms of content demarcation.

[33] In addition, there will be one additional section between the magic and mythical sections, because there are some complex differences between the three narratives in relation to the timing of this transition. Finally, there is a concluding section that evaluates the narratives and draws all the threads together.

[34] Gebser uses the terms *efficient* and *deficient* when discussing the structures of consciousness—beginning with the magic structure. I will discuss the issues surrounding these concepts at that point.

This systematic arrangement of the material reflects a postmodern presentation form creating a rhythmical pattern of repetition and difference (Deleuze, 1994). My writing is also multi-layered and can be read at a number of different levels of engagement.

Authentic integration requires a depth of understanding. This is unlikely to occur without a depth of engagement with the material. Because my aim is not a superficial syncretism but rather an authentic integration, I have included a substantial number of textual extracts from all three authors. Hence the paper is very lengthy. However, the concentration on textual analysis is also a fundamental aspect of the type of hermeneutic methodology that I am employing.

I am aware that this paper demands a great deal of the readers, because of its length, its complexity and the hermeneutic requirement that the reader hold a lot of information in mind before a resolution of understanding arises. However, the notion of evolution of consciousness is beginning to matter to many people as their self-reflective, criticality awakens. Surely it will also matter that we give to the discourse the broadest and deepest possible attention. As a woman, mother, psychologist, educator and futures researcher, I know there are very important threads in these marginalized theoretic narratives that the world as it stands would benefit from. My research passion is to find ways to bring to the attention of those who hold the power in the evolution of consciousness discourse the treasures hiding in this overlooked knowledge. Of course, the works I am drawing from—particularly the vast *opera*[35] of Steiner and Wilber—can be read from many perspectives and mine could be opposed or critiqued from any number of these. As a point of self-reflection, however, at the end of the day, this is *my* narrative; *my* hermeneutic interpretation; *my* tapestry—with all its beauty and its flaws; all its strengths and weaknesses.

In summary, this paper provides an in-depth hermeneutic analysis of the writings of Steiner, Gebser and Wilber. My intention is to broaden and deepen the scope of the evolution of consciousness discourse, particularly its development within integral theory. In addition to the conceptual breadth of Wilber's theories, the major dimensions of participation/enactment and aesthetics/artistry can be more fully included via the narratives of Steiner and Gebser. My intention is to contribute to the development of integral theory, by emphasizing the integration of the whole person through highlighting—in addition to integral *conceptualization*—the *participatory* and *aesthetic* features as significant integral theoretic components.

A Brief Background to the Evolution of Consciousness Discourse

> *The significant problems we have cannot be solved at the same level of thinking with which we created them.* (Einstein)

Before proceeding, I will briefly characterize my usage of the key terms *consciousness* and *evolution*. However, a deeper sense of the meaning of the terms will only become clear as the paper unfolds. Additional key terms will be discussed in the next major section of this paper, *A*

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[35] Each of Steiner and Wilber has produced a vast *opus* of work. The plural of opus is *opera*. I rather like the semiotic hint in this term.

Macrohistorical Planetary Tapestry: The Fascinating Integral Narratives of Steiner, Gebser and Wilber.

By *consciousness*, I am referring to the type of complex consciousness that is expressed by human thinking as it develops through various expressions over time, both historico-culturally (phylogenesis) and within individual psycho-spiritual development (ontogenesis). This is referred to in the consciousness studies literature as *phenomenal consciousness* or *qualia,* which is understandably described by David Chalmers as the *hard problem*, as distinct from simple perceptual consciousness which Chalmers calls the *easy problem*[36] (1995, 1996). It includes, but is not limited to, cognition. My perspective on consciousness, which will be developed throughout this paper in the light of an elucidation of Steiner's, Gebser's and Wilber's views, departs from much of the current, neurobiology-based, consciousness studies literature which claims that consciousness is dependent primarily on the brain for its existence.[37]

My usage of the term *evolution* cannot be *nutshelled* here but will emerge throughout this paper. At the very least my meaning includes biological, socio-cultural and philosophical discourses. The notion of socio-cultural evolution has been contested since the abuses arising from 19th century socio-biological models—such as Social Darwinism—during the 2nd World War. Anthropological critiques include claims that cultural evolution models are ethnocentric, unilineal, too oriented towards technological materialism, privileging progress rather than preservation and speculative rather than evidence based. How this narrative addresses these issues will be discussed under theoretical issues. A range of disciplines and discourses that can inform evolution of consciousness are indicated in Figure 1 below.

The evolution[38] of consciousness discourse has a relatively short history in the academy.[39] The notion was originally seeded by several German Idealists and Romantics towards the end of the 18th century. Almost a century before Charles Darwin published his *Origin of Species* (1859/1998), Johann Gottfried von Herder published *This Too a Philosophy of History for the Formation of Humanity* (1774/2002), setting out the notion that "there exist radical mental differences between historical periods, that people's concepts, beliefs, sensations, etc. differ in important ways from one period to another" (Forster, 2001). Von Herder's seminal ideas on the evolution of consciousness were extended in manifold ways by Johann Wolfgang von Goethe,[40] Georg Wilhelm Friedrich Hegel,[41] and Friedrich Wilhelm Joseph Schelling.[42] These pioneering individuals both conceptualized and enacted an integrative worldview—for example Goethe was an eminent scientist, philosopher and literary pioneer. In particular, Schelling's contribution foreshadowed current notions of *conscious* evolution (Teichmann, 2005). Although inspired by earlier unitive worldviews, these integral philosophers also pointed forward, beyond the limitations of both pre-modern, mythic consciousness and modernist *formal* rationality, foreshadowing a more conscious awakening of a *postformal*, integral consciousness. In the early 20th century these ideas were further developed by several pioneers (Aurobindo, 2000; Bergson, 1911/1944; Gebser, 1970/2005; Lovejoy, 1936; Neumann, 1954/1995; Steiner, 1926/1966b, 1959a; Teilhard de Chardin, 1959/2002, 1959/2004).

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[36] Chalmers (1996) makes it quite clear that psychological properties like learning and memory, while posing some philosophical issues, are primarily small technical issues that can be addressed through research and are thus an 'easy problem.' In contrast, the 'hard problem' arises because the "impressive progress of the physical and cognitive sciences has not shed significant light on the question of how and why cognitive functioning is accompanied by conscious experience. The progress in understanding the mind has almost entirely centered on the explanation of behavior. This progress leaves the question of conscious experience untouched" (p. 25).

[37] This is referred to in the consciousness science discourse as *epiphenomenalism*. "[This] is the view that mental events are caused by physical events in the brain, but have no effects upon any physical events." http://plato.stanford.edu/entries/epiphenomenalism/

[38] In addition, the meaning of the term *evolution* in this paper should be seen to sublate within itself two other terms that are often seen to be in contradiction to it, these being *emergence* and *involution*. It is beyond the scope of this paper to discuss, however, this is the subject of a further paper (Gidley, 2007c).

[39] There is also a longer and deeper genealogy to this story, told orally among the ancient wisdom traditions (Bamford, 2003; Lachman, 2003; Steiner, 1973b) However, it is beyond the scope of this paper to explore this material in detail.

The general notion of evolution—and thence consciousness evolution—became academically colonized by classical biology as a result of the mid 19th century interpretations of Darwin's work.[43] Clearly, biology as a discipline has been transformed by such 20th century developments as chaos and complexity theories, with classical Darwinism and neo-Darwinism more recently making way for emergence theories (Braxton, 2006; Deacon, 2003; Goodenough & Deacon, 2006; Thompson, 1991). In spite of these developments within biology, science during much of the 20th century was grounded in a materialist worldview. Darwinian evolutionary notions reputedly also influenced other late 19th century socio-cultural theories, such as pioneering sociologist, Auguste Comte's (1855/2003) views on *social progress*, and Herbert Spencer's (1857) *developmental* and *progressive* theories—most notably, Social Darwinism (Barnard & Spencer, 1998). The evolution discourse remained dominated by a physicalist form of biology, such that significant pioneering works on the evolution of consciousness, that were inclusive of spiritual dimensions, were ignored, dismissed or marginalized by the *science of the day* (Aurobindo, 2000; Bergson, 1911/1944; Gebser, 1970/2005; Neumann, 1954/1995; Steiner, 1926/1966b, 1959a; Teilhard de Chardin, 1959/2002, 1959/2004). Although the last few decades have seen a reconsideration of some of these pioneers—particularly as a result of integral approaches to the evolution of consciousness—the new biological sciences still retain a powerful claim on the evolution of consciousness discourse (Loye, 2004). However, the growing awareness of a potential planetary crisis has highlighted the significance of finding new ways of thinking, if humankind is to move through our current complex challenges. This critical imperative appears to be mobilizing researchers from a wide range of disciplines to broaden the notion of evolution of consciousness beyond its biological bounds. Although only a small number of articles are as yet appearing in academic journals, there is evidence of some disciplinary diversity.[44]

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[40] Goethe, through his integration of science and literature, drew on his extensive biological studies in morphology—a term he coined—to ground the concept of evolution of consciousness which he introduced in his novel *Wilhelm Meister's Apprenticeship*, which he published in 1796.

[41] Hegel's focus in the evolution of consciousness domain was particularly concerned with the evolution of ideas and concepts and introduced in his lectures on the History of Philosophy.

[42] Schelling's seminal integrative philosophy provides the genealogical trace for two of the currently divergent streams of postmodernism—deconstructive and reconstructive, as outlined by Arran Gare's philosophical research (Gare, 2002), recently also summarized by Hampson (2007) in this journal.

[43] Several more recent interpretations point to a much fuller breadth in Darwin's original writings (Conway Morris, 2007; Loye, 1998; Richards, 1992, 2002).

László (2006) aptly sums up this critical imperative in the following rallying call:

> Einstein was right: the problems created by the prevalent way of thinking cannot be solved by the same way of thinking. This is a crucial insight. Without renewing our culture and consciousness we will be unable to transform today's dominant civilization and overcome the problems generated by its shortsighted mechanistic and manipulative thinking.
> . . . The conscious orientation of the next cultural mutation—the shift to a new civilization—depends on the evolution of our consciousness. This evolution has become a precondition of our collective survival. (pp. 39, 77)

The *evolution of consciousness* has become a central theme in much of integral theory. In its many forms[45] integral theory is making a significant contribution to the discourse. Yet leading integral theorists, such as Wilber and László, appear not to see eye to eye in their somewhat rivalrous endeavors to each create an *Integral Theory of Everything* (TOE)*,* within which their writings on the evolution of consciousness could be theoretically situated (László, 2007; Wilber, 2000a). A major distinction appears to be that László (2007) builds his *general evolution theory* in a more formal, systematic manner. He claims that he built significantly on the theoretical traditions of Whitehead's *process* theory, Bertalanffy's *general system* theory and Prigogine's *non-linearly bifurcating dissipative structures* (p. 164). Wilber's process appears to have been much broader and more diverse—but perhaps less systematic—gathering together as many theorists in as many fields of knowledge as he could imagine, then arranging them according to the system that he developed—which he calls an *integral operating system* (Wilber, 2004). Another difference is that although they both appear to use *imagination* and *intuition* in the construction of their theoretical approaches, Wilber does not make this explicit whereas László (2007, p. 162) does. Numerous other researchers, particularly over the last decade, have also contributed to the evolution of consciousness discourse, but the various theoretical strands still stand in relative isolation from each other. These issues will be discussed below.

It is my view that no single discipline or field can colonize the evolution of consciousness discourse—not even science. Because of its complexity the topic can only adequately be approached in a transdisciplinary manner. Nor can it be colonized by a particular theoretical approach, no matter how apparently integral that approach claims to be. Such disciplinary and theoretical constraints would only serve to limit our potential understanding.

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[44] In a recent title search of four academic databases using the words "evolution" and "consciousness" sixteen articles were retrieved with seven of them from a biological/science perspective, the remainder were from the perspectives of psychology (two), philosophy (two), theology (two), the arts (two) and language (one).

[45] Hampson (2007) has put forward an ecology of integrals that includes six intertwined genealogical branches: those aligned with Sri Aurobindo, Gebser, Wilber, Gangadean, László and Steiner (noting that the Steiner branch is via the conduit of my research on Steiner, Gebser and Wilber) (p. 121). I am in agreement with this ecology, which to a large extent co-arose from our dialogues.

Theoretical Issues Surrounding Evolution of Consciousness Research

> Ultimate truth, if there be such a thing, demands the concert of many voices. *Carl Jung*. (cited in Neumann, 1954/1995, p. xiv)

There are several complex theoretical issues in evolution of consciousness research.

A. Direct and Indirect Evidence for Evolution of Consciousness

The discourse may be informed from two broad directions. The first is the research that directly identifies new stage/s or emergence of consciousness. The second is research that apparently enacts emergent postformal, integral, and/or planetary consciousness without identifying it as such. This is further discussed in Part 8 of this paper and published elsewhere (Gidley, 2007a).

B. *Short-* and *Long-range* Theories of the Origins of Culture and Consciousness

In regard to the research on human origins there are two major schools of thought. The *short-range theories* which propose that there was a sudden cultural explosion around 30-40,000 years ago in Western Europe associated with the migration of anatomically modern humans and the subsequent replacement of the extant Neanderthals, driving them to extinction. The *long-range theories* propose a much more gradual and also more polycentric process of evolution of culture and consciousness. These theories are discussed at some length in Appendix C.

C. The Postmodern Deconstruction of *Progress, Growth* and *Development*

A major theoretical issue in researching the evolution of consciousness is that it is intimately linked with socio-cultural evolution and the contentious 19th century models of social progress and development of Auguste Comte (1855/2003) and Herbert Spencer (1857). Such theoretical models were used to rationalize many racist and ethnocentric social abuses—including slavery, colonialism and ethnocide. Cultural anthropologists developed powerful critiques of these models, particularly following on from the early 20th century shift to ethnographic field research. For a few decades the notion of evolution itself came under critique from anthropologists and critical social scientists. However, there has been a revival of interest as new, more integrative anthropological theories began to emerge, such as Marshall Sahlins' theory that there is both evolution of human culture in general—characterized by "growing complexity and unilinearity, with culture apparently leaping from one societal form to another," and specific evolution, "to account for the great variety in historical developments" of particular societies (Barnard & Spencer, 1998, p. 214). In addition to the contributions of integral theory which are my focus, developments in world systems analysis, systems philosophy and macrohistory have also contributed to a broadening and integrating of theoretical perspectives (Galtung & Inayatullah, 1998; László, 2004/2007). It is beyond the scope of this paper to discuss these developments in detail. A superficial glance at the narratives of Steiner, Gebser and Wilber may give an impression that they are simply modernist, unilinear, socio-evolution models packaged as something more. How they each deal with these issues will be addressed under the methodological issues section below.

D. Paradoxical Thinking Within the Discourse

There is a paradox[46] surrounding this research in that an emerging postformal, integral movement of consciousness can best be understood from the types of thinking that actually reflect postformal, integral consciousness. Not surprisingly, one of the characteristics of postformal thinking identified in adult developmental psychology is paradoxical thinking— "the capacity to see and accept paradox and tolerate ambiguity" (Cook-Greuter, 2002, p. 24).[47] This research does not claim to resolve such a paradox, but rather to point to its existence.

E. The *Evolution* of Evolution Theory

In regard to the *evolution* of evolution theory, the present research does not succumb to the *evolution-terminus fallacy*[48]—where modern humans have reached their ultimate stage. Rather it adopts a developmental and futures approach to the evolution of consciousness—in particular pointing to the current emergence of a new movement of consciousness. This calls for an evolution of the discourse itself. It is beyond the scope of this paper to discuss this but it will be elucidated as part of the larger project (Gidley, 2007b).

F. Territorial Issues in the Discourse

There are several territorial issues including at least; socio-cultural and geo-political territorialism around earliest artifacts; epistemological issues surrounding disciplinary territorialism; and philosophical issues related to the contestation between the dominant discourse based on a metaphysics of physicalism and the alternative discourse based on a metaphysics of integration of spirit and matter. It is beyond the scope of this paper to discuss this but it will be elucidated as part of the larger project (Gidley, 2007b).

G. The Notion of *Adequatio*

Neo-Platonist, Plotinus (205-270 CE) developed the notion of *Adequatio*—most likely informed by Aristotelian concepts. *Adequatio* means "the understanding of the knower must be adequate to the thing to be known" (Schumacher, 1977, p. 39). In regard to the *adequate coherence* between the object of knowledge in this research—the evolution of consciousness—and the epistemology that is researching it, the present research is framed within a postformal, integral, layered epistemology that foregrounds the *noosphere* and its role in conscious evolution. I also include spirituality in contrast to the dominant physicalist discourse. It is beyond the scope of this paper to discuss this but it will be elucidated as part of the larger project (Gidley, 2007b).

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[46] A similar paradox can be expressed in relation to creative thinking: "in order for creative thinking to be understood and articulated, it requires the very kind of creative thinking that it seeks to understand" (Montuori, Combs, & Richards, 2004, p. 226).

[47] This is one of the characteristics of Cook-Greuter's *autonomous* stage.

[48] This is a phrase I have coined to refer to the evolution of the discourse itself in relation to evolution (Gidley, 2007b).

H. Postformal Enactment of Language and Construct Awareness

A further—and perhaps the most complex—theoretical issue is that, in addition to the claims of all three authors I focus on in this paper that consciousness is evolving, it is implicit in all of their work that they see themselves as operating from a consciousness that is beyond the modernist/formal thinking of their day.[49] While it is beyond the scope of this paper to actually establish the veracity of this proposition, it is clearly a theoretical challenge of this work as it implies a superior truth claim. In the final section of this paper I will return to this issue with some further reflections, particularly in regard to examples from their language styles.

I. Epistemological Pluralism of Minor Threads in the Discourse

Current theories concerning the evolution of consciousness arise from a number of schools of thought. These can be categorized in many different ways. It is worth noting that debate surrounding scientific evolution theory and its *pros and cons* is still alive in the USA according to some integral theorists. A recent article in *What is Enlightenment* magazine[50] attempted to contribute to a broadening beyond the Darwinism vs. Creationism poles that are emphasized in the US media. They proposed a twelve-theory spectrum between two extreme epistemological positions—scientific materialism and religious determinism, which they then reduced to *science* and *spirit*. They placed *neo-Darwinists* and *progressive Darwinists* at the science end of the spectrum and *intelligent designers* and *Theistic evolutionists* at the spirit end. In between, they listed a range of other perspectives including *collectivists*, *complexity theorists*, *directionalists* and *transhumanists*, on the science side and *esoteric evolutionists* on the spirit side. At the centre of their spectrum, indicating degrees of integration of science and spirit, they placed *process philosophers*, *conscious evolutionists* and *integralists*—the latter being represented by those theorists whom they appear to favor[51] (WIE, 2007). While this approach may appear at first glance to be a useful and convenient way to categorize as it gives an important overview of some often-neglected approaches, the simple slotting of some theorists into these individual conceptual categories is a gross reduction of their comprehensive epistemologies.[52] Furthermore, it is based on a simple bi-polar dimension between science and spirit, whereas the phenomenology of the evolution discourse is much more complex than that. While I do agree that there is an intimate relationship between the evolution of consciousness discourse and the appropriate development of integral theory, it is vital for the academic credibility of integral theory that this relationship is developed in a scholarly manner. More substantial research on the complexity of these issues is in preparation (Gidley, 2007c).

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[49] Wilber actually explicitly states that he is writing from a vision-logic standpoint (Wilber, 2000d, pp. 190-191).

[50] WIE is a North American magazine that publishes "reader-friendly" articles on integral theory, including articles by, or about, a range of integral theorists.

[51] Major figures listed as *integralists*: Beck, Combs, Godwin, Goerner, Leonard, Murphy, Thompson and Wilber (WIE, 2007, p. 100). This does not appear to be a comprehensive—or even impartial—list of relevant theorists, according to my research.

[52] A particularly significant misplacement is made of Steiner as an esoteric evolutionist whereas his vast scientific, philosophical and spiritual writings are more substantial than many of those placed as integralists. A similar narrowing has also been made of contemporary philosopher, Tarnas (WIE, 2007, p. 97). Of course it should be acknowledged that this is *not* an academic journal, but rather a populist magazine.

J. The Integrality of Integral *Theories of Everything* Including Evolution

One of my major interests in this paper is to explore this relationship—between evolution of consciousness and integral theory—in some depth and to indicate how different evolutionary perspectives lead to a different kind of integral theory structure, and vice versa. A further point is that it is vital that the discourse is not colonized by a particular version of integral theory. While Wilber and László are arguably the most prolific and significant contemporaries in broadening the evolution of consciousness discourse through their integral theories, my research points to gaps in their theoretic narratives.

Wilber was one of the first contemporary theorists to attempt to draw together, in a transdisciplinary manner, some of the earlier pioneering works on the evolution of consciousness (Wilber,1996a). Because of the popularity of Wilber's work on this topic, and because of the manner in which he has staked his claim on this aspect of integral theory, his theoretic narrative is quite influential. However, there are several taken-for-granted assumptions that have slipped into the integral discourse on the evolution of consciousness, through Wilber's influence, which this paper seeks to uncover. Two assumptions that I wish to challenge in relation to Wilber's self-proclaimed *authority* in this territory are that:

- He has included all the major pioneering theorists of the evolution of consciousness;
- He has accurately represented the research of major theorists, such as Jean Gebser.

László, over the past two decades, has initiated a major research initiative[53] into the serious limitations of the dominant reductionist, scientific discourse on evolution in general. Clearly, this has significant implications for the evolution of consciousness discourse. Considerable research resulting from this initiative has been undertaken by a diversity of scientists—particularly, systems scientists, chaos and complexity theorists and cognitive psychologists (Loye, 2004). Much of their work draws on László's general systems theory (László, 2006, 2007), Riane Eisler's *partnership theory* (Eisler, 1987), and David Loye's emphasis on the notions of love, mind and moral development in Darwin's *The Descent of Man*—which he argues have been completely overlooked in the dominant evolution discourse (Loye, 1998). This research is clearly a major advance on the dominant neo-Darwinist theories.[54] However, it is still limited in that it primarily privileges scientific discourse—albeit the new sciences—without making explicit what discourses are not included, e.g. those from philosophy,[55] theology/spiritual science, mythology,[56] art and oral history, and even developmental psychology. Further, although brief mention is made of Wilber's theories in this research, Gebser's and Steiner's research is overlooked. My research could be seen to build on the work of Laszlo's *General Evolution Research Group* in a number of ways, most obviously through my focus on philosophical, theoretical and methodological approaches that are not limited to scientific epistemologies. In addition, my research directly addresses the following key points in the guidelines to László's and Loye's project for a *fully human theory of evolution*.

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[53] The General Evolution Research Group (GERG), was founded by László in Budapest, in 1986, during the Cold War. Their stated aim is to create a "full spectrum, action-oriented," or "fully human theory" of evolution. http://www.thedarwinproject.com/gerg/gerg_world_futures.html

[54] It also positions itself within the *credibility* of science, which Wilber does not limit himself to.

[55] Philosopher Arran Gare critiques the lack of philosophical and critical perspective in the research in Loye's book. He points to the apparent lack of awareness of the contribution of idealist philosophers such as Schelling to the notion of "conscious evolution" (Gare, 2007).

- Explore points of evolutionary consensus as well as differences between science and spirituality.
- Work towards consensus on unifying frameworks and imagery . . .
- . . . but explore the ignored, the repressed, and new vision before locking into new paradigms (Loye, 2004, p. 14).

All of these points are being emphasized in my research and in addition, it could contribute significantly to several of their foundational themes—the evolution of love, consciousness, and the drive of creativity in "conscious evolution" (Loye, 2004, p. 13).

While Wilber's and László's *theories of everything* both have enormous merit, they too are partial. In this regard, I discern two major obstacles for integral theorists who seek to introduce more breadth and depth into the evolution of consciousness discourse. The first, the ongoing colonization of the discourse by science narratives, is clearly apparent even within integral theories, such as László's. The second—which is more subtle and tacit—is the potential colonization of the discourse *within* integral theory by particular integral approaches. Clearly, there is some overlap between these two obstacles.

K. Transdisciplinarity Can Include Depth Through Disciplinary Diving

Perhaps I am biased towards Steiner and Gebser—or even Wilber. A critique could certainly be raised about my choice of Steiner and Gebser as major theoretical foci, given that neither of them has been alive to benefit from the incredible advances in knowledge specialization in the last few decades. There is no question that the detailed knowledge acquired by numerous diverse disciplines in their various specialized fields has increased greatly in the last century, since Steiner's and even Gebser's time. However, the question remains: Are we getting close to the kind of integrated understanding of our world that will enable us to address the complexity of current planetary challenges? I suggest that we are not there yet and so does Morin (2001a).

> An influx of knowledge at the end of the 20th century shed new light on the situation of human beings in the universe. Parallel progress in cosmology, earth sciences, ecology, biology and prehistory in the 1960s and 1970s have modified our ideas about the universe, the earth, life and humanity itself. But these contributions remain disjointed. That which is human is cut up into pieces of a puzzle that cannot form an image. This raises an epistemological problem: it is impossible to conceptualize the complex unity of the human

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[56] Notwithstanding Eisler's substantial contribution to a reconstruction of cultural mythology and history (Eisler, 1987).

> by way of disjunctive thought . . . The new knowledge, for lack of being connected, is neither assimilated nor integrated. There is progress in knowledge of the parts and paradoxical ignorance of the whole. (pp. 39-40)

I propose below a tentative circular model of disciplinary fields that can potentially inform the evolution of consciousness discourse (Figure 1).

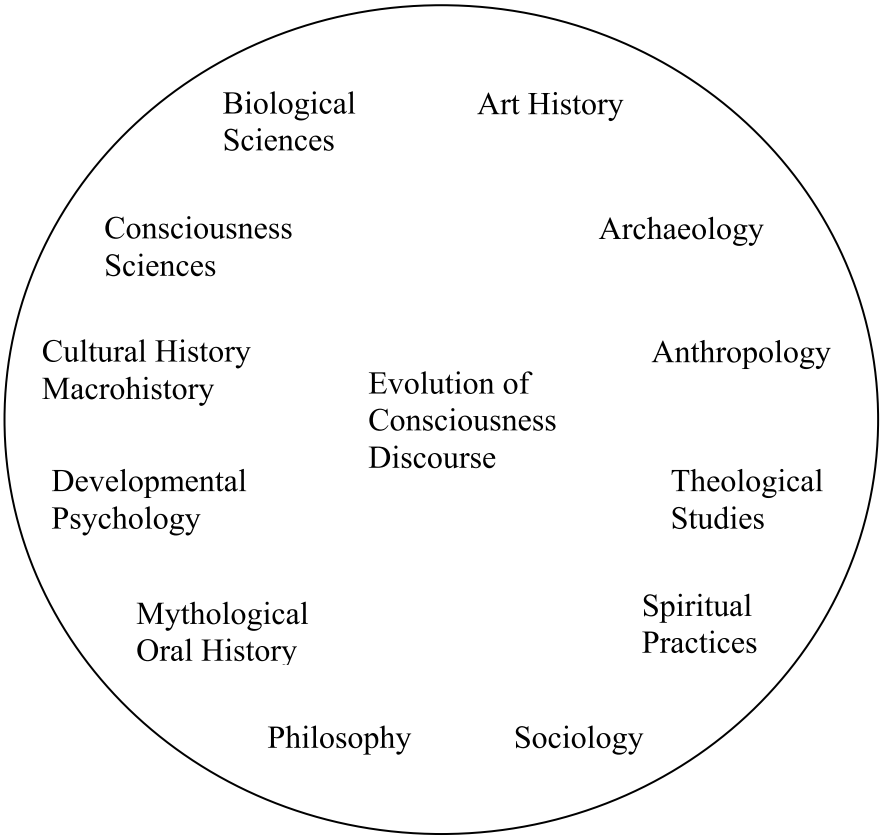
Biological Sciences
Art History
Consciousness Sciences
Archaeology
Cultural History Macrohistory
Anthropology
Evolution of Consciousness Discourse
Developmental Psychology
Theological Studies
Mythological Oral History
Spiritual Practices
Philosophy
Sociology

Figure 1: A Circumscription of the Evolution of Consciousness Territory[57]

Although I have undertaken more extensive reviews of the evolution of consciousness literature elsewhere (Gidley, 2007c), the stated purpose of this paper was not to attempt to achieve a broader, more comprehensive review than has already been done. Because the territory is so extensive now, the danger in this approach is to fall into a superficial syncretism. Rather my purpose is to introduce more depth, but in a different way to the kind of depth achieved in disciplinary specialization. The depth I am attempting is to look with a deep gaze at the writings of others who themselves have covered an extensive breadth. I believe that this potentially creates a new kind of scholarly alchemy that has not been frequently attempted to my knowledge. It is referred to as *gap-diving* (Roy, 2006b) and resembles the kind of integration of depth and span that Foucault used in his lectures on the *Hermeneutics of the Subject* (Foucault, 2005).

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[57] I have deliberately left this diagram conceptually simple, as my purpose is not conceptual mapping—which has already been given much attention by Wilber—but to foreground the importance of participatory and aesthetic dimensions to a fuller conceptualization of the theory.

Before moving on, I particularly wish to honor the significant contributions of several pioneers—other than Steiner and Gebser—to my understanding of the discourse (Aurobindo 2000; Bergson, 1911/1944; Campbell, 1968; Neumann, 1954/1995; Teilhard de Chardin, 1959/2002, 1959/2004). In addition, I find it encouraging that, in addition to Wilber, László and myself, there are a raft of other contemporary theorists from a variety of disciplines who have begun to research the evolution of consciousness from a more integral perspective (Bamford, 2003; Bocchi & Ceruti, 2002; Christiansen & Kirby, 2003; Conway Morris, 2007; Cousins, 1999; Donald, 2001; Earley, 1997; Eisler, 1987; Elgin, 1993, 1997; Eliade, 1954/1989; Firestone, West, & Warwick-Smith, 2006; Gangadean, 2006a; Grof, 1988; Grossinger, 2000; Habermas, 1979; Hart, 2001; Hefner, 1998; Inayatullah, 2004; Jantsch, 1980; Loye, 1998; Montuori, 1999; Morin & Kern, 1999; Nelson, 2005; Neville, 2006; Ornstein & Ehrlich, 1991; Russell, 2000; Subbiondo, 2003; Swimme, 1992; Swimme & Tucker, 2006; Thompson, 1998; Wade, 1996).[58]

My choice of Steiner, Gebser and Wilber was also influenced by the fact that all three of them have in a substantial way included most of these knowledge areas (see Figure 1) in their narratives, whereas many theorists are much more limited in scope. I further propose that although the inclusion of many of these areas is vital to a comprehensive integral evolution of consciousness theory, it is equally vital that such a theory not be merely about content. While Wilber's content is unquestionably comprehensive—and his theory elegant—his areas of weakness are the areas of strength of Steiner and Gebser: participatory engagement and aesthetic sensibility. By contrast, Wilber's embrace of contemporary research and his accessible text complement aspects of Steiner's and Gebser's contribution. Because I have chosen to focus in-depth on three major sources, I acknowledge that my coverage of many significant theorists is of necessity brief. I have also taken into account that Wilber has quoted extensively from many of these sources and I have not in all cases been able to check his interpretation for accuracy as I have done with Gebser.

In my own research I have drawn from all these diverse areas (see Figure 1), although in many cases only to clarify specific details. Because of the somewhat heterodox research methods of Steiner[59]—and to a lesser extent Gebser and Wilber—in regard to palaeo- and pre-history,[60] I have paid particular attention to the academic research that might reflect on these periods. As with the overall stance of my research, it has not been my intention to do a broad scan of the archaeological, paleoanthropological, or art historical research, but rather to dive into specific areas of controversy where there appeared to be a gap or a divergence of consistency. In particular, for the very early pre-historical periods, research from the following—somewhat overlapping—disciplines have been invaluable.

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[58] Recent educational research by the author (Gidley, 2007a) also draws attention to the growing number of educational researchers who are identifying the need to educate for an evolving consciousness (Goerner, 2000; Hart, 2001; House, 2004; Mazzone, 2004; McDermott, 2005; Miller, 1999; Miller, 2000; Montuori, 1999; Morin, 2001a; Neville, 2006; Sloan, 1992).

[59] Steiner's research methods, along with Gebser's and Wilber's are discussed in the next section.

[60] I am using the problematic term pre-history as it is used according to academic convention—that is prior to literate culture.

- Anthropology (Barnard & Spencer, 1996/1998; Belasco, 1975; Clayton, 2006; Foster, 1996/1999; Gatto, 2004; Headland, Pike, & Harris, 1990; Isenberg & Thursby, 1984-6; Levi-Strauss, 1963; Levinson & Ember, 1996; Lock & Peters, 1999).
- Archaeology (Berg & Woodville, 2004; Domenici & Domenici, 1996; Foucault, 1970/1994; Gatto, 2004; Johnson, 1999; Kühne, 2004; Quilter & Urton, 2002; Seger, 2006; Settegast, 2005; Spears, 1996; Spikins, 1997; Wallis & Spencer, 2003; White, 2006; Zhang, Harbottle, Wang, & Kong, 1999; Zilhão, 2007).
- Art history (Bednarik, 2006a; Berg & Woodville, 2004; Conkey, 1996/1999; Hooker, 1990; Iinitchi, 2002; Quilter & Urton, 2002; White, 2006; Zhang, Harbottle, Wang, & Kong, 1999; Zilhão, 2007).
- Rock art science (Anati, 2004; Bahn, 2005; Bednarik, 1992, 2003b, 2006b, 2006c, 2006d 2007, Brumm & Moore, 2005; Chippindale & Tacon, 1998; Hodgson, 2000; Reddy, 2006).
- Paleo-anthropology and paleo-ontology (Cairns, 2005; Carlson et al., 2007; Colman, 2007; Conard & Bolus, 2003; Conway Morris, 2004, 2007; Gould, 1977; Gutscher, 2005; Key, 2000; Rolston III, 2005; Settegast, 2005; van Huyssteen, 2004; Varadi, Runnegar, & Ghil, 2003; Wood & Collard, 1999).

In addition, considerably more research has also been cited in Appendix C, which deals more extensively with the Palaeo-periods than the main narrative. As my research progressed I became increasingly aware of the Anglophone and Eurocentric bias of the discourse—even within integral theory. I thus endeavored to search beyond the dominant geographical regions to find researchers from diverse cultural backgrounds. Consequently, my list of citations may also be somewhat heterodox. As discussed already, one of my interests is in focusing on research that has been, or is likely to be, marginalized. One could argue for the inclusion of additional fields (such as cosmology and linguistics) and sub-fields (such as transpersonal and depth psychology).

L. *Integration* of Integral Views

Finally, I wish to point to several other contemporary researchers who have attempted an integration of integral evolution-of-consciousness theories. Most include one or two of my key authors, but not all three substantially. Combs (2002) privileges Wilber and Gebser but marginalizes Steiner; Elgin (1993) privileges Gebser and Wilber but does not refer substantially to Steiner; Lachman (2003) privileges Steiner and Gebser but marginalizes Wilber; Thompson (1998) also privileges Steiner and Gebser but marginalizes Wilber. In addition, Benedikter (2005) has researched the philosophical relationships between Wilber and Steiner, with some reference to Gebser, but his work is primarily in German, and as yet most of it has not been translated into English.[61] There are also other macrohistorical/evolutionary narratives which draw primarily on one of my key authors, such as Earley (1997) on Wilber; Feuerstein (1997) on

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[61] This lack of English translation of Benedikter's work means that it has not entered into the Anglophone integral theory discourse and consequently has been overlooked by many theorists who are limited to the English language.

Gebser; Bamford (2003) on Steiner. Educational theorists Marshak (1997), and Miller (2005), have written substantial educational literature about Steiner, in combination with other educational theorists; and McDermott (1984, 2001) has written substantially—though separately—on Steiner and Sri Aurobindo, and to a lesser extent on Wilber. Finally, the vast majority of contemporary evolutionary narratives make no significant reference to Steiner, Wilber *or* Gebser, drawing principally on *new science* theories (Edelman, 1992; László, 2006; Loye, 2004; Ornstein & Ehrlich, 1991; Russell, 2000; Swimme, 1992); or socio/cultural and/or philosophical theories (Bocchi & Ceruti, 2002; Eisler, 1987; Habermas, 1979; Morin & Kern, 1999). It is to this large-scale omission and/or undervaluing of their significant contributions that this paper pays attention. Given the extensiveness of the territory, I will undoubtedly have omitted some important researchers and/or areas of research. For this I apologize.

Methodological Issues in Postformal Research

> It is perhaps unnecessary to reiterate that we cannot employ the methods derived from and dependent on our present consciousness structure to investigate different structures of consciousness, but will have to adapt our method to the specific structure under investigation . . . contemporary methods employ predominantly dualistic procedures that do not extend beyond simple subject-object relationships; they limit our understanding to what is commensurate with the present Western mentality. (Gebser, 1949/1985, p. 7)

A number of methodological issues need to be explicated in relation to this research. Because of the complexity of the territory, it is imperative that it be approached in a transdisciplinary manner. Secondly, because of the marginal and somewhat heterodox methods of all three authors, it is essential that my methodology in dealing with them be as transparent as possible. Thirdly, the multi-layered nature of this research is a further complication. I have attempted to deal with this by providing a balance of direct textual extracts and interpretation when making a point. Also I begin each section of the narrative with an academic contextualization.

Before introducing the methodologies and validity and truth claims of Steiner, Gebser, Wilber and myself, in the interests of transparency, I will summarize my process in relation to arriving at criteria for exclusion and inclusion of particular research.

Criteria for Exclusion and Inclusion in the Research

The process began with a meta-analysis[62] of the literature related to the evolution of consciousness. It became evident fairly early that this was an overwhelming task and once the literature had been broadly categorized, two exclusion criteria were introduced. The process is summarized below.

At the first level of analysis the evolution of consciousness discourse to date could be categorized into three major subgroups:

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[62] My research has involved a meta-analysis of the evolution of consciousness literature. Some of this research has been published, as noted and some of it is still in unpublished manuscript form as part of a Doctoral Dissertation and post-doctoral publications.

- Scientifically-based evolution research, particularly from evolutionary biology;
- Additional disciplinary—or sometimes interdisciplinary—research from fields such as evolutionary psychology and anthropology, philosophy, sociology, theology (for more detail on fields that may inform this research see Figure 1 above);
- Transdisciplinary research from integral studies, futures studies, general systems theory.

At the next level of analysis it became apparent that much of this research, is based on the assumption that human consciousness has reached its culmination with rationality, or *formal operations*[63]—to use Piaget's term. The first exclusion category concerned literature that did not honor the notion of further movements of consciousness beyond formal operations in the individual, or beyond mental/rational as a stage of cultural evolution. In relation to the former, there is now a large body of literature, particularly from the adult developmental psychology field, that has established at least one—and up to four—cognitive stages beyond formal operations (Cartwright, 2001; Commons et al., 1990; Cook-Greuter, 2000; Kegan, 1994; Kohlberg, 1990; Kramer, 1983; Labouvie-Vief, 1990, 1992; Riegel, 1973; Sinnott, 1998, 2005). The present paper is not concerned with demonstrating that consciousness is evolving, nor to substantially review the existing literature that has demonstrated this. Additional research has further explored this literature and identified several threads in the discourse (Gidley, 2006, 2007c).

At a further level of analysis it became apparent that much of the research operated from within fairly tight disciplinary boundaries. Disciplinary research is unquestionably important to shed light on detail and it has been used in this research in that manner. It is not necessarily helpful in facilitating the big-picture perspective required for this research. Consequently, the second exclusion category concerned literature that drew primarily from just one or two disciplines. In other words transdisciplinary and/or integral research has been privileged in my research.

As a final point of self-reflection, perhaps in the end my choice of Steiner, Gebser and Wilber was also influenced by the intuitive resonance I felt with all their work, and the fact that I felt that I was in a unique position—based on my experience and interest—to do this research.[64]

A brief summary of the methodologies of Steiner, Gebser and Wilber will be followed by a summary of my own methodology and process.

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[63] I am using the term *formal operations* here to denote both a stage of individual cognition and also to represent the general evolutionary stage that Gebser called mental/rational.

[64] I have a twenty-five year history of studying, working and living with Steiner's philosophy, including founding and pioneering a Steiner school in Australia over ten years (up to 1994), and undertaking a Master of Arts (research) involving Steiner-educated Australian students (Gidley, 1998b, 2001b, 2002b). I also became an executive member of the Integral Education committee of Wilber's Integral University over two years, and participated in an Integral Life Practices seminar run by Integral Institute in 2005.

Steiner's Research Methodology[65]

Although much of Steiner's writing, particularly prior to the turn of the 20th century, was purely philosophical—in the traditional academic manner of his day—much of his later work was based on what he referred to as his spiritual-scientific research. Steiner (1904/1959) discussed his research methods in his book *Cosmic Memory* where he detailed much of his research on early periods of pre-history. He claimed that, as a result of decades of disciplined thought practice, he was able to read information that was stored in what he called the *Akasha record/chronicle*. Ironically, some of the terms Steiner used to characterize his spiritual-scientific[66] methodology—such as *cosmic memory* and *Akashic record* are currently being re-introduced into the scientific discourse by László: "Ervin László's concept of the Akashic Field includes the idea of cosmic memory" (Sheldrake, 2006, abstract).

Before going into Steiner's method in more detail, I would like to contextualize it from within László's (2007) theory of an enduring *In-formation Field* that, under special circumstances, can be *read*. The following extract from László's recent book, *Science and the Akashic Field*, bears remarkable similarity to Steiner's descriptions.

> The evidence for a field that would conserve and convey information is not direct; it must be reconstructed in reference to more immediately available evidence. Like other fields known to modern physics, such as the gravitational field, the electromagnetic field, the quantum fields, and the Higgs field, the in-formation field cannot be seen, heard, touched, tasted, or smelled . . . it seems evident that a further field is required to account for the special kind of coherence revealed at all scales and domains of nature, from the microdomain of quanta, through the meso-domain of life, to the macrodomain of the cosmos . . . In my previous books I named the universal in-formation field the Akashic Field . . . In the Sanskrit and Indian cultures, Akasha is an all-encompassing medium that underlies all things and becomes all things. . . . Our bodily senses do not register Akasha, but we can reach it through spiritual practice. The ancient Rishis reached it through a disciplined, spiritual way of life, and through yoga. (p. 73-76)

Steiner spent the last 25 years of his life developing and consolidating a methodology of thought training/discipline. He claimed that, if practiced, these methods could lead to new levels of cognitive and psycho-spiritual development, building on the rigorous methods of the natural sciences. Although his methods are claimed to lead to spiritual perception, they should not be confused with pre-rational, mythic, atavistic methods.[67] He practiced these methods himself and his research methodology proceeds from them. I have included a rather long quote here, as I believe it is important to read Steiner's own words on these matters. The practice Steiner refers to appears to be aligned with László's claims above. If what Steiner and László are claiming is valid, then it is of major significance and requiring far more substantive research attention than has currently been given. Steiner (1904/1959) states:

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[65] I have given extended space to a discussion of Steiner's methodology for acquiring knowledge—compared with Gebser and Wilber—as his methods are the most heterodox and arguably the least understood.

[66] Steiner referred to the overall corpus of his work as spiritual science, as he extended natural scientific methods to research what he called the spiritual or *supersensible world*. A forerunner to this was Goethe's *delicate empiricism*, discussed elsewhere and William James' *pragmatism* (Gitre, 2006).

[67] Steiner actively disapproved of the pre-rational, atavistic methods of *so-called spiritual research* of the Theosophists as not appropriate methods for his times as did Sri Aurobindo. Both wrote of these matters critically, strongly distancing themselves from the methods and activities of the Theosophical Society at the time (Aurobindo, 1997; Steiner, 1925/1928).

> By means of ordinary history [humans] can learn only a small part of what humanity experienced in prehistory. Historical documents shed light on but a few millennia. . . . Everything belonging to the external world of the senses is subject to time. In addition, time destroys what has originated in time. . . . Everything which comes into being in time has its origin in the eternal. But the eternal is not accessible to sensory perception. Nevertheless, the ways to the perception of the eternal are open for [humans]. [We] can develop forces dormant in [us] so that [we] can recognize the eternal[68] . . . from transitory to non-transitory history . . . written in other characters than is ordinary history. In gnosis and in theosophy it is called the "Akasha Chronicle." Only a faint conception of this chronicle can be given in our language. For our language corresponds to the world of the senses. That which is described by our language at once receives the character of this sense world . . . The one who has acquired the ability to perceive in the spiritual world comes to know past events in their eternal character. They do not stand before [us] like the dead testimony of history, but appear in full life. In a certain sense, what has happened takes place before [us]. Those initiated into the reading of such a living script can look back into a much more remote past than is represented by external history; and—on the basis of direct spiritual perception—they can also describe much more dependably the things of which history tells. (pp. 38-40)

Although the latter statement of Steiner's is a somewhat radical truth claim for a method of research that is difficult to validate, he does qualify his claims in various ways, as for example in the following two quotes:

> In order to avoid possible misunderstanding, it should be said that spiritual perception is not infallible. This perception also can err, can see in an inexact, oblique, wrong manner. No man is free from error in this field, no matter how high he stands. (Steiner, 1904/1959, p. 41)

It will be evident in the narrative that some of Steiner's findings from his research are only recently being rediscovered and formalized into scientific theory. László's (2007) theory of the Akashic field itself, is an excellent example of this process. Steiner (1954/1981a) also qualifies the difficulties in this process:

> We must take all this as but approximate description, for we are bound to words which are coined for things only come into existence in our Earth period.[69] We should first have to

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[68] At this point in the text Steiner (1904/1993) refers to his book: *Knowledge of the Higher Worlds: How is it Achieved.* This is his primary introduction to how to develop this type of cognition.

[69] Steiner held a view similar to some of the latest cosmology theories on meta-verses. He would be referring to our current evolutionary cycle.

> invent a language if we would express what is seen by the eye of the Seer. All the same these descriptions are important, for they are the first way of coming to the truth. Only through picture, through imagination do we find the way to vision. We should make no abstract concepts, mechanical schemes, nor draw up diagrams of vibrations, but let pictures arise within us; that is the direct path, the first stage of knowledge. (p. 113)

As an echo of Steiner's words, László (2007) also writes of the importance of expressing the visions of the Akashic field, not just through science but also through poetry. He spends several pages writing poetically of his own Akashic vision of the birth and rebirth of our universe "addressed not to our intellect, but to our heart" (pp. 129-133. László's text is not greatly dissimilar in tone from some of the passages in Steiner's books, demonstrating further congruence between their works.

Steiner (1930/1983a) has written substantially about the search for truth, with some of his statements indicating that he had something of a postmodern sensibility in regard to the notion of *truth*.

> Since truth is manifold in meaning, all we can reasonably say is that [humans] must set out to grasp truth and to kindle in [themselves] a genuine sense of truth. Hence we cannot speak of a single, all-embracing truth. (p. 34)
>
> There are no grounds at any time for remaining content with something already known. (p. 50)

Steiner developed his evolutionary theories in a time when many controversial socio-cultural models were in vogue. However he eschewed their materialistic biological underpinnings and their simplistic unilinearity. Although his theoretical approach was unquestionably developmental, a basis of much of his writing was aimed at significantly broadening 19th century notions of human development and evolution. As will be demonstrated below, his early 20th century writings on the evolution of consciousness and spiritual development foreshadowed contemporary notions of the emergence of postformal-integral consciousness, conscious evolution and the emergence of moral imagination,[70] and to some degree the new biological theory of emergentism (Steiner, 1894/1964b).

> The appearance of completely new moral ideas through moral imagination is, for the theory of evolution, no more miraculous than the development of a new animal species . . . Ethical individualism, then, is the crowning feature of the edifice that Darwin and Haeckel have striven to build for natural sciences. It is spiritualized theory of evolution carried over into moral life . . . the free moral life [is] the spiritual continuation of organic life. (pp. 165-166)

This statement encapsulates how Steiner's epistemology represents a dialectical integration of scientific and spiritual features into his *spiritual science*.

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[70] Steiner wrote about the link between the moral imagination and Darwinism, foreshadowing recent research by Loye's Darwin Project (Loye, 1998, 2004; Steiner, 1914/1973c, 1894/1964b, 1971c).

Gebser's Research Methodology

Unlike Steiner and Wilber, whose writings encompass vast territories, Gebser's interest was primarily consciousness evolution—particularly the emergence of integral consciousness—through what he saw as cultural mutations or sudden leaps. In an article, first published in German in 1956, but not translated into English until 1996, Gebser discusses the contribution of cultural philosophy towards facilitating the emergence of integral-aperspectival consciousness. He described this methodology of cultural philosophy as proceeding through phenomenological, comparative, coordinating and finally reductive work. I will summarize these four stages as follows including extracts of his words:

- Firstly, "comprehending the results of the various natural sciences and humanistic disciplines"—as a type of cultural phenomenology;
- The second step is "to compare the individual phenomena;"
- Thirdly, the task is to "coordinate these phenomena to bring out their common denominator;"
- Finally, there is an attempt to "reduce the most diverse by thematically related phenomena to the elements of their fundamental structure" (Gebser, 1996a, p. 80).

Intriguingly, this process appears very similar to Wilber's methodology of *orienting generalizations* discussed below, though I am not aware of any source where Wilber makes this connection or whether he is even aware of this particular article or of Gebser's stated methodology. This could provide further important theoretical grounding for Wilber's methodology.

Gebser also considered his work to have been indirectly influenced by Sri Aurobindo. In another context, Gebser stated that he first became aware of his concept of the formation of a new consciousness "by a flash-like intuition in the winter of 1932-33. . . . I see an explanation for this phenomenon in the fact that I was in some way brought into the extremely powerful spiritual field of force radiating through Sri Aurobindo" (Mohrhoff, 1992, p. 1). Gebser acknowledges that such an insight only has personal validity, but that he spent the next 17 years in deep, scholarly research and that the "quotations and references to such sources are intended to lend a generally valid evidential character to the personal validity of the original conception" (Gebser, 1949/1985, p. xxviii).

Elsewhere, Gebser (1949/1985) summarized the intent of his methodology as follows: "Our 'method' is not just a 'measured' assessment, but above this an attempt at 'diaphony' or rendering transparent" (p. 7).

Gebser's *truth* claims are integrated with his entire approach. The way that he has endeavored to characterize the various structures of consciousness by enactment and illustration as well as explanation, is integral to his methodology of what he calls "imparting of truth." His notion of truth however is not merely a concept, but an attempt to enter into the depth of things and to render them transparent.

> Integral reality is the world's transparency, a perceiving of the world as truth: a mutual perceiving and imparting of truth of the world and of man and of all that transluces both. (Gebser, 1949/1985, p. 19)

Clearly, his notion of truth is not static.

Gebser's context was different from Steiner's in that he had experienced first-hand the catastrophic results when Social Darwinism was hybridized with Nazism. In this seminal work on consciousness, he (Gebser, 1949/1985) problematizes terms such as *evolution*, *development* and *progress* referring to their serious limitations in the following words. "The rationalistic thought-cliché of "progress" (more often than not a progression away from origin) the biologizing notion of evolution, and the botanizing idea of development are all inapplicable to the phenomenon of consciousness" (p. 38-39). He throws further light on this view in his last book—which is not yet officially available in English—but first published in German in 1970, three years before his death. A recent informal translation (Gebser, 1970/2005) indicates the distinction he makes between his alternative view and the evolutionary theories of his day.

> Evolution is in this view neither progress nor development, but crystallization of the invisible in the visible, that should be achieved by adequate work . . . The presently valid evolutionary theories including that of development and progress are hardly older than 100 years. They deal merely with one part of reality . . . i.e. only the visible and conclusive. The total reality as far as it is accessible to us comprises however also the other half that is invisible to us.

Later, in that document, he endorsed the involution theories of Sri Aurobindo, which clearly underpinned his evolution of consciousness approach.

Wilber's Research Methodology

Wilber refers to his main methodology as *orienting generalizations* which he describes in the following way: "If we look at the various fields of human knowledge—from physics to biology to psychology, sociology, theology and religion—certain broad, general themes emerge, about which there is very little disagreement"[71] (Wilber, 1996a, p. 17). Expanding on his methods for constructing his theory, Wilber (1996) continues:

> If we take these types of largely-agreed-upon orienting generalizations from the various branches of knowledge . . . and if we string these orienting generalizations together, we will arrive at some astonishing and often profound conclusions, conclusions that, as extraordinary as they might be, nonetheless embody nothing more than our already-agreed-upon knowledge. . . . In working with broad orienting generalizations, we can suggest a broad orienting map of the place of men and women in relation to Universe, Life and Spirit. (p. 18)

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[71] This is perhaps one of the more contested areas of Wilber's approach.

Wilber's overall 'integrative method' is further detailed by Jack Crittenden in the *Forward* to Wilber's *The Eye of Spirit*, (2000d) and described as having three steps. I have summarized Crittenden's description of these three steps as follows:

- Wilber develops the orienting generalizations within each field of study—"a type of phenomenology of all human knowledge conducted at the level of orienting generalizations."
- "Wilber then arranges these truths into chains or networks of interlocking conclusions. At this point Wilber veers sharply from a method of mere eclecticism and into systematic vision." Crittenden claims that at this point Wilber asks himself: "What coherent system would in fact incorporate the greatest number of these truths?"[72]
- "The third step in Wilber's overall approach is the development of a new type of *critical theory*." Crittenden explains that once Wilber has developed his optimum schema (eg AQAL) he then critiques the partiality of the narrower approaches. "He criticizes not their truths, but their partial nature" (pp. xiii-xiv).

In regard to his own truth claims, Wilber gives mixed messages. In a discussion of what he calls *broad science*—or even *spiritual science*—he claims that all "truth claims [can be] guided by the three strands of valid knowledge (injunction, apprehension, confirmation; or exemplars, data, falsification) *applied at every level* (sensory, mental, spiritual)" (Wilber, 1998, p. 174). In other contexts he honors the role of pluralism and relativism in truth claims. Yet he positions his integral theory above other theories, suggesting that his tacit bias may be to believe that his theory is more "true" than others.

In the foreword to the second edition of *Up from Eden*, Wilber tackled head-on what he sees as the major critiques against evolution theory that still hampered the appropriate development of the evolution of consciousness theory at the time he was writing. Wilber (1996c) claims that there has been considerable opposition to the notion of cultural and consciousness evolution—from the traditionalists, because evil is still happening; the Romantics, who hark back to the past; and from the liberal social theorists, reacting to the horrors of Social Darwinism. He then puts forward several arguments for cultural evolution, particularly drawing on Habermas' notion of the *dialectic of progress*. He also points to the "distinction between differentiation and dissociation," "the difference between transcendence and repression," "the difference between natural hierarchy and pathological hierarchy," and how "higher structures can be hijacked by lower impulses" (pp. xi-xiv). These are important theoretical contributions to the discourse.

My Postformal Research Methodology—a Theoretical *Bricolage*

> *[A bricoleur-theorist* is one who] works between and within competing and overlapping perspectives and paradigms. (Denzin & Lincoln, 2005, p. 6)

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[72] This description of Wilber's methodology appears to reflect his enactment of postformal thinking processes such as 'systematic' or even 'metasystematic' reasoning, as identified in seminal developmental psychology research on postformal stages (Commons & Richards, 2002).

> In its embrace of complexity, the bricolage constructs a far more **active** role for humans both in shaping reality and in creating the research processes and narratives that represent it. (Kincheloe, 2005, p. 324)

Before examining my unique methodological approach, I wish to identify the mood of soul in which I undertook the research. I entered a mood of critical reverence,[73] integrating heart and mind in a way that both honored the huge contributions of Steiner, Gebser and Wilber, yet retained a critical mind.

To assist with understanding of the overall framing of this research within the larger project, I have included a table showing the layered framing of the research in which this paper is situated (See Table 1).

Table 1: A Layered Research Framing

Type of Inquiry	***Conceptual Research***[74]
Substantive Conceptual Content	Evolution of Consciousness
Pragmatic Interest	Cultural Pedagogical Practice[75]
Philosophical Interests	Integral[76] Evolutionary Philosophy
Epistemology	Transdisciplinarity
Methodology	Theoretical Bricolage

Source: (Gidley, 2007b)

Undertaking postformal or integral research presents several methodological challenges. With a topic as far-reaching as the evolution of consciousness these challenges are multiplied in manifold ways. However, because of the complexity of the research topic and the transdisciplinary[77] epistemology (Grigg, Johnston, & Milson, 2003; Nicolescu, 2002; van den

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[73] It is worth noting that several researchers include *reverence* as a postformal quality, particularly in the education research (Gidley, 2007a; Miller, J. P., 2000; Miller, R. 2000).

[74] *Conceptual research* is a term used in social science research such as psychology, psychotherapy and psychoanalysis for research that is not empirical or clinical (Young, 1995).

[75] *Cultural pedagogical practice* is a phrase used in the critical pedagogical philosophy of Henry Giroux (1998), who acknowledges that education does not just take place in schools and universities but in multiple sites as also reflected in my research where I use the broader term *youth enculturation*, in addition to *education* or *schooling*.

[76] My use of the term *integral* incorporates at least the composite meaning of *postformal-integral-planetary*.

[77] "Transdisciplinarity is . . . radically distinct from multidisciplinarity and interdisciplinarity because of its goal, the understanding of the present world, which cannot be accomplished in the framework of disciplinary research. The goal of multidisciplinarity and interdisciplinarity always remains within the framework of disciplinary research" (Nicolescu, 2002).

Besselaar & Heimeriks, 2001) it was too limiting to use one singular research methodology. In my search for a suitable methodology that could hold all of these perspectives, the postformal methodology of *bricolage*[78] has emerged as the most appropriate. Specifically my *theoretical bricolage*,[79] includes hermeneutics (Bruns, 1992; Demetario III, 2001; Foucault, 2005; Habermas, 1986; Palmer, 1969; Ricoeur, 1986; Wachterhauser, 1986); narrative inquiry (Bocchi & Ceruti, 2002; de Beer, 2003; Montuori, 1999); and feminist methods such as intuitive and organic (Braud & Anderson, 1998). As indicated in the section above, it is also informed by a variety of philosophical perspectives such as integral theory, postmodern philosophy, and futures studies. However, in spite of the plethora of methods that have contributed in some way to this research, the primary methodology used for the analysis is hermeneutics: specifically an in-depth textual analysis of the theoretic narratives of Steiner, Gebser and Wilber.

Hermeneutics as a research methodology in the social sciences has developed over several iterations, from its original roots in Biblical exegesis. There has been much debate in recent decades about the different versions of hermeneutics. The most notable debate was that between Gadamer (1986a) and Habermas (1986). Gadamer's more traditional, philosophical hermeneutics—by his own admission—draws on the early Romantic phase of hermeneutics. Habermas' critical hermeneutics arose from critical theory. French philosopher, Ricoeur called it the *hermeneutics of suspicion*, linking it with the rationalist stream coming from the European Enlightenment (Ricoeur, 1986). Ricoeur has attempted to find reconciliation between these two opposing camps.

This research draws strongly on the hermeneutic approach of Ricoeur. Ricoeur (1986) identified two major approaches to hermeneutics, in the sense that it is about understanding symbolic texts, which have multiple meanings. He refers to one as the *hermeneutics of suspicion*, which seeks to destroy the symbol as the representation of a false reality, destroying "masks and illusions in a relentless rational effort at "demystification" (Palmer, 1969, p. 44). The other approach—*demythologizing*—"deals lovingly with the symbol in an effort to recover meaning hidden in it" (Palmer, 1969, p. 44). It is my intention in this paper to *demythologize* the narratives of Steiner, Gebser and Wilber, in the sense that Ricoeur uses the word.

As an outcome of Ricoeur's hermeneutic reconciliation of the Gadamer-Habermas debate, he developed an integrated approach to hermeneutics that I have utilized. Wilber (2000d) has also developed an approach to hermeneutic interpretation, based on the four quadrants component of his integral framework. Because it is so aligned to Ricoeur's approach, I have included an annotation related to Wilber's quadrants in my summary below. It is worth noting that although

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[78] Interestingly, from a transdisciplinary perspective, Derrida (2001) also discusses the value of Levi-Strauss's use of bricolage in critical analysis of all discourse. "If one calls *bricolage* the necessity of borrowing one's concept from the text of a heritage which is more or less coherent or ruined, it must be said that every discourse is *bricoleur."*

[79] The notion of "theoretical *bricoleur"* was introduced by Denzin and Lincoln (2005). *Bricolage*—the process and product of the *bricoleur*—has been substantially developed as a postformal educational research methodology by educational researchers Joe Kincheloe and Shirley Steinberg drawing on a wide range of philosophies, epistemologies and methods such as critical theory, ethnography, hermeneutics, postmodernism, poststructuralism (Kincheloe, 2001, 2005; Kincheloe & Berry, 2004; Kincheloe, Steinberg, & Hinchey, 1999).

Wilber makes brief mention of Ricoeur's work, he does not mention the close relationship between their positions as indicated below. It is unclear why this might be the case.

In brief, in Ricoeur's (1986) section *Critical reflection on hermeneutics* where he examines Gadamer's position with "a critical eye," he speaks of four ways to approach a hermeneutic analysis—through the *fundamental phenomenon of the text* and through what he calls the *threefold autonomy of the text*.

- The autonomy of the text—the fundamental phenomenon—aligns to Wilber's Upper Right quadrant (UR);
- Autonomy of the text with respect to the intention of the author, aligns to Wilber's Upper Left (UL);
- Autonomy of the text with respect to the cultural and sociological conditions of the text. It is most likely that Ricoeur is using cultural and sociological in the sense of Wilber's Lower Right (LR);
- Autonomy of the text with respect to the "original addressee." This appears to relate to Gadamer's *reader response factor* and would thus align to Wilber's Lower left (LL). (pp. 328-329)

Most of my hermeneutic analysis throughout the main narrative in this paper relates to the first two of Ricoeur's points. In other words my own interpretive task is a hermeneutic dance between the autonomy of each author's actual text (Wilber's UR)—the major reason that I have engaged in such lengthy quoting—and my best interpretation of their original intent (Wilber's UL). The major influences on *how* I interpret their original intent from the actual text are related to the historico-cultural (Wilber's LL) and sociological (Wilber's LR) circumstances of the three authors and myself. In hermeneutic analysis, the best way to improve the validity of the research is to be as transparent as possible in relation to such socio-cultural contextual features as may influence interpretation through hidden biases. The following section attempts to create transparency in these domains.

A Hermeneutic Contextualization

Steiner,[80] Gebser and Wilber—Perspectives on Socio-Cultural Contexts

I do not believe that Rudolf Steiner (1861-1925), Jean Gebser (1905-1973) or Ken Wilber (born 1949) need a formal introduction in this particular journal. However I will briefly comment, for hermeneutic transparency, on the cultural context of each. A notable fact is that neither Steiner nor Gebser is still alive, whereas Wilber is a contemporary, like myself. I may have cultural biases in this regard and in due course will attempt to make those explicit.

Interestingly, both Steiner and Gebser were central Europeans who moved to Western Europe. In spite of the somewhat unique flavors of these stimulating European cultures where they lived, they both participated intellectually and spiritually—though without contact with each other—in the major cultural flourishing that took place in the early 20th century.[81] This included a new openness to Eastern, particularly Indian, spirituality and culture. Gebser himself referred to this extraordinary cultural-scientific-philosophical-artistic flourishing as demonstration of the breaking through of the new integral consciousness structure. They also both witnessed Europe being torn apart by war.

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[80] I have listed the names here and in the title chronologically, in relation to the timing of their births—Steiner (1861-1925), Gebser (1905-1973), Wilber (born 1949).

Steiner was born in Croatia, spent his childhood in Austria, then lived and worked mainly in Germany, until escaping to Switzerland after the 1st World War, where he remained living and working until his death. However, from the turn of the 20th century, when he began his more active spiritual-scientific work, he traveled extensively in western and central Europe and the UK, to lecture and collaborate with other academics and professionals. Steiner referred to the approach that he took with his work as spiritual science, or *Anthroposophy*.[82]

Gebser was born in Poland, but spent much of his adult life in Italy, Spain and France being friends with Spanish artists and poets, such as Pablo Picasso, and Federico García Lorca. Gebser, like Steiner, also had to escape to neutral Switzerland, being fortunate to leave Paris just prior to the German invasion and enter Switzerland only hours before the borders were closed. He referred to the kind of research he undertook as cultural philosophy (Gebser, 1996a). Gebser obviously also took part in the further cultural-philosophical developments of his times as he lived, for another forty-eight years after Steiner.

By comparison with Steiner and Gebser, Wilber's external cultural context—mid-20th century North American—would appear somewhat bland. In his childhood he would have imbibed—either explicitly or implicitly—the mid-western American early television culture of *Cowboys and Indians*.[83] Later in his adolescence and early adulthood he would have been enculturated—even if unconsciously—by American scientism, politico-global hegemony, economism and the reduced versions of modern and postmodern philosophy that seem to have arisen out of this broader hybridization of science-politics-economics for which 20th century USA has been notorious.[84] On the other hand, the waves of new consciousness that swept the Western world in the sixties and seventies originated in the USA and have contributed a powerful shaping influence on the worldviews of people growing up in those times. Additionally, Wilber, as an adult, clearly took his own enculturation and inner development in hand during the 70's and beyond with his immersion in Eastern spiritual traditions and western philosophy and psychology and his extensive self-education in many fields of study.

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[81] The outstanding individual contributions to an integralization of the noosphere include Einstein, Steiner, Whitehead, Bergson, James, Dewey, Sri Aurobindo, Tagore—to name just a few in the Indo-European lineage. Richard Tarnas (2006) indicates connections between these philosophical-cultural movements and the movements of cosmic proportions also occurring during the first two decades of the 20th century. I must confess to relative ignorance of parallel developments in other cultures that I imagine have occurred and would be most interested if readers can inform me on this gap.

[82] Anthroposophy could be described as the wisdom of the human being.

[83] This may have some bearing on Wilber's occasional use of *cowboy* metaphors when discussing his critics—a residue of cultural shadow perhaps?

[84] For further academic analysis on the Americanization of postmodern philosophy, refer to Hampson (2007).

In summary, it is my interpretation that some contextual biases arise from this material.

- Gender bias: all three are male and also mostly use the masculine gender when speaking about human beings;
- Eurocentrism: all three are of European descent and there is evidence of Eurocentrism at times in all of their work;
- Indo-Euro-centrism: there is also evidence of an Indo-European cultural and spiritual heritage in all three, though Gebser demonstrates more cultural breadth than the other two in some of his examples;
- All three are biased in favor of progressive and developmental notions of individual and socio-cultural evolution, however they also in different ways problematize such concepts in terms of how they have been used previously. Nuances between them will be uncovered throughout the text.
- Spiritual orientation: all three are critical of the materialist worldview and promote spiritual perspectives. Although none of them are fundamentalist or even sectarian, Steiner and Gebser demonstrate a stronger Christian bias, perhaps related to their cultural contexts. Wilber by contrast demonstrates a bias toward Eastern spiritualities, especially Buddhism;[85]
- Aesthetic orientation: Steiner and Gebser are both strongly oriented towards the aesthetic dimension in the emergent consciousness they characterize, while Wilber is more cognitively oriented;
- Additionally, Wilber appears to be both Anglophone and somewhat American-centric in his orientation.

Perspectives on My Cultural Context

And what is my own cultural context, my own story? As an Anglo-Australian, not fluent in any other languages, I am aware that my own research is biased by my inability to access relevant material in other languages, unless it has been translated into English. I also have to admit that the cultural context of my own childhood in suburban Australia was probably as bland as Wilber's. Overall, I imagine I have been subjected to several similar cultural and *Zeitgeist* influences to Wilber. We were both children in the fifties, adolescents in the sixties and young adults in the seventies. These are some of the things that have made studying Wilber comfortable for me and may hide some tacit biases. However, I didn't much enjoy the American *westerns* that were offered on TV. Rather, I preferred to draw, read books, knit and daydream. Thankfully, I have little interest in metaphors of war and conflict, including academic "culture wars" or "turf wars." Also, I am a woman, mother, educator, psychologist and futures researcher.

I will proceed to briefly discuss how I am constructing my emphasis with regard to each. By making explicit the biases that I am aware of, I also hope to make more transparent any tacit potential biases that may have slipped my attention. I have been aware for some time however that Steiner's substantial contribution to world philosophy has been strikingly overlooked particularly in the Anglophone academic world. I recognize this is largely because his primary, early 20th-century-German writings are very difficult for many contemporary scholars to read and understand, even when translated. Also the explicitness about spirituality[86] in his writings may have been unpalatable to academics until probably the last decade when there has been a shift—at least in the Anglophone academic world. Gebser's work appears to have been similarly overlooked. Over the last decade I have pursued a strong interest in studying/researching many integrative philosophies and theories. When I came to Wilber's work a few years ago I intuitively felt a strong resonance between his and Steiner's work and began to research Wilber in more depth. I was surprised to discover that he had not included any in-depth study of Steiner's extensive writings on the evolution of consciousness. This was in spite of the espoused comprehensiveness of Wilber's synthesis of significant integral theorists in this area. I felt inspired to address this significant gap in the growing integral knowledge base and deepened my research with a view to a postformal integration of Steiner's and Wilber's work. As I immersed myself in the primary sources[87] that Wilber refers to I became increasingly aware of the significance of Gebser's research in its own right, particularly in regard to the scholarship of both his theory and his phenomenology. In order to extend the rigor of my analysis of Steiner and Wilber I decided to use Gebser's structures of consciousness to provide a scaffold to anchor my analysis, thus foregrounding his work. Overall, it is my intention to give a relatively equitable focus to each of their contributions, though not in a mechanical way. As an exception, there are two areas of discussion where I have emphasized Steiner's narrative more strongly, because he has made significant additional theoretical contributions—the impact of astronomic cycles and rapid geo-climatic events on culture and consciousness movements, and the transition between Gebser's magic and mythical structures. I have also chosen in some places to do more direct interpretive quoting from Steiner's work as it is the most dated and difficult and thus the least accessible. By contrast, Wilber's writing is readily available and relatively easy to read and thus paraphrase.

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[85] I wonder if the cultural context for this may be as a reaction to some of the fundamentalist strands of Christianity prevalent in the USA. This has been called Wilber's *Pacific* philosophic tendency in contrast to the *Atlantic* philosophic tendency of Steiner and Gebser (Benedikter, 2005).

In summary, my reconstructed narrative that draws on the other three, endeavors to balance most of their biases. However, upon reflection, I note that I have actually intensified others to counterbalance the tacit bias in the dominant evolution of consciousness discourse.

- Gender bias: as a woman I provide some balance to the gender bias and endeavor to use gender neutral language myself. However, on further reflection, I wonder why I primarily drew on three male authors—a tacit cultural bias perhaps?
- Eurocentrism: I am also of European descent but have endeavored to balance the Eurocentrism where possible, though I am limited by my lack of other languages;
- Indo-Euro-centrism: I have become aware through this research of my own tacit bias in this direction and have endeavored to address this where possible;

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[86] Some of Steiner's books and lectures use the term *occult* in their titles. He did this deliberately because his whole purpose was to bring into the light of day—through his scientifically and philosophically grounded epistemology—a methodology for accessing knowledge that had previously been *hidden*—that is, *occult*—in Church dogmas and secret societies. The dialectical title *Occult Science*, for one of his major books, was an attempt to make this task explicit (Steiner, 1910/1939).

[87] While I have also begun to enter into the significant contribution of Sri Aurobindo in this area, in order to bound this research into a manageable size, I have had to leave the delight of more fully engaging his work for a future time.

- I am also biased in favor of progressive and developmental notions of individual and socio-cultural evolution and yet also problematize these concepts in terms of how they have been used in modernist discourses;
- Anglophone centrism: I have become aware of my own Anglophone centrism during this research and have endeavored to address it up to the limits of my language skills;
- Spiritual orientation: I also share this bias and have retained it consciously as it is a balance to the dominant discourse which is biased towards scientific materialism;
- Aesthetic orientation: I also share a bias towards the aesthetic dimension. I have chosen to retain it as a balance to the cognicentrism in the dominant discourse, including much of the integral discourse;
- Finally, I am probably a postformal romantic philosopher seeking to salvage remnants of the enormous contribution of the German Idealists and Romantics[88] and proflect them into the future.

My own truth claims are rather humble. I am aware that some of the "data" I present from my three major sources is scientifically unorthodox. I am not claiming that this data is *factual* in a fixed way that can be argued from the perspective of other apparently opposing scientific *facts*. Nor do I think that the current state of scientific knowledge of our deep past and potential futures is the final word. As Foucault and others have demonstrated there are many versions of history. My intuition tells me that there are many versions of evolution of consciousness, and science has not yet discovered them all. My narrative complexly interweaves the honest, authentic life work of three heterodox integral scholars and I intuit that there may be more than a thread of "truth" in what they say. We have seen scientific theories change dramatically over time, and scientists themselves admit that the new insights that drive their research often come from their imaginations, or from intuition. As László (2006) states:

> Bruno, Galileo, Copernicus, Kepler, and Newton himself had deep intuitive, even mystical streaks. Nor did intuition lack in the giants of twentieth-century science. As their writings testify, it was a leading element in the thinking of Einstein, Erwin Schrödinger, and Neils Bohr, as well as Wolfgang Pauli and Carl Jung, to mention a few. (pp. 59-60)

I have primarily sought to broaden and deepen the evolution of consciousness discourse, to bring new narratives to the table: the table where *truth* is a movable feast.

Having established the philosophical, theoretical and methodological context, I will now introduce the main narrative in which I integrate the three individual narrative threads of Steiner, Gebser and Wilber, into a larger creative tapestry.

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[88] I note also that Wilber does not give a positive picture of romantic philosophers or eco-philosophers—and I question much of his evidence for this. I suggest that the influence on integral theory of this apparent bias also needs some balancing.

2. A Macrohistorical Planetary Tapestry: The Fascinating Integral Narratives of Steiner, Gebser and Wilber

A Circumnavigation of the Topic

> The dialectical challenge felt by many is to evolve a cultural vision possessed of a certain intrinsic profundity or universality that, while not imposing any a priori limits on the possible range of legitimate interpretations, would yet somehow bring an authentic and fruitful coherence out of the present fragmentation, and also provide a sustaining fertile ground for the generation of unanticipated new perspectives and possibilities in the future. (Tarnas, 1991, p. 409)

We live in an hour of grand transition. The tensions between rival worldviews, globally and locally, cry out for mediatory perspectives. Many perceive the current global tumult as evidence of break*down* of culture and with it the safety of the *familiar*. They posit their various solutions, such as: the secular neo-liberal economics of globalization, a return to religious fundamentalism, *cures* for emotional and psychological despair, or just plain war.

Others, like myself, perceive signs of luminous break*through* everywhere.

Is my response—and that of others I resonate with—simply a regressive retreat to romantic naivety? Or might it reflect a transcendence of the worn-out solutions of the "already said?" Might it open up fresh possibilities that lie hidden in the textural—and textual—folds of a delicately re-woven noospheric tapestry? *But* . . . in the wake of postmodernism will I be *allowed* to re-weave a new *macro*-narrative from the unraveled threads of Lyotard's "incredulity towards metanarratives," and Derrida's gift[89] of deconstruction? Perhaps my postcritical *naiveté* may be emboldened by the *écriture feminine* of Héléne Cixous (1991), or what Ursula Le Guin (1989) calls *the native tongue of the individual*[90]—a new way of languaging that is "the coming together, the marriage of the public discourse and the private experience, making a power, a beautiful thing, the true discourse of reason." Yet Lyotard, Derrida and others[91] need to be honored for deligitimizing and deconstructing many of the grand narratives and taken-for-granted assumptions of the modernity project, that were colonizing our global mind-space. Particularly relevant to evolution of consciousness research was the deconstruction of Social Darwinism, which in an unproblematized form has been used for racist purposes.

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[89] Derrida's deconstruction is often regarded as a negative and nihilistic *destructive* contribution. However as Benedikter and Hampson—and a reading of Derrida's own writing— demonstrate, this is largely a misinterpretation (Benedikter, 2005; Derrida, 1995; Hampson, 2007).

[90] Le Guin contrasts this with two other types of language that she calls the "father tongue" (the language of science and politics) and the "mother tongue" (the language of relationships or that spoken by the mother to her children).

[91] There has clearly been some overlap between this therapeutic unraveling of the hegemonic aspects of modernity by postmodern philosophers, and the diverse works of feminists, artists, critical futurists and many post-colonial scholars too numerable to mention.

It is interesting to consider the diversity of myths that existed in the noosphere[92] prior to its colonization by mental-intellectual-rational thinking, then to consider the even greater diversity of mental-intellectual-rational concepts and discourses that have evolved over the last two millennia—notwithstanding the more recent modernist tendency toward scientific hegemony. In this context, how could we not be enthusiastic about the vast potential of integral theories, discourses, narratives and languages that are only recently beginning to emerge on a planetary scale? Among others the integral narratives of Steiner, Gebser and Wilber each offer potential ways to transcend both the illegitimate aspects of earlier grand narratives and the narrative vacuum that has arisen in their place. One of the dangers inherent in such vastly integrative approaches is the potential for philosophic arrogance either in the originator or their followers.[93] Any claim to universalist supremacy in the emerging integral noospheric space may indicate such a shadow. My hope is to contribute to integral *noospheric diversity*[94] by counter-pointing all three narratives.

I offer this contribution to integral theory by way of a four-dimensional article—that in turn encloses a four-strand narrative[95] as its structural anchor—a gesture towards stretching our noospheric vitality, imagination and concepts into future times and cosmopolitan spaces. This article honors the evolutionary life-works of Steiner, Gebser and Wilber with creative, critical reverence. It is a long piece of writing, but not, I hope, too long to be enjoyed. I invite the reader to consider taking the journey—not as one might drive through a fast food outlet, but—as one might wander through a museum or art gallery, taking time to ponder and reflect along the way.

An Articulation in Four Dimensions

> The concept of the "four-dimensional continuum" as "curved space" thus holds the incipient possibility of realizing the *integrum*, the "four-dimensional" transparent "sphere in motion." (Gebser, 1949/1985, p. 352)
>
> I investigate from one particular aspect . . . and then I investigate three more aspects. . . . In walking round the topic as it were, we are presenting an artistic image of the matter. If one is not aware of this, nothing will be achieved but abstractions and a sclerotic reproduction of what is previously known. (Steiner, 1930/1983b, p. 15)

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[92] Noosphere is a term popularized by Vladimir Vernadsky and Pierre Teilhard de Chardin who referred to it as "the envelope of thinking substance" (Teilhard de Chardin, 1959/2002, 1959/2004). In his 1943 work, *Some Words about the Noosphere*, Vernadsky noted that the term *noosphere* was co-developed and introduced in 1927 by Bergsonian philosopher [Edouard] Le Roy and Teilhard de Chardin (Vernadsky, 1943/2005).

[93] I have experienced this first hand in relation to some exponents of all three approaches.

[94] To my knowledge, feminist theologian and Teilhard de Chardin scholar, Ursula King (2005) coined the term "noospheric diversity."

[95] My own narrative that weaves the other three together is the fourth strand.

> In evolution in general, and human evolution in particular, we are tracing *four different strands* . . . the interior and the exterior of the individual and the social, or the inside and the outside of the micro and the macro.[96] (Wilber, 2000d, p. 125)

Without wanting to become too literal about the number *four*—whether in relation to dimensions, aspects or quadrants—I feel that there is untapped academic value in honoring Gebser's approach to integrality by way of *enacting* the different structures of consciousness that can be enfolded by it. I have chosen to privilege Gebser's theoretical framework over the other two, firstly because he has specialized in cultural philosophy and history, and secondly as a check against my own potential bias towards Steiner or Wilber. The five structures of consciousness that Gebser (1949/1985) identified are differentiated by "differing degrees or intensity of awareness." Gebser (1949/1985) briefly summarized them as follows:

- *Archaic* –It is antecedent to any awareness of time and space and prior to magic consciousness, and inhabits a zero-dimensional world. It is spiritually embedded in nature;
- *Magic* – It corresponds to deep sleep, does not know of time and space, and has its domain in a one-dimensional world. It is vegetative, instinctual and vitalistic in nature;
- *Mythical* –It corresponds to dream states, knows time but not space, and inhabits a two-dimensional world. It is psychic in nature;
- *Mental* – It corresponds to wakefulness, to life in time and space in a three-dimensional world. It is essentially rational in nature;
- *Integral* – It corresponds to aperspectival consciousness, comprising a world of four-dimensions (p. 84). It is essentially spiritual in nature. Elsewhere (Gebser, 1949/1985) notes "This space-time freedom . . . is spiritual; and in this sense the fourth dimension in all its plenitude is the initial expression of a concretion of the spiritual" (p. 387).

A central claim of Gebser is that in order to effect integrality it is necessary to first be able to identify, understand and experience each of the earlier structures. For him, the luminescence of integrality comes from the ability to experience these in full awareness simultaneously—he calls this *concretion* of structures and he writes with this intent.

Several years ago, educationist and Gebser scholar, Bernie Neville, coined the phrase *writing the diaphainon*,[97] pointing to the need to develop new forms of academic writing that enacted integrality (Neville, 2000). I propose that dialogic[98] writing, intertextuality, layering, multivocality are some of the ways forward for enacting integrality in academic writing. Many of these styles are utilized in poststructuralist writing (Deleuze & Conley, 1992; Derrida, 2001; Hampson, 2007; Kristeva, 1982; MacLure, 2006a, 2006b) and formerly by Nietzsche (Del Caro & Pippin, 1887/2006). The journal *Integral Review* is contributing significantly to this project by including extended works, in which the multifocality of a main piece with several appendices can enable a rich hermeneutic circling of understanding (Roy, 2006a). This facilitated the recent article by Gary Hampson (2007), which emphasized the intimate dialogue between content and style through *nanotextology*. Within integral theory Roland Benedikter (2005) has also made a significant beginning with dialogic academic writing. I have also enacted multivocality through my interwoven tapestry of narratives.

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[96] Wilber's four quadrants as summarized briefly by him here, bears a remarkable similarity to the *Four Fields of Knowledge* put forward by Ernst Friedrich Schumacher in his 1977 *Guide for the Perplexed*, summarized as 1. I – inner; 2. The world (you) – inner; 3. I – outer; 4. The world (you) – outer. (Schumacher, 1977, p. 62) Although Wilber refers to this book in his reference list at the end of SES, and in two endnotes, he does not cite Schumacher in relation to his four quadrants. (Wilber, 2000d) Some clarification from Wilber on this issue would be valuable.

[97] The *Diaphainon* is one of Gebser's terms for the transparency of spirit that can arise when integrality is enacted

[98] Any reference to dialogue in integral theory must take account of the seminal work on *deep dialogue* of philosopher, Ashok Gangadean (1998).

It is my intention in terms of overall style to strike a balance between organized structure and creative flow; between repetition and difference (Deleuze, 1994); and between breadth of overview and depth of gap-dives (Roy, 2006b). I will also be using an abundance of textual quotations, firstly because my primary methodology is hermeneutics, and secondly, because I value the versatility of language, the uniqueness of each individual's expression—its flavors and textures, its structure, rhythm and artistry. Specifically, I will introduce each major section with one quote from each of Steiner, Gebser and Wilber, which encapsulates something of their sense of the type of consciousness being discussed in each section. In the main narrative I will be enacting a narrative writing style that deliberately weaves conceptual reasoning with imagination, though from a *post*-rational *mythopoetic*[99] rather than a *pre*-rational mythic stance.

A Tapestry of Narratives—Terminological Threads in the Weave

> Human art, myths, and philosophies are obvious testimonies to the simple truth that we humans have always been fascinated (if not obsessed) by questions about ourselves. Our myths narrate the stories of how and why we got here, while our philosophies define and analyze what makes us human. (Isenberg & Thursby, 1984-6, p. 2)
>
> The human race seems inexorably drawn toward situating itself within cosmic narratives. (Poletti, 2003, p. 395)

The macrohistorical and macrocosmic scales that are required to research the evolution of consciousness provide significant challenges to the formal research methods of the empirical sciences. This realization is arising from within science itself. Emergentist biologist, Stuart Kauffman, (cited in Kiblinger, 2007) notes that the change in scientific emphasis from the *universal* laws of physics to the open, *contingent* possibilities of the new sciences shifts the methodological interest to stories. "Biologists tell stories. If I am right, if the biosphere is getting on with it, muddling along, exapting,[100] creating, and destroying ways of making a living, then there is a need to tell stories" (p. 196). Delving into ancient paleo-history requires, even of science itself, the narratival piecing together of fragments of fossil evidence and cohering it with

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[99] *Mythopoetic* infers a meta-reflection on existing myths including exegesis and re-creation.

[100] *Exaptation* refers in evolution to the cooptation of traits previously adapted for other uses or conditions. Another term that has been used for this characteristic is *bricolage* (Bocchi & Ceruti, 2002).

sensible imagination.[101] In considering periods *prior* to fossil evidence the boundaries begin to blur between science, ancient mythology and such fascinating macrohistorical narratives, as I will be presenting here. In this context direct empiricism is inapplicable in isolation, whereas new methods can be developed incorporating imagination, deep intuitive insight and creative storying *in addition to* observation and understanding informed by scientific epistemologies. Goethe foreshadowed this two centuries ago with his *delicate empiricism* that infused both his scientific and his literary work (Holdrege, 2005; Robbins, 2006).

Before beginning the journey of exploration of these three fascinating narratives, I will contextualize key terms used in the title.

Macrohistorical

The term *history* is problematic in relation to human evolution, because *formal* history refers only to post-literate societies and because, as Foucault and others have demonstrated, an undeconstructed history hides implicit power relations in its explicit narratives (Foucault, 1970/1994). Over the last few decades the tensions between biology-based evolutionists and others taking broader historical, anthropological, philosophical or spiritual views, has paralleled the emergence of transdisciplinary fields, such as cultural studies, futures studies and more recently, integral studies. The concept of *macrohistory* has emerged from futures studies and includes the philosophy of history, macrosociology, geopolitics, cultural studies, international relations, social and cultural anthropology, and spiritual evolution (Galtung & Inayatullah, 1998). It is a term that generously allows for creative, visionary thinking about the past and future while providing a flexible structure from which to view the resultant perspectives. (For a discussion of conceptualizations of history through time, and of time through macrohistory, see Appendix A)

Planetary

The use of the term *planetary* has been increasing within evolution of consciousness discourses. The semiotic pluralism of its contemporary usage provides a counterbalance to the more politico-economic term: globalization. The major threads include the gradual formalization throughout last century of several layers or spheres of planetary concern to human research: *geosphere*—the physical body of the planet; *biosphere*[102]—the ecological concern for the life system of the whole planet; *noosphere*—in relation to integral planetary consciousness; and *cosmosphere*[103]—in relation to broader understanding of the place of the earth in the cosmos. Many contemporary discourses using the term planetary have been inspired by Teilhard de

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[101] My intention with this dialectical term is to ground imagination in the phenomenology of the senses, in the Husserlian sense of *sensible intuition*, in combination with the everyday use of sensible as implying a wisdom dimension.

[102] In Vladimir Vernadsky's theory of how the Earth developed, the noosphere is the third in a succession of phases, after the geosphere (inanimate matter), and the biosphere (biological life)—the latter term he attributed, correctly, to Eduard Suess in his (1885) book *The Face of the Earth*.

[103] The term *cosmosphere* has been largely appropriated by the physical science of cosmology, and other terms which are more inclusive of the possibility of spiritual dimensions to the cosmos are only beginning to be explored. (For more information see Appendix B.)

Chardin's research on the noosphere and his notion of the "planetization of mankind" (Teilhard de Chardin, 1959/2004). (For further discussion on these themes, see Appendix B)

Tapestry

Why tapestry? Tapestry is a complex, subtly three-dimensional, weaving system traditionally combining a horizontal warp with a weaving weft that is built up vertically enabling rich imagery to emerge through the relationships between the colors. I am picturing the horizontal warp as my endeavors to adequately integrate a spatial perspective—reflecting the span of integration (as discussed above and in more detail in Appendix B). The creative weft enables me to vertically integrate the three narratives through the temporal journey. The narratives of Steiner, Wilber and Gebser provide the colorful image-patterns that are interwoven in the bigger *yarn* of my narrative. Tapestry appears to have reached an artistic peak with the famous *Hunt of the Unicorn* tapestries[104] created in France/Brussels in the early 1500s. This time was a crucial turning point in Europe when the last vestiges of mythic-picture consciousness were about to be rationalized away as superstition (Gebser, 1949/1985, p. 21). My interest is in weaving a tapestry[105] of ideas, a *noospheric* tapestry that provides a rich, colorful, evolutionary picture where both *universal* themes and *particularities* can be clearly perceived without disabling further conceptual movement and growth.

Integral

> Socially engaged contemplation [for example, dialog and knowledge building practices] forcefully brings in the ethical dimension, which one risks leaving as remote in strictly private contemplative practices. (Murray, 2006, p. 263)

My interest in writing this composite narrative is one of *integration* of integral theoretic narratives,[106] whereby, in addition to their unique particularities, the potential convergences between Steiner's integrative spiritual-science, Gebser's integral-aperspectival cultural phenomenology, and Wilber's integral-AQAL[107] theoretic framework, will emerge. These convergences point to a rising *universal field* of integrality beyond the bounds of any one interpretive framework, yet open to individual interpretation. This is not to ignore the contentions between them or smooth over the gaps and wrinkles, but to see in them the possibility for new understanding to be advanced and new meaning to emerge. Perhaps the differences, gaps and wrinkles are Deleuzian folds—holding within them secrets yet to be revealed, new "lines of flight" for the human family (Deleuze & Conley, 1992). My hope for this century and beyond is that all manner of integral theories and post-theories will flourish as part of integrality's own awakening. From my assessment—to be discussed in more detail at the conclusion of this paper—Gebser's writing is the most successful in *enacting* integrality. I have endeavored to echo this style of integrality through enacting the resounding of magic vitality, the circling of mythical imagination, the purposefulness and direction of mental/theoretical concepts, and the clarity of integral concretion of multiple perspectives, to encourage the originary presence to shine through. In this way the intent of my own integrality is not so much in detailing and mapping integral concepts—which Wilber has done so extensively—rather to *enliven* them. I hope to nurture and transpare the living imaginations of the *Zeitgeist* shining through the concepts of integral awakening in our time.

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[104] Perhaps these tapestries—of the hunting and capturing of a unicorn—symbolize the overshadowing of mythic and magical consciousness structures in Europe, to be followed by the European Enlightenment. Yet, the mythical unicorn was not actually killed but merely captured and caged. The honoring given to the story in such a grand artistic project may foreshadow the potential re-integration of magic and mythical consciousness within integral consciousness.

[105] In addition, I must honor the previous use of the term "planetary tapestries" by Frank Poletti (2003).

[106] My privileging of the term *integral* over other possible terms such as *holistic*, or *integrative*, is in no way intended to contribute to any "turf wars." I have done this primarily to honour the substantial academic and spiritual grounding given to the term *integral* last century by Gebser and Sri Aurobindo, whose contributions are different in emphasis but entirely consistent with each other. If the notion of integral is able to retain both the scholarship and the spiritual depth of their contributions, integral consciousness will be on safe ground to flourish this century. Furthermore, by using the phrase *integration of integral views* in this paper, clearly I am not referring to any *one* particular integral theory. I also intend for *my* notion of integrality to conceptually include the notion of *holistic*, at least as it used by numerous holistic theorists who honour a developmental and evolutionary perspective.

[107] Although I have not categorized my work explicitly according to Wilber's AQAL framework (Wilber, 2004), the components of this model are implicitly included throughout, though contextualized within the

Now Time.

Fascinating Narratives

> Since evidence can be adduced and interpreted to corroborate a virtually limitless array of worldviews, the human challenge is to engage that world view or set of perspectives which brings forth the most valuable, life-enhancing consequences. (Tarnas, 1991, p. 406)

The narrative I have constructed in this paper attempts what Tarnas suggests. The term *fascinating*, particularly in combination with *narrative*, allows for the visionary and inspirational aspects of Steiner's, Gebser's and Wilber's ideas to come through. I believe that there is something in the way that their narratives are not held within the orthodoxies of one discipline that makes them so fascinating, so "irresistibly charming or attractive" so inclined to "delight" and "spell-bind"[108] us, that is, if we are able to receive them with a consciousness that is open to crossing the boundaries between disciplines. And this is what is required for the new, integral consciousness to emerge.

One of the major challenges confronted by Steiner, Gebser and Wilber is that each in his own way has attempted to elucidate an emergent movement of consciousness that is not yet well-

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larger narrative. 1) *Quadrants* are referred to re integral hermeneutic methodology; 2) clearly Wilber's *developmental waves* are addressed; 3) a number of *lines* or *streams* are included, such as cognitive, imaginative, spiritual, linguistic and aesthetic, to name a few; 4) the major *states* of deep sleep, dreaming and waking are inherent in the magic, mythic and mental structures of consciousness—as noted earlier; and 5) the notion of *types* is addressed by my overall project which weaves together different *types of integral theoretic narratives*. Finally, my use of *theoretic bricolage* is a type of *methodological pluralism*, which draws in some way on all the various methods Wilber lists in his *eight native perspectives* (Wilber, 2006).

[108] These phrases in inverted commas are selected from a range of dictionary meanings for the term, *fascinating*.

established within mainstream academic discourse. All three use a combination of language and terminology that may be found in a range of disciplines, especially cultural-anthropological, philosophical, psychological, scientific and spiritual/religious. They are telling planetary tales that interweave to varying degrees: art, linguistics, literature, macrohistory, paleontology, philosophy, psychology, science and spirituality. Yet in their endeavors to integrate contributions from the individual disciplines, they are likely to fall prey to attack from within each discipline as not fully embracing their orthodoxies. So rather than referring to their contributions as scientific research, philosophical deduction or spiritual insight, although they include elements of these, I am choosing the term *narrative* for its potential inclusiveness. This also honors the emergence of narrative theory in social science research over the past decade (de Beer, 2003; Denzin & Lincoln, 2005; Heikkinen, Huttunen, & Kakkori, 2000) within the broader context of the *narrative turn*—which followed the *linguistic turn*—within the Academy as a whole (Montuori, 1999). Paradoxically, the narrative turn has co-arisen in parallel with Lyotard's (2004) identification of the "de-legitimation of the grand narratives" of modernity. The constructive nature of his perspective is indicated in the following words:

> Most people have lost the nostalgia for the lost narrative. It in no way follows that they are reduced to barbarity. What saves them from it is their knowledge that legitimation can only spring from their own linguistic practice and communicational interaction. Science 'smiling into its beard' at every other belief has taught them the harsh austerity of realism. (p. 41)

This freedom from the hegemony of scientific and ideological *grand narratives* has created a space, a "productive void"[109] from which a plurality of creative, new—perhaps more *humble*—narratives, can arise. In their book, *The Narrative Universe*, "what Ceruti and Bocchi call for is the complex engagement with a multitude of mininarratives" (Poletti, 2003, p. 398). My tapestry of narratives is an artistic engagement with this perspective. Frank Poletti, Ceruti's translator, summarizing some other work of Ceruti, refers to his notion of Unitas Multiplex[110] for "unity-in-diversity and diversity-in-unity" (F. Poletti, 2005, p. 290).

This is a contemporary postmodern echo of Whitehead's call a century ago for the production of "a diversity of metaphysical schemes" (Gare, 2002, p. 49). In a comprehensive study of the genealogy of both poststructuralism and process philosophy via Schelling, Gare cites Whitehead: "we cannot produce that final adjustment of well-defined generalities which constitute a complete metaphysics . . . we can produce a variety of partial systems of limited generality" (Gare, 2002, p. 49). Gare continues:

> The resulting rival schemes, inconsistent with each other but each with its own merits and its own failures, will then warn us of the limitations within which our intuitions are hedged. This simultaneously opposes the quest for absolute truth while allowing that understanding can be advance. (p. 49)

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[109] Roland Benedikter uses this term to describe the space created by postmodern philosophers, such as Foucault, Derrida, when they go beyond deconstruction to find the "productive void" (Benedikter, 2005).

[110] The term *Unitas Multiplex* has been popularized in Europe by Morin (2001a).

The three narratives I am interweaving could be seen as somewhat *rival* metaphysical[111] schemes in the sense described by Whitehead. From the perspective of some of their followers, there is certainly a competitive element and in some respects an exclusive, rather than inclusive, sensibility. My multifocal process unravels the individual narratives, discarding unviable threads, while simultaneously re-weaving my own composite narrative tapestry to bring a fresh luminescence to the evolution of consciousness discourse.

An Encircling of Appendices

A brief summary of the three appendices now follows.

Appendix A: From Time to Time: Retro-Meta-Reflections on Time(s)

> Time . . . is a much more complex phenomenon than the mere instrumentality or accidence of chronological time. (Gebser, 1949/1985, p. 285)

My cognizance of the complexity of the discourses on time—cultural, scientific, philosophical, feminist, historical, theological— in-*tim*-idates me. Yet, inspired by the criticality of our present planetary moment *in time*, I feel beckoned into developing a tentative temporal template [112] for my evolution of consciousness research. This appendix contextualizes and discusses the default view of time—the three-phase linear-time model of past, present and future that underlies modernist models of *development*, *evolution* and *progress*. It is contrasted with alternative views of time based on Gebser's temporics, which is used to explore Steiner's, Wilber's and other views of time. Gebser's notion of *concretion of time* as being central to integral consciousness is also highlighted. (For more detail see Appendix A).

Appendix B: Cosmic Kinship: A Micro-Macro View of Space

> The overemphasis on space and spatiality that increases with every century since 1500 is at once the greatness as well as the weakness of perspectival man. (Gebser, 1949/1985, p. 22)

As far as we know, or can determine at this point in our global knowledge capabilities, the earth is the only-born child of her kind in the cosmos. In spite of our common biological ancestry with other mammals,[113] we humans appear to be the most biologically suitable species to play an active role in earth's nurturing care. Yet the imbalance that has arisen from the over-extension of the deficient egoistic aspects of mental-rational consciousness has led to the polar opposite of care for our only planetary home. There is a growing complexity and urgency of planetary issues from socio-cultural, politico-economic and environmental perspectives—such as a growing youth mental health problems, increasingly inequitable wealth distribution, climate change, mass extinction of species and water shortages. These require more than piece-meal, fragmented *solutions,* and demand a reframing of human relationships with nature and the cosmos. This appendix engages the notion of space in a multidimensional—but not technicist—manner, including: a re-examination of terms such as cosmology, cosmogony, cosmosophy, cosmography and cosmopolitanism; the metaphoric terrestrialization of the cosmos; consideration of the emergence of planetary conceptions of space in the 15th century; the plight of indigenous people; and noospheric space. (For more detail see Appendix B).

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[111] One needs to bear in mind that the term *metaphysical* has multiple meanings and it is beyond the scope of this paper to enter into such a terminological discussion. However, based on Wilber's interpretation of Habermas, Wilber describes himself as 'post-metaphysical' (Habermas, 1992; Wilber, 2001c).

[112] My usage of template refers at least to its etymological roots from the Latin: *templum* "piece of ground consecrated for the taking of auspices, building for worship," and from the French *templet* "weaver's stretcher," the latter, in relation to my planetary tapestry. http://www.etymonline.com/index.php?search=template&searchmode=none

[113] It is noteworthy that our brains are second only in complexity to dolphins (Russell, 2000).

Appendix C: Literacy Unveiled: Art as Language from a Palaeoaesthetic Perspective

> It took centuries to sufficiently devitalize and demythologize the word so that it was able to express distinct concepts freed from the wealth of imagery, as well as to reach the rationalistic extreme where the word, once a power and later an image, was degraded to a mere formula. (Gebser, 1949/1985, p. 83)

The evolution of human consciousness is intimately interwoven with the development of speech, language and in the last few millennia, increasingly more abstract forms of writing. A brief pictorial essay of this development is interspersed with contextualizing conceptual comment. The piece will, I hope, inspire a new understanding of the earliest forms of aesthetic sensibility expressed by humans and even *pre*-humans. The images may provide an aesthetic balance to my own cognicentric bias at times. Although originally intended to also continue the presentation through the aesthetic dimensions of mental and integral modes of consciousness, this proved too large a project for an appendix in an already lengthy article. The piece has been bounded at the end of what we are calling the mythic period, prior to the ego-mental emergence around 800 BCE. The remainder will be pursued as further research. (For more detail see Appendix C).

3. The Emergence of the Dawn Human

> That original wisdom was an actually inspired wisdom, one that came to man from without, arising from divine worlds. (Steiner, 1971a, p. 114)

> Dreamlessly the true men of earlier times slept. Chaung-tzu ca. 350 BCE. (cited in Gebser, 1949/1985, p. 44)

> In the uroboric state, man "swims about in his instincts like an animal. Enfolded and upborne by great Mother Nature, rocked in her arms, he is delivered over to her for good or ill." (Wilber, 1996c, p. 31)

Context for Emergence of Dawn Humans

Scientific data and interpretation of it regarding the emergence of human beings on earth is fragmentary, somewhat incoherent, and still being uncovered.[114] To add to the challenge of transdisciplinary research in this area, there appears to be different nomenclature and time-lines to classify the various geological and archaeological periods both between and within disciplines Scientific convention currently places the emergence of the *Homo* species within the Pliocene geological epoch (c. 5-1.8 million years BP[115]) and continuing throughout the Pleistocene epoch that is referred to as the *Great Ice Age*[116] (c. 1.8 million 10,000 BP) (Lock & Peters, 1999). The Pleistocene—or *Great* Ice Age—also contains within it colder and warmer cycles called glacial and interglacial,[117] respectively. A potential confusion is that the most recent *glacial* period (c. 70,000-10,000 BP) is often also referred to in common parlance as *the Ice Age*. It was preceded by a warm, humid, *interglacial* period (c. 130,000-70,000 BP) (Ambrose, 1998). Within the macro-geological period—*the Great Ice Age*—there are also two archeological periods: the Lower Paleolithic (2.5 million to 180,000 BP) and the Middle Paleolithic (180,000-30,000 BP) (Bednarik, 2007). (For chronology of Palaeolithic periods, see Table C1 in Appendix C).

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[114] There are many complex scientific issues re accurately dating events of the past. Radiocarbon dating is only accurate back to c. 60,000 years BP Also "Fossils older than ~100,000 years do not yield measurable DNA samples, thus do not currently bring order to the confusion of bones and stones among the hominins dating back millions of years."
http://www.tufts.edu/as/wright_center/cosmic_evolution/docs/fr_1/fr_1_cult1.html

[115] 'BP' in geological terms refers to *Before Present* (which actually means before 1950).

[116] Although the theory of the Great Ice Age was formalized by Swiss paleontologist Louis Agassiz in 1837, the term *Eiszeit* or Ice Age, had already been coined by Goethe in his novel *Wilhelm Meister* in 1823 (Cameron, 1965). Goethe's contribution to the nomenclature has been endorsed by *The Subcommission on Quaternary Stratigraphy* (SQS), International Union of Geological Sciences (IUGS). http://www.quaternary.stratigraphy.org.uk/about/history.html

[117] For at least the last million years the glacial/interglacial periods have followed fluctuating cycles related to the astronomical phenomenon called the *precession of the equinoxes*, now recognized as contributing to geologically abrupt climate change (Varadi, Runnegar, & Ghil, 2003). http://www.ncdc.noaa.gov/paleo/abrupt/story2.html For discussion of the potential influence of these cycles on culture and consciousness see Appendix A.

The biological lineage and nomenclature of early species within the *Homo* genus is also academically contested, with almost every source using a slightly different taxonomy and/or chronology. It is beyond the scope of this article to fully articulate this debate except by brief pointers. The early *Homo* species, *H. Habilis* and *H. Rudolfensis*, according to fossil records, first inhabited Africa in the Pliocene epoch, a little over 2 million years ago (Lock & Peters, 1999). However, the *Homo* status of these early *hominins*, is currently under revision (Key, 2000; Wood & Collard, 1999). The middle *Homo* period included *H. Ergaster/Erectus*—who emerged in both Africa and Eurasia, during the Plio-Pleistocene transition (2 million to 200,000 BP) (Key, 2000; Lock & Peters, 1999; Wood & Collard, 1999). The group of species now generally referred to as *Archaic* Homo species (Key, 2000), include the well-known *H. Neanderthalensis* from western Eurasia (250,000-30,000 BP) and *H. Heidelbergensis* identified in Africa and Eurasia (500,000-100,000 BP) (Key, 2000; Lock & Peters,1999; Wood & Collard, 1999). Archaeological convention currently dates the first appearance of *H. Sapiens*—also referred to as *anatomically modern human*—to approximately 100,000 BP (Key, 2000), though it is often placed earlier.

The timing of the development, evolution and characteristics of the origins of human nature and consciousness is also a highly academically contested area. My interest here is not in debating issues of taxonomy or detailed chronology as these are appropriate areas for disciplinary specialization. Rather my interest is in the bigger picture transdisciplinary context that this data informs, particularly the assumptions about the nature and consciousness of early humans. For a discussion on the two major theories regarding human origins: the *short-range* (or *cultural explosion* theories) and the *long-range* (or gradualist theories) see Appendix C. With regard to the capabilities of Homo Ergaster/Erectus the views range from archaeologists who claim that they were little more than apes, to rock art scientists who claim that they were already sea-faring at 800,000 BP (Bednarik, 2003a). The use of fire by H. Ergaster/Erectus is generally accepted from at least one million years ago (Sedikedes, Skowronski, & Dunbar, 2006) and may go back to 1.42 million years ago (Watson, 2005, p. 26). Watson claimed that about a million years ago H. Ergaster/erectus spread out over much of Eurasia (i.e., not the northern latitudes, Australia or the Americas). This may add circumstantial support to Bednarik's sea-faring claims. The second major cranial expansion occurred around 500,000-300,000 BP with the new species *H. Heidelbergensis* being referred to as the *archaic Homo Sapiens* from which both the Neanderthal and the anatomically modern human emerged (Hodgson, 2000; Mithen, 2007).

There are challenges in unraveling the links between the academic context and the earliest consciousness referred to in our three narratives particularly with regard to early chronology. Wilber's—with his access to contemporary taxonomies—is the easiest to place. His narrative begins with the pre-homo, hominin species dating from five or six million years to 200,000 years BP. Steiner's somewhat contradictory statements about chronology need to be contextualized within the early 20th scientific notion of the earth as being only about 100 million years old. (See Appendix A for more details.) Steiner refers to the first period of *human* consciousness in many of his lectures as having a duration of millions of years. It appears most likely that both Wilber and Steiner are referring to the early and middle *Homo* species during the Plio-Pleistocene glacial epochs—up to, and including, Lower Palaeolithic *archaic humans* prior to the emergence of anatomically modern humans. Gebser refuses to enter into what he calls *mental mode* linear, temporal placement of archaic consciousness, though his choice of the term *archaic* may not be coincidental (Gebser, 1949/1985, p. 61).

Terminology Issues

A divergence between the three narratives is their terminology for identifying these earliest humans and their consciousness. Steiner's rather anachronistic terminology for this first type of human is *Lemurian*, which in his day was a conventional scientific term.[118] As mentioned, Gebser used the term *archaic*, because of its Greek roots in *arche*, meaning inception or origin, from which Gebser focuses on *origin*.[119] Wilber uses the hybrid term *archaic-uroboric*, to combine an honouring of Gebser's usage with his own research: "*Uroboros*[120] is the primordial mythic symbol of the serpent eating its own tail, and signifies self-possessed, all-enclosing but narcissistic, "paradisical" but reptilian (or embedded in lower life forms)" (Wilber, 1996c, p. 26).

Unlike most scientific endeavors that study the human as an *object*, Steiner, Gebser and Wilber have each written narratives of the evolution of human consciousness, from the *inside*—the *subjective* side. Wilber asks: "What might Dawn [Human] have experienced, before [she] developed language,[121] higher-order emotions, and self-consciousness?" (Wilber, 1996c, p. 33). Gebser (1949/1985) uses *cryptic koans* from Chinese sages of the late mythic era—see above quote—claiming they are more illuminating of archaic consciousness than our contemporary "retrospective conclusions and prognostications" (p. 45). Steiner (1904/1959) in reference to the subsequent stage—has this to say: "The aim here is to record some details concerning their spiritual character and the inner nature of the conditions under which they lived" (p. 41).

Key Features of *Archaic* Consciousness

Several features have been identified in the narratives—or associated literature—and will be briefly explored through the text:

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[118] In Steiner's time the word *Lemuria* had a scientific meaning as it was coined by geologist Philip Sclater who theorised a lost continent related to the presence of fossil *lemurs* in both Madagascar and India, but not in Africa or the Middle East. The term was used by biologist, Ernst Haeckel, and also by theosophists. While Steiner initially collaborated with Ernst Haeckel and theosophists he later clearly distanced his epistemology from both (Steiner, 1925/1928, pp. 338-339).

[119] *Archaic* is also used in several other ways: In paleoanthropology it is used to refer to early Homo species such as *H. Heidelbergensis* and *H. Neanderthalensis* in alignment with Gebser (Key, 2000). In American pre-history it is used to describe the period from 8,000-1,000BCE; and is also used in art history. http://encarta.msn.com/encyclopedia_761566394_9/Human_Evolution.html

[120] It appears that Wilber may be taking an overly biological interpretation of this symbol compared to the intention of Erich Neumann whose work he cites. Neumann (1954/1995) himself has much to say about the *Uroboros* symbol, including the following: "As the Heavenly Serpent, the uroboros was known in ancient Babylon . . . and also the Primal Being that says: I am Alpha and Omega . . . the most ancient deity of the prehistoric world" (p. 10).

[121] It should be noted that humans are not the only species who have developed higher-order emotions, complex language and some degree of self-consciousness. It is outside the scope of this paper to explore this in detail however (Hampson, 2005; Lilly, 1967; Russell, 2006).

- Embeddedness in nature and the cosmos.
- Biologically primitive or spiritually wise?
- Matriarchal culture.
- Sense of Eden/Paradise.
- Palaeoaesthetic sensibility and expression. (This is detailed in Appendix C).

Embeddedness in Nature and the Cosmos

I will set the scene with Wilber's characterization of Archaic-Uroboric. Drawing on a range of anthropological sources, he summarizes it thus:

> The uroboros represents a primal, undifferentiated, dreamy autistic state in which man did not know himself as separate, and did not have self-conscious life. (Wilber, 1996c, p. 29)

While Wilber emphasizes the embeddedness in nature at this stage, Gebser and Steiner also emphasize embeddedness in the cosmos. Although Gebser (1949/1985) does not go into detail in cosmogenic terms, he claims that the primary relationship for archaic human was with the "'universal or [cosmic]" (Synoptic table). Steiner's cosmogony is extensive but beyond the scope of this paper to cover in any detail. A distinguishing feature of Steiner's dialectical insights is that his notion of human is *spiritual* in origin—and thus not solely dependent on the *Homo* or even hominin *biological* form. He sees early life forms as part of the struggle of the originary soul-spiritual human being to take physical form on earth (Poppelbaum, 1970; Thompson, 1998).[122] Gebser and Wilber make similar claims that the physical world unfolds from the spiritual, though neither discuss this area in as much detail as Steiner. There are several integral theorists who have proposed a dialectic between biological *evolution* and spiritual *involution*[123] (Aurobindo, 2000; Combs, 2002; Davidson, 1992; Gebser, 1970/2005; Hocks (2006); Murphy, 1992; Steiner, 1971c; Wilber, 2001b). Even though Steiner, Gebser and Wilber share the involutionary view of evolution, there are subtle divergences as the next sub-section demonstrates.

Biologically Primitive, or Spiritually Wise?

Georg Feuerstein, key interpreter, and translator of Gebser's work in the USA, identifies a significant divergence between Wilber's and Gebser's views in one important area. Feuerstein (1997) notes Gebser's position on archaic consciousness as being "closest to and presumably originally identical with Origin" while Wilber's position is that "the archaic structure is closest not to Origin but to the great apes and [hominins]" (p. 34). While space does not allow a full participation in the ensuing discussion between Wilber and Feuerstein, my interpretation is that the problem arises from a polarized perspective between biological and spiritual evolution. In regard to the earliest humans, Gebser emphasized spiritual evolution whereas Wilber focused on the biological primitiveness.

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[122] This is notwithstanding the notion that numerous species diverged from this hominin line at various earlier points in time.

[123] The notion of involution could be conceptually linked with the concept of *implicate order* developed from the 1960s by theoretical physicist David Bohm drawing on quantum physics and Alfred North Whitehead's process philosophy (Bohm, 1980; Bohm & Edwards, 1991). Bohm's notion of implicate order has also been conceptually linked to biologist Sheldrake's (2006) *morphic field* theory and more recently with systems scientist Laszslo's Akashic—or information—field theory (Combs, Arcari, & Krippner, 2006; László, 2007). Further research on this topic is in process (Gidley, 2007c).

> The archaic-uroboric period . . . presents in a very global fashion the great transition from mammals in general to man in particular, and stands further as the great subconscious ground out of which the figure of the ego would eventually emerge. . . . (Wilber, 1996c, p. 33)

Steiner dealt with this paradox dialectically by presenting information from both perspectives. In some of his writing he spoke in reference to the dominance of biology in terms of "passionate impulses" in a similar vein to Wilber's reference to their embeddedness in, and domination by, the "lower levels themselves." His biological knowledge was quite extensive. Some of his descriptions of the proto-humans[124] prior to anatomically modern humans suggest biological knowledge similar to that expressed in recent reconstructions of *H. Ergaster/Erectus,* by evolutionary psychologists—"a shift of energy from the gut to the brain" (Sedikedes, Skowronski, & Dunbar, 2006, p. 59). The other pole of the dialectic is that—like Gebser—Steiner (1971a) drew attention to the original wisdom of these early humans.

> That *original wisdom* was an actually inspired wisdom, one that came to man from without, arising from divine worlds [italics added] (p. 114).

Wilber (1996c) is apparently also aware of this paradox, using the term "ground unconscious" to distinguish this period from a fully unfolded future "superconsciousness" (p. 34-35). This paradox will continue to recur as our narrative proceeds and becomes increasingly illuminated—as Gebser might say—the more *transparency* we bring to the issues. My research seeks to throw light on this issue through exploring the art of the Lower and Middle Palaeolithic period. (See Appendix C).

Matriarchal Culture

Another convergence between the three narratives is that all three consider the archaic, and subsequent period to be strongly influenced by female archetypes. As Wilber (1996c) states—citing Campbell—the Great Mother "has shown herself at the very dawn of the first days of our own species" (p. 129). This is consistent with other cultural mythological research on the significance of the female archetype as primordial Goddess—represented in Paleolithic art as the Venus figurines; and the Great Mother archetype in Neolithic and Egyptian mythology (Eisler, 1987; Neumann, 1954/1995). Gebser (1949/1985) claims that the matriarchy did not really break down until around 500 BCE with the entrenchment of patriarchy in Greece. Steiner claimed that these early matriarchs assisted the development of early language, and even memory, through initiating rhythmical chanting, and interpreting the hidden language of nature—which they expressed in *sound, tone and rhythm*. This is supported by recent research into the origins of music and language (Dissanayake, 2005; Merker, 2001; Mithen, 2007; Skoyles, 2000; Wallin, Merker, & Brown, 2001). Human language is believed to have developed very slowly—with few sounds, mostly consonantal and gradually in combination with vowels—for about half a million years during the Paleolithic period, until the Upper Paleolithic around 35,000 years ago (Lock & Peters, 1999, p. 771-772). (See also Appendix C).

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[124] "The shape of the head and forehead was quite different; the forehead was much lower and the digestive organs were much more powerful" (Steiner, 1986a, p. 65).

Sense of Eden/Paradise

In spite of some differences in temporal orientation and detail, the narratives of Steiner, Gebser and Wilber converge in many respects on their overall sense of this archaic structure of consciousness. Gebser stresses the pre-temporal and pre-spatial nature of their consciousness. Steiner (1978b) claimed that this period was what in the bible was called "Paradise" (p. 90). Gebser's (1949/1985) representation of this period is very similar:

> It is akin, if not identical, to the original state of biblical paradise: a time where the soul is yet dormant, a time of complete non-differentiation of [human] and universe. (p. 43)

Wilber (1996c) citing Gowan's (1975) *Trance, Art and Creativity*, concurs with both Steiner's and Gebser's notion of the relationship between the dawn human and the biblical paradise, or Eden:

> *Genesis* describes this state as "Eden" and tells us that when [humans] ate of the tree of knowledge, [they lost their] innocence, and [were] cast out (into space, time, and personality). (p. 29)

The inclusion of these comments is not intended to suggest that these authors take the biblical metaphor of Eden/Paradise literally. Rather, my interpretation of their original intentions is that they are each taking a critical stand against the materialistic perspectives of most evolutionary biology and are endeavoring to present an alternative narrative for consideration. My privileging of their narratives arises from the same rationale. It is a rewriting of the evolution story at its origins.

Summary and Relevance for Today

In summary, although there is a remarkable coherence between the three narratives for this archaic beginning of human consciousness, there is also differentiation of emphasis. Gebser's interest appears to focus on grounding this early consciousness in an originary spiritual experience, with limited attention to matters of biological development—he is primarily developing a spiritually-oriented, cultural phylogeny. He does however make reference to "the parallels between the developmental stages of mankind and those of the individual, in the context of the various structures of consciousness" but does not pursue this in detail (Gebser, 1949/1985, p. 58). Wilber's interest appears to be in emphasizing the limitations of the early biological human form in enabling complex cognition, which he sees as a basis for spiritual development. He also subscribes to the notion that individual development (ontogeny) recapitulates cultural evolution (phylogeny). Steiner integrates these positions demonstrating an evolving complex dialectical relationship between the originary soul-spiritual consciousness of humans that he claimed accompanied and *in*formed biological evolution. He also described the gradual incorporation of the human spirit into material/biological form over vast time periods, as the proto-forms biologically evolved.[125] Anthropologist/ ethnographer Richard Grossinger uses the dialectical phrase *spiritual embryogenesis* for the significant work that Steiner has undertaken in this regard (Grossinger, 2000, p. 706).

The relevance for today of Gebser's notion of the originary spiritual aspects of archaic consciousness is intrinsically linked with his notion of integral consciousness, which, when awakened, enables conscious access to this original spirituality. For Gebser, the key though is *intensification* of consciousness, not *regression* to a previous state.

Transition

A major dissonance between the evolutionary biology narratives and these narratives, particularly Steiner's and Gebser's, is that the latter identify a type of spiritual wisdom in the consciousness of these early humans. An appreciation of the notion of involution as being in a dialectical relationship with evolution—which Wilber has as well—is a starting point to understand these perspectives. This is in stark contrast to the views of most biologists, including emergence theorists who claim that mind, morals—and even spirituality—emerge purely from physical/biological existence (Goodenough & Deacon, 2006).

Yet Steiner, Gebser and Wilber all agree that these archaic humans did not yet experience their own independent selves, nor did they yet have a sense of difference between earth and sky. Based on this the transition between what Gebser calls *archaic* and *magic* consciousness appears to mark the emergence of the human's earliest sense of his or her own individual self/soul. This is not inconsistent with recent evolutionary psychology research (Sedikedes, Skowronski, & Dunbar, 2006). This consideration leads the narrative into the next major period.

Before we continue our narrative we need to diverge momentarily and consider some macro-pauses in this evolutionary narrative . . .

The Punctuated Global *Dis*equilibrium[126] of Geo-Climatic Catastrophes

The extent to which human consciousness and culture have been affected by major geologic and climatic events has received little attention in the evolution of consciousness discourse, perhaps largely as a result of disciplinary isolationism. Steiner is one of the first post-Enlightenment theorists to coherently integrate phenomena such as astronomical cycles and geoclimatic changes with culture, mythology and consciousness through his evolutionary macrohistory (Scharmer, 1998). His approach foreshadowed contemporary integrative scientific and philosophical developments (Firestone, West, & Warwick-Smith, 2006; Tarnas, 2006;

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[125] Sri Aurobindo's extensive writings on evolution also include a similar perspective to Steiner's where the spiritual dimension he calls *overmind* gradually descends into the material world (Aurobindo, 2000).

[126] The term Punctuated Equilibrium was coined by palaeontologists Niles Eldridge and Stephen Jay Gould in 1972 to represent observed discontinuities and plateaus emerging from fossil evidence and in contrast to Darwin's *gradualist* evolution theory (Eldridge & Gould, 1972). The term punctuated *dis*equilibrium has recently been used to refer to sudden catastrophic climatic or ecological events related to global warming (Angelo, 2005). I am semiotically linking these two meanings in my use of the latter term.

Ulansey, 1994). Neither Gebser nor Wilber seem aware of, or pay attention to, the impact of such geo-climatic events on culture and consciousness. However, Steiner—who predicted that science would eventually realize the validity of his insights—spoke of the significance of *two* major environmental catastrophes that marked transitions between major movements of culture and consciousness.

Steiner's narrative gains some support from the renewed interest in catastrophe theory in geology, in response to the current climatic situation and the growing awareness of the possibility of future rapid climate change (Mithen, 2004; Weart, 2003). Early 19th century theories of catastrophism and resultant extinctions were generally associated with *short* time-scales for the history of the Earth, and religious overtones—positing miraculous/divine interventions in subsequent re-population. The late 19th century saw a shift to more scientific geological theories, such as *uniformitarianism* and theories of gradual change that echoed Darwin's *gradualism* in classical biology. However, the postformal, interdisciplinary turn in science is beginning to point to underlying phenomenological connections that may have been "known" in pre-modern myths but that went unnoticed as a result of the disciplinary specialization of the modernist scientific period (Ulansey, 1991). In addition to the major scientific shifts from classical to quantum physics and from classical biology to chaos and complexity, the first half of the 20th century saw dramatic changes to scientific perceptions and theories about numerous other phenomena with potential relevance to evolution of consciousness theories:

- Radio carbon dating was discovered in 1949, enabling scientists to determine the age of materials up to 60,000 years ago;
- As a result, the scientifically theorized age of the earth, went from 100 million years to 4.5 billion years;
- The stable, static notion of continents gave way to continental drift theory in the early 20th century, followed in the 1960s by the mobile dynamic notion of plate tectonics.

In the light of some of these changes, contemporary geology theories propose that Earth's overall history is a slow, gradual story, punctuated by occasional natural catastrophic events that have affected the Earth and its inhabitants (Firestone, West, & Warwick-Smith, 2006). Contemporary interdisciplinary theories are beginning to address these issues. Recent research from evolutionary psychology[127]—including methods from geology, physics, archaeology, mythology, and anthropology—supports the "punctuated" narrative of cultural evolution proposed here (Sedikedes, Skowronski, & Dunbar, 2006, p. 58). Also leading archaeological and anthropological research appears to be moving in this direction. Archaeologist, Steven Mithen, refers to glaciations cycles, ice ages and global warming as significant events in cultural change. Anthropologist, Richard Klein, points to the significance of both the Younger Dryas event and also the Toba Volcano—which we will discuss below—as triggers for major shifts in culture and consciousness (Klein & Edgar, 2002). Such research demonstrates support and formalization of some of the insights that Steiner intuited and cohered more than a century ago. What is still needed, though, is a comprehensive transdisciplinary theoretical integration of this material focusing on potential effects on the evolution of culture and consciousness.

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[127] A critique can be made of much evolutionary psychology in that it is uncritically endorsing the one-sided materialistic Darwinism of much evolutionary biology (Loye, 2004).

Firstly, Steiner (1904/1959) referred to a geo-climatic catastrophe that marked the end of the development we have been discussing and the beginning of the culture that followed it: "mighty volcanoes existed almost everywhere and developed a continuous destructive activity. . . . It was through the activity of this volcanic fire that the destruction of the Lemurian land came about" (p. 85). He saw this as a period when much of the population of the time was wiped out: "a great part of the land was destroyed, and only a small number of the inhabitants . . . were preserved and could continue the human race" (Steiner, 1954/1981a, p. 123). Paleoanthropologist, Stanley Ambrose (1998), proposed that the eruption of the *Toba Volcano*[128] caused the well-documented massive reduction in global population—called a bottleneck (p. 627). He concludes that "Volcanic winter may have inserted a brief Punctuated Equilibrium event (Eldredge & Gould, 1972), in the course of recent human evolutionary history, accelerating geographic differentiation (p. 644-645). Although there has been some contestation of details of his claims (Gathorne-Hardy & Harcourt-Smith, 2003), Ambrose (2003) has responded, providing further substantial evidence for his theories. Anthropologist Richard Klein has also lent support to Ambrose's theory (Klein & Edgar, 2002). More research appears to be needed.

A second abrupt and extreme climatic catastrophe occurred approximately 60,000 years after the Toba volcano. This event is known as the Younger Dryas. Very recent archaeological research indicates the Younger Dryas event was triggered by the meltwater in North America, from the last glacial period, forcing the ocean current patterns to slow or stop. This was as a result of a surge of fresh water and reduced salinity in the North Atlantic Ocean, and sent Europe into a sudden freeze, over just a few decades. (Carlson et al., 2007; Colman, 2007; Tarasov & Peltier, 2005). This new cold event lasted around 1,400 years to approximately 9,500 BCE, beginning as the Earth was coming out of its 60,000-year glacial period.

Steiner also speaks of a second major catastrophe that occurred at the end of the ice age. Steiner (1910/1939) described and theorized it as a major geo-climatic event of freezing and melting during which the sea levels rose such that "The face of the earth was totally changed in regard to the distribution of water and land" (p. 94). Steiner's insight was quite unusual for his times given that the geological convention was uniformitarianism. The Younger Dryas as a phenomenon was not discovered until 1949, and the acceptance of the notion of rapid climate change by geoscientists has only begun very recently. Physicist Spencer Weart (2003) pinpoints it to, "the day they read the 1993 report of the analysis of Greenland ice cores."

A recent scholarly book by nuclear physicist Richard Firestone, Allen West and geologist, Simon Warwick-Smith (2006), has emphasized the significance of catastrophe theory. They draw on a combination of hard science and North American indigenous mythology and oral history focusing on cosmological contributions to such events. Their evidence pointing to a comet strike corroborates with the timing of the beginning of the Younger Dryas, 13,000 years ago. Steiner (1910/1939) also pointed to the interconnections between these tellurian events and events of cosmic proportions. "Such periods and changes consequent upon them are connected with mighty processes in the constellation, position and movement of the cosmic bodies connected with the sun" (p. 94). These earth-influencing astronomical cycles are now referred to as the *Milankovitch cycles* (See Appendix A).

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[128] In Ambrose's (1998) words "The last glacial period was preceded by one thousand years of the coldest temperatures of the Later Pleistocene (71–70 ka), apparently caused by the eruption of Toba, Sumatra. Toba was the largest known explosive eruption of the Quaternary" (p. 623).

In summary, the last glacial period—known as *the ice age* (c. 70,000-10,000 BP)—appears to have been punctuated on either side by two relatively sudden, extreme environmental events.

- The volcanic winter and subsequent 1,000 year freeze caused by the Toba supervolcano in Indonesia approximately 73,000 years BP; and
- The Younger Dryas, a dramatic 1,300-1,500 year freeze—up to 11,500 BP—as a result of the ice-melts in North America from the warming after the last major glacial period.

Notwithstanding the difficulties a century ago—and even today[129]—in accurately dating such distant events, Steiner identified dramatic geo-climatic events very similar to these, pointing to them as significant markers between the major movements of culture and consciousness we are discussing. It is however difficult to establish the veracity of his claim in relation to the earlier of these two events because he gives contradictory indications about chronology.

The next section of our narrative introduces developments in consciousness and culture—especially aesthetics—of the Ice-Age Humans and particularly their development during the period between and surrounding these punctuations (70,000-10,000 BP).

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[129] The radiocarbon dates from *Geißenklösterle* corroborate observations from other non-archaeological data sets indicating large global fluctuations in the atmospheric concentrations of radiocarbon between 30 and 50 ka calendar years ago. These fluctuations lead to complications in building reliable chronologies during this period and cause the *Middle Paleolithic Dating Anomaly* and the *Coexistence Effect*, which tend to exaggerate the temporal overlap between Neanderthals and modern humans (Conard & Bolus, 2003).

4. Magic Connectionism: Art and Culture in a Glacial-Landscape

> Of the period we are about to enter, and with that "subjective mood" in mind, I suggest quite simply: the first men and women to appear on the earth during these times . . . were not just simple hunters and gatherers—they were magicians. (Wilber, 1996c, p. 43)

> Everything that is still slumbering in the soul is at the outset for magic [consciousness] reflected mirror-like in the outside world . . . as we experience dream events in sleep . . . In a sense one may say that in this structure of consciousness was not yet [internalized], but still resting *in the world.* (Gebser, 1949/1985, p. 46)

> In the earliest period [humans] possessed strong magical powers. With these powers [they] . . . mastered the forces of nature and in a certain way [were] able to see into the spiritual world. Clairvoyance then gradually faded. [Humans] were destined to found the culture belonging to the earth; they were to descend to the earth in the real sense. (Steiner, 1978b, p. 96)

Context for the Flourishing of Palaeoaesthetics

> 'Art' has always been associated with the early cultural 'success' of anatomically modern humans, and with the establishment of what appears to be a 'fully human' cultural pattern. (Lock & Peters, 1999, p. 289)

This decade-old conventional archaeological statement appears to be becoming outmoded by the increasing body of evidence of aesthetic development in early *Homo* species, such as *H. Heidelbergensis* and *H. Neanderthalensis* and the growing interest in palaeoart outside of Europe (as discussed in some detail in Appendix C). The last glacial age (c. 70,000-10,000 BP) was a period of great development of culture and human consciousness. This is within the late Pleistocene age and up to the beginning of the current geological epoch—the Holocene that began c. 10,000 BP. In archeological terms this includes the latter part of the Middle Paleolithic period and the entire Upper Paleolithic period. As indicated earlier the transition from the Lower to the Middle Palaeolithic periods was highly significant for human evolution with several species of the *Homo* genus co-habiting the planet—*H. Heidelbergensis* identified in Africa and Eurasia (500,000-100,000 BP), followed by *H. Neanderthalensis* from western Eurasia (250,000-30,000 BP) and *H. Sapiens* (appearing c. 100,000 BP) now frequently referred to as *anatomically modern human* (Key, 2000; Lock & Peters, 1999; Wood & Collard, 1999).

Since the discovery in 1940 of significant rock art[130] in the *Lascaux* caves in France, several sub-cultures have been identified by paleoanthropologists (Conard & Bolus, 2003). These are detailed in Appendix C. There is currently much debate in archaeological and other discourses that study human origins. The new field of evolutionary psychology[131] is a quasi-scientific field that investigates such matters (Sedikedes, Skowronski, & Dunbar, 2006). However, even within this field there is contestation regarding the evolution of what is called *symbolic self*: the ability to "consider the self as an object of one's own reflection;" "to store the products of such reflections in memory;" and to regulate its relations with the "social and physical environment" (Sedikedes, Skowronski, & Dunbar, 2006, p. 56). Constantine Sedikedes and his colleagues propose that the *human self* emerged with the "cultural revolution . . . in Africa some time prior to 100 [thousand years ago]" (p. 66). This is considerably earlier than the widely held belief that it was simultaneous with the explosion of cultural activity in the Upper Paleolithic period in Europe around c. 40,000 years ago. A recent edited book has explored—perhaps for the first time—an archaeological theoretic perspective that considers the possible role of the individual in Lower and Middle Palaeolithic times (Gamble & Porr, 2005). The latter points beyond the dualism of cultural explosion and gradualist models to "a complex mosaic pattern of cognitive advances" (Clack, 2005, p. 281). The notion that individuals as such existed in these times and could be situated in their "landscapes rather than their evolutionary stages" (Clack, 2005, p. 282), may lend some indirect support to the heterodox notions of Steiner and Wilber that at any one time in evolutionary human history there have been groups of individuals, in each cultural landscape, operating at higher developmental levels than the majority of humans.

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[130] These discoveries lent support to the modernist bias in archaeological and anthropological research of the time that was already Eurocentric. However, research in recent decades, particularly in Australia and India, points to significantly earlier rock art (Bednarik, 2003b; 2003c).

Another major change that is arising is arguably part of what I will speak more about in the penultimate section of this paper—the evolution of discourses through the emergence of postformal-integral-planetary consciousness. In fields such as archaeology and anthropology the shift from modernism to postmodernism is particularly evident leading to a spectrum of theories in relation to evolution, development and progress (Barnard & Spencer, 1998; M. Johnson, 1999). Archaeology professor Julian Thomas refers to the need to introduce hermeneutic, phenomenological, feminist and post-structuralist philosophies into the field of archaeology (Thomas, 1998, 2004). Such a postmodern approach to archaeological research is being undertaken by rock art scientist Robert Bednarik, who has been developing a more postformal epistemological approach incorporating taphonomy,[132] cultural hermeneutics, and notions from the field of semiotics (Bednarik, 1994, 2003b, 2003c, 2006a; 2006b). Numerous non-Anglophone scholars[133]—particularly from Eastern Europe are pursuing a postformal, semiotic approach to their archaeological research (Antonova & Rayevsky, 2002; Gheorghiu, 2002; Klejn, 2005, 2006; Stoliar, 2006; Yevglevsky, 2002, 2005, 2006).

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[131] Evolutionary psychology as a field is largely subject to the materialistic biases of much of the biological evolution discourse (Loye, 2004).

[132] *Taphonomy* refers to the "study of the processes affecting rock art after it has been executed, determining its present appearance and statistical properties" – IFRAO Glossary (Bednarik, 2007, p. 199).

[133] Much of this work appears in a three-volume series that was published in the Russian language. I have been able to discern the relevance of this work from access to the abstracts which are available online in English. http://www.donnu.edu.ua/hist/archgroup/en/sem1/

Terminology Issues

Steiner, Gebser and Wilber all refer to the notion of magic—or magical thinking—as being a significant factor in this second major movement of consciousness.

Another complexity is that the temporal placements of this movement of consciousness are contradictory. Gebser points to the possibility that there may have been "one or even two further structures of consciousness between the archaic and magic, such as a "post-archaic" and a "pre-magical" structure" (Gebser, 1949/1985, p. 45). Because of lack of evidence to support this theory he proposes that:

> The magic "epoch" as we see it, not only encompasses an extended "era" but also a variety of modes of manifestation and unfolding that are only imprecisely distinguishable from one another. [Yet] . . . we shall consider all such modes to be manifestations of magic [consciousness]. (Gebser, 1949/1985, p. 46)

Gebser's focus for the magic structure is mainly on the Upper Paleolithic cave paintings in Europe—particularly hunting scenes. Incidentally this perspective was quite conventional within early 20th century anthropology, arising from the "first round" of ethnographic interpretations of "art-as-hunting-magic" (Conkey, 1999, p. 300). He also draws on examples of magic consciousness from much later times where he claims that it overlaps with his notion of mythic consciousness that emerged approximately 3,000 BCE (Gebser, 1949/1985, p. 57). Wilber, on the other hand, regards what he calls the "magical-typhonic period" as beginning with *Homo Sapiens* and extending up to the end of the Paleolithic period. Incidentally, Habermas, uses the term "magical-animistic" to refer to the representational world of Paleolithic societies (Habermas, 1979, p. 104). (See Appendix A for more discussion of issues surrounding constructions of time.)

Steiner also refers to a major movement of consciousness up to the end of the glacial period for which he uses the anachronistic term *Atlantean* in much of his writing, which was a conventional archaeological term in his day. In the early 20th century when Steiner was writing, literary and archaeological writing referred to Plato's references in both the *Critias* and *Timaeus* to an ancient civilization—*Atlantis*—that had been destroyed by climatic catastrophe approximately 9,500 BCE.[134] Comparative literature researcher, André Spears, reviews and discusses references to Plato's Atlantis theory in the literary/philosophical works of D. H. Lawrence, Antonin Artaud and Charles Olsen (Spears, 2001). He also notes "through the 19th and early 20th centuries, it was not uncommon for archaeologists working in Mexico to link Mesoamerican civilization . . . with the legend of Atlantis" (Spears, 2001). This was the academic context of Steiner's usage of the term *Atlantean* for the glacial age. Steiner (1904/1959) also noted that the culture and consciousness he referred to in this period also took place "in the neighboring regions of what today is Asia, Africa, Europe, and America. What took place in these regions later, developed from this earlier civilization" (p. 41). Intriguingly, some recent European archaeological and paleo-geological research has provided some tentative support for the claims in Plato's dialogues.[135] However, space does not allow a further digression.[136] Perhaps the story of Atlantis may not be over yet.

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[134] This dating by Plato bears a striking synchronicity with the flooding that occurred at the end of the Younger Dryas, as discussed earlier, and the beginning of the Holocene geological epoch.

Key Features of Magic Consciousness

Gebser (Gebser, 1949/1985) draws attention to several key features of this structure of consciousness.

- Spacelessness, timelessness, unitive interconnectedness, merging with nature;
- The egolessness of magic human, embeddedness in the tribe;
- The magic response to Nature, by "standing up to Nature" and becoming a "Maker," thereby becoming conscious of his/her own will (p. 48);
- The flourishing of art—music, song and painting. (See Appendix C).

As demonstrated below, Steiner and Wilber describe similar features.

Spacelessness, Timelessness, Unitive Interconnectedness, Merging With Nature

Gebser (1949/1985) regards these first four features to be intimately inter-related.

> The spaceless and timeless phenomena [that] arise from the vegetative intertwining of all living things [as] realities in the egoless magic sphere. . . . earth-bound and earth-imprisoned, natural and primal . . . [requiring] the almost superhuman attempt to [be] free . . . from the fusion with nature. (p. 49, 51)

It is not hard to see the resemblance between Gebser's scene and the following depictions of Steiner (1954/1981a).

> [Their] dwellings were put together by what was given by nature; [they] molded the stones and bound them together with the growing trees. [Their] dwellings were formed out of living nature, were really transformed natural objects. (p. 131)

This appears to hint at the cultural ancestry to some of the later megalithic structures of European and Meso-American cultures. Wilber (1996c) also describes this interconnectedness with nature that characterized the magic consciousness.

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[135] Recent scientific research in the area of the Spartel "paleoisland" off the Iberian peninsula has provided some support for the claims in Plato's dialogues regarding the place and time of the Atlantean catastrophe—via volcano and floods. Independent studies include: the archaeological findings of German archaeologist, Rainer W. Kühne (2004) relating to significant sea level rise around 9,000BCE as a result of melting ice; French palaeogeologist, Marc-André Gutscher (2005) has also found evidence of major volcanic activity consistent with Plato's account.

[136] A substantial academic overview has been undertaken of the various research perspectives on the topic of Atlantis (Wallis & Spencer, 2003).

> Man's original fusion with the world . . . with its landscape and its fauna, has its best-known anthropological expression in totemism, which regards a certain animal as an ancestor, a friend, or some kind of powerful and providential being. (p. 50)

For more detail on the timelessness of the magic structure, refer to Appendix A.

The Egolessness of Magic Human, Embeddedness in the Tribe

All three narratives characterize the social groupings as being based on what Wilber (1996c) called "kinship ties" (p. 72). Steiner referred to "little tribes that were still preserved through blood relationship, whilst a powerful authority was exercised by the strongest, who was the chieftain . . . (Steiner, 1954/1981a, p. 131-133). Gebser related this to:

> The egolessness of the individual—who is not yet an individual—demands participation and communication on the basis of the collective and vital intentions; the inseparable bonds of the clan are the dominant principle. (Gebser, 1949/1985, p. 58)

The Magic Response to Nature

Gebser notes that the struggle to develop beyond the forces of nature led to consciousness of will forces. Steiner made a similar claim: "[They] had . . . a very powerful will. . . . Thus they exercised a powerful influence over Nature. . . . They pressed the powers of nature into their service" (Steiner, 1986a, p. 95-96). Gebser (1949/1985) also saw this striving to become independent of nature as providing the impulse for the magical power.

> Here lies the basis of all sorcery and magic, such as rain-making, ritual, and the countless other forms by which magic [human] tries to cope with nature. (p. 51)
> . . . Magic [human] possessed not only powers of second sight and divination, [s/he] was also highly telepathic. (p. 55)

Steiner foreshadowed Gebser's claims about these magical relationships with nature. He noted however, that not all the humans at that time had these abilities to a high degree.

> At the height of [this] culture there were seers, clairvoyants and powerful magicians who worked by means of magical forces and were able to see into the spiritual world.
> . . . Beside [the magicians], were people who were preparing to be the founders of present humanity. . . . They possessed the elementary faculties of calculation, computation, analysis and so forth. They were the people who developed the rudiments of the intelligence of today and no longer made use of the magical forces . . . (Steiner, 1978b, pp 96-97)

This aligns to Wilber's view. He proposed that in addition to the majority of the people who were operating at an early level of consciousness,[137] the more advanced individuals had magical powers related to what we would now call *shamanism* (Wilber, 1996c, p. 75, 339).

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[137] A feature of Wilber's (1996c) evolutionary approach is that he traces what he calls "*two* parallel strands of evolution: the evolution of the *average mode* of consciousness and the evolution of the *most*

The Flourishing of Art—Music, Song and Painting

Much has been written about the appearance of cave art and interpretations of its possible meaning. Gebser and Wilber both emphasize the art-as-magic interpretation. Wilber's (1981/1996) explanation is that the "subject and object, psyche and world, were not yet fully differentiated . . . [thus] between the object and the symbol of the object "existed a magical rapport." To manipulate the symbol was to affect the object symbolized" (p. 51). In spite of Gebser's (1949/1985) adoption of a similar view he also claimed that the sensory emphasis of the magic consciousness was primarily auditory rather than visual.

> It is this auditory aspect, not the imagistic or pictographic, which we will have to attribute to the initial phenomena. . . . Sonority and music, not image or sign, are the inceptual and coincident manifestational and realizational forms of the magic structure, where they still form a unity. (p. 125)

Steiner pointed towards the development during this period of tonal speech, and also suggested that this was when the musical qualities of language—that had begun with chanting and dancing—were being further developed as a way in which the sense of the self could began to arise in individuals (Steiner, 1904/1959, p. 82). Gebser (1949/1985) drew attention to the tonal quality in Chinese and other related languages that apparently still retain this more musical quality (p. 126). (Much more is demonstrated on the relationship between language and the arts in Appendix C.)

Deficient Manifestations of Magic Consciousness

Gebser used the terms *efficient* and *deficient* when speaking about the structures of consciousness—both in regard to transitions between structures and in regard to the expression of various earlier features at later stages. Similarly Wilber uses the terms *healthy* and *pathological*. While Steiner does not have a specific equivalent pair of terms, he does take a similar view in regard to cultural transitions. Another pair of terms that has been used in a similar manner, in psychotherapy discourses is *formative* and *deformative* (Boadella, 1998). The language of deficiency and pathology is somewhat problematic in the light of contemporary research on psychological stage transitions (Commons & Richards, 2002). However, it is a part of all three of these narratives so will be referred to at various points in the narrative where it is relevant to the discussion.

From Gebser's (1949/1985) perspective, the deficient aspect of a structure of consciousness primarily occurs in the later period of its development.

> The exhaustion of a consciousness structure has always manifested itself in an emptying of all values, with a consistent change of efficient qualitative to deficient quantitative values.

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advanced mode of consciousness (p. 339). He also claims "the true shaman—was the first great voyager into realms of the superconscious (p. 75). Although Wilber claims that, as far as he knows, such an approach has never been explicitly followed before (p. 75), as we have seen, Steiner's narrative is underpinned by a similar view.

> It is as if life and spirit withdrew from those who are not co-participants in the particular new mutation. (p. 538)

Steiner concurs that faculties tend to become deficient or decadent towards the end of a developmental period. In relation to the pre-glacial (archaic), and glacial (magic) periods, he referred to overuse of the powers or abilities that had been developed, to the point that they became decadent. He also indicated that each of the major (post-glacial) cultures and civilizations had their flourishing followed by their decadent period in a kind of cyclical rhythm. Wilber is more inclined to take a dialectical view in regard to all the earlier stages of consciousness. He has a strong interest in countering any romanticism towards the early stages of human development. He continually points to the negative or pathological aspects of the earlier cultures and civilizations.

Gebser (1949/1985 referred to the deficient form of magic consciousness as “witchcraft and sorcery [which] is immoderate and unmeasured” in contrast with the efficient form as “spell-casting which retains the character of moderation” (p. 94). One of the unique contributions that Wilber (1981/1996) makes to illuminating the earlier structures of consciousness is that he does not romanticize them—if anything he emphasizes the darker side of what for him are clearly *lower* stages of consciousness.

> The self was indeed magically connected with the environment, but for that very reason it was also unprotected from invasion by unconscious elements within and extrasomatic factors without. . . . a time of danger, a time of taboo, a time of superstition. (p. 56)

Steiner pointed out the difference between what he called white magic and black magic, where the increase of the latter—the use of magic for immoral, selfish ends—led to the decadence and decline of these early magic cultures. Gebser (1949/1985) noted its deficient manifestation during his times in the “mass psychology” evident during the 2nd World War in Europe (p. 60). Gebser also made an interesting point that there is a strong affinity between the deficient mental—that is, rational—and deficient magic structure, resulting in a strong propensity for regression from excessive rationality to a deficient magic consciousness.

> Whenever we meet up with overweening emotionalism as in mass assemblies, propaganda, slogans . . . we are dealing mainly with essentially deficient manifestations of magic.
> Their deficiency can be recognized by their very claim to exclusivity, as if they alone had validity or worth in contrast to the validity of other structures and forms of manifestation. (p. 154)

Gebser (1949/1985) saw the deficient magic tendencies as potentially dangerous, even terrifying. Because of its unconscious nature, its “striving for power” and connection with “loss of ego and responsibility” he was concerned that “the unconsciously activated magic structure will ultimately (at least for us today) lead—via the atomization of vitality, the psyche and the ego—to destruction” (p. 60). He felt compelled to make these tendencies transparent so that even if we could not prevent them we could at least avoid becoming submissive to them.

Summary and Relevance for Today

Magic is clearly an academically contentious notion today, particularly in the scientific arena. Since the European Enlightenment, the dominance of scientific rationalism has dismissed such notions as regressive.[138] This view persisted in the Academy until the late 19th century. In a context of rationalistic and primitivist views of non-European cultures, a classical anthropologist Sir James Frazer, wrote a seminal anthropological text on magic and religion, *The Golden Bough*, re-opening the territory (Frazer, 1922/2000). Frazer described magic as a type of pseudo-science—a first stage in the evolution of human thought; followed by religion; and then what he called "true, experimental science" (Barnard & Spencer, 1996/1998, p. 341). Since then, the notion of magic and its place in culture has become of ethnographic interest to social and cultural anthropologists—including such notables as Claude Lévi-Strauss (Levi-Strauss, 1963). A spectrum of theoretical perspectives has arisen over the last century, many grounded in fieldwork and/or influenced by postmodern philosophical perspectives, such as pluralism and cultural relativism. These theories have been summarized by Barnard & Spencer (1998).

- Notions of magical phenomena as objectively real, even if inexplicable in terms of Western scientific knowledge—based on field experience with South American and African shamans, it has been called *radical empiricism*;
- Explanations for postmodern beliefs in magic, including notions of empirical validity outside orthodox science, different physical and spiritual laws, epistemological relativism and subjective, metaphorical value;
- A reformulation of theories based on laboratory research in parapsychology;
- Philosophical considerations of the apparent congruence between traditional magical philosophies of an organic, interconnected universe, and the New Physics theories on the unity of mind and matter (p. 342).

The renewal of interest in the marginalized Hermetic writings of Kepler, Newton and others may reintroduce many more questions about magical consciousness in the coming times. Gebser's (1949/1985) interest was to bring our conscious awareness to the magical nature of our instincts and impulses so that they can be a "serving and sustaining potency" (p. 60). He spoke of music as one of the most powerful means to activate the magic timelessness in a way that is appropriate for our times. He also referred to prayer as a constructive engagement of the type of psychic connectionism that is inherent in magic consciousness.

Transition

Because of the complexity and divergence of opinion on the timing and nature of the transition between magic and mythical consciousness I have devoted a separate section in my narrative to this transition. We will now consider this aporia[139] in detail.

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[138] However, as noted elsewhere in this paper, several of the originators of modern science—Kepler, Newton—were also scholars of the Hermetic sciences of alchemy and astrology. These were linked to magical consciousness, for example, in Paracelsus.

[139] The term *aporia* is from the Greek word meaning *impasse*, or *puzzle*. It was used frequently by Plato in his philosophical writings, and also more recently by Derrida.

5. The Magic-Mythical Transition: A Complex *Aporia*

> Firstly came the hunting peoples, then the farming peoples and thirdly the development of mining,[140] which brought to light what is under the Earth. (Steiner, 1982a, Lecture XXX)
>
> These animal breeders as well as the hunting and nomadic cultures, are predominantly rooted in the magic culture. Strictly agricultural cultures on the other hand already take part in the mythical structure. (Gebser, 1949/1985, p. 305)
>
> Farming was the most obvious *effect*, or perhaps vehicle, of a deeper transformation in structures of consciousness: it was the earliest expression, that is, of a shift from magical-typhonic to what we will call mythic-membership consciousness (level 3). (Wilber, 1996c, p. 93)

There appears to be something of a cultural hiatus or *aporia* in the period between the end of the Younger Dryas—approximately 9,500 BCE and the beginning of the Neolithic[141] period (c. 8,000 BCE). This roughly demarcates the period referred to as the Mesolithic[142] (c. 10,000-8,000 BCE) an archeological period that appears to have a dramatically reduced status compared to the Paleolithic and the Neolithic. This is perhaps not surprising considering the dramatic environmental change occurring, during which “most of the final (warming) transition may have occurred in just a few years” (Colman, 2007, Abstract). Between the height of the cultural activity of the Upper Paleolithic glacial period and the establishment of agricultural settlements in the fertile crescent of Mesopotamia—China’s Yellow River and the Indus and Nile valleys—the sea level rose approximately 120 meters, with much of this occurring between 12,000 BCE and 8,000 BCE.[143] Geoscientists have demonstrated the significance of the end of the last glacial age by introducing a new geological epoch—the Holocene[144] Epoch which continues into the present time. This also conventionally marks the beginning of the Neolithic period. As the geo-climatic conditions began to stabilize, the climatic changes associated with the end of glaciation actually facilitated the development of farming of cereals and the domestication of sheep, goats, pigs and cattle through the warmer climate and flooding of river basins.

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[140] This section deals with the transition from the hunting to the farming peoples. In the following section, when mythical consciousness fully awakens, we are dealing with the mining peoples—the beginning of the bronze and iron ages. Interestingly, Teilhard de Chardin also refers to a similar three phases: a “thin scattering of hunting groups” of the Ancient World; a more dense scattering of “agricultural groups installed in fertile valleys;” and, the “first civilizations” (Teilhard de Chardin, 1959/2004, p. 169-170).

[141] Although *Neolithic* literally means ’new stone age,’ the term is generally used to refer to the cultural movements of agriculture and pastoralism and the social organization features, such as larger settlements, to accomplish them (Barnard & Spencer, 1998, p. 615).

[142] The term, *Mesolithic*, refers to the middle ‘stone age’ period between the Paleolithic and the Neolithic. It is generally associated with European development at the end of the glacial period, and is characterized by “microlithic industries” (Barnard & Spencer, 1998, p. 613).

[143] This dramatic sea level data is sourced from the Goddard Institute for Space Studies, NASA, New York. http://www.giss.nasa.gov/research/briefs/gornitz_09/

[144] Holocene comes from Gk. *holo-,* combined form of *holos* "whole, entire" + *kainos* "new, recent." Adapted from the Online Etymology Dictionary, http://www.etymonline.com/index.php.

As mentioned previously, there are discrepancies between Gebser's and Wilber's temporal situating of magic and mythical consciousness. My interpretation is that the period c. 9,500-3,000 BCE is a significant period of transition between magic and mythical consciousness throughout the world. This period encompasses the latter part of Gebser's magic as well as Wilber's low mythic-membership period (9,500-4,500 BCE) and the beginnings of his high mythic-membership period (4,500-1,500 BCE) (Wilber, 1996c, p. 110). There are also contradictions within Gebser's own dating of this transition.[145]

I propose that Steiner's narrative makes a unique contribution to the understanding of this lengthy transition period. Firstly, he acknowledged an ecological condition of great geo-climatic instability from the end of the ice age. Secondly, he drew attention to the potential influence on culture and consciousness of the *precession of the equinoxes*[146] every 2,160 years approximately.[147] Steiner identified two specific cultural periods prior to 3,000 BCE—the Asiatic, or ancient Indian (c. 7,200-5,000 BCE); and the ancient Persian (c. 5,000-3,000 BCE). Incidentally, Gebser (1949/1985) also identified two major cultural epochs—the domesticating-agricultural, and the tool-making and craft cultures.[148] He particularly noted the significance of the shift from domesticating to agricultural cultures in relation to the transition from magic to mythical consciousness (see introductory quote). He regards the former as tribal and the latter as matriarchal societies attuned to the cycles of "maternal realm of the earth" (p. 305). Wilber (1996c) concurs that the great planting cultures that led up to the development of the city-states, were both mythic and matriarchal (p. 124). Wilber also discussed the significance of farming in facilitating the major cultural developments that occurred during the next few millennia.

Of particular interest in Steiner's narrative about this transition period is the ancient pre-history of Asia—particularly India—and Mesopotamia[149]—Persia-Sumeria. Although he did extensive research on these cultural periods, giving hundreds of lectures that have been published in dozens of volumes, I can introduce only a few fragments within the space of this section. He focused on these particular regions during that period based on his claims that: (a) they provided continuous, genealogical links to a cultural tradition of ancient spiritual wisdom; (b) their philosophical and scientific traditions were foundational to later European[150] philosophical, scientific and cultural developments; and (c) the cultural activities that took place there were significant in enabling the refining and consolidating of important subtle aspects of human biological and psycho-spiritual development.

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[145] When first introducing the structures of consciousness, Gebser notes that the mythic structure begins to overlap the magic in the third millennium BCE (p. 57). However, elsewhere he notes that the mythic-matriarchal structure underpinned agricultural societies that, as we know today, were well in existence prior to 3,000 BCE. Perhaps he added this information later for the second edition in 1966, as indicated by this comment: "Recent developments in anthropology have enabled us to discern two major successive cultural periods" (Gebser, 1949/1985, p. 305).

[146] This astronomical cycle and its influence on the earth, culture and consciousness, is discussed in some depth in Appendix A.

[147] Steiner also discussed similar cyclical periods prior to the 8th millennium BCE but it is beyond the scope of this paper to discuss them (Steiner, 1971a, p. 112-113).

[148] Gebser located the tool-making and craft cultures within the later, mental-patriarchal structure.

[149] My interpretation is that Steiner is referring to a broad region here including Mesopotamia and the Levant to its West.

[150] A critique that could be leveled at such a narrowing of cultural focus is that it is Indo-Eurocentric. It cannot be denied that the people and cultures of other parts of the world are also significant and also have their cultural and spiritual traditions. I propose that a belief in the significance of the Indo-European

Jungian depth psychologists and transpersonal psychologists—including Wilber—have contributed significantly during the 20th century to increased understanding of subtle aspects of human psycho-spiritual development (Bache, 2000; Boadella, 1998; Ferrer, 2002; Grof, 2000, 1988; Jung, 1990; Orme-Johnson, 2000; Walsh & Vaughan, 1993; Wehr, 2002; Wilber, 1996b, 2000b; 2005b, Part I). Steiner also undertook significant phenomenological research into the subtle dimensions of human psychology but this has been largely overlooked even in transpersonal psychology.[151] Steiner proposed that in addition to the physical body, in order for humans to function in the complex ways that we do today, other more subtle bodies also needed to be developed in our species as a whole. He identified a *life body*[152] through which our energy and vitality flows and an *emotional body*[153] through which we experience feelings and passions (Steiner, 1909/1965). Both Gebser (1949/1985, p. 67, 261) and Wilber conflate the vital and emotional dimensions to some extent, perhaps contributing to the complexity of the transition from magic to mythical consciousness. Wilber (2005a, Part 4, p.1) conflates them by using the hyphenated term *vital-emotional* that he attributes incorrectly—according to my research—to Sri Aurobindo.[154] While this is a vast area of research beyond the scope of this paper, what is relevant is that Steiner claimed that these *subtle bodies* were being developed and refined during this period of evolution—the *life*, or vital, body in the first cultural period, that he called the ancient Asiatic/Indian, and the *emotional* body during the second cultural period, that he called the ancient Persian (Steiner, 1910/1939, 1986a, 1990a). Several contemporary researchers have begun to research and extend Steiner's approach to spiritual psychology (Kuhlewind, 1988; Sardello, 1990, 1995). A beginning has also been made in researching the relationship between Jung's depth psychology and Steiner's spiritual psychology (Wehr, 2002).

This section may contribute potential new insights into subtle aspects of the evolution of human biopsychology.

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heritage for global cultural development is a bias of the integral consciousness movement (including Steiner, Gebser and Wilber). One of my interests is to make this bias more explicit, so that it can be balanced in the future, but it is beyond the scope of this article to discuss.

[151] Much of the transpersonal psychology that has developed in the USA—with significant contributions from Wilber—privileges eastern spiritual traditions over the western traditions that Steiner reflects. Jorge Ferrer (2002) critiques this eastern-centric aspect of transpersonal psychology yet also omits Steiner's contribution. There are however several transpersonal theorists who do recognize Steiner's contribution in this area (House, 2004; Kuhlewind, 1988; McDermott, 2001; Sardello, 1990, 1995; Tarnas, 1991).

[152] Steiner also used the term *etheric body*. Sri Aurobindo (2000) uses the term "vital body" in a similar sense (p. 216).

[153] Steiner also used the term *astral body*. Sri Aurobindo (2000) also refers to "the ancient idea of a subtle form or body inhabited by a psychic . . . or soul entity, carrying with it the mental consciousness" (p. 780).

[154] Sri Aurobindo's characterizations of the vital/life and emotional/psychic energies/bodies are far more intricate and subtle than a simple hyphenated conflation of vital-emotional could denote (Aurobindo, 2000, p. 216, 780). Also in 526 pages of writings and essays between 1910 and 1950, he does not use the hyphenated term *vital-emotional* (Aurobindo, 1997).

The First Post-Glacial Cultural Period—Earth as *Maya,* Spirit as Home

> The profound Vedas, the Bhagavad-Gita, that sublime song of human perfection, are only the echoes of that ancient divine wisdom. (Steiner, 1986a, p. 99)

The first significant post-glacial cultural period that Steiner proposed was the *Asiatic*—earlier called *Ancient Indian*—cultural period (c. 7,200-5,000 BCE) (Steiner, 1971a, p. 51-53). He commented elsewhere that the evolutionary developments that occurred during this period affected all people inhabiting the planet. At this time—early Neolithic—most people were still nomadic, although some farming had commenced in the area known as the "fertile crescent," which we will visit in the next section. Steiner claimed that some of the ancient south Asian—particularly Indian—people of this early Neolithic period embodied a sublime spiritual wisdom.[155]

Indology scholar, Asko Parpola (2005) presents a contemporary academic perspective on this view.

> The Indus Civilization came into being as the result of a long cultural evolution in the Indo-Iranian borderlands. From the first stage of development, about 7000–4300 BCE, some twenty relatively small Neolithic villages are known, practically all in highland valleys. (p. 29)

Key Features of the First Post-Glacial Cultural Period

Steiner pointed to several key features that characterize the development of the culture and consciousness of this period, particularly in India. Although Gebser and Wilber mention some of these features in passing—in relation to cultural practices in the early Indus civilization—neither of them have identified a specific Indian or Asian cultural period during the magic-mythic transition.

- Earth as *Maya*, Spirit as Home;
- Internalization of rhythms of nature through poetic speech;
- Development of spiritual practice or Yoga;
- Sanskrit as complex language development.

Earth as Maya, Spirit as Home

According to Steiner, the ancient Indians perceived the physical world around them to some extent as an illusion (*Maya*), regarding the spiritual cosmos as their true home and resulting in a mood of "longing" in their souls (Steiner, 1910/1939, p.200). He claimed they regarded the earth as the lowest part of this spiritual cosmos, and that it was permeated through and through with

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[155] Steiner also proposed that this was the case with several ancient cultures—notably the Indian, Chinese and Meso-American—where a type of recapitulation of different lineages of ancestral spiritual wisdom *informed* their cultural development. I propose this could be taken in László's (2007) sense of *informed* universe.

Spirit (Steiner, 1950, p. 24). Steiner also claimed that as a result of the rising sea levels, they had migrated over time through Europe—led by their leader *Manu*[156]—to settle in the Indian subcontinent. He also referred to cultural and spiritual leaders in this period as the *Holy Rishis*, the name used in ancient Indian sacred texts, such as *The Ramayana and Mahabharata* (Steiner, 1986a, p. 99). Steiner pointed to the sacred texts, the *Vedas* and the *Upanishads*—at first handed down orally and later formalized in writing—as the echoing vestiges of this great wisdom. While Gebser (1949/1985) refers only briefly to some revelations of the *Upanishads* (p. 210), Wilber (1996c) draws quite strongly on some of the ancient Indian sacred texts, claiming—like Steiner—that they were originated by the leading-edge of culture at the time (p. 255-257). Of the three, Gebser draws more strongly on the ancient wisdom of China. (For more information on cultural-aesthetic developments in China during this period, see Appendix C.)

Internalization of Rhythms of Nature Through Poetic Speech

Steiner pointed to a significant feature of the ancient Indian culture in relation to the development of rhythm. He claimed that they experienced a special relationship with the seasonal rhythms and cycles of nature through which they developed a sense of rhythm in their thoracic organs (heart and lungs) (Steiner, 1971a, p. 52). Steiner (1950) proposed that this was enhanced by the rhythmical repetition of chanting—the later echo of this being found in long epic poems, such as the *Bhagavad-Gita* and the *Vedas*, which resounded from the rhythms of their hearts (p. 18). He claimed that this rhythmic repetition strengthened the vital body as discussed above and also facilitated a new internalized form of human memory (p. 18). (See the section on Rhythmic Memory in Appendix A). It is interesting to note that the lineage of much of Wilber's spiritual nomenclature goes back to Vedanta Hinduism (Wilber, 1996c).

Complex Language Development

Steiner proposed an important relationship between the rhythmical processes that facilitated the internalization of memory, and language development (Steiner, 1984c). Linguistic research indicates that during the Neolithic period—around 5,000-7,000 BCE—language developments included, functional diversification of speech, more autonomous speech forms within communities, more precise and explicit forms, analogical correlations and the beginnings of grammar (Foster, 1999, p. 772; Kay, 1977). Clearly in order for language to develop such systemic components, significant memory capability needed to be in place.[157] The language development of the ancient Indians—later classified as *Sanskrit*—is one of the major common roots of the Indo-European[158] language (Foster,1999; Lock & Peters, 1999).

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[156] In the epic poem of *Rama*, the ancient Prince of India, which is included in the sacred Indian text *The Ramayana and Mahabharata,* appears the line: "Like the ancient monarch *Manu*, father of the human race." http://www.sacred-texts.com/hin/dutt/rama01.htm
This appears to corroborate Steiner's narrative, which may benefit from some further archeo-anthropological research.

[157] For more discussion on language development, see Appendix C.

[158] This entire language group, ranging from Hindi and Persian to Norwegian and English, is believed to descend from the language of a tribe of nomads roaming the plains of eastern Europe and western Asia as recently as about 3000 BC.
http://www.historyworld.net/wrldhis/PlainTextHistories.asp?paragraphid=axx#axx

This is the most widespread group of languages—spoken by around half the world's population.[159] Sanskrit terminology is also used by several integral theorists and in other contemporary spiritual literature to characterize potential transpersonal human development.[160] It is possible that it contains nuanced meanings in relation to subtle body relationships and spiritual development that have not yet been adequately expressed in modern languages such as English.

Development of Spiritual Practice or Yoga

Steiner's major emphasis with this cultural period is that humans began to experience the loss of spiritual connection, the separation from their Cosmic/spiritual *homeland*, and the longing to go back to Spirit. He claimed that the ancient Indians were the first to develop practices to assist in the spiritual re-integration of human beings (Steiner, 1986a). This lineage exists to this day in India and many yoga masters have also taken their teachings to other cultures.[161] Steiner also noted that the Chinese culture of this time also contained great spiritual wisdom, which was even more ancient. The Chinese movement form of Tai Chi could also be regarded as having a similar purpose. However, its history was not purely integrative but martial—apparently originating from Indian yoga, but taking a turn towards boxing in the Chinese context.[162]

Summary and Relevance for Today

In summary, before farming was fully established, before writing was developed, and before the building of city-states, these ancient humans had already developed a highly sophisticated schooling in spiritual practices.

> Yoga was the name of the training [they] had to undergo in order to penetrate through the illusion to the spirit and primal source of being. . . . The Indian turned away from everything external and looked for a higher life only in world-renouncing ascent to the Spirit. (Steiner, 1986a, p. 99-100)

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[159] Data on the Indo-European Language Group, sourced from the National Virtual Translation Center of the Intelligence Services of the US Government http://www.nvtc.gov/lotw/months/december/IEFamily.html

[160] For example both Steiner and Wilber foreground the Sanskrit term *Atman* for the Higher spiritual Self and both Steiner and László use the Sanskrit term *Akashic* to describe the universal information field (László, 2007; Steiner, 1904/1959; Wilber, 1996b).

[161] However, Steiner also claimed that, while yoga was an ideal practice for human development at that time, spiritual practices need to be adapted to keep up with the biopsychosocial developmental changes that have occurred through evolution. Gebser (1949/1985) also makes the point that "the Yoga techniques appropriate to the Orient are most likely not in accord with our consciousness structure" (p. 245).

[162] A Tai Chi center connected with the education faculty at the Middle Tennessee State University, claims: "In China yoga came to be developed into what is called *Saolin chuan* ("chuan," briefly, means boxing). " However Tai Chi today in the West is mostly of the softer variety, "Unlike the hard martial arts, tai chi is characterized by soft, slow, flowing movements that emphasize force, rather than brute strength." http://www.mtsu.edu/~jpurcell/Taichi/taichi.htm The ancient Chinese knowledge of the life currents and energies in the human body, are also demonstrated in the healing art of acupuncture.

Such perspectives—if researched at all in the Academy today—are generally sequestered away in faculties of religion or subbranches of ancient history. I propose that it is time to integrate such material with the biological and evolutionary psychology discourse. Like Steiner, Gebser and Wilber, Sri Aurobindo's work is of great significance to a new evolutionary narrative that can assist us to evolve ourselves out of our cultural and planetary hiatus. Writing at the same time as Steiner (1914-1920), he made the following plea for the active development of "integral consciousness."

> An integral consciousness will become the basis of an entire harmonization of life through the total transformation, unification, integration of the being and the nature. (Aurobindo, 2000, p. 755)

This is the spiritual lineage that Steiner is referring to in this first post-glacial period. It continues on in the integral consciousness movement of our times, potentially providing a nourishing alternative cultural pre-history to the *primitivism* that still exists in many evolutionary biology narratives. I suggest that the revival of interest in Eastern spiritualities among Westerners in recent decades reflects a searching for some of this ancient spiritual wisdom that has been increasingly suppressed in the last three centuries by the narrowing of rationality and the excesses of materialism. While clearly my research poses more research questions than it answers, it does re-open the territory.

The Second Post-Glacial Cultural Period—The Persian *Magi* and the Fertile Crescent

> The peoples of this second period had a different task. . . . In their longings and inclinations they did not turn merely toward the supersensible, for they were eminently fitted for the physical sense world. They grew fond of the earth. (Steiner, 1910/1939, p. 203-204)

Steiner's second post-glacial cultural period flourished from c. 5,000-3,000 BCE (Steiner, 1971a, p. 53). Archaeologically, this was the height of the Neolithic farming period. The geographical and cultural focus of this period was the region known as Mesopotamia, between the Tigris and Euphrates rivers, in the area that later became Babylonia and is now southern Iraq, from Baghdad to the Persian Gulf. This region is widely recognized as being the home of the earliest known civilization[163] and is still known today as the "fertile crescent." It is notable that domestication of animals and farming of cereals had also begun by this time in Africa, with the Nubian culture of the Sudan having already developed some of the features of the later dynastic Egyptian culture, such as ceramics and elaborate burial tombs, culturally mediating between Egypt and the southern and western regions of Africa (Gatto, 2004).

Steiner called this second cultural period *ancient Persian*—because it developed in the region later known as Persia. The type of consciousness emerging in Steiner's Persian period, resembles Gebser's mythic consciousness, yet contains magical elements, supporting my notion of this being a transition phase. Gebser explicitly refers to the Mesopotamian region as being significant in the transition between the magic and mythical cultures, though with more emphasis on developments post-third-millennium: "This paralleling and overlapping of the still-magical and just-mythical attitude is particularly evident in the many illustrations of artifacts from the two early Sumerian cultures from the third millennium onward" (Gebser, 1949/1985, p. 109). Wilber clearly places this period clearly within his myth-membership stage. His characterization of what he calls "*mythical* cognition [is a] . . . mixture of magic and logic . . . which informs and structures language itself" (Wilber, 1996c, p. 98). In this period that he calls "low myth-membership" he particularly focuses on the socio-cultural developments.

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[163] I am using the term civilization according to its conventional formal-academic usage, while being aware that it could be deconstructed.

From a broader geographical perspective, by the time Sumeria was a powerful and prosperous city-state—around 3,000 BCE—other regions of the world were also beginning to develop in a similar way, at least the Nile Valley of Northeast Africa, the Indus Valley of South Asia, the *Huang He* (formally called Yellow River Valley) of China, and coastal Peru in South America. It is beyond the scope of this paper to discuss the apparently parallel cultural developments in these regions, however further comparative research in the future may be fruitful.

Key Features of the Second Post-Glacial Cultural Period

Several key features were identified by Steiner to characterize the ancient Persian culture and consciousness as a further continuation of the Indo-European lineage of cultural and psycho-spiritual development. Both Gebser and Wilber identify these features of development as well, though neither identified a specific cultural period during this time.

- Sense of Polarity;
- Orientation to the Earth through agriculture;
- Formation of Proto-cities;
- Magic-Mythic Transition to Organized Religions.

Sense of Polarity

Steiner proposed that these ancient Persian/Sumerians developed the beginnings of the awareness of two dimensions—polarity and symmetry—whereas the earlier cultures lived within a sense of unity. Gebser (1949/1985) concurred that the mythical structure is "the expression of two-dimensional polarity. . . . the mythical man may be said to establish an awareness of earth's counterpole, the sun and sky" (p. 66). Steiner also characterized this new awareness as a recognition of the twin natures of earth and cosmos—expressed as archetypes of Dark and Light—which became central to later Zoroastrian religious symbolism (Steiner, 1971a, p. 53).

Orientation to the Earth through Agriculture

Steiner linked this developing sense of polarity of the ancient Persians to the new orientation to the earth, compared with the ancient Indians. He noted though that they retained the sense that "external reality was an image of the Divine, which must not be turned away from but shaped anew. The Persian wished to transform nature by work" (Steiner, 1986a, p. 100). These indigenous Sumerians must have labored hard. They had to drain the marshes for planting crops;

and they developed early trade of their crafts including weaving, leatherwork, metalwork, and pottery.[164] Wilber draws attention to some of the cultural developments that arose as a result of the introduction of farming, including the production of *surplus goods* and their symbolization as *money*, in the form of gold, which developed into a *new immortality symbol* (Wilber, 1996c, p. 108).

Formation of Proto-cities

All of these developments contributed to the gradual growth of large farming settlements. Wilber (1996c) claims that by 5,000 BCE "agricultural colonization had spread throughout the Tigris-Euphrates and Nile valleys, swelling the population of some cities to 10,000 inhabitants" (p. 110). There is academic contention around the lineage of the early Mesopotamians who initiated this agricultural revolution and built the first settlements. Contemporary archaeological research suggests that, prior to the Sumerians, the Ubaidians founded an elaborate development starting around 5,000 BCE, called *Eridu*.[165] Although the ancient text called the *Sumerian King List*[166] might be regarded more as mythological than historical, it is interesting to note its opening lines:

> *When kingship from heaven was lowered,*
> *The kingship was in Eridu.*

Eridu is now known as *Abu Shah Rain*, located 196 miles southeast of Baghdad, Iraq. Archaeologists claim that it is the earliest known city of Sumer (Southern Mesopotamia), [167] lending support to the ancient Sumerian claim that *Eridu* was the first city in the world.

Magic-Mythic Transition to Organized Religions

Although Steiner noted that this culture pre-dated what is generally regarded as the *historical* ancient Persia of Zoroastrianism, he claimed that it had a strong genealogical lineage with the later historical Persian culture that echoed it. He claimed that the leader of this original ancient Persian culture could also be referred to as Zarathustra[168] (Greek: Zoroaster) (Steiner, 1910/1939,

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[164] From *Encyclopædia Britannica*. Retrieved June 1, 2007, from Britannica Concise Encyclopedia: http://concise.britannica.com/ebc/article-9070297/Sumer

[165] The Minnesota University e-museum archaeology website notes that *Eridu* was rediscovered in the sand dunes and excavated by Iraqi archaeologists between 1946 and 1949. It is considered a very important site showing a "long succession of superimposed temples portraying the growth and development of an elaborate mud-brick architecture." These successive developments took place from 5,000-3,000 BCE. http://www.mnsu.edu/emuseum/archaeology/sites/middle_east/eridu.html

[166] The *Sumerian king list* is an ancient text in the Sumerian language listing kings of Sumer from Sumerian and foreign dynasties. http://en.wikipedia.org/wiki/Kings_of_Sumer

[167] Binek, Tracy, http://www.mnsu.edu/emuseum/archaeology/sites/middle_east/eridu.html

[168] According to Steiner, Zarathustra foresaw a potential danger that humans could become too attached to the earth, and developed his teachings in relation to the "sublime Sun or Light Spirit, Ahura Mazda and the Spirit of Darkness, Ahriman" (Steiner, 1910/1939, p. 206). It is important to note that the type of dualism that occurred in this mythic period was more of the nature of complementary polarities, than

p. 205). Until recently, this claim of Steiner's may have appeared highly speculative or even fictitious. However, a recent book revisits claims of ancient Greek and Roman historians, Xanthus, Pliny, Eudoxus and Plutarch, in the light of recent archaeological evidence. It substantially supports Steiner's claim, that an earlier Zarathustra pre-dated the historical figure by several thousand years (Settegast, 2005).[169] At the very least, these unconventional views of Steiner and Settegast pose new questions about the history and development of this highly significant region. As an indication of the lingering magic consciousness, Steiner referred to the leading people of this culture as *the Magi*—who he claimed had retained some of the magical powers of the earlier times (Steiner, 1910/1939, p. 204). Settegast also makes reference to *the Magi*, regarding them as an Order said to have been founded by Zarathustra (Settegast, 2005). The dualism of Light versus Dark became a central teaching in Zoroastrianism, which arguably influenced the monotheistic religions of Judaism, Christianity, and Islam that also developed in this general geographical region.[170] Gebser also suggests that Zarathustra's dualism underlies Parminedes' (b. 540 BCE) notion of Being opposed to Non-Being, which intriguingly straddles the next transition from mythical to mental consciousness.[171]

Summary and Relevance for Today

The convergences between our three narratives support my proposal that the developments of culture and consciousness in this second cultural period mark a significant phase in the transition between Gebser's magic and mythical structures of consciousness. I would also like to briefly draw attention to Friedrich Nietzsche's use of the Zarathustra archetype in one of his most famous books, *Thus Spake Zarathustra* (Del Caro & Pippin, 1887/2006). Although it is beyond the space available to discuss this work, Nietzsche's aim does express an interesting mirror-reversal of the Persian theme of previously spiritually oriented humans becoming oriented to the earth. He begs the question. "In what way . . . can a human being now tied to the "earth" still aspire to be ultimately "over-man," U'bermensch?" (Del Caro & Pippin, 1887/2006, p. xviii).

As a postscript to this Persian/Sumerian narrative it is disturbing to consider that at the time of writing this paper, this region of the world—modern Iraq—is still a war zone. Tragically, as a result of the two Gulf wars, much of the ancient archaeological—and thus cultural—history of

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divisive dualism. David Boadella (1998) refers to Zarathustra's teachings, as "ecologically aware and non-dualistic" (p. 31).

[169] Based on extensive research Mary Settegast integrates this historical and archaeological evidence with the oral traditions of ancient Persia and argues that this *original* Zarathustra (circa 6,200-6,500 BCE) led his people through the transition from the nomadic to the agricultural life—including building settlements that developed into cities, creating and decorating fine ceramics, and eventually, within the same lineage, to developing some of the first writing—cuneiform writing on clay tablets (Settegast, 2005).

[170] Zoroastrianism and Parsiism. (2007). In *Encyclopædia Britannica*. Retrieved June 2, 2007, from Britannica Concise Encyclopedia:
http://concise.britannica.com/ebc/article-9383384/Zoroastrianism-and-Parsiism

[171] Gebser makes the fascinating point that Parmenides notion of Non-Being as essentially measureless and spaceless, is mythical, whereas his notion of Being is emphatically spatial; an incipient mental, measuring concept (p. 80). He also notes that Parmenides was responsible for the birth of linear time with his tripartition of time into past, present and future (Gebser, 1949/1985, p. 178). For more detail on the latter, see Appendix A.

this *cradle of civilization* has been—and is still being—destroyed by looting and bombing (Berg & Woodville, 2004).[172] Ironically, the Zarathustrian polarity of light and darkness and its association with good and evil can be observed in a regressive dualistic form, in the subtext of this situation.

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[172] The US Government has recently donated $100,000 to the funding of a new database being developed by the World Monuments Fund—in cooperation with the Getty Conservation Institute and UNESCO—to conserve and document Iraqi archaeological sites (Berg & Woodville, 2004). Thankfully, *Eridu* is one of the sites included in this program.

6. Myth and the Flourishing of Civilization: The *Noospheric* Journey of the Soul

> The soul had formerly felt as if it were within the phenomena of nature. What it experienced in these natural phenomena . . . presents itself to the soul in the form of images that appeared in vivid reality. (Steiner, 1914/1973c, p. 30)

> Whereas the distinguishing characteristic of the magic structure was the emergent awareness of nature, the essential characteristic of the mythical structure is the emergent awareness of soul. (Gebser, 1949/1985, p. 61)

> The original, primal tribes had to find a way to transcend their *isolated* tribal kinship lineages . . . and mythology, not magic, provided the key for this new transcendence. (Wilber, 2000d, p. 175-176)

Context for Emergence of Civilization

As the transition from magic to mythical consciousness reached its climax, the cultural shift took place from increasingly settled and complex agricultural villages to what are regarded as the world's first cities. The beginning of the third millennium BCE saw a major flourishing of cultural change and development across many regions of the planet. Archaeologically, the period to be considered here straddles the Bronze Age (3,500-1,200 BCE) and the Iron Age (1,200-700 BCE).

Gebser generally locates the emergence and development of the mythic structure of consciousness across this span (c. 3,000-800 BCE). Synchronously, this is almost identical to the timing of Steiner's third cultural period—the Egypto-Chaldean (c. 3,000-750 BCE). Wilber divides his myth-membership period into two: his low myth-membership period (c. 9,500-4,500 BCE) and his high myth-membership period[173] (c. 4,500-1,500 BCE) (Wilber, 1996, p. 110). The three narratives all point to the Bronze and Iron Age periods—though not naming them as such—as being highly significant in the development of a new movement of consciousness and cultural flourishing, with particularly strong convergence between Steiner's and Gebser's time-lines. Notably Wilber's low-egoic period (2,500-500 BCE) also overlaps with this time-frame.

Teilhard de Chardin (1959/2004) also spoke of the significance of this period where settlements were being turned into cities. He claimed that this *socialization*, forced the pace of *hominization*,[174]—leading to a leap of development. He saw it as an important stage in the development of the noosphere—"the envelope of thinking substance" (p. 151). He described how these processes facilitated the subtle consolidation of the noosphere.

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[173] Wilber's high myth-membership period is more aligned to Steiner's first and second post-glacial cultural periods.

[174] Teilhard links *hominization* with the emergence of the noosphere—during which time "the earth 'gets a new skin'" (Teilhard de Chardin, 1959/2002, p. 183). The noosphere then develops through *socialization*—as discussed above—and the later, *planetization*, which he saw as beginning to emerge in his times and will be discussed later in the paper. (See Appendix B for more information).

> Between them exchanges increased in the commerce of objects and the transmission of ideas. Traditions became organized and a collective memory was developed. Slender and granular as this first membrane might be, the noosphere there and then began to close in upon itself—and to encircle the earth. (p. 206)

Wilber (2000d) makes the significant point that the creation of cultural myths—through a type of primal creativity—enhanced this development.

> The *original* breakthrough creativity—that allowed humans to rise above a given nature and begin building a noosphere, the very process of which would bring Heaven down to Earth and exalt the Earth to Heaven . . . and mythology, not magic, provided the key for this new transcendence. (p. 175-176)

A major cultural flourishing occurred in North Africa and the Middle East among the Chaldean, Babylonian, Assyrian and Egyptian people—the thirty dynasties of the high culture of dynastic Egypt spanned 2,400 years of this period (c. 3,000-600 BCE) (Shaw, 2000, pp. 479-483). However, synchronous cultural flowering also occurred in other regions as Teilhard de Chardin (1959/2002) noted:

> From Neolithic times onwards the influence of psychical factors begins to outweigh—and by far—the variations of ever-dwindling somatic factors . . . with Post-Neolithic man . . . the basin of the Yellow River, with Chinese civilization; the valleys of the Ganges and the Indus, with Indian civilization, and lastly the Nile Valley and Mesopotamia with Egyptian and Sumerian civilization.[175] (pp. 208-210)

Teilhard de Chardin also noted later developments in Central America, and the South Pacific. Recent archaeological discoveries suggest other earlier civilization by the Inkas, in South America.[176]

Terminology Issues

Gebser has foregrounded the term *mythical* to denote this structure of consciousness, while Wilber has foregrounded the term *membership* and added *myth* to it to honor Gebser's terminology. In Wilber's *myth-membership* stage—that he often calls simply *membership*—he focuses quite strongly on sociological and psychoanalytic features. Gebser's focus is more phenomenological, based on extensive research of artistic and literary artifacts. Steiner referred to the period in which the mythic picture consciousness developed as the Egypto-Chaldean period, in reference to the significant developments in culture and consciousness that occurred in those regions. A major divergence occurs regarding the different usages of the term "soul," as discussed below.

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[175] Teilhard de Chardin (1959/2002) also makes the interesting point that of these three major civilizations "the contest for the future of the world" was won by the more western zones of the Euphrates, the Nile and the Mediterranean (p. 211). He explains this in terms of China's lack of inclination and impetus for change, having—until recently—represented a "scarcely changed fragment of the world as it could have been ten thousand years ago . . . like the writing which betrays the fact so ingeniously" (p. 210). He also points to India—"the region *par excellence* of high philosophic and religious pressures"—having become lost in *metaphysics* . . . and although "ventilating and illuminating the atmosphere of mankind . . . with their excessive passivity and detachment, they were incapable of building the world" (p. 211). This reflects a rather competitive, strongly Eurocentric view of cultural differences, perhaps reflective of his cultural context.

[176] Recent archaeological discoveries at Caral in the Sepe Valley in Peru suggest that some pyramid shaped buildings and settlements of the Inka civilization may have been built as early as 2,500 BCE. http://archaeology.about.com/od/ancientwriting/a/caralquipu.htm

Key Features of Mythic Consciousness

Most of these key features are identified in all three narratives.

- The emergent awareness of the inward-turned world of the soul;
- The development of complex mythology, requiring imagination and a new degree of cognitive coherence;
- The development of astronomy, calendars and other complex mathematical systems;
- A new relationship to death and burial;
- The development of language systems including the first pictographic and logographic writing systems (See Appendix C for more details);
- The strengthening of a sense of cyclical temporality (See Appendix A);
- Membership of large organized social groupings, resembling cities.[177]
- Temple structures, especially pyramids. Although Egypt is most renowned for pyramids, this was also the primary form of temple architecture of Meso-American and South American Inkan civilization;
- The culmination of primarily matriarchal societies prior to the beginnings of patriarchy with the Greco-Roman civilization (Eisler, 2001).

I will now focus in a little more depth on the first four of the above features. The fifth and sixth are discussed in appendices and the remaining features must remain unexamined until subsequent research can be undertaken.

The Inward-Turned World of Soul

Both Gebser and Steiner connected the emergence of mythical consciousness with the first awakening of the individual human soul from its magical enmeshment with nature and cosmos. Gebser—who pays particular attention to artistic detail—notices the gradual extrication of the human form from its natural surroundings. In an exemplary painting of a human figure in nature from Knossos (Crete) dating from the second millennium BCE, Gebser (1949/1985) notes the "placing [of] the upper torso against the "sky" [and that] the sky is simultaneous with the soul" (pp. 61-62). He supports this with Plato's statement "the soul . . . [came into being] simultaneously with the sky" (p. 45). Steiner's conception of soul is based on a Platonic tripartite understanding of the human as having body, soul and spirit—the *soul*[178] as mediator between *body* and *spirit*. He also regarded the period from 3,000 BCE as being significant for the development of the earliest emergence of the human soul—that he called the *sentient* or *feeling soul*.[179]

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[177] This is a strong emphasis in Wilber's characterization of the myth-membership period, thus he is a valuable source of further information (Wilber, 1996c, p. 97). He also emphasizes sociological issues, particularly in relation to changing gender roles and relationships, including the impact of agricultural surplus on the development of new, more specialized, social roles, e.g., priests, administrators, educators (p. 102).

By contrast, Wilber's notion of soul is somewhat differently placed. He does not use the term soul until after all the structures of consciousness up to ego-mental are established, regarding *soul* and *spirit* as part of what he calls the "superconsciousness" in *Up from Eden* (Wilber, 1996c, p. 11). This conception also appears in his later works, where he does not use the term soul until the post-rational stages beyond vision-logic (Wilber, 2000b, p. 258, n. 22). However, Wilber's use of the term *mind*, when he is referring to body, life, mind, soul, and spirit would appear to be similar to Steiner's and Gebser's use of *soul* in the present context. Gebser's (1949/1985) position is that mythic consciousness paradoxically involves both an "inward-directed contemplation," involving a new awareness of one's own soul; and an outward-directed verbalization, through creating a myth about what has been inwardly visualized. This describes a circular motion of the "internal world of the soul; its symbol is the circle, the age-old symbol of the soul." (p. 66) This internalization of soul enables an "internalization of memory," as recollection, "in parallel with an externalization of utterance," particularly through poetry[180] as inspired by the Muses (p. 192). Perhaps the composite term mind-soul could be an appropriate improvement in the taxonomy.

The World of Myth Through Imagination

For Gebser the movement from magic to mythical consciousness involves a shift from a more vital centre to a soul centre that bears the stamp of the imagination. This aligns with Steiner's position on the major developmental shift from the vital and emotional bodily systems being developed during the first and second cultural periods, and the third cultural period where the inner life of what he called the *sentient soul* was arising. He associated the latter with a sense-oriented, participatory, pictorial type of thinking that developed during the two thousand years prior to the emergence of abstract intellectual thought. Wilber (1996c) is somewhat more pragmatic about these developments. In this period he refers to the significance of language, through which "the verbal mind could differentiate itself out of the previous bodyself" (p. 99). He also pointed to the role of symbolic thinking in myth-making "through a network of intersubjective membership and communication" (p. 101).

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[178] Steiner drew attention to significant historical-cultural changes whereby a new Church dogma—introduced at the Fourth Council of Constantinople in 869 CE—replaced the traditional Greek philosophical notions of the human being as being composed of body, soul and spirit with a reduced conception of human nature as a duality of body and soul, effectively banishing *spirit* from the map. (Steiner, 1932/1966c, pp. 41-42).

[179] While Steiner claimed that the first two previous cultural periods had enabled the development and consolidation of the vital and emotional bodily systems, he claimed that the third, fourth and fifth cultural periods consolidated three soul developments: the sentient soul, during the mythic period; the rational-intellectual soul, during the Greco-Roman period; and the consciousness-spiritual soul which has been emerging since the 15th century and, arguably, now appearing as what I am calling postformal-integral-planetary consciousness (Steiner, 1930/1983a, 1971a). Steiner also pointed to three future cultural periods where further movements of consciousness would be possible. This aligns with Wilber's model of higher stages of development. However, this theme requires further research.

[180] This more creative poetry of the mythic period, inspired by the Muses, marks a further development of the process of rhythmical recitation of sacred poetry texts—created by the initiates during the magic period as an aid to the development of memory.

While, from Gebser's (1949/1985) perspective, the magic mode is dominated by impulse, instinct and affective reactions such as sympathy and antipathy, the mythical structure has a more mental orientation.

> Latent predisposition to perspectivity, has an imaginatory consciousness, related in the imagistic nature of myth and responsive to the soul and sky of the ancient cosmos. . . . The great cosmogonical images in the early myths are the soul's recollection of the world's origination. (p. 67)

In a similar vein, Steiner (1986a) noted the link between the awakening human soul and the world soul—or *anima mundi*—through the imagination, whereby the cosmos is still experienced as being ensouled.

> The ancient Chaldean priests . . . were the custodians of profound wisdom, but for them these laws of nature were not merely abstract, nor were the stars merely physical globes. They looked on each planet as ensouled by a Being . . . a divine Being who gave it life. Thus the Egyptians and Chaldeans discerned that they were spirits living among spirits in a world of spirits. (p.101)

It is interesting that there is a renewed interest today in notions of *anima mundi*—or ensouled cosmos—among transpersonal psychologists and integral philosophers (Sardello, 1995; Tarnas, 2006). Perhaps it is an indicator of a shift beyond the marginalizing of the inner life that has occurred through the scientific privileging of the measurable world of externalities.

The Development of Astronomy and Calendars

The ancient Sumerians were renowned for their mathematics and early calendars. Steiner suggested that the Sumerians and Babylonians had deep mathematical insights into the relationships between human and cosmic proportions (Steiner, 1982c, p. 73). Gebser and Steiner both noted the awareness of the soul's polarity in the earlier Persian/Sumerian cultures and its parallel—the awareness of the sky, as a counterpole to the earth. Gebser also noted the centrality of polarity in the Chinese *T'ai-Ki* symbol—generally known as the Yin/Yang symbol (Gebser, 1949/1985, p. 220). Steiner (1986a) indicated that the Persians' awareness of the earth/sky polarity laid the ground for the deeper understanding of the Egyptians and Chaldeans who began to uncover the laws that were operating *between* the earth and sky.

> [Humans] looked up to the stars and observed their movements and their influence on human life, and accordingly worked out a science which enabled them to understand these movements and influences. They brought the Heavens into connection with the Earth. (pp. 100-101)

It has been claimed that the Egyptian sciences were based on the legendary wisdom teachings of *Hermes Trismegistus*[181] who is reputed to have written *The Emerald Tablet*, a document on which the Hermetic sciences were based for thousands of years. Sir Isaac Newton[182] has actually translated, with commentary, The Emerald Tablet—often encapsulated in the phrase—*as above, so below*.

A New Relationship to Death and Burial

One of the intriguing aspects of the Egyptian civilization was its relationship to death. Recent research in Sudan suggests that elaborate burial rituals were already operating in the earlier Nubian kingdom from at least 3,800 BCE (Gatto, 2004). However, the Egyptians certainly took these customs to new heights. Wilber, drawing on Joseph Campbell's research, refers to these customs—the mortuary cults, the mummies, the golden death masks—as being "heightened searches for symbolic or token or pretend immortalities" in response to the new "death-fear," arising from their gradually dawning sense of individuality (Wilber, 1996c, p. 121). Steiner, on the other hand, makes quite a different interpretation for the death interest of the Egyptians. Referring to the Osiris-Isis myth, Steiner claimed:

> The Egyptians desired in this way to turn their gaze to that element in the human soul which lives not only between birth and death . . . in their preservation of mummies, in their peculiar death-ceremonies—[they] turned the eye of the soul to that . . . eternal imperishable element . . . united in the Egyptian consciousness with the name of Osiris. (Steiner, 1971a, pp. 2-3)

Gebser (1949/1985) took this point further referring to the life and death poles of the soul. He observed that "the great Egyptian literature on death is an endeavor to master the death region of the soul" (p. 223). The increased focus on death and burial rituals and symbols has been much studied by cultural anthropologists (Barnard & Spencer, 1998). Although the elaborate Egyptian tombs are of great contemporary interest, it is worth noting that one of the most significant of the Egyptian myths—the Osiris myth—is not just about death, but also about resurrection (Campbell, 1993; Neumann, 1954/1995; Steiner, 1971b).

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[181] *Hermes Trismegistus* was a legendary Egyptian leader who is believed to have developed the Hermetic sciences—which could be called the first spiritual sciences—on which were based alchemy, astronomy, astrology. It is recently being rediscovered that scientists such as Johannes Kepler and Isaac Newton studied Hermetic sciences such as alchemy and astrology.

[182] Although Sir Isaac Newton is considered to be one of the fathers of modern science, his relationship with the Hermetic sciences, linked to ancient Egypt has been a well-kept secret. Like the marginalized writings of Johannes Kepler (See Appendix B), and Charles Darwin, that are being brought to light by integrally oriented evolutionary theorists (Conway Morris, 2007; Loye, 1998; Richards, 1992, 2002), Newton's little known works on astrology and alchemy are currently being catalogued as part of the *Newton Project* at Sussex University in the UK. See also B.J.T. Dobbs, "Newton's *Commentary* on *The Emerald Tablet* of Hermes Trismegistus: its scientific and theological significance", in Merkel and Debus, *Hermeticism*, 182-91. http://www.newtonproject.sussex.ac.uk/prism.php?id=90

Deficient Manifestations of Mythic Consciousness

As mentioned earlier, Wilber (1996c) has a keen interest in debunking the romantic myths about the glories of the past. He reminds us that all was not romance and glory in this early period of civilization building. He describes some of the horrendous rituals that were part of the mythic cultures, including human sacrifice (p. 125). He also pointed to the darker side of the politics of "divine kingship" during the myth-membership period, during which new horrors arose, such as "slavery . . . exploitation . . . elitist class distinctions . . . And massive oppression of the many by the few (p. 178).

Gebser refers to the efficient form of the mythic consciousness when it was at its peak of development and full creative force was engaged to envision a primal image. He notes that as this primordial myth gets passed on it begins to lose its power and to fragment into a multitude of spoken myths. These myths—which passed on over time—are mere echoes of the original primordial visions. He sees this as the deficient phase of mythic consciousness.

This seems analogous to what often happens between the original inspiration of a new philosophy, great leader or spiritual teacher and what becomes of the later product of his or her inspiration. Invariably the original message—whether it is Buddhism, Islam, Christianity, Steiner education, or integral theory—has the purity and power of an inspired vision or mission. Over time, the students or practitioners reduce the original message and develop a mythic version of it. This then becomes ossified into a new dogma as deficient mythic consciousness tightens its stranglehold.

Summary and Relevance for Today

The power of myths is well known to the creators of mass media, and corporate marketing and advertising (Jenson, 1996; Klein, 2000). The suppression of healthy imagination that has come in the wake of centuries of dominance by increasingly narrow forms of rationality has created an imbalance—particularly observable in the images of the future of young people (Eckersley, 2002; Gidley, 1998c, 2002a; Giroux, 2003; Hicks, 2002; Hutchinson, 2002; Inayatullah, 2002; Novaky, 2000). Young people also feel that there is a spiritual vacuum in our society (Gidley, 2005a; Tacey, 2003) which many critical educational theorists and educational futurists argue is too often filled by negative and exploitative media images (Clouder, Jenkinson, & Large, 2000; Gidley, 2001d; Giroux, 2003; Healy, 1998; Hutchinson, 1994; Livingstone, 1998; Milojevic, 2005b; Pearce, 1992; Steinberg & Kincheloe, 2004). When imaginative mythic consciousness is not given scope for healthy expression, it is likely to break through in unhealthy ways, as Gebser has demonstrated.

> Whenever we encounter an immoderate emphasis on the imagistic, the ambivalent, the psychic—an unbridled phantasy, imagination or power of fancy—we may conclude the presence of a deficient mythical attitude that threatens the whole or integrality. (Gebser, 1949/1985, p. 154)

This is exemplified in our mass media today, where extreme levels of violent imagery exemplify deficient mythic consciousness, representing an extremely troublesome form of enculturation of our youth worldwide (Gidley, 2004c; Grossman, 2000; Grossman, Degaetano, & Grossman, 1999; Healy, 1998). Another predatory phenomenon relevant to the enculturation of youth via the appeal of the mythic imagination is cults. By contrast the power of the imagination can be used to enact positive enculturation, if the creative imagination is harnessed to the virtues of the Good, the Beautiful and the True. Educators, futurists, integral theorists, and some philosophers have begun to highlight the importance of rescuing healthy, positive, grounded imaginative-thinking from the limitations of a rationality too narrowly-defined, as will be discussed in the next section. The significant role of the healthy development of the imagination in educating for postformal, integral consciousness has been discussed elsewhere (Gidley, 2007a).

Transition from Mythical to Mental Consciousness—A Second Complex Aporia

As individual egos began to break through and awaken, in parallel with the next movement of consciousness, the ancient wisdom that had lingered in the mythic imagination began to grow dim.

> In myth the picture was experienced in such a way that one felt it to be in the external world as a reality. One experienced this reality at the same time, and one was united with it. With thought . . . [we] felt [ourselves] separated from nature. (Steiner, 1914/1973c, p. 16)

In addition, what was held in balance to a degree within the mythic sense of polarity became torn apart with mental dualism:

> Duality is the mental splitting and tearing apart of polarity, and, from the correspondences of polarity, duality abstracts and quantifies the oppositions of antitheses. (Gebser, 1949/1985, p. 86)

There may be a need to clarify a potentially confusing, apparent timing contradiction with regard to the transition in northern Europe from mythical to intellectual-mental-rational consciousness—and subsequently to the beginnings of integral-planetary consciousness. According to Gebser, these two transitions occurred within a few centuries of each other (13th to 16th centuries). I will use Gebser's clarification of these issues as my guide. This is because he has provided extensive phenomenological detail on these periods in relation to his structures of consciousness, which I have foregrounded in my analysis. Steiner's view of these transitions is closely aligned.[183] Wilber's view is somewhat more contradictory and will be discussed in more detail below.

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[183] From my substantial research across dozens of Steiner lectures/volumes—aimed at locating and cohering his numerous statements on these matters—I am satisfied that his views were very closely aligned to Gebser's research on these European transitions (see reference list for major sources). This is not withstanding the possibility that a researcher with greater Steiner expertise than I have may point to Steiner documents at variance with my claim, given the sheer volume of his work on the evolution of culture and consciousness, some of which is not yet available in English.

In order to bring clarity, I will explicate three transitional situations discussed in the narratives. The descriptions that follow are not intended to present these transitions as if they were immutable fixed structures that were compelled to occur at these times. Rather my purpose is to tease out a rather complex series of steps in the narratives.

1. In addition to claims in this narrative there is a general consensus in the history of Western ideas that a major transition began around 500-800 BCE from mythical consciousness to intellectual-mental-rational consciousness—primarily in Greece and later in ancient Rome (Gangadean, 2006a; Habermas, 1979; Jaynes, 1976; Tarnas, 1991, 2006). The present narratives point to prior influences from surrounding regions such as Egypt, and Mesopotamia. Gebser notes:

> This new conscious structure began to be evident when the consolidation of myth reached its height in the eighth century [BCE] the definite and full awareness of the new mutation expressed in the consciousness structure then new was fully effected in Plato. The two millennia, which followed, were devoted to consolidating the new consciousness, a process completed by 1480-1500 [CE, with] Leonardo's perfection of perspective. (p. 303)

While Steiner and Gebser are in agreement on this, there is contradictory material in Wilber's writings. In *Up from Eden*, Wilber refers to the latter phase of the myth-membership as ending around 1,500 BCE, and in addition he refers to the *egoic-stage* as having three sub-stages: "the low: 2500-500 [BCE]; middle: 500-1500 [BCE]; high: 1500 [CE] – present" (Wilber, 1996c, p. 188). Wilber's evidence for this is that Joseph Campbell claims that *the Hero myths* emerged approximately 2,500 BCE—the beginning of Wilber's *low egoic* period. However, in Wilber's second edition of *SES*,[184] (Wilber, 2000d), he agrees with Gebser (and Habermas) that the egoic-rational emerged "in the middle of the first millennium BCE, but it reaches its fruition with the rise of the modern state, roughly the sixteenth century in Europe" (p. 184).

2. The second transition—still within the mythic-to-mental transition itself—concerns the belated development of mental-rational consciousness in northern Europe—compared with Greece and Rome. Gebser claimed that the mythic consciousness had continued to operate in most of northern Europe for a much longer period of time than in southern Europe. Gebser (1949/1985) describes this situation as follows:

> We must also remember a fundamental fact, namely, that the events of 500 [BCE] in Greece had to be repeated around 1250 [CE] by European [humans]; and [their] basis was considerably broadened because of three major achievements, all containing an element of incipient perspectivality: the Greek theory of knowledge, the Hebrew doctrine of salvation, and Roman legal and political theory. . . . This European perspectival-rational world represents, in this sense, only the deficient and most likely untimely phase of the exclusive validity of the mental-rational structure. (p. 74)

In Gebser's view, the apparent increasing intellectualism in Europe after this time, particularly throughout the European Enlightenment and beyond, was an overextension of the deficient rational,[185] which in turn—Gebser (1949/1985) posits—is leading to its own demise. In one of the most polemical statements that I have seen in Gebser's writing, he speaks of the dangers of the overextension of deficient forms of rationality.

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[184] *SES* stands for *Sex, Ecology, Spirituality*—the title of Wilber's most voluminous book.

> The suicide of Western civilization . . . the consequence of the destruction of man's inner being by the self-destruction of the divine in man, and by his rational denial of all the irrational and pre-rational aspects, by which he dispossessed himself of his own foundations (p. 357).

Wilber appears to be in agreement with this position, characterizing the European Enlightenment as being the peak of the development of rationality, and noting that in spite of its great contributions, this period also marked the beginning of its decline (Wilber, 2000d).

3. The third European transition—from Gebser's mental-rational to his integral-aperspectival consciousness, beginning in the 15th century BCE—will be discussed at the end of the next major section of the narrative.

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[185] Gebser's notion of the *deficient rational* will be discussed in the next section. It is however related to his notion that each new structure of consciousness has a cycle of emergence, consolidation and decline.

7. The Awakening Ego-Mentality: The Birth of Western Philosophy

> Thought life is born in man at a definite time. It causes the extinction of the previous form of consciousness in which the world is experienced in pictures. (Steiner, 1914/1973c, p. 14)

> The irruption of the mental structure . . . it divides and thus destroys the *image* of the world, which is replaced by a *conception* of the world. (Gebser, 1949/1985, p. 176)

> Cognitive psychologists and anthropologists tend to use rationality to mean "formal operational cognition."[186] (Wilber, 2000d, p. 179)

Context for Emergence of Ego-Mentality

Between 700-800 BCE another major transformation of consciousness began to take place, with its most explicit and most articulated expression in Athenian Greece. From a formal academic perspective, this is the beginning of classical history in the west when literate cultures began to record their own histories.[187] (For more detail see Appendix A.) Contemporary philosopher and cultural historian Tarnas concurs with this perspective (Tarnas, 1991, pp. 16-19). Historian of consciousness Jaynes (1976) also emphasized the significance of the Greek culture in enabling this movement of consciousness.

> The Greek subjective conscious mind, quite apart from its pseudostructure of soul, has been born out of song and poetry. From here it moves out into its own history, into the narratizing introspections of a Socrates and the specialized classifications and analyses of an Aristotle, and from there into Hebrew, Alexandrian and Roman thought. And then into the history of a world, which, because of it, will never be the same again. (p. 292)

Steiner, Gebser and Wilber identified the birth of western philosophy in ancient Greece as a turning point between mythical consciousness and mental-rational consciousness, as discussed. Steiner also referred to the period that began there as the fourth [post-glacial] cultural period—or the Greco-Roman period—beginning in Southern Europe and Western Asia approximately 750 BCE and developing over the next two millennia (Steiner, 1971a).

Although from a western perspective Greece is almost universally credited with the development of philosophy *per se*, this is a Eurocentric stance. Several perspectives need to be considered. Firstly, Steiner pointed out that, unlike the later time of Imperial Roman domination, early Greece was a very cosmopolitan region where "human beings of the most varied regions of the ancient world had gathered" and carried the ancient mystery wisdom on through Asia Minor, Greece and Italy, reshaping it into concepts and ideas through the emergence of western philosophy (Steiner, 1910/1939, p. 210). Secondly, in China and India, major philosophical developments indicating a shift in consciousness were also occurring during this period. Gebser (1949/1985) noted that, in China, the *I Ching* was revised from a book of oracles in use through the magic and mythical periods, into "mankind's oldest book of wisdom" around 1,000 BCE, reflecting the beginnings of wakeful, mental consciousness" (p. 314). Also from at least the 6th century BCE—the time of Lao Tse (580-500 BCE) and Confucius (551-479 BCE) until 221 BCE when the first empire began, there was an era of great cultural and intellectual expansion, known as the *Golden Age*[188] of Chinese philosophy. In India, as demonstrated previously, very advanced spiritual-philosophical systems of thought existed in earlier times which, by the 8th century BCE, were beginning to address such philosophical matters as the relationship between wealth and immortality—matters not examined by Aristotle until several centuries later in his *Nicomachean Ethics* (Sen, 1999, pp. 13-14). The Indian texts were not written down, however, until c. 300 BCE. Unfortunately, we still have little knowledge or understanding of the developments that may have been occurring in Meso- and South America. (For more information on the latter see Appendix C).

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[186] Wilber is referring to Piaget's *formal operations*.

[187] There is at least a century-old philosophical critique of this perspective on history, most notably from Nietzsche, Steiner and Foucault. Teilhard de Chardin also critiqued the notion of dividing up History and pre-History on the basis of whether or not we possess written or dated documents, claiming that "there is no breach of continuity between the two" (Teilhard de Chardin, 1959/2002, pp. 206-207).

Terminology Issues

For the movement of consciousness that arose in that period, Steiner primarily used the term *intellectual soul*. Gebser (1949/1985) invoked the term *mental* for his parallel structure of consciousness with its semiotically diverse roots. He notes that the Greek *menos*, the Latin *menis*, the English *man*, and the German *Mensch* all derive from the Sanskrit root *ma-* with one of its secondary roots being man. "From the root *man-* comes the Sanskrit word *manas*, which can refer to "inner sense, spirit, soul, understanding, courage, anger . . . and *Manu*"[189] (p. 76). He regards this as a richer characterization than the term *rational*, from *ratio*, which is related to calculation and division. He notes that *rationality's* "directedness and perspectivity" is towards the notions "to reckon", "to calculate," "together with—unavoidably—sectorial partitioning" rather than the direction towards the ability to "think" and "understand" (p. 74). He used the term *rationality* primarily to characterize the *deficient* mental consciousness because of its partiality and tendency to quantification. Gebser appears to equate the term *intellectual*—though he rarely uses it—with the mental structure (p. 377) and *intellectualism* with its more deficient counterpart, *rationality* (p. 436). Wilber's terminology for this stage appears to have undergone a transition: in his earlier works his usage was more aligned to Gebser's, where he frequently used the term *mental-egoic* to refer to this stage and *rationalism* to refer to the "dehumanization of man" associated with the European Enlightenment (Wilber, 1996b, 1996c). In his later works he uses the term *mental* in a more general sense—as the adjective for mind—and favors the terms *rationality* or *egoic-rational* for the post-mythic stage (Wilber, 2000b, 2000d, 2006). He acknowledges that his later focus is more on the type of rationality that reached its fruition in sixteenth century Europe, whereas Steiner and Gebser spread their interpretive attention across the two millennia starting with Athenian Greece. Because Steiner favored the term *intellectual*, Gebser favored the term *mental*, and Wilber currently favors the term *rational,* for this mode of consciousness, I mostly use the hyphenated[190] term *intellectual-mental-rational* for this movement of consciousness.

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[188] Reference to China's Golden Age came from a course on Philosophy and Religion in China at the City University of New York. http://academic.brooklyn.cuny.edu/core9/phalsall/texts/chinrelg.html

[189] The latter point about the linguistic roots of *Manu*, is consistent with Steiner's narrative on *Manu,* discussed earlier.

Key Features of Intellectual-Mental-Rational Consciousness

Because of the temporal and spatial convergence of various events, this new consciousness became hybridized with several other characteristics:

- The awakening of the independent ego, or individualism—the heroes;
- The birth of rational philosophy in Greece, through Thales, Socrates, Plato, Aristotle;
- The inner-directness towards self-knowledge;
- The beginnings of the Axial age with the birth of several major religions;[191]
- The shift from picture-based writing to the more abstract writing using the Greek alphabet (See Appendix C);
- Beginnings of formal mathematics with Pythagoras;
- The development of the world's first democratic city-state in Athens in 500 BCE, followed by the formalization of politics and legislation;
- The origins of formal education in the 4th century BCE with Plato's *Academy* and Aristotle's *Lyceum* sowing the first seeds of higher education.

Because the narrative is now dealing with the period of formal history, there is voluminous material that could be referred to for each of the points above, but it is beyond the scope of this narrative to cover this in detail. I will focus on the first four features, as these are significant in all three narratives. The abstraction of writing is indicated briefly in Appendix C. The mathematical, political and educational developments could be seen as broader contexts for the consciousness shift.

The Awakening of the Independent Ego

Wilber makes a significant contribution, which could not have been made in Steiner's or Gebser's work, both of which pre-dated much of contemporary psychology and critical social theory. In fact, this is one of the places where Wilber (1996c) seems to dive deeper than usual—in his elucidation of ego development in relation to consciousness. Perhaps this is because—as he correctly notes—the meaning of the term *ego* is wildly contentious today. He characterizes mental-egoic consciousness in the following way.

> It marked a transcendence over the dimly conscious, still somewhat prepersonal, mythic, and diffuse structure of the membership stage. It opened up the possibility of truly rational and logical thought . . . the thought processes themselves start to become objects of

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[190] By using the compound hyphenated term *intellectual-mental-rational* I am drawing on the postformal philosophy of complex thinking developed by Morin. He often uses such compound terms to denote complex integration of concepts (Morin, 2005a, 2005b).

[191] Two other major religions—Hinduism and Judaism—originated over a thousand years prior to the Axial Age. Others will also be discussed below.

> awareness . . . which eventually results in "formal operational thinking," or logic, as Piaget showed (p. 189).[192]

He (Wilber, 2000d) draws attention to the many uses of the term *ego* in contemporary discourses, identifying the following perspectives:

- The "New Age" notion of ego as "separate self sense, isolated from others and from a spiritual Ground" (p. 236);
- The contemporary psychoanalytic notion—based on Freud—of the ego as being "the principle that gives unity to the mind . . . a fundamental organizing pattern" (p. 236);
- The philosophical distinction between "the empirical ego, which is the self insofar as it can be an object of awareness and introspection, and the Pure Ego or transcendental Ego (Kant, Fichte, Husserl), which is pure subjectivity (or the observing Self), which can never be seen as an object of any sort. . . . [whereby] according to such philosophers as Fichte, this pure Ego is one with absolute Spirit . . ." (p. 236);
- Somewhat paradoxically, Wilber contrasts the Piagetian sense of *egocentric*—an early stage, before the *ego* as "self" or "subject" has differentiated itself from the world—with the *mature ego stage*, which enables formal operations (p. 237);
- The Habermasian "ego identity, a fully separated-individuated sense of self" (p. 238).

Wilber (2000d) then concludes that he most often uses the term ego similarly to Freud, Piaget and Habermas, "a rational individuated sense of self, differentiated from the external world, from its social roles (and the superego) and from its internal nature (id) (p. 238).

Steiner's usage of the terms *Ego* or *I* also appears to integrate aspects of the psychoanalytic *organizing principle*, the Piagetian *mature ego*, and the Habermasian *ego-identity*, but with the understanding that its intrinsic nature is divine in the Fichtean *Pure Ego* or *Higher Self* sense. Wilber's New Age description would equate with Steiner's term *egotism*. Gebser's (1949/1985) usage of the terms *ego* or *I* bear some similarity to Wilber's and Steiner's characterizations. He certainly identifies the centrality of ego awareness as an organizing principle that gives direction to consciousness. "This effector, or agent, the bearer of consciousness, is the ego. With this we are fully in the mental structure, the anthropocentric structure where consciousness becomes centered" (p. 89). Gebser adds that the *core* or *nucleus*—"in all likelihood identical to the presence of origin . . . forms, shapes and directs each and every individual human being" (p. 134). For this *core* he prefers to use the term "the *itself* [which] "can become visible in the reflexivity of the ego without succumbing to the autism of a self" (p. 134). Gebser also appears to use the term *egotism* is a similar way to Steiner.

Finally, all three refer to the significance of the sun mythologeme[193] in relation to the development of the ego during this period. Gebser (1949/1985) notes the sun mythologeme in both China and Greece (pp. 70, 79). Steiner writes extensively on the myths of the early culture periods leading up to—and including—the beginnings of Christianity which point to the relationship between a spiritual notion of the Sun and humanity. Wilber (1996c) discusses in substantial detail what he calls the *solarization of the ego*, in particular in relation to the hero myths (p. 227-251).

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[192] Wilber seems to be referring here to the third of the three major components of Piaget's *formal operations* which could be summarized as: *hypothetico-deductive reasoning*, *scientific-inductive reasoning* and *reflective abstraction* (Piaget, 1955).

[193] Gebser may have coined the term *mythologeme,* as it has not been possible to find a formal definition of it. Based on the way he uses the term and also other usages of the suffix –eme, e. g.,

The Birth of Philosophy in Greece

Steiner (1971a) pointed to the significant relationship between the awakening individual ego and the new intellectual-mental-rational forms of thought in which mental knowledge came to special prominence—"the time began in which man mainly sought to grasp the world through understanding and this relationship to the world brought him thoughts" (p. 54).

> Thinking gradually passed over to abstractions . . . in the work of Thales, with whom one generally begins the history of philosophy. (p. 25)
> This had to come about since otherwise [humans] could not have attained freedom and a full consciousness of the ego. (p. 19)

Tarnas (1991) points to the significant contribution of particular individuals in this project: "The Greek sense of confidence in the power of human thought to comprehend the world rationally, a confidence begun with Thales, now found in Aristotle its fullest expression and climax" (p. 60). Gangadean (1998), concurs, regarding the significance of individual Greek philosophers, while also pointing to the underlying *universal* nature of what he calls, *first philosophy*. Although perhaps a contested notion in postmodern times, this is a theme that recurs today as we search for *universals* through the *particularities* of the diverse approaches to integral thought.

> And Plato and Aristotle broke new ground historically in inaugurating a formal science of the Universal Logos of natural reason, a birthing of first philosophy. (p. xvii)

Wilber (1996c) refers to two particular aspects of Aristotle's philosophy that reflect the refining of the social arena of the earlier myth-membership self. He summarizes the Greek *polis* in its original idealistic sense, "as being a *shared human community* . . . based on unrestrained *communication* (via language)." Secondly he refers to *praxis*, which in its traditional Aristotelian sense is "purposeful, enlightened, moral behavior pursued in the company of polis" (p. 167). Wilber notes current usages that have reduced and debased *polis* to "politics" and *praxis* to "moralism" or simply "practice" (p. 168).

Gebser points to the struggle of the Greek mind to overcome the vitality and dynamism of the soul. Even in Aristotle's teachings, the soul, is still vital and determined by: "memory, perception, cognition and movement." Gebser (1949/1985) notes "even at the mental inception of Western philosophy the original numinous and dynamic character of the concept of soul is still effective" (p. 197).

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a *phoneme* is the smallest unit of speech that distinguishes meaning; a *grapheme* is the fundamental unit in written language; I am assuming he is using *mythologeme* to denote the fundamental *unit of mythical meaning* that can be used in various myths.

The Inner-Directedness Towards Self-Knowledge

In what I consider to be a peak of convergence in their writings, Steiner, Gebser and Wilber all point to the significance of the awakening ego in order for the individual to begin the process of self-development. Synchronously, they all identify the consummation of this event, in the famous inscription, *"Know thyself,"* on the temple of Apollo in Delphi. A detailed hermeneutic analysis of the similarities and uniqueness of their comments about this marker of inner-directed mental consciousness are discussed and evaluated in the final section. Gebser (1949/1985) also noted that although up to this point the process of writing had either been from top to bottom—as in Chinese—or from right to left, this inscription brought with it a reversal in the direction of writing. It was written from left to right. Gebser speculated that this was a key marker of the directedness of the individual ego (pp. 75-78).

An extensive hermeneutic examination of the original meaning of this term *gnothi seauton*, "Know thyself" has been undertaken by Foucault and delivered in some of his last lectures (1981-1982)—*The Hermeneutics of the Subject*—at the *Collège de France* (Foucault, 2005). He argues, based on historical and archaeological evidence, that the original meaning and usage of the term by Socrates and many other philosophers of Antiquity, was much more rich and spiritually oriented than contemporary philosophy gives credit for. Foucault refers to the intimate relations between *gnothi seauton* (know yourself) and another significant term *epimeleia heautou* (care of the self) within which our interpretation needs to be contextualized. It is beyond the scope of this article to discuss Foucault's point in depth. However, of relevance to this research is the Greek notion of "care of the self," which Foucault explained as "spirituality," in the sense of disciplined practices of the soul, such as meditation, purification and other transformative practices to prepare oneself to have access to the truth. Foucault (2005) comments,

> So, throughout Antiquity (in the Pythagoreans, Plato, the Stoics, Cynics, Epicureans, and the Neo-Platonists), the philosophical theme (how to have access to the truth?) and the question of spirituality (what transformations in the being of the subject are necessary for access to the truth?) were never separate. (p. 17)

Foucault (2005) added that this code of morality—care of the self—that arose out of Greek philosophy in the 5th century BCE, was further developed over the next thousand years, particularly through Christian spiritual disciplines associated with soul preparation for acquiring knowledge. He then raised the obvious question: "Why did Western thought and philosophy neglect the notion of *epimeleia heautou* (care of the self) in its reconstruction of its own history?" (p. 12) His explanation is that what he called *the Cartesian moment* functioned in two ways, "by philosophically requalifying the *gnothi seauton* (know yourself), and by discrediting the *epimeleia heautou* (care of the self)" (p. 14). He claimed that this was the point where "the history of truth enters its modern period" (p. 17). Based on Foucault's insight, I want to ensure that my macrohistorical narrative does not overlook the separation of our philosophical history from our spirituality. The contemporary need for the reintegration of this split is discussed in the next major section on postformal-integral-planetary consciousness.

The Beginnings of the Axial Age

Another major cultural development was occurring during this period (c. 800 BCE-1,500 CE) throughout the major centers of civilization at the time—Ancient Greece, the Middle East, India and China. Perhaps somewhat paradoxically, in parallel with the development of intellectual-mental-rational consciousness—the most abstract structure of consciousness—several of the world's major religions also began, including the some of the first monotheistic religions. Although Hinduism[194] and Judaism[195]—which could be seen as parent religions to many of the others—had already developed in the previous millennium, there was a flourishing of new religions over the next thousand years. The beginning of this period has been called the *Axial Age* by Karl Jaspers (Erickson, 1999). Wilber (2000d) refers to this phenomenon as the rise of the "rational religions." Gebser (1949/1985) also draws parallels between aspects of the mental structure and the origins of several religions, making the additional link between the emergence of mental thinking and patriarchy.

> In China, Confucius introduces patriarchy only slightly later than Lycurgus in Greece [around 500 BCE]; and . . . in Persia, Zarathustra asserts dualism which . . . underlies Parminedes' notion of a Being opposed to Non-Being. (p. 79-80)

A broader contextualization of the duration of Jasper's Axial Age suggests a longer period of religious emergence that includes even more of the major world religions. In addition to the religions that arose during the six hundred year period that Jasper theorized (800-200 BCE), Hinduism and Judaism, founded in the 2nd millennium BCE, were still extant at that time. If we continue on into the 1st millennium CE, where, according to Steiner, Gebser and Wilber, the intellectual-mental-rational-consciousness continued to grow and spread, then Christianity, Shinto and Islam also arise.

2nd Millennium BCE
- Hinduism in India (2,000 BCE)
- Judaism in Near East (Moses c. 1,300-1,200 BCE)

1st millennium BCE
- Zoroastrianism in Persia (Zoroaster 628-527 BCE)
- Jainism in India (Mahavira 599-527 BCE)
- Taosim in China (Lao Tse 580-500 BCE)
- Buddhism in India (Buddha 563-483 BCE)
- Confucianism in China (Confucius 551-479 BCE)

1st Millennium CE
- Christianity in Near East (Jesus Christ BCE 1-33 CE)
- Shinto in Japan 100 CE
- Islam in Arabia (Mahammad 570-632 CE)

Clearly if we went back even further we would need to take into account Paganism and Animism—which are spiritual movements generally associated with the Upper Paleolithic and

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[194] Hinduism is generally believed to have begun around 2,000 BCE.
[195] Judaism is linked to the life of Moses c. 1,200-1,300 BCE.

Neolithic periods. While it is beyond the scope of this paper, further research could be undertaken on the relationship between the development of world religions and the evolution of consciousness (Benedikter, 2005; Bouma, 2006; Clayton, 2006, 2007; Clayton & Simpson, 2006; Esbjörn-Hargens & Wilber, 2006; Tacey, 2003; Wilber, 2006). It is worth noting that the religions of India and China also began as integrated spiritual-philosophical systems,[196] much as the Greek and early Christian spiritual-philosophical systems began, according to Foucault, as discussed above. This *formative* complementarity of philosophical knowledge and spiritual self-care only became a *deformative*[197] split in Europe with the *Cartesian moment* as Foucault indicated. It might be fruitful to consider whether a similar split has also occurred between Indian philosophies and religions or those of Chinese origins.[198]

It is also interesting to note that throughout this two thousand year period of development of ego-based thinking, the emergence of these religions provided several *spiritual punctuations*. I will briefly refer to three that have each introduced into the world in a unique way the teachings, power and message of Love and/or Compassion perhaps as a counter-weight to the increasing dominance of head-knowledge. I will attempt to interpret them *according to their own traditions*: the Buddha, according to a common reading of Buddhist philosophy, represented the highest development that a human being could reach—spiritual enlightenment, and in the last stages of his *ascent* he modeled and taught Wisdom and Compassion; the Christ, according to a common reading of Christian theology, represented an embodiment of the Divine, descended from Heaven/Cosmos/Sun,[199] and in the last stages of his *descent* he modeled, taught and embodied Wisdom and Love; the Prophet Muhammad, according to a common reading of Islam, represented a messenger of God, "the paradigm of ethical and moral behavior" (Inayatullah & Boxwell, 2003, p. 178) taught and modeled Compassion and Mercy prior to his *ascent*. These messages of love and compassion have become increasingly isolated from the egoic path of knowledge reaching a peak of separation in Kant's differentiation of the knowledge spheres (Wilber, 2000d, p. 401). The emerging need for a reintegration of love-heart with wisdom/head is discussed in the next major section.

Steiner, Gebser and Wilber have all written on the missions of the various religions, and all point to the need for the re-integration of spirituality with the other knowledge domains, but it is beyond the scope of this paper to discuss this topic further. Wilber's most recent book proposes an integral approach to religion as a path to evolving consciousness (Wilber, 2006).

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[196] For example, some of the original Buddhist texts offer insights into the thinking mind that are at least as enlightening as much contemporary western psychology (Zajonc, 1997). Confucian philosophy formed the basis of the Han Chinese Empire creating "economic, political and cultural unity out of disparate ethnic groups" (Swimme & Tucker, 2006, p. 8) two thousand years ago, prior to the Roman Empire.

[197] The terms *formative* and *deformative* are used by David Boadella—in a similar way to Gebser's use of efficient and deficient, or Wilber's use of healthy and pathological—to discuss the different polar faces of religion and spirituality (Boadella, 1998, pp. 30-31). I find them to be very suitable terms in this context.

[198] If not, this may indicate either that they have remained in a mythic relationship to religion and philosophy, or that they have developed the mental structure of consciousness, but without its subsequent divisive deformation. Of course, even this statement itself is a gross over-simplification. This could be the subject of further research.

[199] While the traditional, exoteric Church Christianity refers to Christ descending to earth from *Heaven*, esoteric Christian traditions, such as Rosicrucianism, anthroposophy, and creation spirituality, connect Christ with the *Sun* mythologeme and/or the *Cosmos* (Fox, 1988).

Deficient Manifestations of Intellectual-Mental-Rational Consciousness

Steiner (1971a) pointed out that this "head and thought" civilization was in some ways more perfect and complete during the Greek period when humans still had a relationship to the surrounding world. "It is only what developed from it as a decadent condition that became materialistic" (p. 55). The beginnings of this decadence was evident as early as 221 BCE in early Imperial China, which went through a destructive, totalizing suppression of diversity similar to that of the Roman Empire a few centuries later. What had blossomed as a cultural flourishing in Greece, contracted with the Roman Empire: the invention of bureaucracy, the rule of law with its sense of righteousness and power, the Romanization of Christianity, and the masculinization of culture, particularly the advancement of war machinery exponentially supporting the desire to conquer, colonize, and convert (Eisler, 1987).

Both Steiner and Gebser emphasize the deficient nature of excessive abstraction. Steiner (1971a) notes "humanity had to go through the period of abstractions . . . But [the abstract ideas] *must* be united again with reality" (p. 31). Gebser (1949/1985) decries the excesses of abstraction: "In its extreme form of exaggerated abstractness, it is ultimately void of any relation to life and becomes autonomous; empty of content and no longer a sign but only a mental denotation, its effect is predominantly destructive" (p. 88). Gebser expands on this notion as follows.

> Today, while the integral is overdetermining and dissolving the mental-rational consciousness, the mental capacity of thought is being mechanized by the robots of calculation—computers—and this is being emptied and quantified. (p. 538)

Wilber (1996c) pointed to the *monumental* price that humans had to pay for the "monumental growth in consciousness" that arose with the ego. He cites Campbell as referring to this period of development as "the great reversal" (p. 305). In Wilber's terms: "The ego, then, lies at the extreme point of vulnerability, half-way between the Eden of the subconscious and the true Heaven of the superconscious" (p. 305). He identifies four major factors that in his view contributed to "a sense of the Fall." These were existential guilt, neurosis, "feelings of alienation . . . from Spirit" and "egoic *hybris* (hubris)" (pp. 306-308).

Summary and Relevance for Today

Gebser (1949/1985) describes how the human ego "emerges and increases from mutation to mutation, culminating in the deficient mental phase with its overemphasis of ego and its pendulation between isolation and rigidification (egocentricity)" (p. 151). He comments:

> Wherever we are caught up in the labyrinthine network of mere concepts, or meet up with a one-sided emphasis on willful or voluntaristic manifestations of attempts at spasmodic synthesis . . . we may assuredly conclude the presence of a deficient mental, that is, an extremely rationalistic source. (Gebser, 1949/1985, p. 154)

Both Steiner (a century ago), and Gebser (fifty years ago), fore-sensed the looming planetary catastrophe if we do not wake up and change our thinking.

> If [we do] not vitalize [our] thoughts, if [we] persist in harboring merely intellectualistic thoughts, dead thoughts, [we] must destroy the earth. . . . The destruction begins with the most highly rarified element . . . ruining . . . the warmth-atmosphere of the Earth. . . . and if [our] thoughts were to remain purely intellectualistic, [we] would poison the air, ruining in the first place, all vegetation. [Eventually, far in the future] it will be possible for [us] to contaminate the water. (Steiner, 1972b, pp. 90-91)

It is somewhat horrific to realize that in the short space of a century, what Steiner predicted might happen over a long period of time—he was speaking of thousands of years—is well underway towards the catastrophe he foreshadowed—most notably "ruining . . . the warmth-atmosphere of the Earth" with global warming. Gebser (Gebser, 1949/1985) also fore-sensed the problems that are arising today.

> The crisis of our times and our world is in a process—at the moment autonomously—of complete transformation, and appears headed toward an event which, in our view can only be described as a "global catastrophe" . . . Either we will be disintegrated and dispersed, or we must resolve and effect integrality. (p. xxvii)

Even two hundred years ago, Hegel's message, as interpreted by Tarnas, seems to portend the impending crisis.

> As Hegel suggested, a civilization cannot become conscious of itself, cannot recognize its own significance until it is so mature that it is approaching its own death. (Tarnas, 1991, p. 445)

Many contemporary scholars also highlight the urgency for the type of change in consciousness that the next section foregrounds (Elgin, 1993; Gangadean, 2006a, 2006b; László, 2006; Montuori, 1999; Morin & Kern, 1999).

Transition from Intellectual-Mental-Rational to Postformal-Integral-Planetary: The Challenge of the Hour

Gebser and Steiner describe this transition as having its birth between the 15th and 16th centuries in Europe, where the new consciousness is struggling to emerge through the complacency of the over-ripe old consciousness structures. Gebser (1949/1985) summarizes this situation.

> When spatial consciousness was finally consolidated around 1480-1500 [CE] it was from that time onward liberated for new tasks. Waking, diurnal consciousness had been secured . . . After this achievement modern European [people] believed that . . . [they] had accomplished all that could be accomplished and [were] content to remain in [this] state of achievement. . . . but . . . a decline sets in because of this self-satisfaction, and, beginning with the Renaissance, mental consciousness increases in deficiency and deteriorates into

> rationalism. . . . At the same time, however, the new mutation begins its course which becomes gradually but increasingly visible over the following centuries [and] . . . will enter the general awareness at the moment when the deficient attitude reaches its maximum of rational chaos—a moment we are reaching with finality during the present decades (p. 303).

In Steiner's (1986a) view, the manner in which modern science developed—at least up to his time—was an overextension of *head*-knowledge to the extent that it was not permeated with *heart*-knowledge. While earlier forms of science which were more in tune—albeit not fully consciously—with the cosmic laws, modern science discovered the workings of these laws of nature "of gravity, of heat, of steam, of electricity" (p. 102) and used them to manipulate the world. Steiner pointed to his times as the turning point where humans, having reached "the highest point of [our] power to transform the physical world. . . . From now onwards [we] will become more spiritual again" (p. 102).

Wilber's position on this transition is less clear. Although he writes substantially on vision-logic—his term for the new consciousness after rationality—he makes few statements regarding its beginnings. There is one direct statement that I have located where he (Wilber, 1996c) notes that "the centaur[200] was first reached by a significant number of individuals with the flowering of humanistic understanding of man, perhaps as early as the 1600's in Europe (Florence, especially) but peaking with present-day humanistic-existential psychology" (p. 340, note*). In his later work Wilber (2000d), draws on Habermas indicating the idea that the collective development of ego-identity in 16th-century Europe, led to concepts of legal, moral, and political freedom. He describes the impact of this development on culture and society, citing Habermas, as facilitating notions of "global forms of intercourse" and early conceptions of *world citizen*ship (p. 191). While this suggests planetary consciousness, Wilber does not explicitly bring this through.

The following section discusses literature on the multi-faceted features of emergent consciousness.

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[200] Wilber uses the term *centaur* to denote the body-mind integration of vision-logic.

8. Postformal-Integral-Planetary Consciousness—the Emergence of Reintegration

> Let us call what shines forth in the soul as eternal, the *consciousness soul.* . . . The kernel of human consciousness, that is, *the soul within the soul* . . . is then distinguished from the intellectual soul, which is still entangled in the sensation, impulses and passions. . . . Only that truth is permanent, however, that has freed itself from all flavor of such sympathy and antipathy of feeling. . . . That part of the soul in which this truth lives will be called consciousness soul. (Steiner, 1904/1971e, pp. 24-25)

> *Transparency (diaphaneity) is the form of manifestation of the spiritual.* . . . Integral reality is the world's transparency, a perceiving of the world as truth: a mutual perceiving and imparting of truth of the world and of man and all that transluces both." (Gebser, 1949/1985, p. 7)

> As vision-logic begins to emerge, postconventional awareness deepens into fully universal, existential concerns: life and death, authenticity, full bodymind integration, self-actualization, global awareness, holistic embrace . . . In the archaeological journey to the Self, the personal realm's exclusive reign is coming to an end, starting to be peeled off a radiant Spirit, and that universal radiance begins increasingly to shine through, rendering the self more and more transparent. (Wilber, 2000b, p. 105)

Context for Emergence of Postformal-Integral-Planetary[201] Consciousness

Steiner, Gebser, and to a lesser extent Wilber—as discussed previously—refer to the first glimmerings of the emergence of a new movement of consciousness in the cultural phenomena of 15th to 16th century western Europe. For Steiner, the early 15th century marks the beginning of what he calls the fifth [post-glacial] cultural period. Tarnas (2006) agrees that the European Renaissance ushered in a new era. He pinpoints "the time span of a single generation surrounding the year 1500," beginning with Pico della Mirandola's *Oration on the Dignity of Man* in 1486, as the context for the birth of the *modern*[202] *self,* and the birth of the *modern cosmos*[203] (p. 4). In an earlier work, Tarnas (1991) noted that during this period, when translations of the original Greek philosophical works became available for the first time, humanist philosophical syncretism also began. What arose was a revisiting of the “ancient Greek balance and tension between Aristotle and Plato, between reason and imagination, immanence and transcendence, nature and spirit, external world and interior psyche” (p. 219). Apart from a sprinkling of individual contributions, the next major flourishing of the new integrative spirit was expressed through German idealism and Romanticism in the late 18th century. This arose most notably via Goethe,[204] Schiller, Hegel, and the young poet-philosophers of the Jena Romantic School: Schelling,[205] Novalis, the Schlegel brothers, Holderlin. Wilber claims that although the idealists were accessing forms of consciousness beyond the formal-operational, rational-mental mode, they did not offer injunctions for others to develop such consciousness, and have thus been dismissed as “mere metaphysics” (Wilber, 2000d, p. 537). This latter assertion needs to be contested, based on a recent study by Schellingian scholar, Jason Wirth, reviewed by Michael Schwartz (2005).[206] This also raises the whole question of whether Wilber’s claim in this regard is valid for any of the German idealists or Romantics. There was a strong influence of both Hermeticism and Christianity, particularly in its esoteric form through Rosicricianism in Goethe and many of the German philosopher-poets of this period. More scholarship is needed in this under researched issue. What is clear, however, is that although they pointed to the notion of a new stage, structure or movement of consciousness they did not formalize it. This apparently had to wait until the 20th century, for the contributions of Steiner, Sri Aurobindo and Gebser—subsequently pursued by Wilber and the additional research discussed below.

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[201] By using the compound hyphenated term *postformal-integral-planetary* I am drawing on the postformal philosophy of complex thinking developed by Morin. He often uses such compound terms to denote complex integration of concepts (Morin, 2005a, 2005b).

[202] The terms *modern*, *modernism* and *modernity* are used in various ways in different contexts and it would require another article (at least) to unravel the different meanings. Steiner also used the terms *modern era* and *modern world conception* to describe the period Tarnas refers to, and also saw it as a foundation for the new emergent consciousness. I believe that Tarnas is here referring to the healthy aspects of the modernity project, which in recent centuries have become increasingly tainted and overshadowed by unbalanced, unhealthy aspects of deficient rationality.

[203] Tarnas (2006) poetically alludes to the universal Sun mythologeme to connect these two transformative events: "the Sun, trailing clouds of glory, arose for both, in one great encompassing dawn" (p. 4).

It is difficult to do justice to the new consciousness in the space available here, since its emergent nature places it in a unique situation compared with the major movements of consciousness that have already arisen and become consolidated (archaic, magic, mythical and mental). This presents several challenges in academic contextualization. Firstly, signs of its emergence can be perceived *within* various disciplines, most notably adult developmental psychology, postformal educational approaches, the new sciences, postmodern philosophy and spirituality, postmodern poetry-music-film—and also *between* disciplines, through the holistic, integral and transdisciplinary urge to integrate knowledge. A major challenge in cohering and theorizing this new consciousness is the diversity of conceptualization between the different disciplines. For example, although research from adult developmental psychology makes scientific claims to have firmly established four stages of development beyond *formal operations* (Commons, Trudeau, Stein, Richards, & Krause, 1998), postmodern philosophers who are evidently *enacting* some of these higher stages did not conceptualize it in such ways. Recent research has made significant inroads into building conceptual bridges in this area (G. Hampson, 2007). My addition to Hampson's seminal philosophical contribution to bridging integral and postmodern conceptualizations is to contextualize the adult development research on *postformal* thinking, *integral* theory, the critical *planetary* discourse *and* postmodern philosophy—and many other discourses—within the broader movement of consciousness that I am theorizing here.

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[204] Goethe is often referred to as the father of German Romanticism.

[205] Note should also be made of the contribution in this circle of Caroline [née Michaelis], who was first married to Augustus Schlegel and later to Schelling—although 12 years his senior—who both inspired them and engaged them in challenging dialogue throughout this period: “Even our brief glance at Schelling's character must take into account the remarkable woman whose counsel and affection made a great part of his most productive years possible. I doubt whether Schelling, even as philosopher, can be well understood apart from Caroline. She herself was the idol of the whole romantic circle” (Royce, 1892/2001, Lecture 6, Part IV, ¶ 181). See also Richards (2002).

[206] Discussing Wirth’s research, Schwartz (2005) notes:

> it is not that Schelling did not have a fundamental practice-Wirth argues convincingly that he did, which ‘included the cultivation of the life of sensitivity, of a spiritualized relationship to nature and to the tradition’ (113)-but rather that this practice was peculiar to Schelling, ‘private’ one might say, in line with modernity’s public/private divide in such matters, and hence has largely gone unknown to readers of his texts, rather than this practice being part a tradition of time-tested techniques sustained by ongoing community, or its being responsive to a common cultural ethos that research that identifies new stages of consciousness development fundamental practice is requisite for authentic philosophical life. (pp. 2-3)

I propose a theoretical bifurcation between contemporary research that *actually identifies* new stage(s) of consciousness development—either individual or socio-cultural—and research that *enacts new stages of consciousness* without necessarily conceptualizing it as such.[207]

Contemporary Research that *Identifies* New Stage(s) of Consciousness

- Adult developmental psychology research that identifies several stages of *postformal* psychological development[208] (Arlin, 1999; Campbell, 2006; Cartwright, 2001; Commons et al., 1990; Commons, Trudeau, Stein, Richards, & Krause, 1998; Cook-Greuter, 2000; Kegan, 1994; Kohlberg, 1990; Kramer, 1983; Labouvie-Vief, 1990; Riegel, 1973; Sinnott, 1998; Yan & Arlin, 1995);
- Research from a range of disciplines that identifies an emergent stage in socio-cultural evolution, often referred to as *integral* or *planetary* (Beck & Cowan, 1996; Combs, 2002; Cowan & Todorovic, 2005; Earley, 1997; Elgin, 1997; Feuerstein, 1987; Gangadean, 2006a; Gebser, 1970/2005; Goerner, 2004; Montuori, 1999; Morin & Kern, 1999; Murphy, 1992; Neville, 2006; Nicolescu, 2002; Ornstein & Ehrlich, 1991; Ray, 1996; Russell, 2000; Scott, 2000; Swimme & Tucker, 2006; Thompson, 1991; Wilber, 2000b).

One of the gaps I have discerned in the literature is that—in spite of rhetoric about integrality and inclusion—much of this research operates within disciplinary boundaries without reference to the research undertaken in parallel disciplines. Wilber's work is clearly an exception to this and this is one of his significant contributions to the contemporary literature. Part of my endeavor in proposing this bifurcation is to increase understanding of the relationship between these contributions as *two* faces of the *one* evolution of consciousness.

Contemporary Research that *Enacts* New Stage(s) of Consciousness

- Philosophical developments, including critical theory, global reason, hermeneutics, integral theory, phenomenology, postmodernism, poststructuralism and process philosophy (Benedikter, 2005; Deleuze & Millett, 1997; Derrida, 1995; Foucault, 2005; Gangadean, 1998, 2006b; Gare, 2002; Habermas, 1992; Hampson, 2007; Keller &

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[207] This bifurcation is a rough guide and the two categories are not necessarily mutually exclusive. To further this proposition would require more research.

[208] The next issue of the journal *World Futures: the Journal of General Evolution* will be a special triple issue integrating the latest research on postformal reasoning.

Daniell, 2002; Kristeva, 1986; Lyotard, 2004; McDermott, 2001b; McDermott, 2004; Morin, 2005a; Ricoeur, 1986);

- Scientific developments such as quantum physics, Einstein's theory of relativity, chaos and complexity sciences, and emergentism in evolution (Combs, 2002; Deacon, 2003; Goodenough & Deacon, 2006; László, 2007; Russell, 2000, 2002; Swimme, 1999; Thompson, 1991; Zajonc, 2004);
- Postmodern approaches to spirituality and religion (Benedikter, 2005; Boadella, 1998; Clayton, 2006; Esbjörn-Hargens & Wilber, 2006; Scott, 2007; Tacey, 2003; Wilber, 2006);
- Postformal educational approaches, such as critical, futures, holistic and integral (Esbjörn-Hargens, 2005; Ferrer, Romero, & Albareda, 2005; Freire, 1970; Gidley, 2005b, 2007; Giroux, 1992, 2005; Hart, 2001; Kessler, 2000; Kincheloe, Steinberg, & Hinchey, 1999; MacLure, 2006b; Marshak, 1997; McDermott, 2005; Miller, J. P., 2000; Miller, 2005, 2006; Milojevic, 2005a; Montuori, 2006; Morin, 2001a; Neville, 2000; Noddings, 2005; Palmer, 2007; Slaughter, 2002; St. Pierre, 2004; Subbiondo, 2005; Thompson, 2001);
- The manifestation of integrality through the arts of music; architecture; painting; literature; film; and new forms of movement (Cobusson, 2002; Deleuze & Conley, 1992; Derrida, 2001; Gebser, 1949/1985; Gidley, 2001e; Kristeva, 1982; Lawlor, 1982; Montuori, 2003; Rose & Kincheloe, 2003);
- The implications of the information age, particularly the world wide web (Gidley, 2004c; Grossman, Degaetano, & Grossman, 1999; Healy, 1998; Pearce, 1992; Steinberg & Kincheloe, 2004; Thompson, 1998);
- Creation of knowledge-bridges through, for example, Wilber's "methodological pluralism" (Wilber, 2006); interdisciplinary, cross-disciplinary, multi-disciplinary and trandisciplinary research (Grigg, Johnston, & Milson, 2003; Nicolescu, 2002; Paul Ricoeur, 1997; van den Besselaar & Heimeriks, 2001; Volckmann, 2007); including new fields such as cultural studies, futures studies and integral studies.

Terminology Issues

It is evident from the above that in addition to Steiner, Gebser and Wilber, many other researchers have endeavored to understand, characterize and communicate the new consciousness. Paradoxically, their contributions to understanding and communicating this phenomenon demonstrate both universal similarities and unique particularities. There is a profusion of terminology in the field—both between and within disciplinary boundaries. The major terms being used are:

- *Postformal*—to denote new developmental stages. Adult developmental psychologists have been undertaking research into postformal thinking for several decades, identifying up to four stages of development beyond Piaget's formal operations (Arlin, 1999; Campbell, 2006; Cartwright, 2001; Commons et al., 1990; Commons, Trudeau, Stein, Richards, & Krause, 1998; Cook-Greuter, 2000; Kegan, 1994; Kohlberg, 1990; Labouvie-Vief, 1990; Sinnott, 1998; Yan & Arlin, 1995). The term *postformal* is also being utilized by several educationists (Horn, 2001; Kincheloe & Steinberg, 1993; Kincheloe, Steinberg, & Hinchey, 1999; Rose & Kincheloe, 2003). Kincheloe and

Steinberg (1993) refer to post-formality as the socio-cognitive expression of postmodernism[209] (p. 309);

- *Integral*[210]—there are now several different schools of thought that use the term integral, which it is beyond the scope of this paper to discuss in detail. This section will be mainly concerned with the usages of Gebser and Wilber, but my own usage of the term is primarily according to the usage of Gebser, which, in my view, most adequately contextualizes the other usages. Other terms relating to the new consciousness, such as Gebser's *aperspectival*; Wilber's *vision-logic*, *centaur* and *AQAL*; and Steiner's *consciousness soul* or *spiritual soul* will be clarified where appropriate;
- *Planetary*—to denote a critical counterbalance to the more politico-economic term: globalization, as mentioned in the introduction. The term, *planetary*—which denotes a more anthropo-socio-cultural and ecological framing is gaining increasing currency as a term to characterize important features of the new consciousness, particularly for those theorists who have a critical sensibility in the light of our complex current planetary situation (Earley, 1997; Gangadean, 2006a; Miller, 2006; Montuori, 1999; Morin & Kern, 1999; Nicolescu, 2002; Swimme & Tucker, 2006).

Gebser used the term *integral-aperspectival*[211] to refer to the gradual transformation through awareness, concretion and integration of all the previous structures of consciousness that we have been exploring—archaic, magic, mythic and mental—into a new structure of consciousness.

> The aperspectival consciousness structure is a consciousness of the whole, an integral consciousness encompassing all time and embracing both man's distant past and his approaching future as a living present. (Gebser, 1949/1985, p. 6)

Gebser[212] and others credit Sri Aurobindo with being the first to draw attention to a new movement of consciousness arising in his time (Anderson, 2006). In his earliest writings on evolution, included in his first publication *Karmayogin*, Sri Aurobindo draws attention to a deeper, more ancient lineage behind modern evolution theory than Charles Darwin, or even the

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[209] *Postmodernism*—a term to denote a critical or deconstructive philosophical perspective in relation to certain features of modernism. While postmodernism is not generally regarded as a new stage, structure or movement of consciousness, I note Hampson's recent paper pointing to the construct awareness of Derrida (Hampson, 2007). I support the notion that much of French philosophical postmodernism or deconstruction could be regarded as an expression of aspects of the new consciousness.

[210] See earlier note introducing the term *integral* in relation to related terms, such as *holistic* and *integrative*.

[211] The appropriateness of Gebser's use of the term *aperspectival* has been supported by the psychological research on higher postformal stages, such as the *metasystematic* and *paradigmatic* stages, in which a person is not attached to time, interests, groups, or their own perspective but are able to coordinate many perspectives simultaneously, i. e. consciousness of the whole (Commons, Trudeau, Stein, Richards, & Krause, 1998).

[212] Gebser (1949/1985) discovered Sri Aurobindo's writings only *after* the first German publication of his *Ever-Present Origin* in 1949, and he claimed in the Preface to the second edition, in 1966, that: "Sri Aurobindo was the first to propound in detail the thought that the fundamental and signal event of our time was the present-day transformation of consciousness" (p. 102).

German idealists (Aurobindo, 1909). He draws on the seminal evolutionary writings of the ancient Indian sacred texts, the *Upanishads*.[213] A close scrutiny of the early 20th century writings of Steiner and Sri Aurobindo points to the likelihood that the latter met and was influenced by Steiner during these seminal times, though I am still researching this possibility.[214]

My research indicates, however, that as early as 1904, Steiner had already identified an emergent movement of consciousness,[215] both ontogenetically—as an aspect of individual development—and phylogenetically—arising in humanity as a whole (Steiner, 1904/1959, 1986a). He spoke of the awakening of *consciousness soul* or *spiritual soul* in the fifth [post-glacial] cultural period that began in the early 15th century CE and would continue to develop on into the future (Steiner, 1986a pp. 97-105). He also claimed that this new consciousness would be expected to strengthen in the 20th and 21st centuries and beyond. He noted that the true nature of the self, the *I*, "reveals itself in the consciousness soul . . . An inner activity of the I begins with a perception of the I, through self-contemplation." (Steiner, 1910/1939, p. 31) Hence his use of the term "Consciousness Soul, [in which] the Ego is then able to transform its inner experiences into conscious knowledge of the outer world." (Steiner, 1930/1983a, pp. 23-24) This reflective self-contemplation resembles Wilber's (2000d) "vision-logic [that] . . . finds its own operation increasingly transparent to itself" (p. 193).

Wilber draws on Gebser and Sri Aurobindo among others, as well as the developmental psychology research on postformal thinking, so his work is a remarkably sweeping synthesis, though by no means complete, or accurate in all the details of its sources, as he himself admits (Wilber, 2000a, p. xii). He notes that what unites all these perspectives is that they all point to something that goes beyond formal, modernist, abstract, rational thinking. He has coined the term *vision-logic* to describe this stage—an appropriate term because of its inherent dialectical nature.

> Where perspectival reason privileges the exclusive perspective of the particular subject, vision-logic *adds up all the perspectives*, privileging none, and thus attempts to grasp the integral, the whole, the multiple contexts. (Wilber, 2000b, p. 167)

In summary, Steiner's major contributions were: he was the first to identify in writing, as early as 1904, a new consciousness emergence,[216] and to write and lecture *extensively* on the evolution of consciousness, building on ancient Indian, Greek *and* particularly, German idealist/Romantic lineages; and secondly, he developed and published a comprehensive series of practices/injunctions designed to awaken the new consciousness in humanity—particularly through education, contemplative practices and the arts (Steiner, 1905/1981b, 1904/1993 1926/1966b, 1930/1983a, 1950, 1904/1959, 1964a, 1909/1965, 1966a, 1971a, 1982b, 1986a).

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[213] The *Upanishads* are the ancient Indian sacred texts referred to in the earlier section on Ancient India.

[214] During the decade between 1902 and 1912 they both had some connection with the Theosophical Society in England before both writing critically about its operations, at approximately the same time. Further research is being undertaken for a later publication.

[215] Steiner also genealogically identified much earlier Vedanta Indian and ancient Greek lineages of evolutionary notions, which is beyond the scope of this paper to explore.

[216] This information, based on extensive research, is correct to the best of my knowledge; however, I am very open to hearing contra-indications on this matter, which I consider to be of some importance in establishing the sound foundations of the knowledge base of both integral theory and the evolution of consciousness discourse.

Gebser's major contributions were: firstly, to begin to academically formalize the emergent integral structure of consciousness;[217] and secondly, to observe and note its emergence in the world in various disciplines and discourses in the first half of the last century (Gebser, 1949/1985, 1970/2005, 1996a). Tragically, both Steiner's and Gebser's outstanding contributions have been largely ignored by the Anglophone academic world, as mentioned in the rationale for this research.

Wilber's major contributions so far have been: firstly, to synthesize, contemporize and popularize much of the earlier research;[218] and secondly, to theorize a framework—the most recent form of which is AQAL[219]—designed to assist with the application of his integral theory to a range of disciplinary fields (Wilber, 1996b, 1996c, 2000a, 2000b, 2000d, 2004, 2006). Thirdly, Wilber has popularized the need for injunctions, or *integral life practices*,[220]already emphasized by Steiner and Sri Aurobindo and more recently in the USA by George Leonard and Michael Murphy—not to mention millennia of spiritual and religious practices across numerous traditions. I acknowledge that this latter contribution of Wilber's provides some counterweight to critiques about his cognicentrism.

An important point in considering this new movement of consciousness is that unlike the previous structures, most of which tended to have a geographic locale—although not necessarily a single one—the new emergence is, by its own nature, planetary, cosmopolitan. This will become more evident below and is further developed in Appendix B. It is important to distinguish such a *planetizing*[221] noospheric movement—which emphasizes the more inner-oriented developments of psychology and culture, with respect for individual and cultural diversity—from the notion of *globalization*[222]—primarily a politico-economic movement based on the agendas of multi-national corporations, but tacitly carrying with it—like a *Trojan horse*—a largely modernist, materialistic, mono-cultural worldview. It is critically important to question whether contemporary integral theory has been colonized by Americocentrism, or Eurocentrism, or whether it fully embodies a *planetary* sensibility in all its cultural diversity.[223] A fully integral theory of planetary consciousness would transcend and include the politico-economic notion of globalization. The latter could be regarded as an attempt to dominate cultural worldviews and consciousness around the planet with outmoded characteristics of the previous stage of consciousness development.

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[217] Although Gebser was clearly not familiar with Steiner's extensive research in the area of evolution of consciousness, his characterizations of integral consciousness bear a remarkable similarity to Steiner's writings on consciousness/spiritual soul, just a few decades earlier. The strong links between their writings has already been demonstrated throughout this paper.

[218] Wilber's omission of any substantial consideration of Steiner's extensive research on evolution of consciousness, other than a few brief comments, has been a primary impetus for my research.

[219] For readers new to Wilber's work, AQAL refers to all quadrants, all levels, all lines, all states and all types, these being the five major dimensions of his theoretical framework (Wilber, 2004).

[220] Wilber was influenced by the *Integral Transformative Practices* developed by integral practitioners, George Leonard and Michael Murphy. http://www.itp-life.com/

[221] Teilhard de Chardin coined the term *planetization* to characterize his perspective of the new consciousness that he envisioned emerging in the noosphere (Teilhard de Chardin, 1959/2002, 1959/2004).

[222] Although globalization ostensibly assists with the equalizing of wealth across the globe by opening up a free market economy worldwide, the proposed outcomes have been the reverse. "On a global scale . . . there is increasing inequality between the 'developed' nations (where 20% of the world's population consumes 80% of world production) and those that remain undeveloped" (Morin & Kern, 1999, p. 17).

In the theory of emergent consciousness that I am developing through the journey of this narrative, the term *planetary*[224] refers to the critical awareness of the impending planetary crisis. It also implies that no race, nation, language group, religion, ideology, academic discipline or single brand of integral theory can claim ownership of the new movement of consciousness. Unless the integral theory in relation to the evolution of consciousness arises out of such epistemological and cultural *diversity*, it would hardly qualify for the descriptor *integral*.

To honor and integrate the diversity of the three major notions that inform the several growing tips of the evolution of consciousness discourse, I propose the composite term *postformal-integral-planetary consciousness* as a conceptual bridge.

I am aware that this section may suffer from some of the folds, doubling and circling that Foucault struggled with in his concept of the "immanent transcendental," where the "forces of the outside . . . fold back upon themselves and affect themselves as the affect of self upon self, enabling the creation of 'new forms of subjectivity'" (Robinson, 2007, p. 21). Demonstrating the paradoxical circularity of the new consciousness, Foucault adds: "indeed the end of philosophy . . . is the return of the beginning of philosophy. . . . The unfolding of a space in which it is once more possible to think" (Foucault, 1966/1994, p. 342). Additional more extensive work is in preparation that builds on this gestalt of fragments. Sri Aurobindo pointed 50 years ago to the difficulty in writing about integrality:

> Integrality must by its nature be complex, many-sided and intricate; only some main lines can be laid down in writing, for an excess of detail would confuse the picture. (Aurobindo, 1997, ¶ 152, p. 359)

Key Features of Postformal-Integral-Planetary Consciousness

One of the biases that this research seeks to address in the literature is that much of the research establishing *postformal* thinking has been framed and presented from a formal, mental-rational mode. While this formal scientific theorizing has clearly contributed a great deal to the discourse by giving it credibility within the academy—which is still largely operating from this mode—it is important that this does not set a biased template for acceptability of research in this area. A second—and related—bias is that within much postformal and integral research there is a privileging of cognicentric content and writing styles, potentially further marginalizing other types of postformal/integral research that may reflect and seek to integrate other modes of expression:

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[223] For more discussion of this issue see (Anderson, 2006).

[224] While technically the term *global* could be used here instead of *planetary*, I am concerned that its semiotic links with *globalization* may taint its meaning. Also I wish to honor the substantial emergent literature on the rise of planetary culture and consciousness.

- Affective (Loye, 1998; Nava, 2001; Noddings, 2005; Sinnott, 2005; Zajonc, 2005b);
- Aesthetic (Deleuze & Conley, 1992; Derrida, 2001; Gidley, 2001e; Rose & Kincheloe, 2003; Roy, 2006b); or
- Participatory modes (Ferrer, Romero, & Albareda, 2005; Hampson, 2007; Hart, 2000).

The initial focus below on the *reintegration of the whole person* is a core theoretical focus of this research. As indicated, humans have become *brain-bound* during the establishment of the intellectual-mental-rational mode. An integrative imperative to awaken artistic and participatory modes of consciousness comes through strongly in both the content and style of Steiner's and Gebser's writings—and in Wilber's conceptual notion of the *Big Three* and his *Integral Life Practices*. In summary, from this perspective, the move beyond mental-rationality requires an integration of the search for *Truth*—via scientific and philosophical epistemologies; with *Beauty*—via artistic/aesthetic sensibilities; and with *Goodness*—via participatory embodiment and critical enactment of the truth claims that we profess. I propose that this is a foundational point—often overlooked—that could ground postformal-integral-planetary consciousness in a *concretion*[225] of all consciousness modes, rather than a primarily conceptual abstraction of what integrality might be.

This new movement of consciousness is highly complex—with *complexity* itself being one of its features. The following themes have arisen from the three narratives and with due consideration of the postformal, integral and planetary literature listed above. My process here attempts a further transdisciplinary cohering of theoretical contributions so far, thus broadening and deepening the current discourse.

- Reintegration of the whole person—originary spiritual presence, magic vitality, mytho-poetic imagination, mental directedness—embodied/enacted through integral transparency;
- Integration of dualisms, such as spirituality and science, imagination and logic, heart and mind, female and male;
- Transcending of egotism;
- Transcending linear, mechanical, clock-time through concretion of time-awareness (See Appendix A);
- Planetization of culture and consciousness (See Appendix B);
- Linguistic self-reflection and the re-enlivening of the word.

In the space available the first three points above will be briefly explored and the following two have been discussed in some depth in the appendices. The final point is the subject of ongoing research in collaboration with Gary Hampson, intended for future publication.

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[225] Gebser uses the term *concretion* to mean an experiencing in fully awake consciousness of all the previous structures in the same moment.

Reintegration of the Whole Person

For Gebser, integral-aperspectival consciousness is not experienced through *expanded* consciousness, more systematic conceptualizations, or greater quantities of perspectives. In his view, such approaches largely represent over-extended, rational characteristics. Rather, it involves an actual re-experiencing, re-embodying, and *conscious re-integration* of the living vitality of magic-interweaving, the imagination at the heart of mythic-feeling *and* the purposefulness of mental conceptual thinking, their presence raised to a higher resonance, in order for the integral transparency to shine through. Sri Aurobindo's integral yoga with its threefold path of *knowledge*, *love* and *action* and the integral education model that was inspired by it, reflects Gebser's type of integration (Aurobindo, 1909). These, in turn, parallel Steiner's notion of the development of consciousness soul through an education that integrates the thinking/head (knowledge), the feelings/heart (love), and the hands/will (action) (Steiner, 1927/1986c, 1909/1965). Wilber's *Big Three*—based on Plato's Truth, Beauty and Goodness—would appear to be representing similar archetypes (Wilber, 2000d). Further research would be needed to establish more rigorous theoretical links. In an endeavor to embody this approach, the following is not designed to summarize, evaluate or even synthesize the extensive research on the various postformal cognitive features identified by adult developmental psychologists, or to integrate the multiple perspectives of thought in various fields, but to attempt to *embody* and *enact* the type of integrality that Gebser himself enacted.

Integration of Dualisms

A central notion of integral-planetary consciousness is the overcoming of dualisms (Gebser, 1949/1985, p. 386). This borrows from Foucault's critical awareness of power relations and what Derrida (1998) called violent hierarchies—those pairs of binary oppositions that have been driven apart through centuries of Cartesian dualism. This section will briefly explore four of these pairs that have been identified as significant and in need of reintegration in the new consciousness.

One of the strands of integral theory is particularly concerned with the reintegration of **spirituality and science**—or science and religion/theology. The beginnings of the reuniting of science and spirit are a reflection of the new consciousness movement and point towards increasingly integrated future cultural developments (Bohm, 1980; Clayton & Simpson, 2006; Conway Morris, 2007; Esbjörn-Hargens & Wilber, 2006; László, 2007; Nicolescu, 2002; Russell, 2000; Scott, 2007; Swimme, 1999; Swimme & Tucker, 2006; Wilber, 1998, 2001d; Zajonc, 2004). There is, as to be expected, some contestation as to which epistemology the integration might be framed within. From László's integral perspective, science must be at the basis of integral theory. In his recent book setting out his *Integral Theory of Everything,* László (2006) critiques Wilber's (2000a) *Theory of Everything*.

> [Wilber] speaks of the "integral vision" conveyed by a genuine TOE. However, he does not offer such a theory; he mainly discusses what it would be like, describing it in reference to the evolution of culture and consciousness—and to his own theories. An actual, science-based integral theory of everything is yet to be created. (p. 11)

Yet for Wilber, this privileging of science over the other disciplines is at the basis of his claim that László's TOE is partial (Wilber, 2006). A possible explanation for this difference of view is that László and Wilber may have different concepts of what the term *theory* actually means. For László it clearly has a basis in formal scientific epistemology, whereas for Wilber the term *theory* may be being used more broadly—as it often is in the humanities and social sciences. Perhaps it is useful to think of theory-development itself as having developmental stages. It is also important to recognize that different disciplines do have different types of truth claims. Clarification of such issues is an important part of the establishment of *integral theory* and would be assisted by a more collaborative effort in theory-building (Murray, 2006). Admittedly, László agrees with Wilber that such a theory would need to take into account ”life, mind, culture and consciousness” as parts of the world's reality, yet his own science-based theory does not address them in great detail (László, 2007). This is not uncommon in scientific theories, which focus on providing premises and axioms that can be generalized. A point to note here is that Wilber, László—and others—may also have different interpretations of the concept of *science*. It is important to distinguish in such a dialogue between the ideology of scientism[226] and the broader notion of the empirical[227] basis of experience. The latter could theoretically include Goethe's *delicate empiricism* (Holdrege, 2005; Robbins, 2006); William James' *pragmatism*—originally designed to empirically research the *something more* beyond physical realities (Gitre, 2006; McDermott, 2001); scientific studies on effects of meditation, yoga and para-psychological phenomena (The Dalai Lama, Benson, Thurman, E., & Goleman, 1991); and Steiner's (1986a) spiritual science. Many integral scientists are working to attempt to broaden the embrace of science (Goerner, 2004; Russell, 2002; Scott, 2007; Swimme, 1999; Visser, J., Barach, John, & Visser, 2007; Zajonc, 2004).

Wilber (1998) also points to the need to reintroduce *wonder* into the gap between science and religion, noting that, “if Spirit does exist, it will lie in . . . the direction of wonder, a direction that intersects the very heart of science itself” (p. ix-x). He has devoted a book to the reintegration of science and religion (Wilber, 1998), and also published a recent book chapter on the subject (Esbjörn-Hargens & Wilber, 2006). Steiner pointed to an important paradox: On the one hand the earlier, more macrocosmic, sciences—e.g., the hermetic-alchemical-scientific writings up to the 14th century—were superseded by the more materialistic view of modern science. On the other hand, he claimed that our times have the potential to be highly favorable to spiritual development, based on what we can bring through from within ourselves.

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[226] The term, *scientism* has a variety of interpretations, but is meant here in its perjorative sense—as the view that scientific theory and methods are the only applicable ones regardless of the field of inquiry. As integral scientist, David Scott, notes, “Learning must overcome the dualisms created by scientism of the earlier era—dualisms of mind and matter, of science and religion, truth and meaning, facts and values.” http://www.learndev.org/BOP-AECT2002.html

[227] The term *empiricism* has also been narrowed in a similar process. The etymology of the word empirical demonstrates its earlier, broader usage. First recorded in 1569, from L. *empiricus,* from Gk. *empeirikos* "experienced," from *empeiria* "experience," from *empeiros* "skilled," from *en-* "in" + *peira* "trial, experiment." The original referred to “a school of ancient physicians who based their practice on experience rather than theory.”
http://www.etymonline.com/index.php?search=empirical&searchmode=none

> What can make this epoch great must be brought about from the forces of the spiritual life, world-knowledge, world-conception. [We are] shut off from the heavenly forces . . . confined in the materialistic period. But . . . [we have] the greatest possibility of making [ourselves] spiritual . . . a spiritually free humanity. (Steiner, 1971a, pp. 56-57)

Steiner claimed that it would become increasingly possible to build on the intellectual faculties developed in humanity in the recent past—to begin as individuals to consciously develop more spiritual powers of *Imagination*, *Inspiration* and *Intuition* (Steiner, 1910/1939, p. 306). While Gebser does not particularly refer to the science-spirit dualism, he does stress that overcoming all dualisms is central to integrality. Steiner's coinage of the dialectical term *spiritual science* as the descriptor for his entire spiritual epistemology indicates the priority he gave to bridging the science and spirituality split (Steiner, 1986a).

The second binary strand to be considered is **heart-mind**—related to the reintegration of the heart in thinking, particularly through reverence, awe, wonder and love. This feature is arising with some strength now in the postformal—particularly the holistic—education literature (Hart, 2000; Kessler, 2002; Miller, J. P., 2000; Miller, R., 1990, 2000; Nava, 2001; Noddings, 2005; Palmer, 1998; Zajonc, 2005a). The following extract is a good example of this warmth-imbued holistic education discourse.

> A spiritual worldview is a *global* paradigm . . . an *ecological* paradigm. . . . Ultimately, a spiritual worldview is a *reverence for life*, an attitude of wonder and awe in the face of the transcendent Source of our being. (Miller, 1990, p. 154)

This encapsulates the *heart* of an integral-planetary consciousness where the horizons between holistic and integral theories fuse and we struggle for the most suitable language—language that is least likely to be colonized for other purposes. It is an authentic postformal spiritual response to the cold, heart*less*ness of the contemporary neo-fundamentalist hybrid of *politics-economics-scientism*. The latter is best exemplified in the *audit culture* currently colonizing mainstream western education and educational research agendas (Denzin, 2005; Giroux, 2003, 2005; Johnson, 2005; MacLure, 2006a, 2006b). Teilhard de Chardin (1959/2004) made the observation that humanity has been building its composite brain, and that perhaps it is now time to find its collective heart, "without which the ultimate wholeness of its powers of unification can never fully be achieved" (p. 172). The Greek term for this was *thymos*—the courage of the heart—a quality that the Greeks considered to be part of the essence of soul (Boadella, 1998, p. 9). This courageous call to bring the heart back into education was already made by early 20th century educational pioneers, most notably for this discussion, by Steiner.[228] In fact, he pointed to the importance of bringing *love* and *devotion* into all our knowledge seeking. He claimed that these two combined create *reverence,* which he argued is vital for moving into the new consciousness rather than merely extending abstract intellectualism *ad infinitum*. Steiner explained that the emphasis on *head-knowledge* that has been a necessary part of the development of human freedom needs to be warmed and enlivened by *heart-knowledge* in the present cultural period (Steiner, 1971a, p. 84).

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[228] Other educational pioneers such as Johann Pestalozzi (1746-1827), Friedrich Fröbel (1782-1852), and Steiner's contemporaries Sri Aurobindo (1872-1950) and Maria Montessori (1870-1952), also stressed the integration of the whole child.

> Love and devotion are thus the right guides to the unknown, and the best educators of the soul in its advances from the Intellectual Soul to the Consciousness Soul. Whereas . . . the striving for truth educates the Intellectual Soul, *reverence* educates the Consciousness Soul, bringing more and more knowledge within its reach. But this reverence must be led and guided from a standpoint which never shuts out the light of thought. (Steiner, 1930/1983a, p. 60) (emphasis added)

Gebser makes little reference to *love* in *The Ever-Present Origin*, but makes the following understated link between love and the apersonal, elsewhere (Gebser, 1970/2005).

> The apersonal can only be perceived by an apersonal, egofree human. This is, by the way, not only an Indian or East-Asian wisdom but also a Christian: it is a universal basic condition and necessity of humankind. Whoever complies to them, experiences a strengthening of his vitality and an improvement of extensive capability of love, which is presently more than ever necessary in our threatened world dissipating the human; but this need not particularly be emphasized. (Online text)

Gebser (1949/1985) primarily connects the heart and its rhythms with mythical consciousness. However, he gives two examples of philosophers struggling to experience the integral-aperspectival consciousness, citing Pascal's "logic of the heart" and Heidegger's "invisible, innermost heart . . . which for all of us is beyond quantitative calculation and can freely overflow the limits into the whole, the open." (p. 411) Both of these suggest that reintegration of the heart, like reintegration of other mythic qualities, is an important feature of Gebser's conception of integral.

Wilber occasionally refers to terms such as *heart*, *love*, *devotion* and *reverence* in his published books. He includes *love* in one of his definitions of spirituality, but considers this a fairly unsatisfactory definition (Wilber, 2000b, p. 133). His major conceptual engagement with the notion of *love* is through his discussion of Eros and Agape (Wilber, 2000d). Referring to what he calls "Plato's *Eros,*" and "Christian *Agape*," he claims, citing Charles Taylor's (1989) *Sources of the Self*, that "the two together make a vast circle of love through the universe." Wilber then continues to discuss how this actually works in individual development.

> In individual development, one *ascends* via Eros (or expanding to a higher and wider identity), and then *integrates* via Agape (or reaching down to embrace with care the lower holons), so that balanced development transcends but includes . . . Agape and Eros are united only in the nondual Heart. (Wilber, 2001a, p. 349)

Given the linearity of Wilber's model as discussed in Appendix A, where nondual experience is not possible until all other development has preceded it, one wonders where that might leave Wilber's theory in relation to heart-mind integration at any of the levels *lower* than the very top of his model. Although he stresses body-mind integration through his *centaur* metaphor, it is unlikely that this is intended to equate with heart-mind. This may be a major theoretical divergence between Steiner and Wilber in light of the centrality Steiner gives to the cultivation of love and reverence as educative forces for the consciousness soul (Wilber's vision-logic). Steiner's position on this is also consistent with his overall philosophy which—based on my reading—appears to be nondual all the way through, although he does note that notions of dualism, particularly concepts of separation between spirit and matter, did arise and become artificially exaggerated through the two millennia of intellectual development. He regarded this as a necessary part of the development of the rational intellect as part of ego-development on the way to ego-freedom. However, he stressed the urgent need for the reintegration of this split, beginning with the emergent consciousness soul. Hence his call to bring heart and love back together with mind and knowledge (Steiner, 1971a, p. 84).

Another significant dualism to be overcome is between **imagination and logic**. Wilber's term—*vision-logic*—is a pre-eminently dialectical term that reintegrates the *vision* of postformal imaginative thinking with the *logic* of formal thinking. It archetypally represents a key feature of what the new consciousness stands for. In a rather lengthy quotation, Wilber attempts to explain in some detail how vision-logic—that he also refers to as network-logic—operates. Wilber (2000b) describes a process closely resembling hermeneutic circling which clearly involves an integration of a type of logic with a type of "big picture" vision in order to gradually arrive at a higher more integrated level of understanding.

> A logic of inclusion, networking, and wide-net casting is called for; a logic of nests within nests. Each attempting to legitimately include all that can be included. It is a vision-logic, a logic not merely of trees but also of forests. Not that the trees can be ignored. Network-logic is a dialectic of whole and part. As many details as possible are checked; then a tentative big picture is assembled; it is checked against further details, and the big picture readjusted . . . For the secret of contextual thinking is that the whole discloses new meanings not available to the parts, and thus the big pictures we build give new meanings to the details that compose it. (p. 2)

For Gebser, the reintegration of the imagination is primarily related to what he would call the conscious awareness and concretion of the mythical structure. Steiner (1984b), on the other hand, has a rather complex characterization of the significance of imagination. He certainly sees it as a crucial factor in the emergent consciousness. In a similar manner to Wilber's *vision-logic* he refers to two major features that need to be activated for consciousness soul to develop: "a clear perception of the sense world" that he notes has been assisted by the empirical sciences, and the unfolding of "free imaginations side by side with the clear view of reality" (Lecture 2). For Steiner, the conscious cultivation of the *Imagination*—resembling Schelling's notion of the *intellectual imagination*—is a crucial early step in psycho-spiritual development (Steiner, 1905/1981b). A resurgence of interest in imagination is evident in both educational (Abbs, 1994; Broudy, 1987; Egan, 1990; Eisner, 1985; Gidley, 2001e, 2003, 2004b; Giroux, 1998; Hutchinson, 1993; Neville, 1989; Nielson, 2006; Nuyen, 1998; Sloan, 1992; Takaya, 2003) and postmodern philosophical circles (Abbs, 1994; Deleuze & Conley, 1992; Derrida, 2001; Kearney, 1998; Lyotard, 2004; St. Pierre, 2004; Whitehead, 1919; Wilber, 1990).

Finally, the overcoming of the deficient dualism of **female and male**[229] is required, according to all three narratives, in order to experience integrality of consciousness. As we have seen, the earliest consciousness structures primarily arose in matriarchal cultural settings, while the emergence of the intellectual-mental-rational structure in the first millennium BCE, with its egoic focus, paralleled the beginnings of patriarchy at least in Greece, Rome and China. The new consciousness will not be a return to matriarchy as some might suggest, rather a new form of sovereignty that Gebser (1949/1985) called the *integrum*.

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[229] Though, paradoxically, they all favor the male gender in their pronoun usage—this was standard writing convention in Steiner's and Gebser's times, but not so Wilber's.

> As matriarchy was once succeeded by patriarchy, patriarchy should be succeeded by the "integrum," as we have designated it. In this integral world neither man nor woman, but rather both in complement as human beings, should exercise sovereignty. (p. 151)

Wilber (1996c) suggests that the new dragon we must fight—the ego structure itself—requires a new Hero Myth. He suggests that the new hero will be "mentally androgynous, psychic, intuitive *and* rational, male *and* female—and the lead in this new development most easily can come *from* the female, since our society is *already* masculine-adapted" (p. 270). Steiner also made numerous comments in various lectures to the effect that the polarizing that had developed between male and female would gradually reduce so that men and women could begin to work together in new ways. He noted that the cultivation of the arts and particularly men and women working together creatively could assist this process. It is possible this will lead to a gradual re-feminization of culture through a re-awakening of imaginative, artistic, relational forms of postformal reason, including a re-focusing from *outer* space to *inner* space. Eisler (2000, 2001) discusses what such a new gender partnership model might look like for education.

Transcending of Egotism

What is common to the understanding of Steiner, Gebser and Wilber in regard to the emergent consciousness—but by no means in all the developmental psychological or philosophical views that posit postformal stages, is the relationship between post-formal, integral consciousness and the opening to spiritual awareness. This may be seen to reflect the shift from what Wilber calls *small ego* to *pure Self*; what Steiner refers to as the shift from *egoism/egotism* to *higher ego*—that part of the human being from which she consciously transforms herself; and what Gebser (1949/1985) refers to as the shift from *egotism/egocentricity* to *ego-freedom*.

> Only the overcoming of the "I," the concomitant overcoming of egolessness [deficient magic] and egotism [deficient mental-rational], places us in the sphere of ego-freedom, of the achronon and transparency. (p. 532)

Gebser (1949/1985) links this with the Christian notion of *transfiguration* (p. 531). In a sense, Gebser is referring to the ability of the human *I* to transcend itself. In apparent contradiction, Steiner stressed the divine spiritual aspect of the *I*.

> Indeed with this designation "I," we stand before that innermost being of [humanity] which can be called the divine element . . . [As] active being[s] [we] must . . . take hold of [our] own evolution. [We] must raise [ourselves] to higher stages than the stage[230] [we have] already reached; [we] must develop ever new forces, so that [we] may approach continually towards perfection. (Steiner, 1930/1983a, p. 20)

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[230] It is worth noting that Steiner uses the terminology of *stages*, here, as used in the contemporary adult psychology literature.

This apparent contradiction may be illuminated by the notion of the "I-I"—the ego that reflects on itself—also known as the Witness, which Wilber (2000d) derives from Plato's "the Spectator of all time and existence" especially via Fichte, in the West, and the Hindu Vedanta in the non-West (pp. 332, 670-672, n. 19).

This paradoxical nature of the human sense of *I* is referred to by Benedikter (2005) as the *double I* emerging in the late philosophical works of several French, postmodern philosophers.

> The late Derrida is very near to the "real presence" of a meta-formal, meta-linear "double consciousness," of the "paradoxical unity of two consciousnesses in one." . . . Words which are spoken (subjectively) and observed (objectively) at the same time. Words, which are experienced by the inner *and* by the outer side *at the very same moment* of happening. Thus, the late Derrida is near the experience of the "two I's in one" of all the enlightened mystics of the traditions. (Online article)

This echoes some of Steiner's (1910/1939) words about the *I* and its double reflective nature in relation to the consciousness soul.

> The true nature of the I reveals itself only in the consciousness soul. . . . through a certain inner activity . . . if the I wishes to observe itself . . . It must first through an inner activity, draw its being out of its own depths in order to have a consciousness of itself. An inner activity of the I begins with a perception of the I, with self-contemplation. (p. 31)

Wilber (2000c) also characterizes the significance of the relationship between mature ego development and spiritual development. Referring to the great spiritual teachers and world leaders from earlier periods, he states:

> To the extent these great teachers moved the gross realm, they did so with their egos, because the ego is the functional vehicle of that realm. They were not, however, identified merely with their egos (that's a narcissist) . . .
> "Transcending the ego" . . . means we do not "get rid" of the small ego, but rather, we inhabit it fully, live it with verve, use it as the necessary vehicle through which higher truths are communicated. . . . the ego is not an obstruction to Spirit, but a radiant manifestation of Spirit. (p. 278)

In the following three features it is interesting to note that there is a slightly different emphasis given to each of these by Steiner, Wilber and Gebser.

Transcending of Linear, Mechanical, Clock-Time

What Gebser calls the *concretion of time* is for him arguably the most significant marker of the emergent integral-aperspectival consciousness. He refers to Picasso's cubist, multi-faceted, portrait paintings to illustrate.

> Only where time emerges as pure present and is no longer divided into its three phases of past, present and future, is it concrete. To the extent that Picasso from the outset reached

> out beyond the present, incorporating the future into the present of his work, he was able to "presentiate" or make present the past. (p. 26)

Steiner and Wilber also problematize linear time as a construction of intellectual-mental-rational consciousness, and, like Gebser, discuss several alternative notions of time in relation to earlier movements of consciousness as will be discussed further as well. *Concretion of time* is a difficult concept to grasp, hence the extended discussion in Appendix A.

Planetization of Culture and Consciousness

Wilber (2000d) appears to stress the importance of global and planetary awareness as an important feature of integral consciousness and claims that it is expressed through his vision-logic.

> As rationality continues its quest for a truly universal or global or planetary outlook, noncoercive in nature, it eventually gives way to a type of cognition I call vision-logic or network-logic. . . . And it is vision-logic that drives and underlies the possibility of a truly planetary culture (p. 190-191).

The term *planetization* was coined by Teilhard de Chardin in the middle of the last century and may well be a concept whose time has come (Teilhard de Chardin, 1959/2004). Both Steiner and Gebser spoke against narrow nationalistic ideologies, which they saw as being residues of deficient rational consciousness. Gebser (1949/1985) thought that instead of being fixed conceptions, nations could be "dynamic efflorescences of a larger cultural context" (p. 291). The extensive work by Edgar Morin and others on the planetary era provide significant contributions to an understanding of this feature (Benedikter, 2007; Gangadean, 2006a; Montuori, 1999; Morin & Kern, 1999; Nicolescu, 2002; Swimme & Tucker, 2006). (See also Appendix B).

Linguistic Self-Reflection and the Re-Enlivening of the Word

The enlivening of language was unquestionably a major focus for Steiner in facilitating the birth of the new consciousness, beyond abstract rationality. Steiner (1930/1983a) stressed the need to awaken the artist in us when it comes to language if we hope in the future to be able to express our experiences of the emerging spiritual awareness.

> We have to create . . . an immediate connection between *what* we want to say and *how* we want to express it. We have to re-awaken the linguistic artist in us in all areas. . . . Each sentence will be seen as a birth, because it must be experienced inwardly in the soul as immediate form, not simply as a thought. . . . Spiritual science . . . will become capable of decanting the thought in such a way into the sound structure that our language too can again become a means of communication of the experiences of the soul in the supersensible. (p. 15-16)

Plato's *Republic,* especially the dialogues with Socrates, marked the end of poetry and image as primary ways of languaging the world, and the beginning of the formalization of philosophy as the new epistemology for the intellectual-mental-rational consciousness. In a recursive, parabola-shaped, re-integration, Gebser claims that the new consciousness is to be birthed through poetry, yet a new kind of *conscious* poetry.[231] Wilber also identifies the role of language in the new consciousness. However, unlike Steiner and Gebser, he does not emphasize the *centrality* of artistry in languaging. Clearly there are significant links here with Derrida's (2001) poststructuralism and Cook-Greuter's (2000) *construct awareness*, as proposed by Hampson (2007).

Deficient Manifestations of Integral Consciousness

As discussed earlier there is a divergence between Steiner's, Gebser's and Wilber's overall notions of deficiency or pathology in relation to movements of consciousness, which particularly plays out in respect to the current emergence. Both Gebser and Steiner referred to the gradual emergence of a new consciousness over the last five hundred years but with increasing intensity in the 20th century. They both also spoke of the growing problems of over-abstraction, egotism, fragmentation and disconnection from Spirit, relating these phenomena to an overextension of intellectual-mental-rational consciousness. Their characterizations of the new consciousness do not tend to point to deficiencies at this stage—the major concern being that the grossness of the dominant mode will override and mask the subtle appearance of the new transparency. However Gebser (1949/1985) did note in one of his charts that integral consciousness, still in its early stages, may manifest in a deficient form as "void (atomizing dissolution)" (p. 142). The associated explanation appears to connect this with the overextension and exhaustion of the mental structure rather than with the integral structure itself. He gave the following example: "'artists' . . . who are merely atomizers, surrender themselves by distorting and disjointing form, instead of rendering into form what has been placed as a task into their care" (p. 506, note 19). Gebser (1949/1985) also discussed the difficulties in attempting to present information about the integral consciousness—in the sense that it allows the originary presence to become transparent.

> Increasingly deficient attitudes seek refuge in syncretisms . . . or encyclopedic compendia . . . Presentiate wisdom becomes accumulated knowledge; when summarized and compiled, it yields a new sum, but no new wisdom. Wisdom is reduced from a quality of being to a quantity of possession (p. 44).

Wilber's approach is less consistent as he has moved beyond his earlier position where his *vision-logic* paralleled Gebser's *integral-aperspectival* and thus Steiner's *consciousness soul*. In the last five to six years he has come up with a proliferation of *structure-stages* beyond mental-rational (in the phylogenetic, cultural evolution stream) and its parallel, formal operations (in the ontogenetic, psychological development stream). In his latest publication (Wilber, 2006) he locates, between *rational*[232] and *integral,* a new stage—*pluralistic*—that he incorrectly identifies as one of Gebser's worldviews (glossy insert between pages 68-69). Based on this misappropriation of Gebser's model he further develops his conception of this pluralistic stage, which he associates with postmodernism, as a somewhat deficient, in-between stage, on the way to integral. Wilber conflates his new *integral* with Gebser's *integral* without any reference to the fact that Gebser does not include a *pluralistic* structure before integral and with very little evidential justification for his *pluralistic stage*, particularly from the cultural phylogeny perspective (Hampson, 2007). The problem here is that Wilber appears to be conflating *individual* psychological developmental stages (ontogeny) with Gebser's structures of consciousness—which are actually more in line with the current literature on *cultural* evolution (phylogeny). Given that Wilber is aware of this distinction and clearly quite familiar with the current evidence from adult developmental psychology on the existence of at least four psychological stages beyond formal operations (Commons & Richards, 2002; Commons, Trudeau, Stein, Richards, & Krause, 1998; Cook-Greuter, 2000, Torbert, 2004), it would be conceptually more coherent for him to confine himself to this research to establish his pluralistic stage, rather than attribute a stage to Gebser that the latter did not actually identify.

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[231] In the context of Gebser's and Steiner's views on consciousness evolution, poetry as an artistic condensation of language opens the awareness to a simultaneous experience—*concretion*—of all the consciousness structures.

[232] As mentioned earlier "rational" is Gebser's term for *deficient* mental.

The Infancy of Integral Consciousness—a Macrohistorical *Re*flection and *Pro*flection[233]

> Only by realizing the new mutation as an integral bearing or attitude and not as a quantifiable "enrichment" can man preserve himself from a complete loss of what it means to be human. (Gebser, 1949/1985, p. 306)

One of the key propositions that I wish to draw from the above material is that the major movements of consciousness we have been exploring—particularly those that link to cultural shifts in the post-glacial age—appear to take approximately 2,000 years to become consolidated within human culture. These macro, time-cycles have been linked to the astronomical event called the *precession of the equinoxes* (Bocchi & Ceruti, 2002; Steiner, 1971a; Ulansey, 1994). (See Appendix A) The influence of such a long-term event-cycle can be demonstrated when we observe the historical development of the thinking that in academic discourse we take for granted. As demonstrated, this mental-rational shift only began to emerge in Greece between 600-800 BC, arguably reaching its culmination approximately 2,000 years later in Europe

If we consider that the new consciousness movement showed its first *cotyledons*[234] at the same period that the previous consciousness was reaching its peak, it becomes evident that this new consciousness, although it has been gradually emerging within leading individuals for 500 years, is only in its relative infancy. An analogy would be to compare what mental-rational thinking was like just 500 years after Plato and Aristotle compared to what it became in Descartes, Kant or Hegel. What is unique, however, about the new consciousness is that it is part of its multifaceted nature to be pluralistic, interconnected, multiperspectival, inclusive—indeed planetary—in its scope. So rather than a few leading-edge philosophers discussing ideas in

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[233] I am using the underused term *pro*flection as a future-oriented contrast to *re*flection. *Reflect* was first used as a verb in 1402 from Latin *flecter*e "to bend" meaning "to bend back" or "turn back" the sun and not until two hundred years later in the sense of "to turn one's thoughts (back)"–first attested 1605. In honor of Gebser's sense of time concretion, my *proflection* means, "to turn one's thought forward." http://www.etymonline.com/index.php?search=reflection&searchmode=none. This also links to Future studies (Slaughter, 1999).

[234] *Cotyledons*—for those who are not gardeners—are the very first baby shoots that peek out of a germinating seed.

Plato's Academy in Athens, it is possible, through the interconnected world that has been created through advances in technology, for this new consciousness to become fully planetary in reach. If we can awaken this integral transparency, even now as it is in its infancy, imagine how much more wise, loving and creative our consciousness might be across the planet in another thousand years.

The following statement by Friedrich Nietzsche in his *Beyond Good and Evil* is as good a set of criteria as any that I have found, for evaluating how successful a new philosophy-theory-approach might be. It seems an appropriate note on which to end this section.

> To what extent is it life furthering, life supporting, species supporting, perhaps even species cultivating? (*Jenseits von Gut und Böse*, Beyond Good and Evil, ¶ 4). (Steiner, 1895/1960)

Transition to the Farther Reaches

There is an apparent major point of departure between Gebser's integral-aperspectival mode—as the culmination of consciousness development, from his view—and both Steiner's and Wilber's notions of several potential further stages/movements of consciousness—within both individual development and cultural evolution. This is a challenging, under-researched area—particularly in relation to future, general cultural evolution. I suggest the situation is not as clear-cut as it might first appear. A preliminary discussion is explored in Appendix A, under the section heading *Gebser's Integral vs. Wilber's Transpersonal Levels*. I intend to undertake further research in this area, but until such research has been completed, I consider the notion of future movements beyond those discussed here to be a very complex issue, to say the least. Suffice to say that, in my view, the most important development that needs to occur at this point in planetary time is, for all of us who are working in our various ways to nurture postformal, integral or planetary consciousness, to continue and increase our collaboration to assist the planet-wide awakening of emergent new features of consciousness.

9. Rewinding Loose Threads: Re-*mind*ing us of our *Origin*

> Reading the article once through is like walking around the base of a mountain.[235] (Starr & Torbert, 2005, p. 96)

The last stage of weaving a tapestry is to search the near-finished artifact for loose threads. It is the same with noospheric tapestries. This paper set out to facilitate a broadening and deepening of the evolution of consciousness discourse, particularly within integral theory. It sought to expose gaps in the literature and to open new questions in relation to how they might be addressed. The structure was provided by an interwoven theoretic narrative constructed from the evolution of consciousness narratives of Steiner and Wilber, in the light of Gebser's structures of consciousness. It endeavored to integrate—without syncretizing—their unique integral perspectives. Many smaller threads from other discourses were also interlaced into the narrative as I created my *theoretic bricolage*, embracing the broadest picture, enriched by the deepest meanings. This evolved into a macrohistorical journey from cosmic origins through the emergence of archaic, magic, mythical, and mental-rational consciousness and into the present time in which postformal-integral consciousness was shown to be emerging as a transdisciplinary, planetary phenomenon. Three side journeys were also taken through depth-dives into multiple conceptions of time (Appendix A); macrocosmic conceptions of space (Appendix B); and the relationship of palaeoart to the evolution of literacy (Appendix C).

I will now briefly summarize:

- **Summary of the Research**: Focus and Findings;
    - Broadening the *general* evolution of consciousness discourse;
    - Deepening the *integral* evolution of consciousness discourse;
    - *Integration* of Integral Views

- **Reflecting on the Narrators**: The Map, the Territory and the Guide. This section responds to the third research focus—*integration* of integral perspectives;
- **Reflecting on the Journey**: How Meta was the Narrative? This section responds to the first research focus—broadening the *general* evolution of consciousness discourse. It revisits the key terms in the title of the narrative;
- **Reflecting on the Language**: This section responds to the second research focus—deepening the *integral* evolution-of-consciousness discourse, particularly through demonstrating the reflexively participatory and artistic/aesthetic qualities in Steiner's and Gebser's language;
- **Epilogue**: We are Children of the Cosmos on our Way Home.

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[235] This quote is from Starr and Torbert's (2005) recent article on triple-loop learning. Like hermeneutic circling, the reflexivity in double and triple loop learning enables deepening of understanding.

Summary of the Research—Focus and Findings

Broadening the *General* Evolution of Consciousness Discourse

There is a large body of literature on evolution theory that appears not to have heard of integral approaches to knowledge building. The preliminary meta-analysis of this literature demonstrated the following tendencies.

- *Minding the gaps and biases:* Most of the general evolution literature is biology-based, and much of it is based on a scientistic ideology—biased against epistemological and methodological approaches outside standard scientific methods. There is also premature closure on the possibility of developmental or evolutionary movements beyond formal thinking, either individually or culturally. These gaps and biases reoriented my focus on the following issues.
- *Focusing on the marginal:* Philosophical and spiritual approaches are particularly marginalized in the general evolution discourse. These perspectives are also marginalized within most of the consciousness studies research. These discourses also largely overlook the integral approach and generally avoid the critical issue of our planetary crisis—surely of evolutionary significance.
- *Theorizing beyond science narratives:* At the next level of analysis, it was found that additional literature beyond the scientific evolutionary discourse was growing, and included research from psychology, language studies, philosophy and the arts. Much of this however was still limited by disciplinarity.
- *Theorizing beyond disciplinary boundaries:* Much of the literature that emerged at this level of the search was either primarily scienced-based interdisciplinary research or transdisciplinary research, informed by integral theoretic narratives such as those of Steiner, Gebser, Sri Aurobindo, László or Wilber. This literature, overall, theorized stages or structures beyond Piaget's formal operations.
- *Theorizing beyond formal operations:* Two bodies of literature appeared on the horizon: literature that directly identified at least one stage beyond formal operations; and literature that appeared to enact such a stage, though not necessarily conceptualizing it as such. A second bifurcation within the former was between postformal psychological development and socio-cultural evolution, which were largely operating in isolation. Wilber (1996b, 1996c) wrote significant seminal material on both of these territories and furthermore proposed a new, more complex model of the discredited ontogeny-phylogeny argument. This spawned a new body of integral writing on the evolution of consciousness. However, there were still gaps.

In order to address these gaps and biases, I decided to focus on the marginalized transdisciplinary and integral literature to uncover what, if anything, may have been missing there.

Deepening the *Integral* Evolution of Consciousness Discourse

A unique feature of postformal-integral-planetary consciousness is that we can co-create it. The challenge is how to do that. Many of the gaps referred to in biologically based evolution literature or alternative single discipline approaches have begun to be addressed—quite substantially—by Wilber, followed by others, through a more integral approach to the evolution of consciousness. However, this literature too has gaps and biases, which my research has sought to address.

- *Minding the gaps and biases.* Integral research is a growing corpus—particularly in the USA—with much of it either directly or indirectly addressing the evolution of consciousness. Most of it also addresses the phenomenon of Wilber's integral theory. Regardless of whether it is embraced, dismissed or critically engaged, it is a force to be reckoned with in integral theory creating. Wilber's theory is arguably the broadest conceptually; and is extraordinarily inclusive of earlier and contemporary theorists. However, there are limitations. His omission of Steiner's evolutionary research and some of his questionable usage of Gebser's research are both addressed in this paper. Notwithstanding his conceptual honoring of the Big Three—Truth, Beauty and Goodness—much of his theoretic narrative appears to privilege cognitive development. Many other integral theorists make significant contributions to evolution of consciousness theory, yet most of their work reflects the residue of disciplinary boundaries, particularly the boundaries set up by science. Much of it is thus also cognicentric and primarily framed and presented in formal academic—rather than *postformal* styles. The following points address what might be needed to *deepen* integral theorizing beyond these limitations.
- *The marginal of the marginal:* Without intending to be tautological, I became interested in what Wilber and other leading integral theorists—themselves marginalized in the dominant evolutionary literature—had omitted or biased. In terms of people and content Wilber had largely omitted Steiner's huge body of relevant material, and had also in my view underrepresented the significance of Gebser's work in several major areas. I have demonstrated that the following two key aspects of a fully integral theory of the evolution of consciousness have been able to be addressed in significant new ways by conceptually integrating into the integral discourse Steiner's research and a closer look at Gebser's actual text.
- *Participatory engagement:* This research has identified two kinds of participatory engagement that could potentially serve to enrich the current integral theoretic narrative on evolution of consciousness. The first is via embodied reintegration of the whole person (Ferrer, Romero, & Albareda, 2005). The second is via reflexive enactment of the modalities being theorized (Hampson, 2007). My research has attempted to engage both these modes of participation and also to contribute theoretically to the importance of both. It is organized so that it reflexively enacts the theme that it addresses—movements of consciousness. It also both theorizes and enacts the integration of many parts of my *whole person*.
- *Artistic/aesthetic sensibility:* The paper also enacts vital, imaginative and spiritual—as well as cognitive—dimensions through artistic/aesthetic creativity. This is done through orienting particular sections in a particular way, e.g., Appendix C particularly focuses on the aesthetic dimension. Also I have attempted to bring an aesthetic, poetic sensibility through in much of my languaging, based on Steiner's and Gebser's claims that this is a core characteristic of the new consciousness. Other integral theorists also recognize its importance (Hampson, 2007; Neville, 2000; Roy, 2006b; Thompson, 1998).

Integration of Integral Views

The third major focus of this research—which is intimately linked with the above-mentioned points—is my passion to *integrate the integrals*. I have attempted this in several ways.

- *Integrating the theoretic narratives of Steiner, Gebser and Wilber:* In addition to deepening the narrative by balancing cognitive with participatory and aesthetic modes, the dense and difficult text of Steiner's and to a lesser extent Gebser's is balanced by Wilber's use of the *vernacular*—people can read him and understand what he is saying.
- *Providing conceptual bridges* for the interpretive communities of Steiner, Gebser and Wilber to better understand each other's approaches.
- *Providing a conceptual bridge* between discourses that directly *identify* new stage/s of consciousness (e.g., adult developmental psychology) and discourses that *enact* characteristics of that consciousness (e.g., critical theory, new sciences, process and poststructuralist philosophies).
- *Providing conceptual bridges* between the integral and postformal literature and the emergent critical literature on the ecology of our planetary crisis and the realization of its connection with the way we humans think;
- *Exploring the potential relationship* between László's Akashic *In*formation field and Steiner's spiritual-scientific research methodologies. While no conclusions could be drawn from such a cursory attempt, I have put this on the table as a future research project.

Reflecting on the Narrators—The Map, the Territory and the Guide

In her recent research on integral art, Roy (2006b) has introduced the metaphor of *gap-diving* from the map into the territory that one is researching as a way of deepening our appreciation and understanding. She also notes the gap between the AQAL integral map and Gebser's integral-aperspectival, echoing Gebser's call for a new form of statement. The following discussion reviews the approaches of our three narrators. To what extent do they map the territory? To what extent do they dive deeply into it? To what extent are we guided in our journey into new consciousness? In the following section, I will be discussing the different contributions of Steiner, Gebser and Wilber in terms of the notions of *map*—in relation to Wilber; *territory*—in relation to Steiner; and *guide*—in relation to Gebser.

The Map

> *When you discover Wilber, you discover everyone . . .*[236]

Wilber appears to provide the biggest, most comprehensive, map. His more elementary books introduce readers to vast bodies of material from a very broad range of disciplines and perspectives, and organize the information in ways that are not too difficult for the average non-academic reader to understand (Wilber, 1996a, 2000a). His more academic books provide much more depth in many areas, yet the emphasis is still on the organization of the material into maps and charts (Wilber, 2000d, 2000b). The quantity of work he has written is vast and most of it is fairly accessible. However, his depth sounding of the territory itself is lacking in some areas. There is a significant bias toward Eastern spiritualities, such as Buddhism and Hinduism, while largely overlooking major Western[237] esoteric traditions, such as Rosicrucianism, Freemasonry and anthroposophy, to name a few; and some serious distortions, e.g. postmodernism, Derrida (Hampson, 2007). Wilber refers to hundreds of original or secondary sources. Those finding his work useful as a map or guide to spiritual, philosophical or psychological territories are encouraged to consult the primary sources for a deeper understanding of the territory he maps. He also encourages his readers to go to the territory themselves.

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[236] A comment made to me by a young man who had found the discovery of Wilber's writings to have a transformative effect on him during a period of existential angst, leading him on to the reading of many other writers.

The major focus of Wilber's books, particularly since the mid-nineties,[238] is, first and foremost, to conceptually develop and *map* the most comprehensive theoretical framework of integral knowledge and understanding of humanity, nature and Kosmos. He refers to his own work, unabashedly, as mapping. The following long quote, from the foreword to Visser's (2003) book about his work, is an encapsulation of this perspective.

> Every one of my books has at least one sentence, usually buried, that says the following: ". . . It is a sharing of what I have seen; it is a small offering of what I have remembered; it is also the Zen dust you should shake from your sandals; and it is finally a lie in the face of the Mystery which only alone is."
> In other words, all of my books are lies. They are simply maps of a territory, shadows of a reality, gray symbols dragging their bellies across the dead page, suffocated signs full of muffled sound and faded glory, signifying absolutely nothing. And it is the nothing, the Mystery, the Emptiness alone that needs to be realized: not known but felt, not thought but breathed, not an object but an atmosphere, not a lesson but a life.
> There follows a book of maps; hopefully more comprehensive maps, but maps nonetheless. (p. xv)

Wilber's integral approach has added a significant breadth of content to the evolution of consciousness narrative—much of which was scientistic and disciplinary prior to his seminal contribution through *Up from Eden* (Wilber, 1996c). He has conceptually integrated much of the 20th century Anglophone literature that was written after Steiner's death and even after publication of Gebser's *Ever-Present Origin*. He draws attention to a vast body of literature. He attempts to theorize a framework that can make sense of all the *partial* approaches—to create a genuine *theory of everything* (Wilber, 2000a). He admits that all attempts at such an integral vision "are marked by the many ways in which they fail. The many ways in which they fall short, make unwarranted generalizations, drive specialists insane, and generally fail to achieve their stated aim of holistic embrace" (p. xii). In spite of this dilemma, he appears to commit himself in every book to the "ever-receding dream" of a holistic quest (p. xxii). Also, somewhere in each book, usually in the preface or introduction, and often scattered throughout as well, he points to spiritual *territory* that he claims is *beyond words*. Reynolds (2004) cites Wilber from *A Brief*

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[237] This may be a contextual explanation for his omission of most of the work of esoterically-informed, pioneering, integral philosophers from Europe, such as Goethe and Steiner.

[238] The major phases of Wilber's work will be further elucidated below.

History of Everything: "The task of philosophy, as it were, is not simply to clarify the maps and *correct* their deviations from reality but to *elucidate* these deeper currents from which thought couldn't deviate if it wanted to" (p. xv). Situated as he is in a context of American culture—where fast foods, accelerated learning and a general addiction to an ever-speedier pace of living is the norm—Wilber writes at a hurried pace. In his race to write he does not appear to stop and check for accuracy of details—to edit for redundancies, nor to reflect on and refine his language. That is his major weakness and perhaps also his strength. As a result he is read, loved and revered by many, but he is critiqued by many as well.

In summary, providing readers take seriously the fact that the self-declared nature of Wilber's work is to make conceptual maps, and providing readers also check his major sources for accuracy, and especially that they dive into the *territory* themselves, then his work can provide a valuable service. Alternatively, if AQAL-integral—or any other integral approach—were to take on the character of a dogma, or an ideology, it could threaten the whole integral project, fragmenting it in its infancy. But it cannot be denied that on the slowly awakening, integral-planetary path, in the hallowed footsteps quietly trodden by Steiner, Gebser and Sri Aurobindo, it is Wilber who, as the *Master of Ceremonies*, proudly introduces the integral project to the world stage in the 21st century.

The Territory

Steiner is, in my view, unquestionably the most comprehensive of the three when it comes to entering, from the depth perspective of spiritual research, into multiple fields of life in considerable detail—education, agriculture, medicine, art, architecture, philosophy, science, comparative spirituality, and socio-economic organization among others. However, a major weakness is that for many contemporary people—even highly educated, motivated researchers—he is largely inaccessible. His writing, in addition to being complex in both content and style—which he did not actually separate in the way I just have—exudes the tenor of the highly intellectual, philosophical life of late 19th and early 20th century Germany. His work covers vast conceptual and spiritual terrain but he does not simplify it with any *easy-read* guidebooks. There are no "three easy steps" to reading Steiner – it is just hard work.[239] Because of this the great conceptual treasures he has to offer may continue to go largely unnoticed to the scholars—particularly Anglophone scholars—of today and tomorrow as they have for the last century. By endeavoring to introduce him in association with Wilber and Gebser, I am hoping to lead readers to consider sourcing his primary writings. However, I think it would be helpful to approach them as if one was reading a sacred text with the type of hermeneutic sensitivity that is needed in such a case. I believe it may then be possible for the depth of the message to be transmitted.

Steiner's work, rather like Wilber's, developed through different phases.[240] From 1883 to 1903 his writing was primarily philosophical (including major writings on Kant and Fichte, as well as editing Goethe's scientific writings and helping to organize the Nietzsche[241] archives). The second phase of Steiner's work—from 1904—was devoted to the struggle to communicate the findings from his spiritual-scientific research. This is the period when he commenced his writing and lecturing on the evolution of consciousness. In this second period, Steiner's work is pre-eminently concerned with gap-diving into the territory—of the spiritual images, currents and ground, beneath and beyond the sensory world—the deeper currents that philosophy needs to elucidate as Wilber indicates above. In the following long quote, he made it clear that his communications about these matters were not mere reproductions of earlier sacred texts—although he had read and studied these—nor ungrounded metaphysical speculations, but grounded *perceptions*. In the following text Steiner (1910/1939) is arguably foreshadowing Wilber's notion of the *pre-trans fallacy*.[242] He notes the significance of the "completely conscious mind" in contrast to "autosuggestion or the unconscious." He also refers to his "clear, discerning consciousness" at every step in his process of arriving at advanced perceptions.

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[239] Another issue to consider is that part of Steiner's approach was that it was not just about cognition and knowledge, but involved life practices—such as disciplined thought exercises, or contemplation practices, and engagement with the arts. He claimed that such practices, in addition to cognitive work through study/research, assisted the development/evolution of consciousness.

[240] The major phases of Steiner's work will be further elucidated below.

> My knowledge of things of the spirit is a direct result of my own perception, and I am fully conscious of this fact. In all details and in the wider views I have always examined myself strictly to whether I have made every step, as my perception advanced and developed, so that a completely conscious mind accompanied those steps. Just as the mathematician advances from thought to thought without the intervention of autosuggestion or the unconscious, so must spiritual perception advance from objective imagination to objective imagination without anything living in the soul but clear, discerning consciousness . . . the results of my perception . . . were, at the beginning, "perceptions" without words to designate them. . . . Later I sought in the ancient designations of the spiritual in order to find verbal expressions for what was until *then* wordless. . . .
> However, I sought *always* for the possibility of expressing myself *only after* the content I wished to clothe in words had arisen in my own consciousness. (pp. xiii-xiv)

It appears to me from this statement that Steiner is also demonstrating postformal reasoning through self-reflexivity about his process "I have always examined myself strictly;" and the dialectical term "objective imagination." A careful study of this text can leave the reader in little doubt that Steiner is speaking about a postformal reasoning process that could not easily be confused with magic or mythic processes, which he himself clearly identifies as earlier movements of consciousness. Steiner also emphasized that the abilities that he developed to perceive in this manner were not unique to him or a few individuals, but would become increasingly available to anyone who wished to undertake the necessary cognitive and spiritual development and discipline. He claimed that the epistemology that he developed and presented in his books and lectures was not in any way in contradiction to the methods of science, but in fact needed to be founded on—and yet go beyond—the rigors of intellectual thinking and the accuracy of perception of the empirical sciences.

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[241] In the early 1890's, because of his experience with the Goethe-Schiller archives in Weimar, while editing Goethe's scientific works, Steiner was invited by Frau Foerster-Nietzsche, the sister of the ailing Nietzsche, to spend several weeks arranging the Nietzsche archives in Naumberg, After his meeting with the ill Nietzsche, and having studied his philosophical works for six years, Steiner was inspired to write a book in critical appreciation of Nietzsche's significant, yet misunderstood spiritual contribution to world philosophy (Steiner, 1895/1960).

[242] Wilber's *pre-trans-fallacy* and similar notions of Steiner and Gebser is discussed in Appendix A.

> At a certain high level of [our] cognitive power, [we] can penetrate to the eternal origins of the things which vanish with time. . . . then [we] can *see* in events what is not perceptible to the sense, that part which time cannot destroy. (Steiner, 1904/1959, p. 39)

The deeply spiritual nature of his work did not sit well with the materialistic current of his times. Although there were many academics and professionals who were inspired by his work and applied it to numerous practical fields of life—including education, agriculture, medicine, science, psychology, architecture, and all the arts—like Wilber, he was critically attacked from many quarters.[243]

In summary, Steiner dived into the *territory* itself, and in contrast to Wilber, he did not spend time or energy providing maps of it or of his work. His intention was to be true to the *invisible* worlds he tried to represent and he admitted frequently that "only a faint conception of this chronicle can be given in our language" (Steiner, 1904/1959, p. 39). He proposed that we need to develop new language which is not so bound to the sensory world, and which can rediscover the *Spirit of language* in all its living force.

> The very words and turns of phrase in themselves take on something of a spiritual nature. They cease to be mere signs of what they usually 'signify' and slip into the very form of the thing seen. And then begins something like living intercourse with the Spirit of the language. (Steiner, 1929, p. 1)

This statement, especially the second sentence is remarkably similar to the sensibility of Derrida's deconstruction of language (Derrida, 2001). A question for further research concerns the extent to which some of Steiner's work foreshadowed poststructuralism. There are also clearly important connections between Steiner's words and Cook-Greuter's postformal stage that she calls *construct aware* (Cook-Greuter, 2000). Significant theoretical connections have recently been made between Derrida's deconstruction and Cook-Greuter's *construct aware* stage (Hampson, 2007).

And yet, there is no question that without a *guide*, his spiritual findings in their written forms are challenging for many readers today.

The Guide

Gebser's writing also developed across two major phases: the first phase being primarily artistic, the second cultural-philosophical. This unique development has led to the seamless infusion of artistry into the text of his philosophical work. His major contribution to this narrative has a mediating flavor to it. His obvious temporal mediation between Steiner and Wilber is an elegant metaphor for a deeper, less tangible, mediation between them. Steiner's focus is the *territory* beyond Kant's knowledge barrier, with little cartographic assistance on the long and arduous journey to the perceptions he describes. By contrast Wilber's focus is to *map* the multiplicity of components—rarely entering the deeper territory—in some ways upholding the Kantian split between his different writing styles. What Gebser offers is something in between these two rather extreme emphases. He unquestionably dives deeply into the concrete particularities of phenomena, providing thick descriptions of the structures of consciousness he identifies. However, his cultural philosophy of consciousness, although complex and challenging to read, is also structured in a way that does provide guidance to the reader. He takes a systematically layered approach to unfolding the development of each structure and also provides much additional information from many different perspectives in order to gradually deepen the understanding. His *Ever-Present Origin* is a uniquely structured book as it can be read in many different ways. It seems to express the spherical nature of integral-aperspectival consciousness itself. It is my observation that Gebser succeeded, not only in formalizing and exemplifying a new consciousness through his numerous examples across most fields of knowledge, but also, in providing a new model of how to write integrally. He managed to balance the rigorous scholarship required to stand firmly in the 20th century academic context with poetic artistry to reveal the potential vitality, imagination, conceptual direction and spiritual awareness that awaits us in the coming times as we awaken into integral consciousness.

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[243] As well as threats on his life from the National Socialist Party, from which he had to escape to Switzerland, his first magnificent architectural creation—the first Goetheanum—which took ten years to build—was burned to the ground by arson just before its completion in 1922. It was suggested by those close to him that he never recovered from the shock of this attack and died three years later at 64, still in the prime of his life's project.

> Since our insight into the energies pressing toward development aids their unfolding, the seedlings and inceptive beginnings must be made visible and comprehensible. (Gebser, 1949/1985, p. 4)

Summary

Whereas Wilber's comprehensive mapping spearheads a popular movement towards a more integral approach to everything, his glossing over details in some of his texts needs to be balanced by the reader's own deep dives into the territory he maps. Whereas Steiner's deep, insightful dives into spiritual wisdom can be found across dozens of books and literally thousands of lectures, it can be a lifetime's work to interpret and cohere his major contribution to a topic such as we are discussing here. Gebser, however, provides sufficient structure for the reader to become conceptually oriented, while also diving deeply into each of the major territories that he has chosen to elucidate.

Reflecting on the Journey—How Meta was the Narrative?

In our current era that must contend with the deligitimation of the grand narratives of modernity, we are left with few options for providing new narratives of hope for our children and our future. We may continue to cling to old undeconstructed metanarratives in a traditional, mythic manner as if the great German and French philosophers, such as Nietzsche, Lyotard and Derrida were irrelevant. We may extend our rationality into rationalization, creating new *reconstructed* metanarratives, arguing that they are bigger and better and more reconstructed than either modernity and postmodernity has on offer. We may throw out the threading of narratives altogether, pluralize our perspectives, and allow each particularity to speak of its own uniqueness. Or we may, as Whitehead, cited in Gare (2002), recommended, "produce a variety of partial systems of limited generality" (p. 49). I have chosen to opt for the latter, not in a syncretizing way that would homogenize their differences, but rather to dive into their unique particularities. By bringing them into conversation with each other, through a hermeneutic *merging of horizons*,[244] the commonalities authentically disclosed themselves—as unity in diversity. By keeping close to the actual text of the narrators, and engaging in thick description, a type of noospheric ethnography emerged. By thus slowing down the pace of my analysis, I have thwarted any tendency to rush into abstraction or quick generalities, or to manufacture a perfectly synthetic product. I have enjoyed the individual idiosyncrasies of content, style and texture, as if each bump and wrinkle were a sign that this tapestry is indeed woven of noospheric raw silk.

How Macrohistorical? Concretion of Time—Reintegrating Appendix A

According to Gebser, his notion of *concretion in time* is a core characteristic of integral-aperspectival consciousness. It is a difficult concept to grasp, hence the decision to attach a rather extensive appendix on its explication. (Much of the conceptual discussion of time is explicated in Appendix A). This narrative has sought both to scan vast time periods and also to draw particular attention to different conceptions of time. It has first expanded time by stretching it back to its earliest beginnings and secondly it has condensed time by demonstrating that ancient times can be re-experienced and future times can be sensed in a concretion of consciousness, once one moves beyond linear, mechanical time. Through discovering Gebser's attention to time, I was also drawn to investigate Steiner's and Wilber's conceptions of time. This research has greatly deepened my own understanding of time, which I have endeavored to communicate. More research on the relationship of this notion to other features of postformal thinking is suggested.

How *Planetary*? Concretion of Space—Reintegrating Appendix B

Gebser claimed that the concept of space became increasingly more significant throughout the establishment of the mental-rational mode of consciousness and that it has been over-extended at the expense of awareness of time. An ecological view of space has been presented in Appendix B that begins with a recognition of traditional unitive conceptions of the place of humans in the cosmos, notably exemplified in the Hermetic aphorism "as above, so below." This is contrasted with the more abstract conceptions of space arising from the intellectual-mental-rational mindset especially since the Copernican revolution. The exploration and gradual dominance of the spatial dimension of the earth is shown to have progressed through various stages, such as colonization and globalization. The recent privileging of exploration of *outer space* by modernist science is contrasted with the attention on *inner space* of integral conceptions. The significance of cultivating noospheric diversity is highlighted. A number of cosmo-centric concepts are discussed as a way of raising awareness of the larger spatial ecology—in particular, a more cosmopolitan approach to integral theory is proposed as a safeguard against Anglo- and ethno-centrism.

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[244] *Merging of horizons* was a phrase coined by hermeneutic philosopher Hans Georg Gadamer (1960/2005, 1986a, 1986b).

Was it a "Beautiful Tapestry of Integral Intent?" Palaeoart Art as Language—Reintegrating Appendix C

> When vision-logic matures into its middle and late phases, pluralistic relativism increasingly gives way to more holistic modes of awareness, which begin to weave the pluralistic voices together into beautiful tapestries of integral intent. Pluralistic relativism gives way to *universal integralism.* (Wilber, 2000d, p. xi)

Inspired by this quote of Wilber's I have endeavored "to weave the pluralistic voices" of Steiner, Gebser, Wilber and others into a "beautiful[245] tapestry of integral intent." Gebser connected the magic consciousness structure with the emergence of the early artistic abilities of humans, claiming that the early forms of cave-art were an expression of magic consciousness. Steiner's narrative also emphasizes the importance of the artistic/aesthetic dimension of human nature—both in terms of early history and also, like Gebser, as a core characteristic of facilitating the development of new movements of consciousness. Wilber honors its importance in theory, but his approach does not give it the priority given by the others—particularly in relation to emergent consciousness. Appendix C is intended as a cursory glance at some of the implications of re-examining aesthetic sensibility in the origins of human consciousness. My overall narrative style has also privileged artistic/poetic writing at times over more formal styles. Consideration of the reintegration of poetic sensibility into integral academic writing is an area for future research. My conclusion is that an increased theoretical focus on the artistic *history*—and *futures*—of humanity may throw additional light on the evolution of consciousness.

How *Fascinating* was the *Narrative*? Reintegration of Myth through Theoretic Narrative

Gebser proposed that the mythic imagination was the predominant quality of what he called the mythical structure of consciousness, which preceded the emergence of the mental mode. The major component of this paper is a long, epic, cyclical narrative. It has been woven from textual material from the three narrators, that has been interwoven with relevant academic threads. A great deal of imagination has been required on my part throughout this research to hold all the pieces of the three narrative threads together in my imagination while creatively weaving them into the larger narrative. This process required far more than a pre-rational imagination. It also required considerable mental, conceptual effort to develop a structure of academic value as well as general interest; to discern and evaluate their connections—or disconnections; to keep the narrative on track; to decide which additional literature to include/exclude; and particularly to evaluate my whole process at the end. This process has clearly enacted an integration of mythic consciousness with mental-rational consciousness at the next recursive level. Such an integration suggests Geber's *integrality*, Steiner's *Imagination*, and Wilber's *vision-logic*. I propose that the cultivation of imagination could play a larger role in integral academic writing, providing the energy for creating new narratives for our futures. It has certainly been a fascinating journey for me, but whether it has for you—the reader—is now out of my hands.

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[245] I have attempted to introduce where appropriate into this extended academic research project an aesthetic sensibility, without—I hope—falling too far into the baroque excesses of some forms of ludic postmodernism.

Summary: How Integral? Did it Shine?

From a formal perspective the narratives of Steiner, Gebser and Wilber on the evolution of consciousness could be seen as rival integral schemes. I have attempted to show how the honoring of all three in their uniqueness can actually strengthen rather than weaken the entire integral project. Wilber is an excellent starting point for those seeking for something more than the fragmentation, shallowness and materialism of the current globalizing *monoculture,* pointing them to more integral, holistic perspectives. His maps provide pointers to a vast territory of research. Those who seek to go deeper would discover great riches by reading the original texts of the key sources that Wilber builds on: especially Gebser, but also Whitehead, Teilhard de Chardin and many others. However, an even greater depth of insight into the spiritual territory that underlies the recursive-progressive movements of consciousness is just waiting there—considerable effort not withstanding—for those who venture into the challenging waters of reading first-hand, Steiner or Sri Aurobindo. I have substantially brought together into academic conversation, for the first time, three outstanding contributors to the evolution of consciousness—who never met in real time. Their writings have, for the most part, been seriously marginalized by the mainstream, Anglophone, academic world, and it is to be hoped that this travesty is beginning to be transcended.

Reflecting on the Language—Transition from Steiner to Gebser to Wilber

In bringing this paper to a close, I now wish to reflect on the challenge for all four authors (including myself) of appropriately languaging our characterizations in a way that succeeds in communicating the flavors and textures of new ways of thinking—without succumbing to the limitations of the dominant academic mode. The narrative has demonstrated a contentious perspective that *Spiritual Presence* has been part of the very fabric of the human story from our birth out of mysterious cosmic circumstances, to our current emergence into a more conscious, self-reflective, spiritually aware, postformal-integral-planetary consciousness. In spite of whatever cultural, linguistic, historical, gender or other opacities we may be shadowing, each of us—Steiner, Gebser, Wilber and myself—in a unique way strive to render our sense of *Presence* transparent—through interweaving images, concepts and integrations—into words and sentences, articles and books. The following sections are my summary evaluations of how well each has succeeded, based on the research presented in this artifact. I propose that the linguistic task is to attempt to embody the features of the new consciousness in the actual language used to speak about it. There are arguably several challenging hindrances to a deep, authentic communication of the new consciousness movement(s) both within and outside the Academy. While the broader academic context is still largely formal, secular and dominantly scientific, the broader culture of the day is pragmatically geared to poli-speak, edu-speak, sport, *reality* TV shows and sound bytes. How do we create the new languages required to intensify our consciousness in such extreme contexts?

Gnothi Seauton: "Know Thyself," From Three Voices

I propose—based on my hermeneutic analysis—that there is a transition in linguistic expression between Steiner, Gebser and Wilber, perhaps reflecting the larger cultural contexts. Before discussing the language of each in more depth, I will demonstrate the differences in their languaging styles through three fragments of text referring to the same information: Steiner in 1914, Gebser in 1949, and Wilber in 2000. Each refer to the famous inscription *gnothi seauton*, "*Know thyself*," on the temple of Apollo in Delphi as being a significant marker of the new intellectual-mental-rational consciousness emerging at that time. Let us begin with Steiner's (1914/1973) considerations.

> This ancient oracle wisdom speaks as if it contained the challenge for the progress of world conception that advances from the conception in images to the form of consciousness in which the secrets of the world are seized in thought. Through this challenge man is directed to his own soul. . . . The leading spirits of Greek civilization . . . were to develop thought in the soul into a world conception. (pp. 33-34)

Steiner's words are pre-eminently philosophical—dense, weighty, yet imaginative. It is possible to sense that he is picturing a grand vista of images in which the inscription is a deep cryptic riddle. He speaks with reverence and awe of the significance of this event to the inner development of human conceptions of the world—from images to the activity of thought. His voice is careful, heavy with responsibility. Being the first in his times to speak openly about the evolution of consciousness, he strove to communicate what was still veiled to the world.

Three to four decades after Steiner, Gebser (1949/1985) referred to this same Delphic inscription as an exhortation to emergent mental-egoic consciousness.

> The lapidary sentence gracing the temple of the sun god, itself a manifestly spatial articulation of singing columns and stones, even today has lost none of its vitality: *gnothi seauton*, "Know thyself." (p. 78)

Gebser's languaging is pre-eminently poetic—artistically enacting integrality. The dialectical phrase "lapidary sentence" sets the artistic-conceptual tone, with every subsequent word chosen for its poetic resonance. His philosophical message is transmitted within the artistry rather than "explained." He confidently captures, condenses and integrates magic vitality, mythical imagination, mental direction, and concretion of time—his words shining with originary presence. My interpretation is that he is enacting a subtle linguistic *evolution* of Steiner's message and style.

Now we will fast-forward another fifty years to the other side of the Atlantic Ocean to see what Wilber (2000d) has to say.

> From Socrates' Delphic: "Know thyself" to the exhaustive introspections of Hume and Locke and Descartes and Kant (and Nagarjuna and Garab Dorje and Chih-I and Fa-tsang), the common theme heard over and over and over again: look within. (p. 184)

Wilber's languaging is pre-eminently pragmatic—prosaic, direct, syncretic. This is a "no frills" statement of a message he seems tired of repeating. He uses a characteristic style[246] of listing numerous philosophers—east and west—who have gone before him apparently making similar points. His voice seems to reflect the tone of his culture, where an over-extended rationality seems to have squeezed out and exhausted: vitality, imagination, and the shine of spiritual presence—leaving an empty, echoing, pointing-out instruction—21st century American Zen perhaps?

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[246] Although this is one of Wilber's typical styles he does have other more philosophical and also more poetic/spiritual writing styles as will be demonstrated below.

A Broader Overview of Language Styles

Steiner

As demonstrated throughout the paper Steiner's language style overall is very deliberate, particular, and for the most part, quite verbose and labored. Because of the intensiveness of his spiritual-scientific research over decades, he lived in two parallel worlds: his inner world of perception of the *Akashic* information field and the physical-life-world where he worked tirelessly to communicate his research. His writing is a continuous, mostly seamless, dialectic between his knowledge of human qualities, world events and nature, and his deep spiritual insights into the invisible currents behind all this. His language is always a careful and conscious struggle to bring through these insights, conscious that from the perspective of the highly materialistic cultural context that he inhabited, those inner worlds that he himself claimed to have experienced were either regarded as *non-existent* or were dualistically bracketed—in the Kantian sense—as *unknowable*. His endeavors—through his lectures and writings—received mixed responses. At his death he believed he had failed. To this day his enormous contributions to the integralizing of the noosphere have been largely overlooked in academia, arguably because of the esoteric content and relative opaqueness. It is worth noting that in addition to his cultural philosophical and spiritual-scientific writings, Steiner was also a poet, playwright, and visual-sculptural-architectural artist. To my observation there remained a degree of differentiation between his philosophical, his spiritual-scientific, and his poetic writings. However, much of the text used in this research is a modified philosophical style used to assist in presenting the results of his spiritual research. This style is exemplified in the following example.

> The deepening of knowledge depends on the powers of intuition which express themselves in thinking. In the living experience which develops within thinking, this intuition may dive down to greater or lesser depths of reality. . . . But under no circumstances should this diving down into the depths to reach reality be confused with being confronted by a perceptual picture of greater or lesser breadth, which in any case can only contain half the reality, as determined by the organization of the cognizing being. (Steiner, 1894/1964b, p. 105)

The following fragment is an example of his poetic style.

> So I will turn my heart and mind
> Toward the Soul and Spirit of words
> And in my love for them wholly
> Experience myself.

I hope through this paper to have achieved in a small way a clearing of the opacity of some of his writings, an unveiling of the integral intent of his work, and an opening up of his significant potential contribution to the 21st century noospheric conversations. By bringing Steiner's words into hermeneutic conversation with Gebser's, Wilber's and my own, my intention is to render transparent the wealth that still lies—largely hidden—within.

Gebser

The transition from Steiner to Gebser is a wonderful example of how a relatively short chronological time can mark a dramatic movement in the noosphere. Between the first appearance in 1904 of Steiner's seminal essays and lectures on the evolution of consciousness (Steiner, 1904/1959, 1986a), and the first German publication of Gebser's key work in 1949, the evolutionary writings of Bergson[247] (1911/1944) and Sri Aurobindo (1909, 2000) had also appeared. The rich cultural, philosophical and spiritual flourishing of the first two decades of the 20th century has been documented by Tarnas (2006, p. 362, 401). Gebser appears to have drawn on this material, either explicitly or intuitively[248] in his detailed exposition of the new consciousness structure. He had also immersed himself in a deeply artistic culture in early 20th century France and Spain and was already a published poet before beginning his work on structures of consciousness. Gebser's writing, rather like Steiner's is deliberate, particular, and dense. His scholarly attention to detail and endnoting suggest great care and, like Steiner, a similar struggle to reconcile the original spiritual presence—the ever-present origin—with the drive to communicate what he calls his *a-waring-in-truth* or *verition.* Gebser's (1949/1985) unique claim is that in order to fully enact integral consciousness one needs first to consciously experience all the previous structures.[249] Through the nuanced prose-poetry of much of his writing, he succeeds in bringing the uniqueness of the structures to our awareness, not just through concepts, but also right into the fabric of his language—through the intensified consciousness of every word.[250]

> Just as every person represents and lives the entire mutational sequence of mankind through his structures, so too each word reflects its mutational exfoliation within language itself. . . . the original meaning . . . is still luminous throughout the unfolding changes of

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[247] The point here is not to suggest in some kind of competitive manner that Steiner was first to discover or invent these ideas—as occurs in many scientific discoveries. He was always careful to draw attention to the genealogical lineages of his own concepts and those of others—ideas often going back thousands of years, and yet taking new form, transformed by time and history. In this light he (Steiner, 1914/1973c) points to the earlier philosophical lineage behind the following claim of Bergson in Creative Evolution: "It is as if a vague and formless being, whom we may call, as we will, man or superman, had sought to realize himself, and had succeeded only by abandoning a part of himself along the way . . . the animal world, and even the vegetative world" (p. 423). Steiner said that this thread can be traced back to Nietzsche's notion of the *superman*, as paraphrased by Steiner, "The animal bore man in itself; must not man bear within himself a higher being, the *superman*?" (p. 409). Steiner also noted in some of his earliest lectures on evolution of consciousness (Steiner, 1986a) that the genealogy of these ideas could even be traced back to the hermetic scientist Paracelsus (1493-1541). Paraphrasing a key idea of Paracelsus, in regard to how he viewed the animal world: "I carried all that within myself and cast it out from my own being" (p. 72).

[248] See introductory section for note on Gebser's "flash-like intuition" that inspired his research for the next 17 years on this topic.

[249] A similar point has been formalized by developmental psychologist Robert Kegan (1994).

[250] This appears to relate to what Hampson playfully calls *nanotextology* (Hampson, 2007).

> meaning taken on or attributed over the years. Every word, after all, is not only a concept or a fixed equivalent in writing; it is also an image and thus mythical, a sound and thus magic, a root and thus archaic, and thus by virtue of this root meaning, still present from origin. . . . If we remain cognizant of this origin and employ the words in a manner that manifests their integrity, they will at least lend the luster of the wholeness to those phenomena which they denote. Then, too, our sense of hearing, our heart, and our mind must be equally awake. (pp. 123, 127)

My evaluation of his cultural philosophical writing is that he largely achieves an enactment of integral consciousness, as he understands it. He both characterizes and enacts the structures of consciousness. In my view he has, inadvertently, continued Steiner's project though in a more finely interwoven, subtly nuanced manner as demonstrated in many examples throughout this paper. However, like Steiner, Gebser is not widely read or cited in the Anglophone academic world, and may also be challenging to read for many non-European contemporaries, including academics. His original text[251] is far more than its content.

Wilber

There are two major transitions that occur between Gebser's and Wilber's writing, one temporal and one spatio-geographic. It is interesting to note that the cultural flourishing that occurred between Steiner and Gebser does not appear to have carried through directly into *our* times. There is little doubt that it was sabotaged by the two world wars. The misuse of evolutionary metaphors and abuse of espoused spiritual knowledge by the Nazis cast a pall over European notions of spirituality and also evolution, development and progress. In core Europe,[252] German critical social theory was followed by French postmodernism and deconstruction. These could be interpreted[253] as attempts to clear the decadent residues of the previous structures of consciousness where remnants of old mythic consciousness lingered in the metanarratives of religion and science, and deficient rational thinking was overextended in the secular ideologies of scientism and economism (Benedikter, 2005). When French postmodernism took root in noospheric soil in the USA, it appears to have hybridized with other aspects of North American culture such as a reduced form of pragmatism, consumerism, and a lifestyle-culture that seems to parallel a superficial, non-contemplative, appropriation of ideas for its own ends. Wilber seems to scapegoat postmodernism as the cause of many of the problematic aspects of North American culture, rather than seeing the type of postmodernism that evolved there as being a reflection of the shallowness of the surrounding cultural context.[254] Wilber's writing can also be seen as reflecting different phases and also different styles within those. His earlier writing, prior to SES, established him as something of an authority on transpersonal issues. He caught the 70's wave of idealistic new ideas on consciousness, spirituality, feminism, eco-romanticism, and East-West integration. He tackled these with vast quantities of research, a fairly traditional academic style, a powerful intuitive vision and a great deal of optimism (Wilber, 1977, 1990, 1996b, 1996c). His book *Eye to Eye* (Wilber, 1990) is full of such writing. Referring to the writings of St Bonaventure the Christian mystic, he identifies:

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[251] Of course, both Steiner's and Gebser's writings have been translated from the German, which I have not had the pleasure of reading. Undoubtedly there are also subtle nuances that have been lost in the translation.

[252] Core Europe is a term used philosophically to refer to French and German philosophy (Benedikter, 2005).

[253] This is my interpretation of Benedikter's philosophical analysis of the late works of several—mostly French—postmodern philosophers, whom he indicates were reaching beyond deconstruction to a *productive void*, pointing to a new postmodern spirituality.

[254] For more on the Americanization of postmodernism in Wilber's integral see Hampson (2007).

> *The eye of flesh*, by which we perceive the external world of space, time and objects; *the eye of reason*, by which we attain a knowledge of philosophy, logic and the mind itself; and *the eye of contemplation*, by which we rise to a knowledge of transcendent realities. (pp. 2-3)

He concludes this section with the optimism characteristic of his earlier writings.

> We of today are in an extraordinarily favorable position: we can preserve the utterly unique position of possessing and championing a balanced and integrative approach to reality—a "new and higher" paradigm—one that can include the eye of flesh and the eye of reason and the eye of contemplation. (p. 37)

From the perspective that I am viewing language here—that is, with an emphasis on style rather than content, his writing could be viewed in two more phases.[255] From the time Wilber (2000d) started writing again after what he called his "ten-year writing hiatus"[256] (p. ix), he underwent a major period of academic creativity during which he made significant contributions to the enriching of integral theory (Wilber, 1996a, 1998, 2000a, 2000b, 2000c, 2000d, 2001a, 2001d). He noted that, in the ten-year intervening period "extreme postmodernism had rather completely invaded academia in general and cultural studies in particular" whereby he felt constrained by not being able to use terms such as "development, hierarchy, transcendental, universal" (Wilber, 2000d, p. ix).[257] Although he honored what he saw as the very important truths of postmodernism—constructivism, contextualism, integral-perspectivalism, pluralism and multiculturalism—which he claimed were driven by *vision-logic*—he nevertheless expressed anguish, anger and sadness at what he saw as "the shallowness that pervades postmodernism" (p. xxiii). This feeling expressed itself as a new polemical style that seems to have pervaded much of his writing since then. In his own self-reflection he noted this new development, "in all of my first twelve books, stretching over two decades, there is not a single polemical sentence" (p. xxiii). He then argued that a "little polemical rattling" was a necessary challenge, given that "these ideas had been studiously ignored for decades" (p. xxiv). Nevertheless, his writings during this next phase—up to the early 2000s—were vast in their reach, containing a substantial quantity of research across a wide vista of knowledge areas. His writing stimulated considerable discussion and research in transpersonal psychology, and numerous fields of research that he endeavored to integrate under *integral studies*. The main style for these works—exemplified in *SES*—is an easily readable narrative, interweaving a vast range of areas of research, much of it documented with copious endnotes, threaded together with polemical argument and rhetoric. Using his method of orienting generalizations, he includes many broad syncretic statements such as that quoted in the section above about the Delphic Oracle. His work seems to achieve a relative simplification of many complex concepts, by using fairly plain language, repetition, and emphatic stylistic gestures in order to introduce his ideas to a wide readership, as much outside, as inside, the academy. In this phase, his writing can be persuasive and emotional, thus drawing extreme responses of sympathy or antipathy. The following emotive statement discussing the "Enlightenment mind," is fairly typical of this style.

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[255] This is not to discount the perspective that Wilber takes on his own writing in describing it as Wilber 1 to 5. However, these stages appear to refer primarily to the development of the content of his writing rather than the style. I would like to especially acknowledge the contribution of Hampson's notion of *nanotextology,* and the many hours of dialogue we have shared on this, to my deeper understanding of this content/style distinction within language.

[256] During this period the only book that he wrote was *Grace and Grit,* the story of his young wife Treya's death through her struggle with cancer.

[257] I propose that this attitude of Wilber's is largely a misunderstanding of a key message of the French postmodern impulse. It is not so much that you can no longer use words like "development, hierarchy, transcendental, universal," but rather that one has to work much harder conceptually to contextualize just *how* one is using them.

> So the way up—any form of Ascent beyond Reason—was viewed as not just a bad idea, but as a literal crime against nature, a crime *against* the Great Chain and its allotted spot for men and women. . . . The theme of the modern age thus became . . . do not look up, do not transform, but follow downward-looking Science . . . The two paths of Ascent and Descent at this point had utterly and totally separated, dissociated, divorced, anemic and fractured, with no point of contact, no point even of discourse, let alone integration. (Wilber, 2000d, p. 424)

By contrast with the above polemical rhetoric, he periodically intersperses his arguments with a more poetically flowing style, generally when he speaks about spiritual matters.

> The integral vision, having served its purpose, is finally outshined by the radiance of a Spirit that is much too obvious to see and much too close to reach, and the integral search finally succeeds by letting go of the search itself, there to dissolve in a radical Freedom and consummate Fullness that was always already the case, so that one abandons a theory of everything in order simply to be Everything, one with the All in this endless awareness that holds the Kosmos kindly in its hand. (Wilber, 2000a, p. 141)

Following the publication of several books around the turn of the 21st century, Wilber seemed to go into another, shorter, publishing hiatus.[258] Between 2000 and 2006, his writing was only published online as a series of Extracts. Much of this writing, while beginning to formalize important new dimensions to Wilber's integral theory—particularly his contribution of *integral methodological pluralism*—is somewhat informal, and underdeveloped from an academic[259] perspective. These pieces mostly speak with an authoritative voice without apparent need to provide sources. Not as well researched or referenced as his earlier writing, *The Extracts*, overall retain the more rhetorical, polemical style of the second phase (Wilber, 2005a, 2005b). This style has also carried over into his latest book (Wilber, 2006).

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[258] Much of Wilber's time and energy in recent years has been focused on overseeing the plans to apply his theoretical work into a number of disciplinary fields through his Integral Institute and planned Integral University, notwithstanding also his serious health challenges.

[259] By *academic* here, I do not merely mean a *straw man* modernist or postmodernist academic, but a well-researched, accurately sourced, thoroughly integrated, postformal integral academic approach. Some attention to this before publication of these extracts would have lent much greater support to his whole project. A lack of attention to scholarship in these later works does not assist the collective undertaking of deepening the entry of integral consciousness into the academy on a planetary scale.

Finally, it seems to me that most of Wilber's writing points to his commitment to an ascended spiritual path which has both dualistic and linear components until it reaches its ultimate stage of non-dual. In my view, this ascended theme, lends to his integrality a strongly conceptual orientation, rather than an artistic or participatory emphasis. There is also a marked stylistic divergence between his more philosophical and more spiritual writings, perhaps reminiscent of the Kantian differentiation between philosophical reason and the *unknowable*.

Summary

The above analysis indicates a major tension in adequately communicating insights into the complexities of the emergent consciousness. The two poles of the tension are:

- The struggle to be accurate and authentic to the voice of the new facets of consciousness that are emerging; and
- The desire to be understood by a worldly context that is insufficiently familiar with what is being communicated.

While Steiner and Gebser have clearly emphasized the former, this has led to their writing at times being obscurely dense, and thus not being widely read or comprehended. They have thereby compromised their readership and popularity, most probably as a conscious choice. Steiner's position is that it is the *actual effort* that is required to read difficult spiritual and philosophical material that brings about the transformation. Wilber, on the other hand, has opted for what may be called a path of least resistance. His emphasis appears to be on reaching and communicating with the widest possible audience thus his stylistic focus is on making the most difficult concepts appear simple and easy to grasp. A notable example is Extract G: Part 1: *Introduction: From the Great Chain of Being to Postmodernism in Three Easy Steps* (Wilber, 2005b). In this way, Wilber's compromise is with the detail and accuracy of the *territory*, much of which cannot be adequately conveyed through such over-simplification. From my viewpoint, it would appear that Gebser has most successfully achieved a balance of the two poles of authentic integrality of style, and readability. Yet not everyone would agree.

How do I evaluate my own languaging? Having reached a view that Gebser's writing reflects an advanced model of integral consciousness in its very texture, I have been inspired to develop my own writing with a similar balance of content and artistic style. My intention has been to write in a style that not only clearly conveys the conceptual content of what I want to say, but that is also life-enhancing, imaginative, and transparent. I will have to leave it to the reader to fully evaluate how successful it has been. But I will finish here with a few lines of self-reflection. In relation to my choice of metaphors, I am aware that terms, such as *evolution*, *progress*, *growth* and *development,* commonly used in Steiner's time, were later problematized, and even avoided, by Gebser in his writing about consciousness, as a result of their misuse during the excesses of early 20th century Europe. As discussed previously, Wilber's response was to discuss the objections and critiques of cultural evolution metaphors, then to reintroduce them in his reconstructed manner. I have attempted a different approach, drawing on my authentic experiences and observations as a mother and an educator. While not denying the socio-cultural abuses related to the unilineal, Eurocentric framing of the notions of *progress* and *development* in late modernity, I seek to recast them in organic-collaborative rather than hegemonic-economic terms. As a whole people on a whole planet we could progress and develop, not just economically but psychologically, emotionally, socially and spiritually. I also wish to reconnect the notions of *growth* and *evolution* with their biological-metaphoric roots. In the context of our only planetary home in crisis, it is vital to emphasize life-enhancing metaphors—rather than mechanistic, technicist or digital metaphors. I have witnessed first-hand with children the life-creating processes of growth and development—the unfolding of life and consciousness—in all its uniqueness and universality, its complexity and its poetry. In this paper, I have sought to honor metaphors of birthing and nurturing of new life; of co-creating; of artistically inspiring and guiding; of encouraging—and challenging—the noospheric integral conversation. So here I sit: weaving warm, colorful tapestries to nurture the crowning infant of integral consciousness; loving *all* the children who express it; and, with reverence for the fullness of Cosmic time, holding a hand-cupped candle in the wind—to guide the stragglers home.

Epilogue—We are Children of the Cosmos on our Way Home

> In actual fact the same inner connection once existed between the Earth and the neighboring Cosmos as that between an unborn child with the body of the mother. (Steiner, 1973b, p. 54)
>
> The earth is not just a star among other stars but a star *with* other stars. Any sweeping changes on earth . . . not only occur "here" (on earth) but also "there." (Gebser, 1949/1985, p. 297)
>
> Kosmic evolution is now producing theories and performances of its own integral embrace. (Wilber, 2000b, p. 194)

This narrative began with our earth being born out of our solar system, galaxy and universe, which László says was birthed from a Metaverse—the mother of all universes: the ever-present origin perhaps? This points the way to a return, not as a going back to a lost paradise but, as Morin (2005a) suggests, to a *retro-meta* re-creation—a recursion that re-integrates all previous revolutions. "Within the irreversible and disintegrating movement of time, RE constructs a rotating time that is reiterative but eventually progressive" (p. 262), or as Gebser suggests "a sphere in motion."

As indicated above, Steiner wrote almost a century ago, that life on earth is intimately bound up with cosmic processes. Gebser and Wilber also noted the intimate relationship between the earth and the cosmos/Kosmos. As we transition from formal, instrumental, ego-mentality and begin to awaken to new vital-organic, imaginative, postformal, spiritual understanding of life on earth, our concepts of the cosmos will begin to transform as well. A wonderful beginning is being made on this process in Edgar Morin's discussion of *cosmosophy* (De Siena, 2005). (For more discussion on cosmosophy, see Appendix B) In an integrative, poetical image, Morin places his ecological philosophy of human and earthly existence firmly within a living Cosmic context, re-minding us what life is. It is a recursive echo of Steiner's quote above.

> The transformation of a photonic stream born from sparkling solar vortices [in which] we living, and as a consequence, human children of waters, of the Earth, and of the Sun, are twigs, if not fetuses, of the cosmic Diaspora, crumbs of solar existence, a tiny sprout of earthly existence. (De Siena, 2005, p. 422)

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Appendix A: From Time to Time: Retro-Meta-1 Reflections on Time(s)

Introduction

> To the perspectival age time meant nothing but a system of measurement or relationships between two moments. . . . Time, however, is a much more complex phenomenon than the mere instrumentality or accidence of chronological time. (Gebser, 1949/1985, p. 285)

My cognizance of the complexity of the discourses on time—cultural, scientific, philosophical, feminist, historical, theological— in-*tim*-idates me. Yet, inspired by the criticality of our present planetary moment *in time*, I feel beckoned into developing a tentative temporal template[2] for my evolution of consciousness research.

The imperative to contextualize the *default* notion of time is twofold. First, a lack of contextualization may lead to my work being misconstrued as being "just another modernist, linear, (perhaps tacitly) Euro-centric narrative"—albeit camouflaged as integral. Second, the macrohistorical nature of my narrative necessitates a careful consideration of time from multiple perspectives. By the default view of time I mean the three-phase linear-time-model of past, present and future that underlies modernist models of *development*, *evolution* and *progress*. These models are invariably value-loaded such that the past is problematized as primitive, while progress, development, evolution are lauded as unilinear paths to civilization. Although these modernist grand narratives have been under siege for decades, theoretical understanding of this taken-for-granted notion of time is relatively undeveloped.

Over the last two millennia the linear conception of time—which began as the more formal *measurement* of already-recognized cosmic and natural temporal cycles—became rationally conceptualized as the chronological measurement of change. The early development of clocks included astronomical/astrological features, indicating notions of time that were still connected with cosmic cycles—beautifully exemplified by the astrological clock in the tower of the town hall in Prague, built in the early 15th century. Since the Industrial Revolution linear, chronological time has further contracted by association with *mechanical* time and *factory* time. Further scientific and technological developments in the last century have seen temporal partitioning become hyper-exaggerated by increasingly sophisticated scientific and digital means, from one extreme in radioactive half-life, to the other extreme in nanoseconds.

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[1] The concept of *retro-meta* was coined by Morin to express the complex recursion that "sustains living processes at all levels" and is inherent in a full understanding of the prefix RE. "The process of RE complexly unifies and intermixes the past and future in order to generate the creative pulse of evolution" (Morin, 2005a, p. 254).

[2] My usage of *template* refers at least to its etymological roots from the Latin: *templum* "piece of ground consecrated for the taking of auspices, building for worship," and from the French *templet* "weaver's stretcher," the latter, in relation to my planetary tapestry. http://www.etymonline.com/index.php?search=template&searchmode=none

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Linear time has also become dominated by politico-economic features, exemplified by such phrases as "time is money," "buying time." This mechanistic and economic colonization of time has increased exponentially in recent decades, contributing to the *speed addiction* of our present age—demonstrated in fast foods, internet, instant global text messaging, accelerated learning, and the three-quick-steps-to-spiritual-enlightenment culture. Just to cope there are drugs to keep up, such as speed and cocaine; and drugs to slow down, such as alcohol and tranquillizers. However, in parallel with the accelerating freneticism and time panic[3] of the 20th century alternative notions have been emerging.

In the early 20th century significant theoretical developments concerning the notion of time occurred in both the natural sciences and the social sciences. In physics, Einstein's theory of relativity displaced the Newtonian conception of *objective* time as an unchangeable, permanent 'place' upon which the movement or change of things can be measured in discrete, identical fragments (Einstein, 1920/2000; Weik, 2004). Synchronously, the new philosophical phenomenology of Husserl was positing a *subjective* time—the time of the soul—in contrast to external or objective time (Husserl, 1905/1964). Numerous theoretical attempts have been made to come to terms with these new perspectives on time. Philosophical developments include Heidegger's phenomenological notion of *existential* time (Heidegger, 1927/1962); Whitehead's process view of time (Griffin, 1986a, 1986b; Weik, 2004; Whitehead, 1929/1985); and Bergson's paradoxical notion of *durée*—the conscious flow of life—which includes a radical multiplicity of Time (Bergson, 1922/1965; Deleuze, 1966/2006). Significant—albeit lesser known—contributions were also made by Steiner and Gebser and will be explicated in this appendix. More recent attempts have been made to reconcile some of these views, e.g., by Schatzki's notion of history and Ricoeur's *poetics of narrative* (Ricoeur, 1985/1988; Schatzki, 2005).

In addition, there has been a recent trend towards diversity in conceptualizations of time (Geissler, 2002). Notions of cyclical time are being reclaimed from non-western (Eliade, 1954/1989; Inayatullah, 1999) and feminist perspectives (Forman & Sowton, 1989; Kristeva, 1986; Leccardi, 1996; Milojevic, 2005b). Initially these two major time perspectives—linear and cyclical—were set up in opposition to each other. However, increasingly, new discourses are emerging that provide a more complex, nuanced perspective. These include:

- Postmodern philosophical concepts such as repetition and difference (Deleuze & Conley, 1992), complex recursion (Morin, 2005a);
- Complex concepts of time in archaeology[4] (Klejn, 2005);

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[3] Gebser (1949/1985) referred to "time anxiety" and "addiction to time" as symptoms of the deficient-rational mode of consciousness (p. 22).

[4] Russian archaeologist L. S. Klejn (2005) has recently identified "twelve concepts of time . . . These are the primordial presentism, the cyclic notion of time, the genealogical, labeled perception of time (marked time), the linear concept (measured time), the dynamic time (the notion of the flow of time), the concept of general time, the vector time, the time acceleration, the relativist concept, the static time, and the annihilation of time" (Abstract). His article discusses how they manifest various archaeological epochs and how they are displayed in archaeology. The full article is only available in Russian, but I was able to access an English abstract. Clearly this work could contribute significantly to this discussion.

- The emergence of futures studies as an academic field, introducing new concepts of past, present and future, e.g. the 200-year present and the long-now (Boulding, 1990; Slaughter, 1996; Slaughter & Inayatullah, 2000); macrohistory (Galtung & Inayatullah, 1998); long-term and non-Western future-time concepts (Inayatullah, 2000; Inayatullah & Boxwell, 2003);
- Spiral notions of development in worldviews and values reflecting both cyclical and progressive notions (Beck & Cowan, 1996; Cowan & Todorovic, 2005; Inayatullah, 1999; Inayatullah, 2004; Wilber, 1996c);
- Contemporary developments in the “time arts—music and film” (Benedikter, 2005);
- Multiple dimensions of time (Starr & Torbert, 2005);
- Spiritual notions of Eternal Time and the Now (Tolle, 2004);
- The emergent *slow* time movement, e.g. slow food movement (Parkins, 2004); the slow school movement (McGill, 2005).

While there is unquestionably now a substantial and growing body of literature on the various notions of time, there is a lack of theoretical coherence. This appendix is primarily an explication of the time perspectives (temporics) of Steiner, Gebser and Wilber, who frame many of the above-mentioned notions in a macrohistorical, evolutionary context. It is a work-in-progress, providing additional depth to the main paper and pointing to theoretical possibilities for further research.

Gebser’s Temporics in Relation to Evolution of Consciousness

> Temporics is an expression of . . . endeavors to bring to consciousness the abundance and freedom concealed “behind” the concept of time as they relate to all structures and all areas of our entire reality. (Gebser, 1949/1985, p. 359)

Diverse notions of time, and their relationship to structures of consciousness form a major theme in Gebser’s seminal work—*The Ever-Present Origin*.[5] Because of his in-depth focus on the significance of this relationship, I am using his *temporics* to provide the overarching conceptual structure for my analysis of Steiner’s and Wilber’s notions of time. This analysis should assist in uncovering any tacit assumptions about time in the interwoven narratives comprising the main body of this paper, thus increasing their transparency. In the next section, I will primarily illustrate with brief quotes from Gebser’s own text to retain the nuanced flavor of his conceptualizations.

Archaic Pre-Temporality

Gebser says very little about this earliest structure of consciousness. He refers to it as “a ‘non-dimensional’ structure ‘behind’ the physical and biological data and phenomena of the different structures, a structure which is pre-magic, pre-temporal, and pre-conscious” (p. 388). This *original pre-temporality* (p. 356) of the archaic deep-sleep consciousness, is the structure from which a gradual awareness of time exfoliates through the three subsequent structures of consciousness—magic, mythic and mental.

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[5] In this appendix, all textual quotes from Gebser will be drawn from this source, unless otherwise specified.

Magic *Timelessness*

Gebser primarily uses the phrase *magic timelessness* (pp. 289, 358) when referring to the notions of time in this second consciousness structure. He illustrates this sense with the following quote. “[The] . . . timeless phenomena . . . arise from the vegetative intertwining of all living things and are realities in the egoless magic sphere of every human being” (p. 49). He relates the magic structure with the auditory experiencing of *tone*, noting that timelessness can be integrally re-awakened through music.

Mythical Temporicity

In relation to mythical consciousness, Gebser primarily speaks of “mythical temporicity” (p. 358), and “rhythmic time” (p. 176). He describes a gradual transition from the remote magic timelessness, to a more tangible sense of periodicity, particularly in relation to the seasonal rhythms of nature. He again points to some of the important cultural sites that have been discussed in the main paper, in relation to the transition between magic and mythical consciousness.

> Whenever we encounter seasonal rituals in the later periods of the magic structure, and particularly in astronomical deliberations and various forms of the calendar, as for example among the Babylonians and later Egyptians and Mexican civilization, we find anticipations of the mythical structure. (p. 61)

Gebser also notes that in mythic consciousness there is a reciprocal interplay between the internalization of memory, as recollection, and the externalization of utterance, particularly through poetry (p. 192). This is consistent with Steiner’s characterization of the shift from *localized memory* to *rhythmic memory* (see below).

Mental-Conceptual Temporality

According to Gebser, the birth of linear time occurred with Parmenides’ (b. 540 BCE) tripartition of time into past, present and future (p. 178). He claimed that mental-conceptual time first arose in Greece with notions of measurement, quantity and partitioning of space. He regards the purpose of linear time as facilitating the shift from mythical to mental consciousness. “Time, that is, our mentally oriented conception of time, the divider of mythical movement and the partitioner of the circle, severs its two-dimensionality and thereby creates the possibility of three-dimensional space” (p. 177). Gebser expressed concern about the problems arising from the deficient[6] mental notions of time as illustrated in contemporary *time anxiety* and *addiction to time*. He believed this arose from the overextension of the dividing function, which has reduced *time* to a *spatial* function.

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[6] Note further discussion on Gebser’s use of the terms efficient and deficient in the main paper.

> Dividing time, which is itself a divider leads to atomization . . . Here we would only note once again that the phenomenon of "lack of time" is characteristic of our material, spatially accentuated world: How is anyone to have time if he tears it apart? (p. 180)

However, he also indicates that this predictable, mechanical, conception of time began to change especially with the elaboration of Einstein's theory of special relativity in 1905 (p. 341). Referring to his notion of *concretion of time*, Gebser notes.

> Wherever time is able to become "the present," it is able to render transparent "simultaneously" the timelessness of magic, the temporicity of myth, and the temporality of mind. There are already signs of this inceptual mutation that can be demonstrated. (p. 181)

Integral-Atemporal ***Time-Freedom***

> Time-freedom as the quintessence of time. (p. 356)

This brief quote from Gebser encapsulates the inherently paradoxical nature of his *integral-atemporal* notion. He uses several different expressions to attempt to communicate what he sees as a central aspect of the emergent integral-aperspectival consciousness. It is as if he is trying to "describe the elephant" from all sides to enter into the complexity of concepts that represent his notion. The terms he primarily uses are: "arational," "time-freedom," "open time," "achronon" (pp. 289, 358); "concretion of time," "temporic concretion" (p. 26); "fourth dimension" (p. 340).

Expanding on his frequent use of *concretion of time* he linked it with two other terms, *presentiation*, and *latency*, distilling how the new consciousness experiences a simultaneous sense of past, present and future.

> Presentiation is "more" than a tie to the past; it is also an incorporation of the future. (p. 271)
> Latency—what is concealed—is the demonstrable presence of the future. (p. 299)

Gebser's nuanced *concretion of time* does not represent a linear developmental endpoint like that of the modernity project, nor is it endlessly recursive in non-directional cyclical space as in Eliade's "myth of the eternal return" (Eliade, 1954/1989). Integral consciousness as understood by Gebser does not place mythic and modern constructions of time in opposition to each other, as both modern and traditional approaches tend to do. Alternatively, Gebser's *temporic concretion* is an intensification of consciousness that enables re-integration of previous structures of consciousness—with their different time senses—honoring them all. It opens to new understanding through atemporal translucence whereby *all* times are present to the intensified consciousness *in the same fully conscious moment*.

In Summary

Gebser proposed that the intellectual realization that time was more than mere clock time began with Einstein's theory of relativity. "Time first irrupted into our consciousness as a reality or world constituent with Einstein's formulation of the four-dimensional space time continuum" (p. 286). Gebser also noted the implications of this for philosophical notions of time. He discussed the gradual displacement of fixed concepts of linear time, particularly through the philosophies of Bergson, Heidegger, Husserl and Whitehead (p. 402-410).

Wilber's Temporics in Relation to Evolution of Consciousness

> Each successively higher mode of self represents an expansion and extension of consciousness, and thus each higher mode of self can grasp increasingly extended temporal modes . . . until time vanishes back into its Source and disappears as a necessary but intermediate ladder of transcendence. (Wilber, 1996c, p. 65)

What indications are there that Wilber is aware of, or enacting, the nuanced complexities of Gebser's *concretion of time*? Wilber's integral framework clearly contains a temporal dimension, in that he conceptualizes comprehensive transpersonal models for both cultural evolution (phylogenesis) and individual development (ontogenesis). However, in the overall scheme of his writing, discussions of time are not emphasized—several of his key books do not index the term *time* at all (Wilber, 1998, 2000a, 2000b, 2001a). I suggest that, for Wilber, time could be regarded as one of many features within an overall spatially oriented model. Frequently referred to as a map or a framework, not the least by Wilber himself, his framework is divided and partitioned in multi-faceted ways. This may indicate that he is primarily operating in a conceptually *spatial*, rather than a conceptually *temporal* mode. The significance of this in relation to Gebser's approach may become clearer as our analysis proceeds. It is worth noting that Gebser equates the dividing and partitioning of knowledge—the *ratio* part of rational—as marking the beginning of the deficient phase of the mental, rational mode (Gebser, 1949/1985, p. 93). Could this imply that Wilber's framework is a type of meta- or hyper-rational model?

When Wilber does refer to time he appears to emphasize one or other of two extremes.

- A strong linear perspective—where he frequently uses the phrase "time's arrow" (Wilber, 2000d, p. 19);
- A timeless spiritual present—where he frequently uses the phrase "always already" (Wilber, 2001a, p. 50).

These two notions will now be discussed briefly in an attempt to uncover how Wilber reconciles this contradiction.

Time's Arrow—A Strong Linear Perspective

In what I understand to be Wilber's (1996c) most developed documentation of his linear-time perspective,[7] his terminology lies close to Gebser's, yet it appears that his meanings may differ. Although he borrows Gebser's term *exfoliation*, his emphasis indicates a more linear template.

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[7] This is the second edition (1996) of *Up from Eden*. Although he has published several books since then, I have not been able to identify any further developments on this model.

For example, it is arguable whether Gebser's "pre-conscious" equates with an attribution of "ignorance" (See point (1) below.) Wilber (1996) summarizes his temporics as follows.

> There are different structures, or different types, of time that exfoliate from the Timeless. In ascending, expanding, and evolving order, corresponding with the levels of the Great Chain, we have:
> (1) The pretemporal ignorance of the pleroma-uroboros;
> (2) The simple passing present of the typhon;
> (3) The cyclic, seasonal time of mythic-membership;
> (4) The linear and historical time of the mental-age;
> (5-6) The archetypal, aeonic, or transcendental time of the soul;
> (7-8) The perfectly Timeless eternity of Spirit-Atman. (p. 65)

The numbers in parentheses relate to Wilber's individual developmental stages—also linked to similar temporal stages—as set out in *The Atman Project* (Wilber, 1996b, p. 44-46).

Wilber (2000d) characterizes his notion of *time's arrow* as the "irreversible direction through time" postulated by evolutionary theorists from Heraclitus and Aristotle, through Leibniz, Schelling and Hegel to Darwin. In these theories, "evolution proceeds irreversibly in the direction of increasing differentiation/integration, increasing structural organization, and increasing complexity" (p. 19).[8]

Wilber (2000d) links this to his notion of *spiritual ascent* with its linear trajectory from lower to higher.

> Darwinists could always be seen . . . as simply supplying empirical evidence for a scheme already known and accepted, namely, evolution as God-in-the-making, Eros not simply seeking Spirit but expressing Spirit all along via a series of ever-higher ascents" (pp. 537-538).

While this proposition may well have been accepted by several of the German idealists, Teilhard de Chardin, Sri Aurobindo and others, it is implied by Wilber that the relationship between biological evolution and spiritual ascent [9] is universally accepted. From my research, this is far from the case in conventional evolutionary theory today.

Always Already—A Timeless Spiritual Present

At first glance the above quotes seem to suggest an overarching, linear, developmental emphasis in his approach to understanding time sense, however, he then follows it, in the next paragraph with the statement: "until time itself vanishes back into its Source, and disappears as a necessary but intermediate ladder of transcendence" (p. 65). This appears to link to an earlier section in this book where he includes a diagram showing these eight developmental stages—as he conceptualized them at this time—held within a circular model, beginning and ending with the "ground unconscious" (Wilber, 1996c, p. 12).

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[8] Wilber (2000d) also notes that from the perspective of the second law of thermodynamics in regard to some aspects of the physiosphere *time's arrow* could be seen to be winding down (pp. 18-19).

[9] This particular statement also omits to refer to the dialectical notion of spiritual descent although Wilber does acknowledge it elsewhere (Wilber, 2000d). He does not appear to give it the type of equivalence to ascent that is expressed, for example, by Sri Aurobindo (2000) in his notion of the divinization of the earth.

The Origin vs. Archaic Controversy

There is an apparent contradiction between some of Wilber's statements that reflect the Timeless Spiritual Presence, "we were once consciously one with the very Divine itself" (Wilber, 2001a, p. 50) and some of his more linear statements, referring to the "pretemporal ignorance of the pleroma-uroboros" (Wilber, 1996c, p. 65). It is unclear whether Wilber also sees an even earlier, *conscious* stage prior to the uroboros. This is a complex issue that is beyond the scope of this appendix to engage with fully. For further reading there has been extensive discussion between Feuerstein (1997) and Wilber in regard to convergences and divergences between Wilber's and Gebser's views of the nature of the archaic structure of consciousness in relation to origin.

Gebser's Integral vs. Wilber's Transpersonal Levels

While Gebser sees integral time concretion as the point where consciousness folds back on itself and integrates the whole, Wilber (1996c) sees this as inadequate as a theory of spiritual development, going as far as making the following major critique of Gebser.

> What Gebser and Habermas both lacked was a genuinely spiritual dimension. Gebser vigorously attempted to include the spiritual domain in his work, but it soon became obvious that he simply wasn't aware of—or did not deeply understand—the contemplative traditions that alone penetrate to the core of the Divine. As I said, beyond Gebser's integral-aperspectival there are actually several stages of transpersonal or spiritual development, which Gebser clumsily collapses into his integral stage. (p. ix)

My research on Gebser demonstrates that this is far from the truth. I am wondering if Wilber had in fact read Gebser's seminal work when he made this comment in 1996, or was deducing this opinion from a secondary source. His reasoning is that Gebser's highest stage is integral-aperspectival—equivalent to his centauric-existential, whereas his own model (at that time) claimed several other higher stages—"psychic, subtle, causal and nondual occasions" (p. ix). My own interpretation of the matter is, firstly, that the situation is a lot more complex than the *either/or* that Wilber is suggesting between his and Gebser's models but a full analysis would require far more space. I would like, however, to provide some of Gebser's actual words that appear to me to indicate that Gebser's work does indeed have "a genuinely spiritual dimension," in contrast with Wilber's claim. Gebser states,

> A new possibility for perceptual consciousness of the spiritual for the whole of mankind one day had to shine forth. Previously the spiritual was realizable only approximately in the emotional darkness of the magical, in the twilight of imagination of the mythical, and in the brightness of abstraction in the mental. The mode of realization now manifesting itself assures that in accordance with its particular nature, the spiritual is not only given

> emotionally, imaginatively, abstractly, or conceptually. It also ensures that in accordance with our new capacity it is also perceptible concretely as it begins to coalesce with our consciousness. . . . The shining through (diaphaneity or transparency) is the form of appearance (epiphany) of the spiritual. (p. 542)

Wilber's vertical transcendent model where full unity with the Divine awaits the ascent through all the stages seems to weigh his whole approach towards vertical linearity. Gebser's approach clearly tilts more towards an expression of spiritual immanence than Wilber's, yet Gebser is clearly describing an authentic spiritual dimension. Wilber's later work in Integral Spirituality does attempt to address issues of spirituality at all stages of development through his Wilber-Combs matrix, but to address this in detail would move beyond our focus here on temporics (Wilber, 2006).

In Summary

Wilber tends to swing between a primarily linear developmental model—albeit one that includes higher stages beyond the formal, mental mode—and the spiritual Timelessness of the non-dual. Sometimes, he brings both voices through in the same piece of writing, as indicated above. However, it is unclear whether Wilber sees Timelessness as being synchronous with Gebser's origin. It appears likely that for Wilber this is an endpoint to be strived for rather than something that can be experienced as a concretion of all the temporicities.

Steiner's Temporics in Relation to Evolution of Consciousness

> Out of the womb of time there is born for us human beings that which is beyond time. . . .
> For as far as human work is concerned, Eternity is the birth of that which has matured in Time. (Steiner, 1922/1940)

What indications are there that Steiner is aware of the nuanced complexities of Gebser's *concretion of time*? There are several aspects of Steiner's work where one might look to respond to this question. Firstly, it could be noted that many of Steiner's books and lecture series are related to notions of time, history, mythology or relationships between time and consciousness (Steiner, 1926/1966b, 1950, 1904/1959, 1971a, 1971b, 1971c, 1971d, 1982c). This is by no means a complete list but rather a representative selection. This is also not intended to suggest that he overly emphasized time or did not problematize the terms *time* or *history*—time is just one of the themes he researched in depth. A unique feature of Steiner's approach is that he does not isolate time from other factors. His writing on time is very complex,[10] and in itself integral-aperspectival, in my view, in that he consciously presents views from a number of perspectives. The themes he discussed in relation to *time* include human memory, history, astro-geological cycles and progressive recapitulation. These are all complexly interwoven within his writings.[11]

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[10] I am aware that my section on Steiner's temporics is considerably longer than the other two, however, his work on time is arguably much more extensive, including additional areas such as *precession of equinoxes* that have not been touched by the other narratives.

[11] Several methodological challenges arise with researching Steiner's views on any theme. The most obvious are: German-to-English translation issues; and the fact that many of his works were transcribed lectures, unrevised by him before his death. An additional, more subtle challenge is that the complex

Time and Memory

Like Gebser, Steiner pointed to the relationship between human memory and the gradually evolving sense of time. Steiner (1950) described a three-stage development of memory that he called *localized*, *rhythmic* and *temporal memory*. Steiner (1904/1959) also referred elsewhere to *cosmic memory*.

Localized Memory

Steiner (1950) claimed that in very early times—which from the context of his text appear to be Upper Paleolithic—memory was not yet internalized within the human psyche, but was connected with place, with the Earth, requiring signs and prompts such as "memorial tablets and memorial stones" (p. 16). This appears to link to Gebser's magic consciousness.

Rhythmic Memory

Following this, during the transition from the magic to the mythical—related to his *Indian cultural period*—Steiner (1950) claimed that memory began to become internalized and we learned to remember by rhythm and repetition, through which "the whole ancient art of verse developed" (P. 17). He referred to ancient Asia as a central location . . . citing the *Bhagavad-Gita* and the *Vedas* as later codified examples of this rhythmic memory (p. 18).[12] Learning *by heart* is a vestige of this type of memory and Steiner mentions the importance of this in children's education.

Temporal Memory

Steiner (1950) characterized the temporal memory that "we take for granted today" (p. 17) as beginning in the Greco-Roman cultural period emerging around 800 BCE with the classical Greece of formal history. This of course coincides with the emergence of intellectual-mental-rational consciousness as we have seen in the main paper. Wilber (1996c), drawing on Whyte and Bergson, also refers to the emergence of memory—apparently referring to what Steiner calls "temporal memory"—in association with the mental-egoic consciousness (p. 206).

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interwovenness of his work means that important views are very often scattered throughout his writing—even in seemingly—non-relevant titles. This is exacerbated by the fact that, although some of his published works include a detailed *table of contents*, most volumes are not indexed. Consequently, it can be quite laborious finding relevant textual material. By contrast, Wilber's published writing includes adequate *tables of contents* and *indexes* and is generally more thematically organized—according to the standard academic form of our times, and therefore quite easy to source. Gebser's English-published writing, although complexly interwoven like Steiner's, includes a very detailed *table of contents* and is meticulously indexed.

[12] The development of rhythm was also enhanced by the emergence and cultivation of music (See Appendix C for more information on this development).

Cosmic Memory

Steiner (1904/1959) also proposed that through *conscious* spiritual development we may go beyond the ordinary, everyday temporal sense and attain access to our *cosmic memory*—the deep collective past—and, in some instances, the future. He referred to the field where this information is stored as the *Akasha Chronicle* or *Akashic Record* (p. 39). Laszlo—from a scientific perspective—has also recently proposed the term *Akashic field*, or *In-formation* field for the field that stores cosmic memory (László, 2007). Gebser's (1949/1985) notion of "atemporality" or remembering the future is similar—he cites Rilke's poetic line: "wishes are recollections coming from the future" (p. 504). This future-time-sense is at the core of the contemporary futures studies literature (Slaughter, 1999).

Time and History

Steiner (1924/1973a) also held a very large, meta-historical perspective that he characterized as having three stages: *cosmic or heavenly history*, *mythical or mythological* history and *earthly* history.[13] He also refers elsewhere to *non-transitory history* (Steiner, 1904/1959, p. 39), which being beyond linear time, may resemble Gebser's "time freedom." I will primarily illustrate with brief quotes from Steiner's own text, to retain the nuanced flavor of his conceptualizations.

Cosmic/Heavenly History

"Earlier peoples still had this 'heavenly History' in their consciousness, and were indeed far more aware of it than of the Earthly . . . The man of that age, when he came to speak of 'origins,' did not relate earthly events but cosmic" (Steiner, 1924/1973a, p. 143). This appears to relate to Gebser's magical timelessness.

Mythical History

"This . . . was followed by the mythical History . . . [which] combines heavenly events with earthly. 'Heroes,' for instance . . . appear on the scene" (p. 144). This is clearly linked with Gebser's mythical structure. Steiner (1924/1973a) considered these *heroes* to be more highly evolved beings who worked through the initiates and leaders of the time in various places. Wilber's (1996c) two parallel strands of evolution—the evolution of the *average mode* of consciousness and the evolution of the *most advanced* mode of consciousness—concurs with this (p. 339).

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[13] It would be interesting to explore how Steiner's three stages of history might relate to Nietzsche's three modes of history: *antiquarian*, *critical* and *monumental* history, where, in the latter, "exemplary insights from the past flash forward, bespeaking their validity and guiding us today" (Schwartz, 2005, p. 137-138). Or indeed, how Steiner's and Nietzshe's notions might relate to Kristeva's concepts of cyclical, rhythmical time and "monumental temporality . . . all-encompassing and infinite like imaginary space" (Kristeva, 1986, p. 191); or Starr and Torbert's (2005) one-, two- and three-dimensional time notions. See also Sean Kelly (1993). These are interesting pointers for further research.

Earthly History

The origins of formal *history*[14] as-we-know-it, has been present "since the unfolding of the Intellectual or Mind-soul [in ancient Greece]. Nevertheless for a long time [people] continued to 'think' in the sense of what had been before [that is, mythically]" (Steiner, 1924/1973a, p. 145-146). This reflects Gebser's mental time conception. Wilber (1996c) claimed that history began a few hundred years earlier, c. 1,300 BCE, with the Assyrian rulers (p. 213).

Non-Transitory History

Steiner (1909/1959) proposed that freedom from the limitations of linear time could be developed through the new consciousness from the beginnings of the 15th century and increasingly in our times. He also pointed to a new *self-reflective* period where we would be aware of our actions in linear history and also be able to *pay attention to* our own historicity. This insight seems to foreshadow contemporary attention to historicity, arising from postmodern philosophy and hermeneutics. Gebser also spoke of divesting history of "its mere temporality and sequential nature" (p. 192).

Steiner's *Progressive Recapitulation* as *Complex Recursion*

> The many aspects of RE involve simultaneously: a reactivation of the ancestral past, a production and reproduction of present existence, and arrangements for the future. RE always includes a return to the past that resuscitates it in the present. By this movement, RE catapults the past towards the future. (Morin, 2005a, p. 261)

Morin's notion of *RE*—representing complex recursion—appears to align with Gebser's concretion of time and Steiner's progressive recapitulation[15] theory. Steiner (1910/1939) claims that in each new stage of evolution, there is a "recapitulation" of the previous stage in a way that "is something like a repetition of . . . evolution [that] takes place on a higher level" (p. 155). He considers this process to be operating at every level of existence, including the previous stages of cosmic existence of the earth (cosmogony), socio-cultural evolution (phylogeny), and individual development (ontogeny). Morin (2005a) furthers this perspective. "*Innovation is Inscribed in the Return that it Transforms* . . . Evolution is at once a break from repetition, through the upwelling of the new, and the reconstitution of repetition through the integration of the new" (p. 264). Laszlo (2006) observes a similar process in the evolution of societies. "The nonlinear but on the whole progressive evolution of societies is driven by innovations that perturb and eventually destabilize previously stable systems" (p. 105). (See also Deleuze's (1994) notion of repetition and difference).

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[14] The first official *chronological* historians were Herodotus (484BCE-c.425BCE) and Thucydides (460-c.400BCE), the latter taking a systematic historical method that emphasized chronology and human actions. Systematic historical method also began in China with Sima Qian (145-90BCE) of the Han Dynasty, indicative of mental mode time conceptualizations there as well.
http://en.wikipedia.org/wiki/History

[15] I am coining the term *progressive recapitulation* as a descriptor of Steiner's evolutionary perspective. It is not his actual term.

One way to investigate evolution's complex recursivity is to explore relationships between astronomical cycles and anthropo-socio-cultural cycles.[16] While both ancient hermetic science and modern astronomy have investigated such relationships, the potential influence of cosmic/astronomical cycles on the *anthropo-social sphere*[17] has been largely ignored by modern and postmodern social scientists—in spite of having been already postulated as early as ancient Greece. We will now briefly explore the state of research in this area.

Solar *Pre*cessions and the *Deep-Time-Cycles* of the World

> The orientation of the Earth's rotational axis in relation to the stars and clusters of stars is not fixed, but varies slowly, over time, because of the gravitational influence of the Sun and the Moon on the swelling of the Earth's equator. If we extend the earth's axis to the imaginary sphere of the fixed stars, the point of intersection describes a circle of approximately 26,000 years. (Bocchi & Ceruti, 2002, p. 4)

Steiner was the first post-Enlightenment scholar, as far as I have been able to ascertain, to substantially research and document the relationship between astronomical cycles such as the precession of the equinoxes and anthropo-socio-cultural evolution. The notion of the *precession of the equinoxes*, is thought to have been known to the civilizations of Mesopotamia and the Nile valley as early as 3,000 BCE, but only fairly recently formalized by modern astronomy. The complete precession cycle is a period of approximately 25,700 years—the so called great Platonic year—during which time the equinox regresses over a full circle of 360°. While paleoclimatologists have begun to recognize the contribution of this process to cycles of climate change such as ice ages,[18] there is little mention of it in the evolution of consciousness discourse. Although Steiner pointed to these links a century ago, neither Gebser, nor Wilber, have indicated any possible macrocosmic influence on the cycles of change in human culture and consciousness. More recently, a humble resurgence of interest is dawning in this under-researched area of human concern from philosophers (Bocchi & Ceruti, 2002; McDermott, 1984; Tarnas, 2006; Ulansey, 1994), and evolutionary psychologists (Sedikedes, Skowronski, & Dunbar, 2006). Philosopher of science Gianluca Bocchi and genetic epistemologist Mauro Ceruti, using a transdisciplinary narrative approach, draw on the notion of the precession of the equinoxes to illuminate the myths of many cultures that refer to a previous Golden Age[19] (Bocchi & Ceruti, 2002).

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[16] Drawing on a combination of his recapitulation and precession of equinoxes theories, Steiner proposed a U-shaped theory of cultural development, with the Greco-Roman period being the pivotal turning point (Steiner, 1910/1939). He suggested the current emergent culture and consciousness will recapitulate some qualities of the cultures of the fourth period, for example, Ancient Egypt, not as a regression but recursing at a higher more conscious resonance. This could well be interpreted as an example of Gebser's *concretion of time*.

[17] This is one of Morin's composite terms, for which he is famous. "It is interesting to emphasize in Morin's *ecological* perspective the importance of the 'dash,' which establishes the linkages, the connections, that binds the words anew" (De Siena, 2005, p. 423).

[18] The precession of the equinoxes is one of several astronomical cycles that are believed to influence the 100,000-year cycle of ice ages (this being approximately four complete Platonic years of 25-26,000 years). "There are three astronomical variables used in paleoclimatology: the obliquity, the eccentricity multiplied by the sine of the longitude of perihelion, measured from the vernal equinox, [i.e. the precession of the equinoxes] and eccentricity itself." (Varadi, Runnegar, & Ghil, 2003) These three cycles are referred to as the Milankovitch cycles.

Steiner made a unique potential contribution to the evolution of consciousness discourse in this area. He explored in some detail, across numerous books and lectures, the 2,160-year periods of the sun's precession and the relationship of this to the evolution of culture and consciousness According to Steiner (1971a), in his first post-glacial cultural period—the ancient Indian—the sun at the vernal equinox was moving into the constellation associated with Cancer (p. 52). He claimed that it then continued to move every 2,160 years, transitioning through Gemini in the Persian period, Taurus in the Egypto-Babylonian period, Aries in the Greco-Roman period (Steiner, 1971b), and so on. Historian of religion, David Ulansey, has undertaken and published substantial research into the notion of the precession of the equinoxes in relation to the ancient Roman Mithraic religion and their astrological mythologemes related to Taurean metaphors (Ulansey, 1991, 1994). Such research if extended to other cultural periods could be very fruitful. Philosopher, Richard Tarnas, has recently published the results of decades of research on the influence of astronomical events on human culture and consciousness (Tarnas, 2006). His work, however, primarily concerns shorter planetary cycles and not the large macro-cycles being referred to here.

In Summary

Steiner's writing demonstrates a complex dialectic between progressive development and cyclical recursion. Like Gebser's writing, it points to a new stage of consciousness that is capable of beginning the integration of all aspects of human nature. And like Wilber's writing it also foreshadows the potential of further future stages.

Pre-temporal, Temporal and Trans-temporal Notions of *Time*

As demonstrated, Steiner, Gebser and Wilber all identify more than three stages in the development of human conception of time, and all agree that the notion of linear, historical time co-arose with the emergence of mental-egoic consciousness in approximately the first millennium BCE. They each make important distinctions between linear time and our notions of time prior to this. They each identify emergent postformal, integral notions of time. However, they differ in their conceptualizations and languaging of these issues.

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[19] Bocchi and Ceruti (2002) explain how the particular nature of this astronomical event between 4,000 and 3,000 BCE was so dramatic as to mark the end of the *Golden Age* in human myths.

> For people who lived in 4,000 [BCE] the Milky Way traced the path of the Sun, a visible indication of the annual transit of the Sun above the Heavenly equator. This configuration was very symmetrical. The way to the heavens was opened to human beings if they crossed the two mighty gates of Gemini and Sagittarius. . .
>
> The precession of the equinoxes broke this symmetry. The Heavenly gates collapsed. The Sun was exiled in strange . . . regions, a part of the Milky Way sank in the abyss below the heavenly equator. . . . This was the end of the Golden Age. (pp. 5-6)

They explain how this astronomical event was at the basis of the belief that was held as recently as the 17th century by philosophers, theologians and even scientists that the world was created in approximately 4,000 BCE. Some creationists still believe that to this day (p. 3).

Wilber's *Pre-Trans Fallacy* as an Expression of Linear Ascent

Making use of one of his iconic phrases, the *pre-trans fallacy*, Wilber distinguishes between what he calls the *pre-temporal* or *atemporal*[20] *lack of* time sense of the archaic-uroboric consciousness—which he identifies with Freud's *Id* in developmental terms—and the *transtemporal* or *eternal* present. Wilber (1996b) associates the former with temporal ignorance, where "there is no time in it because it is too primitive—too *dumb*—to grasp such notions (p. 90) (emphasis added). He associates the *transtemporal*—using the metaphor of the fifth floor of a building—with the higher levels of development, in the transpersonal realms that he claims are accessing "mystic union" or the "primal Ground of Being" (Wilber, 1996b, p. 90). In this example, the ascended linearity of Wilber's model is foregrounded, with its negative value judgments in relation to earlier/lower levels. However, although he *categorically* states there is a difference between pre- and trans-temporality—just as he does with pre- and trans-rationality—Wilber's writing does not actually bring through the difference phenomenologically. My sense is that he is using his intuition here. He *knows* there is a difference but it is not discernible through his words. Both Gebser's *intensification of consciousness* and Steiner's *heightening of consciousness* appear to be aligned to Wilber's notion on *trans*-temporal as distinct from *pre*-temporal.

Gebser's *Time-Freedom* through *Intensification of Consciousness*

When Gebser (1949/1985) characterized his integral notion of *atemporality*—as distinct from *pre-temporality*—he noted several significant features. He foregrounded the notion of time-*freedom*, and identified the following three characteristics as being expressions of it.

- *Intensification* of consciousness. "Time-freedom is the *conscious* form of archaic, original pre-temporality" (p. 356);
- *Concretion* of the three previous time-mutations. "By granting to magic timelessness, mythical temporicity, and mental-conceptual temporality their integral efficiency, and by living them in accord with the strength of their degree of consciousness, we are able to bring about this realization. . . . The conscious quintessence of all previous temporal forms" (p. 356);
- The *fourth* dimension. "Time-freedom is the fourth dimension because it constitutes and unlocks the four-dimensionality . . . Its conscious form . . . is an *integrative dimension*, or, more exactly, it is the *amension* and not just an expanding or destructive spatial dimension. . . . a-categorical . . ."a-waring" and transparent" (p. 356).

When Gebser speaks of what needs to be concretized in his concretion of time, he is referring to the concretion—or simultaneous consciousness of—the magical, mythical and mental structures of consciousness. In their most condensed forms Gebser (1949/1985) refers to them as "our vitality, psychicity, and mentality" (p. 300).

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[20] Incidentally Gebser makes a clear distinction *between* these two terms using *pre-temporal* for archaic and *atemporal* for integral *time concretion*.

Steiner's *Philosophy of Freedom* through *Heightening of Consciousness*

Steiner identified several factors related to the emergent consciousness, linking it to the development of human freedom and integration of several faculties. Although Steiner (1914/1973c) does not use the term *time-free*, he appears to use the terms *sense-free* or *body-free* consciousness in a similar sense, linking it to notions of heightened consciousness. The following three points bear resemblance to Gebser's notions.

- *Sense-free* consciousness. "Must not be confused with those enhanced mental conditions that are not acquired by means of characterized exercises but result from states of lower consciousness, such as unclear clairvoyance, hypnotism, etc. . . . This inner work consists in a heightening, not a lowering of the ordinary consciousness" (p. 466-467).
- *Heightening of consciousness*. He links this heightened consciousness with being *beyond* notions of temporality or even eternity.
- *Condensation of feelings.* Thirdly, he referred to a process of *condensation of feelings*, similar to Gebser's *concretion of time*.

Expanding on the latter point Steiner (1914/1973c) commented,

> Through continued practice of the soul, that is, by holding the attention on the inner activity of thinking, feeling and willing, it is possible for these "experiences" to become "condensed." In this state of "condensation" they reveal their inner nature, which cannot be perceived in the ordinary consciousness. (p. 453)

From my hermeneutic study of their works, I interpret that Gebser's (1949/1985) text referring to concretion of "our vitality, psychicity, and mentality" (p. 300), echoes Steiner's notion of "condensation of thinking, feeling and willing." I propose that Gebser's *mentality* (mental mode) relates to Steiner's *thinking* (intellectual soul), Gebser's *psychicity* (mythical) relates to Steiner's *feeling* (sentient soul), and Gebser's *vitality* (magic) relates to Steiner's *willing* (also related to magic, nature forces). Thus there is a close alignment between some of their key concepts.

Gebser's Concretion, Wilber's Paradox, and Steiner's Progressive Recapitulation

Gebser's Concretion of Time

Gebser focused powerfully in so many ways on his notion of concretion of time. Although it is arrived at through a linear process, in itself, it has a cyclical character. I have tried to clarify it through presenting his work from a variety of angles as it behoves us to come to terms with a notion he has tried so hard to communicate.

Wilber's Paradox

The underlying paradox of Wilber's temporics is related to the unclear relationship between 1) his vertical multi-stepped transcendent model, where full unity with the Divine awaits the ascent through all the stages; and 2) the actual polar swing between his vertical model and his Timeless-Spirit model, where he (2000a) refers to “that which is actually your own Original face” (p. 141). Perhaps more research could ascertain whether there is a rationale for the different contexts in which one or other model is used. Overall, his work seems to weigh more heavily towards vertical, linearity.

Steiner’s Progressive Recapitulation

In addition to his apparently linear perspectives of time in relation to memory and history, Steiner (1914/1973c) also spoke in other contexts about the dialectical relationship between *temporality*, and notions of *infinity*, *eternity* or *duration*. He also emphasizes the meta-cyclical and recapitulative aspect.

In summary, all three approaches involve varying degrees of complexity in relation to time, including aspects of both linear progress and cyclical return. However, Gebser consciously problematizes issues of progress, slightly favoring the cyclical return model with its emphasis on origin and spiritual immanence; Wilber aspires to a non-dual approach but appears to tacitly favor the linear model with its emphasis on spiritual ascent and transcendence; Steiner’s approach appears to comprehensively integrate both metacyclical recapitulation and progression suggesting its complex, progressive, recursive nature.

Conclusion

This extended temporal analysis has demonstrated that the default, modernist, linear time perspective can be historically contextualized as emerging in ancient Greece in the first millennium BCE, in parallel with the awakening of the intellectual-mental-rational consciousness structure, most notably identified with the origins of western philosophy. Gebser proposed that this default notion of linear time—as well as all previous time senses—could be integrated in the integral-aperspectival consciousness. This integral-atemporal view transcends and includes the three earlier time perspectives: magical timelessness, mythical cyclicity, and mental linearity.[21] His view is supported by Steiner’s and Wilber’s evolutionary views on time, though in their own distinct ways. It is in this complex, integral view of time that my evolution of consciousness narrative is situated.

There are many theoretical implications arising from these perspectives that could make a substantial contribution to the current state of theorizing about time. However, such extensive research is beyond the scope of this appendix.

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[21] Since there is no time sense in the Archaic it cannot be included.

Appendix B: Cosmic Kinship: A Micro-Macro View of Space

Introduction—Interrogating the Space of *Space*

> Our planet requires polycentric thought that can aim at a universalism that is not abstract but conscious of the unity/diversity of the human condition; a polycentric thought nourished by the cultures of the world. (Morin, 2001a, p. 52)

As far as we know, or can determine at this point in our global knowledge capabilities, the earth is the *only-born child* of her kind in the cosmos. In spite of our common biological ancestry with other mammals,[1] we humans appear to be the most biologically suitable species to play an active role in earth's nurturing care. Yet the imbalance that has arisen from the over-extension of the egoistic aspects of mental-rational consciousness has led to the polar opposite of care for our only planetary home. The imminent possibility of a major planetary catastrophe, and a climate increasingly inhospitable for human habitation—already correlated with mass extinction of species—demands an urgent reframing of human relationships with nature and the cosmos. The insights that have arisen from the narratives of Steiner, Gebser and Wilber may throw new light on concepts of cosmos and space—aligned as they are to Morin's notion of *polycentric* thought. Gebser (1949/1985) claimed that as the mental-rational mode of thinking took hold, particularly in Europe, it facilitated a new spatial awareness that gradually turned into an overemphasis on space and spatiality that increased with every century since 1500 (p. 22). This led to the victories and horrors of the *Age of Discovery*—which as Edgar Morin indicates was the beginning of the *Planetary Age.* In the last few decades—once the geographic exploration of the earth was exhausted—this developed into a new obsession with scientific explorations in *outer* space.

My interest in this brief appendix is to interrogate some of the taken-for-granted assumptions of modernist notions of *space*. Such an interrogation is already underway in several contemporary discourses, such as postmodern philosophy (Benko & Strohmayer, 1997; Foucault, 1986); feminist geography (Aiken, Brigham, Marston, & Waterhouse, 1988; Ainley & Ainley, 1998); queer theory (Brown, 2000; Cruz-Malave & Manalansan, 2002); postcolonial perspectives of cultural theory (Cruz-Malave & Manalansan, 2002; Mathani, 2001); and emergent integral explorations of *liminal conceptual space* (Hampson, 2007). These reformulations of *space* focus primarily on the opening up of cultural and social space, and thus also conceptual/noospheric space. I am particularly interested in pointing to how the modernist worldview based on scientific materialism has colonized the noosphere[2] with respect to our concepts of *planetary* space and *outer* space—by way of its *physicalist* metaphors drawn from classical physics.[3]

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[1] It is noteworthy that our brains are second only in complexity to dolphins (Russell, 2000).

[2] The *noosphere* is "the envelope of thinking substance" and is more fully discussed in the main paper (Teilhard de Chardin, 1959/2004, p. 151).

[3] This is not to underestimate the value of classical physics nor to suggest that developments in the science of cosmology throughout the 20th century—such as *the anthropic principle* (Barrow & Tipler, 1986) and the *metaverse theory* (Davies, 2007; László, 2007)—do not contribute to postformal conceptual

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I propose that a new look at relevant concepts from a postformal, integral-planetary lens could re-introduce other notions such as *inner* space to complement *outer* space, cosmo*sophy* to complement cosmo*logy*, *soul/spiritual* space to complement *physical* space, and *planetization* to complement *globalization*. These *other* components of space have become marginalized by the one-sided emphasis of scientism. I have drawn quite strongly here on the pioneering spiritual evolutionary theories of Pierre Teilhard de Chardin (Teilhard de Chardin, 1959/2002, 1959/2004) and the ecological philosophy of Edgar Morin (Morin, 2001a, 2005a; Morin & Kern, 1999). They have both contributed enormously to a spiritual reconfiguration of humanity's place—and responsibility—in nature and cosmos. Additional literature is incorporated where relevant. This appendix is a work in progress. It is not conclusive, but rather points to some new areas for integral research and to some additional resources that also point to a renewal of spatial metaphors.

The Hermetic Science of Unitive Space—*As Above so Below*

> That which is Below corresponds to that which is Above, and that which is Above, corresponds to that which is Below, to accomplish the miracles of the One Thing.[4]

Up to and including the mythic structure of consciousness, according to Gebser (1949/1985), humans lived within an undifferentiated sense of space, "as a simple inherence within the security of the maternal womb" (p. 10). Oases appeared and disappeared; river valleys flooded and baked; and rambling farming settlements began to evolve into cities, along the Nile, Tigris-Euphrates, Indus and Huang He valleys. In the civilizations of Egypt and Mesopotamia, with their clear desert skies, and their pictorial imaginations, the people felt a special relationship with the sparkling stars in the celestial dome overhead. The Egyptian astronomer-priests directed the placement of buildings according to astronomical orientations, while the pyramidal buildings of these times reached up to the sky. The Hermetic[5] sciences were profoundly unitive sciences based on a perceived intimate relationship between the macrocosm and the microcosm. Yet this ancient wisdom was held within a mythic consciousness.

The Hermetic notion of the sacredness of the relationship between human, earth and cosmos—including the mathematico-geometric proportions therein—continued to inspire human aspirations for thousands of years. It is most notably articulated in sacred geometry (Lawlor, 1982) as expressed in temple, mosque and cathedral architecture, which seeks to mediate the rift between the human on earth and the divinity of the cosmos. This Hermetic integration of science,

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emergence. Rather, I am suggesting that the potentially highly significant implications of the latter have not been fully explored philosophically.

[4] These words were translated by Sir Isaac Newton from the *Emerald Tablet*—a Hermetic text attributed to Hermes Trismegistus, the legendary founder of the Hermetic tradition (Dobbs, 1988). See also the Sussex University *Newton Project* http://www.newtonproject.sussex.ac.uk/prism.php?id=1.

[5] According to legendary oral records, Hermes Trismegistus, an ancient Egyptian spiritual leader, originated the Hermetic sciences. Johannes Kepler linked his Hermetic writings with the ancient Egyptians in recently translated writings on the *musica mundana*—or *harmony of the spheres*—available for the first time in English via the Schiller Institute in Washington, DC (Kepler, 1619/1997). More information about the *Kepler Project* of the Schiller Institute is available. http://www.wlym.com/~animations/harmonies/index.php

art and spirit continued to inspire leading-edge scientific thinkers such as Kepler[6] and Sir Isaac Newton[7] during the transition to modern science—and this realization is leading to some dramatically new ideas on their *other* marginalized writings (Watson, 2005). Gradually the mental-rational consciousness became more established in Europe through the Copernican revolution in cosmology; Cartesian dualism in thinking; the Kantian barrier between our interpretive thoughts and the *thing in itself* (Tarnas, 1991); and a materialistic form of scientific empiricism.[8] Synchronously, the Hermetic-scientific sense of an ensouled cosmos—or *anima mundi*—slipped slowly out of sight.

The Materialistic Rationalization and Colonization of Space

Emergence of *Planetary* Space—in the 15th Century

> In 1492, these small, young nations [Spain, Portugal, Britain] set out to conquer the globe, and their adventures of war and death brought the five continents into communication and opened the planetary era, for better or for worse. (Morin, 2001a, p. 53)

The mythic sense of interwovenness between earth and cosmos—and between *inner* soul space and *external* physical space—continued in Europe until the 14th century. This is difficult for us to imagine today with our taken-for-granted understanding of the physical territory of the earth—gained through the discipline of geography; and our exponentially expanding notions of the extent of the cosmological universe—as taught to us by the sciences of astronomy and physical cosmology. Gebser points to the exact moment in global history—in the early 14th century—when someone saw, for the first time, the physical landscape of the earth, from an objective mental perspective, rather than a dream-like inner-soul response. In the same way that medieval humans were afraid to sail too far out from shore so as not to fall off the *flat earth*, humans were also, collectively—according to Gebser—afraid to climb mountains, which we believed were the homes of the Gods. In 1336, Petrarch climbed Mount Ventoux, near Avignon in the French Alps, breaking a cultural taboo, and reaching into the wonder of the new world of the explorers. For Gebser (1949/1985) this represented a fundamental shift into spatial awareness, not just for Petrarch but also for humanity.

> For his time, his description is an epochal event and signifies no less than the discovery of landscape: the first dawning of an awareness of space that resulted in a fundamental alteration of European . . . attitude in and toward the world. (p. 12)

Gebser emphasized his point by quoting the final words of Petrarch's *letter of confession* about his discoveries. Petrarch stated: "So much perspiration and effort just to bring the body a little closer to heaven; the soul, when approaching God, must be similarly terrified" (p. 14). This reflects the spiritual reverence that was embedded in this discovery that marked a turning point in European consciousness about the land. Less than a century later, throughout the 15th century, the Portuguese and Spanish explorers set sail to find new lands, marking the beginnings of the physical expression of what Morin refers to as the planetary era. Morin's view is coherent with Steiner's and Gebser's claims that the new consciousness began to emerge in the 15th century. This new *Age of Discovery* laid the first physical foundations for what we now see arising in the noosphere as postformal-integral-planetary consciousness.

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[6] Arguably the origins of western science were based on Hermetic science until the 17th century CE (Kepler, 1619/1997).

[7] The *Newton Project* is uncovering, translating and publishing online Newton's previously unknown theological and alchemical writings. http://www.newtonproject.sussex.ac.uk/prism.php?id=1

[8] Alternatives to *materialistic* forms of scientific empiricism have been offered along the way through Goethe's *delicate empiricism* (Holdrege, 2005; Robbins, 2006); James' *cosmological realism* (Gitre, 2006); and Whitehead's process metaphysics (Gare, 1999), yet they have not gained substantial noospheric traction.

Socio-cultural Space—Colonization > Globalization > Planetization

> Human history began with a planetary diaspora across all the continents and in modern times entered the planetary era of communication between fragments of the human diaspora. (Morin, 2001a, p. 53)

Colonization[9] first arose on a grand, planetary, and destructive, scale from the 16th century, as a result of the European expansion into the *new world*. Indigenous cultures around the planet have been—and are still being—devastated, particularly in the three Americas (north, central and south), Australia, China and many parts of South-east Asia. Colonization—and its associated ideology—colonialism, resulted in "irremediable catastrophic cultural destruction and terrible enslavement" (Morin, 2001a, p. 53). A UNESCO research project on this issue currently describes the situation as follows.

> The cultures of indigenous peoples are in danger of dying out . . . These populations number some 350 million individuals in more than 70 countries in the world and represent more than 5000 languages and cultures. Today many of them live on the fringes of society and are deprived of basic human rights, particularly cultural rights.[10]

Globalization is arguably a complex politico-economic and socio-cultural phenomenon, yet its primary expression is through a politico-economic movement of large multinational corporations purportedly contributing to a *trickle-down effect* in global wealth distribution while competing for market share (Deardorff, 2002). There is a secondary transmission of cultural values, which is highly contested. From the perspective of many postcolonial scholars it is a *weapon of mass destruction* of cultural identity and diversity—and has been referred to as the *McDonaldization of the world* (Alfino, Caputo, & Wynyard, 1998; Gidley, 2001d; M. Jain & S. Jain, 2003). Furthermore, the enthusiasm and idealism that pervaded the early geographical exploration of the earth's surface, seems to have deteriorated over centuries to a stale, disenchanted attitude to the as-yet-untamed parts of the earth. Not only are the remaining forests and oceans considered to be simply material resources for the wealthy and powerful to use and abuse, but the endangered and disappearing cultures are, at worst, a cheap resource to exploit in the name of *economic progress* or, at best, a *cultural artifact* to exploit for tourism purposes (Hunter, 2006).

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[9] The original Proto-Indo-European (PIE) base root was **kwel-* "move around" and this has occurred since the beginning of human habitation of the earth. Even the Latin root *colere* "to inhabit, cultivate, frequent, practice, tend, guard, respect," has a relatively harmless ring to it. Yet, the form of colonization that occurred from the beginning of the mental-egoic period and intensified in the 15th century had the new character of ego-dominance with its attendant *lack* of respect.
http://www.etymonline.com/index.php?search=colony&searchmode=none
Its destructive impact has been deepened through its association with the ideology of colonialism, which claims "some nations, languages and cultures are superior to others, thereby giving them the right to colonize the territory of 'inferior' nations." http://www.penllyn.com/cymuned/papurau/colonization.html

[10] http://portal.unesco.org/culture/admin/ev.php?URL_ID=2946&URL_DO=DO_TOPIC&URL_SECTION=201

By contrast, *planetization*, as conceived by Teilhard de Chardin—and others inspired by his work—may provide a counterbalance to the hegemonic excesses of globalization. The notion of planetization[11] involves not domination but awareness and respect for the richness of cultural diversity. Teilhard de Chardin (1959/2002) refers to planetization as a *mega-synthesis* through which "the outcome of the world, the gates of the future . . . will only open to an advance of *all together*, in a direction in which *all together* can join and find completion in a spiritual renovation of the earth" (pp. 243-245). He emphasized that this cannot by achieved merely by the pressure of *external* forces—such as totalizing governments—but needs to unfold from within human hearts "directly, centre to centre, through *internal* attraction . . . through *unanimity* in a common spirit" (p. 112). He identified several postformal features in the planetization process—increasing *complexity*; the *reflexion* of the Noosphere upon itself; the closing of the *spherical, thinking circuit*; and the *rebounding* of evolution upon itself—a type of complex recursion.

Cosmic Space—*Tellurianization*[12] of the *Kosmos* in the 20th Century

> The overemphasis on space and spatiality that increases with every century since 1500 is at once the greatness as well as the weakness of perspectival man. (Gebser, 1949/1985, p. 22)

After five centuries of exploration and colonization of the planet, the ego-drive to conquer space eventually led to such advanced technology that we began to extend our reach, beyond our home planet into *outer space*. Interestingly, the early space explorations were attended by a similar sense of reverence for the divine, to that felt by Petrarch, over 600 years earlier. Edgar Mitchell one of the astronauts on Apollo 14—the third mission to land on the moon—had the following experience on his voyage home. The following text is an extract from *The Noetic Sciences Institute* website.

> Sitting in the cramped cabin of the space capsule, he saw planet Earth floating freely in the vastness of space. He was engulfed by a profound sense of universal connectedness—an epiphany. In Mitchell's own words: "The presence of divinity became almost palpable, and

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[11] The distinction I am making between *globalization* and *planetization* is further discussed in the main narrative.

[12] From Latin: *tellus* meaning *earth*. The adjective *tellurian*, means, "Of or relating to or inhabiting the land as opposed to the sea or air." I have created a composite noun from tellurian. http://www.websters-online-dictionary.org/definition/tellurian

> I knew that life in the universe was not just an accident based on random processes. . . . The knowledge came to me directly."[13]

It seems that each new development has begun with reverence and humility, but later is taken over by greed for ego-accomplishment. As part of this colonization of outer space, we have imposed materialistic-earthly-metaphors from classical physics on the cosmos—which previously was regarded as the source of the Divine. While quantum physics has shaken the foundations of scientific theories at the micro level, the full implications of it for theories at the macro level are yet to be adequately explored. Perhaps we could ask ourselves: Is it really appropriate to be spending such massive resources on trying to ascertain whether there is life on Mars, at the very time in planetary history when the human species is at the tipping point of destroying life on Earth? A critical approach to economic theory including global wealth distribution is also required (Eisler, 2007). It is imperative in our current planetary crisis, that we de-familiarize this privileging of *outer* space, particularly when it is so out of balance with our sense of *inner* space (Kelly, 2007). This obsession with conquering and colonizing outer space is an eloquent expression of an overextension of the ego-mental faculties. For the duration of two millennia these thinking powers have tamed and transformed the earth through architecture, road, sea and air infrastructure, and technology. Arguably, these processes of development can be justified as long as they are sustainable, but this is no longer the case. The work of conquering and colonizing the planet is over. The work of caring and nurturing must begin in earnest.

Cosmic Kinship—An Ecology[14] of Evolving Concepts

One way to increase our awareness of our fragile planetary situation might be to foreground the prefix *cosmo*. The following is a deconstruction and reconstruction of some common—and not so common—terms that infer our planetary status as one of kinship with the cosmos. There is an interesting family of terms—including *cosmology*, *cosmogony*, *cosmosophy* and *cosmography*—that deal with knowledge about the cosmos, its origins and the place of humans in it. The term *cosmos* itself originated from the Greek *κόσμος* meaning "cosmos, the world," or in some translations, “a sense of *order*, in contrast to *chaos*.” By a focus on the prefix *cosmo-*, I intend to build stronger conceptual links between our largely anthropocentric, *tellurian* notions of space on the one hand and authentically *cosmic* notions of space on the other. I am endeavoring to pick up leading-edge developments in the evolution of language as it is happening in the world at the present time through a kind of noospheric environmental scanning—or remote sensing.

Cosmos

The term *cosmos* itself has begun to appear in various discourses, with broader meanings than that used in cosmology discourses from the physical sciences. Three new journals have appeared that link the term cosmos or Kosmos with broader issues: *Cosmos and History: the Journal of Natural and Social History*; *Culture and Cosmos: A Journal for the History of Astrology and Cultural Astronomy*; *Kosmos: An Integral Approach to Global Awakening*. It is worth noting that Wilber uses the term *Kosmos* to distinguish his more integral, spiritual notion from purely physical cosmological notions. He has written a trilogy called *The Kosmos Trilogy* —the first of which is published in book form (Wilber, 2000d); Tarnas (2006) has recently published *Cosmos and Psyche: Intimations of a New World View*.

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[13] Edgar Mitchell, based on the inspiration described here, founded the Noetic Sciences Institute, in California, one of the first educational institutions in the USA for nurturing integral-planetary consciousness. http://www.noetic.org/about/history.cfm

[14] Notwithstanding the illustrious uses of the term *ecology*, not the least by Gregory Bateson (2000) in his *Steps to an Ecology of Mind*, I first came across the phrase “ecology of concepts” in conversations with Gary Hampson, who illuminated and inspired my thinking on this idea.

Cosmology

Probably the best-known term in this cosmo-family is *cosmology*: the study of the structure and changes in the *present* universe.[15] Although this may take the form of mythical, religious or philosophical cosmologies, the *default* usage today would most likely refer to cosmology as a branch of astrophysics. The shift from the unitive hermetic sciences—with their ensouled notions of the cosmos as *anima mundi*—to the starkly materialistic cosmology of 20th century science, was marked by centuries of overlap. As hinted earlier, the founders of modern physical cosmology, Tycho Brahe (1546-1601), Galileo Galilei (1564-1624), Johannes Kepler (1571-1630), Isaac Newton (1643-1727), were all hermetic scientists, who studied the psycho-spiritual-sciences of alchemy and astrology[16] as well as physics. A question that could be posed here is how and why did the more spiritually-oriented hermetic side of cosmology and astronomy become buried under the weight of materialism for two to three centuries?

Cosmogony⇨ Cosmogenesis: From Big Bang to *In*-formed Meta-verse

Perhaps a lesser-known term than cosmology is *cosmogony*. According to NASA the scientific field of cosmogony is distinct from cosmology in that cosmogony is more concerned with the *origin* of the universe.[17] In a similar way to cosmology, there are other theories of cosmogony that are not based on scientific materialism. Questions of the origin of the universe, the earth, life and humanity have, as far as we know, been asked by humans for millennia. Some of these theories of origin are based on spiritual philosophies, as will be discussed below. Perhaps a conceptual bridge could be made here via the transformation of scientific thinking that has occurred as an outcome of the new biological theories arising from chaos and complexity science, and notions of self-organization and emergence. Building on these perspectives, integral cosmologist Brian Swimme (1992, 1999) refers to the emerging shift to complex, morphogenetic and cosmogenetic notions arising from postformal biological models of complex adaptive systems. Swimme builds on Teilhard de Chardin's use of the term cosmogenesis to describe the cosmological process of the creation of the Universe. Teilhard de Chardin (1959/2004) viewed his notion of cosmogenesis as a foundation for the later processes that he called *biogenesis*, and *noogenesis*.

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[15] For consistency, I am using the definitions for both cosmology and cosmogony from the NASA website. In some notes for teachers the following comment is made. "Observations about the present universe may not only allow predictions to be made about the future, but they also provide clues to events that happened long ago when the chemical evolution of the cosmos began. So—the work of cosmologists and cosmogonists overlaps.
http://genesismission.jpl.nasa.gov/educate/scimodule/Cosmogony/CosmogonyPDF/CosCosmolTT.pdf

[16] Even in Kepler's time, there was no clear distinction between astronomy and astrology (Banville, 1990).

[17] See also earlier note on *cosmology*.

> A cosmogenesis embracing and expanding the laws of our individual ontogenesis on a universal scale, in the form of Noogenesis: a world that is *being born* instead of a world that *is*. (pp. 80-81)

As indicated in the main narrative, diverse theories of evolution hotly contest the degree to which humans with their mental faculties have evolved through random selection, complex adaptation, or *autopoiesis*.[18] Although the new science of emergentism is beginning to discuss the emergence of complex, moral and spiritual dimensions in human nature, this theory is still based on the metaphysical assumption of the primacy of matter, whereby any emergent dimensions are completely *new* appearances.

Steiner, Gebser and Wilber all make significant contributions to this conversation. Although their views diverge somewhat all three share the heterodox idea that prior to matter and the subsequent evolution of matter, there was a spiritual *origin*. In all their views, it could be stated that ontogeny recapitulates not only phylogeny but also cosmogony (Grossinger, 2000, p. 705)

The notion that ontogeny recapitulates phylogeny[19] was developed by biologist Ernst Haeckel in the late 19th century. Anthropologist, Grossinger (2000) takes the view that Haeckel was actually dealing in "information theory[20] and deep structure," (p. 330) but because he preceded structuralism, he clothed his theories in natural science. Such a cybernetic version of recapitulation could be seen to foreshadow the recent scientific notion that a complex invisible dimension is infolded within the material world. Bohm's *implicate order*, Rupert Sheldrake's *morphic field* and, more recently, Laszlo's *Akashic Field*, require further investigation in this regard (Bohm, 1980; László, 2006; Sheldrake, 2006). These theories of an *in-formed* universe, also underpin current meta-verse theories. Laszlo (2007, p. 38-42), citing several metaverse theorists, and Davies, propose that our universe was birthed from a Metaverse—the mother of all universes. Davies (2007) refers to "a family of universes multiplying ad infinitum, each giving birth to new generations of universes . . . With such cosmic fecundity, the assemblages of universes—or metaverse . . . might have no beginning or end" (p. 138).

This endless cyclical aspect of the cosmos is also proposed by cosmologists Paul Steinhardt and Neil Turok (2002) who claim ". . . the universe undergoes an endless sequence of cosmic epochs" (László, 2007, p. 42). It seems that these postformal science theories are bringing us back, full circle, to the cyclical notions of mythological cosmologies. I suggest that there are also parallels between Laszlo's and Davies' theories of a Meta-or Mother-universe—incorporating Laszlo's in-formation rich Akashic field—and Steiner's, Gebser's and Wilber's notions of spiritual *involution*[21] prior to the biological *evolution* of matter (Davies, 2007; Gebser, 1970/2005; László, 2007; Steiner, 1971c; Wilber, 2001b). Such a proposition may point to some fruitful potential for future research.[22]

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[18] *Autopoiesis* refers to self-organization in a complex adaptive system (Maturana & Varela, 1991).

[19] For an analysis of the state of play in late 20th century biology theory, see Stephen Jay Gould*, Ontogeny and Phylogeny* (Gould,1985).

[20] For Grossinger (2000), Haeckel's ontology was cybernetic and syntactic rather than mechanical. He claims that it was this tacit *symbological* thread of Haeckel's biogenetic ideas that echo in the ideas of Steiner, Freud and Piaget who drew on the developmental metaphor of recapitulation for their cultural, pedagogical and psychological theories (p. 330).

Cosmosophy

Perhaps even less familiar is the word *cosmosophy*, which derives from the Greek combination-*cosmos* and *sofia*, meaning the *wisdom of the cosmos*, with the understanding that the Greek sense of Wisdom was intimately connected to Love. Cosmosophy may also refer to the place of the human being in the cosmos. The notion of cosmosophy, possibly a Hegelian concept, having in modern times passed through Steiner (1921/1985), appears to be undergoing a revival of interest—most notably through Morin—as integral thinkers struggle to find new ways of expressing postformal ideas. For Steiner, cosmosophy was an evolution of cosmology through an inner development that infuses Wisdom with Love.[23] This echoes Morin's *Cosmosophic* perspective, as summarized by Santa de Siena (2005) as "*love for* the cosmos" (p. 435). "In interrogating the notion of eco, Morin opens the *Oikos*, the *common home* of the *living*, a *cosmo-philosophy*, a *planetary* perspective implying the idea of *munus*, of *reciprocity* toward all those who give *us* life" (p. 437). While *physical* cosmology is knowledge of the external physical cosmos discovered through the observing intellect, in Steiner's poetic interpretation, cosmosophy would be knowledge of the cosmos, "which blossoms like a flower in the depths of the individual soul."

> The science which arises from this cannot be measured by its power of abstract reasoning but by its power to bring souls to flower and fruition. That is the difference between 'Logia' and 'Sophia,' between science and divine Wisdom. (Steiner, 1978a)

Contemporary researchers who have begun to recognize the appropriateness and depth of this notion include Come Carpentier de Gourdon (2002), who sees cosmosophy as a way of reconciling scientific knowledge and spiritual culture, and John Toomey (2007), who defines cosmosophy as the confluence between cosmology—as the study of the universe; and philosophy—as the love of wisdom.

Cosmography

Like many of the other terms discussed above *cosmography* also has a *default* scientific meaning. The term is used for "the science that maps the general features of the universe;

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[21] Sri Aurobindo has also written extensively on the notion of spiritual involution as being intimately interconnected with evolution (Aurobindo, 1909, 2000). Further research in preparation (Gidley, 2007c).

[22] On a somewhat lighter note, it appears that the notion of *cosmogenesis* is beginning to move into wider spheres of culture. A leading postmodern landscape architect is proposing a move towards architecture informed by complexity science and reflecting cosmogenetic principles (Jencks, 1997).

[23] Steiner referred to a three-stage development in this regard. "The progress of humanity is from unconscious [mythic] spirituality, through intellectualism (the present age), to *conscious* spirituality, where the [emotional] and intellectual faculties unite once more and become dynamic through the power of the Spirit of Love, divine and human" (Steiner, 1978a, Lecture I).

describes both heaven and earth (but without encroaching on geography or astronomy)."[24] Clearly, when one begins to speak about *heaven* as well as *earth*, the notion of cosmography can appropriately be broadened beyond science. It is intriguing that we have a well-known term, *geography*—usage of 1,481 per 100 million words[25]—for the mapping or description of the earth[26] yet the counterpart term, *cosmography*, for mapping or writing about the cosmos, is far less used—usage of 3 per 100 million words. Using the etymological root *graphia* "description," from *graphein* "write," the term cosmo*graphy* could be used to refer to how we describe, or write about, the cosmos. This *narratival* sense of *cosmography* is beginning to reflect postformal thinking.

Buckminster Fuller made some inroads into a postformal approach to cosmography with his notion of *cosmic conceptioning* (Fuller, 1992). Recently, social scientists Lesley Kuhn and Robert Woog, have developed the notion of *complexity cosmography*. They draw on concepts from complexity theory—such as self-organization, dynamism, and emergence—to develop narratives appropriate for social inquiry (Kuhn & Woog, 2007). Their complexity cosmographies utilize narratives that are generated through what they call *coherent conversations*—that is conversations that include postformal characteristics such as self-reflexivity, intuition and construct awareness. Kuhn and Woog (2007) are undertaking pioneering postformal research, by taking several key concepts from complexity science—originally formulated as mathematical concepts—and reshaping them in prose, as a basis for social inquiry, e.g., fractal dimensions become *fractal narratives* (p. 177); mathematical *phase space* becomes *phrase space* as a literary device related to construct awareness in narrative and discourse (p. 181). Although they are not using their complexity cosmography to write about the cosmos as such, they are opening up new possibilities for human narratives—fractal, non-linear, recursive—that could provide a template for cohering our complex relationships as humans with the cosmos. Another relevant contribution to a re-enlivening of cosmic conceptioning—to use Fuller's term—is the notion of the *narrative universe*. Although Swimme (1999) and Bocchi and Ceruti (2002) do not use the term *cosmography*, they are indeed writing new postformal cosmographies.

Cosmopolitanism

A postformal-integral-planetary consciousness, as developed in this research, emerges through a re-awakening of the roots of its own being in the archaic, magic, mythic and mental structures of consciousness. Instead of being stuck in the ego-mental space of individualism, territorialism and nationalism, we may begin to appreciate a broader planetary space. If we wish to understand more about our marginalized spirituality, vitality and imagination, we need to step beyond our ego-bound intellectual-mentality and glance at the spirituality, vitality and imagination among the disappearing cultures whom our hegemonic mentality has marginalized. There are indigenous and traditional people on every continent who may know more than modernist western science can imagine, about these other structures of consciousness. This is not a regressive romantic plea or some re-vamped version of the 19th century *noble savage*. It is a conscious integral philosophic stance towards a new cosmopolitanism—an honoring of all cultural treasures. All people need to go through all structures, including ego-mental, to be able to reach a fully integral-aperspectival awaring. However, the emphasis has been too strongly on culturally *progressing* and *transcending*—particularly through techno-economic rather than humanitarian values—with insufficient consideration of cultural *pluralism*, *preservation* and *inclusion*.

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[24] Cosmography definition can be found at, http://www.websters-online-dictionary.org/definition/COSMOGRAPHY

[25] Word usages are found in the Webster's online dictionary. http://www.websters-online-dictionary.org/definition/COSMOGRAPHY

[26] Geography from Gk. *geographia* "description of the earth's surface," from *ge* "earth" + *-graphia* "description," from *graphein* "write." http://www.etymonline.com/index.php?search=geography&searchmode=none

Such a postformal, integral-planetary consciousness is evident in philosopher Kwame Anthony Appiah's recent book *Cosmopolitanism: Ethics in a World of Strangers* (Appiah, 2006). Appiah appears to successfully steer a course that critiques both the imperializing influence of extreme *liberal universalism* and also the vagaries of *cultural relativism*. His notion of *universality plus difference* echos the ideals of this narrative, and others (Morin & Kern, 1999; Poletti, 2005).

A Neo-Hermetic Renaissance—Reintegrating Micro-Macrocosms

This evolutionary journey of interrogating spatial concepts has pointed to the loss of the perceived unitive connection between the microcosm and the macrocosm, through centuries of scientific materialism. Yet this was a necessary part of the clear formulation of rational notions of the physical components of the universe. However, as a marker of the emergence of postformal, integral movement/s of consciousness, there is a renaissance of interest in the hermetic sciences within the academy. As discussed earlier, both the Newton Project and the Kepler Project are uncovering and researching the extensive theological and alchemical writings of these scientists.[27] In addition, researchers are uncovering and revisiting some of Darwin's original—yet marginalized writings on love and morality (Loye, 1998, 2004; Richards, 1992, 2002). These developments suggest a reintegration of modern and Hermetic sciences—of microcosm and macrocosm—from a postformal noospheric space of fully awake consciousness. These moves are all indicative of Gebser's *concretion of time,* Steiner's *progressive recapitulation*, and Wilber's *vision-logic*, which are to be expected today and have been detailed more fully in Appendix 1. It is illustrative of integral-planetary consciousness breaking through.

Indicators of Postformal-Integral-Planetary Re-Conceptualizations of Space

> Post-modernity can be understood as the loss of terrestrial centrality, of the *dominating uniqueness* of one species, the peripherization and opening to the *living*, the knowing consciousness of *biodiversity*—the beginning of a humanity that gives the Cosmos back to the Cosmos. (De Siena, 2005, p. 426)

A scan of developments in emergent language usage points to significant breakthroughs in the re-conceptualization of space. I have chosen a small number of spatially-oriented terms from the literature that are suggestive of a postformal-integral-planetary consciousness.

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[27] An additional project is being undertaken on Newton's alchemical writings at the Indiana University in collaboration with the US National Science Foundation http://webapp1.dlib.indiana.edu/newton/index.jsp.

Trans

The prefix *trans*- is a postformal spatial metaphor at least in relation to noospheric space. It is being increasingly used in such contexts as trans-personal (Braud & Anderson, 1998; Ferrer, 2002; Walsh & Vaughan, 1993; Wilber, 1996b, 1996c), transform/transformative/transformation (Earley, 1997; Ferrer, Romero, & Albareda, 2005; Gangadean, 2006b; Grof & Grof, 1989; Hart, 2001; Inayatullah & Gidley, 2000; Montuori, 1997; Schwartz, 1999; Sinnott, 2005; Starr & Torbert, 2005; Thompson, 2001), trans-disciplinary (Gidley, 2002a; Nicolescu, 2002; Volckmann, 2007), and trans-national (Boulding, 1990; Mato, 2000). While not in itself denoting a link to cosmic dimensions, it certainly denotes a mood of expansion. It suggests a movement away from metaphors of *the known* to metaphors of *the something more*—perhaps even transcendence (Bergo, 2005; Braxton, 2006; Cook-Greuter, 2000; Goodenough, 2001; Perl, 1999; Sonya, 1993) or renewed notions of the transcendental (Brun, 2005; Bryant, 2000; Robinson, 2007).

Ecology

Ecology is also a term that is appearing in numerous contexts—ecology of mind, education, commerce, imagination and concepts. Ironically, the Greek term *oikos*[28] is the root of the two concepts: *eco*nomics and *eco*logy. While *economics* in its deficient form—i.e. an economic rationalism that is beholden to corporate greed—is contributing to the destruction of our planetary home, *ecology* is the science that is purportedly trying to save the planet. It carries an integral or holistic sensibility as it concerns the relationships between components within space—sometimes referred to as *connectionism* (Bache, 2000; Berman, 1981; Berry, 1988; Hicks, 1995; Jardine, 1998; Lovelock, 1979; Ornstein & Ehrlich, 1991; Varela, Thompson, & Rosch, 1993).

Planetary

As discussed in the main paper, the term planetary is also increasing in use in a range of discourses (Earley, 1997; Gangadean, 2006a; Montuori, 1999; Swimme & Tucker, 2006). It is almost becoming a household word. This appendix has endeavored to stretch the concept of planetary to include such meanings as planetary crisis, planetary cultures and planetary consciousness.

Noospheric Space—Cultivating Integral Noodiversity: A Personal Perspective

> The new planetary culture can be a shining example of unity-in-diversity, or *unitas multiplex*. It will be robustly diverse, intermixed to the core, and filled with awe at the rich lineages of our common past. (Ceruti & Pievani, 2005, Abstract)

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[28] *Oikos* is from ancient Greek: οίκος, plural: οίκοι) meaning household, house or family. http://www.etymonline.com/index.php?search=ecology&searchmode=none

> [Morin's cosmosophy] is a *principle of inclusion* . . . to open to the *Oikos*, the life of life, the life of ideas, the existence of all species, in the multiplicity of social, cultural, and logical diversity and specificity, of the different emerging levels and orders of reality. (De Siena, 2005, p. 424)

Although there is an emergence of new integrative material from within both science and the humanities, there is still a predominance of researchers who do not refer to scholarly research from neighboring disciplines. This isolationism makes it difficult for integrative approaches—approaches that do not fit neatly into one discipline. There also appears to be a lack of attention overall in the Anglophone academic world—particularly in the USA—to substantial works that originated in another language, such as German (Steiner, Gebser, Benedikter), French (Derrida, Deleuze, Morin) and Italian (Bocchi, Ceruti, de Siena, Pievani). While some of this relates to translation issues, I propose that some of it is related to a lack of prioritization. In regard to the nurturing of integral noospheric diversity, I wish to draw attention to the notion of multilingualism as an emerging issue that needs to be included on any integral map.

Based on some preliminary field research[29] into the development of integral thought, globally, I have noted that there is an emergent proliferation of integral writings arising from the USA, and also a number of higher education centers developing integral studies. However, much of the literature is strongly American centric, drawing on a fairly local body of research with some of it bordering on ideological territorialism. An exception is the contribution of the California Institute of Integral Studies—particularily Alfonso Montouri and Sean Kelly for the translation and dissemination of Edgar Morin's French writings (Montuori, 1999; Morin & Kern, 1999). By contrast, integral thought is less explicit and tangible in Europe—with the term *transdisciplinary* (Nicolescu, 2002; J. Visser, Barach, John, & Visser, 2007) apparently favored over *integral.* While clearly the roots of American integral theory have originated from European—and/or Indo-European—genealogies, European integral thinkers appear more concerned with negotiating relationships between *national identities* and an emergent sense of *European community.* This manifests as an emphasis on transnational and transdisciplinary research, with terms such as *integral* and *spiritual* being treated with some suspicion.[30] On the other hand, although US integral theorists espouse global and planetary thinking, much of the content focus is quite American-centric. As an Australian, somewhat removed from both these large, powerful geographies, I endeavor to reach as broadly as possible across linguistic, national and ideological boundaries. I challenge all of us developing integral theory to push beyond our tacit barriers, to create an authentically integral, authentically planetary cosmography.

Conclusion—How *Planetary* is Integral Consciousness?

> We are children of the cosmos, but, because of our same humanity, our culture, our mind, our conscience, our soul, we have become strangers to this cosmos from which we were born and with which we must remain secretly intimate. (Morin, 2001b, p. 29, cited in De Siena, 2005, p. 424)

My interest has been to interrogate the concept of space as used in a variety of discourses. This has created a conceptual template from which to ascertain how *planetary* was each of the narratives—both espoused and actual. Steiner (1984c) identified on the one hand the totalizing tendency of ideological intellectualism (p. 40), and on the other hand “the fragmentation of the human family caused by the ideology of nationalism” (p. 44). From these perspectives—as something of a proto-postmodernist—he spoke of the need to strive for “an understanding of multiplicity, of harmoniously working diversity” (p. 37). He seemed to be foreshadowing postmodern perspectives on planetary culture and consciousness and the importance of noospheric diversity. Although Wilber stresses the importance of global and planetary awareness—particularly as part of his concept of vision-logic—it is rather difficult to reconcile this with his lack of substantial engagement with non-Eastern spiritual traditions and 20th century continental philosophy, other than Foucault and Habermas. Gebser’s (1949/1985) phenomenological cultural surveys were broadly cosmopolitan. He also, like Steiner, foreshadowed the postmodern turn by poetically reconceptualizing the concept of *nations* as “dynamic efflorescences of a larger cultural context” (p. 291).

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[29] I spent three months in the USA in 2005 scanning the various integral approaches operating there. I recently spent several weeks in Europe (2007) with a similar intent.

[30] The complex reasons for European academic reserve in relation to *spiritual* discourse are explored by philosopher Roland Benedikter (2005).

Appendix C: Literacy Unveiled: Art as Language from a Palaeoaesthetic Perspective

Introduction

> More than a heroic history of conquest, according to Telmo Pievani, we may discover that our history is a "cloth made of very fine and multicoloured threads, like a weft of unexpected interdependencies, unknown relations, intertwined roots" (Pievani, 2002, p. 25, cited in De Siena, 2005, p. 410).

This appendix—like the others—is a work in progress. It provides pointers for further research arising from the main paper. It challenges the dominant evolution narrative, which claims that the evolution of consciousness is primarily a matter for classical evolutionary biology. It intimates that the domain of *art*—or *aesthetic sensibility*—may be a more fruitful starting point for the creation of a new *panhuman*[1] narrative for an authentically integral-planetary consciousness. The significance of *art*—rather than *tools*—as a basis for a new semiotically based taxonomy of cultural evolution, has recently been proposed by Robert Bednarik,[2] director of the *International Federation of Rock Art Organizations* (IFRAO) (Bednarik, 2003c). In such a taxonomy, the term *Palaeolithic* could be replaced by the term *Palaeoaesthetic.*[3]

The hermetic sciences—as discussed in Appendix 2—valued art and spirituality as the two pillars that supported its empirical investigations. However, from the 18th to 19th century, when science began to be reduced to a materialistic venture, it lost its connection with art and spirit. Although there is a resurgence of interest in re-uniting science and spirituality, the significance of *art* in this enterprise is still undervalued. A reconstructed spiritual science—as indicated by Steiner—would place art back at the centre of a new epistemology (Steiner, 1964a, 1970, 1928/1972a, 1990b). From such a perspective the evolution of consciousness would foreground the *macrohistory of art*. Gebser (1949/1985) also places art—and particularly poetry—at the foreground of integral consciousness (pp. 316-333, 487-505). Wilber, although he does not

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[1] The term *panhuman* comes from the Greek *pananthropinon*. It has been used in recent academic literature, particularly in reference to world art (Kimball, 2004) and Greek poetry (Stathatou, 2007).

[2] Rock art scientist, Robert Bednarik, draws attention to the Eurocentrism of much palaeoarcheological research, and nomenclature. He makes the critical point that instead of terms such as Paleo*lithic* and Neo*lithic*—referring to the development of use of stone tools—"a cultural taxonomy derived from art is vastly superior to one derived from tools. After all, tools do not designate cultures; art does" (Bednarik, 2006a, p. 2).

[3] Although *palaeoaesthetics*—or *paleoaesthetics*—is not an area of research in the Anglophone academic world, French art historian, Emmanuel Guy, uses the French term *paleoesthetique* to describe his study of the aesthetic nuances between different palaeoart archaeological sites. http://www.paleoesthetique.com/index.php

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foreground art in his practice, does place it conceptually as one of what he calls the *Big Three*[4]—Art, Morals and Science.

The significance of art in developmental and evolutionary theory was already proposed in the mid-20th century by educational philosopher/poet, Sir Herbert Read (1893-1968). Read (1954) proposed that "art—or, to use a more exact phrase, aesthetic experience—is an essential factor on which Homo Sapiens has depended for the development of his highest cognitive faculties" (p. 143). On the basis of this proposition and following in the illustrious footsteps of 18th century Romantic philosopher Friedrich Schiller (1759-1805), Read also claimed that art/aesthetics should be the very *basis* of education (Read, 1943; Schiller, 1795/1977). Read's evolutionary proposition begs the question: Why has art/aesthetics[5] remained—at best—a tangential thread in educational philosophy in the light of its apparent significance as an evolutionary catalyst? I consider this to be a core question in the evolution of consciousness research yet it has received little attention in the dominant discourse until recently.

The study and application of *aesthetics* has been a relatively minor—but continuous—philosophical thread that stretches from at least the Platonic beginnings of Western philosophy up to the present time (Bosanquet, 1892/2005). Interest in the developmental, and/or evolutionary significance of aesthetics—particularly in education—has also followed a similar trajectory. Over the last few decades several postmodern philosophers and postformal education and psychology researchers have begun to point to the significance of art/aesthetics in education and psychological development (Abbs, 2003; Arnheim, 1989; Broudy, 1987; Burnham, 2006; J. Campbell, 1968; Deleuze & Conley, 1992; Derrida, 2001; Gadamer, 1960/2005; Gidley, 1998c; Hutchings, 1999; Jain, 2001; Kaufman, 2005; Kearney, 1998; Kelen, 2002; Kimball, 2004; Koestler, 1989; Kristeva, 1982; Lock & Peters, 1999; Montuori, 2003; Montuori, Combs, & Richards, 2004; Neville, 1989; Nielson, 2006; Palmer, 2007; Pridmore, 2004; Roy, 2006b; Schindler, 1964; Sinnott, 2005; Sloan, 1992; The Mother, 1955; Thompson, 1998; Warren, 1996). There is a point of contention, however, in relation to how art is characterized. Postmodern and critical perspectives claiming that the *high art* industry is elitist (Rose & Kincheloe, 2003; Shiner, 2001) can be contrasted with the more normative—even essentialist—conceptions of art in modernist narratives (Danto, 1986). Inviting a reconciliation, Mitch Avila (Avila, 2003) points to Shiner's seminal book, *The Invention of Art: A Cultural History*, proposing "a healthy pluralism in which multiple forms of arts and crafts—in their manifold richness—can be integrated into a full human life with a diverse range of aesthetic pleasures from the mundane to the sublime" (p. 403). A full scholarly study of these issues cannot be undertaken here.

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[4] Wilber (1997) expands on his Big Three in relation to his four quadrants. "Sir Karl Popper's 'three worlds' (subjective, cultural, and objective); Plato's the Good (as the ground of morals. . .), the True (objective truth. . .), and the Beautiful (the aesthetic beauty. . .); Habermas' three validity claims (subjective truthfulness of I, cultural justness of we, and objective truth of its). Historically of great importance, these are also the three major domains of Kant's three critiques: science or its (*Critique of Pure Reason*), morals or we (*Critique of Practical Reason*), and art and self-expression of the I (*Critique of Judgment*)" (pp. 71-92).

[5] While I recognize that art and aesthetics could be characterized as distinct domains, this appendix is not the place for such a nuanced conceptual distinction.

The purpose of this appendix is to trace fragments of the evolutionary narrative that have been critically underappreciated—the apparent aesthetic sensibilities of some early hominins and humans. I have bounded this appendix in two ways: by time periods and content. Regarding my temporal delimitation, the focus is on the three earliest of Gebser's structures of consciousness, archaic, magic and mythical—prior to the emergence of the more abstract thinking of the mental structure (c 800 BCE) and the complex thinking of the integral structure (emerging in current times). The mental structure co-arose with more abstract writing in the form of the alphabet (Poletti, 2002), which is regarded as the primary marker of literacy. [6] In terms of content, my primary focus is on the available evidence for aesthetic sensibilities with a further delimitation within this on the semiotic nature of the visual-artistic-language dimension. I will also briefly refer to the parallel—and arguably even earlier—origins of the aural-musical-oral dimension in the evolution of language. However, the latter is a study in itself and largely beyond the scope of this appendix.

An Archaic Unity of Primal Sounds and Images

> We are in a forest near a mighty tree. The sun has just risen in the east. The palmlike tree, from around which the other trees have been removed, casts mighty shadows. The priestess, her face turned to the east, ecstatic, sits on a seat made of rare natural objects and plants. Slowly in rhythmical sequence, a few strange, constantly repeated sounds stream from her lips. . . . Those around her move in rhythmic dances. (Steiner, 1904/1959, p. 82)

Steiner wrote this quote as an imaginative representation of the socio-cultural-aesthetic sensibility that he claimed was already operating among pre- anatomically modern humans. There is still considerable academic contention about the details of human origins. There are two major theoretical positions.

- The *short-range*[7] theory[8] posits that there was a sudden cultural jump, or flourishing, primarily in South-Western Europe, during what is conventionally referred to as the *Aurignacian* cultural period of the Upper Palaeolithic (40,000-28,000 BP) (Bednarik, 2007). This theory was the main theory-in-use in archaeology for most of the 20th century and proposes that very little was going on in human evolution prior to that time, or outside Europe even during that time. It appears to be losing credibility over the last couple of decades since more systematic rock art research outside Europe has been undertaken. It does not seem well supported now in the literature except by some archaeologists[9] and art historians (Klein, & Edgar, 2002; Mithen, 2004; Noble & Davidson, 1996; White, 2003). Some proponents of *Aurignacian* cultural explosion acknowledge that Palaeoart was not just occurring in Western Europe during this period, and also that—in spite of the apparent lack of evidence—it appears likely that human beings have symbolically marked their landscapes over much longer time periods (Chippindale & Tacon, 1998; Watson, 2005).

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[6] From a 20th century, modernist Eurocentric perspective, the beginning of literacy in a culture, marks the beginning of its history. For a postcolonial critique of the Eurocentrism in the taken-for-granted modernist notions of *literacy*, see the following critiques of the World Bank's *Education for All* agenda (Gidley, 2001b; S. Jain & M. Jain, 2003b).

[7] The short-range theorists tend to use the following terms: *creative explosion*—popularized by science writer John E. Pfeiffer (1983); *"big bang" of consciousness*—introduced by anthropologist Richard Klein (R. Klein, G. & Edgar, 2002); or recently, *symbolic revolution* (Brumm & Moore, 2005).

[8] Although most authors refer to these divergent approaches as theories, Bednarik prefers to call them hypotheses (R.G. Bednarik, personal communication, November 23, 2007).

- The *long-range*[10] theory proposes that the ground was laid for the apparent sudden cultural/artistic emergence over at least several hundred thousand years through protolanguage and the creation of symbolic processes and artifacts. Although the evidence for this has so far only been discovered in fragments, long-term advocates claim that this lack of evidence is a result of taphonomy[11] and geo-cultural factors—such as Eurocentrism and Anglophone bias in the discourse (Bednarik, 1992, 1994). Epistemological support for this theory comes from evolutionary anthropology and psychology (Dunbar, 2003; Dunbar, Knight, & Power, 2003; Foster, 1999; Hodgson, 2000, 2003; Sedikedes, Skowronski, & Dunbar, 2006); art history (Watson, 2005); palaeontology (Conway Morris, 2004, 2007; Teilhard de Chardin, 1959/2002); paleopsychology (Bloom, 2001); and rock art science (Bahn, 1994, 2005; Bednarik, 2003b, 2006b, 2007).

It seems to me that the evidence is shifting in favor of the long-range theories as more evidence comes to light in previously unexamined corners of the globe. As discussed elsewhere, my research points to the need for further research on the proposition that at least some flourishing of consciousness and culture have been associated with major geo-climatic events—such as glaciation cycles—which in turn have been linked by climatologists to astronomical cycles, such as the Milankovitch cycles. (See Appendix 1).

There is also contention in regard to the related question of the beginnings and early development of language. However, most contemporary theorists suggest that some *pre-adaptation* occurred during the pre-human and early *Homo* periods—at least from around 500,000 BCE (Foster, 1999; Kay, 1977; Lock & Peters, 1999). This would seem to support Habermas' (1979) claim that even hominins possessed "a language of gestures and signal calls" (p. 134). Others propose early chorus singing, bipedelism, and the use of *symbolic symbols* such as cave painting as important foundations for the flourishing of language that had developed by the late glacial age (Christiansen & Kirby, 2003). A recent collection of international research on language evolution to some extent meets its claim of being interdisciplinary (Christiansen & Kirby, 2003). However, this collection is primarily conceptualized from within an unproblematized science discourse with its physicalist and classical Darwinian evolutionary underpinnings. New light may be shone on this issue by Steiner's and Gebser's research.[12] As indicated in the opening to this section, Steiner (1904/1959) made the apparently radical claim that these early matriarchs—whom he called priestesses—assisted the development of early language, and even memory, through initiating rhythmical chanting, and interpreting the hidden language of nature—which they expressed in "sound, tone and rhythm" (p. 82). Recent interdisciplinary research on the origins of language via music supports Steiner's claim that, prior to *Homo Sapiens*, proto-language took the form of singing and rhythmical chanting (Merker, 2001; Skoyles, 2000), particularly initiated by the females, as an extension of the mothering impulse (Dissanayake, 2005; Mithen, 2007). In this regard, reference is made to the role of *synchronous chorusing* in the evolution of human language development (Merker, 2001; Wallin, Merker, & Brown, 2001).

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[9] Actually, archaeologist Steven Mithen's subsequent book appears to take a more long-range view (Mithen, 2005/2007).

[10] The *long-range* theory is often referred to in the literature as the *gradualist* theory, however this should not be confused with the gradualism of classical Darwinism. The long-range advocates allow for a variety of punctuated cultural phases throughout the much longer-term process than 30-40,000 years (R. G. Bednarik, personal communication, November 23, 2007).

[11] *Taphonomy* refers to the "study of the processes affecting rock art after it has been executed, determining its present appearance and statistical properties" IFRAO Glossary (Bednarik, 2007, p. 199).

Gebser (1949/1985) claimed that there was no separation such as we have today between sound and image—that the two streams were interpenetrating. The notion that *nature speaks* has been dismissed under centuries of instrumental rationalism and empiricism, but is beginning to be reconsidered along with the recovery of indigenous epistemologies and shamanic wisdom (Nandy, 2000; Sinnott, 2005). This section focuses on the Lower Palaeolithic period. (See Table C1 below.) The end of this period roughly overlaps with the transition from early *Homo* species to *Homo Sapiens*.[13] Unfortunately, because of disciplinary isolationism, this type of connection is rarely made in the literature. As discussed earlier, only the long-range theorists consider the Lower Palaeolithic period to have any significance for the evolution of culture and consciousness. A long-range advocate, arguably Bednarik has done more than most to research Palaeoart from this perspective as a short selection of his several hundred academic publications demonstrates (Bednarik, 1992, 1994, 1995, 2003a, 2003b, 2003c, 2006a, 2006b, 2006c, 2006d 2007).

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[12] Although the stated intention of this overall paper is to hermeneutically converse between Steiner's, Gebser's and Wilber's theoretic narratives, Wilber has not to my knowledge developed much material on this aspect of human evolution so my focus is more on Steiner and Gebser.

[13] The origins of the Homo Sapiens species—or anatomically modern humans—is also variously dated within different disciplines at anywhere from 200,000 to 100,000 BCE.

Table C1: Archaeological Cultural Periods from Lower Palaeolithic to Bronze and Iron Ages

"Old World" Archaeological Taxonomy	**Approximate Chronology**	**Descriptions and Geographical Locations**	**Archaeological Cultural Periods**
Lower Palaeolithic	2.5 mya to 180,000 ya[14]	Oldest division of the Older Stone Age of the Old World	*Acheulean*—Old World: Southern Africa to India
Middle Palaeolithic	180,000-30,000 ya	Middle division of the Older Stone Age of Eurasia, Northern Africa	*Mousterian*—Europe, Western Asia and Northern Africa
Upper Palaeolithic[15]	40,000-10,000 ya	Final division of the Older Stone Age of Eurasia, Northern Africa	*Aurignacian*[16] *Gravettian* *Solutrean* *Magdalenian, Azilian*
Mesolithic	12,000-10,000 ya	Middle Stone Age of Eurasia, prior to Neolithic: regional variability	*Mesolithic* is a contested term now because of its Eurocentrism
Neolithic	10,000-5,000 ya	Vague division of New Stone Age: regional variability	*Neolithic* is contested in terms of its meaning as a cultural period
Bronze & Iron Ages	5,000-3,000 ya	Signifying the cultural use of metals such as copper, bronze and iron	*Bronze* and *Iron Ages* are also contestable as cultural periods

Note. Compiled from information in Bednarik (2007), Schriek, Passmore, Stevenson, & Rolao (2007), Seger (2006), and Zong, Chen, Innes, & Chen (2007). See Table C2 for more detail of Upper Palaeolithic.

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[14] "ya" stands for *years ago*.

[15] For more detail on the European cultural periods within the Upper Palaeolithic see Table C2.

[16] In some classifications what is here called Aurignacian is further divided into Lower Aurignacian—Chˆatelperronian, Middle Aurignacian—Aurignacian, and Upper Aurignacian—Gravettian (White, 2006, p. 270).

Palaeoart[17] from a Planetary Perspective

> It must be borne in mind that the entire region between southern/eastern Africa and Levant in the west and Java and China in the east remains profoundly neglected, in terms of its [hominin] history. Yet we have no realistic choice but to assume that India was occupied for at least 1.9 million years.[18]

As discussed in the main narrative, conventional archaeological models in use for much of the 20th century theorized that human art and culture arose in a sudden cultural explosion, in the Upper Palaeolithic[19] period primarily in South-Western Europe. This claim supported the *replacement theory* that the apparently very primitive *Homo Neanderthalensis* species was replaced by the apparently much more sophisticated *anatomically modern humans*. Contemporary research from the emerging field of *rock art science*[20] has been interrogating the evidence for this model for more than a decade (Bednarik, 1992, 1994, 2003b, 2006a, 2006b, 2007). Bednarik argues that palaeoarcheology has retained a strongly Eurocentric history until relatively recently. The cave art of regions such as *Lascaux* in southern France were for some time considered the earliest evidence of human art—and thus culture. However, as the discourse has become more planetary in orientation, archaeological discoveries are increasingly being made in other locations. Some of the recent discoveries, particularly in India, Australia and Central-Eastern Europe, and of course Africa, pre-date the European sites. Portuguese archaeologist, João Zilhão, has claimed that the diversity of recent discoveries around the globe suggest that, “the corresponding genetic and cognitive basis must have been present in the genus Homo before the evolutionary split between the Neanderthal and modern human lineages” (Zilhão, 2007, Abstract). Several forms of rock art—manuports, use of colored pigment, beads and petroglyphs—have been found to significantly pre-date the earliest European cave art of the Upper Palaeolithic (c. 32,000 BCE) (Bahn, 2005; Bednarik, 2003b; 2006b, 2006c; 2006d, 2007; Reddy, 2006).

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[17] Palaeoart is the “collective term describing all art-like manifestations of the distant past”. The more specific term Palaeolithic art refers to “the surviving palaeoart of the Pleistocene, from the Lower Palaeolithic to the end of the Upper Palaeolithic” as classified by the *International Rock Art Glossary* (IRAG) adopted by the International Federation of Rock Art Organizations (IFRAO) in 2000 (Bednarik, 2007, pp. 5, 206). The IRAG is published in English, French, German, Spanish and Russian and will shortly also be published in Arabic, Chinese, Greek and Portuguese (R. G. Bednarik, personal communication, November 23, 2007).

[18] The Early Indian Petroglyphs (EIP) Project is a joint venture by the Rock Art Society of India (RASI) and the Australian Rock Art Research Association (AURA) http://mc2.vicnet.net.au/home/eip1/web/eip3.html

[19] See Table C1.

[20] The new discipline of Rock Art Science appears to have been established in the 1980s with the foundation of the Australian Rock Art Association (AURA) in 1983 by Robert Bednarik, who was instrumental in launching the academic journal Rock Art Research in May 1984. In 1988, the first World Congress of Rock Art Research was held in Darwin, Australia, at which the International Federation of Rock Art Organizations was formed, which has grown from an initial nine members, and now has 43 member organizations representing many thousands of researchers world-wide (R. G. Bednarik, 2007, personal communication, November 23, 2007).

Pre-Human,[21] Lower Palaeolithic[22]—Collecting Interesting Manuports

As palaeoart research becomes more accomplished, the discovery and identification of artistic and cultural artifacts takes us into earlier and earlier temporal landscapes. Bednarik has documented archaeological discoveries indicating that the earliest Palaeoart actually pre-dates *Homo Sapiens* and can be attributed to the late Pliocene geological period.[23] The earliest known manuport is the Makapansgat cobble[24] from South Africa dated between 2.5 and 3 million years old (Bednarik, 2003b). (See Figure C1.) Although it is not an example of hand-modification of an object the inherent values implied in the collection of such an iconic-shaped object suggest an incipient form of reflective consciousness. It could be regarded as the first evidence of proto-aesthetic and symbolic thinking in pre-humans (Bednarik, 2007, p. 178).

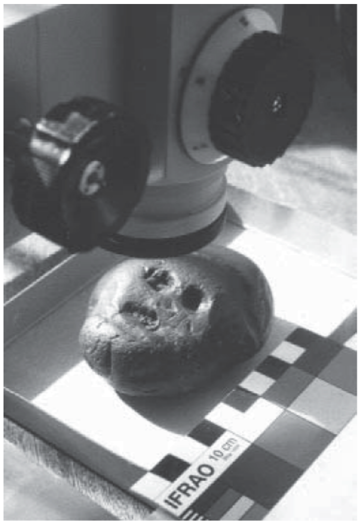

Figure C1: Makapansgat cobble[25]
South Africa > 2.5 million BP

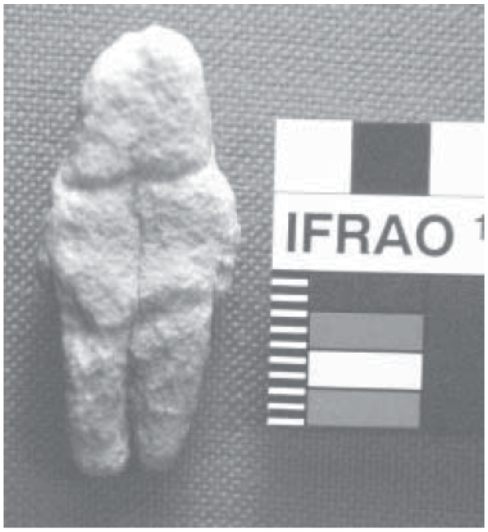

Figure C2: Earliest-known Proto-figure[26]
Tan Tan, Morocco > 300,000 BP

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[21] It is notable that this discovery is within the contested borderline time period between *pre-Homo* species and *early Homo* species, such as *Homo Habilis* and *Homo Rudolfensis*, who according to fossil records, first inhabited Africa in the Pliocene epoch, a little over 2 million years ago (Lock & Peters, 1999). However, the *Homo* status of these early hominins, is also currently under revision (Key, 2000; Wood & Collard, 1999).

[22] See Table C1.

[23] The Pliocene is the geological period prior to the Pleistocene—also known as the Ice Age—which began c. 1.8 million years ago (Bednarik, 2007, p. 208).

[24] The Makapansgat cobble bearing two or three faces, was reportedly collected many kilometers from the cave it was found in, and carried back to the home base of either *Australopithecus africanus* or a very early hominin, presumably because of its startling natural markings and its red color. First discovered in 1925, identified as palaeoart in 1974 and then in 1998, microscopically examined by Bednarik (2003b, p. 97).

[25] *Note.* From "The Earliest Evidence of Palaeoart," by R. G. Bednarik, 2003b, *Rock Art Research, 20*(2), p. 97. Copyright 2003 by Robert G. Bednarik. Reprinted with permission.

[26] *Note.* From "The Earliest Evidence of Palaeoart," by R. G. Bednarik, 2003b, *Rock Art Research, 20*(2), p. 96. Copyright 2003 by Robert G. Bednarik. Reprinted with permission.

Homo Ergaster/Erectus,[27] Lower Palaeolithic—Coloring, Shaping, Engraving

As an extension of the pastime of collecting interesting objects—and still within the pre-Sapiens temporal range—it appears that *Homo Ergaster/erectus* began to modify iconic natural objects. This may seem remarkable based on conventional archaeological views of the primitivism of *Homo Ergaster/Erectus*. However, evolutionary psychologists claim that the species displayed unprecedented dispersion patterns. Specifically, *Homo Ergaster/erectus* immigrated to many regions of the habitable world (e.g., Middle East, China, Indonesia, and Southern Europe) (Sedikedes, Skowronski, & Dunbar, 2006). While their presence in these places is widely accepted now in archaeological discourse, how they got there is still disputed.

New evidence has come to light—still requiring further substantiation—suggesting that extensive sea-faring may have been undertaken by hominins from as early as 800,000 BP to enable the occupation of Flores in Indonesia and Timor (Bednarik, 2003a). Synchronously, the first use of colored pigment has been traced to around 800,000-900,000 BP in South Africa and possibly India (Bednarik, 2003b, 2006b, 2007); the use of lumps of ochre has been dated to at least 380,000 BP in Southern France with speculation as to its possible use as a *crayon*, or for medicinal purposes (Watson, 2005, p. 28); and also a collection of small crystal prisms has been uncovered in India from a similar time period (Bednarik, 2003b, 2007). Bednarik's claims regarding the symbolic nature of these activities is consistent with recent evolutionary psychology claims that the foundations of language were relatively evolved by approximately 500,000 years ago (Dunbar, 2003; Foster, 1999). This has also been linked with the evolution of self-concept "the human self was already substantively in place by the appearance of archaic humans round 500 kya[28] and hence that its first glimmerings may already have begun to emerge by the late stages of the *Homo Ergaster/erectus* period" (Sedikedes, Skowronski, & Dunbar, 2006, p. 66).

The modifying of iconic objects—a type of proto-sculptural activity—appears to have begun approximately half a million years ago. Some of the most notable are the modified female-shaped pebble from *Berekhat Ram*, Golan Heights, Israel, dated 233,000-470,000 BP, and the human-shaped natural quartzite object, which has been modified by engraved markings and the addition of red pigment from *Tan-Tan*, Southern Morocco, dated 300,000-500,000 BP (See Figure C2) (Bednarik, 2003b, 2006b, 2007). From around the same time c. 350,000 BP a site in *Bilzingsleben*, Germany, consisting of three round dwelling places (Watson, 2005) revealed a variety of engraved objects such as bone, ivory and stone fragments (Bednarik, 2003b). This German site is believed to have been a significant one for *Homo Heidelbergensis*—successful descendent from *Homo Ergaster*, and progenitor of both *Homo Neanderthalensis* in Europe and *Homo Sapiens* in Africa (Mithen, 2007). Synchronously, engraved ironstone slabs have been identified in South Africa (c. 260,000-420,000 BP) (Bednarik, 2003b). These artifacts are particularly interesting in terms of origins in that they appear to have been produced within the extant period of *Homo Erectus*, yet after the emergence of *Homo Heidelbergensis* identified in Africa and Eurasia (500,000-100,000 BP) (Key, 2000; Lock & Peters, 1999; Wood & Collard,

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[27] What is generally referred to in Palaeoanthropology as the middle *Homo* period was dominated by *Homo Ergaster/Erectus*—who emerged in both Africa and Eurasia, during the Plio-Pleistocene transition (2 million to 200,000 BP) (Key, 2000; Lock & Peters, 1999; Wood & Collard, 1999).

[28] "kya" refers to thousand years ago.

1999). Archaeologist, Mithen, has noted that it was during this period—from approximately 600,000 BCE—that brain size began to increase rather rapidly[29], for the first time since the appearance of Homo Ergaster about a million years earlier (Mithen, 2007, p. 158).

Lower Palaeolithic Petroglyphs

The oldest known rock art, anywhere in the world, has been found only in the last few years in Auditorium Cave in Bhimbetka in India. Very simple in form, with a *cupule* (or small cup) and a long, meandering groove (See Figure C3), it is consistent with the Indian Acheulian[30] age, 290,000 to 350,000 years ago (Bednarik, 2003b). This ancient petroglyph is apparently the first representation of the two archetypal forms—a circle and a line—that the entire world of form consists of. The religious significance of these archetypes continues to be emphasized in more recent times in Japanese Zen calligraphy[31] rituals.

Lower Palaeolithic Pendants and Beads

The earliest manuports were mostly collections of *unmodified* natural objects, or iconically shaped natural objects that have been slightly modified apparently to enhance their iconic form—rather than hand crafted objects. The earliest hand crafted objects that have been found suggest the beginnings of body decoration. They include pendants made from a *perforated wolf's canine* and a *bone point* as early as 300,000 years ago in Austria (R. G. Bednarik, personal communication, November 23, 2007), and ostrich eggshell beads, crafted 200,000 years ago in Libya, northern Africa (See Figure C4). In extensive replication experiments Bednarik has demonstrated the high level of manual skill and patience required to create the ostrich eggshell beads, and has also remarked on the geometrically perfect sense of form that the originators must have had (Bednarik, 2006d).

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[29] While the cranial size of early *Homo Ergaster* appears to have been in the vicinity of 500-800 cubic centimeters, by the time of *Homo Heidelbergensis*, cranial size appears to have increased to 1,000-1,200 cubic centimeters. A further growth leap had taken place by the time of *Homo Sapiens*—1,500-1,600 cubic centimeters—with *Homo Neanderthalensis* cranial size being even larger (1,600-1,800 cubic centimeters) (Mithen, 2007, p. 159). Arguably, cranial size expansion had ended by approximately 200,000 BP (Hodgson, 2000).

[30] The Acheulian Age is the earliest classified cultural period (See Table C1).

[31] The ritual practice of drawing *ichi* (one) and *enso* (a circle) is part of Zen philosophy as expressed in calligraphy. http://www.mediamatic.nl/magazine/8_4/joshi-letterforms/joshi-3e.html

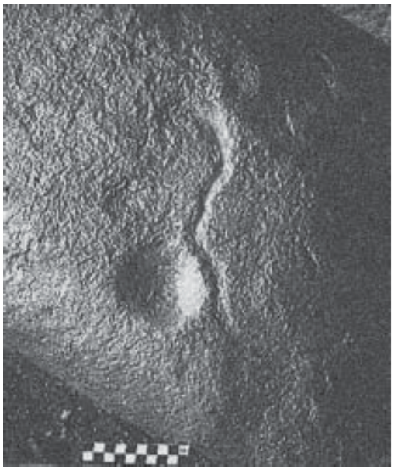

Figure C3: Earliest-known Petroglyph[32]
Bhimbetka, India, > 200, 000 BP

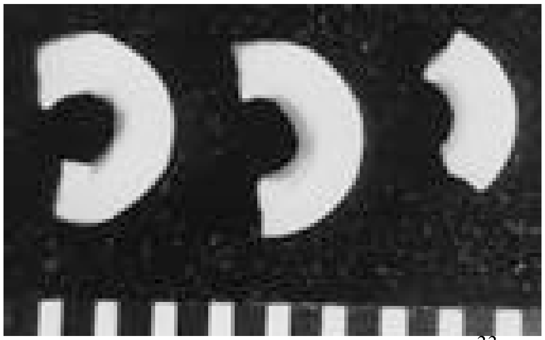

Figure C4: Ostrich Eggshell Beads[33]
Libya c. 200,000 BP

A Magical Transition—From Primal Sound to Archetypal Image

> Indeed the very obscurity, dormancy, fusion and undifferentiated texture of the primal sounds and roots give us at the very most an intimation of what takes place beyond that temporal limit which exists between the archaic and the magic structures and had to be surmounted during the formation of the primal words. (Gebser, 1949/1985, p. 124)

Gebser's view of the origins of language, suggested a proto-language as many contemporary researchers do. As expressed here, Gebser contradicts the more conventional *compositional theory* of language origins, yet is aligned to more recent theories proposed by Steven Mithen—pointing to the research of linguist, Alison Wray—referred to as the *holistic theory* (Mithen, 2007, p. 3).

From an archaeological perspective the present section focuses on the Middle and Upper Palaeolithic periods, which are the earliest periods during which *anatomically modern humans* began to make their marks on their environment.

Foundations of Speech through Song and Music

> Perhaps the auditory sense is not the first from a physiological standpoint, but it is definitely more prominent in the magic realm than the visual sense. (Gebser, 1949/1985, p. 126)

The aural strand of language appears to have been primary to the visual strand—language was first expressed in song and natural music. As discussed above, human singing, chanting and dancing appears to have predated speech (Merker, 2001; Skoyles, 2000; Steiner, 1904/1959). It is possible that Australian aboriginal *Songlines*, or *Dreaming tracks*, are the closest phenomena we have today to the origins of language through chanting and song.

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[32] *Note.* From "The Earliest Evidence of Palaeoart," by R. G. Bednarik, 2003b, *Rock Art Research, 20*(2), p. 92. Copyright 2003 by Robert G. Bednarik. Reprinted with permission. Earliest known petroglyph in the world, Auditorium Cave, Bhimbetka, dated very conservatively to earlier than 200,000 BP.

[33] *Note.* From *Rock Art Science: The Scientific Study of Palaeoart* (p. 182), by R. G. Bednarik, 2007, New Delhi: Aryan Books International. Copyright 2007 by Robert G. Bednarik. Reprinted with permission.

> Around campfires, they repeat legends of the Dreaming, stories that tell of how their Ancestors created themselves and how they walked throughout the land speaking and singing each object in the natural world into existence, leaving an unbroken trail of spoken words and musical notes along the line of their footprints. (Grigar & Barber, 2004, Abstract)

Songlines were introduced to a broader audience around twenty years ago with the publishing of a popular book (Chatwin, 1987). The songlines not only connect the aboriginals with the land of their ancestors, but deeply with the land itself. The songlines have been described as a type of geographical mapping and communications system between tribes (Grigar & Barber, 2004).

The history of music also predates the written word and presumably first occurred, like synchronous chorusing against the backdrop of birdsong and other animal sounds. It has been argued that Neanderthals began to use rocks, stalactites and other natural objects as proto-instruments to create music (Mithen, 2007). New research on the origin of music appears to be adding some weight to the *long-range* theories of cultural and consciousness evolution (Dissanayake, 2005; Mithen, 2007; Wallin, Merker, & Brown, 2001). The earliest known musical instruments are carved bird-bone flutes from a site in *Geissenklösterle*, Southern Germany, authentically[34] dated by archaeologists, Francesco D'Errico and Graham Lawson to 36,000 BCE (Mithen, 2007).

Archaeologists in China researching the early Neolithic site of *Jiahu* in Henan Province, claim to have found the earliest complete, playable, multi-note musical instruments—resembling flutes (Zhang, Harbottle, Wang, & Kong, 1999, pp. 367-368). However, researchers[35] on this early Neolithic site (c. 7,000 BCE) seem unaware that much earlier flutes have already been identified in Germany. Also these Chinese artifacts need further investigation to authenticate. The earliest Indian flutes—the seven-holed flutes—appear to date from the Indus Valley civilization, along with various early stringed instruments (Massey & Massey, 1996).

Foundations of Writing through Painting and Carving

> Simple non-iconic markings appear in the late part of the Lower Palaeolithic, and they continue to be made during the Middle Palaeolithic. Over an enormous time span they seem to experience some change towards increasing complexity, but their range

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[34] The authenticity of these artifacts are in contrast to the false claims in 1995 that the world's oldest flute had been found in Western Slovenia and dated at 54,000 years ago. This claim was contradicted by microscopic analysis by archaeologist Francesco d'Errico demonstrating that the perforations were natural and not human-made (Mithen, 2007; Watson, 2005, p. 31).

[35] This project was supported by the National Natural Science Foundation of China [and] the Department of Science & Technology of China, the Chinese Academy of Sciences and the Structure Research Laboratory at USTC. Research at Brookhaven National Laboratory is supported by the US Department of Energy. The full article is available online. http://www.shakuhachi.com/K-9KChineseFlutes-Nature.html

> nevertheless remains remarkably consistent: parallel lines, convergent lines, radial motifs, zigzags or meanders, dot patterns, lattices, circles. (Bednarik, 2003b, p. 102)

The *visual strand* was first expressed in the visual arts by hominins modifying natural objects through coloring with pigment, engraving petroglyphs, and shaping beads apparently for decorative purposes—the earliest of those that have been found were demonstrated above. Petroglyphs continued throughout the Middle Palaeolithic period, and were supplemented at least from the Upper Palaeolithic by cave paintings.[36] (See Table C1 for chronology.) These earlier forms of picture consciousness were followed by pictograms when mythic consciousness began to emerge in the late Neolithic period and into the Bronze and Iron Ages. Eventually, full-writing systems, such as logograms, syllabaries and alphabets emerged with the gradual awakening of ego-mental consciousness, in the first millennium BCE.

Middle[37] Palaeolithic Petroglyphs and Engravings

Prior to the discovery of the Acheulian petroglyphs found in India, as discussed above, it was believed that most petroglyphs were created during the Upper Palaeolithic period. However, Bednarik claims that, for more than hundreds of thousands of years prior to the iconic Upper Palaeolithic cave paintings found in Europe, non-iconic cupules or other patterned engravings were being made on rocks and other available materials. The engraved bone fragment pictured in Figure C5 is from the *Oldisleben 1* Site, Germany, possibly 120,000 years old. It shows two sets of sub-parallel lines engraved with stone tools. A significant type of petroglyph that has survived from the Middle Palaeolithic involves multiple uses of cupules arranged in what is likely to have been a meaningful shape. Figure C6 is an illustration of a large limestone slab from a Neanderthal[38] infant's grave, La Ferrassie, France, bearing eighteen cupules on its underside, most of them in pairs. It is the earliest known rock art in Europe, being from the *Mousterian*[39] period, and most likely 40,000-70,000 years old (Bednarik, 2003b, p. 98).

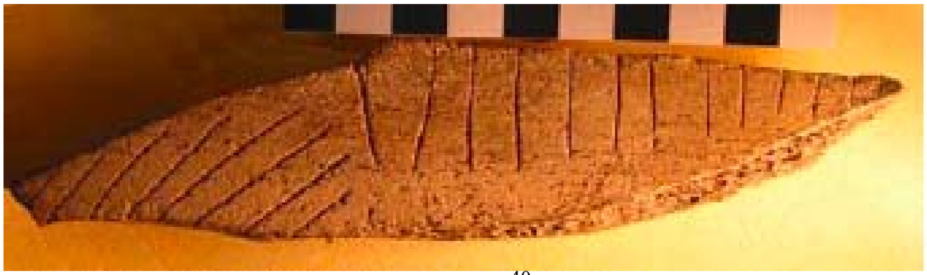

Figure C5: Engraved bone fragment,[40] Germany, c. 120,000 BP

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[36] It should be noted that although it is believed in conventional archaeological theory that petroglyphs were an earlier form of rock art than cave painting, this conclusion may be a result of taphonomic factors, in that petroglyphs—being engraved in the rock are more likely to have survived the ravages of time (Bednarik, 1994).

[37] See Table C1.

[38] Homo Neanderthalensis appear to have been the first species to ceremonially bury their dead.

[39] See Table C1.

[40] *Note.* From "The Lower and Middle Palaeolithic Origins of Semiotics," by R. G. Bednarik, 2006b, p. 7. Copyright 2006 by Robert G. Bednarik. Reprinted with permission.

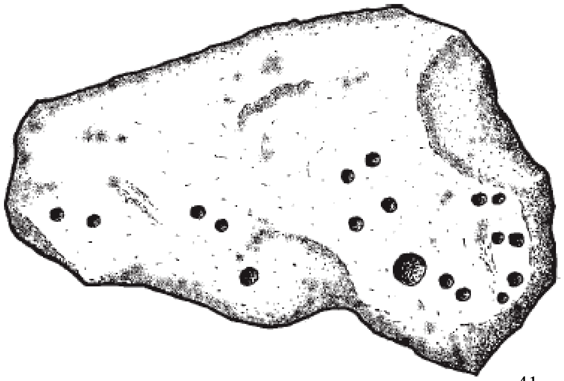

Figure C6: Neanderthal child's grave,[41] La Ferrassie, France > 40,000 BP

Middle/Upper Palaeolithic Rock Art

During the Upper Palaeolithic period in Europe, numerous types of art developed and consolidated that could be regarded as proto-writing—particularly abstract and figurative rock engraving and paintings—as magical consciousness was beginning to give way to more symbolic, image-based forms of expression. Gebser pointed to the features of magical consciousness that can be discerned in the cave paintings, particularly those of the animal hunt, which he claims are predominantly spell-casting and magic in character (Gebser, 1949/1985). The notion of themes related to magic in Upper Palaeolithic rock art is one of a number of interpretations being considered in contemporary archaeology discourse (Conkey, 1999). Because the major focus of archaeological and Palaeoanthropological research until a decade or two ago was privileging Upper Palaeolithic European sites—especially Western European—the taxonomy of cultures that has been developed has nomenclature based on the names of the French sites where particular art was found. (See Table C2 below for summary of the main classifications.) Since the Upper Palaeolithic European cave art, such as *Chauvet* (c. 32,000 BP) and *Lascaux*[42] caves in Southern France are quite well known, this section will focus on presenting some less documented rock art from Australia—some of which occurred within a similar time frame[43] as the oldest of the Western European cave art.

Some of the earliest known rock art outside of Western Europe is sub-continental Indian and Australian. The earliest rock art of indigenous Australians has been found in the limestone caves of Mt Gambier in South Australia, the Kimberleys and Pilbara regions in Western Australia, and Kakadu National Park in Arnhem Land, near Darwin in the Northern Territory. Archaeological evidence demonstrates that Kakadu has been continuously occupied by indigenous Australians for at least 40,000 years and some parts of Arnhem Land as long as 60,000 years.[44] Petroglyphs from Malangine Cave, near Mt Gambier, are believed to be some of the oldest in Australia and are dated at in excess of 28,000 years old (Bednarik, 2003b, p. 94) (See Figure C7). The *Gwion Gwion* rock paintings of the West Kimberleys, in Western Australia, are some of the most outstanding in terms of color and richness and exceptional in terms of their unique style (See Figure C8). Although the dating is most likely within the early Holocene period, because of the technology used, this would need to be classified as Middle Palaeolithic art from the perspective of the European nomenclature.

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[41] *Note.* From "The Earliest Evidence of Palaeoart," by R. G. Bednarik, 2003b, *Rock Art Research 20*(2), p. 98. Copyright 2003 by Robert G. Bednarik. Reprinted with permission.

[42] The cave art of *Lascaux* caves in France was made famous by French anthropologist and philosopher, Georges Bataille, in his book, *Lascaux or The Birth of Art* (Bataille, 1955).

[43] It should be noted that according to Bednarik in a personal email to me, the European nomenclature is not used in Australia. In addition, he pointed out that if researchers wish to use it then they need to take into account the fact that ALL Australian tool technology up to about mid-Holocene is of *mode 3 technologies*—that is, Middle Palaeolithic. Consequently, most Australian rock art—in excess of 100,000 petroglyphs—is technically Middle Palaeolithic, from the European terminology perspective. From this perspective there is thus *more* Middle Palaeolithic rock art in the world than Upper Palaeolithic (R. G. Bednarik, personal communication, November 23, 2007).

Table C2: Taxonomy of Cultural Periods used for classification of Eurasian Archaeological artifacts during the Upper Palaeolithic

Sub-Divisions within Upper Palaeolithic	Approximate Chronology	Geographical Locations	European Archaeological Cultural Taxonomy
Early Upper Palaeolithic	40-28 kya[45]	Southern Europe and Near East	*Aurignacian*[46] (Named after *Aurignac* rock shelter, Pyrenees, France)
Upper Palaeolithic	28-20 kya	South-western, central and Eastern Europe	*Gravettian* (Named after *La Gravette* Dordogne, France)
Upper Palaeolithic	19-16 kya	South-western Europe	*Solutrean* (Named after the open-air site *Solutré*, France)
Late Upper Palaeolithic	16-10 kya	Western and Central Europe	*Magdalenian* (Named after *la Magdeleine abri*, Dordogne, France)
Final Palaeolithic	11-10 kya	South-western Europe	*Azilian* (Named after *Mas d'Azil*, Pyrenees, France)

Note. Compiled from information in Bednarik (2007, pp. 201-212) and White (2006, p. 270).

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[44] "Archaeologist Rhys Jones obtained dates for the earliest occupational layers of about 53,000 to 60,000 BP, more probably the latter . . . The oldest painted and engraved surfaces dated back perhaps as far as 40 000 BP, and signs of artists working with ochre paint possibly as far back as 60,000 years ago [at Nauwalabila]." http://www.aboriginalartonline.com/art/rockage.php

[45] "kya" stands for thousand years ago.

[46] In some classifications what is here called Aurignacian is further divided into Lower Aurignacian—Chˆatelperronian, Middle Aurignacian—Aurignacian, and Upper Aurignacian—Gravettian (White, 2006, p. 270).

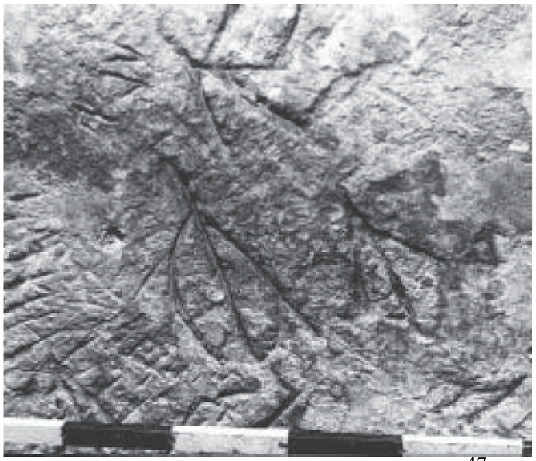

Figure C7: Australian Petroglyph[47]
Malangine Mt Gambier > 28,000 BP

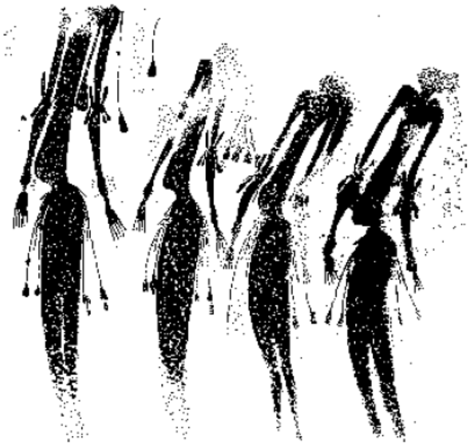

Figure C8: Gwion Gwion[48]
Kimberleys W. Australia 4,000-10,000 BP

Upper Palaeolithic Sculpture and Pottery

The Upper Palaeolithic seemed to also mark the beginnings of what we could call sculpture. This is notwithstanding the earlier examples of enhanced natural objects from the Lower Palaeolithic, which could perhaps be called proto-sculptures. Fully formed iconic sculptures are not found in the archaeological record until at least 30,000 ka—with the exception of the presumed bear head from *Tolbaga*, Siberia, possibly a few thousand years earlier (Bednarik, 2007). The so-called *Venus figurines* of the Eurasian Upper Palaeolithic are the earliest known sculptures but there is much controversy about their dates as well as their meaning. It should be noted that the term Venus figurines is used for a vast collection of artifacts from the *Gravettian*[49] tradition—many of which show no female attributes (Bednarik, 2007). Two notable figurines whose gender has not been questioned are illustrated below. They are of ceramic and ivory, respectively. The *Venus of Dolní Věstonice*—about 11 centimeters tall—is reputedly the oldest known ceramic artifact in the world, dated to the *Aurignacian*[50] period. It was found in 1925 between *Pavlov* and *Dolní Věstonice* in Moravia, Czech Republic, and has been exhibited over the last 12 months at the National Museum in Prague (See Figure C9). The more famous *La*

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[47] *Note.* From “The Earliest Evidence of Palaeoart,” by R. G. Bednarik, 2003b, *Rock Art Research 20*(2), p. 94. Copyright 2003 by Robert G. Bednarik. Reprinted with permission. “Karake-style petroglyphs carved into the ceiling of Malangine Cave. . . . They were covered by a speleothem layer of 15 to 20 mm thickness yielding a U/Thage estimate of about 28 000 years BP” (Bednarik, 2003b, p. 94).

[48] The *Gwion Gwion* of the Ngarinyin people the traditional owners of the land on which they have been found. They were formerly called the Bradshaws—after Joseph Bradshaw who noticed them in 1891when lost on expedition in the Kimberleys. http://www.aboriginalartonline.com/regions/gwion-gwion.php This image is copyright Robert G. Bednarik, International Federation of Rock Art Organizations and is used with permission. “Typical [Gwion Gwion] rock paintings from Kimberley region, Australia. This art was produced by hunting peoples but is free of hunting motifs and weapons, its primary concern being the elaborate headdresses and other apparently ceremonial paraphernalia on anthropomorphs (after Welch 1993). These paintings are thought to be 4000 to 10 000 years old, but remain inadequately dated” (Bednarik, 2003c).

[49] For information on *Gravettian* culture, see Table C1.

[50] For information on *Aurignacian* culture, see Table C1

Dame à la Capuche—also sometimes called the *Venus of Brassempouy*—has been thoroughly microscopically studied and dated to the *Gravettian* (White, 2006, p. 252). This small, 3.5 centimeter ivory sculpture found in Western France in the late 19th century—although technically a bust—is generally also referred to as a Venus figurine (See Figure C10).

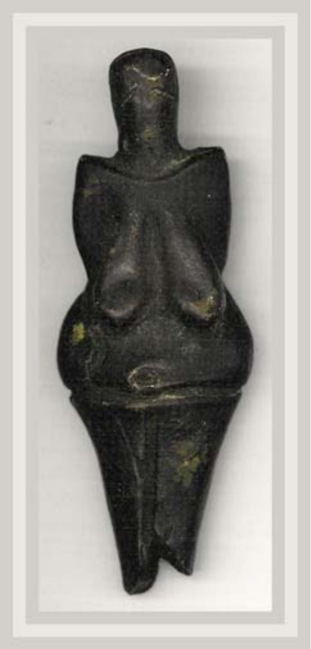

Figure C9: Venus of *Dolní Věstonice*[51]
Moravia, Czech Republic c. 27-31 ka

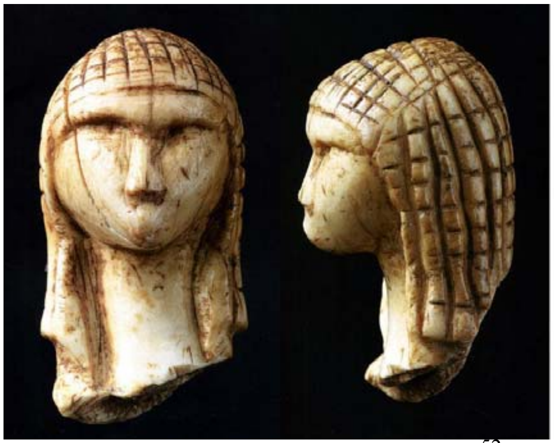

Figure C10: *La Dame à la Capuche*[52]
Brassempouy, France c. 22-28 ka

Mythic Imagination Threads into Story—Origins of Writing

> It was first hieroglyph, that is, mythically stressed writing and only later a script of sign or letter, that is, mental and abstracting. The meaning, in other words, had to be expressed, most likely by sound and intonation—acoustic characteristics of the magical structure—and only later in pictograph or sign. (Gebser, 1949/1985, p. 156, Note 6)

Gebser claimed—as indicated in this quote—that language development went through a three-stage sequence of *tone-image-sign* that he claimed was echoed in the development of writing. Steiner presented a similar three-stage process in that he referred to the first stage of language development as being related to our early attempts to imitate the sound component of what we experienced in the outside world—expressed as song and music; secondly, that we began to transform the sound experience inwardly into symbolic images—externalized as pictographs and hieroglyphs; only then, from a more abstract conceptual consciousness were we able to conceptually create abstract signs such as alphabets. He also indicated that in the present cultural period we need to move consciously beyond mental abstraction towards a further development of symbolic imaginative conceptions—but it is beyond the scope of this appendix to pursue this claim (Steiner, 1930/1983a, p. 9).

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[51] This image is in the public domain under the GNU Free Documentation License http://en.wikipedia.org/wiki/Image:Venus_of_Dolni_Vestonice.png

[52] This image is in the public domain. http://en.wikipedia.org/wiki/Image:Venus_of_Brassempouy.jpg

While there are many possible definitions for the concept of writing—the broad definition being advanced here was put forward by Gelb (2004) “a system of intercommunication by means of conventional visible marks” cited in Postgate’s review (2005, p. 276). Linguists tend to identify four main methods of making records or communicating information: pictograms/ideograms, logograms/word-signs, syllabic signs and alphabets (Hooker, 1990, p. 6). Pictograms and logograms began to emerge at the end of the fourth millennium BCE, and developed in several regions during the second and third millennia BCE. They are associated with mythic consciousness by Steiner, Gebser and Wilber as were the early writing systems that combined logograms with syllabic signs—signs corresponding to sounds in the language—in Sumer, Egypt, China and Meso-American Mayan script (Houston, 2004). Alphabets, however, did not emerge until the first millennium BCE, in Greece, building on the Phoenecian proto-alphabet that emerged in Crete a few hundred years earlier (Hooker, 1990; Poletti, 2002). The literature on the origins of writing—like the discourse on human origins—is vast, growing exponentially, and somewhat contentious. Since a full analysis is well beyond the scope of this appendix, I will point to significant recent publications, which can direct the reader to some of the main issues involved.

There are several contested issues in relation to the origins of language:

- The traditional philological notion that proto-writing is merely “a deficient representation of language” *versus* the epistemological perspective that proto-writing is rather a “successful means of representing knowledge and transmitting it” between individuals and generations (Damerow, 2006, p. 2);
- *Mono*genesis—the notion that language was invented only once—*versus poly*genesis—the notion that proto-writing has emerged in different places without direct contact with each other. “The emergence of the Indus script, of Chinese itself, or of Maya writing . . . cannot easily be related to models of monogenesis and diffusion” (Damerow, 2006, p. 2, 9);
- The role of linguistic structures *versus* the role of non-linguistic structures and mechanisms—the latter exemplified in administrative cuneiform, arguably the earliest form of proto-writing (Damerow, 2006, p. 9);
- The role of symbolic, pictorial, representational aspects, as exemplified in the Egyptian and Mayan glyphs, *versus* the more graphic aspects of the Mesopotamian and Chinese systems (Baynes, 2004, p. 172);
- *Taphonomic* factors are significant in all Palaeoart as discussed earlier (Bednarik, 1994) and also to the history of proto-writing, where it is believed that outside of Mesopotamia where clay tablets were used for script, “much of the early script development has been lost because most documents were written on perishable materials (Postgate, 2005, p. 278).

Damerow has created an aesthetically pleasing diagram depicting the major proto-writing phases from a planetary perspective (See Figure C11).

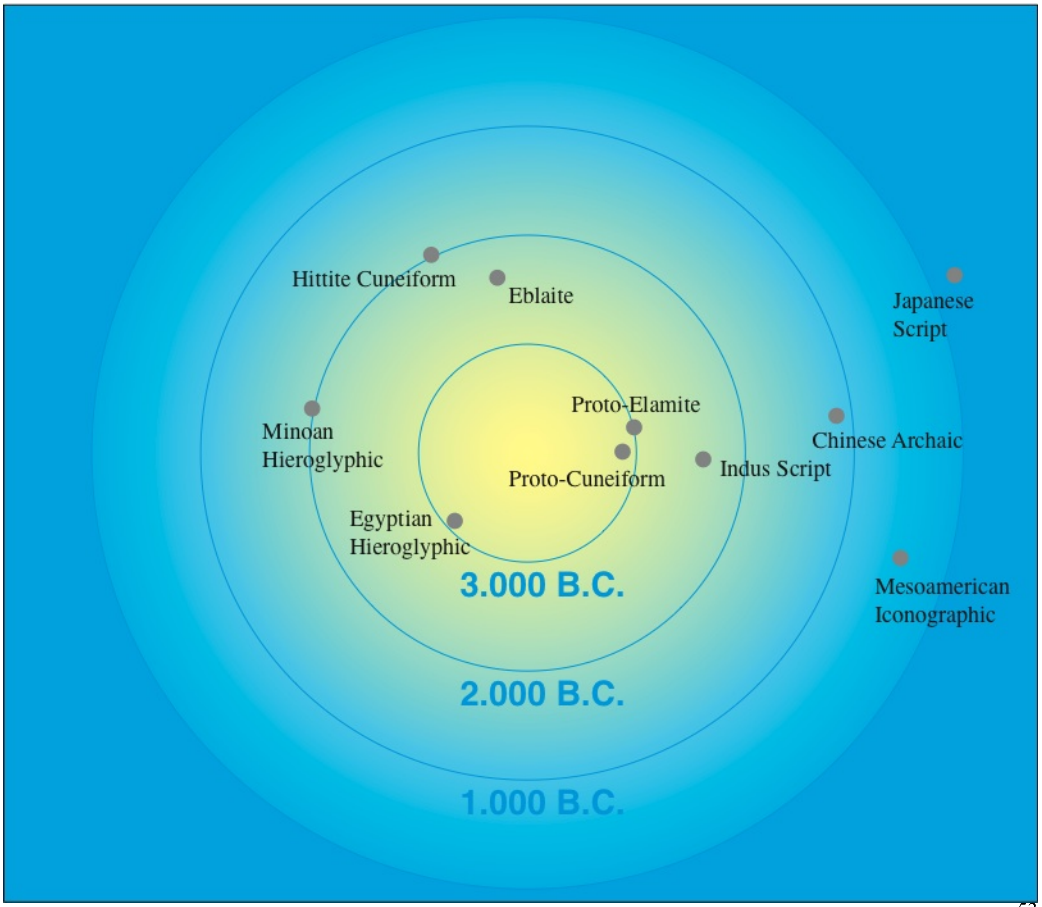
Hittite Cuneiform
Eblaite
Japanese Script
Proto-Elamite
Minoan Hieroglyphic
Chinese Archaic
Proto-Cuneiform
Indus Script
Egyptian Hieroglyphic
Mesoamerican Iconographic
3.000 B.C.
2.000 B.C.
1.000 B.C.

Figure C11: Historico-Geographic Map of Earliest Attestations of Writing[53]

Pictographic/Ideographic Proto-Writing

Pictographic scripts (in which the graphemes are iconic pictures) are generally not classified as complete writing systems. Most linguists claim that a writing system cannot be completely pictographic or ideographic but must be able to refer directly to a language in order to have the full expressive capacity of a language. Although the details of exact chronologies are hotly—and perhaps territorially debated—earlier pictographic writing has been found in Sumer, Egypt, China, Mesoamerica and the Indus Valley regions.

The Indus script (See Figure C12) is a pictographic system that developed between 2700–2500 BCE as the Early Harappan culture transitioned into the Mature Indus Civilization. Around 2000–1900 BCE the Indus Civilization came to an end in the Indus Valley, which led also to the disappearance of the Indus script (Parpola, 2005, p. 31). There were also earlier pictographic forms of writing on clay in Uruk perhaps as early as 3,300BCE, which may have laid foundations for the later wedge-shaped cuneiform (Hooker, 1990, p.19) (See Figure C13).

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[53] *Note.* From “The Origins of Writing as a Problem of Historical Epistemology,” by P. Damerow, 2006, *Cunieform Digital Library Journal, 1*, p. 3. Copyright 2006 by Peter Damerow. Reprinted with permission.

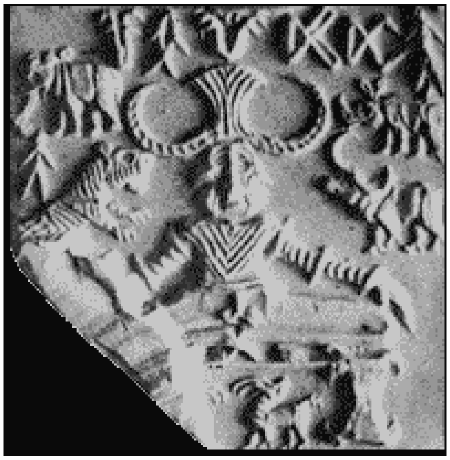

Figure C12: Indus Script Pashupati[54]
Indus Valley 2,700-2,500 BCE

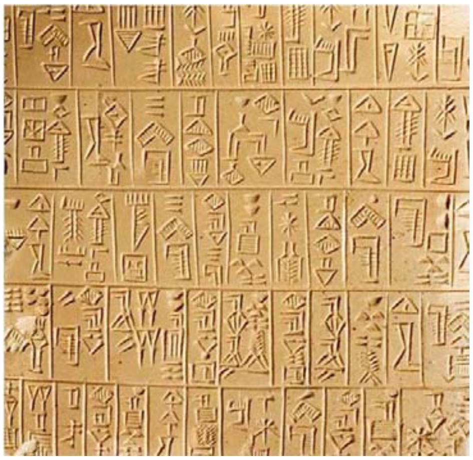

Figure C13: Pictographic Cuneiform[55]
Sumer c. 2,600 BCE

Still extant pictographic scripts are found among the North American first nation *Micmaq* people, the Aztec *Nahuatl*, and the Sino-Tibetan *Naxi* people.

Logographic and Syllabic Writing Systems

Although preceded by earlier pictographic systems, the following are considered to be the first complete language-based writing systems: Sumerian Cuneiform (See Figure C14), Egyptian Hieroglyphs (See Figure C15), Chinese *Hanji* (See Figure C16) and Mayan glyphs (See Figure C17). The Chinese Hanji—was used for short texts on bronze vessels and in the oracle bone system from the Shang Dynasty (c. 1,200 BCE) (Trigger, 2004, p. 50). In a recent edited book on *The First Writing*, anthropologist Stephen Houston (2004) presents these as the first systematic scripts representing units of sound and meaning. Something of an expert on Mayan script, his claims that the earliest Maya texts are not mere logograms has come as something of a shock to traditional notions of Pre-Columbian Mesoamerican development. He claims that Mayan scripts are as "linguistically equipped, with ergative pronouns, possessive suffixes, and instrumentals, as anything seen in [Chinese] Oracle Bone inscriptions" (p. 351). These four systems all appear to combine logographic, syllabic and determinative features.

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[54] The Pashupati, Indus Valley seal with the seated figure termed Pashupati. The writing above it is inscribed in the mature Indus script. This image is in the public domain. http://en.wikipedia.org/wiki/Indus_script

[55] Sumerian inscription in monumental archaic style, ca. 26th century BCE. This image is in the public domain. http://en.wikipedia.org/wiki/Cuneiform_script

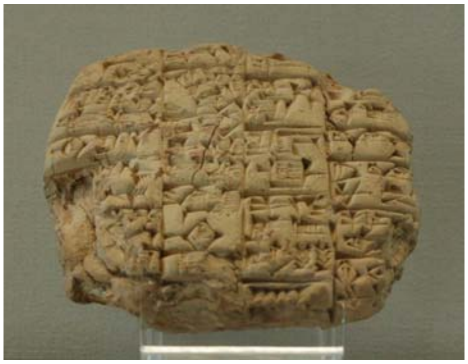

Figure C14: Cuneiform Clay *Letter*[56]
Telloh (Girsu), Iraq c. 2400 BCE

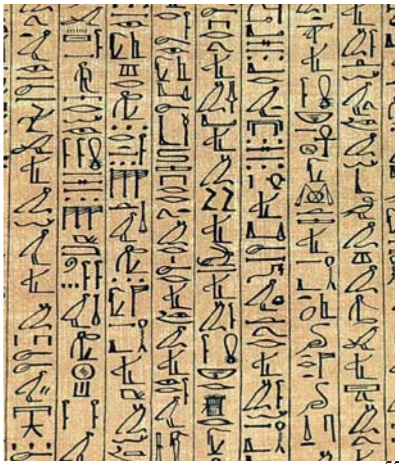

Figure C15: Papyrus of Ani[57]
Egypt, 19th Dynasty c. 1,300 BCE

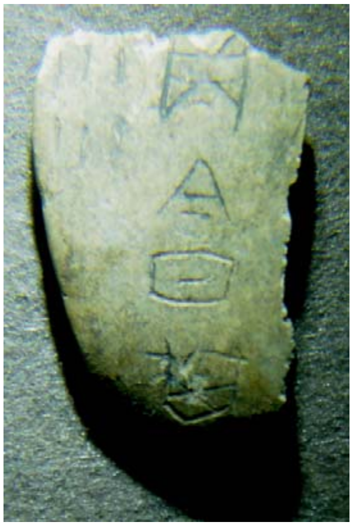

Figure C16: Oracle Bone Script[58]
China, Shang Dynasty c. 1,200 BCE

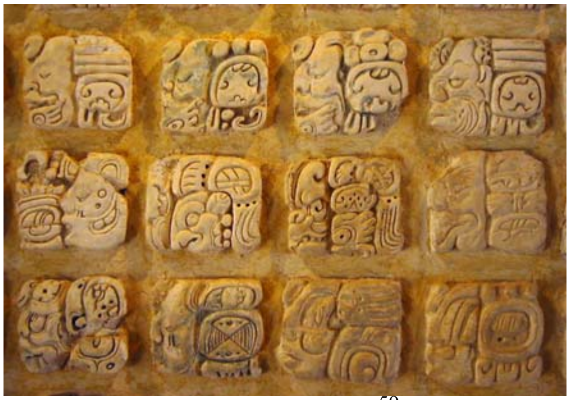

Figure C17: Mayan Glyphs[59]
Palenche, Mexico c. 400-700 BCE

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[56] Cuneiform letter sent by the high-priest Lu'enna to the king of Lagash (maybe Urukagina), informing him of his son's death in combat. This image is in the public domain. http://en.wikipedia.org/wiki/Image:Letter_Luenna_Louvre_AO4238.jpg

[57] The *Papyrus of Ani* is the original Egyptian text of the *Egyptian Book of the Dead*. It is written in cursive hieroglyphs, usually reserved for religious texts. This image is in the public domain. http://en.wikipedia.org/wiki/Egyptian_hieroglyphs

[58] Oracle Bone about *the Sun*, from an exhibit at Chabot Space and Science Center in Oakland, California. This image is in the public domain under the GNU Free Documentation License. http://en.wikipedia.org/wiki/Image:OracleSun.JPG

[59] Maya glyphs in stucco at the *Museo de sitio* in Palenque, Mexico. This image is in the public domain. http://en.wikipedia.org/wiki/Mayan_glyphs

A significant point of distinction is beginning to be made—in relation to the origins of writing—between the more symbological systems such as Egyptian and Mayan glyphs which show one approach to developing scripts and integrating them with high culture and the more graphical systems such as Mesopotamian and Chinese (Baynes, 2004, p. 172). The recognition of these different types of early writing opens new potential avenues for considering other complex recording systems as writing systems as well—most notably the Inkan *Khipu*.

Cord[60] Re*cord*ing Systems

The *khipu*[61] (or *quipu*) is a textile artifact demonstrating a complex system of different colored cords and knots (See Figure C18). An Italian archaeologist, Laura Minelli, has posited that two Italian Jesuits who had begun the deciphering process, between 1610 and 1638 identified the khipu as a writing system. According to Minelli, the Jesuits claimed, "There were quipus that differed from the ones used for accounting. These so-called royal quipus[62] had elaborate woven symbols, which hung down from a main string" (Domenici & Domenici, 1996) (See Figure C19). The authenticity of this claim is still in dispute. Anthropologist, Gary Urton, refers to Inka *khipu* as "an integrated system of knowledge, skills, and communicative practices that I believe would qualify, in the eyes of most theorists on writing and literacy, as a writing system" (Urton, 2003). He has also deciphered it sufficiently to claim that it was primarily structured as a binary code, like the coding systems used in present-day computer language.[63] This factor seems to suggest that it may have been both a simple writing system in combination with a counting system. This writing system of the Inkas was once thought to have only been in use at the height of the Inka civilization (14th to 16th centuries CE), but recent discoveries in coastal Peru, suggest much earlier. Ruth Shady, an archeologist leading investigations into the Peruvian coastal city of Caral claims that *Khipus* were among a treasure trove of articles discovered at the site, which are about 5,000 years old.[64] This claim will need considerable research to establish its veracity. However, if the claim were found to be valid then it would suggest that the Inkan counting system pre-dated the Babylonian and Greco-Roman counting boards[65] that had already pre-dated the Chinese *abacus* by approximately 1,500 years.

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[60] It is interesting to note the etymology of the word "cord" as the suffix in the verb "record," from the Latin: *recordari* "remember, call to mind," from *re-* "restore" + *cor* (gen. *cordis*) "heart" (as the metaphoric seat of memory, cf. *learn by heart*). www.etymonline.com

[61] *Khipu* is the Quechuan spelling. *Quipu* is the Spanish spelling. For more information on the current state of academic research, see the *Khipu Database Project*, funded 2002-2004 by the National Science Foundation and Harvard University, and in 2004-2005 is funded by the National Science Foundation. http://khipukamayuq.fas.harvard.edu/DatabaseProj.html

[62] Reputedly, most of the *royal khipus* were burned by the invading Spaniards.

[63] For more information about Khipu, Gary Urton's book is extracted online at http://www.utexas.edu/utpress/excerpts/exurtsig.html

[64] More information about the Peruvian khipu can be found as a news report from the South African Broadcasting Commission. Caral: Ancient Peru city reveals 5,000-year-old 'writing' *July 19, 2005, 22:45*, SABC News

[65] The *Salamis* tablets (300 BCE) were the first known counting boards, and were apparently invented by the Babylonians. They were followed by Greek and Roman counting boards and the medieval European abacus, while the Chinese abacus originated in 1,200 CE followed by the Japanese and Russian. There are

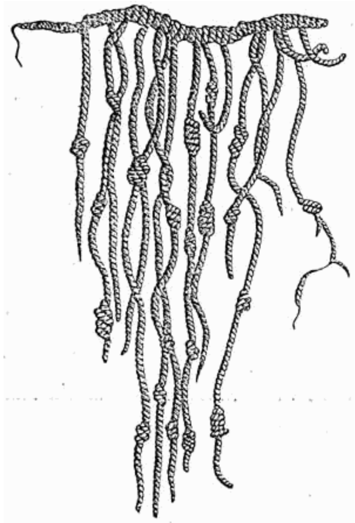

Figure C18: Simple Khipu[66]
Peru c. 1,400-1,532 CE

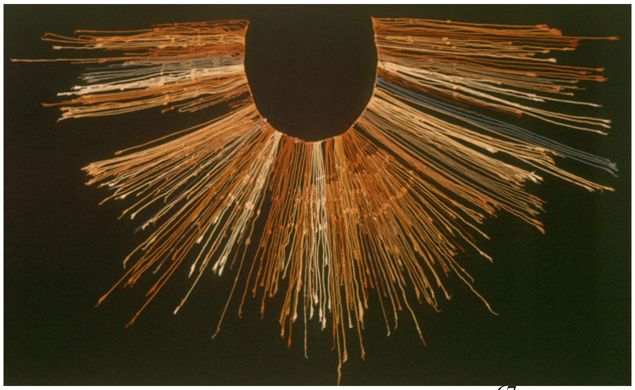

Figure C19: Possibly a Royal Khipu[67]
Larco Museum, Lima Peru

Towards Alphabets

The evolution of the first full alphabet[68] in Greece c. 800 BCE was followed by the Roman version, which is the alphabet used for English and most Western European writing today. Linguists claim that the Greek alphabet developed from Egyptian hieroglyphs through a number of other proto alphabets such as the Proto-Canaanite (c. 1,400 BCE) and the Phoenician (c. 1,100 BCE) (Hooker, 1990). The situation is much more complex though in relation to other writing systems and beyond the scope of this appendix which was intended to focus on *pre-literate* language development through art.

Literacy and Beyond—Future Directions for Language as Art

The above illustrated discussion was intended to introduce a cross-section of Palaeoart and pre-historical artifacts that demonstrate a remarkable degree of aesthetic sensibility—not to mention other qualities and faculties—in early humans and even our predecessors, well before the invention of the alphabet and what is generally referred to as literacy.[69] Up to that point in

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also suggestions that the Aztecs had a portable abacus as early as 1,000 CE. There are references (in Spanish) listed on the following website. http://www.geocities.com/a1ma_mia/abacus/

[66] A simple khipu most likely used for accounting. This image is in the public domain. http://en.wikipedia.org/wiki/Image:Quipu.png

[67] An elaborate khipu showing different colored threads and variously positioned knots that may possibly have been a Royal khipu. This image is in the public domain. http://en.wikipedia.org/wiki/Image:Inca_Quipu.jpg

[68] Full alphabets consist of both consonants and vowels. Earlier proto-alphabets—called abjads—only consisted of consonants. A similar development apparently occurred in language evolution though much earlier (Foster, 1999; Kay, 1977).

[69] For a postcolonial critique of the Eurocentrism in the taken-for-granted modernist notions of *literacy*, see the following critiques of the World Bank's *Education for All* agenda (Gidley, 2001b; S. Jain & M. Jain, 2003b).

time—around 1,000 BCE—according to the narrative unfolded in the main paper, human consciousness was of a different nature from what it is today. The archaic, magic and mythic, modes of consciousness demonstrated in the previous sections became superceded in many parts of the world—but significantly for European history, in Ancient Greece and Rome where writing based on alphabets began in earnest (Poletti, 2002). Perhaps the most notable feature of the development of consciousness that arose with the intellectual-mental-rational mode of thinking is that it led to the breaking up of earlier more unitive magic and mythical consciousness into what we take for granted now as more or less separate faculties—speech, writing, visual arts and music. Prior to the 1st millennium BCE these faculties and the processes and products associated with them were much more closely interwoven than they are in most 20th and 21st century *modernized* humans—as indicated in the preceding illustrations. The *most* unity was in the Palaeoaesthics of the very early human and the *least* integration between these faculties has been evident in the last two hundred years—with key individuals along the way being multidimensional exceptions. The latter are often referred to as Renaissance men/women indicating the integration of their intellects with art, music and spirituality. The narrative that I have been presenting throughout this appendix and throughout the whole paper points towards an emergent reintegration of these key human faculties—through postformal-integral-planetary consciousness. The future indicated would be one where language again becomes artistic, yet also rich with the conceptual content, organization and clarity that may arise from the integration of aesthetic creativity *and* mental conceptualization.

Conclusion

From the perspective taken in this appendix I invite a deeper appreciation of aesthetic sensibility as one of the core characteristics that distinguishes us as human beings. Anthropologist of art and culture, Ellen Dissanayake has referred to humans as *Homo Aestheticus* (Dissanayake, 2003). Gebser and Steiner both point to the significance of artistic aesthetic enactment through renewed forms of scholarly-poetic writing as part of the new emerging consciousness. Edgar Morin appears to have a similar idea with the use of his term *Homo Poeticus*, (cited in De Siena, 2005). This appendix points to the need for further research in this area. There are multiple theoretical implications that could be drawn from the above data. It is not the place in an appendix such as this to attempt to cohere this evidence theoretically. My primary interest was to present some of the critically underappreciated evidence of the emerging aesthetic sensibility of hominins, and the several phases of aesthetic flourishing that pre-literate humans have demonstrated, as potential contra-indications to the premature theoretical closure of either the *up from apes* biological narratives, or the Upper Palaeolithic *cultural explosion* narratives. Clearly more research and delicate theorizing is needed to enter phenomenologically and hermeneutically into the deeper meaning of this evidence.

Towards an Integral Critical Theory of the Present Age

Martin Beck Matuštík

Abstract: A new model of a critical theory that is integral is introduced. It adds a seventh stage to a six-stage model of critical theory. Building on the model's predecessors, from Kant, Hegel, and Marx to Habermas and Wilber, this proposal is a three-pronged model of material, socio-political, and spiritual critique of the present age. Each dimension is non-reducible to the other. The current model echoes the attempts to bridge social and existential perspectives by early Marcuse and Sartre, and the author's prior work that did this for Habermas and Kierkegaard. This model of an integral critical theory introduces a self-transformational axis, the integer or witness-self, complementing transversally the vertical stages and horizontal states of consciousness.

Keywords: Critical theory, Habermas, integral, model, Wilber

Introduction

A new—integral—critical theory (ICT) of the present age calls for at least three non-reducible dimensions of inquiry and practice, each dimension addressing a distinct field of human needs. My thinking about the possibility of ICT is programmatic in ways it poses its questions: How do we come to terms with economic, political, and religious conflicts in the context of their globalization? And, in response to their global character, how do we integrate the fields of the economy, politics, and spirituality? Answering these questions is a matter of planetary survival, and some preparatory work is in order. In taking such a propaedeutic step in the direction integral questioning opens for us, I describe three distinct and yet interrelated fields of needs and their historical modes of economic, political, and spiritual scarcity. ICT requires us to rethink the fault lines of conflict not as so many clashes of civilizations but rather as collisions of frameworks among material, political, and spiritual levels of development within each civilization and increasingly globally. By "integral" in the context of "critical theory" I mean a theory that includes the three essential and non-mutually-reducible (or orthogonal) dimensions of human existence: material, sociopolitical, and spiritual needs. ICT endeavors to bring together the personal or existential freedom with sociopolitical liberation and spiritual self-transformation.

While there have been schools of thought in other disciplines that chart various integral perspectives on human development, there have not been new or fully successful attempts in philosophy that would bring together the personal or existential freedom with sociopolitical liberation and spiritual self-transformation. Integral perspectives on human and social development were not generally available as a possibility before the notions of biological evolution (Darwin), psychological development (Kierkegaard, Dostoyevsky, Kafka, Piaget, Freud, Kohlberg), and social evolution (Hegel, Marx, Weber, Durkheim, Habermas) were introduced in the nineteenth and twentieth centuries.

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Accordingly, I will begin with a brief review of major efforts that pave the way for the very possibility of ICT and next describe the seven stages of critical theory. I will introduce then three fields of human needs and corresponding ideal dimensions of their satisfaction. With the ready-made outline of dimensions, fields, and ideals of ICT, I will chart the basic modes of critical deficit that describe various types of failure of meeting the ideality. Finally, I will show that *integral* critical theory must embody *redemptive critique,* insofar as its motive not only develops a theory with practical intent but also with transformative hope.

Sources of Integral Critical Theory

My thinking about an ICT of the present age does not originate in a vacuum. It has numerous theoretical and practical forerunners, and thus raises both old and new questions. While the notion that the political is personal and the personal is political echoes some of the more recent ferment of the 1960s, in the West we find much earlier ideas for integrating personal and social perspectives both in the Judeo-Christian and philosophical writings. The Jewish Law, Torah, and the early Christian faith embody the communal forms of life that are at once socially and personally transformative. Plato's *Republic* offers a thorough examination of the intrinsic relationship between the twofold founding of justice, that of a just individual (psyche) and society (polis). The Middle Ages achieve an increasing synthesis of these classical perspectives: St. Augustine's *City of God* responds not just to Cicero but mainly to the collapse of the ancient Roman civilization, and the "city" becomes the dominant metaphor of personal-political *Ordo* in its human and divine ordinances. St. Thomas Aquinas erects in his *Summa* an architectonic of a spiritually informed real-politics. And the Jewish, Christian and Arabic scholars in the Golden Age in Spain, e.g., Maimonides, engage in a civilizing, philosophical dialogue among the three religions of the Book.

The precursors to what I call integral critical theory are found much closer to our times. In his early essays from the 1930s, Herbert Marcuse attempted to integrate the existential ontology of Martin Heidegger with the newly discovered humanistic perspective of the young Karl Marx. That attempt, initiated while Marcuse was writing his second doctorate under Heidegger, was cut short by the rise of Nazism. Marcuse joined the Frankfurt Institute of Social Research on its flight into exile and never resumed the project of phenomenological Marxism. It was not until the mid-twentieth century that Jean-Paul Sartre embarked upon a major effort to link in a single philosophical space of theory the existential (personal) together with the sociopolitical (public) perspectives on human development. The accent of the early Sartre in *Being and Nothingness* falls on the personal development, the accent of the late Sartre in *Critique of Dialectical Reason* falls on the social, political, and institutional analysis. These two perspectives, existential Marxism, Marxist existentialism, are like the popular optical illusion showing, depending on one's figure/ground perspective, a duck or a rabbit, and so one can never quite see both at the same time. There were other parallel projects of phenomenological or dialectical Marxism proposed by the Yugoslav *praxis* philosophers, such as by Mihailo Markovic and Svetozar Stojanovic, and by the Czech philosopher Karel Kosík. The Yugoslav experiment in thought had its unreliable companion in Tito's authoritarian socialist regime that morphed after his death into ethnic warfare. Some of the former philosophers of existential praxis became the proponents of the new Serbian nationalism. The Czech idea of existential humanism was promulgated in practice by Alexander Dubček's socialism with the human face, only to be crushed by the invading Soviet army in 1968. What was left of this existential perspective immigrated into the theater of the absurd of Václav Havel who performed it faithfully from his dissident years all the way into his Czechoslovak Presidency after 1989.

In my earlier work (Matuštík, 1993, 2001), I took one small step in the direction abandoned by early Marcuse and unsuccessfully pursued by Sartre. I did so by articulating Jűrgen Habermas's theory of communicative or discourse ethics in conjunction with Søren Kierkegaard's indirect communication underwriting his existential ethics. To be sure, Kierkegaard is able to provide critical theory with an existential dimension of communication that critical theorists of the Frankfurt School tradition for the most part rejected on account of Heidegger's momentary lapse into Nazi activism and more recently also because of the lapse of the Yugoslav *praxis philosophers* into Serbian nationalism. Throwing out the baby of existential perspective with the dirty bath water of nationalism left critical theory too weak to be able to confront the arising religious fundamentalism in the present age. Whether or not one can begin to sketch a critical theory that would give justice to self-transformative and socially transformative perspectives without violence and reductionism, this is no longer an academic question. What is at stake is our ability to come to terms with globalization of socioeconomic, political, and religious conflicts. While social experiments in real existing socialism yielded at least as much suffering as they hoped to alleviate, the reigning neoliberal market ideologies deepen the wasteland left by the previous century. We must learn from their failures as much as achievements, but have we found yet an economic way of life that would not be self- and other-destructive, that would resemble in the material domain what many invoke in their Friday or Sunday prayers? Have we found a political and cultural way of life that would prevent even our best institutions from taking self- and other-destructive paths? Can we say with clear conscience that more democracy has meant less war and exploitation? I pose these as questions, lest someone thinks I easily dismiss the levels of complexity seen in our age and the good-efforts of humanity to meet them. These questions are not rhetorical points for a homily, asking them should not be judged as preaching either. The search for integral thinking and living in the fields of the economy, politics, and spirituality is a matter of global survival.

Seven Stages Toward Integral Critical Theory

While one could name numerous other contemporary sources of or precursors to integral thinking, my most immediate motivating impulse for developing the notion of ICT came from engagement with Ken Wilber's thought in 2006. Because I discovered Wilber rather late, I had both certain distance of a centurion who had never been a disciple as well as independence of years of thinking on the topic with which I came into our dialogue. I want to conclude this review of precursors with two relevant impacts of Wilber's thought on my thinking about integral critical theory.

The first is Wilber's (1997) early engagement with Habermas's critical theory. In my 2001 (xxv-xxvi) biography of Habermas I describe six stages of theory on the way to becoming 'critical.' In my recent engagement with Wilber and other integral thinkers I began to work toward the seventh, integral stage of critical theory, which I introduce in this programmatic essay. To briefly outline the seven stages: First, the Kantian critique of the conditions of possible experience gives us apriori structures that, while as formal perspectives are never experienced themselves, set limits to rational thinking and protect understanding from illusions and contradictions. Second, Hegel, impacted by Darwin and historical consciousness of nineteenth century, taught us that all formal structures or perspectives are themselves developmental, and so while also never experienced as such, they can be grasped retrospectively in their forms of life. Third, Marx discovered that because structures of understanding are not only apriori and developmental conditions of possible experience, but also categories rooted in material career of institutions and modes of economic life, critical theory must not only think possibilities, it must become emancipatory of concrete people and their lived possibilities. Fourth, Western and Freudian Marxists asked the Soviet or orthodox Marxists why greatest critical deficits occurred in the context of revolutionary upheavals of the twentieth century? With Nietzsche and Freud and later with postmodern and literary critical theorists found in cultural studies, they theorized the failure to attend to the depth (hidden, irrational, or deceptively willed) dimensions of human unfreedom. Fifth, early Frankfurt School thinkers, Benjamin, Marcuse, Adorno and Horkheimer among them, learned as much from Western Marxists as from Max Weber and rejected the vanguard hubris of the Soviet and Chinese Marxism, but they retained the emancipatory aims of critical theory. Here belongs also Horkheimer's (1937/1972) classical differentiation of critical, emancipatory theory from traditional, disinterested theorizing. Sixth, Habermas introduces from the late 1970s a communicative model of critical rationality that integrates the elements of Kant, Hegel and Marx and yet reinscribes their achievement within the study of linguistic competences and social evolution. Seventh, ICT adopts Habermas's (1984, 1987, 1992) linguistic-communicative turn and his postmetaphysical standpoint as both a step forward and partial to its own achievement of formal rationality. It is a step forward insofar as Habermas's critical theory explains the apriori structures of understanding or perspectives as grammatical (performative) moves within communicative interaction in which a speaker (I) addresses a hearer (you, we) about something (it) in the world. Habermas is, however, partial to his version of post-metaphysical thinking insofar as he accepts Weber's reduction of all religious development into one of the secularized validity spheres of culture (science, morality and law, and art). In disagreement with Habermas, ICT allows for the possibility of post-metaphysical and postformal spirituality to emerge precisely where he projects a blank vanishing point, that is, under the disenchanted and linguistified conditions of postmodernity. (See Habermas, 1987, figure 28, where the bottom two spaces are left blank, indicating reduction of all sacred contents into profane domains of validity claims. This is precisely where I would theorize in ICT an emergence of postmetaphysical and postformal spirituality.)

Now Wilber adopted the Habermasian linguistic structure of three validity claims and the distinct nonlinguistic rationality of systems theory into the structure of four quadrants. The four holons (the wholes that are simultaneously parts of some other whole) of the integral AQAL perspectival structure (subjective, intersubjective, objective, and inter-objective perspectival wholes) correspond roughly to Habermas's three validity claims of communicative action (intentional or truthfulness speech claims, cultural or normative speech claims, and behavioral or objective speech claims) and the noncommunicative systems rationality (social or inter-objective, functional imperatives of markets and administrative power). At this juncture Wilber and Habermas share all that comes under the sixth stage of postmetaphysical critical theory. The key to my thinking is not what Wilber takes over from Habermas but rather what he impugns to him, namely that his social evolutionary model stops with formal stage of communicative rationality and neither allows for postformal stage of consciousness (read: individual, social, and cultural) development nor for nondual postformal states of awareness. Habermas adopts Weber’s reading of Kant’s three critiques (reason, morality, and art) and Hegel’s three spheres of culture (science, morality and law, and aesthetics). On that view social rationalization of modern cultures resulted not only in a disrupted, fragmented value spheres of expert knowledges (laboratory, jurisprudence, museum and aesthetic criticism), but also in a thorough reduction of the differential rationality-deficit between sacred and profane domains. In brief, social evolution has ushered our age into a thorough postmodern disenchantment with all spiritual or religious claims about subjective, intersubjective, and social worlds. If there has been a line of religious or spiritual development, like the evolution of dinosaurs, it ends with the linguistification of its claims to validity because those very claims are now answered by the expert cultures and the formal (I, you, we) perspectives we can take on all contents (it). Habermas, just like Wilber, integrates post-Darwinian, Piagetian, Kohlbergian, Hegelian models of human evolution but unlike Wilber stops short of allowing for religious evolution after Weber's and generally critical theory's disenchantment with religion. The postformal model of human evolution is, like Habermas’s, based on a reconstructive social science, yet unlike Habermas, it theorizes experience and claims of individuals who already today develop stages and states of consciousness beyond formal rationality. This permits us to raise spiritual claims to existence *after* the postmodern disenchantment with religion; indeed, certain atheism or ”death of God” may be assumed in such postformal and nondual claims.

Nothing in Habermas’s model precludes, Wilber (2001) writes in response to him, postrational stages and states of consciousness because the unfolding of new patterns cannot be read off the accomplished forms of understanding. And so in responding to Habermas’s brand of critical social theory, Wilber boldly calls for an integral “critical spiritual theory.” While Habermas’s “religion or ultimate concern,” is communicative rationality beyond which he finds “no alternative to postmetaphysical thinking,” Wilber proposes to develop “a thoroughly postmetaphysical, post-Kantian spirituality.” And he hopes that this can be accomplished in part within a Habermasian formal framework, as a reconstructive science, yet with new sets of evidence of postrational development offered by those with developmental competence in the dimensions of postmetaphysical spirituality. To sum up my discussion of the seven stages leading up to the ICT, let me cite Wilber’s (2001, Part 1) most important statement about Habermas’s research program in critical theory:

> I consider Habermas [to be] the world’s greatest living philosopher. This does not mean, however, that I agree with all of what he has to say. But in very general terms I do find much agreement with his quasi-universalist approach; his developmental perspective; his dialogical methods; his three domains and three validity claims (art, morals, science—one version of the four quadrants); his championing of the lifeworld in addition to the systems world; his attempt at a reconstruction of the pragmatic history of embodied consciousness; his normative boldness; his blend of both transcendental and context-bound claims; and his critical stance.
>
> I respectfully disagree on many of the details of those broad programs, however; and I strongly part ways with Habermas on his treatment of both pre-linguistic and trans-linguistic realms. Habermas relates humans to both preverbal Nature and transverbal Spirit in ways that I believe are profoundly incorrect. A more integral (or “all-quadrants, all-

levels, all-lines, all-states") approach allows us to handle a much larger view of the Kosmos than Habermas allows.

This brings me to the second area that impacted my current thinking about ICT, my on-line exchange (Wilber & Matuštík, 2006) on stages and states of development. In that conversation I proposed something analogical to my published work on Habermas and Kierkegaard, namely that we introduce an existential dimension into the The Wilber-Combs Lattice (Wilber, 2006, figure 4.1), the integral model of stages and states, and that we do so by drawing a distinct transversal axis that would complement the vertical axis of stages and horizontal one of states. This proposal addresses the question of whether there might be a need for a third, transversal axis, in addition to states and stages of consciousness, in order to account for Kierkegaard's spheres of existence. This is the two-fold background to my question: First, to resume from the previous discussion of stage six of critical theory, Habermas's analysis of social evolution gets us to the amber level of modern and perhaps also higher postmodern consciousness, yet Habermas requires reduction of the rationality differential between sacred and secular, and so requires a translation of spiritual faith-based *mode* of human development into the validity and cultural value *domains of modernity*. In this translation the religious value sphere drops out. Second, Kierkegaard's study of existential spheres admits (with Hegel and so also with Weber and Habermas) that there is no existing religious culture in modernity; there are no Christians in Christendom, though there are nationalist, herd-religious forms and Christians in despair. We are thus required to change the entirety of our sphere of existence. I argued in my book, *Postnational Identity*, that Kierkegaard's transformation of individuals is required by the type of social evolution posited by Habermas, otherwise it falls into anomie and meaninglessness and remains too weak to resist fundamentalist and nationalist modes of individual and group formation (consciousness falls back into tribal-ethnocentric stage).

I agree that we cannot jump the stages of consciousness, or as Habermas, with reference to Hegel's and Marx's developmental theories, would say of social evolution. I also agree with Wilber and against Habermas that the modern Enlightenment reduced all enlightenment to its particular stage of development, and so it now treats all religious states as ego- and ethno-centric, traditional, pre-critical, requiring falsely a full translation of the spiritual into the secular. And the fundamentalist forms of that archaic-cum-postmodern consciousness then clash with the modernist critical view represented, e.g., by Habermas's formal rationality. Iran's treatment of its philosopher Ramin Johanbegloo, who likes to quote Habermas among others, is the case in point (Matuštík, 2006). But I want to hold that we need, besides the vertical axis of stages and the horizontal axis of states also the transversal, or genuinely vertical-inward axis of existential self-transformation. It is true that one cannot jump the stages, but in a non-evolutionary sense the spheres of existence, as shown by Kierkegaard, are available to everyone at every stage of consciousness. Yet existence spheres are not exactly the same as states of consciousness. Kierkegaard criticizes Hegel for confusing transition with transformation, evolutionary developmental dialectic of both-and with existential transformative dialectic of either/or. We need to posit in contrast to Hegel-Marx-Habermas-Piaget-Kohlberg-Gilligan, etc. and their evolutionary models, something akin to Kierkegaard's existential spheres of existence (esthetic, ethical, ethico-religious, generic and higher level-religiousness) as a motivational-inward prerequisite for the very possibility (condition of possibility) of evolutionary change. And since states are not the conditions of the emergence of stages, then we cannot speak of spheres of existence simply in terms of states either. My model of ICT assumes that we can introduce a three-pronged lattice or axis with stages and states of consciousness and spheres of existence. Enlightenment is vertical (stages of conscious and social evolution leading to the fullness of content), horizontal (states of possible awareness receding to the emptiness of form), and transversal (existential spheres moving ever deeper to the awakening of spirit in the witness self).

Three Fields of Needs, Three Dimensions of Ideal

Beginning with the seventh, integral stage of critical theory, let us imagine a triangle: At the base of the triangle are material needs (IT as represented by the objective behavior and body and inter-objective functional systems of markets and administration) and social-political needs (YOU/WE of intersubjective and cultural interaction), at the top are self-transformative or spiritual needs (I-I no longer as a metaphysical soul or transcendental ego but as an integer and existential witness, awareness within stages and states of consciousness). Speaking of needs and dimensions of ICT indicates that critical theory must operate in both incarnate and ideational modes. The needs represent the basic nourishment necessary for sustaining the very human existence. Each type of nourishment has its own field for growing and harvesting. Ideals become critical tools when we lack certain needs, and the time and place where one stands while envisioning what one lacks in the present condition is not a field but a projective dimension (*utopos* has no place or field, yet it exists in a dimension of ideal, hope, waiting, possibility). Any impetus for transformation of the field of needs thus comes from the recognition of the dissonance between the reality and the ideal, thus from the material, political and cultural, and spiritual dimensions of critique and possibility.

One field of ICT pertains to *material needs* and resources for their satisfaction. Its corresponding dimension encompasses *critique of political economy,* whereby it articulates vehicles for just economic distribution of material resources for the satisfaction of bodily needs. Another field concerns *social and cultural needs* for recognition and institutions for their expression. This dimension of ICT develops *critique of society*, whereby it seeks political vehicles for social integration, democratic participation, and cultural reproduction. The third field articulates ultimate concerns or hope—*spiritual needs* for the self-transformation. The dimension of *spiritual critique* in this field is to unmask not only the secular but also the religious idolatry *of finite absolutes*. In this triple approach, an ICT would promote ways of human self-transformation, practices aiming at spiritual liberation, and communicative channels to redemptive hope.

No one field of needs can be satisfied by another field (any such attempt would lead to suffering and violence); hence no dimension of critique can be overtaken by another dimension (any such attempt would lead to ideological reductionism). Material scarcity can be overcome by social justice, while the scarcity of recognition is met by reducing the democratic deficit in social, political, and cultural institutions. The scarcity of hope can be overcome neither by economic nor political means. Political economists, critical social theorists, and social activists presuppose hope for their work but do not have access to its renewable resources. The ultimate concern or hope is not like addressing an inconvenient political truth about the climate and energy decline, e.g., by converting soybeans into biodiesel or switch grasses into ethanol. Hope is not the same as hopes, one can have ultimate concern, hope (verb) yet one must not project one ultimate something, a hope (noun). As Rabbi Cooper (1997) says, “God is a verb.” No critical theory can get off the ground without hope in the verbal, active, performative sense, yet this dimension is recovered only within the seventh stage of critical theory that integrates material and sociopolitical hopes with redemptive hope. The scarcity of hope calls for a redemptive dimension of critical theory (Matuštík, 2008).

ICT addresses three non-reducible *fields of human needs*—material, social and cultural, and spiritual—developing *three dimensions of critique and possibility*—political economy of social justice, politics of recognition, and ultimate concerns for self-transformative and redemptive hope. These are laid out in Table 1.

Table 1. Dimensions, Fields, and Ideals of Integral Critical Theory

FIELD OF NEEDS	*DIMENSION OF CRITIQUE*	*REGULATIVE IDEAL or POSSIBILITY SOUGHT*
1. material needs	critique of political economy	social justice: economic redistribution of resources
2. social & cultural needs	critique of society	deliberative democracy: political & cultural recognition
3. spiritual needs	critique of secular and religious idolatry	redemptive hope: spiritual liberation & existential self-transformation

The Basic Modes of Deficit

When fields, dimensions, and their projected idealities are conflated or reduced into one another, major deficit and even violence may occur. I introduce some *basic deficit modes*, where in the following "-" indicates a deficit and “+” a reduced (truncated) addition of a field or dimension of ICT. For example, "(2) - (1) + idolatrous (3)" means a perspective that focuses on sociocultural needs, does not adequately consider material needs, and supplements with an idolatrous interpretation of spiritual needs.

(2) - (1): If we try to meet social and cultural needs without attending to the material needs, we get *an economically deficient model*. Safeguarding democratic institutions, access to opportunity, and even political pluralism and multiculturalism, yet doing so without addressing the material conditions for their very possibility yields the economic deficit of bourgeois liberalism. For example, Hegel formulates in his *Philosophy of Right* a social ideal of a rational state in which he reconciles various modern conflicts, such as those between the individual rights and social duties, by envisioning a higher-level ethical whole. In such a higher-level whole, the individual finds his or her fullest self-expression in and through the social institutions of the state, not against them. Yet Hegel, against Kant who proposed before him the League of Nations and even perpetual peace for the end of all wars, leaves all nation-states in the international state of nature in their mutual relations, each state exposed both to hunger and war. Poverty, class-based racism, gender ceiling, and international struggle among warring nations are all conceded as necessary evils by Hegel’s ethical state as well as by the other great modern theorist of political liberalism, John Rawls.

(1) - (2): We get *a politically deficient model* if we reverse Hegel's ideality and focus on the economy alone without safeguarding the institutions of the lawful state. This deficit is best exemplified in the Soviet Marxism or Stalinism. Of course this deficit can plague both classical market liberalism that has but few minimal legal protections against wild markets and neoliberalism that has taken away as many of such protections as possible. This is the meaning behind calls for the withering away of the state (Lenin) as well as for starving the state with reducing social spending (market liberalism). The protests against the lack of political and representative democracy in the World Trade Organization on the other hand call for more political transparency. In state socialism (defined by Webster as *etatism*) state becomes a badly run corporation and all citizens are at its mercy as its employees without any independent legal protection. Without deliberative democratic institutions and sociopolitical recognition, the markets and attendant corruption rule by their not so invisible hand, as we see in many a post-Communist country today. Before them, the party directives for economic redistribution relied on models of social totality. All real existing socialisms, not just the Soviet and Chinese Marxism, tended to reduce political, legal, and multicultural sphere to the economic. Just as Hegel balked at Kant's hope for perpetual peace in the League of Nations, so Marx, unlike Hegel and Habermas, never saw the need for a philosophy of right.

(2) - (1) + idolatrous (3): Take the economically deficient model and add to it an idolatrous form of religiosity. The major difference between secular political liberalism and *religious conservatism* does not lie merely in the economic sphere to which they tend to be inattentive (or which they treat with minimalism), but rather in their pseudo-religious means of legitimating and justifying persisting social inequalities. Idolatrous religiosity elevates as ultimate one or another political or cultural or economic need. Dostoyevsky's literary figure of the Grand Inquisitor describes idolatrous satisfaction of spiritual needs. Moral majorities and televangelists, whether among the believers or from the bully pulpits of churches, mosques, synagogues, and political parties, emulating the Grand Inquisitor, offer the angry and pliant individuals and masses false redemptive hope, for they promote vengeance against and fear and envy of the hated other.

(1) - (2) + idolatrous (3): Take the politically deficient model and add to it an idolatrous form of religiosity. Insofar as the cults of personality in Stalin's Russia, Mao's China, or Castro's Cuba replaced, and so stealthily supplemented, the ultimate human concerns, they exemplified *in that field* the worst Caesaro-papist excesses also described by the portrait of the Grand Inquisitor. The secular idolatry of the party or progress or personality cult (the ultimates or practico-inert absolutized hopes supplied by to so-called atheistic states) differs only in kind from the religious idolatry of conservative religious-moral majorities in developed West (the ultimates or practico-inert absolutized hopes supplied by nationalist or state interests). While the deficit of the model *(1) - (2) + idolatrous (3)* can justify someone to claim that 9/11 was God's punishment on the sins of homosexuals and feminists in America; the deficit of the model *(1) - (2) + idolatrous (3)* justifies violent revolutionary means of the present as a necessary sacrifice for the secular-cum-divine future to come.

(3) - (1) - (2): The model that jettisons both the economic and the political needs and tries to meet both spiritually yields myriad forms of *religious oligarchy and theocracy.* These modes of incarnate (economic and political) deficit within the religious forms of life entrench priestly or other religious elite, which then lives from natural wealth and the toil of the poor it serves. All

along the elite cult imposes on the people strict codes of behavior, perhaps exhibiting more of a drive for power than for the divine. These deficit modes are rare in the West ever since the end of the Middle Ages. But they define a great part of the Middle and Far East. The Shiite Ayatollahs of Iran or the Saudi Arabian Sunni rulers could care less for their own poor or even for the poor Palestinians, whether these poor happen to be Muslim or Christian believers. The impact of a religiously informed ICT would be to speak as powerfully to established Islam*ist* order today as Kierkegaard did to the powers that be in Christendom, to develop a religious critique of certain spiritlessness, to ask where are the Muslims in Islamdom? A religiously informed ICT would unmask any notion of a "holy land" as a piece of a prized real estate that must be won at all cost, even that of social and economic oppression.

(3) - (2) + supplement of (1): When religious groups attempt to satisfy material needs while suppressing political freedom, we get a postsecular convex mirror of the state socialist or *etatist* deficit model. *Fundamentalist religious movements* try to meet the material needs of economically oppressed and politically unrecognized groups through institutions of social welfare, but they bind the hearts of the masses with strict adherence to a religious-nationalist doctrine. The success of Hamas or Hezbollah mirrors the initial success of the welfare policies in the Communist East, perhaps also those of the Kibbutz movement (both socialist and religious) among the early Jewish settlers in Israel. The success lies in their program of economic sharing and redistribution. Religious fundamentalists and the orthodox vanguard (whether on the Left or on the Right) alike suffer from democratic deficits. The secular idolatry of the Communist cults differs only in kind from the religious idolatry of fundamentalists.

But There Are Alternatives!

One often hears from the liberals that there is no political alternative to modern democratic institutions, and so, we hear, we must learn to live with some economic deficits and even with war. One often hears from the leftists that there is no just economic alternative to commanded (revolutionary) redistribution of material resources, and so, we hear, we must learn to live with some democratic deficits and even with class conflict and the transitory dictatorship of the poor. One often hears from religious conservatives, fundamentalists, and even many a sincere believer that there is no spiritual alternative to their real existing religion, and so, we hear, we must learn to live at times with economic and at times political deficits and even with ensuing religious conflicts.

TINA—there is no alternative—is a condition of paralysis, a failure of imagination, thinking, and hope, cancer affecting all three fields of needs, dimensions of critique, and ideals sought. TINA has been originally formulated in the field of material scarcity and its dimension of economic critique as a claim that there is no economic alternative to the economy shot through with some social injustice. But, secondly, one could speak more specifically about material, postmodern, and postsecular forms of TINA.

The postmodern TINA condition affects the field of the political and its scarcity of recognition and social critique. It is the claim that there is no alternative political narrative and thus viable ideal of liberation. The postmodern TINA condition expresses the scarcity of critical resources (it asserts the impossibility of formulating normative critique and liberating narratives).

Thirdly, the postsecular TINA condition affects the field of the spiritual and its scarcity of hope and requisite critique of secular and religious idolatry. It is the claim that there is no religious alternative to the scarcity of hope. The postsecular TINA condition aggravates the scarcity of hope, namely the sinking sense that no alternatives exist to fundamentalist and secular wastelands of the present age.

The reductionisms of analysis of human needs and the deficits of critical thinking about alternatives have crippled experiments in economic, socio-political, and religious change affecting the last two centuries. The human race has been producing unparalleled economic, political, and spiritual wastelands in the last hundred years. The productivist, functionalist, and technological paradigms of thought and action have dominated both the evolving capitalist mode of production and real existing state socialism that just wanted to best it. The inconvenient truth about industrial socialist experiments is their ecological devastation carried over to the wild free-market economies in the post-Communist East. The fear of open thinking and exchange of ideas in the East and the market manipulation of the liberal field in the West have produced several generations of people incapable of thoughtful democracy. The Chinese economic miracle is underwritten by Western internet companies willing to close off free access to information. The authoritarian political models are the preferred ones from Asian economic tigers to Islamist theocracies to Bush's America. Wastelands of spiritlessness in modern times (just like any serious ecological devastation) are scary in that they might be irreversible—from outright annihilation of religious life and ancient wisdom traditions not just in Russia and China but also in Albania or in the most atheistic of European countries, the Czech Republic, to spiritlessly reactive world-religious formations of rising Christian, Jewish, and Islamist fundamentalism.

My programmatic thinking about the possibility of ICT had but one aim, to begin to come to terms with globalization of economic, political, and religious conflicts and from it the emerging need to develop serious integral thinking and living in the fields of the economy, politics, and spirituality as a matter of global survival. In taking a step in this direction, I described distinct fields of needs and their historical modes of economic, political, and spiritual scarcity. In relation to the incarnate fields of needs, I distinguished corresponding ideal or redemptive dimensions of transformation from which alone any critique of the present gets its impetus. Would we be able to recognize our fields of scarcity without a dimension of anamnesis (recollection of the dangerous memory of our future) or without an existential repetition forward of our possibilities (active, redemptive hope)?

I showed how the deficits result from the reduction of fields as well as dimensions of inquiry to each other. The regulative idealities yielded the triple disenchantment housed in the reductionist claims (theories, ideologies, forms of life) of economic, postmodern, and postsecular TINA. The best work done today in each field of needs, dimensions of critique, and redemptive idealities is the integral thinking in which there has transpired an astonishing learning curve from the past and present failures. To mention just a few very specific examples: Addressing material needs, Schweickart (2002) dares to think about alternative economic institutions *after* the failures of state socialism and capitalism. His ideal is stimulated, among others, by economic cooperatives of Mondragon, Argentina's bankrupt companies that were saved and rejuvenated by their workers, as well as China's hybrid environment of postcapitalist attempts at economically viable socialism. In the area of struggle for recognition, the late rapprochement between Jacques

Derrida's impossible hope invoked as religion without religion, the works in feminist and race theory, and Jürgen Habermas's communicative paradigm of morality, law, and democracy all stimulate thinking about institutions that could accommodate our multicultural lifeworlds. Beyond the skeptical postmodern claims, a new critical postmodern theorizing is at once normative and self-limiting (see Matuštík, 2001, 2008, part 1 on Derrida and Habermas). Finally, we are hoping against hope because we live in the crisis of idolatrous ultimates or under the conditions of the "death of God." There is growing a worldwide community of thinkers and meditation practitioners, theorists of developmental studies and integral spirituality introduced models of stages and states of human development suited for understanding the inward dimension of global human flourishing. Beyond the postsecular claims of aesthetic religiosity and secular idolatry, integral spirituality introduces post/modern stages and states of consciousness that envision the divine as at once opening the doors to social justice, multicultural worlds, and the priority of one's inherence in spirit over the adherence to doctrines.

There is one astonishing implication of taking steps in the direction of ICT: What we are suffering in the twenty-first century is neither solely an economic class war, nor Samuel Huntington's clash of civilizations, e.g., between modern West and traditionalist Islam, nor simply religious wars. The revolutionary subject of true human needs, critique, and hoped-for ideals is not to be sought along one single trajectory: either economic or political class or orthodox religious brand-names. ICT requires us to rethink the fault lines of conflict as collisions of frameworks among material, political, and spiritual levels of development. Such collisions arise both from disturbances within the frameworks and in hegemonic struggles among them. The economic analysts need to focus on models best suited to local and global justice. Political theorists and social critics cannot resolve market efficiency and distribution questions, but they must develop legal and political safeguards for deliberative practices and social recognition. Economists and political theorists, whether secular or religious, should in their domains hold their tongues about ultimate concerns. Marx was not the first, Bush is not the last who misspoke from left or right sides of their mouths on religion. It is always disastrous when politics cross-dresses in religious costumes, or when religion underwrites politics, or when economic welfare buys religious adherence.

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Illuminating the Blind Spot:
An Overview and Response to Theory U

Jonathan Reams

Introduction

There have been numerous attempts to make a contribution to the conversation about how we can make the world a better place. These cover a full range of approaches including scientific, political, economic, social, new age consciousness and so on. Many of these attempts focus on the value of seeing the world through the lens, discipline, doctrine or ideology of a particular approach, and thus advocate for the primacy of that approach. In other words, they preach the latest gospel that can bring salvation to a troubled world.

To see the world as a troubled place is not hard. In fact, many would say that if you saw it otherwise you must be blind or seriously in denial. And so efforts to make the world a better place are a response that arises in many forms. The question then arises; what would an integral approach have to offer? How might it go beyond any particular ideology, discipline or doctrine? What if instead of creating models responding to the ongoing problems of the world, we looked at illuminating the blind spot lying within such models, and generated a more comprehensive framework for seeking to understand the underlying processes behind change itself? This is one way to look at what Otto Scharmer has been working on with the development and publication of *Theory U. Leading from the Future as it Emerges. The Social Technology of Presencing.* (2007. Cambridge, MA: The Society for Organizational Learning, Inc.). It can be seen as a way of understanding the underlying processes behind deep change, and of enabling the enacting of such change processes.

In this essay, I will present a substantial overview of Scharmer's new book. The aim of this overview is to give readers a good feel for the scope and depth of this book, (even entice them to read it for themselves), as well as to set the stage for my own comments that follow. These comments will offer responses on two levels; one focusing mainly on cognitive development concerns and how they might have implications for his work, the second focusing on combining some specific points in Theory U and their implications with my own views and pointing to a perceived tension and possible blind spot.

A Whirlwind Tour of Theory U

My plan is to invite you along on the journey I took in reading this book. I will describe the work as I encountered it, chapter by chapter. I will summarize the main points and try to weave together a picture of how Scharmer unfolds his view. He covers a great deal of territory, so settle in for a long journey.

Introduction

The introduction to the book lays out the scope of territory that will be covered. Scharmer begins with a discussion of social inequities in the world, and describes current trends as pointing to a crisis in our society that is making the old forms of institutions and social

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structures obsolete. He sees them as falling apart, and in the midst of their rubble, something new has the possibility to arise. “What I see rising is a new form of presence and power that starts to grow spontaneously from and through small groups and networks of people” (p. 4). This is the new social field Scharmer sees emerging, and he sees the blind spot of this or any social field as “the place within or around us where our attention and intention originates” (p. 6).

His insight to this blind spot is derived from Bill O’Brian’s observation, derived from years of studying and practicing organizational learning efforts, that the “success of the intervention depends on the *interior condition* of the intervener” (p. 7). From this, the underlying question Scharmer poses is: “How can we act from the future that is seeking to emerge, and how can we access, activate, and enact the deeper layers of the social field” (p. 8)? Thus Scharmer lays out the core issue that his work revolves around.

Scharmer also opens by drawing on his farming background, using the term “field” from this context as a metaphor to describe how he views the “*field structure of attention*” (p. 10). The combination of the two elements above (our interior condition and acting from the future seeking to emerge) leads him to working with this “field structure of attention” as the mechanism that links what we say and how we act with where we operate from, or our blind spot. He begins to point to the ways in which consciousness (where we operate from) creates experience as the process or principle in operation in the construction of social fields. “The same activities can result in radically different outcomes *depending on the structure of attention from which a particular activity is performed*. Put differently, “*I attend* [this way] – *therefore it emerges* [that way]” (p. 13). This distinction leads Scharmer to delving deeply into how our attention is and can be structured as a major portion of the book.

Once this foundation is laid Scharmer sets out to build upon it and has three aims for book:

1. To provide a social grammar of the social field that illuminates the blind spot.
2. Exemplify this grammar by revealing four fundamental metaprocesses that underlie the collective process of social reality, moment to moment: thinking, conversing, structuring and globally connecting (global governance).
3. Outline a social technology of freedom that puts this approach onto its feet and into practice through a set of principles and practices of presencing.

This leads to a call for “discover[ing] a more profound and practical integration of the head, heart, and hand—of the intelligences of the open mind, open heart, and open will—at both the individual and collective level” (p. 20).

Part I: Bumping into Our Blind Spot

Chapter 1: Facing the Fire

This brief chapter sets the tone by revealing the earliest intimation of Scharmer’s work. He describes the day when he was sent home from school to find the family farmhouse burning down, and how he stood watching everything he was identified with disappear. He then describes his experience of realizing that this burning away of his old identity allowed him to be present in a way previously unknown, that he was drawn out of his body and into being the “seer,” the true Self. He then relates this to a realization of two selves, which he frames as one being connected to the past, and the other as “who I could become in the future” (p. 25).

Chapter 2: The Journey to "U"

Much of this book describes the journey Scharmer has taken in coming to his understanding of how we can access and enact the future that wants to emerge through us. It begins with Bill O'Brian's comment quoted above about the interior condition of the intervener. Scharmer calls this the blind spot of how we have approached change. He describes levels of subtlety at which change takes place as going from re-acting to re-structuring to re-designing to re-framing to re-generating. This last one he calls presencing, or "seeing from our deepest source" (p. 29).

Scharmer then describes his encounter with economist Brian Arthur and his description of two levels of thinking, a kind of reflex downloading and a deeper kind of knowing. Arthur's process is described as lots of waiting and reflecting, or "observe, observe, observe, retreat and reflect, then act in an instant" (p. 34). This is then related to Francisco Varela and the core process of how one becomes aware, leading to the "three gestures of becoming aware. They are: suspension, redirection, letting-go" (p. 35). These then become the journey down the left hand side of the U. Going up the right hand side of the U is characterized as letting come, enacting and embodying. This creates a total of seven cognitive spaces: downloading, seeing, sensing, presencing, crystallizing, prototyping, performing/embodying. From this Scharmer calls for "a new type of social technology that is based on three instruments that each of us already has—an *open mind*, [IQ] and *open heart*, [EQ] and an *open will* [SQ]—and to cultivate these capacities not only on an individual but also on a collective level" (p. 40). The essence of presencing is described as our two selves (past and future) talking to each other.

This model of moving consciousness, collective or individual, is further shown to be marked by three gate keeping processes that go on in our minds. These are described as the three enemies of the journey down the U; the voice of judgment (VOJ), the voice of cynicism (VOC), and the voice of fear (VOF). Each of these can abort the process of deepening the field structure of attention. Scharmer says that all of these situations drive us to the need for examining our blind spot, or the source of our attention.

Chapter 3: Fourfold Learning and Change

This chapter focuses on a discussion of how the unintended consequences of our actions frustrate us. Four levels of change are described:

- *Reacting* or manifest action.
- *Redesigning*, or process and structure.
- *Reframing* or thinking.
- *Presencing* or the sources of intention and creativity.

How prior organizational learning efforts were based on single and double loop learning is shown to be limited by only being based on learning from the past. This is in contrast to presencing, (the combination of presence and sensing) which is about learning from the future that wants to emerge. As a step in this direction, systems thinking is shown as being able "to help people close the feedback loop between the enactment of systems on a behavioral level and its invisible source of awareness and thought" (p. 55). This is highlighted in Scharmer's interview with Peter Senge and his reference to Master Nan and the core issue facing the world of "*the reintegration of matter and mind*" (p. 54).

Chapter 4: Organizational Complexity

This chapter examines three types of complexity: dynamic, social and emerging. Dynamic complexity appears as systemic types of framing that systems theory addresses. Social complexity appears as a postmodern recognition that stakeholders have different views/perspectives. Emerging complexity is about disruptive patterns of innovation and change. Scharmer describes the movement of attention from products to processes and then finally to the sources of processes/products, and provides good examples of this movement. One example involved how people from Ford and Toyota both looked at an old Ford plant and saw very different things, and how this allowed Toyota to innovate in ways that gave them huge advantages. This different type of seeing was perceived to have arisen through the application of systems thinking. This led to a call for cross institutional places for productive conversations among relevant stakeholders.

Chapter 5: Shifts in Society

This chapter looks at three major shifts in society; the rise of a global economy (as distinct from a world economy), the rise of a network society, and the rise of a cultural-spiritual shift. The first of these shifts tends to reflect a socialist view of the need for economic equality as a right of sorts. Otto tells a story that reveals how his participation in an anti-nuclear protest shaped his journey in this work. During the protest police attacked protesters, and his group non-violently resisted, with the police gradually relenting. This event is shown to have significantly influenced his drive to work on changing “that system” that has dominated the global economy.

In discussing the networked society, he shows the changes in social capital from traditional forms of social relations typified by Putnam’s book *Bowling Alone* to NGO type social networks working quietly to change the system. He then describes the cultural-spiritual shift, defining spirituality “as the source of our creativity. It is distinct from religion, for it concerns experience and not belief systems” (p. 90). He also focuses on working across ecological, social and political streams of experience and institutional structures in an integrated manner.

Scharmer then goes into a deeper analysis of the structures or arenas of experience historically, identifying objectivity, inter-subjectivity and trans-subjectivity as arenas of clashing forces related to each of the three above domains. This produces a nine square grid, where he feels that each square needs to be taken into account. He identifies the most significant clash as being in the spiritual domain, between self and Self. In his framework this means who we have been and who we can become, our highest future possibilities. He mentions Ken Wilber and AQAL theory as the most comprehensive meta-framework developed to date to comprehensively address all of these domains.

He also uses the notion of the blind spot to highlight what he perceives as the issues not being addressed by any given approach, and calls for knowledge that enables the creation of the realities we talk about. He then says this requires us to “trust our own senses, experiences and insights – without having a clue as to where that journey will lead next” (p. 104).

Chapter 6: Philosophical Grounding

A pause is taken here to recount the journey so far, and pay attention to the epistemological and ontological roots of the inquiry. Husserl and Heidegger are mentioned as setting the stage for deepening our collective inquiry in the 21st century. Scharmer lays out a matrix showing the movement of systems thinking from liner to non-linear and on to self-transcending systems as a source point, and on the other axis the movement from explicit to tacit knowledge to "self-transcending primary knowledge" that is not yet embodied. The first four cells of this matrix have been developed and explored, but there is grey area in the domains of the third movement along each axis. He cites David Hawkins as he lays out the territory that this kind of knowledge is about love as being global and rising about the separation that we normally experience.

Chapter 7: On the Threshold

Scharmer then looks at thresholds in a way that describes the process of developmental shifts very clearly. In many ways this process follows Robert Kegan's description of the developmental transitions. The movement across the threshold involves a kind of dying, a letting go of the old identity. He sees the key discipline of our time as being the capacity to attend to cracks that open up in our reality and to go and flow with them.

Part II: Entering the U Field

After presenting his rationale for why we need to look into our blind spots in Part I, Part II of the book goes into depth describing the processes and stages of the U process. The introduction given in Part I to this model laid out the basic territory, and now Scharmer proposes to take us on a deep journey into the "way we pay attention, the *field structure of our attention*" (p.117).

Chapter 8: Downloading

Here Scharmer introduces us to downloading by telling a story of a company that enacted old patterns of behavior used by the first and then subsequent three CEO's, showing how they set the tone and culture of the organization. He points to four failures of attention that this story illustrates about downloading (recalling the language of the field structure of our attention).

1. Not recognizing what you see (decoupling perception and thought).
2. Not saying what you think (decoupling thinking and talking).
3. Not doing what you say (decoupling talking and "walking").
4. Not seeing what you do (decoupling perception and action).

These four are shown to be barriers to learning and change within organizations. Reversing them leads to crossing the first threshold and entering into the second space of the U process, seeing.

Chapter 9: Seeing

The first shift occurs in moving from downloading, the result of this denial or decoupling, to seeing. In this process the field structure of our attention moves from being encased in the center of things to seeing from the periphery or boundary. Here we can see the data in front of us instead of only perceiving the downloaded images of the past. An attitude of wonder is highlighted as essential to keeping the capacity for seeing open.

Scharmer borrows from organizational learning and change literature by reframing Bohm and Isaac's notion of dialogue from being the 'art of thinking together' to the art of *seeing together*. He then uses a story that recurs throughout the book of a patient-physician forum in Germany that shows how this quality of seeing was present when people moved from an outcomes downloading approach that left the room deadened, to one of looking into first person experience and focusing attention on what was present in the room at that moment. This then moves into chapter 10 and the notion of "sensing."

Chapter 10: Sensing

The story of the patient-physician health care group experience continues in chapter 10 as the group clearly sees its assessment that the system they are working in and using operates at the mechanical/downloading levels, and that their desired notions of health care are much more holistic. Then the mayor, a teacher and a farmer all point to the same issues being present for their communities of practice. Scharmer uses this to describe the field structure of attention in sensing as allowing perception to move from individual heads to coming from not just the periphery of, but outside of organizational boundaries. The process of moving into this stage of the U involves:

1. Charging the container.
2. Deep diving.
3. Redirecting attention.
4. Opening the heart.

The story of Parsifal and Scharmer's meeting with the Circle of Seven (seven women who had formed a group for supporting their deep process work) then illustrates this process of opening to the wisdom of the heart. This leads into the work of Henry Bortoff and a distinction between counterfeit and authentic wholeness. Counterfeit wholeness is seen as attention within the mental constructs, while authentic wholeness is about sensing from within the field, having a perception from wholeness. This is linked to the story of Plato's cave, redirecting of our attention away from the mental shadows on the wall and around to the sources of those shadows and beyond to the reality outside.

Chapter 11: Presencing

This chapter on presencing goes deeply into the core of the Scharmer's work and the U theory. Presencing is described as a combination of sensing and presence. It is "a moment when we approach our self *from the emerging future*. . . . The key difference is that sensing shifts the place of perception to the current whole while presencing shifts the place of perception to the *source* of an emerging future—to a future possibility that is seeking to emerge" (p. 163).

This stage of the U journey is characterized by two core questions at the heart of creativity. Scharmer discusses his interview with Michael Ray as having best articulated these questions as who is my Self and what is my Work? The capital S self is one's highest/authentic self, and the capital W work is not our career but our purpose for being here on earth.

Scharmer talks about the field structure of presencing by telling of his pursuit of the source of the Inn River in the Swiss Alps. There he found no single source, but a host of glaciers all contributing to a small lake, and realized the distributed nature of source being everywhere. In this way the field structure of our attention is not only outside of our normal horizons, but surrounds it as a sphere would.

He then goes into Eleanor Rosch's distinction between conventional analytical knowledge and "primary knowing" or wisdom awareness. This knowing is characterized as being open and has unconditional value. He goes on to tell how she described a very Eastern spiritual view of the source of this knowing and how it can act in the world. "That knowing capacity actually is the field knowing itself, in a sense, or this larger context knowing itself" (pp. 168-9). This is followed by examples of a sculptor whose hands know what to do, a businessman falling apart to break through, and a participant in a workshop for an organization breaking through a membrane to get at a vividly living question that transformed the project. He also continues with the patient-physician dialogue story, as well as another group project.

The Circle of Seven then describe what they call the presence of the circle being, which arises when someone in the group steps over a boundary and lets go of their normal way of being in the world. This leads to the identification of three conditions of deep listening: unconditional witnessing, unconditional impersonal love, and seeing the essential self. The presence of this circle being is described in terms of time slowing down, ears ringing, not speaking casually and a palpable shift in energy. Otto then gets to experience this as they ask if he would like his work held in this circle.

Scharmer lists principles of presencing as;

- letting go and surrendering,
- inversion or going through the eye of the needle,
- the coming into being of a higher (authentic) presence and self, and
- the power of place: creating a holding space of deep listening.

Otto's experience with the Circle of Seven brought an authentic quality to his description of the presencing phenomenon. While his interviews and research with leading scientists bring great knowledge and a learning journey of great depths, and his experiences of facilitating experiences for others illustrates the principles very well, it is this disclosure of his own experience of being held and seen in the way he is describing that conveys to the reader an energetic quality behind the theory and stories, infusing them with a more authentic and vibrant feeling.

Chapter 12 Crystallizing

Here we begin moving up the U, and learn the steps seen as critical to moving into the world from this deeper place of presencing. It is the work of keeping the connection to higher Self that is made at the bottom of the U that the next chapters focus on. The stories used in previous chapters continue to illustrate this stage of the U process, and this helps to give the reader a fuller sense of the richness of each story.

The early intuitions that arise about what wants to emerge from the future, or from our highest possible future, then require some clarification and grounding in forms that we can act on. Crystallizing “facilitates the surfacing of a living imagination of the future whole” (p. 195). We can create visions from anywhere, even downloading, but harkening back to O’Brien and how the interior condition of the intervener determines the success of the intervention, creating a vision and intention from the highest self is clearly a very different thing.

Crystallizing uses principles of the power of intention, and here Scharmer uses another personal story of creating a global peace university with five student colleagues after being inspired by the pioneering Norwegian peace researcher Johan Galtung. The next principle involved is letting come, involving the question of “how can you tune in to that intention?” (p. 199). The issue is letting go of the old ways of thinking and perceiving to make space for something new to come and the capacity to listen to the new deeply. Scharmer then describes the principle of operating from “grand will” and quotes Martin Buber to illustrate the surrender that is required to let go of the ego or small self’s habitual action of inserting itself and its images into our will. Finally he talks about venues for waking up, or environments/contexts that facilitate sustaining the attention in this consciousness.

Chapter 13: Prototyping

Using the concept of prototyping from the design industry, Scharmer shows how we can help to maintain this consciousness of the higher Self by utilizing the wisdom of our hands/bodies to act in ways that our heads can only catch onto later. He talks about the tension between and care to navigate between “two major dangers and pitfalls: mindless action and action-less minds” (p. 205).

The principles involved here begin with connecting to the inspiration, maintaining our connection to the source at the bottom of the U. This requires daily practice at making and keeping that connection. He has Joseph Jaworski describe how he stays connected through daily practice, then holds that deeper intention as much of the time and as long as possible, finally noticing and seizing opportunities when they arise.

The second principle is being in dialogue with the universe. This is working with synchronicity, trusting that the universe is a friendly place and that it will help you find and refine opportunities in alignment with your higher self. Then prototyping is connected to failing early and leaning quickly by putting things together and out for feedback before they are finished and polished.

The final principle is creating strategic microcosms, or landing strips for emerging future possibilities. This means doing things under the radar, or incubating them out of the glare of the kind of attention that can crush such projects by unnecessary criticism while the seeds are still tender and new.

Chapter 14: Performing

In order to carry the field of presencing into this stage of enacting in the world, Scharmer talks about how we need to stay connected with the macro level while acting personally. Attention moves to the larger kinds of institutional ecologies that our work is embedded in. The field unfolds in a more integrated way with the center flowing out to the periphery as an integrated whole rather than a crossing of boundaries. The principles involved in this include systemic integration, innovative ecosystems, and field shift of the evolving ecosystem. He then lists eight observations that he has noticed over time that support this kind of work; core group composition, primacy of praxis, practice fields and tools, parallel learning structures, purpose and shared principles, passion or personal embodiment of purpose, perception-driven participation and finally products.

This completes the in-depth tour of the U process, and paves the way for examining how it can address the issues outlined in Part I.

Part III: Presencing: A Social Technology for Leading Profound Innovation and Change

Here Scharmer lays out the rationale for this work, reiterating the importance of moving beyond examining what we do and how we do it to the inner source from which we operate, or our blind spot. His proposition boils down to being able to distinguish that any action we take can emerge from one of four sources or fields of attention; "from the center (I-in-me), from the periphery (I-in-it), from beyond one's periphery (I-in-you), and from permeating all of one's open boundaries (I-in-now)" (p. 228). How we learn to navigate these fields is seen as depending upon learning a new grammar in order to be able to make appropriate distinctions on our journey.

Chapter 15: The Grammar of the Social Field.

Scharmer has 21 propositions that outline what he calls the grammar of the social field. He is explicit in building on the early work of Kurt Lewin in describing social systems as fields. These propositions are in effect laying out a way to make distinctions about the U process his research has revealed, and are the core tools for learning how to direct the field structure of attention. They cover much of what has gone before, and package it in a concise manner. However this is not a cursory outline of highlights. Each of the 21 propositions is explored in sufficient depth to get a good feel for what is involved in actualizing it. This lengthy chapter is also full of diagrams that build on previous diagrams to illustrate how various propositions reveal the implications of the U process. Many matrixes are the result, showing how this pattern of movement shows up in a comprehensive array of human experience and endeavor.

This mapping also includes the opposite movement that is not only possible, but in many ways dominant. The differences between presencing and its U cycle of activity are compared to the cycle of absensing, which results in not seeing, de-sensing and absensing/hubris, followed by self-deluding and aborting and destroying, and how this shows the archetypical pattern of the anti-cycle. That we as humans live in the tension between these is pointed at, but not so clearly illustrated is how these tensions may hold us in the center, not moving too much through either cycle.

Chapter 16: Individual Actions

In this chapter Scharmer focuses on choices we make as individuals, leading to mapping out the "anti-space" of the U, which depicts the processes and outcomes that arise when we move in the other direction and allow the seeds of downloading or reenacting the past to drive out attention and actions. The anti stages are *blinding* leading to not seeing, *entrenching* leading to de-sensing, and *holding on* leading to absensing/hubris. From this place begins the processes of *manipulating*, *self-deluding*, *abusing*, *aborting*, and *annihilating* all leading to destruction. In this cycle open mind becomes stuck in one truth/view, open heart becomes stuck in one world/ us versus them, and open will becomes stuck in one self/will. He calls this the space of social anti-emergence, or the shadow space of absensing. He describes how we can flip quickly between these two spaces, and points to staying awake as the way to stay connected to the source, or our highest Self.

Chapter 17: Conversational Fields

In this chapter, Scharmer lays out his work around how conversations can move through different fields. This incorporates and extends the work done by Bill Isaacs on dialogue, which itself helped to bring the original impetus that David Bohm brought to the field. This is summarized by using the matrix of the four fields used throughout the book to describe how conversations can evolve.

- The first field of downloading is enacted by speaking from what others are perceived to want to hear. This brings about the kinds of polite routines and empty phrases that we know so well. Central to this is not saying what you think, creating an *autistic* system.
- Then the second field of debate emerges when people begin to speak their minds, and is characterized by "talking tough." People speak from what they think, and are embedded in and identified with their point of view. The system here is *adaptive*, and people say what they think.
- The third field, or dialogue emerges when reflective inquiry begins and when conversation arises as speaking from seeing one's self as part of the whole. Instead of defending the viewpoint that was identified with at the previous stage, participants are able to inquire into other viewpoints. A *self-reflective* system emerges, with the capacity to see and reflect on one's own part in the creation and maintenance of the system.
- Finally, in the fourth field, presencing occurs and is characterized by a generative flow. Speaking arises from what is moving through the field, which has qualities of stillness, collective creativity and flow. It becomes a *generative* system with an identity shift to the authentic self.

Scharmer then maps these four fields of conversation onto the figure showing the anti-space of absensing. Here the movement begins with the same kind of downloading or talking nice of habitual conversation. Moving in the opposite direction, it goes through silencing the views of others through blaming others to absensing and hubris. From there it moves through intrigue and disinformation, and harassing and bullying, resulting in collective collapse. He describes the result as "conversations that pollute, poison and pathologize our collective thought (through intrigue and disinformation), that poison microcosms of emerging futures (through harassing, bullying, stifling innovation), and that eventually destroy the structural collective ground itself (collective collapse)" (p. 287).

The dynamics between the U space and the anti-space are seen as dialectical and non-linear, being able to flip back and forth instantly. He brings up the question of how can one awaken and train a capacity to perceive the threshold between the two, which is seen to exist at a very subtle level. He describes "this eyelike entity, from which sparks of our attention and intention originate, is what I call the *I-in-now*. It's the invisible origin of your real presence and power" (p. 295). Examining how the different places of origin open up spaces for different levels of conversational possibility, he charts the precursors of each of the four conversational fields, showing how the movement to each level or field is dependent on the origins of the communication; whether they are originating from downloading, factual connections, personal connections, or source connections.

Scharmer notes that most individuals do not aspire to enact the anti-space, but to live from the deeper levels of conversation, and asks why it is that our institutions seem to be stuck in the grip of pathological patterns of conversation and action. He maintains that this is from our lack of ability and capacity to direct attention to the sources of our conversation, especially the deepest source or our highest Self. He identifies the key to developing this capacity: “That journey is about deepening our attention *first* before we start to act on an impulse” (p. 299).

Chapter 18: Organizational Actions

This chapter applies the same structure to examining the evolution or devolution of organizations.

- Level 1 organizational structures are characterized by centralization and machine bureaucracies. The source of power is the hierarchical structure and complying with central rules. They are center driven and have a logic of economies of scale around production.
- Level 2 organizational structures are characterized by decentralization and work through divisions. Their source of power is market success so they operate by meeting market demand and are thus periphery driven. The operating logic switches to economies of scope related to customers.
- Level 3 organizations are networked, and have relational or matrix structures. The source of power is networked relationships, and thus they are relationally driven. They operate on a logic of economies of innovation, focused on product innovation.
- Level 4 organizations are seen as ecosystems of innovation, whose sources of power are the field of emerging possibilities. These organizations shape innovation ecosystems which are driven by this emerging field. The logic is economies of presencing and system innovation.

Stories of DEC and Enron help to illustrate how organizations have fallen due to either not moving to deeper levels (DEC) or from falling prey to the operations of the anti-space (Enron). This anti-space begins in the same place, or in centralization of the organizational structure, but the movement is characterized by institutional ignorance, arrogance and hubris leading to disinformation, sclerosis and collapse. Each of these is illustrated though following the collapse of Enron and of the socialist system in Eastern Germany.

He closes the chapter by pointing to the deeper aspects behind the development of the different levels of organizational structures, showing how functional processes and centralized structure, core processes, stakeholder conversation process and ecosystem innovation processes are the sources of the four levels of organizational structures.

Chapter 19: Global Actions

This chapter brings the focus of the U theory to the domain of global development issues and the core structures underlying them. The example of health care opens the discussion by showing how little attention is placed on support for changes in lifestyle that have clearly been shown to have a strong impact on the highest cost (in terms of dollars and quality of life) health issues. Scharmer identifies three areas of activity at this level, business, politics and civil society.

- Communication between these sectors at the downloading level takes the form of things like commercials, propaganda and bribery, soft money and lobbying. The inequities in the current structures of society are shown to work with these forms of communication to reinforce the dysfunctional operation of systems in our world today.
- At level two, the realm of debate, we get consumption as the beginning of two way communication between business and civil society, elections as communication between politics and civil society, and regulations between politics and business.
- Level three communications, dialogue, shows up between business and civil society as stakeholder dialogue, between politics and civil society as referenda, and between politics and business as public conversations.
- The fourth level sits in the center as collective presence and co-creation that operate across all of these boundaries.

The examination of the field structure of attention in this domain has:

- Level one centralized structures of government systems with emerging private sectors. The source of power is in the court and state and the coordination mechanism is center driven planning. The driving force is the politics of the court.
- Level two is characterized as decentralized with market competition and an emerging private sector. The source of power is capital and business, coordinated by a periphery driven market. The driving force is then the demands of this market.
- Level three is characterized as networked, with negotiation and dialogue with an emerging civil sector. The sources of power are public opinion and NGOs. They are coordinated by dialogue and are relational driven. The driving force behind this level is a values based civil sector.
- Level four is characterized as ecosystem presence, with emerging cross-sector action. The source of power here is the presence of the emerging whole and presencing is the coordinating mechanism coming from the emerging field. The driving force is cross-sector awareness and action.

The U and its anti-space are described as beginning from the public sector in terms of the state and government hierarchy, and with the suspension of state-centric power the private sector emerges with its capital, business and markets. The redirection of market-centric power leads to the rise of the civic sector and the focus on people, NGOs and dialogue. The letting go of system-centric power allows for the emergence of ecosystems of innovation and collective cross-sector creativity. Going up the left side of the U, letting come brings communities of cross-system co-creation. Enacting these leads to strategic microcosms of the future, and embodying these brings about deep direct democracy.

The anti-space is described as the public sector being stuck in or blinded by one power mechanism. This leads to a special interest state and lack of competition. The entrenching of this leads to being stuck in one world or logic, producing structural violence and a lack of dialogue. This is furthered by being stuck in one self, and a holding on that brings us to a collective absensing and disconnect to the emerging whole, or being stuck in the old self.

From there, the downhill ride continues with manipulating and public disinformation and anomie. The abusing of this brings about societal sclerosis and an inability to redirect attention which brings about annihilating and the destruction of democratic foundations and social cohesion.

Scharmer then outlines a way that can be used to support the transformation of capitalism and democracy through the leverage point of infrastructure innovations. He outlines innovations in democratic, market, cultural and power place infrastructures. His analysis also leads to identifying a lack of leadership "capacity to collectively sense, shape, and create our future" (p.352). This leadership must have the capacity to address the four meta-processes of the social field covered here, those of thinking, languaging, structuring and evolving.

Chapter 20: Catching Social Reality Construction in Flight

As we approach the end of this journey through the social fields, Scharmer takes us to the next level of reviewing and integrating all that has been covered at a meta-process level. He describes how the core capacity of being able to notice differences between the field structures of attention can allow us to alter their structure and direction. The place from which we can overcome our blind spot is described as the *I-in-now*.

He invites us to conduct a thought experiment by thinking of these social field structures as living entities, and to envision our jobs as being to help them become aware of themselves and evolve to the next level. He then proceeds to review the journey thus far that has taken us through multiple domains of inquiry and see what meta-patterns and processes are at the heart of the whole.

- Field one is characterized as being made up of *autistic* systems. This is from seeing that nothing new gets into systems that operate by downloading or any other level one quality. Responses to the environment are limited to automatic reflexes, habits and routines from the past.
- Field two is characterized as being composed of *adaptive* systems. There is now an opening to data from the environment and other level two characteristics across the domains encountered. One good example of how integral or meta-systemic Scharmer's Theory U is emerges when he discusses how the work of living systems describes this field of activity through the mechanism of structural coupling. The view that social systems are auto-poetic entities is popular in this approach, and a powerful framework for understanding living systems. Applying the U theory framework to the domains covered by structural coupling, Scharmer identifies the truth that this perspective brings as well as the limitations of the approach in that it does not recognize the other three levels or fields in how it views the world.
- Field three is characterized as being composed of *self-reflective* systems. He notes that the simple test to see if you are in field three is if you begin to see yourself as part of the system. In this way the system is able to see itself, and thus is self-reflective. When the capacity to operate from this system is present, environmental stimuli can trigger responses or reacting (level 1), adapting (level 2), or self-reflecting (level 3). Thus the range of choices available expands significantly, and the potential outcomes along with the different sources that can be chosen. Another feature of this field is that instead of boundaries being closed as in level 1, or when

entities influence one another across boundaries in level 2, boundaries begin to open and even partially collapse in level 3.

- The shift to field four has yet another fundamentally different quality of being *generative*, that Scharmer characterizes as moving from being connected to the current reality to “connecting with the deepest presence and source of the best possible future possibility that is seeking to emerge” (p. 361). One can now notice that “*I attend* [this way], *therefore it emerges* [that way]” (p. 361). The shift to this field is also characterized by a collapse of the boundaries between systems, and a sense of wholeness becomes much clearer.

He then presents a summary of the grammar of the social field that outlines all seven stages of the U process (downloading, seeing, sensing, presencing, crystallizing, prototyping and performing) in ten categories (gestures of paying attention, place of operating, seeing the world as, knowledge, social space, social time, collective social body (complexity) as, primary causal mechanism, episteme and self). The last three categories are then examined more closely (the others having already been covered). Different types of causal relations are categorized according to the four fields or levels and Aristotle’s four types of causation (material, efficient, formal and final). How we epistemologically move through the U is explored briefly, and a section looking at how the self is experienced is explored. This section is of relevance for those familiar with developmental models, as Scharmer demonstrates how the stages (sliced and named somewhat differently by different researcher’s foci) describe a universal human condition. He is clear that this aspect is “the most fundamental grounding condition” (p.375). The movement of the self “progresses through stages and states that shift from emphasizing the subjective, objective, intersubjective and trans-intersubjective” (p. 375) realms.

Chapter 21: Principles and Practices of Presencing for Leading Profound Innovation and Change.

In this final chapter (other than the epilogue) Scharmer moves from the theoretical and technical discussion of Theory U to providing readers with a “how to” approach, the practitioners view. This involves 24 points, complete with examples and practices for each. This provides the reader with a shift in perspective, allowing the theory to come alive in a new way that is more active. Passing over the same territory with another iteration taken from a different slant enables a kind of triangulation for the reader. It helps to emphasize that the theory has resulted from practice and experience as much as reflection.

Suggestions for how to engage others in this process, how to apply it in various contexts and situations, and how to prepare one’s self in the navigating the various transitions all round out the picture in a rich and engaging manner. It also demonstrates that this is not just a theory, that Scharmer has practiced what he preaches.

Epilogue

The closing few pages of the book tells more of Scharmer’s story, activities and aspirations for his work. He is very candid about his hopes and dreams, and the unknowing and trust in the emergence of the open will or surrender to the higher Self and its capacity to act for the greater good. There is much to be inspired by, as his enthusiasm flows through and between the lines. A kind of transparency of self is present, and you can *feel* your way into the space he creates through his stories. The epilogue is in a sense a call to action, an invitation, although not explicit. How readers choose to respond to this call will be the next phase of the story.

Critiques and Reflections

I will now offer some critiques and reflections on Scharmer's book. Beyond my general interest in the field of leadership, I have focused on the intersection between understandings of higher state and stage structures of consciousness and leadership in particular. This area of research overlaps with the territory that Scharmer covers in his book, in particular the aspect of deepening consciousness and leadership's relationship to the capital S higher Self.

I begin with a response of gratitude for Scharmer having taken the time and effort to distill what is clearly a life's journey into a clear, coherent and well organized volume. Scharmer presents his material in an accessible manner by taking an initial overview and then unpacking it through multiple iterations. These iterations cover what is revealed near the end to be the meta-process underlying all of the various iterations. There is also a deep underlying coherence in how the work hangs together. An example is the way in which the figures (which do a great job of illustrating the text) are able to repeat and add in different aspects of the process to show how this meta-process manifests in various forms.

From this stance I will now examine a few ideas presented in the book that could benefit from some further elucidation or development. The first thing that drew my attention was that it seems that the further up the right side of the U Scharmer goes in his description, the thinner the details and descriptions of how we can actually embody and engage the consciousness of presencing are at these later stages. This may be because there is simply less to say about it – the preceding groundwork makes it evident where the leverage points are, in getting to the bottom of the U. If we don't get there, we don't get the full benefits on the upward side anyway. Or it could be that there is less known about how to operationalize it in the world. Either way, the emphasis is clearly placed on the left side descent to the bottom of the U.

Chapter 15 on *The Grammar of the Social Field* contains Scharmer's 21 propositions for understanding social change. These offer a summary of Scharmer's view and understandings in one concise area, and I will frame my comments around selected points.

Identity and Creative Being

In point six, I perceived a potential blind spot related to notions of identity. By talking about the move from level three to level four, Scharmer says that an open will "requires *letting go* of old identities and intentions and letting come new identities and intentions that are more directly connected with one's deepest sources of individual and collective action and energy" (p. 242). This description is reminiscent of Robert Kegan's discussions of transformations between levels of consciousness, and I think would fit quite nicely within this framing of the process of how identity shifts with development.

However, Scharmer has in places drawn on David Bohm's work, and I find that there is a subtle distinction that Bohm offers that is relevant to how this point is framed. While I agree with the letting go of old identities, this misses Bohm's point in his inquiry into the concept of thought as a system, that the most essential blockage or incoherence occurs from the process of identification itself, and that a more *creative* sense of being is more appropriate. I think that this is one area in Scharmer's work where some further exploration of what is going on at this deeper level could help to clarify the depth of demands that this stage is making.

At point 16, Scharmer does address the issue of identity at the bottom of the U in another way that aligns more with Bohm's sense of a creative notion of being. "Here the self functions from its open boundaries and its surrounding sphere as a generative vessel through which a new collective reality is coming into being. There the self is no longer locked into the center, rather, it co-evolves by participating in the coming into being of a new social collective" (p. 254). This also comes up in point 14 where Scharmer recounts an incident related to this. "When I returned that evening, I was no longer the same person (implying that somewhere along the way I must have had an encounter of connection with my emerging self)" (p. 251). This very interesting quote reveals something about the relationship between an identified sense of self and the "emerging self" or "highest potential future self" which has a more creative than identified focus. On the next page this comes through as well; "to an authentic self that is identical to our highest future possibility and that comes into being through the open boundaries of the human body field, both individually and collectively" (p. 252).

These points reveal to me some of the complexities and challenges involved in attempting to convey the subtleties of conceptions of the self that are outside of the normal conceptual constructs of general public discourse. While the notion of changing identities is covered in point six in a way that is easy to understand, the more fluid and creative, process oriented descriptions of being in points 14 and 16 could benefit for further clarification, and I believe that Bohm's notion of a creative notion of being would make a good a good ground for this. Later in this review, I offer further considerations on this point and what I perceive as implications for Scharmer's work.

Developmental Issues

In point nine, Scharmer talks about an open heart as the "capacity for empathic listening, for appreciative inquiry, and for 'exchanging places' with another person or system" (p. 244). While this is indeed a valuable quality, what are not discussed here are the prerequisites for doing this. One may have an open heart in many ways, but there are specific action-logic stages at which the capacity to actually take another person's perspective emerges and goes through degrees of growth. While many adults have a rudimentary level of this capacity, it also seems apparent that many people do not have some of the more complex degrees of this capacity. For instance, Bohm points to the reflex defenses of the system of thought that can hide self-deception. Noticing, illuminating and suspending such reflexes of thought entail a capacity to notice complex internal processes that are relatively rare in society today.

What then is the implication of this? Is this another case of the implicit curriculum making demands that place people "in over their heads?" Can this lead to presencing and the U theory being limited to an elite spectrum of the population such as the so-called "cultural creatives?" Scharmer addresses this in one way in chapter 20, where he talks about how "the collective serves as a gateway to access the deeper states of awareness and knowing" (p. 375). I have also discussed this with others as how a facilitator can use their own access to higher states of consciousness and action-logics to create a space or container where people can "draft" into it and engage deeper levels than they might on their own. However these issues sort themselves out, I think that there is further work to be done here to clarify and strengthen how the U process deals with these issues.

One area in which this is discussed to some degree is in chapter 17 on conversational actions. Here I think that it would further strengthen readers' ability to apply the U process by having a discussion on the relationship between the process of dialogue (as one involving participants moving through the four stages outlined) and the capacities required in terms of action-logics. Key issues could be framed in terms of a distinction between *structural* stages (relating to relevant action-logics as centers of gravity) and *state* stages (relating to this aspect of the field of attention).

Another approach could be to examine in more detail the relative impact of the structural stage capacities present in individuals within a group on how well a structured process can facilitate people moving into these higher state experiences of reflective or generative dialogue. What level of higher order cognitive capacities are necessary, or how much can this process act as a holding space for structuring state experiences? How much of any of this is dependent upon or facilitated by the level of cognition and or state experience and presence of a facilitator?

It is these kinds of questions that arise from reading through this section of the text. As this happens, my attention is drawn to inquire into what other areas of the work are also dependent upon higher action-logics. At the same time, I also reflect on how other aspects of our being in the world may be able to influence or open up space for this kind of work in ways that can transcend developmental limitations. This is an ongoing area of research fueled by conversations with colleagues and personal experience.

A Blind Spot?

I think that for me to engage the U theory and process at its deepest level, it might be helpful if I were to make some of the underpinnings of my view explicit first, to allow you to take into account my biases going into this. I will use a story to illustrate the essence of my view. I have a Jesuit friend with whom I have had an ongoing conversation about the nature of the relationship between human persons and soul. What I hear from his theological perspective is that we humans have a soul, (kind of like we have a liver or a right foot). The underlying connotation is that we *are* this physical body and that any idea of a soul must be some kind of appendage, situating itself in relation to the body. I would argue that this didn't make sense to me. I said that from my view, humans as physical bodies are transient and temporal (we live and die in time) while soul is eternal and various other qualities of a transcendent nature. How could the transcendent end up as an appendage of the transient? It made much more sense to me that we *are* soul, and that the relationship between soul and being human was that soul was having human experiences.

This view is seldom relevant in most of the conversations that I have, but in this case I found myself noticing how it could be relevant to a number of issues that arose for me in Scharmer's text. I use the term soul in a manner that I interpret Scharmer describing as our highest Self, our highest future potential, or our authentic Self. (Further framings of a more non-dual nature are also possible to use about these distinctions, but for current purposes the distinctions as laid out serve a relevant purpose). This is in contrast to the self that is constructed by habits and past experiences. The mechanical self acts in the world from a place of disconnect from the present as well as from the wholeness that is seen to be at our authentic core. The authentic Self acts as the *I-in-now* and comes from this place of wholeness. While it can be present to the current realities surrounding it, Scharmer makes a distinction about it primarily acting to bring forth what is proposed to want to emerge from the future. I highlight the similar meanings apparent in our use of different terms to emphasize what I perceive as a common aim.

From this common ground, I want to point to a tension and possible blind spot I perceive emerging from bringing together two points from the text and introducing an implication of how these are potentially impacted by a different view I will introduce. The first point from the text is O'Brian's insight that the success of any intervention depends on the *interior condition* of the intervener. The second point is how we need to deepen our attention and connection to our authentic Self *first* before we act on an impulse. The view I want to contrast arises from a reaction I noticed in myself to a number of characterizations of the state of affairs of the world, (and that I point to in my opening remarks), is that there is something fundamentally wrong or unfair about the world in its present condition. I want to contrast this with a view of the world as being *exactly as it should be*.

As I mentioned in my introduction, most people would (and will) think that you (I) must be blind or in serious denial to think other than that the world is unfair, in a mess, or headed for destruction unless we do something soon. There are a number of places, such as the introduction to Scharmer's book, where this view is put forward as a kind of assumption about the current state of the world. Later (p. 299) Scharmer lays out a similar critique (that gives the impression of a rant) of how children are raised and schooled through TV, violent video games, downloading schooling and drugs to treat attention deficit disorder, that display this underlying perception.

In contrast, what is described as emerging in the world has to do with many efforts at making this world a fairer and equitable place, eliminating poverty, distributing economic rewards more evenly and so on, and indeed there are many such efforts underway today. The reaction that arises in me reading these kind of descriptive statements is that the only acceptable response to the current state of affairs is moral outrage and activism to change things. I am reminded of a saying I once saw posted on a door to the effect that – "if you're not outraged you're either asleep or not paying attention." This sentiment is not particular to Scharmer. I find it in many places in the world. I also want to make clear that I see this particular perspective as a part of the larger view presented in the book. (I want to be clear that this does not mean that I think we shouldn't do anything to make the world a better place. I feel that one of the core purposes of our existence here is to learn how to leave things better than we found them).

This brings me to the tension I perceive arising from the application of the two points from the text to the difference in view I present. If our interior condition impacts the success of our interventions, then the view we act from is the highest leverage point we have. The need to pursue the source of our connection to the whole, or our highest future selves, as fully as possible before taking action in the world seems to me to be central to our interior condition. The view that arises for us would also seem to be connected to the route we take and how far we have gone on our journey.

The tension I perceive is between poles wherein the world is fundamentally flawed or exactly as it should be. Where one views the world from along this continuum will have a significant impact on the interior condition being applied to any intervention seeking to help make the world a better place. I would characterize the pole viewing the world as fundamentally flawed as a "social consciousness." While the social consciousness often wants to "save the world" from its fundamental flaw, the view arising from the other pole can offer a degree of non-attachment and alleviate the "should" energy of the social consciousness. I would propose that this quality of energy arising from the social consciousness pole of this continuum could impair the interior condition of the intervener and lessen the effectiveness of any interventions. There is a razor's edge here, between the desire to be of service to the world and one's fellow human beings, and the quality of energy one brings to these acts of service.

Thus what I perceive to be at issue here is a mix of views. On the one hand there is the social consciousness that is driven to save the world from the view of a flawed world. On the other hand the U process drives consciousness to deeper and deeper connections with something beyond self that in some spiritual perspectives arrives at a place of non-attachment, acceptance and compassion. This view can coincide with seeing the world as being exactly as it should be, and can make space for a different quality of energy in the interior condition of the intervener.

This brings to my mind Bohm's inquiry into the root causes of challenges in our society. His view was that it is incoherence in our thinking that continues to worsen the situation. To solve these problems we think about them, but are not necessarily using thought from our highest Self, or soul in my vernacular. Instead, we allow thinking to be in charge, allowing the social consciousness (my view of it as being a symptom of the reflexes of thought) to hold sway and continue to perpetuate conditions that maintain and justify the view that the world is fundamentally flawed and in need of rescuing.

The view I introduced of our being soul and having human experiences can shift the view and place from which we make our interventions. It is much easier from this view to let go of an existential identification with or attachment to the human body as the ultimate source of our existence, which can shift energy away from the social consciousness pole. The creative process of an unfolding sense of being can be seen as soul continually revealing and coming to know itself in the actions of being in the world – being in this world but not of it. The locus of Self is not ultimately dependent upon the condition of the world. At the same time, from a place of non-attachment, acceptance of the world as it is, and compassion for all, the interior condition of our interventions aimed to make the world a better place can have a better chance of success.

This is a potential blind spot I see in how the U theory and process is described by Scharmer. The tension between the two poles described of a spiritual and social consciousness, and the tendency prevalent in our society today to act from an interior condition charged with energy more from the social consciousness end of things could be a limiting factor in attempting to solve the very issues the approach is intended to deal with.

Epilogue

After writing this overview and reflections, I had the opportunity to discuss them with Otto Scharmer over breakfast. Our intense and stimulating conversation covered many facets of these ideas and areas for future inquiry and research. As well, in response to my description of a potential blind spot, Scharmer made a comment that I felt revealed the sense of depth of view that came through between the lines of his book. As I described the widespread consciousness of the world as fundamentally flawed and in need of rescuing, he replied that his writing reflected a phenomenological reporting of a kind on the times he had grown up in and experiences that shaped his view. This revealed to me a feeling of him being able to talk about his entire body of work on Theory U as an object of reflection, something that he could take a perspective on. While my reading of his book gave me a sense of something between the lines beyond what was being said, it was not so clear until the moment of his response to my critique. From this experience, I came away with a deeper sense of the potential that Scharmer's work with Theory U has, and at the same time how much it is a work in progress and a rich avenue for future research.

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Sent to Play on the Other Team

Josef San Dou

The star player on the soccer team that season was my six-year-old son, Jack. As the team's coach, I once made him play on the opposing team. I have been asked, why did you do that? And what happened when you did?

In our soccer league, the teams of the same age group often have their practices at the same time. Ours is U-6 team with players from age four to six. We usually use the last 30 minutes of field time to play a scrimmage game with another team. As unofficial games, scrimmages are another form of practice, but of course with a more serious feeling tone about them than when the team practices by itself.

This particular day, we were going to play scrimmage against a team we had beaten every time we scrimmaged that season. It also happened that this team was short of players that day, something that had never happened before. We could not have a scrimmage if one of the teams was short of players.

I explained to the boys and girls on my team that the other team needed one more player. I asked which one of them was willing to play on the other team so we could have our scrimmage. No volunteers. So I told my son Jack to go over to the other team. He didn't want to, but I pushed him to agree. He went grudgingly.

Once the game got underway, Jack played just as if he were playing on his own team, giving it his best. History was made that day: his goals won the game for the other team, its first-ever win. Afterwards, Jack got an unhappy earful from his teammates. Even his then-four-year-old sister, a first-year soccer player and spectator of the whole event, gave him a chiding look for causing his team's defeat. With all that pressure, he was very sheepish about it afterward. I just smiled to see all the commotion. Later, I pulled Jack aside and mentioned to him that he did a good job and had played really well. He seemed to feel better about it.

That other team had a lot more experience with feeling sheepish, but not about winning. With no wins in their record till that day, it was always obvious to me how discouraged its members felt before a game. It was great for them to win that scrimmage, and to have the encouragement that came with it.

And that kind of encouragement is what my coaching philosophy is all about. It explains why I chose Jack to play on the other team when no one would volunteer. The way I put a team together is based on balance of strength, and I want to have two teams with equal strength. Although that day was the only time I sent a player over to another team, I work for such balance in all our games. I don't want other teams to feel discouraged that they lose all the time. It is an attempt to shift the strength when things are out of balance. That way, all the kids from both teams can have an enjoyable and exciting game.

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The last official game of that season happened to be against this same team that Jack had played for. But this time, Jack played for his original team. By half time, we were up 4-0 with Jack doing most of the scoring. I held Jack back in the second half and let others play. This way, both teams had an exciting game in the second half. The game ended with a tied score. I was happy to see both teams having fun. Even though there is score-keeping, I want to keep the balance between the two objectives of having fun first and then hopefully winning the game.

The players' experiences and perspectives are not the only thing to balance: there are also the parents and the grandparents of the players. They want a good game, too. They come to root for their kids and they want them to be successful. Understandably, they don't want to see their kids cry when they fail.

For teaching soccer skills to kids aged four to six, I have only two expectations: that they learn the correct kicking techniques, and that they learn to kick the ball to the right direction. You know, sometimes they kick the ball to their own goal! It takes practice. Coaching is like gardening. You plant the seeds in the ground by teaching the kids the right kicking technique; you water it by regular repetitive practice; and then you hope they will continue to grow and produce beautiful flowers that are going to bloom some day.

Just as each kind of plant is cared for differently, the way I deal with each player is also different. I evaluate each player's strengths and weaknesses and try to empower them from there. Some players learn faster than others, but I believe each player has his or her time to bloom. This past fall season, we had a player who didn't do anything but play with the grass both during practice and during the game. Her parents were so discouraged that they wanted her to quit after our second game of the season. But with eight games to go, I encouraged them to give her a chance at least till the end of season and see how she did. So, she kept coming to practice, and in the last two games, she came around and played really well. Both she and her parents were really happy about it. Their patience paid off. I was proud of her.

Patience is another important element in teaching these kids in the early years of playing. The principle is really the same as for gardening: to patiently water the seeds and young plants so that flowers can bloom someday. In its own time, the flower will bloom.

In a way this is really my approach to life, including the way I manage at work: I identify the strengths and weaknesses of each person and assign them at the right post so things work effectively. Well, it is like any sport, say football: you cannot expect a lineman to play as a wide receiver or vice versa. But if everybody plays according to their strengths and plays in the right position, you will have a good team. I am biased of course, but I think we also have a good team in the department where I manage.

My motive for having a good team is really to have a good time. When I was growing up in Indonesia, I played soccer almost every day. Between chores we had to do, playing soccer was our main avenue to have fun. Winning or losing are just byproducts of the game. If you win, you win, and if you lose, you lose. We didn't really emphasize winning or losing. We just had fun.

In Indonesia back then, we didn't have a system like here in the U.S. Starting kids playing soccer at very young ages in an organized league is an excellent system. But the system will work only if we are patient and realistic about kids' ability and timing of development. Quite often, parents have unrealistic expectations. Understandably they want their kids' team to win. But in my opinion, this makes it hard for kids. This will be even worse if the coach has the same mentality. Let the kids grow and as the saying goes, winning is not the only thing.

The focus of the game should be enjoyment of the game itself. If you play without any pressure or expectation to win, most of the time you will win the game. When you try to play with the intent to win, more often you lose the game, and quite often it hurts more. It's better to approach the game just for the love and enjoyment of the game itself. It's like watching the flowers in your garden. Of course you want them to bloom right away, but that's not going to happen. Just enjoy the moment and in their own time, the flowers will bloom. As I say often, winning or losing are just byproducts of playing a game. It goes back to balancing the team, having the enjoyment of enjoying the game, rather than the winning of the game. That's the real win.

My son Jack has never asked to be sent over to an opposing team since that day when I forced him to. Just as in any sport team, there is a tribal energy in a team, a sense of belonging there, especially because they practice together so much. In his team's case, with Jack being the best player, I found they relied on him a lot. So it was a good opportunity for them to have to do without him that day. They got to rely on themselves and have a chance to break the habit of relying on the star to win the game. When we take the star out, we can see others develop. And that's what this soccer gardening can do really well, when we approach it with the aim of keeping the strengths and weaknesses balanced: Develop our kids so they can bloom.

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Art and the Future:
An Interview with Suzi Gablik by Russ Volckmann

One day, I was interviewing a particle physicist (Basarab Nicolescu, Integral Review 4) and he called my attention to the work of an art critic. I wondered to myself if this was a case of transdisciplinarity. Well, in a way it was, at least at the level of valuing meta approaches to life. He indicated that the art critic, Suzi Gablik, had referred to transdisciplinarity and also the integral theories of Ken Wilber in her book, Has Modernism Failed? Well, I just couldn't let that drop. It was just too intriguing to see if I could find the themes that brought these two unique individuals together. I wanted to play in that sandbox, too.

First, I turned to Gablik's book, Has Modernism Failed? *Here is a summary of what I found that encouraged me to take the next steps. Her thesis is that the world of art has become competitive and exploitive and that the focus in the world of art had become profit. Not only are these limiting to artistic expression, but they ignore essential concerns of art: aesthetics and ethics.* “Aesthetic autonomy is a deeply rooted idea—autonomy implying moral and social separateness as the condition of art-making,” *she wrote. She saw the need for a unified vision of the world where art and ethics would not only coexist, but cooperate.*

Gablik found in the works of Ken Wilber the promise of integralism where diverse perspectives can be engaged to address the world as one undivided whole with the “well-being of each part is the responsibility of every part.” *Here she found a promise for an end to art dominated by economics and consumerism, an art liberated to be an essential life of individuals and of communities. She found examples of this in the world of art. Two high school teachers engaged their ceramic students in the Empty Bowls project to help a local food drive. This simple project has grown into a nonprofit organization, The Imagination/Render Group, which supports drives around the world.*

She then turned to Basarab Nicolescu's Manifesto of Transdisciplinarity, *which she sees as pointing the way to dealing with multiple levels of reality at the same time. Gablik observes,* “Also, it has a unique goal: to propel us beyond either/or thinking into a coexistence of nested truths.” *This leads to the potential for the individual artist to become an integral component of a larger social network, which she sees as a generative creative force. Seattle's ARTS UP program that pairs artists with communities around the United States has led to engage in a civic and artistic dialogue. These dialogues have led to numerous projects* “founded on the idea that art can have a vital role in community building, and in giving voice to those whose lives are otherwise unrecognized or isolate.”

Her book closes with a note of optimism in which she senses

> that significant changes in power relations are occurring as these decentralized network structures now offer the possibility for artists to interact with each other, and share information, in a democratic and cooperative atmosphere that was mostly absent within the hegemonic, competitive, institutional structures of modernism.

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This would lead to "a new kind of art that can help realize needed change in the world."

Now this was going somewhere interesting, I thought to myself. This sounds like a whole new perspective on growing a healthier world. The edition I read was published in 2004 (1984 was the original), so here is an opportunity to explore that perspective. After setting up a date to have the interview with Suzi Gablik, she helped me access a couple of her other books.

Conversations Before the End of Time *(1995) is a series of interviews about the themes related to the development of a relationship between art and community, art and a healthier future for the world. It includes discussions with James Hillman, Thomas Moore and many others more directly involved in the world of art.* Living the Magical Life: An Oracular Adventure *(2002) is an intimate focus on her own life at a time when she seems to be a coming to peace with her having moved to Virginia from London in 1991.*

> Everything is collage. In a sense, the parts 'give themselves.' Living the magical life means learning to recognize and connect them to the whole. We are translators and mediators in the field from which our experience arises. In this field, all is analogy, relation, revelation, by the laws of correspondence. Imagination is what opened the connection between one level and another.

She has learned that "the universe is a better organizer than you could ever think of being, so give it a chance and stay out of the way. Surrender to the world, receive it in your stillness:

> And it will happen. For miracles gravitating
> To earth, know just where people will be waiting.
> And eagerly will find the right address
> And tenant, even in a wilderness. (Joseph Brodsky)

Her account of relationships, experiences and explorations leads ultimately to this:

> Psyche's secret has finally become transparent to me: Let go of the consciousness of disappointment. Release your belief in the promise unfulfilled. Sacrifice the need to know, and trust the invisible processes that are at work. Develop a mind that can work with whatever happens. Allow everything to be all right as it is and simply remain true to the quest. When you learn to stop struggling and do nothing, everything is possible. Submit, surrender, become an embodiment of the feminine principle. Don't assume you know the right answer in advance. We are simply part of the vaster design that is unfolding.

I hope that these glimpses into the work of Suzi Gablik prepare you for this challenging interview. It is challenging, perhaps, because I have not yet learned Psyche's secret.

— ***Russ Volckmann***

Russ: *Suzi, it's a great pleasure to talk to you. I've read three of your books, and it seems as though you've been on a quest—perhaps more than one. Initially it seemed you were concerned with the commercialization of modern art, particularly in the New York art scene, and next, the relationship between art and the ecological and sociological crisis we face in the world. Then, you seem to go on to looking at the role of esthetics and ethics in art. Finally you have engaged in the discovery of the mystical in your own life. How would you amend that summary of your quests?*

Suzi: I don't know that I would amend it. I think it's nearly perfect. I definitely would say that my initial concerns with the idea of art being so commodified, and my subsequent search for alternative models of art making are still a concern to me. Since I first started writing and talking about these things, a kind of alternative parallel art scene has developed that is quite fluent and rich, but at the same time, the hard-core art world is more commodified than ever, and is still firmly entrenched in those same patterns of behavior. So in one sense things have changed, but in another, nothing much has changed.

Q: One of the things that really struck me in thinking about art in some very new ways as a result of reading your work was the idea of art as a social expression, as a political expression, and so forth. A colleague of mine called my attention to a quote from the German artist, Joseph Beuys, which states:

> Only on condition of a radical widening of definitions will it be possible for art and activities related to art [to] provide evidence that art is now the only evolutionary-revolutionary power. Only art is capable of dismantling the repressive effects of a senile social system that continues to totter along the death line, to dismantle in order to build 'a social organism as a work of art'…every human being is an artist who—from his state of freedom, the position of freedom that he experiences at first-hand—learns to determine the other positions of the total art work of the future social order.

Does this comment of his, written in l973, and the kinds of work that he did in Germany in the '80's with, for instance, the 7000 Oaks project, represent the sort of thing you are looking to have happen in the art world?

A: I would say very much so. In many ways, Beuys was possibly the first person to put forward a significant and radical idea that ultimately became a ball many of us took up and ran with: the idea of "art as social sculpture." With this small phrase, Beuys laid claim to the idea that art doesn't have to be made from specific physical materials like wood and stone, or paint and canvas, but rather you could sculpt society itself, shaping it through ideas and modeling behaviors. He made use of social processes and contexts that went beyond familiar art institutions, like museums and galleries.

Beuys is a particularly interesting figure, however, because he was like a shaman in that he could navigate freely between different worlds. Many of his art works consisted of things like projects for planting trees and he was even the founder of the Green movement in Germany. But he was also quite comfortable making art in more traditional modes, which he exhibited in the usual art world channels. They were not necessarily the most predictable kinds of objects, however—his sculptures were often made from bizarre materials like fat and felt. They were exhibited in a huge retrospective show at the Guggenheim Museum in New York. Beuys was unusual in the way he was able to straddle and bridge two worlds. Most artists tend either to follow the predictable, lockstep scenario for becoming "professional" and competitive in the art world, or they go off in a completely different direction and make their own path. Beuys was interesting because he did both.

Q: *I recently read your book,* Conversations Beyond the End of Time, *and thought it was just an extraordinary work. I don't think I've ever seen anything quite like it where over a period of about a year and a half, you had conversations with all kinds of people—artists, critics, psychiatrists, sociologists, and more—discussing these themes. You were able to create a work that shows art as a developmental path, not only an expression of the individual, but as an evolving social expression as well.*

A: My work over many years has been to articulate the vital role of artists in society, and along the way, to create a new paradigm as well. In my early years of writing art books, I was very influenced by New Age, or new paradigm thinking—that included things like systems theory and the eco-philosophies that burst forth on the scene during the 1970s. Many books were written that influenced my own approach greatly. I tried to apply these ideas to the sphere of art.

I guess I've always been trying to deconstruct the cultural narrative which pins art to careerism, self-promotion, and the creation of "art stars," and which is linked to the obvious gallery and museum nexus. I wanted to validate and expand the possibilities for art making, so that they could include many more options than that. This was not meant to negate the former, but rather to help those artists who found careerism a deadening path break out of the mold. I wanted to encourage them to feel validated if they work outside the familiar contexts.

Others have taken up the same banner, so at this point there is a whole world of post-studio practices, and of artists who see themselves not just as makers of valuable commodity objects, but who see themselves as active participants in a global world, and who are willing to make art in the service of something more positively social or environmental. Many of them set out to try to solve social and ecological problems as artists. That often entails embracing what probably interests you most in my work: a willingness to embrace a healthy confusion of genres, to cross boundaries and disciplines at will. In a way that often decentralizes the act of creativity. This stands in direct contrast to the heightened individualistic modality of "look at me and admire what I've done" that is so much a part of the art scene.

Q: *There are several themes in what you've just said that are really interesting. I'm reminded of how during the Depression, artists and architects were used to create public works, be they paintings, buildings or sculptures, to try and help bring some income to* *them, as well as make a contribution to the public. We had an example of an economic crisis that brought a very special role for art in the culture. Would that be an early example of what you're talking about, at least in the last century?*

A: Up to a point. But those public works' projects, in the context of the time in which they happened, pre-date what we can call the "paradigm shift," which refers to a change in the whole modus operandi of making art. Mural artists then were still making art in acceptably traditional ways, although they were oriented towards a different kind of public and site, and they were more socially directed in their imagery.

Q: In more contemporary terms, I've seen public programs that work primarily with at-risk youth who paint murals on public buildings; they're being guided by muralists, and that's another example of the same phenomena.

A: Yes, but there's an important difference between the two. Both produce murals, but in the more community-based art of today, there are other creative social processes going on, such as building communities for these youth, and positively altering their lives in the process, by giving them a sense of purpose, or bringing out artistic talents they didn't know they had. It offers a more healing component rather than just a purely visual experience.

Q: That's one of the streams that I think your comments brought out—that of the healing potential of art. Another one is that art can be an expression of a desire for change. It is a desire to have the world be more aligned with aesthetics and beauty, perhaps even with social justice and other humanistic criteria. Is that also a stream you were alluding to?

A: Yes, definitely. The whole idea being to open art up to a larger definition of itself, and allowing it to engage with more aspects of life and the world than is possible if you are functioning alone, behind closed doors in a studio. A lot of this sounds pretty old-hat now, but at the time that I first started writing and talking about it, these ideas were pretty blasphemous. Sometimes I'd be greeted in a lecture hall as "that woman who hates art objects." At other times, I'd get a standing ovation, so it was a very emotionally intense kind of stand to take at the time. What I was saying really challenged accepted ideas that were strongly in place and still are, for that matter, in terms of the culture. If you work with young people (which I don't do much anymore), you will find that, in any group of art students, there are always the ones who want to go the accepted cultural route. That is to say, if there are megabucks to be made, they are certainly up for it, willing to give it a shot and abide by all the rules of that game. Then there are others who are not drawn by that at all. They want to pursue a kind of art oriented towards a different vision of "success."

Q: You talk about ecology as well. In the nineties, the threat to our world was very prominent in your thinking. Is that accurate?

A: That is accurate, but it can't hold a candle to where my thinking is now. My distress at what is happening to our world is so consuming now that art has just about dropped below the radar and become almost irrelevant.

Q: So are you saying there is no role for art in trying to address the ecological challenges we face?

A: No, I wouldn't precisely say that. I still consider that an "eco-vention" by an artist—meaning, for example, the reclaiming of a contaminated landscape or restoring a polluted river, is arguably a more honorable and interesting form of engagement with the world at this time than seeking to get one's work favorably reviewed in a major art magazine. That sounds very judgmental, I know, but I'm only speaking for myself here.

Q: But with the intensity of the ecological crisis we have in the world, that's what's calling your attention, is that correct?

A: What is calling my attention right now is a book I'm reading, called *Endgame*. Its author, Derrick Jensen, puts forth a rather unforgiving and radical thesis—one which those of us who have been thinking about these things for decades already know, but haven't ever quite put in such drastic terms. Jensen claims that civilization is unredeemable; it has catastrophically degraded the planet and has given us license to destroy life on many fronts—species, plants, humans—in order to get whatever resources it needs to keep itself going and continually moving forward. Meanwhile we've vastly overreached the earth's carrying capacity, yet we continue to expand as if this were not the case. Jensen calls this a "traumatic situation," because no action we can take at this point is of any avail.

There is a second volume in which he actually encourages the dismantling and destruction of civilization—taking it out before it takes us out. I think he's right about the intransigence of the cascading crises that confront us. I don't think there is any escape from situations like the polar ice caps melting. Nothing we can do at this point is likely to reverse that, and this is just one example of an intractable situation.

There's another way that we are under total threat as a civilization and as a species and that is the virus of holy war. I've spent the last year reading about the threat of global jihad and the clash of civilizations: jihadism versus democracy. What it comes down to is a sort of lust to annihilate at any cost. For us, it's a matter of taking control of markets and devouring resources to sustain our way of life, whereas jihadists want to take over the world under the umbrella of a very sinister religious control. If we think that America is bad in the department of imperialistic agendas, I can tell you that al Qaeda is far worse, albeit for different reasons than ours.

Q: That leads to a kind of pessimistic perspective that is a little different from 1994 when you were talking with Laurie Zuckerman in your Conversations *book about the ecological crisis. You had some sense, then, of optimism about a paradigm shift. I remember one statement in which you were talking about living in a transitional time, when the values* *and way of life we've been taught to live by in our culture have come to be seen as toxic. This brought up issues of healing and transformation. You said, "It seems as if there is a spiritual and social obligation to participate in this process of healing our world, however one can." Does that mean that if things are as bleak as you've just described, that you've moved away from that?*

A: I don't know what I think at this point. I'm trying to come to terms with the unpalatable fact that despite decades of so-called "paradigm shift," little has really changed for the better. It seems instead as if things have gotten much worse. So I think I would want to frame your question differently: "If you were on a bus going down a mountainside, and you realized that the bus was careening out of control and about to go over a cliff, what would you be doing? Would you be looking out the window, or would you be hiding your eyes?"

Q: I guess I'd be looking out the window.

A: That may be our primary task at this point: to come out of denial and bear witness. To really confront the sheer deadliness of our present circumstances. It's a moot point as far as what the human race can do about all this now, since too many genies are out of the bottle and we can't put them back in. The human race has proven itself to be deeply dysfunctional. We've known for a long time that we're destroying the planet, yet we continue to do it with no let-up. Everyone knows that this war in Iraq is lethal, but we've managed to create a situation where nothing we do can solve the problem. Whatever we decide to do, the truth is we're trapped—or as Jensen prefers to put it, more grandly, "We're fucked."

Q: Back in 2004 when you published the new edition of Has Modernism Failed?, *your closing chapters indicated that you had an interest in transdisciplinarity and integral theory—in the works of Basarab Nicolescu and Ken Wilber. It seems that you saw something about the work they were doing as providing frameworks or perspectives that added value.*

A: I definitely believe that's true and I haven't changed my mind about that. Integralism is a great antidote to perceiving reality in the dualistic mode that plagues Western civilization. It calls for reciprocity and equality among all the levels of reality, and all levels of being. If I seem to have developed what you might call a bad case of "disheartenment," it's because I see that all the information we need is out there—all the philosophies and spiritualities that could guide us through—were we but to espouse them. But make no mistake, we haven't espoused them, and now our problems may no longer be amenable to amelioration by such means. So the question really is, "What is it about the human race that prevents it from following its own wisdom?" We've learned so much, but failed to put it to use.

Q: Do you have an answer?

A: Like I said, I think we're a flawed species, and we've managed, unwittingly, through our many technological advances and our unwavering belief in them as desirable, to write ourselves out of the picture, Obviously this is very unfortunate, both for us and for all the other species of the world that we're taking out along with us.

Sometimes I think I shouldn't be talking like this at all—I don't enjoy the Cassandra role. A friend of mine sent me an article that she had written a year or two ago about "peak oil," and how supplies are running out. She described how whenever she brings the topic up in conversation at dinner parties, she never gets invited back. This is not the kind of thing that people want to hear.

There's a conversation I had with an artist friend of mine, James Marriott, who does environmental art work in England. (I think you can find the text of it on the website of www.greenmuseum.org). We get into an old idea of James Hillman's and Michael Ventura's from their book *We've Had a Hundred Years of Psychotherapy—And the World's Getting Worse.* What should you be doing when the ship is going down? I don't know that anybody has a suitable answer to that question. Something James and I discuss is, at what point do you actually accept the fact that the ship *is* going down, and how does that affect what you think or can do about the situation?

Q: *One of the things that seemed to happen in your life, and was expressed in magical ways in your memoir,* Living the Magical Life, *was that you seemed to turn to a larger sense of life and to invest yourself at the level of faith. Is that still there?*

A: Yes! I still find synchronicity the most interesting spiritual phenomenon that I've run into in terms of human experience. I consider it to be the biggest pointer to the possibility that there is indeed something out there that we can't see, something that may be orchestrating events in a way that we don't understand. If I were to say I had any hope for the human race—and to counter everything else I've said so far—it would be that if there really are such forces, they may be operating now in a way that could save us.

I saw a movie recently about the Mayan calendar ending abruptly in 2012. The speculative thesis about what this could mean is that maybe time as we know it, time as delineated by historical narrative and the continuity of a certain way of life, will suddenly come to an end in 2012, precipitated by we know not what. But the spin that many scholars have put on it is that there will be cascading crises that will lead eventually to opportunities for evolution. We will come out in a place of higher consciousness. I would say that it's possible. But the odds don't look that way to me. However, I'm only one person, and I may not have any special insight into the future.

Q: *One of the comments you make in* Living the Magical Life *is that the universe is a better organizer than we are. We just need to stay out of the way. Is that a principle that still applies under current circumstances?*

A: I am basically Taoist in my spirituality. Non-interference is a very Taoist approach. So yes, I do think that many of the problems we are experiencing in the world at this time are the result of human actions, especially untrammeled ego and ambition and greed. If you are a Taoist, you are trained to see yourself more as a speck of dust than as a towering rock star. Taoism says instead of striving for something, going somewhere, needing something, be happy over long periods of time with almost nothing. Economize. Simplify. Do not try to continue the pretense of more opulent times, as the *I Ching* counsels.

Q: *If the bus is going over the cliff—*

A: Russ, do you think it is?

Q: *I don't know. There's a very good chance that it is. History suggests that there are surprising things that happen that we can't predict. I don't know if it is, but I'm concerned for my children and my children's children.*

The question that came up for me was, if we're going over the cliff, and all we can do is either watch or close our eyes, is there anything about the transdisciplinarity or integral approaches that you see that helps us, at least if we keep our eyes open, better to comprehend what we're seeing?

A: I am of the persuasion that knowledge and the ability to confront and metabolize what's happening is the first order of the day. I absolutely agree with Alice Walker in this regard, when she says that even if there is nothing you can do personally—for instance, to stop the war—it's important to face what's really going on. People often avoid confronting how bad things are because they feel vulnerable and helpless, and are afraid of becoming too depressed. Alice Walker says we need to have the courage to be more depressed! I agree with that. She says that in today's world, where we are, who wants to be Little Miss Sunshine anyway? It's scary.

Q: *Could you be more specific about the things that you think help you get a sense of the whole picture that you're seeing?*

A: I'm a collage artist with a special gift for synthesis. It means that I can take the bits and pieces from everywhere and see how they connect, perhaps in ways that someone else might miss. That is, of course, the ultimate integral theory—which is that everything is interconnected. There is a wonderful Zen saying that embodies this: "When you pick up one piece of dust, the entire world comes with it." This is a basic idea that seems very hard for our atomized and individualistic society to grasp.

Richard Rorty, the philosopher who recently died, once said there is no big picture. He is very highly thought of, but personally, I think that is a stupid statement, an essentially misguided idea. I believe there is a big picture, and integralism—moving between inside and outside realms, between individual thoughts and collective worldviews, and seeing how all these things interact and interconnect, is very helpful. It creates a multi-dimensional, non-compartmentalized view of reality in which boundaries are permeable and divisions are transcended. Only then can one begin to grasp the infinitely complex cat's cradle that is out there. Without that grasp of the totality, it's no wonder that no one has any workable idea for a solution, say, to the Iraq problem, or any way to navigate through this awful maze.

Q: If the bus is going over the cliff, and you're keeping your eyes open, even if there are only a few minutes to be able to pay attention, is there anything you would be doing for your fellow passengers?

A: I think it's one of those situations that until you're in it, you don't know. If the real question is, "What is our task?" I suppose our task is, at the very least, to be constantly vigilant in considering what our task is, rather than mindlessly pursuing our own agendas. We can enter into the Apocalyptic mysteries, as one writer I read suggests, by looking seriously into the realities of the times. This is a "gift" to the community. Obviously, beyond that, we can try to mitigate whatever suffering we can and undermine the levels of destruction.

Q: A friend of yours is promoting a different way for us to be in the world. Riane Eisler's new book, The Real Wealth of Nations, *continues to build on her partnership model versus the dominator model.*

A: Her model of partnership was very influential for me in my early writing about art, to construct a notion of art that's built around relationship, participation, collaborative communities, and interaction with others. This is in strong contrast to the modernist construct of art as radically individualistic. The whole possibility of art as dialogue rather than monologue (an idea I also borrowed from David Bohm), puts it back into a *social* context, instead of the artificially constructed context of the marketplace. Putting art into the marketplace is, for me, a bit like putting animals into a zoo.

So much has come down the pike since then that much of this seems quaintly historical now, but the *modus operandi* for being an artist in this culture is still very much in lockstep with the idea of selling yourself and becoming an art star, even if it's only for the fifteen minutes that Warhol so astutely allotted. When you start to bring in something larger, such as a social purpose or a use value for art, you will still run into vociferous opposition from people who consider art's value to reside in the fact that it serves no purpose beyond itself. It's the paradigm of freedom and autonomy.

Q: The diagnosis of the world being already at its end is terminal, so it cuts out all possible interventions—we can keep talking until it happens—but the interventions of someone like Riane Eisler to shift to a partnership model, or the use of dialogue or any other human creation, doesn't it make all that seem rather pointless?

A: These ideas have been out there for a long time now. Riane's books, my books, many other peoples' books, have been out there for some 30 or 40 years. These ideas have taken hold on a certain level in the culture, but in terms of affecting any real transformation and change, what is your view? Do you feel that it's all happening, that we're getting closer to where we need to go?

Q: *For me, it's important to keep the focus on trying to create what's important, and that includes the survival of the planet. I'm not so sure there's a lot we can do at this point; that's partly why your position is so strong in my opinion, and difficult to react to other than with a sense of loss.*

A: And it was not what you expected.

Q: *I wasn't really expecting anything in that regard. I knew that your more recent writings were strongly about the political and ecological challenges we face.*

For me, as long as there's life, there's hope. I'm in agreement with you, Suzi, that we all need to do whatever we can to try and make a difference.

A: Have you read *The Road* by Cormac McCarthy?

Q: *No, I haven't. Maybe I'm avoiding the pessimist.*

A: Well, Russ, you're hardly alone in that! In the case of *The Road,* what McCarthy has done is to write a novel which takes place in a post-apocalyptic world; it is so cinematic and intense and drastically simple that you actually get to live inside that experience. You follow a father and son, who are two of the rare survivors in a disfigured landscape where everything has been destroyed. It's raining all the time and everything has become ash, and the two figures are slowly walking south, hoping to get to a warmer place. The scene McCarthy sets seems to me to be a more likely outcome of all these impending crises than this big transformative thing, but I could be dead wrong.

Q: *Others are suggesting that destruction of the human race is a step in the evolution of the universe. Who knows what our destruction will make room for? I'm reminded of a close friend whose grandmother taught her as a child to expect an apocalyptic event, the Nostradamus predictions that people see as predicting the end of the world. In our culture the doomsayers have always been people to laugh at, ignore, or treat as strange. It seems like the case you're making is that it's really where we need to be thinking these days; it's where we need to focus.*

A: It's a question of how reality-based one is, and how willing to enter into painful spheres of thinking. I agree with Alice Walker who says that we are living in "probably the most dangerous, frightening, unstable times the world has ever known." It's not a position that I necessarily want to defend; I'm just speaking from my heart, and that is how I see things. Pipe dreams and soap bubbles aren't working at this point. It's hard for me to deny what I see. Perhaps I have got a kind of negative spin on things. Who knows? But I can tell you that spending a year reading some ten books on jihadism has made me understand that we are in way over our heads. I don't know whether our government truly doesn't understand the forces it has unleashed, or whether they can't afford to admit what they've done—but what is clear is that I don't think we're going to emerge from this gracefully or intact.

Q: *Is there another book in Suzi Gablik's future?*

A: I don't know—some of my feelings about this can be found on my blog. I've perversely taken to blogging, given that I think technology is part of what's going to undo us in the end. Al Gore's newest book says that because of computers and the Internet, we can revivify our stolen and dismantled democracy, and rebuild it again at the grass roots. He doesn't mention the fact that the biggest tool for the Islamists is also cyberspace. It's the place where the jihadists are recruiting their terrorist converts and selling their anti-American propaganda around the globe. What we have defined as the "war on terror," they call the "war on Islam."

Q: The point there is that any tool can be used for various purposes.

A: No, I'm afraid it's not as simple as that. Technologies like the car and the computer are *not* neutral. They change us. They arrive in our world, and society builds all these narratives celebrating them. But then, they actually change our lives, and we become addicted to them. Only much later do we discover that we've got holes in the ozone, that we're destroying the biosphere, rewiring our brains, or that there is such a thing as cyber-terrorism. But by then, we've become prisoners of these technologies, and it's too late to change. We feel like we can't survive without them. Eventually, we hardly remember there was once a world where you could actually do things without having to mediate it all through machines.

The way we're going, there will be less and less that you can do that isn't mediated by technology. Once that happens, it will be very hard to live our lives any other way. So it's not just a matter of technology being good or bad only in relation to some hypothetical user's intention; technology affects things in ways we don't foresee and didn't figure. By the time we find out the consequences, it's too late to do anything about it.

Q: What is your blog address?

A: http://virgilspeaks.blogspot.com

I feel timorous that I sounded so bleak. You wouldn't know it, but I'm a great lover of life and believer in life. It's very painful to watch it all going under and being systematically destroyed. I find myself like an alien member of the human race—how can people act like this? How did this happen?

Q: If you weren't such a lover of life, then you wouldn't feel the pain.

A: Well, I suppose that's true. Sometimes I find myself thinking of the small bands of Eskimos that Gretel Ehrlich describes in one of her books. Even when they are starving, they laugh and enjoy life. They are not fazed.

Q: Thank you very much Suzi.

Reactivity to Climate Change

Jan Inglis

For many years, public discourse concerning climate change seems to have been divided into two main camps: those who did believe it was occurring and cited experts and years of research that proved the planet was warming up, and those who did not believe that these indicators were anything more than isolated events. A subtopic of the former position also divided into two camps: those who thought climate change was due to human causes and those who thought it was just a natural cycle. These debates have preoccupied attention, polarized local and global consideration, and failed to contribute to any coordinated responses. Instead, they seem to have prevented or at least distracted a process in which such responses could be initiated. The structure of these arguments has largely been conceptual and factual.

Once connections were made between tsunamis, Katrina, wild fires, floods, droughts, ice storms and undeniable changes in weather patterns, a picture of the whole constellated. The discourse eventually moved from conceptual and factual arguments to lived experience and pattern recognition. It seems that a “tipping point” in public recognition of climate change has been reached. At least from my North American observations, during the middle of 2007, a profound shift in public discourse has been occurring. It indicates an acceptance that climate change is really happening now, and that it is growing exponentially due to human activity. General public sentiment seems to have landed on the side of agreeing that we have a very real problem that needs to be faced collectively. The discourse has moved well beyond its former argumentative positioning to a place where shared meaning is possible.

This new shared meaning might herald a take-off point that could support a comprehensive societal response. However, within just weeks or months of the development I described above, I have noted the formation of yet another polarity in the discourse. Both poles share the characteristic of faulting the other. One camp is faulting those who present forecasts of climate change as being too alarmist and too negative with potential to cause people to be overwhelmed and then shut down. The other camp is faulting those who present positive images of the future and human capacity to make a difference as being too soft, and not really dealing with the incredible challenges we are facing. The fault-finding voices have replaced conceptual and factual arguments.

I have also observed a subtopic of that debate arising: the question of whether those who espouse the need to take action are themselves “pure.” For example, Al Gore, recent winner of the Nobel Peace Prize, has been publicly criticized for his large house and its energy usage. David Suzuki, Canada’s environmental guru and geneticist, is criticized by people who check out his grocery cart in the line to the teller, and then announce publicly that some of his food choices are not as wholesome as they “should” be.

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My observation is that the topics have shifted but the style or structure of public discourse underlying the topics may have remained the same. In each of the cases noted above, the structure was dualistic, one set of arguments or judgments pitted against another.

These dynamics have consequences. Embedded in this apparent need to categorize, label, and judge is the framing of climate change as an "out there" thing. When put "out there," that "thing" seems to motivate a narrowing of public attention to focus on which camp one belongs to with respect to the "thing." This distances *us* from *owning* the issue, which happens to be *our* issue. It interferes with the necessary exploration of the full gamut of concerns and responses that are naturally arising. So our discourse can become perilously reduced to talking about others talking about the "thing" without addressing the thing itself.

The kind of thinking behind this discourse does not help us make vital connections, such as seeing the whole picture *and* seeing ourselves in that picture *and* seeing the causal links to the ecological challenges we face. When we do not recognize that our own thinking and behaviour is contributing to the issue—i.e., has causal links to the very development of the issue—we ourselves, by our limited perspective, hinder adequate responses to the issue. I see these dynamics as splitting apart things that already form a whole. This then blocks the whole from being in our line of vision just when we need most to see it.

> The . . . world begins by making splits, then drawing boundaries, then solidifying these boundaries. Then we fool ourselves into believing what we have made ourselves see. Solidifying boundaries is very comfortable, because it allows us to deny our experience . . . We miss the whole system. (Bateson, 1978, as quoted in Campbell, 2006)

I have been considering these observations through the lens of developmental dynamics. In particular, I have been categorizing these as transitions from tasks at one stage of hierarchical complexity to another (Commons, Rodriguez, Miller, Ross, LoCicero et al., 2007). Commons et al. describe steps that range from thesis to antithesis to relativism and then through a chaotic "smash" to an eventual synthesis. Earlier arguments, described above, were thesis-antithesis ones, e.g., from there is no climate change problem to yes, there is a climate change problem. And, from it not being human caused to yes, it is human caused. A movement seems to have occurred but are we now sidetracking ourselves, procrastinating, in a hidden relativistic either/or phase, e.g., either we will or we will not step up to the plate and tackle this problem? Does this pattern of drawing boundaries and labelling camps suggest a reticence to move out of the reactive phase of relativism, into the chaos stage?

The chaos stage brings with it recognition of unknown outcomes. In the case of climate change, it also includes the need to commit to engage the issues enough to understand their multiple layers (including personal and cultural values and behaviours), to create and sort options, and to consider all the various responses. This represents a movement *toward* the issue, and *toward* synthesis. By contrast, to frame the topic as a debate of "us and them" and "for and against" camps keeps the discourse at a superficial, possibly more distant, and thus more comfortable level. Such approaches represent a movement *away from* the issue, and *away from* synthesis. They take us back to the antithesis phase of transition instead of forward into the chaotic stage of working things out.

In summary, my observations suggest that at present, intense focus on climate change and pent up concerns seem to be milling around in the comfortably familiar territory of dualistic dynamics rather than moving forward. More complex styles of thinking are needed to shape public discourse and to bump up our attention to climate change to a higher level so we can get focused on effective cultural engagement to address it. Such forward momentum may allow us to move beyond the seemingly natural slide to comfortable dualisms. While these are natural, even necessary parts of the transitions process, they are unproductive on their own for addressing such a complex and pressing issue as climate change. By naming these dynamics and reflecting on their impact, perhaps we can see our way into that forward momentum—and maybe even to addressing climate change with the complexity of engagement and coordination it demands of us.

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Developing *Integral Review*: IR Editors Reflect on Meta-theory, the Concept of "Integral," Submission Acceptance Criteria, our Mission, and more.

Introduction

Over the past three years our journey as editors of *Integral Review* has been full of rich learning. The processes of providing authors with feedback, going over reviews of articles as well as writing ourselves have all contributed to our growth. The primary forum for this learning has been the many conversations amongst us to deal with the various issues that arise in publishing IR. Our intention in this brief piece is to share some of our reflections on this learning journey with you. These will take the form of contributions/reflections from individual editors, allowing us to share with you the particular issues we feel of value in this process.

By writing these short pieces, we aim to provide additional resources for understanding how IR works. While we have guidelines and criteria for submissions on our website, it seems that narrative voices from individuals may add some flesh to them. Relating how we perceive issues around writing for an “integral” journal offers a supplement for engaging these criteria, and will hopefully bring them to life. As well, we hope that our writing provides insights into how and what we think about issues relevant to IR’s mission. These pieces reflect the unique voices we have as editors of *Integral Review*, and demonstrate some of the thinking and passions behind this journal.

Russ Volckmann

I believe my most significant contribution to *Integral Review* during this “start up” phase has been the interviews I have done with people whose insights and publications contribute to our processes in significant ways. By processes, I mean the community’s ability to reframe and build a metatheory that allows us to incorporate the brilliant ideas and perspectives so often confined to academic disciplines or labels that often exclude, rather than invite.

Integral Review is an invitation, foremost. It is an invitation to participate in and contribute to a process that I hope will lead to approaches to framing our world, our experience, and our aspirations in ways that generate far more hope for our future than fragmented approaches are capable of doing. There are some arenas in which the fragmentation is welcome; after all, specialization leads to a quality of expertise that brings us products and approaches that help us address the challenges we face. We can find such specialization in many, many places. By adding a meta-theoretical perspective, however, my hope is that we can reduce the unintended consequences that lead to the destruction of the planet, its societies and its people.

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Those I have interviewed represent interests in integral theory, management and leadership, conflict management and the work of defense organizations, art and the complexity of our world, and particle physics and transdisciplinarity. Each is interested in ideas and action, equally. One without the other is, well, full of hope, perhaps. I know of no other publication that would provide a home to such diversity and richness. Things I have learned from this process include that there are individuals out there who have been working from an integrative perspective for decades. This has led to pessimism on the part of at least one, to more creative work on the part of all, and the creation of an intellectual space intended to support the vision that I hold for engagement in a generative lifestyle and the purpose that *Integral Review* serves in support of this.

Thomas Jordan

It is probably impossible to summarize the criteria of good scholarly work in a way that the academic community would agree on. Here is, however, one view that might serve as a starting-point for discussions. There are many paths to meaningful knowledge, the path the scientific community has chosen is only one, but one that has certain strengths. These strengths come with limitations as well, which means that science should be seen as a particular genre in the broader quest for knowledge. The goal of science is to produce tenable knowledge. We are nowadays aware of the perishable nature of absolute truth claims, because we know that all such formulations depend upon the characteristics of the discourse in which they are embedded. Therefore we no longer think of science as step by step building an ever larger body of true statements about reality. But still, the task of science is to strive for knowledge that is as tenable as possible, which generally means that when we make assertions about anything, we are supposed to have good arguments for the validity of the assertions.

A lot of the criteria generally used to define the genre of science follow from this basic task formulation. We expect scholarly texts to be stringent in their use of concepts. We expect that authors take care in formulating the purpose and research questions of their investigations; to describe how they have proceeded in order to seek answers to their questions; we want to have explicit and precise statements about what conclusions the authors have made; and we expect the authors to support their conclusions by arguments that are transparent, stringent and reasonable. A very characteristic quality of the academic community's style of knowledge seeking is that we are very sensitive about validity claims. As soon as an author makes any kind of assertion, i.e., claims that a certain statement should be regarded as valid, the academic instinct is to check whether the validity claim is reasonable. Some assertions need not be supplied with supporting evidence or arguments, simply because nobody would challenge their validity. If I say that WW2 ended in 1945, I don't have to prove this assertion, because it is generally known and accepted as a fact. But as soon as a validity claim is not self-evident or generally accepted as valid, the author of a scholarly text should take care to specify what evidence or argument the author feels is strong enough to support the validity claim.

In a scholarly text, authors cannot simply make assertions about reality just on the basis that something seems plausible, sounds reasonable or is appealing because it conforms with the authors' values or expectations. We expect authors to be more critical, to discuss supporting evidence (e.g., empirical data or logical arguments) and alternative interpretations. A text that formulates a theoretical framework mainly by formulating principles and specifying details by deductive reasoning may be a valuable contribution, but then the author should stick to the realm of theory formulating. As soon as a statement is made about reality, it is not sufficient that the statement sounds plausible or attractive; there must be reasonable arguments that support the validity claim.

We sometimes get manuscripts that seem to be the product of an author trying to make sense of a particular field by interpreting it through a theoretical framework. It seems that the main criterion used by the author when making validity claims is that the framework seems to make sense to the author him- or herself. Developing a theoretical model may be a perfectly valuable contribution in a scholarly community, but it is problematic when the author simply claims that the concepts used in the model explain or correspond to certain empirical phenomena without really examining whether there is supporting evidence for making such claims.

Bonnitta Roy

It seems to me rather unfortunate that the term *integral* has been associated with the notion of "A Theory of Everything." In a recent dialogue hosted by *Integral Review*, a revision to "A Theory *for* Everything" was proposed—but even that seems to me to be problematic. While I consider the term "integral" to refer primarily to noetic enterprising, the notion of theorizing about everything seems somewhat at cross purposes to the integral embrace of body, mind and spirit. I believe that what is integral about *integral* is the capacity for integrating thinking, doing (including communicative acts) and being.

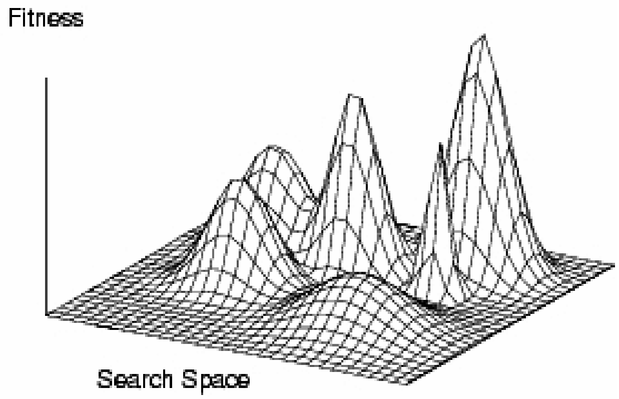
While an important critical component of *integral* is the articulation of distinctions, too much abstract theorizing results in the stratification of existence into a dizzying complexity of parts, and the hyper-intellectualization of the person at a loss for the whole being-in-Being. The product of this kind of hyper-intellectualization is the belief that reality is really composed of the discrete parts that we continue to identify. This puts us in the unfortunate position of having to create complex frameworks to explain how the parts fit together to retrieve a *really whole* reality.

Humpty Dumpty fell off a wall . . . all the king's horses and all the king's men . . .

Rather, it seems to me that *integral* is the art of nuancing the whole—in teasing the creative flavors of our being from the whole of Being. It is as if we are children lying in the deep grass on a sunny day, watching clouds. I spy a rabbit and then you see it too. You spy a wizard, and then I see it, too. Joy.

Then again, it seems to me there is an inherent telos associated with the notion of *integral—a direction toward increasing view*. Here again, it is unfortunate that it is fashionable in some circles to imagine integral as the *one view* from 30,000 feet that captures everything else. This has created a kind of reality TV mentality in the integral community, where we get to vote people off our island until one guru remains. This can be quite ugly at times. If instead of thinking of view as a complex abstraction that contains everything and everyone—truly a great hubris that dogs the integral community—we imagine the telos of *integral* as being a direction toward increasing degree of freedom. I have argued in this journal and in the dialogues hosted by IR, of just this notion of *view as degree of freedom*.

It occurred to me recently to think of *integral* in terms of a noetic *fitness landscape* where there are several views from 30,000 ft, and 25,000 ft, and 5,000 ft—and they are all equally relevant to the meaning of *all things integral*. This notion of fitness landscape has been used to understand evolution of all kinds of systems, including economic and biological. A graph of a fitness landscape looks like this:

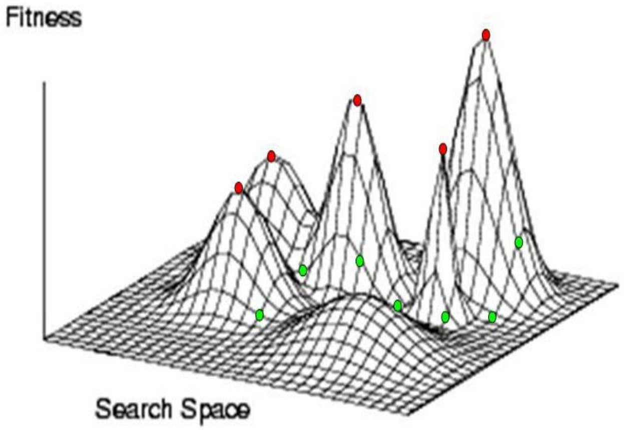


The hypothesis behind a fitness landscape is threefold:

1. The system seeks to maximize novelty.
2. The system is wholly autopoietic, that is, inputs and outputs are coupled and co-generative.
3. Agents and environment (figure and ground) are co-creative.

When thinking about evolutionary dynamics, the tendency is to in-animate the environment and animate the activities of potential agents with respect to the environment. The environment becomes a passive and negligent ground of activities among agents. This is at odds with both the notions of a wholly autopoietic system and the co-creative process between agents and environs. Not surprisingly, such a system does not maximize novelty.

When we focus mostly on cognitive adaptations, or a single summit of knowledge—that is the mistake we are making. We are dispossessing the environment and the process of their role in maximizing novelty. When I think of the noetic enterprise, *integral*, in terms of a fitness landscape, I think of the search space as the ground of Being, the contours of the landscape as the ascents of our being, and the summits of the landscape as the novel noetic points that emerge in a wholly autopoietic, generative process. If in this landscape, I plot specific noetic points (the red and green dots) as shown.



I can ask myself what are the kinds of relationships between the noetic points, the topographic scales and the relative heights of the summits. If *integral* is a noetic enterprise that emerges from a wholly autopoietic process, then the red points represent the greatest novelty (most emergent ideas) in the system. I imagine these points collectively as *integral thinking*. I imagine the topographies as *integral doing* – the paths that takes being there. And I imagine the search space as the ground of Being.

But when imagining the telos of *integral* as degrees of freedom, my interpretation shifts. The red dots are actually older, more stratified noetic points, and the new forms are continually being renewed from the fabric of the search space. In other words, the up rush of the tectonics of freedom *are from the search space, the very ground of Being.*

As the word *integral* generates new meaning(s) for us, I think it would be helpful to be mindful of the whole of which *integral* is not any single summit, but an essential part of the landscape of being-doing-thinking from which its own creative novelties are emerging. As we speak.

Tom Murray

"My well written AQAL-based paper was rejected by *Integral Review*—what's up with that?"

In many circles the term "integral" is so strongly associated with Ken Wilber and the Integral Institute that it is worth taking some space here to clarify *Integral Review*'s relationship to Ken Wilber, his work (particularly the AQAL model), and the Integral Institute which he founded, in part to help potential contributors understand how we evaluate submissions for publication. As I do so I will also discuss why we look for works that take a metasystematic perspective on one or more models, rather than simply apply a model.

Wilber's prolific, popular, and deeply insightful writing has been a major force of influence on the community of thinkers drawn to integral, holistic, trans-disciplinary, and systems-theoretic philosophical approaches. Following Sri Aurobindo and Jean Gebser before him, Wilber began using the term "integral" to describe his model around 1983, at the beginning of what some call the "Wilber-III" phase of his writing. Because some associate integral theory entirely with Wilber, it is worth noting that his approach is one of many approaches (the most widely known) that wrestle with the philosophical questions drawing the integral theory community together. *Integral Review* is "A Transdisciplinary and Transcultural Journal for New Thought, Research, and Praxis" and its editors are interested in a variety of interpretations and treatments of integral theories, provided they are of sufficient quality and originality. IR does not limit itself to pieces that explicitly deal with "integral," but this essay discusses our approach to evaluating submissions that do.

At the center of Wilber's work is his AQAL model of "quadrants, lines, levels, states, and types" (see "A Theory of Everything," 2000). We at IR sometimes receive submissions that illustrate rather straight-forward applications of AQAL theory to some domain (education, leadership, health, art, etc.). Such papers illustrate how the theoretical and practical elements of a domain can be conceptualized as conforming to the AQAL model, and note how insights from the AQAL framework illuminate key questions of their domain. We usually suggest that the authors of such pieces submit them to the Integral Institute's AQAL Journal (http://aqaljournal.integralinstitute.org), which specializes in applications of the model. IR and its editorial board have no official affiliation with the Integral Institute (or its many branches) or AQAL Journal. Though the IR editors owe a debt of gratitude to Wilber for his influence in defining many of the key issues of the field, and for galvanizing wide interest in them, none of us see ourselves as working strictly within the AQAL model, and we each have our own critical intellectual relationship to the AQAL model.

IR publishes a variety of genres, including scholarly papers, artistic pieces, and opinion essays. For scholarly papers, one can make a rough distinction between those that share a new finding and use a model or framework to explain the finding, from those that reframe known material in some new way through the use of a model or framework. In both categories the scholarly submissions are of course evaluated in terms of rigor and originality, and (among other things, see http://integral-review.org/submissions) whether there is a clear indication of what the contribution is. For the former, it is the finding that makes the main contribution, and the model or theoretical framework constitutes the language used to communicate it. My comments here are mainly about the latter case, in which the main contribution relates to the model or theory itself, especially those offerings that promote or valorize a particular model. In such cases it is even more important to approach the model itself as an object to be examined.

In deciding what to publish we give preference to perspectives that employ what has been called vision logic, metasystematic thinking, integral-aperspectival reasoning, etc. (overlapping but non-identical post-formal reasoning signifiers with a range of meanings in the literature—I do not have the space to attempt to define them here). Though it requires this level of thinking to invent something like an AQAL model, the straightforward and uncritical appropriation of any model or theory does not exemplify this type of reasoning. This is not to say that such a work does not offer anything of value to the integral community, but only that it is less likely to be appropriate for IR. Integral or metasystematic treatments of abstract models or theories demonstrate an awareness of the epistemological and pragmatic limitations of such abstractions, and some reflection upon the limitations of the writer's context (though such awareness may be communicated implicitly or lightly).

Thus, submissions that are strongly based on a particular model (e.g., AQAL) should maintain a certain objective distance from that model. This level of reflection is one thing that distinguishes scholarly work at a metasystematic (or one could say "second tier") level from standard scholarly work, which often takes an embedded theoretical model for granted. Studies *exploring* a model should be constructed so that they can question, refine, or refute elements of the model. Treatments taking models as an assumed *starting point* should clarify how these assumptions might constrain the conclusions. *Applications* or case studies of models in realistic contexts should report "lessons learned"—i.e., what worked and what did *not* work as expected, with conjectures on the reasons and implications of failed expectations or refuted hypotheses. Papers proposing *new* models should supply ample support and clear examples.

Authors are encouraged to maintain or aspire to a certain objectivity, yet with an awareness of the "myth" of complete objectivity. That is, bias of various sorts is inevitable—authors work within the horizons of particular world-views and disciplinary paradigms, are subject to the "bounded rationality" ubiquitous in human reasoning, and come to their work favoring certain outcomes or valorizing certain beliefs. But each of these biases can be compensated for to some extent, or at least reflected upon. Integral forms of inquiry reveal subjective and intersubjective as well as objective factors that contribute to conclusions, to more fully contextualize these conclusions for the reader.

In closing I will mention that our formulation and application of article acceptance criteria is an evolving system. The explanations given above concerning publication acceptability are both in process and not straightforward to apply to each paper submitted. The journal is relatively new and exists to explore relatively unexplored territory with undefined boundaries and unclear standards for an emerging and equally nebulous community. Each submission has the potential to stimulate dialog among the editors about the interpretation or content of our acceptance criteria, and even about the makeup of our intended audience. In co-creating *Integral Review* we try our best, thrash, revel, and celebrate in the uncertainty of it all, and happen to enjoy the process very much

Sara Ross

I harbor high hopes for the contributions *Integral Review* (IR) can make to contemporary issues and fields of endeavor. Those hopes come with challenges to realizing them. I want to use this space to articulate some of the challenges I see because some seem steep. I think these challenges go hand in hand with IR's mission, and for that reason, warrant public discussion.

For the scope I want to treat here, IR's mission can be summed up in a few words: To disseminate—and encourage more of—the awareness, development, and application of high stage action-logics to contemporary issues. Applications may take a wide range of forms, anywhere from research, theory-building, and analyses, to reflections, evaluations, creative works, and process designs. "High stage action-logics" refers to measurably complex behaviors including reasoning at stages called, for example, Strategist and Alchemist in Torbert's framework[1] and correspondingly, Metasystematic and Paradigmatic in Commons' framework.[2] These and subsequent stages are capable of and necessary for generating "integral" work. In my usage, *integral* draws on the dictionary sense of *essential to completeness* for the task at hand.[3] To me, in brief, such completeness means comprehensiveness that is both pragmatically contextualized and holistically so.

Given that scoping of the mission, what are the challenges that seem steep? I categorize them in terms of constraints. These constraints seem attributable to time, institutionalized demands, and conceptual assumptions. While these are interrelated in many respects, for the most part, I treat them only separately here.

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[1] Torbert, B., & Associates. (2004). Action inquiry: The secret of timely and transforming leadership. San Francisco: Berrett-Koehler.

[2] Commons, M. L., Rodriguez, J. A., Miller, P. M., Ross, S. N., LoCicero, A., Goodheart, E. A., & Danaher-Gilpin, D. (2007). Applying the model of hierarchical complexity. Unpublished manual, Dare Institute. Also available at commons@tiac.net.

[3] It would be great fun, and challenging work, to develop this idea in its own article, particularly the task dimension. There is a practical need for methods to evaluate and even measure sufficiency or "completeness."

Time

I recall a professor telling his class years ago that when he was writing a paper, he required, on average, only one half hour to generate each page of writing. He was a speedy writer whose reasoning, I had noticed, was quite linear. By contrast, some people I know report that it often requires two or more hours to craft one or two solid paragraphs. I have worked with authors who require many months, in some cases years, to bring their complex understandings, theories, and analyses into an articulated, written form. I recall a scientist telling me recently that he had finally solved a question he had been working on for 30 years.

I have read published works by high stage thinkers who are making major contributions to understanding and working in our complex world. I have invited some of them to contribute an article to *IR*. Much of the time, despite expressed interested, they say they must decline for lack of time to do so. I know some practitioners, non-academics, whose insights and approaches would benefit other practitioners and genuinely deserve dissemination, were they ever written up. The world of published writing is not in their normal orbit, and the prospect of responding to an invitation to submit any kind of written work feels too challenging to take on alone. They would need a mentor or assigned editor to work with them, thus requiring a great deal of time for both parties.

The purpose of this litany is to highlight that high stage action-logics typically find it very time consuming to make written contributions. Whether short or long in length, the types of contributions IR is eager to publish require time in a world where time is a precious commodity.

Institutionalized Demands

For those who are academics, there is tremendous institutional pressure to get articles published. One might think that would support motives to submit works to IR. In the “publish or perish” world they inhabit, however, it is not necessarily that simple. There seem to be two related challenges here. One is that academic disciplines operate much like silos, with their contents segregated from others’ to maintain their distinct contributions. To remove walls that compartmentalize disciplinary knowledge still seems to represent, in many quarters, a watering-down of the disciplinary boundaries. To publish work in a transdisciplinary journal could be “as if” one had not published at all, apparently for two reasons. The first reason is access-oriented, the second is assumption-oriented.

Particularly given the continually growing plethora of electronic journals, one’s work in a given discipline could be more difficult to find by others in that discipline, depending on where it is published. Huge numbers of journals now exist. Indexed databases make their articles easier to search and find: some journals are indexed in traditional databases, some are in nontraditional databases, and some are in no such databases. Many databases are not open-access, but require paid subscriptions. Databases, like universities and journals, are assigned status based on experience and usually long-standing assumptions. To publish in a journal that is not indexed in the discipline’s expected databases can mean relative invisibility to target audiences. To publish in a journal that is not dedicated to one’s discipline increases difficulty to be noticed in one’s discipline. Yet, once one is integrating multiple disciplines’ approaches in one’s work, it becomes more difficult to be accepted for publication in the home discipline's often silo-like journals. More and more, of course, there are multidisciplinary approaches taken under one discipline's umbrella, and this is reflected in some journals' missions: a hopeful sign of things to come.

The parallel institutionalized demand in the publish or perish world is to get one's work published in the journals with the highest impact factors. For those seeking tenured status, this matters: the higher the impact factor, the more weight assigned a published article, and the more articles published in journals given such weight, the better the tenure application looks. The faculty tenure system is a major institutional influence in the world of publishing.

Not all who wish to submit works to IR are concerned with tenure issues. Some are not in academia, and some are already tenured. They still may wish that people in their home disciplines read their good work in journals that serve the discipline, but not necessarily exclusively. People who want to publish in IR may tend to seek out transdisciplinary venues when their home fields are more specialized. Given these and other institutionalized demands—not least of which is, again, time to produce and/or to find and read articles!—straddling the disciplinary *and* transdisciplinary publishing worlds makes generating articles for "both/and" publishing solutions difficult for people to operationalize.

Conceptual Assumptions

I suspect that realizing IR's mission in a fulsome way has challenges connected with particular concepts and assumptions about those concepts. The presence of a concept can present certain challenges just as much as the absence of a concept can present other challenges. To begin at the beginning, though, it is always advisable to define terms; a discussion of concepts is no exception. The dictionary meanings of "concept" are "something conceived in the mind (thought, notion)" and "an abstract or generic idea generalized from particular instances." The dictionary does not unpack the significant social and developmental implications of those definitions. For example, the same concepts can *appear* to mean the same thing, yet at each stage of development, users can assign very different meanings to them.[4] Assumptions about certain concepts, one of my stated concerns, also have social and developmental implications. However, though they could enrich the points I wish to make, space here is limited and I defer those explorations for another day. As an alternative, I propose those definitions are useful reminders that concepts are mental constructs, and mental constructs are not "real things." They are used to *refer to* innumerable things. Some of those things may be rather concrete, such as the concepts "dirt" or "chair." Others may be quite abstract, such as the concepts "concept" or "theory."

Concepts and assumptions about them inherently matter to any publication. It is also true for IR's mission, not least because its very title is made up of many concepts. Of those, ones that I think especially warrant examination are *transdisciplinary, transcultural,* and *integral.* Here, I prioritize only one, to discuss conceptual assumptions surrounding *integral.* As works published in IR have indicated, for some, this concept is tethered to something called "integral theory." I will call this Group A. For others, it refers to high stage action-logics that show up in such ways as perspective-taking, worldview, reasoning, and/or general ways of being-in-the-world (and many different concepts have been used to describe these qualities). These behaviors are independent of and irrespective of something called “integral theory.” People with these behavioral action-logics are very often unaware of that and thus unaware of others linking “integral” to it. I will call this Group B. Others are familiar with both Group A’s and Group B’s respective meanings of “integral” and move fluidly across contexts that use either. I will call this Group C. For yet others, none of the foregoing concepts are relevant. I will call this Group D.

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[4] There is more discussion of this in Ross, S. N. (2008). The challenges of postformal (mis)communications: Speaking different languages. *World Futures: The Journal of General Evolution*, forthcoming special issue.

If these seem to be more or less facts of life, how do they present any challenges for realizing IR’s mission? I think some challenges surface if there are implicit assumptions—and the focus here is on conceptual assumptions related to “integral”—that IR’s mission pertains to only one of the groups identified above. If they exist, such implicit assumptions spill over into decisions about submitting work, reading, and referring others to IR. These decisions directly impact IR’s mission.

Thus, there are authors who want to submit work for publication somewhere they consider a good fit (I will call this Group 1), potential readers of IR (I will call this Group 2), and others who hear of IR and may refer others to it, whether or not they have read it (I will call this Group 3). People in these three groups may fall into any of the groups previously identified (A, B, C, or D). These three “decision groups” are arbitrary divisions that are not mutually exclusive (e.g., someone who reads IR may also submit work to it).

These groupings result in the sorts of relationships between decisions and assumptions indicated in the following two tables. Decisions may be based on possibilities or constraints pinned to various conceptual assumptions. In Table 1, people in Groups 1 through 3 assume there is only one relevant way to conceptualize “integral” (implicitly, “my way”). Taken as a given, it poses no constraints on deciding (“X”) whether to submit, read, or refer others. This set of conditions poses no challenges to realizing IR’s mission.

Table 1. Partial Portrayal of Decision Implications of a “Match” in Conceptual Assumptions

	I assume IR’s use of “integral” matches or includes “my way” of using “integral”		
	Group 1 Wants to submit work to a good-fit journal	**Group 2** May read IR	**Group 3** May refer others to IR
Group A Use of concept “integral” is tethered to “integral theory”	X	X	X
Group B Use of concept “integral” is unrelated to “integral theory”	X	X	X
Group C Use of concept “integral” is adapted to contexts of Group A and B	X	X	X

In contrast to the foregoing, Table 2 indicates some possible differences in conceptual assumptions, which would imply constraints in decisions to submit, read, or refer others to IR. Of course, anyone may be attracted to read an occasional article. But here, "read" means regular reading of IR issues. These combinations seem to pose challenges to realizing IR's mission.

Table 2. Partial Portrayal of Decision Implications of a "Mismatch" in Conceptual Assumptions

	Decision if I assume IR means only Group A's use of "integral" **i.e.,** where Group A use of concept "integral" is tethered to "integral theory"	**Decision if I assume IR means only Group B's use of "integral"** **i.e.,** where Group B use of concept "integral" is unrelated to "integral theory"
Group 1 Wants to submit work to a good-fit journal	If member of Group A or C, may submit; If member of Group B or D, unlikely to submit.	If member of Group B or C, may submit; If member of Group A or D, may be less likely to submit
Group 2 May read IR	If member of Group A or C, may read; If member of Group B or D, may be less likely to read.	If member of Group B or C, may read; If member of Group A or D, may be less likely to read.
Group 3 May refer others to IR	If member of Group A or C, may refer others; If member of Group B or D, may be less likely to refer others.	If member of Group B or C, may refer others; If member of Group A or D, may be less likely to refer others.

Conclusion

The challenges identified and portrayed briefly above may be interesting to give much more attention in a variety of ways. These challenges are not likely to disappear any time soon, nor should they. My expectation and motivation for putting these challenges on our collective table is that they will benefit from public discussion. Such discussion may surface more such challenges, more clarity, and/or more concepts. All such discussion has potential to transform and re-frame challenges just as much as it has potential to broach possible ways to address them. I think we should welcome all of these potentials with hopeful anticipation!

Jonathan Reams

Reflecting on the evolution of my perception of "integral" over the past three years, I find myself guided by a sense of not knowing. Taking understanding to always be provisional helps me stay open and allows me to learn a great deal from my colleagues, authors, and reviewers. For me to define "what integral is" would feel in some ways like reification, a deadening that could lead to a mechanical advocating for integral dogma. One of the goals at IR is to support a space for the exploration of "what integral is," and doing this from a fundamentally inquiry oriented approach has led to a broad set of literature touching on many aspects of integral, from theory to practice.

While holding this openness to inquiry and "not knowing," we also are guided by a sense of "knowing" that while having a kind of fuzziness to it at times, also enables us to recognize what we are looking for when we see it. While we may not always agree upon everything, our collective inquiry of discernment around each submission produces a degree of coherence to the journal, and a great deal of organizational learning!

From these engagements with my colleagues, authors, and reviewers, the work of IR has deepened my capacity to make finer distinctions about the nature of things integral. Often it is through a process of finding that what I thought it to be is not quite it, or that there are nuances to be gained from taking a variety of views munched together and disentangling the enmeshed threads of thought. Serving in this role has also enabled me to broaden the scope of what I perceive as falling under the umbrella of integral, recognizing it in an ever-widening set of domains.

In my contribution to this editorial essay, I would like to quickly overview some of the learnings that have emerged for me. I will focus on three areas; the map and territory issue, the relationship of states and stages, and notions of integral and integrity.

One common issue we find in a number of submissions is varying degrees of weakness in mapping from a theoretical model (such as AQAL, but others as well). This often shows up as a kind of checklist approach to how the model applies to a given topic. While such mapping can serve a useful purpose in illuminating aspects of a topic often neglected, or in aiming for a synthetic overview of the topic, the challenge of doing justice to this approach makes the task very difficult. I often recommend to authors to focus on a particular aspect of the topic that the model addresses, and go deep into that territory.

Another type of challenge arises when we attempt to write about things that are on the horizons of our awareness. By this I mean that ideas we are currently exploring and trying to sort out are very hard to take sufficient perspective on and communicate clearly to readers. This is more of an example of being lost in the territory, and not yet having created enough of our own map to enable us to describe where we have been. Thus we may end up relying too much on the maps of others, losing our voice in the process.

This issue also touches on another ongoing conversation with colleagues, around the conflation of intellectual appropriation of a theoretical model with a subtle identification with the view of the model. Keith Bellamy posits an integral awareness developmental line[5] that identifies stages such as emergence, associating, proselytizing, rational, and discerning to note how our relationship to integral theory can grow over time. In addition to the time and experience it takes to go through such stages, there is also a factor in play related to the high degree to which we tend to equate intellectual activity with cognition and consciousness. From these (and likely other) factors, it appears that our ability to intellectually grasp a theory or model may lead us to also think that we are seeing things as the model (or the model's creator(s)) would. Yet reflecting on this in a number of conversations, it would seem that there is not yet enough widespread understanding of how stages of cognitive development or even states of consciousness will filter the theoretical model to fit within our already existing understanding. Thus we can fall prey to conflating our view with the view of the theory or model.

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[5] http://www.integralleadershipreview.com/archives/2006_03/2006_03_bellamy.html

This leads into the second area I want to discuss, the relationship of states and stages. It seems that there has been an emphasis in much of the integral literature on how structural stages or action-logics impact most everything. I think that this has been important, as the action-logics that we operate from will have a central influence on how we engage in the world. But as we study people and their behavior up close and personal, we recognize that there is more to the picture. Not everything can be accounted for by this method of slicing life experience. And of course an integral view explicitly includes many other elements. But how can we hold more of these elements in awareness at once?

One way of conceiving of the relationship between action-logics and states of consciousness has recently been put forward by Terri O'Fallon.[6] In her preliminary offering on this topic, she describes how observation of course participants (whose sentence completion test scores were known) led to recognizing the role that access to deeper levels of state experiences play in shaping the space we engage the world in.

This space can be mapped in a simple manner by drawing a V, with one side representing structural stages of cognitive development, and the other access to various levels of states of consciousness. The two points available to an individual can be linked, and a space delineated from this. This space is the territory they can roam in so to speak. Thus the range of options for engagement available to an individual are now able to be mapped in a rudimentary way as dependent on a combination of these two aspects of their makeup.

Further conversations have also explored ways in which structured experiences can be used to enable people to gain at least temporary access to deeper states of consciousness. (My piece on Otto Scharmer's U Theory illustrates one example of this). There is then a further question of the impact of the capacity of the facilitator to utilize their own access to states to enable others to experience them. These factors can then be examined in relation to action-logics, leading to asking what degree can people operate "over their heads" while supported by these other factors? A further question that arises focuses on how such experiences can support stage development. Sara Ross' description of her work in issue #2 of IR is an example of research in this area. These and more questions offer exciting avenues of inquiry for future exploration.

Earlier I mentioned Keith Bellamy's notion of an integral awareness developmental line. In that article he notes that his preliminary finding "cautions against the overt teaching of theory and argues the need to practice what we preach." This speaks to the third issue I will discuss, that of integral as integrity. The two words appear quite similar to each other, and there is a simple way in which being integral should mean having integrity. After all, if we have managed to integrate all of these various aspects of our lives that we are now more aware of through this powerful map of the complex territory of human experience, we should be able to enact a kind of alignment of values and actions. Or in other words, what are integral ethics?

This is no simple question. There are of course vast volumes of literature dedicated to questions of ethics, and one question could simply be what could an integral perspective add to what has already been said? While this is also an area open for future exploration, I do have one thought about the demands that knowledge of an integral view of the world can make on us. It comes from viewing integral as transcending and including the rational analytical mode of consciousness (see Jennifer Gidley's thorough description of this in her article) predominant today. In the transcending, a different kind of view of truth can emerge. This has to do with a notion of truth not as a noun, a thing to be found, pinned down and defined as in a rational view, but as a verb, a living engagement with life.

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[6] http://www.integralleadershipreview.com/archives/2007_11/2007-11-article-ofallon.html

I have found this concept discussed in a manner that resonates for me by Parker Palmer in his book *To Know as We are Known. Education as a Spiritual Journey*.[7] Palmer talks of the ethics of knowledge by saying that it "begins not in a neutrality but in a place of passion within the human soul. Depending on the nature of that passion, our knowledge will follow certain courses and head toward certain ends" (p. 7). Palmer sees truth as troth, a living pledge. "We find truth by pledging our troth, and knowing becomes a reunion of separated beings whose primary bond is not of logic but of love" (p. 32). He illustrates this concept with a story of an early Christian desert father whose students came asking him to speak.

> Some brothers . . . went to see Abba Felix and they begged him to say a word to them. But the old man kept silence. After they had asked for a long time he said to them, "You wish to hear a word?" They said "Yes, abba." The old man said to them, "There are no more words nowadays. When the brothers used to consult the old men and when they did what was said to them, God showed them how to speak. But now, since they ask without doing that which they hear, God has withdrawn the grace of the word from the old men and they do not find anything to say, since there are no longer any who carry their words out." Hearing this, the brothers groaned, saying "Pray for us, abba." (p. 41)

This story illustrates the integrity between knowing and truth, between self and our actions in the world. It allows us to conceive of knowledge as more than a static thing to be defined, but as something integral to how our essence manifests in the world.

Reflecting on this view, I find myself thinking that integrity is central to integral. As Keith says, we "need to practice what we preach" and what we are "preaching" or espousing as the value of integral stages of development is that they can enable us to better serve life. In looking for a marker for this, one could turn to Robert Greenleaf, who coined the term "servant leadership." For him, the test for such leadership was simple; are those served better off than before?

Why do we engage in this voluntary labor of love? Ultimately, it is to enable us to do as Greenleaf asks, to uplift those we serve.

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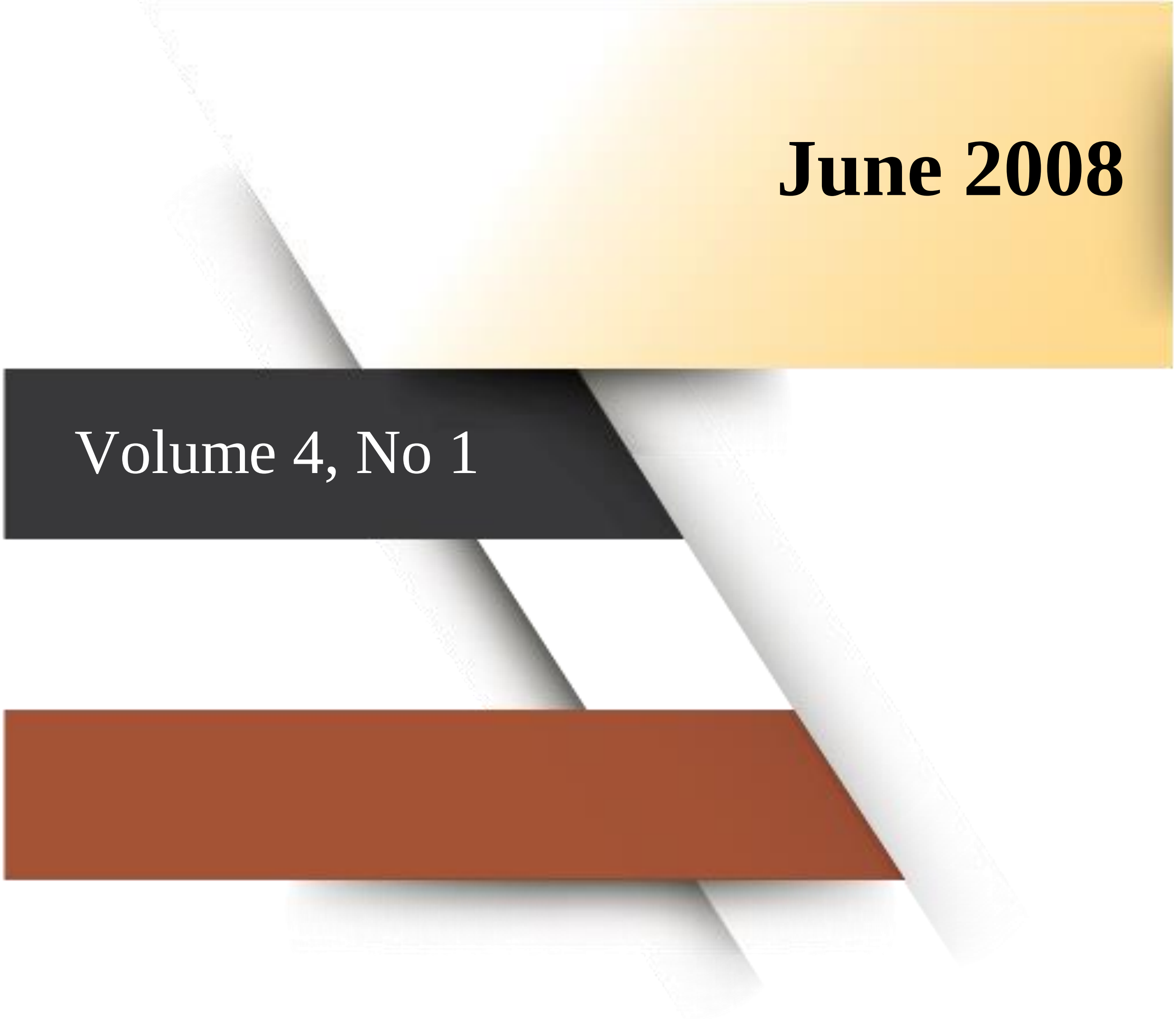
[7] Palmer, P. (1993). *To know as we are known. Education as a spiritual journey*. San Francisco, Ca: HarperSanFrancisco.

INTEGRAL REVIEW

A Transdisciplinary and Transcultural Journal For New Thought, Research, and Praxis



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Editorial

IR's Advances

As we welcome you to the sixth semi-annual issue of *Integral Review* (IR), I would like to point to further signs of maturity for IR, some hinted at in the December 2007 issue's editorial, some new. The most important of these is the restructuring of IR. We have moved to a more traditional academic journal structure that builds capacity for taking our work to another level. This has meant that the small group of us who were previously referred to as the editorial board is now listed as associate editors. We thank Christine Harris for her service to IR, dating from its inception in 2004. Her life has taken her in new directions, which have led her to depart her IR editorial role. We wish her all the best in the future!

This restructuring makes our external review process more obvious and transparent. It involved enlisting new faces and competencies, forming a traditional editorial board to serve as the primary pool of peer reviewers. Some of those appointed to this new editorial board have already done reviews for IR, while others were recruited based on their academic qualifications and scope of work. Thus we are happy to formally welcome to the *Integral Review* Editorial Board Rosemarie Anderson, Roland Benedikter, Richard Couto, Mark Edwards, Nancy Glock-Grueneich, Sean Esbjorn-Hargens, Nathan Harter, Carol Hoare, Michael F. Mascolo, Richard McGuigan, Alfonso Montuori, Raymond Reyes, Judy Stevens-Long, and Gregory Wilpert. These appointments officially began in May, when board member names and institutional affiliations were uploaded to IR's website. At a later date, we will augment their listings with more information.

Another sign of maturing for IR was its acceptance in two academic arenas. The first is IR's listing in the Directory of Open Access Journals (DOAJ; http://www.doaj.org/). This service evaluates journals that apply for inclusion in it against a set of access and quality criteria. DOAJ aims to cover all subjects and languages; its directory currently includes 3,401 journals. From its website:

> The aim of the Directory of Open Access Journals is to increase the visibility and ease of use of open access scientific and scholarly journals thereby promoting their increased usage and impact. The Directory aims to be comprehensive and cover all open access scientific and scholarly journals that use a quality control system to guarantee the content. In short a one stop shop for users to Open Access Journals.

In addition to this listing, in spring 2007, *Integral Review* was submitted to the Norwegian Association of Higher Education Institutions for consideration. The NAHEI maintains a list of journals that it determines have met appropriate scientific and academic quality criteria. A review committee oversees the addition of journals to this list. The majority (90%) of journals on this list are on level 1; 10% are allowed to be nominated to be advanced to level 2, which is a more prestigious placement. Journals that do not meet criteria for these two lists are categorized simply as "other." Earlier this year, we received the good news that IR was awarded a place on

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the level 1 list of journals. We are pleased to have IR's quality validated by this external review process. These signs of academic acceptance are symptomatic of the growing maturity of IR.

In line with these advances, we also draw your attention to another change, effective this issue. Consistent with our move to more traditional academic structure, we have converted to the volume and issue numbering system. Thus, rather than this current publication being called Issue 6, it is Volume 4, Issue 1.

Earlier this year, we made a technical upgrade to a new platform for IR article forums. This week, we launch the invited forum with author participation on Martin Matuštík's essay on *Towards an Integral Critical Theory of the Present Age*, published in IR Issue 5, December 2007. Another invited forum with author participation will start in the near future: Jennifer Gidley's *The Evolution of Consciousness as a Planetary Imperative: An Integration of Integral Perspectives.* Already going is the open forum on the collective editorial in Issue 5; it is a platform for anyone who is interested to discuss the issues raised by the associate editors in that collective effort. The IR Occasional Newsletter (which you can receive by signing up here – http://integral-review.org/email_issue/index.asp) and this website continue to be the way to stay informed on IR forum activity.

The further fertilization of discourse in the field of integral studies and theory is also getting a boost from John F. Kennedy University and the Integral Institute's first bi-annual integral theory conference – http://www.integraltheoryconference.org/page/page/5594264.htm. This event will see 500 participants, 100 individual presentations, 12 panels and 30 poster presentations gather August 7-10th at JFK University. All of us at IR are very pleased to see a dozen editors, editorial and advisory board members as well as author-contributors from IR presenting at this conference, where a number of us are also participating in panel presentations. IR will host an opening evening reception in the conference hotel, and have an IR information table at the university during the conference. We look forward to meeting more of IR's audience at this event!

On the Contents of Volume 4, Issue 1

We open this issue with Sean Kelly's *Integral Time and the Varieties of Post-Mortem Survival*. This article covers a panoramic scope of philosophical thinking to explore questions of survival after bodily death. Kelly takes a novel path in exploring this topic, focusing on our conceptions of time. He draws from the works of Nietzsche, Barbour, Fechner, Whitehead, Hegel, Jung, Morin, Gebser and Aurobindo to present an alternative view of notions of the soul and reincarnation. In doing this he also models an integral way of thinking and inquiring. This article represents immense possibilities for future dialogue and inquiry on this subject, and we are pleased to open this up with the publication of Kelly's article.

This is followed by Sara Ross' *Using Developmental Theory: When Not to Play Telephone Games*. This article explores some of the challenges that arise from the application and use of developmental theory by non-experts in the field. Pointing to an error in a publication using developmental theory, Ross traces how this error has been passed along in telephone game style, leading to a wide range of ripple effects. She untangles the complex nuances involved in the process of using formal theory in casual fashions, and calls for a response to help facilitate improved usage of developmental theory in the form of an Institute for Applied Developmental Theory.

These two peer reviewed pieces are followed by two interviews. The first is by Markus Molz, who engaged with Jennifer Gidley in *A Transversal Dialogue on Integral Education and Planetary Consciousness*. This fascinating conversation covers a brief summary of Gidley's project of integrating the integrals, an overview of large macro-historical evolutionary patterns in education, the introduction of five—mostly new—terms to integral theory, then explores some of the wide range of approaches to "third wave," postformal education across cultures. They conclude by transcending the conceptual distinctions used for their dialogue, illustrating the power of such dialogues to evolve consciousness.

The second is Russ Volckmann's interview with Steve McIntosh, *An Approach to Integral Consciousness and Politics*. McIntosh's new book, *Integral Consciousness and the Future of Evolution* has been getting a lot of attention since its publication, and Volckmann's interview draws out many interesting aspects of McIntosh's thinking. Beyond exploring some of the usual topics of development and evolution, they also delve into faith, theology and spirituality in relation to the integral framework. There is also a robust exploration of critiques of Wilber's work and the realm of integral politics.

An artistic interlude follows with Andrew Campbell's *Central Fire*. Inspired by his reading of a draft of a submission to IR (that is yet to be published), Andrew invites us into the world of bold and expressive images that his art conveys with brief instructions to engage us in our own explorations of his art.

Andrew Campbell also contributes his art to Sara Ross' *A Lesson to be Writ Large?* This amusing personal story shows how easy it can be for any of us to be taken in by the interpretations we give to our experiences. When perception becomes reality, how do we limit ourselves? Ross' story closes with reflections on what transformations might be possible if we were able to apply the kinds of insights she gained through this humorous experience.

Another question is posed in Jan Inglis' essay *How Then Do We Choose to Live? Facing the Climate Crisis and Seeking "the Meta Response*." Here she examines how our culture is going through marked stages of reaction to climate change similar to how people react to life threatening illnesses. She advocates for using what is known from going through stages of development in crafting a meta response to the issue. Her essay poses a number of thoughtful questions that can aid individuals in their personal reflections as well as guide collective public reflections as we move ever deeper into facing the realities of a changing climate.

Appreciatively Critical Reflections on a Retreat with Adyashanti is a reflective essay by Grady McGonagill (with a foreword by Bill Torbert and art by Andrew Campbell). This piece takes us on a personal journey that engages multiple levels of reflection and learning about Grady's experience at this retreat. With his action-research orientation, he articulates some of the paradoxes, challenges and perceived incongruities of those who take on guru roles in our society.

A similar theme arises in L.D. Gussin’s novel *The Seeker Academy,* which I review. Gussin uses the experiences and narrative of his main character to explore themes, issues and opportunities of the New Age movement. This review describes the basic story line and then the ways in which Gussin manages to deftly portray the intertwined nature of people’s motivations and ideologies for pursuing the kinds of beliefs that are prominent in the New Age movement. It closes with some reflections on why others have been unwilling to review the novel, which relate to the perspectives Gussin reveals.

Then we have a short review by Bonnitta Roy of *Consciousness-in-Action: Toward an Integral Psychology of Liberation and Transformation* by Raul Quiñones Rosado. Roy describes it as a useful and purposeful manual for people interested in social activism, and a wonderful *integrated* personal narrative that expands existing integral models into process versions.

Our final review for this issue comes from Sara Ross. *Integrative oncology: Principles and practice* edited by M. P. Mumber. Ross provides a thorough review and evaluation of this recent scientific text book, the first in the field of integrative oncology. Her chapter by chapter review essentially abstracts the entire text to provide a clear picture of the book’s contents. Ross applies IR’s evaluation criteria to the book, and offers a number of suggestions for areas in which the book or subsequent texts could further advance the stated aims of the field.

With this we close another issue of *Integral Review*. We hope that you will enjoy its contents as much as we have enjoyed working with the authors who created it.

JReams

Jonathan Reams
Editor-in Chief
Integral Review

Integral Time and the Varieties of Post-Mortem Survival[1]

Sean M. Kelly

Abstract: While the question of survival of bodily death is usually approached by focusing on the mind/body relation (and often with the idea of the soul as a special kind of substance), this paper explores the issue in the context of our understanding of time. The argument of the paper is woven around the central intuition of time as an "ever-living present." The development of this intuition allows for a more integral or "complex-holistic" theory of time, the soul, and the question of survival. Following the introductory matter, the first section proposes a re-interpretation of Nietzsche's doctrine of eternal recurrence in terms of moments and lives as "eternally occurring." The next section is a treatment of Julian Barbour's neo-Machian model of instants of time as configurations in the n-dimensional phase-space he calls "Platonia." While rejecting his claim to have done away with time, I do find his model suggestive of the idea of moments and lives as eternally occurring. The following section begins with Fechner's visionary ideas of the nature of the soul and its survival of bodily death, with particular attention to the notion of holonic inclusion and the central analogy of the transition from perception to memory. I turn next to Whitehead's equally holonic notions of prehension and the concrescence of actual occasions. From his epochal theory of time and certain ambiguities in his reflections on the "divine antinomies," we are brought to the threshold of a potentially more integral or "complex-holistic" theory of time and survival, which is treated in the last section. This section draws from my earlier work on Hegel, Jung, and Edgar Morin, as well as from key insights of Jean Gebser, for an interpretation of Sri Aurobindo's inspired but cryptic description of the "Supramental Time Vision." This interpretation leads to an alternative understanding of reincarnation—and to the possibility of its reconciliation with the once-only view of life and its corresponding version of immortality—along with the idea of a holonic scale of selves leading from individual personality as we normally experience it, through a kind of angelic self (a reinterpreted "Jivatma"), and ultimately to the Godhead as the Absolute Self. Of greater moment than such a speculative ontology, however, is the integral or complex-holistic way of thinking and imagining that is called for by this kind of inquiry.

Keywords: Aurobindo, Barbour, complex holism, complexity, death, Fechner, Gebser, integral, Morin, Nietzsche, reincarnation, soul, survival, time, Whitehead

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[1] I would like to thank Michael Murphy and Frank Poletti for inviting me to present these ideas, which have been incubating for a long time, at the Esalen conference on Survival. I am also grateful to Eric Weiss for the many hours, over many years now, of shared deep metaphysical inquiry, and also to Cynthia Morrow, Jorge Ferrer, Robert McDermott, Lisa da Silva-Ward, and to the editors and reviewers of *Integral Review* for their helpful feedback on earlier drafts of this paper.

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Introduction

What is it that gives ultimate value to a life? What is it that makes anything in life, and the whole of a life, really matter? If all is impermanence (Heraclitus, Buddhism), if to be is to be finite—a "being-towards-death" (Heidegger)—with, as James puts it, "the great spectre of universal death, the all-encompassing blackness" (2002, p. 139) as the constant back-drop of every hour of life, what difference could it make how well we live our lives? What difference, in short, whether we live in love, wisdom, and beauty, or in their dark but presumably equally transitory counterparts? The natural human, which feels its kinship with the larger cycle of life, is perhaps content with the fact of biological continuity, with the sense of its insertion in an unbroken line of ancestors and descendants, and even with the genetic and biochemical solidarity shared by all forms of life. A more philosophically elevated view is represented by the idea of participation in the Heraclitian or Stoic Logos or the Chinese notion of the Tao. The person of culture, similarly, will find solace in the thought of participating in the history of ideas, will recognize spiritual ancestors in the realms of intellectual, ethical, or esthetic endeavor and will perhaps aspire to their own cultural progeny. The natural and cultural dimensions of the human experience, however, cannot of themselves circumvent the fact that this Earth and all of its life forms, as indeed our sun and the entire physical cosmos within which they are embedded, are finite beings, with beginnings in time, and bound to inevitable death.

Religious or spiritual traditions, of course, have always provided answers to the above questions, answers which are either ignored or denied by the perspectives of a strict naturalism or a restrictive humanism. There is a general consensus among these religious traditions, despite significant differences in other respects, concerning the belief that physical death does not spell the end of the personality or soul. Whether or not it is thought to have pre-existed the birth of the body, the personality or soul is more often than not pictured as surviving its death. It is with the particulars of survival, however, that the significant differences among traditional teachings become apparent. For the traditions of the Indian subcontinent, as for Buddhism, many indigenous traditions, and most religions of antiquity, the soul is believed to reincarnate.[2] In this view, the value of any one life, and the value of any element of a given life, can only be determined through consideration of the series of lives to which the individual life belongs. What you do in this life for good or ill matters because your actions flow from choices made in previous lives and will determine, or at least set the parameters for, choices to be made in future lives. The series of lives is said to be bound together by the law of Karma or its analogue, which, whether or not one believes in a transmigrating soul, provides continuity both before and beyond an individual life, and therefore also gives a ground for its value and meaning.

While some ancient Christians may have believed in reincarnation, the vast majority have, for the better part of two millennia, believed that we are given only one life. Or at least, we are given only one life on Earth—I leave aside the belief in the resurrection of the body—which is to be followed by some form of Eternal Life. The quality of this second Life—in its most dramatic form, whether in Heaven or Hell—is in some way directly linked to the manner in which one lives the first, and only, earthly life. The value or meaning of this life, therefore, as of any significant action or experience within it, rests in the fact that it is of potentially eternal consequence. What happens now, though itself transitory, is an opening to the everlasting.

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[2] I will not always repeat "soul or personality," though I am aware of the problems associated with the term soul in connection with Buddhist traditions in particular.

These two views of life and survival—the traditional reincarnationist and the once-only with its afterlife—appear to be highly incompatible, and I have yet to encounter any attempt to reconcile them. The bulk of the relevant literature is devoted to arguing the case for one or the other of the standard views (for a compelling philosophical argument in favor of reincarnation, see Aurobindo, 1991; for a Christian-based refutation of reincarnation, see Valea, 2007). Ervin Laszlo (2004) has expanded upon Rupert Sheldrake's theory of morphic resonance (of which I will have more to say below), arguing against reincarnation but for the reality of past-life recall. Christopher Bache's understanding of the soul as "higher form of individuality" that "integrates many lifetimes, many 'persons' into a meta-personal consciousness" (2006, p. 125), while not explicitly concerned with the kind of reconciliation I am envisioning, is friendly to my proposal. Peter Novak's (1997, 2003) "division theory" claims to reconcile reincarnation with the Christian belief in Heaven and Hell, but not the traditionally opposed views of one life versus many (and in any case, his "reconciliation" comes at the cost of the postulation of two autonomous souls, only one of which reincarnates; as his theory suggests, the reconciliation is predicated on a "division"). It is of course possible that one, or both, are mistaken. In what follows, I suggest that both views are true in essential respects, but that to see them as such demands a more integral view of time than the one, or ones, normally associated with either view of survival. To articulate such an integral view is, to say the least, very challenging. "It is impossible," as Whitehead (1920, p. 73) reminds us, "to meditate on time and the mystery of the passage of nature without an overwhelming emotion at the limitations of human intelligence." I will, accordingly, proceed in what might appear as a somewhat indirect or circumambulatory manner, hoping that, by the time I come to the last section that deals explicitly with a more integral or complex view, what will begin as an indeterminate—though to me, at least, compelling—intuition will have taken on a more palpable and communicable form. While the intuition in question—namely, that of time as an *ever-living present*, and of moments and lives as *eternally occurring*—is grounded in my own experience and many years of contemplative inquiry, instead of jumping immediately to my suggestions for a possible reconciliation of both views of survival, I approach the problem by first considering some positions on the nature of time (Nietzsche, Barbour, Whitehead) and the afterlife (Fechner) which offer fruitful if partial approaches to the core intuition. The more explicitly integral and complex view that I explore in the final section draws from close readings of Aurobindo, Gebser, Jung, Morin, and to a lesser extent, Wilber, all of whom advocate and (at least attempt) to enact various forms of postformal thinking which not only recognize the limits of the principle of contradiction, but remain open to the promptings of intuition and the value of metaphor.

From Eternal Recurrence to the Eternally Occurring

Discussions of the possibility or nature of survival often focus on the question of whether a different (subtler) kind of substance or body survives the decay of the physical body, or on the question of "where" the soul or personality goes after death. These are important considerations. What is generally not recognized, however, is that to think of survival in terms of place or extended substance, however subtle, is to appeal to only one of two complementary forms of intuition—the spatial—at the expense of the temporal. Without denying the truth or fruitfulness of approaching the matter from the side of our spatial intuition, it seems to me that an integral view of survival would include a full consideration of the temporal intuition as well. From a philosophical, and specifically Kantian, point of view, the temporal intuition is germane to the internal sense or the experience of consciousness—and therefore to notions of soul and personality—whereas the spatial intuition is associated with the experience of an external world, and therefore also of matter or extended substance.[3] So while the spatial intuition is certainly appropriate and even necessary in any talk of subtle "bodies," the experience of self-consciousness, of personality or soul, can only be approached or described spatially from the outside, as it were. To approach the question of the soul and survival directly and from the inside, therefore, is to grapple with the mystery of time.

And so I begin with Nietzsche, whose theory of eternal recurrence he considered the central insight of his life's work, and indeed of the age that he helped to inaugurate. Though his relationship to Christianity is complex, there is no doubt that Nietzsche rejected the traditional Christian view of personal immortality, which he saw as arising out of a hatred of, and revulsion from, life. The belief in any form of after-life was to him an expression of anti-life, a flight from nature and becoming to a lying fantasy of individual imperishability. Having absorbed the full impact of the modern project of disenchantment that began (however unintentionally) with Copernicus, Nietzsche was compelled to reject the possibility of any kind of transcendent "beyond." What, then, could constitute the ground of value? What is capable of granting meaning and value to our individual endeavors and to life as a whole? His answer was: Life or the cosmos itself—beyond which is nothing—in the form of self-conscious and therefore liberated Will-to-Power.

Earlier in the century, Schopenhauer (1966) had articulated his vision of an infinite though blind and unconscious Will as the ontological ground of reality—a vision in keeping both with the darker side of the later Romantic movement and with a certain reading of Buddhism. The suffering caused by the impossibility of satisfying the Will's boundless craving could only be countered, according to Schopenhauer, through a systematic negation of the Will in the form of a sublimation of the life-impulse (particularly, through esthetic contemplation). This vision was transformative for Nietzsche. He soon rejected Schopenhauer's pessimism, however. And while he retained the centrality of the Will, he came to see the life-impulse—with which, for Schopenhauer, the Will was more or less identified—as itself a manifestation of the Will-to-

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[3] Kant's understanding of the inner sense and its relation to time, though influential in the subsequent history of philosophy, is anything but crystal clear. The key statements from the *Critique of Pure Reason* are as follows: "By means of outer sense, a property of our mind, we represent to ourselves objects as outside us, and all without exception in space" (1929, p. 67). "Inner sense, by means of which the mind intuits itself or its inner state, yields indeed no intuition of the soul itself as an object; but there is nevertheless a determinate form [namely, time] in which alone the intuition of inner states is possible, and everything which belongs to inner determinations is therefore represented in relations of time. Time cannot be outwardly intuited, any more than space can be intuited as something in us" (p. 67). As I understand it, the basic idea seems to be that, *experience as such*—"the mind [which] intuits itself or its inner state"—necessarily involves the fact of *succession* (what James will later call the "stream of consciousness"), and so the form of time. There is also, to my mind, the mysterious role of the *will* which Schopenhauer (1966), in his revisioning of Kant, considered the true *noumenon* and which, as I suggest later in this paper, might play a crucial part in the manifestation of time.

Power, that is, the drive of every being to extend or magnify its proper domain or sphere of influence. According to Nietzsche, this drive is as manifest in the life-affirming worldview of classical paganism as in the life-denying spirit of late-antiquity and historical Christianity. Ignorance of the nature of life—and indeed, of all human striving, however idealistic or spiritual—as an expression of the Will-to-Power constitutes a form of bondage. The bondage is doubly oppressive in the case of the world-deniers, whose illusory "beyond" serves not only, as Marx would put it, as the opium of the people, but as a vampiristic drain on life's nobler impulses and possibilities for authentic happiness.

By contrast, the liberated, because self-conscious, Will is portrayed as manifesting an unconditional blessing or affirmation of life, of what was, is, and shall be—an unqualified and joyfully uttered "Yes!" to the whole causal nexus, the entire sequence of moments within which the present is embedded. This blessing is a radically free act, which at the same time is yoked to an awareness of a universal and inexorable fatalism (a yoking which Nietzsche expresses with the phrase, *amor fati*, the love of fate). That this awareness does not lead to a sense of oppression or despair, but instead is, or can be, accompanied by a boundless joy, is the result of his insight into the nature of time as eternal recurrence, an insight which he nevertheless characterizes as "*The greatest weight*."

> What, if some day or night a demon were to steal after you into your loneliest loneliness and say to you: "This life as you now live it and have lived it, you will have to live once more and innumerable times more; and there will be nothing new in it, but every pain and every joy and every thought and sigh and everything unutterably small or great in your life will have to return to you, all in the same succession and sequence--even this spider and this moonlight between the trees, and even this moment and I myself. The eternal hourglass of existence is turned upside down again and again, and you with it, speck of dust!" Would you not throw yourself down and gnash your teeth and curse the demon who spoke thus? Or have you once experienced a tremendous moment when you would have answered him: "You are a god and never have I heard anything more divine." If this thought gained possession of you, it would change you as you are or perhaps crush you. (Nietzsche, 1974, p. 273)

The more general idea of recurrence is of course ancient and wide-spread (see Cairns, 1962), beginning with what might be described as a naturalistic cyclism (e.g., most indigenous cultures, ancient Taoism) inspired by the repeating pattern of the seasons and the periodicity of the sun, moon, and stars. Next, and presupposing the latter, there is an ideal-formal cyclism (Plato, Aristotle, Shankara) which sees the natural or cosmic cycles as embodiments of subtler archetypal patterns. Then there is the stronger form of the belief in eternal recurrence, which involves not only seasonal patterns or ideal types, but every last detail of the cycle of becoming. This strong view of recurrence, which Nietzsche adopted, is in fact very close to that of the ancient Pythagoreans, Stoics, and Epicureans, and especially the latter two, since they too were materialists.[4] Though I suspect there are unknown sources in Nietzsche's own immediate experience, a feeling for which we can glean from the passage above, he also articulated a version of the Epicurean argument based on the assumption of a finite set of possible material or formal combinations in a temporally infinite universe.

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[4] According to Nemenius, the Stoics believed that "in stated periods of time a conflagration (*ekpyrosis*) and destruction of things will be accomplished, and once more there will be a restitution of the cosmos as it was in the very beginning. And when the stars move in the same way as before, each thing which occurred in the previous period will without variation be brought to pass again. For again there will exist

> If the world may be thought of as a certain definite quantity of force and as a certain definite number of centers of force--and every other representation remains indefinite and therefore useless--it follows that, in the great dice game of existence, it must pass through a calculable number of combinations. In infinite time, every possible combination would at some time or another be realized; more: it would be realized an infinite number of times. And since between every combination and its next recurrence all other possible combinations would have to take place, and each of these combinations conditions the entire sequence of combinations in the same series, a circular movement of absolutely identical series is thus demonstrated: the world as a circular movement that has already repeated itself infinitely often and plays its game ad infinitum. (Nietzsche, 1968, p. 549)

No one, of course, is swayed by such an argument who is not already predisposed to the worldview it is meant to prove. I, for one, do not find it convincing, though I do find it sometimes compelling and can appreciate the elegance of its logical structure. And while my rejection of eternal recurrence, at least as formulated by Nietzsche, is doubtless grounded in infra-rational, and perhaps also supra-rational, promptings, I also object to the doctrine on logical and phenomenological grounds. Phenomenologically, if each life, each moment, and ultimately the entire history of the cosmos, is one instance of an infinite series of (factually or ontologically) identical instances, then the *experience* of each instance would also be identical. There would be no way, empirically speaking, of telling one apart from any other in the series. Logically, according to Leibniz's Law or the principle of the identity of indiscernibles, we are driven to the conclusion that, in fact, there can only be one of each given instance, whether a moment, a life, or the history of the cosmos as a whole. Still, there is something behind Nietzsche's insight, something in the quality of the experience as the demon whispers in his ear with the moonlight between the trees, that resists the application of Leibniz's Law. It is the sense that, though he could not believe in a redeeming afterlife, nothing of value in *this* life is ever lost—for, as Nietzsche's (1969, p. 333) Zarathustra proclaims, "all joy wants eternity —/ Wants deep, wants deep eternity." The moment, however, must not only be simply preserved in the manner of a dried flower or even a particularly vivid memory, but must somehow sur-*vive*, blessed as it flies, in Eternity's sunrise.[5]

The best illustration I can think of at this point to express what I am trying to get at comes from a dream I used to have periodically. I would discover a secret room in my family's house, filled with all kinds of objects from my childhood. Among these was a stack of the most amazing kind of photographs. Seen from the corner of the eye, as it were, nothing seemed out of the ordinary, but as soon as I focused my attention on one, the scene would come to life. I remember

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Socrates and Plato and every man, with the same friends and fellow citizens, and he will suffer the same fate and will meet with the same experiences and undertake the same deeds…And there will be a complete restoration of the whole, not only once but many times, or rather interminably, and the same things will be restored without end." (Nemenius, as quoted in Cairns, 1962, pp, 220-221)

[5] Blake's lines in "Eternity" run: "He who binds himself to a joy/Does the winged life destroy:/But he who kisses the joy as it flies/Lives in eternity's sunrise" (1988, p. 56).

one in particular, where I am splashing happily in the shallow, sun-sparkled water at the lake where we used to spend our summer vacation. It is perhaps a five to ten second scene, almost like a video clip. As long as you attend to it, it is “playing.” Not in the manner of a loop tape, however—and here the analogy breaks down—since nothing in the scene is repeated. Not the eternal recurrence of the same, in other words, but the scene as somehow eternally occurring.

Journey to Platonia

Despite Nietzsche’s prominent role in initiating the post-modern turn, his cosmology retains a more or less Newtonian view of space and time, in the sense that they are conceived of distinctly as infinite container and continuous forward flow, respectively (the circular character of the eternal return involves the patterns or configurations of matter rather than the temporal flow itself). All of this changes with the new physics. The dominant tendency, with respect to time, has been to consider it in some fundamental sense an illusion, “even if a stubborn one,” as Einstein said (referring to the distinction between past, present, and future). “Since Einstein,” Paul Davies notes, “physicists have generally rejected the notion that events ‘happen,’ as opposed to merely *exist* in the four-dimensional spacetime continuum” (1995, p. 253). The germs of this tendency are actually already hidden in Newton, Descartes, and Galileo with the formal geometrification of nature and has its roots in the Parmenidian/Pythagorean/Platonic stream of the Western philosophical tradition and its preoccupation with the geometrical and mathematical ideals of stasis and symmetry.

Julian Barbour has recently produced a fascinating and substantial argument for the dominant post-Einsteinian view—or perhaps, more accurately, for an original direction that is consistent with this view—in his book, The *End of Time: The Next Revolution in Physics*. At the core of the argument is an extension of Machian mechanics, which is to say, a vision which does away with space and time as the “ultimate arena” of matter and instead conceives of motion and inertia purely in terms of differences between relative configurations of the totality of objects which constitute the universe. To get at the essence of this vision, Barbour asks:

> What is the reality of the universe? It is that in any instant the objects in it have some relative arrangement. If just three objects exist, they form a triangle. In one instant the universe forms one triangle, in a different instant another. What is to be gained by supposing that either triangle is placed in invisible space? The proper way to think about motion is that the universe as a whole moves from one “place” to another “place,” where “place” means a relative arrangement, or configuration, of the complete universe. (Barbour, 1999, p. 69)

Much of the book is devoted to demonstrating the compatibility of Relativity and Quantum Mechanics with Mach’s vision. I will not attempt to rehearse the main steps of the argument, which are not only challenging in their details but include original interpretations of many standard and some highly speculative episodes in the history of physics (from Newton’s bucket experiment around the principle of inertia to the stationary Schrödinger and Wheeler-De-Witt equations).

Barbour's main contribution to the Machian project is the formulation of his concept of "Platonia," which is conceived of as an n-dimensional phase-space, "each point of which corresponds to one relative configuration of all the particles in the Newtonian arena" (Barbour, 1999, p. 273). The invocation of Plato indicates that the phase-space, or configuration space, as Barbour prefers to call it, is to be conceived ontologically on the analogy of the realm of eternal and unchanging Forms or Ideas.[6] Platonia is "the collection of all possible Nows" (p. 177), the totality of instants of what we call time. Despite the use of "Now" and "instants," however, Barbour maintains that time as such does not exist. "[*I*]*nstant of time*," he writes, "simply means configuration of the universe" (p. 266).

Barbour's is perhaps the most sophisticated defense of the "block universe" theory of time, where "[e]verything—past, present, and future—is there at once" (p. 143). To do full justice to his argument, I would have to say something about his ingenious theory of "records" or "time capsules," by which he accounts for our experience of the past and of apparent histories, but I must leave this to interested readers to pursue on their own. For my part, while I am very sympathetic not only to much of the reasoning presented, but also to what I take to be the experiential and motivational backdrop to the theory—which I will turn to in a moment—I think at the very least that Barbour has overstated the case, if he is not simply wrong, in asserting the "end" or non-existence of time. It is one thing to demonstrate the formal possibility of an essentially geometric (and therefore already spatialized) model of both motion and the phenomenon of histories in a way that reduces the experience and reality of time to points in configuration space (however high or complex the dimensionality). But to say that, in his model, time is simply "reduced to *change*" (p. 70, my emphasis), merely begs the question of time. The experience or phenomenon of *passage* between instants indeed involves the concept of change (as do *lived* histories), but change itself presupposes the reality of time. Even if one wants to avoid the notion of motion, change in configuration is impossible without some form of *dynamic* principle that selects the new instants, frames the group, or traces the path or trajectory through Platonia. There is *choice* or *agency* involved, in other words, which effects the transition between configurations.

What is this dynamic principle behind change, motion, passage, transition, and therefore time? It is, I would maintain, the *Will,* or something closely analogous to what we experience and call by that name. I am not thereby necessarily endorsing Nietzsche's version of the Will-to-Power, but perhaps we can speak of a *Will-to-Time* that blows across the topography of Platonia. While the block universe—insofar as it draws from platonic idealism—can be considered antithetical to Nietzsche's positive valuation of life and becoming, Barbour at least seems to share key elements of Nietzsche's outlook. "I also feel strongly," he writes, "that *this* created world is something to be marveled at and cherished, not dismissed as some second-best version of what is yet to come" (p. 327). Barbour's Platonia is after all a physics of *this* world, the whole point of which is not to lift us into a contemplation of immaterial forms, but to help us see how the fleeting world of appearance, which for the traditional Platonist is insubstantial and in a sense unreal, is in fact eternally abiding.[7] Though, in my opinion, unable to account for the experience of time as *lived*, Barbour does offer an approach to the same kind of insight that we have seen lies at the heart of Nietzsche's vision—namely, that the now which passes in some sense lives on, as does the now which, from any given perspective, has yet to be. Instead of the (complexified) block universe of Platonia, we are brought once again to the idea of the world as eternally occurring.

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[6] Surprisingly (if I am not myself mistaken), Barbour misreads, and inverts, the famous analogy of the cave, placing the Idea-sensitive mathematician in the cave contemplating the projected images on the cave wall instead of in the clear light of day above-ground.

Holonic Survival

"The desire for an afterlife," Barbour writes in his concluding pages, "is very understandable, but we may be looking for it in the wrong place" (p. 331). Perhaps—or at least we may need to look with different eyes, ones that are sensitive to the subtle hues and fine shades of the afterlife. So far, my readings of Nietzsche and Barbour have yielded the possibility of the survival of a life—and each of its constitutive moments or instants—that does not necessarily involve the common idea of the persistence of the soul or personality beyond the death of the body. In this section I will turn to the more common idea, drawing on the insights of Fechner and Whitehead—two great souls whose theories have much to offer towards what might be called an organic or holonic theory of survival.

Though rightfully recognized as one of the founders of experimental psychology, Fechner (1906, 1946) was also one of the great philosophers of nature (*Naturphilosophen*) in the tradition of Schelling and Oken. What is also generally ignored in the textbooks is the degree to which Fechner's life-work centered on the transpersonal nature of the soul and its likely post-mortem fate. According to Fechner, everything that lives has a within, an inner radiance of consciousness or soul. The soul, or psyche, is in fact nature seen from within, just as nature is soul seen from without. This is the fundamental insight behind Fechner's theory of psychophysical parallelism. On the analogy of the human being, whose consciousness or soul is associated with a body manifesting a certain level of organizational complexity, Fechner reasons that the living Earth, which is equally if not more complexly organized than the human body, must also possess its corresponding consciousness or soul—the *anima mundi* of the ancients and the philosophers of nature.[8] Blindness to the *anima mundi* is result of what Blake called "single vision and Newton's sleep," or of the dominance of what Fechner referred to as the "night-time view" of the world.

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[7] We see here the effect of the intervening two millennia of western cultural history and the evolution of consciousness, and especially the last five hundred years. The central symbol of the Incarnation which guided the western religious imagination, followed by the modern process of secularization (itself in many ways an organic expression of the symbolic world it was to negate), both involved a radical revaluation of the cosmos (and especially this "sublunary" realm of becoming) in a direction in many ways antithetical to the otherworldly orientation of Platonism, which, in other respects, has come to dominate the spirit of modern physics.

[8] In his *Zend-Avesta*, Fechner (1906) reasons to the World Soul as follows: "Examining the various points of resemblance as well as of difference between man and earth, we discover on the one hand an agreement between them in every point which in any theory of the relation between body and soul has been established as characteristic of a spiritual individuality connected with a material organism, whereas their undeniable differences make it evident that the earth is an individuality of higher and more independent life than man's lower and more restrained life" (p. 16).

A master of what was known by the Romantics and idealists as “intellectual intuition” or what, more recently, David Bohm has called “intuitive reason” (Bohm & Kelly, 1990; Bohm & Peat, 1987), Fechner explores a series of finely drawn analogies, moving from the bottom up, from the microcosm to the macrocosm, which facilitate a deepening apprehension of the within of things, from the souls of plants to the *anima mundi* and the Divine Mind, or rather Personality, whose body is the cosmos itself. In so doing, he initiates us into the “daylight view,” which is to say a way of “seeing” the inherent luminosity or self-radiance of being which we are, and which surrounds and permeates us. This world soul, at least as far as our earthly life is concerned, constitutes at once the psychic ecosystem of all living souls, and also in some sense a relatively autonomous personality in its own right, with its own memory and biography, its subpersonalities or complexes. At the same time, the world soul is itself a distinct member of the community of souls which together constitute the soul of the cosmos or the mind of God.[9]

Fechner believed that, after the death of the body, the soul wakens to its participation in the life of the world soul. His central analogy for the passage from life to afterlife is the transition from perception to memory or reminiscence. My favorite method of witnessing the peculiar character of this transition involves ringing a bell or bowl, with a single stroke, and tracking the experience of the sounding tone or tones until the very moment one is conscious of not hearing any more of the original sound. Immediately—and by this I mean, without a discernible interval—there is the memory of the sound. I find this lack of distinct border between the two experiences or occasions fascinating to experience, particularly in the context of a sustained meditation on the nature of time and its relation to experience or consciousness, to the continuity of personal identity, and of course the question of survival. In this context, pursuing the analogy, Fechner writes:

> When then my eyes are closed in death, and my sensible life of perception is extinct, may there not awake instead of it a life of memory in the higher Spirit? And if through me during my life of sense-perception that Spirit saw clearly and vividly…what is there and in precisely the way it presents itself, will not now the memory of everything that was comprised in the duration of the moment of perception…begin independently to live and stir, and to get into relationship and communication with the circle of memories which the greater Spirit has gained by the death of other men? But just as truly as my life of sense-perception was that of a being sensible of independence and of separateness within that Spirit, just so truly must this be the case with my life of memory [and therefore with personal consciousness in the afterlife]. (Fechner, 1946, p. 256)

As Fechner sees it, therefore, the individual soul survives the death of the body in the form of a continuing experience of personal identity which, without losing its specific individuality, nevertheless finds itself in a more “clear and conscious” (Fechner, 1906, p.18) relation to the “divine spirit” of the cosmos. Similarly, and again on the analogy of the relative gain in imaginative freedom in the passage from perception to memory or recollection, the “means of our mutual intercourse” as awakened soul-beings increase “in intimacy, variety and consciousness” (Fechner, 1946, p. 20).

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[9] Fechner imagines that, intermediary between the world souls and the mind of God, are the souls of the various solar systems. Presumably, had he the benefit of our telescopes, he would have added the galaxies to the scale of cosmic beings.

Though some theologians might question his inclusion of the individual soul within the world soul, Fechner's vision of survival—and I have presented only a kind of line drawing as compared to the richly painted canvas of his many texts dealing with the matter—is consistent with the traditional Christian view of both the uniqueness ("once only") of the terrestrial life and of the persistence and immortality of personal identity. This vision of survival relies heavily on a fine use of the *spatial* intuition, in the first place with the theory of psychophysical parallelism, where the psyche is characterized as the "within" and the physical as the "without;" and secondly with the idea of organic or holonic *inclusion* (the notion of systems within systems, as with the relation of cells < tissues < organs < bodies < ecosystems), made parallel to the *temporal* relation of this life to the *after*-life by means, as we have seen, of the central analogy of the transition from perception to memory. The time factor enters the picture here with the experience of *transition*, as also in Fechner's characterization of death as a second birth (that is to say, as a *passage* to a new and higher life).

Anyone familiar with Whitehead's philosophy of organism will have no trouble in seeing its profound affinity with Fechner's vision. In contrast with the latter, however, which relies so heavily on the spatial intuition, Whitehead focuses on the nature and, as he sees it, the pervasive reality, of process. Correlatively, while Fechner's cosmos—despite its thoroughgoing organicism in other respects—is still more or less Newtonian in its view of time (which, independently of matter, "flows equably without relation to anything external" [Newton, 1846, p. 77]), Whitehead's view of both space and time are fully consistent with the cosmology of the new physics. These contrasts have profound, if decidedly complex and by no means unambiguous, implications for our understanding of survival.

If I could only present a poor sketch of Fechner's vision, my rendering of Whitehead's insights, couched as they are in such challenging language and dealing with the most abstruse of scientific and philosophical preoccupations, must be considered as a kind of hurried silhouette, though hopefully one that captures the likeness. "One all-pervasive fact," writes Whitehead, "inherent in the very character of what is real is the transition of things, the passage one to another" (1969, p. 93). This fact is highlighted by the idea of nature or reality as *process* (hence the reference to Whitehead's system as "process philosophy"), and is consistent with the dominance, beginning with and continuing throughout the modern period, of the experience of change, whether in the form of social or political revolutions, the ideology of progress, the theory of evolution, or scientific and technological advance. In keeping with this experience, Whitehead characterizes the nature of reality as consisting not of things, stuff, or abiding substance, but rather of "actual *occasions*" or "*events*." From the point of view of more recent science, matter, he notes, "has been identified with energy, and energy is sheer activity; the passive substratum composed of self-identical enduring bits of matter has been abandoned, so far as concerns any fundamental description" (Whitehead, as quoted in Datta, 1961, p. 429). In a direct challenge to the Cartesian dualism, actual occasions are said to emerge through and as a process of "prehension" and "feeling," which not only grants an irreducible subjectivity or interiority to the world's constitutive elements, but points as well to the essential fact of *relationship* in the definition of these elements. Equally challenged is the Newtonian view of "simple location,"[10] since the pervasiveness of process prohibits the setting of fixed boundaries between occasions or events. This fact is only amplified, of course, when Relativity and quantum non-locality are brought into the picture. "In a certain sense," Whitehead therefore feels free to say, "everything is everywhere at all times. For every location involves an aspect of itself in every other location. Thus every spatio-temporal standpoint mirrors the world" (p. 91). Here we have a particularly vivid expression of the organic or holonic (or holographic) quality of Whitehead's vision—which explains why, along with "process philosophy," it is referred to as the philosophy of *organism*.

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[10] "To say that a bit of matter has *simple location,*" writes Whitehead (1969, p. 58), "means that, in expressing its spatio-temporal relations, it is adequate to state that it is where it is, in a definite finite

The organic or holonic quality expressed in the above quotation appeals primarily to the spatial intuition (with the words "everywhere," "location", and "standpoint"), despite the reference to "times" at the beginning and to "spatio-*temporal*" at the end. The same quality, however, is evident through a more direct—though, as we shall see, somewhat paradoxical—appeal to the temporal intuition with Whitehead's notion of the "satisfaction" of an actual occasion and its passage into the state of "objective immortality." "The final phase in ... constituting an actual entity," writes Whitehead," is one complex, fully determinate feeling. This final phase is termed the 'satisfaction'" (Whitehead, 1978, p. 48). The entity or occasion "terminates its becoming in one complex feeling involving a completely determinate *bond with every item in the universe*, the bond being either a positive or a negative prehension" (p.44, my emphasis).

What is described here from the point of view of the actual occasion as a culminating "complex feeling" can also be understood as "the attainment [which] halts its process, so that by transcendence it passes into its objective immortality as a new objective condition added to the riches of definiteness attainable, the 'real potentiality' of the universe" (Whitehead, 1978, p. 223).

I am reminded here of Fechner's analogy of the transition from perception to memory, though of course Fechner has in mind the immortality of the soul or personality (and not an elementary occasion), and envisions a subjective rather than an "objective" immortality.

I said above that Whitehead's appeal to the temporal intuition is paradoxical because the concepts of an actual occasion's "satisfaction" and "objective immortality" involve the "*termination* of becoming" and the "*halting* of process." The difficulty here has to do with the fact that any talk of "termination" or "halting" presupposes a backdrop of time—or, which comes to the same thing, a perception of continuous motion as measured against a stationary and extended background. Although Sherburne, who speaks authoritatively for Whitehead, speaks of a "succession of phases" in the "genetic process" or "concrescence" of an actual occasion, he claims that concrescence[11] itself "is not in time; rather, time is in concrescence in the sense of being an abstraction from actual entities" (Sherburne, 1966, p. 36). I cannot claim to resolve these seeming paradoxes, and in this respect I am no further along than Augustine, who was the

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region of space, and through a definite finite duration of time, apart from any essential reference of the relations of that bit of matter to other regions of space and to other durations of time."

[11] Concrescence "is the name given to the process that *is* any given actual entity; it is 'the real internal constitution of a particular existent'…. Concrescence is the *growing together* of a many into the unity of a one" (Sherburne, 1966, p. 212).

first to point them out.[12] Though perhaps irresolvable, however, they are nevertheless potentially generative of a higher or more complex kind of insight, the nature of which we shall consider in more detail in the next section.

The idea that time is "in" actual occasions rather than the reverse is an expression of the "epochal" theory of time. In this theory, time is said to be structured or generated by the configurations of actual occasions as "drops of experience," which, though themselves the "atoms" of time, also have "duration."[13] These temporal occasions can be arbitrarily divided according to various abstract metrics, though not without destroying the concrete depth and texture of the occasion's duration (and hence its subjective immediacy or experiential integrity). One can imagine such occasions as subsumed in more complex temporal occasions (or "events")—for instance, this moment as I hold the thought while typing this sentence is integral to the period I spend at the computer working on this particular section of the paper. Since this period, however, though distinguishable as a kind of gestalt from what came before it and what is to follow, is nevertheless continuous with the same, the division into higher-order temporal occasions is somewhat arbitrary. *As I see it, perhaps the only natural boundary one encounters in the scale of temporal occasions, apart from the proposed atomistic "drops," is a completed life.* The point I want to make, however, is that the drops of experience, as atoms of time, are not, as we have seen, themselves "in" time. Their duration is qualitative and not subject to the same kind of metrical mapping (by coordinate grids) as is possible in the comparison *between* occasions. By the same token, a complete(d) life, as a complex or higher-order temporal occasion, is also not "in" time, which doesn't mean that, from the perspective of the life as in-complete, time does not flow. What this does mean is that, appearances to the contrary, there is a sense in which, or a (meta-) perspective from which, a life is both complete and fully present (not merely passed or yet to be), along with all of its constitutive moments or "drops" of experience.

Such a meta-perspective, of course, can only be that of God (by any other name). That Whitehead's position suggests what Hartshorne (1951, p. 543) describes as "the unfading everlastingness of all occasions in God" is supported by Whitehead's claim that "[e]ach actuality in the temporal world has its reception into God's nature. The corresponding element in God's nature is not temporal actuality, but is the transmutation of that temporal actuality into a living, ever-present fact (Whitehead, 1978, p. 350)." Questions remain, however. There is no consensus among process theologians as to whether or not this immortality or "everlastingness" involves the persistence, in the form of the continuing experience, of personal identity—what is normally understood by the term “soul”—or merely the essence, everything “that can be saved” (Whitehead, 1978, p. 346), of the world’s becoming or “fluency,” as Whitehead calls it.[14] An intermediary position, the gist of which we have already seen with my reading of Nietzsche’s eternal return and with Barbour’s notion of Platonia, would be that what to us are past occasions—including, for instance, your subjective experience of waking up this morning or of greeting your neighbor in the street, with all of its phenomenological particularities—remain as vivid and livingly present, or eternally occurring, actualities for God. According to Bergson, we ourselves could, in principle, experience what this might be like. As Richard Field points out in his paper on “William James and the Epochal Theory of Time:”

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[12] See Augustine's unparalleled (in insight and beauty) treatment of time in Book XI of the *Confessions* (1979) where, along with the idea of that the past and the future (as memory and anticipation) exist only as inflections of the present, he treats of the paradox of time as, on the one hand, the present or the now which is discrete and not extended (*spatium*), and on the other, the association of time with measurement (longer and shorter, before and after) which implies continuity and extension.

[13] This is the idea of the "specious present," most notably associated with James, which argues against the identification of the experienced present with the non-extended or one-dimensional "instant." James's understanding of the matter was influential in Bergson's idea of "duration" and Whitehead's idea of actual entities as "drops of experience" and "atoms of time." On the specious present, see Robert de Poidevin's article in the *Stanford Encyclopedia of Philosophy*, @ http://plato.stanford.edu/entries/time-experience/ (3/6/04).

> It is not … inconceivable, according to Bergson, for the whole of a person’s past to be thrust into the immediate awareness of the present…. for Bergson attention is directed by interest. Remove practical interest, and it becomes quite possible that our normal distinction between the past and present would cease to be a psychic fact. If such an eventuality actually took place, experience "would . . . include in an undivided present the entire past history of the conscious person, not as instantaneity, not like a cluster of simultaneous parts, but as something continually present which would also be something continually moving." (Field, 1983, pp. 260-274)[15]

Also at issue is the question of the future, and more generally, of the ultimate significance of time from the point of view of God or the Divine. According to Kraus in her *Metaphysics of Experience, A Companion to Whitehead’s Process and Reality*, not only is it the case that, “from the divine vantage point, the endless fruitions of the creativity are simultaneously co-present in the immediacies of their self-creative activities,” but the divine concrescence is always already in some sense “complete insofar as past and future are not relevant terms….” Again: “From the divine perspective, time becomes space in the sense that all ‘times’ are co-present in divine feelings….” At the same time, however, Kraus also recognizes that “God’s physical feeling” is “incomplete, in that the future from any perspective is not yet actual and is perpetually actualizing itself” (Kraus, as cited in Edwards, 1981, pp. 30-34). Edwards, for one, strenuously objects to what he describes as Kraus’s Boethian and Thomistic reading of Whitehead. “The view that the future is incomplete and indeterminate only from our finite perspective,” he writes, “whereas it is complete and determinate from the divine perspective is just the view which process theology rejects rather than affirms, though there may be more than one way of developing an alternative metaphysic available to process thinkers" (Edwards, 1981, pp. 30-34).

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[14] Whitehead seems to have left the matter open, through lack of both compelling evidence, on the one hand, and of a sufficiently coherent theory, on the other. In *Religion in the Making* he notes: “Also at present it is generally held that a purely spiritual being is necessarily immortal. The doctrine here developed gives no warrant for such a belief. It is entirely neutral on the question of immortality, or on the existence of purely spiritual beings other than God. There is no reason why such a question should not be decided on more special evidence, religious or otherwise, provided that it is trustworthy. In this lecture we are merely considering evidence with a certain breadth of extension throughout mankind. Until that evidence has yielded its systematic theory, special evidence is indefinitely weakened in its effect.” Retrieved February 29, 2004 from http://website.lineone.net/~newthought/ritm1.htm

[15] Two realms of contemporary research provide analogues to Bergson’s imagined scenario: the experience of the “life-review” in Near-Death-Experiences (NDEs), and a certain class of non-ordinary experience (potentially present, for instance, in psychedelic work or other, non-drug, engagements of the deep psyche or “mind-at-large”) which could be characterized as transpersonal, in that it involves the transcendence of the temporal constraints that help to define the personal ego in its ordinary state of consciousness (see Grof, 1988).

I would like to consider such a metaphysical alternative in the following section. To conclude this one, however, I will simply say that my own metaphysical musings have led me to side more with Kraus than with Edwards as far as the above seeming paradox is concerned. For, as Whitehead puts it: "All the opposites are elements in the nature of things, and are incorrigibly there. The concept of 'God' is the way in which we understand this incredible fact—that what cannot be, yet is" (Whitehead, 1978, p. 350).

An Integral or Complex-Holistic View

The metaphysical alternative that I will focus on in this last section is based largely on the philosophies of Sri Aurobindo and Hegel, though I will draw as well from the work of Jean Gebser and Edgar Morin when I turn to more specifically epistemological considerations. So far, with the possible exception of Fechner, the theoretical schemes we have entertained have brought us to the threshold, without fully crossing over, of what I would consider an integral view of survival—a view, that is, which is capable of accommodating, through the consistent application of a single generative principle, apparently mutually exclusive views (including in particular the mainstream Christian, or "once-only" view, and the idea of reincarnation). The articulation of such a view, I have suggested, must involve a correspondingly integral view of time. Aurobindo and Gebser, as we shall see, each have very suggestive things to say in this respect. As for a potential candidate for the generative principle that might exemplify the meaning of "integral," I have proposed in other contexts the principle of "complex holism," which I derived primarily from a sustained dialogue between Hegel and Jung (see Kelly, 1993) but which has since been significantly inflected by Edgar Morin's work on the principles of complexity (see Morin, 1977, 1980, 1981, 1982). The principle itself involves the recognition that:

> such terms as nature and spirit, the finite and the infinite, the universal and the particular, the individual and the collectivity, are dialectically related or mutually implicative. Any position which maintains the absolute priority of either term is necessarily abstract and, therefore, ultimately false. The only concepts not subject to the same constraints are those of the Whole or the Absolute which, though normally contrasted with the notions of the parts and the relative, include these, their apparent opposites, in their very concepts. That the holism advocated… is *complex* points to this necessary inclusion of particularity, differentiation, and relativity within the whole under consideration. The complexity in question also involves… the elements of dynamism and process. "The True," as Hegel says, "is the whole. But the whole is nothing other than the essence consummating itself through its development." (Kelly, 1993, p. 2)

The friendliness of this principle to Whitehead's overall approach (and specifically with respect to his central insight into the "fallacy of misplaced concreteness") should be obvious. To my knowledge, Aurobindo's understanding of "integral non-dualism" represents the richest, most creative, and far-reaching application of the principle of complex holism. One advantage of my terminology is that it is not *necessarily* associated with any particular metaphysical position.

Secondly, it allows for a more easily established rapport with contemporary scientific and philosophical developments. Still, it will sometimes be sufficient, or more precise, to use "integral" or "complex" instead of the more awkward "complex holistic."

Along with his commitment to a metaphysical Absolute—which, aligning himself with the Vedic tradition, he calls Brahman and describes as *Sat-Chit-Ananda*, or infinite Being-Consciousness-Bliss—Aurobindo argues forcefully against the once-only view of life and in favor or the doctrine of reincarnation.[16] At the same time, however, his eloquent plea (Aurobindo, 1951, p. 295) for a "logic of the Infinite" which rejects the "closed system" and "rigid definition" and instead looks for the "complete and many-sided statement" ought, in my opinion, to allow for the peaceful coexistence of both views. The possibility, and even the necessity, for such coexistence becomes even more apparent if one places the question of survival in the context of Aurobindo's statements about what we might call integral time. In the *Life Divine*, Aurobindo speaks of three "states of consciousness with regard to its own eternity" that the "Being" can assume (p. 327). The first he describes as the "timeless eternity" of the "Self in its essential existence," a state "without development of consciousness in movement or happening." The second is the "stable status or simultaneous integrality of Time," where "what we call past, present and future stand together as if in a map or settled design or very much as an artist or painter or architect might hold all the detail of his work viewed as a whole." The third is the "Time movement," that is, a "progressive movement" and "successive working out of what has been seen…in the static vision of the Eternal" (pp. 327-328). While he speaks of three states, or a "triple status," he also refers to the first and third together as the "two powers of the self-awareness of the infinite and eternal Reality," or to "the same Eternity viewed by a dual self-awareness" (p. 329). This leads me to suggest that a more coherent sequence would put the third "state" (the "Time movement") second, and that the "simultaneous integrality of Time," as the new third, would correspond to the "simultaneous integrality of Time" proper to the self-awareness of Brahman as the truly "infinite and eternal Reality." My suggestion is borne out by the concluding paragraph of the section of the *Life Divine* from which I have been quoting where he writes that the "coexistence" or "simultaneity" of these two moments or "powers"—"a power of status and non-manifestation [the first moment], a power of self-effecting action and movement and manifestation [my second moment]:

> however contradictory and difficult to reconcile it might seem to our finite surface seeing, would be intrinsic and normal to the Maya or eternal self-knowledge and all-knowledge of Brahman, the eternal and infinite knowledge and wisdom-power of the Ishwara, the consciousness-force of the self-existent Sachchidanada. (Aurobindo, 1951, p. 329)

There is a fascinating parallel here with a brief and undeveloped passage in the closing section of *Process and Reality* on "God and the World" where Whitehead refers to the "threefold creative act" of the universe. The first moment of this act is "the one infinite conceptual realization," by which I understand the infinite potential of the "primordial nature" of God. This corresponds quite nicely to Aurobindo's first moment of "timeless eternity." Whitehead's second moment is "the multiple solidarity of free physical realizations in the temporal world"—a clear match with Aurobindo's "Time movement." The third is "the ultimate unity of the multiplicity of actual fact with the primordial conceptual fact" (Whitehead, 1978, p. 346), which again is a very good match with my suggestion for Aurobindo's third moment, the "simultaneous integrality of Time" (the earlier qualifier—"stable status" is perhaps less compatible with Whitehead's insistence on divine process, though this is a matter of interpretation).

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[16] Aurobindo's main argument can be summarized as follows: The universe is engaged in the evolution of consciousness. This evolution depends upon the emergence of ever more realized individuals who carry the process forward. If the spiritual gains of individual lives were lost at death, evolution could not proceed. Therefore, "the rebirth of the soul in the body becomes a natural and unavoidable consequence of the truth of the Becoming and its inherent law. Rebirth is an indispensable machinery for the working out of a spiritual evolution; it is the only possible effective condition, the obvious dynamic process of such a manifestation in the material universe." (Aurobindo, 1951, p. 672)

Now, anyone familiar with the history of philosophy will immediately see, if not the influence, then certainly the shadow of Hegel on both of these threefold formulations of the nature of time and its relation to the Absolute or to "God and the World." As to the question of influence, Whitehead claims not to have been able to read Hegel, which is ironic, given the same claim so often made by those who try to approach Whitehead. While the "logic of the Infinite" which pervades all of Aurobindo's work is clearly Hegelian in spirit, there are no references to Hegel (other than to him being a "great philosopher") in his voluminous works. Both Aurobindo and Whitehead, of course, were educated in England during the ascendancy of the British neo-Hegelians and so would have absorbed much of Hegel's spirit without necessarily even being conscious of the fact. Influence or no, however, it remains the case that Aurobindo's integral non-dualism and Whitehead's philosophy of process or organism are both profoundly resonant with key features of Hegel's speculative vision. Along with the dominant stress on holism, there is, as the above correspondences clearly indicate, the idea of a threefold dialectical structure or organizational pattern with respect to time and its relation to the divine and/or the cosmos. In place of the hackneyed, though still in some ways helpful, sequence of thesis, antithesis, synthesis, it is more revealing to contemplate such categorial triads as identity, difference, and the identity of identity and difference;[17] universal, particular, and individual; essence, appearance, and actuality. All of these triads map onto Aurobindo's (in my reconfiguration) and Whitehead's threefold distinctions in a way that clarifies their shared deeper meaning. From a Jungian point of view, these triads are all expressions of the dialectical relations between the archetypal sphere of the collective unconscious (first moment) and that of the conscious ego (second moment), relations which constitute the nature of the Self as complex whole (third moment) (see Kelly, 1993, especially Chapter One: *Logical Categories and Archetypes*).

Putting aside the question of influence, Aurobindo claims that his logic of the Infinite is an expression of the deeper truth of the Vedas and their philosophical elaboration in the tradition of Advaita Vedanta. In contrast with the classical Advaita ("non-dualism") of Shankara, however, Aurobindo's is qualified by the term "integral" (*purna*) so as to avoid not only the typical advaitan "negation" of the world (and therefore of time) as illusion, but also that of the modern West which has tended in the direction of the denial of transcendence and the reality of Spirit. Whitehead gives no explicit pedigree for his notion of God as the harmony of "antitheses" or "ideal opposites" (including, at their head, that of permanence and flux, and then one and many, transcendent and immanent, potential and actual). He does, however, use Christian allusions, most notably the phrase "Kingdom of Heaven" (Whitehead, 1978, pp. 348-350), but also with reference to the "judgment," "patience," and "love" of God. Notably absent in the writings of both figures are any references to the Christian Trinity. I say notably since, according to Hegel, the Trinity is the mythic or symbolic source of the idea of the dialectic, which is certainly the case for Hegel's foundational articulation of the idea.[18] The point I want to make here is that, regardless of possible routes of influence, the integral or complex holistic view of time that I am envisioning, given its clear compatibility with both Aurobindian non-dualism and Whiteheadian organicism, should be able to accommodate the simultaneous truth of the (predominantly eastern) reincarnationist and (dominantly Christian) once-only views of life and survival.

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[17] The "identity of identity and difference" was Hegel's first definition of the Absolute (see Hegel, 1977).

Before pursuing this compatibility any further, I want to give the reader a better idea of what an integral or complex-holistic time-sense, in its most developed form, would look like by quoting an extraordinary passage from the last chapter of Aurobindo's *Synthesis of Yoga,* which he calls "Towards the Supramental Time Vision." The passage is striking not only because of the flow and rhythm that seem to mirror the manner in which the insights appear to have come to him, but also because of the way the insights themselves challenge us to remain open to the possibility that, as Whitehead says, "what cannot be, yet is." "All intuitive knowledge," writes Aurobindo,

> comes more or less directly from the light of the self-aware spirit entering into the mind, the spirit concealed behind mind and conscious of all in itself and in all its selves, omniscient and capable of illumining the ignorant or the self-forgetful mind whether by rare or constant flashes or by a steady instreaming light, out of its omniscience. This all includes all that was, is or will be in time and this omniscience is not limited, impeded or baffled by our mental division of the three times and the idea and experience of a dead and no longer existent and ill-remembered or forgotten past and a not yet existent and therefore unknowable future which is so imperative for the mind in the ignorance. Accordingly the growth of the intuitive mind can bring with it the capacity of a time knowledge which comes to it not from outside indices, but from within the universal soul of things, its eternal memory of the past, its unlimited holding of things present and its prevision or, as it has been paradoxically but suggestively called, its memory of the future. (Aurobindo, 1999, p. 897)

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[18] Significant for a deeper exploration of this matter would be a consideration of the traditional distinction and relation between the so-called "immanent" and "economic" Trinities (that is, God in eternity and God in time, respectively). In "Eternity, Time and the Trinitarian God," Wolfhart Pannenberg provides a contemporary Christian reflection on the relation of the Trinity to time: "[T]he presence of God is different, since it is no other than his future. Furthermore, it is important that this statement refers to the trinitarian God as a unity, not to the three persons in their distinctiveness, except as they participate in the one divine essence. Concerning their mutual relationships it may be said that the Son is the future of the Father, because it is the Son who establishes the kingdom of the Father on earth. Similarly, the Spirit is the future of the Son since it is the Spirit who raises Jesus from the dead. But again, the Father is the future of both, the Son and the Spirit, since it is the Father's kingdom they bring about by their joint activities. As they all share in the communion of the one living God, however, they share in his eternal life that has no future outside and beyond itself to occur to it. The trinitarian God has eternal life within himself." Retrieved February 28, 2004 from
http://www.ctinquiry.org/publications/reflections_volume_3/pannenberg.htm

Obviously, if one has not been graced with the kind of "intuitive knowledge" Aurobindo alludes to here, the supramental time vision that he describes will be more or less credible or coherent, depending not only upon what one has been able to ascertain through conceptual analysis, but doubtless as well upon all kinds of unconscious or pre-reflective beliefs and assumptions. I will not argue the case here. Granting for the moment the authenticity of Aurobindo's experience and the conceptual coherence of integral time, what are the implications for the notion of reincarnation, the truth of which Aurobindo so strongly advocates?

To begin with, if it is the case that all of what to our ordinary consciousness is conceived of as lives yet to be lived, from the integral perspective of the intuitive mind "stand together," in Aurobindo's analogy, "as if in a map or settled design" along with the present life and those of the past (one is reminded here of Barbour's Platonia), one cannot cling too firmly to the idea of a soul which migrates from body to body, from life to life. We have seen that, for Whitehead's God, all (to us) past occasions are experienced in their "unfading everlastingness." For Aurobindo, at least, this is true as well for all future occasions, so that, despite the analogy of memory that is commonly invoked, it is more a matter, from the point of view of the Divine, of a *living* supersensory *presence*. Each life, in other words—however seemingly distant in our past or future—is always and already ensouled, is inalienably associated with its own soul, whose personal and singular drama is ever unfolding in the Eternal Now. And just as on a map—or better, in the actual experience of the territory—one cannot conflate two distinct locations and still know where one is, so one cannot conflate or identify, without significant qualification, any two lives, whether yours and mine in this shared present, or this life (yours or mine) and another in the apparent past or future. All of which seems to support the traditional Christian view of the soul as linked to only one life (and my reinterpretation of Nietzsche's view of the eternally occurring quality attaching to each individual life).

What then of reincarnation? To begin with, it is important to distinguish between the belief in a soul *substance*—which, at least in the way it is normally pictured, exists in the same space-time as the body with which it is associated and which, having "left" the body at death, "enters" a new one in a future life—and the *experience* of past-life recall and associated phenomena. Rupert Sheldrake (1989), in his book *The Presence of the Past*, suggests that his theory of morphogenetic fields provides a way of modeling what is experienced as past-life recollections without having to assume the literal belief in a transmigrating soul. The idea would be that, through the process of "morphic resonance," aspects of a current life (whether specific events acting as triggers, or more deep-seated structural or organizational patterns of a life or personality) call up memories stored in the non-local, immaterial, and potentially everlasting field associated with the previous life (or lives). Aurobindo's "supramental time vision" implies something very similar, only that it is not merely a question of residual fields but, as we have seen, of continually unfolding and fully present lives—a vital presence, not only of the past, but of the future as well in the "simultaneous integrality of Time." Given this presence, one can even more readily imagine how all the phenomena associated with the idea of reincarnation could be attributed to a kind of resonance between (from the perspective of the Divine) mutually present lives.

It is of course possible that the distinct souls I have evoked in association with all of our eternally unfolding lives are not the souls that people who believe in reincarnation have in mind, are not the "I" that says, "I was such and such in a past life," but are rather mere egos or personalities. Even if we grant these personalities the kind of vital immortality I am suggesting, and even if we can account for past-life phenomena without appealing to anything beyond them, how are we to answer Aurobindo's claim that, without rebirth, there is no way to provide for the evolution of consciousness—that is, for the "return" of Brahman from the scattered multiplicity of His self-induced involutionary trance? But Aurobindo has already supplied us with most of the necessary elements for an alternative formulation of this admittedly highly complex and speculative issue. In the first place, he himself, despite the premium he attaches to universal evolutionary process, speaks from a noetic certainty of the supramental realization, which he invites us to intuit, of Brahman as Infinite Being-Consciousness-Bliss, which means that the trance is not only self-induced but always and already broken. Or we could say that, as paradoxical as it might sound, Brahman or the Divine is *simultaneously* in the deepest of hypnotic slumbers *and* completely wide-awake. Without denying the reality of evolution, or more generally of time as passage (the second of our three "moments" above), therefore, we must be able—and indeed are called upon to do so given the complexity of the matter—to conceive of the nature of the soul and its relation to life and the after-life or survival in a way that does not depend *solely* on the image of a single soul substance journeying through time from body to body.[19]

The second element to consider is the notion of the Jivatma or "spiritual Person" who "is one in his nature and being with the freedom of Sachchidananda who has here consented to or willed his involution in the Nescience for a certain round of soul-experience, impossible otherwise, and presides secretly over its evolution" (Aurobindo, 1951, p. 680). This "Person" does not itself evolve but is "unborn and eternal although upholding the manifested personality from above" (Aurobindo, 1972, *Letters*).[20] It is to this Jivatma that I take Aurobindo to be referring, in the passage I quoted earlier on the supramental time vision, when he speaks of "the spirit concealed behind mind and conscious of all in itself and in all its selves." It is this Person too who stands in full possession of "its eternal memory of the past, its unlimited holding of things present and its prevision or, as it has been paradoxically but suggestively called, its memory of the future." Given this, to us, paradoxical relation to time, could we not conceive of the many "selves" which, from one perspective (that of the second "moment"), manifest sequentially as a number of karmically related lives, as (from the third, integral or complex holistic moment) *also* so many *co-existing sub-personalities* of the more complex Person? Would we not have here an analogue to Fechner's understanding of World Spirits or Angels?[21] A scale of beings or selves begins to suggest itself, in order of increasing complexity and—with certain qualifications—wholeness, each with its own constraints and freedoms with respect to the experience of space and time. At the highest or most inclusive level there would be the Godhead (Aurobindo's Brahman or Sachchidananda), the Whole or Absolute by any other name. Next would be the cosmic Deities, of which there might be an indefinite number, and which might include the God of Fechner and Whitehead. Whether or not such Deities experience themselves in their own kind of time with an unknown future is, as we have seen, open for debate. Presumably the World Souls would exist as sub-personalities or part-selves of the Cosmic Deities (again, not knowing if solar systems, galaxies, or even larger cosmic structures have corresponding selves), just as individual soul-personalities would be members of the community of selves that constitute, or are gathered together in, a given World Soul. In this logic, the Jivatma would be a Self intermediary between a World Soul and the soul-personality or "Psychic Being," as Aurobindo most often calls it.[22] As for the Jivatma's time sense, there is no reason why it could not, while being simultaneously conscious of standing "outside" or "above" time as experienced by its many part selves (that is, as you and I experience it most of the time), also be capable of novel experience and so, even if it doesn't evolve, has something at least analogous to our experience of an unknown future. Whatever the likelihood or specific nature of such a scale of selves, it ought to be clear in any case that there is no reason to accept a forced choice between one life or many, or indeed, as we have seen, between the members of any number of categorial oppositions that present themselves to the metaphysical imagination.

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[19] As Bache (2006, pp. 120-121) points out: "There is nothing inherent in the theory of the soul that commits us to the atomistic isolation of previous theories. The soul is a quantum-like phenomenon, an open field suspended in dynamic tension with surrounding fields."

[20] Aurobindo calls the evolving soul the "psychic being," the *caitya purusha*. It is the representative of the *Jivatma* or "soul essence."

[21] In the fourth volume of his *Vehicles of Consciousness*, Poortman asks: "What, then, *is the* world-mind? Is it the sum total of the whole scale of the units of consciousness embracing each other? In that case, there must be an increasing—and perhaps also decreasing—degree of unity or perfection. What in fact it comes down to is that we are concerned here with concrete, superposed units which are at the same time limited, in which case we can never come to the point where we have a transcendent unit which really embraces everything. These limited units may, in their own way, be quite venerable…as were Ishvara in Indian thought and Plato's Demiurge, but they remain what I have called infrasubjects. It is even possible

What is needed above all in such matters is the cultivation of a way of thinking, a way of "seeing" and "hearing" that is sensitive to the wholeness and complexity of the things we name self or soul, life, and time, and knowing that the naming in no way diminishes the mystery we are trying to fathom. Two of my great allies in this respect have been Edgar Morin and Jean Gebser. From Morin I have learned to see the complexity of wholeness in terms of such principles as the *dialogic* and *recursivity*. Like Hegel's dialectic, the dialogic concerns the relation between antitheses or incompatibles. Muting somewhat Hegel's stress on the reconciling potential of the third moment, Morin defines the dialogic as the "symbiotic combination of two [or more] logics [that is, discourses or dominant categories] which remain *both* complementary *and* antagonistic" (see Morin, 1977, p. 80; 1980, p. 82). Recursivity refers to the circularly causal relation between structural elements or categories that constitute a complex system. A process is recursive when it "causes/produces the effects/products necessary for its own regeneration" (Morin 1977, p. 186; 1981, p. 162). It is "the circuitous process whereby the ultimate effect or

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to imagine these demiurges—however central or exalted their status might be within their own sphere—coming together from time to time on a friendly basis and perhaps even… making mistakes. This is a clear example of their infrasubjectivity and I can only say how right Heymans was to refuse to place the world-consciousness of psychical monism, with all its sub-divisions…, on the same footing as the traditional concept of God." (Poortman, 1978, p. 110).

[22] See Frederick Myers's suggestive conclusions: "I hold that ... it is possible that other thoughts, feelings and memories, either isolated or in continuous connection, may now be actively conscious... in some kind of coordination with my organism, and forming some part of my total individuality. I conceive it possible that at some future time, and under changed conditions, I may recollect all; I may assume then various personalities under one single consciousness, in which ultimate and complete consciousness, the empirical consciousness which at this moment directs my hand, may only be one element out of many." (Cited in Taylor, 1996, p. 66)

product becomes the initial element or first cause" (Morin, 1977, p.186). With the help of Morin I see how the relation of the one to the many (whether of lives or of selves), of stasis to flux, or the eternal to time, is to be conceived dialogically and recursively, giving up the need for what Hegel calls the “fixed determinations” of merely intellectual knowing (Hegel’s *Verstand*, Aurobindo’s “lower Mind”). The One both produces and repels the Many, which produce and repel the One. “Eternity is in love with the productions of Time,” says Blake. Yes, but there is also enmity, strife, or opposition. Blake again: “Without Contraries is no Progression. Attraction and Repulsion, Reason and Energy, Love and Hate, are necessary to Human existence” (from *The Marriage of Heaven and Hell*).

From Gebser (1985) I get the suggestive coupling of “integral” (which he derives from Aurobindo, without, however, adopting his metaphysics) with “aperspectival,” which to him means the overcoming of the kind of spatial-perspectival mindset now commonly associated with the Cartesian-Newtonian worldview. The “single vision” of this mindset is more or less locked in the second “moment” of difference and forced alternatives (transcendence or immanence; many lives or one, etc.). For the integral-aperspectival consciousness, by contrast, incompatible categories are “transparent” or “diaphanous” to one another, as are the structures of consciousness (in this case, especially the mythic—which is “preperspectival”—and the mental, which is perspectival) within or in relation to which the categories are variously inflected.[23] According to Gebser’s characterization of the structures of consciousness, the traditional view of reincarnation—with its associated view of cyclical time, and with its more symbolic or imagistic and narrative qualities (the soul as a migrating entity)—would seem to be more at home in the mythic structure. The Christian once-only view—with its associated view of linear time, and despite its mythical elements (view of last Judgment, of Heaven and Hell)—could only arise after the emergence of the mental structure. The modern secular view—linear time, materialistic, and therefore no real survival—is firmly embedded in the late or “deficient” mental (where a more contemplative and qualitative reason is increasingly reduced to a. more instrumental and quantitative rationalization; see Gebser, 1985, p. 93*f*). Whereas a merely or predominantly mental approach (and particularly in its deficient mode) to the question of survival will tend toward an exclusive identification with one of the possible alternatives—say, the (seemingly more “scientific,” and therefore mental) view of a single life that “resonates” with the fields of past lives versus the more traditional (and originally mythic) view of reincarnation as transmigration—an integral-aperspectival view will see the virtues of both alternatives, along with their limitations, and will feel free to shuttle from one to the other as the context demands. What I have stressed in this paper is that such an integral-aperspectival view will require a suitably complex rethinking of the nature of time. “The coming to awareness of ‘time’ in its full complexity,” as Gebser says, “is a precondition for the awakening consciousness of time-freedom [that is, freedom from mental-perspectival, and therefore spatialized, time]. The freedom from [perspectival] time in turn is the precondition for the realization of the integral consciousness structure that enables us to perceive the aperspectival world" (Gebser, 1985, p. 289). The integral-aperspectival can therefore be interpreted not so much a structure of consciousness (like the mythic or the mental) as it is an "opening" or clearing, as Heidegger might put it, between or in the midst of the various structures and their associated categories.

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[23] The ancient Stoic view of eternal recurrence—which is both cyclical and materialistic, imagistic (the universal fire) and rationalistic (determinism)—is typical of a period (late antiquity) where mythic and emergent mental elements coexist in various syncretistic forms (the Christian view represents another such form). Nietzsche’s version of eternal recurrence, though so close to the Stoic view in many respects, also manifests the dawning of the integral-aperspectival. This is evident in Nietzsche’s stress on openness and freedom, and in the transparency between myth and philosophy, between the symbolic and the conceptual, in his major writings (especially *Thus Spake Zarathustra*).

Jennifer Gidley summarizes Gebser's position as follows:

> Gebser's nuanced *concretion of time* does not represent a linear developmental endpoint like that of the modernity project, nor is it endlessly recursive in non-directional cyclical space as in Eliade's "myth of the eternal return"….. Integral consciousness as understood by Gebser does not place mythic and modern constructions of time in opposition to each other, as both modern and traditional approaches tend to do. Alternatively, Gebser's *temporic concretion* is an intensification of consciousness that enables re-integration of previous structures of consciousness—with their different time senses—honoring them all. It opens to new understanding through atemporal translucence whereby *all* times are present to the intensified consciousness *in the same fully conscious moment.* (Gidley, 2007, p. 176)

This integral "moment" where "all times are present" resonates well with my proposal for all lives as participating in an ever-living present. I also applaud Gidley's insight that Morin's paradigmatic notion of "RE" (which is primarily associated with the notion of *recursivity* or circular causality, as epitomized in all living or self-organizing processes)[24] "appears to align with Gebser's concretion of time" (p. 183). In this context, however, the recursion in question is not that of evolutionary processes, though neither does it contradict these processes. Rather, here it is question of a theoretical and methodological recursion between different "temporics" or time perspectives (see Gidley, 2007, p. 174) and their related conceptions of the soul and its associated life/lives. In contrast with an integral or complex-holistic (meta-) point of view, these conceptions are generally embedded within the mythical and (sometimes deficient) mental structures. The latter's perspectival ordering, in particular, militates against a generative encounter among competing views and conceptions.

While through the glass of merely mental consciousness we see ourselves and our world but darkly, in the clearing of the integral-aperspectival we can wander freely in worlds without borders and behold one another face to face.

Concluding Remarks

In contrast to most reflection on the nature of the soul and its relation to the afterlife, this study's focus on the dimension of time has led to several novel proposals:

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[24] For Morin, living processes are not only self-organizing, but auto-eco-*re*-organizing, where "eco" refers to the necessary coupling of the organism or system with its environment, and "re" indicates that, as *living*, the organization is ever renewed. This renewal involves a cluster of related processes, including repetition, regeneration, and reproduction. At the heart of RE is a dialectic—or dialogic, as Morin prefers to call it—between the "retro" (preservation or reestablishement of the same) and the "meta" (the emergence of novelty). See Morin (2005).

1. *A neglected possibility for the nature of survival: the "past" (along with all moments, all lives) as "eternally occurring" in an "ever-living present."* This is suggested through the pursuit of an intuition through encounters with Nietzsche, Julian Barbour, Whitehead, and Aurobindo. This leads to:
2. *A (modified) resonance model of past life phenomena* (modified since, in contrast to Sheldrake and Laszlo, it is not merely a question of resonance between a given presently embodied life and the residual fields of past lives, but of resonance among the fields of so many mutually present lives); and
3. *The possibility of harmonizing the traditional Christian (and Jewish and Muslim) "once-only" view with the many lives view normally associated with belief in reincarnation.* Provided, that is, we work with:
4. *A more integral, complex-holistic model of personality: including the possibility of a higher-order personality* (jivatma; daimon? angel?) as an intermediary between human personality and the Godhead as the Absolute Person. Here we are guided by Fechner (*anima mundi*), as well as by the analogy of sub-personalities (Myers) or complexes (Jung). The suggestion here is that what to us appears as a series of lives arrayed in a line leading up to the present might, to the higher-order personality, be experienced as so many mutually contemporary *dramatis personae*. (Given the properties of resonance, we need not imagine that the "cast" of any given higher personality be fixed. By the same token, we can imagine that any one life might belong to several different "casts" simultaneously. There is no reason, moreover, not to consider the possibility of more than one person sharing the same past life).
5. *This kind of inquiry and research demands the articulation and enactment of an integral or complex-holistic method/way of thinking and speaking/writing*, especially when dealing with such difficult issues as the possibility of survival. The model here is Hegel and Aurobindo's "logic of the Infinite," which I read through the lens of Morin's principles of complexity and Gebser's notion of the integral-aperspectival. Such a logic allows us to hold in creative tension what otherwise appear to be mutually exclusive points of view.

For this kind of logic—whether we call it integral-aperspectival or complex-holistic—the question of time and the nature and fate of personality or the soul is an occasion for subtle musings and intuitive leaps, which to the uninitiated (or simply uninterested) seem both wild and gossamer thin. "It is not indispensable to formulate mentally to oneself all this," Aurobindo once counseled one of his disciples,

> one can have the experience and, if one sees clearly with an inner perception, it is sufficient for progress towards the goal. Nevertheless if the mind is clarified without falling into mental rigidity and error, things are easier for the sadhak of the yoga. But plasticity must be preserved, for loss of plasticity is the danger of a systematic intellectual formulation; one must look into the thing itself and not get tied up in the idea. Nothing of all this can be really grasped except by the actual spiritual experience. (Aurobindo, 1972, pp. 265-287)

Even awaiting the experience, we can take his good counsel and strive, since we cannot escape the bodily death, to avoid that all-too-common intellectual rigor mortis which would pronounce the matter closed and settled one way or another.

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Using Developmental Theory: When Not to Play Telephone Games

Sara Nora Ross

Abstract: As a powerful way to help understand the behaviors of people and social groupings of all kinds, developmental stage theory attracts attention and use outside of purely academic environments. These uses take the form of written materials and many kinds of interventions. The level of accuracy of developmental theory information generated and used outside of academe demonstrates wide variety. This variety is reflected in materials and interventions. The information used in materials and interventions becomes increasingly distorted as it becomes further removed from original theoretical sources. This has major implications for the ethics and expertise issues that are inherent in applied developmental theory. A classification scheme of information-use behaviors, many of which contribute to distortion processes, is used to code actual cases of creating and disseminating distorted developmental theory information, invoking the metaphor of telephone games. Case evidence indicates that casual, illustrative figures in a 2006 book by Wilber were used by others for various serious and theoretical purposes, and resulted in major distortions of developmental theory. Wilber's figures represent problematic issues and errors, including distortion of theory, if they are used—as they indeed were—for any purpose more serious than his original purpose. Stemming from those issues and errors, a highly distorted picture of cognitive development and a pseudo-version of Commons and Richards' Model of Hierarchical Complexity theory emerged, telephone game-like, in the cases discussed. Errors were widely propagated on the internet. Because outside of academe, specialized expertise in developmental theory is difficult to acquire, the sub-field of applied developmental theory requires not only accurate information but also strong communication ethics to govern behaviors of information providers. Such providers need to protect themselves at the same time they protect and inform consumers of their information. This process of knowledge sharing and knowledge building can be shaped by adopting guidelines and a basic operating principle proposed here. Guidelines and principles, without institutionalization, are insufficient support. A new Institute of Applied Developmental Theory could provide the supports, standards, and effectiveness the sub-field of applied developmental theory needs if its power to address 21st century challenges, which sorely need it, is to be realized.

Keywords: applied developmental theory, behaviors, classifications, Commons, communication ethics, developmental theory, Institute for Applied Developmental Theory, knowledge-building, Model of Hierarchical Complexity, Richards, stages, Wilber

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Introduction

Known by different names around the world, the telephone game is one in which the starting player whispers a sentence or phrase to the person next to him or her. That person, and each successive person in the circle or group, whispers the sentence or phrase to the next person, each time like passing a secret no one else should hear. When the secret has made its way around the entire group, the last person to hear it announces the secret aloud for all to hear. Typically, all participants are surprised to hear *how* different the final version is from the version they heard. This motivates the other participants to report out loud the version they "got." More differences appear. When originators of the sentence or phrase eventually announce the version they launched, it becomes possible to trace the path of the *inevitable distortion*.

The telephone game is a metaphor for the distortion process of acquiring first, second, third, or even fourth-hand information when writing or publishing. With respect to this essay, my specific concern is with distortions in developmental stage theory that appear and then re-appear in various written forms. In addition, I concern myself primarily with distortions that can be traced to a book by Ken Wilber, which emerged as a significant source in recent instances when it came to dissemination of both accurate and inaccurate information.

To address that concern, I set three goals for this essay.

- Post an "advisory alert" about the widening propagation of particular errors in representing, describing, and applying developmental stage theory.
- Raise awareness about various sources of errors.
- Contribute constructive solutions to deal with responsibilities to "let the information-users beware" and "let the information-providers beware."

To accomplish those goals, this essay has the following objectives:

1. Discuss the appeal and the importance of developmental stage theory and why errors and any propagations of errors *matter;*
2. Describe some sources of errors;
3. Portray a case of telephone game-like information sharing about developmental theory;
4. Point to dynamics and impacts of the game's distortions;
5. Articulate guidelines for reading and writing to prevent such problems; and
6. Propose some concrete ways forward.

Developmental Stage Theory

Why Accuracy Matters

From its home in academic specialties under the umbrella of psychology, developmental stage theory is spreading beyond such oversight to the world of practical applications. As one of the most useful dimensions of individual and social behaviors to understand, this is an important trend. Developmental approaches are finding their way into increasing numbers of personal, organizational, leadership and other social development books, trainings, and consultation efforts.

This means that people recognize the value of developmental theory in general and begin to have ideas about how it can be used to understand themselves, other people, organizations, and larger social groupings. Once we believe we understand something, we may be motivated to develop interventions using it. Interventions may take such forms as education, training, and related materials, or consulting, advising, and even activism. Interventions, by definition, are efforts to impact others. When we aim to impact people's lives, organizational strategies and sustainability, how issues are addressed, and other social affairs, we tread in the territory of *expertise* and *ethics*. These are two sides of the same coin, and both are serious business. The governing principle in any kind of serious business is *first, do no harm*.

How could the use of developmental theory cause any kind of harm? Harm would vary by how theory was used in specific contexts, but some generalizations are possible.

1. An obvious one is that if theory or its related information is taught incorrectly, it will be learned and used by others incorrectly.
2. Another is that if it is incorrectly used to 1(a) assess situations, 1(b) analyze individual, group, or organizational performance, 1(c) be the basis for giving advice on growing edges to develop and changes to make and/or 1(d) design interventions, it can cause confusion, resistance, and/or conflict if such interventions "shoot too high" by introducing inappropriately difficult challenges, expectations, or organizational procedures or structures. These undesired results would be because 2(a) the capacities and possibilities for performance at each stage of development are radically different, 2(b) developmental performance does not change overnight, 2(c) the developmental change process involves different elements at each stage (Commons & Richards, 2002), and 2(d) individuals, groups, and organizations cannot skip stages of developmental performance (Commons, Trudeau, Stein, Richards, & Krause, 1998; this paper by Commons, Trudeau et al. includes a theoretical explication of these and other relevant points).
3. Another general example is if developmental theory-based interventions "shoot too low" in setting expectations because existing performance is inaccurately judged as already at a higher stage. Such a misdiagnosis could lead to false complacency about the nature of challenges that would actually be required to meet stated goals.

The overall message here is that humans and their social groupings are extremely complex and variable, and uses of developmental theory could do harm if they are not based on sturdy foundations.

Issues and Errors in *Integral Spirituality* Figures

If I or other specialists in developmental theory had read Wilber's (2006) *Integral Spirituality*, I expect its errors in representing developmental stage theories would have come to the fore sooner than this, perhaps resulting in correction before further dissemination and repeating it in his *Integral Vision* booklet (Wilber, 2007). As it is, I came to this only in the process of figuring out how others' problematic representations, comparisons, and uses of developmental theories had emerged. The process meant tracing backwards through a short series of written works, and finding that *Integral Spirituality* played a role akin to the first speaker of the sentence launching a telephone game. That "originating sentence" had technical errors. One of them in particular has been widely propagated and built upon, as described later in this essay.

Six years before publishing *Integral Spirituality,* Wilber published *Integral Psychology* (2000). In the latter was reflected the significant amount of work he did to produce many developmental stage correlation charts. He clearly had investigated theories and research projects sufficiently to chart them and offer the series of charts as a resource to people.[1]

Since then, in the two more recent books mentioned above, his representations of "major developmental lines" lack coherence with that earlier work and certain figures contain errors. The first point to make, however, is that the task and purpose of referring to major developmental lines is different from the earlier task and purpose of the extensive charting of individual stage theories. This more recent use of developmental theory is to indicate Wilber's concept of different lines of development (Wilber, 2006, 2007), and his discussions indicate that purpose. In putting developmental theory to this use, his earlier straightforward approach of identifying an individual theory and its stage categories has largely, though not entirely, been replaced by grouping disparate theories together if they represent to Wilber a particular "line." This shows up in the form of table-like figures. In *Integral Psychology* (2006) it is the two full-page Figures 2.4 and 2.5, inserted between pages 68 and 69 (in *Integral Vision* a nearly duplicative representation is Figure 14, pages 112-113). As should become clearer below, I suggest a first source of potential errors is if users assign purpose to such figures beyond the limited one of referring to Wilber's concept of major developmental lines. I say this for two reasons: (a) there are no sources cited for where the represented development theory information came from, and (b) *classifying* theories is different from describing, explaining, or applying them.

As the telephone games portrayed later in this essay indicate, the figures have been put to different purposes than just *referring to Wilber's concept of* major developmental lines. They became a significant source used by others for classifying, describing, and applying developmental theory. This figures-as-source has errors *if it is used for anything but* the limited purpose of referring to Wilber's concept of major developmental lines. Because it *has* been used for other purposes, it seems important to identify issues and errors that already have, or could, continue to propagate through others' reliance on them. These are outlined below.

Issues

Issue 1. Wilber classifies into one group the author names "Commons/Richards Piaget/Aurobindo" (Wilber, 2006, Figure 2.4, p. "68a"). A more communicative way to indicate these separate names could be "Commons & Richards; Piaget; and Aurobindo," to indicate the names are associated with three different developmental frameworks. The group is labeled by Wilber as "cognitive." There is actually a fourth framework embedded in that group's representation. This shows up via the overlay of "vision logic" categories, which are Wilber's

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[1] Unfortunately, the charts do not include citations of the works used to develop the charts. As a result, only a person who is already intimate with a given theory would likely be equipped to identify if or where errors and omissions occurred in presenting it (e.g., in charting Torbert's work, p. 636; for correct stages, see Torbert & Associates, 2004).

(see, for example, the text and aforementioned charts in Wilber, 2000), although Wilber's name is not included in that "cognitive" group. If people use this classification scheme's labels to help them describe, explain, or apply developmental theory, the following indicates at least one ramification.

The scheme does not accurately represent the stage category names used by the indicated authors, nor all of their stages, and in some cases, even their stage placements. This is because it conflates three different frameworks for the purpose discussed above of suggesting a developmental line. Thus, the figure's resulting stage list cannot not fully agree with any of the original authors' lists of stages and names for them because they used different terms and methods to identify the sometimes different places to "notch the stage measuring stick" they used in describing human behaviors. Wilber's (2000) charts indicate such differences.

My focus in this issue is on the "cognitive" group for reasons indicated below. However, the general issue pertains to the other "lines" into which he groups multiple authors' work: those labeled "values" and "self identity."

Issue 2. It is misleading to classify the developmental framework of Commons & Richards as *only* the "cognitive." Whether referring to their work dating from the 1980's (e.g., Commons & Richards, 1984a, 1984b) or their more recent work (e.g., 2002), the work does not represent a *cognitive* development framework. As a developmental behavioral framework, it is broader than that, i.e., it is applicable to every such "line" of development. This broad applicability is because the Model of Hierarchical Complexity (Commons et al., 1998; Commons, Goodheart, Pekker, Dawson, Draney, & Adams, 2007) is a content-free, domain-independent general theory of orders of hierarchical complexity and stages of task performance at such orders, providing universally applicable, mathematical axiom-based measures thereof. "Task" refers to actions performed by machines, neural networks, animals, humans, or larger social groupings (Commons, 2006). Thus, while the theory applies to any activity in the classification commonly called "cognitive," it is not confined to only that kind of activity: it transcends and includes categories that are based on specific content. In this and other respects, this paradigm is qualitatively different from developmental stage theories based on content even while it describes and measures developmental performance in such content categories as various stage theories are concerned with. I recommend Dawson-Tunik (2006) as an excellent resource for explicating these concepts and citing a range of studies related to them.

Errors

In the column designated the "cognitive" developmental line (Wilber, 2006, p. "68a") Commons & Richards' *systematic* stage is omitted. This stage follows the formal operations stage recognized by them (Commons, Richards, & Kuhn, 1982) and Piaget (Inhelder & Piaget, 1958, as cited by Commons, Richards, & Kuhn, 1982). When presenting a list of developmental stages, to omit one stage can result in domino effects from that single error. In this case, the effect was to "fill the gap" left by the omission: lowering by one stage the presentation alignments of the metasystematic, paradigmatic, and cross-paradigmatic stages (note: the metasystematic stage is incorrectly portrayed as "meta-systemic"). Table 1 indicates the correct stage names and the entire stage sequence formalized in the Model of Hierarchical Complexity.

When entering a score into an analysis, the ordinal numbers shown in Table 1 are used. See Commons (2006) for a description of the stages that includes for each stage a *generic* description of what kinds of tasks are done, how they are done, and the end results of doing them.

Table 1. Stages of Hierarchical Complexity

Stage Name	Stage # and Task Score	Stage Name	Stage # and Task Score
Computational	0	Concrete	8
Sensory or Motor	1	Abstract	9
Circular Sensory Motor	2	Formal	10
Sensory-Motor	3	Systematic	11
Nominal	4	Metasystematic	12
Sentential	5	Paradigmatic	13
Preoperational	6	Cross-paradigmatic	14
Primary	7		

Note: Adapted with permission from p. 89 in M. L. Commons (2006), Measuring an approximate g in animals and people. *Integral Review: A Transdisciplinary and Transcultural Journal for New Thought, Research and Praxis, 3,* 82-99.

To summarize this compound error: in Wilber's (2006) Figure 2.4, one stage is missing, and the three that follow it are "moved down" to fill its missing place in the stage hierarchy. Along with the conflation of theories and their other stages, this error shows up as a key player in the telephone game problems discussed below.

Possibly relevant to those who use Wilber-unique "vision-logic" terminology, in *Integral Spirituality's* Figure 2.4, (and in *Integral Vision's* Figure 14), low vision logic is stage-associated one stage higher than in *Integral Psychology* (2000) charts. There could be various explanations. It may be directly related to the Commons & Richards representation error described above, because the vision-logic overlays use the terminology of Commons & Richards. It may be connected with eliminating "middle vision logic" from the more recent figures without making corresponding adjustments. And/or, it may be related to eliminating in these recent figures the use of the "transition" stage category used in structuring the Wilber (2000) charts.

Kegan's 5th order/stage is represented one stage higher than Kegan (1982, p. 86) situates it; he aligns it with Loevinger's autonomous stage.

Integral Spirituality's Figure 2.5 (and *Integral Vision's* Figure 14) shows an incorrect insertion of a "pluralistic" stage as part of Gebser's framework (see Gebser, 1949/1985). In addition to Gebser, also see Gidley (2007) for discussion of the classification error involved in treating Gebser's work as if it applied to individuals in the way developmental stage theories do.

Summary

This discussion of developmental theory made the following major points. Developmental theory is a powerful, much-needed, and therefore attractive dimension to employ in any kind of work related to human behavior and social issues. Such work goes beyond strictly academic study to the other worlds of knowledge sharing, practice, and interventions. Accuracy in understanding and using developmental theory *matters* because its use has impacts on other people, their efforts, their organizations, and even their institutions and societies.

Developmental theory can be used to illustrate or make points that have different purposes. In recent years, Wilber (2006, 2007) used various groupings of developmental theory to illustrate and briefly discuss his concept of major developmental lines. The discussions of such lines were not the focus but rather one aspect within the books in which they appeared. The table-like figures used to support his discussion raise certain issues and represent errors *if they are used by others for any other purpose* than Wilber used them, i.e., to *illustrate his concept* of developmental lines. The figures in *Integral Spirituality* were cited in work that used them for a *different* purpose. The purpose was theoretical and the work propagated to others. One issue and one set of errors, above, thus showed up in telephone games portrayed below. Therefore, this section listed the main issues and errors for two purposes: (a) to alert possibly-affected people to them, and (b) to present enough detail to serve as bases for additional points and indicate the content referred to later when portraying the telephone game dynamics.

Ethics and Expertise

As I wrote more than five years ago (Ross, 2003), outside of those who specialize in it, developmental theory seems susceptible to casual uses and abuses. One way this seems to happen is by believing that if one knows the names of the labels used to designate stages of development in a given theory, and has read some sort of description about the stages, that one knows developmental theory. This can result in mistaken beliefs about how much knowledge is enough and perhaps mistaken assumptions about possessing expertise. If we have mistaken assumptions about our expertise, and have less than we believe, we may generate and share work that may not be reliable enough for others to rely upon.

Without a great deal of support—such as experts to learn from or work with directly and/or some system in place to review, correct, advise about, and otherwise evaluate our performance in describing, explaining, or applying theory—we can risk believing we have knowledge we may not have. When we enter the territory of using our actual or presumed knowledge to impact others' lives, our ethics *and* our expertise can be on the line. Specialized expertise is not a costume we would want to don casually to represent ourselves, for example, as educators or advisors. This has a lot to do with *communication ethics.* In communication ethics, a discipline in its own right, "the value of care is considered of central concern" because "ethics encompasses issues of care and trust, social responsibility and environmental concern and identifies the values necessary to balance the demands of performance today *with responsibilities for tomorrow*" (Institute of Communication Ethics, 2008, emphasis added).

The universal point throughout this essay is that care-full ethics in our work and communications about our work apply to all of us. Especially—but not only—in these years of ubiquitous internet information inputs and outputs and self-publishing options, an ideal communication ethic would include being transparent about sharing whatever information about our work could possibly impact the amount of reliance placed on it by our peers, clients, students, or other users. This is particularly vital when using developmental theory.

Finally, being care-full about readers' possible interpretations of this section, I emphasize that just because Wilber's work is the only specific work discussed thus far does not mean that this brief discussion of ethics and expertise singles out him or his work in any particular way. Presenting the range of developmental theory concerns, which involve his work, comes first for the sake of coherent organization to accomplish the essay's objectives.

Casual or Formal?

From the abstract stage of developmental task performance onward, adults do a very good job of classifying things (Commons et al., 1998). Most classifications evolve casually, e.g., from talking about individual chairs and tables to classifying them as furniture. Once there is a new classification, it engenders further refinements into more classification schemes, e.g., office furniture, living room furniture, dollhouse furniture. It is efficient to classify things. All types of classifying enable us to generalize. When we can generalize, we do not have to show or talk or write about specific examples, but rather, just refer to a *class* of things that share similar features. *Casual* classifications come so easily to most adults that it can be easy to overlook the fact that other classifications are not casual at all.

Some classifications are *formal*. This is because they are based on rigorous theoretical and empirical research. Formal classifications are motivated by the need to organize and share knowledge. Thus, they have specific uses and special definitions and concepts. Generally, they are used in formal, not casual, applications. Much of what happens in a society is through applications that grow out of theoretical and empirical research. Such applications can range from teaching, consulting, and publishing to the creation of organizations, services, technologies, and products. This suggests that regardless of their settings, formal applications always have some importance: they mean serious work, intended to inform or otherwise impact those who use them. When people apply and use formal classifications and concepts as if they were casual, confusion can result. Sometimes unintended damage to others can result, too (discussed further below).

Sometimes people who are not experts in a formal academic field develop interests in subjects addressed by that field. Equally possible, experts in one formal academic field may want to work on subjects that call for information from outside their discipline. Sometimes non-experts want to write about their interests in such a subject and share it with others. Sometimes they try to develop their own comparisons of experts' formal classification schemes. Regardless of different scenarios, subjects of formal study include many formal classification schemes, concepts, and comparisons among them. When non-experts in an area use its formal classifications and concepts, or develop casual comparisons of formal classification schemes, confusion can result. Again, sometimes unintended damage to others can also result.

The expanding range of approaches to interdisciplinarity, e.g., those mapped by Stein (2007), suggest such approaches may be particularly vulnerable to such specialist/non-specialist related problems. As Stein indicates, collaborative knowledge-sharing and -building (see Murray, 2006) are even more essential when there is no single authoritative discipline or expert over an application of knowledge.

To summarize and further apply these classification notions, Table 2 suggests the kinds of behaviors that may show up, ranging from classifying, comparing, analyzing, and using. This scheme cannot be all-inclusive of possible variations, nor does it attempt to define criteria. The hope is that the general scheme may raise awareness of different classes of work. This in turn may help people investigate credibility and try to classify their own or others' work when needed.

Table 2. Classification of Casual and Formal Behaviors

Formal Behaviors	Casual Behaviors	Casual-Casual Behaviors
F1. Formal classifications and concepts	C1. Casual uses of F1 formal classifications and concepts	CC1. Casual classifications and concepts
F2. Formal uses of formal classifications and concepts	C2. Casual comparisons of F1 formal classification schemes	CC2. Casual uses of any C-classes of work
F3. Formal comparisons of formal classification schemes	C3. Casual uses of F2 work	
	C4. Casual uses of F3 work	
F4. Formal analyses of F3 work	C5. Casual uses of F4 work	
Confused Formal Behaviors		
CF. Attempted Formal uses of C or CC classes of work assume they are F classes of work.		

Telephone Games with Developmental Theory

Preface: Over the last 60 or so years in the Western world, empirical researchers, along with theorists who do not perform such evidence-based research, have described stage theories of human development in textbooks, trade books, edited collections in books, and peer reviewed journal articles. (Trade books are the type commonly found in bookstores that serve the general public.) Authors use such methods to publish updates to their work when they have new research findings to report, particularly journal articles. Their published work is *primary source* material. It is primary because it "comes straight from the original horses' mouths," as the saying goes. Except for work published in trade book form, it has been critically reviewed by other experts before publication. People who want to be sure they have credible information about developmental theories use up-to-date, first-hand, primary source material generated by such Formal Behaviors as those listed above.

I did not know there was a distortion of developmental theory circulating until we happened to encounter some of its results in written forms. "We" refers to some *Integral Review (IR)* editors and a board member of ARINA, its publisher. Some months ago, IR received a manuscript that used developmental stage terms and descriptions in erroneous ways I had never seen before. The paper had no citations of the developmental information source, but did identify someone who was a source of advice in writing the paper. Some time later, an ARINA board member and I received, respectively, one and two different email-broadcasted notices about a new internet-published product; it had different authorship than the earlier manuscript had. The board member read it before I did, and commented on an error evident in it. I then prioritized reading it.

I found it quite curious to see that the same developmental stage-related errors in the earlier manuscript were not only showing up in the publication but more were showing up too. These were used to build a substantive discussion in that product. The product cited its sources of information. I wrote to the source cited in relation to the errors. I pointed out the errors and discussed them in an email. Subsequently, I requested and received the material cited as source information. It was not formally published (e.g., in a journal or book) but, the author told me, it was considered by the author to be in draft form, in the public domain, and free to share. That material cited and used Wilber (2006) figures' information to organize and describe developmental theory. This use was *different from just discussing the concept* of major developmental lines, the use to which Wilber put the figures.

Each written product encountered above was of a different genre, and all of them clearly indicated their authors' expectations for them to be regarded as serious work. In the process of putting pieces together to understand how the same and further errors were showing up in such disparate places, evidence of telephone game dynamics showed up. The spread of distortions is outlined below via Figure 1, using the behavior codes in Table 2 to represent specific behaviors.

These dynamics resulted in circulating incorrect answers, incorrect analyses, or incorrect advice. This dissemination system has caused perhaps-unrecognized confusion and in some cases, actual and potential damage to self (e.g., reputation and cost to correct information) and others (e.g., reliance upon incorrect information in writing, advice-giving, or practice). We did due diligence by advising the authors of the several known casualties of this game. This essay is public due diligence, in case others have been confused or damaged along this path or perhaps by playing some other version of the telephone game with developmental theory.[2]

Wilber is not responsible for how other people used, or will use, his figures in *Integral Spirituality* (or in *Integral Vision*). Even so, given the diffusion process portrayed in Figure 1, there is a problem. This is because (a) at least one individual node in the network depicted above used figures from Wilber—which served a limited purpose for Wilber—for much different purposes, based some work on them, and disseminated the work, and (b) others treated that person's work as serious formal work, made the same and in one case further mistakes when relying on it to describe related theory, and passed the results along to others to use. Note that the further mistakes are not specified here because I believe this discussion is sufficient to accomplish stated objectives while keeping all possible identities anonymous.

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[2] Of course, it should go without saying that any kind of theory, not only developmental, may be subject to erroneous or casual uses.

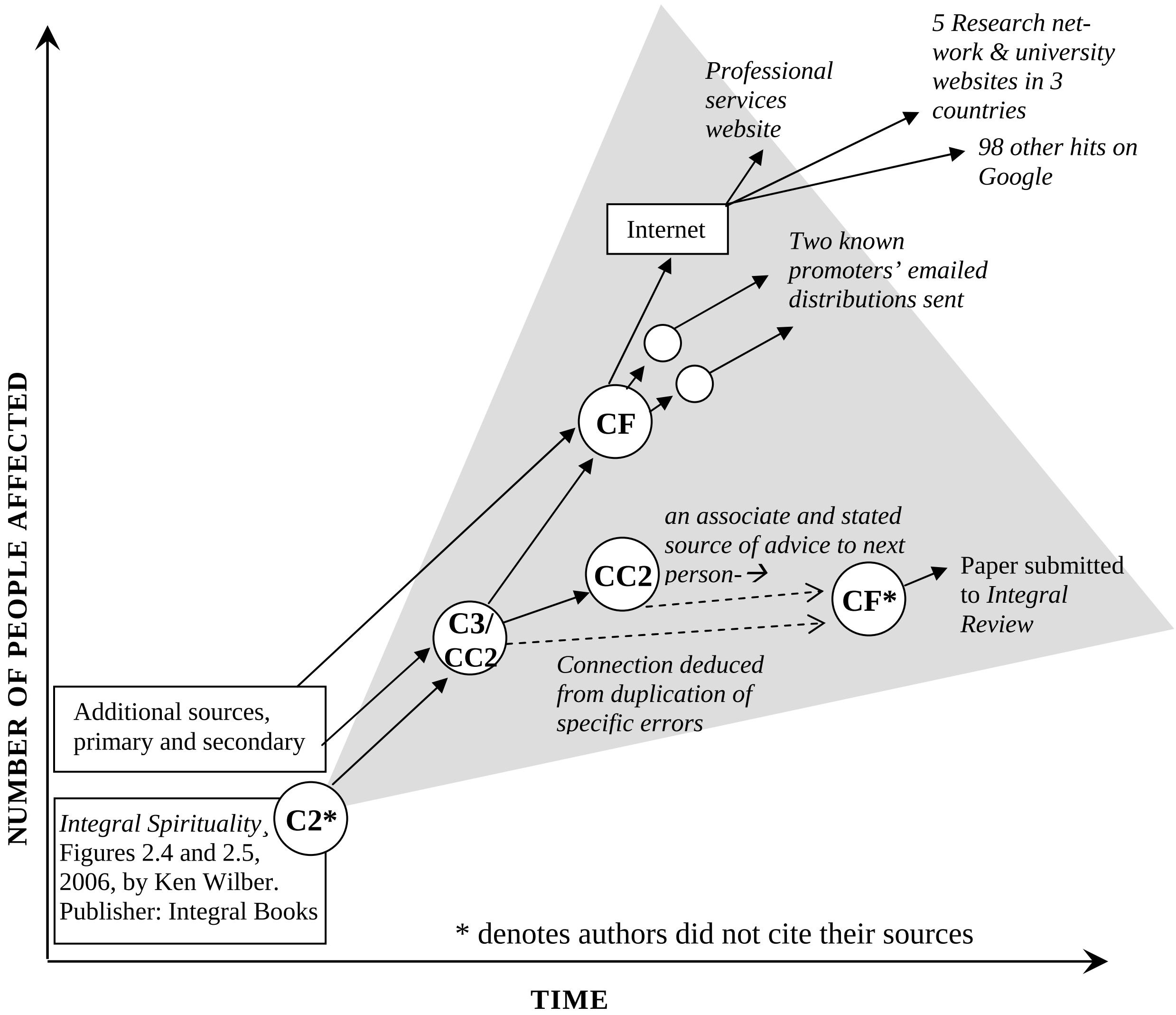
5 Research net-work & university websites in 3 countries
Professional services website
98 other hits on Google
Internet
Two known promoters' emailed distributions sent
CF
an associate and stated source of advice to next person-→
CC2
Paper submitted to Integral Review
CF*
C3/CC2
Connection deduced from duplication of specific errors
Additional sources, primary and secondary
Integral Spirituality¸ Figures 2.4 and 2.5, 2006, by Ken Wilber. Publisher: Integral Books
C2*
NUMBER OF PEOPLE AFFECTED
* denotes authors did not cite their sources
TIME

Figure 1. Depiction of Telephone Games with Developmental Theory

A column in Wilber's (2006) figure 2.4 ended up being *used as if* it portrayed cognitive development and Commons & Richards' developmental framework. The distorted portrayals of cognitive development and Commons & Richards' work resulted in purposes, descriptions, and applications that were well beyond Wilber's purpose for the figures. The pseudo-theory that was disseminated (Figure 1) was practically unrecognizable when compared to Commons & Richards' own formal, empirically-based research and hierarchical complexity theory.

The primary source material of the original authors' work could have been cited in Wilber's figures, and/or a disclaimer or other sort of caveat could have accompanied the figures so people would know they should not rely on them for any purpose other than Wilber's limited purpose for them. If such care had been taken in preparing the figures, perhaps the "originating sentence" in the kick-off game would not have come from his figures at all. Perhaps it would have had Formal Behavior origins and reduced the amount of distortion that is circulating.

Rules of the Reading and Writing Road

I propose some rules of the road to guard against the kind of confusion and damage this case of telephone games illustrates. I recommend these guidelines to those who do not specialize in a particular discipline but wish to use its formal classifications and concepts.

1. Use formal classifications and concepts seriously, befitting the formalities they are.
2. Cite the sources, in writing, of any information you did not personally originate so users can assess the information's reliability.
3. Remember that formal classifications and concepts are unwise fodder for playing the telephone game with reading and writing about theoretical matters.
4. Therefore:
   a) If you are unsure what the formal classifications actually mean, or how they relate to similar classification schemes, consult the primary source or find an expert in that field to ask.
   b) If you do not have formal expertise in the field that produced formal classifications you want to use, ask an expert in that field to review and possibly help you correct your work before you disseminate it.
   c) If you rely upon hearsay, casual work, and/or second, third, or fourth-hand sources for any but the most casual of purposes, realize that this is risky behavior that can cost the loss of credibility and other forms of damage to you and to others.
   d) If you learn that you have made an error in written or spoken information or advice that you disseminated, do whatever you can to correct the error and get the correction into the hands of those who may have relied upon you.

Concrete Ways Forward

In an ideal world, these rules of the road should apply equally to those who read and use information and those who produce information. Taken as a whole, they convey the "value of care." This encompasses both the responsibilities to "let the information-users beware" and to "let the information-providers beware." If left at that, one could walk away with an individualist impression that this is just about taking responsibility for one's own actions. But it is about far more than that, as the following perspectives indicate.

A. Users without expertise in a subject do not have the background to judge the accuracy of information supplied by others on that subject.

B. Providers of information have two responsibilities: (a) to ensure their work is accurate by using standard documentation methods (e.g., citing sources) and obtaining adequate review by competent persons or processes, and (b) to transparently communicate to users the degree of rigor in the preparation and peer review processes applied to a given work.

A1. If earlier users of information (Item A) later become providers of information, and rely on information from other providers as well as themselves, then they become Item B Providers, who have responsibilities to perform the same provider responsibilities.

B1. If providers of information perform both responsibilities, they address the needs of less-qualified consumers to judge the work as reliable. This coordinates the two systems: (A) users' needs and their gaps in expertise to judge quality without supportive information, and (B) information providers' responsibilities for quality, review, and transparent communications.

The foregoing metasystem can be summarized as an integral principle, as follows.

> Neither users nor providers of information should rely upon *only* their own judgment. Each role (user and provider) is responsible to protect itself and others from harm in the course of information exchanges and uses. When implemented, (a) systems for ensuring accuracy and (b) communications *about* the systems for assuring accuracy, together can reduce the frequency and impacts of users and providers acting like independent agents in an interdependent world of information exchange.

If such a principle were adopted as a *Standard Operating Principle (SOP),* the SOP would go beyond current, traditional systems, both formal and casual. As it implies, we need new systems to *augment* traditional ones and accommodate realities of internet-based 21st century information flows. I believe this argument holds true *if* we see merit in implementing such a principle for our own and the greater good. To implement it, however, means developing a new kind of system or systems.

I propose we open discussion about developing an institutionalized approach, a new system, to help accelerate developmental theory's impacts in the 21st century. Such a new system could be a solutions-based way forward, one that respects such realities as this essay highlights:

1. The need for expanded *and* reliable applications of developmental theory by non-experts;
2. The current accountability and communication gaps among people who want to do good work but cannot specialize in developmental theory;
3. The variety of forms and classes of work that developmental theory applications may span;
4. The need for faster tracks to get non-academic work evaluated by competent experts;
5. The need for language consistency in communicating about the levels of rigor employed in work preparation and in evaluative reviews;
6. Perhaps some "good housekeeping seals of approval" to apply to various forms taken by non-academic work with developmental theory.

Ultimately, I believe this is about is developing the mechanisms to support the growing sub-field of *applied developmental theory.* As a starting point to consider such mechanisms, *Integral Review* will open a public forum for discussion of needs identified here and elsewhere.[3] Ideally, it will attract people who are interested to roll up their sleeves to contribute in a variety of ways toward discriminating the range of needs, and conceiving and designing an institutionalized approach to address such needs, including those outlined above. Forum participants could be anyone with an interest, e.g., current or emerging practitioners, academics and other theorists and researchers, or end-users of developmental applications.

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[3] E.g., in addition to those identified here, see Inglis' essay, this issue: *How then do we choose to live? Facing the climate crisis and seeking "the meta response."*

Reflecting on all of the above, I believe the time has come for an *Institute for Applied Developmental Theory*. I think this idea is worth pursuing and operationalizing. It could be designed to respond to and grow with needs and contexts that are already arising and becoming evident in such organic, unpredictable fashions as this essay portrays. And, at the same time, it could respond to additional needs in fields of endeavor not yet benefiting from insights and applications available from using development theory

Conclusion

Although the catalyst for this essay was the use of information about developmental theory, it applies to all information that relates to or originates in serious theoretical work. I hope that discriminating among the classifications of written work and providing a scheme to organize them proves to be a useful reference. Most of all, I hope the take-away message is that consumers, users, and providers of information all have responsibilities to self and others when information is, or could be perceived to be, anything but casual. When we hold in mind the perspectives and especially the assumptions of others who may use information we generate, we are more likely to follow the rules of the road and attempt to implement integral principles as standard operating principles. One is proposed above; additional principles are possible. May such items inform, support, and motivate us to take the necessary steps to ensure accuracy and credibility for the benefit, not detriment, of all those coming in contact with our work.

As a pragmatist, I do not believe such urgings will have any meaningful impact unless there is an institutionalized method to realize them. To realize them, we need to concretely support people in their endeavors with developmental theory. To concretely, accurately, and effectively support people means putting in place a system to do so.

Creating new systems with high credibility is hard work that requires developing partnerships and human and financial resources. So be it. Let us do what is necessary to help ensure that reliable uses of developmental theory are brought into the 21st century applications that so sorely need them. If we rise to meet this challenge, we will see more developmental theory *effectively applied*, which is what these telephones games have been trying to do, after all. I propose that institutionalizing the sub-field of *applied developmental theory* is a better “game” to play with developmental theory, with better odds than telephone games, yes?

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A Transversal Dialogue on Integral Education and Planetary Consciousness

Markus Molz speaks with Jennifer Gidley

Photo by Gary Hampson

Markus and Jenny walking and talking, September 2007 in Luxembourg

***Markus Molz**: Jenny, many thanks for offering your time and insight to the readers of Integral Review. I would suggest to have a couple of e-mail exchanges during the next two weeks or so, unfolding as it will want to go. Your multi-faceted experience and writings make you the perfect partner to get the broad picture of the potential and the challenges of integral education, today and in a historical perspective. Before going into some theoretical considerations, and later into practical questions, let me ask you first why, how and when, biographically, you became interested in connecting those outstanding figures of an integral worldview - Wilber, Gebser, Steiner, and Aurobindo - to each other, and to the concerns of education in our world in profound transformation. This is such a remarkable and demanding endeavour nobody has ever undertaken before, as far as I know.*

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Jennifer Gidley: Markus, first let me thank you and the journal *Integral Review* for inviting me to participate in a dialogue with you on integral education. You are interested in why, how and when I became interested in my current research project, which I call "*integration* of integral views". My first involvement with integral philosophies was around thirty years ago when I first encountered Rudolf Steiner's writings. The 1970s were exciting times intellectually and culturally as there was an influx of new ideas and cultural movement. As a young psychologist-educator I was influenced by humanist and transpersonal psychology and particularly by critical pedagogy theories, e.g., Paolo Freire (1970) and Ivan Illich (1975). I was also drawn to various postmodern and feminist philosophers, such as Nietzsche, Foucault and de Beauvoir. There was a powerful shift of consciousness beginning to break into the formal academic world from the periphery at this time. My professional work in educational psychology already focused on the marginal voices. I worked with teachers of young people who did not "fit into" mainstream education, and ran a women's community learning centre empowering "house-bound" women to re-enter employment or tertiary education. I was also beginning to study traditional Eastern spiritual philosophies as a balance to my background.

So when I came to *Steiner education*, in the 1980s, I was already *enacting* critical theory, though with limited conceptual framework for it. As a professional, I was aware of serious limitations of the factory-like model of mainstream education and, as a mother, did not consider it suitable for my children. I decided to found a Steiner school, but sought to transcend the conservative, cobweb-covered, 19th century version of Steiner education (Gidley, 2008a). The school I founded and pioneered for ten years was a contemporary, creative adaptation of Steiner's work (Steiner, 1894/1964, 1901/1973, 1904/1993, 1909/1965, 1932/1966, 1967, 1971, 1981, 1982, 1990) to late 20th century, sub-tropical rural Australia. I was aware intuitively and experientially of what a powerful and positive educational approach this was but was frustrated to realise that it was completely marginalised by the mainstream academy.

In the 1990s I decided to re-enter the academy, with the aim of both testing my intuitions and finding appropriate language to create dialogue between Steiner's integrative pedagogy and the academy. My Masters research indicated that Steiner-educated students, while holding similar fears and concerns about the future to other students, had a stronger sense of empowerment and capacity to envisage positive preferred futures (Gidley, 1998). Over the next ten years I continued to broaden and deepen my reading, researching and writing about educational and youth futures (Gidley & Hampson, 2008; Gidley & Inayatullah, 2002; Inayatullah & Gidley, 2000), post-colonial alternatives to the factory model of schooling (Gidley, 2001a), the impact of globalisation on young people (Gidley, 2001b, 2004), and the evolution of culture and consciousness (Gidley, 2006, 2007a, 2007b). My doctoral research, which I have just completed, is a culmination and maturing of three decades of research and practice in integral forms of education.

This is a rather long answer to your question, Markus, but around 2000, I rediscovered Wilber's writing (1996a, 1996b, 1998, 2000a, 2000b, 2000c, 2001) and found that it really resonated with my internalised Steiner philosophy. The more I read of Wilber the more I was amazed about the similarity between Wilber's ideas and what Steiner was writing a century earlier. I was stunned that in spite of Wilber's claims to be creating an "integral theory of everything" he had pretty much ignored one of the most integral figures of the 20th century —Rudolf Steiner. I decided that I would start a doctoral research project on the relationships between their works. But as I began to follow-up on some of the sources that Wilber referred to, such as Gebser (1949/1985, 1956/1996, 1970/2005, 1972, 1996a, 1996b) and Sri Aurobindo (1909, 1914/2000, 1997), I became drawn into their original writings as well.

As I began to search the literature for others who may have brought these pioneers together academically, I realised that apart from Roland Benedikter's research on Steiner and Wilber (Benedikter, 2005) (most of which is in German) no one else seems to have undertaken any major research project that integrate Steiner's, Gebser's and Wilber's integral contributions. Although I do bring Sri Aurobindo's writing in to some degree, I have not studied his work as intensively as the others, so I am a little more cautious with claims about his work.

MM: *You are mentioning that you were amazed about the similarities you discovered between Wilber's and Steiner's approaches, and you dropped a lot of ink since then to make this evident, including Gebser in the comparison as well. Could you try to summarize where exactly the common ground between these three eminent figures of integral thought can be found according to your research?*

JG: The first thing I need to say as clarification is that the research I have undertaken on the relationship between Steiner's and Wilber's writings is primarily in relation to the evolution of consciousness, with an emphasis on the present and future emergence of a new type of consciousness. Although I started my research as an even broader comparison between them, because of the vastness of their works—especially Steiner's—I decided it was better to focus on this key issue, which I believe is of great relevance for our times and for education in particular. Although I see a lot of other similarities between their works, I have focused my intensive hermeneutic analysis on their evolutionary works. I have then drawn from this analysis to look at the educational imperatives of the evolution of consciousness. But let's put the educational issue aside for a moment until after I have explained my other findings.

My focus on the evolution of consciousness, and particularly the current emergence of a new movement of consciousness led me to a deeper focus on Gebser's work. For Steiner and Wilber, evolution of consciousness was one of several major themes they each wrote about. Gebser on the other hand was a cultural historian whose best known work *The Ever Present Origin* was primarily an elucidation of the unfolding throughout history of five structures of consciousness (archaic, mythic, magic, mental and integral). I felt that it would add to the objectivity and rigour of my research to use Gebser's five structures of consciousness as a third lens from which to view Steiner's and Wilber's narratives, since Gebser had spent almost two decades researching and substantiating his insights. Even though Wilber has compared Gebser's structures of consciousness with his own stages drawn from other literature, he has also misrepresented Gebser's work in some of his later writing, by adding another stage (pluralism) between mental and integral, which Gebser did not use. Because of this and other anomalies in Wilber's work, I decided to go to Gebser's own text so that my "third lens" would be objectively drawn from Gebser's actual writing, not Wilber's interpretation of it.

I developed a long interwoven hermeneutic narrative from the writings of these three "eminent figures of integral thought" as you call them. I have worked very closely with their actual texts to try to arrive at their authentic messages. For those who are interested in more detail this has been published in the previous issue of *Integral Review* (Gidley, 2007b). I will try to briefly summarise here some of the key areas of common ground between the three.

Perhaps the most obvious similarity between their ideas on evolution of consciousness is that they have all put forward a more spiritually oriented view of evolution than the mainstream classical Darwinian view. In this regard all three use the term *involution* as well as *evolution*, which connects their ideas with those of Sri Aurobindo. There are some deep and complex philosophical issues underlying these different evolutionary positions, but the idea of involution—or emanation—goes back at least to Plotinus in the third century CE. From Sri Aurobindo's (1914/2000) perspective the notion of involution—that Spirit or consciousness is primary to matter—is as old as the ancient *Vedas*.

A second similarity between all three is that they all identify previous stages in the development of human consciousness up to the intellectual-mental-rational consciousness that is often regarded today as the highest form of thinking that humans are capable of. This can be equated with Piaget's "formal operations." There are strong convergences in the earlier stages they identify, although Gebser rejects words like "stages" and "levels" because of how they were abused in various hegemonic European grand narratives in his time. Significantly, all three refer to the emergence of a new movement of consciousness, which Steiner called "consciousness soul, or spiritual soul," Gebser called "integral-aperspectival," and Wilber calls by various names such as "integral" "vision-logic" and "centaur." Both Steiner and Gebser claimed that the new consciousness began to emerge in Europe in the 15th century and would continue to gather strength in the 20th century and beyond. This is in agreement with Edgar Morin's idea of the emergence of "planetary consciousness" in the 15th century. Wilber's focus is perhaps more strongly on the postformal and transpersonal psychological models of stage development and his cultural historical detail is less consistent.

MM: *Jenny, can I stop you there for a moment to clarify what you mean that Wilber's "cultural historical detail is less consistent"?*

JG: Yes, sure, Markus. Wilber's cultural historical detail is rather inconsistent if one compares his earlier writing with his later writing. Wilber's focus in his earlier writings (particularly "Wilber II": e.g., *Atman Project* (Wilber, 1996a) and *Up from Eden* (Wilber, 1996b), and some "Wilber IV", e.g., *Sex, Ecology, Spirituality* (Wilber, 2000c)) represents a balance between ontogenetic (individual developmental or Upper Left) and phylogenetic (cultural historical or Lower Left) perspectives. However, from *Integral*

Psychology (Wilber, 2000b) (late “Wilber IV”), he begins to focus more strongly on the postformal and transpersonal psychological models of stage development, drawing on numerous psychological theories which he then compares with the cultural-historical and sociological theories of Gebser, Habermas and others. Because most of the sociocultural evolution theorists he chooses to discuss do not theorise stages beyond formal/modernist or postformal/postmodernist (except for Duane Elgin) Wilber begins to draw more strongly on theories from transpersonal psychology and spiritual development to support his claims for higher cultural stages. Unfortunately because he did not research Steiner’s theories more fully he seems unaware that Steiner was also a socio-cultural macrohistorian who theorised higher/future cultural stages (see Galtung & Inayatullah, 1997). I intend to undertake further research on this area. In *Integral Psychology*, drawing more strongly on the postformal psychology literature, he begins to conflate the developmental psychology stages and Gebser’s cultural historical research. Wilber appears to associate both “pluralisim (early vision-logic)” and “universal integralism (middle to late vision-logic)” with Gebser’s integral-aperspectival structure (Wilber 2000b, pp. 26-27, 167-168). However, in *Integral Spirituality* (Wilber, 2006) (his main “Wilber V” publication), he begins to apply the psychological stages to Gebser’s cultural worldviews, incorrectly attributing to Gebser an additional stage “pluralistic” between “rational” and “integral” (pp. 68-69). This is not correct and thus leads me to conclude that his cultural historical detail is less consistent than his psycho-developmental research. If you are interested, I have discussed these issues in more depth in my article *The Evolution of Consciousness as a Planetary Imperative* (Gidley, 2007b, pp. 100-101, 119-120).

There is so much that emerged from my research that it is difficult to summarise without glossing, which I do not want to do. Some of the common themes in their ideas about the emergent consciousness are that:

1) it integrates previous structures of consciousness;
2) it transcends the dualisms of spirit and matter (e.g. Steiner's spiritual-science), masculine and feminine (e.g., Gebser's integrum), logic and imagination (e.g., Wilber's vision-logic);
3) it has a component of awakening spiritual awareness;
4) it is self-reflective and conscious of its own language, though this is emphasised more strongly by Steiner and Gebser than Wilber.

But this is just a beginning, Markus. One of my interests in this research, as someone who has been working with Steiner's seminal ideas for decades, is why Steiner's major contributions to so many fields has been so ignored—not only in the mainstream academy, but also in much of integral theory. Some of the fascinating things that I have discovered about Steiner's contribution to this discourse are that he began to speak and write about the evolution of consciousness as early as 1904 (ten years before Sri Aurobindo, decades before Gebser and Teilhard de Chardin, and almost a century before Wilber). Steiner was also using the term integral in a similar way to Sri Aurobindo and Gebser long before the others. For example, he was writing about "integral evolution" compared with "Darwinian evolution" as early as 1906. Ironically, none of this outstanding contribution appears in the integral canon developed by Wilber. By contrast, Steiner's significant contribution has been acknowledged in the theorising of integral philosophers from the California Institute of Integral Studies (McDermott, 1996, 2001; Tarnas, 1991). I have discussed these findings in more detail in my doctoral dissertation (Gidley, 2008b).

Finally, as I have no interest in taking a syncretic approach, which only synthesises the similarities between them in some kind of new universalising meta-narrative, I have also focused on their differences—the particularities in their views and approaches (Gidley, 2007b).

MM: *I wouldn't go deeper into the differences between Wilber, Steiner and Gebser in this dialogue, even if we agree that we should always consider similarities and differences together. It would take another dialogue to dive into this. Rather, I would like to turn now to educational practice and ask you whether you think that the cross-validation of the similarities between these authors gives a new impulse to educational reform engaged with what you call the factory model of mainstream education?*

JG: Markus, we have hit upon a very complex issue here. Yet to put it simply, my integration of integral research on the evolution of consciousness strengthened my intuition that education urgently needs to evolve. This would be in keeping with the emergent changes in consciousness that are generally referred to as postformal, integral and/or planetary.

There are a number of threads that play into the multifaceted tapestry that I have been identifying, if education as a whole is to become responsive to the significant implications of the evolution of consciousness. Factors that need to be considered include at least historical, geographic and developmental levels of education.

In terms of geographic, I have not studied in depth the history of education in non-western geographies, so my comments are primarily in reference to European developments, which have been picked up in the Anglo-speaking world. These developments have subsequently influenced the current globalising agenda to introduce what I call the "factory model of education" to the rest of the world, particularly via the World Bank's "Education for All" agenda (Gidley, 2001a). In relation to levels of education most of my research has been related to school education although the evolutionary imperative also applies to higher education as I have also indicated (Gidley, 2006). I will not discuss this here as it is particularly complex when one begins to take into account Indian, Chinese, Arab/Islamic and Israeli streams of higher education—all of which arguably preceded the European academies and universities.

In terms of historical perspectives on school education, I have identified three broad phases in my research: 1) "informal education" via family/tribal enculturation, elite tutoring, and private religious schooling, prior to the beginnings of mass public education approximately two hundred years ago; 2) "formal school education," from late 18th to 20th centuries in Europe, USA and increasingly in other parts of the world last century; and 3) what I am referring to as "a diversity of postformal pedagogies," beginning in the late 20th century and—one would hope—flourishing throughout the 21st century and beyond.

Prior to the Industrial Revolution, which embedded modernist ideas into the socio-cultural fabric of Western society, education for children was not such a formal process, even in the Western world. Children were enculturated by their extended families and cultures and only the children of the wealthy—who could afford private tutors—or who wished to become clerics, had any 'formal' education (Holborn, 1964). Earlier integrally-inspired educational reform had been initiated in the 17th century by Moravian educational theorist Johann Ámos Komenský (more frequently called by his Latin name Comenius) who wrote the influential *Didactica Magna*, which proposed a three tier universal schooling system for all children (Dahlin, 2006). Subsequently in Germany, the notion of the evolution of consciousness, which was a major contribution of German idealists and romantics such as Goethe, Hegel, Schelling and Novalis, contributed to the initial impulse for mass public school education, which began in Germany in the late 18th century. This was carried forward particularly through Schiller's aesthetic educational principles (Schiller, 1954/1977), Herbart's integrative pedagogical system (Klein, 2006) and Humboldt's implementation of public education (Holborn, 1964). However, after the deaths of these leading German philosophers, by the middle of the 19th century the idealist-romantic educational project was largely hijacked in Western Europe by the gradual influence of the British Industrial Revolution, so that schools increasingly became training grounds to provide fodder for the factories. This factory model of school education was picked up in the USA around one hundred and fifty years ago (Dator, 2000).

MM: *This long-term historical contextualisation seems quite important to me because we often remain caught in our day-to-day business. It shows that the invention of the modern school is linked to complex interactions between certain philosophical worldviews, the formation of nation-states, industrialisation (and secularisation). The specific mix and phasing between these ingredients has actually been somehow different in different countries, but the result at latest in the 20th century was very much comparable all over the place: a public compulsory school system with different types of schools. It seemed to be useful to a certain degree and represent an adaptive advantage, in the framework of such an overall societal configuration. But today we have a pretty much different situation. We might come back to this question later.*

The educational systems grew and grew throughout the 20th century almost everywhere with regard to the allocated resources, the number of teachers, pupils and students, degrees delivered and so on. Illich’s (1975) profound criticism back in the 1970’s was basically that such a system will never deliver on its promises, that it will necessarily contribute to produce social exclusion and deepen the dependence on so-called educational experts. A decade ago or so the former French minister of education Claude Allègre claimed, much more pragmatically and without questioning schooling as such, that “it is necessary to trim the fat of the mammoth”. This became a very famous, often repeated phrase in order to criticize the state bureaucracy built to manage and control the educational system.

Despite various kinds of partly divergent, partly convergent criticism the educational mammoths seem well and alive until today, viewed from the quantitative perspective. This holds true even after the neo-liberal fat reduction cures preceded here and there, even if they have caused upheavals among teachers, parents and students because of worsening conditions for teaching and learning in the era of mass education. At the same time and based on the same ideology the new public governance models floated into the educational systems conveying more autonomy to individual schools in a whole array of countries and regions. So, none of these unfolding steps can be painted in black and white alone. But despite such never ending waves of educational reforms, little qualitative, transformative change seems to occur in these educational systems as a whole, after all.

JG: I have begun to use the phrase "evolving education" as an alternative to "educational reform" or even "educational transformation." This is because I want to highlight the scope of the transition we, as humans in a planetary age, are undergoing. The notion of "educational reform" very often only tinkers at the surface of appearances—a bit like rearranging the deckchairs on the Titanic. While the notion of "educational transformation" potentially goes further than "reform," it can be limited by the philosophical perspective—or even ideology—that it subscribes to. The meaning that I ascribe to my notion of "evolving education" is one that connects education more consciously with the evolution of new patterns of thinking that appear in so many disciplines and fields throughout the 20th century. These new patterns of thinking are often referred to collectively as the “evolution of consciousness” and can be observed in:

- the transition from Newtonian mechanical physics to Einstein's relativity and quantum physics;
- the transition from classical biology, including Darwin's theories of evolution to the new biology’s, such as chaos and complexity theory, self-organisation and emergence;
- the philosophical transition from modernism to postmodernism and poststructuralism;
- the transition from disciplinary to multi-, inter-, post- and transdisciplinary;
- the emergence of new rational discourses on spirituality not limited by religious doctrines;
- the transition from studying the past to an awareness of the value of foresight and futures thinking, in parallel, paradoxically, with the deconstruction of the modernist, linear narrative of time.

The research in all of these areas has increased dramatically in the last 40 years, and more so in the last decade and has very significant implications for education. My research creates conceptual links between all these changes and the need for the transition from formal, factory-model schooling and university education to a plurality of postformal pedagogies (Gidley, submitted).

MM: *You just took great care to reframe my initial question, historically and terminologically. This is quite helpful. I agree completely with you that we should consider the current challenges to the late factory model of schooling and the upcoming* *horizons of integral education taken together, dialectically, as one of the very very few major transitions in the cultural evolution of education. The other day, however, I listened to a presentation of an educational researcher (Tröhler, 2007) based on his ongoing empirical research on school curricula in different European countries throughout the last two hundred years. One of Daniel's main claims was that the fundamental grammar of schooling (Tylack & Tobin, 1994) in the basically national educational systems, i.e. a curriculum based on small recurrent set of separate subject matters taught in uniform fixed time slots to age homogeneous groups, has proven to be almost completely resistant to change underneath the continuous cycles of surface reforms. According to these results, he told his audience as a conclusion, it is unwarranted to believe in the very possibility to change educational systems substantially and that there is some good to this. Do you think this claim is a realistic position or does it lack this long-term perspective of cultural evolution and evolution of consciousness with major leaps occurring across societal sectors once in a while?*

JG: Yes Markus, the institution of mass public education has been pretty static since its inception two hundred years ago. But I think I am a bit more of an optimist than that. Firstly, I find it helpful to view education in its broader cultural context, as only one of the types of enculturation that cultures provide for their young people. I have recently begun to look at the evolution of education in the context of Foucault's archaeological concepts of *connaissance* in relation to the institution of education, and *savoir* for the broader cultural context or worldview (Scheurich & McKenzie, 2005). This gives me some hope as I believe it is inevitable that the institution of education (that is, schools, colleges and universities) will evolve as the cultural milieu evolves. This is why I have shifted the emphasis of my own thinking and research, from my earlier focus on the futures of education per se, to my current broader focus on evolution of consciousness. My understanding of the situation is that there will be no substantial change to the system and institution of education without a change to the way we think and view the world. That is why I have taken such an interest in creating conceptual bridges between the evolution of consciousness discourse, particularly the integral evolutionary views of Steiner, Gebser and Wilber, and the education discourse.

I have also discussed elsewhere that in addition to the various integral approaches, there is evidence to support the evolution of consciousness from the adult developmental psychology research on postformal reasoning (Bassett, 2005; M. Commons et al., 1990; M. L. Commons & Richards, 2002; Cowan & Todorovic, 2005; Kohlberg, 1990; Labouvie-Vief, 1992; Sinnott, 1998, 2005; Torbert, 2004), and also from the eco-philosophical literature on planetary consciousness (Benedikter, 2007; Earley, 1997; Elgin, 1997; Gangadean, 2006; László, 2006; Montuori, 1999; Morin & Kern, 1999; Nicolescu, 2002; Russell, 2000; Swimme & Tucker, 2006).

I have scanned the educational literature (NB: I am "language challenged" and limited to Anglophone literature) for signs of emerging pedagogies that are reflecting one or more of the features of postformal, integral or planetary consciousness. I have to say that there is a lot of encouraging material being written about new educational approaches in the last decade. There is also a very powerful neo-fundamentalist backlash in the Anglo countries from government-backed educrats who seek to dominate the educational agenda with scientism, economism and technicism—through the "audit culture." On the other hand there are also several educational theorists and researchers who are attempting to expose and counter this reactionary neo-conservatism (Abbs, 2003; Coryn, Schröter, & Scriven, 2005; Denzin, 2005; MacLure, 2006).

MM: *Of course. But despite the fact that Daniel Tröhler agreed with me that alternative schools do co-exist with the mainstream system in many countries, he argued that these schools never spread enough, and their educational approaches never gained enough influence to challenge the hegemony of the traditional grammar of schooling. Factually this is true in most countries to date. How would you counter his argument keeping in mind that there are a great many children, youth and adults yearning for learning environments fundamentally different from the factory model?*

JG: I think we are experiencing what I would call a *third wave* of educational impulses to evolve education since the beginning of the 20th century. Although much of European and Anglo education did lose its initial idealist/romantic impulse during the 19th century, and succumbed to the weight of industrialism and secularism, new threads began to emerge in various parts of the world in the early 20th century. We had Montessori and Steiner in Europe, Whitehead in the UK, Dewey in the USA and Sri Aurobindo in India all pioneering more integral, organic educational approaches that provided a counter-weight to the factory model. They emphasised imagination, aesthetics, organic thinking, practical engagement, creativity, spirituality, and other features that reflect the emergent integral consciousness. However, as you say these approaches have mostly remained marginalised, or in the case of Dewey's initiative, been appropriated in a reduced form by the mainstream system as so called "progressive education."

What I call the *second wave* was sparked by the dramatic consciousness changes that began in 1968 with the student protests in Paris, followed rapidly by the 1969 Woodstock Peace Festival in the USA, which laid foundations for a youth peace movement against the Vietnam War. These events arguably marked the beginning of various "new age" movements, including participatory politics, new forms of music, east-west spiritual-philosophical dialogues, new gender relations, post-nuclear family lifestyles and recreational use of drugs. These movements were taken up quite strongly in the Anglo countries, particularly in pockets of the US and, at least indirectly, began to shift ideas about formal education. The 1970s to 1990s saw a broadening of alternative educational modes, including home-schooling (Holt, 1970), holistic education (J. Miller, 1990; R. Miller, 1999, 2000), critical pedagogy (Freire, 1970; Illich, 1975), futures education (Fien, 1998; Gough, 1989; Hicks, 1998; Rogers, 1998; Slaughter, 1989), and a raft of educational reforms within mainstream settings. All were critical of the formal, modernist 'factory-model' of mass education. Most sought to broaden education beyond the simple information-processing model based on a mechanistic view of the human being to a more holistic, creative, multifaceted, embodied and participatory approach. Yet not all honour the spiritual needs or the multi-layered nature of the developing child, as part of a consciously evolving human species. Furthermore, these approaches are still minor threads and unfortunately most approaches are also isolationist in relation to each other.

This brings us to what I would call the *third wave* approaches to evolving education reflected in the plethora of new "*post*formal pedagogies" which have emerged, particularly over the last decade. Some of these aim to—or at least claim to—integrate all previous approaches.

MM: *How then could integral and transdisciplinary ideas and practices for education have a greater impact on the grammar of schooling—Goliath as, historically, the alternative pedagogies and educational reform approaches have had? Which ones most probably?*

JG: There are several different approaches to integral theory—and thus to integral education—that I have identified and perhaps we need to identify those before we go any further. In my doctoral research I have proposed a new frame through which to view the complementary nature of several significant integral theorists (Gidley, 2008b). For the purposes of this delicate theorising I focused on five integral theorists: Gebser, László, Sri Aurobindo, Steiner and Wilber; and two transdisciplinary theorists: Edgar Morin and Basarab Nicolescu. My framing includes several metaphoric perspectives, introducing five—mostly new—terms to integral theory: *macro-integral*, *meso-integral*, *micro-integral, participatory-integral,* and *transversal-integral.* I can only briefly summarise them here.

By *macro-integral* I am referring to the extent to which the integral theorist includes all major fields of knowledge. I suggest that at this macro-layer of conceptual integration, Wilber's AQAL framework makes a highly significant contribution and this is where his strength lies (Wilber, 2000a, 2004). While Steiner and Gebser are also macro-integral theorists, their work has been seriously marginalised in this area.

By *meso-integral* I am referring to the extent to which the integral theorist contributes significantly to theory building within particular fields or theories. I propose that Ervin László's contribution is highly significant in this domain (László, 2007). Sri Aurobindo's integral approach could also be regarded as a significant contribution, albeit also a marginalised one, given that his philosophy provides a foundation for much of the later integral theory development.

By *micro-integral* I am referring to the extent to which the integral theorist makes detailed contributions to specific disciplines or fields through the *application* of their integral theory. In this domain of detailed application of integral theory to a wide range of disciplines and professional fields, Steiner's extraordinary contribution can no longer continue to be ignored by integral theorists.

The notion of *participatory-integral* is based on the integral transformative education theory of Jorge Ferrer (Ferrer, Romero, & Albareda, 2005) whose participatory approach is inspired by Sri Aurobindo's integration of the three yogas of *knowledge, love and action*, which is in turn aligned to Steiner's *thinking/head, feeling/heart* and *willing/hands.*

Finally, I propose a new concept via the term *transversal-integral* that refers to integral approaches that include and cut across these vertical and horizontal levels/dimensions. From my planetary scanning of the research it is apparent that the term *integral* is much more widely used in North America than in Europe. By contrast the term *transdisciplinary* appears to be used in Europe, particularly by Nicolescu and Morin, with similar integral intent (Morin, 2001; Morin & Kern, 1999; Nicolescu, 2002, n. d.). Morin and Nicolescu do not tend to use the term *integral*, nor are they cited as integral theorists in much of the integral literature. I suggest this is an unfortunate oversight based on semantic and cultural misunderstanding, rather than philosophical understanding. A special feature of both Nicolescu's and Morin's transdisciplinary, planetary philosophies is their attention to *transversal* relationships—hence my new term *transversal-integral*, which allows for their seminal writings to be included as part of a transnational, integral theory.

MM: *You are right: there are a lot of writings not self-categorizing as integral while being a manifestation of the "integral" wave of consciousness. I would add Roy Bhaskar here (Bhaskar 2002a, and 2002b with a chapter on "educating the educators - or empowering teachers"). The complex history of all those approaches has still to be written, but even if we are yet lacking a scholarly approach to this history it is up to us not to remain stuck in one of them, and to take care to find out about their specific strengths and weaknesses.*

I am pleased that you mention Morin and Nicolescu. I have been living in France for a couple of years, a place where Wilber is almost unknown because none of his recent books has been translated into French to date, whereas Morin is a kind of a national monument publishing books since 1946 straight ahead until now, and he is still appearing frequently on TV shows, in the radio and in newspapers. The influence of Morin spreads quite impressively across the Roman language countries in Europe and the Americas. Further research is likely to uncover preferential cultural-linguistic influence spheres of different integral and transdisciplinary authors.

Interestingly, like Steiner and Sri Aurobindo/The Mother, while promoting overarching and cross-cutting approaches, Morin and Nicolescu, have specifically talked and written about education (Morin, 2001, 2008; Nicolescu, 1997, 2005, 2008, n.d.). Their intention is precisely to trigger new educational structures and approaches and not only to contribute new content to be learnt in the old system. Two years ago the fully-fledged university intentionally called rather real life multiversity (precisely "La multiversidad Mundo Real Edgar Morin") has been founded in Mexico with the help of a generous donor according to Morin's educational imperatives. By the way, this university is hosting an international congress on complex thought and education later this year where Morin and Nicolescu will give the keynotes.

In Wilber's work, however, as prolific a writer as he is and in spite of how many fields he is touching and connecting, education is one of the most neglected topics until today. Other authors have started to draw on the AQAL model to think more integrally about education, and some of them have their own gathering this summer in the United States, "exploring the leading edge of education theory and practice". This is valuable, of *course, but I guess the leading edge can only truly be explored in its manifold forms and places of manifestation taken together.*

The existing parallel universes of these many self-declared leading edges appear as curious to me as they do to you. At least, I am not aware of any intentional cross-connection between them besides very first timid attempts here in Integral Review. And there are still many many other relevant strands out there never mentioned together while sharing much of their goals and values. In order to illustrate this claim just let me take me some arbitrary examples from my much more extensive list.

There is the neo-humanist education tradition inspired by Prabhat Rainjan Sarkar (1998, Inayatullah et al, 2006) and their schools and training institutes all over the world, the global network developed by the Shapers of Education International Foundation based in the Netherlands and coordinated by Charlotte Korbee, the international UNIPAZ network inspired by Pierre Weil in Brazil deploying their holistic peace education programme in various places, or the shots of such singular figures as Steven Harrison (2002), co-founder of the Living School in Boulder as a real life example. By the way Steven has been literally a neighbour of Ken Wilber there for years. Did they ever meet? I don't know.

In the end, they all seem to have their very own publications, supporter's network, projects, trainings, meetings and conferences. This state of affairs is profoundly self-contradictory with regard to the integral and transdisciplinary programmatic stance to integrate knowledge and practices from all kind of sources regardless their cultural origins and paradigmatic traditions. It's even more self-contradictory because the movements I just mentioned, as those you have mentioned - Steiner's most strongly - have already developed at a global scale. As a summary we must state that we are witnessing today a major inconsistency in the deployment of integral and transdisciplinary educational thought and practice: geographically it seems to be already rather globalised (with some differential distribution though as mentioned before), and paradigmatically it seems to be rather fragmented - at the same time! If we finally decide to take the core role of education for the inevitable societal macroshift towards global sustainable development seriously then we simply cannot afford any longer this state of affairs.

JG: Well, Markus, I am enjoying this *dialogue* as I can see how aligned our passions are to try to develop a broader, more embracing approach to *integral education*. I am very interested to hear about Morin's multiversity in Mexico and the conference there. I have also, for your interest looked a little bit into the relationships among Sarker's neo-humanist education and Steiner's and Wilber's approaches for a conference presentation in Taiwan a couple of years ago (Gidley, 2005). That reminds me, there is an interesting integral education project in China also, initiated by Professor Fan Yihong, who previously studied in collaboration with David Scott's *Community for Integrative Learning and Action* (CILA) in Amherst, Massachusetts (Yihong, 2002, 2005). I also agree that *Integral Review* is playing a very significant role in providing a scholarly forum for dialogue among the diverse integral and transdisciplinary philosophical and pedagogical streams.

There are two major approaches that are identified as "integral education" in North America—integral education based on Sri Aurobindo's early 20th century philosophy (for example, as reflected in the *California Institute of Integral Studies*) and integral education based on Ken Wilber's AQAL framework. There was a double special issue of *ReVision: The Journal of Consciousness and Change* on "integral education" in 2005 and 2006, which was quite strongly influenced by Sri Aurobindo's approach to integral (with some exceptions). It is worth following up for those interested. The following year, 2007, there was a special issue of Wilber's *AQAL: Journal of Integral Theory and Practice* on "integral education," which was primarily based on Wilber's theories. Although Wilber's theory espouses to “transcend *and* include” other approaches, I was disappointed in some of these articles for their lack of scholarly research on other neighbouring pedagogies, even other integral approaches (Crittendon, 2007; Zeitler, 2007). Such a technicist and uncritical approach to applying the AQAL model does not, in my opinion, reflect a fully integral approach nor does it forward the academic reception of integral education theory.

One of my concerns is that integral theory creation to date has been seriously hampered by internal rivalry, factionalism and, ironically, lack of integration of neighbouring perspectives. This also applies so far to the two major “integral education” approaches in North America: Sri Aurobindo's and Wilber's. In my research I identify a third major integral education approach: Steiner/Waldorf education. As part of my *integration* of integrals, I undertook an AQAL analysis of Steiner education and found that it fulfilled all the criteria of Wilber’s Integral Operating System (quadrants, level, lines, states and types). This analysis can be found in *Educational Imperatives of the Evolution of Consciousness: The Integral Visions of Rudolf Steiner and Ken Wilber* (Gidley, 2007a). In the light of this analysis it is clearly important that Steiner pedagogy be given more serious consideration by AQAL-oriented integral education theorists, who so far have had little to say on school education. Furthermore, the emphasis in Steiner pedagogy on integrating *thinking/head, feeling/heart* and *willing/hands* is significantly aligned to Sri Aurobindo's integration of the three yogas of *knowledge, love and action.* It is important that integrally-minded educators give serious consideration to these and other existing approaches.

In my view, an authentically integral education would embrace the rich diversity of postformal and planetary pedagogical approaches that are out there, globally, in these urgent planetary times. It would also learn from pioneering integral approaches to education, such as Steiner pedagogy that has been operating globally, with a conscious intention towards the evolution of consciousness and higher order thinking for almost eighty years. It is ironic that integral educators such as Robert McDermott (2005) and Alfonso Montuori (1997, 2006), and holistic educators such as Ron Miller (2000, 2005, 2006) and Tobin Hart (2001a, 2001b) appear to have done more thorough research on the alternative approaches than have most of the educational writers in the AQAL Journal. Ron Miller's holistic educational philosophy seems the broadest and includes Steiner's, Montessori's and Sri Aurobindo's pedagogies as well as Wilber's integral as significant integrative approaches to be considered (Miller, 1990, 1999). Current research is also underway to extend integral education theory through considering indigenous perspectives, the history of the university, the development of different sciences, and “integral education” in nineteenth century Europe (Hampson, Forthcoming).

To me the call for integral education theory is to contextualise itself academically in the long history of integral philosophies, east and west, and to contextualise itself geographically within transnational, transcultural, planetary discourses that go beyond the Anglo-American integral discourse.

MM: *As a European working in a multilingual country in two other languages besides English I can systematically state the lack of consideration and integration of material not translated into English on - what is somehow quickly called - the “international level”. Particularly in the field of educational research, because of the nation-state boundness of the public educational systems, the papers and books produced in the national languages represent still the major part of the overall research output in this field, at least in the larger countries. As far as my observation goes the upcoming field of integral education cannot claim to be an exception. Existing books and papers are generally not translated. If this holds true already between the Anglosaxon world and continental Europe, both being parts of the dominant “North Atlantic belt”, the one-way ignorance with regard to other parts of the world is necessarily even more pronounced. This structural imbalance is a major barrier to developing those transnational dialogues on integral education and planetary consciousness you are rightly putting on the agenda. In this context, and because you started with mentioning special issues, I would like to add the 2005 special issue on transdisciplinary education of the Rencontres Transdisciplinaires, which is the journal of Nicolescu’s International (!) Center for Transdisciplinary Research (the major part of the 17 contributions are in French, a few are in English).*

JG: Thanks Markus. It sounds like there is a great need for some funding for cross-lingual translation of emerging integral pedagogical literature. I think that the strengthening of multilingualism is crucial in the advancement of transnational dialogue to further the emergence of planetary consciousness.

In addition, I have identified over a dozen emerging pedagogical approaches that in some way, either directly or indirectly, facilitate the evolution of postformal-integral-planetary consciousness. I have begun the process of hermeneutic dialogue among them, but of course much more research needs to be done. These include: aesthetic and artistic education; complexity in education; critical and postcolonial pedagogies; environmental/ecological education; futures education; holistic education; imagination and creativity in education; integral education; planetary/global education; postformality in education; postmodern and poststructuralist pedagogies; spirituality in education; transformative education; wisdom in education. These are all part of what I am calling the *third wave* of educational evolution. It is too much detail for this interview to list all the many references that relate to these approaches, but I have explored this literature in detail elsewhere, including how these new pedagogies intersect with four themes that I identified in the evolution of consciousness discourse (Gidley, submitted). As you can see this is a complex area and it is certainly not a simple matter of applying one brand of integral theory to education as some kind of "universal fix-it all."

MM: *In this field there is definitely enough work to do for dozens of Ph.D. students. And I completely agree with you that we cannot stress enough the importance to intentionally cross the boundaries of cultures, languages, conceptual frameworks and prototypes of educational practices. Planetary consciousness cannot reasonably be promoted as an educational goal, if educational theorists do not, themselves, enact practices of learning about and integrating third wave educational discourses worldwide. Besides these important scholarly issues, where precisely do you see fields for promising action and reflection for integrally minded educators without fighting like Don Quichotte and becoming exhausted and frustrated?*

JG: I think that we are really in the very early stages of integral consciousness being embodied in the world. Because of this, integral education is very much in its infancy. You ask how integrally minded educators may contribute to the bigger quest of transforming or even evolving education on a planetary scale, without becoming exhausted and frustrated. I was speaking recently to one of my futurist friends about how frustrating it is that even though there are all these amazing initiatives going on in the world that are trying to change things for the better, the weight of the status quo seems to resist it at every turn. His response was that the very pluralism of the change initiatives works against them, whereas among conservatives there is a unity of perspective: they all want the same thing—they don't want change! To me the only way that integrally minded educators can muster enough strength to enact the kind of meta-change that is required is to dialogue, dialogue, dialogue. Only by enacting conversations among the rich pluralism of postformal, integral, planetary pedagogies will we begin to have an adequate picture of the rich tapestry of evolutionary change that is already happening before our very eyes.

My research interest has been to identify and cohere what Nicolescu calls the "luxuriance of the plural" when it comes to educational approaches. By bringing them into relationship with each other we no longer have one "integral education brand"—whether it be Wilber's or Sri Aurobindo's or any other—but rather a *unitas multiplex* of postformal-integral-planetary approaches that can learn from each other, inspire each other and give strength to each other. This is what *evolving education* means to me.

MM: *We talked quite extensively now about the horizons of the third wave of educational approaches. You mentioned as well that seeds of this latest wave have been somehow present already inside the first wave and then partly forgotten or marginalized. If integral means to acknowledge and to value the positive and productive aspects of all unfolding waves, let me ask you, finally, which aspects of the traditional model of compulsory schooling are good, efficient and helpful and need to be preserved in a larger, integral embrace?*

JG: Markus, I think there is a danger in creating a polarising narrative between the traditional model of education and an integral approach, or even as Sean Esbjörn-Hargens

(2006) suggests a three-type model of traditional, alternative and integral/AQAL. There is no doubt that the model of mass public school education that developed during the industrial era has delivered many benefits in the past both for individuals and for society. There is no question that there have been enormous social benefits for multitudes of young people who would not have had access to any formal education in the pre-modern era where school education was only available to the elite. My intention in using the metaphor of "factory" in relation to schooling is to highlight the industrial era underpinning of the schooling model that has become the myth-of-the-given, in order to beg the question as to whether that still needs to be the dominant metaphor in a post-industrial, planetary era. In a post-Newtonian, post-mechanistic, post-industrial integral age what new metaphors may be more suitable? The garden model perhaps? Or the forest model? Or even the extended family model? We need to think very carefully and creatively about the deep metaphors that underlie how we think about education. But this would be the subject of another discussion perhaps.

On the other hand if by the traditional model we mean the original model of universal and free public education proposed by Comenius in the 17th century and initiated by Humboldt in Germany two hundred years ago, then I think there is a lot to be gained from a careful historical study of this early pedagogy. Gary Hampson's research is relevant in this regard (Hampson, forthcoming). After all, this model was first inspired by the unitive spiritual humanism of Comenius and later by the German idealist and romantic philosophers who were far more integrally aware than many of the educrats who have been writing national curricula in the world for the past hundred years. Some of the original inspirations included the head, heart and hands approach of Pestalozzi, the integrative interdisciplinary pedagogy of Herbart, the aesthetic educational approach of Schiller and the future orientation of Novalis. Although I have talked quite a lot about the factory model of education myself, upon reflection, I think the more we forget about models altogether and create living approaches that breathe with their local/global environment the more quickly the *connaissance* of institutional education will become imbued with the evolving *savoir*.

MM: *Jenny, this seems to me a perfect remark for bracketing our stimulating discussion. I must say that I terribly enjoyed the cycle of learning throughout this interview ending up here with questioning and dissolving some conceptual distinctions we used initially to make our way through the complexity of the topic. I think this is a good example of how to practice a kind of awareness, which is absolutely crucial to learning. Each and every concept or model (as set of interrelated concepts) we might ever use is opening up and hiding away something at the same time.*

As synchronicity goes, while conducting this interview with you, I finally received the book of Johan Galtung and Sohail Inayatullah (1997) on macrohistory and macrohistorians I ordered a long time ago. In the domain of macrohistory Sohail - with whom you have published a book on the university in transformation – (Inayatullah & Gidley, 2000) and his co-authors (among them the presencing Otto Scharmer) pursue a similar attempt to the one you are pushing forward in the field of evolution of consciousness and education, i.e. stimulating cross-fertilization between vanguard *thinkers, for the sake of transversal-integral horizons of thought and practice. So, to wrap it all up, let me take some short quotes from the macrohistory-book, which are resonating pretty well, I think, with your approach to evolving education.*

All these "metaphors create worlds: They fix stages, entrances and exits. Then we can ask if there are ways to transcend these worlds our words have created" (p. 160). All these models "will be seen as inspiring and important except when or if people really start believing in them ... From this point on they become dangerous ..." (p. 203). All these authors "have insights, but they are in no way infallible guides; certainly not singly, but not combined either. Eventually, we are to live in the future - only then will we know" (p. 243).

Thank you so much, Jenny, for having taken so much time for chewing rather than eschewing my questions, many of them difficult to answer, I admit! I am looking very much forward to pursuing and deepening this dialogue on other occasions.

JG: It has been my pleasure to engage in this dialogue with you, Markus.

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An Approach to Integral Consciousness and Politics: An Interview with Steve McIntosh

(Author of *Integral Consciousness* and CEO of Zen and Now)

Russ Volckmann

I first came across Steve McIntosh's name as the author of the book Integral Consciousness and the Future of Evolution: How the Integral Worldview is Transforming Politics, Culture and Spirituality. *Here was a work that linked integral theory to the idea of worldview, evolution, politics and culture, even spirituality. What a bonanza!*

I was intrigued to discover that McIntosh is the Founder and CEO of the company, Zen and Now, designers and distributors of clocks, timers and other products using natural acoustic sounds and natural hardwood materials. I am always interested in how business leaders are attracted to and using integral approaches to their work. In McIntosh's case, as an entrepreneur and executive, the book was a bonus for interviewing him for the Integral Leadership Review (March 2008). In that interview our focus was very much on his business and his role. When it was completed, I felt that there was still a lot more valuable ground to explore and invited McIntosh to participate in a second interview that would focus more on his perspective on integral theory and its implications.

In the book, he builds on the work of Ken Wilber, Spiral Dynamics® and other philosophies, theories and models, while offering some critiques that show that he, too, might stake his claim to be viewed as a philosopher in his own right. Here is a sample of the perspective he brings,

> I have a direct personal experience of integral consciousness, and thus I know that it is a historically significant new level because I can see how extremely useful it is. Yet integral consciousness is more than just a tool for problem solving; it's an identity-providing platform for cultural allegiance, a worldview that invites our passion and our loyalty. As integral practitioners we have to see ourselves as ambassadors of the future.

I wanted to learn more about this passion and its nuances. To begin with, I came to understand that much of work on theory and research and application is about the future, is about a creative process and thereby brings meaning to our work. I wanted to learn more about an approach that allows us to use more integrative approaches. I wanted to discover the potential for such approaches to bring different paths to engaging the challenges we face on so many levels of our—and the world's—existence. This interview is the result.

— Russ Volckmann

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RUSS: *Steve, it seems to me that a critical foundational piece in your work has to do with the idea of the dialectic, whether we're talking about a Hegelian dialectic or a Gravesian developmental dialectic. Would you comment on that?*

STEVE: Sure. Integral philosophy is primarily a philosophy of evolution. And as we come to better see and understand evolution, when we see it in cosmology, biology, consciousness and culture, we can begin to detect certain things about the overarching master system of evolution, or how evolution works overall, especially in the realm of consciousness and culture. This reveals the process that is being enacted by evolution. And it exists across scale; that is, it is a process of development that acts at the micro and macro levels of development. Of course, this process is the well-known dialectic of development.

The term "dialectic" can be found in Ancient Greek philosophy, where it was more about a dialogue between people. However, since Hegel, the dialectic has been understood as a process whereby conflicting systems overcome themselves through a kind of transcendent synthesis. Most people are familiar with the terms "thesis," "antithesis" and "synthesis." But those terms have been criticized as a kind of vulgarization of the dialectic. There is a danger when you break this process down into its parts that you could lose the essential truth of the dialectic—that it is more of an integrated process as a whole rather than a series of steps.

However, seeing a moving process as a series of steps can be helpful in understanding the process. For example, until motion picture film was invented people didn't understand how horses ran in terms of the order that they put their feet down. But when they first filmed horses running, they were able to look at the frozen frames of their feet, so they began to understand how horses ran because they could see it in stopped motion. So understanding the dialectic in terms of "thesis," "antithesis" and "synthesis" is a useful construct; it allows us to see how the horse runs, if you will, and it gives us a snapshot of this moving system. As long as we keep in mind that the dialectic of development is this process by which the universe develops and greater degrees of complexity and integration are achieved, we can see that this process of dialectical development has discrete elements, but we don't lose sight of the fact that it's a moving system as a whole.

Q: *As I think of the evolutionary perspective in your writing and in the notion of the dialectic, I see an optimistic way of viewing life. There is movement and change towards some higher stage, whether it's higher levels of complexity and capacity to engage complexity or whatever it might be. One of my favorite authors—someone who has influenced me considerably over the years—is Charles Hampden-Turner. He put together a model of psycho-social development back in the late 60's, early 70's that is a dialectic and involves interactions between two people (or groups). In addition to the dialectic developmental model, he offers an anomic model—going up and going down—showing that there are processes of disintegration and integration. I did find reference to regression in your writing, but I never got an understanding as to whether you see us as being in a continuous progressive process, or whether there is something more complex going on.*

A: Certainly, if you just look at the evolutionary record, regression, stagnation—these things are always a possibility. Evolution is never simply a unilinear advance towards greater perfection. Sometimes we definitely have to go backwards. Whether this is built into the system with some kind of regularity, whether regression is somehow part of the formula of the dialectic, I have to admit that I'm not sure. Mine is not a Pollyanna view of progress where it's just upward and onward at all times. Indeed, the life condition that we face here at the beginning of the 21st century, in which regression of our civilization is a real possibility—that's an important life condition that is calling for further development. So, whether these life conditions have to be just potential threats or whether they have to be actualized to motivate growth is something that is rather spontaneous and dynamic and not necessarily something that can be understood with a formula.

Let me add, regarding the dialectic, that it's more than just the shape of the process of evolutionary development. It's more than just the master system of evolution. Dialectical thinking is actually a mindset or critical part of the worldview of integral consciousness as I understand it. That is, in modernist consciousness—what Piaget calls "formal operational thinking"—there tends to be a lack of seeing problems through a developmental lens. For example, if you see a problem, it's typically conceived of as an either/or proposition. But from a dialectical perspective, when you begin to look at life's problems and conflicts and any kind of unsatisfactory situation, you begin to recognize that the conflicting elements are themselves being partially created by the relationship that they have with each other. You begin to see how the conflicting relationship is actually constitutive of the elements themselves. And this leads to the insight that conflicts are always moving in time, and that as conflicting systems move in time they demonstrate the process of a thesis calling forth its antithesis—they naturally reveal these polarities. And when we begin to recognize the dynamic of thesis and antithesis, this shows us how every problem, or every developmental situation, is really is a transcendent synthesis that's waiting to be achieved.

It takes practice, but this dialectical perspective actually provides a new epistemological capacity. And this new capacity can be compared to the emergence of the heightened sense of reason and logic that arose with the modernist stage of consciousness. Modernists are able to use reason and logic as a new epistemological capacity over and above that ability at the traditional stage. And it seems to me that when you begin to see things developmentally, see things dialectically and recognize problems as opportunities for growth, this provides a dramatic new way of seeing that can really make a big difference in improving the human condition.

Q: *As you very clearly point out, using at least the perspective of traditional, modernist, postmodern, and integral levels, all of these levels of consciousness exist at the same time in our societies currently; is that correct?*

A: Sure. That is, the elements of the dialectic are continuously co-creating each other to a degree, forming each other in their relationship. When we talk about these specific stages of history and culture, one of the insights of the integral worldview is that the history of consciousness continues to be spread out over the last 4,000 years of human development. That is, even though we're alive here in the year 2008, not all of us live in the same time in history. And according to Jean Gebser, it is the ability to recognize these historical structures of consciousness as they continue to exist in the present within the minds of individuals that actually gives rise to integral consciousness. These stages become transparent to your understanding when you begin to see them within people. For example, we can see how each one of these historical stages continue to include people who exemplify them in the present. And we can see how each stage has developed its own kind of orthodoxy—there are religious fundamentalists who are orthodox traditional, and there are atheists and scientific materialists who are rather orthodox modernist.

However, these structures of consciousness exist not only within the awareness of individuals, we can also see how these stages exist within a larger intersubjective system, which we might characterize as an "internal ecosystem of consciousness and culture." And when you gain an integral perspective, one of the things that happens is you feel a drive to awaken all of these forms of consciousness within yourself, so that you're able to make meaning with and share the values of the tribal, the warrior, the traditional, the modernist, the postmodern, and the integral—all these stages. From an integral perspective, you need to be in touch with all of these stages, you need to be able to metabolize their values in order to be authentically making meaning from the level of integral consciousness.

Q: *This sounds very much in keeping with what Don Beck talks about in terms of spiral dynamics—that the spiral lives within. Is this what you're getting at?*

A: Right. A good example would be business people. Maybe they have an MBA. They're highly educated and they find themselves in business. So we could perhaps recognize that they are operating from a modernist value system, or modernist stage of consciousness. But if they don't embody within them some of the more enduring and foundational values of traditional consciousness, there can be a tendency to collapse back into a kind of warrior consciousness, or what spiral dynamics calls the "red meme." For example, in the case of Enron, you see these sort of lawless corporate types basically engaging in criminal behavior. One of the things that caused them to regress into a criminal stage, even though they were highly educated and wealthy, was their lack of the values of traditional consciousness, which make people play fair, be honest and have honor in themselves. If you don't have those values within yourself, then the stage that you've achieved—say modernism or postmodernism—can be unstable. You can find yourself collapsing back and ruining your life like the executives at Enron did. If they just had a sense of fair play, then the company may not have crashed down like it did.

Q: *One of the aspects of the integral perspective that you are writing about has to do with the realm of spirituality. It's my sense that one of the challenges for an integral theory in gaining legitimacy—at least in the academic world, and possibly elsewhere—is the giving of equal value to that which can be measured and that which cannot be measured. The introduction of the idea of spirituality is a critical factor in that consciousness that you were just speaking about. Can you tell me a little about what you mean by spirituality?*

A: Sure. From my perspective, integral philosophy is founded on experience—that which is experiential, that which can be subjected to the tests of broad empiricism, if you will. This includes not only sensory experience of the material world, but also mental experience. For example, any experience with mathematics is a largely mental experience. It's not grounded in sensation; it's something that transcends the experience of our senses. Similarly, when we know another person in a relationship, this can be a very important form of experience that cannot be reduced to merely a sensory experience.

But in addition to sensory experiences and mental experiences, we can also have distinctly spiritual experiences that can be achieved in a variety of ways. For example, my deepest and most profound experiences of beauty, truth, and goodness are certainly spiritual experiences. And spiritual experiences can also be had through practices such as meditation and prayer. Indeed, it seems to me that spiritual experience is an important aspect of what it means to be human at every stage of development. Spirituality isn't something that can simply be reduced to the mythic stage of consciousness that only exists on a traditional level. Spirituality for me is a very important part of my life—it's what motivates me to get up in the morning, and it's what motivates me to write philosophy books. Spirituality is not a level of development to be transcended; it's a line of development that continues to find original expression in every stage, including the integral stage. And as human spirituality develops, ideally, it transcends and includes the best of the spirituality of the previous levels.

However, in my book, I do argue that science, philosophy, and religion need to be afforded a degree of separation. In other words, science deals with the physical facts of the external universe, and it has a level of proof that can be compelling; if you can prove something scientifically, it compels agreement. Spirituality, on the other hand, while it can be practiced and directly experienced, it deals with realities that exist in the realm of what we might call the "theosphere." That is, I'm arguing that the physiosphere and the biosphere are in the realm of science; the noosphere—the realm of consciousness and culture—belongs to the realm appropriate for philosophy, and then there's the spiritual world space, which can be identified as the theosphere—this is the realm of religion or spirituality. And spirituality has a very important role to play in making us feel at home in the universe by giving us explanations of the nature of the ultimate and teachings about life after death. These are teachings that can be used and practiced. For example, I definitely use the idea that I'm going to survive my body as an important orientation for my life on a daily basis.

Taking a million-year view of things really clarifies what's valuable. If I think about what will matter a million years from now, I think, well, my family and the people whom I love will matter, and the work that I did in the world to try and make it a better place while I was still here will matter. It's because of that million-year perspective that I'm fortified and motivated to do good works. I'm not doing good works in the hope that I'm going to survive my body; it's because I take for granted that I'm going to survive my body that I try to do good works. I'm not saying that you need to have a spiritual or million-year perspective or believe in life after death in order to be motivated to do good works in the world, but I've certainly found that it helps me. Religion makes you feel at home in the universe, and I think this is an important role for it to play. So I think we need to preserve the realm of spirituality and not try to reduce it to science or philosophy. I think we need to allow for the legitimacy of explanations that need to be taken on faith or explanations that have to be taken on the authority of a spiritual teacher or wise person? I don't think we can eliminate those just because they can't be proved scientifically.

Q: *It would seem to me that what you're suggesting is that, for some people, having the orientation that you've just described as one you have, where you have an element of faith and this million-year perspective that you've talked about, has a way of creating meaning for life and justifying it. It seems it is dependent on some esoteric notion of what the totality is all about as opposed to someone else who might look at the same situation and say that life in this lifetime is an experience I'm having. I might follow exactly the same patterns of behavior as you, because it means that my experience of this life in the now—in the present—is far more satisfying, for whatever reason, than requiring me to have that kind of million-year perspective and to act on faith rather than to act on a set of positive values related to my current experience.*

A: I think the integral worldview is roomy enough to include all kinds of spirituality—theistic spirituality that recognizes God as a being, non-theistic spirituality like Buddhism that recognizes Non-Dual emptiness as the ultimate, or philosophical spirituality which can be rather agnostic regarding these big, supernatural explanations, but can nevertheless recognize spirit in a very circumspect way. I think all these forms of spirituality can find a home within the emerging integral worldview.

On this note, I recently received an email from Connie Barlow, who is married to Michael Dowd. The two of them travel around the country giving talks on evolutionary spirituality. Michael just came out with the book *Thank God for Evolution.* They are a wonderful couple doing good work. After reading about them I sent them a copy of my book. Connie then sent me an email complimenting me on my book and she included a couple of critiques. One of them was she thought that I did a good job of separating Ken Wilber's metaphysics from integral philosophy, but that now I had to separate my own metaphysics from integral philosophy.

(Laughter)

I respected that; it was a thoughtful comment and it made me think. So next week I'm going to have a conference call with Michael and Connie and a few others to discuss this subject. My take on it is that we are in this universe at some existential level—we have to admit there is something rather than nothing. We're starting from there. And so once we come to grips with this, there's really no way to get away from metaphysics. Moreover, we can see that each stage has its own version of metaphysics. For example, if you're at the traditional level, your metaphysics is defined by the Bible, the Qur'an, or the mythic explanation that goes with your tradition. Then with modernism, there is a different ontological explanation of the way things are. It starts with Deism, but then the more extreme forms of modernism adopt a sort of atheistic perspective that the universe is a random accident, and there is no purpose to it; it has just emerged somehow.

Q: *Or at least agnostic in the sense of just not knowing; mystic, in a sense.*

A: Right, but to claim that we can somehow eliminate metaphysics, that we can have no questions or answers about the nature of reality, or no explanation of why there is something rather than nothing … this position is still thoroughly metaphysical. It's kind of a minimal, anti-metaphysical metaphysics, but it's still something that has to be taken on faith to a degree. Think about it. Human consciousness is so small and the universe is so vast, and the mystery of it is so great, that to claim that you know for sure that there is no God—now, that's a statement of faith.

Q: *That's the atheist view. I'm talking about an agnostic view of not knowing, of holding that there are questions of spirituality to be explored. There are questions we cannot know the answers to; hence, it relies on faith or a way of resolving those issues in our lives so that we can move forward.*

A: Yes. Because I'm doing this public work in the realm of philosophy, I certainly wouldn't say that the agnostic position is illegitimate; I think it's a reasonable kind of stance to take regarding the mystery of the universe. However, if the agnostic says, "There is no way anybody can know," I would say that…

Q: *No, that's not what they say. They say, "We don't know now."*

(Laughter)

A: Fair enough. But I can say that I do know, for me at least, I can testify that I've had a direct experience of the love of God. And this is, of course, a metaphysical, spiritual proposition—which I can't prove. But I want to add that my faith is not motivated by the need for security, I already feel secure so I don't need a mythic teaching to give me that security. For me, faith is more of an active adventure of using my consciousness to know or experience that which is beyond my everyday mental experience. For me, the spiritual practice of faith is kind of super-thinking. My experience of God's love for me as an individual—as part of my own spirituality—is something I know deep down at the cellular level, even though I know it by faith. It's kind of paradoxical to talk about, but faith is definitely a spiritual practice, and it's not just a belief in myths and miracles.

Q: *Interesting. You talk about a realm in which at least some of us have never had that experience, and wouldn't even begin to know how to reach it.*

A: Well, Blaise Pascal has a wonderful quote on the subject. He says, "Human things must be known in order to be loved; but divine things must be loved in order to be known." When you practice faith at the higher levels of consciousness, that faith gives you an experience which verifies that which you have faith in. But again, these things can become extremely paradoxical.

Various forms of spirituality do rely on the authority of the tradition or the teacher; and I think that can be appropriate in the realm of spirituality. But in the realm of philosophy, which I think in a sense should bridge and separate science and spirituality, philosophy can investigate and discover that which is beyond science. And it can do so in a way that doesn't rely on any particular belief system. Philosophy can unite people who may have differing views of what spirituality is, or an agnostic view. So even though you may not have a robust concept of the spiritual, you can nevertheless find answers and get a universe perspective on things like evolution and consciousness through integral philosophy.

Q: *You have several critiques of what you call the integral reality frame. Perhaps since I'm introducing the concept of the integral reality frame into this conversation for the first time, you can summarize what that phrase means.*

A: Each stage of consciousness, or epic of human history, has its own explanation of the universe, and those explanations don't necessarily remain static; they evolve. For example traditional consciousness in all its forms provides an explanation of the universe that frames that worldview. The reality frame of that worldview creates a kind of cell wall of the organism, the permeable boundary which makes the worldview a real evolutionary system. Indeed these worldviews are not simply phases of history; they cohere as evolutionary systems, which are somewhat similar to biological organisms.

One of the big insights of integral philosophy is the way that it recognizes real evolutionary systems within the internal universe of consciousness and culture. These internal systems share characteristics with the external systems of biology. So as we begin to recognize the internal systems of consciousness and culture, we see how these are composed of human agreements—value agreements that cohere into these historically significant worldviews which have systemic integrity. And so one of the things that gives each worldview its systemic integrity is its abiding reality frame. Each of these worldviews is a cultural agreement on the one hand, but each stage also exists within a larger dialectical evolutionary spiral—an internal cultural ecosystem. And the reality frames which help these stages cohere as systems are inevitably created through the use of some kind of metaphysics.

We can see this very clearly in the role that Rene Descartes' philosophy played in the Enlightenment. Descartes' framing of the subjective and the objective domains—his famous, "I think, therefore I am," has now become known as "the philosophy of the subject." This reframing of reality into subjective and objective realms—the objective being scientifically investigatable, and the subjective being supernatural, a realm of matter and mind—actually helped to forge the reality frame of modernism. Indeed, much of the postmodern reality frame has actually arisen through the various attempts to transcend the problems of this "philosophy of the subject." However, we're getting into some rather dense philosophy, which I try to unpack and explain carefully in Chapter 8 of my book. Nevertheless, the bottom line is that every worldview has some kind of reality frame, some kind of metaphysics that it uses to create the agreement structures which make it cohere as a worldview and allow it to do the important work that these worldviews do to produce cultural evolution.

Moreover, we can see how these reality frames are subject to the dialectic, such that the problems or shortcomings of each specific reality frame require that the next reality frame to emerge in the sequence of evolution be in sort of an antithesis to that. We see this dialectic progression in action in the way that the reality frame of traditional consciousness is defined by the mythic order of religion. Then the reality frame of modernist consciousness swings the other way and is defined as whatever can be proved by science. Then the reality frame of postmodern consciousness swings back to a kind of unconstrained subjectivism. Thus, the integral worldview—in order to be a worldview, in order to take form and do the work it needs to do within the timeline of human history—needs to have its own distinct reality frame. Ken Wilber has tried to offer such a reality frame through his four-quadrant model, and I take issue with it to a degree, but I also applaud it.

I think that Wilber has done for the integral worldview something very similar to what Descartes did for the modernist worldview. He reframed reality. That’s what the quadrant model does. It shows the internal universe in new and important ways. Wilber recognized that this domain of intersubjectivity—the lower-left quadrant as it’s called—is not just a metaphor. It’s not just a structure of language, but it’s actually a real domain of evolution where real systems—these systems of culture, these human worldviews—have an ontological existence. These structures are not just in my head. They’re not merely subjective, even though they’re not completely observable scientifically. So they’re not merely subjective, but they’re not objective either. These cultural structures exist in this newly framed domain called intersubjectivity. And this is what gives integral philosophy a lot of life. It gives it the ability to make contact with these cultural systems in ways that are revolutionary, and in ways that give us new powers to improve the human condition. The main reason I love integral philosophy, the main reason I’m attracted to it, is because it’s pragmatic. It can do work. And so this new reality frame is one of its important features that gives it its ability to do this work.

Q: *Let’s talk about integral mapping for a moment. You’ve referred to the holon and the quadrants and by implication with developmental levels, the holarchies. I noticed that in your treatment of the history, which was very well done, summarizing the original contributions of Arthur Koestler and how Wilber has built on those, that you at one point made reference to the distinction between individual and social holons. In the work that I’ve been doing with Mark Edwards and Integral Leadership Review, we’ve been separating those two, so that when we’re talking about the four quadrants, at least in my mind—I’m not going to speak for Mark—I think of upper-left as intentionality and as the worldview and the beliefs of the individual. Upper-right is the biology and behaviors. What I’ve done in thinking about the individual is then to treat the upper-left as intentionality about self; in other words, the agentic intentionality, and the upper-right as the agentic behaviors. The lower-left and lower-right are the communal aspects of culture and systems if you will, but not so much the literal culture and the systems as* *much as how the individual comprehends those. Do you make any distinctions between individual and collective holons?*

A: Sure. I think Ken Wilber has done very important work in correcting the confusion in this area. For example, Wilber talks about deep ecology, environmental spirituality, at great length, where there is often this misunderstanding between the nature of an individual holon and a social holon. Readers of Wilber will know that you can't just stack a social holon on top of an individual holon and call it a holarchy. So I think that distinguishing social holons from individual holons is an important element of integral philosophy.

Q: *You write about the notion of artifacts that Wilber and Fred Kofman have talked about. It would seem to me that in talking about an individual holon, there is no artifact.*

A: The quadrant model has been very useful in taking holons and showing how they emerge simultaneously in these different domains, but I also have some critiques of the quadrants, which I offer in Appendix B of my book. I'm not saying that the quadrants are invalid, I'm just saying that they are one slice of a picture that we are trying to discern, and we can't use them as the end-all and be-all of integral theory.

Q: *It's just affirming what Wilber talks about in terms of them being the map and not the territory.*

A: Also, all aspects of integral philosophy are true, but partial; they're adapted to our time in history. Indeed, the whole point of the worldview is that it can help us make progress relative to the specific problematic life conditions we face today. But as those life conditions eventually become ameliorated to a degree, then progress will come in the form of a newer worldview that's partially antithetical to the worldview of the integral. In other words, by using the spiral of development we can see how these worldviews emerge in this dialectical sequence, and this has predictive value. It not only shows us how we can create the integral worldview in our time, it also shows us that the integral worldview is not the end of history. It, too, will one day be transcended as it develops the successes, and the problems that are associated with those successes, that will call forth the next stage.

Q: *There you are really pinpointing what I think is probably the greatest strength of the work that's being done around all of this—the recognition of the relationships among the different worldviews, frameworks and stages of development and how they are necessary to each other in the evolutionary process.*

One of the critiques of the integral reality frame that you offer is that as a philosophy, or as a metaphysics, it lacks a robust theology. Could you say a little more about what you mean by that?

A: Sure. At the end of Chapter 8 entitled, "The Integral Reality Frame," I offer some critiques along the lines of what I've just described, I explore how we can poke holes in this integral reality frame. So I offer four distinct critiques that are basically grounded in each one of the levels, beginning with traditional consciousness. However, in this critique of the integral reality frame made from the traditional level, I'm not trying to create a cartoon caricature of traditional consciousness, rather, I take it seriously and recognize that there are people with good sense and good faith who have a center of gravity of traditional consciousness. For them, creating higher levels of civilization is grounded in a religion. It's grounded in faith, and grounded in a robust theology that explains where we came from, where we're going…the big questions. So the traditional critique is that the integral reality frame allows for spiritual pluralism, and so it cannot provide an authoritative theology that all integralists agree with.

Again, in my book I argue that philosophy and religion ought to be afforded a degree of separation so that we can carry forward the values of spiritual pluralism that emerged at the postmodern stage. However, as we now attempt to transcend postmodernism we can also begin the work of discerning and determining which forms of spirituality are most effective at raising consciousness, improving the human condition, and revealing spiritual truth. But we're just beginning, I think, to go beyond polite spiritual pluralism and it's a little too soon for us to declare any one form of religion as essentially "right" to the relative exclusion of the others.

Going back to your question about this critique that I offered from the traditional stage, they're saying that by separating science, philosophy, and religion, you're losing a lot of the benefits of religion that can be used to form an organizing principle for a society, which it does, at the traditional stage. So as in medieval Christianity or in any of the pre-modern societies, the reality frame is exactly the same as the religion's teaching about reality. Traditionalists would criticize forms of spirituality that allow for pluralism, that separate the philosophy from religion and disempower religion from a traditional perspective as the dominant truth in the society. Now, of course, my response to that critique is that in order for us to move beyond the traditional stage—in order to go beyond the mythic where there is no separation of, for example, church and state—then a degree of disempowering of religion, a differentiation of the value spheres as Max Weber was kind to point out to us, is a necessary step for the development of civilization. Perhaps some time in the future, when humanity has evolved to the point where we can have a world theology or an agreement about spiritual truth that is fully transcendent and can be universally agreed upon, that would be tremendous. But I don't think we're at a point in history where there is one particular theology that is strong enough to unify us. Any theology that had to be coercive in unifying people wouldn't be unifying in the first place. That's just a particular aspect of what I might imagine as a traditional critique of the integral work.

Q: *Correspondingly, there is a modernist critique related to the metaphysics of the integral reality frame not being subject to falsifiability. How does that challenge get addressed?*

A: Karl Popper, prominent 20th century philosopher of science, came up with a criterion for valid knowledge which he calls "falsifiability." That is, if you can imagine a scenario under which a proposition could be proved false, then it's valid knowledge. If you can't imagine a scenario in which it could be proved as false, then it doesn't count as valid knowledge. The trouble is that while this defines what is and isn't science, it's highly reductionist in the sense that there is an implication that only science can deliver valid knowledge. My response to that is to evoke the idea of broad empiricism, which was first advanced by William James the pragmatist philosopher—he called it radical empiricism. And Wilber has modified and refined it into what he calls "broad empiricism." It shows that some of the same methods for creating an empirical agreement in science can be extended to include things that are not necessarily accessible to scientific investigation, but are nevertheless "falsifiable" in a broadly empirical sense, because, although philosophical or spiritual propositions may not be materially falsifiable, others who are at a similar level of development can actually have a similar experience, which makes these kind of propositions broadly empirical. Wilber has done a good job of showing how broad empiricism can be a way of answering the critiques of falsifiability.

Q: *These would be the integral multiple methodologies.*

A: Integral methodological pluralism is what Wilber calls it. I think these ideas are generally valid, but regarding some of Wilber's latest writing found in *Integral Spirituality*, as well as some of the latest turns that his theory has taken, I don't find all of those details as useful as some of the other more sturdy and basic aspects of integral philosophy. I can see that integral methodological pluralism may have its uses, and might be valid in certain academic contexts, but I don't find these ideas to be a particularly exciting development from my perspective. I'm not harshly critiquing these ideas; I'm just not seeing them as all that useful.

Q: *It comes up for me in thinking about how to work with PhD. students on doctoral dissertations related to using integral theory and perspective in doing research.*

A: What I like most about Wilber's methodological pluralism is the unification of the structural and the phenomenological approaches to consciousness. That's the part that I think is a worthy addition to integral theory in a sense that structuralists can see things that can't be seen from a phenomenological perspective. In other words, you can meditate and you're never going to discover the spiral through meditating. However, with structuralism by itself, unless you're acquainted with the insides of these structures that you're studying, you're never going to get a true sense of what they are. Understanding that we need a phenomenological approach from the inside and a structural approach on the outside to adequately map and understand these stages of consciousness I think is a valid point and one I would agree with.

Q: *What about the critique of the integral reality frame from the postmodern perspective—the argument that it's all Eurocentric dominant male thinking—that it's too cerebral and too concerned with "the truth" instead of many truths.*

A: We're going through each of these critiques which I offer of the integral reality frame, the first being traditional, which I mentioned; the second being the modernist critique, which is the reductionistic approach; then there’s the postmodern critique; and finally I offer a “postintegral” critique of the integral reality frame. So with respect to the postmodern critique, I think there are basically two kinds: one is the critique of the integral reality frame from the perspective of postmodern philosophy—deconstructionist critical theory; and then there’s another critique from postmodern culture in general, which is the one you were mentioning regarding the complaint that “it’s too masculine” or “it’s too Eurocentric” or whatever.

From an integral perspective, we can see how the postmodern worldview—and I’m using “postmodern” as a defined term—isn’t just deconstructionist academic critical theory. We’re talking about the overall worldview that comes after modernism, the one that has emerged in the developed world as a sort of antithesis to modernism. This worldview is known by many terms, including the “cultural creatives” and the “post-materialists.”

In integral parlance there is a growing agreement that the word “postmodern” is the word we want to adopt as the defining term for this stage. That is, from an integral perspective, we can see that there is an evolutionarily appropriate move that goes beyond modernism and traditionalism and which takes the form of an antithesis. In other words, postmodernism is anti-modern and anti-Western to a degree. And there is an imprint of that antithesis that is seen in many aspects of postmodern thinking. Again, this is evolutionarily appropriate; the move away from the pathologies of modernism was achieved by pushing off against those problems, by moving to an antithesis. For example, the move that took human civilization from traditional consciousness to modernist consciousness was embodied in the slogan, “Liberty, equality, fraternity.” It was sort of a political rallying cry for democracy. Then in turn, the move away from the established structures of modernism was achieved or symbolized by the slogan, “Turn on, tune in, drop out.” Despite its semi-humorous quality, this rallying cry did serve as a potent invitation to reject the pathologies of modernism. So if you look at postmodern politics, it’s kind of a politics of protest. It’s a politics that defines itself in relation to the shortcomings, the pathologies, and the crimes of modernism- including colonialism, oppression and exploitation, we could go on listing the problems of modernism—but overall we can see how postmodernism made the important move of breaking away from those problems.

However, this postmodern worldview is now in a place where it’s gone as far as it can go, even though there will be people entering into the postmodern worldview for the rest of our lives. It’s a structure of history that people will pass through as they develop culturally. But what we’re interested in now is taking an evolution a step further beyond postmodernism and going to the stage of synthesis where we’re no longer defined merely in terms of an antithesis to what’s wrong with modernism.

As we try to create a synthesis that carries forward the best of all these previous worldviews, while also pruning away the worst, we can see that from a postmodern perspective, integralism looks very much like modernism. And when modernists see integral, to them it appears postmodern. These stages have a tendency to see everyone who is outside of their worldviews as being suspect. So the postmodern critique of the integral worldview is that it's basically just rehashed modernism. Therefore, it's still complicit in the crimes of modernism. But from an integral perspective, we can recognize those attacks, those critiques from a postmodern perspective. We can also overcome them by recognizing that postmodernism is not the end of history and that there are certainly many positive developments of the modernist and traditional stages. At this point in history, in order to move forward, we need to recognize and acknowledge those positive aspects and integrate them into a transcendent whole that can use all the important truths that have come from the rise of the postmodern worldview. So we include those truths but also simultaneously transcend them through this new worldview that we're creating.

Q: *That opens directly on the door of integral politics, but I want to go somewhere else first. That has to do with what I think is a very creative way of reframing the notion of lines of development. You have argued that there are three organizing principles of the various aspects of being in the world. That has to do with will, cognition and emotion. These are really overlapping concepts that have things in common with each other, with the interpersonal and the idea of self being somehow the linchpin of these three modes of consciousness.*

A: In my analysis of the lines of development within consciousness I start with Howard Gardner's work on multiple intelligences. Then I bring in Daniel Goleman's work on emotional intelligence. Then I try to show how we not only have emotion and cognition, but that there is another sphere of knowing which I identify as volition, or free will. So each one of these spheres—feeling, thought and will—are important metastructures that organize our consciousness.

Within each one of these domains there are a variety of lines of development, which overlap and comprise the various ways that humans can be smart or emotionally intelligent. The old idea of "IQ" can be taken as a measure of overall cognitive intelligence. And now we have the idea of "EQ," which has become popular since Goleman's book *Emotional Intelligence* came out in the 90's. EQ thus refers to emotional intelligence and one's general emotional ability. Then I add to that the idea of "VQ," or values intelligence. This fills out all the potential lines and organizes them into a holarchy.

Part of the way I came up with this understanding was following my philosophical intuition. Again, I have always identified myself as an ally and supporter of Ken Wilber. I'm definitely standing on his shoulders and can't say how grateful and indebted I am to his work. At the same time, one of the things that has motivated me to try to make my own contribution to integral philosophy has been my differences with Wilber. That is, although we agree on most aspects of integral philosophy, our disagreements are the most interesting. This is how philosophy has always evolved—a great philosopher makes some major progress and then other philosophers try to show how that's not necessarily wrong but how it can be improved.

So regarding the lines of development, Wilber began teaching this subject through his psychograph model, which first appears in his 1999 book, *Integral Psychology*. Then in the past few years he has elaborated on it and explained how there are all these multiple lines of development, which actually develop independently. Wilber cites the case of the "Nazi doctor" who is highly developed in the cognitive line, a highly educated scientist, but who is also very stunted in the moral line, because he's a Nazi. So I agreed with that—I think there are different lines of development and different types of intelligence, so that all made sense to me.

But my philosophical intuition was piqued when Wilber wrote that the "values line", or the "worldview line" that is really the line of the spiral of development, is just one among several dozen lines, and that these lines are "apples and oranges." That struck me as being not entirely true. That is, I agree with Wilber that there isn't a single line—as was maintained by Piaget, who just thought he was getting at development overall—and I think that's a valid critique of many aspects of developmental psychology, that there is no singular line of development within consciousness. There are actually multiple lines, and developmentalists haven't done a very good job of identifying and coming to grips with that.

However, my humble critique of Wilber is that he goes from a critique of this "line absolutism" to the other extreme, which I would characterize as a kind of "line relativism" where we just have all these unrelated lines. Even though each of these lines develops in its own kind of holarchical stage-like system, Wilber hasn't recognized—or at least hasn't described in his work thus far—how these independent lines are organized by a larger overarching system.

If the lines are indeed holarchical structures, then the overall structure of the holarchy that we see throughout evolution would suggest that there are some higher level holons that transcend and include these various different lines. So in Chapter 9 of my book I first explain why I think the values line is somehow more important than other lines, and how the values line isn't just "one among several dozen." I explain why the values line has a more important role in determining our psychic or culture center of gravity.

Chapter 9 begins by examining what developmental psychologists have said and then what Wilber has said about the subject. Then I offer some critiques that show problems with Wilber's psychograph model. I then advance my own theory, which involves the recognition that these lines of development are organized within a larger enveloping system of feeling, thought, and will as a sort of master systemic pattern of consciousness. That is, when we see how the spiral influences many different aspects of our will, the sphere of volition within our consciousness, then we can begin to see how it is generally more significant than, say, bodily kinesthetic intelligence or the emotional ability to be empathetic. Those are lines that can develop independently, but I would say for most people these kinds of intelligence are less significant than their core values. So when we recognize the very important role that values play in orienting our attention and determining our intention, and when we see that our values come largely from our worldview, our position on the spiral of development, we begin to see why "the values or worldviews line" is so important in determining the internal location of our consciousness overall.

However, this is obviously a complicated subject, and it's best described in a written argument. It's difficult to reproduce it completely here in an interview.

Q: *I have a couple of questions in relation to that. I'm wondering about the location or choice of subcategories. For example, you just mentioned "empathy," and it doesn't show up on the diagram. Another one might be "resilience" that didn't show up. I'm wondering if there was a guiding set of principles other than sorting things into cognitive-emotional-volition values variables that caused you to place things in one circle versus another?*

A: That's a great question. The diagram in my book that shows the sub-lines within the overall categories of feeling, thought, and will is drawn partially from Howard Gardner, partially from Daniel Goleman, and partially from Clare Graves, Robert Kegan, and James Mark Baldwin. However, as I explain in the book, if you'll allow me to quote: "Figure 9-4 is presented for the limited purposes of suggesting how the intersubjective structure of the spiral of development influences a variety of lines of development within the overall sphere of human volition. This simplified diagram is not intended as an exhaustive chart of all possible sub-spheres or lines of development within human consciousness." So the diagram in my book is just a snapshot showing some of the sub-lines. The number and size of the categories could be different with every person.

Now, regarding the sub-lines found within the overall *Sphere of Cognition*, as I said, I'm building on the work of Howard Gardner, who is a very prominent developmentalist. He teaches at Harvard and he has done quite a lot of empirical work to discover what he calls "the eight intelligences" within "cognition as a whole." His criteria is: "What does society value and what is the culture willing to reward?"

This research was advanced in Gardner's book that came out in 1999 called *Intelligence Reframed*. Gardner is arguing against IQ as a sort of a monolithic line. Throughout the 20th century, educators used a test to determine the "quotient" of a person's intelligence, and IQ was seen as a measure of being smart or dumb across the board. So Gardner has devoted a large part of his academic career to dispelling that myth and showing that there are different kinds of intelligences. It makes perfect sense. You can see that a gymnast has one type of intelligence and a great mathematician has another kind, so we can't judge "smart" or "dumb" across the board. By using Gardner's eight intelligences in my sphere of cognitive development, I'm being true to his work and using him as a foundation of that aspect of the model.

Within the overall *Sphere of Emotion*, again I use the work of Goleman in the identification of the sub-lines, who has become well respected in society and whom Gardner talks about approvingly. Indeed, Gardner recognizes emotional intelligence, but says that he wants to be formal in his definition of these eight intelligences, so he doesn't want to define emotional intelligence as a formal intelligence; he wants to call it "emotional sensitivity". Nevertheless, in the book, *Emotional Intelligence,* Goleman does describe different types of emotion—sadness, anger, joy, etc.—and I list those in Figure 9.4. However, there's nothing exclusive about the list that's in that circle in Figure 9.4. It's just some types of emotion that have been recognized by the social sciences, but they are not suggested to be exhaustive. You would want to do more empirical research if you were going to try to definitively identify the specific lines of development that are within the affective or emotional sphere as a whole.

All I'm doing is recognizing that there are different types of emotion—the experts agree. And there are different kinds of cognition—again, the experts agree. And in addition to the modes of emotion and cognition, both Goleman and Gardner (as well as other developmentalists) agree that the *Sphere of Volition* or free will is also a mode of consciousness that is distinct from both feeling and thinking. However, Goleman, Gardner and other authors in this field tend to shy away from the sphere of volition, because it's not really accessible to science. Just like biologists shy away from consciousness because it's *in* the body but not really *of* the body, these developmental psychologists tend to shy away from volition because is not really accessible to scientific investigation the way the physical parts of the body are. Human free will is a kind of transcendent form of consciousness that can't really be contacted or explained by science. Social scientists are thus somewhat embarrassed by it, because it's inherently metaphysical.

Free will—the idea that human beings are responsible for their actions, and that their will represents an "uncaused cause," that our will can somehow move around the particles in our brain and cause our bodies to move without being predetermined—this can't be explained from the mechanistic materialistic worldview. The human will is thus supernatural in that sense. So there has naturally been quite a bit of effort by materialist philosophers and scientists to try and explain that free will is an illusion, and that ultimately, all human choices are predetermined.

Of course, I reject that and I see free will as central to a spiritual understanding of the universe. Our role in the cosmic economy is really made effective by the fact that we do have freedom of choice, that we do have real free will. Indeed, this is how we participate directly and creatively in the evolutionary process—our free will allows us to act as agents of evolution. Yet, this is an inherently spiritual concept. But even though science can't deal with spiritual issues, philosophy can. That's why I make free will and values really the cornerstone of my understanding of integral philosophy.

Q: *All of this comes to play in the context of your treatment of integral politics, which ultimately leads you to a model of integral world federation. Would you care to say anything about what it is that is integral from your point of view in terms of politics. How do you approach that?*

A: We can see that every one of these worldviews—these historically significant worldviews that are identified by the integral perspective—emerges as a new octave of values. That is, each one has new truth, new beauty, and new ideals of morality. And the values of every one of these worldviews have been forged in the crucible of politics. So, for example, when we move from warrior consciousness to traditional consciousness, one of the ways that traditional consciousness is able to make progress and improve the human condition is the way that it replaces the chaotic and warlike world of warrior consciousness—warring tribes, etc.—with a political system that brings some level of peace.

With every form of traditional consciousness, East or West, the political system that goes with it is feudalism. Now feudalism is something we'd like to transcend—it's something to be looked down upon now as a primitive political structure—but it was a definite improvement over what came before it. It brought some form of law and order, even though it was oppressive and classist.

Then when modernism emerges, it likewise has new truth, new beauty, and new ideals of morality that are embodied in the transcendent political form of organization called democracy.

Thomas Jefferson really understood democracy at the beginning; it was clear to him that without a degree of modernist consciousness within the population, democracy would be dysfunctional. He could see that not everyone in the democracy needed to have a modernist center of gravity, but a certain proportion did, so that they weren't in a conformist, traditional worldview where they were willing to be obedient sheep. They had to take responsibility for their own government, not tolerate corruption and be willing to put in the effort to try to create a government by the people. So democracy showcased the values of modernism and showed its moral superiority. The evident moral superiority of democracy over feudalism really served as a beacon of goodness that helped recruit people into the modernist worldview and make it successful.

Then, with the rise of postmodernism, we can also see the crucible of politics being very important. In the sixties, people were recruited and attracted into the postmodern way of seeing things by its higher ideals of morality. They could see that its political agenda of peace in Vietnam and civil rights was an exemplification of a worldcentric morality that transcended the more ethnocentric views of these earlier worldviews.

So now with the rise of the integral worldview, it is going to take its place in the timeline of human history as a historically significant stage. And it will have its own transcendent form of human politics. If we just look at the evolution of human politics, we can see that in 1,000 B.C., it's estimated that there were 600,000 countries or sovereign political entities. And over time, these 600,000 political entities have been consolidated into larger and larger groupings. So although there have been periods of regression or stagnation, there are now about 193 countries. And now we see with the European Union (EU), and other types of federations of countries, that the direction of evolution in human politics is toward larger and larger conglomerations. And this is made particularly possible with the advent of democracy.

I certainly see the EU as a positive political development. We can see how it has done a lot of good in terms of uniting Europe, making it one political entity, making things more economically prosperous through the advent of a single currency and the reduction of trade barriers. We can see that by pushing power up and having an overarching federation that reduces competition amongst European countries, that has allowed power to be pushed down. For example, Scotland has now been given a degree of autonomy that it didn't have before the EU. It's because of the EU that England was able to divest a certain degree of power over Scotland. The same thing happened in Spain. Since Spain has become part of the EU, Catalonia as a province of Spain has been given far greater autonomy than it enjoyed during the 20th century.

So it is clear to me that as the integral stage takes its place along the timeline of human history, it too will bring its own transcendent form of political organization that will showcase its higher morality. Just as modernism and democracy co-created each other, so too will the rise of integralism eventually bring forth a system of democratic global law, although I doubt I'll live to see it.

But I want to quickly add that as we see this process developing, we can also see that these stages of political organization are dependent upon the corresponding internal development of consciousness. So for example, when you try to bring democracy to Iraq, because you have a population centered in pre-modern consciousness, democracy becomes highly dysfunctional. Until Iraqi's can develop a larger degree of modernist consciousness within their population, then democracy will continue to be problematic. Because of their traditional, ethnocentric level of internal development, it's difficult for them to participate in a multi-ethnic nation state, which is the democratic form.

So before there can be a functional form of world federation, we will need to have a greater degree of integral consciousness in the world. This is why the main focus of integral politics right now is on building the integral worldview here at the beginning.

Q: *Using the lens that you're describing now—I'll let people go to the book to find your model for world governance—could you talk about what is happening in the American political system today in terms of the presidential race?*

A: Overall, integral politics is the political agenda that goes with the integral worldview. And this agenda is now being worked out, agreed upon and negotiated among people who have an integral perspective. I'm arguing that as the integral worldview matures it will produce a transcendent form of human political organization that will come in the form of a limited democratic world federation.

Again, I think that the ultimate goal of world federation is inseparable from integral politics, in the same way that the politics of modernist consciousness is inseparable from democracy. However, I can say that integral politics can do a lot of work prior to the long-term goal of some kind of global democracy by making immediate progress on the domestic front—politically here in the U.S., in the years ahead. And there are both short-term things that integral politics can do and long-term things. The long view helps inform the short-term view. They work together. However, integral politics is something that's just emerging now. I'm not claiming to have the final and authoritative view of what it is. I'm interested in entering into dialog with other integralists like yourself about what integral politics can become.

And I should say that there are some people who have a general center of gravity in the integral worldview who are more oriented toward Republican candidates than to the Democratic ones. Just because you're an integralist doesn't mean that you're necessarily going to be a leftist. However, I do think that because you can't really get to the integral stage without transcending and including the values of postmodernism, then this is going to have an effect on your political views. That is, if you aspire to be integral, but you don't have empathy for postmodern values, then you're not going to be authentically integral. You're going to be a sophisticated modernist. But if you do hold the requisite degree of postmodern values, then this makes it difficult to be too conservative politically, even though you may see certain issues where the conservatives have a better argument.

However, regardless of who is elected president in 2008, because of the current profile of the American body politic, that person will be a tool of the system to a large degree. Because of the state of evolution of consciousness in America, and because it is a democracy, the next president won't be able to just lead us all into the integral age, because to govern effectively, the next president has to remain identified with the modernist values system. Modernism represents over 50% of the American population and I think all the presidential candidates have a modernist center of gravity. Some are more influenced by traditional values; some by postmodern values, but overall, they're all modernists.

The only political candidate who could be recognized as having a center of gravity in postmodernism would be Dennis Kucinich. Barack Obama or Hillary Clinton or even John McCain can certainly make meaning from an integral perspective. They can see that there is traditional and modernist consciousness, but again I think their center of gravity, at least from my perspective, is still in the modernist stage.

So at this point in history the real opportunity to make political progress from an integral perspective won't be found in the realm of presidential politics. Our opportunity to make the most political progress will be more in the realm of raising consciousness and helping make progress culturally by helping move America's cultural center of gravity forward in history in a way that then allows the federal government to follow suit. If we can get people to evolve their consciousness, then we can help break the logjam of the culture war. And this will help America to become less politically stagnant, and it will thus help the federal government to move forward as consciousness moves forward. As we raise consciousness in the American culture, we'll begin to see elected leaders who embody integral values more.

Q: *There are so many different levels and dimensions of society in which that can be happening. Whether you're talking about the worlds of entertainment, sports, politics or educational systems, it's truly a society-wide effort. Is that what you're suggesting?*

A: Definitely. When I give my presentation on integral politics, one of the things I emphasize is that the postmodern worldview, because it arose in this stance of antithesis, as I described earlier, is presently acting as a kind of cork in the bottle. In other words, because postmodernism is so anti-modern and anti-traditional, this tend to make these other earlier worldviews rather defensive. And this defensiveness kind of pins people in place culturally. For example, many people who are centered in the traditional or modernist stages perceive the environmental movement as a strictly postmodern issue. And so because postmodernists have contempt for many of the important values for traditionalism and modernism, some modernists and traditionalists repay the favor and exhibit contempt for important postmodern values. And this tends to make postmodernism's ardent support for the environmental issues—issues that everyone should ultimately care about—somewhat of a liability within American politics overall.

So now, the best way that the integral worldview can help make political progress in the short-term is by helping a portion of those with a postmodern center of gravity move up to an integral center of gravity and help un-stop the cork. If more and more postmodernists come to better appreciate the enduring and foundational values of modernism and traditionalism, this will help make postmodern concerns seem less anti-American or anti-modern. As we carry forward some of the values of traditionalism and modernism into the integral worldview, we'll find that we can carry forward many of the traditionalists and modernists themselves into a new era of progressive agreement.

Q: *For example, we're seeing religious leaders increasingly expressing concern about the environment and our care of the world.*

A: Thomas Friedman argues that "green should be the new red, white and blue." He argues that to be concerned about the environment is to be patriotic. Even though this concern for the environment originated with postmodernism, Friedman is now trying to show that environmentalism is a value that can be appreciated by every stage, he wants all Americans to agree that saving the environment from the destruction of global warming is something we can all get behind. And building the political will for that is something that the integral worldview can make great progress in, because it can help heal some of the wounds of the culture war by providing a progressive synthesis that isn't as anti-modern as postmodernism. It can demonstrate what is actually a "more progressive" form of politics than what passes for progressive politics today. That is, integral politics is more progressive than postmodern politics because it carries forward all the worldcentric and environmental concerns and values of postmodernism, but does so in a way that better integrates and builds political will with these other earlier stages of modernism and traditionalism.

Put differently, postmodernism's basic solution is to get everyone to become postmodern. And if everyone woke up tomorrow and realize that "we are all one people," and that this postmodern perspective is the most advanced, then that would indeed create the kind of political will we need to solve many of our problems. But because we can see in history and in the evolution of consciousness that it's unlikely that the majority of America is going to wake up tomorrow and become postmodern, we can see that we have to find a way to make political progress that addresses people in the stage they are at and works with the values that they have.

The integral political perspective really brings a lot of new insights and abilities to help move America's cultural center of gravity forward in history. And this can go a long way toward building the political will that it's going to take to solve the crises of global warming and other problems.

On the subject of integral politics I should add that many people see Barack Obama as the savior—he's kind of the projection screen for everybody's hopes—and while I'd love to see more hope and unification in politics, I also see people holding onto this Kennedyesque fantasy of a leader of our culture. But that time in history has passed. Kennedy was president before the emergence of the cultural structures of postmodernism, before the radical partition that occurred in the sixties. So now that we've seen the differentiation of these stages more distinctly in our culture, now that consciousness is more spread out between traditional, modernist, and postmodern, I don't think we want to regress to the point where one person can provide the kind of cultural leadership for America as a whole, in the way that Kennedy did. Consciousness has evolved since then, the horse is out of the barn. We need to find agreement in a way that doesn't require that we regress to a unified modernism or somehow find a mushy middle where we can all agree. We can take an integral and developmental perspective which brings in this vertical dimension that can see these stages emerging through time and can find a way to integrate the stages that doesn't just involve a kind of centrist position that just compromises on every issue.

To conclude integral politics, let me say that although the next president will be limited in what he can do, I'd like to see the next president bring in integral advisors—maybe not at the cabinet level, but at least some folks on their staff who can give them an integral analysis of the issues, especially foreign policy issues. Once you can see this inner perspective of consciousness, there are really a lot of insights and solutions that appear. My next book is going to be focused on that; the working title is *Global Politics and the Physics of the Internal Universe.* My plan is to take this integral perspective and apply it to various issues around the world, as I did in the interview in the last issue of *What Is Enlightenment?*, called "Integral Politics Comes of Age," which I highly recommend to your readers, and which is available to read on-line at wie.org.

Q: *Have you sent a copy of your book to any political candidates for the presidency?*

A: I actually made inquiries with the Clinton foundation. Because Bill Clinton has read Wilber, has endorsed him and said good things about his work, I wanted to send my book to Bill Clinton. So I made my inquiry through channels and I got the response just a few days ago from his organization. They provided his personal address and invited me to send my book directly to him, but they added that he is very busy and may not be able to respond.

(laughter)

So in addition to Bill Clinton, whoever emerges as the democratic candidate will also receive a copy of my book. But there are obviously hundreds of authors that are doing the same thing, and so I don't expect that it will necessarily have much of an impact. Ultimately, the way we'll get the attention of political leaders is to get the attention of the greater culture. And so as we emerge as a force in the media and in the culture at large, we'll get their attention in that way, rather than just by sending them a book. I'll do it nonetheless, though, since it's a good gesture.

Q: *I wish you all the luck in the world with that effort.*

(laughter)

A: Thank you Russ. I appreciate this interview.

Central Fire

Andrew Campbell

Central Fire was inspired by the then *one third* complete essay an author is developing for publication in *Integral Review*, on mystical numbers, geometry and quantum qualia - some of the passages in the imagery here are delicious, slippery sliding to my mind. Anyway, use it as you wish. If you have glossy photo paper ever, print one out and put it in a little frame by your desk...

Take a look at 200% and more and track over the colours and undulations, enter into the spaces…

If you print it out and hold it upside down you may see in the red passage - near the centre, you may be able to make out an unhappy face - ;-) sometimes imagery like this can go either way up...Mmmmm. Also the blue passages seem to want to be in pairs...

Editors' note: Although the author's craft-work may come along later, *Central Fire* is for sharing now.

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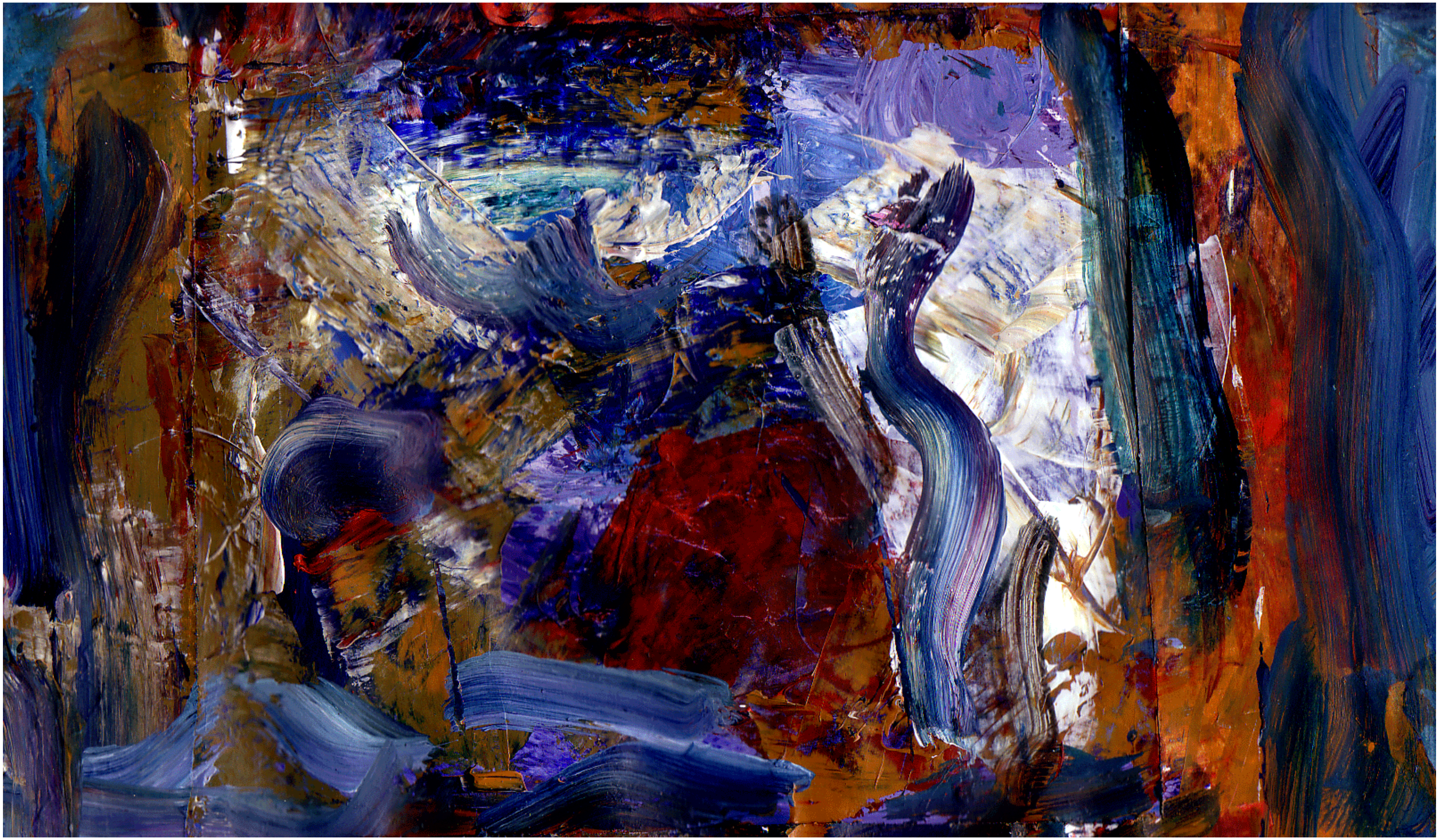

'CENTRAL FIRE'

Andrew Campbell, Acrylic on papers 17th April 2008

A Lesson to be Writ Large?

Sara Nora Ross

With
Held Lightly
by **Andrew Campbell**

This is a true short story. Elements of it are more earthy than I might like to write about, but they cannot be disguised and still have a story. I happen to think it's a story worth sharing. Despite its earthy origins—if not because of them—it seems worth sharing because of its lesson. In sharing my story, lesson, and reflections on it, I hope this leads others to imagine what sorts of personal and social significance might be gleaned from such a lesson. I wonder if it might be a lesson we wish would be writ large.

On many nights, I keep my bedroom windows open. One morning last autumn, I awoke well before dawn, unusual for me. An odd smell in the room was the culprit that woke me. Once I was awake enough to do so, I realized the smell was in the outside air breezing through the window nearest my bed. It was an alien odor I had never smelled before. Noting that, I closed the windows and fell back asleep. When the alarm clock woke me later, I was surprised that the odor was still in the room. As I moved through the house doing my usual morning things, I was more surprised to find that it permeated the house. I closed every window to shut it out, thus simultaneously trapping it in the house. There was no escaping the awful thing!

When it was time to walk up to the barn to feed the animals, I noticed the smell was stronger in certain areas than others, and fainter near the barn. When I walked down the long driveway hill to get the morning newspaper, across the bridge that spans the creek down there, the odor was much fainter than up the hill where the house sits. So, I toured around the house, determining that the odor was strongest on the south side where there are several hilly acres of woods. It was so strong there that I became nauseous and wanted only to escape the inescapable!

I began to form a hypothesis about the odor's origin. My memory traveled back a handful of years, to a time when a decomposed human body was discovered in the creek, downstream from my place. It was found near a public bridge that spanned the creek not too far from here. I remembered a neighbor telling me at the time that for several weeks, when he drove over that bridge, he knew the odor he smelled "just wasn't right." At least in the 20/20 hindsight he had when telling me about it, he said he was sure it must have been a human body decomposing. He had smelled plenty of dead animals, and this was not that. Perhaps he had military service in earlier decades that taught him such smells. He wished he had called the police to tell them about it, long before someone else eventually did.

Coming back to the autumn 2007 odor that plagued me, my hypothesis—conviction, really—was this: there was a decaying human corpse somewhere on the south side of my property, and

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relatively near the house. Once I reached that conclusion, all I wanted to do was pick up the phone and call the police to get them over here to search, find, and remove the corpse. I wanted that nauseous odor exorcised from my morning air!

I delayed that gratification. It was still quite early, and my son was still asleep. The hubbub of a search party tramping around outside would be a rude way to wake up. I would wait to call the police until Paul was up and I could tell him what was going on.

A couple of hours later, that time came. When I told him about all this, the first thing he did was open his south-facing bedroom window and sniff the air. It smelled like great, fresh autumn morning air to him. I was shocked! Maybe the breeze had shifted and was temporarily blowing the odor away from the house. We headed outside so he could smell the same awful thing I smelled. While I was doing everything in my power to not retch at the horribleness of breathing it in, Paul was consistently shaking his head and saying, "No, I don't smell anything. Are you sure this is where you smelled it? Are you sure you smell something?" Why couldn't *he* smell it? What kind of turnabout was this, anyway? The whole experience began to feel incredibly surreal.

My sons are notorious in this family for humoring me. Paul performed marvelously. Despite his conviction that it was ridiculous to think there was a rotting corpse nearby, he asked what places I thought it might be hidden, and offered to do a search. But first he had to head to campus for classes. He couldn't start the search till afternoon. He extracted my promise to not call the police until he got back and could do the search himself, first. He was determined to spare me (and probably himself) having the police search party decide I was a crazy old lady and have a good laugh at my expense. Not to mention that all of that would be at taxpayers' expense!

Sauntering into the house after class that afternoon, Paul announced with a big grin that he was ready to go find a dead body, and headed outside. A bit later, he came back with the report that there was nothing anywhere and still no odor. We looked at each other. He was grinning from ear to ear. I wasn't. Surely with a very furrowed brow, I was in a state of severe cognitive dissonance! I had to admit, upon a moment's reflection, that the smell had faded sometime around noon, and now it was mid-afternoon. If there were a dead body outside, it certainly would not stop stinking as the sun got higher and warmer.

"Okay," I admitted, "there must not be a dead body. There must be something wrong with my nose." We broke into hilarious laughter at the ludicrous drama I had created. Laughing while shaking my head, I was still mystified. Good grief! How did I concoct something like this?

Just as earlier that morning I had had to come up with some story that would make sense of the horrible smell, by now in mid-afternoon, I had to come up with a new story to explain why the dead body story didn't work. Damn, what a crazy way to spend a day! I could not let this dissonance go unresolved.

The next story I came up with made sense, literally. It was about my sense of smell. I remembered I had had a first-time-ever allergy attack two or three weeks before this. It started right after doing some autumn grass mowing. For two days, I had all the allergy symptoms I had always heard about and never suffered. Then it turned into a sinus infection that seemed to last and last. Somehow, I figured, by that morning, the status of the sinus infection must have changed, and a different chemistry was playing out. It must have interacted with the air from a perhaps overnight development of a certain musty-moldiness in the woods, and resulted in a yet more different chemistry in my sinuses. Voila! Combined with my recall of local history, I constructed the explanation of a dead body outside!

What message—or messages—might be writ large from this little story? The commonplace saying that "perception is reality" is not only figurative, but literal. My nasal system activity proved it. I treasure that proof for its concreteness. I have decades' worth of experience of living out of different worldviews, and am intimate with the use of multiple stories to interpret the world, events, others, and myself through those different lenses. These are more abstract experiences. But here, my distorted sense of smell taught me *afresh* (oh, how I wish that air had smelled fresh!) how really real, concrete, and seemingly indisputable our perceptions of reality—and therefore our perspectives on reality—can seem to be.

Someone who told me about a trip on acid reported the same sort of insight: on acid, the manifest world of sky and land and trees and buildings did crazy things that defied all laws of physics and thermodynamics. After the trip, the "normal world" of every day became merely another perception, held lightly, without attachment, no longer assumed to be "reality" but rather, mere likely-transitory perception.

What would our personal, interpersonal, and larger-scaled social and political dynamics be like if we all realized that what we perceive in self, others, and the world was not necessarily so? What kind of transformations might result?

My hopeful hypothesis is that many would discover how essential it is to become earnest inquirers into our own and others' experiences: question-posers, answer-seekers, and assumption-disrupters who assume little but discover much by asking questions, by probing our experience, by doubting both our senses and our sense-making, by questioning the stories we tell ourselves about how we, others, and the world work. Dare we imagine that?

What further kinds of transformations might result from that sort of transformation? Ahhh…. I can think of multitudes of behaviors and assumptions that would find replacements, in such forms as co-constructed, multi-faceted versions of many diverse persons describing "how it is, what it is, from my perspective." Dare we imagine that?

And what kinds of transformations might result from *those* sorts of transformation? Ahhhhhh…! We would learn how to tango[1] with our multi-faceted selves and our multi-faceted fellow beings in our families, organizations, communities, regions, nations, and natural world. We would learn new dance steps and dances to tell ourselves new stories about how we work our world and hand us mirrors to see how our stories tell us. Dare we imagine that?

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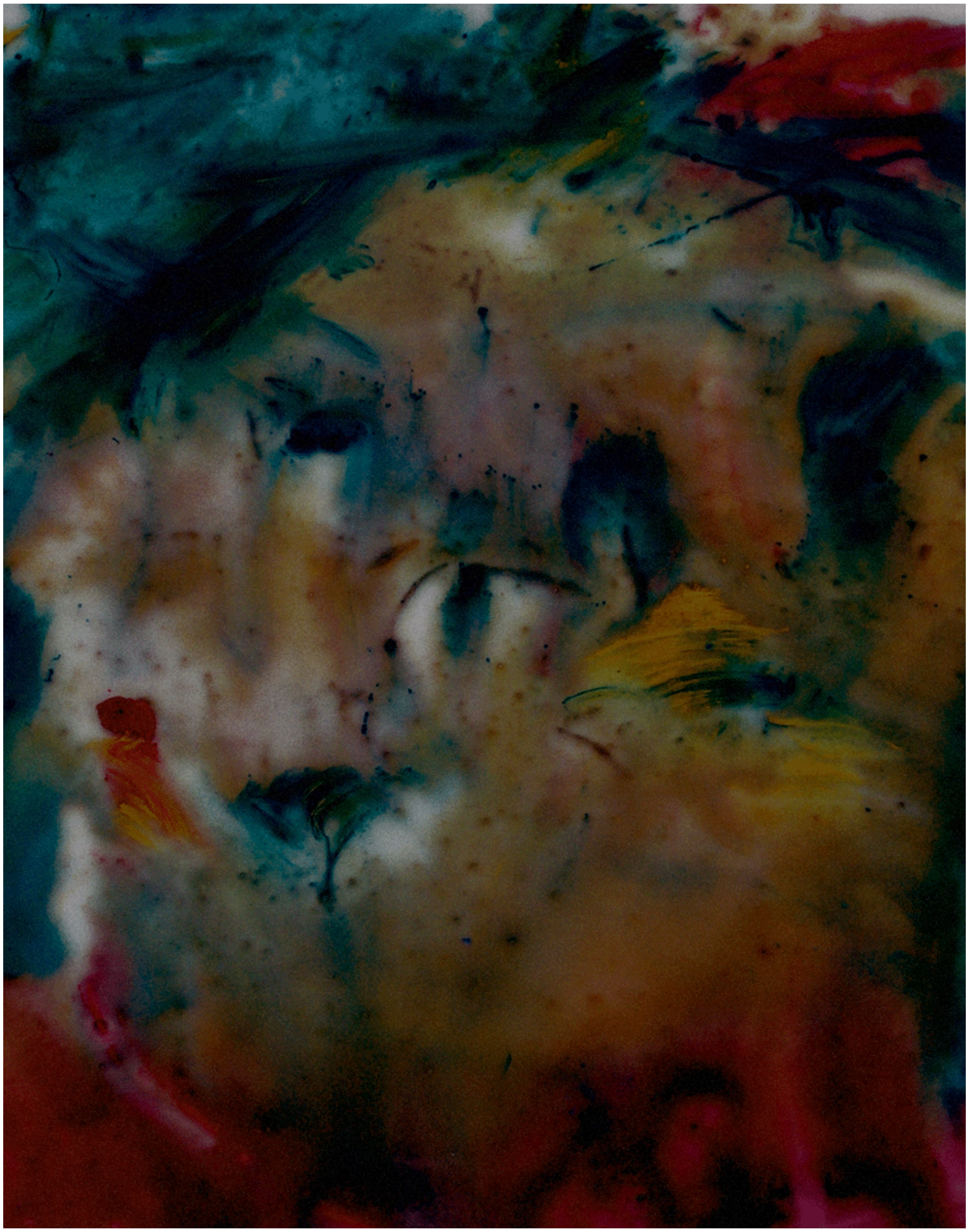
[1] For more about these dynamics, see Ross, S. N. (2005). Toward an integral process theory of human dynamics: Dancing the universal tango. *Integral Review 1,* 64-84. http://integral-review.org

And what kinds of transformations might result from *those* amazing transformations? A-ho! We would name how we must work ourselves in our world differently and actually do so. Dare we imagine that?

After the trip, the "normal world" of every day became merely another perception, held lightly, no longer assumed to be "reality."



Held Lightly, watercolours, acrylics and oils *suspended* over stretched canvas, Andrew Campbell April 2008

How Then Do We Choose to Live?
Facing the Climate Crisis and Seeking "the Meta Response"

Jan Inglis

Abstract: The author observes that a sense of hopelessness appears to be forming in our culture in response to recent descriptions of the impact of climate crisis. This reaction is compared to the way people respond to diagnoses of life threatening illness. Stages of reactions to difficult news are known to accompany such responses. The author shares her own sorting of responses as an example of stage transitions in the process of grappling with the difficult news of climate crisis. Transitions from one stage to the next are developmental. The importance of bringing resources from the field of adult development into the field of public deliberations to address the climate crisis is emphasized. A meta approach, "the Gaia approach," is proposed, as are many questions for individual and public reflection.

Keywords: adult development, climate crisis, deliberation, developmental, Gaia approach, meta approach, stage transition processes, complexity

Introduction

This article shares observations about and reflections on the progression of peoples' responses to climate change. Here, climate change includes the associated challenges of ecological overshoot, overpopulation, peak oil, and political economic instability. Although originally I had not planned to write a series, this article does appear to be a sequel to my essay in the December 2007 issue of *Integral Review, Reactivity to Climate Change* (Inglis, 2007). In that essay, I observed how it seemed that a tipping point had been reached and a shift was occurring. The shift was from the disbelief that there could be a climate change crisis, to a widely-accepted belief that there would be such a crisis, and thus a belief that corrective responses were needed. Now, scarcely five months later, I am writing about my observations that many people are feeling it is too late to turn the tide of devastation. This indicates a belief that the crisis is growing exponentially and cannot be averted. What a rapid leap ─ from acknowledgement of the existence of a planetary crisis to resignation that it is impossible to do anything to make a difference. Some have noticed there are different reactions in various regions of the world. Some have likened this range of differences and acknowledgments of the situation to being on the Titanic, recognizing or experiencing the crisis at different times, depending on the class of berth inhabited on the ship (Baker, 2008).

Voices of Resignation

One woman I spoke with the other day said that the human race should die off, because it had messed up the planet so terribly. I asked how that was for her, to think that way in view of the fact that she was a new, proud grandmother. She said firmly, "I just don't think of it." A friend, a

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father of two who has been an active environmentalist working to protect water quality and wildlife habitat, told me the other day that he feels that his last 30 years have been a waste. He said he is getting older and wants to focus now on taking care of himself, travelling and enjoying the things he can while he still has the health to do so. Renowned scientist, author and futurist, James Lovelock, is saying nothing can be done to avert the catastrophe. Forty years ago he proposed the Gaia Hypothesis, indicating that all living and non-living aspects of the earth form a complex, interacting system. This system can be thought of as a single organism. Now, based on his and others' research, he is saying that as soon as 2040, much of the Earth's current population of 6.6 billion people will be culled. By the end of the century, he forecasts, only about 500 million will be left hanging on to life by living in the cooler latitudes of the planet.[1]

At the institutional level, the United Nations' Intergovernmental Panel on Climate Change, considered by some to be conservative in its estimates, is saying that we have only three to five years to reduce greenhouse gas emissions, after which it will be too late to avert climate change. It forecasts the devastating heating up of both land and oceans by 2°C, resulting in the extinction of at least 30% of plant and animal species mainly due to flood, drought, storms and disease. Behind the "too late" assumptions are the analyses that the amount of carbon already emitted into the atmosphere will remain for several generations. It forms a heat-trapping, life-threatening greenhouse roof over the earth. It is predicted that further emissions will result in temperatures rising by 6°C. Just as in our bodies, even a slight rise in temperature in the atmosphere disturbs the delicate balance required to maintain interdependent life systems. Such a rise would result in a 70% species loss by 2100.[2]

Even when confronted with such scientifically-based information, we see little organized response that seems to have any potential to reduce the use of fossil fuels. The topic of climate crisis, peak oil, food and water shortages, or other associated challenges are barely mentioned in the campaigns of US presidential nomination-hopefuls. People do not seem to be clamouring loudly for attention to climate change in those campaigns, either. Many people are versed enough on this issue that they do not want to be handed simple or optimistic platitudes. However, in the absence of leadership offering grounded-in-reality comprehensive approaches, it is hardly a wonder that there is a sense of hopelessness developing. This hopelessness seems to be named by those who simultaneously continue to participate in the collective "business as usual" mode. On one hand, dire hopelessness, on the other, no change in behavior to alleviate the problems driving the hopelessness. A crazy-making mixture! And for those who do express hope, saying that something will surely emerge, there is little clarity on what that emergence might look like or the detailed steps needed to bring it into effect.

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[1] Articles about Lovelock's predictions can be found in the Daily Mail of London by Sarah Sands (March, 2008) Accessed April 4, 2008. http://www.dailymail.co.uk/pages/live/articles/news/news.html?in_article_id=541748&in_page_id=1770 and in the Rolling Stone (November, 2007) by Jeff Goodell. Accessed April 4, 2008. http://www.rollingstone.com/politics/story/16956300/the_prophet_of_climate_change_james_lovelock

[2] United Nations Intergovernmental Panel on Climate Change, Fourth assessment report, Climate change (November, 2007). Synthesis report: Summary for policymakers. Accessed April 4, 2008. http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf. Arthur Max, (November 17, 2007), *UN Panel Gives Dire Warming Forecast,* Associated Press. Accessed April 4, 2008. http://news.nationalgeographic.com/news/2007/11/071119-AP-climate-change_2.html

Processes and Results of Coping with Difficult News

This prognosis is stark. It is incomprehensible! It is also so vivid and apocalyptic that it can focus our attention and frame our beliefs. I am noticing even as I write, how this dark cloud of absolutist doom can be compelling, overtaking my sense of other life options. I may have taken you, the reader, into this cloud with me. It can spread, become pervasive and self-generating. In this dark light, it could make all of our efforts in all kinds of fields of endeavour seem irrelevant and futile. How then do we choose to live? How do we define motivations and priorities in the context of possible mass extinction?

It is hard to talk about the possibility of this catastrophe, just as it is hard to talk about the prognosis of terminal illness. It is hard to write about it. It may be hard to read it. However, not opening this topic for direct attention, and in a publicly shared manner, would cut off the opportunity to engage and catalyze new perspectives and actions. Several years ago it was common practice for physicians to not tell patients they had been diagnosed with a terminal illness. This information was withheld out of fear of upsetting patients or their families. This was a paternalistic approach to physician-patient communication. More recently, this physician-patient relationship has changed from one of paternalism to one of respecting and supporting the patients' needs and rights to know about their health status (O'Rourke, 2000). In the Western world, the topic of death now has less taboo associated with it. This contrasts to years ago, when people died in relative isolation. As they went through the dying process, their loved ones mostly carried on in a "business as usual" mode. This was not for lack of caring, but for lack of knowing how to navigate such vulnerable and unknown territory. Often the inability to share this poignant journey became as painful as the physical dying itself. A cultural change is evident as hospices and conscious dying processes are becoming more widely available and publicized.

It is one thing to contemplate one's mortality from the abstract distance of years in the future. It is a different thing to have it take on a closer, more concrete reality within a possible two to three year time frame. Accepting death sits in tension with wanting life. There are almost as many ways of responding to this tension, as there are different people. Some wish to avoid the tension and do not transition beyond the overwhelmed feeling of shock. Yet, there are also stories of other people, who in the process of dealing with this tension, have shifted from the daily habits of a life they used to take for granted, to an awakening of aspects and experiences of themselves and the world that they had not observed before. Some have been thankful to have this wake up call; it allowed them to appreciate and therefore live the last part of their life with a fuller consciousness, redefining what a good life is. For some, this shift in perception has extended their life, and for others, it has even changed the diagnosis of their health status and its prognosis.

Can the intense work of noticing, sorting, prioritizing, and reconciling choices actually transform an individual's biological, neurological, cognitive, and emotional patterns and thus allow a more integrated pattern to emerge? Many studies, including those on brain plasticity (Doidge, 2007), would suggest it can. This process, then, of confronting difficult news about personal survival can have generative impacts resulting in life-changing qualities and even transformative outcomes. What might we glean from this?

Towards Making Connections and Synthesizing Directions

The transition process of moving from hopelessness or denial to changes in attitudes, behaviors, and assumptions has been observed in numerous studies of "the grieving process" and by many who have companioned dying persons and their loved ones. Widely recognized, this is a nearly universal, if not truly universal, human process of adapting to new circumstances and arriving at new insights. I suggest this model of stage transition (see Commons & Richards, 2002), which describes the process individuals use to sort responses and make decisions, offers us a way to understand the universal, developmental stage transition and cultural decision-making.[3] To step back and to view this process as a natural developmental transition process offers a perspective from which to make sense of the divergent often confusing mix of thoughts and feelings that arise on the road to resolving angst.

It seems important to bear in mind that the prognosis of climate crisis is based on current perceptions and projected outcomes. We arrive at these based on our assumptions of what would continue to occur in a linear logical manner as a result of known conditions, actions or inactions to date. These assumptions may not be taking into account the impact that clear consideration ***of*** these projected outcomes might have ***on*** the outcomes themselves. This self-reflective inquiry creates feedback loops, and learning. These in turn can potentially generate new, yet unseen options and adjustments. These adjustments could alter the course of the prognosis.

Observing myself in this process of viewing the climate crisis offers a place from which to inquire and reflect. When I can do this, I am not so embedded in this prognosis as the only truth. This reflective analysis allows me to move beyond the either/or dilemma, i.e., either rejecting the climate change prognosis or just accepting the hopelessness of it. I am not able to reject it because I can see the legitimacy of this information and am not willing to put my head in the sands. Nor am I able to accept a life with no hope and impotent action, because I am not willing to live without trusting the power that observing, learning and choosing has on producing more satisfactory outcomes. This analysis is fed back into my original response to the stark climate crisis prognosis. Based on this feedback loop I realize I have to adjust and move beyond this unsatisfactory and stuck either/or position, and search for new and broader options.

This searching leads me to recognize that I although I see and accept the situation, if I labour under an assumption that I can create change of this magnitude alone, it is counter productive. I feel the necessity to engage with others who are willing to grapple with this challenge. I also recognize that this is not just your run of the mill, everyday quality of grappling. It means high stake investments of commitment and focus. It requires us to pay attention to both the personal (be self-reflective of one's own experience), the interpersonal (work with what happens between us) and the global (notice patterns of systems within systems). It also requires us to be specific about what we have to grapple with and not get lost in abstract concepts. Then efforts can result in co-designed meta approaches (Ross, 2008) to undertake potent, rather than impotent, action. Through my sorting process, of generating and weighing out options, I eventually arrive at an acknowledgment that for any of us to assume we can resolve this issue without the generativity of diverse minds working together could breed a futility of its own.

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[3] Stage transition outlines the decision making process as it moves from the original thesis (yes, this is true), to antithesis (no, it's not), relativism (yes or no), smash (many additional options to weigh) and finally synthesis or resolution (ahhh, this is it).

The hopelessness or avoidance I have been noting in response to the climate crisis may be signs of being stuck in stage transition, unable to create and weigh out new options. Being stuck when facing a crisis does not gain us evolutionary points. How can the use of adult development theories and research on stage transitions help us move out of this stage transition stuckness? Because the crisis is a complex, interconnected planetary issue, no single individual, group, corporate conglomerate, government, or international agency will be able to solve it. It is necessary to build structures for public interactions that match the complexity of the situation and support the quality of outcomes we want to achieve (Inglis, 2007). These interactive processes need to support diverse minds working together to co-design and weigh out new meta options. If these processes are designed from an understanding of the developmental diversity of adults, they are much more likely to support the quality of shared meaning making and deliberative decision making required to create comprehensive responses. In this way, I propose that knowledge gleaned from theories of adult development and adult learning have much to offer to the work on climate crisis. My concern is that there seem to be few who employ such theories in specific, on the ground, initiatives in this climate crisis domain. In general, the related fields of public policy, dialogue and deliberative democracy, and the related fields of adult development and learning appear to be standing as surprisingly separate silos. I advocate for dismantling these and many other such silos that limit our ability to see and work with the whole. I also advocate for and even predict that a new integral field of public issue analysis is ready to emerge. Through being comprehensively structured, it can potentially move us beyond those limits and support more effective approaches to our complex challenges.

A plethora of books, movies, and programs focusing on climate change is suddenly available to us, but few of them are informed by empirical research into adult development. Many attempts to explain why we have created this desperate crisis blame our stupidity as a species, for example, for having moved from being hunter/gatherers to being agricultural users/abusers of the earth. Or they blame us for being mesmerized by illusions about the industrial or technological revolutions.[4] Both anthropological and adult development perspectives view these phases of evolution and societal changes as natural progressions, each building from the necessity to learn from and adapt our behaviors, attitudes, and systems to overcome the unmet demands of a previous phase. Through the process of development, limitations are reached within each stage. Although we can see these in hindsight, we could not have skipped going through these progressive stages at the time. There is little justification, then, for blaming the species for doing what a species does by its nature, or for thinking we can go back to and live the way we did prior to these phases.

Moving beyond the tendency to lay blame enables us to see that the challenges and limitations can only be resolved through deeper grappling with them. The experience of limitations is what motivates the search for what would overcome these limitations, and build the next adaptive stage. As a species, we had only fragmented views of what we were doing in the agricultural and industrial revolutions. At the time, they seemed like great adaptations to the limitations of the previous phase. We had no world wide web then. There were no wide scale, collective-engagement methods to gather and consider information, track feedback loops, and form a shared picture of what destructive patterns we were creating.

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[4] See an overview of the recent film *What a Way to Go: Life at the End of Empire* produced by Tim Bennett and Sally Erickson (2007) and book *After Eden: The Evolution of Human Domination* by Kirkpatrick Sale (2006). http://www.relocalize.net/blog/molly_brown

But now, in the communication era, with life conditions that support further individual, cultural and technological development, many of our previous communication and information limitations have been overcome. Now, for those living in such conditions, a meta picture is forming about our human and technological evolutions. This understanding is available for us to apply to this situation. If we had known better back then, we would have done better. We do know better now, and we have the option therefore to do better. We can feel the life threatening limitations of the phase we are currently in. We need to move beyond the taboo against discussing these threats, grapple with them in a publicly supported manner and be pushed by them to adapt. As a result, if we are motivated, we can potentially change the trajectory of the crisis.

Diverse Minds Seeking Meta Approaches

Currently there are almost as many different perspectives on the climate crisis as there are people. These perspectives have tensions and trade offs associated with them that need to be surfaced and publicly deliberated so we can make decisions we are willing to live with. The following recounts some of the most prevalent perspectives I have researched and observed to date from various sources (Inglis, 2008). For some, protecting their own community is the best approach to the impending peril: growing food, conserving water, living simply, and independently gives a sense of power as it offers something concrete to do.[5] One consequence that would need to be considered in this approach is how to deal with the influx of environmental migrants, which could threaten the desired sustainability, and possibly trigger a militant form of protectionism. Through a different lens, some look to government to provide order and to develop and enforce corrective policies and structures. A consequence of taking this approach could be the slowness of government to respond and the distrust in leaders' ability to grasp the severity of the issue. From yet another perspective, some believe that many kinds of innovations and new technologies will offer creative strategies to solve the dilemma.[6] A consequence, which would need to be considered with this approach, is the unintended and often harmful results of short sighted and often short-term disconnected technological fixes. These trigger reactive suspicion of modernity in general, so incur resistance. Finally, looking through another perspective, some feel that deepening a sense of connections to each other and all living things will inspire less destructive ways of inhabiting the planet. A consequence of this approach is that it lacks details of how to coordinate and implement this inspiration into concrete steps that effectively impact the issue. A further consequence is that the sensitivity and large vision this perspective promotes often turns off those whom it hopes to include and therefore also incurs resistance.

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[5] Much of this approach is happening under the name of "relocalization" and information can be found at http://www.relocalize.net/about/relocalization (Accessed April 2, 2008). Justification for guerilla type action are described at http://www.geocities.com/~dmdelaney/what-to-do-in-a-failing-civilization.html (Accessed April 2, 2008).

[6] Ray Kurzweil, inventor, author and futurist states with optimism that he is confident that the acceleration and expanding capacity of information and nano-technology will solve, within twenty years, the problems that now preoccupy us.
http://www.kurzweilai.net/meme/frame.html?main=/articles/art0692.html (Accessed April 2, 2008).

These are all very different and very legitimate perspectives, each accompanied by implications. Movement forward is often blocked due to the competition between the ideologies of these approaches, each blaming the other for causing the problem. This paralysis is another example of the stuckness in stage transitions we need to be aware of and respond to. As mentioned earlier, being stuck when facing a crisis does not gain us evolutionary points and it is definitely a limitation we need to surmount in our current climate crisis. A meta approach designed from an adult development perspective could include these diverse voices and coordinate their multiple action responses to enable moving forward in a comprehensive effective manner (Ross, 2008).

Looping back to Lovelock's Gaia Hypothesis, is there a way we can integrate our diverse perspectives to function like Gaia: to knowingly *be* a complex interacting system of biological, geographical, cognitive, spiritual, scientific, political, emotional, and technical subsystems? What would a Gaia approach look like? If we put it in place now, could it allow many to not only survive, but evolve and thrive through and after the climate crisis?

It would mean acting out of a coherent synthesized meta response, not out of a stuck or chaotic transition stage described above. It could mean coordinating local sustainability initiatives with effective policy and structures (mentioned earlier), while creating, testing and distributing innovative technologies, with a sensitivity to our impact on others, locally and globally, human and non human. Are we capable of moving beyond our personal shock, disbelief, and hopelessness, beyond concern for the well being of just our descendants and communities, beyond our various ideological stances, beyond the dislike of sorting through tensions and attending to details, to thinking and acting like interdependent species? Are we motivated to overcome the limitations of this stage we are in right now? I believe in this motivation lie many possibilities to take us beyond the option of hopelessness to a response Gaia can live with.

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Appreciatively Critical Reflections on a Retreat with Adyashanti

Grady McGonagill

With an Introduction by **Bill Torbert**

and with
Another Step in the Walk of a Thousand Hills, I and *II*
by **Andrew Campbell**

*Editors' not*e: This reflective essay by Grady McGonagill is introduced below by inclusion of the cover note Bill Torbert used to circulate the original version of the essay among colleagues he thought would be interested. Both Bill and Grady have agreed to this combined publication. Grady also welcomed the inclusion of IR Arts and Creativity Editor Andrew Campbell's art, inspired by this essay. For readers' information, Grady also shared a version of his essay with Adyashanti, inviting his reflections or reactions that could be included with the essay's publication. Although to date, Grady has received no such response, he, and we, believe it is important for readers to know that opportunity was extended.

❧

January 2008

Dear Friend,

I am sending around, to good friends with a spiritual orientation, this essay on a contemporary young guru's conference, written by my friend and fellow inquirer, Grady McGonagill.

I am forwarding this short essay because it seems to me exemplary in terms of the sort of appreciation/critique that a dedicated action researcher can offer. It is attentive to the single-, double-, and triple-loop feedback generated by his own perceptions and actions, and attentive as well to the mutuality (or lack thereof) evolving in a given situation. Therefore, it seems to me, the essay has potential value for the person writing, for other participants in the event itself, as well as for others engaged in spiritual inquiry.

In a more general way, this vulnerable, self-disclosing case study seems to me to highlight the inevitable paradoxes and outright incongruities that occur whenever someone takes/accepts a guru-esque role and claims to profess "the true way" to others who are but seekers. At the same time, the essay illustrates how any such sense of critique must lead to creative action on one's own part if it is not, itself, to fall into hypo-critical self-contradiction.

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I suggest that more participants in activities intended to be spiritually, politically, or scientifically transformative share self-observing tales like this with the initiators and other participants of the event, as well as other interested parties.

With best wishes for the New Year,
Bill Torbert

* * *

April 6, 2008

Given that for several years I had been seeking an opportunity to participate in an extended retreat with the meditation teacher who calls himself Adyashanti, it came as a surprise that when a chance finally came—at the Asilomar conference center near Monterey California, in December 2007—I decided to leave early. Like other participants, I had made a commitment to attend the full 5-day retreat. However, I left on the morning of the 4th day. One way to explain this is I was disappointed with my experience. Another, equally true, would be to say that I got what I came for and awarded myself an early graduation certificate. Still another would be to say that I got more than I came for, namely insight into my motivations for attending such a retreat and some of the underlying patterns of which that was an expression. These notes offer reflections on that experience and a preliminary report on what appears to be a resulting substantial impact on my life.

There’s much that I find admirable and attractive about Adyashanti. I was initially drawn to him by his approach to meditation, which is very non-directive. He writes, “True meditation has no direction, goals, or method. All methods aim at achieving a certain state of mind. All states are limited, impermanent and conditioned. Fascination with states leads only to bondage and dependency.” As someone who had always had great difficulty with efforts to achieve something in particular in meditation, such as maintain attention on the breath or strive for awareness free of thoughts, I found this perspective liberating.

Despite the pretensions of his name, (Sanskrit for “primordial peace”) Adyashanti encourages people to call him “Adja.” He reports with amusement that his audience tripled when he switched from his given name (Stephen Gray). He trained for many years as a Zen Buddhist with Arvis Joen Justi, a (female) student of Taizan Maezumi Roshi of the Zen Center of Los Angeles. But he left this tradition and has gone out on his own. His retreats are now in such demand that access is by lottery. There were 350 people at this retreat.

Part of his appeal results, I think, from his presenting himself as a kind of “regular guy,” one who enjoys playing cards, riding his motorcycle, and watching sports on TV. He sits in a comfortable chair rather than on a traditional mediation cushion. And he says he does not like burning incense or doing other conventionally “spiritual” things—all in all, a very “non-spiritual” spiritual teacher, in his own words. Consistent with this image, he disdains many of the formalities and rigors of Zen practice, such as maintaining a rigid posture even to the point of intense pain (he reports that such practice led him to do serious damage to himself by tearing a ligament). And he has little patience with the hair-splitting ideological wars within different schools of Buddhism or among other religions. For example, early in the retreat he made fun of the mindset that led one school of Buddhist thought to refer to itself as Mahayana ("greater way") and the preceding tradition as Hinayana ("lesser way"). Similarly he mocked the tensions between the "gradual awakening" and "sudden awakening" schools of Zen which was very amusing. And he couldn't resist making a joke of more innocuous traditions, such as the practice at many meditation retreats of "eating abnormally slowly."

The teaching style on retreats, if this one was typical, consists of meditation (he distributed a handout entitled "True Meditation" but didn't talk about it much) and "satsangs"—one in the morning and one in the evening—two hours each, of which part is lecture and part is taking questions from participants who come forward and stand at a microphone. I found more than a few nuggets of wisdom in the presentations. For example, I found him particularly compelling on the meaning of "non-dual," which he portrays as a full embrace of two worlds, one relative, one absolute, not just an ascendance into the absolute. He drew on unusual sources on this point, quoting the bible ("the fox has his hole, the bird its nest, but the son of God has no place to rest his head"). He often brought in good quotes: e.g., "When I look inside and see that I'm nothing, that's wisdom. When I look outside and see that I'm everything, that's love. And between these two, my life turns" (which I've since tracked down: it comes from Sri Nisargadatta Maharaj.) And he told good stories. One contrasted two different Buddhist teachers in the way they responded to women who had just lost their husbands. One (unnamed, presumably contemporary) teacher responded by telling the woman that what she experienced as pain was all just a "story" that she needed to let go of. The other (named something like Papaji) walked over to the woman, put his arms around her, and held her as she cried. Presumably there would be time for a conversation about the "story" later. Adyashanti's preference for the latter response reflected an intuitive practical wisdom about how to apply Buddhist teachings that was often evident. In this case he mused, "I wish I had been in the room with the first teacher, with a large object in my hand, which I would have loved to have thrown it at him, and then asked, 'Who's feeling that pain, Mr. Nobody?'"

On occasion he also responded to questions in a way that I found compelling. For example, one woman reported with dismay that she had cut herself off from events in the world because she found all the rapes and violence too painful to let in. She felt herself to be both sensitive and cowardly. He suggested that she had in fact already let the world in, and was deceiving herself that she had not. She agreed. He asserted there was a true self in which there was room for all the pain in the world. He could see in himself, for example, all that which appeared as evil in the outer world; he invited her to imagine that so could she. She was able to make sense of this in terms of Jungian psychology, with which she was familiar, along with the notion of projecting outward repressed thoughts and feelings. And it seemed to be helpful to her to realize that in fact she had not shut things out as fully as she imagined. She seemed to go away satisfied. At other times he played the role of cognitive therapist in the style of Byron Katie, with a dash of humor. To one person he said, after listening for a few minutes, "OK, This is the part where you tell me your story and I ask you, 'Is it true?' I'm giving you the McDonald's drive-through version of spiritual growth."

Although this way of thinking was not new to me, one valuable part of the retreat was that I was able to take advantage of the uninterrupted time to apply some Buddhist-influenced cognitive therapy to myself, clarifying particular stories I was telling myself and asking if they were true. For example, I discovered on arrival at the retreat that I was experiencing a relapse of a fatigue syndrome that had immobilized me 25 years ago but which I had managed to keep in check during most of the intervening time. However, this was the 3rd relapse within 6 weeks and I found myself quite depressed about it. I decided to deconstruct the thinking process leading to the depression. Here is the chain of thinking I identified:

- "I will never get better."
- "If I never get better I will not be able to make the contribution to which I aspire or fully realize my values."
- "If I don't do that, then my life will not have been worthwhile."

Looking at this story with the intensity and detachment possible in a retreat, it seemed less than fully true. I began to sense the value of accepting the possibility that I might not get better. This led me to decide to conduct an experiment, to declare that my life was "over" (much in the way that a financial institution might write off sub-prime loans). I even mentally rehearsed my own epitaph, and decided that I could "live" with my life being effectively over as concerns anything productive. From this perspective, any additional day was grace. I could make of it what I wished, without feeling burdened to achieve anything. Somehow this felt very liberating. So although I never approached the microphone myself to seek direct counsel from Adyashanti, I was able to use the experience of the retreat to work through issues like this in ways that were inspired and supported by the retreat, which I presume was the aim of the "satsangs."

But although there were a number of exchanges that seemed productive and some that I found personally helpful, at many other times I felt troubled by the interaction between Adyashanti and the people who came forward. Many described their problem in such abstract terms that it was hard for me to understand what they were asking, and equally hard for me to imagine that he understood them either. Sometimes the description didn't go beyond metaphors, e.g., "I'm like a dog that won't let go of a bone, and the bone that I'm chewing on is my own leg." In this instance Adyashanti deftly invited the speaker to consult his own inner wisdom, which seemed to work very well, and didn't require that the teacher understand the literal content of the metaphor. However, in most cases he began offering commentary, often without asking questions, or very many questions. Rarely did he ask for concrete examples. Instead he tended to move quickly to dispensing advice, sometimes even before a question had been posed. I often found the advice to be quite abstract and as unclear as the questions. People usually reached a point where they seemed satisfied, but I wondered whether they felt too embarrassed to say that they, like me, didn't get it. (I recognize that these critical observations would carry more weight if they were supported by concrete examples, but I failed to note any at the time and couldn't recollect any later. I recognize that others might have interpreted the interactions differently).

I also found myself troubled by Adyashanti's use of concepts to explain his approach. Although I liked his approach to meditation, I was less fond of his name for it: "true" meditation. Doesn't this name imply that other approaches are not true, or less true? And if so, isn't Adyashanti doing precisely what he criticized others of doing when they declare their approach to be "better"? To his credit, he more than once said, following the Buddha, "Don't take my word for anything. Try it out in your own experience." But some of his teachings are so abstract that I find it hard to imagine how I, or anyone, would test them out. E.g., his definition of "true meditation" contains a number of sentences like the following: "Silence is the non-state from which all states arise and subside." I have no idea how I would find out through my own experience whether silence is a "non-state." How indeed could I determine whether/how a non-state is different from a state? Most troubling of all, one person asked him whether his approach depended on beliefs. Among the things he said in response was: "beliefs are about things that you aren't certain are true. If you know they are true (for which he gave the example, 'that I am speaking into this microphone') then they aren't beliefs, rather they are 'truths'." I found this a deeply disturbing assertion. Apparently he would have us see his approach to spirituality as consisting of "truths" rather than "beliefs." This suggests that he regards his own approach as self-evidently true and beyond dispute, presumably in contrast to other systems, which are based on "beliefs" that can be challenged. If I heard him correctly, he would seem to be taking a self-righteous stance not unlike that for which he had mocked other traditions.

On the second and third days of the retreat I spent a surprising amount of time and energy preoccupied with criticisms of this kind. I wondered whether to take them seriously, or simply as an expression of an overly-developed skeptical part of myself that often emerges during retreats and workshops (not to mention elsewhere in my life), which I am working to manage in a way that is less reflexive and more intentional. At one point I sat for three hours without interruption, and realized that I had spent over half of the time mentally rehearsing different ways of framing a challenging question to Adyashanti in front of the group, trying to strike the right balance among humility, curiosity and challenge. What an astonishing expenditure of energy! It became clear to me that by focusing on these criticisms I was directing my attention away from many other things that could be a source of learning, such as my fear about letting go of narrow constructions of my identity in order to engage the mystery of being and have the faith to tolerate the awful and magnificent uncertainty of a vast, unbounded and not fully knowable universe.

I was moving toward just letting these thoughts go and trying to redirect my attention away from comfortable criticisms of Adyashanti and toward less comfortable but potentially more generative self-inquiry, when on the night after the third day I had a transformative dream. In the dream I was making my way up a steep incline, pulling myself through underbrush, when I passed by an old rusting automobile. On the left fender I saw, to my delight, a pair of glasses that I had lost in my home a couple of months ago. I took the glasses and proceeded up the hill with a palpable sense of well being. As I recorded this dream in my journal, I recalled that earlier in the night, before going to sleep, a line from a Bobby "Blue" Bland song drifted through my mind: "There's no one blinder than he who won't see." Putting these two things together, I had an epiphany: "I can see! All I have to do is put on my glasses! I don't need to be huffing and puffing up the hill, struggling through the underbrush (i.e., my struggle with a tendency to be critical of the retreat). I already know enough to be able to do what I need to do on my own." I felt exhilarated by this insight, and went back to sleep happier than I had felt in some time. Early the next morning, walking along the Monterey Beach, I mulled over what to do with my insight. Should I make it public in one of the day's satsangs? Or perhaps pose a question about my criticisms, balanced by my insight? It occurred to me that my conclusion was very consistent with Adyashanti's teachings: "You are already awake. You just need to realize it. You don't need to do anything. You don't even need a teacher." As I mused on the possibilities, and enjoyed the sound of the surf, the thought hit me: "I don't need to sit through any more of this! I could be home this evening! I don't need anyone else's knowledge or approval or permission. I got what I needed and I'm out of here." Within little more than an hour—but, I confess, more than a little perseveration—I made the necessary arrangements and was on my way to the San Jose airport.

As I travelled, I added another layer of interpretation, building on some other "chance" experiences. I had found a pocket knife in front of the bungalow where I was staying. And by "coincidence," behind him on the stage, Adyashanti had a statue of a Tibetan deity—Manjusri, the bodhisattva of wisdom and awareness—wielding a sword, a symbol of "cutting through bullshit" he said. Linking the found knife with the sword, I saw myself as cutting through the illusion that I needed something outside myself to be complete, to gain insight. And this lesson did not apply just to Adyashanti. I saw my whole orientation toward spiritual seeking as being driven by an underlying assumption that I was inherently deficient, incomplete, and needed to fill myself up with something from the outside. I had been aware of this pattern for some time, but unable to put it in perspective and let go of it. At last, I had an emotional footing—a message from my unconscious in the form of a dream, reinforced by the synchronistic metaphor of a sword—from which to cut through and let go of that limiting belief.

And then a deeper level of insight emerged. Although it was only during the retreat that I became critical of Adyashanti's teachings, I realized that I had more than enough evidence beforehand to have aroused my suspicions. I had known that he called his approach "true meditation," for example. And I recall reading the definition with the abstract language a few weeks earlier, and thinking, "Hmmm, don't know about that." Why had I ignored those clues? I decided that I had fallen victim to my yearning for a teacher who would point the way to enlightenment, teach me about how to attain it. Although I am sufficiently skeptical that I don't easily allow myself to indulge these yearnings, or attach them to anyone, Adyashanti had gotten through my first level of defense with his non-directive approach, reinforced by strong endorsements from several people I know and respect. I had then become all too willing to give him benefit of the doubt. I was guilty of overlooking disconfirming evidence to serve what I wished to see—something that drives me crazy when I see other people do it! Very humbling. Very eye-opening. Another step in the walk of a thousand hills, the never-ending trek toward self knowledge. All in all, well worth the price of admission to the retreat. The irony being that although I learned that I didn't "need" to go to the retreat, in fact I had to go to learn that, and something about Adyashanti's way of being/teaching may in fact have made this insight possible.

Epilog

In contemplating these reflections as I wrote them, I found myself wondering whether the insights would have a lasting impact (evidence of playing a "larger part"), or merely be a set of intriguing but ephemeral epiphanies (for which I had ample precedent in my life). The evidence so far—two and a half months later—is mixed but encouraging. On the disappointing side, I find that little remains of the perspective in which I had made my peace with thoughts that I had to do still more for my life to have been worthwhile. It surprises me to note this, as I had returned from the retreat quite excited about this perspective, and talked it up to friends. But a deeply ingrained achievement-oriented mindset has settled back in. To be sure, when I now notice self-critical thoughts about my declining abilities, I recall the exhilaration of being able to step out of that mindset at the retreat. But it now seems a dim and distant perspective, not one that I have internalized. There is probably some value to that memory as a benchmark of an alternative perspective, but I suspect it would take far more work of that kind, or reinforcing work of a different kind, to fully integrate new thinking into my consciousness.

Far more encouraging are several indicators of an increased inclination to act. I acted in three ways in the aftermath of the retreat that I believe were influenced by the retreat and my reflections on it, although they were probably also an expression of shifts that had been percolating for some time. First, within a few days of my return, I signed up for some volunteer activity. I had sensed for some time that I would do well to put more energy into "giving" in addition to "searching," but had dismissed the impulse on the logical grounds that my professional work was about giving and that in any case I tend to make substantial financial charitable contributions. But now I made a specific commitment to do something humble and concrete—spend a Saturday putting together Braille books for blind children. Moreover, I've noticed since then an increased tendency to act on feelings of compassion for others. Second, it became clear to me that I needed to "wield the sword" within my family, to cut off my youngest brother from his continuing financial exploitation of my 86-year old mother. Within a few days of the retreat—and in collaboration with my sister—I found a way to do this.

Finally, and most significantly, after three weeks I decided to initiate the deepest cut of all: separation from a marital partnership that had been stuck for many years. This was the hardest decision I've ever made; indeed, I unmade and remade it a dozen times over a period of several weeks. Taking this step—like leaving the retreat early—could lead to breaking a vow ("until death do us part"). But in deciding to cut through my long-standing indecision in this area I was inspired by that moment of knowing on the Monterey Beach when it became clear to me that it made no sense to feel bound by an agreement that no longer served a meaningful purpose.

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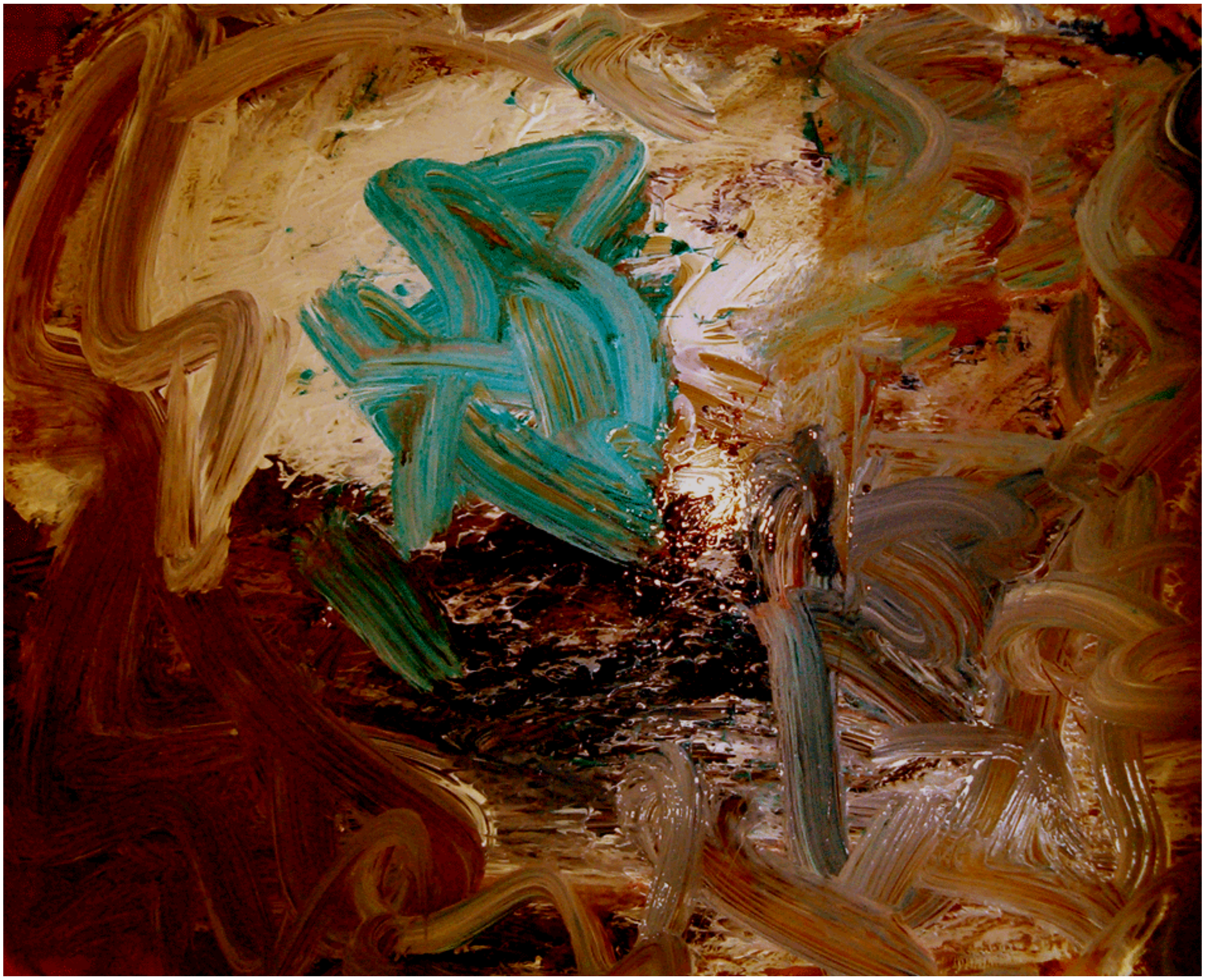
Grady's workshops on leadership, coaching, interpersonal skills, conflict management and team building have been offered through a number of executive programs, including Harvard University's Kennedy School of Government, M.I.T.'s Sloan School of Management, Babson College's Center for Executive Education, Brandeis University's Heller School of Management, and the Center for Management Research.

Grady holds an Ed.D. from Harvard University, an M.A. from Stanford University, and a B.A. from the University of Texas. He is a contributor to the Fifth Discipline Fieldbook, *edited by Peter Senge et al. (New York: Doubleday, 1994) and the author of* "The Coach as Reflective Practitioner," *a chapter in* Executive Coaching, *edited by C. Fitzgerald and J. Berger (San Francisco: Davies Black Publishing, 2002).*

Another step in the walk of a thousand hills



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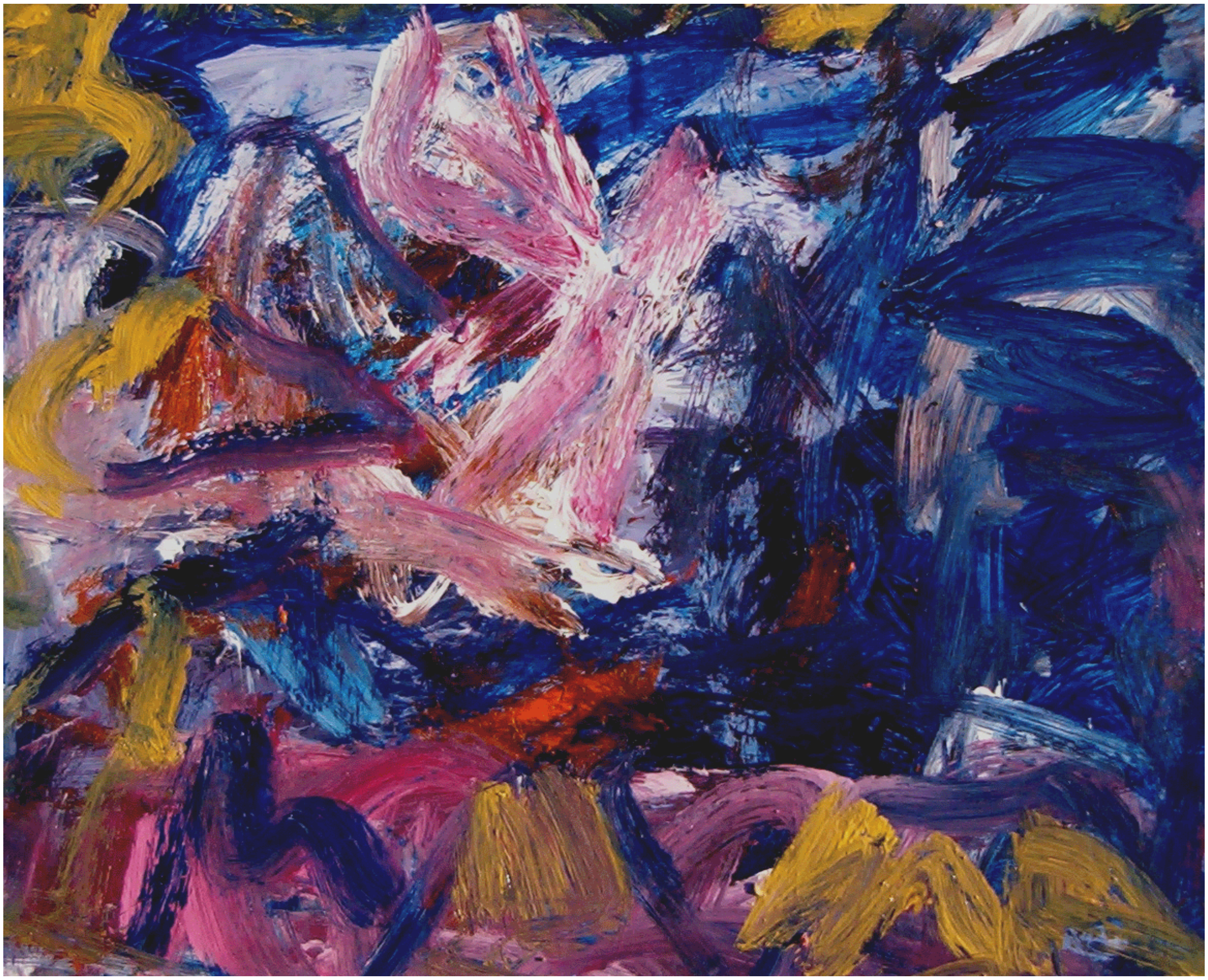
Another step in the walk of a thousand hills



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-- a line from a Bobby "Blue" Bland song drifted through my mind: "There's no one blinder than he who won't see." Putting these two things together, I had an epiphany: "I can see! All I have to do is put on my glasses! I don't need to be huffing and puffing up the hill, struggling through the underbrush (i.e., my struggle with a tendency to be critical of the retreat). I already know enough to be able to do what I need to do on my own."

Book Review

The Seeker Academy

L.D. Gussin. 2007. Housatonic, MA: 4361 Press

Reviewed by **Jonathan Reams**

Introduction

L.D. Gussin's novel *The Seeker Academy* is a perceptive examination of today's New Age truth seeking movement. Gussin describes a complex and interwoven set of threads that enables his novel to do justice to the realities of such truth-seeking. The main character, Grace Hudson, takes up the journey of finding deeper meaning in life and her experience opens a window into this world. Gussin's other characters represent core types found in the New Age movement and elsewhere, and many will recognize them from their own experience. His writing style enables a movement through perspectives in a way that reveals to the reader some of his judgments while leaving space to ponder their own view of such matters.

From this brief introduction to the novel, I want to back up a step and provide some insight into why I chose to review it. Gussin asked me last winter if *Integral Review* would be interested in doing a review of his book. I did some background research, and found that he had thus far approached over 60 editors of publications in the field of progressive, spiritual or integral thought, leaders of retreat centers (places much like *The Seeker Academy* portrays) and workshop leaders of such retreat centers as well as various scholars in the field. Only one had chosen to review his book. This piqued my curiosity. Was the book so bad that people simply didn't respond? Were they simply too busy, already overloaded with long lists of books to review? Or did it touch a nerve in them that led to a tuning out of the book's message and marginalizing it through neglect?

I saw that Gussin took aim at many kinds of practices, beliefs and ideologies that I have encountered on my journey. Having formed my own views on such things, (and often finding myself in the minority), I was interested enough to say yes to doing this review. While "integral" thinking can be applied to any topic or field of inquiry, I believe that, at its best, it is able to live up to a promise to "integrate" the spiritual into our everyday experience of life rather than treat it as some kind of appendage. I hoped to see some of these insights in Gussin's novel.

The Story

The plot line is simple enough. Grace Hudson is a former actress (not profoundly successful), turned school teacher/wife/mother with, at the start of the novel, a 12 year old niece in treatment for leukemia. Through her caring support of her niece, Grace comes into direct contact with existential aspects of life. These lead her to take a summer workshop on "Embracing Sadness" at the Seeker Academy as a way of dealing with this upwelling of deeper feelings. Once there, she

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realized that the workshop had not answered the call she felt, and chose to stay on as staff for another three weeks.

At first, Grace finds it a strange world of people and ideas, and while making a few friends among an eclectic and diverse group of fellow staff members and workshop participants, she really is looking in from the outside. As she unwinds from the intensity of her experience with her niece and settles in to the place, she gradually becomes more interested in both the lives of those she has encountered and the ideas that form the background to their seeking. She encounters yoga, meditation, body work, past life regression and a host of other practices and beliefs. She also encounters narcissism, spiritual elitism and emotional dysfunction in the people she takes an interest in. Gussin's careful narration allows the reader to see this even when Grace may not name it as such.

The mesh of these threads is brought out in the novel through a car crash involving some of her companions. The aftermath helps bring these elements into focus and propels Grace to get at the deeper meanings behind all the action at the Seeker Academy. She weaves her way between cynicism and insight, leading her to leave the Seeker Academy with a healthy dose of distaste for some of the pretenses that are seen to dominate the presenters and their offerings. At the same time, Grace is profoundly affected by her time there.

The Review

The sparse plot line I have provided above describes the outward framework of the story, which Gussin conveys in wonderful style. There is realism to the writing, grounded in both the action of the characters and Grace's reflections on and perceptions of them. The writing uses specific events and concrete descriptive language to engage the reader with the unfolding view that gradually emerges. This style also enables Gussin to avoid awkwardly slipping in long winded philosophical discourses surrounded by some sparse action. The sections of philosophical discourse are surprisingly few and emerge naturally as support for the movement of Grace and other characters.

While Gussin does not fall prey to long philosophical meanderings, he does manage to say a lot about the wide range of ideas present in the novel. He says just enough about them, woven into the context of the characters presenting the ideas and juxtaposed with Grace's perspective to create a space where a complex, nuanced and integrated view offers itself to the reader. There are no simplistic condemnations of practices or beliefs, nor hollow praise for others.

Grace's narrative is the central thread of the book, presented in a way that enables an outside perspective on everything encountered at the Seeker Academy. Gussin uses it to reveal a complex and nuanced view of what appears to be intended as a representative segment of the New Age movement. While Grace is new to much of the content she encounters at the Seeker Academy, she is perceptive and notices that most of what goes on there enacts the same kinds of dynamics as the rest of the world, simply dressed up in new clothes. Gussin is able to show very clearly how the psychological functioning of people, some healthy and some not so healthy, gets mixed with their ideologies, beliefs and how they put those into practice. The rich characterizations Gussin portrays illuminate how much of what New Age spirituality has to offer can be and often is distorted by personal needs and agendas. At the same time he also shows that despite these and other shortcomings, this seeking can be of value, that there is truth to be found.

Attending the Seeker Academy represents turning inward and away from everyday life, captured by Grace's exploration of herself beyond being a wife/mother/teacher. This inward turn allows for reflection and the opening up of space for awareness of what has always been present to come into focus. It allows Grace to encounter a full and rich landscape that she finds mirroring the issues of her everyday world at times, or perspectives and experiences she had in the past. The tensions and distortions that arise from many at the Seeker Academy who attempt to treat it as different from the world outside its gates fuel a range of dysfunctional behaviors. Grace's perception that it is in many ways similar to the everyday world reveals Gussin's capacity to hold the richness and complexity of such seeking and the places that foster it. Eventually, this time of inward reflection allows Grace to go back out into her world with a new level of awareness that has a capacity to integrate the spiritual with the mundane.

There is also a gradual unfolding of Grace's awareness and a natural rhythm to this process that Gussin captures extremely well. I have read other novels that try to convey the subtle unfolding of consciousness, and they often feel awkward, forced or artificially contrived. This is not the case here, as Gussin manages to weave into the story the psychological and spiritual awakenings of Grace so deftly that it feels like a natural and obvious response to her inclinations and the situations she finds herself in. Her seeking arises authentically, which highlights a contrast with some of the other characters who appear driven by a range of other motivations. Some of these appear as healthy, some as unhealthy, but all of them come across as real people struggling with the complexity of their lives.

The flow of the novel felt like it rose in tempo towards a climatic realization, a collapsing to a singularity that I felt rushing in. And yet, when the end came, there was a denouement of sorts that managed to symbolize and capture everything and open up into a very real and transformed future that was also open. Grace steps back into the world at large, having found in herself a confidence and awareness that many sought at the Seeker Academy. She finds that this is not something new or strange to her, but that she has simply not focused her attention on it before.

I had a great appreciation for the way Gussin presents people first, and then the ideas as inextricably woven into the fabric of their lives. This gives the book an "integral" grounding. The diversity of the cast of characters shows the diversity of reasons people seek the truth, and the multiple ways they interpret, use and abuse the ideologies they adopt.

One element present in the novel is that Gussin calls for the return of reason to balance the some of the mysticism and more foolish elements of the Seeker Academy and New Age in general. His descriptions of some of these beliefs and practices at the Seeker Academy come across as comical at times, yet from my experience I can recognize that such things are taken very seriously by many. As with any beliefs and practices, there are people who hold those of the New Age in a balanced fashion, and others who take them to extremes and lose perspective. This is often compounded and fueled by the kinds of psychological needs mentioned above. Gussin's call for a measure of reason is fitting in this context, and the long history of tension between reason and mysticism is woven into the story as a backdrop for the seeking going on there.

It becomes clear enough through the novel that Gussin sees many people being taken in by an abandonment of reason through some psychological need aiming to be fulfilled by a belief, practice or guru. As I read through the novel, what I found myself wanting to hear more of was how one could transcend and include reason. The concept of the pre/trans fallacy is relevant here. Briefly, it proposes that what is non-rational can be either pre-rational or can transcend (and include) rationality. The fallacy is that the pre-rational can be mistakenly elevated to a transcendent status. It is common in the world that Gussin aims to describe for people to proclaim the spiritual as transcending reason, (which indeed can be true), yet actually be reverting to a pre-rational stage. To me, making and applying this distinction is a key aspect of the integral project. While I could feel hints of such a view in the novel, I wished for a more clear and explicit expression of this distinction and its implications.

Why Have Others Been Unwilling to Review It?

In reflecting back on one of the points that motivated me to read and review this novel, I can now see at least one possible reason why others had not taken up the invitation to review it. While I have indicated above a clear admiration for the way in which Gussin manages to capture the depths of real human seeking, I have only briefly mentioned how he subtly reveals his view of the leaders of New Age, spiritual or integral movements.

Gussin places these people in a very human light. The limitations of their work, the mix of personal agendas with an emphasis at times on marginalizing reason to keep critical questioning at bay are there to see. Not flagrantly, but possibly enough to get under the skin of some who might style themselves along the lines of such leaders.

Beyond this possible reason, I can only speculate on why others have not been willing to review the novel. One such speculation is that Gussin portrays many of those in the Seeker Academy as being “had by” their beliefs and ideologies rather than “having” them, and thus unable to sort the feelings arising from these views from their own psychological condition. This leads to the entwinement and enmeshment of psychological dysfunction and resultant coping agendas with a host of New Age themes. This is not very flattering for those who identify with this culture, but it is this complex situation that Gussin portrays so well in *The Seeker Academy.*

So while these reasons may have contributed to the lack of reviews Gussin’s novel has received, they stand out for me as the strengths that make it a compelling piece of literature. The mix of action and reflection narrated through Grace Hudson, the deft touch of lightly interspersed philosophical offerings, the focus on whole human beings and how they have this rich variety of mixed psychologies and beliefs all contribute to making *The Seeker Academy* a compelling and insightful read. L.D. Gussin opens up a window that clearly lets the light in, and allows us to see out onto a spacious vista, replete with helpful markers to inform us on our own journey into this territory.

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Book Review

Consciousness-in-Action: Toward an Integral Psychology of Liberation and Transformation.

Raul Quiñones Rosado. (2007). ile Publications, Caguas, Puerto Rico.

by **Bonnitta Roy**

Raul Rosado's new book succeeds on many levels. He makes an important contribution to integral studies; he describes new ways for understanding group and self identity; he opens new ways for transmuting the processes of fear, oppression and victim-hood into liberation and transformation; he creates a unique synthesis between the highly rational-analytic AQAL model and the native American medicine wheel; and he creates a processural system that overlays and resonates with both models. His writing style is personal and intimate. He allows the reader to feel into his own experiences of oppression, and his own journey toward liberation and transformation. But because Rosado also has worked with various communities on such issues, he is able to put the personal in context with the group—a necessary ingredient of his work.

The main feature of Rosado's process model relies on the metaphor of a cyclone. After Rosado identifies the various patterns of oppression with respect to each of the four AQAL quadrants, he shows us that these factors are not merely inter-related, but mutually inter-*active* and continually reinforcing the system of oppression. When visualized as a process, the system of oppression becomes a cyclone of oppression, "moving" inwards, causing continual contraction of self-identity. He describes two such levels of contraction: 1) the impact of cultural oppression on personal identity and 2) the psychosocial pattern of internalized inferiority. With these system models, Rosado is able to demonstrate how the processes of oppression accumulate tremendous power on the personal, cultural and institutional levels and therefore are highly resistant to change. The systems of oppression, Rosado is warning us, are *active* not static.

In the second part of his book, Rosado puts consciousness in action. Again, overlaying the wisdom of the medicine wheel with the pluralistic methodology of the AQAL model, Rosado identifies positive patterns called "spheres" of action and influence. Rosado argues, if the direction of oppression is inward, toward contraction and stasis, the direction of consciousness is outward, toward liberation and transformation. With this process framework, Rosado is able to explain the possibility of fighting "fire with fire", as it were, by activating the positive, outward momentum of conscious liberation. This momentum requires participation at the same levels that feed the cycle of oppression – and so the active response is multi-layered, multi-leveled, multi-perspectival, and integral.

Consciousness-in-Action is a useful and purposeful manual for people interested in social activism at any level. It is also a wonderful personal narrative, giving us an insight into a caring, thoughtful, and hard-working *integrated* person. Finally, it is a great example for how integral writers can expand the existing models into process versions, into infinite riches of discourse.

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Extended Length Book Review and Integral Evaluation.

Integrative oncology: Principles and practice. 2006.
M. P. Mumber, MD (Ed.).
London: Taylor & Francis. 517 pages. ISBN13: 9-78-0-41537-415-6

by **Sara Nora Ross**

Nearly a year ago, a colleague associated with the editor of *Integrative Oncology* asked me to review the book, which at that time was still in the newly-published category. As a scientific reference text, it had been subjected to rigorous review procedures before its publication. Because I am not in the medical field, the motivation for asking me, as I understand it, was to have the book reviewed through an integral lens. To the usual functions of a book review would be added an evaluation on how the book meets such standards as we apply at *Integral Review*.

Not long after receiving that request, my 92 year old mother began a descent into ill health that turned out to be terminal cancer. My roles during her dying process delayed my reading and writing about this book while they provided my first direct exposure to the care and concerns of a cancer sufferer. Perhaps some insights gained and experiences pondered during that last journey with my now-deceased mother will be informed by and contribute to this later-than-promised review in some ways not otherwise possible.

> Integrative oncology (IO) is the next step in the evolution of cancer care. It addresses the limitations of the current system, while retaining its successful features. It includes the use of evidence-based tools that translate into definable outcome in the fields of preventative, supportive and antineoplastic care… IO addresses all participants in a sustainable process of cancer care, at all levels of their being and experience. Along with tools that translate into definable outcomes, it also includes methods that can transform the health of individual participants and the entire medical system. (Mumber, p. 3)

Thus begins the integrative medicine field's first reference text to focus on oncology. Integrative medicine is a term intentionally adopted by the field to replace the more prevalent "complementary and alternative medicine (CAM)." As editor Matthew Mumber explains in his introductory chapter, the aim of using the term integrative medicine is to replace dualistic distinctions between conventional medicine and CAM with more pragmatism, distinguishing "a form of medicine that delivers 'what works'" irrespective of such categories.

Organization of the Book

This book's organization indicates a commitment to educative thoroughness and consistency and therefore utility as a reference text. The first of two sections is dedicated to explicating principles of an integrative oncology. After the first chapter's introduction to integrative medicine and its general principles, six chapters offer context, principles, and resources on (a)

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clinical research and evidence, (b) physician training, (c) the health and wellness of the physician/health-care provider, (d) models of care, (e) legal issues, and (f) business assessment.

The second section is dedicated to practice, with an impressively methodical and highly serviceable approach to presenting material. The initial two chapters address clinical decision analysis and stages of change, respectively. The third chapter, an overview of modalities, introduces each modality and sets the presentation sequence used to organize the remaining chapters' applied subject areas. The eight modalities that are overviewed and invoked in sequence where applicable in the remaining chapters are (a) physical activity, (b) nutrition, (c) mind-body interventions, (d) botanicals, (e) manual therapy, (f) energy medicine, (g) spirituality, and (h) alternative medical systems. The authors of these overviews are also the contributors of the multiple modality discussions within the specific topics of the remaining chapters. Three of those remaining five chapters address modalities with respect to (a) cancer prevention, (b) supportive care, and (c) antineoplastic therapy. One chapter is dedicated to tobacco, alcohol, and integrative oncology. The final and longest chapter treats specific applications of integrative oncology in sub-sections dedicated to malignancies of breast, prostate, lung, colorectal, skin, and other cancers. These are followed by the final sub-section on palliative and end-of-life care.

The Chapters

Section I - Principles

1. Principles of Integrative Oncology

Before introducing the principles of integrative oncology in his opening chapter, Matthew Mumber provides a basic introduction to orient the reader. This includes an overview of integrative medicine's relationship with the conventional medicine it includes. His brief discussion of the "push" away from conventional medicine and the "pull" toward its alternatives, supported by statistics, is appropriately balanced with acknowledgment of both the positive and the negative attributes of integrative medicine. In checking, I found that the Society for Integrative Oncology (http://www.integrativeonc.org/) does not provide a definition of "integrative," but Mumber does. To do so, he draws on two general ideas from Ken Wilber: (a) since the evolution of integrative systems transpires through a combination of transcendence and inclusion, integrative oncology "must include the positive aspects of biomedicine while going beyond its limitations;" (b) a truly comprehensive integrative approach will address "all of the individuals involved—patient, family, providers, community and society—at all levels of their being (mind, body, soul and spirit) in all levels of their experience, including the self, their role in a specific culture, and the effects of and on the natural environment" (p. 6). The distraction of that assertion's grandiose scope and its odd classification of community and society as individuals are somewhat rescued by two scope-clarifying points: (a) "community" is used (in duplicative fashion, above) to refer to a group of people that includes the patient, family members, and providers; and (b) to meet the needs of these diverse individuals, a team approach to care is required.

This initial chapter of the book warrants extra space here (Table 1) to quote its list of principles of integrative medicine and then, specifically, oncology (pp. 7-8).

Table 1. Principles enumerated in *Integrative Oncology*

Integrative Medicine Principles		Integrative Oncology Principles
1. Relationship centered	7. (Continued) integrate the best therapy for individual, conventional or CAM	1. Harmlessness/beneficence
2. Cultural sensitivity		2. Service among equals
3. Individualized care based on mind, body, and spirit	8. Seeks and removes barriers to innate healing	3. Compassion
4. Patient as active partner	9. See compassion as always helpful	
5. Focus on prevention and health maintenance	10. Works collaboratively with patience and a team of providers	4. Focus on healing
6. Provider as educators and role models, i.e., self-care	11. Maintains that healing is always possible even when curing is not	
7. Evidence-based approach from multiple sources of information to	12. Agrees that the physician's job is… to cure sometimes, heal often and support always	

The defining feature asserted for integrative medicine is transformation, as distinguished from translation. The systems in which integrative medicine therapies are rooted can result in "an entirely new viewpoint" (p. 10) on the part of health providers and patients. By comparison, translational interventions target desired outcomes, i.e., a linear relationship between action *x* and outcome *y*. Mumber provides a list of differentiating characteristics of interventions with *intent* of translation versus transformation that conveys operating assumptions of the two approaches. Wordings of the transformative ones seem designed as contra-versions of the translational ones to emphasize their differences. In doing so, a number of them appear to indicate an either/or rather than integrative definition. For example, translational characteristics of "external locus of control" and "has levels of effect" have counterpart transformational characteristics of "internal locus of control" and "all or nothing." It seems that the rendering of the list slips away from the goal to integrate ("transcend and include"). However, lists are merely lists, and the "walk" of the remainder of the book does not manifest such contradictions as I inferred from this list's "talk."

Integrative oncology emphasizes the addition of prevention and supportive care in addition to treatment modalities. In doing so, it extends the Precautionary Principle. This principle had non-medical origins that have since been extended to health care situations, specifically breast cancer prevention, and its use is extended in this book. It "allow[s] physicians and other providers to act in situations where limited data are available, if that action is almost certainly safe and deemed necessary" (p. 13). The relative paucity of scientific research to date into many integrative medicine therapies places a greater burden on the practice of that medicine, because it requires high degrees of diligence to analyze the entirety of clinical situations. Overall, integrative medicine in general and oncology in particular have demanding sets of tasks to perform and coordinate, the complexities of which the remainder of the book illuminates.

2. Clinical Research and Evidence

By distinguishing an additive connotation, commonly given to *integrative,* from the more complex association of *integration*, Nancy Stark, Suzanne Hess, and Edward Shaw begin their chapter by articulating the unique demands of an integrative approach to oncology. It is not about adding to one's toolbox, the additive approach. It is integrative because it "must involve a critical appraisal of modalities that may enhance the response to biomedical therapies" or at minimum enhance the quality of life of "the community" Mumber defined earlier. It involves different systems of enhancement. These introduce perennial concerns about complementary and alternative medicine (CAM) therapies' efficacy, safety, and appropriate patient counseling. Efficacy and safety of CAM therapies are complex to assess because they must interface with chemotherapy, radiation, or surgical treatments for cancer. This level of complexity is addressed as the authors use their chapter to offer a framework for clinicians' decision making to recommend or incorporate CAM therapies in their practice. To construct that framework, they review research methods and a levels-of-evidence scheme to weigh research findings on CAM therapies, their efficacy, and their safety. These demand coordination and principled decision making.

Their discussion of research methods used in the traditional Western medicine paradigm as compared to methods appropriate for CAM therapies has a certain kind of similarity, though different and more complex, than methodological debates argued in numerous other literatures. The similarity is that of a penetrating analysis of where traditional scientific methods cannot always suffice. Rigorous science is consistently argued for in integrative medicine, so this is not an argument against it. But it is an explication of the increased complexity involved to do science that informs how to integrate CAM therapies with conventional cancer treatments. CAM therapies' *systems of enhancement* have more to juggle than cause-effect tests of single-treatment efficacy and probabilities. The authors' work in this chapter is recommended reading for researchers in any discipline as an exemplar of carefully yet succinctly teasing apart and explicating research demands, methods, well- and ill-placed assumptions, and balancing acts required with varying levels of empirical evidence.

3. Physician Training in Integrative Medicine.

Placing medical education in the principles section of the book, rather than the practice section, sends a message that Patrick Massey develops further in his chapter. He and other authors in this text refer to the high percentage of cancer patients seeking complementary and alternative medicine. One concern is that many patients do not inform their conventional medical providers about their pursuit or use of CAM therapies. With more than half of cancer patients using CAM, with or without the knowledge and advice of their physicians, physicians need a working knowledge of CAM therapies to help them communicate with and serve their patients. The contraindications of some CAM therapies in conjunction with chemotherapy and radiation should drive the need for better doctor-patient communications supported by knowledge acquisition. However, "it is safe to say that most physicians have little experience with CAM" (p. 47).

Massey discusses physician education in integrative medicine from three standpoints: the personal benefits to the doctor, progress in institutionalizing CAM in medical education, and continuing medical education. The Consortium of Academic Health Centers for Integrative Medicine, comprised of 27 medical schools at the time of this book's publication, "has become the vanguard of medical school CAM education," playing a role in addressing the first two issues above. It emphasizes the need to bring greater healthy balance to medical education, seeking to embed integrative medicine's values. The benefit is two-pronged: obviously, patients and doctors benefit from access to CAM modalities, but further, the holistic values are emphasized to increase the personal and emotional development of physicians. (Viewers of the television series *Grey's Anatomy* may have observations of how vital this two-pronged agenda is.) Massey also explores the challenges of continuing medical education in general as well as for CAM. A hopeful note is his report that according to a number of studies, the former presumption that continuing education was not necessary has been replaced and physicians recognize it as essential. Development matters: an integrative principle.

The chapter closes with a network model for community physicians, because even those physicians who choose not to use CAM therapies in practice should understand its terminology and be familiar with the research as well as where to find experts in CAM to serve as resources. Methods to start new continuing medical education programs are enumerated, as are resources that include physician retreats and healing spas, among others.

4. The Health of the Healer: Physician/Health Care Provider Wellness

Developing the rationale introduced above, Danna Park's focus in this chapter is on how and why providers' health statuses matter, too. Medical texts rarely address the conflict between self care and care for others inherent in the medical profession. Easier said than done, Park discusses the challenges of physicians' incorporating self-care and wellness. One source is less evident than others: the integrative approach recognizes the interconnection of provider-patient relationships, each person affecting the other. Well developed, an integrative approach may result in "the practitioner-patient relationship itself becom[ing] a tool for healing" (p. 58).

The wellness of oncologists is particularly vital when studies report from 25-50% of them suffering from burn-out, and high percentages of physicians without personal health-care providers. Oncologists suffering from high emotional exhaustion and the sense of low personal accomplishment were about half of one study. Park explores several domains of burn-out and its detrimental impacts on patient care, stress, depression, suicide, drug and alcohol abuse, and relationships. The role of "medical culture," instilled during the inhumane rigors of medical school, stands out as a significant player in embedding ongoing challenges to wellness. Part of the challenge to wellness is the need to transform our systems from "sickcare" to health care. Principles promoted by an increasing number of groups "are a call to action" to "start with introspection and honest self-evaluation, honoring the fact that the individual is at the heart of change" (p. 67). The remainder of the chapter is dedicated to addressing a wide range of approaches that educate about and support delving into personal self-care, from individual lifestyle changes, to the psychosocial or interpersonal, to the spiritual. The message to physicians it that it is possible and vital to develop more integrative awarenesses, and to realize the extent to which their health impacts patients, families, and the medical system as much as their ill-health does: the principle of beneficence begins with oneself.

5. Models of Care

Judith Boyce's chapter is instructional for integrative medicine practitioners who want to extend the reach and benefits of integrative approaches. In addition to treatment modalities, this can include the preventative and supportive dimensions of the integrative triad. After enumerating and discussing practical discernment, logistical, and strategic questions necessary to the launch of a new practice, and in particular one using integrative medicine therapies, the remainder of the chapter is dedicated to presenting models of care with their advantages and limitations followed by examples of 14 integrative medicine centers.

The chapter also could be instructional for the integrative oncology field as such. In it, I see the beginnings of a (presumably) new model. Such a model could perhaps lead to an evidenced-based developmental assessment tool for the field's own use. In effect, Boyce's overall presentation enables, at minimum, four kinds of high-level gazes. These are relevant to factors involved in evolving cancer care. Each gaze can discern a spectrum of sorts across the factor(s) it examines. One kind of high-level gaze enabled is at the structural form of organization(s) involved in a given model. Another is at the level of geographic, including within-building, location. A third is the spectrum of increasingly complex and more integrative models and the factors that enable them to be so (but not enumerated here). Finally, one is the spectrum of population demographics reached and *relationships formed and affected*, as a function of the organizational structure, location, and degree of integrative level achieved. Given a vision of integrative oncology addressing "all participants in a sustainable process of cancer care, at all levels of their being and experience," such a model to under gird various assessments may be a developmental tool for the field.

6. Legal Issues

All physicians, and many other health providers, have to be concerned with the legal and ethical demands that go hand in hand with their medical profession. When medical collaborations include CAM therapies, issues of shared liability surface along with malpractice and other traditional areas of law that apply to non-CAM practice. Michael Cohen and David Rosenthal use cases from their own experience and liability and ethical frameworks to analyze situations that integrative oncologists may expect to arise in practice. This treatment presumes the United States context; legal issues in other countries would differ somewhat. The clinical audience they target in this chapter includes oncologists who have cases of (a) patient seeks therapeutic advice about CAM therapies, (b) patient enrolled in a clinical trial designed to use a CAM therapy, or (c) a patient who plans to use CAM therapies with or without medical advice.

CAM therapies are sufficiently in the medical mainstream that the National Center for Complementary and Alternative Medicine (NCCAM) at the National Institutes of Health has defined integrative medicine and recognized its therapeutic modalities when they have merit determinable by "some high-quality" evidence. While these are the beginnings of institutionalizing integrative medicine, Cohen and Rosenthal point out that because NCCAM does not specify a threshold for that evidence, it leaves the clinician "to make delicate judgments at the borderland of good clinical and legal sense" (p. 102). More thoroughly institutionalizing integrative medicine would show up in the form of more, and more specific, guidelines for this context.

In the meantime, the legal and ethical maze of factors for clinicians to weigh in making decisions is elaborate. By offering case scenarios and discussing their intricacies, case law, general malpractice theory, and permutations of the cases, the authors walk through the kinds of legal and ethical reasoning and hypothetical tangents that they, institutional review boards, consulting attorneys, and courts of law must navigate. The intricacies—applicable in research and clinical practice—are increased when patients exercise their options to disregard physicians' advice while the law may maintain that physicians remain responsible. The chapter includes two practice-relevant appendices with procedural forms, and a list of major resources for legal and ethical issues in integrative care.

7. Business Assessment

Joan Kines begins her chapter with the question: Why provide integrative oncology service? One of the answers is the prediction of an expert in the field that infers consumers in the United States context, at least, will continue to demand CAM therapies. The prediction is that by 2010, the supply of alternative practitioners would grow by 88%, as compared to the supply of traditional medical physicians growing by 16%. Kines situates her question, though, in the context of an integrative oncology business assessment. Before launching such a service, there are numerous practical business issues to address. She tailors her contribution to walk her target audience through the detailed assessments required to function in the U.S. context. Addressing both general and CAM-specific concerns, it treats market and costs assessments, reimbursement analysis, medical codes and how to add new ones to categorize CAM treatments, CAM reimbursements and non-reimbursements by the medical system, insurance benefits covered, and insurance coverage issues related to specific modalities. The appendix supplies schedules of specific insurance coverage and physical therapy policy.

Section II - Practice

A stated purpose of this major portion of the book is to move forward the process of defining the practice of integrative oncology. For its target audience of physicians who serve as the "conductors" of the integrative approach, the attempt is to build a decision making guideline. In chapters and sections dedicated to specific clinical goals, the multiple interventions are presented together in a framework so that an integrative approach rather than a toolbox approach may be more accessible and likely to be adopted.

8. Clinical Decision Analysis

Judging from his review of the several efforts previously undertaken by others, Matthew Mumber's chapter substantively addresses the previous void in integrative oncology's decision analysis. His systematized approach results in a standardized method that is transportable to the different contexts in which clinical decision making processes must coordinate (a) a patient's clinical situation, (b) specific treatment goals, (c) general preventative approach, (d) general supportive care approach, (d) general antineoplastic approach, and (e) the level of evidence for therapy.

He developed four decision tree processes rooted in case experience, corresponding to four major groups of decisions. These address the variations of patient and disease characteristics: localized versus metastatic disease and high versus low rates of disease control or response. Within each group's decision tree is a separate decision pathway for the intervention goals of prevention, supportive care, and antineoplastic care. This results in each decision group actually having four decision process trees within it, encompassing an integrative approach to the group.

While the term decision tree may invoke in the reader a line drawing of bifurcation-type decision points and the limbs and branches that lead to and from them, Mumber's decision trees reflect a juxtapositional, nuanced approach—and no line drawings. He appears to correct for deficiencies in earlier approaches to integrative oncology decision making. This befits the complexity of coordinating the multiple relations among decision factors. While each decision tree is tailored to the specific challenges, nuances, and if-thens of the four groups above, they share a consistent centerpiece, which I call Mumber's *juxtapositional matrix*. It provides a systematic method for using the preponderance of data for safety and efficacy to arrive at recommendations. Each of the twelve decision tree processes is supported by clinical examples of scenarios in which the process would be used. Mumber stresses that these products are "by definition, exploratory tools—and are not meant to be firm clinical guidelines" (p. 147).

My specialization in complex decision making processes suggests the following assessment of Mumber's integrative contribution. Given the inherent complexities of cancer in human systems, the variations in patient and disease characteristics, the balancing acts of deciding how to coordinate conventional and CAM therapies, the uneven range of reliable data to inform decisions, the different levels of evidence provided by those data, and the integration of treatment, prevention, and support goals, Mumber is contributing a significant innovation that should support integrative oncologists' efforts to coordinate the challenging array of *systems of relations* their profession demands. This is no small feat, all in the service of these physician-conductors of multi-system orchestras of patient-family-provider communities they in turn serve.

9. Stages of Change

Robert Lutz introduces his brief chapter on stages of change by acknowledging some of the various perspectives that cancer patients in different disease or high risk contexts may manifest. This sets the stage for introducing the stages of change model already familiar in the medical field. Relative to an individual's readiness to initiate a new behavior, the stages are: (a) pre-contemplation (preceding awareness of a problem requiring change), (b) contemplation, (c) preparation, (d) action, and (e) maintenance. The change process is recognized to be a nonlinear one, characterized by different rates of passage through the spiral of the stages. Lutz provides an integrative range of patient change-readiness assessment points: (a) quality-of-life concerns, goals, and expectations; (b) current health status/fitness status; (c) health practices and attitudes; and (d) life situation and environment. Wisely, he recommends periodic re-evaluation that acknowledges barriers and challenges, a step-wise approach that includes articulating how the program is affecting the individual's perceived quality of life. This feedback loop can support the change process. He suggests that physicians who have developed healthy lifestyles, and implicitly, who have navigated their own change processes, may be more effective providers.

10. Modalities - Overview

Over the span of more than 70 pages, this overview section is organized to provide a systematic introduction of the eight modalities that may be included in integrative oncology.

Each modality section has the following sub-sections: (a) general introduction, (b) cancer research background, (c) major current questions facing that field, (d) general summary that includes tools for practice, and (d) glossary of terms specific to the modality.

10a. Physical activity, by Robert Lutz. Lifestyle behaviors influence the occurrence of diseases. Rather than viewing cancer and other diseases as "actual" causes of death, the locus of cause is more and more recognized as lifestyles and behaviors therein. Research to date does not explain the exact biological linkages between physical activity and cancer, but supports that such a link exists. Levels of physical activity that support prevent and treatment will vary by one's age and life conditions.

10b. Nutrition, by Cynthia Thomason and Mara Vitolins. The development of 30-50% of all cancers is linked to dietary patterns and food selections. As with physical activity, the exact connection mechanism with the development of chronic disease, including cancer, is yet to be made. Estimates are that 30-40% of cancers could be prevented by maintaining healthy body weight, nutritious food intake, and increased physical activity. Nutritional care for oncology patients that responds to nutrient metabolism changes is a well recognized need.

10c. Mind-body interventions, by Linda Carlson and Shauna Shapiro. A mind-body intervention is "any treatment that addresses the interaction between the mind (thoughts, feelings) and body (physical processes)" (p. 184). Some such therapies are already mainstream in oncology, while a number of others are viewed as adjunctive. Therapies covered throughout the book include hypnosis, imagery, relaxation, meditation, yoga, psychotherapy and creative therapies (e.g., dance, music, writing/journaling, painting/drawing, sculpting). Other interventions are not included in the book due to both space constraints and more limited research. These include biofeedback, healing prayer, and autogenic training. Mind-body interventions help decrease symptoms of depression and increase emotional expression, and many have potential impact on the immune and endocrine systems. Psychotherapy and meditation have the most research and thus the strongest evidence to date. Cancer patients' needs change over the course of time and the variety of interventions used can be tailored accordingly.

10d. Botanicals, by Lise Alschuler. Among cancer patients, from 13-63% are estimated to use publicly-accessible herbal remedies, yet relatively few health-care professionals are trained to recommend such botanical therapies. Research data on botanicals and cancer care are mostly experimental, yet demonstrate promising results and trends. Clinicians have insufficient data for decisions to include or recommend botanicals. Institutionalized support for regulation of quality, standardized ingredients, claims of efficacy, and drug interactions related to botanicals is a societal growing edge.

10e. M*anual therapy,* by J. Michael Menke. Hands-on therapies reduce anxiety, pain, disability, and related inflammation by restoring structural and mechanical function. The manual therapies of massage, chiropractic and osteopathic manipulation treat from the "outside-in" via the muscular-skeletal system. Although there is a compelling link between inflammation and cancer, there is no evidence that manual therapies are effective as antineoplastic goals. Modern manual therapies offer risk assessment, preventive, early detection, supportive, and rehabilitative contributions in an integrative oncology.

10f. Energy medicine, by Suzanne Clewell. Energy medicine includes “all energetic and informational interactions resulting from self-regulation or brought about through other energy linkages to mind and body” (p. 203). This includes energy pulses from the environment that affect both biology and psychology, such as magnetic, electric, electromagnetic (radio and micro waves, including cell phones), acoustic, and gravitational fields. Evidence documents that humans can generate and control subtle energies that seem to influence physiological and physical mechanisms, although these are not yet measurable. Thirty-four energy medicine modalities are organized in table format to indicate their non-mutually-exclusive distribution across their modes of use. With the percentages calculated from the table by this reviewer, modes of use Clewell itemizes are energy that is: (a) guided by universe (59%), (b) guided by practitioner (70%), (c) administered by others (97%), (d) self-administered (65%), (e) distance healing (17%), (f) current research (73%), and (g) used in U.S. hospitals (47%).

This section is longer than those that precede it, justified by the nature of its invisible topic. Ten characteristics of energy medicine are listed, providing an inferable snapshot of subtle energies’ characteristics: for example, energy follows thought, energy medicine is non-local, and changes in the energy field are eventually expressed in the physical body. Clewell walks the reader through the human chakra energy system and selected therapies, providing an orientation to this non-Newtonian universe. The review of the chakra system offers an integrative window into the meta-system of the human person. It represents an opportunity to understand active interrelations among the systems of one’s psychology (e.g., emotions, thoughts, motivations), of one’s chakra energies, and of one’s numerous physical sub-systems. Integrative, indeed.

10g. Spirituality, by Howard Silverman and Toby Schneider. This longest of the eight modality introductory sections begins with attempts to define spirituality; at the same time it respectfully avoids imposing a definition that could be argued and thus distract from the purpose of introducing the modality. Beyond the earliest pages, the section progresses further into meaning-making territory, suggesting the difficulty to tease apart “things spiritual” from “things psychological.” One author’s autobiographical journaling during her cancer experience is used liberally for inspiration and to illuminate points. Two brief mnemonic-based tools for soliciting patient history, “spirituality assessments” developed by others, are shared to aid clinicians’ efforts to be present to and explore this dimension of patients’ beliefs.

10h. Alternative medical systems, by Lawrence Berk. The general philosophy of ancient medicine systems is congruent with that of integrative oncology. This section discusses how these systems work and how they address cancer in general, selecting three of them for specific introduction. While these medicine systems are complete systems, most recommendations in the remainder of the text include only partial aspects of them. Beck compares Western medicine methods and assumptions with those of alternative medicine systems. These differences are evident in the brief descriptions of the three selected for focus: ayurvedic medicine, homeopathy, and Traditional Chinese Medicine. Supportive care of cancer patients has effective tools in alternative systems of medicine. These systems, however, view cancer as a late-coming symptom of pre-existing, underlying problems of a systemic nature. (In this, their relation to energy medicine is most evident.) In these systems, many such problems are not viewed as treatable by the time malignancies become evident. Thus, these systems stress prevention.

11. Modalities – Cancer Prevention

Cancer prevention takes place on three levels. *Primary* is the level of prevention in the general population. *Secondary* prevention concerns people with documented precancerous changes. *Tertiary* prevention is that with people who had a cancer diagnosis and good results from treatment, and want to prevent recurrence of the disease *or* its symptoms. (This echoes the energy and alternative medicines above: disease is the last, not initial, manifestation of problems.) The remainder of the chapter is in sub-sections of detailed discussion by the various modalities' content experts of their modalities' effects on the three levels of prevention.

12. Modalities – Supportive Care

Supportive care is not an option for oncologists. Rather, it is an integral dimension of the continuum along which they have responsibilities, from diagnosis through the course of illness. Supportive care is needed in managing both the cancer and treatment-related symptoms. Possible symptoms are numerous: sleep changes, pain, depression, anxiety, weight gains and losses, and changes in connections with sexuality, fatigue, mucositis, nausea, and diarrhea. The remainder of the chapter is in sub-sections of detailed discussion by the various modalities' content experts of their modalities' contributions to supportive care. Of these, the energy medicine sub-section is both the longest and most impressive for the wide range of integrative dimensions it addresses, an indication of the pervasively holistic nature of energy medicine and its insights.

13. Modalities – Antineoplastic Therapy

Antimeoplastic therapy refers to all interventions whose action mechanism results in eradicating, i.e., killing, cancer cells from the body. The three major categories are conventional medicine's chemotherapy, radiation therapy, and surgery. There are several active trials of new antineoplastic alternative approaches. The remainder of the brief chapter is in sub-sections of detailed discussion by those content experts whose modalities do, or may, contribute to antineoplastic therapy.

14. Tobacco, Alcohol and Integrative Oncology

Because it includes yet transcends the smaller scale of the individual patient and extends to greater social scales, Dennett Gordon's may be one of the most socially-integrative chapters in the book. From its introductory citations of health and demographic statistics and relationships of tobacco and alcohol consumption with cancers, its discussion moves from individual-oriented treatments to systemic consideration of the institutionalized health tragedy that plays out around the world. It advocates for social, political, and institutional approaches and reframing national and international agendas, and proposes a list of interventions believed to be effective at the societal level.

15. Specific Malignancies

Six sections of this chapter are individually dedicated to prevalent cancers: breast, prostate, lung, colorectal, skin, and a group of "others." Consistent with the scheme used throughout the book, each modality that can be included in an integrative oncology for each specific malignancy is discussed in that context. Each section includes a substantive reference charting of benefits of interventions in the specific malignancy. Charts specify relevant modalities and interventions, their benefit, and the level(s) of evidence available for each line-item. These sections complete the reference function of the book, discussing the current state of knowledge on treating the conditions and the findings of relevant studies. The final section is described separately, next.

15g. Palliative and end-of-life care, by Matthew Mumber.. Palliative care, as described by the Institute of Medicine, "seeks to prevent, relieve or sooth the symptoms of disease or disorder without effecting a cure… is not restricted to those who are dying or those enrolled in hospice programs… attends closely to the emotional, spiritual and practical needs and goals of patients and those close to them" (Mumber, p. 495). Mumber notes that palliative treatment is closer to an integrative approach than conventional medicine, given the fact that at this stage, curing is impossible while healing remains possible. CAM modalities are also being considered as part of palliative and end-of-life care. About 60% of hospices use CAM and patient studies indicate more satisfaction with hospices when they do. Patient preferences for palliative care are not yet widely incorporated, though. For example, although 90% would prefer to die in the comfort of their home, only 15% do. The key elements of palliative care are concerned with alleviating suffering in the physical, emotional, social, and spiritual dimensions. Each of these has at least several manifestations. This final section of the book itemizes alternative modalities that provide palliative care of these various sufferings at the end-of-life.

Evaluative Discussion

In the earlier Section I – Principles part of this review, I incorporated some evaluative comments into my overviews of those chapters. Occasional evaluative comments showed up my review of the Section II – Practice chapters. Thus, my remaining discussion is organized to respond to several global evaluative questions I asked and sought answers to while reading this text. The first is drawn from the book's own stance about what integrative oncology does and how well the book's contents appear to manifest or support that stance. The other three questions are the evaluation points *Integral Review* (IR) employs to assess how well a given work meets IR's criteria.

Integrative Oncology's Stance

Two related assertions at the beginning of the book convey what I would call the overall stance of integrative oncology. Because the field is yet young, stance would include commitments, hopes, and aims to be realized in the future.

> Integrative oncology (IO) is the next step in the evolution of cancer care. It addresses the limitations of the current system, while retaining its successful features. It includes the use of evidence-based tools that translate into definable outcomes in the fields of preventative, supportive and antineoplastic care… IO addresses all participants in a sustainable process of cancer care, at all levels of their being and experience. Along with tools that translate into definable outcomes, it also includes methods that can transform the health of individual participants and the entire medical system. (p. 3)

> A truly comprehensive integrative approach will address "all of the individuals involved—patient, family, providers, community and society—at all levels of their being (mind, body, soul and spirit) in all levels of their experience, including the self, their role in a specific culture, and the effects of and on the natural environment (p. 6).

The global evaluation question was how well the book's contents appear to manifest or support that stance in relation to its key elements. I found that before I could legitimately use the foregoing assertions to select key elements for evaluation, I needed to make some editorial revisions to them. Working from a re-worded stance removes the need to critique unrealistic elements in the original wording. I considered unrealistic those elements that lacked sufficient qualification of scope, or that were outside the realm of the practical or possible if they were interpreted literally. Segments that I have revised are indicated by italics and some original words are deleted.

> Editorially revised versions of integrative oncology's stance.
>
> Integrative oncology (IO) is the next step in the evolution of cancer care. It addresses the limitations of the current system, while retaining its successful features. It includes the use of evidence-based tools that translate into definable outcomes in the fields of preventative, supportive and antineoplastic care… IO addresses all participants in a sustainable process of cancer care, *to the extent possible,* at all *relevant and accessible* levels of their being and experience. Along with tools that translate into definable outcomes, it also includes methods that can transform the health of individual participants and the entire *U.S.* medical system. (Editing included insertions only, no deletions.)
>
> A truly comprehensive integrative approach will address *to the extent possible,* all of the individuals involved—patient, family, providers—at all *relevant and accessible* levels of their being (mind, body, soul and spirit) in all *relevant and accessible* levels of their experience, including the role *of their* specific culture and the effects of *social and* natural environment*s on them.* (Editing included insertions, deletions, and other revisions.)

How Well Does *Integrative Oncology* Manifest and Support the Field's Stance?

Integrative oncology: Principles and practice is an extremely well conceptualized and systematically organized scientific reference text that I would learn from and take seriously, were I a member of the medical field. It is a research-based, non-speculative resource. It explains and addresses a range of limitations of the current cancer care and medical systems with a positive, constructive tone, and offers evidence-based reasons for recommended changes in medical education. It advocates for reframing the yet prevalent competition between conventional and integrative approaches. It embeds methods to help achieve pragmatic, non-competitive integrations of "what works" in cancer care. It incorporates the best of current medical practices and tailors them to the unique challenges of this specific field, e.g., defining and including levels of evidence criteria in treatment decision making and in detailed outlines of complementary and alternative medicine approaches. The book consistently incorporates attention to the three dimensions of cancer care: preventive, supportive, and antineoplastic. Its innovation of standard guideline decision trees offers a new model for clinical decision making in oncology and embeds the integrative approach in those processes. Methods are clearly oriented to foster healthy transformations in patients and physicians/health providers, including various forms of patients' healing as compared to curing. The book succeeds in manifesting the stance of the field in these respects.

The book's effectiveness is uneven when it comes to manifesting the stance of the field to address "all participants" and "all levels." Explicit statements about addressing all participants at all levels appears in only a few places in the entire book. When it is encountered, it includes no explication or rationale. Implied, however, is a "should:" that integrative approaches "should" essentially be all things to all people. This is a tall order for any enterprise, and one that warrants careful, realistic modification. For example, Figure 1.1, page 7, includes more "participants" than any single field can "address" at "all" levels, e.g., society, culture, and the natural world.

To avoid overstatements, an integral approach would carefully discriminate among the viable possibilities and reasons for them, identify and compare possibilities and constraints, and articulate principles that are more tailored to contexts and are thus more pragmatic than sweeping generalizations. Integral approaches are practical. They take into account others' perspectives as well as various forces of inertia and motivations, etc. They can embrace the reality that no enterprise controls the attitudes, behaviors, and choices of others, who may not wish to be affected by the enterprise's mission in the same way as the enterprise envisions, if at all.

However, Chapter 5 in Section I on models of care provides, even if more implicit than explicit, the windows into various *hows* that integrative oncology may use to fashion itself into realizing its worthy goals. Whether taken at its face value as an integrative examination of integrative medicine models, or as the beginnings of a complex integral model that supports developing the field itself, it is noteworthy for offering grounded pointers to help the field manifest its stance. While its section in this review did not include any specific mention of how the models do or do not address the community of the patient defined at the beginning of the book, that chapter is the place in the book where that stance gets some attention (but see below).

While the book does an excellent job of addressing perhaps most of the patient's and physician's needs, concerns, behaviors, healing, and education, it gives little attention—beyond initial mention of them—to "the team" of health providers serving a patient (p. 6), or to "the community," "the group of people that includes the patient, their family members, and the providers" (Fig. 1.1, p. 7). One reason may be that in a non-speculative, evidence-based book for a young field, there is insufficient data to do more than identify the ideal. But I also reflected on the possibility that the objectives for the book could not encompass so much as to address these two key elements. I reflected on the possibility that focusing on patient, physicians, and the challenges of cancer itself leaves little room, in practice, to address individuals who are peripheral or at least not consistently central to attention. I reflected on the steep demands on the "conductor of the orchestra" (p. 6), whether the traditional or integrative oncologist working with the patient, to coordinate the team of providers. This set of reflections led to the notion that what is missing in each of those scenarios is the role of *process observer*. Process observers do not have such tasks as direct patient care, team coordination, operational communications, etc. The role is to maintain a finger on the pulse, the awareness and oversight of the processes going on, and alerting team and community members, as appropriate, to circumstances and occasions that need their attention. A process observer might also function as an important link between the medicine delivery team and the patient's community of family and other support. If in the development of this text there had been a process observer role, might the team and the community around the patient have been given more print space? In general, might an integrative oncology with goals to address all participants benefit from incorporating a process observer role?

The whole domain of patient, family, and other caregiver dynamics and relationships, part of "the community" mentioned above, was untouched territory in this book. While conventional medicine procedures may adequately address issues in this domain and their effects on patients, it may be possible that complementary and alternative medicine treatments could engender additional dynamics. Does an integrative oncology elsewhere address these and their impacts on patients, treatments chosen, related stresses, and relationships? If not, does it need to?

Appropriate sections of the book addressed larger social and environmental effects on patients and the occurrence of cancer. These were not exhaustive, but their scope seems justified. Economic and health insurance coverage issues were touched on in various sections of the book, but the overall economic picture represented by complementary and alternative medicine (CAM) was not portrayed or addressed. In stating that, I reflect the assumption, which I believe applies, that CAM is largely an option for the shrinking middle class and the wealthier upper class population in the U.S. Long term, deeply systemic change would be required before this picture is likely to change in the U.S. much less elsewhere. This is certainly an aspect of "all participants, all levels." Does integrative oncology have this picture in view and a long term strategy toward greater access to CAM therapies?

The nutrition modality presented throughout the book conveys its significance in health and cancer rates. Of all the modalities, it and physical activity are universal across populations. Nutrition represents certain issues not addressed in the text. Integrative factors that might have been introduced include those of: (a) educating the general population about the nutrition-disease linkage and (i) correct balances of food amounts and varieties and (ii) how to select and prepare nutritious meals; (b) institutionalizing such education, including the society-borne costs of both that education and nutritional ill-health from lack of it; (c) economic difficulties of purchasing the variety of quality foods in the ideal diet, and their compounding when multiple dietary needs co-exist in one family budget; (d) meal preparation time and effort in both busy working families and cancer patients' life conditions; and (e) pervasive influences of advertising and other media on unhealthy food choices.

Individuals' culture and culture at large received only cursory mention in a few places. Beyond the mention of medical culture's roots in medical education, and participants' "role in a specific culture," (p. 6), cultural sensitivity (p. 7), stigma (p. 212), and taboos (p. 223), I did not see the text incorporate cultural considerations. Different cultures characterize medical teams, patient communities, the medical system, ethnic groups, and larger society. From a realistic standpoint, though, it makes sense for the text to confine itself to refer to culture without delving into it. This would be because *how* culture could be a factor and be addressed would require case and culture specificity, not the purview of this general reference text.

In summary, the book *Integrative Oncology: Principles and Practice* succeeds in manifesting and supporting the stance of the integrative oncology field as represented at the beginning of the book, without contradictions, and with only a few minor weaknesses that do not detract from its success or its benefits to readers.

Integral Review's General Evaluation Criteria

The following evaluation, brief in light of the foregoing review and evaluative process, applies *Integral Review's* general criteria to the book, *Integrative Oncology*.

Criterion #1

> *The work reflects or takes into consideration multiple possible perspectives of understanding how humans perceive, organize, and experience reality. Along with this, it demonstrates some understanding of the evolutionary processes, layers, and patterns inherent in all life phenomena.*

Criterion #1 is for assessing if the work coordinates multiple systems of various kinds (which are described quite generically in the criterion). To *coordinate* systems means one may reflect on, create, compare, contrast, transform, define and/or synthesize their properties and behaviors. This is the hallmark of integral thought and action.

The field of integrative oncology is explicitly about coordinating the existing medical system with integrative medicine systems applied to cancer care. Within integrative oncology, the evidence-based systems of preventative, supportive, and antineoplastic care are integrated. The book's organization itself reflected coherent coordination of the numerous systems not only of that cancer care triad, but also the modalities available within them, and further, those modalities applied to cancers in the human system. Numerous perspective systems and social systems at various scales were coordinated in multiple places throughout the text. Authors demonstrated the coordination of multiple kinds of systems within their presentations. These accomplishments may be inferable if not always explicit in the book review's abstracts of and evaluative comments on the chapters. *Integrative Oncology* meets Criterion #1.

Criterion #2

> *The work demonstrates a sensibility for developmental and/or evolutionary dimensions throughout the lifespan of individuals, social units, organizations, and societies.*

As the first reference text of the integrative oncology field—a social unit—the book represents the field's determination to be the next step in the evolution of cancer care. The book advocates for evolutionary complexity showing up in the form of the integration of, rather than competition and dismissive attitudes between, integrative medicine and conventional medicine.

While doing so, it advocates for more research to support its own evolution as an evidence-based field, which in turn will facilitate its integration with conventional medicine. It is explicitly sensitive to the conditions supporting the development of cancer, individual and societal development to reduce those conditions, and the patient's and physician's own development as sufferer and healer, respectively.

In these and other ways not spelled out here, *Integrative Oncology* meets Criterion #2 in basic ways that are necessary but not necessarily sufficient for a more fully integrated, and integral, developmental approach. Beyond the scope of the present text, the ideal would require an additional text to full apply this criterion. To do this would involve applying developmental theory itself to integrative oncology principles and practices. This would reveal that principles and practices, in practice, thwart any *one size fits all* assumptions. A fully developmental treatment would require nuances and tailoring to address the variety of differences in individual and organizational behaviors at each stage of development. This is a recommended direction for integrative oncology, integrative medicine, many other institutions and, actually, society as a whole.

Criterion #3

> *The work is oriented toward facilitating translative as well as transformative development in various domains of life. (Translative development refers to increasing capacity within a given set of competencies, views or attitudes. Transformative development refers to the evolution of a set of competencies, views or attitudes with a fundamentally greater capacity for handling complex situations.)*

The purpose of the book, well supported by its presentation, is transformative. The contents effectively articulate how both translative and transformative development in individuals, medical education and practice, and other domains can be fostered and manifest in multiple ways. *Integrative Oncology* meets Criterion #3.

Conclusion

Little did I imagine that this book review cum evaluation processes would result in a writing of this length. It was a long but satisfying exercise, and one that I hope serves the field of integrative oncology.

In closing, I want to return to having mentioned at the beginning of this writing that I had gained experience and insights from having companioned my mother in her dying process. The most poignant to share became more so during this process of reading and writing. It has much to do, I believe, with integrative oncology's vision for evolving cancer care and transforming the health of individuals and indeed the larger medical system.

To relate one experience, below, helps me underscore the importance of key insights in *Integrative Oncology's* chapters on energy medicine and alternative medical systems. Their authors emphasize that cancer and many other illnesses—our human *dis-eases*—are symptoms and end results of various problems of imbalance (dis-ease) that long precede the physical forms they will eventually take if they go unaddressed. This is familiar territory for those who do various kinds of energy practice or medicine, but it is not mainstream knowledge yet. If it were, and if it were coordinated in integral ways described above, and if it were applied in practice in our individual and collective behaviors, it could have the revolutionary and evolutionary power to indeed prevent dis-ease and transform the health of individuals and societies.

Three years before her death, my mother left her geographic community of 45 years to move to another, to my nurse-sister's home. A few weeks before dying with cancer and related complications, she shared her personal diagnosis. "You know, I think I began going downhill this summer, when I was starting to feel so depressed with missing all my old friends at the Senior Citizens Center (in her former community) and not finding any Centers here I could get to. I think that's when all this started."

If a culture is imbued with recognition of the wide array of catalysts of dis-ease, and of dis-ease as a forerunner of disease, it would under gird and motivate a society that invests in the numerous kinds of services and *education in healthy ways of relating* that help prevent and alleviate dis-ease. Integrative medicine has the insights to be the vanguard of such a culture.

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Editorial

With this issue of *Integral Review* I launch a new practice of inviting contributions from the associate editors for these editorials. There are numerous reasons making this an appropriate time for such a change: the behind the scenes work of this group has enabled IR to grow as it has, we are spreading work around more than before, and each of them has contributed significantly to my own learning. In particular I would like to acknowledge the significant and tireless work of Assistant Editor Sara Ross in this regard. Not only has she contributed writing to our pages, she has also provided thoughtful reviews as well as invaluable networking to help us grow. This is not to mention the rigorous proof reading and copyediting she contributes to each issue in addition to taking care of the website itself. Yet it is not for these reasons that I invite Sara to take on the voice of writing this issue's editorial—it is because of the depth of thought, the ability to perceive and highlight complex and subtle interactions between articles, enabling you as the reader to engage this issue with an overview that does far more than merely introduce. So read on, and I will leave you in Sara's capable hands.

JReams

Jonathan Reams
Editor-in Chief

Co-defining, Reflexive Recursions

Sometimes it is only quite close to a publication date that we know exactly which manuscripts will be ready for inclusion in a given issue of *Integral Review*. While it is always a source of satisfaction to me when there is a subtle weave of coherence through subjects that serendipitously end up in an issue's table of contents, it is even more delightful when a vigorous theme shows up at the very end that we could never know in advance would develop. Such is the case this time with Volume 4, Issue 2.

The name I coined for the theme I saw emerging here is *co-defining, reflexive recursions.* A recursion is an operation, an active performance. For example, in software, a code can "call itself" to re-perform its function over and over. If the software has a bug, the repetitions might be a mistake, an endless loop going nowhere. If the software is behaving, the repetitions keep functioning on new data, new relationships, and thus create new connections that could be made only by performing the recursions. For my purposes here, then, a recursion is an act of information processing, creating new insights, new theories—and as we shall see, even new evidence—by having *called itself to "do itself" again from a different place in the process.* The development of integral theories, interventions, and ways of being is characterized by recursions of many kinds, both within and among individuals and social groupings, and so it is germane to *IR's* publishing mission to shine a spotlight on them.

Recursions are nonlinear dynamics to experience, to *perform.* Not static, they require performance, else they do not exist. We can enter into recursions done by others in their writing,

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and we can also "do" recursions ourselves in the course of reflecting on others' work (not to mention in the very living of our lives). This issue of *IR* affords opportunities for both kinds of recursions. Yet, because we cannot expect titles to communicate what we will find in the works themselves, editorials can offer signposts. In this case, I want to indicate the two kinds of recursions and some *co-defining* and *reflexive* properties or potentials that attend them. In introducing the authors' contributions comprising this issue, I highlight which contributors embed and invite a recursive agenda, as some do so more explicitly than others. These are opportunities to benefit from following along with and digesting the fruits of someone else's recursions. Yet there are also implicit opportunities, both within and across other works published here, and I want to point some of them out, as well.

Daniel Anderson's extended-length article, *Such a Body We Must Create: New Theses on Integral Micropolitics,* is a product of his developmental recursions on his previous work. His eight theses are qualitatively different from those we have been perhaps conditioned to expect when someone presents a theory. On its face, the list of eight implies a linear progression. Yet each thesis is a *system of understanding,* interdependent and co-defining or co-causal with the others. Both author and reader need to visit or revisit other theses in order to dive deeply into any of them: recursive visits when one thesis is "called from" its place in different theses. Thus does Anderson perform a recursive integration of meaningful systems in building theory to transform praxis. He wants to support the development of an "immanent and immediate, local, even under the skin" postmetaphysical integral praxis. He builds his theory critically yet with modest claims and a spirit of inquiry, inviting readers to "practice integral" transformations this way with robust results "more precise, more rigorous, more elegant, more effective" for theory, interventions, and radical living.

Invested in the necessity of strong theory-building in the social sciences, serendipitously Steven Wallis' *Validation of Theory: Exploring and Reframing Popper's Worlds* explains and demonstrates how such theories and methods can pass tests of robustness, if not hard-science style validation, when certain recursions are designed into them. Popper's demanding criteria for validating a theory, Wallis explains, can apply well enough to hard science but miss key assumptions when it comes to social science. Wallis re-frames Popper to offer an alternative theory-validation model, where "the idea of a theory constructed of co-defining propositions provides a robust alternative to axiomatic terms." Ah, is *that* why Anderson braids and folds theses over and around instead of laying straight track? In a sample application of his model, Wallis shows how the method's use of recursions on different "scales" of data, co-defining propositions, reflexivity of a theorist, and further reflexivity of the analyst assessing the theory manage to produce and integrate disparate sources of empirical data: such recursions generate evidence. Wallis, too, is modest in his claims and realistic about limitations at this stage of his theory development. One who wishes to evaluate Anderson's or any other social science theory for robustness could deploy Wallis's model and thereby evaluate its robustness too.

IR's tradition of a Russ Volckmann interview feature introduces us to the wide-ranging life and interests of *David Loye on Integral Evolution*. From many fascinating dimensions of Loye's long productive life, I highlight the recursion he and Russ invite us to make, in effect, by revisiting Darwin. Going to the scientist's primary source material, Loye discovered Darwin to be a quite integral theorist! What might happen if we revisit Darwinian evolution theory from the different starting point offered by Loye? Hmm. Could Wallis' model be used to test the robustness of this much-contested theory (and opposing arguments) too? Loye infers that if Darwin himself rather than mutations of his theory had gained more traction, then the modern day institutionalized adoption of the mutation, "survival of the fittest," might not be so disturbingly evident; for example, in the following article.

Carol Hoare's analysis of *The Toxic Effect on Children of a Degraded U.S. Society, Family, and Educational Context: How Will This Nation Respond?* shows the spiraling, recursive effects of interrelated social system dysfunctions and their complex but obvious roles in degrading conditions for child education and learning. Rather than blame the schools, they should be seen for what the data indicate: schools "are but a microcosm of society, and that they alone cannot rectify educational deficits."

Harking back to Loye, then Hoare: How often might we trace our social deficits to the narratives that under gird them? What is it like, the process of constructing new narratives, new meaning making? In Sayyed Mohsen Fatemi's *In Search of Narratives* and *A Tour to the Flea Market of Signification,* stories of recursive "trips to the well" experiences offer clues for reflexion. A clue Andrew Campbell recognized when discerning the images he contributed to this issue: *The Resurrection …Paradisio.*

This issue's reviewers of an article and two books keep the theme going while offering insightful reviews of substantive works. In *Advanced Change Theory Revisited: An Article Critique,* Scott Pochron notes the value of ACT's stepped model of adult development for more reflexive leaders, that in recursive terms I use here, to realize *how* difficult moments are opportunities for leadership to *call itself to "do itself."* Nathan Harter's philosophical astuteness challenges us to perform recursions on our assumptions about moral and ethical behavior as he reviews the book *Leadership Ethics: An Introduction.* There are no easy answers for constructing some moral narratives. Jan Inglis, a regular *IR* contributor, continues her examinations of climate change challenges from an integral perspective, reviewing a book that she recognizes as also employing an integral perspective, *The Bridge at the Edge of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability.* With its publication just barely predating the recent economic meltdown, she invites the book's author—and perhaps us, as well—to perform a recursion on his analyses from the new place created by the meltdown.

My own co-defining, reflexive recursions within domains of my life have been immensely enriched while working with each of these contributions to *IR.* Getting hooked into my own thematic, I see recursions, recursions, everywhere. And I hope some of these editorial offerings might enrich readers' appreciation for the work of this fine group of authors and artists. Enjoy!

Sara Ross

Sara Ross
Assistant Editor
Integral Review

"Such a Body We Must Create:"
New Theses on Integral Micropolitics

Daniel Gustav Anderson

Abstract: This essay proposes a rigorously postmetaphysical integral praxis, defines what this means and how such an intervention may be premised, and demonstrates throughout some methodological and practical advantages this approach may have over extant metaphysically-oriented integral theories. Beginning with an interpretation of post-Hegelian historical and dialectical materialisms informed by the Buddhist dialectical tradition of Madhyamika, a series of coordinated and interrelated theses address problems proper to fields such as phenomenology, hermeneutics, semiotics, historiography, and subaltern studies. The claimed purpose of this project is to coordinate subjective (psychological, spiritual) and objective (social, political, economic) transformational imperatives into a coherent, non-ontological "counterproject." It takes as its aim the production of a radically democratized, responsible, and sane subjective and objective space, where responsibility is characterized as critical clarity, competence, creative consciousness, and compassion.

Keywords: Buddhism, causality, consciousness, counterproject, Deleuze, dialectics, ecocriticism, integral praxis, Krishnamurti, Marx, Nagarjuna, nonduality, postmetaphysical, radical democracy, responsibility, semiotics, Spiral Dynamics, subjectivity, transformation, Wilber

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> *As capitalism hides or simply manages its crises in its millennial dream of global unification and integration, the task remains to keep hammering away at an alternative analysis of the totality and its contradictions.*[1]
>
> *Can one divide human reality, as indeed human reality seems to be genuinely divided, into clearly different cultures, histories, traditions, societies, even races, and survive the consequences humanely?*[2]

Introduction: How to use this Text

In the present inquiry I propose two related interventions, one into integral theory and culture, and another implementing the theoretical positions I take into praxis in the world at large, with the theory intended to make transformative praxis possible, and the conditions of praxis intended to make the theory useful and responsible for building a life worth living for all. I argue eight separate theses (listed below), which either follow from each other logically, or recontextualize extant integral models into the framework I construct, or both. Holding all eight together is the conviction that humanity is confronting an apparently fragmented but in reality integrated set of problems, many of them violent—social, ecological, economic, legal, political, subjective—that are best addressed by an integrated set of solutions, such that transformation of the holy, horrible mess we inhabit into a sane, nonviolent, and democratic order becomes possible. This is, obviously, a utopian ambition.

I mean something very specific by *integral theory*. Broadly speaking, the *integral* part of integral theory seeks to address the problem of *everything* (Wilber, 2000b),[3] and to propose means of transforming it: first to grasp this puzzling, preposterous world for what it is, with our confused and problematic selves, in order to then help solve the problem, thus giving two interventions. I begin with the observation that the psyche, the socius, and the cosmos, as we conventionally experience them, are problematic, even pathological, but I also hypothesize that these things are not necessarily what they may seem to be to us, and thus that the problem need not be so problematic (or necessarily so to *this* degree).

Theory is *systematic* applied conceptual work, a method one uses to accomplish practical, tactical matters. The purpose of any theory, inclusive of integral theory, is to *make* and *coordinate the use* of effective tools (concepts) for addressing actual problems.[4] As those of us who may have worked with our hands know, effective tools are made with a specific kind of precision—a helpful tool is crafted, even repurposed, in response to the contours and textures of the problem addressed in the given job site and the systematic design strategy of the architects.

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[1] Smith (1997, p. 11)

[2] Said (1978, p. 45)

[3] As a cultural matter, integral theory is in this sense one heir of a project initiated by early-modern pedagogues such as Pierre de la Ramee (Petrus Ramus, 1515-1572) and Jan Amos Komensky (Comenius, 1592-1670)—that of organizing many discrete problems into a schematic, spatial *theory of everything*. Ong (2004) offers a now-classic analysis of this project.

[4] This claim is informed by Deleuze & Guattari (1994), where philosophy is defined as the practice of making concepts.

Here, concepts are precise tools used in the day-to-day labor of a theoretical *project.*[5] I repurpose several of them—totality, articulation, coherence, flicker, novelty, surprise—in an analogous way in this essay. This work is intended as an essay in the etymological sense of an attempt, a test, a trial, and an inquiry. It is not a treatise, nor a manifesto, nor a loyalty oath, nor a "life starter kit." For this reason, I invite the reader to consider taking up further points of inquiry as suggested by any one line of thinking presented here. The problem at hand, the integral problem, demands this kind of conceptual precision,[6] actually a greater and more scientifically rigorous precision than I personally am capable of. As such, these are *new* values, new to integral theory. New values are necessarily exotic, in that they present themselves as they are relative to their new context—unfamiliar, perhaps unwelcome, perhaps uncomfortable or uncomforting. To adopt a Nietzschean trope, they are unfit for easy consumption. The usefully new is like this. At first it is puzzling and exotic, beyond the reader's horizon,[7] but through a respectful approach and repeated exposure it becomes familiar and useful in the way a handtool does when one has mastered its use. A handtool is impersonal. It does not care about its user's hopes or fears; mercilessly, it carries on with its task of hammering or cutting, regardless. Theory generally and new values specifically are like this also: philosophizing with a hammer,[8] cutting through spiritual materialism (Trungpa, 1987), making the Body without Organs with a "very fine file" (Deleuze & Guattari, 1987, p. 160), as appropriate.[9] Unlike theology, theory is not a consolation (see Thesis Seven).

Uncompromisingly novel interventions have been challenging in just this way, historically. Consider the riot that greeted the debut of Igor Stravinsky's prophetic-voiced *Rite of Spring*, most meaningful in the context of all ballet that had come before it, or the difficulty James Joyce's *Ulysses* must have presented to a reader accustomed to the much less demanding narratives of Walter Scott or Charles Dickens.[10] This is not to imply that my work is analogous in significance to Stravinsky's or Joyce's, or that the oeuvre of any integral theorist (Aurobindo, Gebser, Krishnamurti, Wilber) is analogous in importance to that produced by Dickens, Scott, or Tchaikovsky. Rather, *Ulysses* and *The Rite of Spring* are examples of how the novel appears first as an *unacceptable* or impenetrable surprise, but then over time transforms its milieu—again, a double intervention. The present inquiry aspires to such a transformation in integral practice (see Thesis Eight). I humbly ask my readers' indulgence with the stiffly-worded passages, on the promise that, insofar as I have been successful, the effort one invests in parsing a given thesis ought to be rewarded in kind with conceptual, and therefore practical and transformational, clarity. I have also suggested ways in which these theses relate to and recontextualize each other parenthetically, giving some texture and space for the reader to work with imaginatively. The structural and stylistic features of this text are intentional and purposive. As a practical matter, I invite newcomers to explore this essay in order to become acquainted with it, at least for a first exposure. Because major points and many minor motifs are cross-referenced to other relevant material in the essay, one can follow threads and skip around at a self-directed pace, as desired. In fairness to the work, however, if one intends to really understand any one part of this proposal, one will need to work through *all* of it systematically, because it expresses a systematic strategy. This is an *integral* theory, after all. One must be responsible for the totality (see Thesis Two).

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[5] To more fully elaborate this analogy: if concepts are analogous to tools, then method and theory are analogous *not* to an ad hoc collection of tools or a "toolbox" but to a total design strategy, inclusive of architectural concepts, structural engineering, materials science, project management, finance, and strategic planning.

[6] Weber (1978) presents this simply as a pragmatic problem: "The most precise formulation cannot always be reconciled with a form which can readily be popularized" (p. 3).

[7] This is a core problem addressed in philosophical hermeneutics as a scene of potential transformation. Gadamer (2004) summarizes it as follows:

> The horizon is the range of vision that includes everything that can be seen from a particular vantage point. Applying this to the thinking mind, we speak of narrowness of horizon, of the possible expansion of horizon, of the opening up of new horizons, and so forth. (p. 302)

[8] This refers specifically to Nietzsche's late literary and rhetorical practices as in *The Twilight of the Idols*, not simply smashing things indiscriminately for the reactionary thrill of indiscriminately smashing the values of others.

[9] I find non-metaphysical and non-theological conceptual tools more appropriate to the integral task than metaphysical and theological ones. This should not be confused with an *anti*-theological position. By analogy, a surgeon's justifiable workaday preference for a scalpel rather than a hatchet ought not to be confused with a blindness to the virtues of hatchets or animosity toward them or a crusade against them.

[10] These examples, while concise and convenient, imply an unfortunate kind of high-art heroic-genius romanticism that is foreign to this project. In reality, art is produced by networks of people, including novel interventions in the field of culture such as Stravinsky's and Joyce's. Becker (1978) analyzes this in detail.

Three recent interventions in integral theory make an opening for the present work. First, my (incomplete) attempt to flesh out the political ambivalence of certain core integral positions and to frame a program for a critical integral theory[11] on post-Marxist grounds (Anderson, 2006); second, Bonnitta Roy's (2006) reintroduction into integral discourse of a model of time, space, and the production of subjectivity that is much more amenable to empirical, material analysis than the Providential view favored by Wilber (following Aurobindo) and a subject of critique in my own work,[12] in that Roy reads things in the world first as processes rather than as statics or as inevitabilities; and Gary Hampson's (2007) endorsement of the dialectic as a postformal operation and reconsideration of the postmodern in an integral context. Taken together, one finds *dialectical materialism,*[13] the postmetaphysical (and in my presentation of it *nonontological*) method of Marxist and post-Marxist praxis,[14] and the primary theoretical framework of the present inquiry, which I attempt to pursue to its logical conclusion.[15]

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[11] This "doubled" explication of critical social theory into the cuts-both-ways of a Buddhist dialectic (emptiness of subject and object, co-causality) has been suggested before in many contexts. For example, Hakamaya Noriaki has proposed that authentic Buddhism, to be distinguished in his view from most actual Buddhist practice, is nothing more nor less than criticism of this type. Specifically, Hakamaya identifies the practice of Buddhist dialectics, not only as a historically significant intervention into traditional Indian idealism analogous to that of critical philosophy into European theology, but functionally equivalent to European dialectics, to critical method (Hubbard & Swanson, 1997, p. 58). The specific topic Hakamaya singles out for critique in Japanese Buddhist culture are broadly similar to those I have targeted in the work of certain canonical integralists, including "the realist affirmation of the topical as the self-evident original ground" and the contemporary reconstruction and reestablishment of "indigenous" (read: Orientalist) "modes of thought" (Hubbard & Swanson, 1997, pp. 63-66), both of which I take to be rather obvious ideological gestures. To this extent at least, the present inquiry is sympathetic to Hakamaya's project. Finally, Ken Wilber has long incorporated the diction of Buddhist dialectics into his project, but in a way I find problematic (see Thesis Five).

[12] Hegel (1902) asserts that Providence "manifests" in time in the variable form of historical manifestations (p. 14), where historical manifestations include human consciousness developing according to an *a priori* plan. Aurobindo Ghose (1949) employs this definition as well: "a pre-determined evolution from inconscience to superconscience, the development of arising order of beings with a culminating transition from the life of the Ignorance to a life in the Knowledge" (p. 742). And also like Hegel, Aurobindo characterizes this evolution as Providential, and worded very carefully in the passive voice to allow a measure of plausible deniability. "Even in the Inconscient there seems to be at least an urge of inherent necessity producing the evolution of forms and in the forms a developing

The trajectory of my argument is as follows:

Thesis One: Any "thing" as such is a coherent product in time of multiple causalities and co-causalities: a double articulation and a work-in-progress, a *coherence*.

Thesis Two: This co-causal articulation is a totality. Due to specific causes, totalities may be stratified and therefore characterized by internal or external conflict. This conflict is also co-conditional.

Thesis Three: The coherence arises, persists, and decomposes in time; it can change in time mechanically, consciously by accumulating developments to a stable regime, or consciously by transforming said regime. Transformation may be necessary to produce responsible results. Theory can help (if responsible) or hinder (if not) any transformation.

Thesis Four: Responsible intervention can produce real transformation in the totality. The first intervention is to recognize the nature of a given situation; the second is to maintain relationship with it over time. Responsibility is characterized by critical clarity, competence, consciousness, and compassion.

Consciousness," Aurobindo (1949) posits, "and it may well be held that this urge is the evolutionary will of a secret Conscious Being and its push of progressive manifestation the evidence of an innate intention" (p. 742). Aurobindo's engagement with Hindu traditions notwithstanding, his presentation of evolution has its intellectual roots in the Providential theology of Hegel.

[13] Dialectical materialism is, properly speaking, a way to apprehend the material and social world, while historical materialism is a nineteenth-century method for understanding history and political economy. In this essay I use the term "dialectical materialism" in a less rigorous way than is conventional, and subsume into it the methodological function of historical materialism. To be very precise about it, however, I would insist on calling this method dialectical *immaterialism* (Anderson, 2006).

[14] I would like to emphasize that this is an experiment in Marxist historical method, rather than an affirmation of Marx's or any one Marxist's findings. For instance, Marx's badly-informed Victorian-era prophecies on the future development of capitalism, demonstrably false today, are recognized as such and rejected.

[15] Exposing both the subject and the object to the kind of analysis I propose in these Theses One, Two, Five and Six effectively leads the Marxist dialectic to the same end as the Madhyamika of Nagarjuna, also a dialectical tradition: dependent origination or co-causality (Sanskrit: pratityasamutpada), whose core text is most accessibly translated by Stephen Bachelor (2000). My interpretation in this regard has been strongly influenced by Hookham (1991) and Trungpa (1987), as well as my own earnest and active if negligible practice of Mahayana Buddhism. This recontextualization of the social to the subjective (form into emptiness) is the obverse of the projects Jones (1989) and Hattam (2004) have proposed, where Buddhist dialectics are redeployed into a coherent social theory (emptiness into form). The points of contact between Marxism and Madhyamika I tentatively touch on here need much development in future integral scholarship.

Thesis Five: Where duality (form) is an aggregate of co-conditioned products-in-process, nonduality (emptiness) is immanent, unconditioned. Recognizing and remembering this are the subjective valences of the first and second interventions, respectively.

Thesis Six: Coherences are best understood when read responsibly, each in their own specificity and with reference to their own histories (as form), not exclusively or absolutely by any developmental or classificatory scheme of values (which are also coherences with histories).

Thesis Seven: New values may be made, emergent cultural forms do arise, but "New Ages" do not "emerge" mechanically or Providentially. New regimes, like new values, are responsibly made.

Thesis Eight: The current regime produces unacceptable results. If a "New Age" is to be made, transformative practice must be radically democratized, and resist commodification.

Insofar as this is a rigorously *nonontological* project, it is a *postmetaphysical*[16] project, indigenous to the tradition of American pragmatism as much as a post-Heideggerian suspicion toward any metaphysics of presence. By nonontological I mean that nothing, not any one thing, is posited as ultimately real or unreal, or the product of a reality or an unreality, only as temporary, contingent, provisional, and unsatisfying. While I do propose a theory that addresses problems traditionally appropriate to metaphysics in all eight theses, my intention in presenting them in the way I do is to avoid participating in the reactionary movement against critical practice Jurgen Habermas (1994) diagnoses as a problematic "*renewal of metaphysics*" (p. 28).[17] Instead, I offer what I hope may become a useful contribution to what Richard Rorty (2006) has described as a *postmetaphysical culture*[18] in which common ground is sought and found in the field of appropriate values and responsible cooperative action rather than in mutual adherence to an ideology or an ontology (see Thesis Seven).

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[16] This proposal moves from different premises than the curiously metaphysical "postmetaphysical" view posited in Wilber (2006) and related commodities and promotional materials marketed by Wilber's Integral Institute.

[17] In his well-circulated comments on the matter, Habermas (1994) observes that this kind of thinking manifests, Ramus-like, on the "subcultural" fringes, and produces thoughts that

> oscillate amidst a surreal corona of *closed worldviews* that are put together by shabby speculation from bits of scientific theory. Ironically, New Age movements fill the need for the lost One and Whole by abstractly invoking the authority of a scientific system that is becoming ever more opaque. (p. 28-29)

That Habermas abuts this renewal of metaphysics against a seemingly authoritative if Baroque system of thinking, predicated on (in his view) pseudo-scientific speculation, with some relationship to New Age or human-potential culture and a concern for unities and wholes, and with some profile by the early 1990s, all suggests he is referring to a specific but unnamed philosophical project that bears all these characteristics. Guessing which one (if one exists beyond the obscure German titles he references) is beyond the scope of the present inquiry.

[18] Expressing a position developed in Rorty (1989), Rorty (2006) defines such a "poeticized" culture as

> one in which the imperative that is common to religion and metaphysics—to find an ahistorical, transcultural matrix for one's thinking, something into which everything can fit, independent of one's time and place—has dried up and blown away. It would be a culture in which people thought of human beings as creating their own life-world, rather than as being responsible to God or 'the nature of reality,' which tells them what kind it is. (p. 46)

The present inquiry aspires to this challenge.

Finally, I am mindful that some of the analysis I offer here may seem unacceptable to many in the integral community, particularly those invested in positions I take to task for being in my view inappropriate to the transformative project. Spiral Dynamics, in its original iteration (Beck & Cowan, 1996), is most directly critiqued. This may be due to my own acknowledged limitations as a thinker, to the real problems I claim to have found in the theory, both, or neither. Regardless, I welcome good-faith criticism and the occasional differences in approach that arise when theoretical problems are worked out in a public forum. I do not pretend to have the final answers or an absolutely comprehensive view, nor do I insist on a contrived consensus in matters social, conceptual, or contemplative; this is not a "master map" analogous to Prof. Hazelton's[19] in Wilber's novel *Boomeritis* (Wilber 2003),[20] nor is it intended to become one, although I have attempted to account for ideologies (conservative, liberal, theological) that I find incomplete or provisional, and to work in an interdisciplinary way to the limits of my ability. Nor do I propose the reduction of all integral inquiry to the monotonous epic voice of one map, as Hazelton does, whether Aurobindo's or Gebser's[21] or Wilber's or mine. Instead, I submit that one task of integral theory is to align common interests without eliding meaningful differences such that diverse and dispersed transformational projects can work in a coordinated fashion as a *counterproject*[22] to those forces and flows that produce social and psychological fragmentation, disharmony, and violence—in short, to make the dialogic space *meaningful, sustainable democracy* possible.

Thesis One

> *Any "thing" as such is a coherent product in time of multiple causalities and co-causalities: a double articulation and a work in process, a* coherence.

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[19] When asked if she or her colleagues at IC promote the teachings of a particular school, Hazelton replies in the negative. "'The idea,'" she replies, "'is to take all of the known maps of the human mind—East, West, ancient, modern—and create a master map, a comprehensive map of the human mind, using all of them to fill in the gaps in any of them'" (Wilber, 2003, p. 115). Hazelton does not seem to be aware that the master map she is constructing, "this integral map," *is a school*, specifically the school she is creating by deciding what is "best" in any given cultural tradition or mind-model, and therefore a unique discursive position.

[20] *Boomeritis* is a rather unique text. There is almost no trace of irony in it—unusual for a novel. Following Bakhtin (1981), one might argue it has more in common with epic than novel, given its monologlot voice.

[21] In this essay I classify Gebser as a Hegelian, but it should be understood that Gebser is not precisely a Hegelian in the Providential way Aurobindo seems to be. Gebser does posit a spiritualized (but atemporal) origin, metaphysically real, that manifests through human practice in a near-future new reality, which is taken to proven the reality of said origin. Thus, Gebser assumes the origin he seeks to prove, a tendency Marx diagnoses in Hegelian thinking in the *1844 Manuscripts* and Althusser explicates (see Thesis Two)—even in the face of Gebser's own strong words against Hegel (Gebser, 2004, pp. 41-42).

[22] Schweickart (2003) elaborates this concept in full.

A *coherence* is something that is coherent *as* something recognizable as itself,[23] complete or whole in itself (see Thesis Two), that may include some or all of its own interpretation (see Theses Three and Six). It is a thing one can identify conventionally—the pen in my hand I can and do recognize as a coherent pen in a coherent hand, rather than as a meaningless or unfamiliar shape, or as a mass of matter indistinct from the mass of matter I call my hand or the one I call the page.

The coherence is also an articulation, a causally-produced moment, an aspect of a process or more properly a set of synchronous processes,[24] the product and production of a curiously double fold of multiple causal forces. Stuart Hall (1996) notes first that "these things," the features of an articulation, "require to be linked because, though connected, they are not the same" (p. 38)—we have to read coherence *into* a set of phenomena, as Merleau-Ponty (2003) discusses in his example of a spot of color against a field of a contrasting color (p. 5); perception makes coherence out of it.[25] I may not know which atoms belong to this pen and which belong to my hand, but my eye knows from past experience where the hand stops and the pen starts.[26] Double articulation: experience, memory (subjectivity), and a present situation (objectivity). To anticipate my argument a bit, this act of perception and making-coherent is typically holographic in nature (see Thesis Three). Hall (1996) gives some characteristics of a coherence.

> The unity which they form is thus not that of an identity, where one structure perfectly recapitulates or reproduces or even 'expresses' another; or where each is reducible to the other; or where each is defined by the same determinations or has exactly the same conditions of existence; or where each develops according to the effectivity of the same conditions of existence; or even where each develops according to the effectivity of the same contradiction […]. The unity formed by this combination or articulation is always, necessarily, a 'complex structure,' a structure in which things are related, as much through their differences as through their similarities. This requires that the mechanisms which connect dissimilar features must be shown—since *no 'necessary correspondence' or expressive homology can be assumed as given*. It also means—since the combination is a structure (an articulated combination) and not a random association—that there will be structured relations between its parts, i.e., relations of dominance and subordination." (Hall, 1996, p. 38, emphasis added)

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[23] Wilber (2000a) uses the word "coherence" to characterize the "holon;" Ziporyn's (2004) use of "coherence" as an analytical category for aspects of a given getstalt expresses the "holon" in a more elegant and fruitful way, without implying the kinds of hierarchic structures or ontological views Wilber posits that I do not, so I adopt it here.

[24] Lukacs's (1971) repeated insistence that all apparent things are actually but moments in and of processes is in my view a necessary conclusion of dialectical thought.

[25] For Merleau-Ponty (2003), this is problematic in a way that anticipates my discussion of stupidity in Thesis Four: "We make perception out of things perceived. And since perceived things themselves are obviously accessible only through perception, we end by understanding neither" (p. 5).

[26] This aspect of the mechanical, even arbitrary *overdetermination* (see Thesis Two) of form relative to the smooth space of nonduality or, in practical terms, undifferentiated matter, is indebted to the very detailed analysis presented in Deleuze (1995).

Thus, the articulation is a way to think of any coherence as a Gramscian "historical bloc," a coherent moment of form induced by a complex and contradictory[27] matrix of causalities,[28] real ones—on one side race, gender, class, geographic conditions, cultural values, pathologies, and strata of development, and on another side, the perception (mass-perception) of others that makes such an articulation coherent *as* something.[29] Is this shape in my hand a tool, or is it a threat? A parasite, a friend? Part of me or foreign to me?

This is co-causality or dependent origination, analogous though not identical to the same concept in traditional Buddhist dialectics. A concrete example: when I walk down the street, a casual observer of conventional capacity may first notice my light skin, my masculinity, my age, my build, the slight limp with which I move, the line of beads around my left wrist, the cat dander on my sweater—any or none of these—and will immediately, without volition, see the moving form of my person not as a random, ramshackle set of odd parts and bad luck, or a projection of shape into nonduality, of nonduality (see Thesis Five), but will connect these points into a constellation and construct them into a recognizable assemblage such as a man, a white man, a middle-aged white man, likely of working-class origin (if I foolishly open my mouth to speak or show my hands), and perhaps a cult member—not a Wilberian philosopher-sage, not a wizard of the dynamic spiral, not a steppin' razor, not a street fighting man.[30] *This is automatic*[31]

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[27] For example, Hampson (2007) observes that Wilber is dyspeptically dismissive of multiculturalism (p. 163), a cultural moment that makes real integral inquiry possible in the first place—as a properly contextualized, respectful, and intelligent appreciation of world values and traditions (see Thesis Seven), akin to respect for human dignity (and appropriately, it is the third commitment made by the California Institute of Integral Studies in its mission statement). Aurobindo Ghose's remarkable capacity to hold *Paradise Lost* and the *Mahabharata* in his mind at once is nothing other than a multicultural gesture, an integral gesture; but this contradiction in Wilber's work, between monoculture and multiculture, is but one example of a contradiction in an articulation (the articulation "Wilber's work," numbered as it is in consecutive waves). I would like to suggest that as coherences spiral into increasing complexity, the odds increase that contradictions, inner tensions, will arise, and that these tensions can be wedged open productively by critique into *new* coherences.

[28] Following David Hume, relations of cause and effect are to be understood here as interpretations or plausible assumptions. For instance: I recognize the cup of coffee in my hand to have the characteristic of warmth. I can posit a causal history of this characteristic through the on-off binaries of the electric power grid in my hometown, through the buzzing transmission of electrical current across the Columbia Plateau to the spinning turbines of the Bonneville Dam, made to spin by the kinetic energy of the flow of the Columbia River, which is drawn to the ocean from the mountains by the force of gravity and other forces. All these are taken as *plausible interpretations*, nothing more, for the purposes of this analysis—inclusive of causalities that one may experience as ironclad necessity (necessity being another plausible interpretation for a phenomenon).

[29] In conventional metaphysics after Aristotle, so-called categories of understanding (adapted in different ways by Kant and Durkheim among many others) exist already and serve to make coherent to a subject what an object's nature is. For instance, space, as a category, allows one to delimit a thing by its position in space relative to other positions (left or right, up or down, larger or smaller); time, as a category, allows one to delimit a coherence by its duration. By contrast to this approach, I do not posit the metaphysical reality of any category, only the causal loops that produce consensus, inclusive of the consensus of coherence.

[30] This analysis emphasizes the formation of objects of sight and surveillance, but can also be extrapolated on principle to accounts of the other four senses as well as objects of the mind (ideas), and the emotions (mood, affect, perception). In fact, objects of the senses tend to coincide: as I watch my pen move across

(see Thesis Four); these autonomisms are the "mind-forg'd manacles" William Blake raged and despaired at in early capitalist theo-imperial London. I may or may not be conscious of the meaning I am making in concert with others as I perform my life, or in control of that meaning (it is more likely I am controlled by it), but if pressed I cannot deny this shared meaning.[32]

Anderson-out-for-a-walk and under surveillance by the local so-and-so is precisely an articulation in this double sense, dependent on the causes that produced the assemblage I identify with as my own set of problems and promises, as well as the perceptive capacity of said so-and-so, which is also a production of a similar set of forces, an articulation itself.[33] In this sense, a coherence (the pen in my hand, Anderson-on-walkabout) actually is *co-created* dialectically, in something of a double articulation between conditioned consciousness (subject) and the conditions of objective *conditions* (in the language of nonduality: the observer is of the observed, subject and object are both are temporary formal knots of the same space). This correspondence, as Hall observes, is not necessary as such, nor necessarily holographic. I argue that it is *conventionally* such, but I would also like to emphasize that it is *not necessary* to view Anderson-out-for-a-walk as an anonymous working-class white guy, or the neighborhood eccentric, or whatever at all—reduced to its components the contingent aggregate Anderson-on-walkabout is nothing at all, nothing remains, not even a "real" nothing or void—and this is so for any articulation (see Thesis Five). It is not necessary to take these things—any *things*, any *coherences* anything "self-evident"—for granted.

This "not necessarily" makes intervention and transformation possible, from the top or the bottom of the molar structure (the "superholon" in Wilber's diction). The charismatic gesture, of which Krishnamurti's project may be an example *par excellance* (see Thesis Eight), works so comprehensively because it ruptures both ends of the articulation, subject and object. It abandons the (personal) past; it cannot be *read*, which renders any *consensus* past irrelevant to the transformative moment. Not nonexistent, but transformed in (or out of) significance. This is a form of exposure to the new in the always-familiar, which is precisely the uncanny position of nonduality relative to every coherent formation (see Thesis Five).

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the page and I hear the scratching of the paper and feel some friction in the fingers of my right hand, I unconsciously triangulate all three into one coherence, the hand-pen-paper assemblage. That is, objects of the eye, the ear, and touch become one object, my pen doing its work.

[31] Hartigan (2005) gives a detailed analysis of the psychology and sociology of race in the United States, specifically with regard to whiteness and its strata of articulation. My treatment of the phenomenology and semiotics of race in this example is indebted both to Hartigan's analysis and my own experiences as "white trash" in America.

[32] Weber (1978) approaches this concept of the co-constitution of phenomena in his definition of social action. He posits that a causal explanation of social action is possible, that action can only be regarded as such "insofar as the acting individual attaches a subjective meaning to his behavior—be it overt or covert, omission or acquiescence," and that such action is "'social' insofar as its subjective meaning takes account of the behavior of others and is thereby oriented in its course" (p. 4). In short, Weber posits social action as a causal loop: genres of social behavior make action coherent to subjects; subjects behave meaningfully when they act generically, thus reifying and reproducing those genres. This insight informs Theses One and Eight.

[33] One can test this with a simple thought experiment: replace any of the terms I used to identify my appearance to the world (race, gender, age, or class), and consider how one's subjective response to this character of Anderson-on-walkabout may change as these terms change.

This presentation of any coherence as an articulation of sociohistorical forces[34] may lead to the misunderstanding that I am promoting a version of what Wilber (2000a) diagnoses as "sociocentrism" (p. 243), the mistake of reductively reading all gestalts through the values of the given context in which one has arisen. However, I am not proposing any kind of "centrism," but instead promoting two safeguards against this species of what Mill (1998) called *the tyranny of the majority*. The first is an insistence on dialectical and material analysis, which demonstrates all values to be contingent on specific contextual forces for their arising and maintenance, their characteristic mutability over time, and their typical relationship to the will-to-power of any dominant stratum. Approached in a different vocabulary, Foucault (1971) famously demonstrates that no conventional set of values is necessarily the sanest approach to formal reality, or even a necessarily sane approach at all. Although not a category for analysis or a dialectical position, nonduality is the second safeguard against sociocentrism, because it reveals first that all social forms—all forms without exception—are in and of a space that has no center or circumference, that by the logic of nonduality "centrism" is a fallacy, in the last analysis untenable. Seeing how one is placed in a given discursive, subjective, everyday-life position (*Eureka*!), one is able then to work toward an active recontextualization of one's subjectivity, which amounts to a total revolution of all existing values for the sake of all beings without exception when pushed to its necessary conclusion, a commitment I call becoming-responsible (see Theses Four, Six, and Eight).

The purpose of reading any given coherence as an articulation of multiple causalities, a historical bloc, is first to observe directly how the (apparently) absolute, naturalized values of that moment are in fact contingent on nothing absolute at all, but only the push and pull of manifold, provisional, and temporary contradictions and make-believe[35] absolutisms that produce fragmented everyday consciousness. This is what I call the *first intervention*, which corresponds to the miracle of the "observer" and the "observed" mutually recognizing one another as being of the same stuff, which begins a novel dialectical movement between conditions and consciousness—qualitatively different from a mechanical, automatic process. The *second intervention* is to constantly, rigorously produce new values through postformal critique, through the "gay science" of creative praxis. That is the transformative, conscious valence of the double articulation (see Thesis Five), which, in concert with unconscious or mechanical dependent originations, produces the totality of all *formal* and *postformal* moments in this world.

So far I have examined only how individual coherent subjects relate to individual coherent objects, cooperatively conditioning each other by force of inertial—mechanical energy—or volitional consciousness, or a point on a spectrum between these two poles (mechanical and volitional). In Anderson (2007) I consider some ways in which will-to-power and desire flow through masses of subjects and draw some conclusions on the political use to which these flows can be put, either for conservative or transformational purposes, and how values are made.[36] All this begs the question of how subjects live and are made coherent in relation to groups of other subjects, and in relation to larger coherences such as the state,[37] corporate bodies, institutions, military hierarchies, and affiliations of religious sentiment or cultural appreciation, all of which are also coherences[38] (taken up in Thesis Two).

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[34] That a cognate position to my own can be found in Wilber's work and in Spiral Dynamics—that "value systems, worldviews, and mindsets" are "each the product of its times and conditions" (Beck & Cowan, 1996, p. 29)—suggests that this view should have some purchase among even the most conservative of integral thinkers.

[35] By *make-believe* I intend to express both the conventional meaning, imaginative play appropriate to children, and also any means by which people are made to believe demonstrably false narratives—in the family, in the workplace, in civil society. Children are introduced to this second process also, early and often, in North America; for instance, many households encourage the belief that an obese Coca-Cola spokesmodel with a herd of flying ruminants delivers Christmas toys that were manufactured by cherubic elves, rather than by living people.

Further, two significant consequences follow from my position on co-causality. First, it follows that a being or reality having characteristics such as permanence and immutability can never be *proven* satisfactorily, only assumed or asserted Miltonically. Second, values, because they are contingent objects (not a permanent, immutable body of Law, as in Kafka), can only be projected onto *other* objects by subjects (flowing through *masses* of intertwined subject-object formations). For instance, the sound “nay” means “no” in English but “yes” in Korean. This demonstrates that neither negation nor affirmation as evaluative functions inhere ultimately in the sound “nay,” but only as one set of consensus values in Seoul, and another in London (or both in many North American cities, where both languages are spoken). Neither being nor values are necessary or quantifiable, but can be experienced, understood, and evaluated qualitatively.[39] It hurts when I stub my toe, even when I know my body and its pain to be unreal in any metaphysical sense, and unfailingly impermanent.

Subjects reproduce these consensus values in themselves and among others. We reproduce in flows and chains of flows: perhaps ideology (per Althusser), perhaps the culture machine (per Horkheimer and Adorno), perhaps power relations (per Foucault), perhaps a political unconscious (per Jameson, whose interpretation I favor), but in any sense, the subject reproduces a set of coherent forms forward in time. If so, one may ask what political action can be taken by a subject that is distinct from mechanical reproduction. If intelligent, intentional action is to be taken by a subject, rather than mimetic or mechanical action, it must begin with a conscious, responsible, and sustained rejection of those forces (see Thesis Four). This is *micropolitics* (Deleuze & Guattari, 1987);[40] it is immanent and immediate, local, even under the skin and in the subtexts and textures of breakfast-table conversation, where the force of patterns of ownership and control are felt, seen, tasted, and put to bed beside one's children each night. This is everyday life.

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[36] The reciprocities Simmel (2004) posits between subject and object, for instance, deserve a close examination in the context I establish here, as in his distinction between desire and value as the subjective relation to objects and the objective relation to objects, respectively (p. 75). I intend to begin this inquiry in forthcoming work on ecocriticism.

[37] One may object, fairly I think, that my account of co-causality in Thesis One through the production of a coherent thing out for a walk, my person, may mislead insofar as it seems to be personal, a matter of and for an individual subject, a consumer or producer. I would like to emphasize that since all coherences are totalities, this account may be used to unpack any object, even as it may strain the imagination to experiment with this metaphor on different degrees of scale: Chile and Iraq nationalizing their natural resources while under surveillance of other nation-states under late capital, for instance.

[38] As a thought experiment, observe the individual and mass behavior (particularly facial gestures and expressions) of enraptured sports fans, megachurch parishioners, fans at rock concerts, and worked-up delegates at political conventions, and reflect: do these ebbs and flows of affect differ in form or function in each context? In each of these instances, a context is made, a space, in which something specific can happen. Is it the same thing each time, or are there meaningful variations, or might these be wholly unrelated phenomena?

[39] Simmel (2004), a thoroughgoing Kantian, reaches similar conclusions on being and value but with a methodological difference—he chooses to posit certain values and certain a certain kind of being *a priori* (pp. 61-63). My decision not to do so, of course, reflects a valuation on my part: a methodological preference for the multivalent, dialogic space of rigorous empirical practice rather than the monologic voice of the metaphysical or theological (see Thesis Seven), corresponding generally to the Bakhtinian novel and epic registers, respectively (Bakhtin, 1981). This is a value judgment I have intentionally made, not an occult law of the cosmos I claim to justify.

Thesis Two

> *The co-causal articulation is a totality. Due to specific causes totalities may be stratified and therefore characterized by internal or external conflict, internal or external control. This conflict is also co-conditional.*

In Anderson (2006) I framed my critique of integral theory as I understood it then, as Ziporyn (2004) framed his own inquiry in *Being and Ambiguity*: to a reading culture long suspicious of totalizing and all-inclusive teleologies and schema, any totality, such as the "whole" of holistic thinking, appears initially to be a relic of a time when books set out to answer all questions, as Spinoza and Leibnitz did in the seventeenth century (see Thesis Seven). The danger I saw then was in reductivity—in *totalizing* a partial view into a universal one, which can only be an ideological maneuver. This led me at the time to effectively reject totalities as analytic tools, a position I intend to reverse now. A brief survey of Marxist method shows that it is possible to think the totality without necessarily being reductive or totalizing about it[41] and, further, that the totality can be a useful concept for unpacking the form and function of virtually anything coherent as *something* in the context of its arising, persisting, and inevitable destruction so long as one takes careful precaution against totalization, satisfying my earlier concern about the use and abuse of totalities in integral thinking. This precaution turns out to be the dialectic, implemented in a particular way.

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[40] I am preparing a proposal for an integral macropolitics, considering relations of subordination and transformation on the scale of nation and state, as a companion to this essay.

[41] My implementation of Marxism and post-Marxism in the present work, like my appropriation of crypto-Marxism elsewhere (Anderson 2006, 2007), assumes that the holism some Marxists identify is cognate to the holism of integral theory, and functionally equivalent. From this it follows that Marxist inquiry, when properly undertaken, can be seen as already integral, or latently integral, depending on the context. The Marxist totality of social relations, as Burkett (1999) insists, is holistic in nature, as is any coherent praxis:

> Ultimately, a holistic *and* relational approach is dictated by the human requirements of a viable and humanly progressive co-evolution of society and nature […] A holistic perspective, one that breaks down artificial barriers between natural and social sciences *and* between all science and the subaltern members of society, is absolutely essential for such development. (p. 20)

The rest of this section explores one way to read any coherence as a totality in relation to other totalities, beginning with an interpretation of Marx's attempt to frame the problem and working through contributions to Marxist method such as Althusser (1977) and Williams (1977). Most significant here is the way in which a coherence can be understood locally as a set of relationships among others in time, a possibility raised in Thesis One, an understanding that has some consequences for how one may theorize a global transformation.

Marx deploys the totality of social relations formally as a regime of social organization in world history, and in practice as a coherent whole of human practices given to a specific time and place—that is, holistically. Marx[42] analyzes these regimes of organized production as discrete phases of historical development in his essay "Wage Labor and Capital:"

> *Thus* the social relations within which individuals produce, *the social relations of production, change, are transformed, with the change and development of the material means of production, the productive forces. The relations of production in their totality constitute what are called the social relations, society, and specifically, a society at a definite stage of historical development*, a society with a peculiar, distinctive character. *Ancient* society, *feudal* society, *bourgeois* society are such totalities of production relations, each of which at the same time denotes a special stage of development in the history of mankind. (p. 207)

That Marx uses the form of the means of production as the social feature on which he parses the segments of historical time (the *regime*[43] of *private property*)[44] proves to be a significant point of departure for Marx from his predecessors methodologically. In practice, in his writings on history and culture, Marx employs the totality as a coherent whole composed of subordinate processes—in a trope Marx himself employs, a *body*. In this sense of a subject finding a coherent whole in an objective historical moment composed of discrete data points—making order out of an anarchy of material—and where that subject is taken in turn as such a coherent whole that is historically contingent (see Thesis One), Marx's totality can be described as holistic (Burkett, 1999).

In the 1844 *Manuscripts*, Marx describes a dialectic between conditions and consciousness, such that "the *social* character is the general character of the whole movement: *just as* society itself produces *man as man,* so is society *produced* by him" (p. 85). Experiential realities are

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[42] The citations to Marx in this section refer to Marx & Engels (1978). I include the titles of the essays anthologized in this volume for the sake of readerly clarity in the main text.

[43] The concepts of "regime" and "production" are developed in a more nuanced and detailed manner in Anderson (2007). For present purposes, the conventional meanings of each term suffice.

[44] It should be remembered here that throughout Marx's ouevre "private property" denotes only the private, limited ownership and control of the social forces of production, not one's personal effects or intellectual property (Miliband, 1989). The purpose of overcoming private property is to overcome the separation it creates between those who can direct their productive activity and those who have no practical choice but to do as they are told—full, democratic enfranchisement in all aspects of experience for everyone, the Wilberian "integral embrace" in the social field. Brown (1988), LaClau & Mouffe (2001), and Schweickart (2002) discuss this aspect of Marxist theory as the democratization of the socioeconomic.

productions, inclusive of the means of both consuming and producing. Specifically, this apparent but not strictly necessary homology of the individual and society is a consequence of a necessary social activity, production of the conditions of continued social and biological existence (see Thesis One). The subject, for the young Marx, is homologous to the socius: "Man, much as he may therefore be a particular individual (and it is precisely his particularity which makes him an individual, and a real individual social being), is just as much the totality—the ideal totality—the subjective existence of thought and experienced society present for itself" (p. 86). Both terms, subject and socius, dependently co-determine each other, in a constitutive this-that, that-this causality (see Thesis One). This is significant; following this, one finds that control over one or both of these terms (socius or subject) leads to control over the totality, as much as it can be controlled (Thesis Eight experiments with this possibility).[45] In *The German Ideology*, Marx explains how one of these terms is determined, and how this conditions the other: "As individuals express their life, so they are. What they are, therefore, coincides with their production, both what they produce and with how they produce. The nature of individuals thus depends on the material conditions determining their production" (p. 150). Here, capital chooses first to determine social relations, and thereby determines the nature of individuals, which serves to reproduce the totality on the terms of the dominant, regardless of the objective self-interest of the subjectified—a partial view is literally totalized into the whole.

In "The Jewish Question" (1843), Marx frames the totality of social conditions as such a contradiction of interests (again, in the subject and the polity), beginning with a critique of idealist (theological-Hegelian and materialistic-Feuerbachian) historiography: "History has for long enough been resolved into superstition; but we now resolve superstition into history" (p. 31). But as the state-socius determination suggests—it is not only or at all most significantly historians or Hegelians who mystify the conditions of everyday life. The way everyday people do it, for the reasons they do it, whether they have any control over it or not, is much more significant from the perspective of the totality. "Just as Christ is the intermediary to whom man attributes all his own divinity and all his religious *bonds*," Marx observes, "so the state is the intermediary to which man confides all his non-divinity and all his *human freedom*" (p. 32). While the Savior and the state are clearly terms in conflict here, Marx emphasizes that both are determinate formations "infused with an unreal universality" (p. 34)—in the language of this essay, totalized and reductive—that are ideological ballasts or counterweights to the realities of everyday life for one as a producer under the commodity regime, in which one is degraded "to the role of a mere means, and becomes the plaything of alien powers" (p. 34). In this instance the contradiction within the subject, reflecting that of the society (or the subject-socius assemblage)[46] lies between the state's function as guarantor of human freedom expressed as the interest of the dominant class, which transforms the state into an instrument of its own will-to-power and will-to-profit on one side, and the abstract human freedom for all subjects regardless of class literally prescribed by the state under liberal democracy on the other. For instance, religious practice or affiliation, for Marx, is a "*universal right of man*" (p. 41), regardless of the ideological work of the specific religious institutions, doctrines, and traditions, the explication of which he devotes much of his energy. "The contradiction in which the adherent of a particular religion finds himself in relation to his citizenship," according to Marx, "is only *one aspect* of the universal *secular contradiction between the political state* and civil society" (p. 39). Here, the contradiction is articulated between the interest (will-to-power) of a subject, in the context of religious practice or heritage, or as economic self-interest (class interest), opposed to the state and the status quo. Like a food web, a totality (a coherence) is typically characterized by a conflict of interests in its context and its constitution under capital, not an inherently utopian or "holarchic" order.[47]

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[45] It should be noted that from this simplistic broad-brush framing of the conditions of subjectivity emerges multiple streams of Marxist scholarship, and not all in agreement with each other.

[46] While I do posit an unnecessary relationship of homology between the subject and its socius, I also follow the mainstream of "Western" Marxist and post-Marxist scholarship that finds a co-causal, co-constitutive, dialectical relationship between them. Working from theoretical positions developed by Gramsci and Lotman, Steedman (2006) proposes a nuanced interpretation of "the microstructures through which hegemony is constructed as identity" (p. 152), a process that constitutes the totality of social relations, emphasizing the role of memory in contemporary ideological processes, which expresses very well what I am proposing in this context.

Marx shows this conflict between liberty as freedom of conscience and one's declension into a position *vis a vis* the state to be itself a contradiction, where "the right to liberty ceases to be a right as soon as it comes into conflict with political life"—sadly, China's oppression of Tibetan Buddhists is but one of many conspicuous examples of such in attempts at Marxist praxis alone (or more properly, Marxist in name)—whereas "in theory political life is no more than the guarantee of the rights of man" and therefore should "be suspended as soon as it comes into contradiction with its *end*, these rights of man" (p. 44). For Marx, the specific matter of religion is a *survival*—a functional fossil from an earlier socioeconomic order—and but a specific case of the tension he explores between private initiative and political contingency. To anticipate a later point in this thesis, Raymond Williams' observation that one can transform one's devotions into a functionally oppositional practice, specifically renouncing one's will-to-capital and instead working for the benefit of the totality (p. 122), a position Williams simply proposes without elaborating, should be taken in this context.

For Marx, universal individual rights are a consequence of a political emancipation that came with the transition from a feudal to a bourgeois regime—the dissolution of the crystallized civil order into a mass of "independent *individuals* whose relations are regulated by *law*" (p. 46). Collective or organizational interest under the feudal system, the interest of the guild or the clergy, becomes the interest of the individual burgher, the individual worker. Marx's solution to the contradiction between the law-bound rights of the individual and the power of the bourgeois state to guarantee those rights while, simultaneously, violating them in pursuit of the interest of the empowered, is to redefine the interest (will-to-power) of the individual, which Marx calls here *human emancipation*—"when the real, individual man has absorbed into himself the abstract citizen" (p. 46). This is the moment when the subject becomes *political* in the sense Marx does not articulate in this early essay: that of becoming organized, building bodies such as feudal guilds, those with like interests into a viable *political* force, just as they are already a viable *productive* force. Worded differently, the task of human emancipation is to build a coherent body out of a muddle of microorganisms in competition with one another so that each microorganism may pursue its own fulfillment, which finally coincides with the fulfillment of each other organism. I call this process *radical democracy* (see Theses Seven and Eight).

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[47] The view that coherences are conventionally pathological and contradictory, and under capital pathological and contradictory in a particular way, should be contrasted with Wilber's (2000a) view that holons are by nature orderly, of order, in order (natural holarchy)—a distinction to be fleshed out in future work—and compared to the Noble Truth of Suffering in traditional Buddhism.

In a more theoretically developed and historically-oriented document, *The Eighteenth Brumaire of Louis Bonaparte*, Marx analyzes the forces of a historical moment when they prove formative of such a body, mid-nineteenth century France, where proposing that "[m]en make their own history, but they do not make it just as they please; they do not make it under circumstances chosen by themselves, but under circumstances directly found, given, and transmitted from the past. The tradition of all the dead generations weighs like a nightmare on the brain of the living" (p. 595). The totality is not a structure newly born with each phase of historical development; as suggested with the case of religion and human rights, any given moment is a mass of mobilized accretions, products of history with contemporary functions and ideological deployments. Marx demonstrates this principle in his analysis of the social and political forces that led to the *coup d'etat* of Louis Bonaparte in December of 1851.

After it is itself transformed into an instrument of the bourgeoisie, the French state succeeds in transforming the legal structure of France into the very image of the means of commodity production— in Marx's terms "the motley pattern of conflicting medieval plenary powers" are transformed "into the regulated plan of a state authority, whose work is divided and centralised as in a factory" (p. 606). But not all has changed. Some forms and memes remain from the feudal past (survivals), which prove to be of use to the empowered class. For instance, "[h]istorical tradition gave rise to the faith of the French peasants in the miracle that a man named Napoleon would bring all the glory back to them" (p. 608), without regard to the fact that *this* Napoleon had simply fashioned himself as such—*make-believe*. Power changes what it must and uses what it can of the detritus of history available to it. Complicity of interest makes a meme such as this coincidence of names and a concocted genealogy available and of use to power. In this instance, playing along with the charade or forcing oneself to believe until one *does* believe appeals to the peasant who wants to "consolidate" his "small holding" or enlarge it, not to reach past it (p. 609)—will-to-capital, which does *not* integrate the interests of said peasants with the interests of like peasants, "homologous multitudes," who are instead like potatoes lumped into a bag (as in the lumpenproletariat), forming an arbitrary unit not organized, only in proximity to each other. But people are not always or only potatoes:

> In so far as millions of families live under economic conditions of existence that divide their mode of life, their interests and their culture from those of other classes, and put them in hostile contrast to the latter, they form a class. In so far as there is merely a local interconnection among these small peasants, and the identity of their interests begets no unity, no national union and no political organization, they do not form a class (p. 608).

The very forces that determine the totality's conflict-structure can, if determined in a very thoroughgoing way—*overdetermined*, in fact totalized—[48] lead to the organization of an oppositional class. Marx uses the logic of homology to suggest that unintended consequences such as this may be explicable, a strategy later developed most notably by Althusser (1977).

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[48] This presentation of overdetermination is meant to be introductory and is admittedly simplistic in its structural, rather than processual, presentation. Foucault (1978) offers a correction for this in his program for analyzing power, discourse, and exteriority (pp. 94-96), methodologically and conceptually comparable to the program for ethico-political or "integral" history Gramsci (2000) posits (pp. 193-195).

To this end, Marx uses established, traditional rhetorical and literary tropes—residuals also—in which the subject-socius causal formation is expressed as a homology, the most conspicuous of which is the body politic trope, as old as Thucydides, Plato, and the Hebrew Bible—the bourgeoisie suffered defeat "in its mind and in its body," meaning literally its culture, law, and administration, and its military (p. 605)—and an analogy also common to Renaissance and Enlightenment allegory and psychomachia, that of a house to a psyche.[49] Millions of French peasants live in miserable hovels with no more than three openings—"And windows are to a house what the five senses are to the head" (p. 611), meaning that a head with one opening only (the disenfranchised French) is badly incapacitated for perception, rendered ignorant, literally and figuratively blinded and deafened. Put simplistically, as the subject, so the socius and vice versa, a principle Marx articulates here through a recursive causal logic, by which the French burghers "imposed the state of siege; the state of siege has been imposed on it. It supplanted the juries by military commissions; its juries are supplanted by military commissions" (p. 663). As in the case of class formation, the empowered are in the last analysis doing this to themselves as they do it to everyone, a process Marx presents with skill rhetorically but without precision methodologically in this case. Where Marx leaves off, in near-obfuscation, Althusser picks up.

Specifically, Althusser begins his treatment of the totality of social relations where Marx begins "The Jewish Question," with a demystification of history and the dialectic. According to Althusser (1977), the Hegelian dialectic is primarily *mimetic*—mechanical, repetitive—rather than intelligent, creative, or productive (see Thesis Three).[50] That is, the theological speculations to which purpose Hegel set his project represent not an obfuscation or misapplication of dialectical method but "*the mystified form* of the dialectic itself" (p. 93), because Hegel organizes the totality of concrete determinations of a given polity into a coherent whole in such a way that it can be "*reflected in a unique internal principle*, which is *the truth* of all those concrete determinations" (p. 102), in such a way that ideologically occludes an empirical basis for investigation—ideology posing as metaphysics posing as reason. This internal principle is a "*spiritual principle*, which can *never definitely be anything but the most abstract form of that epoch's consciousness of itself: its religious or philosophical consciousness, that is, its own ideology*" (Althusser, 1977, p. 103). The characteristically Hegelian gesture, then, is to fashion a representation of a totality into a programmatic Providential and metaphysical marionette, which moves dialectically not in response to conditions or verifiable positions but according to an ideological and at bottom political, thus "egoistic," agenda: "arbitrary decisions" (p. 104) made to *resemble* a rigorous dialectic here, but elsewhere made to appear as Providence,[51] as Spirit.

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[49] Anderson (2003) gives a brief cultural history of this trope as an expression of transformational holism. The allegoric tradition may be yet another cultural matrix from which holism as we know it now in the Anglophone tradition arose.

[50] It is worth remembering in this context that, according to Habermas (1994), recognizably postmetaphysical thinking arises in history as an intervention into Hegel's positions and practices by the generation of Marx, Feuerbach, and Bruno Bauer (p. 39).

[51] I provisionally claim that Wilber's holarchy is one such Hegelian organizational principle (a spatial one), and that Aurobindian evolution is another (of chronology). Wilber's specific debt to Hegelian thinkers (Aurobindo, Gebser, Theilhard) and Hegel himself remains an open question for future inquiry,

Hegel's intervention is the philosophical complement to Bonaparte's political one as Marx presents it in *The Eighteenth Brumaire*—it "produces actual anarchy in the name of order" (p. 617) (see Thesis Seven).

As Marx did, Althusser posits a totality of social relations constituted, under capital, by a contradiction of class interests, where "the Capital-Labour contradiction is never simple, but always specified by the historically concrete forms in which it is exercised" (p. 106). This specificity of articulation is *contingent on* and homologously *expressed as* local causalities—the inertia of traditional conjugal and familial relations, the state, cultural traditions, longstanding prosaic strategies for mitigating the difficulties posed by the need to eat and to sleep in a given place and time, all canalized into concrete forms. Meaning: a moment of racism in a workplace, for instance, articulates the writ-large contradiction of the social totality—a conflict of interests—by means of race and in terms of race, and in this sense is not only determined by one stream of causality but *overdetermined* by multiple causalities, the complex of race and class, and local and global histories (see Thesis One). Further, local *overdetermined* causalities must be understood in relation to the pushes and pulls of the global, which engage with local formations on specific, also historically determined terms (Althusser, 1970, p. 106). That is, a racialized moment of conflict in an Oregon lumber mill is not wholly coherent without the frame of the contingencies of the contemporary world timber economy and the local conditions of everyday life. It is not only personal, nor only racist, nor only local.

A Hegelian, for the purposes of Althusser's argument, would look to subdue a given formation regardless of its determination from its contextualized historical specificity into Spirit—the outcome of this dialectic is assumed before the start, literally taken on faith, such that in a vulgar but real way the contradictions of race relations among late-capitalist producers are made out to be a gesture of Providence, specifically a Hegelian's providential pen (see Thesis Seven). Not so for the Marxist working in good faith. Althusser recognizes that the specific overdetermination of social relations in Russia, for instance, made revolution possible under Lenin, but conditions in the overdetermined totality of Wilhelm's Germany *prevented* the same (p. 106). Methodologically, this means it is indeed possible to think a totality without doing necessary violence to any specific contingency, but it is also possible to botch it, to see a New Age dawning where there is none, or to ideologically foreclose a transformation that might be possible (see Thesis Seven). The terms of open-ended empirical inquiry if rigorously applied prevent this, which is why Althusser emphasizes that in Marxist method "the material life of men explains their history; their consciousness, their ideologies are then merely the phenomena of their material life" (p. 107), regardless of the gender-specific language of Althusser's presentation.

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as is the applicability of this critique of Hegel to post-Hegelian integralists such as Wilber and his claimed sources (see Anderson, 2006). In many instances, this question will produce complex answer, due to the complexity of some integral projects. For instance, the real contribution of Sean Kelly's integration of Hegelian dialectics and Jungian archetypes on the ground of complex holism in my view is the very useful concept of complex holism Kelly himself puts forward (Kelly, 1993)—which is to say, while Kelly's complex holism as "*dynamic complemantarity*" (p. 106) may have arisen from his reflections on Hegel and Jung, its applicability may extend beyond the problems that may inhere in Hegelian and Jungian thinking, demand comparison to the ecological Marxist holism Burkett (1999) proposes, and may in part and in metaphysical diction anticipate my argument in Thesis One.

It is possible to read Althusser's assertion that consciousness is merely a function of everyday life reductively, so that subjectivity becomes but an epiphenomenon of economic exchange, which amounts to proposing that *all* coherences reduce to epiphenomena of macroeconomic processes—an oversimplification to be sure. To assume so would be to forget that the totality is, as Althusser puts it, "never simple," and instead posit that "material life, the economy—a simple principle which in turn becomes the sole principle of the universal intelligibility of all the determinations of a historical people" (p. 108)—an agnostic but still recognizably totalizing and reductive gesture. The real question is how a determinate social formation, in its totality, has been and continues to be produced (Althusser, 1970, p. 110) and *reproduced*. As I suggested in the example of the lumber mill, this is an empirical, historical question—how is this conflicted and contradictory mode of production articulated in the meat world of causality and prosaica? This is an appropriate response to the challenge of overdetermination, in which anything that is coherent as something is so because it is a product with a limited shelf life, specifically a *something* produced by a complex of determinate causalities, strong among them the will-to-power of those in control of economic (and, concomitantly, political and cultural) production.

Williams (1977) explicates this point as a double entendre: "*no one mode of production and therefore no dominant social order and therefore no dominant culture ever in reality includes or exhausts all human practice, human energy, and human intention*" (p. 125). Williams identifies formations—the *emergent*—within the totality and of the totality in excess of the dominant that are not only irreducible or not directly reducible to the economic base but in some contexts *reverse* the base-superstructure direction of causation that a reductive reading of Marxist theory might insist on. This double meaning expresses simple opposition, dissent, miracles, surprises—and the inexhaustible novelty of ideology's strategic or occasionally accidental mobilization, reterritorialization of memes new and old. For Williams *residual* formations (translators of Marx and Althusser call these survivals) are accretions of anachronistic causalities that have, like invasive species from the territory of the past in the new habitat of the present, evolved to articulate a particular determinate force, dominant or not, as mutations *within* the coherent body, functionally like the emergent or not at all. Williams cites the ambivalent function of religious orthodoxies in liberal democracies as an example–perhaps dominant or complicit here, perhaps oppositional or revolutionary there (p. 122), a position to be distinguished from the religious consciousness that is the ideological social self-fashioning that Althusser diagnoses at the *omphalos* of the Hegelian dialectic, the literal and metaphoric priest who for Marx becomes "only the anointed bloodhound of the earthly police" (p. 613), a critique extended to psychoanalysis in Deleuze and Guattari (1983).

Methodologically, the relevant distinction is between forcing reality to match a reductive and ideological schema, either idealistic (straw-man Hegelian) or economic (straw-man Marxist)—or doing actual inquiry, drawing deductive conclusions from demonstrable premises, preferably in collaboration with others to help prevent errors and overstatements, systematically (see Introduction), which is the Marxist method of historical materialism in its purest form. This amounts to setting theory or method into a dialectical relationship with material realities, and following the inquiry through empirically, not ideologically (see Introduction). The *Aha*! moment this process obtains begins a long and productive transformation in the subject and the object.

That said, one may object that this method, as more explicitly materialist in orientation rather than explicitly holistic or idealistic, may be inappropriate at best to the integral project. Litfin (2003) raises three objections to Marx's method in her argument in favor of a Hegelian-idealistic integral interpretation of history and politics. The first two, "Marx's theory of dialectical materialism is internally inconsistent and ultimately falls back upon the same assumptions as evolutionary idealism" (Litfin, 2003, p. 43) are both predicated on the same error. Litfin confuses Marx's *method* for interpreting phenomena, historical materialism, with his *interpretation* of phenomena, analogous to mistaking the craft of carpentry with a finished piece of woodwork. Absent this distinction, Marx's writings likely would betray a constitutive contradiction between "inert" matter and a progressive, conscious dialectical method—conscious because it aspires to be scientific and subjective,[52] not conscious because it is implicitly Hegelian,[53] as Litfin assumes it must be. Since Marx does persist in distinguishing his object of inquiry (matter and the forces of social history) from his method of inquiry (dialectical materialism and historical materialism), evident from the very fact he develops different concepts for both,[54] the contradiction Litfin attributes to Marx should be attributed to Litfin's interpretation of Marx. This shows that Litfin's first two objections against Marx and Marxism are unfounded. It is unclear which of Marx's texts Litfin refers to, or what credible Marxist scholarship she has consulted in her analysis, which is a significant context for her third objection, that Marx "erroneously universalizes" his critique of societies under capitalism and their structure "to all societies throughout history" (Litfin, 2003, p. 43). This claim is unsubstantiated; Litfin does not cite one instance where Marx makes this mistake (likely because there are no instances of it in Marx's oeuvre, even in his discussions of precapitalist societies), nor does she cite any evidence supporting her claim that Marxist practice is predicated on the same "worldview" as industrial capital (Litfin, 2003, p. 43) and therefore part of the problem rather than a potential part of the solution, as I propose, nor does she show how this objection even if it were coherent might be warranted, that is, germane to the question of historical materialism as a developing method for understanding and transforming the contemporary, global-capitalistic totality. Litfin's arguments for evolutionary idealism in favor of historical materialism as a method for understanding the political and transforming it are incoherent.

This thesis proposes: if something is coherent as something, that coherence can be understood as a totality (a nation-state, a city, a household), and also in relation to other totalities, which do the work of making things coherent to subjects under capital—not just determining, but overdetermining that coherence, which serves to reproduce that totality as constituted in any given moment (its regime) into the future, an insight that informs the rest of this proposal. I do not posit this process as the evolution of conscious Spirit through phenomenal forms, or anything analogous to that, although I do not on principle rule such a thing out as a theological possibility. I do find that both kinds of global phenomena that Litfin (2003) attributes to emergent Spirit, the explosive power of the transformations capitalism has brought to our world and efforts to transform the capital regime into something more socially just and ecologically sustainable, can more plausibly and with less conceptual elaboration be attributed to the contingencies of capital as it has developed since the industrial revolution and the personal needs of everyday people living together—and that an integral response to those global transformations begins not necessarily with Spirit but with everyday people taking a certain kind of responsibility (see Thesis Four).

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[52] This is also the significance of the popularized Marxist meme of class consciousness, which is an understanding of one's objective situation, without make-believe, such that the totality becomes coherent to a subject, as do one's place and function in that totality. This coming-to-consciousness has more in common with empiricism than with any form of idealism.

[53] If Litfin is correct on this point and Marx is indeed the idealist-by-accident she claims him to be, then her objection to historical materialism would seem incoherent in an altogether different way: Litfin's claim, if correct, would recuperate Marx precisely as a figure of the evolutionary idealism she promotes, which would make her actual rejection of Marx counterstrategic.

[54] This comment of mine contains an entry-level mistake about Marx. Shortly before publication of this essay, the editor of *Integral Review* offered me a chance to revise my error away, but I have chosen to keep it at his suggestion, even to make it more conspicuous by noting it here as a kind of teachable moment: at the instant I find (perhaps legitimate) fault in someone else's treatment of Marx, I produce a mistake of my own. This recalls a familiar lesson on motes, beams, hypocrisy, and responsibility (Matthew 7:5). I trust the reader to find my error and refuse to repeat it.

Thesis Three

> *The coherence arises, persists, and decomposes in time; it can change in time mechanically, or consciously by accumulating developments to a stable regime, or consciously by transforming said regime. Transformation may be necessary to produce responsible results. Theory can help (if responsible) or hinder (if not) any transformation.*

Yuri Lotman observes that changes over time in a semiosphere can manifest in a continuous, predictable fashion—or in a surprising, unpredictable gesture Lotman calls *explosion* (Deltcheva & Vlasov, 1996). For Lotman, the latter tends to open spaces where the uncontrived and novel can develop. I will call changes over time that are predictable, even planned or cultivated, *developments*, and changes that are not predictable and amount to ruptures *transformations*. While developmental models of stages and degrees are useful predictive measures for a multitude of purposes, broadly speaking any one of them is necessarily inadequate to the task of predicting the outcome of any transformative intervention. As Sorel (1961) demonstrates in his critique of early Marxist scholarship,[55]

> it must not be expected that the revolutionary movement can ever follow a pre-determined direction, that it can be conducted according to a master plan like the conquest of a country, that it can be scientifically studied other than in its own development. Everything about it is unpredictable. (p. 253)

Because the mainstream of integral thinking so far has emphasized the developmental aspects of change[56] over different scales of time— Gidley's (2007) macrohistory and synthesis of multiple developmental models is one particularly useful example—I will continue here to explore some ways in which transformation differs from development to flesh out how both modes work, with an eye toward making space for the practice of new values by means of transformative intervention[57] (see Theses Four and Five).

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[55] Mandel (1977), working from Trotskyite presuppositions, proposes a similar distinction to Sorel's but in softer terms: "The (quantitiative) changes which constantly occur in the given mode of production, through adaptation, integration of reforms and self-defense (evolution), are distinguished from those (qualitative) changes which, by sudden leaps, produce a different structure, a new mode of production (revolution)" (p. 18).

[56] For instance, Wilber (2000a) claims that "something novel and emergent" arises due to a dialectical process of transcendence through coupling and recoupling of extant forms (p. 50), a mechanical process

Development is necessary to maintaining any sane social or psychological order (literacy, health, labor), as well as helping to establish the possibility for real intervention. One must become competent before one can accomplish effective critique, for instance, and this becoming-competent is a developmental process[58] (see Thesis Four). But development can and often does also function to maintain a pathological psychosocial regime as well. I begin distinguishing development from transformation with the perhaps counterintuitive position of economist Michel Aglietta (2000) that it is development or evolution that maintains the food-web conflictual structure of the totality.[59] According to Aglietta, "[s]tructural forms evolve with the material transformations of the mode of production. This capacity for evolution is precisely what ensures social cohesion under the domination of an antagonistic relation of production" (p. 189). Development is *an accumulation of means for holding the totality together as it is, under the regime at hand*. It is increased depth, capacity, productivity, force, or the "potential" for increase of any of these, or the accumulation of means to induce an increase. In the case of development as it is understood in contemporary popular discourse on economics, under a regime of accumulation and consumer power, development is a social means of ensuring growth in a productive capacity through legitimized consumption—in short, it is the rise and expansion of a consumer class (Aglietta, 2000, pp. 71-72). One of the subjective developments of the wage relation, the "fragmented consciousness" that is said to characterize modernity, is not only an epiphenomenon of fragmented work roles, as Marx suggests in his early writings; like these work roles, this fragmentation of consciousness is a functional part of the social order under capital (Aglietta, 2000, p. 154), as internally conflicted subjects seek out in the realm of consumption some relief or resolution within themselves, leading to transactions that feed capital back into the machine as productive labor and as commodity consumption. In short, conflicted beings in a conflicted world engage in "retail therapy," some of which could hypothetically offer actual therapeutic benefit (see Thesis Eight). For the regime of capital, this represented a positive development, a way to increase accumulation, even though it is hardly in the best interest of those plugged into this desiring-machinery. Following this one can see that consumption is

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of accumulated variation and complexity. For present purposes, I call the kind of mechanical change Wilber describes *development*, and the kind of intentional and creative intervention I prescribe *transformation*.

[57] Some integral thinkers, Wilber most conspicuously, have consistently expressed strong reservations about the value or possibility of transformations as ruptures (Wilber 2003). The present essay differs on this point but not without qualification.

[58] For instance, the brilliant, demanding pedagogies of Ilych (1973) and Friere (1993) could both be regarded as developmental plans designed to bring about significant and desirable transformations subjectively and socially. My point is not that development is somehow "bad"—on the contrary, it is invaluable—but that it can be useful to any regime—it is *ambivalent* in this sense—and it is limited in scope.

[59] Modern history shows that most large-scale transformations go horribly wrong sooner or later as well, due to a complex of irresponsibility, outside intrusion, and logistical problems. My larger point for the purpose of this inquiry is that transformation offers a specific opportunity to accomplish something that development cannot approach, if and only if handled with care.

predicated on a desire to consume, that desire is manufactured or "machined" in the Deleuze-Guattarian patois, and that subjects under capital are made to desire the social and subjective order *as it is*, not as it could be (Jameson, 1981; Braidotti, 2006; Anderson, 2007). *As it could be*, in my view, ought to be the purpose of integral praxis—to produce work that benefits the whole, from bottom to top. And that, in my view, demands a transformation, but not just any transformation.

Products—explicitly representational or not—arise in space and time due to causes and conditions, which are legible to a greater or lesser extent in the form, function, and characteristics of the product, as are the imputed desires and needs of the intended consumer. This means that any given product, including any and all materials we might think of as integral, such as the present inquiry or Wilber's *Integral Life Starter Kit* for instance, has a specific relationship with its mode and moment of production. Mary Ellen Pitts's (1990) holographic paradigm is perhaps the first experiment to think a properly integral hermeneutics through. Pitts reads texts and cultural artifacts as partial or complete refractions of experienced realities. Because the mind (for Pitts) apprehends its context or horizon holographically, it produces materials, "flickers," that are related to world-stuff on a holographic principle (p. 83), where the refraction reproduces in a distorted way the whole moment of its production.[60] The contours of that distortion, I suggest, may reveal something useful about a mind of a given moment of production, as will the product, the text or "flicker" (see Thesis Six). Following this, what I call "flickering" is a mechanical process, mechanical in both the Gurdjieffian and Deleuzian senses: as with the subjective aspect of a coherence's co-creation, it happens unconsciously, automatically (see Thesis One); it may reflect an uncritical or automatic identification of the maker's interests with the regime in control of the given formation. I posit that *flickering is legible in coherences in the way things are coherent and made coherent.*[61]

But products are not always born only of mechanistic, Malthusian, or Machiavellian modes of causation. Some—cultural products most explicitly but not absolutely nor exclusively—are also *productions of consciousness*, of compassion, articulated with greater or lesser competence. What I call *mimicry*[62] includes conscious, intentional behaviors designed to ingratiate one with a given regime. Consider here any formalities of dress, dining, greeting, and forming the body, and the consequences of their abrogation. As I hope to show, some products and intellectual trends are nothing more than metaphorically using the correct fork at the correct time at the dining table of Empire, proving one is worthy to speak for (socially sanctioned) Eternal and Timeless Values.[63] This theorist, by investing in a given product or ideology or "ism," identifies his or her interests as primary, and seeks promotion of them by means of integrating them with those of the regime through this strategic investment—like the petty farmers Marx described in the *Eighteenth Brumaire* (see Thesis Two) or like the *homo academicus* reproducing in his scholarship the values of his position and his aspirations in the academic institution (Bourdieu, 1988). Since developmental models are committed to keeping the regime at hand intact by improving it by change over time, there is a danger of mimicry, intentional or otherwise, in the potential ideological investments in and of developmental practices.

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[60] In semiotics, a flicker can be compared to a cultural unit in Umberto Eco's system (Eco, 1976, pp. 71-72); Eco's comments on semantic units in the Qur'an and their history as understood in Europe are also instructive (p. 145, note 10). Also, flickering is a phenomenon related to the "expression substance" or physical, formal substrate in Louis Hjelmslev's theory of linguistics (see Hjelmslev, 1961), which allows any coherent form on principle to be understood as a kind of signal from the past to the present that may be decoded.

[61] Flickers are coherent as such, automatically, to those prepared to recognize them by rote experience or conscious training, such that a set of symptoms may be immediately coherent as expressions of a specific illness to an experienced healer, or as a linguist may recognize one's geographic and class origins by the inflections of one's speech (see Thesis One).

[62] I am using this specifically in the sense Bhabha develops in his analysis of Fanon's (1960) interventions into the psychology of the postcolonial situation; William Blake's fragmentary epic *The Four Zoas* dramatizes a broadly analogous critique of mimicry under empire two centuries prior, and in recognizably holographic terms, presenting what must be among the first integral macropolitical theories responsive to industrial capital.

By contrast to mimicry, *critique* is conscious, intentional behavior designed to reflect the reality of a given moment or regime back to the socius, in order to provoke structural change in it. Critique is a transformational practice, if put forward properly, in that it dissociates one from a regime, destroys or overthrows a regime, or de/reterritorializes a former regime to form a new one on new terms. At bottom, critique is *the happy practice of creating new values for the benefit of all and everything*.

One can see how various discrete moments in the development of what we now think of as integral praxis may have arisen as interventionary or mimetic responses to real phases of social, political, and economic order, rather than evolutionary stages of development building one on the other. As it happens, global capital has evolved in specific places and times with changes in available resources and other constraints; it is not as if one day early in the Twentieth Century the world's values became "modernist" in a homogenous fashion, or later, arbitrarily and universally cut it out and became "postmodernist" instead by the methods or whims of this or that thinker, as one may be led to conclude from a survey of the history of ideas such as Wilber (1981) or Wilber (2000a)[64] (see Thesis Seven). By contrast, I submit that integral praxis of the sort I am advancing is a coherent *oppositional* tactic, as Gidley suggests,[65] in a dance with *hegemony*, *into subjectivity*, which is to say in *everyday life*. It is theory, to be certain, but theory for the sake of compassionate action. It is a species of the *emergent* (see Thesis Two) that assumes different strategies as it advances in concert with specific historical contingencies and with greater or lesser success depending on the instance (some as simple *flickers*, others as intentional *mimicries* or *critiques*) by people who had nothing or not much in common with each other—no knowledge of each other in most cases—*except* a shared subaltern if not always or exclusively oppositional relationship with the expression of Empire through immediate contingencies, not always immediately recognizable *as* such. I submit that coherently integral practices arise dialectically in concert with world-historical expressions of capitalism,[66] such as the familiar imperial, Fordist, and neo-Fordist (integrated global capitalist) articulations of political economy as experienced in North America and Britain, either in sympathy with or opposition to the impositions of the private-property regime or ambivalently Janus-faced between either position, and often slightly *later* than most of the antecedent transformations in political economy, as if in response to those transformations—much as one may observe in military history that technological advances in weaponry generally but not always *predate* advances in armor and defensive provision.

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[63] What I call *theory in bad faith* has as its program, according to Nizan (1971) (skillfully employing another "consumption" metaphor): "to gain universal acceptance for the established order by making it palatable, by conferring upon it a certain nobility, and by furnishing rationalizations for its every aspect" (p. 91).

[64] In a more recent better-developed instance, Mastustik (2007) gives a production history of his integral critical theory as a series of interventions by great minds into theory as such Kant, Hegel, Marx, Nietzsche and Freud (implicitly Feuerbach, the common denominator between them), the Frankfurt School, Habermas, and Wilber.

[65] For instance, Gidley (2007) reads Teilhard's work and its legacy as a potential "counterbalance to the hegemonic excesses of globalization" (p. 190). One example of what may fairly be described as a Theilhard-inspired oppositional project would be Fox & Swimme (1982), which includes an admirable celebratory call for compassion (pp. 29-30).

Imperialism. Rosa Luxemburg demonstrated early in the Twentieth Century that, under empire, the world became consumed without margins, nondual in an unusual sense, under a global regime. The task of capital in this phase was to integrate control over its imperial members socially and subjectively. Thus, post-Hegelian and positivist synthesis is explored (Aurobindo, Gebser[67]), but on the terms of Spirit rather than the literal cannon.[68] The critical question is whether this attempt is an ideological cipher or mimicry for European force, as I suggest it is in important ways for Aurobindo (Anderson, 2006), or if it is a redoubling of spiritual and intellectual force against this hegemony, as I think it usually is in the tradition of Marxist and post-Marxist critique. This question remains a live one; my intention here is only to frame it for further inquiry in order to show that what we call integral critique at the time of capital's explicitly imperial period responded directly in form and content to the conditions of an imperial regime. This still very much matters because imperialism carries on, if in different forms and by different means than it was implemented during the Scramble for Africa (see Chile, 1973 or Iraq, 2003), and the residual forms of the early integral response (such as Aurobindo's Providential theory of evolution) remain in the writings of key integralists as functioning ideologies or residuals.

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[66] Capitalism is understood here not as a set of values or a static structure but as a dynamic kind of regime best described as a very large and aggregated machine that, with some intelligence but with or without responsibility, functions by constantly breaking down and consuming bits of itself as fuel and as raw materials (Deleuze & Guattari, 1983)—in short, reinventing itself in fits and starts (see Thesis Seven).

[67] I find the origin of integral theory as an intellectual movement in Aurobindo's post-Hegelian positivism (Anderson, 2006); Hampson (2007), in a useful counterbalance to my position, cites Gebser's positivist, post-Hegelian synthetic work as the foundational gesture of integral theory. Both positions have merit, and broadly speaking, do not contradict, insofar as both Aurobindo and Gebser were working from largely the same intellectual milieu the Hegelian and post-Hegelian idealism Wilber (2000a) praises as a "lost opportunity" (pp. 523-537) and in the context of Empire's transformations. Such is the ambivalence of the post-colonial situation.

[68] Integral praxis has arisen under the aegis of private property, as a response to it—in some cases critical and oppositional, in some apparently so but not actually, in others still positively and explicitly supportive of the regime at hand. Since this is the case, if integralists are to have a complete understanding of our collective project, we need to develop the theoretic tools for understanding how our ideas circulate as commodities and as flecks of ideology—that is, by whom and how our work is deployed, under what terms, and under whose control. The Marxist tradition provides means for explicating all this ready-made and, in my view, already postformal if not always already-integral or responsible. Toward this end, one of the implicit purposes of the present inquiry is the continued patriation of Marxist and post-Marxist inquiry into integral discourse that I began in Anderson (2006).

Fordism. Because of the temporal regime of Taylorist and, later, Fordist modes of production, which "adapted to the restriction of the working day by sharply increasing the intensity of labor and systematically compressing wasted time" leaving positively no rest from the inevitable rhythms of the assembly line (Aglietta, 2000, p. 158), it is no accident that at this period Krishnamurti's observation that time is man's psychological enemy could gain significant traction—this reflects the lived experience of people in their work, and offers a strategy for addressing the dissatisfactions of that life experience. It is here and at this time that, in popular culture under this regime, a variety of strategies for fulfilling one's *human* potential (as opposed to the mimetic, mechanical potential fulfilled at work) arise *as commodities* at a spectrum of price-points, beginning with Paul Twitchell's correspondence courses in the middle 1960s[69] and ending with weekend retreats led by Werner Erhard or at a Shambhala Center or at Esalen Institute, along with a multiplicity of other supplemental comforts such as books, audio recordings, and the "Zen alarm clock." "Zen," as Unno (2004) observes, at this time became and remains still a marketing buzzword for at-home comfort, serenity, and sound design sensibility. This is both a function and an aspect of the contingencies of consumerism. According to Aglietta, "[i]ndividual commodity consumption […] permits the most effective recuperation from physical and nervous fatigue in a compact space of time within the day, and at a single place, the home" (p. 159). As in the case of integral praxis under (or for or against) an imperialistic regime, here the critical question is whether this broad set of practices serves in the end to unplug one from the assemblage of desiring machines, freeing the subject from it and making transformation possible, or if the function is simply as a palliative, as an affective strategy for *just getting by*, inadvertently leaving the problematic conflictual order intact[70] or, worse, even stronger for one's complicity with it.

Global Finance or "Neo-Fordism." Fully-integrated, trans-national, and *vertical* supply and production chains, deep organizations cross-subordinated within each other and oriented around and through "global cities" rather than state boundaries,[71] such that states become divisions of capital, local regulatory bodies of a global process—one may now call global capital under this regime Integral Reality as Baudrillard (2005) does, or Integrated Global Capital as Guattari (2000) does. Aglietta calls it neo-Fordism: "a totally integrated system in which production operations properly so called, as well as the measurement and handling of information, react upon one another as elements in a single process, conceived in advance and organized in its totality" (p. 124).[72] As will be seen, it corresponds to a kind of neo-colonialism (see Thesis Seven). In the conspicuous case of Wal-Mart, a "superholon" localized in Bentonville, Arkansas subordinates factory subholons in China and distribution to North America much as a brain controls the voluntary organs of the body and manages its involuntary flows (Fishman, 2006). In short, Wilber's *ontological model*, his description of fundamental reality, expresses this social and political order very precisely: seamless, top-down order where all totalities are subordinated to other totalities, but not imagined as parts of those totalities. Nation-states are thus understood as wholes, subordinated to global capital but not as *parts* of it per se; similarly, corporations are integral wholes, not parts of nation-states; citizens are autonomous wholes, not parts of corporations or nation-states; but all are subordinated to a "superholon" and internested with each other in *holarchy* (Wilber, 2000a).[73] Pedagogy is transformed under this regime, so that the university effectively becomes a public corporation, serving corporate interests, while the dominant site of and model for learning becomes the corporate training seminar, where inquiry is jettisoned in favor of "solutions." A field appropriate to problem-posing and open questions, per the scientific method, is foreclosed by ready-made *commodities* or "learning modules" (see Thesis Eight).[74] Other business of the state, such as the monopoly on legitimized violence, also becomes privatized, through mercenary agencies prosecuting acts of war abroad (Blackwater and other "private security firms") and private interests contracting the management of prisons, while the state's business turns to the interests of capital, securing "national interests" such as access to (other people's) natural resources abroad through state violence.[75]

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[69] My only claim regarding Twitchell is that his production and distribution of spiritual lessons to be used at home fits the pattern of consumption of goods for relaxation at home during this period in history in North America. This distinguishes Twitchell's prophetic claims (and those of his contemporaries, inclusive of Jane Roberts, Elizabeth Clare Prophet, and Claude Vorilhon [Rael]) from those of antecedent American figures such as Joseph Smith, John Ballou Newbrough, and Guy Ballard, who wrote in response to a fundamentally different social order. I am not at present entering the debate regarding Twitchell's later literary practices or his motivations as initiated by the intervention of David Lane, who is also a public critic of Wilber. Diem (1995) surveys this matter a value-neutral way, inclusive of Twitchell's relationships with mid-century American culture and with his sources in Radhasoami and Scientology as well as Lane's analyses. Marman (2007) attempts a rebuttal of Lane's position in the form of a personal narrative that is very sympathetic to Twitchell's organization and his project, and is thematic rather than critical methodologically.

[70] My position on this question is that some produce good transformational results, others produce good developmental results, and others produce no good results at all, and *all* are commodities. Pointing out the commodity nature of a practice or product is intended neither as disparagement nor endorsement here, simply a historical reality.

[71] See especially Sassen (1990), although Deleuze and Guattari (1983) anticipate this development.

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[72] I assume that the financial crisis of October 2008, occurring as I make final revisions to this essay, can only be properly interpreted in terms of global interconnectivity and integration.

[73] Wilber (2000a) distinguishes social, environmental, or collective holons from holons as such by the feature of objective self-consciousness (p. 72), which at first glance seems to complicate my point that Wilber's ontology is a reflection of its social moment. This distinction is incoherent in application, however. Wilber suggests that a stone and the totality of being (Kosmos) are both holons, and therefore are both characterized by subjective self-consciousness (the latter of which is Spirit). However, collective holons for Wilber, lack this unitary self-consciousness, meaning that aggregates such as nation-states and corporations do not participate in holarchy so much as provide a context for the evolution of individual holons. Wilber gives no rationale for his decision to subjectivize and spiritualize a stone but not a socius, and the aggregate of all aggregates but not the middle-management of aggregated coherences—and for this reason I call this distinction incoherent. My claim that Wilber's metaphysical view of reality seems to flicker our present-tense means of economic and political reproduction stands regardless of the distance from the social Wilber attempts to produce by positing this individual-collective holonic distinction.

[74] Wilber (2003) is a remarkable artifact of this transformation. In *Boomeritis*, students at the I.C. (or rather the audience of the seminar performance) privately complain about the perceived difficulty of themes presented to them, but choose to retake the coursework over and over, groaning at predictable moments, like automated laughter during a sit-com or a film score; like machines, they groan on cue, cheer on cue, and inevitably know what comes next (presumably through repeat exposure to the same show). Paragraphs appear to be silently copied and pasted from Beck & Cowan (1996). Wilber's narration of simplistic, repetitive, performative, and commodified *content delivery* should be contrasted against the actual *pedagogy* Friere (1993) proposes.

[75] Armando Uribe (1975) gives a detailed, often first-person account of how American financial, academic, military, and commercial interests literally acted as one, *as an integrated system*, in the undermining and eventual overthrow of Chile's attempt at radical democracy under Salvador Allende. Thirty years later, in the case of Iraq, Empire is still ideologically articulated in Orwellian jingoisms such

Internested holarchy. The transition from Fordism to neo-Fordism corresponds precisely to the leap from the first to the second tier of vMemes in Spiral Dynamics, where both global integrated capital (a "single dynamic organism") and Wilber's oeuvre represent turquoise, a step *past* the yellow or "integrative" vMeme (Beck & Cowan, 1996, p. 47) which describes Wal-Mart's business model and Halliburton's since at least 2003—that is, Wilber's model and Spiral Dynamics both represent the outcomes of subjective transformations and ontological processes through a description of contemporary socioeconomic phenomena, "flickering" those processes in a different context (see Thesis Seven). What Spiral Dynamics takes to be a paradigm shift in values, Aglietta shows to be a near-Darwinian (or near-Malthusian) adaptation in self-reproduction of a macro-organism to an alteration in resources and capacities (see Thesis Seven). This is evolution of a sort, but not Providential or Aurobindian evolution (see Theses Six and Seven). In a related context, Wilber's AQAL scheme is arguably the most comprehensive measure for assuring one has a coherent place in the most coherent whole imaginable, arising precisely when anxiety about one's place in corporate culture intensifies under this regime, including diminished job security and declining real wages arises under global finance (Aglietta, 2000, pp. 406, 422). As before, the critical question for Spiral Dynamics and AQAL is whether or not the theory supports practice that is reductive or mimetic on the one hand, or transformative and interventionary on the other, is ambivalently both, or is neither.

What change is introduced in each case? The most important may be the contribution of Marx and Engels in *The German Ideology* that people living their lives—productive or not, spiritually engaged or not—*make ideas*, and not necessarily or always vice versa[76] (see Thesis Seven). A new paradigm on its own and for its own sake changes little in life, and may in fact serve to counteract meaningful change (Anderson, 2006) (see Thesis Seven). You have to change your life, which means you have to change the structure of lives lived together in cooperation, including the terms of that cooperation and the means of controlling that structure (see Theses Four and Eight). That is, other useful results notwithstanding, one could argue that no integral paradigm to date has brought about a socially significant and sustainable transformation in any regime of values—not yet.

It can be done if theorists are willing to be responsible for that change in a specific sense, a merciless commitment that opens the theorist to exposure to reaction and to a relentless, inescapable investment of time and labor,[77] to the death.

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as "spreading democracy" and "enduring freedom," but acted out through a seamlessly integrated body of governmental and corporate organs (Halliburton, Bechtel, Blackwater)—an apparatus of capture (Deleuze & Guattari, 1987)—working toward a common interest, accumulating capital by controlling resources and access to resources. This is the capital-regime Aglietta calls "Neo-Fordism" but is more popularly known as integrated global capital.

[76] Marx expresses this differently in the third thesis on Feuerbach: "The materialist doctrine that men are products of circumstances and upbringing, and that, therefore, changed men are products of other circumstances and changed upbringing, forgets that it is men who change circumstances and that it is essential to educate the educator himself."

[77] e.e. cummings narrates a dramatic, arguably hyperbolic, example of this risk in his poem "I sing of olaf glad and big." The first intervention, which made Olaf a conscientious objector then conscripted into the army, is presumed as backstory. The reader is led through the discipline of Olaf's second intervention, which amounts to an unstinting commitment. Olaf persists in his practice of the Big No (see Theses Four and Seven) through the extraordinary and hypocritical violence that leads to his death; patiently, even

Thesis Four

> *Responsible intervention can produce real transformation in the totality. The first intervention is to recognize the nature of a given situation; the second is to maintain relationship with it over time. Responsibility is characterized by critical clarity, competence, consciousness, and compassion.*

There are two transitions in any successful attempt to make something, according to Blake's (1996) Gurdjieffian analysis. "In the one," Blake asserts, "the action of making is set free from the laws of the mechanical world from which it starts. In the other, it is made an integral part of the purposeful world in which it ends" (p. 57). Much follows from these observations on production and productivity. In *The Encyclopedia of Stupidity*, which is in the last analysis an inquiry into intelligence and intelligent action, van Boxsel (2003) describes the accrued development of a culture in the same way that Blake describes the production of something useful. Culture, intelligence, and theory are "but the result of a series of more or less unsuccessful attempts to come to grips with stupidity" (van Boxsel, 2003, p. 23), where stupidity is defined first as "automatic responses" (p. 37) and second as "the talent for acting unwittingly against your own interests" (p. 29). This is the obverse of the dialectic of conditions and consciousness posited earlier, where knowledge is made (see Thesis One);[78] here, accurate and useful knowledge is shown to be dialectically occluded, on one side by an inscrutable object and on the other side by an incompetent subject, both reifying each other into a repetitive, mechanical, and at best boring pattern.[79]

In order to accomplish anything novel, to transform something old into something new, one must work against the constraints of the mechanical regime-world, which subjects one to reification both as stupidity and as lack of control—*automatic responses*—to bring forth a contribution to a purposeful world for which one can be responsible, in which one really works to advance one's best interests, which at bottom coincide with those of the socius in which one is embedded and the sum total of animated life. The subject is transformed from a *produced* articulation, bound to "repeat the same dull round over again,"[80] subordinated to the control of another regime, to a *self-directed* articulation, with a degree of real (not compelled or coerced) control over itself and its activities.

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unannoyed, he absorbs countless blows from the bureaucratized and self-imitating mass—"kindred intellects"—while taking as his constant mantra, "there is some shit i will not eat."

[78] Merleau-Ponty (2003) presents this rather poetically: "It is true that we carry with us, in the shape of our body, an ever-present principle of absent-mindedness and bewilderment" (p. 31).

[79] Svendsen (2005) offers a useful analysis of the relationship between the recurrence of boredom and the perceived need for self-realization as a condition of modernity.

[80] William Blake (1982), "There is No Natural Religion [B]." Blake anticipates Nietzsche's speculations on the eternal recurrence of the same here, but in a way that connotes not only a mathematically infinite boredom but more directly a manifold of infinite *bindings*, affectively in Blake (as in his poem "London") and also in later attempts to represent said recurrence by means of arithmetic, which Borges (1999, pp. 14-122) and Ouspensky (2001, pp. 329-340) attempt to perform. This interpretation of eternal recurrence contrasts with Kelly (2008), which reterritorializes Nietzsche's position into a Hegelian framework.

The category of automatic responses includes every way in which a subject behaves mechanically, predictably, without awareness, volition, or intention. Some responses of this type are useful, such as the automatic capacity to recognize letters of the alphabet without thinking each one through in fluent reading; others, such as the persistent unconscious association of negative stereotypes such as incompetence with female persons arising automatically in the presence of a woman or a girl, are clearly not helpful but are in fact *stupid* (see Thesis One). Marcuse (1969)[81] identifies "an automatism of immediate experience, but a socially engineered experience which militates against the liberation of sensibility" (p. 39), a *specific* response to a *specific* set of contingencies that has become automatic under what is popularly referred to as consumer culture. According to Marcuse this is a "deep-rooted, 'organic' adaptation of the people to a terrible but profitably functioning society," and in this adaptation "lie the limits of democratic persuasion and evolution. On the overcoming of these limits depends the establishment of democracy" (p. 17). Establishing authentic democracy on the basis of liberated subjectivity (see Thesis Eight) is a project that must face the push of the inertia of these automated responses, however—a heavy burden.

As with any coherence, the mass, the multitude, represents both the symptom of this problem and its solution. According to Marcuse, "radical change depends on a mass basis, but every step in the struggle for radical change isolates the opposition from the masses and provokes intensified repression" (p. 68), at least initially. This leads to significant discomfort and disadvantage for the one who fully commits to transformational practice. Such a one becomes-minoritarian[82] as he or she becomes-responsible. The repression Marcuse speaks of is one causal aspect of becoming this kind of minority. It is because the mass experiences itself as plugged in or even accountable to the mainstream, literally going with the flow without purpose or intention,[83] "'just like everybody,'" while responsibility requires the conscious work of making critical distinctions (Ortega y Gasset, 1964, p. 15), and in my view actively unplugs one from the complex of desiring machines that keeps this version of the totality in place (Anderson, 2007). This is an act of responsibility in that one is claiming the kinetic stream one *can* claim as one's own and directing it toward aims that benefit not only Bentonville but all beings. By contrast, under this regime the masses are encouraged to behave, think, and emote like spoiled children, and become "only concerned with their own well-being, and at the same time they remain alien to the cause of that well-being" (Ortega y Gasset, 1964, p. 60)—and, thus ignorant of history and the Gurdjieffian terror of their own out-of-control situation, see no need for change. It is true, "[t]he mass-man regards himself as perfect" (Ortega y Gasset, 1964, p. 69), and there is a specific reason for this podsnappery. It is an expression of the hopeless, hapless logic of incompetence, where incompetent people have no understanding of what constitutes well-crafted work, and therefore see no qualitative difference between their own blighted output and that which is useful, elegant, and helpful. Incompetence, then, leads one to misunderstand one's place in the world as it is and as it could be,[84] and to become dissatisfied with it but on grounds of resentment against perceived slight rather than compassion for the sufferings of others, and self-righteously indignant with those who have the capacity to be of real help (Kruger & Dunning, 1999). Van Boxsel describes this phenomenon as "the bigoted righteousness of the masses" (p. 19) and, coupled with the ideological workings of the consumer-capital regime, produce in the masses

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[81] This is a particularly useful text for an integral approach, as Marcuse synthesizes in it the critiques and themes he presents in his more detailed engagements, such as *One Dimensional Man* and *Eros and Civilization*.

[82] Deleuze and Guattari (1986) develop this concept, asserting: "There is nothing that is major or revolutionary except the minor" (p. 26).

[83] Roy (2006) and, in response, Anderson (2007) offer distinct but related views on how this causal flow that produces subject by moment is articulated, the former ontologically-oriented.

> that diffused aggressiveness which, unless steered to hate and fight the alleged national enemy, hits upon any suitable target […]. This is the aggressiveness of those with the mutilated experience, with the false consciousness and the false needs, the victims of repression who, for their living, depend on the repressive society and repress the alternative. (Marcuse, 1969, pp. 50-51)

This is tragically stupid in the Aristotelian sense because the alternative of ending this cycle of repression, responsible transformation, is ultimately in their interest and represents an act of compassion if implemented consciously and with competence as an end of a regime that runs on violence, synthetic and real, and antidepressants. Just as becoming-competent can serve a pathological regime by holding a conflicted totality together (see Thesis Two), so can remaining-*incompetent* do the same. A transformational project must, then, address both *incompetence* and *uncritical competence,* colloquially known as "idiot compassion" and "enabling."

While he does not advocate it, Ortega y Gasset correctly distinguishes this kind of transformation from an evolutionary development: "Revolution is not the uprising against pre-existing order, but the setting up of a new order contradictory to the old one" (p. 57). There is no need to do violence to the old regime in principle, nor are "stupid people" the problem. The specific problem is not even stupidity as such, which can be learned from and ameliorated, but the processes that make people stupid and keep them happily so, if synthetically happy, and sometimes violently so, and the incentives built in for making others stupid—for keeping these processes in place. An authentic solution, as I show later, is to institute spaces that allow people to become happy, productive, and responsible (see Thesis Eight).

One of these stupefying processes, uncritical competence *par excellance*, appears to be *very* intelligent. What I call *theory in bad faith* is one ideological means of making people stupid per van Boxsel's second definition of stupidity, *working against one's own interests* while thinking—being led to think, to feel—that one is on the side of morality, on right side of history, by identifying one's interests with the make-believe Providence of a pathological regime rather than the wellbeing of the totality. My intention in developing this concept at present is no more than to give some symptoms of a pathology for readers to identify in the work of theorists generally, and integral theorists in particular (inclusive of my own work), to be cut through and composted. One conspicuous and relatively contemporary instance of theory in bad faith would be Fukuyama's (1992) declaration that the world has come to the "end of history as such: that is, the end point of mankind's ideological evolution and the universalization of western liberal democracy as the final form of human government" (p. 3)—meaning that our work in the world is over, for the New Age of unfettered capital is begun[85] (see Thesis Seven).

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[84] Of the seven traits of the Hasnamuss or reprobate fool that Gurdjieff (1999) proposes, the last and most unbearable is most directly relevant to the Nietzschean critique Ortega y Gasset offers: "The striving to be not what one is" (p. 406).

For Nizan (1971), among the first to examine the problem posed by positions such as Fukuyama's, this is the critical question: is a particular theory of use to those who oppress, or to those who seek to transform oppression into justice? This distinction in practice corresponds to that between Sein (being) and Schein (appearance):

> When the philosophers discuss Mind and Ideas, Ethics and the Sovereign Good, Reason and Justice, but not the experiences, the misfortunes, the events, the 'daily grind' of which life consists, those who fall victim to these misfortunes, who bear the weight of these events, who undergo these experiences, who endure this daily grind—in a word, those who must endure this life—find this style of philosophizing arrogant and repugnant. (p. 14)

For Nizan, big-Being questions addressed uncritically (in this case by the positivists he critiques) can occlude real problems and by this means help prevent meaningful inquiry into apparent matters in the world of sensation and causation (see Thesis Two). Nizan's solution is to become a theorist responsible for the subaltern, on behalf of and for the benefit of the oppressed and deluded masses, one who "will not be a dispenser of illuminations or an artificer of myths or a wizard" (p. 139) or indulge in make-believe.

Aglietta (2000) explains how this connection Nizan posits between positivist spiritual speculation and, in the last analysis, the expression of capital's imperatives through violence was implemented historically:

> The ideological institutions of capitalism absorbed intellectuals originating from all social strata; bourgeois representations of the world were constructed without resistance; the juridical principles of the state took on a sacred and eternal character. Any questioning of free enterprise was perceived as a threat to the integrity of the nation. (p. 74)

Fanon (1965) extrapolates Nizan's critique of European idealists into the postcolonial field, presenting an intervention of his own that remains relevant (my use of "mimicry" in the present inquiry finds its origin in Fanon's groundbreaking work). Fanon advises the subaltern to

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[85] Wilber (2000a) endorses this view insofar as the "*mutual recognition*" Wilber and Fukuyama assume to be inherent in liberal democracy is an"omega point that pulls history and communication toward the free emergence of that mutual recognition. Short of that emergence, history is a brutalization of one self or group of selves trying to triumph over, dominate, or subjugate others" (p. 321), as regularly occurs within liberal democracy and as one liberal democracy relates to others (as in U.S. intervention in Chile on 11 September, 1973 and immediately after). The coincidence of the putative End of History with the Final Theory, both of which answer all questions or at least frame all possible questions, in the millenarian language Wilber adopts from Teilhard, is an implicit point of critique in Thesis Seven. It should be noted that Fukuyama has since complicated but not withdrawn his support for the project of spreading this history-ending democratic form through the bomb-and-tank evangelism by which it is implemented (Fukuyama, 2006).

> waste no time in sterile litanies and nauseating mimicry. Leave this Europe where *they are never done talking of Man, yet murder men everywhere they find them*, at the corner of every one of their own streets, in all the corners of the globe. For centuries they have stifled almost the whole of humanity in the name of so-called spiritual experience. Look at them today swaying between atomic and spiritual disintegration. (p. 311, emphasis added)

While it is not literally true that *every* Northern urban streetcorner is a murder scene[86] (suburban violence-by-proxy of American right-wing radio culture notwithstanding), Fanon does show that the "sacred" character of imperial institutions as produced by European intellectuals and theologians in the period of high imperialism is something needful to intervene in if the subaltern is to find political or human emancipation, even today. If one is to lead a free life, one must first find the means to authentic freedom, not a political agenda *pretending* to apolitical Freedom or the End of History. Taking Aglietta's observation together with Fanon's on this theme, I propose that that *theory in bad faith served to hold European polities together in the service of capital as well as promoting an imperial program*—"the *integrity* of the nation" against "spiritual *disintegration*."[87]

An *integral* solution must, in *good* faith, intervene in the totality in a way that addresses both problems concretely, that of pathological automatic response and the means of production of consciousness turned to the production of stupidity. I propose two interventions. *The first is a recognition of the need to change with the resolution to carry it forward; the second is an ongoing transformation; taken together, both interventions amount to becoming responsible in a particular way*: "Understanding the first type of stupidity," that of being shot through with distorted ideas and mechanical responses, leads

> to insight, is evolutionary, contributes to our development. Seeing through the stupidity of our thinking on the other hand is revolutionary. Its consequence is madness or redemption: thought is liberated from its confining laws and the road thrown open to the creation of new forms of thought ex nihilo. (M. van Boxsel, 2003, p. 44)

When one becomes responsible, one becomes *capable* of producing new values, if not necessarily *competent* at producing new values.

The first intervention is an act of critical compassion. "*You have to respect* everybody. *You cannot make a random judgment on that at all* […]. *That is the Big No. You can't act on your desires alone*" (Trungpa, 1999, p. 136). Resolving to refuse a small benefit, one's own alone, for the sake of the comprehensive one[88] is a discipline Marcuse (1969) calls the Great Refusal, which is amounts to saying the Big No to "the liberties of [an] exploitative order—a liberation which must precede the construction of a free society, one which necessitates an historical break with the past and the present" (p. viii). In everyday language, one may say: *I get it now, and no, I'm not doing this anymore. I'm going hungry*.[89]

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[86] It also is true that many Northern streetcorners are sites of resistance to violence and the means-to-violence, as a careful analysis of the events in Seattle on 30 November, 1999 will reveal.

[87] The question of whether this kind of "holding the world together" is a viable criterion for integral leadership is taken up in forthcoming work.

[88] Thus, the Big No is to be understood not as a unitary or archetypal "soul of revolt" but as multiple, local, and contextual (Foucault, 1978, p. 96). It is motivated not by the pursuit of pleasure, which is (per Foucault) a bottom-up function of power rather than a means of resistance, but by critical compassion.

The discipline of responsibly keeping this commitment in a thoroughgoing fashion is the second intervention,[90] in which *responsibility leads to making space for new values, which leads to the production of new values* in place of the old mimetic machinery. The work of making space[91] in which this can happen is collaborative in that new values emerges "only in *the collective practice of creating an environment*: level by level, step by step—in the material and intellectual production, an environment in which the nonaggressive, erotic, receptive faculties of man, in harmony with the consciousness of freedom" (Marcuse, 1969, p. 31). Even the radical antinomianism of revolutionary desire, as will be seen, is social in nature (see Thesis Eight).

Domesticating the production of values is a critical step in democratizing subjectivity. Leo Strauss (1973), the intellectual forefather of American neoconservatism, accurately frames this problem from the perspective of the subject-at-large:

> What is called freedom of thought in a large number of cases amounts to—and even for all practical purposes consists of—the ability to choose between two or more different views presented by a small minority of people who are public speakers or writers. (p. 23)

If anything like the Habermasian public sphere exists now, it is effectively rigged, much as the game of brand preference is for any kind of commodity. Whether one chooses cigarette X or cigarette Y, one chooses cancer rather than any kind of fulfillment; if democracy as it is known in any given Western state is the final-perfect form of government, then the scope of one's choices is effectively foreclosed. I propose instead that everyone attempt to take up the discipline of making new values, and that those who master this practice first must go further and make space for others to learn how.

Transformational practice demands one take responsibility for what one can be responsible for. If a comprehensive transformation is to occur, one must be able to take *real* responsibility for two factors, the means of production and reproduction of established society, and subjectivity, political consciousness (Marcuse, 1969, p. 56). Ortega y Gasset (1993) takes responsibility of this kind to be "the Herculean task of genuine aristocracies" (p. 21); by contrast I take this to be the task first of a critical vanguard working from the bottom up—working, precisely in Ortega y Gasset's formulation of effortful servitude and discipline (p. 63), or in Gurdjieff's famous summary of his own practice, conscious labors and intentional sufferings. This is *real* responsibility, or becoming-responsible.[92] Becoming-responsible is a practice that includes both interventions and takes many forms. One can see from this discussion of transformation and intervention that a responsible vanguard or agent must have at minimum the following four characteristics:

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[89] In theological language, one might say that the first intervention corresponds to the "turn" of one's intentions to the divine in recognition of the divine that Buber (1958) describes.

[90] According to Marcuse (1969), "radical change in consciousness is the beginning, the first step in changing social existence: emergence of the new Subject" (p. 53), suggesting that the emergence of this new subjectivity is the task of the second intervention.

[91] Even Puritan England and Anglo-America, the chronotope *par excellance* for a repressive spiritual holarchy, offers at least two well-defined examples in which an agent attempts to make space for new values. One is Thomas Middleton's attempt to craft a theatrical space in which a nonviolent masculinity can be explored and celebrated (Taylor, 2007), a pinnacle of the broader social experiments imagined during the stage explosion of early modern England; another is Roger Williams's crafting of a social scene in which "soul libertie" or radical antinomianism might be possible in what is now the U.S. state of Rhode Island (Field, 2006).

Becoming-critical. One is able to read one's moment clearly, without misunderstanding.

Becoming-competent. One is able to take self-directed action toward an intelligent (critical, conscious, compassionate) aim with increasing skill; one is willing to learn.

Becoming-conscious. One is able to intentionally disabuse oneself of mechanically-acquired habits and attitudes that lead to misunderstanding, incompetence, and incomplete or distorted compassion, and take action that is creative (novel) rather than merely recreative or repetitive.

Becoming-compassionate. One is able to select aims and actions not for the sake of one's regime-investment or personal narrative but for the benefit of one's community and, ultimately, all of animated nature diversely framed. This demands critical intelligence, life competence, and disciplined consciousness.

Thesis Five

> *Where duality (form) is an aggregate of co-conditioned products-in-process, nonduality (emptiness) is immanent, unconditioned. Recognizing and remembering this are the subjective valences of the first and second interventions, respectively.*

Lucio Colletti's (1973) summary view of the subject-as-articulation (in the diction of Thesis Two) opens the question of how a dialectical-materialist theory may relate to typical theological positions in uncompromisingly postmetaphysical language:

> The historical subject is neither Idea, World Spirit, Vico's Providence, nor a transcendental subject. Nor is the subject conceived as Evolution, Struggle for Existence, Societal Instinct, Race, etc. Against these generic abstractions, all equally fruitless, Marx produces a new concept of the subject as a historical-natural entity, as a *species* or collectivity of empirical formations. (p. 14)

Per Colletti, a dialectical-materialist theory of the subject roundly rejects theological interpretations of time and consciousness in time in favor of historical materialism. While at first glance this may seem reductive, it does have certain methodological advantages (see Thesis

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[92] It may be tempting for some readers to identify the "great unifying enterprise" Ortega y Gasset calls for to bring Europe together spiritually and socially as an integral project, but since I am by no means interested in the necessary hegemony of the global North over the totality of the planet, as Ortega y Gasset is, I do not advocate this interpretation.

Seven), and does not foreclose a productive account of intentional living or nonduality. Toward this end, I have posited that first we are, like everything else immediately perceptible and coherent as something, products of aggregated causes and conditions that arise, persist, and decompose (see Thesis One). In the Buddhist formulation, *form is emptiness*. But we are also, like everything else is, forms in and of nonduality. *Emptiness is form*.

This position differs from the main in integral scholarship. That is, I do not posit a Nonduality in the form of an emanational monism of the type Roy (2006) or Gidley (2007) promote in a premise such as “we are all children of the cosmos on our way home,” or Wilber’s (1977) longstanding position that evolution is an “unfolding of Spirit.” Instead, I hold to the position, one that both Roy and Wilber also posit that the nondual is *right here*. *Now*. Go home and you run *to* it, *away* from it, *in* it, *as* it. It is not to be attained through transcendence, because whatever could be transcended was it already, regardless of volitional actions or, just as reasonably, woeful negligence of a Divine Absolute or Kafka-esque cosmic bureaucracy (see Thesis Seven). The comparison is imperfect, but it is suggestive to say that the nondual is affectively like the Deleuze-Guattarian Body without Organs, which is “what remains when you take everything away. What you take away is precisely the phantasy, and signifiances and subjectifications as a whole” (Deleuze & Guattari, 1987, p. 151). End the cycles of make-believe—the co-created subjective-objective process of make-believe, of reification—and this opening becomes possible. This is neither strictly “personal” nor “political,” but both and neither (see Theses One and Two). This position, while a minority view among integral theorists, is neither (or no longer) limited strictly to the Buddhist tradition nor absent from the integral canon, which is a collection of attempts at new values in history (see Thesis Three).

While the description I have attempted to make so far does correspond in important ways to the dialectical method of the Buddhist master Nagarjuna, as I have suggested it differs from Wilber’s use of Nagarjuna’s diction (or more properly, the word choice of Nagarjuna’s contemporary Anglophone translators). Wilber (2000a) posits capital-E Emptiness or nonduality as having the characteristic of *causality,*[93] described as “’Godhead’” and “’Self-Realization’” (pp. 316-317); as something that “embraces the Kosmos” (p. 524). Interestingly, Wilber correctly recognizes that the dialectic of Nagarjuna reveals “all categories of thought” to be “totally self-contradictory” and untenable (p. 528), a method that traditionally applies to theological and metaphysical positions Wilber takes, inclusive of “the I-I,” the “Godhead,” the “Source,” the “Goal,” even the “Emptiness” Wilber posits as aspects of ultimate emptiness rather than as provisional, samsaric coherences (Wilber, 2000a). Theodor Adorno (1994), his occasional comments on Buddhism that reveal some misunderstanding of it notwithstanding,[94] precisely articulates this distinction: “Dialectics is the self-consciousness of the objective context of delusion; it does not mean to have escaped from that context" (p. 406). My point is that the Buddhist-informed critical practice of making new values that are explicitly provisional and without metaphysical pretense I propose here, which is identical in function with some aspects of dialectical materialism (see Theses One and Two), differs from earlier integral proposals such as Wilber's in ways that may be productive.

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[93] Wilber’s habit of attributing causality, which is provisional and by definition dual (subject-object) to nonduality in Buddhist language can be traced in Wilber (1981) as well, where Wilber also posits a “causal Dharmakaya”—a contradiction in terms roughly analogous to “limited infinitude,” “violent peace,” or “stupid omniscience.” Absent this mis-attribution, however, the shotgun wedding Wilber officiates between Nagarjuna’s emptiness and Hegel’s Providence disintegrates into irreconcilable differences.

[94] Morton (2007) explicates Adorno’s misunderstandings of Buddhist thinking as well as the corrupted Buddhist sources Hegel used and the consequent logic of Buddhism’s placement in Hegel’s scheme of world-historical development.

In order to make new values, one must understand how values have been made, which is fundamentally a historical (material, formal—of matter, of forms) analysis (see Thesis Three). One difficulty with Krishnamurti's method, for instance, is its resistance to history, to time. I find this to be a limitation in Krishnamurti's otherwise sound nontheistic presentation of (and perhaps approach to) nonduality,[95] which can be mended in a particular way by enlarging the scale of his intervention beyond the personal,[96] by predicating it on critical compassion. Interestingly, the great dialectician Georg Lukacs (1971) advocates a similar transformation as Krishnamurti's, in strikingly similar diction, but on a different scale, directly evoking the scale-homology logic of holism (micro- and macrocosms largely operating by the same rules). Where Lukacs the practical Marxist is materialistic, concerned with conditions, Krishnamurti the practical mystic is concerned with nothing at all, has no motivation, no place and no context. *The integral task in this case is to think of time in a way that admits the nondual*, with which Krishnamurti is primarily concerned, without compromise or distortion, and *while enabling a rigorous and transformative historicity*, as Lukacs proposes. In my view the former is the best legacy of Buddhist dialectics,[97] while the latter is the best of the post-Hegelian dialectical (postformal) tradition. The dialectic, in short, is *already* integral;[98] the post-dialectical maxim that depth exposes itself as another surface, is a *kensho*, an opening into transformation by recognition of emptiness (a first intervention). From this, I propose an account of nonduality that is intended to be neither reductively materialistic nor reductively idealistic.[99]

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[95] In "The Core of Krishnamurti's Teaching," Krishnamurti (1996) proposes that "Time is the psychological enemy of man," insofar as "Thought is time" and "Thought is born of experience, of knowledge," which are of the past (p. 257). A duality is posited here, between the residues and crystallized forms that have arisen in time and are coherent now, and—*now*, which Krishnamurti priveledges as "insight without any shadow of the past" (p. 257). That insight into the spatial aspect of nonduality is significant as a first intervention, but Krishnamurti does not always admit the possibility of time also participating functionally in nonduality. The forms produced (articulated) by time here are themselves of the nature of space as well; everyday reality, from the clouds in the sky to the clouds in the sky of the mind, is a momentary form or "flicker" that is, ultimately, nondual—neither real nor not-real, neither "truth" nor "falsehood." Krishnamurti remembers that form is emptiness (nonduality) but forgets that emptiness is also form.

[96] Krishnamurti's presentation of the observer recognizing itself as observed can be readily misread as the perfect subjective position or meditative posture for the bourgeois "mass man" that Ortega y Gasset diagnoses, if one assumes the task is *only* personal, *only* subjective, a matter of personal choice analogous to brand preference (see Thesis Four). A careless approach to Krishnamurti would suggest that one simply needs to recognize his or her face in the mirror each morning as oneself, as *mine*, as "I am that"—an attitude that serves only to reify the subject-object gestalt, not undermine it. Krishnamurti's nondualism assumes it is *not personal*—that whatever is observed, without exception, is of the same nature as that which is observing, which means that *that* has the characteristics of awareness and all-pervadedness—Truth beyond concepts, in Krishnamurti's diction.

[97] Trungpa (1987) presents a rigorous but accessible presentation of this view, particularly in the final chapter; Trungpa's analysis informs my reading of Krishnamurti in the present inquiry.

[98] By explicating nonduality or ultimate "depth" as already explicit or merely latent in critical theory at least since Deleuze and Cixous (Anderson, 2006) or Derrida (Hampson, 2007), and less directly in Marx, Gramsci, and Lukacs, I show that one whipping boy of Wilber's (2000a) polemic—the "postmodern

"Truth is a pathless land:" Truth, as a cipher for nondual reality, is uncontrived, unconditioned and wholly unstriated, like space.[100] No formalities—processes or coherences—produce, induce, or cause its presence, or lead one there in the sense of crossing a coordinated space to a destination ("pathless"). The observer always already *is* that space, is of it: *form is emptiness*. The challenge is to remember this, to recognize it in all contexts, and this is a process, a function of immanence and a dialectic between conditions and consciousness. This process of *digesting* nonduality cannot be described structurally, where "structurally" implies a synthesis of affect and content—the content of becoming is infinitely variable. Certain formal characteristics, however, suggest the availability of becoming and can generate a context in which becoming can happen. These recontextualizations are miracles—not products of any evolutionary process but acts of total creativity in a local, immanent, and very specific sense (see Thesis Eight for specific characteristics of total creativity). This is the *Eureka!* moment that triggers a transformation; this creative recontextualization is the meaning of the observer seeing itself as the observed, concrete recognition of the nondual in the immanent, the first intervention.

But conditions have an often-overwhelming inertia of their own, occluding any unexceptional possibility for recognition of the nondual. Provisional, conventional subjectivity is a fragmented, contradictory factory of crazy-making machinery; the socius is precisely the same. As Lukacs observes, capitalism makes ordinary working subjects into timebound, functional *commodities*. What happens when the observer (the worker or class of workers, depending on the scale under consideration) recognizes itself as the observed, that is, sees itself in its conditions? "When the worker knows himself as a commodity," Lukacs argues, "his knowledge is practical. That is to say, this knowledge brings about an objective structural change in the object of knowledge" (Lukacs, 1971, p. 169), which is none other than the subject or the structure of that knowledge. *The observer is the observed. Eureka*! However, as Lukacs warns, "the fact that this commodity is able to become aware of its existence as a commodity does not suffice to eliminate the problem" (p. 173)—a twofold problem, the actual production of commodity-consciousness in the first place, still working on everyone around, and the need for a maintained, sustained recognition and active transformation of the means of production of subjectivity. This is yet another way to articulate the integral project: *the task of reintegrating fragmentary consciousness, personally and politically* (both at once since each is a form of the other by

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poststructuralist" enemies of "depth" and the sacred—may very well be integral thinkers already, and seen as such if read competently.

[99] This differs from Mastustik's (2007) introduction of an axis of spiritual expression into critical discourse, which suggests a spirituality that is not integrated immediately, already, with actual life as it is lived, together with others. I do not necessarily reject this position, I simply do not endorse it here at present. Instead, I find the function of the spiritual axis Mastustik develops already present in the transformative miracle (Anderson, 2006), a gesture that intervenes in the social, the political, the spiritual—all or any at once. While it can remind a subject *of* the nondual (first intervention), the miracle is *not* a differentiated path to the nondual—conscious effort is (second intervention).

[100] The "plane of immanence" and "smooth space" Deleuze and Guattari (1987) propose are useful metaphors in this context.

holographic logic), *for the sake of a free and responsible life for all*. This task, in Lukacs's words, is to become the "identical subject-object of history whose praxis will change reality" (p. 197). This addresses precisely the subject-object structure that produces and reproduces coherences. Lukacs and Krishnamurti are describing holographically-related practices, one primarily concerned with liberating the macrosocial scale (Lukacs) and the other with liberating the subjective or the spiritual (Krishnamurti), but each in language comprehensible to *either* scale.

In short, while miracles can happen and new values can arise out of the repetitive and contradictory muck of the everyday—the first intervention—much work remains to be done, and for Lukacs, "[t]his reform of consciousness," which I am calling the second intervention, "is the revolutionary process itself" (Lukacs, 1971, p. 259). This participation in the working realization of freedom is not, in Krishnamurti's terms, a *choice*; "It is man's pretense that because he has choice he is free" (Krishnamurti, 1996, p. 257). Lukacs calls Krishnamurtian choice "individual freedom," such as the "freedom" to choose brand X or brand Y but not the choice *not* to trade my labor-time or labor-produce for cash that I then trade for an opportunity to choose between X and Y, if I have enough. Because "in contemporary bourgeois society individual freedom can only corrupt and be corrupting because it is a case of unilateral priviledge based on the unfreedom of others, this desire"—the desire for authentic freedom, say—"must entail the renunciation of individual freedom," as Lukacs argues (1971, p. 315).

Hattam (2004) calls this praxis awakening-struggle, which entails a total commitment to the pathological molecular (micro) for the sake of the pathological molar (macro); Mastustik (2007) calls it "redemptive critique" (p. 228). This is the Gurdjieffian "intentional suffering" of disengaging one's personal investments and pleasures for the sake of *something else*, a project that is not personal in the same way that brand preference, for instance, seems to be. It is a process in time and of time, and for this reason it turns inquiry to the task of *reading* time, of reading coherences as formations *in* time—the responsibility for *critique*.

Interim Summary

To sum up the first five theses in broad strokes, any coherence and the total field of possible and extant coherences—all and everything—have four characteristics.[101] First, a coherence is a temporary and impermanent confluence of causes and conditions, designated conventionally as a "this" or a "that," but only conventionally and not ultimately and not in any "reality" posited as permanent or substantive. Second, a coherence is *problematic*. It is not really what it seems to be or presents itself as, and it is inherently unsatisfying, just as conventional subjectivity is unsatisfied so long as it is "unrealized." Third, because it is impermanent, temporary, a snapshot of a process analogous to a flash of lightning, it does not exist ultimately, but only provisionally or conventionally. This is not to suggest, however, that something exists ultimately, even though all coherences do resolve into nonduality, like moments of lightning animating one sky. This is the fourth characteristic of a coherence: nonduality as the common space (so to speak) of all coherences is not posited as something that exists, nor posited as something that does not exist; it is neither affirmed nor denied. It is neither nothing nor something. Famously, it does not lend itself to a precise formulation in provisional terms such as these, because it lacks formal characteristics (inclusive of the lack of formal characteristic *as* a formal characteristic).[102] It does present itself affectively, however, through particular kinds of interventions.

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[101] These four features correspond to the Four Seals of Existence in traditional Mahayana Buddhism.

The following theses, then, seek to explore how the positions I have taken so far work in comparison with some previous contributions to integral theory in order to better understand both the present inquiry and earlier proposals.

Thesis Six

> *Coherences are best understood when read responsibly, each in their own specificity and with reference to their own histories (as form), not exclusively or absolutely by any developmental or classificatory scheme of values (which are also coherences with histories).*

Coherences are produced and reproduced, and must be read as such. As I suggested earlier, some are simply reproduced mechanically, the way glaciers form fjords, cats make kittens, and the kinetic energy of habitual patterns control one's actions; others are *intentionally* crafted with greater or lesser competence. I call the former *flickers*, following Pitts (1990) (see Thesis Three). All flickers are articulations, in that they are causally-induced formations made coherent, in this case made coherent by causally-induced distortions. So, to express the flicker more precisely in the cumbersome logic of holism, it can be formulated as *a distorted articulation of an articulation, legible in that same articulation*. In practical terms, this expresses the everyday observation that things are recognizably products of their time and place, inclusive of things such as ideas, ideologies, and metaphysical aspirations. To explicate this peculiar instance of co-causality, I offer some examples of holographic flickers and interpreting them back to the bigger coherence from which they arose and which they articulate (are articulations of), in summary form:

I read American football as a send-up or mimicry of the American imperative to *take their land* (manifest destiny) under the guise of evolutionary providence (Anderson, 2007); as Barthes (1972) reads the anxious desires of the French imperial project in an image of an African man saluting the French tricolor; as Hampson (2007) reads Wilber's boomeritis not as a transhistorical or nonlocal phenomenon, but a precise response to the contingencies of American life at a particular time for a particular class of (nominally priviledged white) folks; as one may interpret certain theologies in the revelations of Joseph Smith as mechanical reflections of nineteenth-century anxieties about race in antebellum America;[103] as I have suggested elsewhere, the impulse to *integrate* fragmented consciousness arises precisely at the moment when imperial capitalism produced the identity crises attendant on an unstable, enforced Empire (Anderson, 2006), and further, that specific moments in what may be called the history of integral practice may be reasonably read either as conscious responses to or mechanical flickers of the socioeconomic order dominant at that moment (see Thesis Three). In each case, flickers are seen as products of causalities, coherent by the degree to which one may be embedded in the appropriate cultural matrix, or disengaged from it. The reverse and equally valid proposition, that each is made coherent as something by the perceptive means (also a product of causes and contingencies) of a given coherence or set of coherences, can be seen in the traditional fable of the coiled rope that a fearful man immediately recognizes not for what it is, but as a coiled viper, or a redemptive allegory the anonymous streetcorner evangel might see in an any-given-Sunday televised football broadcast.

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[102] I would like to emphasize that this view is neither nihilistic nor eternalistic. Not nihilistic because nothing in particular is posited as a really existing object of negation, then negated; not eternalistic, because nothing in particular is posited as an ultimate existent, then affirmed and reified (even conventionally as Spirit or Absolute).

[103] In chapter 7, verse 22 of "The Book of Moses," part of a collection of Mormon scripture called *The Pearl of Great Price*, the reader learns that "the seed of Cain were black" (Smith, 1920, p. 29). This is one source of much theology in the Latter Day Saint movement against the ordination of men of African

Like any ordinary coherent formation, Spiral Dynamics is an articulation, a "flicker" that *reproduces* something of its causal means of production, of the *moment* of its production,[104] a product of its time (see Thesis One)—but as a system of ideas, it may reproduce or mimic certain ideological formations, or actively critique or renounce irresponsible interest by means of regime-affiliation (see Thesis Three). Spiral Dynamics is, according to the publisher's front matter, concerned with the task of managing successful organizations (Beck & Cowan, 1996, p. 3). Two characteristics of successful organizations in this context include development[105] (in this case, profitability) and pleasure in will-to-power—pleasure in winning over others in competition (as in the application of Spiral Dynamics for professional sports and in corporate fitness), and both are explicitly promoted by the Spiral Dynamics project.

Through Luxemburg's (2003) analysis of the history of accumulated capital, one can read the development spiral as a cipher for development-as-profitability writ large,[106] the increasing complexity and depth of global imperial power by force: "accumulation of capital, once it has started, automatically leads farther and farther beyond itself. The circle has become a spiral which winds itself higher and higher as if compelled by a natural law in the guise of mathematical terms" (p. 89). The "guise of mathematical terms" Luxemburg mentions here

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descent and interracial relationships for church members prior to the church's rescission of that prophetic policy in 1978.

[104] Hampson's genealogy of Wilber's adaptations of the spiral/vMeme topoi points to an important limit on this homology's breadth-of-scope *vis a vis* Wilber's project—because Wilber flattens the spiral into a spectrum at a certain point (Hampson, 2007, p. 122), his application of the Spiral Dynamics diction represents a distinct articulation from the Beck-Cowan formulation. Hampson does not explicitly opine if Wilber's innovation is an advance on Beck-Cowan Spiral Dynamics, or a reduction of it.

[105] As in Aglietta's analysis of the coherent totality, Beck and Cowan frame the developmental spiral as a cipher for accumulation: "A spiral vortex best depicts this emergence of human systems as they evolve through levels of increasing complexity. Each upward turn of the spiral marks the awakening of a more elaborated version on top of what already exists" (Beck & Cowan, 1996, p. 29). Complexity is accumulated, depth and transcendence are accumulated, and the whole is developed ("elaborated") by this trope.

[106] Lenin (1967) traces the history of capitalism's development in stages such that the system of free enterprise in early English production gives rise to monopolies, which divide the world under the banner of Empire until the whole planet became striated, all lands claimed for the purposes of capital. Lenin concludes that "imperialism *is* the monopoly stage of capitalism" (p. 745, emphasis added).

specifically mask what is for her the history of imperial conquest, which she demonstrates to be the real source of accumulated capital—meaning that capitalism has been global and imperial virtually from the start, and disguising itself as a form of knowledge, economics.[107]

From this observation, I propose as a hypothesis that Spiral Dynamics in fact arose in a capitalist moment—a statement of verifiable historical fact—and that it reproduces a set of values that *mimic* the spiraling functional structures of capitalist production and accumulating capital. It is not in the first instance an intervention or a postformal recontextualization of these valences of mimicry, although it may very well be so relative to certain of the ideologies of the academic disciplines it is most explicitly addressed to. As one might expect, this articulation "flickers" or radiates from itself more about itself than its mode of production. Foucault (1978) suggests that the developmental spiral is a measure of pleasure in dominance or sadism-in-power, through scopophilia and surveillance: "[t]he pleasure that comes from exercising a power […] These attractions, these evasions, these circular incitements have traced around bodies and sexes, not boundaries not to be crossed, but *perpetual spirals of power and pleasure* (p. 45, emphasis added). This addresses the shrill, expansive, and denunciatory fascination in the private lives and practices of gays and lesbians demonstrated by the religious right-wing in the U.S., the political contingency that has come to dominate American political and social life with particular intensity through the Bush-Cheney fiasco.[108] In both instances, the spiral of development is a holographic flicker that repeats the contours of the larger historical moment—the accumulation of capital under the prevailing economic regime, and analogously the (implicitly sadistic) scopophilic discursive mechanisms that continue to regulate sexuality in Euro-American contexts, particularly in Texas, where male homosexuality was still functionally illegal due to enforced anti-sodomy legislation,[109] before, during, and after the writing (in Texas) of the book *Spiral Dynamics*. This does not mean that Spiral Dynamics *consciously* mimics the libidinal agenda of the most powerful political and economic contingency present at its inception, or that Spiral Dynamics represents an explicitly homophobic ideology, as it does mimic the accumulation model of global finance. It simply means that this legacy is legible in the text, and readers seeking critique should be aware of it, whether the theory presented as Spiral Dynamics seems to be aware or not. Spiral Dynamics expresses the will-to-power of the social order that produced it (see Theses Three and Seven). Because it does not offer a critique of that social order, only some tactics for advancing it, I call it a flicker of that regime, a specific kind of artifact of it. It is not a transformational project, but rather a developmental and accumulative one.

Some aspects of this analysis will be instantly recognizable, coherent, and resonant for those of us in the United States who have endured the grief, shame, and outrage that have come with living under the dull-round shadow of the crypto-fascistic regime that has overtaken our beautiful country, especially since 2001—an affective experience I describe as *dead time,* where black becomes the color, and none the number[110] (Anderson 2003)—but may seem obscure to those who have not. One may say that the provisional analysis of Spiral Dynamics I attempt here either flickers my own interaction with the "noetic field" generated by this regime; alternately, it may represent a conscious intervention into that regime. In either case, my claim regarding Spiral Dynamics must be qualified, because it suffers from lacking a rigorous historical analysis of the complex of causal pushes and pulls that brought the articulated coherence called Spiral Dynamics into existence, if not the forces that adapted Spiral Dynamics to the task of classifying and quantifying the development of coherences. Further, it would be as reductive for me to assert that Spiral Dynamics is *only* a mimicry of the values of a certain regime as it is for Wilber (2003) to assume all baby-boomers tend to manifest the same "vMeme" at the same time, for instance. . This tendency to reduce complex phenomena into discrete, simplistic categories is parodied to great effect in R. Kelly's (2001) film *Donnie Darko*, in which self-help guru Tim Cunningham (played by Patrick Swayze) reduces the all-and-everything of human experience to the make-believe poles of Fear and Love—and sells videotapes and practice materials so that *anyone* willing and able to pay can learn how too.[111] With this qualification, I claim in Thesis Seven that Spiral Dynamics is a manifestation of this tendency to reduce complexity and specificity to a generic, transhistorical and universalized taxonomy, with its mode of production under erasure, a metaphysical practice Marx and Althusser attribute to Hegelian method (see Theses Two and Three).

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[107] Luxemburg presents a recognizably "postmodern" critique of academic practice in this analysis, and just after the first World War.

[108] Phillips (2006) describes this intersection of theocratic hegemony and global capital.

[109] Texas's anti-sodomy law was finally deemed unconstitutional by the U.S. Supreme Court in June, 2003.

There are alternatives, but not uncomplicated ones. History shows that categories such as race, gender, class, and sexuality are problematic at best as analytic categories. Even so, they connote phenomena that affect the daily lives of every coherence alive on this planet, and for this reason, an integral analysis must consider them responsibly. The vMemes of Spiral Dynamics and their attendant trajectory of development are also *means of making knowledge about subjects*, just as race and gender are (see Thesis One). For example, Beck and Cowan (1996) offer this list of sites where the blue vMeme manifests:

> Rev. Billy Graham, Frank Capra's *It's a Wonderful Life*, Puritan America, Confucian China, Hassidic Judaism, Dickensian England, Singapore discipline, codes of chivalry and honor, charitable good deeds, the Salvation Army, Islamic fundamentalism, Garrison Keillor's Lake Wobegon, Boy and Girl Scouts, patriotism. (p. 46)

The only clear conclusion to be drawn from this muddle of stereotypes is that Beck and Cowan (and, later, Wilber) use this vMeme to read subjects,[112] as coded and "tiered" expressions of value, just as in everyday life we read one another in terms of gender, race, class, geographic origin, sexuality—mechanically, repetitively, unconsciously and uncritically (see Theses One and Four). Like race or gender, concepts such as vMemes may be useful theoretic tools insofar that they produce verifiable, useful (read: transformative) knowledge, and utterly useless, even counterproductive, if they discursively or ideologically subjectify; occlude the production of verifiable, useful knowledge;[113] or encourage (fail to *discourage*) spiritual materialism, Trungpa's term for the misappropriation of the trappings of transformative praxis in the interest of mass-man ego,[114] the spiritual cognate to theory in bad faith (see Theses Four and Five), and *anything* but postmetaphysical practice.

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[110] Bob Dylan's 1963 recording "It's a Hard Rain's a-Gonna Fall" has contributed materially to this portion of the analysis.

[111] If Cunningham had taken any coherent theoretical positions, then his work certainly would have been recognizable as theory in bad faith; if his work had been coherently spiritual in nature, it certainly would be fair to characterize it as spiritual materialism.

[112] To their credit, Beck and Cowan (1996) recognize this practice as an error—"vMEMEs can be so dominant that they seem like archetypes and are easily misinterpreted as 'types' of people" (p. 32). This recognition does not prevent this error from arising in their work or in Wilber's work, however.

There is a *danger* of overhasty metaphysical diagnosis—analogous to the risk of spiritual materialism on the one hand or racism, sexism, homophobia that can distort human encounters, often disastrously, on the other—*inherent* in the tiers of vMemes in Spiral Dynamics and later adaptations of it. This is precisely the problem Marx and Althusser identify in Hegel's practice (see Thesis Two), of assuming a solution to a given problem (in this case through a rubric of preexisting values) before any question about that problem in its context has been posed.[115] One looks for the values one has and finds them, and in the process, determines the outcome of one's inquiry before beginning it, even *containing* the object of inquiry—much as one who may wish to prove the geological veracity of a particular Biblical account of creation by seeking evidence that the planet's fossil record is less than six thousand years old, inverting the scientific method, may inquire. This can be amended by relying instead on the responsible but sometimes tedious and time-intensive process of reading micro-scale specific coherences as articulations of discrete sets of microhistories, as Gidley (2007) attempts to do macrohistorically.

Gender is one moment where Wilber has been willing to uncritically reify a complex set of phenomena into an absolute, timeless Idea or "truism," in this instance shortly before his full-scale adoption of the vMemes of Spiral Dynamics; this shows him to be amenable to a critical tool that can also be used as a means of *containing* critique at the point in his project when he begins to incorporate Spiral Dynamics into it. According to Wilber (2000a), most strands of feminism (treating specifically essentialist, second-wave feminisms) have failed to produce acceptable results because “the very attempt to liberate women disempowers them by definition […]. Women do not have to take back their power because they never gave it away” (p. 598). This is because, according to Wilber, women thousands of years ago helped build patriarchy in response to the contingencies of prehistoric life—assuming in the process that women today can reasonably be held responsible for the decisions made by prehistoric women, or had some say in the matter during prehistory. Further, Wilber assumes that the mental act of recognizing one’s own genuine oppression on gender lines (in my view a first intervention), thereby reasserting one’s power, amounts to giving away one’s power in the form of rejecting the inheritance of a patriarchy that was according to Wilber of some use thousands of years ago. As before, no woman or man alive today was alive at the moment gendering began, obviously; to posit the *non sequitur* causality Wilber proposes, then, demands recourse to an alternative, back-to-the-future view of time, where the women of the present in a sense participate in the patriarchy of prehistory, *ala* Wilma Flintstone, that women today are essentially the same as women have always been, that the power ancient women may have had is the same power contemporary women are free to accept or reject. Wilber does not account for how women or men are positioned—articulated—*now*, and then from the imminent specifics of that condition propose an intervention, as critical practice demands; instead, he proposes a rather preposterous kind of transcendent-historical make-believe in order to dismiss the everyday reality of the continued disempowerment of women that affects persons of both genders, while affirming separate spheres of masculine and feminine values, as second-wave essentialist feminists have done (Wilber, 2000a, p. 759). Wilber is clearly working in this instance to contain the scope of feminist critique by attempting to make critical feminists (as opposed to essentialists, for whom the prehistorical theme is of more significance) collectively appear as irrelevant, counterproductive agents of disempowerment.

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[113] Hampson's (2007) work on the postmodern and integral theory represents a genuine advance on Wilber's work, but in one instance, he makes a minor error that is relevant in this context as an example of the distortion Pitts describes, which may be analogous to the "guise" of quantifiable reality Luxemburg observes in economic theory. Hampson assumes that capitalism is simply an articulation or a set of values (orange vMeme, "modernism") (p. 110), rather than what it has been and continues to be: a way in which societies can organize to produce useful and useless stuff, as well as the means of its own continued existence (through reified or commodity-consciousness, among other means), in which ever-increasing *development*—accumulation, profitability—is the value held above all. Because it is a reproducer of value-as-ideology, more than it is the expression of a discrete set of values, capitalism is an integral problem, a total one, and a verifiable fact of contemporary life. In my view it is reductive to dismiss it strictly as an expression of a "modern" vMeme, and thereby exclude it from a discussion of the postmodern and by extension the contemporary condition. In my opinion, this is an example of a case where this critical tool, the vMeme, inhibits the production of useful knowledge.

[114] In his speech to the Order of the Star, Krishnamurti directly accuses his followers of a specific manifestation of spiritual materialism, that of make-believing one's place in a developmental model to serve one's ego: "You are accustomed to being told how far you have advanced, what is your spiritual status. How childish! […] You are not serious in these things" (Krishnamurti, 1996, p. 6).

[115] Marx summarizes his critique of Hegel in these terms:

> He assumes in the form of fact, of an event, what he is supposed to deduce […]. Theology in the same way explains the origin of evil by the fall of man: that is, it assumes as a fact, in historical form, what has to be explained. (p. 71)

If one’s project is in part dedicated to containing the scope of active critique by reducing the outcome of that critique to a preestablished set of values (timeless “feminine power” in this case), as Wilber’s seems to have been in the case of gender critique as of Wilber (2000a), then one may find a classificatory scheme of values such as Spiral Dynamics useful, because it is useful for *managing outcomes*, foreclosing surprises, and blunting intervention.

I submit, instead, that the integral project can only benefit from a rigorous, compassionate consideration of historical feminist analysis and an active inquiry into gender as a social and subjective factor—and that such an inquiry has transformative power—even if the findings of any or all such projects wholly invalidates the total of the present inquiry. The striking and explicitly feminist work of Helene Cixous, for instance, may or may not be a manifestation of the “Mean Green Meme,” which is not a coherent analytical category at all;[116] it is, certainly, a concrete response to a real crisis in time and space, produced by multiple waves of causality and contingency, and should be analyzed as such, just as any gendered or "raced" or "classed" position is. Because Cixous's work is characterized by frequent moments of artful postformal expression, the nature of the distortions in the holographic "flicker" of its moment of production may actually be another form of lucidity rather than opacity, in the sense that they open up critical lines of inquiry into said moment, as well as the moment in which it is consumed—the other end of the process of articulation, which could be described as the "flicker" of reading, of integrating the postformal, critical energy of a remarkable text into one's own horizon (see Introduction). In this way, reading properly a well-constructed text can itself make new values possible beyond the scope of the values presented explicitly in said text. *This is what theory is for*. Further, interventionary awareness or lucidity that characterizes postformal praxis actively (consciously) *recontextualizes* the gestalt in which it arises, and by this feature can be distinguished from any other product or artifact of culture which typically reproduces values and structures. This is far preferable to the alternative of assuming one's values about gender or the metaphysics of the New Age or the age and source of the planet have some reality that is stable transculturally and in all contexts, and form a valid preemption of open inquiry (see Thesis Seven).

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[116] The holographic treatment of the dynamic spiral I have offered so far, while hardly foolproof empirically, is more coherent analytically than the hodgepodge polemic catch-all that is the “mean green meme” in the applied Spiral Dynamics of Wilber’s integral model. As Hampson (2007) so precisely (and politely) demonstrates, the mean green meme is incoherent as an analytic category, but its use in polemic is demonstrable and demonstrably conservative (p. 163). Conservatism, as a position committed by definition to the maintenance of the status quo, is the logical alternative to any transformational model, which looks for ways to make constructive change, and insofar as integral praxis is transformational, the mean green meme’s use in integral praxis is incoherent and—creepy, like the sadistic but implicitly

Thesis Seven

> *New values may be made, emergent cultural forms do arise, but "New Ages" do not "emerge" mechanically or Providentially. New regimes, like new values, are responsibly made.*

> *Capitalism reproduces itself by transforming itself, and this transformation is mainly in the improvement of exploitation.* (Marcuse, 1969, p. 13) (see Thesis Three)

Metaphysical propositions or topics are products of specific moments in time and in space—co-conditional and, of themselves and in relation to others, total (see Theses One, Two, and Five). This means, for instance, that Aristotle's propositions regarding the First Mover or the Substance reflect the circumstances from which they arose—Aristotle's Athens—as well as the circumstances that have transmitted those propositions to the present. The First Mover has been reinvented, recontextualized countless times. The critical question is not what the First Mover may have meant to Aristotle or his student Alexander or to Avicenna or Aquinas, or what it may mean now to Anderson or Wilber—all contingent and nondeterminant in the last analysis—but instead what *purpose* that concept can execute, what job it can perform (see Introduction). To answer this question, I classify propositions broadly as theological or theoretical, by this characteristic of *presumed timelessness*. If a proposition, which is demonstrably a coherent thing and therefore anything but immutable, claims to be timeless or is contextualized in such a way as to lead a reader to assume it is universal, then I classify that proposition as theological or metaphysical.

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spiritual Law of *The Trial*. It leaves Hampson (2007) "none the wiser, though a tad more fearful" (p. 163). As a critical tool, it rather evokes another spiral entirely, this one the emblem on the impressive belly of Ubu Roi, father of the science of pataphysics, and the *leitmotiv* of Baudrillard's (2005) critique of Kafkaesque "Integral Reality."

There is a dialectical, developmental relationship between theory and practice (see Thesis One). Theory makes practice intelligent, while the contingencies of practice—actual material conditions—inform theory. To produce theory, then, is to produce a systematic set of concepts with a definite relationship to material conditions and to a definite methodological agenda (here, comprehensive "inner" and "outer" transformation) and, therefore, to produce concepts that are explicitly contingent because they are necessarily *not* universal or transhistorical, any more than any other coherence such as a hammer or a cutting tool is metaphysically "real." Theory, therefore, must venture to be honest about its capacities and humble in its claims.[117] By contrast, *theology* is traditionally taken to be a practice of explicating doctrines that are assumed to be universal and transhistorical, and that therefore transcend the material and the contingent, even as theology is understood at its roots as an epiphenomenon of natural philosophy (an interesting context for Aurobindo's decision to express his theology in the patois of nineteenth-century natural and social science: evolution, races).[118] Where theory aspires to an accurate reflection and response to material conditions, theology makes effective myths. The meaningful point of contrast here lies in practice. Where for theory meaningful practice is to change the world into a saner space, for theology meaningful practice implies an increasingly developed adherence to a *premade* doctrine and, concomitantly, implementation of a doctrine *into* the material world, thereby effecting a transformation of the world by inspiration outside of the world.[119] Theory implies co-causality (theory-to-practice, practice-to-theory); theology, a one-way, top-down causality of transformation (Word-to-the-world). This reflects a difference in the means of production of concepts. Theory as I propose it here is a democratized production of values, insofar as it is a collaborative and dialogic practice, while theology can be understood as a private-property regime of production of values (see Thesis Two), insofar as the production of theology is limited to those who have appropriate institutional or traditional validity or have fashioned for themselves an independent tradition to represent, as in the case of charismatic religion. As I show in Thesis Eight, this issue of *access to means of production and distribution of values* is significant for the future of integral theory.

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[117] This is one condition of a postmetaphysical culture as well; see Rorty (1989, 2006), and Habermas (1994). In fairness, the extent to which Wilber's work (itself a work-in-progress) is at any one moment consistently and without compromise critical, theoretical, or postmetaphysical must remain an open one, as an analysis of even a representative selection of the positions Wilber has taken would exceed the scope of any essay not committed wholly to an exegetical treatment, given the scale of Wilber's production. The doctrines I identify with Wilber in this work as metaphysical or theological have at some point been endorsed or expressed by Wilber, even if he may have since distanced himself from any one of these doctrines fully or by degrees, at one time or for all time.

[118] Augustine (1998) rejects theologies derived from cultural ("mythical") or civil life, emphasizing instead a theology derived from natural, of-the-world principles, such that theology following Augustine—the whole of European theology and its consequences—is natural philosophy spiritualized, or given cosmic, eternal significance. Theology is at its roots quite literally the Miltonic assertion of eternal Providence into material science and the justification of what a given regime takes to be the ways of God to the men subject to that regime.

[119] Hobbes's (1996) proposal for the establishment of a Christian commonwealth represents one of many explicit instances of this, where theology is openly described as a means of force, a means of subjective and social control. The ideological task of making these social controls into doctrines of natural science, presenting them as cosmic physical laws from above rather than as social forces, forecloses any appeal to the supernatural in the form of prophecy or dream-vision for moral or spiritual authority from below. Hobbes recognizes and addresses this threat in his hypothetical commonwealth, observing that "he that pretends to teach men the way of so great a felicity," that is, one who claims to speak on behalf of Spirit, "pretends to govern them" (p. 288). Hobbes, then, establishes theological means to control, curb, and cage this threat to its own government, and the age of prophecy is declared closed. The relevance of vision and prophecy as a charismatic gesture is an unspoken subtext of Thesis Eight. Readers familiar with prophecy as a literary conceit will not be surprised to see that both natural-theological and prophetic gestures can and do arise in the writings of the same poet or thinker (Spenser, Milton, Blake, Yeats, Aurobindo), even in the same sentence, in dynamic tension.

Either method, theory or theology, can be appropriate to a given situation. There is much good in competent, compassionate criticism. As I have suggested, some of what passes as criticism is clearly incompetent and lacking in compassion, and is therefore irresponsible and unacceptable (see Thesis Four), and in the last analysis, not even criticism. Similarly, much theological work is of real qualitative value, and as streams of cultural and practical transmission, must be valued. Appropriate valuation in the sense of critical consciousness is also a form of responsibility. That said, there is some measure of madness in theological projects; some are hopelessly irresponsible, and most are a mixed blessing. Theology as such is not necessarily a problem or a solution to a problem. My point in this instance is that when theology is asked to perform as if it were criticism, difficulties arise (see Theses Two, Three, and Six), counterproductive and unneeded ones. Specifically, the incorporation of certain theological positions into integral theory has caused a particular methodological problem[120] I have alluded to already regarding Wilber's misrepresentation of nonduality relative to dialectical practice, as well as his proposal for a "master map," attributed to Hazelton in Wilber (2003) (see Introduction), taken up more recently in slightly different diction in Wilber (2006) and elsewhere.

This "master map" process of adjudicating the "best" and "worst" of internally coherent but mutually contradicting claims even of various progressive-evolutionary postcolonial religious dispensations—those of Baha'u'llah and Abdu'l-Baha,[121] or of Mirza Ghulam Ahmad,[122] or of Meher Baba, to give a representative sampling—enacts or makes possible a kind of epistemic violence that exceeds any mandate for critical practice. On one side, through an intensity of commitment to one's teacher and tradition, one may make extraordinary, unverifiable, and in the end irresponsible theological claims at the expense of other traditions passing as criticism—theology, working as ideology, in theoretical drag.[123] On the other side, through a conscious or unconscious bias for or against a particular teacher or tradition, one may attempt through theological gestures (or simply through vehement and repeated assertion) to *foreclose* a particular dispensation from responsible, contextualized critique.[124] Theory is inadequate to the task of resolving differences in theology, much less to the *reduction* of said differences to another, master theology,[125] just as it is incapable of determining which of these men (or none among them) may have been God in the flesh, a position no theorist can take without becoming a theologian, an ideologist, or both at once in the process.[126]

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[120] As with so much else in integral theory, this is anticipated in the work of Aurobindo Ghose. Like Milton, Aurobindo is a world-class poet and mythmaker, and a theologian to be taken seriously (and not only by the faithful); also like Milton, Aurobindo is a problematic political and cultural critic.

[121] In the instances of the Baha'i Faith and the Ahmadiyya movement especially, one may instead begin to understand the similarities and differences between dispensations first by reference to the relationship of the faithful to the transformations brought about by the colonial process, and second by the minoritarian position of adherents in a postcolonial situation in Asia and in diaspora. Apart from a conflicted position *vis a vis* mainstream Islam (Shia and Sunni respectively), these are the most explicit common denominators between the two movements.

[122] Situated in and from the Ahmadiyya tradition, Ahmed (1998) is worth close consideration for those committed to an evolutionary-consciousness position such as the ones posited by Hegel, Aurobindo, and Wilber.

[123] Claims of this type, exemplified perhaps by Bakhtin's (1984) hyperbolic enthusiasm for the religious conservative Dostoevsky and Wilber's public endorsements of Franklin Jones (Da Free John, Adi Da) and, later, Andrew Cohen, along with books and publications by both (Cohen publishes "the *only*

No *single* theology, master map, or God-is-on-our-side gesture has proven to be up to the task I propose of organizing a set of disparate social and spiritual movements, many of them theological in orientation, predicated on innumerable cultural traditions. History shows that adherence does not guarantee alliance, nor does simple adherence bring the subjective and objective developments needed for a comprehensive transformation to be carried out. For instance, if one seeks to draw together the participatory action of good-faith leaders from many religious and cultural traditions, and many intellectual disciplines, with a theoretical project, one immediately introduces a problem with establishing this theory on a metaphysical or theological proposition. One example: that there is such a thing as reality and that this reality "is not composed of things or processes," but is composed of holons (Wilber, 2000a, p. 41), which have their being in something of a divinized hierarchy in the form of a Great Chain that is also presented as real, as in the "ontology of consciousness" Litfin (2003) posits in her proposal for

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magazine asking the hard questions, slaughtering the sacred cows, and dealing with the Truth no matter what" [Wilber, 2002, p. xvii, emphasis added]), suggest that *only* this or that method, *only* this or that text or periodical or ashram, *only* this or that guru can yield desirable results—a difficult claim to verify. Insisting on the exclusivity of Dostoevsky, for instance, begs the question: why *only* Dostoevsky and not, say, Joyce? Bakhtin shows a willingness to address this question, but never wholly resolves it, and in fairness, could not have read *Ulysses* at the time of writing his book on Dostoevsky. Analogously, one may ask of Wilber's work: why an uncategorical endorsement of the claims of Franklin Jones at the expense of those of Shiv Dayal Singh, or Baha'u'llah, or Mirza Ghulam Ahmad, or Meher Baba, or any other, or not at all?

[124] To give one example, Wilber (2001) claims it is "slander" to point out the racist overtones in Aurobindo's writings (p. ix). But as I show in Anderson (2006), Aurobindo's writings are more complex than Wilber seems willing to admit on the subject of race; it is not unfair to Aurobindo to insist he was among other things a product of his time, and that flickers of this time are legible in his work. By analogy, one can find moments of explicit racism in the writings of Mark Twain, even as Twain's project was broadly and intensely anti-racist—and to say so amounts to critical honesty about Twain, not a slander to his legacy.

[125] I recognize that a reader applying a hermeneutic of suspicion to this passage may object to my uneasiness about theological work as an expression of my own adherence to an explicitly non-theological (not anti-theological) spiritual tradition, Mahayana Buddhism. If the reader finds that my claims are unwarranted or otherwise problematic, and that a bias of this sort may be behind this problem, I invite that reader to demonstrate both the hypothetical failure of my reasoning and any imputed bias causing the same.

[126] This distinction can be made by diagnosing the relationship of a given theological gesture to the regime at hand. If it is one of mimetic and mechanical or conscious identification, it can be said to be ideological. This analysis develops from the first positive task of schizoanalysis, to find out what the desiring machines are doing (Deleuze & Guattari, 1983, p. 322).

an integral macropolitics (pp. 55-56).[127] This is an affirmative, ontological position, and this differentiates the coherence as propose it (see Thesis One) from the Wilberian holon: the coherence refers to a moment in a set of overdetermining processes, but is not affirmed as real or unreal; thus, it is not a litmus test of faith, only a tool at hand for anyone to use with no presumed ultimate significance or ultimate being (or non-being) as such.

What I am proposing instead amounts to a rigorously pluralistic, secular approach that invites the contributions of multiple traditions without affirming the Ultimate Reality of one over the rest by responsibly refraining from taking metaphysical positions relative to the integral project and instead insisting on the verifiable, the deductive—arguably another valence of the Big No, as I will show—the best inheritance of the tradition of antinomianism established on the North American continent by the Puritan theologian and proto-integralist Roger Williams in the middle of the seventeenth century. Further, this non-theological presentation of nonduality coincides with a radical skepticism: neither affirming nor denying the ultimate existence or nonexistence even of a category called “nondual,” or of this pen in my hand (see Thesis One), therefore allowing room for all theological claim to circulate freely without favoring or excluding any, such that any responsible transformative practice regardless of its traditional origin may be of benefit according to its capacity in concert with all others, not to mention space for the creation of new values. (Of course, anyone’s irresponsibility in this regard is an invitation for criticism.) Taken together with the minoritarianism I propose in Thesis Eight, the *restraint* and skepticism inherent in this proposal express my overriding aspiration for a radically democratic and ecologically sustainable social order. This is the “New Age” worth working for, worth *making*.

As it happens, “the New Age” is another such metaphysical doctrine in much integral thought and culture about time and historicity, that the recent past and present (and perhaps near future) represent the opening of a new paradigm, world view, world order, or “omega point,” a view expressed in different words and deployed in different ways (and to differing degrees) by Aurobindo, Teilhard, Gebser, and Wilber, and in *Spiral Dynamics*. The past has produced many such moments of apparent transformation coupled with millenarian aspiration that have come to naught; the events of 1848 in Europe demand consideration here, as a cursory example of how European post-Hegelian proto-integralists, Marx and Engels most obviously, saw a new age dawning as only more elaborate and comprehensive oppression emerged, some of it undertaken in the name of their project.

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[127] A thought experiment: imagine a gathering of representatives of many spiritual traditions, for ecumenical and peacemaking purposes. Before any dialogue has begun, before any bread is broken or coffee poured, the host of the gathering (following Litfin) proposes that all participants affirm a particular theological or ontological point—perhaps the emergence of a New Age of consciousness through evolving cosmic forms, or Kantian categories, or Hegelian World-Spirit, or Jungian archetypes, or the salvific power of X or Y guru’s grace—*first*. What happens? Such a gesture leaves little room for dialogue or space for the miracles that can arise under responsible leadership. At the same time, such a conversation would also be impossible without certain nontheological values in place, such as generous hospitality, a willingness to consider multiple positions at once and in context and to take them seriously, a recognition of all partial and provisional views as such even when they claim to be complete and universal, and a utopian aspiration to work collaboratively for the mutual benefit of all participants, for instance.

In Wilber (2003), Hazelton also presents the intervention of Spirit unto cosmic evolution as an inevitability. After presenting a segment on the Spiral Dynamics developmental model, Hazelton declares, "[n]o wonder thinkers from Hegel to Teilhard de Chardin to Aurobindo have concluded that this evolutionary unfolding is heading *straight toward Spirit*" (p. 110, emphasis added). I call this moment a theological doctrine rather than a theoretical position because there is no demonstrable or inferable basis for *plausible* causality in this instance, only the Spiral Dynamics model of developing consciousness that, at a certain point, arbitrarily becomes spiritualized. Theologically, this does not present a problem; one simply accepts the doctrine of that developing consciousness becomes spiritualized at a particular moment and honestly, humbly, strives to participate in its unfolding. But theoretically this move can and in my view should be dismissed as a logical fallacy (*non sequitur*), and recognized as a metaphysical rather than a postmetaphysical gesture. Approaching the issue in another way, one can posit Spirit theologically—it is not demonstrable materially but may be useful therapeutically—as an article of faith or doctrine; as a subjective experience or affect, which is by conventional means impossible to verify; or as ideology, as the Hegelian method seems to do (see Thesis Two). In the case of the first two, how can one demonstrate that a particular phenomenon is plausibly caused by the intervention of an undemonstrable, transhistorical, Providential Spirit, and not something else? And given the third possibility, that of ideology posing as a spiritualized doctrine, does emerging Spirit have enough explanatory power to justify the risk of producing theory in bad faith, that is, does a doctrine of Providence explain and transform everyday life well enough to overcome its own obfuscation and ideological impact?

If so, I leave those premises for metaphysicians to work out; this is a postmetaphysical theory. It works whether or not Spirit, for instance, exists or not, because it does not posit the *necessary* existence of Spirit, God, or cosmic consciousness. I accept that these things may exist, or may not. Since Godhead is hardly verifiable, building a theory that requires the necessary existence of God or a cognate to God could expose said theory to invalidation in the event this or that God is (or has been) proven *not* to exist, or to exist but on very different terms than the ones that may have been posited by the given doctrine. Because this is theory, with a definite relation to material life and practice, it must be accountable to such contingencies. Instead, I have proposed a postmetaphysical expression of nonduality that can be articulated wholly by means of the dialectic (though not posited as existing or non-existent) (see Thesis Five), and suggested ways in which subjective transformation is possible if not necessarily inevitable. This is not a fully elaborated Theory of Everything, but the *groundwork* for a more fully transformational theory—theory in the limited sense I have proposed so far.

By contrast, in Beck and Cowan (1996) adhere to what I am calling the New Age doctrine, citing the revolutions in post-Soviet Eastern Europe as signs that, in the mid-1990s, *appeared* to augur the opening of a new world order (p. 27) to them as it did to Fukuyama (1992). But what new order emerged in the new republics of the former Soviet bloc? The old order did, in the form of capital, of "free market" capitalism. This moment of transformation did not *produce* new values, it *reproduced* a pattern visible at the turn of the last century (Hardt & Negri, 2000; Lenin, 1967; Zizek, 1993), and as Schweikart (2002) observes, this amounted to a catastrophe economically, socially, and psychologically for many in Russia and in Bulgaria, for instance (pp. xvi-xvii). In another instance of the New Age doctrine in Spiral Dynamics that, in hindsight, appears an unfortunate choice of examples, Halliburton—now, scandalously, a privatized arm of the Pentagon, most conspicuously in its relationship to Vice President Cheney and concomitantly in its role in Iraq, and new headquarters in Dubai—is cited as an example of a cycling from blue to orange that (skipping green, tellingly) could become yellow and "open vast new markets" (Beck & Cowan, 1996, p. 155), as it *did* in Iraq, beginning in March, 2003—by state-authorized and state-*authored* force. My questions about this ascription of "new age" significance to present-moment contingencies, in Spiral Dynamics and beyond, and well beyond the scope of the present inquiry, include: Is this practice coherent and productive or incoherent and reductive, how does it work, under what conditions did it arise, who does it serve (and how), and what are the stakes? (see Thesis Three). One can reasonably hypothesize an ideologically-inflected deployment of the New Age doctrine in this case, that the iterations by which capital transforms itself to remain in control of global resources are taken to be Theilhardian "omega points" of developmental, even spiritual, significance in some integral treatments (see Thesis Three).

Often what looks like a new regime is actually no such thing. For example, new states emerged in Africa in the putatively post-imperial period of the mid-twentieth century, but the regime of control in these postcolonial contexts remained largely intact. There was simply a change in strategy, an adaptation that reproduced the old system and concomitant set of values, rather than an authentic transformation. Kwame Nkrumah (1966), who led Ghana through its birth, argues exactly this:

> Faced with the militant peoples of the ex-colonial territories […], imperialism simply switches tactics. Without a qualm it dispenses with its flags, and even with some of its more hated expatriate officials. This means, so it claims, that it is 'giving' independence to its former subjects, to be followed by 'aid' for their development. Under cover of such phrases, however, it devises innumerable ways to accomplish objectives formerly achieved by naked colonialism. It is this sum total of these modern attempts to perpetuate colonialism while at the same time talking about 'freedom,' which has come to be known as *neo-colonialism.* (p. 239)

Nkrumah, after attempting to implement authentic independence from global capital by developing Ghana's economy in a way that would reduce the new nation's dependence on trade with its former colonial master, Atlantic capital, was ousted in 1966 in a CIA-backed coup while in Vietnam. Nkrumah's analysis shows that inauthentic development, even retrogression, is celebrated as if it were a revolution in values, which is of course an ideological function; his political life is but one example of how authentic change is typically resisted, disrupted, or aborted, while the resistance to change is articulated as if it were an introduction of "freedom" or "development." *Diplomacy in bad faith*.

To assume that from the present order will Providentially *emerge* an enlightened, liberated one is to ignore the historical precedent of the current "holarchic" order, from which no escape is permitted. This, however, does not completely foreclose the possibility that a segment of this order can be transformed into a field for new values. Ho Chi Minh (2007) observed prophetically (his comments were first made in 1963) that "History has proved that when a people are of one mind and united in the struggle for independence and freedom," both independence and freedom are inevitable (p. 196). Explicating this, one sees that a total, uncompromising commitment to a single project, for the purposes of this inquiry a *responsible* one, can produce a unique transformation. Largely by this means, Ho's Vietnam was able to accomplish what Nkrumah's Ghana was not—after a very long and exceptionally destructive attempt to disrupt and destroy it (destructive for all involved),[128] known in North America as the Vietnam War. My only point regarding Ho at present is that transformation is possible even under these circumstances, that a new regime of values can be made, but it happens only with intense commitment, against real resistance from those who perceive their real interests to be threatened (see Thesis One on the formation of subjectivity and Anderson [2007]), and with favorable circumstances. *Si, se puede*—it can be done.[129]

This act of making values must be distinguished from the kinds of shifts in practice that produce changes in *forms* of *expressed values* such as in Spiral Dynamics, where Beck and Cowan characterize Halliburton's leap from strictly local oilrigging in Oklahoma to a "diversified ORANGE conglomerate" as a functional transition in value identification or articulation (p. 154). But in this instance, the values of the operation are the same before and after—the pursuit of profit, growth, at the expense of the earth's crust—while the means or apparatus of capture (of capital) differ. In this and other cases, the shift in Spiral Dynamics from one color to another indicates not a change in values or of means of production, but of means of expressing the same regime of values. Orange for the management of assembly line labor and consumer capitalism; yellow for integrated global capital and neo-colonialism (see Thesis Six); no change in the regime of accumulation, no change in *values*, only a change in attack commensurate to a change in circumstances. I have already claimed that this "momentous leap" in tiers of value imagined in Spiral Dynamics is little more than a mechanical flicker of capital's reinvention of itself in terms of global finance (see Thesis Three); the significance of this claim should now be clear: *This is unacceptable* (see Thesis Eight).

From all this, one may ask: what is a "new paradigm" *for*? A theoretical project is of use as a part of a systematic plan for action that can be implemented by responsible people for transformative purposes, can help people become responsible in the first place, and motivate them to responsible (rather than personal) action. On their own, new paradigms as collections of topics on themes about "reality" typically change little or nothing, and (with some very significant exceptions) are epiphenomena of broader political-economic (objective) with concomitant ideological (subjective) activity (see Theses One, Two, and Three)—recalling that coherences mechanically arise in a back-and-forth of patterned conditions and reified consciousness, but that responsible intervention, the exception to the rule, remains possible and sometimes happens. To give a historical example, the early scientists of seventeenth-century Europe did not produce our fragmented *Weltanschauung*, so much as they helped express the social and psychological fragmentation brought about by the advent of capitalism, coincident with the Reformation, and in some cases, reified it (as in Weber's analysis of the mythical Protestant work ethic). However, the social and economic transformations of the seventeenth century—expressed in enclosure in England and in extended warfare throughout Europe—did make science and the terms of its inquiry possible, and inflected the form and function of their findings in particular ways. The open question remains the use we make today of their methods and findings, as developed by those who have followed.

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[128] Specifically, the Vietnamese were able to achieve a degree of self-direction from the regime of capital. That said, Communist Vietnam is no example of a radically democratic, sustainable, integral polity, whereas socialist Chile (1970-73) may have more to offer as an example.

[129] In the U.S., this is the motto of the United Farm Workers, implemented under the inspired leadership of Cesar Chavez.

Thesis Eight

> *The current regime produces unacceptable results. If a "new age" is to emerge, transformational practice must be radically democratized, and resist commodification.*
>
> ***Provisional Thesis:*** *The labor of making new values through revolutionary desire is one readily-available and responsible practice of this kind that can help produce a radical democracy.*

The proposition throughout Wilber's later work that one must change the "insides" of subjects in order to change the "outside" expression of our species-being or the "superholon" of social relations assumes a monodirectional (theological) causality from subjectivity "out" to sociality (see Thesis Seven). But just as subjects make their social world, so are subjects formed out of the contingencies of living in a world among others—from sociality "in" to subjectivity (see Theses One and Two). It is reductive to imagine this process as limited to one side of the dialectic only. Therefore I posit: *to fully liberate the subject one must fully liberate the socius, and vice versa—and this liberation is ultimately desirable and in the ultimate (if not always apparent) best interest of everyone involved in the totality of social relations without exception* (see Thesis Five). This means that all beings without exception have a stake in this project of complete liberation, including those who cannot necessarily speak—plants and animals domesticated and wild, for instance—and those who paradoxically can speak but have no voice under the current regime, the subaltern,[130] since all beings without exception participate in co-causality.[131] Kurt Vonnegut (1973) demonstrates the ridiculousness of the current order by presenting the situation on Earth for what it is, something pathological that must be explained in order to be understood by a reasonable being unfamiliar with it:

> Most other countries didn't have doodley-squat. Many of them weren't even inhabitable anymore. They had too many people and not enough space. They had sold everything that was any good, and there wasn't anything to eat anymore, and still the people went on fucking all the time. *Fucking* was how babies were made. […] A lot of people on the wrecked planet were *Communists*. They had a theory that what was left of the planet

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[130] This sympathy with the disempowered and the imperative to take conscious responsibility for one's self-presentation and actions, making them novel, singular, and minor, as a means of revolutionizing one's person as a kind of self-realization and for the ultimate benefit of the totality, ought not to imply an affiliation with the libertarian doctrine of self-ownership, such as that presented by Nozick (1974), criticized here (see Theses Four and Five) in summary form as "personal choice" or brand preference to be renounced. Cohen's (1995) analysis of Nozick's libertarianism broadly supports the position I take, and also informs my emphasis on "making space" for transformative action (see Theses Three, Four, and Five).

[131] This is not a transhistorical claim so much as an observation that all beings known to history have participated in history on terms not always of their own choice.

> should be shared more or less equally among all the people, who hadn't asked to come to a wrecked planet in the first place. Meanwhile, more babies were arriving all the time—kicking and screaming, yelling for milk. In some places people would actually try to eat mud or suck on gravel while babies were being born just a few feet away. And so on. (pp. 12-13)

It remains that the world is divided and controlled inequitably, unsustainably. Some find fulfillment, others find overindulgence and overconsumption, while the majority finds—something else. The violence, physical and epistemic, that subjects under this regime inflict on themselves and others, directly or vicariously, is simply unacceptable, which is to say that *the regime producing this situation is unacceptable*. The responsible thing to do is to change it, but change it responsibly.

Revolutionary desire is one way to intervene with new values, perhaps the most comprehensive intervention of novel values. For the purpose of demonstration I present it here in contrast to the familiar integral schemes for organizing and reifying *old* values, and as an example of transformational practice that quite explicitly includes all four traits of becoming-responsible (see Thesis Four), not because I find it the most immediately practicable (as I do not find it so). It works by charismatic logic; it exploits the dialectic of leading and transforming the totality proposed in Thesis Two.

According to Weber (1978), in the case of the charismatic "[w]hat alone is important is how the individual is actually regarded by those subject to charismatic authority" (p. 242). The state of being subject to an object is the fulcrum of this particular machine. Given the pushes and pulls of causality posited in Thesis One, all subjects encountering the face[132] of the charismatic as an object are in fact subject to him or her as an object insofar as they are able to recognize[133] the non-bureaucratic[134] alterity and novelty of the charismatic's actions and self-presentation,[135] Through this kind of performance, one disrupts the mechanical, dull-round mechanisms that produce predictable and predictably unsatisfactory results. In the example of myself walking about my neighborhood under the watchful eye of the locals (see Thesis One), my wholly uncharismatic presence as an object elicits automatic, automatized responses among those subjects objectifying me. If I were instead to perform charismatically, my actions would in a sense revolutionize those subjects, making them to a greater or a lesser extent (some not at all) subject to my performance. I would literally be using the form of my person as a tool to intervene in the mindstreams of those around me, if I were competent to do it (see Introduction). And of particular interest here, this practice has a history among integral thinkers.

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[132] The allusion here is to the existential ethics Levinas (1969) presents, a point of exploration beyond the scope of the present inquiry but well worth pursuing in this context.

[133] According to Weber, it is "recognition on the part of those subject to authority which is decisive for the validity of charisma" (p. 242). Following Ziporyn (2004), I submit that this recognition is analogous to getting a joke or being surprised by something wholly new and unexpected—recognizing the novelty of it.

[134] This is non-bureaucratic insofar as charismatic logic, pursued to its root, permits "no such thing as appointment or dismissal, no career, no promotion […] There is no hierarchy" (Weber, 1978, p. 243).

[135] "Within the sphere of its claims," Weber (1978) posits, "charismatic authority repudiates the past, and is in this sense a specifically revolutionary force" (p. 244).

Ziporyn (2004) gives four characteristics of the actions of one practicing revolutionary desire, a charismatic: *inexplicability*, *absolute confidence*, *sacrifice*, and *meaninglessness*. Krishnamurti's gesture of dissolution[136] of the Order of the Star and by extension his long career feature all four.

The charismatic act is *inexplicable*, it "makes no sense in terms of any existing context" (Ziporyn, 2004, p. 413)—as with Lotman's explosion, it cannot be predicted. The field of possible meanings of that act, therefore, are infinite; the act is suggestive of those potential meanings, but not reducible to any of them. Krishnamurti acknowledges to his followers that his action is for them utterly irreducible to any expectation they have been encouraged to hold, like the punchline to a painfully funny joke, to borrow Ziporyn's analogy:

> For eighteen years you have organized, you have looked for someone who would give a new delight to your hearts and minds, who would transform your whole life, who would give you a new understanding; for someone who would raise you to a new plane of life, who would give you a new encouragement, who would set you free—*and now look what is happening!* (p. 4, emphasis added)
>
> *Surprise*![137]

Absolute confidence, is total commitment to whatever meme the charismatic is in a given moment identifying with, but pushing hysterically "toward even more ungraspable values" (Ziporyn, 2004, p. 413). This logic reads: "What I am doing right now is, *by definition*, right, even if it means anything else I or anyone else has done is wrong" (Ziporyn, 2004, p. 414) as well as the self-reifying fool (see Thesis Four). Krishnamurti is unequivocal throughout the speech, committed "absolutely" and "without reservation" to his intended new project, and in fact he remained committed to it to the end of his lifetime.

Through *sacrifice*, which "distinguishes the charismatic revolutionary from the mere street loony or opportunist backstabber" (Ziporyn, 2004, p. 414), the charismatic demonstrates "practical indifference" to all established values, contingencies, and expectations, such as means to food, shelter, normative sexuality, filiation, affiliation, power, money, personal safety, or the law. It is, in short, complete self-exposure, total fearlessness, a merciless practice that cannot be contrived.[138] Krishnamurti acknowledges this through the report of a conversation he had had with a journalist, who regarded his decision as precisely this kind of sacrifice, asking Krishnamurti, "'What will you do afterwards, how will you live?'" (Krishnamurti, 1996, p. 3).

The new project of the charismatic must be *meaningless*, that is, "devoid of any identifiable content" (Ziporyn, 2004, p. 415), either semantically empty (means *nothing*, therefore potentially anything or everything) or hopelessly overcoded (means everything, therefore nothing specific). Finding "the uniqueness of the individual" in nonduality, which hardly obeys the logic of localized (unique) subjectivity (individual); not taking students, but insisting his listeners try to understand him (follow his reasoning) and deciding that having five committed followers would satisfy him; mistrustful of organizations but calling for a specific kind of organization, a "body"[139]—really, to state outright and earnestly that the Ultimate Answer to the Ultimate Question of life, the universe, and everything is *42* is much more unambiguously significant than the kind of qualified/unqualified creed/anticreed Krishnamurti presents. And this creative act is of real benefit insofar as it matures the assemblage of beings it was designed to reterritorialize—it may very well have been a conscious, competent act of critique, of compassion.

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[136] I explore the possibility of integral praxis actively engaging with a form of *disintegration* in Anderson (2007).

[137] This is a creative act, a contramimetic act, and as such does not *reproduce* or mimic any set of values or forms.

[138] Simmel (2004) explores this phenomenon, the need for value to be sacrificed in order for new value to be made, in relation to money: "Sacrifice is not only the condition of specific values, but the condition of value as such" (p. 85).

In short, Krishnamurti's speech to the Order of the Star bears all four characteristics of an act produced by revolutionary desire. Inexplicably, he is a guru telling thousands of his devotees to run from gurus, with total and unwavering commitment, throwing a perfectly good career as a savior of humanity under the train of the present for the sake of a tautology, a koan, a mostly-disinterested *Verfremdungseffekt* that has proven, counterintuitively, to be very productive of insights useful to the integral project. I have suggested that Krishnamurti's example of revolutionary desire bears all four characteristics of becoming- responsible I proposed earlier. Two consequences follow from this for the practice of critique.

First, Krishnamurti's insistence on the new and the immanent over the crystallized accretions of formality, as contextualized here, demand a rigorous historicity—to produce the wholly inexplicable, one must master *what has been* explicable; to make a clean break, one must know all the bends. Second, the initial prescription for transformation Krishnamurti presents through self-recognition, a recursive recontextualization, is an opening or *first intervention* through which a radical transformational process (*second intervention*) can develop (see Thesis Four).

Revolutionary desire, then, serves the aim of producing a radically democratic regime by undermining three aspects of the affective machinery that keeps the current *undemocratic* consumer regime in place. First, it necessarily assumes within it the practice of sacrificing petty or in Marx's diction "egoistic" interests for the sake of a larger project; second, it overcodes the machinery that makes subjects *subject* to a regime rather than a self-adopted and self-directed project by becoming-incomprehensible to said regime, introducing the possibility not of a singular new form but of new forms and their production generally; and third, following from the second, it inoculates the socius against the (stupid) fear of human emancipation among the masses that Marcuse diagnoses under the current regime by making arbitrary boundaries (race and gender for instance) more and more porous and their transgression more and more normative and desirable for everyone (see Thesis Four), which frees up energy for the active work of transforming the world.[140]

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[139] In another example of the body as a scale-invariant trope (micro-macrocosmos expressed at once), in "Sailing to Byzantium," W. B. Yeats vows to take as a future body "such a form as Grecian goldsmiths make […] To keep a drowsy Emperor awake". That sleepyheaded Sun King is none other than the "rough beast" of redemption, with the "gaze blank and pitiless as the sun," that emerges from the Spiritus Mundi in "The Second Coming"—that the beautiful, reproduced body Yeats desires to be is but an ornament to the wrong kind of meaningless recreation of values (spiritual materialism, theory in bad faith). Neither Ziporyn nor Krishnamurti advocate complicity with total annihilation, which is cognate to total irresponsibility; the body to be built is relational, contextual, and therefore predicated on compassionate engagement rather than pitiless power for its own blank-eyed sake. A point of departure for future inquiry: the "body" Krishnamurti calls for may be functionally analogous to the Deleuze-Guattarian Body without Organs (see Anderson, 2006, 2007).

The danger, as with any emergent cultural form or transformational practice, is the absorption of a *denatured* form of revolutionary desire into the commodity-regime, producing reterritorialized subjects who own mock-transformational costumes, props, and recordings of the philosopher-sage Jim Cunningham, rather than agents of change. It is true that integral practice arose historically under a series of commodity-regimes (see Thesis Three), but this does not mean that our work *must* be amenable to the desires and contingencies of the marketplace, or reinscribe the values expressed in the *terms* of that exchange—to insist on an exclusive, private-property regime (see Thesis Two) under which only those who own the means of production of values may produce and reproduce values (see Thesis Seven). Our first commitment must be to responsible transformation, an aim that may or may not coincide with the agendas of those who distribute and market memes for money, persons who may benefit from some transformations but not all. Instead, let us make concepts that are useful to everyday problems in the way kitchen tools enable the miracle of a nourishing meal in the hands of a methodical cook, in such a way that transformation can become possible, and disseminate these concepts freely *as a gift* (Lingis, 2000), as a pedagogy rather than a product.[141] *Integral Review*, the P2P Foundation, and the corner Infoshop do this already; let us learn from their efforts and support what is best in them. In short, *integral practice must remain open-source and in free circulation.*

How the transformation of a stratified totality into a radical democracy as proposed in different ways by the Budapest School (Brown, 1988), Laclau and Mouffe (2000), and Schweickart (2002), and briefly implemented by Salvador Allende and Unidad Popular in Chile, might be possible, and what role integral practice might play in that transformation, is the subject of forthcoming work.

Conclusion: Integrating the Counterproject

To read a coherence is to read two sets of histories in concert with each other. To read them integrally is, at best, a transformative dialectical process that makes real integral praxis, uncompromising creativity, possible. Rosi Braidotti (2006) frames this project as follows:

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[140] Weber's (1978) analysis supports this speculation as well. According to Weber, charisma

> *may* effect a subjective or *internal* reorientation born out of suffering, conflicts, or enthusiasm. It may then result in a radical alteration of the central attitudes and directions of action with a completely new orientation of all attitudes toward the different problems of the 'world.' (p. 245)

Here, also, the anti-transformational arguments Hobbes makes against prophecy are relevant to an understanding of what makes a charismatic gesture transformative (see Thesis Seven).

[141] Deleuze and Guattari (1994) argue:

> If the three ages of the concept are the encyclopedia, pedagogy, and commercial professional training, only the second can safeguard us from falling from the heights of the first into the disaster of the third—an absolute disaster for thought whatever its benefits might be, of course, from the viewpoint of universal capitalism. (p. 12)

> The emphasis falls on a cognitive brand of empathy, or intense affinity: it is the capacity for compassion, which combines the power of understanding with the force to endure in sympathy with a people, all of humanity, the planet and civilization as a whole. It is an extra-personal and a trans-personal capacity, which should be driven away from any universalism and grounded instead in the radical immanence of a sense of belonging to and being accountable for a community, a people and a territory (p. 206).

Praxis is becoming-responsible, becoming-critical, becoming-compassionate. Creative recontextualization and revolutionary desire assume an intimacy with local history that is, in a sense, a relationship of uncompromising affection, the desire to be of help. *Such a body we must build*—a culture of beings conscious enough, caring enough, to do this properly rather than pathologically in a coordinated way. This coordination is what makes an integral theory indispensable to a comprehensive, transformative project. The current regime fragments the socius and the subject; the integral task is to unify, to recognize common interest and greater benefit than "going with the flow" and to strive without fail toward it. Our conscious response to current conditions must functionally integrate the points-of-articulation at which opposition to this pathological regime are positioned so that the spectrum of interests represented in what Schweickart calls "the counterproject"[142] can recognize (first intervention) they have much more in common than simple subalterity:

> The counterproject will see itself as a dialectical synthesis of the great anti-capitalist movements of the nineteenth and twentieth centuries *and* the other emancipatory movements of these centuries, especially the ongoing gender revolution, the struggle for racial equality, the fight against homophobia, the mobilizations against nuclear madness, and the efforts to halt ecological devastation. All of these struggles will be seen as part of a larger project, the counterproject, the huge, global effort to put an end to structural oppression and to ensure each and every human being a fair chance and self-realization and happiness. (pp. 5-6)

The present inquiry is intended to help make a responsible, nonviolent, and sustainable counterproject—Radical Democracy—possible.

I also hope to have made some contribution to the ongoing conversation regarding the present and future of integral theory,[143] which has, as I have shown, demonstrated an ambivalent position *vis a vis* transformative practice—in some instances oppositional, in some intentionally or unintentionally reactionary, and all three sometimes in the same book. If an integral theory is to contribute to the writ-large transformational project I have endorsed, this theoretical ambivalence must be resolved. These theses are intended to begin clarifying one approach to resolving it. There are surely others, and surely there are many points of critique available in an early project such as this one, which remains quite incomplete by the standards of many integralists; a student of Wilber or Allan Combs might object, appropriately, that I make no mention of "states" or "stages" among other important distinctions until this very moment; topics such as these are appropriate subjects for future inquiry. Finally, these theses offer some interesting consequences for integral theory's status as an independent form of intellectual inquiry, as I hope to have shown that it is possible to think integrally, to "practice integral," without reference to and outside the context of any of the currently established canons of integral thought,[144] that under some circumstances, one may get better results—more precise, more rigorous, more elegant, more effective—in this way, that critical theory is an example of such a circumstance, and that in its kernel, critical theory has always been at least latently if not explicitly integral in program if not always in practice—an unsurprising observation given the shared heritage of both in Hegel and in response to Hegel.

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[142] LaClau and Mouffe (2000) establish this position.

[143] On August 7-109, 2008, Wilber's Integral Institute (I.I.) sponsored a conference entitled *Integral Theory in Action: Serving Self, Other, and Kosmos,* hosted by John F. Kennedy University, which offers graduate degrees in integral thinking developed and taught by I.I. members. The title of one panel at this conference, "Does Integral = Ken Wilber?," suggests that the future of integral theory and Wilber's role in it is presently an open question, the answer to which must depend in some measure on the future developments of Wilber's project.

That said, in the field of theory, there remains much, much work to be done. To that end, I would like to suggest some of the many issues that very much need to be tackled in a critical integral way: What is race? Gender? The family? The nation? Sexuality? Labor? Nature and culture? These are all *local* sites, among many others, where *global* transformation can advance an integral agenda.

For Chogyam Trungpa, Rinpoche—twenty years too late

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[144] The present inquiry is thoroughly integral—it embraces everything, or aspires to—but not one premise in it is exclusively warranted by or predicated on the work of any one "integral thinker." The integral canon is as yet very loosely defined regardless.

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Validation of Theory:
Exploring and Reframing Popper's Worlds

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Abstract: Popper's well-known arguments describe the need for advancing social theory through a process of falsification. Despite Popper's call, there has been little change in the academic process of theory development and testing. This paper builds on Popper's lesser-known idea of "three worlds" (physical, emotional/conceptual, and theoretical) to investigate the relationship between knowledge, theory, and action. In this paper, I explore his three worlds to identify alternative routes to support the validation of theory. I suggest there are alternative methods for validation, both between, and within, the three worlds and that a combination of validation and falsification methods may be superior to any one method. Integral thinking is also put forward to support the validation process. Rather than repeating the call for full Popperian falsification, this paper recognizes that the current level of social theorizing provides little opportunity for such falsification. Rather than sidestepping the goal of Popperian falsification, the paths suggested here may be seen as providing both validation and falsification as stepping-stones toward the goal of more effective social and organizational theory.

Key Words: Falsification, metatheory, philosophy of science, theory of theory, three worlds, validation of theory

Introduction

Within the social sciences, and more specifically within the study of organizations, numerous papers are implicitly or explicitly creating and/or promoting some form of social theory. Each indicates by its existence how relatively easy it is for someone to create and in some sense validate a social theory. However, despite the importance of advancing social theory, it remains nearly impossible to test, falsify, and improve such a theory (Popper, 2002). As a result, the efficacy of social theory and the opportunity for advancing organizational science is also limited. My interests are to understand and advance social theory, thus these are material concerns to address. My approach in this paper is to provide a model as a tool for advancing theory.

The limitations of social and organizational theory are becoming increasingly evident (e.g., Boudon, 1986; Burrell, 1997). There are even ongoing questions as to the viability of academia (Shareef, 1997). The limited effectiveness of social theory seems to have encouraged some to adopt an essentially a-theoretical approach (e.g., Shotter, 2004) that appears as an "epistemology of practice" (Schön, 1991). However a-theoretical it may seem, "practice is never theory-free" (Morgan, 1996, p. 377). I doubt such a focus on application, rather than theory, enhances the development of the social sciences. Dichotomies, unresolved, rarely enhance any endeavor over the long term because they represent a failure to integrate the dialectic.

The difference between the ease of creation and the difficulty of falsification probably explains 90% of social theory rises rapidly, only to fall again (Oberschall, 2000). This is a

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distressing situation for the continued validity of academia and also for the practitioners who use those theories to improve life on personal, interpersonal, and transpersonal levels. Shareef (2007) suggests we use Popperian falsification to improve our management theories. Yet, he only echoes a call that is decades old and mostly unheeded.

I suggest that Popper's falsification criterion presents a too-high hurdle, and in its present state, social theory is not strong enough to make that leap. In order to more effectively advance theory, I suggest a reframing of Popper's views, not as a means to avoid falsification, but to suggest multiple paths—each with relatively easy steps leading to the lofty summit of empirical falsification. In this paper, I explore a philosophical pathway from present forms of scholarship toward a more integral view of scholarship and its results.

To begin that exploration, I discuss the nature and structure of theory. Next, I describe and briefly discuss Popper's views on empirical falsification as well as his lesser-known views on "three worlds" (empirical truth, emotions/concepts, and theories), which are closely related to his goal of empirical validation. In that section, I discuss some weaknesses of his three worlds conception.

I propose to resolve these structural weaknesses by reframing and applying integral thinking. This reframed version of Popper's three worlds suggests a new way of validating theory, one that more easily supports the advancement of theory towards empirical falsification. Finally, I apply this framework to test a theory, suggest how theory may be advanced more effectively, and discuss limitations of this new model.

Theory and Validity

In the social sciences, there is a growing conversation around the nature, structure, and validation of theory. I provide a brief background to that conversation and suggest the multiplicity of views may be more useful than any single criterion. As prelude, I draw an analogy to two primal forces of our universe.

As we know, the force of gravity holds together our galaxy, solar system, and planet. Life without gravity would not be possible. Therefore, it is tempting to say that gravity is "the" best way to understand life. Yet, life as we know it would not be possible without atoms. And atoms are held together by the strong nuclear force (Considine, 1976, p. 1629). Understanding our universe requires an understanding of the galactic-scale force of gravity as well as the atom-scale nuclear force. Similarly, we might consider that the process of validating theory requires the understanding of multiple influences.

Sutton and Staw (1995) characterize the conversation around theory by saying, "Strong theory, in our view, delves into the underlying processes so as to understand the systemic reasons for a particular occurrence or nonoccurrence" (p. 378). Their version of theory might be summed up as possessing, "a single, or a small set of well-developed, logically linked research ideas that lend themselves readily to empirical testing" (Ofori-Dankwa & Julian, 2001, p. 415). Similarly, Weick (1989) works with Southerland's definition that a theory is, "an ordered set of assertions about a generic behavior of structure assumed to hold throughout a significantly broad range of specific instances” (p. 517). Wacker (1998) pushes for a more atomist than systemic approach, asserting that a theory has four basic criteria: conceptual definitions, domain limitations, relationship building, and predictions.

In their philosophical debate on epistemic justification, BonJour and Sosa (2003) suggested that the validation of a theory might be centered on either an internal or an external perspective. The interlinked assertions or basic criteria noted above may be understood as an internal test of the theory. In contrast, an empirical test is one that occurs on the outside of the theory.

From another external perspective, Quine (1969) suggests in his essay on ontological relativity that we may make sense of a theory from the perspective of a larger theory—or the view from society, as a whole. For example, just as one who knows a complete language is able to make sense of any sentence in that language. The sense-making arises in and applies to the larger societal context. However, in the quest for a more effective social theory, such an approach is problematic: it invites regress and irrelevance. Sense-making contracts to apply to the “nearest” context. For example, within the largest context of our shared society, the sub-context of academia seems to make sense. Nested within academia are various disciplines and publications that make sense. Nested within each of those are many theories, and each of those may also be said to make sense. However, those theories remain ineffective in practice—out in the larger society. Thus, Quine’s methods do not seem adequate to his own challenge of adjudicating among rival ontologies.

In contrast to Quine’s “outside-in” approach testing that uses the inside-out approach mentioned above might be considered a test of the logical structure of the theory – what might be called the “logos.” I am defining the logos of a theory as the structure of the logical arguments that support the theory. While the academic process may be seen as an exercise in the development of the logos, I suggest we *expand and deepen how theorists understand the structure of the logos*. Whetten (2002) appears to agree, noting how a theory may be criticized for its lack of logical internal consistency. This integral perspective goes beyond Popper’s decades-old understanding of theories that were comprised of and therefore structured by separable axioms.

Such an advance in thinking seems to parallel the development of applying an integral perspective. For example, in Wilber’s (2001) four quadrant model (where each quadrant is said to be defined or understood through the perspective of the other three), we can take the perspective of viewing the relationship among the quadrants as the internal structure of the theory. That structure must be rigorously defined, or the model will be open to criticism.

In short, for a theory to be considered effective, it must be subject to both internal and external testing. This leads us to a potential problem of regress, because in one test we are looking for empirical facts; yet, “there are no facts that are independent of our theories” (Skinner, 1985, p. 10). As a result, the empirical/applied test becomes problematic because the results of that test must be viewed through a worldview, that is, through the lens of another theory. Thus, the question: if theories guide perceptions and actions change theories, where then is there any certainty to conclusions based on perceptions?

To recognize the difficulty of testing social theory through practice is not new. Echoing reports above, some say social theories have not proven very useful for effecting social change (Appelbaum, 1970; Boudon, 1986). The success of economics as a theory was questioned long before the late 2008 meltdown (Rapoport, 1970, as cited in Dubin, 1978). In organizational studies, even though theory does inform practice (Weisbord, 1987) in some quarters, an increasing number of practitioners describe organizational theory as "irrelevant" to their work (Tsoukas & Knudsen, 2005). In such cases as these, theory is ignored in practice rather than tested through practice.

On the other side of the coin, we can imagine an excellent organizational change practitioner who, if required to employ "bad" theory, makes modifications "on the fly" consciously and/or unconsciously. Thus, a good practitioner might compensate for bad theory, further compounding the difficulty of testing theory through application. A version of this approach is implied by Weick and Sutcliffe (2001) where they advise practitioners to manage more mindfully, adopting a range of useful techniques to move away from the trap of too heavy a reliance on plans and procedures. Of course, "good" theory might be applied with bad results – as anyone can attest whose fingers have slipped while using a calculator, and subsequently generated an answer that they considered believable… but useless within a mathematics examination.

Thus, both internal and external approaches have their possibilities and limitations when it comes to determining the validity of a theory. In such a case, we would do well to understand how both approaches are necessary, or at least useful, to understand the validity of a theory, just as we do well to understand how both the gravitational force (large scale) and the nuclear forces (small scale) are needed to understand our physical universe.

In the next section, I provide some background on Popper's worldview and his approach for advancing theory. I also go into some detail describing Popper's three-world model, and how, with slight revisions to that model we can use it to advance our understanding of theory validation.

Popper: Background and Worlds

Broadly, Popper's view suggests that science is in continual revolution. There, in the pursuit of objective knowledge, science is advanced by the rigorous testing and falsification of theories, "designed to replace existing theories with more accurate theories based on empirical research outcomes" (Shareef, 2007, p. 275) and "each step brings us closer to the truth." Importantly, Popper's "concept of truth is based on the intuitive idea of truth corresponding to empirical facts" (p. 276). Necessarily, this is an iterative process beginning with inaccurate theories, and moving toward theories of greater accuracy.

Popper's version of scientific progress through the conjecture and refutation of theory has influenced a wide range of disciplines including organizational theory (Shareef, 2007). Thus, I find his ideas useful in my efforts to understand and advance social theory. Yet, despite wide understandings of Popper's call, and many decades of research, progress is clearly elusive. The tree of knowledge grows slowly and thus far is not bearing fruit. In the field of organizational studies, of many theories proposed, few have been adequately falsified. I find no well-documented advancement toward truth.

Turning attention to develop my earlier point, we have not advanced because the requirements for falsification set a standard too difficult for most scholarly investigations. Realistically, then, while falsification remains a useful goal, a series of steps toward the goal rather than a single hurdle would be more achievable for the social sciences.

Popper’s own work has the insights needed to identify those steps. He developed his “three worlds” model to resolve the mind-body problem of knowledge. Although this approach is not so well known as his call for falsifiability, I explore those three worlds and the system they create, to suggest a useful key for validating theory. In doing so, I offer a new model as a tool to advance theory more easily towards falsifiability and thus closer to effective use by practitioners.

In brief, Popper’s (1978; 1996) three worlds are as follows. World one (W1) is the physical world, consisting of physical objects, energy, and plants. World two (W2) is the mental world, consisting of feelings, thoughts, decisions, and perceptions. Popper suggests that W2 may be subdivided into the conscious and the subconscious. World three (W3) is the world of more complex conceptual constructs including stories, mathematical constructions, artistic compositions, and, importantly for this paper, theories. The contents of each world are called “objects;” so , for example, a rock would be a W1 object, a feeling of joy would be a W2 object, and a theory would be a W3 object.

These worlds can interrelate. For example, a painting (as a physical thing) would have some W1 existence (as do all physical objects). The aspect of the painting that makes it a great work of art would be a W3 object. When an individual views a great painting and experiences an emotional reaction, that reaction is a W2 object.

In developing the idea of a third world (of theory and complex constructions), Popper broke with many contemporaries and classical philosophy that suggested there was only one world or at most two (one of body, and one of mind). Popper called himself a pluralist for this reason, suggesting that all three worlds were needed to understand the mind-body problem and the situatedness of knowledge. In this, he suggests, somewhat hierarchically, that each world is founded on the one below it. W3 Theories are based on a combination of W2 ideas, and those ideas are based on perceptions of W1 objects.

Objects are subject to classification schemes. Popper discusses W1 objects (such as a block of marble), as a class of things. He also discusses W3 objects (such as a theory or symphony) as a class of things. He also notes how W3 objects, such as a plan, may be changed and altered as if they were W1 objects (one may chip away at a theory, in much the same was as one may chip away at a block of marble). While he mentions that knowledge is situated in W2, he also asserts that both W1 and W2 objects are things that might be known. Logically then, there are classes of that which might be known.

Part of Popper’s discussion in these texts involves proving the “reality” that he refers to as “truth” of these worlds, essentially seeking to validate, justify, or prove the existence of the objects within each world. He does this primarily by recognizing the importance of interaction of objects within and between worlds; for example, "observation is always observation in the light of theories" (Popper, 2002, p. 47). Thus, no W2 observation is possible without W3 theory.

Wilber (1999), perhaps accurately though much too briefly, notes one main thread of Popper's investigation; he characterizes the three worlds as relating to objective and subjective knowledge. In lumping Popper's three worlds with a variety of other concepts, Wilber misses an opportunity to use the three world concept in a way that might have proved useful in supporting the arguments he presented in *The Marriage of Sense and Soul* thus advanced integral thinking. Here, however, I use the three-world idea, but focus on science rather than soul.

For his AQAL model, Wilber suggests that each of the four quadrants exists in relation to the other three. That is to say, each quadrant may be understood only through the perspective of the other three. In a sense, if one quadrant were removed, the other three would lose their validity. This is the heart of integral thinking: recognizing and learning from interrelatedness. In contrast, Popper sees each of his three worlds as arising from the one below it. The W1 physical universe must have existed before humans evolved to perceive it (W2), and those perceptions must have preceded the sense making needed to create W3 theories.

This generation of worlds, however, is not a one-way street: "Our minds are the creators of world three; but world three in its turn not only informs our minds, but largely creates them" (Popper, 1978, p. 167). This is like the idea that "we shape our world and our world shapes us" or "our mindset affects how we see the world." Morgan (1996, p. 274) presents a similar view when he draws on theories of complexity, chaos, and autopoiesis to encourage managers to think in terms of "loops, not lines." That is to say, we should avoid thinking mechanistically (e.g., A causes B), and rather incorporate "the idea of mutual causality, which suggests that A and B may be co-defined as a consequence of belonging to the same system of circular relations." We humans frequently seek a single cause to link to a single effect. We need deeper understandings about the complete system and its multiple causes, effects, feedback loops, limits to growth and exponential growth.

In contrast to Morgan's mutual causality, the emergence of Popper's worlds one from another seems more linear. However, his discussion of those worlds goes deeper. In addition to the above description of how W3 theories may impact W2 perception and knowledge, he also described how changes in theory would enable changes in W1. This makes good sense, as a person with a plan might make more significant changes to the world than a person without one. Yet, he suggested that such changes would only occur through the intermediary of W2. In short, W3 affects W2, which affects W1. This relationship may be understood as a three-stage linear relationship.

Importantly, as Stinchcombe (1987) notes in his extensive discussion on theory, such a relationship seems to render the intermediary term (W2, in this case) redundant. We might just as well say that changes in W3 cause changes in W1. However, this would leave out Popper's very reasonable suggestion that W2 objects such as emotional reactions and insights are of a very different nature than the W1 empirical facts, and W3 theories. The three worlds are intimately interrelated while qualitatively different.

Popper saw a theory as being constructed of a set of axioms, suggesting that falsification of one axiom need not result in the falsification of another axiom. His view of axiomatic severability is troubling because the most effective theories (those that allow us to most reliably make changes or predictions in W1) are the theories of physics. Those theories are robust in the sense that each axiom is co-defined by the other axioms of the theory. For example, in Ohm's law (a theory of electronics), there are three aspects (volts, ohms, and amps). Each of those is defined by the other two. If we were to falsify volts (for example), the entire structure would collapse: there would be no way to describe amps and ohms. Thus, effective theories of physics are not amenable to axiomatic severability.

Popper pushes further in this direction suggesting that there is "no hope" of developing a useful understanding of a theory based on the relationships between the component statements because those statements (and the objects represented by them) can always be dissected to smaller pieces (Popper, 2002, p. 112). Instead, he suggests that a theorist begin with "relatively atomic statements" as long as those statements are linked to some sort of objective instrument of measurement. However, as is well known (then as now), even atoms may be split into components. In short, Popper's preference for atomistic structure of theory must be called into question. Further, as noted above, our philosophies have advanced since Popper's time, allowing for new insights into the structure of theory.

Popper can appear contradictory. "All of our actions in world one are influenced by our world two grasp of world three" (Popper, 1996, p. 142), yet, this suggests actions are a W1 object, while actions are not typically mentioned as an integral part of this theory. The act of research, as an example of an action, is mainly an implied part of the model, rather than an explicit aspect. This lack of clarity is an opportunity to improve on, or at least reframe, Popper's model.

This analysis indicates that Popper's worlds might be better understood by looking at them in a different relationship: moving from a linear view to a co-causal view of the three worlds. This approach would be a more integrated view of theory, one I expect to provide a closer coupling—a tighter integration—between worlds, and so enable a better understanding of scholarship in general, and the validity of theories, in particular. In short, I hope that by reexamining and reframing Popper's ideas, I might draw some novel conclusions that will aid in the advancement of social theory.

Reframing Relationships between Popper's Worlds

If, as noted above, the linear relationship between the three worlds is inadequate, an alternative, co-casual, model is an alternative with which to experiment. To start by iterating the observation above, each of the three worlds might be considered co-casually related to the other two. To do so would suggest that W3 theories would be determined by W2 facts and feelings and W1 reality/truth. This throws us into an immediate tailspin of regress, as we have no way of establishing that truth, outside of our feelings and theories.

In order to develop an adequate model of co-causal worlds, the content of those worlds must be reframed. An important part of Popper's equation may have been overlooked. He carefully describes how the combination of W1 truth and W3 theories will conjoin to create W2 knowledge. Yet, he seems to take for granted that such knowledge would be accepted as such. We should ask, why that truth is accepted as truth.

If the objectivity of knowledge were the only criterion, belief would not be necessary (Powell, 2001). Yet, the W2 aspect of belief does seem to be an inescapable aspect of the Popperian philosophy. The answer, which we experience on a daily basis, is that it "makes sense." That "sense of truth" would be a necessary part of the equation. Without it, how would we "sense" that one truth had any more validity than another?

We could argue that one could read two versions of theory, and simply identify that set of arguments that appears to be more valid than the other. However, that may be understood as the very definition of "sense making." After all the arguments, conversations, examples, dissections and connections, each reader must experience some feeling that the conversation makes sense in order for it to be considered correct or right.

For example, I occasionally enjoy a good trivia quiz. In those events, I have noticed in myself and observed in others that there appear to be instances where knowledge is accompanied by a sense of "rightness," even if that sense does not necessarily correspond with the version of truth held by others. While that feeling might, conceivably, be lumped into W2 with Popper's version of knowledge, such an approach interferes with our ability to differentiate between knowledge and feelings. And, for the reasons just mentioned, that distinction is an important one. In short, there are important differences between knowledge and the sense of rightness associated with that knowledge that is not related to a change in theory.

That sense of rightness seems to emerge from the intersection of theory and knowledge. When the facts fit the theory, we say that there is epistemic justification, that is, that the information seems to be true. Therefore, that sense seems to have important distinctions from what Popper would describe as knowledge even though both of them are what Popper would call W2 objects. Therefore, I recommend reframing those three worlds to separate these vital aspects.

Additionally, while there may be a world of absolute reality or truth, and our improved theories may bring us closer to that ultimate truth, I think it is safe to say that we will never fully understand that ultimate reality. Therefore, I'm not sure it makes sense to have W1 as part of the model. We would not, as an example, include the moon in a theory of continual advancement in running techniques, for no amount of running will ever reach the moon. There may be absolute truth. But if that knowledge is unobtainable, there seems to be little use to including it in a theoretical model.

For this reframing, it is more useful to understand W1 as the repository of perception and knowledge. The W2 would remain the domain of feeling and emotions, and W3 remain the domain of theory. Significantly, this distribution of worlds creates the opportunity to understand each of the three worlds in integral, co-causal relationship to one another.

For those who might object to removing Popper's version of reality, some absolute truth from this model, I would suggest designating "world-zero" as some place of absolute truth. Then too, as we are observers of this model, and we humans are also observers to our own selves (knowledge, emotion, and theories) the self or observer might be represented by a "world-infinity." Those two worlds, however, are bracketing the present conversation, and would require additional development. So, let me return to the focus of validating theory. I propose Popperian falsification may be adequately represented by the reframed relationships between three worlds. There is a W3 theory, a W2 sense of rightness, and a W1 knowledge. I think, however, that there is room for additional insight into theory validation within each of these three worlds.

Reframing Validation within Worlds

In the spirit of applying multiple perspectives, I will now shift our point of view. Instead of looking at the relationship between worlds, I will seek to clarify the situation as it exists within worlds. According to the previous discussion, a theory might be falsified by the information derived from the theory, in conjunction with the feeling of rightness accompanying the theory and the information. This other, internal, perspective might look at the truths within a world as a class unto themselves. Or, as Shareef (2007) notes, Popper recognized that within each world there were levels—essentially "degrees of truth."

For example, one might have the same theory, the same feeling of rightness; yet have a greater quantity of knowledge. Therefore, we may understand at least a quantitative level within each world. Similarly, as a new version of theory emerges, each advanced degree of truth or succeeding theory might be met with an increasing sense of rightness. These may be understood as varying levels of certainty within W2. For example, I know when I am asked a question, there are times when I have an answer… and times that I am more or less certain of that answer. As discussed above, these forms of validation might be seen as internal to the theory, rather than the external tests of validation through application and the generation of data, and the accompanying sense of rightness (or lack of same).

For example, in W1 it may be said that each object of fact has validity because it is differentiable from other objects. Also, internally to W2, it may be said that the feeling of love has some validity because it is differentiable from the feeling of hate. Moving to look at W3, it is important that Popper notes, "What is most characteristic of this kind of world 3 object is that such objects can stand in logical relationship to each other" (Popper, 1978, p. 158). In short, there is a sense of validity afforded by the categorization of objects within a world. They are also validated by the ability to differentiate objects within a world, as well as how they are related to one another within that world. Focusing on the validation of theory within W3, Popper notes the validity of mathematics (including the idea of infinity) as existing relatively independent of W1 (where no one has ever counted to infinity).

Of course, relying on internal justification alone creates the opportunity for a pitfall. Powell (2001), for example, suggests that "thick illusion" by definition, is not falsifiable. Therefore, he concludes, our uncertainty never vanishes. And so--and this is quite important—no theory is ever complete: there is always the opportunity for improvement. Exactly what constitutes "improvement" in a theory is topic for additional dialog. While Popper suggests that a more advanced theory is one that is closer to the "truth," such a claim is difficult to confirm because that truth, itself, is part of the thick illusion.

Gödel’s Proof hints at this limitation. Essentially, Gödel proved that nothing could ever be proved. Or, more formally, that no theory could be both complete and self contained. However perfect and complete the theory, there is always someone reading the theory and so formulating a new insight that goes beyond the original theory (for an interesting discussion on this topic, see Hofstadter, 1980, *Gödel, Escher, Bach*).

We might create a theory that appears to have a high level of internal consistency; yet has no basis in reality. For example, Tolkien’s “Lord of the Rings” describes a carefully constructed world (including mythic languages and fire-breathing dragons). His work has a high level of internal consistency. Despite this W3 internal strength, fire-breathing dragons remain fictional. This same theoretical limitation exists in texts of fiction, fantasy, metaphysics, and religion.

While I focus here on interrelationships within and between worlds, I do not discard the traditional need for clarity and consistency of logical arguments. Consistency is especially important. If a theory says that a dollar may be redeemed for three apples, we cannot change dollars for kiwi-fruit, or apples for diamonds, without also describing the changes in the rate of exchange. Our understanding of clarity may shift, however, under the model I am presenting. For example, we might develop, ad hoc, a three dimensional theory that includes aspects of People, Places, and “Stuff.” While the use of Stuff as an aspect of theory might, on the face of it, seem hopelessly vague, the vagueness is due to the lack of context. We might enrich that context by specifically describing the relationship between the aspects within the theory. For example, we might say that more People and more Places will result in more Stuff. Thus, Stuff might be seen as roughly analogous to “memories” (for the limited purpose of this ad-hoc example).

When co-validation is said to occur between the constituent propositions of a W3 theory, that co-validation may be repeated, fractal-like, in W1 and W2. In those other worlds, the relationship between the propositions are played out and falsified by actions and observations. For example, a theory that is essentially a metaphor might have little or no W3 validation. It would, if published, have greater W2 validation. If applied successfully to an organizational change effort, it would have greater W1 validation. At the other end of the spectrum, a theory with infinite propositions might be perfectly accurate (with high W3 validity); however, the application would be nearly impossible.

For W3 objects, which pose significant validity in one world, I suggest that the call for greater validity can be answered from within other worlds, and in the relationship between worlds. Indeed, as a theory or other W3 object advances in its internal validity, it generates a call for validation in and between the other worlds. *Broadly, a complex W3 fantasy calls for a reality check in W1 and a sensibility check in W2.* A profundity of W1 data that do not “make sense” calls for the creation of a W3 theory to weave them all together. Similarly, the level of sense between W3 objects may also be compared to suggest which one theory might seem more sensible than another.

Popper’s work suggests the best way to validate a theory is in the way it allows for predictions in W1. Thus, a theory of physics (W3), which fails to predict change in W1, will have been falsified. In the social sciences, however, the process becomes a highly complex issue of recursion. For example, changes in theory (W3) will cause changes in productivity (W1) but may also alter individual sense of importance (W2), so that an individual may no longer place the same value on the items being produced. For example, individuals working on an assembly line might (based on an emerging mindset) change their minds and decide that the human producer is more important than the objects on the conveyor belt.

Driven by a modern rather than integral mindset, Popper may have pushed too far in pursuit of his deductive agenda, a “Kantian epistemological activism” to the point where “we attempt to impose our interpretations onto the world rather than being passively instructed by it” (Shearmur, 2005, p. 265). Although Popper concludes that measurable W1 results represent the highest level of validation, because W1 represents empirical outcomes, both the process and the content of his conversation on the relationships within and between worlds suggests that the door is still ajar for alternative forms of validation.

For example, by way of recursion, Popper’s arguments in favor of falsifiability can themselves be understood as a form of theory. As a set of logical arguments that are not backed up by empirical data, Popper’s argument does not stand up to his own test. It does, however, retain validity in this reframing of his worlds where his theory may be understood as an advanced W3 object. By reframing his model from a linear/mechanistic one to an integral/co-casual form, I am advancing that model to a higher W3 standing. However, that higher W3 standing also heightens the imbalance between worlds, resulting in a call for W1 validation.

Thus, no one world, or relationship between worlds, should serve as the single criterion for the validity of theory. Instead, a theory should be understood as increasingly valid as it increases in validity within and between all three worlds. Because my focus here is on the validation of theory, I discuss validation within W3 in the next section. Following that section, I apply these concepts in an analysis of a theory.

Validation within World Three

If a theory, as a set of related propositions, claims validity through logical arguments, it is legitimate, even necessary, to ask whether those arguments are essentially part of the theory, or are they part of the justification of the theory. If it is the latter, the logical arguments used to justify a theory are themselves objects of W3. This means they also must be legitimized in the same way. This creates an issue of recursion that may severely undermine attempts to validate theory through logical arguments. In the past, such an issue has been resolved by resorting to axioms. For example, Steiner (1988) describes the system of a theory, at least in part, as being constructed as a chain of definitions. Frustratingly, her conclusion was that the last link of a chain remains undefined. Her assertion seems atomistic and unusable. As I have developed elsewhere (Wallis, 2006, 2008a) the idea of a theory constructed of co-defining propositions provides a robust alternative to axiomatic terms.

Legitimacy exists for two reasons: (a) there is a co-causal relationship *between* worlds, and (b) there is a co-causal relationship *within each* world. If greater validity is derived from greater agreement (e.g., the consensus of expert opinion is more valid than the opinion of a single expert), that line of reasoning can extend to positing that *more aspects* of validity should be seen as *conferring greater* validity. That is, a combination of validating relationships (including W1, W2, and W3) confers greater validity than any single one. An object in any world has greater legitimacy when it is validated from more "directions:" (a) qualitatively, within worlds and between worlds, and (b) quantitatively, more relationships are better, whether they are inter-world validations or inner-world validations.

As the issues I am addressing indicate, the conversation on the validation of theory based on its structure has been mired in Western-traditional understandings of logic and rhetoric. For example, Steiner's (1988) work is a framework for theory justification based on the construction of language and logic. In a logical argument, the W3 object of theory is constructed of a chain of other arguments that ultimately must rest on observation. While the components of the theory may, or may not (depending on their complexity), be considered as W3 objects, the observations are certainly W2 objects. Hence, many arguments of logic are essentially validations between worlds. Because individual understanding of the world (W2 objects) is dependent on individual theories (W3 objects) the issue of regression, as demonstrated above, is inherent even in simple observation. Or, more briefly, "Truth itself is plainly useless as a criterion for the acceptance of a theory" (Kaplan, 1964, p. 312).

In contrast, Dubin's (1978) work went beyond the traditional calls for rational argument by suggesting that higher validity could be obtained by higher orders of structure of the theory. While this appears to be looking within the W3 object, it is more useful to say validity results from comparing the components of the theory, *where those components are of sufficient complexity to stand on their own as W3 objects.*

For example, a theory that is essentially a list of facts would not be much of a theory. Indeed, decomposing any body of theory to a list of bullet points would essentially remove the structure from its W3 standing. In short, to achieve the opportunity for W3 validation, a theory must be of sufficient complexity that each of its component propositions must also qualify as W3 objects. In a sense, such a reduction is like atomizing or de-integrating the construct from W3 to W1 status.

Recently, I developed Reflexive Dimensional Analysis, a method for analyzing a body of theory (Wallis, 2006). Later, I clarified the importance of "internal justification" of a theory (Wallis, 2008a). For an example of an internally validated theory, I return to Ohm, and his I=E/R where each aspect (volts, amps, and ohms) is defined by the other two aspects (Considine, 1976, p. 1678). The internal justification view I introduced considers theories of greater internal validity to be more "robust" and, as illustrated by the robustness of Ohm's law, more robust theories stand much stronger chances of enabling—and eventually predicting—W1 changes.

Although some might say Ohm's law is a relic of modernist or deterministic thinking, from another perspective, Ohm's law *is only deterministic if* two of the three aspects are known. For example, in order to determine the volts in an electrical circuit, both the ohms and the amps must be known. If, in attempting to determine the voltage of a circuit, the investigator is aware of only one aspect (e.g., the amps), the other two become *indeterminate*. In that case, the model, even when indeterminate, may serve as a signpost suggesting directions for further investigation. Thus, the model simultaneously provides deterministic boundaries (based on the limitations of the model) and also provides indeterminate opportunities for exploration. The context and extent of determinants account for a model's simultaneous possibilities.

Where Nonaka (2005) suggests the group creates and validates knowledge, in the same way, both individuals and groups must use theories in the process of validating knowledge. Where Nonaka discusses the idea of “ba,” which includes “contexts and meanings that are shared and created through interactions” (p. 380), I seek to differentiate contexts and meanings in a straightforward process with methods for theorists and change agents to evaluate theory through multiple perspectives. Those intersubjective methods of measurement may be developed across and within Popperian worlds to objectively identify the epistemological validity of theories.

If theories can be created and confirmed to have a high degree of validity, we should expect those theories to be more helpful for processing information individuals encounter in their daily lives. In short, when theories are more useful, individuals may develop themselves more effectively.

In some sense, delving into a turn of the regression, we can conceive the inside view of one model to be the outside view of another. That is to say, an outside view of validation of theory involves a comparison of three worlds (theory, fact, and feeling of rightness). As we move into the inside view of theory, to validate a theory from the inside, we are now adopting a new perspective. What were previously seen as W3 theories, have now become W1 facts. The W3 theory place is now held by the method of metatheoretical analysis being developed here. However, that is all a matter for a future paper. In the next section, I apply the above ideas to the analysis of a theory.

An Analysis of Theory

To support my belief that the ideas presented here have useful implications, I apply them in analyzing others’ work. If validity of theory may be understood within and between worlds, each scholarly study should include reflections on how the new theory fits within and between worlds. Such an effort need not be extensive, once the ideas are generally understood. Such a review would include observations, logical arguments, and some reflection on the authors’ sense of rightness. To some extent, many scholars aim toward such goals on a regular basis. In this section, I present and apply a framework for using this analysis to show how it might be done.

This framework for the analysis of theory operates as a coherent checklist. Its benefit is the clear indication of validation within and/or between worlds. The analytical results can be shown in a matrix of the checklist’s dimensions of validity (Table 1). Such a presentation of an analysis

Table 1. Dimensions of Validity

	Level 1	**Level 2**	**Level 3**
World One (Facts or data)	Uses objective data.	Uses objective data from multiple sources.	Future facts are predicted.
World Two (Meaning, emotions)	Makes sense to author.	Makes sense to editor, reviewers, and readers.	Consensus of expert opinion (this theory is preferred over other theoretical options).
World Three (Theory)	Includes logical arguments.	Theory is constructed of specific propositions.	Theory is constructed of co-causal propositions.

enables theories to "recommend themselves" to managers and other organizational change agents in search for a strong, appropriate theory to apply. While this is more a test of existing theory, it also indicates areas to focus on for future advancement of the theory.

For this demonstration analysis, I pulled (more or less at random) an article from my files, and now analyze its contents using the reframed three worlds perspective. The article is *Institutional entrepreneurship in mature fields: The big five accounting firms* (Greenwood & Suddaby, 2006). The study combines multiple theoretical bases to identify dynamics of change in organizations. Essentially, the focus is on institutional theory, which considers organizational change (and stability) as well as how the organization affects individuals, their mental states and their interactions. Briefly, the big five accounting firms became so large and powerful that they were no longer subject to the norms of their industry. They became more open to alternative ideas, such as the creative accounting processes of Enron. The analysis shed light on the dynamics leading to the collapse of Enron and Arthur Andersen.

World one considers the facts, or the data of the study. In this case, the authors interviewed senior partners at top accounting firms. They also drew on archival data such as annual reports, audit statistics, training records, press releases, and transcripts from hearings. As such, there was a large quantity of what might be considered facts, in the Popperian sense. The figures showed that the big five did indeed hold the lion's share of the market – nearly 80%. Based on their analysis, the authors went so far as to predict that the evolution of the field's elite will outstrip regulatory efforts." Based on these results, their study has a high level of W1 data. Their data are objective, from multiple sources, and includes their prediction of future events (another form of data).

In contrast to the world of facts, world two is focused on meaning and emotions. In this world we may assume that the paper makes sense to the authors, or they would not have written it. Additionally, in their "appreciations," the authors note the contributions of research funding, numerous collaborators, and anonymous pre-publication reviewers. This explication raises the level of W2 validity because it indicates that more scholars believe the paper has merit. Finally, the paper earned the authors the Academy of Management Journal "best paper" award for 2006. The external professional recognition indicates the paper has a still higher level of meaning for experts in that field. It is too early to determine if the paper will have much effect outside of academia; if so, that would indicate another level of meaning.

While we may assume that the authors' writing process included a great deal of reflection (an important part of making meaning), one defect here is that the authors do not explicitly surface their own reflective process in the paper itself. Explicating their making-meaning process transparently would add to the W2 validity of the paper. In an interesting negative example, the authors credit a specific individual with cutting a "Gordian knot." This analysis would have more data if the authors had discussed the knot and the process that led to its removal.

In world three, the theory of the article contains many logical statements. I do not spot any "contradictory axioms" that could be used by the authors to draw any conclusion they desired (as might be found in metaphysical texts) (Popper, 2002, p. 71).

The authors describe their theoretical orientation, and as a result of their research, suggest a process model and a set of seven propositions to explain the phenomena under investigation. Interestingly, their process model suggests two views of the process. The first view shows a coarse-grained analysis of the interrelationships between relevant theories, the second a fine-grained analysis that shows the causal relationships between the various aspects of those theories.

Propositional analysis is a useful tool for analyzing the relationships between co-causal aspects of a theory (Wallis, 2008a). Essentially, propositional analysis involves identifying the total number of aspects (or concepts) within a theory and, within that number, identifying those aspects that are "concatenated." A concatenated aspect is one that is influenced, caused, or understood by two or more other aspects (Van de Ven, 2007). For example, in a proposition where A & B together cause C, C may be understood as a concatenated aspect, while A and B are not (being purely causal). By dividing the concatenated aspects by the total number of aspects, a ratio is derived that describes the robustness of the model.

Robustness, then, is measured on a scale of zero to one, with zero indicating no robustness (as might be found in a shopping list of concepts), while a robustness of one may be found in a very effective theory of physics (such as Ohm's law). Further, robustness is a measure of the internal integrity, or integrality, of a theory and, as posited above, is a useful predictor of that theory's efficacy in practice.

Although space does not allow for a complete exposition of analysis using my model, a propositional analysis of Greenwood & Suddaby's coarse-grained model finds a robustness of 0.29 (the result of two concatenated aspects divided by seven total aspects). Their fine-grained view has a robustness of 0.31 (the result of five concatenated aspects divided by 16 total aspects). These levels of robustness, while not very impressive compared to Ohm's law, are not uncommon for social theory. For example, institutional theory has a robustness of 0.31 (Wallis, 2008b).

Moving outside of the individual worlds, and into the relationship between worlds, additional insights and important contradictions begin to emerge. For example, the authors' prediction about the field's elite evolving faster than regulatory changes. Such a relationship would be considered observable data, yet those data are not accounted for in the theoretical model the authors propose. This misalignment between the world of data and the world of theory suggests the need for additional (and more careful) work in developing their model. In short, each of the three worlds is an admirable exemplar of academic work. However, these three worlds are not necessarily part of the same solar system.

The analysis presented in this section may also be understood as a piece of W1 evidence, relating to the W3 theory presented in this paper. Of course, as discussed above, those two worlds are insufficient by themselves. I must also *apply* my model *to my use of* the model, another recursion to examine validity. To form a more integral model, then, there must be an accompanying W2 feeling of validity. The same levels of analysis pattern I used on Greenwood and Suddaby is the pattern I now use on this work I am writing that you are reading. On one level, there is some feeling of rightness on my part, although I certainly feel that I need to do continued investigation and explication of my theorizing. I assume there is an implicit sense of rightness on the part of the reviewers and the editors, else this article would not be published here. A more important level of W2 validity is the feeling of rightness that may be felt by you, the reader.

Table 2. Dimensions of Validity for Greenwood & Suddaby

	Level 1	Level 2	Level 3
World One (Facts or data)	Uses objective data.	Uses objective data from multiple sources.	Future facts are predicted. However, data predicted do not match source data.
World Two (Meaning, emotions)	Makes sense to authors. Authors should explicitly surface reflections.	Makes sense to editor, reviewers, and readers. Authors recognized by peers.	Does not have consensus of expert opinion. Model is not compared with other models.
World Three (Theory)	Includes logical arguments.	Theory is constructed of specific propositions.	Theory has co-causal propositions to 0.3 level of robustness. Room for improvement by increasing robustness.

Limitations of the Proposed Model

My approach to validation of theory does have limitations. For example, if we wanted to analyze a complex structure such as a high-rise office building containing multiple organizations, the difficulty of listing each item, to say nothing of categorizing each of those items into its sub-aspects of each of the three worlds would be intimidating, to say the least. Perhaps the most effective use of my model is in metatheoretical analysis. There, for example, the scholar may review his or her own work, or the work of another scholar, and readers could easily identify the strengths and weaknesses of articles they reflect on and make useful suggestions for improvement.

Reflecting on the above analyses, and the levels of validity noted in Table 1, indicate another area for possible improvement of this model. The W2 levels of sense-making starts with the article making sense to the author. Then, at progressively higher levels, it essentially asks if the paper makes sense to editors, reviewers, and other experts. The usefulness of this scale may be called into question because any article that is subject to this evaluation will have already passed the first and second levels. Few will ever reach the third. Some reframing of this scale may be useful. Similarly, most or all papers will easily reach the W3 level of including specific, logical propositions, while few will ever reach a level of high robustness of their co-casual propositions.

One alternative might be to revise the scale into something more quantitative. A metatheoretician might, for example, count the total number of facts, the number of propositions, and the number of people who agree with the model. This would provide specific and objective data for comparing and contrasting theories.

The generally high levels of efficacy found within worlds for the analysis of the Greenwood and Suddaby paper may be expected for an article of their high academic caliber. This, in turn, may suggest that the form of analysis I presented represents an evaluation based on traditional academic and/or Western values. More reflection and analysis should reveal more insight into this concern. I, for one, would be interested in seeing alternative evaluation methods, and an argument might be made for non-evaluation (although such an argument would be an evaluation).

Future studies might include an investigation into the measurement of each world's objects and how they are seen and measured from the combination of other worlds. Another opportunity is to identify a "triple helix" of iterative interactions between the three worlds. Nonaka (2005) suggests a spiral relationship in the knowledge creation process, resulting in the generation of more knowledge and knowledge that is more useful. If this process is replicated for W1 and W3, we might imagine three spirals, with interesting opportunities for measurement and insight. Looking within each world, there is the possibility to "unfold" each world into additional dimensions to identify the quantitative and qualitative nature of each world object. The opportunity also exists for a similar quantification of objects that exist simultaneously in all three worlds.

Another form of validation might be seen in the process of creation. For example, the social construction perspective suggests that knowledge and social norms are both created through the general process of social interaction (Burr, 1995), that a socially constructed culture strongly determines how each individual sees the world, and finally, that knowledge and social action are linked. Social construction might be seen as analogous to the process of theory creation, where the theory is a cultural frame of reference, and that frame of reference is continually changed by its interaction with other theory, application, and conversation.

Both processes (social construction and theory construction) seem to be recursive in that they are continually repeated processes; the theory changes the way individuals see and gather information, the information changes the theory. In short, within the process of communication, theory may be understood as being created by knowledge and that the process of using theory generates knowledge. It seems this reframed view might dovetail with a social constructionist point of view. However, more study would be required to develop this idea.

The relationship between worlds presented in this paper could be tested through a longitudinal study that tracks the knowledge, theories, and effectiveness of an organization over time. The resulting information could suggest, for example, the amount of effort that should be allocated between action, knowledge creation, and theory creation within the environment of a particular industry. Such knowledge would contribute the effectiveness of translative and transformative development.

For example, one could analyze economic theory used at the state and national level, including the robustness of those theories. Those results might be compared (over time) with level of consumer confidence and the number of people living above the poverty line. Similarly, one could study the theories and policies used by corporations and community groups. The results of those studies could be compared with organizational success and/or organizational adaptability.

Here, I have focused on W3. Future research might focus on other worlds. One big question might be an investigation into spirituality. If spirituality is associated with and evidenced through a spiritual awakening, and that awakening is reflected in a sense of wonderment, that sense might be understood as a W2 object. As such, there may be internal analyses that seek to analyze the quantity and quality of such moments of amazement. More interestingly, however, we could investigate how that W2 feeling might be understood in co-causal relationships with W1 evidence and W3 theory.

While Table 1 offers a matrix-checklist approach for investigating the validity of theory, it could be expanded by identifying a scale within each box. For example, if a theorist is seeking validation on a W1 dimension at Level 1, he or she could (and should) note how many situations have shown improvement from the application of the theory. As noted above, there is no specific progression between worlds. While W2 validation may move from individual opinion to consensus of opinion, that consensus does not guarantee increasing validity in W1 or W3.

Perhaps neither knowledge nor theory can be fully understood or validated except in relation to the other. If so, the primacy of that relationship suggests all the following are worthy of significant exploration: (a) the processes of theory creation, (b) the structure of theory, and (c) especially the relationship between action, knowledge and theory.

Conclusion

Popper (1996, p. 4) is mainly interested in the growth of objective knowledge. This direction is in keeping with his call for empirical validation of social theory. However, in his discussion of the three worlds, he is highly focused on developing the W3 perspective of theory. In that focus, he may have missed some interesting insights. Significantly, he was a product of the modern age. That milieu is reflected in the linear structure of his three worlds model. His view of theory may have opened the door for the explosion of theory in the social sciences without necessarily advancing any specific theory. This is because he saw a theory as being comprised of and constructed by a set of axioms. He thought falsification of one axiom need not result in the falsification of another axiom. This view may have provided philosophical ammunition to scholars, emboldening them to revise theories by changing their axioms, almost at random. It seems strange to me that this approach would actually be acceptable to Popper (Popper, 2002, p. 113).

While, on the surface, this may seem a perfectly reasonable approach to some, demands for rigor should prevent such a disconnection within the bounds of a single theory. After all, if a theory is composed of two axioms, and one is falsified, the theory would no longer be a theory: it would be a single axiom. An alternative would be to replace the falsified axiom with a new one. However, in this example, that means half of the theory has been changed. Can we reasonably call that theory by the same name? I don’t think so. For a deeper discussion on the problems of changing theory, and the measurement of that change, see my discussion on “dynamic robustness” (Wallis, 2008b).

My thesis is that instead of holding ourselves to the nearly impossible standard of using empirical validation to create higher quality theory, we of the social sciences instead have been building and amassing higher quantity of theories. Drawing on and reframing Popper's idea of three worlds, I proposed a co-causal version of the three worlds model. I presented a range of possibilities for the validation of social theory including methods within and between worlds. Additionally, I presented a checklist style matrix for the easy validation of theory. Essentially, this matrix indicates that theories might be validated more effectively from the inside and the outside rather than one or the other. Finally, I tested that matrix in an analysis of a theory. In this, I have identified an important way to advance an otherwise admirable paper (i.e., Greenwood & Suddaby).

Because our theories shape the way we work in the world, the opportunity to purposefully advance a theory is also the opportunity to indirectly impel social adaptation and evolution. In short, by advancing our theories, we advance humanity and more.

Despite the apparent failure of the social sciences, there is progress toward success. The shared understanding of metatheory is advancing. For example, in addition to many other valuable insights, Whetten (2002) and Van de Ven (2007) both provide useful metatheoretical exercises for students. This is a significant improvement over the previous approaches to understanding theory because the ability now exists to engage in useful classroom exercises on theory creation where previously, that ability was tacit or non-existent. Such a capacity suggests that the understanding of theory has advanced to a particular level. On the other hand, this might also indicate that the opportunity exists for theorists to step back and not be so concerned as to whether a theory is good or bad, and simply note that the mass of theories that have been developed over the past century may now be described as data for metatheoretical studies.

When climbing a technically challenging mountain, such as Everest, the expedition establishes a "base camp" where supplies are easily stockpiled. At a convenient location, higher up the mountain, it establishes an "advanced camp" where climbers recuperate and get additional supplies ferried up from the base camp. Should the first attempt to reach the summit be unsuccessful, the next attempts launch from the advanced camp. Thus, a well-organized expedition does not lose valuable time and energy going back to the foot of the mountain to re-supply and re-energize: a more efficient way to make repeated attempts until the summit is reached.

In that spirit, I hope the model I present in this paper indicates how we can establish a conceptual camp for advancing theories. At such a camp, an evolving theory might gain energy from validation within worlds and falsification between worlds, on its way to the summit of empirical falsification. In short, I anticipate that increasing our capacity to understand theory will lead to improvements in theory, and so inform developments in practice for the benefit of many across many domains of life.

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Integral Evolution: An Interview with David Loye

Russ Volckmann

David Loye is one of those people that the longer you get to know them the more you begin to discover a bit of their depth and breadth of perspective and creativity in the world. His publications speak for themselves. His network with leading scientists and thinkers around the world is equally impressive.

Actually, my first contact was with David's wife, Riane Eisler, author of the Chalice and the Blade (among other books written with and without David). Despite the fact that they live over the hill from me, I did not meet her face to face right away. Rather, I interviewed her over the telephone for the Integral Leadership Review, which I publish and edit. When I first approached her about doing the interview she suggested that I should interview David, but I did not know David Loye's work at all. In that interview I discovered more about Riane's work and the extent of their partnership. In fact, they are prime movers of a partnership approach to leadership that they promote through a nonprofit center and in a Master's program at the California Institute of Integral Studies in San Francisco.

My conversation with Riane piqued my curiosity about David's work and I bought one of his books, Darwin's Lost Theory of Love. Here I found evidence of the extraordinary scope and depth of David's work that made him a natural candidate for an interview. The only question was would I use it in Integral Leadership Review or in Integral Review: such is the quality of his interests and intellect.

Before doing the interview, I borrowed a copy of one of David's earlier books. When I went to their house to pick it up I met them both. They are quite a team and I recommend their work to all.

—Russ Volckmann

Russ: *David, welcome to* Integral Review.

David: Thank you for having me.

Russ: *I know you have a background in psychology. I'd like to hear a little bit about the nature of your background and then explore where you've gone from there.*

David: Well, I started by going to the New School for Social Research during the evenings and got my masters and finally my doctorate. Then I had a brief time at Princeton as a visiting lecturer, after which I went on to UCLA School of Medicine as a research psychologist in the Neuropsychiatric Institute. I have a doctorate in Social Psychology, but my master's was in pre-clinical. That's roughly my background. I wound up primarily as a research psychologist.

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Russ: *And during what years did you do your degree at the New School?*

David: Oh, gosh, that was back in the Stone Age.

(laughter)

David: It must have been in the fifties.

Russ: *That preceded a lot of the work that was being done around more humanistic approaches to psychology.*

David: Yes, my grounding was primarily in Freud and Jung, but most importantly Lewinian Field Theory.

Russ: *Kurt Lewin's work.*

David: Yes. Kurt Lewin's work was the most formative thing for me. His work underlies not only social psychology but leadership training, as well.

Russ: *In what ways was his work influential on you?*

David: He was the first really true systems psychologist. There is no other psychology to match it. That's the reason it's been so influential. It wasn't hooked into just Gestalt or Freud or anything. It was a fluid, highly visual-oriented psychology that could be applied to all kinds of social, political and economic problems, problems in marriage and so on. He was a great innovator in action research, which has always been my passion.

Russ: *That underlies the field of organization development where I spent 22 years of my life, and apparently it related to work that you did as well. In what way were you involved in action research?*

David: My early work was in the study of right/left, liberal/conservative differences. I did a lot of experiments. One of my basic books in that area is called *The Leadership Passion: The Psychology of Ideology*. That was very definitely action-oriented. Ever since, practically everything I've written, I've wound up laying the groundwork for whatever the area was that I was looking at by pulling together what attracted me to the works of others. Ever since, I've always written a closing chapter or appendices or something that applies it directly, as Lewin did, to solving all kinds of social and economic and political problems.

Russ: *So this was an interest of yours as far back as the fifties.*

David: Oh sure. My first book actually was *The Healing of a Nation*. It was heavily action-oriented. It won top national awards and including one that earlier had been won by Gunner Myrdal for research on racism and how to eliminate it. It was the Anisfield-Wolfe award.

Russ: *What was the thesis of* The Healing of a Nation*?*

David: *The Healing of a Nation* didn't come out until 1971, at the climatic years for the whole civil rights push. It preceded the anti-war movement that came along later. It was the heyday for doing something about race.

Russ: *My senior paper in college in the early 1960s was about the impact of Gandhi's philosophy of Satyagraha on the civil rights movement in the U.S. We have some commonality there. And what would you say were the major theses or suggestion to come out of your book?*

David: I dedicated the book to Kurt Lewin and to the great black sociologist W.E.B. DuBois. I did two things in it. One, I took the perspectives of DuBois and Lewin and suggested what in terms of their work could make a difference in ending racism in America. The significance of that book within my total output from then on was in the title, *The Healing of a Nation*. The perspective is that we are a sick nation. We must take a social-psychiatric perspective on the healing of the nation. In it, I wrote my first "Program for a President" in which I took Lewin's work and fitted it in with my previous experience with television of how to actually fairly quickly move us ahead on the whole thing of racial differences.

Russ: *As we're both aware in the current political campaign, the whole issue of racism has been brought to the forefront once again. What were your recommendations and how have you seen them play out?*

David: My recommendations were primarily to launch what amounts to an electronic version of what became known as the Town Hall meeting, which was also hot back then. In politics it was later brought up by Ross Perot, but he didn't do much with it. Actually, no one has done much with it. Howard Dean picked up on part of the idea by launching the first really sophisticated use of the Internet, which Obama,, of course has perfected beautifully. That is the approach I was suggesting back in the early days of television.

Russ: *Of course John McCain has advocated the use of Town Hall meetings in the presidential campaign—*

David: Yes, but his Town Hall is just the old style. He's not using the power of technology and communication to link a whole nation together.

Russ: *Your recommendation preceded even the extraordinary communication capability of the Internet today.*

David: I had never thought of it that way. That's true. Oddly enough, back in that time, I sent the book to then-Vice President Mondale and he actually read it, which seldom happens when you send books to well-known figures. He wrote back that it was an interesting idea for that time, but politically unfeasible. And he was right. I later heard from Lyndon

Johnson, after he was president. He had read the book. I had complimented Johnson for everything he was doing to advance the racial picture and he was very grateful.

Russ: *How wonderful! What intrigues me about this early work is not only did you have an interest in action research methods and social psychology, which is already a field that bridges multiple disciplines from an academic point of view, but it also sounds like you were interested in politics and sociology and a variety of the social sciences. Is that accurate?*

David: Yes, that's why I finally found a home in systems science. But then in my own estimation, I went beyond what we think of as traditional systems science, which is fundamentally rather static. In other words, it's a reading of a problem from the perspective of all sciences—natural and social—and that's its great strength. It takes what is now fragmented and tries to put it all together in a total perspective. But what really liberated and excited me was to move on into what I'm now trying to define in my writing as evolutionary systems science where in addition to having the perspective of all the natural and social sciences, we bring that perspective to focus on a problem. We are seeing the problem in terms of past, present and future. We are seeing this movement from where it began, where it is currently and where it's going. This was very Lewinian-oriented and is to me the great excitement of the whole field is evolutionary systems science, which I got involved in with the General Evolution Research Group.

Russ: *It sounds like you were part of a larger movement that involved people from multiple disciplines in looking at evolution and its implications.*

David: Back in the days when Chaos Theory was just getting off the ground, it became the great strange attractor that pulled a number of us together. I wound up out at a secret meeting in Budapest. Ervin Laszlo, who went on to become maybe one of the best systems scientists in the world, had this vision of moving beyond the old Darwinian survival of the fittest-type theory and using chaos theory to move from chaos to order. So we met secretly in Budapest—scientists from behind the Iron Curtain and from the U.S. and Western Europe.

In the early days our General Evolution Research Group included people like Francisco Varela, Ralph Abraham and a number of well-known people in Hungary and Finland. Then later on Karl Pribram became a member. Riane Eisler was there with me, originally, and became a co-founder of the group. That was one of the most exciting and formative influential periods in my life, because I was able to work with top notch people in different fields: biology, psychology, sociology, political science, history and management science—there was a heavy orientation towards management science.

Russ: *As well as physics and biology it sounds like.*

David: Yes, absolutely. There's nothing like the subtle influence of all these different perspectives. You're hit with papers by these various people and you can't ignore all of them.

(laughter)

David: You're forced to read enough that your own mind's understanding begins to expand. Then, of course, in talking to them you're forced to be able to refer to Lovelock with knowledge. Prigogine was an honorary member of the group. You're also forced to read their works in order to converse with your associates in an intellectual way. It was a wonderful learning experience.

Russ: *In recent years, Basarab Nicolescu initiated an international movement. He is a Romanian physicist based in Paris. The movement is about what he calls "transdisciplinarity," and he and some colleagues wrote a manifesto about this. They are trying to promote the spread of transdisciplinary educational programs in universities around the world. He makes a distinction between interdisciplinary, multidisciplinarity and transdisciplinary. Interdisciplinary is essentially where people come and talk about a problem from each of their points of view. A multidisciplinary approach would be where you have multiple disciplines doing this, but a transdisciplinary approach is one where you in effect transcend the perspective of any one discipline and come up with a higher level perspective of the issue you're addressing.*

Does that sound like your work?

David: Yes, and it also sounds like the orientation of the leaders of what became evolutionary systems science from the beginning. They didn't call it transdisciplinary, but that's where they wound up. The great ones of the field literally transcended the disciplines and came up with the larger perspective. Maslow tended to do that within psychology and helped to launch humanistic psychology.

Russ: *Is that where you gained your interest in evolutionary theory and the work of Darwin?*

David: Yes, because the way I discovered the theory of Darwin was…well, I was learning all this fresh stuff about evolution that I had not known before. Back then, when discussing evolutionary theory, I would just routinely pop in a few references to some secondary source on Darwin. The deeper I got into it, however, I kept thinking, "Well here are these people who are damning Darwin for this 'survival of the fittest' stuff, and now selfish genes—the later generation of so-called 'Darwinians'—and are coming out with this highly selfishness-oriented 'survival of the fittest' theory." I thought, "What did Darwin really say?"

I discovered to my astonishment that the bulk of the people working in the field of evolution had only read Darwin from secondary sources. They were simply aping what they were told beginning early in the 20th century was Darwin. But the neo-Darwinians took Darwin and reduced him. It was a neo-Darwinian reduction that took hold of science and also strengthened that whole disastrous "survival of the fittest" orientation in society, particularly in politics and economics, with this diminished picture of Darwin. I discovered that what Darwin was actually saying is that it's natural selection and variation—he didn't say "random variation"—working and he apologized for using the phrase "survival of the fittest" which he got from Wallace.

Russ: *Essentially at that point in his work, he was talking about sub-human species, was he not?*

David: Yes, primarily he was talking about what set the whole thing in motion prior to human development. In the opening of the *Descent of Man* he tells us he's now moving on to look at human evolution. What happens at our level?

What they ignored is that in *Descent of Man* he writes only twice about survival of the fittest and apologizes once for using the phrase. But he writes 95 times about love and 92 times about moral sensitivity. What he is saying is that at the human level, the prime drivers are moral sensitivity. I dug further into it and discovered that not only did he flesh out a later theory of exactly how moral evolution developed stage by stage, but that was all ignored. I've never seen it tracked in the way Darwin intended except in my own work. It was just astounding.

Russ: *So in his later work, Darwin is saying that evolution is more than just about biology; it is also about psychology. Is that a fair statement?*

David: That's part of it. In his later years, it was psychology that primarily fascinated him.

Russ: *And it's from the psychology that we relate the moral and ethical development of human beings.*

David: Only in part. The great strength of Darwin is he articulates the whole growth and development rooted first in biology. He points out in *Origin of Species* that there are two ways that evolution happens. Organisms either developed by killing one another or by cooperating and working together. In the later book, as well as his early notebooks, he developed the idea of the development of the moral sense out of biology, which we now know as his definition of certain stages. It starts with the first appearance of sexual instincts, then parental instincts, then social instincts over millions of years at the mammalian stage. It then moves on to the evolution of emotion and reasoning, which evolved in higher mammals and humans. He roots it in the whole movement—biology in cultural evolution includes psychology as a field that could begin to understand what was going on more intimately.

Russ: *Then it would be fair to say that the evolutionary perspective, including that of moral development, involves a biology, the conscious and unconscious aspects of psychology, as well as the life conditions that people are engaged with in terms of social evolution, is that correct?*

David: Yes, yes! One of the stock phrases today in the social and natural sciences is the idea of self-organizing processes. This was Prigogine; this was Varela and Maturana and a good friend of mine, Vilmos Csanyi, who's a leading Hungarian biologist. The emphasis on self-organizing processes was in Darwin originally and ignored. He emphasized repeatedly that the organism has this capacity for choice. It isn't simply that the organism is shaped by external forces like natural selection. This process outside the organism selects out of variation in what it's going to allow to prevail. But he also is emphasizing that the organism selects its own destiny out of the platter offered to the organism. This was totally ignored, literally, by everyone I know. That's one of the things I really bear down on in my work.

Russ: *You've written quite a bit about this. The book I'm most familiar with is* Darwin's Lost Theory of Love. *You've also published other works such as* Darwin's Lost Theory, Darwin in Love *and more recently* Bankrolling Evolution *and* Measuring Evolution. *So this whole idea of evolution has continued to be central in your work.*

David: To me, it's absolutely essential. In a sense, what we're going through is science trying to grow up to reach the level of positive spirituality at its best.

Russ: *That's a fascinating concept.*

David: Take Jesus or any of the great spiritual visionaries. They had an intuitive feeling for transdisciplinary systems of science. They had an intuitive grasp of the process of evolution. In the case of Buddhism and Hinduism, they go beyond and embrace the entire life/death span within a larger picture of reincarnation and karma. That's the direction in which science is now moving. It's trying to substantiate this larger picture of life, of death and of life embracing death and moving on through time.

It's a magnificent perspective to get into. The more you get into it, the more you see that we are still in a baby step phase in mainstream science. For instance, my close friend Ervin Lazlo has been writing for years now about the Akashic field and all the sciences supporting the theory of an Akashic field—holographic brain theory and all sorts of different theories and evidence supporting the idea. He's now got a new book coming out in January called *The Akashic Experience* in which I've got a piece on my own investigation of a past life. It's out on the fringe with people who are not afraid to explore the paranormal that science is moving. And, as I say, science is beginning to reconnect with and try to catch up with the non-scientifically verified, non-scientifically grounded, but intuitive vision of the great Avatar.

Russ: *Ken Wilber talks about the traditional sciences with the insistence on measurability or observability as "scientific reductionism." Interestingly enough, it's out in the world of science that new ground has been breaking over the last few decades that charges us to be looking at life and experience in the world and the universe from a far greater and more complex perspective. I'm reminded of David Baum's notion of the implicate order. Lazlo's Akashic field is another example. So are Ralph Abraham's work with self-organizing systems and other applications of chaos and complexity theory. All of these point to a movement that I think is about what you're describing.*

David: And one of the central points is a matter of passion with me, because I have a long background in measurement. Wilber can knock measurement, but that's because Wilber had no training in scientific measurement. He never had to learn statistics or run an experiment. He worked entirely out of books and the power of cognition. The great power of science from the very beginning with Galileo has been the power of measurement as a means of verification. I've developed a number of measures. Currently, I have a measure that pulls all this together—the whole evolutionary system, including the science perspective and an understanding of evolution in terms of 15 basic indicators of evolution. I developed an instrument I call the Global Sounding. I explain it in *Bankrolling Evolution* and in *Measuring Evolution*, a guide for using it. Once again, within my perspective, it's action research. This instrument has a way of putting all of this to use. It can be applied to any program, any project, and assist us to reach a decision on whether that program or project will advance us, check us in place, or drive us backward in evolution.

Russ: *Ken Wilber's background was in science before he went off on his more esoteric directions, and I would think that what he would say is not that measurability is not important, it's just not the only thing.*

David: I had in mind the traditional grounding in science involving experiments, statistics, mathematics, which I would be surprised to learn he really had. This is not the discount the fact his is a brilliant exploration pushing science in vital new directions.

Russ: *What you've done with the Global Sounding is at least come up with some indicators that we can look at and assess what's going on in terms of levels of evolution. Can you give an example of the indicators and what you mean by "self-actualizing?"*

David: I take 15 indicators and the science supporting each one of these indicators. I start with cosmic evolution, chemical evolution and then biological evolution on the natural scientific level. There's a transition—the evolution of the brain is the step beyond that. Then you enter the range of cultural evolution with psychology, sociology, political science, economics and technology. The great power of this instrument is that I added an indicator for moral evolution, which to me is critical—spiritual evolution, evolution of consciousness and evolutionary action at the top. In other words, what is the purpose of gaining a doctorate or going to school or writing books if you're not going to put it to use in trying to make life better? So that's the orientation.

Russ: *You're suggesting that the evolution of the brain is being studied in terms of historical evolution as well as in the lifetime of an individual?*

David: Yes. I formed the Darwin Project with a founding council of over 50 leading American, European and Asian scientists. Among the founders were Paul MacLean and Karl Pribram, the two greatest living brain scientists. MacLean's work definitely tracks evolution in all the subspecies, stage by stage, to the human. Then, in the human the whole development of this can be found in MacLean's book, *The Triune Brain*. It's also in Karl Pribram's writings to a certain extent.

Russ: *Then is it fair to say that for individuals there are stages of development in one's lifetime?*

David: Oh, yes. I particularly write about the stages in moral development. Piaget did magnificent work. Kohlberg took a crack at it and advanced it in many ways, but blocked it in others. Then Gilligan came along and advanced out of the Kohlberg bind on sex and gender.

Russ: *Have you looked at Robert Kegan's work or Jane Loevinger's work?*

David: Minimally. I'm mainly grounded in Erikson.

Russ: *Is this because ultimately it's more about the development of the moral and the spiritual and consciousness aspects that intrigue you?*

David: Yes, it very definitely is. You can't know everything or try to know everything, so I'm focused on moral development.

Russ: *Are there stages that you see that are useful to think about in moral development?*

David: Yes, and I'm trying to think how you'd characterize that. I've written about this in a book of mine called the *River and the Star*, which is actually the first book for my seven-book "Moral Transformation Cycle." The first book is *River and the Star: The Lost Story of the Great Explorers of the Better World*. It's possibly the best thing I've ever written. It's out there with all the online booksellers worldwide. I write about Piaget, for example. Today, we've focused on the cognitive development he wrote about and forgotten about the moral development work that came earlier, but it was the most brilliant of all.

Russ: *Interesting. So Piaget is another example of someone who has written about moral development—not just Darwin—and that portion of their work is being ignored.*

David: Yes, and that's what I'm addressing in the *River and the Star*. I start with Immanuel Kant. Who really pays any attention to him except for dull philosophers these days? But he was a fireball! I move on to Herbert Spencer. Everyone writes him off as this right-wing ideologue. Well, he had some very important things to say about moral development. Marx and Engels—they're the demons, you know—but they significantly advanced our understanding of moral development. I go into Freud and Emile Durkheim, who is one of the towering figures in the study of moral development, then on to Piaget and into the work of many people who I've worked with or knew, like Ashley Montague and Milton Rokeach. I used to work with Milton and it's a magnificent story. And I include all of that work, except for the most recent, Carol Gilligan's, because she's still living and tied to the Women's Movement. Hardly anybody pays any attention to it anymore so I'm determined to shove it at them.

(laughter)

Russ: *And you really do. In* Bankrolling Evolution*, if I can quote in the last chapter you say that there is a list of suggestions "…for healing through progressive political action, progressive money, progressive science, progressive education, progressive entertainment, progressive morality and progressive spirituality. To this pharmacopeia, we must add the case made in this book for the inevitability controversial but now essential development and use of a new psychiatry and management science of evolution." Tell us about that if you will.*

David: That's quite a mouthful.

Russ: *I know!*

(laughter)

David: I got into the psychiatry of evolution during *The Healing of a Nation*. We had to move beyond simply a psychotherapist with an individual or group or family as her client and look at the whole nation. In that book, I get into pointing out the pathology that we have tolerated, enabled and followed in the case of Bush. Here's a psychological basket case when you know his make up in psychiatric terms, which I include in that book. I also probe the pathology of his enablers and followers of which so much emerged during the McCain-Palin campaign for the presidency. I show how what we endured during the eight years of the Bush administration was the eruption of the pathology of the third generation of the people originally studied by Adorno, Frenkel-Brunswik and Levinson and Neville Sanford in the famous authoritarian personality study.

Russ: *Yes, it came out of World War II.*

David: Right, the Bush years' disaster also reflected the findings of Stanley Milgram on obedience to authority—

Russ: *These are the Stanford studies you're talking about.*

David: Yes. The Bush years also reflected the studies of Solomon Ashe on conformity. Of course it wasn't simply Milgram and Ashe. There were hundreds of psychologists and sociologists exploring this widespread social sickness. They were warning that, as a country, we had to do something about this, because we had, in my terms, this sick subpopulation, originally called "the lunatic fringe of the right wing," which became strengthened through the coup of the past 30 years that took over the country, culminating in the Bush-Cheney disaster.

The point I'm getting at is we can't afford this sort of thing any longer. We have to institute a new healing-oriented approach to the sickness of the nation, America, that involves healing the rest of the world. This is one reason I'm pushing Obama: because Obama by nature is a healer. Biden is also a healer by nature. It's healers versus dividers at this point. That's what I'm getting at. We have to launch a new science that is sensitive to the emergence of pathological leadership, pathological enablership and pathological followership and that warns and educates the nation against ever again being suckered into the snare of these people. We have to strengthen and more greatly empower the progressive vision. This is the need I write of in *Bankrolling Evolution* and *Measuring Evolution* for a psychiatry of evolution.

Russ: *You also write about a management science of evolution, which parallels this in the areas of business and organizations.*

David: Exactly. You can have a psychiatry of evolution and you'd have this vast exercise involving a bunch of very bright academically-trained people who are not forced by interest or circumstance or tradition to get down there in the trenches and work to make things better. They're also people who have been oriented for at least a century now in the healing of the individual, the group, the family, etc. The idea of sending them out to heal a whole nation—why, that's just screwy to them. But it's not to the management science orientation.

The beauty of the whole field of management and organization science is that it's action-oriented. Take the problem and bring together whatever's needed to solve that problem and you get paid for it. The academics get paid for teaching whatever limited understanding they have to a fresh crop of little people who are yearning for a larger picture. What they get too often is a succession of tame disciples imprisoned within barriers to the larger vision. To me, you have to have both.

Russ: *Management science then is the part that corresponds to action, which has such preeminence in your work.*

David: Yes.

Russ: *In terms of the future—both in the way we are developing and evolving and thinking about thriving, if you will, in the universe—what do you see as being the greatest indicators of potential success?*

David: The greatest indicators of potential success are the ones we have to hang onto these days, because we can work our rear ends off and still go down the drain—

Russ: *I know. I'm looking for a little hope here.*

(laughter)

David: To me the hope is all these bright people coming into the picture. My wife, Riane, is now doing coursework with students at California Institute for Integral Studies and I see them. The kind of people that are being attracted to CIIS and in pockets to universities all over the world are young people who come in and they see that the elders are in that secure position of knowing that they won't be around when the world goes down the drain. But the young ones say, "Hey, if I'm gonna have a good quality of life, I need to do something about this!"

The older generation is just not doing it. And that's our hope—and it's not just the young ones. That's why what is going on at CIIS and at other places so greatly interests me. The pattern is for people to be involved who've been in business or in all kinds of activities during the years when they had to make a living and raise a family are now middle-aged. They've gone through a divorce, the kids are grown and gone, and they have the freedom at last to change. What they want to do is go back to school, get their degrees in order to jump in with the younger generation and work like hell to save our species and the planet from eventually going down the drain under all these challenges.

Russ: *If the hope is that more and more people, young and old, are turning to try to find more of what I call holistic or progressive solutions to the problems we're facing in the world, what are the things that you think would be most important for us to be focusing on in terms of our development as a culture, as a people?*

David: To me, the name of the game is moral evolution. I can track every problem we face today and at the root is a lack of moral strength. It used to be called character. It's a grounded sense of right vs. wrong. Some people may think that's right-wing. Part of the problem is the conservatives have seized up the word "moral" and are trying to club everyone else with it by saying they are moral and the rest are Satan's spawn.

I'm talking about progressive morality, progressive moral sensitivity, progressive moral evolution, not check-us-in-place or drive us backward morality. We need to get this into the schools. Kohlberg tried to do this. You run up against the separation of church and state requirement of the Constitution, which is essential. But we've got to get progressive moral education into homes and schools K-12 into the collegiate years.

It's not there now, except in pockets—theological seminaries or special courses—it's very rare in college. Where the courses exist, they are in the evangelical, right-wing colleges. What galls me is the people who have been the ruination of this nation have had this tremendous training in regressive morality. It's mirrored in the Islamic world of these radical, right-wing schools. They have this generation after generation repeated grounding in the regressive code of morality. We have to develop a comparable system for this type of thing in the progressive schools.

I cover this problem and solutions from I believe A to Z in the six books of my "Darwin Anniversary Cycle" and the seven books of my "Moral Transformation Cycle," most particularly in the "Glacier and the Flame" trilogy. There I differentiate dominator moral insensitivity and dominator morality from partnership moral sensitivity and partnership morality in relation to Riane Eisler's fundamental work on domination and partnership systems. That is what we have to get across. Today, we live in this hybrid world where we're hit with both versions; we're muddled and mixed up. You go to church on Sunday, you tithe and go there on the holidays. But in the meantime, the other six days of the week, the orientation is screw your neighbor. Instead of "Do unto others as you would have them do unto you," it has become, "Do unto others before they can do it unto you." That's the regressive dominator morality.

Russ: *David, there are so many different avenues we could explore and one of the things I deeply appreciate is your ability to reach out and hold multiple perspectives.*

David: Thank you. In the book, *Measuring Evolution*, in terms of action-orientation, I take the Global Sounding measure and show how it can be used in specific scenarios relating to business, government, politics, foundations. Leadership in all of these areas is confronted with mountains of projects and programs clamoring for money—how do you differentiate between those likely to advance human evolution versus merely check us in place, which can be disastrous these days, or those likely to actively drive us backward in evolution? The Global Sounding allows you to carefully calibrate the differences between two good projects as well as the good and the bad.

I've also developed the Global Sounding Moral Code. I've taken each of the 15 indicators and translated them into a scientific global ethic to provide a code for how to advance yourself, advance the world and advance your children, morally.

Russ: *What is the article that you're including in Laszlo's new book in dealing with a regression into a past life.*

David: It's an article called "Return to Amalfi." I've written a book with the same title, which I'm rewriting into a second edition now. I tell of my first visit to Amalfi in Southern Italy in order to investigate whether I lived there 300 years ago as an Italian spice merchant. It checked out. I'm convinced.

Russ: *Where did you get the idea that you had lived there in an earlier life?*

David: I went through a past life regression—you know, we psychologists can do these weird things.

(laughter)

David: I got curious about past life regression and the one that intrigued me the most is I'm a spice merchant in the year 1611 in Amalfi, Italy. One of the things that grabbed me about it is, if I'm just making this up, why didn't I make myself up as Michelangelo or somebody more famous? Why would I pick the life of an obscure spice merchant in Amalfi, Italy? I went there and found that, by gosh, an awful lot of it rather hauntingly checked out.

Russ: *Can you give an example?*

David: In the session, I saw this town on the side of a mountain with a succession of green plateaus and red tile roofs going down to the ocean. I had been to Italy before, but had never seen anything like that, because I was in Northern Italy. I asked an Italian friend about it and he said that would be Amalfi. I went there and that was it. In my visioning, I also saw the harbor where the dock was that went out into the bay. I went there and it was the same exact thing. I found confirmation of the stones underfoot; the gradation that I saw originally was there. All of these things were substantiated by certain things that have happened in history. It was a revealing experience.

I discovered through going there and doing some historical research that I could even develop a sophisticated psychological portrait of the situation of that spice merchant in 1611 and why he felt so strongly about certain things. He hated the church and doctors and the upper class. I found the reasons in history for exactly the emotions and the actions of this particular spice merchant in Amalfi at that time.

Russ: *So you actually ended up encountering the dominator model in that past life?*

David: Yes, and I was able to relate it to Riane's work in *The Chalice and the Blade* and the books on the historical and pre-historical picture of the clash between the partnership and the dominator ways of life.

Russ: *How has that experience impacted your work today?*

David: Well it has convinced me beyond a doubt that in gross, simple scientific terms, we've been taught for about a century now that everything we are consists of the influence of genes and of environment. I now know we are the product of genes, environment and past life.

Russ: *That's fascinating and I'm looking forward to reading the book. By the way, Ervin Lazlo is on our board for* Integral Review *and I'm sure he'll be interested in reading this interview and the kind things you have to say about him.*

David: Yes, I hope he will.

Russ: *Well, thank you very much.*

Note: Following is an appendix with a sample of Loye's Global Sounding.
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The Global Sounding

How to use It In business, government, politics, science, education, writers, the media, nonprofit and religious organizations, and philanthropists and foundations

The Global Sounding is designed to be used as a leadership guide to the investment of time and money in all of the above and other situations calling for the *right* decision in our lives today.

Focus on whatever cause, project, or policies you are considering putting time and/or money into. Then follow these steps using the Global Sounding User Form.

1. Write down cause, project, or policy in the bracketed blank at the top.

2. With this subject in mind, scan down through the Indicators of Progression (+) and the Indicators of Regression (-).

3. For each level or activity of evolution (first column), ask yourself whether by investing time or money into the proposal for testing (your entry in the blank at top) you are likely to influence evolutionary *progression* (second column).

Or evolutionary *regression* (third column).

Or neither.

Or the question at this level or activity for evolution is just not relevant in your case.

4. If it seems the proposal might influence evolutionary *progression*, in the fourth column enter a plus (+ 1) in the blank.

5. If it seems it might influence evolutionary *regression*, in the fourth column enter a minus (– 1) in the blank.

6. If it is hard to guess whether it would be of influence either way, or otherwise seems irrelevant, enter zero (0) in the blank.

7. At the end, add up your pluses, minuses, and zeros, and enter the result in the blank for the Global Sounding Total.

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The Global Sounding
Blank Form for Universal Use

[[______________________________________]]

Levels of evolution	Indicators of progression (+)	Indicators of regression (-)	Enter impact (+, -, 0)
Cosmic	Sustainability of complex life forms	Environmental devastation	______________
Chemical	Gaia hypothesis/ symbiosis	Environmental devastation	______________
Biological	Health and longevity	Environmental devastation	______________
BRAIN	**Parental love and nutrition**	**Lack of love and nutrition**	______________
Psychological	Self-actualizing	Lack of fulfillment	______________
[Cultural]	High priority for arts	Low priority for arts	______________
Social	Freedom and equality	Control and inequality	______________

(continued)

Levels of evolution	Indicators of progression (+)	Indicators of regression (-)	Enter impact (+, -, 0)
Economic	Balanced private/public	Imbalanced private/public	_____________
Political	Democracy	Authoritarianism	_____________
Educational	Capacity for learning and independent thinking	Curtailing of facilities for learning and independent thinking	_____________
Technological	Emphasis on technologies of actualization	Emphasis on technologies of destruction	_____________
Moral	Living by the Golden Rule	Power of greed and corruption	_____________
Spiritual	Sense of identity with humanity and greater being	Slavery to materiality	_____________
Consciousness	Cognitive, affective, and conative scope	Curtailing of scope of mind	_____________
ACTION	Encouragement of progressive social action	Repression of progressive social action	_____________
	GLOBAL SOUNDING TOTAL		_____________

The Global Sounding
Matrix for Pilot Test of Regressive
G.W.Bush Years Policies

Levels of evolution	**Indicators of progression**	**Threats and indicators of progression**	**Regressive syndrome policies**
Cosmic	Sustainability of complex life forms	Environmental devastation	Opposition to environmental action and global concern
Chemical	Gaia Hypothesis/ symbiosis	Environmental devastation	Opposition to environmental action and global concern
Biological	Health and Longevity	Environmental devastation	Opposition to environmental action and global concern
BRAIN	**Parental love and nutrition**	**Lack of love and nutrition**	**Minimize governmental support**
Psychological	Self-actualizing	Lack of fulfillment	Maximize defense, minimize growth
[Cultural]	High priority for arts	Low priority for arts	Minimize support for arts
Social	Freedom and equality	Control and inequality	Maximize control and inequality

(continued)

Levels of evolution	**Indicators of progression**	**Threats and indicators of progression**	**Regressive syndrome policies**
Economic	Balanced private/public	Imbalanced private/public	Maximize imbalance thru privatization
Political	Democracy	Authoritarianism	Oligarchic probe toward authoritarianism
Educational	Capacity for learning and independent thinking	Curtailing of facilities for learning and independent thinking	Radical de-escalation for progressive education
Technological	Emphasis on technologies of actualization	Emphasis on technologies of destruction	Radical escalation for the military
Moral	Living by the Golden Rule	Power of greed and corruption	Living by the Brass Rule
Spiritual	Sense of identity with humanity and greater being	Slavery to materiality	Celebration of absolute power of wealth
Consciousness	Cognitive, affective, and conative scope	Curtailing of scope of mind	Devaluing scope of mind
ACTION	Encouragement of progressive social action	Repression of progressive social action	Encouragement of *regressive* social action

The Global Sounding Moral Code

A translation of the fifteen basic indicators into equivalent tenets for a new Global Ethic

1

Honor and respect rather than plunder and rape our living
environment.

2

Honor and respect Earth as the Mother of us all
rather than sell her into slavery.

3

100 years of science tells us Earth can still provide the
resources for health for all of us if given a fair
and practical human distribution system.
Establishing health systems for the many rather than
the chosen few is the moral requirement,
and must be our goal.

4

100 years of science tells us that a healthy brain and
healthy mind depends on adequate food
and love in childhood.
Thus nurturing and expanding, rather than
starving and blighting, is the moral requirement
for the feeding of brain and mind,
which must be our goal.

5

Mind is the precious gift of life to be nurtured, enlightened,
and celebrated, rather than orphaned at birth and
thereafter degraded and exploited.

6

Culture is *the most precious gift of evolution,*
to be cherished and nurtured in the wonder of its diversity,
rather than seized, shucked and twisted to serve low ends.

7

Over thousands of years freedom and equality have been
and will remain the most precious goals for evolution,
rather than just words to be used by power-mad
deceivers to sell control and inequality.

8

Three hundred years of capitalism and two hundred years
of communism have shown us that a fair, peaceful, and
practical distribution of Earth’s bounty requires
a balance of public and private governance,
rather than the breeding of misery, war, and
corruption with a shift in overwhelming
power to one or the other.

9

Democracy,
rather than the sham of the oligarchy of
wealth, the creep by stealth toward
fascism, or the prison of
any other form of tyranny, is a moral requirement,
and must be our goal.

10

Education for all,
rather than the fact of good schools for some
and bad schools or no schools for all
others, is a moral requirement,
which must be our goal.

11

Develop technologies to strengthen and expand the voices
of caring and reason and the abundance of life,
rather than technologies that ever more
powerfully threaten to, and indeed then
are driven to, launch and kill life

12

Differently stated but the same for all, the message
of thousands of studies of progressive science is exactly
the same as for thousands of years for progressive religion:
Do unto others as ye would have them do unto you—rather than
do it unto others before they can do it unto you.

13

Affirm our identity but also our responsibility in tandem
with a greater being, a greater reality, or a greater
mission, rather than fool yourself by claiming
some one and only holy being, idea, or cause
for your own low ends.

14

The most precious gift of evolution is consciousness.
Love, nurture, and expand it, rather than
automatically seek to narrow, blunt,
or otherwise slap it into shape
and seize the pitiful remnant
for your own low ends.

15

For over 100,000 years the choice before our species
has been unchanging. Either join those who take action
on behalf of the better world, or fall back in shame or ignorance
with those willing to sell out to the highest bidder and
join the march to extinction.

From *Measuring Evolution:* A Leadership Guide to the
Health and Wealth of Nations, by David Loye.
Benjamin Franklin Press, 2007. © David Loye 2007.

The Toxic Effect on Children of a Degraded U.S. Society, Family, and Educational Context: How Will This Nation Respond?

Carol Hoare

Abstract: This paper explores the relationship among conditions in U.S. society and families and U.S. educational achievement data. Such information, along with related data from 30 OECD countries, shows a marked decline in the U.S. as a context for child development and learning. The focus of the paper is on indicators of decline. Data from the *2008-2009 Measure of America* Human Development Report of the Social Science Research Council, as well as related economic and educational data, are highlighted. A point elaborated throughout is that schools are but a microcosm of society, and that they alone cannot rectify educational deficits. In the concluding section questions are posed about the will of U.S. citizens and representative institutions and groups to engage in serious change efforts.

Keywords: Achievement rates, American competitiveness, human development, literacy, school drop-out rates, foreign competition

Introduction

When one reads the latest Human Development reports, related economic data, and various reports on the problems of U.S. educational systems, our decline as a country is apparent. This decline is no longer in the future as some might claim but is our present and worsening condition. If we temporarily set aside the 2008 global financial crisis and its immediate effects, markers of this society's deterioration have been with us for some time. The overall context for child and adult development, good health, learning, and economic sustenance is in trouble. In this brief article, I focus on indicators of decline in educational achievement, societal markers of deterioration, and the degradation of the family as the child's bedrock for growth and development. A complex relationship exists among social and family conditions, children's needs for nurturance, structure, examples of deferred gratification, and a work ethic, deteriorations in public education, and the skills needed by the American workforce. All are essential to national development. Yet together they paint a picture of elapsed achievement needs and toxic, troubled waters for our children and society.

Two overarching points anchor this article. First, we live in a criticizing society, one in which it seems that blame must be cast on one institution or another. As Erik Erikson (e.g., 1968, 1975) held, adult humans are the moral and moralizing subspecies. Too quickly, we judge individuals and groups, failing to first ask what observed behaviors mean. When we judge, criticize, blame, and propose remedial help as the first order of business, we fail to study and grasp the complete phenomenon and its meaning. In the process adults often project their own feared deficits onto other individuals, groups, and institutions (e.g., Hoare, 2002). With respect to public education, some experts have too easily separated institutionalized educational endeavors from other

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contributing factors, and have been far too quick to blame schools alone. Other experts have recognized the panoply of externally induced disorder but believe that the school can remediate society's and the family's problems. The American public school, with more on its plate each year (e.g., immunization clinics, custodial after school child care, security requirements) has its share of difficulties. Yet it alone is not responsible for U.S. problems nor can the school alone solve them.

Second, each nation's children are a mirror to their society, to its current condition, achievements, promise, and deficits. Along with the elderly, poor, and disenfranchised, youth comprise the vulnerable among us, those who most need protection and nurturance. Children are our future, those whose gift of innocence shows adulthood as but a deficit condition, especially lately. In his last book, the late Urie Bronfenbrenner (2005) cautioned, "The major social changes taking place recently in modern industrialized societies, especially the United States, may have altered environmental conditions conducive to human development to such a degree that the process of making human beings human is being placed in jeopardy" (p. xxvii).

In particular, Bronfenbrenner held that the family had largely become a "chaotic system," one in which "frenetic activity, lack of structure, unpredictability in everyday activities, and high levels of ambient stimulation" are daily experiences (p. 14). At best, such family conditions place youth in serious jeopardy, dimming their ability to concentrate when in school and study well at home. At worst, youth engage in substance abuse and risky sexual behavior. They drop out, run away, and commit suicide. With respect to drug use, for example, Friedman (2006), cited data showing at least a 50% illicit drug use among recent high school completers. Street drugs are now supplemented with illicit parental and internet-obtained prescription drugs. Interpreting large scale national surveys and follow-up interviews with teens, Friedman found that youth drug use meets both their recreational and practical needs. Recreational needs are met with "Pharm" (pharmacological) parties where street and prescription drugs are often combined. Practical needs are met with stimulants to bolster school performance, hypnotics to induce sleep, and tranquilizers to reduce stress. Teens are emulating the behavior of their role model parents and other "adults."

With these points before us, we look to the societal and family problems and effects that place children in jeopardy for achievement and related problems. As for all of us, children live in an ecological niche that variously supports health, learning, and various forms of development. Parents, peers, extended family, neighbors, and others are part of that niche. The school too, with its calm or violent students, clean or debris ridden halls, and caring or cantankerous teachers, is part of youth's overall environment. For a number of good reasons American public education, its professionals and students, is in the limelight. Drop-out rates have risen, precarious conditions exist in "failing" schools, many teachers are substandard or are teaching subjects they have not mastered, and inflated bureaucratic costs curtail actual resources that students receive. These serious problems require sustained attention, but schools do not bear the full brunt of responsibility.

One way of considering a range of data regarding U.S. educational and related conditions is to compare this country with other affluent nations. Another is to examine data within the U.S. alone. We begin here with international indicators and then move to within-country conditions. First, therefore, how does the U.S. fare internationally?

Human Development Indicators: U.S. Comparisons with Other OECD Nations

For a number of years, international human development information has been compiled by the Social Science Research Council (SSRC). Its data are fundamental to the international comparisons examined in this paper. The SSRC, in its most recent volume *The Measure of America 2008-2009,* largely reports comparisons among 30 Organization for Economic Co-operation and Development (OECD) countries. The *Measure* report takes the position that the most frequently used indicators of U.S. development are inadequate. Gross Domestic Product, (GDP), Gross National Product (GNP), stock market performance, consumer spending, international trade performance, and similar indicators provide information about American life and competitive success. But these lopsided, “alienated variables,” important as they are, spotlight fiscal and resource comparisons which incompletely characterize a nation’s overall quality of life (Burd-Sharps, Lewis & Martins, 2008, p. xi). The SSRC looks to a wider array of indicators of the lives of U.S. citizens. These include social, environmental, educational, health, economic, psychological, equality, and other conditions that form the basis of daily experience.

The SSRC uses three broad criteria of individual development: (a) a healthy, long life (e.g., safety, good life expectancy, low infant mortality); (b) access to learning and knowledge (e.g., literacy and high school completion rates); and (c) a decent standard of living (e.g., median income). Using these three major Human Development criteria, the U.S. shows an overall decline since 1980. Among the 12 top-rated countries on the “global” index of Human Development, the U.S. fell from second place in 1980 to twelfth place in 2005. The global rating is based on data showing the effectiveness of countries to convert income into favorable health, safety, educational, and life expectancy outcomes for citizens. In twelfth place with respect to this effectiveness-of-conversion standard, the U.S. is now behind Australia, Canada, Finland, France, Iceland, Ireland, Japan, Netherlands, Norway, Sweden, and Switzerland.

Parsing several specific indicators that comprise the global rating, life expectancy, health, safety, literacy, and educational achievement markers are paramount. With respect to life expectancy, personal health is included in longevity. For example, obesity is a key predictor of poor health and diminished longevity, and obesity among U.S. children and adults has escalated dramatically in recent years.

In life expectancy calculated from birth, in 2005 the U.S. ranked 24th (77.9 years) among 30 OECD countries. Japan is first with the greatest life expectancy at birth (82.1 years). Among those same 30 countries the U.S. ranked first in 2005 private and public dollars spent on health care per capita ($6,401). Japan, ranking first in life expectancy among the OECD nations, spends far less ($2,358 per capita), ranking 19th in per capita health care expenditures. U.S. health care costs have soared and the return on investment plummeted. Yet 47 million persons in the U.S., about 16% of the population, lack health insurance. Although conditions vary by ethnic and racial grouping, by State, and by Congressional District, among those most at risk, in 2008 African Americans have nearly 97,000 excess deaths per year compared with Caucasians. They have shorter life spans today than all Americans in the aggregate had in the late 1970s.

The SSRC Human Development index of life expectancy includes an assessment of the aggregate population and of racial and ethnic groups. Its life expectancy composite ranking is based on actual life expectancy at birth, percent enrolled in school, percent completing high school, percent with a Bachelor's degree, percent with a professional or graduate degree, and median earnings. Using these combined criteria U.S. Asian Americans rank first, Caucasians second, Latinos third, American Indians fourth, and African Americans fifth. Asian Americans constitute only about four percent of the population but outperform their U.S. peers at all levels. As Abboud and Kim (2006) claim, their success is based on the ways Asian Americans are cared for and brought up and the instillation by their parents of a love and desire for learning.

With respect to safety, homicide rates are one indicator of safe environments. The U.S. homicide rate is nearly five times that of the OECD average. If the U.S. and Japan showed equivalent homicide rates, the U.S. would have had 1,500 homicides in 2003 instead of 15,000. Other data on child safety and health place the U.S. at the bottom of 24 OECD countries. For example, the U.S. infant mortality rate, that is, death prior to the end of the first year of life, declined for five decades but has gone into a holding pattern. Infant mortality rates in the U.S. are now approximately that of Croatia, Cuba, Estonia, and Poland. If the U.S. infant death rate were the same as Sweden's, more than 21,000 babies each year would reach their first birthday.

Literacy of a population is prerequisite to access to knowledge, better health, improved longevity, and a superior standard of living. Across all 30 nations, high life expectancy, good wages, low infant mortality, and low birth rates are the result of high societal literacy rates. Plotting from age 35 until death, each additional year of schooling increases life expectancy nearly two years (Burd-Sharps, Lewis, & Martins, 2008).

Achievements in adult basic education are workforce and life success factors for many individuals. In 2002, 40 to 44 million adults, 21 to 23% of the adult population, functioned at Literacy Level 1, the lowest literacy level of the National Adult Literacy Survey (NALS). At this skill level they cannot add well enough to compute the purchase costs of several items, read a medicine label, interpret bus schedules, or enter personal information on an application. Another 20% function at a somewhat higher eighth grade level (Wedgeworth, 2003, 2004). Assuming a best case 70% high school or General Educational Development (GED) completion rate in this population (Grey, 2008) and 40% who are functionally illiterate, it is clear that secondary school completion does not guarantee literacy.

Low educational achievement among parents (which correlates with low literacy and other substandard skills), is bequeathed by parents to their children. This trickle down effect buckles children's chances in academics, high school completion, and, later, job access and performance. As the scores of third, eighth, and 11th graders show, children of parents without a high school diploma are the poorest performers on reading assessments. Children of high school completers consistently perform better, and children of parents with education beyond the secondary school level perform best. Wedgeworth (2003) found that these relationships have not changed since 1971.

These and other data lead one to conclude what has been clear for some time. Parental participation in literacy programs leads such parents to place a higher value on education than non-participants. Parents who engage in literacy programs pass educational achievement values along to their children. Increasing literacy due to parental participation in adult education programs also results in increased parental participation in their children's schools, heightened achievement among those children, less school absence, increasing scores on intelligence tests, and higher rates of high school completion (e.g., Wedgeworth, 2003).

In secondary school and college completion, the United States, once first in the world in literacy and graduation rates from high school and college, now lags other nations. In 2004, U.S. high school graduation rates trailed six other countries: Canada, Finland, Japan, Norway, Sweden, and Switzerland. The decline in the U.S. is cohort specific. For example, when Goldin and Katz (2008) compared secondary school completion rates of those in the age group of 25 to 34 years against those 55 to 64 years of age, in 2004 the U.S. ranked first among 20 premier OECD nations when the older cohort was considered, but seventh for the younger cohort.

The U.S. is also behind in high school quality standards. As Goldin and Katz hold, international math and science knowledge represent the “gold standard.” Results of the 1995 Third International Math and Science Study (TIMSS) found the U.S. lagging in mathematics and science knowledge at the twelfth grade level. Among 20 nations in the TIMSS, scores of students in 14 other countries were markedly higher than those of graduating seniors in the U.S. In 2003, the Program for International Assessment (PISA) found that 15 year-olds in the U.S. were considerably less knowledgeable in problem solving, math, and science. According to PISA results, the U.S. placed below the average of OECD countries.

Further, although U.S. college attendance has risen considerably in recent decades, that is, from 44% of 20 to 24 year olds in 1980 to 61% in 2003, four-year college graduation rates have deteriorated. The trend has placed the U.S. college graduation rate at the average of OECD nations and behind 12 other affluent countries (Goldin & Katz, 2008). Countries previously far behind the US in 1960, had closed the gap by the early 2000s. By 2004, Norway, Switzerland, Canada, Sweden, Japan, and Finland were far ahead of the U.S., while Germany, Denmark, Austria, and New Zealand were almost at U.S. levels.

U.S. Education, Learning, and Achievement

Looking now to within-country data, the recent spotlight on public education began in the 1970s. By 1975, analysts noticed changes in U.S. educational achievement and related indicators. High school graduation rates, which had been on the upswing since 1890, had stalled; college completion rates began to decline. The wage distribution that had been narrowing since 1939 began to widen, in effect erasing the gains of the 30 previous years. Inequality was ticking upward and national economic progress had begun to deteriorate (Burd-Sharps, Lewis, & Martins, 2008; Goldin & Katz, 2008). The wealthy were becoming wealthier and the poor far poorer. Parallels began to be drawn between a beginning economic downturn and declining high school and college graduation rates.

By 1980, muted rumblings were heard about clear markers of the nation's educational and economic downturn. Foreign made products permeated the U.S. marketplace, skills of the American workforce were found deficient, and critics turned their eyes to public schools in full force. In 1983, a national commission assessing public education published *A Nation at Risk* which catalogued complacency and "mediocrity." Mediocrity was largely attributed to school failures. School reform efforts of various types were instituted. These continue to the present.

Now, in 2008, educational outcomes among high school and college youth point to grave conditions and an uncertain future. Among the key conditions, high school completion, preparation for college, college completion, and GED equivalency are important. These indicators are substandard in a country and era that require an educated, literate, numerate, and scientifically accomplished work force. Levine (2006), the National Center on Education and the Economy (2007), Goldin and Katz (2008), and many others have warned that the deterioration in school and student achievement means that the U.S. will not long be able to compete successfully in a shrinking global economy. Many hold that U.S. public education systems are largely incompetent.

If we ask what it is that buttresses such conclusions, secondary school completion rates are part of the picture. National data are incomplete and inexact; however, depending on the source, the average high school completion rate in the country is between 66 and 88%. The graduation rate for African Americans and Hispanics is far lower, between 50 and 85% (see, e.g., Heckman & LaFontaine, 2008). Further, there is a difference between dropping out and being forced out. A number of secondary school students are now "pushouts," those who are encouraged by education officials to leave school. When youth are classified in categories that carefully conceal their status, the system's cleaned up data are shown as better than they actually are. Technically, data then reveal far fewer high school drop-outs than actually exist. For example, Wedgeworth (2003) cites information showing that New York City public schools pushed out 55,000 secondary school students in 2000-2001. If this is anywhere near correct, comparing that number to the system's approximately 34,000 high school graduates in the same academic year shows unconscionable, unethical behavior among those responsible.

Each year, between 10 and 20% of the high school completion rate is accounted for by GED equivalency certificates. This inflates graduation rates and biases the data in other ways as well. Heckman and LaFontaine (2008) claim that, in the workplace, GED recipients function at the level of high school drop-outs. And, since 2000, even GED equivalency completion has declined dramatically. It is now at levels reached in the last years of the 1970s (Goldin & Katz, 2008).

There is great disparity between student performance in suburban, white schools, many of which show high graduation rates, and student performance in densely populated urban areas where school success is variously valued and graduation rates are low. In 50 major cities in the U.S., the average high school graduation rate is 58%. In 17 of those systems graduation rates are 50% or lower. For example, high school graduation rates in Baltimore (Maryland), New York City, Columbus and Cleveland (Ohio), Philadelphia (Pennsylvania), Atlanta (Georgia), Detroit (Michigan), and Indianapolis (Indiana) are 35%, 47%, 41%, 42%, 50%, 46%, 25%, and 30%, respectively. Urban decay and impoverished families characterize major parts of those cities. When we compare the graduation rates of, for example, the suburbs surrounding Baltimore, New York City, Columbus, and Philadelphia, the graduation rate exceeds 80% (see Grey, 2008).

The prison population compounds the drop-out picture. The U.S. holds five percent of the world's population but one-fourth of its incarcerated (Burd-Sharps, Lewis, & Martins, 2008). Prison inmates are included in the count of GED recipients. Some claim that the GED has no effect on skills, earnings, or recidivism in this population (e.g., Wedgeworth, 2003). With approximately 110 inmates per 100,000 persons from about 1925 to 1975, the U.S. incarceration rate did not change dramatically. But by 2007, seven in 1,000 U.S. residents were imprisoned yearly. The SSRC found that in many poor communities, direct experience with the criminal justice system is so common that it has become a "normative life experience" (Burd-Sharps, Lewis, & Martins, 2008, p. 142). Those who do not graduate from secondary school are eight times more likely to be incarcerated. By their 35th birthday, 60% of African American high school drop-outs will have been imprisoned for some period of time.

Most of us know adults who are trapped by poverty, pre-literacy, minimal job skills, and consequent marginalization: The elder who works at a fast-food drive-through, the 50-something man who loads groceries at the supermarket, the woman who cleans the mall and restrooms in the evening, the immigrant who goes to a designated street corner in hope of a day's work. Many of these "working poor" are largely invisible amidst great national affluence (Shipler, 2004). They are joined by the invisible poor who lost motivation long ago, adults whose "I have not" learned and developed skills eventually became "I cannot" learn and achieve. Among these we number many immigrants (22% have less than a grade school education), inmates (60% are functionally illiterate), and high school drop-outs (60% are unemployed, most reading at a fourth grade level) (Wedgeworth, 2004).

Among the poor, profoundly poor, and working poor, immigrants are prominent. The 2000 Census showed 31.1 million immigrants in this country. This is twice the 14.1 million in 1980 and three times the 9.6 million in 1970. Wedgeworth (2003) cites data showing that approximately one-third of current immigrants came to the U.S. since 1990, and that one out of five children under the age of 18 has an immigrant parent. Poverty among the total immigrant population is astounding, accounting for 25% of the U.S. residents who live in impoverished conditions. Heightening their burden, nearly two-thirds of second-language immigrants in the age range of 16 to 65 are at the National Adult Literacy Survey (NALS) Level 1. At this level they cannot read well enough to decode simple, written English material.

College Level Preparation and Success Indicators

Clearly, reading and math skills are mere barebones accomplishments for today's and tomorrow's work force. Literacy for 21st century jobs requires analytical abilities, technological competence, ongoing learning, flexibility, and, for many, superior content specialization. If we use this higher level of literacy than is typical of U.S. standards, Drago-Severson (2004) estimates that 90% of the U. S. workforce likely requires some form of remediation.

With respect to achievement in high school as this relates to preparation for college, only 22 of 50 states require students to pass achievement tests as a condition of graduation. Most of the tests in use employ 10th grade or lower standards (Strong American Schools, 2008). Based on international standards such as those tapped by the TIMSS and PISA, most states peg their high school graduation standards to an eighth grade level of mathematical and English literacy

(National Center on Education and the Economy, 2007). The 2008 “Diploma to Nowhere” report of the Strong American Schools group shows the minimal connection between learning in high school and the abilities students need to engage successfully in college courses. Yearly, 1,000,000 aspiring college attendees now fail placement tests, and a full one-third of college freshmen now take remedial courses in college just to develop basic skills. This applies to state universities as well as to prestigious colleges and universities where one would expect to find entrants arriving with stellar pre-college preparation. Since the transcripts of four-fifths of students in remedial college courses show high school grade point averages of 3.0 or higher, high school grade inflation paints a rosier academic achievement picture than is the actual case.

The “Nowhere” Report assigns a cost of $2.31 to $2.98 billion per year to U.S. public four-year colleges and universities for remedial work. When remedial courses are required at the college level, taxpayers thereby pay three times, first for kindergarten through elementary school, then for high school, and finally for remediation in college. And American business is paying again at the fourth tier.

Colleges and universities cannot go unscathed in any U.S. evaluation of human and national development. Particularly since 1987 and the firestorm ignited by Allan Bloom’s bestseller, *The Closing of the American Mind*, colleges and universities have been under increasing scrutiny. What, parents and others wonder, is the overall quality of a post secondary degree and the return on investment of what has become an increasingly expensive college education?

Among the latest flurry of books on the subject, Bok (2008) echoes past criticism and declares great portions of college and university curricula “substandard,” and their college graduates “naïve relativists.” With no nationally connected system of education from pre-K to age 18, no national system of adult basic education, and national educational policy that is striking by its absence, college faculties continue to debate whether the aim of college is either vocational preparation or the preparation of graduates with superior analytical skills and great literacy in the liberal arts. While the faculty and administrator are arguing, America hosts a “leaky education pipeline” (National Center of Education and the Economy, 2007). As Hunt and Tierney (2006) found, for every 100 students in the ninth grade, 68 graduate on time from high school. Among those graduates, 40 enroll immediately in college but only 27 of the 40 remain in college the subsequent year. Among those 27, only 18 will earn an associate degree within three years or a baccalaureate degree within six years.

The U.S., with some of the best universities in the world, has difficulty attracting highly competent students who are interested in science and engineering and are capable of stellar performance in these areas. For example, the number of U.S. engineering degrees peaked in 1985 but is now down 20% from that peak. In 2005, 56% of U.S. engineering Ph.D. degrees and 34% of other science degrees were earned by the foreign born. Many foreign nationals with advanced degrees in engineering and the sciences are now returning to their countries where salaries are rising for those who are prepared at post-graduate levels (National Center on Education and the Economy, 2007).

As the U.S. continues its educational and economic decline, citizens across China and India value educational achievement as the road to an improved future. Reportedly, parents and children in both countries value self discipline and a “hunger” for learning which national leaders in those countries are working to underwrite. Changes in earnings due to America’s decline in competitiveness are beginning to show up. From 2000 to 2004, earnings for college graduates fell 5.2% (National Center on Education and the Economy, 2007).

Between 1967 and 2003, on average, those with college or graduate degrees remained in the middle class or moved up into the top earning deciles. In that same time span, high school graduates moved down, falling below the middle class income of $28,000 to $81,000. Some predict that the ranks of the “formerly middle class” will now swell dramatically given the 2008 U.S. banking, housing, and stock market crisis that came on the heels of this nation’s admission to debtor country status (Brooks, 2008).

U.S. Families

Children today live in traditional, blended, single, and non-parental families. The higher rates of disciplinary, motivational, drop-out, and school performance problems devastate the future of many youths who live in broken families. This includes the five million stepfamily children. Comparing single-parent families with two-parent biological or adoptive families, Bronfenbrenner (2005) showed that even in single-parent families with high median incomes, child behavior shows “hyperactivity or withdrawal, lack of attentiveness, difficulty in deferring gratification, poor academic achievement, school misbehavior, and frequent absenteeism” (p. 10). In such families, the context for child development has deteriorated. Citing data from 1996, he held that youth (particularly boys) in many of those families are at substantial risk for what he called the “teenage behavioral syndrome”: “Dropping out of school; involvement in socially alienated or destructive peer groups; smoking; drinking; frequent sexual experience; adolescent pregnancy; a cynical attitude toward work; and--in the more extreme cases--drugs, suicide, vandalism, violence, and criminal acts” (p. 10).

The U.S. Department of Health and Human Services, in 2006, told the country of conditions that impoverish youth developmentally. Citing data from 2002, their report shows the correlation among parental educational achievement, teenage sexual activity, child rearing, child support, and poverty. Focusing mainly on males, data reveal that boys who did not live with both parents at 14 years of age were more likely to involve themselves in adolescent sexual activity; 50% of men minus a high school diploma fathered children outside marriage (compared with six percent among college degree recipients); 50% of the men marrying during adolescence separated or divorced within the subsequent decade (compared with 17% of men marrying at 26 years of age or older); one-fourth of the 28 million men with dependent children do not live with those children (U.S. Department of Health and Human Services, 2006). Teen pregnancy rates which in 2005 had fallen to their lowest level in 65 years, began rising again in 2006. In 2005, unwed mothers accounted for 40% of all live births, an unmarried-mother tendency that has also risen among young women in their twenties.

In monetary and personal resources, including parental presence, positive role modeling, guidance, nurturance, and deep involvement in a child’s life, on average, the contexts of single-parent, stepfamily, and re-combined families provide poor conditions for child development, including achievement. Inadequate structure and discipline with resulting permissiveness, or domination without loving care are two forms Bronfenbrenner (2005) described as family conditions of neglect and abuse.

We know that even in competent, loving families, the fact of two working parents has led to difficulties. Between 1977 and 1997, the number of employees working 50 or more hours per week climbed from 24% to 37%, and commuting time also escalated dramatically (Crouter & Bumpus, 2001; Galinsky, 1999). Galinsky asked a representative sample of more than 1,000 children in the third through the twelfth grades what effects they experienced from the fact of their dual-working parents. Many of the children spoke of serious concerns about parental work stress and its effects on them and home life. Parents, they said, were often exhausted and irritable when home. Some children searched for “mood clues” when parents arrived home. Others removed themselves from parents’ presence. Many children spoke of being harried and hurried. As said by Bronfenbrenner (2005), the family is now a “chaotic system.” Yet it is clear that many parents have no choice but to work long hours. In a family of four, with two dependent school-age children, two parents who work full time at the 2008 federal minimum wage have combined earnings that place family income just above the U. S. poverty threshold.

What Can We Conclude?

Schools have become this nation’s dumping ground. Institutions are always easy to target, study, and blame. But schools, the youth they serve, and the results that emanate, are but a microcosm of society and its effects. Public education cannot do other than fail to make up for what parents and a broader society do not provide and insist on. In order for a correction in the course of a declining U.S. nation to take root, families will have to take the first step. It is the responsible among them who must study and emulate successful parenting of nurtured, achieving children. Studies of Asian American families would be a good starting place.

Societal conditions can change dramatically. One wonders if, with the great will of the past as its backbone, this nation can create structures and resources that target disadvantaged and at-risk children and parents, preferably beginning with the pre-natal period. Can the nation establish a national adult basic education system? Will we restructure the pre-K through secondary education non-system into a national system, one with a basis on the very best evidence-based, effective school models? Will curricula and teaching build youth’s cognitive abilities and, with families, inspire intrinsic motivation that propels a love for learning?

By the close of secondary schooling, youth can possess the proven ability to serve as resources for their own ongoing learning. By then, can a national system insure that they are verbally and mathematically competent and have a substantial base of scientific knowledge? Will graduates have analytical and scientific process skills, know how to access and use appropriate information in defining and solving problems, and possess computer expertise? Will they also understand that technologies will change and will they possess the psychological readiness to change their learning style and competence along with changes in technology? Will they have a beginning track record of replacing obsolete knowledge with the contemporary, thus showing a cognitive flexibility that will be the hallmark of ongoing learning competence?

Colleges and universities can alter their preferential way of existing in the world. Will they reduce the potpourri of courses? Will they insist on and insure superior teaching and advisement? Will they structure the curriculum for a liberal arts education and for those wishing a job at journey's end?

As the Human Development Report of 2008-2009 says, it is not just the education system that requires reform. If the U.S. is to progress in its developmental rating, the sustained commitment of all citizens is required. Will parents invest themselves in their children and schools, and, if necessary, storm the school gates when their children are not taught well? Will civic groups, business and public sectors, religious institutions, government officials, the media, and all others work together toward the common, selfless goal of a better future life chance for this nation's children and their children in the twenty-first Century? That future is yet to be, but will be written, with the nation's responses to such questions.

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In Search of Narratives

Sayyed Mohsen Fatemi

This week, I walked through time and places, and bumped into fountain–heads of erudition I had never seen in any class of learning.

I came across a watercourse singing like a crooner. I listened to its reverberation, which deciphered: Every drop in a rivulet is like a cause warmly embracing its effect. I learned causality then.

I ran into wallflowers incessantly genuflecting, benevolently sharing their fragrance and lavishly diffusing their inebriating redolence.

I learned magnanimity then.

I drove into sunlight bravely and bounteously beaming on every thing and every one including the bats.

I learned compassion then.

I crashed in to history rife with narratives burgeoning every where from Babylon to the White House, from abbe to Sir, From Pandora to Spice Girls, from Hades to Las Vegas, from Shinar to seventy-nine Park Avenue.

I came across people wallowing in their stories, vomiting their narratives, wailing for their anecdotes, exfoliating themselves.

I ran into others glorifying their parables, emblazoning their diaries, wassailing for the book of their narratives.

I got baffled, flummoxed and discombobulated by the flurry of commotion, agitation, exasperation, irritation, exacerbation and aggravation, cryptically moving in the pulse of narratives. I drove into people whose prisons were way bigger than Alcatraz; they were the prisoners of their own prisons, the dungeon of hubris, and ignorance.

The train of politics burning narratives as its fuel to carry on the course shocked me, running over narratives to pass by the goals.

I bumped in to the crowd spell bound and transmogrified by the diabolical despotism disguised in enticing cynosures.

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I was about to disintegrate, to smash into pieces by despondency and despair when I bumped in to prophets, the gold, the silver, the immaculate chandeliers, festooning narratives with virtue, piety, purity, and integrity, excellence and worth, gilding the lines of narratives with their enlightening souls.

I came across a lady whose heart was more tender than lilacs, who was born out of fragrance and gave rise to sun light.

I paused for a second and I learned how to write my own narrative.

A Tour to the Flea Market of Signification

Sayyed Mohsen Fatemi

I saw a man sitting in the Isle of mysticism.

Sipping the chalice of insight and Gnosticism.

He just got back from a tour.

He got soaked in Romanticism, imbued in Structuralism then indulged in Post Structuralism.

He shook hands with Ire, danced with Strauss, and flirted with Fish.

He read through “The Yellow Wall Papers,” “Life in the Iron Mills,” and “The Awakenings.”

He went through the market to purchase a key to unlock the signifiers.

The market was down. It was empty and dull, according to Derrida.

He got lost on the way.

But he came back right away.

He bought a pair of shoes. Shoes of lunacy.

He said “Good bye” to urgency.

And he is dwelling in
immediacy.

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The Resurrection
… Paradisio

Andrew Campbell

The breast of a fallen hawk that fell into my garden a few days after Francisco Varela died, if memory serves. The hawk was pre-deceased by a few weeks by a dove…
I buried them together.

The reflected old donkey… to whom I am indebted eons of manifolded wisdom,
was accompanied by a goat.

Together they issue a signal - that resurrections are around and about.

We are all philosophers.

“The temporal has to dismantle itself so as to enter the eternal.” Mnr. A.M .de Lange

The Resurrection

Paradisio

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Advanced Change Theory Revisited:
An Article Critique

Quinn, R. E., Spreitzer, G. M., & Brown, M. V. (2000). Changing others through changing ourselves. *Journal of Management Inquiry*, *9*(2), 147-164.

Reviewed by **R. Scott Pochron**

Abstract: The complexity of life in 21st century society requires new models for leading and managing change. With that in mind, this paper revisits the model for Advanced Change Theory (ACT) as presented by Quinn, Spreitzer, and Brown in their article, "Changing Others Through Changing Ourselves: The Transformation of Human Systems" (2000). The authors present ACT as a potential model for facilitating change in complex organizations. This paper presents a critique of the article and summarizes opportunities for further exploring the model in the light of current trends in developmental and integral theory.

Introduction

Developing models for sustainable organizational change has been a challenging task for organizational scholars. In the article, "Changing Others Through Changing Ourselves" (Quinn, Spreitzer, & Brown, 2000), the authors note that most change efforts in organizations fail, and conclude that this failure is due to incomplete theories of change. They assert that successful change requires change to the human system. In order for such change to occur, the people involved must often endure hardship by letting go of what is familiar in order to permit a new order to emerge within the system. They note that, "This process usually requires the surrender of personal control, the toleration of uncertainty, and the development of a new culture at the collective level and a new self at the individual level. In adaptive change, traditional change strategies are "not likely to be effective" (p. 147). The authors respond to this challenge by laying out a model they call Advanced Change Theory (ACT). At the core of this theory is the principle that "changing others requires changing ourselves first" (p 148). In the article, the authors contrast ACT to traditional theories of change, define the ten basic principles of the ACT model, provide examples of the application of ACT principles to facilitate change in five scenarios of increasing complexity, and conclude by rebutting some possible criticisms to the model.

The Need for a New Change Model

Their article begins with an overview of three traditional categorizations of change strategies: empirical-rational strategy, power-coercive strategy, and normative-reeducative strategy. The empirical-rational strategy presupposes that people are essentially guided by reason, and that people will respond by explaining the logic and benefits for change. The authors criticize this strategy for its failure to embrace the affective and normative aspects of human systems, noting that while people may understand the reasons for change, they may not be willing to go through the emotional pain necessary to adopt them.

The power-coercive strategy emphasizes the authority structures within an organization that can require change on threat of sanctions (e.g., loss of job) for non-compliance. This approach essentially forces compliance on the employees within the organization; however, that compliance often falls short of true change. The authors note that in adaptive change, “people must commit themselves to the collective purpose. The power-coercive strategy usually evokes anger, resistance, and damage to the fundamental relationships of those involved…” (p.149).

The normative-reeducative strategy assumes people are rationally minded and need to be engaged in the process of change. This process involves honest communication and dialog between leaders and followers, where leaders work to build consensus and resolve conflicts. The authors note that of the three traditional views, the latter is the most likely to achieve adaptive change as it engages participants in working toward win-win solutions. However, the focus of this model remains centered on changing the behavior of the followers, and the authors do not view it as comprehensive as the ACT strategy, which can embrace aspects of the traditional models while profoundly changing the way leaders initiate the change process – by changing themselves.

Overview of Advanced Change Theory (ACT)

To explain the ten principles of ACT, the authors draw on the lives of Gandhi, Jesus, and Martin Luther King, Jr. as examples of leaders who embodied these principles in their lives and teachings. These principles are based on two underlying assumptions: (a) change requires making painful adjustments to one’s behavior; and (b) change requires placing oneself in jeopardy – taking risks that put the common good above self-preservation. So, to paraphrase Gandhi and Jesus, the practitioner of ACT seeks to “be the change you want to see in the world” by “dying to self.” Table 1 provides an overview of the ten ACT principles, core questions I composed that a practitioner might ask to evaluate alignment with the principle, and my summary of the purpose of the principle.

In this exposition of the ten principles, the ACT model itself is holistic insofar as each principle builds upon the others. The first six principles focus on the internal states and mindset of the leader – how the ACT practitioner aligns with a future vision. The last four principles focus on the internal states and attitudes of the leader in relationship to others. The ACT principles expand on the core belief that the leader is able to facilitate change by choosing to change his or her own behavior. By doing so, the leader establishes credibility and models the way for others to follow.

Having laid out the principles, the authors acknowledge that using the examples of Jesus, Gandhi, and King as models of ACT could raise concerns that such models are too removed from the challenges of daily life. The authors proceed to provide five real life examples where the principles were applied in increasing levels of organizational complexity (from individual to small group, to corporate department and division, and finally the enterprise). A summary of

Table 1. Principles of Advanced Change Theory (ACT)

Principle	Core Question	Practitioner Summary of Focus
1. Seeks to create an emergent system	Am I aware of the realities of emergent system?	Focus on creating a new social reality; builds community of inclusion while minimizing hierarchy; enrolls participants in making painful behavior changes away from self interest.
2. Recognizes hypocrisy and patterns of self-deception	What are my patterns of self-deception?	Seek to align works and actions, focusing on common good over self interest. Continuously seeks to improve integrity; honest self-assessment, open to feedback; personal discipline to change behaviors that are not aligned.
3. Personal change to value clarification and alignment of behaviors	Are my values and behaviors aligned?	Develops confidence in willingness and ability to "discard inaccurate assumptions in the midst of ongoing action" (p. 151).
4. Frees oneself from the system of external sanctions	Am I free from external sanctions?	Is willing to put oneself in jeopardy of hardship for the sake of doing the right thing. Does not operate from a position of fear.
5. Develops a vision for the common good	Do I have a vision of the common good?	Engages a compelling vision of the future; is open to consider possibilities that are emerging that would best serve the common good
6. Take action to the edge of chaos	Do I operate at the edge of chaos?	"Operating on the edge of chaos means leaving the well-structured world of known cause and effect and enacting a new order" (p.153). A willingness to stretch "by faith" beyond the bounds of what is familiar.
7. Maintains reverence for the others involved in change	Do I maintain reverence for others?	Respects the freedom and dignity of others. Has the faith that others will embrace the moral goodness of the change to the level they are able.
8. Inspires others to enact their best selves	Do I inspire others to enact their best self?	Holds others to a high standard; models the way in behavior. Attracts others by focusing on their highest potential self.
9. Models counterintuitive, paradoxical behavior	Am I engaging in unconventional or paradoxical ways?	Appreciates complexity of change; willing to engage in behavior that reframe meaning.
10. Changes self and system	Have I changed myself as a model for the system to change?	Seeks to change personal attitudes and behavior as a means to challenge the system and enact change.

these cases is presented in Table 2. In each situation, a participant within the group experienced an inner change and in bringing that change to the group was able to facilitate transformation in the group as a whole. What is significant in this model is that the individual in question may not have been in an "official" position of authority/leadership when he or she facilitated the change. In fact, the situation required the "change agents" to confront a personal crisis, and in doing so to make conscious decisions to change their personal behavior. It was their willingness to change and share that change with the group that enabled the transformation. The authors review the cases from the vantage point of the ten principles, positing the questions that the practitioners wrestled with in each scenario (see Table 1).

Finally, the article concludes with a rebuttal to possible criticisms to the ACT model, which may be summarized as follows.

1. ACT will fail as it is not equipped to deal with real world treachery.
2. Gandhi, Jesus, and King were flawed and not appropriate models.
3. Gandhi, Jesus, and King were heroes and difficult to emulate.
4. ACT has only limited application.

In addressing these criticisms the authors observe that each criticism focuses on the traditional transactional approach to leading change. By contrast, the ACT model is focused on co-creating an emergent reality. In this regard, it is a more dynamic and relational approach to leading change.

Observations & Opportunities

The authors presented Advanced Change Theory as a new way to approach the process of leading change. While their case was well researched and documented, both by reference to other academic studies and examples drawn from the lives of Jesus, Gandhi, and King, their article was not intended to be a review of qualitative or quantitative test results. The authors note that, "these notions are speculative, not definitive, and our intention is to provoke ideas and thinking regarding the process of effecting change in human systems" (p.148).

While their presentation may be speculative, there is corroborating support for this approach across a spectrum of recognized thought leaders on leadership. In his book, *Good to Great* (2001), Jim Collins describes Level 5 leadership as an individual not of strong charismatic personality, but one who holds that sense of purpose to serve the common good above personal gain. Kouzes and Posner (1993) likewise note that the credibility of a leader is built upon his or her character: a willingness to define and live personal values, and strive for a higher purpose that appreciates the diversity and role of constituents in shaping the future. ACT also draws heavily on the recent trend to apply complexity theory to the task of leadership and change. The authors note that failure to change is often due to the lack of appreciation for the complexity of human systems. Current literature supports the need to address the complexity of contemporary systems, emphasizing the role of leadership in creating the environment for emergent realities to unfold (Uhl-Bien, Marion, & McKelvey, 2007; Scharmer, 2007).

What I find of particular interest in ACT is its implications for developmental and integral theory. Considering the developmental work of Kegan (1982, 1998), the ten principles of ACT suggest that the ACT practitioner is an individual operating at a high level of cognitive development. Similarly in Torbert's (2004) model of action-logics, the ACT practitioner would operate at the Strategist or Alchemist stages based on the ability to be self-reflexively aware and the willingness to put self in jeopardy for the sake of the greater good. Likewise, Putz and Raynor (2004, as cited in Reams, 2005) note the integral leader as being more adaptive to change without threat to personal identity, a clear description of the ACT practitioner. ACT thus

Table 2. Summary of Case Studies

Level	Situation	Personal Change
Mother-Daughter Relationship	Mother assisting daughter with homework realizes that she is outwardly encouraging her daughter and yet inwardly distrustful. Mother stops micro-managing the relationship, encouraging daughter to come for help when needed. Daughter feels more trusted, school performance improves and a more loving relationship develops between mother and daughter.	Awareness of mixed messages leads to decision to change attitude and behavior towards daughter.
Changing a class	A student who had been quiet and unassertive in class takes a risk by sharing his personal experience. His behavior leads others to feel safe to share from their own experience, and transforms the classroom environment. A new openness emerged and the students and teacher engaged in dialogue that moved away from traditional teaching methods to a co-created learning experience.	Taking risk to be open and vulnerable set the frame for others to do the same.
Changing a business unit	After an employee committed suicide during a downsizing effort, a middle-manager came to a wrenching personal decision to stop playing office politics and tell employees the complete truth. Surprised that he was not fired for his commitment, the manager went on to see a dramatic transformation in his business unit as his change in attitude kindled trust and willingness of his employees to embrace change.	A crisis led to the decision to be completely truthful with associates. The response to his behavior was increased trust and openness within the business unit.
Changing a division	A senior executive of a division of a large company was fearful of losing his job after the company engaged in three downsizings. After months of anguish, he “concluded that he had an identity separate from the organization… and stopped worrying about the dangers of change…He began to ask himself what was needed in the present” (p.157). The executive met with other key employees and invited them to reenvision the future of the division.	Confronting his personal fears about job loss permitted the executive to shift his focus to the betterment of the organization, and invite others to do the same.
Changing a corporation	After 5 years, the CEO of a Fortune 500 company realized that the complexity of the organization made it impossible to mandate change. “As we became more complex and the environment more intense, it became impossible to get things done through the force of leadership…I realized I had to get everyone engaged and committed” (p.158). The CEO invited 3 financial analysts to present honest criticism of the company to the top 120 executives. Widespread conflict arose among the participants and the CEO gave the executive team 2 days to discuss the tensions. What emerged was a new “meaning system” and renewed sense of commitment.	Realization of his lack of personal power in the face of organizational complexity, the CEO chose to confront that complexity and engage his executive team to do the same even in the face of conflict.

paints a vivid picture of some profound characteristics of the high functioning, post-postmodern leader. This is an individual who chooses to act from an internal space of increasing integrity to his own values and beliefs, while being able to suspend those beliefs and engage the current context with an openness to evaluate new and emerging patterns, an individual who can then construct new meaning for the context, and be self-directed to change her own behavior to lead others to embrace the emerging future, setting aside personal interest for the benefit of the common good.

The ACT practitioner's willingness to choose a course of action that may require personal sacrifice also draws on an important distinction in integral theory, namely that stages of personal development occur across multiple lines of human nature. From this vantage point, human beings develop at different rates along such lines as intellectual, emotional, moral, ethical, relational, and spiritual development. With this in mind, ACT suggests that the practitioner may need to achieve advanced stages along multiple lines of development to be effective, particularly in terms of cognitive and moral/ethical development. In fact, the ten principles of ACT appear to merge the cognitive, relational and moral/spiritual lines of development into an integrated stream of consciousness that is both aware of self and others, and committed to act according to a higher purpose.

Taking in the implications of adult development could lead one to dismiss ACT as impossible to implement, given the general knowledge in that field of study that there are very few individuals operating at advanced developmental stages. However, a quick review of the case studies suggests a different spin on the notion of adult development that serves as a personal attractor to the model as both viable and timely. In each case, the ACT practitioner confronted a personal crisis and overcame it by making a decision that resulted in a shift in their behavior *in a specific context*. There is no claim here that the individuals *always* operate at a higher developmental level in *every* context; only, that the crisis-decision process resulted in behavior that could be described as being at a higher developmental stage in the context in which it occurred. I believe that ACT provides a model by which individuals are engaged to confront a contextualized aspect of their personal development and by so doing, are able to produce generative impacts on those around them. In this, ACT may represent a stepped model of adult development, whereby the individual encounters crises that require resolution of a subject-object conflict.[1] Each resolution expands the individual's internal map of the world in which they operate.

From the perspective of contextualized personal development, the implications of ACT can be quite profound. Every crisis I encounter can be an opportunity for self discovery and personal growth, requiring honest reflection and a commitment to personal integrity. Further, the ACT model suggests that my decision for personal growth does not simply impact *me*. Choosing to act in a more developmentally mature, resourceful and integrative way—as a better version of my self—will ultimately impact and self-organize the behavior of the system (i.e., context) of which I am a part.

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[1] This crisis-decision-behavior change process may in fact be an archetype of developmental change implicitly modeled in literature and the arts. How many stories reflect this very conflict and the outcome – for better or worse – of the protagonist's success or failure in overcoming the crisis?

While the article provides a working overview of ACT and how it might be applied in everyday contexts, there are two issues that could be addressed more thoroughly. First, the authors describe the ACT practitioner as being open to embrace paradoxical or counterintuitive behavior (case in point, King refusing to engage a security guard after a threat on his life, choosing to live his value of non-violence at the risk of his personal safety). There could have been further explication of the role of paradox in the ACT model and human systems. This topic is in fact explored further in more recent work by the principal author (Quinn, 2004) and is noted by Reams (2005) as an aspect of integral theory, particularly as it relates to the transpersonal dimensions of consciousness. Second, the authors chose not to address the implications of spirituality to ACT. They note that, "rather than focusing on the specific religious focus of these leaders, we instead focus on the philosophy and actions commonly demonstrated in their attempts to embrace adaptive change" (p. 150). Spirituality as a basis for personal values and understanding of emergent (non-material) realities could provide further insights into the actions of the leaders they selected to exemplify the ACT approach. Likewise, it is consistent with contemporary applications of integral theory to the study of leadership, which seeks to take a holistic view of human systems (Reams, 2005; Putz, 2006).

As a model for change, ACT is compelling and humbling, intensifying the importance of personal responsibility and commitment required for achieving change. ACT also presents a dynamic model for context-specific adult developmental change. To embrace the model is to throw out excuses about existing power structures and external influences that would hinder action. ACT practitioners are driven by a sense of fulfilling a higher purpose and are willing to make sacrifices (and often the ultimate sacrifice as was the case for Jesus, Gandhi, and King) in the context in which they seek to accomplish their objectives. To embrace ACT requires willingness to confront one's personal conflicts, resolve one's own lack of integrity and choose to live a life of personal development and growth.

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Book Review

Leadership Ethics: An Introduction.

Price, Terry. 2008. Cambridge MA: Cambridge University Press

Reviewed by **Nathan Harter**

Students of leadership – and especially of leadership ethics – have noticed the increasing importance of the philosopher Terry Price, who teaches at the Jepson School of Leadership Studies at the University of Richmond, Virginia. In 2005, he published *Understanding Ethical Failures in Leadership*, a volume in the Cambridge Studies in Philosophy and Public Policy. Recently, he produced an accessible and inexpensive introduction to leadership ethics that is as philosophically credible as his earlier work. The book, published by the Cambridge University Press in 2008, goes by the title of *Leadership Ethics: An Introduction*.

Price's contribution is a penetrating look at justifications for leaders to break the moral rules. What he does is make what lawyers call the *prima facie* case that there are indeed moral rules. At that point, the burden then shifts to the person hoping to justify a leader's behavior in apparent violation of these moral rules. (Price frequently uses lying or the breaking of promises as typical examples.) The book lists likely arguments attempting to justify these behaviors, and Price's treatment is altogether fair to each argument before explaining why they ultimately fail. Thus, the book concludes that ordinary leaders in everyday circumstances cannot justify violating the moral rules; if anything they have a *higher* duty to observe the moral rules.

One can detect a grudging acknowledgement at times in this book that extraordinary circumstances might be enough to justify breaking some moral rules, but Price is careful to hedge these around with caution and warn readers not to think their circumstances are all that dire. Most of us do not face homicidal evil and devastation. As his studies with psychologist Crystal Hoyt demonstrate, leaders and their followers are far too likely to think of their cause as extraordinary when in fact they are simply pursuing the same goods and welfare that most folks are pursuing every day of the week.

One could call into question the Kantian ethics on which the book is based. One could dispute whether there really are moral rules, for example, or whether anyone can know for sure in a given situation what they are. One could join Soren Kierkegaard in taking a position in favor of what has been called the Teleological Suspension of the Ethical, just as Abraham was commanded by YHWH to slay his own son. Abraham knew this was morally wrong, but he relented. Alternatively, one could join Max Scheler, the twentieth century phenomenologist, who alleged that ethics is less about rules and more about imitating the values embodied in extraordinary lives, persons whom Scheler called Exemplars.

In response to these lines of critique, let it be said that Professor Price did not set out to defend Kantian ethics. His purpose was to address the real world predicament when leaders justify breaking the moral rules they acknowledge would be binding on everyone else. How does

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one resolve the apparent contradiction? The book considers claims surrounding the specialness of the person who is the leader, the specialness of the role of leader, the specialness of the particular circumstances, and so forth. In the course of doing so, Price exposes the reader to popular ethical theories such as utilitarianism, communitarianism, and virtue ethics.

Rather than attempt to refute the book's conclusion, I would rather raise questions in order to see how the argument cuts. In a fashion typical of philosophers, I would use extreme situations to test just how far one can go in defense of the moral rules. One might wish to adhere to the moral rules at all times, yet the pressures of leadership affect one's judgment.

Take for instance the domestic terror undertaken by John Brown on behalf of abolition in the United States during the mid-1800's. He led a small band of insurrectionists for the sake of an ideal shared by many persons today, yet he engaged in gruesome, belligerent acts. I suppose Kant would say the ends were noble, though the means were ignoble, yet Abraham Lincoln and his military commanders chose violence on a larger scale, including unprecedented savagery during General Sherman's so-called March to the Sea. Today, those men are considered heroes for the cause of emancipation.

Another puzzle. Partly due to his elite training and patrician demeanor, Alger Hiss rose to a position in the U.S. government of considerable importance during the first half of the twentieth century, yet the evidence shows that he was a spy for a foreign power.[1] Suppose Hiss had not taken the position that he was innocent. Suppose instead he had protested that a higher moral duty to the workers of the world demanded that he commit treason against his country. How would that fit Kantian ethics? The reason I ask is that plenty of leaders derive their authority from moral claims of this sort. And Price even writes that "morality may require the sacrifice of group goals."

Looking back, today's reader might take for granted the culpability of a John Brown or an Alger Hiss, yet at the time they lived, there was considerable disagreement about what exactly was right and wrong. It is not always clear what the moral rules dictate. Often, it is precisely because leaders dispel the moral confusion for their followers that leadership occurs.

Of particular interest to me was the book's treatment of consent as a justification. Parties to a contract consent to all sorts of things they were not obliged to undergo. They relent in exchange for some consideration in return. Once concluded, the contract embodies a promise, and as we all know there is a moral rule against breaking one's promise. The odd thing is that lawyers anticipate breach. They include provisions within the terms of the contract in the event one party or the other fails to perform. When breach occurs, the party in breach must do something or other to make the aggrieved party whole. In other words, the parties consent to having their promises broken so long as everyone's interests are accommodated. Capitalism itself would not work without this feature.

President Lincoln, having practiced law before entering politics, understood this. He understood that sometimes you have to renege. Carl Sandburg (1954) quoted him as saying in a speech, late in his presidency, that, “as bad promises are better broken than kept, I shall treat this [a particular deal he had made for Louisiana’s return to the Union] as a bad promise, and break it, whenever I shall be convinced that keeping it is adverse to the public interest.” The irony of this position, of course, is that the representatives of the states in secession held to a similar position when they withdrew from the compact that led to the Constitution of the United States. They were in breach.

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[1] The guilt or innocence of Alger Hiss has been debated for decades. See, for example, Klehr (2004); *contra* Lowenthal (2000).

One could quarrel about the relative merits of bygone disputations in the nineteenth century, but the question remains whether consent on the part of followers justifies a leader in breaking the moral rules they all acknowledge. How often do followers excuse being lied to, even misdemeanors in office? It might offend our sensibilities, looking from the outside in, yet we could also let the parties negotiate these things for themselves – at least up to the point at which the leader’s behavior starts to imperil consent itself.

Leadership Ethics: An Introduction has many such “jumping off points” for classroom discussion. For this reason and more, one can conclude that Terry Price has written a book that could serve as an introduction to leadership ethics at the graduate level, even though it does not fit everyone’s paradigm for a classroom textbook. It contains no study aids. It is by no means neutral on the question it raises. And it offers no formula or recipe for becoming an ethical leader. But then, as the smart aleck once observed, “Philosophy books can’t be any good, since the answers aren’t in the back.” Instead, *Leadership Ethics* is a deliberate work that is fair to alternate theories and invites the student to contemplate strenuously the ethics implications of leadership.

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Book Review

The Bridge at the Edge of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability

Speth, James Gustav. 2008. New Haven, CT: Yale University Press

Review by **Jan Inglis**

This book is a comprehensive analysis of the challenges and hopes that lie amidst the interconnections of the environmental movement, the growth economy, consciousness, and democracy. Author "Gus" Speth is former administrator of the United Nations Development Programme, founder of both the World Resources Institute and the Natural Resources Defence Council, and currently Dean of Forestry and Environmental Studies at Yale University. In his earlier book, *Red Sky at Morning,* Speth focused on global environmental threats and international responses. By contrast, in this book he considers underlying structures of issues and solutions at more local and national scales. Although written from an American perspective the observations and conclusions appear transferable to a broad audience.

In reading this book I appreciated his vulnerability in detailing the enormity of the challenges we are dealing with, while at the same time stepping off his well-deserved expert's podium, stating he did not have any easy answers to offer. I resonated with his naming of the resistance that arises when even talking of such things.

> It is easy to push these challenges out of one's mind. Life for many of us is comfortable, and dwelling on such disturbing material is painful. Indeed, one still hears with regularity that it is a mistake to stress these gloomy and doomy realities if one wants to motivate people. In *The Death of Environmentalism*, Michael Schellenberger and Ted Nordhaus remind us, for example, that Martin Luther King, Jr., did not proclaim, "I have a nightmare." My reply to them was that he did not need to say it — his people were living a nightmare. They needed a dream. But we, I fear, are living a dream. We need to be reminded of the nightmare ahead. Here is the truth as I see it: we will never do the things that are needed unless we know the full extent of our predicament. (p. 234)

Speth not only names our entwined environmental, economic, social, and political predicament, but also describes how this predicament was built and is maintained. He attempts to help us step outside of the system, or systems, in order to adequately critique the complex interlocking nature of their dysfunctional patterns. Having surfaced these challenges, the book leads us into his and others' insights into dismantling them and building something new. Details of this new story, or dream, which can be created only after the nightmare has been acknowledged, make up the last part of the book.

In Part One, Systems Failure, Speth describes the abyss we are facing: climate disruption, loss of forests, land, freshwater, marine fisheries, and biodiversity. He talks of a growth economy that lacks self-reflective and self-correcting capacities and is therefore on a collision course with

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the environment and species sustainability. He digs deep into the root causes of how this collision has been created and politically entrenched, analyzing the structures of capitalism. He goes on to analyze why the environmental movement, although successful in many ways, has failed to produce effective action. He concludes that this resulted from working within a system without the benefit, in my words, of being able to bump up the perspective in order to create a metavision adequate to transform the systems within systems.

In Part Two, The Great Transformation, Speth uses specific examples to outline what it would take to shift markets, pricing, corporate dynamics and our preoccupation with growth towards something more sustainable. He lays out how a functional relationship could occur between government regulations, entrepreneurial new technologies, public values and a new form of green economy. Instead of just the GNP, the health of people and nature could finally be placed as a significant indicator on a national barometer of well being. He unpacks our addiction to consumerism and desire for happiness, examining what has allowed us to merge the two. This reveals a cultural blind spot since research has repeatedly proven that beyond a certain point an increase in earning and spending does not correlate with an increase in the satisfactions of life.

In Part Three, Seedbeds of Transformation, two drivers of transformative change are offered: a new consciousness and a new politics. Speth indicates that underlying the necessary changes to public policy and behaviours lies the requisite changes in values, worldviews and ways of relating. He advocates for a new environmental politics for transforming capitalism, consumerism, and social inequities, which would include increased participation through deliberative democracy.

For someone like myself, feeling compelled to learn more about responses to the climate crisis but being overwhelmed by the abundance of books and articles available, Speth provides a high quality one-stop shopping experience. Not just tapping into his own experience and viewpoints, he also is prolific in quoting and integrating many other experts in many fields such as Milton Friedman, Paul Hawken, Herman Daly, Max Weber, Donnella Meadows, Paul Ehrlich, Howard Gardner, Peter Senge, and Bill Moyer, to name just a familiar few. He does not attempt to find quick easy solutions to that which is very complex. He does, however, move beyond the propensity of many other authors who stop short at proclaiming vague and often unexamined prescriptions of what we “should” do. Although indicating that he too was once part of the “us and them” framework that has coloured the environment versus economics battle for years, his writing has clearly transcended this structure of thinking.

Speth’s language and field of work do not reflect the usual parlance of the integral and developmental world. However, to me this book indicates his inherent recognition of the need to work with the many factors necessary to understand and adequately work with the whole. He includes some reflections on the changes and natural progressions he has noted not only in himself over time but also in the environmental and economic systems. These understandings frame his projections of what steps are needed for a sustainable future. The observations in the book include analysis, and comparisons of the structures, limitations and interactions of several metasystems and in hierarchical complexity terms indicate a paradigmatic stage of performance.[1]

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[1] Commons, M. L. & Ross, S. N. (2008). What postformal thought is, and why it matters. *World Futures: The Journal of General Evolution, 64*(5-7), 321-329.

There is also anticipation, although not quite creation, of a new field that could coordinate a new political, ecological, and economic paradigm. I can project scenarios of what might happen if these considerations were combined with those of developmentalists such as Bill Torbert in his use of action inquiry to transform power and politics, and Sara Ross in her research of integral approaches to respond to complex public issues. This could make for one awesome cross paradigmatic, world influencing, new field and new approach to 21st century issues!

Several times, Speth mentions that the impetus for breaking the gridlock that consumerism and capitalism has on the environmental movement and our consciousness might require some form of dramatic collapse. The multifaceted recipe he lays out is:

> …a calamity or breakdown (or, ideally, the public anticipation of one brought on by many warnings and much evidence), occurring in the presence of wise leadership and a new narrative that helps make sense of it all and provide a positive vision, urged on by a demanding citizens' movement that fuses social and environmental causes, informed and broadened by well-conceived social marketing campaigns, joined by a contagious proliferation of real-world examples that point the way. (p. 215)

This book was published early in 2008, several months before the economic collapse and American election. These recent occurrences therefore beg for an epilogue as there is, for me, this tantalizing question left hanging: Does Speth think that this is the collapse and the new leadership that will stimulate a new consciousness, a new politics, and a bridge to a new world?

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Editorial

As I reflect on them, I find the topics addressed in both sections of this issue are truly inspiring, in their breadth and their creators' motivations for offering them. Consistent with IR's purpose as a forum for new thought, research, and praxis, the theme of the peer reviewed section is the advancement of fields of study and their applications. This theme takes shape as articles lay foundations for advancing the application of developmental psychology through more rigorous standards, break new pedagogical ground in the use of intersubjective forms of contemplative practice, and reposition phenomenology within integral theorizing and in its own field. In the section of editorially reviewed works, the span continues to range over diverse horizons. Those horizons offer a way to understand the added value an integral approach offers education and what sets it apart from other progressive educational practices, an interview with a pioneer in the evolutionary consciousness movement, artistic creations inspired by three of the texts in this issue, a book review, and a report from the field using recently published praxis, and finally a tour through the history of transcendence and its profound influence on some of the icons of Western culture. This whirlwind scan of the contents of this issue shows the power and broad ranging influence that integral thought is able to take.

We begin this issue with Zak Stein and Katie Heikkinen's *Models, Metrics, and Measurement in Developmental Psychology*. This article addresses growing concerns about quality issues in the application of developmental psychology. To unpack the dimensions involved, the authors distinguish between developmental models (explanatory or descriptive) and metrics (calibrated or soft measures) and the quality-control parameters of validity and reliability. They also relate models and metrics to different types of quality-control devices, and reveal why there is a need for more rigor in the field. We believe this article lays a solid foundation for continuing the discussion about how the field of developmental psychology might ensure that researchers and practitioners advance the application of developmental psychology in our world with consciously-deployed levels of quality. The authors and *Integral Review* invite responses to this article to carry forward the conversation.

Next, Olen Gunnlaugson contributes *Establishing Second-Person Forms of Contemplative Education: An Inquiry into Four Conceptions of Intersubjectivity*. This work is part of Gunnlaugson's doctoral research into the growing field of contemplative education practices. He delves into the works of Martin Buber, Thich Nhat Hahn, Christian De Quincey and Ken Wilber to show how the contribution of each can deepen our understanding of intersubjectivity. From there he shows how this understanding can add a neglected dimension to contemplative educational practices, the domain of second person forms of education. His work opens up a previously neglected field of inquiry, offering new spaces for future research and practice.

In our third peer reviewed article, Wendelin Küpers' *The Status and Relevance of Phenomenology for Integral Research: Or Why Phenomenology is More and Different than an "Upper Left" or "Zone #1" Affair* combines an overview of phenomenology with a critical examination of the current status the field is assigned within the AQAL model of Wilber. This examination presents a view that challenges the prevailing perception of phenomenology within the Wilber-oriented integral community. In addition, Küpers shows how the more advanced

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phenomenology of Merleau-Ponty embodies a proto-integral perspective and proposes an “adequate phenomenology” for integral research, or an integral “pheno-practice.” The depth and scope of this work makes a significant contribution to integral understandings of phenomenology, as well as bringing something new to the field of phenomenology itself.

Opening our editorially reviewed section, Tom Murray has turned his attention to *What is the Integral in Integral Education? From Progressive Pedagogy to Integral Pedagogy*. The field of education is rife with reforms, alternative, progressive and now even integral approaches. But in reality, what actually sets *integral* apart from this crowd? Or are integral approaches to education simply the new fad for dressing up progressive pedagogies? Murray addresses these questions with a nuanced yet clear description of the main features of progressive pedagogies and indicates how this reveals both overlap and distinctiveness in relation to integral approaches. To help distinguish what *integral* adds to existing pedagogies, he shows how it functions as a model, a method, a community, and a developmental stage.

Next, Russ Volckmann’s *Interview with Barbara Marx Hubbard* takes us through a fascinating conversation that roams over highlights of Hubbard’s career in creating new kinds of politics, her involvement with the Club of Rome, evolutionary trends and how she has applied her ideas in creating synergistic spaces for emergent processes and structures. Her high energy and ongoing engagement with life shines through in this wonderful interview.

Inspired in part by the above interview, Amy Leung and Andrew Campbell, our Arts and Creativity Editor, contribute *So I was Playing With Brushes on the Back of My Hand*. This series of artistic creations is interspersed with text from three of this issues’ articles, (Volckmann’s interview, and the Gunnlaugson and Currie articles). The juxtaposition of these excerpts with the visual art opens up spaces for the contemplation of those texts in a new way.

We then have Jan Inglis, a regular contributor to IR, reviewing *Integral Ecology: Uniting Multiple Perspectives on the Natural World* by Sean Esbjorn-Hargens and Michael Zimmerman. In addition to offering a high-level overview of the structure and contents, Inglis articulates some critiques of some of the book’s treatments. These include the emphasis on interiority, the relation of integral theory to Wilber and how much the book is possibly constrained by the positions taken, the question of what is research in this field and how it could be applied. Her review gives us a feel for the book, the issues it raises, and some of the struggles the authors might face as they aim to plant a stake in this ecological territory. Here also we invite responses.

My own contribution is *Immunity to Change: A Report From the Field*, which describes the recently published work of Robert Kegan and Lisa Laskow Lahey, *Immunity to Change. How to Overcome it and Unlock the Potential in Yourself and Your Organization*. In addition to a summary of the book, I present my experience with applying their work in two contexts. This includes some reflections on how the process described in the book unfolds in practice, and how the book can support work that can truly make a difference for individuals and organizations.

Finally, we close this issue with *Paranada: Beyond Beyond* by Hector Currie with Juan Pacheco. This essay is the culmination of Currie’s lifelong passion for how the notion of transcendence has woven its way from ancient India through Greece and on into the arts and sciences. In particular, this passion has been fueled by his research findings of geometric evidence for how the concept of a transcendent kosmos is realized in the Pythagorean design of the temple and theatre complex of the ancient Greek Temple of Delphi. After detailing the nature of this discovery, the thread of transcendence is followed through examples in both literature and modern science, leading to a call for the transcendence of differences to allow for tolerance.

All of us here at *Integral Review* hope that you enjoy this issue as much as we have enjoyed the process of putting it together.

Sincerely,

JReams

Jonathan Reams
Editor-in Chief
Integral Review

Models, Metrics, and Measurement in Developmental Psychology

Zachary Stein and Katie Heikkinen

Abstract: Developmental psychology is currently used to measure psychological phenomena and by some, to re-design communities. While we generally support these uses, we are concerned about quality control standards guiding the production of usable knowledge in the discipline. In order to address these issues precisely, we provide an overview of the discipline's various facets. We distinguish between *developmental models* and *developmental metrics* and relate each to different types of quality-control devices. In our view, models are either *explanatory* or *descriptive*, and their quality is evaluated in terms of specific types of disciplinary discourse. Metrics are either *calibrated measures* or *soft measures*, and their quality is evaluated in terms of specific psychometric parameters. Following a discussion on how developmentalists make metrics, and on a variety of metrics that have been made, we discuss the two key psychometric quality-control parameters, *validity* and *reliability*. This sets the stage for a limited and exploratory literature review concerning the quality of a set of existing metrics. We reveal a conspicuous lack of psychometric rigor on the part of some of the most popular developmental approaches and invite remedies for this situation.

Keywords: developmental assessment, developmental psychology, epistemology, meta-theory, psychological technologies, psychometrics, quality control, usable knowledge.

Introduction: Concern Over the Measuring of Psychological Phenomena

The marketplace of ideas is rife with various instruments, measures, and techniques designed to gear into the psychological lives of individuals and the lifeworlds of communities—from Spiral Dynamics to Requisite Organization, Integral Life Practice, and a multitude of leadership initiatives. But what are the standards that should determine which of these psychological technologies should go to market? And what of the psychological technologies to come? What are the quality-control parameters for this kind of knowledge production? These are the concerns that guide this paper. We provide an overview of the discipline's various facets in an attempt to clarify our call for quality control efforts, and guide their execution. This is the second of two papers about exercising quality control over the production of *usable knowledge* in the discipline (see Stein, 2008a). We are not the only ones worried about the market cultures consuming psychological technologies manufactured by the discipline (see Ross, 2008) and we hope to contribute to the conversation by introducing key theoretical and methodological distinctions.

More specifically, the heart of the concerns we raise here are *psychometrical*. Psychometrics is a branch of metrology, which is the transdisciplinary study of metrics. As the term implies, psychometricians are specifically concerned about measuring psychological phenomena. As explained below, developmental psychologists build *models* and *metrics*, seeking both to understand the development of psychological phenomena, and to measure them. Developmental

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metrics—often called scoring systems—deserve attention because they are situated near the heart of the discipline, and radically shape both research and practice.

Below, we provide an overview of developmental psychology as a discipline, presenting a map representing its different important aspects. We then discuss this map, paying particular attention to methods for building developmental metrics. This sets the stage for a limited, exploratory literature review covering a set of metrics currently in use. According to our review, the literature reveals a conspicuous lack of psychometric rigor on the part of some developmental approaches. Generally, this paper is an invitation to the community to remedy this situation, and begin more a serious discourse about quality control in the field.

Models and Metrics in Developmental Psychology

To start, we will situate some of our key terms. Table 1 below displays four example disciplines, along with their *metrics, models,* and *technologies*. The distinctions we suggest—e.g., between *metrics* and *models*—are discipline-general distinctions. In other words, they are meta-theoretical distinctions, insofar as they *oversee* and *explicate* discipline-specific distinctions. Thus our concerns about *technologies* are also meta-theoretical. The question of how general and useful these distinctions are is not a question we will address in the context of this paper. Do all sciences have some variety of metric, model, and technology? It seems so from what we can see, but this paper will focus solely on developmental psychology. These distinctions are certainly relevant to developmental psychology and the issues immediately at hand. We discuss how to use these distinctions—and a host of others—to institute quality control standards for the production of usable knowledge in the field.

Table 1. Knowledge Production in Selected Disciplines

Discipline	Metrics	Models	Examples of Technologies
Developmental psychology	Psychometrically calibrated	Disciplined discourse about developmental *models*	*Psychological technologies* for education
Medicine	Biometrically calibrated	Disciplined discourse about *models* of disease	*Medical technologies* for healing
Sociology	Sociometriclly calibrated	Disciplined discourse about *models* of social life	*Social technologies* for group transformation
Economics	Econometrically calibrated	Disciplined discourse about economic *models*	*Financial technologies* for market amelioration.

Figure 1 zooms in on the first row of Table 1 to reveal more detail about developmental psychology. As discussed below, *metrics* and *models* are further characterized as *representational devices*, both with subtypes. Figure 1 relates metrics and models to their respective quality-control devices. *Technologies* are not represented because they require their own separate map; an interesting map that nonetheless will not be rendered here. Importantly, according to our view, in developmental psychology *metrics* and *models* set the conditions for the possibility for *psychological technologies*. The two-way arrows—both horizontal and vertical—signify the complex inter-animations and relations between the various areas differentiated in the map. Metrics, models, and their respective quality control devices inter-participate in dynamic ways, especially during the generation of usable knowledge and the building of psychological technologies. However, these complexities are beyond the scope of this initial treatment of the issues. Nevertheless, despite neglecting some important topics, this paper should still be viewed as a critical meta-theory for guiding the production of future psychological technologies brokered by developmental psychologists.

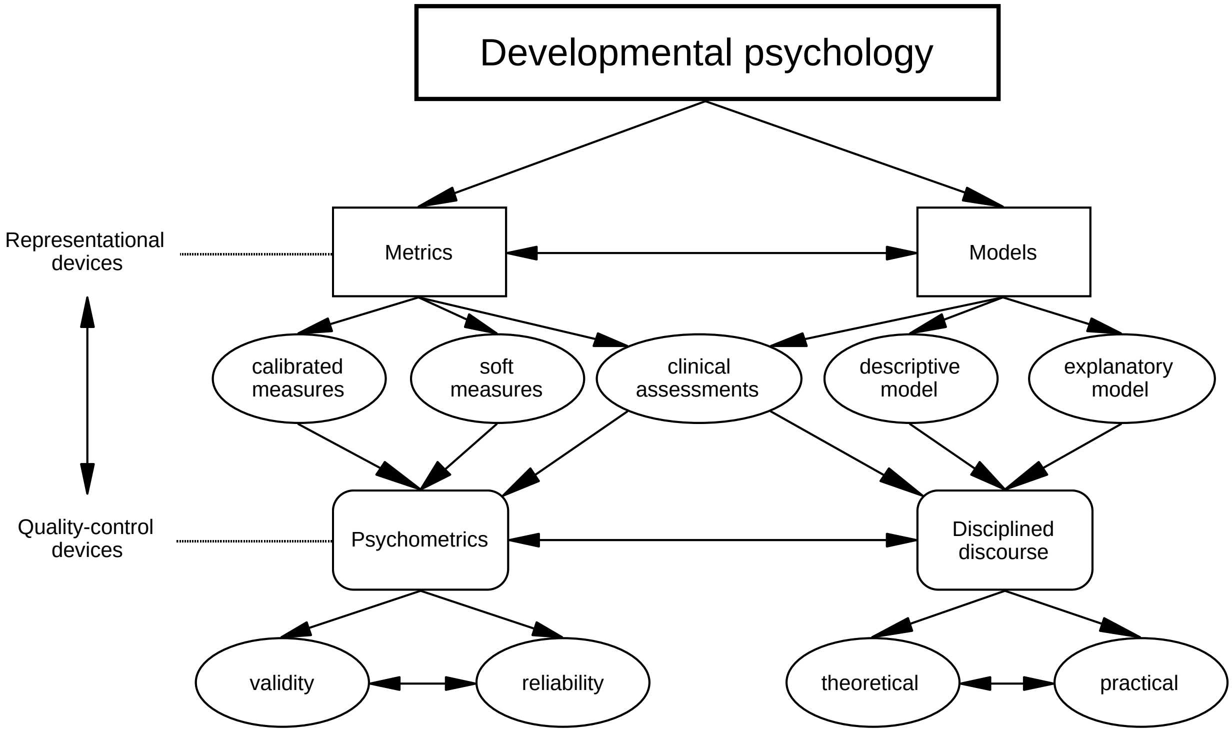
Developmental psychology
Representational devices
Metrics
Models
calibrated measures
soft measures
clinical assessments
descriptive model
explanatory model
Quality-control devices
Psychometrics
Disciplined discourse
validity
reliability
theoretical
practical

Figure 1. A Meta-theoretical Explication and Representation of Knowledge Production Processes in Developmental Psychology

The distinctions and relations displayed in the map above are based on a broad survey of comparable meta-theoretical projects concerning the epistemological workings of psychology as a discipline. Most useful in this respect are the following: Piaget's (1970a, 1970b, 1970c) work on interdisciplinarity in psychology; Habermas's (1988) work on the logic of the social sciences; Donald Campbell's (1959, 1969, 1987) work on an epistemologically relevant social psychology of the disciplines; Overton's (2006, 2007) systems-theoretic meta-theory for developmental psychology; Fischer and Bidell (2006) and Van Geert's (1994) work on model building in developmental psychology; and Dawson (Dawson-Tunik, 2004) and Jaques's (1978) work on metrics in developmental psychology. The fully explicated set of working terms garnered and synthesized from this cast is presented in Figure 2. Once again, we are simply presenting a collection of meta-theoretical distinctions topographically, as a system of related terms and categories. Figure 2 explicates Figure 1 in a slightly different representational modality.

<table>
<tr><th colspan="7">Developmental Psychology</th></tr>
<tr><td rowspan="2">Representational devices: methods, symbol systems, and propositions—built by communities of developmental psychologists—which in some way claim to be <i>about</i> cognitive developmental processes.</td><td colspan="3">Metrics: representational devices built and used to determine the amount of or degree to which a specific psychological trait is found to be in a sample of performances.</td><td colspan="3">Models: representational devices built and used to account for or characterize the presence of a specific psychological trait found in a sample of performances.</td></tr>
<tr><td>Calibrated measures: metrics that adhere to strict quantitative standards for determining the amount of a trait. Mainly for use in measuring individuals.</td><td>Soft measures: metrics with mainly qualitative standards for determining the amount of a trait. Mainly for use in conducting research.</td><td colspan="2">Clinical assessments: judgments and diagnoses rendered by professionals, informed by models and based on clinical experience.</td><td>Explanatory models: models that posit mechanisms or processes to account for the occurrence of the trait.</td><td>Descriptive models: models offering idealized or exemplary characterizations of the trait.</td></tr>
<tr><td rowspan="2">Quality-control devices: methods created by developmental psychologists for selecting between different types of representational devices, e.g., ranking them in terms of their validity.</td><td colspan="3">Psychometrics: research and theory concerning the creation and maintenance of quality-control standards for metrics.</td><td colspan="3">Disciplinary Discourse: critical exchange of evidence and argument concerning the creating and maintenance of quality-control standards for models.</td></tr>
<tr><td>Validity: the focus of psychometric studies about the types of reasonable inferences and claims we can make in light of the results yielded by a metric.</td><td colspan="2">Reliability: the focus of psychometric studies about the performance-quality of metrics, specifically about the degree and type of their error-proneness.</td><td colspan="2">Theoretical: disciplinary discourse about the truth, coherence, and reasonableness of models.</td><td>Practical: disciplinary discourse about the ethics, efficacy, and implications of putting models to use.</td></tr>
</table>

Figure 2. Terms and Definitions about Knowledge Production Processes in Developmental Psychology

Figures 1 and 2 require elaboration. Examples will be useful in clarifying some of the key distinctions. A good place to begin is the work of Erik Erikson (1980), who offers perhaps the most widely known instance of a developmental model *not* tied to a metric. That is, Erikson's *model*—which describes and explains the life course in terms of eight stages of increasing maturity—has no accompanying *metric*. Such a metric would be an explicit procedure for determining the degree of maturity evidenced in an individual's language or actions. So while Erikson offers *descriptions* and *explanations* of development—based on clinical experience, and useful in honing *clinical assessments*—he offers no explicit tools for making measurements or assessments of development. Models inform our understanding insofar as they characterize and account for things, but they don't interface with and disclose the world in the same way as metrics do.

Kohlberg (1981, 1984), on the other hand, had both a *metric* and a *model*. Following Baldwin, Mead, Dewey, and Piaget, Kohlberg offered a model of moral development wherein an individual is socialized into a world of norms and systems of mutual expectation, passing through six stages on the way to a kind of post-conventional moral autonomy. Alongside this model was Kohlberg's metric (Colby & Kohlberg, 1987a; 1987b), which would come to be known as the Standard Issue Scoring System (the SISS). The SISS was a codified, explicit procedure for *disclosing* and *determining* the degree of moral development in evidence in particular linguistic performances. Metrics gear into the properties researchers are interested in and disclose them for measurement, while models describe or explain those same properties, accounting for their being the way they are.

Importantly, both models and metrics are *representational devices*. This is a term that can be traced to Rawls (1996), who originally used it in the context of moral and political philosophy. He famously explicated the "original position"—an impartial and radically perspectival post-conventional view of social reality—in order to codify the basic tenets of a comprehensive theory of justice (Rawls, 1973). He would later retrospectively characterize the function of the "original position" by calling it a *representational device*. That is, he argued that it is best understood as a contrivance to help us *see* the world—to represent it—in terms of justice, and thus to help us hone our moral judgments about political situations. He had a broad notion of justice, and wanted to make a certain view of it readily accessible, so he built a *representational device*.

Understandably, philosophers have adopted the term for use in debates surrounding post-positivist theories of knowledge (Elgin, 2004). In this context, representational devices play a role in disciplinary knowledge production. Roughly speaking, representational devices serve as the parts of a discipline's epistemic architecture that purport to be *about* the world. That is, disciplinarians do not traffic in facts, first and foremost; they mainly traffic in representational devices, which are, more or less, a condition for the possibility of facts. From dynamic systems theorists' mathematical mock-ups to the Weberian ideal-types built by sociologists, we place representational devices between *ourselves* and *the world*, in order to arrange for a specifically desirable view.

In developmental psychology, as we have been discussing, metrics and models are the two main species of representational devices. Importantly, they come in different varieties. Models can be characterized as being more or less *descriptive* or *explanatory*. Piaget (1972) famously built both *descriptive* and *explanatory* models of cognitive development. Over the course of more than half of a century and based on observations and experiments on literally thousands of children, Piaget *described* various stage sequences (e.g., sensorimotor, pre-operational, concrete-operational, formal-operational) and suggested a set of *explanatory* constructs to account for their genesis (e.g., assimilation, accommodation, equilibration).

There are many approaches to building models in developmental psychology, but they can all be described in the terminology of a reasonably nuanced philosophy of science (Magnani &

Nersessian, 2002). Briefly, descriptive models arise from reasoning that is *inductive* (Peirce, 1986), that is, reasoning that involves generalizing from properties of a sample to properties of a population. Piaget found ways to usefully classify and describe the various types of cognitive structures he witnessed, and built a descriptive model by positing the *general applicability* of an idealized account of these cognitive structures. Explanatory models, on the other hand, arise from reasoning that is *abductive* (Peirce, 1986), that is, reasoning involving inferences to the best explanation. Piaget looked to the general principles of biological evolution and to philosophical logic in order to account for the transformations of cognitive structures he witnessed, and built an explanatory model by explicitly codifying these "guesses at the riddle."

Closely related to models and to metrics—but belonging strictly in neither category—are *clinical assessments*. This important area of developmental psychology is the province of trained professionals, from therapists to teachers and consultants. Clinical assessments are complex judgments about individuals rendered in uncertain real-life conditions, such as during the practice of psychotherapy (Sullivan, 1964). They are based on models of development endorsed by professionals and they function like metrics insofar as they classify and discriminate between persons. However, they are not as explicit and codified as true metrics; they must remain flexible and facile in the hands of the professionals who make them. Moreover, the value of different types of clinical assessments hinges in large part upon the quality of the professional practices that surround it. This also sets them apart from metrics, which are deemed valuable in terms of specific psychometric quality control parameters.

Metrics can be classified as *calibrated measures* or *soft measures*. As mentioned above, Kohlberg devised a metric for looking at moral development. Importantly, the SISS was a *soft measure* of moral development, built via mainly qualitative methods and offering a content-based means for honing in on the properties of moral reasoning indicative of its developmental sophistication. As such, it was mainly built for research purposes, and *not* for measuring individuals. Loevinger (1976) aimed to devise a metric for looking at ego-development. Specifically, she was looking to build a *calibrated measure*. By merging quantitative methods with qualitative ones and adhering to strict psychometric parameters, she constructed a *scale* of sentence-stem response-types. Although it is interesting to note that as well calibrated as Loevinger's metric was, she clearly stated that it was *not* to be used for rendering measurements of individuals (Loevinger, 1979; 1993).

On the Construction of Metrics in Developmental Psychology

The distinction between *calibrated measures* and *soft measures* is more difficult to understand than the difference between *explanations* and *descriptions*. This is because it requires some knowledge about how metrics are built in developmental psychology, and few know what goes on behind the scenes where developmentalists make their metrics. Therefore, before moving on to discuss the *quality-control devices* that should regulate the construction of models and metrics, and carrying out a limited literature review, it is worth explaining how researchers build developmental metrics. But to talk about developmental metrics requires some knowledge of *metrology*—the meta-disciplinary study of metrics.

Many who do theoretical work in *metrology* (e.g. Peirce, 2000; Piaget, 1972; Husserl, 1970) maintain that we can trace physical metrics like rulers and scales—and all the science that depends on them—back to the reliable capabilities of our organism and the concomitant sensorimotor practices that attune us to invariance in the world. These basic skills of being-in-the-world congeal into everyday practices that we take for granted (i.e., they form a part of the lifeworld). It is in the course of working to clarify this background of informal practices that we begin to build intersubjectively codified and calibrated metrics.

According to this view of metric making, the invariant psychophysical structures of our eyes account for the reliable differential responsiveness that justifies their use in gauging distances, a use eventually honed and codified during the collective construction of our metrics for length. However, the reliable differential responsiveness we take for granted when we interact with *things* differs from what it is during our interactions with *people* (Baldwin, 1906; Habermas, 1988; Wilber, 1995). Efforts at explicating deep-seated invariance in the social lifeworld have been dubbed *rational reconstructions* (Habermas, 1988, 1990). So when we set out to build metrics of psychological phenomena, it is the "invariant [psycho-social] properties and constitutive rules of the primary lifeworld…that can be made explicit [i.e. be rationally reconstructed] as a system of reference [allowing] for the transformation of communicative experience into measured data" (Habermas, 1988, p. 100).

Along these lines, we propose that developmental metrics should be understood as rational reconstructions of a kind of deep-seated intuitive knowledge that is *always already* a part of the network of practices and beliefs that constitute the lifeworld. Just as we unreflectively wield an intuitive knowledge of distance (based upon certain invariant relations between organism and environment) we also unreflectively wield an intuitive knowledge of development (based upon certain invariant psycho-social structures). Elsewhere, Stein (2008b) has marshaled suggestive empirical and theoretical arguments for this understanding of metric making in developmental psychology. This insight is important and ultimately suggests that developmental metrics are simply attempts to improve upon the ways we have always already made developmental judgments of each other and ourselves.

Again, the key to making a metric in developmental psychology is, as Habermas aptly described above, "the transformation of communicative experience into measured data." Specifically, we are suggesting that metrics in developmental psychology are built by rationally reconstructing—explicating and codifying—certain aspects of a preexisting reliable differential responsiveness, which we ordinarily use to make informal and intuitive developmental judgments, for example, for purposes of communication or education. Normally socialized adults automatically change their speech, action, and expectations when interacting with a child. They also typically change these over the course of an interaction with a stranger, as they gather a sense of where their interlocutor is coming from. Building a metric entails moving from this kind of everyday interpretation of language towards more systematic modes of differentiating between different types of linguistic performances.[1] To foreshadow: inter-subjectively codified modes of systematic differential classification lend themselves to techniques for *calibration*, and the degree and type of calibration determines a metric's status as either a *soft measure* or a *calibrated measure*.

---

[1] Importantly, with the exception of a few experimental paradigms (e.g., Piagetian balance beam tasks) all developmental metrics entail the interpretation of linguistic performances. This point is often overlooked.

The history of cognitive developmental research has been, in part, a history of techniques for the systematic classification of various performances and behaviors. It was Piaget who first pioneered the use of clinical or qualitative interview techniques for cognitive developmental research. In a series of now classic studies, Piaget (1926, 1932) demonstrated how to look for and discover the structural properties of linguistic performances that are indicative of development. As scholars have noted (Mayer, 2005), the radical innovation here was the careful and systematic classification of performances in terms of their developmental level. Piaget, who was trained as a biologist, was out to differentiate between different species of thought and action, so he built a hierarchical taxonomy of cognitive-structure types for classificatory purposes. Along with his collaborators, he codified methods for systematic differential classification that geared into specific properties of performances, properties that were officially christened as *indexes of development*. The first developmental metrics were built.

In the wake of Piaget, different developmental researchers have offered a variety of hierarchical taxonomies and related *indexes of development* for use in the systematic differential classification of performances. However, the general approach to metric making has been the same. As noted by various researchers (e.g., Colby & Kohlberg 1987a; Cook-Greuter, 1999; Jaques & Carson, 1994; Loevinger, 1976; Piaget, 1926), the codification of a metric begins with a research team issuing relatively informal judgments about how the various performances in a dataset should be organized developmentally. That is, they argue about why one performance is more developed than another, suggesting various properties of the performances that should function as indexes of development. Then through iterative procedures for garnering intersubjective agreement, an explicit hierarchical taxonomy emerges and specific properties of the linguistic performances are promoted to the status of being indexes of development. That is, developmental metrics are built to function as *representational devices*; they are created to help us *see* development by privileging specific properties of linguistic performances that have proven useful for the purpose of reliable differential developmental classification.

For example, Kohlberg (Colby & Kohlberg, 1987a; 1987b) and others (Armon 1984; Fowler, 1981; Kitchener & King, 1981) built their metrics by privileging certain types of conceptual content—conferring them a status as indexes of development.[2] These *content-based developmental metrics* facilitate differential developmental classifications by explicating and codifying the types of ideas and concepts that appear at different levels (e.g., in Kohlberg's SISS certain specific notions about "the golden rule" appear at stage 3). Thus, researchers analyze linguistic performances by looking for the presence of specific conceptual content, which is taken to be indicative of developmental level. Decisions about which types of content are indicative of which levels are made in the process of codifying the metric. As explained above, standard practice has been to *bootstrap* the codification of indexical content from large longitudinal data sets, organized via the collective judgment of a research team and then refined into an inventory of level-specific conceptual content via iterative procedures for garnering intersubjective agreement. This yields a *soft measure* that can be used for research purposes.

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[2] This characterization of Kohlbergian metrics as *content based* is really just a claim about their *scoring manuals*. There is a great deal to be said for the domain specific *structural* indexes discussed in this tradition (e.g. socio-moral perspective taking), but the scoring manuals are mainly codified inventories of level-specific content.

Metrics based on the use of *sentence-completion methods* (Cook-Greuter, 1999; Loevinger, 1976) are almost exactly the same, except instead of developmentally classifying qualitative interview performances, they are used to classify responses to sentence-stems. As explained in detail by Loevinger (1976), the initial steps toward making her metric involved a group of researchers creating a hierarchical taxonomy of sentence-stem response-types by relying on their collective informal judgments. This initial intuitive developmental classification of response-types was transformed via iterative procedures for garnering intersubjective agreement into an explicit system for the differential developmental classification of sentence-stem responses. Then Loevinger carried out quantitative procedures for determining the internal consistency and interval spacing of the response-type categories, because, as mentioned above, she was out to build a *calibrated measure*.

A third family of developmental metrics has been developed alongside content-based and sentence-completion methods. This family of metrics was built in a slightly different way, focusing on the *deep structures* of linguistic performances. These metrics facilitate the differential developmental classification of performances without bootstrapping from conceptual content or an inventory of sentence-stem response-types. Instead, these metrics facilitate developmental analyzes that focus on ostensibly universal properties indicative of development, which have been distilled in the wake of empirical research and model building.

Kurt Fischer (1980) first explicitly characterized and gave primacy to the basic developmental process of *hierarchical integration*, which had been an important but relatively implicit construct in developmental theorizing for nearly a century. This important advance in modeling development cleared the way for new analytic techniques useful in describing developmental pathways and constructing hierarchal taxonomies for the developmental classification of performances. These new analytical techniques dubbed *structural* properties as indexes of development: for example, they privileged attention toward properties like differentiation/integration, concreteness/abstractness, simplicity/complexity. This approach makes it possible to build many domain-specific hierarchical taxonomies using one general procedure for differential developmental classification. As explained elsewhere, using Wilber's terms (Stein & Heikkinen, 2008), privileging structural indexes of development allows us to measure and assess development in many lines using one metric. Dawson, Commons, Wilson, and Fischer (Dawson-Tunik, Commons, Wilson, Fischer, 2005) employed a variety of sophisticated quantitative techniques in order to refine an elegant set of *deep-structural properties indicative of development*.[3] The General Stage Scoring System (the GSSS has more recently been named The Hierarchical Complexity Scoring System, the HCSS; but see: Commons & Richards, 1984) and the Model of Hierarchical Complexity (Commons, Trudeau, Stein, Richards, & Krause, 1998) were devised. The construction of the *Lectical Assessment System* (the LAS: Dawson, 2003, 2002, 2008) took off from this tradition of deep-structural analysis.

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[3] Jaques and colleagues devised a comparable structure-based developmental metric, utilizing unique metric calibration techniques (Jaques, 1978) and a profound set of theoretical (Jaques 1970; 1976) and meta-theoretical accouterments (Jaques, 2002). This important strand of developmental research, theory, and practice has received only a footnote here because we are focusing on—for clarity's sake—the Neo-Piagetian tradition of structural metrics. However, in later work Jaques and colleagues (Jaques & Cason, 1994) have recognized their relations to this tradition, citing Fischer and Commons and drawing parallels between their respective metrics. (Cont’d next page).

Importantly, steps toward specific quantitative refinements of an otherwise qualitatively built metric—the steps that Loevinger and Dawson took, which Kohlberg did not—are what separates *calibrated measures* from *soft measures*. This excursus has set the stage for the discussion of *psychometrics* below, where we discuss in some detail what it means to calibrate a metric. However, at this point it should be said that we are definitively *not* suggesting that *calibrated measures* are, in principle, better than soft measures (or that these metrics are in principle better than *clinical assessments*). Depending on the situation and the metrics in question, a calibrated measure can be misleading where a soft measure is revelatory, and vice-versa. Moreover, a metric that was once calibrated can become soft when quantitative evidence wanes (e.g., Cook-Greuter, 1999). And a metric that was once soft can become calibrated if the accumulation of quantitative evidence waxes (e.g., Dawson-Tunik et al, 2005).

Nevertheless, calibrated measures and soft measures are different, and should be treated differently. Crucially, the inferences we are respectively entitled to make in light of them are not the same. For example, as mentioned above, if we want to measure *individual performances* we need to use a certain type of calibrated measure capable of making *reliable* fine-grained distinctions. If our categories are too loose and our expected measurement errors are too great, then we cannot reasonably say one performance is really more developed than another. This leads us into discussions about the *validity* and *reliability* of different types of metrics, which broaches the topic of *quality-control devices* more generally and the kinds of procedures that *ought* to be regulating the production of usable knowledge in developmental psychology.

Quality-Control Parameters: Building Useful Languages of Evaluation

We have seen how metrics are made and we have talked about models. Now we get to the heart of the matter, which is concerns about how we can make evaluations concerning the worth of specific metrics and models. Discussions about which metric or model is better than which other require decisions about how to determine their respective values. We are proposing a specific *modus operandi* for determining these values. We propose discussing the worth of metrics and models by adopting specific evaluative vocabularies—*languages of evaluation*[4]—that focus on the most important qualities that bear on the worth of both metrics and models. We

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It is also worth noting here the influential model and metric devised by Kegan (1982; 1994), which deserves to be classed as a structure-based metric. However, while Kegan can be thought of as in the lineage of Piaget, he has never brought his work in line with the comparable Neo-Piagetain structure-based metrics discussed above.

[4] Stein (2007) has overseen the construction of comparable evaluative vocabularies elsewhere. The idea and phraseology can be traced in part to Taylor (1985). Although, Emerson and Marcus Aurelius toyed with the idea that to be human is to create and traffic in "vocabularies of praise."

dub these kinds of lexicons *quality control devices*. Inquiry-oriented communities of research and practice should, and often do, codify standards of quality for the representational devices they endorse and use. We are suggesting a way forward in this regard for certain areas of developmental psychology.

Figure 1 above specifies the key quality parameters that should guide the evaluative vocabularies we choose to deploy when considering different metrics and models. The distinction between *theoretical* and *practical* disciplined discourses is offered in light of a variety of comparable distinctions commonly made in epistemology and the philosophy of science. Habermas (1984, 1987) offers perhaps the most convincing and high-profile recent account, where he marshals his formal pragmatic analytical methods to justify a specific taxonomy of discourse types. Habermas includes a distinction between theoretical discourse (about the objective world; roughly cognitive-scientific) and practical discourse (about the social world; roughly moral-pragmatic). Importantly, just as descriptive and explanatory models come in many forms, there are many ways to tackle practical and theoretical disciplinary discourses.

For example, Habermas (1993) further specifies the topography of *practical discourse* by differentiating *pragmatic*, *moral* and *ethical* sub-discourses. These three focuses of practical discourse concern how we *ought* to be using our models: *pragmatic* concerns are about model's problem-focused efficacy; *ethical* concerns are about the value of the problems the model can be used to solve; *moral* concerns are about the social constraints on the proper use of the model. The point is not that Habermas' is the only evaluative vocabulary on offer, but rather that practical discourse represents a key area of concern—a key quality control parameter—that should orient the construction of some kind of related language of evaluation.

Importantly, Peirce (1931) offers his own comparable differentiations, likewise clearly partitioning practical discourse from theoretical discourse in his broad taxonomy of inquiry-types. He further specifies the topography of *theoretical discourse* by differentiating *utility*, *security* and *uberty* as the topics of specific sub-discourses (Peirce, 1998). These three focuses of theoretical discourse are roughly what are typically considered a model's scientific acumen: a model's *utility* is judged in terms of its functional-fit as a means-to-an-end; a model's *security* is a matter of the coherence and type of evidence in its support; a model's *uberty* concerns its suggestiveness and world-disclosing power. Again, the point is not that we must adopt Peirce's vocabulary, but that we must have *some* shared vocabulary to deploy when discussing the theoretical value of a model.

Thus, the goal of introducing these terms is to beef up the language of evaluation we bring to bear when we talk about the worth of various models produced by developmental psychologists. For example, take Wilber's (1999) early model of human development, as offered in the *Atman Project*. If we organize a discussion of its value around the terms just introduced, we can generate a rough profile of the model's practical and theoretical worth. Regarding its *theoretical* aspects, we think the *Atman Project* warrants valuing because of the model's *uberty*. That is, in our view, the model remains one of the only full-spectrum accounts of human development, and as such remains impressively suggestive as a rough overview of human potentials. This leads the model to have some minimal *utility* as a heuristic for various purposes, for example, alterations of one's action-orienting self-understanding. We do not think—and neither does Wilber—that the model boasts a great deal of *security*, however. That is, many of the particular claims are in need of revision in light of existing evidence, and many of the explanations and descriptions offered are only roughly correct. Regarding its *practical* aspects, we think the *Atman Project* is valuable. Its stated use as an overview of human potentials positions the model admirably in *ethical* and *moral* discourses. Who can object to what is ultimately a positive psychology? But the devil is in the *pragmatic* considerations; specifically, how can a model that is so general address any but the most abstract problems?

Now, the point here is not to merely pass judgment on models from the past. Our goal is to demonstrate how the evaluative vocabulary we suggest might orient our model-condoning discourses. At issue is not the evaluative judgments just rendered, but rather the terms we use to render these kinds of judgments about developmental models at all. At issue is how we arrange our language of evaluation and thus set the parameters of our concerns about quality control. Of course, we have no illusions about the selective and parochial nature of the specific vocabularies deployed above. There is a great deal to say when evaluating models, much more than we cover in this brief introduction. Questions of how and why a model is *true enough* (Elgin, 2004) are as complex and heated as questions about how it *ought* to be used (Habermas, 1971).

Psychometric Quality-control Parameters: Validity and Reliability

It should be clear from the symmetry of Figure 1 that the same idea holds when we switch to discuss psychometrics. The broad distinction between *reliability* and *validity* is canonical. But while there is agreement about this general differentiation of psychometric concerns, there are many different ways to unpack validity and reliability in more specific terms. Of particular use in this regard are the *Standards for Educational and Psychological Testing*, a document that has been recursively revised for over three decades by the American Educational Research Association (AERA), American Psychological Association (APA), and the National Council on Measurement in Education (NCME) (1999). The *Standards* represent the considered judgments of literally hundreds of disciplinary experts about the kinds of quality control standards that ought to be in place for metrics of various types; they guide the discussion that follows.

Concerns about the *validity* of a metric are concerns about the legitimate inferences that can be made about the measurements it yields. There are many different kinds of validity including but not limited to construct validity, content validity, ecological validity, and external validity.[5] Depending on the metric in question and the uses to which it is put, different aspects of validity become relevant. But all types of validity concern the question: *does the evidence suggest that the metric is measuring what it claims to be measuring?* It is important that the results yielded by a metric be valid—that we can be sure they are an index of what we think they are—so that we can make reasonable and responsible inferences based on them.

For example, it is generally agreed that *construct validity* is the most important dimension of psychometric concern (Messick, 1980). Evaluating a metric in terms of its construct validity entails looking into various types of evidence concerning how the results yielded by the metric conform to expectations about the postulated construct or trait it is meant to be measuring. That is, if the metric is meant to measure unidimensional wave-like growth—as certain neo-Piagetain metrics are, e.g., Dawson-Tunik et al. (2005)—then the result yielded by the metric should display a certain type of specific patterning. A metric with high construct validly allows us to make sophisticated inferences, guided by justified beliefs that we are, in fact, measuring what we claim to be. Of course, depending on what the metric claims to measure and on the uses to which it is put, different degrees and type of validity apply (AERA et al, 1999). But in general, we need information about the validity of a metric before we can responsibly do anything with it at all (Messick, 1980).

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[5] Definitions for all these terms can be found in any standard reference (e.g., Colman, 2001; AERA et al, 1999).

Being concerned about *reliability*, on the other hand, entails looking into how well a metric performs its function as a measure. Put another way, this means considering the kinds of errors that are likely to systematically affect the results yielded. There are many different dimensions of reliability, including but not limited to inter-rater reliability, internal consistency reliability, and test-retest reliability.[6] But all forms of reliability concern issues of *measurement error*. It is important that we know the reliability of our metrics—that we know their degree and type of accuracy—so we can use them appropriately.

For example, *internal consistency reliability* is a quantitative index of how the items or levels of a metric function in relation to one another. As explained above, every metric is a system of categories for use in the classification of performances. Insight into the internal consistency of a metric gives us a sense of how much noise—how much *measurement error*—surrounds each category. Importantly, if the measurement error is too great—if the categories are too fuzzy or noisy—then few categories can be reliably distinguished from one another, and this reduces the accuracy of the metric.

Inter-rater reliability also bears on issues of measurement error. This form of reliability concerns the noise surrounding the metric as it is put to use by different human raters—i.e., different researchers using the metric. That is: how much consensus is there between two or more raters when they award a particular performance a particular level score? Low inter-rater reliability is an index that the results yielded by the metric are noisy; a certain performances is relatively likely to be given two different scores by two different raters. High inter-rater reliability is an index of the opposite; the performances are likely to be given the same scores.

Noisy metrics with reasonable measurement error are *soft measures*, and can be very useful for research purposes that place less demand for strict precision in differential classification. Metrics with very little measurement error are *calibrated measures*, and in some cases can be used to reliably measure individual performances because they offer a precise means of differential classification. However, as with validity, depending on the metric in question and the use to which it is put, different degrees and types of reliability become relevant. But in general, we need information about the reliability of a metric before we can responsibly make use of the results it yields.

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[6] Definitions for all these terms can be found in any standard reference (e.g., Colman, 2001; AERA et al, 1999).

Limited and Exploratory Literature Review

This brief overview of psychometric quality control parameters is meant to serve only as an introduction to the kind of language of evaluation we ought to employ to distinguish between the value of different metrics. Importantly, as mentioned above, metrics claming to be *soft measures* should be held to different standards from those that claim to be *calibrated measures*. That is, *soft measures* have different *reliability and validity profiles* than *calibrated measures*. But because this kind of information is essential to how we can appropriately use each measure, we are suggesting that we ought to issue some kind of reliability and validity profile for *every* metric in circulation. This would amount to adopting an explicit and shared multidimensional psychometric evaluation matrix, representing the quality control standards we think should regulate the production of metrics.

To this end we offer Table 2, which represents the result of a *limited and exploratory* literature review of metrics currently in play. *This is not meant to be an exhaustive survey*; instead our intention is to evoke the state of the readily available literature. First, we sought out references to validity and reliability studies in those key publications of the primary authors that we happened to have on hand. Second, we conducted searches in two databases: Google Scholar and PsycInfo. We reviewed the first 20-30 citations listed, passing over most dissertations and all conference papers. Any citation that included validity or reliability studies was then included. To give the reader an idea of the relative sizes of the available pools of literature, the number of hits from the primary search term in each database is listed in parentheses in the footnotes.

Table 2: Exploratory Review of Validity and Reliability Studies for a Set of Developmental Metrics

Metric	Source	Aspect of psychometric quality addressed	Publication type
Leadership Development Profile[7]	None found.		
Spiral Dynamics[8]	None found.		
SCTi / MAP[9]	Cook-Greuter, 1999	Content validity, inter-rater reliability	Dissertation
Requisite Organization[10]	Jaques, 1978	Construct validity	Book
	Jaques & Cason, 1994	Inter-rater reliability	Book

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[7] Search terms: "leadership development profile" (hits: 35; 0), "leadership development profile" reliability, "leadership development profile" validity. Rooke and Torbert (1998) and several other Torbert works cite Loevinger's studies as confirmation of the LDP's reliability and validity. But Loevinger's studies are out of date (new raters, scoring criteria, and levels are now used; metrics need to be re-calibrated), so they are not included here.

[8] Search terms: “spiral dynamics” (hits:879; 11) “spiral dynamics” “people scan,” “spiral dynamics” validity, “spiral dynamics” reliability. Includes a large number of irrelevant hits having to do with physical science.

[9] Search terms: SCTi (irrelevant results), MAP assessment (irrelevant results), “Susanne Cook-Greuter” (hits: 71; 2).

[10] Search terms: "requisite organization” (hits: 526; 4), "requisite organization" reliability, "requisite organization" validity.

Metric	Source	Aspect of psychometric quality addressed	Publication type
Subject Object Interview[11]	Lahey, Souvaine, Kegan, Goodman, and Felix, 1988	Inter-rater reliability, test–retest reliability, construct validity	Self-published training manual
	Pratt, Diessner, Hunnsberger, Pancer, and Savoy, 1991	Inter-rater reliability, construct validity	Peer-reviewed journal
	Harris & Kuhnert, 2008	Inter-rater reliability, predictive validity	Peer-reviewed journal
	Lewis, Forsyth, Sweeney, Bartone, Bulls, and Snook, 2005	Inter-rater reliability, predictive validity	Peer-reviewed journal
Hierarchical Complexity Scoring System (General Stage Scoring System)[12]	Dawson 2003	Congruent validity, internal consistency, inter-rater reliability	Peer-reviewed journal
	Dawson, 2004	Congruent validity	Peer-reviewed journal
	Dawson & Gabrielian, 2003	Congruent validity	Peer-reviewed journal
	Dawson, Xie, & Wilson, 2003	Congruent validity, internal consistency, inter-rater reliability	Peer-reviewed journal
	Dawson-Tunik, Commons, Wilson, & Fischer, 2005	Construct validity, internal consistency, Inter-rater reliability, evidence of fine-grained interval scale	Peer-reviewed journal
	Xie & Dawson, 2006	Construct validity	Peer-reviewed journal
Lectical Assessment System[13]	Dawson,* 2000	Congruent validity, internal consistency, inter-rater reliability	Peer-reviewed journal
	Dawson,* 2002	Congruent validity, inter-rater reliability	Peer-reviewed journal
	Dawson, 2006	Construct validity, evidence of fine-grained interval scale	Book chapter
	Dawson-Tunik, 2004	Construct validity, internal consistency, evidence of fine-grained interval scale	Peer-reviewed journal

Importantly, Table 2 is not meant to be an exhaustive literature review. We know we have missed some studies and left a few metrics out. But the table is offered as a kind of proof-of-concept, an example of the way our concerns about quality control interface with knowledge production in the discipline. In this respect, the table is an invitation to the community; we would like to see comparable tables built by others, especially by the actual researchers concerned. We are just trying to kick-start a concerted discourse about quality control in the field.

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[11] Search terms used: "Subject Object Interview" (hits: 105; 30), "Subject Object Interview" validity, "Subject Object Interview" reliability, "Subject Object Interview" interrater reliability, "constructive development theory"

[12] Search terms used: "hierarchical complexity scoring system" (hits: 49; 9). System had a name change from GSSS to HCSS.

[13] Search terms used: “Lectical Assessment System” (hits:12; 0). Studies with an asterisk are those conducted on an early version of the LAS, temporally named the HCSS. However, despite all name changes, the LAS is significantly different from the HCSS previously known as the GSSS.

From what we could find, there is no evidence that the Online PeopleScan by Spiral Dynamics Integral offers reliable or valid measurements of anything. In this preliminary review, it also appears that contemporary uses of sentence completion methods to measure ego-development are not justified by peer-reviewed validity and reliability studies, and what studies there are do not address the most important aspects of psychometric concern (i.e., construct validity and internal consistency). In fact, in light of this exploratory literature review, it appears that the LAS and HCSS are the only metrics that have been calibrated using quantitative indexes of internal consistency. This means that the LAS and HCSS are the only ones that can be validly and reliably used to assess individuals; they are the only *calibrated metrics* in the set, the rest are *soft measures* that should only be used for research purposes. If we have missed publications (or unpublished white papers) we apologize, but offer this table as an invitation for greater transparency and integrity amongst researchers. Let us work together to fill out and expand the table, making clear to each other and to all those affected exactly what we are doing.

If we want to see an integral and developmental worldview gain a real institutional foothold—radically reforming business, government, education, therapy, and our own sense of human potentials—we need to get serious about our quality control standards. How can we expect to change *status quo* means of human resource management, educational testing, and mental health care when their knowledge production processes are more rigorous and professionalized than ours? Of course, there are more than merely pragmatic concerns on the table. As explained elsewhere (Stein, 2008a), there are important ethical issues in play. Concerns about psychometrics dovetail with concerns about *justice* insofar as our measures affect the lives of individuals and structure the shape of communities (Fisher, 2004; 2005). The call for quality control issued here is not a merely academic exercise.

Conclusions: Toward an Integral and Problem Focused Metrological Pluralism

In this paper we have offered an overview of knowledge production processes in developmental psychology, with an eye toward instituting quality control parameters for the creation of usable knowledge in the discipline. Clearly, the cursory treatment offered here requires further elaboration. In particular, the complex relations between metrics, models, and their respective quality control devices has been left for another day. Likewise, a very important discussion needs to take place concerning the transition from theory and research to practice, that is, about the methods we use in the creation and dissemination of psychological technologies. But we have not been seeking to offer *the* definitive account. We are really just pointing to the kind of reflective explication and survey that should be done by those concerned about the production of this kind of usable knowledge.

We have focused on metric-making in particular because it seems to be the least understood aspect of the discipline. We traffic in models all the time, and are more or less used to judging their worth (even if we have no shared language of evaluation). But metrics play a very specific role in developmental psychology, as embodiments of usable knowledge. As Table 2 begins to demonstrate, there are many metrics currently in play and they are not all equally valid and reliable. The kinds of validity and reliability profiles we are suggesting would go a long way toward raising the level of our discourse about developmental metrics. Importantly, a sophisticated discourse about metrics would *not* necessarily result in a homogenization of metric types or a marginalization of metrics with certain profiles. In fact, we firmly believe that such a discourse about metrics would move us toward an *integral and problem focused metrological pluralism*.

The ideal of an *integral and problem focused metrological pluralism* suggests that we reflect on the way we use developmental metrics, in order to make principled decisions about which types of metrics are appropriate for which purposes. In order to do this we need to build validity and reliability profiles for existing metrics and begin to dialogue about the implications of what we have to work with. This rigorous reflection on metrics should be supplemented with reflections on the problem-spaces we face. What are we trying to do with the metrics we have? For example, it is likely that clinicians and coaches need different metrics than researchers, while educators require measures that differ from those used by organizational consultants.

This ideal would also suggest that we need to study the efficacy of our efforts, and feed this data back into our reflections about which metrics are good for which purposes (Stein, 2008a). Currently, our success stories are anecdotal, so our enthusiasms seem a bit naïve. As the limited and exploratory literature review above suggests, we do not really know the nature of the instruments we wield. We need real *clarity* on a variety of issues—including not only psychometric ones, but also ethical, political, and pedagogical ones—before we can reasonably and responsibly move forward. To our minds, this clarity is a function of collaboration.

An *integral and problem focused metrological pluralism* ultimately requires open collaborative efforts toward building usable knowledge. A first step would be expanding and filling out Table 2 above, that is, building something like an information clearinghouse for developmental approaches. This kind of transparency among researchers, and between researchers and the public, could catalyze the growth of the discipline, moving us away from a set of cloistered consultancies and toward a network of collaboration, knowledge sharing, and rigorous debate. Thus, we echo the call for something like an *Institute for Applied Developmental Theory*, as articulated by Ross (2008) on prior pages of this journal. More specifically, this paper is offered as an invitation to those who might want to shape the future of the field and—with the support of *Integral Review* editorial staff—invite responses from the community.

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Establishing Second-Person Forms of Contemplative Education: An Inquiry into Four Conceptions of Intersubjectivity[1]

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Abstract: Four accounts of intersubjective theory are explored as a means for providing distinctions that support the development of second-person approaches to the emerging field of contemplative education. I examine Martin Buber's conception of the interhuman, Thich Nhat Hahn's interbeing, Christian De Quincey's three modes of intersubjective engagements, in addition to Wilber's five categories of intersubjectivity with consideration for how each will contribute to further outlining second-person dimensions of contemplative education. I then locate intersubjectivity in a broader epistemological terrain and propose the notion of *critical second-person contemplative education* as a type of pedagogy and approach to learning within contemplative education.

Key words: consciousness, contemplative, intersubjective, second-person education.

Introduction

While contemplative practices have been foundational to wisdom traditions throughout recorded history, it is only recently that these practices are being examined in different contexts of learning, particularly in higher education. In the past decade, several academic conferences[2] and a growing educational literature have focused on contemplative approaches to teaching, learning and knowing (Brady, 2007; Duerr et al., 2003; Hart, 2004; Miller, 1994; Seidel, 2006;

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[2] The following conferences have either exclusively focused on or featured presentations about contemplative education in recent years: *Contemplative Pedagogy in Higher Education* (Amherst College, May 2003), *Contemplative Practices and Education: Making Peace in Ourselves and in the World* (Teachers College, 2005), *Uncovering the Heart of Higher Education* (San Francisco, 2007), *Mindful Learners: The Uses of Contemplative Practice in the Classroom* (CUNY, 2006*), Developmental Issues in Contemplative Education* (Garrison Institute, 2008*).* Additionally, there is a graduate program in Contemplative Education at Naropa University, Contemplative Studies at Brown University and the University of Michigan as well as the *Rocky Mountain Contemplative Higher Education Network* based out of Colorado for academics interested in contemplative approaches to education. Over the past decade through the *Center for Contemplative Mind* there have been annual contemplative retreats and over 130 individual fellowships for $10,000 US issued to academics across North American campuses to develop courses that employ contemplative practices. Also, over the past decade there have been annual retreats at Naropa's *Center for the Advancement of Contemplative Education*, as well as a special feature journal issue on contemplative education with the Teacher's College Record (September, 2006).

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Thurman, 2006). Existing theoretical and qualitative research in contemplative education includes the following areas of focus: integration of contemplative practice in academia (Apffel-Marglin & Bush, 2005; Hall & Archibald, 2008; Nelson, 2006; Zajonc, 2006); studies of mindfulness in higher education settings (Holland, 2006; Langer, 1997); presence (O'Reilly, 1998; Seidel, 2006); contemplative learning in holistic education (Grossenbacher & Parkin, 2006); teacher development (Brown, 1998; Miller, 1994); prospects for a new field of studies (Duerr et al., 2003; Roth, 2006); survey of K-12 programs using contemplative practices (Garrison Report, 2005); meditation as a vehicle for contemplative education (Brady, 2007; Sarath, 2003; Zajonc, 2008); and contemplation as creativity (Brady, 2007; Sarath, 2006). These and other contributions draw broadly from the perennial world wisdom traditions (i.e., Buddhist, Taoist, Quaker) and recent scientific research (i.e., neuroscience, cognitive science, clinical psychology) in the interests of investigating contemplative practices[3] as a means for enhancing learning and development across a broad array of educational contexts and disciplinary fields.

Naropa University, a leader in contemplative education, defines and outlines their approach:

> Contemplative education is learning infused with the experience of awareness, insight and compassion for oneself and others, honed through the practice of sitting meditation and other contemplative disciplines. The rigor of these disciplined practices prepares the mind to process information in new and perhaps unexpected ways. Contemplative practice unlocks the power of deep inward observation, enabling the learner to tap into a wellspring of knowledge about the nature of mind, self and other that has been largely overlooked by traditional, Western-oriented liberal education. This approach to learning captures the spark of East and West working within; it's the meeting of two of the greatest learning philosophies in the history of higher education. (Naropa University, 2008)

Informed by various contemplative wisdom traditions, contemplative education involves the integration of contemplative practices into the curriculum of traditional higher education settings for the purposes of fostering intuitive, non-conceptual and experiential forms of knowing along paths of learning characterized by wholeness, unity and integration.

As a prominent voice within contemplative education, scholar-practitioner Harold Roth (2006) advocates exploring contemplative exercises from critical first-person and third-person perspectives.[4] In the few articles that address epistemological issues (Roth, 2006; Sarath, 2006), sufficient attention has not yet been given to contemplative pedagogy[5] from second-person perspectives, with a present gap in the literature concerning intersubjective approaches to pedagogy and learning. Given the absence of a systematic study of the philosophy, psychology and phenomenology of intersubjectivity, as scholar-practitioners, there is a need to further outline how to identify, discern and experience key second-person approaches to contemplative pedagogy and learning in our classrooms.

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[3] Traditional contemplative practices include meditation, prayer, chanting, ink brush painting, ritual performance as well as music, dance, storytelling, martial arts, contemplative art, among others.

[4] Roth (2006, p. 1805) points out that first-person approaches to contemplative experience involve exploring contemplation from a subjective position within the individual learner, while third-person approaches aspire to examine contemplative experience from an objective position that is presumed to be outside of us.

[5] I define contemplative pedagogy as any first-, second- or third- person contemplative practice that is utilized for educational purposes. Generally contemplative practices invoke heightened states of consciousness or contemplative awareness, which is "a state of being in which one is fully present and attuned to the world, bracketing thinking, judging, and analyzing, while trying to see clearly (Kesson, 2006, p. 1879). While contemplative pedagogy may draw on contemplative practice, not all

For the purposes of this article, second-person approaches to contemplative education involve exploring contemplative experience from an intersubjective position that is represented spatially as *between* us, in contrast to *inside* us (subjective position) or *outside* us (objective position). As the four accounts of intersubjectivity in this article attempt to demonstrate, there are different dimensions to shared experience that call upon distinct features of this relational perspective.[6]

Intersubjective theory has surfaced in recent decades from diverse developments in consciousness studies, integral studies, philosophy of mind, transpersonal psychology and feminist critical theory among others. Partly in response to the problematic legacy of Cartesian rationalism that proceeds epistemically by objectifying and depersonalizing one's self and the world (Ferrer, 2001), a number of intersubjective theorists (Bai, 1999, 2004; De Quincey, 2000, 2005, Heshusius, 1994; Thompson, 2001) have made the effort to establish the validity of certain shared processes of knowing born through and inside relationship. In doing this, these contributions have provided an important epistemological rebalancing and movement towards more integrated visions of knowledge and the processes of knowing.

Within educational contexts, intersubjectivity has been applied for improving teaching designs for a community of learners in terms of focusing on the common elements of attention, understanding and communication (Matusov, 2001). Related to this application is the design of a shared pedagogical object for the learning activity (EngestroKm, 1990), which the educator and students explore during the lesson (Wertsch, 1979). Intersubjectivity has also been applied in the context of special consensus-based learning activities (Matusov, 1996). Framed as a move from egocentric to sociocentric thought (Soltis, 1985), intersubjectivity has served the educational purposes of dialogue instruction (Guilar, 2006) focusing on the interrelationships between teachers, student and content.

In the upcoming sections I consider the following accounts of intersubjectivity[7] with an interest[8] in their relevance to contemplative education: Martin Buber's conception of the

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contemplative practices are suitable within educational contexts. As such, it is advisable that educators explore a particular contemplative practice outside the classroom in order to determine which (if any) elements will be appropriate in serving their teaching objectives and the learning needs of students.

[6] For the purposes of this article, I am focusing primarily on the individual and shared aspects of consciousness in the context of relationality and group discourse. Due to the limitations of space and the specific focus and scope of the article, I have not chosen not to address the myriad personal histories, social, cultural or political voices of students that play an important role in shaping classroom interactions.

[7] I chose to focus on these four intersubjective theorists as their contributions to intersubjectivity theory are rooted in and informed by deeper existential interests in the human condition. Additionally, each proceeds with an underlying sacred orientation to their inquiry and holds a deep-seated commitment to evolving human consciousness with their work. I believe these aspects are particularly relevant to my project insofar as theorizing about the deeper dimensions of intersubjectivity seems to require at the very

interhuman (Buber, 1965, 1966, 1984; Kramer, 2003), Thich Nhat Hahn's interbeing (Bai, 1999, 2004; Nhat Hanh, 2000; Nakagawa, 2000; Rothberg, 1998), Christian De Quincey's three forms of intersubjectivity (2000; 2005; Hargens, 2001) and Ken Wilber's integral dimensions of intersubjectivity (Wilber, 1996, 1997, 2000, 2006; Hargens, 2001). Following this, I recontextualize these intersubjective approaches as contributions from a second-person perspective within both Wilber's (2006) and Edwards' (2005) epistemological maps. I then take up Sarath's (2006) consideration of second-person forms of knowing and learning and introduce the notion of *critical second-person forms of contemplative education* raised in my brief summaries and critical readings of the four above accounts of intersubjectivity as a framework for engaging with contemplative educator's approach to teaching and classroom learning.

Four Conceptions of Intersubjectivity

Buber's Conception of the Interhuman

A twentieth century religious existential philosopher, Martin Buber has been a prominent voice in advocating the ideals of sacred consciousness, interpersonal relationship and dialogue in community. Buber's philosophical contribution involves framing human existence as contingent upon interpersonal modes of consciousness, interaction and being through which one engages with other humans, nature, the inanimate world and the sacred. Best known for his distinctions of I-Thou and I-It relationships (1965, 1966, 1984), Buber argues that human life consists of a movement between meeting and mismeeting in these realms, with the I-thou representing a sacred form of relationship (which is central to interhuman relations) and the I-It a more common secular variety (Buber, 1965). In Buber's (1984) monological I-It relationship, others are regarded like an "object" in a world that largely consists of people to be interacted with in order to serve our desires and ends. Buber (1984) elevates the personhood, needs and interests of the other as "subject" in the dialogical I-Thou mode of relationship, basing it on a responsiveness

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least, an experiential familiarity with the shared potentials of consciousness—a capacity that is exemplified in the work of each of these theorists.

[8] My interest and passions for intersubjectivity and contemplative education arise from a number of sources. As a dialogue educator and facilitator, I have taught post-secondary courses over the past eight years utilizing generative dialogue processes in Sweden, USA and Canada. My research, partly informed by these experiences, has been primarily of a theoretical and philosophical nature with an overarching interest in clarifying and inquiring further into the conditions for students to experience integral forms of transformative education mediated by deeper intersubjective dimensions of teaching and learning. As an eclectic Buddhist practitioner and meditator, I am interested in inquiring further into consciousness-related approaches to learning and related themes. This project is in part motivated by an interest in deepening and broadening the evolution of consciousness discourse in the contemplative education literature as well as improving upon my knowledge and expertise in these areas as a scholar-practitioner. In addition, as a personal coach, my interests in self-actualization have developed a strong interest in learning the skillful means and capacities needed to support the conditions for personal transformation in my students and clients. Finally, my interest in cultivating second-person forms of contemplative education is also motivated by my experiences in various communities of practice that applied presencing and other intersubjective practices to our collective process, where we discovered and co-enacted deeper creative possibilities that I believe have a yet untold significance in classroom life.

to and confirmation of the other, the other’s deeper humanity and the existing present-ness of the situation. Wood (1999) elaborates on the I-Thou relation:

> For Buber, I-Thou relations are unique, unpredictable, immediate, and involve the whole of oneself ‘bound up in reciprocity’ with the other. I-It relations are linked to the universal, are predictable, mediated by past experience, and involve only a part of oneself which stands at a distance from the object. I-It relations are third-person relations, so that for ‘It’ one could substitute also ‘He’ or ‘She’ of ‘They.’ (Wood, 1999, p. 84)

Distinguishing these two very different modes of existence, the I-Thou relation draws upon a second-person basis of connection that emerges through our encounters with others. In adopting the I-Thou attitude or stance towards relationship, there is a turning towards and acknowledgement of a more elemental and existential experience of another.

Throughout Buber’s works, he tends to sharply contrast the I-It relationship and I-Thou relationship. At times this leaves little room for more nuanced and paradoxical modes of being and meeting that are not exclusively apart of either archetype. Sidorkin (2000) elaborates:

> It is either I-Thou or I-It, all or nothing. There is nothing else and nothing in between. In his later work, Buber tried to enrich this binary model by introducing the notion of *Zwischenmenschliche*, or the interhuman. The interhuman consists of elements of every day life that may lead to a genuine dialogue, or, as Buber describes it, “I-Thou” relation. (Sidorkin, 2000, p. 10)

As a context that is “generated by the immediate presence that binds together a conscious “self” with a conscious “other.”” (Kramer, 2003, p. 78), the interhuman offers a key dormant dimension of intersubjective experience that learners discover through I-Thou meeting:

> When two individuals "happen" to each other, there is an essential remainder that reaches out beyond the special sphere of each-the "sphere of the between." In an essential relation the barriers of individual being are breached and "the other becomes present, not merely in the imagination or feeling, but in the depths of one's substance, so that one experiences the mystery of the other being in the mystery of one's own. (Buber, 1965, p. 170)

The interhuman involves relating to others as partners in a living intersubjective event, bringing about a context where I-Thou relationship may emerge (Buber, 1966). Given that the interhuman offers no smooth continuity, it has been largely ignored (Friedman, 2001). Yet, in aspiring to meet from the interhuman and confirming one another, in spite of whether one is in agreement or not, there is an occasion to stand one’s own ground while (in the context of our classrooms) we meet our students on theirs. In a classroom where an educator is exploring a collective form of contemplative pedagogy, learning from the context of the interhuman would be contingent on the educator’s quality and capacity for sustaining presence with her students. Additionally, it would depend upon her capacity to confer, share and invite students into fostering I-thou forms of relating *collectively* as an underlying process informing the inquiry. Buber’s characterization of the interhuman describes a subtle way of being with others from the condition of presence, where former barriers or boundaries between self and other soften, offering an *existential* referent in that it enables the self and the other to become more immediate, tangible and real.

Buber locates the interhuman sphere of the between beyond the domain of the conditioned socialized self which typically engages in I-It forms of relationship. For Buber, the interhuman cannot be reduced to an "it" or "thing" and emerges "in the presence of spontaneous mutuality" (Kramer, 2003, p. 104). Expanding upon the modes of mismeeting that typify I-It encounters, and forms of meeting with the I-Thou, Buber posits the "supreme meeting" (2003, p. 47) as indicative of special peak experiences in the deeper realms of the interhuman where it is possible to experience *pure relation.* From these moments of supreme meeting with students, one is initiated as it were into a sacred *relational* experience of second-person knowing through the interhuman realm of intersubjectivity.

Ironically, while Buber advocated for such encounters, he disliked groups as Sidorkin (1995) elaborates:

> Buber is right, most of the groups most of the time probably do suppress an individual relation. But a group might become a nurturing community, a special kind of group that is not hostile to, but inviting of the interhuman. As we can see, Buber states that the interhuman encounter happens within the group only as a *secondary* meeting, while the work of the group is the main concern. A nurturing community is the group where this hierarchy is reversed. It is a group where the interhuman is the primary concern, and what the group actually *does* together moves into a subordinated position. (Sidorkin, 1995, p. 5)

In this passage, Sidorkin uncovers a key insight concerning the importance of leading classroom interactions from the intersubjective domain of the interhuman. This becomes quite relevant in the context of second-person forms of contemplative education, as all conversations take place intersubjectively. Yet, contact with and inquiry informed by the deeper ontological domain of the intersubjective that Buber's interhuman signifies may be subtly eclipsed, inadvertently marginalized or skipped over in the effort to fulfill content objectives in the courses we teach. Reflecting on previous teaching experiences that draw upon collective forms of contemplative pedagogy, I have come to appreciate the importance of aspiring to speak and listen from Buber's interhuman sphere of the between with students as the primary context for orienting collective contemplative learning processes.

With the interhuman encounter as the primary basis for meeting, it becomes possible for both the educators to recalibrate their teaching stance and the students to in turn recalibrate their learning stance towards a shared I-Thou orientation. Honoring a primary commitment to fostering Buber's sphere of the between with our students helps bring about a shift in the classroom ethos towards becoming a more nurturing community (Sidorkin, 1995). In this sense, Buber's work offers a helpful insight into the transformative potential of addressing one another through deeper presence in the intersubjective encounter, which can give rise to an ontological shift in the context of our inquiry and learning within educational settings. By implementing contemplative second-person approaches that are not only aware of the relational and sacred implications of I-thou encounters with our students, but also committed to enacting the interhuman as a primary concern, I believe Buber's contributions to intersubjectivity can shed important light on one of the necessary preconditions for collective contemplative methods informed by the deeper ontological realms of the interhuman sphere of the between.

Nhat Hanh's Interbeing

Drawing from his Vietnamese lineage of Buddhism in the East and life experience in the West, Buddhist monk, scholar, poet, and peace activist Thich Nhat Hanh's teachings of engaged Buddhism speak to a broad cross section of people from various religious, spiritual, and cultural backgrounds. Known for his work with mindfulness in daily life, Nhat Hanh is a passionate exemplar of uniting Buddhist contemplative practice with social action and inter-religious dialogue.

Within Nhat Hanh's teachings, his depiction of interbeing (2000) is informed by the central Buddhist theory of *pratitya-samutpàda* (Nakagawa, 2000), which literally means *contingent origination*, but is often translated as *dependent co-arising*. From the perspective of interbeing we radically coexist and are fundamentally interrelated with what is "other" unlike the Cartesian dualistic account of human experience, in which we exist independently in and for ourselves. As a lens to help us experience the ground and fabric of relationality within and beyond the human domain to include all of life, interbeing depicts the self as an active co-participant in a greater shifting matrix of mutual causality and interrelationship. Within the Buddhist tradition, when *pratãtya-samutpàda* is deeply understood by practitioners, it helps bring liberation from the root of suffering and delusion insofar as the *separate* self-sense is seen through as an impermanent psychological construction, empty of any abiding or independent constitution (Nakagawa, 2000). *Pratãtya-samutpàda* also offers a classic phenomenal depiction of how we emerge through interdependent relations and how all events are deeply interwoven and mutually conditioned.

Nhat Hanh (2000) builds upon this classic Buddhist insight and goes a step further by emphasizing how the realization of interbeing gives rise to an increased sense of interconnectedness, bringing about a more inclusive and deepened ethic of responsibility for others. As such, his account of interbeing offers an important perspective for engaging with the underlying process-oriented nature of reality. By illustrating how our everyday experience of self and world are deeply interconnected, interdependent and interrelated, interbeing validates the underlying intersubjective ground of being that human experience is ultimately contingent upon.

When viewed within a contemplative educational context, interbeing brings attention to how the students, the classroom subject of inquiry, the process of inquiry and educator shape and co-constitute one another. As a "pedagogy of communion" (Nakagawa, 2000, p. 50), interbeing helps deconstruct our conditioned identification with our *separate* self-identity as an educator and, in turn reconstruct our primary identification with *interconnected* experiences of self and the attendant co-constitutive classroom processes. The practice of interbeing foregrounds the dynamic interrelated elements of the learning process with one's students, which cultivates compassion and an education of heart (Dalai Lama, 1999). Whether through a contemplative reconstruction of our student's points of view or a willingness to feel our student's distress concerning a particular injustice and resulting suffering on a particular issue, interbeing disrupts our traditional sense of agency and western self-sufficient ideals of individuality.

Upon closer inspection, interbeing offers the possibilities of what Wilber describes as "agency-in-communion" (Rothberg et al., 1998, p. 216). That is, an agency that is no longer being motivated by a traditional idealized masculine stance of autonomy that avoids, suppresses or denies communion. From the perspective of interbeing, our individual strength and source of empowerment are fueled by our connection(s) with others within greater fields of interrelatedness, further helping us see through the false Cartesian dualism of personal autonomy versus relationship. Bai (1999) elaborates: "The self dynamically flows into, out of, and with the other, creatively assuming a complex, polymorphous sense of agency. It is not the simple sense of agency wherein the subject (the self) does something to its object (the other)" (p. 4).

Through this *polymorphous sense of agency*, the tensions of individual agency and communion lie in the paradoxical dance of, on the one hand, becoming increasingly attentive to our interrelatedness with others (i.e., our students) without, on the other hand, binding one's sense of self to them. Such an intersubjective orientation can also help us avoid falling into either extreme of what Wilber (Rothberg et al., 1998, p. 216) frames as *pathological agency* (which avoids or denies communion) or *pathological communion*, where we become overly identified with relationality to the extent that we find ourselves submersed in orienting from the needs of others.[9]

How might interbeing advance the project of developing second-person contemplative pedagogy in higher education settings? Interbeing provides an intersubjective context and process that can be of great use in informing the development of second-person methods. By attending phenomenologically to the distinctive intersubjective space(s) we co-inhabit with our students, the educator learns (with practice) to see through the dualistic tendencies of his or her own consciousness—particularly in terms of how this reinforces different forms of separateness and fragmentation in group contexts of classroom learning. By forging a more distributed basis of connection with our students, the class subject and the processes of contemplative inquiry, seeing with the eyes of interbeing can help facilitate a shift into a deeper second-person intersubjective experience. As these elements coalesce, occasions for engaging with multiple contexts of self and otherness invariably arise. By modeling and encouraging a less rigid identification with our conventional identities, interbeing also offers a more distributed context of inter-relationality, which in turn establishes a broader ground and intersubjective context out of which we can lead the class inquiry. This helps relieve everyone of the individualistic if not narcissistic habit of blocking the intersubjective view by being in the middle of a conversation or steering classroom discourse with one's private agenda. By valuing and amplifying our shared experience of consciousness, the lens of interbeing brings into focus the more subtle unseen aspects and sinews of interrelatedness with our students, the subject and process of inquiry.[10] This helps us relax the habituated compulsion to know and deliver an authoritative view to our students.[11] In the context of classroom inquiry, interbeing can help students and educator regard the classroom as a place for occasions of interconnectedness and the co-constitution of shared meaning.

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[9] While our culture suffers from both pathological tendencies, Wilber's integrated notion of agency-in-communion offers a helpful distinction to monitor our ontological orientations for being in the world.

[10] Given that (a) interbeing extends far beyond the context of intersubjectivity and (b) the urgent need for a more comprehensive ethic of responsibility towards others, in certain higher education classroom settings it will be constructive to broaden the scope of the interbeing lens by expanding beyond the students in the class to include greater contexts such as all humans and the more than human world.

In addition to the applications of Interbeing discussed above, educators may wish to impart a taste of the experience by introducing a guided visualization informed by Nhat Hanh's (1998) writings:

> If you are a poet, you will see clearly that there is a cloud floating in this sheet of paper. Without a cloud, there will be no rain; without rain, the trees cannot grow; and without trees, we cannot make paper. The cloud is essential for the paper to exist. If the cloud is not here, the sheet of paper cannot be here either. So we can say that the cloud and the paper inter-are. "Interbeing" is a word that is not in the dictionary yet, but if we combine the prefix "inter-" with the verb "to be," we have a new verb, inter-be. Without a cloud and the sheet of paper inter-are. If we look into this sheet of paper even more deeply, we can see the sunshine in it. If the sunshine is not there, the forest cannot grow. In fact, nothing can grow. Even we cannot grow without sunshine. And so, we know that the sunshine is also in this sheet of paper. The paper and the sunshine inter-are. And if we continue to look, we can see the logger who cut the tree and brought it to the mill to be transformed into paper. And we see the wheat. We know the logger cannot exist without his daily bread, and therefore the wheat that became his bread is also in this sheet of paper. And the logger's father and mother are in it too. When we look in this way, we see that without all of these things, this sheet of paper cannot exist. Looking even more deeply, we can see we are in it too. This is not difficult to see, because when we look at a sheet of paper, the sheet of paper is part of our perception. Your mind is in here and mine is also. So we can say that everything is in here with this sheet of paper. You cannot point out one thing that is not here-time, space, the earth, the rain, the minerals in the soil, the sunshine, the cloud, the river, the heat. Everything co-exists with this sheet of paper. That is why I think the word inter-be should be in the dictionary. "To be" is to inter-be. You cannot just be by yourself alone. You have to inter-be with every other thing. This sheet of paper is, because everything else is. (Nhat Hanh, 1998, p. 3)

While such visualization exercises can be helpful in bringing about a shift in our accustomed habits of perception and ways of apprehending and relating to the world, there invariably will be occasions when it can be challenging to experience interbeing with students. Nhat Hanh's depiction of interbeing offers a means for working with the resistances in ourselves to what is "other" in our classrooms, as well as to the elements in our students and ourselves that we may resist and for whatever reasons, cannot or refuse to openly engage with. By identifying and finding a basis to transform the elements in ourselves that prevent us from recognizing our inter-relatedness with our difficult students, we become more prone to experiencing our students and our selfhood as interdependent and thus our processes of inner transformation and our students' transformation as likewise interdependent.

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[11] This does not suggest that professors are not also balancing content objectives, teaching aims, purposes and other considerations that shape the post-secondary classrooms.

De Quincey’s Three Forms of Intersubjectivity

> *Instead of being lone subjects in our own life's drama, we are ‘intersubjects' created by the original worldwide web - the web of intersubjectivity woven in the Great Cosmic Drama, in the Great Unfolding of Being. (de Quincey, 2005, p. 182)*

Christian de Quincey is a theorist in the field of consciousness studies and the philosophy of mind. His more recent work focuses on legitimizing second-person forms of knowing and inquiry by arguing for fundamental shifts in our understanding of human experience and consciousness. Like Nhat Hanh and Buber, in *Radical Knowing* De Quincey presents his thesis of intersubjectivity as both the ground and precondition that human consciousness arises out from. Like Buber, he tends to emphasize the interpersonal dimension of relationship given that communication is among his chief concerns. Tracing out the philosophical and spiritual roots of intersubjectivity in his work (2005), he argues overall that it has not been given sufficient attention as a legitimate ground of knowing and path for exploring consciousness.

De Quincey (2000, 2005) distinguishes among three types of intersubjectivity, each offering an important contribution to the project of bringing forth a second-person approach to contemplative education. He derives his first meaning of intersubjectivity from the basic Cartesian worldview where “individual subjectivity ontologically precedes intersubjectivity” (2005, p. 183). Communication in intersubjectivity-1 takes place primarily through sharing language and linguistic signals. Comparable to Buber’s I-It relationship, linguistic intersubjectivity is commonly found in academic culture where the prevailing pattern is to develop one’s own unique point of view “independently” of others. This can lead to a pedagogical orientation that privileges agency, where as educators we may find ourselves siding with those students who share a similar view to us. Prone to overlooking the entangled matrix of interbeing and corresponding forms of collective intelligence, from intersubjectivity-1 we teach from our established funds of knowledge as the meeting point or center of convergence in the classroom or online learning environment.

The meaning of intersubjectivity-2 refers to the psychological dimension of intersubjectivity, which, according to De Quincey (2005), is explored in the intellectual and feeling realm of relationship through presence. De Quincey remarks that intersubjectivity-2 focuses more on the interpersonal domain of communication, but not the deeper intersubjective context of an interaction. Here, participants’ subjectivity is still ontologically prior to intersubjective encounters. For the purposes of contemplative pedagogy, intersubjectivity-2 draws upon felt-relational forms of presence, providing an important intermediate depth of intersubjective experience that is comparatively more engaged than intersubjectivity-1. Given that intersubjectivity-2 relies on personal or interpersonal presence, the educator is focused on shifting the classes’ participation into presence, but as a means for affecting their learning of the subject, not transforming their sense of self to “understand the deeper co-arising and engagement of intersubjective subjects or intersubjects” (p. 281), which is the hallmark of the third sense or “intersubjectivity-3” (2005). For De Quincey, intersubjectivity-3 involves the radical shift from separate subjects interacting psychologically to a more profound transpersonal form of interacting that is also based upon shared presence.[12] However, in this mode of intersubjectivity, our interrelatedness with another is experienced as *primary* to one's ontological constitution. For De Quincey, this deep form of intersubjectivity contains the seeds of co-creative process and "relies on co-creative nonphysical presence, bringing distinct subjects into being out of a prior matrix of relationships" (2000, p. 2).

For the project of developing intersubjective approaches to contemplative education, De Quincey's intersubjectivity-2 and -3 offer important contributions. By drawing attention to the significance of felt-relational presence, intersubjectivity-2 offers an important intermediate context that focuses on the personal dimension of learning with others. In focusing on a shared transpersonal basis of learning with intersubjectivity-3, De Quincey identifies a path to generative interactions through the vehicle of a sacred co-creative relationship where our experiences of self and the world are chiefly mediated by engaging in presence with other centers of experience (i.e., subjects). Both forms involve learning to facilitate interactions beyond De Quincey's first mode of intersubjectivity where educator and students exchange language and inform each other (intersubjectivity-1). While De Quincey locates intersubjectivity-2 interactions as arising from independent subjects, his emphasis on felt-relational presence and incorporating the psychological dimension of learning are essential in creating the conditions for safety, compassionate listening and interpersonally mediated forms of co-creativity. For intersubjectivity-3, the aim is to experience the interhuman sphere of the between as ontologically prior to our individual subjectivities. Expressed in another way, the relational context or interhuman field becomes more prominent in one's awareness than our individual sense of separateness from both one another and this interhuman sphere of the between. By aspiring to learn together as *interdependent* subjects, our very identities become involved with the co-creative processes of conversation. It is not that individual meaning is no longer important. Rather, the emphasis of intersubjectivity-3 shifts to co-creating new *shared* meaning through collective felt presence and what is emerging through the class. My understanding of this intersubjective turn is that it involves listening and speaking from a subtly different self-location that is interwoven with, rather than separate from the interhuman field that envelops the participants. From this collective shift in attention and raising of collective mindfulness, in intersubjectivity-3 students and professor are more able to collectively experience its thinking processes together, rather than (a) simply verbalizing or downloading our thoughts when communicating, which is characteristic of intersubjectivity-1 or (b) overly relying on the interpersonal qualities of intersubjective experience as is characteristic of intersubjectivity-2.

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[12] Though De Quincey does not elaborate on how to make the shift from psychological to transpersonal modalities of intersubjectivity, my experience is that each form involves a different quality of presence and self-sense of the individuals engaging within these interactions. In other words, from intersubjectivity-2 one is still relating primarily to another as a separate self, whereas in intersubjectivity-3 one is relating to another from an interconnected sense of self that is informed by Bai's (1999) notion of a more polymorphous sense of agency that arises in part from the field of relationship that one experiences one's self co-arising with others from.

De Quincey's philosophical project lies in legitimizing second-person forms of knowing (i.e., particularly intersubjectivity-3).[13] As he points out, "we tend not to notice the second-person perspective because it is right in front of our noses every day. It is the medium in which we most naturally live" (2005, p. 178). However, it is also a medium that is most taken for granted or that we are most unconscious of, too, hence the importance of his three definitions and emphasis on presence, shared meaning, relationality and collective ontology as keys to deepen and refine our practice of second-person forms of knowing and being. As De Quincey's three definitions arc towards an increased degree or levels of intersubjective depth, they mark a progression from separate individuals interacting towards a more unitive and interwoven movement of shared consciousness. The shifts from intersubjectivity-1 to -3 represent not only new possibilities for co-creative manifestation within contemplative classroom settings, but make specific aspects of intersubjectivity (i.e., communion, co-presence, shared meaning) progressively more prominent than the individual agency, presence and personal meaning of learners who are co-participating in the intersubjective event—a change in pedagogical approach that has yet to be accounted for within the existing contemplative education literature.

Wilber's Five Dimensions of Intersubjectivity

Over the past three decades, American philosopher Ken Wilber has developed a transdisciplinary and transcultural integral philosophy that draws from a wide cross-section of perspectives, methodologies and paradigms across a breadth of fields and traditions. Wilber's recent AQAL approach[14] (2006) serves as a model through which theorists and practitioners can explore an integrally-informed perspective to their work within their respective fields of knowledge. Integral theorist Sean Hargens (2001) has identified at least five types of intersubjectivity throughout Wilber's writings (1996, 1997, 2006). In contrast to De Quincey's three definitions, which address instances of communication and were developed out of his research in academic philosophy and consciousness studies, Hargens' account of Wilber's "types" of intersubjectivity are culled from a comprehensive review of Wilber's writings and are presented in terms that are internal to Wilber's integral paradigm. In this regard, Hargens provides a summary of Wilber's broad research into intersubjectivity by highlighting five distinct forms that intersubjectivity takes within Wilber's integral model.

The first form is "intersubjectivity-as-spirit" (Hargens, 2001, p. 13) with spirit being in this context, the ontologically prior, always present background or non-dual ground of being (Wilber, 2006). This meaning of intersubjectivity adds an important distinction to Nhat Hanh's account of interbeing and De Quincey's intersubjectivity-3. Where interbeing refers to the co-arising constituents and elements of intersubjective experience, intersubjectivity-as-*spirit* identifies the deeper undivided formless source of consciousness that our experience of interbeing arises in and out of. Intersubjectivity-as-spirit offers an important transpersonal referent to the realm of the absolute within each intersubjective experience, signaling the non-dual space or root context out of which our experience of interbeing arises. This distinction also becomes significant within De Quincey's intersubjectivity-3 insofar as it draws our attention to a dimension of awareness that is not mediated by second-person forms of knowing and being. While certain educators[15] may aspire to engage with their students in a manner where second-person forms of knowing are informed by non-dual awareness in the classroom, students unacquainted with non-dual experience will require being introduced to it through some form of pointing out instructions.[16]

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[13] De Quincey does not address ways in which first and third-person forms of knowing might support his project of validating second-person forms of knowing. Instead, he tends to downplay third-person perspectives (2005), by claiming we need to set up experiments to induce the illusion of the separation between observer and observed "this stepping-back allows us to notice the third-person in action because it is not "normal"" (p. 178). He also downplays the role of first-person perspectives as being dependent on withdrawing from the world as in the case of meditation.

[14] AQAL is short form for quadrants, levels, lines, states and types—five key features of Wilber's (2006) integral framework.

The second form "intersubjectivity-as-context" (Hargens, 2001, p. 13) refers to the structural elements of intersubjectivity, which for Wilber is located within the lower left of his four quadrants (see Figure 1 below).[17] Hargens (2001, p. 13) identifies the intersubjective matrix of contexts as "physical laws, morphic fields, linguistic, moral, cultural, biological, and aesthetic structures." Hargens does not elaborate on how other structural elements from other zones[18] might influence our understanding of intersubjectivity. Such a consideration would involve taking into account the structural influences of Wilber's account of developmental lines,[19] where personal and interpersonal capacities, skills and intelligences influence the possibilities of specific intersubjective engagements between teacher and students or classroom life.

Intersubjectivity-as-context viewed in this light highlights developmental issues educators would benefit from considering in their work with contemplative education. Further research would need to establish which lines and levels[20] of development or capacities have a bearing on contemplative processes of education (i.e. stages of insight or concentration). Attention would also need to address the misconceptions around conflating *levels* of development with *states*[21] and *state-stages*[22] (Wilber, 2006) and to determine which contemplative practices are developmentally-contingent[23] and if so, in what ways. Both Hargens (p. 15) and Wilber (2006) point out that these background structures constitute the subject before experience and are therefore not accessible to direct experiential knowing. Given that not all students will be at the same contemplative capacity as their teachers and conversely in certain situations, intersubjectivity-as-context is a helpful consideration in refining our approaches to contemplative pedagogy.

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[15] Though such an approach to second-person contemplative education will be unsuitable for many educators in higher education classrooms, it has been my experience that learning to locate the non-dual quality of unconditioned experience firstly in one's own experience as an educator and secondly (where appropriate) within one's classroom interactions will invite a beneficial quality of shared learning and communication.

[16] I realize that educators also unacquainted with the non-dual experience will also require being introduced to it. It is important to note that according to Buddhist traditions, one does not, technically speaking, "have" a non-dual experience, for this would be enacting a subtle dualism. Rather, nonduality is viewed as a radical realization that requires ongoing meditative practice to stabilize as a view in one's everyday consciousness. In spite of non-duality being traditionally conceived as the essential condition of enlightened consciousness, in recent years practitioners have moved towards adapting pointing out instructions to give people a taste of this unconditioned experience through various intersubjective methodologies such as Genpo Roshi's *Big Mind, Big Heart*, Peter Fenner's *Radiant Mind,* Andrew Cohen's *Enlightened Communication* among others.

[17] Alternatively, in the language of his 8 primordial perspectives (2006), intersubjectivity-as-context would be in zone four within the lower left quadrant.

[18] The eight zones refer to the inside and outside of Wilber's four quadrants.

[19] In educational circles, developmental lines are referred to as *intelligences* made known by Howard Gardner (e.g., kinesthetic intelligence, musical intelligence, emotional intelligence, cognitive intelligence, etc.). Picking up where Gardner left off, Wilber (2006) outlined at least two dozen of these lines as a key dimension of his integral AQAL theory.

[20] *Levels* of consciousness are abstract measures that represent fluid yet qualitatively distinct classes of recurrent patterns within Wilber's construct of developmental lines. Some examples of levels include egocentric, ethnocentric and worldcentric (Rentschler, 2006, p. 20).

The third type, "intersubjectivity-as-resonance" (2001, p. 14), arises out of mutuality of presence shared between people, reflecting De Quincey's intersubjectivity-2 and -3. Hargens elaborates upon *worldspaces* and *worldviews* as contexts out of which the resonance takes place. In terms of worldspaces, Hargens (p. 14) introduces the distinction of *ontological* resonance between subjects and for worldviews and *epistemological* resonance between subjects who share a common stage of psychological development. Both of these terms attempt to locate where intersubjective resonance is taking place within Wilber's AQAL model. However, these distinctions become problematic in practice. For example, epistemological resonance between two subjects does not necessarily presuppose a common level of psychological development. Hargens' claim that ontological resonance is contingent upon a shared worldspace is helpful in a broad sense and resembles De Quincey's ontological definition of intersubjectivity. However, once again identifying the specific shared worldspace that resonance is taking place within Wilber's integral system or any developmentalist's model is a speculative matter, even when subjects are in broad agreement with the interpretive frameworks being applied. What would be helpful for contemplative educators interested in exploring second-person modalities of contemplative learning is a more nuanced heuristic to differentiate between the different forms of resonance. Such a heuristic would not need to be developmentally contingent, but could rather represent the possible stage-processes that groups go through or the characteristic forms of resonance that distinguish different intersubjective contexts such as De Quincey's -1, -2 and -3 in classroom settings. Resonance is often a marker of mutual understanding. However, Hargen's (2001) portrayal of Wilber's intersubjectivity-as-resonance traces each form of resonance back to Wilber's AQAL model. Again, I am not convinced this captures the significant intersubjective qualities of resonance that would shed further light into the nature of different encounter(s), particularly within classroom settings where learning is the underlying objective.

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[21] *States of consciousness are* temporary (from a few minutes to several days) and range considerably from ordinary to peak experiences including meditative states (induced by contemplation and meditation) and altered states (induced by psychedelic substances, demanding physical exercise, athletics, etc.).

[22] Rentschler (2006) defines *state-stages* as "states that unfold in a sequence, usually as the result of training. State-stages generally move from gross experience, to subtle experience, to causal experience, to nondual" (p. 30).

[23] This article will not address developmental considerations in educators, students or classroom life as this might pertain to contemplative education or intersubjective approaches. This is due in part to the sheer complexity of the subject but also the lack of established research in understanding how developmental awareness plays out experientially given the invisibility of these background structures and lack of clarity in understanding to what extent and precisely how successful applications of contemplative education are contingent or helpfully guided by such awareness.

The fourth type of “intersubjectivity-as-relationship” (p. 14) offers a further explication of types of relationship. Hargens offers two important sub-distinctions of *relationship-as-solidarity* (p. 14), where the basis of intersubjective interaction lies in the shared values, ethnicity, gender, interests and so on, as well as *relationship-as-difference* (p. 14), where one relates to another subject and makes the effort to reach across differences in the interest of arriving at a fuller understanding of one another or a given issue. This latter distinction has important ramifications in educational settings, in that the cultivation of this form of intersubjectivity flourishes when collaboration and shared meaning across difference take place, but also perhaps more importantly, enabling both educator and students to recognize one’s self in difference. Relationship-as-difference follows on Nhat Hanh’s account of interbeing, where the point of resistance in whatever we happen to disagree with is connected in some way to the point we are advocating for. While the deeper interwoven pattern that connects these points may not be initially evident to our students or us, this principle highlights the importance of the latent potential of intersubjectivity as a robust container for the transmutation of our understanding of conflicting and contradictory views.

The last category, “intersubjectivity-as-phenomenology,” touches on elements of De Quincey’s intersubjectivity-2 and -3 by focusing on the felt experience of intersubjectivity. Hargens associates the felt-sense with the previous three types of intersubjectivity: *spirit, relationship and resonance*. The felt-sense of spirit has an important implication in terms of deeper shifts in states of consciousness[24] (Wilber, 2006) that become more pronounced within intersubjective-3 engagements. Given the potential for deeper states in providing an ontological window into our deeper motivations and shared meaning (Wilber, 2006), the temporary emergence of transcendent states of consciousness and their potential to evoke deep feelings of sacred connection with life and the cosmos make the felt-sense of spirit a significant dimension of intersubjectivity that merits further exploration, particularly in the context of contemplative educational pedagogies. The felt-sense within intersubjectivity as relationship offers a widely subscribed to moral compass to navigate what educational philosopher Nel Noddings (1984) defines as an ethic of caring, which centralizes love in the particular, reciprocal, and personal forms of classroom relationship.

Recontextualizing Intersubjectivity Within Broader Epistemological Horizons

This article has attempted to convey the importance of second-person contemplative classroom processes, which draw upon the depth of shared relations and quality of intersubjective experience, expanding our scope of contemplative practice to include and build upon key insights of intersubjective theory is a natural next step. With the development of second-person approaches to contemplative pedagogy, as educators our approaches to classroom learning will increasingly ask for more distinct shared mode(s) of participation with our students—including key distinctions that have been outlined and developed throughout this paper.

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[24] Wilber (2006) outlines five primary states of consciousness in his AQAL framework: gross waking states (everyday); subtle states; causal formless states; witnessing states and non-dual awareness. States of consciousness range considerably from ordinary to supernormal varieties. Similar to meditative states, intersubjectivity-3 engagements, varieties of Buber’s notion of supreme meeting and other sacred intersubjective encounters tend to evoke deeper states of consciousness.

Rather than proclaim the strengths of intersubjectivity and problematize other ways of knowing,[25] I believe a more fruitful course forward involves *first* establishing the contributions of intersubjectivity theory that could be helpful in developing a second-person contemplative educational approach as I have attempted to convey by highlighting features of each intersubjective theorist's work above. *Second*, as I address in the next section, I believe it is important to contextualize intersubjectivity as a distinct perspective alongside other primary epistemological perspectives—i.e., subjectivity, objectivity and inter-objectivity. However, in doing this it is crucial to acknowledge that intersubjectivity is more than an epistemological perspective with distinct processes and dimensions of knowing.

As I have pointed out in the above sections, intersubjectivity has an ontological dimension (Buber, 1965; Roy, 2006) with both an interpersonal (Nhat Hanh, 2000; De Quincey, 2000; Wilber, 2000) and transpersonal relational significance (Buber; 1965; De Quincey, 2005). Intersubjectivity is also a conversational field of inquiry (De Quincey, 2005) that is contingent upon second-person contextual structures (Hargens, 2001) and interwoven relational elements of self and other (Nhat Hanh, 2000) that influence any given interhuman encounter. Finally, intersubjectivity also has a phenomenological (Wilber, 2006) dimension that is experienced through co-presence (De Quincey, 2005) and resonance (Hargens, 2001) among other characteristics outlined above, as well as beyond these four accounts.[26]

Keeping in mind these and other richly textured facets of intersubjectivity as we locate it heuristically as an epistemological perspective, we will then embark on our *third* step in considering what intersubjectivity might bring to the project of establishing second-person modes of contemplative education. In addition to preparing the theoretical terrain for such work, ongoing experimentation will be needed to gain a more direct understanding of the distinctive qualities, meaning and significance of intersubjectivity as a contemplative form of knowing and learning in classroom settings. Explorations of this nature could help identify a more nuanced and comprehensive understanding of second-person contemplative pedagogical approaches, experiences and their relevance for educator and students both inside and outside the classroom.

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[25] As a result of the traditional marginalization or omission of intersubjectivity, problematizing first-person subjective or third-person objective onto-epistemological habits may have been an appropriate stance to take in certain debates. My hope is that we can turn the conversation towards a post-Cartesian inquiry that honors both *limiting* the problematic features and *including* the respective gifts of each perspective and way of knowing. By sufficiently differentiating and untangling these three epistemological forms in the context of our classroom pedagogies, we can then move towards a stronger integration of each, with further consideration for how first-person and third-person contemplative pedagogies might support the development of second-person approaches. Given that the deeper forms of second-person engagement are partly contingent upon first-person contemplative practice, there is value in proceeding with a more integral orientation here.

[26] In introducing the related yet distinct elements, terminology and conceptions of intersubjectivity, this article does not go into depth with either comparing or contrasting each theorist's perspective of the ontological nature of intersubjective forms of communicating, relating, communion, agency or other modalities relevant to teaching across the four accounts. Largely this is due to the limitations of space and scope of this particular project.

Returning to the first objective, to help establish intersubjectivity as a key epistemological perspective within contemporary teaching and learning practices, there is value in consulting with a more encompassing epistemological map that differentiates intersubjectivity from its neighboring perspectives. Wilber (2000) provides us with such a map in his account of the four quadrants in figure 1 below.

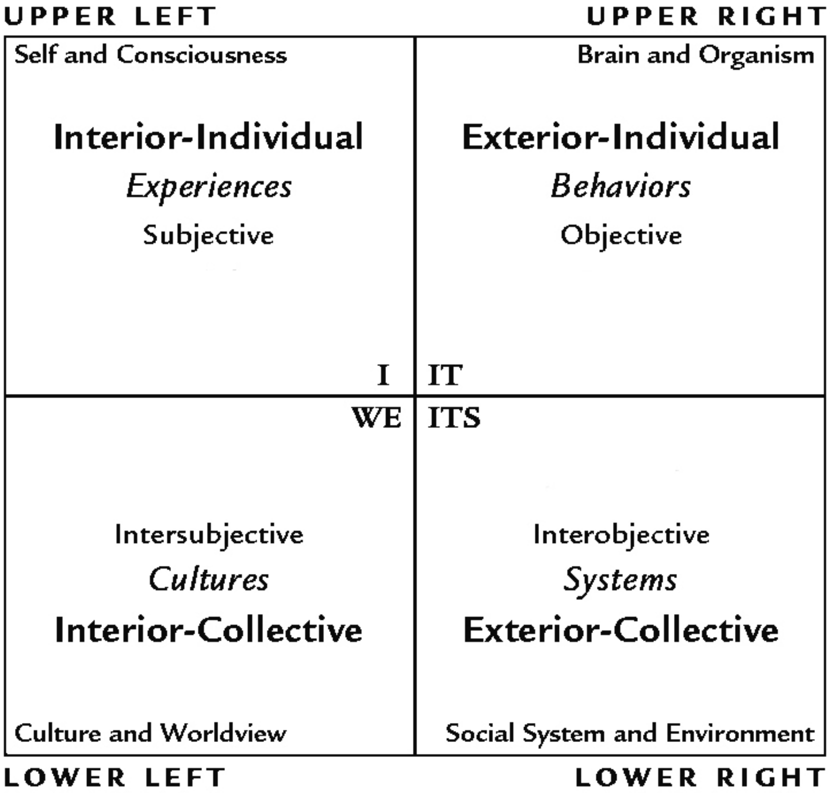
UPPER LEFT
UPPER RIGHT
Self and Consciousness
Brain and Organism
Interior-Individual
Experiences
Subjective
Exterior-Individual
Behaviors
Objective
I
IT
WE
ITS
Intersubjective
Cultures
Interior-Collective
Interobjective
Systems
Exterior-Collective
Culture and Worldview
Social System and Environment
LOWER LEFT
LOWER RIGHT

Figure 1. Wilber's (2000) Four Quadrants

Wilber's quadrants locate four primary perspective-dimensions of reality that co-arise: subjective (i.e., the interior of an individual), intersubjective (i.e., the interior of a collective), objective (i.e., the exterior of an individual) and inter-objective (i.e., the exterior of a collective). The quadrants essentially represent the broad range of interior and exterior perspectives within individuals and collectives. Each specific quadrant is a referent for one of these four primordial perspectives.

Wilber's four quadrants are useful to our purposes in several ways. By distinguishing each epistemological perspective in addition to their validity claims and criteria, we are in a better position to untangle methodological issues that invariably arise in our research. For example, if we are tacitly or unknowingly employing "objective" validity criteria to understand a contested intersubjective experience as a way of inquiring into whether it is true, we are proceeding incoherently. Insofar as the intersubjective experience we are investigating is contingent upon mutual understanding, shared resonance and co-presence, understanding the validity of the experience becomes an *interpretive* exercise, not an empirical one. By conflating the methods and measures of validity across different epistemological perspectives, the language and validity criteria naturally become muddled and academic turf wars ensue—hence Wilber's map helps locate and defend the partial merits of each first-, second-, third- and third-person plural perspective of knowing and their accompanying methodologies. In this way, Wilber's quadrants help prevent colonization from other perspectives or privileging one form of knowing to the exclusion or diminishment of another.

Given that contemplative education draws from the perennial world wisdom traditions (i.e., whose knowledge horizons are generally located in the left hand quadrants—particularly upper left) and recent scientific research (i.e., that is generally located in the right hand quadrants), contemplative education research in academic settings is attempting to occupy an uncomfortable position or movement between the more objective sciences and the more subjective and intersubjective interpretive social sciences. As a case in point, Wilber's quadrants offer a helpful augmentation of Roth's (2006) binary contemplative framework that differentiates first and third person methods. In turn, the quadrants offer us a more comprehensive epistemological map to distinguish and validate intersubjectivity as one of four broad perspectives of contemplative knowing. Differentiating intersubjectivity from its neighboring perspectives ensures that educational researchers utilize the appropriate truth claims and methods[27] required to coherently work with intersubjective approaches to contemplative education, as each perspective carries with it inherent methods for experiencing and interpreting the world (Wilber, 2006).

Nevertheless, while Wilber's quadrants are helpful in broadly differentiating these perspectives, they have the limiting condition of offering a more "structural approach and interpretation of reality" (Roy, 2006) than a process approach.[28] Roy (2006, p. 119) makes a helpful distinction between "epistemological categories of knowing" which help us apprehend reality and the related yet distinct "ontological ways of understanding" that are gleaned through deeper modes of consciousness and being. In this regard, Wilber's quadrants do not satisfactorily account for the ontological ways of understanding intersubjective reality that this article attempts to convey. Additionally, neither do Wilber's quadrants nor his eight native perspectives (2006) satisfactorily locate the second-person perspective or differentiate singular or plural forms of second-person knowing.[29] Integral theorist Mark Edwards (2005) has advanced a more nuanced account of intersubjectivity in his rendering of the three basic first-, second- and third-person epistemological perspectives.

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[27] Intersubjective truth claims from the second-person perspective involve knowledge developed by a group of inquirers about some theme, issue or domain of inquiry. This second-person knowledge is concerned with the shared, intersubjective processes which groups of people explore when they meet in the context of discussion, dialogue, presencing and other inquiry formats. Epistemological validity in the intersubjective deals more with interpretivistic methods or procedures for conducting inquiry that are grounded in the second-person world-space of shared experience.

[28] Roy derives her process-model in part from process-theory, which is informed by intersubjective theory to the extent that a process-model is contingent upon a relational understanding of reality as comprised fundamentally of processes rather than things.

[29] Within Wilber's eight native perspectives (2006), he identifies the interior and exterior of the intersubjective by noting first-person and third-person accounts of *second-person reality*. However, he does not distinguish *a second-person perspective* or differentiate between the singular and plural forms of *second-person knowing* in his mapping out of the eight native perspectives.

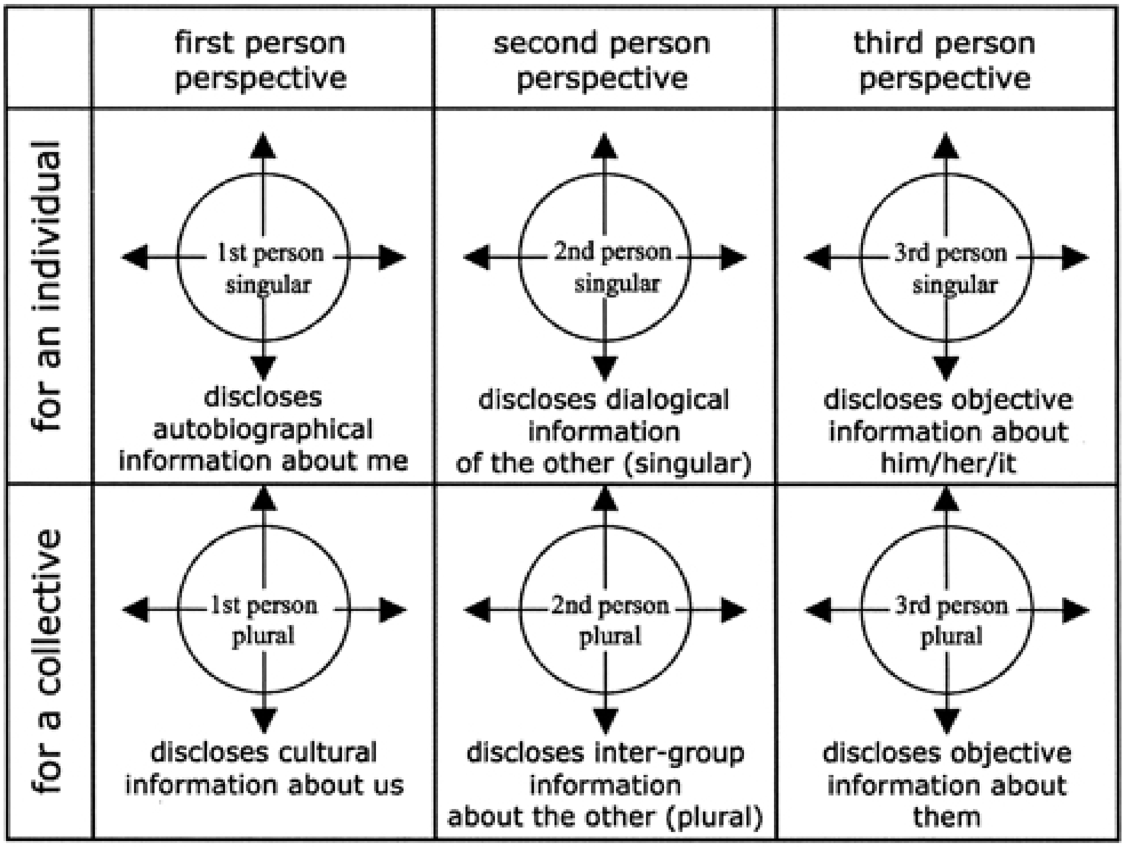
first person perspective
second person perspective
third person perspective
for an individual
1st person singular
discloses autobiographical information about me
2nd person singular
discloses dialogical information of the other (singular)
3rd person singular
discloses objective information about him/her/it
for a collective
1st person plural
discloses cultural information about us
2nd person plural
discloses inter-group information about the other (plural)
3rd person plural
discloses objective information about them

Figure 2. Edwards' (2005, p. 280) Account of First-, Second- and Third-person Perspectives

By framing Edwards' epistemological map as an appendage to Wilber's quadrants,[30] in addition to legitimizing the intersubjective dimension of reality, we can now honor the second-person perspective more fully by distinguishing between second-person singular and plural varieties. In the context of contemplative education, Edwards' map becomes particularly useful in distinguishing intersubjective reality from the distinct second-person perspectives that co-arise within it. Given that the field of contemplative education is in its formative stages, legitimizing and further differentiating (a) second-person perspective(s), (b) intersubjective reality and (c) the neighboring first-person and third-person primary perspectives raises important foundational clarifications and questions in terms of how we proceed to develop the field of contemplative education. By differentiating and including single and plural varieties of second-person pedagogies alongside their first- or third-person counterparts, we can begin to more clearly demarcate the epistemological terrain underlying these different pedagogical orientations. As an example, without distinguishing second-person forms of contemplative pedagogy, deeper forms of intersubjective collective knowing may remain dormant, obscured or completely hidden from our awareness as educators. Acknowledging second-person forms of contemplative pedagogy will help locate and map out the respective depths of intersubjective reality, as well as deeper forms of intersubjective knowing than the conventional varieties that prevail at the physical-material and conceptual-mental levels of existence (i.e., intersubjectivy-1). By mapping out the different regions of intersubjective experience, further interpretive validity criteria can be established to determine to what extent if at all we are enacting distinct senses/experiences of intersubjectivity. Additionally, as second-person forms of contemplative education is a broad distinction, there is room for including the intersubjective insights and distinctions of Buber, Hahn, De Quincey, Wilber and others who have shed helpful light onto different contours and dimensions of intersubjectivity.

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[30] For the purposes of my project in *legitimizing* and further developing second-person forms of contemplative education, I have drawn on Wilber's (2000, Figure 1) and Edward's (2005, Figure 2) frameworks as a way of establishing how intersubjective/second-person approaches to contemplative education are situated, *epistemologically-speaking*. This work is consistent with and in several cases informs the contemplative pedagogy heuristics that Roth (2006) and Sarath (2006; 2009) have developed in framing their approaches to contemplative education. As this article explores, specific shared experiences within the intersubjective/second-person domain of classroom life are *qualitatively distinct* from the modes of knowing and learning that emerge from the private-subjective first-person and public-objective third-person domains, hence the importance of distinguishing them. Some readers may find the technical presentation of Wilber's and Edward's frameworks to be incongruous or unsuitable to the above inquiry into the four conceptions of intersubjectivity. However, my intention in utilizing their frameworks is to provide further heuristic and conceptual clarification by locating these four accounts *epistemologically,* not to suggest that Wilber's or Edward's frameworks are in any way necessary to experience the different aspects of intersubjectivity explored above.

Establishing Critical Second-Person Forms of Contemplative Education

In the September 2006 contemplative education issue of the *Teachers College Record*, alongside Roth's (2006) call for developing pedagogies that support students' investigation of contemplative states of consciousness through first- and third-person approaches, Sarath (2006) briefly comments on second-person approaches of contemplative practices as a "movement from education's conventional focus on third-person knowledge toward a more inclusive approach that also includes second- and first-person approaches to knowledge" (p. 1817). He locates second-person educational approaches along an integrated continuum of first-person and third-person knowing and inquiry and points out that any subject can be studied through each perspective. Sarath describes his experiences with second-person approaches to contemplative education:

> I move into the intersubjective domain with exercises done in small groups that invite students to share and connect deeply with others. Common examples are exercises in which students reflect on, identify, and discuss inner feelings, behavior patterns, frustrations, and sources of fulfillment. Community based learning is another example of intersubjective learning that can both thrive within and feedback to strengthen a creativity and consciousness framework. (Sarath, 2006, p. 1836)

On the whole, Sarath offers brief third-person descriptions of the content of second-person interactions in the classroom, however he does not comment further on the process of second-person approaches to education other than it is "more process-oriented" (p. 1817) than first-person or third-person forms. Roth, on the other hand, advocates for *critical* first-person and third-person approaches to contemplative education.

> By critical, we mean that students would be encouraged to engage directly with these techniques without prior commitment to their efficacy. They would then step back and appraise their experiences to gain a deeper appreciation of their meaning and significance. Students will learn to identify contemplative states of consciousness both as objects and subjects of study. (Roth, 2006, p. 1788)

Roth does not address second-person approaches to contemplative education in this article[31] or in any of his published work to date. Given the academic heritage of valuing third-person forms of learning at the expense of other forms, one of Roth's key points of focus in this paper is to advocate for critical first-person methods of contemplative education.

Building from where Sarath and Roth left off, I am advocating for developing second-person methods of contemplative education that take into account the above perspectives on intersubjectivity. The interhuman encounter, the interbeing of students and educator, the shared presence of intersubjectivity-2 and -3 and the intersubjectivity-as-spirit and –resonance in the class field among other intersubjective distinctions further explicate the contemplative dimensions of this broader project. To the extent that not all forms of second-person education are oriented towards the depths of learning and co-creativity that the application of the work of the above theorists entails, there is a need for distinguishing critical second-person forms of contemplative education and pedagogy as a means for establishing a new theoretical domain of inquiry within the field. Additionally, such an initiative will also help students and faculty identify a broader spectrum[32] of contemplative pedagogy than if they had been primarily exploring first- and third-person approaches as advocated by Roth's (2006) framework.

Consider the following description of an intersubjective experience, which exemplifies a second-person contemplative encounter:

> There's nothing like the joy, freedom, and deep intimacy of intersubjective space … our shared and passionate attention to what wants to come into being didn't diminish, but rather it enhanced our senses, receptivity, deep intuition, as well as the faculties of thinking together, building on each other's ideas and inspirations, and profoundly appreciating the value of everyone's perspective. They became notes in a larger harmony that has a message that we can receive only when the chatter of the conditioned mind stops, and we share with one another what is perceived in that precious state. (Por, 2004, n.p.)

I believe Por's brief description conveys key aspects of intersubjective space that arise when the conditions for second-person education are present in that it draws attention to a distinct quality of feelings and attention, mode of shared thinking, a state of consciousness and way of being together with others in conversation. How might our current approaches to contemplative education facilitate intersubjective experience(s) for learners along these lines in a manner that serve the course's pedagogical and content goals?

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[31] I will speculate that this omission is because second-person forms of inquiry are not an important focus of the proposed contemplative studies concentration at Brown University—the subject of Roth's (2006) article.

[32] A broader spectrum would not leave out second-person approaches, but include an array of first-, second- and third-person forms of contemplative study.

As an educator, my urgent felt-sense of the call for developing intersubjective methods of contemplative education arises in response to having witnessed and endured countless hours of classroom life shaped by "the most minimal sense of we" possible" (Balder, 2007):

> It is a functional "we" designed to serve the interests of private selves. There are, of course, advantages to our modern self-centered "public sphere," allowing for freedoms that were not possible in the mythic membership societies of the past, but these freedoms come at a cost. The self, in winning and maintaining its independence, is cut off from the whole in fundamental ways, which are frequently difficult to identify. (Balder, 2007, p. 1)

As a basis for fostering an *optimal "we,"* critical second-person contemplative educational approaches work with varied processes of collective contemplation and inquiry into the class subject that are shaped by subtle and emergent dimensions of intersubjective experiences. What discoveries await a graduate seminar or cohort group where conversations are oriented from a collective investment in speaking and listening that is attentive to what is emerging from the intersubjective worldspace of the class field of learning? By experimenting with second-person approaches to contemplative education that engage students in intersubjective forms of learning, thinking and being together introduced from the distinctions brought forth in this paper, as educators we bring long awaited attention to the deeper intersubjective spaces that await us and our students in daily classroom life.

Closing Remarks

To briefly summarize, Buber offers a helpful compass to orient second-person contemplative interactions with his distinction of the primacy of intersubjective learning processes unfolding from the interhuman sphere of the between, which establishes a transpersonal context and process from which to orient classroom inquiry. Nhat Hanh's description of interbeing conveys rich insight into the ground and fabric of intersubjective relationality, helping foster an inclusive and deepened ethic of responsibility for the intersubjective encounter with "other", whether our students, a differing opinion, perspective or some element of the cosmos one has neglected to include in our picture of inquiry and communication. De Quincey's three modes of intersubjectivity, particularly intersubjectivity-2 and -3, build on his epistemology of presence, relationship and collective co-creativity. Signifying different depths of intersubjective knowing, intersubjectivity -2 and -3 offer helpful markers of the respective levels of epistemology and reality that second-person experiences of contemplative education uncover. Wilber's intersubjectivity-as-spirit provides a referent to the deeper source of our human experience, which re-situates second-person modes of engagement within a greater emergent cosmology. Intersubjectivity-as-resonance in the context of our modes of knowing and being as well as intersubjectivity-as-relationship (i.e., relationship as similarity and difference) and the felt-sense in intersubjectivity-as-phenomenology also offer key distinctions to further explore in our critical contemplative classroom experiments with second-person education.

Alongside critical first-person and third-person contemplative methods, the related yet varied assortment of intersubjective accounts culled from the literature on intersubjective theory outline key aspects of the epistemological territory for developing second-person forms of contemplative learning and knowing together in the classroom. The purpose of this article is not so much to show how these distinctions improve upon existing second-person contemplative pedagogical methods, as there are presently few to draw from, but more to illustrate the need for a subfield of inquiry to establish and inspire the future development of second-person pedagogical approaches to contemplative education.

In framing these interpersonal methods pedagogically as “inter-subjects” of study from critical second-person perspectives that arise with post-Cartesian first- and third-person perspectives, my intent has been to cast new light on collective contemplative practice by recontextualizing this body of work within a more comprehensive epistemological framework and domain of inquiry within the emerging field of contemplative education. By presenting key elements from these four accounts of intersubjectivity, then introducing Wilber and Edwards’ epistemological maps to reinforce and advocate for the inclusion of these accounts within a broader critical framework of second-person education, my hope is this contribution will provide scholar-practitioners with useful distinctions to further differentiate and build upon second-person approaches to contemplative education.

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The Status and Relevance of Phenomenology for Integral Research: Or Why Phenomenology is More and Different than an “Upper Left” or “Zone #1” Affair

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Abstract: The specific treatment that Ken Wilber gives phenomenology in his model of integral theory requires a critical investigation. According to Wilber's model, different methodologies are situated in distinct quadrants or "domains of knowing," namely the subjective, objective, intersubjective and interobjective domains, labeled by their position in the model's matrix illustration, upper left, upper right, lower left, lower right. In this model, phenomenology is isolated in the UL quadrant, and even more specifically as the inside perspective of this subjective domain. What this means is that, according to Wilber's classification, phenomenology is an exclusive, rather than inclusive, approach that limits its field of inquiry and therefore its range of knowing also to an inside exploration of the subjective.

In contrast to this positioning, a critical reflection on the current status and usage of phenomenology in integral theory is provided. The goal of this undertaking is to show that phenomenology – particularly in its more advanced forms – is more and different than something to put merely into “upper left” quadrant or to understand only as a “Zone 1” affair suggested in the conventional integral model.

In the first part the paper outlines an introductory understanding and examines classical (Husserlian) phenomenology as well as illustrates some of its limitations. Based on various critiques and further developments of phenomenology, the status and usage of phenomenology in integral (AQAL) theory is discussed critically. Particularly, this concerns the ordering of phenomenology into a separate realm or zone, the status of consciousness, including the debate related to its structure and states, and inter-subjective dimensions as well as the relation to contemplation and meditation. In a second part the paper introduces the more advanced phenomenology of Merleau-Ponty that overcomes the limitations of the previous versions of phenomenology. Advanced phenomenology entails a strong proto-integral potential and as such contributes to compensating for some of the weaknesses and limitations of integral theory.

Furthermore, a third part proposes that such advanced phenomenology provides the foundations for an “adequate phenomenology” in integral research. Based on the specific ontological, epistemological, and methodological considerations, this final part and the conclusion outline some perspectives on what is called integral “pheno-practice.” The explicated criticism and the proposed pheno-practical approach might enrich integral research, improve its theory building and empirical testing by offering perspectives of a more inclusive, coherent and relevant nexus of ideas and possibilities for integrative theory and practice.

Keywords: Adequate phenomenology, integral theory, Merleau-Ponty, phenomenology.

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Introduction

Following multiple historical predecessors and developed and promoted inside and outside academia by avant-garde thinkers like Jean Gebser, Roy Bhaskar, Ervin Laszlo, Edgar Morin, Basarab Nicolescu and Ken Wilber, integral approaches have emerged responding to different contemporary challenges. In a way the emerging revival and further development of integralism manifests and provides a systematic and systemic response and guide to the complex environmental, economic, societal, religious, political, educational, as well as scientific crises we intensifying face individually and collectively. Among other aspirations integral orientations and theoretical practices attempt to reach a required synthesis grasping the major insights of pre-modern, modern and post-modern worldviews and re-integrating modern differentiation between science, arts and spirituality as the three major realms of human beings' expression and construction of reality.

In this context, the all-encompassing but difference-sensible integral thinking and theory of Ken Wilber and corresponding research inspired by it, represents one of the most sophisticated and advanced integral philosophies for understanding and dealing with the problems and potentials not only for current but also future realities. Moreover, it provides a well-founded base for a much needed integral science, which allows not only including, but transcending conventional research orientations in a coherent and adequate way. Integral theory – as developed by Wilber – has already achieved important insights and results as well as found extending developments, refinements and practices. However, what is necessary is furthering and deepening a critical appraisal and evaluations of integral theory and practice. Appreciating the tremendous achievement of integral research to date, the following criticism tries to contribute to a specific advancement and theory building. Accordingly, the following paper – and research initiative which may be inspired by this – tries to provide a constructive critique. In particular this analysis concerns the status and usage of phenomenology in integral theorizing.

Generally, phenomenology is discernible as a specific style and "movement of thought" (Merleau-Ponty, 1962: xxi). It is characterized by a flexible and vivid way of inquiry, as it takes different directions, tries out continuously new ways of reasoning. Thus, it approaches the experienced phenomena in question and its various and inexhaustible dimensions of meaning and ambiguities perspectively. Therefore, phenomenology can be seen as an attempt to understand what experience is and means, better to say a formalized account of conscious experience and its implications.

However, what is called phenomenology is not a rigid school or uniform philosophic discipline with an undisputed set of dogmas. Rather there is a great diversity in various points of view of thinkers and approaches who and which could be classified under the general rubric of phenomenology. Consequently, as a philosophical movement, phenomenology is marked by a variety of different forms, themes, ideas, problems, and issues and further developments and variations. Therefore, the horizon of phenomenology cannot be taken in at a single glance or framed as one united school (Embree, 1997; Moran, 2000; Spiegelberg, 1982; Stewart & Mickunas, 1990). Based on outlining some selective but important issues out of the diverse scope, the following will argue that the status of phenomenology in integral theorizing needs to be rethought and extended for gaining a more adequate and comprehensive understanding.

Especially it will be shown that as a methodology phenomenology is more and different than an upper left or Zone #1 affair, as it is modeled in hitherto existing integral theory and methodology.[1]

After introducing specific ontological and epistemological positions and limitations as well as discussing criticism of classical phenomenology, further developments and refinements are briefly presented. Based on this introductory understanding the status and usage of phenomenology in integral research will be problematized critically. In a second part, then the advanced phenomenology of Merleau-Ponty will be presented as a proto-integral philosophy and finally perspectives of an adequate phenomenology and an integral pheno-practice are outlined.

All in all, this article proposes that a more complete accommodation of an adequately understood phenomenological science within integral theory building and integral research development opens up a more enriched and coherent system of enlightening ideas and relevant fields for its applications.

Part I: Understanding Phenomenology

What the following attempts to convey is an introductory understanding of phenomenology and its relationship to integral theory by indicating to some of its central themes, methodologies and applications. It would be beyond the scope of this article to describe phenomenology in a comprehensive way. The aim will be to show the relevance and potency of phenomenology for advancing a more integral research and practice.

In general, phenomenology represents a philosophical discipline that has been central to the tradition of continental European philosophy throughout the 20th century and still provides a relevant contemporary purview (see e.g., Hammond et al., 1995; Macann, 1993). Literally, phenomenology is the study of phenomena: appearances of things, specifically things as they appear in human experience. Thus, it concerns ways that humans experience phenomena, particularly the experientially realized meanings things have for them. Therefore the call *to the things themselves* (Zu den Sachen selbst) as they are given in experience marks in a nutshell is the program of phenomenology. However, this call is not a demand for a “realism,” because the things at stake are the acts of consciousness and the objective entities that are constituted in them, both forming together the realm of the phenomena. As its name connotes, phenomenology is, fundamentally, a philosophy which attends to *phenomena*. The term *phenomeno-logy* is derived from the two Greek words *phainomenon* (an “appearance”) and *logos* (reason or word). Accordingly, phenomenology is a reasoned inquiry: a method of scientific philosophy in general which tries to discover the essences of appearances which are anything which human beings can become conscious. More precisely the word *phenomenon* means *that which reveals itself*. Therefore, phenomenology refers in the more refined way of Heidegger´s ontology to the attempt to let the thing speak for itself, specifically: “to let that which shows itself be seen from itself in the very way which it shows itself from itself” (Heidegger, 1962, p. 58).

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[1] Wilber (2006) differentiates eight complementary perspectives or hori-zones whose paradigms and methodologies are used to enact, disclose, and bring forth valid data for any occasion within a community of the adequate. Phenomenology is put with introspection into Zone #1 within the Upper-Left Quadrant (Subjective Intention).

The classical phenomenological approach focuses on the world appearing to us through our stream of consciousness as a configuration of meaning. Elements of consciousness, i.e., perceiving, willing, thinking, remembering, anticipating, etc., are our modalities of self-world relationship. They give us access to our world and to that of others by reflecting on the content (i.e., its meaning or the *what*), which we thus encounter, and also by reflecting on the process (i.e., the *how*). What makes an experience conscious is a specific awareness one has of the experience while living through or performing it. Specific refers here to a direct investigation and description of phenomena as consciously experienced, “without theories about their causal explanation and as free as possible from unexamined preconceptions and presuppositions” (Spiegelberg, 1975, p. 810). With this orientation, phenomenology refers not only to a philosophical inquiry, but serves also in an adapted way research purposes and methodological pursuits. Being a specific research methodology, it is striving to portray phenomena from the personal and contextual perspectives of those who experience them. Accordingly, classical phenomenology – as initiated by Edmund Husserl (1859 – 1938) – approaches phenomena by studying conscious experience as experienced from the *subjective* or *first person point of view* along with relevant conditions and horizons of experience, within the larger sphere of the unified field of a person's consciousness and existence; “the psycho-cosm” (Eckartsberg, 1981). Accordingly it basically represents a philosophy that considers anything appearing to consciousness as a legitimate field of inquiry (Stewart & Mickunas, 1990, p. vii).

As a distinct philosophical movement, phenomenology emerged largely from the philosophical views of Husserl, who was struggling against psychologism, historicism and scientism, in so far as they reduce the life of man to a mere result of external conditions acting on him. He was seeking to reaffirm rationality at the level of experience, without sacrificing the vast variety that it includes while laying aside (bracketing) all the processes of conditioning which psychology, sociology, and history reveal. Moreover, Husserl dealt critically with the Cartesian philosophy regarding the rational justification of knowledge. Instead of the Cartesian distinction between the subject and the object of thinking, he maintained that the two must be considered together (Husserl, 1963, 1964, 1989). Thus Husserl, like Heidegger, also early on understood that the phenomenology project could not exclude the objective domain even though the starting point and approach was from the subjective perspective.

Husserlian philosophy considers the unique and virtual experience of things themselves that is to allow experience to speak for itself through conscious subjectivity. With this aspiration, Husserl is part of a movement at the end of the nineteenth century and early 20 century to transcend the limitations of the materialist, empiricist and positivistic approach to science and philosophy.

Husserl`s call to return to the investigation of the things as they appear tried to overcome examining and explaining only their material conditions, extrinsic causes etc. without finding out what they are and mean intrinsically. He extended the Cartesian *cogito, ergo sum* (I think therefore I am) to *cogito, ergo die Welt ist* (I think, therefore the world exists). Accordingly, the objective world is “proved” through subjective identification. Thereby ontology is consequently founded upon epistemology, more precisely on transcendental (inter-)subjectivity that is a reflection of the possibility for knowledge and experience.

Husserl used the concept of experience to mean anything of which we may be conscious or aware of: perceptions of natural phenomena, affective states, desires, moods, but also ideas, mathematical entities, or values etc. All these are phenomena which one can be aware of are phenomena to be investigated. Consequently, phenomenology studies various types of immediate and given experience ranging from perception, bodily awareness, feeling, and volition to thoughts, memory, imagination, and social and linguistic activities.

Importantly, Husserl tried to investigate the formal qualities of the concrete reality which human beings become aware of as their experience. He was searching for an architectonic of thought, which would express and uncover the specificity of the world that is “the genesis and development of phenomena from their most primordial roots in pre-reflective consciousness to their most reflectively sophisticated exemplification in science” (Natanson, 1973, p. 5). Correspondingly, a phenomenologist distinguishes between how phenomena are experienced from how they appear in a subject’s awareness for investigating the structures of consciousness and essences.

Investigating the Structures of Consciousness and Essences

The program of phenomenology aims for disclosing and clarifying the *true* epistemic and ontological significance of consciousness. As mentioned before, phenomenology is specifically dedicated to describing and reconstructing the structures of experience as they present themselves to consciousness. This implies a systematic study of the structures of consciousness that enable consciousness to refer to objects outside itself. Thereby, phenomenology deals with phenomena that are with those *objects* as we experience them in consciousness and with our different ways of *relating* to these *objects* experientially as content of consciousness. Accordingly, phenomenology investigates conscious experience (as experienced) by analyzing the structure, that is the types, intentional forms and meanings, dynamics, and (certain) enabling conditions of various forms of experiences.

The basic structure of forms of conscious experience typically involves what Husserl – following antique and medieval precursors and Brentano – called *intentionality*. This orientation refers to the directedness of experience toward things in the world. It is a special characteristic, of consciousness that it is always one of or about something or someone. According to phenomenology, our experience is directed towards something through particular concepts, thoughts, ideas, images, etc. These modes make up the meaning or content of a given experience, and are distinct from the things they (re-)present or mean. Corresponding to the anti-representationalist stance of phenomenology, consciousness via intentionality reaches out beyond its own acts to the phenomena. However, it can do this only because it constitutes these objects as meaningful. Importantly, constitution for Husserl is not the recognition of a pre-established meaning or value. Rather it is the realized and reflected establishment of a meaning or value in the first place. By the study of consciousness in its world-directedness phenomenology claims to provide insights into not only the structure of subjectivity, but also into the nature of objectivity, thus about the world. In other words objectivity is co-constituted by structures, which are giving meaning-value.

In order to study the structure of consciousness, a phenomenological researcher distinguishes between the act of consciousness and those phenomena at which it is directed. Therefore, classical phenomenology makes a distinction between the perceiving act of consciousness (*noesis)* and the phenomena at which it is directed (*noemata)* that which is perceived. While the noetic refers to the act of consciousness (e.g., believing, willing, hating and loving); the noematic refers to the object (noema), as it appears in the noetic acts, for example as being believed, wanted, hated and loved etc. What we observe is not the object as it is in itself, but how and inasmuch it is given in the intentional acts. Accordingly transcendental phenomenology[2] is the study of the basic components of the meanings that are made possible by intentionality. This implies that something cannot be meaningful unless it is constituted accomplished by (transcendental) subjectivity. For that reason, traditional phenomenology is kind of *a priori science* of subjectivity to study human consciousness in its relation to its objects.

Corresponding to the underlying transcendental orientation, phenomenologically we can know nothing that is non-constituted; in other words there can be nothing, which is not given meaning by acts of a transcendental subject. The implication of this orientation is that phenomenology is not concerned with situating consciousness (as merely yet another object) within an already well-established naturalistic framework and captured by a corresponding objectivism. Rather consciousness is seen in connection with overarching transcendental dimension, which implies also non-psychological reflection. It is important to add that this transcendental subjectivity should not be taken as some kind of other-worldly, ghostly, homunculus. The empirical subject and the transcendental subject are not two different subjects, but rather two different ways of conceiving one and the same subject(ivity). The difference between the two refers to either one being aware of oneself as a causally determined known object, as a part of the empirical world, and on the other hand being aware of oneself as a knowing subject, as the limit of the world.

The underlying goal of phenomenological investigations is to understand essences or essential themes. However, knowledge of essences is only possible by suspending all assumptions about the existence of an external world and the inessential aspects of how the object is concretely given to us. This implies putting into {brackets} the pre-set *framing* that constitutes the ubiquitous background of everyday life. To access essences, what is needed is an unassumptive and non-intervening study of a personally or socially significant phenomena, which are investigated as an experience, rather than as a “conceptualization.” By holding off preconceptions, personal knowledge and habitual beliefs the stage is set, as it were, for a phenomenological description and reflection of the various counters and relations that make up the life-world and its meanings. Consequently, one of the key principles in Husserl's development of phenomenology as a means of philosophical inquiry is the methodological suspensions of all assumptions about the nature of any reality.

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[2] Transcendental is used here in its Kantian sense to mean an investigation concerned with the modes or ways in which objects are experienced and known, as well as the a priori conditions for the possibility of such experience and knowledge. However, transcendental phenomenology focuses not on what things are, but on the ways in which things are given. For Husserl, this means focusing on phenomena (appearances) and the senses or meanings they have for us and asking how these meaningful phenomena are constituted. Constitution does not mean fabrication or construction; the mind does not fabricate the world. To constitute, in the technical phenomenological sense, means to bring to awareness, to present, or to disclose. That is objects are disclosed or made available to experience in the ways they are thanks to how consciousness is structured. Things show up, as it were, having the features they do, because of how they are disclosed and brought to awareness, given the structure of consciousness. Consequently, transcendental phenomenology attempts to reconstruct the structures, which are underlying and making possible these constitutive achievements.

Methodologies of Phenomenology

Based on the need for suspension, the phenomenological inquiry is specified by methodological procedures and techniques of epoché, bracketing, reduction, and as well as free variation.[3] These methodological concepts, although being often used synonymously, refer to the suspended judgment necessary for phenomenological inquiry. From a Husserlian philosophical stance, only by suspending our judging and a corresponding phenomenological clarification can inquiry proceed, as only this frees from masked assumptions about the nature of the phenomena observed. For Husserl this methodological freeing of the mind from the culturally prevalent habits of thought, and feelings brought with it a strange change in consciousness, which he called a “new universal direction for our interest” (Husserl, 1954, p. 147) which he interestingly compared to a spiritual “Umkehr” (turning or conversion) (Husserl, 1954, p. 140). By consciously investigating the phenomena of life that we habitually take for granted, the world changes before our eyes and reveals the mysterious lining of the all embracing world horizon and the entwining of each thing with universal being. The world then becomes the universal field into which all our experiencing, understanding, and doing are directed. To investigate the relational structure of consciousness and meaning of this plenum of the world as they reveal themselves to reflective consciousness became the task of phenomenology ever since Husserl.

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[3] Epoché, (literally: astention) is borrowed from the Greek skeptics, refers to the questioning of assumptions in order to fully examine a phenomenon. The *epoché* requires the suspension of commonly held beliefs about one's object of study. By suspending our beliefs, we open ourselves to new experiences; we allow our object of experience to present itself to us in new forms. Bracketing describes the differential setting aside of some portion of an inquiry, so as to look at the whole. It engages in a process in which the *natural attitude* is placed aside such that the researcher may begin with the things themselves, that is in the phenomena as they show themselves in experience. (Phenomenological) Reduction – as a kind of attentive wonder at the world in which we live – phenomenological reduction is simply the consideration of only the basic elements of an inquiry without concern for what is accidental or trivial. It involves ignoring one's prejudices about the world and focusing on the essential aspects of one's object or subject of study. is a specific method of “Rückführung” drawing-back (re-ducere = to lead back) of what appears to how it shows itself, allowing a return to a presuppositionless world. Thus reduction reverses – *re-flects* – man's direction of sight from a straightforward orientation toward objects to an orientation toward consciousness. The aim of the reduction is to re-achieve a direct and primitive contact with the world as we experience it rather than as we conceptualize or construct it. What is left over then is the pure transcendental ego, as opposed to the concrete empirical ego. The reduction to the sphere of immanence, can then be followed by or in concert by heuristic, hermeneutic reduction, methodological and particularly the movement from fact to essence via eidetic reduction. Eidetic reduction requires a shift to consider things not as realities but as instances of idealities, as pure possibilities rather than actualities. With this the various acts of consciousness are made accessible in such a way that their essences--their universal and unchangeable structures--can be grasped. Foregoing everything that is factual and merely occurs in this way or that, this “Wesensschau” is a means of intuitively grasping the essence and essential structures. For Husserl, this second reduction is necessary to fulfill the conditions for genuinely rigorous science. By eidetic reduction Noema can be reduced to their essential (invariant) form or "essence." With this phenomenological interpretation steps back decisively from everyday perspectives and involvements to comprehend their encompassing intelligibility. Transcendental Reduction consists in a reversion to the achievements of that consciousness that Husserl, following Kant, called transcendental consciousness. The most fundamental event occurring in this consciousness is the creation of time awareness through the acts of protention (future) and retention (past), which is something like a self-constitution. To do phenomenology is tantamount to returning to the transcendental ego as the ground for the foundation and constitution (or making) of all meaning (Sinn). Only when a person has reached this ground can he achieve the insight that makes his comportment transparent in its entirety and makes him understand how meaning comes about, how meaning is based upon meaning like strata in a process of sedimentation. Finally there is free variation or imaginary variation of the reduced thing to a common variation or essence (eidos) that is changing - as far as possible - all kinds of aspects (e.g. color, shape, etc.) to see what is essential, what we cannot leave out.. These variations can be put into the service of whatever becomes the focus of the analysis: perception of

Realizing this phenomenological clarification can metaphorically be compared with using a brush, (a) negatively, doing away with the “dust” of entrenched interpretations or theories, etc., and (b) positively, polishing revealing the phenomena in their full brightness. This suspending and bracketing gesture transforms a naive or unexamined experience into a reflexive or second-order one, which is shifting from the natural to the phenomenological attitude. The result of these procedures is that a field of experience appears both less encumbered and more vividly present, as if the habitual distance separating experience and world were dispelled; which then can be further explored in imaginary variation as and communicated.[4] The methodological disengagement from the empirical is practiced in order to highlight consciousness itself and to approach conscious experiences of the world. It is only through the suspension of the natural thesis of the world, that consciousness attains by reflection a level of pureness, which transcends nature and which operates its transcendental constitution of meaning.

As a transcendental philosophy, Husserlian phenomenology is ultimately interested in the possibility conditions and foundations for justified knowledge; not factual, empirical, descriptions of psychological processes. To address this constitutional problem of how meaningful phenomena are brought to awareness or disclosed, transcendental phenomenology tries to uncover the invariant formal principles by which experience necessarily operates in order to be constitutive. As a transcendental project, phenomenology involves a search for a priori structures of consciousness. These structures are the conditions of possibility for any experience,

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aesthetic forms, the manifestations of empathy, the structure of nowness for improvisation and so on. It is through these multiple variations that a new stage of understanding or intuition arises, an 'Aha!' experience which adds a new evidence and “vision” of connecting structures that carries a force of conviction.

[4] After investigating a particular phenomenon; attending to the mode of appearance involved; and watching the constitution of the phenomenon in consciousness as well as practicing free variation, the intuited need to be expressed and communicated. To stop at reduction followed by imaginary variations would be to condemn this method to private ascertainment. Therefore with a next component the gain in intuitive evidence must be inscribed of translated into communicable items, usually through language or other symbolic inscriptions. The materialities of these descriptions however are a constitutive part of the phenomenological approach and shape our experience as much as the intuition that shapes them. In other words we are not merely talking about an 'encoding' into a public record, but rather again of an 'embodiment' that incarnates and shapes what we experience.

including the experience of the objective world as well as the very idea of objectivity that forms the basis of science. According to Husserl, this transcendental sphere represents the inevitable juncture of object and subject of the thinking self and the object of one's thoughts – in any inquiry.

Even more in the systematic work of phenomenology the old traditional ambiguous antitheses of the philosophical standpoint like oppositions such as between rationalism (Platonism) and empiricism, relativism and absolutism, subjectivism and objectivism, ontologism and transcendentalism, psychologism and anti-psychologism, positivism and metaphysics, or the teleological versus the causal interpretation of the world can be resolved (Husserl, 1927).

For Husserl the objective truths of science must be recognized as grounded in the living acts of human consciousness in relation to worldly phenomena. Accordingly, man and the world are first and foremost in relation. Thus phenomenology is fundamentally about relationships and not about the subjective end of an encounter between a subject and an object. It is only at the subsequent, reflective level of logic that we divide them into separate entities.

With this orientation, phenomenology was conceived by Husserl as a foundational and far-reaching enterprise to secure the basics and methodologies of a rigorous ‘scientific’ investigation of the essential nature of consciousness and its generation of meaning in order to turn back to the world of living.

Return to Life-World

Where science claims to establish facts based on empirical observation, phenomenology seeks to describe the structures of the *“life world” (Lebenswelt)*, the world as it is lived and experienced by conscious subjects. The life-world is the world as it is lived by the person in her everyday life that is not a separate and independent entity. It is the realm where we share knowledge which is useful in its own way for “daily practices” (Husserliana = Hua. VI, 126), as well as “daily practical circumstantial truths” (Hua., VI, p. 135).

This life-world is also the unexamined foundation and matrix of scientific activity; and phenomenology makes these common-sense phenomena its object of investigation. “From a phenomenological viewpoint, the life-world is pre-theoretical and pre-scientific. . . . It is the foundation of all sciences” (Giorgi, 1997, p. 248). If science forgets the life-world as their foundation of meaning and base it “hang in the air groundlessly” (Hua., VI, pp. 48, 144). Furthermore, by presenting scientific images of the world as representing “reality,” modern science conceals the life-world that is the origin of scientific re-presentations. Therefore a return to the life-world is proposed by Husserl, particularly in his later important writing on the “Crisis of European Sciences” (1970). Emphasizing the challenges presented by increasingly one-sidedly empirical and naturalistic orientation in modern science, Husserl is showing the need for linking the basic notions of science back to their conceptual roots in the pre-scientific regions of the life-world which is the background, horizon (framework of interpretation), and foundation of cognitive activities.

To elucidate and systematically understand the dynamics of experience related to the principle of correlation in the life-world is the task of phenomenology. This focus on life-worldly phenomena, which is also closely related to intersubjective and socio-cultural processes[5], have become programmatic in the development of a more hermeneutically and existentially oriented phenomenology. It is a program, which aims at describing how phenomena present themselves in lived experience in human existence of what Heidegger (1962) calls “being in the world” (In-der-Welt-Sein). As the life-world is a social, political, historical, and cultural environment where human beings interpret, communicate, and socially engage in multiple communal spheres this opened up a series of questions and issues dealt with in further developments of phenomenology.

Critique and Further Developments of Phenomenology

The following gives an introductory overview of basic limitations and criticisms of classical phenomenology and the development of various phenomenological movements. Husserl´s original inspiration of phenomenology has undergone significant development and change through the work of his successors. According to Ricoeur (1953, p. 836), phenomenology is the story of the deviations from Husserl; its history, as it were, is the history of Husserlian heresies. Various criticisms have been raised concerning the partly supposed implicit Cartesianism, transcendental idealism, essentialism, monism and supposed solipsism as retained problematic metaphysical assumptions in Husserl´s substance philosophy. Accordingly, Husserl´s work has been interpreted as a radicalized neo-Cartesian philosophy[6] and essentialistic neo-Idealism following basic form of intentionality in the experience: subject-act-content-object, and trying to discover ideal form of phenomena (eideia) and stressing a priori conditions of knowledge. However, the image of classical phenomenology as being one-sidedly conceived as an investigation of a detached transcendental ego from whom its own body, worldly things, and other subjects were but constituted objects appears as a pejorative caricature, underestimating Husserl's endeavor (Zahavi, 2008, p. 662).

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[5] In his later works Husserl showed that below the personal activity of the individual and transcendental ego there is a prior meaning-giving function, that of transcendental intersubjectivity. This one offers to each individual a set of prefabricated meanings handed down from history through the medium of language. We come to consciousness within a life-world, which has already been given meaning by a cultural originator of meaning, transcendental intersubjectivity. According to Husserl, intersubjective experience plays a fundamental role in our constitution of both ourselves as objectively existing subjects, other experiencing subjects, and the objective spatio-temporal world. Just as intentionality constitutes a self-identical object within the constantly changing flux of experience, so contingent intersubjective constitution can establish objects accessible to anyone able and willing to take on the scientific project.

[6] Although unlike Cartesian subjectivism, Husserl's phenomenology is not based expressly on the pure interiority of the self-conscious ego but on the consciousness of the world taken strictly as one's – the transcendental ego's phenomena. On the Cartesian model, the reality and truth of objective being, including that of other selves, lie originally outside the essential structure of consciousness understood as "representation" (i.e., as the subject's positing and securing of cogitations in self-certainty), and so against the presumed errors and uncertainties of everyday experience, philosophy must attempt to "recreate" this reality and truth on an absolute philosophical foundation. With the phenomenology of consciousness, in contrast, the reality and truth of objective being are in principle implicated originally in the essential structure of consciousness as intentionaland so have only to be explicated more originally. By means of such explication, then, the human beings that exist for one in everyday lived experience are not, as it were, made to disappear, as they are in Cartesian doubt. Rather they are transformed into alter egos having the ontic meaning of implicata. Moreover, as such implicata these alter egos are not simply a particular, possible achievement of intentional life but an intrinsic, essential dimension of it. Within the vitally flowing intentionality in which the life of an ego-subject consists, every other ego is intentionally implied in advance, implied not as real particular persons in the flesh, but as others in general, that is, as a transcendental intersubjectivity that precedes and makes possible all relations to actual others within a monadic community. It is the exploration of this transcendence which in principle distinguishes all radical phenomenology from Cartesianism.

Nevertheless, post-Husserlian phenomenology, including that developed by Husserl himself, is marked by attempts and self-critical moves towards over-coming classical phenomenology that is focusing primarily on the study of structures of subjective experience or consciousness in relation to phenomena as very base of research. Husserl's "identification of phenomenology with subjectivism [was] an unfortunate and unnecessary narrowing of its original objective, violating the ideal of freedom from the unexamined presuppositions" (Spiegelberg, 1975, p. xxiii).

Consequently, succeeding phenomenologists developed a resistance to Husserl´s turn to transcendental idealism and problematized the methodological limitations of classical phenomenology. For such philosophers, phenomenology should not bracket questions of being or ontology, as the method of epoché would suggest. They have loosened Husserl's strict requirements by recognizing that it is impossible to interpret social action without relying upon prior knowledge and experience.

> "In place of the Husserlian procedure which moves from the world of the natural attitude up to a higher, transcendental plane with a view to bring to light the transcendental structures constitutive of the objectivity of the entities encountered in the natural attitude, (starting with Heidegger) we find an alternative procedure which moves from the ontic level down to a deeper, ontological plane with a view to bringing to light the ontological structures constitutive of the being of the entities in question." (Macann, 1993, p. 63)

The basic pattern shift can be described as moving from value-free phenomenological reflective analysis operating under the self-imposed methodological disciplines to passionate value-engagement and existential commitment. This shift marks a move from the primacy of knowing to the primacy of enacted life praxis.

Both the subjects' descriptions and the researchers own characterizations of general meanings are socio-culturally embedded in articulated language. That is to say, they are already encrusted with the presuppositions and preconceptions of a culture. Being is always already embedded and related to a horizon of meaning, and therefore all approaches and findings are bound by historical and cultural perspectives. Researchers therefore cannot actually and totally bracket all they know or believe that they know about their phenomena of interest; hence the phenomenological reduction cannot be fully attained. According to Merleau-Ponty (1962, p. xv) "the most important lesson which the reduction teaches us is the impossibility of the complete reduction". A modified phenomenological suspension method is not, as in Husserl, to bracket off the world in order to discover the pure, worldless that is a-contextual structures of consciousness. It is rather, to use the distance supplied by the reduction as a heuristic device to reveal and interpret the genuine phenomena and the implicit pre-reflective background.

Husserl's original concept has taken flesh, in a variety of ways, some of which are hardly compatible with each other. With Heidegger (1962), phenomenology resolved into what he called "fundamental ontology" purging residue of Aristotelian and Kantian mentalism in Husserl´s approach. Philosophising on "In-der-Welt-Sein (being-in-the-world), Befindlichkeit (attunement in mood) and Da-Sein (t/here-being) and the corresponding development towards a hermeneutical phenomenology endeavors to disclosure of unconcealed temporal and historical "Being." This attempt to overcome conventional metaphysical orientations of philosophical tradition and raising the question of the meaning of Being as well as reintegrating ontological dimensions and Heidegger's analysis of became influential for many subsequent philosophical views and approaches (Dreyfus, 1991).[7]

Related to this ontological phenomenological orientation further streams of phenomenologies emerged. Among others there are "existential" (e.g., Sartre, de Beauvoir, Marcel), "hermeneutical" (e.g., Gadamer, Ricoeur), "ethical" (e.g., Scheler, Levinas), and "experiential" or "practice-oriented" orientations (e.g., clinical psychology, medicine, education or pedagogy, nursing, counseling etc. An important application is also what has been named "eco-phenomenology" (e.g., Brown & Toadvine, 2003). This kind of phenomenology tries to develop a middle ground between phenomenology and naturalism, opening up an access to the Nature and the natural that is both independent of the conceptuality of the natural sciences, and of traditional metaphysics.

Schütz's social mundaned phenomenology of acting and the social world having various provinces of meaning (Schütz, 1972; Schütz & Luckmann, 1989) became important for application of phenomenology to social sciences, sociology, social psychology, but also economics and organization studies as well as and methodologies like ethnomethodology and conversation analysis. Furthermore, phenomenology has been a source or given rise to various related philosophical movements such as "linguistical" and "post-structuralist" postmodern, philosophy (e.g., Barthes, Blanchot, Deleuze, Derrida, Foucault, Kristeva Lyotard), but also feminism, (e.g., Langellier, 1994) or culture critique (e.g., Fay, 2003). More recently, there are new bridges been built between phenomenology and "techno-science" (Ihde, 1979, 1986) and cognitive science (Baumgartner et al., 1996; Gallagher, 1997, 2003, 2005, 2007) and neuroscience i.e. “neuro-phenomenology” (Varela, 1996; Varela et al., 1991) as well as a naturalized phenomenology (Petitot et al., 1999; Petitot, 2000; Zahavi, 2004). The latter one is pursuing the integration of the disciplines, thus relating phenomenology and its refined accounts of consciousness with contemporary cognitive and natural science.

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[7] Heidegger became one of the most influential philosopher of the 20th century in continental philosophy, but has been exposed to radical criticism, including his priority of ontology, his neglect of ethics and the body and embodiment as well as sexual difference. For the later Heidegger the essence of being human is the maintenance of an authentic openness to Being. Relevant for economics and organization studies, interestingly the later Heidegger problematized the technological-scientific-industrial modes and what he calls "calculative thinking," – in contrast to a meditative one – restless thinking directed toward manipulation, toward obtaining some specific result. Meditative thinking, however, requires patience and silence, being as well as doing. It requires that we somehow stop and recollect ourselves. It requires conditions in which we can practice innocent looking and listening, the kind of awareness that we experience when we truly, unselfishly love someone or something – when we love the truth. For real thinking depends on openness, openness to whatever is in front of us. And it must start with what is closest – our own being. It is only then, when we are truly open to ourselves, that what is true can enter our perception and reveal itself fully to us. It is only then that we can go beyond the "stimulus-response" mode of living, a mode of living that is suited to machines not people. It would be important to investigate critically Wilber's interpretation of Heidegger's ontology and hermeneutics, which is insufficiently classified as subjectivist form of hermeneutics (Wilber, 2006, p. 188).

In a second part of this article, I will outline in detail the important advancement of phenomenology by the philosophy of Merleau-Ponty, who is emphasizing the neglected role of the living body and embodiment in human experience. I will try to show how his reformed phenomenology provides a base for a proto-integral interpretation. But before that, there is the need to critically reflect on the status of phenomenology in integral theory.

Status of Phenomenology in Integral AQAL Theory

In the following I will discusses the status and usage of phenomenology in integral theorizing. This is not pursued in a spirit of fault-finding or narrow-minded judgmentalism, but scholarly, reasoned scientific critique for showing deficiencies and potentials of some ideas of the integral model as it has been developed by Ken Wilber. As a contribution for a discourse that aims at a critical appreciation, but also appraisal and evaluation of some propositions, assumptions and interpretations of integral theory. This kind of critical inquiry is motivated also by a quest for a true, good and perhaps more beautiful integration of phenomenology into the emerging body of integral theorizing. Hence it tries to contribute for the further development and refinement of the integral vision, by adding a voice to the integral adventure (Wilber, 2006, p. 170).

Generally, Wilber recognizes phenomenology as an useful, if limited, aspect of a more integral methodology, respectively a methodological pluralism (Wilber, 2000d, p. 153; 2000b, note 21 for chap. 14). However, the problematic status, which phenomenology gets in integral research is based on, what seems to me a highly selective reading and interpretation of “phenomenology” by Wilber. If a critical reader studies the definitions and understanding of Wilber’s interpretation of phenomenology, (e.g. 2000a, Vol. 6, note 28 for chap. 4, p. 583, Wilber 2000c not 21 for chap. 14 Wilber, 2000d, 152, and note 7; 2006 chapter 3, p. 64) it appears as only those aspects are brought into the front which fit into the constructed framework.

This does not do justice to phenomenology and to a truly integrated orientation. Focusing mainly on the classical phenomenology, variations are mentioned, though decisive further developments are ignored or underestimated. Although Wilber recognizes that the phenomenology of the I-space is a “rich and complex topic” the mentioned “short-cuts” and phaneroscopic ways taken (Wilber, 2003, Excerpt C, Endnote 28) in his quick introductory overview, are in danger of turning into aberrations. Furthermore the “liberties of simplification” (Wilber, 2003, Excerpt C, Endnote 29) may lead to distorting interpretations and complications, as only selective and fitting parts are chosen. Emphasizing merely partial or narrowed aspects could be misleading uniformed readers into an inadequate representation of phenomenology. In Wilber`s interpretation phenomenology is merely a “philosophy of the subject and subjective” (Wilber, 2006, p. 92).

It is true that (classical) phenomenology studies conscious experience as experienced from the (transcendental) subjective or first person point of view. But this positioning and the interpretations given all need to be qualified and specifically discussed and contextualized. In the following I will do this by raising some important issues. In particular;

- the "ordering" of phenomenology into one quadrant (upper left) or zone (#1),
- the status of consciousness, and the states/structures debate,
- inter-subjective dimensions in phenomenology, and
- the relation to contemplation and meditation.

The "Ordering" of Phenomenology into Upper Left Quadrant and Zone #1

For Wilber phenomenology stands as a "representative methodology" for the study of the occasions that arise in an I-Space" (Wilber, 2003, Excerpt C, II, 43ff). As a "general disposition" he puts phenomenology in line with human interest in consciousness like "introspection, meditation, contemplation, or simply feeling" (Wilber, 2003, Excerpt C, II, 43ff). For Wilber the phenomenological space is "an indigenous perspective that is embodied, embedded, enacted and enfolded in other spaces," (Wilber, 2003, Excerpt C, II, 46): a nexus of inter-holonic occasions.

Like the classification of phenomenology into the upper left quadrant, Wilber assigns phenomenology – in his further developed approach (Wilber, V) – as a representative methodology for the Hori-Zone #1 (Wilber, 2003, Excerpt C, II, 48), that is an interior reality seen from within its own boundaries. Again, he equates for the singular form of the inside of an "I" phenomenology, introspection and meditation all together as classic paradigms or injunctions that bring forth, enact and disclose first-person singular dimensions of being-in-the-world (Wilber 2003, Excerpt D, 12). Wilber interprets indiscriminately all of those many forms of phenomenology as "variations on zone-#1 approaches, some of which investigate particular types of interior experiences known as phenomenal states" (Wilber, 2006, p. 93). However, this supposedly clear assumed positioning is neither valid for "classical phenomenology" and even less true for advanced phenomenology and interrelational pheno-practice as outlined in the second and third parts of this paper.

Methodologically, Wilber equates bracketing with the "non-exclusion principle applied to interior domains" (Wilber, 2003, Excerpt C, II, 45). Focusing on phenomenological methods of bracketing cannot only be applied or limited to interior domains. Such usage does not cover the full-range of phenomenological methodologies and their fields of empirical application. Furthermore, it is possible to use phenomenological methods as lenses to make distinctions and to ask different kinds of questions, develop research designs and pursuit empirical research related to phenomena in various quadrants or zones as they are holonically interrelated fields.

The emphasis that phenomenology lays on the importance of the first-person perspective should not be confused with the classical idealistic attempt to detach the mind from the world in order to let a worldless subject or pure consciousness constitute the richness and concreteness of the world. Phenomenologically, the truth is not be found in the interiority of human beings since for Heidegger (1962) as "Dasein"[8] (literally meaning being-there/here) it is *in* the world and any knowing of phenomena can only be gained by means of inhabiting and being intentionally, actionally or otherwise related to and engaged in a world. Thus, the "subjectivity" disclosed by the phenomenological reflection is not a concealed interiority, but an open world relation; and phenomenology is interested in consciousness because it is world-disclosing (Zahavi, 2008, pp. 664-665, 675).

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[8] Importantly for Heidegger (1962) Dasein must not be mistaken for a subject, that is something definable in terms of consciousness or a self. Being situated as Dasein is part of the being-structure of being human

Status of Consciousness and the States/Structures Debate

One important contentious issue of the role of phenomenology for integral research concerns the status, and in particular the states and stages of consciousness. Although states involve both consciousness and behavior, Wilber usually refers to states as subjective phenomenological patterns of consciousness (Wilber, 2000d). These subjective states may be comprised of feelings, thoughts, intentions and other experiential events, including subconscious or pre-conscious contents as well as occur as so called altered states of consciousness.[9] Furthermore corresponding to normal states there are transpersonal states of consciousness (psychic, subtle, causal, and non-dual), which in turn again are supported by a corresponding body (Wilber, 2000d, p. 151).

In order for temporary states to become permanent traits or structures, they must enter the stream of development. Thus, "any given broad state of consciousness (such as waking or dreaming) can contain several different structures (or levels) of consciousness" (Wilber, 2000d, p. 151). Within broad states of consciousness there are structures of consciousness, within which there are phenomenal states (joy, happiness, sadness, desire, etc.) (Wilber 2000c).

According to Wilber "phenomenology usually focuses on phenomenal states and thus fails to spot the existence structures of consciousness" (Wilber, 2000d, p. 152). As the structures of consciousness are not directly perceived by the subject they[10]

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and as such permeates every aspect of our pragmatic activities and our social relations. Thus, the fundamental mode of Being is not that of a subject or of the objective but of the coherence of Being-in-the-world.

[9] Edward notes:

> Because they are often characterized as rather atypical occurrences, it might be added that altered states of consciousness (ASC) are usually defined as conditions where the self-system is temporarily transported into a non-normative condition. In this sense, states are often discussed as ASC in that they are different to the normative waking state of identification of the self-system. In terms of the AQAL framework, an ASC is one where the self-system temporarily identifies with a different level of consciousness, (and, in quadratic terms, with a different level of behavior, meaning/values system and social identity). An ASC can be naturally induced, self-induced or result from environmental factors. They can be consciously aimed for or accidentally stumbled on. They can result from behaviors, cognitions and images, social and interpersonal situations and cultural practices. They can be healthy for the development of the self-system and they can be harmful and inhibit growth. It all depends. (Edwards An Alternative View on States, in http://www.integralworld.net/edwards14.html)

Here Edwards criticizes that the integral theory model of states is committing the category error of falling into the Pre-trans Fallacy, when it proposes that individuals access transpersonal states and/or realms when they enter into the natural states of dream sleep and deep sleep.

[10] For Wilber consciousness (cont'd next page)

> are almost never spotted by phenomenology, which inspects the present ongoing stream of consciousness and thus only finds phenomenal states. This appears to be a significant limitation of phenomenology. That is, phenomenology usually focuses on phenomenal states and thus fails to spot the existence structures of consciousness…. (Wilber, 2000d, 152, see also Footnote 7)

Wilber regards the phenomenon of states – in contrast to stages (Wilber, 2006, Chapters 2 and 3) – as one factor among many others that can be used to understand the nature of individual experience: Having a conscious awareness and mindfulness, everybody experiences various states of consciousness, and these states often provide profound motivation, meaning, and drives, in both yourself and others. In any particular situation, states of consciousness may not be a very important factor, or they may be the determining factor, but no integral approach can afford to ignore them (Wilber, 2005, p. 15). State-based explanations of subjective experience are closely allied, therefore, to stage-based models of development. Where stages account for the structures of consciousness, states provide the content. Accordingly, integral theory's system of phenomenal states provides a framework for interpreting, understanding and explaining phenomena associated with the dynamic and fluid nature of subjective aspects of the human life-world.

However, it is not correct to allege that structures of consciousness are not "spotted" by phenomenology. Phenomenology does not only inspect phenomenal states, but investigates *essences* as invariant structures also of consciousness. Based on a deliberate anti-psychologism it is an intrinsic characteristic of phenomenological analysis that inquiry strives to be eidetic, that is, to distinguish the essential from the accidental or incidental (states). It is not just any constituent, implicit dimension or relation among aspects, or pervasive orientation that phenomenological analysis seeks to discern, but those which constitute the essential structural being of experience. Thus, phenomenology seeks to describe the experiential structures in their phenomenal purity and does not psychologise them, that is, it does not objectify and naturalize them. Thus descriptive analysis of states is part of a more comprehensive project of phenomenological investigations, which also aims at examining structures of consciousness.

In addition to descriptive phenomenology, in which phenomena and states of consciousness are explored, scrutinized and described so as to enrich the awareness of the richness of experience, essential or eidetic phenomenology involves a more profound exploration of phenomena and consciousness, with the goal of uncovering the essential relationships, and meanings embedded within them. For phenomenology, particularly intentionality, describes a basic structures of consciousness. With this focus one of the most radical stances of phenomenology is its recognition of the relational structure and characteristic of consciousness.

> …is not a thing or a content or a phenomenon. It has no description. It is not worldviews, it is not values, it is not morals, not cognition, not value-MEMEs, mathematico-logico structures, adaptive intelligences, or multiple intelligences. In particular, consciousness is not itself a line among other lines, but the space in which lines arise. Consciousness is the emptiness, the openness, the clearing in which phenomena arise, and if those phenomena develop in stages, they constitute a developmental line (cognitive, moral, self, values, needs, memes, etc.). The more phenomena in that line that can arise in consciousness, the higher the level in that line. Again, consciousness itself is not a phenomenon, but the space in which phenomena arise. (Wilber, 2006, p. 87)

Phenomenological inquiry posits that – as mentioned before – fundamentally consciousness is always structured and directed relationally, that is it is always consciousness “of” something or someone.

As phenomenal structures of experience are richly intentional, these involve not only sensory ideas and qualities of states, but complex representations of time, space, world, body, and the organized structures of lived reality in all its conceptual and non-conceptual forms. Thus conscious mental acts are not only about concrete appearances of material things such as trees, houses or computer hardware, but also past or future ideas like a conscious memory of the attack on the World Trade Center or a conscious anticipatory desire for a glass of clean and cold water. Thus the relational structure of consciousness to things encompasses also immaterial phenomena such as emotions, dreams, concepts or even seemingly irreal imaginations. By and through this recognition of relationality, the equal right of things towards which consciousness is directed is asserted. In other words, phenomenology has its starting point by assuming that consciousness cannot function independently of structural relations to “things” to be conscious of, which are interrelated to inter-subjective and objective spheres

Conscious experience presents us not with isolated properties or features but with objects and events situated in an ongoing world-contact, and it does so by embodying in its experiential organization and dynamics the dense network of relations and interconnections that collectively constitute the meaningful structures of a world of objects.

Phenomenologically, consciousness is a kind of medium through which various phenomena and dimensions appear and unfold.[11] Actually, this understanding is close to Wilber’s interpretation of consciousness: “Consciousness is not a phenomena but *the space in which phenomena appear*, and therefore “levels of consciousness” simply means levels of the phenomena appearing” (Wilber, 2003, Excerpt D 94, Wilber, 1997).[12] If consciousness is a such

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[11] Part of the nature or structure of conscious experience is the way it is being experienced, that is the way they are lived through or performed. The essential structures or forms of consciousness maintain a specific tension in relation to its contents: For example the forms of temporalizing consciousness, i.e., the living present with its primordial impression, retention, and protention, are essential structures of consciousness that remain ever constant. Meanwhile, however, the contents of conscious experience (which, in a way, are the conditions of possibility for these structures’ existence), are by definition continually passing away. Consciousness itself, therefore, is necessarily a stable force and a flowing away, a standing and streaming.

[12] Wilber states:

> Rather, it appears that consciousness actually exists distributed across all four quadrants with all of their various levels and dimensions. There is no one quadrant (and certainly no one level) to which we can point and say: There is consciousness. Consciousness is in no way localized in that fashion….Rather, consciousness is a four-quadrant affair, and it exists, if it exists at all, distributed across all four quadrants, anchored equally in each. Neither consciousness, personality, individual agency, nor psychopathology can be located simply or solely in the individual organism. The subjective domain (Upper Left) is always already embedded in intersubjective (Lower Left), objective (Upper Right), and interobjective (Lower Right) realities, all of which are partly constitutive of subjective agency and its pathologies. It is true that the Upper Left quadrant is the locus of consciousness as it appears in an individual, but that's the point: as it appears in an individual. Yet consciousness on the whole is anchored in, and distributed across, all of the

an "opening or clearing[13] in which things and events arise" (Wilber, 2003, Excerpt D 95) and if basic levels of consciousness are what all concrete streams have (or can have) in common (Wilber, 2003, Excerpt D 94), then this has far-reaching implications and consequences. Of course, like other scientific disciplines or analytic philosophy, phenomenology offers not one, but many accounts of consciousness (Kriegel, 2007; Thompson 2007; Thompson & Zahavi, 2007; Woodruff Smith & Thomasson, 2005).

Understanding that the irreducible consciousness is embedded and distributed across all quadrants with all of their various levels and dimensions, then the upper left quadrant cannot simply be the functional locus of a consciousness (quadrant), which then methodologically can be approached by phenomenology (Wilber, 1997). A genuinely integral theory of consciousness requires to be a radical decentred and processual approach. Only such a dynamic understanding allows us to realize that consciousness is not an interior anything, nor an exterior anything, but that it permeates both and that is the space or better medium from and through interior and exterior subjective and objective dimensions arise and process.

Consciousness is always what is seen and felt (psychic-intentional) and embodied and enacted (behavioral) within a socio-cultural (the other) and systemic nexus. If we see that the phenomenological space or medium of consciousness is inherently related to the entire AQAL-space, then we need considering further advanced phenomenological approaches to consciousness and mind (e.g., Gallagher, 2007; Gallagher & Zahavi, 2005, 2008) and with this, more inter-subjective and inter-relational perspectives (see part I, II).

Inter-subjective Dimensions

Wilber alleges a general inadequacy of phenomenology for spotting intersubjective structure-stages. He states that phenomenological method cannot easily spot subjective structures (i.e., psychological structures in the Upper-Left quadrant, such as those discovered by Graves; Piaget; Loevinger; etc., *nor spot inter-subjective structures and inter-subjective stages* (in the Lower-Left quadrant, e.g., Gebser's worldviews, Habermas's stages of communicative competence, interpersonal moral stages, Foucault's interpretative-analytic side of the structures of power, etc.). As suggested in the main text, no amount of introspection by individuals will disclose social structures of oppressive power (e.g. Foucault), moral stages (e.g., Gilligan), linguistic structures (e.g., Chomsky), stages of ego development (e.g., Loevinger), stages of values (e.g.,

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> quadrants – intentional, behavioral, cultural, and social. If you `erase' any quadrant, they all disappear, because each is intrinsically necessary for the existence of the others. (Wilber, 1997, pp. 71-92)

[13] Knowing about the problematic use of the metaphor of "space" which tends to be interpreted wrongly as container Wilber rightly uses – like the later Heidegger in a different way – the image of an opening or clearing:

> Consciousness is not itself a stream, line, module, function, or intelligence—it is not any thing or event or process of any sort. Consciousness is rather the opening or clearing in which things and events arise. A ´level of consciousness´ is simply a measure of the types of things and events that can arise in the first place; a measure of the spaciousness in which a world can appear; a degree of openness to the possibilities of the Kosmos; a sweep of the horizons within which phenomena can manifest; a measure of the awareness inhabiting each perspective, moment to moment to moment.(Wilber, 2003 Excerpt D 95)

Clare Graves), and so on – all of those are inherently invisible to mere phenomenology (Wilber, 2000d, 153, see also Footnote 7).

For Wilber "…phenomenological approaches tend to be strong in the "I" components but weak in the "we" components" (Wilber, 2000d, 153, Footnote 7). For him also the cultural phenomenologists (e.g. ethnomethodologists), although being relatively strong in the "we" or intersubjective components, do not cover sufficiently stages or structures of intersubjectivity, or when presented "phenomenology shades into neo-structuralism" (op.). According to Wilber phenomenological methods miss virtually all of the intersubjective structures and intersubjective stages (Wilber, 2000d, 153, Footnote 7; see also Wilber 1995, p. 771). Thus, for Wilber phenomenology has an "incapacity to comprehend *inter-subjective structures* not given in the immediacy of felt body meanings, and thus its incapacity to deal effectively with the *development* of consciousness and the social world" (Wilber, 2000c, p. 286, endnote 21. emphasis in the original). In Wilber's interpretation "phenomenology failed to take into account the *cultural embeddedness* and the intersubjectivity of all awareness" (Wilber, 2006, p. 64). For Wilber phenomenology is merely a "philosophy of the subject and subjective" (Wilber, 2006, p. 92), which needs to be supplemented – not replaced – with the philosophy of intersubjectivity.

However, in contrast to this critique and positioning, intersubjectivity is one of the main themes already of transcendental phenomenology (see Husserl 5th of the Cartesian Meditations and Hua XIII-XV of Husserliana). According to Husserl, intersubjective experience plays a fundamental role in our constitution of both ourselves as objectively existing subjects, other experiencing subjects, and the objective spatio-temporal world. According to Husserl, the "I" becomes conscious and particularly aware of "myself" specifically as a human person only in intersubjective relations (Husserl, 1973b, p. 175; 1952, p. 204). Furthermore developing as a person depends heavily upon social interaction (Husserl, 1973b, pp. 170-171).[14]

I and we and world belong together and are intertwined, partly as they reciprocally illuminate one another, and can only be understood in their interconnection (Zahavi, 2008, p. 681). Thus phenomenology considers the very constitutive nature of the Lower-Left quadrant and even exterior quadrants. Husserl already suggested a theory of intersubjectivity or social cognition that was based on an embodied, inter-modal perception. For him the perceptual experience of the other person involved a kinaesthetic reverberation of the perceived action of the other in our own sensory-motor system. According to Gallagher,

> Phenomenology tells us that our primary and usual way of being in the world is pragmatic interaction (characterized by action, involvement, and interaction based on environmental and contextual factors), rather than mentalistic or conceptual contemplation characterized as explanation or prediction based on mental contents. (Gallagher, 2005, p. 212)

The integration of inter-subjectivity shows that the social world has been systematically and methodologically considered in the development of the phenomenology project. Accordingly the philosophy of the subject and subjectivity is always already supplemented with the philosophy of intersubjectivity. Related to the AQAL-framework, the upper left needs its lower left, not to mention its upper right and lower right spheres (Wilber, 2006, p. 64). A more adequate understanding of phenomenology recognizes that the subjective space itself develops via inter-subjective patterns of dialogue and interpretive cognition (Wilber, 1995, pp. 28, 576ff, 583).

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[14] My experience of the world as objective is mediated by my experience of and interaction with other world- engaged subjects. Only insofar as I experience that others experience the same objects as myself do I really experience these objects as objective and real. To put this point in phenomenological language, the objectivity of the world is intersubjectively constituted (i.e., brought to awareness or dis-closed).

Accordingly, further developments of phenomenology and as we will see, particularly Merleau-Pontyian interpretations have deeply investigated the complex patterns and structures of inter-subjectivity and inter-relations between subjects as well as (inter-)objective dimensions and conditions, as outlined in the second and third parts of this paper.

Phenomenology in Relation to Introspection and Meditation

Wilber equates for the singular form of the inside of an I likewise phenomenology, introspection and meditation as classic paradigms or injunctions that bring forth, enact and disclose first-person singular dimensions of being-in-the-world (Wilber, 2003, Excerpt D, 12). Putting phenomenology on a level with (non-methodical) introspection and meditation is to equalize approaches, which are different, incomparable and hence incommensurable. There is a tremendous difference between phenomenology, as a specific philosophical school and a “general movement” or “general disposition,” being “as old as the human interest in consciousness itself, whether we call it introspection, meditation, contemplation, or simply feeling” (Wilber, 2003, Excerpt C, 43).

Taking a step back, in order to better jump forwards in ways that otherwise would have been difficult to do, there is certainly a kind of parallel or common orientation between contemplative and phenomenological scientific research. By redirecting our attention to what is most directly given in experience, as (conscious) experience, phenomenology can help us overcome all kinds of mistaken identification. Phenomenology follows a kind of contemplative and in some ways even meditative attunement to the phenomenon in question. This is due to the orientation that it refers to more receptive and aesthetic forms of thinking and focusing attention, holding back from closure and from discriminatory analytic thinking in favor of a more contemplative-like process. In this form of thinking the mind does not “seize upon” the object to analyze and subdue it but attempts to behold it, to allow its reality, its beauty and its texture to become more and more present. But the stance and quest phenomenology was developed for and has been used by researchers, particularly social scientists, serves as a systematic, rigorous search for truth. Accordingly, the outcomes of phenomenological reflection are not just “insights” or epiphanies but thoughts, discourses and written texts, that is forms of interpretation of a processed and elevated experience.

Furthermore, phenomenology and introspection “enact, bring forth, and illumine the first-person singular dimensions of being-in-the-world” (Wilber, 2003, Excerpt C, 43) very differently than a spiritual revelation. Husserl called one of his originally speeches – which became later an important book – Cartesian Meditation (Husserl, 1960). However, this is not a meditation in the sense of a spiritual practice. Rather Husserl saw it as a scientific contribution and introduced in it a genetic phenomenology, which he defined as the study of how these meanings are built up in the course of experience. In particular, the sixth Cartesian Meditation deals with the question of how a phenomenologist can explicate a subjectivity that both belongs in the world and yet constitutes objectivity and its world and deals with transcendental inter-subjectivity, to overcome the solipsistic objection.

Already, classical phenomenology argued for a proper understanding of transcendence, for not falling into solipsism:

> Is phenomenological research therefore solipsistic research? Does it restrict the research to the individual ego and precisely to the province of its individual psychic phenomena? Not in the least. [A] misunderstanding of the particular meaning of transcendence and its exclusion leads to a confusion of psychological immanence (that which is precisely solipsistic) and phenomenological [immanence]. (Husserl, 1910-11, p. 154)

It is important to understand that phenomenological reduction is not an introspection, it is not "seeing inside," but a tolerance concerning the suspension of conclusions that allows a new aspect or insight into the phenomenon to unfold (Varela, 1996, p. 339). "Phenomenology is not another name for a kind of psychological self-observation, nor is it simply to be identified with a first-person description of what the "what is it like" of experience is really like" (Zahavi, 2008, p. 678).

Therefore the methods of phenomenology do not rely on introspective peering internally at one's passing stream of consciousness, but – as shown before – redirecting the focus away from the entire empirical natural world, including real psychological and introspective experiences, and to refocus the study of the mind on essences of conscious experience of various kinds.

At the heart of the phenomenological method is the assumption that human experience follows fundamental structural principles that express themselves differently and contingently. Experience is necessarily personal, but not necessarily private. Therefore, phenomenology is not a reiteration of introspective solipsism, for it assumes that the study of particular experience leads to the recognition of generative structures that are common to human beings more generally.

For this reason, the interpretation and radical designation of phenomenology as (solipsistic) introspectivism and equating it with contemplative literature is, if at all, only partially justified. [15] Moreover, the supposed link to introspective orientation of phenomenology does not consider further and advanced phenomenological developments, which disclose and take inter-subjective and inter-objective patterns, structures and processes into systematic account.

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[15] In Husserl's private letters one can find statements showing his struggle with a religious and spiritual quest. "The life is at all hard and I long much for that peace, which must form the natural conclusion of this terrestrial existence. However, I feel not yet enough religiously prepared and the end of my philosophical life longs for the last religion-philosophical completion" (Husserl, Brief IX, 93, 1917). Interestingly Husserl lived in the "solid faith of the divine meaning of the world and mankind." (Husserl Brief III, 494). In a telling proclamation he stated: "Finally for me philosophy is my a-religious way to religion, as it were my atheistic way to God." (Husserl, B IX, 124). "It is my conviction that intentional phenomenology has for the first time made spirit (Geist) qua spirit the field of systematic scientific experience, thus effecting a total reorientation of the task of knowledge" (Husserl, 1970, Pt. III).

Inherently, phenomenology is not only related to art and aesthetics, but also to morals and intersubjective ethics as well as to "objective" bodily states and structures and behavior and inter-objective realties, thus linked to behavioral and "objective" science. Particularly, advanced phenomenology as outlined in the following part is fundamentally concerned with socio-cultural life as well as objective and inter-objective spheres.

With this orientation, the status of phenomenology in relation to hermeneutics, anthropology and structuralism, but also to autopoieses, empiricism and system theory as described in integral theory is questionable. Again this positioning needs to be investigated and scrutinized more thoroughly to enable an adequate integral post-metaphysics and integral methodology.

Part II: Advanced Phenomenology – Merleau-Ponty

The following outlines basic ideas of one of the most fascinating further developments and advancement of phenomenology, the philosophy of Merleau-Ponty (1960, 1962, 1988, 1995). He departs from the orthodox Husserlian conception of the purpose and scope of phenomenology. With him phenomenology realized particularly a *turn to the body and to embodiment* as a basic nexus of living meaning, as by virtue of being embodied we find ourselves always already situated to meaningful inter-relationships.

Correspondingly, Merleau-Ponty developed a rich variety of phenomenology emphasizing the neglected role of the body in human experience. Using Husserlian inspired methods of analysis Merleau-Ponty's overall ambition was to disclose the roots of rationality and Being. Close to Husserl he tried this through philosophy's efforts to reawaken an understanding of the original acts whereby humans come to awareness in the world. However, by extending Husserl's account of the "lived body" that is the body as it is experienced and experiences as opposed to the merely physical body, Merleau-Ponty resisted the traditional Cartesian separation of mind and body. Instead he developed the idea of the body-mind as the basic connection to the life-world, ever adjusting and constituting in inseparable bond with the vastness of experience and existence as a being-in- and towards-the-world.

Taking the body and embodiment as "base" his existential form of phenomenology addresses a wide range of embodied phenomena and bodily experiences, from perception, spatiality and motility of the body, to the body in sexual being and in speech and other embodied relationships to others, up to questions regarding temporality, and freedom. Correspondingly, Merleau-Ponty advancement of phenomenology strived for overcoming (or perhaps better to say undermining) the de-corporealization of the body and the neglect of embodiment, be refocusing on an extended understanding of experience.

Experience for him was no longer given to a subject, mind or consciousness, which could then be appealed to as substance within the world. On the contrary, the world is originally given and it is from this pre-subjective giveness that concrete definitions of the subject are formulated. For Merleau-Ponty the *body itself is already lived, meaningful and relational and intentional,* thus no longer merely a matter of cognitive consciousness. The life of embodied existence and interactive communication precedes and is the foundation for explicit and thematic consciousness. Importantly, Wilber confirms this embodied perspective as also for him "each state of consciousness is supported by a corresponding body, so that consciousness is never merely disembodied" (Wilber, 2000d, p. 151). [16]

Influenced and critically using insights by Heidegger and the Gestalt theorists, Merleau-Ponty is not only rejecting the modernist version of referentialist-representalism but critically refuting the dominating strands of Western philosophy and science; those being the empiricistic-objectivistic and the rationalistic-subjective paradigms. Both empiristic realism and materialism as well as rationalistic idealism (intellectualism), are reductionistic as they reduce live-worldly phenomena either to matter or to an idea.

Focused instead on bodily experiences and embodiment not as objects or representations but as constitutive and "open" media led him to an anti-foundationalism, anti-essentialism and non-dualism, and philosophy of *ambiguities,*[17] which marks his groundbreaking post-Cartesian and non-reductionistic approach.

With this orientation, Merleau-Ponty sought to rearticulate the relationship *between* "subject" and "object," self and world, mind and matter, culture and nature among various other dualisms through an account of the lived and existential body.

In terms of methodology, for Merleau-Ponty the phenomenological reduction remains incomplete or really incompletable. *Returning to things themselves* means for Merleau-Ponty going back to the way in which we experience the world before we begin to theorize about it. Returning to the life-world is to relate to the world in which an embodied knower meets in and co-creates with her *lived-in experience* the like-wise "embodied known" always already infused with meaning. Thus the program of the philosophy of Merleau-Ponty attempts to retrieve and integrate the experiential bodily processes and the embodiment as constitutive.

The embodied "subject" and his/her likewise embodied inter-subjective and "inter-objective" life-world are an extensive continuum, in which s/he is imbedded and actively and passively takes part. Therefore, neither subjective, inter-subjective nor objective dimension can be isolated from the dynamic process of embodied being and becoming. Mediated by the body and embodiment, human beings and "Being" itself "makes sense" of the inter-related realities of becoming in an on-going processes of transition of reality. As an unruly, unpredictable and unmanageable reality, the body and embodiment are decentring. Both are not only "mastering" subject and collectives, but also disrupting, undermining and escaping the purposive and boundary-drawing processes. With this orientation, bodily and embodied forces underlie the processual, dynamic and unfinished nature of any perceiving, feeling, thinking and acting.

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[16] As for every state of consciousness, there is an 'embodied feeling' Wilber discusses gross, subtle and causal (formless) bodies as mode of experience or 'energetic feeling' which for him refer to supposed phenomenological realities as they present themselves to immediate awareness (Wilber, 2006, p. 25; 2000c).

[17] Because we are not capable of disembodied reflection on our activities but are a body-subject in an inexhaustible world we are living through, ambiguity is and remains as the heart of our experience. It prevails both in perception of things and all temporally situated forms of knowledge. We are always in the midst of the world and have no vantage point outside it. We can never achieve total clarity even in our reflective and critical orientation because we cannot fully penetrate the sources and origins of our meaning making, that is the primordial awareness in which meaning is always already constituted. Thus the irresolvable ambiguity is grounded in our bodily participation in being and on the paradox that we ourselves are constituted by the very being of which we become aware. As the world of lived experience is essentially indeterminate, ambiguous and opaque, it is not amenable to a complete and transparent analysis which is why for Merleau-Ponty, "ambiguity is of the essence of human existence [...] Existence is indeterminate in itself, by reason of its fundamental structure" (Merleau-Ponty, 1962, p.169). This orientation towards ambiguity and somewhat indeterminacy in Merleau-Ponty, leaves behind a philosophy of (self-)certain as classical phenomenology tend to be interpreted.

By means of our bodily insertion into reality, we are always already vitally responsive to the demands of our situation upon our body. This body moves in terms of pre-reflective "intelligence" and lived involvement, which exceeds our conscious awareness and control. Accordingly, there is a level of intentionality below that of explicit acts, which manifests itself in an active bodily engagement that is our primary rapport with the world.

For example "a movement is learned when the body has understood it, that is, when it has incorporated it into its "world", and to move one's body is to aim at things through it; it is to allow oneself to respond to their call" (Merleau-Ponty, 1962, pp. 138-139). An operative intentionality establishes and utilizes secret bonds of correspondence and interdependency, which constitute our reciprocal involvements. In this way of thinking the intentional arrow of classical phenomenology has become a two-way street of "interaction" as an "inter-experience" and co-constitution.

For Merleau-Ponty consciousness, the world, and the perceiving body are intricately intertwined and mutually "engaged" within an ever-present world frame and through the use of pre-conscious, pre-predicative understandings of the world's make-up. In ordinary perception we as body-subjects have a kind or pre-predicate, pre-objective and non-positing consciousness of our surroundings and our own bodies (Siewert, 2006, p.88).

Without falling into a pre-trans-fallacy,[18] this orientation opens up for a post-dualistic ontology, as explicated in the unfinished later works of Merleau-Ponty. Referring to a chiasmic, incorporated intertwining and reversibility of pre-personal, personal and interpersonal dimensions, Merleau-Ponty's indirect ontology of flesh, allows understanding phenomena more profoundly and relationally. For this understanding, we need to turn once again to the wonderment of this "eternal splitting open of Being into the touching and the touched, the seeing and the seen, the site of their differentiation as well as their union and intimacy" (Burk, 1990, p. 90). With this relational understanding it becomes possible to approach what does not appear, and yet which is the very condition for appearance.

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[18] According to Wilber an uncritical use of a two-stage model of psycho-spiritual development can lead to one or both of the versions of the 'pre/trans fallacy': either mistaking pre-personal material as spiritual (the elevationist fallacy), or mistaking the transpersonal for pre-personal (the reductionalist fallacy) (see Wilber 2000a, p. 211). Thus there are two types, which either reduce the world of the Trans- to the world of the Pre- (PTF 1) or elevate the world of the Pre- to the world of the Trans- (PTF 2). The fallacy of conflating pre- and transpersonal realms can be related to both ontogenetic and phylogenetic development dimensions proceeding from pre-conventional, pre-rational, pre-egoic stages via conventional, rational, egoic stages towards trans-conventional, trans-rational, trans-egoic stages.

The patterns of meaningful being and action exist neither in the mind nor in the external world. They are neither subjective nor objective, but constitute rather a kind of world *in-between*, an inter-relationality of individual, social and trans-subjective practices. It is this between within an ontological continuity between ourselves, others and the natural world that needs to be considered. For Merleau-Ponty humans are integrated into the natural order, not as mere objects, but relations between humans and their world are intertwined or interwoven in the flesh of the world.[19] Within this fleshly being the in-between is as "fullness of void," understood as a creative and fulfilling emptiness.

Ultimately, it this in-between, which is the birth-place of intertwined individual identity, social and inter-objective knowledge, realities and creative relationships. With this kind of relational ontology advanced phenomenology is not only concerned with interiors, but provides a proto-integral interpretation, highly relevant for integral theory.

Advanced Phenomenology as Proto-Integral Philosophy

"Proto-integral" can be defined as both showing integrative potential, being on the way to an integral thinking and having the potential to further develop even compensate for weaknesses and limitations of conventional integral theory. Proto-integral potential means here, that phenomenology as a living and reflective philosophy, carries chances for an ongoing development towards serving and advancing integral research. Being proto-integral does not imply that phenomenology is a primitive or underdeveloped integralism. Rather phenomenology is a proto-integral in that it tries to make intelligible and integrate factual and possible lived experiences and realities in all its complex holonic interweavements and perspectives.

Furthermore, Merleau-Ponty's phenomenology is also proto-integral in that has opened up its philosophical reasoning to other disciplines including empirical studies, like psychology, cognitive science, neuro-science, linguistics, anthropology, sociology, political theory, cultural, literary and aesthetic theory etc. (e.g., Weiss, 2008).

Characterizing Merleau-Ponty's philosophy somewhat deprecatingly as "felt phenomenology" (Wilber, 2003, Excerpt C, Endnote 3) – which supposedly makes it seem difficult to cover intrinsic intersubjectivity as well as waves and streams – does not do justice, and even more is highly distorting and is undervaluing its proto-integral potential. Basically, advanced phenomenology does not (only) refer to the inner-world of transcendental consciousness and introspection. Merleau-Ponty utilized the phenomenological reduction espoused by Husserl, but without separating consciousness from the world, on the contrary he strives for re-integrating it as embodied. Accordingly, for Merleau-Ponty consciousness is always embodied consciousness. Furthermore, perception and experience interpreted by humans elicits meaning is embedded in a world that is physical as well as social. Thus human experience is actualized in the life-worlds of space, time, body, and human relation. Integrating the body and developing an elaborate understanding of embodiment this inclusive orientation provides the potential for reconnecting to the primordial origin, in a conscious and differentiated, yet reconciling way.

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[19] Understanding "flesh, as a kind of originary absence" (Madison, 1992, p. 97) it is what makes the presentation of being-present possible, but which never presents itself as such. Thus, it is "non-space" of in-between, an "ecart," the gap, the separation, the differentiation between the touching and the touched, the seeing and the seen, mind and world, self and others. That gap of ecart, that space of corporeal difference is the "there is" within "the Being that lies before the cleavage operated by reflection, about it, on its horizons, not outside of us and not in us, but there were the two movements cross. . ." (Merleau-Ponty, 1995, p. 95).

With this proto-integral move, Merleau-Ponty's phenomenology offers a challenge to the internalism and mentalism of consciousness-bounded understanding. Integrally it shows, that consciousness exists only enmeshed in the world in which we do things and where we pursue social practices that facilitate our interaction with ourselves, each other and towards objects.

Particularly the aforementioned "inter-ontology" of a reversible chiasmic flesh-of-the-world, serves as basic constitutive and elemental medium of intertwined subjective, intersubjective and inter-objective processes. This relational and holonic orientation helps to overcome conventional subject-object dichotomy of retained Cartesian constructions. The danger of getting stucked in the somewhat implicit Cartesian dualisms in the heuristic analysis of the AQAL model requires a radical inter-relational holonic perspective.

Holonomically the whole is being intimately entwined with its parts and vice versa that is the whole comes into being through the parts, while at the same time the parts come into being through the whole. This implies that the whole can be encountered through the part, as well as parts can be seen in light and relation of wholes. Furthermore the whole can be qualified as which holds the parts together; or the way the parts belong together.

By going back to our actual lived bodily experience, we can (re-)discover the process of a holonomic inter-relating; a relational nexus of an "in-betweenism" (Kimura, 1988). Merleau-Ponty's indirect ontology of primordial *flesh* refers to a formative medium or milieu anterior to the conceptual bifurcation into the "subjective" and the "objective." It implies a chiasmic intertwining and reversibility, that allows for understand the holonomic process of what could be called inter-being (see also Nhat Hanh, 1998).

Merleau-Ponty´s indirect, ontology of reversible flesh reflects the inextricable intertwining of the body-subject with the world it inhabits – the inseparability of self-knowledge and object-knowledge in the midst of fields of situated, relational inter-corporeal in-betweeness at the brink of non-dual being. Metaphorically, this nexus refers to a textile or common tissue of meaning that is woven through all levels of experience, preceding and making possible all particular horizons and contexts. This elemental being manifests as a kind of silent and invisible ontological fond - out of which self, others, and things arise in reciprocal relations.

All inter-relational processes are always on the move between order and disorder that is always becoming; and never complete. As such it implies an active and ambiguous "immanent transcendence," carrying an utopian movement (Johnson, 2003).

With Merleau-Ponty, we can acknowledge the in-between of this becoming as a processual gap, as a corporeal difference (Weiss, 2000). Within this difference Being "lies before the cleavage operated by reflection, about it, on its horizons, not outside of us and not in us, but there where the two movements cross..." (Merleau-Ponty, 1968, p. 95). This living in-between, understood as creative and fulfilling emptiness is the speaking and knowing silence, pregnant with meaning.

Merleau-Ponty’s understanding of the relational constitution of becoming fosters a more processual integral perspective. Correspondingly, advanced phenomenology is helpful for the challenging undertaking to approach the inter-relatedness and dynamics of all spheres and entities within the integral framework. This implies for example a systematic up-grading of exteriors by holonomically interrelating internal, external, individual and collective interior meaning and exterior behavior as complementary. By this then behavior and acting as well as system exteriors co-create interior levels and states of consciousness as much as intentions and cultural dimensions among other interior co-create behaviorial and systemic realities. Accordingly, from an advanced phenomenological perspective, we need to see developmental values, depths and qualities also in the exteriors and in relation to the interior.

As Edwards (2004, 2005, 2009) has proposed, the right sides (“It” and “Its”) are not only an ongoing complexification of simple material and physical forms, but are multidimensional and an ongoing and dynamic process of creative emergence. Instead of the tendency to privileging interior (and individual) quadrants, and hence underestimating the relevance of the exterior (and collective) quadrants, what is needed is valuing the co-constitutive and co-creational inter-relationality of both and all. That is all forms of development and transformations are starting and are processed equi-primordially (“gleichursprünglich”) with both the interior and the exteriors as well as always already in-between both! Correspondingly, individual and social realities and processes are mutually inter-related and unfolding. Epistemologically and methodologically, this leads towards a kind of “inter-standing” (Taylor & Saarinen, 1994) the holonic “inter-be(com)ing” (Küpers, 2009). (Inter-)Being and Becoming thus “be(com)ing” takes places and realizes itself as an all encompassing “processual embodiment” which is more and different then a merely somatic interpretation, but refers to the very being *in* and becoming *towards* the world.

Actually, Wilber is using the very phenomenological term “being-in-the-world” for qualifying the major perspectives (I, We, It, Its) and the native or primordial perspectives (zones) as the inside and outside of interiors and exteriors in singular and plural. As he stated: “being-in-the-world is adequately nestled in endless networks of other beings in the world.” (Wilber, 2003, Excerpt C 45). With Merleau-Ponty‘s radicalized proto-integral phenomenology and relational ontology integral theorizing can even further and deeper consider the embodied relationality of its perspectivism.

For Merleau-Ponty’s advanced phenomenology the phenomenological space is an indigenous perspective that is embodied, embedded, enacted, and enfolded in other spaces, which for Wilber “makes the sum total of what is represented as the AQAL matrix” (Wilber, 2003, Excerpt C 46). Similarly, as for Wilber also for the later Merleau-Ponty “every perception of a sentient being is always already situated in relation to other sentient beings, and therefore every perception is actually housed in an indigenous perspective. Perception, awareness, consciousness, feeling-- none of those items exist per se…” (Wilber 2003, Excerpt C 46). In other words advanced phenomenology presents and situates perceptions and “knowledge of essences” and “universals,” never outside of a perspective. Like AQAL meta-theory, also according to the advanced later phenomenology and ontology of Merleau-Ponty, the Kosmos is built of perspectives, not only perceptions (Wilber 2003, Excerpt C 47).

As Wilber stated: "Integral Post-Meta-physics replaces perception with perspectives . . . all perceptions are actually perspectives, and all perspectives are embedded in bodies and in cultures" (Wilber, 2006, p. 58-59). Thus, sentient beings and perspectives, not consciousness and phenomena, are the "stuff" of the Kosmos (Wilber, 2003, Excerpt D). For Wilber (2006) there is no pre-given world awaiting perception only mutually disclosing perspectives awaiting (meaning creating) enactment that only exist relative to a sentient being; relative, to the subject that is doing the perceiving. And these subjects perceive corresponding to language systems consisting of signifiers that have specific referents, accessible only if those who are perceiving have developed to the level that contains the correct signified. In a process that Wilber (2006, p. 303) calls "mega-phenomenology" he outlines a schematic and generalized "GigaGlossary" that indicates world-spaces (on different altitudes) in which the referents of the major signifiers used by humans and capable of being "seen" by humans who possess the corresponding degree of consciousness to bring forth the correct signified.

However, embodied perceptions remain important as pre-reflexive way in and medium for manifested work of embodied consciousness. Therefore instead of merely replacing perception with perspectives (Wilber, 2006, p. 58) it seems important to recognize that both are mutually interdependend. Multidimensional, sensory, polymorphic and cultural perception, entrenched in historico-linguistic contexts and perspectives both are enacted as well as to take perspectives, requires perceiving them. In addition to emphasizing that all perspectives are embedded in bodies and in cultures (Wilber, 2006, p. 59), a phenomenological and phenp-practical approach integrates embodied perception with a perspectivism, that is perspectives are co-constituted and on-goingly co-created in a sensuous perceptional way, which hence make sense (Küpers, 2009a).

Against Retro-romanticism, but Differently!

Merleau-Ponty's critique against Cartesian dualism, separating subjects and objects, culture and nature, mind and matter, and his continuous emphasis on the relational flesh of the world, seems to suggest a revived romantic unity holism, similar to what some deep ecology approaches follow when they favour an all-encompassing identification of self with other species.

However, advanced phenomenology shares the well-founded criticism of integral theory related to retro-romantic approaches of questionable re-enchantment, which can be problematized as a single-boundary fallacy concerning the status of the somatic body (Wilber, 1995, pp. 697ff, 708). Conversely, advanced phenomenology does not make the somatic-sensory body mean experience in general or only a pre-conventional body. Therefore it is not falling into any descending one-sidedness nor regressive slides and fallacies re-contacting of body-id-in Gaia-approaches like Roszak et al. (1995) and other re-enchanting eco-philosophers tend do.

As understandable as a yearning for returning to a pre-reflective unity for the disembodied, alienated, rational modern and fragmented, relativistic postmodernism consciousness appears, there is no way back to a retro-regressive coincidence with nature or supposed pre-existing given Truths. Because the reversibility of being is always imminent and never realized in fact …" the coincidence eclipses at the moment of realization … " (Merleau-Ponty, 1995, p. 147) and relations to nature are always already culturally mediated.[20]

Rejecting any absolute claims on a specific, pure and authentic relation with "nature", Merleau-Ponty's phenomenology encourages an *a-Romantic* orientation and perspective on what nature is and mean. This does not exclude using Merleau-Ponty's phenomenology for investigating concrete, emotional and spiritual experiences people can have of the natural world, i.e. unbiased by either Romantic or dualistic worldviews (de Jonge, 2002).

Merleau-Pontyian ontology and epistemology provides indirect directions and approaches for example into the structures of relations between animals and humans, that go beyond an abstract division or mere utilitarian relations between the two. Accordingly, with Merleau-Ponty's phenomenology it is possible to discover many more ways and many more levels in which natural, humans and the "spiritual" world are related than traditional science or traditional philosophy could ever illustrate. Moreover, his phenomenology allows and embodies the development of sensitivities and senses of and for natural, human and "spiritual" qualities in their embodied incorporatedness and interconnectedness.

As referred to before, for this it will be imperative not to get lost in the pre/trans-confusion or supposed holistic but sub-complex unionism, and thus for advanced phenomenology and integral phenomenology differentiation is the necessary prelude to a deeper/higher and emergent integration (Wilber 1995, p. 472).

Here is not the space to discuss the complex status and application of Merleau-Ponty's phenomenology and his late ontology of flesh and environmental ethics and ecologies as for example outlined in the much discussed work of Abram´s (1997) spell of the sensuous or Toadvine's recent book (2009) on Merleau-Ponty's Philosophy of Nature.

But, what makes sense with regard to realizing a non-regressive phenomenological practice is a non-sentimental return towards actively developing our powers of reflective somatic consciousness (Shusterman, 2008) "so that we can achieve a higher unity of experience on the reflective level and thus acquire better means to correct inadequacies of our unreflective bodily habits" (Shusterman, 2005, p. 176). With Shusterman somaesthetic pragmatism offers a complementary perspective to phenomenological approaches, in that it provides more adequately a "full-bodied engagement in practical efforts of somantic awareness… generating better experiences for the future rather than trying to recapture the lost perceptual unity of a primordial past (Shusterman, 2005, p. 177).

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[20] Already classical, transcendental phenomenology does not restrict empirical data to the range of sense experience, but admits on equal terms such non-sensory categorical data as conceptual relations and values. Phenomenology recognizes knowledge of the synthetic a priori, a proposition whose subject does not logically imply the predicate but one in which the truth is independent of experience, based on insight into essential relationships within the empirically given. In contrast to phenomenalism, it a position in the theory of knowledge (epistemology) with which it is often confused, Phenomenology – which is not primarily an epistemological theory – accepts neither the rigid division between appearance and reality nor the narrower view that phenomena are all that there is (sensations or permanent possibilities of sensations). These are questions on which phenomenology as such keeps an open mind – pointing out, however, that phenomenalism overlooks the complexities of the intentional structure of man's consciousness of the phenomena.

The Status of the Other

Discussing Groffian transpersonal experiences Wilber states: “all phenomenology fails: it takes the subjective and inter-subjective patterns doing the phenomenology for granted, and thus fails to disclose the processes and inter-subjective structures necessary for the experience to be able to unfold at all.” (Wilber, 1995, p. 771). As this was not correct in relation to Husserl, as shown before, this is neither correct to Merleau-Ponty, who remained close to and further radicalised the Husserlian concept of transcendental intersubjectivity. By this orientation the experience of the other has an integrative place in Merleau-Pontyian phenomenology.

From the perspective of advanced phenomenology it is through others that we develop into ourselves. Even more, it is through encountering the other that transformation as a holonic affair happens. There is always already a responsive inter-relational at work as an embodied social practice. Moreover, intersubjectivity is possible only because there is established an (pre-mordial) intercorporeality within the caring sensible.

Thus the cultural and historical world canot be understood in a way that is separate from the sensible and empathetic. Empathy, and dialogue as part of ongoing conversations are means of relating and articulating a sensible world that is “written” and “authored” already in human perception and expressed in language. Language in particular serves as a social medium that brings to full expression the mute inter-corporeal perception of the sensible, and, through this mediation, both are in a constant structuration, constant reversibility and interchange within the human experience of the lived world. We can enter the world of other human beings precisely because we are all part of a sensible and social world; a belonging that makes me believe that what another is seeing is but one more perspective on what I see, a variant of a common world rather than constituting another private world. Therefore, the reproach of a monological apprehension or prejudice is not justified. Wilber criticizes: “Rather, phenomenology (especially of the Merleau-Ponty variety) forms a type of foundational edifice … but its monological apprehension need to be supplemented with dialogical recognitions…” (Wilber, 1995, Endnote 738). He also stated:

> Thus, phenomenologists who claim that consciousness is always intentional (or always a consciousness of something), are still caught in a monological prejudice that abstract subjects perceive abstracted objects. They are “half-way” right, so to speak, which is that all manifest consciousness is always consciousness of. But that is still a low-order abstraction mistaken for the reality of the situation, which is that a first person is always already in a series of relationships with other first, second, and third persons, and awareness, consciousness, and feelings arise within those networks, not outside of them. (Wilber, 2003, Excerpt D Endnote 1)

However, an *adequate phenomenology*, as outlined in the following part, constitutively relates to dialogical and systemic perspectives, on second and third person levels. Analogue to an “adequate structuralism,” such an adequate phenomenology needs to be based on the insight that various phenomena follow patterns that do not themselves show up as phenomena, in naive immediate lived or even bracketed experience. An adequate form of phenomenology recognizes that the "subjective space" itself develops via inter-subjective patterns of dialogue and interpretive cognition (Wilber, 1995, pp. 28, 576ff, 583).

As discussed before, from the perspective of advance phenomenology the interior and the exterior, the individual and the collective are mutually interwoven with each other, they all co-create and communicate to each other and unfold together in a responsive and thus dialogical way. Accordingly a first person is seen as always already in a processual nexus of relationships with other first-, second-, and third- persons, which all are considered systematically in an integral "pheno-practice."

Part III: Perspectives on Adequate Phenomenology of an Integral "Pheno-Practice"

Pheno-practice here is understood as a special employment and application of (advanced) phenomenology, offering important perspectives on integral research and practice. Basically pheno-practice aims at further advancing classical phenomenology and its underlying, but limited ontological and epistemological assumptions and methodologies.

Like classical phenomenology, pheno-practice is driven by the intention to clarify and understand what is at issue; that is what appears as live-worldly phenomena and its various meanings as a complex inter-relating process. Pheno-practice is "practicable" as a style of concrete thinking and way to understand dealings with phenomenal reality. Thus, the practice of the pheno-practice refers to the ways in which human beings engage, individually or collectively, in grasping, holding, shaping, and forming the world in which they live, thus it is about meaning as an experience of everyday-life-world. With this orientation, situated practice is co-constituted in interaction of the embodied agents among each other and with the surrounding physical and socio-cultural environment. What kind of and how practices are realized is connected to the embodied conditions in which they emerge. Correspondingly, practice is an embodied, social, negotiated, complex process of participation (Wenger, 1998, p. 49).

Following the anti-essentialists critique against classical transcendental phenomenology, instead of reifying phenomena into external "objects," pheno-practice aims not to grasp the whatness of a phenomenon, but approaching the complex meaning relations involved. Pheno-practically, "essence" is a relational term that refers to intentionalities and responsiveness; that is to possible ways of encountering and relating before and while we understand or think them in conceptual thought or express them in language. Accordingly, a pheno-practical approach informs us that our primary and usual way of being-in-the-world is a pragmatic inter-action based on embodied personal, inter-personal as well as environmental and contextual dimensions.

Methodologically, a pheno-practical research approach takes a shift of mind to see interrelationships in their connections rather than linear cause-effect chains, and seeing processes of non-linear change rather than regarding snapshots for control and predictability. With this methodological focus, it emphasizes conditions of possibility and recognizes the multiplicity and interdependencies of poly-causal forces rather than simple causal explanation. This genealogical and processual orientation may then help to deal with the inherent problems and limits of atomistic, mechanistic and substantialist approaches, and simultaneously provides access to interstand relevant phenomena in the life-worldly practice.

Pheno-practice represents a specific integrally informed research framework and methodology, understood as a practice of researchers, striving to portray phenomena from the individual, communal and contextual perspectives of those who experience them and how they are embodied, while considering also the experiential involvement of the researcher. Thus, the primary focus, of pheno-practice, as a research methodology, is the understanding of the inter-relational structures, processes and meanings of lived experiential phenomena and perspectives. More than just applying specific methods of (classical) phenomenology and conventional qualitative research methods, pheno-practice provides also a base for a genuine integrative methodology of inter-relational practices for example for knowing and organization (Küpers, 2005, 2009). Pheno-practical methodology uses approved forms of co-operative inquiry (Heron, 1992, 1996) conducting research "with" rather than "on" people as co-researchers and creating a research cycle iterating through different types of knowledge, namely propositional, practical, experiential and presentational knowing for deepening experience and knowledge.

With all this an integral oriented pheno-practice provides a base for an extension of the conventional integral framework of Wilber (1999, 2000a, b), particularly concerning a more inter-relational understanding of developmental stages and lines in an holonic integral cycle, co-constituted by pre-subjective, pre-objective, pre-collective and pre-inter-objective dimensions

Developmental Stages and Lines in an Holonic Integral Cycle – H-AQAL

As known to the reader of integral theorists, the AQAL quadrant model uses a series of different developmental stages or levels and lines of development (Wilber, 2000c, d). Both levels and lines of development are essential aspects of personality with which people, but also "entities" need to understand themselves as well as for functioning and evolving properly further.

The *levels of development* refer to what is being developed (matter, body, mind, soul and "spirit") as generalized "waves" of existence. Thus, the levels are stages of development through which human beings proceed via a transcending, but also including, embracement and enfoldment (Torbert & Associates, 2004). With this facility the levels mark out new capacities and emergent qualities. Furthermore, these basic levels of consciousness unfold at different rates and can be seen as overlapping waves in a spectrum of consciousness.

The *"lines of development"* reflect innate capacities and functions within the stages. As such, they co-determine a person's ability to learn and perform successfully in various circumstances. The developmental lines concern complex developments, such as cognitive, emotional, interpersonal, behavioural, knowledge and learning developments or ethical/moral lines. Moreover, aesthetic competencies (musical, artistic, bodily-kinesthetic), among many others (Wilber, 2001, p. 246) are also part of this developmental process.

Lines develop over time through increasing complex levels of maturity, education and skill. But there are also "lagging lines" of development that represent specific areas of weaknesses or non-strengths. These under-developed capacities may be a limiting factor for the effectiveness of human functioning. Most of these lines develop in a relatively independent fashion at their own rate with their own dynamics. Some lines are necessary but not sufficient for the development of others; while some develop closely together (Wilber, 2000a).

Holonically both levels and lines of development are not only part of the upper left and right individual quadrants, but alike part of all collective spheres of cultures and systems. Moreover they develop simultaneously through all four quadrants. Inversely, quadrants exist in each and every personal, social or structural holon and show the relationships that exists within each holon. The inner and the outer as well as the individual and the collective co-evolve in an intimate cycle of mutual holonic interpenetration. That is a holonic identity arises as a result of the quadratic mutuality of both interior and exterior aspects of the holon. Such understanding allows an appreciation of the dynamic interpenetration of the inner/outer and individual/communal aspects, which occurs at each level of development for each and every holon. A holon brings these dimensions together in as a differentiating and unifying field of dynamic interdependence. The four perspectives of holonic reality do not merely co-relate or interact, they *co-create each other and co-evolve together*. Consequently, all reductionism via quadrant partiality needs to be thoroughly bracketed.

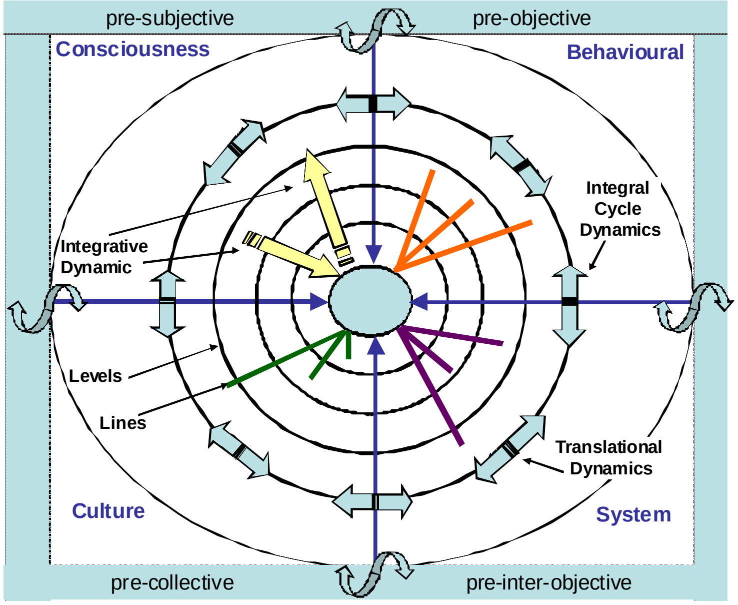

Figure 1. Levels and Lines of Development and Integral Cycle of Holonomic Pheno-practice

Holonomically, quadrants, levels and lines are energized by the dynamics of growth and integration and by what can rightly be called an “integral cycle” (Edwards, 2000, 2004, 2005, 2009). It is this cycle, which keeps all these elements hanging together in a coherent and dynamic system and co-ordinates the interaction between the four-quadrants and the holonic developmental levels and lines by an integral cycling and spiraling.

In addition to translational dynamics within each sphere and integrative dynamics, the integral cycle keeps all elements hanging together in a coherent and dynamic system. This capacity to analyze, categorize and synthesize the concept of an integral cycle in a pheno-practice a way of representing the mutual interpenetration of the quadrants and their constituent structures and the integrative and growth dynamic relationship that exists between the domains and its holarchic involutionary and evolutionary pathways. Moreover, being part of a comprehensive holonomic process, all quadrants stages and lines are also related pheno-practically to the constitutive *pre-subjective, pre-objective and pre-collective and pre-inter-objective dimensions*. These primordial pre-reflexive dimensions as described by Merleau-Ponty refer to the ways that pheno-practices are processed by pre-discursive capacities and experiential processes in a complex nexus of inter-relationships.

Based on this dynamic and holonomic understanding and as an integrative orientation pheno-practices gives equal attention to pre-personal, personal, interpersonal and transpersonal dimensions. It covers all, first-, second- and third-person perspectives of phenomena and its inter-relations and inter-dependencies. Rather than contending that any aspect or dimension is a (mono-) causal factor, an integral pheno-practice views all dimensions as constitutive of all others and accommodates them holistically in their inter-connectedness. Each of the four quadrants and the levels and lines of development would be incomplete without the others, and each depends on the others for its basic existence and sustenance. What is therefore needed is an approach that considers *Holonical(ly) All Quadrant, All Level, All Lines: (H-AQAL).* In these holonically intertwined spheres and through all its interrelations, the “be(com)ing-in-the-world” is energized, taking place and finding its time as embodied and enacted pheno-practice.

A critical pheno-practical reflection and practice is very much aware of the limitations and dangers of constructing or inventing a unifying representational scheme in relation to lived experiences, which are always more and different than what can be conceptualized. Therefore, the framework of pheno-practice, like the integral and other models, is just a perspective map, not to be confused with any ontological territory. But as a heuristic means pheno-practice might be helpful to appropriate a sense from what ultimately has already been understood and practiced. As as always preliminarily merely heuristic methododology it does not refer to an epistemically prior, unerring recipe that ensures compelling propositional results. Rather it understands method more literally as “following along a way” (i.e., “meta ton hodon”), thus it is a path that pheno-practical thinking and acting itself tentatively inscribes in attempting to disclose and come intelligibly close to the phenomena. Thus, the actual course of pheno-practical research is itself a lived experience notwithstanding following specific qualitative criteria of research for ensuring scientific rigor.

Thus not only may we situate lived experiences pheno-practically, we may also situate pheno-practical theorizing and ask ourselves where are we when we think? With this question, we are concerned about the experience of thinking itself and hence about where we stand and who we are in the very process of our pheno-practical theorizing.

Following a post-Husserlian orientation and a radicalized processual turn pheno-practical research investigates the influence that particular facts have on the emergence of (inter-)objects and of subjects and inter-subjective relations in their mutual interconnection. Accordingly, the central task in pheno-practical research is to demonstrate and makes approachable the reciprocal inter-actions and “inter-passions” among the inter-relational processes of reality constitution and situational practices within various modes of incessant tangled be(com)ing-in-/-towards the-world. This suits and advances integral studies as phenomena are constituted by inter-beings in a variety of situations, and events and activities.

As a genuine research frame-work, pheno-practice provides appropriate means for capturing and interpreting the dynamics of phenomena. In this sense, it strives to make accessible, describable, interpretable and practical the implicit and explicit settings and meanings of phenomena corresponding to the practical, processual, inter-relational understanding of and decentered perspective of phenomena.

The advantage of such pheno-practice is that it provides a useful approach to critic and counter-balance (gross and subtle) reductionistic approaches. Moreover, by offering integral and practical perspectives it also contributes to bridging the gap between theory and practice. Practically, each of the aformentioned elements of the integral framework (quadrant, level, lines, cycles) carries and demands various practical implications. These implications – not further elaborated here – are crucial for being realizing an integral pheno-practice in specific areas of application (Küpers, 2009).

Additionally, the practical implications helps also to respond to the conundrum of the entire phenomenological project: How can phenomenology be at once grounded in lived experience and faithful to it, yet transcend lived experience only to comprehend it, and in comprehending it, alter it essentially? How can phenomenology be simultaneously affirmative and transgressiv? On the one hand, phenomenology "seeks to recover a naive contact with the world" (Merleau-Ponty, 1962, p. vii) and to find truth essentially prefigured in lived experience itself. On the other hand, it "is not the reflection of a previous truth, but like art, brings a truth into being" (Merleau-Ponty, 1962, p. xx), transfiguring lived experience in the act of comprehending it essentially!

Although it relates and interprets meanings as already implicit in lived experience, pheno-practice does not simply iterate what is already given and understood in lived experience in the way that it is given and understood. Rather it seeks a transcending the understanding of the immanent, that is, it goes beyond lived experience to situate it, to conceive it more comprehensively, to judge it discriminatingly, and thus endow and transforms lived experience with new interpretation and meaning. This is possible, because pheno-practice is concerned with and relates respectively returns to already lived experience as the place where meaning originates.

Moreover, there is a transcending and transformative dimension already in lived experience itself, a dimension neither simply subjective nor objective yet in some sense always already understood. With this orientation, pheno-practice is more than simply describing things as they are given in themselves, neither as subjects nor as “objects.” Rather it strives for deciphering the origins of things in the whole system of experience, in order, as with art, "to show how things become things" (Merleau-Ponty, 1968, p. 181). In this respect, pheno-practice never purely coincides with lived experience in itself, but, by probing its ultimate horizons and seeking to grasp the englobing sense of what appears within them, renders lived experience anew and thus makes a transformative practice possible.

Though being faithful to lived experience, pheno-practice does not attempt to recover an experiential purity, as "one never returns to immediate experience" (Merleau-Ponty, 1968, p. 30). However, pheno-practice acknowledges that the intelligibility of the truth of lived experience precedes *a priori* the specific meanings realized within lived experience itself. Pursuing, pheno-practice constitutes a truth not yet realized, but within lived experience, thus altering the same: Expressed poetically: “We had the experience but missed the meaning / And approach to the meaning restores the experience in a different form” (Eliot, 1963, p. 208).

Accordingly, pheno-practice does not simply make clearer what is already known in lived experience. Nor does it simply abstract transcendental structures that account for the consciousness of “objects” in general nor for any actual “subjective” meanings within lived experience. Rather, pheno-practice elaborates fundamental possibilities of lived meaning inscribed as possibilities in the intelligibility of lived experience, as personal, interpersonal and “transpersonal” field of meaning. Neither simply copying nor complying with the realm of ordinary practical knowledge and ends, it seeks to discover an underlying “truth” ordinarily concealed or distorted in that realm; a truth in terms of which the essential meaning of the practical has itself to be determined. In this way, it neither repeats nor negates lived experience but reinstates it in its truth carrying its “immanent transcendence.” Through pheno-practical interpretation, lived experience comes, as it were, into its own for the first time as a conscious and transformative one.

Everyday dealings always have a prior context of meaning that situates and directs them, yet a meaning which recedes from focus in favor of involvements of members of organizations with the immediate objects of experience, cognition, and action. Presupposing a meaning already implicit in lived experience, yet that meaning is accessible and intelligible only by constituting it anew and thus transforming it. Consequently, pheno-practice locates transcendental truth in the original event of an immanent transcendence, the coming to be of the world as the integral context of lived meaning wherein, as embodied agents, we dwell, as spheres of meaning always already understood, arise, and differentiated in and through our human essence. One of the chief practical benefits of pheno-practice then lies in a re-form of and re-formulating of our understanding, which thereby in-forms as well as trans-forms the course of living.

The understanding that pheno-practical theorizing and research initiates and carries forward enables and situates what is done (or not done) in a more encompassing context of meaning. It thereby opens the possibility of acting more thoughtfully with a view to a more integral practice of wise conduct in life. Realizing transcendent meaning in immanent living experience effects a possible transformation, making possible well-founded and sustainable commitments.

Conclusion

The purpose of this paper was to situate in principle the "whither" and "whereabouts" of phenomenological theorizing in relation to integral theory and to develop perspectives and providing (ad)vantage points for further investigating integral dimensions.

The outlined advanced phenomenological and pheno-practical approach offers an important response to the following question: How can integral researchers situate themselves vis a vis their phenomena of interest in such a way that these most fully show themselves in and from themselves, and in their own ways of showing themselves in relation to the researcher? As described, the main purpose of phenomenology is a return to the "fundaments" of living experience as it happens, that is experienced space, time, body, and human relations as they are lived. Its aim is to relocate the primary point of contact between man and the world, to redirect philosophical attention to the primordial ways we perceive and enact the world.

Investigating the intelligibility of lived experience, phenomenology works systematically to recover the forgotten origins of scientific knowledge, to retrace a pre-objective intuition of "things themselves" and in their flesh and blood presence. A phenomenological and pheno-practical quest invites to rediscover the hidden intentionalities and meanings to examine their "essential" structures and potentials in an alter-native; proto-transformative manner. As a style of thinking, researching and enacting, phenomenology and pheno-practice can contribute to approach, re-conceive and interpret the experiential processes and practices within its complex inter-relationships. By purporting a return to the life-worldly experience pheno-practically, we can embark upon travelling "back forward" to what and how something appears, that is to the irreducibly relational and act-driven structure of experience.

In this sense phenomenology and pheno-practice are radical; a radicalism understood in the etymological sense of "going to the roots." Phenomenology is philosophical radical insofar as it seeks to penetrate beneath the abstractions and generalizations of science and practices and a culture dominated by science to reveal a underlying much richer world of lived experiences. In doing so, phenomenology is also socially and political radical, since it necessarily challenges both the hegemony of science and details of predominant scientific world views. While relating to lived experience, as a critical force, advanced phenomenology and pheno-practice are questioning wthat goes beyond everyday phenomena and conversations and concerns to comprehend them radically. By being a perpetually critical (self-)reflection and unfinished, and thus a continuous provisional "science of beginnings" (Stewart & Mukunas, 1990, p. 5) phenomenology pursues a tentative orientation which demands not only necessarily appropriating and reappropriating respectively letting go consciously its own beginning and the previous course of its thought.

Moreover, it calls us for re-learning to sense and look at the life-world as we encounter it in immediate experience; gaining fresh perspectives in seemingly familiar situations. Like all solutions in science, which radically reframe an open problem instead of trying to solve it within its original setting, phenomenology and pheno-practice have a "re-evolutionary" potential that is neither revolutionarily destructive nor evolutionarily conservative, but re-constellating radically the evolutional enfoldment. Accordingly, it can contribute to possible attempts for finding better and more adequate interpretations or alternative metaphors for experiences in a different and more creative way. Oscillating in the between of being and becoming, the stable and the fluid, the structures and the processes, established and emerging patterns, routines and creative action pheno-practice becomes an transformative inter-practice (Küpers, 2009).

Venturing “pheno-practically” into embodied, and with this emotional, cognitive as well as cultural and systemic dimensions of life-worlds, may be critically not only inquiring into, but also changing predominant practices and habits. With this transformational potential, it may provide viable means for researchers and other practitioners to generate theoretical and practice-related relevant insights and realizations for different embodied realities.

In a way, advanced and adequate phenomenology and integral pheno-practice are themselves answers to the question of finding methods which enable us to think and interrelate at the same time the externality and internality and their holonic interrelationship. From a post-Husserlian and integral perspective, the discussed phenomenologies are of course only *one* among others of the possible and philosophical and methodological approaches. In contrast to what Husserl sought, phenomenology does not have privileged foundational status. A self-critical phenomenology and pheno-practice must explore crucially its own phenomenality and relativity as one form of gaining knowledge and truth among others. Part of this necessary reflection is the effort to examine critically its own scope and limits and determine its meaning and ground. Accordingly, the "results" of phenomenology and pheno-practice have their force, not as a set of fixed claims passed on as correct doctrine, but as an interpretation of meaning appropriated and renewed in continued questioning and interpretation.

Nevertheless, advanced and adequate phenomenology and pheno-practice provide a highly significant potential for furthering integral research and practice. This kind of matured phenomenology and its pheno-practice are ready to take its “true-but-partial seat at the integral round table” (Wilber, 2003, Excerpt C 47). Facing the limitations of the classical phenomenology bound to a philosophy of (monolological) consciousness and of transcendental subjectivity, the discussed phenomenological and pheno-practical quest is part of the search for developing a post-metaphysical stance and understanding of holonic integral inter-connections and scientific and life-worldly practices.

As part of this quest, advanced, adequate phenomenology and a corresponding pheno-practice point to and invite to enter and pass through the gates into landscapes to be explored further. Both offer a map to orientate in the vast territories of be(com)ing-in-the-world. They help to navigate the journey through and towards unknown terrains. In their adequate forms, they holds considerable potential for guiding conventional integral studies out of its conceptual enclosures, methodological devices and habit-routines that often bind and unnecessarily constraints its approaches explanatory and interpretative power. By fostering an investigative questing for inter-standing phenomenal and relational ways of emergence, a phenomenological and pheno-practical philosophy and methodology offers supplementing and innovative research and practice options for approaching and relating to phenomena and events in more integral ways.

Correspondingly, there is a need for more rigorous theory building, further analysis and of course empirical testing. For example the combined use of phenomenology and pheno-practice may be used for additional research on various practices and processes for example related to embodied knowing and learning, aesthetics as well as organizing and managing respectively leaders and followership (Küpers, 2002, 2004, 2005; Küpers & Edwards, 2008; Küpers & Weibler, 2005, 2008).

Furthermore, combination invites further research on developing an integral methodology and integral methodological pluralism which recognizes and investigates embodied multiple realities, while acknowledging and incorporating different ways of knowing, and holonomic interrelations, valuing dynamic balances at many stages, levels and cycles. The integral methodological pluralism linked with advanced phenomenology and pheno-practice provides an even more refined epistemological orientation, which allows developing innovative conceptions of scientific research, and a more inclusive understanding of knowledge. Complementarily, the proposed pheno-practice contributes to corresponding meta-paradigmatic practice following the regulative principles of non-exclusion, unfoldment and enactment for conducting holonic research and integrating experiences as well as knowledge for achieving a post-relativistic multi-level inquiry, which is capable of taking different perspectives in an integral fashion.

It is hoped that the advanced phenomenological and pheno-practical research approach as discussed here provide actual possibilities to re-assess and investigate the deeper relevance and put in to a further developed integral research and practice. As such it can be used to supplement illustrate, highlight, interpret, deconstruct or re-conceive the experiential, structural, and processual dimensions of phenomenal processes. Even more, it partakes in and advances also more integral, creative and sustainable practices and well-be(com)ings (Küpers, 2005a).

Leaving behind the reductionistic “flatland ontologies” (Wilber, 1995) and researching phenomenologically and pheno-practically embodied personal, inter- and transpersonal dimensions and “lived experience” (van Maanen, 1990) in its complex holonic interplay is a challenging endeavor. But a worthwhile one, as it may contribute not only for the contemporary epistemic odyssey in research and practice as a passage out of pre-modern swamps of regression and between Scylla – the rocks of dogmatic modernity – and Caribdis – the whirlpool of dispersed post-modernity. Incorporating an adequate phenomenology and embodied pheno-practice into integral research may contribute to a better equipped and more critical journeying of this important endeavor. Offering important and enriching orientations both encourage and foster travelling into the enigmatic spheres of yet unknown possibilities of realising integral research and practice.

Not only are phenomenology and pheno-practice more and different than an “Upper Left“ or “Zone #1” affair, they also provide a tremendous proto-integral potential ready to be actualized. Truly integrated in integral research together they invite entering the within and the in-between of embodied selves, groups and communities their local cultures, regional realities and societies, natural environment and ecologies and even beyond those for realizing world-centric futures and unfold spiraling moments of our up-and-coming aborning cosmos.

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What is the Integral in Integral Education?
From Progressive Pedagogy to Integral Pedagogy

Tom Murray

Abstract: Integrally-informed educational approaches have much in common with progressive (including reform, alternative, holistic, and transformative) approaches, and share many of the same values. One function of the integral approach is to provide an overarching model within which to coordinate different progressive methods. Though integral adds much more than that, descriptions of integral education sometimes sound like progressive educational principles recast with new terminology. This essay attempts to clarify what the integral approach adds over and above progressive educational theories. After an overview of progressive pedagogical principles, the integral approach is discussed in terms of integral as a model, a method, a community, and a developmental stage. Integral as a type of consciousness or developmental level is elaborated upon as consisting of construct-awareness, ego-awareness, relational-awareness, and system-awareness, all important to the educational process. Finally, challenges and support systems for realizing integral education are discussed.

Keywords: alternative education, education, pedagogy, integral education, progressive education, second-tier.

Introduction

> *Education is everything. We don't need little changes, we need gigantic revolutionary changes. Schools should be palaces. Competition for the best teachers should be fierce. They should be getting six-figure salaries. Schools should be incredibly expensive for government and absolutely free of charge for its citizens, just like national defense. That is my position. I just haven't figured out how to do it yet.*
> (Aaron Sorokin, The West Wing)
>
> *Education is a private matter between the person and the world of knowledge and experience, and has little to do with school or college.*
> (Lillian Smith)

"Integral" means many things to many people, and the same is true for "Integral Education." In one sense, integral has become a generic attractor for progressive (or reform or alternative) educational theories of all flavors. For educational practitioners and scholars, any particular school of educational thought may feel constraining and bound to a particular model or founder. The integral approach can embrace (and support a critical evaluation of) most of the values and deep principles embodied in progressive thought, and is thus not only compatible with them but offers a generous and welcoming meta-container. The integral model situates progressive educational ideas within a larger transdisciplinary web of ideas about culture, psychology, philosophy, science, etc., and also cleans up some shortcomings. Any particular theory can fit

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comfortably within the integral camp and have the elbow room to grow – and to play (not take itself too seriously). Likewise, the community (communities) of people who are drawn to integral theory seem to be "on board" with the key assumptions of progressive pedagogies, and, more importantly, seem to be more likely than not to embody what these theories are pointing toward.

Many who have been inspired by a variety of particular progressive pedagogies find their way to the comforting and energizing umbrella of "integral," which supports what they have in common and provides space and perspective on where they differ. Clearly "integral education" is more than the sum of these various theories (or the overlap among them). But it is not always clear exactly what "integral" has to add over and above these other theories. If you ask someone interested in the integral approach to education to describe it the response may not sound very differentiated from other progressive approaches, or it might be a description of other theories peppered with an "integralized" vocabulary, or repackaged in an AQAL model. When the integral approach to education is described in this "old wine in new bottles" fashion, as I have heard it described, especially by those enthusiastic and new to it, its legitimacy in the eyes of experienced educational practitioners, administrators, and theorists is jeopardized.[1] Therefore I think that it is important that those of us who write about or teach integrally-informed pedagogy are able to clearly differentiate it from existing progressive models, and articulate the "value added."

"Integral" can be seen as pointing to four things: a (meta-) *model* or framework (a system of concepts for interpreting the world), a *methodology* (a set of injunctions or principles for inquiring about the world), a *community* (the embodied group or groups of people using integral models and methods), and/or a set of skills or *capacities* (a developmental stage that points past modern and post-modern cultural perspectives, and past formal operational modes of thinking). In this article I will address each of these perspectives on what being integral means, in the context of education.

The central audience for this article are practicing educators and those who work with educators (such as administrators, curriculum designers, educational tool designers, and those who teach teachers) who are using or interested in integral approaches. The article may also be useful for integrally-aware readers in training, coaching, leadership, and other fields involved in intentional learning. My overall goal is to help us clarify, to ourselves and to others unfamiliar with integral theory, who we are, where we come from, and where we seem to be going as "integral educators." I start with a birds-eye overview of key principles of progressive pedagogies, then describe what the integral approach adds to these in terms of a model, a methodology, a consciousness, and a community. I discuss integral community in the context of responding to the challenges of realizing the visions of integral education. Along the way I will try to illustrate some elements of the integral approach by applying it "in situ" in my analysis. I assume that the reader has at least a passing familiarity with Ken Wilber's Integral Theory and the AQAL and Spiral Dynamics models (see Wilber, 2006, 2000; Beck & Cowan, 1996).

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[1] For about 20 years I have participated in instructional technology R&D that applies new learning and cognitive theories to advanced computer learning environments. I have also taught graduate classes and facilitated teacher training workshops that explicitly use constructivist, inquiry-based, and other progressive pedagogies. My entry into the integral theory community about five years ago was motivated by interests in philosophy and systems approaches to the social sciences, not by education per se. I eventually connected with educators drawn to integral theory, and found that for some of them integral theory had been their primary doorway into the wider world of progressive pedagogies. The things that excited them the most about this new "integral" approach can turn out to be principles that are well-established (nothing novel) within progressive educational communities.

Integral + Education: Background

Though it is a new/emerging field, much has been written already on integral approaches to education. "Integrative Learning and Action: A Call to Wholeness" (edited by Awbrey, Dana, Miller, Robinson, Ryan, & Scott, 2006) focuses on how aspects of spirituality and "new ways of knowing" can be integrated into education. "Integral Education: Exploring Multiple Perspectives in the Classroom" (edited by Esbjörn-Hargens, Reams, & Gunnlaugson, in press) focuses on higher education and also takes various perspectives on the field as a whole. "Integral Education in Action" (edited by Dea, in preparation) is designed as a more practical (less academic) treatment aimed at practicing K-12 educators. Each of these books contains material that originally began as published articles in journals, conference proceedings, and other venues, so there have been several dozen papers in the field (Moltz, in press, gives an overview of related research studies to date).

For the interested reader, the chapter topics in these books include the theoretical and pragmatic roots of integral approaches to education (Esbjörn-Hargens et al.), case study reports of using integral approaches (all three books), specific advice for the K-12 teacher (Dea, in preparation), and a diversity of theoretical perspectives on integral education (Esbjörn-Hargens et al.).

This article contributes to this evolving inquiry by trying to clarify what integrally informed approaches to education add over and above progressive approaches, as no publication to date has had that specific focus.

Progressive Pedagogies

The mind is not a vessel to be filled, but a fire to be kindled.
(Plutarch, On Listening to Lectures)

Education is an admirable thing, but it is well to remember from time to time that nothing that is worth knowing can be taught.
(Oscar Wilde)

Education, therefore, is a process of living and not a preparation for future living.
(John Dewey, My Pedagogic Creed)

I will start by summarizing what I mean by "progressive" (or reform or alternative) pedagogies and educational approaches.[2] The term is mean to include the works of thinkers such as John Dewey, Jean Piaget, Lev Vygotsky, Rudolf Steiner, Paulo Freire, John Holt, Ivan Illich, Parker Palmer, Maria Montessori, Jerome Bruner, Jack Mezirow, and Howard Gardner, who developed alternative pedagogical theories in response to the perceived deficiencies of traditional institutional education, theories of learning, and social knowledge creation modalities. The theories and models coming out of these educational leaders include constructivism, Montessori schools, Reggio-Emilio schools, Waldorf education, transformative learning, un/de-schooling, and situated learning. It is not my goal here to compare or contrast each of these, but to point to what they share in a general sense, and how one can approach their totality and their differences as a system.

Below I list a number of categories of pedagogical methods, which are each elaborated upon in the Appendix.[3]

- Holism
- Multiple intelligences
- Creativity
- Individuality
- Constructivism
- Developmentalism
- Zone of proximal development
- Meta-learning
- Adaptivity/differentiation
- Learning by doing
- Empowerment and liberation
- Situated learning
- The ethical classroom
- Transformative education
- Community/service-based learning
- Lifelong learning and emergence
- Teacher presence and embodiment
- Participatory curriculum development and research

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[2] I will use the terms progressive (or integral) "method," "approach," "theory," "principles," "world view," and "pedagogy" rather interchangeably in this article. They all point to more or less the same thing, highlighting different aspects of the thing. (I use the term "framework" only for Wilber's theory.)

[3] Though I personally agree with the importance of all of the principles and value-orientations listed, and even though many of the descriptions in the Appendix are written in prescriptive prose, it is not my intention in this essay to promote or prescribe any of them. In fact, like most educational principles, conclusive empirical proof of the efficacy of these progressive principles does not exist. Though many studies exist and some lend significant support, others are inconclusive or counter-supportive, and "the jury is still out" in terms of having abundant empirical proof. (Alas, this is true of almost every theory in education, therapy, economics, etc. – putting social science theories to work must happen with a humility befitting their limitations.)

The descriptions of these progressive approaches (see Appendix) comprise *theories* of learning (claims about scientific truths), prescriptive *practices*, and educational *values* (claims about how people should act and be treated).[4] Most progressive pedagogical models emphasize a handful of the above principles and values and are compatible with most of the others. While the Appendix simply lists these approaches with an explanation for each, I considered including an analysis that would compare and contrast them and categorize them into themes, but decided against this. Each of these principles points to an entire literature of inter-referencing papers and an entire community of practitioners and scholars, complete with journals and conference meetings. Further, each theory has become the central construct for a world of real practice. Since implementing theories into real educational contexts tends to require fleshing out a wide range of universally encountered concerns, in practice the full articulations of each of these approaches has much overlap with the others.

These progressive approaches cover a wide range of concerns echoed in integral theories:

- Addressing the many aspects of being human: body/mind/emotion/spirit;
- Including multiple holonic orders: the individual, aspects/parts of the individual, the classroom, the wider community and society;
- Allowing for multiple ways of knowing: in terms of "quadrants"– subjective, objective, intersubjective; and types – multiple intelligences, and so-called masculine and feminine modalities;
- Giving full attention to both internal realities (values, visions, feeling, motivations, relationships) and external realities (measurement, action, physical health, educational infrastructure);
- Seeing knowledge in terms of the coordination of perspectives (including critical approaches to knowledge and power, epistemic or meta-knowledge, and dialogic approaches).

As we will see later, though the above illustrates a significant overlap and compatibility between integral and progressive approaches, there are things the integral approach adds (for instance, except for a few exceptions, progressive approaches do not incorporate principles from modern theories of dynamic systems, adult development, or cultural evolution).

If you are a progressive-thinking individual you may find the list of progressive approaches quite appealing and bemoan the fact that public education is so far from these ideals.[5] If you are a teacher you may be thinking: "how the heck can any one person learn all of those principles – much less *practice* them?"

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[4] I do not bother to try to differentiate truth claims from value claims here, though doing so is important in its own right (see Stein, 2008).

[5] The progressive educational principles, models, and value-orientations were developed in a social and cultural context that was critical of mainstream institutional forms of education. In the mirror image of each of the principles is a pointer to some elements of traditional education seen as detrimental, such as: knowledge presented as fragmented bits or in disciplinary silos, inadequately connected to real life practice and concerns; cognitively impoverished metaphors for learning such as the "pipe line" model; rout memorization, teaching to the test, and standardized curricula; hierarchical and oppressive forms of personal and institutional relationships; capitalistic, materialistic, and bureaucratic educational systems (see Feldman, 2008).

We will address the challenges of learning progressive (and integral) methods in the last Section, but here we can say that any teacher skilled in progressive pedagogical methods will be implementing a bit of this and a bit of that, and have familiarized themselves with a few but not all of these principles. The massive interconnectedness of these principles means that a skilled teacher might be working in alignment with many of these principles implicitly, as a matter of intuition more than explicit theory-application. It also means that a teacher in training can assimilate the gist of many of the principles simultaneously through mentoring with a skilled practitioner. This is not to say that a full understanding does not come from traditional academic-style study of the theories, from reading texts, taking advanced study classes, and attending conferences. Also, as we will note later, understanding and using progressive vs. traditional modalities (as well as integral modalities) assumes a certain set of developmental competencies.

Where's the "Integral?"

A main theme of this essay is that nothing in the progressive pedagogies listed above points to the uniquely "integral" part of integral education (or what integral theory brings to education). Above I said that integral can be understood as a (meta) model or framework, a methodology, a community, and/or a stage or phase of human development. Below I will explore each of these perspectives on what is integral about integral education.[6]

The section on models will focus on AQAL. The section on methods will mention "methodological pluralism," but also point to epistemic sophistication, and will be illustrated in the succeeding section using polarity mapping methods to coordinate the system of pedagogical principles. The section on integral consciousness includes discussions of second tier developmental capacities and integral consciousness as a state or way of being in the classroom. Then models of cultural and meme evolution are discussed, in part to related traditional, modern, progressive, and integral idea and value systems, and also to warn against the dangers of overusing such models. Finally, I discuss the difficulties in learning/teaching integral pedagogies and integral consciousness, and mention integral communities of practice in this context.

AQAL: A Framework That Transcends and Includes Progressive Pedagogical Principles

…Education forms the common mind. Just as the twig is bent, the tree's inclined.
(Alexander Pope, Moral Essays, 1735)

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[6] It is worth noting that while Ken Wilber's Integral Theory (capitalized here) with its AQAL model is by far the most well known and influential integral model, there are many who identify their work with "integral" (not capitalized) who do not primarily base their work on Wilber's work. By integral theory, model, or approach I usually mean the body of work being developed in the greater community of integral theory and practice.

> *I think people are starved for a truly holistic and genuinely integral approach to the world—in psychology, in spirituality, in politics, in education…[Alternative] education in this country is at a crucial turning point. For several decades the counter-cultural and "new paradigm" thinkers imagined, with good reason, that they were fighting a lonely battle against conventional education. But in the last five years or so, everything has profoundly changed. Mainstream institutions…are now quite open to integral studies…*
> (Ken Wilber, from Shambhala Publication's "Interview with Ken Wilber")

For many readers "Integral" is, if not synonymous with Ken Wilber's work, strongly identified with it. Though Wilber's work consistently and brilliantly points to postformal, dialectical, metasystematic, and even (I hesitate to use a term so overused in the integral community that its meaning is ambiguous) "non-dual" ways of perceiving the world, Wilber has chosen to frame or package his ideas in terms of a formal-looking model with seemingly precise categories. His AQAL model, which includes the Four Quadrants (or 8 Zones), 8 Developmental Stages or Levels, 3 primary States, and a variety of Types of human capacities, should be familiar to most readers (see Wilber, 2006, for a description). (I assume that Wilber and his associates choose to foreground such a model because its benefits in allowing integral theory to "stick" with wider audience, and appear applicable to a larger range of domains, outweighs the problems (mentioned later) of using formal structures to promote postformal ways of knowing.)

AQAL is a meta-model that can hold within it the full set of progressive education principles, allow them to be compared, and set them in a larger meta-theoretical context. It can be the "kitchen sink" into which all of these ideas are thrown, and, more than being merely a conceptual container, it organizes them and clarifies core elements. Some of the listed principles focus on the understanding and development of internal mental, emotional, or spiritual capacities (the upper left quadrant); some prioritize collaborative, community, or ethical elements (lower left); some emphasize in-the-world action, the creation of artifacts, or physical embodiment (upper right quadrant); and others highlight the systemic factors in classrooms, the institutions of education, or social and political realities (lower right quadrant).[7]

Integral theory explains the massive overlap among the principles. In real systems (including people, groups, and societies) all four quadrants interact. In fact they are four sides of the same coin (if a coin could have 4 sides). The I, We, It, and Its of a system arise and develop simultaneously (they "tetra-emerge"). The four-quadrant model (and Wilber's eight zones or primordial perspectives) can be used as a diagnostic tool for assessing whether there are missing components in an educational situation.

AQAL's exploration of states vs. stages helps teachers in thinking about how to design experiences that induce states of mind that support learning. AQAL's elaboration of distinct lines and levels of development, types of intelligence, and states of mind (or consciousness) together incorporate the intuitions articulated in theories of multiple intelligences and the holistic approaches to mind, body, emotion, and spirit. This helps the educator avoid over-emphasizing any particular learning modality or pedagogical theory. In a later Section I examine the merits of evolutionary, developmental, and systems-theory approaches, which are central to AQAL and all integral approaches.

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[7] One could describe the major insights of the integral approach in terms of two elements. The first is a deeper appreciation for and understanding of the *interior dimensions* of reality which have been neglected in many aspects of modernity. The second is in bringing the rigor of systems theory to holistic and transdisciplinary approaches. Systems theory brings insights about *structural complexity*, as in the understanding of systems as nested holons and with co-arising interior, exterior, individual, and collective components; and it adds insights about *dynamic complexity*, which includes the evolutionary and developmental perspectives so central to the integral approach.

Upper Left (I) *Educational Experiences* Contemplative Critical Somatic	**Upper Right (It)** *Educational Behavior* Skillful Practical Active
Lower Left (You, We) *Educational Culture* Connective Perspectival Ethical	**Lower Right (Its)** *Educational Systems* Ecological Social Global

Figure 1. Esbjörn-Hargens' Twelve Commitments of Integral Education

As an example of how the AQAL map can illuminate and organize educational themes, consider Sean Esbjörn-Hargens' (2007) table of "Twelve Commitments of Integral Education." It illustrates what he calls the "essential dimensions of an integral approach to education" by situating a mind, body, and spirit element in each of AQAL's four quadrants. The table describes twelve "forms of engagement…modes of interaction [and/or] ways of knowing the world."

Integral Methodology: Perspectives, Knowledge Building, and Dialog

> *Education is the journey from cocksure arrogance to thoughtful uncertainty.*
> (Kevin Huenison)
>
> *Education would be much more effective if its purpose were to ensure that by the time they leave school every student should know how much they don't know, and be imbued with a lifelong desire to know it.*
> (William Haley)

The AQAL model is as limited as it is powerful – in fact some of its limitations are *because* it is so powerful. It can trick one into thinking that it represents an accurate picture of reality when in fact, like all models, it is one interpretation of reality, presenting one way to categorize the elements of one's experience and understanding. When one tries to use it in complex real-life situations one sees that surrounding its clear and insight-producing distinctions are grey areas, square pegs one is forcing into round holes, and a diversity of opinions about the exact meaning and implication of the model's categories (these difficulties come unavoidably with any conceptual system). Wilber entreats us not to "confuse the map for the territory," yet assuming that reality reflects our constructs instead of the other way around is an ingrained human tendency difficult to avoid.

The integral approach (as articulated by Wilber and many others) provides something deeper than a categorical framework within which to neatly organize one's untidy reality: it suggests a certain attitude for how one can approach knowing, conceptualizing, and theorizing. It suggests not so much what *is* true about the world but *how* people can work together to discover what is most true, just, and useful in a particular context (i.e., it includes an epistemology as well as an ontology). This method or way of thinking is not as well-defined as the AQAL model, so the description of it will be something we circle around and weave through, rather than a crisp diagram of a model.

There is an increasing acknowledgement that in the modern context education should involve not only the learning of "content," i.e. information and specific skills, but also the learning of more general ("higher order") skills and knowledge. Among these are "learning how to learn," i.e. self-directed learning that reflects upon what one should be learning and how the learning process is going, and "epistemic" (or meta-) knowledge, i.e. some understanding of how knowledge is arrived at and the limitations of knowledge (Schoenfeld, 1985; Mayer, 1998). The integral approach requires this type of meta-level perspective on knowledge, method, learning, and doing.

The relevant modern (or postmodern) insights about knowledge include:

- *Complexity*. Many aspects of the world are highly complex. We need concepts from systems theory (such as co-evolution, chaos, non-linearity, and self-organization) to understand (1) the world in general; and (2) educational and learning processes in particular (Reigeluth, 2008).

- *Meta-perspectives*. For citizens to address the complex problems of modern society, educators must help learners develop higher level skills such as meta-cognition (thinking about thinking), meta-knowledge (knowledge about the nature and limitations of knowledge), meta-learning (learning how to learn), meta-dialog (dialog about how we engage in dialog). (See more in Murray, 2008.)

- *Knowledge as personal*. Knowledge, understanding, and "truths" are, at least in most instances, constrained by the world view, experiences, biases, perspective, developmental level, etc. of the speaker and listener (Polanyi, 1962).

- *Multi-methdology*. Different methods of observing (or inquiry or experimentation) lead to different conclusions or claims. Different disciplines tend to use different methodologies, leading to different conclusions about a phenomena. Each of these conclusions can be seen as valid perspectives on a complex reality, as opposed to opposing camps battling for the truth (Norgaard, 1989).

- *Indeterminism.* Terms, concepts, rules, models and theories all have a certain degree of "indeterminacy," i.e. fuzziness, uncertainty, or ambiguity in their meaning (Murray, 2006). It is often important to pay attention to the grey areas at the boundaries of seemingly precise categories or rules (Lakoff & Johnson, 1999; Mervis & Rosch, 1981).

- *Negotiation, ethics, and power*. Knowledge is constructed, or "negotiated," via communicative processes situated in authentic contexts. Truth-finding is an evolutionary process requiring dialog (Lave & Wenger, 1991; Habermas, 1998). Knowledge also has important moral/ethical aspects (Habermas, 1999; Kögler, 1992). The quality of knowledge building outcomes can depend on how carefully the knowledge building process pays attention to elements such as freedom, equality, empathy, sincerity, inclusivity, reciprocity, integrity and mutual regard.

How does a learner, "knowledge worker," or educator deal with the added levels of complexity and indeterminacy that come when she begins to acknowledge these insights? An additional set of methods are needed.

All of the insights listed above fall into what one could call a post-modern or progressive understanding and world view. As mentioned above, what I am listing under progressive blends into what I am calling an integral level (– as one example of the "indeterminacy" involved in creating categories). What constitutes the difference? For me, *progressive* involves identifying and describing the problems with traditional modes, leading to a critical attitude that is suspect of all claims and perspectives. It involve a discerning analysis about the nature of the problem(s), but for dealing productively with the problem it gives only vague advice or ends with acceptance or despair that things are so complex, unknowable, subjective, etc. An *integral* perspective, while not pretending to any easy or complete fix, does more to understand the nature of complexity itself, the nature of indeterminacy itself, and the nature of subjectivity itself, and is able to use this higher level of understanding to improve upon the situation.

If every perspective is like a lens or filter which distorts perception and inference, then we can correct for these distortions *to the extent* that we understand something about the lens or filter itself (turning subject into object, as Kegan frames it). At the integral level one is not only learning and using a set of pedagogies, but adopting a critical (and "appreciative") meta-perspective on those pedagogies. One is also noticing how one's *self* (including one's values and assumptions) fits into the system of teacher-applying-pedagogy-within-an-educational-system.

Returning to the theme of integral as a method or practice, many integral-level methods have been suggested for dealing with the issues (insights or problems) listed above. I will describe a few approaches:

> *Methodological Pluralism.* There are many types of perspectives on any situation, and getting a usable handle on something requires looking at it from multiple angles. Wilber has said "everyone is right," to indicate that all sincere perspectives and modes of inquiry, while fallible and limited, have something valid to offer. This "methodological pluralism" (Wilber, 2005; Murray, 2008; Norgaard, 1989; and see Feyerabend, 1975) is a multi-

methodological approach to scientific inquiry.[8] It includes a more precise understanding of the appropriate application of a range of methodologies (including objective scientific methods, subjective phenomenological methods, and intersubjective hermeneutic methods), the types of knowledge claims that each method can and can't make, and the relationships and synergies between them for mixed-method approaches.

Indeterminacy analysis. One can do more than simply acknowledge that concepts, models, and theories have limitations and involve fuzzy (or subjective or context relative) meanings. When one proposes a model, makes a claim, and uses a concept one can analyze how it degrades at its fuzzy boundaries. For example, if one uses the concepts like "holon" or "sentient" or "progressive" to construct clear categories, rules, or models, one can explain (even if parenthetically) how the claim changes under different possible interpretations of the central categories. This could include mentioning examples far from the central meanings (see Murray, 2006).

Polarity mapping is one method for dealing with the polarities, paradoxes, and dynamic nonlinearities found in everyday decision making. It is described and used in the next Section. (See also Murray et al., 2008 "Tools for Dealing with Uncertainty, Ambiguity, and Paradox.")

Methods related to ethical factors. Many processes exist for dialog and decision making that incorporate and value the inclusion of multiple voices and perspectives – to list them is beyond our scope here. Also, many knowledge building or inquiry methods contain both critical/analytical elements and dialogical/ethical elements. Elbow (2008) advocates balancing critical thinking ("the doubting game") with systematic or methodological believing ("the believing game"). He points out how critical thinking is often used as a tool to defend one's cherished beliefs, and suggests that we earn the right to doubt only after making an effort to enter into the other's world view (a skill also called "cognitive empathy"). Gaining a distance on one's strongly held beliefs is an exercise (exorcise?) involving ego. If one delves further into it, this also involves dealing with shadow elements. The integral community is familiar with many methods for gaining perspective on and loosening the grip of ego (for example contemplative practices) and shedding light on shadow elements (for example see the 3-2-1 Shadow Process in Wilber, Patten, Leonard, & Morelli, 2008).

There is space here to give only the few above examples of methods that are compatible with or implied by the integral approach to knowledge and education. The main point is that an integral approach should include methodological ways to deal with the problems in knowledge, indeterminacy, power, etc. noted above. Such methods should value and systematically incorporate multiple subjective, objective, and intersubjective perspectives.

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[8] The AQAL model also describes a methodology called "Integral Methodological Pluralism" which basically advocates that a robust inquiry into a phenomena will include all or most of "eight primordial perspectives" based on the four quadrants (Wilber, 2006). Esbjörn-Hargens (2007) includes a description of applying the eight perspectives to educational research.

In the Fourth Grade?

The above descriptions may sound rather sophisticated, esoteric and philosophical. Indeed, as we will discuss later, fully working at an integral level requires a certain level of developmental skills. However, even though these skills mature later in life, they begin to develop early in life, and educators can do much to nurture this developmental process at all ages and stages. Let us briefly consider at how the philosophically rich issues and methods mentioned above can be simplified and brought into a fourth grade classroom. Imagine that the students are working collaboratively to research what to do on a school trip to Washington D.C. They gather information from diverse sources and have facilitated classroom discussions to decide upon (1) what is the case (e.g. how much gas will cost) and (2) what should be done (e.g. whether to stay at a campground or hotel).

If the activity is facilitated well, students can be learning: that knowledge is complex and perspectival; that knowledge has subjective (what I think), objective (what Wikipedia says), and intersubjective (what we all agree upon) facets; that words and rules may not have one single meaning and can be interpreted differently in different contexts; that biases and assumptions are hidden in beliefs and preferences; and that it takes a triangulation of different perspectives and inquiry methods to arrive at an adequate understanding or solution. It is not hard to imagine a teacher fashioning simplistic forms of Integral Methodological Pluralism, Polarity Mapping, contemplative practices, the Believing Game, and even indeterminacy analysis that apply to this age group.

Three Ways to Use Integral (or Progressive) Methods

I will mention three levels at which one can apply integral (or progressive) methods and models. First, one can teach them *explicitly*. That is, the students know that they are learning and using, for example, "the AQAL model" or "systems theory" or "the Believing Game." Second, teachers can learn these methods and models and use them *implicitly*. They can bring their knowledge of integral (or progressive) methods and models to bear in designing and running educational activities without explicitly mentioning these models or methods to students. In this case *teacher educators* would be facilitating teachers in learning these methods and models. Third, administrators, curriculum designers, or teacher educators can use integral (or progressive) methods and models to design the materials or environment that teachers work within.[9] Here teachers (and secondarily students) are benefiting from these methods and models without necessarily having learned them. These three levels are possible when teaching young learners, adults, and also for teaching teachers.

The point here is that integral (or progressive) methods and models can have a strong impact even if the student, or teacher, is not aware that they are being used. As we discuss later, integral is as much a type of consciousness or awareness as it is a set of models or methods. An integral learning environment might have an indefinable but recognizable look and feel, or texture of breadth and depth. It has been argued that people who work or learn under the implicit umbrella of a world view, milieu, approach, or type of consciousness will implicitly assimilate some of that world view or consciousness. I propose that when students or teachers are immersed in curricular, social, or administrative environments that are integrally informed, that the seeds of integral consciousness are being planted and nurtured.

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[9] In addition, we can differentiate methods and models that were *designed* through integral consciousness from those that require integral consciousness to *understand* and adopt. It takes a higher level of development to conceive of and design a professional development program for, for example, constructivist pedagogy, than the level of development required to understand and implement constructivism in a classroom.

Returning to the list of 18 progressive pedagogies mentioned above, we can see that integral suggests a way to deliberate *about* these approaches. Though up to now I have emphasized the overlap and compatibility of these principles, there are real differences among these principles. Next I will illustrate one of the methods mentioned above: Polarity Mapping. It will also serve as an example of an aspect of integral *consciousness* (covered in the following Section), incorporating skill in dealing with complexity and apparent paradox.

Progressive Pedagogies as a Dynamic System of Principles

> *I believe that school makes complete fools of our young men, because they see and hear nothing of ordinary life there.*
> (Petronius, Satyricon)

> *[Public education is] the single most important element in the maintenance of a democratic system...The better the citizenry as a whole are educated, the wider and more sensible public participation, debate and social mobility will be…The most difficult and the most valuable is a well-educated populace.*
> (John Ralston Saul, Doubter's Companion: A Dictionary of Aggressive Common Sense)

> *The difficulty is the perception that [one is] dealing with a problem that can be solved by choosing either one or the other…fear of getting stuck in the opposite pole gets you stuck in your own pole…paradoxically, opposition becomes a resource.*
> (Barry Johnson, Polarity Management)

We already applied an integral sort of methodology above when we focused on utilizing the grains of truth in each principle ("they are all right"), mentioned how they tended to mutually support each other, and saw them as a complex system or dense meshwork of co-defining ideas. We can continue by shifting focus from the commonalities to the *differences*. Each principle emphasizes a particular theoretical perspective or value – they are ideals. Over-emphasizing any one principle or value may cause another to be minimized. Practical applications require tradeoffs and balancing acts. We can use "polarity mapping" (see *Polarity Management*, Johnson, 1996) to explore this situation. Here are some of the polarities or dialectical tensions within our set of progressive pedagogies:

- *Self-determination vs. helpful hierarchy*. There is a polarity between student empowerment and discovery vs. the need for teachers to skillfully employ guidance, limitations, expertise, and leadership. Traditional schools often underestimate learners' abilities to self-steer their learning experiences, but how far into the background does the teacher step?

- *Individual freedom vs. group needs*. There is a polarity between methods that focus on the individual student (meeting her needs, giving her a voice, supporting her autonomy, respecting her complex personal history) vs. methods that emphasize the group, the community, and caring about the needs of others. Sometimes a student's needs must go unmet for the greater good of the class. But at what level does that approach become oppressive?

- *Equality vs. special treatment*. There is a polarity between the desire to treat all students equally vs. the fact that students have a range of capacities and motivations. Should the most capable and motivated students be given extra resources? Should the most underprivileged students be given extra resources? If yes to both, where does this leave the middle?

- *Support vs. challenge*. There is a polarity between acknowledging the wonderfulness of every impulse and creative product that a student produces, supporting self-esteem and learning enjoyment, vs. the benefits of challenging him by providing cognitive or emotional disequilibrium. When and how does one tell a student that he is wrong, needs improvement, or is not stepping up to his potential?

- *Creativity vs. rigor*. There is a polarity between supporting creativity, play, and intuition, vs. teaching logic, critical thinking, rigor, and discernment. Both can be taught, but in any given activity or course one may be highlighted at the expense of the other.

- *Process vs. product*. Progressive pedagogy stresses learning to learn, higher order thinking skills, and the importance of good problem solving reasoning over getting the right answer. But usable knowledge must include some amount of "facts" and memorized procedures; real world performance often needs the "right" or "best" solution. How should education balance these poles?

- *Change vs. stability*. Progressive pedagogy values adaptation, dynamic flow, and customization. Yet to some degree people flourish when they are given clear stable constraints, rules, and/or boundaries. How predictable should the classroom experience, including teacher expectations, be for students?

- *Cognitive (mind) vs. social and affective (heart)*. Developing wisdom includes developing capacities of both heart and mind, and their skillful interpenetration. But in designing curriculum or activities priorities must often be made to focusing primarily on content and cognitive skills vs. social/emotional skills. In addition the educator must decide how these priorities influence her methods of evaluation, grading, and feedback (e.g. what type of evaluation and feedback to give to the student who tries hard and is a good team player, yet fails to grasp key subject matter concepts).

Now, in many situations the dichotomies described above are imaginary in the sense that the human needs that seem to be in conflict are in fact not, and there is an elegant solution that can satisfy both sides. However, these polarities are also real, in that real life decisions will often unavoidably benefit one side of the equation at the cost of the other. The perennial advice around such polarities is true: that practical application involves balance and compromise, and a forswearing of ideology and dogmas, even progressive dogmas. Postformal, integral, or "dialectical" consciousness can take us a bit further still. (Note that the above polarities are *within* the set of progressive pedagogies. As we discuss later, there are additional polarities to be mapped/managed/balanced when we include a full spectrum of traditional, modern, progressive, and integral pedagogies).

As described in polarity mapping theory, opposing poles of some situations are interdependent and mutually defining, rather than either/or choices or opposite ends of a spectrum (Johnson, 1996). Effective learning environments need change *and* stability, creativity *and* rigor, support *and* challenge, etc. Moreover, real systems are dynamic, so that a working solution at one point it time may not apply later. Let us say a teacher correctly evaluates a situation and decides to move in the direction of supporting more creativity (vs. rigor). After they begin to do so they will not know how *far* to go in that direction until they have gone a bit *too* far and the downsides of creativity and the importance of rigor start to come alive. Even if they find a perfect balance, when they move on to the next topic in the curriculum, or accept that additional student who just moved into town, or when the warm winds of spring start to blow through the winterized classroom windows, the appropriate balance point will shift.[10]

The solution is the development of a "dialectical intelligence" that is capable of constant (or frequent) assessment and awareness of the situation and flexible adaptation (Basseches, 1984). This includes an understanding of the dynamic tensions between the polarities and a perception of the whole as a dynamic system. This skill is one element of what we are calling "integral consciousness" or "second tier capacity."

Integral Consciousness

To teach is to touch the heart and impel it to action.
(Louis Sullivan, Kindergarten Chats and Other Writings)

We teach who we are…Good teaching comes from good people.
(Parker Palmer, The Courage to Teach)

Like progressive pedagogies, the integral approach has some roots in the Human Potential Movement (and in Humanism more broadly; see Hampson, in press). Both approaches (a) value multiple "lines" of human capacities and needs, (b) acknowledge how each person has a unique set of them, and (c) speak to the possibility of more fully realizing these capacities and needs. Yet unlike most of the progressive pedagogies, the integral approach draws heavily from both developmental theories and transpersonal psychology (with some clear exceptions indicated in the descriptions in the Appendix). From developmental theories we gain an appreciation not only of the abilities and limitations of *students* according to their developmental profiles, but we also gain an appreciation of the developmental requirements that the integral approach places upon *teachers* (in general, and upon oneself). From transpersonal psychology and its humanist and spiritualist threads (including "transformational learning"), we gain a valuing of the psychological and spiritual wholeness and adeptness of the individual teacher (which is itself developmental).

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[10] In addition, just introducing a pedagogical change will affect the classroom system in unpredictable ways. A teacher takes a measurement of the class, compares it to some goal, sets a bearing in some direction and implements the change. But as soon as the change is implemented the landscape changes and both the measurement and the bearing are uncertain (in a type of social Heisenberg Uncertainty Principle; and see Reigeluth, 2008).

As mentioned in the introduction "integral" points to a capacity (a level of skill development also called Second Tier by Wilber, and closely related to Kegan's Fifth Order Consciousness) as well as a model and a methodology. In fact the most complete or appropriate application of the integral models and methods described above *requires* a certain developmental capacity.

Progressive teacher educators tend to realize that learning new methods requires personalized mentoring, patience, and the trial and error of extended practice. But still they are often befuddled by the difficulty some have in learning progressive methods. They may attribute it to a stylistic bent, or a learning (or communication) personality type, or cognitive type, or a deficit in "the system." However, though they have some appreciation of how constructivist and developmental principles apply to children, there is usually a lack of appreciation for the importance of (and limitations imposed by) adult development (along cognitive, epistemological, dialectical, social, and self lines). Thus, in strongly emphasizing adult developmental and transformational themes, the integral approach has much to add to progressive approaches. In this section I will describe some characteristics of integral or second tier consciousness as this developmental level applies to education. In a later section I will discuss more about the challenges in supporting practicing educators to develop this type of awareness.

Caveats Regarding Developmental Lines and Levels.

Before going further I need to back up and offer some caveats about the constructs of developmental "lines" and "levels" (or stages), constructs which appear prominently within the integral community. Both are approximate constructs that only roughly point to the complex phenomena that is human capacity and development. For example, even though for explanatory purposes I refer to Traditional, Progressive, and Integral pedagogies, these categories are fuzzy, and many of the principles indicated in our list of progressive methods reach well up into integral.

Regarding lines, some theorists hold that the sorts of developmental lines discussed in integral theory are largely artificial constructs, and that human skills/capacities do not form along neatly differentiated lines.[11] We speak, for example, of dialectical, emotional, epistemological, social, ego, and moral developmental "lines," but the capacities referred to have significant overlap, the distinctions being necessary evils to facilitate collective inquiry into the phenomena.

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[11] Kurt Fischer, a leading developmental theorist, claims that skills develop (both genetically/phylogenetically and developmentally/ontogenetically) in response to the demands of real life task situations. He claims that "the skill level that a person displays…cannot be considered independently of the context in which that skill is assessed" [and also the context in which it was learned and the task the skill is meant to address] (Fischer & Farrar, 1987, p. 647). Some primitive human skills such as those dealing with reproduction, eating, and territory, seem to operate fairly independently of each other because the task situations or life-needs they address are relatively independent as well. Very specific and independent tasks also give rise to well-defined skills. But complex human social tasks/contexts such as teaching, communication, parenting, and leadership have massively overlapping characteristics such that

Regarding levels, though research shows that development tends to progress in waves (rather than linear progressions) that involve sub-stages of horizontal differentiation or accommodation followed by sub-stages of synthesis, generalization, or integration, these are observed rigorously only in tracking specific skills.[12] More encompassing levels like those referred to in Spiral Dynamics or Kegan's Orders of Consciousness contain many interacting skills (or lines), each developed at its own level, so assigning one single level to an individual is, though sometimes useful, also problematic. I will say more about the limitations of cultural value meme levels in a later section.

Give all of these caveats, the concept of general levels of development has significant explanatory and theoretical power. Just as it is useful to speak of traditional vs. progressive worldviews and ways of knowing, the concept of integral or second tier capacity points in a general way to an important territory of human capacity.

Aspects of Integral Consciousness

So what *is* this Integral Consciousness or Second Tier Capacity, and how does it relate to education?[13] Though there is no concise definition of these terms, the literature points to several aspects of this broadly defined stage of development.

Developmentalists have found that learning involves not only the accumulation and coordination of knowledge and skills, but a progression of qualitatively different relationships to, and capacities for, learning and meaning making. There exists a plethora of developmental models mapping various interrelated sets of developmental capacities (Wilber, 2000b compares some of them, as does Harris, 2002). I will draw from Robert Kegan's model, focusing on his "Fifth Order Consciousness," which has significant overlap with the concept of second tier thinking, and was derived from empirical studies.

Kegan (1994) describes five such "orders of consciousness." The progressive/alternative/reform/holistic pedagogies mentioned in this article are associated with Kegan's Fourth Order (and reach into his Fifth Order). Integral approaches are more centrally Fifth Order. Applied to the domain of education, learners at Kegan's Fourth Order are "self-directed" (or self-authoring, co-creative) learners who can examine themselves and their culture,

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the skills developed to meet these needs should be expected to be equally interdependent and difficult to separate.

[12] These sub-stages also involve a dialectical oscillation between stable comfortable states and states of un-constituting and reconstituting disequilibrium.

[13] Steve McIntosh has published a book titled "Integral Consciousness" (2007). Though the book makes important contributions in several areas, I will not use it in this discussion because its use of "consciousness" is more about what one believes and values than about human skills and capacities. For McIntosh integral consciousness about an "integral worldview…a way of seeing and living [arising] from an enlarged set of values framed by an expanded understanding of cultural evolution" (p. 12). This sense of being integral is discussed more in my Section on "Cultural Evolution."

develop critical thinking and individual initiative, and take responsibility for their learning and productivity (p. 303). At full Fourth Order consciousness, individuals will have mastered skills such as these and, in the process, are likely to become advocates of such skills and be identified with them, believing that this level of skill is superior to others. Typically they will have practiced and identified with one or a small number of progressive schools of thought (from the many listed in the Appendix).

At Kegan's Fifth Order individuals begin to reflect upon whole belief systems, even their own Fourth Order beliefs, as limited and indeterminate systems. They begin to dis-identify with any particular belief system, and experience themselves as embodying a variety of evolving belief systems, surfacing in different contexts. Questions of "who am I" "what do I believe" "what is true" and "what is right" cease to have one best or optimal answer ("it depends!"). Rather than responding to situations by looking for optimal or "win-win solutions" (a Fourth Order approach), Fifth Order individuals see themselves as co-evolving constituents of each situation, and expect a problem situation or dilemma to transform *them* (they may continue to search for an adequate solution or approach to a problem—each developmental level transcends *and includes* prior ones, as Wilber notes).

Wilber and Beck & Cowan describe this "second tier" level of development as one in which individuals develop a working understanding of the developmental process itself and see the value of all developmental levels (all world-view systems) as coexisting within themselves (and others).

Kegan's model maps the interweaving development among cognitive (it), interpersonal (we) and intrapersonal (I) capacities.[14] Cook-Grueter's (2000) developmental framework describes second tier capacities called construct-awareness and ego-awareness, which are closely related to Kegan's cognitive and intrapersonal lines. In addition, Wilber's AQAL theory posits a systemic "its" perspective (or quadrant) in addition to the objective (it), intersubjective (we), and subjective (I) perspectives. Thus, I propose the following model for integral (or second tier) consciousness:[15]

- *Construct* aware (cognitive; "It" dimension),
- *Systems* aware ("Its" dimension; also a cognitive capacity, but reflecting on systems and networks of relationships as opposed to mental constructs),
- *Ego* aware (self/ego/will and being/spirit/essence; "I" dimension), and
- *Relationally* aware (emotional/social/ethical/interpersonal intelligence; "We" dimension).

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[14] Also, though each developmental line influences the others at all levels, it would seem that at higher levels they become more blended or merged. There are clear implications for ego/will development implied in cognitive and emotional/social development at higher levels. Both coming to grips with the limitations of one's mind and opening to wider circles of compassion work to moderate the overactive ego.

[15] This four part model is offered as a rhetorical aid rather than a theoretical model—it covers the range of capacities I will refer to better than the other models cited. Being systems-aware is not strictly about Wilber's 4th quadrant, it is about perceiving systemic and meta-systemic relationships within and between all aspects (and all quadrants) of a situation.

I will only briefly describe each of these capacities here. Both the construct-aware and the systems-aware capacities are cognitively oriented and will be lumped together in much of what follows. One way to describe the cognitive skill spectrum is that it comprises a movement further and further away from linear black-and-white thinking, toward more sophisticated and nuanced modes of reasoning. This includes a deeper understanding or wider perspective on the function of language and thought itself. The developmental literature mentions three overlapping skills that, described below, can help understand second tier cognitive development.

Construct-awareness (Cook-Greuter, 2005) is basically what was described above as a flexible approach to the uncertainties, ambiguities, and paradoxes of concepts, language, and knowledge (it is closely related to what has been called dialectical intelligence (Basseches, 1984) and epistemic wisdom (Murray, 2008)). It is needed for integral-level methodologies such as the polarity mapping method described above. Cook-Greuter describes it as "becoming aware of the profound splits and paradoxes inherent in rational though [in which] good and evil, life and death, beauty and ugliness may now appear as two sides of the same coin."[16] *Metasystematic reasoning* refers to an ability to flexibly coordinate multiple whole systems of ideas (Commons & Richards, 1984; Ross, 2005). It is "meta"-systematic because it goes beyond the capacity to conceptualize and work systematically with ideas and within a system of ideas, to being able to move among and perceive reality through (or by coordinating) multiple systems of ideas. *Vision logic* refers to the ability to use forms of reasoning that are beyond formal logic and systematic thought (Feuerstein on Gebser, 1987). This includes reasoning *about* logic and its limitations, and also flexibly and intentionally tapping into more intuitive, unconscious, or "gestalt" ways of thinking (Keat's called it "negative capability").

Ego-awareness is easier to explain using non-technical language (Kegan's model highlights ego development and Cook-Greuter's model focuses on ego development). Cook-Grueter (2005) describes it thus: "This is the first time in development that the ego becomes transparent to itself. Final knowledge about the self or anything else is seen as illusive and unattainable through effort and reason because all conscious thought, all cognition is recognized as constructed and, therefore, split off from the underlying, cohesive, non-dual truth." Social/emotional "intelligence" is a significant aspect of integral consciousness, and in this model is implied as part of both ego-awareness and relational awareness.[17] *Relational awareness* will be explored more in the next section.

***Being* an Integral Teacher**

Embodying integral consciousness may not be as mysterious, sophisticated, or esoteric as it sounds. This inner capacity is touched when a teacher finds herself in a bit of a "pickle" in the classroom, for example, when two students are unable to work well together, and she is about to respond in her usual way, but then decides to pause, becomes quite inside and asks "OK, what is really called for here? What is the best for this class and for me right now?" – and then receives a quiet but sure insight about this social and interpersonal system that comes with that "aha!" sense of relief and confidence about what to do. This level of development also involves a way of being "with the flow" of life in which one can be consistently committed to concepts, values, and relationships, but also be able to gently and cleanly let go, listen deeply, and adapt when reality does not meet one's expectations or desires.

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[16] Construct awareness also calls one to become "post-metaphysical" and avoid the "myth of the given" by loosening the grip that concepts, ideals, and models hold over one when one oversimplifies and distorts one's perception of reality to make it fit those concepts, ideals, or models. Integral consciousness includes coming to understand how one's own mind works, and perceiving one's thought patterns, beliefs, and shadow material as objects of awareness and inquiry.

[17] Kegan & Lahey (2009) and Goleman (2006) discuss the critical importance of social/emotional intelligence in real life situations, and how cognitive and social/emotional intelligences inter-penetrate and inter-depend.

As the above indicates, higher levels of personal development point not only to sophisticated or "higher" capacities, but to increased *depth of being* (related to ego-awareness). This involves being in touch with deep sources of self-knowing, intuition, empathy, compassion, and presence that is associated with wisdom and transpersonal modes of awareness. Otto Scharmer (2007) suggests that when one releases one's cognitive preconceptions and emotional attachments and settles into a state of open awareness and presence, one can unleash powerful potentials for creativity and growth.

The development toward these forms of wisdom involves an increasing ability to step outside of oneself and one's emotions, biases, and attachments. Such development along the "self" or "ego" line is implicated in all ethical/moral systems (including religions). It is not difficult to appreciate the importance of being able to put one's ego aside and have some sort of objective perspective on it when operating in a classroom, parent-teacher conference, or teachers' lounge. (For a more in-depth treatment of integral consciousness as a way of being in the classroom, see Chapters by Willow Dea and John Gruber in Dea, in preparation.)

This picture of integral consciousness is as much about a teacher's *state* while in the classroom as her *stage* of development. But finding consistent access to such states and understanding how to make the most of them implies a certain developmental stage. These states/stages of higher wisdom imply a certain ease, generosity, and humility that is usually developed in the course of life's challenges, as indicated in the following section.

Regular Old Consciousness

An obvious question is: "how does an educator interested in self-development move toward these capacities we are calling integral consciousness?" Later I mention the suggestions being investigated in the integral community, but here I will say something about a state we could call "regular old consciousness." So-called "integral consciousness" and related advanced levels of skill and states of awareness might be great to have, but with all of us there is much to be gained by noting what keeps us from being "normally" aware, alive, and intelligent in the classroom. Think about those days when you are relaxed and confident, enjoying your work, feeling connected to students and peers, knowing that your thinking is not clouded by emotional reactions, exhaustion, distractions, or worries. Gosh, that sounds good, doesn't it?

First, we can say that achieving a more sustained and sustainable degree of this "normal for a good day" (NFAGD) consciousness is more important and more achievable in the classroom context than working toward anything that sounds highly developed, super-sophisticated, or spiritually advanced.[18] Second, sustaining NFAGD consciousness is both a prerequisite for developing higher level capacities, and also implicates many of the same methods of practice. So working on sustained NFAGD consciousness is in many ways being on the exact same path as developing integral or second-tier capacities. Human development is a pretty natural process, as well as a very gradual one. It requires adequate *support*, which includes just minimizing the stuff that gets in the way of NFAGD, and sufficient *challenge*, which practicing educators don't have to worry about having – what could be more challenging than teaching?

Working on NFAGD consciousness is in part about horizontal development, leaning more deeply and consistently into existing skills, and in part about the work of healing, remediating, or tuning prior developmental levels.

Cultural Evolution and Individual Development

> *I have argued that blame, scolding, and punishment in public schools…can be successfully defended. Students have a duty to learn, and can be held responsible for violating whatever rules, policies, or instructions are enforced to ensure that they do so.*
> (Charles Howell - Education, Punishment, and Responsibility)

> *No use to shout at them to pay attention. If the situations, the materials, the problems before the child do not interest him, his attention will slip off to what does interest him, and no amount of exhortation of threats will bring it back.*
> (John Holt)

> *A bad teacher punishes, a poor teacher complains, an average teacher explains, a good teacher teaches, a great teacher inspires.*
> (H. Narasimhaiah)

I have described the integral approach in terms of both models and methods, and have noted that in a very general sense embodying the integral approach requires a certain developmental level of consciousness or capacity in several interrelated areas (including cognitive, relational, and ego). Integral theories point not only to a particular developmental level but also address developmental processes across an individual's life. They also strongly refer to the evolution of human capacities, values, and world-views (or cultural memes) through history. As this focus on individual development and cultural evolution is strong in integral approaches and is rarely seen in progressive approaches, I will go into it in a bit more detail in this section.

There are dozens of theories of human development and cultural evolution that integral theorists draw upon, and, in assuming the reader has some familiarity with one or more of them, my goal here is not to describe any of these in detail, but to summarize some of the main principles they share in noting what integral theory has to add over progressive educational approaches.[19]

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[18] Discussion in the integral community tends to highlight vertical development (through successive stages), but there is also a high value placed on horizontal development. Development can not be rushed. Developmental theorists advise teachers and learners that at each developmental step individuals need plenty of time and practice to assimilate new skills and expand their scope to of application.

In the prior Section I described development in terms of three general threads of development: cognitive, ego (/self/will), and relational (emotional/social/ethical/interpersonal). Here, as a way to further clarify integral consciousness, I will describe the developmental path as is passes from traditional/conventional through progressive into integral/second tier. We will see how each of these three threads has a particular character related to reflective understanding and humility.

Development as a Path Through Disequilibrium and Humility

In the *cognitive* domain, one develops the capacity to understand increasingly complex situations, perceiving more subtle patterns, more diverse alternatives, and more abstract concepts. But at some point understanding becomes limited to how well one understands the instrument of understanding, the mind itself, including the fallible nature of concepts and generalities and the many ways that reason is unavoidably biased (Lakoff & Johnson, 1999; Wittgenstein, 1953; Murray, 2006). At first this leads to a profound dissonance as the foundations of certainty in knowing are shaken. Eventually one comes to an acceptance and appreciation of the limitations of one's knowing, and in so doing develops the skills in uncertainty, ambiguity, and paradox mentioned above.

In the *relational* domain, development progresses in several ways: an increasing awareness of one's emotional state and how it affects one's thinking; a deeper skill in empathy (and the imaginative capacity to put ourselves in another's shoes); and a widening understanding of the vulnerability-imbued interdependencies of social interactions. As this happens, the sphere of who one identifies with and has compassion for extends ever further out, allowing for, for example, compassion for one's "enemies" or those living lifestyles very distant from and different than one's own. This leads to a second form of profound dissonance. As one opens to the pain and suffering of wider circles of relationship, one can become over-sensitized and immobilized in situations that require difficult choices and compromises. Eventually one develops the emotional resilience and wisdom to make choices for the good of the whole (or the highest good, as one estimates it) even though a decision will cause some to experience pain or discomfort. One also develops the wisdom to (partially) discern how one's own assumptions or projections onto a situation cloud how one perceives the experience of others (that is, one's own unresolved psychological issues can lead one to draw faulty conclusions that others are suffering or are not suffering). This type of development focuses and purifies social and ethical actions.

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[19] Except for the application of theories of childhood development (and the general understanding that learners construct their knowledge) there is scant application of the insights of evolutionary and developmental theories to the pedagogical principles generally accepted by progressive educators (in the Appendix). The notion that evolutionary or developmental history adds significantly to an understanding of the human condition seems obvious to integralists but it is only in the last century or two that the concept has found roots, and it is still a long way from being fully appreciated (Pinker, 1997). Some psychologists, scientists, and philosophers are still developing elaborate theories of how and why phenomena such as learning, motivation, or socio-political forces in educational systems operate without acknowledging that these phenomena owe much to evolutionary and developmental forces.

In the domain of *ego* development progresses from impulsivity through compliance with social conventions, and then into self-authoring where one increasingly becomes the master of one's beliefs, values, goals, body, and relationships. But again, at some point a dissonance is reached. One can only exercise so much control over one's life, one's body, and even one's thought processes and beliefs. One becomes awake to the profound levels of chaos and vulnerability in life – seeing that aspect of oneself that is like the small boat tossed by the waves or currents of forces large and unfathomable. One may imagine those forces to be random, impersonal, or divine, but in any case they are beyond knowing and control. On the other side of this dissonance is a will that comes from a deeper place of "knowing without knowing." It is a place that is more like listening than thinking or planning (though thinking and planning also happen), from which one taps or feels into a deep intuitive source.

These three general lines of development (cognitive, self and relational) have similar paths (though an individual might develop along each of them at a different rate). They all pass through egocentric/pre-conventional and ethnocentric/conventional/traditional phases to a more mature phase, but then, if development continues, must pass through an uncomfortable disequilibrium before emerging on the other side with an integral or second-tier type of flexibility.[20] For all three lines the transition out of the dissonance phase has an aspect of humility – a way of perceiving and coming to peace with one's limitations (and with life's inscrutabilities, paradoxes, and mysteries).

Having this perspective on development can allow teachers and teacher educators to shepherd learners through the difficult transitions on the way to second tier skillfulness.

Development of Skills vs. Values

The parallels between how individuals develop and how cultures or societies seem to develop is so striking that a number of theorists (including Wilber, Kegan, Torbert, Beck & Cowan, and Gebser) see individual development as recapitulating cultural evolution. There seems to be definite (but hard to capture precisely or empirically) relationships between the *capacities and skills* that individuals have (along cognitive, relational, self, and other lines) and the *values and world views* that they adopt. That is, the depth and complexity with which one can understand self, others, things, and systems (and thus their flexibility and adequacy in responding to life situations) has some influence upon what one is aware of and values. So in the integral literature we see terms like Traditional, Modern, Postmodern, and Integral along side with preconventional, conventional, and post-conventional; and ego-centric, ethnocentric, and world-centric.

These constructs can be applied (or misapplied) to students, parents, peers, administrators, local communities, and institutions. The menagerie of evolutionary/developmental terms not only describes different (but, again, overlapping) *skills and capacities*, but also describes an evolution of *values and worldviews*, each system mixing skills vs. values to a different degree. Though conflating skills and value development is somewhat problematic (see Stein, 2008), it has explanatory power, so we will proceeding with due caution.

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[20] In fact there are sub-stages of disequilibrium that mark the transitions from any level to the next, but we ignore that here to focus on a particular manifestation of disequilibrium.

Caveats on Inferring Individual Development from Cultural Values

Wilber's AQAL model and the Spiral Dynamics model include the familiar color-coded developmental levels (e.g., red, blue, orange, green, and yellow value-memes representing ego-centric, traditionalist/ethno-centric, modern techno-achievement-oriented, post-modern/progressive, and early integral. These culturally scaled systems are able to emerge historically only when enough individuals in a given society reach a certain level of individual development (along cognitive, relational, and/or self lines). But once these cultural modes are established individuals at *any* level of development might find themselves attracted to them, often for differing reasons.

For example, if one encounters a student, colleague, or parent whose value system is predominantly progressive, one cannot use that fact to make a reliable estimate of their developmental level. There are ego-centrics drawn to the progressive culture because of its promiscuity and ethno-centric progressives who hold onto progressive beliefs with the fervor of a religion. Therefore I suggest not using the Spiral Dynamics model (or similar ones) to judge developmental level or capacity (or be extremely cautious in doing so).

It is best to think of individuals as having some degree of capacity in a *range* of developmental levels (Beck & Cowan, 1996 p. 63). Though some levels (Kegan calls them "meaning making structures") predominate in a person, individuals tend to function at different levels depending on the context. It is more difficult to access higher levels of development in situations that are more novel, complex, or emotionally challenging. The same individual can display a wide variety of developmental levels—in stressful vs. non stressful situations; and in groups that embody awareness and support vs. groups that reinforce developmentally inferior mindsets. In a sufficiently nonthreatening, familiar, and supporting context it is easy to imagine even a 12 year old showing the precursors so many second tier skills, such as: realizing that they have a bias about a subject and trying to step outside their ego and worldview to enter into another worldview (ego-awareness); or engaging in a polarity mapping analysis of a situation (construct-awareness).

All of this is not to ignore the real challenges and imperatives of human development, but to suggest that the seeds of integral consciousness can be planted and nurtured much earlier than might be thought. As implied above, applying and deepening these skills is often more limited by emotional and social factors than cognitive ones.

Transcending and Including the Traditional and Progressive

As noted by Wilber and others, many who advocate progressive (or post-modern) principles seem to be at war with the developmentally prior mind-sets called traditional/conventional and modern. We say that Green has a problem with Blue and Orange. The integral or second tier perspective allows one to understand the deep value of all levels and world views.[21] As I have indicated above, some progressive modalities were developed in reaction to the excesses of traditional value orientations, but all too often in progressive classrooms (or policies) the pendulum swings too far. The section on mapping the polarities of progressive educational principles implies that traditional/conservative (and "modern") values are as important as progressive and integral ones – it is a matter of maintaining the right dynamic balance.

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[21] The thrust of the "integral movement" (if I might call it such) is to help more people (especially people in leadership roles including teachers) transition from a progressive ("green meme" or Kegan's Fourth Order) stage into an integral (or Fifth Order) one. The overall thrust is to support all humans of all levels to thrive at their current level and, when that level is not meeting their needs, transition to a higher one;

As practicing teachers know all too well, on the playing field of the real classroom traditional values such as basic skills, memorization, respect, self-control, loyalty, conformity, responsibility, and accountability, etc. are essential (as are modernist values such as efficiency, achievement, measurable standards, and resource accumulation; and pre-conventional/egocentric values such as self-protection and enjoyment).[22] The integral approach can help teachers *integrate* what progressive models prescribe with the realities of the classroom. It also helps teachers *understand* how particular students, classrooms, and even communities, have developmental differences that require very different pedagogical approaches. And it can help teachers empathize and *communicate* more effectively with students, principals, parents, etc. who have value systems different than one's own.

From Being There to Getting There: Pathways and Communities for Integral Educators

> *I am of the opinion that my life belongs to the community, and as long as I live it is my privilege to do for it whatever I can.*
> George Bernard Shaw
>
> *There can be no vulnerability without risk; there can be no community without vulnerability; there can be no peace, and ultimately no life, without community.*
> M. Scott Peck

To recap, integral models and methods can help practitioners coordinate a panoply of progressive pedagogical principles and can help them re-evaluate the importance of good old traditional and modernist pedagogical principles and values. The integral approach also adds meta-perspectives that can be used to more adequately and systematically address the values and goals behind progressive pedagogies. Adopting integral pedagogies involves not just the application of methods, but new ways of thinking (and meaning-making and being) that we are calling integral consciousness. I have also described how embodying integral or second tier capacity is part of a developmental journey. Now we ask: How does an educator step onto and develop along this path, and/or help others do so? What difficulties is one likely to encounter and what support strategies are available?

A full answer to these questions is beyond the scope of this essay, and because integral education is a very new domain of inquiry, these questions are still in early stages of being

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however, the programs and rhetoric of most integralists indicates that the main audience are those at levels just below and above the second tier or integral threshold.

[22] And see Kegan, 1994, p. 57 on fundamentalist vs. humanist and developmental vs. non-developmental educational approaches.

explored by practitioners and scholars. In my brief comments I will start by addressing the challenges faced. Do you want the good news or the bad news first? —OK, I'll start with the bad news.

But first I should be clear in stating that, though I have been involved in progressive education and teacher training, have been part of the integral theory community, and have personally used integral approaches in teaching and learning, I have very little experience training others to use integral approaches and pedagogies in their work as educators (or leaders). Thus my comments here come from my analysis of what other intrepid explorers have reported, as well as my own intuitions about using integral approaches. See the references cited below for case studies and lessons learned firsthand in the trenches.

OK, now on to the bad news. Second tier consciousness is rare—and learning integral level pedagogical methods and teaching with integral consciousness is difficult. In fact, just moving from traditional to progressive pedagogical approaches is challenging. For most practitioners it requires teaching in ways that were not experienced in one's years of formal education. Kegan (1994, p. 274) in discussing trying to support the Fourth Order self-authoring/co-creative word view, notes how the literature "reflects a goodly amount of frustration, disappointment, surprise, and even, at times, disdain toward the large numbers of adult students who have difficulty achieving or who do not achieve these [skills]."

Above I mentioned the phases of humility-inducing disequilibrium that await those on developmental paths. Harris notes about supporting the adoption of second tier capacities:

> learning to reflect on and alter one's perspectives and behaviors can arouse feeling of fear, loss, guilt, anxiety, and anger. These emotions, if sufficiently strong, can elicit counterproductive defenses that block further learning. [Educators] lack strategies to help people manage the emotional distress when the old order is shaken… (Harris, 2002, p. 19)

(She follows by saying that "developmental theory offers a perspective that may help address this gap).

Supporting an integral (or progressive) approach is not just a matter of introducing new methods (Fosnot, 1996). Practitioners with stable progressive (or conventional) world-views may find it extremely difficult to "grok" or appreciate many integral (or progressive) educational principles, much less learn and adopt them (and see Steckler & Torbert in press; Gunnlaugson in press). Empirical evidence indicates that only a small percentage of people are at an integral or second tier developmental level (about 1/2 to 5% depending on how it is defined) (Wilber, 2006).

In addition, the classroom and institutional *logistics* of new liberating instructional approaches can be complex and can meet with resistance from peers, parents, and administrators.[23] During those frustrating days in the educational trenches one begins to appreciate the deceptive allure of the traditional hierarchical one-size-fits-all "factory model" of learning!

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[23] Kegan notes that "the distinguishing feature of contemporary culture is that for the first time in human history, *three* mentalities [i.e., orders of consciousness] exist side by side in the adult population" (1994 p. 303).

Now for the good news, or at least some glimmers of hope. Actually I have been offering these glimmers of hope throughout the essay:

1. I noted how the integral approach could be used at the systemic level (administration or curriculum design), implicitly at the classroom level (using but not teaching about integral concepts), and explicitly (teaching integral ideas). So many can benefit while not explicitly learning about in integral approach.

2. Though it may be rare to find individuals with a developmental center of gravity at second tier, the skills and capacities of second tier begin to show up much sooner, and can be modeled and nurtured. I hinted at how integral pedagogical principles could be brought into a fourth grade activity of planning for a school trip.

3. I described how an individual can exhibit a wide range of developmental mind-sets depending on the level of stress, support, and developmental scaffolding of the context and group they are in. It may be difficult to advance a person's developmental level per-se, but it may be much easier to create contexts that allow learners' existing integral skills to flourish and expand.

4. I have described the integral approach as including models, methods, and capacities (skills or consciousness). *Models* must be explicitly learned. *Methods* are more powerful when explicitly learned but they can be learned somewhat through informal modeling and practice, where an approach or world-view is passed on through apprenticeship or even "osmosis" (unconscious learning). Integral *consciousness* is even more susceptible to being passed on informally through witnessing of and participation in contexts that embody it.

5. I described how educational practitioners could cultivate *states* and personal practices that support NFAGD (normal for a good day) consciousness, which, when it becomes connected with deep inner listening and cognitive empathy in the classroom, creates horizontal development and directly supports some aspects of the vertical development into integral consciousness.

The integral approach to education has many facets. It can involve using models like AQAL and methods like Integral Methodological Pluralism to support a metasystematic understanding of many pedagogies or of the multiple systems one is embedded in as a teacher. But these facets are for the cognitively oriented among us—those who like theories and abstractions and big-picture models (I must count myself among them). But the integral approach also involves a consciousness with "softer" facets, such as ego-awareness, construct-awareness, relational-awareness, and vision-logic that are really just ways of describing a type of wisdom—a wisdom just as likely to be observed in people who speak simply, don't display scholarly linguistic skills, and have no taste for abstract models.

I will share a story as a further illustration of item 2 above. Recently I was spending time with a 7 year old girl and her 5 year old brother who are close friends of my family. We were on an outing and watching two older children about 20 feet from us doing tricks on bicycles. The girl was observing with the keen eyes of an ethnographer. The boy wondered aloud about how they did those tricks, and where they got their bicycles. Since the older children seemed quite safe, I suggested that he could go over and ask them, and that I could help. Unsurprisingly, he felt too shy to do so and said "you do it." I asked "are you feeling too shy to ask them?" and he nodded, and again said "you ask them." I said I did not really want to do so by myself, and that perhaps I was feeling shy also.

Upon a moment’s reflection I added: "I could help you find out, but actually I'm not very curious about it. It’s like there is a part of me that gets curious and a part of me that gets shy, and when the curious part feels stronger inside than the shy part, then I might go over and ask someone something, but right now the curious part is not very strong and the shy part is medium strong." I was trying to teach something in that moment, and was actually saying it for the benefit of the girl, who is a bit precocious. Appropriate to his age, the boy was not particularly interested by this observation, but I could see that the girl was taking it in, absorbing it like a sponge.

I don't have a follow-up story illustrating how she assimilated it, but I would not be surprised if she began to work with this concept of having different parts of oneself that are in a constant state of negotiation and balancing. Even though the ego-awareness skill of disembedding from one's thinking enough to reflect on multiple inner "voices" is a second tier skill that many adults do not seem to have (especially in the contexts we think they need it the most!), the story illustrates that people can begin to learn such skills quite early in life.

So even though a small percentage (1/2% to 5%) of adults are centered at the integral developmental levels, the percentage of people who have a readiness to begin to develop some of the second tier skills is much larger (perhaps 25% of the population, probably at least 50% of teachers). There is much that the average teacher can gain from working with integral principles, including a more systemic and flexible understanding of classroom and institutional dynamics, a deeper more flexible understanding of thinking, learning, communication, and knowledge in general, and, as indicated above, a greater ability to coordinate and utilize a range of progressive pedagogies. They can also be supported in gaining a more flexible perspective on themselves and their teaching.

At the level of classroom activity, curriculum, and school system design and administration, the developmental and systems-level insights of the integral approach addresses how belief and value systems become stabilized and resistant to change through communicative processes and social structures. These insights can support sustainable transformation in classroom, school, family, and community systems (whereas an over-simplified grasp of these human systems, which can occur when progressive methods do not include integral level insights, can lead to solutions that cause more harm than good).

Communities of and for Integral Educators

To repeat our questions: "How does an educator step onto and develop along this path, and/or help others do so? What difficulties is one likely to encounter and what support strategies are available?" Above I described challenges and reasons for hope about the general question of helping educators (and their students) acquire and/or use what the integral approach has to offer. Next I address the question of what an educator (or teacher trainer) can do personally.

First let's state the obvious advice, the unsurprising basics that bear repeating: apply the attention and effort required to take good care of yourself—body, mind, and spirit. Balance high expectations that energize, with sufficient doses of compassion and acceptance for what is—with your students *and* yourself. Keep learning to deepen and broaden your understanding of yourself and your professional work.

Easy, yes? You may be thinking: "do you have *any idea* how busy a teacher's life is??" Eating well, exercising, getting enough social/emotional contact and R&R to "stay sane"—not to mention any sort of contemplative practice—seem hardly the norm for the average teacher. Verily, our social structures, from the expectations and compensation levels set up by educational institutions, to the cultural materialism and work ethic that keeps citizens on their daily tread mills, do not support this type of self-care and growth, especially for educational professionals. But you would not be reading an essay like this if you were not interested in stretching outside the status quo. So one additional crucial thing on the common list of suggestions is to build in community and peer support for your efforts.

As mentioned, there are communities of learning/practice associated with most of the progressive pedagogies in our list.[24] One "value added" of integrally-informed communities of learning/practice is that they explicitly value whole-self (mind/body/emotions/spirit; interior-I, exterior-it, relational-we, and systems-its) approaches to personal and professional development, and have developed methods and workshops toward this end. For example, see material on Integral Life Practice (Wilber et al., 2008). Many localities have integral salons or MeetUp groups.

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[24] A look at the web site for the American Educational Research Association (the "world's most prominent international professional organization," with 25,000 members and holding an annual conferences attended by thousands), shows that among its 163 Special Interest Groups are many focusing on progressive topics, including: Action Research; Conflict Resolution; Confucianism, Taoism, and Education; Constructivist Theory; Cooperative Learning; Critical Educators for Social Justice; Ecological and Environmental Education; Holistic Education; Leadership for Social Justice; Multicultural/Multiethnic Education; Multiple Intelligences; Peace Education; Postcolonial Studies; Queer Studies; Service-Learning & Experiential Education; Social and Emotional Learning; Spirituality & Education. There are also a few that align with topics central to the integral community, for example: Chaos & Complexity Theories and Systems Thinking in Education. Surprisingly few mention developmental issues. Only one (Adulthood and Aging) mentions adult development, and three others mention developmental studies (Early Education and Child Development; Rasch Measurement; Constructivist Theory, Research, and Practice).

The integral approach, unlike approaches used in most other learning communities, contains an explicit inquiry into psychological growth and healing, and into contemplative practices (for example, the 3-2-1 Shadow Process and Big Mind voice dialog, Wilber et al., 2008). These are tools that can help clear away the psychological detritus that stands between one and the clear and easy states of mind implied by NFAGD consciousness, and the deeper states and stages implied in integral consciousness.

Though the integral movement has deepened and widened significantly in recent years, communities and programs supporting integral education are far from plentiful. Though a number of organizations exist that help professionals understand and use specific integral models, particularly AQAL, there are far fewer systematized opportunities to develop integral methodological skills or integral consciousness. For more information check out the websites for the Integral Institute, JFKU's Integral Studies Degree Program, Fielding Graduate University's Integral Studies Certificate Program, the California Institute of Integral Studies, Next Step Integral, and Pacific Integral (and see O'Fallon, in press, and Esbjörn-Hargens, in press, describing some of these programs).

Conclusions

Don't worry that children never listen to you. Worry that they are always watching you.
(Robert Fulghum)

Live as if you were to die tomorrow. Learn as if you were to live forever.
(Gandhi)

This essay has explored what the integral approach has to offer above and beyond progressive (or alternative, or reform) educational theories, principles, and values. We began with a kitchen-sink overview of progressive pedagogical principles and values. Educators who associate themselves with a subset of these principles and values and are wondering how to understand them as a whole, struggling with how to deal with the dialectical tensions among them and between them and traditional pedagogies, or intuiting that there may be a higher perspective, are likely to find something of value in an integral approach and integral community.

The "value added" by the integral approach was described in terms of integral as a *model*, a *method*, a developmental *stage*, and a *community*. The AQAL model was discussed as the most popular integral model being used, and I gave an example of its skilled application. I suggested that, though AQAL is useful and powerful, employing integral methods and consciousness is more important than using any particular model. I elaborated on the primary principles that integral emphasizes that progressive approaches do not: the development of human capacities and evolution of human meaning making (or world view) systems. The teacher with an integral perspective on human development will serve as a stronger facilitator of progressive (and integral and traditional) pedagogies. Successfully applying integral models and methods requires a type of consciousness or meaning making capacity, and I described "integral consciousness" in terms of higher levels of *construct*-awareness, *ego*-awareness, *relational* awareness, and *systems*-awareness.

In this paper I attempted to illustrate some aspects of integral methodology and consciousness in the presentation itself. I tried to open the reader to the full complexity and dynamism of educational systems. As a sort of construct awareness I described models, constructs, or principle without indicating "correct or best" ones, and allowed for the inherent complexity, uncertainty, ambiguity, and paradox (or seemingly opposite polarities) of the educational domain. I presented constructs and categories as perspectival, fuzzy-boundaried, strongly interdependent, or co-defining. I coaxed an awareness of the limits of the AQAL model, of theories of cultural/meme evolution, and of the constructs of Lines and Levels. I spoke to the challenges of supporting human development and the drawbacks of over-emphasizing it. My analysis addressed the system levels of student, teacher/classroom, and administrator/curriculum designer/teacher educator. At times I tried to explicitly insert myself as author into the picture, reflecting upon possible limitations of my perspective.

In the article I describe numerous elements of the integral approach—it is not a simple picture. Realizing a vision of integral education involves, as is only appropriate for an integral vision, a complex but dynamically flexibly and intuitively presenced process of engaging self, others, artifacts, bodies, and socio-cultural systems. I explored some of the challenges in learning and teaching the integral approach. Though these challenges are substantial, and though the integral approach is a complex thing with man "moving parts," I also argued that the seeds of integral consciousness and methodology can be planted and nurtured in many ways, and gave examples allowing for a good deal of hope in our efforts to create more integrally informed and integrally alive educational environments.

In addition to what is gained, something may also be lost in taking the integral approach. While it coordinates many different progressive principles, it does not (at least in my reading) specialize or deeply describe any. It may be best for some to adopt an integral approach only *after* being mentored and immersed deeply in one (or several) specific progressive methods.

I mentioned several integral level pedagogical approaches in the Section on integral methodology, but one might still ask: *What does integral pedagogy, or an integrally informed classroom, actually look like?* What uniquely integral methods would we see being used there? One could point to a specific method or model used to anchor an integrally informed classroom. For example, students may be systematically investigating the world from each of Wilber's 8 perspectival Zones. But that would be overly constraining our vision. An integral curriculum would be so much more than that, and would actually include, most of the 20 or so principles listed as progressive pedagogies. In fact, a teacher who has a sophisticated grasp of progressive pedagogy, who has never heard of integral theory, would probably be observed to intuitively be employing most or all of the 8 Zones. (Of course, an integral approach can help one better understand what one is doing and transfer their wisdom to others.)

What I would like to propose for this historical moment in integral pedagogy's evolution is that the integral approach points not so much to a new set of methods, but to a way (or ways) of coordinating, integrating, practicing, and embodying already existing specific methods, mostly from progressive approaches, but also including traditional (and "modernist") approaches, as appropriate. Integral looks and feels like progressive methods applied with wisdom and "adequatio," with an ego-aware and construct-aware consciousness.

I have purposely avoided trying to define "integral" in this paper (I do give it a shot in Murray, 2006). For me integral is an emerging wave of human capacity, difficult or impossible to define but still tangible and recognizable. It is a form of human understanding and skillfulness that takes the insights about the human condition, the critiques of existing systems and mores, and the experiential openings in human capacity that we associate with the progressive and New Age movements, and adds new levels of rigor, reflective self-and-system understanding, and hope to the possibilities of improving the human condition.

In the domain of education, the integral approach is not just a new set of beliefs about teaching and learning, it also indicates new ways of being in the classroom and making meaning of the educational process. In this sense, it is not a theory to be taught but a pointer to a naturally occurring next wave of human capacities. These capacities are desperately needed to meet the complex and urgent problems of the times. For many educators then, what is of ultimate concern is helping learners, global citizens and future citizens, move vibrantly toward developing these capacities.

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Appendix – An Overview of Progressive Pedagogies

I assume that the reader is familiar with a handful of progressive educational models, assumptions, and value-orientations, and give only a brief summary below. Even though they seem like separate principles, each one has significant overlap with many others, as there are many ways to "cut up the pie" that constitutes the common appreciation of progressive pedagogy. In real world application the lines between these principles blur significantly.

- *Holism:* An acknowledgement and appreciation of the "whole person" or "whole child" – mind, body, heart, spirit, and community are all interconnected and important. Artistic expression, bodily movement and health, spontaneity and fun, interaction with the natural world, and service are as important to creating good citizens and realizing students' full potential, as is the learning of "content." The physical arrangement of the classroom, what a student had for breakfast, and whether he has caring parents seeing him out the door, all affect his learning and engagement.

- *Multiple intelligences:* All forms of intelligence should be acknowledged and nurtured; and each student may have her own path to learning due to some of these lines of development or styles of learning being stronger than others. (Gardener, 1983)

- *Creativity:* Success in the world, especially the complex modern world, requires creativity ("lateral" thinking, "right-brained" thinking). This includes considering multiple hypotheses, or alternative solutions, or perspectives, and not committing rigidly to any one too quickly. Nurturing creativity requires bracketing the logical mind and opening to other forms of "intelligence" (deBono, 1970; Polya, 1973; Robinson, 2001).

- *Individuality and human potential:* Each person has a unique set of capabilities and potentials, and something unique to offer the classroom and the world. Learners should be treated and respected as unique individuals.

- *Constructivism:* Each person constructs their knowledge in a unique way, depending on their prior knowledge, preconceptions, and experiences. Meaning making is idiosyncratic and personal. Instruction must move beyond the "pipeline" theory of learning that assumes that if curriculum could only be organized and presented skillfully enough, the result will be that one learning path will fit all students. (von Glasersfeld, 1995; Collins et al., 1989)

- *Developmentalism:* Learning happens through natural processes such as integration and differentiation, or assimilation and accommodation, or horizontal and hierarchical learning (depending on the theory). This puts limits on the speed of learning (it can't be pushed too fast) and the order of learning (some concepts and skills necessarily come before others). (Piaget, 1972; Fischer & Farrar, 1987; Commons & Richards, 1984)

- *ZPD:* Instruction should aim for that 'zone of proximal development' that has the right balance of support and challenge to avoid the extremes of boredom and being overwhelmed (Vygotsky, 1987; Murray & Arroyo, 2002).

- *Meta-learning:* In today's dynamic world one needs to "learn how to learn." One also needs to think about thinking (metacognition), and understand the nature and limits of knowing (i.e., have epistemic knowledge). Education should strengthen the learner's ability to monitor, reflect upon, and adjust problem solving processes and outcomes on the fly. (Schoenfeld, 1985; Winne, 2001; Kegan, 1994).

- *Adaptivity/individualization/differentiation:* The content, style, and speed of curriculum should allow for, adapt to, and/or differ for the various types of individual differences noted above. This can be done by dynamically steering the instructional path to respond to individual student needs, and/or by immersing learners in open-ended environments that support many paths (Tomlinson, 1995).

- *Learning by doing*, case-based learning, situated learning, discovery learning and inquiry learning: Progressive theories say that learning activities need to be authentic, rich, or realistic enough to engage student motivation and allow for transfer to real life problems. Taking guesses and making mistakes are seen as normal, inevitable, and positive. Learning that comes from real engagement and curiosity is far superior in depth and longevity to rote memorization or cramming for a test. One learns by designing and building things, playing and getting our hands dirty, and trial and error.

- *Situated learning:* Most authentic learning happens in social contexts, and often through apprenticeship or mentoring relationships. The social fabric and dynamics of the learning context are critical success factors. Collaborative learning is beneficial, as are peer learning and peer tutoring. One learns by showing, explaining to, questioning, arguing with, negotiating with, teaching, and helping others. Social and emotional intelligence are as important to learning as intellect. (Brown et al., 1989; Lave & Wenger, 1991; Vygotsky, 1978).

- *Empowerment and liberation*. Education happens largely through institutions that perpetuate habits of disempowerment, oppression, conformity, orthodoxy, and life alienating thought forms. (Freire, 1970; Illich, 1975; Rosenberg, 1999; Ewert on Habermas, 1991; Dewey, 1926; hooks, 1994). Education should be designed to support the ideals of freedom, equality, self-determination, justice, and open mindedness that enable democratic society. Students can be given more choice and power over what and how they learn; they can be supported in acquiring the skills of dialog and conflict resolution. Teachers can relinquish some control and reveal their areas of ignorance and uncertainty; they can be "guides on the side" rather than "sages on the stage."

- *The ethical classroom.* If the classroom is a learning laboratory for life, then it should support things like compassion, caring, respect, empathy, and dialog; and it can model quality relationships and community building. (Palmer, 1998; Elbow, 2008)

- *Transformative education*. Some focus on education as a vehicle for spiritual growth, the flowering of human potential, and/or the evolution of human meaning-making capacity (or action-logics, see Torbert, 2004). They suggest that the classroom can support contemplative, transpersonal, and transformative experiences. (Mezirow, 1991; Steiner, 1965)

- *Community/service-based learning.* Community-base and service-based learning are strongly situated and have ethical implications. Connecting schooling more tightly with family, community, and society has clear benefits for students and allows learning through doing to directly benefit the larger whole. It engages multiple intelligences and modalities, and gives students a sense of empowerment and purpose.

- *Lifelong learning and emergence*. We never stop learning, or at least need not stop. This is true because of the constantly changing social and technological landscape. And it is also true from the perspective of human potential and emergence. Expertise, wisdom, leadership, and innovation are continually deepening skills developed over years of adult life.

- *Teacher presence and embodiment.* Of critical importance is how teachers and other leaders embody and model the qualities they intend to teach and support. This highlights the critical and too-neglected fact that educational reform requires significant investment in teacher training. In addition, the deep qualities of compassion, presence, metacognitive reflection, and mind/body/emotion/spirit integration cannot be "taught" in a teacher training classroom. Teachers and leaders are called to engage in personal transformative practices of emotional healing and self-realization, and also to risk a deeper authenticity and transparency in the classroom.

- *Participatory/action-based curriculum development and research.* At the graduate level teachers in training begin to become engaged in tasks such as curriculum development and research. Here (and in other contexts) progressive pedagogies are combined with progressive methodologies such as action research (Argyris, 1985; Feldman & Minstrell, 2000), user-participatory design (Barnathy, 1992), qualitative, interdisciplinary and mixed-method research (Bogdan & Biklen, 1982; Patton, 1980).

An Interview with Barbara Marx Hubbard

Russ Volckmann

Here is a case where there is virtually no need for an introduction. As she presents in this interview, Barbara Marx Hubbard's work has been apparent on the stage of cutting edge thinking and action for decades. Her book, ***Conscious Evolution****, published in 1998, is a call to action with a blueprint for the reconstruction of human reality. She calls on us all to actively engage in our own evolution, as well as the evolution of human societies and of the earth and its creatures. This call, so needed in 1998, is even more urgent today. She calls on us to stand alone and together in cocreating a world that supports all to thrive.*

She cofounded World Future Society, as well as other organizations. She is now producing a seven-part documentary series entitled "Humanity Ascending: A New Way through Together." This transformational series presents vital elements to awaken the codes for our own conscious evolution and offers direction, meaning, and a vision toward our birth as a new humanity.

An early book, ***The Power of Yin****, first published in 1977 is a fascinating dialogue with Hazel Henderson, Jean Houston and Barbara Marx Hubbard. Here, among other topics, they are already addressing the challenges of global environmental disaster. This continues to be one of her major concerns. Additional information about her and her work may be found at http://www.barbaramarxhubbard.com/content/.*

—Russ Volckmann

Russ: Barbara, I'm so excited to have the chance to talk with you. I'm familiar with your political work and other work from over the years. How do you view the current political climate in the United States?

Barbara: I'll start with my original political impulse. It came from the work I was doing on the idea of a conscious evolution and a positive future. It came out of the recognition that we're facing a crisis of an evolutionary order, and by looking at past crises in evolution, you can see that either the species becomes extent or it learns innovation, transformation and greater synergy.

I began to develop a concept I call "synergistic democracy." It is a democracy that facilitates each person in being freer to give their creative gift within the whole. It would be aiming at a co-creative society. It's not re-patterning existing democratic institutions like the Congress; it's more like what happened when Obama ran for president. He had 13 million people suddenly wanting to help and connect. There were new social networks developed.

Back in 1982-83, I was working with Buckminster Fuller and he told me about the viability test: the timing, the critical path, the utopia or oblivion, the fact that we have the resources and technology to make the system work. I came up with an idea that was

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really good, and it launched this paranormal political career—I say paranormal because it was so completely unlikely.

What I did was to run to be selected as the vice-presidential candidate on the Democratic ticket by whomever was nominated, and it was 1984—the year of the woman and the year of Big Brother. It was also the year when the public ear was attuned to women and a future orientation, which is barely happening again. I launched the "Campaign for a Positive Future" and I called my friends and said, "I'm running for vice-president. Would you give a party for me to help me raise funds?" That launched me on a campaign trail across the country where people gathered and I said, "We are at a crisis here of birth towards something new. The only way we will know what it is, is by having a new social function to map, track and connect what's working."

Russ: *What were the signs of the crisis in 1984?*

Barbara: When you look back, we still had the MAD (Mutually Assured Destruction) program. The Cold War had not ended. We were afraid of nuclear holocaust.

Russ: *Yes. I remember those days well.*

Barbara: Starting in the late sixties and early seventies with Silent Spring and the Club of Rome, Limits to Growth and other such works. We also became collectively aware for the very first time that we had problems with population, pollution, growth and that we were hitting a limit while our entire purpose was to grow. The whole capitalistic system was based on intimate growth…

Russ: *As it still is.*

Barbara: …and I went to a couple of Club of Rome meetings. I met Aurelio Peccei. But at the same time in the seventies, I became interested in the Space Program. I was amazed that at the very same year that we had a lunar landing, we had the first Earth Day—I think it was 1969 or 1970. I began to develop what I call an "Earth-Space Human Development Scenario." While we are limited on this Earth and we must conserve and preserve and limit population overgrowth and the form of self-consciousness that (inaudible) violence and competition … at the same time, while the solution is not massive growth in space, the fact is we were being born as a universal species. So embryonic, so new, and the reasons we were doing it were technological competition and militarism. Nonetheless, I gathered that we were to be both an Earth-based and universal species.

As I met the space scientists, I was completely amazed to learn of the metals and minerals on the moon, in the asteroids. I met Jerry O'Neill of Princeton who had the whole subject of the space habitats in L5 libration [L5 is the fifth Lagrangian Libration point. The libration points are sites in spaces where a spacecraft may be situated so as always to remain in the same position with respect to the Earth and the Moon.—Russ], where you would use non-terrestrial resources. These people were saying that while we have to conserve and preserve here, there is an almost unlimited new environment for humanity, but if we misuse the environment on this Earth as we are doing, there would be no chance we would go much further into space. But if we were to actually grow up—not only to stop growth on Earth but also to have an integrated self-social-scientific technological agenda—I saw that it could lead to an immeasurable future.

Out of this thinking, I came up with the idea that there should be a new function in the Office of the Vice-President, which was what I called a "Peace Room." It would be as sophisticated as a War Room and its purpose would be to scan for, map, connect and communicate what's working in America and the world. You know we have a system of finding all enemies and how to kill them. We also have a system of noticing all the problems and we have a huge system of keeping up the self-interest of the ones who have it against the ones who don't. But we actually do not have a practical system of noticing really successful innovations in health, education, energy systems and spiritual development. So I proposed that as my campaign for vice-president. What happened was such a paranormal miracle. I had no money, no media and no passes to the floor because the Democratic Party thought I was New Age.

Russ: *Well, you were.*

Barbara: I mean, "new" New. I walked into that convention—I think it was the wife of the Governor of Colorado who knew me, befriended me and got me into one caucus. It was like 5:30a.m. I gave a 30-second speech: "My name is Barbara Hubbard, I'm running for vice-president to map, track, and connect what's working in America." Boom. They signed up. In three days I had over 200 signatures and I was the other woman nominated.

Russ: *The other was Geraldine Ferraro.*

Barbara: Yes, and the Democratic Party was horrified. They pushed the whole convention up. The guard took me up to make my speech, which we had envisioned in church basements and in small groups. The guard said, "Now honey, they don't pay any attention to you. They never do. You're saying this for the universe." This was the guard saying this to me.

So I got up and I said, "There will be a Peace Room as sophisticated as a War Room in the American Presidency, in the Kremlin, in other capitals of the world, and within four years, we're going to see this new world emerging in our midst right now."

Just to jump ahead, there is now a movement afoot, once again, to revive the idea—but now we have the technology. We have the Internet. I was doing this as a vision. The idea is that we're right on the threshold of this new social function. What we need is one more level of coherence and purpose, of mapping and connecting what's working, and having a new news. I actually feel that what Obama is longing for in his heart is this. It's one thing to say, "The audacity of hope," and "Yes we can," but the government can't do this alone. It's impossible. The higher up you get, the more difficult the crisis is to deal with. When you get to the level of people sharing life purpose and creating new communities, new energies and new researches, you find it's a different world.

I want you to know that what happened in 1984 is resurfacing in my own work in the Foundation for Conscious Evolution. It turns out that Colorado again is a state where there are some of these small citizen-solutions councils. Some of my friends are trying to make this happen in Colorado. I'm going to the American Citizens' Summit that Joseph McCormick is putting on for reuniting America and I'm going to propose this repeatedly. It's not my organizational capacity, but I'm a spokesperson for it, so the effect of such a thing would be to enhance the connectivity of that which is creative. That would be leading towards a new relationship in Democracy where the people's connected creativity is the source of guiding the government rather than the other way around.

Russ: *I'm guessing that the media hasn't caught up with this yet.*

Barbara: Oh, no.

Russ: *What Obama is trying to do is to establish that kind of bi-directional energy between the White House and Washington politics and the rest of the citizenry by having us be involved and recommitted to this country in some fresh, new, exciting and generative way.*

Barbara: This is true. While I'm working with certain Internet people who are gifted and want to be able to set up such a service, I'm seeking to meet with Obama face-to-face. My intuition is it's in his heart's desire. It's not like trying to pass the Department of Peace through the U.S. Congress—this is an executive order—it has to be at the grassroots level. You have to have a receptive place in the presidency. It's just an idea.

Russ: *That brings us to the present. You talked about the individual, the social and the scientific. I think having a perspective on what you mean by each of those and how they relate to each other is really important.*

Barbara: I place everything in the evolutionary story. In order to think of the evolution of the self, I go back and think of *Homo erectus*, *Homo habilus*, *Homo Neanderthal*, *Homosapiens*, *Homosapien-sapiens*. It's not certain how these small jumps occur, but that jump to self-reflective consciousness was a big jump. They weren't aware that they were becoming self-reflective; it just happened. So that's 40-50k years ago. My sense is that 4k-5k years ago, the new jump started to occur in these avatars and spiritually gifted people.

There's a tendency in evolution towards greater consciousness, more complexity. We happen to be the generation that when the complexity hit a crisis, the possibility of self-destruction became obvious. What's happening to the self right now is an evolutionary awareness that we are an expression of the evolutionary process. We are evolution itself becoming conscious. The self-evolution for me is an awareness that my internal motivation is the impulse of evolution localized.

Russ: *One thing that has evolved for me in recent years is a greater clarity about connection and oneness and unity in the world and the universe. There's an increasing sense that all* *of our frameworks for understanding that and for trying to manifest that in our lives and in our world systems are just tools for affirming that, for understanding it, for communicating it. We organize religions around those tools. We organize intellectual traditions around them. Here I'm listening to you talk about evolution, and in a sense I'm reminded of David Loye's work on Darwin and his "Lost Theories of Love" and cooperation, etc. I'm wondering if you're saying something far beyond what I'm suggesting.*

Barbara: I think I'm saying something really significant—from self-effective consciousness about 40k years ago, there's been a continual growth of awareness in all different ways. I feel that the self-evolution is leading to a next stage of human evolution. It doesn't quite have a name—Teilhard de Chardin called it "ultra human," Aurobindo called it "Gnostic human." I call it "universal human." It's a human whose consciousness is evolutionary. I see it in myself. For one, I am aware of being internally connected to the eternal, which would be the more mystic awareness. I'm also aware of cosmo genesis—the whole evolutionary story—and I realize that in my atoms and cells that story exists. Everyone of us is a resume of the whole story of creation. Not only on the Earth's plane, but also as Brian Swimme points out, it took all those supernovas, evidently.

(laughter)

Russ: And I'm reminded of Eckhart Tolle who said that every time we take a breath, we are breathing a molecule of the air of Jesus Christ and Buddha.

Barbara: Brian talks about the big explosions in the galactic realm that created the carbon that was able to become matter and Earth, and it's a complexity and an awesome mystery, but I actually feel that in my self-evolution, I embody that. When I get really deep evolutionary consciousness, I can probably tune into molecular biology and nuclear physics and subatomic particles, because I am all that.

Russ: I know that you have an old friend in Don Beck. I first saw you in person at the World Future Conference in Washington, D.C. You were in the room and I said something innocuous and not very bright in the face of all the other energy that was in the room. I think of Don's work with Spiral Dynamics, and some of the other adult developmental psychology models in theory.

Barbara: It does. I know Don fairly well, and he gave me a turquoise stone—there's yellow in the second tier and turquoise is holistic, universal. Don doesn't focus on the evolution of the self quite like this—if the self is an expression of the one, if it is in its body-mind actually encoded with the whole story of creation, it also is motivated to create. I'm a creative self. We are creative selves, and we get called from our own unique creativity. When you were four years old, I don't think someone said, "I think this is what you should do," and then you studied to do it. None of us were told to do what we're doing. What I realize is that in the creativity of the individual, when it gets turned on in an evolutionary modality, it begins to recognize itself as part of the larger design. I don't think either of our vocations are independent professions; it feels that the closer you get to being your real vocation and saying "yes" to it, the closer you get to surrender into a process. When I really feel whole, I don't feel as though I'm doing this with my mental mind.

Russ: *I get that. It's an awesome kind of consciousness that you're referring to. I aspire to something like that in my own life, and I've had some glimpses of what it feels like to be in the flow that you're talking about.*

Barbara: Only from time to time. But I know what it's like. It's like a peak experience and you keep moving in that direction.

Russ: *Exactly. Or what Ken Wilber would call a "state" as opposed to a stage.*

Barbara: Absolutely.

Russ: *And this is why I brought up Don Beck and the stage theories. It's a recognition that the population of the U.S. as well as the rest of the world is characterized by considerable diversity in terms of these levels of development at a stage level. Wilber's work makes sense in terms of it being focused on people who are at least green and trying to move towards yellow and turquoise. He gives very little attention to the other levels other than questioning whether we've made them healthy in our developmental processes. Given the complexity that the spiral dynamics model represents in terms of the complexity of the population of the world, I'm hearing you say that you're aligned with Wilber around the idea of there being a critical mass to be reached in the evolution of consciousness that will help bring most of the world along with it.*

Barbara: I read somewhere that he said that if 10% of the population shifts, it doesn't take everyone to shift. It becomes more of a consensual reality, and you can see it happening now. It started during the great movements of the sixties and seventies, of civil rights, human rights, women—look at what happened with women and blacks! I mean, really! For all our criticisms of ourselves, that is truly amazing. All these other countries are stunned, including France. I don't think any of them have had a breakthrough comparable to this. I'm proud to be an American in this instant.

Russ: *We were talking about the self and its evolution, so I'd like to ask, what is implied around the social?*

Barbara: If you take the self-evolving as an evolutionary self becoming more conscious and more creative, I think that social evolution would be the facilitation of our creativity finding its vocation and joining with others to create. Everybody who is evolving in consciousness and who isn't in dire straits of hunger or war begins to have a real impulse to create—to express their own selves—not simply in a mystical way but in a way of self-expression, life's purpose, greater meaning than a meaningless job or relationship.

Maslow discovered that every joyful person had one thing in common: chosen work that they found intrinsically self-rewarding. I think the social becomes the co-creative society where more and more individuals find a way to express unique creativity. You don't do it alone, so you have to find others. You have to become co-creative rather than being the lone artist. What is becoming more obvious to me is that when you become co-creative through cyberspace and the proper use of networking, you'll find that your real passion to create is needed somewhere. You just need to find that matching needs and resources, and you'll begin to have a synergistic society.

In the seventies, I did 25 conferences called SynCons (for synergistic convergence) and we built wheel-shaped environments. Each sector was health, education, economics, and so on. We invited very opposing people to go into each sector of the wheel to state their goals, needs and resources, and then take down walls and look for common goals and match their needs with resources in the light of the system. It's in my books, The Hunger of Eve and Conscious Evolution. It's being revived. I'm having a renaissance at 80. I should be dead, but I seem to be coming back around!

So the SynCons were an early experiment in synergistic democracy. It was an embryonic stage of it. My partner John, who was COO for the Air Force, pioneered the New World's Evening News. That was where if everybody had an agreement, he called it "the news." I had welfare mothers, Yugoslavian ambassadors, space scientists, Jean Houston, Edgar Mitchell—I was a mad woman about wheels. I actually moved to Washington and John and I brought students from Southern Illinois University. We had about 10 wheel-builders, and we went around the country in a bus building wheels and holding conferences.

Russ: *Was it a Ken Kesey-type of bus?*

Barbara: It said, "The New World's Company." It was filled with 20-year-olds who were inspired.

(laughter)

Russ: *It sounds like a model that would be relevant today.*

Barbara: It is. John did "The New World's Evening News," and he designed it like a real newscast; someone reported all the murders and then they said, "Meanwhile, at Southern Illinois University, hippy so-and-so met with the Chief Economist of the United States, and they came to this conclusion." You'd see this completely unlikely couple. We had so many diverse people that the stereotypes disappeared and the news was co-creation. I actually think we hit it for a few times. Sometime in your life you will hit something that you can't fully sustain, but it was a signal of what could happen.

Russ: *I can imagine that would have a profound impact on people—both those who participated and those you met within communities. Was there any specific action that emerged from that work?*

Barbara: I think thousands of people were involved. When I lived in Washington, I eventually reconvened some of the people who helped me run it. It's intangible, but their entire lives have been affected. They're trying to apply it in their own work. Jerry Glenn, who organized this, is now head of the United Nations University where he has 30 tracking points around the world checking on what's breaking down and breaking through. Someone else is working for NASA; someone else is in PBS. We didn't have the finances to create an organization around it. We did it 25 times and finally my partner wore out, but I ran for vice-president. There are throwbacks in nature, and I think I've been an evolutionary throw-forward.

(laughter)

Nature throws things forward and most of them die. What happened to me is I got a hold of the evolutionary perspective. I applied it and demonstrated full form—in SynCons, in the vice-presidency, in the Soviet-American Citizens summit work I did as well as in my teaching. I thought it wouldn't amount to much, and in the last year as the crisis deepens, the work I did all those years ago is becoming useful. It's like I planted a garden: winter came, I thought everything died, and the matter of fact is it's spring.

Russ: That's amazing. I sense the validity of that. It's like when we take action in our lives and may be initially frustrated by a lack of obvious results, but then we see it emerge. It's like having children.

Barbara: It is. And there's a hidden process so I believe that the social is towards synergistic democracy. Social synergy is a new function like the Peace Room.

Russ: What is the role of the scientific/technological group?

Barbara: There is truly the quantum disruptive technology, if you talk about technology. Take robotics—think of Ray Kurzweil's work—and add biotechnology, nanotechnology, robotics, space development, zero-point energy research, and put that together with spiritual and social evolution. We become what I call a "universal species." Homo universalis. We have in the maturing knowisphere—if you want to use that language—we have the resources and technology to restore the planet, have clean energy, stop population overgrowth and so on. Those are immediate problems. We also have social innovations that can be cultivated. We can shift towards a more synergistic democracy … or die. I think that we should guide our science and technology to give us an earth-space life-ever-evolving scenario as a universal species.

Russ: What do you mean by "scenario?"

Barbara: Way back in the early eighties, I went to a big meeting of some international business that Orville Freeman was invited to address. These were the leading business executives of the world, a totally male-centered audience with people like Herman Kahn and Peter Drucker. Then there was me. The subject was doing business in a resource-short world and I said that the Earth was resource-short, but not the solar system. I read off the metals and minerals on the moon and the asteroids. I said they should create task forces to really look at the environmental crisis, the social/poverty crisis, and the new energy potential in the earth-space environment, and develop a long-range 30-year scenario. I knew they couldn’t do it short-term, but I said they were smart enough to do this. I was met with dead silence.

At the reception after the conference, Cy Ramo, who was president of a big space company, said, “Only one really important thing was said here today. It was by Barbara Hubbard.” All these huge executives really wanted to talk to me, but they didn’t know what to say. I said to Cy, “You have the resources of the entire world at your disposal. Why is it that you won’t create such a task force?” And he said, “You don’t understand how hard it is for us to survive, how competitive it is, what a short-range perspective we have. We’re much more fragile than we look.” That’s exemplified in recent times with the sudden collapse of the automobile industry. He was telling me then what I can see now. It’s much more fragile than it looks.

I believe we did our best. We got generals and members of Congress and thought leaders to agree that this scenario is the best thing we can do for national security, for dealing with social injustice and poverty. You can’t deal with it piecemeal. We talked to the Ambassador from Bangladesh. We did that at the SynCon. I see it’s reviving itself in a variety of ways. I’m just glad that I didn’t really feel so much of the failure that I gave up entirely.

Russ: *One of the evidences of that is your effort around vision. Can you tell us about that?*

Barbara: Patricia Gall and her husband Norman Kramer became really interested in how you get this message out. I’ve been a public speaker, I’ve been a writer, but it hadn’t hit a popular medium. They came up with the idea of doing a DVD series called “Humanity Ascending.” The first DVD is called, “Our Story: A New Way Through Together.” It’s an evolutionary story. Now we are completing visions of a universal humanity. I interviewed 10 wonderful people like Freeman Dyson and Jean Houston, Michael Dowd and space pioneer Rick Tumlinson, Don Beck and others on their view of the next stage of evolution. I wove their responses together as the story of the birth of Homo universalis. That will be out in a few months.

Colleagues of mine want to build a Peace Room—all of this now comes to another fruition level, but still way under the surface of mass media. My daughter is a biologist/environmentalist in Canada who is saving the wildlife from the fish farmers who are polluting the oceans and destroying the salmon and which destroys the surrounding ecology. She was so moved by Obama’s victory. She said, “Mom, I’m a biologist, and I put my ear to the ground. He broke the spell.” She’s long said that we don’t have much time, and that our environment can go extinct quickly. It’s not about saving salmon and whales—it’s life itself. When she said, “He broke the spell,” it’s the spell that it’s okay to be violent or corrupt or racially prejudiced or to be exponentially wealthier than others—like the Wall Street titans—while others are losing their jobs.

The spell has been broken. I feel that those of us who planted seeds can put our ears to the ground, and they're all growing. I'm beginning to feel this rising tide of life. It's more than just my consciousness; it's the billions of years of nature's evolution and I see a spiral with a core—I call it the Great Creating Process. It's not an external god, but it doesn't feel to me like an accidental universe. Between an external god and an accident based on error, I see the universal intelligence operative everywhere. It's a living universe as people say, and I feel that intelligence is breaking through now into our consciousness.

Russ: *How would people get in touch with what you're doing around vision and the DVD's?*

Barbara: Just go to www.EvolvingNow.com and you'll find my newsletter, "The Conversation of the Century." In the simplest way, they can tune into that, order "Our Story" and "Visions" and they can talk to me as well. I'm going to be doing a teleseminar series for people who are interested in this so that I can reach out further. Right now, I'm wanting a bigger outreach than before.

Russ: *So your involvement with the Evolutionary Leadership Group is another strategy or another approach that complements this?*

Barbara: Definitely. I was just invited to be a member of that. Several friends of mine, especially Barbara Fields who is the Director of AGNT—Association for Global New Thought—invited me to be a member. We only had a one-day meeting at La Costa, but it was amazing to have 30 people, all of whom are leaders, like Jean Houston and Joan Borysenko, Marianne Williamson and Bruce Lipton, Greg Brighton and others. Then the question was what to do. They determined it was a call to conscious evolution. James O'Dea wrote a draft of a declaration that is all over the Internet—it envelops conscious media, conscious business, conscious health—and we're having another meeting in July. People are being nominated for it. We are searching as others are for greater coherence, and I don't believe we've yet found in this movement—a positive change—discovered how to do social synergy at a really effective level. I don't think we know yet. What I mean is something like the Peace Room on the Internet and face-to-face as a coherent connectivity of what's emergent and working. I feel I know what it is in embryo, and I have a chance to work with some people on it, but it hasn't happened yet.

Russ: *Given that we're all operating in the soup of this global financial crisis and there are all these exciting, innovative, evolutionary and emergent activities going on as you've just mentioned, what do you think the rest of us should be doing? How do you see us as engaging with this effort and direction in a way that will contribute to the kinds of things you want to see happen?*

Barbara: I'm writing a book called, **The Joy of Supra-Sex** and here's my theory: the drive for self-preservation and self-reproduction—basic human drives—have expanded into the drive for self-expression and self-evolution. Sexual drive is expanding into creative drive. Literally as we have to have fewer children and live longer lives in the developed world, hundreds and hundreds of millions of people are trying to turn onto their greater creativity.

What I think everyone can do is the same thing you and I are doing. In my book, **The Joy of Supra-Sex**, I say that you first have to tune into the compass of joy inside you. What turns you on enough to attract you to start to create it?

I was told to go tell the story of the birth of humanity. Well that was an amazing vocation for a mother of five in Lakeville, CT. But I did. But when I was 29 or 30 and got this idea, do you think I was a likely person to do this? No. It was an impulse that attracted me. Also, I was depressed. Most people will get depressed if they don't find their deeper expression. We're meant to express ourselves more fully.

After the compass of joy, I talk about "vocational arousal." There's a certain arousal by talking to someone whose vocation is related to your own—you get excited and sometimes you want to get to know that person better. Then you go into how to join genius. When I'm talking to you, I feel you have a certain genius or certain creative talents and impulses. I have the same. We are in this small way joining genius right now.

The way you really get going to create in the world is you want more of the joining of genius. It feels good. Nature put pleasure as it did with sexuality. She put pleasure into supra-sexuality. It goes on to say that this would lead to a more co-creative society. I think the post-menopausal women over 50 are entering regeno-pause. Most people who find a life's purpose and stay alive will start to feel regenerated. Like me—I am totally amazed to be 79 years old and feeling this way. I don't know what word you use for men—it's not regeno-pause—but it's the evolutionary man and the evolutionary woman who get turned on. Then our creativity joining with each other creates a world. The old system can't do it.

I think if I were Obama I would be in hell. He's trying to prop up an old system long enough for the new to emerge. Whether that's right or not, I don't have the wisdom to judge, but I know that the new has to emerge and it's not that old system. I just went to something called "The Transition Town" about small groups and communities taking things into their own hands. They plant trees and take care of each other. They're all over the place.

I think the financial crisis is an absolute necessity. Probably what's happening is an attempt to keep it from complete collapse while the new systems—energy, currency, relocalization—take root. Nobody really says that clearly enough. They're talking about wanting to get back to "where we were," but I don't think we should or can. There's no way.

Russ: *What you're suggesting, then, is for all of us to be engaging consciously in our evolution, not just as individuals but connecting with others to create a more social generative effort around that. It's our opportunity to take advantage of the crisis to give rise to something more positive and meaningful for the world and the universe to have.*

Barbara: Really true. Tom Hartman told someone that at one of the inaugural balls, Obama had stood up there and said, "I am an empty vessel." That was symbolic of the fact that if we look to him to have all the answers, it won't work. People are just infantile if they think that someone else will have the full solution to all this. Actually, he's right. He knows we have to work together, but we don't yet have the social structure. What I'm working on with others is the social structure to empower co-creativity.

Russ: How wonderful. Is there anything else you wish I'd cover?

Barbara: Only what your own deeper passion and purpose is, just so I can catch hold of it from the point of view of being a co-creator with you.

Russ: The way I think about what I'm doing is trying to create a field that is fed by many streams and tributaries, but fosters the emergence of more coherent ways of engaging all the challenges we face in the world. The reason why the subject of leadership fascinates me so much is that I think that's one of the areas of transformation that we are going through that is quite significant. I think it fits with your comments about Obama—our models and our ways of thinking about leadership historically have been heroic leadership models. There's still a role for heroic action, and I think some of the things you brought up today demonstrate that. But I like to distinguish between leader as role and leadership as a system that includes the self, the social, structures, processes, technologies and cultures.

It's been fascinating to watch our evolution in the past several years since I've started this. I love seeing how these ideas are starting to pop up in lots of different places. What we're evolving into is a way of thinking about leadership that is far more in keeping with the kinds of social dynamics that you've been describing—we're not looking to others, we're not looking to Obama, we're not looking to the governor or the priest or the leader of our choice to bring about change. We're looking at ourselves and at our own relationships to support the emergence of the kinds of changes that are meaningful for us.

Barbara: Well we're definitely co-creating, and the more convergent we are, the better. I did a whole seminar on evolutionary leadership in terms of how it happened to me. I went underneath the particular things I did as to what the motivation was to take a housewife from Lakeville with five children into this life, and how to uncover the actual experience of becoming an evolutionary leader when I didn't even have a name for it. Anyway, that's for another interview.

Russ: I look forward to that one, Barbara.

Barbara: Well Russ I'm glad to have met you and gotten to know you. Thank you for your work and for the interview.

Russ: Thank you, Barbara.

So I was Playing With Brushes on the Back of My Hand

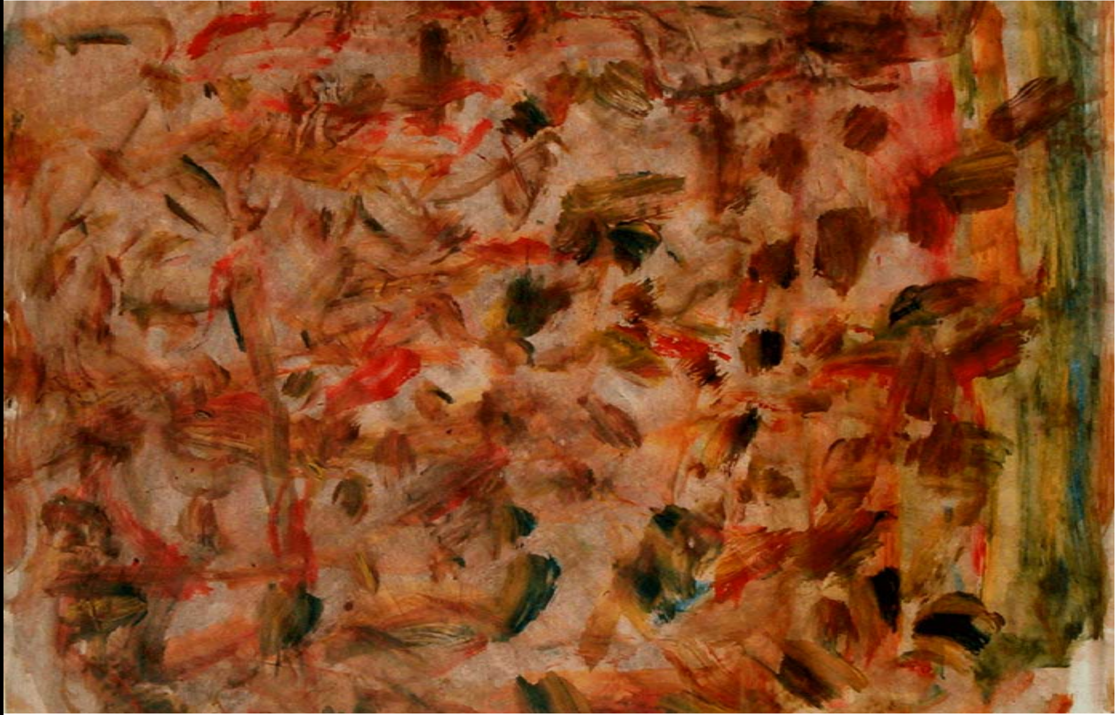
A Contemporaneous Co-creation of Amy Leung and Andrew Campbell to Three Contributions to Integral Review

A L *…So I was playing with the brushes on the back of my hand...As you know, the space 'in-between' is co-created. Our fertile ground is fed by our openness to fully receive and give to each other. In this richness, we are able to be as we are. This is what could be called 'Art'.*

A L Hi, I would like to meet Thursday or Friday. Thank you.

A C *Good*. So would I.

A L Gorgeous! Looking at your painting, I am transported to Japan- cherry blossom, koi and kimono.



Cherry blossom, Koi, Kimono, Andrew Campbell, Acrylic on paper, April 2009

A C "Cherry blossom, koi, kimono and Amy - four corners of this soft world"

A L Your words touch me deeply- With tenderness.

Russ: One thing that has evolved for me in recent years is a greater clarity about connection and oneness and unity in the world and the universe. There's an increasing sense that all of our frameworks for understanding that and for trying to manifest that in our lives and in our world systems are just tools for affirming that, for understanding it, for communicating it. For one, I am aware of being internally connected to the eternal, which would be the more mystic awareness. Everyone of us is a resume of the whole story of creation. (laughter)

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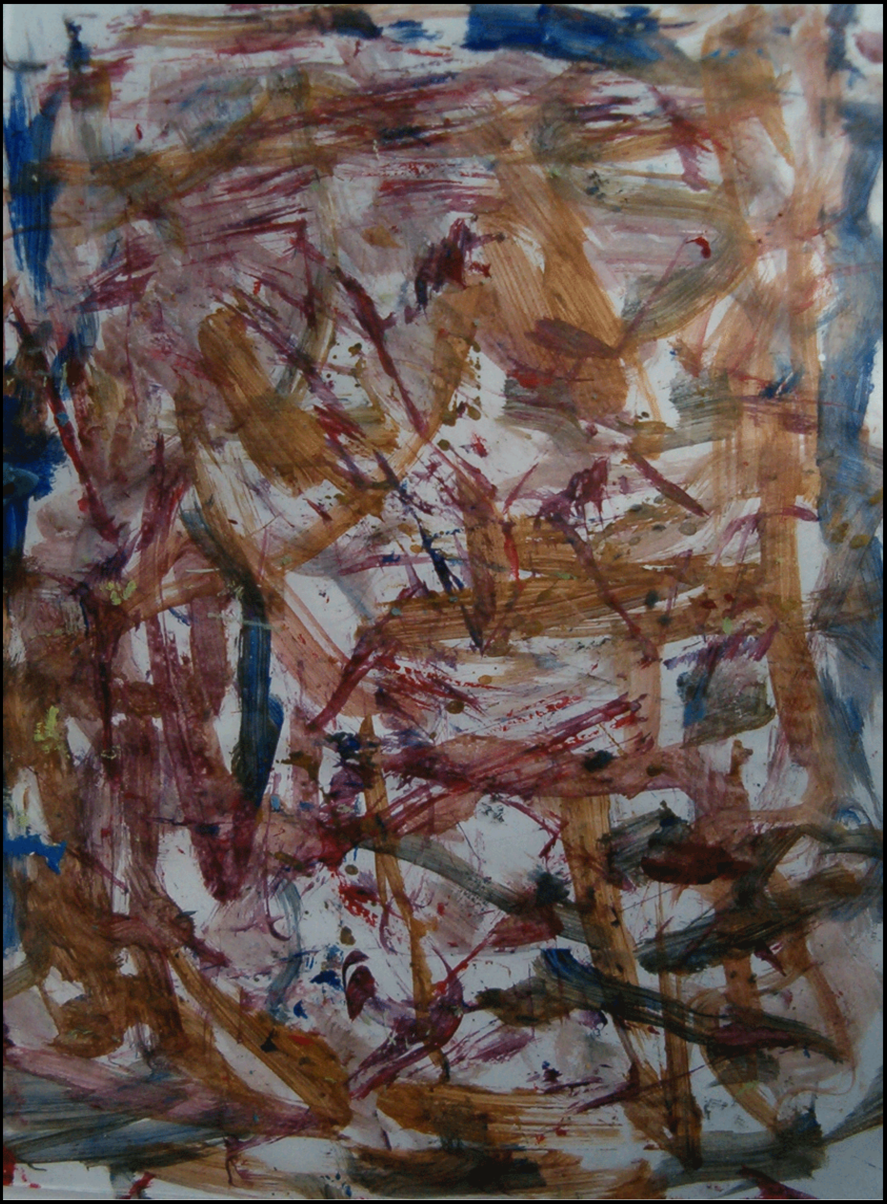
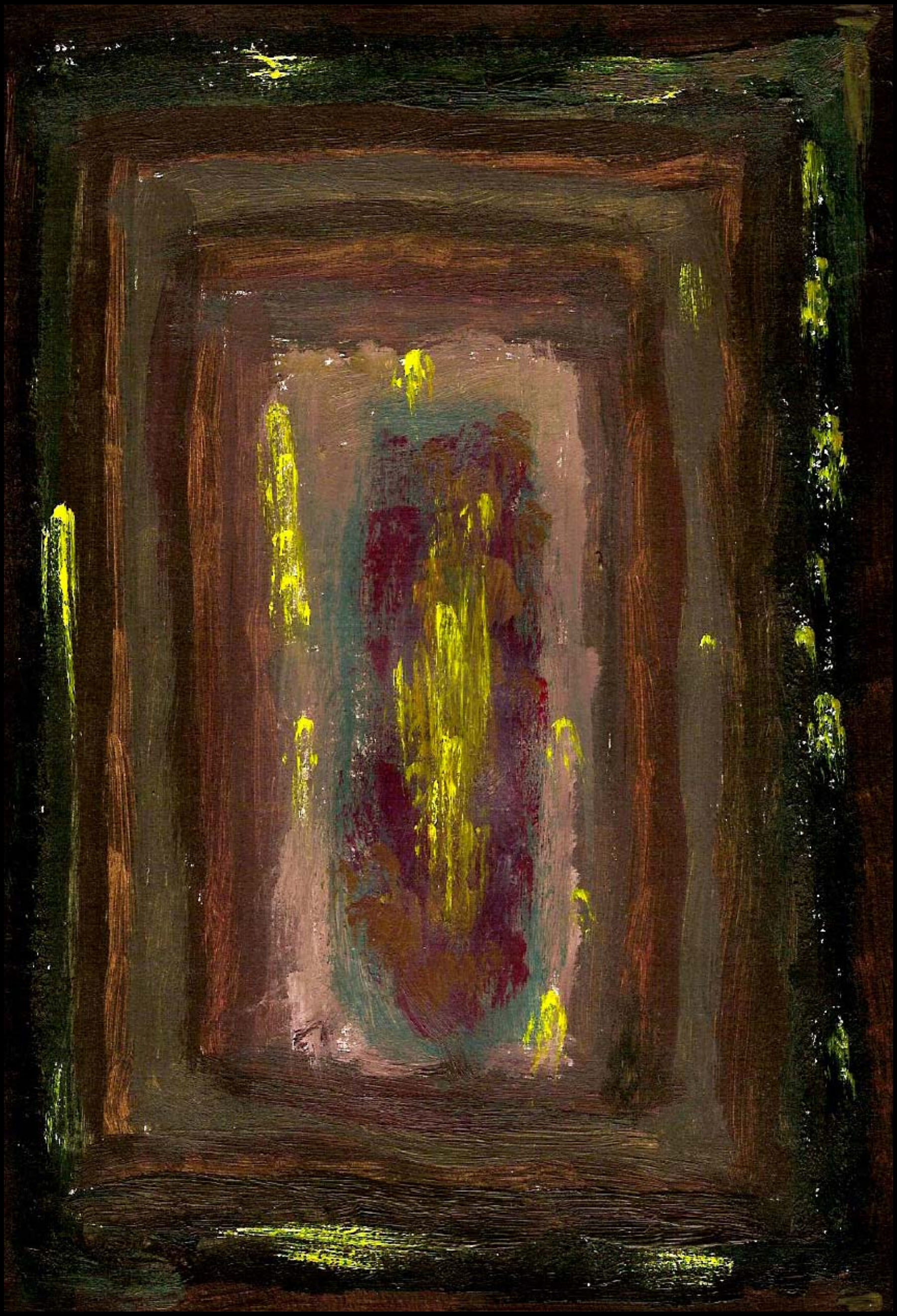
A C And I made this, this afternoon
A L I feel really spoilt- different moods, different shades...how blissful to receive this after a day shuttling between North London and South East London...an oasis.



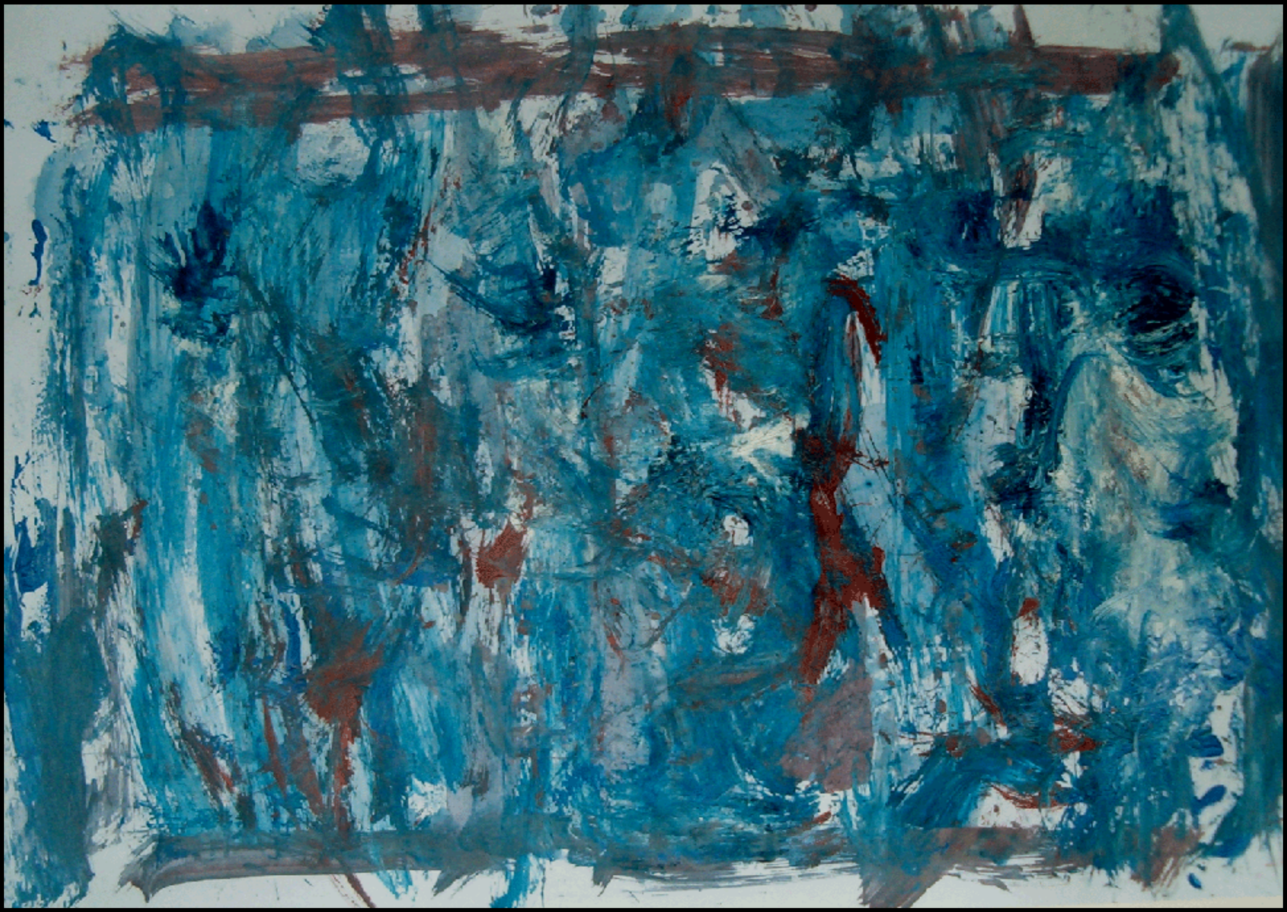
King's Chair, Andrew Campbell, Acrylic on paper, April 2009

Barbara: Every joyful person had one thing in common: chosen work that they found intrinsically self-rewarding. I think the social becomes the co-creative society where more and more individuals find a way to express unique creativity. You don’t do it alone, so you have to find others. You have to become co-creative rather than being the lone artist. What is becoming more obvious to me is that when you become co-creative through cyberspace and the proper use of networking, you’ll find that your real passion to create is needed somewhere. You just need to find that matching needs and resources, and you’ll begin to have a synergistic society.

Barbara: Nature throws things forward and most of them die. . . . It’s like I planted a garden: winter came, I thought everything died, and the matter of fact is it’s spring.



Hope, Amy Leung, Acrylics on card, April 2009



Day Dancing, Andrew Campbell, Acrylic on paper, April 2009

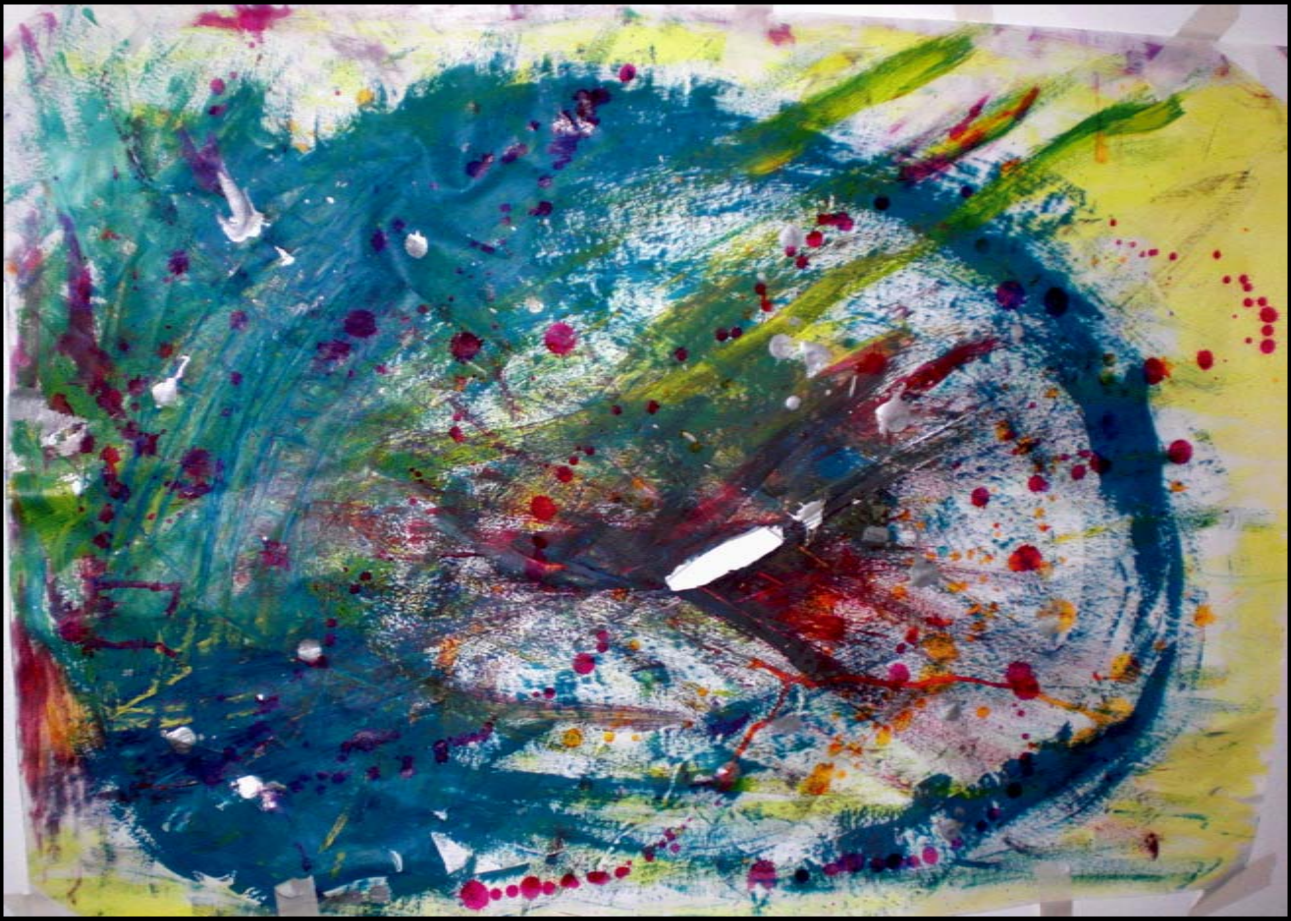
Are you teachers?
    Waves caress
    Pebbles sigh
Pitter patter of rain
Dancing on black umbrella
Bespoked
    Red mac
    Pink crocs
This could be New England- Have you
been?
    TIME
    TIME
Gulls swoop
Time to move
A lift
A twist
    The crunch of pebbles
    Home

[Amy Leung]

Barbara: After the compass of joy, I talk about “vocational arousal.” There’s a certain arousal by talking to someone whose vocation is related to your own—you get excited and sometimes you want to get to know that person better. Then you go into how to join genius. When I’m talking to you, I feel you have a certain genius or certain creative talents and impulses. I have the same. We are in this small way joining genius right now.
The way you really get going to create in the world is you want more of the joining of genius. It feels good. Nature put pleasure as it did with sexuality.

To be interested in experiencing is a way of conveying value and worth of the person =
dialogue attitude.
Teach clients a tool of awareness.
Developmental sequence:
Simple- not aware of process
Awareness of awareness
Awareness of character of awareness of experiencing person- patterns
Phenomenological ascend- permeates ordinary life

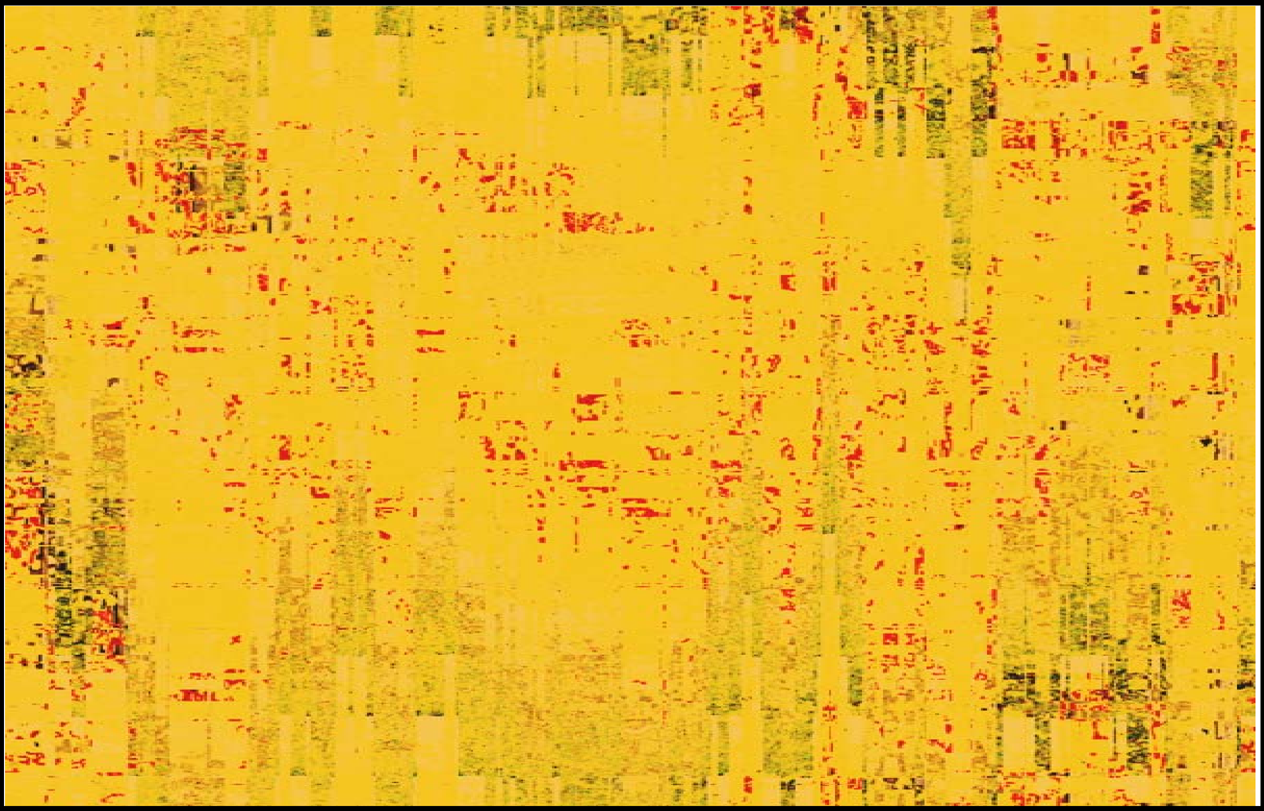
[Amy Leung, from seminar notes]



Untitled, Amy Leung, multimedia on paper (with tear), 21st March 2009.

The Ultimate Tone: The Sound Not Heard

In the perennial philosophy of Nature, this gravitational descending glissando of all that exists symbolizes the stark imperative of Anaximander's fragment: Each must pay restitution for its existence according to the dictates of Time. The revels over, the seed of Dionysos inseminates the womb of Gaia/Earth, first holder of the Delphic seat. The course of *Phoebus* Apollo above her in summer’s heat is to herald Nature’s autumnal bounty. For nature philosophy, though born of tragic awareness, is a philosophy of Emersonian hope, of transcendence, a transcendence the Sage of Concord mystically sensed in creation’s infinite symmetries --and in the ineffable Mystery of Nature emanating from deep within the sacred stones of Delphi.



Tempus/Tempo in Yellow, Andrew Campbell from an original by Amy Leung,
Watercolours on paper fielded in electricity, May 2009

Yet, Hans Kayser's wrote *Akroasis* with "the note not heard" in the harmony of the spheres (H. Kayser, *The Theory of World Harmonies*, Boston 1970), the thirteenth overtonal note commencing the new octave, the spirit mystically attains the apex of the sacred *Tetractys*. And in the *Trieteric* rite, the winnowed seed of infant Dionysos falls to the womb of Gaia/Earth, there mystically, to strike the fire of rebirth at the altar of Hestia, "Hearth of the Universe," in the center of the theater of Dionysos. Then, in the mystery-beyond-knowing, the spirit of the initiate gains release from the wheel of Being, vaulting, transcendently — beyond the Pole Star — beyond the Boundless *apeiron*, "beyond beyond" — in the mystery of *Paranada*, Sk.: "the soundless sound beyond creation."

Shakespearean Transcendence

When sun, at noon, had aligned along the meridian, Dionysos was in the center of his sanctuary and Hestia was at her Central Fire of Creation altar in the center of the god of ecstatic release's theater orchestra. The day had been quartered, as the year had been quartered in the Delphic temple, Dionysos intimately rejoined his mortal mother, Semele, for the winter quarter within the *omphalos*.

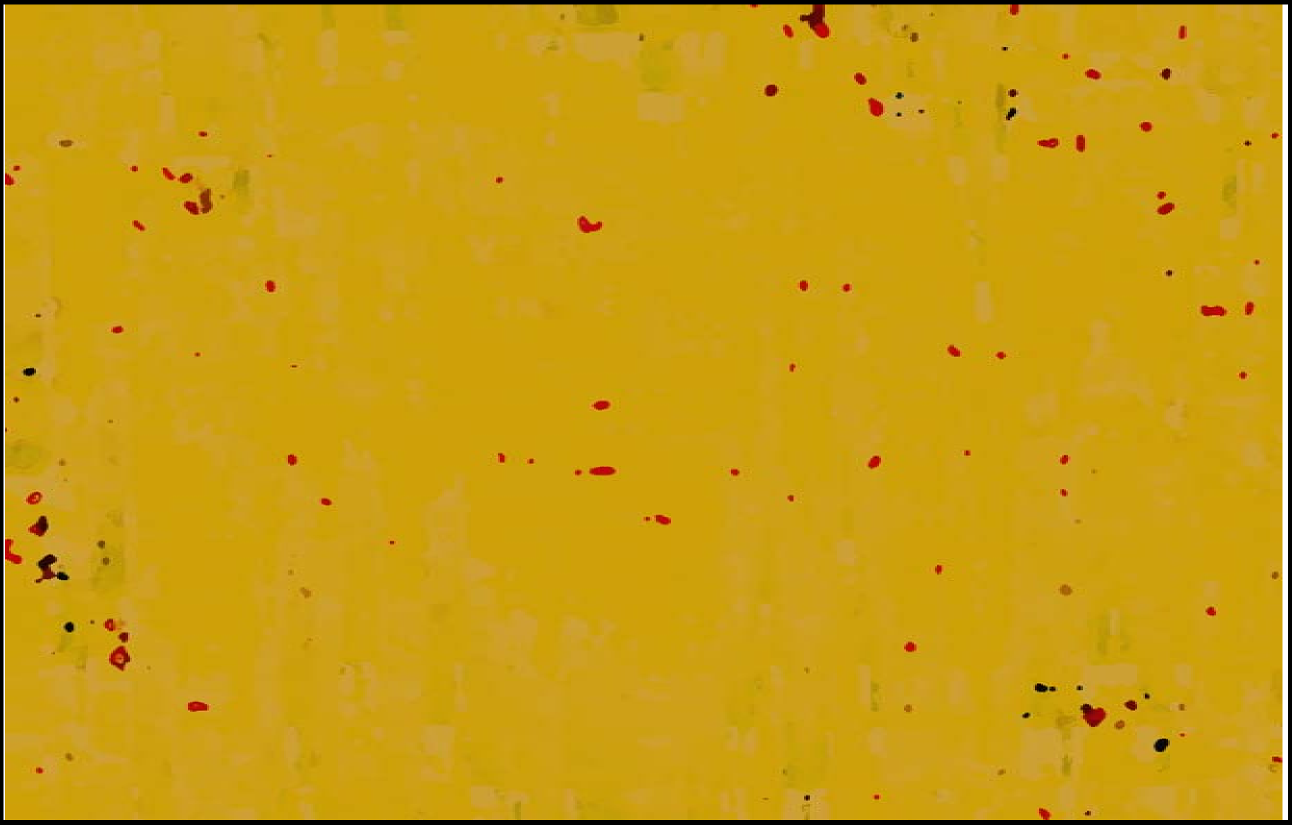
Then, at high noon, beneath Apollo's solar glare, as in the midnight dark of the *Trieteric* rite, as the meridian passed through the center of Dionysos' Sanctuary (signaling the fall of Fate's decree on the tragic hero) and the still point in the celestial whirl obscured by the solar disc's blinding glare, and the Boundless *apeiron* rang with the "sound of silence" — Harmony of the Spheres — at this culminatory moment did Oedipus' vanish in a blaze of light.

The inspired vision of Edouard Schure pointed the way on this journey into the Unknown when he proclaimed, "Above all, one must trust intuition"? And had his trust not been well placed, for had it not revealed to him that "Pythagoras, while at Delphi for a year, had, per Meletzis and Papadakis, "... revolutionized the art of prophecy"?

I felt — there's no explaining how — Delphi's "sound-of-silence" extended somehow beyond our "knowing," infusing our very Being, as had Sophocles' profound tragedy of transcendence. Then, the answer came to me: the answer was to be discovered in that other towering tragic masterwork: *Hamlet*.

Given Hamlet's complex nature, it is hard to believe that, "rest" is to be taken as an allusion to the sleep of the just, to death's repose, as in Horatio's all-too-conventional resort to a heavenly hereafter. Rather, it would seem to suggest a line from *Love's Labour's Lost* that "we fools of nature... with thoughts beyond the reaches of our souls" (I, iv, 51) are here in an encounter with the spirit's destiny, we are engaged in a mystic transport to, and beyond, the "undiscover'd country"— and to its ineffable silence.

Sages, searching in their hearts, with wisdom
Found the bond between being and non-being.

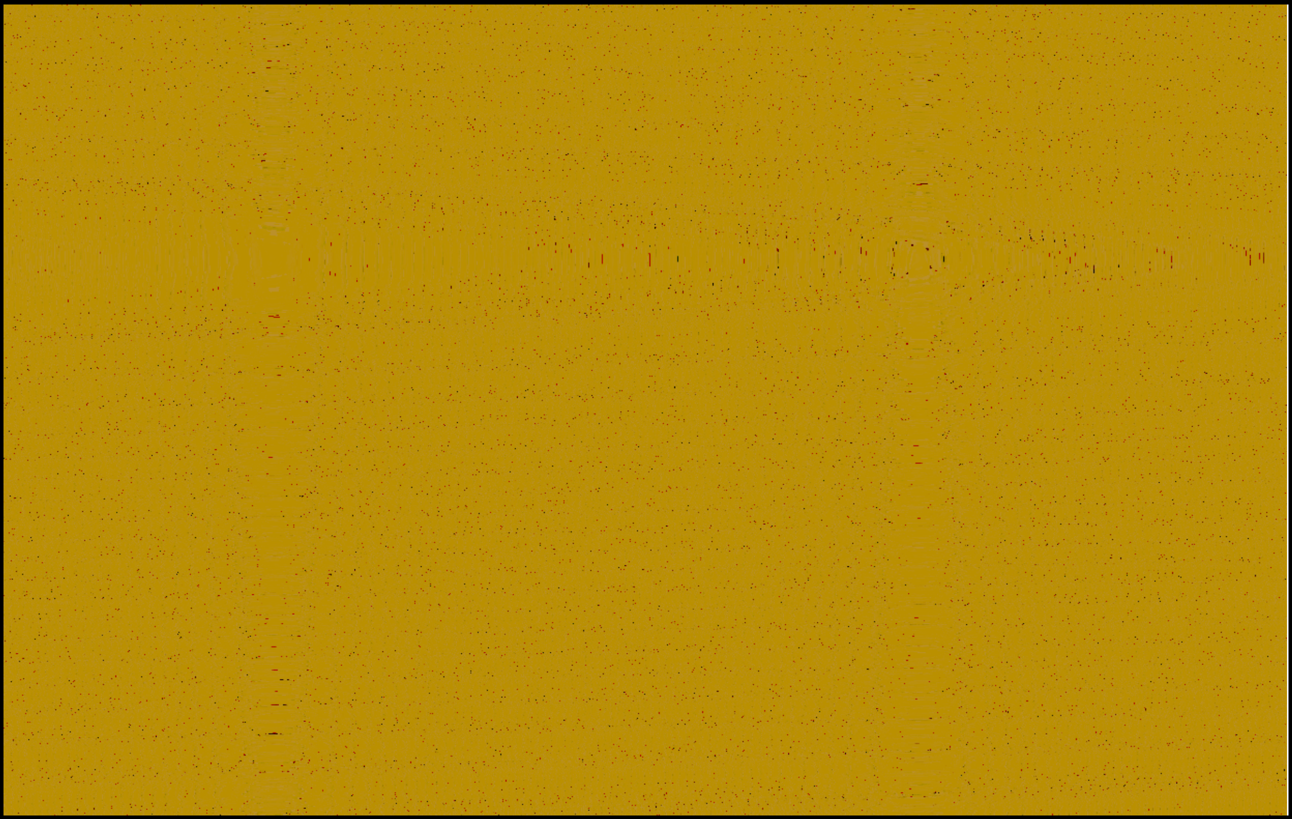


Tempus/Tempo in Yellow II, Andrew Campbell from an original by Amy Leung,
Watercolours on paper fielded in electricity, May 2009

"The most beautiful thing we can experience is the mysterious."
(Albert Einstein < http://www.quotationspage.com/quote/1388.html>)

Divided, into East and West, the world stands in desperate need of the transcendent vision of Dirghatamas, who 'saw' far, far, beyond the light, beyond the darkness of *Creation Veda* X. 129:

Then was neither Being nor Non-being....
darkness wrapt in darkness....
The breathless breathed breathlessly....
Sages searching in their hearts, with wisdom,
Found the bond between Being and Non-Being.



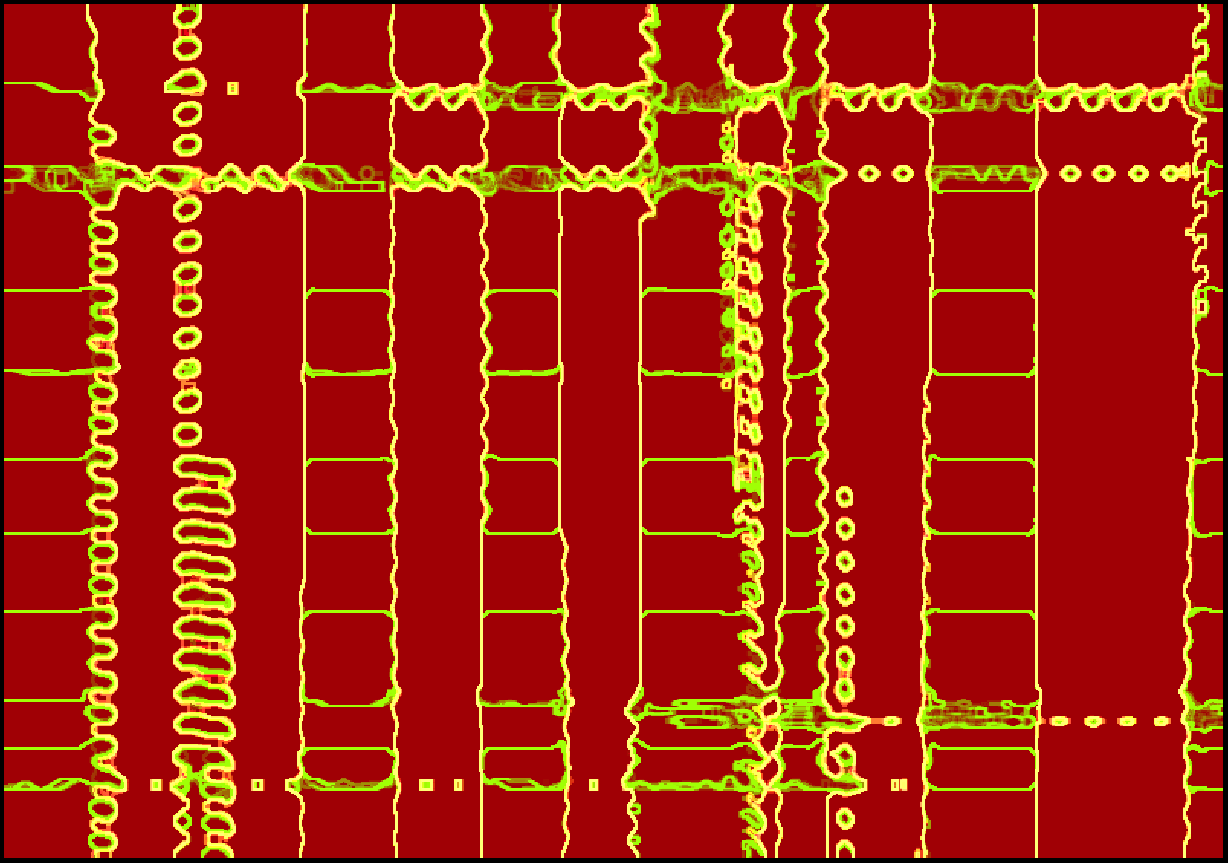
Tempus/Tempo in Yellow III, Andrew Campbell from an original by Amy Leung,
Watercolours on paper fielded in electricity. May 2009

Establishing Second-Person Forms of Contemplative Education: An Inquiry into Four Conceptions of Intersubjectivity

Buber's Conception of the Interhuman

A twentieth century religious existential philosopher, Martin Buber has been a prominent voice in advocating the ideals of sacred consciousness, interpersonal relationship and dialogue in community. Buber's philosophical contribution involves framing human existence as contingent upon interpersonal modes of consciousness, interaction and being through which one engages with other humans, nature, the inanimate world and the sacred. Best known for his distinctions of I-Thou and I-It relationships (1965; 1966; 1984), Buber argues that human life consists of a movement between meeting and mismeeting in these realms, with the I-thou representing a sacred form of relationship (which is central to interhuman relations) and the I-It a more common secular variety (Buber, 1965). In Buber's (1984) monological I-It relationship, others are regarded like an "object" in a world that largely consists of people to be interacted with in order to serve our desires and ends. Buber (1984) elevates the personhood, needs and interests of the other as "subject" in the dialogical I-Thou mode of relationship, basing it on a responsiveness to and confirmation of the other, the other's deeper humanity and the existing present-ness of the situation. Wood (1999) elaborates on the I-Thou relation:

For Buber, I-Thou relations are unique, unpredictable, immediate, and involve the whole of oneself 'bound up in reciprocity' with the other. I-It relations are linked to the universal, are predictable, mediated by past experience, and involve only a part of oneself which stands at a distance from the object. I-It relations are third-person relations, so that for 'It' one could substitute also 'He' or 'She' of 'They.' (p. 84)



Golden Sky III, Andrew Campbell from an original watercolour of clouds by Amy Leung, May 2009

As a context that is “generated by the immediate presence that binds together a conscious “self” with a conscious “other.”” (Kramer, 2003, p.78), the interhuman offers a key dormant dimension of intersubjective experience that learners discover through I-Thou meeting:

When two individuals "happen" to each other, there is an essential remainder that reaches out beyond the special sphere of each-the "sphere of the between." In an essential relation the barriers of individual being are breached and "the other becomes present, not merely in the imagination or feeling, but in the depths of one's substance, so that one experiences the mystery of the other being in the mystery of one's own." (Buber, 1965, p. 170) The interhuman involves relating to others as partners in a living intersubjective event, bringing about a context where I-Thou relationship may emerge (Buber, 1966).

Buber’s characterization of the interhuman signals describes a subtle way of the being with others from the condition of presence, presence-based realm where former barriers or boundaries between self and other soften, offering an existential referent in that it enables the self and the other to become more immediate, tangible and real.

Buber’s work offers a helpful insight into the transformative potential of addressing one another through deeper presence in the intersubjective encounter, which can give rise to an ontological shift in the context of our inquiry and learning within educational settings. By implementing contemplative second-person approaches that are not only aware of the relational and sacred implications of I-thou encounters with our students, but also committed to enacting the interhuman as a primary concern, I believe Buber’s contributions to intersubjectivity can shed important light on one of the necessary preconditions for collective contemplative methods informed by the deeper ontological realms of the interhuman sphere of the between.

Nhat Hanh’s Interbeing

Nhat Hanh (2000) builds upon this classic Buddhist insight and goes a step further by emphasizing how the realization of interbeing gives rise to an increased sense of interconnectedness, bringing about a more inclusive and deepened ethic of responsibility for others.

The practice of interbeing foregrounds the dynamic interrelated elements of the learningclass process with one’s students, which cultivates compassion and an education of heart (Dalai Lama, 1999). Whether through a contemplative reconstruction of our student’s points of view or a willingness to feel our student’s distress concerning a particular injustice and resulting suffering on a particular issue, interbeing disrupts our traditional sense of agency and western self-sufficient ideals of individuality.

Upon closer inspection, interbeing offers the possibilities of what Wilber describes as “agency-in-communion” (Rothberg et al., 1998, p. 216). That is, an agency that is no longer being motivated by a traditional idealized masculine stance of autonomy that avoids, suppresses or denies communion. From the perspective of interbeing, our individual strength and source of empowerment are fueled by our connection(s) with others within greater fields of interrelatedness, further helping us see through the false Cartesian dualism of personal autonomy versus relationship. Bai (1999) elaborates: “The self dynamically flows into, out of, and with the other, creatively assuming a complex, polymorphous sense of agency. It is not the simple sense of agency wherein the subject (the self) does something to its object (the other)” (p. 4).

By attending phenomenologically to the distinctive intersubjective space(s) we co-inhabit with our students, the educator learns (with practice) to see through the dualistic tendencies of his or her own consciousness—particularly in terms of how this reinforces different forms of separateness and fragmentation in group contexts of classroom learning. By forging a more distributed basis of connection with our students, the class subject and the processes of contemplative inquiry, seeing with the eyes of interbeing can help facilitate a shift into a deeper second-person intersubjective experience. As these elements coalesce, occasions for engaging with multiple contexts of self and otherness invariably arise. By modeling and encouraging a less rigid identification with our conventional identities, interbeing also offers a more distributed context of inter-relationality, which in turn establishes a broader ground and intersubjective context out of which we can lead the class inquiry. This helps relieve everyone of the individualistic if not narcissistic habit of blocking the intersubjective view by being in the middle of a conversation or steering classroom discourse with one’s private agenda.

In addition to the applications of Interbeing discussed above, educators may wish to impart a taste of the experience by introducing a guided visualization informed by Nhat Hanh’s (1998) writings:

> If you are a poet, you will see clearly that there is a cloud floating in this sheet of paper. Without a cloud, there will be no rain; without rain, the trees cannot grow; and without trees, we cannot make paper. The cloud is essential for the paper to exist. If the cloud is not here, the sheet of paper cannot be here either. So we can say that the cloud and the paper inter-are. “Interbeing” is a word that is not in the dictionary yet, but if we combine the prefix “inter-” with the verb “to be,” we have a new verb, inter-be. Without a cloud and the sheet of paper inter-are. If we look into this sheet of paper even more deeply, we can see the sunshine in it. If the sunshine is not there, the forest cannot grow. In fact, nothing can grow. Even we cannot grow without sunshine. And so, we know that the sunshine is also in this sheet of paper. The paper and the sunshine inter-are. And if we continue to look, we can see the logger who cut the tree and brought it to the mill to be transformed into paper. And we see the wheat. We know the logger cannot exist without his daily bread, and therefore the wheat that became his bread is also in this sheet of paper. And the logger’s father and mother are in it too. When we look in this way, we see that without all of these things, this sheet of paper cannot exist. Looking even more deeply, we can see we are in it too. This is not difficult to see, because when we look at a sheet of paper, the sheet of paper is part of our perception. Your mind is in here and mine is also. So we can say that everything is in here with this sheet of paper. You cannot point out one thing that is not here-time, space, the earth, the rain, the minerals in the soil, the sunshine, the cloud, the river, the heat. Everything co-exists with this sheet of paper. That is why I think the word inter-be should be in the dictionary. “To be” is to inter-be. You cannot just be by yourself alone. You have to inter-be with every other thing. This sheet of paper is, because everything else is. (p. 3)

Golden Sky I, Andrew Campbell from an original watercolour of sky and clouds by Amy Leung, May 2009

Top left, Amy Leung co-facilitating a retreat for young leaders at a Buddhist temple, Toronto. Top centre, Andrew Campbell teaching at Chateau La Tour Apollinaire. Top right, Swan attending Amy and Andrew during a riverside meeting to discuss this submission. Bottom left, detail of 'King's Chair', by Andrew Campbell. Bottom right, 'Untitled' (with tear), by Amy Leung.

Amy Leung, MBA (Distinction), Warwick Business School, BSc (Hons), University of Surrey. Amy works with a broad range of people in a variety of contexts. ‘Awareness and process are fairly central to me and I find that I am at my most creative when I am fully in the moment. I am currently training as a Gestalt psychotherapist and working towards an MA in Gestalt Psychotherapy’.

Andrew Campbell BA (Hons), is Integral Review's Arts & Creativity Editor. In 2001 Andrew was invited to furnish original work for the Global Dialog on Leadership Project funded by McKinsey & Co. that informed both Presence: An Exploration of Profound Change in People, Organizations, and Society, Peter M. Senge, C. Otto Scharmer, Joseph Jaworski, Betty Sue Flowers, 2004 and Theory U: Leading from the Future as it Emerges, C. Otto Scharmer, 2007. Since 2007 Andrew has co-founded Reos Partners, London and provided original support and inspiration for an independent not-for-profit foundation for social innovation in Perpignan, South of France.
Contact: campbell@co-create.com

Integral Ecology:
Uniting Multiple Perspectives on the Natural World

by Sean Esbjorn-Hargens and Michael Zimmerman
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Review by Jan Inglis

I was asked by the editors of the *Integral Review* to review the book *Integral Ecology*. While reading it I alternately felt impressed, stimulated, irritated, curious, skeptical, intrigued, and appreciative. Through this review, I will offer an overview of the structure of the book and elaborate on some of the book's main themes, offering some commentary, inquiries, and alternative views.

I will begin with a description of the book's intended audience and position my background as a reviewer in reference to those criteria. The authors say they are writing the book "as an advanced introduction to Integral Theory in general and Integral Ecology in particular" (p. 13**),** hoping this is beneficial for those new to integral applications and studies of ecology and to those who are long-term scholar-practitioners of integrative efforts. Since the mid 1980s, I was engaged in the environmental field, offering workshops on bioregionalism, conservation, despair and empowerment, sustainability indicators, and climate change. I was involved in two international projects focusing on community sustainability using participatory action research. In my search for a way to find meaning and respond to the growing challenges, I embraced many of the ecological perspectives and methods named in this book, from blaming modernity to eco feminism, deep ecology, and creation spirituality.

It was through the searching to understand how we had created these life-threatening issues and why we did not seem to be able to respond to meet their complexities that motivated me to study adult development. I studied the early works of Ken Wilber, Clare Graves (in the form of Spiral Dynamics) Robert Kegan, Bill Torbert, and Michael Commons. I am currently less familiar with the work of two other significant contributors, Kurt Fischer and Elliot Jaques but hope to learn more of their work. After 20 years of work as a practitioner and ten as a teacher of Integrative Body Psychotherapy for individuals, I have moved towards using integrative processes to assist us culturally to develop more reflective, transformational, and metasystematic responses to complex issues. This has taken the form of developmentally designed public deliberation or what I call *3D Democracy for Civic Interaction and Action* based on public issue analysis, behavioral science, and adult developmental theory. I have published several articles on the subject of climate change from an integral and developmental perspective. (Inglis, 2007, 2008a, 2008b)

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Structure of the Book

I will describe the structure and basic content of the book indicating a few general comments with further critique offered in a later section. The writing of this book was motivated from the authors seeing a need for a textbook on integral ecology. Through the book's ambitious 800 pages, the authors attempt to cover philosophical, theoretical, and pragmatic territory. It has an extensive bibliography offering 1,750 sources from ecological and environmental literature, in-depth footnoting, and definitions of 200 perspectives on the natural world. There is a forward by Marc Bekoff, who indicates an appreciation for the authors' inclusion of animal subjectivity in their analysis of science and ecology. The introduction offers a background of the authors' motivations and their definitions for *integral* and *ecology*.

Part One introduces Ken Wilber's Integral Theory, which forms the theoretical basis for Integral Ecology. It offers chapters on the objective and interobjective perspectives they see commonly taken in environmental endeavors and the subjective and intersubjective perspectives that they see as usually lacking and therefore problematic. They differentiate between NATURE (the Kosmos, or Great Nest of Being, championed by "post rational romantics") Nature (studied by natural and some social science: the Great Web of Life, championed by "rational materialists") and nature (the empirical-sensory world: the Great Biosphere championed by the "pre-rational environmentalists"). They have described at length the confusion that can occur when developmental progressions are not considered and can lead to the romanticism about going back to a simpler pre-rational pre modern state attempting to find solutions to our current ecological issues. To further clarify the principles of Integral Ecology, they offer an in-depth critique of deep ecology and a response to Stan Rowe's critique of Ken Wilber's view of humanity's place in nature. There is a chapter on quadrants and holons, and two chapters on how they view development as occurring with a focus on natural and social science, and individual and community domains.

Part Two describes the Who, What, and Why of ecological phenomena. It uses the Wilber AQAL (all quadrants, all levels) map for "understanding the relationships between *who* is perceiving nature (epistemology), *how* the perceiver uses different methods, techniques, and practices to disclose nature (methodology), and *what* is being perceived (ontology)" (p. 158). Based on a footnote, this also includes the influences of *when* and *where*. Further sub categorization occurs by describing how these fit into four terrains, twelve niches, eight eco-selves, and eight modes of ecological inquiry. The latter presents a platform for "integral research."

Part Three briefly covers application, exploring our differing views of being "one with nature," and different assumptions of what constitutes an ecological "crisis." It promotes the need for "transformative" practices or "integral nature mysticism" through using our interaction with and inhabitation of the natural world to support deeper interior awareness. They offer some guidelines for application based on the Who, What, How categories and several project summaries.

Part Four presents three case studies including community development in el Salvador by Gail Hochachka, natural resource conflicts in Hawai'i by Brain Tissot, and environmental activism in

Canada’s Great Bear Rainforest by Darcy Riddell. The case studies were not developed as research projects but offer anecdotal descriptions of long-term engagement with communities dealing with complex ecological issues. They model the AQAL method for observing and discriminating the multiple aspects that make up this complexity. This includes descriptions of the impact that detailed observations and reflections as well as having a language to communicate them can have on people and projects. The book concludes with the authors promoting the strengths and advantages of Integral Ecology, reviewing the basic principles such as: including interiority, not being reductionistic, and emphasizing spirit as both Immanent and transcendent. They also indicate their intention to be responsive to feedback and criticism by revising and rearranging their work in an attempt to continue searching for better ways to define and communicate the Integral Ecology approach “in service of a better tomorrow for all beings of this amazing blue-green planet” (p. 488).

The book is well organized, and offers an impressively bountiful smorgasbord of resources and considerations, woven together with ecological subject matter. The intent to be thorough and useful to the challenging issues facing our and other species is deeply expressed. Their attempt to provide resources for both those new to Integral Theory and ecology, as well as the advanced student, creates a challenge that they have attenuated by including both narrative as well as more in-depth footnotes.

Although they offered definitions to indicate how they were using various terms, I found that these were often vague and inconsistent and when attempting to track significant and repetitively used words such as *perceptions*, *cognitive*, or *interior* I got lost in the shifting interpretations. I would predict that for those primarily interested in the field of ecology, the amount of discourse on definitions and categorizations specifically based on the AQAL model might be off-putting without the added motivation of prior interest in AQAL specifically or in the field of adult development in general. If so, they could possibly skip to the end of the book, to see if there was resonance with the applications described in the case studies, then return to the who, how, and what analyses with more context. Despite its statement that Integral Ecology “places an equal emphasis on theory and praxis” (p. 339), I found the book to be vast in conceptualization and weak in application.

Specific Critiques

I will now write in more depth about several key areas: the focus on interiority, the Wilber model of Integral theory (with which I am assuming the reader has familiarity), research, and application.

The Importance Placed on Interiority

The first chapter, and a major theme of the book, is on the “return of interiority” which the authors see as having been reduced to the exteriors when the “moderns threw out the spiritual baby with the premodern bathwater, and with it went interior perspectives” (p. 21). They believe most ecologists exclude the importance of interiors and therefore Integral Ecology is especially focused on creating a return to the appreciation of the interiors as they believe therein lies our motivation to treat the natural world in healthier ways. Therefore they prescribe personal practices to support the individual development of the interior although it is unclear how they see this development becoming integrated and transferred to systemic responses to ecological issues. They seem to assume an overly simplified causal connection: that if we feel connected with nature then we would not knowingly damage it. However, I see many people feeling very connected to nature but having a difficulty in sorting out which of the matrix of competing choices we face everyday may create the least harm now or in the future.

The authors define interiority as the “capacity for opening a perspective or clearing” (p. 41). They refer to this capacity as not exclusive to humans but more readily articulated by humans, allowing for us to be self-reflexive, to alter how we think and act, and question “origin, constitution, and purpose” (p. 41). The vague definition of interiority, along with the attempt to span all species with the term, leads to a blurring of the tremendous significance of the developmental step of self-reflexivity. The capacity to see that one has perspectives, as do others, and that these impact how we and others act, allows us to move from formal thought to postformal thought. That move enables us to see and respond to complex relations and thus act systemically. Feelings, values, and behaviors of individuals and the collective are all occurring simultaneously and reciprocally. Repetitive focus on the “interior” as the driver of development artificially suggests a separation between these aspects in ways that they are not.

Mark Edwards spent much time responding to his own question regarding the exaggerated focus on the interior aspects, asking why Wilber consigns “the Right Hand exteriors to the flatland world of shallowness while portraying the Left Hand interiors as the bastion of qualitative depth” (2003, n.p.). He cited much research that indicated how development occurs in a broader context and concluded “This incapacity to deal adequately with social theories that take their lead from the exteriors seriously limits Integral theory's potential to develop a comprehensive and integrated social theory of its own” (2003, n.p.). Thus, in such cases, what one attempts to describe as differences in quadrants is being confused with differences in complexity. Behavioral development theory (e.g., Piaget’s work in general; Commons, Trudeau, Stein, Richards, & Krause, 1998) establishes that the ability of a human to respond to single events and things (“exteriors”) develops before the more complex ability of noticing and attending to interconnected and underlying dynamics such as the feelings and values associated with events and things. Therefore focusing on the “return of interiority” as the main solution for ecological issues does not take into account this developmental hierarchy and does not indicate the methodology for how it supports the transition towards the more complex nature of systems thinking. That transition is a necessity for adequate responses to the complexity of ecological issues.

Does Integral = Wilber?

“Does Integral = Wilber?” was the topic of a panel discussion at the first Integral Theory conference held at JKF University in California in August 2008. This was not a question I assumed I would focus on when agreeing to do this book review and preferred not to be distracted from conveying kudos I would like to bestow on the authors for their energy and commitment in taking on this mammoth writing. Also it seems that blogs and forums over the years have already been investing much time in this debate and many are weary of it. However, since most of this book is spent describing and promoting the Wilber model underlying the concept of Integral Ecology, it is difficult to do a review of the book without it including a response to the Wilber model.

When AQAL was introduced it offered a ‘heads up” examination of things entangled in a heap. Like a freeze frame in a movie, AQAL has given us a very useful way of stopping the complexity of movement and interactions and observing, analyzing and creating a precise checklist of what is involved: what is present, and what is missing. However, this is not the movie. Even if more and more freeze frames are considered, they do not equate to the complex dynamic interactions that make the movie of life. As Wilber has said several times, AQAL offers a map not the territory. Nevertheless, the static AQAL map is often used to make assumptions about how to work with the dynamic territory. This is partly why I perceive that Integral Ecology has such difficulty moving from observation to application, as it does not have a process to engage and advance the complex dynamic interactions of humans dealing with ecological issues. I will expand on this point in the section on application, below.

We need to get clear on the question of one or more integral theories and how to distinguish them. A footnote states:

> Let us be clear: Integral Theory does not present itself as the only possible integral theory. It is, however, one of the few contenders at a genuinely meta-paradigmatic level. We are aware that at least some of our truth claims will eventually be proven false, but we have done our best to investigate them. (p. 552)

This differentiation, responsiveness to input, and commitment to integrity are welcome to see. Since other views on what constitutes integral theory do exist, it would be helpful to move beyond just the use of capital letters to differentiate this model, but refer to it as Wilber’s Integral Theory. As there are so many people who have been impacted by the work of Ken Wilber, this would give credit where credit is due as well as consider the natural defenses that occur whenever people with different views and experiences are disregarded. Otherwise, those who feel they are working integrally but not within this model may feel the need to seek out another term.

The tendency toward and destructiveness of territoriality between schools of thought is well named “…scholars, practitioners, and activists build fences between approaches when we are in even more need to build bridges. The result is a fragmented field of approaches that are pitted against one another” (p. 158). There is a gap between the sensitivity named above and this absolutist statement in the next paragraph: “Integral Ecology provides a framework capable of organizing and integrating the myriad perspectives and their multiple fields into a complex, multidimensional, postdiscplinary approach that defines and provides solutions for environmental problems. The AQAL approach is the only organizing framework currently available that can honor this radical multiplicity” (p. 158). This, along with another sweeping statement, “Yet until now, people have not had access to a robust theoretical model that organizes and integrates various disciplines and methods, and generates comprehensive solutions” (p. 5), does little to build bridges or open up generative discourse with peers. Such peers may not fully embrace the AQAL model and may see other approaches as offering robust theory, capable of organizing and integrating multiple perspectives. If these statements were preceded with a qualification such as “Based on our research, we believe…” it would feel less like planting a flag and marking territory and more like owning a viewpoint and being open to its pros and cons being considered amongst other approaches. I truly feel the authors’ intent includes one of generosity, not competition, and is humbly articulated in several places in the book, but may sit in unresolved tension with another intent: that is,, that of promoting their model. Possibly these statements were meant to provide assurance for those already embracing the AQAL model that they were indeed on a really good bus that could provide hope and direction amidst the overwhelming ecological issues, but this promotion became overzealous in calling it the best and only bus.

Text Book or Promotion

Further promotion of the Wilber model is found in the promises of what ‘interior” development might create for individuals and the planet. The altitude (previously referred to as level of development) called turquoise is described: “Having experienced this [Divinity] firsthand, turquoise-integral can also help generate conditions in which violence does not occur, in which species do not become extinct, and in which terrestrial life forms can prosper in a way that both sustains span and encourages depth” (p. 140). Another statement of lofty ambition arrived as a small enclosure with my copy of the Integral Ecology book, from Integral Life.[1]

> An Integral life is total freedom to be who you already are. A life where peace and passion come alive. Providing a place for everything in your life. Better relationships, sex, career and health. More effectiveness, more purpose. Less confusion, less fear. In order to be. And to become. Welcome to Integral Life. Where growth enthusiasts make sense of everything.

Wow, this is a very different experience than how peers and I describe our experiences as we move along our developmental progressions: seeing, and therefore needing to sort out, more and more complex material that arises within us, between us and amongst our groups and organizations. There are periods of vulnerability, uncertainty, and isolation that push the deeper questions and deeper integration. The above statements can create an illusion that higher development means easier.

An Integral Model, that supports an Integral Life, through an Integral Life Practice (body, mind, shadow, and spirit modules) to manifest in the application of Integral Ecology could certainly provide a draw for those wanting a structure to help them make sense of the challenges we face, with a community of others, motivated to grow, learn and make a difference in the world. These are hefty promises especially for a “text book” and it seems necessary for the sake of integrity then to back them up with sound interdisciplinary research. Otherwise, they are left in the realm of promotion and wishful thinking.

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[1] This quote was taken from a 3.5 “x 5” enclosure accompanying the book from Integral Life www.integralLife.com

What Qualifies as Research, and How Do We Use It?

The authors offer a chapter to describe their chosen form of research, Integral research, which is based on Wilber's Integral Methodological Pluralism "a collection of practices and injunctions guided by intuitions that 'everyone is partially right!' and that everyone brings forth and discloses a different and partial facet of reality" (p. 42). Integral research has been formed in part to respond to the long-term divide between qualitative and quantitative research. The authors, citing the mixed methods work of Johnson and Onwuegbuzie, Creswell, and Brewer and Hunter, see the Integral research bridging this divide as well as matching the four quadrants and eight modes of inquiry. The description of what Integral research entails is very expansive but the definitions do not reflect a level of methodological sophistication that characterizes many sciences. Much of the popularity of Wilber's Integral Model has been ascribed to the fact that it was accessible compared to other material couched in academic and scientific terms. Should the academic and research community seek methods of making their information less sophisticated, more accessible and application oriented? Can research be accessible and still meet the rigor for which it is intended? Can making it accessible be other than oversimplifying it and dumbing it down to meet the layperson's level of experience and degree of commitment? Do we want accessibility at the price of veracity? A new Integral Research Center has been developed presumably with the purpose of dealing with such questions and supporting the field of Integral Ecology. It is reassuring to see that it will be working with two experienced researchers: Theo Dawson of Developmental Testing Service and Susanne Cook-Greuter of Cook-Greuter and Associates. As the authors say, "Reading, studying, and even memorizing Integral Theory's maps and diagrams will not in and of themselves generate integral thinking or integral awareness, actions, or solutions. Such awareness requires considerable effort and developmental achievement…" (p. 62). Yet they also state, "We can deduce the level of consciousness at which people operate by observing their behavior and what sorts of phenomena they encounter" (p. 121). I am hoping that the "considerable effort" can replace this more vague "deducing" and be defined and supported by the quality of research planned for the Integral Research Center, as it seems vague at this point.

Approaches to Research in Adult Development

How easily research can be misapplied, especially in the field of development, is noted in chapter 7, on page 229. A graph, called Important Lines of Development, relates vertical lines and theorists under these headings: Cognitive (Piaget/Aurobindo), Self identity (Loevinger/Cook-Greuter), Environmental Identity, and Sphere of Moral Concern. The "cognitive line" does not identify that it is also using terms associated with the research of Commons & Richards (metasystematic, paradigmatic, and cross paradigmatic), as well as those by Wilber (vision logic). It also misplaces the sequence of the Commons & Richards stages.[2]

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[2] With Integral Ecology indicating that it is thorough in its inclusion of relevant material, I was surprised to see only a brief mention in a footnote of the Model of Hierarchical Complexity (MHC). MHC, developed by Commons et al. is a quantitative behavioral developmental theory for examining the non-linear activity of constructing the universal patterns of evolution, development, and stage transitions (Commons, 2008). Through the studies of Dawson-Tunik (2006) the consistency with which it accounts for stages of development, when compared with other instruments designed to score development in specific domains, has been validated. I appreciate the MHC model as it offers a value-free way of

This error and the implications of it were identified in an article published in *Integral Review* (Ross, 2008a). The article was highlighted in the speech regarding the necessity of accurate use of developmental research by Susanne Cook-Greuter at the Integral Theory conference in August of 2008. Raising this again, I hope will not be seen as desire to be nit picky about a single error, as we can all make errors, but to act as a reminder, to us all including myself, of what we are playing with when using scientifically obtained developmental data and making inferences from it regarding human behavior. To aid in that intention I quote the call for accountability voiced by Zachary Stein (2008), a senior analyst for the Developmental Testing Service and a doctoral student in philosophy and cognitive development at Harvard School of Education. In an article called *Myth Busting & Metric Making: Refashioning the Discourse about Development in the Integral Community* he says:

> Rich descriptions and explanations of how development unfolds are produced and consumed (especially in the Integral Community) with very little attention to the methods, models, and metrics that make them possible. We love the knowledge, but could care less about how it was made. So the myth of the given rears its head.
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> What if were we to jettison this myth and adopt a properly post-metaphysical approach to developmental assessment and theory? Things would be different. For example, the issues surrounding the making and refining of developmental metrics (those things which disclose the data) would take primacy over the presentation of various stage models and narratives. We would turn away from the stories describing development and towards the making of the metrics that justify these stories. This kind of intra-disciplinary self-reflection represents a level of methodological sophistication that characterizes many sciences and is especially important for those aiming to generate useable knowledge
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> The FDA is good example of a quality control agency that mediates between researchers and the lifeworld by bringing attention to the methods and claims being made in the laboratory. If we were to thoroughly dislodge the myth of the given in developmental studies and choose to adopt an epistemologically responsible approach to building and using developmental metrics we could learn from agencies like the FDA. Not any theory and its concomitant interventions should reach the market. We need to be concerned first about what justifies the approach and then about how exciting or revolutionary it is. Right now we are mainly concerned with the latter. How many peer-reviewed empirical studies are published confirming the efficacy and validly of Spiral Dynamics; not stories about its use or antidotes [sic] of success, but studies on the validity of it basic constructs and measures? Answer: next to none. But how popular is this approach? Answer: It is one of the most popular approaches out there and its language is ubiquitous. But this is not just about Spiral Dynamics, comparable criticisms could be leveled at other approaches. In general, we need to refashion the discourse about which developmental approaches are best. (Stein, 2008, n.p.)

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understanding and measuring the hierarchical complexity of tasks and skills that are involved in effectively responding to the ecological issues that challenge us. A full description of the Model of Hierarchical Complexity and its application is available in *World Futures: The Journal of General Evolution* 2008. Special issue: Postformal Thought and Hierarchical Complexity. Volume 64.

Stein's article co-authored with Katie Heikkinen in this current issue of *Integral Review* further develops this call with explicit discussion of how to recognize and apply more rigor.

Application: Is there Proof in the Pudding?

Based on the many promises made in the book of creating comprehensive solutions to ecological issues, readers may assume they will find the proof in the pudding. Even though a cook book may start with a large section on "know your ingredients," offering lots of information and categories of different oils, vegetable, and flours, one expects that there will follow details of how to combine these ingredients and transform them into satisfying and substantive meals. With the Integral Ecology book, offering 340 pages of different categories and subcategories of almost every theory and theorist in the large field of ecology, plus reporting that Integral Ecology offered the only way of coordinating and integrating such different perspectives, one was led to expect a methodology for effective engagement and application. Disappointingly, there are only eleven pages that include a few bulleted points regarding guidelines, and a brief example of application to climate change and to recycling.

The guidelines, organized under the Who, What, and How format, indicate the need to be inclusive of many perspectives of people, methods, and research, to clarify confusions and seek common ground. These guidelines offer little more than the well-intended but simplistically designed techniques that have been used for decades in community development and public engagement. Working with ecological issues requires engaging the public who are both impacted and impacting these issues and who also hold valid and totally different perceptions as to what makes a good response. Knowing that there are different valid perspectives is an important step, repetitively covered in this book. However, indicating how to actively work in order to transform these differences — the necessary next developmental step for creating systemic responses — is disturbingly absent. For example, although the authors indicated that **"**Arguably the most pressing issue facing humanity is the predicted occurrence of global climate change**"** (p. 341), the only aspect they chose to mention under the heading *An Integral Approach to Climate Change* is a for-and-against debate occurring in the U.S. as to the validity of the existence of climate change. This plus the 24 questions used to explore the topic is included to model, yet again, that many perspectives are valid and need respect. This reliance on the "everyone is partially right" approach seems to indicate that the Integral Ecology bus has driven us right into the green swamp of relativism. It is an inadequate response to meet "the most pressing crisis facing humanity" which needs, as do all complex issues, further metasystematically designed process steps to move us out of such polarity and inertia into considered decisions leading to comprehensive actions.

After seeing the importance placed throughout the book on being sensitive to and including as many perspectives as possible, I began to wonder what really was their definition of "integral." I went back to the beginning of the book where they quoted Wilber as saying "the word *integral* means comprehensive, inclusive, non marginalizing, embracing. Integral approaches to any field attempt to be exactly that: to include as many perspectives, styles, and methodologies as possible within a coherent view of the topic" (p. 5). So that is what the book has done: included, labeled, organized into many categories a rich list of ingredients i.e., a *horizontal* complexity.

Integral approaches to me are not just naming and appreciating multiple perspectives, styles, and methodologies but actively working with their differences, that is, engaging the *vertical* complexity in such a manner so the dissonance creates integration at a higher, more complex level. This active engagement to support the vertical complexity requires a developmentally designed process. Although the authors briefly indicated that practitioners of Integral Ecology would require a "meta-discourse" they spent no time in exploring what that might be. Possibly they are not aware of a whole new field that combines the fields of civic engagement, specifically that of deliberative democracy, with adult development and political development. The need for this field, and for a pedagogical approach that supports its application, has been articulated by Chilton (2003), Inglis (2007a), Rosenberg (2002, 2004), Ross (2007, 2008b-c, in press), and Ross and Commons (2008). It holds promise of providing the alchemical processes for integrally *activating and elevating* such ingredients as AQAL is integrally *observing and categorizing*.

Ecological issues require public interactions and actions to resolve them. Therefore we need processes to support these interactions, where the public can weigh out the costs and consequences of holding different perspectives, and taking different actions that support what they collectively consider to be most valuable. This fundamental basic practice is called public deliberation and can be designed to meet the developmental requirements for responding to complex issues. Further expansion of this assertion would require a separate article. Information on the research and methodology of such a process usable for addressing ecological issues, or any complex issues, is available at http://global-arina.org/TIP.html, which includes a bibliography. Had it been available for the communities described in the three case studies, it would be interesting to discover if this process might have complemented and potentially accelerated the work of addressing multiple needs and multiple perspectives discussed in the cases.

Conclusion

Integral Ecology is a big book that I believe is twisting and turning, trying to grow up and out into the world through a confining, static model. As a resource book, it is very valuable because it includes descriptions and references to many authors and theories, and I will keep it on my bookshelf for that purpose. As a textbook, I would hope it would be offered with a range of other theoretical and well-researched material for students to consider without bias. For those already embracing the Wilber Integral Theory I assume it will be very helpful to furthering their understanding of that model and how observations and inquiry regarding the various perspectives of ecology can be seen through that lens. As for application, it offers a broad method for observing and including multiple perspectives but lacks a process for us to actively engage with each other and with the critical ecological issues of our time in order to build capacities for systemic social change.

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Immunity to Change: A Report From the Field

Jonathan Reams

Introduction

Many of us have long been fans of Robert Kegan's work, as well as his collaboration with Lisa Lahey. My first introduction was in a doctoral class where we were assigned his (1994) *In Over Our Heads*. I recall that as we discussed it, there was a consensus in our class that we were somewhat annoyed, as it was the only book in our course work that we could not skim! There was a richness to the descriptions and stories that required detailed attention in order to begin to grasp the depth of meaning being conveyed. While for many of my classmates the world of adult constructivist development did not "stick" so to speak, for myself it grew to take a central place in my work as an educator and consultant.

However, as with anything of real substance, mastering the understanding of it takes time. As the distinctions Kegan presented in his work began to take root in my perception of the underlying structure of consciousness in individuals, I found myself wanting to find ways to apply them in the work I was doing. I must say that my early attempts were typically crude, teaching through an intellectual presentation of concepts. My goal was to create activities that were informed by a developmental understanding, however the circumstances of my life did not provide much in the way of opportunities to do this at that time.

More recently, having a position that allows for curriculum development around leadership, I finally got around to reading Kegan and Lahey's (2001) *How the Way We Talk Can Change the Way We Work. Seven Languages for Transformation.* I was enthused to see how they applied the core principle of making what we are subject to an object of reflection in a simple and straightforward manner, and set out to test how well their process worked in a class of mature students studying leadership development.

I then ordered their latest work, (2009) *Immunity to Change. How To Overcome It and Unlock the Potential in Yourself and Your Organization* and read through it in anticipation of being able to apply what further insights it might have in a two day consulting assignment. While the concepts of subject object relations and adult development are rich in their descriptive power, the question still remained for me: how can they be successfully applied in practice?

In this article I will present a description of my experience starting to answer this question. First, however, I present an overview of *Immunity to Change*. My goal here is not to review the book in a traditional sense, but to provide a quick summary of its core points as context for those not yet familiar with the book or Kegan and Lahey's, or Kegan's earlier work. From there I will describe my experience of testing out the work in the two contexts mentioned.

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Overview of the Book

Introduction

In opening this book, Kegan and Lahey situate their work in the context of the past 25 years of work in the field of organizational change. Specifically, they comment on one of the critiques of the literature and work around learning organizations, which is that they did not take adult development into account. They note that when Senge's (1990) *The Fifth Discipline. The Art & Practice of the Learning Organization* came out, brain scientists still held the belief, assumption, or to them fact that there were no mental or brain changes after adolescence. While neuroscience has begun to revise its understanding (see books like Begley's (2007) *Train Your Mind Change Your Brain*, about the research on neuroplasticity) of the possibilities for adult development, the implications of that finding for organizational learning and leadership have yet to be realized. It is this task that Kegan and Lahey take on in this book. They frame this by making a distinction between leadership *development* (implying developmental change) and leadership *learning* or *training*.

Part One. Uncovering A Hidden Dynamic in the Challenge of Change

Chapter 1

In chapter one, *Reconceiving the Challenge of Change*, they begin by noting that leaders who view capacity as a fixed resource will fall behind those who work to enable the growth of capacity in their organization. They then introduce the understanding and model of adult development that has now had over a generation to mature, moving from the density and complexity of Kegan's earlier works, (1982) *The Evolving Self* and (1994) *In Over Our Heads*, to a succinct one-chapter summary that gets the essential points across in a simple and accessible manner. In addition, they link adult development with effectiveness in business, citing dissertation research by Keith Eigel (1998) that shows a clear correlation between stage of cognitive development and leadership effectiveness.

They then examine the gap between the level of cognitive capacity present in society and the demands being made by leadership literature such as that of Chris Argyris, showing that Argyris has long been proposing a model of leadership wherein the leader is implicitly being asked to have a self transforming (or fifth order) mind. They cite their own (using the SOI/Subject Object Interview) and other studies (using the WUSCT/Washington University Sentence Completion Test) to show the percentages of leaders at the various stages of development, identifying the gap between the mental demands on leadership today and the capacity generally available.

Finally, they draw on the distinction by Ronald Heifetz (1994) between technical and adaptive challenges to show that most of the challenges leaders face today are adaptive in that they ask us to adapt our level or stage of mental complexity rather than simply apply technical solutions. The misapplication of technical solutions to adaptive problems is seen as a major source of dysfunction.

Chapter 2

In *Uncovering the Immunity to Change*, Kegan and Lahey present and illustrate their notion of the immunity to change. The first step is to learn how to formulate challenges as adaptive, and they use detailed examples from the "laboratory" of their work with leaders over the past few years. These examples show the development of their four column map, work first outlined in their previous book (2001) on *Seven Languages for Transformation*. Through showing contrasting maps of the immunities to change, they also show how the underlying structure of immunity is the same even if the particular challenge or issue is different.

They then make three premises about overcoming this kind of immunity. First, that overcoming it does not mean needing to get rid of all our anxiety management systems. Second, that anxiety is produced not merely from the onset of change, but from feeling defenseless in the face of it. Third, that the immunity systems we have developed can actually be changed. They link this to how it shows up in the stages of development, and then identify the concept of optimal conflict as the condition that best supports the kind of development being sought. Optimal conflict is made up of persistent experience of frustration, that allows us to feel the limits of our current way of knowing in some area of life we care enough about and that we have sufficient support to avoid being overwhelmed by the conflict.

They close the chapter by looking at three dimensions of the immunity to change: change prevention systems, feeling systems, and knowing systems. This leads them into the fourth column or the "big assumptions" that are seen to hold people. It is the revealing of these big assumptions that allows for the complete picture to emerge, integrating the three dimensions of the immunity to change.

Chapter 3

"We Never had a Language for It" or *Engaging the Emotional Life of the Organization* is the title of chapter 3 and here Kegan and Lahey share, again through examples, how they learned from their clients the need to put the right issue in the first column. This is called the "one big thing" that each person identifies (with the help of feedback from others). This is designed to include people's private lives as well. The need to link personal and organizational development becomes clear through further illustrations. They also describe the need to have a champion at the top, or to have the leader truly committed to acting on this work.

The authors then reveal how their focus on individual development has been supplemented by learning from clients who have a much better understanding of how to look at things systemically and organizationally. This enabled their work to not only address the adaptive growth of individual's meaning making systems, but also of the emotional life of the organization.

Part 2. Overcoming the Immunity to Change in Organizations, Individuals, and Teams

Chapter 4

Chapter 4, *Overcoming the Groupwide Immunity to Change* takes a collective approach to the immunity to change work. In line with the concepts of learning organizations, this chapter presents three brief and three more detailed examples of how groups of various sizes and from various sectors of society were able to make use of the four column process to create organizational learning. Some of these groups began with individual immunity maps, while others applied the process on a longer term scale by making use of surveys to get input into commitments, and pilot projects to test out the big assumptions that emerge.

Kegan and Lahey make an important distinction that the third column work, which can prove the most challenging, "simultaneously provides a *cognitive* awareness of a change prevention system at work, and the *emotionally* unsettling insight that the true barrier to change come from within the system" (p 118, emphasis in the original). This is similar to what Scharmer (2007) describes as third stage or reflective dialogue. In both descriptions, the critical insight that allows shifts to happen come when those involved in reflecting on the challenges faced realize they are actually sustaining the very system they wish to change.

Chapter 5

David Doesn't Delegate goes into depth of the story of one leader's work of using the immunity to change process to actually change behaviors. This is accomplished through taking his initial big assumption and seeing an even bigger underlying core value and assumption about it, and then trying out actions that tested the assumption. The use of some further tools to support this process are introduced, and the successful outcomes are detailed. An additional benefit of this chapter is that the example used also illustrates some of the core issues facing leaders as they face challenges of building capacity in teams they are responsible for leading.

Beyond this rich and instructive illustration, the authors show how the question of changes of mind and or of behavior is not a chicken or egg which comes first question, but a dialectic interplay that takes the explicit challenge being faced and uses working on it to facilitate development. In this way the immunity process is used along with our work and life challenges to help us see the picture of *what has been authoring us*. This central proposition of moving from being held by assumptions to self authoring a new relationship to them is well served by the illustration in this chapter.

Chapter 6

In *Cathy Can't Contain Herself*, we hear the story of how Cathy worked through her immunity map. Rather than a step by step process, her story shows that sometimes a very intense experience can test our big assumptions to the core all at once. The chapter provides a second example of the many forms this work can take, and at the same time the core pattern that runs through the immunity work.

Chapter 7

In *The Case of Nascent Pharmaceuticals*, Kegan and Lahey bring together the power of doing the individual immunity work within a group context. They go into depth on the processes they used with the team that Cathy was a part of. Three workshops over six months, individual coaching, and the use of various survey and assessment instruments enabled the team to make significant progress on their goals. These goals, trust and communication, are good illustrations of common issues teams everywhere often face.

In moving from individual to group work, the additional complexity of the dynamics involved becomes clear. The tendency to avoid bringing personal issues to the group setting because of tendencies to pathologize individual problems is nicely dealt with through the use of framing and processes that enable each team member to see the strengths that are one end of a continuum related to those weaknesses. The coordination of the various tools used to support the process, the timing of the work and the importance of the leader setting the tone and acting as an example are all well illustrated.

Part Three. Over to You: Diagnosing and Overcoming Immunities in Yourself and Your Organization

Chapter 8

Unlocking Potential describes three necessary ingredients to successfully take on the work of unlocking your immunity to change: a vital energy source of motivation for change, both cognitive and emotional aspects working together and action or behavioral work. The gut level, or vital energy is required to help us go beyond feeling that something is important, to feeling it is absolutely necessary to address the adaptive changes revealed.

Engaging the thinking and feeling together is required as no amount of thinking about the work will get it done, as also no amount of emotional effort by itself will either. It is a combination of “thinking about our feelings and feeling our way into new thinking” (p. 216) simultaneously that moves us along in the adaptive or developmental work. Finally, action must be taken, the hand put to the wheel so to speak to generate the experiences and experiments that can test our assumptions and move the insights into reality. The power of doing something that reveals the assumptive nature of our deeply held beliefs is what can enable us to take a perspective on them rather than being held by them.

Chapter 9

Diagnosing Your Own Immunity to Change covers the territory of the Seven Languages book, at least the first four chapters. It provides the benefit of adding clear criteria by which you can evaluate if your column entries are sufficient to the task of helping create a robust x-ray map of your immune system. Kegan and Lahey describe how they learned over time how to help the people for whom the original four column exercise was only interesting and not deeply moving produce a better map.

They begin by stressing the importance of generating the right first column commitment. If it is not something sufficiently important, and more to the point, something that aims at a personal adaptive change, it will uncover an immunity system that does not really matter to us, wasting the potential the exercise has. In the second column, the need to describe specific, concrete behaviors is stressed so that later on you will be able to better see why you do these things. The third column is generated through the simple question of what is at risk if I do the opposite of these behaviors? These "worry box" fears are then reframed to make the competing commitments of the third column. Again, criteria are provided to enable you to evaluate if you are getting sufficient depth in your entries here.

The fourth column big assumptions are generated next through a simple process of imagining what must be held as "true" for the third column competing commitments to make sense. The power of this is that it reveals territory that we have previously been subject to, and that our immune systems have acted as guardians of. They protect us from venturing into what is assumed as unsafe territory. The simplicity, power, and elegance of this process comes through quite clearly in this one chapter summary of four chapters in their previous book. But now what to do with the insights gained?

Chapter 10

Overcoming Your Immunity to Change is where Kegan and Lahey take this work beyond where the *Seven Languages* book went. They take the immunity map, and frame it very succinctly "You can see the very good reason *why* you are holding yourself back: You want to save your life as you know it" (p. 253). The developmental pattern of taking what has us or we are subject to and making it an object of reflection involves reaching deep into our self image or identity. The brilliance of this work shows through here as the authors lay out a careful, step by step process for allowing you to experience the limits of this identity, and begin the process of constructing a new one.

The work of testing big assumptions is set out in clear stages. First is designing a test. Here they make an important distinction between an event focused approach and a process or learning focused one. Our tendency to take immediate action to solve the problems identified in column two leads to thinking that if we can simply do something that goes against our competing commitments or big assumptions, we will have overcome them. Kegan and Lahey point out that the point of the test is to learn something about our big assumption – to see if and to what degree it might be true, false, or more nuanced than we imagined. They again provide helpful criteria for guiding the design of the test, and examples of how it might look.

The second step is running the test you have designed. Here it is important to make detailed notes on what actually happened, both about how you felt during the test and how others responded or acted. They emphasize directly observable data, and warn against allowing interpretation to sneak in. The third stage is the actual interpreting of your test, and here again examples illustrate the points made and a guide sheet keeps us on track.

Once these steps are completed, they show how to consolidate the learning by identifying how you get hooked into activating the big assumption and entire immunity system. In addition, you learn how to identify new practices you develop that help release you from the grip of the immunity system. All of these are shown to be repeatable, and how they can help evolve and even develop new immunity maps over time.

Chapter 11

Surfacing Your Collective Immunity to Change applies the same four column process to a group. They strongly advise not going straight for this approach, but to run individuals through the individual process first to get a real feel for it. They again lay out criteria and steps for groups running this process together, and as one might imagine, doing it as a collective adds a certain degree of complexity that then requires an appropriate amount of time to go through.

Conclusion

Growing Your Own, or *How to Lead so People Develop*, pulls together the core themes of the book and makes it clear that what will enable organizations of any kind to succeed in the 21st century is taking a developmental stance and being able to master the immunities to change. The main body of the chapter is an examination of seven crucial attributes of this work. Summarized, they say that mental growth continues after adolescence, that there is a distinction between technical and adaptive learning, that people have an intrinsic motivation to grow, that these kind of mindset changes take time, and that they involve both thinking and feeling, that reflection and action are interdependent and enable each other, and that there needs to be sufficient safety and support for facing the risks in this depth of change of mindset.

Report From the Field

Reading over this brief summary of the book, you might want to say “sounds great, sign me up,” or alternatively find yourself more skeptical and saying “sounds too good to be true,” or have a degree of both responses mixed together. My tendency is to begin with enthusiasm and then find the reality of trying to apply things a bit of a humbling experience. Since all the theoretical understanding in the world does not make up for a lack of experience, I felt it critical to try applying the techniques laid out in this work.

Phase One

My first opportunity for application came in the winter of 2009 when teaching a new course on leadership development and organizational transformation in a masters in organizational leadership program. I had designed the course around a combination of individual development along with how to apply that work in service of organizational transformation. Students were mid level professionals from a variety of sectors, coming from various parts of Norway.

They received a leadership assessment[1] to give them a sense of where they were at in terms of key leadership dimensions. Following their debrief and some overnight homework related to their feedback, I led them through the four column exercise as described in the *Seven Languages* book. There were some challenges keeping them on track at times, and getting them to understand what was being asked of them. Some of this could be attributed to language issues, as not all the students were totally fluent in English, and some of it undoubtedly was attributable to the limitations of my first attempt at giving the instructions.

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[1] I used The Leadership Circle 360 feedback instrument – http://www.theleadershipcircle.com/ as it incorporates Kegan’s distinction between the institutional or socialized mind and the self authoring mind.

In *Immunity to Change*, Kegan and Lahey describe how after doing the four column work for a while they noticed that around 30-40% of people did not get to a really profound and useful big assumption. I would say that this was reflected in the work with this group of students as well. For some it produced insights like “I never realized that all this time I was being driven by the opposite of my self-image.” For others it helped them see something new about themselves, but not in a way that made a huge impact for them.

For follow-up in the month until the last two days of the class, they worked on an action plan to test out what they had learned. The idea was to have a conversation with someone about their leadership feedback, and see if they could try doing one small thing differently that would challenge their assumptions identified in column four. The results of this work seemed to have mixed effect, seemingly dependent upon the depth of insight gained from the four column work and the student’s ability to create a really good experiment.

The last part of the course went through the last three or the social languages. With students all coming from diverse organizations rather than a team within one organization, this work was less directly applicable. It was more abstract and indirect for them to work on how they might apply these languages in their organizations, but it still appeared to be of value for them. Overall, I was quite happy with my initial application of the four column work, but was looking forward to learning more and trying it again.

Phase Two

Setting

The opportunity to try again came soon, as I was given the opportunity to do this work as follow up to some previous work a colleague in the UK had done with a senior management team of a public service organization. In preparation, I bought and read the *Immunity to Change* book. Having had the prior experience working with the four column exercise helped immensely when reading over the refinements that Kegan and Lahey brought to this new book. I also had a clearer focus for the two days with this team, allowing for taking more time in laying the foundations and allowing each step in the process have the time it required.

The main improvement I found in the new book was an explanation of why the four column work as originally designed had generally gotten really good results for only 60-70% of people. Kegan and Lahey provided a better explanation of the framing and pre-work that would enable people to generate the kind of first column commitment that would get the process going in the right way. They noted that if you start with something that is not a really core, crucial issue that will make a difference not only to you but also to those around you, then the whole process will be limited by only being able to reveal competing commitments and big assumptions about relatively unimportant matters.

Opening Moves

They also provided a much better integration of how to combine this work with teams as well as individuals. The three social languages are in essence gone, but in their place the methods for working teams through a collective four column exercise more than makes up for this. Taking this work, (and after an experiential exercise that revealed their organizational culture quite clearly) I began with asking the team to define an improvement goal for their department. I asked them to come up with just one thing that if it was able to happen, they felt it would make a substantial difference. They spent a couple hours developing a common vision and understanding for this, and appeared quite pleased with their work thus far.

They also appeared quite comfortable working at this level, which I observed was focusing on their department as an almost external entity. While they did see their role in things to a degree, it was clear that their attention was focused on the issues “out there.” The next step was to get them to come up with an improvement goal for how they as a senior management team operated within themselves.

This step proved to be a bit more challenging, as the natural inclination for their attention to stray to externalizing issues required occasional herding. It was clear that a reflective, introspective focus was not something they were accustomed to. Thus my herding of attention was necessary, combined with some framing to enable them to glimpse how this would be important to the larger department goals. This helped them stay on task and come up with a succinct, well phrased improvement goal that had themselves in the center of the picture.

Getting to the First Column

It was from using this section on team use of the immunity to change work that a foundation was built for them to move towards the individual work. I asked them to individually reflect on “one big thing” they could personally have as an improvement goal that would contribute to the team improvement goal. They then took this first step and worked in pairs to refine their improvement goal. To ensure that it met the criteria, the final step was to share it with the whole group, and hear from each person whether this improvement would make a substantial difference to that person. This process enabled a serious level of commitment and support to emerge for each participant, as the public sharing of their improvement goal and having it validated by their colleagues helped it meet the criteria for a first column commitment.

This process also provided an opportunity for some push back on the leader’s proposed improvement goal. At a subtle level the energy behind his goal was not as solid or deep as the others’ had been. At a practical level it did not meet the criteria in a variety of ways. The willingness of one of the team members to challenge him on this enabled the conversation to deepen for the whole team, and led to them contributing to the creation of the leader’s improvement goal. This new goal, then, converted along with those of the others into their first column commitments, enabled the process to move forward with a solid foundation.

Doing the above took up the entire first day, and even spilled over into the second day. My initial timeline for the work had them completing their second columns by the end of the first day. Thus we were somewhat behind schedule, yet it was clear to me that it was far more important to lay the groundwork well. The work of getting them to identify the second column items was fairly straight forward. Asking them to list all of the things that they did or did not do that prevented them from realizing their first column commitments led to long lists of behaviors that were easy enough for them to identify with a minimum of guidance. We were then ready to begin the more challenging work of turning their attention towards their generally unconscious and competing commitments in column three.

One of the things I had experienced during the first try at applying this work was that giving people the four columns all together on one page led to a number of challenges and back tracking. Some raced ahead and filled all four out immediately, thinking it was an action plan exercise. Others could not help but think and ask about the later columns, and made me jump around a bit to explain something coming later and get them back to being focused on the step we were on at the time. From that experience, I decided to use separate pages for each column's work, handing them out only as we got to that step. This kept everyone on track better, and enabled me to focus my instructions on other things. The primary area I was able to focus on this time was to check the natural tendency for them to move towards analyzing and rationalizing the items in column two, and generating the kind of "New Year's resolutions" Kegan and Lahey talk about as the typical way people respond to their second column behaviors. I found that this shepherding of their attention away from its natural course required plenty of attention, but also paid big dividends in that it helped them become aware of their thought system in action.

Redirecting and Aikido

This suspension of their normal patterns of thought and behavior created a more supportive space to enable the more challenging next step of generating their third column competing commitments. This stage of work reminded me of Scharmer's movement through the U process as they went from downloading past patterns and responses through suspending those and then as we moved into the third column work, redirecting their attention to places that were normally not visible to conscious attention. I have thought about this step as a kind of Aikido move, taking the natural energy generated by the first column commitments and self-generated obstacles and gently turning it to propel people into an internal space that normally hides from view and resists attention.

To accomplish this move, I followed the well laid out instructions and criteria Kegan and Lahey provide and asked the group to imagine what it would feel like if they did the opposite of the behaviors in column two. Getting connected with the affective aspect of this imaginative exercise further helped to redirect their attention away from the habitual drive to come up with rational solutions to the "problems" they had identified in column two. I emphasized that the method of this work was to counter such natural tendencies, especially given that such methods were in large part what produced the kinds of situations they found themselves in already. Rather than try to "solve their problems," we were going to aim to generate better problems that could "solve them."

As the group worked on generating their “worry box” as Kegan and Lahey call it, I could see that while some shepherding of attention was still required from time to time, they were getting better at holding themselves in this new space of attention that was opening for them. Once they had these worry boxes filled in with a firm hold on what they felt was at risk if they were to behave counter to their column two behaviors, I then asked them to convert their worries to commitments. In other words, simply take the worry or fear and reframe it, saying that they were committed to not having the worry or fear happen, such as “I am committed to . . . not having people dislike me.” These commitments were to involve both rational thinking as well as the feeling component they had gotten in touch with. It is in this simple reframing that the brilliance of Kegan and Lahey’s process becomes most apparent from my view. If the process has been done well and all the criteria met, it completes the Aikido move and lands people squarely in a place where genuine, deep and powerful insights are now directly in their line of attention rather than hidden from view.

As the group completed their third columns, there was a palpable sense of settling into a quality of energy where things were falling into place. I gave them a worksheet that allowed them to list all three columns on one page now, and just as Kegan and Lahey describe, they could suddenly see their column two behaviors as making perfect sense. These behaviors were now not simply their failures to live up to their commitments, but perfectly sensible behaviors that kept them safe in light of their now revealed competing commitment. They could see that simply trying to solve the “problem” of those behaviors was doomed to failure, since they were actions in service of equally powerful commitments to a kind of self protection.

Now we were ready to move into crafting the fourth column “big assumptions” that held them. This work went along fairly smoothly and with a little guidance they had their complete four column map of their own immunity to change. I was struck by the depth and simplicity of what were really archetypal human issues, and by the quality of authenticity with which they named, described, and sat with this x-ray into the depths of their psyche.

A student of mine who had observed the masters in organizational leadership class mentioned in phase one above brought to my attention the parallels between this process and Scharmer’s description of the stages of the U process. Reflecting on this, I could see how once the fourth column was done, one way to describe the quality of presence in the room could be in terms of Scharmer’s notion of presencing. People were certainly in touch with a deeper, more authentic sense of themselves and from this place could now be directed to look at what wanted to emerge in the future. The next step in this work, designing a safe test of a big assumption, would help crystallize their initial sense of this new direction.

Preparing to Make it Stick

By now it was already mid afternoon on the second day, and there was a need to make sure we moved the group through to completion of this step. The real benefit of the work done so far would only come with the implementation of well structured research projects that would again avoid fixing the problems identified, but rather gather helpful information on the big assumptions holding the entire system in place. The premise as I understand it from my own experience is that if you are able to sustain awareness of this system in operation, and test out new behaviors that might reveal a different picture than the one painted by the big assumptions, then the equilibrium of the system will shift and release itself without you having to force it. Change will happen, but you cannot "make" it happen.

On this basis, we worked to provide the team with a way to support each other in maintaining this stance after we left. After they each spent time drafting up a specific, concrete and actionable test of their big assumption, (supported by a set of worksheets to guide them through the steps of that process), I had each person share their test, and let everyone on the team be aware of how to support their learning after they ran the test. This gave them practical ways to follow up from the two days. How the work plays out for them over time remains to be seen, but there was no doubt that each and every one of them had stepped into a new world of possibility.

The closing check out bore witness to this. While there were many comments acknowledging the quality of work they had done, one in particular represented the sentiments quite well. The leader of this team described how he had been skeptical of the value of spending two days away from their already overloaded schedules. He figured that they would go through the motions and then get back to the "real world." He followed this by saying: "Now I have answers to questions I did not even know existed before."

Conclusion

From the above description, it should be obvious that I perceive my field testing of this work as a resounding success. Of course there is much more to learn about doing this work. But what was clear was that following the structure laid out and using the criteria and guidelines Kegan and Lahey provide to support facilitating the work should enable any reasonably competent facilitator to enable people to have powerful insights and begin the process of overcoming their immunity to change.

Kegan and Lahey describe throughout the book how the early work to understand the nature and structure of adult development was engaged in a dialectical process with praxis, and the testing of the ideas against the realities of human experience enabled an ongoing refinement of how to apply the ideas successfully. Thus my question at the beginning of this article of how the powerful understanding of adult development can be applied has a solid answer. Kegan and Lahey's *Immunity to Change* work provides the ingredients necessary to go beyond theorizing or describing and into actually enabling the first steps of transforming consciousness. While there may be further aspects to be revealed about what is required of the facilitator to support this work, the foundation is certainly solid in moving forward.

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Paranada: Beyond Beyond

Hector Currie
with Juan Pacheco

Abstract: “Paranada: Beyond Beyond” represents the culmination of the author's research findings of geometric evidence in the Pythagorean design of the temple and theatre complex of the ancient Greek Temple of Delphi. Rather than a dualistic moral judgment, Delphic rites sought a dynamic equipoise between Apollonian and Dionysian psychic forces, transcending the self/boundless dichotomy. The temple has a deflection of 7.5 degrees—1/12th the 90-degree gravitational fall of all existents, the gravitational factor in music theory (as in the Pythagorean "harmony of the spheres") in each note's descent in the 12-tone scale's octaval fall. Significantly, this means that the Delphic design encapsulates a space/time concordance. The design reveals that Pythagoras' epochal concept of a transcendent *kosmos* is realized in both space (the sacred site's cosmic plan) and in time (the nightly celestial whirl of constellations above it). “Paranada” traces this discovery of a divine order at the Delphic center to the sages of the kingdom of Bharat in ancient India and the birth of speculation on the meaning of existence in their most sacred *Rig Vedic* "Creation Hymn" X. 129. “Paranada” thus suggests that the Western cultural tradition is derived not ultimately from Greece, but from India, and contemplates the significance such ancient visionary philosophical insight might have for the daunting challenges continually confronting us. This work constitutes an eclectic integration of transdisciplinary insights into the known and the unknown, the arts and the sciences, and science and religion. In descriptive and poetic forms, “Paranada” seeks to find vital correspondences and affinities among Pythagorean geometry; numerology; cosmology; ancient psychologies; nature philosophy and mysticism; Greek mythology; Greek, Shakespearean, and modern tragedy; quantum physics and astrophysics; and transcendent cosmic consciousness.

Key words: Anaximander, cosmology, equipoise, gravitational factor, Greek, harmony of the spheres, integration, nature philosophy, quantum physics, Pythagoras, Shakespeare, Temple at Delphi, tragedy, transcendence.

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Introduction

Paranada is Sanskrit for that which is beyond the beyond, the transcendent “soundless sound” from which creation emanates (“Soundless Sound,” 2008), thus nature's "soundless sound beyond creation" (Omega Institute for Holistic Studies, 2006).

This work, “Paranada,” honors Pythagoras' profound psychic insights into the nature of existence and transcendence, which, it is here contended, hearken back to the Vedas, or early Hindu sacred hymns. These Vedic texts beckon us to see beyond—even beyond "beyond."

The concept of transcendence found in early Vedic thought inspired Anaximander, an early Greek philosopher. Anaximander in turn inspired his contemporary, Pythagoras, as evidenced in the visionary geometry he infused in his design for the sacred Delphic site. Pythagoras' intricate Delphic design reveals that he had insights into nature that transcended space and time. For over two millennia, this secret has been forgotten. It is this author’s contention that the time has come to rectify this egregious neglect.

This paper is organized chronologically, aiming to integrate ancient elements with their contemporary implications, which led to key findings from research on the plan of the Temple at Delphi. From there, the author offers his interpretation of the significance of Delphi's plan and the "cosmic secret" the author regards as Delphi's contribution to humanity.

The first section is a brief discussion of the birth of philosophy in the Eastern world, and the mystical hints we have of its transcendent approach, and includes the author's speculation on the transmission of Eastern thought to the West. The author develops a sketch of Anaximander's contributions to the birth of philosophy in the Western world, insofar as they appear to have influenced Pythagoras.

With these foundations laid, the central section develops the thesis about Pythagoras' insights into transcendence. First, the layout of the Temple at Delphi is described. Then, the measurements of Delphi's geometry are presented, including the author's discovery. Next, the author develops his interpretations of the cosmic significance of Delphi's geometry. The final section highlights selected points of the nature philosophy suggested by this ancient site so as to correlate them with insights of contemporary science, joining the ancient and the modern. The conclusion presents the author's advocacy for bringing more of Delphi's harmony into our modern world.

Dighatamas and the Birth of Transcendence in Vedic India

Approximately 2000 BCE in India, then called the Kingdom of Bharat, there lived a blind-from-birth Vedic seer, Dirghatamas. Reverently known as "Long Darkness," Dirghatamas became the high priest to King Bharat. In his enveloping darkness, Dirghatamas had a blinding vision which he captured in moving poetry, the key phrases excerpted below:

Then was neither being nor non-being… (line 1)
The breathless breathed breathlessly… (line 2)

> All was darkness wrapt in darkness… (line 3)
> …Sages searching in their hearts with wisdom found the bond between being and non-being. (line 4)
> …This was before the gods… (line 6)
> *Creation Veda* X.129[1]

Georg Feuerstein (1996) credits the seer-bards who composed the *Vedas* in the third millennium BCE, with bringing about the birth of Eastern philosophy through their recognition of the “curious relationship between the outer cosmos and the inner universe, between the objective world and the subjective space, or psyche.” Feuerstein identifies this interconnectedness as the apparition discerned by the Vedic seers: "The deep mysteries of the universe and what lies beyond creation."

The vision of Dirghatamas, author of hymns 140 to 164 in the first section of the Rig Veda, takes an iconoclastic perspective, a logical approach that discriminates fact from fancy.

> To the Vedic sages, creation indicated that point before which there was no Creator, the line between indefinable nothingness and something delineated by attributes and function, at least. Like the moment before the Big Bang Theory. These concepts preoccupy high wisdom, the Truth far removed from mere religion. The Bible begins with the Creation. Before the Creation, however, there was the Creator, but does even He know what was there before He existed? (Londhe, 2008)

Dirghatamas' intuition/perception of abstract physics of space and time—of space/time—is truly phenomenal. In his Vedic Hymn, I. 164, he divined the sexagesimal (12) order of time in the movement of the planets and celestial firmament across the night sky, thus producing man's first astral zodiac (Griffith, 2006/1896, p. 220). This set the measure for what the Greek philosopher Anaximander would describe as the "eternal motion,” which is time, marked by the day's solar arc and the night's majestic celestial round (quoted in Burnet, 1908, p. 55). Dirghatamas saw the number 360 as dividing the temporal circle of the year in the zodiac, as well as the sun's circle of the day. He also broke the circle into 360 degrees.

The hymns of Dirghatamas speak clearly of a zodiac of 360 degrees, divided in various ways, including by three, six and twelve, as well as related numbers of five and seven. We must remember that the zodiac is first of all a mathematical division of the heavens such as this hymn outlines. This is defined mainly according to the elements, qualities and planetary rulerships of the twelve signs. The symbols we ascribe to these twelve divisions is a different factor that can vary to some degree. The actual stars making up the constellation that goes along with the sign is yet a third factor. For example, some constellations are less or more than thirty degrees, but the mathematical or harmonic division of each sign will only be thirty degrees. What is important about the hymns of Dirghatamas is that he shows the mathematical basis of such harmonic divisions of a zodiac of 360 degrees.

---

[1] There is no standard translation of the Vedas, but a multiplicity of them, due largely to the age of the text and the inherent difficulty in translating it. Additionally, there is a tradition of authors interpreting and phrasing the Vedic hymns. The phrasing of the lines from the Creation Veda 10.129 are the author’s own, based on a number of translations, primarily Griffith (2006/1896) and Moore and Radhakrishnan (1957).

> For Dirghatamas, as was the case for much of later Vedic astronomy, the main God of the zodiac is the Sun God called Vishnu. Vishnu rules over the highest heaven and is sometimes identified with the pole star or polar point, which in the unique view of Vedic astronomy is the central point that governs all celestial motions and form which these are calculated. (Frawley, 2006)

Dirghatamas also divided the circle of the compass at a sacred Vedic fire altar, a measure that would later be reflected in the Delphic *temenos*. With visionary foresight, Dirghatamas set the course that quantum and astrophysics only now are coming to sense/intuit. And yet, Dirghatamas is little known or recognized in the West.

The Brief Flowering of Transcendence in the Archaic/Classic Age of Greece

Following its inception in India, transcendence enjoyed a brief flowering in Greece. The foundation of Western philosophy and science laid down in Grecian schools was born from the concepts crystallized in India centuries before, which came to have a profound impact on Greek thought.

> The flowing of this influence and the accuracy with which the doctrines were transmitted suggests a direct contact between the thinkers of the two countries rather than knowledge acquired through intermediaries. The clarity with which Greek philosophers propounded their views presupposes a familiarity with a subject that can only arise when all doubts and dissentions have been resolved through discussion. Plato and Democritus, it is told, traversed the long distance to the Indian sub-continent to confer with Indian sages as did Pythagoras at an earlier date. (India Holiday, 2009).

The Persian Empire under Cyrus II controlled an unprecedented swath of territory, running from the Indus River in the east to the Dardanelles in the west. The trade routes radiating from Babylon would have made it possible to travel from the coastal cities of Asia Minor, such as Anaximander's Miletus all the way to India (Long, 1948, p.9).

“An age of intellectual activity in both India and Greece occurred between the 6th and 4th centuries BC” (India Holiday, 2009). Greek knowledge of India was acquired on the whole by way of Persia, whose emperor Darius the Great (c. 515 BCE) extended the reach achieved by Cyrus into the Indus valley. It is significant that “Greek philosophy originated in the cities of Ionia on Asia Minor's western shore—that portion of the Greek world closest to the Orient” (Sedlar, 1980, p. 10). There was an intense metaphysical interchange between the Greek and Indian cultures around 600 BCE that points to striking similarities between the two metaphysical schemes (McEvilley, 2002).

The Birth of the Philosophy of Nature

Anaximander was from the port city of Miletus on the Aegean Sea, a key port on the trade routes from the East bound for Egypt. He was therefore exposed to the ideas that flourished in the minds of Milesian nature philosophers. These philosophers were, during this time of the 500s BCE, beginning to break the mythic past and develop a scientific approach, beginning with the basic question, "What is the world, and all that is in it, made of?" The nature philosophers Heraclitus, Anaximenes, and Thales, respectively identified the *arche*—the basic principle of all that exists —as fire, air, and water; each predating the formation of earth.

For Anaximander, who had been exposed to the influence of visionary Asian philosophical thought, such speculation based solely on the physical/material nature of existence must have seemed inadequate. Anaximander boldly broke with the materialist bent of his philosophic confreres. He conceived the ground of being—the-basis-of-it-all (and, he might have added, the-basis-of-the-none)—as "the Boundless," or the *apeiron* (from the Greek *a-peras*, without limit). This is reminiscent of the Hindu *Moksha*, the doctrine of the transmigration of souls in a transcendent release.

This apprehension is evident in Anaximander's first conception of the world in a map he drew on a cylindrical disc, with Asia to the east, Europe to the west, and Delphi at its center (De Santillana, 1961 p. 36).

Giorgio de Santillana (1961) was moved to describe this revelation as "comparable only to the discovery of fire" (p. 36). Nietzsche (2001), in awe of Anaximander's audacity in breaking free of the limits of matter, termed it "an incredible leap" (p. 33).

In the one surviving fragment of his treatise "On Nature," Anaximander expressed an Eastern/Vedic grasp of the control time exerts over nature's ineluctable process of coming-to-be and passing-away. A. N. Marlow (1954) noted that Anaximander envisions this control as “an immanent dike [that] ensures that all things shall eventually return to the apeiron whence they came” and went on to reproduce Anaximander’s fragment “From which all things take their rise, and by necessity they are destroyed into these; for all things render just atonement to one another for their injustice according to the due ordering of time” (Diels & Kranz, 1951, p. B1, as cited in Marlow, 1954, p. 37).

Numeric mysticism played a key role in Anaximander's philosophy of nature, as in Pythagoras' declaration: "All is number" (Burton, 2003, p. 64). Anaximander's vision of cosmic order conceived the distance of the fiery circles of the stars from disc-shaped Earth as a ratio of the breadth of Earth: 9, 18, 27, and as a ratio of its depth: 27, 54, 81, all based on 3, the three of space's three dimensions. The key number—the ratio of the Earth's depth to its distance from the Sun—was 81, 3 to the 4th power ($3^4=81$), as space (three dimensions) to time's (the fourth dimension) power. Numerologically, 3 plus 4 produces 7, Apollo's sacred number. The ratio of the sun's wheel of fire to the breadth of disc-shaped Earth is 3 x 9 = 27 in Anaximander's first cosmic scheme. Numerologically, 27 is 2 + 7 = 9, nine, the fateful penultimate number of Saturn-Time in Philolaus' Pythagorean Table of Planetary Spheres. Time, which, per Anaximander's fragment orders all things (McEvilley, 2002, p. 31) and which occupies the penultimate position in the eternal round, of the decad (10), therein transcends the sphere of Stars, and mystically attains "The Boundless," the infinite, *apeiron*.

Anaximander's concept was amazingly prescient. It conceived of a boundless void—a vacuum, a nothingness.

The Time of Pythagoras c. 580–490 BCE

Pythagoras ushered in the Golden Age of Greece. He was the son of a successful Phoenician merchant, Mnesarchus of Tyre. Mnesarchus was granted citizenship by Samos for his gift of grain to that drought-stricken island. Before the birth of Pythagoras, Mnesarchus consulted the Pythia, the Oracle at Delphi, regarding his trading ventures. The Pythia did not respond to his questions about trade. Rather, in a story retold by Iamblichus in *On the Pythagorean Life*, she predicted his son would “surpass humans of all times in beauty and wisdom and would be of the greatest benefit to the human race with regard to the whole of life” (Riedweg & Rendall, 2005, p. 6). In response to the prophecy, Mnesarchus named his son Pythagoras. In further tribute to the Oracle, his wife changed her name to Pythais in honor of “Pythia,” the Delphic Priestess.

Pythagoras was educated and inspired by Pherekydes of Syros. Pherekydes was born in the time of the 45th Olympiad, 600-597 BCE, and was in his prime c. 544/1 BCE (Schibli, 1990, prologue). Pherekydes is the author of what is believed to be the first prose work of Greek literature, *Theologia*, generally known as *The Seven Adyta* (Mead, 1965, p. 21). *Adyta* is closely related to the Sanskrit *Aditi*, the Vedic goddess of the boundless sky, who can be seen as a precursor of the Anaximandrian/ Pythagorean concept of the "Boundless."

Pythagoras “was educated for 20 years in astronomy, geometry, medicine, psychology and mathematics in the Vedic institutes of Egypt” (India Holiday, 2009). Felix M. Cleve (1969) argued that even though Pythagorean society appears to exhibit in its organization an Egyptian pattern, its real roots can be traced back to India, specifically to Indian *Samkhya* philosophy (Navia, 1990, p. 139-40). Samos “had close commercial links to an Indian community in Memphis, Egypt, that would have given Pythagoras access to Hindu and Egyptian knowledge” (Occhiogrosso, 1994, p. 308).

Anaximander and Pythagoras knew each other (they were coexistent for 24-34 years), exchanged ideas, and at times put forth competing or differing on concepts (Pengelly, 2005). Pythagoras embraced Anaximander's boundless *apeiron*, naming it *Kosmos*. He proposed that the highest state the spirit can achieve is what he conceived to be the Boundless.

It should not surprise us, then, to discover, by connecting the dots and counting the angles of the geometric shapes contained therein, that the key to the *Tetractys*, the most sacred Pythagorean symbol by which solemn oaths to secrecy were sworn, is also 81. The geometric shapes within the *tetractys* have a total of 81 angles: 13 triangles (39), nine rhombi (36), and a hexagon (6).

The Transcendent Power of Delphi

The number of the *Tetractys*, 81, is also the key to the god of order, Apollo. Numerologically, 81 is 3 to the 4^{th} power; 3 + 4 = 7, Apollo's symbolic number. As the god of music, his seven-string lyre produces "the harmony of the spheres" (Wyss, 1996, p. 37). At Apollo's cosmic center, Delphi, Pythagoras plotted the *tetractys* on the sacred site (Figure 1).

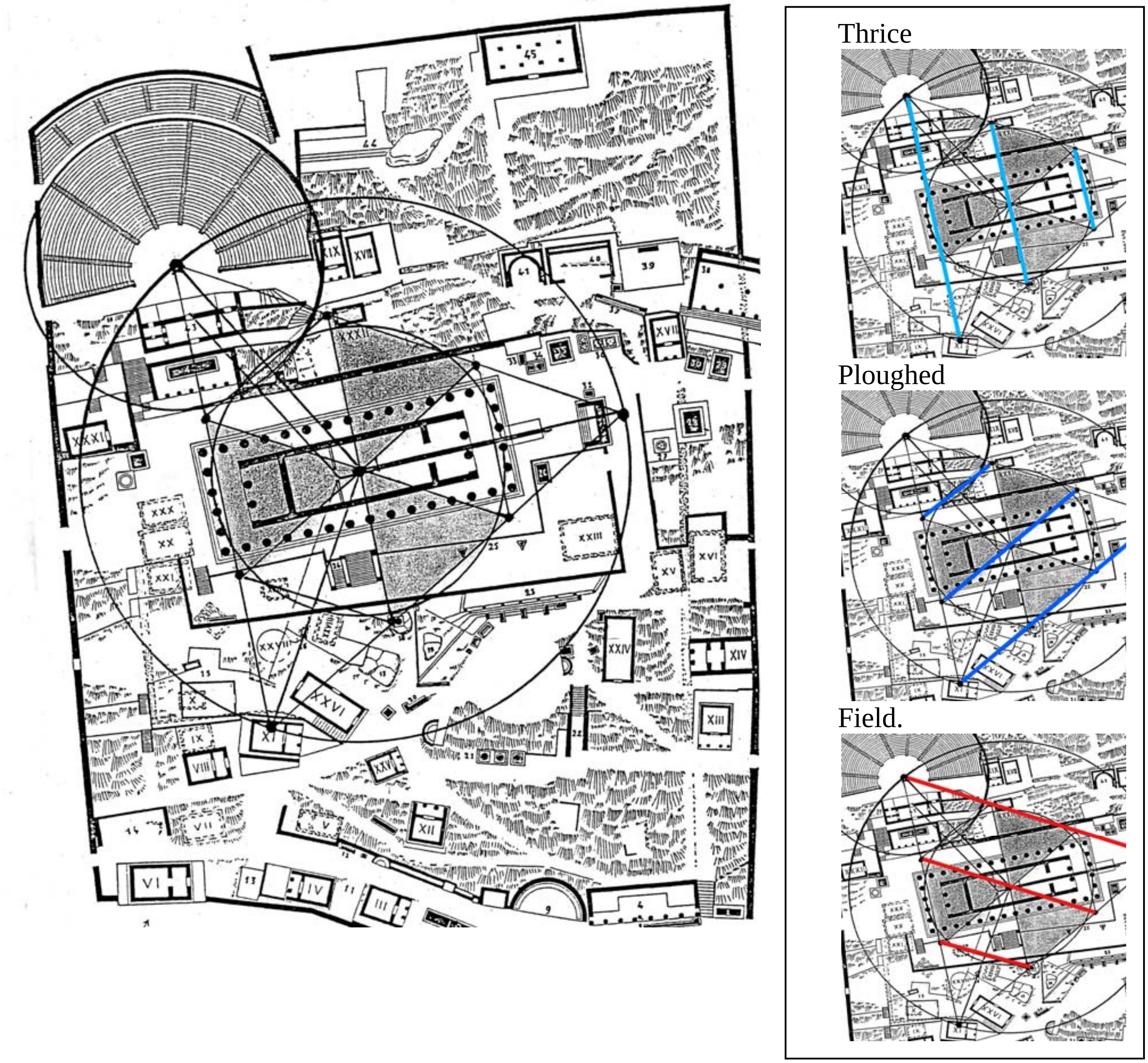


Figure 1. Site Plan of the Sanctuary of the Temple of Apollo at Delphi ("Themenos of Apollon in Delphi," Coste-Messeliere, 1936, foldout)

Its apex is in the center of the theater of Dionysos, its tripod-center is in the cosmic center of the temple of Apollo. Its other two corners terminate in the Treasury of the Athenians and at the point on the Sacred Way fronting the Temple (dark blue line Figure 2). The precision of the loci of the four *tetractyl* tripod's center and termini on Delphi's steeply sloping site evidences the precision of Pythagoras' plan (and, it might be added, the meticulous precision of the Pierre de la Coste-Messeliere survey!).

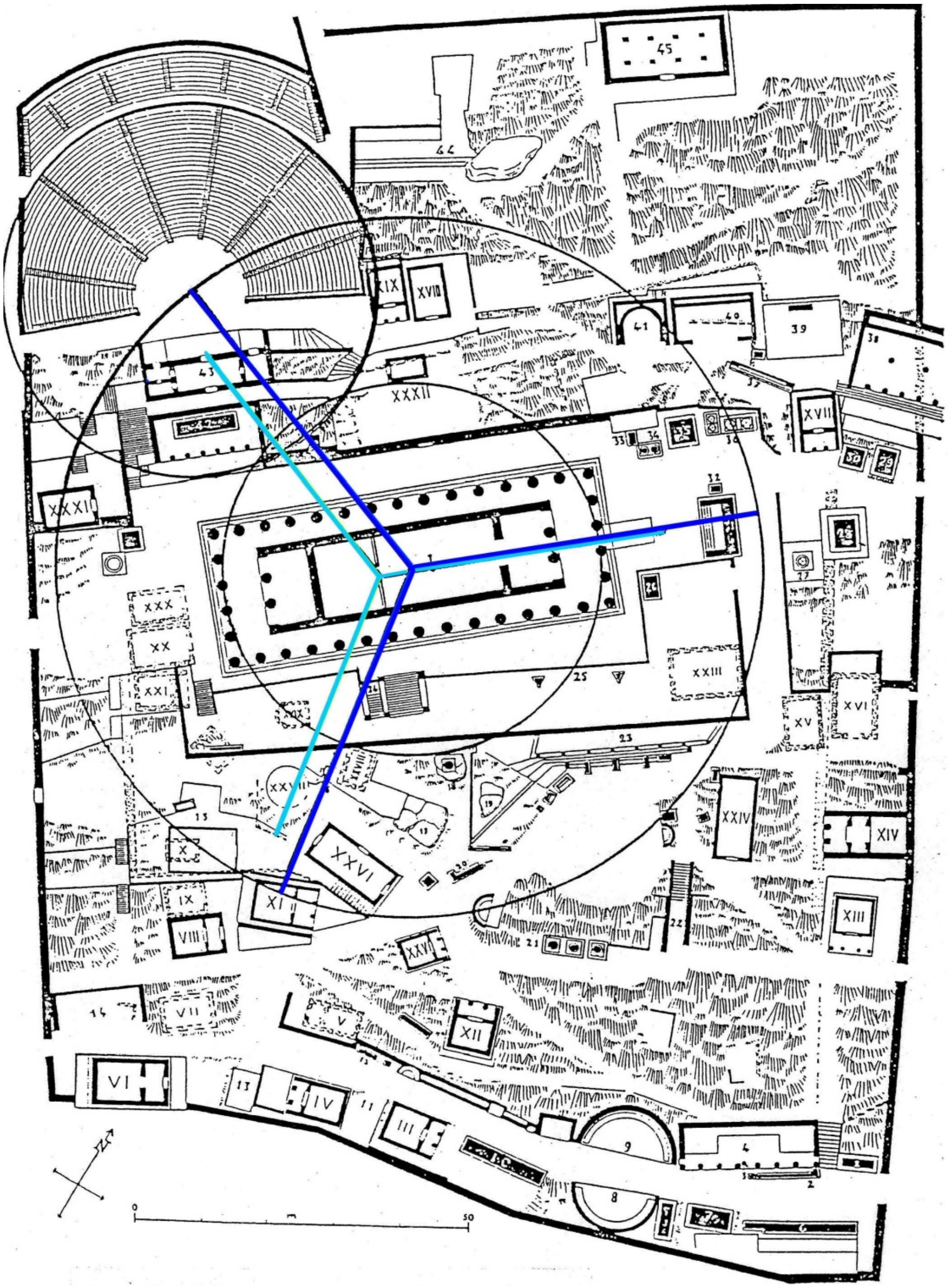

45
44
XIX
XVIII
41
40
39
38
42
XXXII
XVII
33
34
35
36
32
XXXI
XXX
XX
XXI
25
XXIII
XVI
XV
23
XXVII
XXIV
XIV
X
XXVI
XI
IX
VIII
XIII
XXV
VII
V
XII
VI
IV
III
9
4
8
0
50

Figure 2. Topographic Tripods of Centers and of Thresholds ("Themenos of Apollon in Delphi," Coste-Messeliere, 1936, foldout)

The location of the center and termini does not exhaust the mystic design of Delphi. In addition to the Tripod of Centers, in the middle of the Temple of Apollo, and extending its legs to the center of the Theater of Dionysos, and to the Treasury of the Athenians, there is a second topographic tripod. The Tripod of Thresholds, (light blue line) centered at the threshold to the inner sanctum, or the *adyton*, indicates where the Pythia, seated on the mantic tripod, uttered her veiled prophesies.

Its apex is in the central doorway (threshold) in the stage-house of Dionysos' theater, through which the tragic hero retired to face his fate. Its second, lower, terminus is at the cleft (threshold) by the Mound of Earth (Gaia), first holder of the Delphic seat before it was wrested away by Apollo from Phoebe, the third to hold the seat, to whom the scapegoat (*tragos*) was sacrificed. The third terminus of the Tripod of Thresholds is at the base of the ramp fronting the temple where the suppliant paused before entering.

The *Tetractys*, it will be noted (Figure 1), consists of ten points and three sets of parallel lines that cross. The lines might be seen as the furrows of Themis, the goddess of justice and of the thrice-ploughed field, and, after Gaia, second holder of the Delphic seat. A field ploughed thrice, diagonally right, then left, then horizontally, will produce an array of hexagons. Analyzing the pattern, each hexagon has radiating from its six faces six additional hexagons: three above its mid-point and three below. It fittingly constitutes a schema of the Scales of Themis, representing justice.

Pythagoras thought he had found the key to the universe concealed in the geometrical lines of the Delphic temple. Amazingly, for 2500 years it has remained a mystery. Or, perhaps, not so amazingly: Pythagorean brotherhood, the Mathematikoi, was a secret society, its members sworn to secrecy under threat of death.

How Pythagoras managed to accomplish the survey on the steeply sloping site remains a mystery, though we know he spent over 20 years in Egypt and while there may well have mastered the art of land surveying, so vital to Egypt's economy. The quality of the ropes used in the topographic survey of the Delphic sanctuary was a crucial factor in its successful execution. The ropes came as a gift from the last great Egyptian pharaoh, Amasis, who contributed one-fourth of the cost of the reconstruction of the temple. The gift was believed until recently to have been of alum. James Calvert (1999) has suggested that a transcription error by a scribe explains the unlikely gift of alum, a styptic agent, to a construction project. Rather, he suggests, with the change of a single Greek character, a gift of "alum" becomes a gift of "rope," fine Egyptian linen survey rope.

The Numerical Significance of the Trieteric Rite

The Pole Star is the center of the zodiac. The zodiac measures the cycle of the year. The Greeks noted a rhythm in the passing of time within the year, comprised of beats to a four count. That is to say, 1-2-3, 1-2-3, 1-2-3, 1-2-3, thus completing the cycle. This is equivalent to the three months to each season, with the four seasons constituting a year. The four repetitions of the 3/4 waltz-like rhythm may be seen as suggestive of the leaping rhythm of the Goat (*tragos*) Song of the Dionysian *dithyramb*.

The Greeks observed this repetitive beat in the heavens and perceived its seasonal effect on nature. They noted it was the rhythm in the lunar cycle, as well as that of the solar. The moon was envisioned as moving through four phases, divided into the three-phased (crescent-full, decrescent, and the new, or no-moon-at-all when "the inconstant moon" was dark or absent), each lunar cycle comprising roughly one month. The solar year was conceived in like manner, based on the sun's effect on nature's cycle: spring's birth-growth, summer's coming-to-fullness, autumn's harvest-reaping, and winter's “death.”

With the advent of spring at the vernal equinox, nature was renewed and the cycle began again. This cycle was the temporal basis for the Greek trieteric rite of spring, the celebration of the round dance of life, death, and rebirth. It was the celebration of nature's inexorable coming-to-be and passing-away, *ad infinitum*.

The Dionysian rites were performed in the winter quarter. Their culmination was the trieteric rite of spring, when women bore the infant Dionysos in a winnowing basket symbolically divided into three parts. In the wild dance of Dionysos' *maenads*, women recreated the cosmic whirl of chaos, whirling their baskets, the winnowing action casting the chaff to the periphery, while allowing the grain kernel, the precious seed, to remain and to be sewn in the fecund Earth (Gaia). The basket's whirl marked the creation of the cosmos in Anaximander's first cosmic scheme.

The trieteric festivals were biennial events as determined by the dactylic meter of the leaping Goat Dance of the dithyramb, and of the transcription by priests of the *Pythia's* frenzied chants into dactylic-hexameter. Thus, "ONE-two-three, THREE-four-five, FIVE-six-seven" would result in rites in the first, third, and fifth years, constituting the first of three triads of rites culminating in the seventeenth-year rite, and include in its span the eighteenth. This cycle of 8.6 years marked a squaring of the solar/lunar calendars.

The lunar aspect of the trieteric rites suggests they might have been in honor of the moon goddess, Phoebe, third holder of the Delphic seat. This lunar aspect is revealed (the hexagon of geometric forms in Figure 3, below) when the sequence of biennial rites' yearly numbers is taken into account, and the overlaying in the *tetractys* of numerically equivalent geometric shapes is effected.

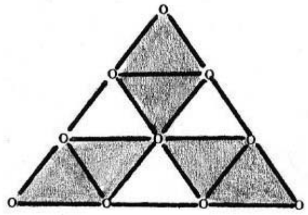


Figure 3. Tri-armed *Tetractys* (© Hector Currie 2004)

Years 1 + 3 + 5 equal 9. Three two-tiered triangles, superimposed, produce a tri-armed Maltese cross, a rotary symbol, closely akin to the running tri-legged *triskelion*, emblem of Trinacria (Sicily), near Pythagoras' Croton. Years 7, 9, and 11 total 27. There are nine single-tier triangles in the *tetractys*. Thus the *triskelion* prevails in this, the second triad of trieteric rites: Years 13 + 15 + 17, totaling 45, involve the superimposition of the 9 diamonds (36), the hexagon (6), and the three-tiered triangle (3).

This produces a silver hexagonal disc (the superimpositions having been of segments of the argent heavens), which might be seen as a token to Phoebe, the moon goddess, third holder of the Delphic seat, and as recognition of the 18.6-year squaring of the solar and lunar calendars.

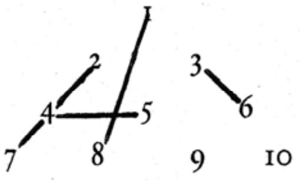
Finally, and most significantly, the Pythagorean *acousma* (catechismal instruction), heard (acoustically) by learners of the sect, clearly states the *tetractys* is the key to Delphi's mysteries. Iamblichus in *The Life of Pythagoras* includes some of these acusmata, including an important one about the Delphic temple, “What is the oracle at Delphi? The tetractys, which is the harmony in which the Sirens sing” (quoted in Bakalis, 2005, p. 18). The Sirens here stand for the planets or crystalline spheres that produce the harmony of the universe.

In the *Tetractys*, 10 (Gk., *tetra*, 'four,' a four-row pyramid of 1, 2, 3, 4 points, totaling 10,) is the key to Pythagoras' cosmic scheme, ten being the perfect number for Pythagoreans. This most sacred number expressed the mysteries of the *kosmos*. To Pythagoras, it represented the universe and the unknown depths of the soul.

There are ten points in the *Tetractys*, and ten heavenly spheres in the Pythagorean Table of Planetary Spheres, as Pythagoras' disciple Philolaus recorded some time after his spiritual leader's oral pronouncements:

1. Counter Earth
2. Earth
3. Moon
4. Sun
5. Mercury - Hermes
6. Venus - Aphrodite
7. Mars - Ares
8. Jupiter - Zeus
9. Saturn - Cronus
10. Stars-zodiac, and the *apeiron*, "The Boundless."

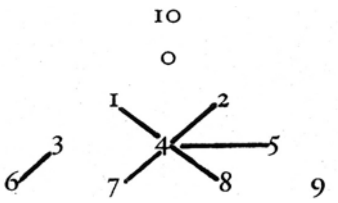
If Counter Earth (placed between Earth and the throne of Zeus at the center of the universe to stop man from looking directly at the godhead) is accorded the prime placement at the *Tetractys'* apex (1), it makes no symbolic sense when paired with Jupiter-Zeus (8), to total 9. When other pairs are so plotted, they also reveal a lack of symmetry and symbolic affinities in the pairings:



1 Counter-Earth
2 Earth 3 Moon
4 Sun 5 Mercury 6 Venus
7 Mars 8 Jupiter 9Saturn 10 Stars/*apeiron*

Figure 4. Counter Earth at Apex of *Tetractys* (© Hector Currie 2004)

Contrariwise, place the Pythagorean Central Fire of origin—0 —at the apex of the *tetractys* (which makes eminent sense, the *tetractys* being a diagram of the cosmos and its creation), and there emerges a symmetric pattern, and a symbolic affinity, in the planetary pairings.



10 Stars/*apeiron*
0 Central fire
1 C'ter E.   2 Earth
3 Moon   4 Sun   5 Mercury
6 Venus   7 Mars   8 Jupiter   9 Saturn

Figure 5. Central Fire at Apex of *Tetractys* (© Hector Currie 2004)

The Central Fire's prime placement at the *tetractyl* apex is symbolically apt, insomuch as a sacred fire burned at the *thymele*, the altar of Hestia, the hearth of the universe, in the center of the theater's circular orchestra. It stood as a symbol of the ecstatic, generative energies of Dionysos. Further each pairing of heavenly spheres might be noted to total nine to produce a symmetry of design, with Apollo, the Sun, appropriately, in the center, and Saturn—"Time, the governor," per Anaximander's fragment (Diels & Kranz, 1951, as cited in Marlow, 1954, p. 37)—isolated in the *Tetractys'* ninth position.

The Mysterious "E" at Delphi

PLVTARCHVS

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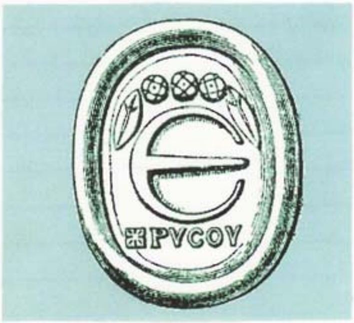


penelope.uchicago.edu/plutarch

Figure 6. Plutarch (Mayer, 1997)
Figure 7. Roman Amulet (Plutarch, 2006, note 6)

Plutarch (2006), a Delphic high priest, (Figure 6) in "On the 'E' at Delphi" asked rhetorically, "What is all this to Apollo?" His response, "Much, we will answer, not to Apollo only but also to Dionysus, who has no less to do with Delphi than has Apollo." Then, remarkably, he revealed the secret of secrets, that the divine is unified despite the fractured perceptions of humanity. He characterized the different perspectives of human beings. Theologians assert that "the God subsists indestructible and eternal…and passes through changes of his person; at one time he sets fire to Nature and so makes all like unto all, at another passes through all phases of difference — shapes, sufferings, powers — at the present time, for instance, he becomes 'Cosmos.'" The "wiser people" call him "'Apollo' from his isolation [and] 'Phoebus' from his undefiled purity." Other changes they describe metaphorically as "rendering and dismemberment" and call the God by different names, “Dionysus or Zagreus or Nyctelius or Isodaites” and construct “riddles and tales to match the changes.” The God offers a prescription for this confusion, “the phrase ‘KNOW THYSELF’ seems to stand in a sort of antithesis to the letter ‘E’,” a consecrated letter in the Delphic temple, “and yet, again, to accord with it. The letter is an appeal, a cry raised in awe and worship to the God, as being throughout all eternity; the phrase is a reminder to mortal man of his own nature and of his weakness.”

Regarding the Roman amulet (Figure 7), C. W. King perceptively noted, “The symbol, which is preserved to us by amulets, was indeed similar in shape to the lunar ϵ but then that character was unknown before Imperial times. In all probability it was an Indian cast mark; and imported like the Swastika or Fylfot, and many other Indian symbols, in prehistoric times" (as cited in Plutarch, 2006). The first impression of the amulet is of a circular "C" with a horizontal arrow through the aperture toward, if we are to believe Plutarch, the Cosmos. This brings to mind the Vedic *Shiva's* male member mythically projecting beyond infinity. For, at the spring equinox, as well as the meridian at midnight, the “far-darting” arrow of Apollo (and Sagittarius) is projected from the center of Dionysos' sanctuary (building XXXI), and soars, bearing the spirit of initiates toward the Pole Star at the center of the celestial whirl, and beyond beyond, to the boundless *apeiron*.

While the angularity of its arrow-form is unlike the Greek epsilon, the mysterious "E" at Delphi may be read as a stylized arrow form "E." This arrow form directs the powers of hermetic wisdom (Mercury-Hermes) from the Sun (*Phoebus* Apollo) in a recognition of feminine (*Pythian*) intuition toward the reflective lunar sphere (Phoebe). Dirghatamas identified the sun with the pole star, which ties in to the trieteric rite of Dionysos at Delphi, where it is envisioned as the target for Apollo's far-darting arrow transcendentally bearing the spirit "beyond beyond." Thus, from a high priest of the Delphic Oracle we have it: the vernal trieteric rite of rebirth/renewal of nature is Dionysos'; his, the mystery of the spirit's transcendence.

Transcendence: The Key to Equipoise Between Apollonian Order and Dionysian Ecstasy

Delphi is famous as the seat of Apollo, the god of reason, of limit. The Delphic motto is "Know thyself," the stern injunction inscribed at its temple portal. Delphi is also home to Dionysos, the god of instinct, of un-limit, the boundless *apeiron*. Somehow the two gods, so seemingly opposed at a fundamental level, gained here, at the center of the cosmos a mysterious equilibrium of force-counter-force, of materiality contra immateriality, of Being contra Non-Being.

Transcendence is the key to the tragic dithyramb of the god of frenzied ecstasy, Dionysos, the god who dies to be reborn in the trieteric rite of spring: *tri*-(three), *e*- (from) *ter*- (three) equals zero, i.e., is of non-existence. Transcendence is also the key to the “far-darting” arrow of the god of order, Apollo; the key to one, and none—freed from the confines of space and time, transcendent.

The mundane world was largely unaware of this balance of psychic forces at Delphi's cosmic center. The Pythagorean code of secrecy saw to that. Though there is a celebration of transcendence in Sophocles' Oedipal trilogy at the end of the Classic Age, the Hellenistic age which followed the Classic lost the great age's high tragic vision.

With the advent of Hellenistic moralism in the 300's BCE, the free spirit of the transcendent nature philosophy of Pythagoras was replaced by judgmental strictures. Nature philosophy's preoccupation with the abstract, with creation and "cosmogony," with the foundation of existence (and non-existence), was replaced with worldly concerns about order and equity in the affairs of man, and with moral concerns affirming the good and castigating evil. The boundless, the limitless, was classified as evil; limit, as good, in the Pythagorean Table of Opposites. Limitlessness was associated with the void. This, Aristotle could not abide, declaring, "Nature abhors a vacuum."

The *apeiron* was dismissed out of hand without a counter argument; the transcendent was soon forgotten. For some two millennia the *apeiron* has largely vanished from public consciousness. As of 2005, no English dictionary (except Klein's, 1966, *Etymological*) so much as lists the term, though it is the title of recondite scholarly journals of archeology and advanced physics. Yet it was at the very heart of Pythagoras' philosophy of nature. He placed it at the pinnacle of his sacred *Tetractys*. The *tetractys* is Pythagoras' key to the mystery at Delphi, its "root and fount," as his *acousma* (oral teaching) declared (as cited in Iamblichus, 1986/1818, p. 87).

The anonymous Homeric Hymns attributed the design of the Delphic *temenos* to Apollo (“To Pythian Apollo,” 1914, ll.254-276, p. 343), which seems but a mythic fantasy. Yet, it is inconceivable that Pythagoras could have established the basic coordinates of the centers of Apollo's temple and Dionysos' theater, orienting toward the northeast, rather than, as with temples in the East and West, facing due east to greet the equinoctial rising sun.

When Apollo wrested control of the Delphic seat, it had a long mythic past, having been the domain successively, of three goddesses: Gaia, Themis, and Phoebe. Apollo imposed a masculine order on the sacred site. Yet, before Apollo, Themis, the goddess of justice and of the thrice-ploughed field, gave form to the Pythagorean *Tetractys*, which brought tri-form order to the oracle at Delphi. Gender issues aside, one can only surmise that the Homeric Hymns spoke the truth: Delphi is the mythic seat of cosmic mystery of Apollo, the god of order (“To Pythian Apollo,” 1914, ll. 179-181, p. 337).

The Greek and Vedic Gods of Nature

To understand Delphi is to grasp its transcendent purpose. Its roots go deep into the Greek consciousness before the Anaximandrian breakthrough to the Boundless, deep into the realm of myth involving the gods of nature, both Greek and Vedic.

The three original holders of the Delphic seat were feminine: first Gaia, the earth goddess, followed by her daughters, Themis, the goddess of justice and of the thrice-ploughed field, and Phoebe, the goddess of the tri-phased moon (Kingsley, 1995, p. 46).

Sita, the Vedic goddess of the furrow (Frawley, 1992, p. 242). She would appear to be the Indian counterpart to the Greek goddess Themis, second holder of the Delphic seat and "goddess of the thrice-ploughed field," order-bringer to the sacred Pythagorean *Tetractys*.

The Vedic god *Vishnu,* the sun god, relates to Delphic *Phoebus* Apollo, the Greek sun god; in the trieteric rite of Dionysos, the sun is identified with the pole star, envisioned as the bull's-eye target for Apollo's "far-darting arrow," transcendentally bearing the spirit beyond beyond.

The Greek-Vedic conceptual connection is evidenced by the Greek *Seven Adyta* of Pherekydes coinciding with the Vedic seven chakras. *Chakra* (in Sanskrit disk or wheel) signifies one of seven energy centers or levels of consciousness. The seven chakras are associated through yoga with the Hindu god *Shiva*, god of destruction and rejuvenation (Mallinson, 2007, p. x).

The similarities between the Greek and Indian pantheons was known in ancient times.

> The Greeks explained the similarities in the cults of Shiva and Dionysos by a journey of Dionysos to India…. According to Diodorus, it is due to the memory of his expedition to India that the Boetians, the other Greeks, and the Thracians, instituted trieteric sacrifices to Dionysos. (Danielou, 1992, p. 38)

And this was not the only influence. According to Martin West (1971):

> It was the very extravagance of oriental fancy that freed the Greeks from the limitations of what they could see with their own eyes, led them to think of ten-thousand year cycle ... of an infinity beyond the visible sky and below the foundations of the earth, renewed … aeon after aeon (p. 67).

The Roman Twilight of the Gods of Nature

The Roman twilight of the gods marked the period of Rome's slow decline from its zenith architecturally, with the dedication in 125 CE of that marvel of Roman engineering, the Pantheon. Rome reached its nadir with the death of her last pagan (i.e., believer in the Greek pantheon of the gods of nature enshrined at Delphi), Emperor Julian, branded The Apostate. The Roman twilight also marked the slow fading of the light emanating from the Delphic Oracle. And with the Pythia departed the balance of the gods of nature, Apollo and Dionysos. We examine this slow fading of the light of pagan Rome and Delphi, in the person of the two Roman emperors who embraced the Greek nature gods and their mystery. We will trace the Roman sun's rise to its heights, and its decline into the darkness, which ultimately enveloped the Delphic flame. In 390 CE the flame at Delphi was demolished by the order of Emperor Constantine.

Hadrian's Visionary Pantheon

The Emperor Hadrian was committed to a distinct vision of Greece as a sacred land. In 120 CE, he

> began designing a Pantheon reminiscent of Greek temples…. The rotunda's internal geometry would create a perfect sphere, since the height of the rotunda to the top of its dome would match its diameter …[its] height to match its diameter, 142 feet (43.30 m). At its top, the dome would have an oculus or eye, a circular opening, with a diameter of 27 feet (8.2m), as its only light source. Hadrian said, "My intentions had been that this sanctuary of All Gods should reproduce the likeness of the terrestrial globe and of the stellar sphere...The cupola...revealed the sky through a great hole at the center, showing alternately dark and blue. This temple, both open and mysteriously enclosed, was conceived as a solar quadrant. The hours would make their round on that caissoned ceiling so carefully polished by Greek artisans; the disk of daylight would rest suspended there like a shield of gold; rain would form its clear pool on the pavement below, prayers would rise like smoke toward that void where we place the gods." (Parker, 2001, p. 14, original ellipses)

Hadrian's vision was philosophically sophisticated: spheres both "open," yet "mysteriously enclosed," as well as conventionally religious, from which "prayers would rise like smoke." Yet it recovers from this sanctimony and rises to an Eastern metaphysic, attuned to the dimensionless para-cosmos of the Anaximandrian-Pythagorean *apeiron*: "toward that void," and closes with a conventionally pious genuflection: "where we place the gods." One thing is clear: the Pantheon, in Hadrian's soaring imagination, was to be a place of mystery, of transcendence.

The Pantheon, "dedicated in 125 CE, gave expression to Hadrian's vision that all the gods were manifestations of a singular, but complex energy" (Lambert, 1960, p. 71). Contemporary "Theory of Everything" (TOE) physicists would commend Hadrian's insight and foresight. He was two millennia ahead of his time in a quest for the holy grail of quantum theory: the "Grand Unifying Theory" (GUT) of everything—and nothing.

Hadrian's Contemplative Maritime Theatre

Hadrian's Maritime Theater at Tibur's wall is a 142-foot circle. "Its reflective pools were created, it is said, to observe the star-filled heavens" (Heebner, 2000). Begun in CE 126, Villa Adriana offered Hadrian a refuge. He would often withdraw to this circular house surrounded by a moat to sit in deep contemplation of the star-girt sky.

The central triad of columns, reflected in the still waters of the lunette pool, framed one zodiacal constellation oriented toward the Pole Star round which wheeled the firmament, and—in the constellation of the Eagle—the star he had named in memory of Antinous, beloved member of his entourage. Here, might not Hadrian, in the center of his mirror-pond, as the stars turned about in their course across the night sky, have sought to transcend time that he might recover his youthful ideal?

Hadrian's desire ruled him as he sought the center in the void. Might he have sensed the pulse of Being-Non-being, the passion, the "arc of desire," of the *Creation Veda*, in the star of Antinous shimmering in the dark waters?

> In the Greco-Roman world [Antinous] was ... frequently assimilated with the Hellenic equivalent of *Osiris*, the god Dionysos, who had suffered, died, been reborn and subsequently brought fecundity to the soil. It was with Dionysos that Antinous was to be linked throughout the empire. It was this infusion of oriental energy, mysticism, and transcendence . . . that gave belief in Antinous a deep and wide appeal ... in the second century and later. (Lambert, 1960, p. 188)

Might not Hadrian have envisioned Dionysos' sanctuary as the launch site, at the very center of the Greek cosmos, for a rite of trieteric transcendence bearing Antinous' aspirant spirit to—and beyond—the Great Unknown? Might he not have envisioned his own spirit, in the proper time, joining that of Antinous, borne by the same arrow?

Hadrian attempted to revive the national consciousness of the Greeks by making Delphi the main pan-Hellenic center, but was unsuccessful, due in part to Spartan resistance (Birley, 1997b, pp. 220-221).

Hadrian was, however, given the title of honorary magistrate (*archon*) in Delphi at least twice (Dempsey, 2003/1918, p. 178), and by a declaration naming the days of his visit as an ongoing religious holiday (Birley, 1997a, p. 187). Plutarch erected a statue at Delphi to celebrate Hadrian's ascension to the emperorship of Rome (Birley, 1997a, p. 169).

Emperor Julian: Champion of Free Thought

Emperor Julian's philosophy was, like that of Anaximander, Pythagoras, and the *Vedic* seer of the *Creation Veda* X.129, a philosophy of exaltation. Emperor Julian (1793) in oration to the “Sovereign Sun,” exalts Apollo the sun god, opening his dedication with “The Sun's resplendent deity I sing / The beauteous offspring of almighty Jove” (p. 35). In the oration proper, Julian establishes the universal nature of his insight into Apollo’s power, addressing the oration to all “who breathe or creep on earth,” quoting Zeus from the *Iliad* (p. 39). He noted the sun’s power to divide “the zodiac into twelve powers of god” and connected the god of the sun with the god of wine, noting that Bacchus “is said to obtain a common kingdom with the sun” and completing the thought by noting the unity of the godhead, “But why should I here mention the epithet Horus, or other names of the gods, all of which correspond with the divinity of the sun?” (p. 74). This connection between Apollo and Bacchus recalls Plutarch’s (2006) comment that Dionysus “has no less to do with Delphi than has Apollo.” For Julian, Apollo is central to his existence, having “*generated my soul from eternity, and rendered it an attendant on his divinity*” (p. 92, original emphasis). And he closes with an entirety to “the sun, the king of the universe” to “impart to me a good life; more perfect wisdom; a divine intellect” and a desire to “ascend to his divinity, and abide with him, if possible, in perpetual conjunction” (p. 95).

This invocation has resonances of the cosmic extension of Iamblichus' (2000/1911) treatise, *On the Mysteries of Egypt*, in which he sought to explain the relationship between the divine order and the rites and ceremonies used to influence and affirm that order on earth. Iamblichus discussed the planting of phallic images as “representing of the procreative power by conventional symbols, and that we regard this practice as an invocation to the generative energy of the universe,” which were consecrated in the spring “when all the world is receiving from the gods the prolific force of the whole creation” (chap. 4). The translator, Alexander Wilson, in a footnote claimed “the custom here described was universal in ancient times, and it is still found in parts of India” (note 4). The universality of such a custom supports Iamblichus’s point that “the gods have one common essence” and “comprehending their essential being as divine, they govern the whole sky by one infinite energy” (chap. 4, “The Gods Have One Common Essence” section). Holy rites performed by human beings copy “the order of the gods” and everything is accomplished by a sole Divine Cause, which is so far remote from passive conditions that no reasoning faculty can reach to it (chap. 4, “Classification Rejected” section). He then noted that those “who are unable to acquire the deeper knowledge of the reasonings themselves, yet who imagine themselves able, are entirely carried away by their own peculiar human emotions, and form their judgment of matters relating to the gods from things incident to themselves” (chap. 4, “Classification Rejected” section).

Here, amid a Roman culture about to collapse into sectarian anarchy, rooted in a human tendency to respond to misunderstanding the divine, an ill-omen of the Dark Ages soon to descend on the West, came a call for cosmic transcendence.

Julian's Call to Freedom

As emperor, Julian was a man of his word. On February 4, 362 CE, he shocked the Christian-Roman and "pagan-heathen" world with the issuance of his "Edict of Religious Toleration." In this edict, he extended to all citizens the benefits of religious freedom.

Edward Gibbon (2004), in his classic study, *History of the Decline and Fall of the Roman Empire*, saw the import of Julian's visionary call to freedom. “The only hardship which he inflicted on the Christians, was to deprive them of the power of tormenting their fellow [Roman] subjects, whom they stigmatized with the odious titles of idolaters and heretics” (p. 436).

Gibbon (2004) later presented a prescription for world survival that our planet, given to self-righteous zeal, ignores at its peril in this time of the insidious threat of terror: “Philosophy alone... is able to eradicate from the human mind the latent and deadly principle of fanaticism” (p. 559).

> [These] ancient psychologies had their last official recognition in the waning days of the Roman Empire, before their violent suppression by almost two millennia of monotheistic dogma. But, before Nature philosophy's light was snuffed out, the flame on Delphi's altar burned, if only in spirit, but briefly, under the aegis of the much anathematized visionary Roman emperor, Julian. (Athanassiadi-Fowden, 1981, p. 145)

The Boundless in the Arts

At this point we shift from a focus on nature philosophy to a broader consideration of its inspiration of works of high dramatic art and scientific advancement. The expression of the mystery beyond the Boundless is often found in great works of art. It might be suggested there is a deep connection between the furthest reaches of philosophical thought and works of art that probe the utmost reaches of theoretical speculation. Indeed, this scientific/aesthetic symbiosis would appear to have been the mark of the great age of dramatic art.

For example, Shakespeare's *Hamlet* was being written (in 1600 CE) while the visionary monk, Giordano Bruno, was being immolated on a fiery pyre in Rome's Field of Flowers for proposing a boundless universe in contravention of the narrow dogma of the religious hierarchy. Aesthetics and science meet on common ground in ages of inspired vision. This is borne out by the awakening in the minds of leading contemporary visionaries of science, as evidenced by the soaring spirit of Erwin Schrodinger (1996) in his *Nature and the Greeks:*

> The scientific world-picture vouchsafes a very complete understanding of all that happens—it makes it just a little too understandable. ...[For] the purpose of constructing the picture of the external world, we have ...[cut] our own personality out ...[as] ostensibly not needed. This is reason why the scientific world-view contains of itself no ethical values, no aesthetical values.... Science cannot tell us a word about why music delights up, of why and how an old song can move us to tears. (p. 96)

Greek nature philosophers recognized that psychic ecstasy was essential to the creative process. The Romantic scholar, Goethe (1949/1848), recognized this psychic experience. He wrote in his *Autobiography* of daemonic energies: "A tremendous power issues from them, and they exercise an incredible dominion over all creatures, indeed, even over the elements, and who can say how far such influence will extend.”

This brings to mind the Vedic *parabrahman*, the formless chaos before creation. In original chaos, the cyclic rhythm of life is transcended by the hero when matter emerges from primal chaos—when it is cleaved from the state beyond being, beyond knowing. Such a fusing of oppositional creative and destructive forces is to be found in the dance of the androgynous Hindu god, *Shiva*, fusing "his" male with "his" female power, *Shakti*. In their dance, light and darkness coalesce in a world-creating (and destroying) cosmic shadow play. “The unlike is joined together, and from differences results the most beautiful harmony, and all things take place by strife” (Heraclitus of Ephesus, 2001/1899, part 46).

Contrast such Eastern wholeness with the Western world's *agon* between light and dark, in which the dark is vanquished and ultimately banished by light. This East/West dichotomy was not always so. As we saw in the philosophy of Anaximander and Pythagoras, during the all-too-brief period of pre-Socratic enlightenment, the light of the East penetrated the West.

Transcendent Order in Sophocles' *Oedipus*

The age of Greek high tragedy began within a century of Pythagoras' passing (c. 490 BCE) with the performance of Sophocles' Oedipal trilogy, culminating in his *Oedipus at Colonus* (completed 406 BCE.). Produced in 401 BCE by his grandson after Sophocles death at the age of ninety, *Oedipus at Colonus* was the playwright’s last work and it celebrated the hallowed place of his birth, Colonus. The sacred and transcendental geometric schema of Delphi can be discovered here in the works dramatic form and moving imagery.

Sophocles (1939) has the chorus urge Oedipus to “make expiation to these divinities whose ground you violated when you came” (p. 105). Oedipus asks for clarification of how he should seek this expiation, and the chorus instructs him to “bring libations from the spring” and “Facing the quarter of the morning light, pour your libations out ... in three streams. (p. 106). He is then instructed to “Lay three times nine young shoots of olive on” the spot where the earth soaked up the libations “with both your hands” and repeat the prayer, “That as we call them Eumenides, which means the gentle of heart, may they accept with gentleness the suppliant and his wish” (p. 107).

Recall that 27 (3 x 9) is the ratio of the sun's wheel of fire to the breadth of disc-shaped Earth in Anaximander's first cosmic scheme. Numerologically, 27 (2 + 7) is nine, the fateful penultimate number of Saturn (ruler of time) in Philolaus' Pythagorean Table of Planetary Spheres. Time, according to Anaximander's fragment, governs all (McEvilley, 2002, p. 31) and in the eternal round occupies the penultimate position before completion of the decad (10). Therein, the sphere of stars is transcended, the Boundless, the infinite, *apeiron*, is attained.

Numeric symbolism pervades *Oedipus the King*. In Jocasta's fateful assumption that the Delphic oracle was erroneous, we see that its prophecy points to the fateful number three. She says that Laius was killed “where three roads meet,” and that “before three days were out after” Oedipus’ birth “King Laius pierced his ankles, cast him forth on a pathless hillside” (Sophocles, 1991, p. 41-42).

The following geometric schema, put forward by the chorus in *Oedipus at Colonus,* is most interestingly suggestive of Oedipus' apotheosis and symbolically pins down the four-quarter cross of Nature's fury:

> CHORUS:
> Think of some shore in the north
> Concussive waves make stream
> This way and that in the gales of winter:
> It is like that with him:
> The wild wrack breaking over him
> From head to foot, and coming on forever;
> Now from the plunging down of the sun,
> Now from the sunrise quarter,
> Now from where the noontime gleams,
> Now from the night and the north.
> (Sophocles, 1939, p. 146)

Imagery of waves breaking over Oedipus extend the theme of Nature’s fury in *Oedipus at Colonus*:

> Oedipus to Theseus:
> I'll lead you to the place where I must die;
> But you must never tell it to any man…
> These things are mysteries not to be explained. (p. 158)

O sunlight of no light! Once you were mine!
This is the last my flesh will feel of you;
For now I go to shade my ending day
In the dark underworld.
(Sophocles, 1939, p. 159)

Here, we have the gnosis, or mystic knowledge, at the heart of the mystery of transcendence: in light there is darkness. In the darkness following the blinding light, as Nietzsche (1999) remarked, we see the dark after-image of the sun (p. 46).

This is the secret to tragic *anagnorisis* (discovery, enlightenment, revelation) as seen in *King Lear*, when the dark secret is revealed to the blind Gloucester on the hearth: "I stumbled when I saw" (Shakespeare, 1974, IV.i.19).

Below, Sophocles (1939) in *Oedipus at Colonus* gives full recognition to the inexorable force countering the Mind's limiting reason, and the thrust of Dionysos' transcendent abandon: ecstasy.

MESSENGER:
It was not lightning,
Bearing its fire from Zeus, that took him off;
No hurricane was blowing.
But some attendant from the train of Heaven
Came for him; or else the underworld
Opened in love the unlit door of earth.
For he was taken without lamentation,
Illness or suffering; indeed his end
Was wonderful if mortal's ever was. (p. 163)

Antigone, daughter of Oedipus' incestuous union with Jocasta, explained to the chorus what has become of her father, describing it as a "bewildering mystery" (p. 164):

It was not war
Nor the deep sea that overtook him,
But something invisible and strange
Caught him up—or down—
into a space unseen. (p. 164)

Oedipus, whether conducted to the underworld by an escort sent by the gods or swallowed by a fissure in the earth, transcends the antagonistic forces of the psyche, of very existence. With *Oedipus at Colonus*, morality is transcended in a sublime psychic fusion affecting the hero's apotheosis. The antagonism at the heart of the world—the psychic split in the tension between suffering-restraint and joy-release—is resolved. The cosmic wound, incurred when matter and energy separated from original chaos, is healed. The tragic hero's profound nostalgia is to attain the beyond, the chaos beyond creation—to transcend existence.

This mystic longing has been brought to modern Western attention by an influx of Eastern philosophy. Karl Shapiro (1960) observed this regard in “Cosmic Consciousness:”

> It appears that in the twentieth century we have reached the point at which Oriental “ways of life” are about to penetrate the West. At the same time it appears that science has reached that frontier at which it meets up with what is called mysticism. The deep vein of mysticism has been opened again, and the age of pure rationalism seems to be on the wane. A tremendous synthesis is in the making between modern science [and] the ancient psychologies of the past. (p. 29)

Symbolic Significance of the *Periaktoi* Flanking the Stage at Delphi

Having considered the profound symbolic depth of vision of the great age of Greek high tragedy, let us explore the symbolic significance of the literal stage, on which the tragic vision was physically realized. It is generally believed Anaximander introduced, among other technological advances of the Persians, the *gnomon* (sundial) to Greece, having set one up at Sparta to mark the vernal equinox and the passing of the hours. The Theater of Dionysos at Delphi was both a sundial marking the diurnal round of the sun, and a zodiacal calendar, marking the yearly round of the sun and the firmament. (Figure. 8)

Two *periaktoi* were believed by many theater historians to have flanked the Hellenistic stage, marking changes of scene. However, by carefully considering the etymology of *periaktoi* (from the Greek, *peri* meaning "round" or "beyond; and *aktoi* meaning "rays") we see that rather than being simply a visual aid to help the audience follow the action, the *periaktoi* were markers of "round" of time.

By day, they served as a clock, marking the passage of the sun's rays from sunrise (red dotted line) to high noon (blue dotted line), aiding the priestly morning ritual preparation leading up to the performance of the tragic trilogy and the satyr play afterpiece. By night, they were a zodiacal compass. At midnight, the stage-left *periaktos* lined up for the spirit's flight from the mystic launch site in the center of Sanctuary XXXI.

The *periaktos* lines up along the meridian (blue dotted line) through the fire altar of Hestia in the orchestral center, to the Pole Star, and beyond beyond, transcendentally, to the *apeiron*. Building XXXI, with two sets of steps leading up from it to the theater, was the sanctuary of the god of nature, Dionysos.

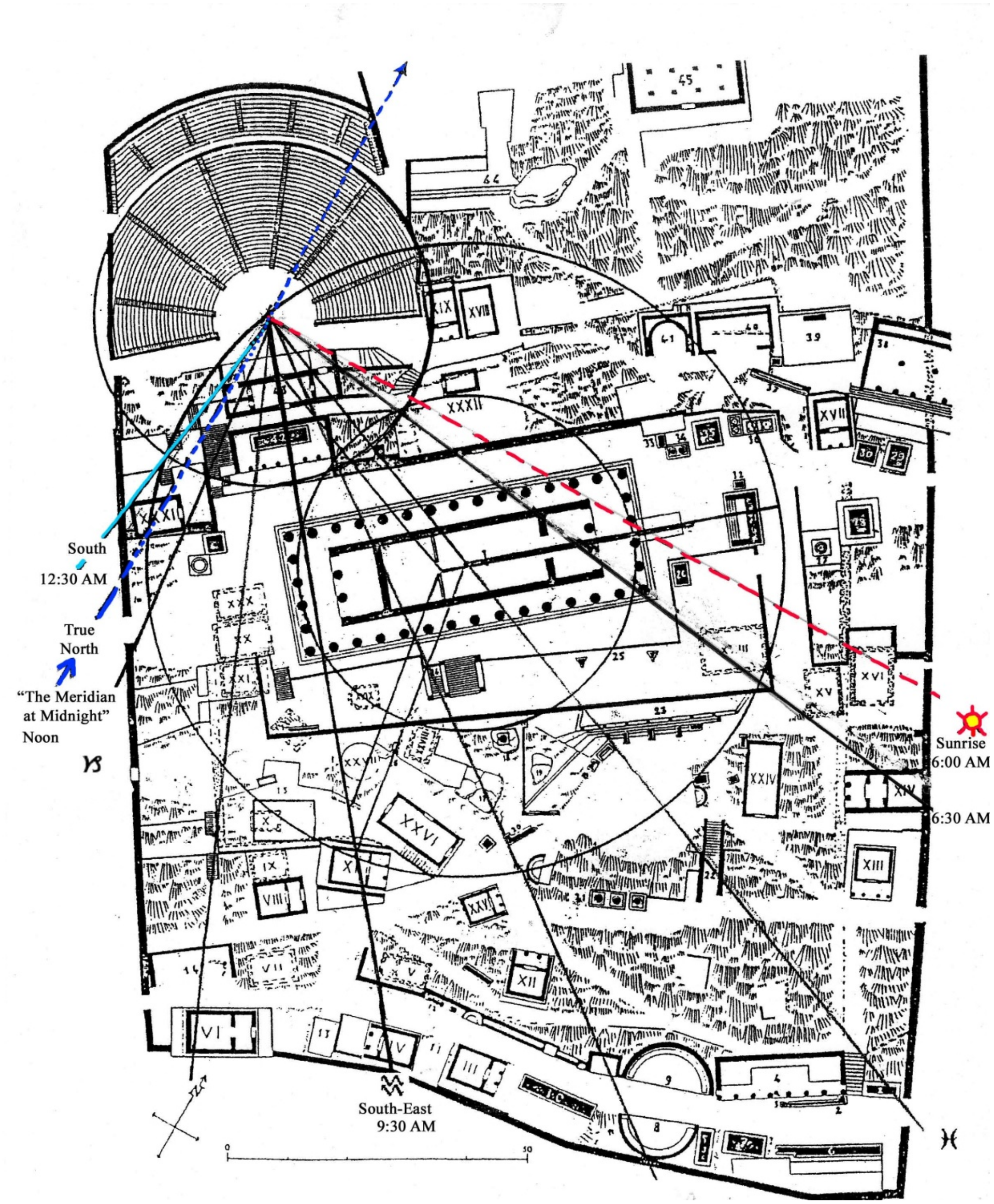


Figure 8. *Periaktos* Lines up Along the Meridian Through the Fire Altar of Hestia ("Themenos of Apollon in Delphi," Coste-Messeliere, 1936, foldout)

At Delphi, the year was quartered when Apollo sojourned in the hyperborean North and Dionysos rejoined his mother, Semele, in the *omphalos* within the temple for the winter quarter. In the same manner, the day was quartered at the vernal equinox, marking the trieteric rite of spring. At this time of renewal, the day was quartered in the Delphic theater of Dionysos, of the god triadically divided in the trieteric rite, within the sacred precincts of Apollo and of Dionysos.

Thus, at high noon, as the hero fell, having retired within to face his fate, the sun was aligned along the meridian running through the center Sanctuary XXXI, the seat of the dying (to be reborn) gods, Dionysos. The sun also aligned with the orchestral center's fire altar of Hestia, goddess of the hearth of the universe, marking the apotheosis of the tragic hero. A half-hour after noon, on the completion of the Dionysian satyr play afterpiece, the *periaktos*' shadow lines up with the western corner of the god of the theater's (Dionysos') Sanctuary XXXI's roof, marking the completion of the satyrs' half-hour comedic revels of renewal.

At the midnight ceremony of the vernal equinox — the soul of the initiate was then borne beyond the dark of night, beyond time, beyond space into the astral firmament.

The Ultimate Tone: The Sound Not Heard

As we draw to a close in this discussion of the Delphic Temple and Theater, it is significant to note the complex has a deflection of 7.5 degrees (light blue line Figure 8) — 1/12th the 90 degree gravitational fall of all existents, the inexorable gravitational angular factor in physics at which a top falls. It is, as well, the gravitational factor in music theory (as in the Pythagorean "Harmony of the Spheres") in the 12-tone scale's octaval fall.

The ultimate placement of the Boundless, *apeiron*, at the pinnacle of the sacred *tetractys* testifies to the trieteric rite's profound reach beyond the empyrean. German musicologist Hans Kayser (1970) was startled to discover in his analysis of the Pythagorean Table of Tones, the ultimate tone is "the sound not heard." This is the sound of silence—the void is from whence all came, and to which all shall return.

In the perennial philosophy of nature, this gravitational descending glissando of all that exists symbolizes the stark imperative of Anaximander's fragment: Each must pay restitution for its existence according to the dictates of time. The revels over, the seed of Dionysos inseminates the womb of Gaia/Earth, first holder of the Delphic seat. The course of Phoebus Apollo above her in summer’s heat is to herald nature’s autumnal bounty. Nature philosophy, though born of tragic awareness, is a philosophy of Emersonian hope, of transcendence, a transcendence the Sage of Concord mystically sensed in creation’s infinite symmetries—and in the ineffable Mystery of Nature emanating from deep within the sacred stones of Delphi.

Yet, Hans Kayser (1970) wrote *Akroasis* with "the note not heard" in the harmony of the spheres, the thirteenth overtonal note commencing the new octave, the spirit mystically attains the apex of the sacred *Tetractys*. And in the trieteric rite, the winnowed seed of infant Dionysos falls to the womb of Gaia/Earth, there mystically to strike the fire of rebirth at the altar of Hestia, "Hearth of the Universe," in the center of the theater of Dionysos. Then, in the mystery beyond knowing, the spirit of the initiate gains release from the wheel of Being, vaulting, transcendently—beyond the Pole Star—beyond the Boundless *apeiron*, "beyond beyond"— in the mystery of *paranada*, which comes from the Sanskrit and conveys a sense of “the soundless sound” beyond creation (“Soundless Sound,” 2008).

Shakespearean Transcendence

When sun, at noon, had aligned along the meridian, Dionysos was in the center of his sanctuary and Hestia was at her central fire of creation altar in the center of the god of ecstatic release's theater orchestra. The day had been quartered, as the year had been quartered in the Delphic temple, Dionysos intimately rejoined his mortal mother, Semele, for the winter quarter within the *omphalos.*

Then, at high noon, beneath Apollo's solar glare, as in the midnight dark of the *Trieterica* rite, as the meridian passed through the center of Dionysos' sanctuary (signaling the fall of Fate's decree on the tragic hero) and the still point in the celestial whirl obscured by the solar disc's blinding glare, and the Boundless *apeiron* rang with the “sound of silence,” the Harmony of the Spheres — at this culminatory moment Oedipus vanished.

In contemplating the heights of high tragedy that realized the transcendent vision, my thoughts naturally turned to the master of tragic form, Shakespeare. Could Shakespeare have been aware of Sophocles' masterwork, *Oedipus at Colonus*? Was it in English translation, and if so, had he access to it? It seems unlikely, but according to John Harvey (1977), it was entirely possible. Yet, might he have sensed, at the climax of Sophocles' *Oedipus at Colonus,* the tragic hero's apotheosis?

The inspired vision of Edouard Schure (1918) pointed the way on this journey into the unknown when he asserted, “Observation and reason are not sufficient. In addition to and above all else is intuition” (p. 114). Pythagoras sought to develop intuition in his students and initiates (p. 49); and intuition was at the root of his efforts to revive the mission of the Delphic priests and bring back the art of divination at Delphi (p. 31, 34). And Pythagoras was successful. According to Meletzis and Papadakis (1964), during his year at Delphi he "revolutionized the art of prophecy" (p. vii).

I felt — there's no explaining how — Delphi's "sound-of-silence" extended somehow beyond our "knowing," infusing our very Being, as had Sophocles' profound tragedy of transcendence. Then, the answer came to me: the answer was to be discovered in that other towering tragic masterwork, *Hamlet*.

The "sound of silence" at the climax of Sophocles' *Oedipus at Colonus* is sensed in the dramatic pause in the opening line of Hamlet's deep-probing soliloquy, “To be, or not to be?” and is sensed as well in the fading sibilance of the final word of his farewell to earthly existence: “The rest is silence” (Shakespeare, 1974, III.i.55, V.ii.358).

This suggests the primal silence of *Creation Veda* X. 129: “Then was neither being, nor non-being.” And well it might, for the soliloquy echoes its form (if not its substance), “To be, or not to be: That is the question” (Shakespeare, 1974, III.i.55). At this point in the action Hamlet is trammeled by "the pale cast of thought," enmeshed in "Words, words, words" (III.i.84, II.ii.192). Horatio's pious benediction at Hamlet' death only contributes more words, “Good night, sweet prince. And flights of angels sing thee to thy rest!” (V.ii.359-360).

An unkind fate had seen to it that Hamlet had long since moved far beyond such pious homilies, “There are more things in heaven and earth, Horatio, than are dreamt of in thy philosophy” (Shakespeare, 1974, I.v.). Our tragic hero has faced the Great Unknown, and accepted Fate's decree, as is clear from his final utterance, “The rest is silence” (V.ii.358). Given

Hamlet's complex nature, it is hard to believe that "rest" is to be taken as an allusion to the sleep of the just, to death's repose, as in Horatio's all-too-conventional resort to a heavenly hereafter. Rather, it would seem to suggest a line from earlier in the play when Hamlet confronts the ghost of his father, "We fools of nature... with thoughts beyond the reaches of our souls" (I.iv.56) are here in an encounter with the spirit's destiny, we are engaged in a mystic transport to, and beyond, the "undiscover'd country"— and to its ineffable silence (III.i.78).

The finding of a kindred transcendence in Oedipus and Hamlet may seem wondrous and strange: Yet, closing *Hamlet* on “silence” suggests a mystical, deep, profound, Sophoclean vision. Upon reflecting on Shakespeare's works, a Sophoclean-Shakespearean connection, tenuous though it may seem, emerges. It appears in, of all places, his frothy satire on philosophic obfuscation, *Love's Labour's Lost*.

The play is a witty bagatelle, as its title suggests. The title is an all too clever alliterative play on the seductively lingual "L," the twelfth letter, numerologically reducible to 3, repeated thrice. Thus we have 3 x 3—*voila!*—the ubiquitous number nine, the fateful number of Anaximander's inexorable controller, time.

Love's Labour's Lost was first performed in the late 1590s, a mere decade after the visionary friar, Giordano Bruno, had sojourned (1583-1585) into the heady intellectual atmosphere of London's Inns of Court. There he had charmed such literary luminaries as Raleigh, Sidney, and Fulke-Greville with his "heretical" philosophy of an infinite cosmos. Such was the ripple he created that it has been proposed by Dorothy Waley Singer (1950) that Shakespeare fashioned the play's witty *raisonneur*, Berowne—an early *Hamlet* if you will—on Bruno (p. 249).

In 1600, between *Love's Labour's Lost* (c. 1595) and *Hamlet* (1601), there transpired an event of cataclysmic moment: Bruno's fiery death for his intransigent philosophy of transcendence. It must have shaken Shakespeare. How could it not? While the reed of connection between Hamlet and Bruno is slender, a reed it is nonetheless. There is more than a trace of Hamlet (and of Pythagoras, as well, for that matter) in Berowne of *Love’s Labour’s Lost*.

Let Dorothea Waley Singer's perceptive biography and the text of *Love's Labour's Lost* make the case. Commenting on Bruno's heroic frenzies, Singer (1950) stated what could be considered the theme of the play: “Bruno exalts the love of philosophy above that of woman” (p. 36)

According to Singer (1950), “The whole of Bruno's philosophy is based on his view of an infinite universe with an infinity of worlds. He conceived the universe as a vast interrelationship throughout space and time, comprehending all phenomena, material and spiritual” (p. 50) For Bruno, wisdom is at the center of this philosophy, she quoted his valedictory address at Wittenberg University, which is a “paean of praise of Wisdom:”

> If all things are in common among friends, the most precious is Wisdom. What can Juno give which thou canst not receive from Wisdom? What mayest thou admire in Venus which thou mayest not also contemplate in Wisdom? Her beauty is not small, for the lord of all things taketh delight in her. Her I have loved and diligently sought from my youth up. (p. 59)

Singer sees Bruno as a kind of a prophet for the changes in the conception of reality later developed by Johannes Kepler and Rene Descartes,

> by which discussion of the nature of material reality yields place to the conception of an Order of the Universe. For Bruno's passionate assertion of the infinity of space was not merely denial of boundary. He conceived Infinite Space as the field of all motion, the vehicle of an Infinite Power which is the expression of the Infinite Life of the Universe. (p. 88)

In this conception of the infinite, Bruno struggled against Aristotle’s arguments against the void, seeing no “distinction between the three infinities of Space, Time and Matter. They merge into one another as does his conception of Infinite Space, Nature and the Infinite World Soul” (p. 89). This “World Soul” for Bruno is “an infinite continuum in which all things partake; yet in another sense discontinuous and divisible and even (on the analogy of number though not with unvarying consistency) infinitely divisible” (p. 91).

The appreciation and understanding of the Boundless, the infinite universe of Bruno’s conception, is far more precious than mere human love, as Bruno noted when he put the love of wisdom above erotic or married love (Venus and Juno) (Singer, 1950, p. 36). This is the *Love's Labour's Lost*’s cosmic premise and its comic purpose. The play opens with Ferdinand, king of Naples, discussing a pact he has made with three scholars to abstain from romantic involvement for three years. One of the scholars, Berowne, resists this condition of the pact, and questions the king.

> Berowne: What is the end of study, let me know.
> King Ferdinand: Why, that to know which we should not know.
> Berowne: Things hid and barr’d (you mean) from common sense?
> King Ferdinand: Ay, that is study’s godlike recompense (I.i.55-58)

Ferdinand here asserts, as Bruno did before him, that contemplation of the mysteries of the universe pays a divine dividend greater than the rewards of erotic love.

The play closes with a reassertion of the need to understand the great mystery at the heart of existence, and the superiority of this understanding to other forms of human knowledge, “The words of Mercury are harsh after the songs of Apollo” (V.ii.930-931).

According to Malcolm Evans (1975), the precise meaning of the line regarding Mercury and Apollo has never been established, but have “Delphic ambiguity,” and “might be expected to bear a more decisive reference to the central thematic considerations of the play itself” (p. 114). “The rhyme of Apollo confronts the reason of Mercury, a faculty ostensibly divorced from the limitations of time, place, and personality, and exposes it for what it is — the instrument of illusion” (p. 118-119). Mercury is linked to writing, and Apollo to “true discourse” greater than that achieved through writing, which Pythagoras had achieved (p. 124). “The Princess and her companions,” who are victorious in the play’s romantic contest, “stand for the Apollonian world of the play” in contradistinction to the Mercurian males (p. 125). The closing “Delphic aphorism” asserts that there is a mystery to the world that must be understood, but it cannot be achieved through conventional book learning (p. 127), an assertion that connects with the premise of this article that Pythagoras encoded a conception of the ineffable in the design of the Temple of Delphi.

Berowne is an Ur-Hamlet, Hamlet, a late Oedipus. A few years later after *Love's Labour's Lost* was first performed, Apollo's aetheric arrow bore the sweet prince's spirit beyond the Pythagorean-Berowneian nine of Saturn, beyond time, beyond the reach of gross matter, beyond the stage of the Globe, beyond the circle of Dionysos' theater. Hamlet became transcendent.

Hamlet's question is the quandary all thoughtful mortals must at some point confront, "To be, or not to be, that is the question." Such are the deep thoughts stirred by the Bard of Avon. They put one in the mind of the profundity found at the very inception of deep speculative thought as framed by Dirghatamas in the opening line of the Vedic Creation Hymn, X. 129: "Then was neither Being, nor Non-being."

Transcendentalism in American Art and Thought

The transcendentalist movement in American philosophy reached its zenith in the 1830s with Emerson's publication of his journal, *The Dial*, the title of which referenced the sundial (Ripley, 184). It may have alluded to the sundial-*periaktos* at Delphi.

Frederic Henry Hedge's (2008/1841) "Questionings" closes, with, "Losing still, that I may find / This bounded self in boundless Mind." This deeply moving transcendental aspiration was to be echoed by Emerson in both his "Nature" essays, where he makes an homage to nature's ability to render infinite variety in the world, "All changes pass without violence, by reason of the two cardinal conditions of boundless space and boundless time" (1903-1904a, p. 179). This boundless infinity calls to Emerson as the standpoint from which to observe and meld with the divine:

> Standing on the bare ground, — my head bathed by the blithe air, and uplifted into infinite space, — all mean egotism vanishes. I become a transparent eye-ball. I am nothing. I see all. The currents of the Universal Being circulate through me; I am part or particle of God. (1903-1904a, p. 109)

Decades before Emerson wrote, Thomas Paine (1884/1794) proved a prescient revolutionary spirit in transcendentalist thinking. He would have free-thinking spirits venturing courageously beyond the limits of space and time that would trammel the imagination. Paine asserted that the ultimate reality of the universe was beyond knowing because not only is

> the power and wisdom He has manifested in the structure of the Creation that I behold is to me incomprehensible, but because even this manifestation, great as it is, is probably but a small display of that immensity of power and wisdom by which millions of other worlds, to me invisible by their distance, were created and continue to exist. (p. 46)

In David Frawley's (1992) more contemporary framing of the age-old challenge:

> It is the archetype of transcendence alone which makes man, which allows us to go beyond the manipulations of our environment to awareness, from which alone true and harmonious action is possible. If we cannot get beyond our conditioning, we are only machines or animals, reflections of our environment, in contradiction and conflict with reflections of different environments. (p. 119)

Frawley (2000) further asserted, "The highest knowing is going beyond knowledge" (p. 128).

Vedic Transcendence and Scientific Theory

Modern physics reveals that all matter originated in, and eventually will return to, energy. Atomic theory envisioned energic action as charged particles schematized in a wave-form pattern. Again, with reference to the transcendent nature of tragedy, this concept seems insufficient: Inherent in wave-form structures is a dualism. Cosmic consciousness transcends all dichotomies of existence — indeed, it transcends existence itself.

> In science today we are witnessing a general shift away from the assumption that the fundamental nature of matter can be considered from the point of view of substance (particles, quanta) to the concept that the fundamental nature of the material world is knowable only through its underlying patterns of wave forms. Therefore, when many ancient cultures chose to examine reality through the metaphors of geometry and music (music being the study of the proportional laws of sound frequency), they were already very close to the position of our most contemporary science. (Lawlor, 1982, p. 4)

On the Significance of Zero at Delphi

> Perhaps no one has embraced nothing as strongly as the Indians who, [Charles] Seife notes [in *Zero: the Biography of a Dangerous Idea*], "never had a fear of the infinite or of the void." Hinduism has embedded within it, a complex philosophy of nothingness, seeing everything in the world as arising from the pregnant void, known as Sunya. (Wertheim, 2001, p. 3)

While the numeric symbol for zero (0) came to the West from the Indian and Arabic cultures almost a millennium after Pythagoras, the *apeiron* — The Boundless — was its equivalent. The sacred *Tetractys*, with its rotary *triskelion*, and its apex in the center of Dionysos' theater orchestra (a place for dancing) brings to mind Anaximander's ethereal whirl impelling the generative "breath" of the cosmos from the void. At the *tetractyl* apex-point, the Central Fire, we see a symbol of origin, 0, as well, the tenth celestial sphere, a symbol of Being in the zodiacal rotation of the stars/constellations.

The altar flame at the center of the Delphic orchestra symbolizes the Pythagorean-Philolaun Central Fire at the point of origin. The periphery beyond the orchestral circle, where the chorus whirled, suggests "the Boundless" *apeiron*. Beyond the spheres of Being and Non-being, the boundless *apeiron* may be seen as symbolic of transcendent release. It is in this light that we, like Edouard Schure, may see the '0' at Delphi as the ouroboros, the serpent endlessly swallowing its tail, endlessly coming to be, then passing away. "The ancients represented the course of the stars, by the winding of a snake; but if this snake was so placed as to have the tail in her mouth, it then represented eternity" (Costa, 2007/1820, p. 4).

The *Vedas* tell us that at time-zero there was no mass-energy in the universe. It was a complete void.

> In the beginning there was no mass-energy in the universe because there was no space. Mass-energy is created due to expansion of the universe. The universe cannot expand without creating mass-energy and universe cannot contract without annihilating mass-energy. Thus the universe started with zero mass energy and will end up with zero mass-energy as well. Thus there was no singularity in the beginning and there will be no singularity at the end (Roy, 1999, p. 205)

Beyond the Zero

> Nature does not know extinction; all it knows is transformation. Everything science has taught me strengthens my belief in the continuity of our spiritual existence after death. (as quoted in Pynchon, 1973, p. 1)

Part I of Thomas Pynchon's *Gravity's Rainbow* is titled "Beyond the Zero." The title of Pynchon's novel refers first to the arc of the V2 rockets launched on London by the German Wehrmacht. The chromatic arc of the rainbow is a source of delight and yet suggests, as Pynchon noticed, the elliptical trajectory of weapons of mass destruction, of annihilation, of zero. *Paranada* goes beyond the positive/negative quandary to the transcendent mystery beyond knowing. In this regard, a kind letter from Shaikh Llewellyn Vaughan-Lea (personal communication, January 28, 2006) of the Golden Sufi Center at Inverness, California confided, "One of the Sufi definitions of God is 'beyond even our idea of beyond.'"

Early Scientific Thought: Nicholas of Cusa and Giordano Bruno

The thought of Nicholas of Cusa, also known as Cusanus, opened the way for the infinite universes of Giordano Bruno. In his essay "Of Learned Ignorance," (1440 CE), modeled after "On the Nature of Things" (c. 55 BCE) by the Roman epicurean Lucretius, Cusanus challenged the limits of ecclesiastical tolerance. He showed a prevision of the micro/macro-cosmos that modern science is currently exploring, a cosmos of atoms in an infinite void endlessly forming, dissolving, and forming matter. As the outcome of his ardent meditations on the Deity, Nicholas of Cusa (1954) was gifted with a paradoxical vision of a universe whose "center is everywhere; its periphery, nowhere" (book 2, chapter 12).

In the late 1500s, yet another wearer of the cloth, Giordano Bruno, had a caring concept: the universe is infinite. According to Brooke (1991), Giordano Bruno, who was attracted to both the atomic theories of antiquity and to Cusanus' reasoning, became "an advocate of Copernican astronomy, of an infinite universe, and a plurality of worlds...[a position then] considered heretical" (p. 39).

Bruno gave impassioned expression to his vision in On the Infinite Universe and Worlds' "Introductory Epistle," wherein he identified Apollo with the Sun:

> With whose blood [the Python] he [Apollo] hath dyed the waters of the sea,
> Hath put to flight the Fury that pursued me.
> To thee I turn, I soar, O my sustaining Voice;
> I render thanks to thee, my Sun, my divine Light.
> (quoted in Singer, 1959, p. 248)

According to Singer (1959) Bruno ascended "to heights of mystic exaltation in the apprehension of an Infinite universe" (p. 3). Singer asserted that Bruno understood the limitations of the human mind, but put forward the idea that the humankind could still "yield an apprehension of beauty, of symmetry, of Mind without end" (p. 3).

Bruno felt superior to Copernicus, for whereas Copernicus understood his theory as a mathematician, "Bruno claimed he could interpret the Copernican celestial diagram as a hieroglyph of divine mysteries" (Eliade, 1976, p. 57). The vision at the heart of Bruno's major work: "All life, indeed all Being, he regards as an expression . . . of Immanent Necessity" (Singer, 1959, p. 87).

Hawkins (1983) in *Mindsteps to the Cosmos* describes Bruno's discoveries. Bruno "had written about the boundless size of the cosmos and the immortality of the human soul. He proposed that there might be an infinity of worlds" (p. 218). The good Friar's punishment for his heterodoxy? Burning at the stake. Hawkins noted, "Ten years after the burning, [Galileo] saw through his new telescope what no one had seen before: an infinity of stars" (p. 219). Galileo's infinity was Bruno's infinity. According to Hawkins, "Bruno said the field of stars was 3-dimensional and stretched to infinity, and beyond infinity was another infinity. ... unseen" (p. 277).

This is a vision of a god who, in Paul Davies (1981) words, though not specifically addressing Bruno's vision, is "not part of the stunning beauty contained in nature's mathematical laws;" only such a god "that transcends space-time, that is above causality and manipulation, can have any real relevance for the natural activity that blazes all around us" (p. 171).

Transcendent Consciousness and Quantum Theory

Most modern speculation or theories about time and space are on a par with those of the ancient Hindus. Time is merely a sequence of events with no beginning or ending. The material universe extends beyond the greatest distances we can observe by optical or radio means. It is boundless. In 1982, "Alexander Vilekin proposed the universe was created by quantum processes starting from 'literally nothing' meaning not only the absence of matter, but the absence of space and time as well, in the totally empty geometry" (Pandian, 2003).

On the other hand, the Big Bang singularity theory is time-bound. According to Ramesh N. Rao (2004), the Big Bang model "proposes that the mass-energy before the universe came into being was concentrated at a single point. The Vedas instead tell us that in the beginning there was no mass-energy. It was a complete void." Rao quoted Subhash Kak's foreword to Raja Ram Mohan Roy's (1999) *Vedic Physics, Scientific Origins of Hinduism* to further this point, "In quantum mechanics the state changes in an abrupt fashion when an observation is made, and this has prompted some physicists to claim consciousness should be the primary category of the universe, distinct from physical matter" (p. xiv).

In support of the primacy of consciousness in quantum theory, Amit Goswami contended that "consciousness is the ground of all being" (Hamilton, 2007, part 1). Goswami (1989) developed an idealistic interpretation of quantum mechanics "supported by the ancient East Indian philosophy of Advaita Vedanta, which states that materiality is manifested from consciousness" (Swift, 2000, note 3).

In 1998, in "The Great Debate: Cosmology Solved?" at the Smithsonian, Michael S. Turner (1999) of Fermilab stated, "Quantum fluctuations seeded all the structure in the universe" (p. 1). Might this not be taken as saying all is energy, all is rhythm, reminiscent of the "coming to be and passing away" found in Anaximander's fragment? (cited in Classen, 1977, p. 92). Can we conceive of existence beginning not with a bang, but mystically, being in a para-state, an unfathomable mystery? In the Pythagorean "theory of the breathing universe … the evolution of the cosmos starts with a primordial unity, which is opposed to an undetermined Void" (Sinnige, 1968, p. 59).

In this endless, beginningless rhythm of Being and Non-Being to the nth degree, who or what gave the downbeat to the "sound not heard" which Hans Kayser (1970) found to be the para-ultimate soundless sound in the Pythagorean table of tones? Many physicists believe nothingness is the basis of everything. "Indeed, it might be said that one way of characterizing the history of modern physics is the gradual rise in the status of nothing from anathema to supreme principle" (Wertheim, 2001, p. 1). As Quentin Smith (1993) put it, "We should instead acknowledge our foundation in nothingness and feel awe at the marvelous fact that we have a chance to participate briefly in this incredible sunburst that interrupts without reason the reign of non-being" (p. 135).

Quantum's Leap Into the Microcosm

Late in my ruminations on the mystery of spiritual renewal in nature, I was skimming through the website of the University of Pittsburgh's Physics Department. The university housed the editorial office of *Theatre Survey*, a journal where one of my articles, "The Symmetry of Delphi" was published in 1971. On the Physics Department site (which has since been changed), I happened across the image of the *Tectractys*. It was not the familiar planar two-dimensional *Tetractys.* It was in 3-D, and it was not the earth-bound planar diagram that conventionally plots the ten Pythagorean *tetractyl* points. Rather, it was a tetrahedron, a "solid" form, with Pythagoras' ten spheres/planets as its base. There was wonder beyond its form — its context. Its thrust was not out toward and beyond the stars; the thrust of its Apollonian arrow was in, toward the subatomic zero-point.

The image comes from Particle Data Group's Review of Particle Properties and has been reproduced by University of Pittsburg physics professor Eric Swanson (2003) in an article titled, "Constructing the Universe: The Particle Explosion." The lowest plane in this figure is of particular interest for us.

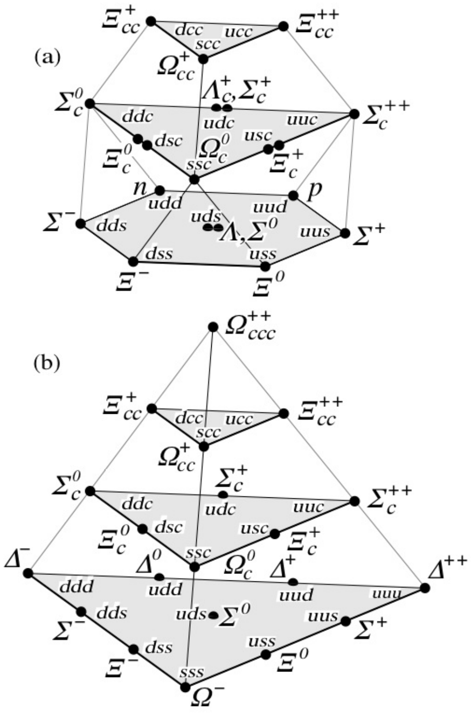

(a)
Ξ_{cc}^{+}
Ξ_{cc}^{++}
dcc
ucc
scc
Ω_{cc}^{+}
Λ_c^+, Σ_c^+
Σ_c^0
Σ_c^{++}
ddc
udc
uuc
dsc
usc
Ξ_c^0
Ω_c^0
ssc
Ξ_c^+
n
p
udd
uud
Σ^-
dds
uds
Λ, Σ^0
uus
Σ^+
dss
uss
Ξ^-
Ξ^0
(b)
Ω_{ccc}^{++}
Ξ_{cc}^{+}
Ξ_{cc}^{++}
dcc
ucc
scc
Ω_{cc}^{+}
Σ_c^+
Σ_c^0
Σ_c^{++}
ddc
udc
uuc
dsc
usc
Ξ_c^0
Ξ_c^+
Δ^-
Δ^0
ssc
Ω_c^0
Δ^+
Δ^{++}
ddd
udd
uud
uuu
dds
uds
Σ^0
uus
Σ^-
Σ^+
dss
uss
Ξ^-
Ξ^0
sss
Ω^-

Figure 9. Particle Families (Swanson, 2003, p. 6)

In July 1962 at the 11th International Conference on High-Energy Physics at the European Organization for Nuclear Research (CERN), during a talk on the strong interactions of strange particles, the discovery of the two particles labeled "xi-" and "xi0" was announced. Physicists Murray Gell-Mann and Yuval Ne'eman were in the audience and both realized that the lower plane was being filled out according to their expectations, only the last particle, the omega, was missing. Both raised their hands, and Gell-Mann, as the more prominent physicist, was called upon. At the podium, he announced that a new particle must exist, which he called the omega-minus. Two years later it was discovered at Brookhaven National Laboratory.

Pythagoras might have nodded approvingly, or perhaps shaken his head, to have his most sacrosanct icon thus exposed to those not apprised of its arcane significance. He may have felt the perpetrators of such revelation of the sacred schema, on which the initiates swore their most solemn oath of secrecy, must pay dearly for such an indiscretion. Is modern science tempting Fate? Or, alternatively, will such a visionary insight guide modern science in its probing for the key to the mystery of One and the None?

"Ancient geometry begins with One, while modern mathematics and geometry begin with Zero" (Lawlor, 1982, p. 16). Yet Pythagoras' mystic plotting of celestial spheres also began with zero, the Central Fire of origin, at the *Tetractyl* apex. And, in its plotting of the *decad* of planetary spheres, zero culminated in a return to the apex, and its spiritual arrow-flight beyond the *apeiron*.

The Omega Point:

Life is a constant at the omega point.

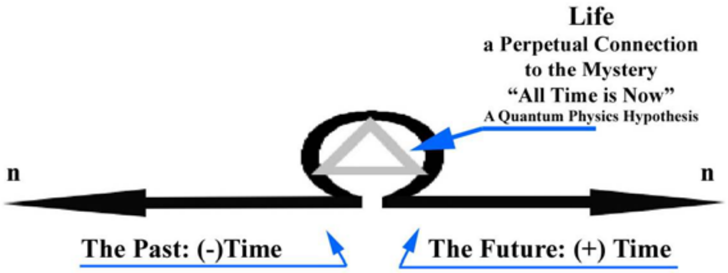


Figure 10. The Omega Point (© Hector Currie and Juan Pacheco 2007)

The omega point at the apex of Gell-Mann's and Ne'eman's three-dimensional *tetractys* is the inspiration for the graphic design of co-author Juan Pacheco above. This symbol of transcendence, at the apex of Pythagoras' sacred *Tetractys*, encapsulates Delphi's mystic power. This symbol, it is our contention, illustrates what Benjamin Libet serendipitously stumbled upon in his 1970's experiments attempting to measure the impulse of a simultaneous reaction (McCrone, 2006).

Given that a simultaneous reaction is (according to the laws of physics) impossible, Libet was amazed to find the simultaneous reaction was, in fact, simultaneous.

One is put in mind of the Delphic injunction, "Know thyself." Mystically, might knowing oneself not come down to a mysterious deepening of the apparent meaning of Dephi's gnomic utterance? On sober (and, at times, giddy) reflection, it might come down to, "Know that thou art the mystery, and possess within thee the secret to the Cosmos."

This is the secret Eugene O'Neill (2002) revealed to us in his tragic masterpiece, *Long Day's Journey into Night* in Edmund's moving monologue,

> And several other times in my life, when I was swimming far out, or lying alone on the beach, I have had the same experience. Became the sun, the hot sand, green seaweed anchored to a rock, swaying in the tide. Like a saint's vision of beatitude. Like the veil of things as they seem drawn back by an unseen hand. For a second you see — and seeing the secret, are the secret. (p. 156)

On the Boundless Frontier of Science's Limits

Current scientific thought holds that space cannot be indefinitely divided. "Most physicists suspect there is a granularity on a scale of scale of 10^{33} centimetres. This is twenty powers of ten smaller than an atomic nucleus. ... If there were still tinier structures, they would transcend our concepts of space and time" (Rees, 1999, p. 12). Yet this is precisely what Anaximander and Pythagoras did, and, before them, Dirghatamas.

Cosmic Consciousness

> Cosmic consciousness bestows a bliss that is past all words to describe and it also quickens the sympathies and attunes the soul to the vibrations of the heart-cries of the struggling evolving ones who are still travailing in the pains of the new birth. We must be willing to endure the suffering *in order that we may realize the joy*; not because joy is the reward for suffering, but because it is only by losing sight of the personal self that we become aware of that inner Self which is immortal and blissful; and when we become aware of the reality of that inner Self, we know that we are united with *the all*, and must feel with all. (Nomad, 2007, p. 175; original emphasis)

While definitions for and articles about cosmic consciousness permeate cyberspace, only a passing mention in this "Digital Age" is given to cybernetic binary bits, of the "zero – one – zero – one" sequence of energy-entropy, of one-none, *ad infinitum*. This brings us back to the remarkable insight of the "obscure," in more ways than one, anonymous12th-century monk who inscribed this mind-searing, metaphysical vision in *The Salem Codex*: “Every number arises from One, and this in turn from the Zero. In this lies a great and sacred mystery” (quoted in Kaplan, 1999, p. 207).

Beyond Knowing: The Call for Transcendence and Tolerance

A connection to the Great Mystery Beyond is a concept that the West has, over the years, embraced but sporadically. The general consensus in the West has been that ours is a material universe, and the heavenly hereafter is our avenue of escape from its mortal coils.

We — each of us, individual (from the Latin, *in-dividuus*, undivided, one), one in selfhood — are inculcated to see a state of unmanifest immateriality as counter to the basic human instinct for personal survival. Our apparent physical singularity impels us to seek refuge in the bond of family, community, and faith in a protective deity. Few have the courage to resist this impulse to seek refuge in submission to a providential authority. Those who do are adjudged heretical and suffer ostracism or calumniation.

Pythagoreanism was born in the axial age, when the venturesome turned from abasement before the gods to an assertion of intellectual freedom. In breaking free of the herd mentality, Pythagoreans were the Tom Paines of their day, “accusing religion of being the source of dogmatism, fanaticism, prejudice, ignorance, repression, and persecution” (Martin, 1997, p. 4).

As lone voices, they, like Paine, paid a heavy price for their convictions. With the triumph of authoritarian materialism in the Hellenistic and Roman cultures, their esoteric secret was lost, or more precisely, buried. The age-old impulse to submit to a greater power triumphed; man had resorted to religion (from the Latin, *religare,* bind together). With conviction in the superiority of one's belief system arose the specter of religious fanaticism. The age of religious/political wars

— already familiar in the classic Greek world where there been at least three "holy" wars to wrest control of the oracle — was upon us.

Religious Fervour and Rancour

Throughout human history, religious zeal has all too frequently been channeled into violent conflict, barbaric cruelty. All too often religious organizations promote hatred, war and arrogance. Still, "new" movements arise, again and again, many of which "emphasize the importance of mysticism and quiet inner exploration, as opposed to evangelical fervor" (Davies, 1983, p. 4).

John Michell (1988), in the closing of *The Dimensions of Paradise,* calls for a "structured harmony," for world concord (p. 213). Pythagorean harmony extended beyond worldly concord. Rather than a dualistic moral judgment, Delphic rites sought a dynamic equipoise between Apollonian and Dionysian psychic forces, transcending the Self/Boundless dichotomy. “The East takes the cosmos as the starting point. … the West emphasizes sin, and the gulf that has to be bridged between God and humans” (Borchert, 1994, p. 95).

But the answer to the Great Mystery cannot be found in religious dogma or fanaticism. Rather, we must turn to the solace of silence. Silence gives a caesura to the surge of sound, it is a breathless cosmic Grace. As the Creation Veda X.129 professed, confounding reason, "the breathless breathed breathlessly." Jamie James (1993) in *The Music of the Spheres* asserted that “the key is to find one's center outside one's self, in the whole cosmos, paradoxically to become centerless; and that, it would seem, is the very last thing that mankind is now capable of” and concluded, “Yet now that science permits us to actually hear the soundtrack of the cosmos, in the form of random blips and howls picked up by radio telescopes, how we long for silence” (p. 240-241, 241).

The Synchronicity of It All

“Synchronicity suggests that mind and matter, along with past, present and future, exist in a potentially meaningful continuum. As such, it compels us to rethink everyday assumptions about self and environment, causality and time” (Clark, 2008). Carl Gustav Jung held that “synchronicity involves an acausal relationship between ego consciousness and the other environment. That is, synchronicity just happens, [it is] not caused by any single event” (Clark, 2008).

There is an ongoing debate over when life begins. “The Native American attitude is that everything is animated by divinity [has a Spirit/is connected to the Mystery]. Hence ordinary people, animals and places are divine” (Eddy, 2001). That is, they have consciousness and are cognizant. The synchronicity of this is manifested in the quantum double-split experiment, and also the observer experiment, in which electron particles change their behavior when viewed by an observer. As Dr. Fred Alan Wolf, a.k.a. Dr. Quantum, put it, “the electron decided to act differently as if it was aware it was being watched,” which seems to imply cognizance on the part of the particle (quoted in Arntz, Chasse, & Hoffman, 2006).

At conception, cells undergo rapid growth and change as they develop into being. But the being is not attained until the being achieves self-awareness as in: I am/ego/spirit/yin; I want/ambition/materialism/survival/yang. The balance is life, synchronistic with the connection to the Mystery that "Thou art the Mystery."

On Intuition as *The* Key to *The* Secret

Intuition guided Kant to his discovery that transcendentalism was the key to opening the spirit to the wonder which inspired the ancients. Emerson’s (1903-1904a) rapturous connection with nature moved him to a transcendent vision: “All mean egotism vanishes. I become a transparent eye-ball; I am nothing; I see all; the currents of the Universal Being circulate through me” (p. 109).

Elsewhere, in the other essay titled “Nature,” Emerson (1903-1904b) moved beyond the immediate and expresses what appears to be a recension of Anaximander's breakthrough concept of the Boundless *apeiron:* “Efficient Nature, *Natura naturans* … publishes itself … through transformation on transformation to the highest symmetries … All changes pass without violence by mean of boundless space and boundless time” (p. 179).

Synchronicity in Transcending Time

Time present and time past
Are both perhaps present in time future.
And time future contained in time past.
If all time is eternally present
All time is unredeemable.
(Elliot, 2008a)

This passage from Elliot’s “Burnt Norton” quartet exemplifies the schemata inherent within synchronicity. The future carrying the past as an expectant mother carries the child within the womb.

Deciphering the archetypal schemata around us is to interpret the synchronicity of it all, in the fleeting moment that encompasses all time, and becomes all things, and beyond all things.

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.
Through the unknown, unremembered gate
When the last of earth left to discover
Is that which was the beginning;
At the source of the longest river
The voice of the hidden waterfall
And the children in the apple-tree
Not known, because not looked for

But heard, half-heard, in the stillness
Between two waves of the sea.
Quick now, here, now, always—
A condition of complete simplicity
(Costing not less than everything)
And all shall be well and
All manner of thing shall be well
When the tongues of flame are in-folded
Into the crowned knot of fire
And the fire and the rose are one.
(Elliot, 2008b)

Synchronicity and the End (Beginning)

It has been a long journey back to our lost roots in ancient India and Greece. Its inspirators have been a quadrivium of visionaries: Dirghatamas, Anaximander, Pythagoras; and at the center of this mystic triad, Pherecydes, who brought the wisdom of the East to Greece and who inspired the Pythagorean doctrine of reincarnation (Knight, 1958, p. 230).

The image of Pherecydes levitating, an illustration of a Johannes Amos Comenius woodcut from his epochal publication of *Orbis Pictus* (1658) appears to have an ouroboran serpentine coil framing the sage: dark scales sinister, light scales, dexter. Legend tells of Pythagoras performing phenomenal feat of bilocation, levitating at both Croton and Metaontum. Likewise, Pherecydes is pictured here, apparently ascending into the boundless *apeiron.* These legendary feats point to the thrust of *Paranada* — loss of selfhood in a mystery beyond knowing, and the recovery of the secret lost (or rather suppressed) for two millennia.

As can be seen in the picture below (Figure 11), Pherecydes is levitating, framed by what appears to be an ouroboros, a serpent about to swallow its tail, the dark scale-like etching and the very faint almost imaginative head off the right shoulder, swallowing the light but still faint scale-like etching of a tail.

This illustration of Pherecydes was rendered in a woodcut by John Amos Comenius (1592-1670), the same artist who created the representation of Pythagoras meditating by his astrolabe (final illustration). Comenius is known as the father of modern education, and was a theologian as well as an educator. Comenius was the first to create illustrated texts for children (and adults who delight in imaginative approaches to the world around and within us). He was a tragic figure, a Moravian without a country, who spent his peregrinous life darting from country to country in Europe's seemingly endless sectarian wars. His *Labyrinth of the World and Paradise of the Heart* was a *Pilgrim's Progress* half a century before Bunyon and beings to mind the key lines of the *Vedic Creation hymn X*. 129: “Sages, searching in their hearts, with wisdom found the bond between being and non-being.”

Today, the Comenius Medal is a prestigious award of UNESCO, honoring high achievement in education. Comenius' lofty pedagogic goal was to lead the way on what he termed the *Via*

Lucis (The Way of the Light). Such high idealism led Harvard, in 1640, to offer Comenius the honor of being its first president.

Surely it appears he was sending a message of love and transcendence when he wrote on the subject of the mystic and pre-Socratic philosophers.

Here, at the mouth of the ouroboros we come to the dizzying end/beginning of this work. There is more than is dreamed of in the Nature philosophy our all too-materialistic world forgot after the flame of Delphi burned no more. We find ourselves back at the birth of universal innocence, of all that is defined in the word *agape*.

Huston Smith and Jeffrey Mishlove discuss this concept in “The Primordial Tradition” an episode of *Thinking Allowed, Conversations On the Leading Edge of Knowledge and Discovery*, which ran on PBS.

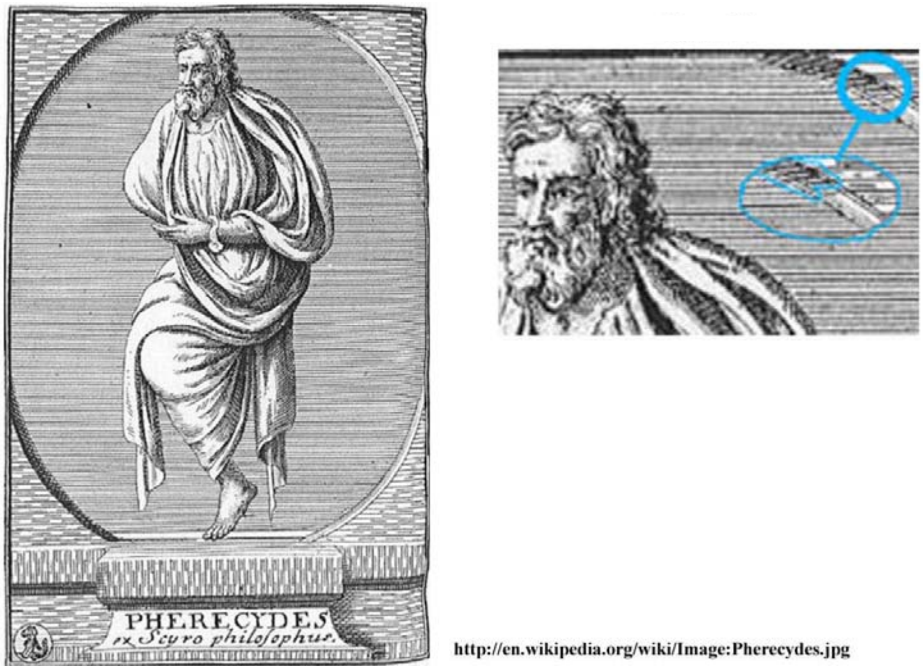
> MISHLOVE: That's true. That universe, the space-time world, fits into the primordial tradition but does not exhaust it. There are reaches beyond the physical.
>
> SMITH: To the divine and the infinite. I think that's true. I think that the soul is at one and the same time the final locus of our individuality. It is what makes you, Jeffrey Mishlove, unlike any other person who ever has been or will be, and yet is constant with you throughout your career. That's one thing, but it also has a tropism, a kind of dynamism in it, in which it is forever reaching beyond anything you have ever attained thus far, and it will never stop that reaching until, we're told, it finally loses its individuality by merging with the infinite.
>
> MISHLOVE: That seems to be a good ending point, in a sense to realize where we end is where we start.
> (Mishlove, 1996)

This has been a long journey — and a sad one. It has been a journey marked by a deep sense of loss. For the world, in its embrace of material substantiality, worldly matter and matters, has been seemingly oblivious to Pythagoras' searing vision of an unbounded, transcendent cosmos of ever-renewing energies. Yet, it is the hope of the author of this essay on the unapproachable mystery, that the world might awaken to Pythagoras' dream and see that for which his soul ached — the eternal return, the return to the point-beyond-knowing, to the beyond beyond-sensing.

"The most beautiful thing we can experience is the mysterious." (Einstein, 1994)

> Divided, into East and West, the world stands in desperate need of the transcendent vision of Dirghatamas, who 'saw' far, far, beyond the light, beyond the darkness of *Creation Veda* X. 129:
>
> Then was neither Being nor Non-being....
> darkness wrapt in darkness....
> The breathless breathed breathlessly....

Sages searching in their hearts, with wisdom,
Found the bond between Being and Non-Being.



http://en.wikipedia.org/wiki/Image:Pherecydes.jpg

Figure 11. Pherecydes (“Pherecydes ex Scyro Philosophus,” Geldsetzer, 2001)

Postlude

“Paranada: Beyond Beyond” has been a repressed obsession of mine for well over fifty years. In its many by-ways of the spirit, my journey has been Nietzschean. It all came to a head back in 1952, while making a promotional film for St. Mary's College, Moraga, home of the Galloping Gaels. One bright spring morning, before starting the shoot, I happened to be in the library with the good Brothers, and asked, "What's the Church's view of zero?" A day later the answer came down from on high: "It is the Devil – Satan."

My jaw dropped, having expected the response would have involved an appreciation of the mystery of creation. Might it not have reflected a dark Nietzschean awareness of the shadow, the black sun after-image one senses after a quick glance at the sun?

Now, on having finally (at least for now) settled on the final draft, I know that the reader, like my idol, Jean-Luc Godard, whose habit is first to read the last passage of a book — any book — may well be wondering "What is *Paranada's* ‘Big Idea’? Where does it end up?"

Quite simply, it is to stress the discovery, that is to say rediscovery, of what Huxley (2004) called the "perennial philosophy" of the East in Pythagoras' plot, his cosmic plan, of Delphi.

In effect, I found spiritual liberation in Delphi's rite of spring, in the mind of Apollo, and in the ecstatic heart of Dionysos.

After everything has been said and done, the key to it all may be there is neither key, nor lock, nor door, nor jamb, at the mystic threshold. One need not utter "Open." One need only ecstatically sense The Mystery.

As Strohmeier and Westbrook (1999) sagely suggest in *Divine Harmony: The Life and Teachings of Pythagoras*: “The challenge of our time may be to revive it, and make divine harmony ‘the great theme’ of the next millennium” (Epilogue).

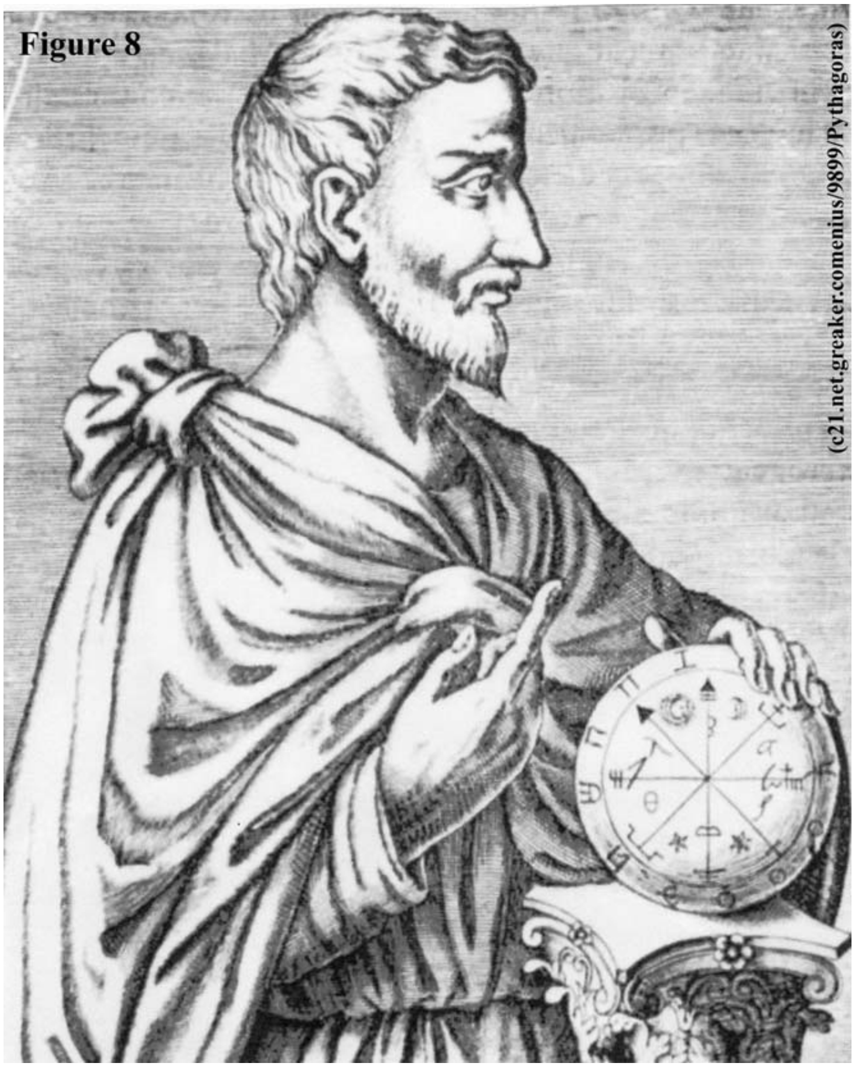


Figure 12. Pythagoras (Aamodt, Hatlem, & Smebye, 1999)

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Hector Currie Ph. D., *is Professor Emeritus of dramatic literature from Stanford University. He authored several articles and books, including Film Encounter (1972) (with Donald Staples). His other work is Cinema Drama Schema: Eastern Metaphisic in Western Art (1985).*
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Juan Pacheco *came to Professor Currie as a health worker with a cultivated interest in history, science and religion. At the professor's behest Mr. Pacheco researched, read books and lively discussed with Professor Currie many points of interest and insight related to this article. To this extent Dr. Currie called Mr. Pacheco his apprentice. After two years of shared labor, and with the publication of this article, the professor as writer considers Mr. Pacheco as associate.*

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[1] This newsletter and O'Fallon's notes from the field were originally links to external websites. For our new website and this full issue, we chose to include them as pdfs. Thus there are not page numbers here for them.

* The asterisks indicates that the article by Torbert and Livne-Tarandach, while appearing in the peer review section, is also an essential component of the special section of this issue.

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Editorial

Integral Review (IR) continues to grow and evolve. For one thing we have begun to share the Editorial role among the Associate Editors, and Jonathan has handed to me (Tom Murray) the enjoyable task of welcoming you to our December 2009 issue. In this issue we are pleased to see, in addition to articles on a broad range of topics that I will describe below, a significant number of responses to Stein and Heikkinen's article in our June 2009 issue. I will present an extended overview of those responses and briefly discuss some of the threads they cover. First, I will begin with some news and announcements.

We would like to welcome two new members to our Editorial Board: Jennifer Gidley and Steve Wallis. Jennifer has previously published her work on evolving planetary consciousness with IR, and her extended article continues to be one of our most frequently downloaded. Steve Wallis has also published with us, and has also taken the initiative to edit, along with IR Editorial Board member Mark Edwards, a special issue of IR on *Developing Perspectives for Advancing Metatheory and Theory*. Prior to that, we will publish a special issue on *Toward Developing Politics and the Political,* edited by IR Associate Editors Sara Ross and Thomas Jordan. Later will be another, *Research Across Boundaries – Advances in Theory-building*, guest-edited by Markus Molz and Mark Edwards. If you want to propose a special issue for *Integral Review* you can inquire at ireditors@integral-review.org.

Many of us associated with *Integral Review* are looking toward the Integral Theory Conference next year at JFK University, and have submitted proposals. We also have plans in the works to host a gathering for friends of IR at or prior to the conference—we'll let you know through our *Occasional Newsletter* distributed to those who join IR's mailing list at http://integral-review.org/email_issue/index.asp.

In other news, IR has been picked up by EBSCO, the largest supplier of online journals to academic institutions around the world. IR is now listed in its humanities database, and we welcome the additional exposure this provides for a broader range of academic researchers to access works published in IR. We will be applying for listing in EBSCO's social sciences database in 2010, as well as the American Psychological Association's psycINFO database.

We have reviewed our submissions deadline policy in light of a number of factors and have now instituted a rolling submissions schedule. Thus submissions are accepted at any time, and are published in the issue following completion of review and any revisions. This reflects the reality that each submission requires individual treatment in terms of the time and effort it requires to reach publication, and it gives us more flexibility in organizing our editorial processes.

Looking to future issues and following from the themes explored in this issue, we are particularly inviting papers that further explore the themes of assessment of adult development and the application of integrally-informed models for organizational and leadership change and transformation.

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In This Issue…

As usual, this issue features articles on a wide range of leading edge interdisciplinary topics covering the theory-to-practice spectrum. Several submissions are in response to Stein & Heikkinen's paper on *Models, Metrics, and Measurement in Developmental Psychology* in the June 2009 issue of Integral Review. I will report on these in the succeeding section.

The section of peer reviewed articles in this issue begins with *The Coherent Heart*, in which Rollin McCraty and colleagues share a detailed report of a wide range of fascinating research studies during the last decade that show how emotion and the physiological state of the heart interacts with numerous physical and psychological systems. They show how coherence in heart rhythm and harmonious synchronization in heart-brain interactions are associated with positive emotions and significantly impact a number of indicators of well-being. They work with the Institute of HeartMath, which has developed contemplative activities for the practice of sustained positive emotion that induce heart rhythms related to health and well-being. The research uses dynamic systems theory and looks at both neurocardiological data and the heart's generation of electromagnetic fields.

In *The Ethics of Promoting and Assigning Adult Developmental Exercises: A Critical Analysis of the Immunity to Change Process*, Sofia Kjellström shares her experiences of using Kegan and Lahey's Immunity to Change Process in higher education. This process is usually used in organizational contexts to help participants uncover unexamined or unconscious assumptions that prevent them from reaching important goals and commitments. It requires participants to reflect in deep and vulnerable ways upon disparities between intention and action. Kjellström discusses a number of limitations and ethical issues that arise in trying to use the method in educational contexts and in so doing introduces her perception of hidden assumptions of the Immunity to Change model itself. She examines the possible mismatch between organizational contexts and classroom contexts in terms of the desire to change and reflect upon oneself, commitment to the change process, trust among those engaged in the process, and the developmental level required to use the process. The results are of interest to all who facilitate the process, and those who value giving students authentic, engaged, and/or transformative experiences in the classroom, but must grapple with the fact that school has critical differences with real life contexts such as work and family.

Our third peer reviewed article is Bill Torbert and Reut Livne-Tarandach's *Reliability and Validity Tests of the Harthill Leadership Development Profile in the Context of Developmental Action Inquiry Theory, Practice and Method.* This is a response to Stein & Heikkinen's paper, and is summarized with the other responses later.

The editorially reviewed section of this issue begins with *Toward Integral Higher Education Study Programs in the European Higher Education Area: A Programmatic and Strategic View*, in which Markus Molz reviews the state of higher education in the EU, looking at trends and imagining possible futures. He sets the historical, pedagogical, and institutional context for attempts at bringing integral approaches to higher education, and argues for the critical importance of such approaches, despite the only moderate and often ungainly attempts to date.

His analysis of why it has been so difficult to create sustained integral programs leads into a series of recommendations for future attempts.

In *Consciousness in Evolution Sketch for a New Model – A Speculation* Donald Padelford takes us on an informal yet in-depth tour of his "Twenty Tenets of an New Model of Evolution." Ken Wilber proposed an earlier, different set of Twenty Tenets in *Sex, Ecology, Spirituality,* but Padelford introduces his own insights and includes references to more recent work in the field. He brings a unique voice to the oft-pondered relationships between mind, matter, hierarchy, development, consciousness, causality, and interiority. His analysis is based in part on the construct of hierarchical negentropic systems.

R. Scott Pochron's *A Leadership Journey: Personal Reflections from the School of Hard Knocks* is a reflection upon the lessons learned in many years of leadership in diverse organizations. His themes include "organization as organism," "leading as enacting an emerging future," "disequilibrium," and "leadership as a state of mind." Along the way, he draws stories and principles from leadership and organization change authors including Quinn, Jaques, and Senge.

Russ Volckmann graces our pages with another engrossing interview. In this issue he speaks with Alfonso Montuori, Chair and Professor of the Transformative Studies Ph.D. and Transformative Leadership Master’s program at the California Institute of Integral Studies, and IR Editorial Board member, on the themes of creativity and transdisciplinarity. These themes emerge and resurface as Montuori discusses his stint as a professional saxophone player in England, his involvement with the Monterey Institute of International Studies, his teaching in China, and his work editing the *World Futures* Journal, taking us on an international tour of the places he has lived and worked. It is a paradigmatic yet idiosyncratic ride through the cultural shifts in this age of Aquarius, and a conceptual voyage through theories of everything, general theories of leadership, metatheory, epistemology and complexity, disciplinary promiscuity, and "liquid life." In his interview Volckmann helps reveal that life of "creativity…as a way of being" with each movement echoing "the sound of surprise."

Editorial Board member Roland Benedikter reviews John Holman's book, T*he Return of the Perennial Philosophy: The Supreme Vision of Western Esotericism.* While he appreciates its treatment of trends in exploratory first person "empirical spirituality" vs. traditional faith-based spirituality, overall he finds the book to be "an interesting but incomplete contribution," in part due to the author's inability to take enough of an objective and non-promotional distance from his subject.

Responses to Models, Metrics, and Measurement in Developmental Psychology

In our June 2009 issue we published an article by Zak Stein and Katie Heikkinen titled *Models, Metrics, and Measurement in Developmental Psychology*. When we first spoke with Zak about publishing a paper on this topic we were aware that it could serve as a lightning rod for vigorous debate, and saw this as an opportunity to plan for our first article-response-rejoinder format crossing multiple issues of IR. The obfuscated lines between research and the marketplace, problematic in so many academic fields, show up vividly in developmental psychology, where developmental assessments are being used increasingly to evaluate development of individuals in domains including leadership/management, therapy, and academic programs.

Through various channels, we invited responses from theorists and practitioners, and are pleased to publish in this issue a number of responses, including submissions from Bill Torbert, Michael Commons, Theo Dawson, Michael Basseches, the principals at Ikan, myself, and separate rejoinder articles from Stein and Heikkinen. Stein and Heikkinen's earlier article had also inspired Bill Torbert to host a face to face meeting of developmental practitioners and theorists. Terri O'Fallon reported her reflections on that meeting in the October issue of *Integral Leadership Review,* (linked in the Table of Contents for this section), and we publish a transcript of that meeting's closing conversation, which gives a flavor of the day-long meeting.

Summary of Key Elements of the Original Article

In *Models, Metrics, and Measurement,* Stein and Heikkinen introduce a framework and terminology aimed at supporting more rigor in developmental models and metrics (Figure 1 in the paper). They differentiate "soft metrics" from "calibrated metrics" with the latter having more stringent "reliability and validity profiles." They also propose that every metric we use for developmental assessment or research should have reliability and validity profiles associated with it. "If we want to see an integral and developmental worldview gain a real institutional foothold—radically reforming business, government, education, therapy, and our own sense of human potentials—we need to get serious about our quality control standards" (p. 19).[1]

Central to Stein and Heikkinen's 2009 paper is a strong proposition that only *calibrated* metrics are appropriate for assessing individual performance, as only they can make "reliable fine-grained distinctions." They propose that soft metrics are admissible for research studies, whose results are averaged over many subjects, and where the outcomes do not reflect upon any individual. When soft metrics used in research are adapted to evaluate individuals, the margins of error are large (according to the very definition of soft metric). For such metrics, an assessment outcome of, for example, "you are at level 4" is misleading and potentially harmful, when a more accurate report might be "an 85% certainty that you are within levels 3, 4, or 5" (my example, not a quote from the paper).

Stein and Heikkinen go on to do a "limited and exploratory literature review of metrics currently in play," looking for published evidence of validity and reliability quality assessments. The paper's Table 2 summarizes this review, and includes work by Torbert, Cook-Greuter, Jaques, Kegan, Beck & Cowan, Graves, Commons, and Dawson (and their colleagues). The results "reveal a conspicuous lack of psychometric rigor on the part of some of the most popular developmental approaches" (p. 4). The only metrics that rise to the level of calibrated measurement are those used in the work of Dawson and colleagues (which draws on Commons' and Fischer's developmental models). "It appears that the LAS and HCSS are the only metrics that have been calibrated using quantitative indexes of internal consistency" (p. 19). Stein is transparent about the fact that he is Dawson's partner in a commercial venture based upon Dawson's LAS scoring system.

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[1] This article continues to take up issues of praxis ethics, following papers at 2008 Integral Theory Conference and in *Integral Leadership Review*, in which Stein and Heikkinen suggest that there is a persistent fact/value confusion in the field of developmental research and application, in which higher levels of development are assumed, implicitly or without sufficient justification, to be desired and of superior value.

Pointing to the non-exhaustive nature of the literature review (they searched in Google Scholar and PsycINFO using a reasonable set of keywords), the authors say they are "just trying to kick-start a concerted discourse about quality control in the field" and they invited colleagues to "work together to fill out and expand the [publications list], making clear to each other and to all those affected exactly what we are doing" (p. 19).

The Invitation

At *Integral Review*, we are interested in fostering theory/praxis integration and see acts of publication themselves as opportunities to investigate integral principles. Stein and Heikkinen's prescriptions are far reaching and their analysis is provocative. They call upon individual scholars and the field as a whole to take a hard look at the ethical implications of their work. As the lines between academic research and commerce increasingly blur in all scholarly fields, such questions become both more critical and more harrowing to address with authenticity and openness. In our invitation for responses we said we were interested in submissions that

> integrate first-, second-, and third-person perspectives, and illustrate an author's embodiment of higher (second tier, integral, metasystematic, etc.) levels of ethical and psycho-socio-systemic reflection. We believe that a community of "integral" scholars (however we might define it) has the potential to engage in dialogs that embrace authenticity/vulnerability/empathy *and* rigor at levels rarely seen in academic discourse.

In other words, to what extent can the scholarly author or the business practitioner (so often one and the same these days) openly reflect upon and be transparent about deeper motives, possible biases and blind spots, emotional overtones, and uncertainties? Can we as colleagues (and often as friends) in dialog pose insightful yet caring questions that support integrity and transparency without falling into patterns of critique that feed more destructive than constructive to the recipient? This challenge is romantic and naïve if not tempered by an acknowledgement of the acute difficulties and complexities it raises. But we have hopes that articles in the integral community might illustrate some small but significant movement at this leading edge. The in-person dialogs at Torbert's meeting certainly seemed to illustrate this potential. We will leave it to the reader to judge how well the respondents did so.

Responses to the Article

We were pleased to accept a number of responses, introduced below. Our first response came in an informal letter from Bill Torbert which was published in IR's Occasional Newsletter #7, July 2009, along with a reply from Stein (see link in the Table of Contents). We also want to note Terri O'Fallon's piece in *Integral Leadership Review* (also linked in the Table of Contents) which is a description of the October 3rd meeting at Bill Torbert’s house, which arose as a response to Stein and Heikkinen’s article.

We begin this section of responses with a transcript of the *Closing Conversation of the “Validity Day” Meeting at Bill Torbert’s, October 3, 2009.* This transcript portrays a rich cast of characters deeply engaged in an intense and generative conversation that was the culmination of this meeting. It addresses the challenges ahead as the field of developmental psychology enters into a time when such psychometrics are becoming more in demand and when practitioners may not have the depth of rigorous knowledge felt necessary to use such tools appropriately. Thus an intention emerged for a knowledgeable group to form a community of inquiry to better lay some critical foundations for how this future unfolds.

Bill Torbert and Reut Livne-Tarandach sent an in-depth (19 page) reply (noted above in our peer review section) in *Reliability and Validity Tests of the Harthill Leadership Development Profile in the Context of Developmental Action Inquiry Theory, Practice and Method.* Torbert and Livne-Tarandach "challenge [Stein & Heikkinen's] critique of the LDP as a soft measure unsupported by published, quantitative psychometric reliability and validity studies … and present both previously unpublished and previously published-but-not-aggregated studies illustrating Harthill LDP as a well-calibrated measure of adult ego-development." They also "consider what a social science and a social practice based on the developmentally late action-logics will look like [once it embraces] 1st-, 2nd-, and 3rd-person research and action with co-participants in live settings."

Theo Dawson sent two brief responses (3 pages) that we combined into *Working Within the Limits: Thoughts on Stein and Heikkinen.* She reflects upon the nature of assessment validity and reliability and upon the constraints upon real-life use of such instruments. She included an appendix titled *Reliability – Some Basics* to help our readers understand some of the subtleties of the topic. She comments on the practical use, or lack thereof, that developmental measurements may have for end users, noting that "the more we hone in on a measureable dimension—the greater our precision becomes—the narrower the construct becomes." She continues by saying that "Formal measures, no matter how many great ones we design, should always be employed by knowledgeable mentors, clinicians, teachers, or coaches as a single item of information about learners that may or may not provide useful insights into their needs.”

In *A Personal Counterpoint to Stein and Heikkinen* (3 pages) Michael Basseches suggests that in addition to questions of validity and reliability, it is equally important to question the use to which developmental assessments are put. He takes Dawson's concerns further and cautions against the potential of a "tyranny of measures that replaces respectful discourse and collective adaptation as the social context." He uses the developmental capacity of dialectical thinking from his own research to illustrate. Only when one has "encountered the limits of [their] lower level structure [i.e., formal operational thought], and begun to glimpse the power of the novel alternative to transcend those limits [i.e., dialectical intelligence]" is one in a position to appreciate the implications of an assessment of dialectical intelligence (or any higher stage capacity).

In *Further Issues in Stage Metrics* (5 page response, plus 5 pages of References and Appendices) Michael Lamport Commons takes the opportunity to clarify the nature and history of the Model of Hierarchical Complexity—the construct and the surrounding theory. Zak's own work with the LAS (with Dawson) draws strongly from Commons' work, so this response provides a deepening background context for Stein and Heikkinen's paper. Commons also differentiates his work from Fischer's Skill Theory, which also contributed substantially the LAS.

From the commercial side of the street comes a response from the principals at InterKannections (ikan.biz). *A Practitioners' Perspective on Developmental Models, Metrics and Community* (19 pages) by Chad Stewart, Zach Smith and Norio Suzuki, gives a peek at a range of assessment instruments being used by a particular consulting company. The authors describe integrally-informed instruments that they have developed or adapted for assessing a range of constructs important to businesses, including 360 performance evaluations, leadership profiling tools, and an organizational sustainability scorecard. They conclude that purely linguistic evaluation instruments must be supplemented by performance-based assessments and metrics that evaluate outcomes (lagging indicators) as well as internal capacities (leading indicators).

Through the ensuing debate I was moved to pen a response titled *Intuiting the Cognitive Line in Developmental Assessment: Do Heart and Ego Develop According to Hierarchical Integration*? in which I explore some of the underlying issues in a question that came in these debates regarding developmental assessments: are they too tied to "the cognitive line" (or language skills)? In this informal analysis I inquire into whether the development of capacities related to heart, ego, and spirit can be captured using current models based on hierarchical integration and coordination.

In his rejoinder *Educational Crises and the Scramble for Usable Knowledge,* Zak Stein carries forward his appeal for more serious discussion among the designers and users of developmental models and tools, this being a third installment in what he intends as a series of papers on the theme. He argues that the profound challenges facing global society today "have critical educational dimensions" yet the "pressing global demand for innovative educational solutions… has the potential to systematically distort the production of relevant usable knowledge" about human learning and development. He iterates his previously-expressed support for Sara Ross's 2008 call for an "Institute for Applied Developmental Theory" focusing on quality control and fostering collaboration." He goes on to identify issues within the community of developmentalists that he sees as inhibiting the quality of dialog necessary to make sufficient progress.

In her rejoinder *It's an Empirical Question: On Cognition and Ego,* Katie Heikkinen jumps bravely into rarely explored territory in warning against the phenomena of disqualifying the arguments of a colleague because of perceived developmental inadequacies (coming from a lower developmental position). She follows Stein's rejoinder comments section on *Lack of Epistemic Humility*. This "labeling colleagues" territory is rich, sensitive, and nuanced. In part due to some of Wilber's arguments and others mentioning "adequatio," it has become common doctrine in the integral community that one can't "see" stuff at higher levels than they are at, at least along a particular developmental line. And differences in expertise in any domain can be (is not always) hierarchical in nature. But putting this intuition to use with real people in real contexts, and fleshing out which elements of it are true, useful, and/or ethical, is problematic. In addition to raising questions of how we could, or whether we would ever want to, "objectively" assess scholarly adequacy in a domain, it raises the question of whether we can profess and value humility, yet be able to compassionately and squarely look at deeply ingrained forms of "arrogance" that are tacitly cultivated in academic work. In a sense we know "labeling colleagues" is wrong, and Heikkinen and Stein help articulate why, but when we catch ourselves engaged in this type of thought, individually (I certainly have) or systemically, what options are available to us in open dialog and self/system analysis?

Heikkinen's discussion on this theme is limited to a particular issue, but she and Stein open a Pandora's box that may hold extensive treasures should the community take up this delicate issue in more depth and breadth. The issue points to a possible shadow element of the integral community of theory and practice. As was said in IR's invitation for responses "such questions become both more critical and more harrowing to address with authenticity and openness," yet we believe that a community of “integral” scholars (however we might define it) has the potential to engage in dialogs that embrace authenticity/vulnerability/empathy and rigor at levels rarely seen in academic discourse." Any takers? Write to us!

Anyways, back to Heikkinen's rejoinder. Following her discussion on "labeling colleagues" she asks some frank questions about whether any of the respondents addressed the core questions about calibrated metrics. She goes on to explore questions raised in my own article on whether wisdom skills can be evaluated using hierarchical complexity. Finally, she describes her current research project involving recoding Kegan's Subject-Object Interview data using the Hierarchical Complexity and the LAS.

Concluding Thoughts

In the end we see that Stein and Heikkinen’s June 2009 paper served well to motivate a wide range of responses on the general theme the appropriate use of developmental assessments, and to further the dialog on this important topic. Their call for assistance in filling in their table of published findings on the validity of developmental instruments was answered only by Torbert. Issues surrounding the practical usefulness and valid application of developmental tests were widely addressed, but Stein and Heikkinen's core concern about whether we are doing more harm than good in offering clients measurement results that are not transparent about their degree of uncertainty was not picked up by many.

Test validity and reliability are very time-consuming to establish, and require access to controlled situations and large numbers of data points. They also require instruments that remain fixed (that the measurement tool is constant), which prohibits the type of ongoing-improvement that characterize most practical methodologies. Many instruments capture a particular model for categorizing human capacities (such as the Myers-Briggs assessment) that have proven to be "tried and true" useful in the field for "adding value" to clients and customers, but have not been proven to have the psychometric properties the Stein and Heikkinen claim are necessary for accurate (thus ethical) use. Is using such instruments like the story of the man who lost his keys in the bushes but was looking for them under the street lamp because "the light was better there”?

But it is not that clear cut. One thing that several of the authors working in commercial contexts allude to indirectly is the potential for these instruments to serve as meaning-generating and self-reflection tools. Given a categorizing scheme, whether it be Action-logics, Enneagram types, or Astrological types, one can assess individuals (or groups) and present the scheme as a conversational tool for framing weaknesses, strengths, goals, opportunities, and intentions. If the uncertainty of any measurement is clarified, perhaps supplemented by self-evaluation ("what category do you think you are in?"), then instruments that lack strong validity or reliability can nonetheless be quite useful. On the other hand, repeated client feedback that the consultation seemed insightful and quite useful can mislead the practitioner into thinking that the tool is valid and reliable, and no substitute for rigorous psychometric evaluation.

The responses suggest that we may benefit from differentiating two contexts. In cases where assessments are used by third parties of make judgments that will have an effect on the lives of individuals, great care must be taken to avoid a "tyranny of measures." On the other hand, when the instruments are used by individuals or groups in dialogic, self-reflective first-, second-, third-person meaning-generation processes, the validity and reliability standards can be relaxed and still prove ethical and useful.

Responses to Stein and Heikkinen's original paper, including Stein and Heikkinen's Rejoinders, may have raised more questions than they answered, and to me it feels as though on many topics we are still in mid or early dialog, as a community of inquiry. We invite further thoughts, responses, and articles from our readers, which we may publish in our next newsletter, or our next Issue.

I hope you enjoy this issue!

Tom Murray
Associate Editor
December 12, 2009

The Coherent Heart
Heart–Brain Interactions, Psychophysiological Coherence, and the Emergence of System-Wide Order

Rollin McCraty, Ph.D., Mike Atkinson, Dana Tomasino, B.A., and Raymond Trevor Bradley, Ph.D.[1]

Abstract: This article presents theory and research on the scientific study of emotion that emphasizes the importance of coherence as an optimal psychophysiological state. A dynamic systems view of the interrelations between psychological, cognitive and emotional systems and neural communication networks in the human organism provides a foundation for the view presented. These communication networks are examined from an information processing perspective and reveal a fundamental order in heart-brain interactions and a harmonious synchronization of physiological systems associated with positive emotions. The concept of coherence is drawn on to understand optimal functioning which is naturally reflected in the heart's rhythmic patterns. Research is presented identifying various psychophysiological states linked to these patterns, with neurocardiological coherence emerging as having significant impacts on well being. These include psychophysiological as well as improved cognitive performance. From this, the central role of the heart is explored in terms of biochemical, biophysical and energetic interactions. Appendices provide further details and research on; psychophysiological functioning, reference previous research in this area, details on research linking coherence with optimal cognitive performance, heart brain synchronization and the energetic signature of the various psychophysiological modes.

Keywords: Cognitive performance, coherence, emotion, heart rate variability, heart-brain interactions, neurocardiology, psychophysiological coherence, quantum holographic principles.

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[1] This volume draws on the basic research conducted over the last decade at the Institute of HeartMath by Dr. Rollin McCraty and Mike Atkinson. The original manuscript for this article was drafted between 1998 and 2003 by Rollin McCraty and Dana Tomasino. Mike Atkinson conducted the analysis of the research reported here and also constructed the figures and graphs displaying the statistical information. Dr. Raymond Bradley joined the project in 2004 to work on a major revision and expansion of the manuscript to help bring the article to its present form.

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> *…there are organism states in which the regulation of life processes becomes efficient, or even optimal, free-flowing and easy. This is a well established physiological fact. It is not a hypothesis. The feelings that usually accompany such physiologically conducive states are deemed "positive," characterized not just by absence of pain but by varieties of pleasure. There also are organism states in which life processes struggle for balance and can even be chaotically out of control. The feelings that usually accompany such states are deemed "negative," characterized not just by absence of pleasure but by varieties of pain. … The fact that we, sentient and sophisticated creatures, call certain feelings positive and other feelings negative is directly related to the fluidity or strain of the life process.*
> (Damasio, 2003, p. 131)

Prologue[2]

> *Chris, a 45-year-old business executive, had a family history of heart disease, and was feeling extremely stressed, fatigued, and generally in poor emotional health. A 24-hour heart rate variability analysis[3] revealed abnormally depressed activity in both branches of his autonomic nervous system, suggesting autonomic exhaustion ensuing from maladaptation to high stress levels. His heart rate variability was far lower then would be expected for his age, and was below the clinical cut-off level for significantly increased risk of sudden cardiac death. In addition, Chris's average heart rate was abnormally high at 102 beats per minute, and his heart rate did not drop at night as it should.*
>
> *Upon reviewing these results, his physician concluded that it was imperative that Chris take measures to reduce his stress. He recommended that Chris begin practicing a system of emotional restructuring techniques that had been developed by the Institute of HeartMath. These positive emotion-focused techniques help individuals learn to self-generate and sustain a beneficial functional mode known as psychophysiological coherence, characterized by increased emotional stability and by increased synchronization and harmony in the functioning of physiological systems.*
>
> *Concerned about his deteriorating health, Chris complied with his physician's recommendation. Each morning during his daily train commute to work, he practiced the Heart Lock-In technique, and he would use the Freeze-Frame technique in situations when he felt his stress levels rise.[4]*

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[2] Excerpted from McCraty & Tomasino (2006), pp. 360-361.

[3] The analysis of heart rate variability (HRV), a measure of the naturally occurring beat-to-beat changes in heart rate, provides an indicator of neurocardiac fitness and autonomic nervous system function. Abnormally low 24-hour HRV is predictive of increased risk of heart disease and premature mortality. HRV is also highly reflective of stress and emotions.

[4] The Heart Lock-In tool is an emotional restructuring technique, generally practiced for 5 to 15 minutes, that helps build the capacity to sustain the psychophysiological coherence mode for extended periods of time. The Freeze-Frame technique is a one-minute positive emotion refocusing exercise used in the moment that stress is experienced to change perception and modify the psychophysiological stress response. For in-depth descriptions of these techniques, see Childre & Martin (1999) and Childre & Rozman (2005).

> *At first Chris was not aware of the transformation that was occurring. His wife was the first to notice the change and to remark about how differently he was behaving and how much better he looked. Then his co-workers, staff, and other friends began to comment on how much less stressed he appeared in responding to situations at work and how much more poise and emotional balance he had. A second autonomic nervous system assessment, performed six weeks after the initial one, showed that Chris's average heart rate had decreased to 85 beats per minute and it now lowered at night, as it should. Significant increases were also apparent in his heart rate variability, which had more than doubled! These results surprised Chris' physician, as 24-hour heart rate variability is typically very stable from week to week, and it is generally quite difficult to recover from autonomic nervous system depletion, usually requiring much longer than six weeks.*
>
> *In reflecting on his experience, Chris started to see how profoundly his health and his life had been transformed. He was getting along with his family, colleagues, and staff better than he could remember ever having enjoyed before, and he felt much more clearheaded and in command of his life. His life seemed more harmonious, and the difficulties that came up at work and in his personal relationships no longer created the same level of distress; he now found himself able approach them more smoothly and proactively, and often with a broadened perspective.*

The true story of Chris's transformation is not an isolated example, but rather is only one of many similar case histories that people like Chris have shared with HeartMath, illustrating the amazing transformations that can occur when one learns how to increase psychophysiological coherence.

Introduction

Many contemporary scientists believe that the quality of feeling and emotion we experience in each moment is rooted in the underlying state of our physiological processes. This view is well expressed by neuroscientist Antonio Damasio in the epigram that opened this article. The essence of his idea is that we call certain emotional feelings "positive" and others "negative" because these experiences directly reflect the impact of the "fluidity or strain of the life process" on the body, as is clearly evident in Chris' case, above. The feelings we experience as "negative" are indicative of body states in which "life processes struggle for balance and can even be chaotically out of control" (Damasio, 2003, p. 131). By contrast, the feelings we experience as "positive" actually reflect body states in which "the regulation of life processes becomes efficient, or even optimal, free-flowing and easy" (Damasio, p. 131).

While there is a growing appreciation of this general understanding in the scientific study of emotion, here we seek to deepen this understanding in three primary ways. First, our approach is based on the premise that the physiological, cognitive, and emotional systems are intimately interrelated through ongoing reciprocal communication. To obtain a deeper understanding of the operation of any of these systems, we believe it is necessary to view their activity as emergent from the dynamic, communicative network of interacting functions that comprise the human organism. Second, we adopt an information processing perspective, which views communication within and among the body's systems as occurring through the generation and transmission of *rhythms and patterns* of psychophysiological activity. This points to a fundamental order of information communication—one that both signifies different emotional states, operates to integrate and coordinate the body's functioning as a whole, and also connects the body to the external world. And third, we draw on the concept of *coherence* from the physics of signal processing to understand how different patterns of psychophysiological activity influence bodily function. Efficient or optimal function is known to result from a harmonious organization of the interaction among the elements of a system. Thus, a harmonious order in the rhythm or pattern of psychophysiological activity signifies a coherent system, whose efficient or optimal function is directly related, in Damasio's terms, to the ease and "fluidity" of life processes. By contrast, an erratic, discordant pattern of activity denotes an incoherent system, whose function reflects the difficulty and "strain" of life processes.

In this article we explore the concept and meaning of coherence in various psychophysiological contexts and describe how coherence within and among the physiological, cognitive, and emotional systems is critical in the creation and maintenance of health, emotional stability, and optimal performance. It is our thesis that what we call emotional coherence—a harmonious state of sustained, self-modulated positive emotion—is a primary driver of the beneficial changes in physiological function that produce improved performance and overall well-being. We also propose that the heart, as the most powerful generator of rhythmic information patterns in the body, acts effectively as the global conductor in the body's symphony to bind and synchronize the entire system. The consistent and pervasive influence of the heart's rhythmic patterns on the brain and body not only affects our physical health, but also significantly influences perceptual processing, emotional experience, and intentional behavior.

There is abundant evidence that emotions alter the activity of the body's physiological systems. Yet the vast majority of this scientific evidence concerns the effects of negative emotions. More recently, researchers have begun to investigate the functions and effects of positive emotions. This research has shown that, beyond their pleasant subjective feeling, positive emotions and attitudes have a number of objective, interrelated benefits for physiological, psychological, and social functioning (Fredrickson, 2002; Isen, 1999).

In contributing to this work, we discuss how sustained positive emotions facilitate an emergent global shift in psychophysiological functioning, which is marked by a distinct change in the rhythm of heart activity. This global shift generates a state of optimal function, characterized by increased synchronization, harmony, and efficiency in the interactions within and among the physiological, cognitive, and emotional systems. We call this state *psychophysiological coherence*. We describe how the coherence state can be objectively measured and explore the nature and implications of its physiological and psychological correlates. It is proposed that the global synchronization and harmony generated in the coherence state may explain many of the reported psychological and physiological health benefits associated with positive emotions.

Our discussion of the major pathways by which the heart communicates with the brain and body shows how signals generated by the heart continually inform emotional experience and influence cognitive function. This account includes a review of previous research on heart–brain interactions and theories regarding how the activity of the heart affects brain function and cognitive performance. We then present research conducted in our laboratory, which brings a new perspective, focusing on the *pattern* of the rhythm of heart activity and its relationship to emotional experience. From this vantage point, we derive a new hypothesis—that sustained, self-induced positive emotions generate a shift to a state of system-wide coherence in bodily processes, in which the coherent pattern of the heart's rhythm plays a key role in facilitating higher cognitive functions.

In short, the science reviewed in this article shows that through regular heart-based practice, it is possible to use positive emotions to shift one's whole psychophysiological system into a state of global coherence. When sustained, the harmonious order of coherence generates vital benefits on all levels and can even transform an individual's life, as we saw in the prologue describing Chris's story.

Theoretical Considerations

We begin by introducing the basic concepts and theoretical ideas that inform the material presented in this article.

Conceptual Framework

Integral to the understanding of psychophysiological interaction developed in this work are the concepts of information and communication. As we will see next, coherence is a particular quality that emerges from the relations among the parts of a system or from the relations among multiple systems. And since relations are constitutive of systems, the communication of information plays a fundamental constructive role in the generation and emergence of coherence. Although the communication of information is largely implicit in the interactional basis of the three basic concepts of coherence we begin with in this conceptual framework, we go onto develop a detailed account of the nature, substance, and dynamics of the psychophysiological interactions between the heart, the brain, and the body as a whole.

Information and Communication

The most basic definition of *information* is data which *in-form*, or give shape to, action or behavior, such as a message that conveys "meaning" to the recipient of a signal (Bradley & Pribram, 1998). In human language, abstract symbols like words, numbers, graphical figures, and even gestures and vocal intonations are used to encode the meaning conveyed in a message. In physiological systems, changes in chemical concentrations, the amount of biological activity, or the pattern of rhythmic activity are common means by which information is encoded in the movement of energy to inform system behavior.

But in order to be used to shape or regulate system behavior, the information must be distributed to and "understood" by the system elements involved. Thus, by *communication* we mean a process by which meaning is encoded as a message and transmitted in a signal to be received, processed, and comprehended by the various elements of a system.

The Concept of Coherence

In this article we describe the relationship between different patterns of psychophysiological activity and physiological, emotional and cognitive functions by drawing on three distinct but related concepts of coherence used in physics; *global coherence, cross coherence* and *auto-coherence*. The most common definition of coherence is "the quality of being logically integrated, consistent and intelligible," as in a coherent argument. A related meaning is "a logical, orderly and aesthetically consistent relationship of parts" (McCraty & Tomasino, 2006, p. 4). In the following discussion we delve deeper into the meaning of coherence.

Coherence in ordinary language means correlation, a sticking together, or connectedness; also, a consistency in the system. So we refer to people's speech or thought as coherent, if the parts fit together well, and incoherent if they are uttering meaningless nonsense, or presenting ideas that don't make sense as a whole (Ho, 1998). Thus, coherence in this context refers to wholeness and a global order: This is coherence as a distinctive organization of parts, the relations among which generate an emergent whole that is greater than the sum of the individual parts. In the example of organizing words in a coherent sentence, the meaning and purpose conveyed by the arrangement of the words is greater than the individual meaning of each word.

It is important to note that all systems, to produce any function or action, must have the property of *global coherence*. The efficiency and effectiveness of the function or action can vary widely, however, and therefore does not necessarily result in a coherent flow of behavior. Global coherence does not mean that everybody or all the parts are doing the same thing at the same time. Think of a jazz band for example, where the individual players are each doing his or her own thing, yet keeping in tune and step with the whole band. Coherence in this sense maximizes local freedom and global cohesion and resonance with the musical theme (Ho, 1998).

In a living system global order or coherence must be sustained and maintained over time. For example, biochemist and geneticist Mae-Wan Ho (1998) has suggested that a whole living system is a domain of coherent, autonomous activity that is coordinated across a continuum from the molecular to macroscopic to social levels.

In physics, the concept of coherence is also used to describe the interaction or coupling among different oscillating systems in which synchronization is the key idea in this concept. Synchronization describes the degree to which two or more waves are either phase or frequency-locked together, or when communication occurs between systems or modes without obstruction.

Returning to the music example, a chord is composed of notes of different frequencies yet resonate as a harmonious order of sound waves. In physiology, coherence is similarly used to describe the degree of coupling and harmonious interaction between two or more of the body's oscillatory systems such as respiration and heart rhythms. There are modes where they are operating at different frequencies, and modes when they become entrained and oscillate at the same frequency. This is also true for brain states in which the brainwaves can be momentarily in phase at different locations across the brain. The term *cross-coherence* is used to specify this type aspect of coherence.

Another example, from a physiological systems perspective, is that people's thoughts, emotions and attitudes can either be aligned and coherent or incoherent. When individuals think one way, feel another, and behave inconsistently, they are in an inefficient and ineffective state-that's non-coherence. A situation adults commonly face illustrates another kind of incoherence. For example, if a child has hit another child and must be taught to be kind to others and that hitting is not acceptable, consider the internal state of an adult in the following two scenarios:

1. The adult who punishes the child with a spanking for hitting another child.
2. The adult who takes time to teach and encourage the child to apologize and render an act of service or kindness to the other child. In this instance, the thoughts, feelings and actions of the adult are in coherent alignment with the message being taught. Then the child is more likely to have a coherent understanding of the lesson being taught.

Another aspect of coherence relates to the dynamics of the flow of action produced by a single system (McCraty & Tomasino, 2006). This is *coherence as a uniform pattern of cyclical behavior*. Because this pattern of action is generated by a single system, the term *auto-coherence* is used to denote this type of coherence. This concept is commonly used in physics to describe the generation of an ordered distribution of energy in a waveform. An example is a sine wave, which is a perfectly coherent wave. The more stable the frequency, amplitude, and shape of the waveform, the higher the degree of coherence. In physiological systems, this type of coherence describes the degree of order and stability in the rhythmic activity generated by a single oscillatory such as the hearts rhythmic activity. When coherence is increased in a single system that is coupled to other systems, it can pull the other systems into coherence or *entrainment*, resulting in increased cross-coherence in the activity of the other systems, even across different time scales of activity. An example of this is in the increased heart-brain synchronization that occurs in a heart coherent mode.

Theory

The material presented in this article is informed by the following theoretical considerations. Our psychophysiological systems process an enormous amount of information, which must be continuously communicated from one part of the brain or body to another and often stored as a memory of one type or another. The traditional approach to understanding how the body's systems interact adopts an activation perspective, in which variation in the *amount* of a substance or the *amount* of a given physiological activity is viewed as the basis of communication. Although the amount of activity is clearly an important aspect of communication, the generation and transmission of *rhythms and patterns* of physiological activity appear reflective of a more fundamental order of information communication—one that signifies different emotional states and operates to integrate and coordinate the body's functioning as a whole.

Throughout the body, information is encoded in waveforms of energy as patterns of physiological activity. Neural, chemical, electromagnetic, and oscillatory pressure wave patterns are among those used to encode and communicate biologically relevant information. By these means, the body's organs continually transmit information to the brain as patterns of afferent (ascending) input. In turn, as we will see below, changes in the patterns of afferent input to the brain cause significant changes in physiological function, perception, cognition, emotion, and intentional behavior.

A primary proposition explored in this article is that different emotions are associated with distinct patterns of physiological activity. This is the result of a two-way process by which, in one direction, emotions trigger changes in the autonomic nervous system and hormonal system, and in the other direction, specific changes in the physiological substratum are involved in the generation of emotional experience. Research at the Institute of HeartMath has identified six distinct patterns of physiological activity generated during different emotional states. We call these *psychophysiological modes*. Each of these is described in detail in Appendix A. Of particular significance is the *psychophysiological coherence* mode, which is characterized by ordered, harmonious patterns of physiological activity. This mode has been found to be generated during the experience of sustained positive emotions. The psychophysiological coherence mode has numerous physiological and psychological benefits, which can profoundly impact health, performance, and quality of life.

A second proposition is that the heart plays a central role in the generation and transmission of system-wide information essential to the body's function as a coherent whole. There are multiple lines of evidence to support this proposition: The heart is the most consistent and dynamic generator of rhythmic information patterns in the body; its intrinsic nervous system is a sophisticated information encoding and processing center that operates independently of the brain; the heart functions in multiple body systems and is thus uniquely positioned to integrate and communicate information across systems and throughout the body; and, of all the bodily organs, the heart possesses by far the most extensive communication network with the brain. As described subsequently, afferent input from the heart not only affects the homeostatic regulatory centers in the brain, but also influences the activity of higher brain centers involved in perceptual, cognitive, and emotional processing, thus in turn affecting many and diverse aspects of our experience and behavior. These are the central ideas that guide what follows.

The Psychophysiological Network: A Systems Perspective

As science has increasingly adopted a systems perspective in investigation and analysis, the understanding has emerged that our mental and emotional functions stem from the activity of *systems*—organized pathways interconnecting different organs and areas of the brain and body—just as do any of our physiological functions. Moreover, our mental and emotional systems cannot be considered in isolation from our physiology. Instead, they must be viewed as an integral part of the dynamic, communicative network of interacting functions that comprise the human organism.

These understandings have led to the emergence and growth of new scientific fields of study, such as psychophysiology. Psychophysiology is concerned with the interrelations among the physiological, cognitive, and emotional systems and human behavior. It is now evident that every thought, attitude, and emotion has a physiological consequence, and that patterns of physiological activity continually influence our emotional experience, thought processes, and behavior. As we will see shortly, the efficacy of this perspective has been substantiated by our own research, as well as that of many others, examining how patterns of psychophysiological activity change during stress and different emotional states.

Heart Rate Variability and Measurement of Psychophysiological Modes

In the early stages of our work at the Institute of HeartMath, we sought to determine which physiological variables were most sensitive to and correlated with changes in emotional states. In analyzing many different physiological measures (such as heart rate, electroencephalographic and electromyographic activity, respiration, skin conductance, etc.), we discovered that the *rhythmic pattern of heart activity* was directly associated with the subjective activation of distinct emotional states, and that the heart rhythm pattern also reflected changes in emotional states, in that it covaried with emotions in real time. We found strong differences between quite distinct rhythmic beating patterns that were readily apparent in the heart rhythm trace and that directly matched the subjective experience of different emotions. In short, we found that the pattern of the heart's activity was a valid physiological indicator of emotional experience and that this indicator was reliable when repeated at different times and in different populations.

In more specific terms, we examined the natural fluctuations in heart rate, known as *heart rate variability* (HRV). HRV is a product of the dynamic interplay of many of the body's systems. Short-term (beat-to-beat) changes in heart rate are largely generated and amplified by the interaction between the heart and brain. This interaction is mediated by the flow of neural signals through the efferent and afferent pathways of the sympathetic and parasympathetic branches of the autonomic nervous system (ANS). HRV is thus considered a measure of neurocardiac function that reflects heart–brain interactions and ANS dynamics.

From an activation theory perspective, the focus is on changes in heart *rate* or in the *amount* of variability that are expected to be associated with different emotional states. However, while these factors can and often do covary with emotions, we have found that it is the *pattern* of the heart's rhythm that is primarily reflective of the emotional state. Furthermore, we have found that changes in the heart rhythm pattern are independent of heart *rate*: one can have a coherent or incoherent pattern at high or low heart rates. Thus, it is the rhythm, rather than the rate, that is most directly related to emotional dynamics and physiological synchronization.

Emotions and Heart Rhythm Patterns

As mentioned at the outset, researchers have spent much time and effort investigating how emotions change the state and functioning of the body's systems. While the vast majority of this body of work has focused on understanding the pathological effects of negative emotions, recent research has begun to balance this picture by investigating the functions and effects of positive emotions.

A synthesis of the voluminous work in developmental neurobiology has shown that the modulation of positive emotions plays a critical role in infant growth and neurological development, which has enormous consequences for later life (Schore, 1994). Other research on adults has documented a wide array of effects of positive emotions on cognitive processing, behavior, and health and well-being. Positive emotions have been found to broaden the scope of perception, cognition, and behavior (Fredrickson, 2001, 2005; Isen, 1999), thus enhancing faculties such as creativity (Isen, 1998) and intuition (Bolte, Goschke, & Kuhl, 2003). Moreover, the experience of frequent positive emotions has been shown to predict resilience and psychological growth, (Fredrickson, Tugade, Waugh, & Larkin, 2003) while an impressive body of research has documented clear links between positive emotions, health status, and longevity (Blakeslee & Grossarth-Maticek, 1996; Danner, Snowdon, & Friesen, 2001; Medalie & Goldbourt, 1976; Moskowitz, 2003; Ostir, Markides, Black, & Goodwin, 2000; Ostir, Markides, Peek, & Goodwin, 2001; Russek & Schwartz, 1997; Seeman & Syme, 1987). In addition, there is abundant evidence that positive emotions affect the activity of the body's physiological systems in profound ways. For instance, studies have shown that positive emotional states speed the recovery of the cardiovascular system from the after-effects of negative emotions (Fredrickson et al., 2000), alter frontal brain asymmetry (Davidson et al., 2003), and increase immunity (Davidson et al.; McCraty, Atkinson, Rein, & Watkins, 1996; Rein, Atkinson, & McCraty, 1995). Finally, the use of practical techniques that teach people how to self-induce and sustain positive emotions and attitudes for longer periods has been shown to produce positive health outcomes. These include reduced blood pressure in both hypertensive and normal populations, (McCraty, Atkinson, Lipsenthal, et al., 2003; McCraty, Atkinson, & Tomasino, 2003) improved functional capacity in patients with heart failure (Luskin, Reitz, Newell, Quinn, & Haskell, 2002), improved hormonal balance, (McCraty, Barrios-Choplin, Rozman, Atkinson, & Watkins, 1998) and lower lipid levels (McCraty, Atkinson, Lipsenthal, et al., 2003).

In investigating the physiological foundation of this important work, we have utilized HRV analysis to show how distinct heart rhythm patterns characterize different emotional states. In more specific terms, we found that underlying the experience of different emotional states there is a distinct physiology directly involved. Thus we have found that sustained positive emotions such as appreciation, care, compassion, and love generate a smooth, sine-wave-like pattern in the heart's rhythms. This reflects increased order in higher-level control systems in the brain, increased synchronization between the two branches of the ANS, and a general shift in autonomic balance towards increased parasympathetic activity. As is visually evident (Figure 1) and also demonstrable by quantitative methods, heart rhythms associated with positive emotions, such as appreciation, are clearly more *coherent*—organized as a stable pattern of repeating sine waves—than those generated during a negative emotional experience such as frustration. We observed that this association between positive emotional experience and this distinctive physiological pattern was evident in studies conducted in both laboratory and natural settings, and for both spontaneous emotions and intentionally generated feelings (McCraty, Atkinson, Tiller, Rein, & Watkins, 1995; Tiller, McCraty, & Atkinson, 1996).

By contrast, our research has shown that negative emotions such as frustration, anger, anxiety, and worry lead to heart rhythm patterns that appear *incoherent*—highly variable and erratic. Overall, this means that there is less synchronization in the reciprocal action of the parasympathetic and sympathetic branches of the ANS (McCraty et al., 1995; Tiller et al., 1996). This desynchronization in the ANS, if sustained, taxes the nervous system and bodily organs, impeding the efficient synchronization and flow of information throughout the psychophysiological systems. Furthermore, as studies have also shown that prefrontal cortex activity is reflected in HRV via modulation of the parasympathetic branch of the ANS (Lane, Reiman, Ahern, & Thayer, 2001), this increased disorder in heart rhythm patterns is also likely indicative of disorder in higher brain systems.

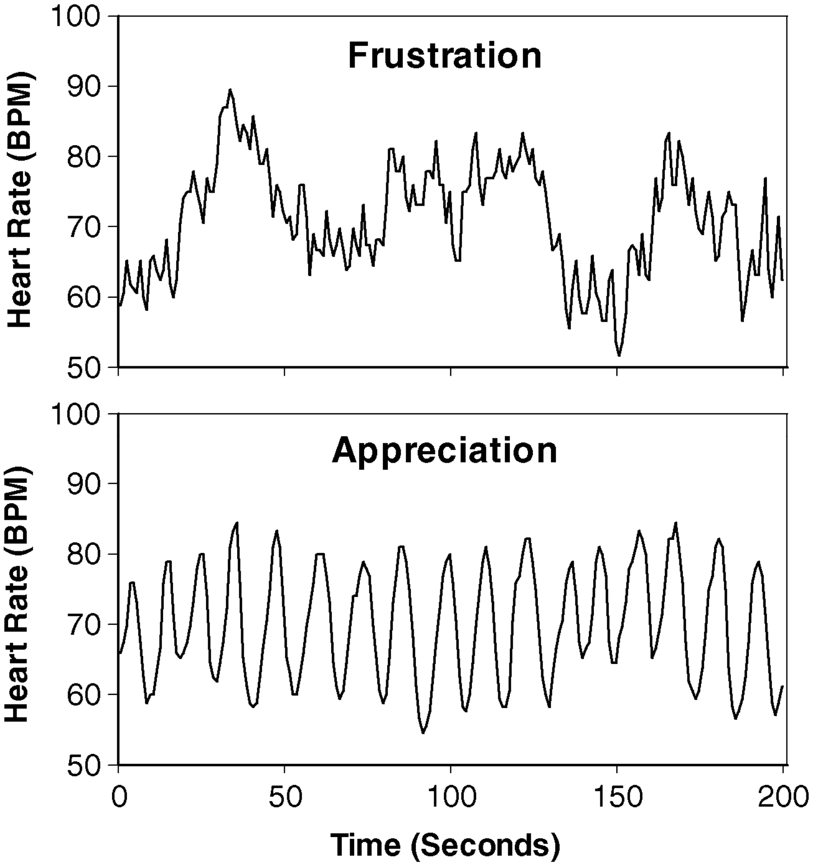

Figure 1. Emotions are reflected in heart rhythm patterns. The heart rhythm pattern shown in the top graph, characterized by its erratic irregular pattern (incoherence), is typical of negative emotions such as anger or frustration. The bottom graph shows an example of the coherent heart rhythm pattern that is typically observed when an individual is experiencing sustained, modulated positive emotions, in this case appreciation.

Psychophysiological Coherence

In our research on the physiological correlates of positive emotions we have found that when certain positive emotional states, such as appreciation, compassion, or love, are intentionally maintained, coherent heart rhythm patterns can be sustained for longer periods, which also leads to increased synchronization and entrainment between multiple bodily systems. Because it is characterized by distinctive psychological and behavioral correlates as well as by specific patterns of physiological activity throughout the body, we introduced the term *psychophysiological coherence*[5] to describe this mode of functioning.

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[5] In earlier publications (Tiller et al., 1996), the psychophysiological coherence mode was referred to as the “entrainment mode” because a number of physiological systems entrain with the heart rhythm in this mode.

Heart Rhythm Coherence

The development of *heart rhythm coherence*—a stable, sine-wave-like pattern in the heart rate variability waveform—is the key marker of the psychophysiological coherence mode. Heart rhythm coherence is reflected in the HRV power spectrum as a large increase in power in the low frequency (LF) band (typically around 0.1 Hz) and a decrease in the power in the very low frequency (VLF) and high frequency (HF) bands. A coherent heart rhythm can therefore be defined as a relatively harmonic (sine-wave-like) signal with a very narrow, high-amplitude peak in the LF region of the HRV power spectrum and no major peaks in the VLF or HF regions. Coherence thus approximates the LF/(VLF + HF) ratio. (See Appendix A for an explanation of the HRV power spectrum and a description of the physiological significance of the different frequency bands.)

A method of quantifying heart rhythm coherence is shown in Figure 2. First, the maximum peak is identified in the 0.04–0.26 Hz range (the frequency range within which coherence and entrainment can occur). The peak power is then determined by calculating the integral in a window 0.030 Hz wide, centered on the highest peak in that region. The total power of the entire spectrum is then calculated. The coherence ratio is formulated as:

(Peak Power / (Total Power − Peak Power)) (Childre & Martin, 1999)

This method provides an accurate measure of coherence that allows for the nonlinear nature of the HRV waveform over time.

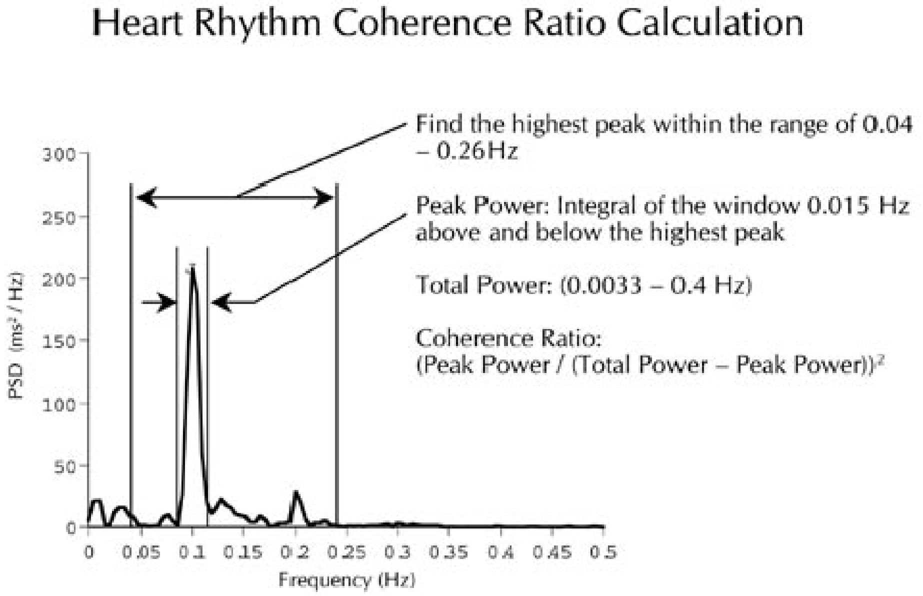

Figure 2. Heart rhythm coherence ratio calculation.

Physiological Correlates

At the physiological level, psychophysiological coherence embraces several related phenomena—autocoherence, entrainment, synchronization, and resonance—which are associated with increased order, efficiency, and harmony in the functioning of the body's systems. As described above, this mode is associated with increased coherence in the heart's rhythmic activity (autocoherence), which reflects increased ANS synchronization and manifests as a sine-wave-like heart rhythm pattern oscillating at a frequency of approximately 0.1 Hz. Thus, in this mode the HRV power spectrum[6] is dominated by a narrow-band, high-amplitude peak near the center of the low frequency band (see Figures 3 below and 8 in Appendix A) (McCraty et al., 1995; Tiller et al., 1996).

Another physiological correlate of the coherence mode is the phenomenon of resonance. In physics, resonance refers to a phenomenon whereby an unusually large oscillation is produced in response to a stimulus whose frequency is the same as, or nearly the same as, the natural vibratory frequency of the system. The frequency of the vibration produced in such a state is defined as the resonant frequency of the system. When the cardiovascular system is operating in the coherence mode, it is essentially oscillating at its resonant frequency; this is reflected in the distinctive high-amplitude peak in the HRV power spectrum around 0.1 Hz. Most mathematical models show that the resonant frequency of the human cardiovascular system is determined by the feedback loops between the heart and brain (Baselli et al., 1994; DeBoer, Karemaker, & Strackee, 1987). In humans and in many animals, the resonant frequency of the system is approximately 0.1 Hz, which is equivalent to a 10-second rhythm. The system naturally oscillates at its resonant frequency when an individual is actively feeling a sustained positive emotion such as appreciation, compassion, or love, (McCraty et al., 1995) although resonance can also emerge during states of deep sleep.

Furthermore, increased heart–brain synchronization is observed during coherence; specifically, the brain's alpha rhythms exhibit increased synchronization with the heartbeat in this mode. This finding is discussed in greater depth in Appendix D.

Finally, there tends to be increased cross-coherence or entrainment among the rhythmic patterns of activity generated by different physiological oscillatory systems. Entrainment occurs when the frequency difference between the oscillations of two or more nonlinear systems drops to zero by being "frequency pulled" to the frequency of the dominant system. As the body's most powerful rhythmic oscillator, the heart can pull other resonant physiological systems into entrainment with it. During the psychophysiological coherence mode, entrainment is typically observed between heart rhythms, respiratory rhythms, and blood pressure oscillations; however, other biological oscillators, including very low frequency brain rhythms, craniosacral rhythms, and electrical potentials measured across the skin, can also become entrained (Bradley & Pribram, 1998; Tiller et al., 1996).

Figure 3 shows an example of entrainment occurring during psychophysiological coherence. The graphs plot an individual's heart rhythm, arterial pulse transit time (a measure of beat-to-beat blood pressure) (Bradley & Pribram, 1998), and respiration rate over a 10-minute period. In this example, after a 300-second normal resting baseline period the subject used a heart-based positive emotion refocusing technique known as Freeze-Frame, (Childre & Martin, 1999) which involves focusing attention in the area of the heart while self-generating a sincere positive emotion, such as appreciation. After the subject used the Freeze-Frame technique, the three rhythms shifted from an erratic to a sine-wave-like pattern (indicative of the coherence mode) and all entrained at a frequency of 0.12 Hz. (Tiller et al., 1996). The entrainment phenomenon is thus an example of a psychophysiological state in which there is increased coherence within each system (autocoherence) *and* among multiple oscillating systems (cross-coherence) as well. This example also illustrates how the intentional generation of a self-regulated positive emotional state can bring about a phase-shift in physiological activity, driving the physiological systems into a globally coherent mode of function.

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[6] Spectral analysis decomposes the HRV waveform into its individual frequency components and quantifies them in terms of their relative intensity using power spectral density (PSD) analysis. Spectral analysis thus provides a means to quantify the relative activity of the different physiological influences on HRV, which are represented by the individual oscillatory components that make up the heart rhythm.

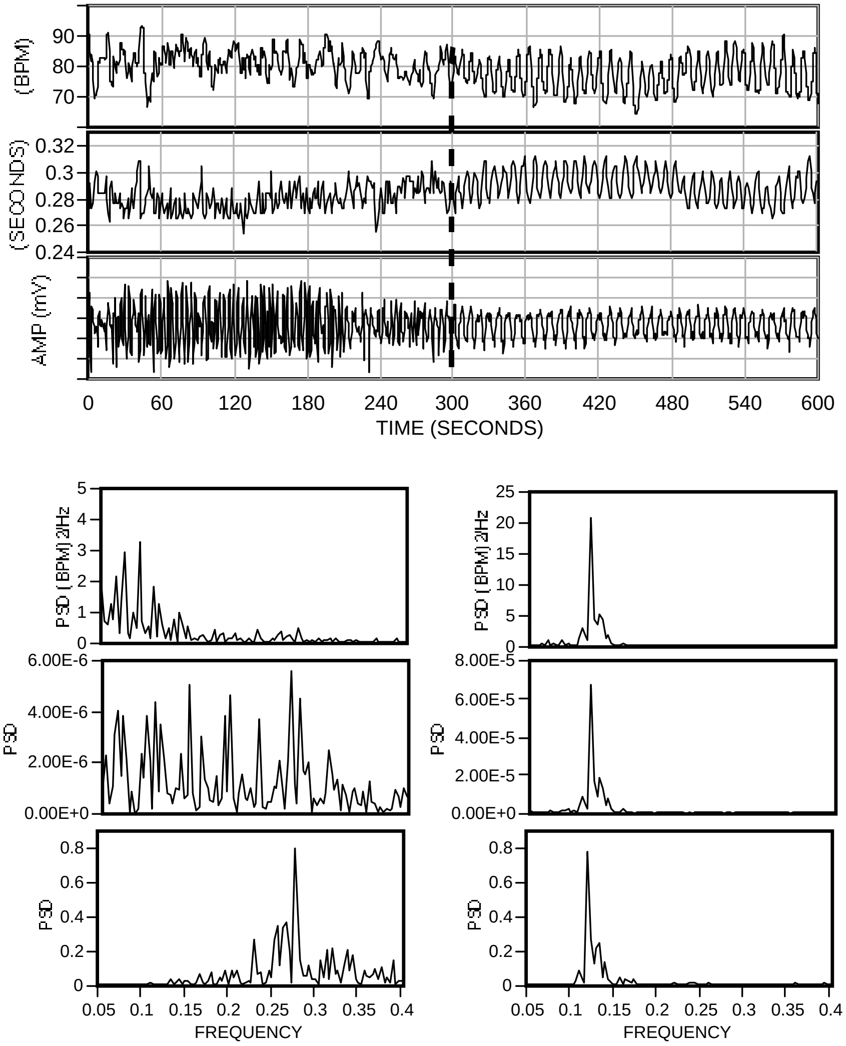

Figure 3. Entrainment. The top graphs show an individual’s heart rate variability, pulse transit time, and respiration rhythms over a 10-minute period. At the 300-second mark, the individual used the Freeze-Frame positive emotion refocusing technique, causing these three systems to come into entrainment. The bottom graphs show the frequency spectra of the same data on each side of the dotted line in the center of the top graph. Notice the graphs on the right show that all three systems have entrained to the same frequency.

Psychological and Behavioral Correlates

The experience of the coherence mode is also qualitatively distinct at the psychological level. This mode is associated with reduced perceptions of stress, sustained positive affect, and a high degree of mental clarity and emotional stability. In Appendix C we also present data indicating that coherence is associated with improved sensory-motor integration, cognition, and task performance. In addition, individuals frequently report experiencing a notable reduction in internal mental dialogue, increased feelings of inner peace and security, more effective decision making, enhanced creativity, and increased intuitive discernment when engaging this mode.

In summary, psychophysiological coherence is a distinctive mode of function driven by sustained, modulated positive emotions. At the psychological level, the term “coherence” is used to denote the high degree of order, harmony, and stability in mental and emotional processes that is experienced during this mode. Physiologically speaking, “coherence” is used here as a general term that encompasses entrainment, resonance, and synchronization—distinct but related phenomena, all of which emerge from the harmonious activity and interactions of the body’s subsystems. Physiological correlates of the coherence mode include: increased synchronization between the two branches of the ANS, a shift in autonomic balance toward increased parasympathetic activity, increased heart–brain synchronization, increased vascular resonance, and entrainment between diverse physiological oscillatory systems.

Drivers of Coherence

Although the physiological phenomena associated with coherence can occur spontaneously, sustained episodes are generally rare. While specific rhythmic breathing methods may induce heart rhythm coherence and physiological entrainment for brief periods, cognitively directed paced breathing is difficult for many people to maintain for more than about one minute (discussed in detail later). On the other hand, we have found that individuals can intentionally maintain coherence for extended periods by self-generating, modulating, and sustaining a “heart-focused” positive emotional state. Using a positive emotion to drive the coherence mode appears to excite the system at its resonant frequency, and coherence emerges naturally, making it easy to sustain for long periods.

Self-regulation of emotional experience is a key requisite to the intentional generation of sustained positive emotions—the driver of a shift to coherent patterns of physiological activity. Emotional self-regulation involves moment-to-moment management of distinct aspects of emotional experience. One aspect involves the neutralization of inappropriate or dysfunctional negative emotions. The other requires that self-activated positive emotions are modulated to remain within the resonant frequency range of such emotions as appreciation, compassion, and love, rather than escalating into feelings such as excitement, euphoria, and rapture, which are associated with more unstable psychophysiological patterns.

A series of tools and techniques, collectively known as the HeartMath System, provide a systematic process that enables people to self-regulate emotional experience and reliably generate the psychophysiological coherence mode (Childre & Martin, 1999; Childre & Rozman, 2002, 2005). The primary focus of these techniques is on facilitating the intentional generation of a sustained, heart-focused positive emotional state. This is accomplished by a process that combines a shift in attentional focus to the area of the heart (where many people subjectively experience positive emotions) which the self-induction of a positive feeling, such as appreciation. Our work has shown that this shift in focus and feeling experience allows the coherence mode to emerge naturally and helps to reinforce the inherent associations between coherence and positive feelings. Our research also suggests that the intentional application of these coherence-building techniques, on a consistent basis, effectively facilitates a *repatterning process* whereby coherence becomes increasingly familiar to the brain and nervous system, and thus progressively becomes established in the neural architecture as new, stable psychophysiological baseline or set point (McCraty, 2003; McCraty & Childre, 2004; McCraty & Tomasio, 2006). Once the coherence mode is established as the familiar pattern, the system then strives to maintain this mode automatically, thus rendering coherence a more readily accessible state during day-to-day activities, and even in the midst of stressful or challenging situations.

At the physiological level, the occurrence of such a repatterning process is supported by electrophysiological evidence demonstrating a greater frequency of spontaneous (without conscious practice of the interventions) periods of heart rhythm coherence in individuals practiced in the HeartMath coherence-building techniques. Furthermore, a number of studies suggest that this “repatterning” process can produce enduring system-wide benefits that significantly impact overall quality of life (discussed below).

While evidence clearly shows that the HeartMath positive emotion refocusing and emotional restructuring techniques lead to increased psychophysiological coherence, other approaches have also been shown to be associated with increased coherence. For example, in a recent UCLA study, Buddhist monks meditating on generating compassionate love tended to exhibit increased coherence, and another study of Zen monks found that the more advanced monks tended to have coherent heart rhythms, while the novices did not (Lehrer et al., 2003). This does not imply, however, that all meditation approaches lead to coherence; as we and others have observed, approaches that focus attention to the mind (concentrative mediation), and not on a positive emotion, in general do not induce coherence.

Benefits of Psychophysiological Coherence

In terms of physiological functioning, coherence is a highly efficient mode that confers a number of benefits to the system. These include: (1) resetting of baroreceptor sensitivity, which is related to improved short-term blood pressure control and increased respiratory efficiency; (2) increased vagal afferent traffic, which is involved in the inhibition of pain signals and sympathetic outflow; (3) increased cardiac output in conjunction with increased efficiency in fluid exchange, filtration, and absorption between the capillaries and tissues; (4) increased ability of the cardiovascular system to adapt to circulatory requirements; and (5) increased temporal synchronization of cells throughout the body. This results in increased system-wide energy efficiency and metabolic energy savings (Lehrer et al., 2003; Langhorst, Schulz, & Lambertz, 1984; Siegel et al., 1984).

Psychologically, the coherence mode promotes a calm, emotionally balanced, yet alert and responsive state that is conducive to cognitive and task performance, including problem-solving, decision-making, and activities requiring perceptual acuity, attentional focus, coordination, and discrimination. Individuals generally experience a sense of enhanced subjective well-being during coherence due to the reduction in extraneous inner "noise" generated by the mental and emotional processing of daily stress and the positive emotion-driven shift to increased harmony in bodily processes. Many also report increased intuitive clarity and efficacy in addressing troublesome issues in life.

The use of coherence-building interventions has been documented in numerous studies to give rise to significant improvements in key markers of both physical and psychological health. Significant improvements in several objective health-related measures have been observed, including immune system function (McCraty et al., 1996; Rein et al., 1995), ANS function and balance (McCraty et al., 1995; Tiller et al., 1996), and the DHEA/cortisol ratio (McCraty et al., 1998). At the emotional level, significant reductions in depression, anxiety, anger, hostility, burnout, and fatigue and increases in caring, contentment, gratitude, peacefulness, and vitality have been measured across diverse populations (Arguelles, McCraty, & Rees, 2003; Barrios-Choplin, McCraty, & Cryer, 1997; Luskin et al., 2002; McCraty et al., 1998; McCraty, Atkinson, Lipsenthal, et al. 2003; McCraty, Atkinson, & Tomasino, 2001, 2003). Other research has demonstrated significant reductions in key health risk factors (e.g., blood pressure, glucose, cholesterol) (McCraty, Atkinson, Lipsenthal, et al., 2003) and improvements in health status and quality of life in various populations using coherence-building approaches. More specifically, significant blood pressure reductions have been demonstrated in individuals with hypertension (McCraty, Atkinson, & Tomasino); improved functional capacity and reduced depression in patients with congestive heart failure (Luskin et al.); improved glycemic regulation and quality of life in patients with diabetes (McCraty, Atkinson, & Lipsenthal, 2000); and improvements in asthma (Lehrer, Smetankin, & Potapova, 2000). Coherence-building interventions have also been found to yield favorable outcomes in organizational, educational, and mental health settings (Arguelles et al., 2003; Barrios-Choplin et al.; Barrios-Choplin, McCraty, Sundram, & Atkinson, 1999; McCraty et al., 2001; McCraty, Atkinson, Lipsenthal, et al.; McCraty, Atkinson, Tomasino, Goelitz, & Mayrovitz, 1999; McCraty & Childre, 2004; McCraty & Tomasio, 2004).

In short, our findings on psychophysiological coherence essentially substantiate what human beings have known intuitively for thousands of years: namely, that positive emotions not only feel better subjectively, but they also increase the synchronous and harmonious function of the body's systems. This optimizes our health, well-being, and vitality, and enables us to function with greater overall efficiency and effectiveness.

A Typology of Psychophysiological Interaction

In the Appendix A we identify six distinct patterns of HRV, which appear to denote six different modes of psychophysiological interaction. Four of these modes are readily generated in the context of everyday life. We have termed these *Mental Focus*, *Psychophysiological Incoherence*, *Relaxation* and *Psychophysiological Coherence*. Two further modes, *Emotional Quiescence* and *Extreme Negative Emotion*, are generated under more extraordinary life circumstances. This appendix provides empirical data and detailed descriptions for each of these.

Looking more closely at our data, we found a number of empirical clues that point to a more fundamental conceptualization of the relationship between HRV patterns (which include both heart rate and rhythm) and different emotional states. The first clue is that there is a general relationship between coherence and emotional valence, in that positive emotions are associated with physiological coherence and negative emotions with incoherence. The second clue is that, for certain emotions, we found a relationship between the morphology of the HRV waveforms and specific emotional states. The third finding of significance here is that we also found evidence of HRV waveform patterns (namely, those characteristic of the Emotional Quiescence and Extreme Negative Emotion modes) that appear to involve a rapid phase transition into a qualitatively different category of physiological function. In short, the empirical generalization suggested by these findings is that the morphology of HRV waveforms covaries with different emotional experiences.

Following the logic of this general relationship, we can thus use the six psychophysiological modes to construct a typology—a conceptual "map"—showing the expected relationship between different categories of subjective emotional experience and the different patterns of physiological activity associated with them (see Figure 4). This general theoretical scheme applies to normal, healthy individuals experiencing emotions and feelings of relatively short duration (minutes to hours).

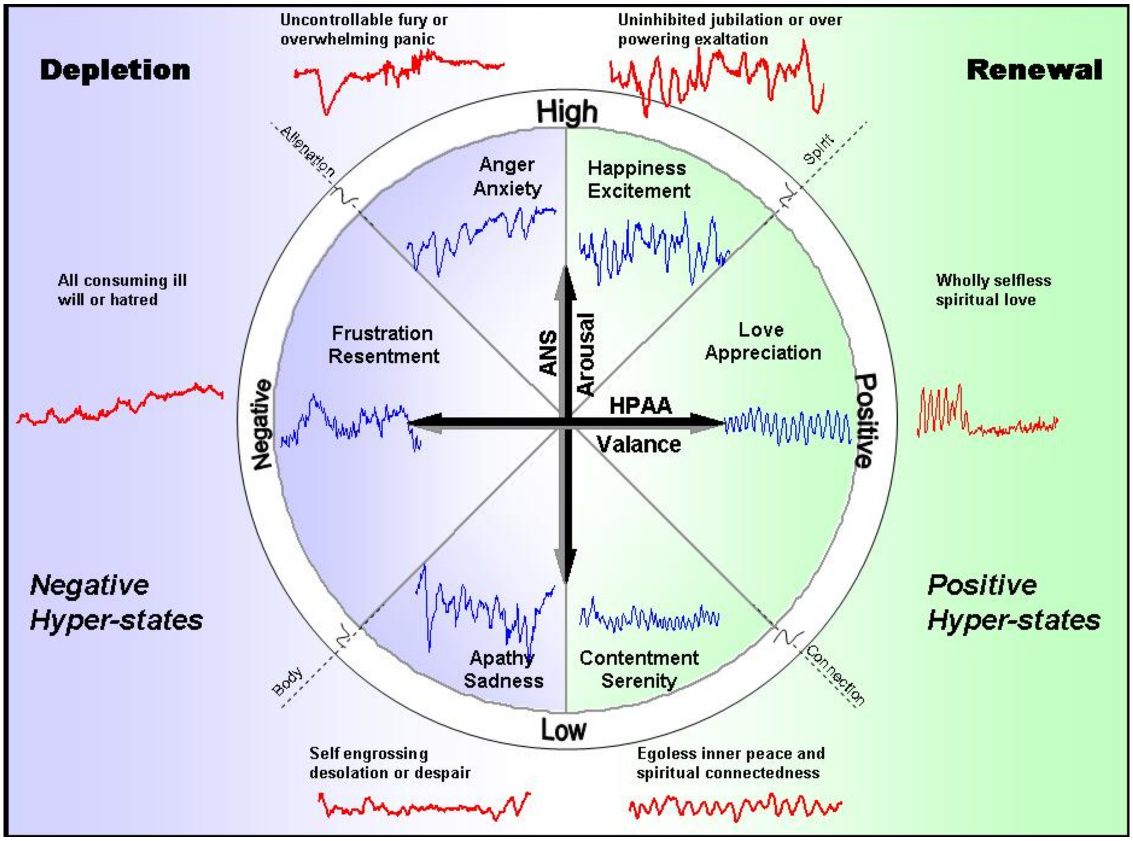
Uncontrollable fury or overwhelming panic
Uninhibited jubilation or over powering exaltation
Depletion
Renewal
High
Alienation
Spirit
Anger Anxiety
Happiness Excitement
All consuming ill will or hatred
Wholly selfless spiritual love
Frustration Resentment
ANS
Arousal
Love Appreciation
Negative
HPAA
Valance
Positive
Negative Hyper-states
Positive Hyper-states
Apathy Sadness
Contentment Serenity
Body
Connection
Low
Self engrossing desolation or despair
Egoless inner peace and spiritual connectedness

Figure 4. Graphic depiction of everyday states and hyper-states of psychophysiological interaction distinguished by the typology. Two qualitatively different categories of psychophysiological interaction are depicted—the area within the inner circle represents the

range of emotional experience of “normal,” everyday life; the area beyond the outer circle represents psychophysiological hyper-states of extreme emotional experience. The psychophysiological transition from one region to another involves an abrupt phase transition, which is depicted graphically by the white space between the two circles. Two dimensions differentiate the varieties of emotional experience shown; for simplification, the relevant psychological and physiological variables are superimposed on the axis for each dimension. One dimension is the degree of *emotional arousal* (vertical axis, high to low)—known to be covariant with ANS balance. The second dimension is the *valence* of the emotion (horizontal axis, positive or negative)—assumed covariant with the degree of activation of the hypothalamic-pituitary-adrenal (HPA) axis. Different patterns of HRV are predicted from the particular combination of arousal and valence values on the two dimensions. Within the inner circle are six segments, each of which demarcates a range of emotion experienced in everyday life. Typical HRV patterns associated with each emotion are shown. The area beyond the outer circle depicts six hyper-states, in which intense emotional experience drives the activity of physiological systems past normal function into extreme modes. The known and predicted HRV waveform patterns associated with these hyper-states are also shown. The labels “Depletion” and “Renewal,” on the left and right-hand side of the diagram, respectively, highlight the relationship between the valence of feelings and emotions experienced and the psychophysiological consequences for the individual. Negative emotional states can lead to emotional exhaustion and depletion of physiological reserves. By contrast, positive emotional states are associated with increased psychophysiological efficiency and regeneration.

Although the mapping is not isomorphic between data and concept, the typology provides a compelling and fruitful way of conceptualizing and organizing these phenomena. In addition to offering some understanding of the relationships between different types of emotional experience and their associated physiological processes, this scheme also aims to *predict* the distinguishing physiological correlates of emotional states that, to our knowledge, have yet to be empirically described.

The typology distinguishes between two general classes of psychophysiological interaction. One class reflects “normal” psychophysiological states associated with the variety of subjective experiences of everyday life. This area is represented by the space within the inner circle shown in Figure 4. This area has been divided into six segments, each representing a different basic range of emotion. The second class is a qualitatively different category of psychophysiological interaction associated with extreme emotional experience, represented by the space beyond the outer perimeter of the circle in the figure. Because the patterns of psychophysiological interaction in this space are predicted to show an abrupt movement—a phase shift—from patterns associated with feelings typically experienced in everyday life to qualitatively distinct psychophysiological patterns associated with the experience of extreme positive or extreme negative emotions, well beyond the range of normal feelings, we have labeled them as *hyper*-states. Evidence of such a phase shift can clearly be seen as an abrupt reduction in amplitude and a corresponding increase in frequency in the waveform patterns showing the movement from Psychophysiological Coherence to the Emotional Quiescence, a positive hyper-state (Figure 9, Appendix A) and also in the movement from Psychophysiological Incoherence to Extreme Negative Emotion, a negative hyper-state (Figure 10, Appendix A).

Two dimensions common to the phenomenon of psychophysiological interaction provide the basis for differentiating varieties of emotional experience in the typology. As evident in the term "psychophysiological," there is a psychological element and a physiological element.[7] For purposes of simplification, we have superimposed the relevant psychological and physiological variables on the axis representing each dimension in the figure.[8] One dimension is the degree of *emotional arousal* (high to low), which is known to be covariant with ANS balance. Thus, during short-term emotional experiences, the relative balance between the activity of the sympathetic and parasympathetic branches of the ANS is driven by the degree of emotional arousal. Accordingly, we have mapped emotional arousal and ANS balance together on the vertical axis in Figure 4.

The second dimension is the *valence* (positive or negative) of the emotion, which is represented by the horizontal axis in Figure 4. Again for purposes of simplification, the valence is assumed to be covariant with the degree of activation of the hypothalamic-pituitary-adrenal (HPA) axis, which controls the release of cortisol. For short-term emotional experiences, there is an increase in cortisol during negative emotional states and a decrease in cortisol release during positive emotional states.

HRV patterns can be distinguished on the basis of amplitude, frequency, and degree of coherence. Empirical findings show that the two elements of the psychological dimension in our scheme play a predominant role in determining the characteristics of the HRV pattern. The amplitude of the HRV waveform is modulated by both the degree of emotional arousal (which corresponds to ANS activation) and emotional valence. In general, greater degrees of arousal within normal heart rate ranges produce waveforms of greater amplitude.[9] However, as heart rate increases, the amplitude of the HRV waveform decreases in linear relationship to heart rate until it reaches a point beyond which the amplitude of the HRV waveform is compressed. This is due to a biological constraint known as the cycle-length dependence effect. In terms of emotional valence, the amplitude of the HRV waveform increases during positive emotions, while it decreases during negative emotions. The frequency of the HRV waveform is influenced by the pattern of ANS activation; increased parasympathetic activity leads to higher-frequency (faster) changes in the heart rhythm, while increased sympathetic activity is associated with lower-frequency, higher-amplitude (slower) changes. Finally, the degree of coherence of the HRV waveform is largely determined by the emotional valence, with positive emotion increasing coherence and negative emotion decreasing coherence. Different patterns of HRV can therefore be predicted from the conjunction of the particular combination of arousal and valence values on the two dimensions in our typology.

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[7] Although the psychological component involves at least three factors for a given emotional experience—emotional arousal, emotional valence, and the degree of cognitive engagement—we have excluded cognitive engagement to avoid the enormous complexity introduced when all three factors are considered simultaneously.

[8] In reality the relationship is much more complicated. While there is a close intra-relationship between each pair of variables on the axis, there are many life circumstances that give rise to a more complex interaction between the emotional and physiological levels.

[9] A secondary modulator of the HRV amplitude is the degree of cognitive engagement. High cognitive engagement tends to reduce HRV, while low cognitive engagement increases HRV. As noted, for purposes of simplification this factor is not considered in this model.

Following this logic, therefore, each of the six segments within the inner circle in Figure 4 demarcates a range of emotion and its corresponding representative HRV waveform patterns for the variety of emotional experiences that typify everyday life. Organized in terms of degree of arousal and valence, and rotating clockwise around the figure, these are the familiar emotions we experience from day to day. They are labeled: Happiness–Excitement, Love–Appreciation, Contentment–Serenity, Sadness–Apathy, Frustration–Resentment, and Anger–Anxiety. At the center of the circle, in a small area surrounding the intersection of the two axes, is the space of Emotional Impassivity (not labeled in Figure 4). Involving little or no emotional feeling, either positive or negative, emotional impassivity is typically experienced when the individual is mentally engaged in performing a familiar action or routine task. These seven areas within the circle of day-to-day emotional life denote substantively different emotions and feelings subjectively experienced by the individual.

Psychophysiological Hyper-States

Qualitatively distinct from the feelings of daily life are six distinct *psychophysiological hyper-states* reflecting the body's response to extreme emotions. Because these hyper-states involve a phase shift in physiological organization and psychological experience that is discontinuous from the states of normal, everyday emotional life, they are set apart beyond the perimeter of the outer circle in Figure 4.

Generally speaking, the psychophysiological hyper-states are indicative of two quite different directions of movement in bodily processes. As described below, hyper-states involving extreme positive emotions are transcendent states in which the individual's emotional experience involves the feeling of spiritual connectedness to something larger and more enduring beyond themselves. Typically these states are associated with selfless actions and are also generative of bodily renewal. By contrast, hyper-states of extreme negative emotions are all-consuming states of self-absorption and self-focus. These states are usually associated with highly destructive behavior—either directed at the self and/or projected out onto others—and have detrimental, even devastating, consequences. Negative hyper-states lead to a depletion of the body's energy and resources which, in the long term, results in the degeneration of bodily function.

Shown beyond the high end of the arousal axis are two states of hyper-arousal characterized by extreme emotional activation. The extreme emotional activation can result in a loss of self-control, which may lead to unpredictable behavior. It is important to understand that these extreme emotions are associated with the highest level of physiological activation. This drives the heart rate past physiological norms to such a degree that the amplitude of the HRV waveform becomes extremely low.

On the negative side, violent, uncontrollable anger and rage, or overwhelming fear and anxiety are the hyper-aroused emotions experienced here. As already mentioned, we have empirical data documenting the HRV pattern associated with this state (see the waveform pattern showing the movement to "intense anger" in Figure 10, Appendix A). On the positive side, uninhibited rejoicing and jubilation, or overpowering exaltation and ecstasy are predicted, in the absence of any empirical data documenting this hyper-state. We believe it is this psychophysiological state that is accessed during collective rituals that lead to trance states and spiritual rapture. It also may be possible to enter this state from hyper-aroused, uncontrolled positive emotions that induce a positive hysteria, such as can result from an unexpected, overwhelmingly positive event—for example, reuniting with a loved one who was in a life-threatening situation.

At the low end of the arousal axis are two states of hypo-arousal, the complement to the two states of hyper-arousal we have just described. On the positive side, the individual experiences an ego-less feeling of profound inner peace and deep spiritual connectedness. Typically, this state is accessed by self-disciplined meditative and spiritual practice. Physiologically, the emotional experience of this state of extremely low arousal is characterized by HRV waveform patterns of very low amplitude with some degree of coherence, reflecting the body’s state of complete calm and rest.

On the negative side, individuals can enter a state of hypo-arousal when they have been in an enduring negative emotional state (weeks to months). This is a state of self-engrossing desolation and despair and is accompanied by obsessive negative mental and emotional activity, such as that experienced in prolonged grief or long-term depression. However, an episode of severe trauma or negative emotion can rapidly propel an individual into this state. Either way, this can result in a depletion of physiological reserves, which is in turn reflected in a very low-amplitude HRV waveform. Often, individuals in this hypo-state are emotionally numb and socially alienated or withdrawn.

If this state is sustained on a long-term basis, there is further depletion of both the sympathetic and parasympathetic systems. In the first stages of this process, sympathetic activity becomes substantially reduced, resulting in an autonomic imbalance. As the process continues, parasympathetic activity (vagal tone) is correspondingly reduced. The process culminates with a phase-transition into exhaustion and breakdown.

Between the four states of extreme hyper-arousal and extreme hypo-arousal in the mid-range of emotional arousal, are two other states of extraordinary emotional experience. On the positive side, there is the state of wholly self-less spiritual love in which the individual experiences a deep feeling of all-embracing “big love”—*Agape*, as defined by the dictionary: a love that is open to and non-judgmental about all perceptions, cognitions, and intuitions. To enter this hyper-state requires a deep, heart-focused, self-less love, which can be associated with contemplative introspection. This hyper-state is accessed via a phase transition when this deep heart-focused introspection is sustained for a few minutes or more. This state is experienced as a substantial reduction in mental and emotional “chatter” to a point of internal quietness, often associated with a profound feeling of peace and serenity. This is the phase space within which the Emotional Quiescence mode falls. We also expect this hyper-state to be associated with other types of emotional experience that may have a spiritual dimension, such as those accessed by a number of introspective disciplines and practices.

Physiologically, there are two likely mechanisms to explain how this hyper-state occurs. One is that, in this state, the sympathetic and parasympathetic outflow from the brain to the heart is substantially reduced—reduced to such a degree that the amplitude of HRV waveform becomes very low. The other logical possibility is that the heart acts as an antenna to a field of information beyond space and time surrounding the body that directly informs the heart and modulates its rhythmic patterns. As astounding as this may sound, there is compelling evidence from our study of the electrophysiology of intuition that points in this direction (McCraty, Atkinson, & Bradley, 2004a, 2004b).

On the negative side, there is a hyper-state in which the individual is consumed by powerful malevolent feelings of extreme ill-will and hatred. These ego-centric feelings occupy virtually all of the individual's time and energy and engage one's whole attention. Typically, these feelings of evil and harm are not directed inwards against the self, but, instead, are projected outwards to be expressed as an intense pathological desire to cause great pain and suffering to others. Sustained, fanatical feelings of ill-will toward others can propel an individual into this hyper-state. Subjectively, there is a substantial reduction in mental and emotional "chatter" and a correspondingly heightened state of calm, malevolent feelings. The emotional calm reflects the individual's disassociation from the humanity of others and the total acceptance of the all-consuming negative thoughts and emotions experienced in this state. We expect this hyper-state to be one that can be entered by individuals who hold fanatical beliefs based on extreme negative stereotypes or caricatures of others. This is often the case with radical groups on the margins of society who see themselves suffering a great injustice or harm from the hands of those they hate.

Physiologically, this hyper-state likely involves a zombie-like state in which there is such emotional disassociation that the amplitude of HRV waveform becomes very low but with some variability spikes which may reflect the individual's momentary transitions between different emotions.

To conclude, the typology provides a more general conceptual framework from which to view the six modes of psychophysiological interaction we identified in our empirical studies. We have found the typology a useful way of conceptually organizing the broad range and highly variable phenomena in this domain. It will be up to future research to test the degree to which the typology offers a fruitful map of the nature and organization of the different types of emotional–physiological interaction.

Heart Coherence and Psychophysiological Function

So far, we have discussed how changes in the patterns of neural activity can encode and transmit information in the psychophysiological networks independent of changes in the amount of activity and how this level of information processing may well play a more fundamental role in information exchange than changes in the amount and/or intensity of neural activity. In this section we will see that increased coherence is associated with favorable changes in various aspects of physiological function, which in turn are associated with psychological benefits. We introduce this discussion by describing how the amount of information traveling through the afferent nerves increases during coherence, and we then examine the role that cardiac afferent input plays in the neural pathways involved in pain perception, respiratory function, emotional processing, and cognitive performance.

Vagal Afferent Traffic

The vagus nerve is a major conduit though which afferent neurological signals from the heart and other visceral organs are relayed to the brain. Psychophysiologist Paul Lehrer has shown that by using heart rhythm feedback to facilitate a state of physiological coherence (which he calls “resonance”), a lasting increase in baroreflex gain[10] is accomplished independent of respiratory and cardiovascular changes, thus demonstrating neuroplasticity of the baroreflex system (Lehrer et al., 2003). This shift in baroreflex gain indicates that with repeated episodes of coherence, the activation threshold of some of the mechanosensory neurons in the baroreflex system is reset and, as a result, these neurons increase their output accordingly.

In addition, a basic property of mechanosensory neurons is that they generally increase their output in response to an increase in the *rate of change* in the function they are tuned to (heart rate, blood pressure, etc.). During heart rhythm coherence, there is an increase in beat-to-beat variability in both heart rate and blood pressure, which is equivalent to an increase in the rate of change. This results in an increase in the vagal afferent traffic sent from the heart and cardiovascular system to the brain. With regular practice in maintaining the coherence mode, it is likely that increased vagal afferent traffic would also be observed even when one is not in this mode. This is due to the fact that the mechanosensory neurons’ threshold is reset as a result of the coherence-building practice, thus establishing a new baseline level of afferent traffic.

Generating an increase in vagal afferent traffic through noninvasive approaches such as heart-based emotion refocusing techniques and heart rhythm coherence feedback has a number of potential benefits. In recent years, a number of clinical applications for increasing vagal afferent traffic have been found; however, the increase in afferent activity is usually generated by implanted or external devices that stimulate the vagal afferent pathways, typically in the left vagus nerve. Vagal stimulation is an FDA-approved treatment for epilepsy and is currently under investigation as a therapy for obesity, depression, anxiety, and Alzheimer’s disease (Groves & Brown, 2005; Kosel & Schlaepfer, 2003). It has been established that an increase in the normal intrinsic levels of vagal afferent traffic inhibits the pain pathways traveling from the body to the thalamus at the level of the spinal cord (discussed below) and a recent study has found that stimulation of the afferent vagal pathways significantly reduces cluster and migraine headaches (Mauskop, 2005). Vagal nerve stimulation has also been shown to improve cognitive processing and memory (Hassert, Miyashita, & Williams, 2004)—findings that are consistent with those of several recent studies of individuals using heart rhythm coherence-building techniques (discussed later in this article).

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[10] Baroreflexes are homeostatic reflexes that regulate blood pressure. Through them, increases in blood pressure produce decreases in heart rate and vasodilation, while decreases in blood pressure produce the opposite. Baroreflex gain is commonly calculated as the beat-to-beat change in heart rate per unit of change in blood pressure. Decreased baroreflex gain is related to impaired regulatory capacity and aging.

Pain Perception

Afferent signals from the heart modulate the neural pathways involved in the perception of pain. Numerous reports from individuals using the HeartMath coherence-building techniques indicate that they are able to greatly reduce their experience of bodily pain, often to a point where they can reduce or eliminate pain medications. This is true of both visceral and cutaneous pain. The HeartMath system is currently employed by numerous clinicians as a pain management aid, and has proven effective in patients with a wide range of conditions, including chronic joint pain, serious burns, and traumatic brain injury. The generation of increased vagal afferent activity during the coherence mode provides a likely mechanism to account for the reduction of pain associated with increased heart rhythm coherence.

Several mechanisms have been identified that explain how increased vagal afferent activity decreases pain sensitivity and increases pain threshold. Nociceptive information (pain signals) from the skin and internal organs is carried to cell bodies located in the dorsal root ganglia of the spinal cord. Axons from neurons in the dorsal root ganglia penetrate the spinal cord and convey afferent pain information to localized regions of the gray matter in the cord. From there, afferent information ascends in pathways to both the lateral and medial thalamus. Cells of the lateral thalamus in turn project to the primary somatosensory cortex, where the location, intensity, and duration of the painful stimulus are analyzed. Information is sent from the medial thalamus to the insular cortex, amygdala, and cingulate gyrus, where motivational-affective components of pain, including autonomic adjustments, occur. This pathway is called the spinothalamic tract (STT) and, although not the only pain pathway, it is the main and most studied system that transmits visceral sympathetic afferent pain information to the brain (Foreman, 1989).

Afferent fibers in the vagus nerve participate in the modulation of pain partly by modulating the flow of pain signals in the STT. An increase in afferent vagal activity causes a general inhibitory effect at most levels of the spinal cord on neurons that transmit nociceptive information to the thalamus and then to areas of the brain involved in pain perception. Vagal afferent fibers terminate primarily in the caudal medulla of the brain stem and nucleus tractus solitarius (NTS), and evidence shows that suppression of spinal neuronal activity is dependent upon the NTS connections. It has been demonstrated that the cardiac branch of the vagus nerve makes up the major contribution for the inhibitory responses on the spinal pain signals and that left vagal stimulation suppresses approximately 60% of the STT cells. Thus, the predominant effect of increased vagal afferent activity, which is associated with increased coherence, is the suppression of somatic and visceral input to STT cells, which provides a mechanism for decreasing pain (Foreman, 1994, 1997).

Respiration

It is well known that the respiratory rhythm modulates the pattern of the heart rhythm. This breath-related modulation of the heart rhythm is called respiratory sinus arrhythmia (RSA) (Hirsh & Bishop, 1981). RSA reflects the complex interaction of central respiratory drive, autonomic afferent signals, efferent outflow from the brain stem, and respiratory mechanics within the thorax. The phenomenon is dependent on the frequency and amplitude of respiration as well as on the underlying autonomic state of the organism.[11]

Since we have conscious control over our breathing, cognitively-directed breathing exercises can be used to *impose* a breathing rhythm on the heart rhythms. Thus, when we breathe at a slow, rhythmic rate (five seconds in and then five seconds out), we can facilitate coherence and entrainment. However, we do not normally think about our breathing. It is automatic; our breathing depth and rate varies without our conscious awareness due to changes in the inputs to the respiratory centers in the brain stem that control respiration.

Among these inputs is the afferent neurological information from the heart and cardiovascular system. Our breathing rate is affected by and often synchronized to the cardiac cycle, which means that changes in our heart rate and rhythm can affect our breathing rate and patterns.[12] During sleep or rest, coupling between the cardiac cycle and respiration is the strongest, and at times of stress, coupling between the heart and respiration becomes disrupted (Langhorst, Schulz, & Lambertz, 1986; Raschke, 1986a, 1986b; Turpin, 1986).

It is well established that changes in emotional states also alter breathing rates. Agitated states such as anger and frustration increase the breathing rate and reduce tidal volume (the depth of the breath), while positive emotional states slow the breathing rate and increase tidal volume. These emotion-related changes in breathing are likely to result, at least in part, from changes in input from the cardiovascular centers.

Because respiration modulates the heart rhythm, it can be intentionally used as a powerful intervention that can have quick and profound body-wide effects. As we have conscious control over our breathing rate and depth, we can consciously modulate the heart rhythm and thus change the afferent neural patterns sent to the brain centers that regulate autonomic outflow, emotion, and cognitive processes. Our experience with breathing exercises is that they are effective primarily due to the fact that they modulate the heart’s rhythmic patterns.

However, it is important to emphasize that coherence is associated with positive emotions *independent* of conscious alterations in one’s breathing rhythm. In our earlier studies, which were focused on the physiological correlates of different emotional states, instructions to subjects purposely made no mention of altering breathing rates or depths. We found that when sustained positive emotional states were maintained, increased heart rhythm coherence and entrainment between the heart rhythm, blood pressure rhythms, and respiratory rhythms emerged independent of any conscious alterations in breathing pattern (McCraty et al., 1995; Tiller et al., 1996).

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[11] The effects of lung inflation are mediated by sensory neurons in the lungs that respond to stretch. These neurons increase their firing rate as the lungs expand upon inspiration. The output from these neurons travels to the brain stem and inhibits the parasympathetic outflow from the brain to the heart, resulting in an increase in heart rate. During expiration, the stretch is reduced and the inhibition is removed. The heart rate is quickly reduced. This interaction between the lungs and brain stem is only one source of RSA; however, it provides an easy way to conceptualize RSA.

[12] The influence of afferent information from the heart on respiration was studied in great detail in the 1940s and 1950s. The cardiovascular afferent systems excite the respiratory centers, and if this input is inhibited, so is respiration. For a review of this earlier research, see Chernigovskiy (1967).

Although breathing techniques may sometimes facilitate a feeling shift, coherence that is driven through the use of such techniques alone does not necessarily shift one's emotional state. For example, it is possible to breathe at a rate of six breaths per minute (a 10-second rhythm) and still be feeling anxiety or other feelings of unease. In addition, many people find it difficult to consciously maintain breathing rates at a 10-second rhythm for more than about a minute. On the other hand, by focusing attention on self-generating a positive emotion while pretending to "breathe" this feeling through the area of the heart in a relaxed manner, smooth, coherent heart rhythm patterns occur naturally and are easier to sustain for longer periods of time. This has the added benefit of not only establishing coherence as the familiar pattern, but also strengthening the connection between the constituent physiological patterns of coherence—of which heart rhythm is key—and the positive feeling state.

Emotional Processing

Afferent input from the heart, and, in particular, the pattern of the heart's rhythm, also plays a key role in emotional experience. As described previously, our research suggested a fundamental link between emotions and changes in the *patterns* of both efferent and afferent autonomic activity, as well as changes in ANS activation, which are clearly reflected in changes in the heart rhythm patterns. The experience of negative emotions is reflected in more erratic or disordered heart rhythms, indicating less synchronization in both the activity of brain structures that regulate parasympathetic outflow and in the reciprocal action between the parasympathetic and sympathetic branches of the ANS. In contrast, sustained positive emotions are associated with a highly ordered or *coherent* pattern in the heart rhythms, reflecting greater overall synchronization in these same systems.

It is important to emphasize, however, that the heart's rhythmic beating patterns not only *reflect* the individual's emotional state, but they also play a direct role in *determining* emotional experience. At the physiological level, as shown in Figure 5, afferent input from the heart is conveyed to a number of subcortical regions of the brain that are involved in emotional processing, including the thalamus, hypothalamus, and amygdala. Moreover, cardiac afferent input has a significant influence on the activity of these brain centers (Adair & Manning, 1975; Cameron, 2002; Foreman, 1997; Frysinger & Harper, 1990; Oppenheimer & Hopkins, 1994; Zhang, Harper, & Frysinger, 1986). For example, activity in the amygdala has been found to be synchronized to the cardiac cycle (Frysinger & Harper, 1990; Zhang et al.). These understandings support the proposition that afferent information from the heart is directly involved in emotional processing and emotional experience.

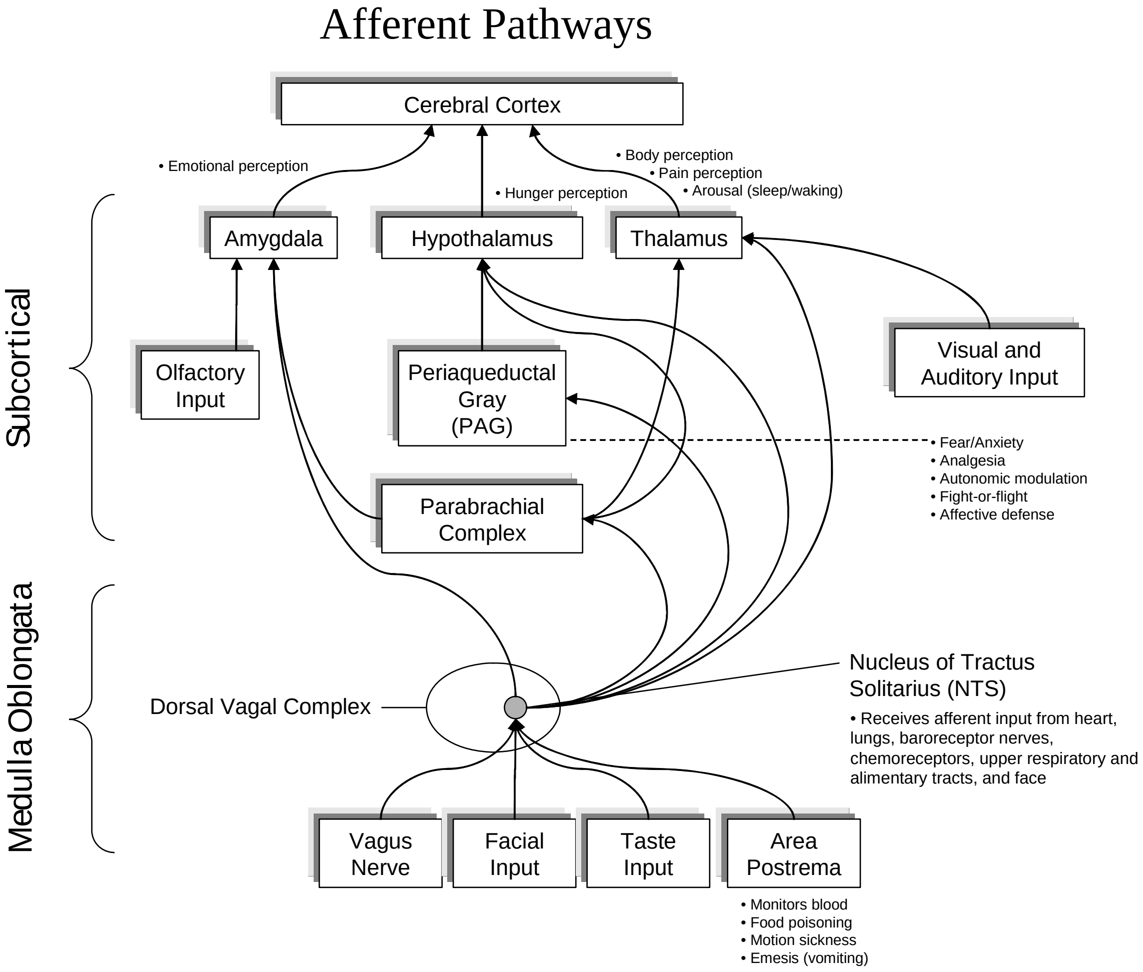
Afferent Pathways
Cerebral Cortex
• Emotional perception
• Hunger perception
• Body perception
• Pain perception
• Arousal (sleep/waking)
Amygdala
Hypothalamus
Thalamus
Subcortical
Olfactory Input
Periaqueductal Gray (PAG)
Visual and Auditory Input
• Fear/Anxiety
• Analgesia
• Autonomic modulation
• Fight-or-flight
• Affective defense
Parabrachial Complex
Medulla Oblongata
Nucleus of Tractus Solitarius (NTS)
• Receives afferent input from heart, lungs, baroreceptor nerves, chemoreceptors, upper respiratory and alimentary tracts, and face
Dorsal Vagal Complex
Vagus Nerve
Facial Input
Taste Input
Area Postrema
• Monitors blood
• Food poisoning
• Motion sickness
• Emesis (vomiting)

Figure 5. Diagram of the currently known afferent pathways by which information from the heart and cardiovascular system modulates brain activity. Note the direct connections from the NTS to the amygdala, hypothalamus, and thalamus. Although not shown, there is also evidence emerging of a pathway from the dorsal vagal complex that travels directly to the frontal cortex.

These findings and those from our own research led us to ponder the fundamental physiological significance of the covariance between the heart's rhythms and changes in emotion. This question was especially intriguing in light of current views in neuroscience that the contents of feelings are essentially the configurations of body states represented in somatosensory maps (Cameron, 2002; Damasio, 2003). This was of course the essence of the theory of emotion first proposed by William James (1884), which has been refined by many researchers over the years.

A useful way of understanding how the heart is involved in the processing of emotional experience is to draw on Pribram's theory of emotion (Pribram & Melges, 1969). In this theory, the brain is viewed as a complex pattern identification and matching system. Pribram's basic concept is that of a "mismatch" between familiar input patterns and current input patterns that are different or novel. It is this mismatch that provides the mechanism by which feelings and emotions are generated.

According to Pribram’s model, past experience builds within us a set of familiar patterns, which are instantiated in the neural architecture. Inputs to the brain from both the external and internal environments contribute to the maintenance of these patterns. Within the body, many processes provide constant rhythmic inputs with which the brain becomes familiar. These include the heart’s rhythmic activity; digestive, respiratory and hormonal rhythms; and patterns of muscular tension, particularly facial expressions. These inputs are continuously monitored by the brain and help organize perception, feelings and behavior.

Familiar input patterns form a stable backdrop, or reference pattern, against which new information or experiences are compared. When an input pattern is sufficiently different from the familiar reference pattern, a *“mismatch”* occurs. This mismatch, or *departure from the familiar pattern*, is what underlies the generation of feelings and emotions. In physiological terms, Pribram suggests that the low-frequency oscillations generated by the heart and bodily systems are the carriers of emotional information, and that the higher frequency oscillations found in the EEG reflect the integration, perception, and labeling of these body states along with perception of sensory input from the external environment. The mismatch between a familiar pattern and a pattern that is new or novel in either of these informational inputs is what activates emotional changes (McCraty, 2003; McCraty & Tomasio, 2006).

Although inputs originating from many different bodily organs and systems are involved in the processes that ultimately determine emotional experience, it is now abundantly clear that the heart plays a particularly important role. The heart is the primary and most consistent source of dynamic rhythmic patterns in the body. Furthermore, the afferent networks connecting the heart and cardiovascular system with the brain are far more extensive than the afferent systems associated with other major organs (Cameron, 2002). Additionally, the heart is particularly sensitive and responsive to changes in a number of other psychophysiological systems. For example, heart rhythm patterns are continually and rapidly modulated by changes in the activity of either branch of the ANS, and the heart’s extensive intrinsic network of sensory neurons also enables it to detect and respond to variations in hormonal rhythms and patterns (Armour, 1994). In addition to functioning as a sophisticated information processing and encoding center, (Armour & Kember, 2004) the heart is also an endocrine gland that produces and secretes hormones and neurotransmitters (Cantin & Genest, 1985, 1986; Gutkowska, Jankowski, Mukaddam-Daher, & McCann, 2000; Huang et al., 1996; Mukoyama et al., 1991). As we will see later, with each beat, the heart not only pumps blood, but also continually transmits dynamic patterns of neurological, hormonal, pressure, and electromagnetic information to the brain and throughout the body. Therefore, the multiple inputs from the heart and cardiovascular system to the brain are a major contributor in establishing the dynamics of the familiar baseline pattern or set point against which the current input of “now” is compared.

A striking example illustrates the extensiveness of the influence of cardiac afferent input on emotional experience as well as the operation of the mismatch mechanism. Research shows that psychological aspects of panic disorder are actually frequently created by an unrecognized cardiac arrhythmia. One study found that DSM-IV criteria for panic disorder were fulfilled in more than two-thirds of patients with sudden-onset arrhythmias. In the majority of cases, once the arrhythmia was discovered and treated, the symptoms of panic disorder disappeared (Lessmeier et al., 1997). When the heart rate variability patterns of such an arrhythmia are plotted, the erratic, incoherent waveform appears quite similar to the heart rhythm pattern produced during strong feelings of anxiety in a healthy person. Because the sudden, large change in the pattern of afferent information is detected by the brain as a mismatch relative to the stable baseline pattern to which the individual has adapted, it consequently results in feelings of anxiety and panic.

The above example illustrates the immediate and profound impact that changes in the heart's rhythmic activity can have on one's emotional experience. In this example—as is usually the case—such changes occur unconsciously. One of the most important findings of our research, however, is that changes in the heart's rhythmic patterns can also be *intentionally generated*. This shift in the heart's rhythmic patterns is one of the physiological correlates of using the HeartMath positive emotion-based coherence-building techniques, which couple an intentional shift in attention to the physical area of the heart with the self-induction of a positive emotional state. We have found that this process rapidly initiates a distinct shift to increased coherence in the heart's rhythms. This, in turn, results in a change in the pattern of afferent cardiac signals sent to the brain, which serves to *reinforce* the self-generated positive emotional shift, making it easier to sustain. Through the consistent use of the coherence-building techniques, the coupling between the psychophysiological coherence mode and positive emotion is further reinforced. This subsequently strengthens the ability of a positive feeling shift to initiate a beneficial physiological shift towards increased coherence, or a physiological shift to facilitate the experience of a positive emotion.

While the process of activating the psychophysiological coherence mode clearly leads to immediate benefits by helping to transform stress in the moment it is experienced, it can also contribute to long-term improvements in emotion regulation abilities and emotional well-being that ultimately affect many aspects of one's life. This is because each time individuals intentionally self-generate a state of psychophysiological coherence, the "new" coherent patterns—and "new" repertoires for responding to challenge—are reinforced in the neural architecture. With consistency of practice, these patterns become increasingly familiar to the brain. Thus, through a feed-forward process, these new, healthy patterns become established as a new baseline or reference, which the system then strives to maintain. It is in this way that HeartMath tools facilitate a *repatterning process*, whereby the maladaptive patterns that underlie the experience of stress are progressively replaced by healthier physiological, emotional, cognitive, and behavioral patterns as the "automatic" or familiar way of being (McCraty & Tomasio, 2006).

Coherence and Cognitive Performance

It is now generally accepted that the afferent neurological signals the heart sends to the brain have a regulatory influence on many of the ANS signals that flow from the brain to the heart, to the blood vessels, and to other glands and organs. However, it is less commonly appreciated that these same cardiovascular afferent signals involved in physiological regulation *also* cascade up into the higher centers of the brain and influence their activity and function. Of particular significance is the influence of the heart's input on the activity of the cortex—that part of the brain that governs thinking and reasoning capacities. As we will see, depending on the nature of the heart's input, it can either inhibit or facilitate working memory and attention, cortical processes, cognitive functions, and performance (Hansen, Johnsen, & Thayer, 2003; Lacey & Lacey, 1974; Rau, Pauli, Brody, Elbert, & Birbaumer, 1993; Sandman, Walker, & Berka, 1982; van der Molen, Somsen, & Orlebeke, 1985).

Our research on psychophysiological coherence has provided new insight into the relationship between heart activity and cognitive performance. The context for this is described in detail in Appendix B. It describes how psychophysiologists John and Beatrice Lacey's baroreceptor hypothesis identified a relationship between the heart's activity and cognitive performance. This work was furthered by Christoph Wölk and Manfred Velden in Germany, who identified the importance of heart rate's *pattern* and *stability* in influencing neurological functioning. Although we agree with Wölk and Velden's conclusions, the primary focus of previous work in this area has been on *micro-scale* temporal patterns of cardiac activity, occurring within a single cardiac cycle, or, at most, across 3–4 heartbeats. However, the interactions between the heart and brain are much more complex and also occur over longer time periods (sequences of heartbeats occurring over seconds to minutes). Based on the evidence we report below, we believe that patterns of the heart's rhythmic activity over a longer time scale are also involved in influencing cognitive performance. Moreover, it appears that these *macro-scale* temporal patterns of cardiovascular afferent activity can have a much greater effect on performance than micro-scale patterns. Therefore, a broader hypothesis is called for.

The Heart Rhythm Coherence Hypothesis: A Macro-Scale Perspective

In the course of conducting our studies, we had received numerous reports from individuals able to maintain the psychophysiological coherence mode that their performance in various activities had noticeably improved. These involved faculties and abilities requiring the processing of external sensory information (e.g., speed and accuracy, coordination, and synchronization, such as in sports and the performing arts) as well as processes requiring primarily internal focus (e.g., problem solving, decision making, creativity, and intuition, such as in business and intellectual activities). This led us to postulate that psychophysiological coherence and the associated *macro-scale* patterns of the temporal organization of the heart's rhythmic activity—heart rhythm patterns occurring over seconds to minutes—also have an important effect on cognitive processes and intentional behavior. Focusing on the nature of the organization of the heart's rhythmic activity, which reflects emotional state, we hypothesize that emotion-driven changes in global psychophysiological function, and the resulting change in the pattern of heart rhythm activity, are also directly related to the facilitation or inhibition of the brain processes involved in cognitive function. In specific terms, sustained positive emotions induce psychophysiological coherence, which, in turn, is reflected in increased heart rhythm coherence. Thus, the greater the degree of emotional stability and system-wide coherence, the greater the facilitation of cognitive and task performance. We call this hypothesis the *heart rhythm coherence hypothesis*.

A number of research projects have been carried out to test this hypothesis. Appendix C describes three studies that show evidence supporting the hypothesis. The first showed that macro-scale patterns of cardiac activity can produce a larger effect on the inhibition/facilitation of cognitive performance than the much smaller inhibition/facilitation fluctuations in performance observed by Wölk and Velden. It found an approximately *six times* greater improvement in performance than previous studies involving similar methods. The second was an independent study conducted in the UK by Dr. Keith Wesnes, who concluded that learning and practicing the HeartMath positive emotion-focused coherence-building techniques appears to enhance an individual’s memory capacity and also improves self-reported calmness. The third study was funded by the U.S. Department of Education and carried out with the cooperation of the Claremont Graduate University’s School of Educational Studies involving tenth grade students in two large California high schools. It found significant reduction in test anxiety as well as higher test scores for students who learned the positive emotion-focused coherence-building techniques in the TestEdge program.

Overall, the evidence provided by the three studies described in Appendix C indicates that a specific macro-scale pattern of cardiac activity—heart rhythm coherence—is associated with significant improvement in cognitive performance. Not only is this outcome observed in a simple reaction time experiment, but the data suggest that this facilitative effect also extends across more complex domains of cognitive function, including memory and even academic test performance. It also appears that the influence of the coherence mode on cognitive performance is substantially larger in magnitude than that previously documented for changes in cardiac activity patterns on a micro scale.

Assuming these results are validated by other researchers, it is worth considering the likely pathways and mechanisms that could explain these findings. This entails developing an explanation that complements the micro-pattern hypotheses of the Laceys and Wölk and Velden, by identifying other physiological mechanisms that may account for these results. The micro-pattern hypothesis presents a somewhat simplified view of heart–brain interactions, which is not adequate to describe the full range of information communication that takes place between the heart and brain: it only addresses the smaller fluctuations in performance that are associated with physiological changes occurring within a single cardiac cycle or across several heartbeats. As we have seen, however, there are macro-scale temporal patterns that have a significant carry-over effect on cognitive performance. To build an adequate understanding of the physiological mechanisms involved requires developing a deeper understanding of the complexity of heart–brain interactions. This is reflected in the discussion below in three primary ways: first, that the influence of cardiovascular afferent input on the brain is more elaborate than that considered in the micro-pattern hypothesis; second, that afferent input from the heart has effects on brain centers other than the thalamus; and third, that the alpha rhythm is not the only brain rhythm synchronized to the heart.

A More Complex Picture

Complexity of Cardiac Afferent Signals

One of the underlying assumptions of the micro-pattern hypothesis is that there is a one-to-one correspondence between each heartbeat and the burst of neural activity sent to the brain from the cardiac mechanosensory neurites. However, at the level of the macro-scale heart–brain interactions investigated here, the dynamics of the generation and transmission of cardiovascular afferent input involve many types of neurons and a multiplicity of pathways operating over different time scales.

There are approximately 40,000 sensory neurites in the human heart involved in relaying afferent information to the brain. Of these, just 20% are mechanosensory neurons. Of this 20%, only a small proportion actually fire in unison with each heartbeat. Moreover, there are at least five different types of mechanosensory neurons. Almost all mechanosensory neurons are sensitive to rate of change, in that their activity levels increase in a nonlinear manner in response to change in the system. Some increase their firing rate only when blood pressure decreases, while others increase only during pressure increases. Still others are only sensitive to large movements in the rate of change of heart rate or blood pressure (Armour & Kember, 2004). Thus, there is only a minority of sensory neurites whose output activity exhibits a one-to-one relationship to the heartbeat and regional changes in ventricular blood pressure.

To add to the complexity, the heart's intrinsic nervous system has both short-term and long-term memory that affects cardiac function (and thus afferent signals) over two different time scales: (1) variations in activity patterns that occur in response to rapidly occurring alterations in local mechanical status over milliseconds; and (2) variations in activity patterns of a global nature that operate over time scales of seconds to minutes (Armour, 2003; Armour & Kember, 2004). Thus, in addition to the information related to a single cardiac cycle, there is also rhythmic information occurring over longer time scales that may modulate brain activity. The fact that many of the neurons respond primarily to rate of change, and that changes in activity patterns can last for minutes, are important factors in understanding how heart–brain interactions are affected during coherence and can have an extended carry-over effect. This is because in the coherence mode there is an increased rate of change in beat-to-beat variability of both heart rate and blood pressure, in addition to the increased order in the temporal patterns of activity of the cardiovascular system. While it is likely, under normal pressure variations and heart rates, that the overall *amount* of afferent neural activity reaching the brain is the same or nearly the same from one heartbeat to the next, it is our contention that the *macro-scale patterns* of neural activity can be quite different.

In this regard, Wölk and Velden made an important observation in noting that the *frequency* and *stability* of the afferent input were important factors affecting sensory-motor performance (Wölk and Velden, 1989). In this context, however, we suggest that the concept of *activity pattern* is more appropriate than the concept of *frequency*. This is because it is in the interspike interval (the temporal space *between* consecutive spikes of the neural activity) that information is encoded. Thus, it is the overall pattern of activity and *not* merely its frequency that contains the meaning of the information enfolded in the signals. Furthermore, we consider the stability of the pattern over longer time scales, those of seconds to minutes. Therefore, to understand the effects of cardiovascular afferent signals on the brain, the heart's rhythmic pattern over longer time scales must also be considered as an important factor in itself, in addition to those of stimulus intensity, heart rate, and pressure. As we have seen, it is likely that the macro-scale pattern of the heart's activity may have a much greater effect on performance than the within-cardiac cycle effects.

Afferent Input to Brain Centers other than the Thalamus

Another important consideration, in relation to heart–brain interactions, is that while the micro-pattern model focuses solely on cardiovascular input to the thalamus, there are other neural pathways by which the heart's input can modulate cortical activity and thus performance. As shown in Figure 5, cardiovascular inputs from the vagal afferent nerves first reach the nucleus of tractus solitarius (NTS) and from there travel directly to the parabrachial complex, periacqueductal grey, thalamus, hypothalamus, and amygdala. There are then connections by which the afferent inputs move from the amygdala, hypothalamus, and thalamus to the cerebral cortex. There is also evidence to suggest the existence of afferent pathways from the medulla directly to the prefrontal cortex (McCraty et al., 2004b).

Although this diagram primarily shows the afferent pathways—one-way flow of input to the brain—in most cases the regions are reciprocally interconnected such that information flows in both directions. This reciprocally interconnected network allows for continuous positive and negative feedback interactions and the integration of autonomic responses with the processing of perceptual and sensory information. In addition, the numerous distributed parallel pathways permit multiple avenues to process a given response.

Heart–Brain Synchronization

The third way in which the picture is more complicated is that whereas Wölk and Velden's hypothesis considers only the alpha rhythm, there are other brain rhythms that are also synchronized to the heart. These include the beta rhythm as well as lower frequency brain activity. Thus, it is likely that the effects of macro-scale cardiovascular dynamics on other aspects of brain activity are also important in contributing to larger fluctuations in performance, such as those observed in the studies reported here.

Appendix D presents evidence from a number of studies confirming that a significant amount of alpha rhythm activity is indeed synchronized to the activity of the heart. We have also presented additional evidence showing that Wölk and Velden's contention appears to have an empirical basis, in that we found that the alpha rhythm is synchronized to the cardiac cycle. Moreover, our evidence suggests that alpha synchronization increases during psychophysiological coherence and that other brain rhythms—namely, the beta rhythm and lower frequency brain activity—also appear to be synchronized to the cardiac cycle.

System Dynamics: Centrality of the Heart in the Psychophysiological Network

To this point our concern has been describing the nature, organization, and measurement of six different psychophysiological modes. In particular we have focused on the psychophysiological coherence mode and its impact on various aspects of psychophysiological function, including pain perception, respiration, emotional processing, and cognitive performance. Now we turn to the basic question of system dynamics: how the heart, as the most powerful generator of rhythmic information patterns in the body, acts effectively to bind and synchronize the entire system. This helps explain the mechanisms that underlie the heart's role in the generation of system-wide coherence in the body as a whole. In addition to an overview of research in these areas, we also present our own findings, which, so far as we know, represent an original contribution.

A Systems Approach

Complex living systems, such as human beings, are composed of numerous interconnected, dynamic networks of biological structures and processes. The recent application of systems thinking in the life sciences has given rise to the understanding that the function of the human organism as an integrated whole is determined by the multi-level interactions of all the elements of the psychophysiological system. The elements influence one another in a network fashion rather than through strict hierarchical or cause-effect relationships. Thus, any node within the psychophysiological network—any organ, system, substance, or process—necessarily exerts an impact, whether pronounced or subtle, on the functioning of the system as a whole. And while certain nodes have a greater influence than others in a given network at a particular level of system organization, those nodes that constitute multi-level linkages across different subsystems and scales of organization will have a greater influence on the system as a whole. Abundant evidence indicates that proper coordination and synchronization—i.e., coherent organization—among the lateral and vertical networks of biological activity generated by these structures and subsystems is critical for the emergence of higher-order functions.

As we have seen thus far, one of the primary ways that information is encoded and communicated throughout our psychophysiological systems is in the language of dynamic patterns. In the nervous system, for example, it is well established that information is encoded in the *time interval between action potentials*—and, on a macro-scale, in the intervals between bursts of neural activity. Likewise, in the endocrine system, patterns of “pulses” of hormone release are used to convey biologically relevant information. This is an important principle of operation, as it appears that the body uses this same encoding and transmission strategy—encoding information in the time intervals between pulses of activity—in many systems and across very different time scales. This is biologically efficient in that the body is organized to use a common information communication mechanism across multiple systems.

There is substantial evidence that the heart plays a unique role in synchronizing the activity in multiple systems of the body and across different levels of organization, and thus in orchestrating the flow of information throughout the psychophysiological network. As the most powerful and consistent generator of rhythmic information patterns in the body, and possessing a far more extensive communication system with the brain than other organs, the heart is in continuous connection with the brain and other bodily organs and systems through multiple pathways: *neurologically* (through the transmission of neural impulses), *biochemically* (through hormones and neurotransmitters), *biophysically* (through pressure and sound waves), and *energetically* (through electromagnetic field interactions).

As we discuss each of these main communication pathways in more detail, it will become clear that the heart is a central node in the psychophysiological network that influences multiple systems, and is thus uniquely positioned to integrate and communicate information both across systems and throughout the whole organism. Because of the extensiveness of the heart’s influence on the physiological, cognitive, and emotional systems, the heart provides a point of access from which the dynamics of bodily processes can be quickly and profoundly affected. From this perspective, we will also see how intentional interventions that increase coherence in the heart’s rhythms can facilitate a rapid shift to the psychophysiological coherence mode, with profound system-wide consequences.

In the light of these ideas, we can now postulate that information relative to global-scale integration (the organization and function of the body as whole) is encoded in the interbeat intervals of the heartbeat. Thus, the heart effectively acts as the central “conductor” of rhythmic activity in the body: the neural, hormonal, biophysical, and energetic patterns generated by the heart’s rhythmic activity provide a global synchronizing signal for the system as a whole.

Neurological Interactions

Of all the organs in the body, the heart has the most extensive neural connection with the brain. Until relatively recently, much attention in biology has been focused on understanding how the brain regulates all organs in the body, including the heart. However, as discussed above, more recent understandings have begun to portray quite a different picture, in which the heart actually exerts a significant influence on the brain. In this section we describe the various ways in which the heart affects the brain and body via neurological pathways, and we examine in particular its influence on the activity and function of higher brain centers and processes. In order to understand this heart–brain relationship, it is necessary, first, to review some recent findings of how the brain processes information and how the organization of neurological activity is critical to brain function. This organization can be described in terms of the three concepts of coherence introduced at the beginning of this article: coherence as global order, as autocoherence, and as cross-coherence.

Coherence Within the Brain

The brain is often analogized to the functions of a computer. But in terms of information processing and computation the brain is nothing like a digital computer. It does not assemble thoughts and feelings from digitized bits of serial data. Rather, the brain is more like an analog processor that relates whole patterns and concepts to one another; it looks for similarities, differences, or relationships between them. The brain is a highly efficient processor and analyzer of information that is exquisitely sensitive to novelty—to rate of change and to the difference between patterns.

At the macro-level of organization, global coherence must be present in order for the brain and nervous system to function efficiently and effectively. This means that the neural activity, which encodes information, must be stable and coordinated. It also means that the various centers within the brain must be able to dynamically synchronize their activity in order for information to be smoothly processed and perceived.

For example, autocoherence and cross-coherence in the electrical activity of diverse regions of the brain are necessary for sensory perception to occur. Our “coherent” perception of an object in the external world actually comes from millions of units of fragmented sensory information that are made globally coherent by being brought together and organized into a single conscious experience.

A depiction of such macro-scale organization of neural activity is offered by studies using the electroencephalogram (EEG), which measures macro-scale activity occurring in the dendritic fields of the neurons. These fields reflect excitatory or inhibitory synaptic action over a large number of neurons. (A single scalp electrode provides estimates of synaptic action averaged over tissue masses containing between 10 million and 1 billion neurons.) There is a voluminous literature concerning the relations between the different brain rhythms found in the EEG and the many different aspects of cognition.[13] For example, the alpha rhythm amplitude is lower during mental calculations while the beta rhythms increase (Nunez, 2000).

Recent research has focused on the global organization of cooperative workings of local and regional cell groups in order to better understand the brain's dynamic complexity. At an operational level, coherence in this context is a specific quantitative measure of functional relations between paired locations. In general, this research has shown that separate regions in the brain can exhibit high coherence in specific frequency bands and, at the same time, low coherence in other bands. The resulting correlated activity between these brain regions is cross-coherence, which is thought to emerge either from direct neural connections between the regions, common input from the thalamus and other neocortical regions, or both (Nunez, 2000). However, cross-coherence also occurs between distant cortical structures that are not necessarily interconnected anatomically (Bressler, Coppola, & Nakamura, 1993). This raises the question of what other mechanisms might account for this communication among distant brain regions.

A notable example of such cross-coherence has been described by Rodolfo Llinas, Chief of Physiology and Neuroscience at the New York University School of Medicine. He observed that specific areas of the cortex emit a steady oscillation, at a frequency of around 40 cycles per second (40 Hz). He also found that remote areas of the cortex were phase-locked at this 40-Hz frequency, meaning that the waves they produced all oscillated in synchrony. This led Llinas and others to suggest that the neurons perform in synchrony because they follow a kind of conductor (Ratey, 2001).

The prime candidate for the brain's internal conductor is the many intralaminar nuclei, located within the thalamus. These nuclei receive and project long axons to many areas of the brain. They take in information, reply to it, and monitor the responses to their replies, thus creating elaborate feedback loops in which resonant activity (~40 Hz) is modified by incoming sensory input. If the intralaminar nuclei are damaged, the person enters a deep and irreversible coma. Indeed, it appears that it is only when the "conductor" synchronizes the brain's activity that we become conscious. When this happens with a sufficient number of neural networks, the oscillations become ordered and globally coherent. As they spread their influence, recruiting more networks to join them, consciousness arises (Ratey, 2001).

The thalamus appears to play an active role in the generation of all the global EEG rhythms, and it should be emphasized that phase synchrony has been shown to occur in all the frequency bands found in the EEG, not just in the 40 Hz band.[14] For example, different types of synchronization occur in the alpha band during the different phases of memory processes (encoding and retrieval) (Fingelkurts, Krause, Kaplan, Borisov, & Sams, 2003), and cross-coherence increases in the theta band during mental calculations (Nunez, 2000). Coherence in the alpha band is also correlated to perceptual and decision-making processes, and it increases in the frontal cortex during task processing (Kolev, Yordanova, Schurmann, & Basar, 2001).

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[13] The main rhythms that have been identified are: the delta rhythm (0–4 Hz), the theta rhythm (4-8 Hz), the alpha rhythm (8-12 Hz), the beta rhythm (12-16 Hz), and most recently the gamma rhythm (~ 40 Hz).

The organization of the many interconnected neural networks within the brain allows for maximal flexibility in adapting to changing demands, such as focus on an external sensory input or an internal process. However, the degree of coupling, which regulates synchronized activity in the network, varies depending on the needs of the moment. When the network is either excessively coupled or is too loosely coupled, the system is less able to dynamically recruit the appropriate neural support systems it needs to respond to a particular demand. For example, the alpha rhythm increases in amplitude and distribution when the neural populations in the brain are more tightly coupled, which occurs when the brain regions involved are not processing information. Under these circumstances cognitive performance is reduced, especially that involving the processing of external sensory information. In terms of optimizing performance, this means in general that one should not be too relaxed (increased coupling) or overly stimulated (decreased coupling). Thus, in the light of the results of our studies of cognitive performance and heart-brain synchronization discussed above, the psychophysiological coherence mode appears to be a condition under which optimal coupling, and thus improved performance, occurs across diverse systems in the body.

Relevant to this discussion are the findings from a recent study of long-term Buddhist practitioners. This study found that while the practitioners generated a state of “unconditional loving-kindness and compassion,” increases in gamma band oscillation and long-distance phase synchrony were observed (Lutz, Greischar, Rawlings, Ricard, & Davidson, 2004). The study’s authors suggest that the large increase in gamma band synchrony reflects a change in the quality of moment-to-moment awareness. Moreover, because the characteristic patterns of *baseline* activity in these long-term meditators were found to be different from those of a control group, the results suggest that an individual’s baseline state can also be altered with long-term practice.

The authors of this study describe the Buddhist meditation as an “objectless meditation” in which the practitioners do not directly attend to a specific object or the breath, but focus instead on cultivating a feeling of “unconditional loving-kindness and compassion.” In many ways, the focus of this practice is comparable to the focus of the Heart Lock-In technique of the HeartMath system. It would therefore be interesting to investigate whether HeartMath practitioners, when in a state of psychophysiological coherence, also produce the increases in gamma-band oscillation and long-distance phase-synchrony observed in this study. Although this study did not measure heart rhythm coherence, another study of Buddhist monks using the same meditative focus of “loving-kindness and compassion” found an increase in heart rhythm coherence during this practice (Rapgay, n.d.). Because these studies were both conducted with samples of Buddhist monks who were practicing the same meditative focus, this raises the possibility that heart rhythm coherence and increased gamma-band phase synchrony are linked in a deeper way. This is consistent with the hypothesis that heart rhythm coherence reflects a state of increased global coherence in the body’s function as a whole.

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[14] The electroencephalogram (EEG) provides a very large-scale measure of the activity occurring in the dendritic fields of the neurons. These fields reflect the excess of excitatory or inhibitory synaptic action over a large number of neurons. A single scalp electrode provides estimates of synaptic action averaged over tissue masses containing between 10 million and 1 billion neurons. Synchronizations of oscillatory neural discharges are thought to play a crucial role in the constitution of transient networks that integrate distributed neural processes into highly ordered cognitive and affective functions that can induce synaptic changes.

In summary, the mechanisms that underlie the source of oscillatory rhythms in the thalamus are complex, and there are a number of different hypotheses concerning these. The mechanisms responsible for the synchronization of remote cells in the brain are even more complex, as there are both local and global levels of synchronization and also interactions between the local and global levels. Whatever the mechanisms turn out to be that facilitate synchronous activity in remote cell assemblies, it is clear that the *input from the heart* to the brain affects the activity of the thalamus and its ability to synchronize cortical activity. This is important in understanding the relationship between global coherence, emotional stability, and optimal performance.

More Than a Pump

Over the past several decades, several lines of scientific evidence have established that, far more than a mechanical pump, the heart functions as a sensory organ and as a complex information encoding and processing center. Groundbreaking research in the relatively new field of neurocardiology has demonstrated that the heart has an extensive intrinsic nervous system that is sufficiently sophisticated to qualify as a “little brain” in its own right. Pioneer neurocardiology researcher Dr. J. Andrew Armour first described the anatomical organization and function of the heart brain in 1991 (Armour, 1991). Containing over 40,000 neurons, its complex circuitry enables it to sense, regulate, and remember. Moreover, the heart brain can process information and make decisions about cardiac control independent of the central nervous system (Armour, 2003; Armour & Kember, 2004).

The heart brain senses hormonal, heart rate, and blood pressure signals, translates them into neurological impulses, and processes this information internally. It then sends the information to the central brain via afferent pathways in the vagus nerves and spinal column. When different hormones or neurotransmitters in the bloodstream are detected by the sensory neurites in the heart, the pattern in the afferent neural output sent to the brain is modified (Armour, 1994). In other words, in addition to its better-known functions, the heart is also a sensory center that detects and transmits information about the biochemical content of the regional blood flow.

Neurological signals originating in the heart have an important and widespread influence in regulating the function of organs and systems throughout the body. For example, it is now known that in addition to modulating the activity of the nervous and endocrine systems, input from the heart influences the activity of the digestive tract, urinary bladder, spleen, respiratory and lymph systems, and skeletal muscles (Chernigovskiy, 1967). In more specific terms, cardiovascular afferent signals regulate efferent ANS outflow, (Grossman, Janssen, & Vaitl, 1986) modulate pain perception (Randich & Gebhart, 1992) and hormone production (Drinkhill

& Mary, 1989), and influence the activity of the locus coeruleus and that of the pyramidal tract cells in the motor cortex (Coleridge et al., 1976; Svensson & Thoren, 1979). Also, spinal cord excitability varies directly with the cardiac pulse, as does physiological tremor of normal skeletal muscles (Forster & Stone, 1976).

Beyond the key role of cardiac afferent signals in physiological regulation, our earlier discussion also illuminates the heart's significant influence on perceptual and cognitive function via its input to higher brain centers. Our discussion has thus far covered behavioral data showing a relationship between the heart's input and cognitive performance, as well as electrophysiological studies demonstrating the synchronization of brain activity to the heart. Beyond these findings, there is also a considerable body of other electrophysiological evidence demonstrating the modulation of higher brain activity by cardiovascular afferent input (see Lacey & Lacey, 1970; McCraty, 2003; and Sandman et al., 1982, for reviews).

Experiments carried out in Germany by psychophysiologist Rainer Schandry have demonstrated that afferent input from the heart evokes cortical responses analogous to "classical" sensory event-related potentials. These experiments have shown that afferent input from the cardiovascular system is accompanied by specific changes in the brain's electrical activity. Schandry and colleagues found, as have we, that this activity is most pronounced at the frontocortical areas, a region particularly involved in the processing of visceral afferent information. In addition, psychological factors such as attention to cardiac sensations, perceptual sensitivity, and motivation have been found to modulate cortical heartbeat evoked potentials in a fashion analogous to the cortical processing of external stimuli (Lader & Mathews, 1970; Montoya, Schandry, & Muller, 1993; Schandry & Montoya, 1996; Schandry, Sparrer, & Weitkunat, 1986). In our own study, in which we investigated the electrophysiology of information processing in relation to intuition, we also found that the heart's afferent input significantly modulates frontocortical activity, especially during the psychophysiological coherence mode (McCraty et al., 2004a, 2004b).

The observation that the heart's afferent input modulates frontal activity is concordant with other findings that activity in the prefrontal cortex covaries with changes in the heart rhythm (Lane et al., 2001). This is consistent with the biological principle of reciprocal connections in neural systems. Therefore, in addition to the well-established routes (e.g., the thalamic pathway) by which cardiovascular afferent signals modulate higher cortical function, there may well be additional routes from the heart to the prefrontal cortex.

Biochemical Interactions

In addition to its extensive neurological interactions with the brain and body, the heart also communicates with the brain and body biochemically, by way of the hormones it produces. Although not typically thought of as an endocrine gland, the heart in fact manufactures and secretes a number of hormones and neurotransmitters that have a wide-ranging impact on body as a whole.

The heart was reclassified as part of the hormonal system in 1983, when a new hormone produced and secreted by the atria of the heart was discovered. This hormone has been variously termed atrial natriuretic factor (ANF), atrial natriuretic peptide (ANP), or atrial peptide. Nicknamed the “balance hormone,” and playing an important role in fluid and electrolyte homeostasis, it exerts its effects on the blood vessels, kidneys, adrenal glands, and many of the regulatory regions of the brain (Cantin & Genest, 1985, 1986). In addition, studies indicate that atrial peptide inhibits the release of stress hormones (Strohle, Kellner, Holsboer, & Wiedemann, 1998), reduces sympathetic outflow (Butler, Senn, & Floras, 1994), plays a part in hormonal pathways that stimulate the function and growth of reproductive organs (Kentsch, Lawrenz, Ball, Gerzer, & Muller-Esch, 1992), and may even interact with the immune system (Vollmar, Lang, Hanze, & Schulz, 1990). Even more intriguing, experiments suggest that atrial peptide can influence motivation and behavior (Telegdy, 1994).

Several years following the discovery of atrial peptide, a related peptide hormone with similar biological functions was identified. This was called brain natriuretic peptide (BNP) because it was first identified in porcine brain. It soon became clear, however, that the main source of this peptide was the cardiac ventricle rather than the brain, and brain natriuretic peptide is now sometimes called B-type natriuretic peptide (Mukoyama et al., 1991).

Armour and colleagues also found that the heart contains a cell type known as intrinsic cardiac adrenergic cells. These cells are so classified because they synthesize and release catecholamines (norepinephrine, epinephrine, and dopamine), neurotransmitters once thought to be produced only by neurons in the brain and ganglia outside the heart (Huang et al., 1996). More recently still, it was discovered that the heart also manufactures and secretes oxytocin, commonly referred to as the “love” or social “bonding hormone.” Beyond its well-known functions in childbirth and lactation, recent evidence indicates that this hormone is also involved in cognition, tolerance, trust, complex sexual and maternal behaviors, as well as in the learning of social cues and the establishment of enduring pair bonds. Remarkably, concentrations of oxytocin produced in the heart are in the same range as those produced in the brain (Gutkowska et al., 2000).

In a preliminary study (10 participants), we examined changes in the blood concentrations of oxytocin and atrial peptide before and after 10 minutes of maintaining the psychophysiological coherence mode, which was generated by a loving emotional focus. While an increase in oxytocin was observed for the whole sample, it was not statistically significant, although it likely would have been with a larger sample. On the other hand, despite the small number of cases, the decrease in atrial peptide was significant. As atrial peptide release is an index of the stretch and contractile force of the atrial wall of the heart, these data suggest that cardiovascular efficiency increases during the psychophysiological coherence mode. The results for the male and female subgroups in this study are shown in Figure 6.

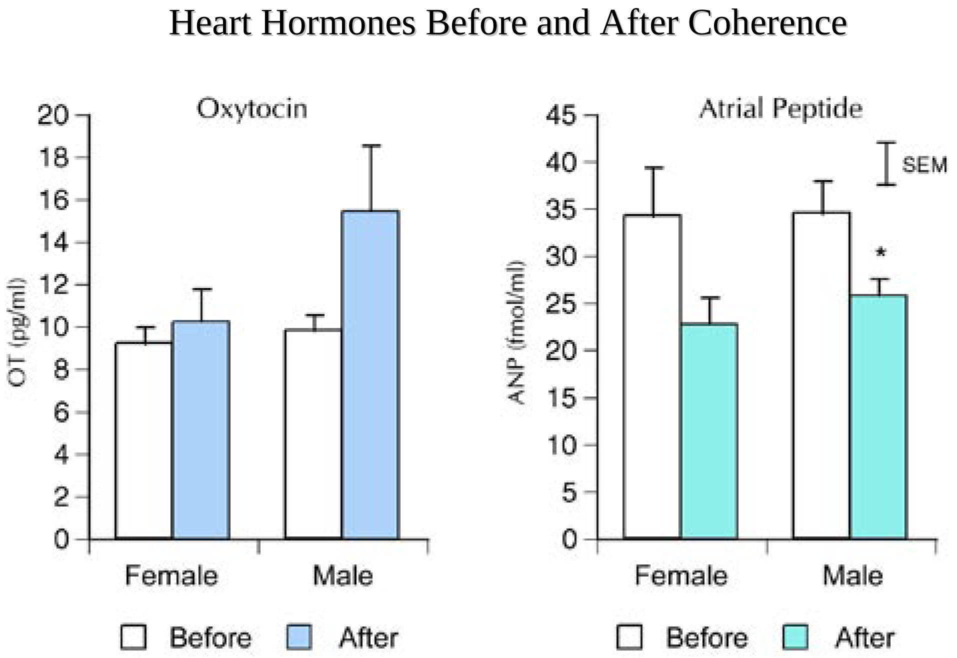

Figure 6. Oxytocin and atrial peptide changes during heart rhythm coherence. Graphs show changes in blood levels of oxytocin and atrial peptide for male and female subgroups from a resting baseline mode to after maintaining the coherence mode for 10 minutes.

In addition to changes in the *amount* of a heart hormone released into the blood affecting cellular and psychological systems, there is also evidence that the temporal *pattern* of the hormonal release has substantial effects independent of the amount of the hormone released. It has been known for some time that neurotransmitters, hormones, and intracellular “second messengers” are released in a pulsatile fashion. Pulsatile patterns of secretion are observed for nearly all of the major hormones, including ACTH, GH, LH, FSH, TSH, prolactin, beta-endorphin, melatonin, vasopressin, progesterone, testosterone, insulin, glucagon, renin, aldosterone, and cortisol, among many others.

Recent studies by German endocrinology researchers Georg Brabant, Klaus Prank, and Christoph Schofl have shown that, in much the same way that the nervous system encodes information in the time interval between action potentials, biologically relevant information is also encoded in the *temporal pattern* of hormonal release, across time scales ranging from seconds to hours (Schofl, Prank, & Brabant, 1995). As most heart hormones are released in synchronicity with the contractions of the heart, there is a rhythmic pattern of hormonal release that tracks the heart rhythm.

This is particularly relevant to our discussion of coherence, as it suggests that changes in heart rhythm patterns—such as those generated during psychophysiological coherence—impact the brain and body in yet another way: that is, they change the pattern of hormonal pulses released by the heart. Although the influence of these changes in hormonal pulse patterns on biological, emotional, and behavioral processes is still unknown, it is likely that the transmission of such hormonal information constitutes another pathway by which the effects of psychophysiological coherence on health, well-being, and performance are mediated.

Biophysical Interactions

With every beat, the heart generates a powerful pressure wave that travels rapidly throughout the arteries, much faster than the actual flow of blood. These waves of pressure create what we feel as our pulse. The heart sounds, generated by the closing of the heart valves and cardiac murmurs, can be heard all over the chest and can extend as far as the groin. Similarly, the pressure waves traveling through the arteries and tissues can affect every organ in the body, especially when the mechanisms that control blood pressure are compromised. In fact, the physical shock wave generated by the heartbeat expands the chest wall to such an extent that the heartbeat can be detected by measuring the chest expansion (this is called the ballistocardiogram).

Important rhythms also exist in the oscillations of blood pressure waves. In healthy individuals, a complex resonance occurs between blood pressure waves, respiration, and rhythms in the ANS. Because pressure wave patterns vary with the rhythmic activity of the heart, they represent yet another language through which the heart can communicate with the rest of the body. In essence, all of our cells sense the pressure waves generated by the heart and are dependent upon them in more than one way. At the most basic level, pressure waves force the blood cells through the capillaries to provide oxygen and nutrients to the cells. In addition, these waves expand the arteries, causing them to generate a relatively large electrical voltage. The waves also apply pressure to the cells in a rhythmic fashion, causing some of the proteins contained therein to generate an electrical current in response to the “squeeze.”

Experiments conducted in our laboratory have shown that a change in the brain’s electrical activity can be seen when the blood pressure wave reaches the brain, around 240 milliseconds after the contraction of the heart. An example is shown in Figure 7.

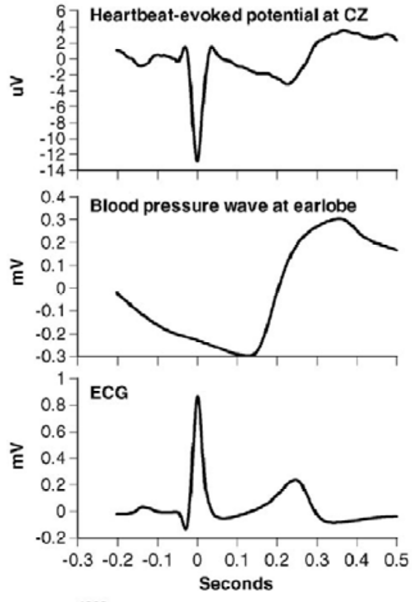

Figure 7. Evoked potentials in the EEG due to effects of the blood pressure wave. The top trace is the EEG recorded at the Cz location, and the middle trace is the blood pressure wave,

detected at the earlobe. Note that the blood pressure wave arrives at the brain around 240 milliseconds after the heartbeat, and a positive shift in the evoked potential in the EEG can be clearly seen upon its arrival.

We hypothesize that, in a similar manner to the encoding of information in the space between nerve impulses and in the intervals between bursts of hormonal activity, information is also contained in the interbeat intervals of the pressure waves produced by the heart. Given that these pressure waves can modulate brain activity and affect vital processes even down to the activity of biomolecules at the cellular level, this represents yet another, potentially important pathway by which information contained in changing heart rhythm patterns orchestrates system-wide effects.

Energetic Interactions

Thus far we have discussed the role of the heart in information processing and communication in terms of neurological, hormonal, and biophysical interactions. In this section we explore how the heart also communicates information to the brain and throughout the body via electromagnetic field interactions.

To understand how communication occurs via these biological fields requires an *energetic* concept of information—one in which data about *patterns* of organization are actually enfolded into the waves of energy generated by the body's activity and distributed throughout the body's electromagnetic field. This concept is quite different from the "lock and key" concept of biochemical interactions, in which communication occurs through the action of biochemicals, such as neurotransmitters, fitting into specialized receptor sites, much like keys open certain locks (McCraty et al., 1998). To explain how energetic communication occurs in biological systems, we take Pribram's holographic approach. He believes, as we do, that the communication of energetic information in biological systems is best understood in the terms of the information processing principles of holographic theory (McCraty et al., 1998; Pribram, 1991; Pribram & Bradley, 1998).

Of all the organs, the heart generates by far the most powerful and most extensive rhythmic electromagnetic field produced in the body. When electrodes placed on the surface of the body are used to measure the ECG, it is the electrical component of the heart's field that is detected and measured. This electrical voltage, about 60 times greater in amplitude than the electrical activity produced by the brain, permeates every cell in the body. Thus, the ECG can be detected by placing electrodes anywhere on the body, from the little toe to the top of the head. The magnetic component of the heart's field, which is approximately 5,000 times stronger than the magnetic field produced by the brain (Russek & Schwartz, 1996), is not impeded by the body's tissues and easily radiates outside of the body. This field can be measured several feet away from the body with sensitive magnetometers (McCraty et al., 1998). These energetic emanations and interactions provide a plausible mechanism for how we can "feel" or sense another person's presence and even their emotional state, independent of body language and other signals (McCraty, 2004).

The heart's ever-present rhythmic field has a powerful influence on communicative processes throughout the body. As already noted above, brain rhythms naturally synchronize to the heart's rhythmic activity, and the rhythms of diverse physiological oscillatory systems can entrain to the heart's rhythm. There is evidence that the heart's field may even play a regulatory role at the cellular level, in that we have found that changes in the cardiac field can affect the growth rate of cells in culture (McCraty et al., 1998).

As can be seen in Figure 20, (Appendix D) the electromagnetic waves generated by the heart are immediately registered in one's brain waves and can have quite a large effect on the heartbeat evoked potential. This same effect has been observed by Gary Schwartz and colleagues at the University of Arizona, who also suggest that energetic interactions between the heart and brain play an important role in psychophysiological processes (Russek & Schwartz, 1994, 1996; Song, Schwartz, & Russek, 1998).

Energetic Signatures of Psychophysiological Modes

Our research has shown that information about a person's emotional state is also communicated throughout the body and into the external environment via the heart's electromagnetic field (McCraty et al., 1998). As described earlier, the rhythmic beating patterns of the heart change significantly as we experience different emotions. Thus, negative emotions, such as anger or frustration, are associated with an erratic, *incoherent* pattern in the heart's rhythms, whereas positive emotions, such as love or appreciation, are associated with a sine-wave-like pattern, denoting *coherence* in the heart's rhythmic activity. In turn, these changes in the heart's beating patterns create corresponding changes in the frequency spectra of the electromagnetic field radiated by the heart.

This is observed when spectral analysis techniques are applied to the energy waveforms generated by the heart (ECG or MCG) in the same way that is typically done when analyzing waves generated by electrical activity in the brain. Different spectral patterns are correlated both with the patterns of beat-to-beat variability and with the current psychophysiological state. These spectral patterns can be interpreted as "information patterns" containing data about the psychophysiological state of the individual in that moment in time. Appendix E shows waterfall plots from the ECG data used to produce the examples of the six different psychophysiological modes described at the outset of this article. These reveal distinctive spectral patterns associated with each specific mode.

The Holographic Heart

The spectra of ECG recordings in Appendix E illustrate the enormous richness and complexity of the heart's activity and the voluminous density of information encoding and transmission that occurs, via the movement of energy, in the body's internal electromagnetic environment. As already noted, similar patterns of information are encoded in the space (time) between nerve impulses and in the intervals between bursts of hormonal activity and pressure waves. We propose, further, that information is encoded and communicated in same manner *in the intervals between heartbeats.* Such an information encoding strategy would allow communication via the neural and hormonal pulses that are produced with each heartbeat and also via the electromagnetic waves produced by the heart. As a means by which the heart can transmit information both throughout the body's psychophysiological networks and into the external environment, the validity of this energetic communication mechanism can be empirically verified. This concept of energetic communication provides the basis for explaining how information about the organization and state of the system as a whole is distributed throughout the body in an almost instantaneous way.

The heart's rhythmic energetic activity lies at the center of our account. The heart generates a continuous series of electromagnetic pulses in which the time interval between pulses varies in a dynamic and complex manner. These pulsing waves of electromagnetic energy give rise to fields within fields, which form interference patterns when they interact with magnetically polarizable tissues and structures. In more specific terms, we postulate that as pulsing waves of energy radiate out from the heart, the energy waves interact with organs and other structures to create interference patterns. At the same time, the endogenous processes in each of the other organs, structures, and systems, including those at the micro-scale of cells and membranes, also generate patterns of dynamic activity. These patterns of dynamic activity radiate out into the body's internal environment as energy oscillations, and they interact with the energy waves from the heart and to some degree with the energy waves of other organs and structures. In each of these interactions the energy waves encode the features of the objects and their dynamic activity as interference patterns. Because the heart generates by far the strongest energy field, which interacts with both the macro and micro scales of the body's organization, the waves it produces operate effectively as global carrier waves that encode the information contained in the interference patterns. These global carrier waves thus contain encoded information from *all* of the body's energetic interactions, and they distribute this information throughout all systems in the body. In this holographic-like process, the encoded information acts to *in-form* the activity of all bodily functions (McCraty et al., 1998). This energetic communication system thereby operates as a global organizing mechanism to coordinate and synchronize psychophysiological processes in the body as a whole.

This theory—that the heart encodes and distributes energetic information holographically—is based on the same model that neuropsychologist Karl Pribram has used to describe the neural processes in the brain that gives rise to perception and memory (Pribram, 1971, 1991). In this model, as Pribram makes clear, the neural impulses are only relaying information from one part of the brain to another. However, the actual processing of information occurs in the spectral domain of energy frequency—a domain outside space and time in which the waves of energy produced by the operation of the neural microstructure interact. Moreover, he has shown that that the same mathematics that Gabor (1948) used to describe the quantum-holographic principles involved in the physics of signal processing can also be used to describe the information processing that occurs in the electromagnetic interactions between the dendritic and axon fields of neurons (McCraty et al., 1998). While a discussion of this is beyond the scope of this article, Pribram and other brain scientists have presented a large body of compelling experimental evidence that supports the veracity of Pribram's bioenergetic model of information processing (King, Xie, Zheng, & Pribram, 1994; McCraty et al., 1998; Pribram, 1971, 1991; Santa Maria et al., 1995). Thus, in addition to the energetic information processing that occurs in the brain, as described by Pribram, we propose that there is also a heart-based global energetic system that encodes and distributes information to coordinate and organize the function of the body as a whole.[15] Thus, in addition to the energetic information processing that occurs in the brain, as described by Pribram, we propose that there is also a heart-based global energetic system that encodes and distributes information to coordinate and organize the function of the body as a whole.

There is compelling evidence to suggest that the heart's energy field is coupled to a field of information that is not bound by the limits of time and space. This evidence comes from a rigorous experimental study we conducted to investigate the proposition that the body receives and processes information about a future event before the event actually happens (McCraty et al., 2004a, 2004b). The study's results provide surprising, even astounding data showing that both the heart and brain appear to receive and respond to information about a future event. Even more tantalizing is the evidence that the heart appears to receive intuitive information *before* the brain. This suggests that the heart is directly coupled to a subtle energetic field of ambient information that surrounds the body, which, in turn, is entangled and interacts with the multiplicity of energy fields in which the body is embedded—including that of the quantum vacuum.

In short, it would appear that we are only just beginning to understand the fundamental role of a bioenergetic communication system in processing information from sources both within and outside the body to *in-form* physiological function, cognitive processes, emotions, and behavior. In this system, it thus seems clear that the energy field of the heart plays a crucial role.

Conclusion

> *The origin of feelings is the body in a certain number of its parts. But now we can go deeper and discover a finer origin underneath that level of description. . .*
> (Damasio, 2003, p. 132)

Damasio sums up the current understanding held by many of today's scientists of the genesis of feelings and emotions. This is the notion that the origin of the particular emotional feelings we experience in each moment lies in the substrata of our body's physiological processes. Positive feelings emerge from body states in which the physiological regulation of the processes of life is easy and free-flowing, while negative feelings reflect the strain of life processes that are difficult for the body to balance and that may even be out of control. This general understanding has roots in an earlier era in psychology and has recently reemerged in the scientific study of emotion. However, the geography of this realm is largely uncharted and has only just begun to be mapped. Needless to say, a more complete understanding awaits development. In this article we have thus endeavored to "go deeper" by offering an account of the "finer origin" of the psychophysiological processes involved in emotional experience.

In "going deeper," we based our approach on the premise that the body's physiological, cognitive, and emotional systems are intimately intertwined through ongoing processes involving reciprocal communication. We hold that an understanding of the workings of these systems must view their activity as emergent from the dynamic, communicative network of interacting functions that comprise the human organism. To describe these communicative processes we adopted an information processing perspective. From this viewpoint, communication within and among the body's systems is seen to occur through the generation and transmission of *rhythms and patterns* of psychophysiological activity. This focus stands in contrast to the traditional approach, in which the amount of physiological activity is viewed as the primary basis of communication. We believe a focus on rhythms and patterns of psychophysiological activity illuminates a more fundamental order of information communication—one that signifies different emotional states, operates to integrate and coordinate the body's functioning as a whole, and also links the body to the processes of the external world.

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[15] See also the Appalachian Conferences volumes.

In order to understand the functional significance of the morphology of patterns of physiological activity, we drew on the concept of coherence from the physics of signal processing. This is the notion that the degree of efficiency and effectiveness of a system's functioning is directly related to the degree to which there is a harmonious organization of the interaction among the elements of the system. Thus, a harmonious order in the rhythm or pattern of activity signifies a coherent system, whose efficient or optimal function is directly related, in Damasio's terms, to the "fluidity" of life processes. By contrast, an erratic, nonharmonious pattern of activity marks an incoherent system, whose function reflects the "strain" of life processes.

In operationalizing this approach, we used the pattern of the heart's rhythmic activity as our primary physiological marker, as it was the most sensitive measure of changes in emotional states. In reviewing the results of our empirical research, we identified six psychophysiological modes distinguished by their physiological, mental, and emotional correlates. These are: Mental Focus, Psychophysiological Incoherence, Psychophysiological Coherence, Relaxation, Extreme Negative Emotion, and Emotional Quiescence. We showed that different emotions are associated with different degrees of coherence in the activity of the body's systems. While positive emotions such as appreciation, care, and love drive the system toward increased physiological coherence, negative emotions drive the system towards incoherence.

In particular, we highlighted the importance of the psychophysiological coherence mode. Associated with the experience of sustained positive emotions, the coherence mode has numerous psychological and health-related benefits, which have been demonstrated by a growing body of research. Of note are the findings showing a direct relationship between this mode and cognitive performance, as well as data linking this mode to intuition.

Using our empirical findings as a point of departure, we constructed a typology—a conceptual "map"—of the reality of psychophysiological interaction. We differentiated twelve primary types of psychophysiological interaction, distinguished by their values on two theoretical dimensions. Each type describes a distinctive physiological substratum that underlies a different primary emotion or psychophysiological state. Six of the types signify emotional states typically experienced in the course of everyday life. Qualitatively distinct from the feelings of everyday life are six additional types of psychophysiological interaction. Discontinuous from the psychophysiological states of day-to-day life, these are hyper-states of extreme emotions reflecting the body's response to extraordinary circumstances. One interesting implication of the typology is the prediction of four additional hyper-states of psychophysiological interaction, beyond the two hyper-states that we have been able to document empirically.

While our findings on the psychophysiological modes showed that the patterns of the heart's rhythmic activity are clearly *reflective* of different emotional states, in the second part of this article we also presented an account of the heart's constructive role in the physiological processes by which emotional experience is *generated*. According to a model based on Pribram's theory, emotions result from the "mismatch" between familiar input patterns and current input patterns that are different or novel. The heart is the primary source of dynamic rhythmic patterns in the body and possesses extensive communication networks with the brain and other systems. With each beat, it not only pumps blood, but also transmits patterns of neurological, hormonal, pressure, and electromagnetic information through these networks. These multiple inputs to the brain from the heart contribute significantly to the familiar reference pattern and also to those deviations from the familiar that are experienced as changes in emotions.

We also presented evidence showing that the heart has a significant influence on the brain's neurological activity and even plays a role in modulating cognitive functions. While extensive evidence had previously established that sensory-motor integration and cognitive processing is modified by changes in heart rate (beat-to-beat cardiac accelerations and decelerations), our research has expanded this understanding. We found that macro-scale patterns of the heart's rhythmic activity also significantly affect cognitive performance and intentional behavior well beyond the micro-scale effects previously reported. We also demonstrated a significant relationship between heart rhythm patterns and cognitive performance, in that increased heart rhythm coherence leads to improved cognitive performance.

This along with other findings led us to propose that a global level of organization serves to bind and synchronize the body as a whole. In this function we believe that the heart is a key organ in orchestrating activity across multiple systems, encompassing both micro and macro levels of organization. We proposed that information is encoded in the interbeat intervals of the waveforms of neurological, hormonal, pressure, and electromagnetic activity generated by the heart. Because of the heart's wide-ranging linkage to the body's major systems, information encoded in the heart's rhythmic patterns both reflects and influences the ongoing dynamics of the body as a whole. Furthermore, when the heart's rhythmic activity shifts into coherence, synchronization and harmonious interaction within and among systems is the result. This, in turn, produces optimal states of health, physical activity, and cognitive performance. Thus, the heart is a critical nodal point in the psychophysiological network: it acts as the conductor in the human symphony, setting the beat that binds and synchronizes the entire system.

An important, though little investigated, way in which the heart acts as a global conductor is through its electromagnetic interactions. We proposed that the electromagnetic fields produced by the heart form a complex energetic network that connects the electromagnetic fields of the rest of the body. In doing so, the heart's energetic field acts as a modulated carrier wave that encodes and communicates information throughout the entire body, from the systemic to the cellular levels, and even conveys information outside the body between individuals. In these ways it provides a global signal that integrates the order of the system as a whole.

The concept of an energetic information field is not a new one. Indeed, many prominent scientists have proposed models in which information from all physical, biological and psychosocial interactions is enfolded as a spectral order outside the space/time world in the energy waveforms of the quantum vacuum. Holographic principles (Gabor, 1948) form the basis of most of these theories and have been used to describe how information about the organization of a whole is nonlocalized—enfolded and distributed to all parts and locations via the energy waveforms produced by interactions in the brain, (Pribram, 1971, 1991) social structures, (Bradley, 1987; Bradley & Pribram, 1998) and the universe (Bekenstein, 2003; Nadeau & Kafatos, 1999). We adopted a holographic perspective to describe how energy waveforms generated by the heart's electromagnetic field encode and distribute information about all structures and processes throughout the body from the cellular level to the body as a whole. Moreover, the energy fields produced by the heart and other bodily structures are transmitted externally. And because these energy fields are in continuous interaction with the multiplicity of energy fields in the environment, it appears that information about nonlocal events and processes is conveyed back to the body and processed as intuition.

We believe that the concept of energetic information holds promise as a way of understanding how the body's bioenergetic communication system operates to process information from sources both within and outside the body. Based on the evidence we have presented, it seems clear that the energy field of the heart plays a crucial role in in-forming physiological function, cognitive processes, emotions, and behavior.

We have endeavored to present a deeper understanding of the central significance of the heart in virtually all aspects of the body's function. As a principal and consistent source of rhythmic information patterns that impact the physiological, cognitive, and emotional systems, the heart thus provides an access point from which a change in system-wide function can be immediately effected. When positive emotions are used to shift the heart's pattern of activity into coherence, a global transformation in psychophysiological function occurs. As the evidence we have presented clearly shows, this transformation results in increased physiological efficiency, greater emotional stability, and enhanced cognitive function and performance. As a simple and direct means by which one can shift into a state of psychophysiological coherence, the HeartMath tools are a highly effective method to facilitate this transformation. In the case of Chris, with which we opened this article, the use of these tools proved to be a life-saving and life-changing intervention, leading to changes not only in his physical health, but also in his emotional life, work performance, and relationships. We believe that the growing use of these and similar heart-based tools around the globe by educators and students, health care workers and patients, and managers and employees, among others, can play a significant part in improving the "life processes" of humankind.

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Appendixes

Appendix A: Modes of Psychophysiological Function

In the course of our research on the relationship between HRV and emotion, we observed that certain psychophysiological states were consistently associated with distinct psychological and behavioral correlates as well as with specific patterns of physiological activity throughout the body. As these systemic patterns were found to hold over many trials across diverse study populations, we concluded that they constituted six general categories of psychophysiological function, which we call *modes*, each of which is distinguished by a unique set of characteristics. Although there is individual variation within each mode, there are broader empirical commonalities that are characteristic of each mode and that differentiate the six modes from one another.

Four of these psychophysiological modes are readily generated in the context of everyday life. We have termed these modes *Mental Focus* (associated with impassive emotions experienced while attention is directed to performing familiar, cognitively engaging tasks or actions), *Psychophysiological Incoherence* (associated with negative emotions such as anger, anxiety, etc.), *Relaxation* (associated with calm emotions experienced while resting from the effort and stress of everyday life), and *Psychophysiological Coherence* (associated with positive emotions such as appreciation, care, compassion, etc.). We have also identified two additional modes, *Emotional Quiescence* and *Extreme Negative Emotion*, which both appear to belong to a qualitatively different category of psychophysiological function. These two modes are physiologically and experientially distinct from the other four modes and are generated under more extraordinary life circumstances. Before moving on to describe the emotional tone and empirical characteristics of each of these modes, it is necessary to provide some information on the heart rhythm data presented in the graphs in this section.

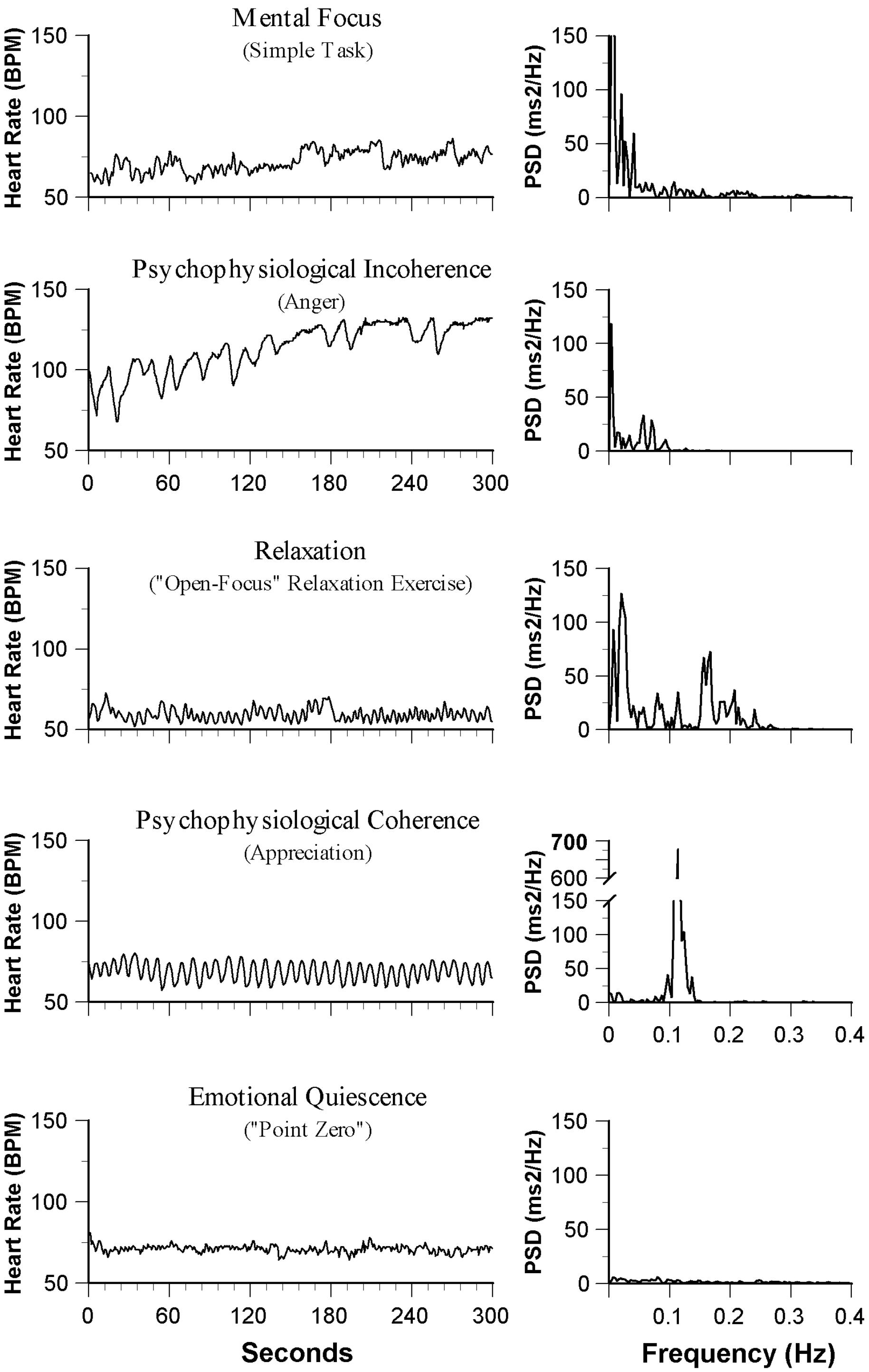

Figure 8. Heart rhythm patterns during different psychophysiological modes.
The left-hand graphs are heart rate tachograms, which show beat-to-beat changes in heart rate. To the right are the heart rate variability power spectral density (PSD) plots of the tachograms at left. While there are individual variations in the HRV patterns associated with each mode, the examples depicted are typical of the characteristic aspects of the more general patterns observed for each mode. *Mental Focus* is characterized by reduced HRV. Activity in all three frequency

bands of the HRV power spectrum is present. Anger, an example of the *Psychophysiological Incoherence* mode, is characterized by a lower frequency, more disordered heart rhythm pattern and increasing mean heart rate. As can be seen in the corresponding power spectrum to the right, the rhythm during anger is primarily in the very low frequency region, which is associated with sympathetic nervous system activity. In this example, the anger was intense enough to drive the system into an extreme state, where the heart rhythm trace became flat (indicating very low HRV) around 200 seconds. *Relaxation* results in a higher frequency, lower amplitude rhythm, indicating reduced autonomic outflow. In this case, increased power in the high frequency region of the power spectrum is observed, reflecting increased parasympathetic activity (the relaxation response). *Psychophysiological Coherence*, which is associated with sustained positive emotions (in this example, appreciation), results in a highly ordered, sine-wave-like heart rhythm pattern. As can be seen in the corresponding power spectrum, this psychophysiological mode is associated with a large, narrow peak in the low frequency region, centered around 0.1 Hz. Note the scale difference in the amplitude of the spectral peak during the coherence mode. This indicates system-wide resonance, increased synchronization between the sympathetic and parasympathetic branches of the nervous system, and entrainment between the heart rhythm pattern, respiration, and blood pressure rhythms. The coherence mode is also associated with increased parasympathetic activity, thus encompassing a key element of the relaxation response, yet it is physiologically distinct from relaxation because the system is oscillating at its resonant frequency and there is increased harmony and synchronization in nervous system and heart–brain dynamics. The *Emotional Quiescence* mode is characterized by state-specific very low HRV. Due to the low HRV, the power spectrum has very little power in any of the three frequency regions.

Figure 8 shows the typical heart rhythm patterns and the associated HRV power spectra for the six psychophysiological modes we have identified. These patterns are reflective of the ongoing adjustments of the various physiological systems in relation to the ever-changing processes in the body and in the external environment. The normal variability in heart rate is due to the synergistic action of the two branches of the ANS, which act to maintain cardiovascular parameters in their optimal ranges and to permit appropriate reactions to changing external or internal conditions. In a healthy individual, the heart rate estimated at any given time represents the net effect of the parasympathetic (vagus) nerves, which slow heart rate, and the sympathetic nerves, which accelerate it. We use the term *adaptive variability* to denote these ongoing moment-by-moment accommodations. Within normal parameters, greater amplitudes of oscillation are associated with health. Thus, the amplitude of rhythmic physiological processes, such as heart rhythms, may index the health status of the individual’s nervous system and capacity to respond to environmental demands (Friedman & Thayer, 1998; Peng et al., 1994; Porges, 1992; Wolf, 1995).

The left-hand graphs are heart rate tachograms, which show the beat-to beat changes in heart rate (heart rhythms) in the different modes. These patterns have been identified in recordings obtained both in the laboratory and in real-life circumstances from a database of more than one thousand cases.

To the right are shown the heart rate variability power spectral density (PSD) plots for each of the heart rhythms. To discriminate and quantify sympathetic and parasympathetic activity and total autonomic nervous system activity, the HRV data must be converted into their spectral components. This is done by applying a mathematical transformation, the Fast-Fourier Transform. The resultant power spectrum reduces the heart rhythm into its constituent frequency components. These are divided into three main frequency ranges, each of which corresponds to a specific physiological activity and rhythm.

The very low frequency (VLF) range (0.0033–0.04 Hz) is primarily an index of sympathetic activity, while power in the high frequency (HF) range (0.15–0.4 Hz), representing more rapid beat-to-beat changes in heart rate, is primarily due to parasympathetic activity. The frequency range encompassing the 0.1 Hz region is called the low frequency (LF) range (0.04–0.15 Hz) and reflects activity in the feedback loops between the heart and brain that control short-term blood pressure changes and other regulatory processes. The physiological factors contributing to activity in the LF range are complex, reflecting a mixture of sympathetic and parasympathetic efferent and afferent activity as well as vascular system resonance.

The six psychophysiological modes we have identified will next be distinguished in terms of their emotional tone and associated heart rhythm and ANS activation patterns. It should be noted that these modes can also be distinguished on the basis of the patterns of their associated energetic (electromagnetic) activity; this is discussed in Appendix E.

Modes of Everyday Psychophysiological Function

Mental Focus

The top graph in Figure 8 depicts a typical heart rhythm pattern and the associated HRV power spectrum during a period of “mental focus.” We use this term to describe an impassive emotional state experienced while performing a familiar, routine task or action. This state is primarily one of mental attention to the task at hand and, as such, is characterized by little or no emotional arousal, either of a positive or negative nature, and low motor activity. In the example shown in Figure 8, the research subject was sitting quietly while focused on a routine computer task. As depicted in the heart rhythm graph (left-hand side), the HRV pattern is relatively constrained in its overall amplitude variation, and there is less higher frequency variability as compared to the pattern for relaxation.

The HRV power spectrum (right-hand side of Figure 8) shows some activity in all three frequency bands, as would be expected from examining the heart rhythm trace. The multiple peaks present in the VLF region indicate that the organization of oscillations in this band is unstable and variable; this is apparent in the heart rhythm data as well. The fact that the overall heart rate remains relatively constant (approximately 70 bpm), indicates, in this example, that there was not an increased activation of the sympathetic nervous system. However, there appears to be less synchronized activity in overall ANS function as compared to the coherence or relaxation modes, which is reflected in the more erratic heart rhythm pattern. The power in the HF band is much lower than that in the Relaxation mode, indicating there is less parasympathetic activity. This typically correlates with shallower, faster breathing rhythms. There is also reduced power in the LF band, which is a common finding in tasks that require primarily mental focus with little motor activity. In sum, these data show that there is reduced autonomic activity and overall HRV during periods of mental focus when compared to the relaxation or coherence modes.

Psychophysiological Incoherence

Psychophysiological Incoherence is associated with negative emotions, such as anger, frustration, and anxiety. While there is some variation within this mode in the morphology of the associated HRV waveforms, Psychophysiological Incoherence is generally typified by an erratic and disordered heart rhythm pattern (see the example of frustration in Figure 1). The example of this mode shown in Figure 8 was recorded when this individual was experiencing an episode of anger during an argument with his wife while sitting still in a car. In this case, the emotion of anger was sufficiently intense to activate the sympathetic nervous system, resulting in a more pronounced VLF rhythm and an increasing mean heart rate. As can be seen in the corresponding power spectrum to the right, there is a single large peak in the VLF region, which indicates sustained sympathetic activation, whereas the HF region shows virtually no activity. The activity in the LF region remains strong because the physiological mechanisms regulating blood pressure are active in order to maintain control and inhibit sympathetic outflow so that the blood pressure does not reach levels that will harm the system.

In addition to the Psychophysiological Incoherence mode, which is the main pattern observed in this recording, parts of this same recording also show another pattern of psychophysiological response that is indicative of a different mode, evident in the segments circled in Figure 8. This pattern illustrates what happens when an individual experiences an extreme negative emotion—in this case, intense anger. Extreme negative emotions such as this can lead to excessive sympathetic activation, in which the heart rate increase approaches the range of maximum function and where the heart rate variability pattern almost flattens out. We believe that this psychophysiological pattern is indicative of a "hyper-state" of extreme negative emotional experience, which is described in more detail below.

Relaxation

The Relaxation mode is a state of emotional calm experienced when resting from the activity and stress of everyday life. It is characterized by a higher frequency, lower amplitude rhythm, and a virtually steady heart rate (approximately 60 bpm in this example) once the system has stabilized in this mode. In the beginning of the shift into relaxation, however, there is also typically a decrease in heart rate, which indicates a reduction in overall autonomic outflow and a shift in autonomic balance towards increased parasympathetic activity. This example (Figure 8) is from a case in a study in which the research subjects were instructed to sit quietly and not to engage in any active cognitive or emotional processing or to use any specific meditative or emotional management techniques. The increased parasympathetic activity can be clearly seen in the relatively large peak in the HF band of the power spectrum. There is also activity in both the VLF and LF bands because the sympathetic and blood pressure control rhythms are still active (as would be expected), although there is shift to increased parasympathetic activity (the relaxation response) and lower overall HRV. This same rhythm and power spectral signature are also seen during periods of restful sleep.

It is imperative that the Relaxation mode not be confused or confounded with the Psychophysiological Coherence mode described next. There is typically an overall reduction in ANS outflow and a shift in ANS balance towards increased parasympathetic activity during periods of rest or relaxation, or with structured relaxation or meditation techniques (resulting in lower HRV). Although the coherence mode is also associated with increased parasympathetic activity, and thus encompasses a key element of the relaxation response, relaxation and meditation are *not* usually associated with significant increases in physiological coherence. Not only are there fundamental differences between the physiological correlates of relaxation and coherence, but the associated psychological states are also markedly different. Many relaxation and mediation techniques (with specific exceptions) are essentially disassociation techniques, whereas the psychological states associated with coherence are directly related to activated positive emotions.[16]

Psychophysiological Coherence

The example of the Psychophysiological Coherence mode shown in Figure 8 was generated when this research participant was instructed to activate and sustain a genuine feeling of "appreciation." The graph shows how sustained, modulated positive emotions, such as appreciation or love, are associated with a highly ordered, smooth, sine-wave-like heart rhythm pattern (coherence). It is important to understand that although the coherence mode is typically associated with increased parasympathetic activity, whether a shift in heart rate (either up or down) occurs depends on the preceding psychophysiological state of the individual. The coherence mode thus does not necessarily involve a change in *heart rate* per se, or a change in the *amount* of heart rate variability. Rather, it is signified by a shift to a distinctive heart rhythm *pattern*.

As can be seen in the corresponding power spectrum, this psychophysiological mode is associated with an unusually high-amplitude peak in the LF band, centered around 0.1 Hz. To appreciate the magnitude of this difference relative to the other five modes, it is important to observe that there is a scale difference in the amplitude of the spectral peak in the LF region in the coherence mode[17] (note the changed ordinate scale for Appreciation relative to the other modes): the top of the peak is near 700 while it is below 150 in all of the other examples. This indicates system-wide resonance, increased synchronization between the sympathetic and parasympathetic branches of the nervous system, and entrainment between the heart rhythm pattern, respiration, and blood pressure rhythms.

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[16] Meditation and relaxation techniques can be inappropriately thought to induce coherence when they are combined with specific breathing techniques, because certain paced breathing rhythms also induce the physiological coherence mode.

[17] When speaking of coherence in a psychophysiological context, it is important to note the distinction between types of patterns that are associated with organized, healthy function and those that underlie pathology. Within normal parameters, a greater amplitude of oscillation in heart rate variability and most other physiological processes is associated with health. Thus, the amplitude of the oscillations associated with the heart's rhythm is a general index of the status of the individual's nervous system and capacity to respond to change. In other words, the greater the amplitude of "organized" rhythmic physiological variability, the greater the response potential or possible range of behavior. This is relevant to our discussion of coherence because many illnesses are characterized by a reduction in the complexity of the patterns of activity generated by the body's systems (i.e., previously complex rhythms and patterns become strikingly periodic and predictable). For example, a low overall HRV is associated with autonomic neuropathy and autonomic deinnervation (as found in heart transplant recipients) and is

One may observe that the heart rhythm in both the relaxation and coherence modes can manifest a sine-wave-like pattern. In the psychophysiological coherence mode, however, this pattern occurs at a lower frequency and typically with a higher amplitude. Even more significantly, in the coherence mode increased synchronization, resonance, and entrainment across multiple bodily systems occur, all of which reflect a level of global organization that is not present in the relaxation mode.

Although in relaxation increased autocoherence can occur in the breathing rhythm (as in the example shown in Figure 8) and it is also possible to have a type of entrainment between the respiration and heart rhythms, these characteristics are *not* reflective of the system-wide entrainment or resonance that typify psychophysiological coherence. The type of entrainment that is sometimes observed in the relaxation mode occurs in the high frequency range of the HRV power spectrum and is associated with respiratory sinus arrhythmia (RSA), which is discussed in detail in the main text.

We have found that as the respiratory rate is lowered, there is a tipping point (typically below 0.26 Hz) at which the heart rate variability pattern, blood pressure rhythm and respiratory rhythms suddenly entrain. In essence, the system jumps to a different physiological mode and settles into a new oscillatory rhythm at its resonant frequency. In the majority of people, the lower and upper thresholds for the onset of the coherence mode are approximately 0.04 and 0.26 Hz, respectively, in the HRV power spectrum, but the rhythm typically settles at the system's resonant frequency of ~0.1 Hz.

Modes Distinguished by Low Variability

As noted previously, we have empirical evidence of two additional modes that appear to belong to a qualitatively different category of psychophysiological function than the four modes of everyday function just described. What sets these patterns apart is that they are not typically experienced in the course of normal everyday life but, instead, occur under extraordinary or unusual circumstances. Also, they are physiologically and experientially distinct—physiologically, they are both associated with very low heart rate variability; experientially, they are at opposite ends of the spectrum, with one mode being associated with an uncommon sense of inner peace and the other mode associated with extreme negative emotions such as anger and rage.

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predictive of increased risk of sudden cardiac death and all-cause mortality. Low HRV is also associated with depression, anxiety and many other psychological disorders.

This loss of variability and complexity is quite different from the type of coherence we are describing. The coherent mode described here is not characterized by a loss of variability, but rather by the emergence of a more organized variability. Additionally, it is important to note that these are not steady states, such as those associated with disease; rather, they are highly dynamic and changing.

Emotional Quiescence

In addition to the psychophysiological coherence mode, there is also another, less common mode—“Emotional Quiescence”—that emerges when certain individuals undergo an extra-ordinary transition to enter a distinctive heart-focused psychophysiological state (see Figure 9). The specific HeartMath tool that practitioners use to enter this mode is called the Point Zero technique.

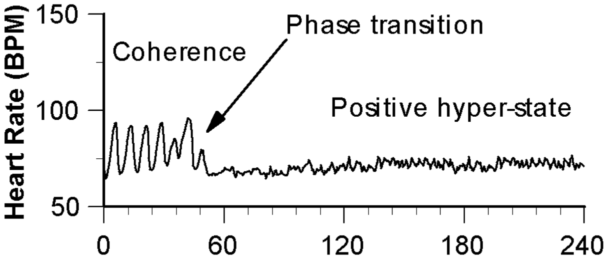

Figure 9. Phase-shift to a positive hyper-state. This figure shows a typical example of the phase transition observed in a subject moving from the Psychophysiological Coherence mode to a positive hyper-state we call Emotional Quiescence. Note the abrupt change from the larger-amplitude sine-wave-like heart rhythm pattern distinguishing the Coherence mode to the much higher-frequency and lower-amplitude rhythm marking the Emotional Quiescence positive hyper-state.

The subjective experience of this mode is a state in which the intrusion of mental and emotional “chatter” is reduced to a point of internal quietness, to be replaced by a profound feeling of peace and serenity and a deep sense of being centered in the heart.[18] First-person descriptions include a heightened awareness of the movement of energy both within one’s body and between oneself and other people; the feeling of being “totally alive” and “fully present” in the moment; the experience of an all-embracing, non-judgmental love (in the largest sense); and a sense of increased connectedness with one’s higher self or spirit, and with “the whole.” It is important to point out that many experienced mediators who have learned the Point Zero technique describe their subjective experience of Emotional Quiescence as a distinctly different state than is typically experienced through meditation approaches.

Physiologically, when an individual enters the Emotional Quiescence mode, either the sympathetic and parasympathetic outflow from the brain to the heart is substantially reduced, or an energetic control acting at the level of the heart itself is activated to such a degree that the beat-to-beat oscillations in the HRV waveform become nearly zero. It is also possible that both occur simultaneously. This leads to an HRV power spectrum with unusually low power in all the frequency bands.[19] As shown in Figure 8, the heart rhythm is almost a flat line and therefore the power spectrum has almost no power in any of the frequency bands due to the lack of heart rate variability.

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[18] In earlier publications we used the term “internal coherence” to describe the physiological aspects of this mode; however, we now feel that this terminology is confusing, as the term “coherence” is better used in the broader context which embraces entrainment, resonance, and synchronization. We also used the term “amplified peace” in earlier publications to describe the subjective inner state.

Extreme Negative Emotion

At the opposite end of the emotional spectrum lies a second unusual non-everyday psychophysiological mode. Individuals can enter this mode when experiencing extremely activated negative emotions, such as those that occur during episodes of intense fear, anger, or rage. In the Extreme Negative Emotion mode the heart rhythms are also reduced to a flat-line appearance. However, in contrast to Emotional Quiescence, the underlying physiological mechanism is quite different. In this mode the HRV becomes very low due to excessive sympathetic outflow to the heart, which both drives the heart rate up to very high rates and inhibits parasympathetic outflow to the heart. At higher heart rates there is less time for variation in the beat-to-beat heart rate to occur,[20] and this combined with the inhibition of parasympathetic outflow reduces the amplitude of the variations in heart rate to nearly zero. An example of this mode can be seen in the latter part of the heart rhythm trace shown in Figure 10. Although the HRV power spectra for the Extreme Negative Emotion and Emotional Quiescence modes appear very similar, these modes are readily distinguished by the overall heart rate and by the ECG spectrum (discussed later).

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[19] It is important to note that the individuals we have studied have the ability to enter this mode at will and thus demonstrate exceptional self-regulation because their HRV is normally quite large. This can be a source of confusion, as low HRV is usually associated with pathology. However, the state-specific, short-term low HRV associated with the Emotional Quiescence mode (or that seen in meditation) is markedly different from the low HRV found in pathological conditions. In pathology the HRV is *always* low and is associated with impaired function of the autonomic nervous system, heart, or brain stem centers.

[20] The link between heart rate and HRV is termed cycle length dependence. In healthy individuals as heart rate increases, HRV decreases, and vice versa.

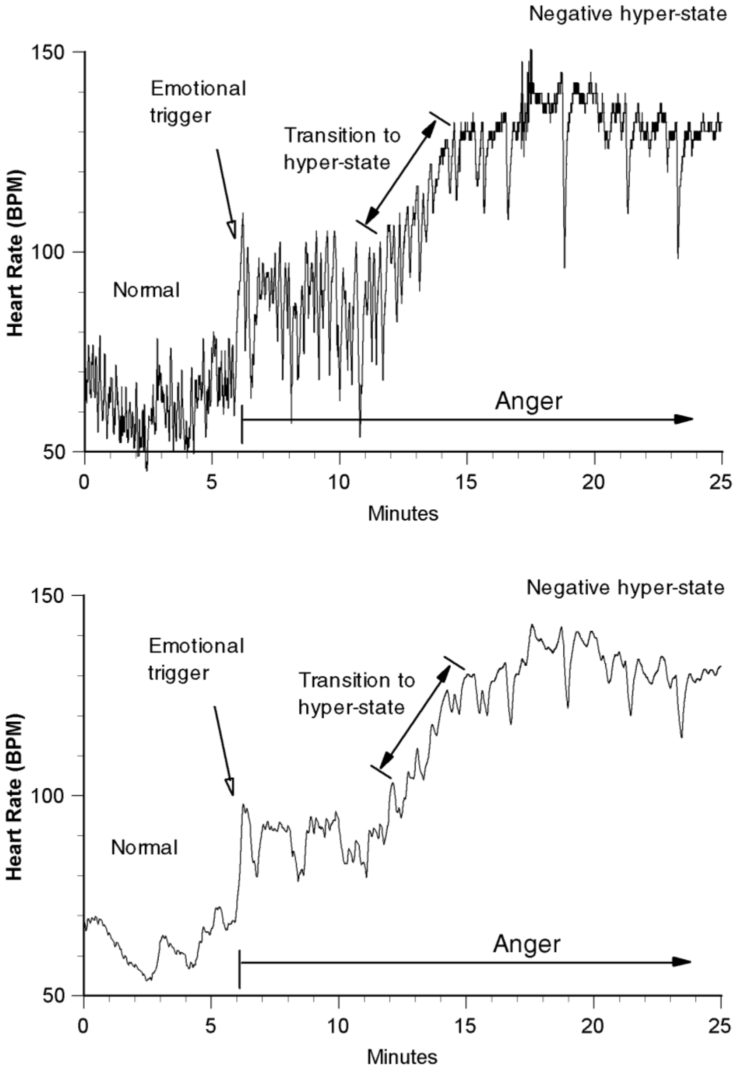

Figure 10. Phase-shift to a negative hyper-state. The heart rhythm data shown in the top graph were recorded from a male who was riding in a car and got into an argument with his wife. Before the argument and resulting emotional activation, the graph shows a period of “normal” psychophysiological activity. Clearly apparent is the point (spike) at which the subject’s emotion of anger was triggered. This was followed by a period (from about 6-12 minutes in the record) of sympathetic activation and increased heart rate. Next, there is evidence of a relatively rapid transition, which culminates in a phase-shift into a negative hyper-state of intense anger. As is evident from this case, the negative hyper-state is characterized by a high heart rate and significantly reduced HRV. The large downward spikes in the hyper-state waveform pattern, which indicate periodic drops in heart rate, result from the subject taking deep breaths. The bottom graph depicts a 10-second moving average of the heart rhythm data displayed in the top graph. This is shown to highlight the general morphology of the changes in heart rate and rhythm and the phase-transition between the states.

It should be noted that a similar pattern of physiological activity (high heart rate and low HRV) can also occur with sustained extreme physical exertion. As just described above, when the heart rate is driven so high that it all but reaches the heart’s physical limit, there is little space for variation so that a greatly reduced HRV results. However, it is rare that an individual's system is driven to this extreme state through physical exertion. The fact that extreme negative emotions alone can drive the physiological systems to this same extreme state underscores the profound impact that such emotions can have on the body.

Extreme anger or rage is subjectively experienced as an intense, highly focused state that is usually directed outward. Individuals describe their subjective experience of this state as one that is highly energized and seething with negative emotion, with a feeling of increased physical power and a corresponding reduction in sensitivity to physical pain.

The empirical documentation of these two hyper-states of psychophysiological function has led us to postulate that there are at least four additional hyper-states that have yet to be discovered and empirically mapped. The basis for this expectation will become clear in the conceptual map we develop of emotional states and their associated distinguishing physiological characteristics.

Appendix B: Previous Research

The Baroreceptor Hypothesis: A Micro-Scale Perspective

Some of the most influential work on the relationship between heart–brain interactions and performance was conducted in the 1960s and 1970s by psychophysiologists John and Beatrice Lacey, who postulated a causal role of the cardiovascular system in sensory-motor performance (Lacey, 1967; Lacey & Lacey, 1970, 1974). From a large body of electrophysiological and behavioral data they developed the "baroreceptor hypothesis," which is also known as the "Lacey hypothesis."

The Laceys' hypothesis postulated that the cardiovascular system exerts a modulating influence on higher centers of the brain, including the cortex, via afferent input from the baroreceptors (mechanosensory neurites) in the heart, aortic arch, and carotid arteries (Lacey, 1967; Ostir et al., 2001). It was proposed that cortical activity is briefly inhibited as a result of this afferent input, and therefore that sensory intake will be enhanced at times when baroreceptor discharge is minimal. As some mechanosensory neurites are activated in a pulsating fashion in phase with the systolic blood pressure wave, the Laceys expected sensory-motor integration and performance to oscillate with this same rhythm. Behaviorally, this should be reflected in reduced perceptual and perceptual-motor performance in the case of an increase in baroreceptor activity and, accordingly, a performance increase in the case of reduced baroreceptor activity. The conclusion from such a finding would be that the cardiovascular system plays an instrumental role in modulating sensory input and perception.

The Laceys' experimental work did in fact confirm a relationship between the heart's activity and cognitive performance. A major focus of their research investigated subjects' performance on reaction time tasks involving sensory intake. They found that a deceleration in heart rate during the anticipatory period preceding such a task was associated with improved cognitive performance (faster reaction time), and conversely, an acceleration in heart rate was associated with reduced cognitive performance (slower reaction time) (Ostir et al., 2001). They also observed in these experiments that the greater the magnitude of the heart rate deceleration, the faster the reaction time (Lacey & Lacey, 1964, 1970, 1974). These observations were consistent with the Laceys' hypothesis: by their reasoning, a heart rate deceleration prior to receiving information from the environment was seen as an adaptive response to enhance sensory processing by increasing the probability that information will arrive at a time when the brain is minimally inhibited as a result of baroreceptor activity. This follows from the rationale that fewer ventricular contractions prior to environmental intake will result in less baroreceptor discharge and thus reduce cardiac-related cortical inhibition.

Although the Laceys' own findings appeared to be consistent with the baroreceptor hypothesis, the results of numerous subsequent experiments by independent researchers investigating this relationship at normal heart rates have been highly inconsistent and contradictory (for reviews, see Sandman et al., 1982; van der Molen et al., 1985). Most of these studies sought to clarify the relationship between cardiovascular activity and perceptual processing by examining performance changes *within* a single cardiac cycle—that is, the period from one heartbeat to the next. Since it could be determined at what time the pulse wave reaches the baroreceptors and how long it takes for the neural impulses to reach the cortex, the precise timing of the expected inhibitory effect could be predicted.

Among the experiments that did show "cardiac cycle effects," different forms of performance change were found, and reductions in sensory or sensory-motor performance were observed at nearly *every part* of the cardiac cycle—a finding unexplainable by the baroreceptor hypothesis. However, while most of these studies presumed that blood pressure was the relevant factor, they relied only on heart rate data and assumed that blood pressure would drop with heart rate decreases and increase when heart rate increased. Unexpectedly, later studies found that heart rate and blood pressure are quite independent of each other under certain circumstances. In fact, it has been shown that in the protocol used (reaction time task with a warning stimulus) in most of the studies designed to test the Lacey hypothesis, blood pressure *increases* as heart rate decreases (Wölk, Velden, Zimmerman, & Krug, 1989). Clearly, then, these data were not consistent with the baroreceptor hypothesis, which predicted that *reduced* afferent activity preceded the processing of a significant external event.

The next major advancement in the understanding of how the activity of the heart modulates performance was provided by psychophysiologists Christoph Wölk and Manfred Velden of the University of Osnabrück in Germany. These researchers revised the Laceys' original hypothesis based on the results of several studies in which they presented a large number of auditory discrimination tasks (participants were asked to detect a tone embedded in noise) in very small steps (33 milliseconds) over the cardiac cycle. These experiments showed that performance actually fluctuated across the entire cardiac cycle at a rhythm around 10 Hz. In addition, as can be seen in Figure 11, there was an increase in the amplitude of the performance oscillation starting around 300 milliseconds after the R-wave.

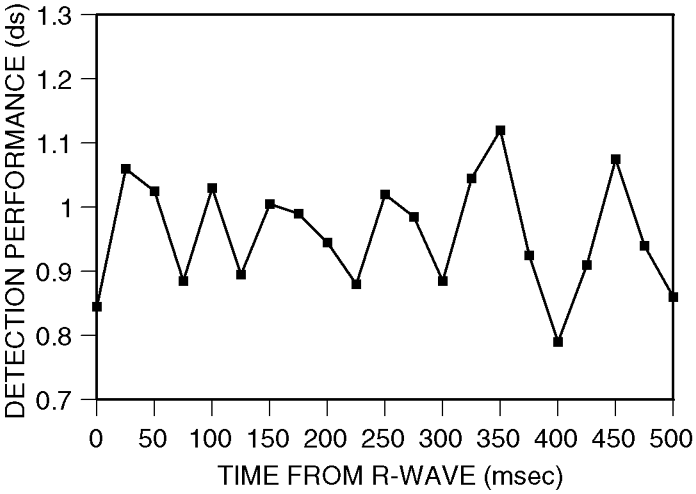

Figure 11. Performance over the cardiac cycle. By presenting a large number of performance tasks (detection of a masked audio stimulus) to subjects at differing times post R-wave, it was found that perceptual performance fluctuates with a frequency of about 10 Hz.[94] Figure shown with permission of C. Wölk and M. Velden.

The revised hypothesis proposes that the modulating influence of the activity of the mechanoreceptors on cortical function is not exerted directly, but rather is mediated via a synchronizing effect of the pulsating afferent input from the heart on cells in the thalamus, which in turn synchronizes the brain's cortical activity (Velden & Juris, 1975; Wölk & Velden, 1987, 1989). It has long been thought that alpha wave activity emerges from a state of cortical–thalamic resonance, evoked by afferent neural activity (Andersen & Andersen, 1968; Birbaumer, 1975). Wölk and Velden reasoned that as the observed oscillation in performance was in the same frequency range as the EEG alpha rhythm (~8–12 Hz), the afferent input from the heart was modulating the alpha rhythm.[21] This line of reasoning is consistent with the well-established finding that sensory-motor performance is dependent on the phase and amount of the alpha rhythm. Namely, higher levels of alpha activity are related to a decrease in performance; so also is the presentation of a stimulus during the higher-amplitude phase of the alpha rhythm (Callaway, 1962; Dustman & Beck, 1965; Nunn & Osselton, 1974; Rice & Hagstrom, 1989).[22] Thus, if the alpha rhythm was synchronized to the heart, then oscillations in performance should also be synchronized to the heart.

In Wölk and Velden's revised baroreceptor hypothesis, the periodic fluctuations in perceptual performance over the cardiac cycle are due to the alpha cycle effect (performance depends on the phase of the alpha cycle in which the stimulus is presented). This, in turn, is caused by neuronal activity evoked by cardiovascular afferent input at the level of the thalamus. They called this effect "cardiac driving," in analogy to "photic driving," where rhythmic stimulation with a visual stimulus induces an increase in EEG alpha activity. Wölk and Velden assumed that the amount of cardiac driving depends on heart rate. Thus, they inferred that a heart rate deceleration is effectively a modulation mechanism the organism uses to prevent the onset of synchronized alpha activity when attending to external sensory information, as this synchronized activity would interfere with the transmission and processing of the information. They conclude, "This means that the synchronized brain activity resulting from the baroreceptor stimulation does not just stand for a state of brain inhibition, but constitutes the mechanism by which perceptual performance can be modulated" (Wölk & Velden, 1989, p. 373).

One of Wölk and Velden's important revisions to the baroreceptor hypothesis is that it is *heart rate*, and not blood pressure, that is the relevant aspect of cardiovascular activity in terms of its synchronizing effect on thalamic cells and therefore on the cortex. In neurological terms, thus, it is the *pattern* and *stability* of the afferent input that is significant here, and not the strength or number of the neural bursts originating from the mechanoreceptors (Wölk & Velden, 1989). In this model, in situations involving the intake of sensory information, a decrease in heart rate translates into a reduction in the probability of the occurrence of EEG alpha activity.

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[21] The observation that the brain's alpha rhythm is related to cardiovascular activity was first reported in 1955, when it was proposed that the transfer of mechanical energy from the contraction of the heart to the cerebrospinal fluid was a mechanism that may initiate and sustain synchronous brain activity (Bering, 1955; see also Kennedy, 1959). Sandman, Walker, and Berka (1982), who have extensively studied the influence of afferent cardiovascular feedback on the brain, published data in the early 1980s that supported this idea (Walker & Walker, 1983); however, the degree to which alpha activity is synchronized to the cardiac cycle still remained to be quantified.

[22] It was proposed in 1961 that the EEG alpha rhythm is a direct reflection of a relatively large homogenous area of cortex synchronously undergoing cycles of alternating excitations and inhibitions at the same frequency as the alpha rhythm. This was thought of as a "neuronic input shutter," which periodically prevents the perception and processing of information by the brain as elemental operations are switching on and off (Lindsley, 1961). Although this micro-rhythm clearly exists, the alpha rhythm also likely reflects a large-scale structural synchrony related to integrative brain functions, such as sensory, motor, and cognitive processes (Fingelkurts et al., 2003).

In essence, Wölk and Velden concluded that while the baroreceptor hypothesis in its original form is correct with respect to the modulating effect on sensory-motor performance by the heart, the underlying mechanisms proposed in the original version of the hypothesis were incorrect. Their findings explain why the results of previous studies were so variable and contradictory—on the basis of the original hypothesis, most researchers were expecting to find a performance rhythm of a much slower frequency, and thus they traced performance over time in steps far too large to detect a ~10 Hz oscillation (Wölk & Velden, 1987, p. 63).

Appendix C: Research on Coherence and Cognitive Performance

HeartMath Institute Research

To test our heart rhythm coherence hypothesis, we conducted a study that examined the effect of the psychophysiological coherence mode on cognitive performance. Thirty healthy individuals (13 males, 17 females; age range 26-52, mean age 44) previously screened for their ability to maintain psychophysiological coherence were randomly divided into matched experimental and control groups and stratified by age and gender. We monitored the participants' ECG, pulse transit time, and respiration continuously throughout the experiment. Heart rhythm coherence, derived from the ECG, was calculated for all subjects during each phase of the testing sequence. To determine cognitive performance, we measured participants' reaction times in an auditory discrimination task that requires focus and attention, accurate discrimination, and quick and accurate reactions.

Following a 10-minute baseline period, participants performed the first of two 10-minute auditory discrimination tasks. Then the experimental group was asked to use the Heart Lock-In emotional restructuring technique (Childre & Rozman, 2002) for a 10-minute period, while the control group was instructed to relax for 10 minutes without adopting a specific mental or emotional focus. Immediately following this, all participants performed a second 10-minute auditory discrimination task, the results of which were compared to the first. This enabled us to determine if changes occurred in cognitive performance in either of the two groups and if heart rhythm coherence was related to cognitive performance.

We found, first, that there was a significant increase in heart rhythm coherence ($p < 0.05$) in the experimental group who used the Heart Lock-In technique, but not in the relaxation control group. Furthermore, the experimental group demonstrated a mean decrease of 37 milliseconds in their reaction times—corresponding to a significant ($p < 0.05$) improvement in cognitive performance—whereas the control group showed no change (Figure 12). In addition, there was a significant relationship ($r^2 = 0.21$; $p = 0.015$) between the degree of heart rhythm coherence and performance (reaction time) across all subjects and conditions: increased coherence was associated with decreased reaction times (improved performance). Figure 13 shows a representative example of one participant's heart rhythms during each of the three conditions. Note the development of a more sine-wave-like (coherent) heart rhythm pattern during use of the Heart Lock-In technique. Also noticeable are differences in heart rhythms between the first and second auditory discrimination tasks.

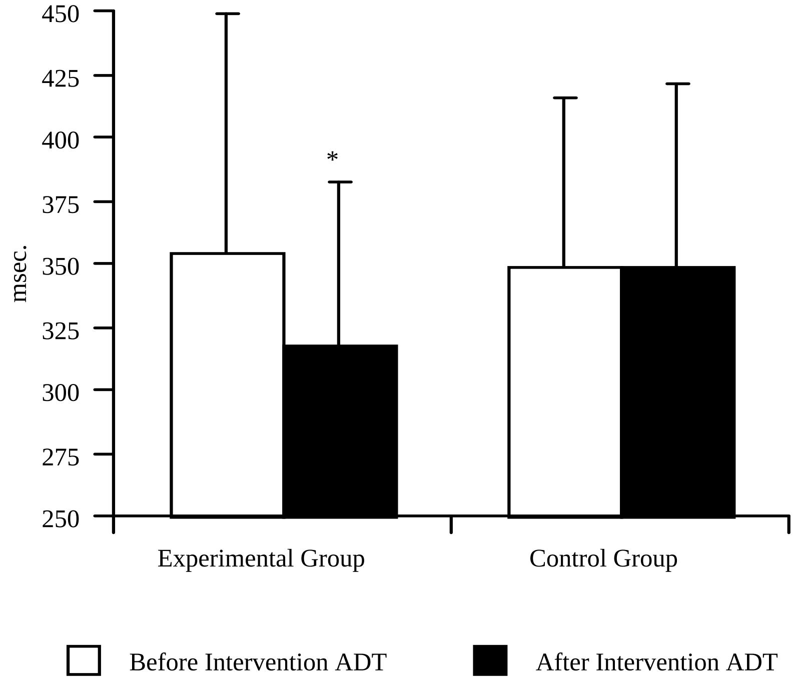

Figure 12. Reaction time changes. Mean reaction times for the experimental versus control group during the first (pre-intervention) and second (post-intervention) auditory discrimination tasks (ADT). The experimental group, who maintained the psychophysiological coherence mode prior to the second ADT, demonstrated a significant reduction in mean reaction time, indicative of improved cognitive performance. In contrast, control group participants, who engaged in an open-focus relaxation period during the interval between tests, showed virtually no change in mean reaction time from the first to the second discrimination task. *$p < 0.05$.

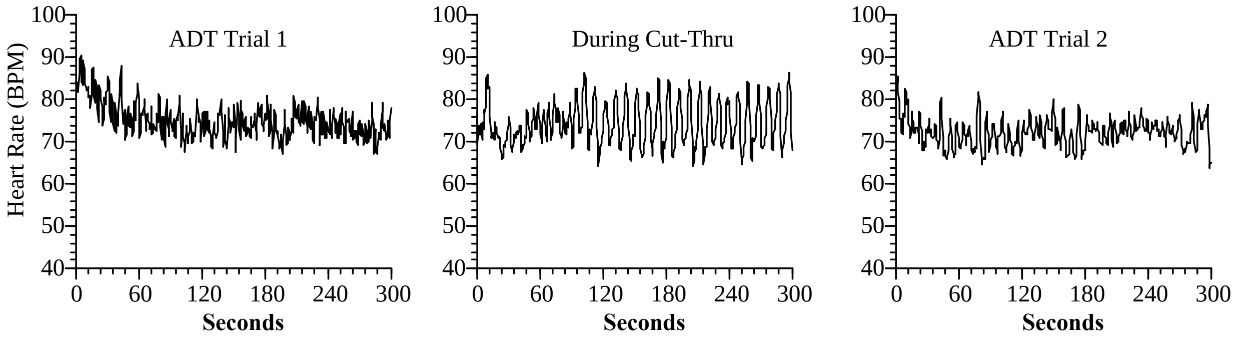

Figure 13. Representative example of heart rhythm pattern changes across conditions from an experimental group participant. Note the development of a coherent heart rhythm pattern during use of the Heart Lock-In technique. Also noticeable are the differences in heart rhythms during the first and second auditory discrimination tasks (ADT).

This experiment demonstrated that cognitive performance can be improved by maintaining psychophysiological coherence prior to a performing a task and that there appears to be a carry-over effect of the coherence mode on subsequent cognitive performance. Importantly, these findings suggest a physiological link between positive emotions and improvements in faculties such as motor skills, focused attention, and discrimination. More broadly, these results provide evidence for our hypothesis regarding the influence of macro-scale patterns of heart activity—specifically, heart rhythm coherence—on cognitive processes: they suggest that the *overall organization* of the heart's rhythmic activity, and thus the pattern of cardiac afferent input to the brain, can significantly inhibit or facilitate cortical function.

From the evidence provided by this study, it appears that macro-scale patterns of cardiac activity can produce a larger effect on the inhibition/facilitation of cognitive performance than the much smaller inhibition/facilitation fluctuations in performance observed by Wölk and Velden. As Wölk and Velden proposed, these smaller fluctuations in performance are likely related to the alpha rhythm, which in turn is driven by afferent input from the heart. A relationship between performance and the phase of the alpha cycle has been documented by a number of studies of both visual and auditory perception (Bradford, Wesnes, & Brett, 2005; Callaway, 1962; Childre & Cryer, 2000; Dustman & Beck, 1965; Nunn & Osselton, 1974; Rice & Hagstrom, 1989). For those studies that used a reaction-time protocol, the *maximum* reported magnitude of these small fluctuations in reaction time (i.e., the difference between fastest and slowest phases) was 6.3 milliseconds (Dustman & Beck). Compared to the results of these studies, our research found an approximately *six times* greater improvement in performance (a mean improvement of 37 milliseconds in reaction time) after the study participants maintained a state of psychophysiological coherence. It is thus likely that heart–brain interactions occurring on a much longer time scale have a markedly larger impact on cognitive performance and intentional behavior. Seen from this viewpoint, the small-magnitude fluctuations in performance observed by Wölk and Velden may reflect the ongoing background behavior of the system.

UK Research

Additional evidence consistent with the heart rhythm coherence hypothesis has been provided by an independent study conducted in the UK by Dr. Keith Wesnes at Cognitive Drug Research Ltd. (Wesnes, Ward, McGinty, & Petrini, 2000). To test the long-term effects of psychophysiological coherence on cognitive performance, Dr. Wesnes used a comprehensive battery of cognitive performance tests called the Cognitive Drug Research measurement system (CDR), designed to assess the effects of pharmaceuticals on cognitive function. The CDR system is a set of computer-based tasks that includes tests of attention, concentration, vigilance, short-term (working) memory and long-term (episodic) memory. This battery of tests has been used in clinical trials worldwide for over 20 years, and an extensive database of normal performance and drug placebo effects has been developed.

The study utilized an experimental design with pre and post measures. Eighteen healthy volunteers (6 females, 12 females; age range 20-53, mean age 32 years) were recruited for the study. The study participants were fully trained on the CDR system and completed four full runs through the assessment prior to the baseline data collection in order to ensure they understood the tasks and had overcome the learning process. To measure heart rate variability and heart rhythm coherence, each research participant's ECG was recorded for a 10-minute period *prior* to administration of the CDR test battery. In addition, participants completed a short self-administered questionnaire that measured calmness and alertness.

After collection of the baseline measures, the study participants attended a one-day training program where they learned the Freeze-Frame, Heart Lock-In, and Coherent Communication[23] techniques. They also practiced using these tools while facilitated by the Freeze-Framer, a computerized heart rhythm coherence biometric feedback system, to ensure they were making the shift into the coherence state and could identify what that state felt like. They were instructed to use the Freeze-Frame technique whenever they experienced stress or emotional discord, and to use the Heart Lock-In technique three times per week for at least 10 minutes. In addition, they were encouraged to practice using the Coherent Communication technique when engaged in conversation with others.

Seven weeks later the research participants were again administered a 10-minute ECG, answered the questionnaire, and completed the CDR battery of tests using exactly the same protocol as was followed for baseline data collection.

For data analysis, the standard time and frequency domain HRV measures and coherence levels were computed. The pre and post results are shown in Table 1 and Figure 14. In relation to baseline measurement, a significant increase in heart rhythm coherence (Coherence: *t*-test 4.00, $p < 0.001$) was observed post-intervention before the participants were administered the CDR tests. This change is graphically depicted in Figure 14 (showing the group mean HRV power spectra), where the increase in power around the 0.1 Hz frequency range indicates a pronounced increase in heart rhythm coherence. It is worth noting that this increase in heart rhythm coherence occurred even though the participants were not specifically instructed to use any of the tools they had learned in the program.

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[23] This technique incorporates a process whereby individuals maintain a state of coherence while listening to others in order to increase the effectiveness of communication (Lansing, 1957).

Table 1. CDR Cognitive Performance Study: Pre and Post Results

	Before (N=18)			After (N=18)				
	Mean	SD	SEM	Mean	SD	SEM	t	*p* <
Quality of Episodic Memory	227.87	63.24	14.90	256.58	76.45	18.02	3.23	0.01
Quality of Working Memory	1.74	0.22	0.05	1.78	0.18	0.04	1.87	ns
Self-Rated Alertness	53.29	12.09	2.85	57.64	8.98	2.12	2.02	ns
Self-Rated Calmness	49.33	7.11	1.68	55.11	10.44	2.46	2.44	0.05
Systolic BP, mmHg	122.50	16.22	3.82	123.64	13.97	3.29	0.49	ns
Mean RR interval, ms	797.65	81.03	19.10	825.44	103.38	24.37	1.02	ns
Mean heart rate, BPM	76.40	7.32	1.72	74.61	9.20	2.17		
Standard deviation of RR intervals, ms	57.59	20.12	4.74	79.65	28.10	6.62	3.97	0.001
5-min High frequency, ms^2	298.21	267.37	63.02	246.39	221.68	52.25		
Ln(5-min High frequency)	5.21	1.16	0.27	5.05	1.00	0.24	-0.69	ns
5-min Low frequency, ms^2	550.73	676.65	159.49	1841.62	1587.90	374.27		
Ln(5-min Low frequency)	5.80	0.99	0.23	6.98	1.18	0.28	3.91	0.01
5-min Very low frequency, ms^2	427.97	442.10	104.21	414.03	312.56	73.67		
Ln(5-min Very low frequency)	5.69	0.78	0.18	5.72	0.66	0.16	0.15	ns
5-min Total power, ms^2	1294.70	1032.73	243.42	2516.76	1727.81	407.25		
Ln(5-min Total power)	6.85	0.83	0.20	7.51	0.88	0.21	3.59	0.01
Coherence	0.13	0.19	0.05	6.49	7.96	1.88		
Ln(Coherence)	-2.84	1.14	0.27	-0.15	2.52	0.59	4.00	0.001
Low frequency / high frequency ratio	3.20	4.23	1.00	11.92	9.36	2.21		
Ln(Low frequency / high frequency ratio)	0.58	0.99	0.23	1.92	1.17	0.28	3.49	0.01

Paired T-Test

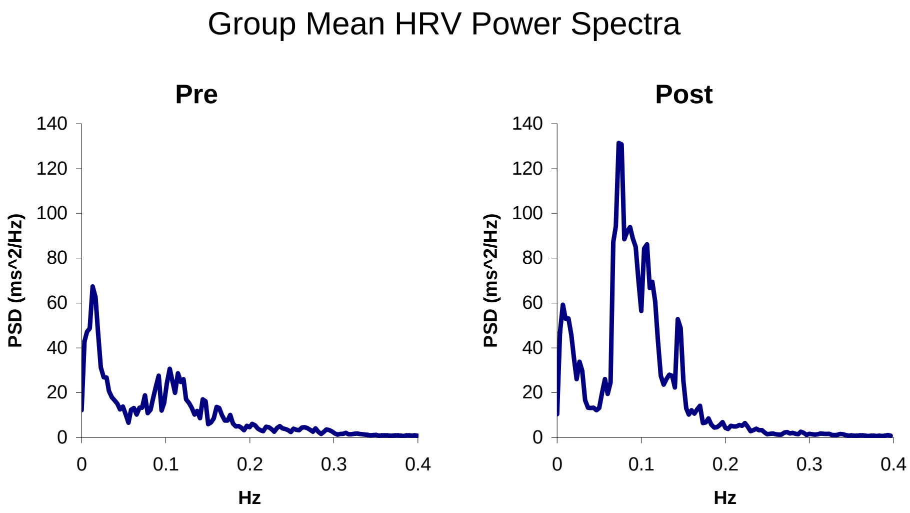

Figure 14. Group mean HRV power spectra calculated from 10-minute ECGs recorded before subjects completed the battery of cognitive performance tasks. The left-hand graph shows the mean HRV power spectrum *before* subjects were trained in the HeartMath coherence-building techniques, while the right-hand graph shows the mean power spectrum *after* they learned and practiced the techniques for seven weeks. Note the increase in power around the 0.1 Hz frequency range, indicating a pronounced increase in heart rhythm coherence. This shift is particularly notable, as subjects were not specifically instructed to use the techniques during the "post" recording.

The results of the pre and post analysis of the cognitive performance tests showed a significant improvement ($p = 0.0049$) in the quality of episodic (long-term) memory and a marginally significant improvement ($p = 0.078$) in the quality of working (short-term) memory (Figure 15).[24] [25] Analysis of the questionnaire data also showed that the research subjects reported feeling significantly calmer at the end of the study than they did at the beginning (t-test 2.44, $p < 0.05$).

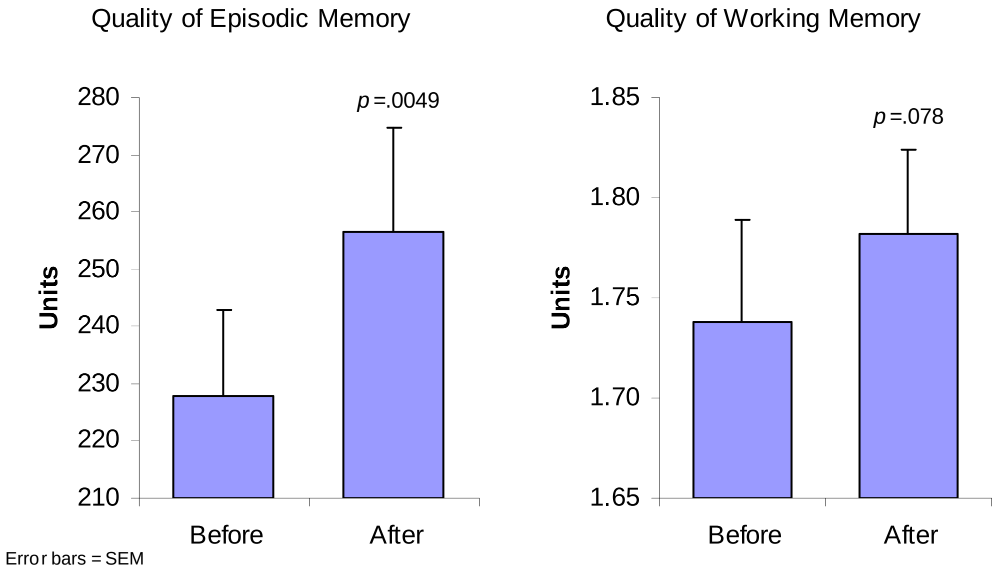

Figure 15. Mean improvements in quality of episodic (long-term) memory and quality of working (short-term) memory after practicing the HeartMath coherence-building tools for a 7-week period.

The finding of the observed gain of 12.6% in the quality of long-term memory over the 7-week period during which coherence-building techniques were practiced is notable, in that Dr. Wesnes reports the magnitude of improvement was significantly higher than the improvement in quality of memory obtained in a large clinical 14-week trial of the effects of a phytopharmaceutical memory enhancer (a gingko/ginseng combination) on the memory of healthy volunteers (Wesnes et al., 2000).

In an effort to explain the observed pre-post changes in the quality of episodic memory and in self-rated calmness, two stepwise multiple regressions were run. Of the ten independent variables included in each analysis, improvement in coherence was the only variable with sufficient statistical power to meet the criterion for entry into the stepwise analysis (p of F to enter = 0.05;

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[24] Quality of Episodic Memory is a composite measure constructed from accuracy measures on the four tests in the CDR system that assess episodic memory. Quality of Working Memory is a composite measure constructed from accuracy measures on the two CDR system tests that assess working memory.

[25] Also observed was a positive trend in the composite scores reflecting the ability of the participants to pay attention and the speed with which they were able to retrieve information from memory. However, the improvements in these measures did not reach statistical significance.

p of F to remove = 0.10).[26] The results show that the change in coherence is quite strongly related to the observed changes in episodic memory and calmness: it accounts for 21% of the variance in the improvement in long-term memory ($F = 5.4$, $p < 0.05$; adj. $R^2 = 0.21$), and it accounts for 42% of the variance in the reported increase in calmness ($F = 13.18$, $p < 0.01$; adj. $R^2 = 0.42$).

In his review of the study's results, Dr. Wesnes concluded that learning and practicing the HeartMath positive emotion-focused coherence-building techniques appears to enhance an individual's memory capacity and also improves self-reported calmness. Moreover, he was able to show that the improvements were unlikely to be due to training or expectation effects, and that they compare favourably to the improvements produced by a proven phytopharmaceutical preparation.

HeartMath's TestEdge Program on Test Anxiety and Performance

Further support for the heart rhythm coherence hypothesis comes from a controlled field study, funded by U.S. Department of Education, involving tenth grade students in two large California high schools. Conducted by the Institute of HeartMath in collaboration with Claremont Graduate University's School of Educational Studies in 2004-2006, the study was designed to assess the efficacy of HeartMath's TestEdge program as a means of reducing student test anxiety and improving learning and test performance. The TestEdge program is designed to help students alleviate emotional stress and improve performance by teaching them tools enabling them to stabilize emotions and generate the psychophysiological coherence state. The program instructs students in how to apply HeartMath coherence-building tools and technologies in test preparation, to increase retention and relevance of academic material, and to more effectively handle stress and challenges, both at school and at home.

After random selection of the intervention school, the experimental protocol required training the school's tenth grade teachers in the tools and techniques of the TestEdge program before classes started. Once school began, the teachers trained and coached their students in the coherence-building techniques throughout the term. The Freeze-Framer heart rhythm coherence feedback system was used to facilitate students' practice of the techniques and to verify their attainment of the coherence state. Students practiced using the tools during stressful situations, such as prior to taking tests or when learning new or difficult subject matter, before taking the California High School Exit Exam (CAHSEE) midway through the term and the California Standards Test (CST) at the end of the school term.

Scores from the two standardized tests, and pre and post data from an instrument designed to measure student sociodemographic characteristics, attitudes about school, perceptions of feelings, emotions, relationships, and test anxiety (using an eight-item version of the Spielberger Test Anxiety Inventory) were collected from 749 tenth grade students across both schools.

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[26] Excluded variables were Change in: Systolic Blood Pressure, Mean RR Interval, Standard Deviation of RR Intervals, Ln(5-min High Frequency), Ln(5-min Low Frequency), Ln(5-min Very Low Frequency), Ln(5-min Total Power), Ln(Low Frequency / High Frequency Ratio) and Baseline Age.

Additionally, to assess students' ability to generate the coherence state using the techniques learned in the program, an electrophysiological study was conducted in which pre- and post-intervention recordings of HRV were obtained from a subgroup of students in both schools.

Figure 16 shows, for the whole sample, the relationship between baseline test anxiety and the CAHSEE Math and English-Language Arts test scores. Clearly apparent is the inverse relationship between stress and academic performance, as measured by the Test Anxiety Inventory (TAI) and the two standardized tests.

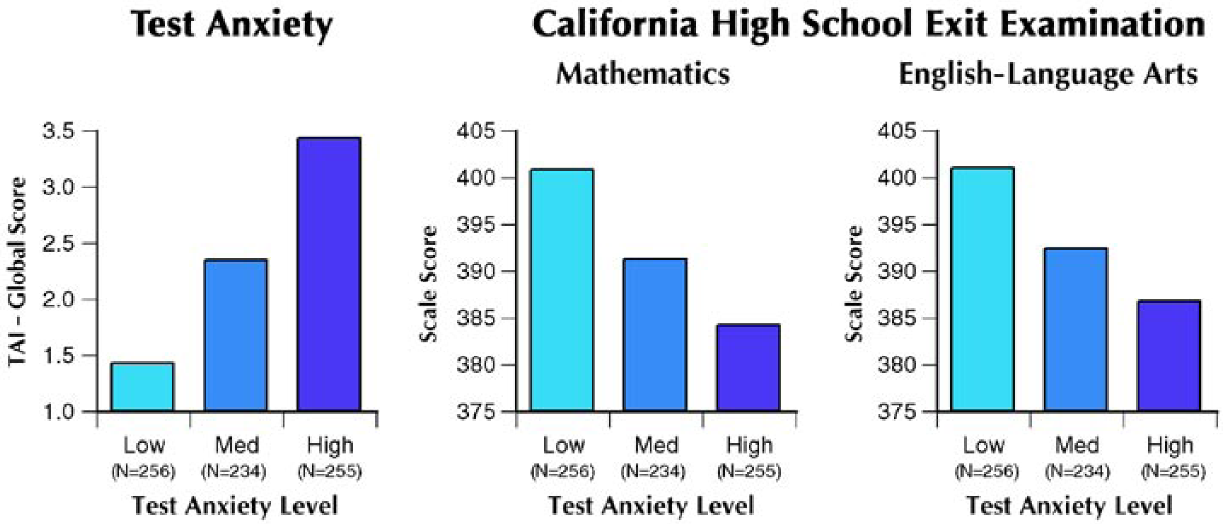

Figure 16. California High School Exit Exam scores by baseline test anxiety level. Baseline test anxiety, measured by the Test Anxiety Inventory (TAI)-Global Scale score, and mid-term CAHSEE–Mathematics and CAHSEE–English-Language Arts scores have each been classified into approximately equal-size tertile groupings of students with low, medium, and high mean scores. A strong, statistically significant ($p < 0.001$), negative relationship is clearly apparent between test anxiety level and level of performance on the two standardized tests.

Results from an analysis of a subsample of students at the end of the study present quite a different picture following the HeartMath intervention (see Figure 17). Students were matched by their ninth grade CST Math test type and were selected from classes in the two schools with similar class average scores. An ANCOVA was then performed to control for baseline differences between the schools on the dependent variable—test performance. The post-intervention mean tenth grade CST Math test score for the students in both schools was closely matched (359.71 versus 360.58, $p = 0.891$, not significantly different). What is notable, when intellectual ability is controlled in this way, is that the post-intervention mean test score in tenth grade CST English-Language Arts is significantly higher for the intervention school—by a margin of approximately 10 points—than it is for the control school (413.44 versus 402.96, $p = 0.035$). Moreover, this improvement in test performance is associated with a significant reduction of test anxiety in the intervention school relative to the control school (1.99 versus 2.22, $p < 0.05$).

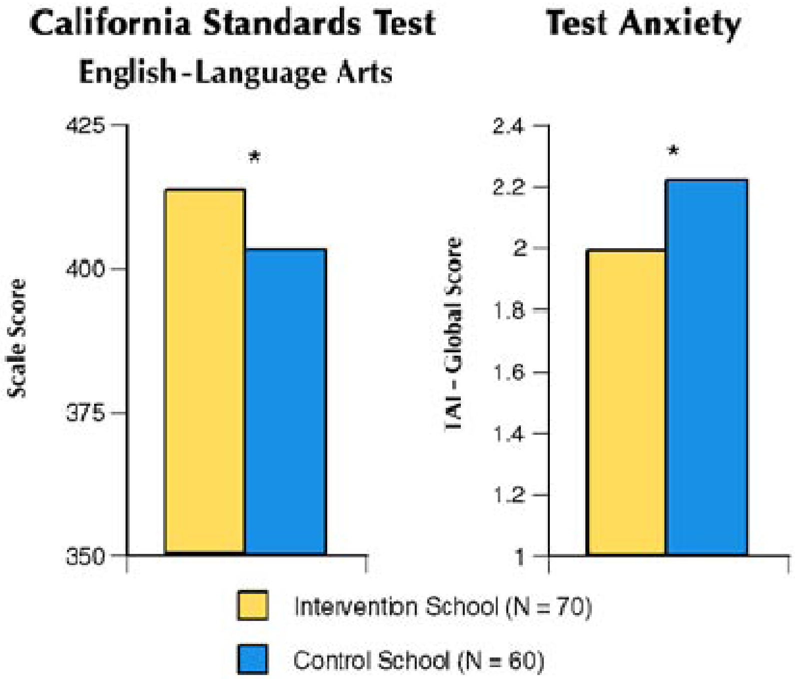

Figure 17. Test anxiety and California Standards Test scores by intervention status. Data from a subsample of students (matched on ninth grade CST–Mathematics test type and selected from classes with comparable mean scores), showing post-intervention results from an ANCOVA in which means have been adjusted for baseline differences. $^*p < 0.05$.

However, a key question of inference, in interpreting these results, concerns the degree to which the HeartMath intervention actually resulted in the expected physiological changes in heart rhythm coherence in students, and the degree to which coherence is associated with their self-reports of reduced test anxiety over the course of the study. Corroborating evidence comes from the electrophysiological sub-study involving a random sample of students from both schools, stratified by test anxiety level and gender. In this sub-study, to simulate a stressful testing situation, students completed an experimental procedure that included a computerized version of the Stroop color-word conflict test (a standard protocol used to induce psychological stress), while continuous HRV recordings were gathered. During the pre-intervention administration, students were asked to prepare themselves to take the test using whatever methods they typically used when preparing to perform a challenging test or activity. In the post-intervention session, students in the intervention group were instructed to use one of the positive emotion-focused coherence-building techniques they had learned in the TestEdge program to ready themselves for the test, while the control group students again used their own methods. This was done in an effort to document, with objective electrophysiological measures, that students in the intervention school had learned how to self-induce the coherence state prior to taking a stressful test.

Results reveal a significant increase in heart rhythm coherence for students in the intervention school, indicating they were less stressed, which is consistent with the expected outcome. Overall, the results from the physiological study present compelling objective evidence that the students in the experimental group had learned how to shift into the coherent state and better manage their emotions when preparing for a stressful task or situation, such as taking an important test.

Beginning with an analysis of pre-intervention recordings, we found no significant differences between the two schools—either during the baseline resting period or during the stress preparation period. We then performed an ANCOVA in which post-intervention heart rhythm coherence was defined as the dependent variable and pre-intervention heart rhythm coherence was defined as the covariate; intervention status was designated as the fixed factor. We found a significant difference ($p < 0.001$) in post-intervention heart rhythm coherence between the two groups of students during the test preparation phase of the protocol. As graphically depicted in Figure 18, a notable increase in mean heart rhythm coherence is observed in the intervention group (3.26 pre-intervention, 4.53 post-intervention), whereas a reduction is evident in the control group (3.16 and 2.83, respectively). The intervention group in this sub-study also registered a significant pre–post reduction in test anxiety as compared to the control group (1.98 versus 2.27, $p < 0.01$).

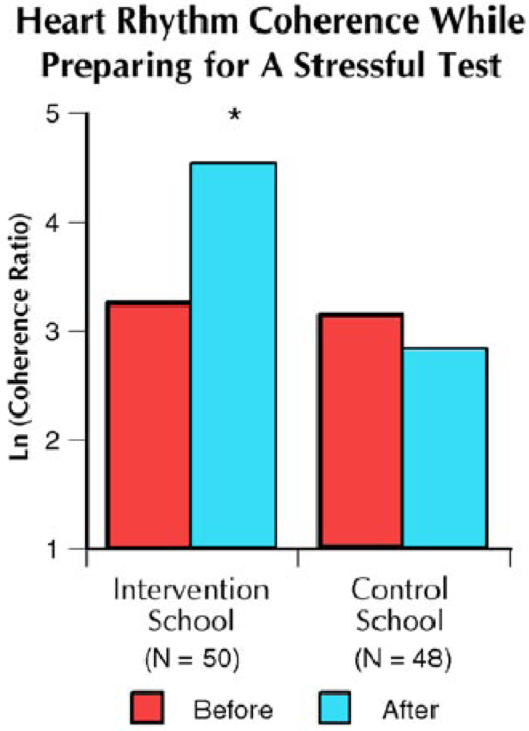

Figure 18. Heart rhythm coherence while preparing for a stressful test. Data are shown from the electrophysiological sub-study, in which a stratified random sample of students from the intervention and control schools was administered the Stroop stress test in a controlled experiment, while heart rate variability was continuously recorded. These graphs quantify heart rhythm coherence during the stress preparation phase of the protocol, before and after the TestEdge intervention. The intervention group demonstrated a significant increase in heart rhythm coherence in the post-intervention recording, when they used a HeartMath positive emotion-focused technique to prepare for the stressful test, as compared to the control group, who used their own usual stress preparation methods. *$p < 0.05$.

Figure 19 presents examples of typical patterns observed in the HRV recordings collected during the stress preparation phase of the electrophysiological sub-study, pre- and post-intervention. Shown are examples from four students (two from the intervention group and two from the control group), who are also in the subsample matched on ninth grade CST Math test type. Pre- and post-intervention test anxiety and CST–English-Language Arts test score data are also shown for each student. For the students in the intervention school, the pre-intervention HRV pattern while preparing to take the Stroop stress test is highly erratic and irregular, suggesting an enduring state of psychophysiological incoherence. However, in these students' post-intervention HRV recordings, a marked shift to increased heart rhythm coherence in the stress preparation period is readily apparent. This suggests that students were able to self-generate a state of psychophysiological coherence by applying the positive emotion-focused technique to prepare for a stressful test. By contrast, both the pre and post HRV recordings for the students in the control school signify an ongoing incoherent psychophysiological state during the stress preparation phase. Interestingly, these examples also show that the students who learned to generate psychophysiological coherence demonstrated a corresponding reduction in test anxiety and an increase in academic test scores, while the control group students experienced an increase in test anxiety and reduced academic test performance.

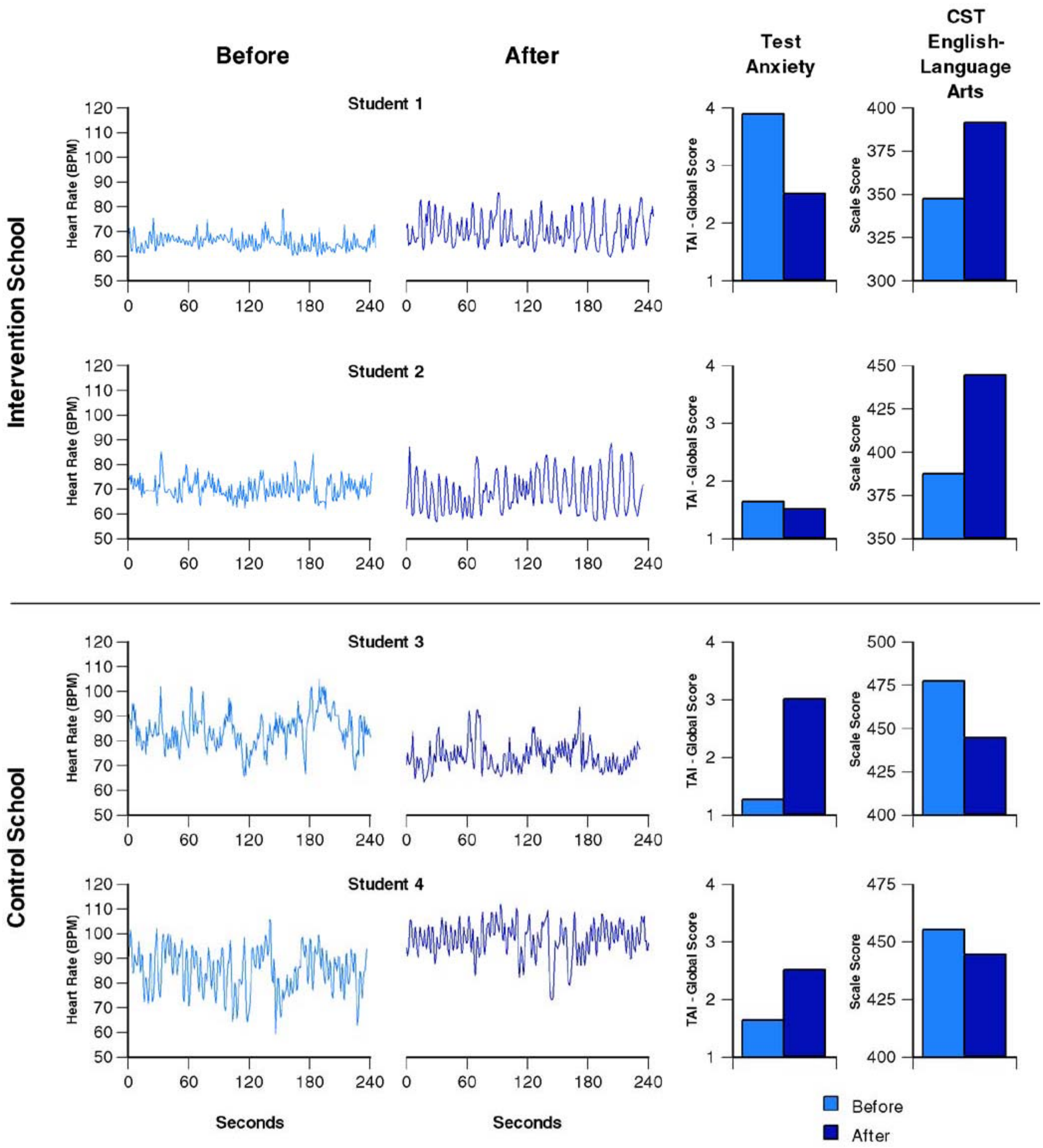

Figure 19. Typical heart rate variability patterns in students preparing for a stressful test. HRV recordings from the electrophysiological study, showing four students' heart rhythm patterns while they prepared themselves for the Stroop stress test, both before and after the TestEdge intervention. Pre- and post-intervention test anxiety level (TAI-Global Scale score) and the CST–English Language Arts test score for each student are also shown. For the two students in the intervention school, the recordings show a shift from an erratic, irregular heart rhythm pattern (left-hand side), signaling a state of psychophysiological incoherence before the intervention, to a sustained sine-wave-like pattern (increased heart rhythm coherence), indicative of the psychophysiological coherence state after the intervention. By contrast, both the pre and

post HRV recordings for the two students in the control school signify an ongoing incoherent psychophysiological state.

In sum, the results show that high school students can be trained to self-generate heart rhythm coherence and that they are able to effectively apply this skill prior to taking a challenging or stressful test. The data suggest that when students self-manage their stress using coherence-building methods, it enables them to achieve both a significant reduction in testing-related anxiety and a corresponding improvement in standardized test scores—a real-world measure of cognitive performance.

Appendix D: Heart Brain Synchronization

As noted in our earlier discussion, central to Wölk and Velden's hypothesis regarding the heart's influence on cognitive performance is a key untested postulate: that the brain's alpha rhythm is synchronized to the cardiac cycle. Independently of Wölk and Velden's work, we had been pursuing the question of the synchronization of heart and brain activity, which, so far as we know, had not been previously quantified. Here we present evidence from two studies conducted in our laboratory which confirm that a significant amount of alpha rhythm activity is indeed synchronized to the activity of the heart. The findings from these studies confirm Wölk and Velden's ideas and offer further evidence that broadens the understanding of heart–brain synchronization.

In our research we used heartbeat evoked potential analysis to examine the distribution of EEG activity that is synchronized to the cardiac cycle. Heartbeat evoked potential analysis involves the use of signal averaging techniques[27] to trace the flow and processing of afferent neurological signals from the heart through the different regions of the brain. The resulting waveforms, which represent EEG (brain) activity that is time-locked to the ECG (heart activity), are called *heartbeat evoked potentials.* The peak of the ECG R-wave is used as the timing source for the signal averaging process. An example is depicted in Figure 20. Here, in each of the EEG signal averaged waveforms, a peak can be seen that is aligned with the R-wave of the ECG. This peak reflects energetic and volume conduction mechanisms, while the later potentials reflect the processing of the afferent signals and the effects of the blood pressure wave reaching the different areas of the brain.

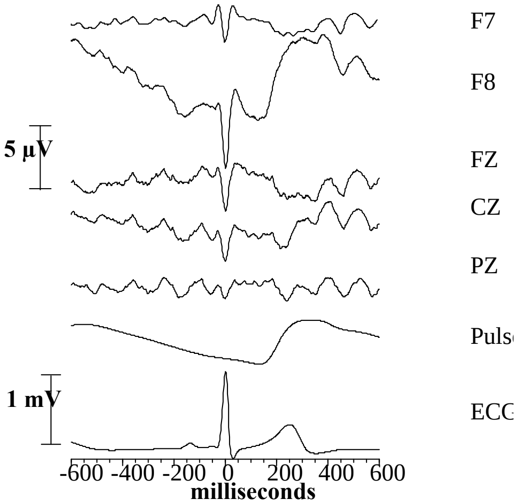

Figure 20. Heartbeat evoked potentials. This figure shows an example of typical heartbeat evoked potential waveforms along the medial line of the scalp (Fz, Cz, and Pz) and the frontal

area (F7 and F8). The electromagnetic and volume conduction effects of the electrical activity of the heart can clearly be seen in the waveforms (large negative-going peaks occurring exactly in sync with the ECG R-wave). In this example, there is less synchronized activity in the brain potentials immediately after the ECG R-wave, indicating the processing of afferent information. The pulse wave is also shown, indicating when the blood pressure wave reached the brain. Increased alpha synchronization can be clearly seen later in the waveforms, around 250 milliseconds post R-wave, which is the time the blood pressure wave reaches the brain.

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[27] Signal averaging is a technique for detecting patterns in biological and bioelectromagnetic phenomena. This is accomplished by superimposing any number of equal-length epochs, each of which contains a repeating periodic signal. This procedure distinguishes any signal that is time-locked to the periodic signal while eliminating variations that are not time-locked to the periodic signal.

In the first study, the ratio of alpha–ECG synchronization was compared at baseline and during the psychophysiological coherence mode in ten participants. EEG recordings using electrodes along the midline (Oz, Pz, Cz, Fz) and the lateral frontal sites (F7, F8) were obtained from the research participants. Heartbeat evoked potentials were obtained using a 200-sweep-wide window that was moved across the first 10 minutes of the recording for each condition for each participant. Figure 21 shows an example of one heartbeat evoked potential waveform with the presence of the alpha rhythm. The two time intervals between 50-250 milliseconds (period 1) and 250-600 milliseconds (period 2) post R-wave were each subjected to a separate spectral analysis in which the spectral amplitude in the 8–12 Hz region was calculated for each sweep average.

The first period of the heartbeat evoked potential (50-250 milliseconds post R-wave) is the time interval when afferent signals from the heart reach the lower brain areas. It was observed that there were substantial individual differences between participants in this region. The main difference appeared to be that in about half the participants there was a desynchronization of the alpha rhythm, indicating an increase in the processing of the afferent information, while in others there was increased alpha synchronization.

The second period of the heartbeat evoked potential (250-600 milliseconds post R-wave) is believed to reflect the higher cognitive centers' processing of the sensory input and is also within the time interval when the blood pressure wave reaches the brain. Substantial individual differences were observed in this period as well. The main differences were in the later part of the evoked potentials and were observed primarily in the frontal regions of the brain. In the lower brain regions, the arrival of the blood pressure wave appears to mask the processing of some of the cardiovascular afferent information. This masking is a result of the impact of the arrival of the blood pressure wave having an additional effect on synchronizing brain activity to the heart. Therefore, the 250–600 millisecond region of the evoked potential appears to primarily reflect synchronized activity due to biophysical interaction of the blood pressure wave with the brain. This finding clearly supports Wölk and Velden's hypothesis and it is consistent with their findings of an increase in the amplitude of the performance oscillations starting around 300 milliseconds after the R-wave (see Figure 11).

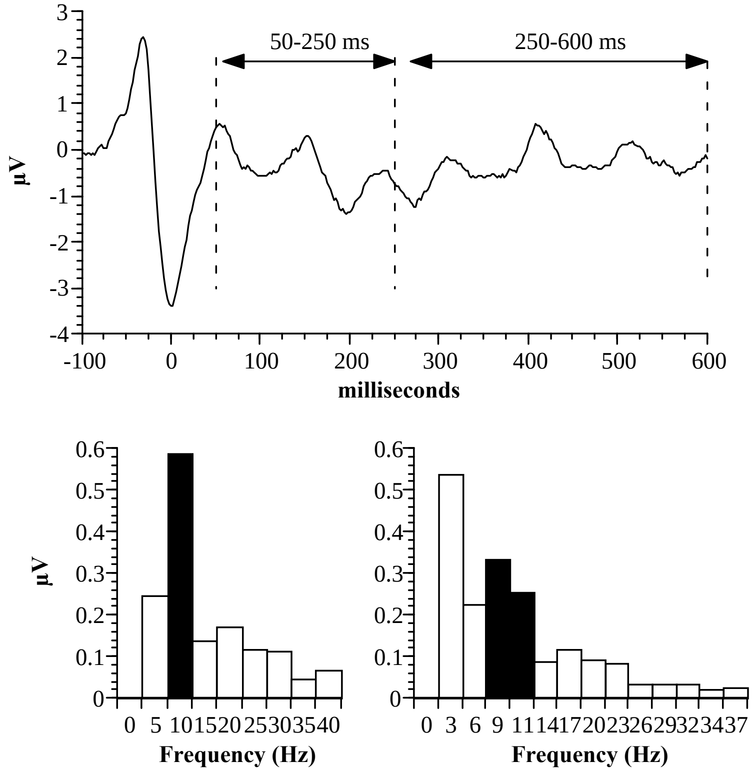

Figure 21. Quantification of alpha rhythm–ECG synchronization. In order to quantify the amount of alpha activity that is synchronized to the heart, a spectral analysis of the heartbeat evoked potential waveforms is performed. In this example the waveform is divided into two segments that represent different physiological mechanisms. The segment between 50–250 milliseconds reflects the processing of afferent signals, while the segment between 250–600 milliseconds reflects a combination of afferent processing and effects of the blood pressure wave reaching the brain.

Because of the prevalence of the alpha rhythm in EEG recordings, in determining the degree of alpha–ECG synchronization it is important to distinguish measurement of alpha activity that is truly synchronized to the cardiac cycle and spurious measurement in which alpha activity is only coincidentally synchronized to the heart. To control for the effects of this potential measurement artifact, the same procedure described above was repeated using the same ECG as the signal source, but with the interbeat intervals randomized.

As shown in Figure 22, there was significantly more alpha rhythm synchronization when the actual interbeat intervals were used for the signal source as compared to the randomized controls. This finding, too, is consistent with the idea underlying Wölk and Velden’s postulate.

In addition to the alpha–ECG synchronization observed, this study found that a significant amount of lower frequency brain activity (< 8 Hz) was also synchronized to the cardiac cycle (Figure 23).[28]

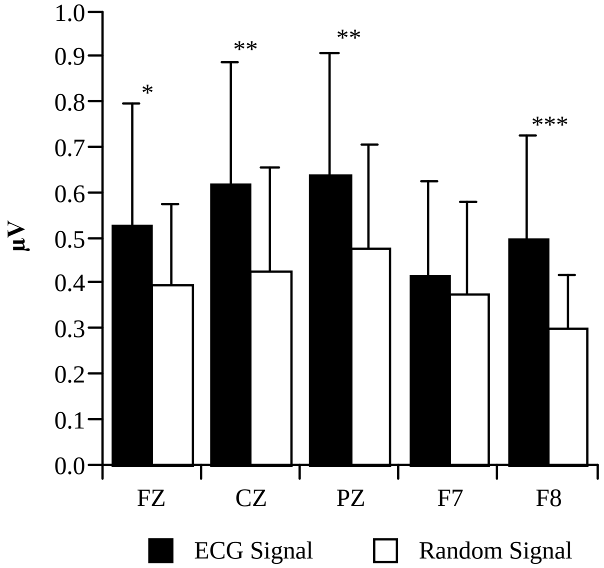

Figure 22. Alpha rhythm–ECG synchronization. This figure shows the alpha band spectral magnitude derived from the heartbeat evoked potential waveforms at different EEG sites in the range from 50–600 milliseconds post R-wave. It also compares the spectral magnitude of the real ECG as the signal source to a randomized control signal having the same mean interbeat interval and standard deviation as the original ECG signal. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

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[28] Because the time window in the EEG record post R-wave is only 600 milliseconds long, there is not enough time to adequately resolve these lower frequencies with spectral analysis. However, the amount of synchronized activity in the EEG at these lower frequencies can be quantified by comparing the standard deviations of the evoked potential waveforms to those of the randomly generated control signals.

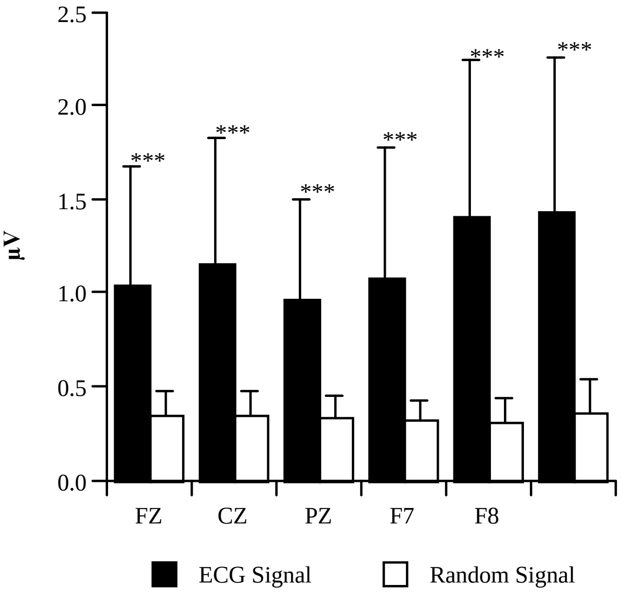

Figure 23. Low frequency synchronization. The standard deviation of the evoked potential waveforms in the range between 50–600 milliseconds was used to quantify the lower-frequency activity in the EEG that is synchronized to the cardiac cycle. The ECG and a randomized control signal for dividing the signals into segments were compared. There was a significant difference at all EEG sites, with the ECG signal resulting in higher standard deviation values. This indicates a significant synchronization of low frequency brain activity to the heart. ***$p < 0.001$.

Given our previous findings on the effect of psychophysiological coherence in increasing the synchronization among multiple body systems, we wondered whether this mode was also related to a change in heart–brain synchronization—specifically if ECG–alpha synchronization would increase as well. To determine if the ratio of ECG–alpha synchronization increased when participants were in the psychophysiological coherence mode, the study participants were asked to use the Heart Lock-In technique for 10 minutes after a 10-minute baseline period had been recorded. The degree of heart rhythm coherence and the alpha rhythm magnitude in the heartbeat evoked potentials during these two conditions were then compared.

During the period that the subjects used the Heart Lock-In technique, significant increases in heart rhythm coherence and in ECG–alpha synchronization were observed, as shown in Figure 24. Under this condition, there were significant increases in synchronized alpha activity at most sites in the range between 50–250 milliseconds, while in the 250–600 millisecond range there was a significant increase only at the Fz (midline frontal) location.

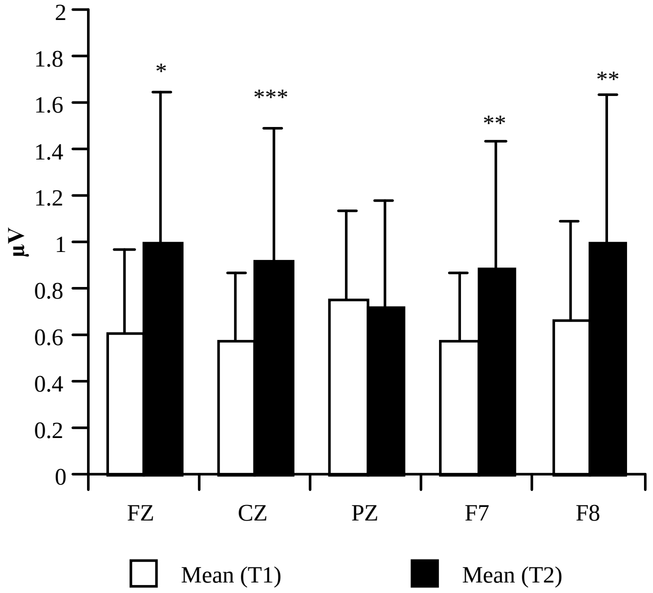

Figure 24. Increase in alpha rhythm–ECG synchronization during heart rhythm coherence. There was a significant increase in alpha wave synchronization to the ECG in the 50–250 millisecond region at most EEG sites during the use of the Heart Lock-In technique (high heart rhythm coherence). T1 = resting baseline; T2 = during heart rhythm coherence. $*p < 0.05$, $**p < 0.01$, $***p < 0.001$.

In a second study we recorded 19 channels of the EEG from 30 participants, who were measured in both baseline and psychophysiological coherence modes. The research participants used the Heart Lock-In technique to enter the psychophysiological coherence mode by self-generating feelings of appreciation as they listened to music designed to foster positive emotions (Childre, 1991). Relative to baseline values, we found both a significant increase in heart rhythm coherence in the psychophysiological coherence condition and also a significant increase in the percentage of ECG–alpha synchronization in the left hemisphere, centered around the temporal lobe.

Figure 25 shows the whole group mean topographical maps of the percentage of alpha activity that was synchronized to the heartbeat during the resting baseline and coherence modes. The plots are controlled for total amount of alpha activity (synchronized alpha/total alpha), which did not change significantly, and show only the amount of synchronized activity. As can be seen, the areas with the highest degree of synchronization shift from the right frontal area during the baseline period to the left hemisphere, centered around the temporal area and radiating outward from there during coherence. While this change was most pronounced at EEG site T3 (left temporal area), the activity at adjacent sites was also significantly more synchronized to the heart during the psychophysiological coherence mode.[29]

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[29] It is of interest to note that these observations are related to findings indicating that increased left hemisphere activity is associated with happiness and euphoria (Ahern & Schwartz, 1985; Canli et al., 1998; Davidson, 1992). It is clear that both the right and left hemispheres are involved in the processing

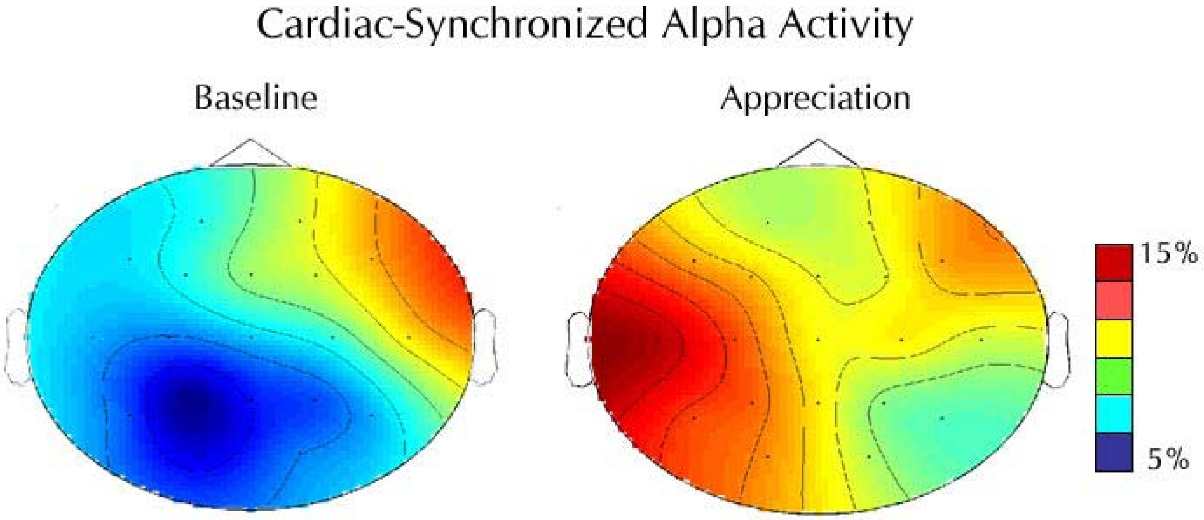

Figure 25. Alpha activity synchronized to the cardiac cycle. Group mean topographical maps for 30 subjects, showing the percentage of alpha activity in different regions of the brain that is synchronized to the heartbeat during a resting baseline as compared to during actively feeling appreciation (psychophysiological coherence mode).

To determine if there were gender differences in the amount and distribution of the EEG activity synchronized to the heart, we performed an analysis of baseline data by gender for both the alpha and beta rhythms. Figure 26 is a topographic map showing the magnitude and distribution of the alpha rhythm synchronized to the heart over the entire scalp for both males and females under baseline conditions. The females have more synchronized alpha activity in the frontal areas, while the males have more synchronized alpha in the parietal areas. Figure 27 shows the data from the same participants for the beta rhythm. The data from the beta rhythm analysis also shows a distinctive distribution pattern of synchronized activity to the heart. The females in this sample had significantly more background beta activity than the males, and, as can be seen in the topographic maps, the beta rhythm is more synchronized in the frontal regions.

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and regulation of emotion; however, there is still a lack of clarity regarding the roles of hemispheres and how they interact in the emergence and perception of emotional experience.

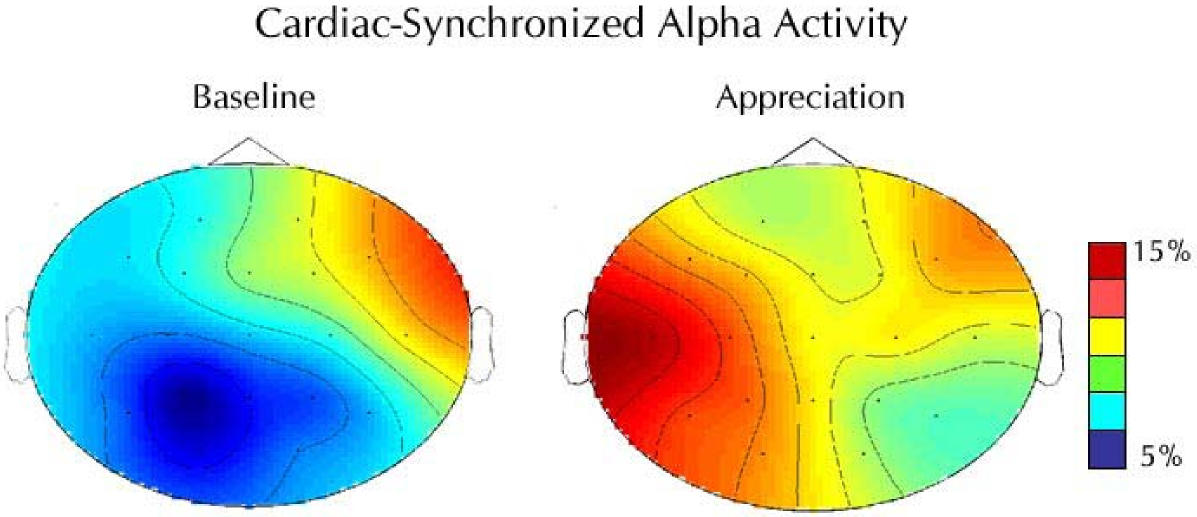
Cardiac-Synchronized Alpha Activity
Baseline
Appreciation
15%
5%

Figure 26. Alpha activity synchronized to the cardiac cycle. Group mean topographical maps for male and female participants showing the distribution of alpha activity that is synchronized to the heartbeat during a resting baseline period.

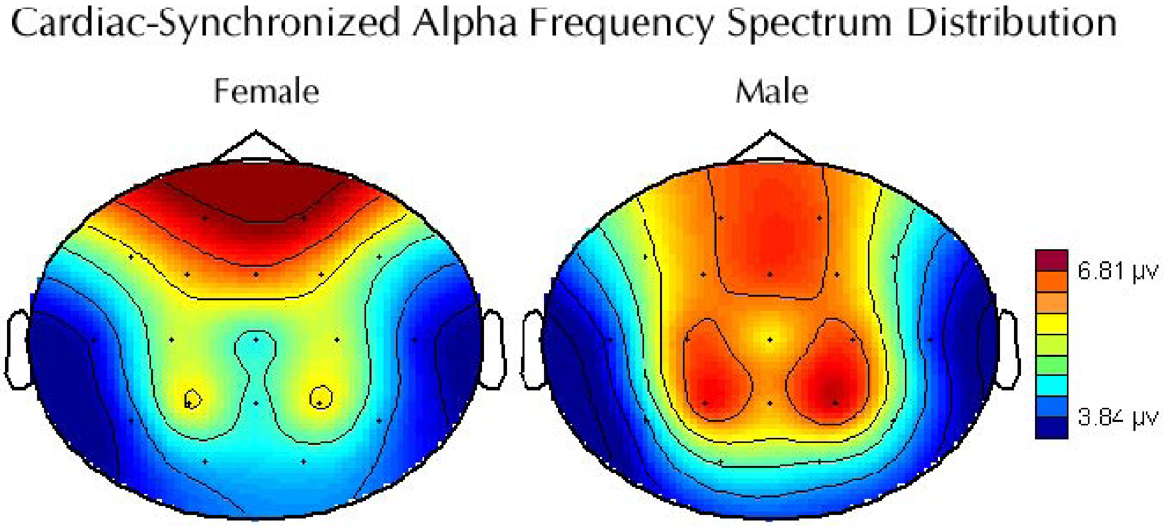
Cardiac-Synchronized Alpha Frequency Spectrum Distribution
Female
Male
6.81 µv
3.84 µv

Figure 27. Beta activity synchronized to the cardiac cycle. Group mean topographical maps for male and female participants showing the distribution of beta activity that is synchronized to the heartbeat during a resting baseline period.

Appendix E: Energetic Signatures of Psychophysiological Modes

Figures 28 through 33 show waterfall plots of consecutive amplitude spectra from the ECG data used to produce the examples of the six different psychophysiological modes described at the outset of this article: Mental Focus, Psychophysiological Incoherence (anger), Relaxation, Psychophysiological Coherence (appreciation), Extreme Negative Emotion (intense anger), and Emotional Quiescence. Each trace in the waterfall plots is the spectrum of the actual electrocardiogram recording of an individual over a 6-second period. (These spectra should not be confused with the power spectra of the HRV waveforms, such as those shown earlier in this article.) Together, the set of traces recorded cover a continuous time period (approximately 2 ½ minutes) and show the degree of stability in the structure of the waves of electrical activity generated by the heart during this time. As can be seen, although there are commonalities across the modes, there are also *distinctive spectral patterns* associated with each specific mode.

There is a direct relationship between the heart rhythm patterns (HRV) and the spectral information encoded in these radiating fields. This is due to the fact that the distribution of the harmonic relationships and magnitudes of the various peaks in the ECG spectrum are dependent on the length of the interbeat intervals (the temporal space between consecutive heartbeat spikes) and the distribution pattern of the interbeat intervals within the heart rate series (heart rhythm patterns). This relationship between the heart rhythm pattern and the ECG spectral patterns will be discussed in more detail as we describe the energetic signature of each psychophysiological mode.

The waterfall plots of the ECG spectra shown in Figures 28 through 33 were all derived from the same recordings of ECG signals that were used to measure the heart rhythms and the HRV spectra of those heart rhythms shown in Figure 8. Our interest in reviewing these spectra is to highlight the distinctive energetic features of each mode. For certain modes these features are readily apparent, while for others they are more subtle.

Mental Focus

Figure 28 shows the waterfall plot of the ECG spectra for the Mental Focus mode. Referring back to Figure 8, the heart rhythm pattern for this mode showed an overall suppression of HRV, with a slight increase in heart rate over the session. The lowered HRV produces an ECG spectrum that has a series of harmonics extending out to approximately 25 Hz. The lower the HRV (that is, the more uniform the time interval between each consecutive heartbeat), the more standing waves emerge and are organized in a harmonic order in the ECG spectrum (see Extreme Negative Emotion and Emotional Quiescence for examples). There are also two sets of peaks that occur in most of the individual spectra in the range of 3–5 Hz and 7–8 Hz. These peaks are due to the low frequency rhythm (~10-second rhythm) that occurs in the heart rhythm pattern. The presence of this rhythm during the Mental Focus mode can be seen in the HRV spectrum shown in Figure 8. However, it is not as prominent as it is in the Relaxation mode, nor is it the main rhythm, as in the Coherence mode (appreciation).

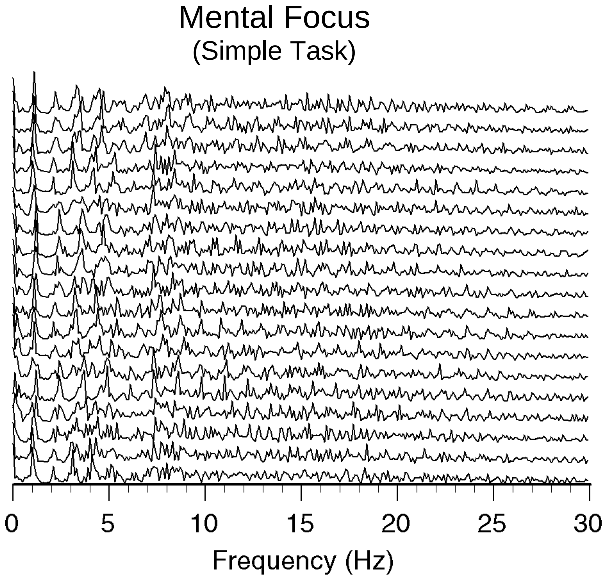

Figure 28. Waterfall plot of ECG spectra for the Mental Focus mode. Relative to a “normal” waking state, there is less amplitude in the spectral peaks during Mental Focus due to the reduced HRV in this mode; yet a stable structure of standing waves and harmonics is maintained throughout the consecutive spectra.

Psychophysiological Incoherence

Figures 29 and 30 show the waterfall plots of the ECG spectra for an individual’s experience of two distinct levels of anger, which are examples of the Psychophysiological Incoherence mode and the hyper-state associated with the Extreme Negative Emotion mode, respectively. In this case we are using a single individual’s experience of anger to show how the activation of extreme negative emotion (negative hyper-state) is differentiated from ordinary anger (incoherence). Thus, the ECG spectra are shown for two different segments in a single heart rhythm trace that represent the two modes, each of which is described separately in our discussion here. (The full heart rhythm trace is shown in Figure 10.)

Figure 29 shows the ECG spectra for the first part of the heart rhythm data displayed in Figure 10 (approximately 6–11 minutes), representing the Psychophysiological Incoherence mode. It is evident that the ECG spectra do not exhibit a coherent pattern from one trace to the next, nor do they display the harmonic pattern of waves seen in most of the other examples of the different modes. Therefore, when the heart rhythm is incoherent, so are the spectral patterns in the ECG.

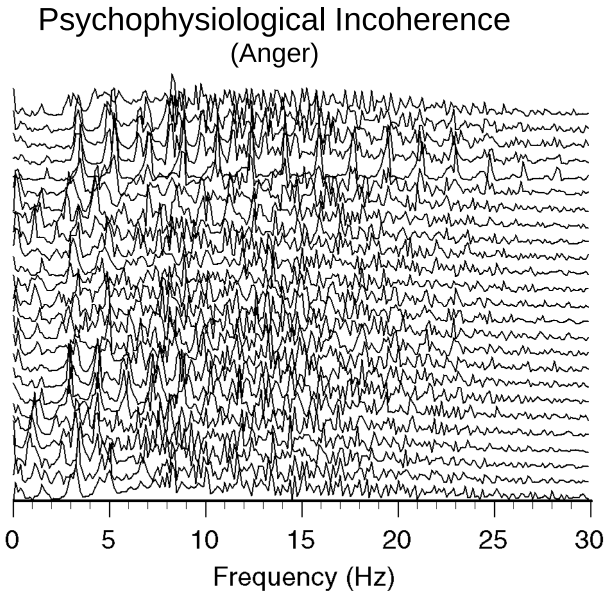

Figure 29. Waterfall plot of ECG spectra for the Psychophysiological Incoherence mode. In this example, anger is used to illustrate the mode, although most negative emotions also lead to incoherence. Note the lack of a coherent structure from spectrum to spectrum and the absence of harmonics in the spectra.

Extreme Negative Emotion

Figure 30 displays the ECG spectra for the heart rhythm data beginning around 15 minutes in the anger trace in Figure 10, where the HRV trace can be seen to flatten out (low HRV). This segment represents the Extreme Negative Emotion mode. As discussed earlier, most negative emotions produce increased incoherence in the heart rhythms—that is, the pattern of heart activity becomes more erratic. However, anger, in particular, is an emotion that can also lead to high sympathetic activation, which in turn can inhibit parasympathetic activity and drive the heart rate to a high level. Together, these responses result in low HRV.

It can be seen that the ECG spectra in this state appear quite different from those in the Incoherence mode, in that they exhibit a series of high-amplitude standing waves that persist from one epoch to the next in the series. This pattern emerges because the interbeat intervals in the ECG have become uniform (low HRV). The spacing between the peaks in the ECG spectrum is a reflection of the time interval between heartbeats. Higher heart rates (short interbeat interval) produce an ECG spectrum in which the peaks in the harmonic series will be further apart. This can be seen by comparing the ECG spectra for the Emotional Quiescence mode (Figure 33) to those for the Extreme Negative Emotion mode (Figure 30). In Emotional Quiescence, the heart rate is much lower than in intense anger. This means that the time interval between each consecutive beat is much greater, and therefore the peaks in the ECG spectra are much closer together than those observed for intense anger. In both the Emotional Quiescence and Extreme Negative Emotion modes, a strong, consistent pattern of standing waves is produced in the electromagnetic field radiated by the heart. This pattern is indicative of a highly coherent order.

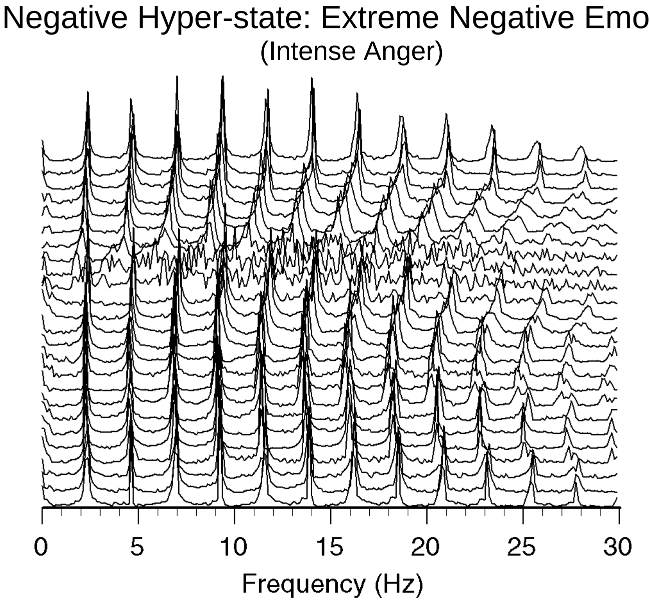

Figure 30. Waterfall plot of ECG spectra for the Extreme Negative Emotion mode. The standing wave pattern is due to the very low HRV in this mode (see text for discussion).

Relaxation

Figure 31 shows the ECG spectra for the Relaxation mode. The spectra for this mode display some similarity to those for the Mental Focus and Coherence modes, in that they have in common the two sets of peaks in the ranges of 3–5 Hz and 7–8 Hz, which are observed in most of the individual spectra. This characteristic is due to the presence of the low frequency rhythm in the HRV. However, in the Relaxation Mode, these peaks are higher in amplitude than those for Mental Focus. This is because the low frequency rhythm is more prominent in Relaxation than it is in Mental Focus, as is evident in the HRV power spectra in Figure 8. Moreover, the spectra manifest a greater density of variability, and hence complexity, while still organized as a coherent structure. The greater complexity is the result of greater high frequency variability in the heart rhythm pattern, which is also apparent in the associated HRV power spectrum (Figure 8).

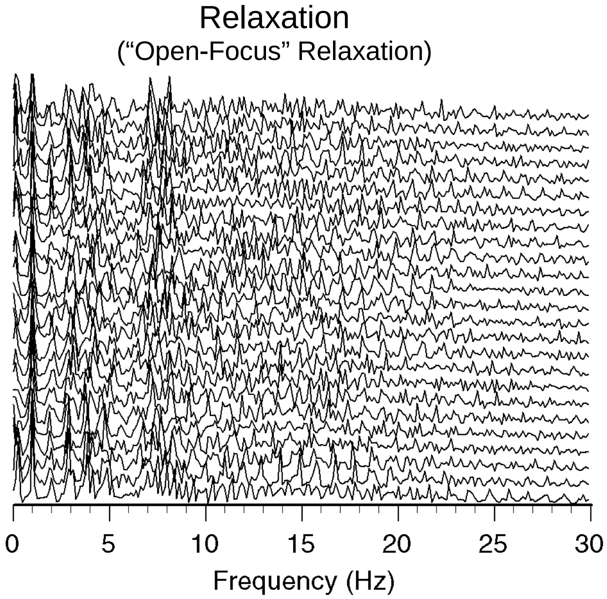

Figure 31. Waterfall plot of ECG spectra for the Relaxation mode. These spectra maintain a coherent structure and rich complexity.

Psychophysiological Coherence

Figure 32 shows the ECG spectra for an individual's experience of "appreciation," used to illustrate the Psychophysiological Coherence mode. A strong, consistent pattern of standing waves can be seen in the two sets of peaks occurring in the 3–5 Hz and 7–8 Hz ranges. This is due to the prominence of the low frequency rhythm in the HRV. Even though there is also a high density of variability (complexity) in the pattern of standing waves, a coherent order persists across the individual spectra. A complex yet coherent order of energy movement is optimal for encoding information as a signal. Conversely, when the rhythm of energy has little variability, there is less potential for the encoding of information. Thus, the electromagnetic field generated by the heart in the Coherence mode appears well suited for effective information communication. By comparison, the electromagnetic fields of the other modes display less variability and complexity and therefore do not have the same potential—the "requisite variety"—for information encoding and transmission (Ashby, 1956).

It is apparent that the ECG spectrum alone does not provide an adequate means to clearly differentiate the Coherence, Relaxation, and Mental Focus modes, as their ECG spectra all have a similar appearance. However, as shown earlier, these three modes are clearly differentiated by their heart rhythm pattern (HRV). For this reason, the heart rhythm pattern and HRV power spectrum are generally used as the major identifiers of the psychophysiological modes.

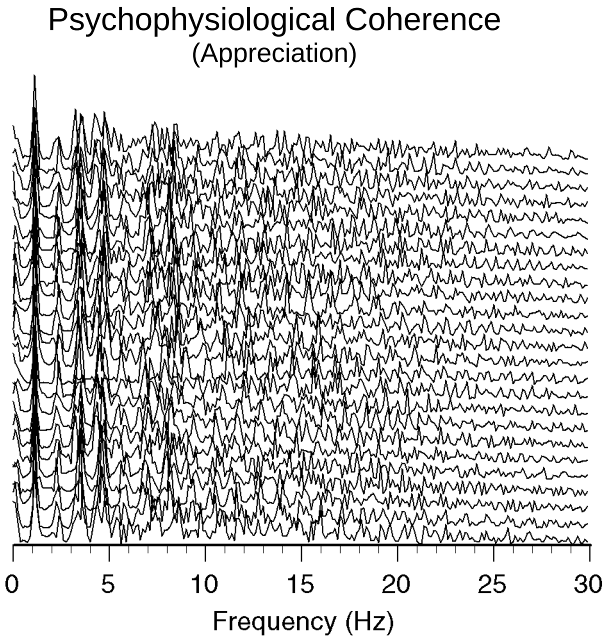

Figure 32. Waterfall plot of ECG spectra for the Psychophysiological Coherence mode. These spectra display a rich complexity and high amplitude, yet retain a coherent structure from spectrum to spectrum.

Emotional Quiescence

Figure 33 shows the ECG spectra for the Emotional Quiescence mode. As discussed earlier, Emotional Quiescence is a peaceful, heart-focused psychophysiological state signified by unusually low HRV. Its ECG spectral profile has a pronounced standing wave-like pattern that, as a harmonic series, is relatively uniform in that it is consistent from epoch to epoch. This persisting "standing wave" pattern in the spectrum of the ECG indicates that the heart is generating a highly coherent electromagnetic field in this mode. Based on subjective reports of this mode, it would appear that the organization of this electromagnetic field reflects a psychophysiological order that is highly conducive to states of peace and serenity and also receptive to experiences of spiritual connectedness.

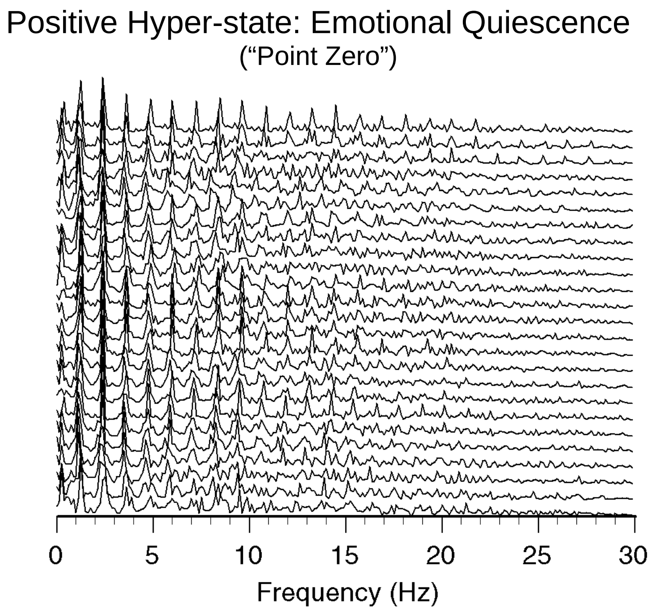

Figure 33. Waterfall plot of ECG spectra for the Emotional Quiescence mode. The coherent structure of standing waves that is constant from spectrum to spectrum is due to the very low HRV in this mode.

The Ethics of Promoting and Assigning Adult Developmental Exercises: A Critical Analysis of the Immunity to Change Process

Sofia Kjellström

Abstract: The *Immunity to Change* (ITC) process devised by Robert Kegan and Lisa Laskow Lahey is promoted as an influential technique for creating individual and organizational change. A critical analysis of the ITC process applied in university settings and organizational contexts show that an unintended result is the unwillingness and inability of some participants to participate adequately. Significant theoretical and ethical implications arise in the interplay between three interrelated variables (a) the role and competence of the facilitator, (b) expectations and capabilities of the participants, and (c) the mental demands and assumptions of the process. The inquiry illustrate that the ITC process is probably built upon an implicit assumption that change into greater mental complexity is always good and right, and its inherent structure creates demands that can put participants "in over their heads." The main conclusion is that developmentally-aware, ethical approaches to using transformational practices such as the ITC should meet at least three demands: they should be conducted as voluntary activities on the part of well-informed participants, they should integrate an adult developmental perspective into the process itself, and they should openly allow the possibility that it is the organizations that may also need to change.

Keywords*:* adult development, ethics, organizational change, teaching.

Introduction

How are we to use exercises meant to promote developmental change in an ethically proper way? Adult development advocates are eager to promulgate the practice of transformational change curricula into more complex ways of meaning making; however, rather than uncritically incorporating these techniques into a variety of settings, it is important to consider the hidden assumptions and ethical implications of these techniques. Such examination has the potential of improving the quality and usefulness of techniques within the adult development field (Ross, 2008; Stein & Heikkinen, 2009)

Higher education is one arena easily available for promoting and encouraging adult development of mental complexity. Certainly, if we want education to be informed by adult developmental theory, we must do more than teach theories of adult development as part of course content. Curricula that actually support the development of mental and emotional complexity are necessary (Baxter Magolda, 1992, 1999; Baxter Magolda, 2000, 2001; Hoare, 2006; Kegan et al., 2001; King & Baxter Magolda, 2004; King & Kitchener, 1994; Marchand, 2008; Stevens-Long & Barner, 2006). One way of accomplishing this goal is to incorporate transformational exercises like the *Immunity to Change* (ITC) to class activities. The ITC process devised by Robert Kegan and Lisa Laskow Lahey is promoted as an influential technique for

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creating individual and organizational change, but my experiences in utilizing the ITC process are more mixed than the usually enthusiastic responses expressed by for example Jonathan Reams (2009) and Kegan and Laskow Lahey (2009).

The field of fostering adult development includes several methodologies within different domains of life and with different target groups, for example transformative and emancipatory learning, working with moral dilemmas in education, individual and one-on-one efforts, and action inquiry in small groups (Ross, 2006). The ITC process can be seen as an example of a method aimed at promoting development and has been described in several formats: books (Kegan & Laskow Lahey, 2001a, 2009), scientific journals (Bowe, Lahey, Armstrong, & Kegan, 2003; Bowe, Lahey, Kegan, & Armstrong, 2003; Kegan & Laskow Lahey, 2001b), book reviews (Reams, 2009), interviews (Sparks, 2002), and periodicals (Business Digest, 2009). All accounts emphasize the efficacy of this approach, and few negative aspects have been brought to light. I have found no studies that address inadequacies or tests of effectiveness. The texts are written by the originators or people who have used and found the process valuable. I have found no studies that describe the use of the ITC in an educational setting with students.

The purpose of this article is to critically analyze implications of putting the ITC process into practice in educational settings and organizational contexts, the ethics of doing so, and key assumptions that underlie the procedure. This article uses a three-part presentation that includes the basic structure of the ITC process, an example of how it was incorporated in higher education, and the results of that experience. This background sets the stage for a critical examination of the role of the teacher or facilitator, ethical implications of participants' abilities and reactions, and underlying mental demands and assumptions. Desired outcomes of the process are also discussed. Ethical considerations and how assumptions of adult development shape the process are at the heart of the concerns discussed in this article. Specific difficulties of using the ITC in an educational setting are the starting point, but the analysis expands to encompass implications for other situations, for example working life, and universal inquires and objections.

The ITC Process in Practice

The Methodology of the ITC Process

The method was initially created to facilitate individual and organizational change in corporate settings (Kegan & Laskow Lahey, 2001a). The methodology addresses two questions: why changing human behavior is so difficult, and why achieving desired behavioral changes does not happen as often as we would prefer. The method provides a tool to overcome these concerns by identification of a personal immune-system that works to inhibit certain behaviors and/or the fulfillment of certain values. It is based upon the assumption that real change is not a matter of learning new skills. Rather, it requires changes in the level of mental complexity. The goals or possible outcomes of the ICT are "personal and professional well-being" (Bowe, Lahey, Armstrong et al., 2003, p. 716), more effective organizations, and development of mental complexity.

The ITC process can be seen as an application of the constructive-developmental theory by Robert Kegan (1982, 1994). Kegan proposes three adult meaning systems that make sense of the world in qualitatively different ways: socialized mind, self authoring mind, and self-transforming mind. Persons having a socialized mind are strongly influenced by views and expectations of others, which affects how they think, feel and act. With a self-authoring mind, persons have the ability to have one's own view independent of others' expectations since they are able to coordinate other beliefs with their own convictions; they also have the capability to examine thoughts and feelings. For persons with self-transforming meaning-making, one's sense of self is not tied to particular identities and they can look through their own agenda.

The first version of ITC process was described in the book *How the way we talk can change the way we work: seven languages for transformation* by Robert Kegan and Lisa Laskow Lahey, which was followed by popularized and shorter descriptions (Bowe, Lahey, Armstrong et al., 2003; Kegan & Laskow Lahey, 2001b) until the most recent book *Immunity to Change: How to overcome it and unlock the potential in yourself and your organization* appeared. The basic structure of the technique is the same, but the labels, instructions, framing and number of steps have varied (see Table 1). In this article I will refer to the first book and related articles as ITC 1, the new book as ITC 2, and ITC for general statements about the process.

Table 1. Descriptions of the ITC process

	Part 1				**Part 2**
	'The Table'				**'The Test'**
	Commitment	**Doing/not doing instead**	**Hidden competing commitment**	**Big assumptions**	**Reflection and test**
(Kegan & Laskow Lahey, 2001a)	Language of commitment	Language of personal responsibility	Language of competing commitment	Language of big assumption. Identifying assumption	Language of big assumption. 4 steps
(Kegan & Laskow Lahey, 2001b)	Stage 1			Stage 2	Stage 3, 5 steps
(Bowe, Lahey, Armstrong et al., 2003)	Step 1	Step 2	Step 3	Step 4	Step 5, unclear includes test
(Kegan & Laskow Lahey, 2009)	Diagnosing ITC				Overcoming the ITC
(Kegan & Laskow Lahey, 2009)	Commitment (improvement goal)	Doing/not doing instead	Hidden competing commitment	Big assumptions	Three phases, including 9 exercises

The ITC process has two parts. The first aims at uncovering the commitments to change and diagnosing the person's immunity to change, and the second is a series of exercises designed to create change in behaviors. The first part consists in four steps which are presented in a table of four columns (see Table 1), where the table is used to structure the process and provide an overview. The work described in the first column is to identify personal commitment, which is done through answering the question: What sort of experiences would be more supportive of your development at work? The formulation of the initial question varies in the different versions. The answer is then examined to identify underlying values and reformulated into a personal commitment. In the second column, behaviors are enumerated – both actions and omissions – that interfere with the commitment.

The task of the third column is to identify a competing commitment. Participants are prompted to reflect on fears or anxieties that arise if the identified actions, in column two, are not performed. The passive worries are then transformed into an active statement, which becomes the competing commitment. This serves as a new explanation of why certain behaviors are not performed, since persons hold values that are in contradiction to and in competition with the other. What was previously viewed as obstructive behaviors is now seen as supportive actions of the competing commitment, but nevertheless preventing people from achieving their primary goals. A first picture of the “immunity system” is revealed which is called the immunity map or X-ray since it is “a picture of the invisible made visible” (Kegan & Laskow Lahey, 2009, p, 32). Modifying the immune system requires that we identify the underlying hidden assumption on which the competing commitment rests (see column four, Table 1). This assumption is called the ‘big assumption’: it is the internal truth that a person creates to sustain his or her immunity to change; identifying it is a difficult process (Kegan & Laskow Lahey, 2001b).

The purpose of the second part of the process is to question and test the validity of the big assumption and thereby overcome the person’s immunity to change, a goal that is realized through several experimental self-reflective exercises including a test. In ITC 1 the second part is described as consisting of four or five exercises, observing and recording current behavior, looking for contrary experiences, exploring the history, and designing, running, and evaluating a test. ITC 2 includes a set of nine exercises in three phases, including all those previously mentioned plus additional ones, for example a pre/post survey to get external input from colleagues and family on your improvement goal, and to reflect on how the learning can be consolidated in the future.

The general structure of ITC 1 and ITC 2 are essentially the same, but in the ITC 2 there are substantial elaborations in the description of the methodology for participants and added check-lists and surveys to support and extend the process. Other changes are that the initial question is more value neutral, a greater emphasis is placed on finding a ”good” improvement goal and first commitment as a starting point, and the importance of involving family members and co-workers in the process is emphasized.

The Use of the ITC 1 Process in Higher Education

The theoretical work of Robert Kegan is central in the area of adult development (Kegan, 1982, 1994; Kjellström, 2005), and the ITC exercise was incorporated in my university teaching with students (Master and Ph.D. level) and healthcare professionals (mainly nurses and assistant nurses). I used Kegan’s theory in my Ph.D. thesis, and my research position at a university has facilitated deeper studies and use of several adult development methods and theories in research.

Additional writings on the topic proved useful to increase my knowledge of how to facilitate the process, (Bowe, Lahey, Armstrong et al., 2003; Bowe, Lahey, Kegan et al., 2003; Kegan & Laskow Lahey, 2001b; Sparks, 2002). This exercise became part of courses on ethics and professional development on seven occasions, with more than 100 participants. The ITC 1 process was employed in accordance with the recommendations of Kegan and Laskow Lahey, with only some modifications in order to suit the delivery formats in the educational setting. Namely the initial question used to form the first commitment was reformulated to suit students who were not simultaneously working professionals. The process was divided into two parts. The first part asked participants to fill in four columns in a table (see Table 1 & 2), allowing their immunity to change to be identified. The second part was composed of five self-reflection tasks, including a test to perform and evaluate.

Two delivery formats were used with different students groups: meeting in class or interaction through a web platform. I always emphasized that they should not disclose more than they felt comfortable sharing. During a lecture or workshop lasting two hours, students were led through the process of filling in the table and were then encouraged to reflect on their responses and create a test. The filled-in table and written report on the self-reflection tasks were sent to me and discussed verbally in small groups led by me. No written text was shared among the participants, and participants were given the choice of whether they wanted to tell others about their commitments and test results.

In the web-based course the students (health professionals) read an article (Kegan & Laskow Lahey, 2001b), listened to a lecture, and read a sixteen-page Swedish document (created by me because my participants were not used to reading English) that explained all the steps. (Kjellström, 2006). After filling in all columns, they sent their tables to me and to an online discussion forum with four to five participants, where all students saw what others in their group had written. This sharing is an example of moving private or personal assessments into a public sphere. I commented and helped them with the table to ensure participants had an adequate starting point for the next part, which consisted of five tasks. They performed and reported the assignments one by one to the small online discussion group. Subsequently, group participants read and commented on each other's work, because observing others' experiences could provide a valuable learning experience. The reports on each of the five tasks were always read and sometimes commented on by me. The tables were sent to me initially and further distributed if the person consented. The incorporation of group discussions was done to give participants an opportunity to share experiences, and ponder similarities and differences. This is not something that Kegan and Laskow Lahey describe in their first work, but they put an emphasis on the importance of sharing experiences because it illustrates that things that often are considered merely personal are also general for others (Kegan & Laskow Lahey, 2001a).

Results from Doing the ICT 1 Process in the Educational Setting

On the one hand my experiences can be described as a "success." The instructions of the ITC 1 process by Kegan and Laskow Lahey helped me create a learning situation that seemed to work quite well for a majority of the participants. Some students reportedly regarded it as a profound experience that they wanted to continue to use and spread to others. On the other hand, I also had experiences with participants feeling less comfortable in the situation, which could be interpreted as "failures." This section will mainly be concerned with what went amiss, because it is the examination of these experiences that builds a foundation for further discussion and a critical analysis of the various factors that might have produced these outcomes and the ethical issues they raise. The two prominent results elaborated here are that persons did not complete required parts of the ITC 1 process, and a few did not want to participate, and therefore refused to do it.

Problems with the first part of the process are that some people had difficulty putting content into the columns. The most common problem was an inability to articulate a personal fear or worry that could be turned into a counter commitment, but it was also problematic to identify the big assumption and to present actions that inhibit the primary commitment. Even after several occasions of written feedback by email or personal communications, a few individuals produced a barely acceptable table as a starting point for the test and self-reflection exercises.

Other difficulties arose in the second part involving the self-reflective tasks. The tests run by my students often tested third column commitments rather than fourth column "big assumptions." Regardless, a test of the counter commitments seemed adequate for the exercise to be performed. An examination of the 67 tables filled in by health care personnel shows that one of the most common topics was fear of calling attention to someone who is doing something wrong, often because being liked by everyone else is so important to them. When they ran a test where they actually expressed these opinions, they realized for the most part that nothing bad follows such actions, and that raising their voices was generally appreciated. This experience was both powerful and empowering for nearly everyone who ran this kind of test. But an important limitation was that to my knowledge there were no or few generalizations made to other domains of life, which might reduce some of the transformational power of the exercise. Another problem was that when asked to reflect on their own behaviors some people only described actions or reactions of others.

Some people were unable to do part of the exercise as I provided it with its limitations regarding support or assistance, and some students refused to do certain parts, for example, reflect on childhood experiences, provide a personal experience, admit vulnerability, or talk in a follow up group discussion. On one occasion several students objected and had negative feelings about the exercise because it was perceived as being too personal, and the students expressed the idea that it felt very weird to run tests "on" their classmates, which resulted in a discontinuation of the ITC 1 as an obligatory assignment.

Critical Reflections on the ITC Process

The criticism below starts with a focus on the potential impact of two variables that need to be considered: the capacities of the leader or process facilitator and those of the participants. Possible desirable outcomes are discussed and a complementary solution of adapting societal structures to the mental demands of people is proposed. Finally the analysis is concerned with the mental demands in and assumptions of the ITC process, which can play an important part in how the process is utilized. The critical examination of the ITC process is not limited to the first version, because the general structure is essentially the same in all present versions.

Facilitator’s Choices and Capacities

This section provides examples of how I handled different situations in order to illustrate more general implications of the role of the facilitator and teacher. I acknowledge that some of the failures are probably due to my way of implementing the process, for example the way I framed and explained the process to the participants. The incident when several students questioned the process accentuates the need to firmly establish the exercise in the work group, a task I probably failed on that occasion since they did not sense a trusting environment. Kegan and Lahey emphasize that a leader needs to be an active advocate of the process by setting a good example and promoting a commitment to positive change work; simply authorizing the exercise is not sufficient (Kegan & Laskow Lahey, 2009, p. 81). In education and classes the teacher is the leader and authority, and needs to establish trust and authority. How a teacher with constraints in his/her role and setting can do this differs from how a process facilitator in another setting can do this: trust is not always consistent with the teaching role—the teacher is often not a confidant whereas a process facilitator may be.

When people were not able to fill in the table or resisted parts of the process I handled this by backing off. For example if the columns were not filled in as required for a perfect starting point, and the feedback had yielded an acceptable table, I viewed this as sufficient, without further judgment or comment. When people did not want to do part of the exercise their wishes were always accepted, and no one was ever forced to participate in any stage. This management was inspired by an ethical consideration, for example inspiration from Kegan and Lahey’s ground rules that it is up to the people participating to decide how much they want to share (Kegan & Laskow Lahey, 2001a). Later reflection led me to realize that I had not shared sufficiently with my students my motivations for administering this exercise and my hopes for their beneficial experiences. Transparency about reasons for using the exercise as part of introducing it may have helped both students and me by providing space to discuss successes and failures on individual and group level.

My personal assumption at that time was that personal development in qualitative phases is a positive factor that needs to be promoted. Using Kegan’s theory (1982, 1994) to interpret my own orientation toward fostering adult development, I see that it was “subject” in my mind (in Kegan’s terms), which means that it was a perspective through which I unknowingly looked at the world. To have a goal of fostering adult development as a subject may cause an overemphasis on the intervention’s positive aspects and neglect of its possible side effects. Only when I (or others, presumably) distance myself from attachment to the idea of fostering adult development and take it as an “object,” as if being an outsider to the adult development perspective, does the critique put forward in this article become possible. That is the shift I made in order to produce this critique.

In the current educational system the time and competence of teachers is also an important issue to discuss. The most recent version (ITC 2) demands that teachers spend more time doing the first part (Kegan & Laskow Lahey, 2009). The first edition suggested a timeframe of 2-4 hours, to identify the immunity system, but the more recent version includes several examples that expanded the timeframe to two days. Given how classes are scheduled within the educational system, the time with a teacher in class is limited. The question is whether teachers have enough time, but also whether the time they do have is best put to this task or to other tasks, i.e., is this exercise the ‘best’ use of class time? In addition, do teachers have sufficient psychological training to support the students adequately?

For a teacher to assign any task is an exercise of power. Kegan and Laskow Lahey talk about the need to deliberately create an optimal conflict, which is portrayed the following way:

- The *persistent* experience of some frustration, dilemma, life puzzle, quandary, or personal problem that is…
- Perfectly designed to cause us to *feel the limits* of our current way of knowing…
- In some sphere of our living that we *care about*, with…
- *Sufficient supports* so that we are neither overwhelmed by the conflict nor able to escape or diffuse it. (Kegan & Laskow Lahey, 2009, p. 54)

But what right does a teacher to create optimal conflicts in peoples’ lives? Most people have pressures in all domains of life. Is it good to create another conflict even if the intention is to resolve it in the long run? The answer is not evidently affirmative because there are interventions that promote development without being designed to be structurally disequilibrating (Manners, Durkin, & Nesdale, 2004, p. 21).

One assumption of the methodology is that moving things from the private to public sphere will facilitate a successful process. This is a kind of support group process, but again, people self-select into support groups for the purpose of hearing and listening — there is transparency about what goes on there and strict norms of behaviour. A key aspect of my argument is that in educational settings, the self-selection into classes is for purposes other than personal self development. It is impossible to exert the same kind of normative structure around privacy, since discussing assignments, topics, lectures, homework, and the like is a routine part of the learning process for students in these settings.

Kegan and Laskow Lahey claim that too much adult learning occurs in classes separated from the workplace, and that it is more powerful to teach people in their workplaces together with their colleagues rather than enroll them in individual courses (Kegan & Laskow Lahey, 2009). Although providing learning experiences for adults in the workplace can be beneficial for certain types of material, using the workplace (and the workgroup) as the location for this kind of an exercise also raises concerns. Workers may feel particularly constrained in these settings, believing that their performance on the exercise will influence their employment and/or their professional relationships with their coworkers. One could argue that this limitation can be overcome when the facilitator lays the foundation for trust and safety, but a counterargument similar to the one offered for educational institutions must still be considered: does the organizational environment create an implicit coercion for workers to comply?

Participants’ Choices and Capacities

Several of my students were very perplexed when asked to work on emotional aspects of themselves, finding the task very difficult. They were not used to admitting and articulating emotions or publicly expressing negative aspects about themselves. Education is currently organized to emphasize cognitive knowledge (Stevens-Long & Barner, 2006), and students do not expect to reveal their emotions or be asked to integrate their self concepts into knowledge construction. The recent book stresses that participants need to be more dedicated to working with an issue that is meaningful to them and to leave behind their immunity to change toward it (Kegan & Laskow Lahey, 2009), but how much commitment can we expect or require from students or employees in a hierarchical structure and culture? As an example, the ITC was used to increase the sales of a pharmaceutical company, but as Abigail Jenikins says in an interview "as it required a significant level of commitment to both personal and group change – while still in the pressure-cooker environment – five team members inevitably left along the way" (Business Digest, 2009, pp. 8-9). This ITC work was facilitated by very competent consultants Lisa Laskow and her colleague Bob Goodman. Noteworthy is the fact that, even with professional facilitators, situations occur where five out of ten participants drop out. Kegan and Laskow Lahey openheartedly admit that 30-40% of the participants did not have a powerful experience with the exercise as it was formulated in the 2001 version (Kegan & Laskow Lahey, 2009), but since the basic structure is the same in the new version, ethical issues undoubtedly remain.

Although a few of my students provided reasons for their decisions of non-participation, e.g., that personal experiences were no one else's business or that they were involved in concurrent cognitive behavioral therapy, other students may have been uncomfortable with the exercise, but did not voice their objections. This possibility concerns me, both because of the hierarchical nature of the student-professor relationship and because voicing concerns about another person's actions was one of the behaviors with which people had the most difficulty.

The result of my experience of putting the ITC process in practice leads me to question if all people are willing to do the exercise. Even Kegan and Laskow Lahey give a negative answer to this question. To answer whether all participants are willing to participate in self-reflective practices they state:

> Almost none of them had any clue when they began the process of developing their X-rays that they were going to create a picture that would be so revealing – or intriguing – to them. If we had told them beforehand what they were going to produce, some might have declined to participate, and most might have been skeptical. (Kegan & Laskow Lahey, 2009, pp. 46-47)

The quote appears in a section where the authors explain that the people they have coached are not unusual, they are all able to reflect when expected to participate in an ITC process. To me this quote illustrates some legitimate bases for objections. The ethical question is whether it is right to assign tasks that people might have refused to perform had they been adequately informed at the beginning. As researchers we are supposed to involve participants in an informed consent process where the participant is given adequate information and we make sure that true consent is given. Should our students not be treated with equal respect and ethics? A possible objection is that we as authorities have the power to assign tasks in the best interest of the students. But then the questions reappear in a new way: do we know that the exercise is in the best interest of the student? One answer is that to increase the future autonomy of a person, we must sometimes exercise authority that overrides the present autonomy in a pre-intervention information process (Beauchamp & Childress, 2009). For example, in order to increase a person's ability to make better choices in life, information is needed. If the information is provided against the will of people, then their right to decide to access that information is currently overruled. The ethical justification for this paternalistic behavior is that the autonomy will be increased in the long run and produce a greater good. The problem is that this solution does not see or solve the challenge that providing the information changes the situation for every individual that is exposed to the new information. By its nature, information places a demand on people to do something with it.

A more intriguing question is whether all students and adults are able to participate in these kinds of practices. Kegan and Laskow Lahey state that the people involved in their sessions are not unusual people; instead, they report that their participants are "every kind of person you can imagine," but then admit that participants are primarily college educated middle class people from all over the world (Kegan & Laskow Lahey, 2009, p. 45). In other words, they are part of professions that can afford to pay for consultants and do not for the most part include working class people. My interpretation is that their reports are not based on people who are (on average) at an earlier stage of development, since they have not worked with people at plain jobs which require less complexity in reasoning (Commons, 2007). In defense of Kegan and Laskow Lahey, they give two examples where they specify the level of development, one with a socialized mind and one with a self-authoring mind according to Kegan's classification (Kegan, 2003; Kegan & Laskow Lahey, 2009). But they do not comment on those 3-13% percent of people who have developed less complexity than the socialized mind (Kegan & Laskow Lahey, 2009). What are the implications if not all participants are able to do the transformational training? Some people may have reached developmental limits due to factors like genetics and psychological damage earlier in life or cultural limitations (Commons, 2008). Individual development is affected by many influences: evolutionary, ecological, genetic, neural and hormonal, biomedical, nutritional, phenotypic, proximal and distal environmental influences that are all necessary but not sufficient to analyze a person, and it is a hard task to disentangle, predict and thus account for all influences (Wachs, 2000).

What's the Desired Outcome? Changing People or Organizations?

When the ITC process is used it is important to consider the desired outcomes. Is people's work with trying to dissolve their immunity to change a mutually agreed on desirable procedure? Does doing so serve the interest of the individual or the organization or both? In the ITC 2, the authors have expanded the exercise from an individual tool to an organizational device: "... the purpose of our work, however we went about it, was to grow the organization's ability to better deliver on its aspirations" (Kegan & Laskow Lahey, 2009, p. 82). This could make the process more powerful (Kegan & Laskow Lahey, 2009), but it could also increase the potential for two kinds of misuse. First, there is no inherent ethics built into the process, which means that it could be used to improve teamwork and thereby increase productivity for a company that destroys the environment. One solution of this is to make an ethical assessment before making the ITC available to a client company. Secondly, workers may be treated as means to a "greater" goal of increased productivity. There is quite a difference for people between signing up for self-improvement workshops in their spare time, and to be assigned to do something like the ITC because the employer decided that all workers need to improve their performance. One might even go as far as questioning if this is “adult development” or manipulation? Is participation in the ICT process empowering or does it make participants more malleable with increasing their self doubt? In summary, many ethical questions are worth investigating in general and in process design.

Developmentally-aware leadership means that leaders need to be more patient and understand that change takes time (Kegan & Laskow Lahey, 2009). This knowledge could be applied in all domains in life, and maybe there are better ways to be patient with co-workers, peers, students, and family. A complementary solution to the increasing mental demand of modern life, which seems to be invisible for some, is to adapt the workplace to people instead of changing people to adapt to workplace. Great parts of working life today require what Kegan calls a self-authoring way of meaning making in many cases (Kegan, 1994; Kegan & Laskow Lahey, 2009). This could be interpreted to mean there is a challenge to raise individuals to this level. Another way to consider this challenge is to ask the question: How can educational settings and workplaces change so that they make room for all kinds of people at the socialized order, the self-authoring order and the self-transforming order? The fact that organizations and companies require employees of higher levels of complexity (Kegan, 2004) is a challenging issue, because the costs are probably both individual and societal. And I do not think the solution of encouraging people to change and “develop” is either possible or an ethically-sound solution for all situations, because it will create expectations that are too challenging and over the heads for some.

I propose an analogy to support my points. If we have two ends in our hands, and we cannot make them meet, we can assume one is fixed and pull hard on the other or we can assume both are movable and try to bring them closer by pulling on both, or we can find a third piece that spans the gap between the two. If there is some problem in, for example, how workers “fit” into workplace organizations, and there is assumed to be only one solution, then it is possible to say that the organization refused to show flexibility (or growth or development) along the lines required by the workers. If a worker is not completing the piecework that flows along the assembly line, is it the “fault” of the worker, the “fault” of the assembly line organization of work process, the “fault” of the speed of the assembly line, or the “fault” of the employer who has assigned one worker so many tasks? Or does it indicate that there seem to be multivariate conditions that can account for a given situation, and how one sees it depends on one’s perspective. One motivating perspective is that employers want employees who can do certain things at given levels of complexity. Certainly one might hope that all people can develop to their full potential, but *that* that potential differs among people for numerous reasons needs to be considered (Commons, 2008).

The Mental Demands in and Assumptions of the ITC Process

The ITC is built on the key assumption (that I also share), that people do grow as adults, and even if it is often a slow process it is possible to further this development by adaptive and transformative exercises. The assertion is also that the ITC exercise actually can help people grow into new orders of complexity (Kegan & Laskow Lahey, 2009), but to what extent the ITC promotes transformation in orders of complexity is not yet clear. The primary follow up described by Kegan and Laskow Lahey is that people in organizations perceive themselves and others to be doing “better” on particular issues when they have used the process (Kegan &

Laskow Lahey, 2009). Kegan and Laskow Lahey do not provide results from any longitudinal studies that track changes over time to document the effectiveness of the method, and neither did I study that with my students.

A meta-review of 36 studies and over 12,000 participants showed that for a majority the developmental level stabilizes by early adulthood (Cohn, 1998). Individual development occurs, but little is known about it because most research has been performed on group data. A few studies have addressed the issue of promoting development among adults, and the results are mixed. Interventions to increase the ability to adopt a social perspective have been successful for children and adolescents, but in two studies “adults did not mature in response to role taking experiences or training experiences designed to increase one’s perspective taking and coping with inner conflict” (Cohn, 1998, p. 41). A few studies have succeeded in promoting development, but particularly few to postformal stages of development (Manners et al., 2004; Pfaffenberger, 2005; Ross, 2006; Torbert, 1994; Torbert & Fisher, 1992). According to Torbert, success factors for practices being developmentally effective are the following.

> (a) Voluntary engagement, (b) endurance over years, (c) guidance for participants by individuals who measure at later action-logics, and (d) research/ learning that integrates inquiry and action in the present moment (Torbert, personal communication in Ross, 2006, p. 41)

The ITC process does not live up to all these criteria. This does not preclude the possibility that for certain individuals the exercise will occur at just the right time to be a trigger for a transformational change. If the effectiveness of the process is going to be established, further research into its efficacy would need to be conducted. This, I recommend.

The Mental Demand of the Exercise

To be more specific, and to paraphrase Kegan himself, what are the mental demands of the ITC process (Kegan, 1994)? The ITC exercise consists of two parts, which puts different demands on people. Filling in the table requires a certain level of reflectivity about oneself and one’s actions; in addition, the participant must be able and willing to admit unfavorable aspects of oneself. The exercise is built on the requirement that all participants are able to use, at minimum, formal stage thinking. For example, it is not enough to blame others and make broad generalizations about others or self. To put items in the table requires at least formal stage reasoning because the persons need to see themselves responsible for the commitment (Kegan & Laskow Lahey, 2001a). An adequate understanding of personal responsibility is a formal stage concept which requires formal stage reasoning (Dawson & Gabrielian, 2003; Kjellström & Ross, 2009). In addition, it also requires the ability to present an antithesis of the argument when the counter commitment is identified. In summary, to do the ITC table of four columns requires systematic stage capacity to put formal relationships together coherently (Ross, personal communication, Nov. 30, 2009). In addition, it requires people to be able to reflect upon their emotions and have them as an object, in Kegan’s terms. The second part demands that participants observe their behaviors and interactions with others, which presupposes individuals have abilities to look at themselves from the perspective of another person.

An ITC Process on the ITC Process

What would happen if we performed the process on the process (see Table 2)? Multiple commitments are possible in a situation simultaneously, which means that others might come up with different first commitments, but this is my proposal. Thus, the objective of this thought experiment is to surface a possible underlying assumption of the process: in other words, on what sort of internally-presumed truth the process may rest on. As a starting point, we have to state a premise that there is an imaginary self (let us just call it “the ITC-itself”) that could be seen as the subject (in place of a typical person-participant); it represents the ITC performing its own process on itself. For the first step, the ITC-itself’s first commitment could be that positive adult development should be promoted because it is possible. In the second step, ITC-itself experiences that what interferes with this commitment’s goal are that people do not always change. In addition there is Kegan’s explicit commitment that increased mental complexity is necessary for people to adapt successfully to the environment, else they are “in over their heads.” The ITC-itself may assume that its design or explanations are inadequate to get intended results. In the third step, the ITC-itself identifies that its actions that undermine its first commitment (above) are using its steps with people that cannot or will not perform and use them. In reaction to that assessment, the counter commitment may be to not show or admit weakness in the ITC process because then the ITC-itself could no longer believe in its own effectiveness. A second possibility is that the ITC-itself would not admit the possibility that there will be those who simply do not change by using the ITC. That would challenge the primary assumption that people *can* develop by using the ITC.

Table 2. The ITC process on the ITC process

Commitment	Doing/not doing instead	Hidden competing commitment	Big assumptions
Adult development should be promoted.	To design or explanation the ITC in a inadequate way	To not show or admit weak-nesses in the ITC process; To ignore those who do not change	Change to more mental complexity is always right and good.

My suggestion is that the ITC process is based upon the “big assumption” that change of mental complexity is always right and good. But this assumption is not “taken as an object” and discussed by its authors. Authors of the books express an awareness that sometimes people do not change. This “failure” to change is explained by recognizing that change is difficult, that it is a slow process, that it takes personal motivation, integration of thought and emotions, connection between mind and hand, and a supportive social context (Kegan & Laskow Lahey, 2009). However, the normative notions that change in complexity is good or the possibility that conditions may exist when it is not a good fit are surprisingly not considered or challenged.

The second part of the ITC process is to modify and test the major assumption. Doing so would, for example, include finding cases when it is not in the best interest of people to change. Persons in this category could be those who are on the first phase of a next level of development and in the process of translating their experiences, or people who are stuck in their current way of living and do not have the abilities and support as described above. An alternative assumption would be that some people also have reached the limits of their individual means of growing meaning-making systems of higher complexity. This could mean that using the ITC process in a setting with such individuals will put further pressure on those individuals, possibly creating even more barriers to the possibility of a harmonious life. If this is the case and an underlying but now conscious assumption, we have a basis for considering the previous comments regarding ethics and the need to adapt workplaces and social structures to people's different ways of meaning making.

If my proposal of the ITC's "big assumption" is regarded as a compelling interpretation, and the implicit and invisible "big assumption" behind the ITC is spelled out and replaced by a conscious assumption of change being *sometimes* beneficial and possible, then the ethical road forward is to build this into the ITC process. Inspiration might come from the TIP process (Ross, 2006), which is constructed with the conscious underlying assumption that there are both people who benefit from change and those who do not.

Conclusion

The ITC process seems to be constructed on a major implicit assumption of change as always beneficial to all people. This is highly questionable, but regardless of the proof of its validity, several ethical questions remain that are not easily answered: Should students be required to go through this process? Should employees in a given workplace be required to do this? Should they be able to refuse to participate without fear of negative consequences? The proposal is that an ethical way of using the ITC process is to let participants be given a real choice of whether they want to take part in it or not. When the process is introduced in educational settings or at workplaces, it ought to be introduced as an entirely voluntarily practice. And when people have consented to involve themselves, their consent needs to be renewed continuously through the process.

It is possible to see Kegan and Laskow Lahey use of the ITC process as a primarily exogenous change devise, and a more ethical approach would be to use it as an endogenous process, where the change grows and is determined from within the individual. If the ITC process is to be used, it needs to be carefully introduced in a supportive environment with engaged and competent teachers who are willing to share and scrutinize their own assumptions about this exercise. Participants' developmental capacities for the complexity of performing the ITC may make its component parts impossible for some participants to complete. A great challenge is how facilitators can first ensure that their targeted participants are suitable for the process.

The relationships among participants, ITC facilitators, and the demands of the ITC process need to be scrutinized further. The ITC process requires at least systematic reasoning, where one can reflect on, compare/contrast, and discuss thoughts and feelings. Twenty-five percent is the highest commonly-estimated (in the adult development field) percentage of people in Western settings who can perform tasks at the systematic stage. Not all participants want to expend that effort or can. With a supportive facilitator, some people will be helped. Arguably more important, a skillful facilitator will be aware of subtle nuances across individuals in a group and lift demands from people who do not want to be part of an ITC process, or who may need an alternative, less challenging exercise.

The main conclusion is that inherent structures in the ITC process might produce some of the unintended results where people do not want to or cannot participate as a facilitator intends. If filling in the four columns requires systematic capacity to put formal relationships together, then abstract and formal stage participants, likely present in both the university student population and many workplaces, will probably be “in over their heads.” This represents an important area for further research in the field of adult development, education, and organizational development.

The proposal in this article is that what is missing in the ITC process is that adult “development” is not used *as a perspective on* the ITC process to pre-understand possible successes and failures. For example, in educational settings, it is an improvement if education is structured to promote mental complexity. But this means that not only must we be aware of students’ qualitatively different ways of learning, making meaning, and processing knowledge, but we must also take as a starting point people’s different levels of comprehension and construct different circumstances and experiences better tailored to these differences. Until we have sufficient information and the appropriate training to take this next step, we need to critically evaluate the use of transformational exercises and openly acknowledge the practical limitations, ethical matters and theoretical assumptions that they are based upon. An open creative dialogue on these matters is essential and I invite and request imaginative responses. The question for consideration by those using the adult development perspective now and in the future is how to deploy an ethical synthesis that coordinates two needs: using adult developmental methods on the individual level to help adapt people to the current societal systems they find themselves in, and using adult development insights to change societal structures to allow adults to evolve endogenously. Further research is indispensable not only on the effectiveness of educational designs and transformative exercises that claim to increase the level of mental complexity, but even more importantly, on how society and organizations can be structured to honor and respect people where they are.

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Reliability and Validity Tests of the Harthill Leadership Development Profile in the Context of *Developmental Action Inquiry* Theory, Practice and Method

William R. Torbert, Reut Livne-Tarandach

Abstract: In this paper, we describe how the Harthill Leadership Development Profile (LDP), a language-based instrument has evolved from Jane Loevinger's Washington University Sentence Completion Test (WUSCT), and has been redesigned to assess and offer feedback about adults' action logics in work or educational settings, in the context of Developmental Action Inquiry (DAI) theory, practice, and method (Torbert, 1972, 1976, 1987, 1991; Torbert & Associates, 2004).

Next, we challenge a recent critique of the LDP as a soft measure unsupported by published, quantitative psychometric reliability and validity studies (Stein & Heikkinen, 2009) and present both previously unpublished and previously published-but-not-aggregated studies illustrating Harthill LDP as a well-calibrated measure of adult ego-development.

Because the DAI approach to social inquiry and social practice invites us all to interweave first-, second-, and third-person inquiry and everyday action, the validity studies reported tend to concern field-based experiments seeking to generate developmentally transforming change in adults, including the researchers and/or interventionists, as well as in the organizations in which they participate.

In our conclusion, we briefly consider what a social science and a social practice based on the developmentally late action-logics will look like, once social science is recognized as embracing, not just 3rd-person empirical positivist research "on" subjects, but also 1st-, 2nd-, and 3rd-person research and action *with* co-participants in live settings.

Keywords: Action-logic, developmental action inquiry (DAI), Harthill leadership development profile (LDP), reliability, validity.

Developmental Action Inquiry: Theory, Practice and Method

Developmental Action Inquiry (DAI) is an approach to social science and to personal and social life that posits a sequential series of increasingly complex, inclusive, and mutually-transforming action-logics through which individual persons, conversations, relationships, organizations, and scientific paradigms may evolve as they intertwinedly act and inquire.

Drawing on the first-person action research of the Gurdjieff Work tradition (Ouspensky, 1949), as well as on the second-person "action science" of Chris Argyris (Argyris, Putnam & Smith, 1985), and on the third-person developmental theorizing of Erikson (1959), Torbert (1972, 1976, 1987, 1991, 2000a, 2000b; Torbert & Associates, 2004) has demonstrated how to interweave first-, second, and third-person research methods with first-, second-, and third-

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person practices to study the past, the present, and the future in ways that generate single-, double-, and triple-loop feedback (Chandler & Torbert, 2003; Starr & Torbert, 2005) that leads to increasingly timely action and inquiry (Torbert & Martinez, forthcoming). We will not summarize the DAI approach any further here, but the reader will find it illustrated in the validity studies described below, and the approach is reviewed in Herdman-Barker, Livne-Tarandach, McCallum, Nicolaides, & Torbert (2010).

In 1978, Torbert chose to begin working with, and adapting, Loevinger's Washington University Sentence Completion Test (WUSCT) as the third-person empirical measure of development that most closely tracked DAI theory at that time. We now turn to the question of how the WUSCT was gradually adapted to become the Harthill Leadership Development Profile (LDP).

The Development and Evolution of the Harthill LDP

The Harthill LDP (LDP) is a language-based instrument designed to assess adult developmental action-logics as part of the third-person empirical testing of DAI propositions. The current version of LDP includes thirty-six open-ended sentence stems that, upon completion by participants into sentences, enable one to measure adult action-logics. The HLDP evolved out of Loevinger's WUSCT (Loevinger, Wessler, and Redmore, 1970), and now includes 24 of Loevinger's original items along with 12 new items designed to improve Loevinger's original test in a number of ways.

First, in order to move away from the original focus of the WUSCT on women's issues and thereby expand the LDP's generalizability, the current version of the HLDP omits a number of gender-based items such as "The worst thing about being a woman...", "A good mother...", and "For a woman a career is...". Second, to improve the tool's face validity and usefulness as a work-related, leadership development instrument, the current version includes work-related stems, such as "A good boss…"; "A person who steps out of line at work…"; "I am powerful…"; "When it comes to organizing my time…"; and "Teams…"). As will be detailed below, the responses to the new stems correlate better with an individual's overall profile rating than responses to the former stems did, thus improving the overall reliability of the measure. Together, the additional stems incorporated in the LDP introduce a meaningful and unique contribution because they expand the scope of generalizibility of the LDP to better map management oriented themes that are at the heart of developmental implementations in organizational contexts.

In addition to gradually substituting new stems for previous ones, many other changes, described in greater detail in Herdman-Barker & Torbert (2010), have been made in the transition from the WUSCT to the LDP. The names of the developmental action-logics have been changed, along with key characteristics, to make them less evaluative, more descriptive, and more useful as feedback to respondents. DAI theory posited an action-logic between Loevinger's 3 and 4, and we found that the highest proportion of most of our samples scored at this in-between point, which we named Expert and defined. DAI theory also defined the latest (and rarest) action-logics quite differently from Loevinger, naming them Alchemist and Ironist. Cook-Greuter (1999) first re-defined and successfully tested new scoring procedures for these action-logics, and Herdman-Barker and Torbert (2010) later further redefined the scoring procedure and performed the construct validity test described toward the end of this paper.

Today, the names of the DAI personal action-logics, in developmental order, are: Opportunist, Diplomat, Expert, Achiever, Individualist, Strategist, Alchemist and Ironist.

History of Reliability Testing of the WUSCT and the Harthill LDP

The 2004 Torbert & Associates book *Action Inquiry: The Secret of Timely and Transforming Leadership* (Berrett-Koehler, San Francisco) contains an 18-page appendix on the history of the Harthill LDP up to that point. That appendix contains references to a large number of quantitative studies particularly testing the reliability of Loevinger's WUSCT, from which the Harthill LDP has evolved.

We will not repeat that material here, except to let the reader know three related points. First, our own earliest attempts to do developmental research in the 1980s used the WUSCT, relying on the extensive reliability and validity findings about the WUSCT at that time, and working with WUSCT scorer Susanne Cook-Greuter to test whether respondents' WUSCT ratings corresponded to the predictions of Developmental Action Inquiry theory for how managers and other professional measured at different action-logics performed. As will be reported in the validity testing section, we repeatedly found highly significant correlations accounting for unusually high percentages of the variance in criterion variables.

Second, Susanne Cook-Greuter was a Loevinger-authorized high-reliability scorer of the WUSCT in 1980, and she was the primary scorer of all the research reported in this article until 2005. During the 1990s Cook-Greuter redefined the later action-logics and their scoring procedures, showing high reliability results. Based on 60 protocols, she and another rater trained in the new scoring procedures achieved a Pearson correlation of .95, beyond the .0001 level of significance (Cook-Greuter, 1999, p. 115).

Third, in the early 2000s, Cook-Greuter trained Elaine Herdman-Barker as a high-reliability rater of the evolving measure. Herdman-Barker is now Harthill's lead rater and executive coach using the LDP in a constructivist developmental approach to coaching with other colleagues in Harthill.

Since 2005, Harthill has conducted a further series of six reliability tests to date among the Harthill LDP's current raters. First, we tested the extent to which the set of 36 stem-responses used in LDP can be aggregated to one score reflecting the center-of-gravity profile action-logic. To do so we tested the internal consistency by calculating the Cronbach's alpha score for the 36 response ratings. Cronbach's alpha values range from zero to one, one indicates perfect internal consistency and zero indicates no internal consistency. In general, Cronbach's alpha values higher than .8 are considered satisfactory as indicators of internal consistency (Schutt, 2004). Our analysis of the internal consistency of LDP was built on 891 distinct profiles, scored between 2005-2008 and generated Cronbach's alpha of .906, a relatively high value indicating good internal consistency that justifies the aggregation of stems into one score reflecting a single action logic.

Moreover, as the LDP includes six new stems, we assessed the extent to which these stems contribute rather than dilute the LDP assessment. To do so we explored the correlation between the six new added stems and the final profile scores and found that these correlations were relatively high (.86-.89), and that these were equal to or higher than the correlation found in previously used stems. This suggests that the newly introduced stems have added to the reliability of the measure and therefore seem to be adding to, not subtracting from the reliability of total profile scores.

Furthermore, to assure that no order effect influenced the consistency of the scale we conducted two separate analyses. First, we calculated the average individual-response ratings for each stem to the total-protocol-rating correlations for every one of the 36 stems in our 891 sample of profiles. These correlations ranged from .82 - .89 with an average of .86 across all stems. As none of the stems showed dramatically low correlation and as no particular pattern of correlation size order was evident in this set, we suspected that an order effect is unlikely. Yet, to rule out the possibility that the gaps between stems scores and profile ratings may have been influenced by stems order within the LDP sentence completion form, we used a linear regression building on 891 profiles and found that stem order had a significant effect but that the size of its effect explained less that 5 % of the variance in the gaps between stems and profiles scores. This suggests that while order effect may have a statistically significant impact, the sheer size of its impact is negligible due to its low practical significance (Peterson, 2008).

Another dimension of reliability testing concerns the assessment of inter-rater reliability. As the majority of stems included in the current version of the LDP are built on prior validated work by Loevinger and Cook-Greuter, and since Herdman-Barker and Cook-Greuter had attained a documented inter-rater reliability of .69 perfect matches and .90 within one level (when there were seven different levels), we have explored the extent to which the six newest business-related stems introduced to this version yield consistent scores. An authoritative test of reliability is appropriate only after scoring manuals for all the new stems are completed, and the scorers have trained with them. Nonetheless, in 2005 we completed a preliminary reliability test between Cook-Greuter and Herdman-Barker that included blind rating of the six new stems of 20 LDP profiles and found .74 agreement within one level (again, with 7 different levels), illustrating an encouraging reliability for an initial test, though it will be important to show a correlation above .80 in the post-manual test with different scorers.

More recently, another inter-rater reliability test has been conducted, assessing inter-rater agreement between final profile scores across 805 distinct profiles that could have been scored across 13 levels of scoring (from Expert through Alchemist, with three possible levels at each action-logic [e.g., Early Achiever, Achiever, Late Achiever]. The test shows .961 Pearson correlation between the two raters, with perfect matches for 72% of the profiles and agreement within one part-stage in another 22%. Hence, there is either perfect agreement or agreement within one part stage in 94% of the cases. There was a difference of more than one full action-logic between the two raters in only one case of the 805 profiles scored. Moreover, it is important to note that any difference in the two scores was adjudicated prior to sending respondents their feedback packages. It is also important to note that what is different about this last inter-rater reliability test is that, as the reader may imagine, both raters did not separately rate all 805 sentence completion forms. Rather, one rater scored them all, and the second (more experienced) rater then reviewed the scoring, making changes on individual sentence stem scores and on total protocol rating scores whenever changes appeared warranted.

At first, this procedure may strike the empirically-positivistic, 3rd-person-social-science reader as fundamentally inadequate. Isn't it obvious that the second rater may be subconsciously influenced by the pre-existing score to agree with it? Especially, given the aim of any inter-rater reliability test to achieve the highest agreement possible? And certainly, these questions lead directly to the importance of conducting a traditional inter-rater reliability test when the scoring manuals for the new sentence stems become available. However, consider the following arguments in favor of taking this test seriously as one among several reliability tests.

In orthodox inter-rater reliability tests, both raters know they are involved in a test and are therefore likely to try especially hard to score carefully, making it likely that the test overstates the reliability one would find if both unknowingly scored the same protocols and these scores were later tested for reliability. In contrast, the raters in this case did not imagine they were engaged in a reliability test at all (the test was only conceived post hoc). Thus, the second rater is consciously motivated to make "corrections" whenever warranted (not "as rarely as possible"). And this for three reasons: (a) for the client's sake (to give him or her the most accurate reading possible, in order to best support their further development); (b) for the sake of the continuing training of the second rater; and (c) for the sake of a productive and possibly mutually-transforming dialogue between the raters. Moreover, the accuracy rate in the final reported scores is even higher than .96 because of the change in the score once a discrepancy has been noted. (Of course, the change itself will have been a "mistake" in some small proportion of the cases, but presumably in less than half, since it is the more experienced rater who is making the changes.)

Put differently, the statistics in this inter-rater reliability test are not statistics from a small sample of all the protocols used in one research project or another, but rather represent reliability testing done on a high percentage of the entire population measured. To be more precise, this testing has been performed on all the 2006-2008 Harthill post-conventional protocols (Individualist and later, which are the most difficult to score reliably), as well as on a sample of the earlier action-logic protocols, which represents continuing oversight and feedback to the less experienced rater, even though he has already attained greater than .85 reliability with the lead rater on these.

History of Validity Testing of the WUSCT and the Harthill LDP

As in the case of our review of reliability testing, we will pass briefly over the early history of validity testing of the WUSCT because this history has been so carefully parsed previously (Torbert & Associates, 2004, *Appendix: Concluding Scientific Postscript*; the entire 4th issue of the 1993 *Psychological Inquiry*; Westenberg et al. (Eds.), 1998). As with most psychological instruments, most of the early validity testing of the WUSCT addressed convergent and divergent validity assessing the relation between WUSCT and other psychological measures. For example, a number of personality characteristics have been found to be appropriately associated with predicted developmental action-logics. These include conscientiousness, trust, tolerance, interpersonal sensitivity, psychological mindedness, creativity, and rule-boundedness (in this last case, a curvilinear relationship, lower in pre- and post-conventional action-logics, higher at conventional action-logics)(Kohlberg 1963, 1964; Lorr & Manning, 1978; Vaillant & McCullough, 1987).

Since the divergent and convergent validity of the WUSCT as the foundation platform for the Harthill LDP had at that time been unusually well established, and because all of our work grew out of the context of Developmental Action Inquiry theory, practice, and method, wherein first-, second-, and third-person research and practice interweave with one another (Chandler & Torbert, 2003; Torbert, 2000a, 2000b; Torbert & Associates, 2004), we believed that our greatest contribution to the credibility of the instrument could be made by demonstrating the construct validity of the later action-logics, as well as the criterion-related validity of the instrument as a whole in field experiments where the intent was to support developmental transformation of individuals and organizations. A recent review of the developmental leadership literature (McCauley et al, 2006) highlights the unique contribution this body of work offers. In other words, our interest in using the LDP has been in pragmatic and theoretical questions of change in the real world, such as: Do managers at different developmental action-logics act differently? What kind of educational organizational structures and strategies support, not just incremental, but also transformational change in students or employees or leaders or oneself? Do leaders at later action-logics support organizational transformation more reliably than leaders at earlier action-logics?

Our use of the instrument began in 1980 when one of us was serving as graduate dean of a management school that was pioneering an "action-oriented" MBA program and that received a research grant to study the efficacy of the new program. Thus, for three years running, all members of the entering and exiting fulltime, two-year MBA cohorts (about 96 per year) were offered the opportunity to participate in research that included the WUSCT in its initial period of transformation toward becoming the Harthill LDP. (At this point, the WUSCT was modified by four managerial stems (e.g., "A good boss…") that had been independently validated (Molloy, 1978), and language that was more managerial and less evaluative (thus, with greater face validity) had been developed for offering feedback. Participation was voluntary, and participants were offered feedback on their scores, as well as the opportunity to participate in a related laboratory experiment, to be described shortly. Nine of 288 chose not to participate. This research eventuated in four distinct studies with implications for criterion validity in general and the predictive validity of the LDP more specifically.

Study 1

The first confirmation we received of the criterion validity of the WUSCT / LDP) occurred via the unobtrusive measure (Webb et al, 1966) of whether students in fact asked for, and followed through by appearing at the appointed time to receive, feedback on the results of their performance on the measure (Merron & Torbert, 1984; Torbert, 1994). None of those measured Diplomat (4) sought feedback, and only a small minority of those measured Expert (5) did so. A bare majority of those measured Achiever (6) sought feedback, whereas a large majority of those measured as Individualist (7) or later did so. In short, a larger proportion at each later developmental action-logic asked for feedback, a perfect 1.0 correlation on a Spearman Rank Order test, confirming the theoretical claim that later action-logics are increasingly open to (and increasingly seek out) single-, double-, and triple-loop feedback and learning. Understood this way, this finding supports both construct and criterion validity. It is worth noting that other factors such as age, gender, years of work experience did not explain the difference in behaviors we have documented.

There were some significant qualitative indicators of the validity of the measure as well during this unobtrusive test. One was that those who measured as in between the last conventional action-logic and the first post-conventional action-logic at that time (known only by the number 4/5, between what Loevinger called 4/Conscientious and 5/ Autonomous, and what Kegan ([1982)] called 4/Institutional and 5/Interindividual) were the only ones who participated in a feedback session who took the initiative to set a second feedback session. finding the new theory through which they were learning in a new way about who they were critically helpful in resolving the relativistic confusions in which they found themselves (this is the action-logic now denoted as “7/ Individualistic/ Pluralistic/ Relativistic/ Green”).

A second, equally interesting, qualitative discovery was the action-logic of the only three persons who chose to come to a feedback session who became angry at what the measure indicated about them. For example, one of the three began to tear up all the research sheets on the Dean’s meeting table until the Dean prevailed upon her sense of principle by shouting that she was not tearing up just her own research results, but those of others who deserved equal opportunity to tear up their own – a speech act that caused her to desist. All three of these ‘angry’ persons were among the four who came to a feedback session who were scored at the Expert action-logic, between the dependent Diplomat action-logic and the independent Achiever action-logic. One of the Expert action-logic’s defining characteristics is counter-dependence.

Study 2

The laboratory experiment we invited MBA students and alumni to participate in during the mid-1980s involved taking a three-hour ‘Consolidated Fund In-Basket Test’ designed by the Educational Testing Service (Merron, Fisher & Torbert, 1987). This test positions the respondents as directors of a community fund, appointed in mid-campaign because the prior director has been disabled in an automobile accident. The new director must deal with 34 in-basket items from staff, volunteers, and board members on a Sunday afternoon. Forty-nine MBA students and alumni volunteered to participate in this study, which, like the previous one, promised substantial feedback (not just written, but also in person) about their own and others’ results. The sample consisted of 29 men and 20 women, whose average age was 31, all but two Caucasian, and all of whom had held, or were currently holding, managerial positions in a variety of organizations.

None of the demographic variables (gender, age, or years of fulltime work experience) explained differences in performance. Indeed, at first, *when quality of performance was measured by executives hired by ETS to rate relative efficacy*, it seemed that developmental action-logic as measured by the WUSCT/LDP didn’t explain differences in performance either. However, when independent, trained raters measured the number of *second-order responses* (i.e., occasions when the director asked for or offered double-loop feedback in his or her notes), as well as the number of *collaborative actions* (i.e., when the director invited the other to influence the outcome), they found statistically significant differences between the respondents measured at conventional action-logics (5/Expert and 6/Achiever) and those measured at post-conventional action-logics (7/Individualist and 8/Strategist).

In greater detail, inter-rater reliability was 92% for the *second-order* variable and 85% for the *collaborative-action* variable. A chi square test showed that the relationship between post-conventional action-logic and *second-order responses* was statistically significant beyond the .01 level; and the relationship between post-conventional action-logic and *collaborative-action* was marginally significant at the .09 level. Two further confirming aspects of the findings are: (a) that, while the largest increase in *second-order* responses occurred between the Achiever and Individualist action-logics, the largest increase in *collaborative-action* responses occurred between the Individualist and Strategist action-logics; and (b) that there were only half as many respondents measured at Strategist as at any of the other three action-logics. Therefore, the marginal rather than robust significance of the second finding may be due to the under-representation of Strategists in the sample.

This study contributes to both construct and criterion validity in that developmental theory would predict such differences in action-complexity between conventional and post-conventional action-logic leaders.

Study 3

In the much larger ongoing field experiment in the Boston College MBA program, two whole classes (n=193) were profiled at the outset and conclusion of their program (Torbert & Fisher, 1992). In spite of the variety of challenges and supports for transformational learning embedded in the organization's regular functioning during the first year of the program (which included rotating team leadership roles, 360 assessments, developmental coaching, action consulting projects with local businesses, etc.), only 3 of the 177 who enacted the many developmental instructional technologies during their first 11 months transformed a full developmental action-logic after the full 22 months, according to the LDP. *By contrast, 15 out of 16* of those organizational participants who did all the above *and also volunteered for and won* a non-remunerative consulting role with new teams, during their 2nd 11-month participation (including depth-clinical training and processing on a weekly basis), *did transform a full developmental action-logic* (see details of this process in Torbert, 1991, ch. 4). (It is noteworthy that, since the participants who became team consultants on average rated at later action-logics than the rest of the participants at the outset of the process, the statistical effect of regression toward the mean was operating *against* the direction of the actual findings on the after test.

This finding accounts for an unusually high proportion of the variance (81%, Goodman & Kruskall's tau) of the participants in the field experiment who are measured as having experienced a transformation of action-logic. The overall results validate the transformational efficacy of a late-action-logic type of intrinsically educational organizing (called 'liberating disciplines' in DAI theory [Torbert, 1991]) that highlights the complementary roles, in generating adult development, of: (a) practical demands of real business clients; (b) depth mutual inquiry practices; and (c) voluntary commitment to one's own development.

Study 4

A field study of 16 MBA project teams (Torbert, 1987) showed that those teams (5 of the 16) with one or more members measured at the Strategist/8 action-logic outperformed teams with no one measured Strategist in three ways: in terms of grades on the two course projects, in terms of members' perceptions of efficient time-use, and in terms of members' perception of within-group support for own learning. (No one knew the students' LDP scores at the time when the outcome data were collected.)

DAI and the LDP as Predictors of CEO Performance in Supporting Organizational Transformations

In the 1990s, Torbert and his associates explored whether Developmental Action Inquiry theory and practice and the validity of the Harthill LDP extended beyond the educational world to the world of business organizations in dynamic markets. They consulted and conducted action research in numerous for-profit and competitive not-for-profit organizations that wished to transform their strategies, leadership cultures, and ways of doing business (Fisher & Torbert, 1995; Rooke & Torbert, 1998; 2005; Hartwell & Torbert, 1999a, 1999b; Torbert & Associates, 2004).

In ten of these organizations, the CEOs all participated in taking (and receiving feedback on) the LDP. In five of the ten cases, the CEOs scored as Strategists. In the other five cases, two CEOs scored as Achievers, two as Experts, and one as a Diplomat. There were four different lead consultants in the ten cases, three of whom scored as Strategists and one of whom scored as Alchemist. The four consultants worked in different combinations with the ten organizations for unusually long periods – an average of 4.2 years. Business and reputational measures showed that seven of the ten organizations improved dramatically during the intervention/studies, while the other three declined either mildly or dramatically. Based on the thick descriptions of the individual cases, three raters achieved perfect (1.0) reliability in determining whether an organization qualitatively transformed into a later action-logic, or did not change at all, or regressed (in one case, one rater differed over how many transformations had occurred in one company).

All five of the Strategist CEOs succeeded, with the help of the consultants, in leading their organizations through one or more organizational transformation. Only two of the other five organizations succeeded in transforming, and the lead consultant in those two cases was the one scored as Alchemist. Two showed no significant change, and the organization led by the Diplomat CEO regressed.

If one adds the HLDP scores of each CEO/Lead Consultant duo, then the combined influence of their action-logics accounts for 59% of the variance (at a .01 level, on the Spearman Rank Order test) in whether the organization succeeds in transforming. (Cohen (1983) classified a large effect size as one that accounts for 25% of the variance in a correlation test (that is, r=.50). A test that accounts for 59% of the variance, as this one did, represents an unusually robust empirical finding.) Thus, this study seems to support the predictive validity of the LDP and the theoretical proposition that only persons who transform to the Strategist action-logic or beyond reach the capacity to reliably support organizational transformation (Torbert & Associates, 2004).

Critical readers will, however, have many questions about possible threats to the validity of this finding, so let us examine the study more closely and consider these questions.

Testing the Third-Person, Internal and External Validity of the Ten-Organization Study

Validity criteria that test the third-person generalizability of empirical findings "after-the-fact" are enumerated and described relatively exhaustively by Cook and Campbell (1979). Their conceptualization of validity has two general components, *internal validity* and *external validity*, defined as follows:

> Internal validity refers to the approximate validity with which we infer that a relationship between two variables is causal or that the absence of a relationship implies the absence of cause.
>
> External validity refers to the approximate validity with which we can infer that the presumed causal relationship can be generalized to and across alternate measures of the cause and effect and across different types of persons, settings, and times. (Cook & Campbell, 1979, p. 37)

Cook and Campbell (1979) list 19 different potential threats to internal validity and 13 different threats to external validity. They suggest that researchers focus on the threats most likely to have a significant effect on the validity of their work. In Cook and Campbell's terms, this study is best described as a *nonequivalent control group quasi-experimental design*, whose “treatment” is the presence and action of a CEO and lead consultant at the Strategist action-logic or later and whose “effect” is organizational transformation.

The most significant threats to internal validity in such a study are the *interaction of selection and maturation*, *instrumentation*, *local history*, and *threats to statistical conclusion validity*. And the most significant threat to external validity comes in the form of *insufficient construct validity*, which is a subset of external validity (Cook & Campbell, 1979). Another important threat to the external validity of this study would appear to come from its *small sample size*.

The internal validity threat of *selection-maturation* would arise in this study if Strategist action-logic CEOs happened to be associated with types of organizations that had growth patterns systematically not encountered by the types of organizations headed by CEOs at earlier action-logics. In such a case, it could well be that extraneous causes, not CEOs’ and consultants’ action-logics, would account for the organizations’ transformation. In our study, however, there was considerable variety across the organizations that did and did not transform: a) in size (10-1,019 employees, average=485); b) in type (5 for-profit / 5 not-for-profit); and c) in line of business (investing, automobiles, energy, consulting, education, health care). In short, the successes and failures in organizational transformation are not associated with any of these variables (e.g., two of the three organizations that failed to transform were not-for-profits, but three of the five not-for-profits succeeded in transforming).

The threat of *instrumentation* arises when there are scaling problems with the measurement of the dependent variable (organizational transformation, in this case) such that changes are more likely to be measured in one group than the other. Looking into our organizations, we find differences in the baseline action-logics of organizational development of the different organizations, and we also find that the three organizations unsuccessful in transforming were among the four organizations in the study that began at a relatively late organizational action-logic. At first, this seems to suggest that the coding scheme the raters employed may not be sensitive to transformations beyond that action-logic, or that such late-action-logic transformation is much less likely to occur than transformations through the earlier action-logics. However, a closer look reveals that six of the seven organizations that were coded as having transformed actually progressed to the organizational action-logic beyond the one at which those three organizations began, thus showing that the dependent variable was in fact sensitive to such transformations and that they do occur with some frequency. In short, when organization transformation failed to occur as indicated by measurement methods, it is unlikely that a limitation in the measuring instrument was the cause.

Another credible threat to internal validity, *local history*, is troublesome if there are events exogenous to the study that affected only the experimental group and not the control group. Here, there were five experimental groups (the five organizations with Strategist CEOs) and five non-Strategist-led control-group organizations. As far as we can tell, this threat of *local history* is substantially eliminated by the variety in geography (multi-national), industry (six industries), and market niche of the ten organizations that cut across both experimental and control groups.

Lastly, *threats to statistical conclusion validity* may also endanger the internal validity of this study. Statistical conclusion validity concerns our ability to determine statistically significant (within a specified α level) co-variation between our independent and dependent variables (Cook & Campbell, 1979). In the focal study, the threats to statistical conclusion validity were minimized since the authors used the Spearman rank order test, which is the appropriate nonparametric statistical test, and found results that were statistically significant at the .01 level. (Note that nonparametric tests make fewer assumptions about the "normality" of the distribution and about uniform, interval distances between the numbers, and are, hence, less likely to make false assumptions.)

With regard to external validity, Rooke and Torbert's (1998) detailed discussion of how their operationalizations reflect their action-inquiry-informed theoretical constructs minimizes many of the threats to construct—and also, by definition, external—validity. In this study, the operationalization of the independent construct is in the form of the LDP in the period of the Cook-Greuter variant of the Washington University Sentence Completion Test (Cook-Greuter, 1999). The operationalization of the dependent construct is provided by the organizational development action-logics of the Developmental Action Inquiry theory (Torbert, 1976, 1987; Rooke & Torbert, 1998) and the reliability among the three raters.

But what about the *small sample size* in the 10-organization study? Isn't that a huge barrier to claiming that the results are in any way externally generalizable to other organizations? In fact, the answer to this question is "No." The small sample size did introduce a slightly higher risk of a Type II error (falsely rejecting a valid finding), since the statistical power is slightly less than the conventional .80. But this small-sample-size effect would have affected the interpretation of the results only if a significant correlation had *not* been found. Put differently, what an *n* of 10, accounting for 59% of the variance at the .01 level of statistical significance means is just the same as what an *n* of 1,000 at the .01 level of statistical significance means… namely, that the hypothesis is not disconfirmed, with less than one in a hundred chances that the inference is in fact false.

More than that, the small *n* of ten organizations in this study means that the psychometric measure of the CEOs' and the consultants' action-logic must be valid in virtually every single case and must be a very powerful causal variable indeed. Otherwise, neither the correlation, nor the test of significance would have been so strong. Put differently, if the *n* had been 1,000 organizations rather than 10 and the result had achieved the .01 level of statistical significance, then the hypothesis would be confirmed as it has been here, but the variable (CEOs' & consultants' action-logic, as measured by the LDP) would not have been demonstrated to be as powerful a causal factor as it has been demonstrated to be in this study.

At the same time, however, it is important to remain cautious about the generalizability of the findings in two regards. Since the largest business unit in the study had 1,019 employees, we cannot know whether the findings will hold for Fortune 500 size companies. (Indeed, we expect that the CEO's action-logic alone will account for less of the variance in huge organizations and that the action-logic of the top executive team will account for more.) Also, the organizations in this study, whether for-profit or not-for-profit, are all productive, economically-oriented, work organizations; hence, the findings may not be representative of all types of organizations (e.g., spiritual organizations, temporary political campaign organizations, families, or government agencies). On the other hand, the results should be generalizable to the 95% of business and competitive not-for-profit organizations that have 1,000 employees or less. (And… since most management research is conducted in Fortune 500 firms ([partly because they are the only ones with enough margin to be able to tolerate studies of absolutely-unknown-practical-value)], this study can potentially claim greater external validity than all of them, generalizable, as it statistically is, to 95% of all for-profit and not-for-profit organizations, rather than the usual 5%.)

Construct Validity of the Current Harthill LDP

Since 2005, Herdman-Barker, Rooke, and Torbert have further redefined the rating of the Alchemist action-logic to further align the LDP rating system with Developmental Action Inquiry theory. We have included not only Cook-Greuter's (1999) criteria for what she names the "Construct-Aware" action-logic, but also her criteria for what she names the "Unitive" action-logic, as necessary elements of the Alchemist action-logic. In addition, we have identified further criteria that we believe increase the probability of validly identifying responses generated by Alchemists' post-conceptual awareness, not just by lexical cognitive complexity. These changes are based on DAI theory (Torbert, 1991) that argues that the Alchemist action-logic is a post-structural position of continuing fluctuating awareness that easily recognizes all the action-logics from Impulsive to Elder in oneself and in social situations (for more detail, see Herdman-Barker & Torbert, 2010).

In 2008, Harthill sponsored a cluster analysis test, explicitly designed to test the construct validity test on the current Harthill LDP. The statistical technique of cluster analysis is designed to assess the extent to which a measurement tool is able to capture qualitative differences that are conceptualized in the underlying theory that the tool is trying to measure. To assess whether (and what kind of) a qualitative difference exists between Conventional and Post-conventional action-logics, according to the LDP, we analyzed the underlying pattern of two separate sub-samples: (a) 830 LDP protocols rated overall as "Conventional" (Achiever action-logic and earlier); and (b) 61 "Post-conventional" protocols ((Individualist or later). We found a striking difference between the patterns derived from these two sub-samples, illustrating the qualitative difference between Conventional and Post-conventional action-logics. (In other words, we are asking you, our readers, to attend with equal concern both to the quantitative element of this finding and to the qualitative, "presentational" [Reason, 1994] portrait of the findings below.)

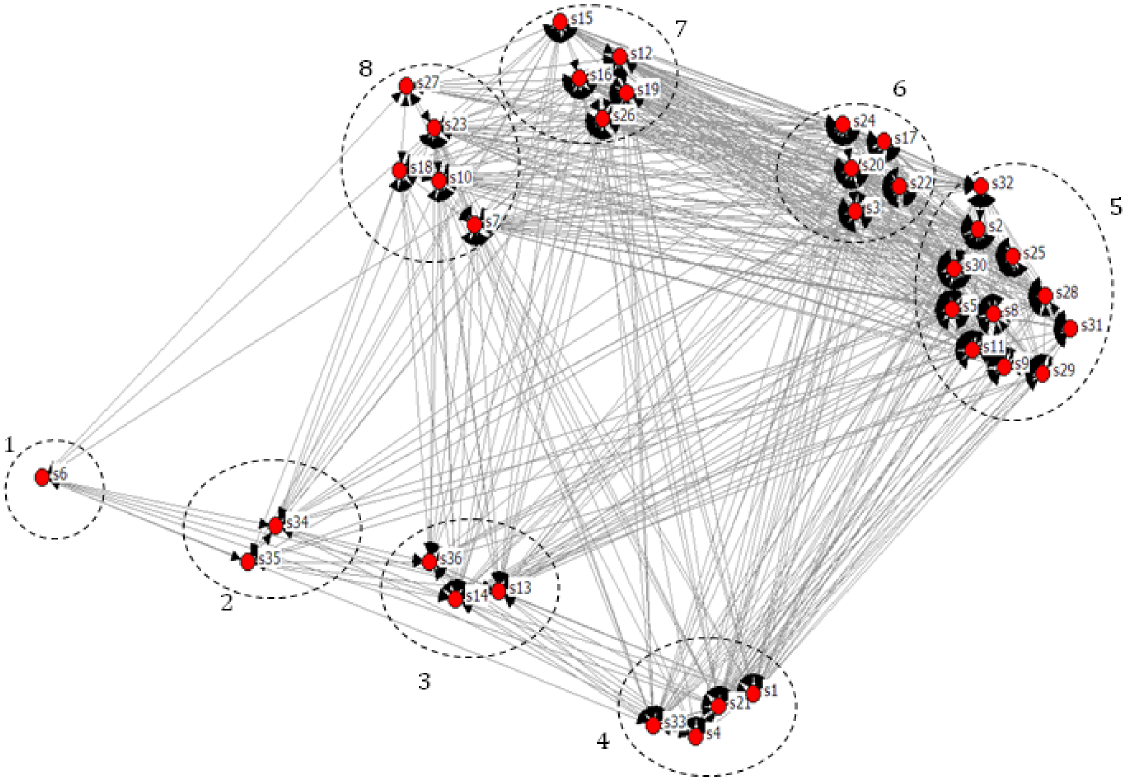

Figure 1. Cluster analysis of Harthill LDP scores on completions of 36 stems of Conventional profiles.

As Figure 1 shows, for the Conventional action-logics, stem-response ratings load on eight distinct factors, each of the eight nodes indicating a similar pattern of answers and scores.For example, stems 3, 17, 20, 22, 24 that make up cluster 6 reflect the high correlation in scores assigned to this set of stem-responses across the different respondents. Overall, this cluster analysis of the factors, or overarching themes, that emerge when analyzing Conventional LDPs is itself quite conventional statistically: distinct clusters or factors show up, with different sentence stems associated with each distinct factor.

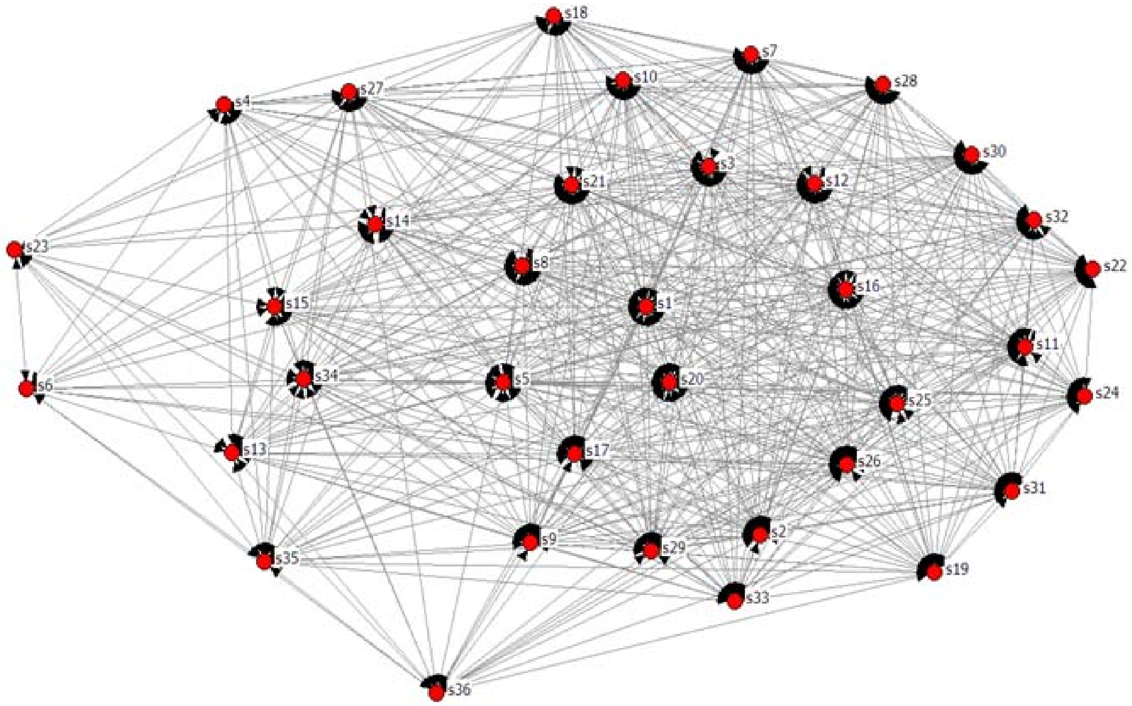

Figure 2: Cluster analysis of Harthill LDP scores on completions of 36 stems of Post-conventional profiles.

In contrast, we found a strikingly different pattern emerging from Post-conventional profiles (see Figure 2). For the Post-conventional action-logics (Individualist and later), stem-responses loaded on 11 factors, but loadings were not confined to one factor per stem. More than half (52%) of the stems loaded on two factors or more (9 stems loaded on 2 factors, 7 loaded on 3 factors, and 3 loaded on 4 factors).

These results illustrate a fundamental difference between the Conventional and Post-conventional action-logics, echoing the adult developmental theoretical foundation on which the Harthill LDP is built (Kegan, 1982, 1994; Torbert, 1991; Torbert & Associates 2004). The stably-focused Conventional loadings represent a relatively simple mental map, with Aristotelian-ly distinct, independent, lasting categories ("nothing can be both A and not-A"), as one would theoretically expect of action-logics up through the Conventional. In contrast, the complexity of the Post-conventional sets of loadings suggest that Post-conventionals hold a systems-oriented, inter-independent, "living" mental mapping process.

Plato's two distinctive images for the nature of thought in the *Theaetetus* – as either "marks on a wax tablet" of the mind, or "birds flying about in an aviary" of the mind – seem remarkably apt as metaphorical summaries of the difference between Conventional and Post-conventional thought.

Validity of the Harthill LDP on a Case by Case Basis

Because both the scientific and the pragmatic aim of using the LDP as one aspect of *Developmental Action Inquiry* theory, method and practice is to be able to support the further developmental transformations of those persons who take the measure and seek feedback about their performance on it, it is obviously crucial that the measure be as reliable and valid as possible on a case by case basis, and not merely on an aggregate statistical basis when comparing across large groups. The most recent reliability tests, cited at the end of the earlier reliability section, are performed on all late action-logic protocols partly in order to increase the likely validity in each individual case (and the associated very high reliability statistics also support the proposition that the LDP is accurate on a cases by case basis). Even more impressive are the very high correlations achieved in several of the validity tests cited above (Study 3 and the 10-organization study), which require case by case accuracy on the part of the LDP to generate such results. In addition, two recent doctoral dissertations have worked with small samples of late action-logic ratings and have shown that the measure accurately distinguishes among late action-logics on a case-by-case basis in theoretically predicted ways (McCallum, 2008; Nicolaides, 2008).

Post-Conventional Forms of Validity Testing

In addition to all of the foregoing conventional, third-person, social scientific reliability and validity tests of the LDP, Harthill also proposes, performs, and supports post-conventional, first-, and second-person validity testing of the measure each time it is offered as feedback to individuals using the measure. First, individuals are urged to make an estimate of their own center-of-gravity action-logic (e.g., based on reading Torbert & Associates, 2004) and to treat the subjective estimate as a form of first-person inquiry, triangling with the third-person, objective metric (Hartwell & Torbert, 1999a, 19989b). Furthermore, a 200-300-word personal commentary is provided with each profile, and the recipient is invited to read it in the following spirit: "This personalized commentary has been written in a spirit of invitation and inquiry (rather than as an authoritative statement of 'the truth'). It is intended to provide support and provocation in exploring your thinking, actions and opportunities for growth." Writing a developmental autobiography is an additional first-person method for exploring one's transformation across center-of-gravity action-logics during one's lifetime to date (Torbert & Fisher, 1992).

Second, individuals who have taken the LDP are urged to seek a 2nd-person form of inquiry and triangling as well. This can be an executive debriefing session with an authorized LDP debriefer, or an action-logic estimate based on the analysis, in a small community of inquiry, of the implicit framing assumptions a person makes in a difficult, work-or-personally-related conversation (McGuire, Palus & Torbert, 2007).

On the third-person scale of large organizations, institutions, economic sectors, or political regions, the aim of the DAI approach to theory, practice, and method is to build developmental research capable of generating single-, double-, and triple-loop feedback into the day-to-day operations of the institution. This enhanced feedback in the midst of everyone's everyday life should be associated with increasing experiences of adult developmental transformation, with an increasing prevalence of organizational transformations to late action-logics, and with a transformation of social scientific inquiry itself toward later action-logics. Such widespread interweaving of first-, second-, and third-person development is a challenge for the future of social action and social inquiry.

Conclusion

Why is the Harthill LDP, based on the theory, practice, and method of Developmental Action Inquiry, so powerful in explaining real-life questions like which leaders succeed in supporting organizational transformation of organizations of moderate size?

We believe it is in part because of the empirical reliability and validity of the Harthill LDP as a metric, a well calibrated measure that is grounded in extensive empirical evidence of its reliability and validity, as gathered together in this article.

But the metric can only be so powerful because Developmental Action Inquiry theory describes distinctive action-logics through which persons and organizations predictably pass, as they become increasingly open and committed to integrating action and single-, double-, and triple-loop inquiry at the 1st-, 2nd-, and 3rd-person scales in the service of timely, mutually-transforming actions.

In general, what one sees in the transformation from the Loevinger WUSCT to the Harthill LDP, traced in this article, is typical of developmental transformations from Conventional action-logics to Post-conventional action-logics. First, the 3rd-person, Expert, Empirical Positivist scientific base (Torbert 2000a, b) of the original Loevinger WUSCT is preserved and enhanced over the years. Second, new, post-conventional action-logics are conceived, defined, and operationalized through Cook-Greuter's, Herdman-Barker's, Rooke's, and Torbert's work. Third, the 3rd-person measure is re-oriented so that it can play a role in a wider field where the effort is to integrate it with practitioners' 1st- and 2nd-person research and practices in the midst of daily work and life. Then it is tested in action for the rest of one's life, not least in the overlapping, de-centralized communities of inquiry one develops with friends to face the end of life together.

Thus, the Harthill LDP emerges from, and re-presents, a relatively late-action-logic Developmental Action Inquiry paradigm of social science and social action, wherein a psychometric measure is developed as-part-of-widespread-communities-of-inquiry-participating-in-an-integral-system-of-mutually-responsible-action-and-inquiry-in-the-present.

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Toward Integral Higher Education Study Programs in the European Higher Education Area: A Programmatic and Strategic View [1]

Markus Molz [2]

Abstract: This essay somehow arbitrarily freezes my ongoing attempt to grasp the present situation and future possibilities of higher education courses, programs, institutions and initiatives that are inspired by integral and likeminded approaches. The focus in this essay is on the European Higher Education Area and its specifics, whereas some implicit or explicit comparisons with the USA are made. My reflections are triggered by the recurrent observation that in Europe there seems to be i) more demand than offer of integrally oriented higher education programs, ii) an imbalance between overused but little successful and underused but potentially more promising strategies to implement such programs, iii) little or no learning from past failures, and iv) little mutual awareness, communication and collaboration between different activists and initiatives in this field.

The context for this essay is i) the current societal macroshift, ii) the unfolding of academic level integral and likeminded research worldwide, and iii) the large scale reform of the European Higher Education systems brought about by the Bologna process, its (false) promises and the potential it nevertheless has for realizing examples of a more integral higher education. On this basis the consequences for attempts to overcome a relatively stagnant state of affairs in Europe are discussed. Given that; most past attempts to implement programs inspired by an integral worldview have failed from the start, or disappeared after a relatively short period, or are marginalised or becoming re-mainstreamed, this essay aims to devise a potentially more promising strategic corridor and describes the contours of the results that could be brought about when following a developmental trajectory within this corridor. This futurising exercise is inspired by principles shared by many integral and likeminded approaches, especially the reconsideration, integration and transcendence of premodern, modern and postmodern structures and practices of higher education.

This essay is programmatic and thus deliberately combines facts and values, past and future, summaries of first person observations and third person factual information, without the burden of systematic referencing required by scholarly writing. It does not claim to replace empirical surveys which, however, are still lacking to date regarding the actual state of affairs of higher education inspired by integral and likeminded approaches in Europe. Accordingly, at this stage, the essay is an exercise of awareness-raising to stimulate more and better collaboration across streams, disciplines and countries between those scholars, students and activists who are already inspired by integral and likeminded

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approaches and interested or already engaged in developing and sustaining higher education programs according to a more integral spirit.

Keywords: Andragogy, European Higher Education Area, higher education, implementation, integral and likeminded approaches, knotworking, learning communities, macroshift, project-based learning, service learning, strategy, study programs, transformation, vocation.

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Acronyms

In this paper the following four acronyms are used:

ILA = Integral and Likeminded Approach
HESP = Higher Education Study Program
HEI = Higher Education Institution (regardless of the more specific type like university, institute of technology, institute of teacher education, polytechnic, business school, art school etc.).
EHEA = European Higher Education Area

The first and the second acronym have been created because of their frequent use in this paper, the third and fourth are widespread official acronyms.

Overview

> *We believe the next transformation will give rise to the integrative university or transversity representing the next stage in evolution from the university and multiversity. The transversity is a new institution that will be multi–dimensionally connected not only within and across disciplines, but across cultural boundaries and across barriers to the broader society that separate it from primary education, industry, business, government and other institutions. These integrative universities will become living institutions in which organizational structure and patterns of behavior provide permeable boundaries to the outside community with fluid internal boundaries that allow people and resources to coalesce around prominent issues, opportunities, and challenges. These changes will enhance the exchange of research expertise and practical knowledge between universities and society*. (Awbrey & D. K. Scott, n.d.)[3]

> *What is needed now is a kind of university that has never existed before.... I propose that we can and should remake the university so that it becomes an intentional force for good in the world. Such a project runs counter to the kind of academic analysis that is modelled in the university today, for it is a project informed by care and passion and developed from within a distinct philosophical commitment and political interpretation.* (Ford, 2006, pp. 8-9)[4]

We are facing tremendous opportunities and threats, individually and collectively, in today's increasingly complex, interrelated and dramatically changing world. Globalisation and the associated far-reaching developments across all domains make heavy demands on almost all of us, and opening up new opportunities at least for some. Overall, we are experiencing and co-producing a growing rate of change not only impacting ourselves, but so many future generations such as has never occurred before in the history of humankind. In Europe and other parts of the world we are already in the midst of a profound and irrevocable cultural transformation which is not only an economic or a technological one, but a macro shift (Laszlo, 2001) concerning the dominant worldviews, lifestyles, life worlds, and their governance. Only two or three times since the dawn of the species Homo sapiens on planet earth did human societies undergo such a profound transformation. Through the second wave of globalisation in the last 20 years or so we are on the way to a new societal formation beyond the industrial nation state model. Some are inclined to perceive this as a lethal global crisis – for many good reasons linked to data-based mega-trends – others as the possible dawn of a new, more inclusive and peaceful planetary civilisation – for other good reasons more linked to vision, values and creativity. Whether the unprecedented accumulation of intractable problems or the upcoming wave of new opportunities is highlighted depends on one's position, perspective and temper. It might be wise, however, to keep closely in touch with both, as do integral and likeminded approaches (ILAs).

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[3] Scottish-born nuclear physicist David Scott was Director for Research at the Cyclotron Laboratory, Vice President for Academic Affairs, and Professor of Learning, Science and Society at Michigan State University, and then served as Chancellor of the University of Massachusetts at Amherst 1993-2001.

[4] Marcus P. Ford is Professor of Humanities at Northern Arizona University and serves in the integrative Comparative Cultural Studies program.

Scientific research, through its technological and technocratic outlets[5], has been one of the most important enablers and amplifiers of the earlier and the contemporary wave of globalisation. Unfortunately however, the educational and ethical aspects of scientific developments are lagging behind the technological ones which found their way into practice much quicker.[6] For this reason academia has today the prime responsibility to support individuals, organisations and societies through appropriate research, higher learning and service to communities to understand and utilise the high level of complexity of this macro-shift as productively, sustainably and inclusively as possible. Many ILAs are foregrounding individual development and collective evolution in a multidimensional and emancipatory perspective. When facing uncertainty and standing on shifting sands, as we all actually are today, they appear as suitable and timely contributions for inspiring higher education for the 21st century.

It appears, however, that there are major obstacles to an implementation of higher education study programs (HESPs) inspired by ILAs. In order for implementation to meet the breadth and depth of contemporary challenges and the speed of actual change, various issues must be overcome. For example institutional inertia and hyper-specialisation deeply inscribed into the structures and mentalities of academia on the one hand, and lack of professionalism and strategic collective power in many upcoming projects and initiatives based on ILAs on the other hand. Another factor playing a role are the low levels of communication and collaboration between streams representing different ILAs which generally tend to emerge as rather self-contained communities. The overall consequence is a considerable lack of overview, grounding, potential insight, mutual constructive criticism, and practical synergies. As a result, the absolutely crucial shift towards locally and globally sustainable lifestyles is much less than optimally stimulated and amplified by higher education and research. Therefore, leaving aside differences in emphasis, most ILA-inspired thinkers and activists would agree that the agenda of today’s mainstream higher education and research needs to be complemented, broadened, and reorganised in order be able to reasonably tackle the new requirements related to the current macroshift.

Through European, and later North Atlantic imperialism, modern Western universities have become the globally dominant model of higher learning and of the definition of valid and useful knowledge. They have been profoundly shaped by, and instrumental to the development and stabilization of industrialized nation-states. The current global challenges and the globally emergent designs of knowledge-based, networked living and working bring about a new, unprecedented societal formation. On the one hand this formation strongly depends on even more powerful “knowledge” institutions. On the other hand many existing higher education institutions (HEIs) are considerably challenged by digital media, cultural / linguistic diversity, post-materialist values, transdisciplinary problem-solving demands, demographic shift, ultimate massification and accountability towards an ever larger array of stakeholders. In addition, they are particularly challenged by the strengthened competition between each other and with more agile competitors like continuing education providers, virtual and corporate universities, and with institutional less or unbounded knowledge production and dissemination over the Internet.

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[5] Like transportation systems, fossil and nuclear energy production, military technology, information and communication technology, management fads, sustained political and economic ideologies, and the new horizon of genetic engineering.

[6] Coined in one of Albert Einstein’s catch phrases as “It has become appallingly obvious that our technology has exceeded our humanity.”

Consequently, traditional HEIs are under pressure and need to adapt and change to become hosts and catalysts of adequate higher learning in this century. All this being said, new models of HESPs are called for, building on, reorganising, extending and transcending current structures and practices of higher education, models that embrace dialogical, plural and integrative practices regarding the worldwide quest for knowledge, wisdom and appropriate practice in midst of turmoil, breakdowns and difficult to track new emergent patterns. HESPs inspired by ILAs can and should play a substantial role in this transformation. Until today, however, the (although limited) institutionalised offers in the USA are not equalled by anything comparable in the upcoming European Higher Education Area (*EHEA*). Both areas of higher education show up with a comparable number of students and HEIs. They are the two largest ones in the world,[7] and the hosts for the largest proportions of all international students worldwide. Given that many of the historical lead figures of ILAs are Europeans or learned from Europeans there is one more good reason to push the development of HESPs inspired by ILAs in the EHEA. The goal then is to reach levels of program implementation corresponding to the existing potential in terms of academic teachers and students already now inspired by or interested in ILAs, but lacking academic contexts resonating with their aspirations and vocations. For this to happen the pervasive strategies of curriculum design and organisational set-up of new HESPs need to be rethought and refocused. As a requirement, the new conditions for running HESPs, generalising with the realisation of the EHEA, have to be considered thoroughly as they are partly a barrier and partly a potential vector for creating more integral approaches to Higher Education in Europe. On this basis innovative models can emerge in the interstices of the long-standing and inert structures and practices of higher education, hopefully anticipating and exemplifying a more general transformation.

Contexts

> *Without a global revolution in the sphere of human consciousness nothing will change for the better in the sphere of our being as humans and the catastrophe toward which the world is headed – whether it be ecological, social, demographic or a general breakdown of civilization – will be unavoidable.* (Havel, 1990)[8]

In this section the ground will be prepared for the strategic reflection in the section on Strategies by considering a range of contextual influences on higher education, research and integral approaches in Europe and beyond. Specifically, transformation in society and the rise of integral consciousness, the evolution of research paradigms, and the realization of the European

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[7] With China strongly catching up since the turn of the millenium and India already being quite strong.

[8] In his address to the United States Congress, Washington, February 1990. Václav Havel is a writer, dramaturge, and politician. He was one of the major critics of the Soviet regime and an important activist in the velvet revolution of 1989 upon which he became president for 14 years, first of Czechoslovakia and then of the Czech Republic. For both his literary and political work he received numerous awards. A cross-cutting theme in his writings is the alienation and fragmentation of the life of the modern human being determined by science and technology which have taken the place of the Highest.

Higher Education Area. Those who feel already well acquainted with one of these contexts can skip the respective subsection without hampering the understanding of the following main sections (Strategies and Contours) containing the core arguments of this paper.

Transformation of Society and Rise of Integral Consciousness

Historically, in Western societies there has been an evolution from an almost pervasive dominance of the religious over other societal domains (politics, economy, knowledge and media) to a relative or in some countries absolute separation between the church and the state. This transformation enabled the deployment of scientific inquiry that is unthreatened and unconstrained by religious dogmatism and so gave rise to modern science and higher education, fuelled by the competition between the collection of medium-sized and small countries on the European peninsula. More generally, a cognitive revolution occurred in the Gutenberg era through more widely available print publications and through the introduction of mandatory schooling of entire populations. The industrial revolution, however challenging it was for those directly involved in it, ended up with higher living standards and life expectations, and the development of democratic regimes guaranteeing women's and minority rights etc. in what is called the Western world. Through the process of secularization the impact of religious institutions declined as well on the life of the average individual. Today, in certain geographical areas in Europe traditional local faith communities are threatened with disappearance. At the same time a patchwork of new "spiritualities" has been emerging. Rational science, powerful technology and material abundance of the broad middle classes of Western countries apparently has not ruled out transcendent aspirations as earlier proponents of the Western-style enlightenment project would have expected. Nevertheless, in most parts of Europe, an enduring uneasiness in the relationship between science and spirituality resulted from these historical processes.[9]

From the internally fractured and blood-saturated European soil not only the cognitive and industrial revolutions were expanded globally, but as well colonialism and the two world-wars. Colonialism, nationalism and war cannot be separated from the Western enlightenment project which, in Immanuel Kant's[10] famous definition was meant to be "man's leaving his self-caused immaturity" towards the enactment of the values of the French and other revolutions, freedom, equality and solidarity. Colonialism, nationalism and war have been Western enlightenment's continuous condition, companion and shadow-side. And they still are, just in different disguises, as today, on a global scale, some are much more free and equal than others, and some are included whereas others are excluded from the circle of solidarity and care. We are lucky of course that the Cold War, artificially forcing Europe and the whole world into two ideological camps, East and West, communist and capitalist,[11] did only almost but not actually explode into a hot nuclear third world-war. But as a matter of fact we don't need to wait for the third world-war as it is already taking place day after day, through the neo-colonial socioeconomic imbalance and injustice between the global North and the global South which is structurally reproduced on the basis of the historical world-system put and kept in place by the North Atlantic nations. Accordingly, not only the material conditions are highly asymmetric, but as well the geopolitics of knowledge. Knowledge and power goes rather one-way from the global North to the global South whereas migration (brain drain) and resources go the reverse way. What is lost in the middle is dignity of life for the (much too) silent majority of humankind, and the ecological balance of great many natural habitats, including the global habitat of the globalised humans themselves.

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[9] Compared to the USA, lower levels of attendance of faith communities and of communication between science and religion can be observed in most European countries in which different historical trajectories have produced similar results: whether in the radical French state secularism in which spirituality is banned from the public sphere, including schools and universities, whether in Germany where 12 years of Nazi regime were sufficient to create a transgenerational suspicion regarding everything not appearing neatly rational at first glance, whether in several Eastern European countries under former Communist rule in which atheism became the new state religion and which survived the fall of the Soviet regime in the attitudes of important sections of the population.

[10] As a case in point, Kant's otherwise ingenious world-centric life work is not at all free from Prussian cultural chauvinism.

Given the deep implication of generations of Europeans in these historical dramas, directly or indirectly, intentionally or unintentionally, it has come somehow as a miracle that now, as an ongoing political, economic and sociocultural project, the very first transnationally integrated society of the planet is shaping up step by step in the last 50 years on the European peninsula: the *European Union* has become an undeniable reality despite the waves of developmental crises it is undergoing and despite frequent contradictions between great ideas and weak realizations.[12] Some of the hallmarks of the current transition in European countries and elsewhere from industrialised nation-states towards a transnational or eventually global networked society are:

- The high impact of major breakthroughs in physics, genetics and information technology and their associated technological opportunities and threats;
- A quick and profound demographic shift with far-reaching consequences through dropping birth rates, further rising life expectation and highly controlled immigration, producing a rapidly ageing society;
- A growing instability of the global financial and economic system and growing socio-economic inequalities between social classes and between prospering and declining regions, between employed and unemployed, coupled with persistent and ever more rising public debt;
- An extreme dependency on the availability of fossil energy carriers whose availability is declining, and a generally completely unsustainable lifestyle and associated long-term ecological degradation, some of which has already become irreversible, as reflected by global climate change, loss of biodiversity and fertile soils, accumulation of dangerous chemicals and nuclear particles in the environment and in the food chain;
- Wide-spread health problems typical for (post-)modern societies (cardiovascular diseases, obesity, diabetes, addictions, depression, burn-out, …) despite a medically highly sophisticated health care system and high life expectations.

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[11] Very much paralysing as well the States of the Non-Aligned Movement who precisely tried to escape from it.

[12] As well as some well-realized bad ideas like export subsidies for European agricultural products destroying local agricultural markets in countries the EU is claiming to support in their development.

- Threats for the Western-style democracies by new religious fundamentalisms, global terrorism, political populism and most of all, frustrated disinterest of a growing number of non-voters.
- Repeated attempts at economisation of all spheres of life (and Westernisation of all cultures) in terms of the dominance of one worldview and lifestyle over all other worldviews and lifestyles.

In the face of these developments, the political inertia and lack of collective anticipatory learning made us loose the period of more than a generation through inaction, insufficient or inadequate action despite well substantiated early and recent warnings.[13] The systemic incapacity of most contemporary decision-makers to influence any of these global trends substantially is becoming more and more evident. However, there is a growing awareness of all these developments among those who are well-educated and critical, and many are starting to realize that these trends taken together are going to have disruptive effects, and that many of the measures implemented are often rather part of the problem than of the solution.[14] The part of the measures that could be helpful is generally implemented too late, too slowly, too modestly and too unsystematically. The more overarching visions for a plan B[15] come from outside the centres of power and decision making and infiltrate them only in downshifted and fragmented versions. What makes things really embarrassing is that apparently there is no plan C (preparing for *catastrophes*) or D (generalised *disaster* management) even though this is likely what is needed in this century. The goals of the political realists are rather coined in terms of “reducing the acceleration of the growth of …” (many issues can be filled in the slot: public debt, global warming, uncontrolled proliferation of nuclear weapons etc.) The dominant discourse is that there is no alternative to the overall path of socioeconomic “development,”[16] and the idea is that growth can now somehow miraculously become green growth. Undifferentiated notions of growth and development are and remain the long-time favourites of verbal narcotics in political discourse and action across countries and political parties that are immune against contrary evidence (Rist, 2002). Under these conditions the UN millennium development goals,[17] coined in the same terms, are more than likely to remain utopian even when considerably stretching the deadline that has been fixed (2015).

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[13] The report to the Club of Rome “Limits to Growth” (Donella H. Meadows, Dennis L. Meadows, Randers, & Behrens, 1974) that has become a bestseller in many countries being a major case in point. But until today, as the 30-years update of this report shows (Donella H. Meadows, Randers, & Dennis L. Meadows, 2004) or Ervin Laszlo’s (Laszlo & Seidel, 2006) take on the same issues, actual action is lagging behind available and more and more specified insight and action potential. See as well footnote 15.

[14] The way the current globalised financial crisis is tackled is a case in point which will amplify international imbalances, future global problems, and intergenerational injustice.

[15] Many Plan B’s have actually been devised until most recently, in scientific (Rockström et al., 2009) and in popularized (Brown, 2009) versions, but as they all imply substantial changes in Western consumerist lifestyle they linger at the margins of actual political action, even though certain political discourses start to rhetorically take up some of those Plan B elements that appear less threatening to the electorate (and to political careers).

[16] This is perhaps the biggest case ever of a TINA (“there is no alternative”) – formation. TINA-formation is a term Roy Bhaskar has introduced in his work, referring to Margret Thatcher’s famous expression, as an invitation to forcefully and intentionally explore the alternatives to “no alternatives” (Bhaskar, 2002, pp. 202-204).

[17] www.undp.org/mdg/basics.shtml

Actually, to run “business as usual” “without an alternative” equals being a generation which is unabashedly living on the basis of the heritage of its children and grand-children rather than the other way round. The fact that this is now happening on a global scale is a historical first. This alerting reversal, if continued, unmistakeably foreshadows an “end of civilization as we know it” – scenario (e.g. Diamond, 2005). The causes for this likely scenario are known by many of those who bring it about before the breakdown has actually taken place on a broader scale – this is another historical first. An array of curative and preventive measures are known and at least partly available but not (sufficiently) employed – this is a third historical first. These three historical firsts combined make humankind very much appear as travelling on planet earth as a suicide bomber.[18] On this basis there is one big unanswered question, and it is unanswered because it is taboo to ask it in the first place: How to act appropriately after it’s too late?

In this overall context the European Union, through its Lisbon strategy[19] and its reform treaty[20] wants to strengthen its path towards a transnational, sustainable, open and inclusive society but, at the same time, become the most competitive and innovative knowledge economy of the world. That goal is stated in the nowadays pervasive economic slang. But even when striving for alternative futures in alternative terms, there is a large consensus that research, innovation and lifelong learning are key. What is rarely considered, however, in European policies – and in other regions either – is that the current challenges cannot be overcome by learning and innovating more and faster in any linear way. There is little awareness yet that the core issues of societal macroshift need to be addressed on the much deeper meta-paradigmatic level of worldviews. Only then can the contemporary predominance of partial perspectives and of specific levels (national) and domains (economy) become more balanced. This requires a deep, multidimensional transformation.[21] This transformation cannot be caused in any straightforward way, though. However, it is possible to create and cultivate organisational and educational environments that are more receptive and conducive for its emergence than this is generally the case.

As a proxy for this transformation we can look at empirical research on values change.[22] This line of research has quite consistently shown that the distribution of value systems held by specific sections of the population is shifting in time. It appears that in the last generation or so a growing percentage of the population of Western countries identifies with post-materialist values. This section starts to represent a separate force, distinct from religious traditionalists and secular materialists – or at least would represent a separate force if more mutual awareness and coordination was established. Individuals identifying with post-materialist values tend to be more interested in quality of life than standard of living, psycho-spiritual development than material security, relational care than untempered competition, cultural diversity than identity politics, environmental protection than exploitation of nature, social justice than domination.

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[18] There is generally much indignation, and rightly so, when people called terrorists employ a similar approach on a much smaller scale and harm or kill innocent bystanders and children. The lack of indignation regarding our own involvement in collectively employing the same approach on a much larger scale is striking and shows that the mirror image is not understood.

[19] http://europa.eu.int/growthandjobs/key/index_en.htm

[20] http://europa.eu/lisbon_treaty/index_en.htm – after years of intensive struggle and contestation the reform treaty is just now entering into force. For the new lighthouse positions of a President of the EU Council and of a High Representative for Foreign Affairs which the treaty creates two politicians almost totally unknown to the European and world public have been appointed.

[21] Or even more deeply, a *mutation*, as Jean Gebser (1985) contended.

[22] Like the World Values Survey (www.worldvaluessurvey.org), and the European Values Study series (www.europeanvaluesstudy.eu), among many more specialized or geographically more limited studies.

This (inter-generational and to a certain degree intra-generational) values change in a section of the population is probably too recent to attract wider awareness, but it is empirically undeniable. In many countries the growing proportion of the population holding and enacting post-materialist values is not yet properly represented in the post-war system of political parties and does not yet have a substantial impact on the existing public educational provision. But as a matter of fact it has a different pattern of consumption and is quite active in cultural production and civil society organisations. These people holding post-materialist values actually become more and more organised in multiple groups, networks, projects and training programs. Mostly this occurs outside formal political and academic contexts in informal meetings, associations, and settings of coaching, consulting and alternative adult education. Many of these initiatives are often still largely isolated from each other and unaware of their commonalities, especially across domains, streams and countries. But day after day there are more of them.

Conclusion

Vaclav Havel's contention introducing this section says it all: either we are bringing about a leap in consciousness and substantial transformation of our post-war consumerist Western lifestyles within a generation or civilisational decline if not cataclytic breakdown will take over. The time window for this to be catalyzed is shrinking very quickly, and in many respects it is already too late. There are signs, though, that the leap in consciousness has indeed started to take place in growing sections of Western populations and elsewhere, and that these sections are among the best-educated, critical, spiritually interested, and engaged in civil society initiatives. However, there are too few educational opportunities yet reflecting and enhancing their values, attitudes, knowledge quests, practices and lifestyles (especially so in publicly recognized forms of higher education). On this basis the need for information and knowledge, discussion and networking, training and competencies, research on and practice of ILA's is already sensible and is very likely to grow steadily in Europe and elsewhere.

Today, there is no other reasonable way to influence the (true but partial) rationalistic, science-based, and technologically propelled power base of the Western world than to target in its heart: the scientific enterprise and its underpinnings. Transforming academia from within is necessary because the techno-scientific power-base in its current globalised performances reveals severe (self-)destructive tendencies. It is very efficient with regards to isolated processes but evidently very little effective with regards to cross-cutting issues, higher purposes and long-term sustainability (Maxwell, 2007). As a consequence ILAs have to make inroads into academic research and training or they go nowhere, and higher education thus goes nowhere as well.

Evolution of Research Paradigms

> *The creation of our current global problems, and our inability to respond adequately to these problems, has much to do, in other words, with the long-standing, rarely noticed, structural irrationality of our institutions and traditions of learning, devoted as they are to acquiring knowledge dissociated from learning how to tackle our problems of living in more cooperatively rational ways. Knowledge-inquiry, because of its irrationality, is designed to intensify, not help solve, our current global problems. Inquiry devoted primarily to the pursuit of knowledge is, then, grossly and damagingly irrational when judged from the standpoint of contributing to human welfare by intellectual means. At once the question arises: What would a kind of inquiry be like that is devoted, in a genuinely rational way, to promoting human welfare by intellectual means? I shall call such a hypothetical kind of inquiry wisdom-inquiry …* (Maxwell, 2007, p. 103)

To understand the unique contributions to higher education ILAs can make it is necessary to mention some features that became powerful forces in mainstream versions of academic research and higher education: hyper-specialisation, scientism, but as well worldview revolutions generated by scientific research itself.

The flourishing of specializations can be considered the single most important and most pervasive structural feature of the research and higher education systems from the 19th century onwards until today (Becher & Trowler, 2001). The number of institutionalized disciplines and sub-disciplines grew almost exponentially, and today we arrived at approximately 10,000 recognized research fields. Interdisciplinarity, by the way, is not a new buzzword at all, but a pretty old claim, historically arising almost together with disciplinary and sub-disciplinary specialization. However, the call for and practice of interdisciplinary endeavours has rather added to than remedied the rapid proliferation of compartmentalized pockets of knowledge generation, because it is creating uncountable new cross-over niches, hybrid sub-disciplines and many temporary projects not leaving any new imprint, coordinated perspectives or conceptual integration. The disciplinary structure and its interdisciplinary sibling help to create professional identities and cross-generational lineages at the price of decreasing societal usefulness of the knowledge produced, even more so as facts were often separated from values.[23] This drift towards scattered and "value-emptied" knowledge has reduced the possibility to communicate results beyond the small community of fellow specialists and to derive helpful recommendations for and co-operations with practitioners and policy makers.

Scientific inquiry as practiced in many of the contemporary institutional settings of higher education and research in this spirit often turns out to be scientific dogmatism (scientism) when challenged by phenomena and arguments not fitting right away in the dominant frameworks and their unquestioned background assumptions, be they modernist or postmodernist. Scientism is rather unscientifically restricting the range of legitimate questions, methods, theories and fields of inquiry. Scientism in less obvious forms seems respectable in many research communities and beyond. It is part of the strategic game of rhetorical and institutional delimitation of “true science” from other forms of generation of insight (like practical knowledge, spiritual experiences, or worldviews from non-Western cultures) – as if there could be a completely neat split. This continuous attempt to make academic science special – and superior – often lacks reflexivity, and doesn’t reflect what makes scientific research truly specific in terms of an undogmatic, pluralistic, rational, transparent and reflexive mode of inquiry. It doesn’t sufficiently take into account that the practice of the academic researcher is embedded in a multi-layered knowledge quest co-determined by a-rational intuitions, personal themes, and cultural metaphors. And it doesn’t consider the whole impact of worldview revolutions that scientific research has produced by itself, and which show the limits of understanding and dealing with reality in terms of scientism.

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[23] As if the selection and construction of facts is not guided by values, as if relying on facts is not a value in itself, and as if one could remain neutral regarding certain facts.

If the quantum revolution has shattered the mechanistic worldview in the sciences in the early 20th century, the postmodern and reflexive turn has shattered any myth of the given in the humanities and the social sciences in the late 20th century. It appears that data is observer and theory-dependent, that language, metaphor, and cultural communities of practice play a major role in interpretation and sense-making, that there is a diversity of rationally defendable paradigms which don’t go away with scientific discoveries and advances, and that the link between knowledge and social power relations cannot be denied. Accordingly, post-positivist research approaches have gained influence, and the call for a more self-reflexive practice of scientific research has started to spread and to become normative, at least in the social sciences.

Interestingly, many proponents of quantum physics[24] and of variants of post-modern philosophy[25] came close to a post-conventional (proto-)spiritual worldview when pushing their genuine approaches to the limits. They touched a hyper-rational / trans-rational scientific / spiritual vision of reality, and couldn’t do otherwise when following the internal contradictions of their respective approaches from within. In a nutshell it could be said that they naturally arrived at the entry point of an ILA. As they can be seen as forerunners and expressions of a wider cultural transformation it can be assumed that in the near future a significant proportion of scholars and academic teachers will struggle to follow them up to that point and beyond. A promising number of smart students seem to be faster on track in this direction than many of those formally in charge to teach them.

ILAs are actually going beyond the limitations of scientism and reductionist (but as well older holistic) visions and approaches, beyond the dissociation of science and spirituality which is specific to the Western world and gave rise to modern science in the first place (see the section on contours), but as well beyond extreme relativism widespread in research communities infused by postmodern thought. To be clear, ILAs are neither opposed to specialised research nor to cultural diversity. They are widely drawing and relying and residing on both. They are just opposed to the striking imbalance between specialised and boundary-crossing research, between empirical studies regarding specific limited contexts and meta-studies. They are heading towards post-metaphysical and post-disciplinary meta-theories and “integrally informed” action derived from the recognition of all the partial but complementary worldviews, perspectives, theories, and methodologies from natural and social sciences, humanities, arts and spiritual traditions. In integral approaches scientific, artistic and spiritual disciplines are generally equally respected for exploring intertwined realms and layers of reality.

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[24] E.g. Max Planck who said: “I have become a believer because I have been thinking until the end of thinking. We all stop our thinking much too early.”

[25] E.g. Gilles Deleuze’s “productive void,” François Lyotard’s “black void,” Jacques Derrida’s “absolute secret” – for a thorough treatment and further examples see Benedikter (Benedikter, 2006) or an early online draft thereof on http://www.integralworld.net/benedikter1a.html.

As far as I can see it between the 1850s and the 1950s more than a dozen original thinkers from different continents, thought traditions and cultural contexts introduced “integral” as a core term and as an approach of a more encompassing kind. When doing so most of them didn’t know of each other. Among them were many cosmopolitan Europeans. The fact that ILAs were born in multiple, independent streams with their specific but overlapping emphasises can be interpreted as a typical phenomenon of emergence.[26] This multi-local emergence is not widely known, not even by researchers inspired by one or the other brand of an ILA. Many of them tend to reproduce the partial historical picture storied in the stream they identify with. Some of these streams have been born inside, some outside, some at the margins of academia. In addition, many other streams having chosen other labels[27] can be considered complementing, resonating and overlapping with those that have become known as “integral” approaches. Since the 1970s a new wave of ILAs unfolded, once again in multiple streams. Today, we can look at and take advantage of a richly textured ecology of ILAs provided that cross-stream scholarly communication and reflexivity becomes more strongly developed. This is not yet the case to an extent which would be adequate in face of the globally available treasures brought to us by ILAs.

This stands in some contrast to the core motivation of ILA’s that can be seen as attempts to take into account and relate major dimensions of reality and human life to each other across and beyond paradigms, disciplines, cultures and eras. Today, it is possible for the first time in history to simultaneously access great many worldviews and practices humanity has developed and made use of in various places and contexts for various purposes. As a consequence, in today’s rapidly globalising knowledge sphere, we can consider them in conjunction as a heritage of humanity and critically reappraise them in the light of contemporary scientific research, higher learning and societal challenges.

For this to happen, we need to bring about a new step of maturation of research and higher education and to leave behind the still dominant scientific propensity to grasp and explain reality through the lenses of basically reductive models and methods. ILA’s are generally designed to complement and transcend hyper-specialised and reductionist research and education. Our times demand neither the perpetuation of eclectic pluralism or relativism, nor monistic fusion of everything into one unified theory which risks to be disrespectful of the knowledge already generated through the domain-, discipline- and paradigm-specific developments fruitfully going on for decades and centuries.

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[26] The reconstruction of the cross-cultural and multi-stream historical unfolding of integral and likeminded approaches is the object of another line of research I am pursuing and preparing to publish.

[27] Like meta-(theoretical, methodological, …) studies and (neo-)humanist, critical realist, transformative, transdisciplinary, transmodern, biosemiotic, multifocal, complexity and quantum paradigms, among others.

Instead, developing various forms of *integral pluralism* (Dallmayr, 2010; Gidley; forthcoming, 2007; Molz & Edwards, 2010) allows basic commonalities and relationships among the multiplicity of perspectives and traditions to become more apparent, more approachable and more useful, without neglecting their differences and specifics. The challenge, hence, is to bring responsibly together the wealth of knowledge, and of quality criteria and methodologies scientific research and higher education have brought about so far, but also the practices and results of other viable paths of development of knowledge and wisdom, practical and spiritual. Contemporary ILAs are precisely designed as possible answers to this huge challenge, and they overlap in their concerns and contentions whether or not their proponents are aware of this or not.

The development and cultivation of integral knowledge, however, is but one strand of the endeavour of ILAs. Overall, it strives to value, deploy and sustain a *wisdom* adapted to our era (Awbrey & D. K. Scott, n.d.; Blasi, 2006; Maxwell, 2007; Standish, 2000). This can happen through a mindful reintegration of the (necessary and welcomed) modern differentiation between sciences, arts and spiritualities as the three major interdependent realms of human beings' expression and (co-)construction of reality. ILAs transcend the widespread representation of science as value-free and of spirituality as renouncing this-worldly affairs, as well as the idea that the practices of the arts and the sciences, the sciences and the spiritualities are necessarily at odds with each other. They are designed to develop interwoven integral sciences, integral arts, integral ethics, and integral spirituality and to raise the awareness for their multiple interrelationships.[28] Based on a widely shared emergent complexification principle of "differentiation without separation" (rather than reductionist simplification through "differentiation and separation") most promoters of ILAs are hoping to contribute to overcome the pervasive split restated in much of Western thought between subjectivity and objectivity, values and facts, theory and practice, being and becoming etc.

As much as many efforts have been put into developing more encompassing conceptual frameworks corresponding emancipatory practices are called for. Those practices invite individuals and collectives to realise their specific potential through synergetic self-transformation of body, mind and spirit, mindful communication, social service and communities of inquiry, and finally through transformative action related to the political, economic and environmental systems. There is a huge array of practices which can be composed into an integral lifestyle. This allows to follow personal preferences, habits, vocation, bliss or cultural traditions and nevertheless to live up to a shared integral ethos. On this basis it becomes possible to locally and globally inter-relate to each other and integrally co-evolve together. The overall goal of emancipatory practices is to consciously contribute to the health of the whole multi-layered individual and collective adventure of evolution instead of supporting one part or level while neglecting or being harmful to others (and by this retro-actively to oneself, immediately and in the long run). ILAs directed to small and large scale individual and institutional transformation emerge as a necessary wing of such a commitment for an undivided, interconnected and creative life. Higher education, then, cannot be an exception. Rather, it should be a priority given its purportedly central role in the upcoming global, networked, knowledge-based society.

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[28] See e.g. the role of aesthetics in the process of scientific discovery, the technologies of artistic production, the value orientations implicitly or explicitly guiding scientific research.

However, those ILA-streams that are already engaged with questioning, infiltrating and transforming higher education are often so self-absorbed by their own intellectual and organisational development, frequently at the limit of sheer material survival, that apparently there are no (motivational, mental, time and organisational) resources left to imagine and realize overarching coordination and synergy, across streams and initiatives. Another unsolved challenge is adding to this problem: how to assure that the work of one generation (e.g. the work of the founder of a stream) is carried on by the next generation? Generally, inside academia, immediate intergenerational lineages as they are common in and constitutive for disciplinary research do not exist for ILAs. Some of the reasons for this are the lack of institutional containers: there are (almost) no ILA-institutes, study programs, degrees and labor markets. The stream-specificity of labels, networks, associations, conferences and journals prevent a common identity and intellectual space to coalesce, to be institutionalised and promoted more visibly. On this basis ILAs cannot contribute their crucial potential of complementing specialized research and stimulating new, less fragmented practices. Institutional achievements of one generation of scholars at one place tend to disappear, forcing the next wave of pioneers to invest large parts of their energy to start organising everything from scratch. The number of pioneers who see their vocation in breaching the fortresses of mainstream academia at the considerable risk of getting threatened and lost themselves, together with their families, is limited, however. The number of persons interested in ILAs, and ILA-based higher education is much largerer, and it is certainly growing from age cohort to age cohort. Accordingly, more thoroughly conceived strategies for institutionalising ILAs in higher education and research are an absolute requirement as today the critical mass of scholars and (future) students inspired by ILAs already exists whereas a sufficient number of adequate institutional contexts do not yet exist.

Conclusion

The historical differentiation of the scientific knowledge sphere from other societal domains (especially religion), and in itself, has turned in parts into dissociations that have become a road block to further evolutions in higher education, research and society. As long as analysis is structurally highly favoured over synthesis, and diving into ever smaller details more valued than the way they connect to each other, there is really a huge problem. Regardless, growing implicit and explicit demand and the urgent need for a more boundary-crossing and integrated research, education and societal problem-solving of those approaches responding to these demands, like ILAs, are largely ignored or even actively rejected by the academic world as it stands. On the other hand, inter- and transdisciplinary inquiries are today still very often plagued by a lack of conceptual and methodological grounding and they are often too loosely coupled with more specialised discourses to have a positive career impact. The deep-rooted institutional fragmentation of knowledge and knowledge production (as reflected in organisational structures, job descriptions, study and funding programs…) works like an in-built immune-defence against attempts to learn about, develop further and make use of ILAs. At the same time the worldview revolutions that have occurred in the 20th century through scientific research itself are pretty much conducive to ILAs if they were taken more seriously by mainstream researchers and decision makers in higher education.

These are reasons why the existing explicit or implicit demand arising from "unsolvable problems" in society on the one hand, and from spreading post-materialists values in the population on the other hand, is not satisfied by the academic world as it stands now, nor, by the way, by adult education providers lacking a research basis and charging high fees for their services. There are more and more initiatives inspired by ILAs popping up today but quite often they are ignoring each other, especially across national, linguistic, disciplinary and stream boundaries. Under these conditions, for reasons inherent in mainstream research and higher education as much as reasons inherent in the current (academic) practice of ILAs themselves, there is still much work to be done towards an acceptable and accepted integral pluralism which could provide a conceptual basis and viable praxis for setting up HESPs inspired by ILAs. It appears that this development could be catalyzed by more and better cooperation across streams of ILA in conjunction with more thoroughly conceived strategies for institutionalising ILAs in higher education and research.

European Higher Education Area

> *A Europe of Knowledge is now widely recognised as an irreplaceable factor for social and human growth…, capable of giving its citizens the necessary competences to face the challenges of the new millennium ...* (Bologna Declaration, 1999)[29]

In Europe, many universities emancipated from clerical authorities during the Renaissance. An individualistic humanism gained importance at that time and became a structural feature of higher education. As Latin served as lingua franca mobility of academic teachers and students across universities and countries was relatively widespread and allowed new ideas to spread with relative ease. But when universities became more and more involved in and instrumentalised for building the modern nation-states, teaching was switched to the respective national language, and new subject matters besides the classical canon were introduced. Like the nation-state, the European type of university became implemented worldwide, very much by i) 16th-19th century colonialist expansion and its neo-colonial aftermath until today, ii) the attraction of the apparent successes of technology based on discoveries in the sciences which provided an "international" language for researchers and engineers regardless their origin, and finally iii) developmentalism as an extremely pervasive political ideology of the second half of the 20th century hypnotising the global South to catch up with the North Atlantic nations in terms of the latter.

Even though the university came to the West in the 11th/12th century probably borrowing from prior Arabic models and earlier ecclesiastical schools, the foundation of new HEIs spread quite slowly across the entire European peninsula. It took centuries to fairly cover the European territory and only concerned the elites. The substantial expansion of the higher education sector is pretty much a recent phenomenon. The large majority of contemporary European HEIs have been founded in the 20th century. In addition, after the 1968 "revolution" the higher education sector expanded considerably and student intake rose dramatically resulting in the first wave of massification of higher education. To date, in the EHEA there are around 4000 HEIs in which roughly 20 million students are enrolled.[30] Despite the demographic shift in Europe a general decline of the absolute numbers of higher education attendance is not forecasted in the immediate future because i) the attendance rate per age cohort is still rising, ii) more international students are attracted to the EHEA, and iii) lifelong learning becomes more and more a policy and a career requirement, i.e. the number of non-traditional students is rising as well.

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[29] http://ec.europa.eu/education/policies/educ/bologna/bologna.pdf

Given its history Higher Education in Europe is very much a public and state-funded affair, and compared to the USA today there are pretty few private universities. Until recently attending a higher education program at a public higher education institution was basically free and not fee-based in most continental countries.[31] Even though this is about to change in several countries the fees introduced are generally considerably lower than in the Anglosaxon countries, and any introduction of fees is heavily contested and subject to intense political struggles, and there are first cases of already implemented fees being cancelled again by a new government. So, as higher education in Europe is now undergoing the ultimate wave of “massification” and as additional public resources won’t be made available in many countries for a long time to come,[32] there is a desperate search for additional resources from third parties. At the same time there isn’t any widespread culture of private donations to higher education. It goes without saying that the current global financial and economic crisis whose effects will only really hit higher education from 2010 onwards, doesn’t make a situation better which has already been structurally bad in most places for a great many years. This has often started to affect the quality of academic learning, e.g. because of a worsening ratio of students per teacher. This state of affairs often prevents deep-level innovation spreading across isolated test areas and favours a “back-to-the basics” mentality, i.e. back to the traditional disciplines. Innovation, however, generally comes from the margins of the disciplinary mainstreams, from the interfaces between up-to-then isolated strands of inquiry, and from outside or the fringe of the academic system. There is little institutional action, however, that would actually flow from this recurrent insight from research on innovation.

These evolutions are the background for and mingle with the so-called Bologna process.[33] The Bologna process is a large-scale, transnational reform of the European higher education systems, actually the largest undertaking of targeted transformation of higher education the world has ever seen. It was started in 1999 – symbolically at the oldest university of the Western world[34] – by the ministers in charge of higher education of several European countries. To the surprise of many sceptics and of observers of past failed attempts to harmonize the pretty strong and diverse national traditions of higher education in Europe, reaching deep into the history of the creation of nation-states, this reform gained considerable momentum. Eventually it attracted 46 European countries, from Ireland to Russia and from Norway to Cyprus, to engage simultaneously in one of the most far-reaching transformations their national higher education systems have undergone since their creation. The shared overall goal of this reform is to create a common European Higher Education Area (EHEA). The process is widely supported, e.g. by supranational bodies like the European Commission, the Council of Europe, and the UNESCO European Centre for Higher Education, but as well by international associations like the European University Association, the European Students Union and the European Association for Quality Assurance in Higher Education. Nevertheless many critics have shown up and many attempts to undermine or at least limit or delay the process have occurred in various countries and disciplines (basically pleading for variants of “new wine in old wineskins” or even “old wine in old wineskins”). But in the end the proponents of this version of a TINA (“there is no alternative”) formation[35] won the battle and the Bologna process will be generalized until 2010 with only very few exceptions to its general scheme.

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[30] Let’s assume that 0.1% of these students are more actively and consciously favouring a clearly ILA-based higher education over (post)modern study programs. This is an extremely pessimistic estimation largely underscoring the actual results of the empirical values studies available to date. In this case an educational provision corresponding to these expectations could mobilize 20,000 students in Europe. Taking into account their diverse interests regarding content and focus, and imperfect communication and matching opportunities, it still holds true that a provision that could attract thousands of students with already existing and conscious ILA-affinity simply isn’t there yet. Even less explored are the opportunities to attract the even more important number of students with a latent affinity.

[31] The case of the UK being more aligned with other Anglosaxon countries worldwide.

[32] There are interesting exceptions to this general rule in rich countries like Norway strategically investing its gains from its national oil industry into education, or Luxembourg trying to perform a late but quick move into the knowledge age by investing into the creation of a national research and higher education system.

[33] http://www.ond.vlaanderen.be/hogeronderwijs/bologna/about/

The major goal of the reform is the full mutual recognition of higher education degrees based on a three cycle system (bachelor, master and doctorate). This becomes possible through the generalisation of the European Credit Transfer System (ECTS) which is presupposing a complete modularisation of all study programs. The specific trajectory of each student is reflected in a mandatory and standardised diploma supplement based on the new European qualifications framework and their national specifications. The content and output (in terms of competencies) of each module needs from now on be described for study programs to become accredited. In some countries this does not change that much, in others this induces a radical transformation from input to output orientation, from content to competencies. Other goals of the Bologna process are the coordination of the quality management systems, the strategic facilitation of transnational mobility of students, graduates, faculty and staff, greater relevance of higher education and research for society and a better integration of higher education in a process of lifelong learning (Garrod & MacFarlane, 2007).

Even though the EHEA will be officially inaugurated in 2010 as planned at the beginning of the Bologna process certain “collateral damages” of this unprecedented multi-stakeholder effort are emphasized by the critics, among them:

- The problem that national systems based on different types of HEIs (e.g. universities and polytechnics-like HEIs) are unlikely to survive in the long run because of the formal equality of their degrees the reform has enforced, and so a unified system will become pervasive and with it the rush for ranking between individual HEIs – if this becomes true the idea of harmonization based on diversity and cooperation turns into homogenization destroying diversity and favouring strongly competitive institutional behaviours.

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[34] The University of Bologna is believed to be founded in 1088.

[35] See footnote 16.

- The fact that today there is not much less cross-country, cross-domain and inter-institutional structural diversity of programs than before and that the transnational readability of degrees is only apparent[36] whereas internationally well-known national diplomas were forced to disappear.
- Academic freedom and possibilities for transnational mobility for students have actually been reduced rather than enhanced, at least on the Bachelor level because those first-cycle programs have often become much more school-like than the first years of the former study programs were before in several countries, with a tight, fixed and prescribed curriculum and ongoing assessment without, however, reducing the drop-out rate which was one the driving goals for this transformation. In addition, many intra-European cross-border programs which were running well before the onset of the Bologna process didn’t survive the implementation of the new constraints related to it.
- In many countries in which the doctoral level research training has not been formalized before it now becomes formalized and thus limits self-governed unfolding of personalized trajectories of research and building of unique profiles.
- The requirement to split and package the entire learning process of all students into predefined little modules which can be often quite randomly combined is much more favouring a spirit of tactically collecting credits from modules allowing to acquire them with the least effort than to engage in more organic and sustainable processes of learning related to the potential of a student.
- The specification of learning outcomes and ECTS points for each module is more often than not an artistic and rhetoric exercise rather than an approach grounded in method and data. The ECTS points are calculated on the basis of an (often simply invented or roughly estimated) average workload for a fictive average student. The extent to which the assessment of the competencies acquired through a module is connected to the competencies specified in the module description is often pretty much unclear. This approach anchored in the old-fashioned and fragmented thinking in time-slots and in the separation of curriculum planning, learning and assessment activities rather than in integrated processes of learning fosters normativity rather than individual pathways, in contradiction to the strong European diversity-policies.

If some of these critiques turn out to be or become at least partly true then in some respects the Bologna process put into practice worked paradoxically against its own well-intentioned goals. This effect is not different form many institutional reforms conceived and implemented with little involvement of those being concerned in the first place (somehow the “new wine doesn’t fit into the new wineskins”).

With regard to the second cycle (Masters programs) a twofold development can be observed so far, a development I would like to emphasize for the sake of the argument in the strategy section: On the one hand there is a tendency to just rename pre-existing programs and to try to continue business as usual (basically “old wine in new wineskins” – whereas the old wine risks to turn into vinegar through its rebottling); on the other hand in many countries with a traditional single long-cycle system now all of a sudden the first cycle and the second cycle have become structurally delinked. This has triggered a wave of creativity to develop completely new, and at least partly innovative programs in order to be attractive for students from a broader range of first cycle programs and as well for non-traditional students (professionals, part-time students etc.). Many of these truly new programs (“new wine in new wineskins”) open up specific interdisciplinary niches, have an international outlook,[37] and are run by an inter-institutional and cross-border consortium rather than by a single HEI (see sections on strategy and contours). The “Erasmus Mundus”[38] support program of the European commission, started in 2004 to complement the long-standing Erasmus program for individual intra-European student mobility, has made this development even more prominent. Through a very competitive process Erasmus Mundus selects high quality cross-border European Masters programs and endows them with attractive scholarships for non-European students (!)

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[36] There are now Bachelor programs of 3 and of 4 years full time duration, and Masters programs of 1 or 2 years duration, and all combinations thereof. Accordingly, a Masters degree made in Europe can now reflect between 4 and 6 years of actual study. As a consequence, a much deeper understanding of individual trajectories is now required.

Another recent major transformation of academia has to be noted: many HEIs in many countries have switched from a traditional self-governance model of the professoriate to new governance styles adopted for their management. To make universities more agile small university councils have taken over the power to decide on major strategic issues. They are generally composed by a small number of personalities from different walks of life external to the HEI. This transformation was catalyzed by the new public management approach releasing decision power to educational institutions which were under direct state control before. If it is true that this managerial approach has been speeding up reform processes in many cases in which they were blocked for decades by a traditionalist professoriate, it has further reduced the already few possibilities of participatory decision-making, and of electing representatives bottom-up. In HEIs that have adopted the model of external university council the split between research and higher education managers on the one hand and scholars, young scholars, and students on the other, has become even more profound than it already was the case before. The development of such a HEI very much depends on the intellectual horizon and foresight of the members of the council, the time they actually invest in their deliberations, and the quality of dialogue and decision-making between them. It goes without saying, that in practice this varies considerably. Those councils can trigger and favour innovation as much as they can suffocate new bottom-up initiatives – in each case it really depends on just a couple of men (mostly).

If this means less democracy within HEI’s another trend democratizes access to higher education degrees. New national laws were introduced[39] that generalise and organise the possibility of formal recognition of learning that takes place outside HEI’s, in non-formal or occupational settings, for the acquisition of higher education degrees. Even though not directly linked to the creation of the EHEA these laws are very much affecting higher education. They considerably strengthen the value of practical experience and rebalance the relationship between practice-based learning and theoretical learning. The juries created to decide on requests of academic recognition of practice-based learning are generally composed of scholars and practitioners. This creates a completely new contested field in which power games and hot debates are occurring, but as well mutual learning. Many practitioners are eager to get their actual competence formally recognized whereas the professoriate is still often reluctant to accept other paths of learning than the one inside the ivory tower, but is more and more legally forced to do so. The translation of practical experience into academic subject matters or study modules is far from self-evident. It is often quite demanding for the candidate to submit an application that is bridging the two worlds convincingly. But more and more succeed, and so a new era has started in which the boundaries between the worlds of theory and practice are becoming more permeable.

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[37] Some are run in English in countries where English is not the national language, or in more than one language, to be attractive to international students.

[38] http://eacea.ec.europa.eu/erasmus_mundus

[39] In more and more European countries – the UK and France having taken the lead.

Astonishingly loosely coupled with the EHEA is the development of the European Research Area (ERA). Transnational research and development partnerships are very much triggered by the European framework funding programs in many different focus areas. Traditionally, mixed-type and cross-sector partnerships are particularly welcome. The programs have been considerably redesigned on the basis of a quite innovative at least partly open, participatory process and an independent European Research Council has been created from scratch. The new funding schemes resulting from it have been implemented with the 7th Framework program.[40] The European Science Foundation offers additional interesting opportunities.[41] An unprecedented emphasis on boundary-crossing approaches can be noted.[42] On the other hand, it still holds true that the administrative load is important in EU projects and that it remains very difficult to acquire European research money for process-oriented research as task and outcome has to be fixed and detailed in advance. More and more applications are submitted which makes the competition quite fierce. But nevertheless it appears that sometimes ILA-informed approaches can manage to correspond well to the European research policy whereas this is often more challenging on the national level.

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[40] http://cordis.europa.eu/fp7

[41] http://www.esf.org

[42] In a Communication of the European Commission called “Delivering on the modernisation agenda for universities” (2006) one of the required lines of action is called “Enhance interdisciplinarity and transdisciplinarity” and spelled out as follows:

> Universities should be able to reconfigure their teaching and research agendas to seize the opportunities offered by new developments in existing fields and by new emerging lines of scientific inquiry. This requires focusing less on scientific disciplines and more on research domains … associating them more closely with related or complementary fields (including humanities, social sciences, entrepreneurial and management skills) and fostering interaction between students, researchers and research teams through greater mobility between disciplines, sectors and research settings. All this necessitates new institutional and organisational approaches to staff management, evaluation and funding criteria, teaching and curricula and, above all, to research and research training. The implications of inter- and trans-disciplinarity need to be acknowledged and taken on board not only by universities and Member States, but also by professional bodies and funding councils, which still rely mostly on traditional, single-discipline evaluations, structures and funding mechanisms.

(http://ec.europa.eu/education/policies/2010/doc/comuniv2006_en.pdf)

Overall, the broadly pushed structural development of the EHEA and the European Research Area is currently going on, and will go on beyond 2010, together with waves of reforms and pseudo-reforms on the national level. On this basis, there are different trends to be observed, among them:

- Accountability towards society is going to become more important and more immediate for higher education and research institutions than before. The new governance models bring external quality assessment systems to countries and institutions in which they have not been in use so far.
- Modularisation has quickly become not only the main buzzword but a must for the organisation of any study program to become accredited. The learning outcome / competence / ECTS-slang and the according rules of the game need to be mastered.
- Hyper-specialisation in research and education is continuing but transdisciplinary approaches are getting more opportunities to actualise than before.
- Internationalisation starts only now to become really important for many HEIs. It is evolving from a nice-to-have add-on concerning a minority of incoming and outgoing students to a strategic core concern for the future institutional development.
- Lifelong learning has become a prime directive and the market for higher learning especially in postgraduate and continuing professional education is indeed ever growing.[43]
- Underfunding and restricted, structurally overregulated career paths are currently generating "HEIs short of academic teachers and researchers" (the average student / teacher ratio has been substantially growing in most European countries over the last decades) and "academic teachers and researchers short of HEIs" (there are many highly qualified researchers and academic teachers not fitting to the profiles of the job openings and the bureaucratic regulations regarding staff categories).
- Student-centred learning has very much become a trend designating most varied actual practices of teaching and learning, many of which are student-centred to a very limited degree only (see section on contours).

Conclusion

The Bologna process is such a huge undertaking, so unfinished yet and requiring reforms of the reform, that a next wave of reform of the whole higher education system in Europe, a reform of a more integral kind, is very likely to take generations to shape up. So, basically, for decades to come and despite extremely pressing societal challenges, we cannot realistically expect a methodologically more integral reform of the higher education system specifically devised to transform the structurally integrated EHEA into a substantially integral EHEA. The EHEA as conceived by the promoters of the Bologna process is a reality from now on which can neither be ignored nor circumvented. Accordingly, a thorough analysis of its problematic aspects needs to be followed by a focus on the opportunities it offers. These opportunities are mainly i) a more and more favourable climate for boundary-crossing approaches on the level of European and other funding programs, ii) the need to attract new student populations in a situation of stronger international and inter-institutional competition, declining resources and demographically diminishing young generations combined with the receptiveness of certain target groups for new programs corresponding to their values, expectations and lifestyles, iii) new spaces for creativity that can be deployed for developing and implementing new Masters programs and doctoral schools, especially by innovative inter-institutional consortia. The precondition to succeed under the conditions reigning now is to understand and master the new formal and terminological game that everybody is required to play.

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[43] However: “lifelong learning tends to contribute to the fragmentation of knowledge, while at the same time enhancing the appropriation of knowledge by individual learners” (Kehm, 2001, p. 5).

Strategies

> *What the future of the university will be, as with all questions about the future, is unknown. Our intent is to … contour the unknowable … While historical forces will dramatically change the current university there are still choices to be made as to the shape of future universities.* (Inayatullah & Gidley, 2000, p. 13)

This section is devoted to a strategic reflection of various options and paths to developing higher education generally, and more integral variants of higher education more specifically. It appeared to me that such a strategic reflection has not yet been conducted, that the array of options is rarely fully explored, and that past failures to advance more integral forms of higher education in Europe and elsewhere may in part be related to weak, implicit, undiscussed strategies. On this basis a promising strategic corridor will be proposed within which the likelihood to advance ILAs in the EHEA and to advance the EHEA with ILAs is higher than with other strategies.

Strategic Options for Developing Higher Education

I will now first turn the attention to strategic options available to HEI's within the EHEA (and beyond), then to options available to programs, and then to options available on the course-level. On all these levels I will discuss the options most of the time chosen and reproduced by past attempts to implement more integral alternatives and complements to mainstream higher education.

For higher learning in Europe there seem to be three major institutional options:

- By far the most dominant one is the rat race within under-funded public universities and their more or less traditional faculties, disciplines and sub-disciplines;
- Second are the often domain-, purpose-, or stream-specific private or corporate "universities;"
- Finally, there are new (cross-border) virtual providers (often lacking a research-base on their own), or more traditional open universities, and their often ready-made programs.

We have to be clear, that the main structures, goals, practices and respective funding and incentive systems of none of these types of HEIs is primarily concerned with, prioritizing or structurally supportive of ILAs. Of course there are niches and margins that are potentially more conducive – we will come back to them later (see section on contours). Today, regardless the structural, strategic and other differences between institutional types, they are equally focused on assuring funding (or making money) and creating reputation (in terms of rankings, external quality assurance reports etc.). In a way, all those institutional options are likewise structurally limiting rather than enhancing innovation and transformation as perceived as necessary from the angle of ILAs. None of them fits well to the idea of a more integral higher education which is neither disciplinary nor necessarily limited to one specific practical domain nor easily transmitted as content packages dissociated from actual research and authentic face-to-face encounters.

There are probably more failures than thriving attempts in Europe to implement sustainable alternative and vanguard models for entire higher education institutions. As a matter of fact, despite a comparable size of their higher education systems (see section on contours) there is a considerable less important number of such institutions in Europe compared to the USA.[44] Many of them are financially unstable, of mixed reputation and durably marginal to the overall system. Over time, they tend to disappear, stop to further evolve after the initial impulse or to become re-mainstreamed. Even though pressures having these effects are by no means unique to the specificities of European higher education they seem to have a strong(er) impact there. Nevertheless, there are still new attempts under way to create alternative higher education institutions and of course we can only hope that some of them will be luckier than many of their "predecessors" have been.

Generally, the possibility to bring ILAs to higher education by building new, alternative, private HEIs from scratch is severely limited in Europe, even though this is precisely the dream of many academic teachers and students inspired by ILAs, or simply by those discontent with the current state of affairs, especially as they have normatively shaped higher education everyday reality through the implementation of the Bologna process. Only in case of really important donations from several donors directed to one specific project over a consequent period of time it could be hoped to create a cross-domain "integral university" in the brick & mortar sense anytime soon. Even though legal barriers and regulations for the creation of private universities have been alleviated in some European countries I already mentioned that a culture of private funding of higher education is not well developed. Another important barrier is that fees cannot be very high for all but the most elite programs and will never be sufficient to run an alternative HEI without other sources of funding. Public funds go prioritarily to the already underfunded public HEIs and the new, fashionable "centres of excellence" (creating new opportunities in a few places and even more underfunding in all others). Conceiving and realizing alternative brick

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[44] All over Europe there seem to be little comparable institutions to long-standing private alternative HEIs in the USA like the California Institute of Integral Studies, Naropa University, The Fetzer Institute, The Graduate Institute, Saybrook Graduate School and Research Center, JFK University, San Diego University for Integrative Studies, etc. The European examples like Schumacher College (GB), University for Humanistics (Netherlands), and the Campus University of Applied Integral Pedagogy, Health and Management which is in the process of being founded (Germany) are much smaller, less developed and more strongly focused initiatives, among other upcoming projects. The University of Witten-Herdecke (Germany) can be considered a major attempt to build a private vanguard model of a multi- and cross-disciplinary university. It has gone through a series of serious crises and backlashes until recently, though, so that it remains to be seen which parts of the original vision will survive in the long run.

& mortar dreams absorb an amazing amount of time, energy and resources. If by good luck such an institution appears and remains on stage it can serve a specific function in a broader view on how to evolve toward programs of integral higher education (see section on integral organizations).[45]

The institutional level having been discussed, let's now turn to the options on the program-level because they are more lightweight and easier to realise, at least some of them. On this middle-level, basically there are three largely dominant options once again:

- The *traditional strategy* to have disciplinary programs starting in the first cycle and then continuing through the second to the third cycle. This is not only the chronological order students are running through the programs but as well the traditional way to set up new programs – like the stories of a building from the fundaments to the roof. As such continuous programs in traditional disciplines are run in many universities they attract and first and foremost students who are geographically close-by already before their enrolment.
- The *umbrella strategy* of generic programs allowing for specialisation after having taken some introductory courses of general interest. This strategy is more and more employed because the administration and promotion of many small programs is more complicated and expensive for a HEI than the administration of larger generic programs. This fits well with the general tendency to look for economies of scale but it creates at the same time additional need of student support and guidance to help them find their specific way through such a broader offer. Therefore, often, choice is relatively restricted to quite a few predefined options whereas principally more choice could be offered on the basis of this option than on the basis of the other two options.
- The *niche strategy* of small programs specialized as a whole from the outset (either in the sub-disciplinary or in the interdisciplinary sense) and attracting students partly coming from far away precisely because of the unique or rare speciality. The niche strategy is most promising for smaller departments or upcoming HEIs but often requires considerable efforts in marketing to become known and to continuously attract a sufficient number of students. It applies rather to the second and third cycle than to the first cycle.

Regarding the perspective of the development of HESPs inspired by ILAs, none of these three options really fits. Integral studies won't evolve into a discipline anytime soon, and for many ILA-inspired researchers it would be a pretty self-refuting prospect to create a new discipline alongside the traditional disciplines. Can we seriously expect integral studies to fare better than philosophy which has degenerated from the "mother of all disciplines," the meta-discipline par excellence, the purported reflective centre of knowledge building, to an ungrateful niche existence within shrinking humanities departments, scattered into its own manifold sub-disciplines? No, we can't. Under the conditions of institutional structures tuned to support hyper-specialisation we can only expect that integral studies would have an even worse position.

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[45] A potential fourth institutional option will not be discussed here because it extremely unlikely to occur: the transformation of an already well-established (post)modern HEI into an ILA-based HEI. In Europe, there is probably no single example for such a sensational transition. In the USA one example of an attempt in such a direction was the transformational leadership of David Scott as Chancellor of the University of Massachusetts at Amherst (see footnote 3), and the creation of the Community for Integrative Learning and Action (CILA) in which faculty from the HEIs of the Five Colleges Area connected for collective activities of learning and transformation.

The umbrella option must be ruled out as the critical mass of ILA-inspired researchers and teachers isn't there in any given single HEI in Europe,[46] and there is no department with the strategy to systematically attract this rare breed of scholars to it. It is extremely unlikely that anybody manages to start an ILA-inspired study program as a broad first-cycle program and attracts a sufficient number of students from scratch to make such an effort viable. As long as the umbrella strategy is realized mainly for administrative reasons and economies-of-scale inside one larger mainstream HEI it is not likely that a whole department is willing to get rid of an existing generic program and to replace it by an ILA-based one, or to subsume a variety of more specific programs under one single, integral umbrella. This may at best happen in a non-mainstream HEI, but we already mentioned the challenges and limits linked to such a whole institution strategy, especially in Europe. Even though the umbrella strategy would make the best fit for ILAs out of the three traditional program-level options it is unfortunately the least likely to be realized.

No wonder then that the niche strategy is the only one which has actually been tried out, as far as my knowledge goes, because it allows starting small and at the margins. The recurrent downsides are weakness within the hosting institution, insufficient numbers of employed faculty, and a less than optimal differentiation of tasks / responsibilities producing a lack of professionalism in certain areas crucial for the proper development of a new program, be it administrative support, public relations, teaching, research or quality development. The niche strategy has further downsides for ILAs. Not only because of the internal paradox to deploy an encompassing approach within a niche and the consequence not to engage and challenge the mainstream. But as well because of an external threat: This strategy lets ILAs appear unimportant amongst the large, traditional disciplinary programs who can afford to follow the umbrella strategy. Reversing the actual relevance of ILAs in a fragmented world the niche strategy creates an image which is very much conducive to get rid of such a program in case of cuts in funding or in case of its founder and director leaving the university, or other fragile transition phases. Commonly, niche programs are naturally considered to be non essential, a nice add-on, but not very important for the future of the HEI hosting it. And so it goes in practice: if there is no institutional strategy to develop the niche to become part of the core mission of the respective HEI – and this is not widely the case – then alternative niche programs only survive by chance in otherwise mainstream settings, and are easily wiped out, merged or re-mainstreamed.

Well, then the analysis of the program-level options doesn't allow us to draw a friendlier picture for the implementation of HESPs inspired by ILAs than the analysis of the institutional options. Nevertheless, the best guess is that in the long run there will be more HESPS inspired by ILAs at traditional HEIs than at HEIs created for the very purpose to develop such programs. The reason is a simple, numeric one: in Europe there are so many conventional HEIs around and so few alternative ones that a few attempts deployed at existing HEIs can easily outweigh the number of programs on offer at alternative HEIs. I will later return to the idea that both approaches shouldn't be seen in opposition but should ideally be linked to each other to the advantage of both sides and of the greater good.

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[46] This is different in the particular micro-climate of some of the alternative HEIs in the USA mentioned in the prior footnote.

This prediction that in the long run the strategic potential of conventional HEIs in the EHEA for developing ILA-inspired higher education is more important than the strategic potential of alternative HEIs can be related to an analysis of the course level options. I already mentioned the relative autonomy of the academic teacher in many if not most HESPs at many if not most traditional HEIs, even when declining here and there. As a space opened by this traditional core concern of academic freedom it is basically possible to introduce integral spirit, content, and andragogical approach (see section on integral andragogies) into the courses under any academic teacher’s responsibility. This can often be done without too many problems as long as traditional academic values are respected (like critical rationality of discourse, theoretical pluralism, utilisation of explicit methods, recognition of existing research in the field, prevention of plagiarism etc.), and as long as the specialness of ILAs is not too much stressed and overtly displayed (e.g. in the title of a course).

As there are many academic teachers (and students) already inspired by one or the other variant of an ILA, there are many more courses already infused by them than are overtly declared. Either an ILA inspires the content, or the andragogical approach, or both. But despite certain dangers there are even already quite a number of courses overtly displaying that they are ILA-based. More often than not, however, they are a kind of outlier within a HESP not designed on the basis of integral principles and not directed towards integral purposes nor reflecting integral content all over. ILA-based courses might formally belong to a program but not resonate with it regarding the pursued approach. This being said, we have to consider a matrix of at least – 2*2*2 – eight cases on the course level: i) ILA-based content – ILA-based andragogy, ii) covert or overt ILA-inspiration, and iii) courses resonating or not with other courses within a study program and the general approach of the overall program. This last option of several courses resonating with each other within a program comes already close to a program-level realisation.

As a consequence, the major problem so far is not that ILA-based courses are lacking altogether, but that they are isolated from each other. This isolation stems from the fact that in any discipline in any European country there are at best only a handful of academic teachers and researchers already adopting an ILA in their research and teaching, and that there are very few to adopt several ILAs at the same time, and/or deliberately working across and beyond the disciplinary lines. Accordingly, it is an extremely rare coincidence to have more than one person of this kind in the same department at the same HEI. And even two do not make up the critical mass to build an entire HESP on the basis of their respective courses, even more so as the game to gain institutional support and accreditation is far from assured in advance when it comes to unconventional orientations. Generally, those already teaching courses based on an ILA are inspired by different lead authors, teaching at different levels, in different study programs, in different disciplines, in different languages in different HEIs, in different countries. On the basis of so many heavily institutionalised boundaries, it appears virtually impossible to come to know each other by more than mere chance. Acquaintances are more likely inside the same country, the same discipline, the same ILA-stream. This is not a guarantee either. The specific situation of

ILA-inspired researchers within mainstream HEIs made many of them being used to being solitary and autonomous. As many are innovators in their specific contexts they are generally overwhelmed by more pressing tasks than looking for far away company. On this background, almost every academic teacher working on the basis of an ILA conceives, or is forced to conceive, his or her courses as self-contained units and not as being part of a cross-domain, international, integral HESP.

Conclusion

The creation of a HEI inspired by ILAs – in the more traditional understanding of a HEI – doesn't appear to be the most promising and efficient strategy to move things forward toward integral higher education provisions given that the resources absorbed by building brick & mortar infrastructures are distracted from being used right away for developing, researching, teaching, learning, and otherwise disseminating ILAs and bringing them into practical fields. None of the widespread strategies to implement new study programs seem to be very adequate either for realizing HESPs inspired by ILAs. On the other hand, on the course level there are many scattered attempts to move toward designs, approaches and content inspired by ILAs. Accordingly, these readily available resources and capacities need to be disclosed to each other much more and combined and uplifted to the program level through strategies departing from those pervasively employed in conventional higher education (with success), and more or less copied by scholars and activists inspired by ILAs (without much success).

Strategic Corridor for Building Integral Higher Education

> *In complex situations, i.e. where in the same place and at the same time there is not only order but as well disorder, where there is not only determinism but as well chance, where uncertainty emerges, there is a need for the strategic attitude of a subject; in face of ignorance and confusion here perplexity and brightness are indispensable … The method/path/attempt/crossing/research and strategy can't be reduced to a ready-made program, not more than to a statement of an individual experience; in fact, it is the possibility to find in the details of the concrete … life, as fragmentary and dissolved it is in the world, the totality of its open and temporary sense.* (Morin, Ciurana, & Motta, 2003, pp. 17, 24-25)[47]

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[47] Translation of the quote from the French original by the author of this essay. Edgar Morin was research director of a transdisciplinary research centre at the CNRS (French National Research Centre). He is a prolific writer across many fields, since 1946, and has received numerous awards and honorary doctorates worldwide. The core of his approach to complex thinking is laid down in the six volumes of *La méthode* (Morin, 2008). He wrote a commissioned report on the future of education for the French government (Morin, 1999a) – which evidently was not followed, and another one for the UNESCO (Morin, 1999b). He is co-initiator of the International Observatory of University Reforms: www.orus-int.org and of the Collegium International on Ethics, Science and Governance: http://www.collegium-international.net. A University built on his educational recommendations has recently been created in Mexico: www.multiversidadreal.org. Edgar Morin is insisting on the fact that the necessary reform of thought under conditions of complexity and the necessary reform of higher education are co-conditioning and co-determining each other, and that one side doesn't move forward without the other.

Based on the array of options discussed in the prior section and their respective advantages and disadvantages, a strategic corridor for the implementation of more integral versions of higher education is becoming apparent. The strategic corridor is a selection of options and a more circumscribed array of paths of developmental progression which is more likely to succeed than paths following options outside this corridor. This doesn't imply that under particularly favourable conditions other options and paths couldn't succeed. It just supposes that this is more difficult and less likely. It appears that conventional ways of conceiving higher education in terms of brick & mortar institutions, in terms of disciplinary or interdisciplinary programs run by one such institution, in terms of study programs composed by courses taught by scholars who are employed by the respective institution, are not very helpful and conducive for the implementation of (more) HESPs inspired by ILAs. Accordingly, academic teachers and researchers interested in conceiving and actually implementing these kinds of new programs need to transcend such a conventional understanding of higher education, at least if they are not by great chance supported by an unconventional local context allowing to conventionally implement unconventional HESPs.

The development of a more powerful strategy can be based on at least two sources of insight. First, on a reflection of failed attempts to implement a more integral higher education provision.[48] As far as I know, there has not been any cross-case analysis of such failed attempts yet. Second, on a reflection of the characteristics of higher education systems and their major historical transformations over a long period of time (in the perspective of the last millennium, see appendix). For any integral approach to transformation of higher education in this century a proper understanding of its (Western)[49] long-term history is crucial. Such an understanding is necessary for selecting and integrating constructive features from all periods, medieval, modern and postmodern, and to transcend those features that fit less and less well in our time given the evolution of culture, social structure, educational provision and technology, and given the unprecedented characteristics of the challenging contemporary macro-shift.

Let's start with listing some major problems which I could repeatedly observe in past attempts to implement HEIs or HESPs on the basis of an inspiration at least close to ILAs:

- Investment of the limited material and intellectual resources available to ILA-inspired scholars and activists to establish a new HEI instead of investment directly in study and research programs (see this section);
- Too much idealism coupled with lack of viable strategies and professionalism regarding organisation and management (visionaries and vanguard researchers are not necessarily, or perhaps even rarely, good strategists, implementers, and managers committed to the required practical organisational work on a daily basis, see this section);

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[48] The failed, disappeared and long-term marginal, unstable or weak attempts will not be mentioned explicitly in this essay in order not to blame those who tried hard to realize their projects and didn't reach their goals. The analysis, however, which was leading me to the suggestions and conclusions exposed in this essay have actually been conducted case by case.

[49] An extension of this analysis to the forms of higher education other historical civilizations have developed would fruitfully extend and deepen this reflection but cannot be performed in this essay.

- Lack of cooperation with enough suitably (i.e. traditionally) qualified academic staff to teach courses rooted in actual academic and professional expertise, and as a consequence avoidable problems with academic recognition of the initiative adding to the unavoidable ones arising frequently in the conventional, disciplinary, and sometimes openly hostile institutional environments (see this section and the one on contours);
- Reproduction of the individualistic bias inherent in higher education and Western culture regarding both, project development (involving often too much pride, idiosyncrasy and closure) and andragogical approach (often not differentiated from pedagogical models, see sections on integral learning communities and integral andragogies);
- Under-utilisation of the new opportunities afforded by the most advanced Web 2.0 information and communication technologies (learning management and virtual community systems; multimedia conferencing; intertwined personal, team and collective digital media repositories and portfolios etc., see section on integral organizations);
- Weak or entirely lacking international cooperation in terms of inter-institutional partnerships, transnational mobility, cultural diversity, multilingualism, global service learning etc. (see section on contours);
- Lack of institutional capacity to grant accredited, widely recognized degrees appealing to a range of potential employers (i.e. too much reliance on the intrinsic value of the offer and blindness regarding the links between the institutional fields of higher education and work, see section on integral organizations);
- Overestimation of the willingness of potential students to pay high tuition fees for unknown, beta-phase programs, in a European environment in which tuition-free programs still exist in various countries (resulting in insufficient student influx, see section on integral organizations).

The conventional structures of higher education won’t fade away any time soon given that they have been quite stably reproduced for decades and in parts even for centuries. They have their use and value, even for future HESPs inspired by ILAs attempting not only to induce change regarding the content of higher education but also regarding the “containers” and finally those persons (re)producing the content and the containers. Of course then the question arises how to connect with and influence something as inert and traditional as higher education as a system? Well, by riding on it rather than attempting to supplant or change it directly. We are well advised not to expect a multi-centennial institution to change its core quickly – somehow like riding an old horse doesn’t change its constitution and temper whereas the equestrian can and must nevertheless provide direction. It has even been considered one of the defining characteristic of HEIs to appear flexible at their margins in order to better protect and reproduce their core over many generations. If we consider the core of higher education to be a space for the rational pursuit of knowledge and the reflective development of creative and responsible inquiry not dominated by other societal domains like politics, religion and the economy, then, actually, it is not that bad that this cannot be changed easily. In this case we can be lucky that there is an immune system protecting academic freedom against ongoing assaults from many sides. If we consider the core of higher education as delivering degrees to those students most apt to follow through a ready-made disciplinary or pre-professional program and reproduce a fixed knowledge canon just-in-time on exams, then institutional inertia is indeed truly embarrassing in 2010.

I do not hold an idealistic vision of academic freedom in practice. Nevertheless, in great many cases, faculty has not only the possibility but the duty to pursue research and teaching according to what is deemed important and promising to them. There is an extremely individualistic bias to it reflecting a path Western cultures have had the tendency to go down more generally, a path still very much amplified by the specifics of the career ladder leading to professorships. Nowadays, this untouchable, individualistic academic freedom has suffered in many respects, especially through imposed frameworks for curricula like the modularization and learning outcomes hype, through formalized assessment, evaluation and accountability procedures, through more specific job descriptions, application guidelines and institutional development plans. But in the end, this might only appear as a new version of an old tension between the work of university administrators and the work of scholars. This tension is somehow part of the core of higher education as well. Putting aside its frequent Kafkaesque downsides and exaggerations, administrations of HEIs must be acknowledged to create relative stability and predictability and above all, they manage student enrolments, facilities and infrastructures, however they do this. All those who ever tried to build up their own infrastructure and administration know how much this diverts from the academic core business of research, teaching and service to society. So, basically, why not take advantage of the infrastructure (buildings, student administration, fundraising and degree granting reputation, access to physical and digital libraries, etc.) while not becoming sucked into its development and management?

The flexible margins sitting on this solid infrastructure concern the question what is researched and taught with whom to whom, when, where and why. As long as the basic interests of a HEI, or a department or institute are respected concerning student intake and success rates, academic reputation, acquisition of external funding, respect of equal application of formal rules regarding e.g. the teaching load etc., there is more than one possibility of running a program that can be (made) acceptable from an institutional and scientific perspective. The already mentioned trends toward more and stronger inter-institutional networks, toward strategic internationalisation, and toward pervasive utilisation of information and communication technologies are quite helpful. These trends are trickling into the core of HEIs – at least formally – and make the flexible margins of higher education even more flexible. On this basis the margins of and interfaces between (several) HEIs taken together can serve as the incubator for new HESPs based on ILAs.

From this double analysis, of conventional higher education and of alternative attempts, the following tentative *strategic corridor* can be derived:

- First focus: Building mutual awareness between the promoters of existing initiatives, and stimulating cross-cutting communication among them;
- Second focus: Creating mutual learning opportunities and enhancements between otherwise loosely coupled self-organising and self-maintaining small initiatives (e.g. by teaching each other’s students, writing in each other’s journals, devising criss-crossing team-teaching opportunities, engaging in smaller joint research and transformative practice projects etc.);
- Third focus: Intentional joint program development in trans-national multi-institutional consortia (second and third cycle, i.e. on the Masters and PhD levels, ideally thought together);

- Fourth focus: Creation of interfaces and overlaps between different programs from different consortia, weaving them together more and more (e.g. through joint virtual libraries, summer universities, mutually supportive research and intervention projects, and opportunities created for students to take courses from different programs).
- Fifth focus: Careful and flexible formal framing of the emergent requisite organisation for a series of HESPs based on ILAs which are distributed across several consortia, HEIs and countries (such an organisation would be largely a virtual overlay which leaves the host universities, their organisation and their conventional programs as they are).

The strategy proposed here starts with what is already there and doesn't worry about what is not there – according to the attitude of the Zen cook who is always able to cook a meal for the monks of his monastery on the basis of the ingredients available in the kitchen regardless which specific ingredients are actually available, have run out, or were never delivered. With this in mind, we can state that a whole bunch of tasty ingredients for the creation of HESPs based on ILAs is actually available in the "EHEA kitchen," and even more if we consider the intercontinental global scale:

- A truly amazing number and diversity of HEIs exposed to a more and more international and competitive field which imposes a strategic approach to differentiation and cooperation, and which is likely to stimulate some open-minded rectors(presidents), deans and heads of institutes to consider more integral options, at least on the program level, in order to assure the advantages of being a first mover for their institution;
- A critical mass of serious scholars and academic teachers in many disciplines and countries – serious according to mainstream criteria – who are already inspired by ILAs, a sufficient proportion of whom are intrinsically motivated to engage in the extra workload of building new programs;
- The courses they already teach which reflect a more or less integral flavour, or at least new ILA-based courses which they are basically able to teach after a short period of preparation;
- A critical mass of students wary of the programs on offer and eager to get a more ILA-based higher education (some consciously, some intuitively, and many who would discover their respective inclination if appropriate programs were on offer and could be compared to more traditional programs).
- At least some funding programs more departing from the (still dominant) traditional ways of funding and more tuned or at least open to innovative, transdisciplinary and collaborative approaches.
- Various experiences with more advanced (and challenging) forms of teaching courses in and for boundary-crossing settings: international/global, cross-domain, multilingual, collaborative, multi-level, blended (virtual / face-to-face) learning, bringing traditional and non-traditional students and teachers of various origins together.
- Various boundary-crossing scholarly discourses within and close to ILAs, and their fallout in journals, books, conferences and research projects.

Put like this one could say, perhaps not without a certain astonishment, that at this stage, i.e. right now, in the EHEA all the essential ingredients that are required to cook tasty meals called HESPs inspired by ILAs are already there: students, teachers, courses, HEIs, advanced boundary-crossing teaching and learning approaches, theoretical backgrounds, and some potential funds. Well, then, why the hell don't such new programs pop up all around us and be served on silver plates to the students queuing in front of the restaurant? This is quite evidently far from the case. So, what's the problem? *What is not working*, or who?

> *Well, the Zen cook … He doesn't cook. Why doesn't he cook? He is supposed to cook! Where is he? What is he doing instead? … He is looking for the magic k... The magic k? Yes, the magic k. He knows, the k must be there, in the kitchen. It was always there, but so rarely used that nobody missed it. His guess is that it might have fallen under the sink. He is looking there, but he has to tidy up the mess first. Just imagine! While the angry teachers are hungry, the students queuing, the funders looking for breakthrough ideas, the institutions running almost amok in a never-ending cycle of pseudo-reforms, our cook is calmly tidying up the mess under the sink in order to find the magic k - with a smile on his lips, of course. And indeed, after a while, in the midst of brushes, towels and soap, there is a piece of a page stripped from an old journal. It actually contains the magic k. The cook takes this piece of newspaper as if it was the most precious thing on earth and puts it carefully on the kitchen table. He adds it to the phrase that was in everybody's mouth: What is not working? Once the magic k is added, it now reads: What is knotworking?*

> "*Knotworking*" is a concept Yrjö Engeström has introduced to capture yet ill-understood emergent forms of collective intentionality and collaborative work departing considerably from the well-known traditional models of organisation, like face-to-face teams, markets, the governance hierarchies of bureaucracies, membership-based NGOs, or even circumscribable informal social networks. Knotworks have unprecedented, emergent characteristics that cannot be reduced to those of teams, organisations, networks, or networks of organisations or networks of networks upon which they build. According to Engeström knots are "*rapidly pulsating, distributed, and partially improvised orchestrations of collaborative performances between otherwise loosely connected actors and organizational units*." These performances can be extremely productive and innovative without any determinable and localisable centre of control or authority. "*The locus of initiative changes from moment to moment within a knotworking sequence*" brought about by "*interagency connections and reciprocations across boundaries*" that are "*focused on and circling around a complex object*." It is precisely the capacity to maintain and develop a shared even though shifting complex object – as for example HESPs inspired by ILAs – without any centre of control which makes knotworks different from formal organisations and informal networks in the generation and accomplishment of collaborative work. The readiness to loose rather than gain control, and the "*rejection and deviation from standard procedures and scripted norms are foundational to the success of such amoeba-like formations*." The new communication and information technologies play a catalytic role for this new type of collaborative work as does the individual cultivation of a specific kind of decentered awareness which allows the recognition of weak signs and complex patterns which would otherwise remain unattended or invisible. "*The efficacy and value lay in their distributed agency, their collective intentionality*." This distributed but focused collective intentionality can be considered an asset, a new kind of capital (beyond

> economic, symbolic and social capital). This distributed, "*collaborative intentionality capital*" [50] has not (yet) been grasped in its tremendous importance for collective value creation, collective innovation and transformative capacity by the more bounded and stable organisations and the mindsets sustaining them – and quite probably it cannot be grasped and used by them unless they become transformed themselves through the attempt to grasp and make use of it.

Knotworking between academic teachers, students, administrators, funders … across domains, languages and countries and across the entire range of ILAs is yet seriously and self-contradictorily underdeveloped by promoters of anything integral in academia, even though there are first upcoming attempts. Indeed, we need to put the ingredients together, otherwise nothing substantial happens, at least nothing making it up with the tremendous challenges and urgencies of our era. Without such *knotworking* across academic ILA communities the teachers and the students and the whole society will become more and more hungry and desperate in front of the larder which turns out to be actually … plain!

The first effect of *knotworking* is to discover that there are many more people interested or already engaged in developing a more integral higher education, and that waiting and preparing was good, but now time has come to act. This can help to redirect latent action potential and to disclose past experiences, current initiatives, and future plans and projects to each other. When this happens the second effect of *knotworking* can be to realize that one is not constantly in charge, but a whole, energizing field moving and moved by multiple actors in multiple places. This requires and allows us to become aware, moment by moment, of one's unique contribution to this field, and to deploy the right action (or non-action) in the right moment. This mindful awareness can be cultivated individually and collectively[51] and prevents loss of direction, motivation, and energy. It rather provides direction, motivation and energy. A third effect of such field-aware *knotworking* then can be the experience of being "plugged-in" more constantly, to "simply know" the movements of this field by one's whole multidimensional being, to wholeheartedly trust this flow and to follow its calling without delay. This can be very enthralling and re-enchanting, and contribute to attract additional actors resonating with a *knotworked* style of learning and working.

Conclusion

Most existing HEIs offer physical and digital infrastructures, values protecting a certain level of academic freedom (concerning research and teaching), degrees of a certain reputation, and flexible margins allowing at least some experimentation. The flexible margins of several HEIs taken together enhanced through state-of-the-art information and communication technology and diversity-proven andragogical approaches are even more flexible and … even more marginal. This marginality isn't negative at all. Being part of *and* being marginal to traditional HEIs at the same time is actually quite a good and appropriate "place" for the implementation of new HESPs inspired by ILAs beyond the traditional dichotomy of being inside *or* being outside. A layered, developmental strategy can help to move from isolated initiatives to mutual sharing to implementation of single programs to an intentionally interwoven ecology of programs inspired by ILAs. As people, organisational units and initiatives engaged in developing and implementing HESPs inspired by ILAs are quite loosely coupled, and will generally tend to stay loosely coupled to maintain their specifics, new approaches to cross-stream and cross-initiative collaboration are called for (in addition to new content, new educational approaches, and new contexts of implementation). It is suggested that the cultivation of knotworking awareness and capability is called for to take advantage of the already existing critical mass of scholars, students, courses, and research inspired by ILAs. This implies that the development and implementation of HESPs inspired by ILAs in the EHEA presupposes a well developed integral consciousness of the early promoters as much as the development and implementation of such programs is supposed to catalyze the emergence and stabilization of an integral consciousness in the participants.

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[50] All quotes in italics are from Engeström (2005).

[51] Many practices are available to figure out and enact collective intentionality from a deep level connected to transpersonal fields of consciousness, like David Bohm's (Bohm, 1996) dialogue approach, Gerard Endenburg's (Endenburg, 1998) sociocracy, systemic constellations (Horn & Brick, 2005), Arnold and Amy Mindell's process work / world work (Arnold Mindell, 1995; Arnold Mindell & Amy Mindell, 2001), and Otto Scharmer's presencing (Scharmer, 2007; Senge, Scharmer, Jaworski, & Flowers, 2004), to name just a few.

Contours

> *In the coming century, there will be an urgent need for scholars who go beyond the isolated facts; who make connections across the disciplines; and who begin to discover a more coherent view of knowledge and a more integrated, more authentic view of life (Boyer, 1994, p. 118) … the academy must become a more vigorous partner in the search for answers to our most pressing social, civic, economic, and moral problems and must reaffirm its historic commitment to what I … call … the scholarship of engagement.* (Boyer, 1996, pp. 18-19)[52]

Based on the insights developed in the prior sections we can now attempt to tackle the core task which is to say something about the future of a more integral higher education in Europe. My attempt in this respect isn't magic for two reasons. The first is that the goal is not to predict but to enable such a future.[53] The second is the consideration that the future takes place already now, at least somewhere, and in some respects, and thus can be observed like other empirical objects. We can go even further saying that parts of our future took place in the past. That means that some future-enabling features were actually already implemented in the history of higher education and have then been weakened, supplanted or forgotten altogether. This doesn't mean to revive an imaginary golden age because there was no such golden age of higher education. But many ILAs converge in claiming that certain features from all former eras can be valorised and adapted to contemporary situations. At the same time these worldviews bring with them other features which have to be limited, contained, and transcended in the light of later cultural achievements and future requirements.

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[52] For scholarship of engagement see as well Ven (2007). Ernest Boyer was Chancellor of the State University of New York, United States Commissioner of Education, and President of the Carnegie Foundation for the Advancement of Teaching, he received numerous awards and honorary doctorates.

[53] According to the famous phrase of the French writer and pilot Antoine de St. Exupéry who disappeared at the end of WW II: "Pour ce qui est de l'avenir, il ne s'agit pas de le prévoir, mais de le rendre possible."

In this perspective the attempt is made in the following sections to flesh out core features of early medieval, modern and postmodern higher education systems and to recompose and to go beyond them in an innovative integral vision of HESPs. This attempt is based on the material compiled in the tables in the appendix and helps to paint the contours of HESPs inspired by ILAs within the strategic corridor already specified. These contours are rather general and can be concretized in manifold specific ways. For accomplishing this task lenses frequently employed by ILAs are quite helpful, like individual developmental trajectories, cultural contexts and evolution, place, space and time, and the relationship between theory and practice. I will proceed stepwise and first spell out some *principles* required for ILA-based HESPs to be true to themselves, then address questions more specifically related to creating committed *learning communities*, and finally turn to *integral andragogical approaches* and *integral organisational development*. It will appear from the perspective of ILAs that community, andragogy and organisation are different angles of the same process concerning the same group of persons. This stands in contrast to the fragmented vision and practice in most of contemporary higher education in which these are different processes enacted by different groups of persons in different contexts.

Principles

A HESP inspired by ILAs, if it is meant to be coherent in the sense of practicing what is preached, must be designed along at least the following highly interconnected principles:

- *Scientific Quality Development*: Needless to say that in any HESP based on ILAs first and foremost the existing principles and quality criteria of academic research and higher education need to be respected and attained. The goal is not only to stick with existing standards, but to go beyond them and to develop and comply with standards derived from the broader views provided by ILAs, among which are the conscious attempt at raising awareness for, balancing, and mutually enhancing breadth *and* depth, individual excellence *and* collective intelligence, values *and* facts, theory *and* practice, micro- *and* macro-levels, the views of the history *and* of the future, first-order (empirical) *and* second-order (meta-studies) research, etc.[54]
- *Transformative Purpose and Commitment*: HESPs based on ILAs serve at least three higher intertwined purposes. They should contribute i) to substantially and immediately catalyze constructive transformation in society, ii) to serve as scalable showcases of higher education transcending (post)modern assumptions about and conditions for learning and iii) to support all the individuals involved (teachers, students and other stakeholders) in understanding and deploying their unique developmental trajectories according to their deeper vocation (Gidley, 2007; Glisczinski, 2007; Harvey & Knight,

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[54] Little work on quality standards for integral research and integral higher education has been done so far. However, for the process of institutionalisation specific, explicit and more widely shared quality standards and quality development approaches including and transcending the traditional expectations are of crucial importance.

1996; Lessem & Schieffer, 2008; Maxwell, 2007; O'Connor, 2002; O'Sullivan, 2002; Reason & Torbert, 2001; Schugurensky, 2002; Weaver, 2008).

- *(Self-)critical Reflexivity:* The cultivation of constructive critique is considered as an integral part of individual and collective self-transformation. Accordingly, issues of contemporary local and global import and impact are addressed with critical reflexivity, as are in turn the worldviews, theories, models, methodologies, interpretations etc. used to address them. Targets for self-reflexivity and critique are the objectives, principles, roles, rules and regulations, standards and procedures of the study programs themselves, and the implication of students and teachers in their unique learning trajectories and their collaboration (Brockbank & McGill, 2007; Kenny, 2008; Moon, 2004; Schön, 1983; Tanaka, 2002).
- *Integral Pluralism and Dialogue*, i.e. a sustained attempt at the inclusion of a diversity of persons and perspectives in research, learning approach, organisation, and intervention etc.. Accordingly, such a study program can never be confined to a single paradigm, worldview or school of thought and is called to actively foster dialogues between different streams of ILAs and between ILAs and other paradigms, and between higher education and society. This should be cultivated with a scope which is creating and strengthening cross-cultural and cross-civilizational planetary dialogues (Dallmayr, 2010, 2003; Gidley, 2007; Giri, 2006; Molz & Edwards, 2010; Tanaka, 2002). A particular emphasis of dialogue, bridge-building and integration is necessary in our times to counterbalance the particularly strong institutional and intellectual forces of fragmentation (like nationalism, hyper-specialisation, extreme relativism, and the various reductionisms). Part of this principle is a deliberate approach for sharing, open access, and contribution to the global knowledge commons (Hess & Ostrom, 2006).
- *Organisational Learning and Participation*: Study programs based on ILA’s necessarily follow core tenets of organisational learning and of lifelong and lifewide learning of its stakeholders. The organisation has to be designed in all its aspects to stimulate and integrate feedback loops within and across organisational levels (individual, small and large group, community, organisational and inter-organisational), across domains (beyond education extending to politics, business, religion, civil society, the arts and the media etc.), and across layers of learning (from single-loop learning to triple or maybe one day quadruple-loop learning). This is only possible on the basis of strong approaches to participation and unleashing of collective intelligence and wisdom (Kenny, 2008; Kezar, 2005).

Integral Learning Communities

> *Building learning organizations, we are discovering, requires basic shifts in how we think and interact. The changes … penetrate to the bedrock assumptions and habits of our culture as a whole. We are also discovering that moving forward is an exercise in personal commitment and community building … nothing happens without “personal transformation.” And the only safe place to allow for this transformation of the self is a learning community. So, we are coming to see our efforts as building “communities of commitment.” Communities committed to create learning environments rather than follow recipes for success. Communities that embrace pragmatism and idealism, that address themselves to critical problems while sharing a vision as generators of rich lives rather*

> *than as ends in themselves. Communities that search for meaning and transcend their selves, their organizations, and their world.* (Kofman & Senge, 2001).

The constitution of intentional communities of learning, inquiry, practice and self-transformation inspired by ILAs depends on a sound answer to the questions who should be involved, how (which roles, rules, tasks and responsibilities), when, where and how long. Historically, higher education already underwent major transformations regarding these questions. At its very origins in Europe, the “universitas” was nothing else but (small, flexible, mobile, self-governed) communities of a teacher and his students, who spent quite amazing amounts of time together, somewhat like a family. In early medieval higher education it was common that a student choose his teacher, as this generally meant to engage in a longer-term interpersonal master-disciple relationship, and the participation in a specific community instead of another.

In modern higher education the student applies for a study program, and if (s)he is selected the respective teachers and fellow students are simply a given. Academic teachers on the other hand apply for jobs at HEIs and when they are selected in many cases they find themselves in a department with colleagues they never wanted to work with, and with students they are randomly flooded with. In some study programs selection of students is performed by a committee including the director of the program and perhaps some of the teachers. This allows for and even enforces some thoughts about student intake. In practice, however, more often than not, the selection procedure remains quite superficial, based on formal criteria or the usual game of application rhetoric. Scholars have generally little time to devote to the selection of their students, and students today generally select study programs and not teachers, with doctoral studies being partly an exception.

It comes as no surprise that under these conditions the traditional idea of a community of scholars and students based on intensive interpersonal relationships became more and more diluted and that in many places it is now completely lost. Students and academic teachers follow their respective duties, schedules, and trajectories, every student has many teachers, and every teacher great many students. The participants in different classes are not the same, courses are short, and there are many courses on different content to be attended within a week which is sliced up into pre-scheduled time slots.[55] This picture is quite characteristic for today’s mass higher education. Distance education providers allow for a more flexible organisation of time while often having pushed individualisation even further than campus universities. It can be questioned whether under these circumstances there is any collectively shared intentionality in a teacher / student group.

It should not be bypassed, though, that there are various attempts to revitalize the idea of learning communities. There is even a whole *learning communities movement* in educational research and practice (Gabelnick, 1990; Garrison & Vaughan, 2008; McNay, 2000; Wilson & Ryder, 1996). But first, this movement is not spreading widely, and second, under the structural conditions of mass higher education, individualisation, hyper-specialisation of scholars, and geographical mobility of everybody, the best intentions and the best practices can only have limited effects on restoring community for higher learning in the more original sense. The postmodern transition phase does not change anything to this state of affairs. The structural condition of modularization makes it even worse. At the same time the possibilities to create original new study programs are strengthened. If such a program is relatively small in size the creation of learning communities meriting this name become basically possible again, but it needs deliberate and sustained andragogical efforts to create and sustain them.

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[55] They are following on each other, however, in a rhythm and in time slots which in many contemporary HEI’s are still modelled upon medieval monasteries!

Students

All this being said, how could ILAs respond to this history of weakened and suspended community and integrate suitable features from premodern, modern and postmodern practices? How could the undeniable advantages of actual learning communities[56] be reactivated under contemporary conditions? I want to make several suggestions regarding student intake and matching between students and teachers that are questioning deep-seated assumptions on which contemporary higher education is built (before addressing the questions how to keep a learning community going in the remaining sections on integral andragogies and integral organizations). I argue in favour of much more mutually *elective* than one-sided selective procedures reconnecting with the ease of access in the earliest phase of institutionalised higher education. But instead of students selecting a teacher or a study program, and the other way round, the constitution of more authentic learning communities might better be based on emergent transformative projects whose orientations are shared and co-shaped by those interested in them (see section on integral andragogies).

How could this happen? This depends on the type of program. From a developmental perspective I would argue for at least two types of study programs to be designed to adequately spread ILA's in theory and practice. The first type offers introduction into ILAs for students with little prior knowledge but interested in discovering the horizon of ILAs. The second type would be designed for students with more substantial prior knowledge and more arduous and focused transformative motivations. The first type of program can be framed by multi-year strategic transformative projects pursued by a team of researchers and practitioners as part of their practice-based research and research-based practice. Students could engage in such flexibly designed framework projects with a negotiated focus. In this case, the usual approach of individual applications could be used, based, however, on challenging, multidimensional, reflective tasks stretching beyond simple motivation letters. The set of selection criteria should be extended, give unusual profiles a chance, and focus on cross-boundary life trajectories (across disciplines, cultures, occupations, theory and practice etc.), the record of social engagement and spiritual practice.

Instead of simply fishing for the individuals best fitting to the criteria, a stimulating balance of diverse backgrounds within groups of students should be targeted. The attempted balance shouldn't be handled dogmatically as in formal diversity policies working with quotas.

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[56] Small-scale communities were actually the adaptive unit 99% of the course of human evolutionary history. Accordingly, sociality and learning within group and community settings is not only part of our cultural but as well of our genetic heritage.

Nevertheless, in order to engage a broad array of experiences and perspectives a pragmatic mix is looked for between male and female students, students with different prior studies and levels of professional experience, students from different cultural and social class backgrounds, younger and elder students, students with and without family duties etc. Particularly lively and stimulating learning communities can unfold from such original mixtures. Such a micro-cosmos creates the requisite variety (Ashby, 1958) reflecting global human diversity with which transformative projects have to deal. Instead of separating traditional and non-traditional students into separate programs they can enrich and challenge each other within the same learning community if the respective learning pathways are properly framed, supported and crossed with each other.

The approach to the second type of program is more revolutionary because it intentionally breaks with the individualistic bias Western higher education is built upon from the bottom to the top. The undeniable merits of individual-centric education[57] notwithstanding, a more communal approach is called for in the future, an approach sensitive to individual uniqueness *and* to powerful collective action at the same time. For this to happen I want to launch the idea of *collective applications*. A collective application is an application submitted by a group of candidates who i) make claims on their shared interests, ii) suggest the contours of a transformative project they want to work on during the program, iii) explain the complementary roles they think they can play in this, iv) specify the resources, expertise and contexts they think they need to realize it, and v) those they bring to the picture themselves as a unique team. Once again, some framing conditions regarding diversity should apply. Much prior work must go into such a collective application. But this is already a very valuable learning process in itself, independently from its being taken up and realized by those who imagined it in the first place. The contention is that in the light of lifelong learning and in the light of ILAs more learning in more people can be induced by any single HESP than the learning of the selected students only between the start and end of the program's duration.

Accordingly, it could be imagined that the process of development of transformative projects by teams of students and others can and should be facilitated prior, during and after enrolment in an ILA-based HESP. This facilitation is a service to the ILA-communities and to society at large. Such a task doesn't come into the focus or is rejected by the limits of the strictly formally conceived responsibilities and by the clear-cut time frames from enrolment to graduation in which conventional higher education has become institutionalised. However, it is sure that such a reflective collaborative process of shaping the contours of a transformative project before even taking up a study program fosters reflexivity, unleashes creativity, helps to clarify individual vocation and collective needs. It can eradicate the widespread lack of enthusiasm of enrolled students for courses of a study program they have "chosen" in the first place. It makes students fully responsible for deciding what and with whom to learn and to work. It is an entrepreneurial activity involving risk-taking. It requires a vision and a passion.

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[57] The individualistic bias goes almost untempered from individual applications for individual participation in mostly individual learning processes assessed on the basis of individual performance to achieve an individual degree opening up an individual career. Being practiced for ages this appears self-evident to many. However, there are alternatives which at least should be discussed.

Such an approach makes better use of the limited time of the teachers. A recurrent observation I have made is that otherwise a good deal of the duration of a study program goes into clarification of why students are actually there and what they actually want to learn and what they actually intend to do with what they learn. The matching between the (often vague) motivations of the students and the (often narrow) focus of a conventional program happen to be poor in many cases whereas time goes by until this becomes evident. In addition, the few possibilities for career counselling are often not used, and if they are used it often appears that their institutional separation from the actual dynamics of the study programs and of the work life isn't very conducive to induce better matches. Such a state of affairs produces unreasonably high drop-out rates as well as attitudes of following-through with minimal effort just to receive the degree. Often the main goal of attending classes at all becomes reduced to the desire to socialise with fellow students, and to end up with a degree. Just doing what is prescribed to get a degree is a dry, lifeless goal, bypassing the richness of the here and now which discloses itself in the light of passion, love and commitment.

It is clear that only a minority will appreciate the approach of collective applications and will be ready and capable to engage in such a demanding process. But this self-selection and mutual election is precisely intended when such a collective approach is launched. Web 2.0 tools provide very good possibilities today to help matching those often isolated students (and teachers) who actually share ILA-based interests, attitudes and commitments. If this facilitation of the matching is scaled up to the entire EHEA, or even worldwide, this is already creating community before anyone has enrolled in a study program. The catalyzing effort is small held against its longer term benefits. Through the (multi-step) procedure of collective applications less applications of higher quality have to be dealt with. Applications not retained at one point of time for one reason or another can mature further, merge with other ideas, be realized independently, or be taken up by somebody else. Opening up the possibility of collective applications as described can evolve into a fountain of fresh ideas and insights in their own right.

An advantage of such an approach is that it makes much clearer what students actually desire to study and to achieve (and force them in turn to be much clearer about this) while boiling down individual fancy to realistic collaborative projects. The collective applications retained then contain valuable indications which unique program to assemble to make it a good fit with the spelled-out expectations of a specific group of students and with the transformative needs of society. Instead of fitting students without evident shared concerns into more or less ready-made programs this means dynamically fitting programs to student teams who actually share concerns and commitments. Collective applications could even be conceived by students who pursue different goals and who are at different levels as long as they are convinced on the merits of the emerging co-created project. Masters students and PhD students and participants not interested in getting a degree (e.g. because they already have one or because they are happy with being a social entrepreneur) could apply together as long as they share a vision and a mission and can discover how their experiences, competencies and inclinations (e.g. more research-oriented and more practice-oriented) can complement each other and coalesce in a joint transformative project of learning, life and work.

Another innovative feature could be, back to the origins of Western higher education in this respect, to skip deadlines, and allow for applications any time. Administrative deadlines often prevent certain interested and interesting people to apply and projects to coalesce, because the rhythms from different contexts are kept separate or imposed and so prevented to supersede each other in more complex patterns. Especially in case of collective applications it cannot be predicted in advance when an application is ready to be submitted. This deadline-free approach would imply to allow for starting study programs more flexibly, according to actual needs and possibilities of an emerging learning community of students, teachers and other stakeholders. If the idea is to bring people inspired by ILAs and motivated to develop transformative projects together on a Paneuropean and global scale, this point is particularly important given that academic years, typical periods for exams and vacations etc. are not at all aligned across countries. For sure, administrations of HEIs won't necessarily accommodate to such a radical suggestion. If one doesn't want to permanently hit the limits of local time frames and their incompatibility with each other there is another good reason to guide our imagination toward a semi-autonomous overlay structure rather than a neat and total integration into any given HEI.

Facilitator

Now I want to focus on a key person in any learning community inspired by ILA's. It is the *coordinator* of the program. Dedicated coordinators for a specific HESP become more and more important in the complex, dynamic settings of postmodern higher education. They are complementing the traditional director of the program who oversees the academic quality and holds the institutional responsibility, and the secretary who is limited to administrative tasks. The coordinator dedicates most of her time to one specific program. Her task are i) guiding the students through the program from application to graduation and beyond (including alumni work), ii) providing access to resources, iii) administrating the online learning platform, iv) organising courses, events and assessment, and v) simulating quality assurance and quality development of the program. The need for a dedicated coordinator arises the more we are departing today from homogenous student groups following the quite stable, pre-established disciplinary curricula of modern higher education within a single HEI, and move to international student groups with different prior studies, to the many possible re-combinations of modularized and interdisciplinary curricula, and to cross-border consortia jointly sustaining a program. In the long run, success or failure of many of those more complex programs depend on having a dedicated, apt coordinator who has the overview and who holds everything together. The importance of such a position is still often grossly underscored.

HESPs based on ILAs are no exception to this new rule as they tend to go even further than postmodern HESPs with complexity, flexibility and heterogeneity, while demanding higher levels of coordination, coherence and integration. This implies that the coordinator is not only important but serves as a *key facilitator*. Accordingly, in addition to what a coordinator is already doing in a postmodern HESP, a facilitator in an ILA-based program must have knowledge about ILAs, and competencies in facilitation, individual counselling, team and organizational development, project management, public relations, intercultural communication, Web 2.0 tools and practice-based research. This rather impressive transdisciplinary profile being stated it becomes evident that such a position cannot be considered as an administrative position, nor as a position to be filled by recently graduated former students working on fixed-term contracts as it can be often observed. As it is the pivot of a HESP based on ILAs it should be seen as a full academic job opening up possibilities to evolve with research qualifications (e.g. through practice-based research into the development of the program). The facilitator is framing and supporting but not directing the work of the students and their negotiations with teachers, funders and supporters. If one day a further move along the strategic corridor (see section on Strategic Corridor) can be actualised, and ILA-inspired HESPs start to cooperate on a regular basis, a coordinator of the coordinators and facilitator of the facilitators may eventually be required. This position is the only additional investment ILA-based programs require in the long run compared to postmodern programs when they are mature enough to create a more integrated offer.

Teachers

When it comes to teachers, who are they, where are they, what are they doing and how do they join the learning community of the students and their facilitator? If a collective transformative project is at the core of the curriculum teaching fulfils a different function than in the additive curriculum content delivery model. Teaching then comes in at least the following four forms:

- As a set of core teachings agreed-upon to create common ground regarding ILAs. A few teachers holding positions in the HESPs of the consortium running the ILA-based HESP can commit together to deliver the core teachings. The possibilities to create fabulous cross-cultural, cross-disciplinary and cross-stream core teacher teams scale up considerably when it comes to a consortium of consortia (last strategic step). Teacher teams (and team-teaching) creates interesting learning opportunities among teachers. Students may join the classes these scholars run anyway, negotiate specific classes, or engage in one-to-one exchange on more specific topics.
- As timely support for the unfolding collective project (e.g. for a method, a tool, or some domain-specific knowledge) based on specific demands rather than on regular pre-scheduled classes. Additional teachers may indeed be contracted for shorter periods as guest lecturers. This is already common practice. But what is specific in the present suggestion is that the students would be in charge, supported by the facilitator, of choosing them, of negotiating content and conditions, and of evaluating their intervention.
- As support to develop the individual profile and personal key competencies. In this respect students can be encouraged and supported in finding the most suitable teachers for their individual development all over the place, the world being full of teachers. Most of them are delighted to be approached by highly intrinsically motivated students in a targeted manner within the range of their unique expertise as this doesn’t necessarily happen to them on a daily basis. A lot of teachers come into sight once the artificial limitation to faculty of the department running a program is falling: from young researchers to freelance researchers to retired professors, from artists to social activists to spiritual leaders, from entrepreneurs to consultants to policy makers.
- As peer-teaching between students, but as well of students teaching teachers, given the diversity of backgrounds, competences and prior knowledge.

It is evident that once more people are invited to teach on the basis of their passion, the teachers with institutional teaching roles can teach less and care more. This is an ongoing process which adaptively combines and takes advantage of the roles and positions of academic and other teachers corresponding to premodern, modern and postmodern times. This process properly framed takes into account that:

- Modern higher education systems systematically produce scholars for whom teaching is not high on the agenda. Their careers progress on the basis of research excellence and not on the basis of teaching excellence. The invitation to contribute to student's transformative research-based intervention projects is actually closer to research and to expert counselling than to traditional teaching and might be more appealing to senior researchers who can take part in those projects at a level of involvement of their choosing.
- Teaching excellence in the spirit of ILAs is yet rare and geographically quite distributed. Students actively searching for teachers can substantially contribute to make connections on a European and global scale. A database helps to keep track and to support the dynamics of net- and knotworking which then is likely to become self-accelerating.
- Interpersonal relationship building and networking across domains and age cohorts is becoming more and more important. This is much more than a nice add-on or a romantic return to the origins. Today, it is well established that social capital built over years is often more important than formal knowledge for professional trajectories across the fractures and ruptures of postmodern economies true to the potential of a person.

Conclusion

Learning communities are a particularly suitable and flexible form and context of learning which allows to build and strengthen self-consciousness, imagination, complex situated knowledge, social relations, collective intentionality and action, simultaneously. Students, teachers and all other stakeholders form committed and intentional integral communities of learning, inquiry, practice and self-transformation. The communities should be as multicultural, multilingual and transnational as possible, and include and consider all stakeholders regardless their formal status and position as researchers, teachers, students and practitioners. Integral learning communities are serious about student-centeredness.[58] Integral learning communities conceived and nurtured according to insights gained by ILAs support students along their unique pathways of learning and help them to find the most appropriate teachers in any moment. From such a broad perspective committed learning communities are self-extending and self-transcending. They serve a wider community. Accordingly, they show the same characteristics as light which has to be considered simultaneously as small and focused corpuscles and as distributed waves.

Integral Andragogies

> *The utilitarian model of the university now prevalent and the humanist model differ sharply both in their goals and their basic epistemic conceptions. While the prevalent model functions as a conglomerate of service-stations with no common educational aim, the humanist model reflects the educational aim of enhancing the process of self-design. While the prevalent model is based on the relativistic– positivistic view that existential and*

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[58] Otherwise quite often reduced to a plastic word (Poerksen, 1995).

> *value issues are beyond the scope of scientific discussion, they are the very focus of the humanist model*. (Aviram, 1992a, p. 405).

As we have seen, the reflections on how to constitute committed learning communities in higher education is already tightly connected to core andragogical concerns and to the question how flexible or fixed in advance teaching / learning patterns and roles can and should be. Once again a look back into the deep history of higher education can help to understand the task to shape more integral andragogies today. In the context of this essay this will be necessarily a sketchy undertaking and leave many features out. The goal is not to expose a fully-fledge ILA-based andragogy for higher education – this needs to be a long-term collaborative effort drawing on a wide array of streams and cultural contexts[59] – but much more modestly and pragmatically to present some elements that hopefully prevent to fall into the trap to self-contradictorily deliver ILA-content in a conventional pedagogical mode. If this happens it is fatal because the medium is as much the message as the message and the hidden curriculum then forcefully counteracts and subverts the unique contributions ILAs can make to higher education, research, and societal transformation.

For the purpose at stake a meta-pedagogical perspective is adopted. Meta-pedagogical means that various pedagogical approaches, if properly arranged can be complementary rather than opposed to each other. A meta-pedagogical view can help to determine or devise pedagogical approaches that are integrating otherwise separate practices into more tightly connected, meaningful and sustainable learning processes. This means i) to consider *curriculum* rather as *co-designed process* than as pre-existing structure, ii) to put *vocation, wisdom and commitment* centre stage rather then shying away from even talking about these issues, iii) take the information technology revolution seriously and as a consequence switch to *resource-based demand-driven learner-managed learning*, and finally iv) to depart from the traditionally split relationship between teaching / learning and assessment and facilitate integrated approaches as in *portfolios* used for *collaborative project-based service learning*. Once again I propose to cross-connect these aspects with each other and to cycle daringly back and forth from the early Middle Ages to now and tomorrow.

Curriculum as Co-Designed Process

The curriculum in medieval higher education was almost completely fixed in advance. Learning occurred strictly on the basis of the scholastic method. This was very much a theoretical affair separated from mundane practical demands. This monk-like seclusion was surely necessary in the first place for the rise of an autonomous sphere of knowledge which then became pervasively, and often for understandable reasons, called the ivory tower. The ivory tower still exists today. However, postmodern societal conditions make stronger demands on higher education in respect to accountability, more immediate usefulness, and self-funding. Accordingly, the ivory tower gets more and more holes through private-public partnerships, transdisciplinary action research projects, non-traditional students, online delivery, service learning, the recognition of practice-based prior learning, and the like.

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[59] There are first upcoming attempts in this direction (Gidley, 2010).

The separation of the young generation of future decision makers from actual practice for many years during their studies raises serious concerns in a time in which professional practices are evolving faster than curricula can be reformed.[60] The modern idea of higher education preparing for life and work once in early adulthood does not appear very suitable when change and rupture in career paths becomes the rule in a lifetime rather than the exception. The postmodern idea of preparing rather for change and uncertainty (Barnett, 2000) is something to be retained while lacking any particular focus. The focus can be provided by the emancipatory and transformational ethical commitment of ILAs. Some modern ideas of the university, especially as they have been rarely or only shallowly realized, merit reappraisal as well. As an example, the Humboldtian vision of higher education was about the unity of teaching / learning and research. It didn't only mean that the teachings should be informed by the teacher's scholarly research. Von Humboldt's humanistic understanding of research was much broader than the contemporary hyperspecialists' conception.[61] It didn't mean controlled laboratory research into exterior phenomena (however important they are). It was meant to be research broadly put, including one's own life and resulting in unique self-designed "experiments in living" (Aviram, 1992a).

Self-design requires opportunities for choice and participation on all levels regarding all determinants of the learning environment. Within the disciplinary curriculum of modern times the Humboldtian vision became actualised only in a very rudimentary and mutilated manner. Choice was reduced to minors and subdisciplinary specialisations. The current postmodern modularization hype undeniably brought about more possibilities for combining courses, but still the courses as such are generally givens mostly still inscribed in additive disciplinary and interdisciplinary curricula. However, endless possibilities for choice lay bare before us right now when leaving those historical limitations behind and considering everyone as a teacher, the entire world as the classroom, and the Internet as the textbook. This sounds unrealistic and revolutionary. But it isn't. Today, it is the perfectly realistic and realisable evolutionary next step andragogies based on ILAs need to explore as seriously and forcefully as they can.

Vocation, Wisdom and Commitment

This exploration requires an attentive navigating between Scylla and Charybdis. Scylla in this case are the restrictions inherited from an era in which strictly place- and institution-bound formal learning was adaptive because there weren't enough teachers nor enough pedagogical materials, restrictions, however, that have turned today into unreflected, self-reproducing, bureaucratic obstacles devoid of any defendable contemporary rationale (Aviram, 1992b). Charybdis in this case is the postmodern situation of endless consumerist choices which turn into arbitrariness, paralysis, loss of focus, sense and value. A third way can be found if we turn to a crucial perspective on higher education, taking the “higher” indeed very literally: the DIKUW holarchy in which *data* is transformed into *information*, *information* into knowledge, *knowledge* into imaginative and creative *understanding* and *understanding* eventually into *wisdom*, and the other way round when it comes to the enactment of wisdom (Ackoff, 1989; Maxwell, 2007). If we understand wisdom as the capacity to choose between or devise complex alternatives in an incorruptible commitment to what is good for the future of the whole, then it becomes evident that higher education cannot stop at producing data, disseminating information, conveying knowledge and facilitating understanding of the past. If already understanding cannot be taught but at best evocated, it is clear that wisdom cannot be learned like a subject matter. It can only grow by the sustained cultivation of a specific quality of individual and collective awareness enabling to “lead from the future as it emerges” (Scharmer, 2007).

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[60] Under modernist institutional planning practices the start of the conception of a new study program (first and second cycle) is separated by roughly one decade from the first cohort of graduate students becoming operational in a field of practice. Until information from this field of practice is fed back and eventually taken up to substantially reform the curriculum and adapt it to actual requirements of professional practice it realistically takes another decade.

[61] Who are often taken to break up the unity of research and teaching because their research is generally too specialised to be taught right away before the third cycle.

Knowledge and understanding as educational goals can be transcended (and included) by at least two complementary moves that have to be carried out carefully around an inner space which cannot be touched and from which individual and collective creativity and wisdom can emerge: i) exploring individual *vocation* and ii) linking different vocations to each other in collaborative transformative projects intervening in a constructive and future-enabling manner in the ongoing societal macroshift. The notion of vocation has an interesting history downshifting its meaning or making it suspect, from the calling of the priest to modern “vocational training.” However, contrary to the (post)modern appearance vocation is not at all outdated. As a marvellous example, Frederick Buechner coined the famous phrase defining *vocation as the place where* “*your deep gladness meets the world’s deep need.*” Such an understanding of vocation transcends specific traditions, domains and age groups. It opens up a horizon of a potentially deep coherence between the individual and the collective beyond premodern social fixation, modernist career planning and postmodern patchwork nomadism.

Hence, a profound sense of vocation can be found in the 21st century. Talking and thinking about vocation, intuiting one’s vocation, laying it bare through collective care, and acting true to one’s vocation cannot be discarded from education. ILA-based andragogies are called to focus on vocation in this broad and deep sense. This makes their difference, their value, and their attraction. They need to develop multiple situated practices that are helpful for students and teachers alike to discover and stand to their vocation and unique contribution to collective endeavours, and the other way round to shape collective projects in a way which responds to the vocations of those contributing to them. This is an ongoing process not an achievement which can be made once and then fixed. By cultivating such a focus which was evacuated from most of modern mass higher education a strong sense of individual and shared purpose can unleash high levels of motivation and performance which can be sustained over long periods of time and across all kinds of challenges. As long as higher education is not touching this existential and motivational core of the human being it can barely be called higher either.

Resource-based Demand-driven Learner-managed Learning

As information represents a lower layer on the above mentioned holarchy, it is fundamental. In the very early medieval beginning of Western higher education the professor was lecturing from a book in reduced speed to allow his students to copy word by word what he said. This was an adaptive approach at that time as copies of books were too expensive for the average student.

As the curriculum was fixed and universal it was clear from the outset which books a student had to copy and to learn. This process, rooted in the constraints of a specific sociocultural and technological context, has institutionalised the plurisecular tradition of lecturing professors in higher education. Even though today lectures are not about reading a book aloud they are still pervasively given in higher education with much one-way communication. However, at least in the privileged countries, every student lives now in an extremely information-rich multimodal and multimedia environment of print and digital media. Lectures can be streamed or downloaded … or replaced by other sources of information without any problem. The contemporary problem is not the scarcity of information input but the exact opposite, i.e. information overload. The problem is not to produce one's own handwritten copy of authoritative books through hard labour of teachers and students, but to pave one's way through an endless, messy ocean of contradictory information any parts of which can be infinitely reproduced by the lazy movement of a finger in front of a computer screen. Under these conditions much well-founded knowledge is necessary to be able to determine the authoritative sources in the first place. This is somehow a vicious circle. A teacher can do this work and convey his/her synthesis of a domain to the students through a lecture, but then the students don't acquire the information literacy necessary to do this on their own.[62]

The entirely reversed situation concerning sources of information makes demand-driven learning more adaptive than the traditional delivery-driven education (Kirschner & Valcke, 1994). From an ILA-perspective this statement shouldn't be interpreted in absolute terms but in terms of the relative ratio between demand-driven and delivery-driven ingredients to one and the same learning process. If both ingredients are combined the delivery of input by teachers knowledgeable in certain domains can turn into suggestive stimulations. These stimulations tend to be better received and retained when they are less focused on sophisticated technicalities and more on providing orientation and overview that less expert people in a field cannot have. On the other hand, demand-driven learning requires unconditioning the passive habits developed through delivery-driven education pervasive in educational institutions which have not yet substantially transformed themselves to adapt to the contemporary information resource-rich environment. Demand-driven learning is very demanding – it demands inquiries into what one is looking for, i.e. it asks for learning about oneself – which brings us back to vocation, but at the same time about the community and the world, in multiple dynamically connected ways. It demands to develop and cultivate an attitude of continuous inquiry, of questioning, of paving one's way through the opaqueness of complexity by one's own efforts, intuitions and insights. It requires accepting not knowing, or even discovering not knowing as the source and natural environment of our islands of knowing.

The reintegration of inner dimensions into formal learning becomes inevitable on the basis of these insights. Even more so as today HEIs are loosing very much their exclusive aura of granting access to sophisticated knowledge. More and more open access digital resources of academic quality are available today and more and more universities adopt an open courseware policy making their course materials freely available over the Internet.[63] This means that there are ample opportunities to access and acquire academic knowledge without ever being enrolled in a HEI. As a consequence, in an age in which 24h per day broadband wireless Internet access is granted to students on the laptop campus and in great many other places the core concern of postmodern institutionalised higher education cannot be about information delivery any longer.[64] What actually remains from the traditional core of higher education are dedicated spaces for teacher – student and student – student interaction coupled with degree granting power. Open courseware doesn't deliver this core but just the fundament on which it is built. So let's focus on these interactions which are crucial for the learning of all those who are not auto-didactic heroes. The issue of degrees will be addressed later.

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[62] Reflected in the well-known saying: "Give a man a fish, and you feed him for a day. Teach a man to fish, and you feed him for life."

Under the above-mentioned premises, much has already been said about the required change of the role of the academic teacher from "the sage on the stage to the guide on the side." But the old habits and scripts are deep-rooted on both sides, students and professors, and they are stabilized through the usual institutional inertia. As a consequence, the role expectations and practices regarding teaching and learning are evolving at a very slow pace in higher education. Typically, the age old blueprint is often still the dominant model. It consists of a conception of learning in three steps and settings clearly separated from each other: i) delivery-based teaching, ii) repetition and internalisation by the student, and iii) reproduction during final assessment. The standard script demands several smaller and larger cycles like this leading to a grade. In this respect there is continuity between early and modern forms of higher education.

Alternative ideas of student-centred, self-regulated if not learner-managed learning (Graves, 1994; Harrison, 2000; Ottewill, 2002; Wilcox, 1996; Zimmerman & Schunk, 2001) have not yet cracked this traditional version of a learning cycle at any larger scale. Many versions of these alternatives are themselves limited in practice in their actual student-centeredness or learner-directedness, as students called to learn under the conditions of implementations of such frameworks in actual HEIs rarely (co-)determine the whole set of parameters constituting their learning environment: when and at which pace to learn what and where with whom for which purpose, on the basis of which support and input, and when and how progress and outcomes are assessed. The usual institutional framings and understandings of student-centeredness generally allow certain limited moves but not others that would perhaps be more important for empowerment, participation, emancipation and self-transformation. The radical potential becomes right away domesticated (Taylor, Barr, & Steele, 2002).

Portfolios

However, many proponents of postmodern variants of higher education at least try to bring a different approach to the fore in which teaching, learning and assessment are better coordinated, or even more integrated, i.e. in which they are more coterminous and more continuous, and in which their co-determination is more critically reflected in dialogues between students and teachers. An integrative approach to catalyzing, reflecting and assessing learning at the same time is the portfolio. It was originally limited to the art faculties but is spreading impressively across all domains and levels of education as postmodern conditions and insights spread. A portfolio is assembled and developed by the student herself. A portfolio allows focusing on strengths, working on the presentation of one's work, and fostering self-reflection on one's learning processes. These features make portfolios coherent with student-centred learning and the development of unique profiles. It can also contain the work submitted to traditional assessments and its results and it can stretch beyond the end of formal education into professional life. This makes portfolios a very flexible tool for self-assessment, peer-assessment, and expert assessment at the same time.

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[63] Inspired by the pathbreaking "open courseware initiative" started by the Massachusetts Institute of Technology (MIT) in 2001 with more and more material made accessible to the global public since 2002 (see http://ocw.mit.edu).

[64] The responsibility in this respect is shifting rather strongly to lifting the financial, technical and organisational access barriers to protected digital libraries, archives, databases and repositories.

There are many variants of portfolios and of ways to work with portfolios. There are interesting possibilities to extend and transform the work with portfolios through an ILA-informed perspective. One extension would be to de-compartmentalise process and outcomes and to fuse online working environments with electronic portfolios, reflecting different stages of advancement of different activities.[65] Another extension would be toward a seamless "plug-in" integration of individual portfolios with team portfolios (including extended project documentations) with learning community portfolios with the presentation of the HESP and eventually of the umbrella organisation. This would wipe out with one stroke the usual annoyance of students with assessment and of scholars with contributing to annual reports, quality assurance reports etc. because the activities and the material are already properly presented at the right place from the outset and no extra and double work is needed. These extensions, among others that should be imagined, require new technical (digital) solutions[66] and new multi-layered and integrated andragogical practices. To bring this transformation about it cannot be circumvented to break with some very deep-seated habits. One example is that because of the individualistic bias groups or teams have rarely been considered as learners in their own right in formal educational settings.[67] Even less considered up to now are the inter-level links between individual learning, team learning, community learning, organisational and inter-organisational learning, and the global macroshift. If andragogies sympathetic with or rooted in ILA's focus their work on these underdeveloped links, in theory and practice, they can make an appearance with an unprecedented profile and deliver pervasively useful contributions to research and society.

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[65] As they advance naturally from idea, to plan, to draft, to final version, to evaluated final version.

[66] Attempts in this direction are just about to emerge (Meyer, Sporer, & Metscher, 2009; Sgouropoulou & Skiadelli, 2008; Wolf, 2001).

[67] Kasl (2001) is one of the very few exceptions. Even in many strands of so-called collaborative or cooperative learning the individualistic bias remains dominant when the collective setting is mainly considered as a means to serve individual learning better. One major objection against team learning in formal education is that the individual contribution cannot be properly assessed, but of course there are many possibilities to assess team work on individual and collective levels. In work settings the situation is totally different. There is abundant literature on team building, team development, high performance teams etc., and a lot of valid research focusing on the team level as such.

Collaborative Project-based Service Learning

Within these considerations collaborative project-based service learning taking advantage of the latest advances in information and communication technology should be a highly integrated and highly flexible merge of andragogical approaches that can be specified in many ways according to conditions and opportunities at hand in a given context (Butin, 2005; Thorley & Gregory, 1994). Up to now, project-based learning, collaborative learning, service-learning, and blended learning evolved as only very partially intersecting autonomous streams of pedagogical and andragogical research and practice. Informed by ILA-frameworks, there are very good reasons, however, to consider them as facets of one integrated core stream of learning in and for the 21st century rather than as different approaches to be employed for different target groups in different contexts and at different occasions (Rowland, 2002; Shneiderman, 1998; Visser, 2001).[68]

Project-based learning in its more simple forms probably goes back to practices developed in Italian Renaissance architectural schools, was reissued and revitalized in alternative education movements across continents during the last century or so, and is now more strongly re-entering higher education across domains, specifically in inter- and transdisciplinary settings. Accordingly, they suit particularly well to the cross-cutting issues ILAs are addressing. Learning through working on projects organically connects research-based practice and practice-based research, play and problem-solving,[69] history and future, creativity and discipline, first order (empirical and theoretical) research and second order (meta-level) reflection etc. It should be conceived as research-base practice and practice-based research. It is a self-designed learning activity producing multiple outcomes, among them tangible ones. Tangible outcomes are adding widely neglected assessment dimensions to self-, peer- and expert assessment, i.e. assessment by reality (what works, what doesn’t work?), and once the service-learning orientation is included, assessment by internal and external stakeholders (do they feel served appropriately?). If service learning is occurring in collaborative projects, e.g. in terms of co-operative inquiry (Heron, 1996) or cognates, the above mentioned cross-level integration from the individual to the community and beyond is sustained. An inquiry project-based approach, especially if it is an ILA-based multi-year endeavour of collective transformation reaching out beyond the confines of the initiating group, is integrating several metaphors of learning otherwise held and practiced separately (if at all): learning as knowledge acquisition, learning as participation, learning as knowledge building, learning as life journey, learning as emancipation. Accordingly, multiple forms of learning occur in such projects concerning all dimensions of the human being.

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[68] I am working towards such integrated conceptions from different angles (see e.g. Duchastel & Molz, 2006; Molz, 2003; Molz & Bauchet, 2005, 2006; Molz & Gidley, 2008; Molz, 2010).

[69] There are actually three major types of problem-solving which are often at odds with each other as they pertain to different activity systems (i.e. different mixes of persons, communities, roles, tasks, goals, incentives, urgencies and outcomes): solving of research problems, solving of practical problems, and devising policies. An important task of ILA-based problem-solving then is to be aware of this (necessary) differentiation, and to focus on the activity of meta-level bridge-building between research, policy and practice. A more fruitful relationship between these domains is one of the most important unsolved problems to solve across scales (local, national and global) for the achievement of a sustainable planetary civilization.

As collaborative project-based learning rooted in ILA's do not rely on a single metaphor of learning at least four otherwise intractable problems of the traditionally additive and now modularized nature of the (post)modern curriculum can be overcome: i) the integration of knowledge across courses, ii) the unsustainable results of purely intellectual knowledge acquisition, iii) the inefficiency of the factory approach imposing everybody to learn the same content at the same time at the same pace, and iv) the development of key competencies. For the integration of knowledge across courses the student is usually very much left on his or her own. It is considered a personal sense-making endeavour, or not even considered at all. However, it is not sure whether it doesn't fail more often than not and result in a fragmented understanding leading to fragmented intentionality and action.[70] How could students possibly succeed with the titanic task of creating connections and coherence which their (subdiscipline-bound) teachers don't even try to tackle by themselves? Nor do many of the teachers attempt to provide at least directions and tools to advance their students on a path of boundary-crossing understanding that they do not follow themselves. The burden on the students is unreasonably heavy in this respect, and the one on the teachers unreasonably light. If projects are conducted a practical integration of different domains of knowledge is unavoidable. In ILA-based HESPs this must be reflected by theoretical integration as one of the domains and responsibilities contributed by the core teachers. At the same time innovative practices arising from the projects are challenging the models, theories and frameworks.

Evaluation

It appears that collaborative project-based service learning takes a lot of time. This is undeniably true. But time requirements can only be measured against actual outcomes, and the fact that students tend to spend more time on projects they have co-designed than on rereading lecture scripts if they have the choice means as well that they learn more, more intensively and with more motivation. For this reason it can be assumed that despite the time requirements of longer-term ILA-informed collaborative service learning projects they are likely to outperform other pedagogical approaches according to their own criteria. But they do not only enhance learning of those participating in them, they provide at the same time an immediate service to society. This needs to be considered as an additional evaluation criteria when calculating the invested time and the invested resources. The actual outcomes – all the outcomes – need of course to be evaluated empirically. But to prove the gain in effectiveness, efficiency and ethics of such a highly integrated approach to higher learning there need to be some implemented programs first that subscribe to this vision.

At this stage the argument goes as follows: the ultimate test of evaluation is neither performative evaluation nor summative evaluation (however necessary and helpful both can be to sustain and canalize learning processes), it is confirmatory evaluation. Confirmatory evaluation concerns the learning achievements which are stabilising over a substantial period of time (e.g. five years). Quite probably, little learning from usual higher education would passes the confirmatory evaluation benchmark.[71] It is much more likely that crucial insights linked to embodied experiences pass this test, experiences one simply never ever forgets again because they are saturated with passion, emotion, action, dialogue, co-being and –becoming,[72] whereas specific strands of expert knowledge acquired through lectures and other forms of purely intellectual transmission are easily forgotten after exams took place, and unfortunately often even before.[73]

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[70] Isn't this the same state as at the beginning of the studies, but now graduated and probably proud of it … ?

If creativity, emancipation, wisdom and transformative practical impact rather than just "being knowledgeable about something" is the ultimate horizon for education, it might be difficult to design a test. However, the constant complex challenges related to collaborative project-based service learning make an individual's passion and competence as much apparent as her limits and shadows. Once again a supportive community can help to enhance strengths and to integrate shadows. This makes actual transformation as a process beyond knowledge acquisition more likely than a curriculum circling around nothing else than knowledge for the sake of knowledge from assignment to assessment. Project-based service learning doesn't prevent but enhances the adequate acquisition of more specific content knowledge. Being or becoming knowledgeable about many things is a condition and an outcome of project-based learning and work occurring in a learning environment open to the world if the projects are devoted to a worthwhile cause and deal with complex challenges.[74] Content-knowledge acquisition occurs on a continuous basis in the organic context of its use, i.e. linked to an exemplary understanding of what this or that piece of knowledge is actually good for.

The disadvantage from a modern perspective is that when running projects in learning communities you can't say in advance which knowledge is acquired, by whom, and when. Another recurrent critique is that sophisticated knowledge cannot be learned on the fly and just-in-time, but must be built up over some time to be available when it is needed. There is some truth to this, but the impact is limited in learning communities. As in postmodern pedagogical approaches it is welcomed rather than abhorred here that everybody acquires different skills and different sets of knowledge. In a project different complementary knowledges can and must be injected and shared once a situation asks for them. If everybody did the same thing a collaborative project would cease to be a collaborative project because as any complex collaborative activity its success depends on an adequate level of division of labour. Collaborative project-based service learning as the andragogical approach for the core curriculum doesn't rule out additional learning in individual, subgroup or large group settings occurring on more conventional instructional terms. Another critique is the free-rider problem.

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[71] But this doesn't appear to the fragmented mind because none of the defenders of the "evaluation regime" are administering and nobody is passing such a confirmatory evaluation test. This only happens quite exceptionally for the fun of a specific TV show format.

[72] This old psychological and pedagogical insight became more recently very much corroborated by results of neuropsychological research.

[73] This contention doesn't imply that experts forget their expert knowledge, but makes a point which is akin to what Albert Einstein already said, namely that "imagination is more important than knowledge and that he "can never commit to memory anything that can easily be looked up in a book."

[74] Another of Einstein's famous phrases was: "Only one who devotes himself to a cause with his whole strength and soul can be a true master. For this reason mastery demands all of a person."

The free-rider problem is only a problem in short-term project teams, and much less in longer-term committed communities working towards a shared, intrinsically motivated goal. In such longer-term projects the free-rider problem, if it occurs, can be addressed by appropriate facilitation and reflection, including individual counselling.

Today, the development of transversal key competencies like presentational skills, team work, foreign languages, ICT literary, entrepreneurial initiative etc. etc. becomes ever more important (Fallows & Steven, 2000). Almost everybody agrees on this. But even many postmodern approaches do not manage to overcome modernist additive curriculum designs. The curious result is that they tend to simply add “key competence modules” to “disciplinary subject matter modules” in order to satisfy the requirement to develop key competencies. In doing so the requirement is only met in theory but not in practice, however, because adding further modules to an additive curriculum means i) either overburdening the students, or ii) skipping other modules, or iii) achieving lower levels of expertise development per domain, disciplinary *and* transversal. It is apparent that there isn’t any attractive alternative among these three options. A crucial reversal of all this occurs when projects are not considered any longer as an add-on to a traditional curriculum confined to a specific module in which one is supposed to learn everything about project management or team work for example in a short period of time,[75] but when they are considered as the core of the curriculum supported by more traditional add-ons (some particularly concerning the development of a conceptual understanding of ILAs helping to connect and integrate knowledge bits). Then all the transversal key competencies are exercised on a continuous basis, provided care is taking that teams have a diverse composition and that reflection on the experiences and their relating back to relevant theories and models is properly facilitated.

Conclusion

Integral andragogical approaches and curricula are co-designed, enacted and continuously adapted by the participants in the learning communities described in the section before. They are interacting with other relevant communities and individuals on the basis of multilateral negotiation and anticipatory learning. As the processes of learning are taking place in an information-rich, relationship-rich blended context they can be dominantly demand-driven. The core of the curriculum is constituted by variants of collaborative project-based service learning supplemented by more traditional learning formats. These projects presuppose the cultivation of a sense of vocation and the analysis of societal needs. While enacting their vision of the good in terms of experiments in living the student-managed project teams reunite teaching, learning, working, living and multiple forms of assessment.

Integral Organisations

> *In an important sense, the University has had to be a disintegrative institution, despite the persistence of holistic rhetorics. However, to meet the intense challenge of globalisation and to match the volatility of late-modern (or post-modern) society, higher education will*

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[75] And forget about it again in the traditionally delivered disciplinary courses.

> *have to develop a new capacity not simply to build alliances with other institutions (in its own terms) but to reinvent, reengineer and re-enchant itself, to compromise its own integrity in order to allow a new configuration of 'knowledge' institutions to develop.* (Scott, 2000, pp. 9-10) [76]

At first sight, the implementation of such an andragogical vision informed, by ILAs and proposed to advance committed learning communities, doesn't seem to be realistic given the many intertwined constraints reigning in most contemporary HEIs. It is right that an appropriate organisation is difficult to realize because many requirements are at odds with pervasive practices and regulations within mainstream HEI's. My suggestion therefore was to settle on the margins, to dwell in the interstices, and to broaden them by linking them together across HEIs, domains and countries. Small interstices can be intentionally expanded into a *third place*. Realising a cross-border HESP can be based on the least common denominator and then result in a doubly, triply constrained space which is then on the verge to become uninhabitable. However, bringing several margins together in cross-border consortia can as well bear a more than additive result if it is guided by a strong vision. Then it becomes possible to make a specific use of the unnoticed unregulated zones, to be granted exceptions to rules, to invent innovative solutions resulting from border-crossing dialogues on the given constraints etc. Intentionally dwelling in the interstices (between disciplines, HEIs, countries) raises many organisational questions, among them those concerning i) languages and language policy, ii) infrastructure and support, iii) organisation and legal status, iv) degrees, v) quality and vi) funding. All these questions will be addressed in the remaining sections, following the already known procedure to look into history to better bounce into the future.

Regarding *languages* used in teaching the constitution of higher education as a system across political borders was possible in the Middle Ages on the basis of a lingua franca, Latin, as it is today again on the basis of another lingua franca, international English. During the intermediate "nation-state era" between those two "cross-border eras" national languages were institutionalised as the dominant and in most cases exclusive languages in use in higher education. This not only had the effect of closing down and reducing international scholarly communication (which never ceased, though), but it also provided a basis for a genuine development of the humanities and the social and educational sciences with characteristics tuned to specific cultural and institutional contexts which they reflect and from which they arise. The use of national languages in higher education was a conducive condition for democratizing access to higher education because completing post-secondary education didn't any longer depend on high levels of mastery of foreign languages.

In order to overcome the closure a series of bi-national cross-border programs were created in Europe in the last quarter of a century, actually working in the respective two national languages at the same time, some courses running in one, some courses in the other language. There are a few bilingual universities as well, but the language sections appear to be institutionally quite separate from each other in most cases.[77] More recently, there is a movement in Continental Europe departing from the originally quite strict use of the respective national language in higher education and implementing study programs running entirely in English. The goal is generally to attract more international students (which would otherwise go the UK and the USA for their convenience). Multilingual programs are a rare appearance so far, but there are some examples. Their language policies and practices are not at all homogeneous, but generally the set of official languages is fixed in advance.

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[76] Sir Peter Scott serves as Vice-Chancellor of Kingston University in London, President of the Association of University Administrators, Chair of the Universities Association for Lifelong Learning etc.

On this basis what can be an ILA-based approach to language use in a transnational HESP? Neither the exclusive use of a national languages nor the exclusive use of international English do justice to the complexity of intercultural dialogues and cultural knowledges (popular and academic). Between small national languages and English as a lingua franca there are a dozen or so widely-spoken languages sometimes more suited for conversations depending on the actual foreign language competencies of those actually learning, working and living together. The innovation could be to delink language use in a HESP inspired by ILAs from rigid language policies and to become responsive to the possibilities and limits of written and oral communication in specific contexts, learning communities, project teams and teacher-student-dyads composed by members of different origins. It is quite sure that this opens up new possibilities in many situations, and allows to find creative solutions combining in new ways any language shared among at least two persons, any approach to mediation and translation, and any facilitating organisational tricks.

The next point concerns the material and digital *infrastructure* of higher education. Interestingly, in the very beginning of the “universitas” there was no material infrastructure at all besides the book the teacher brought with him to hold his lecture. Teacher and students met wherever facilities were available, or if there weren’t any the lectures took place in the street, or in the home of the teacher. The core was not the place or building but the student-teacher relationship and the teaching. However, step by step the “universitas” became rather identified with the buildings in which the teaching took place on a more regular basis rather than with the community of scholars and students. Universities started to own buildings on the basis of endowments. Today, some large universities are like a town within a town. They are made up of impressive campus sites with myriads of specialized buildings, lecture halls, libraries, labs, computer centres, sports facilities, halls of residence etc. A virtual overlay has been adding to all this in recent years. Courses, counselling, even sometimes exams can take place online. Digital media repositories, e-administration, learning management and online conferencing systems allow to “de-materialise” entire HEI’s which than appear as distance learning providers, or virtual universities. Many different mixed forms between material facilities allowing for face-to-face encounters and online learning platforms and tools have appeared. They are subsumed under the summary label of *blended learning*. Blended learning allows for more flexible arrangements regarding time and place. It combines the advantages of real people meeting real people in all dimensions, at least occasionally, and the tremendous advantages of what has been coined Web 2.0.

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[77] With the notable exception of the trilingual University of Luxembourg where I am currently located and in which languages are not confined to sections.

Inter-institutional HESP's can much more easily flourish when developing their own "online home" in terms of a digital portal and virtual community platform, independently from the host universities. Today, this can be realized in a very flexible manner at amazingly little costs, especially since more and more powerful open source software has become available specifically for the needs of the academic knowledge worker and for collective distributed learning, research and project management. ILA-based HESPs would be crazy not to make use of the best of breed of digital tools and media in order to realize one or the other variant of a blended learning approach. In order to bring together those students and teachers within the EHEA and beyond who really share ILA-related interests and motivations the online portal of any blended learning program is more pivotal than the location to which somebody is bound by job, family, or other obligations on the one hand, and the location of a brick & mortar HEI on the other hand. What a student actually needs, at least as long as the focus of a program doesn't require heavy lab equipment, is access rather than place – access to protected or dedicated online resources like online courses, online meeting, discussion and co-writing spaces, online repositories, reference databases and full text digital journals. Something that needs to be created – and can created rather quickly under normal conditions – is an intelligent combination of access granted by the HESP to its dedicated virtual community site, and access to protected digital resources granted by the host universities' ordinary library and computer services.

Interestingly, on this technologically advanced basis it is possible to come back very much to the state of affairs reigning many hundreds of years ago when there were not many facilities at all. A permanent connection over the Internet being the baseline, the face-to-face meetings can be arranged wherever and whenever it is most convenient for those involved, according to their actual geographical distribution. For meetings the projects teams and communities can use the facilities of a partner HEI, but they are not restricted to this option. It must be said that many of the campus sites and buildings constructed in the second half of the 20th century are not of a particularly inspirational aesthetic quality. At the same time there are many very aesthetic and inspirational places which can host small-group gatherings. Some universities own specifically more remote facilities.[78] Some are run by hosts who are themselves inspired by ILAs. The gatherings can be scheduled as intensives; partners, friends and kids can be invited to travel with the participants and enjoy the site on holidays parallel to the meetings; meetings can be combined with interventions linked to the collaborative service learning projects and hosted by the practitioner-partners; participants who happen to be geographically close can create antennas, i.e. more permanent meeting places, etc. Many unconventional solutions appealing to unconventional people otherwise reluctant to engage in higher education (again) open up once we stop reasoning in terms of material infrastructures we have to use because they "are the university" – many more possibilities than we can imagine today. Overall, if the university is once again imagined and enacted as a specific community of teachers and students, on the basis of the advanced global ICT infrastructures, the participants can "meet continuously" regardless their physical location, and they can meet in the most convenient or the most inspiring locations, once in a while.

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[78] The campus of the Arts, Health and Society Division of the European Graduate School in the Swiss mountains being an outstanding example (www.egsuniversity.ch).

To close this section on material infrastructures let me come back to alternative brick & mortar HEIs. If i) they come to exist, if ii) their leaders understand the overall strategic challenge described in this essay, and if iii) they are not completely absorbed by their own development processes, then they can serve as helpful co-initiators, primary hosts, test-beds, privileged locations for gatherings and strategic reflection. They can test models of how to best reconnect the domains of student affairs, academic staff development, curriculum design and infrastructures to each other and to higher purposes. They can show how a HEI can subscribe to organisational learning based on a participatory approach contrary to the zeitgeist.[79] And most important to the argument: they can strategically contribute to speed up the movement along the strategic corridor (see section on Strategic Corridors). This doesn't mean only giving but also receiving. If they become part of inter-institutional and international networks alternative HEIs can more easily broaden the array of study programs they can offer and they can gain access to additional sources of funding. They can gain reputation if these networks include conventional HEIs (even though the cooperation is not directly with the conventional HEIs but with the unconventional ILA-programs hosted in the interstices). Under normal conditions compared to conventional HEIs alternative HEIs will always be considered as less serious, less prestigious, less ancient, less this and that (and too esoteric, after all, as the stereotype goes). However they actually work, they are lost in the ranking race because the ranking criteria don't do justice to them, but nobody cares, and their faculty has a hard time moving back to conventional HEIs if they want to because they have been working on the wrong side of the divide. Given this prejudicial basis alternative HEIs don't generally have any immediate impact on the further development of conventional HEIs and the whole higher education system. They are already lucky when they are tolerated and when some day they get their programs accredited. As partners in consortia, however, at least the opportunity is created for conventional HEIs to learn from alternative HEIs and the other way round.

The emergence of HESPs inspired by ILAs as proposed in this essay is supposed to work with and without alternative HEIs connecting to this vision and strategy. Regarding a possibly emerging "consortium of HESP consortia" as ultimate step of maturation within the strategic corridor, an alternative HEI can suggest to assure the meta-coordination, but it can be assured as well by a lightweight independent organisation (see next topic below). According to the strategy espoused in this essay the need for such a central coordination and administration emerges only in the latest stage in the process. In contrast, when building a brick & mortar alternative HEI this need emerges right from the beginning. In that latter case the growing central administration must be continually sustained across fluctuating levels of funding and made adequate to a fluctuating number of students. If a crisis occurs and the administration has to be reduced the whole structure risks to become dysfunctional and break apart. In the former multi-layered and distributed case, however, the umbrella layer can be very small; a single position can already have the desired synergetic effect, and even in case this person ceases working the autonomous constituent programs can be kept running as before on the basis of their own organisational base and history. This characteristic is modelled upon evolutionary system dynamics and makes the suggested moves within strategic corridor (see section on strategic corridor for building integral higher education) much more robust and flexible than niche alternative HEIs can possibly be in Europe in the time to come.

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[79] Paradoxically, there are many organisations of learning (schools, universities etc.) that aren't a learning organisations! The possibilities for participation have been further reduced with the introduction of the managerial university.

If it comes to the *organisational formalisation* of inter-institutional blended learning HESPs, at an early stage normally a relatively short cooperation agreement between the participating HEIs is generally sufficient. As this has become a common practice in the EHEA that is spreading more and more widely, there are many examples which can serve as a model. However, usually, it takes some time until each concerned central administration is ready to sign such an agreement. A good strategy is to start with any two partners who are ready and to expand the consortium once others are ready to join. In the meantime their representatives can contribute as teachers to the learning community as this doesn't require any specific inter-institutional agreement.

It is quite widespread that inter-institutional and international study programs give birth to a student and alumni association. Once we consider extending the goals of such associations and admitting teachers and other stakeholders as members such an association could actually serve as the organisational container for the integral learning community and for the maintenance of its "window" (the virtual community portal). If we consider that originally teachers and students were organised in guild-like self-governed corporations with everybody having a say, it is worth considering such study-program related associations as a means to come closer to this again, especially so as we have probably arrived at the historically lowest level of collective participation in the decision-making processes within HEIs.[80] On this basis it becomes clear that organisational development of HESPs rooted in ILAs is likely to be at odds with the usual organisational dynamics within mainstream HEIs – one reason more to decide to rather dwell in the interstices and to create a (lightweight) extra-layer which then can be more self-governed.

In case one day several ILA-based HESPs developed by different consortia or HEIs start to cross-connect and eventually want to establish a more formal organisation according to the next stage of the strategic corridor, European law offers a very suitable but little known legal status: the European Economic Interest Grouping (EEIG). The name is somehow misleading, though. The EEIG is not supposed to produce profits. It is just a legal entity for the coordination of shared interests of its members and for pooling resources and power to act. The idea is that different types of organisations, like associations, foundations, companies, universities, even individual freelancers from different European countries, can formally join under one umbrella structure to work for a common cause. The member organisations maintain their full autonomy while coordinating some of their activities with each other. Contrary to other legal entities the headquarter of an EEIG can be moved from one country to another according to arising requirements without need to refound the umbrella organisation. Another considerable advantage is that no capital is needed to found an EEIG, and it is relatively easy to set up from a formal perspective. It is an extremely flexible and adaptable legal status that is providing full rights of contracting with other legal entities. It can integrate any new member organisation interested in ILA-based higher education provided it is located within the European Union.[81] The point here is to show that from cooperation agreement to association to an EEIG-style umbrella organisation, levels, scope and intensity of coordination between individual and organisational actors can evolutionarily scale up sustained step by step by adequate organisational forms and legal entities. It is important to realise that besides the basic anchoring through an inter-institutional cooperation agreement which is a very usual procedure this can happen quite independently from the heavy organisational and bureaucratic mills inside HEIs in a smooth, self-determined and lightweight manner.

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[80] The modern professorial university has reduced the opportunities for participation of the students, and the postmodern managerial university has even reduced the actual influence of the professors. So, why shouldn't students and professors wary of this situation experiment with other approaches to organisation and decision-making regarding the affairs of teaching, learning and research they are concerned by together? Most ILAs hold a genuinely participatory worldview while developing an understanding of the problems with both undifferentiated egalitarian and undifferentiated hierarchical models of decision-making. One way to deal with this tension is to grant decision-making and representation power as a function of genuine trust, of somebody's record of engagement with organisational development and of competence and experience related to specific areas, without emphasizing unnecessarily formal position- or status-related criteria as it is strongly the case within conventional HEIs. Approaches like sociocracy (Endenburg, 1998) can leverage collective intelligence and bring about more inclusive, more adaptive and more agile organisations.

Even in the final stage such an umbrella organisation would of course not have a *degree granting power* on its own. It could only issue "ILA-studies certificates" in addition to the degrees granted by the consortium running any single program, certificates which would need to make the proof of their value in the long run. This is not an unusual approach, though. Many consortia in many fields do this. The combination of a joint degree of traditional HEIs with a specific certificate from a higher education consortium testifying an ILA-based learning trajectory is likely to gain a better status and recognition than a single degree from an alternative HEI.

Together with its relative institutional autonomy the degree granting power is the single most important defining characteristic of the Western university. Until today a higher education degree generally has more prestige than other certificates of higher learning, despite the dramatic proliferation of degrees and degree holders. Originally there were identical degrees all over Europe, and they only served for admission to a teaching position at the university. They weren't a requirement to enter a profession or to be eligible to an institutional position outside of the university. Slowly they became an advantage in this respect, however, and eventually, with the modern university, an unconditional requirement. The unity of the degrees was destroyed with universities becoming integrated in national higher education systems, and with the tight disciplinary specialisation of study programs. The Bologna process has now structurally re-harmonized the degree levels, but the diversity still flourishes with a new wave of creativity concerning the development of new interdisciplinary study programs. The generalised diploma supplement is thought to reflect unique pathways within a common scheme. The diploma supplement is very useful for HESPs based on ILAs because of the absolute unique trajectories which are encouraged by them. The diploma supplement might even be extended according to ILA-based reflections.

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[81] There are easy workarounds, though, for partners located elsewhere.

If in the USA higher education degrees in integral and transformative studies as such are issued, there are no such examples in Europe as far as I know. The question is whether generic degrees like this are helpful on the job market or otherwise useful. There are too few HEIs and research centres dedicated to ILAs and ILAs have no common identity and label. Accordingly, there is almost no specific job market for ILA-inspired scholars other than the one related to the discipline or field their work comes closest to. On the general job market unspecific degrees are generally disadvantageous compared to specific degrees (disciplinary or professional). A specific focus and a well-known denomination make it easier as well to get a HESP accredited in the first place. A domain-specific degree however doesn't reflect sufficiently the boundary-crossing ambition of ILAs. One solution is to combine well-known degrees with a specification, like integral health, transformative leadership or transdisciplinary sustainability, to take three existing examples. This might work best under the current conditions, but i) doesn't help with forging a common label allowing immediate cross-program recognition, and ii) doesn't do justice to those who are attracted to ILAs because they allow for study across disciplines and fields rather than to stay in the confines of the usual fragmentation of knowledge and practice. Overall, it appears that some thought has still to be invested to determine how to label degrees related to studies of ILAs in an adequate and promising way.

The worth of the degrees does not only depend on an adequate labelling but of course more basically on the *quality* of the study programs. There are paneuropean standards for quality assurance in higher education.[82] HESPs based on ILAs should strive to comply with them as soon and as well as possible. As these standards are of a very general nature this is not much of a burden if a program is well-designed from the outset. New programs should go through the accreditation process of one of the accreditation agencies listed in the official "European Quality Assurance Register for Higher Education."[83] Such an accreditation is based on a self-report, a site visit of a peer panel, and (in case of re-accreditation) student's course evaluations. The challenge is the same as with all ILA-based activities within an otherwise disciplinary landscape: uncertainties and problems can result from peer reviewers not being actual peers in respect to an authentic understanding of ILAs and of the andragogical and organisational approaches they require and pursue. In any event, from an ILA-perspective the accreditation is only the beginning and not the end of an ongoing quality development based on a participatory process. Care must be taken not to fall into the trap of separating external evaluation for the purpose of accountability, and internal evaluation for the purpose of improvement, a daunting split which too often turns the issue of quality assurance into a bureaucratic nightmare eating up precious resources which then cannot be devoted to the students any longer.[84]

The final question to be treated regarding organisational issues concerns the *funding* of such programs. No doubt, funding of innovative HESPs is not easy. My argument here was, however, that there is not more money necessary for HESPs following an ILA than in other postmodern programs relying on a coordinator. If such a program is hosted by a public university it can already start with the baseline funding, administrative support, facilities and access to digital resources provided for any other program. As already said, in Europe tuition fees cannot be that high and so other sources of funding are absolutely indispensable. An application to an adequate European funding program, like Erasmus Mundus,[85] should be attempted, as well as for a kick-off grant by a private foundation. Actually, all the traditional funding possibilities taken together are employed.

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[82] European Standards and Guidelines for Quality Assurance in the European Higher Education Area (www.enqa.eu/files/BergenReport210205.pdf)

[83] www.eqar.eu

[84] For this systemic reason which cannot be seen, the fragmented responsibilities and practices in HEIs it happens, indeed, that the introduction of formal external quality assurance systems meant to improve quality are actually reducing the quality of teaching and learning.

In addition to this, a model originally invented to pay back scholarships is well worth a thought. In this model contracts are concluded at the beginning of the study program in which it is agreed, as a freely chosen engagement, that a small percentage of the future income of the graduate is returned to the study program on a regular basis (e.g. yearly) if the income exceeds a certain baseline. This model, once it is built up across a couple of student generations, can generate a constant flux of financial resources. If it is generalised, in the long run it institutionalises intergenerational solidarity (the established seniors helping the next generation to make their way), and makes such HESPs more viable and independent. Inviting students to contribute in ways which are not burdening them with debt is a good idea which can be even further developed. Let me introduce another example: PhD students who receive a scholarship can serve in return as scouts for detecting new opportunities to apply for scholarships for the next generation of PhD candidates. As a rule, the collaborative service learning projects should as well seize opportunities to achieve a certain level of self-funding after an initial phase. The spirit of social and knowledge entrepreneurship to be cultivated departs from the dominant three solutions of i) students taking advantage of but not appreciating tuition-free public higher education true to the phrase “what is free has no worth,” of ii) consumers who pay for (private) higher education as for any other service and expect an appropriate service in return, and of iii) those who pay high tuition fees without having the capital to do so, and who then pay back a loan to the bank for great many years after graduating. Instead of paying interests to a bank why not directly supporting future generations of students? A spirit coherent with ILAs is a caring one attempting to use available resources economically while expanding them through creative collaborative entrepreneurial activity rather than simply consuming them.

Conclusion

The organisational and regulatory (infra)structures should adapt to the needs of the learning communities they are supposed to serve – and not the other way round as it is often the case. The organisational framework for this must be particularly flexible to remain responsive to the learning communities and their projects, however they are shaped and distributed, and however they decide to work and evolve on the basis of their self-direction, self-governance and service-delivering project work. They should enable a blended learning approach, and help to sustain collective social entrepreneurship while responding appropriately to institutional requirements like quality assurance. It has been shown that appropriate legal entities exist for all levels of organisational unfolding along the strategic corridor, and that there are some innovative ways to tackle the hot issues of language diversity, decision-making and funding.

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[85] See footnote 38.

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> *Sometimes it is easier to live with the comfort of despair than with the challenge of knowing that change can happen despite the inertia of organizations. But there is another avenue toward change: The way of the movement. I began to understand movements when I saw the simple fact that nothing would ever have changed if reformers had allowed themselves to be done in by organizational resistance. Many of us experience such resistance as checkmate to our hopes for change. But for a movement, resistance is merely the place where things begin. The movement mentality, far from being defeated by organizational resistance, takes energy from opposition. Opposition validates the audacious idea that change must come. … The genius of movements is paradoxical: They abandon the logic of organizations in order to gather the power necessary to rewrite the logic of organizations … What is the logic of a movement? How does a movement unfold and progress? I see four definable stages in the movements I have studied —stages that do not unfold as neatly as this list suggests, but often overlap and circle back on each other:*
>
> - *Isolated individuals decide to stop leading "divided lives."*
> - *These people discover each other and form groups for mutual support.*
> - *Empowered by community, they learn to translate "private problems" into public issues.*
> - *Alternative rewards emerge to sustain the movement's vision, which may force the conventional reward system to change.* (Palmer, 1992)[86]

This essay is a contribution to building collective intentionality directed towards a more connected, more strategic, and more integral process of creation of (more) higher education study programs inspired by integral and likeminded approaches, in the European higher education area and beyond. The overall suggestion is to question the recurrent focus on two organisational levels of strikingly little overall impact anytime soon: the creation of alternative higher education institutions and the transformation of the mainstream higher education system on the institutional level, and the introduction of ILA-based content on the course level. Without denying the value of successful attempts on these levels I am advocating a strategy concentrating on the crucial level of higher education study programs delivering degrees compatible with a broader labour. A strategic corridor was devised along developmental layers with each layer having its own value and autonomous functioning and additional layers adding further value. I tried to make plausible that much more higher education study programs based on integral and likeminded approaches could and should be created than can be observed so far given that the necessary conditions and resources are already available, albeit in a largely distributed and kaleidoscopic manner. In order to actually move along the developmental strategic corridor I have been stressing the crucial role of emergent knotworking as a practice of decentered awareness and coordination enabling the realization of collective intentionality in loosely coupled organisational settings.

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[86] Parker Palmer abandoned his academic career he started with a PhD in sociology from Berkeley to become a freelance writer, activist and teacher. Many of his books were widely and enthusiastically received despite or because of the fact that their spirit runs counter dominant structures and practices of (higher) education. He became a Senior Associate of the American Association of Higher Education and a Senior Advisor to the Fetzer Institute. In 1998 a national survey of 10,000 administrators and faculty, named Palmer as one of the thirty “most influential senior leaders” in higher education and one of the ten key “agenda-setters.” In 2003, the American College Personnel Association named Palmer a “Diamond Honoree” for outstanding contributions to the field of student affairs. He received 10 honorary doctorates (source: Wikipedia).

On the one hand I tried to show that the contemporary European situation opens up fresh opportunities for advancing the cause of tertiary study programs inspired by integral and likeminded approaches. This situation is created by i) the global crises, ii) the Bologna process, iii) new European funding programs, iv) the diversity of national higher education laws and systems, and most of all of v) the development strategies of the myriads of higher education institutions operating under increasingly competitive conditions, conditions which are imposing the requirement on them to become truly distinctive and original. On the other hand I pointed at two types of obstacles which are preventing these opportunities from being seized to make higher education study programs inspired by integral and likeminded approaches a reality. The first type is structurally inscribed in higher education as it has evolved over the last century or more regarding its disciplinary lineages, its specialization bias, and the dogmatic prejudices of scientism. The second type is due to incoherencies in the various communities developing integral and likeminded approaches, especially the lack of interconnectedness, of common identity, and self-transcendence of integral and likeminded streams on the one hand, and of professional levels of complex strategic thinking, organisational development, and management practice on the other hand.

I have sketched possible paths to overcome these obstacles and envisioned the dawn of a new phase of higher education on the basis of interconnected programs espousing integral and likeminded approaches and overlaying existing higher education institutions and their traditional programs. This web of programs could be cultivated by several transnational consortia linked together by an emergent knotworked coordination which can later formalise as the need arises. My main contention in this essay is that only such a flexible and further expanding offer will respond to the vocation and uniqueness of students, teachers and staff already inspired by integral and likeminded approaches and by a concern for the contemporary transformations of self, nature and society. I tried to show how these inspirations can be expressed by fully embracing what is, i.e. taking realistically into account the institutional inertia and immune defence reactions of higher education systems and institutions as they stand today on the basis of their plurisecular heritage and the contemporary zeitgeist.

I argued that in this process integral and likeminded approaches shouldn’t limit themselves to add new content to existing study programs, but to invent different containers and processes true to their general principles and to the versions of andragogy they are bringing about. I have discussed how more integral ways to constitute learning communities on the basis of ethical and personal commitments could work and be adequately propelled through integral andragogies and integral approaches to organisational development. A particular concern was to show how these three major views of, or gateways to one single complex individual-collective subjective-objective transcultural and transdisciplinary process of learning, development and self-transformation could cohere and co-evolve.

As a matter of fact it can be observed that today there are vanguard study programs in which many of the innovative features mentioned in this essay are already implemented and practiced. However, they do not generally explicitly espouse an integral or likeminded approach nor do they convey respective content. At the same time there are other study programs conveying content related to integral and likeminded approaches but which do not necessarily yet put a more fully-fledged integral andragogy and integral organisation into practice. This observation might stimulate the desire to create coherence between community, curriculum and organisation in the spirit of integral and likeminded approaches. The vision I put forward is that the power and attraction of higher levels of coherence as usual between interacting persons, approaches to learning, organisational frameworks and societal needs can turn specifically designed and nurtured higher education study programs into inspiring, evolving centres of a “contaminating” transformative power for individuals, groups and larger collectives. I made clear that this requires to simultaneously depart from, transcend and overlay the given mindsets, infrastructures, rules and practices of (post)modern higher education.

The still largely implicit and outwardly fractured field from which this essay emerged calls for other contributions, responses, corrections and critiques, for alternative and complementary expressions, for new initiatives, for follow-ups, and above all, for action! It calls for knotworking between already existing initiatives, most of which are emergent and still invisible but for the most initiated of all those students, teachers, researchers, practitioners and policy makers already inspired by integral or likeminded approaches, or ready to become inspired. The call comes from nowhere in particular but it is there, it is undeniable, and the specific direction, expression and wording chosen in this essay shouldn’t hide that what is to be said and to be done is much more than what can be expressed or appropriately foreshadowed at this stage. It is sufficient, though, to amplify the early signs of the emergence of a movement which translates the “private problems” of isolated students and academic teachers who are inspired by integral and likeminded approaches and who are stopping to live “fragmented lives” into “public issues” and into andragogical and organisational innovation in higher education and society.

> *This revolution —intellectual, institutional and cultural— if it ever comes about, would be comparable in its long-term impact to that of the Renaissance, the scientific revolution, or the Enlightenment. The outcome would be traditions and institutions of learning rationally designed to help us acquire wisdom. There are a few scattered signs that this intellectual revolution, from knowledge to wisdom, is already under way. It will need, however, much wider cooperative support—from scientists, scholars, students, research councils, university administrators, vice chancellors, teachers, the media and the general public— if it is to become anything more than what it is at present, a fragmentary and often impotent movement of protest and opposition, often at odds with itself, exercising little influence on the main body of academic work. I can hardly imagine any more important work for anyone associated with academia than, in teaching, learning and research, to help promote this revolution.* (Maxwell, 2007, p. 113)

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Appendix

The following tables reflecting aspects of the long-term evolution of Western higher education (12th-21st century) are focused on prototypes and tuned to the points made in this essay. It must be noted that they are truncated and warped: within-period homogeneity is grossly exaggerated, i.e. national traditions and differences between HEIs are not considered, the place of the recent and probably short postmodern transition period is likely to be overstated by providing it with a separate column whereas the late medieval/Renaissance transition period has been entirely omitted because it doesn't add much to the argumentation in this essay.

Table 1: Persons / roles involved in Western higher education across eras.

	Early Medieval Higher Education	**Modern Higher Education**	**Post-modern Higher Education**	**Integral Higher Education (scenario)**	
Students	Only (young, even very young) male students Socioeconomic and national background of no particular importance to access any university but self-selection of students because of the high fees (some scholarships were provided according to local opportunities) Conditions for admission: "mannered lifestyle," integration in one of the "nationes" (student communities) and one of the scholas (community around one teacher) Admission possible at any time Cross-border trajectories were easily possible	Transition from elite to mass higher education, but students from lower social class background under-represented despite the introduction of national scholarship systems considering socioeconomic criteria Female students catching up to parity but underrepresented on the doctoral level until today Admission upon formal application based on high school certificate or prior degree + admission test (in some programs and countries) Majority of students study one discipline in one university in one country Rather homogeneous student groups regarding nationality	Full mass higher education with some diversity and equal opportunity programs Lifelong learning becomes important Many more non-traditional students (practitioners returning to higher education etc.) Intake upon individual application according to program-based specifications Cross-disciplinary and cross-border trajectories become more frequent	Cross-boundary trajectories are required (across disciplines, cultures, occupations, theory-practice) Diversity sensitivity (non-dogmatic attempt to roughly balance within student groups male and female students, students with different social class background, students from different cultures, students with different levels of professional experience etc.) For individual admission balanced combination of criteria and combination of approaches Introduction of collective applications	If some continue to have the formal status as students, some as permanent or guest teachers, or as support

Teachers	Qualified through degree Hired by students (Bologna type) or by religious (Paris type) or royal authorities (Cambridge type) Teaching in different places was common Academic teachers were a rare species	Teachers are professors or those who are on the way to become a professor Professors are hired by a higher education institution on a permanent position and mostly teaching at this university There are many academic teachers	Permanent teachers hired by the higher education institution + guest teachers hired by the study programs Teachers teaching in different programs in different HEIs become more frequent There are great many academic teachers	All possible options combined according to arising needs and pragmatic possibilities Non-scholars are invited to the learning community (like artists, spiritual leaders, social activists, policy makers and other practitioners)	staff, all are actual students and teachers of other students and teachers. It is recognized that each member of the learning community has a specific profile of expertise and levels of development across all domains considered together
Support Staff	In the beginning almost none, later scribes etc., and caretakers, cooks etc. for running the colleges (which were just student residencies in the beginning)	University administration, secretaries, librarians, caretakers, cleaners …	Those of the modern university + IT & public relations specialists + student counselors & study program coordinators	Almost no additional support staff required compared to post-modern higher education, only coordinators of the network of consortia and programs	

Table 2. Approaches to teaching and learning in Western higher education across eras.

	Early Medieval Higher Education	**Modern Higher Education**	**Post-modern Higher Education**	**Integral Higher Education (scenario)**	
Curriculum	Fixed canonical curriculum centered on books and comments Same studium generale for all students (trivium - first cycle, quadrivium - second cycle) 3 different programs on the doctoral level (theology, law, medical studies) Long studies	Centered on disciplines and disciplinary knowledge Initial choice among disciplines (or professional programs) Few choices within disciplinary curriculum	Modular curriculum centered on competencies More choices across programs, higher education institutions, and countries Possibility to develop a unique profile Shorter studies	Centered on transformative projects informed by ILAs Intertwined pathways of learning on the individual, group & community level Great many choices (refocused according to vocation and societal needs during the macroshift) Students as co-designers of their curriculum seizing the opportunity to cultivate and develop their uniqueness	Tight and continuous integration of curriculum-planning,

Classes	Class with one main teacher (= schola) Classes are small Lectures, repetitions, disputations	Many classes with different teachers Classes are larger Mostly lectures, tutorials, seminars	Many classes with many different teachers Mix between national and international students Various types of classes and other learning activities	Project-based groups of students supported by one major facilitator learning together and individually according to negotiated pathways (attending classes or inviting teachers fitting to their pathway)	teaching/learning, research, assessment, practice and career development in multi-stakeholder collaborative learning processes
Pedagogical Approach	Uniform scholastic method Traditional tight interpersonal disciple-master relationship Mostly theoretical, largely separated from practice outside the university	Focus on conveying subdisciplinary content Mostly theoretical, in the branches preparing for the professions some contact with practice for advanced students (but often disconnected from the theoretical training)	Varied but non-coordinated pedagogical approaches and types of competencies actually developed Sometimes some reconnection between theory and practice (through fieldtrips, extended internships, service learning etc.)	Meta-pedagogical approach merging transformative, project-based, collaborative, blended, service learning, with all other pedagogical approaches according to arising needs, overall fostering innovation-oriented practice-based research and research-based practice	Continuous improvement and adaptation of the (meta-) pedagogical approach based on educational research, students' actual needs and reflection of collective experiences in the learning communities
Assessment	Disputatio (oral exam)	Assessment of courses (based on presentation, essay or test) Final thesis Final exams (oral or written)	Portfolio Continuous assessment (module-based exams, various assessment methods) Final thesis	Individual portfolio and continuous assessment of (ongoing) collective transformation projects through artful combinations of reality checks and self-, peer, expert & external stakeholder assessment	

Table 3: Structural features of Western higher education across eras.

	Early Medieval Higher Education	**Modern Higher Education**	**Post-modern Higher Education**	**Integral Higher Education (scenario)**	
Language(s)	Latin	National Languages	National Languages and / or English	Multilingual (diversity-sensitive and adaptive to particular situations)	
Infra-structure	Almost no dedicated infrastructure Classes took place flexibly were facilities were available There were only very few copies of books	Brick & mortar campus Library Research labs	Brick & mortar campus and/or virtual campus and access to protected online resources	Using existing brick & mortar and virtual infrastructures, adding own lightweight virtual infrastructures Meetings take place flexibly were facilities are suitable, and aesthetic (face-to-face & online, synchronously & asynchronously)	Study and research programs are developed and steered by various, flexibly developing transnational, transdisciplinary and inter-institutional consortia overlapping with each other as a loosely coupled knotwork sharing integral values and practices and jointly overlaying and making use of the (infra) structures of the (post)modern higher education institutions
Organi-sational Form & Legal Status	"Universitas" as guild-like association of students and teachers based on self-governance in which a substantial role was granted to the students	Public university status depending on the respective ministry of (higher) education or accredited private university status Self-governance of the professoriate with much less rights for the students	Various legal status (public or private university, foundation, company, company or grouping of public utility …) Managerial governance (regardless legal status) with little influence of teachers & students on central decision making	Flexible, trans-national umbrella organisations (e.g. EEIG) Self-governance of learning communities and the community of learning communities based on integral principles (e.g. sociocracy)	
Degrees	Degrees were identical & universally recognized in Europe, originally they served only as admission condition for teaching at the university, not for any of the professions	National degrees (which were not directly comparable) in many subject matters Degrees as mandatory entry requirements for professions and occupations	Transnational mutual recognition of degrees Structural harmonization (3-cycle model, ECTS) Diploma supplement Inflation of degrees	Ideally combination/ integration of existing and new (integral studies) degrees Integral extension of diploma supplement and competence frameworks	

Quality Control	Quality control steered by students (Bologna type) or authorities (other types)	Professoriate's self-control (or none in case self-control fails)	External quality assurance agencies - (re)accreditation based on site visits, institution's and study program's self-evaluation reports and students' course evaluations	Compliance with international quality assurance standards and procedures + continuous participatory quality development process engaging all stakeholders
Funding	Enrolment fees Tuition fees Exam fees Donations	State subsidies Enrolment fees Tuition fees (in some universities and in some countries) Donations/ own assets	Tuition fees State subsidies Competitive third party funds Donations/ own assets	All traditional options + intergenerational contributions from former students

Consciousness in Evolution
Sketch for a New Model – A Speculation

Donald F. Padelford

Abstract: It is hypothesized that hierarchically negentropic systems (defined herein), including organisms, are associated with partially non-local information/probability fields which, a) entail or express interiority, b) engender "entangled learning" with similar negentropic systems, and c) cause otherwise random processes, including mutation in biotic systems, to become somewhat non-random. These effects, which are believed to be driven by quantum interactions, modify those identified with the Modern Evolutionary Synthesis. A series of tenets, or broad organizing principles, related to such systems and their associated fields, are enumerated. An empirical test which could potentially falsify certain aspects of the hypothesis is given.

Key Words: Adaptive mutation, consciousness, directed mutation, entanglement, entropy, evolution, falsification, information / probability fields, interiority, natural philosophy, negentropy, non-locality, non-random, reductionism.

Introduction

2009 marks the 150th anniversary of the publication of Charles Darwin's *On the Origin of Species*, in which he formulated the proposition, now almost universally accepted among the scientifically literate, that natural selection, in conjunction with heritable variation and resource limitation, is the principal driver of evolution. When, during the early decades of the twentieth century, this proposition was combined with the work of Darwin's contemporary (albeit unknown to him), Gregor Mendel, the Modern Evolutionary Synthesis (MES, aka neo-Darwinism) was born, and has mostly triumphed ever since. The "nutshell" version of the MES is that evolution is a product of random mutation plus natural selection.

These mutations of course happen in the genes, which are discrete areas of DNA found in every cell in one's body, and are passed along to the next generation via gametes (egg and sperm cells). Francis Crick was co-discoverer of the spiral nature of the DNA molecule (the famous double helix), and won the Nobel Prize for this in 1962. Sometime during the next decade he showed up at a men's club my dad belonged to and gave a little speech which started out with the statement, "You are all machines." Towards the end of his life he expanded this into what he called "the astounding hypothesis:"

> You, your joy, your sorrow, your memories, your ambition, your personal identity and your free will are in fact no more than the behavior of a vast assembly of nerve cells and their associated molecules. (Crick, 1994, p. 3)

Of course, as a machine, your "free will" is entirely notional.

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This is pretty much the state of play in academic biology, with its underlying scaffolding of evolutionary theory, today. Depressing, but if it's true, it's true, and we've just got to live with it. But is it true? The thesis of this paper is that there is another model of evolution which better accounts for the facts at hand, and that, thankfully, is less depressing. One might even go so far as to say it's hopeful. To the neo-Darwinian proposition that evolution consists exclusively of random mutation in gametes plus natural selection, the new model of evolution sketched out here adds, "Except that organisms create information/probability fields (IP fields) which both convey heritable information directly to progeny, and which have the effect of causing otherwise random events, including mutations, to become somewhat non-random." There's a lot more to it than this, but that's a start.

It has become common in conferences convened to look at the Big Questions, such as *What is consciousness?* or *What does science have to say to religion?*, to invite both scientists and philosophers. The scientists provide a "reality check" and the philosophers provide what might be called an "assumption check." In other words, they are trained to ferret out assumptions that people, including scientists, may not know they are making, as well as to draw logical inferences between disparate fields of thought. So I would like to start in this introduction with a little philosophy, namely parts of the philosophy underlying science as it is currently defined and practiced. The remainder of this essay (a) introduces and discusses the tenets and argument supporting the new model of evolution sketched here, (b) suggests the resulting picture, (c) offers my hypothesis, (d) discusses relationships with the work of Kauffman and Thompson, (e) and, with that ground prepared, presents the model.

The most basic assumption underlying orthodox science is that the stuff of the universe is, well, stuff. It may be quarks, or super-strings, or something else, but it is something, some unit of matter and/or energy and/or space-time or something (some thing). This stuff then somehow combined and somewhere around 14 billion years after the Big Bang produced consciousness. The so-called "hard problem" of consciousness studies is *How does it do this?* That it does it, that matter/energy produces "your joy, your sorrow, your memories, your ambition, your personal identity" is not at issue. Whether it's via a "vast assembly of nerve cells" (Crick), or a 40 hertz collapse of quantum waves in the micro-tubules within those nerve cells (Stuart Hameroff) or something else – however it happens, the general idea is that you start with matter/energy and end up with consciousness. To most contemporary researchers this is so obvious that it doesn't rate a second glance. But it is exactly these "doesn't rate a second glance" issues that rate not just a second glance, but a good, hard second, or even third, look. It is exactly these issues that constitute our underlying assumptions and need to be put on the table, since if they are faulty, then everything that follows from them is also faulty, or at least incomplete.

Ken Wilber, an American philosopher, in his lengthy book, "Sex, Ecology, Spirituality," has an amusing example of a "doesn't rate a second glance" from a previous era, a popular "refutation" of Galileo's discovery of the moons of Jupiter:

> There are seven windows given to animals in the domicile of the head, through which the air is admitted to the tabernacle of the body, to enlighten, to warm and to nourish it. What are those parts of the microcosm? Two nostrils, two eyes, two ears, and a mouth. So in the heavens, as in the macrocosmos, there are two favorable stars, two unpropitious, two

> luminaries, and Mercury undecided and indifferent. From this and many other similarities in nature, such as seven metals, etc., which it were tedious to enumerate, we gather that the number of planets is necessarily seven. (Wilber, 1995, p. 387)

Today we would say that this is kind of crazy, but to our forbearers it was just common sense. It's certainly possible that a few hundred years hence our descendents will look at the universe-as-machine model we have constructed with the same kind of bemused incredulity. In any event for the present I merely want to point out that this basic assumption—the stuff of the universe is stuff—has not been shared by a very long-standing tradition of both Eastern contemplation and Western mysticism, including some prominent practitioners of quantum physics. Within these traditions the basic stuff of the universe is not stuff, but rather consciousness, or mind:

> There is no matter as such. All matter originates and exists only by virtue of a force… We must assume behind this force the existence of a conscious and intelligent mind. This mind is the matrix of all matter.
>
> – Max Planck

> The universe begins to look more like a great thought than a great machine.
>
> – Sir James Jeans

This tradition, that of Idealism and its cousins, runs counter to our contemporary "common sense" view that the universe is made up of matter (or matter/energy). While it is off the main path of argument here, I would like to note one thing in passing. Namely "Mind creates the universe" is a nearly identical statement to "In the beginning God created heaven and earth." Especially if God is consciousness.

Also in passing: Any universe we know, or can know, has a knower, an observer in it. Any fully objective universe, one which has no such an observer and therefore is devoid of subjectivity, while it may (or may have) exist (existed) is purely conjectural. And if consciousness is to any extent non-local, to be explained later, then this condition is impossible. Rerunning Descartes' query, *What can we know for absolute certain?*, the contemporary answer, it seems to me, is *Consciousness of stuff exists*. So the universe we know has a conscious observer, and we know that this observer has observer affects via quantum physics (on which more later). Therefore the known universe is, in part, subjective. What we see is partly an effect of our seeing it. And even if that part may be a very small one, it also may, via the "butterfly effect," leverage up into macroscopic effects of real consequence, or even (as we will touch on later) have calibrated the parameters of the pre Big Bang universe in such a way as to allow organized matter, life, and consciousness, to have come into existence in the first place.

But that's getting way ahead of the story. Returning to our narrative, starting with Galileo, the thrust of science has been to construct a model, a predictive model, of a non-theistic universe, which is to say one devoid of the supernatural and of "magical thinking." How do things work? And no need for any frig'n ghosts (or Ghost) in the machine either. Which brings us back to the assumption that matter/energy creates consciousness. As a starting point, I want to question that assumption. In particular, I want to explicate a dual approach in which matter/energy affects consciousness, and consciousness affects matter/energy (and without trying to decide which is the ultimate "top dog"—a largely futile task) in somewhat the same sense that matter can be converted to energy and vice versa. I think that there is plenty of evidence that this dual view better fits the facts. I would even go so far as to say that the way orthodox science has dealt with some inconvenient data is to simply ignore (or suppress) it. Those familiar with the philosopher of science, Thomas Kuhn, will recognize this as a well-worn pattern: if the data do not fit the reigning paradigm, dump data in the river. Those with longer historical memories will recognize that this was also exactly how the (Catholic) Church initially dealt with the early empiricists, albeit the Church admittedly had tools of persuasion that are thankfully unavailable to the reductionist orthodoxy of today.

Any speculation, such as detailed here, about the nature of reality, is by definition a thought experiment. But what kind of thought experiment? Clearly the model espoused here is not a work of science in the modern sense since I am, in part, questioning an assumption of science as it is currently defined ("the stuff of the universe …"). On the other hand, neither is it a work of philosophy because I will point out at least one place where implications of the model could be tested, and potentially falsified. Falsification is the bedrock of science. If a statement can be found to be potentially wrong via experiment or empirical observation, then it is a scientific statement. If not, not (Popper). It is true, of course, that the concept of falsification cannot itself be falsified, but I won't pursue that particular conundrum any further here. (This simply shows that empiricism is based on non-empirical assumptions, as is any system of thought.) It may also be true that a strict adherence to falsification is "honored more in the breach than the observance." If falsifiability is the "gold standard," then most science is conducted on the silver or bronze standard (with a bit of tin thrown in now and then). Scientists are people. People are known to advance their views through politics, through ridicule of the opposition, through intimidation and the like. None of these less-than-admirable behaviors are foreign to the scientific community. Still, at the end of the day – sometimes in the middle of the day but other times at a minute or two to midnight – the better approximation to truth will out. That is the virtue of science. Unlike philosophy it has a referee, and his name is Falsifiability. On the other hand, to the extent that an assumption is an absolute one, it cannot be disproved, and therefore belongs more to metaphysics than to science (Collingwood as cited in Castell, 1963). This is the case whether that absolute assumption is *The stuff of the universe is stuff* or *The stuff of the universe is the awareness of stuff*. One may fit the facts better, but neither can, strictly speaking, be ruled out (disproved, falsified).

So, if not science (at least in the hardest sense of that term) and not exactly philosophy (since aspects of it are falsifiable), what exactly is it that I am presenting here? I am inclined to hearken back to an earlier term, *natural philosophy*, to classify what I'm up to, albeit certain reviewers have objected to this characterization, preferring the more general term, "integral theory." A third possible term is speculative science. However characterized, though, the argument remains the same. I chose the term natural philosophy because the tenets enumerated in the model of evolution to be laid out here fall somewhere in the twilight realm of falsification: Certain implications can be tested and potentially proved wrong (if they are wrong). Others can't be. And unlike the situation that was addressed by the Michelson-Morley Experiment, which, at least in hindsight, definitively ruled out the existence of the "luminiferous ether" through which light was assumed to be transmitted similarly to a wave being transmitted through water, there is unlikely to be a test that definitively rules out the orthodox model or the model presented here (though the work of Harvard biologist John Cairns, to be explained later, may possibly come close). Rather, new data will tend to better fit either the orthodox model, the model presented here, or some as-yet-unknown third alternative. Let the chips fall where they may.

Tenets of a New Model of Evolution

What follows are twenty tenets, broad organizing principles, of the model. These are the model's bare bones, which I will subsequently flesh out a bit. In reading these one should bear in mind that, per hypothesis, they operate via the information/probability (IP) field effect, mentioned earlier.

1. Evolution is a phenomenon that takes place in hierarchically negentropic systems in general, and in life forms in particular.

2. Hierarchically negentropic systems are negentropic systems made up of, or constituted from, negentropic sub-systems, which themselves are made up of negentropic sub-sub-systems, etc.

3. Hierarchically negentropic systems are characterized by interiority.

4. Interiority is that aspect of hierarchically negentropic systems which, if concentrated sufficiently, results in consciousness.

5. Thus matter does not create consciousness. Rather highly evolved hierarchically negentropic systems (i.e., advanced life forms) manifest consciousness.

6. The tendency of hierarchically negentropic systems to become more negentropic, with more layers of hierarchy over time constitutes evolution as seen from "outside."

7. As seen from "inside," interiority seeks to increase itself, which is to say, to become conscious, or more conscious.

8. Interiority is, to some extent, non-local.

9. In particular similar (or identical) hierarchically negentropic systems share a degree of interiority. This is the view from "inside" such systems.

10. The view from "outside" is that hierarchically negentropic systems probabilistically tend to adopt, or conform to, solutions found or chanced upon by similar systems.

11. The partial non-locality of hierarchically negentropic systems exists in terms of both time and space.

12. The deeper the hierarchy in hierarchically negentropic systems, the more non-locality is evident.

13. Lower levels of the hierarchy in hierarchically negentropic systems have causal effects on higher levels and vice versa.

14. Also, causal effects operate from exterior to interior and interior to exterior.

15. As reductionism only fully recognizes the former effects (lower to higher and exterior to interior), it is wrong, or at least incomplete.

16. Idealism, while not a major force in today's world, makes the opposite mistake.

17. Up-to-down and in-to-out causality are, to some extent, the same thing, since systems with deeper levels of hierarchical negentropy embody greater degrees of interiority.

18. Likewise down-to-up causality is, to some extent, the same thing as out-to-in causality.

19. Taken to its logical end point, the ultimate hierarchically negentropic system would theoretically be totally non-local as to time and space and share an interiority common to all such systems lower in the hierarchy, including all life forms. The overlap between such an ultimate hierarchically negentropic system and what the religiously inclined call "God" is reasonably evident.

20. Because life continues to evolve, such an ultimate hierarchically negentropic system would logically also continue to evolve.

The Argument

Before launching off on an examination of these tenets I should probably state the nature of my argument. What I am attempting to do is to weave together the findings of various researchers such as Robert Jahn, Dean Radin, Rupert Sheldrake, Johnjoe McFadden and others, and apply my synthesis of these findings to the subject of evolution. Except where I express reservations, I accept their findings as valid. Those readers who want to make their own determination about such validity will need to study the work of these researchers as I don't spend any time in persuasion or in countering critics, who are definitely out there. Those readers who have read and are unpersuaded by the work of these researchers are likewise unlikely to be persuaded by my analysis.

Some thinkers who, either by implication or explicitly, do not generally accept the finding of the above researchers, and to whom I situate the theory here in contrast, include the philosophers Evan Thompson, John Searle, and Dan Dennett, as well as the scientists Stuart Kauffman and Richard Dawkins. My disagreement with these gentlemen varies from partial to near-total as the narrative will disclose. The essay includes a section detailing my divergence from Kauffman and Thompson.

I should state that the tenets listed here exhibit considerable overlap with those of Ken Wilber (1995) in his *Sex, Ecology, Spirituality*, mentioned earlier (hereinafter "SES"), which in their turn exhibit much overlap with similar "canons" laid out by Arthur Koestler (1968) in his book, *The Ghost in the Machine*. One major difference is that Wilber’s unit of analysis is the “holon,” which, following Koestler who coined the term, he defines as anything which is simultaneously a whole and a part of a whole. So for instance a word is a whole thing, which is made up of phonemes (or letters), sub-holons, and which is, or can be, part of sentences, super-holons. However, words don’t resist entropy (explained below). The term I have coined, “hierarchically negentropic systems” would be equivalent to Wilber’s physical holons (except to say that they are only physical would be misleading, as I trust will become evident). The biologist, Rupert Sheldrake, also uses the word holon in his work, but confines it to physical holons. So Sheldrake’s holon is largely equivalent to my hierarchically negentropic system.

Discussion

Now let’s take the tenets one or two at a time.

1. *Evolution is a phenomenon that takes place in hierarchically negentropic systems in general, and in life forms in particular.*

2. *Hierarchically negentropic systems are negentropic systems made up of, or constituted from, negentropic sub-systems, which themselves are made up of negentropic sub-sub-systems, etc.*

The subject is evolution both in biotic (living) and in pre-biotic systems. (To some extent humanity could be considered to have created a “post-biotic” world, a major theme of Wilber’s work, but not of this paper.) An example of the former is a cell. An example of the latter is a molecule. These systems are “negentropic” meaning that they resist entropy. Entropy is, roughly speaking, disorder. An example is a sugar cube put in a glass of water. Over time, the sugar dissolves into the water. But the opposite process is not seen: a glass of sugar-water will never spontaneously form a sugar cube. (Another example is your kid’s bedroom after he or she has had a “play date” with a friend.) Entropy is an expression of the second law of thermodynamics, which states that the universe is inexorably “winding down,” leading in time to its eventual “heat death.” Fun guys, scientists.

Negentropy is the opposite process. It is the “winding up” of certain systems. For instance, a whirlpool may be considered negentropic in that it spontaneously expresses order. No claim is made here that negentropy matches or exceeds entropy on the macro scale. Generally scientists believe that it is the other way around, that whatever negentropy may occur is more than made up for by increased entropy elsewhere, with the result that total entropy always increases. I am not challenging that belief, and I don’t express an opinion, one way or the other, as to its general validity. I would note in passing that it is incompatible with certain cosmologies, such as that in which the universe has no beginning or end, but this is not a paper on cosmology.

(Note to physicists re use of the term entropy, and thus negentropy. In the sense used here a royal straight flush is more negentropic than a hand with two of a kind. As I understand it, this is a function of information entropy vs. its thermodynamic cousin. Obviously the physical temperature of the cards is irrelevant to this use of the term. So, yes, I am more or less equating entropy with disorder, as do many (but not all) the researchers I cite, although sometimes their use appears to be ambiguous. If you are disapprobative of this use of the term, please feel free to insert the word *disorder* for *entropy*. The main thrust of the argument will not be materially altered thereby.)

However, the example I just gave, that of a whirlpool, is not the kind of negentropic system I am talking about here. What I am talking about is a negentropic system that is made up of negentropic sub-systems, which themselves are made up of negentropic sub-sub-systems, etc (with an undefined lower boundary). For this reason I use the term *hierarchically negentropic systems*. For example a molecule is made up of atoms, which are made up of sub-atomic particles (neutrons, protons, elections), which are made up of more basic components of matter (quarks or whatever), until, perhaps, we end up with super-strings. Which is as far as we've gotten so far. (Actually further, since no one knows whether super-strings even exist.) The claim, which I believe is non-controversial, is that these entities (e.g., molecules or atoms) tend to maintain their order, their negentropy. (Uranium spontaneously decays, which could be characterized as maintaining its negentropy less well than other, more stable, elements.)

The further claim, also believed to be relatively non-controversial, at least within the scientifically-informed world, is that evolution is not limited to the realm of what are generally seen as living systems, but also takes place in the pre-biotic realm as well. Since nearly everyone who accepts the scientific worldview agrees that life emerged from the pre-biotic, this is almost by definition true (although the mechanisms of evolution could differ). Also it is difficult or impossible to say exactly where living processes end and non-living process start. Is a virus alive? Hard to say. Another perspective on this is that following the Big Bang only very simple particles existed, then the first and simplest atoms, hydrogen and helium, and then, over time, more complex atoms formed in the center of large stars, until still later molecules were created from those atoms. The general thrust here is that, whatever the level of total entropy in the universe, there is at least a sub-section of it that is going in the opposite direction, towards greater complexity and greater negentropy. The hierarchical nature of this process, e.g., first atoms then molecules, is also evident. In SES Wilber points out a simple test as to what is higher or lower. If a higher holon were to cease to exist, the lower level holons would continue, but not vice versa. So if, somehow, molecules were wiped out, atoms would remain, but not vice versa. Likewise if humanity were to destroy itself, that would not be the end of life on earth. But if all life on earth were to end, that would also be the end of humanity.

One final thing on these first two tenets. Because what I am describing is *hierarchically* negentropic systems, in the biotic realm I am following the lead of the biologist Johnjoe McFadden, in stating that these are not dissipative systems, which he characterizes as "order from disorder" (McFadden, 2000, p. 136). The example given above of a whirlpool is an example of such a dissipative system, "driven by the random motion of billions of particles." Rather I am focused on *hierarchically* negentropic systems, "order from order" (Schrödinger's term in McFadden, p.137). A great deal of the scientific establishment believes that life is exactly a dissipative system. (This is conjoined to the view that "downward causation" is actually "systems causation," as with the whirlpool example. See Thompson, 2007, p. 426). The claim here is to the contrary since, to repeat, a dissipative system is negentropic but not hierarchically negentropic. Clear?

3. *Hierarchically negentropic systems are characterized by interiority.*

4. *Interiority is that aspect of hierarchically negentropic systems which, if concentrated sufficiently, results in consciousness.*

Here I am departing decisively from scientifically orthodox thinking (assumptions), not to mention "common sense" (but remember Wilber's example of medieval "common sense" about the correspondence of human orifices with the number of planets). However, common sense is a somewhat selectively applied notion. At a conference on the conflict between (orthodox) science and religion (*Beyond Belief, 2006*, viewable on the web) the assembled chuckled at the story of a petroleum geologist who in his professional capacity obviously understood that the precursor materials for oil deposits were laid down hundreds of millions of years ago, but who in his private life believed that life was put on earth 6,000 years ago. These same assembled did not, however, seem to find any contradiction (or humor) between their idea that, as reductionists, they purportedly have no free will, and their idea that they "should" spread scientific thinking. "Should"? Either your garage door opener works or it doesn't. You don't tell it what it "should" do. Should implies choice, and reductionists (sophistic arguments of certain philosophers to the contrary notwithstanding) don't believe that choice, and free will, exist. Like the geologist, they believe in contradictory propositions, each of which is "common sense," at least in their world.

Tenet 4 is, of course, simply a definition tying consciousness to something else, interiority. In both tenets I am saying that as we go from "deeper" hierarchically negentropic (HN) systems, ones with more hierarchical layers, to shallower ones, interiority likewise gets shallower, but, and here is the break, it never totally disappears. (While I haven't read him, I understand that this mirrors Whitehead.) This may not be too controversial if we limit ourselves to the upper layers of HN systems. Humans are, of course, conscious and even self-conscious. For instance we can contemplate our death or what someone else may think of us, how they're wrong, and just who do they think they are anyway? Nearly everyone likewise agrees that companion animals such as cats and dogs are also conscious, but of course not in as deep a way. Your dog may loathe (or love) the neighbor dog, but he doesn't think, *Who does he think he is anyway?*

Exactly how far down the phylogenetic table one wants to ascribe consciousness varies from person to person. Descartes notoriously excluded all non-humans. Most people, no doubt, see mammals as conscious, but what about birds? If birds are conscious, what about insects? *Et cetera.* The point is that one can probably draw the line on consciousness wherever they want, though only a true pan-psychic would believe that a simple molecule has it. (And research indicates that our brains are aware of many things of which we are not conscious, for instance under conditions of so-called "blind sight" – Google it). But as far as "interiority" goes, it's a lot like life. Just as there is no clear line between "life" and "not life" (is a virus alive?), so there is no clear line between "exhibits interiority" and "doesn't exhibit interiority." That's the claim anyway.

The way I (attempt to) establish this claim, as will become evident below, is that clearly conscious "systems," such as people or rats, show similar learning, and particularly non-local or entangled learning (to be described later) as clearly non-conscious systems, such as molecules ("clearly" to all but pan-psychists). It is possible, of course, that two different mechanisms that appear identical, one mechanism for systems with interiority and one for systems without it, are at work. But, borrowing Mr. Achem's Razor (also known as Occam) for a moment, I would assert that one system is preferable to two seemingly identical ones. Especially when, to repeat, finding the line between "has interiority" and "doesn't have interiority" seems as arbitrary as "alive" and "not alive."

Another approach to this issue is to see it in terms of evolutionary selection. Just as detection of light must exist in cells in order for evolution to gradually select for better and better "light detectors," which eventually end up as eyes, so if evolution selects for awareness/consciousness, that is, if it has survival (negentropy) value, then it must exist in the most rudimentary life forms (and even in "dead" matter if evolution extends to the pre-biotic as almost all scientists believe) in order for evolution to work on it.

5. *Thus matter doesn't create consciousness. Rather highly evolved hierarchically negentropic systems (i.e., advanced life forms) manifest consciousness.*

This is a conclusion from the prior two tenets. As stated previously, this conclusion throws the so-called "hard problem" of consciousness studies *How does matter create consciousness?* out the window. Answer: it doesn't. Rather hierarchically negentropic systems and interiority are the same thing seen from two different perspectives, "outside" vs. "inside." (Although, as touched on later, it is conceivable that "artificial interiority" may be achievable in quantum computers, and computers are not hierarchically negentropic systems.)

This does not mean that a pencil, *qua* pencil, has interiority, let alone consciousness. The reason is that a pencil is not a hierarchically negentropic system. In fact it's not even a negentropic system since it doesn't resist entropy. To review: an atom, a cell, a plant, an animal, are all HN systems. So the atoms in the pencil are hierarchically negentropic systems, but the pencil itself is not. How about dead plants or animals? When an animal is first killed, or a plant growing in the ground is cut down, its cells will continue to grow and divide, or at least some of them will. So, for the time being, while the organism is dead, these cells are alive as active HN systems. When the cells die, then their atoms remain hierarchically negentropic system, but the cells themselves do not.

The idea that consciousness is "baked in" to the universe was explored by Paul Davies (2007) in his book, *Cosmic Jackpot*, which is subtitled *Why Our Universe is Just Right for Life*. If any of a number of parameters were just slightly different, a universe that permits life, and therefore consciousness, would never have developed. And others have also made this point:

> … the density of the universe at the start … had to be fixed with an accuracy of around 10^{-60}. That is to say, if one figure after sixty zeros had been different, then the universe would be barren. There would be no life, no consciousness, and no you and me to discuss it. This astonishing precision is analogous to the dexterity of an archer hitting a one-centimeter-square target placed 15 billion light-years away, at the other end of the observable universe!

– *The Quantum and the Lotus*
Matthieu Richard and Trinh Xuan Thuan (2001, p. 41);

also see *Just Six Numbers: The Deep Forces that Shape the Universe*, Martin Rees (1999)

Needless to say, the conventionally religious take this fact as support for their beliefs. For his part, after running through a list of the various possible explanations, Davies ends (albeit somewhat half-heartedly) with the possibility that consciousness itself creates the conditions under which consciousness could arise. In this view consciousness is in some way outside time and acts on or shapes matter to "fix" the parameters so that they are favorable for life, and therefore consciousness, arising. The model presented here is consistent with, but does not require, this cosmology (which I personally like). However one difference between this model and Davies' view is that he, similarly to Stuart Kauffman, has an "emergent" view of life and consciousness in that he believes, for instance, that the cell is a machine (Davies, 2007, p. 224), whereas I am saying that a cell, or even a molecule, embodies some degree of interiority, no matter how slight, and that machines, not being hierarchically negentropic systems, do not.

6. *The tendency of hierarchically negentropic systems to become more negentropic, with more layers of hierarchy, over time constitutes evolution as seen from "outside."*

7. *As seen from "inside," interiority seeks to increase itself, which is to say, to become conscious, or more conscious.*

Tenet 6 is a definition of evolution that, among academics anyway, is a bit archaic, although it represents the layman's understanding of the term, and it is also pretty much how Darwin (1859/1964, p. 489) saw things: "And as natural selection works solely by and for the good of each being, all corporal and mental endowments will tend to progress towards perfection." Under neo-Darwinism, though, evolution doesn't really have a direction. This is because, per the Modern Evolutionary Synthesis (MES), the creative mechanism that produces the "design space" from which natural selection chooses, is randomness in the form of random mutation. And randomness obviously doesn't have a direction. It is not teleological, which is to say it has no goal. And in the orthodox view, neither does natural selection have a goal. Whatever reproduces itself, reproduces itself. End of story. Thus most academics would say that if, due to varying food supplies, Darwin Finches with stout beaks have more young (because the stout-beaked don't starve) than the slender-beaked (which do starve), that this is evolution at work. And if in the following years the slender-beaked have more young, taking us back to where we started in the first place, that this is also evolution. Exactly this back and forth process was involved in perhaps the most famous example of "evolution," that of moths becoming darker, because more difficult to see by their predators, during Victorian England when coal use was at its height and thus surfaces were sooty, and then becoming lighter in subsequent decades as coal burning lessened (or at least became cleaner).

By contrast, the popular view, and the one adopted here, is that when you go from slime mold to monkeys, or, extending things further, from Big Bang to Bach, that's evolution. And going from light colored moths to dark colored ones and then back again isn't. In part this is definitional, but the result of this definition is that evolution does have a direction. Namely towards more layers of negentropy, and greater interiority. Of course the simpler negentropic systems (including simpler life forms) don't all disappear (albeit many go extinct). The appearance of molecules does not spell the end of atoms. Viruses continue to prosper. And Darwin Finches may merrily vary the shape of their beaks back and forth over time.

In my view, these dual tenets deal more adequately (or less inadequately) with the issue of increasing negentropism or more complexity. The neo-Darwinian view on this is that it's all a matter of natural selection. (I guess if all you've got is a hammer, everything looks like a nail.) But while the process of natural selection may be enough to account for better eyes evolving from worse ones, it's not clear that complexity (not to mention interiority) in itself has any survival value at all. In the event of a full-scale nuclear war, it's reasonably clear that bacteria, unlike people, would survive, as they apparently have as hitch-hikers on moon probes:

> Bacteria of the species Streptococcus mitis were inadvertently sent to the moon in the unmanned Surveyor III in 1967 and were "rescued" still alive [dormant – dfp] two years later by the crew of Apollo 12 who brought back Surveyor's TV camera. The organism had been subjected to very low pressure [to say the least!] and temperatures of minus 100 degrees Celsius. [= -148 Fahrenheit] (Milton, 1997, p. 217.)

If your only goal in life is to replicate, which is the MES view, then you're probably better off being a bacteria, or even a virus, than a mammal. In contrast, the view here is that a drive to escape entropy is "baked in" to hierarchically negentropic systems, and perhaps the universe itself. In which case it's better to be a mammal.

Tenet 7, interiority seeks to increase itself, of course, is totally beyond the pale as far as orthodox researchers are concerned, but I think it more or less follows from the previous tenets. If there is a "felt sense" of interiority within all hierarchically negentropic systems, then almost by definition, negentropy "feels good" however one might want to interpret or think about the term "feel" if we are talking about, for example, a molecule. Everyone (using that pronoun in the very widest sense) likes to feel good. And one drop of water dripped in the Pacific Ocean creates a wave, even if a very small one, that can go from California to Japan and back again. So you don't have to be a big wave to be a wave (don't have to be an advanced hierarchically negentropic system to have a level of interiority). Of course if there is no interiority in HN systems below some level, which is the emergent view, then we are faced with the "hard problem" of consciousness all over again, except this time we have to figure out how matter/energy creates proto-consciousness, or interiority. At the risk of repeating myself, I simply feel it is simpler, more economical ("achem-onomical") to posit one system as seen from the "inside" and "outside," rather than two totally different ones.

The emergent view is that of, for instance, the philosopher (I would even call him a practitioner of natural philosophy) Daniel Dennett in his book, *Darwin's Dangerous Idea*. Make a machine complex enough, and somehow it acquires consciousness and autonomy: "you can transcend your genes … to build an almost entirely independent … locus of meaning on the base your genes have provided" (Dennett, 1995, p. 426). In his view, determinism and autonomy are consistent, which I would call a close cousin to the concept that freedom and slavery are the same thing. I might call Dennett's line of reasoning "magical reductionism." Of course to posit that even a molecule has some kind of "interiority" could also be labeled magical. But I would assert that the "magic" required by not being able to locate a line between "has interiority" and "doesn't have interiority" is considerably less than that of imagining the something-from-nothing entailed by a machine creating consciousness. And there is an empirical test (to be explained later) which at least indirectly gets at this question.

8. *Interiority is, to some extent, non-local.*

This tenet is a set up for the next two tenets. By "non-local" I mean what quantum physicists mean by that term. One interpretation of quantum physics is that a particle can be in two places at once. Another interpretation is that "entangled" particles are separate but communicate instantly. In theory if one such particle were here and its "mate" were at the other end of the universe, then if we flipped the one here "up," the other would instantly flip "down." (Don't ask me what "up" and "down" mean in this context, I don't know.) Of course by the time we got confirmation of this via the fastest speed possible, that of light, we would all be long gone, as would the earth. Also, and this is largely another way of saying the same thing, when a quantum wave function collapses, it does so everywhere, instantaneously. (How this squares with the General Theory of Relativity, under which the concept of simultaneity is obviated, I'm not entirely sure.) And if, for instance, that wave function is associated with a proton, then that proton is "precipitated" from a "super-positional" (quantum) state into a "classical" state. In the way we are used to thinking of chairs, trees and rocks as "real," it becomes real at that point. Previously, to borrow a term of disparagement and use it for other purposes, it's a "ghost in the machine" (suggesting, I believe correctly, albeit inadvertently, a correlation between quantum reality and consciousness).

Another demonstration (or aspect) of non-locality is that of so-called psi phenomena, and the most sober scientist in this field is Dean Radin. Formerly a researcher at ATT Bell Labs, Radin has also worked at GTE Laboratories, Princeton University and SRI (formerly Stanford Research Institute), among others. At SRI the client was the clandestine agencies of the US government. Psi includes such phenomena as telepathy (sending information between two individuals absent normal means, basically mind-to-mind interaction), and remote viewing (being able to see or otherwise sense things at a distance by other than normal means). I have concluded from Radin's work and elsewhere that these phenomena are real. Perhaps the clearest, most scientifically "nailed down" example of psi is provided by the research of Robert Jahn of Princeton University, formerly Dean of the School of Engineering. Over several decades he and his collaborators systematically and scrupulously investigated whether people could influence random number generators (RNG's, essentially electronic coin flippers) to produce more "heads" than "tails" (ones than zeros), simply by a person's *intent* to have them do so, without any physical intervention (see, for instance, Radin, 1997, p. 43, and Jahn, 1987). The short answer, is *yes*, people can do this. The effect isn't large, but it is extremely statistically significant. As much as anything can ever be established by statistics, this phenomenon is established. As Radin has pointed out, calling a baseball player a "power hitter" is a matter of statistics. If you're batting 300, you're doing great, but you're only hitting one in three times at bat.

By the qualifier in this tenet, "to some extent," I mean that even if, as I believe, these phenomena are real, they are nonetheless weak. (On the other hand it is strong enough for Radin to have created and patented a switch, with which one could, for instance, turn on or off a robot on a distant planet, utilizing the effect.) While the CIA used "psychic spying" for decades (Targ, 2008), it’s much better, if possible, to examine a missile launcher in person than to remote view it. Not always possible of course, which is why the CIA employed psychics. (By the way, the program was dismantled after the Cold War and thus was not in place to remotely view alleged “weapons of mass destruction” prior to the invasion of Iraq in 2003.)

9. *In particular similar (or identical) hierarchically negentropic systems share a degree of interiority. This is the view from “inside” such systems.*

10. *The view from “outside” is that hierarchically negentropic systems probabilistically tend to adopt, or conform to, solutions found or chanced upon by similar systems.*

Tenet 10 expresses the findings of Rupert Sheldrake as reported in his books, *A New Science of Life* (1981), and *The Presence of the Past* (1988), and elsewhere. Tenet 9 is my extrapolation, looking at these phenomena (as well as the results of psi phenomena such as telepathy mentioned above) from “inside.” I will attempt to show the nature of Sheldrake’s findings via a series of examples.

Example one. The New York Times publishes a crossword puzzle every day. If you take two groups of people with equal puzzle-solving expertise and have one group try to solve, say, the Monday puzzle on Monday, and then take the second group and, making sure they weren’t exposed to it (the jury sequestration issue), have them try to solve it on the following Saturday, after millions of people around the world have previously worked on it, you will find that the second group does better, gets more right answers in a set amount of time, than the first group. These groups can be widely separated geographically.

Example two. If you take two groups of identical rats with, say, one group in New Zealand and the second group in New York, and you have the first group learn a particular maze, and if, some time later, you set the second group loose on the same task, the second group will learn the maze faster than the first group.

Example three. Scientists sometimes create novel molecules that have never existed before in nature. When they do this, they always have a hard time getting them to crystallize. But once a lab somewhere (let us say New Zealand again) gets the first group of novel molecules to crystallize, then labs elsewhere (say New York) find that it becomes easier.

Two of these examples (people learning a crossword puzzle, rats learning a maze) involve sentient (conscious) hierarchically negentropic systems. One (novel molecules crystallizing) doesn’t. But the pattern of shared and “non-local” (or entangled) learning seems to be the same. Thus, following the prior tenets, it seems reasonable to look at this process from both the “inside,” which is to say from a standpoint where consciousness, or at least interiority, is involved, and from the “outside,” which is to say objectively.

*Note: This brings us to an important point and one where at least parts of the model presented here could be tested and possibly falsified***.**

Let’s take the rats in a maze example and set about the following experiment. First, run the same experiment and confirm it with a fresh batch of rats and a new maze. Next build a set of robot rats with the same level of maze-learning ability (and speed) as the real rats and have them learn the same maze. The hypothesis is that a second group of identical robo-rats in another location would not benefit from the non-local learning that is enjoyed by the flesh and blood rats. The hypothesized reason for this hypothesized deficit in the robo-rats is that, since they are not hierarchically negentropic systems as defined earlier, they presumably have no “interiority.” However, and this is another important point, note that the novel molecules *do* exhibit this non-local learning. Therefore a possible conclusion is that the molecules, hierarchically negentropic systems after all, exhibit or express interiority. In any event, according to the model, they do.

I should note that other interpretations of the above-hypothesized results are possible. For instance, it is possible that non-local learning and interiority are independent effects of some unknown third factor, and that this factor can cause one effect, for example non-local learning, without causing the other. As Hume famously pointed out, correlation is not tantamount to causality. However, without an experimental protocol to tease out different experimental results in this other interpretation, the two interpretations are for all practical purposes indistinguishable. (This is a good example of an instance in which it is possible to draw a philosophical difference between two views without being able to untangle them from a scientific, or practical, standpoint.)

This projected result of the rats vs. robo-rats experiment has implications for the question of whether conscious machines can be made, and if so, in what ways they might differ from biologically-based conscious systems (organisms). Following Roger Penrose (1989), I don’t believe that classical computers, no matter how “smart” (e.g., able to play chess) will ever become conscious. But would robo-rats with quantum (i.e., non-classical) computers for brains suffer the same (presumed) lack of interiority and therefore non-local learning? In my mind that’s an open question. If not, then portions of the model presented here would need to be modified, since not even quantum computers (which don’t exist except in the most rudimentary form yet) are hierarchically negentropic systems. (If quantum computers did become conscious, then a function we could expect from them would be an ability to affect random number generators via intent a la the Jahn experiments described in tenet 8. However, it is unclear to me how it would be possible to program a computer to express intent. Computer programs are, as Dan Dennett [1995] has said, algorithmic: if this, then do that. Dennett believes that Darwin’s genius was that he found a simple algorithm for increasing biological complexity, and that any such algorithm is necessarily transposable to a different medium such as silicon. But how do you program for: If this, then *intend* that? I, at least, have no idea.)

The above examples involve learning, not morphological development. However, while I do not examine it in this essay, Sheldrake devotes a good deal of time on the latter issue in his early books. The orthodox view is that development is controlled by selective switching on and off of genes, whereas Sheldrake’s theory involves non-genetic inheritance. Most of the (genetic) work on this subject was conducted subsequent to Sheldrake’s initial books. While he doesn’t discount the idea that non-local shared learning (my terminology, not his) could have genetic effects, and the implication of his theory is that such effect should exist, in none of his writings of which I am aware does he make the claim that this sort of learning *does* have genetic effects (and he has emailed me that he does not wish to assert this claim). To this extent his theory (but not, at least in my view, its implications) is compatible with the MES since the neo-Darwinian process, with its random shuffling of genes every generation, could be going on in parallel to the processes identified by him. On the other hand, his views are incompatible with the MES to the extent that per neo-Darwinists non-genetic (learned or directed) inheritance is impermissible ("magical" is the term often used).

By the way, Darwin, who didn't know about genes and thus didn't distinguish genetic from non-genetic inheritance, made claims which are strikingly similar to those made by Sheldrake in the realm of morphology: "From the facts alluded to in the first chapter, I think there can be little doubt that use in our domestic animals strengthens and enlarges certain parts, and disuse diminishes them; and that such modifications are inherited" (Darwin, 1859/1964 p. 134). This sentence could be inserted, without modification, into any of Sheldrake's early books. Of course, neo-Darwinists completely disavow this aspect of their hero's work. (Not to mention the following: "[A]t some future period, not very distant as measured by centuries, the civilized races of man will almost certainly exterminate and replace throughout the world the savage races" in *The Descent of Man*, Darwin, 1871/2004, p. 201. Oops!) In any event, I agree with Sheldrake that learning may be inherited as shown in the above examples. Furthermore, I hypothesize that the intent (or mental "push") behind learning sometimes produces heritable genetic effects in biotic systems via influence of the organism's (posited) information/probability (IP) field. (Obviously these effects are, by definition, non-genetic in pre-biotic systems.)

An example of Sheldrake's thinking in relation to inherited learning is provided by the following experiment (Sheldrake, 1981, p. 186). Rats (poor rats again) were placed in a flooded cage. There were two gangways for escape, a lighted one that, unfortunately for the rats, produced a shock when chosen, and an unlighted one. Eventually the critters learned to choose the unlighted exit. When fresh rats of the same species were put in the cage, they learned the task more readily than the first rats. So far basically the same as the maze experiment. Not surprisingly, given that prior experiment, the rats' descendents also learned to find the exit faster than their forbearers. When a genetic explanation for this was formulated, the experiment was changed so that only the offspring of the stupidest rats (who found the exit least successfully) were tested. But even these found the exit faster than earlier generations, seemingly exhibiting shared learning across generations. Thus, in Sheldrake's view, information was passed from one generation to the next in a non-genetic manner. His explanation is that "morphic fields" (which I would translate as IP fields) are formed and passed along, these fields constituting non-genetic inheritance of the descendents.

While it is slightly off the main thrust of my argument here, I want to note one thing. Per Sheldrake these fields should build up generation upon generation. And, as described earlier, there is evidence of this with, for example, people getting better at IQ tests over time (as self-described debunker of pseudo-science, Michael Shermer, noted in his talk at one of the TED conferences viewable on the web). But there are also counter-examples. After the fall of the Roman Empire, people seemed to lose a whole host of abilities, from perspective drawing to engineering, for a thousand years or more. One possible explanation for this loss is that these abilities were an expression of a more complex hierarchically negentropic system, in normal English, a more advanced civilization. By this tentative hypothesis, Rome had more layers of hierarchical negentropy than Medieval society, and shared learning was disrupted when that hierarchy became shallower, since the fields were an expression of the deeper negentropic hierarchy. (This would correspond to Wilber's [1995, p. 44] view that holons break down holoarchically, in the reverse order from which they were formed.) Another possible explanation is that the generations-long shock accompanying the collapse of Rome traumatized people so much that they were unable to retain this knowledge. The simplest explanation is that there was just no one around to teach these skills to the next generation. However, in the above experiment, one generation of rats did not teach the exit-finding skills to the next generation. In any event, it's clear that there are instances where cumulative non-local shared learning breaks down.

11. *The partial non-locality of hierarchically negentropic systems exists in terms of both time and space.*

12. *The deeper the hierarchy in hierarchically negentropic systems, the more non-locality is evident.*

Space

Non-locality in terms of space was illustrated with the Sheldrake examples under tenets 9 and 10. Rats in New York learn, non-locally, from their New Zealand or Australian "mates." (Whether this is totally non-local – would rats on the other side of the universe benefit like their New York brethren? – is something about which I don't speculate.)

Time

Non-locality in terms of time mostly concerns "retro-causality" since "forward causality" is normally what we mean by the term. So, to retro-causality. Lynne McTaggart in her book, *The Field*, has a number of examples. Here is one (McTaggart, 2002, p. 170). If you remember back to tenet 8, there was mention of the work of Robert Jahn and the ability of people to influence the output of "heads" or "tails" in random number generators. Now what if the RNG was let run by itself, with no attempt to influence it via intent, and with the results stored on magnetic tape. In this case a "head" could be a click in the right ear when played back, and a "tail" a click in the left. The question is whether a subject in the experiment could go back some days later, play back the tape, and get more "heads" (or "tails") than chance allows. The answer is that people can in fact do this and that therefore some kind of retro-causation appears to exist in this case. (Amit Goswami [2008, p. 170] reports in his *Creative Evolution* that a similar experiment, with similar results, was conducted with the results printed out onto paper as opposed to being recorded onto audio tape). Thus at least people, if not less advanced hierarchically negentropic systems, appear to be able, in some instances and to some extent, to influence the past as well as the future. (Per personal communication with Dean Radin, there is experimental evidence for non-humans affecting RNG's, apparently extending down as far as cockroaches and even plants).

Another example is being laboratory tested with the results not known at the time this paper is written. John Cramer, a physics professor at the University of Washington (Seattle), is testing whether an entangled "wave-acle" (wave/particle) that is forced to act one way or the other (wave or a particle) can force its "mate" to act in the same manner. If that is successful, the next step will be to see whether a wave-acle in the present can affect its mate in the past (Cramer). This will be done by sending one down a short fiber optic cable and another down a long one. If the experiment succeeds, forcing the one that comes out of the long cable, slightly later, to behave as a particle (or wave) will force its mate, in the slightly distant past, to assume the same form. (Naturally, this experiment is more complex than described here; however, I believe I am giving the gist of it, namely retro-causality by entangled particles.)

The third example references the “double slit” experiment of quantum physics, which is explained under tenet 14 below. The essence of that experiment is that the observation of a quantum particle (wave/particle) affects the character of that wave/particle and that observation of it at time t, can cause the collapse of the wave function associated with the “wave-acle” at time t-1, which is to say, in the past.

A fourth example explores whether people sometimes react to a shocking picture before they have seen it. This is termed “presentiment” and Dean Radin explores this issue in his books, *The Conscious Universe* (1997) and *Entangled Minds* (2006). A randomly chosen picture, either of a calm nature (nature scenes, cheerful people) or of a shocking nature (murder victims, erotica), is shown to a person. As expected the subject’s galvanic skin response is high when they are shown the shocking pictures and subdued when they are shown the calm pictures. However, the interesting thing is what happens slightly before the picture is seen. Subjects react, albeit not as strongly as when they are actually observing the image, to the shocking picture even before it is seen by them. Once again the future seems to be affecting the present. Alternately, the subjects are (unconsciously) viewing the near-future, which amounts for my purposes to much the same thing.

A final phenomenon to take note of is that a network of Random Number Generators (which for this purpose were renamed Random Event Generators: REGs) has been running for a number of years at locations around the world. These were put in place to investigate the possibility that the REGs might register changes correlated to events in the world. Interestingly, exactly such a correlation was found, for instance with the funeral of Princess Diana and the announcement of the verdict in the OJ Simpson trial, both widely-broadcast and therefore focused-on events. The (tentative) conclusion is that collective human attention on certain events moves REGs. Considering the results of the Jahn studies at Princeton cited earlier, perhaps this is not too surprising. What is surprising (or more surprising) is that these REGs registered the devastation of the Indian Ocean tsunami of 2004 before (supposedly 24 hours before) the earthquake that caused it occurred! Likewise they supposedly anticipated the 9/11 terror attacks in the USA. This then appears to be a future event “casting a shadow” on the present state of electronic devices, the REGs.

Depth

As for deeper hierarchically negentropic systems embodying greater degrees of non-locality (tenet 12), this is one of those “looks right” statements, but there is evidence on either side of this proposition. Entangled electrons are certainly not as deep a HN system as a person, and yet they appear to display perfect non-locality. And if we compare people and their companion animals, is it generally true that it is the people which are more “psychic”? Among Rupert Sheldrake’s more recent books is one entitled, *Dogs that Know when their Owners are Coming Home* (1999). The title of the book pretty much states his findings. Note that it’s not the owners who know when the dogs are coming home, though. So at least on that score, the shallower HN systems (the dogs) seem to have the edge. The third counter example concerns the Indian Ocean tsunami. It was found that no elephant keepers were killed in that disaster. When their handlers were interviewed, it seems that the animals sensed danger and took to the hills, taking the handlers with them. (Unfortunately I have lost the sourcing for this claim. Of course, even if it is accurate, it may have a more mundane explanation, such as acute hearing in the relevant octaves. Also it would be interesting to know when the animals became uneasy. Was it prior to or following the earthquake which caused the tsunami?) And of course there are the REGs associated with this event mentioned earlier.

And yet, and yet … albeit without too much data to back me up, I continue to believe that the most attuned people exhibit a greater degree of non-locality than our animal friends (not to mention our entangled electron buddies). One possible example of this is in the area of "distant energy healing." Of course this presupposes that one believes such a thing exists, but, in keeping with my *modus operandi*, I am not going to explore here the evidence pro and con, and just state that it does. Talented people are able to become a conduit of healing for others, even others in distant places. This skill requires a tuning in to the other as if space did not exist. In other words, one embraces non-locality. And although certain people can do this, there is no evidence that any other species is able to do so. Thus I confer the prize for non-locality to the species with the deepest hierarchically negentropic status on the planet. That would be us.

Now I realize that these examples are a long way from establishing tenet 12. However, if deeper HN systems have more interiority, which under the model they do, and if interiority correlates with independence from space and time, which psi effects suggest, then this tenet is likely true. On the other hand, it may be that this tenet has not been established to the full satisfaction of the reader (or, for that matter, the author). But there's an old saying in aeronautics, "If it looks right, it is right." As stated earlier, this looks right, at least to me. Whether it will fly or not, well, we shall see.

13. *Lower levels of the hierarchy in hierarchically negentropic systems have causal affects on higher levels and vice versa.*

14. *Also, causal affects operate from exterior to interior and interior to exterior.*

Down to up causality is just normal old scientific materialism. It is what Francis Crick was referring to when he said,

> You, your joy, your sorrow, your memories, your ambition, your personal identity and your free will are in fact no more than the behavior of a vast assembly of nerve cells and their associated molecules.

As a good reductionist, he would then deconstruct molecules into atoms, atoms into sub-atomic particles, etc. Whatever's at the bottom affects things above but not vice versa. We act, but since we are robots, our actions are just the workings out of sub-atomic particles. That's the view.

By the way, the view of people such as Richard Dawkins is slightly different than this, at least in emphasis. From their perspective the principle unit of causality is the “replicator,” which would be the gene in biotic systems. Everything the organism does can, in principle, be explained by these “selfish” actors (selfish, petulant, and, it’s not going too far to say, positively Hitlerian). The phrase “at least in emphasis” in the above sentence is meant to indicate that they are nonetheless on board with the enterprise of deconstructing the gene further into more basic actors. Dan Dennett explains this approach as reductionism (the gene is the principle actor) vs “greedy reductionism” (attempting to explain human behavior in terms of the quark or whatever).

In any event, the view here is that causality runs both ways. If you’ve got a headache, you can take an aspirin and that may solve it. Matter to mind. On the other hand, if you meditate you may be able to relax your body and the headache may go away. Mind to matter. A materialist would say that “you” “deciding” to meditate is just the working out of sub-atomic articles, which is why trying to argue all this out with a committed materialist is probably no more likely to succeed than arguing about the reality of evolution with a committed fundamentalist. Collingwood would say that they are exhibiting their “absolute assumptions.” These assumptions often exhibit what I sometimes refer to as “viewpoint lock.”

> There's a question, a certain question I want to discuss with you. It's a political question ... the question of marriage.
> It's a political question?
> Well yes. Everything's political. Like everything else the relationship between a man and a woman has a socio-economic basis. Marriage must be based on mutual beliefs, a common attitude and philosophy towards society.
> And affection.
> Well, yes, of course that it is also necessary. Such a relationship can have positive social value when two people face the world with unity and solidarity.
> And affection.
> At any rate I personally am in favor of such a socio-economic relationship.
>
> – from *Fiddler on the Roof*

A committed Marxist sees everything in terms of politics. A committed Freudian sees everything in terms of sex. A committed reductionist sees everything in terms of simpler units of matter. In the view here causality goes downward because higher levels of the negentropic hierarchy contain more interiority and interiority, at any level, “wants” to become more so. Thus the lower “wants” to conform to the higher (thereby becoming more negentropic) and is therefore amenable to “suggestions from above.” As others have conceptualized it, the organism (the higher negentropic system) imposes a probability field on lower levels of the hierarchy (organs, cells), causing these levels to probabilistically conform to this field. So upper to lower changes the probability of events “down there,” causing them to become less random and more patterned. Note that upper to lower does not eliminate randomness, only reduces it. Note also that the upper will typically delegate most of the action, and decisions, to the lower. You may be able to lower your heart rate via meditation, but typically you just let it do its thing. And in all likelihood you don’t even know what your spleen does, let alone how it does it. And it generally doesn't need any suggestions from you, the higher negentropic system, to do its thing (whatever that may be).

The same general analysis applies for out-to-in and in-to-out. The aspirin mentioned above can either be considered down-to-up or out-to-in. The most famous example of in-to-out causality is the "observer effect" of quantum physics. I take this effect to be the essence of this field of study for those us not immersed in the daunting mathematics and laboratory techniques of this discipline. Stated simply, the observation of a quantum system affects the system. Since all matter is ultimately made up of quantum systems (wave/particles), this can be stated as, *The observation of the universe affects the universe.* Merely the act of you (and perhaps your cat—or or Schrödinger's ☺) observing a system affects it. (Thus to Laplace's contention that were one to know the condition of everything in the universe, it would be possible to predict everything that came thereafter, the counter-statement is that the mere knowing, i.e., observation, of this would therefore change it. And if it is changed, one no longer fully knows it.) Many excellent popular books have been written on this subject, so I won't recapitulate the material here. But let's just take the most basic experiment, that of the double slit, for review. Nobel Prize winning physicist, Richard Feynman: "The experiment with two holes … contains the only mystery … of quantum mechanics" (quoted everywhere).

The protocol is that one has a light source, then a blocking screen with two thin slits in it, and then an observing screen on which one can observe the light after it passes the blocking screen. Because light is a wave (well, sort of), when it passes the blocking screen, it shows up on the observing screen as bands of light and darkness (assuming the slits are narrow enough), which are interference patterns. These are similar to interference patterns in a pond if you simultaneously throw two stones in the water. In some places the top of a wave from one stone will be in the same place as the top of a wave from the other, with the result that you get a big wave at that point, the addition of the two waves. In other places the top of one wave will be in the same place as the bottom of the other, and they will cancel each other out at that point. That's essentially what you observe on the observing screen, although the bands of light and darkness will be displayed horizontally, like a bar code.

Light consists of photons (which is why it's only "sort of" a wave) and these little "balls of light" can be shot one at a time through the blocking screen (although this is typically done with electrons). If you do that, you still get the interference pattern on the observing screen, which indicates that the photons are entangled across time (tenet 11). Now what happens if you observe which slit those little balls of light go through, that is, the left or the right slit? What happens is the interference pattern disappears and the resulting pattern is consistent, not with the interference of waves, but rather with what one would see if the little balls were actually little physical balls, say of paint. Observing the system affects the system. Even stranger one can observe the photons between the time they have left the blocking screen and before they have arrived at the observing screen, in mid-flight so to speak. So if they are waves, they have already passed through both slits (in order to create the interference pattern). Observing the photons in this manner, after the fact, causes their wave character to disappear and their particle character to reappear. This is called "collapse of the wave function," and it's about as much quantum physics as I'm going to present here. Bottom line: The observation of the universe affects the universe. Second bottom line: Observation now can affect the universe then:

"The universe is not [only] stranger than we know, its stranger than we can know."
– Richard Feynman

One note: There are supposedly about a dozen models of quantum physics, one for every taste:

> *First peasant:* Why should I break my head about the outside world? Let the outside world break its own head.
> *Tevye:* He is right. As the Good Book says, "If you spit in the air, it lands in your face."
> *Revolutionary:* Nonsense. You can't close your eyes to what's happening in the world.
> *Tevye:* He is right.
> *Second peasant:* He's right and he's right? They can't both be right.
> *Tevye:* (playing the role of quantum physics). You know, you are also right.
> – from *Fiddler on the Roof*

In the model I am using here ("you are also right") observation by a person (or cat) is not the only thing that collapses the wave function. Rather any flow of information from the quantum to the classical world does so. Otherwise the universe would have had to evolve for 14 billion years in super-position until a human (or similar) observer came along to flip it into classical space/time. A few quantum physicists subscribe to this model. But although all quantum models involve paradox, this is "a paradox too far" for my taste. Recall Paul Davies' speculation about the reason the universe is bio-philic above: "consciousness did it." In that speculation consciousness in the future (or at any time) affected (or affects) the very structure of the universe at the time of the Big Bang. If so, then sufficient interiority may be "baked in" to the structure of hierarchically negentropic matter to account for spontaneous collapse of the wave function ("objective reduction"). So in the model of quantum physics adopted here, leak of information from a quantum particle/wave equals measurement of that particle/wave equals observation of that particle/wave by a hierarchically negentropic system. (Thus another title for this essay could have been *Evolution and the Observer Effect*.) This is because observation (interiority) is an inherent aspect of hierarchically negentropic systems. I suppose paradoxes are like eggs for breakfast. You order 'em the way you like 'em.

15. *As reductionism only fully recognizes the former affects (lower to higher and exterior to interior), it is wrong, or at least incomplete.*

16. *Idealism, while not a major force in today's world, makes the opposite mistake.*

Reductionism.

Reductionism was briefly dealt with above (when I said it wasn't worth arguing with a person holding such a view: "At any rate I personally am in favor of such a socio-economic relationship"). The examples I gave were intended to establish that effects go both ways, lower to higher and higher to lower, as well as exterior to interior and interior exterior. Nonetheless, I echo the view of McFadden on this issue:

> All ideas have their time and I expect that the twenty-first century will see the flowering of quantum biology. Its roots can be traced back to Schrödinger's (1944) "What is Life," but

> though that slim volume stimulated many scientists (such as James Watson) to consider life's physical basis, reductionist biology needed to run its course and dissect living cells down to the level of fundamental particles before its full implications could be appreciated. I believe we are now on the brink of a new adventure which will bring about the synthesis of physical and biological sciences through quantum mechanics. (McFadden, 2000, p. 265)

Idealism.

Idealism comes in several flavors. The most extreme version says that everything is mental and nothing is real except perception. In other words all objects are mental objects. Amit Goswami, a quantum physicist, espouses a variation of this view when he says that the moon doesn't exist except when we (or presumably someone else) is looking at it – albeit, in his view, it does exist as a mass of zillions of quantum objects in super-position (Goswami,1993, p. 59). That's pretty extreme. And, needless to say, it is not falsifiable, although, to give him his due, none of the various schools of quantum physics can be ruled out (falsified). It does no good to say, "That's crazy." They're all crazy.

> Do not keep saying to yourself, if you can possibly avoid it, "But how can it be like that?" because you will get "down the drain," into a blind alley from which nobody has yet escaped. Nobody knows how it can be like that.
>
> – Richard Feynman

Most idealists, though, do not deny the existence of independent objects in the world. They just say that those objects are not *ultimately* real. God, mind, consciousness, or an equivalent is the only ultimate reality. So most religions are forms of idealism in this sense. And as with the hard-core reductionist, there's not much point in getting into an argument with someone about their God. ("At any rate I personally am in favor of such a socio-economic relationship.") Once again, the view here is that, either for all practical purposes or for real, interiority is a co-equal to matter/energy. And, once again, I don't ultimately try to figure out "who's on first."

> Who?
> Yes.
> I mean the fellow's name.
> Who.
> The guy on first.
> Who.
> The first baseman.
> Who.
> The guy playing ...

17. *Up-to-down and in-to-out causality are, to some extent, the same thing, since systems with deeper levels of hierarchical negentropy embody greater degrees of interiority.*

18. *Likewise down-to-up causality is, to some extent, the same thing as out-to-in causality.*

These tenets follow from the previous ones. Tenet 17 appears to embody the opposite property of these systems as laid out by Ken Wilber in SES in which he, following Francisco

Valera (a sometime collaborator with Evan Thompson), asserts that lower holons "see" their upper counterparts as being outside themselves (Wilber, 1995, p. 59), while here I am saying that such physical holons (hierarchically negentropic systems) "see" their upper counterparts as inside themselves. I suppose, according to Wilber's philosophy, the difference between these points of view would be that Valera is talking about the exteriors and I am talking about interiors.

In any event, as mentioned several times previously, the idea is that upper level HN systems impose something like an *information/probability (IP) field* on lower level HN systems. Exactly *how* this is done is "beyond my pay grade." How does gravity work? Until Einstein the answer was, *It just does*, and I'm no Einstein. (And for that matter, and in a similar vein, Darwin had no idea where heritable variation came from.) A problem is that while individual particles, such as a proton, can reside in super-position and thus can be amenable to a field effect from cells, for example (upper level to the proton), cells themselves are fully classical systems and thus cannot, in our current understanding (or at least in my current understanding), reside in super-position (unless they are cooled to near absolute zero, at which point they aren't of course living cells any more). (One could nitpick this and say that nothing is a fully classical object, but the above is close enough for my purposes.) So how does the an organ (like the heart) or the whole organism itself (like a cat) project its influence downward to the cell? Luckily this is a paper on natural philosophy rather than science, so hopefully I can get away with *It just does*. That's my plan anyway.

Okay, okay, I'll speculate. One possibility is that each level of an organism (advanced hierarchically negentropic system) has its own mind (or, if you prefer, "mind") associated with it. Single celled organisms have no brain, but they exhibit intelligence, a mind-like quality, in seeking food, avoiding prey, reproducing and the like. Likewise we may speculate that a "gut feeling" exhibits the "mind" of one's "gut" (i.e., the digestive region). A property of mind, it would seem, is to hold possibilities in super-position. When I am trying to decide something difficult, it feels like I am levitating the possibilities in mid-air and preventing them from collapsing to earth prematurely: "I could do this or do that or the other thing." So my speculation is that super-position at the atomic level is referred upwards via the various levels of mind (or "mind"), which also holds them in super-position. How? It just does. And, just to make speculation even more speculative, when we are trying to figure out something new, for example, the calculus pre Newton, possibly we refer it upwards to a "level of mind" above our own. At least that's what it feels like to many artists and scientists when the answer materializes in "mid air" so to speak.

A contrasting, more conservative, view on this particular issue is provided by Johnjoe McFadden. He states that "life is a system that uses internal quantum measurement to capture low-entropy states that sustain the state of the system against thermodynamic decay" (McFadden, 2000, p. 258). So far, so good. But while it's not totally clear to me whether he sees that internal measurement extending upwards from the level of cells to that of organs, and then to that the organism itself, my best read is that, in his view, it doesn't. However, he does see quantum processes linked to human consciousness. So in this view quantum effects are turned on (basic life operations), then off (level of the organs), then on again (consciousness) as one rises in the biotic hierarchy. Maybe. In any event, as stated above, the view here is that quantum observation/measurement does extend upwards.

By the way, compare McFadden's definition of life with the following definition by Amit Goswami.

> A living being consists of tangled hierarchical quantum measurement apparatuses that are representations of the vital blueprints of biological functions including, but not restricted to maintenance and reproduction. Such a being is capable of self-reference because in the process of quantum collapse involving it, consciousness identifies with the being. (Goswami, 2008, p. 129)

Pretty close, and because this book does not reference McFadden's, presumably independently arrived at.

19. *Taken to its logical end point, the ultimate hierarchically negentropic system would theoretically be totally non-local as to time and space and share an interiority common to all such systems lower in the hierarchy, including all life forms. The overlap between such an ultimate hierarchically negentropic system and what the religiously inclined call "God" is reasonably evident.*

20. *Because life continues to evolve, such an ultimate hierarchically negentropic system would logically also continue to evolve.*

I am not saying that there are any hierarchically negentropic systems above the human level. On the other hand, I don't see why there shouldn't be. Do we really think we're the best thing this old universe can come up with? If more advanced HN systems do exist, and if we are part of them, it's only speculation as to what form they might take. Perhaps the picture of a colony of cells, like a jellyfish colony, forming a single organism over evolutionary time provides an analogy. And possibly the internet might represent the hardware for the nervous system of such an organism's mind, a "precipitation" out of quantum space of a primitive world brain. As with the jellyfish prior to a united organism being formed, it may be that this upper level exists as a "virtual" or "implicit" system, an "attractor" that pulls the colony towards it. Further, if interiority is to any extent non-local, then it's just another jump to imagine that this world mind, if it exists, might form a cell in a universe mind, with other inhabited planets forming other neurons within the brain of this higher level mind (or, if you prefer, higher level being).

Naturally this is the purest of pure speculation, but it does, at least indirectly, come into play when I consider below how upper level hierarchically negentropic systems direct and create the "probability space" for their lower level counterparts. A premise of this paper is that this work, creating the "space" from which natural selection can choose, is the property of the HN system itself. This premise is in contrast to both neo-Darwinism (the creative, or option-producing, process is totally random) and to Intelligent Design (ID; God, or an equivalent, is the creative agent). However if interiority accumulates upwards, if, per Emerson, we are all part of some great cosmic ocean of consciousness in the deepest reaches of our being, then the view presented here is not totally incompatible with a *radically* liberal construction of the ID view. By analogy it is somewhat like the difference between a super-computer as a giant, unified hunk of iron (HAL in the movie, 2001, the ID view), or as a giant network of fairly dumb regular old personal computers chained to some purpose (the view here). The later is the standard way to create super-computers these days, and in some ways the internet is the ultimate version of this model (though, unlike a super-computer, the internet is not centrally directed… well, not unless Google has somehow secretly taken over our computers!).

The model here has intelligence distributed to the utmost extent, down to the atomic level and below. Which then accumulates upward, at which point the upper acts as an "attractor" on the lower (and, as speculated above, may do so even if the upper level is not yet formed but only exists in a virtual, implicit, or quantum form). So if there is such a system above the human level (or if it exists as an implicit form), then it may be directing a teleological "pull" on humanity. But, as I said, this is all total speculation, and all I want to do it to put it out there as a logical possibility. The system here allows, but does not require, it. (Similarly quantum physics allows for something like mysticism—remember Max mind-is-the-matrix-of-all-matter Planck—but does not require it.)

One major difference between even a radically liberal construction of Intelligent Design and the view presented here is that ID, in concert with the Modern Evolutionary Synthesis sees no biological creativity at the cellular level: "Cells are robots" per Michael Behe, prominent ID theorist (2007, p. 19). The neo-Darwinian view is similar: "Each one of us is a machine" (Dawkins, 1996, p. 3). The view here, in contrast, is that each level of a hierarchically negentropic system has, along with a degree of interiority, its own creativity. And the assumption is that these two, interiority and creativity, are linked for the purpose of maintaining or increasing negentropy.

One more thing. Prominent contemporary objectors to religion and to the idea of God such as Messrs. Dawkins (2006), Dennett, Hitchens and Harris (2004), most basically object to the idea of a supernatural Entity (or entities). If the laws of physics don't allow changing water directly into wine (whether Chablis or Chardonnay) then we can't credit stories of chaps doing exactly that. In other words, their books on this subject essentially object to pre-rational, bronze-age thinking, of which they lovingly recount many florid examples. Fine. But what I am talking about here is something else. It is whether interiority is a byproduct of matter at a certain level of complexity (their view), or alternately whether the embrace of interiority and negentropic matter goes back to first principles in somewhat the same sense that mass and spin go back to first principles. And, if this latter view is correct, as I and many others claim, then what might be the implications for evolution? The first view envisions the evolution in the universe, by analogy, as a tumbler of dice connected to a machine. The second, echoing Sir James Jeans in a quote above, sees nearly the opposite: "The universe begins to look more like a great thought than a great machine."

The Picture

Such are the tenets, but I haven't really sketched a picture of how these might actually operate in evolution. For a start, my view is that the Darwinian proposition, that natural (and sexual) selection drives evolution, is largely correct. But I argue here that neo-Darwinism, under which random mutation alone creates the design space from which natural selection picks and chooses, is too narrow to account for the data at hand. This is not to deny that an “arms race” (Dawkins) between genes takes place at their level. It does. It’s just that there is more going on, on more levels, than that metaphor allows for. I will start out with an example that illustrates a problem with both the neo-Darwinist (MES), and the Intelligent Design (ID) approaches. This example is taken from *Quantum Evolution* (McFadden, 2000, pp. 271-272).

Tuberculosis (TB) is an extremely deadly pathogen. Initially, it was successfully treated with streptomycin. However, in time TB developed a resistance to this antibiotic. This is explained straight-forwardly since a resistant mutant will generally be found in one in every 10^8 bacilli. However, the human body can harbor 10^9 of these bacteria, so it’s just a matter of time before a successful mutation will take hold and multiply. The response to this was to start treating patients with multi-drug therapy. If mutations in TB conferring resistance to a drug A occur in one of every 10^4 bacteria, and to drug B in of every 10^5 bacteria, then a mutation that successfully withstands both drugs should occur in one of every $10^4 \times 10^5$ or 10^9 bacteria ($10^9 =$ 1,000,000,000, or one billion). With four drugs combined one would expect a successful mutation in one of 10^{24} bacteria. This is about 2.2 billion pounds worth of TB, way more than exists in the world, let alone in any one patient, obviously. According to standard neo-Darwinist theory, it’s useless for a TB bacillus to develop resistance to just one drug, since it won’t pass along any progeny to develop resistance to the second drug. It’s like an obstacle course (except that you, as a tuberculosis bacillus, can take obstacles in any order you wish). If you get eliminated by the wall-climb, you (or actually your progeny) don’t get to go on to the ropes, etc. Therefore multi-drug resistant TB should never develop because all TB bacilli should be eliminated after the second or third “obstacle.” Yet it does, and it’s a major health problem throughout the world. This phenomenon is sobering when one contemplates its unfortunate implications for the development of permanently-efficacious antibiotics.

This is a very simple biological problem and yet, unless further research indicates otherwise (which, obviously, it could do), neo-Darwinism can’t successfully solve it (a statement to which I would not expect assent from the biological orthodoxy). And according to McFadden the same analysis can be applied to cancer (McFadden, 2000, p. 273), another health scourge. So the Modern Evolutionary Synthesis appears to be in trouble, even if this isn’t generally acknowledged. Naturally this example is not much solace to proponents of Intelligent Design either, at least if God is the presumed agent that overcomes “irreducible complexity,” of which multi-drug-resistance is an elementary example. We would have to imagine a God Who is working overtime to loose pathogens on the human race. (Perhaps a cousin to the Sociopath of the Old Testament? Strangely enough, Michael Behe in *The Edge of Evolution* actually entertains such a morbid viewpoint when he asserts, “Malaria was intentionally designed” (Behe, 2007, p. 237). Yes, it’s conceivable (if just barely), but it doesn’t seem likely. Following a dictate of Achem’s Safety Razor (sic), we should probably endeavor to keep miracles to a minimum, especially if they are the type that kill us.

The next example concerns the work of Harvard biologist John Cairns and colleagues, who, in the 1980’s, studied a strain of Escheri Coli bacteria. Normally this particular strain is unable to metabolize lactose. But when they exposed the bacilli to lactose and deprived it of all other foods, the bacteria became the beneficiaries of a mutation allowing lactose metabolization, while a control group, not deprived of other foods, had no such beneficial (to the organism) mutation. This appeared to be directed (or "adaptive") mutation in defiance of neo-Darwinian principles, under which all mutation is random. When these results were published in the prestigious journal, *Nature*, it set off a furor. (Of the resulting papers my favorite title asks, *Has the Unicorn Landed?*) Following that uproar Cairns did back off somewhat in his initial claim as to the degree with which mutation was (or appeared to be) directed, subsequently claiming only (only?) that the rate of mutation was preferentially directed to a particular *region* in the genome. In other words, one address of the genome, an address relevant to the environmental stress the organism was encountering, was made to mutate faster than it normally would, and faster than addresses on either side of it.

> Others such as Professor Barry Hall at Rochester University have also detected adaptive mutation in a variety of bacterial systems. In one of his most recent experiments, Hall measured the mutation rates in non-growing E.Coli cell for two different DNA bases in the same gene. When neither gene was beneficial, then mutations occurred at the same rate, but when one conferred a selective advantage, then its mutation rate was enhanced. (McFadden, 2000, p. 263)

While these examples are not as dramatic as (my understanding of) Cairn's original claim, they still appear to represent an organism shaping and directing its genome. We might call this "soft" directed mutation. What is clear is that there is *some* level of downward causation going on here. It's simply a matter of degree. As alluded to below, the view of McFadden is that these mutations happen in quantum space, and then are precipitated out when they can be utilized by the bacteria to aid in their survival.

Another similar example of what may be adaptive mutation is recounted by Brown University biologist Ken Miller in his book, *Only a Theory* (2008, p. 80), in which he recounts the story of bacteria which apparently adapted to metabolizing nylon in the absence of other foods. Miller, who doesn't deal with adaptive mutation in his book, offers this as an example of general biological creativity in evolution. In contrast to the Cairns experiments (and despite language in the book to the contrary) here the bacteria were apparently not facing starvation but rather something more like prolonged hunger (personal communication), and thus more normal MES principles may have been in play.

As suggested in the opening of this essay, the Cairns experiments may represent a kind of Michaelson-Morley experiment for our time. To repeat, that former experiment ruled out the luminiferous ether (or at least put a couple of torpedoes in its hull), and set the stage for Einstein's relativity theory. The Cairns experiments, in the view of some (if by no means most) scientists, rules out the heart of the Modern Evolution Synthesis formulated in the first decades of the twentieth century, as the sole mechanism of genetic adaptation. Per the result of Cairns (and others), genetic mutation is, in part, directed by the organism (or the organism and its environment) and is therefore not totally random as required under neo-Darwinism. Therefore these researchers have demonstrated downward biological causation (see one take on this here http://www.kenarenson.com/uploads/Memo_re_Directed_evolution.pdf).

The next example is somewhat similar to the above. However, it demonstrates beneficial (to the organism) mutation in a body of cells not exposed to a toxin, apparently picking up information on selection pressure from a subset of these cells that are exposed to it (Hill, 2000). The head researcher was Miroslav Hill from the Medical Faculty, Brno, Czech Republic. As best I understand the protocol, Hill and his colleagues grew hamster cells in culture, separating a portion of the culture in each period, and exposing them to a toxin, with the main body of the culture remaining unexposed. The reason for doing this was to simulate a much larger body of cells exposed to the toxin. In this way, the researchers could determine what percentage of cells randomly mutate to confer resistance, as under the MES. At first all the cells in the separated portion (those exposed to the toxin) died. After a number of repeats a few cell colonies resisted the toxin, then many did so. Interesting. And even more interesting, the main body of cells, which were never exposed to the toxin, *also* acquired resistance to the toxin. This is totally in conflict with neo-Darwinian principles. This example, emailed to me by Dr. Sheldrake, indicates how his proposed morphic (information/probability) fields may fit together with neo-Darwinian genetic evolution (although he has not, as far as I know, formally developed this line of reasoning). Namely (this is my interpretation) the unexposed cells may share a dilute version of the environment experienced by the exposed cells. Vaguely similarly to the way we can acquire resistance to polio or the flu by being exposed to a dilute version of these pathogens, so the unexposed cells may be "inoculated" by virtue of the experience of their exposed "brethren." Thus some form of at least partial non-locality (entanglement) seems to be connecting the cells either by a "morphic" (information/probability) field, or by some other means. (For a fuller description of Hill's findings see the 2009 revision of Sheldrake's *A New Science of Life*, pp. 258-262)

The final example is what amounts to a kind of folk observation. And that is that camels, kangaroos, and people, among other species, all have calluses where they need them, and nowhere else. Are we to imagine that a callus-conferring gene was established and then started slapping areas of thick skin on the bodies of camels higiley pigiley, with natural selection sorting out that a callus on the top of one foot or the inside of its intestine isn't of much adoptive value? Which is more likely, that totally random mechanism, or one where some kind of feedback loop exists between the animal and its genes (phenotype to genotype), that is, some kind of neo-Lamarckian mechanism? (Darwin, quoted earlier: "From the facts alluded to in the first chapter, I think there can be little doubt that use in our domestic animals strengthens and enlarges certain parts, and disuse diminishes them; and that such modifications are inherited.")

I think the answer is reasonably evident. However, neo-Darwinists don't see it the way Darwin did. Richard Dawkins devotes a number of pages in his *The Blind Watchmaker* (p. 298 onward) to debunking what he identifies as this "myth." His main point is that genetics is a recipe (mix two cups of flour with a tablespoon of yeast, etc.) as opposed to a blueprint (e.g., of a house). So there is no one-to-one correspondence with a genetic trait (calluses on the bottom of feet) and a gene. (Of course Mendel found exactly such one to one correspondences, but this is not important for the argument here; we can concede that these correspondences don't normally exist.) Therefore there might be a gene (or series of genes) that say, in effect, "If a patch of skin gets rubbed, make it thicker." This would then explain thicker skin where kangaroos are abraded, but it leaves out any explanation of why a "joey" (baby kangaroo) would have appropriate calluses "in utero." If we imagine an "uhr-kangaroo" with no calluses as a joey but with thicker skin as an adult, how does it come to pass that this trait gets transmitted to the unborn infant? Once again, under the neo-Darwinist (but not Darwinist) viewpoint it would seem that evolution must have slapped calluses here and there and let natural selection work things out. The trait for forming calluses where needed seems straight-forward, but the trait for pre-formed calluses, in the absence of phenotype to genotype feedback, does not. In my mind anyway, Dawkins and his cohorts have not made the case. (This may be another instance of, "If all's you've got is a hammer.…")

McFadden, a minority of other biologists, and the quantum physicist Amit Goswami, among others, believe that instances of partially directed mutation exist. And while this seems fairly evident from the work of Cairns and others, it is nonetheless not accepted by most biologists, wedded as they are to neo-Darwinism orthodoxy. As mentioned earlier, per McFadden the mechanism for this phenomenon is quantum measurement of atoms along the DNA molecule by the cell and its environment. I provisionally accept his proposed mechanism, but I am not going to even attempt to explain it here except to say that the general idea is that in quantum, as opposed to classical, space, the genome can explore myriad different permutations all in "superposition" prior to measurement and precipitation into classical space, which happens once a genome is able to replicate (e.g., by being able to metabolize lactose). As I have alluded to previously, in his view this process is confined to single-celled evolution, with neo-Darwinian processes taking over at the multi-celled level. (For details see McFadden's *Quantum Evolution*).

But here I am casting my net somewhat wider, albeit in a less "nailed down" scientific way, and more in a way compatible with the term, natural philosophy. First of all, I surmise that the same process implicated in directed mutation is also at work in novel molecules crystallizing (and in protein folding) a la Sheldrake. I also surmise that, much as a cell may precipitate a directed mutation, or a series of them, out of quantum space, so the same general process is at work when someone, and very often two people simultaneously, precipitate a new idea out of who-knows-where (the noosphere? the quantum multiverse?): Darwin and Wallace (evolution by natural selection), Newton and Leibnitz (the calculus), Freud and Jung (the unconscious), the list goes on.

As suggested earlier, it may be that what McFadden sees as an act of "quantum measurement" is simply the outside of what from the inside is "perception" by the interiority of a hierarchically negentropic system. This is more or less Goswami's view, although he tends to conflate that interiority with "quantum consciousness" in the largest possible sense, that is, with God. In his view things can be made to fall in place "when God-as-quantum consciousness is recognized as the organizing principle of creative evolution in biology" (Goswami, 2008, p. 44). My preference is to limit use of the "g" word, as I find it generally just confuses things (gather a thousand people and you will likely get a thousand different definitions for god). So in the tentative formulation envisioned here, higher levels of a HN system perceive (measure) lower levels, which prior to this perception (measurement) exist in a state of indeterminacy, and thus the upper level chooses, or at least probabilistically influences, the lower level into a preferred (by the organism), more negentropic, state. Once again I am not attempting to posit the mechanism of this perception/measurement except to speculate, as above, that lower HN systems may have a kind of proto-mind (or "mind") of their own, which has the effect of suspending "virtual" states in super-position. (I would also note in passing that according to the traditions of Idealism east and west, there *is* no mechanism, just as there is no "mechanism" for the charge or spin of a particle. This correlates with the view presented here that interiority is an inherent aspect of hierarchically negentropic systems, that hierarchical negentropy and interiority are basically the same thing as seen from different perspectives).

So when a high level hierarchically negentropic system intends an outcome from an indeterminate future, what it may be doing is perceiving/measuring one among perhaps trillions of outcomes super-positioned in an indeterminant quantum space. And by actively perceiving it, causing (or, more likely, probabilistically influencing) it to happen. (Thus the admonition to not focus on outcomes you don't want to come into your life, which, of course, has to be balanced against noticing that truck bearing down on you).

The Hypothesis

So, my hypothesis is as follows: Hierarchically negentropic systems are associated with partially non-local information/probability fields. These fields entail or express interiority and carry information, in the form of solutions, to other similar HN systems directly ("entangled learning"). In biotic forms of HN systems two additional factors come into play. First, this information is carried in particular to progeny, which process could be considered to constitute non-genetic (or "Sheldrakian") evolution. Second, the field effect of this information causes otherwise random mutation to become somewhat non-random, thus partially directing genetic evolution via quantum observation/measurement. Evolution in all domains is best understood from a dual "inside" (observation) and "outside" (measurement) perspective.

Regarding genetic evolution, Richard Dawkins has said,

> We can imagine (just) a form of mutation that was systematically biased in the direction of improving the animal's adaptedness to its life. But although we can imagine it, nobody has ever come close to suggesting any means by which this bias could come about. (Dawkins, 1986, p. 312)

My speculation is that the above information/probability field effect may be that means.

Kauffman and Thompson

Reviewers of earlier drafts of this essay suggested that I should contrast the views presented here with those of Stuart Kauffman and Evan Thompson. For the former I refer to his *Investigations* (2000) and *Reinventing the Sacred* (2008). For the latter I refer to his *Mind in Life* (2007). I am not attempting a comprehensive critique of these writings, nor I am claiming to have fully mastered the theory of either writer. Kauffman appears to believe that autonomy and interiority vanish below the level of autocatalytic sets, and Thompson similarly believes that they do so below the level of autopoiesis, whereas I am saying that "entangled learning" and presumptively interiority exist at least at the molecular level, if not lower. Autocatalytic sets are chemical reactions which are self-creating. So if we have four chemicals and they are related such that

A → B → C → D → A

then these are autocatalytic. Autopoiesis adds the conditions that the set is bounded in a membrane and that it reproduces itself as a set. So to self-creating, add self-reproducing. Both gentlemen believe that below either autocatalysis (Kauffman) or autopoiesis (Thompson) it's "all just physics," by which I mean that the principles embodied in the Abstract at the beginning of this essay do not obtain:

It is hypothesized that hierarchically negentropic systems (defined herein), including organisms, are associated with partially non-local information/probability fields which, a) entail or express interiority, b) engender "entangled learning" with similar negentropic systems, and c) cause otherwise random processes, including mutation in biotic systems, to become somewhat non-random.

I am saying the evidence seems to indicate that even molecules (and presumptively more basic constituents of matter) "learn" (Sheldrake), and that this "learning" appears to have the same non-local characteristic which is associated with conscious learning of, for instance, rats or people. In particular I am suggesting that the DNA molecule participates in this kind of "learning," and that it is amenable to being affected by the consciousness of organisms of which it is a constituent part. Furthermore, I am saying that hierarchically negentropic systems of all sorts, not just organisms, embody something akin to consciousness, namely "interiority," which is associated with this learning.

Both Kauffman and Thompson profess "emergent" views, which is to say that at some level, for instance autopoiesis, something emerges that was not present before. In a general sense this is obviously true. Cats clearly act differently than rocks. On the other hand, if rocks are totally mechanical, fully explainable in terms of physics, then where does this "something" come from? A very, very complex machine is, after all, still just a machine. Neither Kauffman nor Thompson answer this question. With others, I am saying that qualities we identify with living systems, interiority among others, exist, at some dilute degree, even in matter at its most basic level. In a sense I am saying, as against Kauffman and Thompson, that there is no such thing as totally "dead," "insensate" matter. Furthermore it appears to me that quantum processes are implicated in interiority (and vice versa). And as a concluding generalization I would say that, with others, my model embodies a vision of mind/interiority that is joined to hierarchically-organized matter at a much deeper level than envisioned by either Kauffman or Thompson

The Model

With tenets introduced and discussed, and my hypothesis given, it is time to present the model. Parts of the model presented below are based on evidence. Other parts are conjectural.

Organisms, advanced hierarchically negentropic systems, attempt to survive, to maintain their negentropy, both in themselves and through their progeny, as well as, to a lesser extent, through genetically related organisms (and perhaps through other organisms related in some other way, co-religionists for instance). They also feel a teleological pull towards greater negentropy, and towards greater interiority (the same thing seen from the "outside" and "inside"). These dynamics are at play both at the genetic level ("selfish genes" want to propagate themselves as portrayed in sociobiology), at the level of the organism, and at the level of the species (and perhaps higher). Every hierarchically negentropic system is attempting to maintain or increase its negentropy. Thus genes direct the organism, but the organism also directs the genes via partially "adaptive" mutation (Cairns). This is done via the creation of an information/probability (IP) (morphic) field by the organism. And genes as well as other hierarchically negentropic systems, such as organs, also create their own IP fields (and thus have their corresponding levels of interiority).

There is "something that it's like" to be in such a field. This feeling is the interiority, or proto-consciousness of the organism, projecting outward into the environment, and downward into its organs, cells, and genes (and further downward to atoms, etc.). When the field maintains itself, life is maintained. Same thing. When the teleological "pull" of the next higher field (i.e., from a higher level negentropic system, which may only exist as an "implicit" reality in super-positional quantum space) comes into play, this is the action of directed evolution. (For those familiar with his writings, this is an example of Dan Dennett's prohibited – by him – "sky hooks.") If the "feeling" of this higher field could be translated into human language (which it can't be, and which of course represents outrageous anthropocentrism), it might be something like, "I wish I could swim faster" or whatever ("thought" by millions of fish). In other words, it's not just an abstract thought (to the extent that the organism—or molecule for that matter—in question can formulate a thought), but a "thought" backed by desire, the desire to live, to strive against entropy, which is the most basic desire of any organism (or other hierarchically negentropic system). So organisms "push" against, and shape, their "genome space" in the same general manner that people can "push" against the probability field of a Random Number Generator, causing it to become slightly non-random.

If a gene is precipitated out of the quantum genome space, which is useful in helping the organism to survive better, then this "solution" (the gene) becomes more likely to be precipitated by other similar, or identical organisms elsewhere. There's "something in the air" concerning a solution, and these related organisms then become more likely to "chance upon" the same mutation. This mutation may pop up simultaneously, or near simultaneously, at various locations around the world. And the more it precipitates, the more likely it becomes to do so. (This is an extrapolation of Sheldrake's finding.) At the same time, normal neo-Darwinian processes are at work, and those organisms that acquire the lucky mutation from their parents likely will have more offspring. And on it goes.

As explained earlier, in McFadden's view quantum evolution, roughly the process described above (albeit without reference to the "inside" interior dimension of things) ends where Darwinian evolution begins, which he sees being with multi-cellular organisms. The view presented here is contrary to his in this respect since I speculate that macro-evolutionary jumps—for example, mammals take to water and breath through their backs—need the "juice" of quantum superposition. In this respect, the view expressed here is similar to Goswami's, who sees a swing between neo-Darwinian (micro) and quantum (macro) evolution when big jumps happen. However, what exactly the mechanism for this might be is unspecified here. If the view here, that quantum evolution continues after Darwinian evolution gets traction, is correct, then perhaps the "butterfly effect" (that tiny changes in one place can cause large effects elsewhere), may be a part of the mechanism. In other words, tiny (initially quantum) changes may be amplified upwards into macroscopic morphological changes. After all, even in the standard MES view, changes in a few genes can produce these large kinds of effects.

So, at certain times in evolutionary history greater challenges (or opportunities) will arise. In these cases it isn't just one gene that would allow a biological jump to be made, but perhaps a whole family of genes. These are the "irreducible complexities" of Intelligent Design proponents (although most of the examples these proponents cite, such as the development of the eye, probably have satisfactory gradualist, neo-Darwinian explanations). In this case a whole series of super-positioned genotypes have been propagating in quantum space (alternatively, in the multi-verse). When one of these "hooks up" to the phenotype (the organism) in such a way as to increase negentropy (and replicability), then this "quantum genotype" is precipitated out. In short order (geologically speaking) fish take to land, land animals to water, dinosaurs to the air, organisms learn to navigate great distances, they become warm blooded, produce live young and acquire the means to suckle them, acquire opposable thumbs, their brains grow explosively, and the list goes on. (If species on the top of negentropic "hills" are ever separated by entropic "valleys," then something like this must necessarily be involved since the MES requires each genetic change, if it is to be propagated, to be "higher" than the adjacent phenotypic space. It is unclear to me whether evolution presents such a "hilly" landscape.)

Moving down the evolutionary scale to the pre-biotic, the same kind of process happens when novel molecules learn to crystallize for the first time, only this time genes are obviously not involved. The molecule "wants" to crystallize, and it projects a probability field with this "desire" (outrageous anthropocentrism again). This projection pushes on the quantum version of the molecule, which is going through perhaps trillions of permutations all at once, all in quantum super-position, until, finally one, with a local energy minimum, precipitates out into classical space, and the molecule crystallizes.

This exploration in quantum space may be random, or non-random. As covered earlier under the double slit experiment, an aspect of quantum reality is that these processes can't be directly perceived since perception causes them be become non-quantum. Therefore, the question of random vs. non-random may be impossible to determine one way or the other. (This fact allows Brown University biologist Ken Miller [1999], devout Catholic and Intelligent Design debunker mentioned earlier in relation to the evolution of nylon-eating bacteria, to tuck God into quantum space, behind the "Planck Curtain," so to speak.) If it is random, then this exploration is more-or-less neo-Darwinian, only transposed from classical to a quantum reality. As Dawkins says, "mutation is not systematically biased in the direction of adaptive improvement" (1986, p. 308). So likewise here in a random exploration within quantum space (i.e., if the exploration is random). Besides the (hypothesized) fact that this process is happening in quantum vs. classical space, the other difference is that, while under the MES the sorting out is done via natural selection (which, of course, has no applicability to the pre-biotic world of molecules) here it is done via entanglement of a "virtual" (quantum) molecule and classical reality in which a precipitated version of that molecule conforms to an energy minimum. This is basically the same process McFadden covers in his description of how quantum versions of gene mutations become entangled with classical reality once the corresponding classical version becomes capable of replication.

Once this crystallization happens, other identical molecules “tune in” to this solution and begin to crystallize in the same way (Sheldrake). And the more it happens, the more it happens, until they all crystallize similarly. Thus the atomic properties of a molecule do not constitute all the information contained in (or perhaps around) it. A molecule that has “learned” to crystallize is different than an atomically identical molecule that has not. Where that information resides is a question for which I don’t provide a hypothesis other than to surmise that it presumably must be in some kind of partially non-local quantum space. Actually this is not-dissimilar to the standard notion (beloved most especially by mathematicians and theoretical physicists) that the laws of nature reside in a kind of “Platonic” realm, so that they were in place from the “git go” 14 billion years ago. (Sheldrake explores this in *The Presence of the Past*, in which he speculates that perhaps the laws of the universe could more accurately be termed “habits” of the universe. I don’t know. Of course, if they are habits, they must be formed according to some laws, so we can’t escape more or less Platonic law altogether.)

Moving to the other end of the evolutionary scale, to *homo sapiens*, the same process is also at work but, as with molecules crystallizing, again largely not genetically (although neo-Darwinism remains in place). People learn a skill, say taking intelligence tests. Of course, there are no appreciable genetic changes from one generation to the next, and yet people get better and better at taking these tests (Shermer, mentioned earlier). Are they getting smarter? Unlikely. More likely they are altering the energy fields permeating their heads so they can perform these tests better. When one person does it, that makes it easier for the next to do so. If a million people learn to do calculus, or to skateboard, or to operate a computer, or whatever, this makes it that much easier for the millionth and first person to accomplish the same task (Sheldrake). This may represent post-genetic evolution (although non-genetic evolution may be a better term since it is shared with, e.g., pre-biotic molecules).

The End

Likewise with *satori* experiences of “at oneness” with the universe. The more people have them, the more people have them. Of course these, like all experiences, come and go. But they also leave a residue. After such an experience things are not quite the same. The idea that we all share the same consciousness in our deepest interior ceases to be ridiculous and starts to seem like a perfectly reasonable concept. The idea that life after the death of the body is like another country vaguely sensed beyond the broad horizon of the earth seems at least plausible, if not really explicable. As does the concept that one could be a conduit for healing of another, drawing on the energies of the universe, the conscious universe, the conscious, loving universe. Infinite negentropy somewhere. In one’s deepest soul. It’s a thought that remains, sometimes in the form of a sketch for a New Model of Evolution.

Well, there it is. Like any sketch, this one is a little rough. After all it *is* a sketch, not a fully formed picture. But I intend to start work on the picture in due course, having bought a canvas and the oil paints, and having moved these into the drawing room. In the meantime, if any readers find egregious errors in fact or logic in what was presented here, I would appreciate having these pointed out to me since I want to paint the subject as accurately as I can, “warts and all.”

"I want to know God's thoughts; the rest are details." – Albert Einstein

“You can explain things for people, but you can’t understand for them.” – Felix Rohatyn

“Science progresses one death at a time.” – Niels Bohr

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A Leadership Journey:
Personal Reflections from the School of Hard Knocks

R. Scott Pochron

Abstract: The following paper chronicles the evolution of the author's thinking on leadership through the course of his work experience. Leadership is viewed as a dynamical process involving both formal and informal roles. The process is initiated as an individual identifies opportunities and feels pulled to respond to emerging patterns and initiate action to enable positive change. The dynamics between formal and informal leadership structures and leadership as a state of mind are discussed.

Key words: Adversity, complexity, fundamental state of leadership, leadership, requisite organization, self transcending construction.

The following paper presents a reflection on my personal journey and evolving understanding of leadership based on my work experience over the past 17 years. As I look back on the time, I recognize that much of my current interest in leadership and complexity has evolved from crises that have I have confronted and attempted to overcome. This paper chronicles the development of my thinking on leadership.

Stages in the Journey

Through my career I have seen various touch points that have shaped and influenced my perspectives on leadership. Fundamentally I have experienced my role as a leader as one who articulates and puts into action a vision for a future that inspires others to join in … at least to a point. Frequently along the way it has been the disequilibrium of resistance to that vision that has been the greatest influence on reshaping my focus and thinking about leadership, as I've struggled to overcome obstacles. I have come to see leadership as a dynamical distributed process among actors.

There are some fundamental principles that have driven my beliefs about leadership as a process. In this regard, I believe I have adopted an informal methodology akin to grounded theory, as I take in information about an area of concern, formulate a theory about how to address it and then test and modify that theory through active engagement. Frequently I have found that additional learning (through books read on the subject of inquiry) have supplemented the theorizing process, and not inconsistent with grounded theory methodology where review of the literature often occurs after initial data and theorizing has started (McGhee et al. 2007).

There have been peak events through my career that have shaped my perspectives on leadership. However, the past eight years working for a large multinational company have served as the informal laboratory for the development of my thinking that has lead to my current graduate studies in Leadership Dynamics.

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I recall the bittersweet excitement of joining the company. I had been employed as CIO for a smaller publicly traded company that was subsequently acquired by the larger multinational company (about 60,000 employees globally). I had worked through the emotional transition as operations were shut down and transferred to new corporate headquarters. Of the 150 employees in the company, only about 10 of us were offered permanent positions and relocated.[1]

My new position in the acquiring company was, in my opinion, a dream job – devising a long-term strategy for the growth of a key business unit from a process and technology perspective. I quickly noted operational problems and developed recommendations to address them. However, my dream was quickly shattered as I soon realized that what I was hired to do and the willingness of the management team to embrace new ideas were not necessarily aligned. Over the past eight years, I have watched as the company has grown substantially – largely through acquisition – and yet somehow continued to suffer from the same challenges I noted when I first joined.

Organization as Organism

My first day at work with the new company, I was struck by the tyranny of meetings that absorbed so much time there was no time left to do work. Employees were frustrated because they did not have access to their managers for direction. Projects were not being completed in a timely manner because the subject matter experts needed on them were double or triple booked and unavailable. Organizational beliefs about collaboration required all key employees that were stakeholders to a project participate in discussion and decision making. Yet, decision making was an extremely slow process as there was no clarity (with the exception of a handful of senior executives) as to who had decision making authority. Very often a meeting would be called to make a decision. A group would gather and discuss the issue, but because one key person was not present (double booked in another meeting!) the decision could not be finalized. So another meeting would be called and on and on it went as a never ending caucus-race.

While I was brought into a company as a change agent and explicitly tasked to bring strategic change to the business unit to which I was assigned, I quickly realized that this was not truly the case. Interest in change was driven solely by the immediate short term demands of specific clients, executives or what did not significantly impact the status quo. At this time I managed a team responsible for coordinating technology related projects for the business unit; I also reported to the Executive Vice President of the business unit. At one point I had a lengthy conversation with him about problems in the way we were working with the larger IT department. That conversation ultimately resulted in a reorganization in which a new VP of IT was brought in, the team that reported to me was passed on to someone else, and I was to report to this new boss as an independent contributor.

This transition was an extremely difficult period for me, yet significant in shaping my views of leadership. First, I went through a season of deep self searching as I worked through the shift from manager to independent contributor. This was a period of deep reflection on my sense of identity, my values, and sense of personal integrity. I interpreted this transition as the system self-organizing and engaging a new way of addressing IT within the business unit (a significant process improvement), however the reorganization left me in a shadow role to what I was originally tasked to do. A new major acquisition had just been signed and the focus of the whole company had shifted from future strategy to short term integration. After about six months in this position, I moved out of the business unit to work in a new role within the larger parent company.

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[1] I will speak more about what I learned from this difficult transition in a later section.

Leadership is largely about exerting influence in a manner that encourages others to follow to a desired outcome. Various authors have come up with definitions along the way. My favorite remains Sun Tzu in the *Art of War*: “The way [of leadership] means inducing the people to have the same aim as the leadership, so that they will share death and share life, without fear of danger” (Sun Tzu, 2005, p.43). For Sun Tzu, leadership was about strategy, relationships, and a dynamic that aligned a shared vision that might also call on those so aligned to take action that may transcend personal self interest; the definition also recognizes the collaborative dynamic that leader and follower share in participating in this vision – both share the benefits and risks in its pursuit.

Understanding this inner dynamic of shared vision was also consistent with other schools of thought that I had aligned with. Senge’s works (1990; 1994; 1999) on learning organization theory reinforced the need for personal mastery, defined as an openness to question one’s own perspectives – the mental models that frame one’s understanding of how the world works as a starting point for learning. Additionally, Senge’s work introduced me to systems thinking and understanding the integrated wholeness of organizations. This perspective was reinforced by my studies of Neurolinguistic Programming and Neuro-Semantics, which provided a rich model of understanding human communications and the way in which we construct our mental maps of the territory. A key learning for me was the principle that “the person with the most flexibility exercises the most influence on the system” (Bodenhamer and Hall 1999, p. 81). This principle reinforced the importance of self mastery, driving the point that the person who exercises the greatest mastery over their own behavior and attitudes is able to exercise the most influence with others. Quinn (2000) also supported this notion by emphasizing that transformational change occurs when we choose to change ourselves – often by choosing behavior that is self sacrificing in nature. I made the commitment to learn to be the difference I want to see in the world, and develop my personal flexibility within the corporate system.

I found this conscious decision to be freeing and challenging at the same time. Freeing in that I found myself liberated from a sense of self that derived value from titles, and power roles (I realized in my changing role, that I had part of my self-identity in the work context was tied to having employee relationships). This commitment was also challenging as I began to explore the process of leadership outside the mainstream hierarchical power structure that could mandate action through positional authority. As an independent contributor I found myself free to lead in a variety of ways, emphasizing the importance of influence in the contexts that I was called to serve in.

I also mentally stepped back from the situation and began to look at the business, its internal and external stakeholders, and the parent corporation as an interwoven system of relationships that in many ways behaved as a living organism. From time to time I would go out to a hill on the property that overlooked the corporate offices. I would envision the ebb and flow of people as they moved about their work, the processes of various departments that enabled this organism to be successful. I also realized that it was a lack of attentiveness to the signs of *dis*-ease in the organization that most often resulted in a flurry of activity when minor symptoms evolved into major problems. I recognized that an aspect of leadership is to discern this ebb and flow of the organization and identify the systemic pain points proactively – early enough so that adequate time is available to resolve the pain points *before* they become serious.

The challenge I noted was that pain measures the threshold for attention in light of competing demands. Very often key issues remain untouched solely because the situations have not reached the pain point necessary to capture adequate attention. Part of this appeared to be an issue of prioritization; part an issue of prevailing beliefs (operating as a perceptual filter) within the culture that influence what employees attend to. Busyness and firefighting were perceived as good customer service and rewarded, rather than finding ways to proactively reduce the impact to effectiveness and efficiency of employees and the customer experience through better process. In this I recognized that assessing *organizational readiness* – the ability to see and overcome limiting beliefs to engage in self-transcending construction2 – was a critical skill of leadership. The leader who can recognize the thresholds of organizational readiness is able to proactively choose when or when not to act for best advantage. It is not enough for a leader to take action; the leader must also discern when to take action so that the influence will have best effect.

Leadership as Enacting an Emerging Future

A core belief I have held about leadership is that the leader is one who sees a potential future and sets in motion actions that move those involved toward that vision. Over the years I have found that my time horizon (based on the work I was tasked to do) has provided a fairly accurate view of emerging future 3-5 years out, and I have felt a strong pull to take action as a means of preparation for meeting that future vision. Frequently that takes the form of recognizing the gaps between the resources required to operate in that future state and actions needed to close the gap. The leadership challenge comes in being able to express this vision when others may not have the capability to think that far out into the future or agree to what that future should be and what it will take to create it.

Graduate studies have expanded my understanding of this dynamic through the lens of adult development and Jaques's model of Requisite Organization (2004). Post formal adult development focuses on the capability of an individual to conceptually embrace complexity. There are many models for this type of development and for purposes of this paper I am limiting myself to Jaques's articulation of mental capacity. Jaques noted that mental capacity for complexity correlated with one's ability to complete work n-years into the future; the longer the duration of the task assigned the greater the complexity of the work and mental processing required to complete it. The leadership process then needs to account for contextualizing that future vision in time spans that have relevance to each person in the organization. This is not just

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2 Self transcending construction is a term proposed by Goldstein (2008) as a preferred description for emergent phenomena within human organizations. Emergent behavior essentially provides an opportunity for a developmental shift in ways of thinking, being and acting within a specific context.

a senior executive speaking about corporate vision. According to Jaques, aligning individual contribution to shared vision is a leadership practice that each manager is accountable for. In this regard, shared vision is a distributed process that occurs at all levels of the organization, which then is able to align individual action with short and long-term goals.

Disequilibrium

Disequilibrium is an important state in the dynamics of an organization; it is the point at which the possibility for self transcending construction of novel approaches to specific challenges is most likely to occur. It is in the pressures associated with disequilibrium that the pain thresholds reach a critical point that opens an organization to be more receptive to emerging possibilities. Yet there is a difference in the role that leadership plays in such states. In a catastrophic situation (such as the transition period when business operations were shut down as previously described), the immediate role of leadership is to make sense of the situation and address the emotional unraveling in morale. I was one of the senior leaders called upon to speak to the employees immediately after the announcement that the company was to be closed. After months of talk of the positive benefits of the merger, one hundred and fifty people were essentially told that they were losing their jobs – a third of them, that very day! I invited everyone to come together into a tight circle, acknowledged that there had been a death in the family but now we knew where we all stood. I also was able to pass out a booklet to each employee on dealing with consequences of a merger. I had arranged for these booklets without knowledge of what the outcome of the merger would bring. In discussions with employees after that meeting, I received validation for the value of the discussion in bringing a shared sense of acceptance to the reality we faced; they also commented that the booklet brought a tangible sense of being cared for in the process.

There is a paradoxical dynamic to disequilibrium states. Frequently it is the acute sense of pain experienced during these states that invites an openness to change and new ways of seeing that enable self-transcending construction. A disequilibrium state can also have the converse effect resulting in a resistance to change. In my experience, the challenge of leadership is the ability to proactively anticipate and influence change *before* the disequilibrium state becomes acute. My own sense of ambiguity served as a motivator to purchase the “merger transition” booklets prior to the finalization of the merger (I had intuited that the outcome may not be as favorable as had originally been voiced by management). Since organizations operate as complex adaptive systems, the dynamics that lead to disequilibrium typically exist as symptoms which can be observed and responded to long before the problem becomes critical. In this regard, the process of (proactive) leadership has a self regulating effect in the organization by enabling the process of self-transcending construction.

Leadership as a Process

Through my experiences I continue to see leadership as an ongoing process that occurs in human organizations through the interplay of formal and informal relationships. Leadership as a process is embodied by actors who choose to respond to a situation. Formally, the leadership process is exercised through hierarchical structures of management. While the function of management is different from that of leadership, I ascribe to the principle espoused by Jaques that management is accountable for leadership practices to align their subordinates with the vision of the enterprise.3 Jaques's Management Accountability Hierarchy (MAH) is also structured to account for adult developmental factors – a manager is developmentally one stratum (as defined by ability to deal with work of a specific level of complexity) higher than their subordinates. Consequently, the manager should be able to bring more complex thinking to problems that a subordinate may face, and in so doing bring value to understanding the work. Likewise, the subordinate is accountable for sharing insights about the work with his/her manager who can pass on trends and insights further up the ladder. Jaques's model for administrative leadership through the formal hierarchy of management creates a bidirectional feedback loop that maintains good intelligence moving through the organization. This operates as the core nervous system and means by which work and decisions flow through the organization. Put succinctly, *effective* leadership is directly impacted by the organizational structure of the enterprise and the ability of the system to coordinate the developmental capabilities of employees into their work and communications flow. This has been a great awakening for me. Whatever skills I may have in enacting leadership may be compromised by ineffective structure in the system as a whole. In fact, I attribute the lack of a requisite organizational structure as one if not the major impediments to organizational ineffectiveness within my prior work environment.

Leadership as a State of Mind

Lastly, I have come to see leadership as a state of mind. This draws initially from the work of Robert Quinn (2004), which suggests that there are certain states that serve as attractors for the actor to take action that would be viewed as leadership in a given context. The Fundamental State of Leadership (FSL) creates the internal context that inspires the actor to respond and is reflected in four interrelated attitudes, which Quinn contrasts with opposing attitudes reflecting the "normal state." These are summarized in Table 1 below:

Table 1: Comparison of Normal State and Fundamental State of Leadership

Normal State	Fundamental State of Leadership (FSL)
Comfort-Centered: Desire to maintain equilibrium and consistency in life experience.	**Purpose-Centered**: Alignment with a purpose greater than self. Willingness to face challenges – to move outside one's comfort zone – in order to achieve the desired outcome.
Internally Closed: Self-preservation sets strong boundaries to external influences that would disrupt internal equilibrium	**Externally Open:** Takes on an attitude of curiosity and exploration in discovering what lies outside the comfort zone. Interprets experience as feedback to better align with purpose.
Self-Focused: Ego driven, puts self interest before the interests of others in a given context	**Other-Focused:** Willing to set aside personal needs for the sake of accomplishing the desired outcome and betterment of others before self
Externally Directed: Sensitive to the impressions of others; will conform behavior in order to ensure acceptance	**Internally Directed:** Personal accountability to be integrally aligned with purpose; self-confident and willing to act regardless of the opinions of others

Source: Adapted from Quinn, 2004, p.18-25.

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3 Jaques defines 10 distinct leadership practices.

There are several implications to this model. First, that leadership has less to do with formal position and more to openness to the internal attractors that dispose the actor to perceive and respond to emerging phenomenon.[4]

The FSL serves two functions: first by creating an attractor that encourages active behavior that serves the greater good of the organization. Second it opens the actor to be more consciously aware of his/her perceptions and patterns of behavior. In this, the FSL represents a framework of attitudes that encourage post formal thinking – a more self-directed attitude.

I have seen this played out in my own experience. In the first three years of my tenure with my employer, I was very aware of the need for a Customer Relationship Management (CRM) system to better serve the organization and needs of its customers. My recommendation met substantial resistance with management as a prior attempt to put in a CRM system had been unsuccessful.[5] I was persistent in expressing this need – to the point that my manager told me that if I brought it up again I would be excluded from management meetings. And then the day came when he wanted a current client list and discovered that our current systems could not produce an accurate list. Suddenly putting in a new system became a priority… three years after the original recommendation. In a similar vein, as I transitioned to a role in the parent company, I conducted research, which led me to an awareness of the value of e-business and relevance for the ongoing growth of the company. I became a passionate advocate of e-business and presented numerous proposals to senior executives. My recommendations were not embraced, largely because senior executives did not believe that it was a viable tool within the industry. Ironically, 6 years later there is renewed interest in expanding e-business for the company.

These experiences reinforced for me a primary principle that the process of leadership is initiated as an actor (regardless of formal or informal authority) recognizes a particular need and chooses to take action, even in the face of obstacles. This reflects an alignment with the core attitudes described in the FSL.

I close with a case study where I consciously experienced the FSL in exercising leadership. I participated in a voluntary cross-functional team seeking to improve employee work experience. With gas prices on the rise, there was a strong interest in developing a strategy for telecommuting. Several solutions were suggested and were immediately shot down by the representative from IT as either being too costly, too time consuming for IT staff, or too risky from a company security perspective.[6] During the conversation I was struck by the possibility of using a specific technology that had not been discussed. In spite of obvious resistance from IT to offer a solution, I chose to do my own research7 and discovered that a technology that had been discussed seemed to offer a reasonable compromise on low cost, minimal IT support, and strong enterprise security. I went back to the committee with a proposal to pursue this option. I then went through a series of "gauntlets" to get the software approved for testing by IT, engaging in a pilot (which proved highly successful), and then working with IT and HR to define a process for rolling out the program.

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[4] I do not dismiss the importance and significance of formal leadership structures; rather I am noting that leadership fundamentally operates as an internal response to attractors that enable self transcending construction as a response to a perceived reality. Within organizations, the interplay of actors taking action to lead in formal or informal capacities is dynamic and complex and beyond the scope of this discussion.

[5] Customer Relationship Management systems typically require a high level of coordination and voluntary participation of employees to be successful. Historically, a high failure rate has typically been associated to implementation of these systems in the industry.

[6] Note that this description is not intended to reflect negatively on the behavior of the IT representative. As an individual caught in the webs of larger meaning – coordination of the myriad of service requests from multiple functional departments with limited resources in staff and dollars can instill a mindset that

Several things struck me as I experienced myself going through this process. I felt "pulled" to conduct the research, and also made a *conscious* decision to prepare the proposal and push this through to completion, in spite of recognized resistance from some of the IT resources. This was not a project that was part of my normal work assignment, and I could have let go of the idea. Yet the inner states that focused on serving the greater good, and seeing the opportunity that this solution could provide served as an attractor to persevere through the resistance and ultimately lead to a successful result. Had I chosen to stay within my comfort zone, the new process and organizational dynamics would not have emerged.

I've touched on a number of aspects of the leadership process, which I have gleaned through my work experience. In summary, I have come to see leadership as a dynamic process that occurs in human organizations as actors perceive emerging possibilities and choose to take action. The willingness to do so is strongly connected to the actor's internal states, and engagement of the Fundamental State of Leadership. Finally, the effectiveness of the actor may be impacted by the actor's sphere of influence and by his/her formal or informal status and authority to act, and organizational readiness to embrace the change. I look forward to further develop these understandings as I continue my graduate studies.

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favors self-preservation rather than innovation. Part of the leadership journey is recognizing the frame of reference from which others are operating, and learning to work with those frames.

[7] Note that choosing to do that research was not overstepping lines of authority. In my role at that time, I was heavily involved in developing strategies that involved technology solutions from the business side. I coordinated those projects with IT resources for implementation.

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Creativity and Transdisciplinarity:
An Interview with Alfonso Montuori

Russ Volckmann

***Alfonso Montuori** is a member of the Editorial Board of Integral Review. He is Chair and Professor of the Transformative Studies Ph.D. and Transformative Leadership Master's programs at the California institute of Integral Studies. A graduate of the University of London, he is the author of several books and numerous articles on creativity and improvisation, complexity, and education. Alfonso consults with organizations and individuals on creativity and professional and personal development. He is also a saxophone player, producer, and voting member of the National Academy of Recording Arts and Sciences (Grammys).*

—Russ Volckmann

Russ: *Alfonso Montuori, it is a real pleasure to talk with you. I've had a chance to think a bit about your life and your work, and one of the very first things that struck me was the fact that you are Italian and you hardly ever lived in Italy. What was that about?*

Alfonso: My father was a diplomat for the Italian government. He married my mother when they were in Portugal, and my dad then was transferred to Holland. Coincidentally, my mother is Dutch. I was born in Holland, and lived in Lebanon, Greece, and England, before I came to the US. Despite the fact that I had an Italian passport, I never lived in Italy. I didn't live in the country that issued one of my passports until 2007, when I became a dual U.S. citizen.

Russ: *It's really quite extraordinary, the impact of that kind of lifestyle on individuals. I'm an Army brat myself, so I lived many different places. I found you lived in the U.K. for a time. I got the impression that you were involved in music while you were there—is that correct?*

Alfonso: Absolutely. I played saxophone professionally in a number of bands for five years or so.

Russ: *Would you describe yourself as more like Coltrane or Desmond?*

Alfonso: (laughs) Well, I loved both of them, and I was always very much influenced by jazz, but I didn't really play jazz. That was an interesting time in London in the mid- to late-70's when the stranglehold of the big record companies was broken. Young bands always had the Catch-22 of needing a record deal to get a gig and needing a gig to get a record deal. That all broke down around then with the punk revolution. That also coincided with everyone and their dog creating independent record labels and putting out their own music, which is what I ended up doing. After playing in a number of different bands, I created Banana Records when I put together my own band. Initially the band was more of

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a joke than anything else. It was really just an excuse for friends who were in different bands to get together and play wacky music we didn't think other people would like too much. But of course that happened to be the most successful band of the lot. We did a lot of really great gigs, we toured, recorded a radio show for the BBC, made some recordings that were well received, had a good agent and a good time. That was a nice stretch of time for me there.

Russ: How would you describe the style of music you were playing if it wasn't jazz?

Alfonso: That's an interesting question. When we started getting more successful and getting the attention of major record companies who wanted to sign us, they kept saying, "You obviously have a lot of fans, and we like the way you sound, and we like what you do, but we don't know what bin to put you in, in the record stores." This was in the day when there were still record stores and people would browse under different categories. They didn't know what to call us—rock, funk, jazz, comedy—we were a pretty crazy band. We crossed musical genres and that confused the hell out of them. We would do all kinds of stuff—we'd start every set by playing the theme from "Hawaii 5-0." From there, we'd go in any number of different directions and have a smattering of jazz, soul, bizarre tunes we'd write. We were like a psychedelic world-beat band—but not really!

Russ: So you'd start with one of the favorite tunes for surf bands and then move into the rest of the world. (laughter)

Alfonso: Exactly, and we had drums, bass, percussion, keyboard, guitar, trumpet, sax—we pulled it off.

Russ: Does this diversity of taste that you seem to have had in any way predict directions that you moved in when you left music?

Alfonso: Absolutely. For me, it's all autobiographical. All of the things that I'm looking at now in terms of creativity, transdisciplinarity and so on have their roots in my own experience. Things like people asking simple questions, such as, "Where are you from?" That always involved a story. I could never just say, "I'm from San Francisco." I'm not. It made me reflect on issues of identity. Sometimes I would just say, "I'm Italian," because I didn't have the energy to go into a spiel, or I'd brush it off by saying, "I'm from downtown Europe." But it felt more complex and anyway, saying I was Italian without actually having lived there felt somehow dishonest. So that definitely had an impact for me, because I believe that ultimately this complexity and diversity exists in every one of us, in different ways. It's just that for me the diverse cultural background made it more evident—it was a more glaring manifestation. It triggered a lot of my current interests. Categorization, disciplines, and narrow labeling inevitably mutilate the complexity of a human's life…

Russ: And constrain the creative potential that's there as well.

Alfonso: Exactly right! So I was also very interested in things like prejudice, racism and stereotyping, which all tied back to some of the work of people like Krishnamurti and the spiritual traditions that argued strongly against a tendency to label, categorize and think that we have these nice, ready-made understandings of what the world is really about. To me it was always far more complex and mysterious. No label or set of labels could do life justice. We live with this illusion that we know what's going on—maybe not cosmically, but at least in terms of everyday things, events, and interactions—but nothing could be further from the truth. I don't think we have a clue about anything. We just live with this delusion of familiarity.

Russ: I know you did your dissertation at Saybrook with Béla Bánáthy and others. How did you move from the world of jazz into working on a Ph.D. there?

Alfonso: I was in London in 1983 and I'd completed my B.A. at the University of London. Then the band broke up, as bands will; some friendships were broken. They've since been healed, but I was ready to get out. I didn't really feel any deep roots in England. England itself was going through a depression at that point, and there was a resurgence of nationalism. The Falklands War was going on at that time. There were right-wing racist movements like the British Movement and the National Front. I was always fascinated by California. The kind of people that I was interested in always seemed to come out of California, along with the music I was interested in, the writers that I liked, and so on. I decided to go check it out—surely the weather had to be better, and the food couldn't be any worse.

Russ: (laughter) And in that process you found Saybrook.

Alfonso: Yes. Initially I found the Monterey Institute of International Studies where I got my degree in International Relations. I had no idea what I was doing when I left London. I just went to an office on Baker Street in London and looked for a few universities that seemed to be in California. For some reason I thought I would do international relations—maybe because it was related to my experience living in different countries—I can't quite remember what my rationale was. I got a number of catalogs including one from San José State—I had no idea where San José was—and one from Berkeley that emphasized the difficulty in getting housing—and one from the Monterey Institute that had nice pictures of beaches and talked about the local seafood.

(laughter)

And I thought, "That sounds like the place for me!"

Russ: Well I don't blame you. It's part of the reason I live here.

Alfonso: Exactly! It was a beautifully soft landing. Monterey in 1983 was still a pretty boring and sleepy little town. So, in a sense it was perfect for me because there were no distractions. Actually, I thought there would be jazz—I didn't realize that jazz was only in Monterey three days out of the year for the Jazz Festival—so there wasn't any music worth talking about. I suddenly found that I had fallen in love with research and writing. The world of ideas had always been my other love. My father was a well-respected philosopher, as well as a diplomat. He wrote extensively on the Socratic problem, and my maternal grandfather, who was the CEO of a multi-national, had an amazing library with really interesting and diverse material—Jung, Fromm, all sorts of philosophy from Plato to Bergson to Heidegger, economics, Yeats, Joyce, Henri Miller, and much more. I spent hours browsing. I was always buying tons of books and records—and it just turned out that after all that music, I now enjoyed playing with ideas a lot. I got my M.A. and then went to China to teach for a year, because I realized I didn't know anything about China. I taught at the Central South University in Changsha in Hunan Provence, and that was a remarkable experience. I went back there for a conference on the work of Edgar Morin, and of course the changes from 1985 to 2005 were mind-boggling…

Russ: *Fascinating.*

Alfonso: I came back from China and looked for a Ph.D. program. Again, this is one of the things that was very motivating for me later on—I talked with a lot of different people about my interests. People in psychology said, "Well, you should be in sociology," Sociologists said, "Well, you should be in political science." Political science folks said, "You know, this sounds more like philosophy," and the philosophy people would say, "Try anthropology." The anthropologists would send me back to psychology.

(laughter)

It didn't make any sense! Really, I wanted to work with Frank Barron at UC Santa Cruz. Frank was one of the major creativity researchers, but he warned me that UCSC would frown of my disciplinary promiscuity, so I had to look elsewhere. Before I met Frank I had no idea that there even was such a thing as creativity research out there. I only came across Frank's work because I was interested in the CIA's experiments with LSD. I had written a paper on it in Monterey and I knew that Frank knew about this frankly shocking "research." Not that he was personally involved, but he was one of the people that played a considerable role in the psychedelic movement in the U.S., if only because he's the man who turned Tim Leary on. Frank was really serious about the potential and also about the dangers of psychedelics, and traced his roots back in the U.S. at Harvard, at least, to William James. He was actually thoughtful about the relationship of psychedelics to creativity and the evolution of consciousness.

Russ: *Did creativity play a role in your choice of dissertation?*

Alfonso: It was absolutely central. My interest in creativity did not come from my musical experiences, initially. I had read Adorno's, Levinson's, Frankel-Brunswik's and Sanford's *Authoritarian Personality* in Monterey because of my interest in racism and prejudice. Then I came across Frank Barron's work. He had done a lot of the key work at the Institute of Personality Assessment and Research at Berkeley on articulating the characteristics of the creative person. I put the creative person and the authoritarian person side-by-side and I saw that they were practically opposites. The authoritarian person would score high on intolerance of ambiguity; the creative person scored high on tolerance for ambiguity. The authoritarian person scored high on conformity; the creative person scored high on independence of judgment, and so on.

That was fascinating to me. I started to think about creativity not as something that's just confined to the arts and sciences, but as a way of being in the world. I started looking at educating for creativity as a way of educating for life in a complex, pluralistic, uncertain world. It seemed to me that creativity gave people the ability to respond to unforeseen situations, different situations and different kinds of people in a more creative and constructive kind of way. An authoritarian person would want to control or eliminate differences and surprises.

My experience with music and specifically with improvisation was very useful there, because it seemed to me the ability to improvise—to deal with the unforeseen, the unexpected, and in fact to generate it—was becoming essential for what the sociologist Zygmunt Bauman calls "Liquid Life." In the industrial, mechanical worldview of modernity we were educating for a "solid," predictable, homogeneous factory life where everybody's part in life, in the social order, was pretty much established. Improvising there meant having to make something up because the "one right way" couldn't be followed for whatever reason—it was essentially a response to a mistake, and, second best, born of necessity. But in jazz, improvisation was at the heart of the process, a central value, rather than a remedial move. And that's also why jazz has been called "the sound of surprise." So this is one way of articulating a tremendous shift in worldviews that reflects the centrality of creativity, and specifically an embodied creativity, in the moment.

Russ: *Interesting. Out of the U.K. comes the work of Sir Ken Robinson who I've interviewed for Integral Leadership Review. His work is on trying to promote more attention to fostering creativity in elementary and secondary education.*

Alfonso: Exactly. I think that's vital work. He's promoting a more complex and nuanced understanding of education and creativity. When I tell people I'm interested in creativity, I always want to hear what they think about creativity. How do they understand it? What does it mean to them? I'm interested in the implicit understandings of creativity. I think right now, we're going through sort of a transitional phase where there's a certain kind of creativity—an understanding of creativity that emerged in modernity—that is beginning to fade. It has to do with the lone genius—the "who" of creativity. It has to do with creativity being limited to the domains of the arts and sciences—the "where" of creativity. It has to do with the creative process portrayed as limited to the moment of insight, the moment the light bulb goes off—the "how" of creativity. There's a shift happening in our understanding of creativity that's quite significant, and I can even see it generationally. When you ask baby boomers about creativity and millennials about creativity, you get different responses.

Russ: *I would assume that what we are doing is going from the place of the individual creative act—the individual as a creator or having creative capabilities, and the* *collective as a source of a creative phenomenon while recognizing that creativity very often is emerging from the dynamics of relationships, interactions and life conditions and a variety of variables—into a position of a both/and. There are the dynamics of creativity at the individual level as well as the collective dynamics of creativity. Is that the kind of thing you're getting at?*

Alfonso: Exactly! There's an emerging networked relational understanding of creativity, with more emphasis on everyday/everywhere creativity, and with popular books such as Gladwell's *Outliers*, an increasing awareness that yes, creativity also requires hard work, practice, etc., which counteracts the romantic myth of genius without learning.

When I started looking at the creativity research in the 80's, my experience of creativity had very much been playing in a band. But there was no research on creative groups in the literature, and there is not nearly as much as on the creative individual. I thought that was really interesting, because that also reflects what we think creativity is, where it can happen, and how our ways of thinking influence how we approach a phenomenon—think reductionism and individualism, in this case.

Until very recently, when people talked about creativity, they talked about it in terms of the creative person, process and product, PPP. In this frame, the "who" of creativity always has to be an individual. It can't be a group or a relational process. So inevitably, the "who" or the unit of analysis—the actor—is always an individual.

That's beginning to change. We're also starting to look at the individual as not being a closed system that's isolated from the world. We're looking at the fact that creators work in *domains* that have a history. Coltrane and Charlie Parker were both great innovators, but they were part of jazz. They were part of an existing discourse that they had already internalized. This inquiry also starts challenging what our understanding of the individual is. The discourse refers to individual and social dimensions, but we can't forget that the individual is also social. We are in society and society is in us.

Russ: It would seem to me too that one of the things that would be useful in terms of thinking about creativity would be that of perspective. From a first-person perspective, something that may be creative for the individual in terms of his or her own life experience might be different from that which would emerge from a second-person relationship. That might be different from the point of view of an "objective observer."

Alfonso: It's the classic case of someone who comes up with a very interesting and creative solution to a problem, but that doesn't mean it hasn't been done before. Now the fact that that person comes up with an interesting, original solution is a sign of creativity. It feels creative and it is creative from that person's first-person experience and in that context. You frequently have this with children. Children are constantly creatively reinventing the equivalent of the wheel. From their perspective, it's a creative process and a creative product.

A different example: My wife and I like to travel, for business and pleasure. Occasionally she'll go into a hotel and say, "Well, it's clear that whoever designed this hotel has never actually stayed in a room they designed." And I think that's a brilliant insight. Academically, there's great research on this in Flores' and Winograd's book, *Understanding Computers and Cognition,* and the whole issue of first person perspectives. Very often, though, that's completely left out, and there's stuff that looks great on paper. Even when you see a drawing of it and you think it's fantastic and chic and elegant…the bottom line is, there's no place to put stuff in the bathroom, you know? What do you do with your stuff? This may look great, but there's no functionality.

Russ: Before we leave the stage of your dissertation, your Dissertation Committee Chair was Béla Bánáthy. What was his role in your thinking around this theory?

Alfonso: I was really lucky, because Béla Bánáthy was a wonderful teacher. Béla had deep roots in the systems world and had been President of the ISSS—the International Society for the Systems Sciences—so I was really happy and privileged to work with someone who had that kind of in-depth experience of the field and the community. Béla was very idealistic and very optimistic about the ability of systems approaches to be able to make a difference in the design of educational systems. He really stressed the "thinking" in systems thinking, and emphasized the radical nature of the shift implied by taking systems theory and cybernetics seriously. I also read and then met Heinz Von Foerster, Paul Watzlawick, the Italian epistemologists Mauro Ceruti and Gianluca Bocchi, and finally Edgar Morin, who developed the notion of complex thought.

Russ: So this whole piece about how we think—as you say—it has been an important piece. Can you say a bit about what that is?

Alfonso: Growing up in different cultures and always enjoying being exposed to different perspectives—when I was in London, I was a university student, I was playing in a band and working as an interpreter for the police in Scotland Yard. My parents were diplomats, so I moved around in a number of circles … And today, I have multiple lives: in academia, in the consulting world, and in music—I perform with and produce my wife, Kitty Margolis's work: she's a very well respected jazz singer (http://www.kittymargolis.com/), and working on her CDs, with such incredible musicians as Joe Henderson, Roy Hargrove, and others, has been an invaluable experience for me, not to mention a lot of fun.

From an early age, I realized that individuals and cultures construct worlds differently. That sort of became a continuing theme for me. Then in grad school, I read Thomas Kuhn's work and immersed myself in the philosophy of social science. I became very interested in the underlying assumptions of Western academic inquiry and Western thought in general. That's when I became interested in epistemology, in how we think about particular issues, the different frames we create, and how they both obscure and reveal. My personal frame was that it was all a creative process. I also realized that thinking has a certain logic, a certain architecture, if you will.

To give you an example, I think many misunderstandings arise about creativity because it is a paradoxical phenomenon. Creative individuals are said to be both more playful and more grounded in "reality," both rebellious and conservative, both "crazier" and "saner," and so on. But this requires a different way of thinking, a way of thinking that goes beyond our common logic of either/or. Because otherwise it's just, "see, creative people are crazy," and we focus on one dimension without taking into account the other. But if they're both crazier *and* saner, what does that mean? What are the implications for our definition of psychological health? What does that look like? There's also a shift to an ongoing process rather than a "thing," a broader spectrum of psychological and experiential possibilities, a different view of identity, and so on.

Russ: *When I think about systems theory, one of the critiques of pure systems theory is that it does not attend to those kinds of variables (what cannot be measured directly). Even in the case of transdisciplinarity, that whole piece about what we cannot directly observe has not played a central role—at least in Nicolescu's work, other than the notion of the included middle. But it does have a potential in the sense that in transdisciplinarity we're talking about levels of reality and complexity and the logic of the included middle.*

Actually, in an earlier issue of Integral Review, *I have an interview with Nicolescu about this. We'll have an article by a philosopher from Holy Cross, Predrag Cicovaci appearing in the October 2009* Integral Leadership Review *entitled, "Transdisciplinarity as an Interactive Method: A Critical Reflection on the Three Pillars of Transdisciplinarity." The criticism that he brings is that there has not been adequate attention to a fourth pillar that he would add which is values.*

In light of that kind of work, how has transdisciplinarity become a significant approach perspective/methodology in your work?

Alfonso: I have interpreted transdisciplinarity drawing on my own experience. So for me, I have four dimensions of transdisciplinarity. For me, it's inquiry-based rather than discipline-based. As an example, if I get called in by an organization that wants to be more creative, if I approach the job exclusively with the disciplinary perspective of the psychology of creativity, then what I'll do is to focus on individuals and give them a "creativity tool kit" so they can explore lateral thinking and other things in order to be more creative *individually*. Here you have an example of how a disciplinary lens directs you to certain kinds of approaches. An approach that's inquiry-based starts with the phenomenon in question, in this case looking at the organization and there many, many different things going on. That includes individuals, relationships, organizational culture, organizational structure, openness to risk-taking, the business climate, and all these issues that are typically addressed in different disciplines. For me, the important thing isn't the discipline, but the issue that I'm addressing. Then you bring in *pertinent knowledge* from whatever disciplines are relevant.

The second dimension of transdisciplinarity is something I call the "meta-paradigmatic." In other words, the question then arises that you're going to be drawing from all these different disciplines. Do you have to know everything about everything?

It's a typical question that's asked of people who want to do interdisciplinary work. The answer, I think, is no. If you're going to be drawing on other disciplines, you have to have an understanding of the historical emergence of that discipline, and you also have to have an understanding of the underlying paradigmatic assumptions. For instance, in the case of creativity, a sociologist and anthropologist have historically looked at creativity as a social phenomenon. They tend to be methodological holists, so for them, the individual is not important. For them, the individual is epiphenomenal in the same way that for psychologists, who are, by and large, methodological individualists, society is epiphenomenal.

If you look at most of the studies of famous creative persons, there's not too much interest in the historical context. The focus is usually personality and cognitive processes. For sociologists, it's the other way around. It's like, "Hey, look, if it hadn't been Darwin it would have been Alfred Russell Wallace. If it hadn't been Freud, it would have been someone else." In their view, society had collectively reached a point where certain questions and certain issues were ready to pop. Someone would have figured this stuff out sooner or later. So these are very, very different fundamental assumptions, very different units of analysis. Here we get into the philosophy of social science. It's how you create your understanding of creativity.

To make a long story short, no, you don't have to know everything about everything, but you have to know how different kinds of knowledge are constructed. How is knowledge created and constructed?

The third dimension of transdisciplinarity is that you have to have a thinking that allows for complexity, so it connects that contextualized information. It can't be reductive and disjunctive. It's not either/or. It has to connect and contextualize, because otherwise none of this makes sense. There's a common criticism that's legitimate of many forms of systems theory, namely that it is a form of mapping. The kind of systems-influenced work I'm interested in is quite different, and is fundamentally epistemological in nature.

When you look at the organization of both universities and the organization of thinking, there are interesting architectural parallels. When you look at the university, you have these different departments usually housed in different buildings. Disciplines have all these different branches. Knowledge is reduced to finer and finer levels of granularity. That's a reflection of the way we were traditionally taught to think—by reducing and isolating and getting down to the smallest variable—the logic of either/or until you reach the bottom. The university is the concretization and institutionalization of a certain way of thinking. So for transdisciplinary work, you have to learn how to contextualize and connect. That's originally what systems theory was attempting to do. The original mission of Von Bertalanffy was to create that kind of transdisciplinary language.

Russ: It seems to me that one of the drivers of Nicolescu's work is also the connection between theory and research; seeking to understand and practice. It sounds like that's something you share with him.

Alfonso: Absolutely. Transdisciplinarity is not at all some abstract, purely theoretical endeavor for me. It emerges out of a real need to address the complexity of life. And for me, the fourth dimension is that you have to integrate the observer into the observed, the researcher into the research—the person actually dealing with this complexity and trying to make sense of it. You have to address the researcher and his/her perspective and values and where s/he is coming from. You can't just bracket that or ignore that. For me, that's an essential part of transdisciplinarity.

In both of the programs that I designed at CIIS, we start out by asking people about their passions. When they tell us, that in itself becomes an opportunity for inquiry. You ask, why they are passionate about one topic but not another. This gives an opportunity for self-reflection, self-inquiry and finding out why one cares about something specific—and in fairness, why you would want to spend 4-6 years and a lot money working on it. As a result, a number of different issues emerge from their own life stories. So passion in this sense is good. We want passion—intrinsic motivation is central to creativity. At the same time we don't want people to be blinded by their passion, so once again you have an opportunity for self-inquiry.

Russ: From the point of view of the inquiry and the relationship to the transdisciplinarity perspective, doesn't this also speak to the value of recognizing the collective dynamics of that inquiry? For instance, when you go into a system as a consultant, you're engaging those people in that system in the inquiry. So the exploration or the design of the approach to generating creativity within the organization is going to be something that emerges out of that collective inquiry.

Alfonso: Absolutely—I couldn't agree more! When I talk to people about creativity in organizations, especially in a consulting context, they often expect me to come in with a specific process already in place, because that's what they're used to. I tell them each time that there is no cookie-cutter approach I embrace. I think it has to start with a collaborative research process in which we figure out what the best way is to facilitate the development of creativity in any particular context. That's definitely part of the process.

Russ: So transdisciplinarity and your interest in the metaparadigmatic also lead us into meta-theory. A couple of examples that have gained attention in recent years include Wilber's work in integral theory, and Ervin László's work in his theory of everything in the Akashic Field. How would you characterize, from your point of view, the transdisciplinarity overlay, the perspectives being offered by those two leading thinkers?

Alfonso: They each open a range of possibilities in different ways. Wilber does something I have always found very important, and that's expanding our understanding of human nature and of human possibilities. Underlying political, psychological, sociological, and essentially all theories in the social sciences is an understanding of human nature. These were still addressed explicitly by philosophers—from Plato to Hegel. But as the various disciplines spun off philosophy, the fundamental philosophical assumptions—such as the nature of human nature—were generally not addressed anymore. Specialization led to these key questions remaining un-addressed, which is why political theory has mostly barely addressed Freud, let alone Maslow. Another thing Wilber does very well is showing how much is typically left out of any particular inquiries and the extent to which they come out of a particular frame.

Russ: *He points at our blind spots.*

Alfonso: Exactly. What's also so interesting about Wilber and László is they are really pushing out into areas beyond what is considered safe within traditional academic boundaries and context. They are independent researchers who don't necessarily have to play within those kinds of safety margins in order to be assured of tenure or respectability or whatever. They can do that. In the programs I designed at CIIS we want to capture that excitement and creativity, and create a new context for academic research.

Russ: *You've had a relationship over the years with Ervin László, and as I recall, you edited an edition of* World Futures*.*

Alfonso: I'm the associate editor of *World Futures*. I've known Ervin for about 20 years, he's a truly remarkable individual. *World Futures* is the journal of the General Evolution Research Group, an interesting group of researchers that included Bela, Riane Eisler and David Loye, Karl Pribram, Allan Combs, Ilya Prigogine and Ralph Abraham among others. I think Ervin was interested in having these multidisciplinary dialogues and finding ways in which researchers in different disciplines could draw on these evolutionary and systems concepts. A lot of important work has been done, and these ideas are now becoming more widespread.

Russ: *In the field of leadership studies, there was an attempt under the auspices of James MacGregor Burns to use a multidisciplinary process to create a general theory of leadership. They published a book titled The Quest for a General Theory of Leadership under the editorship of Goethals and Sorenson. What is most striking about the results of their work that took place over several years was the fact that they did not, in fact, achieve a general theory of leadership. One of the things that I argued with Sorenson about was that one of the key reasons they did not succeed, at least from my perspective, was because they started from the point of view of multi-disciplines, and not with a meta-theoretical perspective. I'm wondering if you have any reflections on the importance of meta-theory and the practice efforts that we are concerned with.*

Alfonso: It's all too common to get people from different disciplines together and have dialogues that really don't go anywhere. Ultimately, there is little understanding of each other's fundamental, underlying assumptions. So the participants are really coming at issues from different theoretical perspectives, and are literally not speaking the same language.

I think a meta-theoretical perspective is really important. That's one of the reasons why I think a kind of thinking that is more open to connection, contextualizing, and draws upon systems and related theories, but isn't confined to them, is very important. It addresses some of the key fundamental issues and provides a language that can go across disciplines. Without that—without understanding each other's assumptions; without a shared meta-language—it's really difficult. Otherwise, you're just comparing positions rather than understanding them and communicating about them.

Russ: *What is the contribution of László's "theory of everything" to our efforts at finding a framework or perspective that helps us embrace the whole?*

Alfonso: One of the things that he did, particularly in the early days when he was still widely identified as a systems philosopher was to articulate some of these basic concepts in books like *Evolution* and the early systems books. I think many of those concepts can be used effectively to provide that kind of language and some basic concepts that cross any number of different disciplines. Just the concept of system, and the distinction between open and closed systems is very valuable, and in need of much more study. But not just in the context of ideas and how we use them. I think essentialism in all its forms is explicitly marked by a form of closed system thinking, for instance. Once you start looking at it that way, a number of interesting implications emerge. Over the last 10-15 years or so, I've found that Edgar Morin's work has been very useful to me. His work is not so much in the tradition of the Santa Fe Institute, but more on the epistemology of complexity. That's what really makes a difference. What is particularly interesting about Morin is that his work, which has already made a profound impact in the social sciences is now being recognized by biologists as leading the way beyond the reductive perspective of molecular biology. That's quite a feat, when you consider the contempt much of (post-)modern philosophy and social science is held in by "hard" scientists.

More broadly, what we need is a kind of education that prepares us for complexity, interdependence and uncertainty. But traditionally we have been taught that simplicity, isolation of variables and certainty are the *summum bonum* of inquiry. Our thinking has reflected that bias. In order for transdisciplinarity to thrive, we have to cultivate a new way of thinking, and, to be clear, a thinking that is not isolated from feelings, intuitions, and experience.

Russ: *Despite the resistance of academia to some of these things, there are glimmers of hope around the world in Brazil and South Africa and Europe where educational institutions are trying to take on transdisciplinary perspectives in their approach. I've just recently learned that Arizona State University has taken that on in a number of programs. I'm trying to find out more about that, and I'm going to Tempe for about six weeks later this month. Any hints as to someone I can talk with?*

Alfonso: No, I am actually more familiar with what has been happening outside the US. I've just recently found out about ASU. I've been meaning to look into it. I was down at the University of Vera Cruz in Mexico not long ago. They have a really innovative master's degree in transdisciplinarity and sustainability. They are very influenced by Morin's work. The head of that program, Enrique Vargas, was about to head out to ASU to study their work.

As you said, in Brazil, there is a great deal is going on in this area, and I was just in Peru where I was invited to be on the board of the Edgar Morin Center for the Study of Epistemology of Complexity at Ricardo Palma University in Lima. In Italy, at the University of Bergamo, there is a transdisciplinary doctorate, and there is some truly remarkable work going on out there. I'm thinking particularly of the work of Mauro Ceruti, Gianluca Bocchi, Sergio Manghi. At the University of Messina in Sicily, they are doing inspiring work on the philosophy of science and in education. In South Africa, John Van Breda and his colleagues are also doing some wonderful things looking at sustainability from a transdisciplinary perspective. So there is definitely a movement in the right direction.

Bruce Wilshire wrote a fascinating book about the perils of disciplinarity 20 years ago, *The Moral Collapse of the University*. He discussed disciplinary boundaries, and used Mary Douglas' work on purity and pollution to illustrate the way that new faculty members were purified of any polluting influences of other disciplines, precisely because there are a lot of issues having to do with territory, identity, where you belong, where funds come from, and also with the fact that if people are starting to play around with all these different concepts from different disciplines in one particular paper, then my education has to change. I can't just be a psychologist. I have to start spreading out, and the implications are huge. It's not just the students who are facing these challenges—it's the faculty, perhaps above all! So we still have a struggle ahead of us.

Russ: *I'd say this is just the beginning.*

Alfonso: There are signs that we will, by necessity, be heading in this direction. I think one of the important things to illustrate is this is not some abstract, theoretical effort. This is really an attempt to deal with the world and to do so with extremely practical implications. It's perhaps not surprising that transdisciplinarity is now associated so often with ecology and sustainability: one discipline just can't do the trick.

Russ: *Can you speak a bit to creative inquiry? We touched on that earlier.*

Alfonso: Creative inquiry is essential to both the doctoral and the master's programs that I designed at CIIS. If you look at the definition of a Ph.D. dissertation, it's defined as an *original* contribution to your field. But the bottom line is, no one ever talks to you about what "original" is, unless they're talking about plagiarism. I thought, "Well, what if we took this definition of a dissertation seriously?" Then, by definition, if it has to be an original contribution, then the dissertation has to be a creative product, and, the educational experience has to be a creative process. How about that as a starting point?

What I'm interested in is an educational process that is a creative process, whereby the process of inquiry itself is creative—where we are also engaged in a process of self-creation as scholars, as participants in this remarkable time, and ultimately as human beings. Any kind of university or educational experience has a tendency to change people, even a little bit. But what if we made that explicit? If a person is going to spend five years or so working on a dissertation, let's look at that as an opportunity for you to engage in self-inquiry and self-creation, as well as the creation of an "original contribution to the field."

When someone emerges from a program with a Ph.D., what does that really mean? What are you going to have your doctorate in? Why are you doing your research on this subject? Where do you situate yourself in your field? What contributions do you want to make? Who are you becoming? How are you spending your time? In that sense, we're making some of the things that are implicit in the process very explicit. We're framing the whole thing as a creative process, and I think the results have been very interesting. On the one hand, it's natural, and students think it makes a lot of sense. On the other hand, it scares the bejesus out of them. It's arguably a lot harder and more challenging, but well worth it.

Recently, education has fallen into more of what I would call a reproductive approach, which involves reproducing what the faculty tells you to in order to get the grade. It's also reproducing a certain form of social organization and a way of being in the world. While students really like the idea of creative inquiry, typically they tend to have a little bit of an existential crisis, when they actually have to engage in it. It's the anxiety that comes with freedom. Because at the same time they're thinking, "This is exciting!," they're also thinking, "I may be free, and you may be telling me that it's good to be creative, but what's going to happen to my grade, and how do I know what I really like? Am I really creative? What do I really care about?" It raises a lot of deep questions. So inquiry and self-inquiry are inextricably connected.

Russ: *This reminds me of William Perry's work and his research on students in particular. He has a model that, with all its nuances, has a dozen or so different levels. His research showed—and this has been replicated in research particularly with engineering students in Colorado and Pennsylvania and probably elsewhere—that in a 4-year college education, students initially see the faculty member as the authority figure with the knowledge. During their education, they shift through several levels, and by the time they graduate, their locus of authority is more internal rather than external. Yet, I'm hearing you suggest that at the graduate level now, we still have the phenomenon—maybe socially inspired or inspired by the nature of the educational system—that even though I may have reached a point where I privately might rely on my own internal locus of authority, publically I need to continue to pay attention to the external one.*

Alfonso: Right. And this is the case all over the country. There's lots of new research about the way the Millennial generation has been educated, the implications, and the challenges they're facing after being hounded about grades. I like the reference to Perry's work, because I differentiate between what I call reproductive, narcissistic, and creative inquiry. If you break Perry down into those three main perspectives, it goes like this: In the beginning, or reproductive stage, the authority is all with the instructor. The next stage is where the students think it's all relative: with the collapse of authority, "the one right answer," they think anything goes. This is a practice that translates into the students feeling it's all about them, all about their feelings, all about where they are, their "subjectivity," all the stuff education formerly rejected—the return of the repressed, right?

(laughter)

But at the same time, at that stage they may not understand what counts as significant anymore, so they don't appreciate the value of tradition, craft, hard work, and so on. They don't appreciate that some statements may be more valuable than others and that leads to the more narcissistic stuff. Creative inquiry is about cultivating a much greater sense of context, more of a sense of collective self-creation. I think that's when things get really interesting. It definitely maps onto the Perry work.

The way I see it, it's about an ongoing process of creative inquiry, where the process is the product. I think this is similar to a jazz performance of a "standard" from the Great American Songbook, which offers an opportunity to perform together, to inquire together, to allow for the emergence of novelty from the interactions of the participants. The point is not to find THE answer, but to find ever greater opportunities to continue the inquiry, illuminating new dimensions of what may be a well known song, finding new forms of expression, new ways of being together and developing new insights into the material we're given. Are you Coltrane or Desmond, Miles or Satchmo, Elvin or Max, Jaco Pastorius or Paul Chambers, Herbie Hancock or Art Tatum, Ella or Sarah or Carmen or Betty or Kitty? Are you finding your own voice, and articulating new insights into the songs that can be meaningful and generative for you, for your context, for other people? That's our challenge.

Russ: *And this is what you're trying to foster at CIIS?*

Alfonso: It is—in the leadership program, in the doctoral program, and in my consulting work with corporations and artists.

Russ: *Alfonso, I thank you very much for our time together, and I hope this has been as interesting for you as it has been for me to hear the broad spectrum of work that you've done and the interests that you have.*

Alfonso: Thank you for giving me the opportunity to dialog with you; I've enjoyed it a lot.

The Return of the Perennial Philosophy. The Supreme Vision of Western Esotericism

By John Holman.
Watkins Publishing, 1st edition London 2008. Paperback, 172 pp.

Review by Roland Benedikter

This book tries to provide a short integrative picture of the Western esoteric worldview, seen as the historical basis of contemporary "experiential" spirituality. Holman's main hypothesis is that in the present epoch of a broad renaissance of traditional religion it is increasingly becoming necessary to know the main themes and features of the "empirical spirituality" of the West that have long been hidden in the background of its public sphere. "Empirical spirituality" is conceived as being opposed to mere "faith" and dedicated instead to "spiritual research" and "exploration" in "first person." To identify what the common ground (or the "supreme vision") of the very different Western esoteric streams has been in the last seven centuries shall enable the reader to help prepare the present culture of secular rationality for the "return of the perennial philosophy," and thus for a more balanced societal paradigm. "Perennial philosophy" is outlined as an experimental proceeding of opening up new empirical knowledge between realism and transcendentalism. According to Holman, this proceeding has always been equipped with certain methodological tools common to more or less all Western esoteric traditions in order to create experiential alternatives to collectivistic, myth-oriented religion.

The book consists of an introduction and three main parts divided in 13 chapters. The *Introduction* gives a brief overview of the studies carried out so far about the field mainly by means of a critical history of ideas, and depicts the "ethnomethodological" approach chosen by the author. This approach consists in studying the esoteric traditions "from within," i.e. in a consciously participatory and identificatory way, or as the author puts it, "as practitioner." Building on these methodological presuppositions, *part one* starts with an overview of the main currents of Western Gnosticism, among others Neoplatonism, Hermeticism, Alchemy, and Kabbalism. Most importantly, it tries to differentiate between traditionalism and progressivism within the historical esoteric efforts in Western culture. The focus of Holman's historical overview is hereby on Theosophy, which he interprets as being a kind of "historical knot" within the development of an "empirical spirituality" (chapters 1-4). The *second part* of the book tries to identify the "philosophical and spiritual center" of Western esotericism as an initiation process common, in diverse forms, to all its sub-streams and variants. This (according to Holman mainly fivefold) initiation process is exemplified in five rather descriptive chapters (chapters 5-9). Finally, the *third part* discusses the rise of a "spiritual psychology" in the 20th and 21st centuries, mainly through the approaches of Carl Jung, Roberto Assagioli and Ken Wilber. The author purports that this "spiritual psychology" seems to be nothing else than a derivate (as well as the necessary next historical step) of the history of Western esotericism. Holman tries to depict this "new discipline" as the main contemporary form of Western spirituality, as well as a decisive

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"psycho-philosophical" contribution to the "change of worldviews" urgently needed by a world in crisis (chapters 10-13). In the future such a "spiritual psychology" has to be included in the general societal self-concept of a modernity that goes beyond the fallacies of "postmodernity" and "progressivism," but also beyond those of "premodernity" and "traditionalism."

Holman's book has its indisputable merits. The structure of his book is clear and precise, and the author proceeds with great security from one step to the next. No previous knowledge is needed for the reader to follow his arguments. The discourse Holman chooses is inspiring to get a first impression of the field, especially for beginners, who are endeavouring in their first contact with the topic. The book invites the reader to discover a whole new "intellectual continent," and to start more in-depth studies afterwards.

At the same time, like most similar approaches, and like it is maybe unavoidably inbuilt in an endeavour like the one dared by the author, the book presents several problems. These problems can be classified as implicit and explicit ones. Let me shortly come to the *implicit* ones first.

1. The book seems to be ridden by an "unconscious inner dispute" about its center, and this dispute is constituted as a kind of paradox. On the one hand, the book is visibly concentrated on recent (post-New Age) Anglo-American concepts and developments in the (self-)interpretation of esotericism. Only very seldom does it include the Continental European traditions. For example, Freemasonry, as the most important current which helped to give birth to the French Revolution as well as to the American constitution, is hardly mentioned at all, and certainly not appropriately included. Similarly, Anthroposophy is in essence subsumed under Theosophy, which means to oversimplify things. On the other hand, the book constantly mixes Western and Eastern approaches, without discerning them appropriately, and then simply classifies them as "Western." Even if the book is explicitly entitled "The supreme vision of Western esotericism," it claims, for instance, that Ken Wilber's theory of the subtle states of awareness is a current central cornerstone of it. But most of the observers would rather state that in reality most of Wilber's findings, methodologies and especially of his guiding terminologies have been drawn – even if rather eclectically – almost exclusively from the Eastern traditions. Most of Wilber's writings are of clear Eastern inspiration and terminology, and do not present sustainable traces of the main currents of Western spirituality, especially not of Freemasonry, Rosicrucianism, Theosophy or Anthroposophy, of which Wilber seems to have only little knowledge (which may be one reason why he has so far not found a durable access to the mainstream of academic research and teaching in European-Western culture). Cf. his exemplary negative judgement on Rudolf Steiner just in a brief footnote (sic!) in "Sex, Ecology, Spirituality" (1995).

2. A second problem is that the author is not "scientific" in his approach, but "identificative." The approach chosen by Holman is in principle logically understandable and maybe even methodologically needed; but it is carried out in an at least partially questionable way. The cadence of the work is one of a private expert speaking as part of a community, not as an academically embedded scholar dedicated to a sound "subjective-objective" exploration. Holman seems not to ponder things from the standpoint of the necessary "epochè," but often falls into a style dangerously close to propaganda. That is mirrored by his sometimes vague, and in general rather literary than scientific use of terms (for example, "the virus of postmodernity," "quantum leap ... of esotericism" etc.). Holman is repeatedly even polemic against academic scholarship,

and this will most probably not be helpful for the establishment of spirituality as an academically accepted (and funded) topic.

3. Related to that, the author rarely addresses his main guiding concepts – such as “evolution of consciousness” – critically (and thus, as the standards of current academic scrutiny would demand, dialectically). By not doing this and rather departing from an “identity position” of concepts, Holman tends to give his own interpretation of concepts as *the meaning* of them. This may be inspiring for the beginner, but it is not accurate. This fallacy is especially noticeable in part two of the book which tries to address the alleged “four main Enlightenments” of the “philosophia perennis,” which are depicted as being common to all sub-currents of Western Esotericism. But this basic assumption could be seriously challenged by a deeper look into the history of ideas and esoteric practices. Most probably, some of Holman’s descriptions in this regard would not be unquestionably endorsed by any other movement within Western Esotericism except by his own.

4. These implicit problems now culminate in one aspect that I personally regard as crucial to be addressed in further similar attempts. It is the fact that there is no such thing as an “identity in itself” of no philosophical or esoteric approach in history, be it as “perennial” as imaginable. From the standpoint of the contemporary history of ideas, more emphasis must be put on the fact that within every current of thought, be it considered at the typological macro-level or at its factual reality-level, there is, has been and will most probably always be – with no exception – a constitutive dialectics between at least two sub-streams in its inside, which battle each other for the overall direction of the thought and its methodology. That is valid also for “integral” thought and practice. There is no “integral theory” as such, but there are many claims for it, which must be understood out of their contextual relationship with various constituents. This seems to be a decisive aspect to me, especially if seen from a contemporary perspective like the one voluntarily chosen by Holman. It is crucial for the sheer quality of the debate both in a public and “internal” perspective. I think there is a self-identification of Holman’s perspective as *the* perennial philosophy inbuilt in his basic aspiration, as well as implicit in the basic attitudes of most of his main doyens, including John Huston, which hinders their “philosophies” to become an accepted subject of discussion. And it is this attitude that most likely creates part of the existing problems for the development of a truly contemporary “philosophia perennis,” because it is due to this attitude that many of the streams and currents that identify themselves as being “integrative” or “perennial” battle each other, instead of seeking exchange, and integration among them.

5. That is, from my viewpoint, one reason why in its present form the book of Holman can hardly give a sustainable impulse to the discussion neither about nor within the field, not even at the present moment when the “global renaissance of religion” would indeed provide a valuable (counter-)framework for a “return of the philosophia perennis.” Holman’s book does not differentiate in its attempt to unify. To insinuate, for example, that Wilber and Tarnas are saying mainly the same things, will hardly be confirmed by neither of these authors. If the inner differences and conflicts within the currents that would call themselves today being part of the “philosophia perennis” are not addressed, no “unifying picture” will be accepted by a satisfying number of potential participants.

Among the *explicit* problems, I would like to mention only two:

1. The book presents no satisfying differentiation between experiential, religious and "rationally enlightened" sub-currents in the field.

2. The organization of the book is slightly unbalanced. Out of 164 pages of text, 32 are dedicated to footnotes, which means roughly a fifth of the book. The Index seems to be similarly over-detailed if compared to the grade of detail and to the overall length of the main text. It causes an impression of over-condensation of the text, and thus of over-simplification.

Holman's book seems to be written in a rather "New Age" mood and style. If compared to other similar, but much more elaborated and "deep" titles, such as Wouter J. Haanegraaff's *New Age Religion and Western Culture. Esotericism in the Mirror of Secular Thought* (State University of New York, SUNY Series on Western Esoteric Traditions, 1998), which Holman himself quotes in the methodological part of his introduction, or to Helmut Reinalter's *Die Freimaurer* (Beck Verlag, Munich 2001), Holman's book does not seem to be sufficiently competitive. This is because it is not balanced, "distanced" and scientific enough. Holman's book tends to oversimplify things, and it seems not to be able to satisfactorily represent the variety and complexity of the field addressed. Instead, it often falls into identifications with particular interpretations. That would in principle not be a problem, because it is probably inherent in the very difficult (if not impossible) attempt to give a short and introductive "unifying picture" of Western "Empirical" Spirituality as such. But it becomes a problem when Holman tries to sell his particular interpretations as *the* philosophia perennis.

To sum up, Holman's book is an interesting, but incomplete contribution. It is unable to sketch a sustainable outline of how to mutually include Rationality and Spirituality for the years to come. On the one hand, Holman's discussion about the future relationship between "Postmodernity" and "Spirituality" (chapter 10) presents some potentially fruitful elements. On the other hand, Holman's book is no substitute for more scientifically sound and in-depth investigations that still have to be written. It cannot be considered as representative for the field, and it is not of an appropriate erudition to claim to be a satisfactory introduction to it as a whole neither. It is, at its best, a good representation of a partial (self-)interpretative approach *within* the very differentiated and diversified streams of the philosophia perennis.

Roland Benedikter, F. Prof. Dott. Dr. Dr. Dr., *is European Foundation Fellow 2009-13, in residence at the Orfalea Center for Global and International Studies of the University of California at Santa Barbara as the Foundations Research Professor of Sociology, and Visiting Scholar 2009-10, The Forum on Contemporary Europe, Stanford University.*
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IR's Occasional Newsletter

#7 – July 2009

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Announcements:

Journal of Integral Theory and Practice

The *Journal of Integral Theory and Practice* (JITP) has published its summer issue. Authors explore online education, sexual identity, international development, gender and the integral community, and more. Our best-selling issue on Integral Coaching, guest edited by Joanne Hunt of Integral Coaching Canada, is also still available. Visit the Integral Life store for information on how to subscribe or to obtain individual issues.

JITP is the official academic journal of the Integral Institute. Scholars from a wide variety of backgrounds contribute articles, case studies, reflective pieces, empirical studies, and critical views. JITP is committed to the refinement, development, and expansion of Integral Theory.

Integral Education Seminar

There is still room left in the Next Step Integral's Integral Education Seminar August 2-7 near Seattle (http://i-edu.org/). IR Editors Jonathan Reams and Tom Murray have been involved in prior years IE Seminars, and speak highly of them as a places to learn, network, and build community around topics of "integral education" in its broadest sense. The venue, held at a remarkably beautiful retreat center on Whidbey Island, will give participants opportunities to interact with Susanne Cook-Greuter, Terri O'Fallon, Terry Patten, Craig Hamilton, John T. Kesler, and other leaders.

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Correspondence

Public Letter in Response to Z. Stein and K. Heikkinen's

June 2009 *Integral Review* article (V5, N1, p. 3-24)

"Models, Metrics and Measurement in Developmental Psychology"

by William R. Torbert, Professor Emeritus, Boston College

Sent initially to the ***Integral Review*** *Newsletter*, Z. Stein, K. Heikkinen, S. Ross, J. Reams, and other scholar/practitioners whom I think of as having a direct interest in the LDP instrument: S. Cook-Greuter, D. Rooke, E. Herdman-Barker, R. Livne-Tarandach, A. Nicolaides, D. McCallum SJ, H. Bradbury, B. Morrill, J. Sabbage, S. Taylor, K. Merron, J. Hartwell, K. Yeyinman, G. Young, N. Wallis, C. Palus, J. McGuire, E. Kelly, J. Rudolph, P. Foster, M. Krot, PCT …

I welcome the intent of Zachary Stein's and Katie Heikkinen's June 09 ***Integral Review*** article: To generate further sharing of quality control information in regard to the development of usable knowledge in the field of developmental psychology.

Having myself vowed to write nothing more 'academic' starting in 2009, I limit myself to this informal letter referring briefly to a few historical and more recent types of reliability and validity testing conducted on the Leadership Development Profile (LDP), with references, in an attempt to invite further written work on these matters, but never again by me.

I also want to take this opportunity to invite Zak and Katie, as well as any of you with a continuing scholarly and practical interest in the LDP who hear about this invitation in time, to join me at my home for a day of study of the extant LDP-reliability-and-validity literature and of the continuing challenges, as I pass on whatever I can of this work to others of you…

(the time and place, more specifically, is 138 Parker St, Newton MA, 11am-5pm, Saturday October 3, with a good drinking/eating/music/dancing party afterwards

> for those who so wish [I'll try to get one of my sons to play his guitar and I'll get Pacey Foster to d-j]. Let me know if you're answering 'Yes.'
>
> > On the academic-writing front, it's up to any of you who are so motivated to pursue these matters after this and after the Oct 3 work/party (tho I will be more than happy to provide leads and materials if I can, as well as to speak by phone). Please let me know if that Oct 3 date seems attractive; those of us coming can design it together.

Turning to Stein's and Heikkinen's overall discussion of models, metrics, and measures, it seems to me excellent as far as it goes… **but** in my view stops short of some of the critical validity and practical/ethical issues of the human sciences, as I will suggest below toward the end.

In addition, while you two authors are commendably clear about the limits of your exploratory empirical study of the validity of certain specific developmental measures, it turns out that, at least from the point of view of my now-completed scholarly career, your methodological limits have resulted in a profoundly inaccurate portrayal of the validity-testing-history-and-published-literature in regard to the Leadership Development Profile (LDP)…

> (While at the same time confirming your very own new measure you've recently begun developing as best of all…).

> (The alternative hypothesis should certainly also be conceivable to a professional social scientist: at its most personally provocative, as I guess you'd expect a 180- degree-opposite alternative hypothesis to be, the alternative hypothesis = that *my scholarly career would best be left in deep shadow* for at least a while longer, maybe always, in the scholarly/academic world of leadership, organizational transformation, integral-quant-qual-&-action-methodologies, etc.).

At the same time, there is no doubt that the validity testing background of the LDP has long grown slowly in deep shadow, not widely recognized in the psychometric, psychological, sociological, political science, or leadership-studies literatures (an exception is McCauley et. al., 2006)… So this is a great last opportunity for me to bring additional attention to this body of work.

Based on your way of reviewing data, you – Z & K – found no Leadership Development Profile (LDP) validity studies. In a footnote, you state that although some LDP-based studies [e.g. Rooke & Torbert, 1998] cite Loevinger's studies as confirmation of the LDP's reliability and validity, "Loevinger's studies are out of date [new raters, scoring criteria, and levels are now used; metrics need to be re-calibrated], so they are not included here."

Thus, in a reversal of the story of 'The Emperor With No Clothes,' the review apparently discredits the Leadership Development Profile (LDP) measure as 'all public costume' and 'no scientific body underneath' (and many readers are likely to take that as gospel & inquire no more).

As I reflect on this matter, I find it both ***surprising*** and ***unsurprising*** that you found no validity studies of the LDP… Given the way you searched…

It seems ***surprising*** in that at least one of you – the tall one – attended a conference session last summer at which I and several colleagues presented a prize-winning paper on a wide variety of validity-testing studies on the LDP, which in turn referred to my most recently published book (***Action Inquiry***, Berrett-Koehler, 2004), which contains an 18-page appendix on the history of the LDP, with references to a number of quantitative studies using, and testing particularly the external validity of, the LDP. (It almost seems, Z, as though you reacted to something about that event that made you counter-dependently ant-agon-istic…???)

> External (field, catalytic) validity is arguably least demonstrated by other developmental measures heretofore and is arguably the crowning validity consideration, as well as the most relevant to the practical ethics of using the measure responsibly in the worlds of practice (see brief examples below).

In regard to ***Action Inquiry***, it is also noteworthy that the first listed associate author of the book is Dr. Susanne Cook-Greuter, a research scholar with whom I collaborated directly for 25 years and whom the authors properly credit with validity testing (Cook-Greuter, 1999) on what is now a somewhat distinct version of the measure (her SCTi / MAP)… but which was, at that time, the same measure. Hence, your article does in fact cite some validity-testing evidence in favor of the LDP without realizing it does so. Moreover, the validity testing work on the LDP has now extended since 1980, so your assumption – Z and K – that the validity tests of the Loevinger form conducted in the 1970s and 80s are irrelevant to the LDP proves false. Our own early validity testing (e.g. Merron, Fisher & Torbert, 1987; Torbert, 1987) was done at that very time based on the Loevinger form validated at that time (see further qualifications below). Thus, your dismissal of the 'old' Loevinger-related reliability and validity evidence is unjustified, since we were conducting field/catalytic/external validity data at the time, 'tho o' course u wrn't f'll'w'ng th' action @ th time. In fact, despite all the changes among the original and revised WUSCT, the SCTi / MAP and the Harthill LDP, I bet they would show a beyond .80 correlation with one another.

As we can already see, the situation in the field may not be immediately transparent to new entrants… So, there are several reasons why it seems ***unsurprising*** to me that you two found no validity studies of the LDP, given the way you were consciously looking (i.e., in 3rd-person terms, 'given their empirical methodology')… And why this is therefore a useful opportunity to respond to your own repeated and praiseworthy invitation to make this information more widely available for study to other scholars:

First, although Susanne Cook-Greuter and I began working in tandem some thirty years ago to apply and re-craft Loevinger's sentence completion form (also called WUSCT, of which SC-G is a high-reliability senior scorer) to issues of management and leadership… The measure itself was not renamed the LDP until some 20 years later…

> (Our delay was mostly based, I believe, on our collective humility in relation to Loevinger's achievement (even tho' many o' us viewed it as slightly less than the contributions of Plato/Hegel/Marx/Kierkegaard/Freud/Jung/Piaget/Erikson/ Kohlberg/Gilligan (my favorite dance-partner-when-twirling-on-Appian-Way)/Wilber/Kegan, et al.)

A second reason why it is ***unsurprising*** that you missed relevant validity studies of the LDP is that most of our early tests were parts of studies conducted on the external/field/catalytic validity of the measure (based on the relatively well-established internal validity and reliability findings at that time). Thus, they appeared in peer-reviewed journal articles, book chapters, and books about substantive findings from catalytic/field experiments… and not in articles focused primarily on the psychometric properties of the metric itself (e.g. Fisher & Torbert, 1991; Rooke & Torbert, 1998; Torbert, 1987; 1991; 1994; Torbert & Fisher, 1992). Someone(s) may yet author a ***JAP*** or ***JPSP*** or other psychometric journal article on all this…

> (My current hope/bet is on a collaboration between two doctoral students, among the recipients of this communication, who have yet to meet each other thru any medium so far as I am aware [and who, as young mothers at least, with strong connections to Asia Minor, have much in common]… but many other successful collaborations amongst others of you receiving this note are also easily conceivable…)

A scattershot outline of some of the studies and findings related to the LDP include (and I am phrasing each summary in as different language from the first publication as possible, so that comparing the original report to this one will reveal the most additional information possible):

1) An n=281 field study (Torbert, 1994), during which all participants were invited to request feedback on the LDP measure's findings about them, if they so wished. A larger proportion at each later developmental action-logic asked for feedback, a perfect 1.0 correlation on a Spearman Rank Order test, assuming the theoretical prediction that later, post-conventional-&-inter-dependent action-logics are increasingly open to (and increasingly seek out) single-, double-, and triple-loop feedback and learning. Understood this way, the finding supports both construct & external validity).

2) An n=96 (in 16 task-teams) field study (Torbert, 1987) shows that those teams (5 of 16) with one or more members measured at Strategist (8) outperformed teams with no one measured Strategist in three ways: in terms of bottom-line effectiveness, and in terms of members' perceptions of efficient time-use and greater within-group support for own learning.

3) In an n=177 field experiment over 22-months (Torbert & Fisher, 1992), only 3 of the 177 organizational participants who enacted the many developmental instructional technologies embedded in the organization's regular functioning (which included rotating team leadership roles, 360 assessments, developmental coaching, etc.) during their first 11 months transformed a full developmental action-logic after the full 22 months, according to the LDP. **By contrast, 15 out of 16** of those organizational participants **who** did all the above *and* ***also volunteered for and won*** a non-remunerative consulting role with new teams, during their 2nd 11-month participation (including depth-clinical training and processing on a weekly basis), **did transform**

a full developmental action-logic. This finding accounts for an unusually high proportion of the variance (81%, Goodman & Kruskall's tau) of the participants in the field experiment who are measured as having experienced a transformation of action-logic. The results seem a good test of the test-re-test reliability of the instrument, since only about 10% of the sample changed its score. The overall results also seems to document the transformational efficacy of a late-action-logic type of organizing ('liberating disciplines' [Torbert, 1991]) that interweaves voluntary commitment, depth mutual inquiry practices, and the practical demands of real business clients… with the intent of generating adult development.

4)In an LDP study of 10 CEOs and their Lead Consultants in 10 organizations attempting to transform (Rooke & Torbert, 1998), only the five CEOs measured at the Strategist (8) action-logic reliably succeeded in generating organizational transformation (accounting for .42 of the variance at a .05 level, Spearman Rank Order test).

In this case, of the four Lead Consultants, three are measured at the Strategist action-logic, one at Alchemist. As theoretically-predicted, in the five cases when the CEO is measured as at an earlier-than-Strategist action-logic, only the consultant measured at the Alchemist action-logic succeeds in supporting the two organizations that nevertheless succeeded in transforming. The 2 non-Strategist CEOs matched with Strategist Lead Consultants made some money but no sustained transformational change in the two organizations they were involved with. And, in the case of the Diplomat CEO [the earliest-recorded action-logic], who was paired with the Alchemist action-logic Lead Consultant, the consultant resigned after the CEO and Board Chair chose **not** to act on the consultant's recommendation that the CEO resign or be fired; 6 months later an ethics crisis that the Lead Consultant had known was brewing led to the firing of the CEO; the organization regressed two action-logics (as understood thru the Developmental Action Inquiry approach, an organization makes semi-permanent regressions easily, whereas an embodied person regresses only temporarily (and for shorter amounts of time the later the action-logic (McCallum, 2008).

Thus, if one adds the LDP scores of each CEO/Lead Consultant duo, then the combined influence of their action-logics accounts for 59% of the variance (at a .01 level, on that same Spearman Rank Order test) in whether the organization succeeds in transforming. The small sample size and the non-parametric statistical test highlight the construct and external validity of the measure as a metric that properly distinguishes among individual cases. I know of no evidence that any other developmental measure has tested or attained this kind of field/catalytic/external validity and would actually examine any such purported evidence carefully (see appendix of Torbert & Associates, 2004), perhaps surprisingly, given my vow not to write about these matters in a systematic academic sense again, but not inconsistently.

5)A more recent example of testing the construct validity of the current version of the LDP, entailing an n of 891 LDPs (830 [93.1%] scored as 'Conventional'; 61 [6.9%] as 'Post-Coventional' [Livne-Tarandach & W. Torbert, 2008]) found two qualitatively different factor analysis structures between the two sub-samples, as the theory would predict: the Conventional sub-sample shows eight *distinct* factors, with different stems clustering in different factors; by contrast, the Post-Conventional sub-sample shows 11 *interwoven* factors (we are informally calling it the 'spaghetti-and-meatballs' graph), with more than half (52%) of the stems loading on two factors or more (9 on 2, 7 on 3, and 3 on 4).

> These findings, we propose, suggest that – while Conventionals group stems in stable themes (e.g. 'leadership,' 'feminine,' 'power,' 'rules,' 'feelings,' or 'family') or larger stable categories (e.g. 'work' or 'emotions') – Post-Conventionals, by contrast, tend to link different stems together at one time or another, "flocking" differently at different moments. These two, very distinct types of thinking remind us of Plato's two images of the nature of thought (in his ***Thaetetus***): as either 'marks on the wax tablet' of the mind, or as 'birds flying about in the aviary' of the mind. Put differently, Conventionals' loadings represent a relatively simple mental map, with Aristotelean-ly distinct, independent categories ("nothing can be both A and not-A"); in contrast, Post-Conventionals' loadings suggest an ongoingly-dynamic, mutual-systems-oriented, inter-independent, 'living' mental mapping process, more at home in contemplation of Plato's dialogues..

Overall, the strength of the external validity testing of the LDP is that a range of different kinds of studies

> (lab and field experiments, field surveys, interview studies anchored by LDP scores, and real-time-studies-directly-implicating-the-researchers-and-their-clients themselves [see e.g. McGuire, Pallus & Torbert, 2007, or Hartwell & Torbert, 1997a & b))

find consistent theoretically predicted and theoretically explainable results and sometimes account for an unusually high percentage of the variance in the process. More recent validity and reliability are available in Torbert et al (2008).

This note has become too long, but I also want to bring to your attention a third reason that I believe helps to account for a mismatch between where and how Stein and Heikennen looked for LDP validity tests and where and how such validity tests have actually appeared in the scholarly literature. This is that, in part by using the developmental 'paradigm of paradigms,' I have also, with my closest colleagues and friends, been attempting to embody a late-action-logic paradigm of social science in my work. This Developmental Action Inquiry paradigm (Torbert, 2000a and 2000b) makes, not only the 'language' turn, but also the 'action' turn (Reason and Torbert, 2001; Chandler & Torbert, 2003) into studying oneself (1st-person research) in action with others at their invitation (2nd-person research) in relation to broader 3rd-person organizations and 3rd-person empirical measures.

As part of making this possible, Cook-Greuter and I (along with David Rooke and Jackie Keeley of Harthill Consulting Ltd.UK and eventually others, such as Elaine Herdman-Barker) radically improved the measure's face validity (or 2nd-person validity) for working people in general receiving feedback on their performance on the measure (and for legally-oriented human resources departments that didn't like being challenged by employees about the peculiarly-gendered stems in the Loevinger instrument). We did so by substituting four independently-validated work-related stems which have proved to have higher item/profile correlations than the earlier Loevinger stems substituted out (thus improving internal reliability overall). We also improved face/2nd-person validity by translating a lot of Loevinger's titles and evaluative terms to more neutral/descriptive terms (e.g. 'Conformist' to 'Diplomat' [formerly 3, now 4 in the common numbering system). We also developed the theoretical rationale and work-related description of the Technician/Expert action-logic, which was the modal score among all our managerial samples (and was then an unnamed ¾ transition; now 5 in the common-numbering system). Later, we did the same for the Individualist/Pluralist [7] action-logic. All of these changes have been critical for the possibility of using the measure effectively and ethically in action research with co-participants in field settings, such as the research at the 10 companies summarized above.

Of course, validity testing of various kinds needs to, and is, continuing on the LDP. But I hope that the foregoing comments, as unsystematic as they are, arouse a new kind of interest in this particular measure, as well as in the broader issue of transforming the social sciences from pallid versions of the old-fashioned physical sciences that exercise ethically-objectionable unilateral power over subjects… into ethical forms of action research that empower co-participants and generate new forms of mutual and transforming power.

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Reply from Zak Stein

RE: Reply to Torbert and frame-up for *Integral Review* readers.

My paper (with Katie Heikkinen.) in the current issue of *Integral Review* is, in part, a call for discourse and collaboration between researches in developmental psychology concerning the validity and reliability of the metrics they use. Bill Torbert has been the first to respond to this call, and we are grateful for his thorough and insightful response, in particular his discussion of ecological validity. We hope his letter will not be the last and that others might take the peer-reviewed route, choosing to publish a more formal article in *Integral Review.* Nevertheless, the content of Bill's response is exactly the kind of thing we are looking for.

The story we tell in our paper is incomplete—as we note explicitly—and we offer it as simply the first word in a longer conversation, the goal of which is to inform a kind of information clearinghouse and educative resource about the wide variety of developmental approaches available (more on this below).

We will address the details of Torbert's response (and the responses of others) in a second publication to be written over the coming months. For now I will say, in passing, that developmental metrics can be divided into those *calibrated* for use in assessing individuals and those that have not been, and thus can only claim to be useful for research purposes. This is a distinction we explain in the paper, where we discuss the fact, for example, that Loevinger claimed that her metric was not reliable enough to be used in assessing individuals. The studies Torbert describes, although they provide evidence that developmental level predicts leader behavior—very important— provide no insight into whether or not the LDP is statistically reliable enough to justify its use in individual assessment.

When it comes to individual assessment, statistical reliability is a central concern, because it tells us how confident we can be that the score awarded to a performance is close to the test-taker's "true" score. For example, if a developmental assessment that is designed to measure 7 levels has a statistical reliability of .80, an individual who receives a score of 5 has a *true* score of 5, + or - 2 levels—somewhere between 3, and 7. The ideal statistical reliability for an instrument designed to detect 7 levels is .96. Even then, an individual who receives a score of 5 could have a true score between 4 and 6. (A research *instrument* with a reliability of .80 is good enough for studying group trends, but *assessments* are generally required to have reliabilities of .90+).

Of course, all assessments should measure (1) what they claim to measure (construct validity) and (2) something of importance (ecological validity), and human-scored assessments should also be associated with appropriate levels of inter-rater reliability, which must be continuously re-evaluated.

So this is the kind of difficult conversation we are trying to have—both technically/conceptually difficult and politically/emotionally difficult. The rest of this letter is an attempt to clarify why this conversation is important to have right now—why it is worth having despite its difficulty. I offer the following thoughts in order to clarify, as I did in *Integral Leadership Review*, the broader context that has me worried enough to take on the role of *l' enfant terrible*.

The United States has one of the largest and most complex educational systems in the world. This is a system that began to take in its current shape after the Second World War, influenced by a confluence of factors, including the birth of psychological testing. We now face a complex polycentric testing infrastructure that affects the lives of millions of children, adolescents, and adults every year. The sheer size and importance of this infrastructure makes it an unprecedented and incomparable example of applied psychology. But it is run by private companies providing a product that serves an irreplaceable public function in the educational system, which has led many to posit the specter of a *standardized testing industrial complex*. Moreover, the type, quality, and purposes of existing tests are highly questionable. They are not built by developmentalists or learning scientists; they can function only as sorting mechanisms for allocating rewards or punishments; they set drastic constrains pedagogical options; and they are administered in high-stakes contexts, etc. And this testing infrastructure is continuing to grow.

The rapidly increasing complexity of our world has forced the educational system to expand vertically, where it has diversified greatly. The task demands of key roles in society are becoming increasingly steep, requiring life long learning, either in graduate school, through various professional development mechanisms, or through coaching/therapy, etc. In post-industrial economies, individuals must be educated longer and to higher levels, and some, depending on their role, can never stop learning. This new educational frontier is accompanied by a burgeoning testing infrastructure. Diverse applications of psychological testing are proliferating, serving a wide variety functions.

This emerging arena for applied psychology could begin to look a lot like the testing infrastructure that dominates the world of schooling. It has not yet become legally and institutionally entrenched, but it will. Accountability mechanisms will be extended to higher education. Industry and government will be forced by a host of global problems to see that all organizations need to build in sophisticated mechanisms for life-long learning and social role allocation.

In this light, the call for quality control becomes clear, I hope, as does the need for rigorous discussions about psychometrics. We need to be at least as rigorous—if not more rigorous—than the existing psychological testing juggernauts, if we are going to have any say in shaping the large scale application of psychological technologies.

I am leading specific efforts (along with Theo Dawson) at Harvard and elsewhere to re-design the testing infrastructure for the public education system. We are piloting new developmental testing infrastructures in a network of research school collaborations and working to stimulate discussion about testing in the public sphere (I invite you to participate in this initiative by taking The National Testing Survey at: www.testingsurvey.us).

My efforts in the field of adult development have been focused toward the Integral community (broadly defined), wherein there is a profound call for innovation in applied developmental psychology. My efforts have been mainly discursive so far. But the series of publications I have offered on this topic have consistently called for action. I am currently taking steps—with Katie Heikkinen, Sara Ross, Robb Smith and support from a network of academics, consultants, and psychologists—to build an information clearinghouse and educational resource about developmental approaches. This will be a website designed to foster collaboration and transparency between researchers, between researchers and the consultants (etc.) who buy their wares, and between researchers, consultants, and the public. The information will focus on reliability, validity, and the ethics of application. This project will take shape over the next 9 months, and I'll keep you posted via *Integral Review*.

As Dewey, Habermas, and Wilber have warned: non-synchronic patterns in socio-cultural development have resulted in a situation where our techno-scientific capabilities far outstrip our ethico-political visions and organization—21st century tools are wielded in light of 19th century (and in some cases 14th Century) ideology and government. This is a precarious situation. From where I sit—as a philosopher of education—this situation demands that we roll out the right kinds of psychological and educational technologies ASAP. We have a precious and fleeting chance to collectively build certain specific structures that will shape the future; responsibility is paramount—as is a vision of what is possible and preferable.

All the best wishes from the pre-dawn hours in Carlisle, Massachusetts.

zak

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IR Editors News

Thomas Jordan

Grant for 3-year research project on The Integral Process for Complex Issues

Last December, we received the good news that a research grant application to the Swedish Knowledge Foundation for a 3-year project was approved, with a budget of about 500 thousand USD. The project title is From concerned citizens to effective societal entrepreneurs – Cognitive transformations and the role of scaffolding. Pia Andersson, now doctoral student at the Department of Work Science will carry out most of the work in the project. Dr. Thomas Jordan is the project leader, with dr. Ylva Mühlenbock and dr. Päivi Turunen as part-time co-researchers. Dr. Sara Ross, who developed TIP – The Integral Process for Complex Issues, will act as an advisor to the project. We will use TIP as the main instrument of investigation. The official description of the project is appended below.

The context of our project is societal entrepreneurs working with initiatives that involve a considerable degree of complexity and therefore difficulties in (1) understanding and managing complex processes; and (2) communicating productively with actors with different mindsets. A significant thematic concerns the challenges of working in multicultural settings.

The more research-oriented purpose of the project is to analyze the cognitive changes involved when people start to experience themselves as potentially competent societal entrepreneurs and when they develop skills in societal entrepreneurship. The more praxis-oriented purpose is to contribute to the development of methods (scaffolding modules) that facilitate skill- and confidence-building among prospective societal entrepreneurs. These general purposes are operationalized in seven specific research questions.

Our analytical framework is mainly based on adult development theory, using both qualitative and quantitative data. The main part of our project uses action research methodology, i.e. we as researchers-practitioners participate actively in co-facilitating inquiry and strategy-finding processes together with prospective societal entrepreneurs.

In the main study, we will collaborate with Hyresgästföreningen, the Swedish tenant's association. Hyresgästföreningen has recently initiated a three-year project ("Uppdrag M") focussing on the renewal of the "million programme" housing areas, the large suburbs built in the late 1960's and 1970's when Sweden went through a massive urbanization process. About a million flats were constructed in this national programme with mass production techniques, leading to areas with stereotypical high-rise

blocks. Hyresgästföreningen is keen on mobilizing and involving tenants in the renewal of these areas.
A smaller part of the project uses a best-practice approach. We will, with the assistance of the the crime prevention council in Göteborg, identify five successful examples of societal entrepreneurship and use semi-structured interviews to generate data that will be analysed for patterns of cognitive change.
The project design will generate different sets of empirical data. Participative observation, documented through journalling, will be a rich and open-ended source of qualitative data on process issues. Semi-structured interviews with process participants will be used in order to analyse whether significant transformations of the participants' constructions of various aspects of societal entrepreneurship occurred. Pre and post questionnaire assessments will generate quantifiable data on the perspectives and assumptions of the participants before and after the intervention.

The research team comprises five researchers from the disciplines of work science, public administration, social work, adult development psychology and conflict analysis. Three universities are involved: the Gothenburg, Dalarna and Antioch (USA) universities.
For more info contact:

Pia Andersson: Pia.Andersson@av.gu.se
Thomas Jordan: thomas.jordan@av.gu.se

Tom Murray

Putting global warming aside for a moment (as if I could), I'm feeling grateful to have been born in this age of technological advancements. I ordered a DVD with the full set of audio recordings of presentations from the 2008 Integral Theory Conference, dropped it onto my iPod, and have been working my way through the whole conference in the last six months (in my car). Thanks to the prodigious efforts of the conference organizers, I can now attend multiple parallel sessions!

I have particularly enjoyed listening to the panels--lively discussions on integral approaches to subjects including Developmental Research, Environmentalism, Coaching, Education, Feminism, Politics, Psychotherapy, and Spirituality. These panel discussions are wonderful examples of the power of dialog and collectivity in knowledge building. Through the dynamic forces of interaction a quality of breadth, depth, diversity, and wisdom emerges from the whole that would hardly be possible from a single author or speaker, or from a non-interactive format. And it was hopeful to observe that the participants in these panels often exhibited characteristics of an "integral consciousness" such as: reflecting to their present internal physiological/emotional state, speaking to vulnerable elements of their psyche such as shadow, holding moments of silence with appreciation rather than awkwardness, and gracefully responding to alternative perspectives. It was not 100% so superlative, but compared to panels in other academic conferences, these were quite refreshing.

The panel on Integral Education was one of the things that inspired me to write the recently published IR article "What is the Integral in Integral Education? From Progressive Pedagogy to Integral Pedagogy," which allowed me to apply my understanding of integral theory, developed mostly over the last six years, to my decades-long work applying educational theories.

I continue to work on topics of dialog and collective processes, and enjoyed putting together a reference document "Tools for Dealing with Uncertainty, Ambiguity, and Paradox: Reflective Methods for Group Development" for a workshop I co-lead with Sara Ross and Jan Inglis at the National Conference on

Dialog and Deliberation. I'm also looking forward to participating this summer in both a New Generation Integral Activism retreat, and Next Step Integral's Integral Education Seminar, where at both venues I will be prototyping an activity to help participants gain a embodied felt sense of developmental levels as described in Spiral Dynamics and other theories.

Bonnitta Roy

I am looking forward to hosting the 2009 Integral Activism Strategic Vision Retreat at 'Alderlore' - our Connecticut farm/ home July 17th- 21st. This will allow me to develop a close and personal view of how activists are bringing forth integral ideas and putting them into practice. The retreat will be a small intergenerational gathering of people who are activists in grassroots organizing, social movement history, integral theory, whole systems thinking, nonviolent social change, anti-oppression, spiritual practices and community building. The retreat is being organized by Joshua Gorman (Generation Waking-Up) and Julia Walsh (Synthesis Rising) – two young leaders on the rise in the integral community.

Since January I have been working hard to post content on a new venture 'Integral Review of Books' to be hosted at integralreveiwofbooks.com. Designed after the kind of extended-article reviews in The New York Review of Books, I hope to build a resource for contemporary works on or operating from an integral view – over the very diverse range of what "integral" signifies. The website is currently not active, but I have been writing an extended article about scalar relations and human action at the associated blog http://integralreviewofbooks.wordpress.com .

Russ Volckmann

Integral Leadership Review and ***LeadingDigest*** now have a home. In collaboration with Keith Bellamy and Sara Nora Ross we have incorporated Integral Publishers. At present we will be publishing two new lines: books and dissertations. We seek to provide a means for the voices of integrally informed authors to be heard more widely. Our draft of our purpose statement reads:

> Integral Publishers is a 21st Century Enterprise whose fundamental purpose is to contribute to the common good. This will be achieved through the use of technology to foster dialogue and dissemination of integrally-informed ideas, concepts and experiences that enhance the development of individuals, organizations, societies and the planet as a whole.

IP is an attractor for all ideas that marry the wisdom of the past to the potential of the future. We give voice through traditional and emerging channels of communication to talent that speaks to all levels of development and to the beauty that each level brings. Our primary objective is to build an appreciation of humanity, society and world systems and to encourage them to thrive.

We will have a website soon. In the meanwhile, information on our publications can be found at http://www.integralleadershipreview.com/integral-publishers-bookstore.php. We now have six books:

- Volumes 1-3, ***Insights on Leadership***
- Robert Rabbin, ***A Mystic in Corporate America***
- Peter Merry, ***Evolutionary Leadership***
- Jordan MacLeod, ***New Currency***

Out first dissertation should be ready soon:

- Sara Nora Ross, ***Effects of a Structured Public Issues Discourse Method on the Complexity of Citizens' Reasoning and Local Political Development***

Other books and dissertations are in the pipeline.

We have unusual contracting arrangements with authors that provide considerably higher proportions of royalties to the authors than has been the custom in the publishing industry. We believe authors should be rewarded for their work.

An innovation (for us) on the ***Integral Leadership Review*** website is our streaming audio interviews with individuals like Jim Garrison, Michael Ben-Eli, Barbara Marx Hubbard and Don Beck. You can access these at http://www.integralleadershipreview.com/mp3-interviews.php.

On another note, I am serving on dissertation committees of PhD students drawing on integral theory at Antioch University, California Institute of Integral Studies, Fielding Graduate Institute, Institute for Transpersonal Psychology and Saybrook Institute. This year I am teaching about integral leadership at California Institute for Integral Studies, Saybrook Institute and Union Institute and University. Sara Nora Ross is joining me for the opening session with UI&U students in July.

Notes from the Field: A Gathering of Developmentalists

2009-10-01 12:10:33 Terri O'Fallon

Terri O’Fallon

The day was a bit misty, but despite the rain sixteen interested developmentalists from around the world rang the doorbell next to Bill Torbert’s front door on October 3rd, 2009 to engage in a dialogue on developmental theory and its measurement. This meeting was sparked by an article in the Integral Review, “Models, Metrics, and Measurement in Developmental Psychology” written by Zak Stein and Katie Heikkinen. The Abstract to their article began and ended with:

Developmental psychology is currently used to measure psychological phenomena and by some, to re-design communities. While we generally support these uses, we are concerned about quality control standards guiding the production of usable knowledge in the discipline…We reveal a conspicuous lack of psychometric rigor on the part of some of the most popular developmental approaches and invite remedies for this situation.

Highlighted in the article was the Lectical Assessment System, (Dawson et al), the Subject Object Interview (Kegan) The Leadership Development Profile (Torbert et al) Spiral Dynamics (Graves), SCTi MAP (Cook-Greuter), Requisite Organization (Jaques) and theHierarchical Complexity Scoring System (HCSS; Commons, et al.).

As a response to this critique, Bill Torbert sent an open invitation for anyone interested in exploring the article and developmentalism to a gathering in his home on October 3, 2009. A number of interested people responded but 16 were able to attend as concerned parties. Present were Aliki Nicolaides, Elizabeth Debold, Jonah Freidman, Karen Yeyinmen, Sandra M. Martinez, David McCallum, Nancy Popp, Zachary Stein, Edward Kelly, Jackie Keeley, Nancy Wallis, Mary Stacey, Katie Heikkinen, Sara Nora Ross, Bill Torbert, and

Terri O'Fallon. Present by a letter offering was Susanne Cook-Greuter. Representatives of The Lectical Assessment System, the Subject Object Interview, the Leadership Developmental Profile, HCSS, and The SCTi MAP (MAP for short) were in attendance.

Early on in the introduction process, in which each person attending described their purpose in being there, Zak Stein put forth his concern that seemed to be a basis for much of the day—that is, his concern that we catalyze an information clearing house to assure ethical use of the developmental technologies that are available for the protection of consumers in a fashion similar to the clearing by the FDA of the bio-tech industry. His assertion was that, to get a holistic picture of somebody we need multiple measures, so it was his hope that there could be more collaboration and transparency between researchers and between researchers and consumers.

Several people supported Zak's concern. In addition, other intentions were revealed: How to access the first and second person perspective in the process of working with these inventories; the shared responsibilities we have as researchers and practitioners coming together; defining our terms so that we can adequately communicate with each other and the public; the "so what" of this process; concern about what it is that we can do to bring about a big shift; how can we work together so that we can all support each other in the development of all of our work and in the process serve consciousness; and an interest in wonder. Many people came to listen and learn.

Early in the conversation we began to unravel the differences between the various measures, including what we mean by the word "cognitive" since some of these approaches were thought of as cognitive approaches. Different definitions were expressed and as the conversation ensued from this exploration we began to untangle some of the differences between the represented inventories.

For example the LAS was described as disentangling the evaluative from the descriptive before they put them back together, whereas the MAP, the LDP, and the SOI were described as more integrative of the whole from the onset. The LAS was described as measuring performances on various lines of development, whereas the SOI, MAP and LDP were described more as a measure of a whole person relative to the particular focus of their scale. It was noted that two distinct language games are involved here: one about the quality of the empirical claims and another about how you justify the evaluations you are making of each person that are about their quality as a person.

Thus, it became clear early on that the purpose behind the use of a particular developmental inventory was of importance. An observation was made that one purpose seems to be to create a generalizable and justifiable third person measure (the LAS). Others seemed to be concerned with the understanding of the insides of a person's experience (SOI). So does the (MAP) while it also looks at behaviors and cognitive complexity. A further focus was concerned with the form of development that actually comes out in action (Action Inquiry in conjunction with the LDP).

Time was set aside for those present representing the LAS, the SOI, the LDP and the MAP to further describe their approaches to measuring development. Out of this discussion, one fundamental difference seemed to surface: The LAS and HCSS are not based on the concept of a person having a center-of-gravity and the SCTi-MAP, the SOI and the LDP are. Therefore what is measured is essentially different.

A discussion ensued related to validity and reliability measures on several of the scales, large and smaller samples and other interests in the area of metrics, but this focus was held by the concern about appropriate ethics around the use of all developmental frames.

The biotech industry in the concrete world was compared with psychological technologies, which come from the world of the subtle. Because of increased demand to have people who can make decisions within the whirlwind of increased information glut, it was noted that there will be more and more demand for placing people, developmentally, in appropriate positions for making the required evaluations and assessments and decisions. Given this ballooning context it would be important to not let the market place dominate the flow of developmental services because this may be harmful to consumers.

Coming to a focus that we are all fundamentally on the same team—all looking at the same thing from different angles—we grappled with the recommendation that a community of concerned people develop standards to protect the consumer by looking at comparable institutes like ETS and AERA, and their guidelines for standards of best practices, through some form related to a clearing house or network.

It was proposed that a community of developmental academicians, researchers and practitioners come together and articulate principles for this network/clearing house and from that develop a set of standards. Setting up the right container to engender cooperation amongst us all for this effort was recognized. It would also be useful to find ways to catalyze metrics across these scales.

While this seemed to be a good first step, cautions also arose. While clearing houses could screen for ethical best practices that might include metrics, they also screen out certain options, some of which may be appropriate from later developmental levels, thus limiting choices of people, as the FDA does by not approving certain naturopathic approaches.

It was also noted that principles in and of themselves could reify our very efforts to the rigidity that we want to escape, that we might be aware of the importance of having a guiding evolutionary entity that would develop along with development itself. If we are at the frontier of human development, having developmental theory helps us see how big a challenge this is. Most people think and act in a way that distort principles into their opposites, because they don't get enough feedback.

The day began and ended with a sense of good will, a collaborative air and a promise to meet again with this rare kind of active second person research spawned by Bill Torbert's invitation. . Sara Ross, publisher of the Integral Review invited articles on the day and on the reliability and validity testing of different measures for the December issue of IR.

Our work is just beginning. While the eyes of the world are focused at this time on more prominent areas than developmentalism, we are—by comparison—under the radar. This gives us the flexibility, the freedom, the option, the responsibility to develop something ethical, and creative for ourselves. We can start from the place of shaping ourselves with the kind of developmental level and focus that humanity will one day be holding prominent, so we don't want to repeat the siloing of our clearinghouse predecessors. We want to learn from what they weren't able to see and work towards a model that is developmentally later than what we now have. This model will address how will humanity will be looking at what we did in 10, 20, or 100 years and what will we do in the design of our very models to serve humanity by imbedding development in them.

These are my own musings of that day of opening where 15 interested developmentalists made their first contact to engage with cooperation and good will.

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Attendees were:

Bill Torbert—A now retired Dean and professor at Boston College, Bill has authored several books, including co-authoring Action Inquiry. He co-authored a significant article in Harvard Business Review on the relationship between higher stages of development of CEOs and consultants and success in organizational transformation. He has consulted internationally and continues his consulting relationship with Harhill in the United Kingdom. He is a member opf the Integral Leadership Council for Integral Leadership Review.

Elizabeth Debold—is a senior editor at EnlightenmentNext and co-author of Mother Daughter Revolution. She holds a Harvard PhD in Human Development and Psychology. She received her doctorate in Human Development and Psychology from Harvard University, and was a founding member of the Harvard Project on Women's Psychology and Girls' Development, which was directed by Dr. Carol Gilligan.

Aliki Nicolaides—is a post doctoral Research Fellow for the Center for Institutional and Social Change She received her Ph.D. at Teachers College. Previously, she founded not- for-profit enterprises in Singapore to build the capacity of women in leadership positions in government, non-profit and civil society sectors. She continues her work with emerging civic leaders in the United States and in the Middle East, working with practitioners and scholars in a variety of contexts.

Karen Yeyinmen—is a doctoral student at Harvard Graduate School of Education where she is studying adult transformational learning and leadership development. Her research is heavily informed by constructive-developmental and socio-cultural theoretic perspectives. She was Executive Vice President at TreeTop Technologies, Inc, a Information Services company.

Jonah D. Friedman—

Sandra M. Martinez—teaches at the United States Army War College and the Naval Postgraduate School. She co-authored a paper with Bill Torbert, "Timely Co-Generation and Sharing of Knowledge." She currently lives and works outside of Tegucigalpa, Honduras.

David McCallum—is serving as assistant to the president of Le Moyne College in Syracuse, N.Y., and as visiting professor of Leadership studies in Le Moyne's Management Division. In his research, David continues to explore the implications of developmental maturation for leaders as they face the challenges of organizational change processes. In his practice, he is involved with leadership capacity building for boards of trustees, faculties, and other groups. He also provides retreats exploring the implications of adult development for spiritual maturation.

Nancy Popp— is a developmental psychologist specializing in adult development. She did her graduate work in the '80s with Robert Kegan at Harvard and has become one of the foremost experts on the Subject-Object Interview, a measure developed by Kegan and colleagues to assess the complexity of an individual's meaning-making. She continues to collaborate with Dr. Kegan on various projects.

Zachary Stein— received a B.A. in philosophy from Hampshire College in 2004 and an Ed.M. in Mind, Brain, and Education from the Harvard University Graduate School of Education in 2006. He is currently a student of philosophy and cognitive development pursing a doctorate at Harvard. He is also the Senior Analyst for the Developmental Testing Service where has worked for years employing cognitive developmental models and metrics in a variety real world contexts (www.devtestservice.com). He has published in Integral Leadership Review.

Edward Kelly—

Jackie Keeley— holds first and post-graduate degrees from the University of Bath, most recently qualifying in Action Learning methodologies with the Centre for Action Research in Professional Practice. In 1985 Jackie co-founded Harthill, building on her career as an independent consultant and her work at Roffey Park Management College. She is co-author of several papers and a contributing author to Action Inquiry: The Secret of Timely and Transforming Leadership (Berrett-Koehler, 2004).

Nancy Wallis— is Associate Dean for Curriculum and Program Delivery in the School of Human and Organizational Development at Fielding Graduate University. With a career as a scholar-practitioner, Dr. Wallis is committed to the study and practice of leadership that improves the quality of human lives, in small and large systems, in which personal and collective transformation are engaged, and where organizational goals are aligned with increasing social and economic justice. She serves on the Executive Committee of the Board of Directors of the Organizational Behavior Teaching Society (OBTS) and is a member of the Academy of Management. She presents regularly at the annual conferences associated with these organizations as well as at industry and client meetings.

Mary Stacey—Mary holds an MA in Organizational Leadership and Learning, a BA in psycholinguistics, and a diploma in counseling. She is a Newfield accredited coach and a member of the International Coaching Federation (ICF). She is a Founder and Managing Director pf Conterxt Management Consulting. Case studies of Mary's results are published in The Change Handbook: The Definitive Resource on Today's Best Methods for Engaging Whole Systems (Barrett-Koehler, 2007) and by the Information Management Forum (IMF, 2006). Her inquiry-based action learning program was designated an enterprise best practice by the CEO of Canadian Tire Corporation, Ltd. (2005).

Katie Heikkinen—is currently a doctoral candidate in the Human Development program at the Harvard Graduate School of Education, where her research focuses on the assessment of adult development, with a particular emphasis on Kurt Fischer's Skill Theory, Theo Dawson's Lectical Assessment System, and Robert Kegan's Subject-Object Interview. She is an alumni of Integral Institute and is currently on the faculty of the Integral Theory program at John F. Kennedy University. She has an article in this issue ofIntegral Leadership Review.

Terri O'Fallon—is a principal of pacific integral, her interests now lie in the living experiments of evolutionary systems design, adult levels of development and maturity, and the joys of ordinary living. She completed a PhD in integral Studies and is a certified scorer of the Leadership Development Framework. She has published in Integral Leadership Review.

Sara Ross—is a founding partner in Integral Publishers, member of the Management Review Board ofIntegral Leadership Review, founder of the community action programs for ARINA, Inc. and founder of Integral Review, Sara was also the co-editor of a special issue of World Futures with Michael Commons on hierarchical complexity. Sara teaches and does research at Antioch University. She was interviewed inIntegral Leadership Review.

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Terri O’Fallon, PhD, is a principal of Pacific Integral, whose focus is to

1 Develop support for the relief of suffering on our planet
2. Bring together people who are willing to experiment with new effective structures for realizing transformative change in evolutionary systems
3. Develop people in ways that will bring joy and wisdom into their midst through service.

Her interests now lie in the living experiments of evolutionary systems design, adult levels of development and maturity, and the joys of ordinary living.

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Transcript: Closing Conversation of the “Validity Day” Meeting at Bill Torbert’s, October 3, 2009

Introduction

After *Integral Review’s* (IR) publication of Stein and Heikkinen’s *Metrics, Models, and Measurement in Developmental Psychology* in June 2009, Bill Torbert submitted a spirited response to the article, which IR published in its July 2009 *Occasional Newsletter* (linked in this Special Section’s Table of Contents for reference). In that response, Bill included an invitation to all interested parties to convene at his home in the autumn to learn about and discuss the validity testing to which the Harthill Leadership Developmental Profile had been subjected over the years.

On October 3, 2009, 14 individuals joined Bill at his home at 138 Parker St, Newton, MA for the day-long meeting. Ten participants hailed from across the US, one individual flew in from Honduras, one from Canada, and two others arrived from Ireland and the UK. The meeting participants are listed below.

This document is the result of Bill’s suggestion near the end of the audio-recorded meeting that a transcript of the closing conversation be prepared and published in IR. With unanimous agreement of those present, that conversation is shared as a further contribution to the dialogue catalyzed by Stein and Heikkinen’s article.

The original meeting agenda, proposed by Bill to participants who confirmed attendance, is included below as a way to orient readers to the general tenor and content of the day’s discussions. From it flowed the transcripted closing conversation that follows below the list of participants.

“Validity Day” Meeting Agenda

11:00 – 11:10	Short meditation to bring us more fully into ourselves and one another’s company
11:10 – 12:00	3-minute introductions of ourselves and our current work/question
12:00 – 1:00	What is each of the three measures seeking to know about and predict (i.e., the Leadership Development Profile, the Subject-Object Interview, and Lectical Assessment)?
1:00 – 1:30	Lunch
1:30 – 3:30	What kinds of reliability and validity tests have been performed on and with each measure? (40 min. each)
3:30 – 3:45	Break
3:45 – 5:00	What kind of relationship between social inquiry and social action does the measure demonstrate?

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Meeting Participants

The following were participants in this meeting, all of whom agreed to the use of audio recording and transcription. Speakers included below have reviewed and approved this transcript.

Elizabeth Debold, *EnlightenNext* Magazine
Jonah Freidman, Fordham University
Katie Heikkinen, Harvard School of Education
Jackie Keeley, Harthill Consulting Ltd., UK
Edward Kelly, of France and Ireland
Sandra M. Martinez, Cebrowski Institute, Naval Postgraduate School, Honduras
David McCallum, S.J., LeMoyne College
Aliki Nicolaides, Columbia University
Terri O’Fallon, Pacific Integral
Nancy Popp, Antioch University McGregor
Sara Nora Ross, *Integral Review* Journal
Mary Stacey, Managing Director, Context Management Consulting Inc.
Zachary Stein, Harvard School of Education; Developmental Testing Service, Inc.
Bill Torbert, Emeritus Professor, Boston College
Nancy Wallis, Fielding Graduate Institute
Karen Yeyinmen, Harvard School of Education

Transcript

Bill: [Referring to original agenda for this last hour of the day’s conversation] I’m not sure it’s quite the right question, but I think one of the questions that has been coming up is this question of how to influence things more widely in terms of larger systems and so forth, so that may be closer to our question at this point.

On the back of the page with Susanne’s comment, I have an outline of my developmental model of social science, showing the underlying developmental action-logics of different ways of doing social science. Empirical positivism is an approach to social science that treats only objective, third-person knowledge as potentially valid. I have been aspiring towards a kind of social science I call Developmental Action Inquiry that attempts to interweave first-, second-, and third-person research. It’s something that social science has not bothered to do yet and I think ought to. So, in a way, it’s my answer to the question of—why am I so concerned about this action stuff? Well, because we all are, I think, and because the question that it seems to me we all ask ourselves—although very few of us ask it explicitly is: What action would be timely now? That seems to me to be the one question that is relevant all the time and yet, it’s a question that social science, as we now know it, can’t speak to at all, because it doesn’t integrate first-, second-, and third-person research. Most third-person research attempts to be time-neutral and, therefore, has nothing to say to the question.

This was all in the service of talking about the larger paradigm out of which I thought my work was coming, but I don't think that's exactly the topic we want to discuss right now. What do you say? Let's try something harder—like finding the question we want to discuss.

Sandra: Drawing on what you've said, I've had several conversations with people about how we—it was Sara, and Jackie, you mentioned this too…about how we might want to talk about what we share in terms of the transformation we're trying to enact or support at a higher level, at an institutional level. Perhaps we could discuss how we can support one another and how we might weave this discussion into the type of conversation we want to have about validity.

Bill: Right, and that relates to the sort of clearinghouse/network question, maybe.

Jonah: I suppose the question that comes up for me is hearing because three of you worked in, in some sense, this intervention or ambush or hearing, or wanting to hear, or are really, really curious about what we can hear together because I was very curious to hear from you also what you may have heard in your time here, perhaps what you might not have thought you were coming to hear.

Bill: Which three are you thinking of? Sort of the complexity people?

[Laughter]

Bill: I think you will have identified them as a unit.[referring to Zak, Katie, and Sara, because they share a common theoretical foundation of Hierarchical Complexity theory]

Jonah: Probably, you helped to invite us to be itself a possibility by writing the article, which was an invitation. So, in a sense, you walked into it and we walked into it by virtue of your intention, too. I'd be curious and certainly am curious.

Sara: One question that was floating in me right before you started to speak was, "What does the field of practice need from the theory side?" That's a question I'm sitting with and that's certainly related to my earlier motivation last year to suggest we need some kind of Institute of Applied Developmental Theory. But I'm just wondering in the light of the conversations today, from the praxis standpoint—is anything arising? What does the field of practice need from theory?

Elizabeth: Do you mean theory or do you mean metrics?

Sara: No, I mean from developmental theory. Yes, seeing metrics as the instrumentation of theory, but that wasn't where I was going. I guess one reason I'm asking that is related to something I said earlier about the need I see, at least, but maybe it's not something that's really a need, of distinguishing among—if we're going to choose metrics, if we're going to choose instruments, if we're going to choose intervention measures and methods and other process methods, what do we need practically to help us distinguish doing what?

Do we want to organize our thinking around someone’s center of gravity or someone’s performance or someone’s behaviors typically in a certain domain? What kind of constructs, maybe, is what I’m asking, does the field of practice need from the theory side to help make things more useful?

David: To join you with that, it feels like we need to co-generate some new principles for both the research and the application. I was thinking about it in terms of, in many professions, there are codes of conduct and practice that are really thoughtful, reflective. People come up with them consensually and they‘re ways of establishing these guidelines for how we use technologies and techniques. That would be an interesting conversation to begin to sort of roll out, and it is happening. The idea of the Integral Metrological Pluralism, Bob Kegan’s thinking, talking about it’s not people here in terms of what we’re trying to assess, but something more intangible, Susanne’s, I think, concerns are the concerns about seeing people in a variety of contexts. There are a number of things already on the table that help us to shape our thinking around how this material should be used responsibly. I have energy around that, too, and I don’t know if you feel the same way.

Jonah: I guess I’m curious to go back to you guys, in that. In a sense, you are going to go back and take away from here something. You came to here with something, we love it and we hopefully brought something to the table, to the floor or circle also, but in a sense, you’re going back also with a variety of tasks that you’ve set in place. I guess I’m hoping perhaps or asking if you could share a part of that, as it were, to pre-reflect or to engage us with it, if it’s possible.

Zak: I guess I’m not feeling that kind of us-them kind of thing.

Jonah: I don’t mean to cast it in that way, but it’s probably set up by what I call our being here by response.

Zak: Yes. Coming here was funny because it was like you’re [Bill] inviting me over because you are going to yell at me about this. [Laughter] He’s gonna color me counter dependent-antagonistic, yeah, I had issues with my father but you don’t look like him very much. [laughter]

Bill: I’m glad we got that straight.

Zak: To be here, we’re all really so fundamentally on the same team here and that’s the thing. I guess for me, what I’m taking away is what can we really do? Is it a matter of like a special section of *Integral Review* where we tried our best to get, for example, Bob and we’ll get Theo. We’ll try to get everyone in there to make a unified statement, of course, with different perspectives, with different details about the fact that, “Listen, all the experts in this field are concerned about the way we’re rolling these things out. Let’s be more concerned.” That would be the first step.

I’m looking more for action steps after this. What should we really do here? What would be the best place to put our energies to have positive outward ramifications? But at the same time, I think I’m realistic about what could be done. I don’t think that we can affect the everyday language that people use in the communities that surround these things in the immediate near future. I think that is going to be a longer term project where we as—for the lack of a term—professionals model more sophisticated ways of talking about this. That is what I’m coming away with. There’s a sense that yes, we’re all trying to do the right thing here and we’re all really, I think, even theoretically from a psychometric perspective, I think we’re all really looking at the same thing from different angles. That’s part of my dissertation work is to show that. It’s to show that there is this thing out there that’s like weight. We’ve been going at it from all these different angles, and you know, for some purposes, a scale is fine; for other purposes, you need literally down to the microgram. So, yes, I guess I’m just feeling a sense of unity, but also just concern of all of, okay, now, what are we going to do? What more should we do? Along these lines of what would be if we decide, “All right, let’s do this, not a clearinghouse but more like a group of concerned people coming together to articulate standards of practice.” What would they really be? I don’t think it’s going to be, “Everything needs to be [reliability of] 0.96.” I don’t think it’s going to be lines like that. If you look at comparable institutions like the American Psychological Association and Educational Research—I forgot the acronym—anyway, they’ve got this nice…

Sara: A-E-R-A.

Zak: Yes, AERA. They’ve got this nice little booklet. I cited it in the paper. They’re just standards for educational measurements and they don’t drop any numbers or any statistics, but they give all of these guidelines for best practices and about different kinds of validity and how to make those things and they’re talking about regular old educational assessment things, not developmental assessments. And so I think that there’s maybe some need for something like that.

Sara: Yes, and the different categories we find ourselves, the assessment domain and your interests there are not like my interests. Mine are different. But still, we have different kinds of assessment interests and it’s not one thing we’re talking about and we have different kinds of consultation and coaching, other kinds of organizational research. I mean, there’s a whole bunch of different categories here because developmental stuff crosscuts. There isn‘t anything that doesn’t fit under something we might want to pay attention to, it’s crosscutting. So I think it could end up being kind of a good idea of standards, principles, attractive to me as a starting place, if nothing else to raise attention that we need to be paying attention to such things. And practitioners need to be supported, not everybody will ever be a specialist in this. We could never expect it, so what kind of support do we offer those who aren’t going to specialize, but really can use this to benefit others?

Woman: Is there a best practices in terms of using assessments in different contexts that would…

Sara: That’s what I think we need to create. That’s my sense if something comes up and I’m sure we could draw from things like the APA and therapeutics…

Zak: That's what that got me. I mean it says—for using tests and organizational environments, for using tests for high stake decisions, for using tests for this. They specify different contexts and they talk about proper and improper usage, and it is. It was a committee of many, many people. It's interesting book. It's worth looking at. In a way, we could fold into that.

I was also thinking of other things. So there's that, but I was also thinking we need to find ways to catalyze research and cross metric comparison research, cross-model research, because these things are evolving. Ten years from now, if we're having exactly the same conversation, then we failed. We need to be talking about these new metrics and improvements that come from the cross fertilization and the multiple perspectives. So that's another thing that we were thinking about and that's the idea of the clearinghouse, I see now, I always thought of it as also a collaboration space, a space so we all know what one another is doing with the research and then it would be easier to see if we have relevant data sets that overlap or something like that. Not so much to bring unity to the field, but to make it a field where everyone knows what everyone else is doing.

Sara: A community of inquiry?

Zak: Yes.

[laugher]

Bill: My goodness...

Sandra: I'm just thinking about what you said. If we share enough, we could articulate a certain set of principles and then eventually cascade down from these principles to develop standards of practice. We can refine and modify these principles. However, at this stage, the objective would be to develop a common language. I like the idea of starting with principles because they are at a higher level of abstraction. Perhaps we, as a group, could articulate a set of principles that we could all commit to and that is sufficiently general to cover all our areas of interest. I'm drawing from what you said. After developing the principles, we could then begin to develop standards or behavior.

Sara: Yes, and we might want to move them up and down because sometimes what we call "principles" aren't technically principles at all, but we might really want them to be high level principles, so we could really do a lot of action inquiry around that.

Terri: And understanding that anything we have as a principle could easily be reified into something very concrete and not evolving, then they could be applied to support very concrete processes and behaviors and then as a result not evolve. This is one of the concerns I have.

Sara: I agree. And I think we can be really careful about how we define them, and how we look at what *is* a principle because sometimes what people call principles really aren't.

Instead, they're very reifiable things that really aren't in the principle category. So, I think we could bring some elegance to it that way, and avoid what you're worried about.

Zak: Hopefully, if we define it, whatever it becomes, so it's a living document. It's a living agreement. But that's easier to say than actually pull off.

Bill: Yes. Donald Campbell's law of invalidity—the more people start paying attention to it, the more it will get distorted. So, it requires an institution that is capable of double-loop and triple-loop change and who's going to start that one?

[Laughter]

Elizabeth: What would you propose as an alternative? If we're looking at an action to take to move forward, what would be…?

Bill: I'm just trying to hide. I'm not trying to say it's not a good idea, but in a sense, joining Terri in her concern and I'm trying to emphasize that, in a sense, that was Dostoevsky's thing about the Inquisition, you know, in the name of Jesus, the Inquisition re-crucifies Jesus at his second coming. You know, our institutions tend to turn into the opposite of what they were meant to be. I thought banks were supposed to keep us financially safe—oh, haven't they been doing that recently?

Elizabeth: I share the same concern.

Bill: Yes, but we're at the frontier of human development, generally, in trying to do this, so having a developmental theory helps us, perhaps, recognize just how big the challenge is because most people think and act in ways that are likely to distort principles into their opposites, because they won't receive enough feedback to adjust.

Edward: Perhaps then, just given that everybody, lots of you have highlighted how language trips everybody into—I mean, so when I hear "applied" I trip off into something, when I hear "principles" I trip off into something. And yet, I support the collective need for understanding of what each of us are doing. I just think it's been wonderful to get the sharing of different perspectives today. It advances things hugely in such a short time because perhaps we're putting similarities and differences out there and we have to realize lots of stuff. Going forward then, maybe, we just have to try and find some other words to …

Sara: How would you say what you would want? How would you like…

Edward: I would start with almost the same format again on a bi-annual, quarterly kind of get-together. It wouldn't be exclusive to this particular group of people or particular models, metrics, theoretical approaches that were put up. Presumably it's something that comes under the umbrella of developmental theory, practice, metrics, whatever. Most of my knowledge is in the LDP. I'd like to spend more time on the subject-object and I'd like to spend more time on the LAS… I'd like to get this sort of inside hermeneutical perspective that you have [looking at Zak], so that I’m not reducing what I hear from you to what I already know from my side.

Sandra: How do we do that?

Edward: I’d like to try that. I don’t know how we do that. I’d like to become Zak for a day so I can see what you’re saying because and likewise, to get inside…

Bill: Is there a movie about that man?

Edward: Say you push me to something. So, that’s sort of what I thinking.

Zak: I like this idea of a bi-annual thing maybe, and maybe under this Institute of Applied Developmental Psychology, but there are some folks that are not in this room who should be in the room. The Spiral Dynamics team, the Elliot Jaques’ group…

Bill: Yes, and Bob [Kegan] and Lisa [Lahey].

Zak: Yes, individuals but also whole groups that aren’t represented.

Aliki: I’m wondering. There are a couple of research possibilities, studies that have been initiated, like for instance, the one that JFK, the one that potentially you might win. I got to wondering if there is now an opportunity to create some permeability or a study to include some of these other alternative modalities and why not engage them and decide actions to join this kind of project. I don’t know if there’s space within the research initiatives that you’re all involved in or maybe one that can be sponsored through one of the universities that are being represented in the room here, but that might be something to take our action more quickly into action. There are some opportunities here, here in the LDP as an additional inventory that gets used or bring in the SCTI MAP as an additional inventory. Why not, if you can?

Sandra: Yes.

Elizabeth: We’re hoping to be able to start to look at data together between the people who have created the metrics and be able to say, “Okay. Look at how these things are varying or how they’re working together,” and begin to really start to have a conversation about this together. We were hoping to get funding for that next year to really start an inquiry and do it. *EnlightenNext* is going to be putting on conferences annually and that would be part of the conference agenda for that year.

When we initiated the idea, we had such a strong response from all around the world—people in Australia, saying, “I need to know. We need to know. We need to do something about this. We need to be clear about what we’re talking about together and how this thing’s working.” That’s one thing—that there’s a forum that’s going to come into existence to understand the relationship between these metrics and the theoretical assumptions that they are based on. There's also the JFK Integral Theory Conference that will be meeting every other year; this could be a module in that conference.

Zak: I know they're planning panels on a lot of the issues that we talked about it today. The issue of funding, I think, is key because as much as I'd love to pursue these things…

Elizabeth: I know. I know.

Zak: It's like time and money are really bottlenecks and I tell them one thing we can think about is somehow pursuing some kind of funding source for research.

Elizabeth: I also like the idea of doing a special issue of the *Integral Review*.

Bill: I guess it's being done, right? For January, I mean, that's why…

Sara: Yes, the next issue—the regular issue will be in December, and presumably, everybody on the list like Bob Kegan (don't know if he responded directly), Michael Commons, Susanne, whoever wants to respond directly, to have the more formal or informal whatever kind of piece, whether peer reviewed or editorially reviewed format to respond to Zak's and your [Bill's] response, which we put in the newsletter. There's not going to be a special issue dedicated to that because of course we don't know how many will actually produce. Of course, anyone from here is more than welcome to contribute anything from just a reflective essay on what was today like, to something more elaborate or any other kind of—join the discourse about the whole subject from your perspective.

Bill: Yes. Tom Murray emailed me about this, this week, said he'd like to have a tape and so, I think he somehow wants to use this…so I guess I'm assuming, but I shouldn't assume that we could share this with him.

Sara: Is that okay with you guys?

Murmurs: Sure.

Bill: That's where the request originally came from actually. I think that is a good opportunity when a number of us see ourselves. I mean look at what it does when somebody puts something in print that gets you all over-excited.

Sandra: I think it's quite amazing that we all gathered here from different continents. It's really a privilege to talk to everyone here. I hope we can continue it.

Bill: Absolutely.

Aliki: I do want to second the idea, or maybe it's the third or fifth "second" of the idea by now, the idea that maybe, there is a way that we can create some sort of an inquiry conversation that happens again in this configuration and others where we then focus the next conversation on principles, let's say. We're going to use the day to come up with some of these notions and then, in between some of these publications, the IR [*Integral Review*], this keeping each other abreast of each other's research or ways to stay in relationship and in between the convening. I like that idea. I have a lot of energy around that.

Zak: I like it too, I mean, what was unique about this was that it was such a dialogue and there was so much reciprocity and I feel like it's hard to get that in academic discourse situations.

[laughter]

Sara: Even in just a discussion forum on the internet.

Zak: Exactly. So we'd have to create the right container. The fact that this was so personal, and I think, it really helps—and kudos for setting it up and Bill, you opening your home to us…

Bill: Good sandwiches…

Zak: Yes, yes. I wanted it to happen, but what I don't want to happen is that it turns into a conference situation where people are taking sides and it's just like, "All right. We didn't do anything." I feel like here, we're doing something and I don't know how to make that happen if it gets bigger I guess.

Elizabeth: Well, it seems like we are saying, "Let's make a commitment to the process of trying to understand each other in the theories and humanity, people in general." It is the process that we're committed to, the evolution of development and all that.

Woman: I don't want to advocate for formalizing this. I was just more interested in maybe bringing another friend who happens to represent another view to sit next to one of us and have that add to the conversation as opposed to having maybe, Michael Commons come and Bob Kegan, and I don't know, whoever else there is.

David: Although if they could—wonderful, because I think that there's a kind of weight about having the sort of spokespeople of these different lineages of development. That does have a certain cache in a larger field. We've got a lot of Experts and Achievers who are picking up these paradigms and using them in pretty instrumental ways. It makes a difference when you have certain names on the flag-staff. But wouldn't it be good to have a weekend where we can have a "Flex Flow" structure for the weekends and good food, nice drink, good clean water, and spend some time basically having this kind of conversation. That would be very nice.

Mary: I'd like to go back to that practitioner question that you asked. I think, from a practitioner's perspective, I would ask that you keep the spirit of dialogue alive when you're going to your writing and your publishing, because we depend so much on it to stay current. We have so much translation and bridging work to do and need to depend on you to have had various conversations. When I read [the article]—I guess it was June, I was distressed. In the LDP I'd found something I could take into business and the language was close enough. I had this huge "Oh, shit" moment that I think has been addressed in being able to sit in on this conversation. My request is that you keep the spirit of dialogue alive when you're going into those other ways of communicating.

Elizabeth: May I ask? Are you asking for the language to be more accessible or are you just asking for there to be a more conversational way of engaging with these questions…

Mary: I'm making the distinction between myself as a practitioner and some of you as academics, I'm asking you to create dialogue in other contexts as you're writing, as you're publishing in journals and what-not. I'm back to my first, "What's the responsibility we uphold to be in dialogue, be in a conversation before we 'go out'" because it's just so important for us as practitioners to be able to trust, to be very literate, and to be willing to do the translation work that we do.

Sara: It's a huge burden, that practitioners share—because some of us are both—to be so multilingual across theories. I mean, it's a lot.

Mary: Let's help each other avoid the "Oh, shit" moment.

Sara: What were you referring to? What was the "oh, shit" moment?

Mary: It was reading the journal article in June [Stein & Heikkinen] and realizing that this measure that I've invested in, had taken into my company and out my clients, was being questioned in such a clear way and I couldn't really read into it what that meant.

Bill: "I'm using the LDP and they decided it has no validity."

Mary: It's just more about this spirit that's living here today and I think it's probably expanded and I just wanted to highlight it.

Edward: Has that only happened to you once in the last year?

[laughter]

Mary: If we can spare each other those moments, then let's do it.

Jackie: What that makes me think about is how not to rarify the conversation and to somehow find ways to bring in the voices of the people with whom we're actually working with these measures and the different ways there might be of bringing it to them. How can we get their experiences back into the process so that we know that what we're doing is making sense to them and giving them some value in their lives? I don't know how will you do that, but it seems to me that would add another level, another important voice, another person into the research. So that, I think, is speaking more toward what you're saying, Mary — in a way, what could we do to contribute to the ongoing conversation, but do it from a practitioner’s point of view?

Sara: That gives me an idea for a book. [Laughter] Seriously. A practitioner book everyone could contribute to with their…

Woman: Right, and the stories are neat. My client is resisting doing what we would all say is suggested.

Jackie: Of course. When you think about doing it in Russia, you’ve got all of that complexity we were talking about in the beginning and what impact does that have on the situation?

Sandra: I think we’ve been terribly collaborative. I didn’t know what to expect of this dialogue today, but it could have turned out differently and I think that it is reflective of who we are personally and how we work. I’m hearing that you want it to be open and inclusive and collaborative. Maybe I'm reading this into it, but this is how I'm interpreting what I am hearing.

Terri: I’m appreciating the quality of the conversation, the dialogue and the intention behind it all today. It feels very alive to me and I’m encouraging that as everybody goes off in disparate ways and to their own work. This kind of spirit can be infused there, too.

Nancy P: Instead of going back to our own camps and just writing about…[Crosstalk]

Terri: If I were with that corporate client, we’d be talking about silos and cross-fertilization. What clients (and we) can learn is, “I can pick up the phone and talk to this guy first before we make our critiques public.” Just keep the spirit we have here moving into the practitioner’s circles.

Zak: I started us all off making this comparison to biotech and I made this argument that I think psychological technologies is a growth industry. I think we may be underestimating the demand that is going to be arising in the next decade or so, surrounding organizational change and the assessment of human capabilities, I mean, there’s a long literature on it, take Daniel Bell's *The Coming of Post-Industrial Society*, where he basically prophesizes that in the near future it's not going to be the ins and outs of industrial technology we are going to worry about, it’s going to be the motivational and capability systems of employees that are going to start to be the main problem in information societies, post-industrial societies and I think that’s where we’re about to be. Look at Google. That’s a five-year shabam and all of a sudden it's too much information for everybody. We’re just in decision-making crisis after decision-making crisis. And at some point, people are going to start to realize that, “Oh, yeah, there are these developmental psychologists who've been worrying about this already for two decades.” The reason I like the fact that we’re having this conversation is that we can’t let the market mechanisms hold sway here.

We need to keep an eye on the ethical prizes, which are to evolve consciousness and cultivate the broadest, deepest humanity we can. In the beginning of the biotech thing, they would never have the thought that you'd be getting a bunch of these companies together, because they'd be sharing trade secrets with one another. We're in the opposite position. Where we want to learn from one another, so that we can reciprocally make one another stronger. I think if we can keep that, then there's a potential for this to do a lot more good than it would otherwise do if we factionated, and compete as opposed to collaborate.

Sara: And I think what evolutionary potential is, is that if there's anything ailing us in general, societally, globally, is how fractured, how compartmentalized we are… If this field finally gets out there a unified understanding of the organism as a whole. I mean, a fractured field does no good in that respect. But we're positioned well with all these different windows and time horizons—we're really well-positioned to disseminate and operationalize much more holistic understandings of whole human beings, so I think that we have a lot of important work to do there, too.

Zak: It's critical. We need to show—and this is my 1984 hat that I'll wear now—we need to show that people can transform without invasive biomedical interventions. Because that is where we're going. All the work that I do in the field of Mind, Brain and Education, is primarily about that. I'm saying, "Stop. Don't just give the kid a Ritalin, worry about the institutional norms that are interfacing with this biology, not just this biology."

We need to have ways of showing that people can transform because it's clear people are needing to transform. We face epidemics of psychological disorders, of depression and "hyper-activity" and these kinds of things. And the way our cultural mores are, we say, "Just give me the med." And it's going to be different now. And that trend will increase. There are these intracranial stimulations. I mean they're going to do that. So I feel a sense of urgency. But I can only make so many arguments to these folks about… "This is unethical." Right. Then they say, "Well, what else are you going to do, buddy?" I went to a meeting of the Neural Information Processing Systems Society, and it was frightening. These were the most rampant reductionistic guys. And they are getting endless funding. There's an urgency here to show that we can do this as psychologists; we can do this by changing people, their action patterns and the way they speak and all of these things.

Karen: I think your question about funding is really important, too, because my husband's in biotech. He was working for a biotech start-up for a while that was working on early stage drug development. They weren't worried about bringing the drug to market. They wanted to come up with early-stage compounds that could go into the pipeline to be ultimately developed. They had trouble coming up with their second round of funding because whenever they went to the investment community, the investors would say, "This is exactly what we need because the industry is drying up." We have these certain compounds and they've been used and used and used to death. Everyone's trying to take those same things and bring them to market differently because that's where the money is. People—it's like low-risk, high pay-off, whatnot and this is really high risk; but it's what's needed by the industry but there's no funding to support that even though that's what's needed. There seems to me it's interesting that you pick the biotech industry as a comparison because I wonder what else can we learn from what's going on there about what we don't want to do and this connection between where the funds are going being different from what's needed. How do you shift that? Where is the value proposition to the funders?

Zak: And it's comparable at multiple levels because there's one foot in the academy, one foot in industry-type of thing where high level knowledge and work with big-time effects on society. It's true. Biotech is at a plateau, more or less. We crack the genome when we thought we could find all its secrets. The truth is that we don't know. I think that this next thing is going to be just like biological technologies and we need to get a handle the quality control there. The FDA is a terrible example, setting standards. I think that we need to worry about quality control and to learn lessons from biotech.

Nancy P: I think we also need your point about giving a kid Ritalin is reminding me that, I think, a lot of fragmentation is that we're taking people and parts of people out of context. We're separating the kid from the environment and saying, "Okay, this is the behavior. Let's fix the behavior when they're not looking." One of the big problems with medical doctors is you go in, they're treating you like a bundle of symptoms rather than a whole person, so it's picking things apart and forgetting the context of the whole person within their environment. To me, that seems like a really crucial thing to keep bringing this back to this—what's the context?

Elizabeth: That's the structure of mind and consciousness at a developmental level. It's a really interesting thing because the ethical and moral demand of our time and of our profession is something that is way ahead of the normative curve where the culture is and where these decisions are being made. I appreciate your bringing in the transhumanist dimension of how development is going to happen because we've got all these achievers, if you will—there are so many different terms for that level—who are saying that we need to evolve, that human beings need to evolve and the best and fastest way to do it is through this medical and technological drug intervention. We need to actually broaden our horizons to see this as part of the developmental world even though it is not what we're about at all. But that is actually the marketplace, if you will, that we're competing in.

David: It's the modal developmental level at which this stuff is being instrumentalized.

Elizabeth: Exactly, and being understood. That's a very interesting thing for us as practitioners and researchers. Where are the places for intervention? What is it that we need to demonstrate? How do we move this forward to the culture in a way that is going to have an effect so that enough leadership decision-making is happening at a different order of thought rather than this? There's a heck of a lot of money to be made in it and that's the modal developmental level.

Zak: The psychometrics are integrated. The statistical diagnostic manual, I mean, the DSM. That's the IQ psychometrics and the whole rhythm of things is tied to this testing industry. There are so many places to push to make things shift, and so...

Sandra: I hope you articulate your arguments in this article because I think…

Bill: I was thinking actually, a little edited version of this conversation could be in the [*Integral Review*] journal because it catches the liveliness and some really important, powerful things have been said here in the last five minutes.

Sandra: The specific arguments that you have recently made, Zak, are critical. I believe it is important to articulate your arguments well and, in your comparison of growth in the biotech and the burgeoning developmental assessment industry, to illustrate how solutions for developmental issues are being sought in certain technologies divorced from a concern and appreciation for human development. Secondly, to a certain degree you need financial clout and backing to gain legitimacy. If part of acquiring legitimacy is getting financial support from a large agency for a large-scale study, maybe we could individually think about what that study could be and who would support it.

Terri: Also, thinking years down the road, when we are in this place where we're no longer in the biological money-making business of biotech, but we're in the psychological money-making business—so, psychological tech—are we going to become siloed again and have the same mindset towards our money-making as the biotech does now? Are we going to actually remain in a community where we're not looking at ourselves; how we can be political about psychology? So… this is something I feel so concerned about. I'm really here with the heart of knowing that everybody has pieces of humanity's puzzle and no one has all of them. If we can work together in a proper way, everybody will flourish, but coming out of the silos to re-silo again is not going to be the answer here. I'm personally going to make a commitment not to fall back into that again, which could easily happen. That's something to think about.

Jackie: This is a very specific challenge and this is about silos because being published in the *Integral Review* and all of the places that we all know and love to read is one thing, but that's actually, a really tiny little bit of who's paying any attention. We're paying attention to what we're paying attention to know. We don't know who else is out there.

Bill: We are the readership!

[laughter]

Jackie: Yes. So I can try to think about this for UK, for instance, but then, I don't know where I'd look to get something published. Where else could you get published in the US that would widen the audience? It seems to me like a really important question and turn to thinking about going down to this root.

Zak: I can tell you that I edit a special section of the Journal for *Mind, Brain and Education* which is an award winning journal. It’s got a wide dissemination and it’s funded by Blackwell. It’s a major mainstream academic journal. I would welcome any submissions about any of this kind of stuff—this research-practice thing, the multiple models of development thing and again, the educational aspects would be relevant for that journal. I like the idea of pushing into the mainstream academic journals with this stuff, but the truth is many important readers are not from mainstream academics.

Woman: Yes, exactly.

Zak: My articles that are published in *Integral Review*, I think, more people read those than the ones that I publish in *New Ideas in Psychology*, or *Journal of Philosophy of Education*, or things like that. I mean the academy is fragmented and siloed. There are so many people publishing so much crap and the question of where to say something, where it matters that you said it, I think, is a core question. I really don’t know.

David: Part of leadership is getting people to pay attention to the right things, so how do you catch the attention of the right folks? Oprah has a very skillful way of doing this, doesn’t she?

[laughter]

Karen: It is a classic adaptive challenge. How do we get this set of stakeholders? Who are the set of stakeholders? What is the work? What is it that we’re trying to do? I think we’ve captured some of that here, but in the Heifetz model you start by defining the work. What is it that we do agree we’re trying to do? I think there’s been some of it out there today. Then, who has a perspective on that thing? What are those perspectives and what do they have to lose if we were to achieve that thing? So then, let’s start maybe there…

Elizabeth: What’s interesting is that when you shift the focus away from “Here we are together with competing measures” or “Here we are together trying to come to an understanding of how we assess and what we mean by development” to the larger questions. It gives us even more ground for unity. We’re all together in not wanting a certain future to arise. We all want, as Terri said, to serve consciousness and are very concerned whether consciousness development can happen in a context that is materialistic and that we perceive as dangerous to the larger whole that we’re all a part. It’s an interesting re-frame that enables you see the problem in a different way. And therefore, our unity becomes more rich and tangible. But then, what is the action step that will make that mean something?

Bill: I was really somehow particularly struck when you said, Zak, about ten minutes ago, you know, I’ve tried to do this all my life, but I just heard it for the first time. We’re trying to make transformation a real possibility for people and that is so different from incremental change. It’s driven by a completely different form of power—for me, at least. It does indeed have to be mutual; and that, in turn, prioritizes the second-person present form of research, which is the form we’ve been conducting today. Instead of somebody coming in and telling everybody else what's going on, we're here trying to keep the questions in the center.

It just comes back to what you were saying, Mary. That explains why it's so important to keep this spirit going because it's really the only spirit that supports transformation. None of us could have forced any of the rest of us to care about our stuff, and we didn't go about it that way, so it worked today. But that's not the way academic discourse usually moves. I'm just putting together why it is so important to keep this element of it. That's of course part of what needs to be highlighted: the centrality of an active community of inquiry. It seems obvious because that phrase comes from academics, though it never applies it to itself in the real way [laughter] but it's what's true in a corporation too, right now. For them to survive and transform, they need to have an active community of inquiry. These boards of directors that rubberstamp things is what got us into the last two years. So, in a way, this is a question which is not only true for us as developmentalists—although maybe, it's hyper, hyper-true for us, really, *we* ought to be the ones who got it—but it's also what is a societally-needed form of activity. Part of our action is actually in doing this but then, how does it get, as you were saying, how do we get other people to see that?

I'm just being helped to get myself to rewrite this old book of mine, *The Power of Balance*. And the new title is *When Will We Discover our Mutually Transforming Powers?* It is meant to speak to a lot of different kinds of people, so, maybe, that can play a role, too. Certainly, everything I've heard today is getting siphoned into my thinking about how to revise the book and make it more accessible.

Terri: One of the things I appreciate, in a way, is that typically the whole world has their eyes riveted on certain popular places and tantalizing ideas and then there's the common sidewalk with the obscure dandelion tentatively growing, spreading its little seeds everywhere, being under the radar kind of like we may be here—since we aren't in the spotlight it does give us some flexibility that others wouldn't have because we don't have the whole world looking at us….we can start from a more principled position where certain political interests may not kick us and push us and shove us and shape us. We can really shape ourselves with the kind of ethics, the kind of process, and the kinds of developmental level that eventually humanity *will* be looking at. So, we have a responsibility right now, being in this space of planning for the illuminated future for developmentalism. It's a place where in the future, the whole of humanity will be looking at *that* and some other flower will be poking out of the sidewalk. What are they going to be looking at 10 years, 20 years, 50 years, 100 years down the road? What are we doing here today that they will be looking at then? That's my question.

Bill: Mmm, I'm sure glad we have every single voice here today as I listen to your voice. Thanks, folks. Let's stop, and then let's go. Thank you very much.

[general appreciative applause on part of all for all…]

Working Within the Limits: Thoughts on Stein and Heikkinen

Theo Dawson

As a woman on an assessment mission, I echo many of the concerns raised by Stein and Heikkinen. It is important for those of us who use assessments to ensure that they (1) measure what we say they measure, (2) measure it reliably enough to justify claimed distinctions between persons, and (3) are used responsibly. It is relatively easy for testing experts to create assessments that are adequately reliable for individual assessment, and although it is more difficult to show that these tests measure the construct of interest, there are reasonable methods for showing that an assessment meets this standard. However, it is more difficult to ensure that assessments are used responsibly.

Few consumers of tests are aware of their inherent limitations. Even the best tests, those that are highly reliable and measure what they are supposed to measure, provide only a limited amount of information. This is true of all measures. The more we hone in on a measureable dimension—the greater our precision becomes—the narrower the construct becomes. Time, weight, height, and distance are all extremely narrow constructs. This means that they provide a very specific piece of information extremely well. When we use a ruler, we can have great confidence in the measurement we make, down to very small lengths (depending on the ruler, of course). No one doubts the great advantages of this kind of precision. But we can't learn anything else about the measured object. Our measurement cannot tell us what the object is, how it is shaped, its color, its use, its weight, how it feels, or how attractive it is. We only know how long it is. To provide an accurate account of the thing that was measured, we need to know many more things about it, and we need to construct a narrative that brings these things together in a meaningful way.

A really good psychological measure is similar. The LAS, for example, is designed to go to the heart of development, stripping away everything that does not contribute to the pure developmental "height" of a given performance. Without knowledge of many other things—such as the ways of thinking that are generally associated with this "height" in a particular domain, the specific ideas that are associated with this particular performance, information from other performances on other measures, qualitative observations, and good clinical judgment—we cannot construct a terribly useful narrative.

And this brings me to my final point: Formal measures, no matter how many great ones we design, should always be employed by knowledgeable mentors, clinicians, teachers, or coaches as a single item of information about learners that may or may not provide useful insights into their needs. Consider this relatively simple example: a given 2-year-old may be tall for his age, but if he is somewhat under weight for his age, the latter measure may seem more important. However, if he has a broken arm, neither measure may loom large—at least until the bone is set. Once the arm is safely in a cast, all three pieces of information—weight, height, and broken

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arm—may contribute to a clinical diagnosis that would have been difficult to make without any one of them.

It is my hope that the integral community will choose to adopt high standards for measurement, then put measurement in its place—alongside good clinical judgment, reflective life experience, qualitative observations, and honest feedback from trusted others.

Appendix: Reliability – Some Basics

There is a great deal of confusion in the assessment community about the interpretation of statistical reliability. This confusion results in part from the different ways in which researchers and test developers approach the issue. Researchers learn how to design research instruments, which they use to study population trends or compare groups. They evaluate the quality of their instruments with statistics. One of the statistics used is Cronbach's Alpha, an indicator of statistical reliability that ranges from 0 to 1. Researchers are taught that Alphas above .77 or so are acceptable for their instruments, because this level of reliability ensures that their instrument is measuring real differences between people.

Test developers use a special branch of statistics called psychometrics to build assessments. Assessments are designed to evaluate individuals. Like researchers, test developers are concerned about reliability, but for somewhat different reasons. From a psychometric point of view, it is not enough to know that an assessment measures real differences between people. Psychometricians need to be confident that the score awarded to an individual is a good estimate of that particular individual's true score. Because of this, psychometricians set higher standards for reliability than those set by researchers.

The table below will help to clarify why it is important for assessments to have higher reliabilities than research instruments. It shows the relationship between statistical reliability and the number of distinct levels (strata) a test can be said to have. For example, an assessment with a reliability of .80, has 3 strata, whereas an assessment with a reliability of .94 has 5.

Reliability	Strata
.70	2
.80	3
.90	4
.94	5
.96	7
.97	8
.98	9

Strata have direct implications for the confidence we can have in a specific person's score on a given assessment, because they tell us something about the range within which a person's true score would fall, given a particular score. Imagine that you have taken a test with a scoring range of 0 to 500 and a reliability of .94. The number of strata into which this assessment can be divided is 5, which means that each strata equals about 100 points on the 500 point scale. If your score on this test is 350, your true score is likely to fall within the range of 300 to 400.[1]

Statistical reliability is only one of the ways in which assessments should be evaluated. Test developers should also ask how well an assessment measures what it is intended to measure. And those who use an assessment should ask whether or not what it measures is relevant or important.

Resources

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[1] This range will be wider at the top and bottom of the scoring range and a bit narrower in the middle of the range.

A Personal Counterpoint to Stein and Heikkinen

Michael Basseches

I want to start my comments with my personal applause for the work of all of those colleagues who have put tremendous effort into improving the systematic measurement of developmental phenomena. The many ways in which this body of work is of value is beyond the scope of my brief comments here. Here, I want to address the context in which Stein and Heikkinen review this work.

In my book Dialectical Thinking and Adult Development, published in 1984, I attempted not only to describe the organization and identifiable possible indicators of dialectical thinking as a form of organization of thought. I also tried to justify the claim that dialectical thinking represented a more developed form of thought than both universalistic formal thought and relativistic thought. This effort at justification relied heavily on philosophical argument and examples that demonstrated that dialectical thought represented a higher level of cognitive equilibrium – more differentiated, integrated, stable and adaptive. I saw the description and the justification offered as the core of the book’s contribution. The cross-sectional data, reported from my doctoral dissertation, that a group of college faculty demonstrated more development of dialectical thinking than a group of college seniors, who in turn demonstrated more development of dialectical thinking than a group of first-year college students was consistent with the argument, but not in any way a substitute for the philosophical argument. Quite likely there are other measures that would demonstrate parallel findings differentiating college faculty from seniors and seniors from first-years, e.g. mean income, mean number of children, and mean weight. However, such findings should not and would not be taken as indicative of development.

While I don’t mean to suggest that this very simple example is at all comparable to the very sophisticated approaches to empirical validation of measures that Stein and Heikkinen discuss, I bring it up to introduce important ways in which my own assumptions agree with and differ from theirs. I agree with their view, as summarized by Murray and Reams, that “there is a persistent fact/value confusion in the field of developmental research and application, in which higher levels of development are assumed, implicitly or without sufficient justification, to be desired and of superior value.” Where I think I differ from them, is in regard to what kind of justification of “superior value” is appropriate.

At an epistemological level, when it comes to the concept of development, I don’t believe that any amount or form of empirical data can substitute for philosophical argument. Development, as I use the term in my book and as I think is consistent with the Piagetian genetic epistemology tradition, remains an essentially philosophical idea. While Piaget’s contribution was to offer observations of ontogenesis as a novel way of addressing existing epistemological questions, ontogenetic data were used in the service of philosophical argument and demonstration, rather than offered as a substitute.

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Put simply, I would never want for any of my readers to adopt the view that dialectical thinking represented a more adequate form of cognitive organization, unless they could understand why and how it was more adequate. Nor would I accept as more adequate any proposed form of reasoning if I couldn't see why and how it was more adequate, no matter what the validity and reliability profiles of the measures were. I believe one can integrate empirical and philosophical justification, but neither can be reduced to nor be substituted for the other. If one is unable to appreciate the value of a supposedly more sophisticated structure of reasoning or action than one's own customary form, one should not accept its value until one has reached a point where one can understand its value.

With regard to dialectical thinking, my correspondence and interaction with the many who have showed particular interest in my work has indicated that in each case they have been attracted to dialectical thinking by some sense, (gathered perhaps in part from my own work and/or from their own intellectual adventures,) that there is something more complex and more epistemologically adequate about dialectical thinking. With regard to expectations about my own intellectual development, I expect, based on developmental theory, I would expect that I would begin the process of starting to appreciate a proposed "higher-level" structure only after I encountered the limits of my lower level structure, and began to glimpse the power of the novel alternative to transcend those limits. Further discovery, and a reorganization process would need to ensue before I mastered and fully grasped the value of the "higher-level" structure. This process is as it should be – totally appropriate.

From my perspective it would be a perversion of the developmental process if I rejected the adequacy of my own reasoning, simply because a developmental researcher—an authority figure—tested me using measures with quality-control approved stringent reliability and validity profiles and told me I had a low score. If a teacher expected me or others to do so, I would view him or her as a teacher intellectually disrespectful of his or her students—a kind of teacher who fails to promote real development. In my view we need fewer of such teachers, rather than a new cadre armed with such validated development measures to legitimize their authority. For clarification, I ask whether Stein and Heikkinen would view such teaching as ethical practice.

In considering such teachers, I begin to address the more pragmatic aspects of Stein and Heikkinen's argument, "If we want to see an integral and developmental worldview gain a real institutional foothold—radically reforming business, government, education, therapy, and our own sense of human potentials—we need to get serious about our quality control standards" (p. 19). Whether or not I want to see that happen would depend on *how* such a world-view might gain a foothold. Because I view as dangerous the idea that any kind of empirical validation of measures could substitute for the philosophical arguments on behalf of the value of developmental phenomena, the quote above raises for me the specter of people who neither understand nor are convinced by the arguments beginning to systematically evaluate other people, even choosing who to hire or who to promote in the workplace, based on standardized measures of developmental phenomena. I find this terrifying. It suggests a tyranny of measures that replaces respectful discourse and collective adaptation as the social context in which development does or doesn't occur. It suggests those with an integral and developmental world view becoming an elite that would use social institutions to ideologically and socio-politically dominate the "developmentally inferior."

I very much appreciate the work of Stein and Heikkinen and of the editors of Integral Review for encouraging discussion of this crucially important epistemological issue. Such discussion must be critical discussion, and it is critically important at a time when the measurement of adult development seems to be moving from the role of supporting conceptualizations of intellectual problems toward becoming a basis for the way people treat other people in the contexts to which Stein and Heikkinen allude. I also appreciate the invitation to participate.

Sincerely,
Michael Basseches

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Further Issues in Stage Metrics

Michael Lamport Commons

Stein and Heikkinen (2009) are mostly right in their characterization of the lack of metric properties of most stage theories. However, they leave out two very important facts. One is that the Model of Hierarchical Complexity (MHC) is a general theory and part of the normal Mathematical Theory of Measurement (Krantz, Luce, Suppes, & Tversky, 1971; Luce, & Tukey, 1964) applied to the phenomena of difficulty. This means that the nature of hierarchical complexity and its implications for measurement are not included in the Stein and Heikkinen account. Another is that the MHC is not limited to scoring applications, such as its Hierarchical Complexity Scoring System (HCSS; Commons, Rodriguez, Miller, Ross, LoCicero, et al., 2007) or Dawson's Lectical Assessment System (LAS; 2008). The MHC is also used to generate tasks for measurement of any entities' performances of tasks (humans, social organizations, animals, and machines) as well as for other applications (e.g., design of neural nets; see Commons & White, 2006/2009).

Without these facts included, Stein and Heikkinen and their readers miss the importance of the theory and its role in the LAS methods they discuss. As a mathematics-based, behavioral developmental theory of measurement, it is a content-free stage-and-transition step generator. As such, it is a paradigm that accounts for the existence of developmental behavioral patterns and, among other things, the stage theories that describe such patterns. These facts bear directly on—and strengthen—Stein and Heikkinen's arguments and should be considered in discussions of developmental metrics and their properties.

The Nature of Order of Hierarchical Complexity Scale and Transition Scale

The sequence of orders of hierarchical complexity are built out of a very simple definition.

One task is more hierarchically complex than another task if all of the following are true.

a) It is defined in terms of two or more lower-order task actions. In mathematical terms, this is the same as a set being formed out of elements. This creates the hierarchy.
   $A = \{a, b\}$ a, b are "lower" than A and compose set A
   $A \neq \{A,...\}$ A set cannot contain itself. This means that higher order tasks cannot be reduced to lower order ones. For example, postformal task actions cannot be reduced to formal ones.

b) It organizes lower order task actions. In mathematics' simplest terms, this is a relation on actions. The relations are order relations
   $A = (a, b) = \{a, \{b\}\}$ an ordered pair

c) This organization is non-arbitrary. This means that there is a match between the model-designated orders and the real world orders. This can be written as: Not P(a,b), not all permutations are allowed.

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By induction, one can build the whole sequence of orders of hierarchical complexity using just this definition and the assumption that there are elements. As a theorem, we proved that there can be only one such sequence of orders, the scale of the order of hierarchical complexity being ordinal. They are just counts of the number of times that a higher order action has organized a next order lower order action. Note that Order 1 consists of simple actions that do not organize action. Ordinal scales have indeterminately sized gaps (Luce, May, 2006 personal communication). The following case illustrates this. Person 1 is taller than person 2, who is taller than person 3, placing them in the order 1, 2, 3 from tallest down. But the first person is 6 feet and 1 inch tall, the second person is 6 feet tall, and the third person is 5 feet tall. The gaps between person 1 and 2 are not equal to the gaps for person 2 and 3 yet their ordinal numbers are 1, 2 and 3. Another theorem shows that all stage theories are subsets of the MHC but the reverse is not true (Commons & Pekker, 2009). See Appendix 1 for how the MHC organizes the orders and stages.

The nature of the order of hierarchical complexity scale and the corresponding stage of performance scale are missing from Stein and Heikkinen’s account. The orders are absolute, ordinal, and fractal. The orders have the same construction at each order per definition given above. There is no confusion between steps and orders. Not only are the orders in every domain and content the same, the steps are the same irrespective of order of complexity. The order scale and transition steps scale are both fractal as Ross (2008) points out. The transition steps have a more complex mathematical underpinning to them due to their fractal nature. As a consequence of the fractal nature of orders and transition steps, the next stage performance is always an attractor and not an ideal or teleological end.

The measure of hierarchical complexity of a task item, for example in an assessment application, is analytically represented by its Order of Hierarchical Complexity (OHC). The measure of stage of performance on a task item is empirically represented by the Rasch Scaled Score. The Model of Hierarchical Complexity can be used to generate a sequence of vignettes or problems varying in hierarchical complexity. Sequences are administered to participants. The data are Rasch (1960/1980) analyzed. Rasch performance scores on items are converted into Stage scores (See Appendix 2). Stage scores are regressed against the order of hierarchical complexity of each of the items from a sequence. People are not at a stage, their performances may be. We do find distributions of stage even within a single participant on different items of the same hierarchical complexity within a single task sequence. Items are at an order, item performances are at a stage, persons’ performances on a set of items are inferred from the stage of the adjacent items in a Rasch analysis. A Rasch Analysis simultaneously minimizes participant and item error.

To contrast it with traditional stage theories, the MHC is not a psychological or mental view of stage. As one can see from the definition above, there is no mention of content, context, participants, gender, specific tasks, domains, type of organism or machine, or any other specific aspects. It does not depend on culture, or economic status. It is not only independent of particular language but language itself. Therefore, the MHC is not philosophical, teleological, or prescriptive. It is not masculine or feminine because it has no content. It is also not participant dependant or psychometric because it is an analytic mathematical theory of task properties and not person performance. The Hierarchical Complexity Scoring System (HCSS) and Dawson's

Lectical Assessment System also do not need committees of experts to figure out exemplars to define orders as did, for example, Kohlberg's early work or Loevinger's. It is not just a developmental theory but enables mapping of developmental theory onto it because it accounts for the underlying structure of such theory. It is also about more than development. It enables more critical thinking about what comprises development and also more rigorous empirical methods because it separates task (order of hierarchical complexity) from performance (stage).

Comparing Skill Theory and the Model of Hierarchical Complexity

The closest and most compatible stage theory is Fischer's Skill Theory (1980). There are many similarities and some differences. Both theories were conceived of separately but Fischer's (1980) was published first. Fischer (1981, personal communication) suggested the sentential order but does not include it himself. Fischer also suggested the name for the abstract order. Fischer does not recognize the paradigmatic and cross paradigmatic stages (see Appendix). The similarities include the following. The notion of mapping is probably translatable in the organizing of actions. The levels and orders are roughly the same. There are three differences. Skill theory has tiers, which MHC does not. The tiers seem to limit the existence of the paradigmatic and cross paradigmatic orders and make it hard to add the sentential order. Rasch analysis (Karabatsos, 2001) is also part of Mathematical Theory of Measurement. The mathematical basis of the MHC, and the implications thereof, is what most distinguishes it from Fischer's skill theory.

History of the Model of Hierarchical Complexity

The Model of Hierarchical Complexity has developed over four periods

1. General Stage Model (GSM) 1 (Commons, & Richards, 1984). 1978-1983. Did not entirely separate task properties and performance properties. Signal detection was used to measure performance. Axioms had serious problems.

2. General Stage Model (GSM) 1984-1998. (Commons, Trudeau, Stein, Richards, & Krause, 1998). Task and performance were separated. Essentially correct informal axioms and definitions introduced. The transition steps were introduced. A scoring manual was developed. At the beginning of the period 1997 to 2006, Dawson had suggest that the gap sizes might be equal. This turned out not to be true as Luce (May, 2006, personal communication) pointed out.

3. Model of Hierarchical Complexity 1997-2008. Dawson (Personal communication, 1997; 2002, 2003) introduced the name Model of Hierarchical Complexity and Rasch analysis for measurement. Commons and Pekker (2008; Commons, Goodheart, Pekker, Dawson, Draney, & Adams, 2008) mathematically formalized the definitions and axioms to more closely meet the Theory of Measurement standards. The ordinal nature of the orders was more clearly articulated along with the indeterminate nature of gaps when they exist. Ross (2008) introduced the fractal nature of orders, stages, and steps.

4. MHC in mathematical refinement stage. The last of the problems of meeting the mathematical criteria in the Theory of Measurement are being addressed. Ross is doing

further research on transition steps and seeking collaborators to investigate how the fractal nature of transitions can be mathematically represented. Precision teaching has been applied to the issue of scoring and item construction.

As one can see from the periods the MHC can have faults, which so far have been able to be overcome. It is a testable theory: if there was an additional order discovered in between the orders now asserted, the theory would need revision (Falmange, 2009, personal communication)

Using the Model of Hierarchical Complexity

In mapping the mathematical orders of order of hierarchical complexity and of stage transition on to real world data, there are a number of considerations. Because the model does not call for global measures (e.g., of a person's "center of gravity"), it is possible to look at change trial by trial, choice by choice, task action by task action. Performance measures can be applied at any time scale to help uncover process.

The methodology is also flexible in contrast to instrument-dependent stage theories (e.g Loevinger, 1976, 1978; Rest, 1979 Rest, Narvaez, Bebeau, & Thoma, 1999). One can give tasks that are open ended, close ended using choice or preference, or rating scales for example with vignettes. One can even give tasks that vary in Order of Hierarchical Complexity (OHC) to animals who do not talk and also to computers. The mapping is not sample dependent and is not psychometric but analytic at its base. Because the MHC is analytic it can be mathematically true but not useful. Hence it is true that it does not depend on data but it is extremely useful in seeing if applications performed as predicted. For example, the order of hierarchical complexity predicts the Rasch scaled stage score performances on the same items with *r*'s ranging from .85 to .99. By contrast, other stage theories have no such independent variable much less one that works as well as order of hierarchical complexity (see Dawson, 2006).

Because of the flexibility of the time scale for both assessing stage and transition step, it is possible to determine within person distributions of both stage (Fischer, Stein, & Heikkinen, 2009), and step (Ross, 2008). It is possible to get longitudinal data of those distributions. The steps also have their distribution both within a trial or across trials. Theoretically one can make problems that determine the steps at a given stage so that interviewing and scoring are not necessary. The model helps understand the non-stage aspects of development. By examining the residuals after its effects of the Order of Hierarchical Complexity (OHC) it possible to identify other dimensions of difficulty and development as measured by performances.

Conclusion

Stein and Heikkinen's (2009) restrictive view of the MHC, limiting it to the scoring of speech and writing, is apparently because their main exposure is to Dawson's application of it in the LAS. The restriction does not do justice to the scope and power of the model, which largely enables their discussion of validity, metrics, and measurement in developmental theory. One implication of the model providing the content-free, underlying structure of developmental stages is that other stage theories could be mapped into the orders of hierarchical complexity and thus benefit from the same kind of strength in validity and metrics as the LAS benefits from.

Then, rather than being merely inductive schemes that cluster behavioral characteristics, they could rest on—and draw from—hierarchical complexity's strong theoretical and methodological bases, which currently they do not.

In addition to responding to Stein and Heikkinen's article, this writing would be incomplete without mentioning some final methodological implications of the model. One can have a true comparative cognition and evolutionary behavioral developmental account of the increased power or reasoning, problem solving, emotion, etc. (see Commons, 2006). The determination of power is based on making actual comparisons across different animal species and machines. This in turn leads to the possibility of constructing stacked neural networksⓅ (Commons, 2008; Commons & White, 2006/2009). Stacked neural networks are based on the recapitulation of evolution as shown by the increase in the number of neural network stacks, with potential to have actually intelligent computers and droids.

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Appendix 1

Orders of Hierarchical Complexity and Structures of Tasks

Order Ordinal and Name	General descriptions of tasks performed
0 Calculatory	Exact without generalization. Example: simple machine arithmetic on 0s, 1s
1 Sensory or motor	Discriminate in a rote fashion, stimuli generalization, move; move limbs, lips, eyes, head; view objects and movement. Discriminative and conditioned stimuli. Example: Either see circles, squares, etc., or instead, touch them. O □
2 Circular sensory-motor	Form open-ended classes; reach, touch, grab, shake objects, babble; Open ended classes, phonemes. Example: Reach and grasp a circle or square. O □
3 Sensory -motor	Form concepts; respond to stimuli in a class successfully. Morphemes, concepts. Example: A class of open squares may be formed □ □ □ □ □
4 Nominal	Find relations among concepts. Use names and use them and other words as successful commands. Single words may be ejaculatory and exclamatory, and include verbs, nouns, numbers= names, letters= names. Example: That class may be named, ASquares.@
5 Sentential	Imitate and acquire sequences; follow short sequential acts; generalize match-dependent task actions; chain words together. Use pronouns. Example: The numbers, 1, 2, 3, 4, 5 may be said in order.
6 Pre-operational	Make simple deductions; follow lists of sequential acts; tell stories. Count random events and objects; combine numbers and simple propositions. Use connectives: as, when, then, why, before; products of simple operations. Example: The objects in a row of 5 may be counted; last count called 5, five, cinco, etc. * * * * * □ □ □ □ □ O O O O O □ / "} Q
7 Primary	Simple logical deduction and empirical rules involving time sequence. Simple arithmetic. Can add, subtract, multiply, divide, count, prove, do series of tasks on own. Times, places, counts acts, actors, arithmetic outcome from calculation. Example: There are behaviors that act on such classes that we call simple arithmetic operations. 1 + 3 = 4; 5 + 15 = 20; 5(4) = 20; 5(3) = 15

8 Concrete	Carry out full arithmetic, form cliques, plan deals. Do long division, follow complex social rules, take and coordinate perspective of other and self. Use variables of interrelations, social events, what happened among others, reasonable deals. Example: There are behaviors that order the simple arithmetic behaviors when multiplying a sum by a number. Such distributive behaviors require the simple arithmetic behavior as a prerequisite, not just a precursor. $5(1 + 3) = 5(1) + 5(3) = 5 + 15 = 20$
9 Abstract	Discriminate variables such as stereotypes; use logical quantification; form variables out of finite classes based on an abstract feature. Make and quantify propositions; use variable time, place, act, actor, state, type; uses quantifiers (all, none, some); make categorical assertions (e.g., AWe all die.@). Example: All the forms of five in the five rows in the example are equivalent in value, $x = 5$.
10 Formal	Argue using empirical or logical evidence; logic is linear, one-dimensional; use Boolean logic=s connectives (not, and, or, if, if and only if); solve problems with one unknown using algebra, logic, and empiricism; form relationships out of variables; use terms such as if…then, thus, therefore, because; favor correct scientific solutions. Example: The general left hand distributive relation is $x * (y + z) = (x * y) + (x * z)$
11 Systematic	Construct multivariate systems and matrices, coordinate more than one variable as input; situate events and ideas in a larger context, i.e., considers relationships in contexts; form or conceive systems out of formal relations: legal, societal, corporate, economic, national. Example: The right hand distribution law is not true for numbers but is true for proportions and sets. $x + (y * z) = (x * y) + (x * z)$; $x \cup (y \cap z) = (x \cap y) \cup (x \cap z)$ *Symbols:* $\cup$ = union (total elements); $\cap$ = intersection (elements in common)
12 Meta-systematic	Integrate systems to construct metasystems out of disparate systems; compare systems and perspectives in a systematic way (across multiple domains); reflect on and name properties of systems. Example: The system of propositional logic and elementary set theory are isomorphic. $x \& (y \text{ or } z) = (x \& y) \text{ or } (x \& z)$ Logic; $x \cap (y \cup z) = (x \cap y) \cup (x \cap z)$ Sets T(False) $\Leftrightarrow$ φ Empty set; T(True) $\Leftrightarrow$ Ω Universal set *Symbols:* & = and; $\Leftrightarrow$ = is equivalent to; T = Transformation of
13 Paradigmatic	Integrate or discriminate how to fit metasystems together to form new paradigms. Includes ability to show that there are no ways to fit together any set of metasystems. $\Omega_1 \circ \Omega_2 = \Psi^a$ *Symbols:* Ω_n = e.g., Algebraic Metasystems; Ω_n = e.g., Geometric Metasystems; Ψ^a = Analytic Geometry as a paradigm
14 Cross-paradigmatic	Integrate, compare, reflect on and name properties of paradigms within or across domains. Fit paradigms together to form new fields.

Note: From “Applying the Model of Hierarchical Complexity” (p. 65), by Commons, Rodriguez, Miller, Ross, LoCicero, Goodheart, & Danaher-Gilpin. 2007. Cambridge, MA: Dare Association, Inc. Copyright 1991-2007 by Dare Association, Inc. Adapted and reprinted with permission.

Appendix 2

Because of the discussion of metrics in Stein and Heikkinen (2009), it is important to point out the difference in formal measurement theory terms between the orders of hierarchical complexity, which is an ordinal scale analytic measure, and the corresponding measure of performance Rasch scaled item and person scores which is conjoint. As Perline, Wright, and Wainer, (1979) state, “the Rasch (1960) model is a practical realization of conjoint measurement (Brogden, 1977; Fischer, 1968; Keats, 1967, 1971). Tversky (1967) discussed the Bradley-Terry-Luce choice model, which is closely related to the Rasch model, in terms of conjoint measurement. Young (1972) also considered the Bradley-Terry-Luce model in these terms and remarked generally that "the scaling methods in psychometrics conform to the notion of polynomial conjoint measurement.”

One would like to have a person stage of performance score. But there is no simple and direct way of obtaining that score from a Rasch analysis. A Rasch scaling procedure minimizes errors of fit to both persons (participants) and items at the same time. The Rasch map displays the person performance scaled values on the left side of a linear vertical scale and the items scores on the right side of that same scale. But the problem is that Rasch scores are not in the stage metric. And, to make things more curious, the order of hierarchical complexity is ordinal and cannot be averaged, summed, or even subtracted. But the Rasch scores can. Hence the interpolation between adjacent orders of hierarchical complexity of items is based on the Rasch scale for which interpolation is fine. This is because the Rasch scale is a conjoint measure which allow for summing.

To find the person performance stage from the adjacent corresponding items’ order of hierarchical complexity, one can interpolate between the items’ hierarchical complexity. There is no assumptions about the size and nature of a possible gap. The Rasch scale is linear between OHC because Rasch is a conjoint measure. This can be done by translating the Rasch scores into stage of performance scores based on the corresponding absolute values of the order of hierarchical complexity of the items. They represent the stage of a person’s performance according to the Model of Hierarchical Complexity. A person’s stage of performance score is calculated by using the equation:

$$StageofPer\,son = \frac{PersonRasc\,hScore - StageMean_1}{StageMean_2 - StageMean_1} + ItemHC$$

Stage of Person = Stage of performance of person in Order of Hierarchical Complexity number.
Person Rasch Score = The Rasch Scaled performance score for a person.
Stage Mean = Mean Rasch Score for items of a given hierarchical complexity.
Item HC = Items order of hierarchical complexity.

This relationship between the two scales allows for using local interpolating between items with adjacent orders and not overall. After this transformation the obtained stage of performance scores for persons can be compared. This is useful in doing a factor analysis.

A Practitioners' Perspective on Developmental Models, Metrics and Community

Chad Stewart, Zach Smith and Norio Suzuki

Abstract: This article builds on a paper by Stein and Heikkinen (2009), and suggests ways to expand and improve our measurement of the quality of the developmental models, metrics and instruments and the results we get in collaborating with clients. We suggest that this dialogue needs to be about more than stage development measured by (even calibrated) stage development-focused, linguistic-based, developmental psychology metrics that produce lead indicators and are shown to be reliable and valid by psychometric qualities alone. The article first provides a brief overview of our background and biases, and an applied version of Ken Wilber's Integral Operating System that has provided increased development, client satisfaction, and contribution to our communities measured by verifiable, tangible results (as well as intangible results such as increased ability to cope with complex surroundings, reduced stress and growth in developmental stages to better fit to the environment in which our clients were engaged at that time). It then addresses four key points raised by Stein and Heikkinen (need for quality control, defining and deciding on appropriate metrics, building a system to evaluate models and metrics, and clarifying and increasing the reliability and validity of the models and metrics we use) by providing initial concrete steps to:

- Adopt a systemic value-chain approach
- Measure results in addition to language
- Build on the evaluation system for instruments, models and metrics suggested by Stein & Heikkinen
- Clarify and improve the reliability and validity of the instruments, models and metrics we use

We complete the article with an echoing call for the community of Applied Developmental Theory suggested by Ross (2008) and Stein and Heikkinen, a brief description of that community (from our perspective), and a table that builds on Table 2 proposed by Stein and Heikkinen.

Purpose of this Article

We appreciate the outreach by Tom Murray and Jonathan Reams to invite us into the "community of engagement" (not yet a "community of practice") around building a network (and eventually Institute?) for Applied Developmental Theory—as well as Ross (2008) for the original call for the Institute, and Stein and Heikkinen (2009) for picking up the call.

Our purpose in writing this article includes three objectives:

1. Propose a concrete (meaning it has been used and refined with several groups of end-user clients as well as integral practitioners) and granular (meaning it includes multiple levels of technologies that allow users to "drill down" into increasingly narrow and precise applications) application of Ken Wilber's Integral Operating

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System (IOS) for our dialogue around the innovation and application of developmental models and metrics because a quality control focus and concentration on linguistic-based metrics are necessary, but by no means sufficient.

2. Contribute to the creation and increased coherence of a collaborative community that improves the functionality and ethical application of developmental models with individuals, organizations and societies.

3. Attempt to contribute to the dialogue in ways that "integrate first, second, and third person perspectives, and illustrate an author's embodiment of higher (second tier, integral, meta-systematic, etc.) levels of ethical and psycho-socio-systemic reflection" from a perspective of "authenticity/vulnerability/empathy and rigor at levels rarely seen in academic discourse" (Murray & Reams, invitation letter to this dialogue).

Objective #1 is addressed in the content of the article, while Objective #2 is the context we are building through our dialogue about creating a coherent community of practice around improving the functionality and ethical application of developmental models and metrics, and Objective #3 is the process of how we engage in this dialogue.

Background and Bias

As part of our attempt to embody Objective #3, we shall begin with a brief overview of our background and bias. Our work in building communities within organizations and within communities among organizational leaders has led us to a deep respect for the need to manage the dilemmas raised by respecting and integrating multiple perspectives, abstract models and concrete metrics and tools. Having spent over ten years working as change agents within and for large corporations, government organizations and NPOs biases us towards "what is possible right now, with these people to whom we have a fiduciary responsibility, in this context" while also attempting to move with these people towards a more ideal position over time. Furthermore, we are biased by our experience and results with our colleagues and clients in:

- Talent development (executive team development, succession planning, leadership competency development),
- Organization development (M&A integration, cultural integration, systems & processes improvement, performance improvement),
- Change management (cultural transformation from one structure, state, system and/or stage of development to one more fitting to its environment based on demands on the organization from its value-chain and market), and
- Social entrepreneurship in building and running our own organizations (Abound, Integral Japan, Interkannections) in Japan and the US.

These experiences and results bias us toward:

- Weaving together practical application and emergent design in the field (the use, adaptation and creation of technologies that work at that point in time and in that specific context with those specific people) with research and theory-building in the think-tank (building and refining models and metrics that serve as general guidelines for fieldwork and are improved by what emerges from the field) over taking either stance alone.

- A "fit-to-role" perspective that we should be looking at "multi-dimensional degree of fit" as a set of metrics over a single "higher is better" metric.

- The need to simultaneously and cohesively evolve both individuals and the system and community that houses those individuals to be more "fit-to-role" over either an "individual focus" or "organizational focus" (our experience indicates that without cohesive transformation, the effect is diluted and reversion to previous patterns is likely).

- "Dilemma management" (individual & collective plus current & target poles) and legal (e.g. "personal information" law in Japan) approach to the ethical question of how much "developmental" information a person or team should share internally (and in what form and to what degree this information should be accessible by HR, a person's managers, and top management) over a "coach-client privilege" approach. Usually we have created "leadership profiles" that are available to the leader's manager, manager's manager, CHRO, and program sponsor—CEO or Senior VP. Often the members have chosen to share their developmental information with their team.

- "Results orientation" that measures and improves both "lead indicators" (predictors of performance such as developmental stage and level of competencies directly related to the task at hand for individuals and cultural stage and degree to which systems and processes are able to deal with the task at hand for organizations) and "lag indicators" ("qual-and-quant" measurements of actual results such as level of trust by team members and project costs reduced for individuals and social reputation, brand image, increased profitability and return-on-investment, increased number of people fed, educated and pollution mitigated for organizations). Most integral-related developmental models and instruments that we have seen to date are focused exclusively on "lead" indicators and therefore deprive both suppliers and customers of these models and instruments of the ability to truly test half of the benefit to the individual or organization. Notably, most of the clients we have worked with have at one point or another expressed some variation of "honestly, I just want the results."

- Requirement of fieldwork and client-needs to adjust or transform models, metrics and instruments to reflect changes in clients, context and the market environment over keeping these tools static

In short, we see ourselves as world-class developmental practitioners and guidance professionals, but not world-class organization and community leaders or academics. Therefore, we are strongly interested in collaborating with world-class organization and community leaders and academics to work through (among other issues) the complexity raised by the points above.

Given the current approaches to working with developmental models and metrics, we also strongly feel the need for a more concrete granular integral framework for addressing development. Before briefly presenting one such framework and its applicability to our community and identifying and resolving the core issues we face, we will take a first look at some of the models and instruments capable of assessing development at individual and collective levels.

Developmental Models and Instruments

For the reasons stated above, we propose that our community address developmental models and instruments designed to measure "lead" and "lag" indicators of performance at individual, team, organizational and larger society (e.g. city or national) levels of scope. We also propose that our community clearly indicate:

1. Which models and instruments are most relevant and qualified to measure lead and lag metrics (indicators) for which purposes—and why.

2. Which models and instruments are least (or not) relevant and qualified to measure lead and lag indicators for which purposes—and why.

Here, we provide a partial list of developmental models and instruments by level of scope. After discussing the framework and related issues involved in using and adapting the models and instruments in the next section, we conclude with a "work in progress" chart at the end of the article which builds on the chart presented by Stein and Heikkinen (2009) and provides our current perspective of which models and instruments are more and less relevant and qualified for which purposes and why. We look forward to continuing to refine this chart with the community.

Table 1. Partial List of Models and Instruments by Scope

Model	Instrument(s)	Scope	Supplier
Abundance / Sustainability	Organizational Sustainability Scorecard	Team Organization	Interkannections
	City & Community Sustainability Scorecard	City/Community Region	
Cultural Transformation Tools	Individual Values Assessment	Individual	Values Centre
	Leadership Values Assessment	Individual	
	Small Group Assessment	Team	
	Cultural Values Assessment	Organization (Nation)	
Developmental Model of Intercultural Sensitivity (DMIS)—by M. Bennett	Intercultural Developmental Inventory (IDI)	Individual	Hammer & Associates
Constructive Developmental Framework	Developmental Assessment (Cognitive + Emotional/Social + Needs)	Individual	Interdevelopmental Institute
Ego Development	SCTi/MAP	Individual	Cook-Greuter & Associates

Leadership Capacity	360 CAP	Individual	Interkannections
	Leadership Interview	Individual	
	Leadership Questionnaire	Individual	
	Leader Profile	Individual	
	Team 360 CAP	Team	
Leadership Development Framework	Leadership Development Profile	Individual	Harthill UK
Lectical Assessment System	LERA, LLRA, LDMA, LRJA, LSUA, LIMA, LMLA, LMSA	Individual	Developmental Testing Service
Requisite Organization (including Complexity of Mental Processing—CMP)	Requisite Organization Platform by ROII. No instruments found by GO Society.	Organization (Jacques' original work could also be used with Individuals)	Jacques (theory now available through Global Organization Design Society, RO Internatl. Institute)
Spiral Dynamics	Values Test	Individual	Spiral Dynamics Group
	Change State Indicator	Individual	
	CultureSCAN--Personal	Individual	
	ManagerSCAN 360	Individual	
	BusinessSCAN, SchoolSCAN	Organization	
	CommunitySCAN	Community	
	CultureSCAN	Team, Organization, Community, Nation	
Subject-Object Theory	Subject-Object Interview	Individual	Kegan, Lahey & associates

Given the sheer number of instruments available, especially individual-focused instruments, it initially appears that competition is inevitable. To some degree this may be the case, but an integral analysis of the instruments (see below) will show that most of the instruments are only practically useful for specific purposes and/or in specific circumstances—and that many of these conditions do not overlap. Using the instruments too far outside of these specific conditions fails to serve the client, and holds the possibility of damaging the reputation of the "developmental model and assessment" market. As self-proclaimed leaders of this community, it is in the best interest of ourselves, our clients and our colleagues to clarify which models and instruments are effective (and ineffective) in which conditions. The framework outlined below will help us in assessing the efficacy of the models and instruments in various conditions.

Concrete Granular "5C" Framework

We propose that one of our collective purposes in this dialogue and community-building initiative is to take a practical "concretized" integral approach to the metrics, measurement and application of developmental models in order to add perceived and actual value to our clients (e.g. change leaders, organizational leaders, HR professionals, and the communities within which they operate), our colleagues and ourselves. For this to occur, it is necessary and (as a concrete next step) sufficient for us to include and integrate the rigor of traditional means of judging models and metrics (e.g. "validity" and "reliability") while also transcending them by placing them within a fully integral framework. Based on our collective experience as change agents we believe such an applied framework needs to include all five of the minimal integral requirements proposed by Wilber's Integral Operating System (1995, 2000, 2006), namely quadrants, stages/levels, styles/types, streams/lines, states/consciousness in a way that can be easily applied and adapted by various constituencies (on a wide scale). Without this scalability, we will be less able to attract clients who will actually purchase, use and measure the results of products (instruments) and services based on these models, as well as interesting colleagues to collaborate on improving the instruments and related services.

Since we have spent the last 10 years evolving and refining a framework with US, European and Japanese-based corporations, government organizations and NPOs (after originally working with the 4Q and Spiral Dynamics and other organization development tools in these organizations), we are proposing the use of this applied framework ("5Cs") as a starting point for this community. (We originally called it "5S" for spheres/quadrants, stages, styles, streams and states, but clients kept saying "McKinsey has a 7S framework").

These interwoven "5Cs" are:

1. Context Interface
2. Core Capacity
3. Character
4. Competencies
5. Consciousness

It is also crucial to implement these 5Cs in a cohesive way.

We shall briefly cover each of the 5Cs and their cohesion, and then use the 5Cs to address some of the issues raised by Stein and Heikkinen (2009) as well as new issues that come to light in using the 5Cs to address the innovation and application of developmental models and metrics. Since readers of the IR are "integral savvy," we shall assume competence in the integral operating system (IOS), and build our brief overview of the 5C on top of this assumed shared understanding.

Context Interface

Context Interface begins with the integration of a slightly modified version of Ken Wilber's "4 Quadrants" or "4Q" (it has simply been turned counter-clockwise 90°) with the "Iceberg Model" from intercultural studies. The lower half of the diagram is the invisible ("below the waterline") dimension of individuals and groups that cannot be seen, such as values, beliefs and emotions, perceptions, mindsets and assumptions of individuals; and the culture, climate, collective consciousness, norms and shared assumptions of groups. The upper half of the diagram shows the visible ("above the waterline") behavior of individuals (their actions and reflection) and groups (their structures, systems, processes and dynamics) and the results they generate. Without conscious practice, the number, relationship and complexity of these factors in each situation makes the situation difficult for us to grasp, and easy to misunderstand. By mapping and adjusting to the influence and relationships of these various elements, we are able to better understand, act and reflect on the intersection of our external environment and behavior, our internal drivers and filters, and the results we co-create.

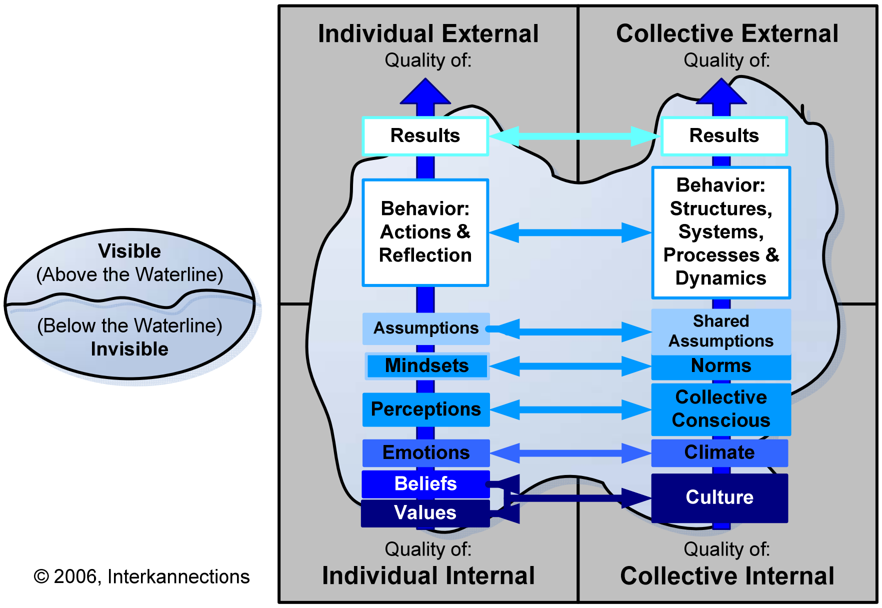
Individual External
Quality of:
Collective External
Quality of:
Results
Results
Behavior: Actions & Reflection
Behavior: Structures, Systems, Processes & Dynamics
Visible
(Above the Waterline)
(Below the Waterline)
Invisible
Assumptions
Shared Assumptions
Mindsets
Norms
Perceptions
Collective Conscious
Emotions
Climate
Beliefs
Values
Culture
Quality of:
Individual Internal
Quality of:
Collective Internal
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Figure 1: Context Interface (Integration of Wilber "4Q" with the Iceberg Model). Reproduced with permission.

Many granular technologies build from this first Context Interface diagram, but for the purposes of this article, the Iceberg 4Q will suffice.

Core Capacity

Our Core Capacity is the baseline from which we perceive, understand and act in the world on a relatively stable basis. The internal dimension of capacity is often called "stages" or "lines" in the developmental literature. In an initial burst of research, we cross-referenced developmental stage models created and used by 19 teams of developmental researchers and practitioners and found a high degree of correlation on both the internal stages (structures) and contents between these teams (charts that show the correlation is available on the Interkannections website). The research identifies distinct stages in human development based on cognitive, emotional, ethical, needs, social, and values models (and often metrics) and the ego that unifies them. We have integrated this knowledge with the latest research in leadership and global management competencies to create our Leadership Capacity model ("X" to "O"), shown below correlated to each of Dr. Susann Cook-Greuter's stages of Ego Development (2002, 2004). We will not go into the levels ("X" to "O") here, but interested parties can find these in the "Leading Evolutionary Change" whitepaper on the Resources page of the Interkannections website. The color scheme is similar to that suggested by Wilber (2006), but has been customized to use Spiral Dynamics (except for "Expert" / "I") and other color schemes according to the needs of the context of application.

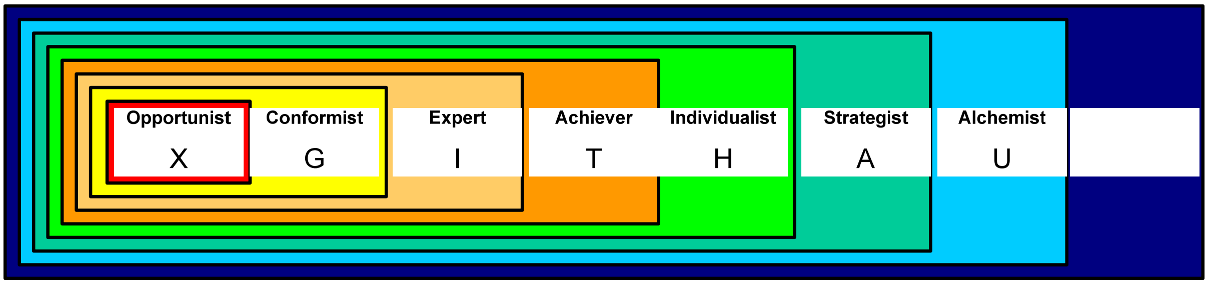

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Figure 2: Leadership Capacity Stages Correlated with Stages of Ego Development. Reproduced with permission.

Character

As people and professionals, the character of each of us is both unique and is strongly influenced by a variety of "styles" that have emerged within ourselves and the cultural environments in which we were raised and shaped. The "style" influences that our clients have found most useful and influential to work with (and therefore the base which we can add to as a community) include:

- Personality style (e.g., Enneagram, DiSC, Myers-Briggs)
- Organizational hierarchy and functional (R&D, Production, Sales, HRD, flat, distributed networks, etc.) styles
- Organizational cultural style (Gareth Morgan's organizational styles, stages of organizational culture development ala Barrett and Adizes)
- National/ethnic cultural style (polarity management & dimensions of culture, Enneagram, stages of cultural development)
- Gender style (masculine and feminine, yin-yang)
- Family pattern style (discussion-based, authoritarian, no model or theory)
- Educational environment style (discussion-based, context based, experiential, drilling, no model or theory)
- Religious and/or philosophical style (mono-theistic & poly-theistic, internal & external locus of responsibility and control)

Competencies

Competencies are the specific skills that allow us to engage in a specific activity or practice (e.g., being a parent, running an organization, leading a project or division, building a community, playing tennis, playing the piano, mixed martial arts, writing a book, painting a picture, singing, applying and improving developmental models, etc.) and achieve a certain level of results.

To use a metaphor that is meaningful to most of our clients, Core Capacity is the "size of the container" that we have to perceive, understand and act in the world and Competencies are what goes into that container. Both of these must be matched to the context. If the context requires a project leader, then the Capacity of "T" (Achiever/Orange) may be most appropriate because this is the stage at which project management and integration can really begin to be leveraged. Competencies should also reflect the needs of project leadership (e.g., time management, schedule management, budget control, communication, risk management, etc.).

Even a world-class MBA professor or leadership researcher who has a Core Capacity of "A" (Strategist/Yellow or Teal) would be unlikely to successfully lead a project or organization (and may cause considerable damage) if they have not successfully led teams or organizations before and have not been trained in the Competencies of project management or running an organization. Conversely, project leaders approaching project management at an "I" (Expert/between Blue or Amber and Orange) center of gravity can severely slow or damage the project due to a tendency to focus more on the parts than the whole.

In working with change leaders, change projects and organizations, we have found it useful to focus on both the specific Competencies required by a person for a project or situation in a specific context as well as the Categories (groups) of Competencies that are required for specific kinds or levels of change projects and/or organizational leadership.

Consciousness

In the 5C framework, Consciousness (our "state" of being) is the way in which we perceive, understand and act in the world moment to moment. The quality of our Consciousness affects the quality of our experience, results and affect on and with other people and our environment/context. Our quality of Consciousness in any given moment is affected by our health and balance within and between several spheres of Consciousness. For our work, we focus on four interconnected spheres of Consciousness:

1. Body (Physiological): This is the awareness of movement of energy in the body, how we breathe, how we sleep and dream , how we align ourselves and our posture, how we are affected by what we eat and drink, the quality and amount of exercise we get, our body temperature, and other physical conditions.

2. Emotions (Affective): This is how well we assess and manage the feelings, sensations and moods that arise within us such as joy, anger, sadness, boredom, frustration and hope—how we respond to them and, sometimes, how we feel pulled from one pole to another in short periods of time.

3. Mind (Cognitive): This is how we process information, what we commit to, how we organize meaning and information to exchange it and communicate with others, and our ability to predict and change the consequences of our actions.

4. Connection (Social & Spiritual): This is our felt sense of connection to that which we sense is beyond us, both in terms of a wider group of people and a deeper way of being. It includes faith, our mission/purpose, development and application of values, sense of potential, and the level of resonance, trust and conflict we have with others.

"5C" Coherence

Each of the "5Cs" brings an important perspective and set of questions to the application and improvement of developmental models and metrics. As integral practitioners and theorists, we know that insufficiently addressing any one of the "5Cs" (by whatever name and level of granularity) can leave a critical gap in awareness, assessment, individual action and aligned action that can create problems in supporting the development of individuals, organizations and cities and communities. As powerful as each of the "5Cs" is by itself, however, their true transformational power lies in understanding and engaging the connections and interplay between the "Cs" and bringing them into coherence as they relate to each specific undertaking, environment, and the people involved—and then taking that learning back into the refinement of the evolving model and metrics in a virtuous cycle of development. The way that we judge the effectiveness of our 5C Coherence is to measure the specific results that accrue in a six-level model of "stages of sustainability." We will not provide an overview of the Stages of Sustainability here, but interested parties can find these in the "So, How Sustainable Are We?" whitepaper on the Resources page of the Interkannections website. The model actually has 10 stages (including the "levels of un-sustainability") and is still a work in progress, but has been tested with corporate, government and NPO clients and allows us a reasonably accurate method (from the perspective of ourselves and our clients) of judging the developmental results of a person or organization's actions because it focuses on real-world results (external, verifiable phenomena). It therefore allows us an external cross-check (using both lead and lag indicators) to the results of most developmental models which are primarily (often highly accurate) assumptions of internal development (and provide mostly lead indicators only). In the end, we cannot prove that someone is operating at an "A"/Strategist/Yellow or Teal "center-of-gravity," but we can prove that the organization they are leading is producing triple-bottom-line value to their employees, customers and community (e.g. Burgerville's full health care coverage for even part-time employees, bio-degradable utensils, all power purchased from wind-energy credits, financial contribution to education, financial out-performance of industry competitors in same location).

Using the 5Cs and their Coherence, we shall now turn to "our current top 4" issues that we suggest our community address related to the use and improvement of developmental models and metrics.

"Current Top 4" Issues of Developmental Models and Metrics

In our developmental guidance work with clients, we have found that an effective place to begin is to work together in defining the scope and framework of our initiative, discovering the core issues, and crafting initial solutions. We appreciate the issues proposed by Stein and Heikkinen (2009), including:

1. The need for quality control.
2. Defining and deciding on appropriate metrics, and
3. Building a system to evaluate models and metrics.

4. Clarifying and increasing the reliability (are the instruments and metrics accurate) and validity (do the instruments and metrics measure what they claim to measure) of models and metrics.

We suggest expanding the frame of these four issues as described below. We also suggest distinguishing "metrics" from "instruments" since some instruments provide one metric (e.g. MAP) and others provide multiple (e.g. organizational sustainability scorecard). Stein and Heikkinen initiate a dialogue on several other issues, but here we will respond to/build on those above because we perceive them as "core issues" (root causes) rather than "presenting problems" (surface level issues that stem from core issues) for our community. We look forward to working with members of this community on uncovering these and other core issues and collaborating on cohesive solutions to resolve them. In the spirit of this exploration, here are our "current top 4:"

1. Adopt a Systemic Value-Chain Approach: We suggest expanding our community's discussion from the current QC focus (Stein & Heikkinen, 2009) to include additional "nodes" of the value-chain. Usually, this includes internal value-chain nodes (strategy, HR, operations, IT, R&D, production, quality control, sales & marketing, service/delivery, customer service, etc.), external value-chain nodes (supply chain entities, customers, end-users, competitors, strategic partners, etc.) and SPECTREM entities and factors: Social, Political/Governmental, Economic, Cultural, Technological, Religious, Ecological and Military. For our purposes, however, an effective next step would be to look at eight nodes:

1. Strategic Partnerships/Community-building (how do we gather our "best in class" members of the Applied Developmental Theory community and collaborate while also building our mutual bottom-lines—rather than simply competing as small niche players in the leadership development, OD, change management and similar markets?)
2. Strategy (what are we intending to do with the models and instruments and how will we do this—5C analysis?)
3. Clients & Customers (which current and potential customers "fit" our strategy form a "5C" perspective?)
4. R&D (what tools do we have now, how can they be improved, and what new tools do we need to develop?)
5. HR—includes Production & Service/Delivery (who do we have that can develop, improve and implement those tools and how do we develop these people to meet these demands?)
6. QC (how do we set and maintain quality control standards in the community?)
7. Sales & Marketing (how do we increase our work with our current and target customers?)
8. Customer Service (how do we ensure that we are meeting our customers' needs and receive useful feedback that improves strategy, R&D, HR and QC?)

Naturally, we are suggesting that we gather people together who can add 5C value to our community. We propose that members should be able to provide high-quality input and performance (competencies) to one or more nodes (functional character) that illuminates the value-chain (context interface) in a way that is mutually respectful, supportive and collaborative (consciousness) while operating at a high level of perception, understanding and action (capacity) and individually and collectively delivering cohesive results (cohesion/sustainability stages).

2. Measure Results in Addition to Language: Stein and Heikkinen (2009) state that

> building a metric entails moving from … everyday interpretation of language towards more systematic modes of differentiating between different types of linguistic performances. Importantly, with the exception of a few experimental paradigms (e.g., Piagetian balance beam tasks) all developmental metrics entail the interpretation of linguistic performances. This point is often overlooked. (p. 10)

As far as we know, the "experimental" part is correct. We also started out using solely linguistic-based instruments that used soft or calibrated metrics to measure lead indicators such as personal "action logics" and cultural stages. However, we kept running into the issue that our clients have all preferred results over "valid" and "reliable" metrics. Therefore, we have also built and "trialed" instruments with clients that measure both the internal ("below the waterline") capacities, character styles (and individual consciousness) as well as external ("above the waterline") context interfaces, competencies, behaviors and results of individuals (leader profile, 360 CAP) and organizations (business sustainability scorecard). We are currently developing one for cities & communities (city & community sustainability scorecard) as well. Although these are far from perfected, it does seem that externally verifiable metrics that measure lead and lag indicators are easier to cross-check (by colleagues) and understand and use (by clients). If part of our intention is to get fully integral (IOS-based) instruments and metrics in widespread use, we need to create and sell instruments, and "packages" of instruments (blatant plug for collaboration) that covers the full range of the IOS and are appealing to clients and potential clients (e.g. provide measurement of results). For example, if a potential client wants us to help them develop a leadership and engineering team that can produce a new eco-car that will outsell the Toyota Prius and reduce energy consumption by 15% and raw material usage by 10%, it is better for everyone involved if we can say more than "the cultural center-of-gravity of your organization is ABC, a requisite version of your organization would be DEF, the action logics of your leadership team are GHI, and your LDMA results indicate that your should focus on improving JKL next." It is beneficial if we can say something like: "Your current financial, social and ecological results are MNO (cohesion/sustainability stages) while your mission, targets and value-chain requires them to be PQR (context interface). This requires A-L (capacity shift above), changing from a production and sales focus to a value-chain integration focus (character/culture) and building STU competencies in your leadership and R&D teams (competencies) while increasing employee loyalty by X% in this economic environment by building a reputation day by day of becoming a truly sustainable organization (consciousness). All of this indicates that we should do VWX to get that car built." And then follow up every 3-6 months showing them the improvement in both lead and lag indicators—including the actual financial, social and ecological results. If we do this with an increasing number of corporate, governmental and NPO clients, our hypothesis (and experience) is that the interest in developmental models and instruments (with their associated metrics) will continue to increase.

3. Creating an Evaluation System for Models, Instruments and Metrics: Stein & Heikkinen (2009) call for "languages of evaluation that focus on the most important qualities that bear on

the worth of both metrics and models" (p. 13). Interestingly enough, once the evaluation is complete, the "last metrics standing" are the Lectical Assessment System (LAS) instrument (which is directly linked to Stein), the Hierarchical Complexity Scoring System (HCSS) instrument (which is noted as "an early version of the LAS"), and perhaps the Requisite Organization (RO) model (it is noted that the creator of RO, Jacques, and his colleagues drew parallels between their metrics and those of Fischer and Commons, whose work serves as the foundation for the HCSS and LAS). Hmmm, this self-promotion is rather like ourselves and the 5C framework. OK, so we can all acknowledge a strong "T/Achiever/Orange" streak in at least several members of our budding community. On the other hand, certain other members of the community (e.g. Cook-Greuter and Beck) seem to be less interested in leveraging that T/Achiever/Orange streak. Combining this issue of "wisdom with limited self-promotion" in some members with the need to create an evaluation system that is meaningful to clients as well as colleagues leads us to add a few categories to "Table 2" in Stein & Heikkinen (2009, pp. 17-18). Again, our hats off to them for initiating this part of the process. We are certainly not experts in psychometric quality, and therefore look forward to partnering with community members who are. As stated before we do stand by our experience with several large-scale interventions and wide-ranging work with hundreds of organizational leaders. So, by leveraging our community's diverse perspectives, we should be able to come up with a concise and powerful evaluation system. We suggest:

1. Expanding "metric" to "model," "instrument" and "metrics" (see above).

2. Adding "scope" since most models, instruments and metrics can be used with either individuals or groups (it is neither time nor cost effective—and usually inaccurate—to "roll up" dozens or 100s of LAS or MAP instruments into a composite "organizational culture baseline" score) and some collective-focused instruments are built to assess an organization, but would not work with a city.

3. Adding "indicators" since listing the lead and/or lag indicators provided makes it easier to see what the model or instrument is measuring.

4. Adding "5C categories" since our developmental assessment of organizations and selection planning of candidates above Senior Manager roles should include their current, target and growth in context interface, character/cultural style, competencies, consciousness and degree of coherence as well as capacity (see #2 above).

5. Adding "language" since most instruments are available in only a few languages and some may not work across language barriers (e.g. sentence completion tests do not work grammatically in Japanese in our experience).

6. Expanding the content of "source" by adding feedback and perspectives from value-chain stakeholders in addition to academics.

7. Changing "publication type" to "evaluation type" and expanding the categories to include fieldwork (e.g. "pre-test with colleagues," "focus group," "client trial").

8. Expanding "aspect of psychometric quality addressed" to "reliability & validity" (see Issue #4 below).

We add these categories to Table 2. Sources not found in the References section are found in Stein and Heikkinen (2009).

4. Clarifying and Increasing the Validity & Reliability of Instruments, Models & Metrics: Stein & Heikkinen (2009) are clear that they are focusing solely on developmental psychology models and metrics based on linguistic responses (and all instruments and models in their article deal solely with Core Capacity). Within these parameters, they seem to be concerned about the validity and reliability of the instruments, models and metrics they discuss (again, with the exception of the LAS, HCSS and RO). This is an extremely important point, especially if we work solely with Core Capacity-focused, linguistic-based, developmental psychology instruments and market to and work with our clients consistently from a "T/Achiever/Orange" point of view that assumes "the truth is out there" and can be disclosed by one or more instruments. This is a conundrum that we have not often shared, since in virtually all work with clients to date (after a single, mutually-traumatic experience with a former key client), we have mitigated this risk using one or more of the following practices:

1. Provide the client with a "Quality of Results Rating" (QORR) that shows the rough reliability of the instrument alone and when packaged with other components. This is all we have done to date when the client is purchasing only the instrument results (more than 99% of our clients to date have purchased packages such as leadership coaching, executive development, OD or change management rather than single instruments). Since over 99% of our hundreds of clients have chosen packages, the QORR is based on the results of our instruments cross-checked against longitudinal scores from multiple instruments, observations and lag indicators and cross-checked against what the clients DO and GET (see #3 below).

2. Provide scheduled time for our scoring team community of practice (COP) to consistently refine and granulate the categories that we make within our meta-model and use within our instruments to define specific metrics. Our COP also consistently cross-checks our meta-model and categories against evolving and new models, metrics and instruments that claim to measure the same things, engages in learning from thought leaders, and engages in dialogue with key colleagues. These are our primary ways of dealing with validity.

3. Engage the client in a "5C" dialogue that helps identify "where they are," "where they are going," and how we can be most helpful in their journey. Although this often involves Core Capacity transformation (since most of our clients are G, I or T people in the roles of intercultural managers (requires "H" results) or multi-national organizational leaders (requires "A" results), it also almost always involves some combination of Consciousness, Context Interface, Character, Competencies and Cohesion since the key phrase here is "requires results" and NOT "requires Core Capacity." We have found (learned in our traumatic experience and verified in every case afterwards) that even "pre-conventional" leaders like to discover for themselves

"where they are" and not be told by consultants who are not actually responsible for the results themselves. We are speaking here of the organization leaders we have encountered, and cannot confirm whether this pattern holds true in the general population.

4. Provide three forms of feedback: what the clients have done (DO) and the results they get (GET) in addition to what they say and what judge of their interior from how they respond on instruments (BE). This provides a very concrete form of "tangible to intangible" or "visible to invisible" reliability cross-check to use the 4Q Iceberg model. Since "psychometric" checks deal only with intangible (internal) reliability and validity and does not include the reliability & validity of tangible results such as those provided by lag indicators (e.g. profits increased, increased number of lives saved, tons of carbon sequestered, etc.), we suggest expanding our definition of "development" to include tangible/visible measurement as well.

To summarize, developmental models, metrics and instruments need to be about more than stage development measured by (even calibrated) Core Capacity-focused, linguistic-based, developmental psychology metrics that produce lead indicators and are shown to be reliable and valid by psychometric qualities alone. Development, client satisfaction, and contribution to our communities additionally have benefited greatly from a cohesive 5C approach with clear, verifiable real-world results. A community that addresses these issues and produces a systematic and clear overview of which instruments, models and metrics best (or even moderately) provide tangible value to which clients in what contexts and conditions and works to improve the instruments, models, metrics and overview is the community that we want to co-create with you. As a first step, we end this article by building on Table 2 from Stein and Heikkinen (2009) and the invitation to help us continue to evolve this work together.

Warm regards, Chad, Norio and Zach.

Table 2. Capacity Models and Instruments

Model	Instrument(s)	Scope	Metrics/5C Categories	Indicators	Type
Abundance / Sustainability	Organizational Sustainability Scorecard	Team Organization	Context Interface, Core Capacity (14 sustainability lines)	Lead + lag	Certified objective scorer + self-scored (tangible)
	City & Community Sustainability Scorecard	City/ Community Region	Context Interface, Core Capacity (14 sustainability lines)	Lead + lag	Certified objective scorer + self-scored (tangible)
Cultural Transformation Tools	Individual Values Assessment	Individual	Core Capacity (values line), Character	Lead	Self-scored (intangible)
	Leadership Values Assessment	Individual	Core Capacity (values line), Character	Lead	Self-scored (intangible)

Model	Instrument(s)	Scope	Metrics/5C Categories	Indicators	Type
	Small Group Assessment	Team	Core Capacity (values line), Character	Lead	360 (intangible)
	Cultural Values Assessment	Organization Nation	Core Capacity (values line), Character	Lead	360 (intangible)
Developmental Model of Intercultural Sensitivity (DMIS)—by M. Bennett	Intercultural Developmental Inventory (IDI)	Individual	Core Capacity (intercultural line)	Lead	Self-scored (intangible)
Constructive Developmental Framework	Developmental Assessment (Cognitive + Emotional/Social + Need/Press)	Individual	Core Capacity (whole + emotional & social lines), some Consciousness, some Context Interface	Lead	Certified objective scorer (intangible)
Ego Development	SCTi/MAP	Individual	Core Capacity (whole)	Lead	Certified objective scorer (intangible)
Leadership Capacity	360 CAP	Individual	Competencies, some Core Capacity	Lead + lag	360: Self +4-10 (intangible + tangible)
	Leadership Interview	Individual	Core Capacity (whole), some Competencies	Lead	Certified objective scorer (intangible)
	Leadership Questionnaire	Individual	Core Capacity (whole), some Competencies	Lead	Certified objective scorer (intangible)
	Leader Profile	Individual	Competencies, Core Capacity (whole), some Consciousness, some Context Interface	Lead + lag	Certified objective scorer + 360 CAP results (tangible + intangible)
	Team 360 CAP	Team	Competencies, some Core Capacity	Lead + lag	360 (intangible + tangible)
Leadership Development Framework	Leadership Development Profile	Individual	Core Capacity (whole)	Lead	Certified objective scorer (intangible)
Lectical Assessment System	LERA, LLRA, LDMA, LRJA, LSUA, LIMA, LMLA, LMSA	Individual	Core Capacity (cognitive line, other?)	Lead (lag?)	Certified objective scorer (intangible)?

Model	**Instrument(s)**	**Scope**	**Metrics/5C Categories**	**Indicators**	**Type**
Requisite Organization (including Complexity of Mental Processing—CMP)	Requisite Organization Platform by ROII. No instruments found by GO Society.	Organization (Jacques' original work could also be used with Individuals)	Core Capacity (cognitive line, other?)	Lead (lag?)	Certified objective scorer (intangible)?
Spiral Dynamics	Values Test	Individual	Core Capacity (values line)	Lead	Self-scored (intangible)
	Change State Indicator	Individual	Core Capacity (values line)	Lead	Self-scored (intangible)
	CultureSCAN--Personal	Individual	Core Capacity (values line)	Lead	Self-scored (intangible)
	ManagerSCAN 360	Individual	Core Capacity (values line)	Lead (lag?)	360(intangible)?
	BusinessSCAN	Organization	Core Capacity (values line)	Lead (lag?)	360(intangible)?
	SchoolSCAN	Organization		Lead (lag?)	360(intangible)?
	CommunitySCAN	Community	Core Capacity (values line)	Lead (lag?)	360(intangible)?
	CultureSCAN	Team, Organization, Community, Nation	Core Capacity (values line)	Lead (lag?)	360(intangible)?
(Subject-Object Theory?)	Subject-Object Interview	Individual	Core Capacity (whole)	Lead	Certified objective scorer (intangible)

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Interkannections *is a team of change leaders committed to helping our clients evolve their organizations, leadership and talent in ways that sustain and create value economically, socially and eco-systemically at both the global level and the communities within which they operate. We do this by working with them to create a cultural and systemic tipping point of abundance where together we are able to continually improve performance and generate added value along a triple bottom line of prosperity, people and place for ourselves, our organizations, communities, cities and the ecosystems that sustain us. We do this to help meet the changing needs of our clients and communities in the 21st Century, and leave the world a better place for our children.*

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Intuiting the Cognitive Line in Developmental Assessment: Do Heart and Ego Develop Through Hierarchical Integration?

Tom Murray

Introduction

Numerous times in voice and in print I have heard people question whether Dawson and Stein's work using the Lectical Assessment System (LAS), and whether other developmental instruments, are only focused on the "cognitive line," as opposed to other instruments that are somehow broader. Stein has tried to clarify his perspective on this question in (Stein & Heikkinen, 2008), but the question seems far from settled. The issue came up again in the "meeting of developmentalists" hosted by Bill Torbert on October 3, 2009, which is reported on elsewhere in this issue(personal communication with Bill Torbert; I was not in attendance). Dialog about this issue seems confused by an assortment of assumptions, and the question itself of whether certain instruments measure only “the cognitive line” includes too many assumptions to allow for resolution without a deeper exploration of these assumptions.

Inspired by Stein and Heikkinen's (2009) paper in our last issue and the responses in this issue, I would like to take the opportunity to reflect on these assumptions, and on developmental assessment in general, with the hope that it will help in some small way to clarify or promote further dialog on the subject. As a Response essay, the arguments presented here are not backed up with numerous references to the literature that a scholarly article would be. My goal is not to enumerate, critique, or even adequately describe the assessment instruments currently in use in the community, nor is it to posit solutions to the complex problems of developmental assessment. My aim is to raise general questions, identify assumptions, and propose useful distinctions.

In particular, I take up several issues that I hope to be able to explore in more depth in a future academic article. First, I consider what it is that we are trying to measure in our assessments. Stein and Heikkinen (2008) approach this question productively from the perspective of the intuitive construct of “altitude,” but here I approach it from the perspective of intuitions about wisdom.[1] Wisdom intuitively includes development of heart, soul, and ego, in addition to cognition. Second, I explore various definitions of "the cognitive line" and suggest that we keep in mind the limitations of even supposing that we can cleanly identify precise developmental lines independent of pre-defined tasks. I explore what we might actually be concerned with underneath the question of "is an assessment limited to the cognitive line"? Third, I discuss the limitations of models and relate that to hierarchically structured formal developmental models. Constructs such as reflective abstraction, hierarchical integration, subject-object transformations,

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[1] I am of course not alone in taking up the topic of development by referring to wisdom. For example see Cook-Greuter (2002).

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and hierarchical complexity assume a particular (different, but similar for my purposes) "mathematics" of developmental growth.

Fourth, I ask whether the development of heart, soul, and/or ego might follow a type of mathematics (geometry or logic) that is different than that captured by existing formal theories of hierarchy. Finally, I question whether, until we have better theoretical and formal models, we might have to rely heavily on human gestalt capacities to recognize some aspects of the development of wisdom.

Development as Wisdom

As noted by Stein, Dawson, Cook-Greuter, O'Fallon, and many other developmentalists, development (and in particular so-called vertical development) is a construct that first and foremost points to a vague but definite shared intuition that people have about increasing adequacy and capacity to act skillfully in life situations.[2] Human development and learning happens in countless ways in response to countless life-based task demands, but within the field of adult development, and especially within the integral community, the kinds of development we tend to be interested in are captured by the concept of *wisdom*. In the domains we look at, including leadership, parenting, communication, collaboration, spiritual work, counseling, and teaching, our intuitions of higher stages of development correspond closely with our concept of wisdom.[3] The skills of ego-awareness (or ego development), construct-awareness (related to Basseches' (1984) dialectical intelligence), systems- or big-picture thinking, and social/emotional intelligence are all (and *together*) directly implicated (even synonymous with) modern day intuitions about wisdom. The usefulness of the construct of wisdom for the purpose of this essay is that it speaks to the strong interrelatedness of the various developmental lines that, in order to further our inquiry and understanding, we must also speak of separately. But these separate lines are somewhat arbitrary.

And along similar lines of reasoning, the developmental assessment instruments being used within the integral community (applied to leadership, coaching, communication, education, personal growth, civic engagement, etc.) can be seen as triangulating various aspects of wisdom.

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[2] Cook-Greuter and Dawson both use an informal card-sorting activity to illustrate developmental intuitions. The audience (usually working in small groups) is asked to sequence a set of statements about a topic such as leadership or the good life. Invariably, on average people have surprising agreement about the hierarchical sequencing of the statements, pointing to a shared intuition. This is the core of Habermas' concept of *rational reconstruction*, or reconstructive science, in which the role of philosophy is seen as exposing the conditions and structures behind common intuitive constructs that are unconsciously or unreflectively used; and then to inform how inquiry in the empirical sciences is framed and conducted. Thus for constructs such as human development, freedom, respect, sincerity, and truth, the philosopher’s role is to explore what is always already at their core, as they are actually used and experienced, rather than to uncover some platonic truth or reality about their nature.

[3] We can note that what counts for a wise action or a person one admires as wise depends upon one's developmental level, yet, as with other developmental phenomena, though one can't easily "see" phenomena at levels higher than one's own level in a particular skill domain, developmental growth trajectories can be empirically demonstrated.

Though some of the frameworks, especially those looking at deep structure, are applicable across many domains, I am interested here in the life/relationships/work domains mentioned above.

What is the Cognitive Line?

Is the LAS, or any other instrument, confined to measuring "the cognitive line?" First, we should understand that the “cognitive line” is a man made construct that correlates with and helps categorize certain types of behavior and mental processes, but does not represent any known distinct component or function in the brain (or mind/body).

Kurt Fischer's (1980) Skill Theory supports the assertion that the act of differentiating complex human capacities into separate skills or lines is largely artificial. Fischer claims that skills develop in response to the demands of real life task situations: "the skill level that a person displays…cannot be considered independently of the context in which that skill is assessed."[4] Some primitive human skills such as those dealing with reproduction, eating, and territory, seem to operate fairly *independently* because the task situations or life-needs they address are relatively independent. But the complex human social contexts of communication, decision making, and knowledge building have massively overlapping characteristics such that the skills developed to meet these needs should be expected to be equally *interdependent* and difficult to separate. Tobert and Livne-Tarandach (this issue) also describe evidence that as skills become more complex (i.e., at higher developmental levels) they become more entangled.

Often, measuring development involves creating tasks for people to do (e.g., respond to open-ended interview questions or sentence completions). These tasks are designed explicitly to be able to reveal developmental differences, so from the start they are based on some theory of development. In a sense the task itself defines a pseudo-line of development. This is not to say that the tests currently being used are not relevant to the real life skills we are concerned about (see Torbert & Livne-Tarandach for correlations with authentic outcomes). The point is that artificial tasks such as answering interview or assessment questions define their own quasi-artificial lines of development that seem distinct because the task is well-defined.[5]

Since an objective "cognitive line" function of the mind is not seen as an ontological reality, the question of "what is cognitive" reduces to what do we mean by cognitive in this context. It is beyond my scope here to explore the possible senses of the word, but we can pilot around the word to get a sense of what people are really pointing to when they refer to "the cognitive line." *Cognitive* can refer to the information processing part of the mind/body; to simply what we are aware of (in the conceptual and developmental sense) such that we can even think about it (process information about it); to the logical rational functions of thought closely related to the classic notion of "intelligence" (IQ), and to the aspect of thought that is interested in determining what is true about the objective world (for physical-plane survival and “thrival”).

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[4] Fischer & Farrar, 1987, Page 647.

[5] As is always the case in measurement, there are tradeoffs between authenticity (ecological or external validity) and reliability (or internal validity). That is, to the extent that the task is similar to an authentic real life action situation, like participating in a job interview, the "line" that the task defines is more relevant to wisdom skills. Yet more authentic tasks are complex and may be difficult to measure and interpret. So it is more prevalent to use artificial tasks such as answering questions on a form or in a structured interview, which are easier to score, and also define "cleaner" lines, but these lines are less guaranteed to relate to real life. The artificiality of tasks varies among the currently used assessment instruments, and some methods do not involve “lines” at all. Also, in commercial (non academic) settings, the cost of coding or assessing authentic tasks can be prohibitive—another tradeoff.

The question of what is cognitive can also be illuminated by looking at its complement—when we categorize something as cognitive we are categorizing other things as non-cognitive. This brings us to the related question that inevitably comes up about the limits of assessing exclusively language-based performances. When we say "cognitive" in the context of our focal question, we are pointing to that which we know explicitly and can speak about. So underlying questions about the limitations of cognitively-oriented or language-oriented assessments are likely to be concerns about activity in the following categories.[6]

1. *Action*. Human development might be best measured according to what we *do* and *can* do, rather than what we say, or what we think we can do. Assessment questions that ask one to reflect on oneself (which statement is most like you; do you agree with the following…; are/do you….) are clearly limited by self-knowledge and what one wished one was like. And even for accurate assessments of self, there can be large performance-competence gaps and context dependencies that lead to an unintentional focus on ideal situations.

2. *Language skill*. We must ask whether we are in part measuring the ability to express oneself in language. Some of those we see as wise are rather quiet, speak in simple terms, or speak through action and non-reaction. And yet, if we evaluated how they responded to complex social, or interpersonal situations we might infer that choosing the one action among the infinite possible actions required a developmentally sophisticated understanding of the complexities, nuances, and dimensional levels of the situation. Perhaps a focus on speech-acts limits our exploration of wisdom (and related developmental lines) to those who are acculturated to be like us, who travel in academic (or organizational development, or upper middle class, or male-dominated, etc.) circles, and like to read and write and argue about their passions. Then again, communication is an action and skill in itself, as well as a medium, and certain aspects of what I am calling wisdom skills relate directly to communication skill.

3. *The non-conscious*. By far the bulk of who we are and what we do arises from non-conscious processes, including both repressed information in the Freudian sense, collective or archetypal patterning in the Jungian sense, social and historical conditioning, and the sorts of pre-conscious automatic processes that cognitive psychologists study (and described in Gladwell's *Blink*). These deep processes are mostly beyond our awareness and reflection, though they are evidenced in action, speech acts, and the conscious content of private thought processes.[7]

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[6] These questions are being addressed in the literature in various ways; I am not by any means the first to pose them, my goal is to summarize the main themes.

[7] Note that if our goal is to reflect upon and improve or transform human behaviors can capacities, then we must make efforts to expose and describe what is tacit, both to be able to reflect upon it, and to design educational/transformational tools.

4. *The non- or post-rational*. The wisdom-skills of life are clearly about more than logical rational thought or linguistic competence. Adult developmental research is illuminating post-rational forms of thought that understand the strengths and weaknesses of both logical/rational/categorical thought and non-rational modes (e.g., emotional and intuitive forms), and produce post-rational decisions about when and how to use these different modes. Though post-rational thought can be seen as imminently rational, the question remains as to whether combinatorial and integrative models can formally represent types of understanding that reflect upon what is unknown or paradoxical, or chaotic.[8]

The above does not answer the question of whether the LAS or any instrument is limited to the cognitive line, but provides some concepts to help clarify the question itself and perhaps to ask more productive questions.

Deep Structure and Hierarchical Development

The LAS, developed by Dawson, combines aspects of the Hierarchical Complexity Scoring System (developed by Commons and colleagues) and Skill Theory (developed by Kurt Fischer), which are both early members of the neo-Piagetian generation, building on Piaget's (2001) theory of reflective abstraction. Dawson was a primary student and co-researcher with both of these leading figures in adult development. All three of these systems are based on content-free developmental models that look (and make assumptions about) the deep structure of development, rather than surface elements.[9] A formal structural model is like a mathematics—like a type of logic or geometry, a formal system for representing how elements are combined and how new elements and patterns emerge from their combination and/or interaction.

Such formal systems representing growth, development, or learning use a variety of operators, including integration and differentiation, abstracting or generalizing common properties, and the coordination of lower schema. As one sees in all formal systems (including simple algebra and geometry and more elaborate systems in chaos and systems theory) very complex multi-layered structures can be built up from a few simple operators acting recursively. Also, since higher level schema are seen as single units abstracting or coordinating lower level ones, there can be a type of simplicity emerging from complexity as complexly-related units organize (or reorganize) into new wholes through successive differentiation and integration.[10]

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[8] Dawson (personal communication) argues that much of the territory of post-rational and non-rational reasoning can indeed be examined using hierarchical complexity: "The research clearly suggests that HC explains a great deal of what is going on here… One way to figure out what is NOT explained by HC is to parse out the HC dimension of performance. For that, you need a good HC ruler that goes straight to the core of HC… Once you have accounted for HC, then you can examine what's left—we find biases & preferences, temperament, affect, and dispositions when we do this exercise."

[9] The constructs of surface vs. deep are relative, and most developmental models claim to deal with elements that are deep and not on the surface, but the projects mentioned go the furthest in being based on deeper structures.

[10] Neurons seem to build structure upon structure in a way that could explain reflective abstraction (or hierarchical integration, subject-object transformations, etc.), or at least act as a metaphorical bridge. Developing the ability to be aware of and reflect upon—or combine and coordinate, or generalize or

The exact structures, logic, or geometry of such theories does not matter for my purposes here. What does matter is that such theories explain development of all types, including the development of physical skills, communication skills, self-knowledge, social skills, linguistic skills, intellectual skills, domain-specific knowledge, through the lens of such formal models. Not only cognitive skills, but sensory-motor and social skills such as playing tennis or leading teams, and even the behavior of non-human animals, can be modeled using such processes. Such deep-structure theories can rightfully say that that they are not limited to the cognitive, or any other line, or to linguistic behavior, in their most general form (i.e., as domain independent theories).

On the Limits of Models and Formal Systems

Next I would like to move into questions about the limitations that formal models, and all models, possess, as another way to approach questions that come up about various developmental models and assessment tools. I want to ask how explicit we can be about the limitations of our tools, both conceptual (as in models) and instrumental (as in metrics and assessment instruments). As those familiar with my writings on integral themes may know, I have a fascination with the limits of knowledge and thought, and touch on themes of indeterminacy (including uncertainty, ambiguity, and paradox) in most of my articles.[11] A minor concern is with the epistemic or ontological humility of acknowledging that a particular claim, model, theory, concept, or method has indeterminacies or limitations. We do often see this sort of humility in scholarly works. But what is of most interest are the possibilities that become available when we study the indeterminacies and limitations enough to be able to characterize them and to explicitly work *with* uncertainty, not just *within* it.

This is just the sort of thing that error bars or confidence intervals do in statistics. Statistics has studied the nature of uncertainty to a point where, along with the main truth claims made from data, we can also make definitive claims about the *limitations* of the main claim.[12] Statistics does this from a right-hand-side perspective (being about measurable objective realities), and what I am interested in (and I must admit that I am an amateur in this area, which goes deeply into psychological and philosophical territory) is taking this approach into the left-hand or interior realms—the realm of concepts, language, beliefs, models, and theories.[13]

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abstract—existing cognitive content, is easily pictured as adding a new layer of neurons or connections that sense, measure, react to, coordinate or regulate a prior or "lower" layer.

[11] I spent decades working in areas of applied artificial intelligence where I was exposed to many theories of formalizing human knowledge, skill, and behavior; and to the progression of academic expectations in these areas as scholars became ever more aware of the true complexities of human behavior (and living systems in general, including animal behavior and social systems). This, in addition to my own work in "knowledge representation" and "knowledge acquisition," plus studies in psychology and philosophy, have made me acutely aware (overly sensitive?!) of the limitations in our attempts to formalize complex natural systems.

[12] Of course, there are uncertainties in our claims about statistical uncertainty, and the issue is recursive in a never-ending way. But just going this one level deeper provides significant value (going two or three levels deeper becomes so difficult to conceptualize that there are diminishing returns).

[13] Lakoff and Johnson (1999) maintain that the constructs available to us from which to build our models (abstract concepts, structures, operators, etc.) are deeply metaphorical. These metaphorical building

That is, we know that conceptual categories and the models and theories that are build from them inevitably have fuzzy boundaries and diverse interpretations, and we know that our perceptions, abstractions, and generalizations are limited by various sorts of biases and distortions; lenses and filters. But we often share claims as if we did not know about these limitations. Indeed, in abstract (conceptual and non-measurable) domains it is not an easy thing to do—it takes tools we are historically just beginning to become acquainted with and effort that is in short supply to step back and evaluate the limits of one's claims with any sort of rigor. And the norms of modern scholarly discourse give little incentive to do so. But I propose that as we become more comfortable and familiar with the *nature* of various sorts of indeterminacy (including what Fisher and Stein (2008) have called "dark knowledge"), through findings in psychology and philosophy, and increase our familiarity with this terrain, we can expand meaning-generation potential and efficiency in a community of inquiry.

This allows for more nuanced dialog. For example, the concepts of mind and consciousness are quite problematic in their definition, yielding various types of arguments about their nature which are highly fallible and vulnerable to counterargument. Perusing the debated claims and counterclaims in the literature is dizzying. From the perspective of am interested reader not attached to a particular answer (i.e., myself) it seems as though so much ink is wasted when authors hold onto a particular definition and do not yield to the possibility of alternate perspectives.[14] Another example is in the use of theoretical models such as AQAL.

As Wilber is quick to note, AQAL is a map and not the territory itself—it is a particular way of cutting up the infinitely complex, nuanced, and ineffable territory(s) of reality, useful for a particular set of purposes. This noting constitutes the type of humility I mentioned above. But the next step, not so often taken, is to say as much as one can about the nature of this way of slicing up the "pie" such that we can understand the limitations of this powerful conceptual tool. What does it assume that might not be true? What admits to alternative views? What types of phenomena are not adequately captured using this lens? What things fall into the fuzzy or gray areas between the crisp conceptual lines of the four quadrants (and the other categories such as states vs. stages)? My argument is that all models and theories would be more adequate if they were described and "delivered" with a meta-wrapper or boundary analysis explaining some of what is known about the limitations of the "map."

How does this relate to our current topic of developmental assessment? Developmental assessments, if approached from the perspective of pure metrics, are subject to uncertainties akin to the right-hand-side realm of statistics, and their indeterminacy is thus more understood and less problematic. But to relate a pure metric to anything of relevance, to say what its results *mean,* we rely on models (or other tools of interpretation).[15] So we are back to the limitations of models.

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blocks are both tools and lenses that reflect the sensory-motor (and other) primitive elements of our experience, as much as they reflect truths about the world.

[14] For example, rather than "you are wrong" the dialog becomes more like "if one interprets the concepts [e.g., consciousness] in […this…] way there is validity to what you say, but my focus leads me to interpret it [consciousness] in […this…] way, which I claim is more useful."

[15] Also, assessments are designed in the first place to serve the needs of a model or theory, so reevaluation of the nature of a model may lead to reevaluation of the nature of a related metric.

The models being developed using constructs such as hierarchical complexity and hierarchical integration are proving to be extremely powerful in uncovering deep structure, and helping explain and perhaps even predict developmental phenomena. This is in part due to their additional levels of formality. Increasing theoretical formality involves, among other things, making sharper conceptual cuts in the fabric of observed reality. The benefits of doing so are clear, as can be seen in the contributions of modern science and technology. However, in this post (or post-post) modern era, we are also increasingly aware of the limitations of formal systems to capture truths about reality. And, importantly, are beginning to become aware of the shape of or *nature of* these limitations (as in the uncertainty principle and Gödel's incompleteness theorem), in such a way that we can work *with* the uncertainty, not just be helplessly subject to it.[16]

Though I have some incompletely-worked-out ideas about what this might look like, for this informal article I will simply suggestion that we put more effort into such "boundary analysis" as a way to compare, contrast, and combine the best of the current developmental models and assessment methods. Also, I should note that, though each formal model has its limitations, particular practitioners or projects sometimes use a combination of tools, each of which may compensate for the limitations of the others. For example, Dawson's (Dawson & Stein, 2008) "developmental maieutics" is about embracing multiple approaches.

The Landscape of Assessment Tools

Up to here my discussion has brought together ideas seen elsewhere in an attempt to help clarify and promote dialog and meta-reflection on the practices of making and using developmental models and instruments. Next I will slip into much more speculative territory, with the hopes that my intuitions and musings will lead to productive dialog rather than simply expose the limits of my experience in this domain (!).

The current landscape of developmental tools includes those that seem to have had very little if any assessment of validity,[17] those, such as Cook-Greuter's and Torbert's LDP-related instruments, that have shown some validity (but perhaps do not raise to the standard of calibrated measures, as called for by Stein and Heikkinen), and those, including the LAS, that have shown strong (calibrated) validity and are also based on a deep/formal developmental theory. It is the latter two categories that I am concerned with here.

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[16] Of course, within the power of this new type of knowledge we are best maintain humility, as the recursive questions about indeterminacy have never ending depth.

[17] These include many that are used in leadership and organizational development, too numerous to list here or single any out (but see Stein and Heikkinen's article in IR's prior issue). Presumably those using them believe that the value added in terms of generating meaning for clients outweighs the problems inherent in their lack of validity. I am very sympathetic with the cautions brought out by Stein and Heikkinen (prior issue), but hold out the possibility that in some cases soft metrics can be used in such a way that there is overall value added, for example in guided self-evaluation (and see the discussion of first, second and third person methods in Torbert, this issue). I am also sympathetic to the pragmatic reality that if an organization has found benefit for self and client in a "tried-and-true" instrument, there may be little incentive, nor even the realistic possibility, for them to fund the type of large scale research project needed to sufficiently validate the instrument. The potential to harm clients is very real and must be looked at squarely in each case. But it would be an overstatement to say that all non-validated instruments are harmful.

My understanding is that Stein and Heikkinen (and others in the neo-Piagetian line) hypothesize that their formal frameworks could measure much of what the LDP and related frameworks are measuring, and do so in a more rigorous fashion; and that some of those using LDP-related tools believe that they are able to assess something that the more formal models do not (or cannot). Both "camps" if I can call them such, agree that the ultimate answer to these questions will come only through empirical work in comparing the systems (as Heikkinen (this issue) is doing now between the LAS and Kegan's SOI instrument). Such comparisons will be important and revealing, and I hope that resources become available to facilitate this happening.

In the meantime, I will speculate that it *may* be possible that the less formal frameworks may be looking at a wider range of phenomena than the LAS (paired with a developmental model) can easily accommodate (a counter argument would be that multiple domain-implementations of the LAS could cover the same territory—see footnote 5). There is often a tradeoff in assessment between rigor (precision, internal validity) and scope and real-life relevance (including ecological validity). This may or may not pertain to the differences in these methods, as future analysis will reveal.

The above discussion has laid groundwork for me to bring forth a question of whether assessments relevant to matters of heart, spirit, self, and relationship might have a different underlying structure or mode of development that is not captured by current hierarchical theories or assessment tools.

The Geometry of Growth of Compassion and Negative Capability

Consider again some common intuitions about the development of wisdom. Think about wise people and wise actions, and what it takes for any one of us to grow in wisdom. In addition to the accumulation of complexity and the concurrent simplicity that comes from combining elements into new wholes, there are elements of un-learning (subtracting), of letting go and emptying, and of opening. Some would say that the wise heart is spacious and non-attached. What kind of structural transformation does it take to achieve this type of skill? It may need to be explained with something other than hierarchical processes.[18]

Imagine a conversation with someone who you know to be quite intelligent but in this context is just not able to release his grip on a belief, or is not able to see a part of himself that all of his friends see clear as day and have been gently trying to point out, but he struggles with internal resistance. There is an insight available to him about himself, about others, or about life, that he will surely grasp as soon as he lets go. He has shown in other situations that he is capable of stepping back and reflecting upon himself, of seeing the larger picture, the complexities and nuances. He has already developed the capacity to do these things, so what is called for is not so much a building up but a letting go, a type of healing, or a moment of grace. The article by Sofia

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[18] Ross (personal communication) says that hierarchical models can in fact account for these types of phenomena. The issue may come down not to the limitations of models, but current limitations in the assessment tools, metrics, and observable tasks that we use in conjunction with our models.

Kjellström in this issue talks about Kegan & Lahey's Immunity to Change Process, which directly highlights the fact that the release of resistance, unconscious motives, and psychological "baggage" may be as strong a determinant of the speed of developmental growth in adults as the gradual processes of hierarchical and additive growth.

Or imagine the proverbial seeker who goes into a guided contemplative seclusion and emerges with a new radiance and lightness (and, yes, in this imaginary case, *can* hold onto these qualities when she descends the mountain and enters the "market place"). Take a moment to feel what it feels like to be in a place of compassion with others. To develop in compassion is to very literally feel a sensation of expansion or lightness within the heart-space. Growth in heart and spirit reveal a phenomenologically different space than cognitive growth, and it seems possible that the structural transformations happening inside the body (or body/mind/soul) happens according to a different type of mathematics or logic or geometry.[19] It may be possible that this type of change calls for different mechanisms and metaphors than are currently employed by hierarchical models.

Another element of the growth of wisdom is our ability to deal with dissonance, uncertainty, ambiguity, and paradox. Such dialectical intelligence (see Basseches contribution in this issue), vision logic, or "negative capability" may also imply a different set of metaphors and formal operators than we are currently using. Though, this type of growth is much closer to the domains that hierarchical methods have been used to explore.

Intuition vs. Formality in Assessment Methods

Another issue brought up in comparing developmental assessment methods used in the integral community is the more holistic and hands-on process used by those who use scoring rubrics vs. the more formal methods used with the LAS. Does the subjective role or innate intelligence of the human rater have a positive or negative effect on validity and usefulness? The LAS method purports to be more rigorous in that it uses a more formal approach to skill representation, requires less subjective interpretation, and has less reliance on surface meaning than other methods. This would indicate that it may be more reliable in measuring the aspects of wisdom-skill that are structured according to hierarchical models. It also indicates that the LAS is stronger for measuring specific well-defined lines.

However, above I ask whether there are important elements of wisdom that are not so structured; that are structured in ways that we do not yet have adequate conceptual tools (concepts or metaphors) to formally represent. To the extent that we lack the formal tools to represent these aspects of development, we may need to rely more on human gestalt reasoning, which can recognize more complex or subtle patterns than current mathematical and computational tools can assess.[20]

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[19] See the "The Coherent Heart" by McCraty et al. in this issue for research on the neurophysiology of the heart.

[20] My own work in artificial intelligence (backed up by many scholarly sources) has made me aware that in certain pattern recognition tasks the human mind far exceeds what we have been able to do with machines and formal algorithms (and vice versa, computers are better at some things).

The LDP-like tools used by Cook-Greuter and Torbert are sometimes said to measure the "ego development" line, but are actually measuring some combination of three or more quasi-lines (behavioral, cognitive, and affective-relational).[21] Thus they are assessing some of the wisdom skills that I argue may have elements that do not develop according to hierarchical logics. It is possible that human gestalt capacities can evaluate development in these areas better than the more formal systems, given our current state of the art. The LAS is designed to measure one developmental "line" at a time, as opposed to the more holistic combination of quasi-lines assessed in the LDP. The LAS may not be able to assess certain aspects of wisdom that a more holistic method could. However, it should prove to be more rigorous at assessing the lines that it can measure.

Dawson's approach to developmental maieutics is not limited to the LAS. Importantly, the LAS can be used to measure the aspects of development that do grow through hierarchical complexity, and can thus reveal the outline of what remains with particular clarity (see footnote 8). And what remains can be analyzed using different methods.

Conclusions

Constructs such as reflective abstraction and hierarchical integration point to deep structural properties of learned behavior that have proven to be extremely useful for understanding human (and animal) learning of many types. I have focused on a particular set of human capacities that seem highly valued in the integral community—framed under the umbrella of wisdom skills. These include what has been called ego awareness, construct awareness, socio-emotional-relational skills, dialectical intelligence, negative capability, empathy, and compassion.

There is no doubt that much of what we observe as development in these skills can be described in terms of formal hierarchical models. It is also possible that growth in wisdom (not simply individual differences, but growth or transformation) in these ways can *not* be adequately described using current hierarchical models, and that this possibility is what is being referred to when people ask about whether certain assessments are too limited to the cognitive line. Alternative and complementary models or modes may need to be developed. In particular we may need to more fully articulate models that account for aspects of wisdom growth that involve letting go, unlearning, healing, or non-hierarchical expansion or enfoldment. I also suggest that, at the least, we would benefit from putting more effort into articulating the boundary conditions and indeterminacies of the models in use.

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[21] Cook-Greuter (2002) mentions behavioral, cognitive and affective-relational lines. In some of my writings I have described this terrain in terms of ego-awareness, construct-awareness, and interpersonal-awareness, and systems-awareness.

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Educational Crises and the Scramble for Usable Knowledge

Zachary Stein

Abstract: Quality-control efforts in the field of applied developmental psychology are just beginning. In this paper I set these efforts in a larger context to frame their significance and guide their direction. I argue that the challenges arising in the current post-national constellation are best understood as educational crises. The task demands of the global problem space increasingly outstrip available human capabilities. This situation is leading to a scramble for usable knowledge about education—defined broadly as any process intentionally undertaken to promote human development. There is a growing demand for techniques and technologies that catalyze the transformation of human capabilities; and this demand exceeds available supplies. Education becomes a growth market as specific types of human capabilities come to be recognized as scarce but valuable resources. This pressing global demand for innovative educational solutions and approaches has the potential to systematically distort the production of relevant usable knowledge. I present a set of general quality-control challenges that face the field of applied developmental psychology as it strives to meet the demands of a globalized crisis-ridden educational marketplace. I argue that the field should overcome temptations to circumvent peer review processes by going directly to consumers. I suggest adopting a general stance of *epistemic humility* so that research and collaboration are promoted and argumentative strategies that insulate approaches from criticism are avoided. Finally, I argue that more careful attention should be paid to the normative dimensions of educational enterprises, as they involve the creation of new values and raise ethical questions about the shape of what life ought to be like.

Keywords: developmental psychology, education, post-modern global society, quality control, usable knowledge.

We Developmentalists

This paper is the third in a series of publications about applied developmental psychology (Stein, 2008; Stein & Heikkinen, 2009). In these publications my broad goal has been to start a serious discussion about the proper and improper uses of developmental metrics and models. Along the way I have had the good fortune to participate in exchanges about these issues with some of the greats, including: Ken Wilber, Susanne Cook-Greuter, Bill Torbert, Bob Kegan, Howard Gardner, Kurt Fischer, Michael Commons, and Theo Dawson. Now, with this special section in *Integral Review* my network of interlocutors has expanded once again. The responses to my efforts have made it clear to me that the quality control issues I have raised are important to many thoughtful people. Moreover, the tone of the discourse has made it clear to me that these are domestic disputes. We developmentalists are on the same team and want to find ways to work together to insure the knowledge we have gained gets put to use as ethically and efficaciously as possible. However, as I explain below, we need more than good intentions.

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In his brief but insightful counterpoint Basseches (this issue) raises the specter of a “tyranny of measures” — a socio-political situation wherein psychological measures supplant respectful discourse and enable forms of institutionalized domination. I think that there is good reason to fear this as a possible future. As I have stated elsewhere (Stein, Dawson, & Fischer, in press) the majority of post-industrial societies have large educational systems dominated by complex standardized testing infrastructures. In some contexts the situation already resembles a kind of “tyranny of measures,” where psychological measures alone determine the distribution of opportunities and rewards. At least since the publication of *The Tyranny of Testing* (Hoffman, 1962) many have leveled broad and incisive criticisms of the testing industry. But, despite clear evidence that the approach is flawed (e.g., National Research Council, 2001) there is continual political push towards expanding the existing testing infrastructure. These expansions will inevitably infiltrate higher education and human resource management in business and government.

It is clear to me that the push to expand testing infrastructures should be seen as an errant response to profound challenges that face large sectors of society. Below I argue that the current post-national constellation faces endemic *educational crises* (see Figure 1), wherein the problems we need to solve outstrip our capabilities. Thus, echoing Habermas (1984; 1987) and Wilber (1995), I argue that viable solutions must entail the promotion of *learning processes*. We must find ways to foster the development of individuals who are *capable* of navigating the complexity of this historical moment. The ever-expanding testing industry is one face of current technocratic responses to this problem. The other face is an ever-expanding branch of the biomedical technologies industry that focuses on the “enhancement” of psychological functioning (see, Stein, della Chiesa, Hinton, & Fischer, in press). There is a pressing need for usable knowledge about how to affect the transformation of human capabilities and a sprawling set of markets is springing up around this need. If market mechanisms dominate the available supply of educational options, we may face not just the tyranny of a standardized testing industrial complex but also a brave new world characterized by large-scale strategic alterations of the human nervous system.

It is my hope that we developmentalists might be in a position to affect the trajectory of our society‘s response to the educational crises it faces. This includes shaping the future of institutionalized applications of psychological measurement. It also involves engaging in research about how development is best fostered. And, I think, we also need to weigh in on the normative and philosophical issues at the heart of human development, clarifying which potentials are preferable and ethically vetting the means we are willing to employ to achieve them. But the complex context in which we make our efforts works against us.

Below, after clarifying the nature of the educational crises that constitute this context I discuss characteristics of our current knowledge production processes that might undermine our best intentions.

Educational Frontiers and Educational Crises

It has been suggested that with the closing of the American West early in the 20th Century education became the new frontier. Education came to be invested with the ameliorative and utopian (and opportunistic and exploitative) energies that once characterized westward expansion (Karier, 1986). During the 19th Century the West exemplified the possibilities of American democracy. Its vast expanses and resources were understood as indispensable enablers of America's future as a land of opportunity, freedom, and equality. The "problems" of immigration and labor, of urban crime and poverty, of anomie and economic stagnation—these could all be solved by heading west, it was said, where the future of America was being forged, where everyone looked out toward an open horizon. Since the early 20th Century, so the argument goes, these same ideals and energies have been tied to the possibilities of education. Just as the West was once thought to make all things possible, so now education is saddled with the burdens of accomplishing democracy.

This is an important insight and one that is more significant today than when it was first expressed in the 1960s. But today an argument about the function of education needs to be more than a story about American nation building. It needs to shed light on the current post-national constellation. Familiar ideals—birthed in both Athens and Jerusalem—have catalyzed the global expansion of certain techno-economic conditions and moral-political orientations. The rule of law and democratic governance processes increasingly characterize societies worldwide. These are social changes typically accompanied by free market capitalism and industries built around scientific and technological innovation. As diverse and geographically distant markets and cultures have become irreversibly interconnected through increasingly complex communication networks, the most advanced nations in the world have come to share a common historical trajectory. Since the end of colonialism and the failure of the Soviet experiment there remain no alternatives to the dominant modes of political and economic organization (Habermas, 2001). This is just to say that major shifts in the trajectory of the total system, such as those needed to handle climate change and terrorism, are now possible only from within. In the context of this need for immanent self-transformation, it is education that saddles the burdens of accomplishing a just and sustainable global civilization. The educational frontier is trans-national.

Importantly, *education*, as I use the term and its variants here, signifies more than what happens in schools. Following Dewey (1916), Cremin (1976), and Habermas (1984; 1987), I think education is better understood as a broad socio-cultural function and form of human interaction. Dewey went so far as to say that all communication is educative, a view I have some sympathy with. But I will say instead that any intentional effort to promote human development is an educational effort. Or, put slightly differently, any initiative taken to affect a valued transformation of human capabilities is an educational initiative. So *schooling* is just one form of education—albeit a particularly important and powerful form. Coaching and psychotherapy would be educational initiatives according to this definition, as would professional development programs and most organizational consulting work. The publishing industry, television, film, and the Internet all have educational affordances and represent some of the most expansive possibilities on the current educational frontier.

So my argument is that education, thus broadly defined, serves a unique and powerful function in the emerging global civilization that surrounds us today. There are no major global challenges that do not have critical educational dimensions. Moreover, many key challenges are primarily educational in nature. This is just another way of saying that changing the trajectory of the total system requires changing how people think and act, which can only be done by finding ways to affect valued and needed transformations of human capabilities. Human development is the elephant in the room when it comes to calls for systems level change.

This line of thought suggests that the climate crisis is actually a crisis of human decision-making, and that educational initiatives are as (if not more) primary and important than legal and industrial ones. A new generation of "green" voters and engineers must be fostered through educational initiatives; leaders must likewise come to think and act in more sophisticated ways. If the task demands of building sustainable systems and lifestyles are more complex than the capabilities of those asked to do so (which I think is the case, in fact) then no matter how much funding we throw at achieving sustainability, our efforts will fail. Building a "smarter planet" through technology (*a la* IBM) and policy (*a la* Al Gore) is necessary, but smart people are a prerequisite. Wilber (1995) suggested as much over a decade ago when he noted that the greatest threat to the biosphere is not industrial pollutants but rather the current low developmental level of human capability with regards to relevant decision-making domains.

This reading of the climate crisis displays what is actually a general trend in contemporary society, one noted by Wilber (1995), Kegan (1994), Habermas (1975), and Jaques (1970; 1976), among others. This is a trend toward educational crises of increasing prevalence and intensity. Figure 1 displays the general structure of an educational crisis. The displayed mismatch between demands and capabilities is ubiquitous in the post-industrial world, characterizing both the struggles of individuals and broad societal trends.

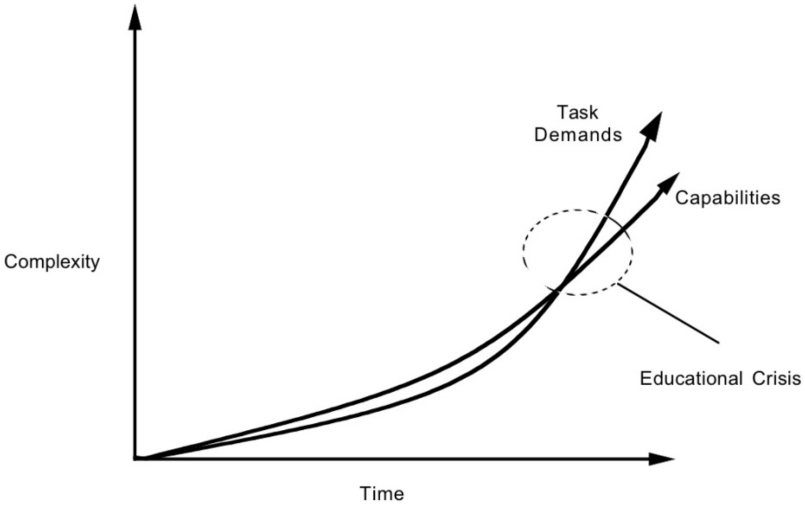

Figure 1: An educational crisis occurs when the complexity (diversity, quality) of task demands outstrips the available capabilities. This can happen to both individuals and societies. Based, with permission, on a comparable figure rendered by Carreira (2009).

The task demands of work and life outstrip individual capabilities on multiple fronts (Kegan, 1994). Rapid technology driven innovations and economic pressures shape the employment histories of individuals, disrupting stable patterns of competence and establishing the need for professional development and lifelong learning. Advances in biomedical technology and an increasingly unwieldy health care system put unprecedented decision-making demands on individuals and families, who must navigate ever shifting diagnostic categories, treatment options, and the complexity of the insurance industries. Communication technologies enable expansive social networking opportunities that radically alter socialization patterns and identity formation. The construction of a continuous and coherent life-project is more demanding then it has ever been (Beck, 2001; Arnett, 2004).

Broad social trends also reflect educational crises (Habermas, 1975; 2001). The latest economic crisis is a case in point. Like the climate crisis it is perhaps best read as a crisis of decision-making. Debates in economics and politics have taken an epistemological turn, as many have come to question our very *ability* to understanding the global economy at all. This suggests that the task-demands of regulating massive trans-national markets outstrip the capabilities of those who seek to do so. Other fronts present comparable educational challenges. Executing an ecologically responsible redesign of energy systems requires accomplishing feats of engineering that are stunning in their scope and complexity. Global terrorism is, when viewed along these lines, a significant educational issue. Terrorist networks are, in fact, remarkably effective educational organizations. And the difficulties of inter-religious and cross-cultural conflict mediation and dialogue are primarily educational. If the task of constructing a just and stable world order demands more from us than we are capable of, then we must change the nature of our capabilities.

So education is a growth market—from self-help books, life coaches, and online universities, to Ritalin, the blogosphere, and Google. Large swaths of society are groping for ways to cope with the mounting complexities of the historical moment. But the demand for effective educational interventions far exceeds the supply of approaches that have proven effective. For example, snake oil salesmen already successfully broker so-called “brain-based” educational approaches to unsuspecting parents and teachers, making outlandish scientific-sounding claims about their products’ effectiveness. The presumed educative benefit of emerging information technologies (e.g., the search-engine, Wiki, blog, or e-learning module) is questionable, given the sheer quantity, diversity, and ambiguous quality of the content. Informational environments are *not* always educational environments (although educational environments *are* always informational environments). Biomedical technologies built to improve attention, memory, or emotional self-regulation are likewise unreflectively endorsed as effective, while the impacts of long-term usage are totally unknown. Psychotherapy, executive coaching, and professional development programs of various shapes and sizes are proliferating and testing the limits of what the market will bear as far as what qualifies as a useful learning experience.

This is the context in which the field of applied developmental psychology finds itself. With over 100 years of cumulative theory and research—from Baldwin through Piaget and Kohlberg to Fischer, Kegan, and Wilber—the field is uniquely positioned to address the current need for broadly effective educational innovation. However, existing cultural trends and market dynamics work to counteract the value and validly of what the field has to offer. Basically, as was just suggested, because the need is so great, it is easy to sell just about anything. Moreover, powerful political and economic forces have shaped mainstream efforts toward the aforementioned technocratic solutions combining standardized testing with biomedical technologies. For the field of applied developmental psychology to gain traction we must respond to the demands of this globalized crisis-ridden educational marketplace with a unique and powerful *modus operandi*. My calls for quality control, and the ensuing discourse (in this journal and beyond), should be understood as attempts to articulate just what this might look like. The broad idea of an *Institute for Applied Developmental Theory* focusing on quality control and fostering collaboration—first articulated by Ross (2008) and echoed by Stein and Heikkinen (2009)—remains one of the best options. Below I continue to sketch the contours of preferable knowledge production processes with the hope of further helping knowledge workers in the field to build such a common mission and vision.

Building Useable Knowledge in a Time of Crisis

In prior publications I have noted the need for researchers and practitioners to hold developmental metrics to more rigorous psychometric standards (Stein, 2008; Stein & Heikkinen, 2009). This is a critical point for a variety of reasons, as Dawson's sketch of basic concepts in psychometrics elucidates (Dawson, this issue). Make no mistake, if we do not handle these foundational psychometric considerations we will remain on the sidelines as large human resource management agencies, test manufactures, and governments work to build educational infrastructures around approaches that can (ostensibly) prove the scientific-quantitative validity and reliability of their instruments. Importantly, quantitative and qualitative methods are not mutually exclusive; both can be transcended and included in more comprehensive and rigorous approaches to psychological research (Habermas, 1988; Dawson, Fischer, & Stein, 2006). The pursuit of psychometric rigor is *not* in conflict with the goal of "disclosing interiors" or providing rich, broad, and useful descriptions of psychological phenomena. But the explicit pursuit of psychometric rigor *is* a necessary but not sufficient component of any approach that aims to have an impact on current trends toward the large-scale institutionalization of psychological measurement. If we opt out of this task we will be relegated to the fringes, unable to address the arguments of those espousing more overtly reductionist-technocratic approaches. So the call for psychometric rigor is critical.

But we have more than psychometrics to worry about. There are a host of other issues with the potential to undermine our efforts at collaboratively building usable knowledge in this time of educational crises. Here I select three such issues and briefly elaborate what is at stake. These issues reflect my experiences with the current discourse. They should be taken as part of the collective ongoing efforts to outline best practices for developmentalists exemplified by this issue of *Integral Review*.

In general, the interface of academic research and real world application is a dynamic and difficult place to build knowledge (President's Council of Advisors on Science and Technology, 2008). Balancing the demands of the market or problem-space with the demands of academic rigor can strain efforts, typically leading initiatives away from the academy and toward the marketplace. Moves away from standard academic methods of peer review often warrant the creation of independent quality-control agencies to monitor knowledge production—such as the FDA for the biotech industries. However, there are an increasing number of fields moving from the academy toward the market that have not established non-academic methods for quality control (e.g., educational/psychological technologies, nanotechnologies, information technologies, etc.). If market mechanisms dominate the production of knowledge the impact of commodity fetishism is epistemological, creating a false consciousness of what is possible and preferable. If the pressure to find workable solutions overrides care and due diligence then the solutions adopted may create more problems than they solve.

Peer Review Processes

The first issue I want to address concerns how the field of applied developmental psychology engages *peer review processes*. For many of us the goal is not to publish in order to secure an academic position or advance knowledge; the goal is to build knowledge so it can be put to use. Success is thus not gauged in terms of standard academic acumen. Rather, success resides in the ability to execute effective applications and garner support for the methods and approach. Put crudely, success is measured by whether the approach sells. If the approach sells, why take time and energy to publish in peer-reviewed journals? Moreover, so the thinking goes, it sells because it works and it works because it is true (or accurate, valid, reliable, etc.). However, as Marx pointed out long ago, the value and popularity of a product on the market is typically not a reliable index of its actual worth. Market dynamics should not be understood as a proxy for peer review.

The market value of usable knowledge about human development is contingent on a variety of factors. Academic credibility is one factor. But the relation between the academic or scientific value of an approach and its market value is not straightforward. In knowledge intensive applied fields, end users—clients, customers, consumers—are typically not in a position to evaluate the validity of academic or scientific claims about the product; we must take the pharmaceutical companies at their word because we don't understand biochemistry well enough to determine the validity of their claims. Applied developmental psychology is no different. End users are typically not in a position to interrogate the claims made about the effectiveness of approaches or the reliability of metrics. This situation is not necessarily a problem. The FDA serves my interests as a consumer of pharmaceuticals by standing in place of peer review processes. But in fields where the market is growing and there are no comparable agencies exercising quality control in place of peer review, problems can arise. Situations occur where the *appearance* of academic credibility creates more market value than actual academic arguments and practices. This is, I think, where we are at as a field, mainly as a function of the fact the education is a growth market; we are simply scrambling to meet demands.

None of this is to say that the peer review process as it is usually practiced is flawless. There are major problems with many peer review practices (see Tipler, 2004). They are typically slow and can be contentious. They often simply enforce orthodoxy and squelch innovate thinking. So I am, in fact, not suggesting that we developmentalists go through standard channels. Many of these channels are closed in principle to the approaches we endorse. Or they are prohibitively difficult and time consuming for non-academics. I'm suggesting that we institute new channels. Facilitating peer review and collaboration could be an important function of the aforementioned proposed *Institute for Applied Developmental Theory*. For example, Heikkinen (personal communication) has suggested the construction of an information clearing-house for developmental approaches. Guided by a shared set of standards—co-constructed and revisable—a rigorously and collectively edited ever-expanding web resource for consumers and practitioners could serve as a place to vet research and development efforts while also increasing transparency between various stakeholders.

In any case, the idea that serious intellectual work needs to be looked at from a variety of perspectives by a community of those capable of assessing its value is critically important. The understandable rush to meet the demands of immanent educational crises should not lead us to embrace less rigorous forms of knowledge production. If anything, the historical moment should lead us toward new forms of collaborative knowledge building. Our inability to forge these collaborations, and the related tendencies to circumvent peer review, stem in part from a *lack of epistemic humility* that characterizes large sectors of the field. This is the second issue I want to discuss.

Lack of Epistemic Humility

It appears that when the extramural construction of useable knowledge is accompanied by success and acclaim we are prone to overgeneralizations concerning the implications of what has been achieved. Already a set of models and metrics (not to mention their makers) have taken on an almost mythical status, leading some to voice explicit concerns about a kind of crypto-religiosity that haunts the field. This is, of course, related in part to a lack of peer review practices. The tentative, exploratory, and experimental attitude that allows for scientific advance and collaboration is not a prerequisite for participation in the field, as it would be if rigorous and collegial peer review were standard practice. But this lack of epistemic humility is also a unique liability resulting from the subject matter of applied developmental psychology. Because these models and metrics can be used to hierarchically rank human capabilities and dispositions they are often taken to heart—they become enmeshed in how individuals regulate their self-esteem. Moreover, because of the erroneous belief that "higher is always better" (more on this below) those who take certain models to heart position themselves and their models "at the top."

This leads to curious argumentative strategies, strategies that insulate models from criticism (and thus improvement) and effectively cut off the possibility of collaborative and self-critical knowledge production. For example, I have encountered the following argument more than a few times. During a debate about aspects of a model, supporters of the model position the arguments of the critic (or the critic themselves) in terms of the hierarchy specified by the model being debated. The critic falls short of the level at which the model is claimed to have been built and is therefore deemed incapable of rendering meaningful arguments against it. In other words, arguments (or individuals) below a certain level—as specified by the model under discussion—are rendered second-class interlocutors, deemed intrinsically unable to offer cogent criticisms. I will call this an argumentative strategy that relies on *developmental disqualification*. It is a style of argument unique to this field and it insulates models from criticism by claiming that certain participants in the debate are developmentally disqualified from being taken seriously. This is reminiscent of the classic psychoanalytic quip that anyone who does not believe the basic tenets of psychoanalytic theory is simply resisting analysis. It is also similar to certain types of religious arguments that justify the faith by positing the delusory status of all of non-believers.

Arguments that rely on developmental disqualification commit the classic logical fallacy of *petitio principii*. They are question-begging arguments, presupposing what they set out to demonstrate. One cannot use an argument that assumes the validity of a model in defense of the validity of that model. These arguments also constitute an interesting sub-class of *ad hominem* arguments, and as such may be unethical as well. They convince only the ones making them and leave those they are deployed against unconvinced at best, marginalized and silenced at worst. But regardless of their less then enviable logical qualities, they are simply unproductive. How can collaborative and self-critical knowledge production be advanced when certain types of contributions (or contributors) are systematically devalued?

Well over a century ago, C.S. Peirce (1869) argued that inquiry-oriented communication communities must have an open and inclusive structure predicated on trust, honesty, and reciprocity. Based on his extensive work as a scientist, logician, and philosopher, Peirce clarified the intersubjective conditions for the possibility of reliable knowledge production. Habermas (1990) and Apel (1996) have followed his lead, broadening the project so that it assumes the shape of a general *discourse ethics*. This lineage of theorizing clarifies the fact that systematically distorted forms of communication disfigure communities and undermine their efficacy. Developmentally disqualifying potential participants systematically distorts communication, creating an insular, self-congratulatory, and defensive in-group over against an out-group that has been deemed intrinsically unable to say things that matter.

But note the specifics. As mentioned above, I don't know enough about biochemistry to argue with drug manufactures about their research and development efforts. If I decided to voice an opinion anyway, say on their plan to target the metabolic pathways that lead to neurodegenerative disease, I would likely be misinformed or just plain wrong. This would reflect a lack of disciplinary expertise on my part. But, in this context, a lack of disciplinary expertise is not a disqualification; it just makes me more likely to be wrong or misinformed. Ideally, my argument would be heard, and then refuted, such that I would come to see my own arguments or knowledge base as inadequate. But to claim that someone is developmentally disqualified is to claim more than that they are misinformed, lack training, or are just plain wrong. It is to claim that they are intrinsically unable to produce arguments that count. This is a way of dismissing and silencing potential participants, as opposed to hearing them out and then addressing their arguments as arguments.

But arguments are arguments, regardless of the developmental level with which they are associated. Likewise, people are people. The systematically distorted forms of communication described above result from a lack of epistemic humility on the part of those who endorse certain developmental models. The idea that a privileged few possess some special knowledge is a perennial ideological motif. But wedding this ideological motif to usable knowledge in developmental psychology is a contemporary contrivance. Moreover, the dismissal of an argument, belief, or orientation solely because it is suspected to be the product of a certain developmental level reflects a profound *lack of clarity about the normative aspects of human development.* This is the third issue I want to discuss.

Lack of Clarity about the Normative Aspects of Human Development

J. M. Baldwin (1906) and Piaget (1970) theorized in an epistemological mood. Kohlberg (1981) was worried about the naturalistic fallacy. Harry Stack Sullivan (1964)—who Loevinger (1976) called the father of ego-development theory—understood the integrative powers of the self-system as ethically neutral, arguing against defining maturity in moral terms. The progenitors of our field did not assume that higher-level performances were necessarily more valuable; they set out to test this belief, combining empirical and philosophical analyses. They limited their normative claims about development to well-specified areas of human capability, clarifying the developmental logic of certain specific learning sequences. And when they used prescriptive, normative, or ethical language, they did not draw it directly from the empirical substance of their models. Baldwin looked to Spinoza, Kant, and Schelling. Piaget looked to Kant and a host of modern formal logicians. Kohlberg looked to Kant, Dewey, and Rawls. Sullivan looked to G.H. Mead and Whitehead. This kind of division of labor between philosophy and psychology in the study of human development is important to maintain (Habermas, 1990), especially in the current context of educational crises.

Developmental models are made to describe and explain developmental processes (Stein & Heikkinen, 2009). However, as just discussed, some models have also come to serve an overtly normative function for many who use them. This means that conversations about what it means to be a good person, about human potentials that are admirable and worth striving for—conversations about the shape of a life that has not been misspent—have become conversions populated by terms from specific psychological models. Likewise, these same models provide the language we use to disapprove of beliefs and actions or to characterize others as unworthy of emulation. This is quite a burden to place on a psychological model, making it into a system that discloses the normative dimensions of personhood and facilities the ethical ranking of individuals. Again, concerns about the crypto-religiosity of the field are well taken.

As I have argued elsewhere (Stein, 2008), the use of models from developmental psychology to determine the distribution of admiration, respect, and responsibility is wrongheaded both methodologically and ethically. This is not the place to rehearse these arguments, which hinge on the canonical differentiation of facts from values and a preference for democracy over meritocracy. Suffice it to say, one of the greatest risks to the integrity of our efforts is the misuse of developmental models as broad evaluative frameworks, or what Rawls (1996) would call "comprehensive doctrines" concerning the nature of human life and value. Since Freud first drew the analogy between analysis and confession, psychologists have had to avoid positioning themselves as a new priestly caste. In cultural contexts where traditional worldviews have been thrown into question by the disenchanting gaze of scientific rationality, there is a vacuum where religious self-understandings used to reside. Charles Taylor (1989) has diagnosed this as a lack of *languages of strong evaluation*—a lack of shared categories and distinctions about what makes a human life successful.

Developmental psychology should not aim to offer these kinds of categories and distinctions (nor is this the province of philosophical meta-theory). Ambitions along these lines reflect both a profound misunderstanding of psychology as a discipline and a remarkable naïveté concerning the genesis and grounding of our most basic normative commitments. No doubt, new values must be created if we are to navigate the immanent educational crises discussed above. But the creation of new values—the birth of a new comprehensive doctrine—cannot be engineered by social scientists (Habermas, 1984). The emergence of new worldviews takes place in the heart of the lifeworld; where vulnerable identities are forged under the pressures of unprecedented conditions and leaders and symbols emerge that embody a shared trajectory garnering broad consent and motivational force.

Conclusion: Summing Up

Quality-control efforts in the field of applied developmental psychology are just beginning. In this paper I set these efforts in a larger context to frame their significance and guide their direction. I argued that the challenges arising in the current post-national constellation are best understood as educational crises. The task demands of the global problem space increasingly outstrip available human capabilities. This situation is leading to a scramble for usable knowledge about education, which I defined broadly as any process intentionally undertaken to promote human development. There is a growing demand for techniques and technologies that catalyze the transformation of human capabilities; and this demand exceeds available supplies. Education becomes a growth market as specific types of human capabilities come to be recognized as scarce but valuable resources. This pressing global demand for innovative educational solutions and approaches has the potential to systematically distort the production of relevant usable knowledge. I presented a set of general quality-control challenges that face the field of applied developmental psychology as it strives to meet the demands of a globalized crisis-ridden educational marketplace. I argued that the field should overcome temptations to circumvent peer review processes by going directly to consumers. I suggested adopting a general stance of *epistemic humility* so that research and collaboration are promoted and argumentative strategies that insulate approaches from criticism are avoided. Finally, I argued that more careful attention should be paid to the normative dimensions of the educational enterprises related to applied developmental psychology, as they involve the creation of new values and raise ethical questions about the shape of what life ought to be like.

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It’s an Empirical Question: On Cognition and Ego

Katie Heikkinen

In light of the wonderful rejoinders to the paper by Zachary Stein and myself, I offer a few informal (and rather rushed) comments in response, focusing on three elements: 1) the dangers of labeling colleagues; 2) psychometrics; and 3) the relationship between cognition and ego. In the second half of my paper, I describe my current research project, which I believe will be of interest to many of you.

On Labeling Colleagues

One point made by Stein in his paper (this volume) is of such great importance that I wish to restate it here: “disqualifying” certain arguments as coming from a lower developmental position is both illogical—because this stance uses the “truth” of a theory to negate critiques of that supposed truth—and unethical—because this stance devalues and marginalizes voices of opposition. But I’d like to extend his point to note that while “developmental disqualification” is a rather egregious sin, using developmental theory to label colleagues, even if in good fun, is nearly as egregious.

For example, Stewart, Smith, and Suzuki (this volume) quip that “we can all acknowledge a strong ‘T/Achiever/Orange’ streak” in some but not all of our colleagues. Since everyone he mentioned are making psychometrics for the marketplace and, I presume, care deeply about human development, I struggle to see the grounds for distinction here. We are all in the same boat! It seems to me that the distinction hinges on some rather messy conflations of structure and content. Various values such as interest in science or desire to self-promote (the content) can be held at multiple levels of complexity (the structure). This is an important distinction that Stein and I have made elsewhere (2008).

Without clear referencing to adequate data—and I think referencing particular value content is neither adequate nor clear—these labels are meaningless. They only serve to antagonize and threaten. Is this the kind of community we want?

On Psychometrics

Stein and I made a bold claim that the LAS and HCSS are the only calibrated metrics (2009). I am extremely grateful to Torbert and Livne-Taranadach (this volume) for their detailed description of the reliability testing of the LDP; to Stewart, Smith, and Suzuki (this volume) for their call for greater inclusion of the practitioner’s perspective; and to Basseches (this volume) for highlighting the importance of philosophical argument in determining the desirability of certain developmental outcomes. However none of these speak directly to the issue of calibration. While evidence of blind interrater reliability studies goes part of the way, it is not sufficient evidence of reliability to satisfy the requirements for individual assessment, which demand that statistical reliability is high enough to allow us to have a certain level of confidence

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in each possible score (See Dawson's table, this volume). Both Torbert and Cook Greuter argue that they have scored hundreds, if not thousands of SCT's. Submitting their data to a Rasch analysis to examine the statistical reliability of their scales would be a simple matter.

Finally, I wish to point out a few questions that remain open after our publication and its rejoinders. Has anyone further evidence of validity or reliability studies of the Spiral Dynamics metrics? What are the implications of Jane Loevinger having said the test was not to be used to measure individuals (Loevinger, 1979; 1993)? What is the "right relationship" between first, second, and third person approaches (Torbert and Associates, 2004) in the field of psychometrics?

On Cognition and Ego

In this issue, Murray wonders whether "the structural transformations happening inside the body (or body/mind/soul) happen according to a different type of mathematics or logic or geometry" than the logic of hierarchical complexity (p. 344). This is a very reasonable musing that I myself, and many of my students at John F. Kennedy University, have made. I agree with his observation that change in such domains as compassion or inner peace *feel* very different than change in understanding, say, physical science concepts.

However, thus far we have no evidence of this alternative logic. To unfold may in fact *mean* to unfold through hierarchical complexity. Note that I do *not* mean that hierarchical complexity is the only important or real dimension of human change. To the contrary—there are many, many human change trajectories—some healthy and adaptive, others less so. But to conflate change—even the healthiest, most adaptive changes of them all—with development is problematic (e.g. Mascolo and Fischer, in press). As Stein and I have pointed out elsewhere (2008), linking a notion of development with particular content—such as Murray's examples of attributes that characterize wisdom, from "letting go" to a "sensation of expansion" to comfort with "dissonance, uncertainty, ambiguity, and paradox" (p. 344)—makes it impossible to see high forms of development that are not characterized by that content. Surely there must be someone who is highly developed—a complex thinker skillfully adapted to his world—who does not feel expansive?

Ah-ha, I can hear you thinking. *But, Katie, that* means *that person is not developed*. Yes, but only if you define "development" as "expansiveness." But as Stein (this volume) notes, to do so is to make a normative move. Implicit in that distinction is something like "I believe that it is better to be expansive than non-expansive." This may very well be true! But then we must 1) be honest that we are making evaluative claims; 2) be able to explain clearly why we view such changes as developmental—without making recourse to explanations inherent to the claim being made (e.g. "it is higher because it is higher"). For example, one might argue that expansiveness is developmental simply because the progression is hierarchical. That is, the end state of "expansiveness" hierarchically integrates lower order tasks (even if by exclusion): expansive pre-contraction (e.g. A = {e}), expansive with contraction (e.g. A = {e, c}), and expansive post-contraction (e.g. A = {e, not c}).

This is fine—a reasonable definition of development that does not define itself by itself (instead it calls on structural distinctions). But how could we *measure* such a concept? I'll exclude for now methods like clinical observation, simply because the Stein and Heikkinen paper focused on more formal metrics—so we are left with something like self-report. For example, we could ask people to explain their emotional and embodied states in an open-ended interview. If we then scored these interviews using the LAS, we could find one of several trends: 1) The feeling of "expansiveness" is one that is *only* reported at higher Lectical levels; 2) The feeling of "expansiveness" is one that is reported at many developmental levels; 3) That some people reasoning at high Lectical levels don't mention expansiveness at all.

Each of these findings has different implications. #1 suggests that expansiveness as a feeling-state is only experienced or spoken about when people have developed a complex capacity to discuss their states overall. Thus it could be said that "expansiveness" is one of the characteristics common to highly complex performance of emotional state understanding. #2 suggests the opposite; that expansiveness is a feeling state available to people operating at many levels of complexity. So the concept doesn't characterize a particular level; instead, we can track whether and how the concept changes with development. What does a simple understanding of "expansiveness" look like, compared to a more complex understanding? #3 is an almost certain finding, whether #1 or #2 prove true. It is rare for *every* sample at a given complexity level to contain the same concept. So some people who reason about their feeling states in a highly complex—highly developed—way do not talk about a sense of expansiveness. We might argue that this person is less healthy or behaves less adaptively, but in this view, we cannot say they are less developed.

Another option might be to score these self-reports with a newly developed scoring system, based on the surface structure of the performances. However, if this new system were anything like Kohlberg's, Armon's, or Perry's, the LAS would serve just as well (e.g., comparison with Kohlberg: Dawson, 2003; comparison with Armon: Dawson, 2002, Dawson-Tunik, 2004; comparison with Perry: Dawson, 2004).

Some of you may still wish to argue that expansiveness is not necessarily coupled in this way to the capacity to reason about it linguistically—that regardless of self-report, "I know it when I see it" or "I know it when I feel it." This is reasonable. (First of all, I must make the caveat that "hierarchically complex" at least in terms of the LAS does not mean "complicated." It means highly differentiated and *integrated*. So the LAS does not miss the "simplicity on the other side of complexity," as some might claim.) But, again, how can we *measure* that ineffable state of being? We might use clinical assessments based on a set of criteria. A fine approach, but since it weighs on the expertise of the clinician, this approach is less scalable. We might instead develop a trait-inventory similar to a personality test. Fine again, but that is not developmental. At the simplest level, we can watch people and feel into them to determine how expansive they are. However, without psychometric procedures, this allows us to say nothing about the reliability or validity of such a judgment, or whether the capacity develops.

Note that in the end, even if we believe that the capacity to be or feel expansive is not tied to the capacity to reason about it linguistically, that it is somehow different and unfolds differently, we are still left with scant options other than linguistic self-report—*if* we wish to make strong claims about it being a reliable, valid, and developmental psychological construct. But if we do not wish to make such claims, clinical assessments, trait inventories, or informal “grokking” all have their place. In this light we might think of “expansiveness” as something akin to “kindness:” a valued character trait where most people “know it when they see it” but that has no psychometric or developmental properties. This doesn’t lessen the importance of kindness—norms matter deeply, but they should not be part of developmental metrics.

What the LAS has attempted to do is strip the normativity away from the assessment process. Stein (this volume) notes that such notables as Baldwin, Piaget, Kohlberg and Sullivan “used prescriptive, normative, or ethical language, [but] they did not draw it directly from the empirical substance of their models” (p. 15). This point is worth repeating—*they turned to philosophers*. I don’t think that this implies that psychologists have nothing to say about the normative aspects of human development. Some psychological findings—such as those linking various behaviors to happiness or mental health—do offer insight into how humans might attain certain desirable outcomes. But determining whether those desired outcomes *ought to be desired* is not the job of the psychologist—unless they are clear that they are “putting on their philosopher hat” in so doing.

I hope I’ve highlighted some of the challenges in determining whether “the structural transformations happening inside the body (or body/mind/soul) happen according to a different type of mathematics or logic or geometry” than the logic of hierarchical complexity (Murray, this volume, p. 344). Perhaps it’s true! But the science of measurement, it seems, struggles to make this distinction. Whether this is a current struggle—reconcilable with changes in methods—or an intractable struggle—because these aspects can only be known through linguistic performance—remains to be seen.

My Current Research Project

In this issue, Murray wonders whether “ego development” metrics such as those from the Loevinger tradition are “assessing some of the wisdom skills that [he] argue[s] may have elements that do not develop according to hierarchical logics” (p. 345). Musings about the relationship between ego development and hierarchical complexity are a start, but this is fundamentally an empirical question. One way to address this question is to re-score ego development data using a structural method (the LAS or the MHC). However, this is hard to do with SCTs because the stems are so short. Short sentences can be scored by the LAS, but without any justification by the participant, less confidence is placed in the scores. However, another such “ego development” model is Robert Kegan’s constructive developmental theory (1982; 1994), which features a validity profile similar to the current versions of the SCT (e.g. Torbert et al, this volume) in that it focuses on external or predictive validity (e.g. Kegan, 1994; Harris and Kuhnert, 2008; Lewis et al., 2005). I am currently working on a research project to address just this empirical question. I’d like to share my thinking with you here, in hopes that it sheds more light on some of the important distinctions Stein and I have made in previous publications (2008; 2009): content versus structure and metric versus model.

Kegan’s constructive-developmental model details how a person’s meaning-making structure undergoes qualitative shifts over the lifespan. This model includes five stages of change in an individual's "order of mind," which is an overarching structure of self-system organization. An "order of mind" includes cognition as well as intrapersonal and interpersonal abilities, all of which are hypothesized to change in concert with one another. Individuals are located on the stage spectrum by participating in a "subject object interview" (or SOI) where they discuss events that are emotionally significant to them. These interviews are transcribed and then scored using an inductive process that is supported with examples. The scoring process also depends on the skill of the interviewers, since they develop and test stage hypotheses during the interview itself (Lahey, Souvaine, Kegan, Goodman, and Felix, 1988).

Relying on an inductive process—where scorers infer underlying structure of meaning making—has important advantages over scoring methods that rely more heavily on concept-matching strategies, such as Kohlberg's (Colby and Kohlberg, 1987). Concept matching strategies "suffer from bias introduced by nonrepresentative construction samples and an overdependence on particular content" (Dawson, 2003, p. 337). Inferring underlying structure allows raters to "look through" disparate-seeming surface content to see similar structures that lie beneath (or vice versa). However, I argue here that the SOI, like the Standard Issue Scoring System, can only claim to "peer beneath" one layer of *structure*—the conceptual *content*—to view the surface (or domain) structure of a performance (Stein and Heikkinen, 2008). This places it in fine company—this is true of nearly all extant developmental metrics.

In contrast, the Hierarchical Complexity Scoring System and the Lectical Assessment System claim to be able to peer beneath *both* conceptual content and domain structure to discern the core structure that lies beneath. In recent years, research by Dawson and colleagues has shown that interview data collected for analysis with various domain-specific scoring systems can be scored with the domain-general Lectical Assessment System (or its precursor the HCSS), yielding results that suggest that all of these systems measure the same underlying developmental dimension, hierarchical complexity (e.g., comparison with Kohlberg: Dawson, 2003; comparison with Armon: Dawson, 2002, Dawson-Tunik, 2004; comparison with Perry: Dawson, 2004; see also Kitchener and Fischer, 1990 on reflective judgment). Dawson's research suggests that this single dimension is indicative of development in *any* domain about which we can reason.

This claim has important implications for the measurement of development, including for systems like the SOI that claim to assess "whole people." Might metrics of ego development less directly measure the same latent dimension? A handy, though limited, analogy is the importance of controlling for socioeconomic status (SES) in multiple regression studies. Since we know SES impacts so many educational outcomes, we could not trust our results if we did not statistically control for SES. Similarly, since hierarchical complexity is likely a latent dimension of *all* verbal performances, we must assess it separately in order to tease apart its contribution to the performance from the contribution of other factors.

By separately assessing hierarchical complexity, we are able to ask other important questions of the data. Just as controlling for SES allows the impact of other variables of interest to be seen, "controlling for" hierarchical complexity allows us to independently analyze conceptual change in the domain. We can see more clearly which aspects of the performance are related to an increase in hierarchical complexity and which aspects are not. The latter are referred to as "horizontal" differences (Dawson, 1998)—attitudes, dispositions, preferences, factual knowledge, and biases that vary at least somewhat independently from “vertical” complexity. Parsing out these two dimensions allows us to take a closer look at individual difference. We are also able to examine which concepts arise at what Lectical level (because concepts per-se are not tied to a specific level) and trace how concepts that arise early and persist change with development. Tracing a concept through Lectical levels produces a developmental sequence or set of learning pathways that is open to continual refinement (Dawson-Tunik, 2004; Dawson and Stein, 2008).

By scoring the SOI transcripts using the LAS, I will be able to discern how much of the variance in SOI scores is explained by hierarchical complexity. Note, however, that the claim is *not* that hierarchical complexity can explain all the important dimensions of human development. On the contrary, Dawson stresses that hierarchical complexity is *only one* dimension by which to evaluate performances. Her methodology of “developmental maieutics” calls for the close partnership of scoring experts (Lectical analysts) with content experts (experts in the domain being assessed) to ensure that that the full richness of the domain is included (Dawson and Stein, 2008). However, the analysis of domain specific content is a separate process, distinct from the process of scoring. Only after both scoring and content analyses have been completed are the scores and themes re-married to produce rich descriptions of conceptual development—the developmental sequences.

My study will reveal whether interviews like the SOI where people talk about their emotional reactions to important events in their lives provide good “fodder” for the LAS. If the LAS scores and the SOI scores are in agreement, or if the LAS explains a large portion of the variance in scores, it suggests that the SOI coding system, like those of Kohlberg, Armon, and Kitchener and King, taps the hierarchical complexity dimension. This may be due to a property of the scoring method itself—the SOI manual may actually take hierarchical complexity into account in its process, despite calling it by another name. Or, it may be a completely implicit effect—more hierarchically complex samples simple "feel" higher, regardless of the explicit scoring instructions.

This finding would raise questions about the need for a distinct scoring system for ego development (Theo Dawson, personal communication, 11/14/09). The SOI method of scoring would be redundant if it did not add any additional information over and above hierarchical complexity. This does not mean that self-object theory itself would necessarily be brought into question. In fact, results of this kind would serve as an external validation of the current sequence. But using the LAS to score SOI performances would allow researchers to continue to address, in a rigorous manner, the empirical question of how the content of performances on the SOI change with development. As I’ve mentioned earlier, separately analyzing hierarchical complexity and conceptual content allows us to create learning sequences that carefully track the evolution of a concept or skill. These learning sequences themselves are free to change as the research base accumulates or as the culture changes and how concepts are used is altered. In other words, the scale stays the same even as what we know about development in that domain changes. In addition, clarity around what elements of performances are vertical and which are horizontal allow for the horizontal dimensions to be studied with other methods, like the thematic coding in the present study—or myriad possibilities like surveys or scales. Finally, using the same scoring method and scale in multiple domains allows us to make meaningful comparisons across domains, which is not possible when each system's score stands alone.

An important distinction to remind the reader of here is between *model* and *metric* (Stein and Heikkinen, 2009). Both models and metrics in developmental psychology are *representational devices*: "methods, symbol systems, and propositions—built by communities of developmental psychologists—which in some way claim to be *about* cognitive developmental processes" (p. 7). Metrics attempt to assess how much of a psychological trait is present, while models attempt to explain its presence and describe its origin. The LAS and the SOI are metrics; skill theory and constructive developmental theory are models. While models are necessarily linked to their respective metrics, they are not the same. In the present study, the implications impinge on the SOI metric, not the CD model. The subject-object shift may be an important causal mechanism in how development occurs—but hierarchical complexity measures this shift just as well, or as Dawson has argued, even better.

My study will also reveal the role of hierarchical complexity in how people talk about important events in their lives. Complex thinking may play little role in the interview as a whole—complex language is simply not needed to tell a good story about an important event. But the little moments where people show evidence of their more complex ways of thinking may say a lot. These "moments of complexity" may provide insight into how the performance as a whole hangs together; and indeed shed light on their "meaning making structure" by explicating how they perceive interconnections and links between various elements of their story. The learning sequences in particular might reveal how the concept of (for example) "taking responsibility for my own emotions" changes across development—from a "hollow concept" that is stated but not explained to a more rich and nuanced description of what such responsibility means and what forms it should take. These sequences may, in the end, echo Kegan's writings, but they will be arrived at via a different method. This may provide additional support for certain aspects of the constructive-developmental model.

If the LAS cannot be used to score these data, there are several possible explanations. It could be a simple "mechanical failure"—the present data may lack certain properties that are required for scoring with the LAS (such as sufficient evidence of reasoning and adequate length of reasoning performances). But if there is enough material present to assign a firm complexity score, and the scores provide a different ordering of the passages than did the original rater, the implications are quite intriguing. The SOI may be looking for a property that does not vary with hierarchical complexity, but is on its own, independent developmental trajectory. Or, particularly at the higher levels of ego development, a new simplicity may be attained that hierarchical complexity fails to see. These are all questions Murray poses, but this kind of empirical approach has the potential to answer them.

Overall, my intention is to improve measurement in developmental science and to better bridge the gulf between ego and cognitive development theories. I think that understanding stage development in adulthood is important and useful and I encourage wide-ranging use of developmental thinking. But I also wish to see the *science* of developmental stages advance, and this involves building bridges between different measures and metrics. The LAS has the unique potential to be a domain-general *ruler* of any development that is expressed through language broadly construed. Although other systems may tap into important aspects of development in their own right, only by accounting for hierarchical complexity can we make meaningful comparisons across systems and thus advance our understanding of development in multiple domains.

I am excited about this project and welcome any feedback or further inquiries.

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Political Aspirations for the Special Issue, *Toward Development of Politics and the Political*

Sara Nora Ross

> *There is no question that in our age there is a good deal of turmoil about the manner in which society is run. Probably at no point in the history of man [sic] has there been so much discussion about the rights and wrongs of the policy makers…[We begin] to suspect that the people who make the major decisions that affect our lives don't know what they are doing…They don't know what they are doing simply because they have no adequate basis to judge the effects of their decisions. To many it must seem that we live in an age of moronic decision making.*
>
> —C. West Churchman (1968, p. iv) in *The Systems Approach*

Welcome to *Integral Review's* (IR) special issue on the theme *Toward Development of Politics and the Political.* Not only is this theme political. Beyond the content that shows up in a journal, the act of publishing itself is also political, political behavior we engage consciously at IR. This special issue integrates its political essays with the politics of publishing, the politics of inviting works to publish, and now the politics of writing an editorial. I use this editorial space for three purposes: to share our motivation for doing this special issue, to introduce its contents, and to reflect on such influences as these for integral thinking about politics and the political and what that can mean—I would say, *must* mean—in today's world.

Our stated aim for this special issue was to make a "politically significant contribution to public knowledge and discourse, to illuminate a comprehensive range of considerations that need to be integrated into effective approaches to today's—and the future's—political behaviors and complex political issues, policies, and systems."[1] This aim is consistent with IR's mission to

> publish a transdisciplinary and transcultural range of works that, taken as a whole, model integral ways of perceiving, thinking, researching, and serving the world we live in… In general, they will reflect some holistic understandings of issues in individual and social life, change, and development.…[IR] encourages attention to the interactive dynamics among individuals, communities, organizations, societies, and international bodies. It invites attention to categories such as the socio-cultural, political, economic, technological, and environmental…to portray the range of factors that need to be integrated into effective approaches to today's complex issues.[2]

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[1] From the original call for submissions to the special issue.

[2] Excerpted from http://integral-review.org and http://integral-review.org/secondary_to_homepage.asp

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Thus, we have the conviction that *integral* ways of perceiving, thinking, researching, and serving the world apply holistic understandings to change and development, and that these are necessary to conceive the factors essential in solutions to complex issues. This conviction drives our commitment to publish *new* thought, research, and praxis. Realizing the potential of new work to help address such turmoil as Churchman declared 40 years ago, the purpose of this special issue is to offer new perspectives on politics and the political.

To accomplish this aim, we invited works drawn from one to many disciplines. We conveyed a broad conception of politics and the political. For example, works could relate politics to forms of power, government, and policy making (one dictionary definition) or, more broadly, governance. They could treat politics as the total complex of relations among people living in society (another dictionary definition). They could emphasize political ecology, political economy, political geography, political psychology, political regression, or political development. Regardless of authors' areas of emphasis, the treatments of politics and the political would be consistent with our normative interest in *developing* political relationships, behaviors, impacts, strategies, assumptions, processes, structures, systems, and formal and informal institutions. We welcomed such examinations at any scale from micro to macro. That meant works could range from the scale of individuals, groups, and nations to international and multinational entities and the global commons of humanity. And indeed, such an array comprises this issue.

The message *to develop* in the political domain comes also from one of the 20th Century's most integral thinkers. A hard-hitting invitation for transforming political thought and action, Bateson's message may be more poignant now than when he first delivered it 40 years ago.

> If I am right, the whole of our thinking about what we are and what other people are has got to be restructured. This is not funny, and I do not know how long we have to do it in.… The most important task today is, perhaps, to learn to think in the new way…. The step to realizing—to making habitual—this other way of thinking—so that one naturally thinks that way when one reaches out for a glass of water or cuts down a tree—that step is not an easy one. And quite seriously, I suggest to you that we should trust no policy decisions which emanate from persons who do not yet have that habit.
>
> —Gregory Bateson (1972/2000, pp. 468-469) in *Steps to an Ecology of Mind*

How is one to "get" the dots Bateson connects here? What makes reaching for a glass of water comparable to cutting down a tree? And what relates doing such concrete tasks as *those* with the demands of making policy decisions? What *kind* of thinking is Bateson elevating to essential *habit*? As his extensive writing makes clear, he elevates *integral* thinking because in present-day contexts, the time to restructure the whole of our thinking grows only shorter while consequences of *not* doing so grow only greater.

Resonating with Bateson, our motivations to do a special issue looking toward development of politics and the political meant we too looked for integral thinking, "thinking in the new way," in selecting manuscripts for publication. How were these evaluated for inclusion?

“Integral”[3]

Baseline Integral Criterion of IR

Here at IR, one of our baseline “integral” criteria is that works published exhibit some developmental or evolutionary awareness. This can and does look very different, depending on the nature and scale of an author’s endeavor. And that is because nature and scale of an author’s work involves different ways of focusing attention, driven by the author’s unique purposes. The deployment of developmental or evolutionary awareness in this special issue, for example, takes a multitude of forms when authors do one and sometimes more of the following:

1. Advocate for developmentally different dynamics including additional perspectives in a particular context to transform them.
2. Analyze different dynamics in a particular context so they can be understood developmentally.
3. Examine events or conditions to contrast “what is” with what needs to be developed (or was developed, or is in the process of developing).
4. Propose a method, policy, or action for developing something that one judges needs to develop for greater justice and/or effectiveness.
5. Report on a case or method that reflected developmental concerns either in the case/method itself or the report, or both.
6. Theorize or demonstrate a way to reframe assumptions, concepts, and/or approaches so their replacements contribute to more developed thought, research, or praxis (and praxis includes policy).

Such developmental and evolutionary purposes as these characterize probably all the works published in IR to date. Purpose shapes the *nature* of whatever humans produce. This brief discussion of how developmental awareness can show up is a platform for the following look at the concept of integral, where I suggest that different *scales* of attention make “what’s integral” show up differently.

Contested Term

It was about six years ago, when we were first considering how to entitle this journal, that I was not in favor of using the term *integral* anywhere in connection with it. My reasons were simple: already in 2004, the term integral was contested, with diverse meanings and projections slapped on it from various directions. To position the journal and its publisher in those unclear waters seemed to me, at the time, likely to divert energies that should be invested in the publishing mission itself. It would save time and energy to steer clear of those waters. Of course, as it turned out, we did not steer clear of them at all, but rather directly into them. We (the original editorial committee of ARINA, Inc., IR’s publisher) decided the journal’s main title could and should be *Integral Review* and that we would figure out how to tango with the politics and meaning-making around “integral” as we went along. And, that we have done.

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[3] Editors at IR can use the term *integral* in different ways. This writing reflects my perspective.

Thus, in conceiving how to approach this editorial, I was surprised to find myself feeling compelled to speak to the meaning of *integral* for this special issue. Prediction confirmed: it is time- and energy-intensive to deal with the extremely multifaceted challenge of using, communicating, and teaching about particular uses of *integral*. That is because there are already so many meanings and projections associated with it.

For some, “integral” refers to an individual scale of personal or spiritual consciousness or the kinds of individual practices one performs. For some, it may refer to Ken Wilber and/or AQAL, for some it may refer to identifying multiple perspectives, for others it may be different yet again, and for yet others it may be “all of the above, and more.” So be it!

The complexity of this multifaceted challenge signals to me that it is indeed time to develop a new paradigm for assessing “integral”—one that rises above such limitations as indicated above and many others besides. And one of those limitations is the time and communication dimension. I propose it is time to implement more content-free applications of “integral” by using it in the high-level fashion its core definition has always really suggested. We can elevate our use of the concept by elevating how we think *about* and *with* the concept and using *methods* that support that meta level use. Then we do not have to abandon the useful concept because its surrounding waters have become so murky. We can give the term *integral* a fresh start in a new generation of applications, which would perhaps be accessible enough that Churchman’s, Bateson’s, and others’ concerns for more integral thinking and policy would be closer to being addressed and transdisciplinarity would potentially have new modes of cross-cutting analysis. That is my current thesis.

Assigning Meaning to “Integral”

For many years, my meaning for “integral” has been in the dictionary sense of *essential to completeness*. This definition can be problematic, because as we know from a developmental perspective, what might be considered integral, essential and/or complete is different when done at different levels of complexity. We cannot assume a given concept means the same thing to everyone. This in turn confronts us with another fact of social life: language is inherently limited in conveying concepts (which is why I am discussing them here at all). When these facts of life are integrated, we can predict that *virtually every abstract concept can and will mean something different to people with different concerns related to it and to people reasoning at different levels of complexity about those concerns*. A developmental perspective generates this essential principle.

Is such a principle a propulsion into relativism around what integral “means” (or, for that matter, what any other concept means)? Not at all. Rather, it should propel us in three constructive directions.

- It should remind us that such abstract concepts are *only* concepts, not to be reified *as if* they “are” a specific or concrete “thing.”
- It should ground us in the essentialness of developmental awareness.
- It should divest us of certain assumptions and thus free us not only to be precise about criteria for considering what’s integral—essential to completeness—but also to be clear about the contexts of and scales at which we apply various criteria.

From the analytic perspective used here, what might be considered essential and/or complete will also depend on such additional factors as

- the complexity of a phenomenon,
- the information available,
- the complexity of the perception(s) of the phenomenon and the information, and
- the resulting complexity of the assessment(s) task itself, and
- methods and capacities to perform the assessment.

If there are so many crucial variables in the task of deciding what is essential to completeness, how can we put this particular definition of integral to good use?

In my analysis, clarifying the *nature and scale of an endeavor* is an important starting point. It affords a cross-cutting route into figuring out if and how an endeavor reflects an integral approach that is suitable *in and for the endeavor's context*. Such a cross-cutting method begins with clarifying the nature of an endeavor and its scale. Once we have clarity about those variables, then we can analyze with lenses aimed both *at* and *beyond* the endeavor's specific content. Only then, I would say, are we positioned to consider the appropriateness or sufficiency of the endeavor's *depth*, certainly a criterion for completeness regardless of subject matter. Because systems of complex relations are nested within a multitude of other systems—and this recognition is a key one in considering the depth of integral analysis—scales are not mutually exclusive; multiple scales may be interrelated and/or integrated within one written work (e.g., see in this issue, Anderson, Atlee, Couto, Quilligan).

This discussion has introduced (though not completed) the notion that "integral" is an abstract concept that cannot be reified and will forever be contested if one insists it be given content-dependent applications. There *is* a way out of the contest. Rather than apply a pre-conceived notion of what might be integral, the "essential to completeness" angle affords reframing. Instead of trying to map an abstract, contested concept onto an endeavor as an evaluation method, we can focus our attention on the endeavor itself and ask, "Completeness of what, for what purpose?" This anchors us immediately in the endeavor's context and scale. In other words, rather than take "integral" as a starting point, we can take the endeavor as the starting point and then consider what is "essential to completeness" about the endeavor. *The endeavor's scale should set the scope for our assessment*. This means we need to adjust our lens to the endeavor and evaluate it *given its nature and scale:* align our evaluative units of analysis with the scale of the endeavor. Units of analysis will differ, depending on the variables to be analyzed.

Macro
global crises,
global interactions and effects,
policy evaluation,
high-level principles and general theory

Meso, and Meso→Macro
levels of policy (local, national, etc.),
domain-specific theory
organization/agency,
eras,
nation-states

Micro, and Micro→Meso
intervention methods,
individual and group action theories,
attitudes toward constructs and *toward* issues,
constructs *as such*

Figure 1. Examples of scales of endeavor.

For example, variables treated in this special issue range from the scale of constructs (e.g., *power, legitimacy, becoming-responsible, integral politics*), to the scale of attitudes toward constructs and toward issues, to the scale of theories, to the scale of individual and group action, to the scale of intervention methods, to the scale of nations, to the scale of eras, to the scale of policy, to the scale of global interactions, to the scale of methods to evaluate policy, and to the scale of global crises. Many of these may be interrelated and integrated within one author's work, resulting in multiple variables *of* different scales synthesized *at* another, higher scale.

These general ideas can be applied in a preliminary way right here. Figure 1 is a broad indicator of various scales addressed by authors in this issue. This approach to indicating the nature and scale of a given endeavor continues as I introduce the works by these authors.

In this Special Issue

Authors address their subjects at a variety of scales from the individual to global, and certain themes overlap and weave through these treatments. As devices for organizing this overview, I cluster articles by certain kinds of similarities in their nature and/or by shared themes. The vital caveat is that in no case can any of these articles be reduced to such simple categories: each offers more complexity than categorical schemes can convey.

Theory and Paradigm Development

Power: Unpacking, Reframing, Scaling

One way or another, perennial political topics of power and legitimacy weave through this entire issue, with quite a few authors offering complex renderings at contrasting and overlapping scales. In the hands of Phillip Guddemi, Richard A. Couto, and William R. Torbert, for example, an examination of *power* ranges from the most basic level of examining power as a construct, to a principled theory that reframes power and terrorism, to development of principles for the power of balance. The several participants in the rare kind of conversation modelled by Phillip Guddemi in his *A Multi-Party Imaginary Dialogue about Power and Cybernetics*—rare to our political detriment—question and deliberate the very construct of power, give it deep looks from dynamic relation angles, and come to a cybernetic reframing of power with implications for developing political wisdom. In *The Politics of Terrorism: Power, Legitimacy, and Violence,* Couto theorizes a new paradigm for understanding the politics of power and terrorism. In the course of doing so, he begins at the scale of first person experience and examines settings and interpretations, shifts to the scales of constructs, definitions, and theory where he reframes legitimate power and direct and indirect violence and terrorism, and develops this paradigm—which leads inevitably to his proposing a specific kind of reform of domestic and international policy toward terrorism as redefined here.

In excerpts of Torbert's 1991 classic, *The Power of Balance: Transforming Self, Society, and Scientific Inquiry* are essentials of his developmental action inquiry paradigm. As both political theory and action science, it describes a form of political power that encourages inquiry, even of its own foundations. He proposes new political principles of inquiry and quality—and what their elevation as principles means for society, academic disciplines, and practice. The emerging general theory of inquiry and its first, second, and third person practices span all scales.

Through these contributions and others introduced below, integral approaches to conceiving, using, and analyzing power, and to reforming policy and structures of power show up at micro to macro scales, a spectrum of potential influence on politics and the political.

"Integral Politics"? Defining, Proposing

Using distinctly different approaches to posit the need for, and then define, something called "integral politics," Daniel Gustav Anderson and Tom Atlee nonetheless share complementary premises (e.g., becoming-responsible and conscious evolution, respectively) in arguing for integral political behavior originating at grassroot, micro scales and evolving at all scales. In *"Sweet Science:" A Proposal for Integral Macropolitics,* Anderson critically reviews two Wilber-integral models for their ontological assumptions and directionality and queries implications for politics founded on them. He develops his theoretical foundation from an opposite direction, elucidating it via drawing out Blake's model in *The Four Zoas,* and contrasts its integral foundations with other models. Anderson analyzes at the scales of ontology, theory, and individual and collective behaviors. Atlee proposes his definiton and dynamics of *Integral Politics as Process*, and explicates the ramifications across many domains of public life and behavior. Like Anderson, Atlee too has a conception of wholeness and organic coherence. In their analyses and discussions, both authors depict or at least meaningfully implicate micro, meso, and macro political scales, theorizing the dynamic behaviors associated with the kind of practical, principled integral politics they propose.

Organized Non-Partisan Political Interactions: Designing, Conducting, Learning

Interactive group efforts toward development of politics and the political reveal a variety of ways to integrate (implicit or explicit) theory and practice. The vista of multifaceted practice unfolds across six essays anchored in practical experience, two of these in the *Integral Review*-tradition of Russ Volckmann interviews with seasoned practitioners. Because these works discuss mostly in-person endeavors with individuals, they include the scales of self and groups, and therefore of social-perspective-sharing, a capacity long posited as characteristic of integral interpersonal design and practice.

Jake Chapman reports on *Lessons from a Pluralist Approach to a Wicked Policy Issue*, identifying archetypal voices commonly heard in his public policy work in the UK and making the case for a systems approach in public policy at the local level. Ken White analyzed findings from a series of action research with Generations Salon groups in the US, theorized about them, and now shares a different kind of archetypal analysis and introduces his three-dimensional model for practical, processual implications for why generational eras of US citizens can, and should, develop *Politics in a New Key: Breaking the Cycle of U.S. Politics with a Generational/Developmental Approach.* These contributions illustrate that archetypal patterns crisscross other scales of analysis, while affording their own individual- or time-transcendent scales.

Russ Volckmann sought interviews that draw attention to the scale of design principles and processes, seeking integral lenses on *Design and Sustainability* with Michael Ben-Eli and civic engagement politics or *3D Democracy* with Jan Inglis. As Volckmann observes, theirs involve political acts often taken outside the realm of formal politics. By contrast, Elke Fein and Hans-Peter Studer report from the field in *Integral Politics: A Swiss Perspective*, recount the history of their NGO's several years of efforts, and announce the late 2010 planned launching of a political party, "Integrale Politik (ip)." Their report shares the meso scales of ip's processual and organizational development.

The foregoing endeavors include the scale of design of activist and/or participatory processes and interventions and those designs' relationship to public process and political structures, dynamic political cycles over short and long periods, issues that need to be addressed, and the evolutionary effects on, and of, culture and society at various scales.

Theory-Based Analysis

Elke Fein presents her project analyzing political discourse in Russia, in *Adult Development Theory and Political Analysis: An Integral Account of Social And Political Change in Soviet and post-Soviet Russia.* She conducts her analysis by comparing and building on various kinds of systems: historical conditions in past and present, effects of those conditons, and how political discourse is conducted. By interpreting conditions, behaviors, and discourse through the lens of political and adult developmental theories, she models an integral approach to synthesizing theory and application in supporting her argument's claims.

Meta / Analysis of Analysis

In *The Superbubble behind "The Great Moderation:" How The Brandt Report Foresaw Today's Global Economic Crisis,* James Bernard Quilligan's political economic framing reintroduces the Brandt Commission's work on its 30th anniversary. The scope of international monetary policy is more inclusive of other 21st Century concerns than meets the eye; for example, Brandt emphasized that sustainable development could not reach intended goals until the global monetary structure ceased to undermine the very changes upon which sustainability depends. Quilligan analyzes key types of structural imbalances as he compares conditions before and since the Brandt analysis. He identifies the large-scale sovereign, currency, and purchasing powers currently structured into the global system and supports the Brandt argument for reform of international monetary policy. Reform there will in turn reform the global political balance of power—if long-term structural roots of the global economic crisis are to be transformed.

To consider, much less actively address, restructuring relationships at the global level invites examination of assumptions about globalization or assumptions guiding analyses around the concept of "culture." Such tasks may both become easier and become more challenging after reading Meg Spohn Bertoni's *The U.S. Imperial Jugger*-not*: Saturation Points and Cultural Globalization.* Easier in the sense of being liberated from a handful of erroneous assumptions about the effects of globalization processes; more challenging in the sense of seeing nonlinear relationships among very large systems. Spohn Bertoni's project should set straight some common misconceptions about globalization and culture, and support more meta level views of global system dynamics, including her use of nonlinear dynamics concepts to expose the nature of the movement and saturation points of cultural globalization.

Such attributions of simple causation such as Spohn Bertoni puts to rest would be less likely to get traction if more meta level, systemic thinking characterised 20th-21st Century life and thought. Steven E. Wallis, in his *Towards the Development of More Robust Policy Models*, applies what he calls neo-integral thinking and metatheoretical methodologies to conduct critical comparisons of logic models. He proposes a deceptively simple quantitative test of robustness for policy designs' logic models, for learning and reflection in policy model building, and assessment of a model's sufficiency: how much complexity does it indicate was considered, by the way the model builds in the interrelationships of factors? Wallis proposes "neo-integral" thinking and methods should be applied to the creation of more mature policy models by encompassing greater complexity and a careful understanding of interrelationships.

Toward Development of Politics and the Political

To begin this piece with the Churchman and Bateson invocations from our past could introduce our motivations for publishing this issue, could highlight dismay at policy- and decision-making, could underscore continued urgency to set our planetary course aright, and could possibly reinforce attachments to the sidelines of theoretical armchairs and post-game or post-election 20/20 vision. These would be politics as usual, yes?

Yet our purpose here is to help our world develop beyond backward-looking politics as usual. The service of our present and future lies in the Eternal Now. The contemporary voices published here should give us hope. Why?

- Because they are doing pathfinding of the kind so essential to transforming 21st Century conditions.
- Because they are modeling pathfinding processes and directions that follow from them.
- Because such pathfinding and direction-setting make it clear there are countless roles for integral consciousness, thinking, and practice in developing politics and the political, writ large.
- Because there are tangible actions, projects, analyses, deliberations, policies, conferences, and reframings of directions to embark on *now* and they can and should take many forms at all scales. Why?
- Because systemic change depends on getting politics and the political developing and to get *that* development humming at all scales.
- Integral thinking and approaches are essential to structuring systemic change, and can be supported by a new paradigm for understanding and applying integral criteria.

We express our deep gratitude to each of the authors published here for their generosity in sharing their work, and special thanks to Thomas Jordan who helped with editing this issue. We hope this collection plays its intended role in fostering development of politics and the political.

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“Sweet Science”
A Proposal for Integral Macropolitics

Daniel Gustav Anderson[1]

Abstract: This treatise proposes the practice of becoming-responsible as a basis for integral micropolitics, defined as taking active responsibility for the well-being of the totality of living beings without exception, for the sake of that well-being alone. After reviewing two extant integral models for political action and interaction, demonstrating some of the limitations inherent in them, some ways are outlined in which the characteristic features of becoming-responsible—including critical clarity, compassion, competence, and consciousness—can be expressed in the realm of public concern; first, theoretically, drawing on a model proposed by poet and artist William Blake, and second, also historically, reflecting on an experiment in radical democracy in Chile (1970-1973), such that both examples critique and advance the claims and methods of mainstream integral theory as well as the alternative approach elaborated in this essay.

Keywords: Allende, Blake, Chile, democracy, integral praxis, integral theory, micropolitics, mimesis, politics, power, public sphere, responsibility, socialism, The Four Zoas, well being, Wilber.

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Introduction

> The fact of enormous suffering does not warrant revenge or legitimate violence, but must be mobilized in the service of a politics that seeks to diminish suffering universally, that seeks to recognize the sanctity of life, of all lives (Butler, 2004, p. 104).

Problem Definition

In relating to others, it is better to be just than unjust. Socrates makes this argument throughout the *Republic*, and it is perhaps his most convincing one. But beings, classes, nations, corporations, and institutions profit and develop materially and socially by injustice to others in the *present* (in terms of labor alone, Marx demonstrates this mathematically in the first volume of *Capital*) and to others in the *future* (insofar as present profitable practices risk and exploit the existence of our species and others into the future), on the basis of division rather than integration, democratic control, or any sort of responsibility for the needs of the totality. *Politics, at bottom, becomes an ethical problem of relating to others of all species in good faith (at present and for the future.)*[2] A responsible approach to this is the problem I intend to explore in the present essay—how best to approach the practice of living among other beings and aggregates of beings such that an unjust order may be transformed and a just order may arise, delineating a proper *object* of responsibility for integral practice which has, thus far, tended to emphasize *subjective* states and lines of development (as self-realization or self-transcendence): practice for the sake of a public good, a concern for the integral wellbeing of an other and others.

Claim

My claim is that the conscious practice of taking responsibility for the well being of others, *for the sake of that well being alone*, gives a coherent and productive foundation for an integral approach to politics as an ethical problem in the public domain, and addresses an interconnected set of problems in mainstream integral models,[3] the demonstrable existence of irresponsibility in and of "higher powers," and worse, an implicit justification for an order that allows that irresponsibility to persist (a problem detailed in Anderson, 2006). Plato anticipates this as well, of course: Socrates' concern for the education of future generations, for instance, betrays a desire to take responsibility for a collective future by intervening in the present, transforming or developing that moment, through collective storytelling and spectacle-making (institutional and otherwise),[4] and assuming the probable arising of irresponsibility (necessitating a pedagogy, which is precisely a plan for mitigating irresponsibility, by helping others become-responsible).

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[2] In this regard, the present inquiry should be understood as a form of ecocriticism—not as a rhetorical or aesthetic project (Bate, 2000; Garrard, 2004), but as a critical program for the welfare of life-systems in perpetuity.

Definitions

I begin with the traditional definition of political theory as that body of thought cognate to ethics concerned with the public good, of relating to others in and of collectives and institutions responsibly.[5] *Micropolitics* is the practice of becoming-responsible for an object, understanding the object for what it may be on the terms of its arising, persisting, and decomposing, and coming to appreciate and care for that object for the sake of its well being, be it oneself or another living being, a community or a world—in its totality.[6] I have proposed four characteristics for becoming-responsible in this context: becoming-critical, becoming-compassionate, becoming-competent, and becoming-conscious (Anderson, 2008). For the purposes of *macropolitics* or politics as such, a subject is tasked with responsibility for the development and potential transformation of *an object of public concern* such as a "public" as such (as a tyrant, an oligarch, or in a participatory way as a citizen in a democracy)—or is excluded from that responsibility, becoming a responsibility of another, "handing over" by virtue of life circumstance any control over the terms of one's future, or the future of one's community or nation in relation to others. Because this is an unjust relation—some, by accident of birth or life chances, have control over the lives of others who themselves have no control over the terms by which they must live—I assume it is better to ensure that all who are capable of becoming-responsible for themselves and for others find the opportunity to do so, which is to say, I assume the present regime of "uneven geographical development" (Harvey, 2000) to be unsatisfactory and in need of transformation. Specifically, I do not object to "hierarchy" as such or differentiation as such, nor do I assume unity or totality to be necessarily oppressive; I do have reason to object to the terms and conditions of the present order, the kinds and qualities of hierarchy and differentiation prevalent and possible now.

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[3] For the purpose of this essay, I define "mainstream integral models" as those proposed by Ken Wilber or his followers, or any of Wilber's claimed theoretical antecedents, including Hegel, Aurobindo, or Gebser. This is not intended to be a comprehensive or exclusive category, but a provisional and expedient one. I do not claim to analyze these authors exhaustively, given the scope of this work.

[4] Plato's pedagogy is either problematic or in part satirical. Following the structure of Socrates's argument: because God is the author of good things but not bad things, children must be raised with a certain kind of faith or else the direct and observable presence of evil in what they have been instructed to see as a divinely ordered world may disturb them, complicating their development and disrupting the State (pp. 623-630). Jameson (1974) by contrast explicates Marx toward a utopian transformation of consciousness by means of engaging with the difficulties of life rather than a rejection or avoidance or enforced denial of them (p. 116).

[5] The concepts public, public sphere, and "counterpublic" are both necessary and vexed: necessary because any notion of political action is predicated on interpersonal communication outside the home or the workplace, positing (explicitly or not) a mediated space in which communication can occur; vexed because a public so defined has hardly been a homogenous reality at any time or place (Habermas, 1989; Ranciere, 1995; Berlant, 1997; Laclau & Mouffe, 2001;Warner, 2002; Butler, 2004; Fraser, 2009)—bracketing the yet more vexed questions of the kinds of subjects such a public may demand, exclude, or make possible, the mediation of discourses through institutions and private technologies, and the relationship of a public to the state form (and by homology the subject to citizenship). This essay may prompt such questions for future integral work, but it hardly seeks to resolve them.

[6] This principle is developed in detail in Gampopa (1981), Shantideva (1997), and Chagdud (2003)—the practice of *bodhicitta*. I explore the phenomenological, hermeneutic, and semiotic implications of being in a world among others in D.G. Anderson, 2008.

What does it mean for a subject or a collective to take responsibility for the transformation of an objective situation like this one? Recorded history shows again and again that simply *having* or *taking* responsibility is not the same as becoming-responsible as defined above. It is possible to be responsible for another *and* to exploit that other, behaving irresponsibly toward that other. It happens all the time, it happens a lot, and it happens over and over, repetitively, even—significantly—mimetically. Many, in positions of relative responsibility, are uncritical and incompetent; the regime keeping them in place is predicated on a lack of compassion and consciousness, as I have suggested (Anderson, 2008; compare section *Holarchy and Macropolitical Praxis*). The coincidence of becoming-responsible (a practice), with being responsible (the fate of having a position of responsibility for others), can be called *politics in good faith*, in which the subject is motivated to act or refrain from acting for the sake of the object, at present and for the future, to be helpful and to prevent harm. This is conscious, creative, self-critical work; it is authentic leadership (see section *Politics in Good Faith*). It is an upstream swim.[7]

But two other valences are possible. The first can be regarded as politics in bad faith, which Clausewitz calls "hostile intentions," and can be understood as will-to-power, the diagnosis of which may be Nietzsche's most useful conceptual contribution to an understanding of the condition of modernity. This is the exploitation of a divided order such as the one I describe above, in which a "higher" force directs the transformation of a "lower" one, which lacks agency, while the resources of the "lower" fuel the uncritical and mechanical sword-waving and self-indulgence of the higher. Clausewitz (1993) characterizes this kind of intervention precisely as "an act of force to compel or enemy to do our will" (p. 83). The second valence, to be distinguished from this structured relation of dominance and exploitation, is the infamous Hobbesean state of war, in which no one is responsible for anything, violence characterizes all transactions, growth and culture are impossible, and chaos wins the day. This last possibility will remain in the background of this inquiry.

Politics in good faith is earnestly to be wished for, to be worked for—a just sociopolitical order that makes an integral and non-parasitic development of the totality possible and actively encourages that development too. Politics in bad faith or a hopeless state of conflictual free-for-all are to be avoided. To advance this end, I present the following proposal.

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[7] Since present circumstances are best understood as a product of multiple histories moving on the power of causation in time (Anderson, 2008), transformative leadership must work against this kinetic energy, or at least redirect it.

Plan for this Inquiry

These are ambitious intentions, appropriate to more than one book-length treatment. It would be impossible to deduce any of them exhaustively even in the generous space allowed for this essay. Further, the archive I have assembled in order to illustrate my point is an admittedly eccentric one; I have drawn from sources representative or emblematic of the problem at hand, ones that carry a certain kind of rhetorical force.[8] Even so, this is a long essay, but a principled (and not self-indulgent) one.[9] The imperative to show and suggest with appropriate nuance if not always demonstrate the logic behind the claims I make and significant points of departure for further inquiry[10] justifies the length. This seems a responsible compromise and appropriate to a provisional inquiry, a beginning: to make the broad strokes and the skeleton of the rest available for consideration, to evoke and when necessary provoke further thought. To facilitate reading through and around this essay, I have included numbered section headings which are cross-referenced where useful, and pointed back to the companion piece to the present inquiry (Anderson, 2008) at regular intervals.

The trajectory of this argument corresponds in a suggestive but imperfect way to the pedagogic sequence of the Four Noble Truths in traditional Buddhism: first defining a problem, then identifying its nature, proposing that the problem is not insoluble or inevitable or somehow a good (that an alternative way is possible and desirable), and pointing toward a practical method to address the problem. As an intervention, it begins with an analysis of two metaphysical models for integral politics—Karen Litfin's (2003) Wilber-inspired proposal for Aurobindian *evolutionary idealism* as a means for understanding the present sociopolitical order and as an imperative for transforming that order, and Wilber's (2000b) definition of the holon in holarchy, which I show to be *inherently* political, even in its ideological[11] disavowal of political significance. These metaphysical models, at least as Litfin and Wilber present them, prove untrustworthy. This leads to a proposal for an alternative model which is simultaneously integral and responsible as defined in (0.3), which I develop from a juxtaposition of two unlikely postmetaphysical moments: William Blake's prophetic epic *The Four Zoas*,[12] which develops a detailed conceptual and imaginative foundation for a responsible integral macropolitics, and the

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[8] Here I follow the archival and rhetorical examples of Berlant (1997), Agamben (1998), Warner (2002), Sedgwick (2003), and Butler (2004).

[9] This follows from Gurdjieff's (1999) aphorism, "'If you go on a spree then go the whole hog including the postage'" (p. 35).

[10] I have drilled down into certain arguments in some detail to point toward questions that will be productive of future inquiry. For instance, in the course of my treatment of *The Four Zoas*, I identify in passing a foundational problem in Wilber's means of knowledge-production, and suggest that a postmetaphysical interpersonal ethics of alterity (as distinct from the ethical aspects of political theory proper) rather than identity or sovereign command may be developed from Blake's vision.

[11] Teasing apart the precise relationship between the terms *ideology*, *spectacle*, and *make-believe* in the present inquiry constitutes a point of departure for future inquiry.

[12] Blake published his work himself, on copper plates; the manuscript presents remarkable difficulties for any reader, and relies heavily on the work of editorial interpretation. Due to the peculiar nature of Blake's early printing habits, all citations to this text refer first to the plate number and the line of the poem as collated and resequenced in the Erdman edition (1982), so that line three of page two will be cited as (2.3). This practice allows for easier comparison to other editions of Blake's work. Also, citations to *Paradise Lost* refer to the book and the verse line, also for ease of comparison.

Popular Unity period of Chilean history (1970-1973), which gives a historical example with direct consequences both for the macropolitics I explicate from *The Four Zoas* and the metaphysical models I offer up for criticism.

The Four Zoas uses visionary space to imagine clearly how the inter- and intra-personal politics of Empire works—interventionary politics *par excellance*—and points toward a politics of responsible action. Then the inquiry moves from an imaginative and conceptual space into a material, historical field, Chile moving toward radical democracy. I find this experiment on principle if not in all details a responsible intervention, along the lines the proposal for a macropolitics of responsibility in *The Four Zoas* suggests. Further, the coup staged on 11 Sept 1973 by a "higher power" to reintegrate Chilean resources and resource management into a larger, deeper, and more complex regime was by the measure I construct from one of Blake's visions an irresponsible, undemocratic, counter-integral act of war, of "hostile intentions" as Clausewitz defines them—politics in bad faith. By contrast, following Wilber's prescription, one is compelled to claim that this coup was a moment of self-transcendence for Chile, insofar as it was reintegrated into the "superholon" of global capital and drawn forward in evolutionary terms toward the "telos" of that regime (a term of spiritual significance for Wilber). In this regard, Wilber's doctrine "flickers" or mechanically reproduces in its ontology the divisive and parasitic social and political order of which it is an artifact: late capital (or globalization or neoliberalism [Harvey, 2000]) and its "postmodern" cultural logic (Jameson, 1991). Wilber's evolutionary idealism is, *for the purposes of understanding and expressing politics*, an exercise in make-believe with potentially dangerous consequences, regardless of the theological and therapeutic value Wilber's model and the "orienting generalizations" on which it is premised surely has for those who choose to believe in it (a value I do not wish to dismiss or denigrate, only to recontextualize).

For the sake of argument, I assume that social institutions and social formations (the state form, the family, the corporation, and so forth) can be understood abstractly as though they are unitary and homogenous, as Wilber does—but not without some reservation. It suffices at present to suggest that the ambivalence on the nature of the state form and other social institutions in the present work and in Anderson (2008) is attributable in no small part to real contradictions in and of the state form under neoliberalism. Harvey (2000) summarizes one of these, on the state in relation to others and to "globalization" as an economic and political activity, with particular relevance to my argument on the homology between the structure of Wilber's ontology and political conditions under neoliberalism:

> The preservation and extension of state power is crucial to the functioning of free markets. If free markets, as is their wont, undermine state powers, then they destroy the conditions of their own functioning. Conversely, if state power is vital to the functioning of markets, then the preservation of that power requires the perversion of freely functioning markets. This is, as Polyani outlines, the central contradiction that lies at the heart of neoliberal political economy. It explains […] why the great eras of globalization and freer international trade have been those where a single power (such as Britain in the late nineteenth century or the United States after 1945) was in a position to guarantee the political, institutional, and military conditions for market freedoms to prevail. (Harvey, 2000, pp. 180-181)

Berlant (1997) considers this contradictory relation of “above” and “below” from another perspective, that of the absence of any meaningful public sphere as defined against private interests: personal matters not obviously of public concern such as the details of sexual practices, desire, and affect become contested, intensely, and made irrationally political and publicized under neoliberalism (pp. 1-24). The subject, like the state in Harvey’s analysis, is for Berlant an irreducible but functioning contradiction. Thus, the state, the subject, and the specific nature of diverse and changing social and political institutions will remain a convenient (if marked for future analysis) fiction of homogeneity and coherence in this essay. That said, I will distinguish for practical purposes between two sorts of social aggregates or formations: on the one side are mechanical formations, products of history such as a given state or corporation; this is to be distinguished from what I will call intentional communities, which are organized responsibly; the discussion that follows in major sections *Imagining a Postmetaphysical Macropolitics* and *An Experiment in Radical Democracy* assumes it is possible to transform an aggregation of the former kind into one of the latter through a certain kind of practice. Hershock (1996, 2000) develops this distinction in mythopoetic terms appropriate to this context. A dialectic prevails: a social agent methodically cultivates virtuosity, a kind of creative competence. Defined in contrast to the practice of “absorption into a featureless or universal consciousness along the lines of Indian yoga,” virtuosity functions “as a practical method for attaining improvisational excellence—a virtuosic ability to respond to any contingency or demand” (Hershock, 1996, p. 160). Part of this is to consciously transform one’s behavior and intentions toward others, forming through one’s self-performance “dramatic affinities among patterns of narrative movement” or “reciprocally meaningful confluence” (Hershock, 2000, p. 94), working in counterpoint or contradistinction to prevalent modes and mores rather than in imitation of them (developed at length in section *Imagining a Postmetaphysical Macropolitics*). These dramatic affinities themselves become a condition for cultivating virtuosity, as in “liberating conduct or concern with others, not in the privacy of meditative absorption” (Hershock, 2000, p. 97). This is not a Promethean or a consumerist project: it is about coordinated, collaborative work.

In the interest of full disclosure, I should also describe my own position. I am an American of working class origin, male, and of European descent. As such, I have surely benefited from the injustices I describe in this proposal socially and materially; I have also suffered from them. This can also be said for my nation, the United States of America, which has both materially benefited and suffered from the injustices it has participated in, but which also has remarkable history of disciplined efforts toward transforming those injustices, many of them successful in unexpected ways. This essay aspires to be another such moment of Americana of the latter kind.

Metaphysical Macropolitical Doctrines

Evolutionary Idealism

Evolutionary Idealism: Introduction

Karen Litfin’s (2003) proposal for an integral approach to global relations and macropolitical action represents an early and untested contribution, and is therefore most fairly understood as speculative—that is, intended to open a field for inquiry rather than to present a wholly authoritative, unproblematic project. Litfin’s evolutionary ontology attempts to make space (in my view useful, even necessary space) for transformative practice inclusive of spiritual disciplines in political theory, descriptive and prescriptive. This is a valuable contribution. The present analysis of Litfin's ontological model is designed to keep this space intact, in fact to predicate authentic transformation on the disciplined practice of becoming-responsible rather than the invocation of a long-discredited idealistic historiography appropriate to one aspiring to the position of a Hegel or a Dilthey—or in a different respect, an Engels (De Certeau, 1988).

The Claim of Evolutionary Idealism

Litfin finds the present global political order problematic, and attempts to diagnose a cause for this. She claims that "the global problematique is rooted in a mode of consciousness that is becoming increasingly recognized as dysfunctional" (p. 31); this mode of consciousness is taken to include cultural manifestations such as secularism (p. 30), "deconstructive postmodernism" (p. 31), reason (p. 36), and the scientific method (p. 37)—leaving faith, pathos, and emphatic declamation as legitimized means of knowing and knowledge-production[13] (see section *Mechanics of Make-Believe*). Litfin attributes the problems of late capital inclusive of the characteristic maldistribution of wealth between the global north and the global south (Smith, 1997) and the catastrophic ecological consequences of unmitigated capitalistic development (Burkett, 1999) to this worldview[14] (p. 31), which in her view is not a precarious existential situation for trillions of vulnerable life-forms (Agamben, 1998; Butler, 2004), but a monologic story now in the throes of a crisis of legitimacy (p. 30).

Litfin's solution to the problem of a dysfunctional paradigm she diagnoses, and therefore her proposal for resolving the global political-economic and environmental catastrophes she identifies, is to tell a new story.[15]

> Recognizing that the old story is out of synch with the world we now inhabit, we turn our attention to our individual and collective (un)conscious in order to decipher that story and move towards a new one that will entail new practices (p. 33).

Litfin calls this position *evolutionary idealism*, which she defines as "an integral view of the world as the unfolding of Spirit" (p. 32) and as "an integral worldview that understands the universe as a revelation or manifestation of consciousness, Spirit, or intelligence" (p. 33)—a position explicitly indebted to Aurobindo and Wilber, and an expression of Wilber's specific

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[13] In terms of conventional public discourses, Litfin's approach is appropriate to theology and metaphysics. I recognize that there may be postconventional means of verification for a truth claim, but Litfin does not discuss these substantively in the context of her proposal for an integral macropolitics.

[14] Litfin's approach in this regard is not unique. For instance, Tarnas (2006) takes a similar position, arguing that astrological forces affect human consciousness in ways that then produce or determine workaday experiences.

[15] The totalitarian overtones of Litfin's proposal, in which the multitudes are to be reeducated (indeed to introspectively reeducate themselves) into the Correct Story, are surely unintentional; it would be unwarranted to attribute an explicitly totalitarian agenda to Litfin's project on these grounds.

Hindu-Hegelian synthetic theology, but attributed broadly (if incorrectly) to world culture generally.[16]

Arguments for Evolutionary Idealism

Litfin makes three arguments in favor of Spirit's reality and utility as a concept for the purposes of understanding and transforming global politics. Her first is that "much of both pre-modern Western thought and non-Western thought has accepted Spirit as the fundamental reality" (p. 41). For the present, the implausible claim that much of pre-modern Western thought and (depending on how one understands her meaning) *all* of non-Western thought (a remarkably diverse category of cultures and concepts) uniformly posits Spirit in the manner Litfin and Wilber do can be bracketed and left aside, because even if one assumes it for the moment to be so, it does not constitute a warranted and supported argument *vis a vis* contemporary politics; it merely recontextualizes (arguably marginalizes) Spirit into a large-scale historical or anthropological *artifact* of a premodern, superstitious past–or as an exotic, Orientalized *other*. Put another way: masses of people have affirmed and accepted the reality of many things that seem unacceptable at present; correspondence of contemporary concepts to practices of ancient cultures presents some difficulty methodologically for this reason. For instance, one may argue that many cultures in the past and in the "mystical" East have practiced slavery and believed in the benefits of slavery, and practiced misogyny and believed in the value of misogyny, and for this reason, contemporary problems can should be solved by the reinscription of slavery and misogyny into world culture. I very much doubt that Litfin intends to marginalize the core of her ontology, the reality of Spirit, in the manner that her first argument in favor of that ontology leads if pursued to its conclusion. This argument is best discarded.

Litfin's second argument in favor of Spirit: Hegel seems to have put his faith in it (p. 41-42). I suggest some ways in which this argument is immediately problematic in Anderson (2008); Marx's comment that for Hegel "*sense*, *religion*, state-power, etc., are *spiritual* entities" regardless of the objective actions taken by those powers or their means of subsistence (p. 111) anticipates several decades of scholarship on Hegel in this regard. In brief, neither of Litfin's first two arguments overcomes one major argument against Spirit as Litfin herself deploys it: if one accepts the claim that all contexts, including the present, are expressions of a Spirit that knows better than we do (Litfin, 2003, p. 41), then the crisis of the present should be understood in the first place as a consequence of that Spirit's demonstrable and necessary *incompetence* and *irresponsibility*—in Wilber's terms, because the "higher" holarchy has the greatest freedom to act, that higher holon, Spirit, must have the greatest freedom to act for the good of those holons under its aegis, which it has clearly *not* done, as the problematique of the present as Litfin diagnoses it proves. Spirit as Litfin proposes it is (in Wilberese) the *telos* of a *pathological superholon*[17] (see section *Retelling the Epic of the Superholon*). This argument, also, is best disregarded.

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[16] Following Wilber, Litfin claims "the modern West became the first major civilization in human history to deny substantial reality to the Great Chain of Being" (p. 36). This is an unsubstantiated claim, and easily refuted with one of many historical examples, one being Theravada Buddhism. If one holds to Litfin's claim, one must then claim that Theravada does not represent a major civilization. A more productive approach may be to identify in history specific cultural artifacts that may have proposed a Great Chain of Being analogous in some detail to the one Wilber (2000b) posits. Finally, there is some danger in identifying evolutionary idealism with all spiritual traditions generally—it may lead one to conclude that criticism of evolutionary idealism amounts to attacking all spiritual traditions without exception, or spirituality as such.

All this points to two problems with Litfin's third argument in favor of Spirit: "The appeal of evolutionary idealism will then depend upon its internal coherence" (p. 50). First, internal coherence is useful—I aspire to it myself—but it does not alone verify a truth claim.[18] The example of the Flying Spaghetti Monster (Henderson, 2006) shows that a motivated individual with no special qualifications can improvise an internally coherent model for the intelligent design of the Cosmos[19]—no one confuses the Flying Spaghetti Monster with a verifiable existant, or accepts Henderson's explicitly satirical claim regarding the cause of global warming as science,[20] but both positions are acceptable theologically and perhaps useful to some for that purpose (on principle at least, even in a ridiculous case such as Flying Spaghetti Monsterism). Second, evolutionary idealism as Litfin presents it is not coherent internally, as I have suggested already. To give another example, Litfin claims that reason has overcome superstition in the West (p. 37), which compromises her later claim that Western culture is predicated on a superstitious cult of scientific materialism (p. 37), not reason.

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[17] The logical necessity of an incompetent Spirit for one seeking to accommodate Wilber's metaphysical position while also accounting for the Terror of the present Situation (Gurdjieff, 1999, pp. 1184-1238) is not a problem unless and until one insists on trusting this incompetent Spirit or attempts to make it responsible for matters of public or personal concern. Wilber tends to do this. For instance, in one of the informal writings of his that he has chosen to make public Wilber asserts that "enlightened awareness […] alone knows how to proceed" with a method for addressing ecological problems, where enlightened awareness is equated with "One Taste" which is characterized as "Spirit itself" (Wilber, 2000a, p. 212).

[18] One may argue (fairly I think) that insisting on a description of reality that is free of internal contradiction assumes a *reality* that is without contradiction or explicably by reason without contradiction, or is even particularly "real." I assume instead that an argument in favor or against a particular view ought to be reasonable—that logically coherent arguments are qualitatively superior to thinly reasoned ones—and that one's premises ought to respond to the empirical contours of the object of one's analysis, such that a contradictory object will be presented as contradictory or at least paradoxical. My objection to these metaphysical models for macropolitics (those of Litfin and Wilber) is not the contradictions latent in their ontologies; experiences are contradictory, complex, paradoxical. Rather, I object that these contradictions are not explicit *as* contradictions, and that the arguments given in support of them are themselves contradictory and more than occasionally implausible.

[19] Litfin's description of Spirit connotes precisely this theology (Forrest & Gross, 2004) in that Spirit is posited as "an animating intelligence [that] underlies the development of not only life forms, but of all creation" (Litfin, 2003, p. 41).

[20] Henderson (2006) includes an elaborate riff exploiting a logical fallacy inherent in some arguments in favor of the teaching of "intelligent design" theory in American public schools in place of more trustworthy science curricula, specifically the assumption of necessary causality between two phenomena when only correspondence and no plausible causality can be demonstrated—suggesting that because there are fewer pirates on the high seas at present than in the nineteenth century, the decline in pirate population must be a cause of climate change in the diction of a corporation producing and selling commodities of conviction called the "Enlightenment Institute" (pp. 126-164)—a mashup of Wilber's Integral Institute and Andrew Cohen's *What Is Enlightenment?* magazine. Tarnas (2006) presents an argument related to the one Henderson (2006) critiques.

Evolutionary idealism is a coherent theological position and very likely a useful one for those who are committed to it, but as Litfin's argument elaborates it from subjective spiritual or mythopoetic speculation to objective macropolitics, concerned with lives lived among others in material conditions, her arguments for evolutionary idealism crumble into incoherence. This incoherence is compounded into a preposterous totalitarianism in Litfin's description of political praxis.

Praxis According to Evolutionary Idealism

Litfin's proposal for transforming the present sociopolitical order by invoking a "new story" is not without difficulty. One can argue that it is narrative of a particular kind that holds nations together in the first place (Anderson, 1991), often through *forgetting* significant details as much as remembering others (Renan, 1993), an insight that informs Great Books education as practiced in North America (Adler, 1956; Hutchins, 1954; A. Bloom, 1987)—a cultural matrix from which American neoconservatism arose at the University of Chicago (with the introduction of Leo Strauss's political science). *Story* is how power enforces certain values, sometimes through the figure of authors imagined as epic geniuses or timeless sages, as H. Bloom (1994) and Wilber (2000b) tend to present them (Foucault, 1977; Guillory, 1993; Eagleton, 1984; Michael, 2000). As Renan argues, in order to impose a story for the purpose of consensus consumption, the regime must ask that socius to forget or ignore certain things—to forget national embarrassments, humiliations, and mistakes. For instance, theological traditions often ask adherents to forget certain kinds of scientific evidence that invalidates particular theological tenets.[21] Readers of the *9/11 Commission Report* (2004) may or may not notice the total absence of any analysis of American foreign policy since the second World War, remarkable for a document committed to explicating an attack from abroad by motivated actors, but this is forgotten, arguably in the interest of reassuring a vulnerable national sensibility already convinced of the official story, that the terrorist attack was an assault on American *values* rather than American *power*. Apropos of "story," Garcia Marquez (1995) shows how this kind of forgetting can work in the global south—after the banana company (through its subsidiary, the state[22]) massacres thousands of striking workers, only Jose Arcadio (Segundo) Buendia and a random child caught in the moment are able to testify to the historical event. The others forget as if by magic, insisting on the veracity of the official story:

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[21] Members of the LDS Church, for instance, must put their faith in the historical existence of ancient North American tribes such as the Nephites, Lamanites, Jaredites, and Mulekites, as recorded in the *Book of Mormon* (Smith, 1841) despite the lack of any archaeological or historical evidence to support their claimed existence. *This is wholly unproblematic as an article of faith*, as a metaphysical or theological position. Only when mistaken for scientific theory does this point of theology become contestable, and contested.

[22] The *9/11 Commission Report* (2004) claims that "the American homeland is the planet" (p. 517). This is at first blush a gesture of rote imperialism, but in a subtle way also expresses the subordination of the state to the regime or "telos" or "attractor" of global capital. Since the Bretton Woods Conference in 1944, the U.S. has been the capitol of global capital as it were, and its champion-in-chief—its main military exponent. The doctrine presented in the *9/11 Report* suggests, among other things, that the purpose of the American state is to defend, protect, and promote the strategic interests of capital *anywhere,* because defending these interests maintains the U.S.'s position in holarchy as evolving toward the protocols of the telos of global capital (to express my point in Wilber's diction—see section *Retelling the Epic of the Superholon*).

> "You must have been dreaming," the officers insisted. "Nothing has happened in Macondo, nothing has ever happened, and nothing will ever happen. This is a happy town." In this way they were finally able to wipe out the union leaders. (Marquez, 1995, p. 310).

The cost of Jose Arcadio Segundo's adherence to empirical fact is his necessary withdrawal from civil society and into a kind of mysticism. My point is that stories of the type Litfin attributes the world's problems to are not simple; they are institutionally and ideologically enforced (and as often theological and cultural as materialistic or scientific, contra Litfin's characterization of the present ideological moment); they are contested; they are not at all uniformly distributed, nor readily replaced.

Effectively, to impose a "better story" is to reinvent a web of nation and subject and global interconnection, inclusive of educational infrastructure (see section *An Experiment in Radical Democracy - Introduction*). It is not a matter of Providence so much as a matter of power, politics, and responsibility. As I have suggested (Anderson, 2008), some have control over the terms of their lives and some do not. The challenge is to democratize this. Further, as I show in (section *Holarchy and Macropolitical Praxis*) it is not at all clear that the new story Litfin proposes, insofar as it reterritorializes Wilber's evolutionary ontology into global politics, is in fact a new story at all. I agree with Litfin that the ideologies spun by capital are typically counterproductive, an argument as old as the Frankfurt School but perhaps positioned most creatively as presented by Debord (1995). However, I propose instead not to disseminate the content of a new narrative or a set of themes or a new paradigm, but (following *The Four Zoas*) to make possible the recovery of cultural memory from the top to the bottom of any stratified socius—democratizing the production of values and personal autonomy in a responsible way (Anderson, 2008). E.P. Thompson (1963), P. Anderson (1979), Ginsburg (1980), Braudel (1981, 1982, 1984), Shapin & Schaffer (1989), Buck-Morss (1991), LeGoff & Nora (1985), Gilroy (1993), Roach (1996), de Certeau (1998), Linebaugh & Rediker (2000), and Zinn (1995) represent divergent and sometimes conflicting approaches to this task,[23] the last recalling a bloody three-year war fought by American soldiers for control of the Phillipinnes and its resources, wholly forgotten in the mainstream narrative of American self-identification (pp. 305-306). Responsible historiography has the advantage of exposing the problems of accrued and contradictory ideologies for what they are, make-believe,[24] rather than risking a top-down propagandism passing as personally-meaningful "re-storying."[25]

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[23] This selection of scholarship is not intended as a rhetorical gesture of canon-formation of the kind so characteristic of Wilber's rhetorical strategy ("from Aristotle to Spinoza, from Leibnitz to Whitehead, from Aurobindo to Radhakrishnan" [Wilber, 2000b, p. 116]), but as a practical syllabus for those motivated to address the question of how changes occur in historical time in integral and critical (not idealistic) terms.

[24] Karasu (1994) evokes the sense of this concept of make-believe precisely:

> People are increasingly satisfied to believe whatever they want to, or whatever they wish for; perhaps they are scarcely aware that they've left off reasoning, reflecting, attempting to see things as they really are. By the time they become aware, darkness will have set in (p. 11).

This context should be contrasted against the role of "attractors" in Wilber's metaphysics (section *Retelling the Epic of the Superholon*).

It is worth noting, finally, that Litfin reproduces Wilber's problematic post-Dilthey tendency to attribute broad social transformations to "worldviews" produced by conspicuous intellectuals.[26] For instance, Litfin claims that modernity has "architects," inclusive of "Descartes, Newton, and Locke" (p. 36)—that the predilections and methods of a shortlist of great men have produced the present complex of contemporary forms of consciousness, an implausible but familiar theory of determination (Foucault, 1977). Similarly, Wilber (2000b) argues that because early scientists chose as their object of analysis "the dumbest holons in existence," such as stones, reality as understood *in an everyday way, by everyday people*, has been reduced "to a flat and faded landscape *defined* by a *minimum* of creativity and a *maximum* of predictive power" (p. 56)—with Newton's analyses of matter as well as his arguably more systematic exegesis of Biblical prophecy (another kind of "predictive power") the unspoken subtext of Wilber's claim. This invites one to ask: are the findings and methods of individual seventeenth-century scientists, working on the edges of their culture's normative values (rather than representing them in an integral way), truly responsible for the contingencies of contemporary consciousness, in which people behave mechanically, view their worlds mechanically, and experience their lives with minimal creativity and maximal predictability? I suggest that another explanation may be more plausible: our social world, our work lives and political lives, have become structured such that minimal creativity is possible, that outcomes are maximally predictable—and further, that the regime or "attractor" in Wilber's diction of the prevalent social order works to reify and reinforce this mode of consciousness (see section *Retelling the Epic of the Superholon*), beginning with an unplanned social experiment born in England in the eighteenth century. This was the transition from seasonally-variable agricultural work and urban, industrial capitalism, first coincident with the arising of early science—a process that, in Gurdjieffian terms, derails healthy human development in order to make machines of people for the purposes of labor power for the accumulation of capital[27] or for consumption that drives the same (Marcuse, 1964). In short, I suggest that if one wants to understand the conditions and determinants of the day-to-day consciousness of people and the conditions of possibility for their future life chances, one would do better to look to their day-to-day lives (at work, in the family, in committed relationships) rather than to European and postcolonial intellectual history, which is useful for other purposes, particularly the practice of becoming-critical.

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[25] This is the political significance of the opposition I assume throughout this essay between material history and degenerated or misapplied forms of mythopoetic speculation: responsible history reserves the right to be self-critical, which is to say, the right to being wrong and corrected.

[26] Ferguson (1990) gives a useful history of the arising of the concept of the "worldview" as a means for understanding historical transformations, as an expression of the psychological and social needs of a particular time and place but imagined as universal, as inherent, archetypal determinants of consciousness and its forms. Tarnas (1991) should also be understood in this context.

[27] In the *Manuscripts* of 1844, Marx (in the context of his discussion of alienation from humanity and nature) argues:

> [t]he savage and the animal have at least the need to hunt, to roam, etc.—the need of companionship. Machine labor is simplified in order to make a worker out of the human being still in the making, the completely immature human being, the child—whilst the worker has become a neglected child (p. 95).

Holons and Holarchy

Introduction

The "new story" Litfin proposes, the one she claims is identical in some regards to all ancient traditions, is Ken Wilber's ontology, which finds its first detailed elaboration in *Sex, Ecology, and Spirituality* (2000b). This section will recount the plot, so to speak, of Wilber's presentation of this ontology, in order to understand in some detail what the consequences of this ontology of *holons* (things) in and as *holarchy* (organization of things, structured relations in and among things) might be if used to interpret global politics, as Litfin has attempted. A challenge arises immediately, because Wilber expressly disavows reading social collectives such as nation-states, corporations, or ethnic groups in the same way as other putatively self-conscious phenomena[28] (for Wilber the category of the singularly self-conscious includes compounded or aggregated things such as atoms, rocks, and the cosmos at large) (Wilber, 2000b, pp. 72-73). I have argued elsewhere that this is a self-contradictory objection on Wilber's part (Anderson, 2008); further, I will show presently that Wilber himself identifies social or aggregated units as holons regardless of his advice against doing so, and further, that holons and holarchy as Wilber describes them represent with some accuracy global political phenomena, inclusive of relations of dominance, subordination, and actual injustice among global powers.[29] Litfin is very much justified in elaborating from Wilber such a politics. On these grounds I will retell Wilber's ontology *as it expresses these political units* in order to demonstrate the political significance of this ontology,[30] which coincide with the particular social regime (or in Wilber's terms, the "telos") it expresses, integrated global capital (Guattari, 2000). My purpose is not to explicate the flaws in Wilber's logic or demonstrate his misreadings of particular texts; such exegesis has been taken up elsewhere;[31] it is instead to suggest ways in which Wilber's holarchy flickers or mechanically reproduces in the field of metaphysics and spiritual aspiration the social and political structures of late capital, which are not integral at all.[32] Further, because Wilber's holonography reproduces the present political order and forecloses any legitimized means of transforming its problematic terms of exchange, the unevenness of its development (as I will show), one may plausibly claim that it is not a transformative model but a conservative one in the last analysis, where conservatism is understood as an attempt to maintain the status quo for its own sake.

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[28] This does not prevent Wilber from assuming a kind of singular self-consciousness on the part of social collectives or units of analysis such as academic disciplines, generations, or social movements insofar as they express categories of value according to his adaptation of the vMemes of Spiral Dynamics (Wilber, 2003a; Wilber, 2003b).

[29] Harvey (2000), a geographer, observes that "[h]uman beings have typically produced a nested hierarchy of spatial scales within which to organize their activities and understand their world," concerning "[h]ouseholds, communities and nations" as "obvious examples" (75). Holarchy as interested hierarchal relations should be understood as a means of social organization in the first instance.

[30] Further, Mastustik (2007) argues for contextualizing Wilber as a critical social theorist in the tradition of Marx and the Frankfurt School. If Wilberian theory is to be regarded as wholly integral, a "theory of everything," it should account responsibly for social and political phenomena—and should be held accountable for the social and political consequences of its positions, if Mastustik's project is to be pursued.

[31] To cite an early example, Helmeniak (1998) offers a detailed treatment of the category errors, logical fallacies, and implausible claims in Wilber's foundational work, from a position much more sympathetic to Wilber's project than mine (pp. 213-292).

[32] W.I. Thompson (1998) points to this critique of Wilber (particularly in regard to mimesis and the near-totalitarian hyperbole of Wilber's authorial self-fashioning as expressed in the politics of his cosmology) (pp. 12-13), but does not develop it in a thoroughgoing way.

Retelling the Epic of the Superholon

Wilber (2000b) gives a series of characteristics that specify what holons[33] are, how they behave, and how they relate to each other. This foundational moment in Wilber's project is rehearsed in some detail to show its assumptions, functions, and consequences.

The first is the most basic: "*Reality as a whole is not composed of things or processes, but of holons*" (p. 43). Holons evolve relative to one another in a hierarchic fashion (itself evolving) that Wilber calls *holarchy*, such that all holons are both wholes as they are but also parts of a larger order. My hand is a whole hand, as it is; but it is also part of my arm, part of my body, and part of my work; my thumb is a whole thumb, but it is also part of my hand; each are both wholes and parts of other wholes. That is the logic of the holon as Wilber presents it, and to that extent, the holon is a remarkably useful and flexible concept.[34] Wilber argues, convincingly in my view, that it is reductive to see any given holon (a thumb, a hand, a body) as *either* a whole or a part; at any time, a holon is both a whole and a part (p. 43). This tendency toward reductivity and incompetence is a characteristic Wilber uses to distinguish "dominator" or pathological holarchies from "natural" ones; a dominator holarchy is a regime that "occurs precisely wherever any holon is established, not as a whole/part, but as a whole, period" (p. 45). This distinction proves to be problematic.

Holons, according to Wilber, are capable of at least four things: "*self-preservation, self-adaptation, self-transcendence, and self-dissolution*" (p. 48). The first two of these can be understood as agency or autonomy, on one side, and communion or interaction on another; taken together, one finds that holons are self-interested social actors, interacting with others for their own reasons. The second two, self-transcendence and self-dissolution, imply a potential for development and growth in opposition to decline and decay. In short, the holon lives an ordinary, mortal life among other holons. Wilber extends the third capacity listed here, that of self-transcendence or creativity, into another characteristic: "*Holons emerge*" in the context of other holons that, to a greater or lesser degree, condition or even determine that holon's trajectories (p. 54)—one might say its *life chances*. According to Wilber, "determinism arises only as a limiting case where a holon's capacity for self-transcendence approaches zero, or when its own self-transcendence hands the locus of indeterminacy to a higher holon" (p. 55). This begs at least two questions: Under what circumstances might a holon's capacity for self-transcendence approach zero? And under what circumstances does something or someone capable of self-transcendence pay out to an external agent or a higher power its own potential for future development, its "locus of indeterminacy"? Under a foreign invasion or occupation, a nation-state indeed becomes subject to the self-interested determination of a "higher" power, a possibility Wilber explores next.

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[33] As a historical matter, the holon as a unit of organization is analogous to the scale holism (homology of microcosm and macrocosm) discussed at length in Plato's *Timaeus*.

[34] I express this function of the holon as a concept for explaining a given thing through the concepts *coherence*, *articulation*, and *totality* in Anderson (2008).

This kind of imperialism, and the potential for pathology or domination inherent in it, gives some significance of the fourth characteristic Wilber assigns the holon, that each one emerges "*holarchically*" (p. 56). This is because, according to Wilber, "[e]ach deeper or higher holon embraces its junior predecessors and then adds its own new and more encompassing pattern or wholeness" (p. 56). Thinking politically, two consequential interpretations follow from this. First, one must deduce from Wilber's premises that an imperial holon must be more integral, more whole, more complex, and arguably closer to Spirit than the holons it absorbs into itself, insofar as it reterritorializes those holons into a "more encompassing pattern," a deeper structure. Second, one must conclude that disengagement from a superholon is a counter-evolutionary, counter-novelty, and counter-integral gesture, insofar as the disengaging holon becomes of itself less deep and less complex. A *coup d'etat* or a hostile corporate takeover could be interpreted as a self-transcendent, evolutionary, even spiritual event, then, if it serves to accumulate depth and complexity, to hold the totality together; a postcolonial drive for democratic home rule would be the opposite (see section *An Experiment in Radical Democracy*). This returns Wilber to his distinction between pathological and "normal" holarchies. In the case of the former, "one holon usurps its position in the totality" (p. 58), a part claims to be a whole, reducing the rest of the whole to a part of itself;[35] by contrast, the latter regime expresses "the natural interrelations between holons that are always both parts and wholes in horizontal and vertical relationships" (p. 58). Litfin's "problematique" arises here as the pressing question *par excellance* of global politics: is capital as it has imposed itself on totality of the planet[36] a "higher," normal, natural holarchy or a pathological but normalized, naturalized, even spiritualized holarchy? Wilber moves to address this relationship between higher and lower, and the transcendence of the lower by the higher, by reference to Hegel.

Litfin's invocation of Hegel may have its roots in Wilber's explicitly Hegelian (and implicitly theological) interpretation of holarchic time, as expressed in the fifth characteristic of the holon: "*Each emergent holon transcends but includes its predecessors*," or, worded differently, the emergent holon "*preserves* the previous holons themselves but *negates* their separateness" (p. 59)—the agency that had characterized each holon becomes at best subject to the agency of another holon[37] volitionally as in the case of the masochist's contract,[38] or at worst, is wholly negated, handed over to a "higher" power regardless of the nature or intention of that power. The subaltern does not speak or act for him or herself (Spivak, 1988). Tellingly, Wilber's example in this instance is a sociopolitical one: the Kingdom/Republic of Hawaii slowly becoming integrated[39] into the United States (p. 60). For "lower" holons such as Hawaii, the Navajo Nation, the Philippines, Chile, Iraq—are the terms of Empire "communion" for the sake of development as Wilber suggests it must be in all possible realities (p. 60), or rather simple defeat, surrender of agency for no mutual gain, be a historical possibility in some cases, or some mix of both with costs and benefits evenly or unevenly distributed in the totality? Wilber attempts to mitigate this problem with a rhetorical strategy Blake parodies extensively (see section *Imagining a Postmetaphysical Macropolitics*), *doublespeak*: "the new and senior pattern or wholeness"—an oxymoron read literally—"can to some degree limit the indeterminacy (organize the freedom)"—two more oxymorons—"of its junior holons" (p. 60). This means *might*, expressed as *height*, makes *right*. The meaning of "right" here is fulfilled below in Wilber's discussion of "attractors," having to do with the ultimate significance of evolutionary change in Wilberian doctrine.

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[35] As Urizen does early in *The Four Zoas*—see section *Mechanics of Make-Believe*.

[36] See Lenin (1967), Luxemburg (2003), and Aglietta (2000).

[37] This poem is the epigraph to an essay by Franklin Jones (cited as Da Free John, Da Avabhasa, or Adi Da in Wilber's writings), "The First Word," which is reproduced in many of Jones's publications as an introduction: "Do Not Misunderstand Me—/I Am Not "Within" you, but you Are In Me,/and I Am Not a Mere "Man" in the "Middle" of Mankind,/ but All of Mankind is Surrounded, and Pervaded,/and Blessed By Me" (Da, 2004). This is, clearly, a theological statement. Its expression of the guru-disciple relationship is a theological antecedent of the superholon-subholon, higher-lower relationship Wilber posits in his ontology (immediately recognizable if one substitutes "higher" for "I" and "Me," and "lower" for "you" in Jones's poem), where any holon's development or self-transcendence is here reterritorialized into a top-down Providential mechanism, insofar as "[t]he higher embraces the lower, as it were, so that all development is envelopment" (Wilber, 2000b, p. 59). That is: Wilber's ontology, and by extension the rest of his theoretical project, repeats or mimics this theological gesture, the devotional foundation of the religion of Adidam. I do not intend to affirm or negate the theological validity of Jones's claim; rather, I intend to suggest that, true to its New Age roots (Ross, 1991), *some of what Wilber presents as scientific theory* should best be characterized as *an expression of a specific theology or desire* instead.

First, however, Wilber develops the properly political aspects of his Kosmic theory of right. The sixth characteristic of the holon and the significance of limiting the indeterminacy as Wilber invokes it has much to do with natural resources—physical ones, such as petroleum and minerals, but also human labor power and creative productivity in work: "*The lower sets the possibilities of the higher; the higher sets the probabilities for the lower*" (p. 61). Consider petroleum: the industrial North, a deep superholon aggregated of many levels or layers of subordinate microholons, is limited by the pace and volume of oil it can extract from those subordinate petroleum states and contracts in Asia and Africa ("lower" and subordinated holons), the global South generally; the terms of that extraction, the laws ("probabilities") are established for the petrostates by the "higher" superholon (Karl, 1997). Wilber claims, "even though the higher level 'goes beyond' a lower level," within a holon that is among other things a whole that contains as parts other wholes that are organized as levels, "it does not *violate* the laws or patterns of the lower level" (p. 61). This is a debatable truth claim because, as the fifth characteristic pointed out, the laws of lower-level subordinates are "organized," under capital literally established in the first place, by the "higher," as in the case of the so-called Seven Sisters (Samson, 1975), sometimes by explicit violence if implicit violence fails (Kinzer, 2003).

The next two characteristics are concerned with depth (seven), and the accumulation of depth (eight). As suggested earlier, a deep holon has more levels, while a shallower one has fewer levels: "it is not merely population *size* that establishes order of richness (or order of qualitative emergence), but rather *depth*" (Wilber, 2000b, p. 64). And depth has qualitative value for Wilber, insofar as "*[e]ach successive level of evolution produces GREATER depth and LESS span*" (p. 64, emphasis in the original). This is the evolutionary idealism Litfin invokes, in which the deeper holarchy demonstrates its evolutionary and therefore spiritual superiority by that very

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[38] The masochist effects a transformation in himself by first establishing a program, and then negotiating that program's execution. For this reason, masochism may be a useful site for considering power differentials as they relate to transformational dynamics, self-fulfillment, and justice (Deleuze & Guattari, 1987, pp. 149-166; Deleuze, 1991).

[39] The historical analysis of this event Kinzer (2007) presents confirms my interpretation of the imperialistic implications of Wilber's metaphysics.

depth—as though the deeper holon inhabits a different kind of evolutionary time, relegating the colonized holons in a permanent past relative to the empowered or "higher" ones—hardly a responsible form of knowledge-production (Fabian, 1983). This establishes the criterion for distinguishing the "rightful place" of one holon among others in holarchy—its depth, its level. The natural place of a holon is where the higher power or "telos" of its moment in evolution has put it, precisely where it is (a circular argument). Further, this position evokes Wilber's earlier suggestion that an imperial holarchy is by definition more advanced developmentally by evidence of its greater depth, differentiation, and complexity. In Wilber's words: "*The greater the depth of a holon, the greater its degree of consciousness*" (p. 65). But Empires are fragile and fraught to the degree they are *profound*. As Wilber observes, "[t]he greater the depth of a holon, the more precarious is its existence, since its existence depends also on the existence of a whole series of holons internal to it" (p. 64)—thus the documented ruthlessness of the superholon in securing from its subordinates the resources it believes it needs to ensure its survival and continued hegemony, which it also believes it needs.[40] Global capital, the deepest mundane superholon at present, is by degrees more conscious (and implicitly closer to Spirit) than any one of its subsidiaries by this model. For the purposes of the global South, global finance must be God; as for me, my employer must be my guru, as a leader in a higher level of an institutional hierarchy that subordinates me, organizes my freedom, and profits from my labors, regardless of Heaven's "heights" or the "depths" of my soul (Wilber, 2000b, p. 66)—a thought experiment Wilber will later entertain, in discussing the twelfth characteristic of the holon.

Wilber next offers a diagnostic for determining the relative depth of a holon within a holarchy for the ninth characteristic: "*Destroy any type of holon, and you will destroy all of the holons above it and none of the holons below it*" (p. 69). This recalls one of the better developed propositions of Marxism, by which meaningful democracy (in the sense of full enfranchisement across all contexts) in the form of socialism is only possible after the full development of industrial capitalism (Rader, 1979, pp. 120-129); following this, if one were to remove the possibility of capitalist development, one thereby makes impossible the development of radical democracy, thus proving on Wilber's terms either that a flattened, egalitarian socialist order must also be a deeper, more differentiated, and more evolved regime than late capital, the problematic of the present—or that Wilber's diagnostic is fallible. Perhaps more significantly, Wilber's model of evolution assumes a sequenced, single-voiced or "epic" teleology (Bakhtin, 1981) that seems to elide the possibility of coincident development on multiple lines in different contexts without reference to the One of Godhead, generally preferring the "higher" One to the "lower" multiplicity (both of which being necessarily nondual—see Anderson, 2008 and section *Time and Telling*), such that the lower holons on which the higher One or ones subsist become relatively less meaningful; "the more fundamental a holon is, the less significant it is" (Wilber, 2000b, p. 70). Following this, and recalling Wilber's earlier example of the absorption of the Kingdom/Republic of Hawaii into the United States (and into global finance), Wilber would need to claim that native Hawaiian lifeways and other resources must be less significant than American macroculture (presumably the spectacle [Debord, 1995], since Hawaiian folkways were not integrated wholesale into all regions of American economic activity or folklife uniformly) and needs (perceived or real) of the early and middle twentieth century (arguably as early as 1893), a difficult claim to justify qualitatively.

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[40] The School of the Americas and Operation Condor are two integrated, conspicuous, and well-documented examples of this (Lopez & Stohl, 1984; Gareau, 2004; Gill, 2004; Kornbluh, 2004; McSherry, 2005; Dinges, 2005).

The tenth characteristic, "*Holarchies coevolve*" (p. 71), is significant methodologically for Wilber, because "the 'unit' of evolution is not an isolated holon (individual molecule or plant or animal) but a holon plus its inseparable environment" (p. 71). Regimes evolve; the by-stages of historical evolution of capitalism summarized by reference to corresponding stages in integral theory in Anderson (2008) is a conspicuous example. Manufacturing practices may migrate from Michigan to Manchuria or Mexico, but in any of those sites, the class differential (some control and direct the labor of others, buying that labor from them with wages, where subsistence can only be *purchased*) and the profit motive are reproduced. Wilber accounts for the possibility for formal circumstances to change, while structured relations of dominance persist not in spite of those changes but *by means* of those changes (which serve to keep the status quo intact) (Aglietta, 2000)—and Wilber's accounting of this tendency in capital becomes part of his model of reality at this moment. A trait of capitalism, a historically contingent and unnecessary regime, is given ontological significance by Wilber's holism. The eleventh characteristic of the holon reifies this class separation that capital both reproduces and depends upon: "*The micro is in relational exchange with the macro at all levels of its depth*" (p. 73). This means that global regimes produce local formations, which in turn reify global regimes, in part through the consciousness of those subject to this causal loop;[41] "as holons evolve, each layer of depth continues to exist in (and depend upon) a network of relationships with other holons at the same level of structural organization" (Wilber, 2000b, p. 74). Wilber presents here a broadened purview for on an old claim, that of class consciousness. According to Lukacs (1967), "class consciousness consists in the fact of the appropriate and rational reactions 'imputed' […] to a particular typical position in the process of production" (p. 51), which is to say, one's consciousness is conditioned by work and work among others in the same position or "level" relative to the superholon that subordinates them (in this instance, that of capital). Lukacs observes, however, that this is not always obvious; one of the functions of ideology is to transform a subject's understanding of social phenomena that are wholly contrived into naturalized, normal, even spiritualized *realities*; in Lukacs's (1967) words, "[t]he division of society into estates or castes means in effect that conceptually and organizationally these 'natural' forms are established without their economic basis ever becoming conscious" (p. 57), because if this basis were to come to consciousness, the "pull to pattern" Wilber identifies with ideology (to anticipate the story) would risk disintegration. Presently, this is increasingly articulated as a multitude against Empire (Hardt & Negri, 2004) constituted by beings with little in common culturally or historically except a subaltern position in the "depth" of holarchy—the same "level," as Wilber expresses it.

Wilber concludes his narrative of evolutionary idealism on the topic of spirituality, unambiguously inscribing the ontology he builds into the Providential scheme suggested by the Hegelian speculation latent in his sixth characteristic of the holon. Wilber claims that "Evolution has directionality" (p. 74), which implies increases in "complexity" (p. 74), "differentiation/integration" (p. 75), "organization/structuration" (p. 78), "relative autonomy" for the superholon, such that "the greater the depth of a holon, the greater its relative autonomy" (p. 78), and "telos" (p. 81), a concept Wilber develops at length: "the end point of the system," its deep structure,[42] "tends to 'pull' the holon's actualization (or development) in that direction" (p. 81). These "attractors" or end points are "examples of the regimes or organizing forces of social holons and their inherent teleological pull to pattern" (p. 82). "Regime," "telos," and "organizing forces" are *ideologies* (Anderson, 2008), or the "political unconscious" of a given social order (Jameson, 1982). Wilber speculates that "God may indeed be an all-embracing chaotic Attractor" (p. 85)—which is to say, God may well be the political unconscious, the regime, the *ideology* of that order. Wilber's speculative God, in this instance of consumer capital, is functionally a comprehensive marketing and human resource management strategy. Turned around: Wilber's view of God and Kosmos in this instance is in his own terms a code (attractor, regime) that expresses this ideology, and arguably serves that regime which in Wilber's view holds the holarchy together in an embrace[43] (the nature and value of which is explored in sections *Imagining a Postmetaphysical Macropolitics* and *An Experiment in Radical Democracy*). This means *there are no "pathological holons" except in resistance to the ideologies, regimes, "attractors"* (any one of which or the aggregate of all *might* be God) *that keep the superholon whole, intact, and functioning*. Because depth is good, and increasing depth is good, the dissolution of depth any hypothetical withdrawal from the superholon implies is by definition a counterdevelopmental, counterproductive, counterintegral gesture in Wilber's terms. Here, I think Wilber is fundamentally wrong, dangerously so.

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[41] As Marx expresses this position in the *Manuscripts* of 1844, "the *social* character is the general character of the whole movement: *just as* society itself produces *man as man*, so is society produced by him" (p. 85).

Holarchy and Macropolitical Praxis

Wilberian holarchy is inherently political insofar as it is concerned with the relations among beings who are subordinated to others, such that those higher in the bureaucratic order, the superholon and its telos, are necessarily responsible for the development and well-being of the lower, while the lower is in possession if not control of resources needed to maintain the order by which the higher is higher and the lower, lower. That is: the superholon becomes responsible for those subject to it, and uses the resources of the totality (its labor, its creativity, its resources necessary for continued existence) for its own purposes, the accumulation of capital, or complexity, or depth, in this sense planting its banner in the dirt to claim the whole for itself as part of the whole. The empowered subject makes objects of less-powerful subjects—a perverse object of responsibility—rather than relating to other subjects as coherent others in their own terms.

Parenthetically, Wilber's most explicit public comments on interventionary politics—his unfortunate[44] post at the Ken Wilber Online website, "The War in Iraq" (2003b)—does nothing to contradict this analysis, although here Wilber works from different premises, specifically his muddled and contradictory iteration of Spiral Dynamics. Wilber assigns to a "second-tier" value system on which a utopian "World Federation" would be established, the task of preventing "any first-tier memes from dominating, attacking, or exploiting any other populations," equating "memes" and "populations" (which are quantitatively and qualitatively different things) in the process. Parenthetically, according to Spiral Dynamics this imperative to prevent bullying and allow all subordinated voices to be heard would be read as a manifestation of the "green" vMeme, not the "yellow" one Wilber assumes it to be.[45] Wilber then claims that all "orange or higher" political structures (where "orange" is ambiguously defined either as capitalism proper or as the value system of capitalism) anticipate this and are already functionally "second-tier" themselves. This means that the hegemonic order of the global north, which Wilber catalogues by name—"Germany, France, America, Britain, Japan"—integrated global capital, the "orange" value system, is already "yellow" or integral.[46] This confirms the previous interpretation of Wilber's holarchy in that structures claimed as relatively more evolved or "higher" are actually spiritualized expressions of contemporary global power dynamics, as of the second Bush administration—that Wilber's metaphysics are in one sense a representation of contemporary social and political relations mapped onto subjective and objective *space*.

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[42] Wilber's adaptation of tree-diagram Chomskian linguistics—surface structures and deep structures (p. 68)—should be contrasted against Deleuze and Guattari (1987) on the rhizome (pp. 3-25), which directly critiques Chomsky on this point.

[43] The imperative here is to offer one's volition upward to a more evolved, deeper organ, which then takes responsibility for one's transformation and self-transcendence. By contrast, I follow Shantideva (1997) and Chagdud (2003) in proposing that one's volition should be intentionally devoted in all directions toward the recognition of the needs of others.

[44] This document is riddled with non sequiturs, ad hominems, unwarranted evidence, contradictory terminology, misattributions, and shrill rhetoric. Its claims are advanced exclusively by forceful

It also corresponds to another trend in Wilber's writings: when he does endorse a coherent political position, it tends to be a neoliberal, pro-interventionist (or anti-anti-interventionist), even reactionary, position. Berlant (1997) offers a political context for the non sequitur expostulation against the "hypocrisy" of American protestors against the Vietnam war, inclusive

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declamation and emotive appeal (see sections *The Claim of Evolutionary Idealism* and *Mechanics of Make-Believe*). For this reason, I will refrain from critiquing it as if it were a serious work of scholarship, only as an artifact that confirms findings already established in Wilber (2000b). To give but one example: Wilber claims that Tony Blair cannot be accused of "defending his oil interests" as a rationale for his unquestioning support of Nixonian intervention in Iraq because the U.K. is a net exporter of petroleum—forgetting or ignoring the longstanding investment of British capital by profitable British firms in Iraq, beginning with the very creation of the Iraqi state by the British for the purpose of these oil rights under the British Mandate for Mesopotamia, after the division of the former Ottoman Empire by northern powers (Samson, 1975) that was disrupted by Saddam Hussein's nationalization (but not socialization) of the oil industry. Wilber's historical claims on Blair are thoroughly discredited by the 2002 Downing Street memos (Danner, 2006).

[45] Wilber's application of Spiral Dynamics replaces arguments and proposals for and against different values or methods which are qualitatively heterogenous with a color-coded, systematized rubric of value systems or "vMemes," which are qualitatively homogenous. This move leads Wilber to equate all work in humanities disciplines as "green" or "boomeritis," inclusive of rigorous analysis of the type Jurgen Habermas practices (to emphasize a Wilberian favorite) and the uncritical speculation on popular culture Wilber parodies as self-indulgent gabbing about unimportant things (Wilber, 2003a). If both are green, then both are "first-tier," and therefore one is not more or less useful or valuable than the other by the logic of Wilber's adaptation of the Spiral—clearly an untenable position.

[46] It follows from this that Allende's move away from "orange" patterns of domination, which according to Wilber are somehow "yellow" patterns of integration, toward local control and a flattened, democratized social space, could be interpreted as an instance of the domination of "blue" nationalism over international "orange" property claims, justifying an "orange" intervention to "curb" this project (see section *The Endgame; Or, Limiting the Indeterminacy*)—just as Bush's actions serve to curb "red" terrorism, according to Wilber (2003b).

of bourgeois dilettantes who joined in for their own reasons, aired in Wilber (2003a, pp. 60-61) with no rebuttal):

> The antiwar, antiracist, and feminist agitations of the sixties denounced the hollow promises of the political pseudopublic sphere; then, a reactionary response grew dominant, which claimed that, in valuing national criticism over patriotic identification, and difference over assimilation, sixties radicals had damaged and abandoned the core of U.S. society. (Berlant, 1997, p. 3)

Wilber's sentiments, voiced by Fuentes (an instructor at the fictional Integral Center), identify him wholly with that reactionary response.

To return to holarchy, the practice of any regime may be critical, compassionate, competent, and conscious—it may be responsible—but it is not *necessarily* so (and even if it is irresponsible, it is still spiritualized for Wilber, it is still maybe-God). My retelling of Wilber's holarchic story suggests some ways in which it may be abused by an irresponsible regime, insofar as it is an accurate, spiritualized representation of what Litfin (2003) accurately diagnoses as a problematic political order (Anderson, 2008). The evolutionary-idealist picture Wilber paints and Litfin evokes may be a valid one on theological grounds; it may be useful therapeutically in some contexts; it has a certain appeal aesthetically. It is not unproblematic, however, and its problems (particularly as regards social and political applications) are such that an altogether different theoretical approach from it (Anderson, 2008) is in my view a more efficient and plausible beginning than the alternative of reconsidering or revising the evolutionary-idealist position to account for those problems.

Worded differently, this analysis of Wilber's ontology is only concerned with its practical application as social and political theory. I make no claims regarding its validity or veracity as a specific theology, however, a theology that claims to coincide with some trends in contemporary science. Wilberian metaphysics is not unique in this sense, either; the theology of Joseph Smith Jr., for instance, was consonant with certain emerging trends in the social sciences of his moment, such as Ethan Smith's *The View of the Hebrews* (1823). I do not wish to dismiss *belief* in evolutionary idealism.[47] Rather, my purpose here is to demonstrate the value of a rigorously postmetaphysical integral project, open to a spectrum of doctrines and metaphysics but not predicated on any one of them, for the purposes of social and political action (Anderson, 2008) relative to the problematic, divisive, and unjust social order implicit in *this* particular theology.[48] Toward this end, I explicate a more conspicuous postmetaphysical project, Blake's vision *The*

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[47] In the diction of Wilber's comments on Iraq, I want to propose that an authentically integral space is one in which no theological project is permitted to dominate any other one—and that an authentically integral theory will, by necessity, be nontheological, in order to accommodate all possible theologies (Anderson, 2008).

[48] If all major spiritual traditions affirmed Spirit in the way Wilber does, as Litfin (2003) argues, then this critique of Wilber's theology would be directed to all major spiritual traditions—it would, in effect, be an argument against theology as such. This is not the case. Since I reject the claim that they do, I also do not claim that this critique of Wilber's theology has any necessary implication for any theology other than Wilber's.

Four Zoas, that is explicitly informed by and articulated in the language of dissenting Protestant theology (see section *Imagining a Postmetaphysical Macropolitics*).

Conclusion to Metaphysical Macropolitics

In sum, when Litfin (2003) proposes to replace the current pathological story with a more comprehensive, meaningful, and constructive one, she effectively reproduces the old order in a bigger, more absolute context. The task remains to identify some means for introducing a legitimately new course of action. I find that an old source may have something new to offer for an integral theory of political action: Blake's masterpiece, *The Four Zoas*, which proposes a wholly different view of political responsibility from Wilber's evolutionary idealism, in which the multitude becomes-responsible for the totality as an act of goodwill to an other taken seriously as an equal, not as an imperialistic act of envelopment and disenfranchisement. The subaltern sings, slavery of all kinds is abolished, and ordinary beings find responsible, "virtuosic" ways to organize their own freedom in *The Four Zoas*.

Imagining a Postmetaphysical Macropolitics

"Just as philosophy begins with doubt,
so also a life that may be called human begins with irony."[49]

Introduction to *The Four Zoas*

Before proceeding, a qualification: the question of Blake's politics (or rather, the coherence of the political gestures identified with the author William Blake) represents a longstanding division in Blake scholarship. This can be summarized in a rough-and-ready way on one side by Damon's (1965) compaction of the Blakean complexity to a Jungian personal metaphysics, historically favored by readers seeking to recover a *private*, transcendent mysticism from Blake's writings (symptomatically from the static nationalism of *Jerusalem* the epic and "Jerusalem" the lyric) and on the other side by Erdman (1969) and on more explicitly normative grounds by Thompson (1993), recuperating Blake not as a God-and-country introspectivist but as a "prophet against Empire" aspiring to a *public* intervention. Neither position represents the totality of Blake's oeuvre without serious qualification or outright contradiction, like the angels and devils mistaking their limited points of view with an absolute or complete narrative of right (though Blake typically sides with the "Satanic" position) in *The Marriage of Heaven and Hell*. I find both approaches wanting and the enterprise of constructing a unified and unproblematic author-function unwarranted, counterproductive, and cultish (Foucault, 1977). I propose instead to read *The Four Zoas* not as the timeless expression of an Important Author's good judgment

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[49] This is Kierkegaard's main claim in *The Concept of Irony* (1989), an important contribution to the development of Rorty's concept of a postmetaphysical culture, a concept Wilber has consistently claimed as his own (Anderson, 2008). Arguing directly against an aspect of Clark's (1991) analysis (in her comparative study of Blake and Kierkegaard), I find there are ways in which Blake can be understood to be concerned with questions of "community or human 'solidarity'" (p. 109), but I agree with Clark that such a solidarity is not in the last instance premised in the traditional way on identity or adherence in *The Four Zoas*.

(necessarily eschewing at the same time any self-aggrandizing pretense to be, myself, a Respectable Expert on said Important Author), but as an artifact of a particular time and place when democratic alternatives to nascent capital were lived realities. Linebaugh & Rediker (2000, pp. 344-351) locate the text in a period of Blake's career when he publicly identified and interacted with active republican and anti-slavery causes, calling for the freedom and enfranchisement of all (and not only the English, as his later work implies). It is not implausible to suggest that Blake's most involved work of this period included in it a still-relevant critique of a social order predicated on impressments and slavery, and a vision for an alternative emerging from that critique. My claims on *The Four Zoas* are not intended to be last-word authoritative or to account for all of Blake's writings—I do not seek to ventriloquize Blake or any other now-fetishized sage of the canon, or to recuperate an "integral" canon—but they are suggestive of a properly integral political vision itself largely unencumbered by the desire for authoritative final answers from singular Great Minds.

In contrast to Wilber's idealism, Blake's transformational project as presented in *The Four Zoas* is primarily temporal rather than spatial or structural. It proceeds in three discrete steps. First, a static, pathological hierarchy kept in place by make-believe and mimicry[50] motivated by unchecked and irresponsible will-to-power is established, and the nature of that pathology is explicated psychologically and domestically; then, the poem introduces a surprise that disrupts this hierarchy and temporarily makes of it a smooth, organless state, after which a new set of values is introduced.[51] This proves to be a bottom-up, rather than a top-down, transformation.[52] Since this is not a conventional way to read *The Four Zoas*, each of these steps is recreated in detail below with references to the Wilberian gestures discussed above in section *Metaphysical Macropolitical Doctrines*.

Time and Telling

The Four Zoas is a paradox: a Big Book,[53] an integral project, on the limitations of Big Books and a fully-elaborated all-quadrants, all-lines integral theory.[54] The poem earnestly courts comparison to *Paradise Lost* by its frequent and explicit allusions, showing a concern for being received in the context of epic and in contradistinction to Milton's imperialistic theology (Evans, 1996). Many of the poem's nonparodic features mark it most conclusively as such: it more-than-encyclopedic scope, its exoticism, and its unity of form, manifested by means of an elaborate and symmetrical ring composition. Ault (1987) has mapped in close detail the symmetrical and pseudo-symmetrical patterns of mirrorings, repetitions, and embeddings by which Blake structured the poem. According to Ault, each Night constitutes a ring composition, as does the entire poem; further, the first three Nights taken together mirror the last three taken together, constituting a point of contact with the wholeness/partness condition of the holon as Wilber describes it. More interestingly, patterns of repetition (with difference), a familiar Kierkegaardian theme, give a feeling of mechanical, top-down inevitability to the events of the poem, against the current of which more responsible or virtuosic actions must swim. In this sense, an arbitrary hierarchy is reproduced as a set of relations across time as well as space.

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[50] In this section, the concepts of mimicry and make-believe imply but do not develop a comparative study of cognate concepts in Lacanian psychoanalysis (*Wiederholungszwang*), Gurdjieffian practice, Benjamin's critical theory (among others) and Blake's political and aesthetic vision. Such a detailed analysis is beyond the scope of this paper but a fruitful point of departure for future work.

[51] This contrasts Wilber's (2000b) emphasis that increasing grade, depth, and complexity is a positive development, a symptom of spiritual growth for individuals and societies (p. 78).

[52] For Wilber, transformation is how a holon acquires more levels, which "produces greater depth, and less span" than before (p. 68). I call such a process development in Anderson (2008). Transformation as I explicate it in Blake should be contrasted against Wilber's view of transformation, rather than compared to it.

[53] According to Wilkie & Johnson (1978), *The Four Zoas* is "one of the most encyclopedic works of the last three centuries, a deeply considered critique of public values" (vii).

[54] While critics such as Bakhtin (1981) assume that individual epics aspire to a kind of unity, according to Quint (1993) the genre of the modern epic inclusive of *The Four Zoas* is discontinuous. This discontinuity proves to complicate Blake's project, because the genre of the dissenting modern epic has nearly as long a history as the Virgilian epic does. Quint traces the history of two epic traditions apparently but not actually in dialogue with one another in the west: that of the "winners," identifying their own interests with that of imperial power (The *Aeneid* and its successors), and that of the "losers," which functions

Characters throughout *The Four Zoas* lament a lost golden world, an absolute past of pleasure and peace. According to Ahania, "liberty was justice & eternal science was mercy" (39.11) in this prelapsarian time. *Paradise Lost* is primarily concerned with this beginning of history as a theological matter, promising from the start a moment when "one greater Man/Restore us, and regain the blissful seat" (1.4-5) but never showing precisely how this promise can be fulfilled. That paradise is also lost for most of *The Four Zoas* is obvious in that something has intervened in the lifeworld of the poem's characters, dividing them from each other and the fruits of their labors and intentions; much more unique (also in contrast to *Paradise Lost*) is Blake's narration of the End of History, which brings about a return to this state of affairs by special means (see sections *One Way to Stop Pretending and Start Transforming the Whole (Damned) Thing* and *Kindness and/as Revolutionary Praxis*). If *Paradise Lost* promises to assert Providence through the grand narrative of Christendom, *The Four Zoas* is intended to provide an even more complete version of that teleology, including the intervention of a pathological social order and a redemptive end to its naturalized, repetitive patterns of use and abuse that characterize everyday life under that regime—in short, to show how Providence is asserted politically (a first intervention). This end leads to an instance of improbable logic: *Blake's epic is still more absolute in its repudiation of absolutism than Milton's presumptively encyclopedic epic* because it seems that much more complete, even as Blake disregards the singular metaphysics of God as exclusive character or monotonous voice. Paradoxically, in terms of determination and causality, *the text not needing to posit a personal God becomes more inclusive of the subaltern, of time,*

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satirically in relationship to both the politics and the structure of the Virgilian epic (The *Pharsalia* of Lucan, for example). Virgil founded the literary and political conventions of the written epic. According to Quint, "The *Aeneid* had, in fact, decisively transformed epic for posterity into both a genre that was committed to imitating and attempting to 'overgo' its earlier versions and a genre that was overtly political: Virgil's epic is tied to a specific national history, to the idea of world domination, to a monarchial system" (p. 8). By contrast, "paths of resistance to epic triumphalism assume a common shape: in opposition to a linear teleology that disguises power as reason and universalizes imperial conquest as the imposition of unity upon the flow of history, the dissenting narrative becomes deliberately disconnected and aimless" (Quint, 1993, pp. 40-41), as if to show that history is not going anywhere in particular, regardless of what the empowered say in authorizing their own position.

and of possibilities for real transformation than the metaphysical one claiming to justify His existence and to describe the practical application of His Being.[55]

Paradise Lost presents an exotic, mythopoetic world in its concern with space and time beyond mundane comprehension; presumably, none of Milton's readers can *really* know the actual breakfast conversation of Adam and Eve. Similarly, *The Four Zoas*' opening introduces the reader into a necessarily exotic world relative to mundane human existence: "Four Mighty Ones are in every Man […] The Universal Man" (3.4-6). This verse, heavily glossed with references to the Gospel of John, insists that the figures of the following action, the titular four Zoas—Urizen, Tharmas, Urthona, and Luvah—are actually present in the reader (assuming in the process that all readers are literally men, and that all readers will identify themselves with its model of the subject, the Universal Man), and in fact present an accurate map of the reader's person and potential. Traditionally, this poetic and rhetorical technique is called *psychomachia;* it is not without significant precedent in English print culture (Anderson, 2003).

One means Blake employs to encourage his audience to identify with the psychomachia is to tie it to national identity, a strategy used for explicitly nationalistic, even paranoid, ends by Phineas Fletcher in *The Purple Island* (Anderson, 2003). The Purple Island topos works on the principle that what is true psychologically and physiologically for an individual consciousness stands without fail for religious and cosmological truth, and also holds for the body (and mind) politic. This is holistic in its nature. Blake adopts a similar allegoric logic in *The Four Zoas*. The Universal Man, Albion the Giant, is identified without equivocation as England early in the poem (an expedient nationalism crushed in the poem's revolutionary finale), as evidenced by the names of his circulatory organs: "Groans ran along Tyburns brook and along the River of Oxford" (25.7). And as in *The Purple Island*, the peak of the political structure of the poem's subjective space is found in the brain, "Where Urizen & all his Hosts hang their immortal lamps" (11.17). The world of the poem is further made exotic by the behavior of the landscape, which does not abide by conventional physics. It is sympathetic rather than static, changing in one instance from a space resplendent with flowers and "rivers of delight" as Los and Enitharmon pass through happily, into a series of "dismal vales" and "iron mountains" as they return racked with guilt (61-62). The irony of Blake moving Milton's exotic into psychomachic space lies in the same assumption that all readers will recognize the elements of the action within themselves and their culture, allegorically;[56] that which is most foreign to experience—a time before the beginning of time—becomes an aspect of that which is most near, the stuff of one's body, being, and becoming, an intimation of nonduality (Anderson, 2008).

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[55] *The Four Zoas* relies on a different theory of determination from Paradise Lost and from Wilber and Litfin. The agent of transformation is not Spirit or God—it is a human recognition of error and a contrary resolve toward compassion-in-action among active subjects (a basic virtuosity). I do not claim Blake excludes his dissenting Protestant God from the poem or from politics; I do claim that the role of said Godhead in political theory differs from an idealistic position in this respect. The total vision of *The Four Zoas* is theological to the core if idiosyncratically so.

[56] Buck-Morss (1991), working from premises in Walter Benjamin's critical theory, examines this kind of allegoric thinking as a form of critical practice analogous to waking from a dream (with some relevance to the practice of lucid dreaming): one must recognize the dream as a dream before waking from it (or in it) and acting on it (or in it) meaningfully.

Mechanics of Make-Believe

Instead of asserting absolute authority, the Miltonic mandate to justify the ways of God to anyone, Blake relentlessly represents the mimetic consequences of that gesture of discursive and ideological power, describing an impenetrable, preposterous, turtles-in-all-directions field of subordination and domination, a great bureaucratic chain of *bindings*. This is the first state from which the poem's transformative model begins, the problematic of the present. The problem is not a mythopoetic fall of man, but a perverse and divisive social experiment.

Initiating the action of the poem, Urizen the usurper establishes a certain pattern of behavior that is congenial to his own idea of empire, and the rest imitate him (or enact a Great Refusal of doing so) in ways suggesting both assent and dissent at once. The characters of the poem mimic Urizen's self-fashioning because they are constituted to do so as Urizen's subjects. His power and his means reproduce as others imitate his power and means. But no imitation is perfect; each instance represents a duplication with a difference, and that difference, when observed, makes the act of mimicry explicit (Bhabha, 1994). This bears an important relationship with Blake's preoccupation with demonstration and doubt, and Blake's parody of Urizenic denial of material conditions and affirmation of self-serving Cosmic-scale make-believe.[57] The figure of Urizen, the specific form of his self-fashioning, embodies many forms of absolutism recognizable to an eighteenth-century audience—that of the monarch, the rationalist, and the epic poet—all conflated in the figure of the seemingly divine sage of the sun, as if each assertion of power represents a legitimately unlimited imperial stake. Blake is invoking a convention of epic established by Torquato Tasso, where "rationality" becomes "embodied by the teleological epic plot" (Quint, 1993, p. 38). The epic hero and the epic poem are made representatives of normative rationality; Urizen embodies this. Imitating Urizen, the others produce occasionally dissenting behaviors that show how Urizen's are constituted by contrast with them.

Urizen behaves as one would expect a colonial power to behave, by now-familiar mimetic means, disrupted by transformational surprise.[58] According to Bhabha (1994), "[t]he success of colonial appropriation depends on a proliferation of inappropriate objects that ensure its strategic failure"—a slave mimicking a master must remain a slave, the fact of which disrupts said mimicry—"so that mimicry is at once resemblance and menace" (p. 86). The menace is the threat to order, to the coherence of regime, presented with the assumption that any subordinate element could become the master *fully* and without qualification or accountability (see section *Retelling the Epic of the Superholon*). As such, "[m]imicry *repeats* rather than *re-presents*" (Bhabha, 1994, p. 88). And a knowing, parodic take on this repetition informs Blake's rhetorical, poetic, and thematic strategies.[59] Irony induces a practical skepticism, minimal doubt; this doubt discredits the *mechanical* kind of belief needed to maintain the absoluteness of the absolute, making space for virtuosic action. Blake pursues this line of thinking to its logical end, long before Richard Rorty began to propose the basis of a postmetaphysical culture in precisely this kind of humane irony (Anderson, 2008).

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[57] Blake's merciless parody of the political, authorial, and implicitly commercial uses of claiming to be God (or of God, or uniquely knowing God) does not foreclose the possibility that someone may in fact have been God, or be God, or become God—a possibility Blake's theology in fact depends on. It also depends in every case on the assumption that for such a performance, there will be a ready set of followers.

[58] In a related context, Ziporyn (2003) offers a suggestive recontextualization of alterity: Revolutionary desire is "the only true revolutionary ethics," in that it is "the desire for the *wholly other*. This is the desire for *everything without exception*, including oneself, including the rules, including the parameters making the field of experience possible, to be *otherwise*" (Ziporyn, 2003, p. 410). This is the precise counterpoint to mimicry. As will be seen, Enitharmon's diabolical abandonment of all known values in a moment of impiety, behaving with kindness and in a sense creativity rather than mimicry, is such a moment. It is a miracle. Every being is participating in this; for Ziporyn (2003), it is up to each holon to accomplish this, or to be led through "potentially disastrous" consequences in the form of a pathological regime (p. 416). In language that echoes Deleuze-Guattarian desiring-production: "every moment of experience is inescapably a revolution, setting up a new standard of value" (Ziporyn, 2003, p. 417).

As a Sun King, Urizen's self-promoting rhetoric conflates political and supernatural power: "I will walk forth thro those wide fields of endless Eternity/A God & not a Man a Conqueror in triumphant glory/And all the Sons of Everlasting shall bow down at my feet" (95.22-24). His bad-faith claim to be God authorizes the absolutism of his politics and by implicit fiat his role in that political structure, which manifests in the form of a maritime empire, under which "slaves in myriads in ship loads burden the hoarse sounding deep/Rattling with chains the Universal Empire groans" (95.29-30). This empire, in its literal universality, subsumes everything, and by this logic it can presumably reach any corner of any space and claim that space for itself because all of everything is always already part of itself. Blake's knowing use of Virgilian epic conventions establishes Urizen's character very efficiently. Urizen's epithet, typically, is Prince of Light; that Blake bestows upon him a ridiculous number of additional epithets is telling of his skeptical and mocking attitude toward Urizen's hyperbolic epicness and philosopher-sage acumen and Importance—of the pomposity of his claim to be God, king, and knower of everything at once. One such is "the great Work master" (24.5), which corresponds to Urizen's behavior insofar as he masters the work of others while others do not affect his; he orders a bower built "for heavens darling in the grizly deep" (24.7), invoking Satan's role as project manager of Pandemonium's construction in Book One of *Paradise Lost*, where presumed or performed imperial power is mimetic of God's putatively real power in heaven. After landing at the burning lake, Satan rises up giving commands, and those around him follow as if the performance had been scripted; banners rise from nothingness, trumpets sound, a war machine is prepared, and a cherub "forthwith from the glittering staff unfurled/Th' imperial ensign" (1.525-570). Beelzebub complains that God may "over hell extend/His empire, and with iron scepter rule/Us here, as with those in heav'n" (2.326-329); Milton explains that the "sword of Michael," having smitten them, induces in them "no less desire/To found this nether empire[…]/In emulation opposite to heav'n" (2.294-298). The experience of political defeat subjectifies[60] the defeated ones in such a way that they intensely desire to construct for themselves a political order both in opposition to and imitation of that which defeated them, a resentful recipe.[61]

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[59] Blake exaggerates in Urizen the kind of hero Alexander Pope presents in his translation of the *Iliad*. Pope (1967) takes pains to represent Menelaus, the cuckolded King, as a dignified figure to be taken seriously; "his Character is compos'd of Qualities which give him no uneasy Superiority over others while he wants their Assistance, and mingled with such as make him amiable enough to obtain it" (p. 206). Pope does not elaborate or demonstrate Menelaus' goodness; to assert it is enough. Pope recognizes that interpreting a monarch's actions ironically, as he accuses Chapman of having done, as "a Character of Ridicule and Simplicity" (p. 206) is to introduce skepticism of an assumed absolute into a text predicated on the inviolability of such an assumption. Pope is not willing to doubt his assumption that kings inherently practice politics in good faith.

[60] Foucault (1983) discusses the kinds of processes by which Urizen and his imitators produce their roles in terms of subjectivity constructed by means of power imbalances. In his late essay "The Subject and

Blake directly invokes this pattern in the behavior of the Zoas toward each other, each one imitating Urizen's power through building projects and violence as they take turns being God and king. Urizen, the Prince of Light, is revealed to be a version of Milton's Satan rather than Milton's God, as he pretends to be (as Satan does). Curiously, Satan is himself a subaltern in that he is imitating (rather than being) God; Urizen, the parodied figure of the emperor, is a direct imitation of the most comprehensive loser the European imagination has produced, the endlessly resilient and resentful devil. Blake reminds the reader of this through juxtaposition of Urizen's shape-shifting body and geographic location and his ideas about himself. Even when in the form of a dragon-tailed Satanic beast in the abyss, Urizen ironically keeps his epithets intact in the face of their falsehood: "the King of Light outstretched in fury/Lashes his tail in the wild deep his Eyelids like the Sun" (106.41-42). The mind of Urizen is, indeed, its own place. With this elaborate set of allusions, Blake suggests that one means by which empire is authorized may only be a performance of conventional make-believe gestures, and a blatantly incompetent one.

Pointing out the potential unreality of a *Weltanschauung* assumed to be concrete is fundamentally an act of dissent by means of doubt, or skepticism. Urizen moves against the potential for dissent by effacing the power of skepticism. He assigns to the rhetoric of science certainty, and claims *this* science for himself; to this end "schools [are] Erected forming Instruments/To measure out the course of heaven" (28.20-21), which heavens are soon arbitrarily "squared by a line" (30.10), suggesting regimented bureaucracy and the inadequacy of phenomenal reality to reflect Urizen's performed splendor, and a pedagogy that bends science to doctrine and ideology, reducing knowledge to story and spectacle (Debord, 1995). Urizen wants nothing in his performance to disturb the suspension of disbelief, not even the existence of material reality, as if observing the world of phenomena and drawing conclusions from it could undermine his project of absolute dominion. Blake parodies here the methods of absolutism by drawing it to its logical conclusion, and shows the twisting of scientific means and vocabulary to

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Power," power becomes a "form" but also as a "technique" as it conditions the individual and individual behavior:

> power applies itself to immediate everyday life which categorizes the individual, marks him by his own individuality, attaches him to his own identity, imposes a law of truth on him which he must recognize and which others have to recognize in him. It is a form of power which makes individuals subjects (p. 212).

Rhetoric and performance are used here as tools in the service of power, crafting cells in a body politic to behave in predictable ways useful to power. For Foucault, the identities thus manufactured are useful to the empowered as real-time dramaturgy, which conditions or subjugates members of its audience, who then reenact that drama, continuing the process of subjectification. Representing a story authorized as history is a re-representation of an earlier performance to an audience suspended of its disbelief. To be authoritative, it must be familiar, bearing (repeating, reifying) familiar features.

[61] Nietzsche, among the first to explicitly analyze resentment as a condition of modernity, frames it much as Blake does implicitly, as an internal conflict corresponding to a concrete social situation:

> Certain human beings have such a great need to exercise their force and lust to rule that, lacking other objects, or because they have always failed elsewhere, they finally have recourse to tyrannizing certain parts of their own nature, as it were sections or stages of themselves (Nietzsche, 1992, p. 151).

accomplish the rhetorical ends of power, repeatedly invoking paradoxes illustrative of skepticism's potential power over discourse. Blake asks, "Is not the wound of the sword Sweet & the broken bone delightful" (92.36). One must take it on faith alone that war wounds are pleasant, and contradict the personally verifiable experience of pain. Again, reason and the scientific method are excluded as legitimate means of knowing (see section *The Claim of Evolutionary Idealism*). The kind of faith that by necessity contradicts experience of everyday phenomena makes Urizen's absolutism and the violence that follows from it possible. In this sense, Blake's equation of rationalism, the epic genre, the tropes of the Important Canonical Writer, and religious hegemony is not only in response to Milton and the history of epic, but also contemporary religious expression.[62]

Urizen's turn as an epic poet invokes tangentially Milton's own biography—an old man pushed from a position of political power into an obscurity allowing him to write Very Important Books—but more importantly, the use to which absolute epic rhetoric can be put: maintaining empire and the status quo of the empowered class. Urizen is closely tied to the books he writes, as if the books signify his being, and his presence or brand-image guarantees the validity of the books. Urizen the travels with his books, constantly arranging them about himself like a pieces of a self-conscious costume (77.19, 78.13); he answers Orc's questioning of him with the command, "Read my books explore my constellations" (79.20) and, hilariously, claims to be God again straightaway (79.23). Urizen assumes an overdrawn image of the *vates*, an icon: "Hair white as snow coverd him in flaky locks terrific/Overspreading his limbs. in pride he wanderd weeping/Clothed in aged venerableness" (73.28-30). His arms and legs covered over with his terrific hair, Urizen the icon becomes so hyperbolically overdrawn as to be useless for work; he is reduced to a legacy, a piece of rhetoric for the eyes, a preposterous spectacle of a man presenting himself to be Very Spiritual (or at least more spiritual than the others) in order to promote himself politically. Further, this costume seems intended to give some credibility needed to the bizarre and implausible claims he makes about his own knowledge. Urizen narrates in his "books of iron & brass" his reminiscences of "The enormous wonders of the Abysses" (70.3-4). Like Milton himself, Urizen claims knowledge of that which is beyond ordinary apprehension, and his books—like patterns of belief—seem supernaturally sturdy across expanses of time and space. Urizen dies and awakes from death during his descent into a

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[62] Rosso (1993) situates *The Four Zoas* in "a distinct tradition of Anglican apologetic poetry" that includes poems by Edward Young, William Cowper, James Thomson, and Alexander Pope (p. 48-49). When Blake's project of illustrating Young's *Night Thoughts* collapsed, "Blake salvaged the work by co-opting proofs from his *Night Thoughts* designs," and directly "inserted his own text into the blank space reserved for Young's poem" (p. 49). While he does seem to be sending up *Night Thoughts* specifically, Blake is more concerned with targeting the more robust epic tradition, as evidenced by his nearly obsessive parody and praise of Milton. Rosso puts this intertextuality in the context of eighteenth-century English religious history: "The liberal wing of the Anglican establishment consolidates its power between 1680 and 1720, when the concepts of mechanical science make their way into the common language of philosophers, preachers, literary journalists, and coffeehouse wits" and many poets (p. 51) working under the anxiety of Milton's influence. As with Urizen and his followers, only the vocabulary and not the method of science is embraced. Ironically, scientific language, predicated on doubt and experiment, becomes a means of erasing doubt. By Newtonic theology, "The Creation becomes a model for a stable polity, as God is manifest not only through the laws, order, and harmony of nature, but, by analogy, through the law of right reason within" (Rosso, 1993, p. 52). The sound of Urizen's name—voiced as "your reason"—suggests Blake's view of this development.

Miltonic hell repeatedly, and as his body rots and falls away, “the books remaind still unconsumd” (71.35-38); according to Blake, “such a journey none but iron pens/Can write And adamantine leaves receive” (71.41-42). Blake compares the creation of these seemingly static and eternal documents with the act of government—Urizen often seats himself “in a dark rift” in order to “regulate his books” (72.6)—implying that the persistence of political forms is tied not only to the adamantine pretensions of epic conventions and positivist, metaphysical expostulation, but more importantly to implicit belief in the discourse of self-serving political figures such as Urizen who use the pretense of timelessness embedded in such gestures to maintain and enlarge their field of power.

In making of himself this spectacle of the Great Man of Great Books, Urizen is *doing politics*. Specifically, Urizen’s self-fashioning presents the intersubsumption *not* of knowledge and power as in the familiar Foucaultian formulation, but of power (“I am God”) guaranteed by threats and acts of violence *integrated with a simulacrum of the production of knowledge* (“read my books”)—a belief system in scientific drag, passing as reason, and promoting itself as more than merely authoritative but also profound, timeless, important and canonical by means of this performance. From here, a characteristic feature of Wilberian practices of knowledge production and dissemination can be marked if not at present analyzed in comparison to Urizen’s. Wilber’s claims about his person and his spiritual status, as in Wilber (2000a)—the veracity of which I will not contest or defend—serve to supplement or guarantee the validity of his claims to knowledge about Spirit, which predicates his claims about all other things, as in Wilber (2000b). The latter claims then give sense, context, and meaning to the former.[63] Thus, Wilber’s oeuvre is in some ways predicated on the same deferred, circular logic of self-fashioning as Urizen’s.

Ironically, Urizen does not write until he is removed from power, as if his writing is intended to recover his position of actual dominance, but the patterns of his behavior continue as the other Zoas carry on their imitation of and of his self-fashioning. The content of Urizen’s books is strikingly explicit. Urizen reads from his book of brass on power and its means, explaining his use of discourse in maintaining his position of privilege. The excess of unintentional pathos in Urizen’s rhetoric further indicates his tendency toward hyperbole and exaggeration; his conscious use of contradiction seems strategic and Satanic (the mind making a heaven of hell) at once. Urizen’s matter-of-factness is revealing:

> Compell the poor to live upon a Crust of bread by soft mild arts
> Smile when they frown frown when they smile & when a man looks pale
> With labour & abstinence say he looks healthy & happy
> And when his children sicken let them die there are enough
> Born even too many & our Earth will be overrun
> Without these arts If you would make the poor live with temper
> With pomp give every crust of bread you give with gracious cunning
> Magnify small gifts reduce the man to want a gift & then give with pomp
> Say he smiles if you hear him sigh If pale say he is ruddy
> Preach temperance say he is overgorgd & drowns with his wit

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[63] This circularity can be represented schematically as follows: Writer claims X is true; writer claims Y is true. X is premised in part on Y, Y is premised in part on X, and both depend on and reify a certain rhetorical position of the writer as a coherent, homogenous figure of authority.

In strong drink tho you know that bread & water are all
He can afford Flatter his wife pity his children till we can
Reduce all to our will as spaniels are taught with art (80.9-21)

Urizen continually repeats himself, as if he is trying to convince someone—even himself—of the rightness of his violence and oppression, even if denying and obfuscating material conditions through personally-meaningful storymaking is necessary (one imagines his books repetitively cover largely the same material). The strategy he describes here, of rejecting verifiable *Schein* for the sake of a doctrine, a performed *Sein*, seems directed at *creating subjects who only believe and do not doubt*, and who are willing to work for the sake of the one in the role of the absolute; in Wilber's patois, allowing the senior holon to organize their freedom on the promise of metaphysical development (see section *Retelling the Epic of the Superholon*). Urizen's repetitiveness foregrounds the offensiveness of his program. It shows Urizen does not unintentionally, incidentally, or accidentally mistreat those over whom he has power; nor is it a momentary lapse in judgment; he does so again and again. This suggests that repetition is a strategy for making Urizen's social policy normative, naturalized. Urizen constantly and repetitively discourses to a captive audience;[64] his voice is omnipresent from "the temple of the Sun his books of iron & brass/And silver & gold he consecrated reading incessantly/To myriads of perturbed spirits thro the universe" (102.23-25). *Not* listening to this same dull round, disengaging from it, is not possible insofar as it is not yet imaginable. However, that Urizen's captive audience is privately disturbed by his rhetoric implies that dissent is already present and, following this, that any seeming act of faith among Urizen's subjects is also a motivated or interested performance of conviction

Micropolitics of Mimicry

Blake also presents some of the consequences of these broader sociopolitical patterns in the everyday, domestic, and private lives of the Zoas—giving readers an alternative context to the epic sweep of nation that proves useful to the integral project.

Recalling the holographic logic of the Zoas (see section *Mechanics of Make-Believe*), one sees that the patterns of behavior Urizen and the others repeat over and over are both subjective and objective—a psychological and sociopolitical map. Blake exploits Urizen's monstrosity and performativity to illustrate the excesses of empire. Urizen establishes a pattern of violence as the other Zoas mimic his behavior; this process proves to be a means of subjectification and of revealing the limits of its own power. Benjamin (1986), developing a Weberian argument but also in some respects anticipating Agamben's (1998) claims regarding sovereign power and "divine violence," posits that legitimized states assume to themselves a monopoly on violence, which becomes the means of production and maintenance of law, of normalcy (p. 300). Following this and returning to Los, one can suggest that acts of violence performed by those opposed to the regime in power (bracketing the question of the "rightness" of oppositional violence) make explicit the rhetorical and performative nature of that assumption of monopoly;

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[64] This recalls the pedagogy Wilber (2003a) presents, in which students at the IC attend the same repetitive lectures again and again until the "second tier" occurs to them, such that the crowd knows all the arguments and becomes angry or joyful as if by a script or mechanical reproduction. Their stupidity constitutes the laugh-track to the novel's vapid and inconsequential plot.

empire is not so absolute that it can prevent someone from harming another by his own volition, regardless of the norms generated by state violence. The Others, such as Blake's hero Urthona/Los, can inflict cruelty on *someone* to assert their equal ability to be cruel—or, to reintroduce the political allegory of the bureaucratic relationship between Milton's God and His creation, the ability to exercise arbitrary power, power for the sake of power, and play at being God. This is what it means to be the same but not quite the same (Bhabha, 1994).

Accordingly, in *The Four Zoas*, the initial exercise or claim of power is immediately followed by violence of a strikingly domestic and personal nature. After Luvah seizes Urizen's horses, leading to Urizen's claim of absolute political and religious power, Los (so often a heroic figure for Blake) reacts with unexpected violence against his partner and lover, Enitharmon: "Los smote her upon the Earth twas long ere she revivd" (11.3). This conjunction of pompous rhetoric and domestic violence is one way in which Blake illustrates both the unexpected and dangerous consequences of discursive and mimetic power (and later, how those consequences become a site of responsibility). When Urizen declares himself "God from Eternity to Eternity" (12.8), Los, the prophet against Urizen's empire, sits resentfully "plotting Revenge" (12.9), and produces immediate, conscious mimicry of Urizen's behavior: "If you are such Lo! I am also such" (12.19). Urizen's own violence against Ahania comes after she gives him her vision of Luvah's ascendance, in an attempt to alert him to this potential danger to his position: "his strong right hand came forth/To cast Ahania to the Earth he siezd her by the hair/And threw her from the steps of ice that froze around his throne" (43.2-4)—another arbitrary exercise of power, the mimetic precedent to Los's act of violence against Enitharmon. Admiring without a second thought Urizen's success in transforming Ahania into nonexistence, Tharmas imitates this act by giving his companion Enion the same treatment, even taking on in the process Urizen's characteristic "voice of Thunder" (45.27). Los claims in Urizenic double-speak that "Our God is Urizen the King […]/We have no other God but he" and that "Los remains God over all" (48.15-18) after bringing about Urizen's fall. The awkward and unsatisfying position of Los, the artisan become King-for-a-day, is that his revenge on Urizen is precisely his *becoming* Urizen, *from which Los begins to learn that this mimetic cycle of violence is counterproductive*.

This lesson is reinforced immediately: Tharmas responds to Los' rise with his own variation on a peculiar strategy; rather than harming Enion, "he rap'd bright Enitharmon" (49.4). The consequence of this disgusting act—Los' dissolution into the Spectre of Urthona, emblematic of his alienation from himself and Enitharmon—proves Los' identification with Enitharmon through his grief and despair, and his inability to be like Urizen, distinguishable from his female counterpart, as Tharmas is. Los, now proven *not* to be omnipotent God but only what he always was, a fallible man, cannot pretend to be Urizen for the sake of playing the Sun King role, but the opportunity to develop an alternative to the cycle of mimicry and violence around him, which remain intact, presents itself. According to Tharmas, "Los, thou art Urthona & Tharmas/Is God" (51.14-15). Los the prophet remains discontented regardless of the personality of the absolute, "Raging against Tharmas his God" (53.25) instead of Urizen. Los works for Tharmas now on Urizen's terms, by Urizen's means, and with the same tools, such as the "Ruind Furnaces," as Urizen, in the process himself of torturing Enitharmon publicly (53.8) as if again to prove his identity as Los by his separateness from Enitharmon. Luvah, born as Orc, gets his turn at playing a rhetorically legitimized Sun King godhead by means of a bizarre parody of Christ's birth: "The Enormous Demons woke & howld around the newborn king/Crying Luvah King of Love thou art the king of rage & death" (58.21-22). Los binds him to a rock to the accompaniment of Enitharmon's cries (60.28-30), jealous of Orc/Luvah's supernatural claim to power, based on a story (as Blake suggests) that seems as arbitrary as Urizen's patterned claim to be God and king. As it turns out, Luvah finally takes his turn at playing God under very different circumstances late in the poem (see section *Kindness and/as Revolutionary Praxis*), mitigating the implication that Christ's story might be just another story, which is potentially offensive to Blake's project.

These fallacious demonstrations and rhetorical disputes against demonstrable fact among the Zoas have a juvenile and arbitrary feel to them, up to the moment change begins to take hold. Upon gaining power Tharmas muses, "is this to be A God for rather would I be a Man/To Know sweet Science & to do with simple companions" (51.29-30). Despite his long involvement in mimicking Urizen, Tharmas candidly recognizes the misery of this roleplay as Los does, and longs for what proves to be a restoration of a lost golden age posited simply as that state prevailing in the absence of the present nationalistic, imperial, and capital-accumulative regime. Blake's representation of political struggle (in public and private contexts) as a kind of mimetic roleplay shows the arbitrary and therefore alterable nature of claims and means to power.

One Way to Stop Pretending and Start Transforming the Whole (Damned) Thing

Finding means for ending such patterns, beginning with undermining the ridiculous claims that help hold them in place through means of knowledge other than pathos and blind trust of present authority, becomes a means for transforming unjust relations by ending the politics of privatized will-to-power. But those in control of these means recognize this possibility and move to foreclose it. Urizen structures the world of his intended subjects through a curse: "they may worship terrors & obey the violent" (68.26). The ones to be obeyed, even worshipped, are defined by their violence. Specifically, Urizen circumscribes himself, his own role and consciousness of it, as he makes his subjects literally into themselves. This works also by means of patterning.

Just as Milton's Satan constructs hell as an imitation heaven, Urizen attempts to reconstruct the space of Albion's members and faculties—the Universal Empire, after all, is reducible to one man by holographic logic—into a new, less divine space:

> he began to dig form[ing] of gold silver & iron
> And brass vast instruments to measure out the immense & fix
> The whole into another world better suited to obey
> His will where none should dare oppose his will himself being King
> Of All & all futurity bound in his vast chain (73.16-20).

Urizen seeks to erase dissent by erasing all doubt, creating thereby mechanical, automatic, and perfect faith—a notion Milton's God disavows—in a perverse Great Chain of Being. In *Paradise Lost*, God prefers obedience freely given. He could have constructed Adam in such a fashion that his obedience was assured, if it pleased Him to do so; "I made him just and right," God explains, "Sufficient to have stood, though free to fall" (3.98-99). Unlike Milton's God, Urizen is not interested in obedience for its own sake; to him, faith and loyalty are useful to achieve an end rather than inherently good virtues. In this way Urizen's imitation of the command to piety parodies Urizen and his clamoring after power and performing in its costume, rather than the Miltonic Godhead, who is posited as power necessarily regardless of any relationships He may be involved in. In short, Urizen himself mimics the traditional Protestant God *imperfectly*, but this God is a silent referent in the world of the poem, given that Jehovah does not appear as a character in *The Four Zoas*. In the causal position God the Father occupies in *Paradise Lost*, *The Four Zoas* offers repeated instances of rhetoric, violence, and industry—social patterns as determinants. The reader is led to expect a break in the pattern not only because such patterns are explicitly mutable, but also because even Urizen seems to anticipate such a break.

But Urizen is not interested in anything breaking from patterns of his own (mimetic) making. The Work Master, he plans, organizes, and regulates building projects of great magnitude. The altar alone of Urizen's hall represents the "labour of ten thousand Slaves" and the lives of "One thousand Men of wondrous power" (30.39-40). Work, the power to make another work for oneself, the product built, and the subjectivity of the worker are all conflated with and against each other in mimicry. Los and Tharmas each take turns undertaking large-scale construction and manufacturing projects in imitation of Urizen's. Regardless of the personality in the role of the Sun King, the act of manufacturing manufactures the kind of consciousness that Urizen desires among his subjects:

> We behold with wonder Enitharmons Looms & Los's Forges
> And the Spindles of Tirzah & Rahab and the Mills of Satan & Beelzeboul
> In Golgonooza Los's anvils stand & his Furnaces rage
> Ten thousand demons labour at the forges Creating Continually
> The times & spaces of Mortal Life the Sun the Moon the Stars
> In periods of Pulsative furor beating into wedges & bars
> Then drawing into wires the terrific Passions and Affections
> Of Spectrous dead (113.1-8).

The experience of work under these conditions creates in the worker a sense of time and space, measuring the peristalsis and circulation of the body by the rhythms of the factory. This transformation of a consciousness into a machine by these means becomes a kind of death.[65]

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[65] Blake anticipates here and elsewhere much of Benjamin's compelling argument in "Theses on the Philosophy of History." Benjamin (1969) observes that the "struggling, oppressed class is itself the depository of historical knowledge" (p. 260), rather than the oratory singular, Urizenic figures. Blake demonstrates this in juxtaposing the physical transformation of the Zoas working under and for Urizen with Urizen's rhetoric of denial and contradiction. Here, the workers experience time in a way Benjamin characterizes as "empty" and "homogenous." For Benjamin, what is called progress is but a series of catastrophes, empty of any ameliorative progression—going nowhere. Empty, homogenous time can be opened into its own ceasing, at any moment. This "conception of the present as the 'time of now' which is shot through with chips of Messianic time," or the force of redemption (pp. 262-63), is analogous to the everyday, prosaic apocalypse Los and Enitharmon bring about one day when they stop acting (and reacting) according to pattern, but instead establish a new one.

This is true also for the Zoas, starting from the poem's beginning, where Blake explores subjectification also in the domestic context, in terms that are echoed later in the factory scenes. Tharmas asks Enion, "Why wild thou Examine every little fibre of my soul/Spreading them out before the Sun like Stalks of flax to dry" (4.29-30). Urizen, the Sun King, is present in every interaction; Tharmas feels exposed to *Urizen's* sun-like sight by means of Enion's eyes. Tharmas' being is drawn out like the wedges and bars of the mill. Enion first dissects Tharmas, then weaves him together again: "in gnawing pain drawn out by her lovd fingers every nerve/She counted. every vein & lacteal threading them among/Her woof of terror" (5.16-18), domesticated subjectification. Enion reconstructs Tharmas' being by following the patterns of Urizen's architecture. In the jargon of Deleuze and Guattari (1987), Enion first deterritorializes then reterritorializes Tharmas from his former state into paranoia. Blake's narration of this act, including Tharmas' agonized cries, reveals Blake's disgust with this process and the regime behind it.

Blake's ironic approach to absolute assertions can be understood as a kind of scientific doubt. Moments of materialism in place of rhetoric become moments of real productivity. Just as absolute certainty in the rightness of empire makes abuses such as slavery a ready means of upholding empire and slavery as right, the claim of absolute power introduces uncertainty into the rhetorical field; its logic is self-defeating. Declaring sovereignty without end implies the existence of ends. This claim exists because it is *not* a self-apparent fact; if so, the endlessness of sovereignty would not be claimed. For Blake, this lack of evidence produces doubt among those affected by the claim. Skepticism becomes a condition of dissent, and tied with irony, a *means* of dissent. Once Urizen has claimed absolute imperial domain, irony becomes effective because uncertainty (the opposite of absolute certainty) arises. According to Luvah, speaking from within Urizen's work machine, "Urizen who was Faith & certainty is changd to Doubt" (27.15). Blake parodies Urizen's reduction of phenomena to the controlling vocabulary of geometry, producing three sets of worlds with illogical lists of characteristics: some worlds "triangular right angled course maintain. others obtuse/Acute Scalene, in simple paths. but others move/In intricate ways biquadrate. Trapeziums Rhombs Rhomboids/Paralellograms" (33.31-35). A triangular course leads nowhere but back upon itself, and an angle cannot be both acute and obtuse at once. This suggests a kind of arbitrariness in the means by which Urizen sets out to conquest the material world, and to control the contingencies of demonstration and testimony. Los and Enitharmon attempt to revive Orc (62-63) because of this uncertainty. Their failure to undo their actions and their ensuing resolve to productive and nonviolent action demonstrates the relationship Blake posits in epic and system-making between certainty and oppression in many forms, and develops the opposing relationship between uncertainty and responsibility or virtuosity. Doubt becomes an interpersonal virtue, a basis for relations of care for another.[66] Immediately following this moment of domestic sorrow is a scene of mistaken certainty—Urizen, still calling himself King, reminisces over lost moments in the past when he could behave like himself, a king (63-65), not recognizing or admitting that the reason why he cannot do so is that another has taken his role. In spite of his presumed supernatural means of knowing, Urizen the *vates* consistently proves to be mistaken. Urizen "thought himself the Sole author/Of all his wandering Experiments" (80.51-

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[66] Explicating the precise nature of alterity in Blake's ethics in this poem (as distinct from the ethical and virtuosic aspects of his political understanding) is beyond the scope of this essay, but it can be pointed to in this post-revolutionary observation—"Man liveth not by Self alone but in his brothers face" (113.25)—in comparison to the nonviolence of alterity proposed in Butler (2004).

81.1). This is not so, as Orc points out that he had taken some of Urizen's "light," and that much stood outside Urizen's "bounds of Science in the Grey obscure" (80.39-42). As practical science depends on publicly verifiable and replicable results, it follows that it must be at odds with the cult of unitary and singular epic vision such as Urizen claims for himself.

While it is true that Urizen is not actually God, the period between the eternity of the past and that of the future is occupied with Urizenic patterns of domination and violence. While Urizen acts as though he were God between the eternities, he recognizes that his tenure is limited to that period of linear time. The daughters of Beulah write "the Eternal Promise" on everything they construct, "their tombs & pillars & on every Urn/These words If ye will believe your B[r]other shall rise again" (87.5-6). Here, as they work at building Urizenic structures, they efface them with an artifact of a different sort of faith from the kind Urizen relies upon. In this instance of effacement, Blake narrates active *disbelief* in the permanence of the status quo in order to invoke a transformation, and predicates productive practice on uncertainty rather than make-believe. As Hershock (2000) suggests, this virtuosity is an active, creative act, not an ascetic or transcendental one. It is a practice of becoming-responsible.

In *Paradise Lost*, Milton signals the coming of the fall with a recognition that he must "change/ Those notes to tragic" (9.5-6). Milton's poem ceases to be an epic at that moment. Blake reverses the fall into a Urizenic regime by introducing redemption into *The Four Zoas* in such a way that its epic features vanish. The Zoas stop playing at being God-men, making complete Blake's exclusion of the Miltonic Godhead as a political agent in this poem,[67] and of any legitimized sovereignty of any being over any other.

Kindness and/as Revolutionary Praxis

In contrast to Wilber's evolutionary holism, in *The Four Zoas*, responsibility for meaningful transformation is taken up by the subordinated for the sake of the totality (inclusive of those who have, in the past, behaved irresponsibly), not offered from the "lower" to the "higher" by grace or bureaucracy.

A *domestic* and local transformation, initiated by Los and Enitharmon, utterly ruptures the top-down, heirarchic Urizenic pattern of imitated violence. Los and Enitharmon recognize the errors of their past actions and identifications, resolve to behave responsibly, and withdraw their children from warfare; the family cooperates in building and decorating the city Golgonooza (97-98) for their own use and enjoyment.[68] This leads to a fantastic (and bizarre) inversion of the political and rhetorical order of the poem up to this moment. When Los refrains from harming

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[67] This is consistent with Blake's theology as expressed in his fragments and *The Marriage of Heaven and Hell*, which is critical of Milton's representation of God as a Urizenic force: "All dieties reside in the human breast" (plate 11). It may be that the Zoas' struggles with one another is a kind of allegory of God pulling Himself together in one being, the archetypal Albion the Giant. Because Blake wishes to recuperate Milton as an ally, he argues that Milton unconsciously sought to undermine his own God by identifying with Satan, the opposer of God's works.

[68] This sequence of actions corresponds to the beginning of mainstream Christian practice: one repents one's mistakes, one carries forth with the resolve to sin no more. This is one way in which Blake's explicit religious views penetrate into his political program.

Enitharmon and clamoring against Urizen, Luvah, or Tharmas for the right to claim absolute dominion over everything and everyone, enacting a Great Refusal, peace and productivity arise, and he finds that *he must care for Urizen as one of his own children,* and *does*: "Startled was Los he found his Enemy Urizen now/In his hands. he wonderd that he felt love & not hate/His whole soul loved him he beheld him an infant" (98.64-66). *Los has become-responsible*. Even though this moment barely lasts a complete verse paragraph, it suggests that the means of peace are available to the parties involved in this dispute within Albion's body politic; the scene of domestic peace casts a deeply satiric light on the rest of the actions in the poem that have made such peace less possible for no reason comprehensible in the context of the poem's radically unfamiliar space. Smooth, destratified social space—radical democracy—proves to be more integrative, and experientially favorable to (and formally more transparent than) a baroque hierarchy of the type Urizen imposes from the stage of the philosopher-sage.

The turn-taking among the Zoas for the role of God is not yet complete, however;[69] the symmetry of the poem's structure, ironically, demands that the fourth Zoa, Luvah/Orc, finally play the part of the Sun King. The changed conditions demonstrate, however, that the end is near. When "fierce Orc in wrath & fury rises into the heavens/A King of wrath & fury" (111.15-16)—Urizenic repetition ironically invoked—the pattern of local violence is definitively disrupted, in that "Urthona gave his strength/Into the youthful prophet for the Love of Enitharmon" (111.31-32). Los/Urthona's effort and his motivation in this case is a sign of the transformation underway because, earlier, Los had prevented his son Orc's ascendance, jealous of the story surrounding him that authorized his turn at playing God. Luvah as Orc, however, continues to imitate Urizen against Urizen, even as his behavior is infinitely softer. Instead of conscripting armies of laborers and working them often to death as Urizen had, Luvah begins his role as architect by building a simple home for himself and Vala at her suggestion (127.29-30), also reflecting the domestic, democratic revolution of kindness Los and Enitharmon had begun.

Blake unambiguously defines this transformation and that of Urizen in apocalyptic terms. The last Night is entitled "Night the Ninth Being The Last Judgment." Blake asserts that his text is not only allusively and structurally apocalyptic but is literally of the same substance as the Biblical Apocalypse, declaring that "John saw these things Reveald in Heaven/On Patmos Isle" (115.4-5). Los decisively begins this event by seizing the "Sun" and demolishing "the heavens across from immense to immense" (117.8-9); the parallel to Urizen's claim of being God from eternity to eternity is explicit. As Wilkie and Johnson (1978) show, Los advances the transformation further by destroying Urizen's books (pp. 212-213). Symbolically Los' striking at the sun does not obliterate phenomenal reality—the world of forms—as much as the totality of social strata, including the role of the Sun King, the field in which he operates, and the mechanisms holding him in place; "slaves are set at liberty" while "the thrones of Kings are shaken they have lost their robes and crowns" (117.15-23). The props and costumes by which these monarchs iconify themselves evaporate, as if performance as such has fallen away. Significantly, Urizen loses his status as an iconic *vates,* at this moment. The Giant Albion, the figure analogous in scale to the Wilberian superholon, awakes, and not understanding what is happening within him, laments that moment when "shall the Man of future times become as in days of old" (120.5). He cries out for Urizen, first by his epithets—"great opposer of change" and "dread form of certainty"—but Urizen does not respond (120.14-25), at which point Albion himself behaves like the Urizen of old, vowing to "sieze" his "crown and scepter," to "regulate all my members" (120.35). Urizen's rejection of his own absolutism leads to an implicit transformation of the macrocosm, Albion. Urizen encourages Los to do what he has already done, to precipitate the apocalyptic transformation—"Rend down this fabric as a wall ruind & family extinct"—and renounces any regulation or control over anyone: "Urizen no longer curbs your rage" (121.25-26). Urizen ceases to play at being a Milton or a Leibnitz; his venerableness falls away with his hair and robes, "he shook his aged mantles off/Into the fires" (120.29-30), arising youthful. But the structural symmetry and kinetic (karmic) energy of the poem have not yet been exhausted, with the consequence that the end of history has not been completed. When Urizen becomes fully what Kierkegaard (1989) might call fully human after casting off his Milton costume, Ahania dies of excess joy (121.37), the opposite process of the earlier patterned violence, but giving the same end (and suggestive of a bawdy Shakespearean pun). This surprise, the transformation, is not a "symmetry break," which is taken to be a leap or momentary discontinuity in an otherwise continuous evolution (Wilber, 2000b, pp. 50-51), where evolution is understood as a teleological—even divinely-sanctioned—process. By contrast, the Blake of *The Four Zoas* is a *revolutionary*, not an evolutionary integral thinker; he proposes a transformational, not developmental, model for action against a totality of contingent social and political formations.

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[69] In Buddhist terms, it is as if the Zoas have purified some of their past karma but not yet exhausted it, so that it manifests in a modified form rather than as a mechanical reproduction of it (Gampopa, 1981, pp. 74-90).

Urizen finally declares with joy that "Times are Ended" (131.31), and with time slavery and empire have also ended, indicating that the posited absolute past has returned; "their ancient golden age renewd" itself (126.29). A very strange moment arises in response to this, when "an African Black from the little Earth of Sotha" sings a song (echoing Blake's "Jerusalem") of his own composition, recognizing a lost Paradise before him:

> Aha Aha how came I here so soon in my sweet native land
> How came I here Methinks I am as I was in my youth
> When in my fathers house I sat & heard his chearing voice
> Methinks I see his flocks & herds & feel my limbs renewd
> And Lo my Brethren in their tents & their little ones around them (134.35-135.3)

How is it that the body of England can be a direct replication of an African village—specifically, a village in an Albion-like place (or being, since this is still psychomachia, still holographic in representation) that is suddenly and happily identified with part of Africa by an African native as his own? Conventionally, an element of the microcosm Sotha is understood as foreign to Albion's green and pleasant land, but that he feels at home in it suggests a hospitable dissolution of the divisions and exploitations of empire, nationalism, and slavery, as if beyond the psychomachia conventional subjectivity falls away and minds literally run into one another, also implying absolute democracy and authentic communion of the African singer's experience with that of Albion's Zoas. Everywhere is home, anywhere is here—this presents a decentered logic approaching nonduality. Blake's singer experiences with them the same change in being. After being ignored and remaining silent for the entirety of the poem's action (Spivak, 1988), after this apocalyptic transformation, the subaltern *sings*.

The poem closes with this claim: “The war of swords departed now/The dark religions are departed & sweet Science reigns” (139.9-10). Direct apprehension of phenomena is used as a means of showing what emblems and ideas had been bent to do—“The tender maggot emblem of Immortality” (136.32)—to misrepresent reality while claiming to do the opposite, in short, to obfuscate and lie. Skepticism, science, reason, and irony properly applied rectify the real limitations, make-believe, and ideological work of idealism as epic or as Final Philosophy. After the revolution that is, literally, an act of love, violence and limits between minds have fallen away, suggesting that all vestiges of subjectification and mimetic performance have evaporated. The ending of *The Four Zoas* is actually an annihilation of empire, the total destruction (not reform) of the pathological regime. In contrast to the image of reterritorialized, domesticated Bibles of 19th century English missionaries in India (Bhabha,1994, p. 92), after the revolution no trace of Urizen’s missionary activity or his repetitive literary output can be seen.

Albion the Giant has become a radical democratic Utopia, a Body without Organs. Blake concludes that once a certain kind of doubt is introduced, an ideal community can arise. Observations of it are possible, but no story can be told in or from this community, because time imagined as progress does not exist. By contrast, where Wilber promotes evolution of consciousness, Blake prescribes a radical intervention, working virtuosically with the discourses available to him—the mythmaking of vernacular Protestantism and epic poetry—by means of skepticism toward the claims and the knowledge-production of these discourses.

Politics in Good Faith

Blake presents a responsible transformational model in *The Four Zoas*. Becoming-responsible for present purposes has four characteristics: critical clarity, competence, consciousness, and compassion (Anderson, 2008). Blake considers each one in the course of *The Four Zoas*, by reversal: first rejecting a prevailing ideology and then proposing in its place a more productive strategy.

Critical clarity. Blake establishes a pathological pattern of subordination and abuse predicated on (and expressed as) aesthetic normativity and good-sense metaphysical doctrine, pushed to its sociopolitical conclusion: playing at being God through make-believe and violence, epistemic and physical. Then, Blake encourages a critical response of doubt, scientific skepticism, and Socratic irony (a postmetaphysical response), typified by Tharmas’s observation that playing make-believe is inherently unsatisfying. This intervention leads to a second one, that which transforms the totality.[70]

Competence. Urizen’s performance of capability (“read my books!”) in a costume that renders him incapable of doing practical work is contrasted against the domestic labors and artisanic craft of Urthona (Los and Enitharmon), who proves to be capable of making useful and beautiful things—and taking responsibility for the impersonal welfare of beings as if they are his own children (competence in critical action and competence in compassion).

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[70] I explicate this doubled structure of first and second interventions in Anderson (2008).

Consciousness. Mimetic, mechanical, unconscious stupidity expressed as thinly costumed will-to-power (as in Urizen's books) is counterposed by situationally aware, intelligent, and capable action (Urthona), as suggested by the capacity for taking competent action and quantifiable through Urthona's in-the-moment creativity.

Compassion. Blake recontextualizes the brutal selfishness of Urizen and Los's moments of violence against Enitharmon and others with Enitharmon's impersonal, egalitarian kindness as well as Los's taking responsibility for a vulnerable and childlike Urizen, by no means a configuration of his own will-to-power.

An Experiment in Radical Democracy

> [A]ll our sympathy lies with the wanderers, the gypsies, and heretics, rather than with the totalitarian murderers who try to fix them in place, number them, control them, and finally exterminate them. We wander because no nation, no ideology, no culture, no religion, no philosophy holds our loyalty or pins us down in time and place. We are cut loose. We drift. (Wilson, 1993, p. 156)

Introduction

I have proposed that Marxist and post-Marxist theory may offer a useful methodology for integral praxis in some respects (Anderson, 2008). One acknowledged problem with this position: Marxist revolutions have, by and large, turned out badly by degrees. Popular Unity, under Salvador Allende,[71] attempted to overcome this problem, broadly speaking as Buddhist social theorist Ken Jones (1989) diagnoses it:

> Where it has fully established itself, revolutionary socialism's intellectual elites have only been able to consolidate their power through an oppressive collectivism. These inert bureaucratic societies have no resemblance to what Marx envisaged, with their massive hierarchies of power, their harsh restriction on political and religious liberty, their

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[71] Uribe (1975) offers an incomparable and candid first-hand narrative of the events from the perspective of a well-placed and well-informed Chilean diplomat, neither a socialist nor a conservative but a member of the Christian left; the so-called "Church Report" (1975) gives an equally valuable account from the perspective of the CIA. Henfrey and Sorj (1977) present the street-view perspective of everyday Chileans during this period; Castro (1972) shows what kinds of specifically Marxist inquiry were developing among workers and students in Chile; Morris (1973) gives a historical and topical overview of the moment informed by the author's experiences in Chile under Popular Unity; Cooper (2002) and Dorfman, Aguilera, and Fredes (2006) give a retrospective view from the bottom strata of the socius looking up, during and immediately after the Popular Unity period. Debray (1972) includes a series of interviews with Allende early in his presidency, affording some insight into his agenda; Cockraft (2000) anthologizes many of Allende's speeches, addresses, and letters on various occasions and subjects. Sigmund (1993) and Haslam (2005) both offer mature, sober, and critical histories of the period and its aftermath, the former emphasizing internal Chilean politics and the latter more concerned with U.S. intervention. Moss (1974) in my view gives an irredeemably flawed reading of the historical evidence, but one that counterposes the others cited here.

> persecution of dissidents, their insistence on ideological conformity, and the persistence of patriarchal patterns of life. (Jones, 1989, pp. 120)

Allende attempted to address each of these rather self-evident problems by instituting a Marxist revolution *democratically*, through the civil state, *predicating* this transformation on the enfranchisement and becoming-responsible of the socius rather than in opposition to the needs and interests of it. As Grandin (2007) summarizes this project,

> Allende's Popular Unity government rejected both Soviet-style suppression of civil liberties and American economic dominance, believing it could steer Chile down a peaceful road to socialism while maintaining political freedoms. Chile's challenge, therefore, was not that it would be turned into another Castro-style dictatorship but that it wouldn't. (Grandin, 2007, p. 60),

and the Nixon administration worried that this radical democratic model might spread first to western Europe, particularly Italy (Grandin, 2007, p. 60), where Autonomist Marxist praxis was developing along recognizably similar lines[72] (Wright, 2002; Katsiaficas, 2006). This shows Wilber's claim that the superholon evolves *toward* a regime latent within itself is valid in politics only so long as the "higher" holon is willing to enforce, by force, the imperative of that regime, to "organize the freedom" of its subordinate holons according to its own program. It also suggests that a bottom-up politics of becoming-responsible may be possible along lines suggested by Urthona's project, rather than Urizen's. Worded differently: To imagine putting a popular critical culture, mass virtuosity[73] as distinct from post-Leninist vanguardism (*pace* Jones' [1989] engaged Buddhist critique of Marxist institutional history) in charge of the totality is to imagine an integral society in place of the stratified, conflictual one that obtains under neoliberalism.[74]

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[72] Uribe (1975) confirms this: "The United States needs very much to prove that the Chilean model, in which a state attempts through democratic means to stand on its own outside the imperialist system, is not possible" (p. xi). The coup was as much about ideology and hegemony ("spreading democracy" in the interventionary patois of now-disgraced but still vocal American neoconservatism) as natural resources and labor.

[73] Here, critical culture should be understood as a historically contingent set of means for mitigating *stupidity*, where stupidity is understood much as Lukacs (1967) understands reification, as unwittingly acting against one's objective self interest by *necessary* involvement with a situation or structure one has no final control over, and where one's real interests are defined as the immediate and ultimate benefit of every being with any investment in the situation at hand (Van Boxsel, 2003; Anderson 2008).

[74] The present inquiry considers how a subordinated totality, a state or society, can begin considering how to viably democratize, destratify, and intentionally integrate itself with itself. This differs from the problem of reterritorializing the global totality analogous to the "World Federation" Wilber (2003b) proposes in his comments on Iraq. Relations among states will, of course, be contingent on resource control and allocation, and the terms of that control. This problem is much more difficult to conjecture on because the only known global order—the only total superholon this planet has known in the political-economic sense—is imperial capital, in one iteration or another. Marx, for instance, has precious little to say about global communism as an alternative. That said, while this relation is beyond the scope of this work, it is of primary importance for further development.

In Wilber's diction, one might say that Chile in 1970 was integrated into a particular holarchy, subordinated to a superholon (global capital, enforced by the hegemony of American military power) that determined the scope and terms of its development, while that regime extracted useful natural resources from Chilean soil—copper ore, saltpeter, and human labor (see section *Retelling the Epic of the Superholon*). Capital had "organized the freedom" of this particular holon's members in a particular (and predictable) way. Chilean society was stratified along class lines, expressed in a separation of those in relative control (or in alliance with those actually in control) from those in relative poverty, but also expressed in viable mass-political movements. Allende proposed instead that Chileans from all classes should take responsibility for their working conditions, the products of their labor, the redistribution of their land, their natural resources and the terms of their extraction and development, and for general welfare measures (particularly in mass education and health care) to help ensure a socius competent to take on this responsibility.[75] This quite literally made the state both fragile and vulnerable—fragile in that Allende, concerned more with democratic rights than with the centralizing power behind his agenda, refused to subordinate and reorganize Chile's military forces, which arguably alienated the military and state bureaucracies from his leadership—and vulnerable due to the disorder inherent in any transition toward a comprehensive reorganization.[76] As it happened, everyday life circumstances, such as the price and availability of foodstuffs, fluctuated uncontrollably as the state sought to reintegrate a different regime for developing the terms of everyday life circumstances such as labor, health, and education (see section *The Endgame; Or, Limiting the Indeterminacy* for plausible causes of this disarray).

Specifically, Allende proposed to integrate the Chilean socius by democratizing Chilean institutions, beginning with a mitigation of the lack-of-control over one's life habits and labor that characterized Chilean working life: in Allende's words, "[o]ur aim is the attainment of social freedom through the exercise of political freedom, and this requires the establishment of economic equality as a basis" (as quoted in Debray, 1972, pp. 182-183), the social ownership of productive means, in traditional Marxist diction. Pursued a bit further, however, economic equality can also be expressed as work democracy, where all who labor toward the fulfillment of a given project have a hand in determining the course of the project and the conditions of executing it (Schweickart, 2002). As *The Four Zoas* suggests, full and impartial enfranchisement is a condition of compassionate politics. This is distinct from the undemocratic idealism of Wilber's model (see section *Retelling the Epic of the Superholon*).

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[75] In this respect, the program that Allende led into power is analogous in its broad strokes and strategies to the Deleuze-Guattarian nomad project, insofar as Popular Unity swept a locus of power (the disenfranchised) into the legitimate State. As Wilson (1993) argues,

Deleuze and Guattari based their work *Nomadology* in part on Ibn Khaldun's thesis of nomadism as the nucleus of power (a 'war machine') against the State and by extension against any centralized or absolutized authority. They simply turn Ibn Khaldun on his head by arguing that the purpose of culture is not the glory of the State, as Ibn Khaldun says, but is rather to be found in the freedom and even the randomness of the nomad (as Ibn Khaldun at times seems to imply). Deleuze and Guattari, who may be called Nietzschean post-Marxist anarchists or 'dada epistemologists' (to quote Feyerabend), here find themselves in harmony with our Sufi historiographer (pp. 158-159).

[76] P. Anderson (1980) summarizes this: "[m]orality without strategy, a humane socialism equipped only with an ethic against a hostile world, is doomed to needless tragedy: a nobility without force leads to disaster, as the names of Dubcek and Allende remind us" (p. 206). The "embrace" from above is, here, a vulnerability to risk, a precariousness.

Further, Allende proposed democratizing (destratifying) culture and its production as it is conventionally understood ("story" in Litfin's terms) along these lines, by promoting an ambitious program of education for Chileans of all ages, classes, and geographic locales, so that all members of the social formation could have the tools, skills, and materials to do at least basic intellectual work, and by relocating cultural production from the global-hegemonic to the local-democratic.[77]

> A new culture cannot be decreed. It will spring from the struggle for fraternity as opposed to individualism, for the appreciation rather than disdain for human labor, for national values rather than cultural colonization, and from the struggle of the popular masses for access to art, literature, and the communications media and the end of their commercialization (Allende, as quoted in Cockcraft, 2000, p. 273).

Pax Cultura: this is a *critical* politics predicated on care for the well being of the totality and all its members, recalling Los and Enitharmon at their work, in contrast to the tiresome and self-imitating decrees of Urizen in his philosopher-sage costume demanding to be read and obeyed, but unwilling to teach, listen, or discuss.

Allende's strategy for reterritorializing a bourgeois regime into a fully responsible democratic one shows his program to be creative, in fact conscious. Allende's plan relied necessarily on a unified, organized, and totality-conscious polity to enact, as needed, constitutional reform. "If we put forward a bill and Congress rejects it," Allende claimed, "we invoke the plebiscite" (Debray, 1972, p. 83)—which he counted on winning, so long as his proposals were in the interests of the subaltern majority and that majority voted its interests and was not misled or deluded. This is authentically Marxist theoretically (Marcuse, 1964; Lukacs, 1967), but innovative in praxis. Majority is not consensus; some, it should be understood, stand to lose a position of material and social privilege (that of acting the role of the senior holon) as a result of lifting those below up into cultural literacy and economic parity, while the totality (and thus everyone involved in it) benefits from dissolving its constitutive conflict between those that have and those that do not, the inherent disequilibrium in arbitrarily uneven development. Following Blake, insofar as Allende's project is creative and totality-contextualized (competently working for the impersonal benefit of all), I consider it a *conscious* one.

That said, Allende and his party were arguably incompetent to the very difficult task they took responsibility for, or at least not adequately competent to it. Haslam (2005) interprets Allende's actions as a kind of pataphysics,[78] managing multiple contingencies in several parties on an *ad hoc* basis while not adequately accounting for real resistance from outside and above, rather than implementing in a disciplined and coordinated way one theoretical and practical program—very unlike the rigorously planned and executed coup that forced him to suicide before surrender (p. 233). According to Haslam, Allende was not an original or rigorous theorist,[79] "no administrator and no economist;" the Soviets found the Chilean administration to exhibit "manifest […] incompetence" (p. 230). Further, Allende maintained—at least publicly—that the rule of law would protect his project from intervention from outside or above, a position that ultimately proved profoundly naive. Responding to the question of whether or not the Nixon administration would direct an intervention into Chile, military or otherwise, Allende responded:

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[77] This is, without a doubt, a risky social experiment, but insofar as it is an intentional one, those participating in it are at minimum no less prepared for its consequences than social experiments such as industrial capitalism that arose not from a plan or a dialectical process of consciousness and conditions but from causes and conditions internal to the European economy. As it happens, Chile had been home to a specifically integral experiment as well, Oscar Ichazo's community of practice at Arica; the productive lifelong inquiry of Claudio Naranjo has its roots there.

[78] See van Boxsell (2003, pp. 194-198) for a value-neutral examination of pataphysics as an intellectual practice.

> I believe they will not do anything of this nature; firstly, because as I say, we have acted within the laws of Chile, within the Constitution. It is for this reason […] that I have maintained that victory through the polling-booths was the way to pre-empt any such policy, because this way their hands are tied." (Allende, as quoted in Debray, 1972, p. 126)

In short, to transcribe his thinking into Wilber's diction, Allende publicly argued that the superholon is incapable of "violating the laws" of its subordinate holons (see section *Retelling the Epic of the Superholon*), which history proved false in this case—whether he knew better privately remains an open question.[80] For present purposes, this suggests that Allende's radical democratic project may be sound in the abstract, but lacking in implementation and resources—and that reflecting on Popular Unity's successes, failures, and contexts can yield some useful insights for future integral macropolitical projects as an act of cultural memory, of story-making in the form of history and virtuosity rather than make-believe (see section *Praxis According to Evolutionary Idealism*).

The Endgame; Or, Limiting the Indeterminacy

This anticipates a significant observation about Wilberian evolutionary idealism when applied to politics: the end of Popular Unity by the irresponsible intervention of the superholon on the justification of an inherent telos that might be God proves Wilber's model problematic, having more in common with Urizenic will-to-power than with responsible development or transformation in the context of macropolitics, matters of public concern.

In response to Allende's election (and upon the failure of an attempted coup to prevent him taking office), the American president Richard M. Nixon

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[79] In fairness, however, it should be recognized that Allende knew what to do with extant theory; he had what I call a *method* (Anderson, 2008). Specifically, Allende was interested in using theory in a dialectical relation to practice, claiming that "basic works like *State and Revolution* contain key ideas, but they can't be used as a Catechism" (Debray, 1972, p. 64); he was aware of Marxist theories of the imperialism of foreign capital such as Luxemburg (2000) (Debray, 1972, pp. 69-70), and as I have suggested, was capable of authentic innovation on the level of praxis and persistence over his long public life.

[80] In this context, the relationship between law and power in Wilber's holonography can be understood in terms Agamben (1998) develops for the state, law, and subject: law is produced through sovereign action, which is itself not bound by the law it enunciates; consequent to this capriciousness, there exist states of exception in which the law is defined such that it does not apply, and those placed under a state of exception have no legal or political identity apart from the enunciation of the sovereign: a position of absolute vulnerability not as a subject but as "bare life."

> instructed the CIA to 'make the [Chilean] economy scream,' and over the next three years, Washington spent millions of dollars to destabilize Chile and prod its military to act. It finally did on September 11, 1973, in a coup that brought Augusto Pinochet's seventeen-year-long regime to power. (Grandin, 2007, p. 59),

just as the U.S.S.R. had brutally put down a nascent radical-democratic regime in Hungary in the fall of 1956 (Brown, 1988). I characterize this as an expression of will-to-power on the part of the superholon, seeking to "organize the freedom" of a wayward, "lower," or "junior" holon on which it depended for resources—will-to-power because the superholon had benefited from the legitimately exploitative relation that had prevailed before Allende resumed power and was put at risk by his remaining in power, not because of a competent intention to be of benefit to the totality on the part of Richard Nixon (not only Nixon personally or primarily as a synechdoche for global capital). Interestingly, according to Haslam (2005), Nixon was motivated to act in Chile in part to avoid appearing weak internationally as his own incompetence and corruption in the chain of events conventionally referred to as Watergate was becoming exposed (p. 255). The coup that ended the Allende experiment and began nearly twenty years of state-sponsored terrorism in the South American cone was in part a vanity project of a resentful neurotic, but more broadly a gesture designed to reintegrate Chilean resource management into supply chains favorable to the accumulative or developmental regimes of international corporations. This is how "indeterminacy" is "limited."

Here, Chilean history parts ways with Blake's model as well, because the Cosmos did not sympathize with Popular Unity as it did in the Universal Man with Urthona. Allende's actions did not invoke a Romantic apocalypse of spiritual renewal that allowed the subaltern to sing and reinstituted a global Golden Age of "sweet science" that was sustainable in its time. Popular Unity represents an attempt to establish a regime of new values in the face of very strong resistance from outside and above,[81] of responsibly made values; that the attempt failed is but more evidence on the nature of the transformative project and the risks of a fully engaged life:

> Life is very strange. To live: to go forward into a new country, set foot blindly on unknown ground and keep on drawing back the curtain of time. We know that somewhere is the precipice over which we shall fall. When? Will the next step be our last? We can neither stop nor draw back. (Thomasson, 1980, p. 190)

Politics in Good Faith (Reprise)

Was Allende's transformative project critical? Yes.

Was it compassionate? In that it was predicated on ameliorating the sufferings of others, yes.

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[81] Allende's advice to Chile on the day of the coup, seeing the coup coming, suggests this persistence and commitment in spite of personal difficulty and risk: "You must defend the right to construct, through your own effort, a dignified and better life" (as quoted in Cockcraft, 2000, p. 7). As it happened, Allende chose to construct for himself a dignified and pedagogic death (a "moral lesson" p. 10): a self-inflicted gunshot wound, from a carbine given as a gift by Fidel Castro on his state visit.

Was it competent or virtuosic? Arguably not as competent as it would have needed to be, given the pushes and pulls and other strains it had to resist.

Was it conscious? Insofar as creativity in response to a challenge is a measure of consciousness, then yes, revealing a remarkable departure from the clearly hopeless Stalinist model for socialist practice (bureaucratic capital), to legislate an intentional revolution. It certainly would have benefited from greater situational (class) awareness.

Returning to the problem Plato poses in *The Republic*, on justice and responsibility, one can argue that the intervention of global capital into the Chilean state on 11 September 1973 was an unjust act, as it ended an attempt to redress an injustice through instituting a hopelessly unjust regime, the Pinochet dictatorship. This is politics in bad faith (see section *Introduction - Definitions*). But insofar as it served to disengage the Chilean subholon from the superholon of global capital, Allende's project can be seen as a counterintegral embrace and envelopment, to a follower of Wilber; further, the coup that restored that order by a "higher" power can also be seen as an integral gesture expressing increased depth and complexity, an evolutionary step forward (again to a follower of Wilber) (see section *Holarchy and Macropolitical Praxis*).

Conclusion—Neither Stopping nor Drawing Back

Where Litfin and Wilber present ontological and metaphysical models, representing reality and the transformations they allow that reality, *The Four Zoas* poses a transformational model for action through an imaginative space. Where Wilber (2000b) posits, "*[t]he greater the depth of the holon, the greater its degree of consciousness*" (p. 65), *The Four Zoas* inverts this; increasing depth, or stratification, is *decreasing* consciousness in the sense of increased reductivity, mimicry, determinism, and potential for irresponsibility in the expression of power, which is implicit in Wilber's assertion that "the new and senior pattern or wholeness can to some degree *limit the indeterminacy* (organize the freedom) of its junior holons" (p. 60). Blake's apocalyptic transformation also contrasts against Wilber's position that social and personal transformations function in a top-down manner (co-evolution); in *The Four Zoas*, we see a subordinated holon (Enitharmon) transform the macroholon (Albion the Giant), bottom-up. The case of the Popular Unity period in Chile (1970-1973) shows how the dynamic is expressed under late capital—where subordinating regimes assume a kind of responsibility for those below, even if the terms of that responsibility are by any definition responsible—and how Wilber's holonography simply flickers in theological development this self-same dynamic of politics in bad faith.

I argue instead for the persistent and intentional labor of instituting a just order through the transformative practice of becoming-responsible.

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The Politics of Terrorism: Power, Legitimacy, and Violence

Richard A. Couto[1]

Abstract: This paper examines and juxtaposes discourses about terrorism, violence, and political leadership. It presents generalizations about terrorism—a form of political violence by, for, and against the state—and politics and violence based on the theories of Max Weber and Hannah Arendt. The stark contrasts drawn from these theories include power as non-violent strength (Arendt) versus power as violence-dependent (Weber) and the struggle for legitimacy between different agents (states and individuals) as well as terrorism by, for, and against the state. This reframing of power leads to judging a *lack of* power where there is violence, and the *presence* of power where one observes non-violence. An examination of political and criminal violence leads to questions about deliberate and purposeful violence, indirect and structural violence that has political consequences, and their relationship to terrorism.

It expands the application of terrorism to include indirect structural violence by indicating its relationship to direct violence, not only in traditionally-viewed terrorist action but in the ignored terror of, for example, inner cities. Terrorism has many forms by many actors. To synthesize the results of these lines of reasoning leads to a conclusion with considerable implications for politics and for political leadership. The politics of terrorism suggest a central counter-terrorist approach: de-politicizing the violence of terrorists whenever possible and using the authority and power of the state to institutionalize it as criminal violence. This, in turn, also means politicizing other forms of violence, such as capital punishment, and their indirect and structural forms, such as the inner city.

Keywords: Arendt, criminalize, political leadership, political terrorism, political violence, politics, state violence, structural violence, terrorism, war on terror, Weber.

Introduction

This paper develops the thesis that through an understanding of power as authentic leadership by legitimate authority, and violence as a sign of a breakdown of power, leadership, and legitimacy, we may begin to create more integral political narratives. When such narratives inform political leadership, authentic leadership is more likely to formulate other choices to

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violence and its attendant terror. There can be no question that terrorism and violence and the state's reaction to them play an overwhelming role in politics today—in terms of who gets elected, on what platform, the over-arching global politics, and how that is driven currently by terrorism and the actions of the states and terrorists. While terrorists have gotten the attention of nation states around the globe, the emphasis on the psychology of terrorists obscures the political preconditions and precipitants—the indirect and direct political causes of terrorism and their political transformation—that are the focus of this paper. Thus, conceptions of terrorism, criminality, and violence, the nature of agents engaged in the politics of terror, how states react both internally and externally, all need to be examined. An examination of political and criminal violence leads to questions about deliberate and purposeful violence, indirect and structural violence that has political consequences, and their relationship to terrorism. It expands the application of terrorism to include indirect structural violence by indicating its relationship to direct violence, not only in traditionally-viewed terrorist action but in the ignored terrorism of, for example, inner cities. In so doing, this paper develops different realms of discourse about terrorism, violence, and political leadership to inform new political narratives and the development of political leadership.

The examination presents generalizations about terrorism—a form of political violence by, for, and against the state—and politics and violence. These generalizations are based on the theories of Max Weber and Hannah Arendt, and we begin the examination by juxtaposing their definitions and arguments to highlight fundamental contrasts developed throughout the paper. With those insights as a foundation for an analytical framework of political terrorism, the next part of the paper distinguishes deliberate and purposeful violence from unintended violence and political violence from the apolitical appearance of indirect (or structural) political violence. This offers a starting point for understanding political terrorism as a unique form of political violence. On that basis, in the next part we examine the scholarship on terrorism that will enable us to explain one aspect of political terrorism—the nature and role of political leadership within political terrorism. The final part is an examination of terrorism by, for, and against the state, including discussion of terrorism against the state as a reflection of terrorism by the state.

As an orientation to the interrelationships of concepts, arguments, and systems presented here, Figure 1 below supplies a mapping of the politics of terrorism elaborated in this paper.

Legitimate Authority / Justified Violence

Weber

Max Weber’s reflections on politics offer us a starting point to understand an analytical framework of political terrorism. In his profound essay, *Politics as a Vocation,* (1958), Weber explains that the general questions of politics as a vocation (political leadership) are not limited to the policies and questions of the day. In its broadest sense, politics comprises any *independent* leadership in action regardless of context. Thus we may have labor politics, family politics, and workplace politics. In its narrower terms, political leadership comprises the leadership, or attempts to influence the leadership, of a political association, a state (Weber, 1958, p. 77).

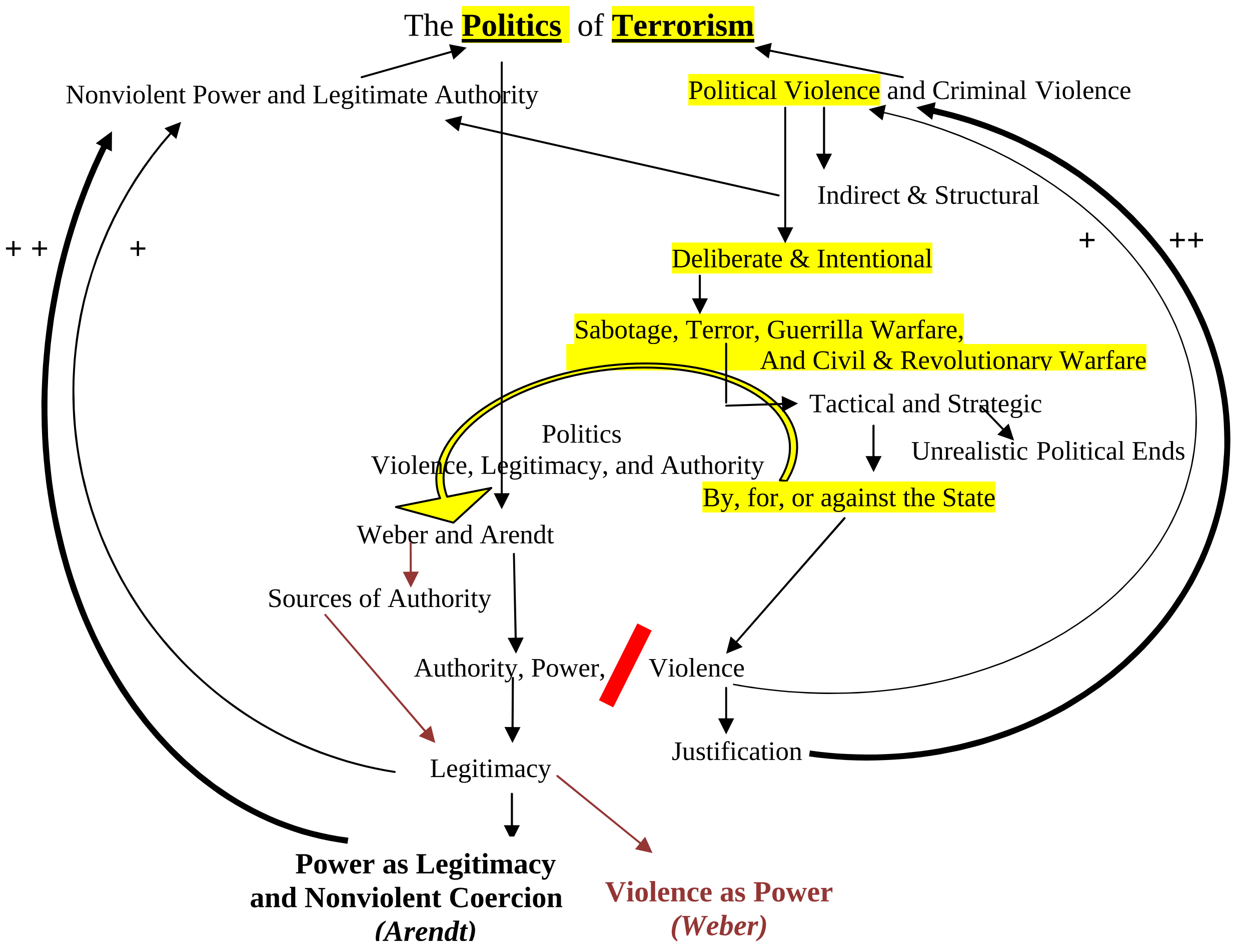
The **Politics** of **Terrorism**
Nonviolent Power and Legitimate Authority
Political Violence and Criminal Violence
Indirect & Structural
+ +
+
+
++
Deliberate & Intentional
Sabotage, Terror, Guerrilla Warfare,
And Civil & Revolutionary Warfare
Tactical and Strategic
Politics
Violence, Legitimacy, and Authority
Unrealistic Political Ends
By, for, or against the State
Weber and Arendt
Sources of Authority
Authority, Power,
Violence
Justification
Legitimacy
Power as Legitimacy
and Nonviolent Coercion
(Arendt)
Violence as Power
(Weber)

Figure 1. Conceptual Mapping of Politics of Terrorism

Weber defines the state by its distinctive means—physical force—not its purpose, which may be common to any number of other associations. The relationship of the state and violence is an "intimate" one, just as Tilly described, that defines the state for Weber as "a human community that (successfully) claims *the monopoly of the legitimate use of physical force* within a given territory (p. 78). The power of the state adheres to its right to permit groups and individuals to use physical force and to its claim as the sole source of the right to use violence. Politics, at root, "means striving to share power or striving to influence the distribution of power, either among states or among groups within a state." Part of the power of the state comes from establishing the legitimacy of its power so that it does not have to use the violence and physical force upon which it rests. Weber combines these definitional elements in sociological and powerful terms. "The state is a relation of men dominating men, a relation supported by means of a legitimate (i.e., considered to be legitimate) violence" (p. 78).

At this point, in his essay, Weber examines the sources of legitimate authority, which are familiar to students of politics.

- The eternal yesterday of tradition—traditional;
- Extraordinary and personal gifts of grace—charismatic;
- Legality premised on the validity of legal statute and functional competence premised on rationally created rules—legal (pp. 78-79).

One who is active in politics seeks legitimate authority through one of these avenues rather than justifying violence by invoking one or more of these forms of authority. The state's use of violence is not terror when it appears as justified by legitimate authority; a contestable terrain. It appears more clearly as unjustified violence and terror as groups understand legitimate authority as cultural and social subordination or when it attempts to eliminate legitimate opposition.

Weber spends considerable space outlining the preeminent qualities of a leader with a vocation for politics, that is someone who seeks power as a means to serve other ends and not merely self-gratification—passion, a feeling of responsibility, and a sense of proportion (pp. 115-116). These qualities, like all human qualities, are held together in paradoxical if not contradictory fashion. Weber identifies the puzzle as "how can warm passion and a cool sense of proportion be forged together in one and the same soul" (p. 116). The passion that Weber has in mind is a "matter-of-factness" passionate devotion to a cause. The cause, however, tempers the passion with a sense of proportion, which comes with an ability to keep some distance from things and people related to the cause, that is, the ability to remain objective and responsible. Weber does not quite solve the puzzle he put forward but he does make clear that solving this puzzle requires that power remains a means to serving some cause but that the cause does not become an end itself and the end is certainly not the vanity of the powerful.

Taken alone, the emphasis on passion, ideals, and cause in politics could support extremism. In his own time, Weber was concerned with the extremism of pacifism and a Christian ethic expressed in the Sermon on the Mount. Weber checks the possibility of passion, ideals, and cause becoming extremism by balancing the *ethos* of politics as a cause with an *ethos* of politics as responsible compromise and proportionate action. He contrasts an ethic of absolute or ultimate ends with an ethic of responsibility. The decisive distinction between them is consideration of consequences of action. The ethic of ultimate ends focuses on intention while the ethic of responsibility focuses on the foreseeable consequences of one's actions (pp. 119-20). "The believer in an ethic of ultimate ends feels "responsible" only for seeing to it that the flame of pure intentions is not squelched; for example, the flame of protesting against the injustice of the social order" (p. 121). Thus, suicide bombers may see their action as a means to protest injustice and to inspire others to similar protest with no attention to the real and human consequences of that action to others. The ethic of responsibility focuses on consequences. It examines all foreseeable consequences of an action and assumes responsibility for them. In balance then, the ethics of absolutes and responsibility require political leadership to cling to a cause—the purpose to which politics, power, and violence are a means—but to act responsibly—to examine foreseeable consequences, forego absolute and ultimate goals, and remain in touch with the consequences of violence—in pursuit of a cause.

The dilemma is not over for us or Weber, however. The nature of the state, a relationship of legitimate violence, may require pursuing good ends through "morally dubious means or at least dangerous ones" with evil consequences. Sadly, Weber observes, "From no ethics in the world can it be concluded when and to what extent the ethically good purpose ‘justifies’ the ethically dangerous means and ramifications” (p. 121). This brings Weber back to his premise that “the decisive means for politics is violence” (p. 121) to which he adds that in the experience of the irrationality of the world good consequences may come from evil means and evil consequences from good means. “The world is governed by demons and … he who lets himself in for politics, that is, for power and force as means, contracts with diabolical powers” precisely because of this irrationality of the world (p. 123). Later he adds, “He who seeks the salvation of the soul, of his own and of others, should not seek it along the avenue of politics, for the quite different tasks of politics can only be solved by violence…” (p. 126).

After all of this, have we come full circle? Do we return to a position that the emphasis on passion, ideals, and cause justifies extremism in political leadership, including the use of terrorism? It seems that the ethic of ultimate ends trumps an ethic of responsibility as long as political leaders are steadfast enough not to crumble in the face of a world too stupid and base for what they have to offer. Clearly, Weber did not mean to provide a justification of terrorism or pacifism. Mandela’s careful reasoning and distinctions, as we shall see below, also suggest that there is indeed a path for politics without terrorism and violent protest of authority and violence that he and others consider illegitimate.

Arendt

Hannah Arendt helps us to move beyond Weber to resolve the confusion of political terrorism and to separate the state from legitimate violence. She approaches the issue of legitimate authority and violence in a different manner. She is not concerned with the authority to claim a monopoly over the legitimate use of the violence but with distinguishing legitimate authority from violence. Arendt insists that the authority, strength, and power of the state rest upon its legitimacy, which gives it the power to foster collective action among its citizens. State violence, which may be justified, suggests that the state lacks sufficient legitimacy to gain citizen compliance through non-coercive power. Legitimacy, it would seem, resides in the second and third dimensions of power (Lukes, 1975) not in the first dimension of nonviolent and violent coercion.

Arendt discusses a range of human relationships in the realm of public affairs—“power,” “strength,” “force,” “authority,” and “violence” and uses the lack of clarity among them as a measure of the paucity of political science at the time (Arendt, 1969, p. 43). Moving from the most legitimate to the least—authority demands respect for and unquestioning recognition of the right to ask compliance without coercion or persuasion. Strength is a property inherent in a person or object and belonging to its character, separate from other things or persons. Its hallmark is independence. It contributes to the respect and recognition of authority; for example, the strength of the Constitution, a monarchy, or a particular person. Power is the human ability to act in concert. Force is the energy released by social movements and other concerted efforts in the environment of the state. Violence entails the reliance on implements of coercion, including physical force, to acquire obedience or compliance and to deny the power of others to challenge authority. It marks, actively or reactively, a recognition that some groups and individuals deny the authority and hence legitimacy of the state. In such a circumstance, the greater the use of violence against those who question its legitimacy, the more the government expresses its own doubt about the effectiveness and efficiency of its legitimate forms of authority, strength, and power. Pushed to an extreme, this violence becomes state terror. “Terror is not the same as violence; it is rather, the form of government that comes into being when violence, having destroyed all power, does not abdicate but, on the contrary, remains in full control” (p. 55).

Arendt brings us to the central point of a theory of politics and political terrorism. Power may have legitimacy if rooted in authority but violence may have only justification. When a state resorts to violence against its own citizens, it admits that it no longer has the strength and power of legitimate authority to command the compliance without coercion. Justification of this violence may appeal to the need to assert legitimate authority that needs less justification of its forms of nonviolent coercion. Paradoxically, the less violence the state uses, the less justification it requires and the fewer challenges it constructs to its legitimacy. The state’s power and authority are enhanced by treating political violence and terrorism as criminal violence and using the ordinary means of coercion and the least violence possible.

When a group resorts to terror against its own citizens or another state, it admits it does not have power or strength to use other forms of violence, such as guerrilla or conventional warfare, to challenge the legitimacy of the state. Its violence challenges the state’s authority over a monopoly of justified or, in Weber’s terms legitimate, violence. It justifies its own violence, terrorism, in the illegitimate authority or actions of the state which may include a disproportionate use of violence, which is an unjustifiable scale of it. In other words, the state use of violence, like the use of political terrorism against it, should be tactical, not strategic, and designed to demonstrate its power as legitimate authority not violence.

Thus, the essential part of the political leadership of counter-terrorism is to conflict successfully over the political nature of the violence used against it; over the justification of counter-terrorist violence; and the legitimate authority of the state, and, by implication, the purpose of politics. By separating violence from other aspects of political leadership, Arendt reaches a radical formulation of the relationship of power and violence.

Power and violence are opposites: where the one rules absolutely, the other is absent. Violence appears where power is in jeopardy, but left to its own course it ends in power’s disappearance. This implies that it is not correct to think of the opposite of violence as non-violence; to speak about non-violent power is actually redundant. Violence can destroy power; it is utterly incapable of creating it (p. 56).

As this examination of Weber and Arendt indicates, our challenge becomes being able to “read” this relationship between power and violence—direct violence and indirect structural violence—into real-life situations we confront at home and in the world, examples of which are discussed in the following sections as this paper’s examination continues.

The Politics of Terrorism

On the morning of September 11, 2001, my students and I were learning the unimaginable from a totally unfamiliar text. The policy and leadership class started shortly after the second plane hit the World Trade Center. I turned on the classroom television, and for 75 minutes, my

22 students and I alternately watched reports of the terrorist destruction of the World Trade Center and shared our ties with the people under attack and other background and personal information. News arrived of a crash into the Pentagon and of another airliner reportedly heading towards Washington, DC. Televised rumors flew around the globe, and our classroom, concerning car bombs at the state department. Who was behind this violence, we wondered. Fortunately, three out of four students could explain Al-Qaeda, its relationship with the Taliban, the nature of the Taliban, and their limited diplomatic recognition by other states.

We stared in disbelief as the South Tower collapsed. A student noted with reluctant recognition, “This is the defining event for my generation, just as the assassination of President Kennedy was for yours.” But how will it define this generation? Students and curricula face this important question. Clearly, we are at a crossroads for today’s generation of students. What markers do we give them for defining the nature of terrorism and for deciding what route to take in dealing with it?

Political and Criminal Violence

I began to formulate some answers to these and other, new questions several weeks later after reading a student’s journal about his community service. He described the inner-city middle school student he was tutoring and the different worlds they shared. The uncle of his young charge had been shot and killed the year before. My student reflected about parallel universes; one had violence-filled streets and one had child-centered, secure and safe neighborhoods. He lived in the latter and his student lived in the former. After September 11th, however, he and all of us knew that we live in one world with a shared vulnerability to terror and violence.

Will we make connections with the children of inner city Richmond and places like it? Will we wonder at and about the world of terror in which they and we live, just like my student’s student and my student? Will we reduce our newly discovered world of terror to individual extremists with psychological shortcomings, religious zeal, or misplaced national aspirations? Will we assume that terror grows from hatred of a people for their virtues, such as freedom and hard work, and jealousy of the fruits of their virtues, such as prosperity and strength? Will our search for security lead to a repression of civil liberties in this country and an imperialistic new world order abroad? Will we defend our democratic institutions with democratic processes and replicate the Marshall Plan to build nations with economic security and peaceful intentions?

Amid this host of questions, I had a solid starting point to analyze the terror that we now knew, firsthand: the root of terror is violence—actual or threatened, real or implied, physical and mental. In October 2002, random shootings in the Washington, D.C. area filled millions of Americans with terror. Fatal violence could enter the everyday chores of shopping, working, eating out, or pumping gas. We may also find forms of everyday and frequent violence, which approximate terror, outside of the attention-getting dramatic episodes. Juveniles detained by courts, for example, leave no doubt that the children of our inner cities are no strangers to violence. Detained juveniles in Richmond, Virginia, for example, recounted their direct experiences with homicide victims and the sound of gunfire in their neighborhoods at least twice monthly. The boys described a world in which being the target of gunfire is part of life’s uncertainty. Just as most people know that the next time they cross the street they may be hit by a car, these boys believed that the next corner they turned might be their last. The girls' stories described a world in which violence in the home occurred all too often. The detention center offered some of them the most security they had ever known. Americans, especially the children of our inner cities, know violence-related terror.

Statistics suggest that our inner-city children know more violence-related terror than areas of the world often cited as vortexes of terrorism. The annual number of homicide victims in Richmond in the 1990s, for example, exceeded the number of victims in all of Northern Ireland's terror for every year since 1972. In 1998, the number of juvenile homicides alone in Richmond (11) surpassed the number of total homicides in Belfast (10). James Gabarino (1999) terms the neighborhoods where these children live "war zones." Poverty, unemployment, poor schools, low educational attainment, and fractured families have shockingly high rates of occurrence. Every year, the children living in war zone neighborhoods across our country experience violence in an up close and personal way when someone they know becomes a murder victim. The aggregate figure of inner-city murder victims in the United States exceeds the shocking toll of September 11th, annually.

Why is the carnage of September 11th terror and the carnage of our inner cities not? Because of the singular nature of that day and its many victims? Perhaps. But why then are the protracted incidents of violence with few victims in Northern Ireland acts of terror but the killings of inner city Richmond not? Clearly, there are similarities. They all entail violence, actual or threatened, real or implied, physical and mental**.** In all these cases, some people, without provocation, had their lives taken or faced life-threatening circumstances; for example, the child, sitting on her front steps, fatally wounded by a stray bullet. Still, we do not call such tragic occurrences terrorism. even though terrorism seems to involve violence towards people innocent of any direct provocation or of any direct responsibility for injury to the perpetrators of the violence. Why are victims of terror the workers of the World Trade Center and the people who lost their lives trying to rescue victims, but not the little girl on her front steps?

The answer may lie in the motives of the perpetrators of violence. Perpetrators of terrorism are deliberate in their use of violence against innocent victims. Unlike the young gunman of the inner city whose errant gunshot hits a young girl he does not know, terrorists intend to kill or injury people whom they do not know. Unlike the young gunman, again, the terrorists' injurious and murderous act has a public purpose and not just a private or personal purpose. When the first plane hit the World Trade Center, for example, it was not clearly an act of terrorism. It could have been an accident or a deranged pilot intending a suicide/ mass murder. Only when the second plane hit the World Trade Center was it immediately clear that these acts were purposeful as well as deliberate acts of violence although what purpose they served was not clear.

We need to distinguish among unseen, public, and political forms of deliberate acts of violence. Violence may be used deliberately for the purpose of robbery or within a family to punish or hurt a person for submission. Rape is another form of deliberate violence. The snipers of the Washington area also had a deliberate public purpose—to extort a fortune to get them to stop their killings. In contrast, the people of the World Trade Center were the victims of deliberate and purposeful violence by men with a political purpose.

Thus, the discussion of political terrorism must begin with the recognition that some forms of violence are deliberate and purposeful and others are not. Some deliberate and purposeful acts of violence are directly political and some are not—robbery and extortion, for example. Acts that may be terrorism in one context, presidential assassination attempts, become apolitical crimes of violence when they spring from a deranged mind—John W. Hinckley, Jr.'s attempt to take the life of President Ronald Reagan and the later attempt on Gerald Ford's life by Charles Manson's devotee Lynette "Squeaky" Fromme. Some forms of violence, such as U.S. "war zone" neighborhoods, may be political in an indirect deep sense of public morality and hidden dimensions of power. They are the logical consequences rather than the intentional and deliberate purpose of the state. Pierre Bourdieu refers to these forms as indirect and structural violence of the state (Bourdieu, 1977, p. 192).

This examination of political and criminal violence leads us to questions about deliberate and purposeful violence, indirect and structural violence that has political consequences, and their relationship to terrorism.

Political Violence and Terrorism

There are several forms of directly and explicitly political violence. When one state undertakes deliberate and purposeful political violence against another state we may call it war and a just act (Stern, 1998, pp. 17-19) even though its purpose, and certainly its consequence, may include terrifying a civilian population and its military and political leaders into submission; the much vaunted "shock and awe" strategy of the second U.S./Iraq war fits here. Within war some forms of violence are more legitimate than others (Carpenter, 2002). In general, for example, civilian populations are to be spared from military violence. However, since at least Sherman's March through the South and certainly in the era of total militarization, achieving civilian protection has become more and more difficult as civilians become part of the infrastructure of the military. In the era of total war that marked most of the twentieth century, Saddam Hussein could find ample precedent for his attack on the Kurds in Northern Iraq during the Iran-Iraqi war and in the aftermath of his defeat against allied forces in the Gulf War. The expanded vulnerability of civilian populations in the war efforts of their governments may explain why the civilian casualties in Iraq, including increased infant mortality—an estimated 500,000 children—resulting from the economic sanctions imposed by the United Nations, do not cross the political terror threshold.

Some forms of wartime political violence do cross over into terror, however. Rape was an instrument of terror in Serbia. The United States used nuclear weapons on two Japanese cities just as Germany bombed civilian populations of the United Kingdom in World War II, and the allied forces firebombed Dresden. How do we distinguish these acts of war from other acts of war and from other forms of political violence? How do we justify one and not the other since both take and risk the lives of noncombatants? It seems clear that the purpose of war is to determine who will set the conditions for the cessation of armed conflict, the resolution of the conflicting states' aims and policies that provoked armed conflict, and the terms of the relationship of the warring parties after the war.

Distinguishing deliberate and purposeful violence from unintended violence and political violence from apolitical and indirect (or structural) political violence, offers us a starting point for understanding political terrorism as a unique form of political violence. Next, we examine the scholarship on terrorism that will enable us to explain one aspect of political terrorism—the nature and role of political leadership within political terrorism.

Terrorism by, for, and against the State

Whether conducted by or against the state, terrorism entails the intentional targeting of civilian populations (Laquer in White, 2002, p. 75) with real or threatened violence (Jenkins in White, 2002, p. 8) to bring about a climate of fear, emotional exhaustion, and a lack of will to continue to resist demands placed upon the public (Crenshaw, 2002, p. 101). Political terrorism may be used by the state—Stalin's purges of the 1930s (Moore, 2002, p. 65; Arendt, 2002, pp. 33-34) or against the state—the Irish Republican Army (Crenshaw, 2002). Paramilitary groups, such as the armed wings of the Unionist parties of Northern Ireland or the death squads of Central American, may also use violence for the state. Al-Qaeda represented a new form of terrorist group, an international terrorist group with the support of a state but not conducting violence directly for it. The Bush administration responded by including host countries as targets in a war on terrorism. We will deal with terrorism by and against the state primarily. Before taking up their distinction, we will explore what both forms of terrorism have in common.

Political terrorism, whether by or against the state, is inversely related to power. Ted Gurr explains terrorism as a tactic used by the weak to intimidate the strong and by the strong to intimidate the weak (Gurr in White, 2002, p. 205). Terrorism as a tactic against the state indicates a lack of the power to conflict with the state in "higher" levels of violence such as guerrilla or direct warfare. When a state resorts to tactics of terror against its own citizens, it undermines the power and legitimacy of its own civil and criminal processes or their waning power to enforce order without resort to violence. Stalin's show trials, Saddam Hussein's elimination of political opponents in and outside of the Baath Party, and his attacks on the Kurds illustrate a lack of legitimate authority to achieve a political purpose. Similarly, when vigilante groups or "death squads" undertake political terror for the state, that is to root out political opposition to the state, they too express the inadequacy of the power of the state, albeit frustration with the cumbersome nature of legitimate forms of authority, power, and coercion.

Gurr explains terrorism as a tactic but it may also be a strategy. Rather than an order of armed violence lower than guerilla and open warfare, terrorism may be a new level of protest, that is violent protest, to demonstrate the vulnerability of the state and its citizens and publicize a group's or individual's new or continued opposition to the state. State terrorism, unlike the terror of sub-state groups, may eliminate political opposition and not just express resistance to them. In either case, terrorism separated from power takes on the character of a strategy more than a tactic, becomes more clandestine, and requires less organization and leadership. As a strategy, terrorism risks losing sight of its political purpose, however, and losing sight of any strategy to achieve it.

Political terror is much more likely to be successful as a tactic in a larger strategy and when its consequences for strategic goals are thought out and apparent. Political terror, when adopted as a strategy, suggests that the connection of means and ends are not well thought out or apparent (Crenshaw, 2002, p. 107). Political terror against the state may even bring on popularly supported repressive measures when the terror seems without purpose, a strategy not a tactic, or when the tactical goals lack significant support in the general population. The state may safely deal with the violence of strategic noninstrumental terrorism, especially by its own nationals, as criminal violence rather than political terror. Examples are the violence against clinics and individual providers of abortion services, the Symbionese Liberation Army, or Aum Shinrikyo's release of sarin gas in the Tokyo subway. When the state escalates the nature of a criminal threat to a political threat by moving from nonviolent to violent coercion, for example the siege at the Weaver property at Ruby Ridge and the assault on David Koresh's Branch Davidian sect, it justifies the use of strategic terror against the state in the minds of chiliastic and infeasible revolutionaries. Repressive measures by the state that exceed proportionality, such as the British repression of the Easter 1916 Rebellion in Dublin by artillery, the execution of IRA leaders, and the imprisonment of thousands of followers and its later use of Black and Tans forces, may permit tactical terrorists to increase their violence to guerilla warfare because of increased popular support and justification (White, 2002, pp. 84-85).

Terrorism, whether as a tactic or a strategy, entails a rational choice that may have a wide range of political goals: revolution, right and left; counter-revolution; nationalist; separatist; millenarian or reactionary; gaining or retaining political power; anarchy and totalitarianism; etc. (White, 2002, p. xviii). The connection of terror to a broader political goal may be well-thought out but tactically unsound or poorly conceived and a strategy in itself (Crenshaw, 2002, p. 107). However well developed its political goal may be, if it has little feasibility of being understood, shared, or achieved, then the tactical political value of terrorism decreases. However rational, terrorism is a "cultural performance with intense symbols and historical references" that intends a "culturally embedded, absorbing and transforming symbolic constructs of reality, morality, and truth" (Besteman, 2002, p. 2, 6). Victims of political terrorism have little intrinsic political value (Crenshaw, 2002, p. 99). Their death and injury are more important to express symbolically the danger to random and ordinary citizens (White, 2002, p. 21), the power of the terrorist group to inflict harm; the sophistication and cunning of their methods; and the revenge they seek to exact or purpose to achieve (White, 2002, p. 198). Beyond inflicting or threatening physical harm, the tactic of terrorism is a calculated rational choice of dramatic episodes to achieve particular political goals (Besteman, 2002, p. 2; Crenshaw, 2002, p. 100) by "the systematic inducement of fear and anxiety to control and direct a civilian population" (Crenshaw, 2002, pp. 100-101). The World Trade Center and its destruction was a symbol for the terrorists who attacked it and for subsequent U.S. counter-terrorism against them. Bob Woodward closes his panegyric on President Bush's leadership in the Afghanistan war with a scene of 25 men from Special Forces units and CIA paramilitary teams in Afghanistan. They "dedicated" this spot with an American flag and a pile of rocks assembled as a tombstone over a piece of World Trade Center debris.

> One of the men read a prayer. Then he said, "We consecrate this spot as an everlasting memorial to the brave Americans who died on September 11, so that all who would seek to do her harm will know that America will not stand by and watch terror prevail. We will export death and violence to the four corners of the earth in defense of our great nation." (Woodward, 2002, pp. 351-352).

Political terrorism, especially as a tactic, whether by or against the state, draws from a deep well of preconditions (Crenshaw, 2002, p. 101; White, 2002) such as historical events and conditions, the interpretation of which legitimate political violence as counter-terrorism or revenge. The preconditions of political terrorism—hunger, poverty, illness, illiteracy, large-scale unemployment, cultural subversion—will have conflicting meaning and interpretations of their origins. For some, these preconditions represent indirect and structural forms of political violence of the state; for others, they represent direct forms; political violence by the state may take on direct and indirect forms (Besteman, 2002, pp. 303-304). Colonialism, for example, provides a form of indirect political violence that the state attempts to obscure behind justifications that assert superiority and inferiority of some groups (Orwell, 1936). When a group feels unjustly deprived by indirect, legal violence, elites within that group may act in violent and nonviolent ways to resist the laws and the states (Crenshaw, 2002, pp. 103-104).

Advocates of political violence against the state, at least in the case of colonialism, such as Frantz Fanon (1963) and Albert Memmi (1991), explained the colonized and the colonizer as reflections of the same violence. Explaining the difference between them explains the indirect and structural violence, of which Bourdieu speaks; the misery of the colonized is justified by some attribute of the colonized, for example cultural superiority or good intentions. Fanon and Memmi understand state violence to extend to the attribution of the conditions of stark inequality and privilege to the psychological nature and abilities of the different groups. They suggest that the psychological explanations of terrorism have political origins and are part of the resistance to the power of the privileged to oppress others. That power extends to the second and third dimensions of power and their capacity to shape the self-consciousness of the less powerful, the feasibility of change, and the efficacy of protest (Lukes, 1975; Scott, 1990). Fanon cites a World Health Organization scientist who, after examining Africans in the Center and East of Africa described them as “lobotomized Europeans” (Fanon, 1963, p. 302). Sartre took from Fanon’s writing insight into the violence of the colonizer, including rationalizations of the privilege of the European in their superiority over the colonized and the need of continued suppressive violence (Sartre in Fanon, 1963). In Fanon and Memmi, and others (Orwell, 1936), we find a political origin, in the precondition of oppressive violence, of some of the psychological generalizations of the terror of the powerless. As Sartre rhetorically argued, “You say they understand nothing but violence? Of course; first, the only violence is the settler’s, but soon they will make it their own; that is to say, the same violence is thrown back upon us as when our reflection comes forward to meet us when we go toward a mirror” (Sartre in Fanon, 1963, p. 17).

Often a spark ignites a round of political terrorism by the state. On October 23, 1989, a white couple was shot in the racially mixed area of Mission Hill in Boston. Carol Stuart, pregnant, died on the scene and her baby died several weeks later. Her husband Charles claimed a black man with a raspy voice shot them. His charge set off a police search that terrorized the black community. Charles Stuart later committed suicide when it became clear that he had shot his pregnant wife in the head in an attempt to collect insurance. He wounded himself, as part of a cover up, and had selected the location of the murder and the false description to play on the underlying racist assumptions of the Boston police and others according to the wounded husband (Kasiecki, 2000).

The spark that ignites terror may have very indirect ties to preconditions such as racism and sexism. A precipitating event may have roots in conflict for support among competing political groups or in the internal needs of a group for control, discipline, or morale building (Crenshaw, 2002, p. 108). The African National Congress, for example, had pressure to adopt some form of political violence because of the Pan African Congress. Ariel Sharon visited the Temple Mount, in part, to demonstrate the harder line of his Lihkud Party towards the Palestinians than that of Ehud Barak and the Labour Party, then in power. His visit was both a matter of Israeli internal politics and a provocation of militant Palestinian groups (Mitchell, 2001, p. 5).

Terrorism against the State

Tactical and strategic terror against the state have correlates with the size of terrorist groups, the nature of their leadership, and the feasibility of their political goals. Ted Gurr points out most terrorism against the state comes from small, short-lived groups that do not pose a serious threat to the state (White, 2002, p. 33). Extreme terrorists who portray their crusades as a cataclysmic clash of civilizations and in some form of eschatological drama (White, 2002, pp. 49-50) are least likely to provide a convincing link between terrorism and some achievable political goal. Terrorism becomes more "legitimate" the stronger its leadership forges links to connect its political violence and broadly shared political goals such as nationalism, separatism, democratic participation, anti-colonialism, self-determination, or even theocracy (White, 2002, pp. 49-50). The possibility of a group's successful political terrorism against the state hinges on the potential acceptance of its legitimacy and its claims that there are no alternatives to violence (Crenshaw, 2002, p. 114). A small terrorist group with little chance of bringing about a political or social change, such as the Weathermen of the 1960s, will more often use terror as a strategy. An inchoate goal for the strategy of terrorism reduces its adherents. This in turn reduces the need for organization and thus leadership; Ted Kaczynski, the "Unabomber" conducted a one-person campaign of political terror. In contrast, a larger group with hope in achieving broad political and social change, such as the Irish Republican Army under Michael Collins, is more likely to use political terror as a tactic (White, 2002, pp. 78ff).

The rational choice of terror against the state incorporates the weakness and intentions of terrorist leadership. It falls on a spectrum between disorders and riots on the one hand, and on the other guerilla war, low-level war, limited conventional warfare, and unlimited conventional warfare (White, 2002, p. 13). Its premeditation and symbolic nature separate terrorism from riots and its relatively low-level of violence separates it from forms of war (Crenshaw, 2002, p. 99). Small extremist terrorist groups may express leaderless resistance to some part of state policy, such as the conduct of legal abortions (White, 2002, p. 43). These terrorist groups require less organization (White, 2002, p. 43) because the strategy of terrorism more resembles violent disorder and riots. The strategy of terrorism, however, also indicates the relative weakness of a group and its incapacity to conduct violence by traditional military means. The state may ordinarily use this weakness to depoliticize the violence of small extremist groups and to portray it as criminal rather than political violence (White, 2002, pp. 269-271).

As a tactic, rather than a strategy, terrorism resembles more the conduct of warfare and thus requires more leadership and organization. It is likely to be a calculated choice and imply the inefficacy of legal redress and the unlikelihood of successful violent revolution (Crenshaw, 2002, pp. 103-105). Michael Collins and the IRA provided a model for later terrorists by following state officials, police, and intelligence officers, to their homes and murdering them there. He thus sought to demonstrate the vulnerability of the state and its agents. Collins's actions in the Irish Rebellion would inspire the later actions of Jewish terrorists—Irgun Zvai Leumi—to hasten the partition of Palestine (White, 2002, p. 100). As a tactic, terrorism seeks to build power so that its armed and violent resistance may move on to the next level of guerrilla warfare. Political terrorism against the state may gain power by an attrition that saps the will of the state to continue resisting the political and social changes sought. The success of the Ku Klux Klan from 1869 to 1876 in the American South (Couto, 1991, pp. 222-228) and the Irgun Zvai Leumi's terrorism against the British in Palestine (White, 2002, p. 100) offer good examples of success by attrition. Its success as a strategy depends upon its ability to win adherents to the belief that there is no legal redress available (Moore, 2002, p. 63) and that the group's terror is a temporary tactic until there is sufficient strength to wage guerrilla and then perhaps conventional warfare, and then to establish legitimate government. The success of terror as a strategy depends in great measure upon the use of violence by the state.

Terrorism by the State

Terrorism by the state indicates its own relative powerlessness, specifically the inadequacy of the state's civil power to maintain order (White, 2002, p. 277) or the inadequacy of the civil power to curb violence that is waged against it without criminalizing and restricting some previously legal and permitted conduct. Legal and extralegal repression of a group by the state or its agents may inculcate terror—feelings of fear and vulnerability—and measure the preexisting indirect and structural violence of the state. The South African government's laws banishing the ANC and increasing criminal acts for their seeming political intent, Sabotage Act (1962) and General Law Amendment Act (1963), illustrated the underlying violence for Africans and the international community (Johns & Davis, 2002, p. 91). Lynching, the war on drugs, and the police rampage in Roxbury all remind African-Americans and other racial minorities of preexisting indirect and structural violence of the state.

Too much state violence undermines a minimal framework of regularity and legality (Moore, 2002, p. 66). Even nonviolent actions of public officials that remind a group of its claims of the oppressive preconditions of violence may precipitate new terrorism against the state, as when Ariel Sharon's visit to the Temple Mount on September 28, 2001, sparked a renewed intifada (Mitchell, 2001).

One enabling condition of the terrorist violence against the state is its own practice of violence. The death penalty, for example, sanctions the taking of life. In the case of DC snipers, the *Wall Street Journal* editorialized that capital punishment struck the balance of justice. Capital punishment provides a legal justification for a cultural and social value of holding grudges and an underdeveloped sense of justice as retribution. Both of these factors provide an environment of the social acceptance of violence that may influence terrorists. Violence as an instrument of justified vengeance was also the choice made by Timothy McVeigh in the aftermath of United States' government action against unlawful but nonviolent conditions at Waco, Texas and Ruby Ridge, Idaho. These latter actions still provide "ammo" for the "revolution" of "freedom fighters" (Revolution, 2007), a group that may range from libertarians to violent opponents of the

U.S. government. The state's use of violence is endemic in the formation of nation states of the modern era. The state develops the capacity to use violence "on a larger scale, more effectively, more efficiently, with wider assent from their subject populations, and with readier collaboration from neighboring authorities" than other groups within the same territory (Tilly, 2002, p. 38). The greater its success in monopolizing violence, the more clandestine and apparently criminal, not political, will violence against it appear. The small and clandestine nature of terrorist groups enables them to function (Crenshaw, 2002, p. 103) but also limits their threat to the state (Gurr in White, 2002, p. 33).

These links of state actions, social acceptance of violence, and terrorism against the state have particular and ironic application at the present time. Al-Qaeda and the leadership of Osama bin Laden have direct links to the support that the United States government gave to the Mujahadin during their resistance to the Soviet invasion of Afghanistan in the 1970s (White, 2002, pp. 162-163). Similarly, the threat that Saddam Hussein posed to the United States and its allies had direct bearing on the support that he received from the British and United States governments during Iraq's war with Iran (Pelletiere, Johnson, & Rosenberger, 1990). The deposition of Saddam Hussein's regime did less to inspire terrorism against occupation forces than the inability of the provisional authority to provide security against criminal violence (Couto, 2003, pp. 22-24)

Other state action may stimulate or increase political terrorism. For example, if countermeasures of the state to forms of resistance, violent and nonviolent, exceed existing legal measures or appear disproportionate to the threat of violence against the state, they may serve as indirect or direct forms of state terrorism and engender sympathy and support for violent and nonviolent resistance. Unexpected and unusual violence by the state to quell protest and dissent may be a precipitating cause of terrorism against the state (Crenshaw, 2002, p. 105). The South African government's excessive violent responses to demonstrations in Sharpsville and later in Soweto illustrate this possibility. The policies of the state greatly influence the growth in numbers and popular acceptance of terrorist organizations (Crenshaw, 2002, p. 114) and may help move them from terrorists to guerrilla forces.

The state may enable its own terrorism as well as terrorism against it. For example, the repression of legal avenues to address grievances of a large portion of the population permits state violence against a portion of it. As Barrington Moore points out in his assessment of the terrorism of the Soviet Union, "Whatever destroys the play of interest groups within the society and permits a single group to dominate inevitably destroys the only realistic guarantee that organized violence will not be used against dissenting persons or groups in the society" (Moore, 2002, p. 63). Moore uses Stalin's purges and the forced collectivization of the farmlands of the kulaks to illustrate this point (Moore, 2002, p. 62).

States may embrace organized terror from a crusading spirit that comes from "the fanatical conviction in the justice and universal applicability of some ideal about the way life should be organized along with a lack of serious concern about the consequences of the methods used to pursue this ideal (Moore, 2002, p. 64). In practice this organized terror of the state represents the effort "to alter the structure of society at a rapid rate and from above through forceful administrative devices" (Moore, 2002, p. 64) Moore uses Stalin as an example and is generally concerned with the question of terror and socialism (Moore, 2002). Pol Pot’s Cambodia suggests another form of state terror on behalf of socialism, albeit inchoate. Pinochet’s terror in Chile makes clear that state terror may be linked to capitalism as well as socialism. Mao Tse-tung used state apparatus from above to mobilize the masses below to renew revolutionary fervor. Saddam Hussein used violence to eliminate political opponents and the Baath Party to consolidate and maintain his power by terror. Ethnic cleansing in Rwanda, Serbia, and other nations suggest another purpose of organized state terror. Terror is a necessary counterpart to a cult of infallible leadership that prevents alternative appraisals of a situation (Moore, 2002, p. 66). We will have more to say on this later as we discuss the role of folly in political leadership. The excesses of crusading terrorism have far more devastating consequences when conducted as organized state terrorism compared with the efforts of fringe and clandestine groups opposed to the state.

Terrorism against the State as a Reflection of Terrorism by the State

Perhaps the clearest statement of terrorism against the state and as a reflection of the violence by the state comes from political leaders who embraced violence reluctantly and disavowed terrorism deliberately. In his April 20, 1964 trial, Nelson Mandela explained the role of violence in the African National Congress strategy of resistance and distinguished it from terrorism. He explained that a month after Sharpeville, the ANC formed Umkhonto we Sizwe (Spear of the Nation). At Sharpeville on March 21, 1960, the Pan African Congress organized a nonviolent demonstration against the passbooks that controlled the movement of Africans within their own country. Police fired into the crowd and killed 69 people. Mandela explained that this violent repression of nonviolent protest gave the ANC no choice but to respond to violence with violence. After decades of nonviolent protest of laws seen as unjust, the government had legislated against such protest defining them as a particular form of criminal activity with additional penalties, and then, at Sharpeville, “resorted to a show of force to crush opposition to its policies.” “…Only then did we (ANC) decide to answer violence with violence” (Mandela, 1964; Johns & Davis, 1991, p. 117).

> Mandela then painstakingly distinguished among forms of political violence, explained the strategy of political violence, and maintained that although ANC embraced violence as a political tactic, it disavowed terrorism.
>
> Four forms of violence were possible. There is sabotage, there is guerrilla warfare, there is terrorism, and there is open revolution. We chose to adopt the first method and to exhaust it before taking any other decision.
>
> In the light of our political background the choice was a logical one. Sabotage did not involve loss of life, and it offered the best hope for future race relations. Bitterness would be kept to a minimum and, if the policy bore fruit, democratic government could become a reality. This is what we felt at the time, and this is what we said in our Manifesto (Exhibit A, D):
>
> "We of Umkhonto we Sizwe have always sought to achieve liberation without bloodshed and civil clash. We hope, even at this late hour, that our first actions will awaken everyone to a realization of the disastrous situation to which the Nationalist policy is leading. We

> hope that we will bring the Government and its supporters to their senses before it is too late, so that both the Government and its policies can be changed before matters reach the desperate state of civil war."
>
> The initial plan was based on a careful analysis of the political and economic situation of our country. We believed that South Africa depended to a large extent on foreign capital and foreign trade. We felt that planned destruction of power plants, and interference with rail and telephone communications, would tend to scare away capital from the country, make it more difficult for goods from the industrial areas to reach the seaports on schedule, and would in the long run be a heavy drain on the economic life of the country, thus compelling the voters of the country to reconsider their position.
>
> Attacks on the economic life lines of the country were to be linked with sabotage on Government buildings and other symbols of apartheid. These attacks would serve as a source of inspiration to our people. In addition, they would provide an outlet for those people who were urging the adoption of violent methods and would enable us to give concrete proof to our followers that we had adopted a stronger line and were fighting back against Government violence.
>
> In addition, if mass action were successfully organized, and mass reprisals taken, we felt that sympathy for our cause would be roused in other countries, and that greater pressure would be brought to bear on the South African Government.
>
> This then was the plan. Umkhonto was to perform sabotage, and strict instructions were given to its members right from the start, that on no account were they to injure or kill people in planning or carrying out operations. These instructions have been referred to in the evidence of 'Mr. X' and 'Mr. Z'. (Mandela, 1964, n.p.).

Oliver Tambo, Mandela’s law partner and leader of the exiled ANC, also clearly explained violence as a tactic of resistance while clearly distinguishing ANC’s policy of “controlled violence” from terrorism. Even in the 1980s, when the ANC encouraged intensified violence, it explained this policy as guerrilla warfare and maintained an emphasis on violence as sabotage, while admitting that the threat of death and injury to innocent people and agents of the state existed in any form of violence (Tambo, 1983). The ANC eventually, in 1988, repeated its disavowal of terrorism and the intentional targeting of civilians by more radical element of Umkhonto we Sizwe (Johns & Davis, 1991, p. 312).

> The strategic outlook we project and encourage is one which focuses on mass struggle against the apartheid regime for the liberation of our people. There can be no question of agreements with anybody outside of this framework. As we said before, our activists, whether functioning at the legal or the illegal level - and we have to function at both these levels - adhere to our strategic concept of drawing the masses of the people into conscious, organised, and united action. Functioning at both these levels, it is their task to win into one common front of united action all organisations that are opposed to the apartheid system and are fighting for genuine national and social liberation (Johns & Davis, 1991, p. 240; Tambo, 1983).

Although regarded by many to be the epitome of an international standard for peace and reconciliation, Mandela’s use of violence raised the specter of terrorism for others. In Northern Ireland, for example, peace advocates, in the 1998 campaign on the referendum on the Good Friday Accord, sought a headliner to attract attention and supporters for a yes vote on the referendum. Campaign organizers considered Nelson Mandela for that role but decided against pursuing the invitation very far because of their efforts to win over moderate Protestant voters, middle-Unionists. That group’s largest fear was that the new political arrangements of the peace accord would release the terrorists of the IRA from prison and that they would come to power. For the middle-Unionists, Mandela had a paramilitary history and was now in power; exactly what they feared Sinn Fein leaders might do in Northern Ireland. The labyrinth of political violence and the state brings us back to the question of political leadership and the justification of political violence with which we began.

Conclusion

Through an understanding of power as authentic leadership by legitimate authority, and violence as a sign of a breakdown of power, leadership, and legitimacy, we begin to create narratives that formulate other choices to violence and its attendant terror. In addition to historical examples of political violence, our inner-city children also teach us how to end a spiral of terror and violence. That narrative begins with the insistence that there are other choices to violence and its attendant terror to gain what we want. They tell us that those who turn to violence think that “Once you got a gun, you’re on top of the world” (Couto & Stutts, 2000, p. 3). To this assessment, we make a counter call “…Out of the barrel of a gun grows the most effective command, resulting in instant and perfect obedience. What can never grow out of it is power” (Arendt, 1969, p. 53).

The politics of terrorism suggest a central counter-terrorist approach: de-politicizing the violence of terrorists whenever possible and using the authority and power of the state to treat it as criminal violence. It also means politicizing the justifications of violence, such as capital punishment, and their indirect and structural forms, such as the inner city. The implications for political leadership could not be greater.

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Adult Development Theory and Political Analysis: An Integral Account of Social and Political Change in Soviet and Post-Soviet Russia

Elke Fein[1]

Abstract: I propose a reading of social, political and discursive change in Soviet and post-Soviet Russia which is inspired by an integral, above all developmental perspective. In view of explaining Russia's current political trajectory, I make several arguments. First, I claim that Russian politics are still to a large extent determined by the effects of a threefold crisis of sense-making. Neither the collapse of the Soviet empire, nor the question of how to define democratic government nor the lack of a resilient national identity have so far been resolved and re-appropriated in a transformative manner. Second, I try to show how this affects various aspects and dimensions of Russian politics. Third, I engage in a brief overview of a number of adult development models, asking to what extent and how the characteristics of consciousness development, particular stage characteristics, and the general logics and dynamics of successful and unsuccessful development these models describe can be helpful to the analysis of Russian politics. Also, I discuss their compatibility and parallels with discourse theory and analysis as an increasingly popular methodology in Russian Studies. Of the developmental models reviewed, the theory of political development by Stephen Chilton and the self-protective action logic in Susanne Cook-Greuter's model of self and identity development are particularly relevant for my purpose. On these grounds, it is argued that since Vladimir Putin's taking office as Russian president and later prime-minister, politics and (official) political discourse have increasingly come to follow self-protective action logics as conceived by Susanne Cook-Greuter. This diagnosis, which could either be understood as a regression or as a realignment of internal and external dimensions of political development, can be explained as a reaction to Russia's crisis of identity followed by a loss of internal stability and international influence connected to the dislocations mentioned above.

Keywords: Adult development theory, complexity, development, discourse analysis, discourse theory, dislocation, identity, levels of consciousness, Russia, self-protective stage, social science.

Introduction: Whither Russia?

Social scientists dealing with the process of regime transformation in post-Soviet Russia are increasingly struck by what in many respects looks like a move "backwards," towards illiberalism and authoritarianism. Almost ten years after Vladimir Putin's advent to power as Russian president and now prime minister, however strong and stable the regime might appear,

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liberal democracy seems to be more unlikely than ever before in the whole period of post-Soviet transformation. Even though democracy, modernization, and the rule of law have constantly been part of the official political language in Russia during the past two decades, all of these terms currently have to be interpreted through specific discursive frames such as the discourses of Eurasianism or of "sovereign democracy," claiming that Russia was a civilization of its own and either must not copy western ideas, standards, and institutions or could not afford this kind of "luxury." Even though some observers still hope that president Medvedev could eventually "emancipate" the country from the most illiberal aspects of Putin's heritage, it remains unclear for the time being in which direction Russia's transformation is heading. So how can this political and cultural trajectory be explained? And how could we (that is both academic observers and political actors inside and outside Russia) possibly come up with constructive strategies to deal with these developments on a political level?

The following reflections are based on my almost 15 years of personal and academic preoccupation with political and cultural developments in Russia, during which I took a special interest in Russia's way of relating to its Soviet past after the collapse of the Soviet Union. Born and socialized in Germany, my main focus of interest has always been the connection between Russia's political development and her ways of dealing with the country's non-democratic and totalitarian experiences of the 20th century. Having gained increasing familiarity with integral, and, in particular, developmental approaches during the past years, it seems a fascinating and challenging endeavour to combine the two research trajectories, which the following contribution attempts to do.

In this article, I claim that Russian politics are still to a significant extent determined by the after-effects of the largely non-digested, multi-dimensional crisis of sense-making (dislocation) connected to the collapse of the Soviet Union in 1991, influencing many aspects of socioeconomic, political, and cultural life, and discussed in the first part of the article. Since the impacts of emotionally "undigested" experiences of dislocation[2] tend to manifest themselves in largely unreflected, subconscious mechanisms (Mitscherlich, 1967; Schwan, 1997), a significant section of my article is devoted to reviewing theories of consciousness as a device for inquiring into the realm of these invisible, yet powerful spheres, in order to make visible at least some of their workings and logics. On these grounds, I would like to propose a theory about where Russian politics and society are in this regard and why. On the basis of structural models of adult development (such as those of Piaget, Neo-Piagetian approaches to the development of political culture, and in particular Susanne Cook-Greuter's model of self-development), supporting meta-perspectives on social and cultural change, I would like to propose a more integral way of explaining social and political change in post-Soviet Russia.

Besides, I argue that developmental theories show multiple parallels to and compatibilities with well-established social science theories and methods, namely discourse theory and analysis, while at the same time transcending the overall outlook of the latter, discussed in the second part of the article. Affording interesting new perspectives on current developments in contemporary Russia, they could therefore enrich sociological and discourse analytical accounts of the deeper, structural levels and mechanisms of cultural and discursive change.

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[2] A term coined by Ernesto Laclau and Chantal Mouffe in their discourse theory (see below), meaning crisis of sense-making on a larger, collective (cultural) level.

Thus, my overall aim in this article is twofold: first, to summarize and review basic concepts and assumptions of some developmental approaches in order to discuss their value for political analysis of societies in transition in general and their parallels with and analytical “surplus value” for discourse theory and analysis, especially in the tradition of Ernesto Laclau and Chantal Mouffe, in particular. Second, I propose an integrally informed account of political and cultural change in post-Soviet Russia on the basis of an adult developmental theory perspective, covered in the third part of the article.

Dislocation and Politics in Transitional Russia

At the beginning of post-Soviet Russian history was a fundamental, at least threefold dislocation (crisis of sense-making), the scope and implications of which probably still have not been fully grasped or integrated by a significant number of either the leading political actors or the majority of the Russian population.

The dislocation of the Bolshevik Soviet state ideology (1), a long and subtle process which began in the early 1960s, subsequently lead to a steady erosion of power of the Soviet model of leadership and rule (2) during the 1970s and 80s and culminated in the collapse of the Soviet Union (3) in result of Gorbachev’s politics of Perestroika. A glance at post-Soviet Russia’s social and political trajectory during the past two decades shows that none of these three dimensions of what was probably the most important dislocation of the second half of the 20th century has so far been fully re-appropriated politically, culturally, and emotionally.

During the 1990s, the most decisive experience for the majority of the population was that of chaos and lack of leadership in the realm of political organization, and of social and economic degradation, in result of which ideas like democracy, freedom, and market economy were strongly delegitimized. This made it easier for political actors to declare these ideas to be western inventions, foreign and hostile to Russia.

Now, during the past ten years, the country has rather experienced what looks like a move back towards Soviet habits and patterns of political thought and action in many regards. While ideology, for example, has indeed been officially banned from state politics by Russia’s 1993 constitution, the government under Putin has made increasing efforts to regain control over public and cultural realms through control of the media, campaigns against critical literature, and attempts to regain hegemony over the construction of historical truth (Mommsen & Nußberger, 2007). This includes a revaluation of Stalinism and mourning the end of the Soviet Union. In this context, it is not surprising that a balanced, unemotional national debate about how to evaluate and which lessons to learn from the Soviet experience has so far been difficult. At heart, only with regard to the collapse of the Union has the political class begun to engage in an open, nationwide debate about which consequences should be drawn from it. This debate, however, is mostly characterized by geopolitical logics of strategic influence and interest rather than by engaging in a more thorough and outright inventory of the situation. On these grounds, it seems that official political Russia is making only the very first steps of a long and probably difficult process of re-appropriating the dislocative experience connected to the end of the Soviet era.

Dislocations as Chances for Political Transformation, Development and Cultural Growth

By re-appropriation, I mean the socio-political and psychologico-cultural process of de-identifying with a *subjective* or *intersubjective* experience through gradually turning it into an *object* of perception and reflection. Developmental researchers in the tradition of Robert Kegan (1982/1991) have described this psychological process as taking a critical distance towards what was taken for granted before, so that it gradually becomes visible as a separate object which the (collective) subject can relate to, reflect about or learn from. Growth, according to Kegan, always includes a process of de-identification, differentiation, and of unhinging out of a former embeddedness, which he calls decentering (losing an old centre of the self) – and of a subsequent recentering around a new system of (inter-) subjective balance. According to Kegan, "development is defined by creating objects (a process of differentiation) and relating to them (a process of integration)," so that on each new level, the projected ambivalence diminishes and we concede to the world a bit more identity of its own. With each new level, the individual thus perceives the world a little more as an entity that is different from and independent of him or her self (Kegan, 1982/1991, pp. 55, 95, 112, 140).

For our topic here, this means that only if such a critical, objectifying distance has been established, can experiences be reflexively re-appropriated, their invisible power be dissolved, and they themselves eventually be integrated on a higher level of learning, development, and being. If, in contrast, a distance of de-identification, differentiation, and objectivation is not taken, the experience in question is likely to continue to exercise power over the (inter-) subjective perception of self and identity; in other words, the memory and the logics of reasoning and interpretation connected to it continue to determine thinking and action as the only available construction of the real (see Wilber, 2006). It is therefore plausible that the deeper a traumatic or the more radical a dislocative experience, the more time, psychic energy, and strength it takes to go through the process of transformation, de-identification, and critical re-appropriation.[3] Transformation is thus conceived here as a substantive *vertical* development in the sense of a qualitative learning and growth process, making critical and constructive use of experiences by transcending and including them into broader, more complex, more differentiated and thus more adequate new solutions, worldviews, orders of reasoning and conceptions of one's own self as opposed to mere (*horizontal*) "change."[4] Understood in this way, the empirically observed solutions/worldviews/orders of reasoning and self-conceptions can be analyzed qualitatively, focusing on their degree of complexity, and on evidence of their re-appropriating and integrating past experiences. This analysis can make use of the categories provided by adult development theories as proposed in the next part of this paper.

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[3] See Schwan (1997) and Markus Wehner (Frankfurter Allgemeine Zeitung's former correspondent in Moscow) who wrote that Russia was "a country without memory. To confront the past could reduce the certitude to be on the right track. German Vergangenheitsbewaeltigung appears as a masochistic act, foreign to the Russians. Their past is too cruel and too close" (Markus Wehner: Hauptsache frei. Russland feiert, egal was, warum und wie, aber am liebsten im Mai, in: Frankfurter Allgemeine Zeitung, 4.5.2002).

[4] See Kegan 1982/1991, pp. 118 and 121. This is in line with Stephen Chilton's discussion of the term development (Chilton 1988a), see below.

Political Culture

Developmental complexity, however, is not merely a relevant category for analyzing public discourse[5] and culture but can also be applied to other factors of political analysis like economic and institutional change or the behaviour of political elites. While an integral approach is bound to take into account all of these dimensions at an equal rate, analyzing political culture appears to be a particularly pertinent strategy in contexts of instability and transition. Since culture is where peoples' understanding of their behaviour becomes visible, the cultural system in some sense "mediates the micro-macro relationship" of individual systems of belief and action on the one hand, and the social system on the other. Because changes in the cultural system (as part of the internal realm in Wilber's terms) are for the most part closely related with factors from the external realm, the study of political change, according to Chilton, must start with the cultural system (Chilton, 1988b, pp. 141ff.,154).

Political Culture as Mediator of Micro and Macro: An Example from Russia

As an example illustrating both the complexity of public reasoning and its interdependence with political, cultural, and institutional change (in other words, interior and exterior structural variables and conditions of political development) let me briefly refer to a previous study on Russia's dealing with its Soviet past (Fein, 2007). Through a discourse analysis (in the tradition of Foucault and Laclau/Mouffe) of the so-called CPSU-trial between Yeltsin and the former communist party at Russia's Constitutional Court in 1992, I could demonstrate that the discursive struggle for hegemony about the Soviet past had important consequences not only for the re-definition of Russia's discursive regime on a more general level, but also for the development of attitudes, political behaviour, and for the working of political institutions in the following years. In a nutshell, my analysis brought forward two interesting and connected insights, first with regard to structural developmental complexity, and second, with regard to the relation between interior and exterior determinants of political development. As to the first aspect, it was most stunning that although Yeltsin's team had all the archival evidence to prove that the CPSU systematically violated both the constitution and its own law, the discourse voiced by the communist camp still "won the game" – and that this was due less to legal and judicial arguments, but more to a discourse based on a specific type of moral and even emotional reasoning. Their arguments involved putting goals above means, ideological conformism above individual freedom and legal responsibility, faith in communist dogma above the requirement of critically questioning alleged "truths" in the face of a contradicting reality.[6] By sanctioning this kind of reasoning as a legally valid option, the Court de facto rehabilitated – and thereby made hegemonic – the cognitive patterns, values, and attitudes of a rather egocentric, partly conformist, partly self-protective discourse.

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[5] The term "discourse" is understood here as a "differential ensemble of signifying sequences" giving meaning to our speech acts, thoughts and actions, while this meaning is constantly renegotiated (see Torfing, 1999, pp. 84-85). However, discourses try to stabilize meaning and signifying orders at least temporarily and thus, to establish an intersubjectively binding order of knowledge within a social whole (see Keller, 2004, p. 7).

[6] To name only some of their successful discursive strategies, the communists presented themselves as "victims of history" who were not to be blamed for the outcomes of communist rule because, firstly, the communist idea itself was humanistic ("we always wanted the best"), thus claiming that the violent excesses of Soviet history were only unintended side-effects. Goals, in other words, were placed above means. Secondly, they argued that the so-called "simple communists" could not be held responsible for the deeds of the Party leadership, since the former had nothing but a very general idea of what the latter

The political aftermath of this ambivalent “founding myth” of post-Soviet Russia made clear that this had far-reaching impacts. Besides showing the difficulties that official Russia had to come to terms with, with regard to its Soviet past, this outcome also affected fundamental political issues, such as the dominant conception of democracy/political rule and national identity (see discussion below) and thus the overall direction of reform. For with a largely self-referential, self-protective discourse based on an attitude of victimization coming out as the de facto winner of the discursive struggle, more developed discursive positions were marginalized and lost legitimacy. On the level of political identity, this created a serious problem for the official “Democratic Russia,” since even though its leadership still preached democratic change, it had lost an important source for legitimating this change. With the communist past and its vague, “user-defined” notions of justice and democracy rehabilitated, why should the country need any other kind of democratization at all? So, even without gaining complete political hegemony itself, the partly conformist, partly self-protective discourse voiced in the context of the trial in 1992, along with its system of metaphors, images, and cognitive frames, successfully prevented more self-reflexive, that is, more complex (more differentiated and integrative) and as such, more developed and more “mature” political and psychological logics, practices and positions (such as taking responsibility for one’s history, coming to terms with past experiences and traumas and discussing possibilities of reconciliation and reparation) from defining the horizon of meaning. And of course, this immediately affected the functioning of politics on a larger scale.

The second aspect of my analysis therefore concerns the impacts of the discursive hegemony sanctioned by the Court on political correctness, political behaviour, and institutional logics until today. In sum, the “paralysis” of official political discourse on Soviet history between past and future (“like a lift stuck between two floors”) increasingly came to paralyze political development altogether. Since there was no consensus among the leading actors and elites about the value of the democratic institutions introduced by Russia’s first elected president, and thus, about the rules of the political game, formal institutions came to be devaluated in favour of unofficial and extra-constitutional practices of organization and policy making (Shevtsova, 1999, 2003).

This finding is in line with Chilton’s (1988a, p. 110) account of political development, holding social development to be dependent on “a nation’s widespread recognition of its own culture’s ambiguities and contradictions,” and cognitive development to “occur only when the reasoner finds and resolves ambiguities and contradictions within her own cognitive structure.” In contrast, the majority of Russia’s elite either did not perceive an ambiguity at all or lacked the inner strength and/or potential to overcome self-protective logics and frameworks of reasoning through more complex and integrative ones. From a developmental perspective, this evidence can be conceived either as a way of defending a particular system of meaning and action against a more complex reality (Kegan, 1982/1991, p. 225), or as a regression to a less complex and

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was doing. Thirdly, the communists asked the Court to recognize the “positive sides of history,” thereby demanding, again, to be freed from responsibility.

therefore less demanding level of political existence. This evaluation depends on how the situation in the Soviet Union is assessed. Anyway, the system that came out of the 1992 compromise can be described as a mixture of stage 2 and stage 3 arrangements as described in Chilton's work further below (Table 2), namely patron-client-relations, clientelism, barter, or "blat." Similar mechanisms have in fact been identified as widespread phenomena by political analysts of both Soviet and post-Soviet Russia (Pleines, 1998, 2005; Ledeneva, 1999, 2000; Lehmbruch, 2005; Schröder, 1998; Volkov 2005).

In a more general sense, my example therefore shows that institutions can function only according to the level of developmental complexity of cognitive structures and habits available to the subjects who sustain them. Even if there are proponents of more complex practices and rationalities within the respective society, yet outside of the institutions in question, the latter are likely to adopt their functioning to the dominant level of development. My study thus confirms Chilton's statement that "unless the institution's structure is preserved by people at the appropriate stage, the institution will regress to less developed forms" (Chilton 1988a, p. 88). The following section outlines several adult development theories that appear particularly valuable for analyzing political and cultural transition in general and for discourse analysis in particular.

Adult Development Theories for Discourse and Political Analysis

> *Nations, as well as individuals, can be categorized according to their level of existence.*
> *– Clare Graves, 1974*

Quite obviously, the assumption of levels of development has interesting consequences not only for psychological theorizing but also for cultural and political analysis and for policy making in general. With regard to my example above, even psychological lay people would probably agree that self-reflexive efforts to confront past crimes and traumas constitute a more complex, more differentiated and thus more developed way of dealing with a criminal and traumatizing past than trying to whitewash, repress, or relativize it, for example by setting it off against the "positive sides of history" or by denying or avoiding questions of responsibility. The theory of developmental complexity underlying this claim is inspired by decades of developmental psychological research and can draw on a wide range of well-established, field-tested empirical knowledge, both from developmental psychology of the individual, such as of Jean Piaget, Lawrence Kohlberg, Robert Kegan, Abraham Maslow, Jane Loevinger, Susanne Cook-Greuter, and from pioneers of developmental approaches to (political) culture such as Jean Gebser, Clare Graves, Jürgen Habermas, Shawn Rosenberg, Stephen Chilton and Dana Ward. Their findings are supported also by more traditional research of cultural change such as that of Ronald Inglehart (1977) or Paul H. Ray and Ruth Anderson (2000).

While most of the developmental researchers have focused on a specific aspect or dimension of development, such as cognition, morals, self-identity, values, and needs, due to different interests and assumptions concerning the importance and relationship between these dimensions, they seem to indicate more or less stable and inherently consistent structures of development.

Furthermore, at least Kohlberg's model has been tested in different cultures with empirical research supporting an intercultural validity of its levels or stages.[7]

Developmental Approaches and Analysis of Post-Soviet Russian Politics

Being unable to do justice to the variety of research that has already been done in the field, I shall limit myself in this article to a brief review of some of those approaches that appear most fundamental to my own research.

Piagetian developmental psychology of individual cognition

Most fundamental per se, and as a source for many of the more recent developmental approaches is Jean Piaget's model of the development of cognition which he called a "genetic epistemology" (Piaget, 1970). The model concerned "with both the formation and the meaning of knowledge" (Piaget, 1970, pp. 12-13) distinguishes four major levels (sensorimotor, pre-operational, concrete-operational and formal-operational), characterized by a successive decrease of egocentrism and, in turn, by a more developed capacity of abstraction and of integrating more perspectives into one's outlook on the world as development proceeds. Originally stemming from Piaget's observation of children's cognitive development, his findings have proved to be valid and applicable to adults as well. Empirical evidence shows again and again that the fourth stage, classically identified with the cognition of the "mature adult human being," is not reached by a significant number of average adults during their lifetime.

Piaget's genetic epistemology is a basic reference in the field, since the general structure and "quality of reasoning exist independently of the object of thought" (Rosenberg, 1988a, p. 89); in other words, because cognition is at the basis of all other dimensions of consciousness development and, in result, of that of more practically relevant interaction capacities such as moral thinking, self-identity, values and reasoning.

Perspectives on social and cultural development

Early concepts of cultural development using categories of hierarchical complexity (see Commons & Richards, 1984) include those of Jean Gebser, Clare Graves, and Jürgen Habermas. Jean Gebser in his master work *Ursprung und Gegenwart* (1949) has given a phenomenological account of "traces of unfolding consciousness in culture," identifying five subsequent structures of consciousness, each of which continues to operate in the context of the next higher one as development proceeds. Clare Graves (1970, 1974), inspired by his colleague Abraham Maslow at Union College in Schenectady (N.Y.), theorized that in interaction of internal neuronal systems with external conditions humans develop new bio-psycho-social coping systems to solve their changing existential problems. He believed these evolving coping systems ("levels of existence") and their underlying motivations to manifest as (mostly subconscious) value systems at the individual, societal, and species levels.[8]

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[7] For a review of cross-cultural tests of Piagetian theories in general, see Dasen (1977). Also see: Edwards (1975), Kohlberg (1981), Kohlberg, Levine, & Hewer (1984), Nisan & Kohlberg (1984), Weinreich (1977).

Jürgen Habermas (e.g., 1976, 1981, 1983) is famous for his reading of social and cultural history as a process of increasing emancipation from preconventional/archaic and conventional/traditional to more rational structures of thinking and acting in the course of social and cultural modernization and "enlightenment." Habermas draws, amongst others, on the developmental psychologies of Piaget and Kohlberg and on evolutionary accounts of social organisation and of the history of law. All of these sources can only be mentioned here without a more thorough discussion. An overview of their models and stages is given later in Table 4.

Neo-Piagetian approaches to reasoning, cognition, and political development

Despite his unquestioned merits, Piaget has also been criticized for underestimating the role of social environments in the individual's construction of meaning (Rosenberg 1988a, p. 89). As a consequence, Neo-Piagetian researchers such as Shawn W. Rosenberg, Dana Ward and Stephen Chilton have focused on both the social and political implications of Piaget's levels of cognition and on the role of what Robert Kegan (1982/1991) has called the "embedding cultures" of each level of development. Rosenberg is mainly cited for his model of reasoning structures, especially designed for analysing political reasoning. As such, the three stages identified by him when analyzing political discourse are of particular interest here.

Table 1. Rosenberg's Levels of Political Reasoning

Stage Name[a]	General Stage Description
Systematic	Context-aware, search for systematic relationships between phenomena; able to reflect subjective and objective conditions of phenomena and their relationships; high ability of abstract classification and theory-building
Linear	Causal thinking, search for unidirectional causal explanations; understanding is based on concrete experiences rather than on reflection; able to build abstract categories based on experiences, limited ability to make generalizations
Sequential	Concrete, proximate perception and understanding; absence of abstract thinking; able to perceive and describe sequences of events without grasping general patterns, causes or interrelations between them

Note: Compiled on the basis of Rosenberg (1988a).
[a] Listed from more complex to less complex stages.

The empirical case studies exploring ways of political reasoning as conducted by Rosenberg and others on the basis of this typology confirm the importance of structural differences in thinking and argumentation independently of a particular content (Rosenberg 1988a; Winterstein, 2005).[9]

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[8] Practitioners drawing on Graves like Don Beck and Christopher Cowan hold Graves' cultural stage model to be applicable to conflict resolution in communities, cities, movements, ethnicities, entire countries, as well as defined populations and cultural regions. See: http://ja-jp.facebook.com/note.php?note_id=123355875206.

[9] For analyzing political reasoning, the integrative complexity model also has to be mentioned. Developed in the 1960s, it has been applied extensively in empirical studies on political psychology, focusing on the cognitive integration of competing perspectives. Influenced by Piaget, it is not grounded in a normative

Scott Karl Winterstein, a pupil of Rosenberg, has distinguished four structural levels of discourse in his dissertation (Winterstein, 2005) based on Rosenberg's and other typologies. His model is primarily oriented towards analyzing oral interpersonal face-to-face communications though (which he basically does through simulation experiments) and is therefore more difficult to use for political analysis.

One of the most elaborated Neo-Piagetian theories of political development was proposed by Stephen Chilton (Chilton 1988a, 1988b, 1991 and Rosenberg, Ward, & Chilton, 1988). Motivated by the experience of the USA's failure to "import" their model of democracy to Vietnam, Chilton engages in a thorough and systematic discussion of concepts and dynamics of political development including a criticism of those proposed by mainstream political science. He argues that the term "development" makes no sense without a normative notion of "higher" stages of development as psychologically being better integrated, philosophically more moral, and therefore also morally "better:" "To say that one form of society is better than another is to say that if its members recognize the difference, they will try to create the better and not the worse" (Chilton 1988a, p. 12, 14).

Chilton has come up with what he calls a "speculative classification of social forms" (Table 2) in which he associates ideal-typical social institutions with each stage of Kohlberg's moral and interpersonal development scale. He argues, first, that politics is always connected to moral reasoning and evaluation and that therefore "any theory of political development must contain a psychological theory of moral reasoning (Chilton 1988b, p. 159). Because according to Chilton, "the criteria for the goodness of a political culture are the same as those for the goodness of an individual's moral reasoning... we can fairly say that for a political culture to be more developed is in fact for it to be better" (Chilton 1988b, p. 157). Second, Chilton claims that the social institutions brought forward by each stage of development are content-independent universal structures, and that therefore "different cultures *can* develop along different developmental paths – of different *content*, that is, *but not of different structure*" (Chilton 1988a, p. 104; emphasis added). His classification, referred to earlier, will be helpful in the analysis of Russian politics.

Finally, Chilton's and his colleagues' considerations about the dynamics of and the relation between social and political development processes are of great interest to my own analysis. Chilton insists that "a society" must neither be regarded as an organism which develops as a whole nor its development be conceived simply "in proportion to the average level of its members' development" (Chilton 1988b, p. 128). Rather, he stresses the importance of subcultures as "cultural analogues of cognitive developmental decalages" and as a sign of ongoing transition (Chilton 1988a, p. 93). He therefore also focuses on the potential differences between the average level of development and the level from which a society is ruled. Based on an analysis of social interaction as the basis of both individual moral and of political culture development, he urges for a subtle consideration of the specifics of individual and cultural developmental dynamics.

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model of development though and does not analyze the structure of reasoning or the character of the epistemological self. Rather, its adherents point out that although an important analytical category, high integrative complexity is neither "inherently desirable", nor is it "more moral, more perceptive, or more likely to lead to successful solutions" (Suedfeld, cited in Jordan, 2000, pp. 10-11). See also Suedfeld (1994), Suedfeld & Tetlock (1977, 1992), and Wallace, Suedfeld, & Thachuk (1993).

Table 2. Chilton's "Speculative Classification of Social Forms"

	Kohlberg's Descriptive Stage Title	Interpersonal Relations/ Forms of Influence	Associated Social Institutions
6	Universal ethical principles (second-order Golden Rule)	*Satyagraha; agape*; undistorted communicative action; mutual care	(none currently known)
5	Prior rights and social contract or utility	Mutual respect; rational debate, fair competition, and scientific testing	Democracies protecting civil rights and liberties; due process; capitalist market economies; "normal science"
4	Social system and conscience maintenance ("law and order")	Mutual support of moral system	Modern army; bureaucracy; fascism; tyranny of majority rule; absolutism
3	Mutual interpersonal expectations, relationships and conformity (the concrete Golden Rule)	Friendship; *compadrazgo*; romantic or courtly love	Medieval towns; social patronage or client system; late-medieval aristocracy; estates (*Staende*); dualistic *Staendestaat*; corporatism
2	Individual instrumental purpose and exchange ("what's in it for me?")	Barter and trading; deterrence by revenge; bribery; corve labor; prebend; curses; feudal fealty and vassalage	Early feudal system; exchange patronage systems; tax farming; hostages
1	Punishment and obedience ("Might makes right")	Domination; physical compulsion; threats; seizure by force; extortion	Pecking order; slavery; prison and other total institutions

Note: Reproduced from Chilton (1988a, pp. 43, 68), with permission of Stephen Chilton © 1988. Available at http://www.d.umn.edu/~schilton/Articles/DPD.html.

Even if cultures in some regards appear more flexible in their development due to the dynamics of their social and cultural composition and subcultural decalages,

> Stage skipping is not possible when a culture first develops to a specific stage. Just as each cognitive stage must build on the one before, each new level of culture must grow out of the one immediately previous. No matter what the cognitive levels of the individuals are in the society, they would appear to need time to work out the practical social problems of one level of development before proceeding to the next.
>
> One can imagine, however, that stage skipping would be possible in certain other circumstances. If a culture were conquered by a two-stage-lower culture and were shortly thereafter freed, the first culture would be able to spring back to its original stage. The longer the second culture's domination lasted, however, the less likely such a return would be: children would increasingly orient to the new culture and would be unsure how to relate in the old culture; and the changes accumulating with the new regime would make the exact restoration of the old regime ever less appropriate. (Chilton 1988a, p. 97)

The following considerations are immediately applicable to Russian and Soviet history. Even if, according to Chilton, societies, for example after a revolutionary or foreign take-over, they

> …cannot go back(wards) and pretend that (previous upward; EF) changes have not taken place … political cultures can regress if the average adult moral reasoning stage declines, because then fewer higher-stage people are there to support the previous high levels and more lower-stage people fail to understand it. (Chilton 1988a, pp. 95, 97)

This relationship is further elaborated by Rosenberg who adds that

> extreme inequalities of power have the same effect on adult's ability to role-play. That is, if socialized in the context of subordination, particularly when that subordination includes little peer interaction, adults will exhibit little ability to role-play, with all consequences, including unilateral respect for authority. Environmental opportunities for role-playing are very much dependent upon power relations. (…) The greater the disparities of power and the fewer the available roles in a society, the fewer the incentives and the more difficult it becomes to step outside one's own particular position. (Rosenberg, 1988a, p. 170)

At the same time, high levels of morality would be necessary to challenge authority.

Since the primary purpose of this article is to apply these and other selected insights of adult development theory to the analysis of Russian politics, a more detailed and systematic literature review regarding this issue has to be postponed for another article.

Kegan's Subject-Object Logics and the Epistemological Self

While some characteristics may differ between individual and collective/political development, the basic subject-object mechanism of differentiation (decentering) and integration (recentering on a higher level) as described by Kegan is the same in both cases.[10] As the previous section has already made clear, neo-Piagetian approaches for the most part do not limit themselves to cognition properly speaking, but build their theorizing on cross-relations between cognition and other dimensions of development, above all moral reasoning and the development of self and/or identity. The later is important to be included as a widespread element of post-Soviet political discourse in Russia.

While Piaget insisted that "there are not two processes of development, one cognitive and one affective; there are not two separate psychic functions, and not two forms of objects: all objects are cognitive and affective at the same time" (as quoted in Kegan 1982/1991, p. 120), Kegan remarks that Piaget did not fully measure up to this claim in his own work. Kegan has therefore put the main focus of his own research on the development of the ego or (epistemological) self as "that who speaks and/or acts," holding that "every step/every stage can be viewed as the result of a single, fundamental process of development" (Kegan, 1982/1991, p. 106). This has immediate relevance to our understanding of processes of dislocation and transition in the course of which not only complex reasoning but also self-images and identities are often severely shattered. A fine summary of Kegan's stage model is given by Jordan (2000).

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[10] The most abstract model of development is the general stage model (Editor's note: General stage model was an earlier name; it is now titled the model of hierarchic complexity) by Michael L. Commons and Francis A. Richards (1984) which is also increasingly being applied to political analysis (Commons & Goodheart, 2007; Ross, 2007; Ross & Commons, 2008).

For our purpose, Kegan furthermore provides a powerful support of the interrelatedness of inner psychic and interpersonal reconstructions in that he stresses the crucial role of “embedding cultures” for development – and failing development. Similar to Chilton, he strongly pleads in favour of viewing personal psychological and socio-political development jointly. He calls separating them “a result of theories the basic concepts of which are too narrowly framed” (Kegan, 1982/1991, pp. 134, 283).

Susanne Cook-Greuter’s action logics

Finally, my account of Russian politics draws heavily on Susanne Cook-Greuter’s concept of action logics, an advancement and differentiation of Jane Loevinger’s model of self development (Table 3). Cook-Greuter’s central interest is in ego or self-development or in “how human beings respond to life” (Cook-Greuter, 1990, p. 79). Similar to Kegan, she views self-development as composed of several strongly interrelated components (operative/behavioural, affective, and cognitive): “Each stage emerges from a synthesis of doing, being, and thinking” (Cook-Greuter, 1990, pp. 80, 85). Similar to Kegan, Rosenberg, Chilton and Ward, she sees the human individual as an essentially social being dependent on a “human context,” since both meaning-making and meaning-maintenance are possible only within a socio-cultural community (Cook-Greuter, 1990, p. 81).

As self and identity are largely communicated through language Cook-Greuter measures both of them by an elaborated sentence completion test (SCT) in which, as a matter of fact, the social context can sometimes induce individuals to respond lower than their usual level with regard to issues which put them into emotional stress or in order to avoid uncomfortable answers. This problem can be avoided by discourse analytical uses, that is, by applying Cook-Greuter’s stage model and scaling method to text and interview material.

Table 3. Cook-Greuter’s Action Logics

Stage #	Stage names	Description of stage characteristics
6	Unitary (Ironist)	Aware of ego formation, self as construct/in transformation; different paradigms compared; beginning ego transcendence; self in flux; transpersonal self
5/6	Construct-aware (Alchemist)	System of sub-personalities: coherent self-identity, permanent core elf across time
5	Autonomous (Strategist)	Different selves at different times, several sub-personalities, relativity of self-sense
4/5	Individualistic (Individualist)	Self as system of roles; clusters of traits with past and future; prototype personality
4	Conscientious (Achiever)	Clusters of attributes, simple traits; beginning introspection; separate personhood
3/4	Self-conscious (Expert/technician)	Several external features; simple roles; rudimentary internal states
3	Conformist/rule-oriented (Diplomat)	Single external feature; beginning comparisons

Stage #	Stage names	Description of stage characteristics
2/3	Self-protective (Opportunist)	Basis dichotomies; single, concrete feature; minimal self description*
2	Impulsive	Rudimentary self-labelling (physical), crude dichotomies
1	Symbiotic	Confused, confounded
0	Pre-social	Autistic, undifferentiated

Taken from: Cook-Greuter (1990, p. 104; 2007).
* The self-protective stage is described in more detail below.

Readers who are primarily interested in my reading of Russian politics can skip the following section and jump immediately to the third part of the article.

Parallels with Discourse Theory and Other Methodological Considerations

In his review of four developmental frameworks and their value for geopolitical analysis, Thomas Jordan has provided a comparative discussion of the main methodological approaches used in the field (Jordan, 2000, section 4). As geopolitical research follows similar trajectories to my own, I refer to Jordan’s overview here. As the most important methodologies to inquire into structures of development in the social and political sciences, he specifies the following.

1. Interviews, either as rather open (but then highly skill-dependant) subject-object interviews (used by Kegan and associates) or as more standardized “Kohlberg-type interviews” where the participant is asked to reason about a particular moral dilemma; Jordan was also experimenting with subject-object interviews via e-mail.
2. Sentence completion tests (SCT, used by Loevinger, Cook-Greuter and others).
3. Simulations in real life contexts (used by Winterstein) or controlled experiments.
4. Text analysis, applicable to both published texts like newspaper articles, official statements, declarations etc. And to transcribed speech and interview material (used by Rosenberg, Chilton and the integrative complexity research).

In line with Jordan, I hold a mixed approach (both in theoretical and methodological regard) to be most adequate to analyzing Russian politics. While interviews and SCT, as compared to text analysis, are very sophisticated and focused instruments allowing rather deep insights into reasoning logics, due to the possibility of probing (SCTs are therefore often combined with interviews), they also have disadvantages. Just like simulations, both are by definition limited to populations agreeing either to respond to interview questions or to fill out the SCT form. Text analysis, in contrast, has the advantage of operating independently of the consent of the subjects of research, and thereby avoids selective results and situationally determined fake behaviour. Especially in simulations, participants sometimes also either have difficulties to play roles they are not identified with or tend to avoid uneasy issues. Another advantage of analyzing existing textual material is the possibility to include high-level decision makers who would otherwise not be available for clinical interviewing (Jordan, 2000). The last point seems particularly important in view of analyzing Russian politics.

Among the strategies of text analysis, discourse analysis has an explicit interest in identifying structures of reasoning. And among discourse theoretical perspectives, those inspired by Foucault's theory of power appear particularly adequate for social and political analysis because of their interest in the social implications of hegemonic constructions and definitions of truth. Therefore, I will now look at how discourse theory and analysis can profitably be connected with or adapted to theories of development.

In view of parallels between discourse and developmental theory, four aspects appear relevant: first, the open character of both discursive change and development; second the relation between structures and content of reasoning; third, the conception of multiple levels of development or discourses competing for hegemony within the same society; and fourth, the role of crisis of sense-making as central triggers of change.

The Open Character of Change and/or Development

What many of the developmental approaches in the tradition of Piaget have in common is their notion of human consciousness "as an open, constantly evolving system" of unfolding complexity, "a system which proceeds by quantum jumps from one (more or less; EF) steady state system to the next through a hierarchy of ordered systems." As articulated here by Clare Graves, "the psychology of the mature human being is an emergent, oscillating, spiralling process marked by progressive subordination of older, lower-order behaviour systems to newer, higher-order systems as man's existential problems change" (Graves, 1974, p. 72).

Here, we have a first parallel to discourse theory. Similar to adult development theorists who reject the idea of an end of development called the "mature human being," discourse theory as understood by post-structuralist and Foucauldian theorists like Laclau and Mouffe[11] also incorporates the idea of discourse as an "open, constantly evolving system." The posit that humans have an "*ever* emergent" personality able to go through potentially infinite processes of learning thus coincides with the discourse theoretical assumption that discourses are able to, and actually do, permanently adopt their capacities of problem solving and symbolic sense-making to the respective problems and challenges by gradually integrating new information and novel ideas.

A difference, however, is that developmentalists conceive of the levels they found in their empirical data as *vertical* stages of *growing complexity*, instead of as *horizontal* types of mere pluralist *difference*. Since on each new level, the individual is able to take a wider, more complex perspective than on the previous level (see my use of the term re-appropriation below), later cognitive/identity/values frames include earlier ones, whereas on earlier, less complex stages, the options of the more complex levels are not available. This also implies that while "at any given level, an individual exhibits the behaviour and values characteristic of people at that level, a person who is centralized at a lower level cannot even understand people who are at a higher level"

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[11] For a more detailed introduction please confer Butler, Laclau, & Zizek (2000), Keller (2004), Kerchner & Schneider (2005), Laclau (1990, 1994, 2002), Laclau & Mouffe (2000), Torfing (1999).

(Chilton, 1988a, p. 82), whereas this is not true the other way round.[12] This, I claim, could be an interesting research trajectory to be included in the analysis of discursive power struggles.

The Relation between Structures and Content of Reasoning

While discourse theory in the tradition of Foucault, as a constructivist perspective, similar to developmental theories focuses on the theoretical conditions, social mechanisms, and structural characteristics of discursive struggles and change, it has so far not provided—and not tried to provide—a framework for describing or explaining the (potential) evolution of empirical discourses in a qualitative way; that is, of increasing or decreasing structural complexity. One reason for this may be that post-structuralist discourse theory as a product of postmodern, constructivist anti-essentialism (often implicitly) implies a certain relativism, and therefore tends to operate mainly on the *horizontal* level. This is true both for its interest in substantive and in structural phenomena. In other words, it observes empirical discourses, compares and analyzes their content and interior structures, as well as the strategies put forward by them in their struggle for hegemony over other discourses. As a formal, anti-essentialist theory however, discourse theory does not assume or look for qualitative hierarchies and distinguishing factors other than that of successfully or not successfully gaining discursive hegemony.[13]

At this point, adult development perspectives offer additional insights by distinguishing more or less complex forms and patterns of reasoning related to consciousness (cognitive, moral, identity, etc.) and cultural development. Their interest being in formal, structural characteristics (*how* does the person think or argue? *How* do they do what they do? *How* do they believe that which they do believe) rather than in substantive positions (which values does someone have, what does the person think/feel/need or do?), instruments for analyzing structural logics and dispositions focus on vertical and horizontal aspects at the same time.

For discourse analysis, this means that the same discursive position can be asserted by people at different levels of reasoning and argumentation – with very different results. It also means that you can talk about the same topic both from various (*horizontal*) discursive positions and from different (*vertical*) levels of perception, reasoning, and argumentation. For example, going to war can be justified by either pre-conventional reasoning (arguing that this might benefit one's own economic or security interests) or by post-conventional reasoning (arguing that one had to defend certain general principles such as protecting human rights). At the same time, the universal principle of human rights can also be used as a post-conventional argument against going to war (since killing people is a clear violation of their rights).

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[12] Chilton more specifically argues that because reasoners are "to some degree susceptible to guidance by +1 reasoners," it is adequate for political leaders to "reason up to two stages above many of their followers. They must reason no more than one stage above the attentive public" which, in turn, "must reason no more than one stage above the inattentive public, if its members wish to remain opinion leaders" (Chilton, 1988a, p. 82).

[13] The only exception I can see is Critical Discourse Analysis (CDA) with its pretension to be critical of power structures in an emancipatory sense. CDA claims that its own emancipatory perspective is a "better," "more truthful" or more adequate strategy to picture and eventually change social and political reality than that of the discourses it analyses. Similar hierarchical assumptions are sometimes inherent also in other discourse analytical research agendas, implicitly holding post-materialistic attitudes to be more "advanced" or desirable than materialistic ones, for example. In a developmental research design as proposed here, in contrast, these distinctions are explicitly spelled out and put into the centre of research.

Multiple Levels of Development or Discourses Competing within the Same Society

Similar to developmental perspectives where multiple levels of development are likely to be found *within* the same social or cultural realm (see Chilton below), in Laclau/Mouffe's conception of discourse, the social is a realm of undecidability, which is never fully closed. This is why discourses always compete for defining the "empty spaces of meaning" through "decidable hegemonic articulations" (Torfing, 1999, p. 103). So in both concepts, discursive (and other) forms of competition over meaning-making are perceived as being at the heart of most conflicts for political and discursive hegemony.[14]

Since "an individual, a company or a whole society can positively react only to those laws and ethical rules, steering principles, motivational impulses and educational schemes which are consistent with their actual level of existence" (Beck & Cowan, 1996/2007, p. 31), this also helps to explain why and how certain discourses become hegemonic in a given context by defining the "dominant horizon of social orientation and action" (Torfing, 1999, p. 101) while others, however rational, intelligent, reasonable, or progressive they might appear from the outside, fail in that particular social or cultural context.[15] One of the most interesting questions therefore is: How are consciousness development and discursive change motivated and triggered and how do they occur?

The Role of Crisis of Sense-Making as Trigger of Change

Further strong and important parallels and compatibilities between human development and discourse theories, especially in the tradition of Laclau and Mouffe, concern their analysis of successful, that is, transformative or integrative development and of regressions, even though discourse theory, for the most part, does not theorize this distinction. Developmental theorists—at least the normative approaches presented here—agree that every individual starts his or her developmental journey at "level one"[16] and can then either move on upwards step by step to more complex, more differentiated levels, or stay where they are. The unfolding of new stages in line with their respective frames and systems of meaning and reasoning normally happens as a slow and steady process of learning, due to changed impulses, experiences and context factors. In an ideal scenario, the capacities of cognition, perception, reasoning, and problem solving grow with the complexity of problems, challenges, and circumstances, provided appropriate embedding cultures are in place. Successful development can then be perceived as a dynamic, spiral-like broadening of horizons, encouraged by individual experiences and social impulses.

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[14] In contrast, for example, to Huntington's thesis of whole cultures competing with one another, it stresses the coexistence of various levels of existence, thought and action within each culture.

[15] Considered that collectivities can change the dominant mode or level of their discourse quite easily if their social and cultural composition – or that of their leadership – changes, it becomes clear that discourses, even though they have a certain dynamic of their own, are not fully independent of the consciousness of their bearers.

[16] In Piaget's terms: sensorimotor, in Kegan: first order consciousness, with Cook-Greuter: pre-social/symbiotic etc.

As argued earlier by Chilton, the process of development is similar on the social and cultural levels, at least when cultures first acquire a particular level. In less ideal cases, however, things might as well go wrong, especially at the borderlines (turning points) to each next higher level. If, for some reason, aspects of the previous level are not fully integrated into the next more complex level, the person might develop pathologies at that particular turning point. Here again, theorists of political development have come up with similar scenarios on the collective, cultural level. If social development happens through internal or external crisis or shocks, instead of steady evolution, the society in question might not be able to integrate the extent of new complexity through regular differentiation. In this case, it is likely to follow the opposed scenario of decreasing complexity by stepping back to less complex, but in turn more familiar and thus psychologically more secure levels of subsistence in search for easy answers and emotional reassurance. Such regressions therefore often include the identification of scapegoats and the rejection of responsibility.

Similar to developmental psychology, Laclau and Mouffe (2000) hold crisis of sense-making (dislocations) to be the central triggers of social and discursive change, rendering necessary new (in developmental terms), more complex discourses in order to cognitively organize and symbolically frame the problems or events which the old dominant discourses were not able to integrate any more. An example would be the (partial) dislocation of the neo-liberal growth model in result of the oil crisis in the 1970s, followed by a more radical questioning of the limits of growth and a growing interest in ecological issues, or the discursive struggle leading to a delegitimization and eventual end to apartheid in South Africa. Laclau and Mouffe even consider dislocations to be inherent parts (or at least possibilities) of any discourse, since in an essentially contingent social realm, they argue, discursive identities are never fully closed (Laclau, 1990).

Thus, both cognitive frames and discourses are likely to change with the social circumstances, experiences, and challenges they are confronted with. However, compared to Laclau and Mouffe's rather formal theory of discursive change which does not systematically deal with the question of complexity, sophistication, and sustainability of discursive sense-making strategies, adult development theories put an additional focus on the *direction of change* on a vertical axis of complexity. This appears to be particularly relevant for analyzing the situation in contexts of transition like that in Russia. In sum, developmental psychology perspectives either go beyond or provide a theoretical grounding for what at least part of discourse analysis is already doing. They thus help to explain that the more complex the challenges, the more complex the cognitive frames, coping mechanisms, and sense-making-strategies have to be in order to internally cope with, to discursively frame and to externally solve the respective problems satisfactorily – and this means: sustainably.

If, in contrast, the (ideal) trajectory of differentiation and integration is not taken for some reason, both individuals and (their) discourses seek to solve their new problems either with the strategies currently available to them or by (often panic-stricken) resorting to previous, less complex and thus, less demanding strategies in order to avoid chaos, dis-integration, or loss of identity. My claim is that this is roughly what is happening in post-Soviet Russia.

Soviet and Post-Soviet Russia Viewed from an Integral, Developmental Perspective

From a perspective of adult development theory, politics and political discourse in Russia can be analyzed not only horizontally, that is, as different ideological positions competing for discursive and political hegemony, but also vertically, as different cognitive, self or value structures competing for cultural hegemony in a broader sense. In this respect, I agree with Jordan's strategy to assume various dimensions of consciousness as equally relevant basic units of analysis rather than limiting the analysis to one single model and/or method (Jordan, 2000, p. 29). In any of these dimensions and research trajectories, an integral analysis focussing on developmental dynamics would try to answer at least the following questions:

- Which developmental stage (of cognition, self, identity, reasoning or action) do particular utterances, arguments or practices operate on? Which of the typical structural logics and patterns frame discursive utterances and political positions?
- On which level of developmental complexity is the dominant mode of discourse and political action located? And what level is the respective collective ruled on?
- What do the interaction processes between discourses look like?
- What use is made of dislocations? Are they consciously used for upward developments or do they rather result in downward regressions? Do discourses rather tend to gain or to lose developmental complexity?

The following section is guided by these questions, making reference to the categories offered by the approaches introduced in the second part of this article. On this basis, I will discuss to what extent the three non-digested aspects of dislocation mentioned above (collapse of the Soviet state, ideology, and system of political power) are still influential with regard to the three central corresponding issues on the social and political agenda of post-Soviet Russia: international status, national identity, and political power/democratic rule. In any of these issues, the transformation of politics and political discourse can be conceived as a function of how and to what extent the experiences of Soviet times have been re-appropriated: in other words, integrated into individual and cultural sense-making. And in any of them, such re-appropriation has so far been very limited. Rather, I claim that self-protective logics of reasoning and action have come to function as a strategy to avoid a more differentiated confrontation with the after-effects of these dislocations and with the Soviet past in general, at least during the past ten years.

In view of explaining political development and change in post-Soviet Russia, a preliminary account of developmental dynamics in the Soviet Union is indispensable. Together with the character and consequences of post-Soviet transition, it can help to explain why Russian politics "took refuge" in a self-protective logic of sense-making. Making solid claims about empirical cognitive, cultural, self/identity and value structures and their dynamics in Soviet and post-Soviet politics and society would require a larger research project[17] which is why the following considerations should be regarded primarily as intuitive, integrally informed "educated guesses."

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[17] Even though the levels identified by adult development research across cultures and time can be considered as solid and reliable analytical categories, their unfailing identification in a concrete data set requires a high amount of schooling and experience. For a critical discussion of models, metrics and measurement in developmental psychology research see Stein and Heikkinen (2009).

A Developmental Reading of Social and Cultural Dynamics in Soviet and Post-Soviet History and Society

The Soviet regime, even though it made appeal to modern, universalist values such as social and political justice, equality, and solidarity, and drew its legitimacy to a large extent from these values—which is why, by the way, it was admired as a moral ideal by an impressive number of western intellectuals—was organized quite hierarchically. Ideally speaking, it was an absolutistic regime ruled by truth and dogma (See Table 2). While striving to overcome traditional Russia's Orthodox culture, it replaced it with a new tradition, communist orthodoxy. So even though the Bolshevik leaders were promoting universalist values and huge modernization projects, the brutality with which they cracked down on opponents to their new and often-changing orthodoxy clearly indicates that they were not operating on the basis of world-centric values themselves (see Table 4), but as an ideological dictatorship, or, in the case of Stalinism, simply a dictatorship of pure personal power. In the categories of Chilton, it would thus have to be located roughly between levels 2 and 4.

In fact, the question if or to what extent the Soviet regime can be explained as a specific example of modernity and/or modernization has been an object of ongoing debate among scholars of Soviet history.[18] On the one hand, the "modernist group" (Stephen Kotkin and others) holds that the Bolshevik project was a typical outcome of modernist thought and the Soviet experience thus an alternative, independent type of modernity.[19] On the other hand, the "neo-traditionalist group" around Sheila Fitzpatrick

> does not deny that the Soviet Union in its way was modern, but [rather stresses] the "archaizing" phenomena that were also a part of Stalinism: petitioning, patron-client networks, the ubiquity of other kinds of personal ties like *blat*, ascribed status categories, "court" politics in the Kremlin, the mystification of power and its projection through display, and so on. (Fox, 2006, pp. 535-536)

Similarly, Jörg Baberowski in his brilliant inaugural lecture explains the origins and character of violence in Stalinism by the Georgian clan culture which, as it were, was the embedding culture within which Stalin was socialized, and which in the Gebser/Graves/Habermas-scale (see Table 4, on p. 114 as Appendix) would comply with the archaic or magic levels.

So in this regard, the Bolshevik modernization project, even though it did change in character during the second half of Soviet history, clearly remained a selective one in that it did not allow for "enlightened criticism" and basic freedoms in the realm of political culture and consciousness. Stefan Plaggenborg (2006) in his recent study on Soviet modernity has traced back this important choice in early Bolshevik history to the controversy between Lenin and

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[18] See, for example Fox (2006), Hoffmann and Kotsonis (2000) and the conference "Geheimnis und Gewalt. Zur Ambivalenz der stalinistischen Moderne" in Freiburg (FRIAS), 30./31.1.2009.

[19] According to Fox (2006, p. 36), Shmuel N. Eisenstadt's concept of multiple modernities "has not yet been explicitly ebraced by proponents of Russian/Soviet modernity" though.

Bogdanov.[20] He sees this conflict as an indicator of the “status of modernity of Lenin’s thinking, mental habitus,” and his categories of argumentation, even though he does not explicitly use categories of hierarchical complexity to support this (Plaggenborg, 2006, pp. 49-51). In result of Lenin’s radical position gaining hegemony, the Soviet leadership fought any thinking that was more complex or more critical than what their own orthodoxy allowed, just as it fought the traditional Orthodox culture itself, instead of overcoming traditional value structures through integrating them into more differentiated ones.

Later, when the CPSU’s monopoly of truth began to gradually lose its legitimacy in the 1970s and 80s, this was due, on the one hand, to the regime’s inability to meet its own claims vis-à-vis its population. Instead of social and political justice, the country had experienced extended periods of arbitrary terror and repressions, instead of equality and solidarity, a deep social cleavage between the political elite and ordinary citizens, and relative backwardness in many fields instead of the promised high standard of living. At the same time, the cultural and political models of modern western civilizations which then had already begun to transcend modernity with post-modern values and cultural practices (Inglehart, 1977, 2003; Ray & Anderson, 2000) were increasingly perceived as economically and politically superior and therefore as attractive alternatives. Yet, from a developmental perspective, the crucial problem is that modern (i.e., individualistic, rational, multiplistic) and postmodern (i.e., reflexive, relativistic, pluralist, and post-materialistic) value structures cannot be adopted like an ideology, but have to develop in a process of transcending and integrating all previous, less complex levels of thinking, existence, and motivation. As integral perspectives stress, “in order for higher levels of civilization to be maintained, the enduring contributions of the earlier stages must be in place and functioning” (McIntosh, 2007, p. 47).[21] In Russia, however, with traditional Orthodox culture largely destroyed and communist orthodoxy experienced as a forced, illegitimate, and (at least in some respects) less complex substitute, there was hardly any basis left from which a more integrative and thus more sustainable modern value-structure could emerge on a broader social basis. If to infer from the scarce data on Soviet consciousness, culture, and society, the average attitude towards politics in the Soviet Union was most probably either conformist or self-protective (in Cook-Greuter’s terms), and thus below a “conscientious” traditionalism, whereas Cook-Greuter’s “individualistic,” “autonomous,” or higher levels of development were presumably very rare in the average population. This, in any case, might be one reason why liberal reformers had a difficult time after 1991.

For the first few years of the Yeltsin era, there was indeed a certain consensus with regard to “modern” or even postmodern values like peaceful conflict resolution, banning state ideologies, and promoting individual rights and freedoms, which is why there was hope that Russia might take the path of liberal and democratic transformation. However, these values did not seem to be rooted firmly enough to prevent strong contrarious, lower level mental habits and continuities from regaining power over the formal liberal and democratic institutions introduced by the first Russian president (see my example presented in the first part of this article). Without a sufficiently broad basis of higher level, for example conscientious or individualist consciousness supporting them, it is no surprise that at least part of Russia's social and political institutions were eventually re-adapted to the (less complex) centre of gravity of public consciousness and political discourse. Concerning present-day Russia, social scientists and politicians therefore almost in unison speak of a return to previous modes and habits of rule (Mommsen, 2006; Shevtsova, 2003), even though many of them continue to have difficulties categorizing them conceptually.[22]

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[20] Aleksandr Bogdanov was a thoughtful and, in today’s terms post-modern or even integral philosopher interested in the conditions and dynamics of human knowledge and awareness. He rejected the possibility of objective and timeless truth and pleaded in favour of transcending the dualism of spirit and matter through what he called an “empiriomonizm”, i.e., socially organized complexes of experience. See Plaggenborg (2006, chapter 2) and Plaggenborg and Soboleva (2008).

[21] Also: “Countries, governments, and cultures must move through each of the stages of development sequentially. Each stage must be achieved, and failure to recognize this may be a major contributing factor to the rise of terrorism and crime in a society” (Commons & Goodheart, 2007, p. 91).

If we take the late Soviet Union to have been a weak stage 4 absolutistic regime (with all the limits of this diagnosis, due to pressure from above, eroding legitimacy etc.), a developmental perspective would probably find elements of regression in post-Soviet politics. An alternative interpretation would be to assume simply a realignment of consciousness, habitual political practices and institutions on the next lower, more familiar and thus more secure level. What makes such an analysis tricky however, is that important elements of modernity and post-modernity are indeed part of everyday life in today's Russia have even been radicalized (for example in the form of the Manchester capitalism of the 1990s or the cosmopolitan lifestyles of large parts of Russia's upper class). In this respect, I would claim that a developmental perspective could highlight that notwithstanding both persistent efforts to modernize the country in order to prepare it for the challenges of a globalized world and a social elite that has caught up with and even overtaken the average western citizen in a material sense, modern and postmodern values and logics have neither become the dominant structures of public reasoning nor of political action on a larger scale. Sustainable post-conventional action logics, for example, would also include post-materialist and other post-conventional values, such as critical self-reflection, putting higher weight on good relationships and inner growth as compared to material goods, increasing feelings of empathy, tolerance, and respect for other cultures, social and political minorities and even the rights and dignity of political opponents (see Table 4). The basically materialistic, hedonistic lifestyle of a privileged elite lacking a visible notion of civic virtues, common welfare, and social and political justice can at best be classified as a rather selective and superficial, and therefore non-sustainable, "unhealthy" modernism, if not simply egocentric opportunism. Moreover, their dealing of rights and liberties against stability and prosperity may rather be explained by self-protective logics which seem to be the driving mechanism behind many social and political dynamics in Putinist (and Medvedevian) Russia.[23] Before illustrating this in more detail, let us take a closer look at Cook-Greuter's stage description.

The Self-Protective Action Logic by Cook-Greuter

Susanne Cook-Greuter (2007, pp. 9-11) describes the self-protective stage as follows.

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[22] Margarethe Wiest reviews the debate about if Russia should be called an authoritarian regime, see: http://www.eurozine.com/articles/2006-09-08-wiest-de.html.

[23] This is not to say that more complex action logics are completely absent. In contrast, Russia's old human rights movement, for example, as well as its constantly being ignored by the government, shows an important subcultural decalage.

Self-protective people see the world only from the perspective of their own needs and wants. They are as yet incapable of insight into themselves or others in a psychological sense. This is why they are generally wary of others' intentions and assume the worst. Everything to them is a war of wills, and life a zero-sum game. Their 'I win, you lose' mentality inevitably causes friction and hurt feelings wherever they go, especially with others at more conventional stages. In turn, others experience self-protective people often as manipulative and exploitative, because in their perspective, the only way one can get what one wants is by controlling others and protecting oneself.

Self-protective adults are careful to maintain their essentially fragile selves which are not yet 'separate adult selves,' but synonymous with one's will, ideas, wishes. Therefore, this stage also has only a rudimentary notion of others as separate people or of conscious social interaction. 'If I understand what others are after, I can better manipulate them to get what I want,' so they think. Conversely, they assume that if others knew what you wanted, they would have power over you. Consequently, they need to resist the will of others, to test their limits and to assert their own control. Moreover, self-respect is experienced in relation to the amount of control one can achieve in opposition to others. The self may be felt as having two sides, an inner real self, and an outer self or 'a false face' in order to protect oneself.

Self-protective individuals often think they are the odd person out. They feel isolated, but do not know how to relate to others differently. 'It's always me against the rest.' This creates a self-perpetuating dynamic of very low trust and hyper-vigilance. This is why persons at this level often '*get into trouble.*' Trouble happens inadvertently when you cross a boundary. Self-protective folks try to look out for trouble and then to avoid its consequences. Rather, when they lose a test of will, or overstep a boundary, they see the cause as outside themselves, getting frustrated and tending to show free-flowing anger and hostility. Others are to blame, never oneself.

Self-protective people do not understand subtle human interactions that are not based on power. Their relationships with others are volatile. Friendships blow up easily. Feelings are externalized and projected outward. We see little expression or reflection on their own emotions both because of a lack of insight as well as for self-protection. Showing weakness of any kind is dangerous. "The more others know about me, the more they can take advantage of me." Their own anger towards the world is projected outward, and others are experienced as angry all the time. For self-protective persons, the world therefore is a hostile, dangerous place where cleverness and grabbing opportunities are necessary for survival. Hence, self-protective people also have an expedient morality. Rules are recognized, but only followed for immediate advantage or to avoid punishment. Actions are only bad, if one is caught and punished. When caught, they are shameless and show little remorse. They do not feel responsible for failure or trouble they cause because they do not yet understand the connection between action and consequences, that is, linear causality. Blaming others for one's shortcomings is a way to protect oneself. Self-protective people are also called opportunistic because of their self-serving attitude as well

> as for their nose for opportunities and their energy to go after what they want without reflection or delay. (Cook-Greuter, 2007, pp. 9-11) [24]

The political impacts and functioning of this action logic shall now be illustrated with respect to the three fields of dislocation mentioned above.

The Foreign Politics of Strength and International Status

While the Yeltsin era had been largely characterized by a lack—or loss—of cultural identity, due to the numerous forced political and symbolic compromises with the old elites mentioned earlier and to unconvincing attempts to restore the country's internal stability and position in world politics, international status has been a major field of activity—and of success—of President Putin as compared to his predecessor. With the loss of the Soviet empire continuing to be a deep wound within post-Soviet political consciousness, the re-strengthening of Russia's status as a great power and global player has been one of the most important foundations of Putin's popularity in the Russian public.[25] It is perceived as giving Russians back the national pride and respect they deserve and had been lacking so bitterly throughout the 1990s. This restoration of Russia's power and status was based, first, on the country's largely successful economic development during the past years, and second, on a foreign policy discourse increasingly returning to a power-based geo- and "realpolitik," that is, a thinking in spheres of geopolitical, economic, and cultural influence, necessarily competing with the spheres of influence of others.[26]

While the European Union's agreements with former Soviet republics, for example, are perceived as attempts to enlarge Europe's influence, and therefore constructed as a threat to Russia's position and interests, Russia's foreign policy actively tries to maintain and enlarge its own sphere of influence, particularly in the former republics of the Soviet Union. This so-called "near abroad" is considered as a zone of "privileged interest" where Russia claims a legitimate right to exercise power and control.[27] While those of the neighbouring former Soviet republics which have meanwhile become members of the European Union therefore view Russian foreign politics with great suspicion, urging for more "proportional answers" by the EU,[28] some of those who have simply become independent states have even come to experience hot conflicts with the "New Russia" due to this self-image.

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[24] Quotes drawn and compiled from Cook-Greuter (2007, pp. 9-11).

[25] See for example the survey data published regularly in the online-digest „Russland-Analysen“ by the Forschungsstelle Osteuropa (Bremen; URL: http://www.forschungsstelle.uni-bremen.de). It remains to be seen to what extent the government's poor performance during the current financial crisis downgrades this rating.

[26] Svedish foreign minister Carl Bildt recently called this „old concepts of power, domination and spheres of influence“, with power and influence conceived as the power to impose one's will and/or ideas onto others. „Wir brauchen eine Ost-Partnerschaft“, interview with Carl Bildt in: F.A.Z., 1.9.2008. Even more concisely, Condoleezza Rice speaks of a „19th century Russia“ exercising pressure onto free nations. „Transatlantische Einigkeit gegenüber Russland“, in: F.A.Z., 24.9.2008.

[27] See Ruprecht Polenz: Von Russland annektiert, F.A.Z., 2.10.2008.

28 See „Sikorski droht Russland. Für ‚proportionale Antwort' auf nächste Grenzverletzung“, F.A.Z., 21.11.2008.

Viewed from a developmental perspective, Russia's foreign politics under Putin and Medvedev, as compared to Soviet foreign politics, have changed mainly in that they are not ideological any more, for example in their definition of enemies and adversaries. However, the question arises, in which direction their logic of political action has moved on a vertical scale.

Martin Müller has recently published a discourse analytical account of Russian foreign policy discourse as observed at MGIMO, Moscow's elite State Institute of International Relations. Using Laclau/Mouffe's methodology, Müller finds that to be a "respected and influential, independent actor in world politics (with) a prospering economy, and (playing) a leading role in the post-Soviet states" is the main driving force of Russia's geopolitical identity – or quest for identity. For he argues that the quest for national grandeur is caused by a "constitutive lack (or blockage) of identity" caused by fear of a potential weak Russia (Müller, 2009, p. 218).

Since in this attempt to strengthen Russia's own position of power and control[29] dramatic gestures, alleged threats, conspiracy theories, images of the enemy, and even the use of illegitimate violence continue to be important means, as if in compensation for the geopolitical power lost with the Soviet empire, I argue that the logic behind this reasoning and behaviour is a self-protective, compensatory one.

This also becomes visible in a certain tendency to make others responsible for problems and conflicts while escaping debates about Russia's own shortcomings and mistakes (for example in the Georgian conflict or, until most recently, with regard to Katyn). So indeed, Russia's foreign politics seems to perceive and construct the world solely through the lens of Russian needs and wishes[30] instead of taking more complex perspectives, accepting own weaknesses or showing empathy. Moreover, a less self-defensive attitude towards the countries of Russia's "near abroad" would imply a more self-critical attitude, the preparation to admit past mistakes and trespasses and to eventually come to terms with them, in other words to critically re-appropriate and emotionally integrate the collapse of the Soviet Union and its imperial relation towards neighbouring states. According to Cook-Greuter however, due to hurt feelings of security or to unconfronted angst and trauma, the self-protective identity is usually too weak to allow a similar, more differentiated behaviour. Consequently, these issues would necessarily have to be addressed in order to allow for upward development.

Domestic Politics and Political Rule

In domestic politics, President Yeltsin's rule was equally characterized by a rather weak performance. His inability to implement a large part of his own reform agenda was due both to multiple arrangements with the opposition and to his personal instability and increasing alcoholism. In this respect, Putin also set powerful contrary landmarks, beginning with his image of a strong, healthy, and sexy sportsman. During his years in office as president and now prime minister, a largely power-based logic of behaviour and political interaction has equally been implemented vis-à-vis internal critics and competitors who tend to be perceived as inherently hostile and to be made responsible for all kinds of problems. Since 2000, the domestic regime has increasingly taken the shape of an authoritarian and personalized rule of power again. Born of self-protective opportunism, it consequently regards liberal and democratic rights and practices—the meaning of which it does not seem to understand—as unnecessary and even dangerous to its own survival. Within a self-protective world perception, and reasoning, the gradual cutting back or even complete abolishment of many of the (allowedly badly functioning) liberal institutions introduced under Yeltsin, in order to stabilize the (Putinist) state and the power of its leaders, for example by restricting public criticism of the government or by curtailing the chances for political opposition, appears as a logical strategy.

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[29] See Michael Ludwig: „Ablehnung einkalkuliert. Das Konzept einer ‚neuen Sicherheitsarchitektur' des russischen Präsidenten", in: F.A.Z., 6.11.2008 and: „Moskau will sich nicht ‚umzingeln' lassen", in: F.A.Z., 7.11.2008.

[30] See for example Reinhard Veser: „Positiver Geist bei Georgien-Gesprächen", F.A.Z., 19.12.2008.

To what extent was the Soviet experience re-appropriated in this field? While Yeltsin's efforts to build up a democratic Russia were driven, at least in the beginning, by his explicit wish to overcome and transcend Soviet political legacies of centralist power by more sophisticated, more liberal, and more complex modes of rule (the success of which truly is another story) the current connotations of the term "democracy" (such as "sovereign democracy" and "vertical of power") rather point in the opposite direction on the developmental scale (Mommsen, 2006; Schulze, 2007). Putin himself has not only started his first presidential term with calling the collapse of the Soviet Union "the greatest tragedy of the 20th century."[31] He has also repeatedly voiced that extensive liberal rights were a luxury Russia could not afford.[32]

In fact, threats to social and political stability indeed constitute a social bugaboo after the experience of the chronic instability of the Yeltsin era. This is a reason why Putin's strategy of stabilizing the status quo is not only supported by a majority of the population and elites (see Rjabov, 2004), but also thought necessary by some external observers. To them, the fact that there is a more or less stable political order apparently is more important than the fact that this order is not based on a social consensus about how to define democratic government.

However, dealing rights and freedoms against (the promise of) stability and prosperity is a clear indicator of either self-protective or conformist logics dominating political and social dynamics. So, here again, what we observe (subject to more thorough study) seems to be either inertia or regression, to some extent reiterating Soviet logics and legacies (bread and stability versus politically "good conduct"), rather than a vertical transformation based on a critical re-appropriation of past habits of political rule and social interaction.

National Identity and Self-Image

Finally, the quest for national identity touches the heart of the problem of dislocation and national trauma. Since in former times, Russian identity had either been closely linked with the Soviet project or, before that, based on Orthodox culture plus Russia's status of an imperial power, the end of the Soviet Union has often been made responsible for Russia's complete loss of identity (de Keghel, 2006). Despite multiple efforts undertaken by the government, no clear positive vision of a new national identity emerged during most of the Yeltsin era. The (however selective) reconstruction of certain elements of pre-Soviet history (eventually compatible with a more modern path of development) can also be regarded as an indication of Russia's search for "good traditions" which could compensate for the loss of a "mature" traditional consciousness (McIntosh, 2007) and allow for constructing positive continuities.

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[31] See, for example, http://www.owep.de/2006_1_wehner.php.

[32] For example reported in: Robert G. Darst, Jane I. Dawson: Global denken, lokal endlagern? Russland und das Problem des Atommülls, in: Osteuropa 4 (2006):221-234, here: 231.

In the field of symbolic politics, Putin, in turn, has tried to establish a "Soviet-post-Soviet mixed identity," combining, for example, the tsarist flag with the music of the Soviet national anthem which was given a new, more neutral patriotic wording (de Keghel, 2006, 2008). The eclectic mixture of Soviet, pre-, and post-Soviet symbols is apparently welcomed by a majority of the population, but persistently rejected by the tiny group of liberal democrats and former dissidents who are being increasingly marginalized by the regime. Anyhow, Putin's Soviet-post-Soviet mixed identity is itself rather a self-protective than an integrative, transformative project, since it is not based on an open confrontation with Soviet history and some form of public political coming to terms with the past. On the contrary, Putin's eclecticist identity politics apparently serve as a strategy to protect the collective self from the challenge of losing face in a more thorough, more differentiated and thus more demanding process of a self-critical national re-appropriation of the past. It is therefore not surprising that national identity has been an ongoing, ever-present issue of debate since the collapse of the Soviet Union. With Soviet ideology dislocated but many of the cognitive and political logics of Soviet times "alive and kicking" (above all conformism and self-protection), how could a new, post-Soviet identity possibly develop, and what could it look like?

In the last resort, no substantial new identity (going beyond the rather airy images of power and national strength) is likely to emerge unless a number of uncomfortable questions and memories are addressed, and re-appropriated by society as a whole in a transformative way: that is, through facing the multi-dimensional political, structural, cultural, and emotional legacies of Soviet rule. This probably would have to include first and foremost questions of guilt and responsibility towards Russia's own citizens and neighbouring states (see Schwan, 1997), as well as of (at least symbolic) compensation of the traumas suffered by millions of Russian and other victims of the Soviet regime. Given the huge dimension of this task,[33] the present tendencies to dissociate and repress "that which prevents the closure of one's identity" (in Laclau & Mouffe's terms) through what could be called a regression of the average mode of discourse to a strikingly low level is well understandable. However, as we saw earlier, "societies cannot go back and pretend that changes have not taken place" (Chilton 1988a, p. 95). Breaking out of the self-chosen prison of regression would therefore require an integrative transformation, transcending the currently dominant self-protective, self-defensive logics by wider horizons and deeper (self-) understanding – and, to achieve this, more political courage and the right kind of support.

According to Cook-Greuter, the appropriate way to support self-protective individuals would be to give them respect and, at the same time, to set clear boundaries (including immediate sanctions for trespassing). This would encourage them to let go of their fear for their self-identity and to move forward to observe general rules – the main challenge of the next higher stage in her model. For those concerned, this would mean to connect their self-image and identity no longer to winning power games and playing ego theatre, but to being a “good member of…” the international community, for example. Moreover, applied uses of adult development theory not only provide strategies to encourage and assist upward development. Adult development theory might also allow insights into why western politics continue to have difficulties with implementing a similar strategy towards Russia. To discuss these political implications in more depth, however, goes beyond both the pretensions and the limits of this article.[34]

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[33] Remember Markus Wehner's comment, the Soviet past was „too horrible and too close“ to be dealt with in the „German way“ (footnote 2).

Conclusion and Future Prospects: An Integral Theory about Where Russia Is, and Why

In this article, I have discussed current cultural and political developments in post-Soviet Russia from an angle of several adult developmental theory perspectives. Starting with the observation that even though democratic institutions are in place, they seem to function according to non-democratic logics, I have made several arguments. I claim that Russian politics are still to a large extent determined by the effects of a crisis of sense-making connected to the collapse of the Soviet empire, the question of how to define democratic government, and the lack of a resilient national identity. Neither of these dislocations has so far been resolved and re-appropriated in a transformative manner. To substantiate this argument, I have presented categories and analytical frameworks from various models of adult development, describing general characteristics of consciousness development, particular stage characteristics, and general dynamics and logics of successful and unsuccessful cultural and political development. Of these sources, the developmental logic as described by Stephen Chilton and the self-protective action logic conceived by Susanne Cook-Greuter are particularly relevant to the analysis of Russian politics. I have then also raised some methodological questions which a more systematic empirical study would have to consider. I discussed possible connections of developmental approaches with discourse theory and analysis, a research perspective which is increasingly used in Russian studies. In the last section, I have given a brief account of developmental dynamics in the Soviet Union, followed by a more detailed outline of how self-protective logics are at work and functioning in various areas of Russian politics.

In a nutshell, I suggest that the “regression” of the dominant action logic of Russian politics to a self-protective level is, on the one hand, a reaction to Russia’s failure to reach and materialize a mature and “healthy” traditionalism (Chilton’s stage 4) in the Soviet Union (which wanted to achieve socialist modernity not by transcending but by destroying pre-Soviet traditions). On the other hand, self-protection is also a strategy of the current regime to avoid critical self-reflection, putting into question dear habits and privileges, and taking over responsibility for past mistakes and crimes committed in the name of the Soviet regime. Unfortunately, this also means avoiding a more thorough, that is, more than just technological, and a more integrative cultural and political transformation. Now, if this diagnosis ultimately is to be explained as a regression or as a realignment of politics and the underlying patterns of consciousness development depends on how we assess the situation in the Soviet Union. If we regard the latter as a (“reduced”) stage 4 culture, it would be a regression, if we regard it as a stage 2/3 culture with a stage 4 façade, we would have a mere realignment of inner and outer phenomena.

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[34] For more ideas on this, see Commons & Goodheart (2007), Ross & Commons (2008), and Müller (2009).

While the regime currently in place seems to enjoy the support of large sections of the population, preferring stability and prosperity to liberty and democracy, the question still arises what all those interested in Russia eventually moving upward on the scale of development could do to encourage and support this. Besides accepting where Russia stands in a developmental perspective and why, the most promising strategy for external partners would be to give Russia much honest respect where it deserves it, and to clearly point out limits of tolerance where it threatens to trespass them. The fact that most western actors, for the time being, fall short of consequently implementing this simple strategy probably has to do with their own developmental trajectories.

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Table 4: Stages of cultural and value development and some of their basic political implications*

Jean Gebser (1949)	**Jürgen Habermas (1976)**	**Thinking & existence**	**Clare Graves (1974) Values**	**Motivation**	**Primary focus & scope of dominant perspective**	**Primary logics governing foreign politics**	**Notions of (national) identity**	**Notions of democracy**
integral	global world citizen, existential	systemic, cognitive	accepting existence	existential self-worth	**cosmocentric**, knowledge, inclusion, being, growth & creativity	encouraging growth and development of cultures and individuals on any level	element of self-knowledge	becomes increasingly secondary; new (more smooth and substantial) modes of rule & organization
		relativistic personalistic	Community	love affiliation	pluralistic, personalistic, post-materialistic, **universalistic**, harmony with all humans	fostering human rights and peaceful conflict resolution globally	loses importance and national basis	becomes more substantial: means to establish/guarantee justice and equality
mental	modern, rational, reflexive	multiplistic materialistic	scientism materialism	independence adequacy competence	materialistic, scientific, rational, **world-centric** (understanding systemic mechanisms)	fostering liberal values in politics and economy wherever possible	trans-national cooperation, community of values, constitutional patriotism	formal: rule of law and of (the majority of) the people
mythic	conventional, traditional, imperialistic developed high cultures	saintly absolutistic sociocentric	sacrifice salvation	order meaning security	conventional, **sociocentric**, absolutistic	often imperialistic (based on culture or ideology)	holy community of origin/language/ culture etc., lead by wise leader(s)	dictatorship/rule of truth and dogma
magic	early conventions, early state, archaic high cultures	egocentric magic-animistic	exploitation power	(psychological) survival	**ethnocentric**, interest-based	sometimes imperialistic (based on culture)	clan-based	what family or clan hold it to be
archaic	pre-conventional morals	autistic	safety	assurance	**Egocentric**	power-based, geopolitical spheres of influence	national interest ~ soil & power	unnecessary, dictatorship of strong & powerful leader

Note: The stages of the three theorists on the left of the table are not interchangeable! Alignments are due to graphic imperfection!

* The categories in the four columns on the right are my own interpretation of some political implications of the most central levels of development.

The Superbubble behind "The Great Moderation:" How the Brandt Report Foresaw Today's Global Economic Crisis

James Bernard Quilligan[1]

Abstract: The Brandt Commission Report, published in 1980, broke ground in vital areas. It was the first international body to develop such concepts as *interdependence, globalization, sustainable development,* and *alternative sources of development financing.* It grappled with the difficult problem of global monetary imbalances, not in a vacuum, but rather, situated in the Commission's stance that reforms in poverty, aid, debt, armaments expenditures, environment, technology, trade, and finance will not effectively meet their goals until they are supported by a totally-restructured monetary system. Virtually all sustainable development initiatives since then have missed that need for restructuring.

The Brandt Report warrants this first treatment of a full political economic framing because the world continues to operate with those structural imbalances and faces a global economic crisis. Nations with current account deficits are required by the rules of the marketplace and international institutions to adjust their fiscal balances by paying off their loans. Yet nations with current account surpluses are not under similar obligation because there is no adjustment mechanism for recycling their trade surpluses and currency reserves. Compelling examples of this disequilibrium today are the current account imbalances between the surplus nations of China and other Asian states on the one hand, and deficit nations like the United States and United Kingdom on the other. A mitigating factor is the use of the dollar as the world's reserve currency, which allows the US to avoid adjusting its deficits on a timely basis. A major global financial adjustment is needed to eliminate the financial and monetary superbubble that has been forming as a result of these deep contradictions in the international system. The Brandt Report anticipated that unless these global imbalances were corrected through coordinated international action, there would be a series of sovereign debt crises, resulting in an emergency monetary readjustment. Brandt also demonstrated that any international stimulus program to merge the development needs of the global South, the underused capacity of the global North, and the needs of the entire world for a low-carbon environment, must be directly linked to the restructuring of the international monetary regime, including a new global currency and reserve system.

A return to the principles and analyses spelled out in the Brandt Report is needed now to reform the global economic infrastructure. Brandt's call for an international monetary conference to address these issues is even more pressing and salient today than it was 30 years ago.

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Keywords: Balance of payments adjustment, Brandt Commission, current account imbalances, dollar crisis, exchange rates, global Keynesianism, global monetary conference, global monetary system, Great Moderation, new Bretton Woods system, reserve system, superbubble, sustainable development, Willy Brandt.

Introduction[2]

I intend for this article to contribute in two ways to this special issue's theme, "toward development of politics and the political." On this 30th anniversary of the Brandt Commission's seminal report, I have attempted to give its systemic insights the full political economic framing they have not been given before. In so doing, I aim to elevate the *import* of Brandt's contribution to the level often attributed to John Maynard Keynes' original—but rejected—proposals at the 1944 Bretton Woods conference for a reciprocal international economic adjustment process. I show how the Brandt Commission's arguments for a new global monetary system have not only stood the test of time, but also how its predictions have been validated by national and international events in the ensuing decades. For the same reasons stressed in the Brandt Report, my selected focus is on international monetary policy and its relation to the current global economic crisis.

In particular, I establish how Brandt foresaw the structural existence and global implications of a burgeoning *superbubble*—recently given this name by George Soros—which continues to generate ever-larger global economic imbalances. I contend that during the 1982-2007 period of economic growth with low inflation—which Ben Bernanke has called "The Great Moderation"—Western society was lulled into a kind of complacency by free market ideology that obscured this underlying global disequilibrium. Eliminating the superbubble inherent in the global financial and monetary system starts with recognizing its origins, relationships, and impacts. My discussion traces these themes and weaves them and other meta relationships together through the lens of the Brandt Report.

Such recognitions relate to the second contribution of this article. The Brandt Commission's systemic analyses and recommendations are as central to restructuring "the political" in economic and monetary policy terms as they are to integrating sustainable development into the global economic system. That integration will be essential in reconfiguring the politics of sustainability, climate change, economic growth, and global wealth disparity to meet the immense challenges of world society in the decades ahead. Thus, in Brandt we have a compendium of received wisdom long ignored yet still vital. I suggest that a return to the principles and analyses spelled out in the report is needed now to address the contradictions which are deeply embedded in the global economic infrastructure. As Brandt demonstrated, efforts to reform economic development will fail if they do not begin at the foundational level of the international monetary system. The structural flaws inherent in the Bretton Woods scheme since the 1940s have introduced incessant dysfunctions into the global political economy, which are reproduced at national and local levels. I show that this complex of interrelationships can be transformed only by addressing the assumptions, principles, and mechanisms behind the current operating system.

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[2] *Editor's note:* In formatting this article, we employed a hybrid of the journal's traditional use of APA style and the author's style to accommodate the nature of the material. We used footnoted citations and did not use block quotes.

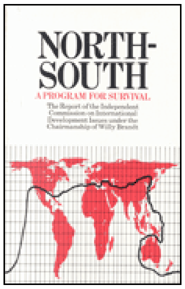
To provide a comprehensive overview of the problem of global economic imbalances and to establish linkages among its various elements, this article is organized into four major parts. The first part provides a general introduction to the Brandt Commission Report, including some of its tangible impacts to date and perennial challenges that remain unaddressed. The remainder follows a chronological trajectory. The second part summarizes the history of international development since 1944, along with critiques of structural inadequacies and explanations of the major monetary and financial influences on the praxis of international development. This includes the shortcomings of modern economic theories and the failure of central banks, policymakers, and analysts to generate realistic proposals that address the structural errors in the Bretton Woods institutions—and how the mandates of these decision makers keep the international monetary system in a state of perpetual disequilibrium. The work of the Brandt Commission and its monetary proposals are set in this historical context.

The third part focuses on present world conditions in three main areas: the exchange rate regime, balance of payments adjustments, and the reserve system. These monetary components, which are at the heart of today's global economic crisis, are integrated with the Brandt Report's analytical perspective, policy suggestions, and predictions. The final part takes a look ahead, with emphasis on the aforementioned superbubble, the US dollar crisis, and the vulnerability of the dollar's status as a global reserve currency. It closes by iterating the Brandt Commission's call for an international monetary conference and identifies key questions surrounding this world-changing event.

The article integrates historical conditions and the Brandt insights with the present crisis in the international economy and shows how they are all of one piece. It indicates why the challenges that Brandt tackled three decades ago remain the same challenges we face today, particularly if we are to create a new global economic system and avoid a systemic collapse and long period of global stagnation and depression. I've tried to show that these economic circumstances are also deeply political, since international discussions for restructuring the global economic system will require significant changes in the global political balance of power. Taken as a whole, the article is an argument for facing into and developing our political capacities at all scales to deploy recommendations like those that the Brandt Commission Report supplied thirty years ago. I also emphasize that these structural changes become only more painful the longer we postpone them.

The Brandt Commission Report

International policy on economic development reached a new threshold three decades ago. Willy Brandt, the former West German Chancellor, began planning an Independent Commission on International Development Issues in January 1977. Humankind, Brandt observed, "already faces basic problems which cannot be solved purely at the national or even regional levels, such as security and peace, development goals, the monetary system, protection of the


NORTH-
SOUTH
A PROGRAM FOR SURVIVAL

environment, energy, and the control of space and ocean resources. The international community has begun to tackle these problems but, to date, very inadequately."[3]

Brandt's panel—comprised of twenty-two international political and economic leaders—deliberated on these global issues for the next three years. In January 1980, they issued a report, *North-South: A Program for Survival*. Its comprehensive strategy for restructuring the global economy, including an emergency program to end poverty in developing nations, was hailed by many international agencies, governments, business leaders and civil society groups across the world. The Brandt Report quickly became the best-selling book on international development in history.[4]

Many of the facts and statistics in the Brandt Report are outdated and of little interest now. Global markets have also grown much more sophisticated since the time of its publication. Yet the broad problems of the global economy have changed little in the intervening years and the strategic objectives and principles which were formulated by Brandt's commission are still highly relevant. The Brandt Report pinpointed "not merely one, but several crises: the crisis of relentless inflation and increasing energy costs, the crisis of dwindling energy availability, the crisis resulting from mounting financial requirements, and the crisis posed by constraints on world trade and on the growth of export earnings to meet increased debt service commitments. Taken together, they threaten the whole structure of our political, industrial and financial institutions, unless we move urgently and adequately to deal with the basic causes" ... "to ensure a sustainable biological environment, and sustainable prosperity based on equitably shared resources."[5]

Willy Brandt and the author at a press conference in 1980

As a publicist and adviser to the Brandt Commission during that period, I traveled across the world, consulting with many heads of state, legislators, business leaders, and civil society and media representatives. In 2000, some associates and I created a website aimed at updating the Brandt Report for the opening years of the 21st century.[6] Looking back from the perspective of the Millennium, it was clear that all of the basic problems that the Brandt Commission had initially addressed—food, aid, environment, energy, trade, finance and monetary reform, as well as global negotiations to find solutions to these issues—were still unresolved and had become only more urgent with the passage of time. This is not to minimize the subsequent advances in many of the areas of international development that the Brandt Report had first proposed. Some of these later milestones include:

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[3] Brandt Commission (1980, p. 267)

[4] Due to popular demand, an addendum to the report, *Common Crisis: North-South Cooperation for World Recovery*, was published in 1983.

[5] Brandt Commission (1980, p. 239, p. 124)

[6] Brandt 21 Forum (2000)

- Brundtland Commission (1987), which refined the concept of sustainable development;
- United Nations Conference on Environment and Development (1992), which launched a broad coalition of environmental and development groups;
- Commission on Global Governance (1995), which advanced the concept of a new multilateralism to support the objectives of sustainable development;
- Millennium Development Goals (2000), which set measurable, internationally affirmed objectives for sustainable development;
- Earth Charter (2000), which elaborated the principles and rights necessary for the transition to a global civilization based on sustainable development.

These initiatives and others have furthered our understanding and led to important policy reforms. Yet they have not been nearly enough. Many brilliant programs and projects have been launched, only to be compromised or co-opted by the commercial and strategic interests of businesses and nation-states. Rather than integrate sustainable development into the very structure of the system, policy makers and activists have sought to graft sustainable development onto the present economic system through public-private partnerships and capital incentives. Now that global pollution and climate change have escalated, and the gap between the global rich and poor continues to widen, it's become clear that sustainable development as it has been practiced will not create the transformation that is needed. Vital as they are, the various reforms of the past three decades have diverted attention away from the deeper systemic problems of the international economy.

The Brandt Report introduced the maxim that *reforms in poverty, aid, debt, armaments expenditures, environment, technology, trade, and finance will not effectively meet their goals until they are supported by a totally restructured monetary system*. This is the key point that virtually all of the sustainable development initiatives since the Brandt Report have missed. Simply put, sustainable development is a necessary condition for transforming world society—but not a sufficient condition. We cannot expect sustainable development to generate a new economy on its own: the price signals of the marketplace will not create sustainable development at the depth and scale that are needed. It will require new incentives emerging from purposeful institutional change to create a multilateral economic system with sustainable development at its core.

Now, on the thirtieth anniversary of its publication, I wish to underscore some of the major policy areas in which the Brandt Report still has something vital to say—proposals which have been largely forgotten but may yet have relevance to our present generation of politicians, economists, and global citizens. History would not be served if the significance of the Brandt Report were ignored, particularly since many of today's familiar trends and potential solutions had their origins in this book. It is not widely recognized, for example, that the Brandt Commission was the first international body to introduce the concepts of *interdependence, globalization, sustainable development,* and *alternative sources of development financing* in its report and supporting documents. Indeed, there are many dimensions of the Brandt Report that were ahead of their time—yet none as prescient as its proposals for *restructuring the international monetary system.*

The publication of the Brandt Report occurred at a crucial moment in the history of Western political economy. It was issued just after the political failure of Keynesian demand-side economics and just before the start of the Thatcher-Reagan supply-side era. Frankly, it must be said that in spite of its considerable international popularity, the Brandt Report had little impact on this turn of events.[7] Indeed, its demand-side proposals were the very opposite of the supply-side policies which were soon to become mainstream thinking. Nor did the Brandt Commission anticipate the lengthy period of asset appreciation with modest inflation from 1982-2007, which Ben Bernanke has called "The Great Moderation."[8]

While the Brandt Commission did not know how long it would take, it was convinced that a continued economic emphasis on national production—rather than the stimulation of global effective demand—would lead to major structural distortions, disequilibrium, and crisis in the global economy. Brandt and his colleagues clearly recognized that without fundamental restructuring, sooner or later the global economy would have to reckon with what financier George Soros has recently called a *superbubble*—the ever-enlarging monetary asymmetry that underlies individual financial bubbles, like the subprime mortgage bubble that burst in 2007.[9]

Anticipating that the structural flaws in the international monetary system would ultimately lead to irreconcilable global economic imbalances in aid, trade, finance, and monetary exchange, Brandt's team warned that "the problem of managing the international imbalances of payments is increasing the threat of grave crises in international finance. We have serious doubts as to whether the existing world machinery can cope with these imbalances and the management of world liquidity and debt."[10] If nothing were done to correct these imbalances, Brandt predicted, a protracted series of financial shocks would result in a major public debt crisis, engulfing all nations. Indeed, the world has experienced the severe fallout from a series of credit-driven recessions over the past forty years, although the expected global fiscal debt crisis is only now beginning.[11]

Unfortunately, few politicians, bankers, or commentators seem prepared to look deeply into the structural causes of these breakdowns. We have been unwilling to see *the origins and buildup of the superbubble in the series of modifications to the global economic structure that have*

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[7] Translated into twenty different languages, the Brandt Report sold over a million copies around the world. But the political momentum behind supply-side economics was also very strong and the proposals of the Brandt Commission failed to capture the interest of Western policymakers.

[8] Bernanke (2004)

[9] Soros (2008).Soros contends that the superbubble started with the policies of financial deregulation and private investment in credit that were developed during the early Reagan-Thatcher era. My view is that the superbubble phenomenon was already well under way by that time. I suggest that the superbubble had its origins in the policies of monetary deregulation beginning in the early 1970s. The changes in economic policy that took place in the early 1980s merely gave political cover to—and greatly accelerated—the process of credit expansion and the development of asset bubbles which were unleashed when the US took the world off the gold standard in 1971. Many analysts have not explored the real implications of this connection: that the financial deregulation of the 1980s was the direct result of the monetary deregulation of the 1970s.

[10] Brandt Commission (1983, p. 2)

[11] The term "recession" is usually defined as a period in which there is a general decline in global GDP for two or more quarters.

occurred over the past four decades. This includes the deregulation of the monetary system (1970s), the financial system (1980s), the trade system (1990s), and the philanthropic/foreign aid system (2000s).

The monetary deregulation of 1971 (which launched this cascade of changes in international economic policy) was triggered by a foreign call on US gold but also had its roots in the rationalization that markets self-correct.[12] Given this underlying allegiance to laissez-faire ideology, a genuine appraisal of the world’s mounting imbalances has been obscured by the blind spot of “efficient markets” and “rational expectations” theory, leaving us unable to predict dangerous bubbles. Most people have been persuaded that money is just another commodity in the marketplace, its value determined by the prices of goods and services—which is why we tacitly support the policy commitments of the central banks to ensuring price stability and keeping inflation under control. This conviction has left policymakers and the public in denial about the familiar pattern of debt addiction and consumer spending that has resulted from their governments’ deficit spending and central banks’ oversupply of credit for the stabilization of financial markets—the very conditions which continue to inflate the superbubble.

Although modern society has learned to accept its boom-bust cycles as a fact of life, sooner or later we must face up to the essential problem that causes the economic system to create and recreate these financial crises. It’s time we recognize the entrenched pattern that has played out during every recession since the beginning of the era of international monetary deregulation.[13]

- Easy credit generates demand that pushes up the value of new financial products
- The distribution of these products is greatly expanded and generates high yields
- Greater numbers of people purchase these financial products
- The financial products are traded at inflated values
- Mispricing creates massive imbalances in trading between producers and investors
- A financial asset bubble builds
- The bubble bursts, resulting in heavy losses for investors, private banks, and financial institutions which have been over-leveraged
- Government treasuries or central banks rescue the affected private banks and financial institutions through fiscal or monetary bailouts (or both)
- A new round of financial speculation begins, since the private sector knows that the public sector will protect it from the downside risks of bad investment decisions through fiscal bailouts by taxpayers

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[12] Policy makers in the Richard Nixon White House, including Director of the Office of Management and Budget, George Schultz, decided to take the US and the world off the gold standard in 1971 partly out of economic necessity (as described below in “Bretton Woods I: 1944-1971”) and partly out of a deep ideological conviction in free market policies. The philosophical constructs behind the decision to deregulate the monetary system had their roots not only in the economic theories of Friedrich von Hayek and his followers, but also in the schools of behaviorism, logical positivism, linguistic determinism, and ultimately, post-modernism. A full treatment of the ideological underpinnings of the global deregulatory policies which were initiated in 1971 is beyond the scope of this discussion.

[13] This general pattern applies to any speculative bubble in history. Unlike earlier examples, however, most of the asset bubbles that have developed since 1971 have not been in commodities, but in financial assets.

- interest rate cuts for savers[14]
- benefits for unemployed workers
- Moral hazard—the asymmetric incentives of public sector guarantees for the private sector—results in the development of a new generation of financial products with a higher degree of opaqueness and leverage
- This encourages greater credit expansion and risk taking
- A new asset bubble is created over the ensuing years

If this pattern sounds familiar, it should. We have already suffered through a number of these cyclic recessions (including 1973-75, 1980-82, 1990-93, 1997-98, 2001-02 and 2007-09), each one becoming a little larger and more damaging. The monetary superbubble which has been amassing behind these individual recessions cannot be measured in terms of price inflation—which has been the primary focus of central banks during the era of deregulation, despite the obvious structural imbalances arising from easy credit, low interest rates and rising asset prices. Predicting speculative bubbles is not like predicting earthquakes, although this seems to be the philosophy adopted by central banks and policy makers: not much can be done until the destructive aftermath. By keeping the rate of consumer-price inflation low and stable, while ignoring asset inflation, central banks have studiously avoided pricking bubbles. Instead, they prefer to clean up the damage after bubbles burst through interest rate adjustments.[15]

While an array of critics across the world has observed that our recurring economic crises are caused by deep distortions in the Bretton Woods system, few realistic proposals have been put forward that would end the relentless surge of free-flowing credit and debt-financed consumption that results in asset bubbles, crashes, and economic pain. Current economic policies are still generating enormous trade imbalances, uneven growth, and misaligned exchange rates, while proposals to reduce these asymmetries through higher wages and purchasing power are seldom considered. If central banks continue to pursue an expansionary monetary policy and inflate the money supply, the likely result will be another huge asset bubble in the bond market and a public debt crisis, leading to depression and mass deflationary conditions.[16] In the meantime, global leaders do not appear to be discussing international coordination for deep structural changes in the monetary system, even though the superbubble that is now forming in the global equity and bond markets has clear monetary implications.

How did it come to this? And what can be done? The Brandt Report, which foresaw the superbubble of a long-term government debt crisis, offers many clues and lessons. Before analyzing present conditions and future possibilities, the monetary proposals of the Brandt Report should first be set in their historical context.

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[14] Interest rate cuts draw savers out of safer investments and into higher-yield investments.

[15] This was the policy of the Federal Reserve Board under the chairmanship of Alan Greenspan (1987-2006) and has been adopted by many other central banks. The idea that the central bank would come to the rescue of vulnerable private banks and financial institutions (by lowering interest rates and pumping liquidity back into the market) became known as the "Greenspan Put." Instead of creating stability, these practices contributed to further speculation and continued to inflate the financial and monetary superbubble.

[16] At the government's discretion, such deflationary conditions may be countered with hyperinflationary policies.

Historical Background

Bretton Woods I: 1944-1971

After the Second World War, many colonial nations achieved independence from their ruling countries. While this political liberation may have been genuine, economic freedom was another matter. These newly "developing" states still found themselves reliant on the world's rich nations for economic assistance.

Meeting in Bretton Woods, New Hampshire, in 1944, the United States, the United Kingdom and forty-two other nations launched a multilateral system that promised to meet the needs of the world's poor nations for economic development. The post-war economic system consisted of the International Monetary Fund (IMF) for crisis lending, the World Bank for development aid, and the International Trade Organization to negotiate and arbitrate the rules of international commerce and trade.[17] Along with the United Nations, which was established to create a new dimension of political security and peace in the post-war era, the Bretton Woods institutions were designed to create a new level of economic security across the world. For the first time in history, there would be an institutional framework for recycling international aid and credit in an orderly and stable way. Foreign assistance and loans would flow from rich nations to poor nations, and trade surplus and trade deficit nations would adjust their payments balances for mutual benefit. This new access to aid and credit, along with free competition, open trade, and private investment in the international marketplace, would be enough to lift the world's poor nations out of poverty and guarantee economic prosperity for all.

These expectations were soon disappointed. In spite of the world's new economic order, ex-colonial nations remained impoverished and marginalized, stuck with massive unemployment, low wages, and diminished purchasing power. The Cold War between the Soviet bloc and the West also created a complexity of barriers to international trade and financial flows. Still, the Bretton Woods economy had mixed success from the late 1940s through the early 1970s. Employment, economic growth, and living standards—especially for the industrialized countries of the North—improved at a rate unprecedented in history and in a climate of relative economic stability. Much of that achievement was due to the orderly and stable relationships between the different currencies of the international monetary system. The global economy was anchored by a system of sound money, supported by the US dollar serving as the dominant global reserve currency and the IMF facilitating the exchange rates between nations. Foreign central banks were allowed to redeem excess dollars at the fixed conversion rate of $35 per ounce of gold, which encouraged the expansion of world trade and the predictability and security of financial investment. For its member states, this new economic system proved a welcome relief from the massive monetary instability resulting from the breakdown of the international gold standard between the First and Second World Wars. After the social pain and suffering caused by those political conflicts and the Great Depression, the liberalization of the international economy toward redistributing global credit and alleviating poverty was widely regarded as a major breakthrough.

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[17] In 1947, the International Trade Organization was replaced by the General Agreement on Tariffs and Trade (GATT), which itself was superseded in 1995 by the World Trade Organization (WTO).

Yet there was a flaw deeply built into the Bretton Woods framework from its inception, a fault which was obscured during most of the 1950s and 60s by the unrivaled strength of the United States as the world's economic engine and currency guarantor-of-last-resort.[18] This structural error, which continues to plague the international monetary system today, is that *deficit nations are forced by the marketplace and the international institutions to adjust their fiscal balances,*[19] *while surplus nations have no real incentives to make reciprocal fiscal adjustments for the benefit of deficit nations or for the monetary system as a whole.*[20] These discrepancies have led to fractious differences among governments over the anticipated impact of interest rates on loans and investments. For nations in deficit, debts must be paid on a timely basis; but for nations in surplus, financial assets can accumulate without time constraint or requirement of redistribution.

The weaknesses of this asymmetrical structure came into focus in the late 1960s when the United States began inflating its money supply to accommodate growing fiscal strains. To fund its "War on Poverty" and the Vietnam War, the US borrowed from abroad. This forced other lending nations (many of which had little interest in the domestic spending of the US or didn't approve of America's foreign wars) to absorb some of the inflationary thrust of US expenditures through their own fixed-exchange rates with the dollar. Disagreements emerged between the United States and several member states in the Bretton Woods system, particularly with France, West Germany, and Switzerland.

Investors and multinational corporations, seeking to avoid losses through significant swings in exchange rates, embarked on a huge dollar selloff. As foreign holdings of US dollars increased, US gold reserves dwindled, and the anticipation of a dollar devaluation increased the private demand for gold across the world. Countries with balance of payments surpluses questioned the capacity of the United States, with its rapidly growing balance of payments deficit, to honor its obligation to convert dollars into gold. In these shifting circumstances, markets and central banks demanded to know where they stood. Was their money stable? Was the US dollar creditworthy? Was the Bretton Woods agreement coming to an end? With pressures mounting on the international monetary system, President Richard Nixon suspended the convertibility of the dollar into gold on August 15, 1971. By closing the gold window, the international system lost its monetary anchor and exchange rates were left to float. The international monetary system had been deregulated and a very different and uncertain era was beginning.

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[18] Eichengreen and Flandreu (2008). These authors would add that the underlying reason that the dollar dominated foreign exchange reserves in the post-war era was because the United States had liquid financial markets and no capital controls.

[19] The exception, of course, is the United States, which is not immediately forced to adjust its fiscal balances because of its reserve currency.

[20] I use the terms *deficit nations* and *surplus nations* to refer to countries with a deficit or surplus in their current account balance. A current account balance reflects the goods and services a nation imports against those that it exports, plus the net of foreign income, foreign aid, and transfer payments. A deficit nation earns less than it spends, while a surplus nation earns more than it spends. The implications of this for today's economy are described in more detail below in "Balance of Payments Adjustments" and "The Superbubble and the Dollar Crisis."

Bretton Woods II: 1971 - Today

Under Bretton Woods I, capital could not flow freely from one country to another because of exchange controls. When the United States decoupled its dollar from gold, the abrupt change from fixed to floating exchange rates put pressure on governments to reduce capital controls and liberalize capital flows. The era of Bretton Woods II, which began with the collapse of the previous system of fixed exchange rates, resulted in loose monetary policy and an explosion in world reserves.[21] No longer bound by convertibility restrictions, central banks were free to create as much money as they wished.

This created major currency volatility for all nations, presenting them with new problems in the management of their exchange rates, balance of payments adjustments, and foreign reserves. Currency instability, in turn, contributed to inflation, slow growth, and unemployment in rich nations. These conditions intensified in 1973-74 when oil-producing nations quadrupled the price of oil. As double-digit inflation, interest rates, and unemployment soared, and exchange rate volatility continued, Keynesian countercyclical policies—based on fiscal intervention in slumping markets—were under challenge. Economists like Milton Friedman and political leaders such as Ronald Reagan and Margaret Thatcher promoted free trade, unrestricted private investment, and open capital markets, arguing that government bureaucrats could not rival the ability of private markets in allocating capital.[22] They believed that macroeconomic policy ought to be geared toward creating low inflation, rather than full employment.

The major recessions of the 1970s had also affected developing nations. They, too, were severely impacted by oil and commodity price inflation, as well as the rise of broader consumer prices. Their agricultural and mineral exports and domestic incomes slumped and unemployment escalated, making it difficult to build the industrial sector. As foreign investment in developing nations slowed, these countries suffered considerably.

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[21] Another school of thought contends that Bretton Woods II started about 2003, when the central banks of many emerging nations began to link their currencies formally or informally to the dollar, thus mimicking the system of fixed exchange rates during the period of Bretton Woods I. My view is that the Bretton Woods period did not simply end in 1971 and then restart in the early 2000s. I don’t believe that Bretton Woods should be defined merely as a system of fixed exchange rates. In popular thought, the meaning of “Bretton Woods” is characterized mainly by its original institutions—the IMF and World Bank—which have continued to operate as the world’s international economic institutions during the entire period since the 1940s, regardless of prevailing exchange rate policies.

[22] Although little recognized, much of the new political appeal of conservative economics in the late 1970s and early 1980s had its roots in the decision to close the gold window and liberalize the international monetary system. Floating exchange rates, loose monetary policy, the opening of markets, and the abolition of capital controls were all part of a policy continuum which set off an explosion of new credit instruments beginning in the early 1970s. This created the “stagflation” which, as is well known, helped to discredit Keynesian theory. But this new credit also made it easier for lenders to enter the home-loan market, and for homebuyers to obtain credit. This mass availability of credit had a major impact on Western politics, as conservative parties persuaded voters to shun higher taxes and reverse the redistributive policies of the social welfare state. As a result, popular conservative support for supply-side economics grew and national Keynesianism fell into political disrepute in the US, UK, Europe, Canada, Australia and elsewhere.

Under Bretton Woods I, the mission of the IMF had been to monitor the international economy and support the system of fixed exchange rates and stable money, which would promote free trade for the benefit of all nations. Under Bretton Woods II, the mission of the IMF was recalibrated for the era of floating exchange rates and monetary and financial deregulation. The IMF turned into a central planning authority, managing economic policy in developing nations by opening their economies to foreign capital as a condition for receiving cheap loans. But the IMF's drastic conditionalities on lending—sharp reductions in public spending and domestic consumption, currency devaluations and higher taxes—"tended to impose unnecessary and unacceptable political burdens on the poorest, on occasion leading to IMF riots and even the downfall of governments."[23]

By the early 1970s, it had become evident that many of the promises of the new international economic system had failed. Aid, loans, and investment were not ending world hunger and poverty—these conditions were growing only worse. A number of economists and policymakers began to call for a restructuring of the international economic system, particularly in the areas of trade, technology, finance, monetary policy, energy, commodities, food, and agriculture. By the late 1970s, many developing countries, disappointed with the prospects of socialism and communism, were looking to a new kind of "global Keynesianism" for answers. Many believed that a restructured international economic system was needed to generate an emergency relief program for developing nations and stimulate the global economy.[24]

Yet North-South discussions were at an impasse.[25] "Between the Bretton Woods and the United Nations institutions, each with their own language and assumptions, there remained a difference of orientation and power. The South had majority votes in the General Assembly which gave assurance of passing resolutions; but the North's position in the World Bank and

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[23] Brandt Commission (1980, p. 216)

[24] In this view, rich nations would stimulate the global economy, not through economic policy within their own borders, but by enhancing the economic development of poor nations across the world. Helping these nations would also make them better trading partners for the world's rich nations, thereby benefiting everyone.

[25] The "North-South" metaphor has never been an adequate framework for explaining global economic and social imbalances. Generally, the global North refers to the world's richer, more developed nations, while the global South refers to the poorer, developing nations. Assigning regional sectors to these classes of economic development is obviously a gross generalization. Besides the problems of geographical anomalies (e.g., Australia as a developed nation in the South), the terms "North" and "South" do not reflect changing circumstances: many of today's emerging nations, which were formerly developing nations, are still associated with the global South. Although "North-South" remains a useful shorthand for the broad distinction between the extremes of global development, economically and socially, the assumptions behind "developed" and "developing" nations need to be re-examined. (Perhaps a more empirical way of referring to the extremes of wealth is a terminology based on the national current account balance, i.e., "surplus" nations and "deficit" nations. I prefer this terminology because it goes right to the heart of the world's structural imbalances without moralizing upon the meaning of the economic and social discrepancies, which often frame the world's rich and poor as abusers and victims and reinforce historical barriers in the international dialogue on development. This is not to deny past injustices, but to suggest that the personal, social, and cultural differences in global economic and social development should find some new means of expression in the international negotiating framework. Recent research and activism involving the *global commons* has been headed in that direction.)

IMF gave it control over key areas of money and finance."[26] As the dialogue on development faltered, Willy Brandt—the ex-chancellor of the Federal Republic of Germany who had won the Nobel Peace Prize in 1970 for his work in East-West relations—was asked by World Bank President Robert McNamara to lead a North-South commission to analyze the current conditions of world poverty and the prospects for international development.

Brandt's group—comprised of high-level economists and politicians with a wide range of geographical and ideological perspectives—called for an international emergency relief program for developing nations, which was to be supported by a new international economic system. To lift the world economy out of recession in the short term and achieve lasting economic growth, the Brandt Commission advocated that rich nations provide a major stimulus of aid, loans, and technology to poor nations. "We insist," the commission declared, "that longer-term measures of reform will be essential to the international financial and trading system, without which recovery and growth could not be sustained."[27]

They argued that an expansion of markets in the global South would create more production, fairer prices for raw materials, higher wages, and a cleaner environment. In turn, this would benefit the global North by boosting employment through the expanded production of goods to sell to the markets of developing nations. "The large-scale transfers we will propose are seen therefore as measures both to support growth in developing countries directly and to permit a significant expansion of world trade. It is in this sense that we view them as contributing to growth and employment creation in the North as well as the South."[28]

The idea of a "global stimulus" didn't catch on until the past few years. During the period from 1982-2007—characterized by high production, stock market prosperity, and relatively low inflation in the North—few policymakers discussed ideas about boosting economic development in the South to rejuvenate the global economy. Particularly after the Cold War ended and the pace of globalization speeded up, most of the world's non-aligned nations no longer had the political option of choosing neutrality from the rapidly globalizing economic system. Virtually all nations in Latin America, Asia, Africa, the Middle East, and Eastern Europe gravitated toward the global marketplace, not only for trade and finance, but as the primary means of fighting poverty and promoting international development.[29]

The span of years from 1982 to 2007 was a time of remarkable growth for many rich and emerging nations, yet the rate of global poverty, social inequality, environmental degradation, and climate change also continued to increase across the world. As the Great Moderation ended in the United States, both the Bush and Obama presidencies abandoned the supply-side ideology of the Reagan era. Each administration embraced old-fashioned national Keynesianism, fostering stimulus bills of $152 bn in 2008 and $787 bn in 2009 to generate effective demand. With the election of a Democratic Congress in 2008 and the increased attention on global warming before the 2009 United Nations Framework Convention on Climate Change in Copenhagen, the idea of Green Financing also became a popular platform in the sustainable development community, echoing proposals originally made by the Brandt Commission for "an orderly transition from a world economy and industry based on oil to one that can be sustained through renewable sources of energy."[30]

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[26] Brandt Commission (1980, p. 38)

[27] Brandt Commission (1983, p. 13)

[28] Brandt Commission (1980, p. 68)

[29] As many of these nations industrialized and attained stable economic growth, they came to be seen as a kind of global middle class emerging from the lower class of developing nations. Hence, the terms "emerging markets" and "emerging nations" came into parlance in the early 1990s.

The Brandt Report has often been viewed as a form of global Keynesian policy.[31] This is true to a large extent. The report was written just as national Keynesian policy was failing, and many of the Brandt Commission's ideas were designed to recreate Keynesianism at the global level to make it more viable in sustaining international demand.[32] Since that time, however, the drawbacks of Keynesianism have become increasingly apparent. When he developed his economic philosophy during the 1920s-1940s, John Maynard Keynes was primarily addressing the needs of the world's industrialized nations for increasing employment and consumption.[33] With the advent of globalization, industrialized economies are no longer as focused on their own domestic markets as they were in earlier years, which limits the effect of large-scale stimulus programs as multipliers of consumer spending for national economic recovery.

In addition, most proposals for global Keynesianism have failed to effectively address the problem of the overcapacity of production. Since the 1970s, global productive capacity has outpaced the growth of effective demand, suppressing global wages, incomes, and purchasing power. The more that countries industrialize, the more acute this problem has become. The supply-side policies that produced the Great Moderation—deregulation, liberalization, and privatization—have deepened the crisis of overproduction through easy credit and rising asset prices. These asymmetries in productive capacity are the result of an ideological and political commitment to letting "market efficiency" and inflation reduction sort out the global imbalances between countries with payments surpluses and deficits.

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[30] Brandt Commission (1980, pp. 168-169). A "Green New Deal" between the global North and global South would mean that rich nations would reduce their production, consumption, and carbon emissions, while poor nations would receive credit, investment, and new technology while pursuing their economic development. At the same time, both North and South would reduce reliance on fossil fuels, implement energy efficiencies, create clean technologies, develop renewable energy, clean up natural systems, and establish a culture of sustainable growth.

[31] "The [Brandt] report's simultaneous expansion and internationalism within a framework regulated by governments and international institutions made it a true successor to Keynes' visionary schemes of the 1940s" (Newton, 2004, p. 118). What were these forward-looking plans envisioned by John Maynard Keynes? As part of the international exchange system discussed at the Bretton Woods conference, Keynes had proposed a new adjustment mechanism—a yearly fee or circulation charge which would encourage trade surplus nations to actively spend, invest, or loan their surpluses for the benefit of deficit nations, rather than hoard them. Although this proposal was rejected by the United States at Bretton Woods, there is much to be said in favor of Keynes' essential concept of an International Clearing Union and negative interest rates, requiring nations with trade surpluses to recycle their excess. Since the Brandt Report did not broach this topic directly, however, it is best left for another occasion.

[32] Unlike other proposals for global Keynesianism, however, the Brandt Report combined economic stimulus for development with comprehensive monetary restructuring. Many recent proposals, like those for a Green New Deal, have focused primarily on financial stimulus without recognizing the necessity for changes in the global monetary system to support that stimulus. Few environmentalists, bankers, and policymakers have seemed to recognize that their goals would be better served by seeking "carbon value" through the currency system rather than a "carbon price" in the marketplace or a "carbon tax" through government policy. Several generations of policymakers and activists have now accepted the popular idea—promulgated by a few prominent twentieth century economists—that the value of money is simply a function of market prices. Brandt's emphasis on a new monetary system as the underpinning of sustainable development would reverse this entrenched thinking.

[33] As David Martin (2009) notes, in focusing mainly on the volume of employment and consumption needed to achieve effective demand, Keynes did not adequately factor in the underlying wealth of labor and natural resources from which that demand arises.

Brandt's Monetary Agenda

While fighting price inflation may be good policy for ensuring stable economic growth, the post-Keynesian overemphasis on inflation has also been destabilizing. Since the early 1980s, when attempts to achieve price stability by controlling money were abandoned, inflation targeting became the new focus of central banks. Influenced by market polemics, many economists and bankers adopted the view that price inflation could be modeled and controlled without paying much attention to the value of money. Rather than meeting long-term monetary targets, central banks would use their own money to determine short-term interest rates and ensure a broad balance between overall supply and demand for the medium term (usually a few years). Thus, instead of seeking to control inflation indirectly, central banks began to aim expressly at price stability.

The fact that these monetary practices have now become mainstream policy does not validate them. Ultimately, the adjustment process should not be the task of either markets or central banks—it should be the task of the international system itself. Markets cannot protect against systemic risk; guarding against systemic risk is one of the main reasons that we have central banks. Yet through inflation targeting for the financial sector, central banks have actually contributed to systemic risk by allowing exchange rates to build up implicit monetary imbalances at the global level. While emphasizing price stability, central banks have also encouraged the huge surges of credit that lead to asset inflation, which is the real source of the underlying global imbalances in saving and investment. As the Brandt Report anticipated, without a way of stabilizing these major financial distortions and asymmetries internationally, the underlying superbubble will continue to build until it bursts and the entire system collapses.

The inherent tension between export-led and import-led economic development is not an easy matter of supply canceling out demand. It is extremely difficult to ensure global economic balance when the domestic economic infrastructure of one group of nations is geared primarily toward production, while the infrastructure of another set of nations is oriented largely toward consumption. What makes this imbalance particularly challenging is that the liquidity in the global economy is already skewed toward global supply and production capacity, which creates instability in the entire system. *A major international financial adjustment is needed to clear the superbubble that has resulted from the different incentives and timeframes in the balance of payment imperatives of surplus and deficit nations—which allows surplus nations to accumulate financial assets without recycling them, while requiring deficit nations to pay their debts* and *adjust their fiscal balances.*

It’s clear that neither global poverty nor climate change are going to be tackled simply through a major stimulus package of aid, loans, trade, and investment from the global North to the global South. Certainly, a global stimulus can provide important short-term economic growth. Yet far more is needed. As the Brandt Report indicated, an effective global stimulus must also be accompanied and supported by a massive increase in income distribution, wage levels, and purchasing power through deep changes in social and monetary infrastructure: for “in the long run countries have to strengthen their capability to sustain development through structural transformation.”[34] The Brandt Commission stressed that *any international program to merge the developmental needs of the South, the underused capacity of the North, and the needs of the entire world for a low-carbon environment, must be directly linked to the restructuring of the international monetary system*.

The Great Recession of 2007-09 has focused the world’s attention on the need for a new monetary system. China, Russia, Brazil, India, France, the United Nations Conference on Trade and Development, and the UN Conference on the World Financial and Economic Crisis—along with many other states and international agencies—have expressed apprehension about the world’s widening trade imbalances, distorted growth, and misaligned exchange rates. These were the same concerns voiced by the Brandt Commission. “The current monetary disorder, together with the growing tides of protectionism and persistent inflation and recession, could have increasingly dangerous consequences for all countries,” said Brandt. “There is thus an urgent need to establish a mutually agreed international monetary order which would take into account the changes in the world environment since 1944.”[35]

It’s clear that the path that the world embarked upon at the Bretton Woods conference hasn’t worked and isn’t going to work. It’s time—past time, since these problems have been evident for decades—to think about creating a new international financial architecture, including a restructured currency scheme to reverse or eliminate the systemic errors in the present system. In this regard, Brandt’s team of experts developed a monetary agenda that remains highly relevant today.

“The Commission believes that reform of the world monetary system is urgent and must address itself to the following issues: the *exchange rate regime*; the *reserve system* (the creation and distribution of the international means of payment or liquidity); and the *[balance of payments] adjustment mechanism* as it affects the countries using reserve currencies, surplus countries and deficit countries.”[36] The Brandt Commission also called on nations to re-examine the *international role of the dollar* and to prepare for a new *global monetary conference* to discuss all of these issues in a comprehensive way.[37]

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[34] Brandt Commission (1980, p. 63)

[35] Brandt Commission (1980, p. 206)

[36] Brandt Commission (1980, p. 207)

[37] Another proposal—closely related to these—is the Brandt Commission’s call for automatic international financing, which continues to be the subject of much international discussion. Essentially, the Brandt Report called for a small surcharge or tax on income, production, consumption, or trade involving exchanges across international borders. New global programs and institutions for sustainable development could be financed through fees on international corporations, international investment, foreign exchange transactions, international trade, international airline tickets, maritime freight transport,

It is worth examining each of these topics now, thirty years after the publication of the Brandt Report, in light of the current state of the world economy.[38] The next section, "Present World Conditions," will focus on the exchange rate regime, balance of payments adjustments, and the reserve system. The last section, "Looking Ahead," will focus on the dollar crisis and the need for a global monetary conference.

Present World Conditions

Exchange Rate Regime

The exchange rate is a ratio between two currencies which indicates how much one is worth in terms of the other. It is the means by which one nation's currency is valued against other national currencies for purposes of trading and exchange. The accounting of national monetary values was fairly straightforward under the system of fixed exchange rates. Since the 1970s, however, when exports and imports began to be invoiced in currencies with widely fluctuating values, differences between the real earnings from exports and the real cost of imports have frequently arisen. These discrepancies have created significant problems for producers and traders, as well as for central banks managing external debts.

Under the new system (or "non-system") of floating exchange rates, government economists and politicians quickly realized that changes in the exchange rate could be used to manage the domestic trade balance for the benefit of the nation and its producers.[39] Hence, when central banks and governments buy and sell currency in foreign exchange markets, they are largely motivated by the same goals as those of primary exporting nations seeking price advantage in global commodity markets.[40]

All national currency is now *fiat*—created by central banks virtually out of nothing (since the costs of producing money are negligible).[41] Because currencies are a medium of exchange and not a commodity like wheat or iron ore, their "market" price essentially depends on the decisions

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ocean fishing, sea-bed mining, offshore oil and gas, international oil trading, satellite parking spaces, electromagnetic spectrum use, military spending and arms exports, toxic wastes, hydrocarbons and exhaustible resources, and energy consumption. The Brandt Commission believed that these measures were essential in funding a new international economic system. However, since these transborder fees are financial rather than monetary, I have not included them as part of Brandt's monetary agenda. Rather than focus on the financial side, I've concentrated on the monetary conditions that will support the creation of measures for global financial stimulus and automatic global financing.

[38] For purposes of narrative flow, the topics of Brandt's monetary agenda are arranged in a slightly different order in this article.

[39] A central bank's interventions in foreign exchange markets to push exchange rates higher makes a country's imports cheap but can lead to domestic demands for protection and subsidies; on the other hand, interventions to push exchange rates lower can create commercial and political pressures in other countries for trade discrimination and retaliatory measures.

[40] When the press reports on governments "cooperating" to influence exchange rates, what it really means is that their central banks are employing monetary strategies to manipulate foreign currency markets.

[41] *Fiat* is a Latin term for "let it be done." Fiat currency is money decreed by a government to be legal tender.

of central banks as to how much money to print. Thus, in the era of floating exchange rates, neither exchange rates nor currency supplies are determined by market forces, as many people assume, but are strategically established by a cartel of central banks. When the world economy switched over to these floating exchange rates, central bank interventions in the currency markets seemed like a good way of substituting for the earlier stability of fixed rates. In theory, this manipulation of foreign currency exchange rates promised the kind of predictability and order that the gold standard had provided, but in practice this has not been the case. There are two reasons why the strategic manipulation of exchange rates is not working effectively and is actually contributing to global economic imbalances.

The first reason is financial. During the period of the Great Moderation, most bankers, investors, and policymakers assumed that the new era of credit was beneficial for the economy as a whole. Bankers were happy to extend new loans to investors, investors were profiting, and regulators were pleased to see the banks alleviating credit risk. But easy credit and financial innovation masked the symptoms of the emerging superbubble. Under the old system of fixed exchange rates, banking had been relatively simple. When banks extended loans, they kept them on their own books using rudimentary accounting measures. After the monetary deregulation of 1971, however, banks started selling their credit risk to off-book investors in the growing capital markets. The advent of computers and quantitative methods for managing credit risk also contributed to the proliferation of credit-based instruments using off-book accounting. Without a system of managed exchange rates, accounting standards were blurred and a great deal of ambiguity developed. Although exotic financial products were marketed as the latest form of free-market innovation, many of the new financial instruments such as collateralized debt obligations were never really traded in the marketplace at all. They were valued through the algorithms of complex theory rather than through actual market pricing. As banks lost track of their own *mark to market* accounting, regulators also lost track of the banks' capacity to trade and price assets in a credible way. Hence, exchange rates based on these calculations have also misrepresented the real value of assets.

The second reason for the failure of exchange rate manipulation is monetary. In the global exchange rate regime that emerged after 1971, some developing countries have chosen floating or "crawling" exchange rates, while most are linked to a major currency or to a basket of currencies. By pegging their currencies to the dollar, nations like China have to purchase more dollars to prevent their currencies from appreciating, which can lead to inflation. This arrangement is highly contradictory: although their currency values rise and fall with the value of the dollar, the export-driven incentives of nations with undervalued currencies are the very opposite of the import-led model of economic growth in nations like the US. This means that high-growth, producing countries which are pegged to the dollar must suffer the deflationary consequences of any drop in the dollar's value. If these countries are also running surpluses and accumulating savings, their investment and consumption is less than what it would otherwise be if their currencies weren't linked to the dollar.

In 1994, China's central bank fixed the yuan at an exchange rate about 8.28 to the dollar. Since China began generating a large surplus in its trade with the US, it's been widely argued that the yuan is "undervalued." Critics say that China should allow its exchange rates to appreciate, which would reduce its trade surplus and allow it to consume more, while increasing

US exports and savings and lowering the US trade deficit. This logic is disputed, however. Some economists believe that an appreciation of the yuan against the dollar could actually cause investment in China to decline, increasing China's net savings and trade surplus with the US. For its part, China does not think that its manipulation of exchange rates is the cause of global imbalances, which it says are largely the result of cheap money, inflated demand, and asset bubbles in the United States.

Although the large foreign financing of America's negative current account has been grabbing the news headlines for several years, major global imbalances of this sort are not a recent problem. Over time, the scope of the economic distortions caused by the overextension of credit and the overcapacity of production has certainly broadened, but the issue is hardly new. For several decades, world demand has been in need of rebalancing, including deep changes in the pattern of national and global trade, finance, and monetary activity. The Brandt Commission advised in 1980 that greater international coordination was needed to prevent currency manipulation from resulting in exchange rate instability, distorted capital flows, and prolonged current account imbalances. It said that "key elements of monetary and fiscal policy should now be under urgent cooperative review by governments and central banks so that an appropriate pace of expansion can be agreed on and set in motion, and a better relation among exchange rates be maintained than has recently prevailed."[42]

The failure of central banks to manage these imbalances through the exchange rate process brings up a broader question. Is the economic conflict today between China and the US simply a matter of resetting exchange rates between the yuan and the dollar? Or is it a larger matter of adjusting payments imbalances between the "surplus" saving of China and the saving "deficiency" of the US?[43]

Balance of Payments Adjustments

A current account balance measures a nation's income relative to its spending. All the trade flows of goods and services, charitable contributions, foreign aid, and other international payments are weighed in terms of what comes in and goes out of the country. Generally speaking, a nation's current account indicates whether it is mostly saving or borrowing from abroad.

From a quick-glance standpoint, China and the US both appear to be thriving. By the measures of the Great Moderation, the economic relationship between these two superpowers has provided prosperity and economic growth with modest inflation for both nations and many of their trading partners. Yet this growth has resulted from a global economic system that is engineered to create and recreate asset bubbles and trade imbalances. As noted earlier, *there are different structural incentives for nations which have balance of payments deficits and surpluses. Through the enforcement mechanisms of the international economic system, deficit nations are required to make timely adjustments, while surplus nations are not required to make reciprocal*

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[42] Brandt Commission (1983, p. 42)

[43] I'm using the terms saving "surplus" and saving "deficiency" here in terms of the financing that is required for domestic investment.

adjustments. Hence, poor nations are obligated to pay their debts or roll them over, but rich nations are not required to recycle any of their surpluses for the benefit of poor nations.

The flaw built into the Bretton Woods system—that deficit and surplus nations must follow these different modalities—has led to two mutually-dependent models of economic development and growth. There is the model of export growth, over-saving, and underconsumption in many Asian nations like China and Japan, as well as Germany and the petrodollar states. And there is the model of cheap imports, low-cost foreign loans, and debt-financed consumption in nations like the United States and the United Kingdom.[44] These are two vastly different structures within a single global economy.[45] The question is, how did this imbalance occur? Why does Asia save and the US borrow? Let's start with Asian thrift.[46]

Since the late 1960s, the terms on IMF lending had been very tough on developing nations. Typically, as a condition for receiving a new loan, a nation was forced to balance its budget, curb its money supply, cut subsidies, and readjust its exchange rates. In effect, poor nations were being penalized for their incapacity to produce tradable goods and services through austerity measures that further eroded their structural deficiencies. As the Brandt Commission observed, "in many cases these measures reduce domestic consumption without improving investment; productive capacity sometimes falls even more sharply than consumption. This is because many developing countries with deficits have a shortage of food or of basic consumer goods or cannot readily shift resources in line with their new needs."[47]

Throughout the 1980s, Latin America and Africa experienced a lengthy debt crisis with periodic loan interventions from the IMF, although much of Asia was spared. Well into the 1990s, many nations in Southeast Asia had been enjoying heavy foreign capital investment, rising asset prices, and high economic growth rates. Yet these countries were also running large current account deficits while holding limited foreign reserves. In 1997, asset prices collapsed. International lenders lost their appetite for risk and quickly withdrew their funds. Capital flight began in Thailand and quickly spread to Indonesia, South Korea, Hong Kong, Malaysia, Laos, Singapore, Taiwan, and the Philippines, causing financial markets and economies to collapse throughout Southeast Asia and raising fears of a worldwide economic meltdown.[48] The IMF stepped in with bailouts totaling $40 bn. These rescue packages were tied to drastic economic reforms—cutbacks in government spending, currency devaluations, forced bank failures, and higher interest rates.

Essentially, the IMF imposed draconian measures on these defaulting nations to restore the confidence of the international community in the stability of their currencies. As a result, many of these countries were forced to restructure politically and financially. The anger against the IMF's harsh structural adjustment policies was strong and lasting. Chastened by a difficult debt crisis, many of these nations pledged to protect themselves against further speculative attacks and also from having to borrow from the IMF again. Over the next decade, Asian central banks began to increase their savings by accumulating foreign exchange reserves in dollar assets and building up large current account surpluses.

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[44] This disequilibrium is expressed in the cliché that grew popular during the past decade: "Asians produce products, export, lend, and save; Americans import, consume, and borrow."

[45] As globalization led to greater global economic integration, it also exacerbated the imbalances inherent in the Bretton Woods system. A primary example is the China-US relationship, which is not a case of mutually beneficial dependence, but of unequal co-dependence.

[46] The United States penchant for borrowing is analyzed below in "The Superbubble and the Dollar Crisis."

[47] Brandt Commission (1980, p. 216)

[48] The financial contagion also spread to Brazil and Russia.

This imperative to save spread from Asia to other nations. In 1996, the year before the Asian financial crisis began, developing economies worldwide were running a combined current account deficit of $78 bn. By 2008, this had turned into a surplus of $4.7 trillion, or about 75% of the world's $6 trillion of foreign exchange reserves.[49] For some nations, such as the oil-producing Middle Eastern countries and Russia, this accumulation of assets reflects the surging price of commodities. In other cases, surplus nations are manipulating their exchange rates downward against the dollar to boost export growth and increase their currency reserves and current account positions. In both instances, the wealth is controlled by governments, either directly or through state-owned companies, rather than by individuals or companies.[50]

The Great Recession affected all countries. Asset prices and demand for goods and services declined and credit markets tightened. Both nations with current account surpluses, and nations with current account deficits, suffered declines in growth, although to varying degrees. To fight the recession in 2008-09, the central banks in many deficit nations cut interest rates (and some expanded their money supplies), while their governments created massive stimulus packages. These interventions were modestly successful in promoting domestic recovery. By borrowing and spending to raise demand for the world's surplus output, deficit nations helped prevent the recession from spreading to surplus nations. But for surplus nations, the incentives to run big current account surpluses did not change as a result of the recession. In fact, China, Japan, and Germany ran huge current account surpluses from 2007-09 and seem intent on increasing their savings at the risk of suffering declines in domestic demand and increasing fiscal deficits. Despite (or because of) the stimulus packages created to fight the recession, the current account imbalances among national economies continue to widen and the underlying monetary disequilibrium has become much more pronounced.

Although the recession has dampened demand for its goods, the meager level of China's 2009 government fiscal deficit and the strength of its massive surpluses indicate that China is set on revving up its exports, expecting a recovery in foreign demand. Other surplus countries also seem to be anticipating that export-led growth and external demand will moderate their withdrawal of domestic stimulus measures and drive their recoveries. But the credit bubble in the deficit nations has not been abated and the expected fiscal deterioration in these countries is still much greater than in the surplus countries. Although the US, UK and Spain spent less, saved more, and reduced their trade deficits between 2007-09, actually shifting their financial balances toward surplus, the fiscal deficits in these nations are still much larger than in surplus nations. Rather than provide a source of global consumption as in the past, countries such as Spain, Greece, Portugal, and Ireland[51]—along with the US and UK—now represent increased credit risks following years of debt-driven expansion, lack of fiscal discipline, and structural deficiencies.

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[49] Hale (2010)

[50] Ben Bernanke observed in 2005 that there appeared to be a "global saving glut" forming, particularly in fast-growing emerging economies and among oil exporters. (http://www.federalreserve.gov/boarddocs/speeches/2005/200503102/default.htm. From this angle, the central banks and sovereign funds of these nations were accumulating their reserve surpluses from excess US consumption.

These internal government deficits—needed to offset chronic current account deficits and sharp declines in private spending—are not sustainable. In effect, surplus countries are still depending on the private sectors of deficit countries to do their borrowing for them. But nations with low rates of saving like the US and UK can no longer play the role of consumer-of-last-resort. Deficit countries simply can't absorb infrastructure spending or tax cuts that could generate economic growth because of the monetary interest payments on their debt.

Given their large surpluses and foreign currency holdings, surplus nations could provide the engine to get the global economy going again, whether by redistributing their surpluses to simulate demand abroad, or by stimulating demand at home. In the interests of global monetary adjustment, surplus countries like China and other Asian nations, Japan, Germany, and the oil-exporting states, need to expand their economies. This could be done by slashing taxes on consumption, increasing investment in infrastructure and the service sector, stimulating domestic demand, and adopting exchange rate regimes that are less geared toward saving and building up trade surpluses and currency reserves.

The massive monetary expansion engineered by the world's major economies to protect themselves from the effects of the financial crisis has temporarily reduced the economic pain, but only by deepening the underlying monetary imbalances of the superbubble. The US and European governments have delayed the rise in saving which they require, while China has poured more money into increased production. The undervaluation of Chinese currency—which increases tradable goods production within China—is not only driving trade imbalances with nations like the United States, it is also crowding out traded goods production in developing and emerging markets.[52] International measures for better regulation are important, but still represent an attempt to preserve the current system of unsustainable growth and overproduction, rather than finding a permanent cure for chronic global excess. Instead of facing the real structural challenge of monetary imbalances, governments insist on reinflating the next bubble, dealing with the symptoms of the illness but not the illness itself.

It is not enough now to ease the pressures on the global economy: the world needs a purposeful monetary design. Sooner or later, there has to be an international agreement for an adjustment process that rebalances the world economy and eliminates the superbubble. Part of the solution is in changing the policies of surplus countries. But it will also require reformulating the international monetary system—which has been responsible for this major misallocation of capital—so that the capital incentives of surplus and deficit nations are thoroughly transformed.

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[51] The fiscal deficits of these nations have been unsettling for the neighboring states of the European Union, as well as for the global economy. The risk of financial contagion from these countries rattled global markets in early 2010.

[52] Landler (2010). The yuan is undervalued somewhere between 25-40% relative to the dollar and other currencies, according to most estimates.

An international adjustment mechanism is required that will keep money circulating in a stable and predictable way so that it flows to where it is most needed. Because the world's vast pool of excess savings and the inability to recycle them are at the heart of the global economic crisis, the Brandt Commission stressed that the adjustment process should be placed in the context of maintaining long-term economic and social development.[53] The need for economic and social development applies both to surplus nations, which often restrict their domestic spending on social services and infrastructure while boosting their savings and currency reserves; and also to deficit nations, which bear the burden of adjustment through reductions in employment and public spending while paying down their debts.

"A reformed international system must provide incentives and mechanisms for adjustment by both surplus and deficit countries. The world economy will always display payments imbalances. Since deficits have their counterpart in surpluses, a reformed system must ensure that both surplus and deficit countries have some obligation to adjust. In the past, it was only when deficit countries turned to the IMF for credit that adjustment mechanisms were internationally enforced. Means should therefore be devised, through the IMF or otherwise, to encourage countries in current account surpluses to make long-term loans to deficit countries that are undertaking needed adjustment."[54]

Reserve System

International reserves are the means of making international payments and managing liquidity. Reserves are generally authorized by central banks and held by treasuries as a stock of international purchasing power. Since 1944, the US dollar has been the world's reserve currency, which individual nations may (or may not) choose to become part of their reserve assets.[55]

There is no automatic mechanism for keeping these reserves in balance on a global basis. Because of the structural error in the Bretton Woods system—that adjustment imperatives for balance of payments differ for deficit and surplus countries—internal reserves can be used either to finance balance of payments deficits or to store "surplus" savings. *When deficit countries turn to the International Monetary Fund for credit, the adjustment mechanism becomes operative and is internationally enforced. Deficit nations are required to make payments on their loans. Yet surplus countries are not under any similar international obligation because there is no adjustment mechanism for recycling their trade surpluses and currency reserves.* As long ago as 1980, the Brandt Commission had noted that the expansion of world liquidity was not helping the adjustment process because these reserves were being squandered by the world's surplus nations. "Although the aggregate of world reserves has risen," said Brandt, "their distribution has been highly concentrated and does not accord with any measure of reserve needs."[56]

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[53] This is why the new global economic system must be centered on sustainable development, although many current advocates of sustainable development have not grasped the macroeconomic context that is needed to support it. New financing and new technology by themselves will not reduce climate change, create a low-carbon civilization, or meet the UN Millennium Development Goals.

[54] Brandt Commission (1980, pp. 213-214)

[55] As noted above in "Exchange Rate Regime," a central bank often buys and sells international reserves to influence exchange rates and stabilize the value of its domestic currency. This enables a central bank using a flexible exchange rate regime to clear excess demand or supply by purchasing or selling a foreign currency. For a central bank that is pegging its exchange rates to the dollar, increases in demand for the currency will push its value higher, and decreases will lower its value.

The dollar is now about 40% below its value from 1971.[57] At the moment, many countries like China are hoping to minimize the risk that the value of the dollar will decline further as the economy recovers, but they hesitate to sell high volumes of dollars for fear of triggering a fall in its value. In 2008, China expressed deep concern that the gaping US budget deficit could undermine the value of its huge dollar holdings. This has motivated China to call for a global currency to replace the use of the dollar as an international reserve.

Various proposals have been made for a new global currency. The idea has surfaced that the euro could replace the dollar, but several highly indebted states (Portugal, Ireland, Greece and Spain) have been undermining the confidence of global investors and central banks in the euro and in the political cohesion of the European Monetary System. Some pundits have nominated the yuan for the next global reserve currency and the Chinese government has taken some small steps toward internationalizing it, but China is a long way from developing the deep and open domestic markets necessary for capital convertibility. In the case of both the euro and the yuan, there are misgivings in nearly all countries about allowing a single bloc or nation to control global monetary policy again, as Great Britain and the United States have done previously. Historically, single-nation reserve currencies have encouraged distorted capital flows, misaligned exchange rates, and unstable balance of payments adjustments, contributing to major global economic imbalances.

The Brandt Commission called for a new global reserve currency to increase global liquidity and improve the adjustment mechanism. "It is in the international interest, indeed it is a purpose of the IMF" said Brandt, "that countries should be provided with adequate short-term resources so that they are not forced into measures which may be harmful not only to themselves but also to others by balance of payments pressures which are only temporary in their incidence. For this reason new reserves should be allocated to those countries which are most likely to experience balance of payments deficits and high domestic costs of adjustments, and least likely to be able to finance them from alternative sources. Many developing countries fit into these categories: a low level of development and a high concentration of primary production tend to increase both their export earnings instability and their costs of adjustment. At the same time, they have limited access to international capital markets, and relatively high opportunity costs of reserve acquisition. There is therefore a strong case based on efficiency as well as equity for a larger share of new unconditional reserves to be distributed to the developing countries than is achieved through allocations proportional to the IMF quota system. This is the underlying rationale for what is often referred to as an 'SDR link.'"[58]

The SDR is a Special Drawing Right issued by the International Monetary Fund. SDRs were created in 1969 to meet the demands of central banks for an orderly increase in official reserves, a decreased dependence on the dollar, and a reduction of global imbalances in money and credit.

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[56] Brandt Commission (1980, p. 209)

[57] Norris (2007). The 40% decline in the value of the dollar since 1971 is a Federal Reserve Board estimate derived by periodically comparing the dollar with a basket of currencies.

[58] Brandt Commission (1980, p. 212)

As the Brandt Report explained, "An SDR is essentially a line of perpetual credit in the IMF on which member countries can draw, under certain conditions, to obtain the foreign currencies they need to settle their payments deficits. Its use is limited to central banks and treasuries, as well as the Bank for International Settlements. ... But an SDR has one outstanding feature: it is the only means of meeting international payments which has been established through international contract; for gold and reserve currencies as reserve assets are created by unilateral action (production and sale of the metal, US running balance of payments deficits) and their status is based primarily on custom. The SDR therefore represents a clear first step towards a stable and permanent international currency."[59]

Although they are in only limited use, SDRs could be especially important in times of national economic volatility, since they allow for the international creation of money and the expansion of liquidity without adding to the global surplus of dollars. Presently, SDRs are denominated in four currencies which are included in a basket comprised of about 44% US dollars, 34% euros, 11% yen, and 11% pound sterling.[60] A full-scale SDR system would allow countries to share the costs and benefits of managing its reserves, as SDRs and domestic currencies are swapped between national treasuries and a substitution account at the IMF. Using a currency basket for an expanded distribution of SDRs would also mean that no single currency holds an unfair advantage.

Yet there are several challenges to the adoption of SDRs. While they have been available for over forty years, SDRs have become only a small addition to—not a substitute for—international reserve currency holdings. In 2008, US dollars made up 64% of the world's foreign currency reserves, while SDRs comprised only about 4%. Therefore, a broader transition into SDRs—which has been possible since 1969—entails a willingness on the part of the international community to expand their use, which has been lacking. It also means that the IMF quotas governing the distribution of liquidity would have to be altered to create a more functional and equitable formula for SDR allocations.[61] Nor does the IMF presently have the authority, supervision, and independence necessary to function as a global central bank.

A second reason that SDRs may not be a viable alternative to US dollars as the global reserve currency is that SDRs can be held as reserves only by central banks and governments, which means that individuals and companies cannot use them, either in local or global trade. And since the average person could not borrow or spend in SDRs, they would not be an attractive source of liquidity for private markets, banks, and investors. SDRs are simply an accounting unit. While they may be a valuable currency for interbank and intergovernmental exchange trading, SDRs could never become a fully realized global currency since they function mainly as a store of value—not as a medium of exchange.

A third problem is the challenge of China. The yuan does not fully operate as a reserve currency since it is not freely convertible by other central banks that would use it to intervene in foreign exchange markets. Bringing China into the process of creating an equitable monetary system remains problematic.[62]

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[59] Brandt Commission (1980, p. 209)

[60] The SDR is the weighted sum of these four currencies, valued in US dollars. Since the exchange rates of these currencies fluctuate, the value of the SDR is recalculated daily.

[61] Under current rules, 85% of IMF members must agree to an expansion of SDRs—a challenging threshold for official approval.

A fourth problem is the United States. America has resisted the expansion of SDRs from the time they were created. It's easy to see why. The widespread adoption of SDRs represents a threat to US dollar hegemony.[63] The US literally has a "vested interest" in not allowing an expansion of SDRs (or any other international reserve currency) to take away its privilege of trading in the same currency that it prints.

"The present reserve system is unsatisfactory," the Brandt Report declared in 1980. "Expansion of world liquidity is erratic in both its volume and its distribution."[64] Yet little has been done to correct these problems, and the monetary imbalances resulting from the superbubble have continued to build. Now, three decades later, there is an emerging consensus that the present system, under which the dollar acts as the world's reserve currency, should be subject to a thorough review and that new mechanisms must be established for creating and distributing an international currency to clear and settle outstanding balances between the central banks. Yet it is by no means obvious how to replace the dollar with a new global reserve currency. If the dollar is abandoned and there is no effective substitute for an international payments mechanism, nations may resort to settling their payments on a bilateral basis using their own currencies, as Brazil and China have announced they would do—which is hardly a stable or permanent solution.

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[62] Through its massive purchases of US Treasury bonds, China has already demonstrated that it is interested in taking part in the global monetary system as an active player. But China may also be driving a hard bargain toward the creation of a new monetary system. Although it's still too early for China to play its hand, China's bargaining position is improving daily. If discussions to restructure the international monetary system were to begin during a time of monetary crisis rather than in advance of such a crisis, China could be in a position to emerge as a monetary hegemon. China has been buying a large amount of world gold supplies, leading some analysts to believe that China is emulating the same path that the United States did in the 1930s, when it purchased the majority of the world's gold and subsequently displaced Great Britain as the world's monetary guarantor at the global monetary conference of 1944. Its official rhetoric to the contrary, China must certainly see that appreciating the value of the yuan would help to correct world trade imbalances, and also that many nations—in the East and the West—are eagerly waiting for this to happen. If China promised to abandon its exchange rate to the dollar to alleviate international imbalances, while holding a majority of world gold supplies and making the yuan fully convertible into other currencies, it could attempt to broker an international deal to emerge as the world's currency guarantor. However, many in the international community do not see this as a desirable outcome, since there is a general sense that whatever currency replaces the dollar, it must not be controlled by a single country. In addition, there are many analysts who do not believe that the world will ever return to a gold standard (assuming that this is what China has in mind), or, for that matter, to any reserve standard that is based on a single commodity. The question is, does China intend to make the yuan a reserve currency? It's very likely. One possibility would be to issue its own bonds denominated in SDRs, which would enable China to foster a new market for a global reserve currency based on SDR liquidity. Another alternative is for China to slowly develop financial and trading markets for the yuan, gradually transforming it into a reserve currency. While it's probable that China will eventually create a reserve currency in one form or another, the challenge will be to transform its opaque financial infrastructure into deep and open domestic financial markets and banking institutions through greater transparency, supervision and regulation.

[63] The SDR was originally created to function alongside the US dollar in order to expand global liquidity when needed, although this possibility has never really been tested since the volume of SDRs has been limited. Some economists still believe that the US dollar could continue to operate as the world currency guarantor in parallel with expanded allocations of SDRs through the present IMF currency basket (of dollars, euros, yen and pound sterling), although this arrangement could have its own set of problems. Since the dollar is already one of the four currencies in the basket, when it receives dollars the IMF would have to decide to sell them and depress their value, or hold them and risk dollar depreciation. This could lead to a situation in which IMF liabilities were comprised of the four currencies, while IMF assets were primarily in dollars, exposing the IMF to dollar depreciation.

[64] Brandt Commission (1980, p. 209)

An integrated international financial system requires an integrated monetary reserve system. Whatever new currency system is chosen, it should promote the non-inflationary expansion of liquidity and also assist the adjustment process of the monetary system by ensuring that surplus and deficit countries have a similar obligation to adjust.[65] Surplus countries that don't need additional reserves must be able to direct their allocations to deficit nations which bear high adjustment burdens. A reciprocal adjustment process of this sort would transform the fatal flaw of the Bretton Woods system. But for that to happen, a new monetary architecture is required.

Looking Ahead

The Superbubble and the Dollar Crisis

Since 1944, America has been at the center of the world's financial system. For over sixty years, most central banks have held the bulk of their foreign exchange reserves in dollars.[66] Because of foreign investors' faith in the US economy and their seemingly unlimited desire to hold American dollars and bonds as a store of value, US government bonds have supported the value of the dollar, held domestic interest rates to a minimum, and allowed the US to finance its debt cheaply. By importing more than it exports, the United States sends its dollars to foreigners, who return them back to the US through the purchase of stock, bonds, companies, factories, and land. For many years, $2 bn of global capital has flowed into the US each day from global investors seeking safety and stability, good deals, competitive returns, and high growth rates. By relying on foreigners to supply its finance, America has been able to run a huge balance of payments deficit and spend without regard for its debts. The more that foreigners have been willing to invest their dollars in US assets, the more that the US has been able to import cheap products, hold down inflation, enable consumers to keep buying, and fuel worldwide economic growth.

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[65] It's not certain how international discussions on a new currency will progress. Some analysts are proposing a G4 currency basket, comprised of the dollar, the euro, the yen, and perhaps the yuan. The G4 could also take another form, in which these same currencies are not placed in a basket but still share reserve status as independent currencies. Either way, a G4 reserve system is probably not enough to produce the deep changes in the monetary system that are now required. It's unclear how a multiple currency system would eliminate the superbubble, bridge the imbalances between surplus and deficit nations, and provide for a smoother, more stable and equitable adjustment process. My view is that a multiple currency system would be only an interim solution until the world community is fully prepared to undertake a full-scale monetary adjustment through an integrated currency or currency basket.

[66] The notable exception is the Cold War period, 1947-1991, when the Soviet bloc operated its own economic exchange system, the Council for Mutual Economic Assistance (COMECON).

If any other country were to institutionalize its deficit spending as the US has done, the IMF would insist on structural adjustment measures, including government austerity or currency devaluation. Yet because of the dollar's reserve status, the US has been able to avoid balance of payments problems by purchasing imports in its own currency. Even as far back as the late 1960s, French President Charles de Gaulle was commenting on the unfair advantage held by the United States. The US, he said, was using its position of reserve currency guarantor as a license to print money and finance its debt. As the Brandt Commission recalled, "Since the balance of payments deficits of the United States had become the principal source of growth in world liquidity ... it seemed to have, in General de Gaulle's words, the 'exorbitant privilege' of continuing to finance its deficits through the provision of still more dollars."[67]

Prior to this, when the US was running current account surpluses, the Bretton Woods nations had experienced little monetary volatility. America emerged from the Second World War with the world's largest current account surplus and the global monetary system had been fairly stable until the US current account began to slump in the 1960s. When the US ran a negative current account balance in 1971, it was forced to end the gold backing of the dollar. With this deregulation of the international monetary system, the issuance of credit exploded, and the United States, as issuer of the world's reserve currency, was its epicenter. The proliferation of credit resulted in a "hollowing out" of US industrial infrastructure. As manufacturing jobs left for overseas markets, the US gradually lost the basis of real economic growth. Consumption was now financed by credit, which had a profound impact on America's current account balance. By 2009, America's current account deficit was approaching $800 bn, by far the largest in the world.[68]

Given the risks of this huge deficit, why are private foreign investors and central banks still investing heavily in the US? Some investors argue that the reserve status of the dollar will continue indefinitely because it is not affected by the US deficit. The dollar is highly liquid and convertible in both current and capital accounts, and nearly 2/3 of all foreign exchange holdings are in dollars. Since the predominance of world trade, finance, and foreign debt is also in dollars, creating a new currency system would be pointless and enormously disruptive. There is the feeling that, in spite of the recession, demand by overseas investors and central banks will remain steady, foreign investors will continue to look to the US for security, and the global economic system will remain strong. Because of its size, wealth, legal, and political stability—not to mention its highly credible track record for repayment on loans—many believe that there is no reason to fear a monetary meltdown in the US. Since the United States can simply print more money, foreign bond investors are certain they will be paid. While many investors acknowledge the risk, they do not believe that US politicians would let their deficits become uncontrollable. And indeed, the share of US bonds sold at auction has continued to grow.

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[67] Brandt Commission (1980, p. 204). Some analysts have attributed the term "exorbitant privilege" to Valery Giscard d'Estaing, who was Minister of Finance under de Gaulle.

[68] Index Mundi (2009)

Yet even as the dollar continues to be accepted, the prospect of such a large and persistent deficit presents risks to global financial markets and the global economy. US external debt rose to $3.5 trillion last year and is projected to increase by $1 trillion each year for the next decade. Larger US deficits and higher interest rates are already increasing the global competition for savings and raising serious doubts about America's capacity to repay its debts. Where is the US Treasury going to borrow this money? Given the rapid pace at which the US is taking on debt, how likely is it that China and other nations—with their own deficits to finance—will continue to underwrite half of the US debt for the next decade as they have in recent years?

If foreigners begin to question buying debts and other investments in the US, America may have to raise interest rates to sustain investment. But with high interest rates, foreign demand for dollar-based assets could slow dramatically. And if foreign investors were to stop funding the US current account deficit, the dollar would rapidly depreciate in value. This would require a further increase in interest rates, which would accelerate government debt, make imports and foreign debts more expensive, and severely impact the American economy.

When the value of the dollar was strong, the US economy attracted investment in spite of the US current account deficit. But without long-term fiscal prudence, international investors have started to ask whether the US can continue to maintain its reserve currency status by engineering low inflation without having to ratchet up interests rates to sustain capital flows. Ultimately, a dollar is just a piece of paper that has value because the government that issues it claims it does and the people who use it believe in it. But the institutions of the US government have been undermining that faith through careless fiscal policy. Now that the dollar is weakening, how long will foreign creditors allow the US to keep running the printing press for the world's currency before demanding that the US obey the same rules of fiscal responsibility that apply to other countries?

As a result of the Great Recession, public deficits have increased dramatically in many countries. As private credit stagnated, governments were called upon to issue credit and restore the purchasing power that was lost. G20 governments took on the role of spender-of-last-resort, sinking $17 trillion dollars into bailouts and fiscal stimulus to restore banks and financial institutions, which has sharply escalated the public debt. Soaring government debt may be typical during periods of war, but this recent spate of borrowing represents the largest public debt ever recorded in peacetime. Here's the problem: even though state spending is underwriting private liabilities, these stimulus packages do not substitute for real income growth in nations such as the United States, where huge numbers of high-value production and jobs have already been exported.

In the US, stimulus spending has weakened the dollar, raised the possibility of inflation, and increased government debt to alarming levels.[69] In the past few years, debt burdens in several other countries—notably Greece, Portugal, Iceland, Ireland, United Kingdom, France, Spain, Japan and India—have also reached 80% or more of GDP, raising questions about the sustainability of their public debts and economic growth.[70] But the persistence of the debt-to-GDP ratio in the US is particularly challenging: US government debts are projected to grow faster than its economy for at least the next decade.[71] If the US maintains these huge fiscal deficits, government expenditure will be diverted from domestic public services and investments, and sent abroad in interest payments on America's surging debt. During the recession, Americans realized that they could no longer take on new debt and personal spending slowed. Yet even if individual Americans continue to increase their savings and use it to pay down their existing debt, it will take at least a decade for US households to reduce their debt/income ratios to safe levels and balance the family budget.

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[69] Mackenzie and Tett (2010). In early 2010, Moody's Investors Service, which rates the sovereign debt of nations, warned that the US triple A sovereign credit rating could soon be in jeopardy because of sluggish US economic growth and weak action in tackling the US budget deficit.

The specter of sovereign debt is already haunting bond markets. Because they are denominated in dollars, even when bonds are rolled over into new debt they will never be fully repaid. This means that when the next recession arrives, the US may be unable to borrow the vast sums needed to cover their outstanding debts. And this puts the United States in a colossal bind. On the one hand, reducing its debt will slow economic growth. On the other hand, sustaining huge deficits by borrowing from abroad to maintain consumption and deficit spending at home will lead ultimately to bankruptcy or extreme currency devaluation.

Mounting government debt will likely trigger the next financial crisis, which would immediately impact the value of the dollar. And a US monetary crash would quickly become global in scope, since sovereign default entails a crisis in the reserve status of the dollar. At the global level, this would deeply impact other nations with current account imbalances and soaring government debt, placing the entire balance of payments system in jeopardy. It also means that the massive adjustment in exchange rates and current accounts—when it inevitably arrives—will be that much more severe.

So how will we unwind the superbubble? Do the US, G7, G20, central banks and the world's financial institutions intend to create a new economic system before the present one collapses? Or will they leave it up to the marketplace and risk massive financial disaster? In the near-term, the burden of decision rests with the US. It has two choices, neither of which is very enticing. America can either make the tough choice to devalue its dollar—or dither around politically (as it has been doing) and suffer a default. At worst, default could mean debt repudiation; at best, it could involve the restructuring of the terms of loans and interest rates. There is no happy option. The Chinese have a compelling proverb for such a dilemma: "Drinking poisonous liquid to quench thirst."[72]

Toward a Global Monetary Conference

Why did the Brandt Commission call for an international monetary conference? Is this still necessary? Are there any indications of it happening soon? First, let's briefly review how we got to this point.

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[70] The Economist (2010)

[71] Mankiw (2010)

[72] Qiao (2009)

There is a major flaw in global economic policy, a structural error built into the design of the Bretton Woods monetary system. Although free market ideology has obscured the problem from policymakers and analysts, it has never disappeared. This blind spot has not allowed us to see the period of relatively tame inflation from 1982-2007 for what it clearly was: a series of financial bubbles generated by policies geared toward an overcapacity of production. Our inability to reckon with this emerging superbubble has not allowed us to recognize its deeper structural roots; nor have policymakers and analysts fully realized that the tremors now shaking the pillars of the modern economic establishment are emanating from the long-term suppression of global demand.

Bretton Woods I ended in 1971 when the United States "closed the gold window," ending the link between the world's currencies and gold. In the absence of a monetary anchor, exchange rates have been left to float, leading to excessive credit expansion. Under Bretton Woods II (1971-today), the dollar standard has flooded the world with cheap money at a rate faster than the growth of world GDP, and successive bubbles have spread economic instability across the globe. The Latin American and African debt crises of the 1970s and 80s were followed by the Southeast Asian debt crisis of the 1990s. Each of these crises, and many others of lesser magnitude, were caused by a flood of dollars into developing regions from abroad, which overheated their economies and caused them to crash.

In spite of the obvious imbalances resulting from easy credit and high asset prices, central banks have pursued a policy of inflation-targeting rather than using monetary policy to curb rapidly rising asset prices. Efficient market theory—the idea that all participants in the market receive and act on all relevant information when it becomes available—has provided the rationale for these policies. From the perspective of developed nations, these theories seem to have worked. But the period of the Great Moderation, which was characterized by easy credit, low price-inflation, and steady growth, masked the symptoms of the superbubble which was forming within the global monetary and financial infrastructure. In setting interest rates between the extremes of high prices and recession, and ignoring the actual value of money and credit in the process, central banks have typically ignored the signs of asset bubbles until they burst, resulting in financial instability.

It's one thing to simply say that higher savings in deficit countries and stronger demand in surplus countries will alleviate global imbalances—the reality is far more complicated. Modern states are driven by a global economic machine which runs on only two gears. A nation can create the structural capacity to produce tradable goods and services and generate credit, or, lacking this structural capacity, it can attempt to obtain credit by relying on other nations which primarily produce and trade. A system where credit growth generates economic growth inevitably creates overcapacity, suppresses consumer wages and demand, and allows financial bubbles to build. Market forces do not adjust these structural imbalances. As Milton Friedman observed, "Inflation is always and everywhere a monetary phenomenon."[73]

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[73] Friedman and Schwartz (1963). It's telling that many free market economists, who are otherwise disciples of Milton Friedman, have disregarded the master's famous maxim. Mainstream policymakers and analysts continue to treat money as though it is a function of the marketplace.

The need for policy change has become evident as a result of the world's economic integration during the past few decades. As financial markets became increasingly interdependent, international investors have, in effect, been setting asset prices on the basis of global monetary conditions. When asset bubbles are actually driving monetary policy, it's pretty clear that the tail is wagging the dog. These dynamics must be reversed. Transparency and discipline must be restored. When asset prices rise and cause economic imbalances, even when inflation seems to be under control, monetary policy should be tightened. Central banks should increase short-term interest rates when there are clear signs of financial imbalances. The world needs a monetary regulator to anticipate excessive risk-taking and reinstate a firm link between monetary and credit growth on the one hand, and price and asset inflation on the other. This is necessary to ensure stability both in single countries and throughout the entire international economic system.[74]

Without such management, the asymmetric policies of the present international monetary system will continue to encourage surplus and deficit nations to assume different roles and responsibilities. Since many deficit nations lack the structural capacity to produce tradable goods and services, international institutions can put heavy pressure on them to revalue their currencies. Yet there is no corresponding international machinery to prevent nations such as Korea, Taiwan, Thailand, and China from keeping their currencies undervalued, running trade surpluses and accumulating foreign exchange, and putting this wealth into "investment funds" which are seldom economically invested.

The superbubble underlying these conditions is a result of the imperatives that the world economic system has bestowed upon deficit and surplus nations. Under the terms of the Bretton Woods agreement, *the IMF has the legal powers to ensure that deficit nations adjust their fiscal balances and pay their debts, but has no such ability to ensure that surplus nations accept responsibility for facilitating their own adjustment process and recycle their accumulated financial assets in an equitable and stable way.*[75] The IMF is unable to link global capacity with global demand. Instead, the global economy must depend on deficit nations to sustain their global demand for the surplus output of the rest of the world. It is evident that the world cannot continue to absorb the excess supply of surplus countries without ensuring greater effective demand.

The recession of 2007-09 demonstrated the weaknesses of the global financial system and the assumptions on which it was built. The dollar has been the dominant reserve currency for more than sixty years, during which period America went from being the largest surplus to the largest deficit nation in the world. With the US now mired in an enormous deficit, the dollar's role as the strategic reserve currency is in question. It is apparent that the solution will have to be much more than the world's central banks supporting the dollar through coordinated interventions in foreign exchange markets.

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[74] Traditional definitions of the monetary system also need to be expanded to include recent generations of ever-complex instruments and non-bank entities that impact monetary decision-making.

[75] Phillips (2007). Officially, the IMF is charged with "exchange rate surveillance," but in practice it is allowed only to publicly identify countries that it believes are unfairly manipulating their currencies for competitive advantage. Thus, the IMF may have embarrassment powers, but it has no enforcement powers requiring violators to alter their currency policies.

The increasing interdependence of the global economy requires international policy coordination, but national interests are still determining international politics. Each national government discusses how a particular global policy will affect its own financial competitiveness and stakes out its position. Then, through the world's different clubs—the UN, EU, G8 or G20—national representatives meet, discuss this policy, create a joint statement, and call it "policy coordination," "international coherence," or "regulatory harmonization." At these meetings and in the press, world leaders agree on the need for global coordination but rarely commit to binding action and essentially do what they want when they return home.[76] Greater global political cohesion is necessary before a new global monetary system can be launched.[77] It is critical that surplus and deficit nations coordinate their policies—but as long as they are pursuing their own self-interests, they will not be able to address the world's monetary and financial imbalances.

Even thirty years ago, the Brandt Commission was cautioning that the Bretton Woods system was designed for a different era. "The Bretton Woods international monetary system reflected the economic and political relations of the time. Since then much has changed—and the new system should reflect the changing political and economic circumstances of nations. The new international monetary system should have a pluralistic basis, in which no single political entity or small group of entities plays a predominant role."[78]... "We would like to see a more systematic and fully multilateral approach to countries in critical financial situations, rather than present ad hoc arrangements. This could include evolution of the IMF in the direction of carrying out some of the functions of an international central bank. For these and many other reasons, we welcome the many voices now added to our own calling for a review of the Bretton Woods institutions. We believe this should be an authoritative, international review which should lead to an international conference on their reform."[79]

On the agenda of a new monetary conference should be the creation of a stable global currency and an international central bank that has the ability to manage that currency and also to monitor the fiscal solidity of member states. To this end, the Brandt Report called for an expanded decision-making process on international monetary policy. It declared that "a broad-based leadership should be established to manage the international monetary system, including provision for a growing role of the developing countries in the decision-making process. Such a collective leadership can be established if there are clear, fair, and explicit rules for managing the system—rules which will protect the interests of all members of the system including the weaker ones. Such rules must ensure that the Fund is not wholly administered on the basis of shareholding."[80]

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[76] The world witnessed a recent example of globally influential decisions by individual nations that were not taken as part of a coordinated international policy. In 2008-09, politicians from the G20 nations created stimulus packages worth $17 trillion geared for their own domestic constituents, while claiming that they were coordinating their efforts to address the imbalances in the global economy.

[77] The sovereign debt crises in the European Monetary System in 2010 are prime examples of why a certain degree of political union should precede monetary union. Europe has been pursuing the opposite course since it created the EMS in 1979: political cohesion has lagged behind monetary cohesion.

[78] Brandt Commission (1980, p. 218)

[79] Brandt Commission (1983, p. 95)

[80] Brandt Commission (1980, p. 218)

For the first time since the Brandt Report was published, there are indications of a trend in this direction. China, South Korea, India, Brazil, Mexico, and Turkey have been given small gains in voting power at the IMF, joining the G7 powers in decision-making roles.[81] Mervyn King, governor of the Bank of England, has proposed that the G20 become, in effect, a governing council of the IMF to help balance world growth and align global exchange rates.[82] French President Nicholas Sarkozy, who has been calling for a new monetary system, will be assuming the presidency of the G20 in 2011 and promises to open up the debate on the structure of a new Bretton Woods economic system.[83] A Financial Stability Forum has been created to help promote a new global regulatory regime.[84] China, Russia, Brazil, India, and other developing nations have also been calling for a new global reserve currency and monetary system.

The Brandt Commission proposed an international conference to discuss a new global monetary system. Thirty years later, it's no longer a question of if, but *when*. But what kind of monetary system is needed for the global political community now emerging and how will its responsibility be shared? Who is going to initiate this intergovernmental coordination? What changes in the balance of power will be required to represent the world's rich and poor economies in global economic decision-making? None of this is clear. What is clear is that the international monetary system is in chronic disequilibrium and needs to be readjusted through international collective action. The next round of currency volatility will very likely result in the collapse of the dollar, which will surely test its status as the world's reserve currency. If there is no effective system to replace it, the world could face a prolonged state of economic and political instability.[85]

Willy Brandt and his panel sounded the same note of caution in their report three decades ago. "The international community has made little headway in tackling its most serious problems—which begin in the strained system of international economic relations and result in additional burdens on many developing countries. Prospects for the future are alarming. Increased global uncertainties have reduced expectations of economic growth even more, and the problem of managing the international imbalances of payments is increasing the threat of grave crises in international finance. We have serious doubts as to whether the existing world machinery can cope with these imbalances and the management of world liquidity."[86]

Yesterday's financial crisis is quickly becoming today's government debt crisis and tomorrow's international monetary crisis. A generation from now, we may all be astounded by the naive ideology and complacency which led us to think that these enormous global monetary and financial imbalances were natural and that markets could somehow adjust them. Even in 1980, the Brandt Commission was calling attention to the fact that international production was outpacing the creation of a mass global market, and that this overcapacity in excess of human needs (expressed through effective demand at prevailing wages) was creating major structural imbalances and inequities. *While the adjustment mechanism of the IMF system requires deficit nations to make timely payments on their loans, Brandt insisted, surplus countries are not under any similar international obligation because there is no adjustment mechanism for recycling their trade surpluses and currency reserves.* A new global economic and legal framework is needed by which surplus nations are obliged to reduce tariffs, invest overseas, and revalue their currencies to increase demand for the exports of deficit countries and spend their surpluses back into these nations.

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[81] Weisman (2010)

[82] Norman (2010)

[83] Bennhold (2010)

[84] Stiglitz (2010)

[85] The world community needs to plan and implement the new monetary system in advance of a global economic crisis. Otherwise, as history teaches, predatory forces could precipitate the crisis in order to manage the process and restructure the broken pieces according to their own ends.

[86] Brandt Commission (1983, p. 2)

"Fundamentally," said Brandt, "we require a set of measures which are designed to sustain effective demand in the world and promote an expansion of world trade. Such measures will help to ensure that deflation, balance of payments difficulties and default on debt are not widespread ... and thus help to ease bottlenecks, to create jobs through low-cost labor-intensive industry and to create the necessary social and economic infrastructure. It should provide special benefits to the low-income countries and be linked with the structural changes we propose in the international financial system."[87]

Major changes in global economic institutions are needed to undertake this global rebalancing of demand and eliminate the superbubble in the global economic system. There must be a rules-based multilateral approach to adjustment which results in a greater redistribution of wealth, rather than the bilateral structural adjustment policies of the IMF which result in its maldistribution. *The Brandt Report was the first major international proposal to call for the management of world demand to generate economic output and employment through a global stimulus program for developing nations and a restructured global monetary system so that deficit nations could have access to global liquidity through an equitable, efficient, and stable process. This would require surplus nations to either revalue their currencies to increase domestic demand, or recycle some of their surpluses to increase growth in deficit countries.* The report also demonstrated how these policies would open up the means for the creation of automatic sources of international financing, reduce disparities in income, ensure adequate supplies of energy, and reverse environmental degradation.[88] These remain the same challenges today if we are to create a new global economic system and avoid a systemic collapse and long period of global stagnation or depression.

"We are convinced that the world community will have to be bold and imaginative in shaping that new order and it will have to be realistic in its endeavors," Brandt asserted. "Change is inevitable. The question is whether the world community will take deliberate and decisive steps to bring it about, or whether change will be forced upon us all through an unfolding of events over which the international community has little control. It is the joint responsibility of all countries and people to act without further delay.”[89]

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[87] Brandt Commission (1980, pp. 240-241)

[88] There was neither time nor space in this article to deal with all of the Brandt Report's proposals for development, aid, trade, finance, alternative sources of finance, technology, energy, the environment, and the process of global negotiations. I've chosen to focus exclusively on the monetary dimensions of the Brandt Report because this guidance is needed now to support the changes necessary in these other important areas. Much more could be said on how a new monetary system would catalyze solutions across the entire range of sustainable development issues.

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Toward the Development of More Robust Policy Models

Steven E. Wallis[1]

Abstract: The current state of the world suggests we have some difficulty in developing effective policy. This paper demonstrates two methods for the objective analysis of *logic models* within policy documents. By comparing policy models, we will be better able to compare policies and so determine which policy is best.

Our ability to develop effective policy is reflected across the social sciences where our ability to create effective theoretical models is being called into question. The broad scope of this issue suggests a source as deep as our unconscious ways of thinking. Specifically, our reliance on modern and postmodern thinking has limited our ability to develop more effective policy, and more particularly, logic models.

The move in some quarters toward “integral” thinking may provide insights that support the creation of more useful policy models. However, some versions of that thinking seem to be unwittingly mired in modern and postmodern thinking. This paper identifies how integral thought may be clarified, allowing us to advance beyond postmodern thinking. Usefully, this “neo-integral” form of thinking supports the creation of more mature policy models by encompassing greater complexity and a careful understanding of interrelationships that may be identified within the logic models that are commonly found in policy analyses.

Neo-integral thinking is related to more complex forms of systems thinking and both are found in recent conversations within the nascent field of metatheory. And, to some extent, a logic model within a policy operates as a kind of theoretical model because both may be used to inform understanding and decision-making. Therefore, it seems reasonable to apply neo-integral thinking and metatheoretical methodologies to conduct critical comparisons of logic models.

In the present paper, these methodologies are applied to critically compare two logic models. The structure of each model is analyzed to objectively determine its complexity and formal robustness. The complexity is determined by quantifying the concepts and connections within each model. The robustness of a model is a measure of its internal integrity, based on the ratio between the total number of aspects and the number of concatenated aspects. In this analysis, one policy model is found to have a robustness of 0.08, while another is found to have a robustness of 0.67. The more robust policy is expected to be much more effective in application. Implications for policy development and policy application are discussed.

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This approach will enable the more conscious advancement of policy through the development of improved logic models and it opens the door for more effective impact of such policies in a political context. From an integral perspective, this paper implies that we should avoid engaging in loosely defined integral thinking that lead to pronouncements about what people "should" do. Instead, this paper shows how to apply a more precise and objective form of neo-integral thinking to empower individuals and organizations to accomplish their most noble goals.

Keywords: Drug use, logic model, metapolicy, metatheory, neo-integral, policy, robustness, Scottish Parliament, theory of theory

Thus traditional political theories, just like current strategic games, gravely overvalue the pacificatory role of rational knowledge: this miscalculation constitutes the self-publicity of these disciplines. Reason always lurks around proportion and dominance.

Michel Serres in "The Troubadour of Knowledge" (1997, p. 135)

Introduction

In his well-known critique of the modern policy process, Sabatier (1999) calls for better theories to improve the process of policy creation. This paper answers that call by providing new insights into the evaluation of *logic models*. A logic model is common in many policy documents and serves as a concise, diagrammatic representation of the policy, how it will be implemented, and how the results of that program will be measured. In the policy literature, discussions on the logic model commonly include suggestions on how the model might be analyzed by stakeholders, politicians, and experts. The literature does not provide any advice on how to evaluate such models in any objective way.

That gap in the policy literature is addressed here by introducing new methodologies from the field of metatheoretical analysis. Using these methods to compare and improve policy models is expected to engender significant advances in the field of policy analysis. Public policy is political, by definition. Because public policy at all scales has direct impacts and structural influences at all scales of politics and the political, the development of more robust policy contributes to the development of politics and the political, the theme of this special issue.

In this paper, I note the ongoing controversy in the field of policy, and how that controversy relates to the failure to construct effective policy. Next, I identify the logic model as an overlooked lynchpin of the development of policy. I indicate how the logic model shares important conceptual similarities with social theory. Then, I discuss recent innovations in the field of social theory validation and identify how those new techniques are applied to the analysis of a logic model. Finally, I apply those methods to two logic models to identify which model is more likely to result in more effective results.

Effective Policy?

There is an ongoing concern about the effectiveness of policy and the related theory. The US Congress began to take an interest in program evaluation in the early sixties. However, by the late seventies, “Program evaluation has not led to successful policies or programs” (Schmidt, Scanlon, & Bell, 1979, p. 1). It is reasonable to assume that our failure to evaluate or improve our policies relates directly to our ability to understand them – despite the continued efforts of brilliant scholars in the field of policy.

In a review of the current state of public policy theory, John (2003) pays tribute to the classic works of policy (including models developed by Baumgartner, Jones, Kingdon, Sabatier, and Jenkins-Smith) and speculatively asks if “this particular kind of thinking about public policy has come to the end of its line of development” (John, 2003, p. 482). John notes in this discussion that the central debates in public policy theory are still along the lines of the above authors.

So, despite the diligent work of brilliant scholars, our ability to understand and improve policy does not seem to be improving. By the end of the 20th Century, we were still calling for better theory so that we can better understand policy so that we may develop more effective policy (Sabatier, 1999). And, at the start of the 21st Century, the state of world affairs suggests that we still do not have a more effective way to make policy. Even deLeon (1999), who criticizes Sabatier’s work, agrees that our present understandings of policy suffer from weaknesses, including the “lack of predictive capabilities” (deLeon, 1999, p. 26).

DeLeon (1999) suggests that a systems approach might be a useful way to better understand policy. Thus, it appears that “the time is ripe for a systematic evaluation of our metatheoretical assumptions” (Lamborn, 1997, p. 212). Or, more plainly, we need to develop a better understanding of how we develop policy if we are to develop better policy. And, while the present paper does not presume to complete Lamborn’s entire task, it answers his call at least in part by providing a new, systems-based, metatheoretical approach to the analysis of logic models.

Policy and Program Evaluation

Policy and program evaluation are important for developing successful programs for achieving goals and alleviating social ills. Broadly, some approaches to policy analysis might be considered “metapolicy.” That term has been used to refer to a “policy about policies” (Kerr, 1976, p. 351), or an explanation of the social context within which policy is developed, for example, Jacobs’ (1995) description of the differences in policy-making between Canadian and American health care systems. It has also been used to describe policy analysis that results from the collaboration of various groups, such as members of the public, and/or other combinations of experts, scholars, and laypersons (Walters, Aydelotte, & Miller, 2000). Finally, metapolicy has been used to refer to “policy networks” (Detomasi, 2007, p. 321) representing a network of policy stakeholders, or a “structure” of policy problems (Hoppe, 2002).

Within the general area of metapolicy, we have policy analysis. A brief, yet useful, overview of policy analysis is provided by Dror (1970) who lists five issues: (a) The basic modus operandi of policy making systems; (b) Main components of policy making (organizations and personnel); (c) Information inputs into policy making; (d) Main policy making methods (techniques of analysis); (e) Main megapolicies (what to analyze, operational goals, degrees of innovation, level of risk, time preferences). A similar list is presented for policy-like process of "social design" suggests that designers consider: (a) Bounded rationality; (b) Data for planning; (c) Identifying the client; (d) Organizations in social design; (e) Time and space horizons; (f) Designing without final goals (Simon, 1996, p. 166).

The difficulty of policy analysis might be based on the complexity of policy creation. The process of creating a policy is inherently messy. The garbage can model was commonly applied to understand this process until it was superseded by Kingdon's model of multiple streams that reveal a window of opportunity (Kingdon, 1997).

In this section, I have provided a brief overview of policy creation and analysis. It should be noted that these approaches investigate policy as a whole. However, this approach does not seem to have led to the creation of better theory of policy or better policy. Therefore, in the present paper I investigate a "micro" approach, with a close focus on the logic model.

Logic Model

The many streams of problem emergence, political wangling, and policy analysis result in the creation of a policy document – an explicit written report that presents the shared understanding of what the problem is and how it might be addressed within a limited window of opportunity (Kingdon, 1997). Within this policy document, the logic model serves as a lynchpin by clearly and explicitly identifying how the research, analysis, actors, and anticipated results may be measured to test the efficacy of the policy.

According to McLaughlin & Jordan (1999), There are several ways to present the logic model; although, it is usually presented as a diagram with inputs and resources on the left, connected by one-way arrows to major activities in the middle and one-way arrows to expected outcomes on the right. This diagrammatic representation provides, "a picture of how something works as they provide a link to outcomes (both short – and long-term) from program variables and processes" (Bruder et al., 2005, p. 187, citing the W. K. Kellogg Foundation). "Evaluators have found the logic model process useful for at least twenty years" (McLaughlin & Jordan, 1999, p. 66). A typical example is presented in figure 1.

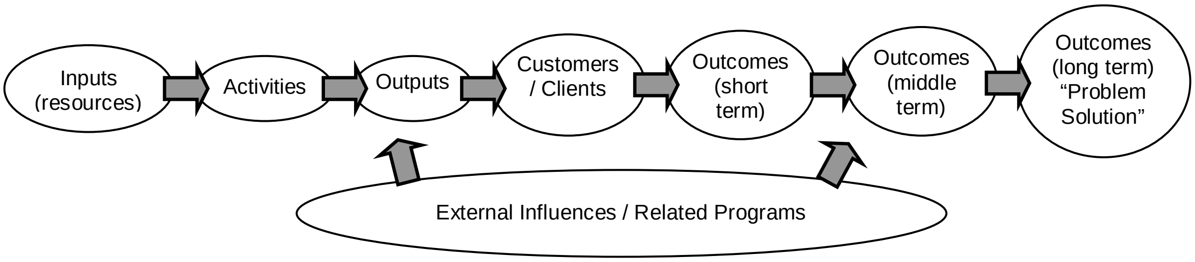

Figure 1. Example of Logic Model – derived from (McLaughlin & Jordan, 1999, p. 67)

As widely as it is used, the logic model has also been criticized recently on a number of fronts. First, despite the logical appearance of this model, “it still only represents stakeholders’ best guess or theory for what will be most effective” (Hernandez & Hodges, 2001, p. 10). Although “best guess” might sound a little harsh, such a level of understanding seems commensurate with the level of success we have found with the implementation of policies and programs. Indeed, the rule of practice appears to be, “If it looks reasonably logical, it is an acceptable model.”

This, however, should be seen as a weak standard. It is like preparing to buy a car and asking the salesperson, “Does this car have good batteries?” The answer is always “yes.” The better question would be “How many miles will I get on a single charge of these batteries?” That is the state of our policy analysis process. Certainly a logic model will be analyzed and (at some point in the process) approved as being a “good” model. A more useful question would be, “How good is it?”

Another important criticism of logic models is put forward by Sabatier (1999) in his call for better theories of public policy making. Instead of a neat linear series of boxes, the policy process involves hundreds of actors, specialized scientific and technical knowledge, over many years of time, with each participant attempting to push a different “spin” on the process (Sabatier, 1999, p. 4). The complexity hidden within the apparent simplicity is noted by McLaughlin and Jordan who state:

> Although the example shows one-to-one relationships among program elements, this is not always the case. It may be that one output leads to one or more different outcomes, all of which are of interest to stakeholders and are part of describing the value of the program. (McLaughlin & Jordan, 1999, p. 69)

In seeking to improve the process of policy evaluation, many approaches have been suggested. These include quality control, more effective evaluator training and selection, higher standards and ethics, and encouraging more evaluation overall (Hatry, Newcomer, & Wholey, 1994). Unfortunately, “The criteria for comparing frameworks are not well developed” (Schlager, 1999, p. 252).

Importantly, if we cannot objectively compare policy models, we cannot effectively decide if one model is better than another. Instead, we are forced to resort to so-called common sense and political wrangling. And those are the techniques that got us here in the first place. Should we then throw out the logic model? Or, is there another possible approach?

I adopt the stance that the logic model is indeed a useful tool. However, it is a tool that has not been understood or applied to its full potential. We have not understood the logic model completely because the literature around the logic model has focused on the relationship between the model and the “real world,” rather than focusing at the logical relationships between the propositions within the model, itself.

Therefore, we have only understood half of the “equation.” This partial understanding is like trying to play the violin with one hand. We are able to make noise, but not much music.

Evaluating Logic Models

Rather than revisit the overall process (which has been more effectively explored by more qualified scholars than I), my approach in this paper will be to look at that “missing link” of the explicitly written policy document. Specifically, I will focus on the logic model that is a common part of most policy documents because that logic model is a critical lynch-pin of the entire policy – representing all of the research, the political relationships between the actors, their shared understanding of the situation, and a representation of their plan for improving the situation.

When most authors discuss the “logic” of the logic model, they are referring to the relationship between the model and the real world (through data collection, analysis, and program results). In contrast, the literature does not much address the logic inherent within the logic model, itself. My focus will be on that structure. As Figure 1 indicates, the logic model is an essentially linear representation. Typically, “the logic model is usually set forth as a diagram with columns and rows, with the abbreviated text put in a box and linkages shown with connecting one-way arrows” (McLaughlin & Jordan, 1999, p. 69). When examining such a model, an observer may be led to believe that the project will begin, move through a series of steps, and successfully reach the desired end state. In which case, the reader could easily assume that such a model appears reasonable or intuitively correct.

Yet, we must be cautious of common sense. Because what seems to make sense in the creation of a policy might not work so well in application. Such a situation arose recently when:

> The intuitive common sense of these policies – in the extent to which they promoted a “master plan” for Massachusetts’s public higher education – helped build the faith of policymakers in the system and its leadership. But it also helped to obscure the costs of the BHE agenda, and to make it difficult for those problems to be addressed in the future. (Bastedo, 2005, p. 38)

After all, if common sense were so effective, we might not have needed a formal analysis and policy in the first place. Everyone would have agreed on a course of action because it simply made sense. Or, the problem would have never arisen in the first place, because everyone would have used their common sense to choose actions that would not lead to such problems. Yet, the problems arise, and reasonable people disagree about the causes and solutions. Thus it seems common sense is not a sufficient tool for determining the logic (or potential effectiveness) or logic models.

On a slightly deeper level, McLaughlin and Jordan (1999) suggest checking the logic model as a set of hypotheses, logical statements, or propositions. However, they do not go much beyond this recommendation. So, the present paper represents and extension of their excellent work. Insights from other branches of social theory can also be applied to continue their line of inquiry. For example, Dubin (1978) suggests how increasing levels of structure within a theory will make a theory more effective. Wallis (2008a) provides an objective methodology for analyzing the structure of theories to advance them along this path.

This structural approach is of some importance based on recent developments in metatheoretical analysis. Specifically, it has been shown that the formal robustness of a theory is a good indicator of that theory's efficacy in application, and, further, that a theory must have a formal robustness of 1.0 before it can be considered revolutionary, in the Kuhnian sense (Wallis, 2009c). Thus, by advancing a theory (or, here, a logic model) towards higher robustness, scholars and practitioners will advance purposefully towards true paradigmatic revolution.

Thus, it seems reasonable to suggest that this method could be applied to effectively and objectively analyze a logic model within a policy to determine how effective that policy might prove in application. Such a method would be extremely useful for the evaluation of any policy and, more particularly, those policies that involve high levels of risk and expense – such as a policy for national health care.

Again, here I am not looking at the broad level of policy elements (actors, analysis, implementation, measurement) or the relationships among them. Instead, I take a micro-approach to address a gap in the literature – the analysis of the logic model, itself. In this, I will use the term "policy" to refer to the explicit report, or written policy – specifically as exemplified in the logic model, or model. First, I examine policy's related and underlying context, that of social theory.

Failure of Social Theory and the Failure of Policy

In parallel with the limitations of policy analysis, it has become increasingly clear that the social sciences do not provide effective tools for understanding or guiding human activity. This limitation is reflected in the spotty success of economics (Dubin, 1978, citing Rapoport), the failure of social change theory (Appelbaum, 1970; Boudon, 1986), high failure rates in the application of Total Quality Management (MacIntosh & MacLean, 1999), frequent failure of organization development culture change (M. E. Smith, 2003), failure of organizational theory (Burrell, 1997), and theories of bureaucracy (Bernier & Hafsi, 2007). As with the failure of other branches of social science, the inability to develop effective public policy models has left the promise of the social sciences "largely unfulfilled" (Spicer, 1998). The failure of policy should lead to a critical examination of how policy is created, structured, and applied.

This focus of study is especially important because the need for effective policy has not diminished. Today, "The complex and difficult global environment has overwhelmed, exasperated and saddened many observers" (Dennard, Richardson, & Morçöl, 2008, p. 17). For example, our current economic issues may be understood as resulting from a failure of policy. The lack of policy seems to have led politicians to enact a series of ad hoc interventions, where, instead, "the time has come to begin thinking about a systematic approach," according to House Financial Services Committee Chairman Barney Frank (Graham, 2008, p. 1). Similarly, the International monetary Fund (IMF) blames those failures on "policy shortcomings" (Wroughton & Kaiser, 2008).

The failure of policy is not the failure of any one group to achieve their goals (although that is a related issue). Rather, it appears to be a failure of all groups to understand the problem at hand – and render that understanding into a policy document with an attendant logic model that will be more likely to ensure their success. The biggest problem that we face is that we think we have the answer. We seek direct answers, forgetting how, "for every problem there is a solution which is simple, clean and wrong" (Menken, 2009, p. 1). The need for better policy, including budget restrictions and competing constituencies, propels agencies into a “metapolicy environment” where they, “… must consider policy making from several perspectives” (Boschken, 1994, p. 308).

Similar approaches to policy have been suggested in the study of complexity theory. For example, “triangulation” is suggested as a way to coordinate multiple methods of analysis (Roe, 1998). “Full spectrum analysis” suggests the need to carefully analyze a wide range of information (Mathieson, 2004). Complexity theory has also suggested other, more general, approaches (Elliott & Kiel, 1999); but they have not yet been proven effective. Whatever the process of policy analysis that process must result in the creation of some written policy. And, importantly for this paper, that explicitly written policy will have a logic model with a measurable structure.

Below, I will present an innovative understanding of integral thinking that seems useful for understanding the structure of logic models of policy. This neo-integral approach to developing more effective policy models does not espouse any specific goal outside of the structure of the model. In this analysis, I will draw on innovative metatheoretical methodologies that reflect neo-integral thinking to analyze two versions of policy drawn from efforts of the Scottish Parliament to reduce drug abuse.

Broadly, this investigation is a form of “design science,” or “policy science,” or “evaluation research” (Van de Ven, 2007, p. 278). Van de Ven suggests that an important difficulty in such research is essentially a question of politics, pose, and ethics. From an ethical stance, researchers should not impose their views on an organization. From a stance of politics and power, it remains an open question as to whose view should be used. As far as he goes, Van de Ven is quite correct; there is great benefit to be found through collaborative evaluations. However, there are more issues to consider.

In addition to the basic issues of investigative scholarship, there is Popper’s call to evaluate theory (and therefore, to some extent, policy) primarily through “falsification” (Popper, 2002). Briefly, Popper states that the test of proving that a theory is correct or works is insufficient. For example, a theory might claim that undetectable fairies make time move forward. Such a theory might be perfectly acceptable as an explanation for some individual. And, that person might claim to have proved the theory is true because time does appear to be moving forward (thus proving the existence of otherwise undetectable fairies).

However, there is no way to prove that theory is incorrect (in this example, there is no way to independently test for the existence of fairies). Further, and more importantly, if there is no test to challenge the theory, there is no way to improve the theory.

In contrast, Popper calls for theories that can be proven wrong. For an abstract example, consider a theory claiming that A and B must both be increasing to cause an increase in C. If an observer sees an increase in C with an increase in only A or B (or neither), that theory has been falsified. This kind of critical test encourages the theorist to develop a new and better theory – thus improving the science.

For policy, however, there is no way to determine its efficacy until after it has been applied. This, of course, is a very expensive proposition as global affairs (e.g., war in Iraq and world economic problems). Another difficulty is that a program that is perceived to be successful might not be successful. For example, a socio-economic "rain dance" might be perceived as successful, though there is actually no causal relationship between the dance and the subsequent changes.

Clearly, if we are to understand this issue, we will need a larger perspective. That perspective is a form of "metapolicy analysis." In the past, metapolicy has referred to a study of the source of policy, or the application of policy. One of the simplest, and perhaps the weakest form of policy analysis might be seen in a simple checklist; where a policy is evaluated to see if it meets the goals of an agency (FSAT, 2009). This approach is considered weak because it does not address the effectiveness or quality of the policy, itself (as reflected in the logic model) – only the relevance of the policy to the organization.

Seeking self-beneficial results is not unusual; indeed, "normally, policy evaluation consists of attempting to find indicators of either impact or the tangible deliverables and outputs of an initiative." (Ramsey & Bond, 2006, p. 1). However, such outputs are not available before the implementation of the policy. Hence, the need to understand policy from a metapolicy perspective to optimize a policy before its implementation.

Because this paper presents an innovative approach, some disambiguation is indicated. First, I use the term "metapolicy analysis" in reference to the study of a set of explicit policy documents, regardless of their formulation or application. Specifically, for the preset metapolicy analysis, I will focus specifically on the structure of the policy, as that structure is understood as the set of relationships between the causal propositions that are found within the logic model. As I will describe in the next section, this rigorous focus on interrelationships has evolved from our history of modern and postmodern thinking.

Structure of Logic Models

As noted in the introduction to this paper, the focus here is not on the grand whole of policy from creation through application. Rather, the focus here is on the explicit written policy – as exemplified in the logic model.

Given the benefits of human interaction (which results in direct and synergistic benefits), it seems reasonable to suggest that we might understand the propositions within a policy as having benefits from similar interrelationships. The main benefit is improved clarity of understanding for those using the model. By obtaining a better understanding of the complexity and interrelatedness of our policy models, we may expect to develop a better understanding of policy, in general.

A policy model is a mental model, a schema, a theory, or, more colloquially, a lens or point of view. The policy model acts as a computer program, metaphor, filter, or sense-making device.

Starting with all the available information, the data go into the model. The "output" is our understanding of the present situation. That understanding implies that we might be able to predict the future results of our actions (to the extent that anything is considered to be predictable).

For example, if a nation has a policy model that represents immigrants as invaders, that nation might take action to fight back against those immigrants, and act to ensure that future immigration is limited or eliminated. In contrast, holding a different lens of policy, a nation that sees immigrants as useful contributors to society would welcome immigrants with open arms. For each approach, there will be some outcomes that are somewhat predictable, and some results that are less so.

These lenses, or models, may be tacit (as in our unconscious assumptions), or they may be explicit (as in a diagram or flow-chart). Either way, these models serve to guide our decisions and impel us to action (or non-action). There are a few basic paths to describe how these models are created. One way is for them to be developed unconsciously, as in Argyris' "ladder of inference" (Senge, Kleiner, Roberts, Ross, & Smith, 1994). Yet, when those models remain tacit, we lose some opportunity for communication because tacit information is more difficult to communicate (Kakabadse, Kouzim, & Kakabadse, 2001).

Another way to develop a policy model is to follow the dictates of some authority. While, this kind of explicit direction is more easily communicated, it is not necessarily more accurate or more useful than a tacit mental model. Indeed, there are issues of conceptual colonization and domination (L. T. Smith, 1999). Another approach to developing a policy model is to consciously and critically analyze the available information. This process is seen in the development of academic theory – essentially, the process of scholarship.

More collaborative methods are also available. We may follow, for example, a collaborative process such as the Future Search process (Weisbord & Janoff, 2000). There, a facilitated process of collaboration and communication among at least some stakeholder combine to develop a mind map (which is essentially a shared mental model) that is more complete because it draws on more contributors; a reasonable approach because, "the public always knows more than any of the "experts" (Churchman, 1968, p. 232).

Comparing the dictatorial to the collaborative approaches, it should be noted that dictates (such as "do this" or "go there") are understood as relatively simple compared with a wall-sized mind map full of information (and potential contradictions). The more complex understandings found in a large mind-map seem to support the efforts of each individual as they find their own path and goal from a complex range of choices. In short, dictatorship is simple while free collaboration is complex. That is to say, a free person must face a multitude of complex choices, while a slave has those choices dictated.

While all these methods are used to create policy models, and some of those models are used to guide policy decision-making, there is no guide outside of application to determine whether one model might work more effectively than any other. In short, the literature has not deeply explored the "internal validity" of the decision making model; where that validity is separate from the actual application of the model. Of course, there is the tradition of academic validation. However, that approach is limited to the process of citing experts and logical arguments. As noted above, this level of internal validation does not seem to have been as effective in the creation of effective policy. In a reframing of Popper's "three worlds" of validity, Wallis (2008c) suggests that the social sciences are insufficiently developed to apply Popper's test of falsification through empirical testing.

This is an important concern, because policy creation, comparison, and change is often "hopelessly confusing" because of the clash of belief systems between the actors (Schlager, 1999, pp. 252-253). And, as a result, some may suggest that the best way to evaluate a Logical Model and the associated policy is to empirically measure the results of the program.

And, indeed, that is an ongoing trend in program evaluation (Hatry et al., 1994). However useful this is for existing programs, the empirical approach cannot be applied to the development and implementation of new policy and new programs. There is simply no way to evaluate the success of a program before it is implemented.

Instead of a single approach to evaluation, Wallis recommends multiple tests – a sort of triangulation – to examine the validity of the model through a combination of tests (internal validity of the structure, external testing in application, and the meaning it makes for the user).

Within the nascent field of metatheory, there are emerging views that may lead to more effective methods of validation. For example, a more effective model might be understood to be one that is more mature. In Growing *the Field: The Institutional, Theoretical, and Conceptual Maturation of 'Public Participation* Ross & Glock-Grueneich (2008) develop innovative and useful insights into the structure of theoretical models. They accomplish this by drawing a parallel between the less-understood development of models and the better-understood development of individuals, organizations, and cultures. In each area, the system that is understood as more evolved is the system that is more complex. In their maturation model of theory, based on hierarchical complexity theory (Commons, Trudeau, Stein, Richards, & Krause, 1998) the stages are:

1. Abstract Stage (stories become cases, events are abstracted to data).
2. Formal Stage (two or more Abstract Stage variables are related).
3. Systematic Stage (developing simple hypotheses from Formal Stage relationships).
4. Metasystematic Stage (creating models that account for all relevant relationships).

Importantly, in this maturation model, the systematic stage is one where there is a formal description of how variables interact in relation to one another. This stage requires "multiple input variables" and may suggest multiple outputs as well. This view stands in contrast to less complex (and so less mature) models that suggest simple, linear, causality. Creating a parallel between complexity and some sense of maturity seems to have validity – and is reflected across a broad section of literature.

For a few examples, the process of evolution (a continual process of variation and selection) leads to increasing complexity of our ecological and social environments (Holland, 1995) and the same insight applies to our economy (Friedman, 1997) where the creation of new products and the selection of the consumer leads to the generation of ever-increasingly complex selection of consumer goods. Indeed, we may adopt the perspective that "the inanimate world, life, and human existence are envisioned as systems of increasing complexity representing physical biological and sociopolitical realities" (Herrmann, 1998, p. ix). This, in turn, suggests that that individuals and organizations, existing in more complex interrelationships, are better able to detect and adapt to the complexities of the market in complex and creative ways (Stacey, 1996).

This idea might be broadly understood as, "More complex models are more effective." And, as such, this may appear to violate the so-called "rule" of parsimony – which suggests that the better theory is the one that is more concise. The general idea of parsimony dates back at least as far as Ockham's razor. However, investigations by Meehl (2002) suggest that the claim of parsimony for theory validity is over-used, misunderstood, and is of questionable validity.

Meehl suggests, "no ontological metaproof exists that the world must be 'simple,' or that 'simpler' theories are, as a class, more likely to be correct. The most impressive theories of mature sciences are hardly ever 'simple,' either conceptually or in the formalism" (Meehl, 1992, p. 423). For example, multiple theories (or multiple views) of an organization provide a richer, more useful understanding of that organization (Bolman & Deal, 1991; Edwards & Volkmann, 2008).

The maturity model might be seen as suggesting that a policy model that is relatively simple is one that is less mature; for example, if a policy states, "Our only goal is to make more money." The enactment of such an immature policy might be expected to cause many unanticipated and unpleasant consequences. A more mature structure of policy would have more aspects. For example, seeking benefits in three areas (e.g., financial, ecological, and human) would be more complex and so more mature than seeking fewer (e.g., only financial). A more mature policy would also identify more linkages between aspects, and those linkages would be better described. A useful tool would be the ability to identify "how mature" a policy might be. Such ability would allow stakeholders to easily identify which policy might be most effectively applied in a situation.

Similarly, theories containing a higher level of structure are also more efficient. The most highly structured theories, "expresses the rate of change in the values of one variable and the associated rate of change in the values of another variable" (Dubin, 1978, p. 110). Such an expression would necessarily be more complex than, for example, stating, "A is true."

Another tool for understanding the internal validation through an understanding of the structure of theory is found in Wallis (2008a) who presents a method for analyzing academic theories. Usefully, the method of propositional analysis provides an objective indicator of the internal integrity of the theory. Wallis describes this as a measure of the "robustness" of a theory and suggests that theories that are more "robust" (like those of physics and mathematics) will prove more effective in practice, while less robust theories (such as those commonly found in the social sciences) will prove less effective in practice (Wallis, 2009c).

My use of *robust* differs from other meanings. It does not mean, “insensitive to uncertainty about the future” (Lempert & Schlesinger, 2000, p. 391). Nor is robustness used in the more colloquial sense of “strong,” “widely scattered,” or “unchanging.” In short, robustness is a specific and objective measure of the relatedness between propositions within the theory.

In order to objectively determine the robustness of a theory, I suggested investigating relationships between the propositions of the theory to identify the co-causal connections between the propositions. Theories with connections that are more completely interrelated are held to be more effective. For example, a proposition such as, “A is true” would not be of much value because it is essentially an unsupported claim. A proposition such as “B is true because of C” or, similarly, “Changes in B cause changes in C” is more valid because there are more connections between the conceptual components (it is also more complex).

Readers with an interest in the advancement from modernity through postmodern ways of thinking may recognize the first proposition as atomistic/dualistic (because it suggests that A has an absolute value) and the second as contextual (because B has validity only in the context of C). The contextual proposition may also be understood as being linear because change in one is said to cause change in the other.

Adding more aspects to atomistic propositions does not enhance the validity of the theory; for example, “A is true, and B is true, and C is true” is likely to engender more arguments about the truth of each statement (instead of fewer arguments about the truth of fewer truth claims).

Similarly, adding more aspects to a proposition that is essentially contextual, or linear, does not add to the validity of the proposition. For example, “A causes B causes C” is a linear proposition where the aspect of B is redundant (Stinchcombe, 1987) and so adds nothing to the proposition. One might just as well say, “A causes C.” The validity of the aspect has not changed so much as its context has been altered like unpacking a series of nesting dolls.

Rather than these modern or postmodern approaches, it is more beneficial to develop propositions that contain more aspects *and* have the relationship between multiple aspects carefully explicated: for example, “Changes in A and B cause changes in C,” or to explain those changes more carefully, “More A and more B cause more C.” These kinds of propositions are *concatenated*. That is to say, there are multiple causes that are evidenced in the resultant effects (Kaplan, 1964; Van de Ven, 2007).

This perspective is in keeping with the idea that more complex theories are more mature and so are expected to “induce more sophisticated practice, data collection, analyses, model testing, and thus further research and model building” (Ross & Glock-Grueneich, 2008, p. 11). In contrast, a simpler theory (containing fewer aspects) means that its sensemaking ability will “catch” fewer areas of knowledge and understanding. Thus, as the theory sees less, it will miss more: “easily unperceived effects” (François, 2008).

Another way of understanding a concatenated relationship between ideas is to think of it as a kind of Hegelian dialectic (e.g. Appelbaum, 1988), where two aspects called thesis and antithesis can lead to the emergence (or change) of a third dimension called synthesis.

This is conceptually similar to the process developed by Bateson (1979), who describes "double description," where multiple streams of information are combined to suggest a new, third form, of information that is more useful than the previous two. Another example of double description is binocular vision (where the extra sense of depth is added). Bateson shows how these double descriptions create an extra dimension of understanding that is of a different logical type.

There is a parallel between the structure of Bateson's approach and the structure of theory. As described above, a concatenated aspect of theory is evident in a proposition describing how aspect A and aspect B combine to understand aspect C. This understanding of aspect C through the understanding of aspects A and B suggests a greater level of understanding that, in turn, may be used for more effective policy decision. These concatenated relationships add to the construct validity of the theory (or policy) (Van de Ven, 2007, p. 189).

According to Wallis (2009a), the method for determining the formal robustness of a model follows five simple steps:

1. Identify a specific body of theory
2. Search the literature for concise definitions
3. Identify causal propositions
4. Link casual propositions according to related concepts (where one aspect is influenced by two or more others)
5. Identify the total number of propositions and compare to the number of co-causal propositions (creating a ratio between zero and one).

For an abstract example, let us say we have a theory consisting of the following propositions: A is true; B is true; A causes C; Changes in B cause changes in D; Changes in D and changes in C cause changes in E. There are five aspects (A, B, C, D, and E). Of those five, only E is concatenated (D and C cause E). This allows us to easily find a ratio of well-integrated aspects to poorly integrated aspects of 0.20 (the result of one concatenated aspect divided by five total aspects). Importantly, the validity of each proposition is determined only by the other propositions within the theory.

Theories of physics (e.g. Ohm's law of electricity) tend to be robust to the 1.0 level. It seems to be the robustness of Ohm's theoretical model that enabled its effective testing which, in turn, enabled its elevation to the status of "law" and the subsequent revolutions in power distribution, communication, electronics, computers, and more. In contrast, theories of the social sciences tend to have a very low level of robustness—typically between 0.2 and 0.5—on a scale of zero to one (e.g. Wallis, 2009b). And, along with those low levels of robustness, social theories have not proved very effective in application.

In the next section, I analyze two policy models to determine and explain their levels of robustness and thus suggest their potential efficacy in application. In these analyses, the search for formal robustness is much simplified. Using the models provided for analysis advances us through step three above. Within those models, the causal propositions are already identified by the graphic representations of the logic models. Thus, we need only look at the models to follow step five above – and identify the total number of propositions and compare then to the number of co-causal propositions within each model.

An Analysis of Two Policy Models

Because theories are used to make sense of data, predict the future, and support decision-making, they are conceptually similar to mindsets, organizational schema, or logical models of policy. In this section, I use the insights and methodology presented above to analyze the relationships between propositions found in two policy models that were developed by the Scottish Parliament for a project on reducing damage from drug use (Scotland's Futures Forum *Approaches to Alcohol and Drugs in Scotland: A question of Architecture*, 2008).

These models are maps for understanding the present and emerging situation. As such, they are representative of policy, including data gathering, analysis, and as guides for the actions of decision-makers. While these models might not represent the complete policy, they are used here as concise representations of the policy.

Usefully, for this analysis, the Scottish report portrays two diagrams representing the same overall policy. Importantly, although both diagrams include very similar aspects, the structure of those diagrams is very different. One arranges the aspects of the policy in a “daisy” pattern, while the other diagram presents the aspects in a pattern of flows and co-casual relationships. In short, the two diagrams present two models of the same policy – with very different potentials for successful implementation.

In Figure 2, there are 12 causal dimensions (or aspects), and one resulting aspect (the goal of reduced damage from alcohol & drugs). The resulting aspect (How can Scotland reduce the damage to its population) is a concatenated aspect because it results from more than one causal aspect. Based on Wallis’ method of propositional analysis, the robustness of this model is 0.08 (the result of one concatenated aspect divided by 13 total aspects). Therefore, by itself, this does not seem to be a very useful model for application.

As a thought experiment, one might imagine disparate stakeholder groups arguing over which aspect is most useful, and where funds should be allocated. Additionally, each group in Figure 2 seems to be conceptually isolated from the others – trapped in its own “silo” of limited understanding. One group sees prevention as the cure, while another seems enforcement as the tool of choice.

Similarly, each group might blame the other for lack of overall success of the program. Additionally, we might expect that special-interest groups might struggle to alter and control the meaning of the model over time. The number of petals in the daisy might expand or contract depending on what groups get funded. In short, if Figure 2 were the only guide, this worthy effort toward collaboration might lead, instead, to conflict.

Fortunately, the policy analysis did not stop at this point. Admirably, the project combined expert analysis and input from stakeholders to develop the model shown in Figure 3.

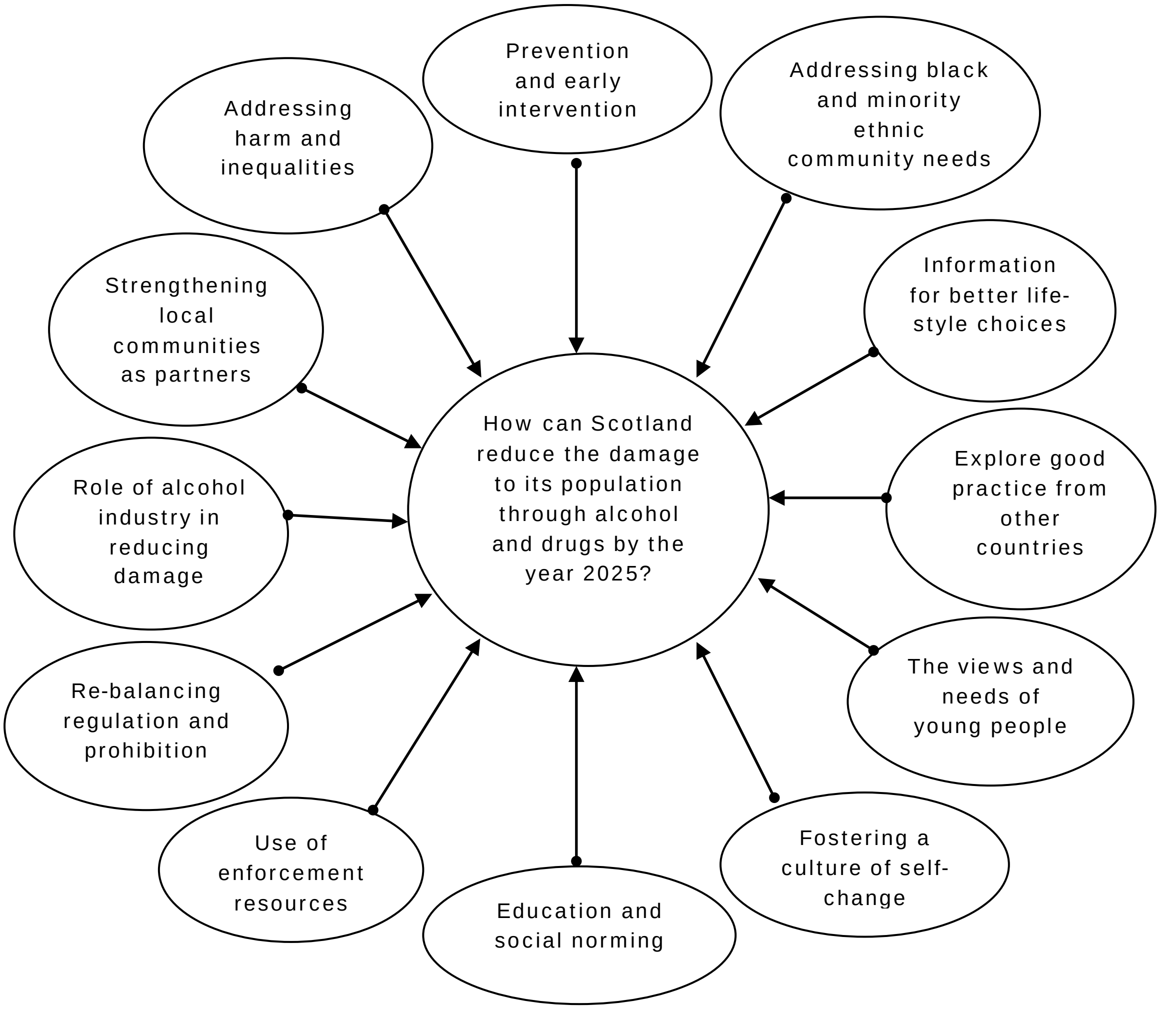
How can Scotland reduce the damage to its population through alcohol and drugs by the year 2025?
Prevention and early intervention
Addressing black and minority ethnic community needs
Information for better life-style choices
Explore good practice from other countries
The views and needs of young people
Fostering a culture of self-change
Education and social norming
Use of enforcement resources
Re-balancing regulation and prohibition
Role of alcohol industry in reducing damage
Strengthening local communities as partners
Addressing harm and inequalities

Figure 2. Dimensions of the problem
(*Approaches to Alcohol and Drugs in Scotland: A question of Architecture*, 2008, p. 9; public domain)

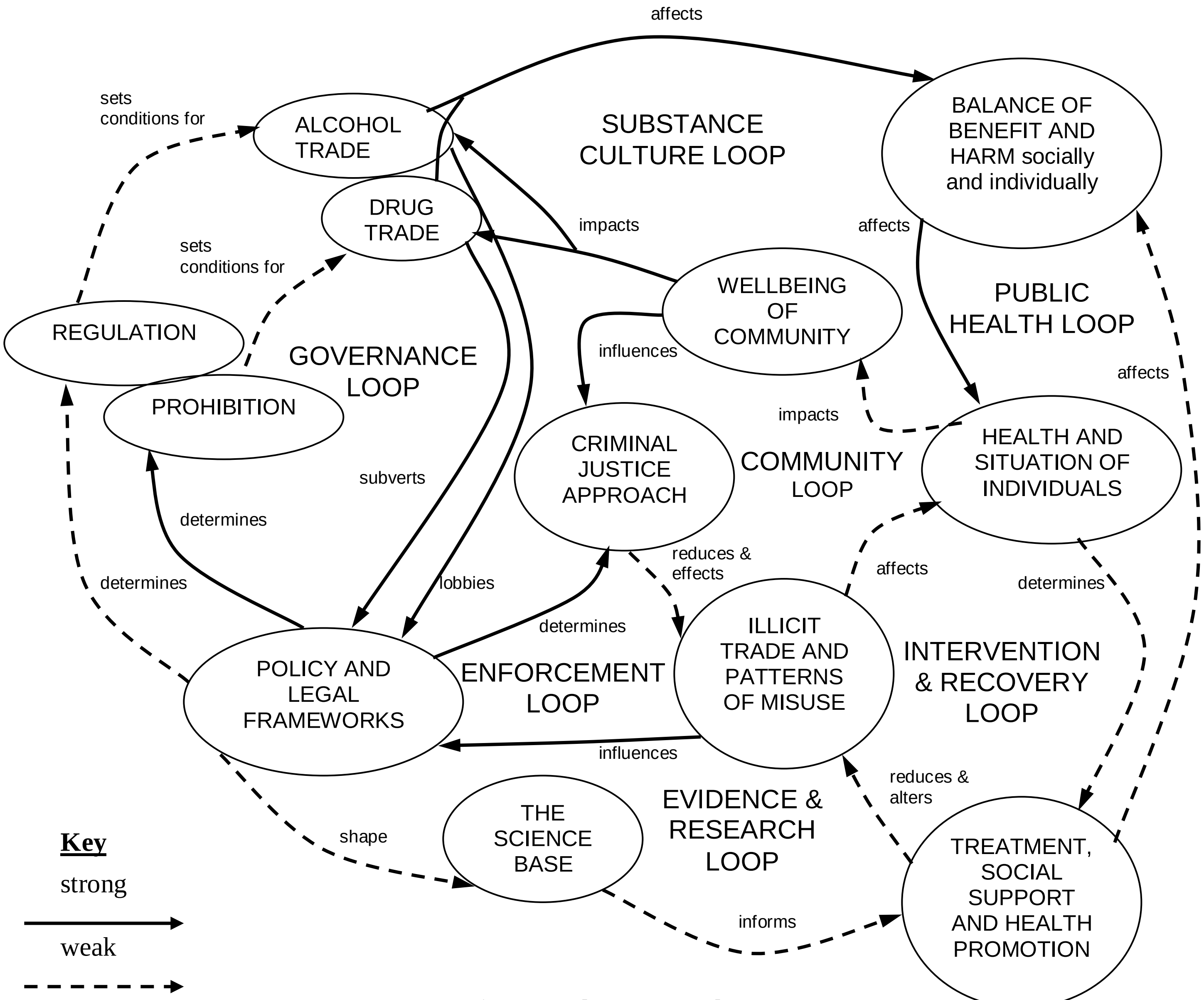
affects
sets conditions for
ALCOHOL TRADE
SUBSTANCE CULTURE LOOP
BALANCE OF BENEFIT AND HARM socially and individually
DRUG TRADE
impacts
affects
sets conditions for
WELLBEING OF COMMUNITY
PUBLIC HEALTH LOOP
REGULATION
GOVERNANCE LOOP
influences
affects
PROHIBITION
impacts
CRIMINAL JUSTICE APPROACH
COMMUNITY LOOP
HEALTH AND SITUATION OF INDIVIDUALS
subverts
determines
reduces & effects
affects
determines
lobbies
determines
determines
ILLICIT TRADE AND PATTERNS OF MISUSE
INTERVENTION & RECOVERY LOOP
POLICY AND LEGAL FRAMEWORKS
ENFORCEMENT LOOP
influences
reduces & alters
THE SCIENCE BASE
EVIDENCE & RESEARCH LOOP
shape
TREATMENT, SOCIAL SUPPORT AND HEALTH PROMOTION
informs
Key
strong
weak

Figure 3. The 2008 Landscape

(*Approaches to Alcohol and Drugs in Scotland: A question of Architecture*, 2008, p. 62; public domain)

Figure 3 includes many of the same aspects as Figure 2. There are, however, key differences between the two models. First, in Figure 2, the goal of reducing damage from drugs is explicit, while in Figure 3 that goal is tacit. In the same way that most people do not need to be reminded that a useful goal is to achieve a better life, the goal is seen as superfluous when included in the model. Individuals who are seeking a better life do not need to be reminded of that goal: they need useful policy to help them get them there. Second, Figure 3 presents a model that is more complex than the model presented in Figure 1. Although Figure 3 depicts one aspect less than Figure 2, Figure 3 depicts 22 causal relationships, compared to the 12 causal relationships depicted in Figure 1. This increase in complexity suggests more maturity (Ross & Glock-Grueneich, 2008) in the policy model.

Importantly, Figure 3 depicts eight aspects that might be considered concatenated (affected by two or more other aspects). The exceptions are: the science base, wellbeing of community, regulation, and prohibition. Therefore, based on the above-mentioned methodology, the robustness of this model is a respectable 0.67 (the result of 8 concatenated aspects divided by 12 total aspects).

By way of a thought experiment, Figure 3 seems to suggest a more effective model for change, primarily because the actions of each group are expected to produce relevant results for other groups. While the actions of law enforcement may not be evident to public health workers and vice versa, the actions of both are likely to be visible to the broader community.

For example, enforcement may believe that they are taking effective action through their criminal justice approach. Similarly, the evidence and research scholars and the intervention and recovery professionals may believe that they are taking effective action through changes to the science base and the treatment, social support, and health promotion (respectively). Yet, if changes in those areas do not show up as changes in illicit trade and patterns of misuse (visible to the community), either those efforts are not being effective or the model is not an accurate representation of the situation.

We may speculate how stakeholders using a more robust model may be less inclined to argue around the measurable results because each indicator is linked to multiple other indicators. This allows for more direct feedback for more rapid learning so the stakeholders can more easily change their approaches if needed.

Of course, the formal model is based on assumptions that have been made explicit. For example, Figure 3 depicts the treatment (including social support and health promotion) as influencing the balance of benefit and harm as well as the illicit trade. This suggests that the opinions around the effectiveness of treatment must be determined by the view from "downstream."

If those monitoring the balance of benefit and those engaged in illicit trade agree, than it would appear that treatment is doing a good job. If they disagree, it points to the need for a more effective understanding of the situation. And, that understanding may change as the project

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advances and new information suggests adjustments to the model. Those changes should be agreed to through a collaborative process.

While the model in Figure 3 seems to have a fairly high level of robustness, it is far from perfect. There are several opportunities to improve the model. For example, in Figure 3 drug trade and alcohol trade are shown as “affecting” the balance of benefit and harm. It is unclear from the model exactly what those effects are.

Does more alcohol trade cause more social harm? Or, are the potential negative effects of the alcohol trade ameliorated by the benefits of treatment? Other uses of vague language include words like: impacts, influences, determines, subverts, inform, shape, and others. More effective language would be “increases” or “decreases.” With experience, analysis, and expertise, the quantitative relationships of those qualitative aspects might also be more accurately developed.

Another opportunity to clarify the model is seen in the aspects of regulation, prohibition, alcohol trade, and drug trade in the upper left hand corner of the model. There, prohibition and regulation are in a linear relationship between policy and legal frameworks on one side, and alcohol trade and drug trade on the other. Abstractly, this is represented as A causes B causes C. In such linear relationships, the intermediate term (B) is redundant (Stinchcombe, 1987) – it adds nothing to the robustness of the model.

Similarly, the aspects of regulation and prohibition are in “parallel” with one another. That is to say, every causal relationship that affects one aspect also affects the other. Therefore, it could be said that regulation and prohibition are effectively the “same thing.” The same is said of the aspects of alcohol trade and drug trade. Parallel aspects do not add to the robustness of the model, and, like linear aspects, should be removed (or revised) in increase the robustness of the model.

I contend that the important difference between the two logic models compared in this section is not simply a matter of complexity, nor is it a matter of the relationship between the model and the analysis and/or implementation of the policy. Instead, the important difference between these models is best seen in their formal robustness (0.08 in the first and 0.67 in the second).

For an abstract example, consider how the model shown in Figure 3 might be made more complex by adding additional “petals” to the daisy – in the form of additional stakeholder groups. While that would add complexity to the model, all the previous concerns (e.g., conflict between stakeholders) would not be reduced. Indeed, they are more likely to increase. And, it is useful to note, that potential for conflict would reduce the chance for successful implementation of the logic model, and, not coincidentally, would reduce the robustness of the model. Therefore, we may conclude that we can increase the chance of policy success by increasing the robustness of the logic model within the explicit policy document.

The evaluation and discussion in this section suggests that it is indeed possible and useful to evaluate policies and programs by investigating the complexity and formal robustness of logic models, and that following these approaches will lead to policies that are more effective in application.

Surprising Insights

An unexpected insight emerged during this study when I noted that a critical shift occurred between Figure 2 and Figure 3. Figure 2 is an axial theory of the sort suggested by grounded theory (Glaser, 2002). An axial theory may be characterized by having a number of causal influences – all leading to a common result.

In contrast, Figure 3 represents a theory used for achieving that shared goal where the goal itself is tacit to the model. This is important to the extent that having a goal is very different from having a theory that will enable one to reach that goal. This approach seems to be in line with the idea of "problem solving without a goal" (Simon, 1996, p. 106), where the goal is to find greater understanding.

For example, by way of analogy, let us say we have an engineer whose goal is to design a radio. The engineer will doubtless use Ohm's law to design that radio, and, procedural errors aside, the radio will function effectively. Yet, it should be noted, Ohm's law does not include "radio" as a word or concept.

This example stands in stark contrast to many theories and policy models where the goal is an explicit part of the theory. In the example of designing a radio, a goal-oriented theory might include the proposition, "More electricity, more radio waves, higher standards, more components, and more engineers will result in the design of more and better radios." While this claim is undeniably useful, such a goal-oriented theory has a very low robustness. Further, no workable radios would be designed without the use of Ohm's (robust) law.

Rescher (2005, p. 106) explores the difference between theory and goal suggesting, "… it is accordingly important to distinguish between the *ontological* systematicity (simplicity, coherence, regularity, uniformity) of the *objects* of our knowledge…." Or, metaphorically, the lens is different from the observer and different from the observed. Similarly, in his explorations into metatheory, Ritzer (2001, p. 161) suggests the idea of "decentering" where theorists should move away from identifying a goal and move toward developing metatheory that is understood as a "field of relationships."

A "goal" is not the same thing as a task, concept, or relationship. The goal is more like a vision or an ideal. Therefore, having a goal (imaginative or creative ideal) as an integral aspect of a theoretical construct—which is better described as a representation of an existing perceptual-based system—is a violation of ontological systematicity, and specifically a violation of uniformity. It is an apple among oranges – out of character and out of its appropriate category. The distinction between the two seems to have been inadvertently glossed over by "…what rhetoricians call *chiasmus*, an exchange of properties that serves to blur the differences between the entities from which the properties are drawn" (Fuller, 2006, p. 22).

For a metaphorical example, if one enjoys viewing the color red, one may enjoy sitting in a room with red walls, or viewing red roses. One may even go so far as to wear red-tinted spectacles. However, using red-colored glasses to view red roses will tend to obscure the roses. Similarly, a theory that explicitly includes the goal can, in some sense, obscure a deeper level of understanding. In short, the present analysis suggests that it is important that we do not confuse the goal with the policy understanding necessary for achieving the goal. Importantly, therefore, having the goal as a part of the model may be a distraction at best and a critical flaw at worst.

Conclusion and Extensions

Our philosophies are moving away from modernist, through postmodernist and into more effective, neo-integral, ways of thinking. In this paper, methods based in neo-integral thinking have proved useful in identifying and comparing the complexity of policy models (Ross & Glock-Grueneich, 2008) and the degree to which those models are integrated (Wallis, 2008a, 2008b). This evolution in thinking seems to be reflected in our approaches to policy development.

In decades past, theories of policy development were relatively simple. It was found, however, that this approach did not result in effective policies and programs. Luminaries such as Kingdon advanced the field by offering more complex models. However, the current state of the world suggests that these new models have not resulted in the creation of more effective policy. This has led to a criticism of Kingdon’s work by Sabatier who has provided alternative models to better understand the policy process. Despite, or because of, this conflict in the field of policy, there is no clear consensus about how to compare policy models in any objective way. This impedes our ability to choose between multiple competing policies or to identify the best way to improve a program.

A common feature in almost every policy is the logic model. Yet, the policy literature leaves tacit the idea of investigating the internal structure of a logic model. Before the contribution I offer in this paper, there was no way to conduct an objective comparison of policies – we were forced to rely on the “plausibility” of a model (e.g. Schmidt et al., 1979, p. 48). As such we are forced to rely on untested assumptions and, “relying on unspoken assumptions may lead to folly as easily as wisdom” (Wallis, 2009c). Based on the current state of the world, this certainly appears to represent our level of policy evaluation and comparison.

Because the logic model is an explicit representation of the policy document, it stands as an abstract representation of the policy - a lynchpin of the process. Critically, comparing logic models with a sense of objectivity allows us to reliably decide which policy to implement or how to advance a policy toward greater effectiveness. The present paper provides an important contribution to the policy literature by suggesting two methods for the objective analysis of Logic models.

In developing objective measures for logic models (to the extent that they represent the policy as a whole) this contribution answers multiple calls: first, for better theory (Sabatier, 1999), second, for more predictive theory (deLeon, 1999). These insights, in turn, suggest the opportunity for a research program to determine if there is a relationship between the robustness of the logic model and the successful implementation of the policy.

The metapolicy analyses reported above were a critical comparison of two logic models using a methodology originally developed for metatheoretical analysis. Results indicate that the highly robust (R = 0.67) model in Figure 3 will be more effective in application than the low robust (R = 0.08) model in Figure 2.

A limitation of this study is the difficulty of confirming the correlation between the robustness of a policy model and the effectiveness of that model in application. Similarly, this analysis does not address aspects of policy-making that are outside the formal model or “off the page,” such as the mood, health, superstitions, or prejudices that might alter the politician’s decision-making process. Additionally, this study is limited because it compares only two models. Future studies should compare more models, models from a wider range of policy areas, and compare policies with the results of their implementations.

Additionally, future studies should investigate the robustness of historical policy decisions to find what correlation exists between the robustness of the policy and the historical results of that policy’s implementation. In this form of study, it would also be useful to determine if the policy decisions actually followed the policy. It may be found that the stated policy had a high level of robustness while the implemented policy had a low level of robustness (or vice versa). For future policy development, I suggest that any policy analysis should include a study of the logic model itself, to determine the robustness of the policy.

Of course, a robust structure of policy theory is not the be-all, end-all of policy. As noted earlier, it is also important to consider other aspects of policy development (including data gathering, analysis, and how the policy is implemented). Improvements in each of these areas will add to the efficacy of policy. The ideas presented in this paper are intended to complement, not supplant, existing methods of policy analysis

Our understanding will always be limited, but that does not excuse us from expanding our understanding. By developing an understanding that is more complex and more carefully integrated, we may understand more clearly the richness and the limitations of our knowledge – and how we may improve the production and efficacy of policy models and policy with significant implications for improving the human condition.

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The U.S. Imperial Jugger-*not:* Saturation Points and Cultural Globalization

Meg Spohn Bertoni[1]

Abstract: Globalization is not merely inevitable western cultural conquest. The assumption that the juggernaut of western hegemonic domination will continue until the world is consumed is a common one, but not an accurate one. That accuracy is compromised by a number of related misconceptions about the nature of globalization. Some of these have to do with an attachment to dichotomy in a world too complex for dualism. Some of them are related to assumptions about the nature of trade, of trends, of inevitability, and of statistical prediction that turn out not to be accurate—and by extension misconceptions about the unidirectionality of cultural exchange. Most are related to misconceptions about the nature of culture—particularly in oversimplifying, and making strange assumptions about, nonwestern cultures. Cultures change over time, with generations and historical forces—today's cultural changes make up tomorrow's cohesive culture. Cultures die not when they change to reflect the new attitudes and lifestyles of the peoples who live in them, but when they stagnate and become static, preserved only in museums, artifacts and books, and not in the everyday lives of the people themselves. Finally, phenomena do reach a saturation point, from biological populations to the motion of catamarans to absorption of cultural values, and these can be observed using methods of nonlinear dynamics. This project considers common misconceptions about globalization and culture, and uses concepts from nonlinear dynamics to expose the nature of the movement and saturation points of cultural globalization.

Keywords: Complexity, culture, domination, dualism, globalization, international system, nonlinear dynamics, non-western, prediction, self-organization, saturation points

Introduction

In recent years in international relations, globalization has become a major area of study. No wonder—it touches every other area of interest in international relations, and its effects are clear to people around the world. However, a number of misconceptions about it have been popularized, among scholars, students, and members of the general public alike. One of the most pervasive is that globalization is merely inevitable western cultural conquest. The assumption that the juggernaut of western hegemonic cultural domination will persist until the world is utterly consumed is a common one, but not an accurate one.

A large part of the misconception problem is the ways in which scholars and journalists have been trained to think about global phenomena, which permeates the ways in which they write

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about it and inform others. It is high time, however, to abandon theoretical structures that are no longer useful in comprehending and explaining complex phenomena such as globalization. In constructing strong theory, it is imperative to abandon the pervasive focus on dichotomy and other artificial simplifications, and consider frameworks more appropriate to the very complex international system, which defies dichotomy and oversimplification. This piece addresses some of the major misconceptions about this area of inquiry, and suggests more complex, dynamical ways of thinking about the complex, dynamical world order.

With regard to politics and the political, this article offers academics, journalists, theorists, students, and curious members of the general public (among others), a different way to think about the things we are all told about the nature of globalization and culture—and common assumptions about them. From this, one hopes we may all consider our dynamical world more completely and accurately, whether working to shape still-struggling post-Cold War political theory, traveling to or thinking about other cultures, or forming our opinions from the world news of the day. Through bringing together international relations theory, nonlinear dynamical systems, and additional critical thought from cultural studies, the global affairs classroom, and even evolutionary biology, we may gain insight into current problems in thought and in practice with regard to international politics—from political and cultural relationships and impacts, to the theories that shape thinking and policy, to the interconnectedness of global society and its development.

First, we consider what some of the most common misconceptions are surrounding globalization, and some of their likely causes. Each of the misconceptions is then regarded in detail, and critiqued along the way, using observations about the global system, culture, theory building, and key concepts from nonlinear dynamics. Through careful consideration, we can draw some conclusions about different ways of thinking about globalization that may yield greater understanding and more fruitful international relations theory.

Global Misconceptions

During the last four spring terms at a moderately-sized western American university, the author has taught a graduate-level course (usually two online sections) about the phenomenon of globalization, and its many forces and implications. Happily, the online sections include graduate students who are participating in the course from various locations around the world, are from other countries, or are otherwise well-traveled. Through asynchronous discussion, these many informed perspectives often create a truly global one, offering insight considerably greater than the sum of its parts to all the participants. So pervasive are certain misconceptions about globalization, however, that they are not only largely held by the general public, but they are also held by nearly all of this bright cross-section of the adult population, at least upon entering the course.

There are many possibilities as to how this state of misconception and misinformation persists. One is that globalization as such is still a very new field of study. Although answers to current questions may become obvious with hindsight and experience, the pressure to predict is strong, and journalists and scholars alike try hard to have the next big, important idea that will guide the field of study of globalization through its nascent period and beyond. Some find ideas and latch onto them, wanting them to be true because they offer the comfort of a predictable trajectory in a global system currently rife with uncertainty.

This pressure is likely exacerbated by the paucity of strong and far-reaching post-Cold War theory in international relations. The former world order, with its two spheres of influence and zero-sum game theory, when put into historical perspective, was something of a fluke, albeit one that lasted half a century. As we return to the messier and far more historically prevalent world system, the last few generations of scholars have not been trained to think about it, because it was not then pertinent to the contemporary world order. Those international relations scholars who were trained before the Cold War, and whose work was to have informed the coming decades before the outcomes of World War II changed everything, are now separated from the generation of scholars tasked with creating new theory responsive to the twenty-first century's global system by at least two generations, if not by retirement, or by death. Starting from scratch is more difficult than building on the work of the previous generation. In the meantime, many theories are circulating and awaiting broad recognition. It makes sense to keep trying until something catches on.

Another possibility is simply that some of the people with the greatest access to publication about the new global system do not have truly typical experiences of the places they visit and later write about. Often, the elites of given nation-states or regions have more in common with each other than they do with their own fellow residents of those states or regions. An elite American, for example, is likely to stay in the finest hotel in Nairobi, with other traveling elites (some of them Kenyan, certainly, but even a hotel full of local citizens is still a mere hotel full in a nation of thirty-eight million—and an atypical hotel full at that) and as far as possible from Nairobi's shanty town of Kibera—and its more than one million inhabitants. Elites from all parts of the world usually prefer to isolate themselves from the grittiness of most of the world's everyday existence when they can, and consequently, often miss the whole picture, or even the typical one—and these are the people who have the best access both to travel and to publication. Therefore, they are most likely to inform opinions at home, and even bright, critically-thinking people rarely get the perspective of the average person's experience in another country unless they actually mange to go there at some point. In the meantime, global golfing and fine dining anecdotes, for example, are a poor substitute for informed cultural insights about regular folks in other parts of the world.

Additionally, with the general public more interested than ever in international news, and a twenty-four-hour news cycle, we get surprisingly little insight about international events from the American news media. It used to be that each news organization had regional bureaus all over the world, so when news happened there, someone was on hand to report on it, and to give some informed geo-political context to the events. This practice of maintaining far-flung news bureaus is no longer considered cost-effective, and news personnel are quickly flown to the place where news is happening instead. While this does gather information for news organizations at unprecedented speed, the lack of context previously available with knowledgeable localized news bureaus damages the quality of that information. When the news consumer gets the story, historical and other contextual pieces may be missing, or merely assumed rather than confirmed, or lived. In this way, misinformation is often carried along with information. The savvy news consumer may consult multiple sources on a given story in order to better inform his or her own comprehension, but this method is often considered too time consuming for the general public to engage in on a daily basis. In this way, misconceptions are also perpetuated, by omission, lack of context, and assumptions, by the news organizations and by the consumers themselves.

The most common misconceptions (often bolstered by some news media and even some scholarly articles) are these:

- Globalization is either “good,” or it is “bad.”
- Globalization is primarily about trade, and trade causes peace.
- Globalization is a new phenomenon, and it is truly global.
- Past events are a good blueprint for future predictions.
- Globalization is a one-way street of destructive cultural domination from the west to the rest.

In order to avoid such misconceptions, to rethink them, or even to come up with new and applicable theories responsive to the twenty-first century, it is necessary to think differently about the nature of the international system—that is, as a large, complex, and interconnected system. It is poorly suited to two-poled game theory models and dichotomous constructions. It is, however, well suited to the emerging science of nonlinear dynamics. Let us consider each of these misconceptions in turn, and the conceptual pieces from nonlinear dynamics that can help us consider the reality of the messy international system, rather than creating flat, oversimplified constructions, theories, and models, and attempting to argue their application in a complex world.

“Globalization is either ‘good’ or it is ‘bad.’”

So pervasive is this notion, in the virtual classroom, in the literature, and elsewhere, that it seems that we cannot continue to consider anything else until we have solved this conundrum—and that is what makes it the major question to be answered about globalization. The international system, however, is dynamic, complex, and in a constant state of flux. Globalization is a sort of complex system within that one, with many sub-systemic forces of its own. It is too complex to be labeled either “good” or “bad,” and even if it weren’t, it has no intent or agency of its own by which we may judge its moral character.

For the sake of consideration, however, perhaps we should attempt to qualify it further. Perhaps we could say, “good for trade” and “bad for non-western laborers.” Even these statements require further iterations of qualification, though. Aside from points of comparison (e.g., Better or worse than what?), these normative assessments break down immediately at the first sign of attempted qualification, too. Good for whose trade? In the long term or just the short term? Is the interconnectedness of global markets not also a vulnerability when things aren’t going so well, giving one piece the power to bring down the whole? Bad for which non-western workers? Those who are immigrants working in sweatshops located in the west, or just those who are still in their countries of origin? Bad for each individual worker, or bad for their community, nation-state or region? How is it bad? Is it bad if there are jobs in a poor area where there were no jobs before, even if wages are low by western standards? What if it is a clean industry and doing less environmental damage than, say, clear-cutting rain forests in favor of farmland? Is that still bad?

It is possible that this desire for comfortable dichotomy is part of Cold War international relations theory's two-poled, zero-sum legacy, but the literature of globalization is rife with it, whether the either-or pair is good-bad, corporation-worker, the west-the rest, patriarchal-feminist, old-new, rich-poor, and the list goes on. Certainly, a construct may be simplified to make a point and help guide one's thinking about complex issues. After all, an actual-size roadmap is of no use. However, one that oversimplifies something so complex, claiming it falls into one of two specific, diametrically opposed categories, is at best a blunt instrument.

Additionally, to attempt to resolve a dichotomous pair by saying, "perhaps the answer lies somewhere in between these two points" does not help us either, attractive as it may seem, at least from a conciliatory standpoint. The Golden Mean of the Ancient Greeks does not sharpen that blunt instrument, or our insights. In the immortal words of Stephen Jay Gould, "I strongly reject any conceptual scheme that places our options on a line, and holds that the only alternative to an extreme positions lies somewhere in between them. More fruitful perspectives often require that we step off the line to a site outside the dichotomy" (Gould, 1990, p. 51).

The complex nature of globalization is not so much about the flipsides of conceptual coins, or even their edges, as it is about complex, emergent behavior of entire systems. Stepping off that line is beginning to happen, however. Let us consider some of the key concepts that resolve the perception of globalization as somehow "good" or "bad."

> How do birds keep their movements so orderly, so synchronized? Most people assume that birds play a game of follow-the-leader: the bird at the front of the flock leads, and the others follow. But that's not so. In fact, most bird flocks don't have leaders at all. There is no special "leader bird." Rather, the flock is an example of what some people call "self-organization." Each bird in the flock follows a set of simple rules, reacting to the movements of the birds nearby it. Orderly flock patterns arise from these simple, local interactions. None of the birds has a sense of the overall flock pattern. The bird in front is not a leader in any meaningful sense—it just happens to be there. The flock is organized without an organizer, coordinated without a coordinator.
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> Bird flocks are not the only things that work that way. Ant colonies, highway traffic, market economies, immune systems—in all of these systems, patterns are determined not by some centralized authority but by local interactions among decentralized components. As ants forage for food, their trail patterns are determined not by the dictates of the queen but by local interactions among thousands of worker ants. Patterns of traffic arise from local interactions among individual cars. Macroeconomic patterns arise from local interactions among millions of buyers and sellers. In immune systems, armies of antibodies seek out bacteria in a systematic, coordinated attack—without any "generals" organizing the overall battle plan. (Resnick, 2001, p. 3)

So it is with the phenomena we are considering here. Globalization is not a conscious entity. It doesn't make decisions or direct the behavior we associate with it. The flow of goods and ideas, of human capital, generational change and migration: none of these things has a leader or an organizer. These phenomena and others emerge without direction in the global system in much the same way bird flocks make their ways and traffic jams emerge from the flows of vehicles. Nobody directed that traffic jam to happen, just as nobody directs the Internet or global climate change. This is not such a strange concept, although it is also, for some reason, not quite as intuitive as perhaps it seems it should be.

> Almost everywhere you look these days, there is evidence of decentralization. You can see it every time you pick up a newspaper. On the front page, you might find an article about the shift in corporate organizations away from top-down hierarchies toward decentralized management structures. The science section might carry an article about decentralized models of the mind, or maybe an article about distributed approaches to computing. And in the book review you might read an article suggesting that literary meaning itself is decentralized, always constructed by readers, not imposed by a centralized author.
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> But even as the influence of decentralized ideas grows, there is a deep-seated resistance to such ideas. At some deep level, people seem to have strong attachments to centralized ways of thinking. When people see patterns in the world (like a flock of birds), they often assume that there is some type of centralized control (a leader of the flock). According to this way of thinking, a pattern can exist only if someone (or something) creates and orchestrates the pattern. Everything must have a single cause, an ultimate controlling factor. The continuing resistance to evolutionary theories is an example: many people still insist that someone or something must have explicitly designed the complex, orderly structures that we call Life.
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> This assumption of centralized control, a phenomenon I call the *centralized mindset*, is not just a misconception of the scientifically naïve. It seems to affect the thinking of nearly everyone. Until recently, even scientists assumed that bird flocks must have leaders. It is only in recent years that scientists have revised their theories, asserting that bird flocks are leaderless and self-organized. A similar bias toward centralized theories can be seen throughout the history of science. (Resnick, 2001, pp. 3-4)

The centralized mindset persists, along with an attachment to dichotomy, but we are beginning to let go. This will be discussed in greater detail below. In the meantime, as a complex part of a complex system (the international system itself being such a self-organizing system as the patterns discussed above), globalization is no more "good" or "bad" than a particular weather system or a mammal's endocrine system. It has neither benevolence nor malevolence, nor does it have intent. Nobody is controlling it. It is merely complex.

"Globalization is primarily about trade, and trade causes peace."

By extension, then, globalization is certainly too complex to be primarily about any one of its major components. If it weren't, we would not have had to coin a new term like "globalization" in order discuss it. Certainly, trade is one of the complex sub-systems of globalization—but let us not forget the globalizing of religion, of ideas, of social contact, of human migration, of language, of culture, of advancing technology and telecommunications, of environmental and ecological concerns, and many others.

Interestingly, those who champion globalization as being primarily "good" are often those who believe trade causes peace. The logic works like this: everybody wants to make money and exchange goods and services. Therefore, if one is having a financially fruitful relationship where one and his or her trading partner are mutually making money and exchanging goods and services, both will want that to continue. Therefore, each will be inclined to work at keeping that relationship strong and stable, will share at least that value and probably others, and will be less likely to allow violence to come between them.

That is arguably an admirable sentiment. History, however, does not bear this theoretical prioritizing out, and the lessons of history might even have us label it terribly naïve. There have been many instances throughout history where previously strong trading partners became embroiled in armed conflict. The Delian League, created after the first Peloponnesian War, made much of the Aegean friendly trading partners, and the entire League friends and trading partners with Athens—until Athens, the greatest beneficiary of all this trade and good feeling, started the second Peloponnesian War, during which they were roundly smashed by the Peloponnesian Confederacy, including Sparta, Corinth, Thebes, and others. The *Pax Romana* was largely based on trade and tribute, and still it fell. Early European colonists initially experienced good trade relations with local Native American societies. France and Germany were trading partners before World War I, and even stronger ones between the world wars, at least up until 1939, when Germany invaded Poland. The United States continued to trade with Germany until 1941. These are just a scant few examples of the rich historical tradition of making war on former trading partners.

Even when trading partners enjoy a long period of peaceful trade and never have any significant conflicts with each other, trade truly does not cause peace. Trade and peace are often correlative, but if their relationship is at all causal (however unlikely), it is more likely that peace simply aids the preferable conditions for trade—while that peace lasts. The misconception that trade causes peace is not a new one, either. Often, when some new invention seems to have a stabilizing force and to create more commodious conditions for the exchange of goods and ideas, articles and speeches proliferate that credit trade. Consider this account of how this misconception played out during the Long Peace:

> The long peace that followed the Battle of Waterloo was increasingly explained as the result of the international flow of commodities and ideas. "It is something more than an accident which has turned the attention of mankind to international questions of every description in the same age that established freedom of commerce in the most enlightened nations." So wrote one of the early biographers of Richard Cobden, merchant of Manchester and citizen of the world. Variations of the same idea were shared by Sir Robert Peel, William Gladstone, John Stuart Mill, scores of economists and poets and men of letters, and by England's Prince Consort, Albert the Good. His sponsorship of the Great Exhibition in the new Crystal Palace in London in 1851 popularized the idea that a festival of peace and a trade fair were synonymous. The Crystal Palace was perhaps the world's first peace festival.

> In that palace of glass and iron the locomotives and telegraphic equipment were admired not only as mechanical wonders; they were also messengers of peace and instruments of unity. The telegraph cable laid across the English Channel in 1850 had been welcomed as an underwater cord of friendship. The splicing of the cable that snaked beneath the Atlantic in 1858 was another celebration of brotherhood, and first message tapped across the seabed was a proclamation of peace: "Europe and America are united by telegraphic communication. Glory to God in the Highest, On Earth Peace, Goodwill Towards Men." That cable of peace was soon snapped, and so was unable to convey the news in the following year that France and Austria were at war, or the news in 1861 that the United States was split by war. (Blainey, 1988, pp. 18-19)

Where, then, does the idea that trade causes peace come from? It is likely the result of misread linear statistical analysis. For one thing, linear statistics can make it tempting to project future events based on past ones (a practice which will be challenged in greater detail below). They also lend themselves to a variety of misinterpretations. This is a prevalent problem in international relations theory overall, and indeed, in the social sciences as a whole. It is a fundamental conflation of correlation and causality.

> In the second most prominent fallacy about trends, people correctly identify a genuine directionality, but then fall into the error of assuming that something else moving in the same direction at the same time must be acting as the cause. This error, the conflation of correlation with causality, arises for the obvious reason (once you think about it) that, at any moment, oodles of things must be moving in the same direction (Halley's comet is receding from Earth and my cat is getting more ornery)—and the vast majority of these correlated sequences cannot be casually related. In the classic illustration, a famous statistician once showed a precise correlation between arrests for public drunkenness and the number of Baptist preachers in nineteenth-century America. The correlation is real and intense, but we may assume that the two increases are causally unrelated, and that both arise as consequences of a single different factor: a marked general increase in the American population.
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> …The common error lies in failing to recognize that apparent trends can be generated as by-products, or side consequences, of expansions and contractions in the amount of variation within a system, and not by anything directly moving anywhere. … Thus, if we mistake the growth or shrinkage of an edge for movement of an entire mass, we may devise a backwards explanation. (Gould, 1996, p. 32 – 33)

In other words, trade and peace are correlative—that is, they often travel together. The relationship is not causal, however. Trade does not cause peace, rather, trade and peace are both made possible by political and economic stability, and bolstered by any number of other factors, such as desire for imported goods, a curiosity about other peoples, simply having no interest in conquest at the time, and the like.

Unfortunately, for an area of focus so obsessed with numerical measurement and precision of economic forecasting, many trade theories are disastrously unresponsive to the motion of real-world trade dynamics. Other than critically assessing what linear statistics is really telling us and keeping in mind how correlation can masquerade as causality otherwise, the new theories about trade and economics that *are* responsive to real-world dynamics are those that embrace the complexity of the system rather than trying to pare it down to simplified components. Consider, for example, an account of how complexity theory contributes to economics.

> Conventional economics, the kind he'd been taught in school, was about as far from this vision of complexity as you could imagine. Theoretical economists endlessly talked about the stability of the marketplace, and the balance of supply and demand. They transcribed the concept into mathematical equations and proved theorems about it. They accepted the gospel according to Adam Smith as the foundation for a kind of state religion. But when it came to instability and change in the economy—well, they seemed to find the very idea disturbing, something they'd just as soon not talk about.
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> But Arthur embraced instability. Look out the window, he'd told his colleagues. Like it or not, the marketplace isn't stable. The *world* isn't stable. It's full of evolution, upheaval, and surprise. Economics had to take that ferment into account. And now he believed he'd found the way to do that, using a principle known as "increasing returns"—or in the King James translation, "To them that hath shall be given." Why had high-tech companies scrambled to locate in the Silicon Valley area around Stanford instead of in Ann Arbor or Berkeley? Because a lot of older high-tech companies were already there. Them that has gets. Why did the VHS video system run away with the market, even though Beta was technically a little bit better? Because a few more people happened to buy VHS systems early on, which led to more VHS movies in the video stores, which led to still more people buying VHS players, and so on. Them that has gets. (Waldrop, 1992, p. 17)

This is just one example of an economic idea previously considered counter-intuitive that turns out to have a great deal of real-world application. It is only counter-intuitive, however, because it runs counter to assumptions about the nature of economics and of the global economic system. It is far easier to discard new theories that don't fit with the current mindset than it is to rethink the assumptions of a field of endeavor. The new thing, the smaller thing, is ignored in favor of the larger body of comfortable existing ideas, even if they are rapidly losing what explanatory power they may have had in a more simplistically viewed global system. In this way, increasing returns plays out ironically. Them that has gets, even in the way that the more widely prevalent model doesn't fit the reality of the strange, emergent world order.

"Globalization is a new phenomenon, and it is truly global."

While the world does seem to be getting "smaller" and more interconnected in some places, it can only do that where the proper infrastructure exists. Is the world getting "smaller" in Sierra Leone, for example? The average person there does not, for example, have an Internet connection. It is possible there is a satellite television somewhere nearby, but not in everyone's home. Goods are not available with the ease they are in the industrialized world—nor is a broad range of communication, or easy mobility of people or capital, for that matter. If globalization does not reach all over the globe, perhaps it cannot be considered truly global—at least not in a uniform, all-encompassing way (and the lack of homogeneity in and across cultures is very important to consider, as we shall see below). By the same token, there is also no reason to think that the phenomena of globalization will continue where there is no infrastructure to support the means of their spreading. Uniformity is thwarted by too-broadly differing conditions in which people make their lives.

Further, the assumption about the developing world—that it will develop infrastructure, technology, and financial and social systems in much the same way that the industrialized nations have (just some years behind)—is very strange indeed once examined closely. Consider, for example, that in many parts of the developing world, one can get an excellent cellular telephone signal. Much of the African continent was never wired for telephone land lines, and as a result, bypassed that quickly-obsolescing technology completely. Why would any African government, NGO, or telecommunications organization implement such a technology, when the newer technology is readily available, more practical, and a great deal less expensive? The developing world need not, and should not, follow along the western trajectory, especially while creating any technological or communications infrastructure. Where infrastructure does not exist at all, the globalizing forces that use that infrastructure cannot reach (just as a train cannot travel where there is no track), and where it is being built, it may well take on a completely different character than what the western world imagines. Different cultures with different experiences create their futures differently, not homogenously, along the same linear track.

It is also important to note that people have been traveling, trading, sharing technology and culture and ideas, and conquering each other, for as long as there have been humans. Nor did globalization begin with the European age of discovery, or with Greek and Roman trade routes, or with China’s Silk Road. While we lack surviving written records of every contact or conquest, we do have an archaeological record that puts various peoples’ travels at various points in the human timeline. Conquest, the exploitation of others' resources, battle, hunting to extinction, climate change, and all the things we may think of as being more negative about how humans interact with each other and their environment on a global scale, have been going on for thousands upon thousands of years. (For a particularly good discussion of many of these meetings and impacts, see Diamond’s (2005) *Guns Germs and Steel: The Fates of Human Societies*.) The primary difference in what we are observing today and what has been happening throughout history is that these days, it is simply happening at greater speed (facilitated by ever-progressing technology), and with a larger swath of the overall human population participating at once.

“Past events are a good blueprint for future predictions.”

While considering past experience is useful for analyzing present situations and how they unfolded, the past is not particularly helpful in predicting the future. For one thing, hindsight often gives us a sense of inevitability that we then project onto future events. It is easy, in hindsight, to see a chain of events as it unfolded and assume it was inevitable. However, simply because we have arrived here does not mean it was somehow meant to be, or that progress to this point came as a single, straight, unidirectional arrow. Let us return to Gould for an excellent example of how our perceptions in hindsight make the continuation of trends look inevitable. In discussing the evolution of horses, he remarks,

> The lineage of *Hyracotherium* to *Equus* represents only one pathway through a very elaborate bush of evolution that waxed and waned in a remarkably complex pattern through the last 55 million years. This particular pathway cannot be interpreted as a summary of the bush; or as an epitome of the larger story; or, in any legitimate sense, as a central tendency in equine evolution. …
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> We therefore arrive at my favorite subject of ladders versus bushes, or … individual pathways chosen with prejudice versus entire systems (full houses) and their complete variation. … Evolution rarely proceeds by the transformation of a single population from one stage to the next. Such an evolutionary style, technically called *anagenesis*, would permit a ladder, a chain, or some similar metaphor of linearity to serve as a proper icon of change. Instead, evolution proceeds by an elaborate and complex series of branching events, or episodes of speciation (technically called *cladogenesis*, or branch-making). A trend is not a march along a path, but a complex series of transfers, or side steps from one event of speciation to another. The evolutionary bush of horses includes many terminal tips, and each leads back to *Hyracotherium* through a labyrinth of branching events. No route to *Hyracotherium* is straight, and none of the labyrinthine paths has any special claim to centrality. … We run a steamroller right over a fascinatingly complex terrain when we follow the iconographic convention for displaying the pathway from *Hyracotherium* to *Equus* as a straight line. (Gould, 1996, p. 61 – 63)

The same can be said of the evolution of this emerging global system, and our interpretation of inevitability about a great many things. Any number of things *could* have happened in the complex, self-organizing international system, and looking backward down the pathway of things that *did* happen does not make those things inevitable, or even necessarily likely, in any way. Furthermore, knowing this should serve to educate us all as to how likely we are truly to know what is coming next. If we cannot consistently and accurately predict the weather more than five or so days out, predictions about the global polis are at least as problematic (and just as inevitable). Any branching or sidestep may be next. Since there was no inevitable straight line to this moment in history, we certainly should not assume that the timeline between this moment and the one from which we may later look back upon it will be a straight and predictable line either, or a pat and perfect stage, merely because we can see, in retrospect, the path we took to get here. We cannot accurately assume inevitability.

Gould also mentions in *Wonderful Life* (1990), a sort of prequel to *Full House*, that rewinding and “replaying life’s tape” of the evolution of life on earth would not likely yield the same results—too many random things come into play along the branching, forking “bush” of human experience. For example, if a particular creature had not survived a mass extinction when an underwater layer of sediment collapsed upon its contemporaries, chordates and vertebrates might have evolved very differently, or not at all. If other contemporaries had survived instead, the basis for later generations of life would have been entirely different as well. Creatures evolve as they do because of a mixture of natural selection, geography, luck, and many other factors. With one minor change in any of them, the evolutionary story of a particular family of creatures becomes entirely different. With life and ecosystems and natural populations being so closely intertwined, if any are different, all is different.

So it is with globalization in particular, and human cultures and populations in general. Had the invading Normans not had stirrups on their horses' saddles at the Battle of Hastings in 1066, they would not have had the great tactical advantage of being able to fight from horseback, and might not have won. English might then have remained a phonetic Germanic language, rather than being heavily influenced by French at that time. English today might be much more easily spelled, pronounced and learned, but for the stirrup. One tiny, unaccounted-for piece of hardware thwarted inevitability and altered forever the evolution of a linguistic system.

At the time, the English considered their victory over the Normans inevitable: they outnumbered their foe and fought for their way of life on their own ground. So it is with many major turning points of history. We see it even today. The world was a changed place on September 12, 2001, yet nothing was inevitable about the changes precipitated by the previous day's attacks. Initially, Americans came together in solidarity, and much of the world mourned with them. What if the US had continued along that course of unity instead of pursuing a series of fearful and destructive polices at home and elsewhere? The invasion of Iraq certainly was not inevitable. It was not even connected to the terrible events of September 11, except by specious argument.

Like looking back from the horse to its early ancestors, many things look inevitable in retrospect from where we stand, but we must not confuse a retrospective straight shot that omits the many branchings and missteps and decisions along the way as inevitability. Were we to rewind and replay history's tape, events could unfold entirely differently, depending on human perceptions, decisions, and random factors. We could not have known then what would come to be. That being said, perhaps we should not look forward and assume we are ever on some sort of historical straight path to inevitability, rather than on a branching fork of our story, or a misstep or false start of some kind. The world changes suddenly and we cannot account for it. Consider the aforementioned generation of international relations scholars, training to understand a pre-Cold War multipolar international system, or the myriad dissertations being written in 1989 about Cold War politics when the Berlin Wall came down, changing everything. The human experience is not inevitable, whether looking backward or forward.

"Globalization is a one-way street of destructive cultural domination from the west to the rest."

As with forensic science and physical evidence, every contact leaves a trace. The flow of cultural impacts, goods and services, communications, and socialization move in many directions, not just one. Globalization is more mutual than that, with the goods, attitudes, and news of other cultures welcomed in, and permeating, everyday western and non-western lives alike. We in the west can get mangoes (the most popular fruit in many parts of the world, but not in the US) in the supermarket all year 'round. We can get hummus, and sushi, and cheap electronics, and thousands of other imports we use throughout our daily lives, with the same ease and convenience with which we get a carton of milk or loaf of bread. Most major US cities have restaurants featuring the ethnic foods of scores of other countries. One can have Ethiopian food one night and Pho the next. Japanese anime and manga interest artists and fans all over the world. Bits of culture flow in many different directions, with the west on the receiving end, too. Cultural exchange, and indeed acceptance, if not embracing, of it, is nowhere near unidirectional.

With regard to cultural impact and change, we have a word for cultures that do not change anymore, that are not dynamic but static, that are preserved perfectly in time, in museums, and in books and artifacts: dead. Cultures change over time, and with generations and historical forces—today's cultural changes make up tomorrow's cohesive culture. Cultures die, not when they change to reflect the new attitudes, interests and lifestyles of their people (particularly the next generation, who will carry the culture forward), but when they stagnate and become frozen in time and context, and are no longer lived out in the everyday lives of the people themselves.

Additionally, it is important to note that American and other western businesses that do well in other parts of the world are those that adapt to local tastes and sensibilities. Some westerners who go abroad certainly take notice of this practice. As one student in an online section of the aforementioned globalization course noted,

> I did go into a McDonalds' in Singapore once looking for a vegeburger and thinking I might find it in an Asian McDonald's. I was wrong. They didn't have soy burgers but they did have more than one type of fish sandwich and their buns were made from rice and not wheat. There were other changes on the menu that reflected the tastes of the location. But at the same time, there was no question in my mind that I was in an American fast food restaurant. In my opinion, McDonald's is McDonald's no matter where you go.
>
> But even so, I don't think that because American fast food is all over the world it means the people are becoming Americanized any more than it means I am becoming Swedish if I go to IKEA. (F. Birchall, personal communication, April 7, 2009)

With this clever comment, an interesting thing happened. Other students chimed in, mentioning their liking for IKEA, some adding that they would like to see IKEA stores in their locations. It is unclear what makes members of the general public, graduate students, and professional scholars alike think this is not precisely what happens all over the world: "I like McDonald's. We should get one here." McDonald's (and similar corporate entities, of course) thrives in other places because the people there like it. They spend their money there, and the business becomes successful. It does not make the people, or by extension, their culture, American, and they are also perfectly capable of determining whether or not they care to frequent the novel franchise or continue to go to the local restaurants to which they are accustomed. Frankly, it is far more disrespectful of people in other parts of the world to imply they are incapable of making their own consumer decisions than it is for American companies and multinationals to offer local consumers novel options with which westerners might not agree. As noted before, this is not to say that globalization, or large corporations, or trade, are "good." It is simply to say that the ultimate act of disrespect toward people in other parts of the world (developing and otherwise) is to take away their own choices about their own habits and preferences, particularly in assuming they should not be offered those choices because they will not understand what the proper things for them to do with those choices are with regard to their own cultures.

Additionally, living cultures are not uniform, even those altered by deliberate conquest. Traditions, languages, sensibilities and tastes survive. Different people in different parts of the same country eat different foods, celebrate holidays differently, have different dialects, and identify themselves by region, or town, or even family or neighborhood—not just by country. Consider the United States. Even leaving aside its diverse immigrant and ethnic populations, someone who works a farm in rural Wyoming is living in a rather different culture from someone who works in the high-tech industry around Boston, and both of them would likely feel out of place in Los Angeles or Tallahassee, perhaps even for different reasons. This is also the case in countries around the world: cultures are shaped by the people who live in them, and their ways of life, interests, and preferences, of which there may be dozens, scores, or hundreds in a single country or region. In India, for example, most people speak Hindi, as well as additional separate languages of their regions or states, not to mention different foreign languages. India is incredibly diverse. Any Indian would find the idea that their culture is somehow uniform patently absurd.

How, then, would it be possible to make a nation or region that is composed of very diverse eddies of cultures, even within itself, suddenly become homogenous with an outside one? Even if it were done on purpose, each culture would have to be induced in its own special way—which already precludes true homogenization. People and their cultures are not homogenous, even when they all prefer similar things or do certain things in similar ways. They are complex, and another culture cannot be dropped into place around them and suddenly take over completely. People will still choose the things they prefer. Cultures and people are not homogenous from within. They cannot be made so from without.

The Nature of Saturation Points and Systemic Equilibrium

Finally, phenomena do reach their saturation points, from biological populations to the motion of catamarans to absorption of cultural values. When one spills a glass of milk, the spill can only spread so far. Then it must stop spreading, reaching a new state of equilibrium as a puddle, contained by such factors as volume and surface tension. It will then begin to contract again, with evaporation. It does not continue to spread *ad infinitum* until it is shallower than a molecule thick, and then spread itself upon the breeze, contaminating all it contacts with lactose. It reaches a saturation point in its motion, it can go no further, and it stops. A forest fire can only spread as far as it has fuel to consume, which is why the technique of starting a backfire works: firefighters start a smaller fire in front of an advancing forest fire, effectively removing any fuel and stopping the larger fire. Even without a backfire, a fire stops when it runs out of fuel, cannot make the leap from one source of fuel to another because of distance, or when it has saturated its area, and it too begins to recede. Nothing spreads indefinitely—not milk, not fire, not cultural domination—everything has a saturation point.

What happens to a more complex system when it reaches a saturation point, then? Other factors in the system, which were present all along, often come to the fore, and if the system is stable or contained enough, will usually nudge it back toward equilibrium. Take for example the catamaran. The additional hull is a hedge against the boat tipping over. The higher it lifts up out of the water, the stronger the gravitational pull back down. It is not merely a matter of, “what goes up must come down,” but of the “going up” part of the system actively setting the “coming down” into motion, and indeed, feeding it.

Let us consider a slightly more complex system—a biological one, composed of foxes, rabbits, and lettuce. (For a more detailed discussion of modeling behaviors of complex biological systems, see Gleick, 2008, beginning on p. 70.) When the lettuce has a good year, perhaps producing a bumper crop, the rabbits feeding on it also dramatically increase in population and vitality. The foxes have a rough year trying to catch all the strong, fast rabbits. When the foxes have too rough a year, though, there aren't enough foxes to cull the growing rabbit population—particularly the sick and aging ones, as they are easiest to catch. The quality of the rabbit population suffers for not being culled, and the next year's lettuce population cannot support the growing, hungry rabbit population. The rabbits begin to die off. With the rabbits weakened by hunger, age and other problems, the foxes begin to have an easier time catching them, and the foxes have a much better year. Additionally, with an increased mortality rate among rabbits, and therefore more rabbit carcasses, the soil is better fertilized, bringing the lettuce population much-needed nutrients, particularly after the population had been decimated. The following year, the lettuce has a comeback.

The cycle may not necessarily repeat itself in the same way, or even at all, but the change in each population affects the others, and approaching saturation points bring the system back toward equilibrium. Once the rabbits are doing well, they do not then take over the entire ecological niche, making it homogenously all-rabbit. For one thing, the population would die off without the lettuce to feed upon and the foxes to keep the populations and systems in functional equilibrium—and long before the population could become all-rabbit. Rather, that population reaches toward equilibrium, in balance with the lettuce and fox population. A system out of balance often reaches toward a new equilibrium, even if it never quite reaches a steady state.

So it is with culture. People stop consuming when they stop being interested, or they have had enough, or they do not appreciate a particular extra-cultural influence that they see as invasive or destructive—they resist. They resist relinquishing the things they deem more important than novelty, much like the companion hull of a catamaran resists being airborne, driven back to its point of preferred equilibrium by the very motion of novelty itself. People are pulled back to the familiar things they value like gravity pulls the hull.

Sometimes they choose things they consider improvements, creating a new equilibrium, but that doesn't necessarily harm the larger culture either. For example, if the author were to start pasta dough in a food processor rather than as a pile of flour on a noodle board as some of her immediate ancestors have, that does not mean she has rejected the more traditional technology completely, or that she never uses it anymore, or that she will never teach it to anyone else. It may simply mean that she is running short of time this evening, or that the thought of getting flour under her fingernails today is unappealing. The culture of pasta making, or of her ancestors immigrated from northern Italy, is not dead simply because one small aspect of it now has the option of being slightly more convenient (or, in this case, is perceived as having been improved upon). Further, those recent ancestors would likely have used food processors sometimes, too, if they had had them. The essential cultural value in this case is in taking time to make good food, and then enjoying the good food with others. Shaving the first fifteen minutes off the much longer process doesn't hurt the result, or the larger cultural value. It simply keeps the flour out from under one's fingernails, and perhaps allows one time to start an after-dinner granita, or make a phone call inviting one more loved one to dinner.

Similarly, people do not swallow trends and products as whole cultures. Once everyone has an iPod who wants one, the consumer “trend” does not continue until every single pocket in every single country around the world has an iPod in it (although even then, we would eventually run out of pockets, which are, after all, a finite commodity). When the novelty of a new McDonald’s wears thin, people lose interest, stop going, and business drops off. One side of the catamaran lifts, and is pulled back down by gravity. It does not continue to lift until it takes flight. Cultures reach saturation points with new ideas and influences, which they ultimately adopt or reject, not wholesale, but in segments, communities, and as individuals. Cultures do not become uniformly something else because of outside products or ideas.

Analytical Method: A Suggestion

As it happens, and as has been hinted at throughout this article, the field of nonlinear dynamics offers a number of ways to think about saturation points in biological, mechanical and social systems. We have already been considering some examples throughout, from self-organization and increasing returns to thinking about cultural contact more as a truly global complex system than as a unidirectional line. This is also the true challenge of twenty-first century thought in international relations: shedding the linear mindset that is the legacy of Cold War dichotomous thinking, and instead using intellectual tools that illuminate the nature and dynamics of real-world complex behavior. Now let us consider an example of the behavior of systems and saturation points that we could use to analyze the cultural ones we have been discussing.

There are a number of ways to investigate the motion of saturation in systems such as the global polis. Natural systems, including those based on natural behaviors such as human behavior, behave remarkably similarly to each other—so much so, in fact, that we can take any of the metaphorical examples we have discussed here (bird flocks, traffic jams, forest fires, spilled milk, mammalian endocrine systems, evolution of horses, weather, biological populations, catamarans, market trends, and so on), operationalize them, and gain some insight about their shared nature—and by extension, of globalization, which also shares those similar qualities. How would we go about that, though—how would we even begin?

The common thread in understanding all the various kinds of systems mentioned is in leaving behind the “centralized mindset” discussed earlier, in favor of thinking about self-organizing behavior, as these are all self-organizing systems. Nobody directs any of these things, just as, as previously mentioned, nobody directs the Internet or the antibodies protecting a body from illness. That is the very essence of thinking differently about the nature of global interactions and culture. Nobody directs the weather, or the lettuce-rabbit-fox ecosystem, or the evolutionary path of horses. They are all self-organizing systems, as is globalization itself.

One good way to investigate self-organizing systems is with agent-based modeling. Agent-based modeling uses very simple computer programs to model behavior. The user has a few programmable pieces with which to simulate what can become some very complex behavior: the “agent” or creature, such ants seeking food and letting other ants know where to find the food; the movable objects the creatures act upon, such as the food; and the background, which can be divided into cells that also have their own behavior.

Let us take our example of the forest fire. In his delightful and succinct book *Turtles, Termites, and Traffic Jams*, about decentralized behavior and modeling it with an agent-based modeling tool called StarLogo, Mitchel Resnick specifically considers how to model a forest fire and its fuel saturation. (The book is an excellent introduction to StarLogo, and to agent-based modeling in general.) Using StarLogo and a handful of very brief commands, Resnick programs some patches to be trees and others to be empty. In this way, he investigates how close together the trees have to be (the density of available fuel) for the forest fire to burn from one end to the other. Resnick tells us,

> When the program starts, there is a neat line of red fire on the left edge of the screen. Then the fire spreads from tree to tree. In some places, the fire quickly reaches a dead end, surrounded by empty space. In other places, the fire continues to spread from tree to tree. Overall, the fire paths form fractal-like patterns on the screen. (Resnick, 2001, p. 106)

He is suggesting the nonlinear nature of this system—no surprises there. What insight Resnick does gain about the nature of fuel density and fire saturation is that the fire needs an extreme tree density in order to consume the forest entirely, and still a surprisingly large amount just for the fire to make it from one side of the forest to the other.

What we're most interested in, of course, is the behavior of the system. It doesn't matter if we're talking about a fire consuming trees or an outside culture subsuming others—we want to know about spread and saturation. Whether we're considering trees or individual members of a culture, the spread of fire or cultural products and ideas, spots where there is no tree fuel and fire cannot spread or spots where there is no interest in outside cultural products and ideas and those cannot spread. We would model the behavior in much the same way.

What we may take from Resnick's behavioral study is that, in order for an outside cultural value, or a trend, or a desire for a particular brand of hamburger, to spread so that it consumes a whole culture, the density of fuel—in this case active consumers—is the key. Those consumers must have a considerable density indeed. With Resnick's tree density, even at fifty-five percent, with more than half the forest area being trees, the fire *never once* made it all the way across the screen. Until the density reached a much greater extreme, the fire was never guaranteed to burn its way across the entire forest, but the odds got significantly better after a threshold of sixty-three percent was reached. Still, the fire did not consume the whole at that density.

This suggests that the conditions necessary for the consuming of an entire culture—never mind every one of the cultures of an entire planet—has to do with the density of individuals interested in adopting the outside culture. If that density is not critical, the outside idea or product or value does not catch on, and it is very difficult indeed for the entire culture to be altered, except in the most extreme of circumstances, just as it is difficult for the fire to get enough fuel to prolong its trajectory to the other side of the forest.

It is in this sense that the previously-discussed misconception of homogeneity is so very important, for cultural density is not merely population, but the active members of a particular part of a particular society. They must be homogenous enough for a specific outside idea, product, value, or the like to have enough appeal to spread from one individual to another, and they must be of close enough cultural proximity that the spread can happen—that individuals can introduce that idea, product, or value to each other. If the members of the culture are disparate enough in their own interests and ideas (and, as we have seen, they are), very little will appeal to enough of them that that critical density can be reached. Similarly, if they communicate infrequently with each other, or live in isolated communities (and, as we have seen, many do), that critical density will also not likely be reached.

If we're looking for specific densities necessary for cultural conquest, we may consider the forest fire model as a rough analog. More than half of the members of the existing culture, then, would need to have contiguous access to each other and similar enough tastes for the outside piece of culture to catch on at all, but it still wouldn't catch on through the entire culture. Nearly two-thirds of the contiguous, actively interested existing culture would have to accept the outside piece and pass it on for it to spread through the existing culture—and it still wouldn't subsume the whole. In other words, the study of the behavior suggests that complete subsuming of hundreds of disparate cultures, the vast majority of which are nowhere near each other conceptually or physically, ultimately fails. This is because the cultural acceptance of enough aspects of the outside culture never reaches that critical density that would allow it to subsume others. The world is simply not culturally homogenous or contiguous enough for it to work.

Conclusion

Although many misconceptions exist when considering the complex forces that make up the phenomenon of globalization, the right theoretical tools are a great help in rethinking those misconceptions. The insights we glean from using theoretical tools capable of describing and explaining such complex phenomena are the ones that will help us build useful theory in twenty-first century international relations.

As a start, we can reject constructions relying on dichotomy or dichotomous values, and those that assign moral judgments to self-organizing complex systems. A complex system is merely complex, and unable to be funneled into dichotomies, or to live up to moral judgments as if it were a conscious, decision-making agent. We can use our common sense to ask questions of our scholars and our media to determine what might be missing from their accounts. We can be aware of the temptations to confuse correlation and causality, and to view events in hindsight as an inevitable straight shot, and not succumb to those temptations. We can seek to understand globalized responses to western culture on other peoples' own terms, and understand our own cultures and theirs better for it.

Finally, the west's, and specifically the US's, culture cannot and will not dominate all others. Certain aspects of it will reach an interest saturation point among particular members of particular cultures, based on their own individual interests and values—or perhaps they have already—and stop spreading. Places without the infrastructure to support the components of other spreading cultures are already as saturated as they will be, at least for the foreseeable future. There is also nothing inevitable about the spread of cultures and their values, about the multiple complex phenomena of globalization, or about complex systems in general. The lack of inevitability, however, together with the fact that nobody is directing these phenomena, suggest that globalization is what we make of it, both in our practices, and conceptually—and that the more interconnected we all become, the more powerful and impactful our individual choices are in shaping the global cultural future.

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A Multi-Party Imaginary Dialogue about Power and Cybernetics

Phillip Guddemi[1]

Abstract: This paper is written as a multi-sided dialogue intended to present a number of ideas about power. Some of these ideas are my own, expressed in a kind of evolutionary idiom of adaptation though they were partly developed in reaction to Foucault (and are far more indebted to Foucault and cybernetics than to contemporary evolutionist thinking). There is a deep irony in that my way of thinking is primarily rooted in the cybernetic anthropology of Gregory Bateson; however, he was deeply skeptical of the concept of power. My personification of him in this dialogue, as "Bateson," demonstrates this skepticism and brings into the discussion other relevant ideas of his. The third participant in the dialogue, Mary Midgley, is included because her consideration of Hobbes' ideas leads us to consider yet another, probabilistic, way of thinking about power.

Keywords: Adaptation, epistemology, power

The following is a multi-sided dialogue[2] *imagined as being between various persons who have been and remain influential within my own evolving thought about power. My ideas have roots in the cybernetic anthropology of Gregory Bateson; however, he was deeply skeptical of the concept of power. My personification of him in this dialogue, as "Bateson," demonstrates this skepticism and brings into the discussion other relevant ideas of his. In counterpoint to his views (which can be documented as his or as having been prefigured by his), my own persona in this dialogue articulates evolving aspects of my own thought which relate to concepts of competition, status, and risk. The only other participant is Mary Midgley who brings into the discussion her unique perspective on the political thought of Hobbes.*

Bateson: Not everyone feels that the concept of "power" needs re-examination. Most people, perhaps, are fairly satisfied with it, and not merely in the "political" sphere. I got very discontented with the way certain people were using the concept of power in the family therapy business. For example Jay Haley, the family therapist who was a coauthor with me of a paper about schizophrenia, used to postulate that every participant in a family system was engaged in a struggle for "power."[3] And the entire movement which calls itself "neuro-linguistic

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[1] Phillip Guddemi was an undergraduate student of Gregory Bateson's at the University of California, Santa Cruz in the middle 1970s. He has published a number of peer reviewed articles dealing with Gregory Bateson's work. He is also an anthropologist who has worked in Papua New Guinea and Macedonia; and he is currently Vice President for Membership at the American Society for Cybernetics, as well as being Managing Editor of the journal, *Cybernetics and Human Knowing*. Email: pguddemi@well.com.

[2] *Editor's note:* In formatting this essay, we employed a hybrid of the journal's traditional use of APA style and footnoted citations to accommodate the nature of the material.

[3] The disagreement between the two collaborators is discussed from Haley's point of view in Haley (1979).

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programming" seems to be based on ideas of power and control. I stopped sending people to study Milton Erickson's techniques of hypnosis after finding out that they so often seemed to come back "craving for power."[4]

It's ironic that Norbert Weiner called cybernetics the study of *control* and communication.[5] Because if cybernetics teaches anything, it is that our control, over what we like to call our "environment," is radically limited. Each of us is only *part* of whatever system it is we are participating in.

There is a certain scientific *hubris* about control which I reacted against. It goes with ideas of linear cause. We find the cause and we can obtain the effect, assuming that the effect is something that we want. Effects we don't want we call "side effects" or "unintended consequences," and then we work on minimizing those. But they are precisely what we don't want to think about, so we don't, until we have to. Therefore we are always running faster and faster to mitigate the effects of our previous interventions. The world is always falsifying our simplified versions of it, but we simplify because it is the only way to "get things done."

So what we think of as our control over the world, and over others, is always limited. But over and above that, "power" has problems as an explanatory principle. I had always warned against "power" as well as "energy" as being quantitative metaphors about qualitative things, not applicable to the world I call "creatura," the world of biology and communication that operates on cybernetic principles rather than according to billiard-ball physics. And of course power has a meaning in that world, as does energy—and in our veneration of physics, which comes from our success (or apparent success) in controlling our physical world, we naturally apply ideas from physics to living systems in ways that don't make sense. With energy, for example, we have psychic energy, which to me is a false metaphor for that reason. Similarly we have Freud's hydraulic system of the self—maybe that's been largely forgotten these days, good riddance, though there was a lot else in Freud that's been thrown out with the bathwater…

There is another point about power, which is that you are always yourself autonomous, or as Maturana and Varela put it, autopoietic. Or as I often put it, your energy comes from your own breakfast. If you kick a ball, the energy of the ball is transferred from your foot to the ball, but if you kick a dog, the dog just might bite you back, because the dog has its own source of energy, which we call its metabolism. It is autonomous in that sense.[6] Foucault, who has been cited in the service of a lot of nonsense using the word power, actually said that power is always a relation between beings (people, but I think his analysis works for animals too) who are mutually autonomous in this way. He calls it "action upon the action of others,"[7] but what this means is that you as the less powerful one are still responsible for your own actions, and the more powerful people are there in your environment and you are making choices about how to deal with them. But see, the opposite is true too—you are in their environment, and they are making choices as to how to deal with you. There is no unilineal power.

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[4] Bateson's criticism of students he sent to see Milton Erickson can be found in an unpublished interview with Bradford Keeney, quoted and cited (pp. 224-225) in Erickson, Takeuchi, and Gilligan (2002).

[5] Weiner (1948/1961)

[6] See Bateson (1979, pp. 112-113).

[7] Foucault (1982, p. 428).

Near the end of my life, I set a challenge to cybernetic thinkers of the future. I did this in a little-known conference devoted to what it means to be a "power broker." It was a conference about an urban planner in New York named Robert Moses, but really, my thoughts were not specific to him. I challenged that conference to "try to spell out in terms of patterns of interaction in real time what the metaphor 'power' really denotes – a re-examination of the basic premises of political science in the light of cybernetics."[8]

Phillip: So let me try to take up this challenge, as I have done in a 2004 conference in Copenhagen,[9] in an article for *Cybernetics and Human Knowing*,[10] and in a recent presentation for the systems theorists on Foucault.[11]

Put in an evolutionary frame, the key idea I want to develop is very simple. All organisms live in and adapt to an environment. For social animals, among the most important constituents of that environment are other animals of the same species. Power, or if you like, social power, comes from this simple picture. We say that A has power over B if B is adapting to A more than A is adapting to B. Really I don't know why this formulation has not come about sooner.

I suspect the reason it hasn't is that conventional theories of power seem to look at it from the agency of the power-wielder. Power is seen as some faculty or property or quality inherent in an agent, which enables that agent to *do* things. And indeed what we call power-to can be seen as something which is the *capacity* of an agent. However, I find that power-over, or social power, can more fruitfully be seen from the point of view of the adapting person (or organism), the one who is "underneath." This transformation is similar to that in reader-response theories of authorship, and it can be shown to be inherent in second-order cybernetics and in constructivism.

It turns out that power, which is a heterogeneous thing when it is looked at from the perspective of "what sorts of things make the powerful powerful," finds a kind of conceptual unity if it is seen instead as that to which the less powerful *adapt*. This adaptation can be unconscious or automatic or it can be quite conscious and strategic. Adaptation in this kind always is done by an *autonomous* agent of the type which Bateson talked about, and indeed Foucault made a similar point.[12] And since we are always adapting to each other, we are by this definition or conception also always exerting power over each other—a concept which fits well with a kind of Foucaultian capillary concept of power. But clearly some people exert more power over others than others do, and we can see this as similar to gravity. Gravity is a force exerted by all matter on all other matter, but depending on the mass of the objects, the gravitational pull of A on B may far exceed the gravitational pull of B on A. So why not the same for power? The power of A over B exists to the extent that B's adaptation to A is more than A's adaptation to B.

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[8] Bateson (1974, p. 26)

[9] Copenhagen Bateson Symposium 2005, sponsored by the University of Copenhagen's Priority Area for Religion in the 21st Century.

[10] Guddemi (2006)

[11] Guddemi (2008)

[12] Foucault's point:

> Power is exercised only over free subjects, and only insofar as they are free. By this we mean individual or collective subjects who are faced with a field of possibilities in which several ways of behaving, several reactions and diverse comportments, may be realized. Where the determining factors saturate the whole, there is no relationship of power; slavery is not a power relationship when man is in chains. (In this case it is a question of a physical relationship of constraint.). (Foucault 1982, p. 428)

Bateson: But what is this "more than"? Such a concept of power imposes a quantitative metric on phenomena that are not always quantitative. Ever since the triumph of quantitative science we have lost the knack of looking at patterns.

Power in this sense is a human construction rather like money. These are unbiological ideas, and they distort our experience as biological organisms. In the world of biology it is not true that more is better. It is a world of optimizing not maximizing. You have to have just the right amount of hormone in the right place in the developing body, not too little, not too much. The same with other quantitative things—as I wrote, protein, oxygen, sex, warmth, entertainment, water, air[13] —maybe even money. Or "power."

But money is something of which we assume that the more we have of it the better off we are. And we make the same assumption about power. These are cultural assumptions and they are among the precise ones which are helping us destroy the planet.

Here is another example of a related construction, which we have now imposed on the helpless brute animals: "dominance." We have this whole idea that social mammals impose on each other a rank order such as our own societies have had. But this is now being challenged by some of the primatologists themselves. Bruno Latour has mentioned in his work[14] the baboon studies of Shirley Strum, who demonstrated a new way of looking at baboons, male baboons no less. She simply denies that they have a dominance hierarchy, certainly not one based on aggression.[15] Instead, like us baboons use social skill, reciprocity, and cooperation, though aggression is part of the mix as well. And no one should be surprised at this, but we are. Because we have a protocol to place baboons in a "dominance" rank order, and because this protocol works for us (in ways which provide a kind of self-confirmation), we assume that the protocol describes what the baboons are doing, but Shirley Strum says no.[16]

Mary Midgley: I believe our culture's concept of power can be seen in Hobbes, the 17th Century political thinker. "So that in the first place, I put for a general inclination of all Mankind, a perpetual and restless desire for power after power, that ceaseth only in Death. And the cause of this is not always that a man hopes for a more intensive delight than he has already attained to: or that he cannot be content with a moderate power: but because he cannot assure the power and means to live well, which he hath present, without the acquisition of more (Hobbes, *Leviathan*, Pt. 1, Ch. 11)."[17]

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[13] Bateson (1974, p. 27)

[14] Latour (2005, p. 69)

[15] Strum (1987, p. 157) cited in Latour, above.

[16] Strum's skepticism about dominance order in primates was prefigured, in my opinion, by Bateson's skepticism about transitive order in biological systems generally. With respect to human power relations he reiterated this skepticism in his 1974 draft paper, *op cit.*, pp. 26-27.

[17] Midgley (1978, p. 8)

Marshall Sahlins has recently argued that this is “the Western illusion of human nature.” And he makes a good case that it is a longstanding folk belief going back to Thucydides and even earlier, that we are innately competitive and avaricious. He doesn’t see other cultures as having made this assumption, or having come to this conclusion.[18]

But I am interested in the Hobbes quote because of the way he shows power to be an insurance.[19] In our societies we amass money and power because we want them to buffer things that might happen to us later. This is how the desire for money and power becomes boundless.

We can distinguish the desire for enough, from the desire always to be certain of having enough. Recent work on happiness shows that it increases along with income up to a certain point, and then after that point there is far less correlation between income and reported happiness.[20] We can think of that point as the “enough” point of any particular society. Hunter-gatherers, as another example, when they supplement their subsistence style with working for pay, will often work just as much as necessary to get what they want, and then they will stop, with little to induce them back to work. It takes a social transformation for them to feel that they need more.[21]

But this is exactly what Hobbes is saying with respect to power. The desire for power, like that for money, doesn’t come from wanting more happiness or fulfillment in the present. A limited amount of money, or power, would suffice for these, and Hobbes as much as admits that. The desire for more, whether this is money or power, comes from fear or anxiety about possible loss. If one could always insure against everything that might happen, one could maybe relax in the present. However, there is always some other unlikely event that could happen. We accumulate and accumulate, both money and what we perceive as “power,” in hopes that we can thereby defend against all the possibilities that might threaten us, and yet each further accumulation comes with its own associated vulnerability, so that we are always in fear and never truly enjoy what it is we have accumulated.

Phillip: This insurance concept could provide us with a possible metric for power, although I don’t think this has been done. Power could be measured as a derivative expression based in probability, just as we find in *insurance* itself. Life is full of uncertainties but each of these uncertainties has a particular probability. If I can decrease the probability of something I don’t want happening to me, I will do that. I can decrease my risk. But in a social world I can often do that by increasing yours. It is not *always* as zero-sum as that, but it *can* be.

Robert Sapolsky has studied status hierarchies among baboons[22] and Michael Marmot has studied them among human beings.[23] Even granting what Shirley Strum has to say about the self-confirming aspects of dominance theory, there is still a difference in the very bloodstreams of baboons who occupy different social places, whether you prefer to call these effects of dominance or not. Status in your group counts; the lives of those lower in status are more chaotic than that of those higher up. This can be the doing of the higher-ups themselves, for example if they bully the lower-downs. "Stress" is less at the top and more at the bottom, precisely because those at the top experience fewer perturbations and fewer risks.

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[18] Sahlins (2008)
[19] Midgley (1978)
[20] Layard (2005)
[21] Bird-David, Nurit (1992)
[22] Sapolsky (2004)
[23] Marmot (2004)

So a possible metric of power could be about comparative insulation from risk. However, as Ulrich Beck shows in his work on the risk society, this is not always easy to ensure in our changing society, in which previously unknown risks emerge all the time.

Still, if you look at those at the bottom of social hierarchies, you will see that *in general* they undergo more risks with less buffering, they have to adapt to more, and they have fewer resources with which to do this.

Bateson: "Stress" is another of those physical metaphors for biological realities. In *Mind and Nature* I define it as follows: "Lack of entropy, a condition arising when the external environment or internal sickness makes excessive or contradictory demands on an organism's ability to adjust. The organism lacks and needs *flexibility*, having used up its available uncommitted alternatives."[24]

Stress is the result of double binds, and for me double binds are the result of adaptation which is challenged. You are perfectly adapted to one thing and another thing comes along which makes your earlier adapted behavior "wrong."[25] Over time if you are stably adapted to one thing, because it is always there in your particular environment, then you will tend to hard-wire your response to it. As with practicing the piano, or any skill, eventually your knowledge proceeds to more and more unconscious levels of the mind. But when something that deeply learned starts to be "punished" in some way, due to some changes in your relationship to others, for example other people, then you will experience, at minimum, psychological pain.

Phillip: And it seems that people above others in hierarchies are able to keep those below in just that kind of uncertainty. This is part of the "risk society" which is a phrase that comes from Ulrich Beck.[26] The higher-ups experience a certain buffering of the demands of the environment, while the lower-downs have to adapt not only to the ambient environment but also to the activities of the higher-ups. Risk is transferred to those least able to bear it, and power is the mechanism for how this is done. Maturana and Varela refer to the "perturbations" of the environment[27], but people make their own perturbations for each other, which they experience as "stress." Power is the measure and mechanism for how some experience more stress than they cause, and others cause more stress than they experience.

Bateson: No, this makes power into a dormitive principle.[28] If you want to say power is *itself* this transference of risk, or stress, that is one thing; but you are making just pretty phrases if you call it a mechanism. You are adding a black box you don't need. Say instead that bullying is the mechanism, or rational persuasion (in the sense of how a robber with a gun rationally persuades you to give him your money).

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[24] Bateson (1979, p. 253)

[25] The discussion of double bind here is an extension of the argument in the following: Bateson, G. (1978), The Birth of a Matrix, or Double Bind and Epistemology. In Bateson (1991, pp. 191-214).

[26] Beck (1992)

[27] Maturana and Varela (1992)

[28] For "dormitive principle" or rather "dormitive explanation," see Bateson (1979, p. 95).

Also I think that the double bind is not restricted to people who have to cope with a stressful environment, even if it is other people who do so much to make it stressful. In fact I think that the classic double bind that I described in relation to schizophrenia, is more especially experienced by people whose environment has changed from a stability it used to have, to a new situation in which their old adaptations are maladaptive. In the evolutionary context this is the prelude to extinction. But those who endure in their lives a relatively stable exploitation full of suffering may not be experiencing so many double binds, in spite of a miserable existence.

Phillip: Maybe the lower-downs experience a loss of possible efficiency in their adaptation, incurring a kind of cost to their bodies and even their minds from having to deal with perturbations outside their control. But they may get a kind of flexibility from this, in that they have less to lose when big changes happen. This seems to relate to what these days is fashionable to call privilege.[29] You have privilege when you have such a good adaptation to the way things are that you don't have to think about it, which in Bateson's terms means you can "hard-wire" it, while others have to be more conscious about factors in their environment which you can rely on more than they can. But this relative privilege is also the prelude to a classic double bind for the privileged, when the underlying environment shifts. They are more adapted to stable situations but less so to changes.

In human terms this looks like a kind of comeuppance for people who have been living it up like feudal lords, or Wall Street. But in ecological terms this analogous dynamic is more obviously sad. The animals and plants of the tropical rainforests have had a stable environment for millions of years in which to develop very special adaptations which could only have emerged due to that relative stability. The perturbations we humans introduce as we destroy these tropical rainforests challenge the "privilege" of these specialized organisms, while our activities "reward" organisms which can adapt to a variety of changing ecosystems, such as rodents, weeds, and cockroaches.

In evolutionary biology there is the concept of fitness. But fitness measures adaptation against some theoretical optimum with respect to an environment—as if the environment itself was not changing. Of course environments do change, and most especially when they are composed of one's fellow humans.

Bateson: I can see a problem with your use of hierarchies as a metric for power though. What about a newborn baby? The moment that baby comes into a family, the parents have to adapt to that new baby—their whole world changes. Freud used to refer to "His Majesty the Baby."

So the point I want to make is again, against this whole idea of a metric for power. Is there a metric that will capture both the power of the parents to determine the basic environment for the baby, and also the power of the baby totally to transform the lives of these same parents?

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[29] In a talk before the American Society for Cybernetics conference at Urbana, Illinois, in 2007, entitled "Do Power and Privilege without Responsibility Make You Stupid?"

And it is not so different for politicians. They have to adapt to what the people want, to a great extent. For example, Goebbels, in Nazi Germany…[30]

Phillip: I'm going to interrupt you here. I'm not sure I like that example so well. But it's true that the "adaptive landscape" of any leader is composed of that leader's followers. Some followers are more equal than others in this respect, such as lobbyists for powerful businesses. But no leader can lead without followers, and leaders who try to articulate a personal vision beyond what their people are ready for, can get into trouble.

I am willing to say that the people have power against the rulers. But here is the thing. Even among animals, an alpha needs subordinates to be an alpha—but an alpha may disregard a *particular* subordinate more than that subordinate can disregard its *particular* alpha.

Bateson: But what I was getting at was the idea that there are indeed *types* of power. In my presentation for the conference on "Broken Power" I used the metaphor of the parts of a play. Or, as a similarly dramaturgical example, the courtroom. The judge has one type of power, the jury another, the attorneys yet another, and the security guard for the court building, yet another. Like an ecological system, composed of relations between predators and prey, each of which has an evolving and changing role, and each of which continually adapts to the other.

I said there that "Perhaps the nearest 'reality' to the metaphoric myth of 'power' is a large or important part in an ecosystem."[31] An ecosystem is a whole in which no individual organism, or even species, has control over that whole. Particular plants and animals demonstrate themselves as being important within the larger system – but they are not determining the operations of that system in a linear way. Similarly, the powerful in society are not, after all, independent variables which determine the less powerful, in the way that independent variables in science are analyzed to determine dependent variables.

It's true we like to think of our power that way, for example for parents vis-à-vis the children who dominate their lives. This is the idea of the "blank slate," you know. By the way it's a total nonsense to assume that I, or Margaret Mead, or any of those people, thought that power worked that way. It wasn't anthropologists in our day who thought that cultural change was easy, that you could just impose it as a blank slate on people.[32] That was the dream of control in our generation, but you saw it more in psychology, like B.F. Skinner. If you look at my work you find it was always against putting people (or even animals) in Skinner boxes.

You came to me years ago with some idea of making your own major in college—you could do that then, at U.C. Santa Cruz. You wanted to write a major in "cultural planning." Anyway, I told you that you should definitely do that, you know. You should work at trying to figure how to plan culture. But in the end, I told you, you would look at the whole thing and come out with a belly laugh. The belly laugh would come to you because you would eventually realize that cultural planning is impossible. Because, as I told you, "you can't deal with love in that way."

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[30] Bateson argued famously that even Goebbels, charged with the manipulation of public opinion in Nazi Germany, had to tailor his message to the German people. See Bateson (1972, p. 486).

[31] See Bateson (1974, p. 27).

[32] See Guddemi (2005).

To speak of "love" in any way is somewhat taboo in academia, and I used to relish the shock value in using the term. When I refer to love it is not merely to speak of an emotion, although emotion is certainly part of it. I wanted to counter the idea that cultural change is easy. Our most intimate ways of dealing with each other and our relationships are culturally patterned and punctuated. Changing these is very difficult and facile shortcuts to cultural change, such as those which try to leverage the use of force, are not usually effective. And of course in addition to their ineffectiveness they can hurt people in ways not intended or planned.

Maturana has now taken up the matter of love, and he sees it both as a feeling and as a behavioral foundation for the cooperation that is typical of the human species.[33] As a principle, he sees love as interacting with another as a legitimate other in relationship, as opposed to dominance and power which do not legitimate the other. He contrasts the human care for infants and friendly cooperativeness with the chimpanzee, which he finds to be more "political" than humans in emphasizing dominance and power. Perhaps like the hippies of the 1960s, Maturana seems to see love in this sense as *natural* to human beings.

Phillip: But wouldn't it be true that human beings have at all times been both loving *and* political? Maturana makes an opposition between *Homo sapiens amans* and *Homo sapiens aggressans* but I suspect we have always been both, just as chimpanzees are both, but I think he is right that love is a bigger part of our mix than it is for the chimpanzees. Also I should mention that in some relational views of "power" it is still a factor even in loving relationships, and this accords with most contemporary thought including feminist thought.

A group of cooperative humans, for all that cooperation is based on trust and what Maturana calls love, may have an advantage in fighting another hostile group of humans which has not developed so much cooperation. There you might have love in the service of aggression. Indeed armies cannot fight without the *esprit de corps* which is the fellow feeling, the relational morale, of the soldiers in the armies. The ideology is that it is the hierarchy which creates the effectiveness of armies, but "love" indeed does its part.

On the other hand, when you do have the social breakdown situation that Hobbes describes—and no, I don't believe it is the "state of nature," but it does happen—when you have people split into small groups fighting for supremacy, we tend to believe that it can promote "love"—or at least peace—when one of them decisively wins. That was the idea of the *Pax romanum,* the Roman empire which established such a complete supremacy that, in the provinces, if you decided you didn't care about your sovereignty or rights anymore, you could turn your attention to peaceful pursuits, to the arts of trade for example. (And if you look at trade, you will find both the love and the war within that too.) You could turn your attention away from the question of who wins, admit that the Romans did, and do a few things that didn't involve worrying so intensely about who was on top. (And of course this is exactly what Hobbes advocated.)

I don't recommend this idea to today's would-be imperialists however—even those who want to impose "democracy" (promote love by means of war, which is what doesn't work). What is now called asymmetrical warfare means that small groups can disrupt big societies, and something like the *Pax Romanum* is no longer possible, because the little dogs no longer admit defeat and they can always disrupt what the big dogs want to do.

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[33] Maturana, Verden-Zoller, and Bunnell (2008)

The idea I am putting forth, to look at who is adapting to whom, represents, I suspect, a departure from a traditional concept of power. It does not arise from the figure of the dominant patriarch or alpha who, as we like to think, has desires and uses his agency to fulfill them. I suspect this figure is the origin of our imaginary—our mental picture we see when we use the word power. Blake called him Nobodaddy—nobody's daddy, whom we imagine as everybody's. A figure to be envied, or not. A pinnacle of a status hierarchy.

Things have gotten too serious to have such a frivolous image of the landscape of power in which we live. To have before us on our minds above all else the question of who gets what, in the short run at least. (Though it is frightening to look at any English dictionary and note the pages and pages which have to be devoted to the verb "to get.") Nor am I trying to argue this on behalf of the temporary kings of the mountain, who will hold that position briefly enough in terms of the time scales we as humans are now in a position to affect.

Power is not a possession, but a summary term of a complex relational configuration of events subject to continual change. We need to recognize that we are mutually embedded in and with each other, involved in webs of circular cause. All of us unavoidably adapt to each other all the time, creating by our mutual adjustments a sort of shifting landscape of mutual influence or power, in which unilateral control is impossible. However, wise action may be possible, and perhaps new metaphors of power can help.

Bateson: In my position paper for the "Broken Power" conference, I mentioned a number of partial meanings of the "power" metaphor, a number of phenomena which "power" is invoked to explain. One of these was "scope, in either time or space." We would hope that enlarging the scope of our understanding would empower us. Indeed, I noted that "'power,' when scope is large, begins to approximate 'wisdom.' But wisdom crieth out in the house tops and no man regardeth?"[34]

I hope that a re-examination of the premises of the concept of power, can bring forth wisdom. In spite of the tendency of wisdom to be disregarded even when it cries out in the streets, perhaps in these times we are searching it out.

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[34] Bateson (1974, p. 27). He is quoting a common 19th Century abridgement of Proverbs

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The Power of Balance: Transforming Self, Society, and Scientific Inquiry

William R. Torbert[1]

Editor's Introduction: We feel privileged to republish portions of *The Power of Balance: Transforming Self, Society, and Scientific Inquiry*. Originally published by SAGE in 1991, the book's copyright has reverted to the author, who wished to share our selection of excerpts as a contribution to this special issue's theme. Torbert's body of work has always been about fostering "the development of politics and the political," at each of the scales highlighted in the book's title, as well as in all of the domains in which he has served. As he wrote in the original preface to the book, the work was 20 years in the making, and now, nearly 20 years after that, we wish for at least some portions of this classic work to be back in circulation.[2]

The "power of balance" as conceived by Torbert represents an integral paradigm of principles, theory, and praxis. Deployed, the paradigm is one that can indeed inform and shape the development of self, society, and scientific inquiry. To explicate that fulsome vision, the book's fifteen chapters develop the themes of three sections: *Theory and Strategy, Heart and Practice,* and *Vision and Method.* Here, we have excerpted from several chapters in *Theory and Strategy,* and from one chapter in *Vision and Method.*

This means, of course, that we present but a small fraction of this integral classic, leaving out all of the rich, in-depth illustrations, including the author's learning practice as he first attempted to enact the principles.

Yet, we hope even this abbreviated form of *The Power of Balance* supports at least two goals: to offer deployable insights and practices for developing politics and the political; and to take root as part of a foundational canon for integral political thought, research, and praxis. How we readers deploy these principles in our own actions will determine the degree to which self, society, and scientific inquiry transform.

Keywords: Action inquiry, developmental psychology, Hobbes, justice, Kant, legitimacy, liberating structures, mutually-enhancing power, Plato, power, power of balance, practices, political principles, Rawls, Rousseau, social justice, social science, transformation.

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Chapter 1. Power and Justice

This book proposes that leaders in politics, business, the media, education, and science can exercise an inherently positive kind of power that can be called “the power of balance.” It also proposes that leaders must exercise this “power of balance,” if they are to succeed in generating and sustaining organizations that:

1. empower their members;
2. reliably increase their productivity and legitimacy; and
3. transform appropriately in, and responsibly manage their impact on, turbulent environments.

A further claim is that, whereas other types of power corrupt, and require balancing by one another in order to limit corruption and injustice, the exercise of the power of balance generates increasing self-balancing, increasing personal integrity, increasing institutional efficacy, and increasing social justice.

In the final chapter of my previous book, *Managing the Corporate Dream*, I suggested that leaders must be able to exercise four different types of power. I argued that these must be blended differently at different times, with different people, if they are to succeed in cultivating growth and transformation among individual organizational members and in overall organizational strategies, structures and systems. These four types of power I call “unilateral power,” “diplomatic power,” “logistical power,” and “transforming power.” The ability to exercise and appropriately blend these four different types of power I call “the power of balance.”

In this book, I wish to explore in much greater depth how and why this hypothetical *power of balance* is necessary for achieving personal human fulfillment, for generating reliable organizational productivity under changing conditions, for cultivating social justice, and for conducting a truly informing and responsible social science. I also wish to illustrate in greater depth what the turbulent but dignified experience of personal and organizational search toward the power of balance feels like. For, in order to develop this power, each person, organization, and society must undergo multiple transformations.

We also see societies throughout the world—from the Soviet Union to South Africa—in a kind of turbulence that holds both the promise of constructive transformation and the threat of destructive violence and chaos. On a still larger scale, we see the human world as a whole on the brink of transformation beyond primary reliance on a balance of power among nation states to increasing reliance on international institutions, especially in the area of international finance.

This chapter focuses on several questions about the different types of power, leading toward the question of what kind of power generates constructive transformation. The questions this chapter addresses are:

1. what are the differences among three types of power—unilateral, diplomatic, and logistical?
2. how does each type of power relate to a particular conception of ethics and justice? And,
3. how have political philosophers and administrative theorists before now thought about power and justice?

Unilateral Power

From the first systematic treatise on power of the modern period—Thomas Hobbes' *Leviathan*—to Nobel prize winner Herbert Simon's *Models of Man,* power has most frequently been defined as unilateral—*as the ability to unilaterally and unidirectionally cause the outcomes one wishes.*[2]

Sometimes, as with Hobbes, the ultimate unilateral power is described nakedly as the physical power to kill another. All men are equal, Hobbes tells us, in their ability to kill one another. Hobbes shows us the most primitive position that 'natural man' can assume. The most primitive position is one in which the basic passion to live, along with the narrowly selfish passion to kill others in order to preserve one's own life, rule. Reason is subordinated to these passions. It serves instrumentally to choose the best ways to preserve one's life.

Hobbes draws this picture, not to defend it as necessary, but rather to highlight its futility and the need for transformation. He characterizes life in this state of nature as a “war of all against all” which renders each individual's life “solitary, poor, nasty, brutish, and short.”

The fear of death motivates people to yield their smaller, problematic powers to a common sovereign. This sovereign uses the much greater collective power to secure an order, which however uncomfortable and unfree it may seem in a given instance, protects the people from the 'war of all against all' and death. Hence, by yielding their power to an omnipotent sovereign, people increase their pleasure and reduce their pain (death and the fear of death). They “maximize their utility,” in the more quantitative and less passionate language of later writers—even if the sovereign is extremely dominative and restrictive.

The sovereign must have absolute unilateral power, according to Hobbes, because any separation of powers increases the likelihood of struggle among the powers and hence of civil war and death. Hobbes carried his argument that the sovereign must have absolute power to its logical conclusion. Absolute executive power precludes an independent judiciary. In a true Hobbesian state, the law is what the sovereign says it is and what the sovereign says it means. The law is, by definition, just. There can be no appeal to a natural law, to philosophical principles, or to a Supreme Court beyond the sovereign, for such appeal undermines the absolute power of the sovereign. In a sense, then, Hobbes presents a philosophical justification for the view that “might makes right.”[3]

Writing amidst the English civil war and the beheading of Charles I during the mid-17th century, Hobbes could find immediate experiential validation for his concern. But to us Hobbes' position almost certainly sounds extreme, perhaps even crude. If this position seemed realistic in mid-17th century England, it hardly seems applicable to late 20th century America. In fact, however, our city streets sometimes closely mirror Hobbes' state of nature. Today, as I write this, the lead article in *The Boston Globe* begins as follows:

> It was growing dark on a recent winter afternoon when the frightening news swept through a local youth program: the van that usually drove the teen-agers home had broken down. A terrified silence blanketed the room as youths realized that they might have to walk home along the darkened city streets.
>
> “A kid came to me in a total panic,” said Laval Brown, program coordinator of the Dorchester Youth Collaborative. “He was terrified. He said, 'I can't walk home, I just can't walk home. Someone got killed on my street. I'll get killed too.”
>
> The youth made it home, running all the way. But in the last eight days, three young men did not make it home alive and a fourth was fatally shot through the window of his mother's apartment. And the city's children know it. They know that at a time of mind-bending violence they cannot entirely be children on the city's streets, that they must surrender some of their freedoms to preserve their lives.
>
> Instead, they live by rules no adult ever taught them and recognize boundaries that are on no city map.
>
> “There're just certain places you don't go,” explained Brian McKinney, 16, a rangy figure standing on a small porch above an abandoned lot in Dorchester. “You don't take no shortcuts, ever, 'cause people be waiting for you. Sometimes you alternate your route on the way home. Myself, I try not to know a lot of people. You can't trust 'em.”[4]

“I try not to know a lot of people. You can't trust 'em.” Obviously, a realistic approach to life under conditions such as those just described; obviously, too, a dreadfully impoverished approach to life. Surely, we wish to say, there must be more to social life than this! Yet before we explore how this may be so, we must briefly acknowledge the vast arenas of human experience that are today characterized by such conditions and such a worldview. To take just two examples: whole countries—most notably Colombia—are deeply influenced by the corruption and violence explicitly cultivated by drug cartels and individual drug barons; also, whole countries—most notably Iraq and its president Saddam Hussein—operate in terms of unilateral, threat power both outside (Hussein has threatened to “scorch half of Israel” with weapons of mass destruction) and inside (depopulation of the Kurdish minority and the death penalty for 'insulting' the president). As I make my final revisions, Iraq has just completed the blitzkrieg takeover of Kuwait.

An Ethical System Consistent with Unilateral Power

“Might makes right” and the fear that controls behavior under such conditions is not ordinarily viewed as a serious ethical theory, but rather as the antithesis of ethics. An ethical perspective is usually thought of as providing a basis for decisions other than one's initial desires and fears. Certainly, Rousseau, Kant, and Rawls (whose views on power, justice, and ethics will be considered below) do not view might as inherently right. Indeed, we will see Rousseau argue precisely that might *cannot* make right.

There is one ethical theory, however, that corresponds closely to the Hobbesian perspective on power. This is utilitarianism. I have already hinted at this correspondence between Hobbesian might and utilitarian right in writing of people's choice to yield power to a sovereign as increasing their utility.

In utilitarian ethical theory, the right or just decision is that which generates the greatest good for the greatest number. The good is that which increases pleasure and reduces pain for each. To maximize pleasure and to minimize pain is to maximize utility. In this theory, rationality is defined as the instrumental calculation of how to maximize utility—how to satisfy desires, *not* as a criterion for judging the worthiness of one's desires). This is one of the principal correspondences between the Hobbesian theory of power and the utilitarian theory of justice—that both explicitly treat desires as ends and reason as a subordinate, calculative means.

Given this correspondence, the correspondence already hinted at follows. Hobbesian political theory can be restated in utilitarian terms as:

1. the fear of death and the likelihood of actual death are infinitely more painful than any other deprivations; hence,
2. the pleasure of their attenuation by means of the Hobbesian sovereign will outweigh any finite pains the sovereign's particular decisions may inflict.

Because we ordinarily associate utilitarianism with neo-classical economic theory—laissez-faire market theory in particular—and because such economic theory is ordinarily thought to emphasize state interference in individual decision-making, the overall correspondence between utilitarianism and Hobbes is not immediately obvious. But, as draconian as the Hobbesian power equation sounds, it does not require a sovereign who is absolutely dictatorial in all decisions. Thus, the Hobbesian sovereign could choose to cultivate a vigorous market system within a larger framework of executive prerogative.

Over the past generation, Prime Minister Lee Kwan Yew of Singapore may have best exemplified such a correlation of unilateral executive power and utilitarianism. On the one hand, there are real questions about the degree of personal, media, and judiciary independence of expression in Singapore; on the other hand, there is no question about the support for a market economy in Singapore. In 1990, Brazil's new president, Fernando Collor de Mello, is making a similar attempt: to use a strong authoritative initiative, in the form of a “shocking” economic plan, to stop inflation and create a more market-regulated economy.

The deepest correspondence between the Hobbesian perspective on power and the utilitarian perspective on economics, ethics, and justice is that both perspectives *implicitly* require a kind of rationality that weighs, compares, and organizes desires, rather than merely calculating how best to achieve them. How the Hobbesian perspective does this is clearest and most nearly explicit. Simply put, in his theory the omnipotent power of the sovereign is based on a rational contract to which people's desires are henceforward subordinate. Insofar as such a contract is adhered to, such adherence represents the victory of constructive, framing, long-term reasoning over immediate desires abetted by instrumental, calculative, short-term reasoning.

That utilitarian theory also implicitly requires an omnitient, rational sovereign who organizes the relations among desires is less obvious. Nevertheless, it does. For, in order to calculate the greatest good for the greatest number, one must assume that both individuals and society have a rational capacity that reduces all qualitatively different pains and pleasures (e.g. hunger and loneliness, or chocolate, oat bran, and hearing God's voice) to a comparable, quantitative scale (a lowest common denominator).[5]

In his early book, *The Theory of Moral Sentiments*, Adam Smith explicitly describes such a self-regulating inner observer (he called it “the man within the breast”) as existing within each individual. A careful reading, however, shows that Smith is inconsistent: he also recognizes at some moments that such a sovereign inner conscience must in fact be explicitly constituted by each individual and that few individuals actually engage in the work of constituting such a conscience.[6]

Later, Smith would describe, in *The Wealth of Nations*, how a competitive pricing system generates an efficient quantitative scale for comparisons—a lowest common denominator among otherwise-qualitatively-different values. Just as “the man within the breast” purportedly serves a self-regulating function on the individual level, the “invisible hand” of the market pricing system under competition serves this same self-regulating function socially. But a pricing system cannot determine the definition of what is property; hence, the prevalence of Intellectual Property Committees in major corporations today, and the litigiousness of the software industry. Nor can a pricing system determine the value of money, money-making, and money-saving, as compared to leisure or consumption. That is, a pricing system cannot determine how a person should value his or her time (for example, writing earns me no money; consulting earns me a great deal of money; but I value writing much more than consulting).

The trick is that a pricing system can wonderfully *reflect* how people value time. But if persons are not independent valuers of their own time, guided by self-determined aims, they may fall into believing that price determines action, and they may do what pays most or costs least for that reason alone. So, a pricing system can trick people about their own self-interest, especially if it is defined as the primary rational calculus in decision-making. Indeed, Adam Smith showed that he understood that the “invisible hand” might just as likely mislead persons about their interests as serve those interests.[7]

The United States is a country that holds “consumer sovereignty” and “everybody is entitled to his own opinion” as among its highest individual and social values. People are assumed to be rational in the sense of able to calculate how to satisfy desire, but there is little tolerance for the possibility that personal and social decisions require something more than calculative rationality—that they may require the construction of a framing, regulative rationality that related valued aims to valued actions. Religion fills this need for a regulative framework, if it is felt at all, and religion is typically considered to be non-rational—a matter of personal feeling, faith, preference. One result of this atomistic, utilitarian approach is an energetic, individualistic, entrepreneurial approach to life. Another result is a great deal of internecine among regulative frames (in marriages, organizations, and communities) that people do not regard as being rationally resolvable and that they consequently do not cultivate the skills or proclivities to resolve directly.

If there is in fact a strong correspondence between the utilitarian orientation and the exercise of unilateral power, as suggested in this section, we would expect people in this country to resort to the exercise of unilateral power in the face of unresolved conflict. Hence, we would expect a high homicide rate, a high divorce rate, and a hell of a lot of litigation. All these are true of the United States.

Here, it is worth emphasizing that the exercise of unilateral power need not sound like the physical, life-and-death matter that Hobbes makes it out to be. It may just as well appear in the guise of a rational, impersonal, bureaucratic, even scientific phenomenon. Such is the quality of unilateral power in the work of Nobel prize winner Herbert Simon who has been thinking about organizational bureaucracies during the mid-20th century, Simon says, “For the assertion, 'A has power over B', we can substitute the assertion 'A's behavior causes B's behavior.' If we can define the causal relationship, we can define...power. ...[It is] a problem of giving operational meaning to the asymmetry of the relationship between independent and dependent variable.”[8] Again, as with Hobbes, we see power defined as unilateral and unidirectional (asymmetrical). But this time the power may, presumably, be physical force, social attraction, or a cognitive structure such as an organizational chart.

Whether the writer be political scientist Robert Dahl, economist John Kenneth Galbraith, or organizational theorist Jeffrey Pfeffer, this underlying definition of power as causing change in the less powerful, no matter what the will of the less powerful, remains the same.[9] As Pfeffer summarizes, “Most definitions of power include an element indicating that power is the capability of one social actor to overcome resistance in achieving a desired objective or result.”[10]

Indeed, so universally accepted is this element of the definition of power that many readers must be wondering why it merits discussion. Nevertheless, this book *does* contest this element of the definition of power. I do not contend that power *never* has an element of unilateral, unidirectional causation that overcomes resistance. But I do contend that other kinds of power can also be exercised, and that power cannot, therefore, be *defined* as the ability to unilaterally and unidirectionally cause the outcomes one wishes.

Another Approach to Power—Diplomatic Power

The second most common approach to power is, paradoxically, the very reverse of the first approach. In this view, power is generated, not by the power-wielder, but by the power-yielder—by the consent of the governed. A century after Hobbes, and in response to his claims, Rousseau introduced an argument against the notion of power as necessarily unilateral causation and in favor of power as consent. In this version of power, a visible leader is successful in exercising power to the degree that he or she has the diplomatic ability to determine what the governed actually want and to present proposals that will gain their consent.

Rousseau proclaimed at the outset of *The Social Contract*,

> If force creates right, the effect changes with the cause: every force that is greater than the first succeeds to its right. ...But what kind of right is that which perishes when force fails? If we must obey perforce, there is no need to obey because we ought; if we are not forced to obey, we are under no obligation to do so. ...Let us then admit that force does not create right, and we are obliged to obey only legitimate powers.[11]

Rousseau goes on to argue that, since coerced consent yields no obligation, legitimate power can only be founded on unanimous, uncoerced consent.

This is no mere abstruse principle of political philosophy. In business, Chester Barnard, a twentieth century corporate president, states unequivocally, “There is no principle of executive conduct better established in good organizations than that orders will not be issued that cannot or will not be obeyed... To do so destroys authority, discipline, and morale.”[12]

To what kind of social contract would any and all individuals give consent? Only, Rousseau tells us, to an “association which will defend and protect with the whole common force the person and goods of each associate, and in which each, while uniting himself with all, may still obey himself alone, and remain as free as before.”[13]

How is such a condition possible, the reader may well ask. Rousseau's great insight, which inspired Kant in turn, was that a person is free only when obeying his rational will, and that since reason is precisely internally consistent and generalizable, everyone's 'rational will' will be the same. Hence, a state governed by rational will—what Rousseau called the General Will—is a state in which persons are simultaneously united with all and free to do as they wish.

The obvious question is how one discovers what truly constitutes this General Will. As one helpful step, Rousseau offered a conceptual distinction between the rational General Will and another quality that he named the Private Will or the Will of All. The Will of All is the sum total of what people desire irrespective of whether it is rational in the sense of being universalizable. In other words, the Will of All can be a version of utilitarianism or 'consumer sovereignty'—those decisions that generate the maximum pleasure or utility among the concerned population, irrespective of their general rationality or universalizability.

For example, if slavery for some and addiction to drugs or alcohol for many is what gives the most pleasure to the most people, then the organization or state should promote these conditions, *if* the state is guided by this version of the Will of All. But since such conditions abrogate the freedom of some and the rationality of many, they will not be consented to by all, they are not universilizable, and, hence, they do not represent the General Will. More subtly, a democratic assembly may refuse to raise taxes to cover budget deficits, and this action may very well represent the wishes of a majority of citizens, and hence the Will of All, without necessarily representing the General Will.

Another, different version of the Will of All is any claim made by a leader that certain decisions and actions represent the historical spirit or future destiny of a whole people, irrespective of the effect of such decisions and actions on those not included in the definition of that people. Authoritarian leaders like Napoleon, Hitler, Lenin, or a modern corporate chief executive can claim to act in the name of the people, even if a majority opposes them. They can claim, indeed, to be acting on behalf of the General Will, courageously opposing the temporary Will of All, without any clear method for determining whether this is so. In short, this discussion sharpens the question of how one distinguishes the Private Will from the General Will.

Unfortunately, as with Adam Smith's lack of clarity about how to develop an embracing and rational self-observation by “the man within the breast,” Rousseau is equally unsatisfying about how to distinguish the Private Will from the General Will. It was part of his genius to distinguish clearly on a conceptual level between these two types of social will. But it was part of his limit not to provide a practical political method for making this distinction in actual cases.

Nevertheless, the notion that there is a kind of power, derived not from the strength of a power-wielder but rather from the consent of power-yielders, has played a central role both in philosophy and in practical affairs since Rousseau. Thomas Jefferson's words provide the most influential expression of this point of view: “Governments derive their just powers from the consent of the governed.”

Perhaps the most obvious arena in which the Will of All exercises power is the realm of entertainment and the media. The media and entertainment personalities who have the mysterious talent to draw mass attention become the source of far flung enterprises. Their power is based on others' willingness to give them their attention. As one player on the Hollywood scene recently put it, “All of Hollywood is parasitic except for true talent.” In this formulation, true talent represents legitimate authority because it commands the power (and revenues) associated with the willingness of the population at large to attend to it.

This “diplomatic” type of power has something to do with justice or legitimacy as according with the people's will, and something—but something very much less obvious—to do with the rationality of such a will.

A Third Perspective on Power and Justice—Rational, Logistical Power and the Theory of Rights

Kant responded to Rousseau's enunciation of the General Will by concentrating on the rational element in such a will, rather than on the element of consent. In doing so, Kant did not develop a political or managerial method of determining the General Will; instead, he transformed the idea of freedom as obedience to rational will into an ethical injunction for individuals

“Everything in nature works according to laws,” Kant tells us. “Only a rational being has the power to act according to his conception of laws, i.e. according to principles, and thereby has he a will. Since the derivation of actions from laws requires reason, the will is nothing but practical reason.”[14] We are free only when we exercise our rational will, not when we are compelled by irrational desires. Hence, insofar as we have will at all, we will consent to what is rational.

Indeed, in Kant's view, as we can see in the foregoing quotation, not unilateral force, not consent, but reason is power. In Kant, 'reason,' 'power,' 'will,' and 'freedom' all directly imply one another.

Kant's 'Categorical Imperative' enjoins each of us (because he believes that, upon reflection, we will find it the only rational way) to act only in ways that are universilizable. This means to act only as we would wish others to act toward us and only in ways that treat ourselves and other persons as ends (never merely as means).[15] For example, Kant suggests that, following the Categorical Imperative, we would not lie, since we would not wish others to lie to us, and we would not commit suicide, since we would not thereby be treating ourselves as ends. Kant is resolutely puritanical in his devotion to the rational:

> The pure thought of duty and the moral law generally, unmixed with any extraneous addition of empirical inducements, has by the way of reason alone... an influence on the human heart... much more powerful than all other incentives... When a righteous act is represented as being done with a steadfast soul and sundered from all view to any advantage in this or another world, and even under the greatest temptations of need or allurement, it far surpasses and eclipses any similar action that was in the least affected by any extraneous incentive; it elevates the soul and inspires the wish to be able to act in this way. Even moderately young children feel this impression, and duties should never be represented to them in any other way.[16]

In this passage, again, we see the identity that Kant makes between reason and power, even in interpersonal relations between adults and children. The resulting political vision is of an ideal 'Kingdom of Ends' (a phrase that Kant uses), wherein each citizen is highly independent and free, never coerced, persuaded only by rational argument, and with the right to be treated with the full dignity of an End. In this approach, legitimate or just action is action that procedurally does not violate another's rights; and just laws provide equal protection to all citizens, regardless of race, religion, or sexual preference. Whether or not the action or the law maximizes utility or is voted as desirable is irrelevant to its justice, according to Kant.

For example, most people may be disgusted by consensual acts of homosexual sodomy among adults. Such acts may be regarded as sinful by certain religions. Indeed, the Supreme Court may rule (as it did in Bowers v Hardwick, 1986) that no “right of privacy” protects one against prosecution for such acts.[17] Nevertheless, any law that discriminates by criminalizing such acts only when they involve partners of the same sex is clearly not a universalizable maxim, and violates the Constitutional provision of “equal protection under the law.”

Insofar as we think of power as unilateral coercion or peer pressure to conform to some irrational Will of All, the purely rational Kantian position and procedure appears to abjure the use of power altogether—to treat power and justice as mutually exclusive. As the foregoing quotation demonstrates, Kant did view these other two types of power as illegitimate. But he also viewed them as ineffectual, and this follows from his distinctive view of what power is. Power is the ability to do something rational rather than being caused to do something by internal desire or external pressure.

Hence, from Kant's perspective, real power and true justice are co-terminus. Put differently, for Kant power and authority are co-terminus: real power is invariably authoritative. Whereas the Hobbesian view of power and justice emphasizes the physical, monarchical, executive function; the Rousseauvian view of power and justice emphasizes the emotional, democratic, legislative function; and the Kantian view of power and justice emphasizes the rational, aristocratic, judiciary function.[18]

This overview of the three approaches to power and justice invites us to question whether there is yet another approach to power and justice that combines all three. Historically, of course, we know that an actual social contract—the Constitution of the United States—based on the combination and separation of these three types of power, was constructed at the same time as Kant lived. But this social contract did not, during its first century, embody Kant's Categorical Imperative. It permitted slavery. Not until after the bloodiest of civil wars and the passage of the 14th amendment did the Constitution more nearly represent a successful blending of the three types of power. And not until political philosopher John Rawls published *A Theory of Justice* in 1972 did we have a more or less complete intellectual explication of this fourth approach to power and justice.[19]

Integrating Unilateral, Diplomatic, and Logistical Power

In his description of child rearing in a just society, Rawls exemplifies how the three types of power we have so far reviewed interact with one another. First, he says, the child will learn the "morality of authority." At this stage, parents unilaterally enunciate and enforce rules of conduct. But, according to Rawls, their unilateral power is not absolute and arbitrary. It only becomes authoritative (legitimate) and only has the power to generate moral development toward principled conduct insofar as parents:

1. make just rules;
2. give the reasons for them in an understandable fashion; and
3. enact the rules they enjoin when the rules apply to them as well.

In Rawls' words:

> First, the parents must love the child and be worthy objects of his admiration. In this way they arouse in him a sense of his own value and the desire to become the sort of person that they are. Secondly, they must enunciate clear and intelligible (and of course, justifiable) rules adapted to the child's level of comprehension. In addition they should set out the reasons for these injunctions so far as these can be understood, and they must follow these precepts insofar as they apply to them as well. The parents should exemplify the morality they enjoin, and make explicit its underlying principles as time goes on. Doing this is required not only to arouse the child's inclination to accept these principles at a later time, but also to convey how they are to be interpreted in particular cases.[20]

Obviously, the exercise of unilateral power that Rawls condones in a just society is no mere arbitrary or narrowly selfish use of such power for private or utilitarian ends, irrespective of its impact on others' rights and development. In fact, directly to the contrary, Rawls here advocates a loving and principled use of unilateral power.

Next, Rawls establishes the role for diplomatic power or peer consent in the development of the youth in a just society. As the child becomes a teenager, he or she learns the “morality of association.” Through participation on sports teams, the school newspaper, and other such organizations with peers, the youth begins to mold his or her conduct based more on pleasing equals than on obeying superiors. In Rawls words, again:

> Someone attaining...the morality of association...is concerned to win acceptance for his conduct or aims... While the individual understands the principles of justice, his motive for complying with them, for the time at least, springs largely from his ties of friendship and fellow feeling for others, and his concern for the approbation of the wider society.[21]

These experiences of the proper “morality of authority” and “morality of association” gradually lead the youth to realize that positive experiences are associated with the principles of justice behind the rules obeyed and the approbation received. Hence, gradually, as the youth becomes an adult, he or she makes the rational principles of justice fully explicit and gives them allegiance in their own right. Thus the adult becomes committed to a “morality of principle.” In this way, all three types of power play a role in human development in a just society, according to Rawls, and they do so in a way that reinforces allegiance to the principles of justice from generation to generation.

What are these principles of justice? Rawls formulates two principles of justice that he believes follow from rational reflection. Interestingly and consistently, these two principles themselves reflect all three types of justice associated with the three types of power. His first principle of justice is:

> Each person is to have an equal right to the most extensive total system of equal basic liberties compatible with a similar system of liberty for all.[22]

His second principle of justice is:

> Social and economic inequalities are to be arranged so that they are both: (a) to the greatest benefit of the least advantaged…and (b) attached to offices and positions open to all under conditions of fair equality of opportunity.[23]

Rawls’ first principle of justice is compatible with Kant’s Categorical Imperative. The enunciation of a system of liberties for all emphasizes rationality by the word “system,” emphasizes treating each citizen as an end by the word “liberty,” and emphasizes reciprocality and universilizability by emphasizing that everyone is entitled to this condition.

Rawls’ second principle of justice generates additional conditions that will attract the consent and approbation of citizens and will also generate utilitarian results. Inequalities of position and wealth (to which those with less would not consent, all else being equal) are to be tolerated *only* as these benefit those with less. In other words, a person may consent to receive less income than another, if the additional income motivates the other to become a doctor and cure the less wealthy person. If persons with less income gain greater utility from being healthy than they would from the additional income, they will rationally prefer and choose this condition over that of having equal income but less health. Herewith, Rawls integrates rationality, rights, consent, and utility in his two principles of justice.

The Gap between Theory and Practice — The Difficulty with Doing Rawls Justice

Rawls' work is a theoretical tour de force. Although it has sustained critiques from all angles of the scholarly spectrum, it has proved remarkably robust on a theoretical level. Its Achilles' heel is the question of practice.

There are three problems of practice, of which Rawls solves only one. One problem of practice is: once a just state is created, will its normal practice sustain its citizens' commitment to just outcomes and to maintaining the necessary institutions? This problem of practice Rawls can claim to have solved by showing how children's upbringing in a just society will lead them to adopt a morality of principle and how this principled morality will lead in turn to the two substantive principles of morality he articulates.

The third problem of practice is: given this gap between current practice and just practice, does Rawls' theory provide a vision and method for transforming the relatively unjust and corrupt society into one that is more just and displays greater integrity? The answer to this question is, again, “No.” Although the very explication of his theory may improve legislative, executive, and judicial decision-making, Rawls does not explicitly present that as a process for transforming a relatively unjust society. Nor does he present any other process for transforming a relatively unjust society.

We should, however, pause to consider the efficacy of explicating a robust theory of justice as a method of social change. We see, first of all, that it is a very Kantian approach to social change. Through his theory of justice, Rawls acquaints us with our social duties and provides us with no inducements to act in a just manner other than “the pure thought of duty.” We will recall that according to Kant, “The pure thought of duty and the moral law generally…has by the way of reason alone…an influence on the human heart…much more powerful than all other incentives.” So, explicating a theory of justice can be defended as a method—indeed it can be defended as the *best* method—for influencing a relatively unjust society to become more just.

But Rawls himself does not believe that the explication of principle or theory alone is sufficient to generate justice from generation to generation, even in a society that is already just. As we have seen, he holds that in a just society parents must exercise their unilateral power over children, and youthful friends their diplomatic power over one another, as parts of a long process of cultivating adult personalities that listen and respond to the voice of reason. Moreover, the parents are to love their children and to act consistently with the ideals they preach, if they are to attract their allegiance to those ideals. In short, according to Rawls, much more than the explication of pure reason is necessary to sustain an already just society. Unilateral power, diplomatic power, love, and an awareness of incongruities between one's own reasons and actions (a precondition for developing consistency between one's own principles and practices) are all also necessary.

In a relatively unjust society, the dilemma of how to generate justice must be all the greater. Parents are less likely to be enjoining true principles of justice to their children. They are also less likely to display congruity or integrity—that is, to act consistently with whatever principles they enjoin. Also, friends are less likely to exercise diplomatic power in a manner that reinforces true principles of justice.

Hence, in a less just society, children are likely to experience their parents' power as relatively arbitrary, rather than as conveying a rational and admirable morality of authority. Likewise, youths are likely to experience peer groups as requiring conformity to relatively arbitrary norms, rather than as reinforcing their parents' teachings through a rational and admirable morality of association. And adults are likely to experience organizations where superiors and peers also act in relatively arbitrary and internally inconsistent ways, rather than according to a rational and admirable morality of principle. Socialization of this kind breeds fear, distrust, and disrespect for designated authorities and for peers, as well as low self-esteem and little faith in one's own reason.

Under such conditions, superiors are likely to assert their authority unilaterally and without justification, especially under challenge. Subordinates are likely to consent and conform externally, especially under threat. Reasoned discourse is likely to retreat further and further from the political world into specialist, 'ivory tower' or bureaucratic settings.

To transform such a relatively unjust society—to narrow the gap between the actual and the ideal—requires a kind of power that goes beyond the unilateral, diplomatic, and logistical kinds of power discussed in this chapter. It also requires a conception of justice that goes beyond the utilitarian, consensual, and principled conceptions discussed in this chapter.

The next two chapters introduce the developmental process that persons evolve through if they are to approach the conception and practice of this dynamic, transforming type of power and justice.

Chapter 2. From Political Philosophy to Developmental Psychology

Chapter 1 reviews three distinct conceptions of power and justice, as well as a fourth conception that integrates all of the first three types of power and justice. Starting from the most common definition of power as the unilateral cause of outcomes one desires, we next discussed diplomatic power that attracts others' consent, and then described the logistical power of reason to will what is consistent and right irrespective of inducement and desire. Then, we examined the Constitutional and Rawlsian conception of power and justice as including all of the first three.

We saw that the first two types of power and justice—unilateral power and utilitarian justice, on the one hand, and diplomatic power and consent, on the other hand—are rooted in satisfying desires. By contrast, the second two types of power and justice are rooted in a rational, principled conception of individual rights and socially just relationships.

None of the four approaches to power and justice so far examined explicitly shows how relatively unjust settings can be transformed into more just settings. Yet all of them suggest, at least implicitly, that a key ingredient in the necessary political alchemy of transformation is a constructive rationality—a rationality that frames desire. Hobbes gives us a specific rational contract that is to transform the state of nature into civil society, while claiming that no rational distinctions between less and more just societies are possible once society itself is created. Rousseau conceives of a principle whereby rationality can operate continuously in the generation of social decisions—not just once in an initial contract. Yet he cannot give us any specific laws or institutions through which it works. Kant tells us a specific law—the Categorical Imperative—that a truly rational individual would give himself or herself. Yet he does not tell us how any individual develops this degree of rationality, nor how society as a whole encourages such development, nor how such a general principle is to be applied to concrete and unique circumstances.

It is Rawls who first shows how a just society would organize social institutions and families to encourage the development of principled rationality in new generations. But he does not tell us, anymore than the others, how one can transform a relatively unjust, corrupt society into a more just one.

Surprisingly, it is the most ancient of Western political philosophers—Plato—who tells us most about why power ordinarily corrupts and about a kind of power that generates integrity and justice in conditions where by no means everyone is committed to justice.[1] Early in *The Republic*, Plato introduces a character, Thrasymachus, who argues that “might makes right.” But Thrasymachus is confounded by Socrates' questions. May not sheer strength used unilaterally turn out to have effects different from those initially imagined, Socrates asks. If so, the mighty one will not have succeeded in doing right even from the point of view of achieving his own intention, let alone from any other perspective. For example, by building up German power and starting World War II, Hitler presumably intended anything but his own suicide in a bunker, anything but the governing of Germany by four alien powers, and anything but the creation of the state of Israel.

Not only may there be a great gap between intentions and outcomes, but also between different intentions at different times. Even if Hobbes' sovereign holds all power, his will may not be one across time. Now he exerts power in one direction; now in another. He himself may not recognize the conflict between his different decisions. Nevertheless, gradually, Hobbes' state (or a modern corporation) may begin to lose power as it falls into unintentional inner struggle. In short, unilateral, unidirectional power can generate unintentional effects and system-disintegration over time.

Lord Acton's famous line, “Power tends to corrupt, and absolute power corrupts absolutely,” seems to be based on the intuition that the greater one's unilateral power, the more unbalanced and enslaved to one's irrational desires one becomes, the less one attends to one's effects on others or oneself, and the less effort one makes to guide and limit one's actions according to any criterion of rationality. This process of feeding desire and avoiding the negative feedback that would feed one's awareness gradually reduces one's awareness, responsibility, rational consistency, and moral integrity, until one is absolutely corrupted.

The question arises whether there is a type of power that *increases* awareness, integrity, and justice? Plato answers "Yes."

A Paradigm of Just Action

We can return to Rawls' theory of justice to begin constructing a more dynamic paradigm of just action, for he provides the building blocks to go beyond his own conception. We saw that Rawls argues that, in raising children who will preserve a just society, parents must formulate rules comprehensible to their children, enact a consistent morality themselves, and gradually make the underlying principles explicit. This is an educational paradigm which depends for its felicitous effects on a parental awareness that embraces the realms of intuitive principles, rational rules, their own actions, and their effects on their children, *and that observes and corrects errors and incongruities in translations from one realm to another* (for no one can be expected to get this right to begin with, or once and for all time). I emphasize this last part because it is this dynamic feedback and correction process that must be present if the process is to become increasingly just, and is the process that Rawls misses.

Rawls enunciates an analogous dialectic for each individual in his recital of the primary goods that all rational persons will want, whatever else one or another may want idiosyncratically. He names four primary goods:

1. intuitive self-respect or self-esteem: "Without it nothing may seem worth doing, or if some things have value for us, we lack the will to strive for them" (p. 400);
2. a rational long-term plan of life given reasonably favorable circumstances... [for] the good is the satisfaction of rational desire" (pp. 92-93);
3. the liberty and opportunity to develop and exercise the action competencies necessary to realize a rational life plan; and, finally,
4. the income and wealth that results from such competent work.

Again, we see the need to cultivate an awareness that embraces the realms of the intuitive whole, the rational strategy, plan, or rules, congruent action, and outcomes (in this case, income), *and that observes and corrects errors and incongruities in translations from one realm to another.*

An analogous, dynamic process of cultivating an embracing awareness of mission, strategy, operations, and the bottom line*, and of observing and correcting incongruities among them,* is necessary for continual quality improvement in business enterprises and other organizations.

As we will explore in Section III, Chapter 13, an analogous dynamic process of cultivating an awareness of paradigm, theory, research methods, and data—*and of observing and correcting incongruities among them*—is necessary for a liberative and responsible social science. In political life, the paradigm of just action is again analogous. That action is just which:

1. gradually explicates the underlying principles of justice;
2. elaborates laws and policies consistent with those principles, as well as internally consistent with one another;
3. duly administers this justice in a way that is both substantively and procedurally congruent;
4. gains increasing voluntary compliance by the citizenry; and
5. *observes and corrects incongruities among principles, laws, administration, and effects on the citizenry.*

Chapter 3: Developing toward Transforming Leadership

First Glimpses of Transforming Power

This is the key “trick” or “secret” of transformation—that it can be generated neither by internal motivation alone, nor by external pressure or opportunity alone. An exercise of unilateral power can force changes in external behavior, but cannot transform the meaning-making structure of a system. Developmental theory tells us that transformation to a qualitatively different and more inclusive way of making meaning requires playful, reciprocal initiatives between system and environments, child and parent, student and teacher, manager and mentor.

Hence, a person exercising *transforming power invites mutuality*—a mutual exercise of power guided by a living awareness of what is currently at stake for the particular systems participating in the transformation. The chick seeking to crack the egg shell from the inside may not succeed alone; but if the mother hen cracks the egg before the chick is ready, the chick will surely die. Only if both cooperate appropriately from inside and outside can transformation occur.

Transforming power cannot be insolently and unilaterally wielded. Instead, it *requires a continual, humble effort—not just to be rational—but to be aware of the present moment in all its fullness*. This awareness effort includes and transcends one's own material interests, emotional preferences, and intellectual theory about the situation, as well as those of the others and the institutions involved. This effort also transcends the narrowness of the present and experiences how the past is growing into this moment and the future is growing out of it.

In order to avoid such outcomes [as were discussed in a section not included in this excerpt], *transforming power* is not merely open to, but *actively seeks, challenge and contradiction*. Indeed, properly appreciated, each moment of potential transformation is such a challenge, since the person seeking to exercise transforming power is relating to systems that do not initially share an understanding of what is at stake.

The person seeking to exercise transforming power must seek challenges to his or her approach in every way possible—by taking on dilemmas of increasing complexity or social scope, or dilemmas that go more deeply to the heart of the culture as a whole, or by discovering new ways of conducting inquiry that better show the negative consequences of his or her perspective and action.[8] The active search for such challenge is essential precisely because the Strategist perspective is likely to be a powerful one that permits one to exercise significant influence—even transformation—in the wider world. The Strategist's perspective can therefore easily outshine and subordinate other perspectives. It can generate ego-inflation and an associated blindness and lack of living awareness that can make the very strength of the Strategist demonic. To confront and thwart this tendency, transforming power must be understood, to put it in the strongest form possible, as self-mortifying. It would rather *not* influence than inappropriately influence. This is how far transforming power goes to seek challenge and contradiction.

As the foregoing paragraphs also imply, *transforming power is nothing if not timely*. A distinguishing feature of a Strategist stage theory—and of developmental theory in particular—is that it explicitly draws the attention of the person holding the theory to the question of timing in action. However, any theory of development and transformation, such as this one, clearly has general, universalistic elements to it, and may be applied "in general" without specific attention to the uniqueness of the given situation. This, again, is a danger of the Strategist who tends to identify with the theory. In fact (or, more precisely, in *act*) transforming power is never properly applied in general, but always in response to the unique circumstances of particular situations and systems—always in response to a living awareness that revivifies and revalidates (or else disconfirms) the general categories of the theory.

Put differently, transforming power is not enacted in a deductively logical fashion. It does not deduce a specific action from general principles. Instead, *transforming power is enacted analogically*. It seeks analogies between a general theory and an independent apprehension of the present situation, felt from the inside as a participant in it.[9]

Finally, *transforming power empowers all who come within the radius of its influence, including those who oppose its influence*. The exercise of transforming power is intrinsically a cooperative 'positive-sum' game, not a competitive "zero-sum" game. It generates greater power—a greater range of awareness, control, and influence for each person or organization that transforms to a later stage of development. Also, because it seeks challenges, tests the feedback received for validity, and defers to validated negative feedback rather than defending against it, the exercise of transforming power empowers opponents as well. As stated above, transforming power invites mutuality; the more others are empowered and the closer they come to exercising transforming power themselves, the more nearly mutual occasions of influence become.

[Chapter 3's] Conclusion

There must be a "power of balance," I felt (though I gave it no name then), that was less coerced and coercive in the realm of diplomatic power. There must be, I felt, a power of balance that anyone, living an outwardly ordinary life in familial and organizational settings, could embody. This power of balance would have room for Pope John's unilateral coercion of Monseigneur Tardini, and for the logistical subtleties of the Motorola vice-president's "octave" meeting-strategies, and even for Gandhi's forms of diplomatic power on occasion, just as it would also have room for the transforming power that both Pope John and Gandhi most clearly exercised [referring to illustrations not included in excerpts]. But the power of balance would, precisely, *have* each subordinate type of power (including transforming power) rather than *being* (fully identified with) any one type of power. It would exercise each type of power occasionally and intentionally, not always and assumptively. And, the power of balance would always be exercised in the service of increasing mutuality, development, and inquiry, no matter which of the subordinate forms of power it displayed at a given time.[34]

Only a theory and practice of this type of power can ultimately generate a more just organization or society from a relatively unjust beginning state. Only this kind of power is self-limiting and self-legitimizing because its aim is to support the development and empowerment of others and because its practice is to challenge itself and publicly test whether it is in fact accomplishing this. Hence, only this type of power generates genuine authority—authority based not on unilateral power or custom and longevity, but rather on just action (defined in Chapter 2).

Chapter 5: Exercising the Power of Balance in Middle Management

Creating Liberating Structures

I and my associates have been experimenting with such "liberating structures" in business, governmental, and educational settings for the past twenty years and have adduced eight essential qualities of liberating structure. The following pages first explicate these eight qualities briefly and then illustrate them by references to a particular organization.

Before offering this rather complex definition of liberating structure, I want to offer some simpler heuristics that I use to create such structures and some brief illustrations to give the idea some life. The more complex set of eight essential characteristics derive from after-the-fact analysis of such structures. They are helpful for testing whether an invented social structure is a liberating structure; but I suspect that they are far too ponderous to help in conceiving a liberating structure.

The simplest heuristic for creating a liberating structure is to list all the limiting conditions (e.g. lack of money, employees without the right skills, etc.) that prevent one from accomplishing some desired goal; and then set about inventing a structure that recognizes and even uses these limits to reach the goal. In principle, this is no more than the old saw: "turn problems into opportunities." But this cliché is as rarely enacted as it is regularly espoused, especially in the domain of creating social structures for doing tasks. The reader may recall the description from the previous chapter of the initial meetings of the MBA core team at Boston College. The problem was that faculty groups typically argue themselves into terminal depression and withdrawal rather than agreeing to anything.

Rather than attempting any number of complicated and covert means to overcome this limiting condition, we simply recognized it and made a game of making fast decisions. Once several decisions were made, the limiting condition no longer existed, so the elaborate structure temporarily set in place to make fast decisions was no longer necessary either.

A second simple heuristic for creating a liberating structure, which the foregoing illustration also exemplifies, is to create a structure which, if it works, will become unnecessary. The most fundamental reason why liberating structures are necessary in the first place is that few human beings today operate at the late stages of development where they can follow the interweaving of the four territories of experience and can exercise mutuality-enhancing transforming power, such that they take full executive responsibility for the effects of their actions and treat one another as true peers. The most fundamental aim of liberating structures is, therefore, to cultivate the development of subordinates toward the later stages (never forgetting that development cannot be forced). Hence, if liberating structures succeed, organizational members will increasingly take executive responsibility, will increasingly treat one another as peers, and will increasingly create their own liberating structures.

A third simple heuristic for creating liberating structures is to ask oneself how to maximize both of two apparently opposite values, such as power and justice, or inquiry and productivity. Usually, we think we have to sacrifice one of these for the other, or else compromise between the two. Totally new solutions to such dilemmas begin to suggest themselves if we disdain our competitive assumptions and seek counterintuitive solutions. Thus, for example, the previous chapter illustrated how project groups in the BC MBA program are required to engage in unusual levels of mutual inquiry and evaluation; yet this inquiry unleashes rather than paralyzes productivity (because of the details of how it is organized).

The Eight Essential Qualities of Liberating Structure

One quality of liberating structure is deliberate irony. The leadership (at whatever level) recognizes that most subordinates will initially interpret the organizational structure and particular events based on a different model of reality (a different stage of development) from the one inspiring the leadership. Moreover, subordinates will not tend to interpret the resulting conflicts as caused by the different developmental frames, nor will they be inclined to examine or test their own frame. The leadership must at one and the same time succeed in “speaking the subordinates' (developmental) language” and introducing them to a “new language” (e.g., the theory and practice of mutuality-enhancing power).

The new “language” will motivate exploration of basic assumptions about reality by constructing tasks wherein members feel the limitations and self-contradictions inherent in their, relatively self-restricting view of reality. Organizational structures and leadership actions that meet these demands are deliberately ironic: they both acknowledge and bridge a gap in developmental stages and worldviews.

A second quality of liberating structure is the definition of tasks that are incomprehensible and undoable without reference to accompanying processes and purposes. Ordinarily employees or students treat tasks as meaningful in themselves or as meaningless except in terms of external rewards, masking the operation of their own interpretive scheme (at whatever their stage of development) as the source of meaning. By contrast, liberating tasks are epistemologically transparent: the product and the process congruently embody and reflect the purpose. Members cannot successfully complete liberating tasks unless they challenge their usual ways of doing these tasks without awareness of process and purpose. Consequently, and ironically, liberating tasks will initially seem opaque, strange, and disquieting to many organizational members since they are unaccustomed to such tasks, even though what is strange about them is that they are actually epistemologically transparent and that they encourage awareness of this fact.

A third quality of liberating structure is premeditated and precommunicated structural evolution over time. Such evolution reflects the movement by organizational members as they move toward conscious appropriation of the process and purpose territories of reality and thus toward the possibility of collaboration in the search for shared purpose, self-direction, and quality work. Such pre-communicated structural evolution also counters the tendency to treat a given structure as the ultimate substance of an organization and encourages the search for a continuing thread of meaning—for a shared purpose beyond structure. The premeditated and precommunicated phasing of this evolution helps to persuade members that some discoverable rhythms underlie even the most fundamental transformations.

A fourth quality of liberating structure is that its tasks are so structured and its leadership so functions as to provide a constant cycle of experiential and empirical research and feedback on participants' different ways of constructing reality, on their changing relations to one another, and on the quality of their work.

A fifth quality of liberating structure is the use of all available forms of power by the leadership to support the first four projects. Instead of attempting either to hoard power or to give it away, the leadership uses the logistical, diplomatic, and unilateral powers granted it by its institutional status and by its members, as well as the transforming power granted by its own experiential authority. It uses all these powers to perform a kind of psycho-social jiu-jitsu whereby the members experience both more discretion and more direction than usual. These conditions can lead the members gradually to question their own assumptions about the nature of power and begin to experiment with the creative power to constitute a new world. In so doing, the members increasingly join the leadership in a community of inquiry. The leadership does not use power manipulatively—that is, covertly and in order to maintain unilateral, exploitative structures. Instead, it uses power openly to create increasingly collaborative conditions.

A sixth quality of liberating structure is that the structure at any given time is open, in principle, to inspection and challenge by organization members. The organization requires the vigilance of all its members to determine whether its purposes are hazy and whether its specific structure, implementing behaviors, and products or services are congruent with its purposes. But members' charges of organizational incongruities may well be untrustworthy so long as the members themselves are unaccustomed to searching for incongruities among their own presuppositions, strategies, practices, and effects. Thus, especially initially, charges of organizational incongruity by subordinates may mask an unwillingness to face personal incongruities. The attentive leadership will turn such conflicts into educational opportunities. To state this idea another way, the openness of the leadership is made possible by, and is limited to the service of, a principle of inquiry more fundamental than any particular structure.

A seventh quality of liberating structure is that the leadership becomes vulnerable, in practice, to attack and public failure as soon as it behaves inauthentically when its tasks, processes, and purposes become incongruent and it refuses to acknowledge and correct such incongruities. By promising much, designing unconventional (and therefore often uncomfortable) tasks, and inviting full inspection, a liberating structure sets the stage for members' disillusionment. If the leadership exerts power in manipulative and defensive ways, members will become disillusioned with the leadership. If the leadership shows appropriate strength, vulnerability, and integrity from moment to moment, members will shed various illusions about themselves, about organizing work, and about the nature of reality, and will develop toward later stages.

A final quality of liberating structure, implicit throughout the foregoing discussion, is a leadership committed to, and practiced in, seeking, recognizing, and righting personal and organizational incongruities. The leadership leads other organizational members in learning while improving quality and in creating social settings that encourage simultaneous learning and quality work.

Chapter 13: The Vision of Action Inquiry

The Hierarchy of Political Principles in the Action Inquiry Paradigm

Because action inquiry is simultaneously a type of inquiry and a type of action—a type of science and a type of politics—it is appropriate to end this chapter with a consideration of its ordering of political principles. The action inquiry paradigm embraces and orders the three traditional political principles—Liberty, Equality, and Fraternity—and adds two more principles that have not heretofore been treated as political—Quality and Inquiry.

- *Inquiry*—the aim of creating existential communities of inquiry—is the primary political principle.
- *Peerdom* (Fraternity and Equality, without the sexist connotation of Fraternity) is the secondary political principle. True Peerdom is only approached as a peer culture or community of inquiry is created.
- *Liberty* is the tertiary political principle. Liberty is only approached in the context of a system, community, or culture that encourages peerlike inquiry and that grants equal rights—only in the context of Peerdom.
- And *Quality* is the quarternary political principle, approached only in the context of the commitment, attention, and skill cultivated through ongoing practice of the first three principles.

Presented so briefly and so abstractly, the interdependencies among these four political principles are hardly obvious. I attempted to state these principles and their interrelations for myself fifteen years ago. Although the language remains abstract and the tone of voice comes out more missionary, as a public utterance, than I am altogether comfortable with, I share it here:

The Politics of Inquiry

If I am to inquire into the meaning of human being as I act—if I am to act humanly and not automatically—I wish immediately to share this inquiry with all human beings. The meaning of human being is not some answer worked out by one for many. The meaning of human being is revealed in the response of each to each as we engage together in world transforming inquiry-in-action. There is no genuine community of inquiry that does not include the entire species because no one's imagination can encompass another's reality—can encompass the full meaning of *human being. As one wishing to inquire, I speak of my respect for you, of my esteem for you, yes, even of my love for you, when I address you as a stranger. As I address you in this way, and you reply, and our familiarity grows, you become stranger and stranger, until at moments I come to appreciate your Infinite Strangeness (my Infinite Strangeness), your individuality (my individuality), your craftiness (my craftiness).*

As our mutual value thus appreciates through fraternal inquiry, so does the value of our works. Indeed, as we come to appreciate the full mystery and majesty of human being, we begin for the first time wholeheartedly to seek to craft goods —products, services, and celebrations in—formed by the openness, discipline, and inspiration of living inquiry. All craft—whether verbal or manual—requires an inquiry- in- action repeatedly reawakening us to the matter and the moment at hand. As initial author of the words above and below, I can say, after thirteen years of increasingly independent questioning, that I experience their truth. I experience how these ideas found my questioning. I experience how they sculpt me. The call of these ideas so obviously animates, interpenetrates, and illuminates my daily life alone and with others (to the small degree that I can bear illumination) that I feel increasingly as though they are staking their life in me. (To say that I am willing to stake my life in them would be to treat them as contingent and myself as capable of choosing other foundations—which is not how I experience the situation.)

I believe these ideas are fundamental to a just and inclusive world community and I believe that all persons can come to experience their truth through inquiry. Thus, I do not urge anyone to believe what I say, but rather to join in the inquiry. Yet so few find their way even that far: to join in the inquiry. Indeed, this is the great mystery: how to generate a politics of inquiry. In the past, three great political principles have been propounded —liberty, equality, and fraternity. No state has ever attained all three. Indeed, none of the three has ever been attained alone, though some states have approached one and some another.

What some persons regard as the path toward just practice, other persons regard, equally assuredly, as the path toward hell. We are missing a fourth political principle—a principle never before recognized as political—the principle of inquiry. The only political principle that invites the potential transformation of everyone's perspective is the principle of inquiry.

Quality results can never occur so long as persons have no genuine felt sense of individual liberty—so long as persons do not experience their visceral power to craft. In the absence of the voluntarily-assumed, empowering discipline of craft, people are reduced to the status of consumers, requiring more of the same thing than another in order to imagine themselves better than the other, since they cannot really feel good about themselves. A positively empowering sense of individual liberty can only rarely occur, in turn, so long as groups, organizations, and nations do not create equality of opportunity, equality before the law, as well as genuinely friendly atmospheres where each seeks to meet the otherness of others. Only meetings under such conditions encourage and challenge persons to set their own goals, to risk for the sake of quality, and to grow in response-ability, rather than simply to conform externally to narrow norms of appropriate behavior.

But such a genuine peer culture—an inclusive atmosphere that actively encourages quality, liberty, and equality can, in its turn, never develop except in the service of the questions and dilemmas which face the human species as a whole. Any sense of fraternity rooted in specific answers must be implicitly, if not explicitly, elitist and imperialistic. (Which is not to say that a community of inquiry has no place whatsoever for answers: the strong declarative quality of the foregoing paragraphs may illustrate that foundational questions generate many answers in time, but answers that are rooted in and enliven inquiry rather than ending it.)

Not only is the development of a worldwide community of inquiry unlikely (all organization is, after all, improbable by definition), but the process by which it develops must be doubly unknown. If achievement of the community of inquiry comprising the species as a whole is the condition for full appreciation of the unknowns at the center of human being, then the fact of the unknown itself remains largely unknown during the process by which some promote evolution toward the community of all. Doubly unknown, this process of introducing the unknown can nonetheless certainly be characterized as ironic and as unlike any political process we have witnessed heretofore.

That I wish to share the inquiry into the meaning of human being with all human beings and that a liberating peer culture requires such shared inquiry—these facts do not, of course, imply that anyone else in the world, much less everyone else, wishes to join in such inquiry at the outset. Indeed, the very glory of our civilization—its development of production technologies and information systems that make global material welfare feasible—distracts our attention from the less tangible realms of liberty, peerdom, and inquiry, making the development of a community of inquiry all the more unlikely.

[Chapter 13's] Conclusion

Modern science is characteristic of a prolonged era of human history during which the principle dynamic has been the effort to elevate human communities from a reliance on custom to a reliance on reason. As custom ceases to glue people's interactions as reliably, their behavior oscillates between guidance by reason, by custom, and by market exchange or terror. Such is our world today.

On the brink of the twenty-first century, the United Nations struggles to find some principle and practice that can, without destroying local initiative, supercede national law in weaving a global community. It has yet to discover the primary potential source of its power. Not arms and unilateral force; not diplomacy; nor law will be its primary instruments of power, if it is indeed to contribute significantly to global development, global productivity, and global justice. Cross-cultural, cross-paradigmatic, transforming inquiry in the midst of ongoing practice must be the kind of power that the United Nations cultivates, if it is to play a truly constructive leadership role in the coming centuries. An Inter-Cultural Inquiry Corps could dispatch multi-professional, six-person teams throughout the world to relate to specific organizations and communities, to provide leadership training to individuals, and, on behalf of a not-for-profit investment consortium, to identify businesses that deserve micro-development capital investments. The degree to which nations contributed to and invited the presence of such an Inter-cultural Inquiry

Corps would provide an immediate measure of their openness as a polity to inquiry and self-transformation.

Such experiments in personal and social transformation will be fraught with risk and difficulty, as have been the ones described earlier in this book and in the next chapter. Everyone will be reaching beyond themselves at the same time, for few are now dedicated to questioning their own assumptions in the midst of action by widening their attention, while continuing to act. Few explicate the frames they are assuming, the advocacies they mean to make, the illustrations that influence them, and the inquiries that would test and validate or invalidate their current direction of action. Still fewer are prepared to create, implement, and recreate liberating structures. And fewer yet are prepared to joust creatively and non-violently with deeply ambivalent and at least semi-hostile superior cultures as they do so.

Notes:

Chapter 1

1. Torbert, W. 1987. *Managing the Corporate Dream: Restructuring for Long-Term Success.* Homewood IL: Dow Jones-Irwin. [This book will hereinafter be referred to simply as MCD.]

2. Hobbes, T. 1960, reprinted from 1651. *Leviathan* Oxford, England: Blackwell. Simon, H. 1957. *Models of Man.* New York NY: Wiley.

3. This is not strictly true, for Hobbes bases the sovereign's claim to absolute power on the prior social contract by which he claims citizens can be supposed to have granted the sovereign such power as the only sure means to preserve peace and hence life. In the strict sense, then, Hobbes argues that right makes might, and so begins a process in Western political philosophy and political history whereby sovereign power is seen to emanate from below - from the citizen - rather than from above - from God.

4. Jacobs, S. 1990. As streets turn deadly, youth revise their survival code. *Boston Globe* 2/24:1.

5. For detail, see Rawls, J. 1972. *A Theory of Justice* (pp. 167-187). Cambridge MA: Harvard University Press.

6. Smith, A. 1969, reprinted from 1759, *The Theory of Moral Sentiments*, Indianapolis IN: Liberty Classics. “The man of real constancy and firmness who has been bred in the bustle and business of the world has never dared to forget for one moment the judgment which the impartial spectator would pass upon his sentiments and conduct. He has never dared to suffer the man within the breast to be absent one moment from his attention. With the eyes of this great inmate he has always been accustomed to regard whatever related to himself (p 246).” These powerful lines argue that particularly people bred in “bustle and business” are ethically self-regulating - an argument particularly difficult to accept uncritically in the post-Boesky, post-Bakker, post-North era. In another place, Smith offers a quite different sense of our relation to the impartial spectator. He acknowledges, for example, that practice under conditions of hardship is necessary

to awaken the man within the breast, and that no one willingly undergoes such hardship (255-256). At still another point, Smith acknowledges the almost superhuman difficulty of operating amidst passions and hardships while remaining awake to the impartial observer within the breast; to become impartial in reflection is a wholly different challenge from being impartial in the midst of action: “When the action is over... and the passions which prompted it have subsided, we can enter more coolly into the sentiments of the indifferent spectator... But our judgments now are often of little importance in comparison of what they were before, and can frequently produce nothing but vain regret and unavailing repentance, without always securing us from like errors in time to come. It is seldom, however, that they are quite candid even in this case... He is a bold surgeon, they say, whose hand does not tremble when he performs an operation on his own person; and he is often equally bold who does not hesitate to pull off the mysterious veil of self-delusion which covers from his view the deformities of his own conduct (262).”

Obviously, there is considerable tension between Smith's two views: the one of an impartial, omnitient spectator who, almost by birthright, dwells within our breast and whom we never dare to forget for one moment; the second of an impartial spectator to whom even the most capable of us may never awaken at the crucially decisive moments of our lives. As the foregoing quotations show, Smith gives ample attention to each of these dichotomous perspectives. Yet, surprisingly, he never directly acknowledges the tension he illustrates. Instead, the main line of his argument is based upon the powerful presence of “the man within the breast” as an ethical regulator of conduct. Recently, Amartya Sen has shown that the rationality construct within utilitarian theory is itself not unitary, that it in fact is open to multiple interpretations of what self-interest in fact is. This brilliant opening of economic theory from the inside indicates a path along which modern economic theory may be reconciled with the developmental theory presented in this book, which emphasizes the enormous significance of just these different interpretations of what is in one's self-interest. See Sen, A. 1982. Choice, Welfare and Measurementÿ Cambridge MA: MIT Press; Sen, A. 1987. On Ethics and Economics London, England: Basil Blackwell; Klamer, A. 1989. A conversation with Amartya Sen. Journal of Economic Perspectives 3, 1:135-150.

7. Smith was quite explicit, in passing, in The Theory of Moral Sentiments that the invisible hand can be interpreted as a form of deception. Our attraction to wealth and to utility as means to happiness, Smith tells us, is not really due so much to: “the superior ease or pleasure which (the rich) are supposed to enjoy, as of the numberless artificial and elegant contrivances for promoting this ease or pleasure (p. 302)... From a certain spirit of system... from a certain love of art and contrivance, we sometimes seem to value the means more than the end (p. 306)... If we consider the real satisfaction which all these things are capable of affording, by itself and separate from the arrangement which is fitted to promote it, it will always appear in the highest degree contemptible and trifling. But we rarely view it in this abstract and philosophical light. We naturally confound it in our imagination with the order, the regular and harmonious movement of the system, the machine or the economy by means of which it is produced. The pleasures of wealth and greatness, when considered in this complex view, strike the imagination as something grand, and beautiful, and noble, of which the attainment is well worth all the toil and anxiety which we are so apt to bestow upon it. And it is well that nature imposes upon us in this manner. It is this deception which arouses and keeps in continual motion the industry of mankind (p. 303).”

8. Simon, H. 1980. *Models of Man*. P.5.

9. Dahl, R. 1963. *Who Governs?* New Haven CT: Yale University Press. Galbraith, J. 1983. *The Anatomy of Power*. Boston MA: Houghton Mifflin. Pfeffer, J. 1981. *Power in Organizations.* Marshfield MA: Pitman.

10. Pfeffer, op.cit. p. 2.

11. Rousseau, J. *The Social Contract* Bk I, Ch 312. Barnard, C. 1938. T*he Functions of the Executive* Cambridge MA: Harvard University Press. p. 167. Barnard's reference to "authority" and the frequent reference to legitimate power as authority together raise the question why I am here calling this phenomenon "diplomatic power" rather than "authority." Chapters 2 and 3 will discuss the relationship between power and authority, so the full answer will come then, but, briefly, consent alone does not assure legitimacy and authoritativeness. To be truly authoritative, I will argue in Chapters 2 and 3, requires that power—whether diplomatic, unilateral, or otherwise—be exercised in a fashion that is rational, timely, and conducive to the development of those affected.

13. Rousseau, op.cit. Bk I, Ch 6.14. Kant, I., Grounding for the Metaphysics of Morals p. 23

15. ibid.

16. ibid. p. 22. At certain "teachable moments," Kant's educational advice is no doubt true. Influenced by him, I have sought moments to present duties to my children in this stern and confronting manner. But at other times I explicitly bribe my children to do something good (and once one of them refused the bribe!). For there are times when austere rationality makes no contact with our attention; a humorous exaggeration may awaken a corresponding gleam in the child's eye, wherein the parent may imagine lurking an appreciation of the rational. And it is not only children who fall away from the rational from time to time. Some readers have no doubt fallen to sleep at some point during their attempt to read the previous pages, rather than finding themselves elevated to a higher wakefulness. I myself could not even bring myself to read an entire book of Kant's until my forty-fourth year.

17. Bowers v Hardwick 106 S. Ct. 2841 (1986). Justice Blackmun's dissent in the 5-4 decision best articulates the right of privacy doctrine that had been evolving over the previous twenty years, since the contraception decision in Griswold v Connecticut 381 US 479 (1965). Patrick Devlin propounds the 'Will of All' perspective that what disgusts 'the man in the street' may be criminalized in The Enforcement of Morals. H.L.A. Hart responds from a 'General Will' perspective in Law, Liberty, and Morality. I am indebted to Morris Kaplan for organizing these arguments in his March 5, 1990 address at M.I.T. on "Lesbian and Gay Rights: Privacy, Equality, and Community."

18. Some familiar with Kant may object that his approach was "legislative" rather than "judicial" because he spoke of persons as ideally legislators in a Kingdom of Ends (indeed, since every citizen is, presumably, King in a Kingdom of Ends, one might argue that Kant's vision was "executive"). This confusion of the three branches is to be expected in a theory that sees all human action as subordinated to reason, but since he himself recognizes his discussion of the Kingdom of Ends as idealistic, and since relations among the justices of the U.S. Supreme Court

may come as close to instantiating this ideal as those of any other historical governing body, it seems to me fair to summarize his thought as judicial and aristocratic in nature.

19. Rawls, op.cit. See also my fuller treatment of these issues in Torbert, W. 1974. Doing Rawls justice. Harvard Educational Review 44, 4: 459-469.
20. ibid. 465-466.21. ibid. 472-473.22. ibid. 302.23. ibid.24. Kohlberg, L. & Turiel, E. (Ed.s). 1973. *Recent Research in Moral Development* New York NY: Holt, Rinehart & Winston.

Chapter 2

1. Pitkin, H. 1972, *Wittgenstein and Justice*, Berkeley: University of California Press. As Pitkin has so carefully argued, the very structure of *The Republic* wherein Plato assumes a fixed class structure and a need for a 'noble lie' (rather than a direct explanation) to 'keep people in their proper place,' in effect provides a very tough test of whether one can generate justice in unpropitious conditions—conditions in which few are, by the nature of their relatively fixed worldview, prone to seeking out and enacting justice (the dialogue does not assume an altogether fixed class structure; indeed, parents and leaders are specifically prompted to be on the lookout for youths who ought to be in a different class from that into which they are born).

Chapter 3

8. For example, Chris Argyris has, over the past quarter century, devised a variety of techniques for publicly testing the validity of social observations and inferences among the very participants in a social situation where there are different and conflicting perspectives. His most recent publication on this topic is Argyris, C., Putnam, R., & Smith, D., 1985, *Action Science: Concepts, Methods, and Skills for Research and Intervention*, San Francisco: Jossey-Bass

9. See my discussion of analogical thinking in Chapter 9 of *Managing the Corporate Dream* and in my description of Pope John XXIII in “Leading Organizational Transformation” (full cite, footnote 10). See also Alan Watts, *Nature, Man and Woman* (New York: Pantheon, 1958) on feeling inside.

34. Nielsen, R. 1990. “Dialogic leadership as ethics action (praxis) method,” *Journal of Business Ethics*, 9: 25-43. In this article, Nielsen offers an unusually rich synthesis of theory and actual leadership cases that demonstrate these characteristics of transforming power, and the other characteristics mentioned earlier in the chapter.

Lessons from a Pluralist Approach to a Wicked Policy Issue

Jake Chapman[1]

Abstract: The most difficult policy issues are those where there are profound disagreements about what is wrong, what should be done, and how things work. This paper describes a pluralist approach, based on the soft systems methodology, to youth nuisance on deprived estates in Manchester, UK, where there were profound disagreements between the agencies involved. When there are disagreements about the nature of the problem, its causes, or about how the system of interest actually functioned, a pluralist approach is required, and this is provided by Checkland's *soft systems* approach. When the disagreements involve conflicts of value, it is necessary to adopt an adaptive approach that fosters change in the values, beliefs or behaviour of those involved. In the spectrum of public sector agencies involved, five different perspectives of agencies were identified, their descriptions indicating the need for the pluralist approach taken. The project was an experiment in using systemic approaches in public policy and the paper describes the learning associated with impacting outcomes. Processes used in the project included a "soft systems" workshop, which is described along with some effects on both the project participants and overall outcomes. The overall aim is to share the experience of this project so that it may inform those working with systemic approaches and other pluralist methods on wicked problems in the public sector.

Keywords: Pluralist policy making, soft systems methodology, systems thinking, wicked problems, youth nuisance.

Introduction

In this paper I describe the application of a soft systems approach to a contentious policy issue that involves a spectrum of public sector bodies in the UK. The project was conceived by the sponsors (see below) as an experiment in using systemic approaches in public policy and the paper describes the learning associated with impacting outcomes.

There have been many attempts to make use of the ideas involved in *systems thinking* to make progress in areas of public policy, with varying degrees of success. Many of the methods and their application have been reviewed comprehensively by Jackson (2003), though this does not cover the more recent work by Seddon (2008, 2010). In a review of the relevance of systems

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thinking to policy and government Mulgan (2001) identified seven factors that required a systemic approach:

- The ubiquity of information flows, especially within government itself
- Pressure on social policy to be more holistic
- The growing importance of the environment, especially climate change
- Connectedness of systems brings new vulnerabilities
- Globalisation and the ways in which this integrates previously discrete systems
- Need for ability to cope with ambiguity and non-linearity
- Planning and rational strategy often lead to unintended consequences.

These characteristics all play into the holistic nature of systems thinking and systemic approaches. However, many of the early attempts to use systems approaches failed because there was no agreement about the nature of the problem, its causes, nor about how the system of interest actually functioned. Where such disagreements exist a pluralist approach is required, and this is provided by the *soft systems* approach introduced by Checkland (1981). Checkland’s approach has been extensively used within organisations in both the public and private sectors in the UK (Checkland 1999; Morcos, 2009; Wilson, 2001) where the scope of disagreements is limited.

Most public policy issues involve disagreements about how to proceed and such disagreements are the “bread and butter” of politics. In most situations, policy makers and politicians establish policy according to their own preferences and positions in relation to the disagreements; that is, they adopt or champion one of the contested positions. However, depending upon the nature of the disagreements, this may not be the most productive way to proceed.

When the disagreements involve conflicts of value, either between groups or between the values people stand for and the reality they face, then, in Heifetz’s terminology (Heifetz, 1994, 2002, 2009), it is necessary to adopt an “adaptive” approach that fosters change in the values, beliefs or behaviour of those involved. A key feature of the strategy he proposes is that the leader does not seek to resolve the value conflict but instead gives the work back to the people—those who have to adapt. No amount of legislation, no law or policy, will cause individuals to change their values. Those changes have to arise as a result of the individuals facing reality, becoming aware of conflicting perspectives, and choosing to change. Heifetz and collaborators describe in some detail the difficulties in implementing such an approach and strategies that can be adopted.

In this article, I describe an approach that is suited to another context, namely one where the disagreements are not between groups of citizens or politicians, but between *agencies* responsible for the implementation of *any* policy initiative in a specific domain. The disagreements may involve conflicts of value, but more normally they are based upon different perspectives (or paradigms or frames) that cause those involved to interpret the situation differently and hence advocate different policies or strategies. These disagreements are characteristic of “wicked issues” and, it is argued, require a systems approach that encompasses the existing pluralism, as opposed to systems approaches that presume agreement on objectives or desired outcomes. Failure to embrace the pluralism will ensure that most energy is directed to the contests between agencies and not toward implementing any policy or action plan.

The issues and the proposed approach are illustrated by its application to the issue of Youth Nuisance in Manchester in the United Kingdom. The work described here formed part of a Demos project funded by the Neighbourhood Renewal Unit (NRU) and Manchester City Council (MCC) in 2005-2006. The Neighbourhood Renewal Unit was established in 2001 to coordinate government initiatives to tackle the most deprived neighbourhoods, some of which are located in Manchester. The next section describes the context of the project that includes the different perspectives held by agencies working in Manchester. This is followed by a description of the "soft systems" workshop run in Manchester in December 2005 and the immediate outcomes. The final section reflects on the impact of the workshop and project and draws lessons for interventions of this type in the future. The overall aim is to share the experience of this project so that it may inform those working with systemic approaches and other pluralist methods on wicked problems in the public sector.

Youth Nuisance in Manchester

Youth nuisance is part of the wider problem of anti-social behaviour (ASB) that became an important political issue during the 1990s in the UK. Typical examples of youth nuisance include graffiti, groups of youths harassing elderly pedestrians or playing music very loudly in public places. The youths involved ranged in age from 10 to 15, most of who should have been in school during the day. In order to "be tough on crime and on the causes of crime," in 1999 the government introduced Anti-Social Behaviour Orders (ASBO). An ASBO is a community-based order that can be applied for by the police or local authorities in consultation with each other against an individual, or several individuals, whose behaviour is anti-social. The behaviour must cause alarm, distress, or harassment to one or more people not in the same household as the offender. Applications are made to the Magistrates Court acting in a civil capacity. An ASBO might ban an individual from an area, such as a park or shopping centre, or require the recipient to cease certain behaviours. However, controversially, breach of an ASBO without reasonable excuse is a criminal offence with a maximum penalty of five years in prison. Where ASBOs have been issued for nuisance, but not criminal, offences, the effect has been to criminalise those subject to the orders. By 2005, Manchester was known as the "ASBO Capital" of the UK due to its extensive use of the orders; however the problem of youth nuisance was not improving significantly. The incidence of youth nuisance was higher in deprived neighbourhoods and it was Manchester's inability to meet its nuisance targets in these areas that prompted the NRU to initiate the project.

One of the disagreements brought into focus by Manchester's use of ASBOs as whether or not they were an effective deterrent for youths. There were reports in the press of youths being proud of having "scored" six ASBOs, with the implication that it added to their "street cred." This exacerbated the disagreements between those who wanted to eliminate youth nuisance by being tough and those who regarded the root of the problem as lying elsewhere. The various positions adopted by different agencies can be summarised as follows:

Enforcers:
This is the group that wants to adopt a zero tolerance approach to ASB in general and youth nuisance in particular. They want to establish very clear boundaries of what is acceptable and to enforce those boundaries with the force of law as necessary. Youths who, in their view terrorise old women, should not be exempt from the use of criminal sanctions. They regard those who object to ASBOs and criminal sentences as part of the problem – it is their liberal attitudes and failure to impose boundaries on children that has lead to the current problem.

Distracters:
According to this group, youth have always been mischievous, and probably always will be. The root of the problem is that now they do not have safe ways to let off steam. This group argues that what are needed are supervised activities and channels where the youngsters can channel their energy creatively. They see a large part of the problem stemming from general lack of youth facilities and the early closure of those that do exist. They also regard demonising and criminalising children as the worst possible response to the problem.

Parenters:
This group maintains that it is wrong to blame or punish the children who cause trouble because the people who are really at fault are the parents. They see the problems stemming from poor parenting, in particular a failure to impose and enforce normal boundaries of acceptable behaviour. For this group, the way forward is to hold parents more accountable for the behaviour of their children. They support the use of tenancy agreements and Acceptable Behaviour Contracts (ABCs) which, if breached, mean that the entire family is evicted. For this group, focussing on the children is letting the real villains get away.

Deprivation:
This group points out that the problem of youth nuisance occurs on deprived estates. Middle class suburbs are largely free of the problem, and this is regarded as highly significant. This group maintains that the real problem is families living in poverty, often dire poverty. This means that there is often insufficient space in the home for the children to play or study, there are not the usual resources of books and games available, and so it is not surprising that the children are out on the street causing mischief. All this is aggravated by the poor condition of the deprived estate, the poor quality school, the widespread use of drugs and incidence of criminality in the impoverished community. This group regards punishing the children of these impoverished families as inappropriate and as being advocated by people who do not want to see or address the underlying cause of extreme poverty. The solution they propose is to take measures to address the poverty.

Cultural breakdown:
This group regards youth nuisance and the whole spectrum of anti-social behaviour as symptomatic of the loss of value and respect in modern culture, a trend they see reinforced by the media, TV, computer games, rap songs and celebrities behaving badly. They point out that many of the youth involved in nuisances do not have a father at home; indeed the only male role models they see are drug dealers. They do not see how we can expect young

> children to behave appropriately when their parents fight and divorce, when common courtesies are regarded as antiquated, and crime and violence is glorified. For this group youth nuisance is a symptom of cultural breakdown and as such is a distraction from the core issue, which is finding ways to reinstate traditional values of respect.

These short descriptions do not do justice to either the strength of feelings involved, or the more subtle aspects of the perspectives involved. However, they are sufficient to demonstrate that each perspective is well articulated and clearly has some supporting evidence. Further, it is fairly easy to see how from each perspective those adopting one of the other perspectives are contributing to the problem. It is not just that these other people disagree about what should be done: what they are doing and saying is making matters worse. It is this antagonism between the perspectives that explains why so much energy is directed toward winning policy arguments—and stopping opponents—rather than addressing some aspect of the problem. Under these conditions, *all policy initiatives based in a single perspective will fail.* They will fail for a number of reasons because a policy based on one perspective will:

- excite intense opposition from all those holding different perspectives
- not address the complexity of the situation
- presume a homogeneity in the situation that does not exist.

Wicked Problems

Earlier it was asserted that this type of disagreement was a characteristic of a "wicked problem." This terminology was first introduced by Rittel and Webber (1973/1984). The abstract to their paper, originally written in 1973, remains cogent:

> The search for scientific bases for confronting problems of social policy is bound to fail, because of the nature of these problems. They are "wicked" problems, whereas science has developed to deal with 'tame' problems. Policy problems cannot be definitively described. Moreover, in pluralistic society there is nothing like the undisputable public good; there is no objective definition of equity; policies that respond to social problems cannot be meaningfully correct or false; and it makes no sense to talk about optimal solutions to social problems unless severe qualifications are imposed first. Even worse, there are no "solutions" in the sense of definitive and objective answers. (Rittel & Webber, 1984, p. 135)

A recent review (Chapman, Edwards, & Hampson, 2009) of the features of wicked problems and how these impact policy, identified the following five key characteristics:

1. The issue had defied previous attempts to "solve" it, i.e., there was a history of repeated policy failure. This is indicative that the normal reductionist and positivist approaches may not be appropriate.
2. There is profound disagreement on both the causes of the problem and the best ways to address it. As the above summaries indicate there are several different perspectives claiming priority in the case of youth nuisance.

3. The issue is unbounded in scope. This arises because it is connected with other issues that are also “wicked.” In the case of youth nuisance, there are obvious links to poverty, family breakdown and the persistence of deprived neighbourhoods all of which are also “wicked” issues.
4. The issue is resistant to completion, i.e., there is no sense in which one can ever claim that the “problem is solved.”
5. There is a high level of complexity involved, which means that aspects of the behaviour of the system of interest are *in principle* unpredictable.

These characteristics challenge the conventional approach to policy making which usually starts with a stage labelled “problem definition” (Strategy Unit, 2004). However, this is precisely the area in which the disagreements exist. Is youth nuisance a problem of poor parenting? Poor facilities? Poverty? Misbehaviour or cultural breakdown? Without an agreed definition of the problem, the conventional policy process cannot even begin. The alternative, proposed by Chapman (2002) is to adopt a systemic approach that is both holistic and pluralist, in particular, a *soft systems* approach.

As well as addressing the issue of youth nuisance, the Manchester project also had the aim of demonstrating the utility of systemic methods in addressing complex issues in deprived areas. The project involved three distinct phases. The first involved a series of interviews with a large number of individuals working in different agencies so as to appreciate the scope of the problem, initiatives that had been tried, and the different perspectives operating. The second phase involved a soft systems workshop, described in detail in the next section. The final phase involved constructing a system dynamics model of an aspect of the issue. This was undertaken by Lane (2007) and is discussed further below.

The Soft Systems Workshop

One of the roots of systems thinking lies in cybernetics and its application to engineering systems. In this domain, the development of computerised system dynamics models proved a powerful tool for analysis of industrial processes. Stafford Beer (2002) extended the domain to include broader organisational processes. Known as “hard systems,” these methods continue to find wide application today as demonstrated by the system dynamics literature and the use of “lean systems” (see, for example, Seddon, 2008) to improve the efficiency of operations in both the public and private sectors. In the 1970s it was anticipated that these approaches, coupled with the deployment of multidisciplinary teams, could be used to address a broad spectrum of social problems. These hopes were not realised in those domains where there were profound disagreements about *how the system functioned*. These disagreements, as described in the youth nuisance case earlier, mean that a model constructed using one perspective will be contested from the other perspectives, and will simply become another domain of disagreement and contest.

The “soft systems” approach was pioneered by Checkland (1981), who emphasises that what distinguishes his approach from “hard systems” is the way that systemicity is attributed. In hard systems, the observer or analyst perceives *systems* in the external world, systems that can be modelled and improved. In soft systems, the observer or analyst perceives *complexity* in the external world and organises the exploration as a learning system: thus, it is *the process of enquiry that is systemic* (Checkland, 1999). However, for the purpose of this project the main attraction of adopting Checkland's soft systems methodology (SSM) was that it explicitly surfaces the differences in perspective and uses a learning approach to devise *improvements* agreed by all the participants.

The Manchester project made use of a whole day soft systems workshop with about ten participants. The aim was to have representatives from all the different agencies and departments that were involved in addressing the youth nuisance issue in Manchester, including relevant central government departments. There were representatives from the NRU, The Home Office, The Government Office NW, Greater Manchester Police, several departments within Manchester City Council, a local resident, a youth project leader and the manager of a facility for dysfunctional families (the "Foundations project" described later).

The briefing for the workshop made it clear to the participants that they were to present their perspective on the issue as fully as possible, not with a view to changing other people's minds, but so that their perspective was understood by the other participants. Everyone was also asked to be open to hearing the perspectives of the other participants and to be willing to engage with a process that might strike them as strange, but which, in the end, would make sense. The group participants were seated at tables arranged in a large square with everyone looking toward the middle so everyone could see all the other participants. At each person's place, there was a stack of A3 paper and a large number of coloured pens available to share. The workshop was briefly introduced and then the participants invited to spend 10-15 minutes drawing a *rich picture* of how they perceived youth nuisance in Manchester. They were shown examples of pictures from other soft systems workshops to make it clear that drawing skills were not required but it was a real picture, not a diagram or flow chart, that was expected. An example of one of the rich pictures completed at the workshop is shown in Figure 1 below.

Once everyone had completed their rich picture, participants took a turn to introduce themselves to the group and to then show and explain their picture. After showing and explaining their picture, other members of the group could ask questions for clarification and there would sometimes be a short discussion of some of the issues raised. As the workshop facilitator, my role was to make notes on a flip chart of the key issues and themes that emerged from each picture, and to limit these initial discussions so that the main discussion could take place after all the pictures had been seen. The pictures were a powerful adjunct to each person's exposition of his or her perspective on the issue, because the visual element would often convey emotion, emphasis, and qualities that would be missed from a simple description.

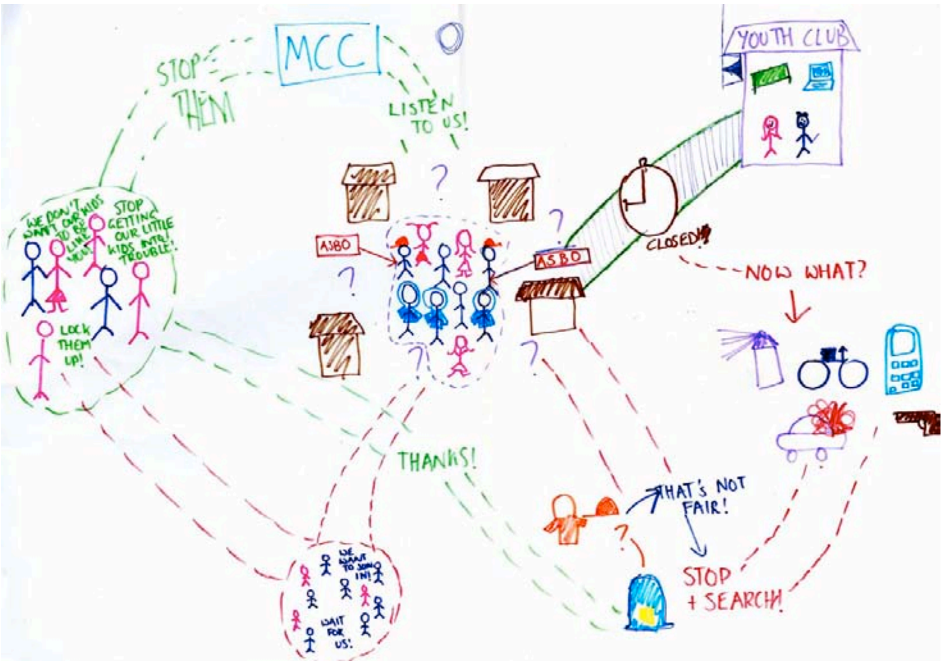
MCC
STOP THEM
LISTEN TO US!
YOUTH CLUB
WE DON'T WANT OUR KIDS TO BE LIKE YOU!
STOP GETTING OUR LITTLE KIDS INTO TROUBLE!
LOCK THEM UP!
ASBO
ASBO
CLOSED!
NOW WHAT?
THANKS!
THAT'S NOT FAIR!
STOP + SEARCH!
WE WANT TO JOIN IN!
WAIT FOR US!

Figure 1. A participant's *rich picture* of youth nuisance in Manchester

This can be illustrated by particular picture, drawn by a woman who was a senior manager of the MCC anti-social behaviour programme. She concealed her picture after drawing it. When it was her turn to present she said who she was and her role and then held up her picture. She had filled the A3 sheet with a large heart, coloured in a deep red colour. Across the heart was a jagged black crack. She said, "Youth nuisance is all about broken hearts." The impact of her picture and words were tangible: it brought tears to my and other people's eyes.

Once all the pictures had been presented, about an hour and a half into the workshop, the group returned to topics participants wanted to discuss further. The first was whether ASBOs were effective in addressing youth nuisance, or, as some maintained, they simply added to the reputation of the youths involved. After a few heated exchanges, the youth project worker, who ran projects with some of the youths on one of the deprived estates, intervened and drew a key distinction between gang leaders and followers. He asserted that for gang leaders ASBOs were ineffective and did indeed often enhance the leader's reputation. However, for the "followers," the threat of an ASBO was often sufficient to bring the youth under control. This was a significant intervention because it allowed both sides to have their position affirmed without making the other side wrong. It prompted further discussion about the gang leaders. What emerged from this debate was that the gang leaders were usually male and usually came from single parent families where the mother was in difficulties, usually with addiction or mental illness and often both. It was not unusual for the youth to have an older brother who was already in custody and for there to be several younger siblings also out of control.

At this point, the manager of the Foundations project said more about the work of his unit. He ran a facility that took in families of the "gang leader" type and provided a combination of very clear boundaries and complete support. The facility could accommodate only five families at any one time but had a very high success rate in enabling the single parent to overcome her addiction and regain control of her family. Typically, a family would be in the facility for between 18 and 24 months and would continue to receive support through an outreach programme after returning to the wider community. The manager said there were several key features that enabled the unit to succeed:

- It was outside the MCC system (it was partly funded by a national children's charity) and so could combine services and facilities far more easily than anyone within the council.
- It had very clear rules, and a family breaking the rules risked eviction. The key rules were to cease "using" (drugs or alcohol), to keep the home clean, and to have the children in school on time every day. These were policed and enforced by 24-hour supervision.
- It was able to offer whatever support the families needed, including treatment for addiction, assertiveness training, parenting and cookery classes and assistance dealing with MCC procedures.

He recounted examples of the work of the unit. One woman was at the point of being evicted for repeatedly being late, both for appointments and in getting her children to school, when one of the workers realised that she could not tell the time. Another woman often returned late from trips to town and sometimes had to be collected from remote places. It transpired that she did not understand the numbering of bus routes and thought that all buses would carry her to and from the city centre. At one of the early cookery classes, when asked what they wanted to learn to cook, one woman responded, "I would really like to know how to make a sandwich."

These stories made clear the level of difficulty that the single parents experienced and that "broken hearts" were indeed a large part of the problem. Equally important, they contributed to an increased level of openness among the workshop participants. The problem was made more real by the stories and experiences of those working in the deprived neighbourhoods and with the most dysfunctional families and the workshop participants were able to let go of polarised positions and become more open to seeking ways of working together. It was important that prior to this, everyone had had the opportunity to present their perspective on the issue and to have had their concerns recognised and noted: this gave them the space to explore other perspectives and engage in a different type of debate.

SSM Modelling

The discussions continued for more than an hour and were brought to a conclusion by the facilitator asking the group to review the lists of topics that had emerged from both the pictures and the debate. The lists now covered half a dozen flip charts, but it was clear to the participants that there were a few obvious groups of items. These groups were identified and over the next 15 minutes condensed to four themes:

- Home and family life: role in providing boundaries, praise and respect
- Dealing with boredom and providing appropriate facilities
- MCC and other services needing to work together
- Involving the local community in addressing the issue and shifting perceptions of young people

The next stage of the soft systems methodology required the group to choose one of the themes and to then construct an *ideal system* that, if it existed, would address the issue encapsulated in the theme. It is important that the ideal system is not constrained by factors or issues in the real world; this is an abstract exercise with the aim of identifying a genuine *ideal*. The ideal system is then modelled in terms of the activities that would have to take place for the system to function effectively. It is common for the process to iterate between the definition of the ideal system and the modelling of the activities. Finally, the activities in the ideal system are *compared* to what is occurring in the real world with a view to developing an *agenda for improvement*. Undertaking these steps is actually straightforward since each logically follows from the previous step.

In the workshop, the sub-groups were formed to work on different themes. What follows is a summary of the work carried out on the 'Home and family life' theme. The definition of an ideal system has three components. The first is to identify *what* the system does, i.e., the transformation that it brings about. The second is to specify *how* the system achieves the transformation, i.e., the means employed. The third component is the specification of *why* this is being done, i.e., setting the larger context within which the system operates. Here is a definition of the "Home and family life" system used by the sub-group:

A system to improve a family's capacity to raise children	*(The purpose)*
by improving the parent's self esteem, providing role models and support and engaging children with education	*(The means)*
in order to enable young people to become fully functioning members of society	*(The context)*

In iterating this definition the group dropped the specific reference to parent's self esteem and subsumed this within the range of support services to be provided. It also dropped the reference to "engaging children with education" since this was regarded as separate from core purpose of improving a family's capacity. The activities that the group identified this system would need were listed as follows:

- Identify families needs
- Develop services to meet needs
- Direct families to appropriate services
- Provide intensive care for dysfunctional families
- Give detailed guidance on parenting
- Support parents learning new skills
- Provide role models for parents and children

This list was developed into the *conceptual model* illustrated in Figure 2. The model organises the activities into a logical sequence and helps identify any gaps or overlaps in the activities. One of the insights that arose for the sub-group working on this system was that the best role models were likely to emerge from the support system itself, as shown in this version of the model.

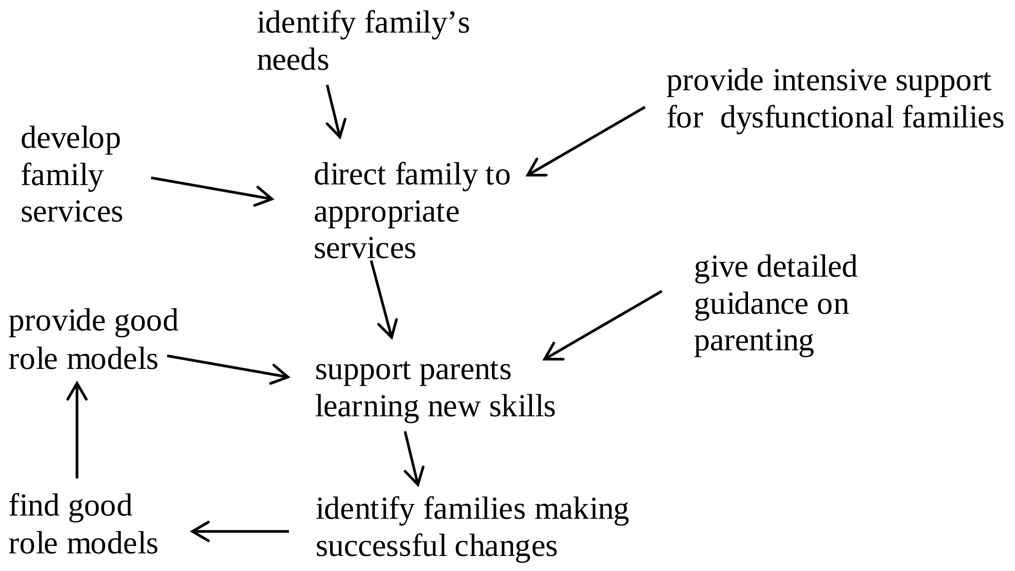
identify family's needs
provide intensive support for dysfunctional families
develop family services
direct family to appropriate services
give detailed guidance on parenting
provide good role models
support parents learning new skills
find good role models
identify families making successful changes

Figure 2. A conceptual model of the *ideal* family support system

The final stage in the SSM is to compare this model of an ideal system with what occurs in the real world in order to identify the steps that would lead to an improvement. It is stressed during the workshop that the aim is not to find a *solution* to the issue, but simply find the steps that can be agreed that would *improve* the situation. Once the improvement has been made then, ideally, the process would be repeated to establish the next improvement steps.

The group working with the ideal system shown in Figure 2 concluded that there were two improvements that they could all agree to. The first was to increase the capacity for handling dysfunctional families (the Foundations project). The second was to introduce parenting courses for parents of children over eight years of age. Up to that point, the parenting courses in Manchester had focussed on very young children whereas the youth nuisance issue only arose for children over eight! These are very practical steps, but the most significant feature of the conclusions was that all those involved agreed that they would support them. This is in sharp contrast to the competing perspectives and hostility present at the beginning of the workshop.

Workshop Outcomes

The aim of this section is to reflect on the shifts that occurred for the participants as a result of the Soft Systems workshop for the project. The previous section has described the workshop in some detail to illuminate these shifts because they are a crucial component of any pluralist approach to contentious policy areas.

During the pre-workshop interviews it became clear that most of those engaged with youth nuisance in Manchester were most interested in convincing the listener of the validity of their position and ridiculing other positions. This was reflected in the early exchanges in the workshop itself, particularly where the discussion entered disputed territory, for example whether or not ASBOs were an effective deterrent. It was highly significant for the workshop that this issue was resolved without making either side in the dispute wrong. Sometimes ASBOs were effective, and sometimes they were not—and the key difference was in the role of the youth in the gang. This reinforced the workshop ethos of sharing your own perspective as fully as possible and being open to hearing other peoples' perspectives.

The rich picture process also fostered a level of openness through:

- everyone sharing a strange process to which they were all new
- discovering who the other participants were through their pictures
- having the same amount time to present each person's picture and their perspective
- clearly conveying emotions as well as ideas via the pictures

The stories communicated to the group served two important roles. First, they were a powerful way to share people's firsthand experience of the issue. Second, many stories conveyed the severe levels of deprivation and the tragedies in the lives of those involved—and as such, opened people's hearts to aspects of the problem that their entrenched position had enabled them to ignore.

It was also important that the group was small, ten participants and two facilitators, since this enabled people to appreciate each other as human beings and not simply as representatives of "them." By the end of the workshop, there was a clear sense that the group had been on a journey that had affected all those involved.

A key element of that journey was a shift in the individual's ability to appreciate different perspectives. Achieving this shift was a significant outcome for the project (and see further below for the wider impact on outcomes) since it demonstrates the feasibility of working pluralistically using a systemic approach. It is highly likely that the shift experienced by the participants was temporary and limited to this domain; however, such experiences are the stuff from which development as an adult is constructed. It is also the case that the group participants were able to agree a number of improvements to the situation in Manchester without being seen to "win" the debate—an outcome that seemed impossible at the outset.

System Dynamics Component

As indicated earlier, it is only feasible to construct a system dynamics model when there is broad agreement about the way that the system of interest actually works, that is, what causes what. Whilst it remained impossible to model the issue of youth nuisance as a whole, following the SSM workshop there was agreement about the role of dysfunctional families and gang leaders in contributing to youth nuisance, and the treatment of this part of the problem could therefore be modelled. Although the construction of a computerised model requires the expertise of a modeller, the main contributors have to be those with knowledge and experience of working in the system. Furthermore, it is normal for the main benefits to arise as a result of the *modelling process* and not from the completed model. The benefits are realised because in the modelling process the participants have to surface their mental models of how things work and test them against the data available and the models held by others.

One of the conclusions from the SSM workshop was that dysfunctional families tended to propagate through generations. Many of the young single mothers in difficulties were themselves children of young single parent mothers with addiction or mental health problems. This process was likely to continue to produce children who would contribute to youth nuisance and eventually end in the criminal justice system. The aim of the modelling work was to explore the resources required to overcome this self-perpetuating system, and the likely impact this would have on youth nuisance.

The people involved in this modelling were deeply impressed by the process of surfacing and quantifying mental models and were able to develop a model that illustrated the scope and likely impact of targeting different interventions to families in different levels of need. Some of the data required by the process, for example the success rates of different interventions with different categories of families, were readily available. Other data, for example the number of potentially dysfunctional families with young children that was not directly measured, could be estimated. One of the strong conclusions was that without addressing the needs of the families involved, other measures such as ASBOs and tenancy contracts, could only have a limited effect on the incidence of youth nuisance. However, addressing the needs of the families would not lead to immediate large scale effects since there already existed a full pipeline of "problem families" whose children were approaching the age when they were likely to engage in anti-social behaviour. The model convinced those working on it that it would take a minimum of 20 years, and more likely twice that long, to deal satisfactorily with the core issues. The group also recognised that this was way beyond the planning or policy horizons of any of the agencies involved!

Conclusions

The soft systems workshop succeeded in identifying steps that could be taken to improve, not solve, the issue of youth nuisance in Manchester, despite the conflicting paradigms of those attending. The system dynamics model succeeded in showing those building the model the value of surfacing and quantifying their understanding of how the system worked—and also showed them the timescale for a significant improvement. However, the workshop, model, and the project as a whole had little impact on the policies and activities within Manchester. The aim of this concluding section is to explain why this was the case and to provide guidance for the future use of systemic methods in the domain of public policy. There are four main issues that have emerged from reflecting on this project.

The first is the amount of time required from the departments and agencies involved in the various strands of systems studies. Although those commissioning the work were informed that significant contributions of staff time were required, there was insufficient time available from the key individuals involved. (Ideally they were required to be available for several interviews, as participants in the SSM workshop, as advocates of the outcomes in their department and as contributors to the series of system dynamics modelling workshops.) There are several reasons for this. One is a failure of communication between the project commissioners and those required to participate. Another is the general level of overload of all public sector workers and the difficulty they have in prioritising what they see as an external project. Another was the alarmingly high number of projects being run by MCC. Indeed there were so many projects running concurrently that it would be impossible to identify which were having positive impacts. However, probably the main reason, and of particular relevance to the systemic approaches used here, is that the bulk of the work is done, and has to be done, by those already working in the system, not by the external consultants. As consultants, our role was that of expert facilitators whereas the real work, that of thinking through how systems function and so on, had to be done by the staff. What is more, much of what we were setting out to achieve challenged the way that these people worked and thought about the issues involved.

The second issue is the level of staff that worked with us on the systemic approaches. As the description of the SSM workshop indicated, all those participating emerged from the process with a deeper understanding of both the system they were working in and the perspectives of the other agencies involved. However, the participants were not at a senior enough level to be able to carry these conclusions and the new understanding back into their departments. This is a real problem where there are departmental and agency conflicts. Inevitably, when individuals have their awareness and understanding shifted, there is a follow through problem of translating the individual shifts into cultural shifts within departments or agencies. In general, the follow through is best when those involved in the systems work are at a sufficiently senior level to be able to influence the perspective and policies of their departments and agencies. But the senior people are often those who can least afford the time required to be active participants, as identified in the first issue.

The third issue is that despite many statements making it clear that systemic approaches are largely about improvements and not solutions, most of those involved in the project in the departments and agencies were looking for a *solution*. As a result, many were disappointed and probably were left with a view that the project had been a waste of time. This was particularly striking in the case of the system dynamics model where one of the senior commissioners was just not interested in an “answer” that said it would take between 20 and 40 years to address the issue!

The fourth issue is one familiar with many working with systems tools and approaches and is simply that in order for them to be used effectively, it is critical that they are understood and supported by the most senior managers or executives. A previous government review of the Lean Systems method concluded that for systems projects to be successful

> Managers must be supportive of the process. They need to be aware of, and understand, the work at an early stage and allow the review team unfettered access whilst carrying out ... the initial review of the service. The support of the Chief Executive and senior management is crucial in driving the changes in their organisations. (ODPM, 2005, p. 4)

These conditions were simply not in place for the Manchester project, and this author would not undertake a similar project again without ensuring a far greater level of understanding by the senior executives. Since the Manchester project there have been a wide range of systemic initiatives in the public sector in the UK that has resulted in a greater awareness of the requirements for success—and willingness for leaders to take risks.

Although the project did not have the level of impact we would have liked, it became clear in later discussion with officers in MCC that our contribution did support and foster what became known as the "twin track approach" to youth nuisance, an approach that established and enforced clear boundaries of acceptable behaviour whilst giving as much support as possible to families and children in deprived neighbourhoods where anti-social behaviour was a particular problem.

Acknowledgements

The author wishes to acknowledge the invaluable contributions of his collaborators: Sophia Parker and Hannah Lownsbrough at Demos and Dr.David Lane at LSE. He also thanks the Neighbourhood Renewal Unit and Manchester City Council for funding the project and all the people in Manchester and Whitehall who participated in the project.

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Politics in a New Key:
Breaking the Cycle of U.S. Politics with a Generational/Developmental Approach

Ken White[1]

Abstract: Some common, mental models shape how people in the US perceive political changes over time. The one-dimensional pendulum swing model and the two-dimensional cyclical model are prevalent. When generational differences are mapped onto such political change cycles, they orient to cohorts or age groups. This leads to viewing generational cohorts as experiencing one- or two-dimensional cycles without deeper scrutiny. Cohort differences that surface in the Generations Salons that I and others conducted in California suggest a different, three-dimensional model may be more representative of the potential for societal change in the US. Using a musical metaphor, that model is explained in terms of different political "keys" and the value of distinguishing among them as time passes. It also underlies a speculation about a "politics in a new key," which might prove more useful.

Summary-level reporting of the action research conducted with the Generations Salons supports the three-dimensional model. We expect new politics to emerge from the Millennial cohort coming of age now, yet it will not be without the support and wisdom of the cohorts that came of age before it. This must be the case if the burden of expectations we place on the Millennials will indeed pave the way for transformative change in US society. Intergenerational support of Millennials is essential. This initial research and application suggests the potential for the generational/ developmental approach as a wellspring for transformational—and practically successful—political work. It begs the question: What will you do to help?

Keywords: Archetypes, developmental, generational, mental models, Millennials, political change, transformational.

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[1] Ken White, born in 1961, came of age straddling the uneasy divide between Baby Boomers and Gen Xers, exemplified by a high school record collection that included both the Grateful Dead and The Clash. Ken has spent the last two decades looking for—and toward—the future of democracy, a journey that has taken him down many roads less traveled, and introduced him to a host of remarkable thinkers and doers at groups like Oxfam America, Common Cause, Post Carbon Institute, Chaordic Commons, Annenberg Institute for School Reform, Coalition of Essential Schools, and Institute for Defense & Disarmament Studies. He is indebted to them all. A graduate of Harvard University's John F. Kennedy School of Government's mid-career program, Ken has been privileged to have spent much of his career enhancing opportunities for citizens and communities. Contact: http://kenwhite.us/contact.htm.

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Stuck in Time

"Why are there no young people in the room?"

Like many activists, I've heard that *cri de coeur* (and its companion questions about women and people of color) many times—too many times—at political events. Looking around at this gathering of mostly earnest, progressive Baby Boomers, there seemed to me a blindingly obvious rejoinder: "Because they have a different model of political action!"

I fell into a conversation with the fellow sitting next to me about the apparent age divide, and he invited me to join a group of theorists and activists exploring ideas for "changing the political conversation."[2] Over the next several years, as part of a series of "Political Salons," this group explored (among other things) whether a generationally-based conversation could help point us toward a transformation in our political advocacy efforts…and in US political culture.

My interest in the potential for generational and developmental theory to make practical contributions to political action (and to help us improve the quality of our civic environment) grows out of 15 years as a professional political advocate, working almost entirely in the US.[3] I have worked with a political group whose average member age was over 70, as well as with high school and college organizing efforts, and with every age group in between. Not surprisingly, I have observed obvious differences in the "mental models" the various age groups bring to politics, based simply on their respective stages in life. But there also seem to be differences based on "generational cohort"—the group of peers you travel through life with, and with whom you share a broad range of experiences and perspectives.[4]

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[2] This San Francisco Bay Area group (called the Praxis Tank for Progressives) grew out of a 2002 conversation initiated by Dean Elias, Kathleen Taylor, and Peter Dunlap (among others), driven by the question: "How can we change political culture?" In the years since, the group has hosted more than a dozen "Salons" where practical approaches to political work are "tried out" by a wonderful group of engaged (and engaging) political activists and activists-to-be from a variety of backgrounds, ages, and perspectives. The group was an essential proving ground for some of the concepts explored in this article, as well as in Peter T. Dunlap's book, *Awakening Our Faith in the Future: The Advent of Psychological Liberalism* (Routledge, 2008).

[3] This article draws specifically on US examples and theory—the only political culture I know well enough to write about. The specifics of both the theory and practice may not apply to any other culture or nation. However, it would be fascinating to learn if the general idea (and similar practices) of generational difference and potential alignment could be helpful elsewhere.

[4] A "generational cohort" is an often-self-defined group of peers with whom you identify, and with whom you move through various stages of life. Perhaps the most famous of these cohorts is the Baby Boomers, now in their mid-40s through mid-60s. In their youth, the Boomers catalyzed one of the most turbulent periods in American history, and now in their generative years they are trying to redefine aging. The difference between a "cohort" and an age group is that cohorts move together through time, while age groups are defined by characteristics that are common to a certain stage in life. For example, the basic characteristics of age groups like teens and 20s are intuitively obvious. It seems most everyone goes through adolescent turbulence in their teens; most everyone begins to take the future more seriously when they reach their 20s. Similarly, most everyone, upon reaching their 40s, begins to take dietary fiber more seriously; most everyone who enters their 60s begins to take their legacy more seriously; and so on. It is perhaps less obvious that different generational cohorts, as they move through these stages of life, will

I have also seen—and experienced—the suffering that comes with putting oneself into the political arena, and the chronic pain that can arise from confronting one of the most complex and convoluted challenges imaginable: changing the way we agree, collectively, to live together as a society. And I wondered if a generational/developmental perspective might help explain the sense of "stuckness" that so many of us experience in political involvement (as well as the sense of potential that arose from the more recent Obama campaign). It seemed worth exploring:

- If each of the generational cohorts understands and engages differently with politics;
- How the older generational cohorts could better understand, engage with, and support the rising Millennials (now in their pre-teen to post-college years);
- If the Millennials (together with the other generational cohorts) can translate the potential synergies among their differences into new forms of leadership and activism.

This article documents our experience working with a generational/developmental approach toward that goal. It begins with an introduction to the theory and "mental models" of political action, followed by a brief overview of the "Generations Salons" and how those events played out, and concludes with reflections and implications. This initial research and application suggests the potential for the generational/ developmental approach as a wellspring for transformational—and practically successful—political work.

Political Mental Models

The Millennials, often touted as the next "Greatest Generation,"[5] may actually have the potential to be that…and more. But if we simply slot them into a Greatest Generation role, and if we assume that the best way to develop their potential is to set them on well-worn political pathways—defined (and confined) by the "mental models" we bring to political activism—they may not have the oft-touted, but rarely-defined "transformative" effect. The limiting factor may not be the Millennials; instead, it could be the mental models we all use (mostly unconsciously) to help us make sense of the world.

In politics, American mental models tend to involve defined movement within clearly delineated boundaries. We often describe our experience of social and political change over time using metaphors that imply regular, rhythmic motions, such as ebbs and flows, or cycles, where lasting change occurs at a slow pace, if at all. Although these "back and forth/round and round" metaphors are not the only ones we use when thinking about politics, they are embedded in the language of political discourse as "pendulum swings" and the like. Beneath these descriptions are "mental models"—conscious or unconscious shorthand representations of reality that help us orient ourselves, make sense of reality, take action, interpret outcomes, and plan for the future.

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have different perspectives and worldviews from other cohorts that have moved through these same life stages. So, for example, although the Baby Boomers will experience many of the same life stage changes in their 60s that members of the "Greatest Generation" experienced in their 60s, the Boomers will also have some unique perspectives and experiences based on their shared history as a cohort.

[5] The "Greatest Generation" refers to Americans who came of age in the Great Depression and World War II years, and reinvigorated the US democracy and economy in a time of peril.

One Dimension: The “Pendulum Swings Both Ways” Model

One simple but powerfully attractive way of thinking about American politics describes change as something that happens in a single dimension (Figure 1). Trends and preferences swing back and forth along a single straight line with more-or-less metronomic cadence: Democratic-Republican, liberal-conservative, etc. Beyond providing a pleasing sense of continuity and predictability, the one-dimensional model provides the comfort of boundaries and limits to extremism.

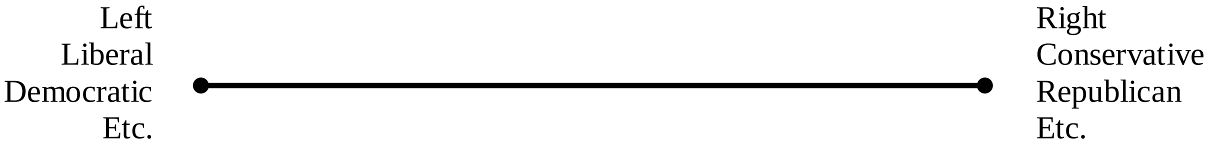

Figure 1. One Dimensional “Pendulum” Mental Model of US Politics

In this model, the length of the line—the total distance between the poles of “right” and “left” or “Democratic” and “Republican”—is fairly short, and the gravitational pull of the center is assumed to be quite strong. Extremists can never force things too far out of balance, and good old common sense keeps the majority opinion clustered around the midpoint…and along the line itself. Political action in this model consists of trying to get enough people and power to move, for as long as possible, toward your preferred end of the line.

More durable progress, in this model, comes only through slow, gradual migrations of the widely accepted midpoint itself along the line. Of course, the migration can go in either direction. So, from a one-dimensional perspective, “progress” can be defined as movement of the center toward either the “liberal” or “conservative” pole (or whatever terminology is used). Those on either side of a debate (and in this model, there is really only room for two sides of any debate) can always identify opportunities for what each perceives as the potential for long-term gains, achievable by moving the middle in their preferred direction.

Presumably, this combination of predictability, “boundedess,” and possibility of gradual progress makes the linear model acceptable to people and groups pulled toward the poles, as well as comforting to those drawn to the middle. The model “works” because it provides a stable framework for political activism. At the same time, it offers a sense of safety from erratic or dramatic shifts that might go “too far” in either direction along the line. In this model, the pendulum does not swing so far in one direction or the other that it can “break the frame” of the accepted consensus, and the majority of Americans can imagine themselves and their compatriots as clustered somewhere close to the center. Thus, this model generally “makes sense” to those who favor the relative security of slow, ordered change (or little change), as well as those pushing for relatively modest, incremental improvements.

Further, there is no need to make real distinctions among different generations, or among generational cohorts moving through time: although “young lions” eventually replace “old bulls,” the lions and bulls share fundamentally the same viewpoints at their respective ages. Both the model and the basic methods of political change hold constant, even if the personalities, parties, etc., shift over time. Political advocates need not look for and use differences among generations or cohorts, but simply “train up” rising young leaders in the received wisdom of the particular political viewpoint. This model seems to fit quite nicely with the recent spate of ”Generation X” Fundamentalist Christian parents sending their kids to summer camps that inculcate the 1980-90s Evangelical model of public activism, as well as the tendency among “Baby Boomer” Progressives to want young people to re-create the 1960s political culture and organizing methods. And, perhaps, the not-so-surprising outcome of many of the Millennial young people (politely) rejecting both of those models.

Two Dimensions: The “What Goes Around, Comes Around” Model

A more complex version of the linear view uses a two-dimensional cycle (Figure 2) as a metaphor. In this model, “everything has its season,” and every action leads—eventually—to an opposite reaction. Political trends and preferences may seem to come and go, but underneath it all, there is a predictable rhythm. This is roughly the political equivalent of “just stick around, bell bottoms will be back in style again in 30 years or so.”

As an example, the excesses of a Republican Congress give way to a rebirth of liberal activism, which then leads to the election of a Democratic President, who joins with a Democratic Congress to implement activist policies, which in turn triggers a conservative backlash, and so on and so on through time.

Like its one-dimensional cousin, this model has an appealing sense of stability, and even order. The downside of predictability is (seeming) inevitability: A causes B, which leads to C, and then on to D, which brings us back to A. Although there is room in this model for some gradual “progress,” the opportunities for enduring change in this cyclical model may seem in some ways more limited than in the linear world. Unintended consequences are not only unavoidable, they are expected.

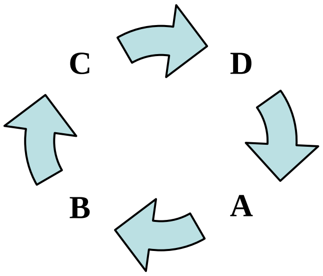

Figure 2. Two Dimensional “Cyclical” Mental Model of US

Carrying around this rather grim, Sisyphusian sense of how politics works may contribute to the burnout and disenchantment that so often claims political activists. Since you can’t freeze time, whatever progress you make is subject to—at best—only partial reverses as the wheel turns. And since the wheel won’t rotate all the way back for a couple of generations, well, political activism might seem pretty disheartening. However, this model does offer opportunities for some forms of progress, in three ways:

1. "Move the center.” As in the linear model, the center can and does gradually shift over time, taking the entire “cycle” along with it. And, as in the linear model, different people can and do define “progress” as movement in any direction, so change can and does happen—but so, of course, can reversion.

2. “Get what you can get, and then fight a rear-guard action against revanchism.” Most relatively mainstream groups profess to believe that their time will eventually come. And when

their moment arrives, they'll struggle to implement as many legal, structural, and procedural modifications as they can, and to make their moment last. This mental model might help explain some of the excesses that inevitably occur when an ideology, party, or generational cohort takes power: if a group's members believe (consciously or not) that their time in power will be brief and their gains reversible, it seems sensible to push their agenda as hard as possible for as long as possible. When their opponents retake power, they would quite logically fight to prevent their changes from being dismantled, while rebuilding their team and re-tooling for the moment when they can (finally!) reclaim power.

3. "Plan for the next war." From a cyclical viewpoint, progress can be made if groups avoid getting caught in the one-dimensional trap of building a Maginot Line to fight the last war. Instead, there is potential to create an insurgency that will replace the current order more quickly and more effectively this time around. This leads to strategies like "working smarter" and developing new, more conditions-sensitive leadership.

Although this model and its methods are not incompatible with the *language* of transformation, paradigm shifts, etc., the reality of using this mental model may well be (for very good and compelling reasons) that truly transformational change hovers chimerically on the horizon, while the stern tasks of grinding out progress and preventing losses predominate.

Two Dimensions: The Strauss & Howe Model of American Political Cycles

One of the most compelling examples of the cyclical model of American democracy comes from William Strauss and Neil Howe (1991, 1997). In *Generations, Fourth Turning,* and subsequent writings,[6] they posited that four generational archetypes (Heroes, Artists, Prophets, and Nomads—see Figure 3 for details) recur over and over in the US, in predictable generational cycles of roughly 20 years. They assert that each of these generational cohorts reacts both to the cultural climate created by the preceding generations, and to the larger climate (e.g., global, technological, etc.) in ways that are broadly predictable, based on their place in the generational archetype cycle.

Further, Strauss and Howe posit that there are also cycles in the types of challenges facing American society, which correspond to the archetypes of the generational cohorts leading the response to these circumstances. So, they argue, a "Hero" cohort like the Greatest Generation faces (or raises up) a "Secular Crisis" like WWII, during which Americans must band together to overcome. The resolution of the "Crisis" Era leads to a "High" Era of broad consensus and repressed conflict dominated by "Artists," such as the late 1940s through the early 1960s when the Silent Generation came of age in the time of the GI Bill and *Father Knows Best*. Following this, the rising "Prophet" generation then initiates a "Spiritual Crisis" that leads to an "Awakening" Era, as the Baby Boomers did when they called into question the core values of American society during the 1960s and 1970s. In turn, "Nomads" like "Generation X" endure an "Unraveling" Era, like the crime-obsessed, me-first, "Greed is Good" era of the 1980-1990s, which leads to the next "Secular Crisis" and "Crisis" Era, and the rise of another "Hero" cohort,

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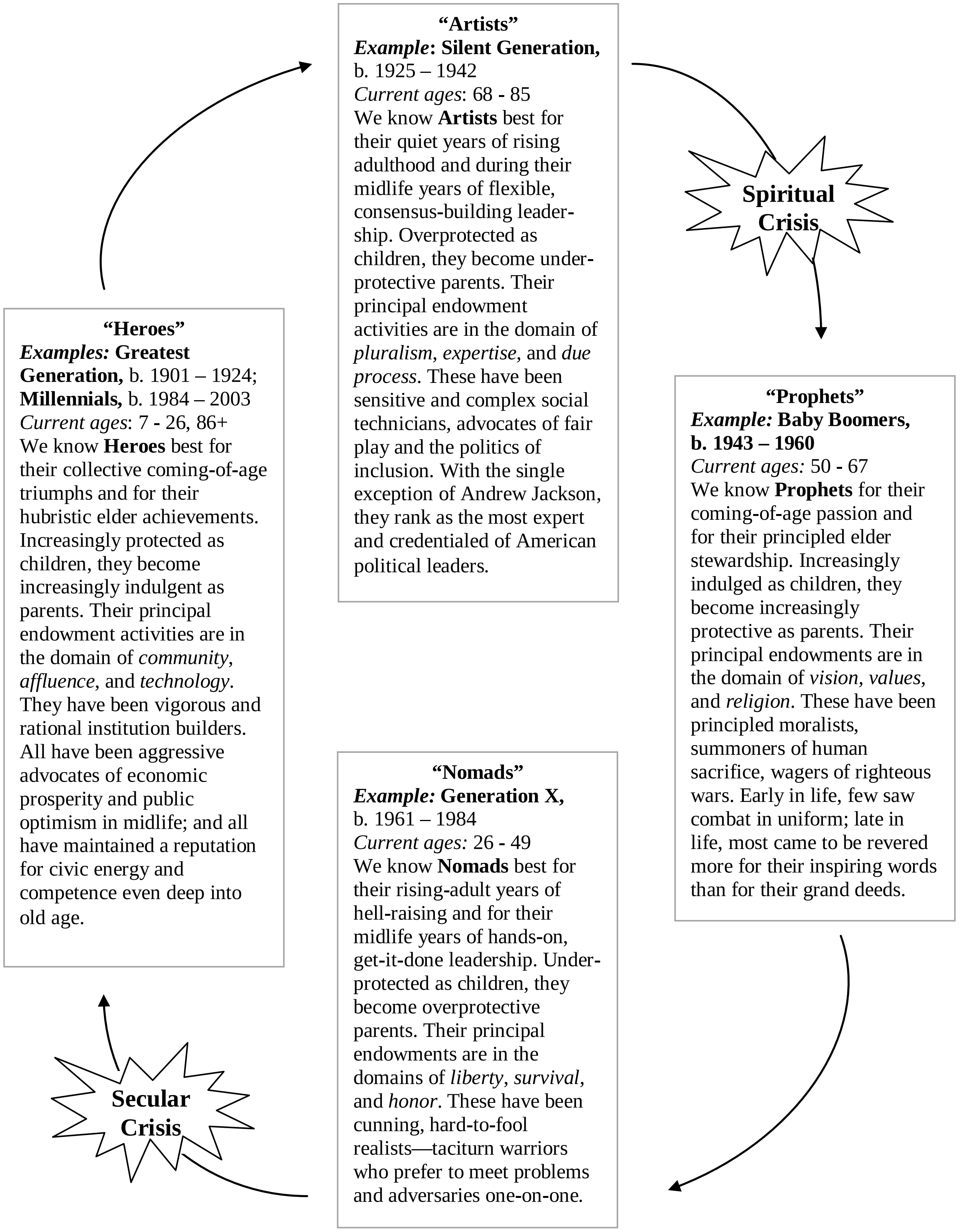
[6] For example, see www.fourthturning.com.



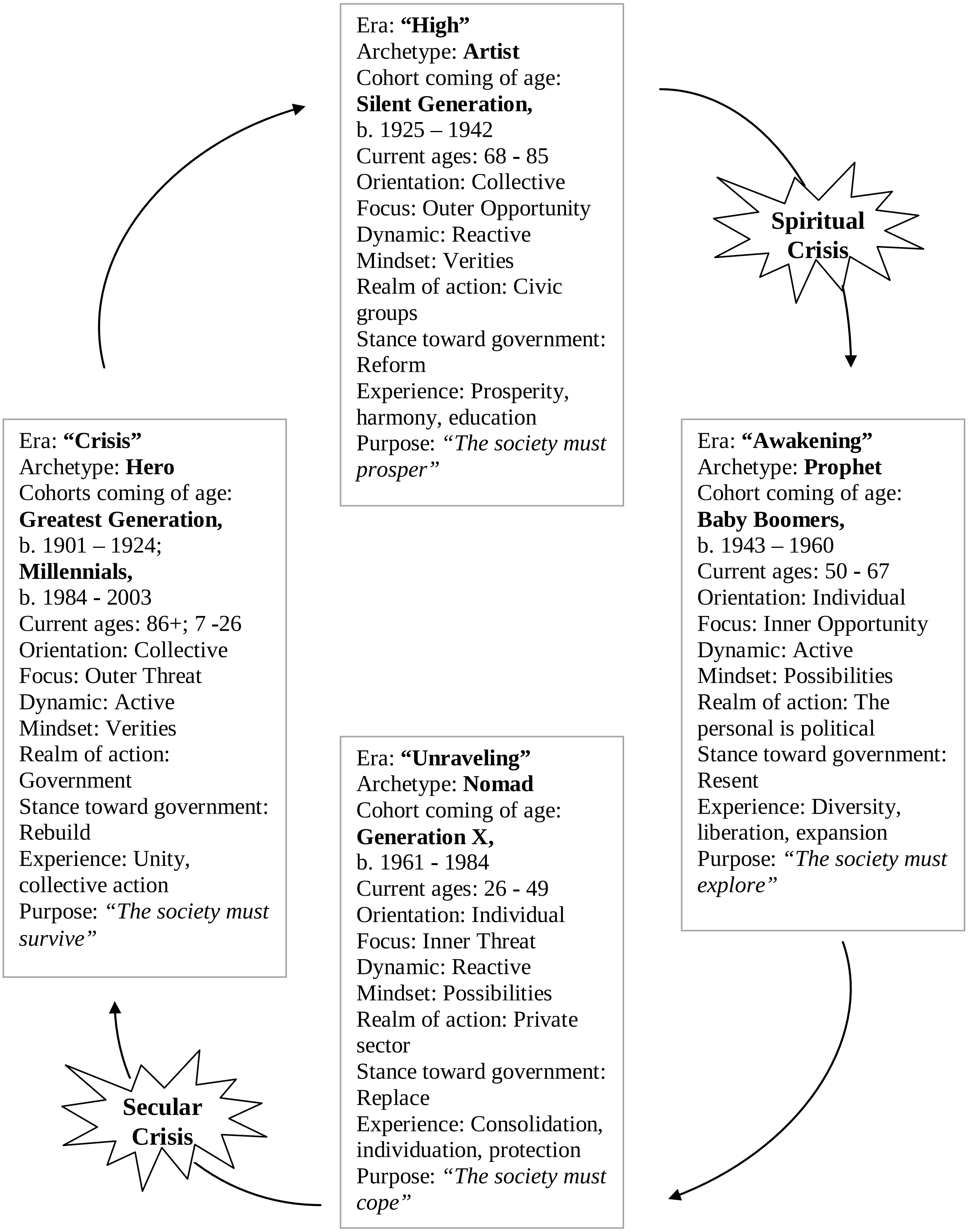
“Artists”
***Example*: Silent Generation,**
b. 1925 – 1942
Current ages: 68 - 85
We know **Artists** best for their quiet years of rising adulthood and during their midlife years of flexible, consensus-building leadership. Overprotected as children, they become underprotective parents. Their principal endowment activities are in the domain of *pluralism*, *expertise*, and *due process*. These have been sensitive and complex social technicians, advocates of fair play and the politics of inclusion. With the single exception of Andrew Jackson, they rank as the most expert and credentialed of American political leaders.

“Prophets”
***Example:* Baby Boomers,**
b. 1943 – 1960
Current ages: 50 - 67
We know **Prophets** for their coming-of-age passion and for their principled elder stewardship. Increasingly indulged as children, they become increasingly protective as parents. Their principal endowments are in the domain of *vision, values*, and *religion*. These have been principled moralists, summoners of human sacrifice, wagers of righteous wars. Early in life, few saw combat in uniform; late in life, most came to be revered more for their inspiring words than for their grand deeds.

“Nomads”
***Example:* Generation X,**
b. 1961 – 1984
Current ages: 26 - 49
We know **Nomads** best for their rising-adult years of hell-raising and for their midlife years of hands-on, get-it-done leadership. Underprotected as children, they become overprotective parents. Their principal endowments are in the domains of *liberty*, *survival*, and *honor*. These have been cunning, hard-to-fool realists—taciturn warriors who prefer to meet problems and adversaries one-on-one.

“Heroes”
***Examples:* Greatest Generation,** b. 1901 – 1924;
Millennials, b. 1984 – 2003
Current ages: 7 - 26, 86+
We know **Heroes** best for their collective coming-of-age triumphs and for their hubristic elder achievements. Increasingly protected as children, they become increasingly indulgent as parents. Their principal endowment activities are in the domain of *community*, *affluence*, and *technology*. They have been vigorous and rational institution builders. All have been aggressive advocates of economic prosperity and public optimism in midlife; and all have maintained a reputation for civic energy and competence even deep into old age.

Figure 3. Two-Dimensional Generational Archetypes in Current American Life
(from Strauss & Howe’s *Fourth Turning, (1997, pp. 95-97) and other sources*)



Era: **"High"**
Archetype: **Artist**
Cohort coming of age:
Silent Generation,
b. 1925 – 1942
Current ages: 68 - 85
Orientation: Collective
Focus: Outer Opportunity
Dynamic: Reactive
Mindset: Verities
Realm of action: Civic groups
Stance toward government: Reform
Experience: Prosperity, harmony, education
Purpose: *"The society must prosper"*

Era: **"Awakening"**
Archetype: **Prophet**
Cohort coming of age:
Baby Boomers,
b. 1943 – 1960
Current ages: 50 - 67
Orientation: Individual
Focus: Inner Opportunity
Dynamic: Active
Mindset: Possibilities
Realm of action: The personal is political
Stance toward government: Resent
Experience: Diversity, liberation, expansion
Purpose: *"The society must explore"*

Era: **"Unraveling"**
Archetype: **Nomad**
Cohort coming of age:
Generation X,
b. 1961 - 1984
Current ages: 26 - 49
Orientation: Individual
Focus: Inner Threat
Dynamic: Reactive
Mindset: Possibilities
Realm of action: Private sector
Stance toward government: Replace
Experience: Consolidation, individuation, protection
Purpose: *"The society must cope"*

Era: **"Crisis"**
Archetype: **Hero**
Cohorts coming of age:
Greatest Generation,
b. 1901 – 1924;
Millennials,
b. 1984 - 2003
Current ages: 86+; 7 -26
Orientation: Collective
Focus: Outer Threat
Dynamic: Active
Mindset: Verities
Realm of action: Government
Stance toward government: Rebuild
Experience: Unity, collective action
Purpose: *"The society must survive"*

Figure 4. Characteristics of Generational Archetypes and Corresponding Eras Leading up to the Present, and Projected into the Future
(extrapolated from Strauss & Howe's *Fourth Turning* and other sources)

projected to be the Millennials. Figure 4 extrapolates further from the basic Strauss and Howe model, suggesting ways that generational cohorts and the corresponding eras might be distinguished.

As these cohorts move through time, each appears to have quite distinctive ways of expressing values and principles, favored forms of action, preferred realms for intervention, etc. For example, the Silent Generation populated many of the large national civic groups like the ACLU and the League of Women Voters; whereas many Gen Xers have turned their successful private sector experiences to re-tooling the nonprofit world.

Although careful to avoid determinism, Strauss and Howe suggest that there is some predictability in the general contours and broad trends of American life. Quite wisely, they do not say how those trends will actually play out in each generational cohort or particular period in the future, just that certain patterns will reappear, predictably, time and again. The Strauss and Howe model picks out of the seemingly chaotic noise of the American Experience an *underlying rhythm and a simple melody*. The task of political advocates, it follows, is to dance to the pulse of the times by understanding the characteristics and configurations of both the rising generation and the generations currently in power, as well as the prevailing—and rising—mood of the country. A kind of “musical sensitivity” helps political advocates get ahead of trends by getting a feel for the (approximate) future, and gives them an edge in the three core political activities of the two-dimensional, cyclical model: shifting the center; fighting rear-guard actions; and building for the next war.

Of course, this model has its weaknesses. Beyond its limitations as a hugely broad-brush approach, the Strauss and Howe model begins to show cracks when the authors extend it back into pre-American Revolution “Anglo-American” history. Although on the surface their evidence seems intriguing, this reach into history may be more confusing than illuminating, for reasons outlined later in this article. Similarly, any attempt to project this kind of American particularism too far into a future seems unwise. We appear headed toward an era of greater interdependence, and we may be poised for some unimagined leaps forward (or backward) into dramatically different ways of life.

Finally, the reference to “Anglo-American” history points to the absence, in Strauss and Howe’s theory, of the experiences and impact of the many immigrants not “assimilated” into Anglo-American history and culture, as well the many people in the US who do not conform to the majority culture. But although Strauss and Howe look primarily at “Anglo-American” culture, similar distinctions seem to crop up outside of the mainstream culture as well. For example, some commentators have suggested familiar-sounding contrasts between the “Civil Rights Generation” (Baby Boomer) and the “Hip-Hop Generation” (Gen X) among African-Americans (see, for example, Goff, 2008; Kitwana, 2003), and interesting differences among different generations of gay men have also been proposed. Their theory does not address at all recent immigrants and their families (about 10 percent of the US population), who seem likely to be influenced as much (if not more) by their experiences outside of American culture as by their US-born generational cohorts.

Three Dimensions: The "Singing in a Higher Key" Model

The "cyclical model" above has both a stable rhythm (a new generational cohort appears every 20-25 years) and a predictable, repetitive melody. Viewed from above (as in the two-dimensional model shown in Figure 2), it portrays a harmonious repeating cycle over time.

But what if those patterns that Strauss and Howe observed were plotted in three dimensions, adding a developmental axis (Figure 5)? Would the American historical cycles (and the cycles in "Anglo-American" history before them, and those of the potential future beyond) reveal a different kind of pattern? Would this perspective suggest the potential for more enduring change, perhaps even societal transformation? Could this kind of "perspective shift" help us imagine politics being sung in a "higher key?"

Imagine trying to record on paper the output of a musician playing four notes over and over again, but without using the standard musical staff (the grid of lines used for writing music). Even if the musician changed to a different key, the pattern of the written notes would look the same, without the context of a grid to indicate pitch and direction. From this sort of two-dimensional perspective, a "do-re-mi-fa-do-re-mi-fa" melody would look just like an "mi-fa-la-ti-mi-fa-la-ti" melody or a "la-ti-do-re-la-ti-re-do" melody.

Add the staff, however, and the notes from the different melodies would appear in different places, making changes in key obvious, as well as any differences in the notes and patterns, and the direction of the music. From this three-dimensional vantage point, a similar quantitative melody (four notes in a repeating, cyclical pattern) would have a *large qualitative difference*.

In the first iteration of their theory, Strauss and Howe suggested a timeline of "cycles" that began around the time of the exploration and colonization of North America—a time of tremendous religious, political, scientific, philosophical, psychological, and societal upheaval. The Scientific Revolution, the Reformation, the American Revolution, all created conditions that made possible profound, fundamental changes in how individuals and societies perceived themselves and their relationships to each other.

Arguably, these were times of developmental shifts in both individuals and societies (and the governments created by these people, as in the emergence of American democracy). In these conditions, it seems plausible that a new societal "cycle" (like the melody in the example above) might have begun, perhaps replacing an earlier one, or—more probably—overlaying and building upon an earlier one. So, although the basic pattern of the cycle could appear to remain the same, the new cycle might instead be repeating in ways that corresponded with the new, more complex challenges that people and the society were experiencing. The cycle may have "changed keys" from the previous one, even though the basic patterns may have remained similar. In this way, although the cyclical patterns the American colonists inherited from the generational cohorts of medieval England (and Europe) might appear to roughly correspond in *archetypal form*, the old and new patterns might, upon closer examination, have a very different *context and content*.

However, trying to capture that difference in a two-dimensional model would probably result in these quite different cycles looking—and being represented—much the same. Even though a profound change may have shifted the society from an older, stable, medieval, monarchic "A-B-C-D-A-B-C-D" cycle to a newly stable, modern, democratic "C-D-E-F-C-D-E-F" cycle, the two-dimensional Strauss and Howe perspective would not capture this upheaval (e.g., compare the "Two Dimensional" model of Figure 2 with the "Three Dimensional" model shown in Figure 5).That type of "developmental shift" might best be represented in the "widening spiral" model shown in Figure 5, where although the cyclical pattern is repeated, it repeats at a level that encompasses a wider range of experience, and a greater degree of complexity and challenge.

Although it required a dramatic shift in individual and collective perspective to move from living as monarchic subjects whose sole duties were fealty, to becoming democratic citizens facing far more complex demands, a "two-dimensional" model cannot and does not account for this kind of change. In the Strauss and Howe world, a cohort of medieval serfs in 16th century England are of the same "archetype" as Internet-buzzing Americans of the 21st century—and that same archetype is projected to return again in the 23rd century. Although it is true we still read Shakespeare and the Bhagavad Gita because some aspects of human nature and experience remain timeless, in many other important ways, people and the societies we create have evolved to levels of far greater complexity.

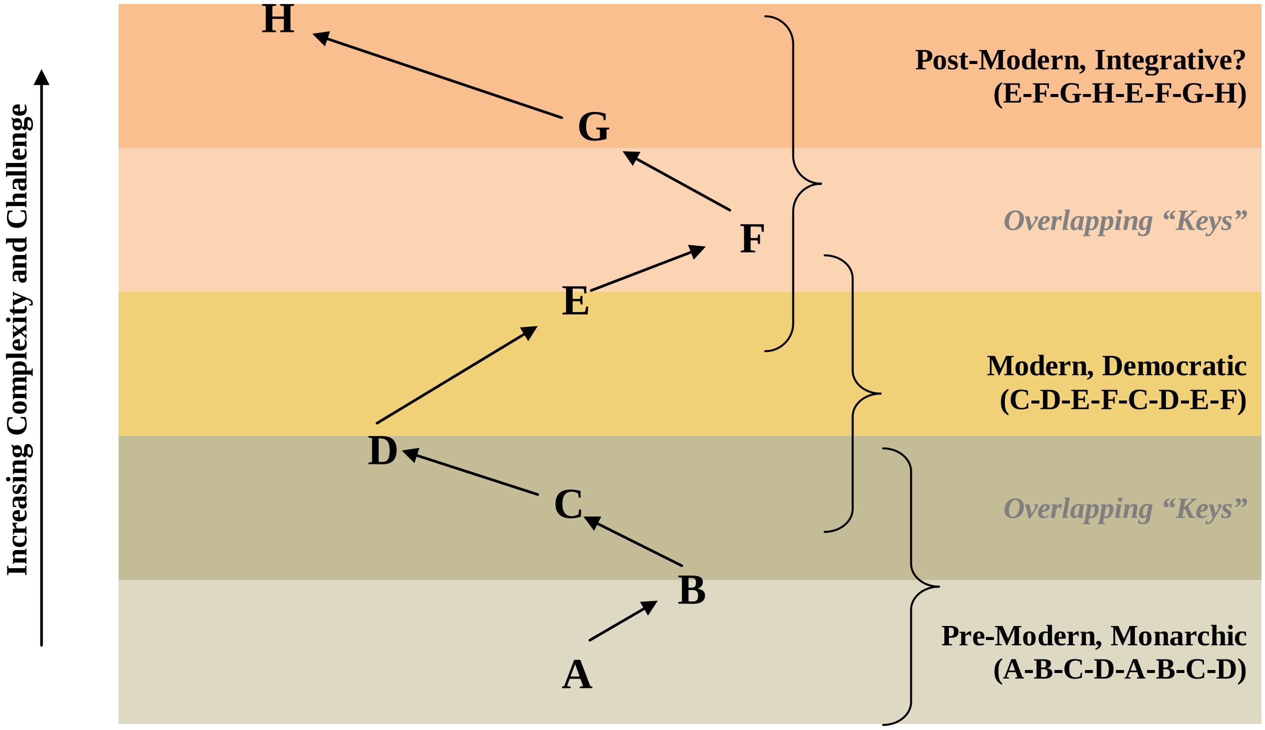


Figure 5. Three-Dimensional "Spiral" Mental Model of U.S. Politics

This, it seems, highlights the weaknesses of employing just a two-dimensional representation of both ”Anglo-American” and American historical cycles, and of projecting too far forward into the future. First, as many have argued, the American Revolutionary period corresponded with a (however imperfectly realized) developmental shift for individuals, societies, and governments. So whatever relationship there may be among generational cycles going back into “Anglo-American” history and forward into the future, although the “melodies and rhythms” may be similar, they may actually be “played” in different developmental “keys.” That is, a Hero generation might have appeared every 80 years or so in Medieval England, just as a Hero generation might have appeared every 80 years in the post-Revolutionary US. However, the US Heroes of the 18th-20th centuries would face much denser (intellectually, emotionally, psychologically, etc.) challenges than those that faced their 14th-17th century English counterparts. The modern, US Heroes (or any other generational cohort of the modern United States) would have to “sing” a similar song, but in a “higher key” that corresponded to the greater level of complexity and challenge in the world around them

Second, viewing the generational cycles through a two-dimensional lens limits the potential for imagining a developmental shift upward (as well as the tragic possibility of a developmental shift downward). Lasting change, in this view, can only occur by “moving the center.” Third, understanding the generational cycles as two-dimensional limits considering the potential for developmental growth *within* the cohorts and cycles, where each cohort might attempt to build on the advancements of previous cohorts, without falling prey to the pitfalls created by the previous generations’ efforts—and thereby repeating the inevitable cycle.

Three Dimensions: Accounting for Generational Cohorts

So, then, what advantages would a three-dimensional model offer (Figure 5)? First of all, as George Box famously noted, all models are wrong, but some models are useful.[7] The three-dimensional model’s usefulness lies not in how well it corresponds to reality (like the other models, probably not so accurately), but in whether it enables us to think differently about the potential for political change, and our ability to help catalyze that change.

In political advocacy, the three-dimensional model has the obvious appeal of allowing a greater amount of progress in more dimensions—people and cohorts (as well as movements and political parties) can grow not only within their existing contexts, but also grow into more complex, nuanced modes of understanding and acting. The three-dimensional model suggests a more open pathway of possibility.

At the same time, it does not completely break with the one- or two-dimensional models. Instead, it builds on the familiar “moving along the line” and “things go in cycles” orientations, by adding another dimension. As an extension of already-established patterns in the political culture, the three-dimensional model offers a progressive, logical pathway to a different way of understanding politics, which (seemingly) could be quite accessible to those comfortable with the one- and two-dimensional models. The changes in this model grow out of the received tradition of values, patterns, and structures, and continue along a roughly similar (although widening and rising) circular pathway. The model has the added advantage of not requiring *everyone* to rise to some new level; it also suggests that simply changing and growing *within* a generational cohort (or party, ideology, etc.), can also contribute to the general progress.[8]

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[7] There are, of course, other “three-dimensional” models of politics. Most, however, are static, and simply create models with two (or sometimes more) axes that locate political opinions, parties, and ideologies in spatial relationship to each other. Some of these axes include “liberal-conservative,” “libertarian-communitarian,” “cosmopolitan-nationalist,” “individual-group,” etc. Although useful for mapping, these essentially static models alone offer little insight on pathways toward change and progress over time.

Exactly what all these changes might look like, and how it would happen, of course, are at this point speculative. Of course, it's tremendously tempting to load up the rising generation with a wheelbarrow-full of familiar issues, policies, and positions. However, assuming that "the future will be just like the present, only more so," would be more in line with the one- and two-dimensional models, and might close out the range of possibilities by focusing on the *content* before first understanding the *context*. And the context that came to light through working firsthand with members of the various generational cohorts revealed some unexpected information to me and my colleagues.

Action Research: The Generations Map Themselves

At first, I was tempted to "map" various developmental theories and stages onto Strauss and Howe's archetypes and cycles. This yielded some intriguing possibilities, but it seemed unwise to force too much of an "apples and oranges" comparison. Although (for example) the Greatest Generation and the "Secular Crisis" it survived in some ways appear to match the characteristics of a "Red/BLUE" ("Spiral Dynamics") or "Imperial II" (Kegan) orientation, the nuances of reality cautioned against simply slapping a developmental stage label onto an entire generational cohort and/or moment in history. [9]

Besides, each generational cohort, in conjunction with the other generational cohorts alive at the time, will face challenges at a multitude of developmental levels, and each has the option of responding at a multitude of levels. For example, the Depression and WWII presented both a survival threat (severe poverty and world war) and an existential threat (responding to the Fascist manifestation of evil) to the Greatest Generation. For very good reasons, most Americans chose to subsume the latter in the interest of solving the former, and focused on the formidable challenges of rebalancing the economy and "making the world safe for democracy." The Cold

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[8] This explicitly developmental perspective on change is quite often absent from existing political advocacy efforts. Some advocates measure effectiveness by results, regardless of motivations; support for a goal is their desired outcome, not necessarily transformation, Other political advocates see success as changing the perspectives and worldviews of others, leading to alignment in both philosophy and action. The three-dimensional model opens the possibility for a "both/and" approach, where both growth within an existing worldview *and* a movement to a new worldview can support a political development process.

[9] Many different developmental models appear, at least on the surface, to share similarities with the generational cohort cycles outlined by Strauss and Howe. Some of the most familiar, like those created by Robert Kegan (1991) and Clare Graves (whose model was extended and popularized by Beck and Cowan's (1996) *Spiral Dynamics*), have been applied in circumstances like this, as interest in adult development has increased. However, as Sara Ross (2008), among others, suggested, similarity on the surface often masks great difference at the core, and cross-comparisons often decrease specificity and increase the potential for misunderstandings.

War presented similar developmental challenges, but the Silent Generation, for both practical and preferential reasons, focused more intently on the existential threat of competing ideologies and the very real possibility of global annihilation.

Therefore, instead of creating a complex theoretical framework for our work with the "Generations Salons," I decided to focus first on what was fairly obvious: people could self-identify easily into generational cohorts like "Baby Boomers" and "Gen Xers." In our first attempts to use this conceptual framework with a group of politically engaged people, we chose not to present a theory to the group and then ask them to discuss the implications. Instead, we asked people, together, as generational cohorts, to create and weave together their own developmental narrative out of their individual and combined "political coming of age stories." By sharing these stories across the generational cohorts, we hoped the developmental challenges and opportunities might become apparent.

Our intent was to create an opportunity for each generational cohort to claim its unique identity, and then encourage all the generational cohorts to fit their experiences into a larger story that defined "how we got here," which would then imply the possibility of creating a different way of imagining "where we want to go next."

Our hope was that a sense of the possibility for enduring change offered by the three-dimensional model would emerge as the groups created open-ended narratives of their own development as individuals, as generational cohorts, and as members of a larger society. Rather than seeing their primary tasks as "moving the center" or "holding the line," we hoped they could discover a sense of progress, possibility, and opportunity. In particular, we hoped that by placing the Millennials at the "open end" of the narrative, the potential for leadership by this generational cohort (and the need for support from the other cohorts) might become a focal point of the conversation.

Theory in Action: A Conversation among the Generations

The "Generations Salons" we hosted are part of an ongoing series of events developed by a San Francisco Bay Area group that formed in 2002 around the question: "How can we change political culture?" In the years since, the group has hosted more than a dozen Salons and workshops where practical approaches to political work are "tried out" by a wonderful group of engaged (and engaging) political activists and activists-to-be from a variety of backgrounds, ages, and perspectives. For these Salons, we tried to have at least three or more members of each current generational cohort (Silent, Boomer, Gen Xers, and Millennials) participating. We asked participants to gather in their generational cohorts and create a narrative of their individual and combined "political coming of age" stories. We then shared these stories among the generational cohorts, beginning with the oldest and moving thorough time to the Millennials, telling a collective story of "how we got here," with the implied possibility of imagining "where we want to go next." The general format follows.

1. A brief introduction of the context, the topic, the format, and the people.

2. Divide into four groups by generational cohort.

3. Ask each individual, and each cohort, to come back to the large group prepared to tell a story about some combination of these items (different variations of the below were tried at different Salons):

- Your experience when you felt your cohort "came of age" politically.
- Your generational cohort's landmarks (events, people, milestones, reference points, zeitgeist, metaphors, etc.).
- What your generational cohort is passionate about.
- What you inherited from previous cohorts, both with gratitude and with regret.
- What you hope to pass on to the next cohort(s), and what you hope they will *not* inherit from you.
- Your best advice for the next generational cohorts(s).
- Your generational cohort's task…and its burden.

4. Bring the separate cohorts together into a large group again, and ask the oldest (Silent) cohort to begin by telling their story. When the Silent Generation's story reaches their "political coming of age moment," they pass the narrative thread to the next-oldest cohort (Boomers), who repeat the process. The thread passes through the Gen Xers, and on to the Millennials, who are just now experiencing their "political coming of age," and are only beginning to project themselves and our society into a possible future.

5. Invite reflection and conversation on what this experience evoked. For example:

- For the older cohorts, reflect on how the younger cohorts unfolded what you helped create, and your own role in that unfolding.
- For the younger cohorts, reflect on how the world created by the older cohorts influenced your own choices.
- How could we use this experience to change our political culture?
- What can the generational cohorts individually and collectively contribute to the rising Millennials and their potential for leadership?
- Do we want to help the rising cohort of Millennials repeat familiar patterns, or is there potential to move up to a higher level of development?

6. Invite actions to help "step into the future."

From these Salons emerged dramatically different stories than those so often told at political gatherings based on ideology, issue, or political party. As the narration passed from one generational cohort to the next, we experienced the historical forces that had shaped us, and how our actions had shaped history, other generational cohorts, and our shared culture. This illuminated how differences and commonalities had emerged, and why they matter. This new perspective revealed the development of individuals and generational cohorts moving through time—and showed that political identities and worldviews are neither as fixed nor as exclusive as conventional political labels suggest.

The Millennials, in their turn, revealed their potential to shift toward a new and quite compelling future. We also saw how all the cohorts may have misunderstood what each could offer to help the Millennials seize this opportunity, and gained a quite different perspective on their capacity to re-think some aspects of their political identities and strategies.

The Generations in Action and Reflection

At each of the Salons, the participants identified the need for more opportunities for members of *all* generational cohorts to experience their potential for growth and leadership, and particularly for engaging with the Millennial Generation. Each of the older cohorts—Silent, Boomer, and Gen X—recognized that they possess unique insights, knowledge, experience, as well as blind spots, all of which will influence the emergence of the Millennials. The older generations expressed an intense yearning for the younger generations to build on their triumphs. But the younger generations seemed to have more interest in learning from what the members of each cohort have learned in their passages through fire and from confronting their shadows.

Although common sense dictates that each generational cohort should pass on both values and lessons learned, the very human tendency is to emphasize hard-won victories and ignore difficult, unresolved issues. In turn, although successive cohorts ought to incorporate the wisdom proffered by their elders, they have often learned as much from what was kept in the dark as they did from what was held up to the light. This—along with the mental models that limit options for growth and development—may well contribute to our political system's continual recycling of past mistakes, and the experience so many political activists have of "beating our heads against the wall" with familiar yet often-ineffective strategies. Our political development may be stunted and our options for action limited—in stark contrast with the perspective shifts and methodology changes (reflecting greater complexity and developmental growth) that have propelled advances in so many other areas like science, business, and technology, for example.

Since our political approaches rarely match the overt rhetorical language of politics (e.g., "New Ideas!", "Moving Forward!", "A Brighter Future!"), there must be some significant obstacles to developing alternative mental models and using a generational cycle of learning and growth as a springboard to political development outside of fora like our Salons. No doubt, many of those obstacles are "external," perhaps the most significant being existential threats to security and prosperity (like the reaction to 9/11, the growing economic stratification/instability, and potential catastrophes from global climate change). Some of the "internal" ones seem equally intractable, like the re-emergence of right-wing extremism and religious beliefs that reject modernity (let alone postmodernity!) out of hand. And, of course, the existing mental models for political change (as described earlier), are difficult to supplant, if for no other reason than that they are familiar, and we seem to have constructed an entire political system on their basis.

Emerging from these Salons, however, is the potential for a new generational cycle, led by the Millennials, with the support and guidance of the older cohorts. As in the three-dimensional model shown in Figure 5, however, generational cohorts may have to learn to "sing" their particular notes in "higher keys," replacing, for example, the expected "C" in the two-dimensional "C-D-E-F" cycle with a new, "G" note. Exactly what a "G" note might sound like, and how it would be "sung" are beyond the scope of this article. However, Table 1 lays out some speculative characteristics of a possible new kind of "Hero" archetype compard to that shown in Figure 4. Its members might "sing" this new note, if offered the right kind of support, and the freedom to express themselves.

After all, one cohort, acting alone (as the participants in the Salons pointed out), does not possess the capacity to undertake that kind of transformation. A generational cohort only just coming of age, like the Millennials, needs the received wisdom, values, and traditions of the previous generations to build upon, as well as the opportunity and resources to generate alternatives. The Millennials need members of the other generational cohorts to break out of the one- and two-dimensional models, and offer the rising generation a context in which a "higher key" becomes a real option.

From the evidence of these Salons, it appears that multi-generational, multi-perspective experiences could become the basis for long-term constituency building, as well as a platform for helping older generational cohorts find truly useful ways to participate in a different kind of political environment. We especially need to explore if and how this framework applies among a variety of people and communities, with particular attention to recent immigrants and their children.

Table 1. New Hero Archetype Response in a New Key to a "Crisis" Era

Characteristics	"Old Key" Response to Secular Crisis (Figure 4)	"New Key" Response to Secular Crisis
Era	"Crisis"	"Crisis"
Archetype	Hero	*New* Hero
Cohort(s) coming of age	Greatest Generation, b. 1901 – 1924	Millennials, b. 1984 – 2003
Current ages	86+	7- 26
Orientation	Collective	Transpersonal?
Focus	Outer Threat	Integration?
Dynamic	Active	Reflective Action?
Mindset	Verities	New Verities?
Realm of action	Government	New forms of governance?
Stance toward government	Rebuild	Reimagine?
Experience	Unity, collective action	Integration, interdependence, complexity?
Purpose	*"The society must survive"*	*"The society must evolve"?*

It also appears there may be some "generational tasks" appropriate for each of the generational cohorts (as sketched out speculatively in Figure 6) that can help to create this kind of context. It may be that the overarching purpose of these tasks is to support the Millennials in their potential to become transformational leaders. Obviously, the Millennials cannot accomplish this alone—they need to find ways to engage the entire society. So each cohort must embrace a leadership role. However, those leadership roles might be quite different from those we often assume—in particular those roles that have become associated with our cohort's place in the generational cycle (as outlined in Strauss and Howe's research).

Supporting the Generational Leadership of the Millennials

So why are there no young people in the room? It may have something to do with the mental models employed—consciously or unconsciously—by whatever generational cohort(s) dominates a given political organizing effort.

If the older organizers of political activism hold the one-dimensional model, the only advice they can offer young people is: “Do what we did, but more effectively.” Since there are no essential differences among the generational cohorts in the one-dimensional view, the only changes that matter are the changes that happen to “it” (where “it” is a political party, Congress, society, etc.). So, although there may be some “fixes” that can be implemented that differ from the “fixes” of previous generations, these differ mostly at the level of tactics, rather than strategy. Certainly, these “fixes” don’t require much of a shift in our understanding of public life, and don’t offer much beyond the potential for incremental change.[10]

If the older generational cohorts—unconsciously or consciously—are using a two-dimensional model, they are likely conveying to the rising generation: “Here, kid—it’s your turn to push this rock uphill. It’s gonna run over you its way back downhill soon enough. But hopefully it will come to rest a little higher up the hill than the last time, so the next generation will have a slight head start compared to you and me.” As in the one-dimensional model the underlying “game” rarely changes, and the players themselves never have to change internally—they simply have to adapt to new circumstances. Working harder or smarter suffices for a strategy. Rethinking the premises, or “coloring outside the lines” (or even re-drawing the lines) are not really options. Everyone’s too busy trying to recapture the moment when the rock reached its apex, and then push as far beyond that point as is possible before gravity takes its toll.

Either (or both) of these models might seem more “realistic” than a three-dimensional model that imagines political work shifting to a “higher key” in keeping with a higher level of complexity and challenge. But is it realistic to imagine that our political challenges can be solved, to paraphrase Einstein, from the same level of consciousness that created them?

Perhaps this is one of the reasons there are no young people in the room. With the heightened sensitivity and decreased habituation of youth, the Millennials may well sense the inadequacy of the political models proffered by their elders, even if they may not be able to articulate this directly. It could be that the rising generation’s experience of an ever-more complex world, demanding a “higher order” response, has attuned them to listen for a political melody in a “higher key.”

A column by Baby Boomer Thomas Friedman (2007, p. A23) epitomizes one of these generational disconnects. On a tour of colleges, Friedman found students “more optimistic and idealistic than they should be… [and] much less radical and politically engaged than they need to be.” After a few backhanded compliments about Millennial engagement with public service,

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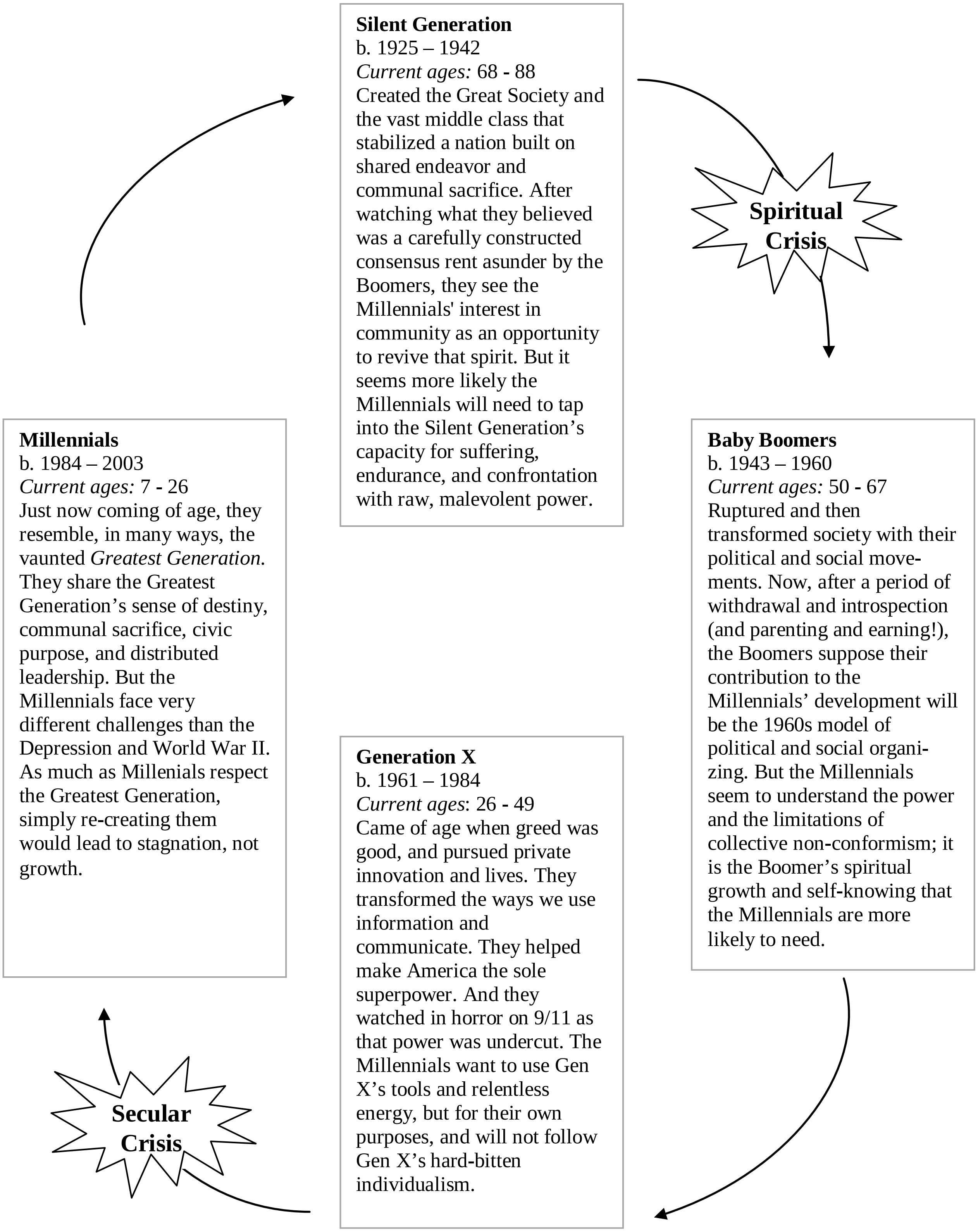
[10] The term “fixes” draws from Ron Heifetz’s (1994) distinction between technical challenges that require “fixes” (where “we” have the capacity to fix “it” without actually changing ourselves), and adaptive challenges (where “we” need to change ourselves, our perspective, our worldview, and our behaviors in order to have the capacity to meet the challenge).



Silent Generation
b. 1925 – 1942
Current ages: 68 - 88
Created the Great Society and the vast middle class that stabilized a nation built on shared endeavor and communal sacrifice. After watching what they believed was a carefully constructed consensus rent asunder by the Boomers, they see the Millennials' interest in community as an opportunity to revive that spirit. But it seems more likely the Millennials will need to tap into the Silent Generation's capacity for suffering, endurance, and confrontation with raw, malevolent power.

Baby Boomers
b. 1943 – 1960
Current ages: 50 - 67
Ruptured and then transformed society with their political and social movements. Now, after a period of withdrawal and introspection (and parenting and earning!), the Boomers suppose their contribution to the Millennials' development will be the 1960s model of political and social organizing. But the Millennials seem to understand the power and the limitations of collective non-conformism; it is the Boomer's spiritual growth and self-knowing that the Millennials are more likely to need.

Generation X
b. 1961 – 1984
Current ages: 26 - 49
Came of age when greed was good, and pursued private innovation and lives. They transformed the ways we use information and communicate. They helped make America the sole superpower. And they watched in horror on 9/11 as that power was undercut. The Millennials want to use Gen X's tools and relentless energy, but for their own purposes, and will not follow Gen X's hard-bitten individualism.

Millennials
b. 1984 – 2003
Current ages: 7 - 26
Just now coming of age, they resemble, in many ways, the vaunted *Greatest Generation.* They share the Greatest Generation's sense of destiny, communal sacrifice, civic purpose, and distributed leadership. But the Millennials face very different challenges than the Depression and World War II. As much as Millenials respect the Greatest Generation, simply re-creating them would lead to stagnation, not growth.

Figure 6. "Generational Tasks" to Support Millennial Transformational Leadership
(from the "Generations Salons" and other sources)

Friedman lowered the boom (pun intended)

> Martin Luther King and Bobby Kennedy didn't change the world by asking people to join their Facebook crusades or to download their platforms. Activism can only be uploaded, the old-fashioned way—by young voters speaking truth to power, face to face, in big numbers, on campuses or the Washington Mall. Virtual politics is just that—virtual. (Friedman, 2007, A23)

To which a Millennial might reasonably reply: "How do you know the world can't be changed through virtual activism? After all, no one has really even tried yet. And how's that whole "Fight the Power/March on the Capitol/Honk if You Oppose the War" thing working out for you guys? We respect your victories and your sacrifices, but the victories seem to get fewer and farther between, and toll more horrendous. Why are you so sure your way is the right or the only way?"

The Strauss and Howe model predicts that the current alignment of generational cohorts—if left unchanged—will contribute to the Millennials reverting to "saving the society" tasks reminiscent of the "Greatest Generation" (of course, events and circumstances may well dictate that these are exactly the kinds of tasks that need doing). Without a conscious effort, all of the generational cohorts will reinforce collectively the same patterns that have kept the US in its present cycle. For example, Baby Boomers—now peaking in terms of money, power, influence, and available time—carry a model of social change almost diametrically opposed to the emerging characteristics of the Millennials (see Figure 4 and the Friedman example above). The two cohorts agree only on an "active" orientation, but have been shaped by fundamentally different types of crises.

If the congenitally self-referential Boomers try to squeeze the Millennials into their model of political organizing, the outcome seems doomed from the start—virtually guaranteed to lead to a repetition of the "C-D-E-F-C-D-E-F" cycle. Gen Xers, raised to "just do it," probably will want no part of mediating any dispute between the Boomers and the Millennials, but instead seem more likely to return to their private pursuits than to take public action in a divisive environment. And many members of the Silent cohort, who share the Millennials' attraction to collective action, seem unlikely to engage with anything that risks a return to the scorched-earth "culture wars" of recent decades.

That's the bad news. The good news?

At our Salons, the Millennials appeared to grasp that they have method, motive, and opportunity to lead in a decidedly new direction. What they lacked, it seemed, was a coherent vision, based on an understanding of how the past created the challenges they face, as well as generational, developmental, organizational, and political models appropriate for the new work they envision. They also didn't often have the older generational cohorts engaging with them in ways that consciously supported their transformational potential. In our Generational Salons, the Millennials turned to the older cohorts and asked: "How can you help?"

Can Generational Cohorts Help Each Other…and Themselves?

In subsequent Salons, the generational experience has been raised time and again as a powerful reference point. Experiencing such stark differences among the generational cohorts confronted participants with the opportunity to uncover their unconscious mental models: the "right" way to take political action, theories of political change, even which political and non-political institutions most need "reforming."

The disparate perspectives that emerged from each of the generational cohorts seemed to jolt many participants out of their comfort zones. Instead of seeing younger or older versions of themselves among fellow activists, and wondering why people who seemed to share their political views did such puzzling things, they began to grasp that their fellow activists neither began with the same assumptions nor arrived at the same conclusions.

As progressive, politically active folk, many of the Salon participants are accustomed to exploring differences based on culture, class, gender, etc., and even in many instances, developmental perspectives. They willingly (some even eagerly) participate in "processing" sessions, and are comfortable with group dynamics and the like. After years of reflecting on the obvious divides (e.g., class, ethnicity) , many progressives seem almost comforted by exercises that cover this by-now familiar terrain.

The generational experience, in contrast, exposed a new realm of difference. However, we have yet to explore how to turn this observation into a more effective model of action. Perhaps this is a difference without a distinction. Perhaps we have accomplished nothing more than exposing a new vein of guilt-rich ore, which progressives can mine for solipsistic indulgence. Or, perhaps, the lessons of the Obama campaign (along with other models) offer a way of joining theory and reflection with action. And with that, perhaps, we can begin to find a way to rise out of the time-worn ruts that seem only to lead us back to where we began, neither appreciably wiser nor better off for the journey.

In every generation, it seems, self-appointed spokespeople try to convince their peers that a "defining moment" is at hand; that the future of (pick one or more: our party, our country, our world) depends on our urgent action. I'm no less prone to that; in fact, I'll go one better. We may well face a defining moment not only for our generation, but for all four generational cohorts alive in the US today (and those yet to come). It will take all of us—harmonizing and counterpointing, listening and rethinking—to support the Millennials in singing the familiar, sweet song of freedom in a new key. And so, again: "How can you help?"

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Integral Politics as Process

Tom Atlee[1]

Abstract: Using the definition proposed here, integral politics can be a process of integrating diverse perspectives into wholesome guidance for a community or society. Characteristics that follow from this definition have ramifications for understanding what such political processes involve. Politics becomes integral as it transcends partisan battle and nurtures generative conversation toward the common good. Problems, conflicts and crises become opportunities for new (or renewed) social coherence. Conversational methodologies abound that can help citizen awareness temporarily expand during policy-making, thus helping raise society's *manifested* developmental stage. Convening archetypal stakeholders or randomly selected citizens in conversations designed to engage the broader public enhances democratic legitimacy. With minimal issue- and candidate-advocacy, integral political leaders would develop society's capacity to use integral conversational tools to improve its health, resilience, and collective intelligence. This both furthers and manifests evolution becoming conscious of itself.

Keywords: Collective intelligence, conversational methodologies, democratic legitimacy, developmental stage, evolution, integral politics, integration, perspectives, process.

Of the many perspectives on integral politics, one particularly dynamic one focuses on the interactive processes through which the fulfillment of collective needs and aspirations are (and could be better) pursued. These engage the evolving, integrated sensibilities, thoughts, and actions of a whole community or society. Those of us pursuing this approach ask: What is the social systemic process dimension of transpersonal activity and development? Where might a holistic, integral perspective take us beyond the predominant battle between competing worldviews, interests, and power centers within which humanity currently suffers and is possibly generating its demise? Developing political modes beyond the current problematic process could make all the difference in the world, quite literally.

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My discussion begins by introducing the dynamics of wholeness and their relation to what I propose integral politics may be. This serves as a foundation for proposing a definition of integral politics and characteristics of integral political process that follow from that definition. I dedicate the main body of the paper to introducing ramifications I draw from those characteristics. Discussed individually, the ramifications fall into seven categories: wholes and parts – diversity and coherence, dissonance, conversation, developmental stages, power and leadership, issues and candidates, and participation. These suggest some concrete ways we would see integral politics manifest. The concluding section is my reflection on all of this in relation to my ideas about conscious evolution.

Introductory Basics: Dynamics of Wholeness

We can view life as forever seeking wholeness, seeking health and congruence within itself, and seeking fit and harmony with its environment. I use wholeness as the most fundamental concept in my worldview, although my sense of it is not homogeneous but rather rich with diverse dimensions and manifestations (Atlee, n.d.-a).

Two dimensions of wholeness I see as having particular relevance to integral politics are inclusion and coherence. *Inclusion* means welcoming, taking seriously, and creatively utilizing all the factors relevant to the whole situation we are dealing with. Such factors include viewpoints, people, information, values, resources, history, and possibilities, and more could be listed. To acknowledge and tap the infinitude of interconnectedness in which we and our situation are embedded, we should frame relevance broadly enough to include borderline elements and even wildcards to stimulate lively engagement and keep us open and alert. In particular, inclusion of different *worldviews* is important because of their power to shape what people see, think, feel, and do, and thereby play a preeminent role in the productivity of political process. Furthermore, because worldviews impact the *kinds* of political system and process people prefer and promote, the principle of inclusion challenges us to wisely utilize a diversity of processes, as well.

Coherence means the way diverse elements hang together into a whole, whether a whole worldview, a whole community, a whole story, and so on. Coherence includes the relationships among the parts, as well as the factors they hold in common (like logic, culture, language, intention, theme, common interests). Thus, coherence includes everything that helps us make sense of a whole and all its elements as one thing, and for those involved to share a sense of "common sense."

We usually find some dynamic tension between coherence and inclusion. In any system or situation, including additional elements or a bigger field tends to disrupt whatever coherence existed before the inclusion. Likewise, efforts to maintain coherence tend to make it harder to include new (and thus potentially disruptive) elements. Since novelty and disturbances are continually emerging in any system, inclusion and coherence are perennial issues of life as it seeks to be whole within itself and with its environment. The fact that both inclusion and coherence are essential dimensions of wholeness tells us something very important about wholeness: it is dynamic. Wholeness *evolves*—driven by inclusion, disruption, and the eternal impulse towards coherence.

Here I find the concept of “integral” especially useful for naming the successful *integration* of inclusion and coherence. To the extent we embrace all the relevant elements—including emergent dissonances—in a coherent way, we have an integral system or dynamic. The fact that in real life new factors are always emerging to disrupt coherent systems suggests that an integral system evolves through successive coherences. The family system gets disrupted by the birth of a child. One’s prejudices are disrupted by a compassionate or unexpected act from a person in the disrespected category. One’s pet idea is critiqued with devastating effect. Each instance raises in us the need to find some new coherence to depend on.

With that as grounding, I propose a definition of integral politics, followed by what integral politics “does” if we follow that definition. I offer these for exploration, introducing my initial forays into ramifications of viewing integral politics this way.

Integral politics would be politics that were especially competent at including diverse elements in evolving coherence that served the ongoing vitality of a community, nation, or other human system.

What integral politics does:

- Integral politics embraces any and all interactive process through which the evolving diversity of a community or society engages in consciously co-creating its collective life.
- Integral politics emerges from other forms of politics to the extent that we attend to the dynamic relationship between “the parts” and “the whole” (the members of a community and the whole community; conflicted political positions and the whole field of opinion around an issue; our many facets as individual human beings and our essential wholeness; and so on).

Ramifications of Integral Politics Definition

Wholes and Parts - Diversity and Coherence

Assuming that definition, then, as politics became more integral, we might expect it to include more attitudes, efforts, and phenomena like the following (as they pertain to public affairs).

Welcoming people from diverse demographic, developmental, and other groups into appropriate forms of participation while promoting the respect and commonality of all people as human beings regardless of what category or categories we, they, or others may place them in.

Engaging diverse dimensions of our humanity (head, heart, body, spirit, behavior, etc.) and their related modes of understanding, expression and engagement, while *understanding* the various ways these can influence each other to enrich (or undermine) the larger wholeness of who we are, individually and collectively.

Engaging diverse sectors, stakeholders, and interest groups in aligning their self-interest to the well-being of the whole (community, society, natural order) by co-developing truly integral solutions, stories, social system designs, etc.

Including diverse partisan people in transpartisan or metapartisan explorations of how all of us as citizens of a common community or society can most creatively share challenges, resources, and destinies.

Weaving diverse perspectives, bodies of information, and values considerations regarding an issue or situation into expanded "big picture" understandings of what is involved (sometimes called "framing an issue for deliberation").

Helping people's diverse creative or practical insights, gifts, and passions interact towards solutions that are, as a result, (a) broadly understood and appreciated, (b) implemented in participatory ways and (c) effective over the long term (because of the inclusive wisdom of the original design), being revised as necessary through such continuing interactions.

Another application of wholeness is this. Integral politics understands that every whole is a part of some larger whole, and that every part is a whole in its own right. This understanding not only helps us see things in the context of the larger systems they are part of, and the smaller entities that make them up (a perspective known as *holonics*). There are also two *dynamic* aspects of wholeness that offer agents of integral politics potentially free resources.

Synergy is a common term highlighting the dynamic relationships through which a whole becomes greater, stronger, or more than the sum of its parts. Whenever we integrate youth and elderhood, head and heart, private and public, top-down and bottom-up, us and them, or any other such diverse energies or entities, they together form a whole that is far more powerful than when they are separate or opposed.

Holergy is a term I coined to call attention to the often invisible power of each entity's embedded uniqueness. That power becomes a resource to the extent we look beyond any single role they play or obvious categories they belong to. We might summarize this as "the part is greater than its role in the whole." Each person and group is both a whole in their own right and part of many other wholes. So a teacher who knows that her students are not *only* students will tap their experiences, hobbies, and families for resources to use in teaching her class. An integral mediator will recognize that conflicted parties are not only adversaries but are also sources of insight and creativity for resolving their shared problem. An integral politician will recognize that citizens are not only voters, supporters, complainers, and recipients of government services, but potential sources of wisdom, creativity, and implementation in public affairs.

Significantly, both of these phenomena—synergy and holergy—include the phrase "greater than" as part of their definition. This means that the entities and factors in a situation can generate greater or lesser power and benefit, depending on how we view and engage with them. This is useful knowledge for anyone seeking to create change with limited resources. Well-utilized diversity in well-designed whole systems can provide free resources "out of nowhere." The diversity of a community, well engaged, can generate collective healing, collective intelligence, and collective transformation accessible in no other way.

Dissonance

In public affairs it is normal for problems, issues, conflicts, differences, and other forms of dissonance to surface among those involved (among the parts) and between them and the larger community or society (between the parts and the whole). Integral political theory and practice would invite us to engage with this dissonance in different ways than those invoked and used in partisan politics. As we grow into integral politics, we would increasingly embrace the whole and all its parts in our calculus—and see the dynamics among them, including dissonance—as a sign and source of life energy, of life trying to find its way toward wholeness.

As politics becomes more integral, dissonance would less and less invoke assumptions about one “side”—one part of the whole—winning over the other “sides.” We would not even assume that the ideal is a compromise solution tolerable to all sides. Instead, we would see the supposed “sides” as partial expressions of a larger whole that has not yet been fully comprehended. We would, therefore, increasingly see dissonance as a resource for moving into a more vibrant wholeness of some kind. We may strive toward healing—renewing some healthy coherence of the past—or for learning, transformation, and development toward some new coherence of the future.

It would be increasingly natural for people practicing integral politics to see every issue or conflict as an opportunity not only to find good solutions, but to heal and/or transform the community involved, and all those in and around it. Often a community will actually heal itself by meeting crisis together using collective transformational engagement. The Transition Towns initiative (Hopkins, 2008), for example, is a remarkable program of community healing through collective transformation towards resilience and sustainability. Integral politics recognizes that working with emerging dissonances is a key aspect of sustaining ongoing health and development, individually and collectively.

This phenomenon can be taken as an identifying criteria for how integral our politics is: To what extent are issues, conflicts, crises, and so on seen as opportunities for healing and transformation at all levels, rather than as something to fight over, solve, suppress, or get beyond?

Of course “growing into integral politics” is no simple matter. But then, neither is playing the game of adversarial politics. The primary difference lies not in the effort or resources required, but in the unfamiliarity of the territory, the pioneering imperative, the need to try different responses to dissonant stimuli. Instead of closing down in the face of challenge or discomfort, we need to open up. Perhaps most importantly—because politics is not primarily an individual project—we need to take proactive initiatives, together, to create contexts in which welcoming dissonance and working creatively with it are supported and empowered. The more we can bring (and embed) such assumptions and practices into our culture, public discourse, and political institutions, the less we will need to depend on—and the more effectively we will benefit from—enlightened individual capacities.

Conversation

Conversation is arguably the primary form of human social interaction. (Some might argue that war and commerce are more influential, to which I would respond, Where would war and commerce be without conversation?) Obviously, because we are different and seriously challenged to cooperate in order to survive and thrive, conversation remains key to solving our problems and conflicts nonviolently and wisely as well as to transforming ourselves and our societies together in life-serving ways. Because of its remarkable power to creatively engage the life-energy of all participants, we find conversation plays a central role in most efforts to move beyond violence and manipulation.

Violence and manipulation help us dominate others with our own desires, visions, and perspectives, rather than engaging them in finding out what is best for all involved. In contrast, integral politics assumes that every perspective and passion has gifts for the whole, and so views the use of violence and manipulation as *wasting* those gifts and *wasting*, as well, the potentially coherent self-organizing life-energy of the whole that comes from creatively engaging those perspectives and passions.

From *a systems perspective*, conversational interactivity is the medium through which different parts of a system can find the coherence—coordination, protocols, and shared understandings, narratives, intentions, etc.—that they need to function efficiently as a whole. From *an individual perspective*, high quality conversation is a primary alternative to violence as we seek to pursue our self-interest in a world of other self-interested entities with limited perspectives.

Conversation derives from roots meaning “to turn together,” as in a dance. From a big-picture perspective, we are dancing with everything around us. The universe is in conversation with itself. At the most literal, physical level, few objects, systems, or conditions in our lives have come into being without being shaped one way or another by conversation. Conversation is how we can and do create desirable futures together.

Conversation is therefore central to any *dynamic* conception of integral politics. More model-driven conceptions of integral politics make a great contribution with political maps of how different political ideologies or developmental stages fit into larger political and developmental realities. When such maps inform the designers, conveners, facilitators, and participants of conversations, they move into a realm of dynamic interactions through which that diversity can actually be employed to create larger benign realities in our lives and help us all heal, learn, and evolve together.

High quality conversation is now a major field of theory and practice—and even faith. Going by such names as dialogue, deliberation, choice-creating, cafés, facilitation, gatherings, conferencing, forums, public participation, citizen engagement, hosting, mediation, coaching, community involvement, etc., conversational know-how has become very sophisticated in recent decades. Professionals in this field know a tremendous amount about “whole-system engagement,” “collective intelligence,” “participatory leadership,” “holistic politics,” and other topics of great interest to practitioners of integral politics.

Conversational methodologies abound, from Future Search to Open Space, from Dialogue Mapping to Sacred Circles, from Appreciative Inquiry to Listening Projects, from Dynamic Facilitation to World Café, from Citizens Juries to Study Circles, from The Integral Process for Complex Issues to Holistic Management. Inventories of such methodologies get compiled in both book form (Atlee, 2003; Holman, Cady, & Devane, 2007) and online databases like the Urban Research Program Toolbox (Griffith University, n.d.) and the Engagement Streams Framework (National Coalition for Dialogue and Deliberation, n.d.; in particular, note its "three page accompanying handout" for a list of processes).

Perhaps most importantly, work is underway in a number of quarters to identify conversational success criteria and wisdom about the underlying dynamics of conversations that matter. These inquiries free practitioners from the segregated silos of methodology into more flexible, creative design and hosting of powerful conversations.

I believe that knowledge and competency in this arena of the practice and institutionalization of powerful, empowered conversations is one of the primary foundations of integral politics. I see it as key to helping fragmented parts of the body politic become truly whole and sustain their evolving wholeness, especially when faced with changing circumstances or consciously moving in transformational directions.

Developmental Stages

Different developmental stages and worldviews offer different benefits and problems for a society that includes them all. For example, tribal dynamics provide both a strong sense of belonging *and* often provincial distrust and dislike of *others*, while modernist perspectives provide tremendous innovation *and* often destructive exploitation of natural and human life. To the extent possible, those practicing integral politics would endeavor to welcome and validate the positive manifestations of each stage while minimizing or ameliorating its more toxic dynamics (Beck & Cowan, 2005; Cook-Greuter, 2006).

People manifesting different developmental stages or worldviews often have a hard time relating to each other. Confronted with a logic and reactivity that makes no sense to them, they can drive each other into negative manifestations of their respective levels of awareness. Integral politics can use high quality conversational process and competent facilitation to ameliorate this dynamic. A large amount of experience with dialogue and deliberation that engages the broad public suggests that such diverse people have a far greater capacity to work together for the common good than is acknowledged among those with less experience with high-quality conversation or with an ideological bias towards the incompatibility of diverse values systems. There is tremendous hope in this.

There is also tremendous hope in another dynamic. One of the most intriguing phenomena I have seen in powerful conversations shows up in successful efforts that engage ordinary citizens constructively with others unlike themselves in a shared search for insights and solutions that can best serve their community. I have the distinct impression that as such conversations unfold, the effort to truly comprehend other viewpoints expands the individual participants' state of awareness such that they collectively manifest a higher level of awareness and development than they individually did at the start.

Other factors are probably involved in this phenomenon, for example:

1. Some conversational methodologies produce this effect more powerfully than others;
2. The presence of one or more psycho-spiritually mature, systemically aware, and/or broadly informed person in the group can raise the group's awareness toward theirs;
3. Potential repression or the positional stance, authoritative status, or expertise of certain group members can hinder this effect if not ameliorated by appropriate conversational design and competent facilitation.

In short, I believe that the conversational dynamic noted above—the expansion of awareness through successfully facilitated hearing of diverse viewpoints among ordinary people—happens to some extent in any case, and can be augmented by (1) and (2) and impeded by (3).

This phenomenon—*and* the capacity of people with different values and worldviews to develop policy recommendations together—can be the basis of testable hypotheses I would love to see researched in more rigorous ways.

If both these phenomena prove out and their nuances become adequately understood and applied, they may well offer a breakthrough channel for systems-change work by integral change agents. To the extent conversational forums are actually empowered to influence policy decisions and/or public awareness, plugging them into existing political-governance systems (Atlee, n.d.-b) could raise the developmental level manifested by society as a whole in its collective behaviors and impacts, beyond that of the vast majority of its individual members. This would remove, or at least ameliorate, the problems involved in the commonly advocated strategy of improving society's developmental state by increasing the awareness of its individual members.

Power and Leadership

If one of the chief characteristics of integral politics includes *the interactive process through which the evolving diversity of a community or society engages in consciously co-creating its collective life* (as introduced above) we need to rethink power and leadership from the top-down shaping of social phenomena to a more participatory, emergent, "power-with" worldview. What kind of power and leadership does a community or society need in order to engage its diversity in interactions that consciously co-create its collective life? I think this question leads to three related forms of servant leadership.

Capacity-building eldership that does whatever is needed—from inspiration to provocation to teaching to convening—to increase the capacity of the led community or society to lead itself. In the early stages, this can include whatever managerial guidance may serve to maintain the community or society while it achieves greater self-organizing competencies. But this more directive leadership can only work (for this purpose) if it is humble enough to keep trying to delegate more responsibility to the led system, and thus work itself out of a job.

Emergent participatory leadership, in which different people serve the group by (temporarily) leading in a realm defined by where their volunteered competencies and life-energy meet the needs of the group. This produces a fluidity and distribution of leadership functions among the group, according to the needs of the moment.

Embedded systemic leadership in which the guidance systems needed by the group to function and evolve are embedded in its culture, collective narratives, institutions, infrastructure, systems, and technologies. These ever-present sources of direction minimize the need for individual leadership to provide guidance—at least until the established guidance systems cease to function adequately.

At such junctures, when systems no longer function well, capacity-building eldership or emergent leadership shows up to bring group consciousness and co-creativity to the dysfunctional area. This is a sociological manifestation of the general rule that increased attentiveness is called for when automaticities—habits, institutions, reactions, etc.—are no longer serving well. Consciousness temporarily replaces the automaticities in making life's choices while also exploring the dysfunctional dynamics in order to create new automaticities that better serve the new circumstances. Putting newly functional automaticities in place then frees consciousness to attend to other things.

Issues and Candidates

Since the essence of integral politics, in the sense discussed here, is the capacity of a community or society to make its own high-quality decisions, integral political activism would not focus on issues and candidates to the extent traditional activism does. The one exception would be if decisions on this issue or the election of that candidate would make a significant contribution to the society's capacity to engage its diversity in consciously co-creating its collective life.

Integral political activists could also usefully focus on how issues and candidates in the public limelight were being dealt with by the existing political system, using them as stimulants for dialogue exploring more integral approaches that might better serve the whole society.

However, by its very nature, integral politics is not about taking sides or promoting particular solutions. So even if integral activists saw political solutions that could help us make more integral decisions, they might prefer to present them in a context where diverse citizens would consider alternatives in ways that furthered public understanding the issues involved. Integral approaches would not tend to push their favored solutions or candidates through to a win, no matter how "integral" those solutions and candidates might seem to be. This, itself, implies a radical shift in activist perspective to a deep trust in the collective wisdom of ordinary people in generative conversations.

Participation

When terms like "public participation" and "citizen engagement" are used in traditional forms of politics, they tend to refer to (a) interested people being able to have their say, thus exercising their agency as individual citizens in the political process and/or (b) as many people as possible engaging in political or community activities of all kinds.

Because of the dynamics discussed in the previous two sections, integral politics, in the sense being explored in this essay, would tend to function with a different concept of public participation. To a great extent, the goal would no longer be mass participation or the exercise of citizenship, per se. The rationale for engagement would be primarily the inclusion of diverse perspectives in processes capable of generating useful, integral results that benefit the community, usually involving collective intelligence or transformational potential.

Some participation issues are common to both traditional and integral politics. For example, participation plays a major role in generating shared understanding, agreement, ownership, and energy for implementation. But even here there are important nuances to consider.

Traditional political theory discusses the role of *consent* in establishing *legitimacy* in governance. A legitimate policy, leader, political process, or governing institution is one that has the consent of the citizenry. In other words, the population will go along with it without being compelled to do so. The concept of democratic legitimacy implies that those in authority need minimum force to implement their decisions, and that what force they do need to use is considered appropriate by a sufficient majority of the population. This minimization of force is often noted as the primary mark of democracy's superiority over dictatorship.

This is where participation comes in. If a large number of people or a broad spectrum of stakeholders and opinion leaders have been involved in making a decision, their sense of being part of the collective decision-making process tends to produce "buy-in" to the results. They consider the process legitimate. (The fact that participation and consent can be manipulated with PR and media mechanisms is a related but separate issue that I will not address here.)

Similarly, from an integral perspective, to the extent the population broadly understands why a particular approach to a public issue is better than others—particularly if they have either participated in or witnessed the interactions that came up with that approach, and have seen people like themselves powerfully involved—they will join in support for and implementation of that approach. The decision "makes sense" to them, so they willingly or eagerly engage with it.

But high quality deliberations that include vast numbers of people are notoriously expensive to implement. So one of the primary approaches of integral politics might logically be the efficient use of well-selected microcosm groups to come up with good decisions on behalf of the rest of us. High quality information and access to experts can be combined with high quality dialogue and deliberation in a highly focused way to generate powerful collective intelligence with minimal expense. This was one of the original rationales for representative governance. However, most representatives are not anything like the rest of us (e.g., millionaire lawyers), and we've all watched how far they can be pulled from public realities and pursuit of the common good.

So other forms of microcosm conversation have been developed that are less subject to the distortions of representative democracy, more reflective of the population, and often more capable of high quality decisions, which can serve to improve the performance of existing governmental structures and processes. For example, citizen deliberative councils use a randomly selected one-time group of 10-100 ordinary citizens to come up with solutions to a public issue and/or to evaluate existing proposals or candidates. (Atlee, n.d.-b) The fact that these councils are small and may not include a certain level of diversity may subject them to “legitimacy” challenges.

However, there are ways to generate a more integral (and deeper) form of inclusion and legitimacy than can be achieved even by mass participation. Convenors can consciously select participants and publicize the process in such a way that most citizens see people like themselves engaged on the council (for example, see the *Macleans* magazine People’s Verdict project, Doyle, 1991). Participation can be further promoted by engaging the public in conversations with the council and/or each other before, during, and/or after the council’s deliberations. Engagement with the council can be done through hearings and white paper submissions, as was done with British Columbia’s Citizens’ Assembly on Electoral Reform (Citizens’ Assembly, 2004) or on the web, or through TV or radio combined with call-in and “televote” phone numbers. All these engage the public without having to provide them all with the expensive conditions that enable the high-quality council process, nor (for the sake of economy or co-optation) engaging everyone in low-quality conversations that do not adequately serve the common good. This kind of engagement—synergy between a citizen deliberative council and the broad public—takes participatory democracy beyond consent into the realm of collective identification with the process, authentic co-creativity, and co-evolution.

Conscious Evolution

I do see a larger story being played out here than one of mere politics, or even of democracy. It is the story of conscious evolution. We are all participants in life and society, no matter what we do or don’t do, whether we are aware of it or not, whether we intend to be or not. Participation is intrinsic. Both action and not-doing are actual contributions to what happens next, for better and/or worse. We are all part of the evolutionary process, which unfolds with inexorable inclusivity.

Conscious evolution means becoming an aware, intentional participant in that evolutionary process. Conscious evolution means seeking to be aware of what is involved in that process in specific domains and situations and seeking to be aware, too, of who we are and who we might be in relation to that. It involves making choices and taking action—or not—with as much awareness as we can of our evolutionary role as we seek to serve and manifest the best of what life is and seeks to be. Conscious evolution means not only being a conscious agent of evolution. It means realizing we are living manifestations of that aspect of evolution that is becoming conscious of itself.

I see integral politics as a societal manifestation of conscious evolution. It is the means by which a community or society consciously co-creates its next evolutionary development. In the development of integral politics, we see living political systems waking up, becoming conscious agents of their own evolution and, therefore, manifestations of evolution becoming conscious of itself in and as social systems.

This perspective does not necessarily provide how-to guidance to agents of integral politics, unless, of course, we wish to study the known dynamics of evolution in cosmic, geological, biological, and cultural systems in search of patterns we might use in consciously evolving our political and economic systems, communities, and societies. However, this evolutionary perspective *does* give a greater meaning and cosmic significance to what we are doing when we work towards creating a more integral politics.

From the evolutionary perspective, what we are doing here is the next chapter in a remarkable—and many of us would say sacred (e.g., Dowd, 2007)—story that goes back at least 13.7 billion years. It is a very fresh chapter. This particular task has not been done before. We are the edge of a wave, developing modes of being together that will play a profound role in the evolutionary destiny of the human experiment. There's nothing small about what we are doing.

And it is not only about process, it is *in* process. And, ultimately—like, and as, evolution—it *is* process.

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Introduction to Interviews that Apply Integral Lenses to Sustainability and Politics

Russ Volckmann

One of the apparent implications of our growing connectedness and concern for global challenges—economic, political, social, ecological, spiritual and more—is that there seems to be a parallel development of attention to ways we have of thinking about these challenges. To stretch this notion a bit more, we are looking for ways that we can engage as complete beings in addressing the challenges that face all aspects of our places in communities, nations, and the world and as individuals threatened with possible survivability challenges, as well as opportunities to realize our potentials in ways we may have never considered before. It seems quite natural that we would turn to systems theory and quantum/complexity theories in the material realm in that they seem to offer approaches to assist us. It seems just as natural that we begin to engage with the non-material aspects of existence, as well.

One of the newer institutions for sharing innovative efforts around the world is the TED conference. Originally, all of these conferences were held in Monterey, California in the United States. Here is their description

> TED is a small nonprofit devoted to Ideas Worth Spreading. It started out (in 1984) as a conference bringing together people from three worlds: *Technology, Entertainment, Design.* Since then its scope has become ever broader. Along with the annual TED Conference in Long Beach, California, and the TEDGlobal conference in Oxford UK, TED includes the award-winning TEDTalks video site, the Open Translation Program, the new TEDx community program, this year's TEDIndia Conference and the annual TED Prize. (http://www.ted.com/pages/view/id/5)

Since then the conferences have spread around the world, most of them being referred to as TEDx conferences. What is useful to those of us not able to attend is that presentations are recorded on video and posted on their website. The result is a host of inspiring, challenging, innovative presentations in many fields.

In a recent TED presentation Stewart Brand—a man who has been involved in addressing whole earth challenges for decades—presents four environmental heresies.

1. The growth of cities is good for the environment. It relieves the destruction of subsistence farming and engages individuals who move from the countryside into the city in entrepreneurial processes that support their economic development (which promotes educational development, etc.). What is needed is support these activities through such things as provision of energy and crime prevention.
2. Further develop nuclear power. It is the cleanest energy technology we have.
3. Develop even more genetic engineering for crops. It allows for increased food yields to meet the needs of a growing population.

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4. Use more geoengineeing to control the earth’s climate.

His brief presentation following TED guidelines does not address some downsides of his proposals, such as the estimate that we will run out of fissionable materials for nuclear energy in just a few short decades or the history of humans’ engineering endeavors. By the latter I mean that the negative impact of engineering strategies can often be devastating on the ecology. A simple example is the construction of dams to control flooding and that have destroyed habitats of people, fish, and animal life. Similarly, there are concerns among the scientific community that geoengineering has control and predictability problems, with potential unintended consequences. From a political point of view, sophisticated systems of geoengineering could be used as weapons in our hugely at risk humanization (meant pejoratively) of the technology.

Brand’s heresies are one set of many energies being directed at addressing assumptions and challenges we face in the world today. These are technical challenges, as well as social challenges. These are challenges to our life conditions and worldviews and our connection to the universe. If we are going to be capable of more sophisticated, holistic and generative approaches for addressing these challenges it is essential that we increase our understanding of the implications and ramifications of the choices we make to intervene in the ecology of the world. Our inattention has contributed to the state of the world’s ecology today in which our choices may lead to the premature demise of our children and their children. Therefore, we need to develop our capacities to intervene that are not only driven by current and anticipated realities, as we understand them, but also leverage the best tools we have for our efforts. Challenging assumptions, as Brand does, is part of that. And we have inklings of the power of new ways of being, seeing and doing the world and ourselves that can help us evolve that sophistication. Transdisciplinary, integral and other developmental approaches offer us some of this potential. Systems theory has a contribution, as does design thinking.

Fred Collopy, Professor and Chair, Information Systems Department, Weatherhead School of Management, Case Western Reserve University, Cleveland, Ohio points out in a *Fast Company* blog that design thinking needs to be introduced in a way that it does not take on so much baggage as to make it of marginal utility by leaders and managers of our institutions.

Note that design thinking goes beyond product design. Michael Ben-Eli (more about him in a moment) notes that Buckminster Fuller used the term “design” to imply a number of distinctive qualities:

- A sense of an underlying order,
- A “whole,” marked by coherence, and
- The implied presence of a deliberate intelligence.

This way of thinking about design goes beyond the material into the realms of cognition and the senses. Its implications, according to Ben-Eli are

- Design can involve an active initiative, the shaping of a particular configuration (a particular part of reality),

- It can relate to a subjective experience as when we recognize order in an observed phenomena, and
- It can entail concepts as well as physical entities and combinations of both.

Further, "This value driven, ethical aspect is derived from a hierarchy of three concepts that are central to Fuller's design philosophy. They include:

- Acknowledgement of the mystery and inevitability of an implicated higher order,
- A particular definition of Universe, and
- A specific view concerning the function of humans in the cosmic scheme of things.

Ben-Eli's presentation flows from here into a parallel discussion of design thinking that emerges from design as a process of realizing intentions. "Design is fundamentally an integrative process involving the synthesis of elements into a coherent whole. Synthesis is paramount. It involves the intuitive ability to see the possibilities of novel combinations." Here we see the principle in action underlying out interest is systems and design thinking, integral theories and transdisciplinarity. Ben-Eli also has outlined a clear relationship between design as a process and an intention. His PowerPoint presentation on this is available at http://www.sustainabilitylabs.org/page/design-science-framework-change.

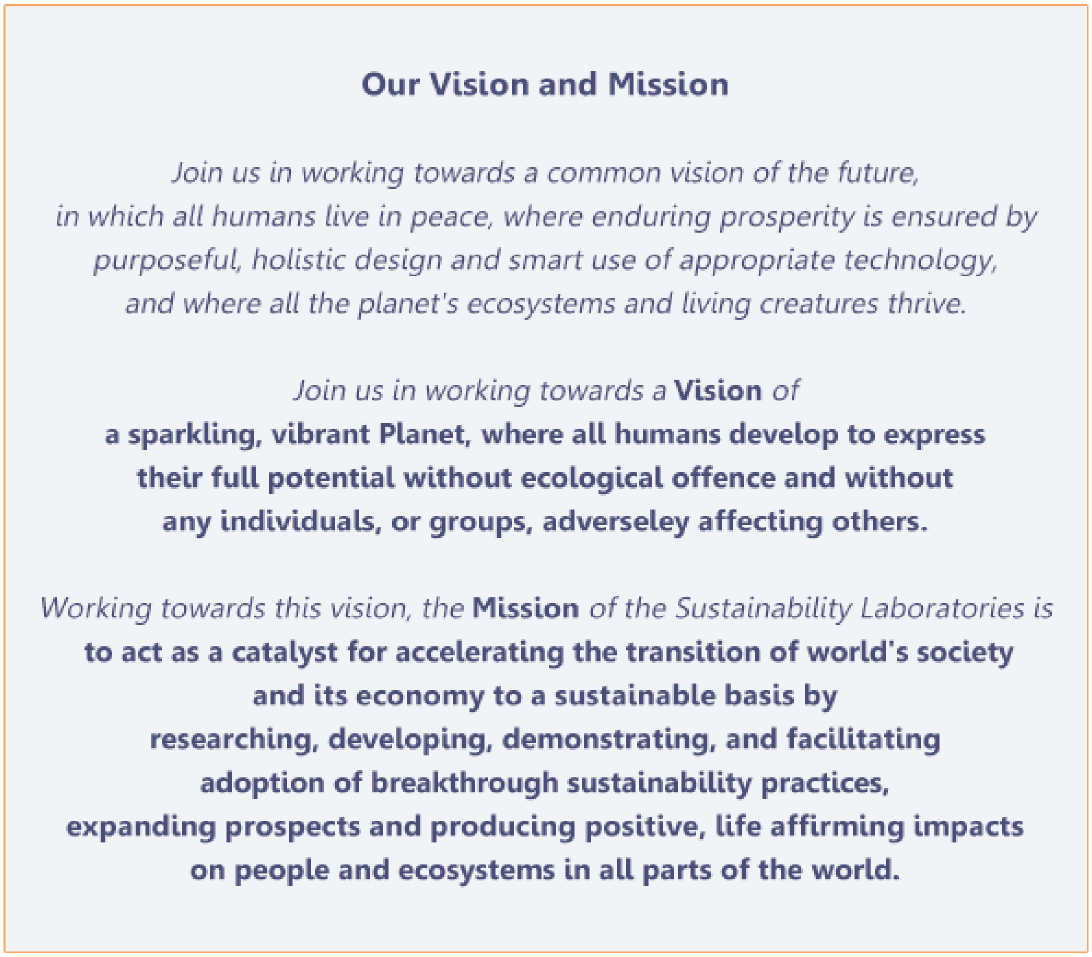
Embracing these approaches also leads us to examine our assumptions, many of which stem from values, worldviews, ideologies and—some would maintain—neurology and biology. Brand models this, as must we.

In the pair of interviews to follow I present individuals who have two very different and, I would suggest, complementary approaches to addressing the politics of ecological and developmental challenges. Yet, even from their divergent paths they have reached some very similar conclusions and intentions, as you will see.

Jan Inglis focuses primarily on local communities and the use of an intervention designed, tested and implemented in the US and in Sweden by Sara Nora Ross and others. She describes how this process (TIP: The Integral Process for Working on Complex Issues) works (see here for a workshop overview or here for articles). Fundamentally, hers is a think globally, act locally strategy.

Inglis' work has been primarily with individuals and communities, particularly from her small community base in British Columbia, Canada. She is focused on how change occurs and how individuals evolve into healthier ways of being. Thus, her attention has been on individual and cultural change. Her interests have led her into peace movements over the years, as well as engagement in local community politics. She has engaged in bringing many different fields of study and action to inform one another and find ways of creating an integrative approach to social change. She founded the Integrative Learning Institute and its curriculum for social change agents, the Cultural Coaches Training Program.

Michael Ben-Eli brings many years of experience based, in part, on his association with Buckminster Fuller, his training as an architect in the United Kingdom, and his work all over the globe on behalf of bringing his design perspective to engagement with change and development capabilities. While he eschews politics, there is great political relevance in his work. He has founded the Sustainability Laboratories that includes this vision.



Our Vision and Mission

Join us in working towards a common vision of the future,
in which all humans live in peace, where enduring prosperity is ensured by
purposeful, holistic design and smart use of appropriate technology,
and where all the planet's ecosystems and living creatures thrive.

Join us in working towards a **Vision** *of*
a sparkling, vibrant Planet, where all humans develop to express
their full potential without ecological offence and without
any individuals, or groups, adverseley affecting others.

Working towards this vision, the **Mission** *of the Sustainability Laboratories is*
to act as a catalyst for accelerating the transition of world's society
and its economy to a sustainable basis by
researching, developing, demonstrating, and facilitating
adoption of breakthrough sustainability practices,
expanding prospects and producing positive, life affirming impacts
on people and ecosystems in all parts of the world.

As I read this, nothing could be more political in its implications. But his message seems to be that the path to sustainability will be served best by focusing on the practices and activities that support sustainability through both technological and cultural design. In his sustainability principles he extends our attention from the technical and the cultural into the realm of the spiritual (a treatment of these may be found here).

Taken together, we find the elements of an integral perspective on sustainability and change. We see in the lives and work of these individuals the integration of the domains of attention required for generative development. And we are challenged to consider how we engage with "politics" to move forward. The world of action represented by these individuals is not just action in the realms of individual, community and cultural development designed to address ecological survival and sustainability. Theirs are political acts often taken outside the realm of formal politics.

In economics we speak of the formal and informal economies. The latter are those aspects of economies that are difficult to identify and account for through financial and government bookkeeping and taxing activities. Just as there are hidden populations in census surveys there are hidden economies and hidden political dynamics. To address the world of integral politics we can look through at least two lenses, which can be expanded through a metatheoretical approach into many more lenses.[1] The first is integral as it represents a "theory of everything," that is, it can produce models and maps in which we can integrate widely diverse ways of knowing and researching political dynamics and systems on the individual and collective levels, include "meta-collectives" which move our attention from community and nation to the global perspective of politics. It can include lenses related to governance, agency and communion and many others. The point is that to gain an integral perspective involves the application of transdisciplinary approaches through the use of multiple lenses.

A second is to understand politics from a stage of development perspective. Here we would consider what politics might look like in a social stage where the focus in on family and tribes, as well as other stages of phases of human and cultural development in which politics is played out through institutions to enforce rules and correct behavior, to one that seeks to integrate diversity through transcending and including all those individuals and cultures at various stages of development. In these interviews we can glimpse both these perspectives, albeit they have not been made explicit. I trust that these interviews are in service of our development and learning in this process.

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[1] See the work of Mark G. Edwards (2010) on this theme, Organisational Transformation for Sustainability: An Integral Metatheory. New York: Routledge, and also McGregor, S. L.T. (2009). Integral metatheory: Beyond specializations, theoretical pluralism and conventional metatheory. *Family and Consumer Sciences Research Journal*, *38*(2), 142-157. http://fcs.sagepub.com/.

Design and Sustainability:
An Interview with Michael Ben-Eli

Russ Volckmann

Russ: *Welcome Michael Ben-Eli, it's a wonderful opportunity to speak with you. I'm hoping that we can explore some really interesting areas, and given your background, I doubt that will be a problem.*

To begin with, I want to talk about your background in design. Is it primarily in architectural design? And how has that been a part of your life?

Michael: I've been fascinated since childhood with buildings. I went to study architecture and urban planning at the Architectural Association in London during the sixties, at that time, a preeminent place in the world. It was a very avant-garde and progressive school. A lot of really fascinating people were there focusing on all questions of urban planning, buildings and everything that revolves around architecture.

Russ: *When you talk about addressing all the problems and challenges of city planning and architecture, are you speaking of that with essentially an engineering perspective on design? One that is primarily concerned with the technology—is that what you meant?*

Michael: If you look in retrospect there were two different main areas of emphasis. One was technology, more technology in general than engineering. In England especially, there were futuristic groups trying to translate into architectural visions possibilities that were opened up by the world of technology. The new technology of space exploration, for example, had a huge influence on what could be done with building design both in terms of visual impacts and actual structural possibilities. Designers were grasping for the outer reaches of technology—how those would impact both on urban planning and individual structures. The latter were increasingly conceived as large mega-structures made possible by new materials and other technologies.

At the same time, there was a growing emphasis among urban planners on social issues as an integral part of physical planning. There was the realization that there were a lot of important "soft" questions and socio-economic forces at play shaping urban environments, all of which had to be understood and taken into account in effective design. Such issues would relate, for example, to different income groups, different needs and functions, and the integration of people, spaces and functions in a comprehensive design. England, at the time, was very advanced in those ideas. A great deal of pioneering work was done on these issues starting from the years immediately after the war—I'm not quite sure who's in the lead today in that field, but at that time, many of the show-case model projects, were developed in the UK.

Russ: *You're speaking of model projects both of city planning as well as building design?*

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Michael: Yes. This is probably because when you look at the urban field, some of the best English architects and planners were actually employed by local authorities. At the time, the Greater London Council and some other organizations like it were in charge of urban planning addressing large scale issues of transportation, new housing projects and the like. They were all public sector entities. They were not private offices. Some of the best people in England were employed by those organizations that provided unique opportunities for real creativity, quite an unusual thing for government organizations.

Russ: What opportunities did it create for you?

Michael: I was a student at the time, so I was not participating in actually solving real problems, but London at the time—and the AA in particular—was a hotbed for new ideas. The AA was basically a club. It was a school that was operated by the British Architectural Association. At the heart of the school were a restaurant and a bar. Many of the architectural offices tended to aggregate in that area, near the British Museum. Architects and planners from those offices would all come to the AA twice a day—first for lunch, and then for drinks after work—and these were the moments where a lot was happening in terms of open discussions, brainstorming and plain networking. There was a lot of excitement. It also meant that anyone who was anyone in the architectural world who was passing through London would somehow end up at the AA. These visitors would have an opportunity to lecture and chat informally with the students. It was a unique and creative environment—that's where I met Fuller and some other leaders in the field.

Russ: You met Buckminster Fuller there. Can you tell us about that?

Michael: In the mid-sixties, Fuller was advocating an incredible program. In retrospect, it was one of those typical Fuller ideas—naïve and completely impossible, but absolutely correct. It was a program he called the World Design Science Decade: Ten Years of Design initiative, where all the architectural schools in the world would collaborate in a ten-year program that would focus, in five two-year increments on redesigning the world— dealing with issues of human trends and needs, energy, natural resources management, pollution, the environment, the whole industrial infrastructure—all the issues that have now become so pressing from the viewpoint of sustainability.

Fuller gave a lecture in London about the program and I had never heard anything quite like it. I was completely awe struck and fascinated by his vision, so along with some others at the AA, I joined in the program and started working on it. Much of my subsequent time at the AA was dedicated to this effort. I was also involved with a lot of experiments in designing geodesic domes and various space structures, trying different materials—anything from bamboo to aluminum, corrugated cardboard and Ferro-cement, things of this nature.

Russ: Is there any one project or effort that is memorable to you?

Michael: One very unusual project comes to mind that requires a bit of an introduction. The British educational authorities—the bodies that are in charge of granting degrees and so on—were actually in charge of University education in Ghana, a former British colony.

In particular, the Royal Institute of British Architects was in charge of supervising degree granting at an architectural school that was established in Kumasi at what was at the time known as the Kwame Nkrumah University of Science and Technology. John Lloyd who was a Year Master at the AA was asked to take over that school and run it. He was a big Fuller fan, so his idea was to go to Ghana and reorient the school—develop a new curriculum that would reflect a lot of Fuller's design philosophy, including a focus on the World Design Science Decade program. Although I was only a second-year student, he invited me to come to Ghana—I was quite close with Fuller by that time—along with Keith Critchlow, who was teaching at the AA, to work with him and Fuller on redesign of the curriculum of the school.

So we went to Africa for a year and worked on trying to reorient that school and focusing its approach around Fuller's ideas. That was also a time during which Keith Critchlow and I had a great opportunity to do a lot of research in Fuller geometry and tried different types of structures. We did some very nice aluminum and bamboo geodesic domes in Africa. We were experimenting with a lot of local materials. Aluminum was one of them, because Ghana had a great deal of bauxite sources. So, we tried to use aluminum as one possible building material. These were basically experiments with geodesic structures. Of course, Keith went on to become a preeminent authority on geometry and architecture and his work was very much influenced by Bucky's synergetic geometry.

Much of the rest of the years at the AA involved the sort of normal design project that you get in school, but also a great deal of work on designing some of the events that related to the World Design Science Decade program as advocated by Fuller.

Russ: *Were you involved with Buckminster Fuller in other ways?*

Michael: The school actually allowed me out of regular schoolwork in order to have this basically "apprentice" opportunity with Fuller. Hence, it was possible to spend the year in Africa and otherwise focus on the work of the World Design Science Decade for the five years that I was at the AA. The basic understanding was that I would also do all the other stuff that my peers had to do, like exams and projects. I lived a double life in a way, but it was fascinating and very energizing.

Russ: *It sounds really exciting. Where did it take you from there?*

Michael: Oddly enough it took me away from architecture. I graduated from the AA, but largely because of Fuller's influence I realized I would not end up in architectural design. I became fascinated with the issues that were raised by his vision concerning the management of world resources and the environment. I started to move in that direction and look for additional tools that would make me more effective in dealing with those questions.

I felt at the time that the emerging fields of General System Theory and Cybernetics offered such new ways of thinking, a new conceptual framework, a new language, essentially—new in the sense of creating new tools for dealing with complexity and understanding the nature of complex systems, how complex systems regulate themselves, how they change, adapt and evolve. So when I graduated, Fuller invited me to join his staff here in the United States. While working with him on some projects, including a very interesting project with members of some street gangs in New York, I started commuting back to London to work on a Doctorate in Cybernetics with Gordon Pask. That took me to a more abstract notion that is interesting as it relates to your question about design. I started dealing with a more abstract form of design—the design of organizations and the "architecture" of institutions, organizations and management processes.

Russ: *So your attention expanded from the physical design dimension to human system design?*

Michael: Yes, completely correct.

Russ: *How did you proceed with that in your career?*

Michael: In 1973 when I left Fuller's entourage, I got married and was offered a project to work on in another country. So I left the United States for a while. I was just finishing my Ph.D. then and I basically set myself up as a management consultant. I was very lucky from the outset in that I received some very challenging and large projects that allowed me to experiment with all these ideas—both the fundamental intention that is imminent in Fuller's philosophy and his design approach, but also experimenting with all the ideas from general systems and cybernetics. I was increasingly focusing on the ways large systems function and on their essential architecture.

Russ: *What might be an example of one of those types of projects?*

Michael: For example, in the early years I did a lot of very large strategic planning projects in health care in some of the key academic medical centers in and around New York. All of these involved designing the process of planning, itself. This is something that is rarely done deliberately, as it should. People jump into planning activities without understanding that the planning process itself requires an entire infrastructure of its own in order to succeed. Some of those projects also included major reorganization efforts, which meant having to deal with the architecture of those institutions. The design of their internal structure needed to be addressed and there were fascinating issues involved. Remember, the typical medical center comprises a number of very different functions under one roof. It has a hospital, for example, something that people can look at from a more conventional business point of view, more like an industrial operation, where you can measure things like patients per day, length of stay, level and intensity of care, and the like. Then, you've got the medical school, basically a university with all the teaching and pure research components. These are three functions—patient care, teaching and research—which require different management approaches, yet need to be integrated in one whole system. This makes these organizations especially interesting —more complex than the typical business enterprise of a similar size. They were very interesting times as I attempted to get my feet wet in institutional design in those environments.\

I expanded from there into other arenas until 10-15 years later I was called into projects that were dealing more with regional management and planning issues. For example, in the Great Lakes area there was a planning project that brought many of the issues raised by Fuller, issues of environment, resources, technology, economy, society and so on, in one effort. In all of these kind of projects, I think my contribution was to bring the system perspective, both in the design of the approach to a problem as well as in actually carrying it out.

Russ: *Are there some key principles around the design of the approach that you could identify?*

Michael: There are a few that come to mind. One is the systems approach, which means a comprehensive view of problems that takes into consideration a larger domain of concern. It tries to understand what are the key elements, the key variables, in that domain, how they interact and what are the consequences of those interactions. Taking a system view to what are essentially systems is essential—we normally deal with complexity by trying to simplify it often to the point of trivialization. We take a typical system issue and we trivialize it by trying to make it as simple as possible by reducing it to handle-able components. By the time we do that we tend to loose the whole system essence, ending up treating a complex system as though it was a simple clockwork mechanism. We then are surprised that many of the results of such an approach don't work well. So, one important thing is the comprehensive system approach.

Another important aspect is one that has been given different names. Its significance was emphasized by Fuller, but by other thinkers as well, notably by Russ Ackoff, for example. He called it "Ideal Design." Fuller referred to it as "preferred states," that is, the requirement not to focus on the limitation of a problem, but rather to project yourself to the ideal situation that you wish to achieve and then work backwards to achieve it.

Russ: *Can you give an example of how that works?*

Michael: One example would be how you deal with the energy issue. You could approach it by saying, "We are burning fossil fuels. This is creating greenhouse gases in the atmosphere that have impact on climate change. How to solve it?" You proceed to focus on the solution on how to ameliorate what is going on now. Then you can come up with all kinds of arguments about whether to reduce emissions by 5% or other solutions, short term, limited solutions that are typical to the way the international community has been trying to deal with the problem. Or, conversely, you can take a completely different approach and say, "What we need here is a global planetary energy independence, which means graduating to a source of energy that is non-depletable, must have zero harmful emissions and be available to all." Then the problem you have to solve is of a completely different nature. Do you see the difference?

Russ: *In the latter, you're starting with your goal or vision. Then you look at the activities that would be required to create that.*

Michael: Exactly! There's a big difference if you start with an aspiration, something you would like to achieve, even if for the moment you don't even know how, as distinct from starting with a current "problem." You can fix the faucet, but you'll still have the same water supply, whereas if you take that problem instance as an opportunity to consider what the best thing would be for everyone, it's a completely different question.

So that is the system approach and ideal design. It's so important, because it is essential to addressing the challenge that humanity faces on the planet today. You can talk about how to eliminate poverty or hunger or how to create a future where all of humanity can live and experience different degrees of wellbeing altogether, and then determine what will be necessary for that. Then you can talk about what we need: clean renewable sources of energy, clean, reliable, water supply, all these things in a qualitative sense, first. Then you go on to explore what would be required in order to achieve that, including the technology, institutional redesign and removing of the obstacles that are in the way. If you start with the problem, you'll never get there.

Russ: *As I listen to you, your passion for addressing the issues of sustainability is palpable. I'm aware that is an arena where you have been investing a great deal of your energy.*

Michael: It started, with Fuller's inspiration, to understand that those issues exist. I never had any sense of those issues when I started school. I was thinking about architecture like Frank Lloyd Wright—building and so on. Fuller opened my eyes to a completely different way of looking at the world and the kinds of issues that are important. Over the years, I think that I've tried to intuitively assemble the experiences and the tools that will make one more effective in understanding and dealing with those issues. For a few years now, I have been feeling increasingly confident that I completed my basic training. That I graduated from my own university, if you will, and that I am ready to focus on these issues trying to affect real change. That's where the idea first came to develop the Sustainability Principles and to launch the Sustainability Laboratory.

Russ: *I'm aware that you've spoken about sustainability principles. The last I've heard there are five of those. Is that correct?*

Michael: Yes. The origin of that is when I began to play with the idea of establishing the Sustainability Laboratory. I was wondering what would make it different than many other centers or institutes for sustainability that currently exist. One thing that I thought was missing was a set of coherent principles that define the true meaning of sustainability, as a state. What are the absolutely essential elements, the minimum statements that you can make regarding sustainability, the required conditions without which it can't be fulfilled no matter how you play with words. If you want to construct a vehicle so you can fly, you had first better understand the principles of aerodynamics. Similarly, if we are serious about implementing the state of sustainability as the universal planetary state, what are the underlying principles that need to be upheld?

I pondered that for a long time and I spent about two years drafting my ideas. I was very unsatisfied with the currently prevailing definition of sustainability, basically the one that was offered by United Nations' report associated with the Bruntland Commission, a definition that is accepted by most. So, I tried to give the concept a more precise definition and then derive the principles from that.

Sustainability:

A dynamic equilibrium in the processes of interaction between a population and the carrying capacity of an environment such, that the population develops to express its full potential without producing irreversible adverse effects on the carrying capacity of the environment upon which it depends.

Sustainability Principles

The First Principle:
Contain entropy and ensure that the flow of resources, through and within the economy, is as nearly non-declining as is permitted by physical laws.

The Second Principle:
Adopt an appropriate accounting system, fully aligned with the planet's ecological processes and reflecting true, comprehensive biospheric pricing to guide the economy.

The Third Principle:
Ensure that the essential diversity of all forms of life in the Biosphere is maintained.

The Fourth Principle:
Maximize degrees of freedom and potential self-realization of all humans without any individual or group, adversely affecting others.

The Fifth Principle:
Recognize the seamless, dynamic continuum
Of mystery, wisdom, love, energy, and matter
That links the outer reaches of the cosmos
With our solar system, our planet and its biosphere
Including all humans, with our internal metabolic systems
And their externalized technology extensions --
Embody this recognition in a universal ethics
For guiding human actions

The five principles pertain to the five different levels or domains, almost like chakras, that are important to pay attention to. On one extreme you have the physical domain that deals with issues of energy and matter, all the "stuff." The second principle deals with the economic domain in the sense of the meaning and creation of wealth. The third domain deals with the principle of life. We are part of a larger, living fabric called the Biosphere and we have to behave as good neighbors to other species. The fourth is the social domain that deals with the guidelines for social behavior. The fifth, which is probably the most critical, is the spiritual domain that really provides the value orientation to everything else that you're doing.

It's interesting—in the beginning I only had the first four domains and I felt that something was missing. I was beginning to play with the value or spiritual dimension. Many people that I talked to in trying out those ideas were discouraging this. "If you want leaders in government and business to take you seriously," they would say, "you cannot talk about spirituality." It didn't take long for me to realize that without the spiritual domain the others are just techniques. It is really the spiritual orientation, the underlying value held, which coheres and ties everything together. It serves as a center of gravity for the other four domains, for all of the rest.

That's how those five principles developed and began to spread on the Internet and so forth. Certainly they've been the guiding principles for the work I do and for much of what the Lab is and will be doing. The important thing about those five principles is that they are not single separate things. The five constitute the dimensions of one coherent system. What we tend to do many times is try and focus on problems in one area, not the others. Some people think we need to solve some technology problems and everything will be all right, but if we have a predatory orientation toward the world, that's how you will use your technology. Going to the other extreme, some believe we need everyone to become spiritual and sit and meditate. That, of course, will not take you too far if you don't also have the physical infrastructure to sustain the 9 billion people we are soon to have on the planet. You really need all five principles to cohere and create one system, and that's the biggest challenge of the sustainability transformation. You cannot deal with it in pieces—you have to deal with it as one whole system that is manifested in those five dimensions.

Russ: *In recent months, I've been feeling a little dissatisfied with the concept of sustainability and have been playing around with the notion of "thriving" as opposed to sustainability, because it suggests something more of the evolutionary potential that may be involved here.*

Michael: I also have been very unhappy with the term, especially because it's been so misused that it's almost lost its meaning. I haven't found a better term, so what I did instead is adopt that term but give it my own definition.

Russ: *How are you working in the world around the extension of these sustainability principles?*

Michael: At the moment, I'm working essentially on two levels. One is educational where I do quite a bit of speaking to all kind of audiences. I try to spend as much time as I can with young audiences—university students in different countries mostly. On another level I try to do actual projects. Currently, I am working on a fascinating project in the Negev Desert, in Israel, with a group of local Bedouins. We are creating an actual model of a sustainable desert community, which will be based on the Bedouin tradition and expertise with desert agriculture, but leveraged with the most advanced technology in solar energy, water treatments, silvipasture, and the like. At the end, we'll have an integrated desert, organic farming operation with livestock, medicinal plants and authentic, native vegetables. The whole site will be designed to deliver zero harmful emissions and every function on the site will be linked, providing an input, to another function, so there will be very little waste. It will be integrated from a sustainability point of view. The social dimension of the sustainability principles will be embodied in the way that the community will be organized. The group is developing a cooperative structure that is very innovative, and completely unique in the context of governance in the Bedouin society, which tends to be male dominated, hierarchical, tribal and clannish.

Russ: *Have you examined adult developmental psychology at all? Any of the models such as the work of Michael Commons, Robert Kegan or Don Beck and Chris Cowan on Spiral Dynamics?*

Michael: No, I must confess that psychology is an area I'm especially weak in. I've read things through the years but that has not been my focus.

Russ: *The reason I ask is because of the way in which you are addressing the social. Particularly in the case of Spiral Dynamics, there is material on my Web site and a book entitled Spiral Dynamics. I would encourage you to take a look at it as a way of tapping into a framework that may give you some important insights in that arena.*

Michael: I'll look into that. Incidentally, I don't know if you had a chance to look at the Design Science document I developed, which was published on the web site of the Buckminster Fuller Institute. You can see there how the spiral has been used as an imaging icon for the process of design.

Russ: *Yes, I recall that. Could you elaborate on that? How is the spiral representative of the process of design?*

Michael: You need to accept a definition of design that goes beyond the conventional view of design as having to do with an arrangement of objects or what-have-you. Normally, we use the term "design" in a very narrow way. I think there's the possibility to look at design in a much broader sense as a concept that indicates some sort of underlying order. You start with that, a notion that means some whole that is marked by a consistent coherence, which of course, implies some deliberate intelligence. Fuller, for example, used to say that the whole universe is a fantastic piece of design. This is how he used the term. So "design" is basically given the connotation of an underlying orderliness.

If you think of one of the unique and important functions of human intelligence in the cosmos, it is to produce unique designs and act as a local cosmic feedback loop in the process. This is the opportunity that we have with our awareness, consciousness and intelligence. It is to progressively create more order, although often we do not act that way. Arranging and rearranging events in comprehensively preferred ways demonstrates the potential of the fantastic capability that we all possess as universal designers. So when you look at it from this point of view, you can come to a new definition of design. You can define design, in the most general sense, as being the process of realizing intention. The process itself has to do with applying intelligence to physical processes and it comprises a number of steps ranging from an intention to actually realizing that intention.

You start with an intention and then there is an action to reduce that intention to practice. There is a process that moves from the intention to the realization. If you think about that process a little bit, it would have the typical structure of purposeful behavior in general. This is where there exists an important link with psychology, where the intention obviously corresponds to a goal and the later corresponds with projecting ahead a preferred state, as we talked earlier. So you have got the goal, you have got the realization process, the activities required for realizing the goal, and then, you have the process of evaluation, which is the feedback function where you see whether you achieve the goal or not and whether you have to continue and try to realize it or you can move your attention to something else.

So you have got the three major aspects of intention, realization and evaluation, which are linked in a circular framework. But you have to be able to evolve. So you have to be able to break free from this circle. In order to jump out of it, once the circle is complete, you need to connect to a new more comprehensive, more inclusive intention and you move to the next circle level. That’s what creates the spiral. In relation to each circle level, which comprises a typical feedback loop situation including intention, realization and evaluation, you need to be able to accommodate the possibility of learning, adaptation, and the kind of shifts that are involved in evolutionary expansion of context.

This requires that each such circle—each closure—will be opened up to the next more comprehensive cycle of integration. If you take the circle and open it up to the next circle and the next one, you’ll get a spiral. A spiral is an entity that expands. It can be used as an iconic representation of evolution. Evolution, whether biological, social, cognitive or whatever, comprises basically an expanding process. If you contemplate it further, you might say that what is actually expanding in the spiral is a quality we call “experience.” It’s the experience of the cosmos itself that is becoming more comprehensive as we go through those cycles.

Russ: *And it’s probably replicable at multiple levels. You indicated experience with the cosmos, but the individual and the social systems can go through those same kinds of dynamics.*

Michael: Absolutely! But in the same breath I’m also saying that the individual and the individual’s design—the individual’s invention and social design—are part of the cosmic experience itself. We think that it’s our experience, that it is all about us, as humans, but it is not. It’s something greater that is working out its purpose. It accumulates its experience through all the possible manifestations including us, our thought, feelings and actions.

Russ: Fascinating. I'm wondering if in your work on sustainability whether you see yourself engaged in a political process. I'm assuming the answer is yes, and if so, how?

Michael: I have avoided the political process, and no, I don't intend to engage in it. The main reason for this is that the political process requires a tremendous amount of compromise. I think that in order to understand what the issues really are, and how best to approach them, you need to avoid compromise as much as you can. I prefer to work in this way.

Russ: It occurs to me that one of the other arenas in your life has been attention to issues of peace. Can you expand on that?

Michael: I think of peace more of a derived consequence of many conditions rather than a result only of deliberate activist focus. I was born and grew up in Israel, so my whole early experience has been an experience of a region that is torn by conflict. Having lived outside of it for many years now, I can also see the potentials very clearly, of what things could be if energies could be diverted from conflict to more creative modes of being. Over the years, I became involved in some peace efforts. I served on the board and for a while as its chairman, of an organization called Givat Haviva, which brings together Israeli Arab and Jewish youth just so they can experience each other more directly and get away from stereotypical ways of thinking about each other. It's very important work, but very slow, and really a drop in the bucket.

The project that we are doing now could have an important impact on government policy with respect to the Bedouin minority in the Negev. One of the ideas we are discussing is expanding that project and doing something collaboratively with a group of Bedouins in Jordan. If you start that, you can clearly expand very effectively on issues of peaceful existence between the two countries. In all of this, though, I am trying to create peace conditions through concentration on something else. We are not involved in peace demonstrations in the project, but we are trying to create a thriving community in a way that can demonstrate that there's really no need for destructive conflict if you collaborate. Incidentally, with the Bedouin project, the kind of coalition of people in organizations that we were able to put together is absolutely unprecedented. It shows you that when a group of people really wants to focus on an ideal and sincerely try to achieve it, anything can be possible—and that, can rarely, if ever, be achieved through conflict which is driven by fear. Of course, in relation to the five sustainability principles, I think that the fifth one viewed in relation to the social reality would see a condition of peace as a prerequisite for a thriving society and a happy, thriving future for many reasons.

Russ: It seems to me that the sustainability principles are really the domains of both design and social action.

Michael: Absolutely!

Russ: I said "social action," but I guess I mean just action. Period.

Michael: They are actually very powerful. I don’t mean it as a self-serving statement, but the principles are very powerful if you think about them as guidelines for organizing action, for developing sensible policy or designing the necessary change.

Russ: Where do you see yourself moving at this time? In what domains will you be putting your energy?

Michael: The Bedouin Project is consuming a lot of energy and time. I shall continue with that to see it through, but I think I shall be switching my attention to the evolution of the Lab itself, as a vehicle to support activities like this one particular project.

Russ: Tell us about the Lab.

Michael: I started to work on issues of sustainability and sustainable development largely in the context of the multilateral organizations that deal with issues of development: organizations like some U.N. agencies, the World Bank and others. Both in that arena and in the private sector where some concepts of sustainability are being pursued, there are real limitations on how far existing institutions can go for a number of understandable reasons. It took me some time to fully appreciate that. I thought that I was operating at the center of activities furthering sustainable development until I realized that there was a huge gap between the prevailing rhetoric and what was actually happening on the ground.

It took me some time to realize that this was not because people are bad or they don’t want to do the right thing, but because the whole framework within which we operate, both in the public and the private domains, is extremely restrictive in that sense. In the private sector, we operate under an economic accounting framework that is really driving us in the wrong direction by distorting reality enormously, for example, allowing us not to take into account what economists refer to as “externalities”—the impact of pollution, the impact of depletion and so forth, but even worse, allowing us, in many instances to count consumption as profit.

If you were a CEO and did this with your company’s accounts, you would be put in prison, but that’s how we operate the planet. We deplete the resources and think we are getting rich. That existing framework constrains what any CEO or any given company can do before they reach the very low ceiling of acceptability—of dealing with shareholders’ value and all those familiar restrictions. In the multilateral arena, it’s the political restrictions where you have to operate by consensus. The arguments around achieving a consensus go in a direction that takes you further away from the problem itself. By the time you reach the lowest common denominator of what is acceptable to all, you are dealing with a “solution” that is so far from the essence of the problem involved, that there is no correlation between the two anymore. This is why a lot of development policies have not been very successful.

It occurred to me after experiencing that world for a long time in projects all over the world that it would be very useful if there would be an independent entity that could actually experiment with breakthrough approaches without worrying about the conventional frameworks of both the conventional economic and political varieties, and create a portfolio of success showcase models, demonstrating true paradigm shifts in different necessary arenas.

The lab will focus its work in four key areas: on questions of strategy —approaches to demonstrate sustainability in development, for example, on technology, financing and education. I am not trying to define what the lab will do through defining problem areas or specific development objectives, but rather by those four functional areas. In each of those, we would identify an issue that needs to be addressed, and bring the best possible talent and process to bear on creating and demonstrating a model approach that others can review, adopt and scale up. This is basically the idea behind developing a prototype sustainable desert community with the Bedouin's.

That's what the Lab will try to do. I hope it will attract some attention and collaboration with a number of cutting-edge institutions. At the moment we are working with two: one is the Blaustein Institutes for Desert Research of the Ben-Gurion University of the Negev in Israel where a great deal of cutting edge work is being done on solar energy, water management, desert agriculture, and so on, and with EARTH University in Costa Rica.

Russ: *If anyone wanted to learn more about your Lab, what is the URL for it?*

Michael: It's www.sustainabilityLabs.org.

Russ: *If there's an interest in becoming more involved in the work you're doing is there an avenue for that?*

Michael: All that needs to be done is to contact me directly at muben@aol.com, but there is also Lab contact information on our Web site.

Russ: *Michael, I deeply appreciate the opportunity to speak with you. I'm very impressed with your range of interests and energy and I am sure we could have a dozen more conversations in great depth. At least this has served as a foundation to get the key elements out there in front of a larger public that will pay attention.*

Michael: Russ, I very much appreciate the opportunity and I enjoyed talking with you.

3D Democracy: An Interview with Jan Inglis

Russ Volckmann

I have known Jan Inglis for several years as we are co-directors of ARINA. Also her articles have been published in the Integral Review of which I am an associate editor. I know that she has been very focused on using developmental and integral approaches to respond to some of the very complex issues that challenge us these days, specifically climate change. I was curious to know what motivates and sustains someone to work in the public realm since many people in the integral or developmental field have chosen to focus instead on personal development, organizational leadership or academic teaching. I also wanted to know what specific and effective methods there might be for how communities are engaged in political or social issues considering that I recognize that people are all over the map when it comes to their diverse lines and levels of development.

Russ: *Jan, I'm so glad to have the opportunity to chat with you today. I'd like to start by asking about your interest in politics.*

Jan: I haven't been directly active in what most people would consider politics—as in party politics and lobbying. But I have been involved in public decision making which is the broader definition of politics: how we make group decisions regarding public issues. I call it "3D Democracy" referring to the multidimensional aspects of decision making. That interest is a continuation of earlier observations in the work I was doing re how people make choices—how they weigh things out and subsequently make decisions. I've long had a fascination with that.

Russ: *Is there a particular context in which you've been concerned about that, or is it across the board?*

Jan: A long time ago, I was working as an occupational therapist with people who had many types of disabilities. They faced multiple physical and emotional challenges. I would observe how they responded to those challenges; there were incredible differences in how people would rally to face those challenges. I was fascinated by how people arrived at their choices, what supported them in the context of their beliefs, families, their culture, etc. That was something that moved me into the field of therapy: Integrative Body Psychotherapy. I did a lot of work with the internal processes of how people looked at their issues in the context of their values, their current sense of energy and what they assumed blocked them from getting what they wanted in life. I noticed that as they would examine what was in the way of them achieving their goals, and look more deeply at potential influences such the history of their childhood patterns, and assumptions they were holding, this would change their relationship with their "problem." They could find ways that those blocks could surface, be sorted, understood and coordinated and it would help them move forward, beyond their obstacles to make healthier choices.

Russ: *At that point in your work did you notice any patterns?*

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Jan: The more self-reflective people became, the more they were able to look beyond their external problem situations and examine their internal responses to their situation: was it based on assumptions that had been holding? did it have to do with how their assumptions might be different than those of other people around them? So that capacity to inquire and see connected layers underlying problems and be self-reflective made a huge difference in how they created new options and resolved their situation.

In parallel, I was doing a lot of community work and dealing with issues regarding the environment, social justice, and peace. I was looking at how this process of self-reflection, that seemed so available and worthwhile for individuals, wasn't present when we were in our public groups. Behind the closed doors of a therapist's office, individuals were able to become more aware and create change, but there was little transference to how that showed up in our cultural work and social change efforts.

I became increasingly concerned about environmental issues some time ago and felt we needed to find ways of ways of looking more deeply at the patterns re how our problem issues have formed and were impacted by our views of them and each other. It was that question of how we make decisions—and why we make such bad ones that endanger our very survival—that eventually pushed me into looking more deeply at adult development in a social context not just personal growth. This opened up a whole new field of understanding about why we had differences in how we approach things…and why change is not simple.

Russ: You're addressing both individual levels of decision-making and all that is compounded into that process, as well as how communities are engaged in that process when it comes to political or social issues.

Jan: Yes. For quite a few years, there was a disconnect in my work and in what I saw occurring around me that felt really uncomfortable. My therapy students could be doing a lot of deep personal work, but not have any concern at all about the health of their communities or world. Or, I could focus on the bigger issues in the world but work with people whose own dysfunctional way of communicating with others was actually a key part of what was creating the issues, and they were totally unaware of that. I felt I needed to find a way that could bring coherence to those two fields. At that point, they were two separate fields; inner personal work or outer community work. I felt that I needed to work on them together, not just view them separately and needed to find a method to pull them together.

I was doing a lot of reading and research and understanding of what other people saw regarding this. I found some of Wilber's early work—he mapped out the exterior and interior—and it was helpful to have that split acknowledged. I knew I wasn't the only one feeling the split and that it was part of a larger context of development.

Working with Integrated Body Psychotherapy was helpful because it was about working in real time—not just from a conceptual understanding of what was happening in terms of problems and issues but with the experience of being present and the impact that had on our ability to observe and understand. It was an integrative process as well, supporting people to focus attention into their gaps and make sense of what they were seeing. I moved on into studying Bohmian dialogue, Spiral Dynamics, Robert Kegan's and Bill Torbert's work . And meanwhile I was learning from my own processes as well. I was seeing that my community work focused on the issues being "out there" and a lot of my earlier activism had been about finger pointing and blaming "those" people "out there" that were doing those "bad" things, whether it was the corporations or the politicians. As I became more aware of my own processes and question this patterns of blaming and creating "in" group "out" group polarities, I was also seeing how that perpetuated the very issues I and others seemed to want to resolve. It is so easy to blame, harder to get at dealing with it all being about 'us.'

Russ: *Given your professional background, this probably came relatively naturally to you. In addition to the reading, what were the kinds of things that helped you bridge that distance of consciousness and understanding?*

Jan: I've been lucky to live outside of the mainstream culture most of my life. I grew up on a farm where you really do get a sense that everything is connected. My father was very involved in the cooperative movement and concerned about the common good, and also money was only available for practical things. So the combination of all those things meant I wasn't part of the consumer culture very much. Although that was not much fun as a teenager, I think that allowed me to follow things of interest as an observer rather than an enmeshed participant. In the early eighties, I came across Joanna Macy's work, ecofeminism and deep ecology. I was doing programs with groups and really seeing the difference that could happen when minds came together. I was part of intentional communities and started working with consensus decision-making, mediation etc. I was searching for a method under which we could come together as groups but finding limitations of all those previous processes. I found there was a lot of great intentions and 'feel good" energy in much of the personal and spiritual development work but none of this was sufficient to actually, pragmatically, assist us in responding to the complexities of our social ecological or political issues. In fact, it seemed to serve as a distraction.

I felt I needed to find something else—I was looking for something to help me understand the process of how we make decisions in a way that groups or cultures can create change, much in the same way I had found change could be supported to happen step by step with individuals …... I came across the work of Sara Ross. She had taken a lot of the large fields of research and theory about adult development and behavioral sciences and complexity, and put them into a form that could be applied at a community level.

Russ: *I'm interested to learn more about the role of marginality or the role of being at the boundaries of social systems that has its implications for people in their development. It sounds like it was important in your case, and it resonated with me. Is there something in that we should discuss?*

Jan: There's a certain push and pull in that. There's a sense of wanting to belong, at the same time as wanting to individuate and not be enmeshed with a group or culture. You need to take a step back to see it and yourself in that. The tension feels like a struggle and a gift.

One thing that helped me in my early career when everyone else was only focused on career moves and earning a lot of money, was that I came across the work of Joe Dominguez and Vicky Robbins. They had put together the "Financial Independence: Your Money or Your Life" material especially for people who were headed into being social change agents. Working with them made me rethink my goals and evaluate how I was putting my money, time and my life towards them. My biggest goals were certainly beyond just gaining more paid holiday time, or making car payments. Their work helped me validate my priorities. It offered an articulation and a concrete doable structure for how to step back and look at the whole idea of working just to earn money and helped break the trance of that aspect of mainstream culture. So to answer your question…I guess that marginalization can be another name for outgrowing the old forms and not yet settling into the new, and so that means dissonance which offers motivation to find a better way. But besides dissonance we also need supports such as models and methods of better options and validating experiences so we can move to a more satisfactory next level. I am very grateful that I have found both internal and external structures that have supported me… although there have been some times on the desert.

Russ: It's clear that all of us go through a variety of developmental experiences in our lives and we find ourselves centered in different levels or sets of capabilities on multiple lines. One thing that I'm curious about is that when we're working in a collective context, we're dealing with people who are all over the map along those lines. Is there anything that you discovered in your work on adult development that was an important lesson for you around working in collectives?

Jan: Initially when I was a therapist, I could see the great changes that people could make. So then I jumped to an assumption that if everybody could just get on with doing some inner work then that was what was needed to change the world. I felt that was what everyone could and should do and I felt they could do it in a short time. From the lens I was looking through then, I failed to recognize that this capacity for self reflection was just not available for everyone. Eventually from my own observations and understanding from adult developmental theories of Robert Kegan's, Bill Torbert's and Michael Common's I came to respect the fact that we're all going through different places at different times based on many different aspects and life conditions. The stage we are at is just where we have to be. Then social change work wasn't about pushing someone else to do something; it was about looking for structures that could intentionally hold the richness of that diversity and work with it as active grist for the mill.

Russ: One of the big challenges is the creation of structures that allow for the richness of that diversity to be brought together to support our collective creativity and innovation. I'm wondering if there's some patterns or principles around structure that have been significant for you.

Jan: The term “scaffolding” is being used to describe what it is that supports us as individuals to develop, and what supports us as groups to deal with more complexity. I think that with the challenges that we’re facing—the climate change or any number of issues that we’re dealing with: economics, health care etc. — these are all such complex issues. But we’ve attempted to deal with them in a simple, linear way. And our public interactions are tending to come from a very adversarial stance. We need processes that are as complex as the issues. We need systematic methods of dealing with issues, but we don’t have processes in place in our politics for dealing with them that way.

I think our public processes need to be designed to match the challenges of those public situations. I think we take our public interactions, like politics and community development, for granted. We’re not seeing how poorly we interact. We’re not seeing that by using an absolutist form of thinking and talking together that it forces us into simple yes and no responses, inadequate for complex issues. That doesn’t allow us to bring together the diversity of perspectives on the issues. We are not seeing that the issues exist in relationship to the whole context of other issues. We’re not seeing them as a system, within systems, that is, as a metasystem. We’re trying to deal with poverty, violence or climate change as simple issues when they are truly complex. One core principle then is to commit to methods to address the complexity of our issues. They need not to be dealt with as fragments, but rather integrally.

Russ: How would one go about seeing the diversity of an issue rather than the diversity of the population around the issue?

Jan: We need to see and address both. There is both the multi facets of the topic issue that make it complex like crime for example, and the multiple perspectives within the population regarding potential solutions to crime that need to be considered before we can agree on and support actions. So we need to see the issue within this broad context. For example we tend to talk about climate change as though it were a single “it” and really there are many diverse aspects and sub issues and they all need different ways of being responded to . We can use the movement towards biofuel as an example where one perspective of a “good” solution was used without adequate exploration of other perspectives or implications. Converting fields to corn crops to produce biofuel supposedly was a solution to create alternatives to fossil fuel but it was done without considering all the repercussions that it would have—impacts on markets, on availability of food, land use, etc. When we don’t look at an issue’s interconnectedness, that’s a failing on our part. To gain a broader understanding we need to work with those most knowledgeable about the issue, who bring necessary and diverse perspectives based on their life experiences. Starting with inquiry into the context and causes and creating a map indicates graphically that issues are complex and very interconnected, and gives an understanding of why we will need deeper consideration than just quick fix it solutions.

Russ: I think of what you’re saying as a shift in the way we think about phenomena. it takes us from an engineering perspective to a more gestalt examination of the phenomena.

Jan: Yes, absolutely. Everything's connected and you can't just pull one string without knowing that it's connected to other threads in the tapestry. Yes, the engineering model would have been an approach to a single cause, a single problem and was based on the assumption that we understood the problem, could just plug in the solution and then predict the outcome. That's a very simple, linear approach, using formal logic, instead of realizing there are many causes and many effects that have to be understood within a context, a post formal logic. Part of the 'gestalt" is the many very legitimate perspectives that are connected with the phenomena. So being able to talk about "the" problem in terms of the many perspectives that we bring to it is absolutely necessary.

Russ: We're touching on one of the added values of bringing a complexity theory perspective to issues. On one level, it's about recognizing that everything is connected; on another level, there are other lessons that can be drawn from that complexity perspective. such as small changes that can create large results? Interventions can be less grand than the whole phenomena itself.

Jan: Well I look at the enormity of all the things we're dealing with on the planet and can wonder where I should start. It helps me to recognize that if we work with the patterns of how we interact and make decisions, and even if that is just one group working with its issues in a different manner than they have before, that that is setting the potential for a bigger change. That learning can then be used again and there's an incredible impact of how that can ripple out. Without digging too deeply into complexity theory and patterns, it's vital to recognize the importance of what happens when we are able to change a pattern and have it work at a level that is more adequate than some of the structures of thinking we've used before. This gives me hope.

Russ: So it's not just about structures and processes, but it is also patterns over time. By intervening in a way that alters one of those patterns, we're beginning to build the neural networks among us that allow us to shift the patterns to make them more effective in the future.

Jan: Yes, I think that nothing is isolated. If we're learning something and reflecting on it, then that can become something that we will start using and eventually over time can consider institutionalizing. That then gives us the foundation upon which we can build our next pattern and a culturally recognizable way to deal with the next issues that we'll be challenged with. Hopefully we will move beyond thinking our minds operate in isolation. And it is exciting to think that at some point we will be able to have neurobiological evidence, not just social science evidence of those changes which are occurring.

Russ: You've referenced Sara Nora Ross' work. I wonder if that's an example of an intervention or a set of interventions that is about changing patterns.

Jan: Very much so, and I think it works on a lot of levels So much of what drives evolution is dealing with challenges and unmet needs and finding ways to resolve them in a more complex way than was available before. Right now, we have big challenges and potential for major unmet needs as a result of climate change and we will need to evolve to deal with them and that involves collective decision-making. We can be supported to do this better when we work with the universal developmental patterns underlying how humans make decisions.

These are built into the process that Sara developed, which is called the TIP Process—The Integral Process for Working on Complex Issues—within that there is both very specific and detailed methods of working with the community or group to make a decision on complex issues. There is also processes that scaffold our individual development and the group's capacity to work together. It's designed from a developmental and behavioral science understanding. It also supports us to move forward because we're having to face into the complexities and interconnectedness of issues and multiple perspectives that we bring to the issues. With a series of steps we can move through that process. The issue we're working on can benefit and the individuals and groups that are working on the issue can also increase their capacity for more complex thinking.

Russ: *Can you expand on what that process and those steps are?*

Jan: Sure, I can attempt to go over the basics and hope the answer does not get too long. A lot of the first steps help us build a sense of focus and attention, which is lacking in a lot of our public interactions. We often just come in to a meeting, and just start to talk and we're all over the map. We're talking about some general topic assuming we are meaning the same thing but we haven't really agreed about what the main focus is. There is a need to be able to help people focus and build their attention span, and do this in a manner that isn't triggering an absolutist stage of thinking where we fight over the 'right' or "wrong" answer. Using the action inquiry process that Bill Torbert had put forth, we inquire into our understanding of the issues. In that way, we start to build a common meaning of what we are thinking the issue is really about.

Some of the early steps include seeing the issue in its context with other things and building a broader understanding from hearing different people's views. We need to use inquiry to get us beyond thinking there is a right or wrong way to see an issue. This sounds simple but it is where many meetings regarding a public contentious situation get stuck. So in the first steps we're building the basis for more complex and connective thinking. We move through understanding what the issue is, looking at how it got there and its root causes. That takes us below the usual surface desire for quick fix solutions to starting to make connections between multi-causal points of how this issue came about. We move bit by bit into understanding what the causes are in relationship to our behaviors as individuals, or as whole group or community policies, or non profit, business or government practices and priorities. And also how these reflect our individual and organizational values and attitudes. When we get to a point where we define causes and priorities of what we want to focus on, we have a much larger context to work from than if we were just working at the quick fix solution level. We then are deeper into the systemic understanding of an issue after these earlier steps, so then our choices of actions are likely going to be more systemically focused.

One thing that happens in politics and in our public interactions is we don't trust people's capacity to know the issue very well. But when given this kind of scaffolding and by asking people, we find they do know what their issues are, especially if you provide a setting by which they can actually explore their knowledge of issues together. Then they can start moving towards agreements and come up with some responses and create potential solutions that could shift the deeper aspects of their problematic issue.

There is a method of framing the naturally-occurring multiple perspectives, so we see it is not just my favourite perspective against yours, which is quite often how our public processes work. Instead we're going to examine the fact that there are 3-4 different perspectives on how we should proceed and deal with this issues and come to realize that of course our response to this issue will differ based on our perspective.

That, then, moves us into the next step, a process of "deliberation." I realize that that term probably requires some background. We all deliberate all the time, but we don't realize it. So for a real life example, —remember when you and I were in Oakland at the Integral Theory Conference and you gave me a ride in your Prius? I remember you saying that when you bought it, it was an "easy" decision to make. I was thinking that while the decision may have been easy, there must have been an inherent deliberation as you calculated how best to satisfy your needs in your choice of car. You probably considered the purchase from the point of view of several needs: first, a security need, that is the safety of the car, and your financial ability to purchase it. Second, a stability and accountability need, that is your view of the reputability of the company and its ability to make and service the car. Thirdly, a competitive or entrepreneurial need, that is, is this the best car in the hybrid market. Then you settled on your more obvious responsible citizen motivation, that is, the impact your purchase would have on the planet. Within that 'easy" decision , there is the whole universal stack of viewpoints and needs that probably were sorted through unnoticed but had to be met before you could arrive at an easy decision.

I think we do that kind of internal deliberation all the time. If you take that and apply it to another entity—say you sit on a board of a nonprofit organization—then you add a whole different level of complexity. Now it's not just you deliberating; it's a group, with different needs, and priorities that all need to be considered and included before reaching a decision that everyone can support. If you move that up the rank to bigger and bigger entities such as the State of California buying a fleet of cars you add more complexity and layers that need to be considered to reach a decision and take action.

So with more complexity we need to be more intentional about including all the factors or our attempt to reach decisions will bog down or not feel satisfactory. We have to weigh costs, consequences and trade-offs, and we need a structure to do that well, especially with public decisions. If we simply leave our decisions to leaders we can end up with an apathetic, passive or frustrated citizenry and likely bandage approaches. We need more participatory and deliberative decision-making so people can go through and weigh out the decisions that impact them. They can look at costs and consequences that affect them. By the time a decision is reached, we can take action on that decision as a public because we spent time examining the trade offs. It isn't just a reactive decision, which is quite often what our usual public processes set us up to do.

Russ: *You're talking about something critical. It brings us back to this piece about the developmental levels of participants. Have you considered the values of people who might have different worldviews and different capabilities around hierarchical complexity or subject-object relationships? How have they been able to transcend those differences to work together deliberatively?*

Jan: Yes that is a core aspect. The invitation of different viewpoints in the exploration of the issue and in the people talking about the issue from their real-life experiences is accommodated in what is called a framed issue booklet. These diverse perspectives or frames of reference clearly describe the legitimate views and we can see these issues from different places based on different life experiences. The differences include those same universally different voices which occur inside us, just like the ones I was saying you might have needed to listen to in your internal deliberation about what car to buy. We need to ensure that those different voices are included, and especially included as concrete examples of where they do rub up against each other and create tensions in our communities. The deliberative process is built so that tensions between these different viewpoints are used, not avoided. We're using the diversity to push our process to come to terms with the differences and reach a more complex understanding and do it in a way that the diversity is both welcomed and necessary. It is giving people a clear shared way of meeting with no bias as to what perspectives have been invited onto the table.

We're so often are used to being scared of that diversity and we don't know how to give it room at the table. Without structured process and with just open-ended speaking or blurting—like what occurs at town hall meetings—we just push against each other and the diversity of voices creates arguments and isn't given equal space so we can learn from each others real experiences. By doing a developmentally-designed deliberative decision-making process, those different voices don't have to compete, because they're actually given space and attention, not just to be nice, but because they are necessary to forming complex decisions and that result in many people being motivated to being involved.

Russ: *I'd like to examine this from game theory. There are zero-sum and non-zero-sum games. Zero-sum allows for winners and losers. I'm thinking about things like the legitimacy of gay marriages. In issues like that where there is an either-or decision it seems to me there is no deliberative process that will bridge the gap for those who are deeply committed to their blue values versus those who want to create a space to allow for diversity.*

Jan: Quite often we start talking about an issue and give it a label without taking time to flesh out the sub-issues. The issue of gay or straight marriage has been a topic that is laden with multiple issues. To go back to an early principle of the TIP Process, we need to look at the topic systemically and be willing to open it up and examine other possibly connected issues that are there. If we're trying to deal with it simply, it will be narrowed down and will force people into an either-or camp. By doing so, we're ignoring the complexity of the issue and no one will end up with a satisfactory result.

Russ: *So that could result in using this example to break down the intricacies of an issue—for instance, how do we allow gay couples to see each other in hospital rooms, get health benefits, etc. How do we make it possible for them to have the same kinds of rights that heterosexual couples do?*

Jan: Looking at those topics, what are the many other aspects that are connected to views and needs re hospital visiting or health care that make it feel problematic to address for certain individuals or groups ? There are issues regarding a whole context of intricacies: cultural history and identity, economics, social structures, legal aspects—there are many things connected to the issue. So you need to consider which issue is the troubling tip of the iceberg topic and how can we have the quality of discussion to examine the root causes, so as to look deeply and systemically at the issue.

Russ: *Are there further steps in the process?*

Jan: Yes an important step is that once the group has moved through the deliberation process, then decisions needs to be made, actions taken and coordinated over time. In North America there is more of a movement towards more recognizing citizen engagement and building better processes. A lot of these processes though aren't designed so that there are actual decisions made that people can take specific actions on. Many citizen engagement processes are used for public dialogue or ways to gather public input only. But to get to where we can make informed decisions and engaged actions, there needs to be steering committees who support the actions and follow up to maintain coordination and follow-through. It's not just people talking conceptually about something—they need to actually work through steps to take action on something that challenges them. It is only through this real involvement with real issues that we get the systemic results on issues that we need and evolve the systemic thinking we need.

Looping back to your earlier question about politics and political involvement—when there is group decision-making that can lead to action, some of those actions will be policy, and some will be volunteer initiatives by individuals or groups. It's this broad based comprehensive involvement that shifts and activates our politics in a different way.

Russ: *Does this approach operate within the existing structures of government as well as outside these structures?*

Jan: I think one of the challenges that has happened in the field of public engagement is a that a sense of separation has developed between elected officials and ordinary citizens. That's a gap that needs to be overcome, and trust rebuilt. We need to define our issues, work on deliberating them and choosing action with ordinary citizens and public officials working on them together.

Russ: *So this process makes it easier for any kind of structure that's created or currently exists to open the door to multiple stakeholders.*

Jan: Yes, because multiple stakeholders are those who are impacted by the issue or can impact the issue. Those people all likely have different perspectives, so there voices all need to be in there.

Russ: *The kind of approach that Obama has been advocating for, which is essentially a learning political system as opposed to a confrontational political system, is not unlike what you're talking about. Essentially it's about getting people from diverse points of view engaged and arriving at decisions to take actions. We can evaluate and adjust those decisions as we move forward. Is this parallel obvious to you?*

Jan: Many people who are working in the field of public interactions are feeling excited and hopeful about the climate regarding engagement that the new Administration seems to stand for. Seeing it as an educational process is so appropriate because we need to learn how to make decisions together. We fail to see that as a learning process. Engaging in a developmentally-designed and deliberative process—whether it's a small nonprofit group or international consortium—requires a pedagogical aspect. It is action learning; we do it, we reflect on it what worked or didn't, and decide how to do it differently the next time. We learn about not only the issue, but also about the process of working on issue through participation not abstract theory. We learn about how we can change our culture by doing that. We also need research to see if what we are doing makes a difference, and develop training programs for those who want to be agents of social change.

This all needs that "scaffolding," that support built up over periods of time and I think that certainly has been one of the big challenges of trying to bring in a different process into our politics. People are still hoping for quick, short-term, low-investment processes. Let's get at it, make a decision, grab the answer and get going. People's attention spans to actually ask those bigger more complex questions need to increase—What are the different perspectives? How is this issue related to other issues? What do we need to consider in terms of trade-offs? What actions will we be willing to agree upon? It takes more time and commitment to use structures to help us make our decisions wisely, but really wastes time if we don't and considering the state of the world we cannot continue being so sloppy in wasting time. We spend a huge amount of time dealing with the bad decisions we've made. It's a difficult thing to get across. Until people understand that public decision-making is not an easy task, they won't agree with the need for a different process or an educational approach.

Russ: *One of the big challenges is first attracting a sufficient number of stakeholders to engage in the process, because it's different than what they're accustomed to. There are structures in our society that militate against it that also need to change. Two examples come to mind: (1) In regards to the Obama factor, there are major power-holders who are taking a strategic approach that acts against those kinds of stakeholder involvement developmental processes; (2) Our media—it seems to me that public media has a* *tendency to couch things in either-or terms, to set things up in opposition to increase rancor, further divide people and make it more exciting. There is a whole media culture and political culture that we're dealing with historically. It creates a challenge that needs to be addressed. The strategy of building on success is a wonderful one, but are there other activities that you see that need to be introduced to help us move in the direction of such a process?*

Jan: I agree that our tendency to having a short attention span and to see things simplistically while at the same time sensationalizing is a huge challenge. As we move through our natural stages of development and see that there is more complexity to our issues, we may notice that we don't get results or a high level of satisfaction when we operate that way. Hopefully we'll realize that those processes are taking more resources and keeping us trapped from our key issues like our economic crises or issues with water or food. If we can build in a self-reflective process that demonstrates why issues take a lot of time to resolve well, we may be able to find ways through them. I think that hopefully we will be able to institutionalize different decision-making processes into our culture that keep us from jumping into those either-or camps and impeding the process towards more systemic social change efforts.

There are more instances of media using inquiry. I hear more situations where media is now reflecting on its own self and the bind they get in when reporting on touchy issues. There is more awareness that shoveling fuel onto that fire isn't necessarily the best move. I'm seeing more capacity for self-reflection within the media and certainly within some of our governance. Would I like to see it happening faster? I certainly would. That's what my work is about.

Russ: Yes, and it's parallel to the kind of strategy that Ken Wilber implicitly and explicitly been manifesting around trying to build a critical mass of people with development and experience that can help move society forward in a developmental path.
What are your next steps?

Jan: One thing I've jumped into recently is making a documentary film. I don't see myself as a film maker although I did make some films quite a few years ago. I feel a film needs to be made regarding the challenges in our public interactions and our decision-making. A lot of the material regarding better processes regarding our social evolution and adult development stays within academia. I felt that it's not very accessible for people there. I wanted to use the type of imagery and metaphor that could be available in video for a documentary regarding the challenges that we're facing re climate change and the gaps that we have in our capacities to respond. We need to focus and concentrate long enough to consider different perspectives adequately to make decisions to deal with these issues. I'm in the process right now of putting that together.

Russ: Do you have a completion date?

Jan: I do—well, I keep setting one and it seems to escape me.
(laughter)

Jan: Either other things get on my plate or when we assume that we have a plan in place, our own processes of learning along the way changes the original plan. It's a dynamic process. I'm hoping it will be done in two months… I've done all the initial interviewing, so it just needs to be edited in a lively, coherent and accessible fashion.

Russ: And who have you interviewed?

Jan: I've got Thomas Homer Dixon who is very well-known in Canada—he's like a Canadian Al Gore. He does a lot of work in the field of climate change, and he is currently the International Governance Innovation Chair for Global Systems. He's written *The Upside of Down*—fascinating book. I've interviewed Robert Kegan who many people will know as being a developmental psychologist and the author of *The Evolving Self* and *In Over Our Heads*. I've interviewed Bill Torbert, another developmental psychologist and author of *Action Inquiry*. Also, Shawn Rosenberg who works at the Center for the Study of Democracy and is the Director of the Graduate Program in Political Psychology at the University of California in Irvine. I interviewed Sara Nora Ross who is an associate editor of the *Integral Review* and the developer of the TIP Process. I have been very privileged to gather so many viewpoints and such wisdom from these good people who have worked really hard in this field. I'm hoping to have the capacities and resources to put this project together in an interesting and inspiring way to be useful for those working on the climate change issues, or any complex issues, who are in the field of adult development and/or the field of public engagement and deliberative democracy.

Russ: I appreciate your spending the time with me, and I wish you all the luck in your endeavors.

Jan: Thank you, Russ, and I appreciate the effort you put into your work.

Russ: Thank you.

Integral Politics: A Swiss Perspective

Elke Fein and Hans-Peter Studer[1]

Abstract: This article tells the story of the Swiss NGO "Integrale Politik (ip)" founded by about 20 people in November 2007 with the aim of becoming a regular political party at a later stage (www.integrale-politik.ch). We wish to make ip's concepts and approaches known to a wider public. Inspired by integral thinkers such as Jean Gebser and Ken Wilber, ip develops its own ideas and interpretations of *integral* in view of the concrete challenges of Swiss and European politics.

Integral political culture is understood, for example, as including practices addressing all senses, turning political commitment into an experience of meaningful activity and an expression of joy, ease and celebrating life. One of the most important challenges currently faced by the group is to perpetuate and further develop this working culture as the organization grows. Its success in doing this seems to be one of the main reasons for ip's attractiveness to the Swiss cultural creative sector in general and the growing integrally-minded community in particular to whom it gives an increasingly visible face and a clear-cut voice. At the same time, the Swiss political system offers particularly favourable preconditions and thus, a fruitful ground for new political ideas and experiments such as this integral political one.

Keywords: awareness, creativity, democracy, holacracy, integral consciousness, integral economy, integral politics, integral society, integral working culture, spirituality, Switzerland.

This article tells the story of an NGO called "Integrale Politik (integral politics)" which was founded by about 20 people from all over Switzerland in November 2007 with the aim of becoming a regular political party at a later stage. Meanwhile, Integrale Politik (ip) has considerably increased its membership and considers itself probably the best organized and the most dynamic integral political force in Europe. With this "report from the field," we wish to make ip's concepts and approaches known to a wider integrally interested public in order to share some of the experiences ip has had in the course of preparing the establishment of an "integral party."

The History of "Integrale Politik"

The history of "Integral Politics Switzerland" reaches back to the beginning of the Millennium. In 1995, ip's founding president Gil Ducommun, at that time professor of

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agriculture and development at the Swiss College of Agriculture in Zollikofen, launched a project called Holon, a network of holistically oriented organizations promoting new and unconventional ideas, especially in the field of economy. Holon was founded in March 1997 in four countries (Switzerland, Germany, Italy and Austria, with additional contacts in France and Belgium). Later, supported by Holon's network, a group called *dynamik5* emerged which for the first time set itself the aim of becoming a political party based on holistic views and principles. *Dynamik5* held regular meetings, had local groups, and produced several papers on specific topics related to holistic/integral politics and economics. However, because of difficulties to constructively integrate different personalities and opinions as well as the perspectives from different countries into one common project, the original aim could not be realized.

In hindsight, Gil Ducommun openly calls his personal "lack of maturity" and emotional competence the main cause of this failure, more important than substantial differences between the participants. As a leader, he concedes to have been overcharged by the task since he inevitably lacked some of the necessary capacities to build an integral party. One of the main lessons he drew from this experience was that a strong group was necessary right from the beginning which could not only pool together the competences and perspectives of its members in view of a shared vision, but also accomplish the necessary shadow work to compensate and transform individual or collective shortcomings whenever they appear. A similar group was missing in the case of *dynamik5*.

Another aspect which, in Gil's view, might have rather harmed than supported the development of *dynamik5* was a donation of 1 million Swiss Francs given to the association. Since this money had not been earned through "hard work," it in some sense prevented the organization from growing organically – and to build up the competences necessary to generate surplus income by its own efforts. As a result of these difficulties, *dynamik5* stayed a social project trying to introduce new ideas into public discourse instead of becoming a political party. Lately, it was fused with Holon and thus does not exist as an independent organization anymore.

Gil Ducommun himself then took a creative "time out" during which he published *After Capitalism. The economic order of an integral society* (2005, in German). After that, he tried to find other, more adequate ways of institutionalizing integral politics, still in view of establishing an integral political party. This time, he started off along with a few of his close companions, experts from the fields of economics, psychotherapy, as well as party-politics proper. A draft concept was written of what they thought to be basic principles of integral politics. On this basis, several more members were carefully selected. As a result, the so-called core group ("Kerngruppe") of 20 people emerged who later founded ip as an association. Before that, the core group, made up of ten men and ten women from different social contexts and areas of work, further elaborated the draft concept during a process of about two years of intensive work and cooperation.

The result of this creative and mutually transformative process was a white paper ("GLIP") of 52 pages on the foundations of integral politics ("Grundlagenpapier, GLIP," www.integrale-politik.ch/d/images/stories/dateien/dokumente/glp1.pdf) which now constitutes the substantial theoretical basis of the association. The paper deals with central dimensions of the current global crisis and proposes new ideas on how they could be addressed in an integral way. Amongst the basic elements of integral politics which the paper elaborates on are integral consciousness, integral economy, integral ecology, integral health, integral education, migration, and what ip calls “peace politics,” a new way of dealing with transnational conflicts in a globalizing world.

At this point, a few remarks are due with respect to the question: Why a party? This question is indeed asked again and again by people from the cultural creative sphere who are interested in ip’s work. In fact, “integral” and “party” seem to be contradictions at first sight, since the integral vision wants to unite and view the whole picture instead of mere partisan and partial truths. Instead, it is often suggested that integral actors introduce their values and perspectives into already existing parties and enter into a dialogue with them.

ip’s answer to these concerns, meanwhile formulated in a short FAQ text, is that firstly, integral consciousness, thinking, and feeling, for the moment, actually is only a part – and a rather small part – of the spectre of social and political world views. However, being a part that will try to look for integral perspectives and solutions, ip neither can nor should speak for all, even if it is prepared to perceive and appreciate all other opinions and perspectives. All it can and does try to do is to bring new ideas into the political process and to take care of promoting a political style of respect, awareness, and constructive cooperation. In order to become visible as a new culture, it needs its own “container” where integrally minded people can come and work together both to substantiate and concretize their vision and to publicly stand up for them.

However, ip is also only part of a larger integral movement, more precisely, its political part or aspect. The emerging integral consciousness is constantly gaining ground in most (western) societies. Now, it is in need of a political voice making it more clearly visible in the public and political scenes. While a growing number of non-political networks, NGOs, institutes, and educational centers give birth to integrally informed citizens, ip offers a structure for the latter to channel their efforts in order to bring about a deeper, integral transformation of society as a whole. Thus, ip sees itself as that part of the integral movement which brings together those who wish to take responsibility for implementing the integral vision on a larger scale. Let us now take a closer look at ip’s notion of “integral.”

What is Integral?

As mentioned before, ip’s predecessor organizations still operated on the basis of a different terminology, mainly using the term “holistic” (“ganzheitlich”) to describe their “spiritual, eco-social, European” aims.[2] The term “integral” is being used only since the publication of Gil’s book in 2005. In this sense, ip is giving itself a broader basis. Nevertheless, the main theoretical impulses of *dynamik5* have been almost fully integrated into ip’s thinking and position building.

ip’s use of the term “integral” is strongly inspired by Ken Wilber and Jean Gebser – yet without becoming dogmatic about either of them while elaborating ip’s own interpretation of integral in view of the concrete challenges of Swiss and European politics. ip's white paper therefore makes clear: "What 'integral politics' means, cannot be found in any encyclopaedia. It still has to be thought out, palpated and invented."[3] In this document, the term "integral" is defined first, following Gebser, as a newly emerging era within human cultural history, and second, as the level of consciousness of a growing number of people within this era, with consonant attitudes, ways of thinking and being-in-the-world.

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[2] *Dynamik5* – ein ganzheitliches Gesellschaftsprojekt. Anregung zur spirituellen, öko-sozialen Partei Europas, January 2002.

On an individual level, integral consciousness is able to de-identify with thoughts and feelings while watching them from the perspective of a timeless observer (witness) and rather identifying with consciousness itself. Therefore, it senses the unity of all things and beings, an outlook which is able to generate a loving and compassionate attitude towards all things. As such, integral consciousness is thought to give birth to the new culture which Gebser was probably the first to call "integral" (GLIP, p. 3).

On a cultural level, integral consciousness thus increasingly transcends either-or dualisms such as of body and mind, left/right or better/worse by inclusive, intuitive ways of thinking and acting from the centre of the heart. Whilst helping to give up an exaggerated adhesion to materialistic values and attitudes in favour of a more balanced integration of the multiple human needs and potentials (such as social, emotional, spiritual ones), it enables creative freedom to emerge. At the same time, competitive logics are replaced by an attitude which seeks the good, the true, and the beautiful in every contribution, i.e., through transcending and including ever more aspects into ever broader perspectives with the aim to "protect and promote the greatest depth for the greatest span."[4]

Thus, instead of arguing against what it holds to be inappropriate, ip rather tries to develop positive visions. By the way, this self-set standard has important implications for ip's future interaction with other political parties. It is therefore aware that the way it communicates with external partners, counterparts, and competitors will be a decisive challenge to the organization's identity and reputation (see GLIP, p. 52).

Integral consciousness in ip's understanding invites the individual to an ongoing self-development in the sense of ever growing awareness of the levels of being and of one's own trajectory through states and stages (GLIP, p. 7). In view of policy outlooks and society as a whole, ip holds that integral politics is *liberal* in that it promotes the creative freedom and responsibility of the person. It is *social* in that it considers a factual equality of chances as a primary aim in order to enable the personal growth of all individuals. It therefore consequently rejects an unlimited freedom to enrich oneself and to accumulate power on the account of others. Integral politics is *ecological,* since it wants to arrange economy and consumption in a sustainable way bringing it into utmost harmony with the needs of nature of which we are all a part. And it is *spiritual* in that it values immaterial qualities and vertical, transformational development at least as much as material quantities and horizontal innovation (GLIP, p. 6).

These principles have led ip to develop quite visionary goals which, as of today, might still look somewhat radical, but which ip is very realistic about. For the group is fully aware of the fact that integral consciousness at a cultural level is still in the process of emergence, and that therefore some of the more ambitious goals will only be achievable within one or two generations. However, ip is convinced that “time is working in our favour,”[5] since to the extent that today’s materialistically oriented society and economy are confronted with their limits, and the more obvious the problems become which the latter bring about, the more people will have the courage to search for new solutions, individually as well as collectively. They will recognize, in ip’s presumption, that the present, mainly materially motivated striving for ever more possessions and consumption at some point has to be limited both for the sake of personal development, of social welfare and of democracy. At the same time, people are expected to increasingly share the experience: If we are able to gradually limit our material demands to what really serves our lives, we will become free to detect and live our social and spiritual potential in a new and fascinating way. We can only achieve true satisfaction and live deep joy if we seek them within ourselves, thus connecting ourselves to wider wholes and learning to transform the world (also) from within.

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[3] Grundlagen integraler Politik. Für eine tiefgreifende Erneuerung der Gesellschaft (GLIP), 2008, p. 4.

[4] Ken Wilber, Collected Works, Vol. 6, p. 640.

The Making of an Integral Policy Platform: The Example of Integral Economics

Integral political position building, for ip, is an ongoing process, which is why the governing board has decided not to publish a traditional party platform, but rather to popularize integral political solutions through more flexible single policy papers. Based on the organization’s white paper mentioned above, developing more detailed policy position papers is amongst the most important of ip’s current activities.

In October 2008, a commission for platform elaboration (“Programmkommission”) was created which is in charge of coordinating the work of several thematic working groups each of which is due to concretize, differentiate, and substantiate one of the central chapters of the white paper.[6] The policy papers to be issued by these working groups will either deal with fundamental questions or with issues of high day-to-day actuality and are scheduled to have gone through the internal revision process by summer 2010.

The members of these working groups have largely been recruited during ip’s first two nation-wide gatherings (on November 14th 2008 and Mai 9th 2009) in Bern. Through open invitations to all who consider themselves competent in the respective field, surprisingly resourceful and effective “think tanks” on integral consciousness, integral society, integral economy, integral education and integral peace policies have emerged. As an example, the working group on economics shall be briefly presented.

Economy surely is one of the areas where integral approaches have only begun to be worked out. While Kevin Bowman (IntegralLife) has recently outlined what it means to perceive economy from the four quadrants and from different stage perspectives,[7] answering the question on how these perspectives could enter a productive dialogue and what actual integral economic solutions could look like, is much less obvious. In this respect ip's starting point is, on the one hand, its integral anthropology, conceptualizing humans as potentially ever-developing beings with at least four basic needs (material-biological, emotional-affective, mental/intellectual and spiritual) and on the other hand the idea of common welfare. Generally, ip strongly pleads in favour of reintegrating the economic sphere into society as a whole.

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[5] Hans-Peter Studer, Das Einfache wird nicht einfach sein – oder doch? Interview in: Zeitpunkt, No. 96, July/ August 2008, p. 18-19.

[6] As of today, IP has working groups on integral consciousness, integral society, integral education, integral economy and distributive justice, integral health, climate and energy, migration and integral peace politics (see the chart at the end of this article).

For that purpose, ip holds a self-organizing market economy to be indispensable which, however, has to be embedded in effective and commonly backed rules to prevent it from becoming self-sprawling. This means that not only do the so-called external, social, and ecological costs of production and consumption have to be internalized, but, even more important, that the increasingly destructive dynamics of the modern money system would also have to be tamed. "ip" therefore suggests to define limits to the maximum achievable income and revenue, combined with a guaranteed basic income, in order to establish a market economy with a high creative potential, and with revenues more equally shared by all members of society. For the same purpose, ip proposes to establish rules by which concentrated capital would be periodically reallocated in order to offer similar economic chances especially to all young people when commencing their professional careers. According to ip's economic concept, this will lead to a more locally oriented economy based on small and medium-sized companies that would both be free from the pressure of constant material growth and from the one-sided financial interests and influences of some mighty few.

In view of making this vision understandable also to those people who until now have not reflected on the principles, culture, and effects of today's economy in similar depth themselves, ip is fully aware that its vision has to be outlined and explained carefully. And of course, intermediate measures have to be defined, helping to implement the greater vision step by step. Right now, ip's working group on integral economics is in the process of discussing and substantiating its central ideas which is being experienced as a very fruitful and sometimes also controversial endeavour, since the group consists of members with rather different backgrounds: professors, economists, managers, entrepreneurs, engineers as well as people with just a general interest in integral economics and business.

It is therefore no scarcity that in one or the other working group, conflicts arise both with regard to the design of substantial policy suggestions and, for example, to integral leadership and the coordination of the groups themselves. In this respect, some of them have already experienced difficult moments of personal and relational tension. To this point, however, similar situations were always resolved though transparent dialogue, combined with careful self inquiry and communication which, as a rule, not only leads to the deepening or even renewal of the respective member's commitment to the group and its working project, but also to processes of personal and collective transformation.

The working group on integral economics, for example, has recently worked out a conflict on several fundamental issues through taking all the necessary time to carefully listen to all opinions and to actively speak with those voicing minority positions until a common understanding or even consensus was found. In this case, several advisory votes were held in the course of the discussion. In the end, a (former) representative of a minority position even agreed to write a text from the perspective of the majority argument. The principle of consent (within which an issue is discussed until no more legitimate objection is raised against a particular solution) is indeed one of the central elements of ip’s working culture.

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[7] Kevin Bowman, Integral Economy. Part I: Our economic institutions, www.integrallife.com, November 2008.

How Does ip Operate?

As the however-scant glimpse onto ip’s working group on integral economics has shown, the modes and culture of cooperation within ip are probably as important as the substantive aspects of policy development. In fact, this is true for all of ip’s units or “holons” on all levels. With regard to ip’s internal functioning, three interrelated aspects can be distinguished: the association’s general working culture, the procedures of developing contents and the emergence of structures and mechanisms adequate to an integral organization.

Firstly, the meetings both of the core group and of any other thematic working group are not merely intellectual processes, but also integrate moments of silence and meditation, shadow work, physical exercise, and dance. Integral political culture as practiced within ip is understood as addressing all senses, turning political commitment into an experience of meaningful activity, and an expression of joy, ease and celebrating life. Rituals are used to create awareness and centring and to foster individual, as well as collective transformation. Emerging conflicts are carefully looked at and thoroughly solved. This usually happens through creating spaces of awareness allowing to bring in and to voice all aspects appearing relevant from perspectives of the people involved. These perspectives are then balanced out until some sort of consensus or consent is found providing sufficient common ground for further activities. Within ip, the president is not entitled to put his or her foot down and lay down the law in cases of conflict.

This ongoing experience strengthens the group’s collective identity, often engenders transformative processes, and sometimes leads to surprisingly creative solutions. As a result, a specific kind of integral working culture, based on a set of guiding rules, practices, attitudes and habits has evolved over the past three years. It can be described as a culture of presence and awareness, of silence and creativity, of conscious dialogue and transparent conflict resolution which continues to define and shape ip’s work.

In order to support the necessary but sometimes difficult processes of collective shadow work, several roles and bodies have been created. Besides the principle of consent (see above) and the continuous emphasis on inviting individual perceptions, objections, and feelings, one of the central roles in all of ip’s internal processes is the so-called “process observer (Prozess-beobachter).” For any working session, one of the participants is assigned the role of carefully watching how the others interact with each other and to report his impressions in the end. In case of perceived tensions, the process observer can interrupt the session and call for resentments to be resolved immediately.

In order to deal with conflicts and cases of discord that cannot be resolved through the practices described above, ip is continuously creating new bodies and mechanisms. Currently, these are an ombudsman, individual and collective supervision, working groups for mediation and for giving feedback with regard to the quality of single processes as well as of the functioning of ip's internal dynamics in general. Even though some of these new forms still have to find their ultimate shape, in their totality they probably already do provide a suitable frame for quality control, as well as for further developing ip's integral working culture.

Secondly, during the substantial process of elaborating contents, all the thematic working groups follow similar schedules and practices which also go back to the early phase of the core group's work and are now supported by one of ip's members, a specialist in organizational development. The process of content development usually starts with the creation of a common vision, for example through techniques of "presencing" (i.e., creating awareness for oneself, the group, and the subject or situation in question) and of collective intelligence (i.e., inviting solutions and letting them "appear" from collective, transrational realms of consciousness). This vision is then broken down step by step into more concrete "real utopias" before elaborating single, concrete policy suggestions and projects in yet more detail. In the end, the respective processes are always critically reflected and their results appreciated in one way or another.

A considerable challenge to the quality of ip's working culture constitutes of the organization's rapid growth during the past year. In comparison to the time when ip was officially founded, it has experienced an enormous increase in membership after participating in the *Congress for Integral Politics* in August 2008,[8] where for the first time it became visible to a larger audience. Within only 1½ years, ip grew from 20 to 326 members in May 2009. And between November 2009 and January 2010, 101 new companions joined the association, now counting 492 members (as at Feb. 18th 2010). This includes active, ideational, and sustaining members and has, by the way, been achieved solely by mouth-to-mouth propaganda, combined with strategic informational activities in like-minded contexts. More noteworthy public campaigns to make it known to a wider public have so far been strictly subordinated to a rather silent, organic growth and are envisaged by the association's leadership only after a certain number of members has been attained. If the steady growth process continues, however, it is hoped that in summer 2010, the quantitative basis will be sufficiently convincing to turn ip into a regular political party.

In order to nurture and perpetuate its working culture as the organization grows, the core group initiated a working group on internal culture, which is taking care of cultivating and fostering ip‘s basic rules and principles and of developing them further. Also, members are increasingly offered training and enhancement, both to experience and internalize ip's culture and to promote their own self-development.

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[8] The first Congress for Integral Politics took place in St. Arbogast/Austria from August 3rd to 10th 2008. It attracted over 100 participants from Germany, Austria and Switzerland and was completely sold out. During a whole week, five plenary lectures, dozens of workshops and other activities, from music to dance and project development, helped to shape an integral political spirit, which is supposed to be perpetuated in future follow-up conferences. For more information see: www.integrale-politik.org.

Holacracy avant la letter

Finally, ip's growth also constitutes a challenge with regard to its internal structures and organizational development. While for the first two years ip's activities were still quite easy to coordinate due to the limited number of 20 participants plus some well manageable working groups, its steady increase in membership has created the necessity of dynamically emerging new bodies and structures. Firstly, in order to disburden the board members, a permanent office was established in January 2008. It is run by a part-time worker and takes care of the day-to-day administrative business. Secondly, the newly arriving members had and continually have to be integrated, organized, and cross-linked on regional and local levels. Thus, in the period of a few months, regional groups emerged in Basel, Bern, St. Gallen, Glarus, Lausanne, Luzern and Zurich – with more to come – and large nation-wide gatherings are now held twice a year. This shows that ip is now also increasingly represented in the French speaking part of Switzerland.

Furthermore, new working groups and commissions continue to appear in view of the various emerging tasks and challenges. Besides the already mentioned bodies (such as the core group, the board and the commissions for platform editing and integral education/culture), the most recent creations are commissions for organizational development, public relations, finance and for coordinating regional activities. Also working groups on party formation, feedback and for mediation are about to be formed. Besides that, ip is currently inviting appropriate personalities to join the association's patronage and advisory board (see the organizational chart at the end of this article).

As a result, a rather differentiated structure has evolved which ip is thoughtfully and persistently optimizing in an ongoing process of feedback and reflection. In many respects, this structure and its underlying practices therefore correspond to holacratic principles as proposed by pioneers of integral organization like Gerard Endenburg, Brian Robertson, and others,[9] even though these were not explicitly known to ip's members when they started their project in the first place. In the meantime however, holacracy has become a much-debated issue inside the commission for organizational development and might soon be adopted as an overall aim and guiding principle by ip's board. This concerns both organizational development and the quality of working processes. On the one hand, dynamic growth is invited, although it is carefully channelled and framed to ensure ip's overall substantial and structural coherence without any other general control being exercised from above. On the other hand, holacratic principles and practices such as the equal value of all participants' perspectives, the shifting of roles and competences, and the continuous observation, reflection and evaluation of ongoing processes have been in place since the beginning.

In particular, organic holacratic development is permanently reflected and facilitated by the commission for organizational development, while the future feedback group is supposed to look after eventual disruptions of the integral flow, for example by monitoring implicit and explicit conflicts and by promoting their careful, constructive and transparent solution in order to avoid new collective shadows from emerging. As indicated above, one of the reasons why careful self-reflection and shadow work are central to ip's working culture on all levels is that the experience of unresolved problems with communication and personal as well as collective shadows inhibiting effective political work were among the main motivations to establish and organize ip the way it was in the first place. Meanwhile, the qualities acquired in the course of three years of integral politicising as described here seem to be part of ip's "Unique Selling Proposition" and one of the main sources of ip's success and attractiveness within the Swiss cultural creative sphere.

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[9] For a more detailed introduction please consult http://soziokratie.org and www.holacracy.org.

Of Whom Does "ip" Consist?

How can ip's membership be described and characterized? Although no systematic sociological data have been gathered until now with regard to the personal, professional, and motivational background of ip's supporters, we can give an intuitive analysis based on more or less long-term and intimate knowledge of the organization. From this perspective, ip's members, activists, and supporters are a colourful mixture of people from different age groups and various social and professional backgrounds. Most of them, however, can certainly be attributed to what Paul H. Ray and Ruth Anderson call the "cultural creative" sector of society.[10]

The age span of ip members reaches from about 25 to 85. About half of its members are women. ip's members are part of all social strata. Their professional backgrounds are quite heterogeneous, reaching from managers, professors and artists to farmers, craftsmen, and housewives and housemen. Many of them have an intellectual background and/or work in the fields of education, therapy, ecology, communication or health and quite a few are self employed.

With regard to the "upper left" characteristics, ip's supporters are generally rather conscious of cultural- as well as self-development, most have been following their own personal and spiritual growth paths from traditional through rational, critical to post-rational and integral levels for many years. Also, the individual portraits of the members of the core group, for example, show that the majority have already gone through major transformational experiences in their lives.[11]

Among ip's members and supporters' community, there are people with long-term experience in social and political work and ones who preferred not to get involved with the traditional political business – that is, until they discovered ip. Since this organization is perceived and experienced as being different both in terms of its contents and its practices and behaviour, it functions as an umbrella for the cultural creative sector which until now has probably been under-represented politically and in some sense lacked an appropriate vehicle.

Moreover, ip gives its adherents the possibility not only to gather with likeminded people, but also to experience the joy of experimentation, collective creativeness and intelligence and of the transformational and sometimes even healing effect of an integral dealing with conflicts. In so doing, it offers chances for meaningful activity, allows for the emergence of common creative projects of multiple kinds and helps to give the growing integrally-minded community a visible face and a clear-cut voice.

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[10] See Ray, P. H. & Anderson, R. (2000). *The cultural creatives. How 50 million people are changing the world*, New York: Harmony Books.

[11] See http://www.integrale-politik.ch/d/index.php?option=com_content&task= view&id=34&Itemid=48

To what extent ip will be able to maintain its character or will to have to adapt to more traditional practices once it actually enters the day-to-day political business, is an open question. For the moment at least, most of ip's followers are basically interested in serving their common task as an expression of their spirituality rather than in making a career within the organization. But when the development of the association reaches the point where it will become a political party, qualified members will have to step forward as candidates for political duties, first on a local and cantonal, later also on a national level. In contrast to most other politicians, however, they might not do so with the intent of being re-elected, but to bring new impulses into society by using the available political vessels.

Why in Switzerland?

To our knowledge, Switzerland is the first country to see a party appear based on an integral worldview and explicitly calling itself integral, while elsewhere in Europe, either no efforts have been made in this direction or similar efforts have lead to different results. In Germany, for example, which has a rather old and therefore differentiated integral community, part of which had organized itself under the roof of the "Integral Forum" about ten years ago, no integral political force has emerged thus far. The political party which probably comes closest to ip was founded in 2001 and calls itself "the violets – for spiritual politics" ("Die Violetten – Partei für spirituelle Politik"[12]). The "violets" have meanwhile taken part in several regional elections in Germany, as well as the elections to the European parliament and the Bundestag in 2009, where they received 48,000 (EP) and 32,078 (BT) votes respectively. However, even though the party cooperates with ip, for example in 2008 while organizing the Congress for Integral Politics, it has so far neither adopted an integral theoretical basis nor developed an internal "lower left" working culture comparable to ip's.

In contrast, France, another big neighbour of Switzerland, lacks a comparable integral community but has seen the foundation of "La France en action" (*France in action*), which seems to be the political force most similar to ip.[13] It was founded as a party in 2004 and received over 265.000 votes in the European parliamentary elections in that same year. However, even though like ip, it aims at bridging the traditional left-right cleavages, the programmatic outlook of "La France en action" is primarily humanistic and ecological, with its main emphasis on ecology and biodiversity.

While ip does keep a loose relationship with "the violets" and other groups in Germany, there are, for the time being, no formal contacts with groups in France. Since earlier attempts to launch transnational and European initiatives had failed (see earlier section), ip has chosen to focus its resources and energy primarily on its own country in order to take root within Swiss politics and society before engaging in more ambitious partnerships again.

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[12] See: www.die-violetten.de.

[13] See: http://www.lafranceenaction.com/index.php.

It will be interesting to see how ip will take its place within the Swiss political landscape and develop relations with the existing political parties and relevant actors in Switzerland. In view of successfully launching integral political projects, it will certainly be helpful that the Swiss political system is a direct democracy and traditionally based on the principle of concordance, i.e., structurally integrating all political parties represented in parliament into the decision-making processes and all major parties into the government itself, the so-called Bundesrat (see http://de.wikipedia.org/wiki/Konkordanzdemokratie).

This means, first and foremost, that the highest political power is with the citizens themselves. They not only have the right to elect the members of the two houses of parliament, but also to cast their ballot on (changes of) laws, as well as of the constitution itself and, more so, to take initiatives in order to try and insert new political ideas into the constitution. A second important characteristic of political life in Switzerland is that even the strongest political party or parties can never dominate all the other forces but have to cooperate with them in a way that also respects the position and interests of the minorities in order to reach sustainable political majorities.

In other words, the Swiss political system itself in some sense already resembles a “holocratic structure” or at least incorporates quite a few holocratic principles. Above all, the tradition of concordance, giving individual (ideas) and small parties a much bigger chance to be heard by the main political forces and thus, to play their part in the political concert than in many other countries. This is further supported for example by the lack of a five-percent rule, by important positions being subject to direct elections, and by even seemingly small initiatives having a genuine chance to launch constitutional amendments. All of these factors are likely to make it easier for ip to bring new ideas into political discourse, as well as to gradually promote a wholly new political culture.

Another reason why Switzerland might be a fruitful ground for new political ideas is the fact that the country has always tried to stay independent and to pursue its own way. Furthermore, it is the richest country in the world. Therefore, an understanding that even more material growth will probably not lead to a higher quality of life and level of personal happiness but will rather cause more social and ecological problems might be stronger here than in other parts of the world. Finally, the high standard of living along with a good educational system and a well functioning infrastructure offers favourable preconditions to search for the new, more sustainable and more sensible way of social and economic development, which, as ip is convinced, a growing number of people are longing for.

ip
integrale politik

At this point, it is premature to report about what differences an integral frame of reference really makes on a larger scale, since ip is not communicating substantially with “conventional” political parties so far. However, its general emphasis on a-perspectivity, on “as well as” in stead of “either-or” and on evaluating without (ad)judging implies appraising other parties’ positions for what they are rather than competing with them. It implies a new way of politicizing, of going up to meet other parties without engaging in aggressiveness or role-playing – and thus, a new culture of policy- and decision-making.

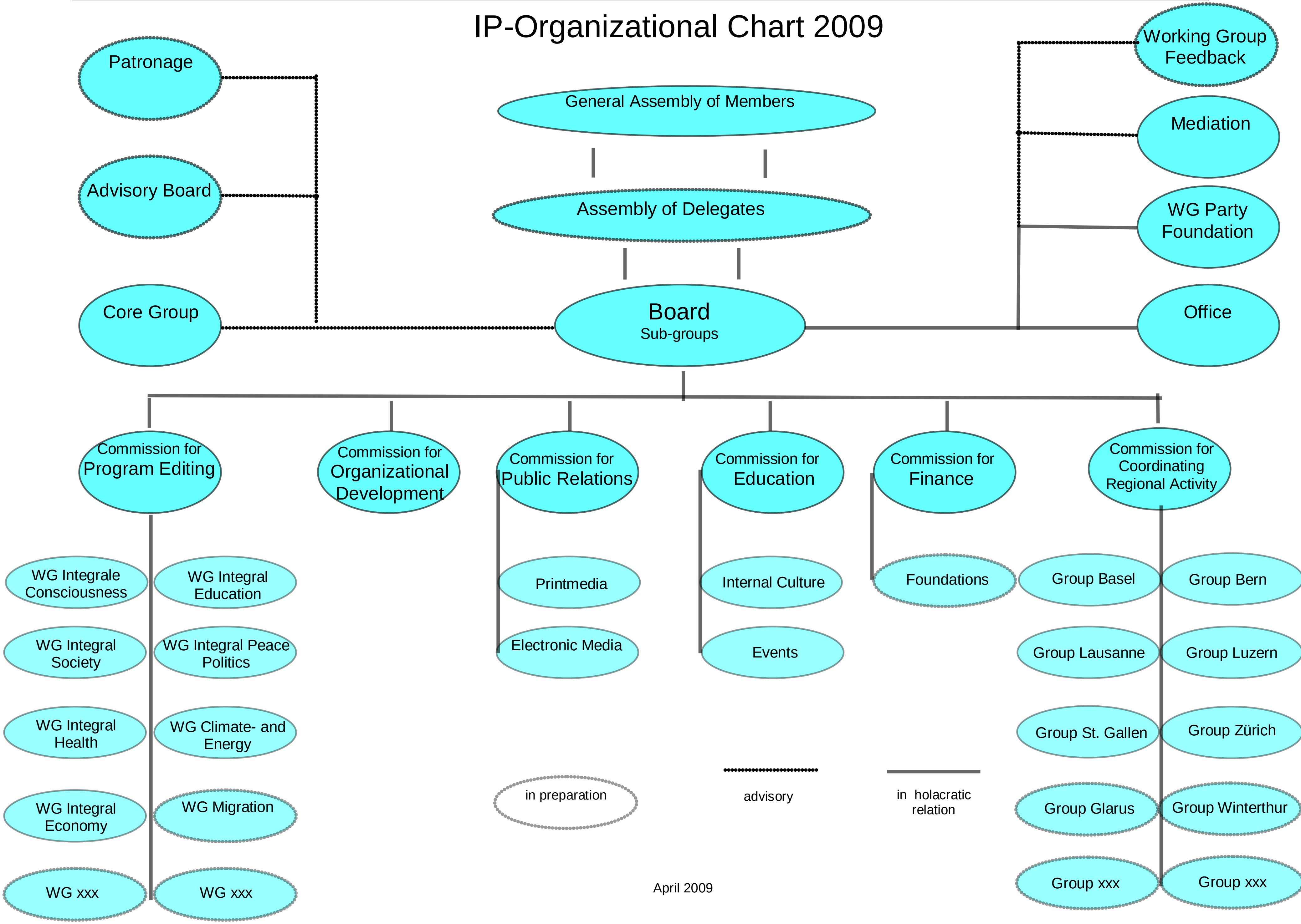
The starting shot of this challenging endeavour has recently been time-phased to September 18th 2010. On this day, ip plans to announce its official foundation as a political party with an integral ceremony of handing over its integral political vision to the Swiss people. The ceremony is to be held on the Bundesplatz (Federal Square) in Bern, just in front of the Swiss Parliament, and next to the central government buildings of the Swiss Federation and of those of the mighty National Bank, in other words in the heart of the country's capital.

For an audio-visual impression of ip's culture of self-presentation, see the Swissgerman-French video clip:

www.integrale-politik.ch/d/index.php?option=com_content&task=view&id=76&Itemid=93

For more information about ip, please confer to www.integrale-politik.ch (German website) or www.politique-integrale.ch (French website) or contact ip's office at: info@integrale-politik.ch.

IP-Organizational Chart 2009


Patronage
Advisory Board
Core Group
General Assembly of Members
Assembly of Delegates
Board
Sub-groups
Working Group Feedback
Mediation
WG Party Foundation
Office
Commission for Program Editing
Commission for Organizational Development
Commission for Public Relations
Commission for Education
Commission for Finance
Commission for Coordinating Regional Activity
WG Integrale Consciousness
WG Integral Education
WG Integral Society
WG Integral Peace Politics
WG Integral Health
WG Climate- and Energy
WG Integral Economy
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Editorial

Welcome to the 10th regular issue of *Integral Review*! It was five years ago that we launched IR with our first issue and since then we have navigated our way to where we are now. Our journey has been full of learning and pleasant surprises. We have met many interesting people and gathered colleagues with whom we thoroughly enjoy working. As we continue to grow we look forward to seeing the range and quality of discourse published in IR expand even further.

Part of this process is reflected in the focus this year on special issues. A great deal of time and energy has gone into creating these special issues and we are very pleased with the results of this effort. Our first special issue, *Toward Development of Politics and the Political,* edited by IR Associate Editor Sara Ross with Thomas Jordan, has been very well received. This brought a number of new authors to IR's audience which is always a pleasure. In addition to the positive feedback we have gotten on it, we have also seen a significant increase in traffic to our website after its launch.

Very soon (by mid July) we will publish IR's second special issue, *Developing Perspectives for Advancing Metatheory and Theory,* edited by IR Editorial Board members Steve Wallis and Mark Edwards. This promises to be a rich collection of articles helping to set out some of the issues in this emerging field. Later this year or early next we will see our third special issue, *Research Across Boundaries – Advances in Theory-building*, edited by Markus Molz and Mark Edwards. This special issue will be comprised primarily of articles developed for the symposium on *Research Across Boundaries* (http://dica-lab.org/rab/). As soon as I am finished writing this editorial I will begin driving to Luxembourg to participate in this event attended by many IR contributors.

The other major event on the summer horizon is of course the Integral Theory conference, hosted by John F. Kennedy University and the Integral Institute. In addition to IR associate editors making individual presentations and participating in panels hosted by others, this year they bring their collective presence to a conference panel hosted by IR. It is entitled *Integral Discourse: Challenges and Lessons Learned from Publishing Integral Review.* Our aim is to foster face to face dialogue with conference participants on the whole range of issues related to creating high quality academic and praxis-related discourse to support the growth of the field. We invite any of you who will be there to come and join us in an in-depth sharing and inquiry on this topic.

In this Issue

With that I move now to making some brief comments on the contents of this issue. In our last issue we had a robust set of responses to Stein and Heikkinen's article on *Models, Metrics, and Measurement in Developmental Psychology,* which was published in IR's June 2009 issue. We also had an article by Sofia Kjellström, *The Ethics of Promoting and Assigning Adult Developmental Exercises: A Critical Analysis of the Immunity to Change Process,* that has now

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drawn responses and a rejoinder. We see this kind of dialogue as a sign of the maturation of IR as a forum for lively public discourse. We also have a response to a book review in this issue.

In response to Kjellström's article, David Zeitler has written *Coaching Ethics and Immunity to Change: A Response to Kjellström*. David is a recent graduate of Kegan and Lahey's first coaching certification program and draws on his knowledge of this work to challenge a number of the criticisms that Kjellström raised in her article. He emphasizes that the ITC program is both a structure and a process and depends, like such things, on how one uses it. In particular Zeitler focuses on issues of behavior, her conclusions regarding the ethical aspects of using the ITC process in educational settings, methodological issues and how she uses developmental dynamics.

Zeitler's thorough response to Kjellström is followed directly by a rejoinder from her. In *Responsibility and Ethics in the Use and Advocacy of Developmental Exercises: Response to Zeitler and Reams*, she engages (primarily) Zeitler's critique of the perspectives and issues she framed in her original article. She advocates for the continuation of systematic inquiry into the core issues of ethics and most significantly, whether the process actually works.

In addition to these two pieces on the topic of the Immunity to Change process and related issues, I have written a brief *Response to Kjellström* as well. Given that I began this thread with my overview and report for the field on Kegan and Lahey's book in our June 2009 issue and that I continue to learn through my ongoing use of the process, I thought it appropriate to share a few issues that her article raised for me. I discuss issues of degree of disclosure, difficulties experienced by participants, informed consent, and demands on the facilitator. We hope to continue this lively discussion in future issues.

Next we have *Creating Dynamic Development and Harmony in the Classroom* by Nick Drummond and Joan Berland. This article is the result of years of development and testing of educational practices by both authors. It is exciting to read how deep understandings about the evolving nature of consciousness can be brought to bear on elementary school classroom students. The set of tools Nick and Joan have developed elegantly allow integral principles to have very practical impacts on students' ability to learn and grow. The stories they tell of classroom transformations bear witness to the power of the interventions they have developed.

Tom Murray, with Terri O'Fallon, provides us with *A Perspective on Kesler's Integral Polarity Practice*. This article describes Tom's experience of John Kesler's work that has integrated Genpo Roshi's Big Mind process with Susann Cook-Greuter's developmental sequence and polarity work. Tom shows how the process that can engender state experiences intended to lead to both horizontal and vertical growth.

I am also contributing *Bringing Integral to Management Consulting: An Interview with Rick Strycker* to this issue of IR. Rick has brought the integral framework to his corporate work at JMJ consulting. In this interview he describes the path that brought him to this position and some of the challenges and successes he has had along the way.

IR editorial board member Roland Benedikter presents us with our first German language article in a few issues, *Weltanschauung und Politik in den heutigen USA. Barack Obama und der „neue Kulturkampf“ um die Führung der anglo-amerikanischen Weltmacht*. The brief English language summary indicates that this is an analysis of the current relationship between politics, culture and worldviews in the US as they play out in the era of Barak Obama’s presidency. This battle of worldviews is seen as the level of strategy and work being done by political parties today and it becomes critical to understand the nature of the issues involved.

A within-the-issue dialogue takes place around the book *The Tao of Liberation: Exploring the Ecology of Transformation*. IR editorial board Steven Wallis provides a review of the book, and takes both appreciative and critical stances toward it, which gives us a thorough insight into his perspectives on it. One of the book’s authors, Mark Hathaway, provides a *Response to Wallis* that aims to engage in clarifying and reframing some of the points that Wallis makes. We are glad to see this kind of dialogue in the pages of IR.

Finally, Susan Belford offers *Locking Down the South Bronx,* an analysis of interior and exterior dimensions of many of the structures and systems that prove to be forces to reckon with in not only the South Bronx she highlights, but also urban ghettos more broadly. This analysis was written as a mid-term graduate course paper, and gives us a special opportunity to express our interest in receiving articles from students who aim their work to meet requirements such as IR’s.

I now need to get my suitcase in the car and head out on the road! We hope that you enjoy the contents of this issue of *Integral Review* and look forward to meeting and hearing from many of you over the summer.

Sincerely,

JReams

Jonathan Reams
Editor-in-Chief
Integral Review

Coaching Ethics and Immunity to Change: A Response to Kjellström

David Zeitler[1]

Abstract: The *Immunity to Change* coaching process has risen in popularity since creators Robert Kegan and Lisa Lahey published their second book using this method, *Immunity to Change: How to Overcome it and Unlock the Potential for Yourself and Your Organization* (2009). Sofia Kjellström (2009) recently published an article taking a critical perspective on the ethics of using ITC in educational and vocational contexts. I argue herein that when used properly, the ITC process avoids most of the criticisms that Kjellström brings to bear on this issue. Furthermore, it is argued that private life and public life (Freud's "love and work") are already inextricably intertwined, and methods like ITC give employers and employees the tools needed to navigate what are often highly charged issues, that we might increase our quality of life and increase our efficiency. Finally, the article summarizes the relationship between Subject/Object Theory and ITC, while also addressing the issue of developmental transformations in the coaching process.

Keywords: Business consulting, coaching ethics, coaching methods, developmental level, executive coaching, higher education, Immunity to Change.

Introduction

In the outstanding "rockumentary" *Pink Floyd: Live at Pompeii*, director Adrian Maben asks front-man Roger Waters if the dramatic increase in their use of synthesizers is bad for the future of music. Does this introduction of new technology into music mean that it is somehow easier to make…is the equipment, in fact, making the music? Maben captured the Floyd at their finest moment – recording their seminal *Dark Side of the Moon* at Abbey Road studios. In addition to some of the most sublime rock music ever recorded, the album includes an early version of the kind of music that would explode two decades later, "electronica." Not only, then, is *Dark Side of the Moon* one of the greatest rock albums of all time, it also portended a new musical genre. It was while recording one of these "synthesizer" songs (*On the Run*) that Maben asked his question. Surrounded by his technical equipment, the ever sharp Waters wastes no time in responding: "It's like saying give a man a Les Paul guitar and he becomes Eric Clapton, and of course *that's not true*; give a man an amplifier and a synthesizer and he doesn't become... *whoever*; he doesn't become *us*."

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[1] **David Zeitler** is an Assistant Professor in the Integral Theory Program and Integral Psychology Program at John F. Kennedy University. He is co-author with Elliott Ingersoll of the book Integral Psychotherapy: Inside-Out/Outside-In. David spent two years as a psychotherapist in locked psychiatric wards with dual diagnosis populations. He has served as an associate director of Integral Institute's Integral Psychotherapy Center, where he helped to develop and present seminars on Integral Psychotherapy and Integral Theory. David holds a black-belt in traditional Kung-Fu and teaches Chen style Tai-Chi.
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The *Immunity to Change Program* (ITC) is like the synthesizers and band in the above example. ITC is both a *structure* and a *process*. This dynamic is true of any musical instrument and individual (or group) using those instruments. Alone, the instrument (structure) may look good, but it is only when played (process) that you can make music. Synthesizers, however, are not *one* instrument but an electronic representation of *many instruments*. With them, musicians have enjoyed a new freedom to isolate or merge different sounds like never before. A new world opened up for them. And this is what the ITC processes provide for coaches and consultants: the opportunity to use several instruments in order to assist people who would like nothing more than to make positive changes in their lives (or, their organizations). But not everyone can be Eric Clapton.

Sofia Kjellström (2009) makes a few good points in her critique of ITC, particularly in terms of *how* ITC *can* be used. She appreciates the power of ITC, and has specific criticisms regarding both the structure and processes of ITC. I will be addressing four general areas in Kjellström's paper: her focus on behavior; her conclusions on the ethics of *generalizing* the value of ITC (between psychological capacities and between public and private life); *methodology* issues; and her use of *developmental dynamics*.

Before diving into my analysis, I would like to be as transparent as possible. I have been studying and teaching developmental psychology for almost fifteen years, and my interests and focus have always been on Subject/Object Theory. Additionally, I am currently in training to be certified as an *Immunity to Change* coach. I have been using the ITC mapping process since 2004, generally during workshops that are part of an overall seminar. My motivations for writing this response paper stem mainly from the fact that I have witnessed many trainers and teachers use the ITC method with wildly varying levels of success. I respond here to Kjellström's article because I want to begin a conversation about application-value that I hope will extend beyond ITC and into the larger coaching industry. We stand at a precipice – in a few years, all forms of "coaching" will likely be subject to licensing and other forms of oversight. Those of us who enter into the dialogue now will be much better poised to adapt to the coming changes. With any application, there is the value of the "expert" (here, the coach), the value of the "tool" (here, ITC), and the value of the "process" (here, coach-coachee relationship). As per Integral Theory, all three must rate highly in order for any effort to be considered valuable (Wilber, Patten, Leonard & Morelli, 2008). Here is a summary of my response to Kjellström, which I will unpack below. Kjellström's focus on behavior as both the *source and aim* of ITC is fundamentally flawed. Behavior is one of several components important to the work. Kjellström also makes several arguments about the plausibility of generalizing the value of ITC to business contexts based on her experience in using it as a course assignment; this comparison is not easily supportable. Additionally, her methodology was flawed (to her credit, she acknowledges this may be the reason that she received mixed results). Finally, there are specific dynamics of development, and dynamics of ITC, that Kjellström does not take into account which, when taken into consideration, address most of her criticisms of ITC (Kjellström, 2009, p. 122-127).

Kjellström organizes her discussion into the following three general areas:

- The role and competence of the facilitator.
- The expectations and capabilities of the participants.
- The mental demands and assumptions of the process.

(Kjellström, 2009, p. 116)

The following is my summary of her main points, which I will address herein:

- ITC *requires a level* (*Self-Authoring-Mind*) that is beyond most people.
- ITC assumes that *change is always beneficial* to all people.
- ITC may be *inappropriate for use at the graduate level* (or equivalent).
- Participants should be able to *enter and leave the process at-will*, without fear of reprisal.
- Consent must be *continually renewed* throughout the program.
- Complexities of mind are *not used to screen* for optimal value to participants.
- Critical *evaluation of transformational exercises* is essential for ethical issues.
- A more ethical approach is to allow the *determination* to change to arise from individuals.

(Kjellström, 2009, pp. 129-130)

On Behavior

In their books *How the Way We Talk Can Change the Way We Work* (2000) and *Immunity to Change* (2009), Robert Kegan and Lisa Lahey make it clear that merely addressing *behavior* is rarely the most optimal or sustainable way to assist someone (or an organization) looking to make lasting change. In fact, they make every effort to point out that "…if they can make the changes they need by …creating some plan to extinguish certain behaviors and amplifying others…then by all means that is exactly what they should do" (2009, p. 38). Throughout these books, they reinforce the fact that addressing *behavioral* change is complementary to their intention, which is to address the underlying *immunities* that people enact. Behaviors are *symptoms* of these underlying immunities. These countervailing behaviors are identified by the individuals (and teams) themselves, and are not exogenously identified.[2]

At several points in her critique, Kjellström incorrectly identifies *behavioral* change as the major goal of the ITC method: "The [ITC] methodology addresses two questions: why changing human behavior is so difficult, and why achieving desired behavioral changes does not happen as often as we would prefer" (2009, p. 117); "The ITC process has two parts…the second [of which] is a series of exercises designed to create change in behaviors" (2009, p. 118). There are also places where Kjellström juxtaposes behaviors and values as components of ITC, but values are incorrectly characterized as the motivation for the true goal of behavioral change: "[Competing commitments] serve as a new explanation of why certain behaviors are not performed, since persons hold values that are in contradiction to and in competition with the other" (2009, p. 119). ITC is indeed concerned with behavioral change; but it is *equally* concerned with *qualitative* change in one's interior dimensions. The fact that exterior behaviors *also* change is important, but this view alone misrepresents the full spectrum of value offered by ITC.

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[2] I follow Kjellström here in her use of the biology terms *exogenous* as an external influence, and *endogenous* as something that arises from within the individual.

On Methodology Issues

One of the difficulties I had with Kjellström's critique was that there are many places where the sophisticated and nuanced presentation of ITC as I have come to know it is reduced to its surface features. This can be seen in her highlighting of behavioral change without the necessary addition of the interior changes that parallel these behavioral changes; it can also be seen in the fact that Kjellström occupied a dual-role (she was the leader of the class, as well as the coach for the class; this is a problem, because leaders are encouraged to do the process alongside of their employees, or in this case, students); finally, Kjellström never discusses the iterative nature of the ITC process (i.e., this is not a linear process; it is more like a chaotic-attractor, where each iteration of a map or test helps clarify one's big assumption, the essence of ITC work). I can still make out the surface features in her critique, but the iterative nature (the deeper structures *within* the structure, and the processes *within* the process) do not appear to have been taken into account.

This tendency to approach ITC using only its surface features is a thread that runs through Kjellström's method and critique. Additionally, she leaves out some important changes made to the ITC processes between 2000 and 2009, despite a cursory recognition that "…there are substantial elaborations" and additional items "…to support and extend the process" (2009, p. 119). In fact, beyond the original two structures/processes (a Map, and running a test), there are *five* additional structures/processes (listed below in bold), and several *iterations* of each of the seven main components, not including any new Maps that may arise (or if the client is interested in pursuing them):

1. Immunity to Change Map (an X-ray of one's psychological immune system)
2. Personal & Professional Surveys (a "720 degree" approach to relevant feedback; Kegan & Lahey, 2009, p. 65)
3. Immunity Map Biographies (life-history structured around the Immunity Map)
4. Continuum of Progress (a "visionary statement" of desired goals for thoughts, feelings, & behaviors)
5. Self-Observation (a process of moment-to-moment noticing, structured on the Immunity Map)
6. Running Tests (safe, modest, actionable (i.e., near-future), objective-research-stance tests)
7. Consolidating the Learning (the integration of unconscious "release" with "new assumptions")

(Kegan & Lahey, 2009)

In other words, the ITC process as it now stands is a far more thorough and integrative procedure. Like the synthesizer Pink Floyd used to make their music, there are many, simultaneously moving parts. On the surface the procedure is linear; but in practice, like many things in life, it is anything but linear. We must allow ourselves to meet reality where it is, and not where our maps *indicate* it should be. Kjellström does not mention this crucial distinction, a theme woven throughout the ITC literature.

There are several methodological issues that I have with Kjellström's research. For starters, she believes that the first step in the ITC process is to "…*uncover* the commitments to change" (my emphasis; 2009, p. 118). This is not a correct characterization of ITC. The first step in the process has always been to gradually step-back from the things that *we say we want*, so that we can *look at them*.[3] This step is similar to the kind of thing that individuals do when creating a five year plan, or when business organizations create a *SWOT* template (strengths, weaknesses, opportunities, and threats). This process, as a "natural" occurrence, may or may not involve the "reality-testing" needed for "uncovering," as Kjellström puts it. What *is* something that requires "uncovering" are the assumptions behind the ways that we stifle our own achievement (more on this important distinction later).

Kjellström does not explain the "modifications" (2009, p. 120) that she made to the ITC process, nor what she specifically means when she critiques some of her students' "barely acceptable" ITC maps (p. 121). She does, however, give us several clues as to what some of these modifications were; this includes requiring that students share their experiences with one another (p. 121); having students create their own tests (p. 121); requiring that students include early childhood experiences when generating their biography (p. 121); and making the "admission of vulnerability" (p. 121) necessarily a part of ITC. Kjellström also used two vastly different pedagogical formats for delivering ITC, an online version and a campus version. Finally, the ITC process was obligatory. Each of the above methodological issues bears directly upon the level of success that one is likely to achieve when delivering this content, as I will explain below.

Kjellström admits that as the facilitator, the following issues "may have" (2009, p. 122) affected her research: reasons/intentions for ITC use were withheld; success/failure not held as natural results of the process; hopes/benefits for results not shared; the outcomes were grade dependent (rather than goal success). (p. 121)

Kjellström makes cursory acknowledgment that a key issue of participant control over *how much they share* is indeed a part of the ITC format, yet does not take this into account in her methods or analysis of her own results. In fact, she mentions this "requirement" to share as a reason why she ceased to make ITC processes a course requirement. My response to this is twofold: 1) Kegan and Lahey are clear that individual participant sharing should properly be a voluntary activity (though this can be a complex issue when used in a business context; more on that point below); 2) depending upon the type of graduate class, the ITC process may not be ideal for learning *about* ITC or Subject/Object Theory.[4]

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[3] In an excellent yet sadly obscure article, Robert Kegan and Gil Noam speak specifically to this issue of "uncovering" vs. "developing." They explicitly state that there is an important difference between uncovering to reveal something that is present yet inaccessible, and the "gradually corrected forms of self-other confusion" (1989, p. 422). This is the essence of moving subject to object, a differentiation that allows for the interior (psychological) and exterior (behavioral) change that only together can be called "adaptive."

[4] For example, a group-process course or effective-communications course may be appropriate, but a course on theory may be inappropriate; however, because Kjellström describes only the students' programs and not the courses in use, there is no way to determine whether this was a skillful application of ITC.

In fact, ITC advises users that sharing is voluntary. The advice is to work in groups of two and in small groups thereafter, where sharing is always voluntary (Kegan & Lahey, 2009, pp. 65-67). This has been part of their program, quite literally, from the beginning of their first ITC publication:

> Ground Rule for you as Speaker: How much or how little you want to let your partner (or partners) in on during these reflections is continuously *up to you and you alone*. This includes, should you need to elect it, the perfectly acceptable and respectable choice to remain completely silent throughout, keeping all your thoughts to yourself. (Kegan & Lahey, 2000, p. 14, emphasis in original)

Kjellström not only made the ITC process a required assignment, she also required sharing (on campus) and built "sharing" into the fabric of the online course (their experiences were written for all to see). Several students were understandably against this, and refused to share. There are other "ground rules" as well, such as avoiding any *positional power difference* between partners, and the crucial element of leaders doing the ITC work right alongside their employees/students (Kegan & Lahey, 2009, pp. 80-81). Kjellström is asking of her students that they share with her despite her power differential, and it is at best unclear if she did or did not engage in the process alongside her students. These are additional methodological issues that must be taken into consideration when looking at her results.[5]

Additionally, Kjellström had students creating their own tests for the big assumptions that they hold. This is something that is to be done in conjunction with a coach or, in the case of a course assignment, their professor. It was only *after* the students' test results began to reveal how little the tests engaged their assumptions or fears that Kjellström questioned the validity of the process. Yet, changing the "column two" *behaviors,* the "test" that many of her students ended up doing, is not a valid test in ITC. The tests must be designed to increase the participants' awareness and attention of their big assumption – to begin to take it as object, that the person can no longer "be had" by it (Kegan, 1994, p. 32).

It seems to me that Kjellström is criticizing her own version of *Immunity to Change*, and not the total offering of Kegan & Lahey.

On Generalizing the Value of Immunity to Change

Kjellström laments the fact that she could find no outcome studies on ITC. This is inaccurate, as there have been three books, and several articles and book chapters, all of which have (or are) thorough case studies on the outcomes of ITC (Kegan & Lahey, 2000; Kegan & Lahey, 2001; Bowe, et. al., 2003; Wagner, et. al., 2005; Helsing, et. al., 2008; Kegan & Lahey, 2009). Kjellström cites the very references I have just listed before mentioning the lack of outcome studies. Yet Kegan & Lahey have always maintained that a successful outcome is when individuals (or organizations) are *better able to meet their own stated goals*. That is the benchmark by which success is determined, not factors of developmental complexity, though the two are often related (Kegan &Lahey, 2009, pp. 80-84, 87-124). The reason that the successful attainment of goals and developmental complexity are so often related is because of the "balance" between public and private life. Most people living in a country that has the infrastructure and economy to support a middle-class must contend with leaders that will often place them *in over their heads* (Kegan, 1994).

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[5] I am indebted to Deb Helsing for these helpful perspectives on power and process.

Forcing change is not the goal of ITC; nor is alleviating the anxiety and depression that results from the arrested development that can happen when consistently being *in over one's head*. The goal of ITC is to *meet people and organizations where they are right now*, developmentally or otherwise. This idea of meeting people where they are in terms of their development, while providing the supports and challenges necessary for continued growth, is best captured in Kegan's notion of bridge-building (1994, pp. 42-45; 278-279). There, Kegan teases apart the nuanced orientation that is required of parents, educators, and leaders interested in development. According to decades of research, many of us are being asked to construct the world in a way that is beyond our capacity. There exists a large gap between the claims being placed on us, and our capacity to meet those claims; ITC effectively addresses the suffering that occurs when we are in over our heads. (Kegan, 1994, pp. 42-45; 278-279)

A key issue in Kjellström's critique has to do with the question of responsibility for those in power, be they senior executives or professors. How much responsibility is on the shoulders of the individual, and how much is on the organization, with respect to the communication of trust and safety in the disclosure of information (particularly information that might jeopardize their employment or their grade)? This is indeed an important issue. Kjellström asks a question that is imperative for all coaches and facilitators: "…do teachers [or coaches and consultants] have sufficient psychological training to support the students [or clients] adequately?" (2009, p. 123).

Steven Berglas asks the same question in his article, *The Very Real Dangers of Executive Coaching*. He surmises that the single worst thing that coaches and consultants do is to *see outward behavior as reflective of inward change*. As I have already shown, when used correctly ITC is a hedge against this danger. This stems from its foundations in Subject/Object Theory. The ITC process is exquisitely designed to help people look at the assumptions that they once unknowingly used to look at the world. In other words, the big-assumptions that are revealed during the process are a small part of an overall system of mind. We live in and through these systems of mind, and they inform our meaning-making. Each level of mind represents a more complex and nuanced capacity to distinguish ourselves from the world around us. In the ITC process, an excellent testing phase would see the coach skillfully assisting someone as they *safely distinguished themselves from their assumptions*.

Table 1. Levels of Development in *Immunity to Change*
(adapted from Kegan & Lahey, 2009)

Stage	System of Mind
Stage 5	Self-Transforming Mind
Stage 4	Self-Authoring Mind

Stage 3	Socialized Mind
Stage 2	Instrumental Mind

Which brings me back to how ITC, when done properly, is a hedge against the danger of confusing behavior alone for interior transformation. This is particularly important when considering the shift from *Socialized-Mind* to *Self-Authoring-Mind*. Kegan has always maintained that individuals who construct their world through the lens of social-norms, who locate principles and values outside of themselves as the measure of meaning, are prone to alter behavior when in the presence of a leader. Furthermore, in the absence of such leadership, they can have a difficult time maintaining the meanings behind those behaviors. Berglas' argument is that any coaching program that focuses on exogenous sources of meaning will be neither optimal nor sustainable. (2002, p. 90)

ITC, by grounding the process in someone's professional or personal goals, denies attempts to construct meaning outside of oneself without neglecting the support that the person needs. In other words, ITC avoids the two main pitfalls that Kjellström and Berglas raise of working with people who construct reality according to the *Socialized-Mind*. It *meets* clients where they are, and it *engenders* the construction of meanings at the person's "leading edge of development" (Wilber, 2000a, p. 52, 158). This is also one of the reasons why Kegan & Lahey always recommend that every person in a group engage in their own ITC process before engaging it as a group. It is clear that coaches and consultants who use psychologically structured processes like ITC should fare better than those who do not. What I mean by this is that coaches who do not attend to or otherwise circumvent the actions of those who might manipulate them (or simply not fully engage them) will be spending energy without achieving desired results. This is another area where I am in general agreement with Kjellström. Berglas also comes to this conclusion, and furthermore recommends that executives be psychologically screened for proper preparation; unfortunately, he does not provide any idea of what this might look like. (Berglas, 2002, p. 89-92)

Finally, there is a larger question that Kjellström puts to the ITC community that no coaching or consulting process should be asked to shoulder by themselves: to what extent should individuals in a business context be encouraged to share ("coercion," as Kjellström puts it; 2009, p. 123)? I have already summarized Kegan & Lahey's position on this matter. However, I would like to add some reflections on the issue. There are certain realities of working for an organization that must be reckoned with.

Most people that are employed by an organization are employed "at will." In other words, they have the freedom to choose their employer. But their paycheck is contingent upon the successful completion of their organizations' goals. Every stakeholder in an organization is under pressure to complete goals, and the specter that another person can both do my job *and share during a professional development training* can be a powerful *endogenous* motivator. Kjellström claims that this is a form of organizational coercion. Yet I wonder if the motivation is solely *exogenous*, which would indeed be coercion. If I know that there are other people willing to do my job, including the sharing that I do not wish to do, then I may feel a motivation to share that is all my own. Is this coercion, or the healthy expression of at-will employment and individual freedom? I am not as willing as Kjellström to make any quick decisions on an issue that clearly belongs in a larger dialogue on social values and employment.

ITC should not be singled out for what is in fact a systemic issue: where is "privacy" in the postmodern world? Privacy is increasingly becoming an issue in our ever-connected world, where every cell phone has a camera, and our collective appetite for voyeurism seems to be growing. Even with such a charged issue, ITC may offer us some wisdom. Rather than shy away from the implications of this future, Kegan & Lahey take it head on: "…anxiety is the most important…private emotion in public life" (p. 48). After all, "public work" has already infiltrated "private life," as any visit to a restaurant or coffee shop will make clear! The constant interruption of our privacy with work has already happened. This is no one-way street – as Deb Helsing puts it, "…our hidden commitments, big assumptions, and difficult emotions are *already* in the professional world – showing up as dysfunctional work/leadership!" (personal communication, 2010). It seems only fair (or natural) that our public work begin to integrate the very real concerns of our private hopes, fears, and dreams. This possibility could take sterile notions like "morale" and "corporate culture," and turn them into actual shared agreements.

A larger point is that leaders of organizations who themselves show developmental transformation from one level to the next tend to show more successful (and more ethical) leadership. The life work of Bill Torbert (2004, pp. 104 – 120) has shown that developmental transformation to what he calls the "Strategist" and "Magician" (the two stages in his model that correspond with Kegan's *Self-Transforming-Mind*) can be of great benefit to all employees in a learning organization. He is worth quoting at length here on this issue of later stage development and leadership ethics:

> …leadership is a process that is *noncoercive*, multidirectional, influence-oriented, real, and mutual… [This] is very close to the concept of transformational leadership practiced by late stage managers…Later stage leaders are apt to lead organizations, direct projects and take on issues which reverberate across many horizons. Therefore, when they err, their negative impact may be far greater than whatever temporary, local waves an earlier stage leader's actions have. Late-stage leaders are working with major archetypes of awareness and thus with the 'symbolic resonance' of actions, not just with the details or outcomes of specific behaviors. Since the resulting effects are symbolic, meanings and interpretations are made by individuals surrounding the leader. However, such interpretations are likely to be limited, for two reasons. First, if developmental theory is right, the complex and subtle judgments and actions of very late stage leaders are undecodable by earlier stage participants. (my emphasis; Lichtenstein, Smith, & Torbert, 1995, pp. 103-105)

As Ken Wilber has pointed out, every level has both *dignities and disasters* (1995), a theme that also runs through Torbert's work. What Kegan & Lahey add to these considerations is the fact that when all members of an organization work with their *eyes wide open*, the private anxieties that are often painful can assist with the public lives that we must lead. There is always individual risk when embarking upon a group effort, but we cannot deny that this larger issue of privacy in public life is one with which we must reckon. ITC provides a safe, measurable, ethically grounded way to do so. The possibility that ITC might actually be ethically beneficial for all involved is never suggested in Kjellström's critique, but seems plausible given the preliminary evidence in the ITC case studies that have been published, and the studies by Torbert on leadership and organizational transformation (Rooke & Torbert, 1998).

The Developmental Dynamics of Coaching

The central issue that Kjellström takes, developmentally speaking, is that the ITC program goes over the heads of most people who will be engaging the process. Kjellström cites two sources for this: the first is from the meta-analysis that Kegan & Lahey report in their book *Immunity to Change*, which shows that 58% of people will not be at the level of *Self-Authoring Mind* (p. 28). The second is from a study by John Manners, Kevin Durkin, and Andrew Nesdale (2004), which looked at the hypothesis that stage transformation can be promoted.

The first important distinction I will make is that Kjellström tends to fuse *conflict* with *disequilibrium*. While it is true that disequilibrium can involve conflict, from a developmental perspective disequilibrium also opens the possibility of beneficial change into wider perspectives. As Kegan is fond of saying, if you can help someone to understand a more complex perspective, they will prefer it (1982, pp. 56-57). Kjellström minimizes the potent effect of genuine leadership within such a dynamic: "With a supportive facilitator, some people will be helped [to] perform tasks at the systemic [i.e., formal] stage" (2009, p. 129). In fact, the effect is far greater than Kjellström acknowledges. Furthermore, the disequilibrium is "conflict" for the *old self that is being disidentified from,* but "repudiation" for the *new self that is performing the disidentification*. This is a developmental nuance of Subject-Object Theory that is not represented in Kjellström's analysis.

Kjellström also states that development can occur without disequilibrium: "…there are interventions that promote development without being designed to be structurally disequilibrating" (2009, p. 123). Here, she refers to the Manners, et. al., study on the promotion of stage development. The position that stage transformation can occur without disequilibrium represents a fundamental misunderstanding of developmental dynamics, and in fact, the study that Kjellström cites actually claims the opposite: "The effect of the program was greatest among those for whom the intervention was *most disequilibrating* in relation to their existing ego structures" (p. 25) and there were *minimal to no* changes for the control group "…because for them the program was *not* structured to be disequilibrating" (p. 21).

An interesting aspect of the Manners, et. al., study that bear upon ITC is that the researchers identified three key ingredients for promoting stage development, ingredients that the *Immunity to Change Program* contains:

1. Must be personally salient (e.g., investment through personal/organizational goals)
2. Must be emotionally engaging (e.g., the direct engagement of anxiety and hope for overcoming ones' anxiety)
3. Must include an interpersonal dynamic (e.g., working with an *Immunity to Change* certified coach)

(Manners, et. al., 2004, p. 25)

This brings me to the most disturbing charge that Kjellström weighs against the ITC process, that it is going over the heads of 58% of any group that uses it.[6] Were this true, it would represent, at best, a cruel irony for Kegan who wrote a book on avoiding this very dynamic. However, my analysis below of ITC and Subject-Object Theory shows us that this charge cannot be supported.

Firstly, 40% of a typical group is between *Socialized-Mind* and *Self-Authoring-Mind* (Kegan & Lahey, 2009, p. 28). This means that even in the worst case scenario (58% - 40% = 18%), 18% of any group is the highest number that *might* miss the more nuanced aspects of ITC. However, there is every reason to believe that this is not the case. When used correctly, ITC "meets" individuals who are either at *Socialized-Mind* or in between *Socialized-Mind* and *Self-Authoring-Mind* extremely well (see below). The other 18% can be divided into the roughly 10% who are limited to *Socialized-Mind*, and the 8% who are pre-*Socialized-Mind* (Kegan & Lahey, 2009, p. 28). Following Kegan & Lahey's lead, I will call this prior level *Instrumental-Mind*, for it represents a level of development where people see the world through their own needs, and see others as *instruments* or tools to achieve the satisfaction of the need. They have great difficulty coordinating their needs with the needs of another (or a group), which is the hallmark of *Socialized-Mind*.

The question of whether people at this level are merely developmentally arrested, or are pathologically sociopathic, or if those are two sides of the same coin, is one that I do not have the room to address herein (see Kegan, 1994, pp. 38-44; see also Bubiak & Hare, 2007). Nevertheless, it is worth noting that regardless of etiology, there are individuals who are limited in their capacities to coordinate personal needs with group needs. It is worth noting here that not every adult who is exhibiting *Instrumental Mind* will be psychologically unhealthy or *pathologically manipulative*.[7] Berglas (2002) claims that executive coaching is at best *inert* when confronted with such people, and at worst, can actually assist the psychologically unhealthy people who are at this level with enacting their unsavory schemes.[8] ITC has built-in defenses against such manipulation, as it both identifies a personal *need* that someone has in the form of their own goals, and then calls the person into a group process where personal goals *and group goals are being coordinated* by a coach or consultant in conjunction with group members. In other words, ITC does not go "over the heads" of individuals at the *Socialized-Mind*. Furthermore, there is every reason to believe that even at *Instrumental-Mind*, individuals can be helped to look at needs rather than *be* them (in a way that is one-half step beyond what they can self-generate). Those are precisely the conditions for optimal development that Kegan and other developmentalists have outlined (see for example Loevinger, 1976).

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[6] 58% is the figure that Kegan & Lahey give for the percentage of people who, according to developmental research, have yet to develop into the level of *Self-Authoring-Mind*. This figure is made up of 40% of people who are in between *Socialized-Mind* and *Self-Authoring-Mind*, and 10% of people who are at *Socialized-Mind*, and 8% of people who are below this, at *Instrumental-Mind*. (Kegan & Lahey, 2009, p. 28)

[7] Rather, it might be better to say that "manipulative" is an unnecessarily pejorative term; from the perspective of *Instrumental Mind*, my manipulation of others is no different from manipulating clay to make ceramic objects. Like most psychological conditions, sociopathy lies on a continuum, with degrees of impact on others.

[8] Paul Babiak and Robert Hare (2007) have published a book on the havoc that these individuals can have in a business organization. Their 10% estimate on the number of people who reflect these characteristics of *Instrumental-Mind* is in general agreement with Kegan & Lahey's meta-analysis, and with other developmental researchers (Cook-Greuter, 1999).

As noted above, even with *Instrumental-Mind*, individuals are likely “held” by the ITC processes. So those individuals at *Instrumental-Mind* may only get from the process that their goals may or may not line up with the goals of their team or their organization. Individuals at the level of *Socialized-Mind*, however, will certainly possess the capacity for self-generating the constructions necessary for ITC processes. Kjellström’s criticism here is that

> The exercise is built on the requirement that all participants are able to use, at minimum, formal stage thinking…because the persons need to see themselves responsible for the commitment [and] an adequate understanding of personal responsibility is a formal stage concept which requires formal stage reasoning. (2009, p. 127)

Again, I must disagree with Kjellström on the grounds that her argument does not rest on solid developmental theory. Full formal-operational cognition is the foundation for *Self-Authoring-Mind*; however, Kjellström is incorrect that full formal-operational cognition is required for engaging in ITC. In fact, individuals with *early* formal cognition, which is the foundation for *Socialized-Mind*, can readily self-generate the meaning-constructions that are called upon for ITC. Seeing oneself as responsible for one’s commitments, and holding up your own end of an agreement – these are *precisely* the sort of qualities that emerge with transformation to *Socialized-Mind*. As I have pointed out, even with *Instrumental-Mind*, a maxim of developmental psychology is that when someone can be helped to understand a perspective that is one-half step beyond that which they can self-generate, they will generally prefer it. This means that when it is used skillfully, ITC can avoid the potential pitfalls of dealing with *Instrumental-Mind*, and even holds the possibility of assisting those individuals with their continued development. Finally, individuals who are at or just beyond *Socialized-Mind* already have the necessary endogenous complexity of mind to benefit from ITC.

Conclusions

Near the end of her article, Kjellström uses the ITC Map itself to evaluate ITC processes. In particular, her elucidation of columns three and four do not reflect a particularly good way of creating an ITC map. In her column two, Kjellström lists the designs and explanations of ITC as “inadequate,” and the column three competing commitment is listed as “to not admit weaknesses in ITC” (2009, p. 128). She was perhaps being a bit tongue-in-cheek; however, column three is properly a competing commitment that, through reverse-engineering, is revealed as the source of the column two behaviors. In other words, neither column two nor column three would satisfy the basic requirements for a good ITC map.[9] Column four, which she lists as an assumption that “…more mental complexity is always right and good” (2009, p. 128), is both an incorrect analysis of Kegan & Lahey’s intentions, and an incorrect use of the ITC process. The column four big assumption is supposed to be something so feared, that to even consider it creates what cognitive-behaviorists call *catastrophic thinking*. It is this assumption that fuels the entire immunity map.

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[9] A “good” ITC map is one where the column one goals are true for you; the column two behaviors are things you yourself are doing to get in your own way; the column three competing commitments feel like they have a lot of gravity and help explain the column two behaviors; and the column four big assumption is a source of catastrophic thinking – even the thought of it brings anxiety.

Kegan & Lahey do not believe that more complexity is always right and good, which should be clear from the fact that in their first book on ITC, *no developmental language is used*. It is also clear from the way that Kegan ends his book *In Over Our Heads* – with a reminder that whenever we *predetermine how* someone should grow, or the *point* of that growth, we lose something. We lose the passion of life that makes life worth living, the fragile passion that promises new life (and, in a business context, even new products and services). Passion is its own reward (1994, p. 354).[10]

They are equally clear that that healthy, supportive change is good, and that many people are in over their heads, whether they like it or not. This rift between what we can developmentally accomplish and what we are expected to accomplish is crying out for a system that can soothe the endogenous force of evolution, with the exogenous claims being placed upon people. The *Immunity to Change* process was born of the recognition that this rift exists, and its purpose is to assist those individuals who find a similar need in either their private or public lives.

I agree with Kjellström completely on the issue of ethics. ITC coaches can and should make the claim that although the *general* structures and processes of ITC are available to anyone interested in pursuing lifelong change, the help of skilled practitioners is crucial when considering questions of ethics and quality alike. Like the synthesizer that Roger Waters was using during his interview, the ITC program is a simple instrument, with complex possibilities. When used skillfully, it *meets people where they are* in terms of their level of development. When used skillfully it has been shown to be *highly beneficial for assisting people (and organizations) meet their own stated goals*. When used skillfully, it can be a *powerful tool for personal and organizational transformation*. Wilber claims that the single greatest achievement that humanity can make at this time – something that would move our species a long way towards solving the many global crises that our species currently faces – would be to assist the 40% of us who are poised to transform into *Self-Authoring-Mind* (2000b, p. 56, 88, 104, & 126; 2006, pp. 179-182). Following Heifetz, Kegan & Lahey call this the sort of *adaptive change* that can meet the *adaptive challenges* that our species is facing (2009, p. 29). I believe that ITC coaching has an innovative design, with the unique characteristics to help us meet the adaptive challenges that our species is grappling with.

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[10] Is the main purpose of ITC to help someone transform from one level to the next? My answer to this is a qualified "yes." You see, Kegan & Lahey (and anyone who is skillfully using ITC) are first and foremost interested in those areas where someone feels stuck. From the beginning of Subject/Object Theory, the goal has been to assist people with their own ongoing evolution. A good analogy is that of the new field of *epigenetics*. Epigenetics is a field that sees not a static set of building blocks encased in a nucleus, but an ongoing process of exchange and incorporation between the environment and the organism. ITC coaching is not trying to get people to grow; ITC coaching is trying to assist people who are already embroiled in the process of their own becoming. Subject/Object Theory tells us that we are never "static" in our development, it is always happening. But we *can and will often* get stuck. In the lumber industry, log jams are broken up when divers plunge into a river and search for the one log that started it all – the "key-log." By removing this key-log, the natural flow of the river can continue, and so can the logs. The logs and the river are granted their own distinctness, yet maintain their relationship with one another (i.e., the logs are not removed to solve the problem, nor is the river diverted). That is what ITC coaching is about – helping people find their key-logs, in the form of their big-assumptions, to free up the trapped energy that is causing them pain *and* stifling their development.

Life is messy. One of my favorite quotes from the eminent Jane Loevinger is that “Nature does not promise us an orthogonal universe, a world arranged in rows and columns, where every distinguishable trait is statistically independent of all others” (1976, p. 176). When properly used, the ITC process is not about an artificial arrangement of rows and columns, it is a Map that helps practitioners sift through the messiness of life, that we might understand the underlying patterns. Because life is nonlinear and messy, I understand why a system that is as elegant as *Immunity to Change*, with the layers of depth and scalability that it has, can be seen for its surface or deep features (hopefully, for both, as both are necessary). I hope that my response can be seen from the spirit of spirited dialogue; at the same time, I feel a responsibility to highlight what I see as the significant offering that ITC has for the world in this time of crisis.

The elegance of the *Immunity to Change* process makes it appear simple. In some ways this is true – creating an initial ITC Map can take as little as one hour. The full ITC process, however, is a much richer endeavor. When David Bowie was interviewed for a documentary on the evolution of rock music during the 1970’s, he chuckled at the relationship between engineers and musicians. Engineers, in Bowie’s estimation, were trying their best to recreate the sound of individual instruments through synthesizers; musicians, on the other hand, cared little for the engineer’s vision, and wanted to create *new* sounds with the synthesizers. If they wanted a horn, they would play a horn, not an electronic representation of one. But if they wanted a future-sound, the sound of waveforms mingling together, they needed a synthesizer. Being an *Immunity to Change* coach is like being a musician in this sense – the beautiful music comes not from the repetition of scales, but from the iterative flow of harmonic resonance.

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Responsibility and Ethics in the Use and Advocacy of Developmental Exercises: Response to Zeitler and Reams

Sofia Kjellström[1]

In this response I circumscribe the nature and scale of the rejoinder to refocus on the ethical and theoretical implications of utilizing developmental exercises, of which *Immunity to Change* (ITC) is seen as an example. I welcome Zeitler's and Reams' continuation of the ethical discussion, and I want to reclaim and develop some of the delicate points and consequences that were described in my original article. The line of reasoning is based upon the presupposition that developmental methods and techniques are used in the real world with people and consultants with limitations and strengths, in conditions that are neither optimal nor perfect. Among all theoretical and ethical questions, I found the most profound issue to be: does it work?

Reflections upon Methodology as a Means for Improved Ethics

One overarching argument is that my use of a "flawed methodology" invalidates the critique I am making of the ITC process, reducing my observations to "criticizing her own version of *Immunity to Change*, and not the total offering of Kegan & Lahey" (Zeitler, 2010, p. 8), leading to his conclusion that, if the process is 'properly' employed, it avoids most of the criticism. Some of my adaptations were less than optimal, as Zeitler and Reams note, but I think most ethical implications and theoretical issues in the article can be generalized beyond a single case. The aim of the article was to illustrate significant theoretical and ethical implications that arose in the interplay among (a) the role and competence of the facilitator, (b) expectations and capabilities of the participants, and (c) the mental demands and assumptions of the process, and these implications were generalized beyond my particular performance. Consequently, the theoretical critique can be valid regardless of how I implemented the process.

My point in sharing the methodological modifications and shortcomings were to illustrate how the process could be used and adapted to an educational setting, and by sharing this experience, create a space for learning and reflection. Attentive readers could use this space to contemplate their own experiences of participation, of leading others, and the ethical issues that

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arise in those situations. My presentation, therefore, was designed to be as transparent and as succinct as possible. A concise account does not imply an incomplete or inadequate understanding.

For example, one of my ethical points in the article addressed the delicacy of voluntarism in participating and sharing. I used examples from my experience to draw out ethical implications. As I describe in depth in the article, this dimension of participation—the students' rights to exercise personal discretion and protect confidentiality—was something I discussed at length with my students, including sharing Kegan's ground rules (Kjellström, 2006; Kjellström, 2009, p. 120). Despite my awareness of these dimensions, my efforts to inform them, and my explicit statements on these matters, some persons nevertheless felt uncomfortable. The point is that the voluntariness of participation and sharing is a relevant topic each time you are in the context of having tasks to be performed in a course or attending a workshop. Some people will do things that they should not have done outside of that context. Ethical awareness and acknowledgement is the first step of handling it.

Another main point is the topic about positional power issues between teacher and students, as Zeitler and Reams also discuss. ITC ground rules state that employees should not share their personal immunity change issues with their leaders. In the educational settings the teacher is the coach and leader, as Zeitler points out. But again this can be used to raise more general points. Even in a business setting where a coach takes on a group, the coach is both a coach and a leader. As soon as a person is put in the centre as an authority figure, in this case a psychological authority, he or she turns into a leader and an asymmetry of power arises. Not even a skilled practitioner will avoid or escape the possibility to be seen as a leader.

Thinking and Behavior

Zeitler argues that I incorrectly focus on behaviors as the source and aim of ITC.[2] It is possible to interpret it that way, but this was not my intention. One of the main points with both ITC and adult development theory is the focus on people's different ways of meaning making and complexity of mind. But the way a person sees the world also has significant effects on how he or she acts. Kegan and partners use this rhetoric to argue for the value of the exercise. Since behavioral change is difficult and does not happen as often as we might like, ITC could be used to stimulate change, since ITC focuses on the underlying meaning making. But the argument does not end here. Internal thinking does affect behavior – an important point: what is the point of changing internal thinking if it never leads to changes in actions? In my opinion, for ITC to have a real function in society, it is not enough for it to change peoples' thoughts; new thoughts must lead to better actions. But how do we know whether ITC leads to better thinking *and* better actions?

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[2] Zeitler points out that I use the word values in juxtaposition with behaviors. I have rather used commitments and values as synonyms. Commitments can be interpreted as things that are valued as important. In Swedish language the translation of commitment is an awkward term not very often used in ordinary language. The students were all taking classes on ethics, therefore the use of values was seen as an adequate choice. This translation was communicated and discussed with the students (Kjellström, 2006). No teaching of adult development theory was included in the courses, to answer another question by Zeitler.

The Need for Scientific Studies to Show That It Works

According to Zeitler "Kjellström laments the fact that she could find no outcome studies on ITC. This is inaccurate, as there have been three books, and several articles and book chapters, all of which have (or are) thorough case studies on the outcomes of ITC" (Zeitler, 2010, p. 8). I was not "sad" (i.e., I did not "lament") that I was unable to find such studies; I was surprised by the absence of independent and scientific outcomes studies given the attention and strong advocacy that ITC was enjoying in the general literature. That Zeitler classifies case studies as examples of outcome studies leads me to conclude that Zeitler's definition of an "outcome study" differs in significant ways from mine. Or perhaps it is a difference in my preference for independent assessments, that is, studies performed by persons with no financial interest in the process, which raises another ethical question—conflict of interest.

In the article, I emphasize the need for critical studies that address possible inadequacies or tests of effectiveness (Kjellström, 2009). There is a need for critical texts that openly discuss weaknesses in the structure and/or process of ITC, which is what prompted me to write of my experiences. Most previous written works that Zeitler interprets as support for successful outcomes have coauthors that have financial interests in promoting the ITP process and certifying new coaches; by definition, these financial considerations negate the independence of the view or critical voice on the ITP. Some people might argue that this is an important part of the difference between "marketing research" which is motivated by a desire to determine how best to sell the product, and scientific research, which should be done independently. I further argue here that there is indisputably a paucity of tests for effectiveness and outcomes, and that is what is needed to persuasively demonstrate that ITC is an effective process. Effective outcome studies

> … demonstrate that a treatment works; it moves the field forward by revealing what interventions are helpful within a given treatment; and it provides data to move beyond emotional allegiances into rational selections of treatment. (Najavits, 2003, pp. 317-318)

Case studies are not outcomes studies as Zeitler suggests. To illustrate the kind of scientific work and research that is needed for establishing that the ITC works, I quote at length the three stages of research needed in the development of a therapy, and how different outcome studies could be designed (Rounsaville, Carroll, & Onken, 2001):

> *Stage 1—Early Therapy Development*. In this stage, the focus is on careful development of the treatment and basic scientific testing. A treatment is conceptualized, repeatedly refined by trying it with patients, and pilot tested. The pilot test may be a simple pre-post design, or may include a control condition. The usual products of this stage are a treatment manual, an adherence scale and training plan for therapists, relevant assessment instruments, and the results of the pilot test, which can provide such information as the effect size to use in the next stage. Stage 1 is sometimes conceptualized as two stages, 1-A and 1-B, where the former is focused solely on treatment development (e.g., developing the manual and associated materials), and the latter focused on pilot data. Stage 1 typically takes from 2–3 years.

> *Stage 2—Efficacy Testing.* In this stage, the goal is to determine whether the treatment works under the best possible conditions; that is, with intensive training, supervision, careful selection of appropriate patients, and in-depth assessment. The study design is usually a randomized, controlled study to rigorously test the treatment, comparing it to either no-treatment, treatment-as-usual in the community, or an existing alternative treatment with known efficacy (e.g., in the field of addictions, comparing a new treatment to 12-step drug counseling). The usual products of this stage are the results of the randomized controlled trial, as well as more refined treatment materials than at stage 1 (e.g., adequate psychometric properties of the adherence scale and other treatment- specific measures, descriptive data on the patient and therapist samples, a final version of the treatment manual, and some type of “dismantling” test linking the theory and techniques of the treatment to outcomes). This stage usually takes 2–4 years.
>
> *Stage 3—Effectiveness.* Also known as “generalizability” or “transferability,” the goal in this stage is to evaluate how well a treatment performs in real-world conditions, rather than the highly controlled study of stage 2. Thus, the treatment might be implemented in a community setting with minimal training and supervision, and applied to a broad range of patients. The typical products of this stage are outcome data collected from the effectiveness study (which may involve multiple clinical sites), specification of dissemination strategies and their feasibility, and data on therapist outcomes. This stage typically takes 2–3 years. (Najavits, 2003, pp. 319-320)

Implementing these three stages in outcome studies of ITC has barely begun and has stalled on the first stage. The ITC has been tried out as case studies but there are no scientific tests with pre/post designs. Case studies can be used in the first stage to test out hypotheses, but even that has not been done in a systematic manner with the ITC process. To really establish the value of ITC, we must proceed to stage two. In addition to the criteria mentioned, a longitudinal design is recommended. It would be very interesting to examine whether the performance of ITC helps people transform and to more generally assess what happens to them that can be persuasively linked to their experience with ITC. How do people of different orders of mind or phases of development perceive the process? And is it possible to show that changes in life are due to the process, and not to other personal circumstances? For which kinds of individuals, with what kinds of problems, with what kinds of support is the ITC efficient and effective? One main reason for conducting sound studies is that they can build the foundation for a more ethical, respectful and developmentally aware usage of the ITC process.

The Need for Genuine Developmental and Ethical Options

One of the main advocacy points in my article is to expand the responsibility to include organizations and individuals. If a leader is in over his or her head, it is not solely a problem for the individual to handle, nor is it a fact to accept, but it is also the result of bad recruitment by an organization. For example, take a formal-stage-thinking person who does not live up to the requirements of a systematic-stage job description. A more ethical way to handle such a situation would be to give the following (hypothetical script) options/information.

> We have this process (e.g., ITC); several studies have suggested that the process can allow formal thinkers a chance to develop the skill of systematic thinking, which is the requirement for performing adequately in your current job position. We know from these studies that only 24% of those who commit to the process are able to make this transformation. You should also be aware that the process is emotionally intense, and if you decide to take this path, you will have a better chance of success if you have good support from your family and friends. Making this change could be arduous, but we will support you on this journey. If you do not have the support or are not prepared to go through this emotional challenge, then we have this second proposal for you. We will help you to find a new job position which is better suited to your current way of functioning, and we will support you in that process as well.

This ethical management is currently difficult to achieve since there are no scientific (outcome) studies or systematic evaluations to consult. The example is also based upon the assumption that the employer has the knowledge and competence in adult development and the ability to apply understandings of the level of complexity both in organizational positions and in people. The change and development of organizations needs to be carried out by individuals. In order to achieve change, the individual has to experience change as meaningful, which means that changes need to be set up in a wider context where the individuals subjectively experience these induced changes as meaningful.

I end by repeating my concern about the lack of an integrated ethics component in the ITC process. Zeitler states that the benchmark is that “individuals (and organizations) are *better able to meet their own stated goals*” (Zeitler, 2010, p. 8). To me this is an insufficient criterion for a successful process. First, it is highly subjective, even if it is judged in the affirmative by the person, partner, and co-worker; arguing that “it is good, only because we have decided it to be good” is inadequate and needs to be supplemented by other criteria. Secondly, there are no explicit ethics built into the ITC process. As a developmental exercise, ITC invokes the implicit assumption that usage results in better thinking and actions, and consequentially to improved ethical action. But by using this criterion for success, there is an open possibility that the method will be used in business as a means to pursue conventional goals of higher productivity and financial gains. This is a limited use of a process that claims to overcome the immunity to change so that people can realize higher levels of their potential

Responsibility as a Mental Demand of the ITC process

The idea that the ITC process goes over the heads of some of the users is a challenging one. I use the issue of responsibility to expand, deepen and illustrate this point even further by (a) demonstrating the developmental character of responsibility and (b) examining what kinds of responsibilities are required by the ITC process.

The Developmental Nature of Responsibility

Research shows an empirical basis for a developmental sequence in reasoning about responsibility issues.[3] Research on the attribution of responsibility for negative events (e.g., illness) shows a specific pattern of assigning responsibility, from mere association to the importance of the knowledge and intentions of the agent (Fishbein & Ajzen, 1973; Mantler, Schellenberg, & Page, 2003). Adult development studies show that considerations about responsibility issues evolve in people in three different ways. Firstly, several studies independently discovered that talk about individual responsibility arises spontaneously in different domains at a certain level and only after that is individual and social responsibility discussed in combination (Dawson & Gabrielian, 2003; Gilligan, 1982; Kajanne & Pirttila-Backman, 1999; Kjellström, 2005; Kjellström & Ross, 2009; Robbins & Greenwald, 1994). Secondly, people have different abilities to comprehend and take responsibility due to different interpretations of themselves, others, and the world (Gallagher, 1988; Kegan, 1982, 1994, 2003; Loevinger & Blasi, 1976; Rybash & Roodin, 1989). People see themselves as responsible for different things (e.g., thoughts, roles, emotions, and actions) depending on their demonstrated level of development (Kegan, 1994) and the sphere of things for which they are able to take responsibility increases in later stages of development. For example, nurses who were at later stages of development (measured by Loevinger's ego development) scored significantly higher on a personal responsibility measure, where personal responsibility was defined as the ability to attribute the causes of their behavior to personal choice rather than to the situation or dispositional actions (Gallagher, 1988). Nurses at earlier stages ascribed more of their behaviors to external factors than to internal ones. Internal factors are recognized at more complex levels of development through reflection (Fischer & Pruyne, 2003). Thirdly, the term "responsibility" means different things to different people depending on their stage of development. Using concepts like causes, personal performance, and duties to define the core meaning given to "responsibility" does not occur until the abstract reasoning stage (Dawson, Xie, & Wilson, 2003). Once that concept is developed, it can be built upon. For example, the compound concept of *personal responsibility* is at the next stage, formally operationalized in Piagetian terms (Dawson & Gabrielian, 2003). *Responsibility* has different meanings at different stages of development – what the content is within a stage differs as well as across stages.

The Demand of Responsibility in the ITC Process

Having established the developmental nature in the ways people perceive responsibility and are able to act responsibly, the essential questions are: what kinds of responsibilities are required in the ITC process, and what are the mental demands?

In the first version and description of the ITC process, step number two in filling in the table is framed in terms of personal responsibility (Kegan & Laskow Lahey, 2001). To use the terminology "personal responsibility" implies a level of formal operational in Piagetian terms (Dawson & Gabrielian, 2003).[4] The task to complete in step two is to give an account of what s/he is or is not doing in order to live up to the first commitment, which the authors describe as moving from blaming others to describing their own inadequacies. To ascribe decisions and actions to personal choice options rather than to projecting to others and situational factors indicates a developmental level of approximately the conscientious stage of ego development (Gallagher, 1988; Loevinger & Blasi, 1976). Kegan and Lahey describe the second step in the following way:

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[3] This paragraph is a slightly modified version of a passage in the article by Kjellström & Ross (2009).

[4] In the article I discussed the possibility that to do the ITC table could require systematic stage capacity to put formal relationships together (Kjellström, 2009, p. 127, pp. 129-130). A correction to Zeitler's

> …we invite the room to be filled up with the language of responsibility, declarations of or unproductive actions and inaction.[…] We tell stories so we can stop *being* our stories and become persons who *have* these stories. We tell stories so that we can become more responsible for them. (Kegan & Laskow Lahey, 2001, p. 37).

Using Kegan's theory, I interpret this as an ability of self-authoring persons, or persons who are aware of the authorship of their lives. Kegan has discussed the issue of responsibility extensively in his books, particularly in *In Over Our Heads* (Kegan, 1994), and he gives several examples of what kinds of responsibilities are possible with each order of mind. "The third order of [socialized] mind is both capable of, and subject to socialization. It is not able to reflect critically on that into which it is being socialized. It is responsive to socialization not responsible for it" (Kegan, 1994, p. 288).

With a socialized mind a person is able to take responsibility within a given role and show loyalty to an organization. But in order to take responsibility for your life or your story of your life a self-authoring mind is needed.

Zeitler argues that a person at the socialized-mind stage is able to see and take responsibility *for* a commitment, which is questionable. In order to be responsible for a commitment, the person needs to have it as an object. It presupposes an ability to take a critical stance relative to the commitment. An illustration of this stance can be found in the definition of a personal commitment on Wikipedia "Distinction is often made between commitment as a member of an organization (such as a sporting team, a religion, or as an employee), and a personal commitment, which is often a pledge or promise to one's self for personal growth." (Wikipedia, commitment, personal commitment, June 1, 2010). It is the second version to which ITC primarily refers, according to my interpretation. "Seeing oneself as responsible for one's commitments, and holding up your own end of an agreement – these are *precisely* the sort of qualities that emerge with transformation to *Socialized-Mind"* (Zeitler, 2010, p 14). I propose that it is possible to hold up one's end of an agreement and be responsible *to* a commitment, but not to be responsible *for* it in the sense of being responsible for yourself for your commitments. Interesting to note, Zeitler at the end concludes that "I feel a responsibility to highlight what I see as the significant offering that ITC has for the world in this time of crisis" (Zeitler, 2010, p. 16). In other words, his job or duty is to highlight the beneficial contributions. I would suggest that feeling a responsibility to highlight both positive and negative features of ITC to be a more balanced option to pursue.

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argument is to accurately attribute the quoted text (page 14 in Zeitler and page 127 in the original). Only the first part of Zeitler's quote belongs to me and, it is unclear what is being referred to in the second part by "systemic stage," but systematic is the label used for the stage after formal in the Model of Hierarchical Complexity (Commons, 2008).

If my interpretations are adequate and valid, I suggest that the ITC process itself includes elements that presuppose a self-authoring mind. Zeitler suggests that the process could be adapted to people in earlier stages, but I think it is an open question if their needs are best met with this process or some other. Since we have different opinions on the mental demands of the process, I suggest that we need some better assessments of the types and levels of demands respondents experience so we can adjust our practices on the basis of evidence rather than opinion. What I think is clear is the importance of acknowledging the mental demands of the ITC process as one basis on which to compare alternative processes and available therapies/techniques that aim to help and transform people's ways of thinking and acting, but this kind of comparison is only possible once we have adequate assessments across the range of options.

There is no point in elaborating with numbers of how many do or don't manage the process sufficiently, since that would require studies of how different people and groups handle the process, and no such numbers are available. My personal experience (which I shared with Kegan (Kegan & Laskow Lahey, 2009) and others (BusinessDigest, 2009) is that some people struggle with the process. The reason they struggle is probably a combination of where people are (e.g., developmentally, emotionally, motivationally, phase in life, genetically), skillfulness of coach (e.g., developmental awareness, coaching experience, time, interpersonal skills), and the structure and process of the ITC (its developmental demands, instructions, etc.).

Conclusion

There are a lot of important ethical questions regarding the usage of developmental exercises; for example, voluntary participation and sharing, informed consent process, power asymmetries, boundaries for privacy and public life, leader competence and skills, conflict of interests, built-in ethics, and individual goals as compared to organizational goals. One of the overarching issues is: How can we create a society that is designed to allow individuals to develop their full potential and that has a place for all kinds of people at all "levels" of development? The thesis of Kegan's work is that lots of individuals are "in over their heads" in the modern society, that the demands put on them are more advanced than what they can perform. The inferences Kegan, Lahey, and Zeitler make seem to be that we must help individuals to develop a self-authoring or self-transforming mind. There is also an assertion that the ITC as a developmental exercise has the potential to create the needed transformation in people. But there is an indisputable lack of rigorous scientific studies that show the effectiveness of the ITC and similar exercises. Is it ethically justifiable to work with life-changing exercises without a convincing evaluation literature that shows "success rates"? Consider being asked to choose a physical or medical treatment. Patients must be informed of the potential benefits and risks, the advantages and the disadvantages, the possibility of adverse reactions, the probability of success, and the rigors/demands of the various options. The most fundamental ethical question when promoting and assigning adult developmental exercises is to know that they work, for whom, and under what circumstances. And there are scientific methods to determine this information. In the absence of such studies, maintaining a certain level of skepticism seems the prudent position.

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Response to Kjellström

Jonathan Reams[1]

In *The Ethics of Promoting and Assigning Adult Developmental Exercises: A Critical Analysis of the Immunity to Change Process,* Sofia Kjellström has broadened the discourse around Kegan and Lahey's (2009) Immunity to Change (ITC) process with her critical examination of issues related to this work. She identifies ethical concerns, facilitator capacity, informed consent and the cognitive demands of the process as areas deserving attention to enable the intentions of this work to best serve a growing community of practitioners. Reading Kjellström's article, I noticed a number of points that I want to respond to. Since my recent report from the field (Reams, 2009) I have had the opportunity to run the ITC process with three different groups, which has given me new insights into what can be sometimes implicit areas. In the future I hope to engage in a deeper analysis of a few specific areas that have caught my attention. For now, I will present some preliminary thoughts based on Kjellström's article.

My first response is of appreciation to Kjellström for opening up the space for critical discourse in this area. While I will present some views contrary to hers on some of the issues she raises, it is only due to her having raised them in the first place that I have been motivated to reflect on them. Her inquiry helps to identify what may be some implicit assumptions of the authors of the process. While neither of us can speak for Kegan or Lahey, we can present opinions drawn from their writings and our experience.

I will begin at the beginning, at least in terms of how one begins the ITC process. In describing how she introduced the ITC process to participants, Kjellström "emphasized that they should not disclose more than they felt comfortable sharing" (p. 120). I have taken a slightly different approach to this. I emphasize to participants that they will get out of it what they put into it. Thus the more they can connect with something personally meaningful, the more potential for insight the process can offer. Upon reflection, I can also see the value of including the kind of framing Kjellström describes.

Kjellström describes doing this process both over a two hour class period and though a web platform. Both of these settings raise issues for me based on my experience. I have been fortunate to have whole day classes or workshop settings to work within, and have been able to take at least four hours for the process. From these experiences, I would not want to try running the process in any less time. In running the process through a web platform, she describes how the students read two articles, listened to a lecture and then filled out the four columns according to written instructions. Based on my experiences, I cannot imagine trying to run the ITC in this manner. I have found an ongoing need to reframe and re-interpret the instructions to participants. Part of this may be due to language issues, (many of them have been Norwegian, with varying degrees of competency in English), but I believe that more of it arises from the normal

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differences in understanding and interpreting language constructs based on stages of development differences as well as cultural and life experience differences.

Thus when Kjellström notes that failures for the participants occurred due to either failure to complete it or refusing to do it, I cannot help but think that a good proportion of those failures could be attributed to the limitations of time and format utilized. While I have also observed the process to have less than optimal results for some participants, I would not have called them “failures.” I have also not had anyone refuse to participate.

The difficulties Kjellström identifies with participants having troubles putting appropriate content into the columns is familiar to me. I recall the first time I ran the process, one participant filled out all four columns in 15 minutes! She treated it like an action plan, and thought she had done what was asked. This kind of experience led me to guiding participants through the process by giving them one task at a time, each on a separate worksheet and only after doing three of the columns put them together on one page. This allowed me to control the focus of attention better, which I came to see as a significant issue.

The primary issue which led to my greater interest in having more control over the focus of participants’ attention was that I noticed them going down what appeared to me to be habituated tracks. One of my reflections is that this process is inherently asking people to pay attention in a direction that is not familiar or habitual. The work appears to many as being continually counter intuitive. From this, I have experienced a constant need as a facilitator to work with participants on keeping their attention focused in the intended areas.[2]

Kjellström describes difficulties for participants in articulating a personal fear or worry that could then be turned into a competing commitment. I have also seen this issue. My perception is that it can arise from two things. One is that people often tend to place more qualities than behaviors in column two. This makes it more challenging to imagine doing the opposite and getting in touch with such a fear or worry. (This is also related to the importance of landing a good first column commitment, as if this does not happen, everything that follows is more difficult to find). The other is that I have an impression that the deep seated defense mechanisms of the big assumption underlying the particular system people are inquiring into can foresee its own exposure coming so to speak, and take measures to blind a person to it. As Kegan and Lahey say, when you get to the big assumption you often encounter warning signs like “do not enter,” or “danger ahead.” It may be that these defenses begin to operate earlier, at the first hint of exposure. Thus extra guidance or facilitation could be required to help participants keep moving down the intended path.

In examining facilitators’ choices and capacities, Kjellström recognizes how the perceived failures or negative responses to the process may have been impacted by how she led the process. This leads into an examination of issues focused on the role of the facilitator. I agree that here it is important to distinguish this aspect from the impact of the process itself. Any tool is only as good as the person using it. At the same time, if one has a poor tool, even the best facilitator will be hard pressed to do a good job with it. The issue of facilitator capacity is a broad topic and time does not permit me to do more than briefly mention a list of issues I perceive as related. There is of course the issue of cognitive development, that a facilitator will only be able to work with what they can perceive and that the subtler movements of attention by participants can be hard to track. The quality of presence, or interior condition of the intervener, (to recall a key element of my earlier review of Scharmer's Theory U), is also a critical issue for facilitators and not an easy one to address. As well, the skilful means of the facilitator will be important as I have found that practice looking after specific issues related to running the process helps! Finally, how can a facilitator use all of the above to enable participants to scaffold up into a space where they can, (if such assistance is needed) at least temporarily operate at a required level of cognitive functioning to enable the successful completion of the 4 columns? All of these and more issues of facilitator capacity seem relevant to me in relation to the "success" or "failure" of participants' experience with the ITC process.

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[2] In the future I hope to explore in depth the nature of this phenomenon from the perspective of David Bohm’s notion of thought as a system.

I agree with Kjellström that the ITC process needs to be carefully introduced or framed. She notes the importance Kegan and Lahey give to advocating for the value of the process. Enabling participants to have a good reason for engaging in the process is critical. If they feel coerced due to expectations of following authority in the form of a teacher, then it will indeed be much harder to connect to the work in the way I feel it is intended.

It is within the context of introducing and framing the ITC process that the issue of informed consent arises. Kjellström raises this as an ethical concern, that if people really knew what they were getting into then they might choose not to participate. Her view is that the "ITC process seems to be constructed on a major implicit assumption of change as always beneficial to all people" (p. 129). She thus recommends that a richer informed consent be used and that it "is determined from within the individual" (p. 129). This raises a number of related questions for me which I will explore briefly.

I think she is correct in that some might have illusions about what they are getting into, and choose against participating if they really understood what was to come. I can think of many times in my life where if I had known what was coming I might have declined to engage a certain experience. As a counterpoint to this, I could say that if participants had it all spelled out for them in advance so that they had such fully informed consent,[3] it would in some ways circumvent the process. My view is that the "surprise" elements of the ITC process simulate real life issues where we often encounter situations that stretch and challenge us and that in the end we perceive as having been good and even essential for our growth, but that we would not have engaged in if we had a choice and known, from our previous consciousness, what exactly we were getting into. This seems to me the point that Kegan and Lahey make when they say that when we enter the territory of the big assumption, we often encounter "do not go here" signs, as the defense mechanisms that protect identity from its natural evolution would by doing their job (as the competing commitments and 2nd column behaviors show) and thus keep us from ever going there. This seems to me to be the point of calling it an immune system – it has a powerful ability to detect and resist change.

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[3] I would question even being possible as even if we give participants words about what they may experience through the ITC process, those words may not convey the depth of what they may experience, leading to them saying "you didn't tell me you meant this" with us responding "but that is what I told you when I said … ."

There is also the issue Kjellström mentions of teachers being in an authority role and having great power in choosing what curriculum students are exposed to. As a comparison, parents often take such responsibility for their children, encouraging them to try things that they feel are going to be ultimately good for them even if they don't like it at the time. My experience is that a similar process often goes on, where as a teacher I encourage students to engage in activities that from their current perspective may not be their first choice, but from my perspective as being responsible for guiding their education, are something that can serve them well. Thus I feel that while the issue of informed consent is important, it is also complex and requires real attention to how we as teachers and facilitators introduce the ITC process.

Along these lines Kjellström asks "what right does a teacher [have] to create optimal conflicts in peoples' lives?" (p. 123). While I can see how this question arises from her focus on perceived ethical concerns with the ITC process, I also have a different view of this. My experience is that change is indeed the only constant in today's world. As well, creating such "optimal conflicts" can be seen as similar to Ron Heifetz's view of leadership as creating a holding environment for people to do the adaptive work that the challenges of life bring them. So I do not feel that the creation of such situations is outside of participant's everyday life experiences. In fact, it could be seen as helping them by bringing such situations into focus so they can be reflected upon. It can also be seen as doing this in the relative safety of a somewhat controlled learning environment, where the consequences are not as direct and serious as when one might attempt to deal with such things in everyday settings. So this question could be reframed to see the creation of such situations not as a right of teachers or facilitators, but as a duty or gift to give.

In thinking about the perceived desired outcome of developmentally oriented change, Kjellström raises questions that lead her to ask "if this is "adult development" or manipulation?" (p. 126). I agree with her that as with any tool, much depends on the motivations of the facilitator and that manipulation is of course a possibility. However, my sense is that the majority of us using this work are drawn to it from motivations arising from our experience of the value of developmental work. My own view is that we cannot force or manipulate development anyway, but can merely lead people towards the opportunity and see if they take the step for themselves. As well, it appears to me that much of this work is planting seeds that we may or may not see any fruit from during our interaction with participants. In this way I do have the same concerns as Kjellström about manipulation.

Kjellström also raises the issue of how people at earlier stages of development may experience the ITC process. While I agree in part with her saying, "I do not think the solution of encouraging people to change and "develop" is either possible or an ethically-sound solution for all situations, because it will create expectations that are too challenging and over the heads for some" (p. 126), I also feel that it is possible to go too far in protecting people from growth and challenge. Life will generally bring us challenges, so working to help people find better ways to utilize these challenges by providing some support in the form of the ITC process. It is not a panacea for all issues and all people.

I do believe that the ITC process can, done with good framing, proper time and settings and appropriate facilitation, produce significant results. My most recent experience was with the second year of the Masters in Organizational Leadership course I mentioned in my report from the field last year. Applying all that had been learned from previous experience, the results were a significant improvement from last year. This was not only evident from observation, but also from reading the exam essays and course feedback. While it was clear that the depth of what was gotten from the process varied according to the reflective capacities of the students, it was also evident that each got out of the process something that was significant and appropriate for them.

There are many other points that I would like to respond to, but time has not permitted me to complete this in the depth I originally intended. I will leave the more detailed critique of Kjellström's article to David Zeitler's article in his issue. My hope is to return in a future issue to a more rigorous exploration of some of the subtler patterns of attention that I have noticed in my more recent experiences with the ITC process.

Creating Dynamic Development and Harmony in the Classroom

Nick Drummond and Joan Berland[1]

Abstract: The article describes a childhood education program for developing the individual and collective "consciousness" of a class of children. The word consciousness is used to refer to the level of an inner awareness, and responsibility being held by an individual and or group of people. The authors view consciousness as being a fundamental part of our experience, and although not easily seen, it is something that can be pointed to, described and developed. Practically, this means learning how to give attention to the "interior" as well as exterior dimension of a classroom environment and discovering how these are intrinsically connected. A set of tools are presented that can enable teachers and students to learn about this inner dimension of our experience – how to bring value and focus to it – and the effect it has on our choices and behavior. When consciousness is recognized and given importance it becomes something that can be experienced by everyone at any moment. When it is intentionally focused on and developed, an atmosphere of dramatic possibility, true discovery and infinite potential can be created in any classroom. Whenever this happens, children and adults alike are able to experience, envision and become attracted to new *and* more mature possibilities in the way they learn, teach, communicate and relate to each other.

Key Words: Awareness, childhood education, consciousness, rubrics, values, vertical development.

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Introduction

There are exquisite moments in every classroom when there is a heightened sense of awareness as everyone in the room seems to become a part of the same energy. Sometimes it's quiet and deep like inward and outward breathes during a deep state of relaxation. Other times it’s loud and rambunctious. Whatever is happening feels like fun and there's an air of charged electricity in the room. Those present are aware that something out of the ordinary is happening, even if it can't totally be explained. An eight year old student in Joan's class this year described it "as if something was being created from nothing". If this can happen sometimes, how can we make it happen on a more regular basis? Is it something that can be learned or taught? Would it make the experience of school and learning more effective?

Learning can be defined in many ways: as an act, process or experience of gaining knowledge; to become informed or acquainted with; to become aware. Dynamic Development and Harmony was created in order to bring an inner and outer awareness to the learning that happens in the classroom environment beyond the academics.

The outer dimension includes becoming acquainted with how each individual exists in the classroom space. Some children seek attention by being silly, or physically sit in such a way that they appear to close themselves off if something is too hard. Others simply don’t say anything at all. Plastic water bottles are squeezed loudly or spilled on the floor. Hands are in desks and attention may be on shaving an eraser into bits or peeling the paint off the pencil. If there is no awareness on the child’s part that this is happening then they probably aren’t aware of how distracted they truly are or that there is another way to participate as a learner in school.

While many children can voice their preferences, likes, dislikes, hard and easy academic subjects, they may not be aware of the inner dialogue going in their mind throughout the school day. During a math lesson is one’s attention on their understanding of the concept being discussed or on lunch, the soccer game after school, how they feel about themselves or another student? Learning is also the process of experientially becoming connected to ourselves. What if we take it a step further and realize that the choices we make as individuals affects not just us, but everyone in the class? A sense of connecting and discovering something that is both “new” and meaningful can transpire. We are only just beginning to become aware of this kind of learning and that the more we give it attention and value it the more we will learn about it.

A Utopian Class

What would we start valuing? What kind of choices would everyone start making? What if you found yourself teaching children not only math, reading and writing, but doing something as unbelievable and audacious as learning how to direct the future trajectory of human cultural development? What if this potential was so creative and positive you could never know in advance what new potentials would emerge from the process or the people participating? What if this became a new potential in education? What if this potential was so profound that our ability to tackle global challenges rested upon it?

Working With Consciousness

The kind of learning we describe is very much based on recognizing the role consciousness plays in education. We define consciousness as the level of inner awareness, presence, inclusiveness and responsibility being held by an individual and or group of people. We view consciousness as always being a primary part of our experience, and although not easily seen or widely recognized, it is something that can be pointed to, described and developed. Fundamentally this entails that we go from only having an “exterior” perspective to learning, of seeing ourselves as a separate individual working with other separate individuals, to also including an “interior” perspective were we are working with consciousness, the most deep-seated part of who we are in every moment. As educators, this means learning how to give attention to the interior as well as the exterior dimension of the classroom environment which includes discovering how these two dimensions are intrinsically connected and continually influencing each other. It also means recognizing our own level of consciousness, and the importance we give to it, as not being separate from affecting this relationship. We outline a set of tools (It’s Your Choice, Where Are WE Right Now?, Sitting Still, and Talking Without Raising Hands) that can enable teachers and students to learn about and bring value and focus to this inner dimension of our experience, and the effect it has on our choices and behavior. Indeed it was our own experiences of this with our own students, several of which we describe below, that played a key role in developing this program. If we recognized every problem as being a problem of consciousness, of where we are directing our awareness and attention, then the simple solution would be to raise the level of consciousness in and outside the classroom, because as Einstein said, “We can't solve problems by using the same kind of thinking we used when we created them.”

Experiencing a Positive Compassionate Energy to Develop

Three years ago, after 24 years in as an elementary school teacher, Joan Berland had an experience in her classroom that would forever change how she taught. It was not rooted in a better or different way to teach the prescribed curriculum, but in something profound and more intangible. While sitting in a circle on the rug and sharing personal stories, Joan noticed a sense of quiet and calm she had never felt before. A second later the very air in the room seemed to get bigger. It felt as if someone had flipped a switch and filled the room with the most positive compassionate energy she’d ever felt. Her students felt it too, but couldn’t put it into words. What exactly was this energy? Where did it come from? Could it happen again? Was it always present but had never been tapped into before? How to create that energy and keep it alive in order to go somewhere no class had ever gone before was a thrilling prospect.

Concurrently in Sweden, Nick Drummond was working in an elementary school teaching anger and conflict resolution skills. He had been asked to teach a set of social competencies that the school wanted all the students to be taught. The challenge however was not only to teach these skills in as few hours as possible, but to do it in a way where most if not all the children were actively interested and motivated in what they were learning as well as putting the skills into practice!

It was at this time that Nick had a pivotal discussion with Patrick Bryson.[2] Nick was fascinated by Patrick's description of a conversation he'd had with a group of children in London. He talked about a depth of interest in the discussion that he experienced as something they were all sharing and actively creating together as they were speaking. Patrick explained the challenge, "Often when children are not interested or become bored, they physically slump over and start fidgeting, playing with things or looking out the window. They basically get distracted in themselves." When Patrick described children transforming almost instantaneously in their ability to listen to one another, respond to one another and remain focused on the one subject, Nick realized that it was of a whole different order than any of the discussions he had ever experienced with his own students! Their ability to listen and care for each other seemed to go way beyond a set of skills. Patrick explained, "Their interest is awakened, and that makes it very interesting to go with them in that and explore it. When this happens they seem to touch on a depth of knowledge that you wouldn't expect to see in young children. You wouldn't normally expect them to change this much so quickly. And that's probably because we are not used to seeing such dynamic and positive vertical change in children and also because we know very little about the conditions necessary to facilitate and support vertical emergence."

We Can Choose to Express the Highest Part of Who We Are Right Now

> Imagine a child in your class saying "I'm never going to be able to do this!" "I can't!" Whenever you encourage them they reply, "But, but, but!" Imagine being able to help them untangle themselves from negative beliefs about what is possible. Imagine them saying "I will!"

In his work in the Swedish school system Nick was having discussions with different groups of students about the positive and negative choices they were making every day. This crystallized into what eventually became the staircase model "It's Your Choice!" (see figure 1).

It has become a practical way to bring in the moral dimension of free choice in a way that is very understandable with all age groups. The model points out that you – and no one else – are always responsible for the choices you make and that you can always choose between two fundamentally different responses to what you are experiencing. You either see yourself as having a choice to respond differently, or choose to see yourself as a victim of circumstances and unable to change your response. It does not say how challenging this choice can be or what you should do; only that it is possible. There will be times when things can seem effortless and other times when life circumstances and experiences will be very difficult and challenging. It presents us with an opportunity and a perspective that says the kind of person we are is not something predestined, but the result of choices that have moral implications and that no matter how easy or difficult it seems how we respond always lies in our own hands.

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[2] A Moral Dimension to Parenting and Teaching, An interview with Patrick Bryson. March 24, 2004. Retrieved January 2010,
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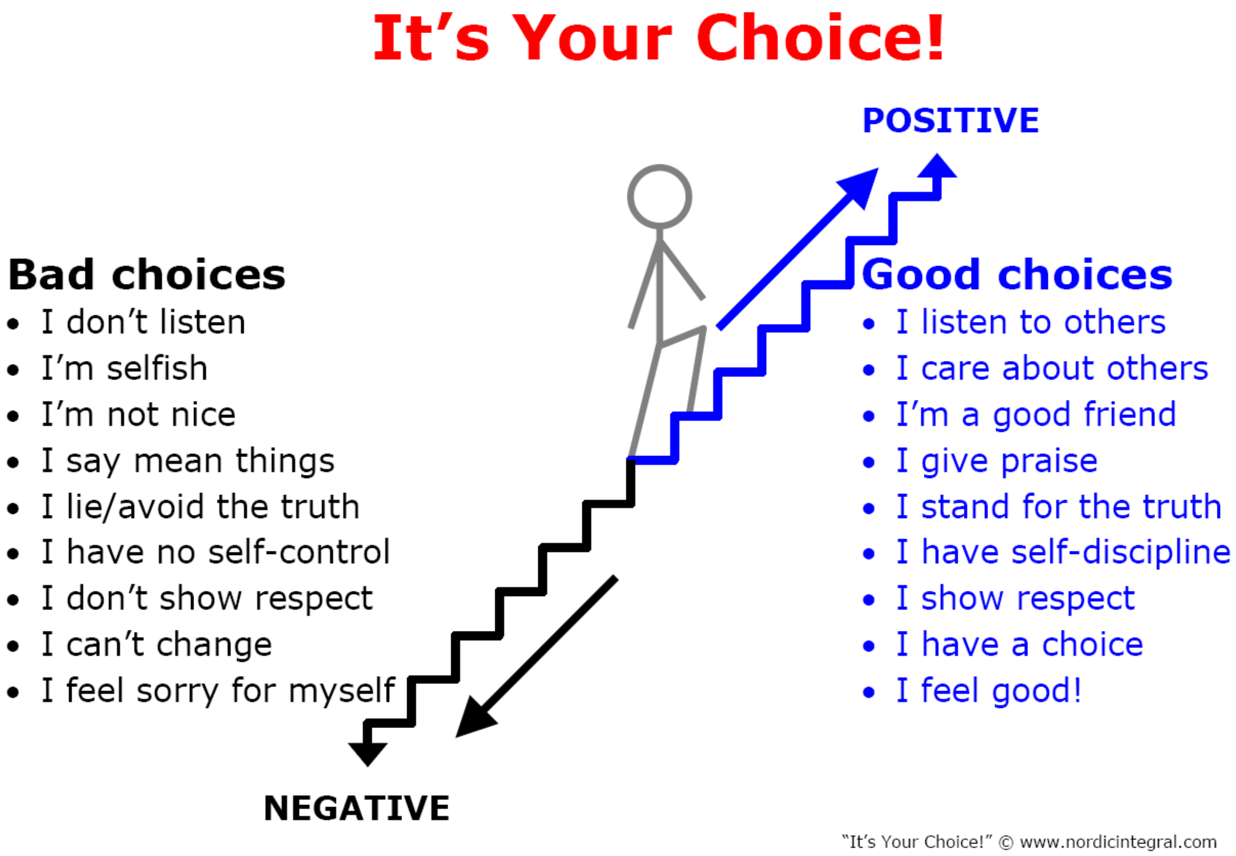
It's Your Choice!
POSITIVE
Bad choices
• I don't listen
• I'm selfish
• I'm not nice
• I say mean things
• I lie/avoid the truth
• I have no self-control
• I don't show respect
• I can't change
• I feel sorry for myself
Good choices
• I listen to others
• I care about others
• I'm a good friend
• I give praise
• I stand for the truth
• I have self-discipline
• I show respect
• I have a choice
• I feel good!
NEGATIVE
"It's Your Choice!" © www.nordicintegral.com

Figure 1. It's Your Choice! Developed by Drummond and Edin in 2004.

The model is not about changing what we have done or changing how we feel in order to make a positive choice right now. It's a choice to reframe our experience, to face what is, to take responsibility for our negative tendencies, to act differently in a way that will change the future in every moment. It means becoming aware of our inner position towards what is happening and expressing what we deeply care about right now. So because our actions are not predetermined or random, it's our job to align them with our deepest intention. "Which side of your self are you living from right now?" Do your actions match what you, and we, care about? To find out you only need to look at what you are doing right now. The information you need may be no more complicated than to observe how you are sitting, listening and participating and what you are putting your attention on. When we make positive choices we express a creative potential, and care about the future and for other people. From this position we can make decisions and take action that could lead to positive development for everyone. And if we are on the negative side we never need to wait longer than a second or prepare in any way before we can choose to express the positive side. It could be as simple as saying to yourself, "I will" or "I won't". The model helps children, adolescents and adults understand, through concrete experience, that everything is dependent on where we choose to put our attention, and that this choice results in immediate as well as long term consequences.

Nick first recognized this potential in a meeting with a group of twelve year old children. Everyone was seated in a circle except the girl to his right who sat with her back towards him. She played with her hair and cast glances to the others, wanting their attention. Nick stopped, turned to her, and asked which side she wanted to live her life on. Without hesitation she responded, “The positive side of course!” He asked her why. She looked at her fingernails, “Because I want my parents to be proud of me. I don’t want to grow up and hear people say I have bad parents.” He asked her what side she had been expressing up until a moment ago, and again without hesitation she pointed to the negative side. He asked her that if she really did love her family how she would behave if she was on the positive right now. To his amazement she faced the group and put her hands on her knees. At that moment the atmosphere and attention in the group shifted significantly.

The staircase illustrates a vertical perspective towards life. It points out that our choices and behaviors are not all equal. What we do actually does matter! Negative choices lead downwards to a position of less and less care. We see our choices, our behavior, and who we are as being separate. As kids see it, you’re basically digging yourself a very deep dark hole to be all alone and feel very unhappy. Positive choices lead to deeper and deeper levels of care, awareness and integration. When we see our self as the person on the staircase, we recognize our potential to choose which side of our self we want to identify with and express in the world in every moment. Of course we may not be conscious of that fact and that is why a model like this can help shine light on this aspect of our life and any unwillingness we may have to face it and learn more about it.

Where Are WE Right Now?

In October 2007, Joan first asked her class of eight year olds to answer a simple but powerful question: Where are you right now as learners in school? Using a developmental scale developed by Drummond and Edin[3] which had 5 levels ranging from very bad behavior (I use bad language; I am sent out of the room; I speak without listening) to very good behavior (I take responsibility for what I do and say; I contribute actively to a positive atmosphere in the classroom) she organized her students responses accordingly (see figure 2). Not surprisingly, 23/39 of the things they’d written down fell into the Level 1 and Level 2 categories. This matched Joan’s experience that her class was easily distracted, not able to take responsibility for themselves as learners, and unaware of much beyond their own personal needs and desires.

Level	How Good a Student am I Right Now? Rubric
5	* When the teacher asks me to do something, I do it the first time. * I take responsibility for what I do and say. * I participate actively in all subjects and activities throughout the day. * I put 100% effort into everything I do. * I contribute actively to a positive atmosphere in the classroom. * I think about how my behavior affects other people in the class.

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[3] Published in: “Ordning och reda i skolan – ett steg på vägen mot dynamisk harmoni i skolan”, 2006 Fortbildningsförlag Stockholm, (Order and Discipline in the School: One step on the Path to Dynamic Harmony in the Classroom).

4	* I make an effort to pay attention and do my schoolwork. * I understand how my behavior affects others and nearly always choose to make positive choices. * I behave and concentrate on my work. * I ask for help if I don't understand something so that I can complete my assignments on time. * I come to school prepared and ready to work. * I make an effort to get quiet when the teacher gives the signal.
3	* I can make good choices if the teacher or someone else reminds me. * Sometimes I think about how my behavior affects the class. * I don't get all my work done unless the teacher reminds or helps me. * I wait for the teacher to ask me if I need help with something I don't understand.
2	* I can't find books or materials at the beginning of the lesson so everyone has to wait for me. * I remember to bring in my homework, workbooks or library books from home on the day I need them. * I interrupt the lesson by calling out, humming out loud, or tapping the desk with a pencil. * I don't push or cut in front of anyone when I have to go to my mailbox. * I'm easily distracted (look out the window, get lost in personal thoughts, watch what others are doing). * I raise my hand if I have a question. * I sharpen my pencil before the lesson begins so I'm ready to do the work. * I take a long time to transition from one subject or area of the room to another. * I don't always remember to clean up after myself.
1	* I'm usually talking and not paying attention to the teacher. * I lay face down on top of my desk during a lesson. * I'm usually playing with things in my desk while the teacher is talking. * I often spill drinking containers on my desk or the floor and distract everyone while I clean up the mess. * I write on my desk top with pencils and markers or peel my nametag tape during a lesson. * I doodle on my paper during the lesson. * I holler out at the teacher or classmates during a lesson. * I call out silly jokes and disrupt the class. * I lean back so far in the chair that I almost fall backwards. * I fold paper into airplanes, fortune tellers, or cubes during a lesson. * I braid or play with my hair during a lesson. * I leave personal belongings on the floor where someone could trip over them. * I move my desk and it makes a lot of noise during a lesson. * I play with whiteboards, paper, or rulers instead of paying attention.

Figure 2. How Good a Student am I Right Now? Rubric. Developed by Berland in 2007.

Joan typed up the scale (adding some of her own ideas for Levels 3-5) then made copies for each child (which she minimized and taped to their desks), and gave one to each of their parents. She immediately started pointing out the behaviors as they presented themselves in the daily life of their classroom.

In the beginning, she would point out the times she saw children shaving erasers in their desks, folding paper airplanes during a lesson, writing on their desks, etcetera. The first few days were eye-opening for the children because they were truly not aware of the impact that their constant distractions had on the whole learning process.

It should be noted that Joan also pointed out the positive behaviors and role models as well. In less than a week, she was able to make eye contact with a child rather than stop speaking, hold up anywhere from one to five fingers and was instantly understood.

Now they were all ready to move on to something bigger and different. After one day of discussing positive and negative choices with the students, Nick and Joan sat down and wrote a new scale entitled “Where Are WE Right Now?” (see figure 3). It was at this point that the scale was renamed a “rubric” because that was the specific kind of developmental and grading scale that the students in Joan’s school were familiar with.

Level	**Where Are WE Right Now? Rubric**
5	**We care that the positive choices we make as individuals are strengthening the atmosphere in the class.** (At this level, a student is often thinking about what making positive choices means for not only themselves but the classroom atmosphere as well. As a result, energy emerges that attracts everyone at every level and has the ability to pull others up in their development. It is the place where role models and leaders begin to emerge.)
4	**I understand how my behavior affects others and nearly always choose to make positive choices.** (An individual is starting to take responsibility for the choices that they are making. There is a beginning awareness that they can have a positive effect on their ability to learn and participate in the classroom.)
3	**I can think about making positive choices if the teacher, a positive leader, or a peer role model reminds me**. (The individual child is still more strongly attached to their sense of self rather than something bigger, but is at least willing to consider making some changes if someone else takes responsibility for reminding them that they have choices.)
2	**I don’t really care about how my choices affect the whole class. I zigzag up and down between positive and negative choices throughout the day.** (The teacher constantly needs to redirect attention and behavior throughout the school day and the zigzagging reflects that learning is still not a priority. There is no meaning or purpose to their behavior other than they’ve always done it this way and are unaware of what they are doing and how it affects the class as a whole.)
1	**I make negative choices even though I know what positive choices are.** (The distractions outweigh the children’s ability to learn and the teacher’s ability to teach.)

Figure 3. Where Are WE Right Now? Rubric. Developed by Berland and Drummond in 2008.

This new rubric was written in about 20 minutes and they knew instantly that the words, levels, and expectation for what they wanted it to be were absolutely true and authentic. To this day, it has remained the backbone of what has happened and can happen when we consciously direct our awareness and willingness to develop.

In our work we have noticed that the quality of the atmosphere in the classroom – the quality of the relationships between the students and ourselves and everyone's willingness to develop – is not an accident. *The atmosphere is the sum of everyone's awareness and interest*. Knowledge about where we direct our attention is more important than our state of mind, our feelings or other people's behavior. As such we are always 100% responsible for how we are towards each other; we are always totally responsible for our behavior, and our choices. There is something radically simple and confronting about that as there is no room for excuses and there is no time off from being an integral part of what is already happening.

When children and teachers combine their ability to choose with the moral implications of their choices it directly affects the field of consciousness in a classroom. They can notice this instantaneously by looking at the effect their choices are having on the atmosphere in the classroom. The Where Are WE Right Now? Rubric reflects the continual development of values and ethical behavior within the classroom.

Vertical Development

When almost everyone in the class chooses to take responsibility for his or her own behavior and wants to express the best part of who they are, they can begin to express a care for vertical development. Vertical development occurs when the greater part of the class values caring about something that they previously did not care about and chooses to express that sense of caring. This creates an atmosphere of high expectations and developmental tension, where something higher – the best part in each of us that is continually reaching forward and wants to manifest – is pulling on something lower – the part of us that doesn't want to develop. When this occurs the class creates a cultural value that cares more about development – no matter what level they are at – than it cares about other things. In this atmosphere, we experience the potential for constant and positive development for all of us as always being possible and without endpoint. But more significantly, the result is that we as the teacher and the students are free to choose to change the quality of our relationship and the atmosphere in the classroom immediately!

When children and adults become aware of their own possibility for continual development and ability to choose between two completely different sides of themselves, they will choose to express that side that cares about maturity, development and the future. There seems to be a natural attraction towards it. They go from a set of cultural values that just cares about their own personal concerns ("I/me" level 1), to another set of values of wanting to make positive choices so that everyone can be stronger ("we" level 5). By choosing the "we", ones life can become an expression of meaning and purpose. When this happens, we see remarkable and immediate transformation - individually and collectively - in miraculous and forever astounding ways. We discovered that level 5 is not the goal but the foundation for higher levels of dynamic development and harmony. Helping a class experience and remain stable at level 5 can be very challenging, however once children experience level 5 they invariably want to reach and create higher levels.

> *Imagine finding a note on your desk that read: "Thank you for teaching me. I'm having a great year. I do apologize for any time I made the wrong choice. Thank you for introducing the rubric to me. Your trustworthy student, Tolla"*

Am I developing? What am I doing to further my development? Is my behavior aligned with my deepest intention? Am I facing and not avoiding what I need to face in order to develop? Our intention should be evidenced in terms of actions. The way to do this is to look back over the last day, week, month, term, semester, year, 5 years, and 10 years. This is not about our subjective experience of feeling we are developing, but rather objective observable evidence from the eyes of other people who can see objectively.

Personal Rubrics

In our work, we find that writing personal rubrics are a way for us – students and teachers alike – to become aware of our impulses, beliefs, sense of self and view on the world so that we can choose to respond in a more mature way. They're a practical way for us to make visible an area of our personality that we are not necessarily aware of, or want to see, but which we want to develop because of the negative effect it is having. Rubrics help give us an objective perspective on our behavior and strongly held limiting beliefs. They offer a way to step outside of them by structuring what needs to change. For a child this may mean writing a rubric for how to make friends, how to line up, how to keep one's desk clean, how to study for a test, how to do homework and how to listen. It's unrealistic and even unnecessary to stop someone from thinking or saying "I won't", or "I'll never be able to…" However by using a rubric we can make our limiting beliefs about something observable whenever such a response arises. It introduces another possibility in the form of a choice in every moment to not become one with our limiting beliefs even when these are present. It is a concrete way to help move from a position of "I can't" to "I will".

After we introduced the Where Are WE Right Now? Rubric something unexpected happened. Joan's students started to take home the rubrics to share with their parents as well as spontaneously becoming interested in writing their own rubrics. The first student to do so wrote a rubric for the exercise Sitting Still (described below) and also began teaching her 5 year old brother how to do it! One student even told her mother, "You're at a 1 and you need to sit still for awhile!"

The following year one of the students in Joan's class who was very attracted to the work from day one sat down during snack time and wrote her own rubric about making friends (see figure 4). After she shared it with the class, other children were inspired to write their own rubrics. By the end of the week, the class had 20 rubrics that ranged from how to line up, to keeping one's desk clean. There were rubrics for handwriting, pet care, getting ready to Sit Still, sportsmanship, being a good helper, and studying for a test.

Level	Making Friends Rubric
5	I have a lot of friends and we play altogether.
4	I have a lot of friends and I take turns playing with them.
3	I will meet someone new if they ask me to play with them.
2	I am friendly with more then one person, but I never play with them.
1	I play with only one person, and I don’t like meeting new people.

Figure 4. An individual rubric for making friends. Developed by a student in 2009.

The students could write a rubric about something that they are having difficulty with and care about being better or they might write a rubric because they are attracted to a level 5 or higher. By writing the rubric they can figure out how to get there. It becomes a way for them to bring a structure to what is not seen and what is happening, open up for other choices and allow for a different form of discussion. The rubric becomes a way to clarify a goal and write the strategic steps necessary to reach it. It enables individuals to more objectively judge, measure, and compare the quality of their behavior and level of their care, strength, conviction and authenticity right now, and take appropriate action. For example, as in the above rubric, if you come in after each break saying that you played with only one person and didn’t meet any new people, it is clear that you are not aligning your behavior with your higher intention of wanting to make new friends. By aligning our choices with our highest level – right now – we express authenticity and become authentic individuals. We make very different choices and become very different people. You will hear it, see it and feel it.

Creating Space for Development by Sitting Still

Sitting Still is an exercise we use for helping students focus their attention on stillness. When we practice Sitting Still we are practicing our ability to choose a position towards life – a position that creates space for consciousness to grow. No matter what happens, we are choosing to remain still, not make a problem of anything, and remain fully awake to what happens without engaging in any of it.

We introduce and work with this exercise in various ways depending on the group, but we always keep the instructions simple: sit still, be relaxed and pay attention. This exercise goes beyond giving children theoretical knowledge about something; it gives them a positive experience of not knowing and the experience of continually wanting to know more. What does stillness mean? What does being relaxed mean? What does paying attention mean?

We often hear children telling us about how Sitting Still is benefiting them and the class in some profound way. A common experience is one of having difficulty concentrating and feeling distracted not only by other people, but by different voices in our mind. One eight year old said that whenever you experience a monster in your head telling you what to do, "Just drop it! If you can do that when you're sitting still, you'll be able to do it at other times during the day as well." One child even asked if he could be President of the United States one day if he got really good at sitting still!

When verbalizing their experience of sitting still over a prolonged period, many children have expressed that they feel like they are in a "zone". From this place they give less and less attention to their thoughts, are often unaware of their body in real time, and feel like they are creating an energy of oneness in the classroom. This is described on the following rubric generated from the students themselves (see figure 5).

Level	Sitting Still Rubric
10	We generate our own energy.
9	You are holding a Level 5 or higher.
8	You get in the zone.
7	You are not aware of what you're thinking about.
6	Drop everything.
5	Complete Stillness.
4	I am able to sit still for most of the time.
3	I can sit still if someone reminds me.
2	I zigzag between fidgeting and being still.
1	I fidget and move around the whole time.

Figure 5. Sitting Still Rubric. Levels 1-5 were developed by Sugden in 2008 and levels 6-10 by Berland in 2009.

After Sitting Still, we often talk about our experience and the discussions are filled with an aliveness and newness. As one student said, "You create something from nothing!" When sitting still together and talking about it, it's possible for children to collectively experience and cognize a deeper dimension of who they are in a way that connects everybody in the classroom almost instantaneously. As one nine year old said recently, "When we do it individually it's powerful. When we do it together it's unstoppable!"

Talking Without Raising Hands

> *Imagine a colleague visiting your class and experiencing a conversation with a group of children where no one raises a hand and no one interrupts?: "How do you get them to do this? How do you get them to listen to each other and stop them from all talking at once? I've never seen so many kids behave this way before? How did you get everyone to participate?"*

Have you ever noticed that it's very difficult for children, and even adults to deeply listen to each other in a way where they are more interested in what the other person is saying than in their own thoughts?

It's important that children not only have direct experiences of what it's like to be at level 5, but also the recognition of what it means to operate together from a 5 or higher. "Talking Without Raising Hands" is an exercise that is used in conjunction with the other three tools we described to catalyze and give them a taste of that experience, of being in and actively caring about creating a creative space where new possibilities are seen to emerge individually and collectively. The exercise involves seating the group so that everyone can see each other, being as still as possible, looking at the person who is speaking, following the thread of what is being talked about, and participating without raising your hand.

Intrinsic to this kind of discussion is a deepening exploration and recognition of the different values that influence our choices and patterns of behavior. Though there are many values at play in a classroom and this topic is open for much study, the ones that we often begin with are respect, listening, stillness, responsibility, interest, awareness and care. Discussing these values in the way we describe here has the effect of potentially heightening and strengthening everyone's level of *integral* awareness, where the interior and the exterior dimension of the classroom environment, as well as the individual and the group all come together in one exercise. In order for this to occur, the children have to know what vertical development is about. This can happen if the teacher points out to the children when development is happening, or when we hear someone speaking in a more authentic way. Pointing out changes in how people are listening, showing care, following on from each other or creating space for others to participate is necessary in order to reach a level 5. However something significant happens when children themselves notice when development is occurring – the way they communicate with each other starts to change in a radical way and they are aware of not only their own actions in making this happen, but the significance of what it means.

> *We were talking about different social groups in our class and that someone can be in several. Then Nick said that Adam brought up a really good point when Adam said that a social group can affect your choices in both good and bad ways. Nobody really got it and we started talking about other things. Then Emma said, "It's not that what everyone else said is bad, but what Adam said lifted the discussion to a higher level."*

What if there was just one conversation and everyone built on what was said before and where original thoughts were being expressed like fireworks? A conversation where everyone's awareness was more on caring about what was happening in the group than on themselves, where everyone was participating and listening and following on from each other and no one wanted it to end, where you felt completely energized afterwards, and learnt something valuable and meaningful. Where the space we were creating that enabled these new possibilities was more significant than the topic of discussion. What if this wasn't a one off discussion, but a regular feature in a weekly program?

We are finding that when children experience this kind of discussion there emerges a heightened awareness between them and a tangible sense of being part of and caring for what is happening. This is in stark contrast to them feeling left out or even separate from everyone else in the class in some “special” way. The children can and do experience a tangible connection between where they are choosing to put their attention, what is happening in the room, and what is being created between them.

> *Sami noticed that the girl sitting next to her was crying. She waited for a chance to join the conversation and said, "Graycee is upset because she thinks she’s never been at a level 5 in her life. I said that if she’d never been at a 5 she wouldn’t be willing to do all of this work." Joan seized an opportunity not only to help Graycee feel better about where she was at as she developed, but to point out how Sami was being a role model and leader. The conversation continued for days which eventually allowed all the children to identify what qualities they possessed that reflected leadership potential and what qualities they wanted to grow into.*

What emerges is a whole lot of care and respect, a space that is utterly positive, and as one twelve year old student expressed, “All my problems just went”. In this space they are paying attention to the person who is speaking and are caring about what is being said. You may begin to experience having people speak who normally never speak and everybody in the group listening and valuing what they are saying. Likewise, other people begin to drop their persona of being the “clown” or someone who talks and never gives room to others, or acknowledges the significance of what is happening. That which comes out of the discussions, and the potential for development that individuals express, often flows into and affects the rest of the day and week. In this way a bunch of children become a dynamic community who support everyone’s vertical development. The thrilling part is that even if a group is experiencing difficulty in having a discussion at this level, once the models are being discussed a vertical dimension has been introduced; there is a shared expectation that something better is possible.

> *While sitting together during morning meeting, a boy in Joan’s class asked what a level 8 would be on the Where Are WE Now? Rubric. She replied, “I don’t know, it doesn’t exist until you create it. What do you think it should be?” Joan looked around the room and noticed that the entire class was on the edge of their seats, leaning into what was about to happen. Because other moments like this had occurred when levels 6 and 7 emerged (see figure 6), there was a visceral response and expectation that something new and powerful was about to happen and that everyone in that room at that moment was a part of it.*

The feeling in the classroom is often experienced as a dynamic atmosphere or field of energy between us that takes form as an excited desire to develop that everyone in the class is affected by. The quality of this vibrant atmosphere shared between us is not a chance accident, it is affected and brought into life every moment by what the teacher and students choose to focus on, say and do. In fact the more we as teachers start to see it this way then the more we realize that everything we do is always having an affect on the atmosphere in the class. Is it expressing this vibrancy or not? And even if the vibrancy is absent, where do we have our attention? There is something incredibly positive in realizing that there is no time off from consciousness and that everything we do is important. When we as teachers start to see life this way, then children can lift themselves to unforeseen heights through directed attention, clear guidelines and expectations about vertical development being possible. They have confidence in life, in being able to reach higher, in clear developmental goals to strive after, because we do. When we reach higher so do they, and when they reach higher so do we. Our development and the development of the children become inseparable. Imagine what it means to be teaching and learning from this place?

When children share this absolutely positive vibrant experience to develop, they inevitably want to know what it would be like to be at a 10, 20, 50 or even higher. This vertical impulse results in continual development of the Where Are We Right Now? Rubric. How these levels will look over time will be exciting to find out. What's certain is that levels 6 to 10 (see figure 6) have already emerged as a direct result of the children's experience of consciousness and will continue to so as long as we continue to do this work.

Level	**Where Are We Right Now? Rubric**
10	More than anything else we want to create an optimistic energy that is so strong it can positively influence people in the world. We want to do it because we care about making the world a better place.
9	If we want to make a positive contribution to the world, the important source of energy is TEAMWORK.
8	We choose to hold a level 5 or higher so that we can be role models and leaders in school, in our families with friends, and in the community.
7	You take the 5 atmosphere beyond the school and out into the community and share it with family and friends.
6	Everybody cares about creating and holding the atmosphere because we want it to attract the whole school.

Figure 6. Where Are WE Right Now? (Levels 6 to 10). Developed by Berland in 2009.

The Mystery Behind Human Transformation

> *After five weeks, a nine year old boy who had been one of the most disruptive in Nick's class said, "If this staircase leads up, then where does it end?"*

We have created a structure in the form of a program for describing how to create dynamic development and harmony in a classroom, but there is still something mysterious and unpredictable about human transformation. There's a part of this process that is always completely unpredictable. You will meet children who will hang out on the negative side for what will seem like eternity and have you pulling your hair out, questioning your own trust in the entire developmental process. A boy in Joan's class was unembarrassed to announce to the class, "I don't need to make positive choices now. I can do that when I'm in heaven because there's nothing else to do there and I'll have lots of free time." Then suddenly something happens – maybe a simple conversation – that brings about a 180 degree wind shift. On the way out to the buses one day, Joan mentioned to the above child that she was going to be talking with some teachers around the world about the rubrics in their class. "The world" he said, "I thought it was just in the United States." "Does that make a difference?" Joan asked. "Oh yes," he replied, "If it's the world, I'm in!" Then he disappeared into the bus. You could call it the x-factor. We wish we knew what it was; what is it that causes someone to suddenly choose to align themselves with a deeper realization? We don't know. There is something about vertical development that is mysterious and unpredictable. That is what makes the experience of working with the development of consciousness very thrilling and very challenging. This is why it is invaluable to have a community that can support you and your own development.

Reaching Towards a New Potential in Childhood Education

We live at an incredible moment in the history of human development. Cultures with world centric values offer children an opportunity to become global citizens, with skills and knowledge to take full advantage of the benefits, opportunities and choices that a borderless world has to offer. While this is an unprecedented achievement, we also have to begin teaching children what it truly means to see and directly experience themselves as an integral part of an evolutionary perspective that is alive and unfolding in every moment. By valuing vertical development ourselves, we inevitably teach children that their lives can be lived with meaning and purpose as part of the process. It too deserves a place of importance alongside the opportunity to learn the three R's: reading, 'riting, and 'rithmetic. If the sum of a person is *more than* all of its parts, then developing consciousness is truly the missing integral link in our education system.

Acknowledgements

We want to thank Andrew Cohen for being a role model as a teacher and for continually inspiring us to push the limits of ourselves and what's possible.

A Perspective on Kesler's Integral Polarity Practice

Tom Murray[1] with Terri O'Fallon[2]

On the journey of many places, many voices
A moment of recognition
Opposites experienced are not
Still point of breath
A flower opens
A cloud drifts to reveal the sun
A drop falls, merging with the pool
Witnessing that small opening of stillness
Then looking into, into, into------entering;
The place of all stillness
Then from all stillness something looks
Back upon and as the witness.

On a sunny spring day in 2010 in the upstairs studio of the Center for New Knowledge in Northampton, Massachusetts, twenty of us were taken on a journey to glimpse rarely experienced lands of paradox and polarity, fullness and freedom. The territory had been mapped out by John Kesler, who was guiding us through voice dialog activities as part of an introductory workshop for his Integral Polarity Practice (IPP). I later wrote the above poem reflecting on my experience. I am always moved to be in the presence of a group that comes together with an intention of going deeply within. IPP (like some Bohmian dialogs I have attended) set up a vibrant collective field on that day, at least to my experience, and the sense of the 'we" was thick, deep, wide, and buzzing.

John began by using the breath as an experiential metaphor for bodily connecting us to that place between the poles of expansion and contraction; a still-point of perfect relaxation that is available within every breath. Something wonderful occurs in the mind/body when the poles of a polarity are seen and experienced to inter-contain each other as manifestations of a single prior essence. From this foundation John lead the group through a sequence of contemplative reflections on polarities that broadened to include transcendent clarity and sublime confusion; transcendent sorrow and impersonal joy. The room was alive with these energies, which were not brought to or created for us, but discovered by us, thanks to John's gentle yet passionate guidance. A few tears of rapture were seen to run down cheeks and we parted with smiles and hugs, and carried home whatever stays with one from glimpses of the sublime.

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[2] **Terri O'Fallon** is a Principal at Pacific Integral (www.pacificintegral.com). Terri provided important feedback and suggestions for this article, and offered the poem at the end. Terri has been working with Kesler and IPP for five years. As, mentioned in the article, Tom is relatively new to IPP.

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I met John Kesler less than a year ago when I had the opportunity to attend two of his Integral Polarity Practice workshops, one sponsored by the Seattle Integral community and one at Next Step Integral's Integral Education Seminar. John is one of the few people certified by Genpo Roshi to facilitate large groups in the Big Mind process, which is familiar to many in the integral community. His IPP broadens Big Mind voice dialog work to include aspects of Cook-Greuter's developmental sequence of action logics and polarity frameworks from Tantric and esoteric Mormon traditions.

I was struck by the elegance and depth of Kesler's IPP "awareness and meditation practice" and became an immediate fan. I've been fortunate to have had the opportunity to dialog and work with John in several individual and small group phone sessions over the last year, and I helped to organize John coming to Massachusetts (he lives in Utah) to lead a series of introductory workshops in April. Though I am very much a beginner in IPP, I would like to take this opportunity to introduce readers to it from my own perspective. As I feel rather insufficient to the task of explaining this profound body of work, I will say a bit about "why me?"

Like others attracted to the integral community, I have deep interests in contemplative awareness practices and theories of human development and the evolution of consciousness. In addition, through my interest in epistemology and the psychology of knowing, I am fascinated by polarities (and paradoxes). When I saw that John's work combined all of these I was hooked. John impresses me as a deeply humble person whose life is filled with many types of service and community-based work (it seem as though in every conversation I have with him I find out about yet another branch of his volunteer service work or professional community work that astounds me).[3] IPP, its teaching, development, and dissemination, is one of many projects that John juggles. Thus, due to time constraints and having a personality that is not oriented toward self-promotion, John's work remains more obscure than its quality and depth merit, in my opinion. I express my excitement for the work and my gratitude to John for the development of IPP by sharing what I know of it below. More information is on John's web site at www.johnkesler.com.

I will start by describing elements of Big Mind that are present in IPP. John is one of the very few people to have been certified by Genpo Roshi to lead the Big Mind process in groups outside of Zen monestary settings (Dianne Hamilton and John were the first to be so certified). Genpo Roshi developed Big Mind by combining elements of traditional Zen practice with insights from Jungian psychotherapy, in particular the Voice Dialog process developed by Hal and Sidra Stone.[4] In voice dialog the facilitator helps the individual or group engage with inner archetypal voices or sub-personalities, such as the protector, fixer, rebel, nurturer, or vulnerable child. Genpo modified voice dialog methods to use them with large groups and to address aspects of the ego that typically resist deep contemplation, reflection, and ego transcendence. For example, the inner Controller or Skeptic can be addressed, appreciated for its role and value to the Self, and asked if it would be willing to relinquish some control and trust the (workshop) process.

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[3] John's primary profession is as an attorney. Among other projects, he works with educational, civic, and health care institutions and systems locally in Salt Lake City, and also internationally. His is an ordained Mormon Bishop, and finds inspiration in the esoteric and contemplative aspects of Mormonism and other spiritual orientations, including Buddhism and Tantra.

[4] For more about the Stone's Voice Dialog, see www.delos-inc.com. For more about Big Mind see www.bigmind.org.

In Big Mind and IPP workshops the facilitator moves through a sequence of such "voices," beginning each by saying that we will now speak to or invite the voice of, for example, The Skeptic, and then asking the group "Who am I speaking to?" Participants answer (more or less in unison) "The Skeptic" or "the voice of the Skeptic."[5] The facilitator continues by prompting individuals in the group to publicly reflect on this aspect of the self with questions like: "What is the role [or function] of the Skeptic in your life?" "Does the Self listen to [or appreciate or honor] the Skeptic?" "How much do you [the voice of the Skeptic] communicate with [understand, relate to] the voice of Submission [or Trust, or some other archetype]?"[6] In a session I might report that the Skeptic seems to be in the way of my (the Self's) goals. Another might notice that the Skeptic plays a crucial role in the Self avoiding errors of naïveté. In that moment—aha!—my own understanding of the role of the Skeptic expands into new insights about it and myself. As each person adds their perspective on a Voice, the full breadth and depth and complexity of the role of that Voice comes alive in the room and its presence deepens palpably as if it was something invoked there in our midst and speaking collectively through us (I say "as if" to be post-metaphysically agnostic as to whether such is actually happening[7]).

The process facilitates a deep exploration into both the impersonal and collective nature of human aspects such as Desire, Agency, Leadership, Peace, and Curiosity (these are taken from the IPP method), but also facilitates the inner exploration of one's relationship to these elements, as they live as strengths, weaknesses, shadows, gifts, and unrealized potentials within. In addition it can efficiently create an expansive sense of "group mind/consciousness" that, in addition to accelerating the process, contradicts the isolated individualistic nature of many spiritual practices. The practice is an excellent example of a "liberating structure." Kesler offers guidance based in his own realization attainments, but primarily the practice sets up a structure that allows each individual to voice their own wisdom and insight, and expand into and through the group's collective wisdom and insight. It supports participants in identifying their unique gifts, challenges, and shadows (including what Kegan & Lahey would call "immunities to change"). It strikes a pitch-perfect integral harmony between the modernist innovations of democratic, autonomous, individualistic, and pluralistic forms of meaning-generation and growth, and the more traditional hierarchical forms of meaning-generation and growth (wisdom and guidance from sages, gurus, priests, and other honored teachers) that are seen in the wisdom traditions, offering benefits that post-modernity has made it difficult to integrate (this balance or harmony is as much from Kesler's deeply humble style as the IPP practice). (See the article in submission to JITP by Zachary Stein titled "On Spiritual Teachers and Teachings" for further explorations of the theme of the "dynamics of authority in educational contexts where teachers and students engage with religious or spiritual subject matter.")

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[5] Kesler frames voices in terms of impersonal or transcendent "functions and energies" as opposed to sub-identities of the self. For example, he will ask to speak to "The [voice of] Control" rather than "the Controller." This further helps the participant dis-identify with sub-personalities as inflexible and non-integrated (and immature) aspects of the Self.

[6] The group process can seem a bit artificial to the—well, to the Skeptic—but if one can suspend judgment and open one's trust and imagination the process can be quite revealing and energizing.

[7] My goal is to describe the surface features of these processes, and not to express claims about, or imply anything about how Kesler or Genpo Roshi describe, the deeper processes and realities that the practices work with. Also, the example of voices and activities given here are meant to give the reader a general feeling for the work, and are not meant to represent the exact sequencing, voices, or instructions given by any of the leaders mentioned. Leading a Big Mind or IPP session involves non-formulaic on-the-spot decision making that requires deep expertise.

Genpo discovered that through the Big Mind process, a skillfully facilitated sequencing of voices, participants can experience a taste of transcendent states such as Big Mind, Big Heart, True Self, and Great Joy, that took much longer to access with traditional contemplative practices (and in particular traditional Zen practices).[8] Whereas voice dialog was typically used to access the sorts of early childhood and primitive archetypal aspects of the self that psychotherapists treat as shadow elements needing to be healed or integrated, Big Mind includes giving voice to transcendent and evolutionary potentials that we can grow and evolve *into* (as opposed to out of or beyond), and facilitating access to transcendent ("non-dual") states. Genpo's key insight was that, because of the more developed and prominent role of the ego in the Western vs. Eastern mind, in leading the Western mind down the spiritual path to awakening it is better to engage the ego and its core elements directly, to work with ego rather than ignoring, suppressing, or forcefully eliminating its presence. (For more on Big Mind see www.bigmind.org and the Wikipedia entry on it.)

John Kesler's Integral Polarity Practice adds innovations to the Big Mind process that make it more "integrally informed."[9] First, he developed a sequence of voices (or energies/consciousnesses) that follow the ego developmental structures fleshed out by Lovinger and Cook-Greuter (it also has easy correlations with Beck and Cohen's Spiral Dynamics and other developmental models mentioned in Wilber's work). Whereas psychotherapeutic voice dialog aimed to integrate or heal shadow elements, and Big Mind uses a sequence of voices with the primary goal of opening up to transcendent states, each "rung" in the sequence of elements of IPP represents an aspect of human development that can be explored, deepened, and integrated, and yet also leads to higher states and stages of human development.

The second innovation of IPP concerns polarities. At each developmental level, one works not with a single essence but with a set of polarities, such as expansion/contraction, desire/aversion, leading/following, achieving/digressing, or meaning/paradox. These polarities, in order of increasing development, are five (not all adjacent) representatives of the 12 levels within John's "evolutionary" (or ascending) sequence. The evolutionary sequence includes two IPP levels for each of Cook-Greuter's six higher action logic stages. In working with polarities one explores the pole's two extremes, one's relationship to each pole, the interaction and energetic connection between the poles, the "still-point" that represents the resolution or integration of the poles, and the dynamic holistic system transcending and including all these elements. Due to the richness of the system, in an hour session one might only explore two or three of the 12 levels. Importantly, the experience of the still-point or integrated manifestation of each polarity can be a portal into non-dual or transcendent states or levels. Thus, though it may take many sessions to work with and through all 12 of the evolutionary IPP levels, in each session Kesler leads participants through what he and Wilber's integral theory call gross, subtle, casual, and non-dual elements.

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[8] Note that the practice is said to support getting a *taste* of such experiences with unusual efficiency, but does not purport to lead directly to the more stable states and stages that prolonged contemplative practice can yield.

[9] Kesler does not see his system as in any way competing with Genpo Roshi's Big Mind work. It is a related practice with overlapping but non-identical goals and methods. Kesler was one of the founding members of the Integral Spiritual Center.

IPP also has an "involutionary" (or descending) sequence that starts with Big Mind and explores how the ground of being (Big Mind) works its way into causal, subtle, and gross levels of experience and reality. The theme of gross/subtle/causal(/witness)/non-dual repeats itself fractal-like at multiple levels and in multiple directions within IPP.[10] For example, the entire system of levels is divided into gross (physical), subtle (relational), and causal/non-dual (involutionary) segments; within each of these three segments is a gross/subtle/causal progression of levels; and within each level one explores gross, subtle, causal, witness, and non-dual states that emerge from (or exist prior to) the polarity. I quote here from Kesler's web site:

> …distinctive in this practice is the discovery of the same five themes which pervade every aspect and dimension of life experience. The five themes are physical / gross, relational / subtle, aware / causal, the ground out of which the three themes emerge, and their integrated expression. Through IPP life become an aesthetic experience of the integration, interpenetration and flow of the themes…[IPP] engages the person on multiple levels, triggering differentiation through more discriminating awareness and moving toward integration and transformation, with the impact over time of increasing awareness and capacity in multiple dimensions.

The entire system, though elegant and fascinating, is complex and intricate, especially as compared with the Big Mind system, which one can have a fairly full experience of in a single workshop (full in terms of seeing all of its components; while of course layer upon layer of depth awaits the sustained practitioner of any contemplative practice). In contrast, in a day-long workshop with Kesler one taste's just the tip of the iceberg. Each level contains not only a developmentally-anchored polarity and two still-points, but a "doing virtue," a "becoming (or being) virtue," and set of pathologies (like "hindrances").[11] For example, the Seeking level (level 2) has poles Desire (with its pathology Addiction) and Aversion (with its pathology Repulsion); a positive or fullness still-point of Satisfaction; a negative or emptiness still-point of No Seeking; a becoming virtue of Gratitude; a doing virtue of Generosity; and a "gift" of Sacred Motivation.[12]

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[10] The terms subtle, causal, and non-dual have a range of meanings both within and outside the integral community. My own experience with IPP and other contemplative practices has given me a taste of what these terms could be pointing towards, but my understanding and experience of them is evolving and not stable. In this article I am simply reporting using the terms as used by Kesler (and, I would say, used too casually in the integral community) and will bypass questions of what the terms might actually point to.

[11] The system seems to have some interesting similarities to traditional systems such as the Kabala, the Buddhist system of virtues and hindrances, the Vedic chakra system, etc. (which, as others have shown, in themselves have fascinating correspondences). This is no doubt due to John's integrating a familiarity of the mystical aspects of a number of traditions.

[12] Kesler has been refining IPP for about 10 years, but considers the entire system still under development. He distributes copyrighted handouts at his workshop, but has not published the entire system in the public domain yet. This is one reason I have not given a chart of the entire system. One can imagine that, in addition to its evolving nature, Kesler has kept the material out of the public domain to minimize the likelihood that people would try to use or teach it without the requisite level of skill and legitimacy.

IPP is distinctive in the way that it integrates a systematic exploration of state experiences within a developmental/evolutionary model; and does so in a way that gives life to both interior and collective forms of wisdom; and with an awareness of the role of shadow in personal transformation. Contained within its many aspects (polarities, virtues, still-points, etc.; through many involutionary and evolutionary levels) it covers territory pointed to by many psychological, archetypal, and spiritual typologies. Its range extends from the earliest to the latest stages and the full range of gross subtle causal, non-dual states (upper left quadrant), energies (Wilber's upper right quadrant), collective responses and meaning making (lower left quadrant) with a voice dialog structure (lower right). Thus it is unique in how it fully embodies Wilber's AQAL meta-model, with its quadrants, states, stages, lines, and types, and works across the elements of the Wilber-Combs Lattice (a "cross product" of the states and stages of the AQAL model). It does so in a way that shows the interpenetration of all of these aspects, and is thus an ideal practice for the study and expansion of the AQAL model at it is and could be.[13]

This essay has focused on IPP as a lead process activity that can engender certain states and experiences that, over time, are intended to lead to horizontal and vertical growth along several developmental lines (including what might be called ego development, construct aware cognitive development, emotional/social development, and spiritual development). But, for Kesler and for many practitioners of IPP, these experiences are a support mechanism for a holistic life *practice* and *action* orientation. Kesler has written much about (and initiated numerous projects in) integral approaches to civic engagement and service work. IPP, as a sustained practice within an informal sangha of practitioners, orients ones values, visions, and actions, substantial and mundane, toward the highest Kosmic and ethical resonance that one can source within oneself; sensing into what Kesler calls "the ever present sacred ecstasy and ordinariness of life."

The steel web of mind's hypnosis
Wears thin and Tears-from
Divine's "I's" dissolve into
One
Showering its essence
Into Forms--each paradox and
Soul, each finger and sound
Distinctions with no division
Frogs with no plops
by Terri O'Fallon

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[13] For example, there is still much to be figured out about the relationship of states to stages, and the relationship of types to states and stages in the context of lived experience; also articles by Bonnie Roy on her Process Theory draw on experiences that interpenetrate the quadrants, zones, and lines of AQAL. As clearly stated in Wilber's Three Strands argument and his integral post-metaphysics, these issues can not be worked out though intellectualization alone—we must dive into and dialog about experiences.

Bringing Integral to Management Consulting: An Interview with Rick Strycker

Jonathan Reams

I came in contact with Rick Strycker around 2001 through a list serve on integral organizational development and leadership. Rick had recently begun working at JMJ (www.jmj.com) and was also trying to finish his academic work. We had a number of interesting phone conversations that gave me an insight into the challenges of bring an integral perspective into organizational life. Recently we got together to discuss Rick's background and work.

JR: Can you give me a little bit about your background?

RS: I have been at JMJ for the last 10 years. JMJ is a management consulting company and I am their Director of Development. That's been my job since I arrived here and the role is basically to ensure that our consulting practice is current and market-oriented, that we are designing and delivering work that makes a difference for clients. That scope includes both practice development and consultant development. It also has a strong element of Marketing Communication to it. I have a team that helps me fulfill those various accountabilities.

JR: What was your background before JMJ?

RS: I often talk about having 2 careers before JMJ. Just before JMJ I was a graduate student and doing several part-time consulting jobs. I had gone back to school in my mid thirties to do a PhD program in philosophy. I got about half way through and switched over to organizational psychology and ended up doing a hybrid program, putting together organizational change with critical theory and postmodern thought. I was in Claremont, California going to school, doing research, and cobbling together work projects related to my academic pursuits. I did some work for McKinsey on a research program that they were doing on the perceived shortage of good management talent. I did some research for Csíkszentmihályi, who had come to Claremont, that later became a book that he wrote on Good Work. I did some work for the Motorola University in the leadership college. I did that for about six or seven years, as well as working at the university for a think tank. I was doing this while supporting a family, so as you can imagine, I was pretty stretched.

Prior to that I was a small business owner in Portland, Oregon and I had a graphic design studio and I specialized mostly in high quality color printing and publishing, and was involved in the first wave of desktop publishing, and publishing to the internet. I did that for about ten years, from the time I was 23 until 33. Then I went back to school and did an academic track, thinking I was going to become a college professor. Before too long, I realized that academia moved way too slow for my appetite, then found my way into consulting which was my way to integrate my intellectual curiosity with my need to get stuff done.

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JR: *When in that did you come across integral thinking and theory?*

RS: In graduate school. It must have been around ’96. I was in a transition period between my philosophy program and my organizational psychology program. In philosophy my interests were already very multidisciplinary. I was interested in ancient philosophy, especially Greek thought. That led to an exploration in depth psychology, eastern and western mysticism, and esotericism. Suddenly, I got very interested in post modern thought, critical theory, feminist, queer theory, and so on. I was just kind of hopping around but then did some focused study in Whitehead, Wittgenstein and Heidegger. I wasn’t exactly what they were looking for in a model student.

JR: *So in a way you were already kind of integral/transdisciplinary.*

RS: Yes, I was looking for that but I couldn’t find any support for that in academia so I kept hopping into a group or into a department and what they wanted me to do was go deep into one thing, like you could be a Wittgenstein scholar or you could be a Heidegger scholar or you could go down into the roots of depth psychology (mainly to critique it), but don’t mix them up. That was getting really frustrating to me because the departments really didn’t talk to each other. They only spoke within their own discipline so the Kant scholars talked to Kant scholars, they don’t talk to the Existentialists and they don’t talk to the psychologists and they especially don’t talk to the business people. It’s just the way academia is set up.

So I was really getting frustrated and was walking through a book store and saw one of Wilber’s books. It was *A Brief History of Everything.* It had just been published and I opened it up to the middle and I read a page and I thought “oh, my God this is somebody who’s writing about the kind of things I am interested in,” and just bought the book on sight, digested it and got so excited about what Wilber was doing. I loved his sense of humor for one thing because that was something I just didn’t get any of in the world that I was in at the time. So I decided that I was going to change my thesis to something on integral, I didn’t care what it was. So I contacted the only person I knew that was in California that would be connected to integral which was Roger Walsh. So I wrote a letter to Roger and he emailed me back within a few days and he said you need to get connected with Ken. He sent my information over to Ken and we started an email relationship within a couple of days. He and Ken and Don Beck had just recently met and I got into a kind of a three way email dialogue with those 2 guys and within, this must have been 98’ 99’ something like that, near that time Wilber decided to form the Integral Institute. He had just recently gotten a big grant, or at least the promise of a big grant and at the time he thought he was going to get 50 million dollars, and he pulled together about forty people that he thought could help him form the Integral Institute and that was the business group. I got invited to that group, mainly because I was in conversation with him at the time. So by default I became a founding member of the Integral Institute.

JR: *I know some other people that were a part of that it and I guess it has had a whole history of ups and downs.*

RS: That was my entre into integral. I did get connected with several other people where I could continue to grow. I ended up reading pretty much all of Wilber's books. The critical connection there for me was that at that initial meeting which at Wilber's house I met Geoffrey Gioja who was the CEO of JMJ Associates, and he and I clicked and started to form a friendship. To make a long story short he hired me about 9 months later. His main purpose, because Geoffrey was really taken with Wilber's work, was that he wanted to bring integral more into the business world and had already begun to introduce it at JMJ. So he hired me basically to help bring integral more fully into JMJ's consulting practice.

JR: So no small task.

RS: (Laughter). Some might say an impossible task.

JR: Maybe say a little about the focus of clients that JMJ was and is working with.

RS: Let me say something first on the nature of the impossible task. It is one thing to find a group of people who are already interested in integral and have read the material and are looking for ways to apply it to work and then pull those people together and form an integral consulting company. It is another thing to come into a company that is already 15 years old and well established in what they do, who have had a taste of integral thinking, and then try to introduce integral to that group so that they really embrace it as their primary model for working with clients. That has been the nature of the challenge. JMJ was already established, had some successes, and had developed a strong culture around other models. Fortunately, those models could be correlated with integral, otherwise the task really would have been impossible versus just improbable.

So, a little about the work. Over the last 22 years at JMJ we have mostly worked in major capital projects all over the world. A major capital project typically runs from two hundred million dollars and up, but for us projects have gotten much bigger over the years. A small one for us now is a five hundred million dollar project. Many of them are a billion dollars or bigger and we are working on projects now that go from five to twenty billion dollars and so these projects can have budgets larger than several countries' total GDP.

If you visualize around the world where there is major infrastructure being built, that is where we are. In the middle east, although we don't work in Iraq, but we do work in the Persian gulf in Doha and in Qatar, around Abu Dhabi and Saudi Arabia.. We work off the west coast of Africa where there is a lot of oil and we work in southern Africa in mining, and we work in Australia in oil and gas and mining and also Asia in oil and gas and mining. In North America and Europe, our work is more mixed, and includes oil and gas, construction, mining and manufacturing. We work with pharmaceuticals and semi conductor manufacturers, but those are mostly on their capital expansion projects. We are beginning to get some interest from their operating sites as well. A lot of our work is in heavy industry, and a lot of that is in the extracting industries – gas and mining, taking substances out of the earth – primary industry/resource extraction. Of course, that's a bit of an overgeneralization, but it's a big piece of the work we do.

The important thing to say about our work and the way it has evolved over the last 10 to 15 years especially, is that we have gravitated from project execution and leadership team alignment towards high-performance safety, which is really about making sure on these major capital projects that people don't get hurt. Not only that they don't get killed but that nobody gets hurt. This involves a fundamental transformation in the thinking, beliefs and ultimately actions of all the people involved in the project – to shift from a mindset of keeping your accidents within an "acceptable" range to a commitment to the elimination of all accidents and injuries. If you can imagine the size and complexity of the projects, you can see how that can be a major undertaking.

JR: *That is where I remember us first getting in touch. I encountered you on a list serve and you were looking about having someone work with you while you were finishing your dissertation. You were doing primarily safety prevention work, not accident reduction, using an explicitly integral framework.*

RS: Yes that's right.

JR: *What kind of foundation in the practice at JMJ existed that helped enable you to stretch it into a more integral approach?*

RS: That is a great question. I think that there was a good foundation already in place to be able to build an integral framework onto. It was never about replacing what JMJ did with integral but about actually expanding and building a more integral approach to what was already occurring here, building on the successes. The roots of JMJs work were based in the transformational approach that had grown out of the human potential movement. That approach was explicitly designed to shift people's relationship to work and to life in general from one in which results were generated from merely working harder to one in which results were understood as a function of how the world occurs for people. In other words, it had a strong constructionist element, and its strength was that the approach reoriented people from a mindset wired for extrinsic motivation, objectivity and prediction to one of intrinsic motivation, interiority, and unpredictable outcomes. It gave dignity to the subjectivity of human beings and focused on the process of human meaning making as the source of unimaginable creativity and breakthrough.

JR: *So as you say the foundation was there. What kind of work did you do then to help take it to the next step?*

RS: The work at JMJ was grounded in transformational work, and more explicitly Heidegger, phenomenology, constructionism, and a particular kind of linguistic orientation. Because of that, the language in the approach could get very bogged down with jargon, which from the client's perspective could sound pretty bizarre; we at JMJ referred to it as a practical ontology, to keep it brief. That is accurate and it is an interesting way to say it, but when you say that to a client then you have to say a whole lot more to explain what you mean by it.

JR: *I am a bit familiar with that as Steve March applied that approach in his work.*

RS: He did. He worked with Fernando Flores' models a bit, who was somebody who also contributed to the transformational consulting school and also drew heavily from Heidegger. It is a very powerful methodology and there's a lot you can accomplish with it but you really can get bogged down in the terminology if you're not careful. So bringing in the integral approach in the beginning was really more about simplifying and making a more elegant presentation of the same basic ideas. So rather than talking about a "world occurring," we can shorten that to a right hand, left hand conversation where the right hand is the world of facts and measurements and the left hand is the domain of values, interpretations, meanings, etc.

JR: *I remember Steve March describing a kind of communication ontology that they were successfully using but it did sound like a lot of work and a lot of education to get people into the lingo and the jargon.*

RS: It takes a lot of work. So for example in that school we would talk a lot about *being* versus *doing* and the *being of human being* as the source of new thinking or possibility. The conversation was a way of shifting a person out of the conventional mode of thinking and into the realm of possibility. The trick was to get beyond the mere concept of possibility and to experience possibility as the source of new action. Again, if you get into Heidegger's work you can see how that can take you into genuine depth but it can also take you out of the world where everyday people live and work. It is just so much more elegant to talk about four quadrants, one half being the objective world and the other half being the subjective world. So it is so much easier to distinguish the importance of the relevance of the interiority using the four quadrants model. You could get more done with less work. We found both at JMJ among our consultants and with our clients that the four quadrant model itself is a very sticky idea, the stickiest among all of the integral and transformational models. This is because the primary way it gets used is right hand/left hand and when you do that most clients very easily get that their default orientation is so right handed and so objectivist, and if they really want to create new thinking and possibility or they want to cause something new to happen and it wasn't going to happen otherwise, that it is through the subjective world, through interiority, that they are going to get to something new and extraordinary. Almost universally, people acknowledge that they are weak in their relationship to interiority, especially when it comes to work. They don't want to be weak there and they acknowledge that they need help. That's really our entre with the client. I think with our consultants the more facile they got with the conversation, the more they just started to jettison the old jargon intensive ways of talking about it. It was actually the way integral started to get some traction.

JR: *And how long did it take before you got that more streamlined elegant presentation and you jettisoned the old approach?*

RS: I would say it is still happening. I mean there are still consultants who will flip over to the three circles way of talking – be/do/have – which is from the old school and some of them are able to mix and match both and some of them actually never learned the three circle version and they just go right to the four quadrants. But I think there are people who have picked it up really quick, within the first six months, and they just started adapting it. But I think it took probably good six or seven years for it to become the way we do it. So JMJ used to talk about ourselves as a transformational consultancy, then it was a transformational and integral company – integral was in the background. Now that has flipped and I think our self identity as a company is that we are an integral company and that we have a tool set that includes some transformational elements. I'm saying that as if it's true for everybody and that's clearly not the case, but I think it's that way for most.

JR: Changing culture takes time.

RS: It does and if you look at our consultant population and if you were going to do a psychograph, we are like a lot of consultancies; we have people whose center of gravity is clearly postconventional, or "integral," we have people who are a low integral or just on the threshold, we have got people who are clearly achievers, both on the high and low end of that scale. I don't think there are many consultants who are in the low conventional range but there might be a handful. So it is an interesting thing that is going on where you have people who are coming from all different mindsets who are using the integral approach and using it in different ways.

JR: This reminds me of the distinction that you turned me on to, between people who were able to think in an integral way and other people who were integrally informed. The latter had adopted the model and it held them and allowed them to follow the "code book" so to speak of integral to enact those things.

RS: Yes, for them it's a map. If you are integrally informed you get the map and you can pull it out and it can actually help guide you in significant ways. We have people who are clearly at achiever level who use the four quadrants very effectively, and they use it in an achiever way. We have now introduced developmental levels. I think this was another significant transformation in our company was to go from an orientation where transformation itself was considered bimodal, you are either transformed or you are not, you either got it or you didn't get it. That was the way a lot of people related to it. So bringing in developmental levels introduced the idea of transformation as creating a journey rather than as a destination. That was very gradual, but it definitely has shifted not only the way we relate to integral itself but the way we address our clients. I think probably 10 or 15 years ago our work with clients was much more coercive. That is kind of a negative way to say it, but we would work with a client to have them commit to some goal and then we would have them get that in order to accomplish something significant you actually had to address who you are being as a leader in order to get there. So in other words you got to bring interiority to it. Then the consultant's job as a coach was to make sure that that client didn't give up on their commitment, that they were in full integrity with what they committed to doing. We held them over the fire so-to-speak to ensure they got the result that paid us for. That worked, but it could have a negative side effect sometimes, which was to burn people out. But as the developmental levels came in I think we softened and gradually realized that for our clients accomplishing something is more of a journey and there is less judgment in it. We saw that it's not good to sacrifice yourself completely to get this goal and leave yourself without resources for tomorrow's goal.

JR: *I think what you describe has been typical of the whole process of integrating the integral viewpoint. At first we are proselytizing and you are either in the club or you are not, and only eventually do we grow into a more mature approach that recognizes that we are all growing and we are all at various places and how can we use what we know to facilitate and assist that growth at any place.*

RS: (Laughter). That's exactly right. This is one of the things I learned a few years ago about myself was that after I had been through a couple of significant transformational events and workshops, and I came out the other end and I felt like things were never going to be the same again. But then realized about 3or 4 months later, this was my big revelation, that my ego survived my transformation. (More laughter) And that the same is true at integral. A lot of people who come into it, myself included, have this revelation, sort of like amazing aha experience, that you are in the club now and you look around and you feel like you've reached this place where you have finally found the other swans. Then after a while you realize "oh God, you know the ego survived this as well". And what happens is the ego starts to use integral to convince itself that it has improved.

JR: *It reminds me of what David Bohm notes in* Thought as a System, *that the defenses around the image of self and the world will find a way to incorporate any insights that may be genuine and transformative, but it will incorporate them and reduce our world down to its model of those insights rather than any genuine transformative ongoing process.*

RS: Exactly. I think it's one of the interesting things about this work of consulting and using the integral approach for consulting. Because you know in order to be in business in this way the tools themselves have to be very instrumental, they have to produce results, the results have to be measurable, there has to be business impact. In some sense you realize that this is just another set of tools for doing business as usual, I mean it could be that. I have to remind myself from time to time that no matter what toolset you are using if there is a transformational element in them and I think that it really is in this case, it is a little like playing Johnny apple seed, where you have to make sure that the work makes a difference for clients and that the clients get that as real value. And at the same time there is this little subversive intention that once the seeds of transformation is planted in the client and in the client's organization that it might just take root and that from time to time a person may wake themselves up and find deeper significances in what they are doing, and find that they are more than their job, that who they are is more than their ego, more than the results that they get. So there is a kind of two edged sword nature to this. But you just can't start taking yourself too seriously or you will kill the seed and you won't get the result the client is buying.

JR: *I see that as well in the teaching I do. What we hope for is that at some point the seed will germinate and produce a crack in the person's world and suddenly some light will leak in and or they will stick their head up and they will say, oh things aren't quite what I thought they were.*

RS: It can be a little bit disorienting for a while. Interestingly, after that happens, nine times out of ten that person wants to come to work for JMJ (laughter) because they realize "this is so cool, this is what I want to do."

JR: *So my understanding is that in addition to the focus on these large capital projects and the safety orientation of them, that you also begun to move into the area of leadership development.*

RS: Yes.

JR: *How did that come about and what are you able to do, or how do you approach doing that for clients.*

RS: Leadership development is a key part of any work we do, whether it is safety related or whether we are doing a large intervention that's more traditional OD type work, or a major capital project, team building, execution or anything like that. There is a lot that we can say about leadership in general, but I would say the light went on for me about leadership when I was reading Robert Kegan's work *In Over Our Heads,* because I was looking at really trying to understand the attributes of the different developmental levels or mindsets and I was really honing in on Kegan's fifth order, which is his version of postconventional thinking, or integral level. I was trying to understand the attributes of that level and when he was describing leadership at that level he was pointing to Ron Heifetz, and said that Heifetz's work was the only work that he knew of that explicitly dealt with the developmental requirements of leading at that level. Everyone else that talked about complexity and dealing with complex leadership took it for granted that if you were cognitively bright you could lead at that level, and that it could be taught. Heifetz was the only one, and of course Kegan as well, talking about adaptive leadership. Or, in other words, postconventional leadership had an explicitly developmental component.

JR: *That your way of thinking has to evolve and adapt to the situation, so the leader's job was to create that holding environment for people to do that developmental work.*

RS: Right. So that distinction between technical problems and adaptive problems seemed to me incredibly relevant to the kind of work that our clients were facing daily. So you can use safety as an example, and the complexity of a multimillion dollar project is a specific case of an adaptive challenge. The project manager and the management team is faced with eliminating injuries on a major project where you've sometimes got 20,000 to 40,000 workers from all different nationalities, different religions coming in from all over the world, lots of pressure to deliver on schedule, on time, and on budget, but how do you do that without hurting a single person? Well we felt that the biggest problem or the biggest failure was that they were trying to apply what they already knew. They were treating the situation like it is a technical problem. If they just got more safety glasses or enough hard hats that that somehow would do it. What they actually had to do was that the leaders themselves had to lead the learning at the organizational level – in other words they had to accept that it is an adaptive challenge and that they didn't already have the answer. We saw that this idea resonated in case after case after case. So we started to explicitly bring that work into our safety practice and other parts of our work. So it's a kind of underhanded integral approach to leadership that has become embedded in all of our engagements. For every major engagement we will form a leadership team and take them through a mini-leadership course with Heifetz's distinctions underlying it.

JR: *I had the pleasure of seeing Ron in Prague at the ILA conference do a couple of different events and I was also at a round table with him in Vancouver a couple years ago where he worked for a couple of hours for a group of about 8 of us, so I am certainly a fan of his work.*

RS: Fabulous. I think there have been lots of variations and different ways of interpreting that work. He has been around for a while now, yet in industry we are still introducing him for the first time.

JR: *When I was in the doctoral program at Gonzaga the conceptual framework was around his* Leadership Without Easy Answers *work.*

RS: Yes, it is a kind of foundational text for our consultants. There are a couple of foundational texts really. We have them read Wilber, we have them read Kegan, we have them read Heifetz's *Leadership Without Easy Answers* and there is some basic safety literature. I would say those people are really the foundations of the integral part of our work and those things supplement the courses and papers we've created that articulate our transformational toolkit.

JR: *Another question occurs to me as you say that. I have this experience of have graduate students and or masters of organizational leadership students reading these things and what I see is that simply reading it is kind of like scattering seeds like a shotgun effect and hoping some of them will take root. So given that these consultants are the people you are using internally to deliver the results to the client, what kind of things have you done internally to help those seeds take root? How do you help both those who naturally pick it up and can run with it to really go, but also to those who maybe need to be held by those frameworks? How do you help them to use it in an appropriate way with clients?*

RS: One thing we did was we designed a course called the Power of Being and the Practice of Transformation, which incorporates the Kegan four column exercise and some of the transformational elements of our work and a little bit of Heifetz. It is about a three day course and we run in all of our business units around the world. We did it last year three times, but we just keep running the course and put people in it experientially. Because what you are alluding to is that reading the material doesn't put you in the hot seat of personal development or of transformational consulting. We really want people to have the experience of being able to see their own frames of reference or their own mindsets and get beyond them. You can't really help somebody else experience shifting from subject to object of awareness without going through that in your own experience. So we run these courses over and over and we try to embed those kinds of exercises into all kinds of development activities. You can't lead transformation until you understand the mechanics of it in yourself. Most people get there. We have had consultants who go thru that exercise, resist it and eventually leave the company, and that is not always a bad thing.

JR: *It helps them understand if this is a good fit do for them or if it is better for them to be somewhere else. I'll send you a short chapter that my doctoral student and I submitted to a Jossey-Bass book that ILA is doing that summarizes a similar kind of work we are doing here. We use the TLC 360 to create a little midlife crisis then run them thru the immunity to change work.*

RS: Fabulous, I'd love to see that. One other thing I'd like to mention is on this thread of integrating integral more readily into our consulting and how we use it with our clients. About three years ago we chose as a strategy to develop a set of integral assessment tools and we have now probably about ten different variations of an integral assessment. Including ones for projects and organizations, safety, leadership team, and individual leadership versions. We were able to sell this idea of measuring performance integrally, or at least through quadrants, levels and developmental lines. Our largest client decided they wanted this in all of their work, and what that forced is that all of our consultants who deliver for that client now have to become facile enough with quadrants levels and lines and the analysis of it to adequately deliver that tool with this client and any other clients that want it. This again was a subversive way selling something that our clients want then having our consultants develop in order to meet the delivery.

JR: *The clients say they want it so you had better be able to deliver!*

RS: Exactly right! We are about three years into it and we are starting to get a lot of traction with it. It is doing what I hoped it would, which is that a consultant which may not have been that interested in the more advanced integral tool kit up until now has gotten more interested. There is work in front of them that requires them to learn it. So it is pulling for a lot of additional development in that way.

JR: *So it is a kind of natural evolution, which is great.*

RS: I don't know if it's natural!

JR: *Well, as you describe it one thing leads to another.*

RS: (Laughter). It feels a little bit forced at times.

JR: *So you say that having developed this set of integral assessment tools you are getting traction in terms of client interest and motivating your consultants to develop themselves* *in these tools and the integral framework. Have these assessment tools also enabled you to quantify the benefits of your work for clients? In other words, can you point to bottom line benefits clearly enough that clients' get interested?*

RS: First, it enables us to quantify perceptions and that gives us a baseline to work with in measuring value shifts. It also enables our clients to see the places where they need to go to work to shift their culture and practices. We have not yet correlated our integral assessments bottom line business results in but that will come.

JR: Ok. Do you have an idea of what it will take to get that correlation made?

RS: We have to have enough data across several projects to give us a broad picture. We almost have that now and the number of assessments we're doing is increasing rapidly, so it won't take much longer. Then we need to hire a crack psychometrician to run the statistics. It's not that hard for someone that like. I've pretty much forgotten what I learned in my applied statistics classes, so I won't be doing that work. Besides, I'm drawn to the qualitative side of things.

JR: I look forward to hearing about that at some point. For now, thank you for taking the time to share your insights and experiences.

RS: You're welcome, it has been fun.

Weltanschauung und Politik in den heutigen USA. Barack Obama und der „neue Kulturkampf“ um die Führung der anglo-amerikanischen Weltmacht

Roland Benedikter[1]

The relationship between Worldviews and Politics in the USA today. Barack Obama and the "new cultural battle" for political supremacy in the US

English Summary: This article provides an analysis of the current relationship between Politics, Culture and Worldviews in the USA under Barack Obama. The present "great Obama divide" of US domestic politics consists in the division between institutional and contextual (cultural and worldview) politics. Obama has induced their current opposition when he ran for the US Presidency by profiling himself as a "cultural" candidate "against the system". One result is that by becoming part of the system after being elected, Obama has lost some of his initial "revolutionary" appeal; a second effect is that the opposition is now trying to turn the tables by mobilizing the contextual political sphere against Obama’s control of the institutional power. In fact, the Republicans, rather than concentrating on traditional ways of regaining power focus on launching a new "worldview" battle against Obama in the hope to use the pre-political sphere to eventually regain the institutional political majority. The overall result is a general climate of "worldview mobilization" in the USA, and an increased influence of cultural and worldview philosophies onto the institutionalized mechanisms of politics. Pre-political movements like the conservative "inverting the myth - inverting the paradigm" movement or the "tea party" movement are the expression of attempts towards a new "cultural battle" for "the soul of the USA," which has to be understood in its basic mechanisms, if the "Obama constellation" shall be understood. This article sketches some core elements of Obama’s worldview that are in play in this game, and it argues that many actions of Obama on the field of foreign politics are (and will be) to a noticeable extent co-oriented toward influencing the domestic "worldview battle."

Im Januar 2010 ging Barack Obamas erstes Amtsjahr, von so vielen Hoffnungen begleitet, zu Ende. Sein zweites Amtsjahr begann vielversprechend mit dem Erfolg bei der Gesundheitsreform Ende März 2010. Doch trotz dieses Erfolges sind Obamas Zustimmungswerte in der ersten Hälfte seines zweiten Amtsjahres auf unter 50% gesunken. Er ist damit der Präsident der vergangenen 50 Jahre, der am Beginn des zweiten Amtsjahres die niedrigsten Zustimmungswerte aufweist, und ausserdem derjenige, der den absoluten Rekord im

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Verfall von Zustimmungswerten in der kürzesten Zeit aufweist. Bis auf den mühsamen und äusserst knappen Abstimmungserfolg bei der Gesundheitsreform - zugegebenermassen ein Jahrhundertprojekt in der Nachfolge Ted Kennedys - kamen die meisten seiner Vorhaben bisher nicht so recht vom Fleck. Die Frage stellt sich: Wo liegen die Gründe für Obamas Krise? Und: Welche Macht hat er wirklich? Ist er - mehr als seine Amtsvorgänger - öffentlicher Meinung und Klientel-Interessen ausgeliefert, die sich bekanntlich rasch wandeln? Vor allem aber: Welche Rolle spielen kulturelle und weltanschauliche Aspekte in der heutigen innenpolitische Lage der USA? Und wo steht Obama dabei?

Das Damoklesschwert der Begeisterung

Obama ist ein Präsident, der gerade wegen der Begründung seiner Politiken auf Hoffnung, Wandel, Idealismus und Ideale mehr als andere von der „Gnade des Augenblicks“ und von der „Gunst des Publikums“ abhängig ist. Eine Gunst, die sich in der ersten Hälfte seines zweiten Amtsjahres gegen ihn zu wenden scheint. Die Begeisterung schwindet, und damit schwindet seine wichtigste Legitimationsgrundlage. Sein Vorgänger George W. Bush hatte diese Begeisterung nie, also war er auch nie von ihr abhängig. Obama wusste zwar von Anfang an um die fundamentale Zweischneidigkeit seines überwältigenden öffentlichen Zuspruchs. Doch er weiss heute deutlicher als zuvor, dass die öffentliche Meinung in seinem Fall - dem Fall eines „Ideenkämpfers“, der mit der Macht der Inspiration in das Amt kam - besonders einflussreich über Erfolg oder Misserfolg entscheidet. Und er weiss, dass damit kontextuelle Politikfaktoren aus dem vorpolitischen Feld, oder pointierter ausgedrückt: dass die im erweiterten Sinn „geistige“ Dimension sowohl seine größte Stärke und Kraftquelle wie auch seine wichtigste Achillesferse und Angriffsfläche ist.

Man hat den Eindruck, dass Obama deshalb inzwischen stark auf Durchhalteparolen setzt, die zum Teil fast trotzig klingen. So wie Mitte Januar 2010 zum Beispiel: „Besser eine Amtszeit lang ein guter Präsident, als zwei Amtszeiten lang ein mittelmässiger.“[2] Derartige Durchhalteparolen, die er auch anlässlich der programmatischen Ankündigung seiner Arbeitsschwerpunkte für das zweite Amtsjahr - Arbeits- und Beschäftigungspolitik, Afghanistan - am 27. Januar äusserte, sind nur die Bestätigung für eine unerwartet schwierige Lage, die unerwartet früh eingetreten ist.

Sie zeigen, dass Obama inzwischen tatsächlich mit einem Scheitern nach bereits einer Amtszeit rechnet. Die Gründe dafür sind vielfältig, liegen aber bei genauerer Analyse weit eher im vorpolitischen und kontextuellen: das heisst im in erweitertem Sinn „weltanschaulichen“ Politikfeld denn in der institutionalisierten, normativen Politikebene. Inwiefern?

Berücksichtigt man Obamas überproportionale Abhängigkeit von öffentlichem Zuspruch, Kulturpsychologie und weltanschaulicher Zeitgenossenschaft, dann wird deren allmähliches Versiegen - also der Virus in der „Software“ seiner Präsidenschaft - zu einer realen Gefahr für seine weitere Amtszeit.

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[2] B. Obama, zitiert nach: M. Kilian: Barack Obama hat lieber eine gute als zwei mittelmässige Amtszeiten, sagt er dem Sender ABC News. In: Tagesanzeiger Zürich, 27.01.2010.

Dazu kommen zusehends komplexe und vernetzte Probleme in der politischen „Hardware“ seiner Präsidentschaft - wie etwa die Blockaden seiner Vorhaben betreffend Gesundheits- oder Wirtschaftsreform oder die Niederlage bei der jüngsten Nachwahl des vakanten Senatssitzes des verstorbenen Ted Kennedy am 19. Januar 2010 im Staat Massachusetts, zuvor 50 Jahre lang Hochburg der Demokraten. Die Republikaner haben damit eine sogenannte „Sperrminorität“ im Senat erlangt und können den Präsidenten mittels Obstruktionspolitik nun zusätzlich behindern.

Langfristig vielleicht am wichtigsten aber sind für Obama die sich häufenden symbolischen Niederlagen – das heisst Niederlagen genau auf seinem eigenen Kompetenz- und Stärkefeld, das ihm 2008 den Sieg über die Republikaner eingebracht hat. Darunter war zuletzt zum Beispiel das Scheitern der Durchführung der Terrorprozesse gegen Khalid Sheikh Mohammed und andere vier Angeklagte wegen der Terroranschläge vom 11. September 2001 in New York. Obama hatte als amtierender Präsident die Verlegung der Prozesse von einem Kriegsgericht an ein Zivilgericht am Ort der Anschläge politisch und argumentativ stark forciert, um den versprochenen „Wandel“ auch in der Art der Terrorbekämpfung symbolisch zu vermitteln. Er hatte dabei in Übereinstimmung mit seiner liberalen, progressiven und integrativen Geistesart eine symbolisch zu verstehende doppelte Programm-Botschaft an die eigene Gesellschaft, aber auch an die Welt vermitteln wollen: einerseits eine neue „Zivilisiertheit“ und Grosszügigkeit der USA, die mit dem Habitus des „kriegerischen Idealismus“ der Bush-Ära brechen; andererseits eine Abwertung der Terroristen von „feindlichen Kämpfern“ zu gewöhnlichen Verbrechern.

Die Stadt New York lehnte aber Anfang Februar 2010 die Durchführung der Prozesse aus Sicherheits- und Kostengründen ab, weshalb diese, was erhebliche Verspätungen und Kosten bedeutete, erneut an ein Sondergericht auf einer US-Militärbasis beziehungsweise in einem Gefängniskomplex verlegt werden musste, was Obama zähneknirschend akzeptieren musste.[3] Man muss dies in einer Präsidialdemokratie wie den USA als deutliche Demütigung des amtierenden Präsidenten ansehen.

Insbesondere bei derartig symbolisch-„kontextuell“ stark rezipierten - und von den Republikanern mit allen medialen Mitteln 24 Stunden pro Tag ausgenutzten - Niederlagen wie dieser riskiert Obama zusehends sein Gesicht. Was er sich zweifellos einige Male erlauben kann, was sich aber in der ersten Hälfte des zweiten Amtsjahres derart überproportional häuft, das es bei weiteren Fällen zu einem ernsthaften Problem für seine weitere Amtszeit werden kann. Zu einem Problem nämlich, das ihm aus seiner eigenen Bastion heraus: aus der vorpolitisch-kontextuellen Ebene heraus derart schadet, dass er politisch instabil wird.

Diese Gefahr steht derzeit real im Raum. Sollte Obama, wie es sich angesichts seiner aussergewöhnlich niedrigen Zustimmungswerte im ersten Drittel 2010 abzeichnet, im Spätherbst 2010 auch die „Halbzeitwahlen“ (midterm elections) zum US-Kongress verlieren, die von der US-Verfassung bewusst zur Halbzeit der Amtszeit jedes Präsidenten angesetzt werden, um diesen unter Leistungsdruck zu setzen und ihn neu zu motivieren, und bei denen etwa die Hälfte aller Abgeordneten zur Wahl steht, dann steht eine zweite Amtszeit Obamas bereits zur Disposition. Dazu muss man wissen, dass der amtierende Präsident diese Wahlen fast immer verliert, weil der US-Wähler nach zwei Amtsjahren meist die Opposition stärkt, um eine gegenüber dem Wahltag größere Balance zwischen Präsidial- und Parlamentsmacht herzustellen.

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[3] Time Magazine International, Eigenbericht: New York City Saying No To The 9/11 Trial. In: Time Magazine, February 15, 2010, p. 10.

Interessensgruppen hinter den Kulissen

Es scheint zusammenfassend ein Paradoxon zu sein: Gerade der am meisten bejubelte und mit den größten Hoffnungen und Vorschusslorbeeren versehene Präsident seit John F. Kennedy, Barack Obama, erlebt seit einigen Monaten die größten Verluste und die schmerzhaftesten innenpolitischen Niederlagen aller US-Präsidenten der vergangenen fünf Jahrzehnte. Wie konnte es nach der unvergleichlichen Anfangs-Euphorie um ihn zu dieser Situation kommen?

Wichtig ist zunächst zu sehen, daß die meisten von Obamas Vorhaben bisher weniger von aussen, als vielmehr von innen blockiert wurden – in wesentlichen Teilen sowohl direkt wie indirekt von seinen eigenen Anhängern und Parteifreunden. Beobachter sprechen bereits davon, dass Obama von denselben Interessensgruppen, die ihn an die Macht gebracht haben, nun „verraten" wurde. Was genau ist damit gemeint? Und: Welche Rolle spielen Interessensgruppen hinter den Kulissen derzeit grundsätzlich in den Vereinigten Staaten?

Die Systemrationalität der USA steht seit jeher zwischen Interessensgruppen, Politik und „Geist". Klientel-Interessen sind hier immens wichtig. Dies nicht zuletzt deshalb, weil die USA viel stärker als Europa auf das Prinzip von Selbstverantwortung und Eigenleistung bauen: „Kümmere Dich selbst darum, dann verdienst Du es auch, dass es gelingt". Das macht Lobbyismus: das Sich-Kümmern um eigene Interessen, hier zu einer öffentlich anerkannten Arbeit, während sie in Europa eher einen zweifelhaften Ruf hat.

Ein zweiter Grund ist, dass „vorpolitische" Faktoren wie Kulturpsychologie, Weltanschauung, philosophische Gedankengebäude und Religion in den USA einen viel stärkeren und direkteren Einfluss auf die normativ formalisierte Partei- und Institutionenpolitik haben als in Europa - und diesen auch geltend machen. Die Obama-Administration macht in dieser Hinsicht keine Ausnahme. Im Gegenteil: Sie ist sogar entscheidend durch die Mobilisierung vorpolitischer und kontextueller Politiken an die Macht gekommen.

Doch wenn vorpolitische oder „kontextuelle" Politikfaktoren - das heisst: eine Idee, eine Ideologie, eine Weltanschauungsbeschwörung, ein Ideal, ein richtungspolitischer Kulturansatz, eine Kulturpsychologie des Aufbruchs und der Begeisterung - einen vergleichsweise großen Einfluss auf die normativ geordnete Politik und ihre Institutionen haben wie unter Obama, so hat das Vor- und Nachteile.

Der *Vorteil* ist, dass das gesamte System ideenoffener wird, dass es einen höheren Anteil an Idealisierung aufweist und dass es Flexibilität zu relativ raschem Wandel erlangt.

Der *Nachteil* ist, dass es dadurch überproportional anfällig für den Wandel der öffentlichen Meinung wird. Vor allem aber, dass es tendenziell den professionellen weltanschaulichen „Meinungsmachern" im vorpolitischen Bereich der Medien erlaubt, einen viel wirkungsvolleren „ideologischen" Druck auf die Politik zu entfalten.

Genau letzteres ist heute der Fall. Es ist der entscheidende Grund für Obamas Krise. Obamas Krise kommt letztlich nicht aus der im engeren Sinn politischen Sphäre, sondern aus der Veränderung in der öffentlichen Vernunft Amerikas.

Wie kann man das verstehen?

Der neue Weltanschauungskampf in den USA: Die Mobilmachung des vorpolitischen und kontextuellen (einschliesslich des kulturellen) Politikfeldes gegen Obama

Für offene Gesellschaften gilt: Ideenkraft und Normen müssen sich in einem ausdifferenzierten Gesellschaftsorganismus die Waage halten, sonst wird das Ganze instabiler als nötig. Das haben uns die wichtigsten gesellschaftspolitischen Vordenkerinnen und Vordenker des 20. und 21. Jahrhunderts gezeigt.

Bei Barack Obama aber war die Kraft der Ideen derart ausschlaggebend für seinen kometenhaften Aufstieg und die Machtergreifung, dass ihr allmähliches Versiegen nun zu seiner größten Gefährdung wird. Die Legitimation und Macht des Amtes, also die normative Ebene, ist ihm daher weit weniger hilfreich als seinen Vorgängern – eben, weil er als „Ideenmann“ gilt: als jemand, der sich im Wahlkampf ausdrücklich als „vorpolitische“, als „kontextuelle“, als „geistige“ Kraft „gegen das etablierte politische System Washingtons“ profilierte – und damit gewann. Diese strategische Konstellation wendet sich nun gegen ihn.

Warum?

Weil Obama mit dem Amtsantritt am 20. Januar 2009 zwangsläufig selbst zum wichtigsten Systemvertreter geworden ist. Damit hat er in der unbewußten Empfindung der Öffentlichkeit „die Seiten gewechselt“. Er wurde vom „vorpolitischen“ Geistes-Kämpfer gegen das normierte System zum alltäglich medial präsenten Systemvertreter. Dadurch verlor er nach und nach seinen geistigen „Appeal“.

Das nutzen die Republikaner aus. Sie versuchen nun, Obamas ehemaligen Stärkepunkt unter ihre Kontrolle zu bringen: Die kontextuelle, kulturelle, „geistige“ Dimension. Oder wie es der republikanische Präsidentschaftskandidat 2008 Mike Huckabee ausdrückte: Die „Weltanschauungshoheit muss zurückgewonnen werden. Dann werden wir auch wieder politisch siegen.“[4] Das ist der Schlüssel zum Verständnis der heutigen Situation. Was wir heute in den USA haben, ist eine tiefe gesellschaftliche Spaltung, welche durch die Mobilmachung weltanschaulicher Dimensionen gegen Barack Obamas Präsidentschaft bestimmt wird - also durch den Kampf zwischen vorpolitisch-kontextuellen und normativ-institutionalisierten Politikdimensionen. Ein Beispiel?

Führende Republikaner wie etwa Mike Huckabee oder Newt Gingrich haben sich nach der Präsidentschafts-Wahlkampfniederlage im November 2008 in die Bild- und Internetmedien, vor allem das Fernsehen zurückgezogen. Sie haben dort eigene Talk- und Meinungsshows, die fast täglich gesendet werden. Sie machen von dort aus nun täglich Stimmung gegen den Präsidenten und seine Politiken. Sie stilisieren diese Stimmungsmache – und genau dies ist entscheidend, um die Logik hinter den Kulissen zu verstehen, welche die heutigen USA prägt – nicht als einen politischen oder themenorientierten, sondern vielmehr als einen Weltanschauungskampf: als einen „geistigen“ Grundsatzkampf um die Ideale der USA an sich, um die „Seele Amerikas“. Es ist ein Kampf, der vorgibt, von Idealen, Religion, Spiritualität entscheidend mit impulsiert zu werden. Sie werden von zahllosen „rechten“ Meinungsmachern unterstützt, darunter Charles Krautmacher, Glenn Beck, Sean Hannity, Bill O’Reilly, Greta van Susteren, Rush Limbaugh, oder dem noch immer aktiven Oliver North, der längst zu einer Ikone der Republikaner geworden ist. Sogar der Harvard-Geschichte-Professor und für die USA einflussreiche Theoretiker des britischen Empires Niall Ferguson tritt in letzter Zeit immer öfters kritisch gegen Obama an die Öffentlichkeit.

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[4] M. Huckabee, in: The Huckabee Report Online, http://www.mikehuckabee.com/, January 17, 2010.

Ein weiteres Beispiel unter vielen, die insgesamt allerdings System haben: Es gibt hier seit Obamas Amtsantritt eine eigene „kulturelle“ Bewegung mit zivilgesellschaftlichem Anspruch, die „Inverting the Myth – Inverting the Paradigm“ Bewegung heisst, also: „Stelle den Mythos und damit das Paradigma auf den Kopf“. Damit ist gemeint, dass Obamas Mythos mittels Offenlegung der Schwächen seiner Weltanschauung auf den Kopf gestellt werden soll. Diese „vorpolitische“ Bewegung betreibt täglich qualitativ gehobene „philosophische Hetze“ gegen Obama, und zwar nicht nur auf dem traditionell republikanernahen Informationsnetzwerk „Foxnews“, sondern auch auf angesehenen Bildungs- und Kulturkanälen – mit bereits heute weitreichenden Erfolgen auf das Wahlverhalten der Amerikaner, wie die letzten Zwischenwahlen gezeigt haben.

Dazu kommt bereits seit dem Amtsantritt Barack Obamas die neue rechts-konservative „Tea-Party-Bewegung“, eine Bürgerbewegung, die sich aus verschiedensten Einzelorganisationen zusammensetzt. Sie veranstaltete im Februar 2010 ihren ersten nationalen Kongress und will Obama ebenfalls aus dem vorpolitischen Feld heraus mittels einer „weltanschaulichen Offensive“ zu Fall bringen. Sie wirft Obama eine „unmoralische“ Politik vor und verspottet ihn als trockenen Jura-Professor, der nicht das Zeug zum „Oberkommandierenden“ habe. Nicht politische Angriffe gegen Entscheidungen und ihre Grundlagen stehen in ihrem Zentrum, sondern „geistig-ideelle“ Angriffe *ad personam*. Eines ihrer öffentlichen Zugpferde ist die ehemalige Präsidentschaftskandidatin Sarah Palin, die nie versäumt, Gott gegen Obama ins Feld zu führen – darunter mit dem Hinweis, daß „Gott selbst“ die Ölpipeline in ihrem Heimatstaat Alaska gebaut haben wolle, was ausschlaggebend sei, weil Menschen ein solches Riesenwerk von sich aus nie zustandebrächten. Palin hat mit solchen Botschaften bei der konservativen US-Wählerschaft Erfolg. Es handelt sich bei der „Tea-Party-Bewegung“ ebenfalls um einen klassischen Versuch der Wendung kontextueller gegen institutionalisierte Politik.

Ein solcher direkter Zusammenhang zwischen Weltanschauungsdebatte, Philosophie und Politik wäre in Zentraleuropa freilich nicht nur undenkbar, sondern politisch inkorrekt. In den USA ist dies aber das ausschlaggebende Zentrum der Debatte. Der Kern dieser „right spirit“ („richtiger Geist“ oder „richtige Einstellung“) Debatte geschieht zwar nur mit Worten. Aber Worte sind in den USA eben aufgrund des Grundsatzverhältnisses zwischen ideellen und institutionalisierten Politikfaktoren viel wichtiger und einflussreicher als in Europa, wo politische Reden oft als „Gerede“ empfunden werden. In den USA dagegen schaffen sie wirklich

Realitäten. Dies nicht zuletzt deshalb, weil dieses Land - im Gegensatz zu Europa - von Anfang an eine Demokratie war.

Das Schlüsselmotiv der gegenwärtigen US-Innenpolitik: Die Wendung von Obamas Siegesstrategie gegen ihn selbst

Doch war das nicht gerade Obamas eigene Strategie: vorpolitische und kontextuelle Politikfaktoren wie Psychologie, Kultur, Ideen, Ideale usw. gegen die herrschenden, „normativ“ erstarrten Politikverhältnisse zu wenden - also Weltanschauungsfaktoren gegen das institutionalisierte Politiksystem? War das nicht gerade seine eigene Strategie, mit der er erfolgreich war?

Das war in der Tat der Fall. Eben genau dies ist der entscheidende Punkt, um die heutige Konstellation in den USA zu verstehen. Das verhältnismässige Übergewicht kultureller und kontextueller Politikfaktoren über normative Politikfaktoren, das die Republikaner heute bewusst medial fördern und gegen Obama ausnutzen, um gegen ihn mobil zu machen, ist massgeblich auch Obamas eigenes Werk, das sich nun gegen ihn wendet.

Alles hat mit der Art begonnen, wie Obama den Präsidentschaftswahlkampf 2007-08 geführt und gewonnen hat: Neue Ideen gegen eingefahrene Institutionen. Damit hat er aber einen gefährlichen Präzedenzfall geschaffen: Ideen gegen die staatlichen Institutionen ins Feld zu führen. Das war so in der US-Geschichte eigentlich niemals der Fall, weil – im Gegensatz zu Europa – in den USA der Staat nicht gegen falsche Ideale, sondern aus den „richtigen“ Idealen heraus entstanden ist, dort also Ideale der Freiheit, der Menschenrechte und der Individualität ursprungsgleich und eins mit dem Staat sind. Daher wird der Staat in den USA bis zu einem weit höheren Grad als in Europa als der Ausdruck guter Ideale verstanden. Was der Grund dafür ist, warum in den USA Nation, Ideal und Staat noch immer eine Einheit bilden - den „letzten Nationalstaat des Westens“, wie er oft genannt wird. Ganz anders als in Europa, wo intellektuelle Aufgeklärtheit geradezu als Widerstand gegen die Staatsmacht aufgefaßt wird und sich zum Beispiel die Politikwissenschaften spätestens seit 1968 als systemisches Antidoton und Korrektiv der Politik verstehen, nicht als deren wissenschaftliche Unterstützung und Hilfswissenschaft wie in den USA.

Was bedeutet das, wenn wir es auf die eingangs angeführte „Klientel“-Problematik des US-Systems rückbeziehen?

Ein US-Präsident kann einen Großteil der Washingtoner Staatsbediensteten nach eigenem Gutdünken berufen. Obama hat natürlich „seiner“ Klientel, die ihm an die Macht verholfen hat, im Januar 2009 die besten Positionen verschafft. Das waren in seinem Fall demokratische Parteikreise, Intellektuelle, Zivilgesellschafter und auch „Alternativ“-Juristen, vor allem aber gebildete Kreise der oberen Mittelschicht, der Künstlerschaft und der Universitäten. Obama hat sie als Belohnung für seinen Wahlerfolg dazu befähigt, eine Rolle im Herzen des politischen Systems zu spielen: Meinung zu machen, öffentlichen Druck zu erzeugen, und damit die großen Richtungnahmen mitzubestimmen.

Als aber diese Kreise gegenüber seiner Durchsetzungskraft relativ früh skeptisch wurden, weil sie viel zu vieles in viel zu kurzer Zeit erwarteten, brach ein wichtiger Aspekt von Obamas politischem Rückhalt weg: der innere Ideenaspekt und seine natürlichen progressiven Träger als Motor der Veränderung.

Der Einfluss von Ideengruppen auf das heutige politische System der USA

Bedeutet dies also, daß Obama letztlich abhängiger von - im weitesten Sinne - Klientel-Interessen ist als seine Vorgänger?

Dieser Schluß liegt in Betrachtung der heutigen Situation nahe. Doch noch weit wichtiger als Interessensgruppen sind seit der amerikanischen Verfassung 1776 Ideengruppen. Das hat damit zu tun, dass die US-Verfassung aus klar freimaurerisch-rosenkreuzerischen Ideen heraus entstand und sich bis heute in den zivilreligiösen Grundlagen der Gesellschaft mehr oder weniger offen dazu bekennt. Ideale, Substanzideen und Essentialismen sind in den USA viel präsenter und offener mit der Politik und den Institutionen verbunden als in Europa. Jedesmal, wenn diese Ideenformationen sich mit Interessensgruppen verbinden, dann wird es sozusagen Ernst. Das war zum Beispiel unter George W. Bush der Fall, als irreguläre rosenkreuzernahe Kreise - in Gestalt der Gesellschaft „Skull and Bones“, das heisst: „Schädel und Gebeine“ - sich mit fundamentalistischen christlichen Interessen und Ölinteressen verbanden.

Das tat den USA nicht gut. Denn daraus entstand ein neuer gesellschaftlicher „Unitarismus“, in dem Geltungsgrenzen zwischen Diskursen und Systemlogiken verwischt wurden und wirtschaftliche, religiöse und politische Interessen sich zu einem undifferenzierten Filz verbanden, wodurch die innere und äußere Freiheit abnahm. Das politische System wurde entdifferenziert, und eine allgemeine Regression war die Folge. Das zeigten die Ergebnisse der Bush-Ära sowohl nach innen wie nach aussen.

Obama, der davon profitierte, hat die Lektion der Bush-Ära verstanden: dass „Unitarismus“ gesellschaftlich regressiv und Ausdifferenzierung progressiv wirkt. Auch weil er nach eigener Aussage insbesondere die Aussenpolitik des Vaters seines Vorgängers, George H.W. Bush, intensiv studiert hat. Bush Vater war ebenfalls Mitglied von „Skull and Bones“, der Ölindustrie und des „WASP“-Establishments - das bedeutet: der herrschenden Elite der USA: weiss, angelsächsisch, protestantischer Religion.

Obama ist einer der wenigen US-Präsidenten, die mit der darin zum Ausdruck kommenden Macht der Verbindung weltanschaulicher, ökonomischer und politischer Interessensgruppen zu brechen versuchen. Er versucht, progressive Ideengruppen an ihre Stelle zu setzen. Das ist in gewisser Weise revolutionär. Es ist aber auch, wie sich am Beginn seines zweiten Amtsjahres angesichts wachsenden Widerstandes nicht nur „von aussen“, sondern auch „von innen“ immer deutlicher zeigt, ein überaus schwieriges Unterfangen, das auf viel offenen, noch mehr aber auf verborgenen Widerstand hinter den Kulissen stösst.

Warum?

Obamas Weltanschauung und ihr Einfluss auf seine Politiken

Die Interessensgruppen der USA haben sich in der neueren Geschichte so dicht und intensiv mit geistig-weltanschaulichen Gruppen verbunden, dass hier ein Dickicht besteht. Obama stand und steht programmatisch für einen „tiefen" Paradigmenwechsel, das heisst nicht nur für einen politischen und ökonomischen, sondern auch für einen geistigen und moralischen Wandel – ein Risiko, das man in Europa in seiner historischen Tragweite und Bedeutung nur unzureichend verstanden hat. Inwiefern?

In den vergangenen Jahren hatten vor allem ökonomische und christlich-fundamentalistische Gruppen, aber auch okkulte Ideen im Umkreis von irregulären freimaurernahen Ideengruppen wie etwa die Gruppe „Skull and Bones" Zugang zum US-Präsidenten. Dazu expansionistisch-christliche Ideen wie etwa die eines Oswald Chambers (1874-1917), eines protestantischen Missionars und Kriegspfarrers, der die britischen Truppen im ersten Weltkrieg bei der Eroberung Palästinas und Jerusalems geistig betreute. Seine Schriften meditierte George W. Bush nach eigener Aussage jeden Tag um 6 Uhr morgens.

Obama hat in dieser Hinsicht keine dezidierte Ausrichtung, sondern ist viel pragmatischer als Bush. Er ist ein „rational Spiritueller", der sich neben den im Umkreis der „Trinity United Church of Christ in Chicago" veröffentlichten Schriften stark an dem Theologen Reinhold Niebuhr (1892-1971) orientiert. Dieser trat für eine Modernisierung von Religion und ihres Verhältnisses zu Politik und Gesellschaft ein, war ein Sozialist und einer der Hauptvertreter des Gedankens vom „gerechten Krieg". Letzerer spiegelte sich zum Beispiel in Obamas Friedensnobelpreisrede vom 10. Dezember 2009 wieder. Niebuhrs bekanntester Text ist das sogenannte „Gelassenheitsgebet", das vermutlich während dem zweiten Weltkrieg entstand, und das Obama nach eigener Aussage seit vielen Jahren täglich meditiert. Es lautet:

„Gott, gib mir die *Gelassenheit*, Dinge hinzunehmen, die ich nicht ändern kann, den *Mut*, Dinge zu ändern, die ich ändern kann, und die *Weisheit*, das eine vom anderen zu unterscheiden."[5]

Der Einfluss Niebuhrs spiegelt sich aber auch in der Art wieder, wie Obama Menschen beurteilt. Er beurteilt sie nicht nach ihrem „rechten Glauben" wie Bush, sondern nach ihrem individuellen Charisma und nach ihren geistigen Errungenschaften Fall für Fall. Das wird aus seiner engeren Umgebung glaubwürdig berichtet. Aber das ist zugleich sehr gefährlich für ihn. Denn wer sich auf den einzelnen Menschen verlässt und dafür die „organisierte" Anhängerschaft im institutionellen Sinn vernachlässigt, hat die Gruppen-Klientels und vor allem ihre professionellen Vollzeit-Vertreter in Washington generell gegen sich. Man kann sich in Europa kaum vorstellen, welchen Druck diese Vertreter entfalten können, und welche Macht sie hinter den Kulissen tatsächlich besitzen. Sie sind in der Lage, einem Präsidenten das Leben und die Entscheidungen so schwer wie nur möglich zu machen – oder diese Entscheidungen durch Obstruktionspolitik gar zu verunmöglichen.

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[5] U.a. in: http://de.wikipedia.org/wiki/Gelassenheitsgebet.

Ist Obama in Summe also tatsächlich ein „rational spiritueller“ Mensch, wie er bei öffentlichen Auftritten, in Interviews und in seinen Schriften immer wieder aktiv unterstreicht? Und wenn ja, wie macht sich das bemerkbar?

Insgesamt kann man sagen: Mit europäischen Freiheits- und Individualitätsphilosophien, darunter vor allem der „Philosophie der Freiheit“ (1894) des österreichischen Sozialreformers und Philosophen Rudolf Steiner (1861-1925) als Lesegrundlage kann man vieles von der heutigen Änderung in den USA im Übergang von der *Religiosität* eines George W. Bush zur *Spiritualität* Barack Obamas besser verstehen als mit den klassischen US-Theorien von Pragmatismus und Idealismus - aber auch als mit den meisten herkömmlichen politischen Theorien, und zwar eben deshalb, weil diese Änderung im Fall Obamas so stark idealistisch, „kontextuell“ und liberal geprägt ist.

Wenn Bush eine Art konfessioneller Theosoph von „Skull and Bones“ Gnaden bei gleichzeitiger naiv realistischer Glaubensmythologie war, so ist Obama in seiner Weltanschauung viel näher an einer europäisch-protestantisch gefärbten „Philosophie der Freiheit“. In seinen dazu zahlreich, wenn auch verstreut und unsystematisch vorliegenden Statements, darunter vor allem ein in Buchform erschienes Langinterview zu seiner Spiritualität, das er mit der angesehenen Journalistin Cathleen Falsani bereits vor seiner Präsidentschaftskandidatur im Jahr 2004 führte,[6] betont er immer wieder, dass er versuche, sich seinen „geistigen“ Erfahrungen bereits während ihres Geschehens kritisch gegenüberzustellen – eine frappierende Nähe zur „rational-spirituellen“ Forderung Steiners, „sich der Idee erlebend gegenüberzustellen, sonst gerät man unter ihre Knechtschaft“ (die im übrigen ähnlich auch die ebenfalls „neo-integrativen Idealisten“ Jean Gebser und Teilhard de Chardin stellten)!

Obama zeigt insgesamt immer wieder Züge, die ihn in die Nähe einer modernen, rationalen Freiheitsspiritualität stellen, wie sie zum Beispiel Steiner, Gebser und de Chardin, aber auch andere „in der Vereinigung von Hegel, Goethe und Kant phänomenologisch gereifte Idealisten“ wie etwa Carl Fortlage im 19. und 20. Jahrhundert für Europa grundlegten, und wie sie freimaurerisch-rosenkreuzerische Ströme bereits lange vorher explizit an die Grundlage der US-Verfassung stellten.

Die dreifache Entwicklung in den zeitgenössischen USA und die Anforderung an die zentraleuropäischen Politikwissenschaften

Es macht meines Erachtens wenig Sinn, derartig konstitutive Zusammenhänge zwischen Politik, „realistischem“ Idealismus und „Geistrealismus“ länger zu ignorieren, kleinzureden oder als „private Überzeugungen“ abzutun, wie es Teile der akademischen Politik- und Sozialwissenschaften insbesondere des deutschsprachigen Kontinentaleuropa im Hinblick auf

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[6] C. Falsani: The God Factor. Interview with Senator Barack Obama about his Spirituality. March 27, 2004. In: C. Falsani’s Blog: The Dude Abides, http://falsani.blogspot.com/2008/04/barack-obama-2004-god-factor-interview.html. Vgl. die leicht abweichende Fassung in: http://blog.beliefnet.com/stevenwaldman/2008/11/obamas-interview-with-cathleen.html. Das Gespräch wurde ursprünglich in der Chicago Sun Times abgedruckt und floss später in das Buch von C. Falsani ein: The God Factor: Inside the Spiritual Lives of Public People. FSG 2006.

Obamas Weltanschauung noch immer tun, weil sie - aus guten Gründen - die affirmative Auseinandersetzung mit „substantialistischen“ Ideenentwürfen aufgrund der Erfahrungen mit den Totalitarismen des 20. Jahrhunderts tabuisiert haben. Sie taten dies für Zentraleuropa zu Recht, aber sie taten es undifferenziert gegenüber *jeglichem* Substanzanspruch und Geistrealismus. Diese Paradigmenhaltung war und bleibt zwar verständlich, und sie erbrachte bedeutende, unverzichtbare Errungenschaften wie nachhaltige Liberalisierung und Emanzipation, hinter die nie mehr zurückgefallen werden darf. Zugleich behindert sie heute in ihrer bestehenden paradigmatischen Einseitigkeit aber das zentraleuropäische Verständnis der Vorgänge im „Inneren“ des Politischen Amerikas erheblich. In den USA ist heute *erstens* eine „Resubstantialisierung“, *zweitens* eine Mobilmachung kontextueller und vorpolitischer Politikdimensionen gegen das institutionalisierte Politische, *drittens* eine allgemeine weltanschauliche Mobilmachung zu machtpolitischen Zwecken im Gange. Diese dreifache Entwicklung kann ohne affirmatives Verständnisbemühen gegenüber den ausnahmslos auf allen Seiten im Spiel befindlichen „essentialistischen“ Paradigmenanteilen nicht hinreichend erfasst und kritisch begleitet werden.

Es gilt hier daher meines Erachtens, nach dem Ende der Nachkriegszeit 1989/91 auch in den Paradigmen der zentraleuropäischen Politikwissenschaften einen Schritt weiter zu machen in eine ausgewogenere und differenziertere Anschauung. Diese müsste die bisherige universal ideologie- und anspruchskritische Paradigmen-Haltung mit ihrem Kernziel der Verteidigung von Geltungsgrenzen zwar rückhaltlos und aktiv fortsetzen, aber darüber hinaus auch einen gemässigten Idealismus mit dem gängigen Nominalismus zusammenzuschauen versuchen. Und zwar nicht aus intellektuellem Wagemut, sondern weil diese Verbindung der (ideen-)geschichtlichen Entstehung und Entwicklung der USA entspricht, ja an ihrer Grundlage steht, und weil ohne sie heute weder Obama noch seine Gegner und ihre Strategien ausreichend zu begreifen sind - wie sowohl er selbst wie sie immer wieder betonen. Dies scheint mir aber auch entscheidend, damit Europa nicht hinter Amerikas langsame, aber historisch stetige „integrative“ Paradigmen-Entwicklung zurückfällt.

Obamas politischer Manichäismus

Diese Paradigmen-Entwicklung zu verstehen, heisst natürlich auch, ihre eingebauten Widersprüche und Ambivalenzen zu erkennen. So besteht zum Beispiel nicht nur eine innere Spannung zwischen Obamas doppeltem Bemühen sowohl um eine „realistische“ wie um eine „rationale Spiritualität“ im Sinne Niebuhrs und Steiners, sondern auch ein offenbarer Gegensatz zwischen dieser Bemühung und seiner manchmal naiv „realistisch“ anmutenden Auffassung des Bösen, wie sie sich zum Beispiel in seiner Nobelpreisrede vom 10. Dezember 2009 ausdrückte.

Viele Beobachter stellten sich angesichts dieser in Teilen fast reaktionär anmutenden Rede die Frage: „Packt“ Obama seine diesbezüglichen Ansichten nur rhetorisch „besser ein“ als George W. Bush, denkt aber letztlich zumindest in gewissen Schichten seiner Vorprägung und Anschauungsbildung in ähnlichen Kategorien?

In dieser Rede war in der Tat mehrfach von „dem Bösen“ die Rede, das im Zeichen des wahren Menschentums und der Freiheit bekämpft werden müsse. Dieses „Böse“ erscheint bei Obama, genauso wie bei seinem Vorgänger George W. Bush, als eine gewissermassen eigenständige Kraft in der Welt. Nicht weniger als 36 Mal verwendete Obama das Wort „Krieg“, immer in Verteidigung des „gerechten Krieges“. Das war gewiss eine der aussergewöhnlichsten und paradoxalsten Preisreden eines Friedensnobelpreisträgers, die je gehalten wurden, kulminierend in der Aussage: „Krieg wird es immer geben.“[7]

Wenn das ein Friedensnobelpreisträger ausgerechnet bei der Ehrungszeremonie sagt, die der Herbeiführung des Endes der Kriege dienen soll, dann gibt es eigentlich nur drei Möglichkeiten:

1. er ist extrem realistisch;
2. er ist ein Manichäer (als der sich, mit dem Zusatz „säkularer“ Manichäer, im übrigen mittlerweile auch der heutige Jürgen Habermas bezeichnet);[8]
3. er will mittels eines aussenpolitischen Auftritts bei einer „fremdländischen“ Veranstaltung, die im Grunde dem Geist der USA nicht entspricht, ein innenpolitisches Signal der Stärke, des Realismus und des überzeugten Festhaltens an den US-Idealen an seine eigene Bevölkerung senden.

Ich glaube an eine Mischung aller drei Motive, mit starkem Akzent auf dem letzteren, dem innenpolitischen Anliegen. Warum?

Man darf *einerseits* nicht vergessen, dass die Verleihung des Friedensnobelpreises nach bereits wenigen Monaten im Amt Obama innenpolitisch mehr geschadet hat als vieles andere: Er erhielt - eben auf der vorpolitischen, kontextuellen Ebene der Weltanschauungsdiskussion - den Ruf des „abgehobenen Weltstars“, der von der Welt grundlos vergöttert werde, ohne etwas geleistet zu haben, und der daher irgendwie eher für die Welt als für die USA arbeite. Und das mögen die Amerikaner ganz und gar nicht. Daher war ein starkes innenpolitisches Signal der Zugehörigkeit nötig.

Obama kann *andererseits* aber trotz seiner „rationalen Spiritualität“ insgesamt auch als eine Art politischer Manichäer gelten, wenigstens von seinem pragmatischen Wirklichkeitszugang her - wie im übrigen alle US-Präsidenten seit dem 1. Weltkrieg. „Das Böse“ ist für Obama eine Realität, wie auch für seinen Vorgänger George W. Bush, und seine Nobelpreisrede hätte nach übereinstimmender Meinung der meisten Beobachter deshalb auch von Bush sein können.

Im Vergleich wird sichtbar: Beide waren und sind Geistrealisten, und beide hatten und haben eine starke manichäische Färbung, sobald sie ihre - an sich sehr unterschiedlichen - Auffassungen und Praktiken von „Spiritualität“ in die politische Praxis tragen. Das hat weniger mit den Personen, sondern vielmehr mit dem Amt zu tun: mit der Geschichte der USA als Heilsträger der Freiheit, auch mit den rosenkreuzerisch-freimaurerischen Grundlagen und mit der

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[7] B. Obama: Remarks at the Nobel Peace Price Ceremony in Oslo, December 10, 2009. Released by the White House. In: The New York Times, December 10, 2009.

[8] Ein „Manichäer“ ist jemand, der glaubt, dass die Welt zwischen zwei Göttern geteilt ist, die um sie kämpfen, und zwar in und ausserhalb des Menschen: das Gute und das Böse. Es gibt also streng genommen nicht einen, sondern zwei Götter, die um den einen Ort kämpfen, an dem sich das Schicksal des Kosmos und seiner Evolution versammelt, konzentriert und entscheidet: um die Seele des Menschen. Ein „politischer Manichäer“ ist jemand, der seine Handlungen im Zeichen dieses Kampfes verortet und seine Entscheidungen unter dessen Bedingungen trifft.

Mischung von Protestantismus mit calvinistischer Arbeitsethik in den idealistischen Grundlagen des Landes. Das Amt färbt die Spiritualität der Person ein. Es ist in gewisser Weise größer als die Person, gleichzeitig aber auch wiederum von ihrer Freiheit abhängig.

Es ist dies im Grunde derselbe Gesamtzusammenhang zwischen „subjektiv" und „objektiv" wie in der oben erwähnten „Philosophie der Freiheit" Rudolf Steiners: Der Amtsinhaber muss sich dem Amt erlebend gegenüberstellen, sonst gerät er unter seine Knechtschaft. Das haben auch „kantianische" europäische Politiker wie zum Beispiel Helmut Schmidt erfahren müssen; nur war bei ihnen der Bezug zwischen Weltanschauung, Geisteshaltung und politischer Funktion weit weniger explizit und direkt als in den heutigen USA.

In den USA muss bis heute jeder Präsidentschaftskandidat öffentlich angeben, welchen Weltanschauungsgemeinschaften er angehört. Bush gab „Skull and Bones" und eine protestantische Kirchengemeinschaft an; Obama gab neben europäischen und US-Philosophen und –Theologen die Chicagoer Kirche seines ehemaligen Mentors Jeremiah Wright an. Letztere ist stark manichäisch und politisch - im Sinn des „Civil Rights Movements", aber auch einiger ethnopolitischer „rechts-emanzipatorischer" Kreise - gefärbt.

Es stellen sich aus der Beobachtung dieses offenbar zentralen Einflusses zwischen Idee und Wirklichkeit bei Obama natürlich viele Fragen. Wenn man sie stellt, wird man allerdings - eben dadurch - unversehens wenigstens bis zu einem gewissen Grad selbst zum „politischen Manichäer": Produziert Politik von sich aus Manichäismus als Weltanschauung? Heisst in die politische Wirklichkeit des 21. Jahrhunderts einzutreten in gewisser Weise bereits, zum Manichäer zu werden? Immerhin muss man Entscheidungen treffen in einem zunehmend komplexitätsgesättigten Umfeld, das durch eine zunehmenden Polarisierung der Lager und der Ideen gekennzeichnet ist.

Ich würde diese Fragen nicht beantworten wollen, sondern hier als Anregung offenlassen.

Die US-Politikwissenschaft stellt diese und ähnliche Fragen ständig und in großen, viel rezipierten Abhandlungen, und sie stehen heute im Zentrum auch der öffentlichen politischen Debatte der USA. Europa, insbesondere Zentraleuropa, hat sie aus dem Vernunftdiskurs verdrängt.

Ich denke, dass es sie zumindest in ideengeschichtlicher Sichtweise, vergleichender Perspektive und heuristischer Absicht wiederzugewinnen gilt, um die Motivationen, Denkweisen und Ambivalenzen führender Staatsvertreter der USA der Gegenwart besser zu verstehen.

Die Perspektiven: Die heutige „große Neuausrichtung" der USA unter Barack Obama – und ihre Folgen für Europa

Wo liegen die Perspektiven der beschriebenen Konstellation im Inneren der heutigen USA? Und: Was will Obama wirklich? Wofür kämpft er nach eigener Aussage so energisch, dass er dafür sogar eine mögliche Nichtwiederwahl in Kauf nimmt, die seiner „kulturellen" Ablehnung durch Mehrheitsteile der US-Bevölkerung geschuldet sein könnte?

Obama will die USA auf neue Grundlagen stellen, damit sie in der neuen Weltkonstellation des 21. Jahrhunderts reüssieren. Dazu will er ihren „ursprünglichen" idealistischen Geist wiedererwecken, um sie zu befähigen, die Dinge mit neuer Inspiration zu verändern und dadurch die USA in „vertieft neue" Formen und Orientierungen für das 21. Jahrhundert zu giessen. Ziel ist die Erreichung einer „neuen Qualitätsstufe" der US-Zivilisation für die kommende Moderne.[9]

Das gilt für die Wirtschafts- und Sozialstruktur, es gilt für das Gesundheitswesen, für das Verhältnis der öffentlichen Vernunft zu Technologie und Forschung, aber auch für die längst überfällige Reform des politischen Systems, zum Beispiel des Wahlsystems. Unter anderem findet von 2011 an eine Neueinteilung der Wahlbezirke (congressional redistricting) statt, um bei den Kongresswahlen 2012 größere Gerechtigkeit zwischen Stimmen und Repräsentation herzustellen. Darauf bereiten sich Republikaner und Demokraten bereits heute intensiv vor.

Am wichtigsten aber ist die allgemeine, grundlegende Einsicht in den großen Wandel, der sich heute global vollzieht – und in den Obama die programmatisch versprochene „glaubwürdige Veränderung" (*change we can believe in*) ausdrücklich einbetten will. Diesen globalen Wandel nehmen alle Kreise der USA - Politik, Wirtschaft, Kultur und Wissenschaft, aber auch der religiöse Bereich - durchgängig viel ernster als die Europäer. Die Diskussion darüber beherrscht hier jeden Tag das kollektive Nachdenken, sie ist allpräsent in der öffentlichen Vernunft, während sie in Europa bislag nur eine untergeordnete Rolle spielt.

Der Analytiker Zareed Fakaria fasste die alles entscheidende, zentrale Einsicht, die sich im Rahmen dieser Diskussion heute in den USA durchsetzt, kürzlich prägnant so zusammen: „Die Entwicklungsgeschichte von Großmächten zeigt, dass sie, um ihre Position zu wahren, die Quellen ihrer Macht, nämlich ökonomisches Wachstum und technologische Innovation, erhalten und stärken müssen. Sie zeigt aber auch, dass sie sich auf die Zentren globaler Macht, nicht auf deren Randgebiete konzentrieren müssen. Es ist in dieser Hinsicht wichtig, sich daran zu erinnern, dass in den folgenden hundert Jahren die dominante Position Amerikas in Asien – ihre Rolle als ausgleichende Macht in der Pazifikregion - ausschlaggebend sein wird für den Erhalt der Rolle der USA als Weltmacht." [10]

Was bedeutet das?

Es bedeutet, dass Europas Bedeutung schnell und nachhaltig sinkt. In den USA wendet man sich heute massiv von Europa ab – weil man die Zukunft der eigenen Stellung in der Welt in der Rolle erkennt, welche die USA im Pazifik spielen werden. Obama ist der erste Präsident, der mit diesen langfristigen strategischen Einsichten Ernst macht: Er bricht mit Bushs „Anhänglichkeit an Europa". Paradoxerweise wird Obama währenddessen gerade in Europa am meisten verehrt und mystifiziert. Im Januar 2010 fand in Frankfurt am Main sogar die Uraufführung eines ihm gewidmeten Musicals statt – nicht zufällig in Deutschland.

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[9] Siehe programmatisch B. Obama: Dreams from my Father. A Story of Race and Inheritance, Three Rivers Press 1995; sowie ders.: The Audacity of Hope. Thoughts on Reclaiming the American Dream, Vintage 2006. Vgl. auch B. Obama.: A faith in simple dreams. In: Time Magazine, http://www.time.com/time/politics/article/0,8599,1818037-2,00.html.

[10] F. Zakaria: The Post-Imperial Presidency. Realism and Idealism in the Age of Barack Obama. In: Newsweek, December 5, 2009, http://www.newsweek.com/id/225824.

Baer zurück zu den Dingen die zählen: Worin genau besteht die „große“ Neuausrichtung Obamas?

Obama bereitet die USA auf die „globale Systemverschiebung“ vor, die in vier großen Dimensionen stattfinden wird:

1. Das Ende der „neuen Weltordnung“, das heisst der Ära seit den 1990er Jahren, in der die USA die Welt als einzige Supermacht dominierten, und die Entstehung einer multipolaren Welt, in der die pazifische Region immer mehr an Bedeutung gewinnt, während Europas Bedeutung abnimmt;
2. die Ablösung der „Postmoderne“ als säkulares, „dekonstruktives“ Kulturmodell des Westens durch andere, komplexere Kulturmodelle, die Nominalismus und Geistrealismus verbinden;
3. das Ende des „Neoliberalismus“ und die Notwendigkeit von nachhaltigeren und gerechteren Wirtschafts- und Technologieformen;
4. die „Renaissance der Religionen“ und damit die Herausforderung der Verbindung von Rationalität und Spiritualität.

Es entsteht insgesamt eine Welt von „miteinander im Wettstreit liegenden Modernitäten“ („competing modernities“). In dieser werden Gesellschaften wie China technologisch und wirtschaftlich ähnlich entwickelt sein wie der „Westen“, aber ganz andere Auffassungen davon haben, was ein „gutes Leben“ und eine „gute Gesellschaft“ ist – Auffassungen, die zum Beispiel im Fall Chinas nicht an Demokratie, Rechtsstaat und Menschenrechte gebunden sind, sondern eher an Harmonie, Stabilität und Einheit.[11] In diesem Feld werden sich die westlichen Ideen von Moderne bewegen müssen.

Darauf bereitet Obama die USA vor. Es ist wie ein riesiges Schiff, das langsam den Kurs ändert – langsam, weil das Schiff eben so groß ist, aber unweigerlich. Der Kurs wurde bereits geändert. In Richtung Pazifik, in Richtung Asien.

Schlussfolgerung und Ausblick

Welche Bilanz der bisherigen Amtszeit Obamas lässt sich zusammenfassend ziehen? Hat sich die Welt seit Obamas Amtsantritt durch sein Wirken verändert? Und, wenn ja, in welche Richtung?

Soweit sichtbar ist, kann man zur Hälfte von Obamas zweitem Amtsjahr sagen: Die Welt hat sich in Richtung einer liberaleren und weniger imperial geprägten Weltordnung verändert, aber auch in Richtung Pazifik. Vergessen wir nicht, dass Obama selbst in Hawaii geboren wurde, zum Teil in Indonesien aufwuchs und Verwandschaft in mehrere „Rassen“ hinein hat: „schwarz“, „weiss“, asiatisch. Obama ist als Person bereits eine „Mischung“ der Zukunft, auf die die USA nun unter seiner Führung weltpolitisch hinsteuern.

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[11] M. Jacques: When China Rules the World. The End of the Western World and the Birth of a New Global Order, Penguin Press 2009.

Und wo liegt Obamas eigene Perspektive - für die zweite Hälfte von 2010, und darüber hinaus?

Die in Obamas komentenhaftem Aufstieg mit angelegte Ambivalenz kommt in der ersten Hälfte seines zweiten Amtsjahres politisch zum Tragen. Sie hat in die heutige „grosse Obama-Spaltung“ (the great Obama divide) der USA nicht nur zwischen Konservativen und Liberalen, Republikanern und Demokraten, sondern vor allem zwischen vorpolitisch-kontextuellen und normativ-institutionalisierten Politikdimensionen geführt. Sie hat - wenn auch unwillentlich - ein Klima erzeugt, in dem eine allgemeine Mobilmachung weltanschaulicher Faktoren gegen die institutionalisierte politische Macht vorherrscht.

Obama hat unter dem wachsenden Druck dieser Verhältnisse nun bis zu den „midterm elections“ im November 2010 Zeit, konkrete, zählbare, sichtbare Erfolge einzufahren. Dabei sind innenpolitische Erfolge deutlich wichtiger als aussenpolitische. Obama wird deshalb die Aussenpolitik weiterhin dazu benutzen, um innenpolitisch Boden gut zu machen – wie er es bereits in den zwei Schlüsselreden seines ersten Amtsjahres zu Afghanistan am 1. Dezember 2009 und anlässlich der Entgegennahme des Friedensnobelpreises am 10. Dezember 2009 tat. Und er muss nun nach dem äusserst knappen Erfolg bei der Gesundheitsreform US-intern weitere Gesetze durchbringen, Änderungen konkretisieren. Nutzt Obama dieses Zeitfenster nicht, und bleibt es wie bisher bei Ankündigungen und Worten, dann steht, wie gut die Rhetorik Obamas auch immer sein mag, seine Zukunft in Frage. Denn dann werden auch seine Worte rasch an Wirkung verlieren – sogar in den traditionell „wortehörigen“ USA.

Was bedeutet das für uns Europäer?

Es gilt nun meiner Meinung nach gerade in dieser schwierigen Lage, Obamas idealistischen Impetus entschieden zu unterstützen und zu stärken. Ich war stets für vernunftgemäße Entzauberung und Kritik, als Obama irrational in den Himmel gejubelt wurde; nun bin ich für vernünftige Solidarität und gerechte Anerkennung. Obama ist der einzige, den ich derzeit in den USA, vielleicht sogar in der „westlichen“ Welt insgesamt sehe, der das Ideal mit der Wirklichkeit ernsthaft, als Persönlichkeit und Mensch, verbinden will, und der auch den Instinkt und das Talent dazu hat. Obama ist eine Persönlichkeit, die mit aller individuellen Kraft eine balanciertere und gerechtere Welt will. Er verdient deshalb Vertrauen nicht nur kurzfristig, sondern auch durch Schwierigkeiten und Abgründe hindurch – und gerade dann am meisten. Im klärenden, blendenden Licht des Problems beweist es sich nämlich, was wir wirklich glauben, woran wir uns halten, was wir wirklich wollen – nicht in Zeiten des Erfolges, wo alle Katzen grau sind vor blinder Euphorie.

Wir Europäer sollten Obama meiner Meinung nach deshalb nun vergleichsweise grosszügig unterstützen - zumindest so lange, bis die Verhältnisse für ihn wieder so gut sind, dass wir ihn wieder kritisieren müssen. Dies nicht zuletzt auch, um Europa wieder stärker in sein Sichtfeld zu bringen. Ich halte Obamas Abwendung von Europa für eine besorgniserregende Entwicklung, die letztlich nur wir Europäer selbst korrigieren können.

The Tao of Liberation:
Exploring the Ecology of Transformation

Mark Hathaway & Leonardo Boff, 2009. Orbis Books: Maryknoll, New York

Review by Steven E. Wallis[1]

This book is structured in three parts. The first part (about 100 pages) recounts the growing threat of global ecological collapse. The second part (about 200 pages) investigates cosmology; including discussions around Gaia, the pregnant void, and holographic cosmos. The final part (about 100 pages) is focused on spirituality, with particular effort applied to finding a common thread among the world's major religions. Those threads support the authors' cosmology and conclusion that we should all follow a specific path towards self-liberation. With the liberation of self, the authors quite reasonably claim, we will become more effective in practice and so better able to save the human race and our planet.

For this review, I began by reading with an appreciative eye. And, from that view, some are likely to find this an interesting book. The authors present a wealth of information on many topics including physics, religion, biology, systems theory, and creativity. They also engage in an extensive conversation around globalization, domination, deep ecology, and spirituality.

Next, in reading this book with a critical eye, the book appears to be well written. Indeed, the authors have crafted a work that readers will find quite accessible. They have purposefully structured the book in something of a spiral by revisiting key topics from different perspectives as they proceed through the cycle. Examples are found in modern science, ethics, economics, politics, transnational corporations, and more. Their main effort is to present a link between the critical state of the global ecology and the spiritual practices that we might draw upon to empower ourselves.

In a nutshell, they describe the domination and destruction of the ecosystem by those who are blinded by a systemic pathology. Goals of wealth and power, limitless growth, and desire for a global monoculture have blinded many to the precarious state of our ecosystem. They also reasonably note how most humans are (in one way or another) complicit in that pathology (and are likewise blinded). The authors suggest that we fear to give up our way of life – even if is

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necessary to save the planet. In order to see clearly, make wise choices, and enact critical changes, we must first liberate ourselves from our fears.

To escape those fears, we must move away from oppression (of ourselves and others) and toward a sense of liberation. To achieve this shift, we should first understand that all people are sensitive and compassionate. Second, they suggest that we should expand our sense of self to include the whole of our planet. This, they say, will lead to a better sense of community, artistry, and appreciation for the beauty of nature. From a cosmological perspective, that shift would be supported by a new view of the universe. The authors discuss how the universe is fundamentally open to many possibilities. For example, most of our universe (including seemingly solid objects) is actually empty space – thus allowing for emergence, surprise, and innovation.

Adopting that view, they suggest, will allow us to liberate ourselves and so enact the future needed to save our planet. While none of these ideas are particularly novel, that message may be of interest to appreciative readers. As with many books of this type, however, their analyses are neither rigorous nor complete. Critical readers will be very aware that the authors present contradictory perspectives, engage in questionable leaps of logic, and present curious styles of reasoning.

One such contradiction begins with the Tao and its suggestion that we are all one and closely interconnected. Instead of following the Tao, the authors press forward with ideas that separate rather than integrate. They separate modern ideas from the postmodern, separate the global elite from the masses, separate the responsible from the innocent, and so on. For another example, the authors decry the “wealth gap,” while they also claim “money is an illusion.” Another related contradiction is seen between the authors’ perspective that the universe is continually evolving (on one hand) and the perception that the powerful individuals and corporations are standing in the way of that evolution (on the other hand). This view seems to suggest that those corporations are somehow outside that cycle of evolution. And, while transnational corporations are indeed powerful, it is hard for me to accept that they are so powerful that they can somehow escape the natural laws of the universe.

While these contradictions do not appear to be purposeful, we need not see them as problematic. Indeed, by reading with an integrative eye, those contradictions may represent the best reason to read The Tao of Liberation. Such contradictions may be more usefully viewed as chunks of raw material from which thinkers might build more profound insights. In short, I would suggest that the “space” between those contradictory views is open for the emerging ideas of deeply reflexive readers.

For example, instead of adopting the “us versus them” view of the world, I would suggest that readers who are bold enough to engage this book with an integrative eye might consider how we are all part of the same system. And, by developing a better understanding of that system, investigate how we might optimize our individual, organizational, and global conditions.

In addition to the excessive differentiation, this book also challenged my sensibilities in its discussion of cosmology. First, the authors recount multiple claims for the existence of an “alternative” universe. That other universe is variously represented as a primal universe, holographic universe, implicate order, and morphic field. The existence of this primal universe is certainly intriguing. It is reported to be a place of great interconnectedness and a conduit for insight, creativity, communication and memory. The alternative universe transcends (and renders irrelevant) the dimensions of time and space that we find in our own universe. Through meditation, they suggest, one may connect with that universe to become more creative and gain new insights.

After many pages, I found myself wondering about the need for a cosmological justification for meditative practices. Practically and functionally, if one meditates and successfully achieves insight, does it really matter “where” that insight comes from? In short, it seems to this reviewer that the authors created an unnecessarily complex picture of a destination in order to justify the relatively simple path of meditation.

Overall, reading this book is like strolling through a bustling farmer’s market. In looking at that many options, one is inspired to consider how they may be combined for a tasty dinner. There does not seem to be much that is new in this market, but there is a multitude of possibilities for combining those ingredients. This suggests many levels of possible engagement for this book. On one level, the appreciative reader may adopt any of the many concepts presented here. In contrast, the critical reader will likely be frustrated by the curious cosmology and unnecessary complexity. The more contemplative reader, with a more integrative eye, may engage this book on a deeper level. Those scholars may go beyond the loose weave of ideas presented in this book to create a more effective integration of ideas. And, in that process, develop much needed, and much more innovative ideas.

Response to Wallis

Mark Hathaway[1]

I greatly appreciate the reflections Steven Wallis has presented in his review of *The Tao of Liberation: Exploring the Ecology of Transformation*. In particular, I enjoyed the succinct summary he has provided of many of the key themes of the book along with his astute observations about its contents.

The book is meant to be an integrative text drawing on many different disciplines. Leonardo Boff and I describe it as a "search for wisdom in a time of crisis." I think one of its strengths is drawing together insights from a wide diversity of perspectives. This may well make it resemble a stroll "through a bustling farmer's market." Yet, perhaps a better image would be that of walking the labyrinth – a spiralling journey that is certainly non-linear in its logic, but which serves to help reveal more subtle dynamics at play. To some, the perspectives presented may at first seem to be contradictory, but over time the coincidences of these insights becomes more apparent.

In using the image of the Tao, we speak of a reality that cannot be fully described, but must rather be tasted. The book is meant to engage the reader at a more intuitive level, providing a sense of feel for a "way" that cannot ever be fully described in words.

I would suggest that some of the apparent contradictions that Dr. Wallis perceives may not, in fact, be contradictions at all. Certainly, the book speaks of a cosmology of deep interconnection. While, overall, cosmic evolution seems to be characterized by a movement toward ever greater communion, diversity, and interiority, this does not mean that this process cannot, at least for a time, be thwarted or delayed:

…In harmony with the Tao,
the sky is clear and pure,
the Earth is serene and whole,
the spirit is renewed with power,
streams are replenished,
the myriad creatures of the world flourish, living joyfully,
leaders are at peace and their countries are governed with justice.
When humanity interferes with the Tao,
the sky turns filthy,
the Earth is depleted,
the spirit becomes exhausted,
streams run dry,

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[1] **Mark Hathaway** is an author and adult educator who researches, writes, and speaks about the interconnections between ecology, economics, social justice, spirituality, and cosmology. Together with Leonardo Boff, he is the author of *The Tao of Liberation: Exploring the Ecology of Transformation* published by Orbis in late October 2009.

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the equilibrium crumbles,
creatures become extinct…
(*Tao Te Ching,* §39)

For us, then, there is no contradiction in affirming that the universe is evolving but that some human actions and institutions may at times impede that process. We can try to harmonize our actions with the Tao or we can (often unconsciously) interfere with it.

The example of large corporations is a case in point. Perhaps they cannot “escape the natural laws of the universe” – if in fact any such “laws” really exist (a point that the book disputes since the process of evolution is best characterized by habits and tendencies rather than hard and fast laws). Corporations are essentially artificial (legally constructed) “persons” that tend to be pathological because of the rules and objectives that govern them. That does not mean that those who work for these corporations, nor even those leading them, are somehow evil. Some corporations, to a greater or lesser extent, have even managed to redefine their objectives and practices in ways that may enhance our evolution toward a more just and sustainable society. Overall, though, the rules that force corporations to prioritize the generation of short-term profit (measured with distorted indicators) over all else pushes them to become machines of exploitation. Fortunately, what we have created we can also change – even though doing so presents very real challenges.

The book does not attempt to separate the “responsible from the innocent,” nor does it cast the world in terms of “us versus them;” rather, it calls all of us to recognize our own complicity in a pathological system that is destroying our planet. At the same time, though, it is fair to point out that the level of complicity of a poor peasant farmer in India, for example, is very different than that of most of us living in the overdeveloped North. Such a realization need not create divisions. As the book demonstrates, the current pathological system undermines the future of all of humanity, both rich and poor, as well as the entire Earth community. Indeed, to the extent that we awaken to this reality, our current crisis can serve to unite us all in a common purpose, and perhaps even impel us to a qualitative jump in our own evolution.

The book spends a great deal of time exploring cosmologies, not – as Wallis suggests – to justify meditative practices, but rather to understand how change happens. It does not postulate any kind of “alternative universe,” but rather a deep unifying reality that is the wellspring of the entire cosmos. We can think of this reality in different ways – as the pregnant void, the implicate order, or as the Tao. The key point, though, is that this is simply a deeper, more subtle, level of reality – not something separate from the universe we live in, but the substrate of its entire fabric.

By exploring the cosmological vision that is emerging from science and seeing its parallels in ancient wisdom traditions, it is our hope that we can come to understand transformative action in a new way that integrates both what have traditionally been considered “spiritual” practices and collective social action. In particular, the emerging new cosmology helps us to understand that our visions, our intentions, our intuitions, and our state of mind have a direct impact on the transformative potential of what we do. We need to unite analysis and deep intuitive insight to discern the right action for a given place and a given time. This is essentially an art that cannot be taught, but must be discovered through both experience and deep insight.

To work for liberation, we are called to open ourselves to the wisdom of the cosmos itself – the Tao – and allow it to act through us so we can come to consciously participate in a process leading us to greater communion, differentiation, and creativity. In this, I would agree wholeheartedly with Wallis in affirming that this book should be engaged with a contemplative, integrative eye so that we may apprehend the threads uniting superficially distinct ideas and disciplines into a holistic tapestry on a deeper level. In so doing, I hope we can help readers to truly taste the Tao and to stimulate new reflections on ways of moving us toward right relationship with each other and the entire Earth community.

Locking Down the South Bronx

Susan Belford[1]

Abstract: In this brief analysis is the intended beginning of a systemic integral analysis of the social systems and structures in use in the South Bronx, New York City. Informed by the writing of Jonathan Kozol as well as current articles in the New York Times, this analysis uses the systems theories of Talcott Parsons and Donella Meadows and the human identity work of Vern Redekop to understand the exterior and interior dimensions of systemic oppression as experienced by residents of the South Bronx.

Introduction

"Where we live, it's locked down… we can't go out and play" says 12 year old Jeremiah. (Kozol, 1995, p. 32) The theme of being "locked down" recurs throughout *Amazing Grace*. Kozol describes children being taken on day trips out of the borough only to burst into tears on their return; a Bronx school teacher notes that the aspirations of the young are "locked in" to a menial level "that suburban kids would scorn" (p. 125); freedom of movement and enjoyment of public spaces is "locked down" in the interests of security with barred gates and windows, check-points and "safety corridors" (p. 136); and in any twelve month period, in a Borough with a population of 1,203,789, approximately 130,000 men and women, 92 percent of them black or Hispanic, are "locked up" in the local 415-acre Ryker's Island prison or other city jails (p. 144). Kozol paints a compelling portrait of an oppressive urban social mechanism that appears to be dedicated to the "locking down" of a specific portion of the population, with horrendous results in terms of lives lost, blighted, and maimed. The horror of this is underscored when one realizes it is not ancient history; the current relevance of Kozol's narrative can be seen in a May 11th, 2010 New York Times headline that reads *Large stretch of Bronx highest hunger rate in the nation: survey.*

The social mechanism described by Kozol is best understood as a complex dynamic system in which "a set of things," such as the housing, health, education, and security bureaucracies, are "interconnected in such a way that they produce their own pattern of behaviour over time," (Meadows, 2008, p. 2) such as the "locking down" referenced above. Complex systems are rooted in social paradigms, "the shared social agreements about the nature of reality" (Meadows, 2008, p. 163). Systems that oppress, such as that operating in the South Bronx, breed conflict between individuals caught within the oppressive social system as well as between those within the system and those outside it.

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[1] Susan Belford lives in Victoria, British Columbia, Canada. She is a mediator and group facilitator currently completing a Master's degree in the Civic Development and Systemic Transformation concentration in the Conflict Analysis and Engagement graduate program at Antioch University, Midwest. Jonathan Kozol's 1995 book *Amazing Grace: The Lives of Children and the Conscience of a Nation* was the professor-assigned focus of a mid-term analytical writing assignment in the program's Structures and Systems of Conflict course. The assignment was to apply course concepts in analyzing real world material. This paper was submitted as that mid term analysis.

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In order to generate a complete analysis of this complex system, it would be useful to adopt an integral perspective. For reasons of my context in writing it including time and space, I do not carry out a full AQAL analysis, but confine my analysis to the two sides of the four quadrant model. Although developmental levels cannot be ignored in analyses, I do not address them here because they are beyond the scope and purpose of this paper.

I will focus first on the "interior" of the integral model—the subjective and intersubjective cultural issues of myth, identity and belief that combine to generate the paradigms from which the "Bronx system" flows. Following this, I will examine the objective behaviours of the "exterior," first exploring some Bronx system dynamics at the meta level, and then examining particular aspects of the system, such as housing, to explore dysfunctions within and between structural sub-systems.

The discussion ahead requires the use of some particular terminology; on the interior subjective side, the terminology relates primarily to psychological theories of identity and belief; exterior objective terminology is largely that of the "systems" field.

Interior Subjective Definitions

Belief. Many authors (Cranston, 2000; Inglis, 2005; Kegan, 2009; Mezirow, 2000; Redekop, 2002; Taylor, 2000) include "beliefs" as one of several categories of experience that contribute to the development of identity, along with "values, culture, spirituality, meaning systems, relationships, history, imagination, and capacity to act that form the core of an individual or group" (Redekop, 2002, p. 23). These authors suggest that the purpose achieved by the belief system is the creation of a worldview by which individuals and groups make sense of their world; it is through the understanding created by this worldview that people come to make judgments and decisions about their own and others' behaviour. When certain beliefs are held by many, they become shared ideas, or paradigms, from which flow decision making and the development of policy.

Identity. The purpose of the identity system is to develop awareness of the meaning-maker—the one or ones with a belief system and world view. "Riceour argues that "dialectic between Self and Other is essential for identity." This means that we work out who we are in relation to others" (Redekop, 2002, p. 154) in a process of comparison and differentiation. We know ourselves in relation to what we know of others, and "it is through participation in community life that identity, meaning and self-worth are developed" (Dukes, 1999, p. 162).

Exterior Objective Definitions

System: A system is "an interconnected set of elements that is coherently organized in a way that achieves something" (Meadows, 2008, p.11). Typically systems nest within other systems.

Structure: A structure is the way in which the elements of a system are interconnected to create an effect. Thus, structure can be seen as the source of system behaviour. In this instance, structure relates not only to the interlocking services provided to poor Bronx residents, but to the structural relationship between those services and larger social, economic, and political policies in play in New York City and the nation.

Structural subsystem: Because each of the different social service bureaucracies or institutions which Kozol examines—health, housing, education, security, and economic structures—functions as part of the overall system structure and as its own discrete system, I have labeled these as "structural subsystems." Structural subsystems as I have described them are very different from the "Parsonsian" subsystems defined below.

Parsonsian subsystems: In his efforts to describe human society as a dynamic system, Talcott Parsons (1971) posited the existence of four overlapping subsystems relating to aspects of society. One of these, the "pattern-maintenance" subsystem, is concerned with the interior-subjective relations of the society to its cultural system. The other three subsystems are concerned with the exterior-objective. The "goal-attainment subsystem" or polity is concerned with the relations of the society to individual members. The "adaptive subsystem" or economy is concerned with the relations of the society to the physical world. The "integrative subsystem" or societal community, is concerned with achieving internal integration.

Interior Subjective: Identity and Systems of Belief

Kozol's work can be seen as a serious endeavour to "look for the ways the system creates its own behaviour" (Meadows, 2002, p. 4) Because the nature of the situation facing residents of the South Bronx appears to be a single, intractable and monolithic system, it is tempting to seek a single reason for it. Kozol draws a straight line between racism, racial segregation and conditions in the South Bronx, making a strong case that the primary reason for the continuing pervasive injustice he observes is the result of a belief system which consists of marginalization and racist attitudes toward non-white poor that allows people to "devalue other people's lives… and see as natural the shunning of the vulnerable" (Kozol, 1995, p. 186). Examples of this belief system—expressed by libertarian author Charles Murray as "some people are better than others and deserve more of society's rewards" (Kozol, 1995, p. 154)—can be found throughout *Amazing Grace*, for example, in the words of an ABC radio talk show host that "black people… multiply…like maggots on a hot afternoon" (p. 21) and in the fact that scarce funds have been made available to research "genetic links between IQ deficits of … children and their racial origins" but not to "remove lead poison (a known toxin that reduces IQ) from the homes and schools of children in the Bronx" (p. 156).

"The great luxury of segregation" is that it has become so "long-existing and accepted" that it appears invisible to all but those who suffer it. Those unaffected by it in their day to day lives can maintain a guilt-free stance and "insist that they are personally "imposing nothing on the people" of the South Bronx (p. 164). This capacity simultaneously to *deny personal racism while benefiting from systemic racism* is indicative of a fault line in the American identity, a "chasm of misunderstanding that exists between the races" (Obama, 2008) that, rooted in history, is perpetuated by cultural myth.

The roots of America lie in a British colonial empire that took the land of subjugated native populations and transported people as slaves around the globe. Slavery was an established fact of

American culture before the United States became a country, and continued until the passing of the Thirteenth Amendment in 1865. This long history of enforced racial difference is the ground from which the systems in the South Bronx grew and which nurtures them today. In writing about the black experience of colonialism, Franz Fanon eloquently expresses his despair of ever being understood, or being able to understand *himself,* within a cultural context that designates him as “the missing link in the slow evolution from ape to man” (Fanon, 1953, p. 1). Describing the bifurcated way that a black person understands his or her own identity—in relation to other blacks and, separately, in relation to whites—Fanon suggests that whites do not have a similarly fractured way seeing the Self; from their position of “superiority,” they are able to define all others (Fanon, 1953). Gail Low, exploring white myth making in Victorian literature, notes that to ignore racist writing is to leave “untouched the psychic investments which determine the formation of the fictions that sustain the world we live and act within” (Low, 1996, p. 2). The cultural legacy is one in which whites are entitled and blacks victimized by a fractured, negative, internalized self image and modern American mythmaking has done nothing to alter these dynamics. In spite of the civil rights movement, the advent of Black Power, the increased television presence of blacks and the many genuine racial “firsts” of recent years, the paradigm of “indolent, warlike Africans” best enslaved for their own good (Low, 1996, chapter 3) prevails.

But race is not the only divide within the American identity; prosperity is another. The propensity to blame the poor for their poverty was also inherited from the British Colonial Empire and embedded into the revolutionary new country. Belief in a “just world” in which an individual’s actions are solely responsible for his or her economic fate gave rise to the economic ideas of Adam Smith’s “invisible hand of the market” by which an individual “pursuing his own interest … promotes that of society” (Meadows, 2008, p. 106). Today, “while 13% of Americans live in poverty, many studies show that Americans typically believe that a person’s ... economic status is due to something the person did or failed to do, therefore they deserved it or had it coming” (Coryn, 2002, p. 2). Instances of this paradigm are found in political scientist Lawrence Mead’s suggestion that the poor are in their condition of poverty because of their own “irrational” behaviour (Kozol, 1995, p. 21). They are found in media discussions about the “apathy,” “listlessness,” and lack of good “decision-making skills” among the mothers of poor children. And these discussions are “divorced from any realistic context that includes the actual conditions of their lives” (Kozol, 1995, p. 180).

In addition to the above two belief systems, there is a third set of beliefs stemming from the revolutionary years, supporting democratic principles and equality. Coming in part from those oppressed by racism and disdain for the poor, this set of beliefs is buttressed by a sizable percentage of the rest of Americans and provides additional tension within the American identity.

Intractable conflicts around the globe have their roots in paradigms that blame poor conditions on their victims, who are the object of racial or ethnic hatred and disdain. “The hegemonic systems and structures perpetuated by these paradigms objectify the subjugated, cause them to internalize a negative self image” and deprive them of “the ability to move, perceive or act freely” (Redekop, 2002, p. 275). Violence has been for the most part forestalled in the Bronx by the actions of those who hold the “third set” of beliefs indicated above. However, the possibility for violence will remain unless action is taken to redress the balance between the dominant and the subjugated. Part of that action includes seeing clearly the systems these identity conflicts generate.

Exterior Objective: Systems that Perpetuate Suffering

According to Parsons, institutions or structural subsystems of poverty, like those that generate wealth, embody and are legitimized by the values and paradigms of the society that maintains them, as "generalized" by the societal community's "pattern maintenance sub-system" (Parsons, 1971/2011, p. 195). The other sub-systems create institutions in response to these generalizations, which, at the meta level, operate nested within the larger national societal system of generalized values.

Meadows maintains that the behaviour of a system is generated by its own structures, and points to several basic "system traps" that cause systems to work in ways counter to what we expect. This logic can be applied at any systems level. At the meta level, I will limit my comments to two of Meadow's traps: "policy resistance" and "competitive exclusion."

Policy Resistance

In terms of the overarching national value system within which the Bronx system exists, the goals of the "Parsonsian sub-systems" of the societal community are at odds with one another. The goal attainment subsystem, or polity, fed by "third set" values relating to principles of democracy and equal opportunity has for decades taken action against racism through the desegregation of schools, affirmative action, the striking down of exclusionary zoning, and the passing of such mechanisms as the Community Reinvestment Act. However, the goal of the adaptive system or economy seeks to maximize benefit for those *already* operating effectively within the free market. Parsons notes that "money and markets operate...where spheres of action are sufficiently differentiated from ... moral imperatives." (Parsons, 1971/2011, p. 200). In other words, the "good policies" created by the polity are not necessarily "good business" as defined by the economy. This tension between competing subsystem goals gives rise to what Meadows calls "policy resistance" (Meadows, 2008, p. 113).

An excellent South Bronx example of policy resistance can be found in the housing structural subsystem. Measures enacted by the "polity" to support housing affordability for low and middle income residents saw the creation of public housing, in 1955, through vehicles such as the Mitchell-Lama housing program, by which local jurisdictions sold land at reduced cost to developers who received subsidized low interest mortgages and tax abatements in exchange for building affordable housing. The program allowed building owners, after twenty years, to leave the program and either raise rents or sell to other business interests. While this initiative may have been predicated on the notion that incentives stimulate the making of private decisions that contribute to the public good—a kind of subsidizing of the market's invisible hand—the actual result was the perpetual cycle of building and decay so clearly described by Kozol. On reaching the 20-year mark, owners regularly withdrew from the program and sold to parties who either increased rents or reduced their costs by cutting routine maintenance. When the buildings became completely derelict, they were razed and replaced with great fanfare with a new set of buildings. The latest of these is 1520 Sedgewick, which, after providing for 30 years 102 units of "much desired, affordable housing for working-class families" has seen, under new owners, the number of housing code violations increase by more than 600 percent (Medina, 2010). The goal of the polity to provide affordable housing didn't take into account the dictates of the market economy by which business seeks to optimize advantage. This same dynamic occurred within city owned housing: the goal of providing affordable housing for the poor was undermined by the need for "efficient use of resources" or reassignment of resources to other purposes. Policy resistance is also reflected in health and education, whereby the polity goals to increase well-being are undermined by "management of resources" that continually cuts budgets for staff and building maintenance or diverts funding to other needs.

Competitive Exclusion

Simply put, competitive exclusion allows the "rich to get richer." Meadows explains that this system trap is "found whenever the winners of a competition receive, as part of the reward, the means to compete even more effectively in the future" (Meadows, 2008, p. 127). In *Amazing Grace*, this dynamic in most eloquently illustrated through the 1994 budget cuts for residential services such as sanitation, building inspection and pest control throughout New York. These cuts, which bankrolled tax cuts for the wealthy, hastened urban decay in poor areas and threatened public health with piles of garbage, uninspected buildings and a major increase in the rat population. (Kozol, 1995, pp.100, 107, 109). Inhabitants in wealthy areas were lauded for their ability to purchase sanitation services privately through "improvement districts." Inhabitants of poor areas, unable to create "improvement districts," were blamed for spiraling neighbourhood decay.

Competitive exclusion is also evident in New York City's public school system. Between 1989 and 1992 "a billion dollars was cut from the city's school budget" with the result that the children from one Bronx school had no building to attend and were "housed in an abandoned skating rink that had no windows" (p. 153). During this same period, $150,000,000 was spent to build the "dazzling new structure" of Stuyvesant High school, an elite public school that overwhelmingly serves "the children of Manhattan's Upper East Side." Competitive exclusion in the school system continues today, with Stuyvesant parents (who are able to contribute $300,000 annually to the school) having been recently awarded the right to qualify for federal financing reserved for the poorest schools (New York Times, 11/05/2010). By mechanisms such as this, "inequitable distribution of income, assets, education, and opportunity" is perpetuated and the poor receive a

> disproportionately small part of government expenditure... Ideas and technologies come to them last. Disease and pollution come to them first. They are the people who have no choice but to take dangerous, low-paying jobs, whose children are not vaccinated, who live in crowded, crime-prone, disaster-prone areas. (Meadows, 2008, p. 129)

The Mechanics of Structural Subsystems in the South Bronx

Thus far, I have addressed system dynamics at a meta level. In this section, I will examine the functioning of three structural sub-systems that Kozol describes—housing, health and education— and the ways that these interact to contribute to the growth of hopelessness, illness,

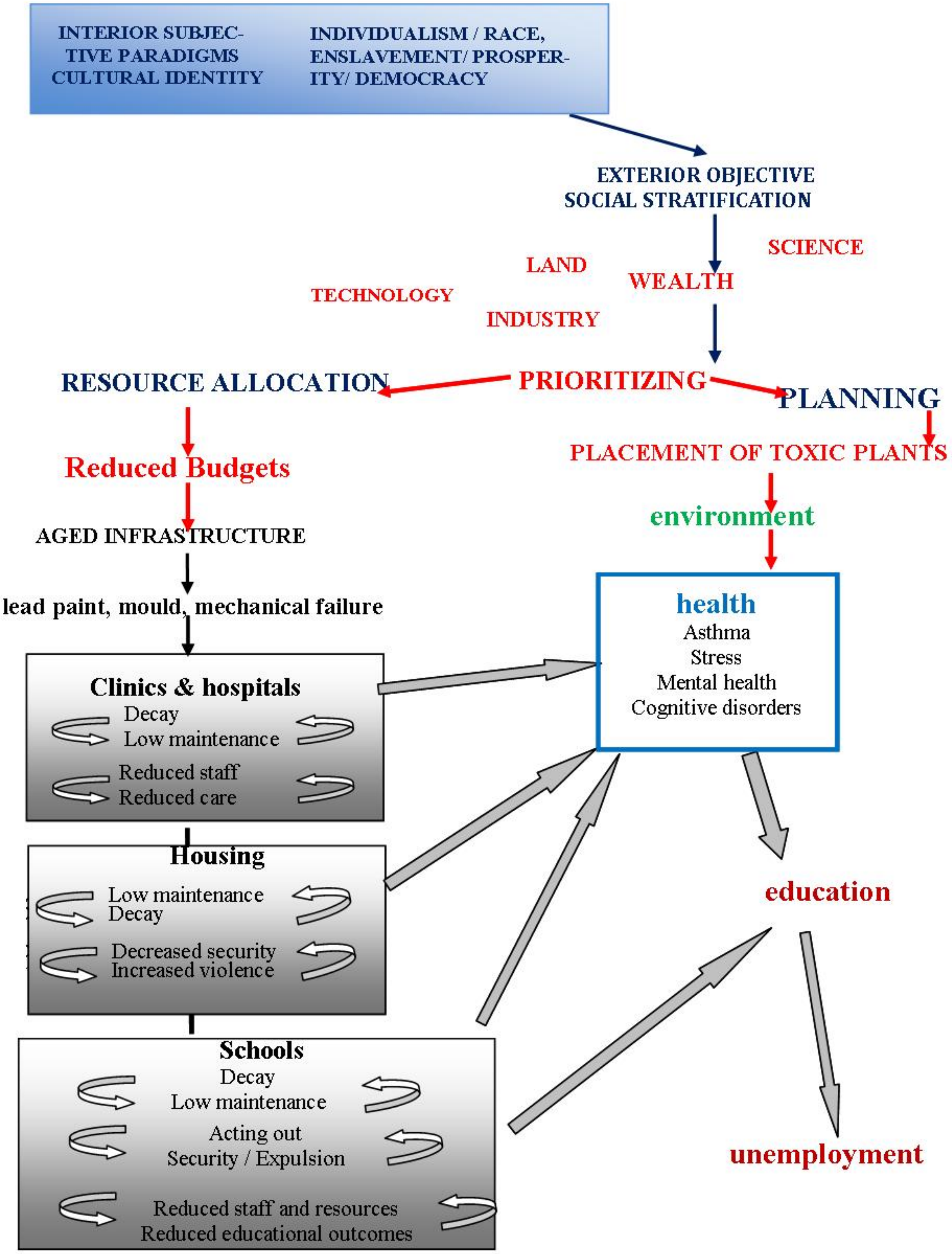
INTERIOR SUBJECTIVE PARADIGMS CULTURAL IDENTITY
INDIVIDUALISM / RACE, ENSLAVEMENT/ PROSPERITY/ DEMOCRACY
EXTERIOR OBJECTIVE SOCIAL STRATIFICATION
SCIENCE
LAND
WEALTH
TECHNOLOGY
INDUSTRY
RESOURCE ALLOCATION
PRIORITIZING
PLANNING
Reduced Budgets
PLACEMENT OF TOXIC PLANTS
environment
AGED INFRASTRUCTURE
lead paint, mould, mechanical failure
health
Asthma
Stress
Mental health
Cognitive disorders
Clinics & hospitals
Decay
Low maintenance
Reduced staff
Reduced care
Housing
Low maintenance
Decay
Decreased security
Increased violence
education
Schools
Decay
Low maintenance
Acting out
Security / Expulsion
Reduced staff and resources
Reduced educational outcomes
unemployment

Figure 1. South Bronx Grinder Detail

illiteracy and poverty. Each of these subsystems has the creaky feel of Gotham city-style bureaucracies: paperwork is lost, errors are made, functionaries cut corners and clients are given confusing, contradictory or simply wrong information. Each displays what Meadows would consider serious systems traps; chief of these is the phenomenon of “race to the bottom” (Meadows 2008, p. 122). Briefly put, this happens when a negative evaluation of a system is met, not with corrective action, but with lowered expectations which further reduce action, and the system drifts gradually downward in a vicious cycle. This system trap can be seen in the progressive cutting of funds to maintenance budgets in the public housing and the education systems and in staffing budgets of education and health systems. Some of these dynamics are captured in Figure 1.

It is in the interactions among the systems that the harm is really done, however. The downward spiraling housing system situates children in mouldy, lead contaminated apartments, causing them to suffer serious physical and mental health conditions, which contribute to cognitive impairments and absenteeism from school, which ultimately results in withdrawal from school. Likewise, lack of medical facilities exacerbates health problems from the home and school environments and further damages educational prospects, and, ultimately, employability.

Each of the subsystems are nested within meta systems flawed by policy resistance and competitive exclusion, which yields an overall planning system that perpetuates the creation of substandard housing and locates harmful industrial installations within residential communities, increasing harms to health. The action of these systems together is not unlike a meat grinder, except that the output of the South Bronx grinder (Figure 2) is recycled as future generations of people.

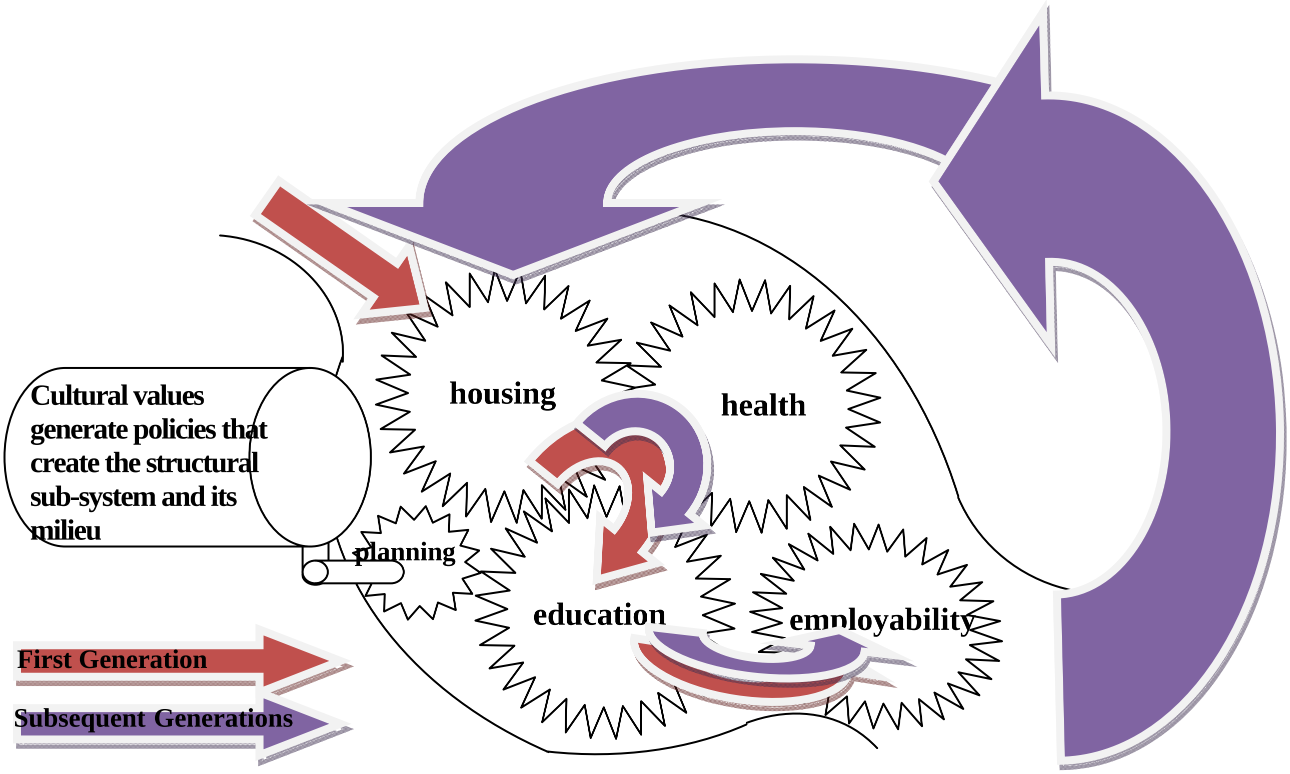
Cultural values generate policies that create the structural sub-system and its milieu
housing
health
planning
education
employability
First Generation
Subsequent Generations

Figure 2. The South Bronx Grinder

Conclusion

The transformation of complex systemic dysfunction such as that in the South Bronx can only be achieved with lengthy, careful, integral attention to the whole system that reconciles the interior-subjective paradigms of race, prosperity and democracy within the American identity and restores coherence among the society's subsystems. With dialogue and discourse gaining popularity across the country, it may yet be possible to eradicate the notion that the horrendous "Bronx system" is simply illustrative of a system doing effectively what it was designed to do.

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Emerging Perspectives of Metatheory and Theory: A Special Issue of Integral Review

Steven Wallis

A New Focus

Welcome to this special issue of *Integral Review*. Here, we have encouraged contributions from a diverse group of serious thinkers. Their peer-reviewed contributions provide a broad range of insights into the emerging field of metatheory. Metatheory is an important field of study because each person's metatheoretical perspective shapes the way she or he understands theory. And, the way we understand theory influences how we create, validate, test, select, and apply theory to improving ourselves, developing goals, and working to optimize the human (and post-human) condition. Without consciously understanding metatheory, we lack a "second loop" of learning – a second level of awareness.

Generally, our experiences give rise to concepts, which we combine, into theories. Theories are like lenses we use to view and engage the world (and ourselves). Having better theories means we are better able to engage the world around and within us. Despite the obvious importance of theory, few have taken the time to understand what it is all about. Engaging theory as a topic of study instigates an important recursion in human thought. Such recursions open the door to revolutions in understanding. For example, what if you changed your nation's policy on how it makes policy, or changed your ethic for changing your ethics?

Here, we investigate our theories about what constitutes a good theory. This approach is conceptually similar to second-loop learning – or learning how to learn. Clearly, if one learns how to learn more effectively, one can learn more quickly and more deeply. This can save a great deal of time (and tuition) and allow one to apply the learned knowledge sooner. This too, is a potential usefulness of metatheory. By using our lenses to look at our lenses, we can create better lenses. Continuing, we may accelerate the process of lens-improvement. With metatheory, we can accelerate the process of theory-improvement. And, thereby, we can accelerate our understanding, self-improvement and conscious co-evolution. Finally, these changes are desperately needed in an era where such understandings are desperately needed and hotly contested.

In this special issue, some authors adopt an approach to metatheory where they essentially combine and integrate multiple theories. Other authors adopt an approach where they use one theory as a lens through which to view (and gain insights into) other theories. A third general theme includes conversations around how we can best engage this thing called metatheory. All of our authors take on this difficult and complex task of understanding theory, integrating theory, and advancing the field of metatheory. My hat is off to each of them, for they are bold explorers in a new field of study.

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We begin with a paper by **Zachary "Zak" Stein** who suggests a philosophical metatheory by investigating the history of metatheory. Exploring a rather interesting idea about metatheory and metatheoreticians he asserts that we are concerned with nothing less than the “trajectory of knowledge production processes.” And, with our metatheoretical perspectives and metatheories, we serve a normative function – guiding and enhancing academic discourse. Importantly, his reflections help us to understanding metatheoreticians – helping to define the field and helping us to learn who we are.

In the process of investigating a theory, one must adopt some conceptual stance. **Stratos Ramoglou** presents an investigation using two such stances to evaluate one theory within the field of organizational studies. One approach is founded on a constructivist view while the other is pragmatic. He shows that it is possible that these metatheoretical approaches can find themselves in conflict, thus raising difficulties for the analyst. To resolve this conflict, Ramoglou presents a third metatheory, an emancipatory perspective, which serves as a “tie breaker” and possibly suggests an evaluative perspective that is more effective than the other two. In plain language, it may be that we do not have (and may never have) all the answers to the uncertainty of the world. Yet, we must engage it. There may be no way to avoid the use of some metatheoretical model. And, emancipatory values allow for the emergence and engagement of new ideas. This, in some sense, cuts through a difficult dilemma. Instead of asking, “Is this true or not?” his approach suggests that we may benefit most by accepting the idea based on the benefits that such a belief may provide.

In another example of an emancipatory perspective, **Carter Haynes** adopts a high-level approach to identify the limitations of positivist research in the analysis of complex, subtle, social systems. Specifically, and appropriately, his exemplar here is fundamentalist religions. He draws an interesting parallel between religious fundamentalism, and positivism – where positivism may be understood as a sort of an academic fundamentalism. Haynes goes on to describe a variety of qualitative methodologies and, importantly, suggests that epistemological flexibility and metamethodology are useful supports for critical analysis and the building of more effective metatheory.

Instead of looking at a metatheory as a combination of perspectives that describe an overarching perspective, **Alan Singer** looks at a metatheory as a set of under-girding commonalities – something that connects and integrates core ideas of multiple perspectives from multiple perspectives. His paper is more complex than most in this special issue and his many insights are well worth reading. Here, Singer is focused on business strategy as a form of metatheory. He demonstrates by careful example how metatheorizing might be used to combine strategy, ethics, and more. He also suggests the importance of metatheory as part of a formal educational process to help students understand and integrate ideas across disciplines.

The importance or usefulness of metatheory depends on how effectively the field of study is developed. In the next paper, **Steve Wallis** provides an outline of metatheory’s standing as a science; and, what we might do to advance the study of metatheory. He includes modern, postmodern, and integral approaches to science and so opens the door for greater synthesis and extensions of this emerging field. Usefully, he reviews a wide range of metatheoretical methodologies from critical and appreciative perspectives, while highlighting those that appear to the most effective in developing more rigorous theory and metatheory.

It is interesting to note a German-English connection in the growing field of metatheory. Authors from previous issues of the *Integral Review*, such as Markus Molz and Wendelin Küpers, are joined in the present issue by **Karim Fathi**. Fathi's paper, in German, investigates two approaches to conflict resolution. Importantly, he consciously applies a specific model to investigate the integration of those approaches. That model, an Integral Approach based on Wilber's AQAL model, clarifies important aspects of the conflict management approaches. He finds that this approach is useful for integrating multiple theories. Specifically, he finds that AQAL (in its present form) lacks categories that appear necessary to understand the process of conflict resolution. Thus, Fathi opens the door to advancing both conflict resolution theory, and integral theory. And, like Singer's work in this special issue, suggests that researchers should be familiar with a variety of epistemological, metatheoretical, and practical approaches. For those who do not read German, Karim has thoughtfully provided an extended abstract in English.

Special Section – Combining the Combinations

An important part of metatheory is the process and product of combining and integrating multiple theories. In this special section, we begin with three papers – looking at three metatheories where the authors have used their understanding of metatheoretical methodologies to integrate theories within disciplines. The fourth paper takes the additional step of integrating the three across disciplines. Both process, and results, provide valuable insights to those interested in metatheory, transdisciplinary studies, and (of course) each of the specific fields of study addressed directly in the papers.

In the first paper, **Annemie Ploeger** begins with evolutionary psychology, which has already been advanced as a metatheory. In this, she asks a question that is often asked by theorists and metatheorists, alike: Why has this metatheory not been widely adopted? Importantly, she draws useful conclusions as to how a theory works (or does not work) within a discipline and opens the door for interesting conversations and explorations into the effectiveness of metatheory within the social sciences.

In the second paper, **Mark Antley** investigates the field of human development. He uses complexity theory as a lens to interpret, and find linkages between, multiple theories (as developed by Bandura, Sameroff, and Erickson). Mark finds this approach useful for identifying contradictions and inconsistencies between theories; which, itself, points to a useful tool for metatheoretical studies. That understanding, importantly, represents a purposeful and metatheoretical approach to identifying opportunities for advancing theories and disciplines.

Latha Poonamallee begins the third paper of this special section with the recognition that paradox and contradiction between competing theories creates a challenge to the creation of metatheory. She proposes a resolution to this issue that involves the adoption and implementation of a metatheoretical stance based on advaita (non-dualism). Through her investigation of the epistemology, ontology, and praxis of advaita, she develops an intriguing line of inquiry balancing spirituality and metatheory. Practical implications are also suggested that may be applied to individuals, communities, and combinations of approaches to research.

In the final paper of this special issue, **Annemie Ploeger** provides an essay with a bold and intriguing goal – she seeks to integrate the three metatheories of this special section. Her effort points to some of the exciting possibilities, as well as some of the inherent difficulties, of this kind of process. From her effort, it seems that it is easier to integrate theories that share a common intellectual heritage (evolution and systems, in this case). It is more difficult, though not impossible, to integrate those metatheories with advaitic approach. Another difficulty may be in linking different "forms" of conceptual constructs. In this case, evolutionary theory and systems theory are fairly well advanced as "theories." In contrast, the advaitic approach is more of a philosophy (including elements of ontology, epistemology, and more).

Toward the Horizon

These authors do not engage in an easy task. Metatheory is an emerging field and our scholars are explorers. Explorers who purposefully eschew the daily commute in exchange for a challenging voyage on uncharted seas. In this, they are not merely mapping uncharted territory; they are also exploring what it means to have a map.

This kind of exploration does not occur with great frequency. Indeed, for the social sciences, this may be the challenge of the millennium. To help us meet that challenge more effectively, we need new ways to identify the topology of our “conceptual constructs.” If our experienced world oscillates between relativism and determinism, is it possible to point to something and unarguably identify it as a philosophy, paradigm, theory, ontology, or fact? And, what if those things may be recognized as facts from a relativist perspective, but theories from a deterministic one? Those designations may become “moving targets” that may change depending on the context in which they are observed or used.

On one level, such questions may appear to generate quite simple answers. One might simply say, “I know it when I see it – and there it is.” On another level, the interrelationships between these conceptual constructs makes that process as difficult, and as important as defining one’s relationship with the universe. To merely think about such relationships, tends to change them.

To conclude, it is important to note that each of the articles in this special issue is developing, presenting, or using a methodology for the combination and/or analysis of theory. These exercises advance our understanding of metatheory and theory, thus advancing the field of metatheory and improve our ability to understand and develop theory to optimize the human condition in concert with our planet.

My profound thanks to the authors, reviewers, editors, and publishers of *Integral Review* for their encouragement and support in the creation of this special issue. It is rare to find this blend of brilliance, dedication, and empathy. And, I feel that we are all better for their efforts. It is my hope that the examples and insights presented in these articles and essays will enable and encourage you, the reader, to become a conscious and active participant in the nascent field of metatheory.

On the Normative Function of Metatheoretical Endeavors

Zachary Stein[1]

Abstract: I reconstruct an historical understanding of metatheory that emphasizes its *normative function.* The pioneering work of James Mark Baldwin inspires an account of how metatheoretical constructs emerge developmentally and come to serve a discourse-regulative function—overseeing, organizing, and regulating whole fields of discourse. Then I look to Charles S. Peirce as an exemplary normatively oriented metatheorist and explain how both continue a philosophical tradition concerned with the normative function of humanity more broadly. Thus, while I think it is valuable to pursue a variety of metatheoretical endeavors, including descriptive and empirical ones—mapping the terrain of various discourses, or summarizing their contributions—I argue for a specific vision of metatheory as a *normative* endeavor with rich intellectual and historical precedence. Unpacking some of the implications involved with this way of viewing and doing metatheory lead to considerations about the differences between two general types of metatheory (scholastic-reductionist and cosmopolitan-comprehensivist), the role of philosophical interlocutors in the public-sphere, and the trajectory of human evolution in the coming decades.

Key words: Charles S. Peirce, Integral Theory, James Mark Baldwin, metatheory, normativity, 19th Century thought.

Introduction: We metatheorists?

> [With] self-consciousness comes the possibility of *transforming* ourselves by adopting new vocabularies, redescribing, and so reconstructing our selves and discursive institutions. While all of us are in some sense *consumers* of such new vocabularies, it is the special calling of some to *produce* them. And among those producers some take the construction of unique, potentially transformative vocabularies as the project by commitment to which they understand and define themselves. Among that group, some seek to produce those new vocabularies precisely by trying to understated the phenomena of sapience, normativity, conceptuality, reason, freedom, expression, self-consciousness, self-constitution, and historical transformation by subversive, empowering vocabularies. Those are the philosophers. They are charged neither with simply understanding human nature

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> (human history), nor with simply changing it, but with changing it *by* understanding it. (Robert B. Brandom, 2009, p. 150)

In general, we humans are a self-interpreting species for whom the practice of recollecting and redescribing ourselves is a crucial necessity. For us the reconstruction of identity is a continuous process wherein the *past* is selectively crafted into a *history*. It is a creative and self-constitutive exercise. We come to know each other and ourselves not by exchanging resumes (mere inventories of events), but by telling our stories. And our stories change as we do; they reflect what actually happened and what we think is worth remembering, they reflect who we were, who we are, and who we would like to become. Neglecting this retrospective task results in identity confusion, leaving us fragmented, meandering, directionless. Some argue that the species as a whole faces an impending identity crisis as the unchecked proliferation of informational and biological technologies create abrupt discontinuities in the intergenerational fabric of the lifeworld, catapulting us out of history and into forms of life that are incongruent and incomprehensible (Habermas, 2003; Fukuyama, 2002). These concerns about possible futures appear realistic when they are seen in the context of the obvious identity confusions that already characterize large swaths of the academy, especially in the humanities and social sciences (Kagan, 2009; Menand, 2010). The disciplines traditionally responsible for the self-interpretation of the species do not have a coherent self-interpretation themselves.

This paper is a preliminary articulation of how I think we metatheorists should understand our endeavors. I articulate this self-understanding by pointing to certain specific historical figures and their ideas, which I think exemplify the character and trajectory of our field. This proposed self-understanding addresses both aforementioned loci of identity confusion. Remembering (recollecting and redescribing) who we are as metatheorists should go a long way toward bringing order to the disorder and fragmentation of the academy. It should also allow for the emergence of profoundly substantive and coherent voices in a public sphere that is increasingly irrational, inarticulate, and superficial.

What follows is a certain type of scholarly intervention. It involves an historical reconstruction of core intellectual themes that have shaped a given field, addressing this reconstruction to participants in that field, and thus affecting how they understand their efforts. Both Brandom (2002; 2009) and Habermas (1971) have executed projects of this type—in philosophy and critical theory respectively—and both have discussed the unique methodological issues involved. Historical reconstructions of this kind are not uncontroversial. As mentioned above, and unpacked in the methodological clarifications of both Habermas and Brandom, the *past* must be crafted into a *history*. The reconstruction of a cumulative trajectory or tradition is both a discovery and a creation. It is also both descriptive and prescriptive. We remember what we think is worth remembering, which depends in part on who we want to become, yet who we want to become is a reflection of who we think we have been all along. This kind of complex hermeneutic exercise is indispensable for assuring the continuity of intellectual traditions. Retrospective reconstructive work sets the necessary staging for concerted constructive efforts.

Importantly, these kinds of reconstructions are always partial. The story I tell here is but *one* story (and a regrettably brief and unelaborated one at that). There are other stories worth telling. And I encourage the reconstruction of different stories. In one sense this paper can be read as having a merely *expressive* intent, as opposed to its being read as if it were crafted to persuade or convince. Taking it this way amounts to seeing it as akin to the declaration: “This is how I understand what I am doing. Who is with me?” This does not mean what follows is arbitrary or irrelevant, or that it cannot be persuasive. The long tradition of expressive philosophical projects—from Schelling, Nietzsche, and Emerson through Derrida, Rorty, West, and Brandom—would suggest quite the opposite. Many have been *influential* while yet only claiming to express themselves, especially regarding issues too deep to really argue about. So while I am adopting a somewhat unconventional argumentative strategy, it is not an unreasonable one.

I have adopted this argumentative strategy mainly in response to the state of the discourse surrounding the term *metatheory*, which has been so variously characterized (e.g., Edwards, 2008; Fiske & Shweder, 1986; Overton, 2007; Ritzer, 1991; 1992). At first pass the term can simply be understood as referring to a type of super-theory built from overarching constructs that organize and subsume more local, discipline-specific theories and concepts. Roughly: whereas a theory within a discipline typically takes the world as data, metatheory typically takes other theories as data. Beyond this first pass, however, the discourse about metatheory gets very complex very fast (see Rizter, 1992). A highly abstract, ornate, and self-referential academic niche has emerged. And as a result there has been a flowering of interesting intellectual work concerning metatheory. This is not a situation unique to the discourse about metatheory. Nor do I write this intending a criticism of the field. This is how things stand in most fields, even those with seemingly straightforward subjects, such as *human memory* (see: Hacking, 1995).

But things get even more complex and contested if *philosophy* is not partitioned off from metatheory (a move I have never seen justified) and if the whole discourse about *interdisciplinarity* and *transdisciplinarity* is also thrown into the mix (e.g., Gibbons, Limoges, Nowontny, Schwartzman, Scott, & Trow, 1994; Klein, 2005, Stein, 2007). When the net is cast broadly what comes into view is an expansive and unprecedented proliferation of reflective activity about knowledge production processes in post-industrial socio-cultural contexts. The task of cataloging the various genus and species that populate this intellectual landscape is a daunting one. And the idea of offering some new theoretical creature that might survive seems misguided, as the diversity on the current scene suggests probable redundancy. So my strategy has been to look back to a time before the Cambrian Explosion, as it were—a time before the contemporary cacophony—to find the key progenitors in hopes that this approach might allow for clarity about the core properties that characterize metatheoretical endeavors.

What results, I think, is a compelling account wherein metatheory is understood as a unique extension of more traditional modes of philosophy. First emerging in America in the later half of the 19th Century, metatheory grew up as a response to advances in psychology that would transform epistemology, and to socio-economic transformations affecting the institutionalization of knowledge production—the birth of the complex departmentalized research university. It emerged to serve a normative function as a result of cognitive, disciplinary, and discursive necessities, ultimately positioning itself as a locus of responsibility for setting the trajectory of high-level discourses and reflective cultural practices. Of course, today metatheorists claim to be doing all kinds of things, such as serving descriptive, deconstructive, or even decorative functions. I am aware of the various ways we metatheorists might understand ourselves, but I choose to offer a vision that emphasizes the distinctly normative core of metatheoretical endeavoring. Others are welcome to tell stories that construe metatheory differently, perhaps as a more recent and poly-focal form of academic activity. I personally prefer to see metatheory as the continuation by new means of classic philosophical efforts, where highly reflective individuals take responsibility for discursively constructing conceptual innovations aimed at bringing coherence to the state of knowledge for the sake of shaping human history.[2]

Below I profile James Mark Baldwin and Charles S. Peirce, characterizing them as key progenitors of contemporary metatheory. They both self-consciously appropriated and transformed the philosophical traditions they inherited in order to address the rapidly changing contexts of knowledge production they faced. The results are best understood as metatheoretical endeavors that are explicitly related to a specific philosophical tradition concerned with the function, role, and purpose of humanity in an evolving universe. So Peirce and Balwdin are two of the missing links (though there are others) that relate contemporary metatheory to the full richness of its philosophical inheritance. I will offer more on that philosophical tradition in the penultimate section below. First I will briefly explain Baldwin's metatheoretical ambitions, including a look at his model of human development, which was, in part, an account of the genesis of metatheoretical constructs. Then I will discuss Peirce’s philosophical work as a way of demonstrating Baldwin’s ideas about the normative function of metatheoretical constructs that are understood as high-level emergent properties of cognitive developmental processes. Peirce’s work exemplifies the kind of normatively oriented metatheory that was (and still is) struggling to emerge and to meet the needs of our self-interpreting species, which must create the metatheoretical languages it would use to re-create itself.

Baldwin's Dictionary and His Views of the Higher Stages

> We see experience establishing, of itself, a synthetic mode of apprehension. To our mind, the course of the history of thought makes it plain that the quest for such a mode of experience presents the only hope of a lessened strife among points of view; for in such a mode of process evidence would be present to show that the entire system of experience is expressive of reality, and that only in the organization of the whole are the respective roles of this and that function to be made out. [Thus] the need of carrying out to their legitimate outcome all the hints that consciousness gives as to its unreduced and undivided epistemological calling. [This calling] does not deny the epistemological value of any of the mental functions, or the force of any of the theories which are based respectively upon one or other of the functions; on the contrary, its aim is to discover the synthetic adjustment of their claims with the larger whole. (James Mark Baldwin, 1915, p. 226)

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[2] It may be that I am merely reconstructing part of the lineage of a certain *type* of metatheory. Perhaps the type of metatheory I am reconstructing here is better understood as a species of *philosophical* metatheory, which can be set apart from *scientific* metatheory (Ritzer, 1991). Or perhaps it should be called, *integral* metatheory (Edwards, 2007; Esbjörn-Hargens & Zimmerman, 2009; Hamilton, 2008; Laszlo, 2004; McIntosh, 2007; Mascolo & Fischer, in press; Wilber, 1995; 1999). I have no objections to the idea that what follows is merely a reconstruction of a certain *type* of metatheory. It may be that what I have in mind is not even metatheory, but a kind of philosophy. Call it what you will in the long run, I call it metatheory here for rhetorical purposes. I return to this issue in the conclusion.

James Mark Baldwin was a massive figure on the intellectual scene of his day. During the height of his influence he was mentioned in the same breath as William James, John Dewey and Pierre Janet, on both sides of the Atlantic. He was arguably the most significant American psychologist of the 19th Century—while James gave psychology a face, publishing the indelible *Principles of Psychology*; Baldwin gave it legs, institutionalized it, building labs and starting journals. His writings were widely cited, translated into many languages, and several of his books were considered as standards in the field.[3] And though his theories have had a lasting impact on a variety of areas—from developmental psychology (Kohlberg, 1981; Piaget, 1932) and psychoanalysis (Lacan, 1977) to evolutionary biology (Weber & Depew, 2003), evolutionary epistemology (Campbell, 1987), and integral theory (Wilber, 1999)—he is not the household name he once was.

Given his former stature and the continuing relevance of his ideas, many have speculated about the reasons for his present obscurity (Broughton & Freeman-Moir, 1982). A scandal did leave him blacklisted in American academia, and his departure did clear the way for behaviorism, as John B. Watson assumed control of Baldwin's prestigious faculty position and numerous journal editorships (see: Wozniak, 2001). However, Baldwin did continue to write prolifically while exiled in France, was eventually elected a foreign correspondent to the French Academy (the highest honor that can be given to a non-citizen), and then bestowed the Legion of Honor for his charity and relief work in France during World War I. The standard story is that institutional rearrangements and broad changes in the academic *Zeitgeist* secured his fate as a footnote in the history of psychology. There is certainly a moment of truth in that account, but there is a deeper reason for Baldwin's neglect, I believe. It has to do with the fact—and the parallels with here Peirce are remarkable, as I will show below—that he was doing metatheory when it was unacceptable to do so.

His later works are nearly universally considered to be obscure, speculative, and worthless to contemporary psychology (Boring, 1922; Richards, 1987; Weber & Depew, 2003; although see: Broughton & Freeman-Moir, 1982). [4] This is, I believe, because these works (Baldwin, 1911, vol. 1-3; 1913, vol. 1-2; 1915) unlike his earlier works (1895; 1897) are not offered in the spirit of experimental psychology. Baldwin's later works are offered as metatheoretical interventions, aimed at organizing the existing state of discourse in the human sciences, biology, and the humanities into a common framework, a *comprehensive developmental theory of reality*.

Baldwin's moves beyond psychology toward metatheory were undoubtedly catalyzed by his work as editor of the *Dictionary of Philosophy and Psychology* (Baldwin, 1905).[5] The *Dictionary* stands as one of the most impressive trans-national scholarly efforts ever. Explicitly comprehensive in its ambitions, its four massive volumes cover the majority of academic knowledge that existed at the turn of the last Century. It contains contributions from hundreds of academics on well over a thousand topics, serving as a veritable *who's who* and *what's what* for the 19th Century academy. The *Dictionary* remains unrivaled as a scholarly achievement in certain respects—getting a remarkable amount of knowledge under one roof, with attention to codifying common terminology and efforts at clarifying the structure of the epistemological relations between the disciplinary perspectives in play. And Baldwin oversaw the entire project, making emendations or substantial contributions to almost every entry.

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[3] For an account of Baldwin's life and work see: Boring, 1922; Richards, 1987; Wozniak, 2001.

[4] Yet even Broughton only really pays attention to the first volume of Baldwin's three-volume *magnum opus*.

[5] For an account of how profoundly the project affect Baldwin's thought see: Wozniak, 2001.

Importantly, the ambitious encyclopedic effort coincided with Baldwin's appointment to John's Hopkins University, the first modern research university in America. This was a dynamic time in the history of academic institutions (Cremin, 1988; Kerr, 1963; Menand, 2010). The sciences began to gain hegemony and the disciplines were subdividing and multiplying at a dizzying rate. No student of 19th Century thought can ignore the profound and pervasive impacts resulting from the professionalization and concomitant departmentalization of knowledge production in the years immediately preceding the publication of Baldwin's *Dictionary*. It was in these years that the academy began to assume the shape it has today, with a vast array of siloed, specialized disciplinary areas. It is hard to see Baldwin's *Dictionary* as anything but a response to what was becoming an increasingly fragmented and sprawling intellectual landscape, an unprecedented academic landscape he found himself in the middle of at Johns Hopkins.

But while he was in the middle of it institutionally, he was also in the middle of it theoretically, as his interests turned at this time toward articulating a metatheoretical developmental epistemology. He moved beyond the focused experimental orientations that characterized his earlier psychological works. Baldwin begin to construct an overarching model that could account for the wide variety of knowledge he was compiling for the *Dictionary*, the various types of validity-claims, and the related methods of investigation. Moreover, it was a model that would ultimately account for his *ability* to organize this knowledge, providing an account of the genesis of metatheoretical constructs as high-level emergent products of cognitive developmental processes. From where I sit it is critical to see—although it is often overlooked—that the publication of the *Dictionary* immediately preceded Baldwin's work on *Thought and Things* (1911, Vol. 1-3).

In *Thought and Things,* his *magnum opus,* he offers a *convergent view* of human epistemological development, putting forward a model in which the higher-stages are mainly integrative and reconciliatory—functioning to transcend the dualisms and differentiations carefully and necessarily built up as the child develops in relation to culture and nature. Baldwin suggests that psychological growth is best thought of in terms of different *lines or domains of development*, which he refers to as *developmental modes*. Each mode is a relatively distinct skill or capacity, exercised in relation to different aspects of reality. Modes cluster together because they have similar external *controls,* thus forming distinct object domains. Different disciplines, methods, and their related validity-claims can be organized in terms of differential mode-recruitment profiles. And at a more abstract level this same strategy provides Baldwin with a way to build a system of epistemological categories. At its highest reaches the model contains a central division between *logical* and *practical* modes—a distinction that retrofits Kant's differentiation of *theoretical* and *practical* reason. This is the difference between science and morals, between objectivity and inter-subjectivity; I-It set apart from I-Thou-We. For Baldwin (and others, e.g., Habermas and Wilber), the two most basic modes of development are those that cluster around objects (I-IT; objectivity) and those that cluster around people (I-Thou-We; intersubjectivty/subjectivity).

In any case, late in the life course, according to Baldwin's model, these different lines reach a point of complexity and divergence such that they call for the creation of a specific type of new concept, built to transcend but include the differences between the logical and the practical—to reconcile science with the perspectives of the lifeworld. New constructs emerge and begin serving a discourse-regulative function—overseeing, organizing, and regulating whole fields of discourse. With a nod to Kant, Baldwin characterizes this emergent developmental capacity as the *aesthetic imagination*. In Baldwin's words:

> The outcome of our investigation, broadly stated, is that in the aesthetic imagination . . . *the processes of experience [can] come together after having fallen apart.* Each of the cognitive modes [i.e., lines] . . . sets up, as is its nature to, a reference in which *the real for it, its real, is found*. But in each case *its real*, not *the real*, is postulated or presupposed, since the control that is discovered is the outcome of this or that special mode and stage of psychic function. The protest of the aesthetic imagination is against just this partialness of each of the modes of "real" meaning. Its own ideal, on the contrary, is one of completeness, of reunion, of *reconciliation*; it gives us the "real" which is absolute in the sense that its object is not relative to, and does not fulfill, one type of interest only to the exclusion of others. (Baldwin, 1911, Vol. 3, p. 13)

In Baldwin's model the aesthetic imagination emerges during the course of late-stage cognitive and socio-moral development. It leads to the construction of a variety of *trans-logical* and *trans-practical* constructs. These constructs function across multiple domains and disciplines to oversee, integrate, and regulate important reconciliatory syntheses. For example, Baldwin states that at this stage the individual begins to yearn for views that overcome the distinctions between mind and body, theory and practice, and the ideal and the actual.

Most relevant to this discussion is what Baldwin called *theoretical intuition*, a name he gives to what results when the aesthetic imagination is exercised in the domain of theoretical or logical pursuits, such as science. As Baldwin describes, "By theoretical intuition is meant the immediate apprehension or perception of rational principles as such, these principles being looked upon as constitutive or regulative of knowledge" (Baldwin, 1911, Vol. 3, p. 234). Thus, according to Baldwin's developmental model, whole theories, methods, and discourses come to be regulated by the products of late-stage psychological growth. A capability comes online that allows for the creation of metatheoretical constructs that serve a normative function.

This way of understanding the higher reaches of human epistemological development would buoy Baldwin’s continued metatheoretical endeavors, most notably his ambitious attempt at building a *comprehensive developmental theory of reality* (Baldwin, 1915). According to this vision, human experience, as elaborated through cultural evolution, is the apex of cosmic evolutionary development, giving a unique significance to our moral, epistemological, and for Baldwin most importantly, our aesthetic strivings. For Baldwin, with homage to Kant’s third *Critique* and the Romantics it inspired, it is in the reconciliatory immediacy and world-disclosing power of aesthetic experience that the fullness of reality is revealed, transcending but including all the partial modes of experience built up over the course of biological, cultural, and individual evolution. Thus do the aforementioned *aesthetic imagination* and its *theoretical intuitions* function to guide the trajectory of cultural evolution. And so the function of humanity in the natural world is a normative one—to redeem, reconcile, and resuscitate the full reality and meaning of the universe. But this is getting ahead of our story.

For now it should be noted that Baldwin's theorizing ate its own tail. He offered a theoretical account of the very cognitive processes that he recruited in his metatheoretical endeavoring. He argued that metatheoretical constructs, which organize and regulate whole discourses and theories, were a necessary outgrowth of epistemological development. I pointed out that he began his forays into metatheory after executing a massive project that got him intimately acquainted with the full range of knowledge production processes then extant. So Baldwin's story teaches that the emergence of metatheory involves an *ability* to reflect on a range of knowledge production processes and recognize that they need regulating, organizing, and direction setting. This ability was inimitably exemplified by Charles S. Peirce, who faced the same unprecedented academic environment as Baldwin, and who also took the metatheoretical high road.

Peirce's Metatheoretical *Modus Operandi*

> The word *normative* was invented by the school of Schleiermacher. . . . But we must trace its introduction into common speech, to Wundt. It is taken from the Latin verb *normo*, to square. . . . The majority of writers who make use of it tell us that there are three normative sciences, logic, aesthetics, and ethics. The doctrines of the true, the beautiful, and the good, a triad of ideals which has been recognized since antiquity. . . . Logic is the theory of *right* reasoning, of what reasoning ought to be, not of what it is. On that account, it used to be called a *directive* science, but of late years the adjective *normative* has been generally substituted. (Charles S. Peirce, 1931, p. 5)

Peirce was a towering but controversial figure on the intellectual scene of his day. He was by any measure a prodigious polymath, with a working mastery of well over a dozen sciences, a mathematician, logician, metaphysician, and an epistemologist. He was one of the few American academics on the world stage during the middle of the 19th century, and was the first American to be elected as a member of an international scientific organization. But he was never able to gain the institutional support and positioning in the American academy that many thought he deserved. Both his personality and the substance of his intellectual contributions made it difficult for him to secure a position. As would be the case for Baldwin two decades later, a scandal forced Peirce to leave John Hopkins University.[6] And like Baldwin, Peirce was a metatheorist during a time when it was unacceptable to be one. During the last decade of his life he faded into obscurity, eventually dying in poverty in rural Pennsylvania. He was known as the greatest genius of his generation to a few (including William James and Theodore Roosevelt), but completely unknown to most.[7]

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[6] A footnote is warranted about the fact that both Peirce and Baldwin were dismissed from the academy due to sexual scandals. (Baldwin was caught in a club that also served as a brothel; Peirce got a divorce and married a (very) young French woman). But a full discussion of the shadows of these men, the mores of Victorian America, and the complex and personal nature of the academic politics involved would take us too far afield (See: Brent, 1998; Richards, 1987).

[7] For an account of Peirce's life, which had the plot line of a Greek tragedy see: Brent, 1998.

Yet Peirce toiled away at his work, even as he was starving to death in the Delaware River Valley. He ultimately built what is one of the most profound philosophical systems ever constructed. As Peirce explained it,

> [I intend] to make a philosophy like that of Aristotle, that is to say, to outline a theory so comprehensive that, for a long time to come, the entire work of human reason, in philosophy of every school and kind, in mathematics, in psychology, in physical science, in history, in sociology, and in whatever other department there may be, shall appear as the filling up of its details. (Peirce, 2000, p. 168)

This system has exerted a wide ranging influence, from philosophers like Popper (1966) to linguists like Chomsky (1979), both of whom see Peirce as one of the most significant philosophers to have ever lived. His continued relevance for a wide range of fields outside philosophy, including semiotics (a field which he founded), cognitive science, and computer science, is evidenced by what amounts to an academic cottage industry, where scholarship is burgeoning (see Misak, 2004).

For the purposes of the story I am telling here, it is important to see that Peirce's work was, in part, like Baldwin's, a response to the unprecedented transformations affecting academic knowledge production processes in the later half of the 19th Century (Ketner & Kloesel, 1986). On one reading, Peirce's philosophical system can be understood as a general semiotics, analytically equipped for *overseeing, explicating, and evaluating* different kinds of beliefs at multiple levels—from propositions, to arguments, to discourses. Peirce executes this ambitious project by utilizing a variety of philosophical methods—methods Baldwin would claim exemplify the exercise of aesthetic imagination, or theoretical intuition.

Peirce surveyed a broad expanse of sciences and inductively explicated an evolutionary hierarchy akin to a biological taxonomy (Kent, 1987; Peirce, 1931). He built a system of existential-graphs wherein the relations between propositions are explicated via logically uniform concept maps (Peirce, 1933; Shin, 2002). He also clarified the intersubjective conditions for the possibility of reliable knowledge production, arguing that inquiry-oriented communication communities must have an open and inclusive structure predicated on trust, honesty, and reciprocity (Apel, 1995; Peirce, 1984). And of course, as a final example, it is well known that underlying his whole system was a set of three *primordial concepts*—in Kant's sense of being transcendentally basic—that he characterized as syncategorematic categories, and once correlated with the three basic pronouns, I, Thou, and IT (Habermas, 1992; Peirce, 1982). In all of these instances Peirce was out to build metatheoretical constructs that could play a role in adjudicative processes concerning the value of our cognitive wares.

Moreover, Peirce, like Baldwin, positioned his discourse-regulative project atop a broader evolutionary vision of the universe where the strivings of humanity are continuous with the evolution of the cosmos (Peirce, 2000; 1934; Esposito, 1980; Hausman, 1993). Peirce articulated a sophisticated and empirically grounded evolutionary ontology where all events are semiotic processes that co-evolve toward increasing complexity, autonomy, self-awareness, and possible harmony. Peirce's *pansemiotic* evolutionary theory was a unique (post-metaphysical) view in so far as it was explicitly offered as a hypothesis amenable to correction in light of forthcoming empirical data. It greatly influenced Whitehead (1978) and continues to intrigue and inspire scholars in the physical and biological sciences (Prigogine & Stengers, 1984) and philosophy (Apel, 1994).

This understanding of evolution allowed Peirce, like Baldwin, to bring his overarching normative concerns about the trajectory of academic discourses in line with a venerable philosophical tradition that articulated the radical significance of humanity’s cultural endeavors in terms of a cosmic evolutionary unfolding. Ultimately, Peirce, with a look in Kant’s direction, envisioned humanity as capable of multitudinous self-correcting intellectual and ethical endeavors, which ought to result in an ideal communication community coterminous with the cosmos. In this post-metaphysical eschatology, the ideals of *harmonious love between all beings* and *unconditional knowledge about all things* stand as goals to be approached asymptotically. With this thought Peirce rearticulates a philosophical motif that can be traced back through Emerson, Schelling, and Kant to the obscure cipher of Bohme’s mystical Protestant religiosity and its ancient Hebraic and Neo-Platonic roots.

What Does it Mean to Serve a Normative Function: Humanity's Task

> We are symbols, and inhabit symbols. . . . Our expressions, or namings, [or theories,] are not art, but a second nature, grown out of the first, as a leaf out of a tree. What we call nature, is a certain self-regulated motion, or change; and nature does not leave another to baptize her, but baptizes herself; and thus through the metamorphosis again. (from *The Poet* by Ralph Waldo Emerson, 1895, p. 86)

Emerson was not the first to speculate about the function of humanity in nature; but he was one of the most articulate. Beyond merely positioning humanity in the natural world, Emerson offered a vision in which humans have a role to play, a task ordained—a function—in nature. The continuity of human history with natural evolution would become a theme in American philosophy (Schnieder, 1963). Following the influential examples of Herbert Spencer and Auguste Comte, a set of speculative Americanized ‘cosmic histories’ were articulated by the likes of John Fiske (1874) and Francis Ellingwood Abbot (1885). Lester Frank Ward (1883), the St Louis Hegelians (Leidecker, 2007), John Dewey (1898) and others (Mead, 1936), would all argue that cultural evolution should be understood as being in important ways continuous with cosmic evolution. These early voices, like those of Peirce and Baldwin, toiled in Emerson's shadow. Of course, Emerson toiled in the shadow of Kant, who first tentatively and cryptically suggested that the laws humanity gives itself are best read as an autonomous extension of the self-regulative processes of the natural world. According to this view, humanity's *autonomy*—literally, its self-legislating capability—represents nature's crowning innovation, wherein are found startling advances toward novelty and complexity. Importantly, a capacity for autonomy entails the acceptance of responsibility. This is the root of the notion that humanity is somehow accountable for the trajectory of evolution.

According to the tradition I am reconstructing here—from Kant through Emerson to Baldwin, Peirce, and Wilber—the function of humanity in nature is a *normative* one. It is a function contingent upon the autonomy of humanity in an evolving world and humanity's reflective knowledge of this situation. This tradition suggests that we are responsible for directing the trajectory of evolution, and we know it (our ought to). Peirce wrote about it in terms of our having a responsibility to lay down new cosmic habits; Emerson offered his evocative and ennobling calls for self-determination with this broad context in mind; Kant argued that humanity ought to facilitate the transformation of the *kingdom of nature* into the *kingdom of ends* by proceeding such that the norms of our actions might be fit to serve as universal laws (akin to natural laws). These views highlight the directive, regulative, trajectory setting—that is, the *normative*—function of humanity in nature.

As I have suggested above, this philosophical tradition focusing on the normative function of humanity is the context from which the first metatheoretical endeavors emerged. Metatheories emerge, as Baldwin suggests and Peirce's work exemplifies, in order to regulate and oversee whole sets of discourses—serving a normative function vis-à-vis more local, discipline-specific theories and concepts. Metatheories set the trajectory for broad segments of culture and knowledge production. This saddles the metatheorist with unique responsibilities.

Along these lines, many of Kant's arguments were set in the context of specific views about the responsibilities of philosophers in the public sphere and beyond. In the final sections of the *Critique of Pure Reason,* Kant (1998, B867) lays out a distinction between two general types of philosophers: scholastic-reductionist and cosmopolitan-comprehensivist. The former perpetuates the fragmentation of knowledge by exercising the power of philosophy in isolated contexts and for partial purposes. The latter embodies a post-metaphysical vision of philosophy wherein the philosopher serves a normative function in the public sphere, explicating the *teleologia rationis humanae*, being a legislator of reason's future, and an immanent catalyst of the *corpus mysticum*.

Kant (1983) articulated one of the earliest and most influential normative global meta-narratives in a series of publications about the history of human civilization and the necessary future emergence of a global governance system.[8] In its wake Habermas and Apel have both articulated normative global metatheories concerned with the trajectory of cultural evolution—both trace a linage to Kant via Marx, Weber, the American Pragmatists, and other 19th century European thought-leaders. It seems Wilber can trace a linage to Kant via Baldwin, Peirce, and Emerson, all cosmopolitan agents building metatheories to fit normative functions. With this backward glance we are positioned to consider the shape of metatheories to come.

Conclusion: The Shape of Metatheories to Come

> [Post-modern capitalistic social structures] have evidently found some functional equivalent for ideology formation. In place of the positive task of meeting certain needs for self-interpretation by ideological means, we have the negative task of preventing holistic self-interpretations from coming into existence. . . . *Everyday consciousness* is robbed of its power to synthesize; it becomes *fragmented*. . . . The attempts at an *Aufhebung* of

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[8] For the full scope of Kant's ideas concerning socio-cultural evolution see: Fenves, 1991. For Kant's life and the political complexities and editorial compromises surrounding his radical views see: Cassirer, 1981. And for the contemporary relevance of Kant's cosmopolitan political vision: see Habermas, 2006. Finally, for Kant's views on *normativity*, a concept central to his whole philosophy, see: Brandom, 2009; Korsgaard, 1996)

> philosophy and art were rebellions against structures that subordinated everyday consciousness to the standards of exclusive expert cultures developing according to their own logics . . . Everyday consciousness sees itself thrown back on traditions whose claims to validity have already been suspended; where it does escape the spell of traditionalism, it is hopelessly splintered. In place of “false consciousness” we today have a “fragmented consciousness” that blocks enlightenment. (Jürgen Habermas, 1987, p.355)

At the outset I raised the possibility of a species-wide identity crisis that would render humanity incomprehensible to itself. This is one way of recasting the idea—handed down from Dewey, through Habermas, to Wilber—that non-synchronic patterns in socio-cultural development have resulted in a situation where our techno-scientific capabilities far outstrip our ethico-political visions and organizations. Just as unprecedented scientific advances expand the reach and efficacy of our communication and biomedical technologies, the fields tasked with expressing an understanding of what humanity is have been rendered speechless by their own confusions. The proliferation of self-descriptions provided by contemporary biologically oriented human sciences offer a fragmented and reductionistic picture, while the humanities and social sciences, underfunded and undervalued, pursue opportunistic and conservative research agendas (Kagan, 2009). In the same historical moment we find ourselves with the knowledge and power to reliably and strategically affect the central nervous system as a means for canalizing behavioral conformity, our *normative discourses* are in disarray—the normative sciences, as Peirce would call them—these are the discourses that address how things *ought* to be with society and its discursive institutions. In the coming decades, as the global information explosion continues and networks of communicational connectivity encircle the earth, we will be using them to debate the meaning of our humanity—striving to articulate a set of global values that might allow us to understand ourselves as the inhabitants of a globalized techno-economic and communications infrastructure. The academy—the so-called ‘multiversity’—is not built to provide humanity with a coherent picture of itself. The desperate trumpeting of interdisciplinary approaches in colleges and research labs is a testament to this (Menand, 2010).

In a set of publications I have addressed issues of quality control at the level of interdisciplinary knowledge production and education, and suggested that metatheoretical constructs play a necessary role in epistemologically responsible approaches to interdisciplinarity (Stein, 2007; Stein, Connell, & Gardner, 2008). Specifically, I suggested that metatheoretical constructs, such as the four quadrants (Wilber, 1995), the ideal speech situation (Habermas, 1998), and the classic syncategorematic categories (Peirce, 1984), play an important function in both disciplinary and interdisciplinary discourse. This function can be characterized variously, as the setting of quality control parameters, or the clarification of our epistemic and ethical responsibilities. Metatheoretical constructs can be built to *oversee,* regulate, and direct disciplinary and interdisciplinary knowledge production. Metatheory, as I see it, serves an important normative function on the contemporary academic scene.

But the contemporary relevance of transforming knowledge production processes goes beyond the academy. Problem-focused interdisciplinary think tanks are beginning to play an increasingly important role in an emerging global network of change-oriented institutions. While some—such as the Club of Rome and branches of the Organisation for Economic Co-operation and Development (OECD)—have been around since the 1970s, the past decade has seen a proliferation of action-oriented institutes that span traditional disciplinary boundaries for the sake of producing usable-knowledge about pressing global problems. The State of the World Forum, Integral Institute/Research Center, and the Future of Humanity Institute at Oxford, are three examples out of literally dozens. The United States Federal Government and the United Nations continually create specific problem-focused interdisciplinary initiatives, and readily draw from those already producing usable-knowledge in the public sphere. Above I have expressed what I think the role of metatheory is in this constellation of conditions, in the academy and beyond. It is to weave a coherent overarching set of normative constructs, organizing and regulating the specialized discourses in view, with an eye to comprehensiveness, and a voice resonant with the lifeworld.

As mentioned in the first footnote, this view of metatheory is controversial. But the idea here is not to displace or replace the self-understanding of metatheorists who take themselves as scientists pursuing descriptive projects with objective methods. Rather, the intention is to remind big-picture thinkers that this kind of scientific self-understanding is not the only option. Putting arguments about the crypto-normativism of ostensibly descriptive projects aside (Habermas, 1987), I claim only that we metatheorists might want to think differently about what we do. I sketched the contours of a tradition that weds the normative function of metatheory to ideas about the *autonomy* and *self-directedness* of human cultural evolution. I suggested that metatheorists are those concerned about the trajectory of knowledge production processes and reflective cultural practices. According to this view metatheorists build specific kinds of high-level constructs that have a normative thrust. Their interventions aim at affecting the proprieties of our discursive practices.

Hand wringing about the liabilities accompanying these kinds of explicitly normative projects is to be expected. While performative contradictions plague arguments against normative endeavors—prescribing the wholesale rejection of prescriptions—there are legitimate worries worth attending to. Worries about the institutionalization of centralized discursive authorities are warranted, as are concerns about the nefarious political affordances of *evolutionary ideologies* (Farber, 1998). Yet these are not necessary accoutrements to the vision of metatheory outlined above.

The key players in my account, including Kant, Peirce, and Habermas, are stanch, articulate, and influential proponents of the free and open discursive practices that characterize the best scientific communities and democratic public spheres. Against the backdrop these thinkers provide, the criticism that normative metatheoretical endeavors would be coercive enterprises, aimed at stifling discourse, innovation, and free inquiry is misguided. The idea that metatheorists *oversee* and *regulate* various discursive practices does not entail that metatheorists are *overseers*. Rather they are just the most reflective and visionary *participants* in knowledge production processes, arguing about preferable or regrettable trajectories for sets of disciplines, suggesting syntheses, but wielding nothing other than the unforced force of the better argument. I support the institutionalization of metatheoretically guided knowledge production because the exercise of normative authority in these contexts is *not* merely a matter of power-broking. Sweeping arguments to the contrary betray a lack of nuance about what normative authority looks like and reflect the sorry state of our normative discourses more generally.

As the quote beginning this concluding section suggests, we inhabitants of the post-industrial West share a lifeworld characterized by the devaluation of overarching and totalizing ideologies (see also Bell, 2000). And we still associate the very idea of normative authority with the dark legacy of politically operationalized all-encompassing worldviews. The story told above about the fractioning (and factioning) of the modern research university is but one sub-plot in a larger narrative about recent transformations in the self-understanding of the species. No doubt, the specter of an evolutionary ideology has loomed at least since Darwin first articulated an objective mechanism governing evolutionary processes. But the slow and persistent emergence of an evolutionary worldview has not counteracted broader tendencies toward a radically polycentric and conflict-ridden cultural environment. Even putting aside its rejection by traditionalists preferring non-scientific accounts, evolution is an ambiguous and contested concept, especially with regards to its broader ethico-political implications (Wilber, 1995; Wilson, 1975). The suggestions I offered here assume that heterogeneity and pluralism will continue to characterize cultural evolution. Exercising the normative function of metatheory does not entail the homogenization of cultural practices and discursive institutions in the name of evolutionary progress. Placing metatheory in an evolutionary context does not entail taking on the worst baggage from over a Century’s worth of attempts at resuscitating ideology in evolutionary garb (Farber, 1998).

Shadow boxing aside, the goal of this paper has been to *remember* and *express*—to reconstruct a thread in the history of metatheory with the hope of affecting the shape of metatheories to come. More work remains to be done filling out the rest of this history, and more importantly, building metatheories that fit the specifications thus reconstructed. I have already begun this constructive metatheoretical work in a series of publications that address the use of *metrics* in contexts where human lives are under scrutiny, from the diagnostic categories that structure the delivery of psychopharmacological interventions to the standardized testing infrastructures that frame educational opportunity (Stein, Dawson, & Fischer, in press; Stein, della Chiesa, Hinton, & Fischer, in press; Stein & Hiekkinen, 2009). Overseeing complex multi-disciplinary areas of concern, these interventions involve the construction of metatheoretical constructs that serve as normative parameters. I argue the merits of setting a new trajectory for the various discursive practices involved with the institutionalized measurement of human functioning, suggesting directions more comprehensive, responsible, and responsive to the singularity and vulnerability of individuals. Moreover, as others have shown (Jaques, 1976; Nussbaum, 2006; Sen, 1999), the possibilities of cultural evolution and justice in the coming decades hinge on the kinds of *metrics* we choose to build and use when assessing the properties of human lives that bear on political and economic decision making. Our systems of measurement determine who we think we are and what we do to each other. Consider how SAT scores and GDP reports affect the self-perceptions of individuals and nations respectively, how partial they are as indices, and how drastically they alter the distribution of resources. But these considerations bring us full circle, back to the idea that we are responsible for the creation of the metatheoretical languages we would use to re-describe and re-create ourselves.

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Metatheories and Organizational Theory: A Pragmatic Response to Metatheoretical Uncertainty

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Abstract: Metatheoretical dilemmas about the nature of the social world often animate organizational theorists who purport to dissolve pertinent controversies along truth-laden lines of philosophical argumentation. The present paper acknowledges the inescapable uncertainty at this level of discourse to nonetheless resist taking the usual step according to which metatheoretical discourse should be abandoned as unhelpful, if not misleading, metaphysics. However, it also parts from traditional modes of metatheoretical defense to instead try to identify whether metatheoretical frameworks, beyond considerations of any possible cognitive merit in deciphering the nature of the world, may be of any use in making a desirable difference in the world. In developing a pragmatist defense of realist metatheories, we may explicitly value metatheoretical discourse from a novel standpoint and further delineate subtle conceptual relations between metatheory, theory, phenomenological acceptance, action and epistemic ethics.

Keywords: belief/epistemic ethics, metatheory, organizational theory, post-analytic philosophy, organizational unconscious, social epistemology.

> What we cannot speak about we must pass over in silence.
> *L. Wittgenstein*

> A great deal of bad philosophy comes from people thinking that they can somehow whistle what they cannot [speak about].
> *A. J. Ayer*

> For Wittgenstein, it was absolutely vital to realize that Freud had not given us a set of scientific explanations for, e.g., dreams and neuroses. His achievement was much greater than that, for what Freud had given us, according to Wittgenstein, was a new mythology, a new way of looking at ourselves and the people around us.
> *R. Monk*

Introduction

Metatheoretical issues traditionally provoke significant controversies among social theorists. Among the disputes of a metatheoretical nature, the soundness of realist systems of thought

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undoubtedly occupies a prominent position. For while there is an increasing interest in the ontological questions that have been traditionally tabooed by (empiricist) philosophers of science, anti-metaphysical skepticism has by no means vanished. A salient factor responsible for this state of affairs should be reasonably attributed to the prominence of constructionist metatheoretical (anti-realist hereafter) approaches, since it seems that they have at their disposal powerful conceptual tools for undermining the soundness of claims that promise to provide access to or presuppose knowledge of essential truths about the nature of the world.[2, 3]

Among social theorists engaged in ontologically-informed metatheoretical disputes, organizational theorists, and especially scholars in the Critical Management Studies (CMS) sub-domain of organizational theory, are remarkably active (see for example Contu and Willmott, 2005; Fairclough 2005; Fleetwood 2005; Grey and Willmott, 2005; Reed 2005). Positioning himself radically in pertinent debates, almost a decade ago, Tsoukas reminded organizational scholars that thinkers such as Wittgenstein have taught us “not only what questions to ask but, more crucially, what questions we should *not* ask” to suggest that the question “whether one should take a realist or a constructionist approach to explaining organizational phenomena . . . is an unhelpful question” (Tsoukas, 2000, p. 531). On this (meta)metatheoretical positioning, he advises that we transcend the false metaphysical dilemmas underpinning pertinent metatheoretical disputes and head toward pragmatism.

To unpack the mode of skepticism imbuing Tsoukas’ position, when one argues for a realist or constructionist metatheory, one tries to speak what one “must pass over in silence” (Wittgenstein, 1961/1922, §7), since one vainly struggles to answer unanswerable questions. These are metaphysical questions which are, by their very nature, unsusceptible to objective settlement by logico-empirical means. Along this line, it follows that, if we succumb to the temptation to answer them, we are doomed to produce idling discourse, but not answers. Or, as Ayer (echoing Frank P. Ramsey) would put it, realists and constructionists try to whistle what cannot be (meaningfully) spoken, and in doing so produce “bad philosophy” (Ayer, 1956, p. 75).

Notably, the type of anti-metaphysical skepticism displayed by Tsoukas applies at the level of *meta*theory and as such should be acknowledged as skepticism of a higher order than that applied

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[2] Note that it would verge on the boundaries of a naive simplification to presume the presence of major intellectual consensus between realist or anti-realist strands of thought. Moreover, one should keep in mind that these concepts have undergone extensive conceptual stretching by being used in a multitude of contexts and for a variety of purposes (see also Hacking, 1999). However, if it would be prudent to avoid identifying the common attributes of strands of thought fashioned as “realist” or “anti-realist,” we may at least try to identify what is most typically the locus of divergence. To this end, there does not seem to be a safer way of distinguishing between realist and anti-realist metatheories with respect to the divergent stances that they tend to take pertaining to the question of whether conceptions that transcend experience should be treated as having extra-discursive reference or not. For while the realist is inclined to respond favourably to relevant metaphysical questions, the anti-realist tends to treat pertinent conceptions as having no extra-linguistic or mind-independent counterpart but as the mere outcome of the ways that we (communally or not) structure/construct experience.

[3] Of course, anti-realist positions are not as ontologically neutral as they pretend to be (see Searle, 1995, pp. 149-197). However, although negative metaphysical assertions are inevitably ontologically-charged, it certainly helps to differentiate them from realist metatheories by identifying the latter with approaches that take a positive stance on existential questions.

at the level of theories, namely, the level of discourse typically favored by anti-metaphysical skeptics. Consider, most obviously, God-centred discourse: just as one cannot affirm the existence of God, it goes, neither may one claim that “God does *not* exist” (Ayer, 2001, p. 121). It should thus merit noting that, if theories of this sort are from this analytical viewpoint condemned as unanswerable metaphysical questions, Tsoukas should be plausibly understood to be framing *meta*theories as unanswerable metaphysical *meta*questions. Or, as (the later) Wittgenstein could put it (utilizing early Wittgenstein’s semantic vocabulary) they are *higher-order non*sense.

The present paper does not dispute the above thesis and on *methodological grounds* concedes to this type of skepticism. This is to say that the espousal of this mode of skepticism does not stem from the expression of a genuine cognitive stance, that is, the belief that respective metatheoretical positions have equal cognitive merit. Instead, the motivation for doing so is that this maneuver may allow us to surpass the conventional epistemic criteria for assessing pertinent disputes and examine whether we may settle them along non-traditional lines of thought. In other words, having espoused the ontological agnosticism propounded by Tsoukas, what is presently put under critical scrutiny is whether the advice of (metatheoretical) silence follows of necessity or whether there may be reasonable *non*-epistemic *grounds* for maintaining/advancing (metatheoretical) discourse.

To put it simply, the motivation of the present paper is to examine whether metatheoretical frameworks may be helpful in some way, *even if* we accepted that they serve no epistemic purpose. To respond to the aforementioned aphorisms, I inquire whether metatheories may be useful as “working whistles,” for whistling what cannot be confidently uttered, once we embrace metaphysical uncertainty. To position myself with respect to Tsoukas’ anti-metaphysical pragmatism, I purport to examine whether embracing his anti-metaphysical stance in favor of a pragmatist orientation is consistent with metatheoretical discourse. I argue that it is, and will venture to defend this thesis by advancing a positive evaluation of realist metatheories beyond standards of *epistemic validity* and along criteria of *pragmatic legitimacy*.

The challenge of securing an *extra*-epistemic defense of metatheories may be feasibly undertaken once we appreciate their *deeply practical* function. This concerns the fact that in their implicit promise that they provide “true windows” onto the world, realist metatheories *can* be utilized as validating frameworks for claims that could have otherwise been highly epistemologically vulnerable. For one basic function of (realist) metatheories is to shield scholarly claims from the (so common) “How do you know?” epistemological question[4]. Again, consider the concept of “God.” While the claim that “God exists” is unquestionably untrue within a constructionist framework, it is not so untrue along a realist one. For instance, it is not trivial that Archer, Collier, and Porpora (2004) foundationally ground their defense of the scholarly merit of God-centred discourse in the soundness of a realist metatheory.

Notably, if in this case realist *meta*theory is tantamount to a “whistle,” it is the concept of God that is the *theory* being whistled. Along this conceptual geography, it seems that the success of the goal of achieving a pragmatic defense of the desirability of realist metatheories fundamentally relies on the convincing defense of the presence of a theory that *merits* whistling. Thus, while Archer and colleagues appear to defend the utility of God-centred discourse, having previously accepted the truth of a metatheoretical standpoint, this paper would fulfill its motivation by going the other way around. More specifically, by examining whether we ought to commit to the realist metatheory having previously examined the *desirability* of discourse on God.

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[4] Essentially by questioning the cherished view that “certainty” is a necessary component for the proper understanding of “knowledge.”

Evidently, one way of fulfilling this paper's task would be through the pragmatic defense of the concept of God. In my failure to present a convincing case regarding the pragmatic legitimacy of the notion of God, however, I examine the pragmatic legitimacy of another concept whose ontological status is also questionable, viz., the Freudian unconscious, in the light of the *emancipatory* axiology, which, after all, is supposed to foundationally inform the CMS project.

The backbone of the rationale is rather uncomplicated: Having first opined positively on the desirability of (the effects likely to be produced by) the belief in the unconscious, we may subsequently discern the pragmatic usefulness of metatheories in sustaining (conceptions of) its cognitive merit. Finally, it merits noting from the outset that, in the effort to bestow a pragmatist orientation on this enterprise, I utilize basic intellectual blocks of Steve Fuller's (1987; 2002) social epistemology.

The paper is structured in three sections. The first section closely assesses the inadequacy of a realist vis-à-vis a constructionist metatheory to answer the question of the unconscious in an epistemologically conclusive way. The second section, develops a heuristic exercise aiming to examine the desirability of the effects for organizational life if belief in the existence of the unconscious were adopted or rejected and underscores the pragmatic centrality of realist metatheories. In the final discussion section, I anticipate criticisms that the developed line of argumentation inevitably raises.

Embracing Metaphysical Uncertainty

Does the Unconscious Exist?

According to the Freudian worldview, the unconscious lies at the very centre of psychoanalysis" (Gabriel, 1999, p. 5), and the whole psychoanalytical discourse thereby is significantly predicated on the existence of the unconscious. The unconscious is like the warehouse of our psyche, where threatening desires and ideas are stored yet not erased. Those repressed elements are like another self who covertly occupies an agentic space of our psychic being. This hidden agency is, as Gabriel puts it, akin to "a stranger within ourselves . . . [who] has unpredictable, destructive and self-destructive appetites" (Gabriel, 1999, p. 311).

In spite of appealing to unobservable "stuff," for Freud, the unconscious was not only *real* but additionally "subject to normal scientific scrutiny" (Gabriel, 1999, p. 6). However, although Freud argued for its scientific status, it does not seem that he succeeded in convincing fellow scientists. Thus, we find Freud complaining that, "The concept of the unconscious has long been knocking at the gates of psychology and asking to be let in. Philosophy and literature have often toyed with it, but science could find no use for it" (1940, p. 286).

The idea of the unconscious has indeed been received with heightened levels of skepticism by the scientific community. This stance is largely explicable if we consider the temper of the era, which was significantly influenced by the epistemology of the empiricist philosophers of science; an epistemology significantly underpinned by hostility towards evidentially unconfirmable propositions. The most famous attack against the scientific validity of psychoanalysis has arguably been carried out by Karl Popper (1963). In a word, from the Popperian point of view, the ideas put forward by Freud are unfalsifiable, and thus pseudoscientific, and should therefore be excluded from the corpus of beliefs that we value as knowledge. Notably, whereas Freud adopts a realist attitude, the Popperian is skeptical. However, it is not epistemologists of science that most strongly reject the validity of Freud's propositions. Far from that, it is the *constructionist* doctrine that more foundationally threatens the validity of psychoanalytical ideas.

This point merits closer attention. Popper did not dogmatically preclude the possibility of some metaphysical assertions being useful, true or falsifiable by upcoming hypothesis-testing technologies or observational possibilities. It may thus be said that Popper was *not* an ontological antirealist, but rather a *methodological* antirealist. Empiricist epistemologists, more generally, were concerned with the justificatory (and/or semantic) status of propositions and did not reject the possibility that Freud may have indeed discovered something uniquely real. They merely underscored that certain discursive practices are not science and *ought to* be *demarcated* from scientific discourse.

On the contrary, constructionists tend to deny the very possibility of Freudian introspection or superior insight as a plausible source of knowledge. Significantly, the constructionist sociologists of knowledge, Berger and Luckmann, have prompted social scientists to face psychoanalytical theories "as legitimations of a very peculiar and probably highly significant construction of reality in modern society" (1966, p. 210); while, Kuhn, the constructionist philosopher of scientific knowledge has argued that psychoanalysis is no more than a craft, likening it to astrology (Kuhn, 1970, p. 8). From a constructionist standpoint, the totality of being is thereby reducible to social constructions, and theories that draw their credentials from suppositions of human nature should be treated as misguided and/or misleading fictions.

Thus, if empiricist theorists of knowledge confront metaphysics by denying its *epistemological* plausibility, constructionists deny the very ontological *possibility* of extra-discursive reality. Constructionist epistemology should thus be acknowledged as radically different from empiricist epistemology. To recap, concerning the ontological status of the unconscious, Freud claims to know that it exists, the (consistent) constructionist that (s/he knows that) it does not exist, and the empiricist epistemologist remains silent.

Who Knows?

Consider that although a constructionist rejects the psychoanalytical worldview as metaphysics, the constructionist worldview is no less metaphysical. Constructionism may appear *prima facie* as an epistemological thesis, but it is at its core a particularly ontologically bold metatheory, since constructionists (tacitly) hold fairly strong presuppositions pertaining to the nature of the world. Likewise, whereas realism *prima facie* presents itself as an ontological thesis, it is also an epistemologically bold metatheory, since the existential plausibility, for instance, of the unconscious presupposes Freud's advanced epistemic capacities regarding the discernment of a possible existence.

This paper acknowledges the merits of the view advanced by Tsoukas, namely, that such questions cannot be addressed objectively, by accepting that the question of the appropriateness of any metatheoretical standpoint cannot itself be settled on certain foundations. Differently put, both frameworks provide epistemic justification to statements that postulate knowledge status, although they are themselves epistemologically fragile. We may thus acknowledge that employing a realist or a constructionist metatheory is *to some extent* an *inevitably* arbitrary choice. It follows that, if no such choice can take place on a metatheoretically *impartial* basis, we may accept that we are in a state of metatheoretical *agnoia*.

However, even if "the metaphysical bedrock upon which the [realism/constructionism] dichotomy rests . . . leads nowhere and is philosophically flawed" (Tsoukas, 2000, pp. 532-534), it seems that we still have to take a stance about the existential standing of the notion of the unconscious that is so central to psychoanalytical discourse. For the least of reasons, an agnostic stance would not be very different *in practice* from the banishment of the unconscious from discourse that we academically acknowledge/treat as reliable.

A plausible path for moving ahead may be discernable if we search for an extra-epistemic standpoint in order to respond to a metaphysical question that may not be resolvable on metatheoretical grounds. And in the case of CMS such a point of reference need not be arbitrarily imposed. That is because, as we are going to see, such a vantage point may be easily identified in the emancipatory axiology informing the very essence of the CMS project.

Toward a Pragmatist Solution

Having espoused an ontologically agnostic stance on the level of metatheory, I presently draw from Fullerian epistemology aiming to find a pragmatic way out. In particular, I will venture to develop a heuristic exercise that explores the desirability of the effects that certain phenomenological attitudes pertaining to the reality of the unconscious are likely to beget in the workplace. On those grounds, we may then have some pragmatic basis for justifying the legitimacy of competing stances pertaining to the metaphysical dilemma of the unconscious, to *then* turn back to the *meta*dilemma of metatheories and approach it with a pragmatically solidly-justified position.

From the Quest for True Knowledge to the Question of Belief Ethics

The employment of basic conceptual tools of Fuller's social epistemology offers a way of reaching a pragmatic response. In Fuller's words, "the answers to these questions are to be found by deciding what we want, a political issue centering on the definition of 'we' and evaluating the consequences of those practices accordingly" (2002, p. xvi). It follows that if we want to answer the question of the unconscious in line with the Fullerian social epistemology, we have to examine the degree of convergence of the effects of the relevant existential claim (i.e., the unconscious *is* real), inferred causal accounts (e.g., *if* desires are repressed, *then* neurotic behaviors arise), and explanatory inferences (e.g., employees are underachieving *because* their psychostructural needs are neglected) with proclaimed interests.

Transcending concerns of epistemic validity, we now ought to first think about "who we are" and "what we want," and then examine whether we may thus answer the otherwise unanswerable question of the existence of the unconscious. Notably, not all organizational scholars share identical scholarly interests. For example, some are concerned with enhancing the levels of organizational performance, while others are motivated by humanist ideals. If there can hardly be consensus on the interests by all pertinent agents, the answer to this question should be contingent upon the interests of certain disciplines as realized by their underlying values. In this spirit, we examine the relevance of the effects ensuing from dis/believing in the unconscious for *emancipatory* interests. After all, as we may see, they are already *presupposed* in the context of Critical Management Studies, which is also the scholarly context in which metatheoretical disputes on the nature of organizational phenomena typically unfold.

Who Are "We"?

On closer consideration, the domain of CMS provides fairly unambiguous responses to ethics-related concerns. Alvesson and Willmott describe the CMS manifesto, noting that it is an extension of Critical Theory that:

> should contribute to the liberation of people from unnecessarily restrictive traditions, ideologies, assumptions, power relations, identity formations and so forth, that inhibit or distort opportunities for autonomy, clarification of genuine needs and wants, and thus greater and lasting satisfaction. (Alvesson and Willmott, 1992, p. 435)

Manifestly, the CMS project is normatively informed by emancipatory ideals. Thus, it provides a relatively clear-cut answer to the question of *how* the *desirability* of respective concepts whose ontological status is under scrutiny *ought to* be evaluated: with respect to the "emancipatory effects" that respective knowledge claims are anticipated to beget.

Given our interest in emancipation, the desirability of the unconscious may now be evaluated by examining whether there may be good reasons to believe that its acceptance may serve in the fulfillment of emancipatory ideals. In this vein, in the following subsections I deploy a phenomenological type of analysis, in order to reflect what it would mean *practically* to accept or reject the concept of the unconscious.

Accepting the Unconscious

If the unconscious is "a part of our mind that is beyond our direct knowledge and control" (Gabriel, 1999, p. 311), then, I suggest that, the phenomenological acceptance of the unconscious on behalf of a manager would mean that one has to accept the futility of trying to gain total control over the organization. For the acceptance of the reality of something entails accepting that it cannot just be "wished away." At the same time, being unknowable entails that one should not expect that someday we may understand how we may "tame" it. It may thus be plausibly argued that if managers believe in the existence of the unconscious, doubting their ability to control organizational behavior effectively is likely to water down the epistemic hubris of being able to control the workings of organizational life masterfully. It could be said that committing ontologically to the existence of the Freudian unconscious is tantamount to accepting that I cannot afford to avoid the presence of an annoying housemate.

From this standpoint, it may be plausibly argued that trust in the functional efficiency of rationalizing practices is likely to be undermined and the workforce to be emancipated from the tightening of control. From this viewpoint, espousing the "reality"/reality of the unconscious, managers are *less* likely to *act* in anti-emancipatory ways that the belief in their ability at managing the *unmanageable* buttresses (Gabriel, 1995).

The unconscious may be thus seen as a "working narrative" for appreciating the chaotic aspects of an otherwise highly-orderly, experienced organizational reality. Differently put, the idea of the unconscious appears as a working means for lending phenomenological substance to our encounters with the organization as a "*chaosmos*" (Tsoukas, 2003, p. 618), and this complex worldview could help us produce desirable emancipatory effects by helping managers experience idiosyncratic behaviors as ineliminable, in effect, making the managers less likely to stigmatize these idiosyncrasies as unnatural, an attitude that the belief that they could counterfactually be tamed would plausibly encourage.

Denying the Unconscious

In contrast, the denial of the existence of an "unearthly" agency capable of "naturalizing" the erratic behavior of employees, by framing it as inevitable, would mean the espousal of an alternative explanatory schema that would frame pertinent behaviour as controllable. This is the understanding that emerges along a constructionist worldview that confronts reality as the constellation of contingent events. For the ensuing attitude is that experiences do not conform to some fundamental necessity, but are presumably *non*-inevitable. (see Hacking, 1999, p. 6)

Imagine that I have just experienced an unfriendly attitude by the waitress who served me. If I am equipped with a "constructionist worldview," I am less likely to excuse her, since my background presuppositions provide validating credentials for the inference that she *could have* behaved in a more "civilized" manner. Locked in a constructionist mindset, I feel convinced that she simply failed in being a well-mannered employee, and consequently I feel annoyed by her behavior. Moreover, I dare to guess that if I were occupying an administrative position in the cafeteria, I would seriously consider the actions that should be taken for this relevant misconduct to be "remedied."

What could the implications of such an imagery of organizations be when espoused by the actual controllers of organizations? If managers see organizations through these sensemaking lenses, they are likely to try to eliminate the "irrational" aspects of the organization that are perceived as threatening for the smooth functioning operation of an organization. Gabriel has argued that "Being in charge is a core belief of managers, no matter how much unpredictable reality frustrates them" (1999, p. 283). The absence of doubt regarding one's unfailing ability to intervene in the workings of the organization that the rejection of the unconscious could reasonably encourage is likely to heighten the levels of managerial epistemic hubris. Whereas I previously believed that the waitress *could* have controlled her reactions, the manager is equally likely to believe that s/he *can* control erratic aspects of organizational life that *need not* have been such.

The Pragmatic Centrality of Realist Metatheories

Beyond the fact that the background absence of a realist framework would have a priori framed as implausible psychoanalytical (organizational) discourse, we may briefly elaborate a further function of realist metatheories. Up to now, it was argued that though we *do not* know if in fact the unconscious exists, we *need not* know this truth in order to whistle it as true. Nonetheless, how *credible* may an "academic whistling" sound? From an epistemology of testimony standpoint, testifying that the unconscious is probably true or that it is legitimate to be believed as true would be skeptically received.[5] And if we further desire to have a practical impact on organizational life, appeal to realist metatheories should plausibly help in acquiring the required epistemic weight. In our case, they could offer good philosophical grounds for postulating the soundness of organizational theory that presupposes the existence of the unconscious.

Moreover, let me draw your attention to the suitability of the *critical* realist metatheory for legitimating the "truth"/truth of entities of low evidential status. Although the evidential standing of the unconscious when juxtaposed with that of tables makes the former an "easy prey" for the epistemologist, critical realism could shield the valuable idea of the unconscious from epistemological scepticism. The elaboration even of the elementary lines of this metatheoretical project is not possible in the present paper (see Bhaskar, 2010 for an informative statement). However, let me only highlight that by appealing to notions such as the multilayered stratification of social reality or the structure of the human agent, organizational scholars can certainly protect pragmatically legitimate notions that a disinterested quest for certainty cannot allow.

Of course, this is not to here naively assume that realist metatheories are never employed in order to satisfy practical ends. For example, Thompson's defense of critical realism betrays a pragmatist motivation, when he stresses critical realism's suitability for resuscitating "the possibility of making truth claims" (2004, p. 60), which he argues that postmodern approaches do not permit. However, even if this is so, it is not clear *when* metatheories are used in this fashion, or when they actually *prospectively* determine the claims to be made.

Figures 1 and 2 sum up the rationale through a diagrammatic depiction. The whitened circle denotes that when equipped with a constructionist metatheory, a scholar is likely to deny the existence of the unconscious. Contrarily, a scholar committed to a realist metatheory is more likely to accept the truth of the unconscious (blackened circle). Having espoused the vanity of relying a priori on metatheories for solving similar questions, the lower cases of the diagram show how a pragmatist way of dealing with the puzzle of the unconscious may work. In a bit more detail, in the first scenario, *I* (an organizational theorist) believe that discourse that refutes the reality of the unconscious is likely to nourish attitudes that *I* trust are going to give rise to disciplinary actions and thus contribute towards the generation of undesirable effects in the organizational context. By contrast, *I* believe that discourse that maintains a different take on the unconscious is likely to contribute to enhancing the emancipatory potential in organizational life. I do not know what is truly happening or is going to happen, but I reckon myself pragmatically justified to accept and utter in my scholarly writings and teachings the unconscious *as* true and utilize realist frameworks in order to defend my (uncertain) claims from devastating skepticism.

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[5] Assuming rather plausibly that utterances in a whistled language do not "sound" equally credible to pronouncements that are moulded in well-argued metatheoretical underpinnings.

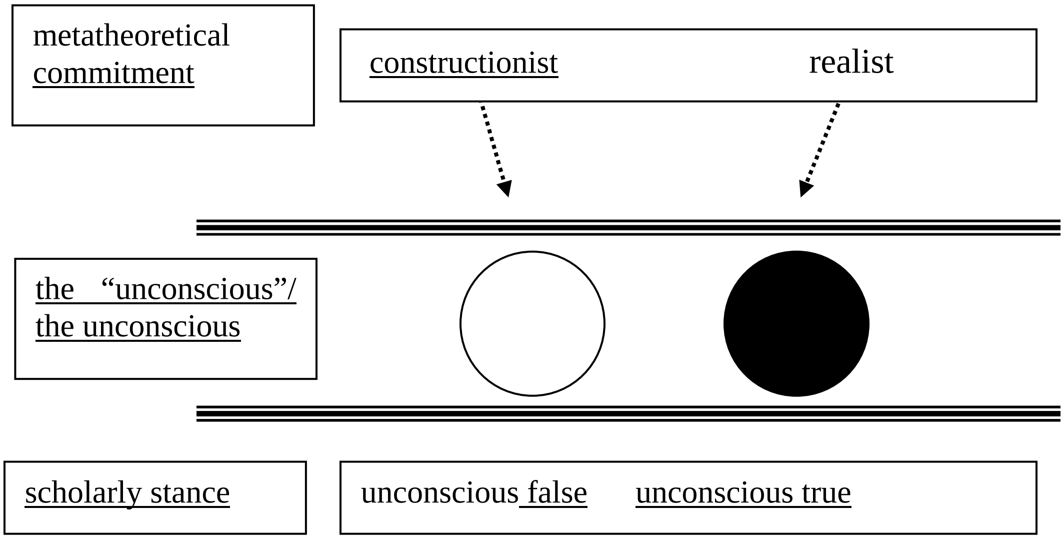
metatheoretical commitment
constructionist
realist
the "unconscious"/ the unconscious
scholarly stance
unconscious false
unconscious true

Figure 1. Dealing with the Unconscious - Conventionally

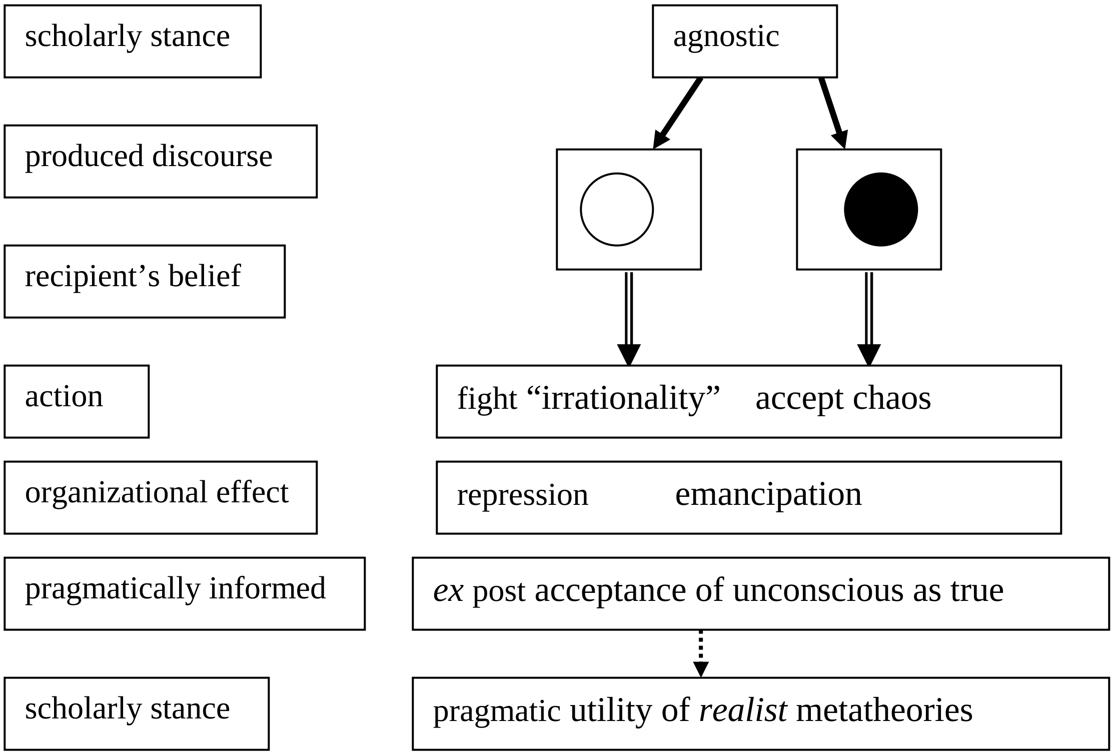
scholarly stance
agnostic
produced discourse
recipient's belief
action
fight "irrationality"
accept chaos
organizational effect
repression
emancipation
pragmatically informed
ex post acceptance of unconscious as true
scholarly stance
pragmatic utility of realist metatheories

Figure 2. Dealing with the Unconscious - Pragmatist treatment

Discussion

The robustness of the suggestions put forward significantly relies on the assumption that scholars of organization studies are not only students and educators but additionally *able* creators of organizational realities. A reasonable objection to this assumption concerns the ability component. This assumption may be further broken down into three reasonable objections: first, that organizational scholars *can create* aspects of the world; second, that even if they can, they are *ethically licensed* to do so; and third, that even if both the first and second objections are supported, scholars *can know* the effects that their actions will bring.

In response to the first objection, saying that scholars are capable creators of aspects of the organizational world is not tantamount to assuming that they can willingly fulfill their voluntarist fantasies. If, however, we accept basic sociological thinking on how the assumptions of reality tend to become self-fulfilled, we are justified in believing that the discourse that we produce and accept as reliable influences the constitution of aspects of reality when assimilated in social cognition. A complete denial of this sociological process is invited, but an alternative account capable of explaining how definitions of institutions of epistemic authority tend to be self-fulfilled is required.

With respect to the second objection, it may be argued that substituting epistemic for social values is "unethical." If we understand the compulsive trust in truth to be a guarantee of the march of progress, sacrificing epistemic values for the sake of social values is certainly unethical. Having, however, refused the possibility of attaining the truth with regard to metaphysical questions, our stance is significantly ethical, because at least we do not hide under pretences of truth. From this point of view, unethical scholarship is instead the generation of propositions that is apathetic concerning their effects.

On the last point, the response is that the assumption that we can *affect* the route of organizational becoming does not imply that we can *know* what is going to happen. Nevertheless, the beliefs we hold pertaining to the effects that certain propositions we sanction may beget range along a continuum of plausibility. And even if the very idea of rationality may be deceptive, one need not adopt a nihilistic view and relinquish the endeavour to be more thoughtful regarding the versatile nature of the world and its complicated workings. This is so, because, to the extent that we are able cognitive agents, denying the possibility of our judgmental faculties is a self-deceiving, if not self-defeating, attitude. Expressed in another way, to be in the dark is not to be blind.

Again, this is by no means to assert that through exercises such as the one developed here one can predict what will occur. Nonetheless, what is minimally suggested is that being more *reflective* on the social effects immanent in the epistemic warrant bequeathed to propounded worldviews can provide the basis for (at least) more morally responsible scholarship. We may not know what is so, but we can transcend the often responsibility-absorbing alibi of truth, to reflect more honestly on the desirability or potential danger of respective ideas.

Finally, note that not all organizational theorizing is laden with emancipatory values, and similar pragmatist exercises may be plausible, if the end-value is substituted. Nevertheless, ethical reflexivity is hardly ever irrelevant when dealing with organizational conduct. A point of import defended in this paper is that religious devotion to metatheories may not only delude us, but more importantly impede the scholar's critical capacities to engage *responsibly* with the world and its possible workings (see Fuller, 1993).

Conclusion

Following Tsoukas' framing of the realist vis-à-vis constructionist "epistemological rivalry . . . [as] philosophically flawed" (2000, p. 534), we purported to examine the dilemma facing respective metatheories against a pragmatist background. In order to explicate the futility of settling metaphysical questions on metatheoretical foundations, I employed the example of the Freudian unconscious to assert that there is not any epistemologically objective vantage point for knowing whether Freud had a revelatory experience or if he was simply deluding himself. Espousing an agnostic stance, I was subsequently guided by Fuller's epistemic ethics to explore the possibility of advancing the "ontic truth" of the unconscious on the justificatory basis of its alleged ability to contribute toward the fulfillment of emancipatory values.

In the developed exercise, it was argued that even if the unconscious is *un*true, and this truth could provide an accurate representation of the world, it would be undesirable, because the effects of the ensuing phenomenological attitudes would be *un*desirable. From a complementary viewpoint, the absence of desirable effects that could have been the case had a possibly untrue unconscious been accepted as true would itself be undesirable. In short, it seems preferable to commit to the reality of the unconscious even if constructionists are right and Freud wrong.

Having argued for the desirability of the existence of the unconscious, I then returned to the question of metatheories to highlight how realist metatheories may enable scholars of organizations to whistle the theories that they desire, (more) effectively. And even if metatheories may not palliate the (objective) uncertainty of the world, they seem pragmatically indispensable given that social scientists have to "apologize" to the epistemologist and "survive" the scientistic mood of the era, still haunted by the ghost of the positivist methodologist. As such, realist metatheories *need not* be seen as an end in themselves, but may be also valued a means for the transition into a postanalytic epoch for the social sciences.

To conclude, responding to Wittgenstein's and Ayer's admonitions on the limits of meaningful discourse, it may be the philosopher's duty to do good philosophy, yet an organizational scholar may do good to the organizational landscape by whistling what the philosopher must pass over in silence.

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A Case for Flexible Epistemology and Metamethodology in Religious Fundamentalism Research

Carter J. Haynes[1 2]

Abstract: After reviewing a representative sample of current and historical research in religious fundamentalism, the author addresses the epistemological presuppositions supporting both quantitative and qualitative methodologies and argues for epistemological flexibility and metamethodology, both of which support and are supported by metatheoretical thinking. Habermas' concept of the scientistic self-understanding of the sciences is used to point up the limitations of positivist epistemology, especially in the context of fundamentalism research. A metamethodological approach, supported by epistemological flexibility, makes dialogical engagement between researchers and those they research possible, and an example of how this would look in an actual research design is provided. The article concludes with a theoretical statement and graphic representation of a model for dialogical engagement between Western scholars and non-Western religious fundamentalists. Such engagement, the author argues, is necessary before any real progress on the "problem" of radicalized fundamentalism can be made.

Keywords: Epistemology, fundamentalism, Habermas, metamethodology, metatheory, positivism.

The purposes of this article are to review a representative sample of religious fundamentalism research, comment on the various epistemological positions it represents, make an argument for an inclusive approach to epistemology and methodology, and relate these first three purposes to the larger project of metatheory. Given the changes that have taken place in Western consciousness since 9/11, it seems important to summarize and reassess the direction and impact of the research that is meant to help us understand fundamentalist movements. Because most of the studies in this area are conducted by Western researchers and published for a Western audience, questions about how academics come to "know" things about non-Western fundamentalists are relevant. In the case of Islamic fundamentalist movements, a vast cultural gap separates the individuals being studied from those researching them. How do well meaning

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but culturally and intellectually disconnected investigators find useful epistemological approaches to studying these phenomena? Is fundamentalism research more epistemologically attuned to the object of its study or to the positivistic bias characteristic of Western intellectual discourse? Does the epistemological hegemony attendant to the scientific method contribute to other kinds of hegemony, including those that some believe are the root causes of fundamentalist movements? How can metatheoretical thinking help us to assess, organize and synthesize religious fundamentalism research in new and helpful ways? This is the sort of question that is at the heart of this article.

I will explore religious fundamentalism using a metamethodological perspective that calls for epistemological flexibility. I am defining “epistemology” classically: one’s theory of knowledge, of how it is possible to know something. The term “metamethodological” refers to a sensibility that derives richness from the cumulative consideration of a wide variety of methodological approaches. Metamethodology is similar in intention to metatheory. Both activities are aimed at finding commonality, building bridges, identifying overarching concepts, and utilizing any synergies that result. I will stress the need for epistemological flexibility both because it is necessary to support metamethodology, and because it is a prerequisite for dialogical engagement between parties whose native epistemologies are not compatible (i.e., between Western academics and fundamentalist believers). There are also parallels between epistemological flexibility and metatheory. During the development of metatheoretical constructs, walls between previously unassociated concepts, theories, and schools of thought must be broken down so that new, integrated knowledge can be developed. Though it is not often stated in these terms, some measure of epistemological flexibility is necessary for metatheoretical knowledge production.

Before beginning my formal survey of religious fundamentalism research (and some of the epistemological, methodological, and theoretical issues arising from it), I will offer some definitions of religious fundamentalism. A word about the role of positivism, and a brief discussion of the question of causation, will round out the introductory portion of the essay. Next, the survey of the literature will be presented, and the article will conclude with discussion and practical application.

Religious Fundamentalism Defined

Sociologist of religion Martin Riesebrodt Riesebrodt (2000) notes that:

> the term fundamentalism emerged in early twentieth century American Protestantism to designate a religious movement which, among other things, opposed biblical criticism, the teaching of evolutionism, and the philosophy of Nietzsche while advocating biblical literalism, strict patriarchal moralism and authority, prohibition, control of social vices and self-control. (p. 269)

He defines fundamentalism as being associated “with religious orthodoxy, often literalism, and rigid moralism, especially with regard to sexual morals and gender relations, as well as intolerance, anti-pluralism, and anti-modernism” (Riesebrodt, 2000, p. 271).

Since the Iranian Revolution in 1979, the term “fundamentalist” has come more into common usage as meaning any religiously extreme individual or movement, especially those that sometimes resort to violence to accomplish their goals. Almond, Appleby and Sivan (2003, p. 116) define fundamentalism as “a set of militant, mobilized, antisecularization movements arising in the course of the twentieth century.” A more detailed and religiously-focused definition has been suggested by Altemeyer and Hunsberger (1992). They see fundamentalism as:

> the belief that there is one set of religious teachings that clearly contains the fundamental, basic, intrinsic, essential, inerrant truth about humanity and deity; that this essential truth is fundamentally opposed by forces of evil which must be vigorously fought; that this truth must be followed today according to the fundamental, unchangeable practices of the past; and that those who believe and follow these fundamental teachings have a special relationship with the deity. (p. 118)

The Role of Positivism in Fundamentalism Research

Too often, the epistemological foundation necessary to engage in scholarly work is assumed or not considered carefully enough. Analyzing and addressing the epistemological foundations for research questions and methodologies can shed fresh light on past work, identify unstudied areas that may be fruitful topics for future research, and strengthen the critical analysis of a body of literature. Traditionally, modern scientific inquiry has been both based on and consonant with the philosophy of positivism, which holds that truth is derived from empirically validated and objectively measured data. Positivism was born in an atmosphere of confidence about scientific discovery. The industrial revolution and subsequent meteoric rise of technological advancement created the perception that universal laws formed a dependable, unquestioned and self-evident intellectual structure (Bentz & Shapiro, 1998, p. 21). The emphasis on logic, structured design, and cognitively generated solutions were translated, first among intellectuals and later by the general public, into the view that rational thought under girds all truth. Like many widely accepted philosophical positions, the popular version of positivism eventually took on an almost religious fervor, which allowed adherents to remain in denial about the gnawing problems that science could not solve: those ancient tendencies among the human race toward avarice, greed, cruelty, hatred, isolationism, and racism that were brought back in to clear relief in the aftermath of the Holocaust (Bentz & Shapiro, 1998; Habermas, 1971).

Because they focus on numbers and objective measurement, the research methodologies arising out of the positivist worldview are often termed “quantitative.” In light of the difficulties encountered by using traditional quantitative methods to study the nuances of fundamentalism, Almond, et al. (2003, p. 117) opt for a more open and flexible theoretical structure that takes into account the heterogeneity of social reality. “In trying to generalize about causation from a relatively small number of very complex cases… [one finds that] there are not enough cases to establish statistical significance with confidence.” Almond’s attempt to address this problem is evidenced by “increasing rigor and systemization in case study research, comparative historical analysis, and the adaptation of statistical analysis to small numbers.” More on this “qualitative” approach to fundamentalism research will be presented later in this article.

Droogers (2005) makes the observation that positivists and religious fundamentalists are similar in some ways:

> positivists hold that the term ‘reality’ refers to a singular entity . . . so too do fundamentalists hold that there is but one form of the sacred reality. . . . Accordingly, there is only one ‘grand’ story to be told about this reality. In the case of both fundamentalist believers and positivist scholars, the reality that they focus on is driven by laws and rules. . . . Fundamentalists and positivists seek to impose a rather monopolistic, centripetal, law-based and strict view of the world. (p. 469)

Notwithstanding this analogical comparison between the approaches taken by religious fundamentalists and positivist scholars, it is important to remember that positivism is a philosophical position resulting in a particular epistemological set while fundamentalism is a religious conviction resulting in a particular way of life. Even so, there does seem to be a parallel between the tendency of positivism to reject all “truth” that cannot be observed using empirical methods and the tendency of fundamentalist believers to reject claims that are not in line with accepted doctrine. Being completely sure of our own position can blind us to solutions our native epistemology does not allow us to perceive, and this can be equally true whether the “proof” that backs up our favored position is “scientific” or “theological.”

The Question of Causation

One debate among social scientists who study religious fundamentalism involves the question of causation. One way of stating the question is:

> Are individuals and communities truly motivated by their religious convictions to take personal, social and political action, or is the religious context only a palatable justification for the actions those individuals or communities would have taken anyway for personal, social, or political reasons? (Bruce, 2000, pp. 102-103)

In searching for an answer, positivist epistemology would most likely lead to empirical analysis of fundamentalism using quantitative methods, but positivist epistemology cannot account for phenomena outside the measurement capacity of scientific observation and analysis. For example, even though religiously motivated actions or behaviors can be quantified, purely spiritual aspects of religious experience do not lend themselves to the kinds of questions that science asks. In other words, because spiritual (i.e., non-empirical) phenomena cannot be observed (except through the actions or behaviors they may produce), they are more appropriately the terrain of researchers who are not bound by the strictures of the scientific method and a positivist epistemology. Hence, the answer to the question of causation depends, in part, upon the epistemological lens through which the question is examined. A positivist approach would likely produce a mechanistic interpretation of human behavior (religious or otherwise) that bypasses the issue of spiritual agency (because that agency cannot be measured). By way of contrast, a relativist epistemology would likely allow for the attribution of religious motivation to spiritual agency. This is because a relativist epistemology would not require that the methodologies employed to examine the question of causation hold to standards set by the scientific method.

One of the epistemological questions confronting the study of religious fundamentalism has to do with the effect of epistemological set on perception. Stated as a question, we might ask, “Is it possible for a positivist scholar and a fundamentalist believer to observe the same phenomenon and perceive different ‘truths’ because of their divergent epistemologies?” Take prayer as an example. The scholar could measure the physiological responses of the adherent, or make observations about post-prayer changes in behavior. The believer could have a profound or even life changing experience during that same prayer, but because the believer and the scholar are attending to different aspects of the phenomenon (i.e., are perceiving the prayer through different epistemological lenses), they have no common reference points at which they can connect and dialogue. From metatheoretical perspective, one supported by epistemological flexibility and informed by metamethodology, I am choosing to answer “yes” to this question (i.e., that divergent epistemologies *do* cause divergent perceptions and estimations of truth). I am also making the judgment that dialogical engagement is of utmost importance in the study of religious fundamentalism, and am therefore led to the conclusion that a strictly positivist epistemology is incompatible with productive fundamentalism research. Epistemological flexibility, it will be argued, is key to the development of a metamethodological approach, which, in turn, is key in the development of dialogical engagement.

This is not to say that positivist epistemology and the quantitative methodologies associated with it are not helpful in the study of religion. As will be seen in the following review of the research literature, salient and interesting facts about religious behavior have come from using quantitative techniques. But in order to enter a dialogical environment, at least two things are required. First is what I am calling metamethodology: an integrative, flexible and inclusive approach to research methodology that places equal value on quantitative and qualitative methodologies. Second is the epistemological flexibility that is demanded by a metamethodological approach. Since distinct methodologies flow from distinct philosophical theories of knowledge, metamethodology implies the ability to bridge the epistemological divide that has separated positivists from those ascribing to other positions.

A Survey of Religious Fundamentalism Research

Quantitative Approaches

One area of study that has been mined using quantitative methodologies is the relationship between religious fundamentalism and right-wing authoritarianism. For example, Miller and Wattenberg (1984) used national survey data to assess the effect of evangelical religious identification on voting habits. They categorized respondents according to the strength of emotional attachment to fundamentalist interests and religious beliefs and then analyzed the associations between fundamentalist attachment, policy preferences and voting. The authors used descriptive statistics to arrive at demographic characteristics of fundamentalist voters and then applied correlational and factor analyses to determine the magnitude of individuals’ affective connections to fundamentalist thinking.

In a related study, Jelen and Wilcox (1991) used survey data to develop an index of religious dogmatism as measured by doctrinal orthodoxy and public religious activity. Predictive statistics indicated that the dogmatism construct accounts for a significant portion of the variance associated with respondents' attitudes about personal freedom. In another study, these authors (Jelen & Wilcox, 1992) surveyed financial contributors to Republican presidential candidates to explore the relationship between religious self-identification and attitudes toward the Christian Right in the U.S. Respondents self-identifying as fundamentalists evidenced the highest level of support for Jerry Falwell's Moral Majority.

Quantitative social research also focuses on the relationship between fundamentalism and sexism. One project analyzed both individual and group fundamentalisms with respect to attitudes about women. Researchers designated participants who said they believed in the Bible as literally true "individual fundamentalists" and used denominational affiliation to identify "group fundamentalists." Respondents' affect (positive or negative) toward public leaders of the Christian Right was the dependent variable. Independent variables included the self-identification of participants as fundamentalist, evangelical or charismatic. A two-stage process of bivariate analysis (Christian Right affect and religious self-identification) preceded a multivariate procedure that attempted to uncover unique effects of religious self-identification while controlling for other independent variables such as attitudes toward the ACLU, feminists, and liberals. The authors found that sexist attitudes were connected with both individual and group-level fundamentalisms. For women, sexist attitudes were a function of individual as opposed to group-level fundamentalism, but for men the opposite was true (Peek, Lowe, & Williams, 1991).

Another study investigated the relationship between the number of fundamentalists living in various states in the U.S. and the overall level of conservatism among whites in those states. Larger fundamentalist populations were correlated with more conservatism in the general Caucasian population. This relationship was strong even after experimentally controlling for the religious affiliation, beliefs, and practices of individuals (Moore & Vanneman, 2003).

The hypothesis that southerners would evidence more prejudice than those from other regions because fundamentalism is more common in the southeastern U.S. led another group of researchers to study the relationship between fundamentalism and prejudice by region of the country. An analysis of data from the 1988 general social survey did not fully support the supposition, but the authors did find significant regional differences in fundamentalists' tolerance of communists, atheists, gays and lesbians (Ellison & Musick, 1993).

Psychometric research shows the Religious Fundamentalism Scale to be psychometrically sound and has helped researchers measure several kinds of prejudice and authoritarian aggression. This instrument was standardized on college students (and their parents) from mostly Christian backgrounds. *Post hoc* item analysis yielded solid intercorrelations between the Religious Fundamentalism Scale and other scales used to measure prejudice (Altemeyer & Hunsberger, 1992).

In a critique of the Religious Fundamentalism Scale, Watson, et al. (2003) highlight what they see as ideological bias. Through psychometric isolation of anti-religious sentiment in the wording of items, they determined that the scale "describe[s] 'fundamentalism' relative to unsympathetic normative assumptions" (p. 317). By translating the original items of the scale to remove such bias and then administering both the original and translated versions to the same subjects, these investigators made both a quantitative and a theoretical critique of what they saw as the ideological preconceptions held by the scale's authors.

Another set of researchers used multiple regression analysis to demonstrate that authoritarianism can statistically predict prejudiced attitudes against people of color and gays and lesbians. Controlling for authoritarianism, however, produced a positive correlation between fundamentalism and homophobia but a negative relationship between fundamentalist attitudes and racial prejudice. Based on these findings, the authors theororized that Christian fundamentalism "consists of a second major component other than authoritarianism—related to Christian belief content—that is inversely related to some forms of prejudice but not others (Laythe, Finkel, & Kirkpatrick, 2001, p. 1).

Summary: Quantitative Approaches

As can be seen from this sampling of quantitative research studies on religious fundamentalism, important knowledge has been produced using these methodologies. The observant reader will have noticed that all the studies cited thus far have investigated North American fundamentalist movements. Quantitative studies of non-Western fundamentalist groups were sought but not found. To the extent that religious constructs can be quantified, the relationships between phenomena such as authoritarianism, political affiliation, policy preference, dogmatism, social and gender issues, prejudice, and aggression can be analyzed as a source of descriptive and comparative data. One of the strengths of quantitative methods is that otherwise amorphous concepts and confusing relationships can be presented logically and, often, with clarity. The value of being able to compare fundamentalism directly with other known behavioral phenomena is immense, and the empirical sensibility that originally grew out of positivist epistemology brought us this "common language" of quantified constructs.

There is also something missing in a purely quantitative approach to fundamentalism. We see nothing of the quality of individual lifeworlds, or of the rich, human texture of religious fervor, spiritual devotion, and doctrinal certainty. Qualitative methodologies were, in part, created to access aspects of research "data" that are not adequately understood or described by quantitative methods.

Qualitative Approaches

Qualitative methodologies are more flexible than quantitative study in terms of both associated epistemology and the range of techniques available to researchers. Several qualitative techniques, as they have been applied to fundamentalism research, are discussed here.

Typology and Grounded Theory

The largest and most comprehensive research endeavor undertaken to date regarding religious fundamentalism is the *Fundamentalism Project of the American Academy of Arts and Sciences*, a "decade-long interdisciplinary public policy study of antimodernist, antisecularist militant religious movements on five continents and within several world religious traditions" (Almond, et al., 2003, p. 6). This study was primarily concerned with three questions: (a) "What are the local, regional, and global contexts for, and triggers of, the emergence of fiercely antimodernist, antisecular movements from within virtually every major world religion in the twentieth century?", (b) "What characteristics do these movements share across religious, cultural, and political borders?", and (c) "Are fundamentalist movements, whatever their places of origin and everyday activity, capable of extending their influence transnationally" (p. 6)?

One of the books arising from this massive study is *Strong Religion: The Rise of Fundamentalisms Around The World* (Almond, et al., 2003). This volume describes a process of data collection and analysis that eventually led to the formulation of a grounded theory of fundamentalist movements. The authors developed an extensive typology through methodical coding and categorizing of group characteristics along several different continua. For example, the following ideological characteristics of fundamentalist groups transcend national, religious, cultural and ethnic differences in the cases analyzed: reactivity to the marginalization of religion, selectivity (of texts or doctrines), moral dualism (right or wrong, good or evil), absolutism or inerrancy, and the idea that history has a miraculous culmination. All the cases studied were assigned a rating for each of these measures based on the extent to which that particular case demonstrated the characteristic. Matrices were then developed to graphically represent gradations of various characteristics within and between groups.

The theoretical model presented in *Strong Religion* asserts that all fundamentalists share a "family resemblance" regardless of religious or other contextual demarcations. Specifically, all fundamentalists are united in their identification of three distinct antagonists to their cause: the corrupt or compromised religious establishment, the secular government, and the secularization of modern society. This framework is further delineated using the concepts of *structure* (long-term contextual conditions), *chance* (contingent random factors) and *choice* (the element of human leadership). Each domain (structure, chance, choice) is divided into sub-domains and coding systems are used to categorize cases based on both domain and sub-domain ratings. For example, the sub-domains for structure are education, communication, civil society, social structure, mobility, ethnic-regional factors, economic development, political characteristics, and international environment (Almond, et al., 2003, pp. 116-132).

Max Weber's (1922/2008) typology of religious attitudes has also been applied to the analysis of fundamentalism. His system offers two continua on which to place religious phenomena: approval/rejection and control/adaptation/withdrawal. Fundamentalist attitudes on the one hand reject secular society and, on the other, might evidence a desire for world control or withdrawal from society depending on the organizational form of the particular group. Withdrawal can be symbolic, as in the formation of a subculture, or geographical, resulting in a commune. Control may take the form of a religious movement, social protest, secret society or political party (Riesebrodt, 2000).

Hermeneutics

Modern fundamentalist doctrine is based on text, whether the Bible, Quran, or other sacred document. This fact situates the discussion of fundamentalist movements within the realm of hermeneutics. Originating in the context of scriptural interpretation, hermeneutical inquiry was later applied to secular texts, and then to non-textual phenomena.

Bloom (1992) contrasted divergent interpretations of sacred texts in his commentary on protestant fundamentalism. He compared the scholarly practice of biblical interpretation, based on the original language, meaning, and context of biblical literature, with what he saw as the idiosyncratic and often agenda-based interpretive strategies used by some fundamentalist pastors. These two hermeneutic methods produce different meanings from the same texts, and those differences can be used to further explore what protestant fundamentalists find important to emphasize.

Pizzuto (2007), focusing on Islamic fundamentalism, appealed for objective criteria that can be used to distinguish valid interpretations of sacred texts from invalid ones. He maintained that people of faith have only the narratives and symbols of their religion to defend themselves against the lure of power, meaning, and significance promised by violent extremism. When scripture is interpreted to support violence, effective gestures toward peace must be theological, must start with the presumption of faith, and must challenge religious traditions from within. Pizzuto suggested that we distinguish between valid and invalid interpretations and use valid interpretations to help transform fundamentalist religion from the inside. Uncritical use of scripture to advance a fundamentalist agenda can result in the conviction that God condones violence against the “other” (i.e., non-believer) in the name of moral righteousness or religious purity.

Bartkowski (1996) has pointed out that, among Christians, evangelicals view the Bible as inspired and authoritative but are also able to allow for metaphorical interpretation. Fundamentalists, on the other hand, insist that the Bible is infallible and literally true. Many take a concrete, anti-interpretive, anti-metaphorical stance toward scripture. Understanding the various camps of Christian interpretation quickly becomes complicated when hermeneuticists move beyond the inspired versus inerrant debate. Inerrantists can be further divided into subcategories based on their particular hermeneutic sensibilities and tolerances. According to Barnhart (1993), these subgroups include:

> (1) those who subscribe to *extended inerrancy*, and thereby insist that ‘when Scriptures affirm something as true, it is true exactly and precisely as stated’, (2) those committed to *limited infallibility*, in which minor conflicts in textual reports of a specific event (e.g., the Resurrection) are believed not to imply that the event never happened; and lastly (3) those who argue for *appropriate inerrancy*, thereby attempting to distinguish the ‘essential truths’ of the Gospel (which are believed to be without error) from the Bible’s non-essential qualities (e.g., pseudonymous writings, scientific inaccuracies, cultural accommodations). (Barnhart, 1993, p. 260)

Ethnography

Ethnography is particularly adapted to the witnessing, experiencing and exploration of otherness. Arising from within Cultural Anthropology, ethnography has more recently been embraced by sociologists, historians and others investigating the differences between people, cultures, societies and organizations. Some social phenomena cannot be perceived or appreciated except through immersion of the researcher into the culture being studied, and this immersion, coupled with specific analytical procedures, is what makes ethnography unique from other qualitative methodologies (Bentz & Shapiro, 1998).

A well-known example of ethnographic enquiry is Edward Said's book *Orientalism* (Said, 1978). Part of his thesis was that modern cultures do not develop in isolation. There are reciprocal economic, social and power differentials that characterize the divergent historical experiences of Eurocentric and Eastern individuals. Therefore, the development of the Occidental identity required the subsequent and complementary social construction of the "Oriental" identity. Because the Oriental identity was formulated by Western academics and intellectuals without the knowledge or involvement of those it purports to describe, Said labeled these Western thinkers "Orientalists."

In bridging the cultural and epistemological divide between East and West, both in terms of his personal immersion and his scholarly writings, Said was one of the first to point out that individual cultures hold "the naïve belief in the certain positivity and unchanging historicity of a culture, a self, a national identity" (Said, 1995, p. 2). Many Westerners see Western ideology and culture as superior to Eastern ideas and practices. Said would contend that Orientalism has led to an intellectual and popular environment in which Asian, Indian and Middle Eastern cultures appear less human, weaker, and less sophisticated than cultures of European decent. In addition to pointing out that the West's Orientalist portrayal of the East was volitional and subjugating, Said railed against "the creating of entities essentialising a region or a people, whether it be East or West. His endeavour [was] precisely to demolish the conceptual constructions that divide the world into confrontational cultures or hierarchical civilisations" (Ferial, 2004, p. 124).

Zaidi (2007, p. 424), in a recent assessment of "the Orientalist essentialization of Islam," pointed out that most Western scholars critique the ideological content of Islam rather than embracing a dialogical hermeneutic.

> Such a critical approach to Islam and Muslims has only grown stronger since the 1970s, when western academic interest shifted from the relatively humanistic interest in the religion of Islam to social-scientific explanations of Islamic fundamentalism. What has gone largely unremarked in this shift from a perspective informed by the humanities to one informed more by the social sciences is the slippage that occurs by shifting from a focus on the fundamentals of Islam to Islamic fundamentalism…. Since then, the analysis of Muslim societies has been replete with such critical accounts, which, while they break with the classical Orientalist scholarship that regards the religion of Islam as the sole defining element of Muslim backwardness, continue to treat the self-knowledge of Muslims as impure, as mere ideology. (p. 414)

Comparative-Historical Inquiry

The concept of the "enclave culture" was developed using both ethnography and comparative-historical inquiry. The enclave construct is a way of formulating and describing the group psychology, worldview and sensibilities common inside fundamentalist movements. The study that led to this construct compares religious and cultural movements that eventually resulted in fundamentalism with those that did not (Almond, et al., 2003, Chapter 1). Using *exile* as a metaphor, the marginalization of religious activity and thought in developing countries was taken as a common existential aspect of fundamentalist groups. The idea that members are fighting for survival and moral purity against the seemingly intractable movement of modernization (away from righteous living and religious viability) figures prominently in the social psychology of fundamentalist groups. The enclave culture has a unique cosmology of physical time and space. Although a religious movement at its core, the enclave is also contextualized within the wider historical and cultural environment. In the enclave, historical time:

> tends to be somewhat shrunken, collapsed, and condensed. The past is reduced to a few key eras, closely related to the enclave’s notions as to what accounts for the glory and decline of the tradition; it is, hence, intensely relevant for the present. The future perspective is likewise rather short; the more radical the enclave, the shorter it is. Its overall bent is pessimistic if not doom-laden. (Almond, et al., 2003, pp. 56-57)

Metatheoretical Research and Critical Social Theory

Metatheoretical inquiry and social theory are discussed together because the overlap between them is substantial. Metatheoretical research refers here to a method of gathering together existing theories relating to a particular topic, assessing strengths and weaknesses, and reviewing criticisms. The metatheoretical researcher then looks for patterns, themes, discontinuities and possible overarching theoretical content in preparation for constructing a unique extension of theoretical knowledge. The unique foci of critical social theory are the relationship between research and the surrounding social justice context, the betterment of society, and the amelioration of human suffering and oppression. Critical social theory has been used to critique social policies and institutions as they contribute to racism, oppression of the poor, the subjugation of women, and other misuses of power. One method of applying social theory is to compare the stated purpose of powerful individuals, institutions or governments with the social results produced by their actions. When inconsistencies are identified, especially when they point to the oppression of marginalized groups, researchers can attempt to exert pressure for change on those in power (Bentz & Shapiro, 1998).

Coreno (2002) used metatheoretical inquiry to combine two traditional sociological paradigms, the class model and the culture model, in an effort to better understand religious expression. The class model, in the tradition of Karl Marx (Marx & Engels, 1967) and Max Weber (1922/2008), explores the link between class location and religious belief and behavior. The culture model, by contrast, “emphasizes religion’s power to create shared commitments across class boundaries” (Coreno, 2002, p. 340) and is associated with Durkheim (1976). By synthesizing these two paradigms into the “class culture model," Coreno attempted to demonstrate that religious beliefs and practices often “define the symbolic boundaries of distinct class cultures” (Coreno, 2002, p. 343). To test this model, he employed quantitative analysis of survey data. Using descriptive statistics, correlation analysis, and regression analysis, he showed that class and culture together provide a more robust model for understanding religious phenomena than either class or culture alone.

Schmalzbauer (1993, p. 331) has drawn attention to the existence of a “new class” in North American societies in which there is a strong relationship between professional/managerial employment and political and moral liberalness. Study of these "knowledge class" workers can help to clarify the roles of both class and subculture in defining ideology. Christian evangelical new class workers are members of both a religious subculture that embraces conservative social values and a work force that is characterized by liberal attitudes. Schmalzbauer found that evangelical members of the knowledge class strongly resist any relaxation of their moral position regarding sexuality, but that significant liberalization takes place regarding abortion, civil liberties and gender roles. Conservative Christians continue to resist the liberalizing effects of higher education even after becoming consumers of it.

Critical social theory can provide a context for discussion of the root causes of fundamentalism. For example, in an attempt to set the stage for a critique of the power structures and geo-political alliances that were in place on 9/11, Wallace (2003) noted several grievances held against the U.S. as a result of its Middle East policy.

> The issue is not one of indirectly supporting regimes through buying oil from them. . . . Rather, the USA arms almost everyone in the region. Not only does it not encourage democratic reform, it actively suppresses it. Consider American support for the three-decades-long Israeli occupation of West Bank and Gaza. Consider CIA support in 1953 for the Shah as he crushed a fragile emerging constitutional democracy in Iran. Consider also that our [USA] government is the principal backer of the massively corrupt regime in Saudi Arabia, which, when not exporting oil, exports Wahabism around the world, an especially intolerant species of militant Islamic doctrine to which Osama Bin Laden and many of his top lieutenants apparently belong. Valid criticisms, grievances, real offenses, open wounds: in short, a history of social injustice lies at the heart of Muslim opposition to the United States. (pp. 493-494)

Wallace (2003) went on to suggest a Habermasian foundation for a critical theory relating to the ongoing ideological, cultural and political conflict between militant Islamic fundamentalists and the West. Habermas sees modernization as a historical process in which societies are progressively rationalized over time. This evolution is marked by intermittent backsliding, stasis, and struggle. Habermas posited a number of developmental stages through which societies pass, and holds that societies progress from "tribal," to "traditional," to "modern" over time. "In tribal societies, religious-based kinship structures govern virtually all social interaction, determining conduct in accord with the sacred and transcendent" (Wallace, 2003, pp. 503-504). Societies in which (non-Western) fundamentalists live are mainly "tribal" or "traditional" and Western countries are "modern." This disparity may help to explain the difficulties inherent in building a dialogical bridge to span the distance between fundamentalists and the Western researchers who study them.

The progressive modernization and secularization of society are at issue for many fundamentalist groups, especially those outside North America. The tension between Islam in the Persian Gulf region and the forces of modernization helps to explain "the events of 11 September as an episode in the ongoing historical drama of modernity itself" (Wallace, 2003, p. 510). Although modernization has been somewhat spontaneous in the West, Islamic countries see it as an import grown elsewhere. Wallace has hypothesized that there is a clear connection between the introduction of modernity in the Middle East and an "especially virulent religious backlash"

(p. 510). When modernization is imposed from the outside, even though it may be promulgated by governmental representatives within Islamic society, it is perceived as being both a Western commodity and a tool used by the local elite to consolidate power and wealth (Wallace, 2003).

Langman (2005) offered insight into the role modernization and globalization have played in the development of religious fundamentalism. In addition to creating rapid social change and dislocation related to rural-urban migration and class mobility, globalization has disseminated “rational, secular worldviews and mass mediated forms of privatized hedonism from consumerism to eroticism that are an affront to the values and identities of many traditional people – especially those already disadvantaged by the global economy” (p. 258). Globalization is interpreted by many fundamentalist leaders as eroding the authority of elders, challenging values and morals, and disrupting social structures and gender relations. Thus, the ascent of religious fundamentalism can be seen as a response to globalization. Langman’s critical theory holds that capitalist modernity, in addition to the benefits often touted, brings new forms of domination and “a cold, sterile, lonely dehumanized world of conformist ‘cheerful robots’ seeking consumerisms… in an ever more frantic attempt to secure a meaningful identity in a meaningless world” (p. 270).

In a recent example of social criticism related to Islamist terrorism, Cigdem (2006) warned against denouncements of terrorist acts that do not also criticize terrorism’s foundations. He was careful to point out that fundamentalism can present a healthy challenge to the religious institutions that have collaborated with repressive political regimes, but also made clear that terrorism cannot be justified under any circumstance. Islamic fundamentalism and Islamic terrorism are two separate phenomena. Terrorist acts of self-proclaimed Islamic militants are not the result of the “religious orientation of postmodern Islamic expansionism,” but “one of the consequences of American hegemony and of the European Union’s reluctance to confront global inequalities and political inconsistencies” (p. 162).

Summary: Qualitative Approaches

The knowledge we can glean from qualitative investigation of religious fundamentalism is often broader but less specific than quantitatively derived results. There is a clear trade off here. We are trading away empirically based observation and measurement of the behaviors and constructs associated with fundamentalism, but we are gaining a more descriptive and sweeping landscape of (less specific and measurable) information. As mentioned, the epistemological position historically associated with the scientific method and its quantitative methodologies is positivism. The epistemologies that have helped pave the way for qualitative techniques are quite diverse. For example, in addition to being a methodology, hermeneutics is also a distinct epistemological perspective (see Gadamer, 1976; Ricoeur, 1981). The qualitative methodologies that do not have connections to specific epistemological positions evidence an epistemological flexibility not characteristic of the scientific method. An ethnographer or social theororist, for example, is generally free to draw from a range of epistemological positions, as long as she can make a convincing argument for how her theory of knowledge supports her truth claims as they relate to her methodologies.

This flexibility has pros and cons. The epistemological position of positivism is limiting in that it restricts the researcher to only what can be perceived and measured empirically, but quantitative methodologies do have the advantage (generally speaking) of producing the kind of data that can be compared meaningfully with data produced in similar quantitative studies. This can usually not be said of investigations that employ qualitative methods.

One comparative advantage of qualitative methods, and the epistemological flexibility associated with them, is their ability to cast a wide net in exploring religious phenomena. Because qualitative inquiry is more flexible than quantitative inquiry, it is more adaptable to the particular phenomena being studied. In the case of religious fundamentalism, this is important because much of what interests scholars does not lend itself to the precise demands of the scientific method.

The typological analysis described by Almond, et al., (2003) for example, provides a way of categorizing a wide array of fundamentalist movements. But typology requires some level of subjective judgment about which category an item should be placed into. Similarly, the grounded theory of "family resemblance" would not have been possible without the authors' willingness to take certain intuitive leaps that cannot be justified scientifically.

Hermeneutic study provides a rich source of information about how fundamentalist groups interpret and interact with their sacred texts. Because scriptures play a central role in many religions, the tools of hermeneutic inquiry have become an important part of fundamentalism research. But hermeneutic findings are of a different nature, and are supported by different epistemologies than, say, survey findings subjected to statistical analysis. In the same way, critical social theory is a valuable source of conceptual data regarding the root causes of fundamentalist expression, especially outside North America. Through it we have been able to understand that there is likely a relationship between militant Islam and Western hegemonic domination. Though this theoretical structure could not have been arrived at without the use of different rules and methodological standards than those supported by positivist epistemology, I personally find it one of the most convincing and inspiring scholarly arguments related to religious fundamentalism.

Having laid out examples of both quantitative and qualitative research into religious fundamentalism and argued for the indispensability of both, I will now proceed to a discussion of the significance and problematic nature of the epistemological divide that tends to separate scholars with positivist leanings from those who embrace the epistemological flexibility demanded by qualitative methodologies. This divide is, in my view, akin to the divide between fundamentalist believers and non-fundamentalists. I am taking a more practical or applied turn at this point in the article as I move from examination of scholarship and its epistemological foundations to how scholarship, epistemology and metatheororizing might mirror and contribute to the real world problems of fundamentalist isolation, radicalization and militancy.

Discussion

Scientistic Self-Understanding as a Limitation of Positivism

The differences between quantitative and qualitative methodologies (and between varying qualitative techniques) point up the diverse theories of knowledge that support methodologies by providing the philosophical foundation on which to lay truth claims. Thus far, I have made, somewhat indirectly, a number of points that I would like to now bring to the foreground. First, although quantitative methodological approaches to fundamentalism research produce important knowledge, the primary epistemology informing quantitative methods is positivism. As Habermas ably pointed out in *Knowledge and Human Interests* (1971), positivism as an epistemological position has led to the scientistic self-understanding of the sciences, which means that, through circular reasoning, science lost the ability to critique itself philosophically.

> Positivism certainly still expresses a philosophical position with regard to science, for the scientistic self-understanding of the sciences that it articulates does not coincide with science itself. But by making a dogma of the sciences' belief in themselves, positivism assumes the prohibitive function of protecting scientific inquiry from epistemological self-reflection. Positivism is philosophical only insofar as is necessary for the immunization of the sciences against philosophy. (Habermas, 1971, p. 67)

Habermas' point here is that science understands itself in a way that precludes accurate self-reflection because positivism categorically excludes science from the need for epistemological self-questioning. This exemption is accomplished by the positivist definition of "truth" as objective, measurable, etc. In short, positivism defines truth as scientific truth, and this puts science in the role of examining everything except itself.

There exists an epistemological divide between quantitative and qualitative methodologies, and between fundamentalists and the scholars who study them. Not that these two fissures are identical, but they have parallels, and my task now is to argue for a dialogical and tolerant approach to both areas of division. Habermas' solution to the epistemological roadblock thrown up by scientistic self-understanding was to construct his own empirical epistemology to support "empirical-analytic" inquiry, which remained open to philosophical critique and dialogue. Though Habermas' new epistemology has not come close to overtaking positivism, he was able to lay philosophical groundwork in *Knowledge and Human Interests* to support what would later become known as "qualitative" research. My interest in this early project of Habermas lies in his identification of the rigid insularity of positivism and the effects this philosophical isolationism has had on scientific inquiry.

The application of the association between scientistic self-understanding and positivism to our current topic rests on the association already made between positivist epistemology and quantitative methodology. Fundamentalism researchers who are wedded exclusively to the positivist project at the level of epistemology will be limited in their ability to study fundamentalism at the level of methodology. Scientistic self-understanding is insular, self-assured, and dependent on pre-conceived notions about the reliability and validity of the scientific method. Fundamentalist believers are insular, self-assured, and dependent on preconceived notions about reliability and validity of their faith and doctrine. Dialogical engagement between researcher and researched requires a break with positivism so that the epistemological distance between scientific “fundamentalism” and religious fundamentalism may be bridged.

Metamethodology as an Antidote for Scientific Insularity

The second point I have tried to make, and will elaborate on here, is that a metamethodological approach to religious fundamentalism is more helpful and informative than focusing on one technique or category to the exclusion of others. This is partly because of the multi-faceted nature of religious fundamentalism research. Fundamentalist believers do produce actions that can be measured, attitudes than can be quantified, and political activity that can be observed, but religious fundamentalism also evidences aspects that are not amenable to empirical study.

Metamethodological approaches must, by definition, be supported by a flexible epistemological sensibility, one that can appreciate the scientific worldview, but also other epistemological positions. As has been mentioned, metamethodology and flexible epistemology both evidence important convergences with metatheory. In fact, it can be said that metamethodology is the methodological equivalent of metatheory. This direct comparison has clear limitations, mostly owing to the categorical separation between theory as a formulation of knowledge and method as a form of data collection. But the comparison is still, I think, helpful conceptually, especially in light of the connection between methodology and epistemology. The complex phenomenon that is religious fundamentalism is best studied using a variety of methods and theories of knowledge, and both metamethodology and epistemological flexibility support and are supported by metatheoretical thinking.

In order to travel the distance between Western intellectual culture and the internal culture of fundamentalist groups, flexibility is required on the part of researchers. I suppose we could wait for fundamentalist believers to become more flexible, open, and “reasonable,” but what we logic-bound Westerners perceive as unreasonableness in, for example, Muslim fundamentalist believers, is part of what defines them (at least to us) as fundamentalists. Though it is important to understand the objective aspects of religious behavior, this is not enough when it comes to fundamentalism research. It is largely the elements of religion that are *not* amenable to objective, quantified study (such as spiritual experience and conviction) that need most to be studied and understood. The visceral correlates or descriptive statistics associated with fundamentalism contribute valuable data, but these kinds of data do not have the potential to help build a dialogical and mutually respectful bridge between “us” and “them.”

Epistemological Flexibility as a Dialogical Bridge

The third and final point I have alluded to is that the dialogical engagement needed to bridge epistemologies is also needed to surmount the walls that separate fundamentalist believers from the scholars who study them. The epistemological divide between researchers and fundamentalists consists in the fact that fundamentalists do not fit within the predominant worldview of Western academia. Similarly, the values and purposes of Western academia do not fit within the worldview of religious fundamentalists. Western scholars are at a particular disadvantage when attempting to broaden their epistemological sensibilities. Because the West, and especially the U.S., is seen as the main source of pain and trouble by many Islamic fundamentalists, American researchers can easily become defensive, even subconsciously, at being blamed for the very phenomenon they are studying. Intellectual and epistemological rigidity, not flexibility, tends to result from a defensive posture. So rather than walking onto a level playing field, Western researchers, epistemologically speaking, are staring out at a disadvantage.

When scholars acknowledge personal barriers to the epistemological flexibility I am calling for, the possibility of engaging the frame of reference of the fundamentalist presents itself. More informed and effective methodological approaches to fundamentalism research would likely follow from this sort of epistemological transformation. Dialogical encounters with the lifeworlds of fundamentalist believers require an epistemological flexibility on the part of researchers that forsakes the assumed transcendence of positivism, scientism, intellectualism, and the Orientalist caricature of Islamic fundamentalist believers that is the current stereotype held by most (even educated) Westerners.

Perhaps a practical example would be helpful. I am imagining two versions of a research study, conducted by culturally Western researchers, that seeks to examine and better understand some particular aspect of the experience of Islamic fundamentalist believers. In the first version, a traditional quantitative study built on positivist epistemology would collect data or use data already collected, analyze the data according to the guidelines of the scientific method, disseminate the results to the rest of the scholarly community, and rest in having made some contribution to our "knowledge" of the phenomenon. There would be no attempt to validate the results against the lived experience of the research subjects because positivist epistemology, supported by the scientistic self-understanding of the sciences, is able to reassure itself that "truth" lies within the confines of the theory of knowledge it has created.

Continuing with our example, the second version of the study would employ metamethodology, be based on flexible epistemology, and would also seek to examine and better understand some particular aspect of the experience of Islamic fundamentalist believers. This set of researchers would begin with the perspective of the phenomenon that is held by the fundamentalist believers themselves, work backwards from there to establish the most appropriate set of methodologies, and then backwards again to the epistemological foundations needed to support and inform the selected methodologies. The attained results would then be presented to the research subjects as a topic of discussion in order to ascertain how they compare with the subjective lifeworlds of those being studied. This dialogical encounter between researcher and researched is partially made possible by the fact that the study has been based on and consonant with the values and sensibilities of the research subjects from the beginning. Because the epistemological set of the researchers has been calibrated based on the methodologies suited to the phenomenon under study, a bridge of common language and ideas is already potentially at hand. This increases the likelihood that dialogue between researchers and researched will be characterized by sameness of purpose, by a more accurate understanding of the lifeworlds of religious fundamentalists, and by a sense among those being studied that Westerners are making an honest, concerted, and sincere effort to understand them and to help explain them and their position to other Westerners. This dialogical engagement is, in my opinion, the only way the "problem" of fundamentalism (as many Westerners think of it) will be effectively addressed.

Almond, et al. (2007) describe how some fundamentalists have a different perception of time, history, meaning and the future than most other people. How can non-initiates understand the experience of initiates if that understanding is based on a divergent perception of time, history and meaning? Refining and adjusting our epistemology to meet the needs of the group being studied is the first step toward the "dialogical hermeneutic" advocated by Zaidi (2007) . When we expect the subjects of our study to conform to our worldview, we build a wall of misunderstanding between them and us that cannot be scaled by even the most astute methodology. Without an appreciative epistemology that includes the worldview of those we are studying, we may literally be "talking to ourselves" in that the data and insights we collect and publish have no meaning for anyone outside our small circle of like-minded intellectuals.

Metamethodological consideration of religious fundamentalism can only take place in an atmosphere that is epistemologically flexible and metatheoretical. Because each methodology brings with it the epistemic baggage of its founders and defenders, metamethodological insight requires an appreciative and inclusive, as opposed to rigid and essentialising, approach to research. Coming at the topic of religious fundamentalism from a number of different angles at once helps us to see that metatheoretical knowledge of religious fundamentalism must include some element of the contributions of each part of the whole: empirical and hermeneutic, quantitative and qualitative, Western and Eastern, secular and religious, believing and non-believing, theoretical and practical. It is the synergy of metatheory that is exciting, and it is the epistemological clarification and bridging engendered by metamethodological thinking about religious fundamentalism that holds some promise for improved dialogical interchange between two sides of an issue who appear, on the surface, to have nothing in common.

Conclusion

The basic argument of this paper can be summarized in two statements, one existential and one theoretical. First, my existential offering: The only way the "problem" of religious fundamentalism is going to be "solved," especially the violent and militant type, is if the people to whom the ire of radicalized believers is directed (Westerners) do a better job of understanding, reaching out, communicating, responding and otherwise attempting to bridge the span that divides "us" from "them." Second, I offer a theoretical model, which is complemented by a graphic representation (Figure 1). Beginning at the left of the diagram and working toward the right, researchers embark on the task of religious fundamentalism research with either an exclusive preference for positivist epistemology or with some measure of epistemological flexibility. Studies in the first category utilize quantitative methodology and are adapted to the tenets of the scientific method. Scientistic self-understanding completes the loop which keeps these studies and their authors from penetrating the gap that exists between two very different cultures, epistemologies, and value systems (i.e., between Western researchers and religious fundamentalists).

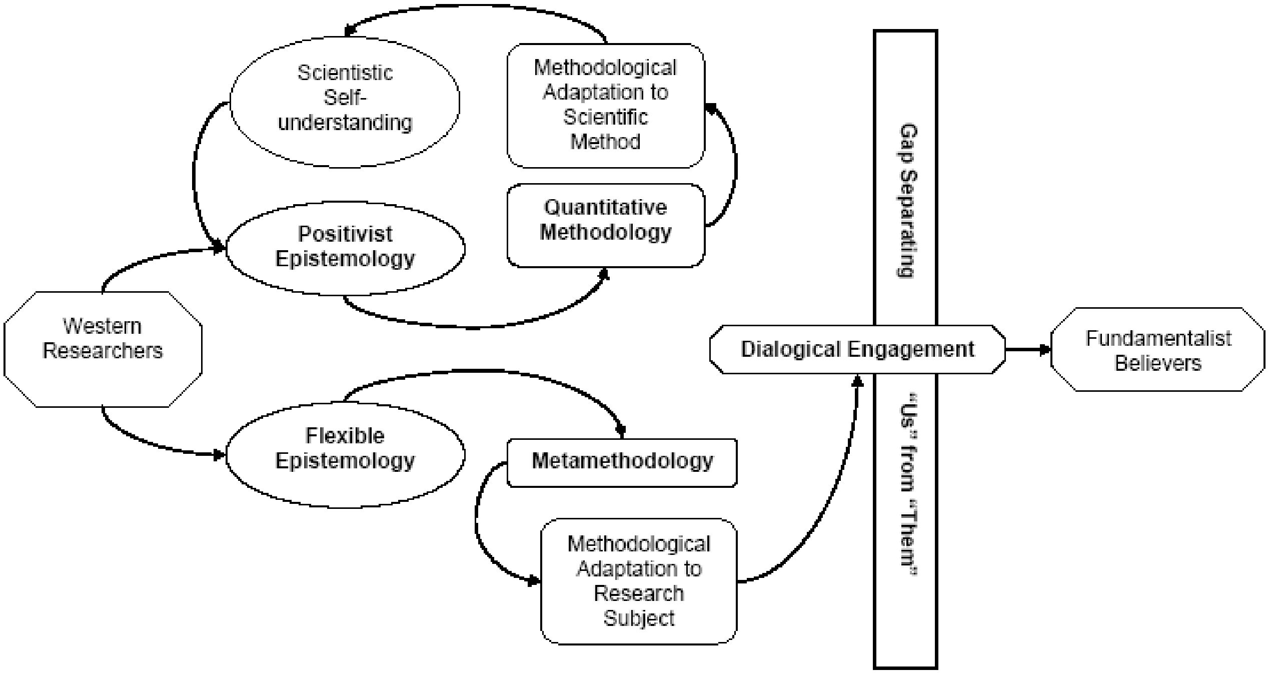
Scientistic Self-understanding
Methodological Adaptation to Scientific Method
Positivist Epistemology
Quantitative Methodology
Western Researchers
Flexible Epistemology
Metamethodology
Methodological Adaptation to Research Subject
Gap Separating "Us" from "Them"
Dialogical Engagement
Fundamentalist Believers

Figure 1. Dialogical engagement as a function of epistemological flexibility and metamethodology.

Starting again at the left of the graphic and following the bottom track to the right, studies based on flexible epistemology are positioned to adopt metamethodology. Because metamethodology has the ability to adapt itself to the needs of the research subject(s), the chance of dialogical engagement between researchers and researched is optimized. Dialogical engagement is the bridge that has the potential to span the gap that separates "us" Western researchers from "them" fundamentalist believers.

This is only one way of conceptualizing these issues and what road we might take to address them more fruitfully. It is also true that this argument is based partly on my own value system. Again, a theory or a model is only helpful to the extent that it assists us in making a sticky or intractable problem clearer and more solvable. My hope is that these ideas, when combined with the ideas and contributions of other scholars, will move us a step toward mutual understanding.

If the issues that create and sustain the radicalization of religious fundamentalists are to be more fruitfully addressed, a bottom up change in how we think about and try to "solve" those issues is needed. This change will look different depending on the context (political, religious, social, academic, etc.), and the current effort relates to scholarly endeavors and the philosophies and theories that support them. In the scholarly context, wholesale restructuring begins with epistemology, because intellectual pursuit is about "knowing" things. Barriers that exist at the epistemological level must be exposed and worked around. Research methodology, which emanates from and is supported by epistemology, must attune itself to the phenomena being studied. Metatheoretical constructions formulated in an environment of epistemological flexibility and metamethodology predispose the scholarly project toward appreciation, engagement, openness and dialogue and away from isolation and insularity.

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Strategy as Metatheory

Alan E. Singer[1]

Abstract: Business strategy or strategic management is a subject that has comprised a major part of the curriculum in business schools around the World for at least 40 years. It is routinely described as "integrative," yet has arguably remained somewhat limited in its scope and philosophy. The purpose of this paper is to expand the scope of strategic management accordingly (to include ethics for example) but to do this in a way that arguably offers efficient insights to students and practitioners. The approach involves bringing together several formal metatheories while at the same time indicating how each of them can function as an integrative theory of strategy.

Keywords: Ethics, metatheory, modeling, optimality, rationality, strategy.

Introduction

Business strategy or strategic management is a subject that has comprised a major part of the curriculum in business schools around the World for at least 40 years. It is routinely described as "integrative," yet has arguably remained somewhat limited in its scope and philosophy (cf., Burrell, 1989; Calori, 1999). The purpose of this paper is to expand the scope of strategic management accordingly (to include ethics for example) but to do this in a way that arguably offers efficient insights to students and practitioners. The approach involves bringing together several formal metatheories while at the same time indicating how each of them can function as an integrative theory of strategy.

In this paper the term "metatheory" refers to any general theory that elaborates upon a core behavioural construct or theme. For example, the term metarationality refers to a general theory that recognizes many distinctive definitions of rationality. Such themes transcend and thus potentially inter-relate the traditional disciplines that are usually associated with strategy. They include: ethics (ethicality), optimality, modeling, forecasting, recursivity and synergy. Each such metatheory is well-documented and can be succinctly reviewed by deploying a mixture of conceptual frameworks, natural language descriptions and mathematical formalisms. The central points of the present paper are that (a) each metatheory can be placed relative to strategy, in an appropriately expanded conceptual space, or epistemological landscape; and (b) these "placements" seem to inform strategic management in an efficient and effective way, even

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though they do not necessitate a mastery of each of the traditional academic disciplines with which they are each associated (e.g., moral philosophy, economics, ecology, sociology and psychology, management science and the cognitive sciences).

It is therefore an implicit suggestion throughout the paper that we might think of the metatheories as teachable content in business schools that potentially offers efficient insights (i.e., maximum understanding for minimum effort) as well as a degree of wisdom, to students and management practitioners. In contrast, the *status quo* in the study of strategic management involves a selection of historically determined discipline-based theories, large parts of which have only a remote bearing upon well-informed economic action. In other words, the set of metatheories can be thought of as a powerful and adaptable toolkit for the managerial mind.

Rationality & Metarationality

Rationality has well over 40 distinctive forms (cf., Singer, 1996, pp. 20-23; 2007, pp. 53-56), each of which has been explicitly defined within the spectrum of the social sciences and philosophy. These can be described as the elements of a rationality *set* that can, in turn, be placed in correspondence with core concepts in the domain of strategic management (i.e., a strategy-set). Metarational arguments then provide an integrative and high-level theory of strategy that in turn maps out its some of the *terra-incognita* and indicates directions for development. A general theory of rationality that maps out the structure of the rationality-set is like an interwoven fabric, as it involves not only the identification of multiple forms of rationality (elements of the rationality-set R**)**, but also the specification or construction of :

1. C*lassificatory* metarational criteria for classifying the elements (e.g., calculated vs. systemic forms; belief, means, ends-oriented forms, backward-looking forms, etc.).
2. *Evaluative* metarational criteria (e.g., universalizability, globality, level of self-support, etc.).
3. R*elational* metarational arguments that place elements and subsets of the rationality-set in relation to each other (e.g., utility-capture, relations between beliefs and ends, etc.).

Within the general theory, a distinction has been drawn between calculated versus systemic forms of means-rationality, then between other means-rationalities, belief-rationalities and ends-rationalities. It then becomes possible to identify direct linkages to, or correspondences with, almost every topic within strategic management. These correspondences between rationality concepts and strategy concepts can be made explicit, as follows:

1. Belief-rationalities ~ managerial-perspectives and expectations.
2. Means -rationalities ~ strategic decision processes.
3. Action rationalities ~ logical incrementalism.
4. Backward-looking rationalities ~ historical processes and learning.[2]
5. Interactive rationality ~ predicting or diagnosing strategy.

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[2] Another example is the strategy concept of "planning as learning" (De Geus, 1988) which corresponds with backward-looking or retrospective forms of rationality, whose definitions contain explicit reference to past events, such as "thorough learning from past mistakes."

6. Ends -rationalities ~ corporate objectives and missions.
7. Rational-morality ~ managerial ethics.

A relational structure can then be implanted in the rationality-set **R** (and hence also in **S**, the strategy-set) using two types of metarational relationship:

1. rI is a form of rJ . For example, sympathy . . . is a form of . . . extended-ends-rationality.
2. rI has significant common properties with rJ , for example, expressive rationality (which involves communicative action like signaling) . . . has significant common properties with strategic-belief rationality (which is concerned with game-theoretic interdependencies).

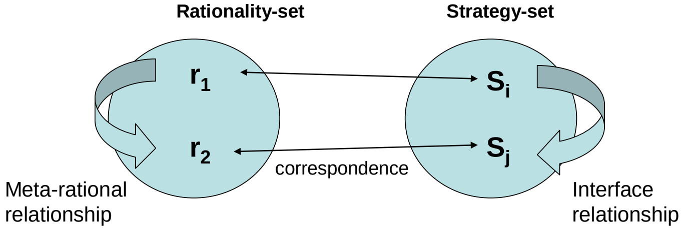

Figure 1. The concept of an isomorphism between a strategy set and a rationality set

The relational structure in S is similar, and it is preserved (or in some cases identified, or implanted or transcluded) by assuming that the one-to-one correspondence between R and S is a structure-preserving mapping, or isomorphism. In that case, corresponding to 1 and 2 in R, we have relationships between the images 1* and 2*, as follows:

1* Stakeholders-as-constraints…is a form of…organizational goal system.
2* Positioning is an ingredient of organizational strategy. This strategy-concept…has significant common properties with…signaling behaviour.

More generally, this is to say that every form of rationality has its corresponding strategy-concept, whilst strategy interface concepts reflect the corresponding metarational relationships. The central tenet of “strategy as rationality” is that this statement provides a succinct (but somewhat fierce) summary of many lengthy academic articles on strategic management.[3]

The overall conceptual framework of an isomorphism between a rationality-set and a strategy-set can be represented diagrammatically (Figure 1.) but it can also be expressed in a *quasi*-formal way, as follows (non-mathematical readers might skip the remainder of this paragraph). Let $(r_I\ r_J)$ be any pairwise relationship in Rx R that is, a metarational relationship like those described above. The mapping $I: R \rightarrow S$ gives $I\ (r_I\ ) = s_k$ and $I\ (r_J) = s_l$ for some k, l. Then, for all i, j, we have: $I \times I\ (r_I\ ,\ r_J\ ) = [I\ (r_I)\ ,\ I\ (r_J)\ ] = (s_k\ ,\ s_l)$, for some k, l, where the latter pairwise relationship in S is an *interface* relationship between a pair of strategy concepts.

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[3] A current reviewer identified the axiological framework (value-orientation) of “strategy as rationality” as “post-postmodern integrative normativism.” It might also be regarded as *pre*-post modern, that is, fitting between neo-classical type formalisms and postmodern narratives. An early review by Geoffrey Hodgson suggested linkages with the Classical Pragmatic tradition (cf., Singer, 2009a & b).

The mapping I is an isomorphism in the mathematical sense; that is, a structure-preserving map that identifies the two sets, **R** and **S** as essentially equivalent, even the same thing. An **R ~ S** isomorphism specified in this way effectively states that the concepts of strategic-management and plural-rationality are co-extensive, meaning that the language and underlying concepts of these two sets (or domains of knowledge) parallel one another. Accordingly, one can make the claim that it not only makes sense to view "strategy as rationality," but that it also make good sense to assert that "strategy *is* rationality" and vice versa. This equivalence or sameness is no coincidence. It may explained by the simple observation that both sets (R and S) have been produced as a result of attempts by scholars and practitioners to grapple with quite general problems in human systems. These involve action and decision, behavior and exchange, production and communication. Put differently, there is no single valid theory of strategic decision-making (or decision-taking), there is only a metatheory of decisions

Ethics & Metaethics

A similar approach can also be used to equate or identify strategy with ethics, via metaethical arguments (e.g., Van Gigch, 1991). It is at this level of inquiry and language use that we encounter the many incomplete arguments or formal paradoxes and contradictions that convey the difficulty of reconciling utility/profit based approaches with alternatives that involve expressive, Kantian, reflective and other forms of rational-morality. Accordingly, the conceptual framework of "Strategy-as-Rationality" extends to "strategy as moral philosophy" (e.g., Singer, 1994) in which plural rationalities, metarationality and metaethics become recast as a general normative theory of the strategy of productive entities.

Some forms of rationality may be captured by arguments that identify them, for at least some purposes, as special cases of Rational Utility Maximization (RUM), that is, the rank-ordering of, and selection from a set of objects-of-choice (including possible actions), according to formal preferences. Sen's *sympathy* (preference incorporating others' interests) or Etzioni's *interdependent* utility (as in game theory and other studies of joint-optimization) are partly captured in this sense, as is bounded rationality after allowing for the costs of information and computation. RUM thus becomes an umbrella-term covering a subset of the rationality-set, or more accurately a fuzzy-subset whose membership is by degrees. The degree of membership in this fuzzy set is a matter to be settled through metarational arguments, often in natural language, that vary in their level of persuasiveness and coherence. Other elements of the rationality set are more elusive, or hard to capture. Examples include commitments (altruism), expressive rationality, and contextual forms. Within the present framework, the existence of these *elusive* forms implies that strategy should/ought to involve occasional (corporate) self-sacrifice; expression of (corporate) values; or the creation and maintenance of institutions and (corporate) traditions, in a way that cannot be entirely subsumed into profit- maximization.

Any given strategy concept may thus be evaluated and placed relative to others with reference to metaethical criteria (i.e., criteria for choosing rationalities and forms of ethical reasoning). The concepts of (a) capture (above) and (b) scope are salient examples of such criteria. Several concise metacriteria can be used to evaluate the "scope" of any given form of rationality or ethic, as follows:

Global versus Local Optimality. A globally-optimizing form maximizes total lifetime utility for the agent, after taking into account the impact of current decisions on the agent's own future preferences, learning, habit-formation and co-ordination with others (resolute-rationality is global, narrow-egoism is local, in this sense).

Universalizable versus Exclusive. A universalizable form is one that the agent prefers other agents to adopt (Kantian rationality is universalizable by definition, self-interest modeled as RUM is not, as made quite explicit in Prisoners' Dilemma games).

Self-Supporting versus Self-Defeating. A self-supporting form hypothetically chooses itself when used to select a form (cf., recursivity, below). While Kantian and commitment forms are self-supporting in this sense, formal-RUM can be self-defeating as also demonstrated in the Prisoners' Dilemma game context.

Collectively, these and other metacriteria (perfect-imperfect; precision-of-definition, etc.) characterize the prescriptive gap that currently separates the rationality assumptions of the mainstream (i.e., economic) theory of strategy from (business) ethics. Put differently, while the axioms of economics undoubtedly have powerful normative appeal, so also do the various metacriteria that *RUM* fails to meet fully. With the isomorphism in place, the metacriteria can be used directly as tools to evaluate the corresponding business strategy concepts.

Optimality & Metaoptimality

Over 40 years ago, C. West Churchman, a famous Berkeley systems-scientist, ethicist and management theorist declared (1994, p. 108) that "we do not know the meaning of optimum."[4] Since then it has indeed become increasingly apparent that optimality is "a far more profound and elusive state of affairs than can be derived from the most powerful of mathematical proofs" (Mason, 1994, p. 70) and that there are many definitions of optimality. In sum, different conceptual definitions of optimality have developed over time and there are many distinctive forms. As with rationality and ethics, some forms can be stated mathematically (e.g., Zeleny, 1996) while others require natural language statements to complete their definition. The same is also true of strategy; yet this is no coincidence. Optimality, "broadly defined" can be invoked as an organising principle in order to restructure and augment current thinking in the latter discipline. The converse is also possible, because empirical research in strategic management can potentially stimulate and refine ideas about the possible meanings of optimality.

As with the plural rationalities, the several forms of optimality correspond with strategy concepts, as listed in Table 1. These fall into two broad classes, under the metaoptimality criterion of elusiveness *vs*. capture. The captured forms are implicit in several traditional paradigms and they accordingly underpin the idea of an Economically Optimal Strategy (EOS).

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[4] This might mean (a) we do not have a single definitive operational definition of optimum, so there are many distinctive forms of optimality (e.g., Zeleny, 1996). It might also mean that (b) we don't know what is really the ideal human system, the best way of living with others, so we cannot be sure of the merits of any of our actions. As one reviewer put it, "the search for optimality is always relative, never absolute"

A second class, the Systemic-Ethical Optimum (SEO) with its corresponding strategy concepts, includes the elusive (non-maximising) forms (cf., Singer, 2007).

Table 1. Optimality and Strategy

Form of Optimality	Strategy Concept
Maximisation	Finance-theoretic decision models
Cybernetic	Mgmt. by objectives, or exception
Evolutionary	Environmental fit & adaptation
Inherent	Org. dynamics & dissipative structure
Optimal design	Management without tradeoffs
Multi-criteria	Stakeholder model & multiple objectives
Systemic	Plural rationality & embeddedness
Ethical	Co-production of human-goods

As a practical matter one can then ask which class of "optimal strategy" is better? Attempts to answer this question require the invocation of metaoptimality criteria, such as (a) the proper scope of optimality formulations (i.e., optimal for which entities) (b) the reducibility or otherwise of goodness to betterness, and (c) the overall relationship between facts and values. Given the high level of ambiguity, contentiousness and incompleteness at this metalevel it is inevitable that strategic business decisions are often experienced in practice as "wicked messes." Currently, the idea and ideology of EOS undoubtedly prevails, yet systemic perspectives are also evident. It seems that a more inclusive perspective[5] is now appropriate, reflecting SEO *and* EOS. Such complementarities and possible synthesis at this level stands to expand the boundaries of conventional strategic thinking.

Models & Metamodels

The analysis and development of firms' strategies in practice is almost always carried out (pragmatically) with reference to diagrams, conceptual models and their surrounding narratives. Some of these are off-the-(library)-shelf and often appear to be offered in the spirit of one model fits all, while others are custom built by managers or consultants for a particular situation. These models can be reified and themselves depicted and described in a variety of ways (Table 1). For example, any conceptual model can be described as a set of images and expressions that depict and describe aspects of reality. More generally, a "conceptual metamodel" is therefore:

A CONCEPTUAL-MODEL OF (a conceptual-model of (aspects of reality)).

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[5] Some strategy concepts embody subsets of these forms. For example, as a reviewer noted, the evolutionary, systemic, ethical and design forms all appear to be embodied within an "eco-centric strategic business orientation" known as Biomimicry or Biomimetics.

That is, a set of images and natural language expressions, or patterns, or discourses, that describe and depict "conceptual models" of themselves. The relevant expressions then include terms such as comparison, design, transition, renewal, influence and replication (Table 2). In the "comparison" metamodel (Table 2), for example, a conceptual model is described as an object-of-choice within a static decision problem (Table 2 column 2). Some of the better-known conceptual models of strategic behavior (strategic management) involve competitive strategy, hyper-competition, stakeholder management, etc. An inquiring strategist (or metamodeler) might seek the richest possible description of these "objects." Accordingly, features are identified, classified, and contrasted, as in a taxonomical approach.

Table 2. Metamodels

Metamodel	Depiction of CM	Role of Inquirer
Comparison	Object-of-choice	Analyser
Design	Trigger	Designer
Transition	End-state	Learner
Renewal	Trigger	Self-producer
Influence	Instrument	Political entity
Replication	Meme	Host

A conceptual model can also be depicted as a *trigger* of a process of design (an "instigating causality" in von Bertalanffy's terminology). The tension between a new model and prior understandings motivates an inquirer (e.g., strategist) to find a resolution. For example the competitive strategy model can be combined in a single figure with the stakeholder model, despite the evident underlying tension between them.

Design

The transition metamodel (Table 2, row 3) involves a process of accommodation (creation of a new cognitive schema). For example, a simple input/output model of the firm can be transformed by incremental steps into a more complex stakeholder model. The competitive strategy/ advantage model can be transformed into the hyper-competition model. Here, features or elements of the first model, such as the existence of industries with weak forces are replaced with new elements, such as escalation of incumbent rivalry and multiple competitive "arenas." This "transition metamodel" is very effectively communicated in a non-strategy context in the lithograph *Liberation* by the artist/designer Escher, in 1955, which shows a row of triangles transform, by barely perceptible steps, into birds in flight.

Transition

A conceptual model can also trigger a process of inner-directed change, or psychological renewal of the individual who interprets or constructs the model. Exploration of core values and rationalities implicit in the model can result in individual and collective self-renewal. Psychologists have called this type of process “deep self referral” and have associated it with increased confidence and performance, making the individual more competitive (but not because of the explicit content of the conceptual model *per se*). For example, a person who reflects upon a model in which the category “trust” features prominently, might not only change their policy, but also refresh and renew themselves.

Influence

Models can also be deployed for political purposes. A person in a position of power (a manager) draws attention to a particular model, with the covert intention of influencing other's behavior. The models might be used to try to inculcate a culture, to create a team of like-minded players, or to direct attention away from (or towards) wider stakeholder concerns. People (e.g., subordinates, voters, etc.) thereby adopt a given model out of deference to power, which opposes or displaces the type of self-referral described above (see the later section on “pragmatism and power”). As Sennett (1998) put it, it can lead to a loss of identity, or the colonization of the self.

Replication

Finally, conceptual models can themselves be depicted as productive entities that co-produce many copies of themselves. Here, models are seen as distinctive abstract patterns that compete for share of mind. The “replication” metamodel is consistent with Foucault's description of “competing discourses” that he says characterize contemporary (post-modern) life; but perhaps it finds its sharpest expression in the idea of a model as a *meme*, or a chunk of information that lodges in brains or minds. The role of the model in an ecology of knowledge is then analogous to that of genes in biological systems. Every time an entity (e.g., an individual or a collectivity) attends to a meme (i.e., a model) a replication occurs. Yet, as suggested earlier, an entity that hosts any particular meme or model is not necessarily advantaged. The effect can also be neutral or destructive.

Strategy

Another revealing correspondence (or equivalence) exists between this metalevel perspective on modeling and an object-level perspective on strategy itself. For example, the replication metamodel implies that entity cannot freely choose a conceptual model, instead the model (a *meme*) is reproduced through cultural and behavioural processes such as imitation. A similar evolutionary model of “strategy” (at the object level) sees that a firm “cannot freely choose” its strategy. Questions of timing also recur at these two seemingly-separated levels of analysis: one can always question the timing of a strategic move, but equally the timing of any transition from one model to another.

This “correspondence” between strategy and metamodel can also be made more explicit (Table 3). Having identified the set of “metamodels” (comparison, transition, design, etc.) we can point to many corresponding concepts within strategy (e.g., strategy-selection, change-management, generation of strategic options, etc.). It is thus evident that the elementary categories of meaning that apply to the “real” (object-level) world of strategic management all re-emerge during any sustained process of inquiry at the metalevel, where they can be applied to abstract conceptual models themselves.

Table 3. Metamodels and strategy concepts

Metamodel	Strategy Concept
Comparison	Strategic choice, selection
Design	Generate options, overcome tradeoffs
Transition	Management of change
Renewal	Develop Competencies
Influence	Incrementalism, symbolism
Replication	Emergent strategy

This type of recursive re-generation of a concepts is not only characteristic of metatheory and inquiry, it is also strikingly evocative of a phenomenon in Chaos Theory (dynamical systems theory) whereby essentially the same fractal patterns re-appear, with just slight changes, as one drills down ever further into the "edge of chaos;" for example the boundary of the Mandelbrot set. As this is done, using visual computer models, this boundary reveals the so-called baby-Mandelbrot sets that come into view successively and infinitely many times, as resolution continually increases. Put differently, sustained inquiry that moves beyond traditional disciplines and categories ultimately seems to generate something like the patterns found in nature.

Recursivity & Ecology

Recursivity and self-reference are found in many arguments and lines of inquiry that attempt to bring together of once-separated levels of description and representation, as in the above example of strategy and metamodels. This general abstract notion was first developed in Ancient Greece (cf., Hofstadter, 1979) where it found expression as Epimenides' paradox: "this sentence is false." More than 2000 years later, the notion was re-formulated in metamathematical terms as Russell's paradox: If we write "the set of all sets that are not members of themselves," the proposition that "this set contains itself" quickly yields in the mind the idea that it does not. To resolve this paradox, a more elaborate Theory of Types was duly designed (in *Principia Mathematica*) that made an explicit distinction between signs (e.g., sentences, conceptual models) and their referents or semantics (this being a central theme in the field of Semiotics).

The link between recursivity and *ecologica*l systems becomes more apparent when Russell's paradox is restated as a riddle involving self-production (i.e., Maturana & Varela's (1972) concept of auto-poiesis), as follows: "In a certain village, there is a barber who only shaves the men who do not shave themselves. Who shaves the barber?" Here, the proposition that the barber shaves himself quickly yields its opposite; but this time the paradox is not so abstract: it concerns a physical entity that is producing a slight variant of itself (i.e., the shaved barber). In this way, something that initially expressed a purely abstract idea of self-reference becomes transformed, by a small step, into a description of self-replication in the natural world. This particular transformation was explored in detail by Hofstadter (1979, p. 535), who compared several mechanisms that create self-reference with mechanisms that self-replicate and uncovered "many remarkable and beautiful parallels."

Meanwhile, strategic management narratives have often referred to the idea that conceptual models and frameworks (like competitive strategy, stakeholder models, etc.) all compete for share of mind, in much the same the way that other intangible products such as websites do. It is perhaps less obvious that the models themselves might behave rather like the very entities (i.e., knowledge-producing firms) to which they refer. The full implications of this type of competition and self-reference, within an ecology of knowledge, has not been entirely worked through in business and economic theories. It has certainly been recognized that knowledge products act as (co-) producers (e.g., Ackoff, 1981; Evans & Wurster, 2000) and that this forces business entities in practice to "deconstruct" (i.e., to dismantle or re-configure) their business processes. Yet, at the same time, managers' conceptual models of strategy also compete and co-produce, perhaps implying that they too must be periodically disrupted.

Despite the implied self-reference, theories based upon value-creating exchanges and mechanisms still remain at the core of business and economic thought. Marketing, for example, still describes itself officially as "the science of exchanges" while the modern theory of finance is constructed around the notion of equilibrium in market-based systems. While these ideas of exchange and mechanism remain at the foundation of much business theory and the engineering view of economics, they are slowly being joined (not necessarily displaced) by the equally elemental, foundational and ecological ideas of self-reference and self-replication. Put more technically, the formal *preference*-relations that lie at the base of the Neo-classical paradigm are being augmented by formal *recursive* relations in models of business strategy. The latter are much more closely associated with living systems and the kind of chaotic dynamic systems that generate the emergent patterns of "syntropy" found in nature.

Synergy & Dialectics

In addition to the many conceptual models within business strategy, several authors and consultants have advocated variants of dialectical reasoning in the strategy formulation process. Over 30 years ago, for example, Mason (1969) proposed a dialectical-inquiry method of policy formulation and since then others have advocated various forms of trinetarian thinking (thesis, antithesis, synthesis; triple-bottom line reporting, etc.) but often without explicitly mentioning the dialectic, as such. There are also numerous conceptual frameworks and philosophical (qualitative) discourses that involve oppositions or tradeoffs, together with some kind of designed synthesis (Table 4). For example, the notion of moral imagination (in philosophy and business-ethics) involves devising new ways of including others (e.g., the poor) in the business strategy discourse, thereby widening moral boundaries and the scope of justice. In the organizational behavior tradition, similar practices such as stakeholder learning dialogues and generative discourses have been advocated.

In systems theories, the multi-capital conceptual framework (arguably, yet another metatheory having "capital" as its central construct) depicts a set of forms of capital, including financial, ecological, human, social, cultural, political and moral "forms." These are almost always described as being highly inter-related, not fully commensurable (reducible to one overarching measure) and as forms that should be accumulated at the same time, with a view to achieving synergies. A rather similar prescription for synergy-seeking can also be derived from the general theory of rationality described earlier. A hyper-rational industrial system, in the sociological sense of the term (Ritzer & LeMoyne, 1991) is one that continually designs new patterns and structures that express and foster a synthesis of distinctive forms of rationality. Ritzer & LeMoyne confine their account of this idea to the Weberian forms (formal, practical, theoretical, substantive) and to entire industrial systems, but their core idea of hyper-rationality (i.e., synergy amongst forms) can easily be generalized and extended to include Kantian and expressive forms, and so on. A hyper-rational entity thus attempts to design ways of adding to income, identity and justice (deliberative rationality) all at the same time, but in a way that also seeks and achieves synergies. The general theory of optimality also offers some recognizably similar types of prescription, particularly in its concept of optimal design as formalized in *de novo* programming (e.g., Zeleny, 1996).

Table 4. Synergy elements within the metatheories

Metatheory or Theme	**Some Components & Forms**	**Synergy Element**	**Implication for Strategy**
Rationality	Utility-max, Expressive, Weberian	Hyper-Rationality	Compete through synthesis
Ethics	Deliberative, Kantian,	Moral-imagination, Pluralism	Combine forms
Optimality	Maximisation, Ethical, Dynamic, etc.	Optimal design	Co-produce human goods
Modeling	Dialectical Inquiry, Generative Discourse	Synthesis	Forge stakeholder-synthesis
Multi-capital	Economic, Human, Social, Ecological	Synergetic design	Accumulate all forms

All these frameworks (Table 4) involve some aspects of dialectical thinking. A single concept, such as financial capital formation, income-poverty reduction, or utility maximization, is expanded into a wider view, involving multiple forms. Then, the relationships, or *meta*relations, become the focus of attention and theory development. Finally, some form of synthesis is proposed, especially synergy-seeking (e.g., hyper-rationality, optimal–design, generative discourse, etc.). This last step can be thought of as embodying an important quality of the human spirit: that is, creatively overcoming tensions and oppositions involving self and others in various contexts (e.g., Basseches, 2005). This, in turn, is one of many dualistic elements of strategy, in which the search for synthesis and synergy has been linked to the wider quest for high performance (e.g., De Witt & Meyer, 2005).

Metatheories & Practice

Over 20 years ago, the works of Argyris (1982) and Schon (1983) on the reflective practitioner and double-loop learning drew attention to the role of managers' mental models in the determination of business strategy and performance. They reported that the mental pathway from a model to a metamodel, or from a norm to a metanorm was often blocked in practice (Figure 2). This was taken to indicate a need for cognitive therapies (implying that some given models might be dysfunctional, or "sick," as one reviewer put it) or socio-political interventions. Such "therapies" might then be structured around the explicit metatheories mentioned in this article, whilst a complementary "political" approach (see next section) involves cultivating or fostering metanorms, such as "It's OK to challenge norms," as well as hypernorms that challenge or refine the metanorms.

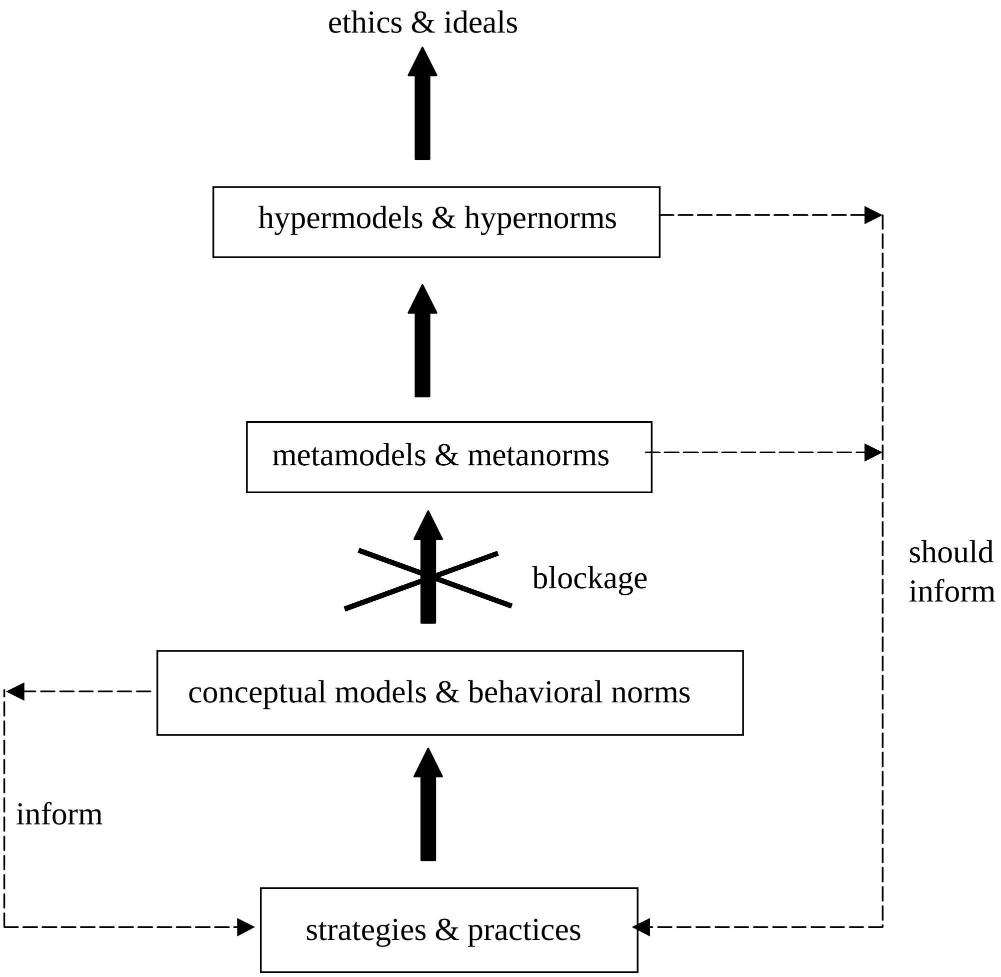
ethics & ideals
hypermodels & hypernorms
metamodels & metanorms
blockage
should inform
conceptual models & behavioral norms
inform
strategies & practices

Figure 2. Metatheory and practice.

Pragmatism & Power

All such hierarchies of reflective thinking linked to practice (including Argyris' triple-loop learning) lead quickly to considerations of what, if anything, exists at the pinnacle? What is the culmination of all this reflection? This might be the “ultimate meaning” mentioned at the outset, or perhaps as John Dewey once put it (and as a reviewer suggested) it is “the unity of all ideas and ends arousing us to desire and action.” Previous attempts to answer this question have considered processes, or how to get towards the top, as well as contents, or what you might find when you arrive. The latter approach dates back at least to Plato, who specified a set of human goods including justice, health, wealth and friendship. This idea of good as something more than individual preferences or desires has persisted in various forms, including notions of hyper-goods and hyper-norms. The latter are implicit social contracts or cross-cultural agreements about “fundamental conceptions of the right and the good” and they constitute yet another contemporary linkage between strategy and ethics that fits well with the metatheories.

The idea alluded to throughout this article - that sustained human inquiry culminates in hypothetical ideals but also guides practical action - is central to the Classical American Pragmatism expressed in the works of John Dewey, William James and Charles Sanders Peirce. Although Dewey and James are often regarded as foundational figures in educational theory and psychology respectively, their works are often omitted or downplayed in contemporary curricula, even in these disciplines, not to mention business studies. Ironically, however, their pragmatic (and pluralist) philosophy has been making a strong comeback during the last decade of progress in management and economic theory (e.g., Margolis, 1998; McVea, 2008; Rosenthal & Buchholtz, 2000; Webb, 2007; and Wicks & Freeman, 1998; to mention a few). Classical pragmatism readily accommodates the type of pluralism that has been expressed and analysed in this paper so far. Not only are the various elements and metatheories presented as if they were useful and efficient guides to ongoing action, but such actions are to be predicated on multiple perspectives and a sense of mutuality encompassing a decision maker (or any strategic entity) and its environment; an idea that is at last becoming mainstream.

There is, however, yet another type of metatheory within Sociology, one that (a) extends the *political* process model of strategy (e.g., Allison, 1971) as contrasted with the rational (or metarational) processes discussed so far; and (b) builds on the idea first developed by Burrell & Morgan (1979) of classifying sociological paradigms. Two decades later, Alvesson & Deetz (1998) set out a “metatheory of representative practices” in which four types of knowledge (rather than forms of rationality or paradigms) were distinguished. These types depend upon the political contexts within which entire research programs develop; rather than any particular patterns or contents of reflective inquiry. The four distinctive types of knowledge-production practices were then placed relative to each other. The types are: the normative (e.g., economic theory), the critical (e.g., critical management theory), the dialogic (e.g., minority and radical voices in a global context) and the interpretive (i.e., local communal understandings). Accordingly the Alvesson & Deetz metatheory draws attention to several sources of knowledge that differ with respect to the level of political power of their source, rather than their cognitive salience or persuasive power. At the same time it appears to place the four types (and their sources) on an apparently equal footing. That is, the minority voices, the local knowledge, the distinctive community-wide understandings and the so-called “elite discourse” of scholars and experts, might in principle all be given equal prominence and legitimacy.

This metatheory of representative practices is in considerable tension with the pragmatic ideal and the forms of pluralism that have been expressed and advocated so far in this paper. It is perhaps aligned more closely with a contrasting philosophical position known as deep-pluralism (cf., Aitkin & Talisse, 2005) in which values (hence also some of the forms of rationality and ethics) are held to be incommensurable, or incapable of being adjudicated rationally. Deep pluralism implies that conflicts between values (or forms, or theories) must be settled through the exercise of power among the entities or "research communities" that uphold and express them; a position that, as one reviewer noted, "does not seem to add much;" but that more critically appears to point to the potential use of force, or at least to license it as an alternative to the kind of essentially dialogic and reflective notion of strategy considered previously.

Conclusion

In addition to relating theories to communities, as in the "representative practices" approach, we can also relate particular metatheories to source disciplines, such as sociology, economics, moral philosophy, management science and psychology. As mentioned at the outset, these traditional "disciplines" are supposed to be integrated in strategic management capstone courses in business schools (and in other interdisciplinary-studies programs). However, as every educator must surely be aware, all such attempts at the integration of entire disciplines suffer from a generic weakness, namely, that under contemporary cultural conditions there is little mastery of any of the disciplines, in the first place. Furthermore, even where a student is reasonably well grounded in one or two disciplines, these usually emphasize just a small subset of the "core" constructs, or elements of strategic behaviour that are to be found in any of the metatheories. This is not a new observation. For example, in a rather similar context Etzioni (1986) referred over 20 years ago to the "*mis*-education of economists" and by implication, of business students as well.[6]

Although it seems idealistic, if might be possible to teach metatheory directly to academically inclined students and practitioners. Perhaps the strongest case for this could be made in PhD programs, but programs that offer a cross-cutting focus on themes such as sustainability would also be a good fit. Certainly, a good awareness and understanding of all of the core themes: rationality, ethicality, optimality, synergy, dialectics, recursivity and power has often been considered the mark of a properly educated person, or generalist, or strategist. Business education has been notably lacking in this respect and the situation has long been unbalanced. Unfortunately, many have learned about exchange, property and ownership; yet they have never encountered ideas of ethics, recursivity and dialectics. At the level of practice, the potential of metatheory also remains untapped, due in part to the above-mentioned blockage on reflective thought amongst many of the practitioners who have been upheld as role-models or leaders; but also due to the narrow pecuniary motivations of many business students. Given the limits of human attention and the extent of institutional influence, a good case can now be made to propagate metatheory in the business curriculum while at the same time highlighting its direct link with well-informed reflective practice.

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[6] Many commentators, including the Premier of China (in 2009 on CNN) Patricia Werhane and a current reviewer, have noted that it is common to refer to Adam Smith's *Wealth of Nations* whilst overlooking or ignoring his *Theory of Moral Sentiments*.

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Toward a Science of Metatheory

Steven E. Wallis[1]

Abstract: In this article, I explore the field of metatheory with two goals. My first goal is to present a clear understanding of what metatheory "is" based on a collection of over twenty definitions of the term. My second goal is to present a preliminary investigation into how metatheory might be understood as a science. From that perspective, I present some strengths and weaknesses of our field and suggest steps to make metatheory more rigorous, more scientific, and so make more of a contribution to the larger community of the social sciences.

Keywords: Metatheory, science, social science, science of metatheory, theory.

Social Science – Flapping Around in Circles?

In the integral community, as with other fields of the social sciences, many authors have worked diligently to create effective metatheories. Wilber (2001) and Laszlo (2007), for example, have produced metatheories that are both interesting and popular. However, a storm of controversy surrounds such theories because the existing paradigm of the social sciences does not include effective conceptual tools for evaluating metatheory (or theory, for that matter). This is not the fault of the authors. Indeed, they should be lauded as brave explorers who are pushing the boundaries of human thought. The problem, and an important reason for the criticism of theory and metatheory, is that there is no generally recognized scientific framework by which we might judge them.

What is this thing called metatheory, and how might it be useful? This is a question that has been alternatively surfaced, ignored, considered, derided, and viewed with amazement around the world of the social sciences. Despite (or, perhaps, because of) these varied reactions, there has been little effort to create a coherent and comprehensive science of metatheory. The effort has not been made, perhaps because there appears to be no need for such an effort. Perhaps those in the social sciences are satisfied with their existing views of theory. More likely, the conceptual "building blocks" were not in place to support the creation of a new science.

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As to the question of "need," we now face a seemingly endless array of local and global issues from psychology to policy. It is becoming increasingly clear that the challenge of those issues cannot be met with existing theory. That is at least one reason why we continue to develop new theory. Unless, of course, the bulk of academicians are insulated from these issues – which I think and hope is not the case! Because the development of more effective theory is so important, a critical question for the coming decade is, "How might we advance research and practice more rapidly to more effectively address the important issues of our time?"

The traditional approach of the social sciences is to apply expensive resources to the problem (time, money, researchers, facilities). This approach has generated thousands of theories and untold quantities of data. We have so many theories and so many data that it has become difficult to organize knowledge or resolve basic contentions within a field (N. D. Campbell, 2009).That befuddling excess of information can be traced to the origin of the social sciences. There, in an attempt to mimic the success of the physical sciences, social scientists were encouraged to seek objective facts through empirical research. A goal that has continued to the present day with calls for still more empirical research (e.g., Argyris, 2005).

What we seem to have overlooked is that a science, much like a bird, must have two strong wings if it is to fly. Empirical facts are understood in the light of a specific theory. And, theory can is built from a careful consideration of the facts. Indeed, theory and research are so intertwined that neither can exist without the other – and both are needed for a strong science. Theory and research are differentiable, but they are also inseparable – existing in a generative yin-yang relationship. While this is a generally accepted truism of science, the actual practice of science is rather different. Under the existing paradigm, a scholar presenting a research proposal is required to describe a specific and rigorous research methodology. However, that same scholar need present little or no justification for the theory. Indeed, some respected scholars have suggested that theory should be developed intuitively (Mintzberg, 2005).

There is the dichotomy that has hobbled the development of the social sciences. In contrast to the well-developed wing of research, the wing of theory is withered. We have made a habit of building and testing theory without a specific methodology, essentially relying on subjective intuition. As a result, we lack a solid metatheoretical perspective, we lack a rigorous and repeatable methodology for comparing research proposals on the basis of their theories (Dolan, 2007). We are left to consider the so-called facts of the situation without the benefit of a carefully developed and commonly understood context. This points to a vast gap in the literature; and, indeed, the science. Because theory and practice are (or should be) closely interrelated, the advancement as a science may be limited by the limitations of either. The science cannot advance without both.

Defining a science of metatheory is one important step. When that is done, scholars will be to seek and create theories that are more advanced – theories that can be tested according to the most rigorous and repeatable standards.

While much has been written on theory (for a good resource, see, for example, Van de Ven, 2007) the results do not seem to have enabled the success of the social sciences. Few of those methods require any degree of rigor. For example, the most commonly used claim of validity for a presented theory is parsimony, but even that simple indicator is typically misunderstood and misapplied (Meehl, 2002). Further, by way of a thought experiment, if more parsimony led to better theory, we might conclude that the smallest theory would be the best of all – a difficult conclusion indeed. Based on this understanding of the necessary interrelationship between theory and research, it is reasonable to expect that the development of rigorous methodologies for developing and testing theory and metatheory will bring balance to the social sciences. This, in turn will accelerate the advancement of that science and aid in resolving the issues that face our world.

In short, there exists in the social science, a silent prejudice. Unrecognized and unabated, it eats at the heart of our science, destroying its legitimacy and impeding its advance. To create a more effective social science, we must first develop more mature, and more scientific approaches to the study of metatheory. In this, I refer to science as a process of investigation, replication, communication and the emergence of new and useful meanings. Not, as some think, of science as a complete set of natural laws where meanings are fixed.

A parallel concern is the ongoing struggle between modernism and postmodernism. Both are forms of metatheory (Ritzer, 2001) that shape the way we see the world. Briefly, and partially, traditional modernity emphasizes differentiation, simple-location, classification, and representation. While, in contrast, postmodernism is more about process, movement, interpretation, and change. The difference makes for interesting dialog (Chia, 2005), both inside each camp, as well as between them. Yet, drawing lines between the two is a modern approach and dialog is a postmodern approach. Both have something to offer the present paper that will help us to understand and advance scientific metatheory.

The potential benefits of advancing the science of metatheory are profound. First, by developing new metatheory, we gain the ability to become more effective in the application of theory for the alleviation of social ills and the optimization of the human condition. Second, and closely related, by working from a metatheoretical perspective, we gain the opportunity to understand and integrate theories across disciplinary boundaries. The insights and capabilities to be gained, for example, by linking human development and public policy are quite intriguing.

In first part of this article, I will review existing definitions of metatheory in hopes of finding a more complete, more useful, and less pejorative definition. In the second part of this article, I will present an outline for a scientific study of metatheory based on an authoritative, modern definition as a step toward legitimizing the study of metatheory, and the subsequent development of more effective theory. Third, I will present a postmodern view of science, combining and reflecting on multiple views of what it means to be a science. Fourth, I will combine the two in an integral approach that avoids the main concerns of each camp and combines the best of both. And, importantly, what seems to offer the most workable directions for a science of metatheory.

Many Understandings of Metatheory

The most basic problem is the lack of a clear definition of metatheorizing. Because of it, we have what appears a series of isolated works, isolated sub areas within types of metatheorizing, and isolated types of metatheorizing. Metatheorists often feel defensive about what they are doing because they lack a clearly defined intellectual base from which to respond to the critics. Thus what stand out are the criticisms that often go unanswered. (Ritzer, 1990, p. 11)

In a search of the literature, Mark Edwards (with some support from the present author) found over 20 definitions of metatheory. While this search was not comprehensive, we believe that we have identified a good cross section of the field. One of the first things I noticed in reviewing these definitions is that the authors seemed to be describing different things. While some were describing the broader field of metatheory, others were describing related, yet subordinate, areas of metatheory such as the evaluation or categorization of metatheory. In this section, I will provide an overview of the field, based on the discovered definitions.

Broadly, metatheorizing is the process of performing metatheoretical research. That process includes many different kinds of activities including sorting theories and/or sorting their components into categories (Wallace, 1992, p. 53), the use of reflexivity (Ritzer, 2009), deconstruction and reconstruction (Ritzer, 1992, p. 11), statistical analyses of the literature (Meehl, 1992), and nearly 20 other suggestions (Turner, 1991). Just as theorizing results in the creation of theory, metatheorizing results in a "metatheorum" which is a statement about theory in general or a statement about a specific theory (Wikipedia, 2009).

Abrams and Hogg (2004) take an alternative, primarily metaphorical, approach to describing metatheory. They suggest, for example, that a metatheory makes a good travel guide. Sklair (1988, p. 697) describes a metatheorum as reflecting the coherence between epistemology and objects of knowledge. This coherence extends to include a set of assumptions about the constituent parts of the world, and our possibility of knowing them. Overton (2007, p. 155), in contrast, says that metatheorems define the context in which the theories are made, and refer to the theories, themselves. He also goes on to say that a metatheory is a set of interlocking principles that describe what is acceptable and unacceptable for theory.

Broadly, the field of metatheory includes the study of the "sources and assumptions; and contexts" (Finfgeld, 2003, p. 895), including the study of theorists and communities of theorists (Ritzer, 1988, p. 188), the process of theorizing (Zhao, 2010), and the analysis of the methods, findings, and conclusions of the research (Bondas & Hall, 2007, p. 115) the use of those theories (Bonsu, 1998, August) as well as their implications (Turner, 1990). Finally, the prescription that metatheorizing should produce theories that are open to empirical testing (Sklair, 1988).

Although they all address the same general theme, these definitions of metatheory contain more differences than similarities. Such disparity makes it difficult to draw useful conclusions about any shared definition of metatheorizing or metatheorems. Also, these descriptions are most often very sketchy and fragmentary; indeed, they are almost entirely "atomistic." That is to say, most authors simply created a list of concepts that they considered important to the study of metatheory (e.g., metatheory is A, B, C, & D). Such an approach may be expected given the relative youth of the field. In contrast, more mature fields tend to contain concepts that are more closely integrated (e.g., A causes B and C, or A, B, & C are co-causal).

As the reader may notice, this broad range of definitions of metatheory overlaps with other areas of study. That overlap may cause confusion and concern (as well as the opportunity for additional investigation and clarification). For the present article, however, I will focus on what might be considered the core of metatheory – without which, none of the other parts would be possible. This analysis begins by identifying the area of greatest agreement between the many definitions of metatheory.

Table 1. Aspects of metatheory as described by various authors

Author/s	Date	Analysis of theories	Is (or creates) a theory of theory	Integrates multiple theories	Analysis of assumptions	Makes implicit assumptions explicit	Analysis of underlying structure	Analysis of structure of theory	Deconstructive
Finfgeld	2003	x			x				
Bondas & Hall	2007	x							
Dervin	1999					x			x
Anchin	2008			x					
Sklair	1988								
Faust	2005	x							
Clarke	2008				x				
Fuchs	1991						x		
Weinstein & Weinstein	1991	x							
Zhao	2004	x							
Craig	2009		x						
Takla & Pape	1985				x				
Thorne, et al.	2004								
Paterson, et al.	2001	x							
Ritzer	1988	x		x					x
Gadomski	2001		x						
Wikipedia	2009		x						
Turner	1990							x	
Faust & Meehl	2002	x							
Bonsu	1998	x							
Colomy	1991	x							

In Table 1 I list the authors of 21 definitions of metatheory and their key ideas. The more complete definitions are listed in the appendix. From this arrangement of the data, a few important conclusions may be drawn. There are also contradictions, which may prove troubling or prove to be a source of new insight.

First, and most simply, metatheory is focused on the analysis of theories. Ten of our 21 authors specifically agree on this point. In contrast to this general agreement around the core of metatheory, few authors describe metatheory as the analysis of context. Therefore, we may reasonably conclude that studies of theory are at the core of metatheory, while other studies (e.g., contexts, groups of theorists, methods, applications, etc) are less so. Second, it may be noted that six of our authors describe metatheory as making implicit assumptions explicit (Dervin, 1999), analysis of assumptions (Clarke, 2010; Finfgeld, 2003; Takla & Pape, 1985), analysis of underlying structure (Fuchs, 1991), and the analysis of structure (Turner, 1990). These are essentially deconstructive approaches (Dervin, 1999).

In contrast to this deconstructive approach, metatheory may also be understood to integrate multiple theories (Anchin, 2008b; Ritzer, 1988). The two approaches may be inseparable as one cannot combine integrate two theories without also integrating the assumptions, structures, and concepts of those theories. In short, metatheory (as the study of theory) may be conducted in at least two ways. It may be integrative (where multiple theories are combined). It may be deconstructive (where theories are parsed into their constituent components for analysis and/or recombination). Either way, the process leads to the creation of a metatheory, metatheorum, or “a theory of theory” (Craig, 2009; Gadomski, 2001; Wikipedia, 2009).

To summarize, the field of metatheory is richer and more complex than is expressed by any single definition to date. The following definition strives for conciseness, rather than completeness as the main focus of this article is the development of metatheory as a science. So, this definition (a simple, though useful, prelude) suggests that:

> Metatheory is primarily the study of theory, including the development of overarching combinations of theory, as well as the development and application of theorems for analysis that reveal underlying assumptions about theory and theorizing.

This definition, it should be emphasized, reflects the state of understanding of metatheory to date. And, as noted above, this level of understanding has not proved sufficient for advancing theory or metatheory – perhaps because the terms are too fuzzy. In the process of creating this definition, however, a potentially clarifying co-causal relationship begins to emerge. Here, the analysis, evaluation, and integration of theory leads to the development of new methods of evaluation, which may then be used to evaluate the results. Far from a useless tautology, this suggests a path for the development of some conceptual constructs through the development of other conceptual constructs. By explicating this developmental process we may accelerate the development of such constructs. This occurs in much the same way that one may use a map to more easily locate a store for buying maps. Or, the way one may use telecommunication to collaborate on the creation of more effective telecommunication systems. These are positive feedback loops, rather than useless tautologies.

In the above section, I have briefly summarized the field of metatheory. However, a larger question lurks. It is generally understood that the reason for metatheory is the development of better theory. Indeed, many or all of the same “rules” that apply to the development of theory also apply to the development of metatheory. Because the two areas share a common heritage, they may also share a common failing. Who is to say, for example, that our failure to make effective theory will not be replicated – leading to our failure to make effective metatheory? To avoid this trap, we must take metatheory to another level.

Where the creation of theory is understood to occur within a specific field of study, we might take a different view of metatheory and investigate metatheory as a field unto itself. However if the field of metatheory is to have any some degree of respect and usefulness, it must be understood as a legitimate science. As a science, we can expect metatheory to make advances and develop insights that may be applied to theories across the sciences. In the next section, I will investigate the idea of metatheory as a science from a modernist perspective.

Towards a Scientific Metatheory

Many voices have called for the advancement of social theory (e.g., Dubin, 1978; Leong, 1985; Popper, 2002; Van de Ven, 2007). To date, however, the methods for the scientific study and advancement of theory have been ineffective. For example, Meehl reports on 11 known methods for advancing theory (Meehl, 2002). However, he finds them to be primarily intuitive – and so unsuited for scientific investigation. Indeed, a recent study by HERA concluded that there was no method of evaluation that could be counted on to work effectively (Dolan, 2007).

To achieve greater effectiveness, we must reduce the epistemological indeterminacy around metatheory – we must learn to represent more clearly our knowledge about the similarities and differences between metatheories. In this, the ideas presented in this paper support the many excellent suggestions of Tom Murray (2006).

In this section, and the following sections, we will investigate how we might study theory and metatheory as a science unto itself. An important expectation is that following scientific methods will enable the creation of effective metatheory, effective theory, and more effective methods and practices. There are many understandings of what science is. So, in order to develop a deep and nuanced view, I will investigate the science of metatheory from multiple perspectives. In this section, I will investigate scientific metatheory from the modernist perspective. In the following sections, I will investigate scientific metatheory from a postmodern perspective. Then, I will discuss a combined perspective of a scientific metatheory.

To frame a modernist perspective of science, I begin with a recent and concise definition where, “Science is the pursuit of knowledge and understanding of the natural and social world following a systematic methodology based on evidence” (Science Council, 2010); which includes:

A. Objective observation: Measurement and data (possibly although not necessarily using mathematics as a tool)
B. Evidence
C. Experiment and/or observation as benchmarks for testing hypotheses
D. Induction: reasoning to establish general rules or conclusions drawn from facts or examples
E. Repetition
F. Critical analysis
G. Verification and testing: critical exposure to scrutiny, peer review and assessment

In this section, I will briefly review what is to have a modernist science, and explain how those standards may be applied to metatheory.

A – Objective Observation

Observation includes the description (and often measurement) of subjective, objective, and relational experience. Yet, in the social sciences, where two people might observe the same phenomena and arrive at dissimilar conclusions, the idea of objective observations becomes problematic. Because "There are no facts independent of our theories" (Skinner, 1985, p. 10) and "no observation may be totally theory-free" (Hull, 1988, p. 492) and, "no two scientists are ever in total agreement with each another" (Hull, 1988, p. 493). This situation has made advancements in the social sciences incredibly difficult and led to the fragmentation of many (perhaps all) fields of study.

In a post-positivist approach, with its attendant assumptions of uncertainty, there are great benefits associated with triangulation – combining multiple views to create a more effective understanding of our lived world (Rousseau, Manning, & Denyer, 2008, p. 486-487). Within a post-positivist world, there is little room for so-called "objectivity." Yet, the word still caries weight. And, in the present paper, it may be understood as representing an approximately repeatable experience within a context of metatheoretical investigation. That is to say, if two researchers of similar education undertake an investigation of the same theories using the same research methods, they should reach the same result. The extent to which their results are similar is the extent to which the approach may be considered objective.

In contrast to the more general range of social sciences, the field of metatheory has an advantage in this aspect because metatheory is a primarily hermeneutic approach where, "Hermeneutics is the interpretation of texts" (Bentz & Shapiro, 1998, p. 170). Thus, we metatheoreticians have access to books and journals that are (at least for a time) stable. That means, where many social events come and go in the blink of an eye, forcing researchers and their human subjects to rely on memory, we have the opportunity to revisit the texts with all the care and patience needed to fully understand the authors. In short, we are less subject to the transience of our observed subjects. Another benefit to the metatheoretical approach is completeness. That is, we have the possibility to analyze entire "worlds," where other social scientists must make do with a small fraction. For example, if we wanted to create a metatheory based on all the works of Durkheim, we could (conceivably) collect and analyze his complete writings. In contrast, a social scientist who wanted to develop a new theory of child development could never observe all the children in the world.

In the scientific process of metatheory, the subject of analysis is primarily theory. The process of investigating theory, in part, involves the process of deconstructing existing theories (Dervin, 1999). Importantly, we can share those texts with other scholars to determine if we share the same viewpoints. That means we can begin to develop some degree of objectivity based on the similarity between our observations and interpretations of texts. In short, in the study of metatheory, we have the opportunity to be a more effective science than most fields of social theory because (in the area of objective observation) we suffer fewer effects of transience, easier opportunity for completeness, and greater opportunity for objectivity.

It is critical, however, to note that the opportunity to achieve these aims is not enough to make metatheory into a science. We must show through our work that our efforts have reduced transience, increased completeness, and increased objectivity. That, in turn, suggests that our metatheoretical analyses should include a large percentage of the available writings in a given area of study to exemplify completeness. Similarly our analyses should be collaborative efforts to exemplify objectivity.

B – Evidence

The collection of evidence is an important part of any scientific endeavor. Specifically, this refers to evidence that may be used to support (or contradict) one's theory (or metatheory, in our field of study). Without the anchor of recorded evidence, the metatheorists may be accused of blue-sky speculation. Because this evidence consists of theories, the collection process may be fairly simple. One needs only collect the theories and hold them against the requirement of future reference. Evidence should also be identified and saved on the "next level" of analysis. For example, if a metatheorist has collected a number of theories and enumerated what percentage of those theories were actually tested, that too is evidence. And, the responsible scientist should keep that evidence available in case there is a challenge to the theory and a need to "show your work."

As noted above, in the pursuit of metatheory, that evidence will come from the analysis of other theories. The evidence may be theories, the propositions within theories, or other data that is directly related to the theories. While Ritzer (1992) seems to suggests that metatheory should be focused on analyzing theories of the "middle range," that seems to present an unnecessary limitation on the field of metatheory. There is no a priori reason why metatheory should not include the analysis of theories on all subjects – from subatomic particles through galaxies, including psychological, social, and economic theories along the way. Of course, in investigating such a range of theory it is important that the metatheorist identify some form of similarity. For example, causal and co-causal propositions are found in theories of the natural and social sciences (Wallis, 2009c).

Whether the evidence is collected from a broad range across disciplines and sciences, or the evidence is collected within a very narrow field of study, an important question remains as to how much evidence is enough? This is an opportunity for future investigation and clarification. The tacitly accepted practice seems to be that one has enough evidence when one is able to successfully convince others of the validity of one's model. Yet, this is a weak standard as some people may be convinced with little evidence while others will not be convinced if they face all the evidence in the world. This concern leads to the need for testing.

C - Experiment and/or Observation as Benchmarks for Testing Hypotheses

Within the field of metatheory, two intertwined branches are emerging. One branch is primarily concerned with the creation of overarching theories, while the other branch is concerned with developing and applying rigorous and repeatable tests to theory. This is an important distinction to surface at the time because the hypotheses derived from each branch will be tested differently.

Metatheory Testing

Van de Ven (2007, p. 137) reflects on what might be the most common point of view for theory appraisal. Drawing on Weick and Thorngate, Van de Ven agrees that the creation of each theory requires a tradeoff between simplicity, generality, and accuracy. For example, a theory might be made more accurate, but that would require the theory to become more complex. This approach has led many theorists to claim that their theories are valid because they are parsimonious (Meehl, 2002). This is like claiming that something is good because it is tall – without a relative measure, the claim has no value.

By far, the strongest argument for testing theories comes from Popper (2002). Popper argues with strength and conviction that the only effective way to test a theory is to falsify that theory in practice. That view is, of course, itself a form of theory. And, importantly, has not been falsified. Adopting a metatheoretical perspective (see Wallis, 2008b), I noted how Popper was the product of a modern age. So, his search for modernistic "objective" knowledge seems to have blinded him to other forms of knowledge. By reframing Popper's own ideas, I suggested three paths for the validation and falsification of theory.

In the "world of facts," or data, a metatheory must (at the very least) be constructed of data – explicitly drawn from existing theory. A better metatheory would use data from multiple sources. The best metatheory is one where the theory may be applied to predict what future data will emerge. In the "world of meaning," the metatheory must (at a minimum) make sense to the author. A better metatheory would make sense to the editor, reviewers and readers. At the highest level, a theory is accepted in a consensus of expert opinions and that theory is preferred over other theory of the same domain. Finally, in the "world of theory," a metatheory must (at the very least) include logical arguments. A better theory is one that is constructed of specific propositions. And, the best metatheory is one that is constructed of carefully integrated, co-causal, propositions. The tests within any one of these worlds is certainly of limited efficacy. However, when combined, they create a potent standard for the evaluation of theory and metatheory.

A common argument for advancing the validity of a theory or metatheory is the claim that it "works" in practice. However, by itself, that is a weak claim because anything can be said to work. The deeper question become whether one theory or metatheory (and its derived hypotheses) works better than any other. For example, imagine an experiment where one prays for rain using a variety of techniques and direct those prayers to a variety of deities. I imagine that the results of such an experiment would not show much difference in rainfall. For another example, one might claim that the very popular management change process of Total Quality Management (TQM) is a valid theory because it is widely used, generally accepted, and seemingly successful. However, a more critical analysis find that the TQM fails more than 70% of the time (MacIntosh & MacLean, 1999). The more effective theory, or metatheory, is the one that can be shown to work better than another when applied within a specific context.

Rigorous evaluations should also be applied to those tests, and to the understanding of the context. It is not sufficient, for example, to claim that all theories are acceptable in some context and all theories exist in some context, so all theories are valid (a useless, non-generative, tautology). So, to conclude this section, it seems that we have the opportunity to identify, clarify, formalize, and apply rigorous methods for testing theory and metatheory.

Theory Bounding

An additional approach related to theory building is the idea of theory "bounding." It is an essentially metatheoretical process to delineate the boundary of a theory. Generally, a theory is bounded by additional explanation of where that theory may be legitimately applied – sometimes called the "limiting values" (Hitt & Smith, 2005). For example, a scholar might make a theory about team development. And, because the research was based in the telecom industry, that theory might be bounded by a statement such as, "This theory only applies to teams working in the telecom industry."[2]

In bounding the science of metatheory, we can say that our realm of study is theory. Further, the theorems that apply to the realm of theory, as a whole, are the theorems that are most central to the science. It is possible, of course, to subdivide the field of study. One might, for example, develop theorems that apply only to theories of sociology, or theories of health care. Such approaches, while they may drill-in to greater depth within a specific area of study (e.g., theories of sociology), are also less central to the science of metatheory, itself.

A legitimate science must be bounded in terms of subject matter. Further, the theory developed through the study of that subject matter might only be legitimately applied to that subject matter. For example, one cannot study galaxies and expect the resultant theories to work very well when used to choose a color for bedroom curtains. This simple idea brings with it some powerful conclusions. For example, if one is attempting to develop a "theory of everything" (TOE) the implication is that one must study everything. The impossibility of this requirement suggests the impossibility of developing a legitimate TOE. It is certainly possible to develop a generalizable abstraction – where a theory developed in the study of one organization may be legitimately applied to another organization. It seems less likely that one can studying a drop of water, develop a theory, and apply that theory to understand human development. Where exactly one draws the line is a matter for continued investigation.

D - Induction

An important part of science is the building of theory. And, in the field of metatheory, the building of metatheory (Craig, 2009; Gadomski, 2001; Wikipedia, 2009). As with the creation of theory, the process of metatheory creation is essentially one of induction – where a metatheoretician identifies related propositions within two or more theories and integrates them to generate an overarching metatheory or derive a rule for the analysis of future theories. By way of context, the inductive process begins with an abductive experience, "a surprising observation or experience. This is what shatters our habit and motivates us to create a hypothesis that might resolve the anomaly" (Van de Ven, 2007, p. 101). Also, the inductive process may be seen in contrast to the deductive process, which is related to the testing of theory.

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[2] Yet, in theories of physics, we see no such bounding. For example, Ohm's I=E/R relates to volts, amps, and ohms of resistance. Those are the aspects of the theory, and they do not apply to other things such as color or emotion. Therefore, it seems to make more sense to suggest that a theory is self-bounding – based on its constituent propositions.

Drawing on Weick, Van de Ven suggests that from the myriad hypotheses, one might find the best theory by subjecting those hypotheses to a variety of thought-trials. "The greater the number of diverse criteria applied to a conjecture, the higher the probability that those conjectures which are selected will result in good theory" (Van de Ven, 2007, p. 109). While his approach may also prove useful, it also has a fatal flaw. Because, if one uses ten criteria, nine of them might be useless. In such a situation, the other nine that are not causally related to theory-improvement would overrule the one criterion that might result in a better theory. This is the same kind of problem faced by most people during an election campaign. One receives a flood of information, yet little of it has any true bearing on the qualifications of the candidates! Instead of developing a list of criteria, Van de Ven rests on the bench of "plausibility" Thus returning to a more or less intuitive form of evaluation. He extends that idea to link plausibility with conjectures that might be interesting to readers such as problems in society that need to be explained. This "appeal to the audience" is not a strong argument. Indeed, instead of leading to good theory, such an approach might lead authors to invent problems so that they may write persuasively to "explain" those problems and create supposedly "good" theories and metatheories.

This might be good literature but it is not good science – from the modernist perspective. And, as a result, the suggestion does not rise to the level of good metatheory. At this stage, however, there may be no way to avoid the rather abductive nature of the process. Instead, that moment where we think to ourselves – "That doesn't make sense!" – is the moment when we begin a sense-making process. With careful effort, we find that something makes sense that did not before. This is part of making implicit assumptions explicit; an important part of metatheory (Dervin, 1999).

As the evidence of theory is collected, combined, analyzed, and insights begin to emerge, the results begin to resemble the integration of multiple theories – an important part of metatheory (Anchin, 2008b; Ritzer, 1988). Some tools of theory building include:

- Intuition
- Observation
- Abstraction
- Creating propositions
- Defining key terms
- Describing the domain of application
- Identifying the units of analysis
- Sampling some appropriate and relevant set of theories
- Analyzing the "data" using rigorous research methods
- Identifying core constructs and their interrelationships

In a detailed review of the *Handbook of Sociological Theory,* Treviño (2003, pp. 284-286) notes several forms of theory construction including: Jasso's suggestion to engage in voracious reading and use of mathematics, Carley's creation of computer simulations, Joas and Becket's synthesis of existing theory, Turner and Boyns' consolidation of theory within a grand analytical scheme, Bailey's reduction in detail to focus on concepts, Lopreato's call to discover general principles, and Lindenberg's method of decreasing abstraction. From a complexity theory based approach, Ostroff and Bowen (2000) encourage theorists to note the degree of stability and change that occurs at each level under analysis. Also, Morgeson and Hofmann (1999) provide guidelines for theory-creation. Their process involves delineating the structure, function, and outputs of a given system. However, this view of an organizational system seems to be more descriptive than theoretical and Dubin (1978, p. 12) notes that theory is not merely describing, categorizing, or stating a hypothesis).

Sussman and Sussman (2001, pp. 90-92) claim that the golden rule of theory development is to make one's hunches explicit by writing them down. This, they contend, also includes an assumption that the reader will be able to see more easily whether the theory is likely to be effective, and show who will benefit. To facilitate this process, they suggest four criteria for theory building (that may also be used for theory testing).

1. The theory should be plausible – it should make sense.
2. There must be enough variables within the theory so that the theory is useable.
3. The theory should be testable.
4. There should be a heuristic value to the theory – it should be useable across multiple situations.

The rules that apply to theory building also apply to metatheory building because each metatheory is also a theory – albeit one whose domain is understood as the study of theory. Importantly, combining, and integrating, multiple theories is an inherently metatheoretical process. Some call the results theory, while others call the results metatheory. However, because all theories are built from previous theories (or, a combination of existing theories and new data), and no difference has been shown in application between social theory and social metatheory, the two may be considered synonymous. This indicates an important area of study for the field of metatheory. Because, if it can be proven in application that metatheories are more effective than theories the social sciences, as a whole, will have taken a giant leap forward.

The existing state of metatheory building is, unfortunately, impoverished in regards to suggestions for building theory. One important source of information on how to perform metatheory building comes from the literature on the construction of middle-range theory. For example, Mintzberg (2005, pp. 361-371) encourages theory builders to use their intuition and to "be brave." This might, conceivably, lead to brave theories, but there is no way to test the bravery of a theory (or the theorist). Nor is there any suggestion that a brave theory might be more effective in practice. Therefore, the theorist should be very wary about accepting advice that leads to untestable theories. For those theories cannot be tested cannot be improved. The same advice applies to metatheoreticians.

When building metatheory, the data used comes from the analysis of extant theory. Metatheoreticians investigate existing theory and extract or acquire insights from that set of theories. For example, one may look at a set of theories and perhaps categorize them (e.g., complex or simple) and abductively identify a categorical rule (e.g., parsimonious theories are easier to test and complex theories cover more ground). From what might be called a "content metatheory" perspective, one may look at a set of theories – each containing a different set of concepts. One might conclude that all valid theories must include some (or all, depending on the rule) of that set of concepts. Van de Ven (2007) suggests that the process of abstraction, when correctly applied, can increase the generality of a theory (because a more abstract theory can be applied across a broader range of situations). Abstraction also makes it possible for a theory to become less complex while increasing accuracy.

While most suggestions for theory building are "one-shot" bits of advice (e.g., be creative), a more complex and rigorous approach is to transparently follow a particular methodology. One such methodology, designed specifically for metatheory is Reflexive Dimensional Analysis (RDA). RDA was derived from grounded theory, as well as dimensional analysis (Wallis, 2006a, p. 7). Because it involves constructing new theory from the combination of existing theories, RDA is essentially a metatheoretical process. RDA proceeds according to the following steps:

1. Define a body of theory.
2. Investigate the literature to identify the concepts that define it.
3. Code the concepts to identify relevant components.
4. Clump the components into mutually exclusive categories.
5. Define each category as a dimension.
6. Investigate those dimensions through the literature, looking for robust relationships.

Examples of this form of theory construction may be found in benchmark studies of complexity theory (Wallis, 2009a), complex adaptive systems theory (Wallis, 2006a, 2006b). Another approach that deserves some attention is the process of Grounded Theory (GT). GT is a rigorous process of theory creation (Glaser, 2002) representing a structured methodology for theory creation with good potential for use in the creation of metatheory. Importantly, GT could provide a clear link between the data (theory, in our field) and the resulting metatheory by moving the data through a set process (Goulding, 2002) that can be summed up as:

1. Coding the data
2. Thematizing the data
3. Finding relationships between the themes

Grounded theory suggests the use of an "open coding" process. There, the researcher intuitively codes the data. In that sense, the first step might be seen as an a priori one. In contrast, in the process of thematizing the data, the research is to look at the coded data and identify common categories for grouping them. This process might be seen as essentially a posteriori in the sense that the researcher begins with data, and then identifies a relationship. Similarly, the third step of finding relationships between the themes suggests an a posteriori approach – albeit one that calls for more creativity and abduction.

The iterative interactions between research and data, as well as developing relationships between the themes suggests a generative approach that is reminiscent of the mélange of social construction. Also, each step of the process is documented for transparency. However, with grounded theory, the process is surfaced for clarification. One of many examples may be seen in the development of a complex (yet useful) integrated strategic planning framework for dynamic industries using Grounded Theory (Tsai, Chiang, & Valentine, 2003). It has yet to be shown if either grounded theory or RDA might be repeatable. Although, it seems that both methods seem like they would have a higher level of repeatability than (for example) intuitive methods of theory building.

To summarize the more general conversation on the construction of metatheory, it seems that metatheory has offered little that is new in terms of theory building. Our field has adopted calls for triangulation (framing this as the use of multiple theoretical lenses). Authors with a focus on metatheory have echoed calls for techniques such as imagination and discipline. And, they have (to a small extent) formalized existing approaches to theory building. This lack of rigorous methodology may account for some criticism of metatheory. Similarly, for the process of building metatheory, I have only seen scholars use the same tools as have been used for building theory. Therefore, in looking at metatheory, theorists are able to see and criticize in our work what they do not see in their own. That is, a lack of methodological rigor. This lack of rigor may be exemplified as the lack of repeatability in the process of theory creation.[3]

It may be impossible to develop repeatable experiments for theory creation because the origins of theory seem shrouded in the mists of imagination. Who is to say exactly where Newton's ideas for laws of motion arose? In this, I do not refer to some apocryphal apple, rather the formal mathematical relationships. The inspirations and ideas are lost in moments long past. In the study of the creation of metatheory, on the other hand, explicit theories and metatheories remain for study. This may indicate a more fruitful direction for the advancement of a scientific field of metatheory – which will be explored in the following sections.

E - Repetition

Repeatability has long been a mainstay of science. For a negative example, about twenty years ago, two physicists claimed that they had achieved nuclear fusion at room temperature (instead of the millions of degrees of temperature required by generally accepted theories of physics). They shared their news with the world, and many scientists eagerly repeated their experiment. However, the same results were not forthcoming. This attempt at repetition allowed the world to quickly determine what worked and what did not.

Innovation, as with theorizing, is also important to the process of metatheorizing. Used by itself, however, it may take on the appearance of blue-sky speculation. In a science, we balance the trend toward speculation by applying the more rigorous standard of repetition. Applying the process of repetition to scientific metatheory, we might expect (from a modernist perspective) that two scholars who begin with the same source data and apply the same techniques for metatheory building, while working to address the same topics, should develop the same metatheory. However, to the best of my knowledge, this kind of study has never been attempted. This lack of repeatable studies suggests a great opportunity for metatheoretical study.

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[3] Dubin notes that the process of theory construction may be inescapable as man creates models of the sensory world then uses those models to comprehend the world. Or, put another way, a theorist is one who observes part of the world and seeks to find order (Dubin, 1978, p. 5-6). While it may be inescapable, that does not mean it is hopeless or useless. For example, we cannot negate gravity, but we can use it to our advantage (e.g., downhill skiing, accelerating space probes through a "slingshot effect," enjoying the benefits of rainfall, and more).

For example, a teacher or researcher could conduct a classroom exercise by providing a set of theories to three (or more) groups of students – with the assignment that each group should develop a set of metatheoretical insights based on the data set. The results should prove interesting – and highly stimulating to the science of metatheory. It may be expected that each group of students might employ a different methodology – and perhaps have different aims in their exercise. One group might simply combine all the theories to create one large (and amorphous) theory. Another group might identify similarities of structure between the theories, while a third group identifies new insights based on what the existing theories did not cover. In short, without some guide, it is unlikely that there will be repeatability in the science of metatheory.

In light of the difficulty of obtaining repeatable results in the creation of theory, it may be more useful to develop formal tools for the analysis of theory. These should be rigorous so as to enable repeatability. This is not, in any way, to restrict the imagination and creativity of the metatheoreticians (which, fortunately, is rather irrepressible). Instead, this is to channel that creativity to where it might be more usefully applied to advancing the science[4]. In short, in order to have repeatability, we must have the rigorous methodology of critical analysis.

F – Critical Analysis

Where the tree of metatheory is beginning to blossom is in the area of critical analysis. The idea that theories may be evaluated seems to instill some with a sense of dread (Fiske & Shweder, 1986, p. 2); as if any method for evaluation must somehow be arbitrary. Yet, it is important that we evaluate theory to ascertain if it is, indeed, a valid theory. And, those methods of analysis need not be arbitrary. Without some form of objective evaluation, we are left with a situation of complete relativism which renders everything meaningless (D. T. Campbell, 1983, p. 124).

The analysis of theory is an inherently metatheoretical exercise – as in Ritzer's M_u (Ritzer, 2001, p. 18) and occurs more frequently than most imagine. For example, every academic paper involves the implicit and/or explicit examination of extant theories, a consideration of which theories (or parts of theories) might be suitable for advancing a new theory or research project. What is being coalesced and clarified here is a set of evaluative methodologies that might be called metatheorems because they are useful for conducting metatheoretical analysis. This, of course, is rather different from the kind of "metatheories" that would be understood as overarching a range of theories and/or disciplines. Both of these, of course, are different from "metatheory" as the entire field of metatheoretical endeavor.

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[4] Imagine a poet who is using a word processor. Each time she types a word; the computer inters a random word in its place. Can poetry be made this way? No – the very process of creativity requires reliable tools. During the scientific revolution, each scientist had his own theory – a very creative situation. Today, each person still has the opportunity to have his or her own theory. Yet, there is one prevailing (perhaps dominating) set of laws for electricity. While some might see those laws as infringing on more creative interpretations, I would suggest that those laws enable creative work in the design of electronic devices such as cell phones and computers. And, in turn, those devices enhance creativity, art, and communication in myriad ways.

To the extent that the metatheoretical methodologies described in this paper are fuzzier, they will be less useful to the development of metatheory as a science. To the extent that they are more rigorous and repeatable, they will bring the field of metatheory closer to the status of a science. In this, one may conduct fuzzy metatheory and be legitimately accused of conducting bad science. However, before the accusation may be considered valid, we must have reliable, repeatable, critical methods of analysis. In this section, I will present a number of methods as a way of starting a conversation that will allow us to keep criticism in its appropriate place.

Within the study of metatheory, there is broad agreement that the analysis of theories is an important part of metatheory (Bondas & Hall, 2007; Bonsu, 1998, August; Colomy, 1991; Faust, 2005; Faust & Meehl, 2002; Finfgeld, 2003; Paterson, Thorne, Canam, & Jillings, 2001; Ritzer, 1988; Weinstein & Weinstein, 1991; Zhao, 2010). Indeed, given the breadth of that agreement, critical analysis be considered central to the field of metatheory.

In his recent book, Edwards (2010, pp. 206-214) applies an impressive array of tests that may be applied to metatheories. Derived from Ritzer and others, these include:

- Nesting – ensuring that the metatheory is grounded in theory.
- Linkage – identifying and describing relationships between conceptual elements of theories.
- Comparative Techniques – qualitative comparisons and calibrations between theories under analysis.
- Conservation – integrating theories without supplanting them completely.
- Uniqueness – does the metatheory provide something new?
- Parsimony – keeping to the minimum number of explanatory factors needed.
- Generalizability – what other areas of research might the metatheory be applied?
- Level of Abstraction – how many variables and theories might be integrated?
- Internal Consistency – how relevant are the lenses of the metatheory to one another?
- New Factors – can a new theory, or lens, be identified?
- Relationships Between Factors – have the theoretical lenses been carefully identified, and linked and have the internal facets of each lens also been identified?
- Credibility – is the underlying logic reasonable?

Advancing these methods to the point where they may be applied with objective, repeatable rigor will be a boon to the science of metatheory. Among the more objective methodologies developed for the critical analysis and evaluation of theories are:

- Complexity – as a measure of parsimony (Ross & Glock-Grueneich, 2008).
- Static Robustness – as a measure of the internal integrity of a theory (Wallis, 2008a).
- Dynamic Robustness – measuring the stability of a theory as it moves between scholars (Wallis, 2009b).

It is important to note that while these essentially metatheoretical methods have been applied to the analysis of theories, they have not been applied to the analysis of metatheories. So, again, the field of metatheory could benefit greatly from continued investigation along these lines. In the following sub sections, I will briefly describe a number of other methods that may prove useful to the metatheorist.

Categorization

One approach for conducting metatheoretical analysis is categorization. This is a fairly simple method for conducting metatheoretical analysis, which aids in the process of generating metatheory. One way of looking at the processes of metatheorising is to combine the models of Ritzer (2001) and Colomy (1991) which categorize metatheoretical activity based on the aims of the researcher. This gives us four categories of metatheorising: (a) reviewing the theories within some domain, (b) preparing to create middle-range theory, (c) creating an overarching metatheory and (d) determining the strengths and weaknesses of other theories and metatheories.

Another method is suggested by Gregor (2006, p. 620). Her five interrelated types of theory are distinguished as: (a) theory for analyzing, (b) theory for explaining, (c) theory for predicting, (d) theory for explaining and predicting, and (e) theory for design and action.

Kaplan (1964) suggests six forms of structure for theoretical models. His forms of structure include a literary style (with an unfolding plot), academic style (exhibiting some attempt to be precise), eristic style (specific propositions and proofs), symbolic style (mathematical), postulational style (chains of logical derivation), and the formal style. This last, the formal style avoids “reference to any specific empirical content” to focus instead on, “the pattern of relationships.”

It is also possible to categorize theory in a number of other ways. For example, one might create a category based on some specific context (historical, geographical, etc). Similarly, one might also describe a history of theory, identify schools of thought, or identify geographical differences (e.g., European and African) in the origin or use of theory. Each of these methods, and many others, may provide useful to scholars. Categorization, however, does not necessarily require a deep engagement with the theories under analysis (although, of course, it might). For example, one might engage in a metatheoretical categorization of existing theories by the date those theories were published. In such an approach, one need never look at the theory at all. Therefore, while it may be useful in some context, categorization may not be central to the field of metatheory.

General Norms of Validation

Kaplan (1964, pp. 311-322) discusses the validation of theories in terms of three types of norms (correspondence, coherence, and pragmatics).

Norms of correspondence. "Truth itself is plainly useless as a criterion for the acceptance of a theory." Indeed, an appeal to facts rests on a bedrock of common sense; yet, those presuppositions also stand in the way of scientific advance, "and progress has required the courage to thrust them aside." "What counts in the validation of a theory, so far as fitting the facts is concerned, is the convergence of the data brought to bear upon it, the concatenation of the evidence - beautifully illustrated, to my mind, in Ernst Jone's essay on Symbolism."

Norms of coherence. This norm suggests that new theories must be fit into the existing body of theory. In this area, Kaplan discusses the simplicity of a theory, and the need to assess that theory in comparison to other theories. Essentially asking which is the best theory to use for a particular situation.

Pragmatic norms. This norm asks if the theory seems to work in practical application. Interestingly, he also notes, "From this standpoint, the value of a theory lies not only in the answers if gives but also in the new questions it raises."

For each of these three norms, Kaplan notes strengths and weakness - essentially suggesting that no one norm by itself is sufficient for judging the efficacy of a theory. These three norms may be understood as general categories for other forms of analysis.

Maturity

Another approach to critical evaluation suggests that a more effective model might be understood to be one that is more mature. (Commons, Trudeau, Stein, Richards, & Krause, 1998) develop innovative and useful insights into the structure of theoretical models. They accomplish this by drawing a parallel between the less-understood development of models and the better-understood development of individuals, organizations and cultures. In each area, the system that is understood as more evolved is the system that is more complex. In their maturation model of theory, the stages are:

1. Abstract Stage (stories become cases, events are abstracted to data).
2. Formal Stage (two or more Abstract Stage variables are related).
3. Systematic Stage (developing simple hypotheses from Formal Stage relationships).
4. Metasystematic Stage (creating models that account for all relevant relationships).

Importantly, in this maturation model, the “Systematic Stage” is one where there is a formal description of how variables interact in relation to one another. This stage requires “multiple input variables” and may suggest multiple outputs as well. This view stands in contrast to less complex (and so less mature) models that suggest simple, linear, causality. Creating a parallel between complexity and some sense of maturity seems to have validity – and is reflected across a broad section of literature.

Strong Actuarial Thesis

Yet another approach (or set of approaches) is suggested by the Faust-Meehl “strong actuarial thesis” which surfaces the difficulty of evaluating theories and asks, “What features of theories predict their long-term survival?” and, “To what extent are those features similar across disciplines and domains?” (Faust & Meehl, 2002, p. S186). Usefully, Meehl (1992, pp. 408-426) examines many forms of theory evaluation and describes the weaknesses of each (empirical studies, ceteris paribus, simplest explanation, aesthetic beauty, logical possibility, unconnected postulates, reducibility, etc). And (Meehl, 1992, p. 438), suggests that logical-mathematical theories are more true/accurate/useful than explanatory theories.

Causal Structure

Stinchcombe (1987) suggests another form of analysis. Specifically, he investigates the causal structure between the concepts within a theory. These methods provide useful guidelines for graphically mapping the structure of a theory. Among his interesting insights, he explains how to critically analyze a theory to remove useless aspects – thus rendering the theory simpler, with little or no loss of explanatory power. For an abstract example, consider a theory that describes causal relationships between three observable things. Changes in A cause changes in B that cause changes in C. This theory has three concepts connected by two linkages. If we are using this theory to understand the end result "C," Than the intermediary "B" is extraneous. The theory might just as well say that, A causes C.

Propositional Analysis

A theory or metatheory may be understood as an "ordered set of assertions" (Southerland, 1975, p. 9). Yet, this begs the question of how well ordered these assertions actually are. One answer to this problem is seen in the use of propositional analysis (Wallis, 2008a) which appears to be the most rigorous method for analyzing a body of theory. This multi-step process begins by finding the propositions within the body of theory. Those propositions are then compared with one another to identify overlaps, and redundant concepts are dropped. Next, the propositions are investigated for conceptual relatedness. Those aspects that are causal in nature are linked with aspects of the theory that are resultant. Those concepts that are explained by or resultant from two or more other concepts are considered to be "concatenated."

Concatenated aspects are privileged because they are better explained than others – to the extent that the better understanding is transcendent. Bateson (1979) describes how two eyes are better than one because the two views combined also provide the viewer with depth perception – something neither eye alone could achieve. Similarly, it is generally accepted that when two people combine their views on a single topic, a new and more comprehensive view emerges. Or, from a metatheoretical perspective, two lenses of theory are better than one.

The formal "robustness" of the theory is then determined by dividing the number of concatenated aspects by the total number of aspects to provide a number between zero and one. A value of zero represents a theory with no robustness – as might be found in a bullet point list of concepts. A theory with a value of one suggests a tightly structured theory, such as Newton's F=ma. For an abstract example, lets say we have a theory consisting of the following propositions: A is true; B is true; A causes B; Changes in B cause changes in C; Changes in D and changes in C cause changes in E. There are five aspects (A, B, C, D, and E). Of those five, only E is concatenated (D and C cause E). This gives a ratio of well-integrated aspects to poorly integrated aspects of 0.20 (the result of one divided by five).

This represents an important advance in the critical evaluation of theory for at least three reasons. First, because it provides an alternative logic for understanding theories. Second, because it provides a method for objectively delineating the structure of a theory. And, third, because progress in advancing theory toward a measurably higher level of structure seems to be related to advancing a theory toward revolutionary improvement in theory and practice (Wallis, 2009c).

Litmus Test

In conversations, some scholars have reported to me that they apply a “litmus test” to theories and metatheories as a way to determine validity. For example, one might say, “Any theory that purports to promote freedom is a good theory.” While this appears to be a laudable goal, it is a weak scientific standard – primarily because it must fall back on other theories and other interpretations. It begs all sorts of questions such as, “What does it mean to promote?” or, “What is freedom?” and, “Freedom for whom? Or “Freedom for how long?” Further, it leaves unanswered questions about the actual efficacy of the theory or metatheory. A problem highlighted in the phrase, “freedom is slavery” (Orwell, 1949, p. 7). In short, simple litmus tests do not seem to be good science. They are essentially an act of faith or intuition.

When theorists and metatheorists resort to litmus tests or intuition in place of rigorous, repeatable, analysis, it may be because the more rigorous methods are not well understood, or there may be a cultural bias against their acceptance. Whatever the reasons for past analyses, our science would benefit from the continued development, articulation, and application of these methods in analyses of theories and metatheories, alike. These methods need to be developed both individually, and in comparison with one another. One pioneer in this area is the late Paul Meehl. Meehl found that parsimony is the most used, and most problematic of the claims for the validity of a theory (Meehl, 2002). More frequently used, though less specifically cited, is the test of “logic”(e.g., Wacker, 1998). This test is so common that it has faded into the background. It is simply assumed that each theory has some logic to it.

Indeed, it may be said that a theory is constructed of logical arguments (e.g., Gregor, 2006). And, that logic may be accepted as a routine test for theories undergoing peer review. However, that approach has proved insufficient to the task of advancing theory. Possibly because there is no clear demarcation for what Set of logical arguments is better than another. That is to say, the logical arguments need only be “good enough” (whatever is appropriate for the needs of the journal). One problem with logic is that it is often constructed in “chains” (A is true because of B, B is true because of C, etc) (Steiner, 1988). Steiner concludes that the last link of a chain remains undefined. So, although one may claim validity based on acceptable logic for a theory, there often lurks the unspoken method of intuition.

Meehl (1992, p. 358) notes that there are few or no metatheoretical rules of what he calls “universal form.” Therefore, metatheorists have nothing to guide them but their intuition. And, studies have shown intuition to be unreliable (Meehl, 1992, p. 370). Meehl (2002) also argues at some length against intuitive methods of evaluation because intuition has been shown to be a weak tool for evaluation – even among experts working within their own field.

To conclude this section on forms of critical analysis, we should note that some of these forms might be more useful than others, depending on the needs of the metatheoretician. For example, if one is conducting a historical analysis of theory, the process of categorization might be more useful. If one is comparing theories to determine which might be best applied in practice, one may be better off choosing propositional analysis. There is a great opportunity for investigating these forms of analysis. They could, and should, be tested and compared with one another to identify the efficacy of each approach in various fields of study and for various purposes. Given the range of tools presented in this section for the metatheoretical analysis of theory, it should be apparent to the reader that she or he need not rely on weak tests of logic, litmus, or intuition for evaluating theory or metatheory.

G – Verification and Testing

It is absolutely imperative for the advancement of any science that the work be exposed to scrutiny; including peer review and assessment. Without the dissemination, comparison, and testing of theories and metatheories, one may become a lone hermit, talking to one's self and digging one's self deeper into some self-satisfying view of the world. It is much better for the science if we develop more useful, shared, understandings. Some metatheoretical models may be held and even used subconsciously – used, but never detected or explicated. In order for the theory to make sense to others, the theorist must surface tacit mental models for explanation and publication.

As analysts, we escape the trap of our own assumptions by making our theory and methodology explicit (Scheff, 1997, p. 142). Without that clarity, we incur at least two problems. First, we may be overwhelmed by data. Second, we are less able to perceive what is new or different. By having data, we might know *what* but not *why*. We become trapped by seemingly inescapable facts. With theory, we transcend – we gain a new perspective and are able to take action. This is the importance of metatheory – that starting assumption that we may understand the world (and ourselves) in a different way – that we may become more than we are. Following this path, we may more easily gain the ability to change our world and to change ourselves.

In *Cultures of Inquiry*, John Hall (1999) describes a "third path" of inquiry that is primarily neither objective nor subjective, rather is essentially reflexive where meaning is created in a socially constructed sense. Similarly, Ofori-Dankwa and Julian (2001) work to identify a bridge from the traditional notions of theory building, and novel, paradoxical approaches that reflect complexity and chaos theory. Where an individual metatheorists might build a metatheory from one of these, or another of many approaches, those approaches are still rooted in the individual – however carefully contemplative and reflexive that individual might be. In a science of metatheory, another level of reflection is gained by exposing a metatheory to social evaluation.

In the following section, I will investigate the arguments for a postmodern approach to science, review a range of postmodern approaches to scientific inquiry, and investigate how these approaches might be applied to the study of metatheory.

From Modern to Postmodern

Kitcher (1993, p. 7) notes how "there is no theory-neutral body of evidence to which scientific theories must conform." This, theory-laden nature of (so-called) facts is reflected in the study of metatheory. That is to say, there is no metatheory-neutral body of theory. Each of us has a set of assumptions (a.k.a. models, mental models, schema) that shape the way we understand and engage. The same applies to the way we engage theory (and metatheory). This view appears to hold true for modern and postmodern approaches. Historically, “The postmodern period follows the supposed triumph of science and rationality, calls into question, and produces an array of diverse and divergent conceptions of knowledge” (Bentz & Shapiro, 1998, p. 1).

To understand something, one approach of modernist science is to idealize it. That is to say, to assume that everything behaves in a certain way. Applied to humans, one might assume that “all humans are rational decision makers.” These kinds of assumptions may be useful in that they allow the researcher to have a set assumption upon which to build additional work. One problem with this approach is that those assumptions are always illusory. There is no way to be completely objective – to understand some absolute truth, because there are always assumptions.

There is no real way to avoid this. Modernist science tried very hard by differentiating scientific inquiry form political, artistic, and religious inquiry. As a result of those reductionist assumptions, fantastic advances were made. As another result, we are starting to see some of the weaknesses of those assumptions – including the weakness of reductionist thinking, itself. Kitcher (1993) engages this conversation at great length and depth. And, he concludes, that we should not attempt to rid ourselves of modernist science. Rather, we should seek to change it – to enrich it. One way to do that is to integrate modernist science with postmodern insights into the value of religion, art, human interaction, creativity, and values.

Objective truth does not seem to exist. And, if it does, we humans do not have access to it. What we do have is the ability to access multiple ways of understanding. We can sit in the presence of a person, we can admire the beauty of a work of art, and we can revel in the novelty of surprising insights. If we attempt to engage the world with a single method, we become guilty of methodolatry. To avoid this trap, “scholars have urged researchers to put aside their theoretical silos to uncover the potential of using interdisciplinary theoretical perspectives in research.” Using, “border-crossing notion of bricolage,” combines multiple methods as appropriate to the research context (Abes, 2009). This brings to mind Bateson’s “double description” (Bateson, 1979). His essential idea is that we may reasonably ignore concerns for objectivity or ultimate reality and pragmatically accept that two descriptions of something are better than one.

Modernist approaches to science tend to seek an absolute truth about the nature of reality. This totalizing view discounts alternative views, approaches, and ways of knowing. Thus, modernist science serves as a point of view – a metatheory that both enables and restricts how a user of that view approaches the world and investigations of the world.

Postmodernism, on the other hand, stands in contrast to this monolithic view. Lyotard (1984), for example, suggests that it makes more sense to see society as a range of dualities and oppositions, rather than some undifferentiated whole. For Lyotard’s postmodern view, science is about the process of conversation, not some pile of knowledge. Similarly, Shotter and Tsoukas (2007) decry the absolutist position and argue for its replacement with approaches that are intuitive and contextual. Calás and Smircich (2005), for example, question the faulty logic of modern knowledge and suggest a range of new logics to support research that will foster change and emancipation.

Broadly, postmodernism suggests multiple paths for investigation and ways of knowing. There is not a single storehouse of well-ordered knowledge. Rather, “Knowledges are incomplete and disordered” (Law, 2010, p. 8). Therefore, it is useful to recognize that knowledge is always situated in a particular context. And, recognizing that there are multiple ways of knowing, we should learn to tolerate the differences between them so that we can explore those differences, rather than attempt to privilege one over the other. Deetz (1996, p. 191) seems to agree – exhorting readers to “Fight the tendency to reduce conceptions to categories or reduce sensitizing concepts to definitions.” There are difficulties and dangers in categorization because that which reveals also conceals.

Specifically, Chia (2005) notes some contrasts between modern and postmodern approaches. Modernism emphasizes differentiation, simple-location, classification, and representation. And, in contrast, postmodernism is more about process, movement, interpretation, and change. The imperatives for postmodernity, he argues, are: (a) Change – that might be understood through history; (b) Workability or usefulness of a theory; (c) Attention to surprise – seeking what is not there and appreciating accidents and novelty.

From another postmodern approach, Law (2009) talks about performativity – how we can enact realities. Generally, he suggests that good postmodern research includes: (a) Looking at our practices - what is being done and how it is being done, (b) Avoiding the assumption that there is an absolute reality beyond what we experience, (c) Asking about how processes turn representations into “windows on the world” (d) There is no way to escape from practice, (e) Look for gaps between practices and realities.

However, postmodern inquiry is not entirely about practice. For example, Rosenau notes how, “For these [skeptical] post-modernists, theory is reduced in stature, but they neither reject it altogether nor call for an absolute equality of all theories” (Rosenau, 1992, p. 22). Which is a fortunate because if postmodernism did not recognize the legitimacy of theory, there would be no opportunity to write about postmodernity (as every form of writing is a form of theory as well as a form of practice). Shotter and Tsoukas (2007) similarly decry the absolutist position that science should replace our intuitive understanding of a situation. Instead, they suggest that reflective conversation within a specific context (rich in description) and everyday use of language should be applied. However, their description of the process seems remarkably like the process of induction - as such talk may lead easily to theories and practices. So, again, we find ourselves back in the realm of theory.

There are (appropriately) a wide variety of postmodern approaches to inquiry and so science. The following table provides a distillation of some approaches by a dozen authors. From this, I hope the reader will gain an appreciation of the vast range of possibilities for postmodern scientific exploration. And, I hope, be encouraged to develop more approaches.

Table 2. Aspects of postmodernity as defined by various authors

Author/s	Year	Anything goes	Avoid categorization & definition	Avoid Ontological arrogance	Deconstruction (includes undercutting privileged texts)	Contextual nature of knowledge	Narrative	Hermeneutic	Paradox	Complexity	Uncertainty / unpredictability / ambiguity	Change	Critical	Reflexive	Interpretation	Introspection	Artistic	Intuition	Humanistic	Awareness of human condition	Emancipation – Who benefits - Justice	Values	Naturalistic / Feminist / NeoMarxist	Educative	Action-Research	Praxis-oriented / Experimentation (usefulness)	Phenomenological	Observe & communicate with others	Practical / Workable	Constructivist	Develop underlying rules for understanding
Rosenau	1992	X			X		X								X	X													X		
Deetz	1996		X																												
Critchley	2001							X																							
Argyris	2005																								X						
Murray	2006								X	X	X																				
Lyotard	1984							X					X	X								X									
Smith	1999				X			X					X		X						X		X	X	X	X	X			X	
Kofman	2010			X																											
Chia	2005										X	X						X		X						X					
Law	2010					X				X	X															X					
Bentz & Shapiro	1998							X							X	X										X		X			X
Kitcher	1993																X		X									X			

From a postmodern perspective, as you may infer from the above table, there are more than a few ways to conduct scientific inquiry, “So, it is not at all the case that there is something like a unified “scientific method” that governs all intellectual inquiry” (Bentz & Shapiro, 1998, p. 86). Inherent in this diversity is that idea that we can continue to develop new (and more diverse) approaches that may have some validity and usefulness in a postmodern context. And, to a greater or lesser extent (as with modernist approaches), these postmodern approaches might serve as useful indicators of progress for a science of metatheory. In the remainder of this section, I will investigate some potential benefits and limitations of these postmodern concepts as they relate to metatheory.

Anything goes is a difficult thing to measure. In the present context, it seems related to the idea that we should *avoid ontological arrogance*; and, in that process, strive toward more creative approaches to analysis. Indeed, we are not restricted to a single mode of analysis, rather we have a range of possible methods – and that range continues to expand. When applied to metatheoretical analysis, this suggests that it is valid to develop new methods of validation. Although, it should not be seen as ruling out existing approaches.

Deconstructing existing texts (especially those that appear to be privileged) is a process that is inherent to metatheory. Because those texts are the subject of analysis, it is difficult to avoid some form of deconstruction! There is also an important piece of recursion here because metatheoretical methods are themselves theories. Therefore, it is possible to use metatheory to deconstruct metatheory. We might measure the rate of deconstruction by tracking the level at which the deconstruction of a theory occurs. For example, a postmodern researcher might write in general terms about a theory (as a whole) – and that might represent an engagement on one level. If the researcher analyzes the propositions of a theory, that is another level. Then too, if the researcher investigates individual words - that is still another level. Deconstructing on all three of these levels (or any two) would be more effective than using any one.

In contrast to the modernist desire for objective knowledge, the postmodern approach recognizes the *contextual nature of knowledge*. For an analysis of theory, a metatheoretical approach might simply accept and appreciate all theory as providing useful material. Or, it might be said (for example) that a particular analysis will investigate theory from a specific context, perspective, or draw on theory from a specific source (e.g., theories of the 21st century). Identifying the context may be a form of categorization. For example, only theories made in the 20th century would be considered valid in a study of 20th century theory. It is also useful to recall that a process of social construction may serve to create new contexts. For example, Lyotard (1984) explains:

> From this point of view, an institution differs from a conversation in that it always requires supplementary constraints for statements to be declared admissible within its bounds. The constraints function to filter discursive potentials, interrupting possible connections in the communication networks: there are things that should not be said. They also privilege certain classes of statements (sometimes only one) whose predominance characterizes the discourse of the particular institution: there are things that should be said, and there are ways of saying them. Thus: orders in the army, prayer in church, denotation in the schools,

> narration in families, questions in philosophy, performativity in businesses. Bureaucratization is the outer limit of this tendency. (Lyotard, 1984, p. 14)

The *hermeneutic* nature of metatheory also lends itself to the postmodern perspective. That is because theories, the subject of investigation, are inherently textual. Here again, it is important to qualify and quantify the range and number of theories that are involved in an analysis. It would not be good science to say (for example), "I developed a metatheory based on some theories." The sources of those theories should be clearly articulated. A good practice for our nascent field of study might be to include our data – either in quotations within the text or in an appendix. That way, it is easier for other members of the metatheory community to evaluate the process and the results.

When one is exploring existing theory, the postmodern perspective offers an important, and interrelated set of relationships to look out for. Within one theory, or between two theories, one might seek to identify instances of *paradox*. This offers opportunities for finding new insights when the paradox is appreciated (perhaps experienced and embodied) and resolved. Galileo's experience provides one example of this approach. In ancient times, the prevailing theory of downward motion was that small objects fell slowly while large objects fell quickly. Galileo wondered what would happen if a small object were connected to a large object. And, through that thought experiment, recognized a paradox of the prevailing theory. That recognition impelled him to drop objects from tall buildings and so develop better theories of gravity. We might, enumerate the number of paradoxes found within a between theories as a simple path to evaluation.

Similarly, in studies of theory, we have the opportunity to investigate the *complexity* of theories and bodies of theory. Indeed, the complexity of a theory may be an indicator of that theory's maturity – suggesting a useful way to measure the potential usefulness of that theory (Ross & Glock-Grueneich, 2008). This approach may be easily employed by enumerating the concepts and/or connections within a theory. Theories may then be easily compared on at least one dimension. An opportunity exists here for a metatheorist to enumerate all the forms of enumeration within theory.

Because theory may be generally understood as a tool for reducing uncertainty (by providing an explanation of events), the idea of investigating the *uncertainty* within a theory bears a certain intriguing recursion. Often, we are able (by experiment or practical application) to test how well a theory works. The extent to which one's use of the theory enables one to predict future events may be regarded as a test of that theory's effectiveness. And, as a result, it is possible to compare two theories. However, postmodernism (along with complexity theory) holds that nothing is completely predictable. Therefore, if one finds a theory works 'perfectly' one may also be sure that one has fooled one's self.

In such situations, it is important to seek and appreciate the *ambiguity* of a situation. To purposefully seek out those events that are not predicted by the theory – those experimental anomalies that we know must exist, even though they may not be evident at the moment. This leads to a most important, difficult, and subtle postmodern technique – looking for things that are not there. In the analysis of theory, the discovery of a "missing link" can be an exciting find. As an example, from my personal experience, I am usually unimpressed by computer modeling experiments where the experiment merely confirms the researcher's expectations. Instead, I appreciate results that the researcher finds surprising.

Change is also a useful "thing" to look for in the study of theory. One might note, for example, that certain theories of physics have remained unchanged for hundreds of years… and wonder why. One might also investigate the great rapidity with which theories change and evolve as they are adapted by various authors over time, or as they change between the contexts of differing publications. One way to measure this is to determine the "dynamic robustness" of the theories (Wallis, 2008a).

One point of congruence between modernist and postmodernist approaches is the need for *critical analysis*. This has been addressed above in some detail. In contrast, *reflexive* approaches are more postmodern in nature – involving forms of social construction. To make these approaches more valid, it is useful for the metatheoretical researcher to describe the process by which the original theory was created, and/or the process by which the new metatheory or metatheoretical perspective was developed. A more rigorous quantification of the reflexive approach may be difficult because of the inherent complexity of the process. Here, again, is an opportunity for a deeper more comprehensive exploration of reflexive approaches to metatheory.

Far from understanding such indeterminacies as an impediment, the postmodern perspective sees such looseness as an opening for *interpretation* by the researcher. To provide some sense of validation, some *introspection* is useful. Here, the researcher should provide readers with some indication of that introspective process. This may include surfacing one's inspirations, concerns, and excitements. The process of introspection may lead to spiritual insight. This is, as history has shown, rather difficult to validate from an outside perspective. And, from the inside view (one's own sense of spirituality) may not make a great difference to the larger community. If the researcher avoids such self-revelation, the analysis might be seen as primarily intuitive or artistic.

In the postmodern world, the prevailing view is that we should appreciate the *artistic* and the *intuitive* in all sciences – including theory and metatheory. We are also encouraged to recognize that each work of art has more validity in some contexts, than in others. So, for validating a theory or metatheory as an art form, it is important to consider the artistic tradition from which it emerged and the context in which it is being used. I find an example in my own experience as a life and business coach. To me, the process side of coaching follows a series of questions such as: What worked well? What might you do differently next time? The artistic aspect, to me, comes in my ability to engage the client in a way that makes him or her feel that this is all part of a very natural conversation and leads to profound revelations of self and life. If other members of that community share my view of the art of coaching, they can evaluate the extent to which my coaching was artistic, or merely mechanically following a set of rote questions. For evaluative purposes, it seems that the analyst should describe the artistic standards to which the theory conforms (or creates).

The modern view of science is further enhanced by the postmodern ideas of *humanistic* inquiry, which calls for an increased *awareness of the human condition*. These include a range of *value-based* inquiry including *naturalist, feminist,* and *neo-Marxist* approaches that seek to *educate, emancipate,* and improve the human condition. These approaches may be evaluated from a number of directions – most or all of which are useful for "decolonizing" or de-emphasizing privileged texts in favor of more localized insights (Smith, 1999).

One might ask of one's self, "What is my intention in this investigation?" Or, we might ask, "Who benefits from this research?" Or, from the perspective of the possible participants, "To what extent does this research address our concerns?" These are, of course, a few of the many possible questions. Recursing briefly, it seems important to ask those who might be impacted about their opinions! Calás and Smircich (2005), for example, question the faulty logic of modern knowledge and suggest a range of new logics to support research that will foster change and emancipation. When applied in practice, one effective approach was to avoid the idea of expert knowledge, and to engage co-researchers in our collective experiments of all kinds. Generally, we may consider theories more valid to the extent that they are more able to raise awareness, educate, and emancipate. Thus, again, two theories may be compared and the more preferable one advanced.

One problem with soft sciences is abduction without critical examination (Hammersley, 2003). A reader may be "taken" with an idea; and, as a result, may feel that a theory appears "too good to be false." As a result, researchers might believe their theories or values are of the highest importance because, perhaps, those values have not been examined or deconstructed. Susan Haack (2001) seeks to differentiate truth and meaning by investigating four possible relationships between the two. She accepts the idea that there is an overlap between the two – that sometimes truth and ethics are one and the same, while other times that does not appear to be the case. Here, however, she relies on that elusive idea of truth. In a brilliant work (that includes a thoughtful conversation on Haack's paper), Martyn Hammersley notes, "I am not convinced that the distinction between what is morally wrong and what is epistemologically wrong can be sustained" (Hammersley, 2003). Rather than recounting millennia of thought, suffice to say that "truth" is an illusion that is sought by modernists and postmodernists alike. However, as "truth" seems so elusive, it seems an unlikely measure for validity and progress of metatheory.

Instead of a narrow, modernist science, Hammersley (2003) argues for link between epistemology, and morals, and calls for validation by a research community. This, in turn, seems to suggest that each and every paper should receive a thorough review by a close circle of readers. How do we accomplish such a thing? With all that is being written, who has time to do all that reading? Do we raise funds to pay for a large cadre of readers? It is an interesting possibility. Without funding, we might work to encourage readers to become more involved in the process – providing feedback to the authors and discussing the material more among themselves.

Then too, if knowledge is only valid if collaborative, should we require all that papers be co-authored? Or, is the act of learning, writing, review, reading, and conversation a sufficient level of collaboration? One might be tempted to say yes – it would certainly be easier to continue as we have – and to follow the traditions of modern academia. However, I feel that we are looking for something more. Instead of drawing a line and saying, "that side represents an unacceptable level of collaboration and this side is acceptable," we can pass beyond that dialectic and recognize that each written work may be represented on a scale of collaboration, And, reviewers, editors, and readers may rate that level of collaboration as a partial indicator for the collaborative-validity of the text.

For example, a book written by a single author would have a relatively low level of collaborative-validity compared with a paper written by two authors who received feedback from two reviewers. A book could claim a higher degree of validity where, for example, a team of authors determined among themselves the focus of the book, the focus of their individual chapters, and how those chapters would be linked, and where those authors spent a month sitting around a table co-authoring and co-editing one another's work.

Many concerns of validity are absorbed in another postmodern approach, which is more closely related to practice than to theory. Specifically, *praxis-oriented* methods that develop and show the usefulness of specific practices and points of view, within a specific context have shown themselves to be fairly effective. For example, the *Action-Research* approach. These methods, it seems may best be evaluated from within the group that develops and applies them. One such approach is the Future Search process (Weisbord & Janoff, 2000) which includes the creation of a mind map – a shared sense of the situation. This mind map may be understood as a form of theory, because it may be used to improve understanding and guide action. This approach suggests we may evaluate theory creation, at least in part, by the level of collaboration involved in the construction process. We might say that having more people involved indicates a quantitative measure of collaboration, while their satisfaction with the mind map indicates a qualitative measure of success.

These approaches to evaluation suggest that the only one who can truly evaluate the success of one's own method is the person who employs it. This *phenomenological* approach has its own limits. For example, one person might believe that plants grow better with fertilizer, while another believes that music is more conducive to plant growth. If, as outside observers, a community sees these two people growing food in their gardens, and one is more successful than the other, we might take that success as an indicator of a more effective underlying theory. We might (and probably should) also inquire about the details of those methods. For example, are they sustainable? Do they lead to negative environmental impacts? And, importantly, is there another, as yet undiscovered explanation for the differences observed?

In the academic review process, one author might develop and apply a method which he or she sees as very effective. Yet, the larger community might find very different results. One test of many is to determine if a theory is *practical / workable*. This might include purposeful experiments or simply some application in daily life. A strict postmodern stance might give equal validity to all theories that are applied because each one seems workable to the person who is employing it. And, the simple fact that a person is using the theory and finding it workable is certainly one level of validation. Also, the more people who find a theory workable might lend another level of validity.

This leads to at least two other extensions. First, that within one's own mind, an individual should seek to evaluate multiple theories to find if one is more workable than another. This might be seen as similar to an individual seeking a religion or spiritual practice that works best for him or her. Second, is the idea that the practicality or workability of a theory might be evaluated through the lenses of other postmodern approaches. For example, We might look at two theories and determine that one is more workable than the other based on the amount of change or the amount of emancipation is provides.

Over the course of time and communication, the above methods of investigation, communication and participation may be broadly understood as a form of **social construction**. That perspective suggests rich and complex interactions that include theory, practice, intuition, art and inspiration. This opens yet another interesting recursion because, ”the theory itself creates—it socially constructs—the terrain. A theory entails imposing interpretations (definitions, categories, and understandings) on behavior. Once we have a theory in mind, we pose questions that take those definitions, categories, and understandings for granted” (Landreine & Klonoff, 2001, p. 103).

This perspective points to a strength and limitation of the postmodern perspective. First, we are looking at mirrors through mirrors – so we can never be certain about what we see. This may cause difficulty for those who seek some absolutist foundation upon which they can rest. This difficulty may even impel some to a useless level of skepticism where they believe that nothing is real (and, in consequence, nothing has meaning). It is unfortunate that one result of this stance is that some abandon the search for new and more wonderful insights. Instead, this constructionist perspective also indicates that we recognize our limitations. And, from there, we can go on to transcend them.

Implicit in many of these approaches is the idea that the development and/or assessment of theory and metatheory are part of a process. In the field of metatheory, the development of a specific theory or metatheory is (from one perspective) understood to occur through the iterative process of induction and deduction (e.g., Hitt & Smith, 2005, p. 2). And, there are many other process-based perspectives to suggest paths for creating and evaluating theory. These process-based approaches may also be applied to a science of metatheory – suggesting an iterative process of creation and testing. It seems important to the science of metatheory that we develop new tests and test those tests. Further, there is a great opportunity to identify the processes by which each of these methods of creation and validation lead to one another.

An important tool for building and evaluating theory and metatheory is creativity. Because, if we are stuck within the map of our theory, no matter what the apparent efficacy of that theory, no matter what level of validation it exceeds, we know that we will always benefit from new and more creative approaches. Each new approach adds to the existing range of approaches; and, suggests ways to integrate and extend them. Despite (or, perhaps, because of) the range of options reflected upon in this section,

> It is far from evident that replacing conventional social science methodology with post-modern methods of interpretation and deconstruction constitutes any improvement in the social sciences. If adopted without modification, post-modern methodology leaves social science with no basis for knowledge claims and no rationale for choosing between conflicting interpretations. (Rosenau, 1992, p. 124)

Kitcher (1993) makes the important point that postmodern views, such as those presented in this section, should not be seen as existing in opposition to the views of modernity with the goal of eliminating the modernist view. Rather that these humanistic, artistic, and other diverse approaches actually serve to expand and change the modernist approaches. Changing the overall understanding of science to make it more rich, full, and inclusive. In the next section, I will investigate how we might understand a combination of modern and postmodern approaches. Not as a longer list of potential methodologies, but instead as existing in a carefully integrated relationship – an integral approach to science.

Integral Approaches to Metatheory

In moving metatheory toward a more scientific practice that includes modern and postmodern approaches, many forms of scholarship are possible. First, one might use any of the methods suggested here for creating and evaluating theory and metatheory. Another, more comprehensive approach, would be to use multiple methods. A more nuanced and sophisticated scholarship would involve a combination of methods that are mutually supporting – that is to say, integrated. This perspective is, in part, an answer to Fred Kofman’s (2010) call to avoid ontological arrogance with our underlying ideology, and so encouraged us to accept alternative views. This approach is postmodern; and, the call also holds true for our ideology about postmodernism. We should be on the lookout for what is missing and how postmodernism might be improved. This is especially important as there is a lack of agreement on key issues – even within the postmodern community (Rosenau, 1992).

Between modern and postmodern there are many disconnects. For example, Critchley (2001) tells how the Vienna Circle sought a science free of emotion, religion, and metaphysics. While, in contrast, an integral approach is about exploring how they might be rejoined as in *The Marriage of Sense and Soul* (Wilber, 1999). There, Wilber explores in some depth the importance of integrating science and religion. This is an appealing perspective because the traditional role of science is to find truth, while the traditional role of religion is to find meaning. This kind of integrative approach suggests that we are creating something that is more than the sum of the parts.

There are also overlaps between modern and postmodern approaches. Both seek knowledge and understanding, both call for critical analysis, and both appreciate the benefits applying theory (“testing” for modernists and “usefulness” or “workable” in postmodern terminology). What is missing between the two versions of science is a focus on how they might work together. This is an integral approach, which recognizes the benefits of both and seeks to bring them together to create a more complete and effective understanding. Kitcher (1993) suggests the need for overlapping and interlinked methods for measurement and Murray states:

> Integral approaches give equal importance to the subjective and objective aspects of world. Seen through this lens science and technology are not divorced from questions of meaning, identify, aesthetics, and ethics. . . . It does so not mere by critiquing other theories but my proposing an integrative framework that coordinates these theories and also by incorporating subjective and Intersubjective matters of self, culture, and spirit. (Murray, 2006, p. 215)

Let us move now to an exploration of approaches for a scientific advancement of metatheory that interlinks the best of modern and postmodern worlds. This approach is called triangulation which works under the assumption that it is desirable, to use a mix of approaches. This process is supported by a growing number of scholars (e.g., Edwards & Volkmann, 2008; Lewis & Grimes, 1999; Roe, 1998). An excellent application of this approach may be found in Lewis who notes in an introductory explanation of her study:

> The strategy—Metatriangulation (Lewis & Grimes, 1999) —entailed using paradigm lenses to construct alternative accounts of AMT implementation. The second section summarizes these accounts, which highlight varied vicious cycles during the change process. Third, I use paradox literature to build a metaframework, depicting change as a multidimensional cycle, swirling around cognitive, action and institutional paradoxes. Paradigm lenses detail each paradox, revealing complex, systemic tensions between stability and change. The conclusion addresses implications for managing change paradoxes and future research. (Lewis, 2009, p. 109)

A reading of Lyotard (1984) suggests triangulation using a combination of categorization, critical evaluation, and application. Koller (2006) suggests using a purposeful blend of approaches including contemplation (sprit), reason (mind), and body (senses). These kinds of triangulation suggest more than a range of coverage within a single sphere of thought, they also suggest an interrelationship between worlds. To expound on one such relationship, I draw on my recent work from the *Integral Review* (Wallis, 2008b).

Briefly, one may usefully and effectively view theory validation from three general points of view – or three worlds. Those three worlds are summed up as Theory, Facts/Data, and Meaning/Emotions. Within each world there are (at least) three levels of validation – with each level having more validity than the one below it. From an "outside" view, each theory may be seen to have greater or lesser validity within any one of the three worlds (see Table 3).

Table 3. Dimensions of Validity (Wallis, 2008b)

	Level 1	Level 2	Level 3
World One (Facts or data)	Uses objective data.	Uses objective data from multiple sources.	Future facts are predicted.
World Two (Meaning, emotions)	Makes sense to author.	Makes sense to editor, reviewers, and readers.	Consensus of expert opinion (this theory is preferred over other theoretical options).
World Three (Theory)	Includes logical arguments.	Theory is constructed of specific propositions.	Theory is constructed of co-causal propositions.

Another point is that there are two general ways to evaluate a theory or metatheory. One is to evaluate it from "within" one of the worlds; the other is to evaluate it from two or more perspectives "between" worlds. From an "outside" view, we can look at validation between the worlds. "Significantly, this distribution of worlds creates the opportunity to understand each of the three worlds in integral, co-causal relationship to one another" (Wallis, 2008b, p. 78). For example, a theory that is essentially a metaphor might have little or no validity in the world of theory. It might, if it were a compelling metaphor, have greater emotional/spiritual validity. If that metaphor were applied successfully to an organizational change effort, it might be seen to have greater perception/data based validity.

On another part of the spectrum, a theory from physics might have a high level of validity on the world of theory – and on the world of facts/data may prove very effective. On the other hand, on the world of meaning, the theory may be entirely uninspiring. One might see a well-written or inspirational, book as having great validity in the world of feeling and spirit, yet have little validity as a theory or in practical application. In contrast, a profundity of raw data might have great validity within its own world, but without a theory to make sense of it, it is merely noise – so has no validity within the world of feeling/spirit.

In the same way that great art calls for great reflection, a high level of validity in any one world seems to call for the generation of new understandings in each of the other worlds. And, we might imagine that a high level of validity in two worlds might create a very strong pull for increased validation in the third world. For example, having a great amount of data seems to call for a theory to make sense of it. Then too, a great deal of data also has a sensory component, so it calls for reflection and appreciation.

Popper's (2002) famous (and famously modernist) work suggests the best way to validate a theory is in the way it allows for predictions in perceptual data. A theory of physics, which fails to predict change, should be rejected. However, in the social sciences, the process is a highly complex issue of recursion. Changes in theory might cause changes in productivity but they may also alter an individual's values (e.g., one's personal feeling about what is important). So, an individual may no longer place the same value on the items being produced. Indeed, "individuals working on an assembly line might (based on an emerging mindset) change their minds and decide that the human producer is more important than the objects on the conveyor belt"(Wallis, 2008b, pp. 80-81). There is a great opportunity for scholars to investigate the potential interrelationship of the many approaches presented in this article and this special issue, as a whole.

Advancing the Field

In *The Trouble With Physics: The Rise of String Theory, the Fall of Science and What Comes Next*, Lee Smolin (2006) reflects on his experiences as a physicist who was dedicated to the development of string theory – the creation of a single one, best, totalizing theory of physics. Smolin concluded that such a development is impractical and perhaps impossible. His experience turned him away from a staunch modernist perspective (and, may provide some insights for our exploration here). Smolin found that progress in science seems to take two forms – innovation and consensus. The two seem closely interrelated – we need both to advance.

This article has presented some basic ideas to clarify and encourage the continued emergence of metatheory as a science. To the extent that metatheoretical methodologies and processes seem to fit a fairly specific definition of science, it seems that we have the basic pieces in place to conduct a legitimate science of metatheory; although, more development and clarification of methodologies appears to be required. Further, if we are to be a science, we must also apply these rigorous methodologies – something the broader field of the social sciences has mainly avoided. There is reason to hope that we are moving toward a change – an improvement – including a more purposeful application of metatheoretical principles.

One may anticipate that metatheory, as a science, will not be immediately adapted by all social scientists. First, some may too deeply invested in the present paradigm. They might, for example, be interested in creating theory for publication instead of application. Second, by their seemingly successful experience, these academics may believe that they "know" how to create good theory – and so do not need to change their approaches. We might liken their theory-creation ability to the ability of a cook to bake a cake. They need no recipe because they have a great deal of experience in this department. Their students, however, have not yet learned the knack. And, the students may benefit most from learning how to follow a recipe. In short, we might achieve some success in advancing the practice of theorizing by developing and implementing a cross-disciplinary program to teach metatheory to graduate students. After all, they have not "grown up" with the fragmented fields of social theory, so may need additional tools to cope with the plethora of theories.

In the above sections, I have noted many opportunities and directions for future studies to advance scientific metatheory. Meehl (2002, p. 343) states, "I view this disparity between a (purported) logical truism and scientific practice to be one of the most important and badly neglected metatheoretical puzzles." A great opportunity exists for metatheorists to conduct cliometric analyses and so advance our understanding of theory, metatheory, and more. Another important opportunity exists for advancing the metatheory conversation through the application of metatheory. One place that this can occur with some ease is in the classroom. For example, professors could assign students to conduct purposefully metatheoretical analyses. Combined in a public database, the results might provide a useful source for metatheoretical analyses.

Reviewers of academic journals could aid in advancing the field by applying clear metatheoretical metrics when evaluating submissions. This way, each pass through the review process would result in better theory (rather than the creation of theory that is simply different). Similarly, those who review research proposals could also apply metrics to determine which theories are more likely to be effective than others.

The study of theory is appropriately referred to as metatheory (or metatheorizing) where, "The problem lies in how we differentiate between these different kinds of big pictures and the various ways of creating them. We have almost no way of formally distinguishing between metatheory as a scientific process of building metalevel conceptual frameworks or metatheory as grand storytelling or metatheory as philosophical musing. For the sake of all different forms of creating grand narratives this situation needs to change" (Edwards, personal communication, October 18, 2009). In this article, I hope that I have created a framework that we may use to address these issues.

Our nascent science is not at a point where we can apply labels with great confidence (although many have tried). It may be that we need to do some experimenting – we need to try out various methods of metatheorizing in quasi-controlled experimental settings and decide from the results what is our best tool for a particular project. We might find, in time, that certain metatheoretical approaches are useful for creating theory, while others are more useful for evaluating theory. Specifically, we need to have and to use a rigorous, scientific, and repeatable approach to metatheory if this field is to have any legitimacy; and, of greater importance, if we are to develop effective theories for addressing the many personal and societal issues of our age.

There are, of course, limits to the emerging science that I have sketched in this paper. I do not intend this to be the "last word" so much as a preliminary investigation of relevant components. My hope is not to be seen as some "absolute expert" so much as a "conversation-starter." As noted above, there are many opportunities presented in this paper for additional exploration. These include more nuanced investigations into each of the above-mentioned building blocks of modernist science, as well as investigations into how those blocks might be more carefully integrated with one another. Additionally, there are alternative definitions of science that might be explored and contrasted with the one presented above.

Reflections

In the development of this paper, I received a strong call from one reviewer to conform to the dictates of postmodernism, rather than modernism. Due to many personal stresses, I initially resisted that call. Taking time to breathe, and be more open, I worked to answer the call towards greater inclusiveness; I also worked to avoid the totalizing call of postmodernity and modernity, both. As a result, I was impelled on to a more integral approach that combines modernity and postmodernity.

It occurred to me that there is a key distinction between modernity and postmodernity. First, modern science sees progress as an accumulation of knowledge. Second, postmodernity seems to loosen the "direction" of what constitutes valid knowledge by accepting multiple forms of knowledge. Yet, postmodernity seems also to retain the idea that accumulation is important. This should come as no surprise, as accumulation serve to immediately validate any and every insight. It cannot be discarded without reducing the storehouse of knowledge – be it a modern or postmodern storehouse. What remains is the question of what to do with that storehouse of knowledge.

Integral approaches suggest that identifying interrelationships between existing forms of knowledge may create new knowledge. This takes us beyond simple accumulation and moves toward more effective approaches. This, in turn, implies the need for methods for creating theory and metatheory – where they are understood to be integrated knowledge, rather than simple accumulations. When one identifies relationships between previously unconnected bits of knowledge one tends to experience a sudden, perhaps spiritual, sense of wonderment or awakening. And, one is on the path to the creation of theory and metatheory.

Conclusion

It may be true, from a modern perspective, that we will benefit from validating theory and metatheory. It may be true, from a postmodern view, that there is no single approach to validating theory and metatheory. From an integral perspective, it seems reasonable that these forms of validation must be interrelated. In creating a science of metatheory, it seems we must recreate what it means to have a science.

At the risk of creating another layer of “meta-ness” it seems that the most useful approach will be to validate each theory and metatheory by using at least three forms of evaluation. And, importantly, those forms should be as different as possible. For example, it might be useful to evaluate a theory using a combination of spiritual, creative, and aesthetic measures. However, a more effective (and more challenging) approach would integrate more diverse points of view to provide very different measures (e.g., artistic, structural, and practical). In this, it may be seen that the greater diversity will lead to greater strength and the many will lead to the one – just as the success of one theory leads to greater diversity in application.

In this article, I have identified and investigated a variety of components needed for recognizing metatheory as a rigorous, and legitimate science from modern, postmodern, and integral perspectives. Those methods should be reflected, as rigorously as possible, in the multiple building blocks of science that point the way to advancement. Our ability to advance metatheory is founded on our ability to meet multiple requirements in an integrated way – not simply one or two. Implicit in this article is that idea that metatheoreticians must be rigorous in their pursuit and application of these scientific ideals. We don’t want metatheory to be flapping around in circles.

As metatheoreticians strive to meet these goals, we will strengthen the withered wing of theory and so enable the bird of science to fly. Extending that metaphor slightly, we may recognize the need for a body – that connects those wings and provides a sense of purpose for that flight. For this body, we need to develop research communities whose members agree to conduct careful, rigorous, repeats of experiments and studies in metatheory (including building, testing, identifying the range of metatheories).

This new community will be reflected in our journals. This, in turn, implies that editors who are interested in supporting the emergence of a new science should stand ready to publish works that do not meet the more traditional “literary” standard of innovation, but instead rise to meet the equally high (and possibly more important) standard of scientific repetition. An interesting and useful collaborative effort might begin with a single metatheory, and ask seven authors to address that metatheory – each from the perspective of a single building block of science.

This article serves as a starting point for conversations on metatheory as a rigorous science, and how that science (as a process) might be improved for the development of better metatheory. Improvements in this field will improve our ability to advance our effectiveness as scholars working within and between other branches of the social sciences. In turn, those advances will have a profound effect on our ability to work for the betterment of our world.

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Appendix: Definitions of Metatheory

Dominic Abrams and Michael Hogg (2004)

A metatheory is like a good travel guide - it tells you where to go and where not to go, what is worthwhile and what is not, the best way to get to a destination, and where it is best to rest a while. Metatheoretical conviction provides structure and direction, it informs the sorts of questions one asks and does not ask, and it furnishes a passion that makes the quest exciting and buffers one from disappointments along the way. (p. 98)

A metatheory should provide an alternative framework for asking particular questions, not a complete explanation for all phenomena. The appropriate mission is not to convince others that the metatheory is right and that others are wrong, but to show how a particular metatheory can be useful to account for a specific class and range of phenomena. (p. 100)

A strong metatheory helps to put the body parts together in a meaningful structure and then to theorize the links between those parts. In addition, identifying the metatheory behind a particular theory helps reveal potentially interesting and useful links to other theories. (p. 100)

[Metatheory] encourages the integration of concepts across contexts. (p. 100)

Jack Anchin (2008b)

Unifying knowledge in any field of endeavor requires metatheory comprising a conceptual scaffolding that is sufficiently broad to encompass all of the specific knowledge domains distinctly pertinent to the field under consideration, that can serve as a coherent framework for systematically interrelating the essential knowledge elements within and among those domains, and that extends conceptual tendrils into other fields of study. (p. 235)

Jack Anchin (2008a)

Among vital purposes served by metatheory is its function as scaffolding for integrating more specific theories that conceptually and empirically map different aspects of the phenomena under study. (p. 804)

Terese Bondas & Elisabeth O. C. Hall (2007)

Metatheory analysis is an examination of theories to determine the link between the theoretical perspective that frames each primary study and the methods, findings, and conclusions of the research. (p. 115)

Richard Clarke (2010)

Metatheory is the 'theory of theory,' to be precise, the study of those underlying assumptions which shape particular theoretical perspectives.

Robert T. Craig (2009)

Metatheory is theory about theory.

Brenda Dervin (1999)

One major point here is that metatheory can be used in such a way that it releases research in always partial but still significant ways from implicit assumptions and draws these assumptions out into the light of day where they can be examined, interrogated and tested. (P. 748)

Metatheory must be an inherently deconstructive enterprise.

David Faust (2005)

As data form the subject matter for theories, theories and other scientific products form a key subject matter for metatheory or meta-science, organized and directed by methods that, in large part, remain to be developed.

Deborah L. Finfgeld (2003)

[Metatheory is the] Analysis and interpretation of theoretical, philosophical, and cognitive perspectives; sources and assumptions; and contexts across multiple qualitative studies. (p. 895)

Adam Maria Gadomski (2001)

A meta-theory M may represent the specific point of view on a certain class or set of theories T and this viewpoint generates meta-properties of T. Meta-properties are the consequence of the relation between M and T, but they are not the properties of any T application domain. More formally speaking, a theory T of the domain D is a meta-theory if D is a theory or a set of theories. For example, in computer science, the Theory of Data Bases Organization is a meta-theory for every specific (domain-dependent) theory of the data organization/structuring and management.

Willis Overton (2007)

A metatheory is a coherent set of interlocking principles that both describes and prescribes what is meaningful and meaning-less, acceptable and unacceptable, central and peripheral, as theory – the means of conceptual exploration – and as method – the means of observational exploration . . . a metatheory entails standards of judgment and evaluation. Scientific metatheory transcend . . . theories and methods in the sense that they define the context in which theoretical and methodological concepts are constructed. Theories and methods refer directly to the empirical world, while metatheories refer to methods themselves. There are many important features of metatheories, including the fact that they are ubiquitous – all theories and methods are formulated and operate within some metatheory – and the fact that they often reside quietly and unrecognized in the background of our day-to-day empirical science." (p. 154)

A metatheory is a coherent set of interlocking principles that both describes and prescribes what is meaningful and meaningless, acceptable and unacceptable, central and peripheral, as theory – the means of conceptual exploration – and as method – the means of observational exploration – in a scientific discipline. In other words, a metatheory entails standards of judgment and evaluation. Scientific metatheories transcend (i.e. 'meta') theories and methods in the sense that they define the context in which theoretical and methodological concepts are constructed. Theories and methods refer directly to the empirical world, while metatheories refer to the theories and methods themselves. (p. 155)

Barbara Paterson, Sally Thorne, Connie Canam and Carol Jillings (2001)

Meta-theory is a critical exploration of the theoretical frameworks or lenses that have provided direction to research and to researchers, as well as the theory that has arisen from research in a particular field of study.

Meta-theory involves the analysis of primary studies for the implications of their theoretical orientations. (p. 92)

George Ritzer (1988)

Metatheory is concerned . . . with the study of theories, theorists, communities of theorists, as well as with the larger intellectual and social context of theories and theorists. (p. 188)

A metatheory is a broad perspective that overarches two, or more, theories (Ritzer, 2009).

Leslie Sklair (1988)

A metatheory is a set of assumptions about the constituent parts of the world and about the possibility of knowledge of them. The distinguishing characteristic of a metatheory is that it refuses to accept any burden of empirical proof by displacing the burden of empirical proof onto the theories that are logically deducible from it. An effective metatheory is one which manages to create a high degree of coherence between epistemology and the objects of knowledge (roughly, abstractions). . . . The hallmark of a metatheory in science is that it invites empirical proof (or, in some versions, refutation) by producing theories and hypotheses that can be tested.

Tendzin Takla and Whitney Pape (1985)

By metatheory we refer to the cluster of fundamental, but often implicit, presuppositions that underlie or embed a theory.

Sally Thorne, Louise Jensen, Margaret H. Kearney, George Noblit & Margarete Sandelowski (2004)

Metatheory [is] the study of the frames of reference used in a set of primary studies. (p. 1357)

Jonathan Turner (1990)

. . . it is reasonable to conclude that metatheory should come after we have produced some theory. Metatheory is not about what assumptions and presuppositions sociology should have, but about the structure and implications of existent theories. (p. 38)

. . . let me offer some proscriptions and prescriptions about how best to perform metatheorizing.

First, here are some proscriptions or metatheoretical taboos (p. 39):

1. Avoid talking about theorists; instead, talk about theories.
2. Avoid discussions of intellectual context, place, and time; instead, discuss social processes denoted by concepts, models, and propositions.
3. Avoid debates over philosophical issues; instead, commit one's energies to the simple assumptions that there is a world out there and that it can be understood with concepts, models, and propositions.
4. Avoid commitments to ideologies; instead, develop concepts, models, and propositions that denote operative processes in the universe (there will always be someone to expose ideological biases without your help).
5. Ignore the particulars of history; instead, examine those more general and generic processes that cut across time and place (leave something for historians to do; or, if history is used, let it involve an empirical test or assessment of a theory or model).

Here is my list of prescriptions (pp. 40-41):

1. Evaluate the clarity and adequacy of concepts, propositions, and models.
2. Suggest points of similarity, convergence, or divergence with other theories.
3. Pull together existing empirical (including historical) studies to access the plausibility of a theory.
4. Extract what is viewed as useful and plausible in a theory from what is considered less so.
5. Synthesize a theory, or portions thereof, with other theories.
6. Rewrite a theory in light of empirical or conceptual considerations.
7. Formalize a theory by stating it more precisely.
8. Restate a theory in better language.
9. Make deductions from a theory so as to facilitate empirical assessment.

Walter Wallace (1992)

Synthetic metatheory sorts whole theories into two or more overarching categories. Analytic metatheory parses each theory into two or more components and then sorts these components into categories representing various types of assumptions, observable variables and causal relations among such variables. (p. 53)

Deena Weinstein and Michael Weinstein (1991)

Metatheory treats the multiplicity of theorizations as an opportunity for multiple operations of analysis and synthesis (p.140).

[Metatheory] has a concrete empirical referent, sociological theory, and studies its ‘underlying structures’ . . . As a . . . theory of theory, metatheory is simply that part of a general sociology of knowledge which happens to take sociology and sociological knowledge as its empirical referents. From the critic’s perspective, there can be nothing objectionable about this kind of metatheory, for it opens up a substantive and empirical research agenda” (pp. 287-288).

Wikipedia (2009)

A metatheory or meta-theory is a theory whose subject matter is some other theory. In other words it is a theory about a theory. Statements made in the metatheory about the theory are called metatheorems.

Shanyang Zhao (2010)

Metatheory is a subtype of metastudy that focuses on the examination of theory and theorizing.

Metatheoriebildung in der dialogischen Konfliktbearbeitung – ein konzeptioneller Vorschlag am Beispiel der Konflikttransformation nach Galtung und des Konfliktmanagements nach Glasl und des Integralen Ansatzes nach Wilber

Metatheory Building in Dialogical Conflict Solutions: Conceptual Advice Using the Conflict Transformation Approach of Galtung, Conflict Management by Glasl and the Integral Approach of Wilber

Karim Fathi[1]

Extended Abstract in English

Given the increasingly complex nature of conflicts, a corresponding increase of new methods can be observed in Peace and Conflict Studies. At this juncture, metatheories aimed at integrating this labyrinth of diverse methods is becoming necessary. This paper will draft a conceptual proposal, discussing two well-known holistic approaches of mediative conflict management in an integrative context:

- The Conflict Management Approach by Prof. Dr. Friedrich Glasl (2004).
- The Conflict Transformation Approach (The Transcend Method) by Prof. Dr. Johan Galtung (2000).

The theoretical assumptions of this paper are based on the integral approach by Ken Wilber (2001) – a highly discussed "Theory of Everything" that has thus far remained widely ignored in

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Peace and Conflict Studies, yet. Therefore, it is also of interest to scrutinise the integral approach with regard to its contribution for an integrated Peace and Conflict Studies. The analysis was conducted as follows:

1. Introduction of two holistic Peace and Conflict Studies approaches:

a. The *Conflict Management Approach* by Glasl implies a number of categories and entry points (Ansatzmomente) resulting in a complex intervention spectrum. In this regard, the consideration of escalation levels is highly important, integrating perception-oriented (low escalation), emotion-oriented (medium escalation) and behaviour-oriented (high escalation) measures. The spectrum may be combined with other categories such as conflict type (hot or cold) or criteria of conflict analysis (issues, conflict trends etc.).

b. The *Conflict Transformation Approach* by Galtung is characterised by a three-fold schematic, enabling a complex understanding of violence (direct, cultural, structural), conflict (behaviour, assumptions, contradictions) and peace (non-violence, empathy, creativity). Moreover, Galtung’s model implies three conflict phases (before, during, after violence) as well as five styles of conflict management.

c. The integral approach can be understood as a “Theory of Everything“ presupposing that no perspective can be 100% wrong (but “partially true”). Its methodology is based on “map making” by categorizing established paradigms, methods and theories in a holistic metacontext. By means of five categories – quadrants, levels, lines, types, states (altogether AQAL: All Quadrants All Lines) – the integral approach claims to consider as many aspects of reality as possible in a holistic concept.

2. Outline of an integration model:

a. *Possibility of an epistemological integration of the introduced methods*:
The five AQAL-dimensions enable the epistemological foci of the approaches by Galtung and Glasl to be revealed. A point in which both approaches may complement each other becomes apparent by combining a vertical spectrum of escalation levels (Glasl) and a horizontal axis of different fields of violence (Galtung). It might be of further research interest to analyse the potential extent of a correlation to evolution oriented level schemes (Wilber), e.g., referring to development psychology or evolution theory. Are there different development levels (Wilber) of direct, cultural and structural violence (Galtung)? Is there a correlation between levels of development (Wilber) and regression (Glasl)? This paper concludes for both cases a cautious “yes.” In doing so, the consideration of the other AQAL-dimensions (types, lines, states) provides further information.

b. *Proposal for an integral heuristic*:
The consideration of vertical (levels) and horizontal (quadrants, types, lines) AQAL-categories is also useful to integrate heuristics. However, the integral approach itself does not represent a method of heuristic and practical effect, though it is useful to adapt the AQAL-categories and to consider new tools that are highly relevant for the Peace and

Conflict Studies. The heuristic integral concept is based on the vertical conflict scheme by Galtung (three conflict phases) and Glasl (escalation model) and additionally considers horizontal analysis categories (e.g., types: conflict type; quadrants: fields of violence) on each level. A complex integral Peace and Conflict Studies heuristic is the result, under the consideration of an adapted AQAL-model.

3. Conclusion and critique:

The analysis shows that the primary use of the integral approach for Peace and Conflict Studies lies in its ability to integrate the epistemological benchmarks of different approaches. Thereby, the integral concept provides information about some points in which the epistemes and heuristics of Glasl and Galtung may complement each other which could enrich the construction of a metatheory in the Peace and Conflict Studies (especially with regard to the combination of Glasl's escalation model and Galtung's three-folded schematics). However, it should be noted that the examples of Glasl's and Galtung's meta-approaches provide other important integration and categorisation concepts which are not yet covered by the integral approach (at least in its present form). Thus, the AQAL itself may be inappropriate to integrate methods in the context of their orientation (e.g., process, client, solution oriented) or regarding the modus operandi (e.g., (a) conflict analysis, (b) intervention planning, (c) action). The AQAL is not only lacking meta-categories which are adapted to the particular heuristic requirements of Peace and Conflict Studies, also the contextualisation of its dimensions – e.g., the evolutionary scope of the level dimension – may not always be adequate and useful.

Generally, it can be concluded that metatheory building requires to consider different – in some respects contradicting – possibilities of formulating meta-categories. With regard to Peace and Conflict Studies, there remain a lot of research questions to be opened, since different meta-contexts may follow differing "main interests." Preliminarily, it can be concluded that a really integrated Peace and Conflict Researcher should be familiar with epistemological *and* heuristic contexts, but also metatheoretical *and* theoretical contexts as well.

Abstract - Deutsch

Angesichts immer komplexerer Konflikte ist in der Friedens- und Konfliktforschung eine zunehmende Methodenvielfalt zu beobachten sowie ein entsprechender Bedarf, diese metatheoreitsch zu integrieren. Im Rahmen des vorliegenden Papers soll hierzu ein konzeptioneller Vorschlag skizziert werden, indem zwei holistische und bekannte Ansätze der mediativen Konfliktbearbeitung in einem integrativen Kontext diskutiert werden:

- Der Konfliktmanagement-Ansatz nach Prof. Dr. Friedrich Glasl (2004).
- Die Transcend-Methode nach Prof. Dr. Johan Galtung (2000).

Den theoretischen Rahmen, auf den sich die Überlegungen dieser Arbeit stützen, liefert der *Integrale Ansatz* (IA) von Ken Wilber (2001) – eine viel diskutierte philosophische „Theorie von Allem“, die im Rahmen der Friedens- und Konfliktforschung jedoch noch weitgehend unberücksichtigt geblieben ist. Daher ist es im Rahmen der Arbeit von weiterem Interesse den IA auf seinen Mehrwert für eine integrierte Friedens- und Konfliktforschung zu untersuchen.

Die Untersuchung verlief wie folgt:

1. Vorstellung der in der Untersuchung berücksichtigten Ansätze:

a. Der *Konfliktmanagement-Ansatz* von Glasl unterscheidet eine Vielzahl von Kategorien und Ansatzmomenten, die ein komplexes Interventionsspektrum ergeben. Sehr wichtig ist hierbei unter anderem die Berücksichtigung von Eskalationsstufen, die eine Unterscheidung zwischen perzeptions- (niedrige Eskalation), gefühls- (mittlere Eskalation) und verhaltensorientierten (hohe Eskalation) Maßnahmen ermöglichen.

b. Die *Konflikttransformation* nach Galtung zeichnet sich unter anderem durch dreigeteilte Schematisierungen aus, die ein komplexes Verständnis von Gewalt (direkt, kulturell, strukturell), Konflikt (Verhalten, Annahmen, Widerspruch) und Frieden (Gewaltlosigkeit, Empathie, Kreativität) ermöglichen. Darüber hinaus, unterscheidet Galtung unter anderem auch drei Phasen des Konflikts (vor, während, nach der Gewalt).

c. Der *IA* versteht sich als eine Methode des metatheoretischen „Map makings". Mittels fünf Kategorien – Quadranten, Ebenen, Linien, Typen, Zustände (zusammen AQAL) – folgt der IA dem Anspruch, so vielen Aspekten der Realität wie möglich in einem Gesamtkonzept Rechnung zu tragen.

2. Skizze eines Integrationsmodells:

a. *Möglichkeit zur epistemologischen Integration der vorgestellten Konfliktbearbeitungsansätze*:
Mittels der fünf Dimensionen des AQAL lassen sich die epistemologischen Schwerpunkte der Ansätze von Glasl und Galtung darstellen. Ein gegenseitiger Ergänzungspunkt bietet sich vor allem bei der kombinierten Berücksichtigung eines vertikalen Spektrums von Eskalationsstufen (Glasl) und eines horizontalen Rasters von mehreren Gewaltbereichen (Galtung).

b. *Vorschlag für ein heuristisches Gesamtkonzept*:
Der IA stellt keine heuristisch-praktische Methode dar, daher ist es in diesem Fall sinnvoll, die AQAL-Kategorien anzupassen und sogar neue Kategorien, die für die Friedens- und Konfliktforschung besonders relevant sind, zu berücksichtigen. Das heuristische Gesamtkonzept nimmt das vertikale Konfliktschema von Galtung (drei Phasen des Konflikts) und Glasl (Eskalationsmodell) zum Ausgangspunkt und berücksichtigt zusätzlich auf jeder Ebene horizontale Untersuchungskriterien (z.B. Quadranten: Gewaltart etc.)

3. Fazit und Kritik:

Die Untersuchungen dieser Arbeit verdeutlichen, dass der Mehrwert des IA für die Friedens- und Konfliktforschung vor allem darin liegt, die epistemologischen Bezugspunkte unterschiedlicher Ansätze zu integrieren. Am Beispiel der Ansätze von Glasl und Galtung zeigt sich aber auf, dass ein heuristisches Metamodell zusätzliche Metakategorien erfordert, die von

der Schematisierung des IA nicht erfasst werden. Es lässt sich daher schließen, dass sich die Metatheoriebildung für die Friedens- und Konfliktforschung, vielfältigen Herausforderungen und weiterführenden Forschungsfragen gegenübersieht, zumal sich mehrere Metakontexte unterscheiden lassen, mit differierenden Geltungsansprüchen und „Integrationslogiken“. Ein wirklich integrierter Friedens- und Konfliktforscher sollte sich im Idealfall sowohl im Bereich der epistemologischen *und* im heuristischen, im metatheoretischen *und* im theoretischen Kontext sicher bewegen können.

Schlüsselwörter: AQAL, Dialog, Ebene, epistemologisch, Eskalation, Frieden, Galtung, Glasl, heuristisch, integral, Konflikt, Konfliktmanagement, Konflikttransformation, Kontext, Linie, Metatheorie, Quadrant, Typ, Wilber, Zustand

Einleitung

Problembereich der Untersuchung

Angesichts immer komplexerer Konflikte ist in der Friedens- und Konfliktforschung ein Zuwachs immer neuer Methoden zu beobachten. Mit der Vielfalt an Ansätzen und ihrer wachsenden Professionalisierung, die die letzen Jahre mit sich brachten, wächst in der Friedens- und Konfliktforschung nicht nur die Unübersichtlichkeit, sondern es zeigen sich zunehmend auch methodische Defizite und Grenzen.

Das hier vorliegende Paper möchte nun einen Beitrag zu dem an Bedeutung gewinnenden, bislang aber noch wenig erschlossenen, Feld der Metatheoriebildung in der Friedens- und Konfliktforschung leisten. Hierbei wird von der Grundannahme ausgegangen, dass die Friedens- und Konfliktforschung eine „nicht-systematische“ bzw. eine „wilde Forschungsrichtung“ ist, die stärker als die eher „disziplinär“ verorteten Sozial- und Politikwissenschaften auf Transdisziplinarität und Praxisrelevanz zielt (vgl. Graf 2009, S. 27).

In der Friedens- und Konfliktforschung herrschte bislang vor allem ein interdisziplinärer Ansatz vor[2], der sich aber als begrenzt erweist, unterschiedliche Perspektiven in einen holistischen Gesamtzusammenhang zu integrieren. Zu den wenigen und zugleich bekanntesten metatheoretischen Ansätzen in der Friedens- und Konfliktforschung dürften zum einen die Konflikttransformation nach Johan Galtung (TRANSCEND)[3] und der Konfliktmanagementansatz nach Friedrich Glasl[4] gehören.

- Schon in den 70er Jahren definierte *Galtung* erste Kriterien zum Design eines Metamodells, welches von mehreren, quasi parallelen, Realitätsbereichen ausgeht, die es mehr oder weniger gleichberechtigt und „synchron“ zu berücksichtigen gilt (vgl. Galtung 2000; Galtung 2008). Typisch hierfür ist ein Design mit einer nicht-hierarchischen („horizontalen“) Kategorienanordnung.
- *Glasls* weit verbreitetes Eskalationsstufenmodell leistet hingegen eine Vorbildfunktion bei der Integrierung unterschiedlicher Mediationsansätze (vgl. Glasl 2004a) in einen sequenziellen, „vertikal“ designten, „Ad Hoc“-Kontext.

Ein metatheoretischer Ansatz, der dazu beitragen könnte, die stetig zunehmende Vielfalt innovativer Methoden in der Friedens- und Konfliktforschung zu integrieren, dürfte kaum an den

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[2] Im Standardwerk „Sozialwissenschaftliche Konflikttheorien liefert Bonacker einen Einblick über die thematische Vielfalt der Konflikttheorien: In der politischen Philosophie, Ökonomie, Anthropologie, Psychologie, in der klassischen Soziologie, in den Gendertheorien, in der internationalen Politik, in den Rational-Choice-Theorien, in den neueren Sozialtheorien und in der Systemtheorie (vgl. Bonacker 2005).

[3] **Prof. Dr. Johan Galtung** ist einer der Gründerväter der Friedens- und Konfliktforschung. Er lehrte als Honorar- und Gastprofessor an über 50 Universitäten und vermittelte weltweit in über 100 Konflikten. Er ist Direktor des TRANSCEND-Netzwerks und Begründer der TRANSCEND-Methode (vgl. Graf/Kramer 2004).

[4] **Prof. Dr. Friedrich Glasl** studierte politische Wissenschaften und dissertierte über internationale Konfliktverhütung. Er ist Mitbegründer der „Trigon Entwicklungsberatung“ und arbeitet sowohl als Dozent an der Universität Salzburg als auch als Berater in Konfliktmanagement und Mediation (vgl. Graf/Kramer 2004).

Beiträgen von Glasl und Galtung vorbeikommen. Bislang sind aber nur unzureichend Versuche unternommen worden, die Ansätze von Galtung und Glasl in einem entsprechenden Zusammenhang zu diskutieren, insbesondere bezüglich ihrer besonderen Schnittstellen und Ergänzungspunkte.

Der sog. „Integrale Ansatz“ (künftig: IA) des viel gelesenen amerikanischen Philosophen Ken Wilber[5] könnte hierzu einen wertvollen Beitrag leisten, einen Schritt aus der Friedens- und Konfliktforschung zurückzutreten und am Beispiel der Ansätze von Glasl und Galtung einen konzeptionellen Vorschlag zur Metatheoriebildung zu liefern. Mit seiner vielschichtigen Kombination „horizontaler“ und „vertikaler“ Kategorisierungsdimensionen erweist sich Wilbers ambitionierte Theorie als umfassender als alle anderen in der Friedens- und Konfliktforschung anerkannten Ansätze.

Theoretische und normative Grundannahmen

Die *theoretische* Bedeutung von Wilbers Ansatz für diese Untersuchung begründet sich auch mit der Annahme, dass der Epistemologie (=Erkenntnistheorie) eine besondere Bedeutung in der Metatheoriebildung zukommt. Übertragen auf die Konfliktforschung spiegelt sich diese These in der Prämisse wider, dass 1) alles Leben Konfliktbewältigung ist (Handlung), aber 2) jede Akteurshandlung eine Strategie birgt, die aus seinem Wahrnehmungsrahmen bzw. seinen erkenntnistheoretischen Vorannahmen über seine Bezugswelt resultiert. In seinem letzten Werk „Alles Leben ist Problemlösen“ (2004) nannte der Wissenschaftsphilosoph Karl Popper diese (un-)bewussten hypothetischen Vorannahmen eines jeden Akteurs „Erwartung“ (vgl. ebd., S. 16). Eine integrativer Ansatz der Konfliktbearbeitung müsste demnach am Bereich der „Annahmenbildung“ oder spezifischer: der Epistemologie, ansetzen. Da hierin ein wesentlicher Schwerpunkt des IA besteht, liegt ihr weiterer Nutzen für diese Arbeit begründet.

Für die Metatheoriebildung in der Friedens- und Konfliktforschung bedeutet dies aber auch, dass mindestens zwei Kontexte zu unterscheiden sind, nämlich der „erkenntnistheoretischen Annahmenbildung“ (hier: Epistemologie) und der „problemorientierten Handlung“. Den letzteren Kontext bezeichne ich als „Heuristik“, worunter ich Regelbildungen verstehe, die Lagebeurteilungen, Entscheidungsfindungen und Problemlösungen in komplexen Situationen gewährleisten sollen. Beide Kontexte bauen, wie oben beschrieben, aufeinander auf, scheinen aber auch unterschiedliche Erfordernisse der Metakategoriebildung zu implizieren.

Darüber hinaus folgt die vorliegende Arbeit der *normativen Grundannahme*, dass eine nachhaltige Konfliktbearbeitung erstrebenswert ist und nur durch Methoden erfolgen kann, die auf einem tiefen Ansatz des Dialogs fußen. Im Rahmen der konstruktiven Konfliktbearbeitung stellt der Dialog den Königsweg zu einer tieferen, kreativeren und empathischeren Lösungsfindung dar. Die Untersuchung beschränkt sich daher thematisch vorwiegend auf die Integration von Methoden der konstruktiv-dialogischen Konfliktbearbeitung. Die Methode von Galtung deckt hierbei den Bereich der Konflikttransformation, der Ansatz von Glasl den Bereich des Konfliktmanagements ab. Auf die Methode der Konfliktregelung oder direktivere Maßnahmen der (gegebenenfalls militärischen oder juristischen) Gewalteindämmung wird im Rahmen dieser Arbeit nicht eingegangen.

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[5] **Kenneth („Ken“) Earl Wilber Jr.** (* 31.01.1949 in Oklahoma City, Oklahoma, USA) studierte ab 1968 Biologie, Chemie, Biophysik und Biochemie. Sein Interesse an den östlichen Weisheitslehren und westlichen Geisteswissenschaften trug dazu bei, dass er die akademische Laufbahn frühzeitig beendete, um sich diesen Themen im Selbststudium intensiv zuzuwenden. Sein erstes Buch hatte Wilber als Manuskript bereits im Jahre 1973 („Das Spektrum des Bewusstseins“) fertig gestellt; sein Hauptwerk („Eros, Kosmos, Logos“) 1995 veröffentlicht. Inzwischen hat Ken Wilber über 20 Bücher herausgegeben, die in bis zu 30 Sprachen übersetzt worden sind. Er lehrt gelegentlich am Naropa-Institut in Boulder, Colorado, wo auch derzeit das von ihm 1998 gegründete Integrale Institut steht. Es umfasst heute etwa 400 Mitglieder (vgl. Integrales Forum 2007).

Vorgehensweise der Untersuchung

Unter diesen oben genannten Gesichtspunkten stellen sich folgende Kernfragen, die es im Rahmen der Untersuchung zu beantworten gilt:

- (Wie) lassen sich – am Beispiel der Methoden von Glasl und Galtung – unterschiedliche Methoden dialogischer Konfliktbearbeitung epistemologisch und heuristisch auf der Basis des IA kategorisieren und integrieren?
- Worin bestehen hierbei die Grenzen, Möglichkeiten und Erweiterungspotenziale des IA in seiner Anwendung auf die Friedens- und Konfliktforschung?

Diese Fragen im Hinterkopf behaltend, gliedert sich das Forschungsvorhaben wie folgt:

- In einem deskriptiven Teil werden die Ansätze von Glasl, Galtung und Wilber, auf denen diese Untersuchung aufbaut, möglichst prägnant vorgestellt.
- Danach wird mit Hilfe der Kategorisierungsinstrumente des IA eine Möglichkeit aufgezeigt, die Methoden von Glasl und Galtung bezüglich ihrer theoretischen Bezugspunkte epistemologisch zu verorten und in einem gemeinsamen Zusammenhang zu integrieren.
- Darauf aufbauend, wird auf Gemeinsamkeiten und Ergänzungspunkte praxisbezogener Kategorien der metatheoretischen Ansätze von Glasl und Galtung eingegangen, die nicht von Wilbers IA abgedeckt werden. Im Rahmen dieses heuristischen Metakontexts soll vor allem auf die Grenzen und Erweiterungspotenziale des IA eingegangen werden.
- Danach erfolgt eine Darstellung der Herausforderungen in der Metatheoriebildung im Allgemeinen sowie in der Friedens- und Konfliktforschung im Besonderen.
- Die Ergebnisse werden abschließend in einem Fazit zusammengefasst.

Kurzdarstellung der Methoden von Glasl, Galtung und Wilber

Konfliktmanagement nach Friedrich Glasl

Im Konfliktmanagement-Ansatz von Friedrich Glasl definiert er den „Konflikt“ als eine Interaktion zwischen mindestens zwei Akteuren, in der mindestens ein Akteur eine Unvereinbarkeit im Wahrnehmen, Fühlen, Denken, Wollen mit dem anderen Akteur in der Art erlebt, dass beim Verwirklichen dessen, was der Akteur fühlt, denkt oder will eine Beeinträchtigung durch einen anderen Akteur(e) erfolgt (vgl. Glasl 2004a, S. 17). Der soziale Konflikt beginnt also nicht mit den Unvereinbarkeiten, sondern mit der Art und Weise der Austragung (vgl. Glasl 2004b).

In Glasls Ansatz sind zwei Grundkriterien für die Konfliktbearbeitung von Bedeutung: Einerseits werden allgemeine *Komponenten und Ansatzmomente*, andererseits konkrete *Situationsmerkmale* in der Intervention unterschieden.

Generelle Komponenten und Wirkungsrichtungen der Interventionen

Glasl unterscheidet *sechs seelische Hauptfaktoren*, die in ihrer Wechselwirkung zur Eskalation oder Fixierung der Konflikte beitragen und damit als Ansatzpunkte für gezielte Interventionen dienen (vgl. Glasl 2004a, S. 39f.). Der Schwerpunkt der Intervention verlagert sich dabei je nach Eskalationsgrad (siehe unten).

Bei niedrigen Eskalationen: Perzeptions- und denkensorientierte Interventionen:

1. *Perzeptionen*: Vorurteile der Parteien abbauen etc.
2. *Gedanken, Vorstellungen, Erinnerungen, Interpretationen*: Die Parteien werden über den Einfluss ihrer Begrifflichkeiten und Deutungen auf den Konflikt gemacht (vgl. Glasl 2004a, S. 318-325).

- Bei mittleren Eskalationen: Auf Gefühle und Einstellungen gerichtete Interventionen:
- *Gefühle und Einstellungen*: Gefühle der Feindseligkeit etc. überwinden und wieder Vertrauen zueinander fassen.
- *Willensfaktoren (Triebe, Motive, Intentionen)*: Die eigenen Absichten reflektieren; Ziele und Mittel neu überdenken etc. (vgl. ebd., S. 325-341).
- Bei hohen Eskalationen: Verhaltens-orientierte Interventionen:
- *Äußeres Verhalten*: Das unkontrollierte destruktive Verhalten wieder in konstruktive Bahnen leiten; Gewalthandeln reduzieren etc.
- *Konfliktfolgen*: Verantwortung für die unbewussten Folgen des eigenen Tuns übernehmen etc. (vgl. Glasl 2004a, S. 341-347).

Neben sechs seelischen Hauptfaktoren berücksichtigt Glasl in der Konfliktdiagnose fünf Dimensionen, die für die Strategie der Konfliktbehandlung unterschiedliche Wirkungsrichtungen vorgeben. Ein umfassender Ansatz müsste jedoch alle enthalten (vgl. Glasl 2004a: 349-380). Die folgende Tabelle stellt die fünf Dimensionen der Konfliktanalyse mit den sechs seelischen Hauptfaktoren in Beziehung:

Tab. 1: Beispiele für die Überschneidung von Interventionsansätzen (Glasl 2004a: 381)

	Issues	**Konflikt-verlauf**	**Parteien intern**	**Beziehungen zwischen den Parteien**	**Grundeinstel-lungen**
Perzeptionen und Denken	Issues definieren, transponieren	Konflikt-partitur, Eskalations-prognose	Erkennen des Rollentypus, Analyse der Vertreter-beziehungen, Denkmal	Analyse der Rollenbilder, imaginäres Eskalieren und De-Eskalieren der Abhängigkeiten	Evaluieren der Grundauffassungen von Konfliktlösungs-bemühungen

Gefühle und Einstellungen	Issue-Empathie, Issues flexibilisieren	Mikro-Analyse kritischer Entscheidungsmomente	Lebendiges Soziogramm	Imaginärer Monolog, kleine Kreditangebote	Externe Situation ambivalent machen, Strategie-Kalkül beeinflussen
Wollen	Issues flexibilisieren, transponieren	Trend-Extrapolation, Kreditangebote, GRIT[6]	Rollenverhandeln	Rollenverhandeln, Rollenvertrag	Ziele-Mittel-Klärung, Un-Werte klären
Verhalten	Verhaltensbegrenzung	Status-quo-Regelung	Rollenverhandeln, interne Informationsstrategie für Status-quo-Abkommen; Verhandlungsinstruktionen	GRIT-Taktik, Rollenverhandeln, Spielregeln, kontrollierte Kommunikation	Rückkehr zu Konfliktregulatoren, verbessern der Spielregeln

Indikatoren für eine flexible Strategie- und Rollenwahl

Vier Indikatorenbereiche sind für die Strategie- und Rollenwahl bei der Konfliktbearbeitung von entscheidender Bedeutung. Diese umfassen:

– Aktueller *Eskalationsgrad*: niedrig, mittel, hoch
– *Konflikttypus*: Dominante Erscheinungsformen, Soziale Arena, Reichweite der Konflikte
– *Rahmenvorgaben* der Konfliktbearbeitung: Ressourcen, Grenzen etc.
– Kulturelle, gesetzliche und wirtschaftliche *Rahmenbedingungen* (vgl. Glasl 2004b)

Die Indikatoren „Eskalationsgrad" und „Konflikttypus" stellen hierbei die bekanntesten Konzepte in Glasls Theorie dar. Die folgende Darstellung wird sich daher nur auf diese beiden Indikatoren beschränken.

Aktueller Eskalationsgrad

Glasl zufolge erfolgt die Konflikteskalation abrupt und stufenweise. Da diese mit einem Übergang zu einer gewaltsameren Austragung und einem Rückgang des Bewusstseins (Ich-Kraft) der Konfliktparteien einhergeht, werden die Eskalationsstufen auch als „Regressionsschwellen" bezeichnet (vgl. Glasl 2004a, S. 234, 304f.):

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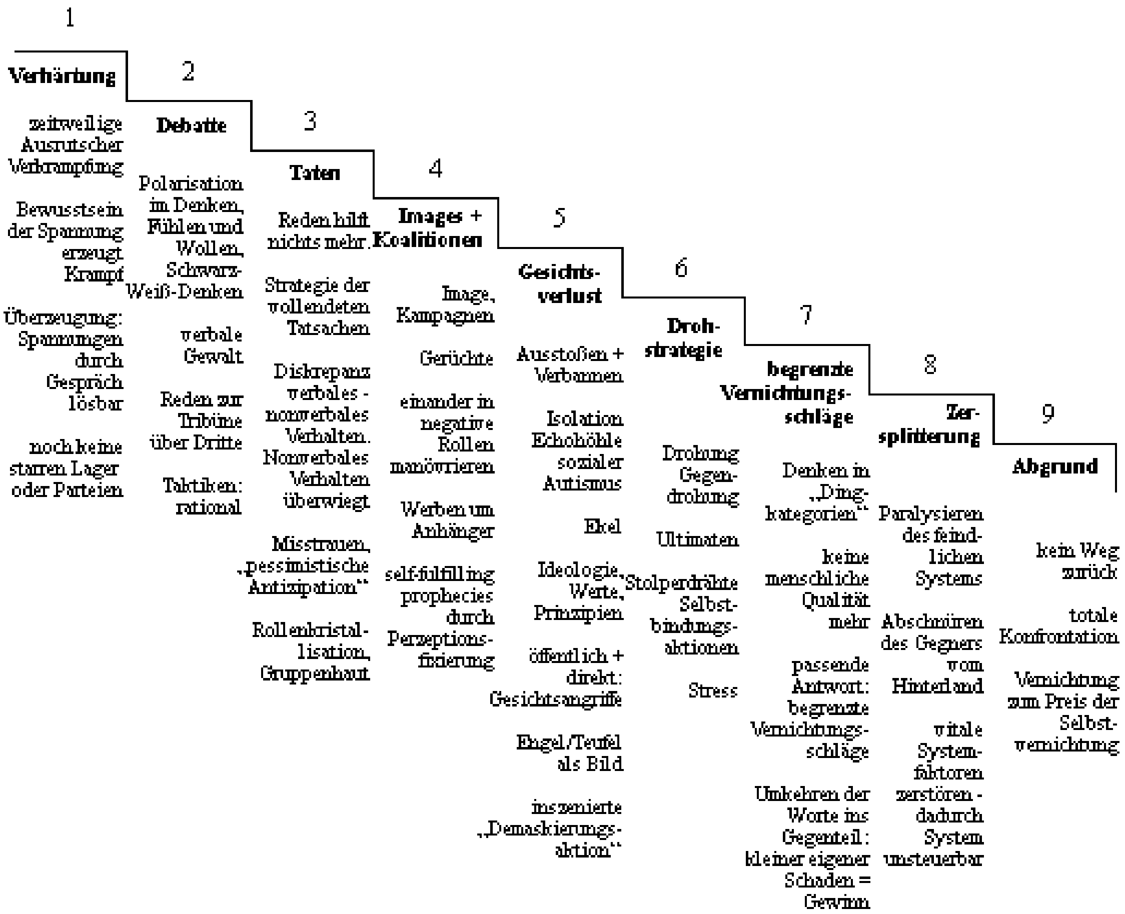
[6] GRIT = Gradual Reduction in International Tension

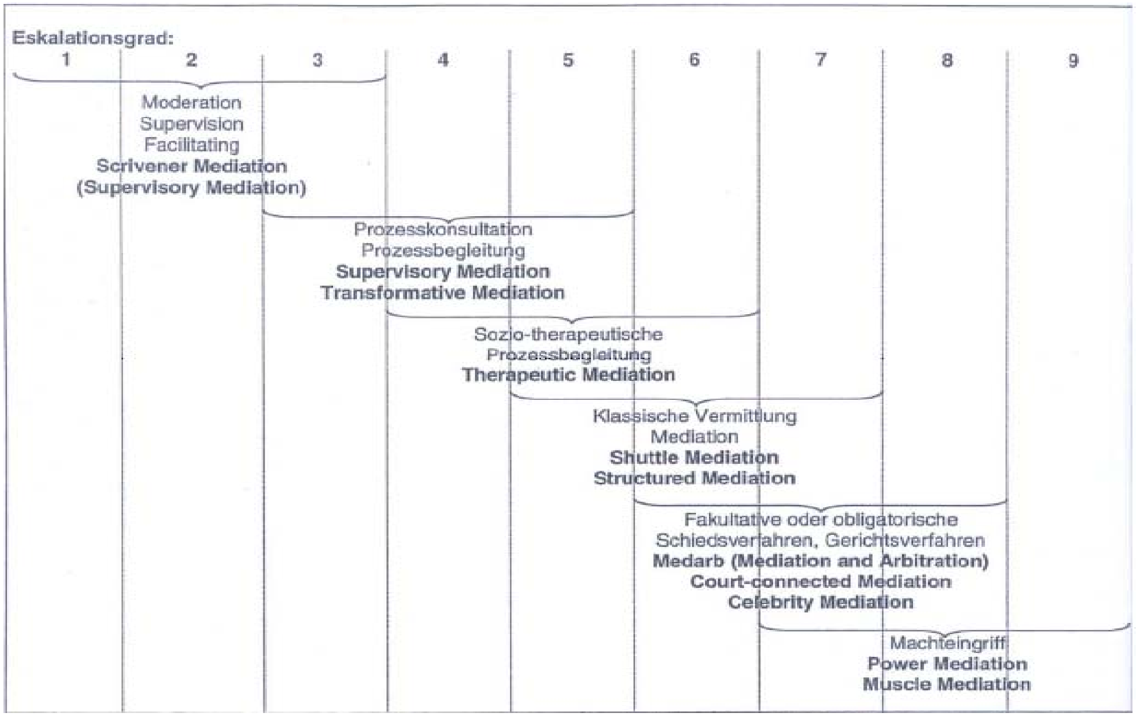

1
Verhärtung
zeitweilige Ausrutscher Verkrampfung
Bewusstsein der Spannung erzeugt Krampf
Überzeugung: Spannungen durch Gespräch lösbar
noch keine starren Lager oder Parteien
2
Debatte
Polarisation im Denken, Fühlen und Wollen, Schwarz-Weiß-Denken
verbale Gewalt
Reden zur Tribüne über Dritte
Taktiken: rational
3
Taten
Reden hilft nichts mehr.
Strategie der vollendeten Tatsachen
Diskrepanz verbales - nonverbales Verhalten. Nonverbales Verhalten überwiegt
Misstrauen, „pessimistische Antizipation“
Rollenkristallisation, Gruppenhaut
4
Images + Koalitionen
Image, Kampagnen
Gerüchte
einander in negative Rollen manövrieren
Werben um Anhänger
self-fulfilling prophecies durch Perzeptionsfixierung
5
Gesichtsverlust
Ausstoßen + Verbannen
Isolation Echohöhle sozialer Autismus
Ekel
Ideologie, Werte, Prinzipien
öffentlich + direkt: Gesichtsangriffe
Engel/Teufel als Bild
inszenierte „Demaskierungsaktion“
6
Drohstrategie
Drohung Gegendrohung
Ultimaten
Stolperdrähte Selbstbindungsaktionen
Stress
7
begrenzte Vernichtungsschläge
Denken in „Dingkategorien“
keine menschliche Qualität mehr
passende Antwort: begrenzte Vernichtungsschläge
Umkehren der Worte ins Gegenteil: kleiner eigener Schaden = Gewinn
8
Zersplitterung
Paralysieren des feindlichen Systems
Abschnüren des Gegners vom Hinterland
vitale Systemfaktoren zerstören - dadurch System unsteuerbar
9
Abgrund
kein Weg zurück
totale Konfrontation
Vernichtung zum Preis der Selbstvernichtung

Grafik 1: Die Hauptfaktoren der neun Eskalationsstufen (Glasl 1999, 2003a; vgl. hierzu auch 2004a, S. 236f.)

- Die vielen Eskalationsstufen stehen für Wahrnehmungsebenen, in denen es den Konfliktparteien unterschiedlich leicht fällt, eigene Ideen in die Lösungssuche einzubringen. Daher muss die Interventionspartei eine umso direktivere Rolle einnehmen, je weiter der Konflikt eskaliert ist (vgl. Glasl 1999, S. 364-404). Wenn sich die Konfliktparteien auf ungleichen Stufen erleben, ist bei der Wahl der Interventionsstrategie die höhere Stufe maßgeblich (vgl. Glasl 2003b, S. 298).
- Bei einer *geringen Eskalation* (Stufen 1-3) geht es darum, die vorhandenen Selbstheilungskräfte der Konfliktparteien zu stimulieren und zu initiieren. Hierzu bieten sich Ansätze wie das Facilitating, Moderation, Supervision und der Scrivener Mediation an (vgl. Glasl 2004a, S. 404-408).
- Bei einer *mittleren Eskalation* (Stufen 4-6) können die Parteien den Konflikt nicht aus eigener Kraft lösen. Hierbei sind Interventionen geboten, die die Entwicklung von gegenseitiger Empathie fördern und Selbst- und Fremdbilder auflösen. Dazu zählen Ansätze der Supervisory Mediation und der Prozesskonsultation (bis Stufe 5) oder der sozio-therapeutischen Prozessbegleitung (bis Stufe 6). Bei einer höheren Eskalation (bis Stufe 7) wird mittels Shuttle Mediation auf Kompromisslösungen hingearbeitet (vgl. ebd., S. 408-425).

- Die *hohe Eskalation* (Stufen 7-9) wird durch eine gewalttätige Konfliktaustragung geprägt. Hier geht es bei der Konfliktintervention um Schadensbegrenzung durch Verhaltenskontrolle. Hierzu eignet sich das Schiedsverfahren (bis Stufe 7) oder/und der Eingriff einer überlegenen Machtinstanz (Stufe 8 und 9) (vgl. ebd., S. 428-435).

Das sich hieraus ergebende Spektrum von Interventionsansätzen, die an die jeweilige Eskalationsstufe angepasst sind, wird durch die vorliegende Grafik schematisiert:


Eskalationsgrad:
1
2
3
4
5
6
7
8
9
Moderation
Supervision
Facilitating
Scrivener Mediation
(Supervisory Mediation)
Prozesskonsultation
Prozessbegleitung
Supervisory Mediation
Transformative Mediation
Sozio-therapeutische
Prozessbegleitung
Therapeutic Mediation
Klassische Vermittlung
Mediation
Shuttle Mediation
Structured Mediation
Fakultative oder obligatorische
Schiedsverfahren, Gerichtsverfahren
Medarb (Mediation and Arbitration)
Court-connected Mediation
Celebrity Mediation
Machteingriff
Power Mediation
Muscle Mediation

Grafik 2: Spektrum von Interventionsansätzen nach Eskalationsgrad (Glasl 2004a, S. 397)

Die Überschneidungen bei den Interventionsansätzen resultieren aus der Unterscheidung zwischen sog. „kalt“ und „heiß“ ausgetragenen Konflikten: Kalte Konflikte bedürfen schon bei niedrigeren Eskalationsstufen eines Übergangs zum nächsten Interventionsansatz (vgl. Glasl 2004b).

Konflikttypus

Kalte Konflikte weisen eine äußerlich beherrschte, indirekte, verdeckte und weitgehend formgebundene Austragung auf. Heiße Konflikte implizieren hingegen eine direkte, offene, emotionale, weitgehend formfreie Auseinandersetzung. Beide Austragungsformen können durch bestimmte Ereignisse in sog. heißen und kalten „Phasen“ einander abwechseln (vgl. Glasl 2004a, S. 77-84). Ab der Eskalationsstufe 6 bestehen keine nennenswerten Unterschiede mehr zwischen heißer und kalter Austragungsform (vgl. Glasl 2004a, S. 304).

Tendenziell sieht die Konfliktbehandlung von heißen (überhitzten) Konflikten de-eskalierende Strategien vor (z.B. Entschleunigung durch Begrenzen von Themen, Personen, Zeit etc.), während die Behandlung von kalten (unterkühlten) Konflikten hingegen eskalierende Strategien (z.B. emotionale Äußerungen stimulieren) impliziert (vgl. 2003, S. 293).

Die Interventionen, die an die Konflikttypen „Eskalationsgrad“ und „Austragungsform“ angepasst sind, lassen sich in mindestens vier Dimensionen zusammenfassen und wie folgt miteinander in Beziehung setzen: „Präventiv“ und „kurativ“ nehmen dabei Bezug auf die Konfliktphase und „eskalierend“ und „de-eskalierend“ auf die Austragungsform.

Tab. 2: Vier Interventionsrichtungen (vgl. Glasl 2004a, S. 316)

	De-eskalierend (heißer Konflikt)	**Eskalierend (kalter Konflikt)**
Präventiv	Um Kommunikationsproblemen vorzubeugen, werden Informationsspielregeln vereinbart; Training in Kommunikationsmethoden.	In Anwesenheit des Beraters werden Sorgen, Ängste, Unterstellungen gezielt angesprochen; Konfrontationssitzung um zu vermeiden, dass ein beginnender Konflikt kalt gemacht wird.
Kurativ	Der Konfliktverlauf wird rekonstruiert und geklärt; Die Konfliktparteien klären ihre unterschiedlichen Perzeptionen des Verhaltens.	Bestehende kalte Konflikte werden durch Rollenspiele dramatisiert, übertrieben; Ein Interessenvertreter ermutigt seine Klienten sich stark für ihre Standpunkte einzusetzen.

Konflikttransformation nach Johan Galtung

Johan Galtungs Konflikttransformations-Ansatz besticht vor allem durch seine sehr umfassende, „dreifaltig“ aufbereitete, Theorie von Gewalt, Konflikt und Frieden:

Theoretische Grundlagen

Im Rahmen seiner *Konflikttheorie* unterscheidet Galtung die wechselwirksamen Komponenten Widerspruch (contradiction), Annahmen/Einstellungen (attitude) und Verhalten (behaviour). Ersteres definiert er als miteinander unvereinbare Ziele mindestens zweier Akteure (Disput) oder innerhalb eines Akteurs (Dilemma). Dieser Widerspruch bestimmt den Inhalt des Konflikts. Die Komponente der Annahmen/Einstellungen umfasst den epistemischen Inhalt, nach denen die Akteure den Konflikt bewerten. Beide Komponenten bilden die latente (unbewusste) Seite eines Konflikts und prägen sich in der manifesten Seite des Konflikts – dem Konfliktverhalten aus. Wenn ein Ziel durch etwas als versperrt empfunden wird, kann der Widerspruch als Frustration erlebt werden, was zu einer aggressiven Einstellung und einem aggressiven Verhalten führen kann. So reproduziert sich das Konfliktdreieck als Gewaltspirale (vgl. Galtung 1998, S. 135f.).

Gewalt definiert Galtung „als die Ursache für den Unterschied zwischen dem Potentiellen und dem Aktuellen, zwischen dem, was hätte sein können, und dem, was ist.“ (Galtung 1975, S. 9). Die drei Eckpunkte von Galtungs Konfliktdreieck haben ihre Entsprechungen in einem Gewaltdreieck:

- Die *strukturelle Gewalt* entspricht dem Widerspruch im Konfliktdreieck. Sie umfasst ausbeuterische Mechanismen, die eine Herrschaftselite befähigen, Macht über Andere auszuüben (vgl. Galtung 2000, S. 117f.).
- Die *kulturelle Gewalt* bildet eine religiös-ideologische Legitimierungsgrundlage direkter und struktureller Gewalt und bewirkt verzerrt-polarisierende kollektive Einstellungen bei den Akteuren (vgl. Galtung 2000, S. 119f.).
- Die *akteurszentrierte Gewalt* wird von den beiden subtilen Gewaltformen begünstigt und manifestiert sich in einem aggressiven Verhalten (vgl. Galtung 2000, S. 115f.).
- Ein großer Teil von Gewaltzusammenhängen wurzelt in seinen *Tiefendimensionen*:
- Die strukturelle Gewalt erwächst aus *Tiefenwidersprüchen* innerhalb der unbewussten Beziehungsmuster unterschiedlicher Gesellschaftssegmente. Hierunter können folgende Trennlinien unterschieden werden:
- Umwelt: Mensch vs. Natur.
- Gender: Männlich vs. Weiblich (Sexismus).
- Generation: Alte vs. „Erwachsene“ vs. Junge.
- Hautfarbe: Hell vs. Dunkel (Rassismus).
- Klasse: Mächtige vs. Ohnmächtige (a) politische Macht: wer entscheidet über/unterdrückt wen? (b) Militärische Macht: wer marschiert wo ein/okkupiert wen? (c) Ökonomische Macht: wer beutet wen aus? (d) Kulturelle Macht: wer durchdringt/konditioniert/entfremdet wen?
- Normales vs. Abweichendes (Stigmatisierung).
- Nationalität („Ethnie“) / Kultur (Religion) / Zivilisation: Dominante vs. Dominierte (Nationalismus, Fundamentalismus).
- Territorium: Staatenwelt, Zentrum vs. Peripherie (Zentralismus). Der strukturellen Gewalt liegt eine Pathologie zugrunde – das sog. „*PSFM*-Syndrom“: Das Machtungleichgewicht der besagten Trennungslinien beinhaltet *P*enetration (als Gegenteil von Autonomie), *S*egmentation (Gegenteil: Integration), *F*ragmentation (Gegenteil: Solidarität), *M*arginalisation (Gegenteil: Partizipation) (vgl. ebd., S. 117f.).
- Die gesamte Kultur (Religion und Ideologie, Sprache und Kunst, Wissenschaft) ist von tiefenkulturellen Programmierungen durchzogen, die direkte und strukturelle Gewalt legitimieren. Das emotionale „MMT-Syndrom“ impliziert Mission (Sendungsbewusstsein), Mythos (Auserwähltsein) und Trauma (Verletzungen von Feinden). Das kognitive „DMA-Syndrom“ ist von Dualismus (wir vs. sie), Manichäismus (gut vs. böse), und Armageddon (ein letztes alles entscheidendes Ereignis) gekennzeichnet. (vgl. Graf/Bilek 2003, S. 308f.).
- Die Tiefendimension akteurszentrierter Gewalt resultiert aus der Nichterfüllung von Grundbedürfnissen: Überleben, Wohlbefinden (beide physisch), Identität und Freiheit (beide psychisch). Diese Bedürfniskategorien sind universal, gleichwertig und können von allen drei Gewaltarten bedroht sein (vgl. ebd., S. 308).
- Gewalt ist nicht mit Konflikt identisch, allerdings impliziert Gewalt immer einen zugrundeliegenden Konflikt. Der Konflikt birgt aber stets die Möglichkeit zum kreativen

und konstruktiven Umgang. Frieden steht hierbei für die Fähigkeit, „einen Konflikt mit Empathie, Gewaltfreiheit und Kreativität“ anzugehen und dabei den Konflikt in seinen drei Manifestationsbereichen zu behandeln (vgl. Galtung/Tschudi 2003, S. 9f.). Konkret bedeutet Galtungs Friedenstheorie:

- Bei der strukturellen Gewalt müssen durch die Förderung von Kreativität die Begrenzungen der Trennlinien überwunden werden.
- Bei der direkten Gewalt muss Gewaltfreiheit aufgebaut werden, indem die Grundbedürfnisse aller Parteien respektiert und befriedigt werden.
- Bei der kulturellen Gewalt muss durch die Förderung von Empathie eine Transformation der destruktiven Kulturelemente angestrebt werden (vgl. Graf/Bilek 2003, S. 310).

Für die Bearbeitung gewalttätiger Konflikte bedeutet die Schaffung von Frieden konkret die Vermeidung (Prävention) und Reduzierung (Heilung) von Gewalt und die Umleitung der Konfliktenergie in eine positive Richtung (Transformation).

Konfliktintervention im Konfliktlebenszyklus

Bei gewalttätigen Konflikten richtet sich die Konfliktintervention im Idealfall nach dem *Lebenszyklus des Konfliktes*. Sofern nicht unterbrochen, sind drei Phasen zu unterscheiden, die aufeinander folgen: (a) vor der Gewaltanwendung, (b) während der Gewaltanwendung und (c) nach der Gewaltanwendung (vgl. Galtung 2000, S. 13f.).

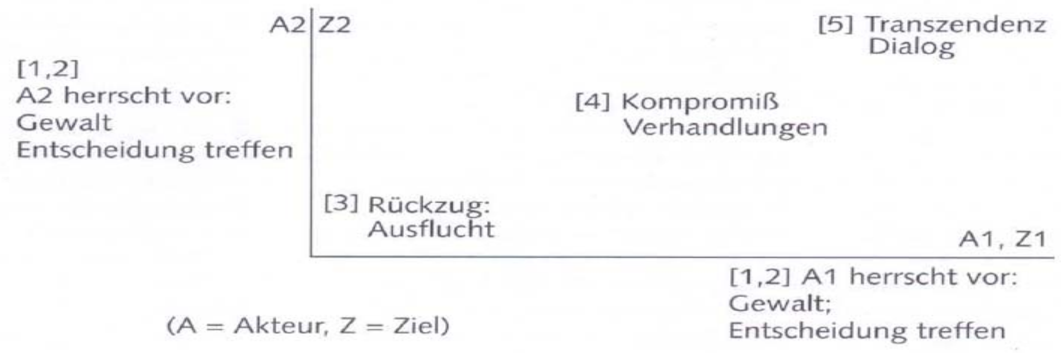
Im *Phase I*, also vor dem Ausbruch der Gewalt, gilt es vorbeugend auf Gewalt legitimierende Kulturen, repressive Strukturen, und gewalttätige Akteure einzuwirken.

- Ausbeutende Strukturen gilt es gemeinsam zu reflektieren, Friedensstrukturen gemeinsam einzuführen.
- In den Konfliktkulturen müssen konstruktive Elemente herausgefunden, gefördert und eingeführt werden.
- Gewalttätige Akteure müssen identifiziert und in Dialogen über sämtliche Aspekte ihrer Situation mit einbezogen werden (vgl. Baros/Jaeger 2003, S. 232).
- In der *Ausbruchsphase (Phase II)* gilt es zuerst die Gewalt zu stoppen, weil sie den zugrundeliegenden Konflikt schwerer erkennbar macht (Friedenssicherung). Nur dies rechtfertigt eine polizeilich-militärische Konfliktintervention (vgl. Galtung/Tschudi 2003, S. 18). Es existieren fünf Möglichkeiten, um direkte Gewalt gewaltlos zu beenden: (a) Waffen- und Söldnerembargos; (b) Evakuierung von Zielen; (c) Demoralisierung von Soldaten; (d) Hervorhebung der Tatsache, dass langfristig wegen der Gewaltspirale alle Parteien verlieren werden und (e) eine „drastisch erhöhte“ Anzahl von Friedenstruppen, die den Kombattanten den Raum zum Kämpfen nimmt (vgl. Galtung 2000, S. 18f.). Danach erfolgen dieselben Maßnahmen wie bei Phase III (vgl. Galtung/Tschudi 2003, S. 12).

Nach dem Ende der Gewalt in *Phase III* können die Maßnahmen zur Heilung eingeleitet werden, die synchron vorangetrieben werden sollten. Dies beinhaltet die gemeinsame Konfliktlösung, den Wiederaufbau reversibler Schäden (z.B. Rehabilitation, Friedensstruktur und -kultur) und Versöhnung (z.B. Reparation, Vergeben, Reue, Rechtsprechung, Wahrheitskommission, Theater, gemeinsamer Kummer) (vgl. Galtung 2000, S. 20)

Konfliktbewältigung durch Konflikttransformation

Im Groben können fünf Möglichkeiten der Konfliktbewältigung unterschieden werden:


A2 Z2
[5] Transzendenz Dialog
[1,2] A2 herrscht vor: Gewalt Entscheidung treffen
[4] Kompromiß Verhandlungen
[3] Rückzug: Ausflucht
A1, Z1
[1,2] A1 herrscht vor: Gewalt; Entscheidung treffen
(A = Akteur, Z = Ziel)

Grafik 3: Möglichkeiten zur Konfliktbewältigung (Galtung 2000, S. 21)

- Eine Partei herrscht vor: Der Konflikt wird mit Einsatz von Machtmitteln (physischer Gewalt (1) oder verbal (2)) entschieden. Bei beiden „Lösungen“ bleibt jedoch die kulturelle und strukturelle Gewalt unberücksichtigt (vgl. Galtung 2000, S. 21f.).
- Rückzug (3): Ausflucht als Prozess: Die Beteiligten geben ihre Ziele (vorübergehend oder für immer) auf (vgl. Galtung 1998, S. 178).
- Kompromiss (4): Verhandlung als Prozess: Konfliktregelung erfolgt durch die klassische Mediation (vgl. Galtung/Tschudi 2003, S. 83-86). Die Kompromisslösung ergänzt die gewaltlose Konfliktlösung (2) um den Aspekt der rationalen Emanzipation (vgl. Galtung/Tschudi 2003, S. 86). Die Beteiligten müssen sich aber hinsichtlich ihrer Ziele (Z1 und Z2) mäßigen (vgl. Galtung 1998, S. 178).
- Transzendenz (5): In dieser Bewältigungsstrategie wird darauf abgezielt, eine neue Konfliktrealität erschaffen, welche ein „Sowohl-als-auch“ (und gegebenenfalls „Darüber-hinaus“) der widersprüchlichen Ziele ermöglicht. Der Königsweg hierzu ist der Dialog (vgl. Galtung 2000, S. 21f.).

Unter all den Möglichkeiten der Konfliktbewältigung ist die Konflikttransformation langfristig vorzuziehen. Sie fußt auf einer spezifischen *Dialog-Methode*.

Der Transcend-Dialog basiert im Wesentlichen auf den Eins-Eins-Dialog mit den Konfliktparteien. Der Zweck besteht darin, die Parteien zu befähigen, selbst zu einer kreativen Lösung ihres Konfliktes zu kommen (vgl. Galtung/Tschudi 2003, S. 194f.). Hierzu werden im Dialog die fixierten Positionen und Perzeptionen kognitiv ausgeweitet und die gegenseitige Empathie erhöht. Der Schlüssel liegt in der Einführung von *negativen* (z.B. „Wie könnte der Konflikt im schlimmsten Fall weiterverlaufen, wenn sich nichts ändert?“) und *positiven „Ankern“* (z.B. „Was hätte man damals anders machen können?“ oder „Was wäre eine für alle Parteien optimale Konfliktlösung?“) (vgl. ebd., S. 203-208). Der Verlauf des Dialogs orientiert sich zyklisch an den folgenden vier Prozessen, welche jeweils einen vergangenheits- und zukunftsbezogenen positiven und negativen Anker beinhalten:

1) *Träume*: Festlegung einer gemeinsamen konstruktiven Zukunftsvision;
2) *Trauma*: Diagnose der destruktiven Aspekte der Vergangenheit;

3) *Ruhm*: Diagnose der positiv-nostalgischen Aspekte der gemeinsamen Vergangenheit;
4) *Ängste*: Negativprognose (vgl. Galtung 2008, S. 83, 225f.).

Der Integrale Ansatz nach Wilber

Der IA basiert auf der Grundannahme, dass eine menschliche Einsicht nie zu 100% falsch sein kann, in der Regel aber auch immer nur begrenzt wahr („partially true“) ist. Trotz ihrer Qualitäten, ein größtmögliches Maß dieser vielen „Teilwahrheiten zu integrieren, räumt aber Wilber ein, dass der Anspruch einer sog. „Theorie von Allem“ an sich unlösbares Unterfangen ist, da das Wissen schneller zunimmt als die Möglichkeiten, es nach Kategorien zu ordnen. Vollständiges Streben nach Ganzheitlichkeit bleibt damit ein sich „uns immer wieder entziehender Traum“ (vgl. Wilber 2001a, S. 10).

Methodologie

Die Herangehensweise des IA wird vom Konzept metatheoretischer Kategorienbildung durch sog. *Orientierungsverallgemeinerungen* geprägt. Diese bezeichnen umfassende und allgemeine Grundthemen in allen Wissensgebieten, über die nach Wilber kaum Uneinigkeit besteht (vgl. Wilber 1997, S. 37f.). Wissenschaftlich begründet Wilber seine Methodologie mit den sog. *„drei Strängen jeder sinnvollen Wissenssuche*“, die er unter anderem von Thomas Kuhns berühmten Werk „Struktur wissenschaftlicher Revolutionen“ (ders. 1988) abgeleitet hat (vgl. Wilber 2002a, S. 339-341):

1. *Injunktion*: Der Wissenschaftler führt eine festgelegte Handlungsanweisung (Paradigma) durch, um vergleichbare Daten zu gewinnen;
2. *Datengewinnung*: Das erfolgreiche Experiment enthüllt Daten, die vom Forschenden wahrgenommen und gesammelt werden.
3. *Falsifikation*: Diese Daten werden mit und durch andere Menschen verglichen, die die gleiche Injunktion angewendet haben (vgl. Wilber 2001a, S. 88-91).

Diese universellen Schritte der Erkenntnisgewinnung sind gleichsam auf einen „eng“ und einen „weit gefassten“ Wissenschaftsbegriff anwendbar:

- Unter ersterem fallen die naturwissenschaftlichen Disziplinen, die auf der empirischen Beobachtung der materiellen Welt fußen (z.B. Physik).
- Unter die „weite“ Wissenschaft fallen die Geisteswissenschaften, basierend auf Kommunikation/Interpretation (mit) der intellektuellen Welt (z.B. Hermeneutik), aber auch spirituelle Praktiken (z.B. Meditation) (vgl. Wilber 2002a, S. 339f.).

Der IA unterscheidet fünf wesentliche Untersuchungsdimensionen: (a) Quadranten, (b) Ebenen, (c) Linien, (d) Typen, (e) Zustände. Sie werden in einem sog. AQAL-Modell (All Quadrants All Lines) schematisiert.

Quadranten

Die Quadrantendimension trägt der Orientierungsverallgemeinerung Rechnung, dass alle wesentlichen Sprachen der Menschheit Fürworte der ersten, zweiten und dritten Person haben (ich, Du/wir, und es). Da nach Wilber diese drei Grundperspektiven bereits in vielen Formen von verschiedenen Denkern berücksichtigt wurden, nennt er sie „die Großen Drei“[7]. Aus diesen drei Perspektiven, die in der „Ich“-, „Wir“ (=„Ich“+„Du“)- und „Es“-Sprache codiert sind, differenziert Wilber IA noch eine vierte, interobjektive Perspektive („Es“ Plural) aus. Damit unterscheidet er insgesamt eine subjektive („Ich“), objektive („Es“), intersubjektive („Wir“) und eine interobjektive Perspektive („Es“ Plural). Diese vier Realitätsbereiche bzw. Perspektiven („Quadranten“) ko-existieren wechselwirkend und lassen sich nicht aufeinander reduzieren (vgl. unter anderem Wilber 2002a, S. 187).

Vier Geltungskriterien

Die Nichtreduzierbarkeit aller Quadranten beruht unter anderem auf ihren unterschiedlichen Geltungskriterien:

- *Individuell-objektiv (Quadrant oben-rechts): Propositionale Wahrheit*: „Wahrheit“ ist repräsentational, d.h. sie ist objektiv nachweisbar. Dabei wird eine Aussage (Proposition) gemacht, die etwas in der konkreten Welt bezeichnet oder repräsentiert (z.B.: „Draußen regnet es“) (vgl. Wilber 1997, S. 145f.). Erfasst wird dieser, in der „Es“-Sprache codierte, Quadrant z.B. von naturwissenschaftlichen und behavioristischen Methodologien.
- *Individuell-subjektiv (Quadrant oben-links): Wahrhaftigkeit:* Das Geltungskriterium des OL-Quadranten folgt hingegen nicht der „Wahrheit“, sondern der „Wahrhaftigkeit“ (z.B. die Aussage „Draußen regnet es“ könnte gelogen sein). Wahrhaftigkeit erschließt sich nur über die Interpretation von innerer Tiefe im (inneren oder äußeren) Dialog, nicht in der monologisch-empirischen Beobachtung. Abgedeckt wird dieser Quadrant von allen Methodologien, die in der „Ich“-Sprache codiert sind, z.B. der Psychoanalyse oder der Meditation (vgl. Wilber 1997, S. 127).
- *Kollektiv-subjektiv (Quadrant unten-links): kulturelles Passen*: Die intersubjektive „Wir“-Perspektive macht deutlich, dass sich Akteure auf eine Moral und gemeinsame Symbole verständigen, um im selben Bedeutungsraum leben zu können (vgl., S. 152-155). Dieser Quadrant umfasst vor allem ethische und hermeneutische Ansätze (vgl. ebd., S. 131f.).
- *Kollektiv-objektiv (Quadrant unten-rechts): Funktionelles Passen*: Aus der UR-Perspektive sind nicht Werte oder Bedeutungen von Bedeutung, sondern Informationsbits, Netze objektiver Prozesse, Strukturen und Systeme von Interesse (vgl. ebd., S. 155-160). Auf diesen, in der „Sie“-Sprache (Es-Plural) codierten, Quadranten wird zumeist im Rahmen systemwissenschaftlicher Betrachtungen eingegangen (vgl. ebd., S. 132.).

Grafisch lassen sich die wesentlichen Inhalte der vier Quadranten wie folgt darstellen:

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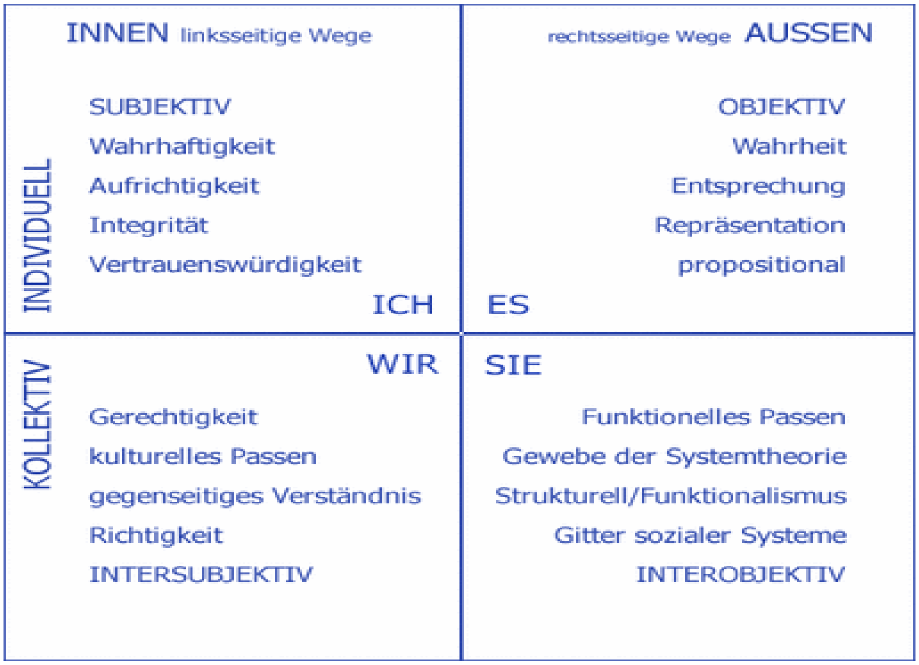
[7] Die sog. „Großen Drei“ finden sich nach Wilber z.B. in Poppers drei „Welten“ (Welt 1 [Es], Welt 2 [Ich] und Welt 3 [Wir]) in Habermas’ drei Geltungsansprüchen (Wahrheit [Objekte], Aufrichtigkeit [Subjekte], Gerechtigkeit [Intersubjektivität]) oder in Platons „Schönes“ (Ich), „Gutes“ (Wir) und „Wahres“ (Es) wieder (vgl. Wilber 2002a, S. 187).

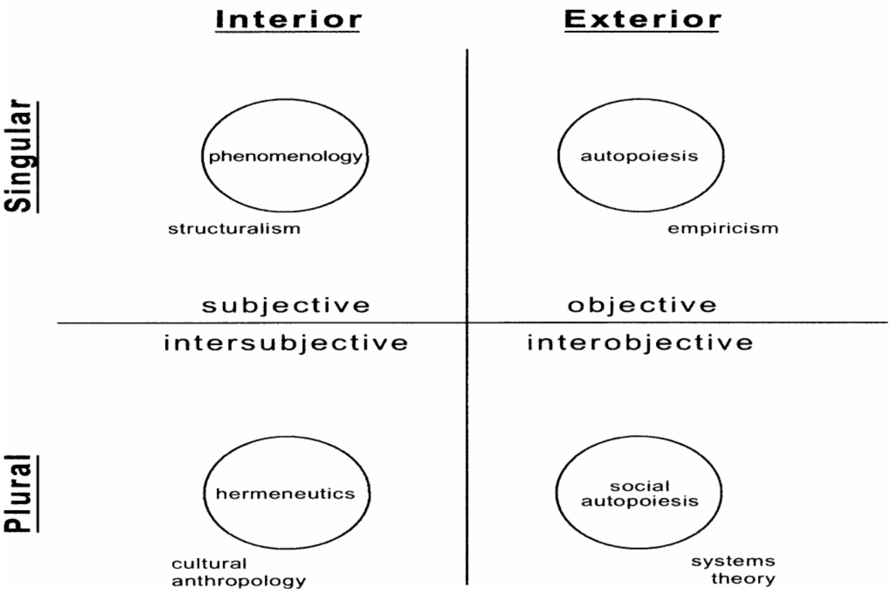
Tab. 3: Vier Quadranten (Wilber 1997, S. 145)



	INNEN linksseitige Wege	rechtsseitige Wege AUSSEN
INDIVIDUELL	SUBJEKTIV Wahrhaftigkeit Aufrichtigkeit Integrität Vertrauenswürdigkeit ICH	OBJEKTIV Wahrheit Entsprechung Repräsentation propositional ES
KOLLEKTIV	WIR Gerechtigkeit kulturelles Passen gegenseitiges Verständnis Richtigkeit INTERSUBJEKTIV	SIE Funktionelles Passen Gewebe der Systemtheorie Strukturell/Funktionalismus Gitter sozialer Systeme INTEROBJEKTIV

Acht Horizonte

Es gibt also mindestens vier „Hauptperspektiven des In-der-Welt-Seins“ (ich, wir, es, es [plural]), von denen jede von ihrer eigenen Innenseite oder Außenseite betrachtet werden kann. Hieraus ergeben sich nach Wilber acht, welche empfindenden Wesen intrinsisch sind. Jede dieser Perspektiven hat eine natürliche Methodologie, sprich: Weisen, in denen empfindende Wesen andere empfindende Wesen berühren (vgl. Wilber 2003a: D-I). Im Kontext eines „integralen methodologischen Pluralismus“ lassen sich diese wie folgt darstellen:


Interior
Exterior
Singular
phenomenology
structuralism
autopoiesis
empiricism
subjective
objective
intersubjective
interobjective
Plural
hermeneutics
cultural anthropology
social autopoiesis
systems theory

Grafik 4: Acht Hauptparadigmen unterteilt nach Methodologien (Wilber 2003a: D-I)

Die Kriterien dieser acht Ereignishorizonte lassen sich wie folgt zusammenfassen:

- *Innen von „Ich" und „Wir":*
  - Die Untersuchung des *Innen eines „Ich"* umfasst Injunktionen wie die *Phänomenologie*, Introspektion oder Meditation (vgl. Wilber 2003a: C: II-4). Der Kernbeitrag der Phänomenologie ist die Erkenntnis, dass subjektive Erfahrungen (z.B. Träume) für sich selbst unmittelbar und unbestreitbar sind, auch wenn sie nicht in der sensorischen Wahrnehmungswelt existieren (vgl. Wilber 2003a: C: II-1).
  - Das *Innen eines „Wir"* erschließt sich durch Methodologien wie der *Hermeneutik* und der partizipatorischen Epistemologie. Im Gegensatz zur Phänomenologie schaut der Beobachter in einen Interaktionsraum voller Symbole und Regeln, deren Verständnis ihrer Bedeutungen alle betroffenen Individuen teilen. Ebenso wie das „Ich" in der Phänomenologie setzt auch das Innen des „Wir" eine persönliche Vertrautheit mit den Daten voraus (vgl. Wilber 2003a: C: III-1).
- *Außen von „Ich" und „Wir".*
  - Im Gegensatz zur Phänomenologie impliziert die Anwendung *strukturalistischer* Paradigmen, dass ein beträchtlicher Anteil ihrer deskriptiven Aspekte ohne eine persönliche Vertrautheit auf Seiten des Forschers erstellt werden können. Ein Forscher muss sich z.B. nicht meditativ transformiert haben, um transmentale Ebenen zu kartografieren. Die Methodologie des Entwicklungsstrukturalismus impliziert das Herausfiltern von allgemeinen Mustern, wie z.B. Entwicklungsstufen des Bewusstseins, durch Befragungen über längere Zeiträume hinweg (vgl. Wilber 2003a: D: III-2).
  - Das *Außen eines „Ich"* erschließt sich durch Methodologien wie dem *Entwicklungsstrukturalismus*. Dem *Außen eines „Wir"* kann man sich durch Methodologien wie z.B. der kulturellen Anthropologie oder dem *Neostrukturalismus* nähern. Dies umfasst: kulturelle Netzwerke symbolischer Interaktion, linguistische Zeichen und Symbole, semantische Bedeutungsfelder, symbolische Herrschaftsstrukturen, Regelmäßigkeiten in inter-individuellen Interaktionen etc. (vgl. Wilber 2003a: C: IV-2)
- *Innen von „Es" (Singular, Plural).*
  - Dem *Innen eines „Es" im Singular* wird durch Methodologien, wie beispielsweise der biologischen Phänomenologie und der *Autopoiesis* erfasst.
  - Das *Innen eines „Es" im Plural* erschließt sich durch Methodologien, wie z.B. der *sozialen Autopoiesis*: Hier wird die Verkettung von kommunikativen Operationen zwischen System und Umwelt beobachtet (vgl. Wilber 2003a: C: Intro-1).
- *Außen von „Es" (Singular, Plural).*
  - Die *Außendimensionen eines „Es" im Singular* lassen sich durch empirische Methodologien wie z.B. dem *Behaviorismus* erfassen.
  - Die *Außendimensionen eines „Es" [plural]* erschließen sich z.B. durch Paradigmen wie der *Systemtheorie*, der Chaos- und der Komplexitätstheorie (vgl. Wilber 2003a: C: Intro-1).

Ebenen

In Anlehnung an die Kartografien alter Weisheitstraditionen und moderner Evolutionstheorien geht der IA von Entwicklungshierarchien aus. Hierbei ist nicht die spezifische Einteilung an sich entscheidend, sondern das Hierarchieverhältnis der Daseinsbereiche zueinander. Die evolutionäre Ebenenhierarchie begründet sich nach Wilber zum einen daraus, dass die höheren Ebenen auf den Inhalten der vorangegangenen Ebenen aufbauen (Immanenz). Zum anderen stellen die höheren Ebenen gegenüber den vorangegangenen auch eine Erweiterung dar (Transzendenz). Jede Ebene, wie z.B. Körper, Geist und Seele, hat gegenüber der vorangegangenen eine tiefere, neu hinzugekommene Qualität (Emergenz) und kann nur mit den ihnen zugehörigen Begriffen erklärt werden (vgl. Wilber 2002b, S. 60-62; ausführlich hierzu: Wilber 2002a). Auch wenn die Evolution nach Wilber eine klare Richtung aufweist, verläuft sie nicht linear, sondern in spiralförmigen Fortschritts- und Rückschrittsphasen (vgl. ebd., S. 271).

Im psychologischen Kontext bildet das Ebenenmodell das Kernstück eines vielschichtigen „Akteursmodells“ und basiert unter anderem auf den Beiträgen von Sri Aurobindo, Piaget, Gebser, Maslow oder den Spiral-Dynamics (SD) von Graves, Beck und Cowan. Das Ebenenspektrum reicht von egozentrischen, über soziozentrischen und weltzentrischen, bis hin zu kosmozentrischen Bewusstseinsebenen, die die Akteurswahrnehmung und sein Handeln konstituieren. Je höher die Ebene, umso niedriger der Grad an Narzissmus und umso tiefer und umfassender der Identifikationsgrad mit immer subtileren Aspekten seiner Umwelt, aber auch umso komplexer die möglichen Pathologien (vgl. Wilber 1997, S. 183–193). Normativ impliziert ein integrales Ebenenverständnis, dass in erster Linie nicht die Dominanz höherer Ebenen gegenüber den niederen Ebenen anzustreben ist, sondern der Einklang aller Ebenen innerhalb der Gesamtspirale (vgl. Wilber 2001a, S. 21, 189). Im Folgenden wird beispielhaft der Kontext einer Hierarchie von Wertehaltungen nach dem Spiral Dynamics-Modell skizziert, welches die jeweiligen Entwicklungsebenen bestimmten Farben[8] zuordnet:

- *Beige (SurvivalSense): archaisches Weltbild*: Beige beinhaltet eine archaisch-instinktive Weltwahrnehmung. Es zählen Grundbedürfnisse zum reinen Überleben. Nahrung, Wasser, Wärme, Sex und Sicherheit haben Priorität. Vorkommen: Frühe menschliche Gesellschaften, Neugeborene, hungernde Massen, etc. (vgl. Wilber 2001a, S. 21).
- *Violett/Purpur (KinSpirits): magisches Weltbild*: Violett wird durch das Verlangen nach Harmonie in einer geheimnisvollen Welt bestimmt. Animistisches Denken, der Glaube an magische Geister ist vorherrschend. Vorkommen: Blutschwüre, Sippenhaftung, Aberglaube etc. (vgl. Wilber 2001a, S. 21f.).
- *Rot (PowerGods): magisch-mythisches Weltbild*: Rot steht für den impulsiven Selbstausdruck und dem Bedürfnis nach Macht. Vorkommen: Wutanfälle von Zweijährigen, rebellierende Jugend, feudale Königreiche, epische Heroen, Warlords, Terroristen etc. (vgl. ebd., S. 22).
- *Blau (TruthForce): mythisches Weltbild:* Die Welt wird erstmals konventionell (z.B. in „richtig“ und „falsch“), gemessen an unveränderlichen Prinzipien interpretiert. Erstmals

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[8] Die Verwendung von Farben empfiehlt sich im Rahmen dieser Arbeit aus rein pragmatischen Gründen, mag aber grundsätzlich sehr umstritten anmuten. Hierbei sei zu beachten, dass ein integrales Hierarchiemodell impliziert, dass jedes einzelne Individuum alle diese Ebenen „potentiell zur Verfügung hat“ (Wilber 2001a, S. 21). Die Betonung liegt daher nicht auf Typen *von* Menschen, sondern auf Typen *in* Menschen (vgl. ebd., S. 21, 136). Seit 2007 verwendet Wilber eine eigene, allgemein gefasste, Farbskala. Um Missverständnisse und Dopplungen zu vermeiden, wird im Rahmen dieser Arbeit ausschließlich die Farbskala des Spiral Dynamics-Modells verwendet, welches sich lediglich auf den Kontext von Wertehierarchien bezieht und welches die Grundlage früherer, nach wie vor relevanter, Veröffentlichungen liefert.

wird ein soziozentrisches Bewusstsein möglich. Vorkommen: Fundamentalismus, Ehrenkodex, Patriotismus etc. (vgl. ebd., S. 22).

- *Orange* (*StriveDrive*)*: Rationalität; Leistung*: Das Selbst entwickelt erstmals ein rationales und weltzentrisches Moralbewusstsein. Die Werte sind leistungsorientiert und materiell ausgerichtet. Orange bildet die Grundlage von Staaten, die auf gesellschaftlicher Vereinbarung beruhen. Vorkommen: Aufklärung, Homo Oeconomicus, Kolonialismus, Materialismus (vgl. ebd., S. 23).
- *Grün: sensitives Selbst (HumanBond):* Gefühle und Fürsorge treten an die Stelle von kalter Rationalität. Egalitarismus, Konstruktivismus und pluralistischer Relativismus sind vorherrschend. Vorkommen: Greenpeace, Postmodernismus, Tierschutz, politische Korrektheit, Menschenrechtsfragen (vgl. ebd., S. 23).
- *Gelb (FlexFlow):* Systemisches Denken ergänzt grüne Heterarchien durch „natürliche Hierarchien" (wie z.B. das hier gezeichnete Entwicklungsmodell). Wissen, Flexibilität und Kompetenz transzendieren Gruppensensitivität (vgl. ebd., S. 25).
- *Türkis (WholeView)*: Holistisches Denken vereinigt Fühlen und Wissen und macht eine komplexe Perspektive, wie z.B. den IA, möglich. Alle Ebenen spielen in der Gesamtspirale eine entscheidende Rolle (vgl. ebd., S. 25).
- *Transpersonale Bewusstseinsebenen:* Auf den transpersonalen Bewusstseinsebenen weitet sich das Ich-Bewusstsein auf alles Manifestierte aus. Es besteht keine mentale Dualität zwischen Subjekt und Objekt (vgl. Wilber 2002a, S. 345-380).[9]

Linien

Die Dimension der Entwicklungslinien verdeutlicht, dass Entwicklung in unterschiedlichen Bereichen geschehen kann. Das Selbst des Akteurs stellt, so gesehen, ein komplexes System dar, das sich aus der Gesamtheit all seiner in ihm integrierten Ebenen, innerhalb einer Vielzahl (etwa zwei Dutzend) paralleler Entwicklungslinien zusammensetzt. Hierunter zählen unter anderem Bereiche, wie die moralische, die kognitive, die interpersonale und die ästhetische Entwicklung. Einige Entwicklungslinien können sich unabhängig voneinander entwickeln (vgl. Wilber 2002b, S. 361-363). „Die Beziehung zwischen den verschiedenen Entwicklungslinien ist eine notwendige, aber nicht hinreichende (Wilber 2005, S. 351)." Generell lässt sich dieses Modell auch auf kollektive Akteure (z.B. Staaten) übertragen, allerdings mit anderen Ausprägungen (z.B. prägt sich der individuelle Kontext der „interpersonalen Entwicklung" im sozialen Kontext mit „Abwesenheit von Sklaverei aus) (vgl. Wilber 2003a: D: IV-4).

Typen

Auf jeder Ebene der Entwicklungslinien (Moral, Kognition etc.) sind auch noch unterschiedliche Entwicklungstypen zu unterscheiden. Je nach Kontext und Quadranten lassen sich unterschiedliche Typologien berücksichtigen, wie z.B. Persönlichkeitstypen (OL), kulturelle Zugehörigkeit (UL) (vgl. Wilber 2001a, S. 61), Verhaltenstypen (OR), Zugehörigkeit zu einer bestimmten sozialen Klasse etc. (UR).

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[9] Im IA nimmt die spirituelle Dimension und ihre Vereinbarkeit mit der Wissenschaft eine besondere Stellung ein. Aus Komplexitätsgründen muss dieser wesentliche Aspekt des IA in dieser Arbeit allerdings ausgeklammert werden.

Zustände

Grundsätzlich ist es jedem Akteur auf jeder Bewusstseinsebene möglich, flüchtige Einblicke in alle Ebenen zu haben, die außerhalb seines derzeitigen langfristigen Ebenen-Schwerpunkts liegen. Es existieren unterschiedliche bewusste (Wachzustand) und unbewusste (Traum und Tiefschlaf) Zustandsformen, auf die im Rahmen dieses Papers nicht näher eingegangen werden kann. „Gipfelerfahrungen“ sind ein Beispiel für flüchtige Einblicke in transpersonale Zustände (vgl. Wilber 2002b, S. 98f.). „Eskalationen“ sind hingegen Zustände, bei denen Akteure kurzfristig auf niedere impulsivere Ebenen regredieren.

Konfliktdimensionen im Integralen Ansatz

Obwohl der IA keine Konflikttheorie darstellt, eignen sich die Schlüsseldimensionen des AQAL zu einer sehr allgemeinen Einordnung der Konfliktpotenziale des menschlichen Lebens. Jede dieser Dimensionen impliziert vielfältige Konfliktpotenziale, die sich in Form von „Absolutismen“ ausprägen können. Kennzeichnend für Absolutismen ist, dass der Inhalt einer Seite zu Gunsten einer anderen unterdrückt wird. Einige Beispiele wären:

- *Quadranten-Absolutismus*: Ein oder mehrere Quadranten dominiert über ein oder mehrere andere, z.B. Staat (Dominanz der kollektiven Quadranten: Totalitarismus) vs. Individuum (Dominanz der individuellen Quadranten: Anarchie)
- *Typen-Absolutismus*: Dominanz eines Typen, z.B. im Rahmen eines „Kampfes der Kulturen“[10]
- *Ebenen-Absolutismus*: Moderne (Orange) vs. religiöser Fundamentalismus (Blau).
- *Zustands-Absolutismus*: Nur die Wahrnehmung im Wachzustand wird als „real“ angesehen (Verdrängung z.B. von Traumrealitäten).
- *Linien-Absolutismus*: Paradoxon der Nazi-Ärzte (hohe kognitive bei niedriger moralischer Entwicklung) (vgl. Wilber 2003b: I).

Ein integrales Konfliktverständnis impliziert die philosophische Einsicht, dass die Wurzel aller Konflikte im weitesten Sinne darin liegt, dass aus Teilwahrheiten ein Absolutheitsanspruch erhoben wird und andere unterdrückt werden. Daher zielt eine integrale Konfliktbewältigung im Allgemeinen darauf ab, alle Teilwahrheiten ihrer Position im Gesamtkaleidoskop des AQAL zuzuordnen. Alle Teilwahrheiten sind damit nicht unbedingt gleich wahr, stellen aber als AQAL-Aspekte einen notwendigen Bestandteil des Ganzen dar (vgl. Wilber 2001a, S. 189f. am Beispiel der Integralen Politik).

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[10] In der Friedens- und Konfliktforschung ist die von Samuel Huntington geprägte These eines „Kampfes der Kulturen“ wissenschaftlich umstritten. Allerdings muss eingeräumt werden, dass diese generalistische Wahrnehmung in fundamentalistischen Kreisen eine breite Akzeptanz findet, z.B. in der Debatte „Islam vs. christliches Abendland“. Auf Grund der Tatsache, dass diese Wahrnehmung von vielen Konfliktakteuren geteilt wird, arbeitet Wilber selber gerne mit dem Modell von Huntington im Rahmen der Typendimension (vgl. z.B. Wilber 2001a, S. 134).

Konzeptioneller Vorschlag zur epistemologischen und heuristischen Integration

Im Folgenden wird ein konzeptioneller Vorschlag zur epistemologischen und heuristischen Integration der Ansätze von Glasl und Galtung mit Hilfe des IA skizziert. An unterschiedlicher Stelle soll auch auf Möglichkeiten zur weiterführenden Forschung hingewiesen werden. Die hier angewandte Methode beruht weitgehend auf das, was Wilber als „Map Making“ bezeichnet: theoretische Inhalte (hier: von Glasl und Galtung) werden in gegebene metatheoretische Kategorien eingeordnet und im Rahmen dieser Kontexte diskutiert. Eine kritische Auseinandersetzung mit diesen Metakategorien erfolgt im abschließenden Teil dieser Untersuchung.

Epistemologische Einordnung und Integration

Im Folgenden werden die epistemologischen Bezugswelten der Ansätze von Glasl und Galtung in Bezug auf die fünf Untersuchungsdimensionen (Quadranten, Ebenen, Typen, Linien, Zustände) des IA integriert.

Konfliktmanagement nach Glasl

Ebenen: Glasls Kaskadenmodell beruht auf der vom IA geteilten Grundannahme, dass die Wahrnehmungen von Konfliktparteien in Eskalationen stufenweise regredieren. Für die weitere Forschung wäre es lohnenswert zu untersuchen, inwieweit ein reziproker Zusammenhang zwischen diesen „abwärtsgerichteten“ Regressionsstufen zu den „aufwärtsgerichteten“ Entwicklungsstufen entwicklungspsychologischer Modelle, wie z.B. den Spiral Dynamics, besteht. Hypothetisch plausibel erscheint z.B. die Annahme, dass eine hohe Entwicklungsstufe tendenziell eine gewaltfreie Konfliktaustragung (niedriges Eskalationsniveau) und eine niedrige (prä-)narzisstische eher einer gewalttätigen Konfliktaustragung (hohes Eskalationsniveau) begünstigt. Dies dürfte sich z.B. an den hohen Menschenrechtsstandards in den Demokratien der sog. „Ersten Welt“ bzw. dem Phänomen des sog. „OECD-Friedens“ zwischen diesen Staaten (Orange) widerspiegeln.

Linien: Eine Linienkonzeption findet sich nicht in Glasls Theorie, wohl aber Potenzial für weiterführende Forschungen auf der Basis seines Modells. Generell fragt sich, wie sich Eskalation in unterschiedlichen Entwicklungslinien ausprägt bzw. auch, ob es überhaupt unterschiedliche „Regressionslinien“ gibt. Darüber hinaus wäre auch interessant zu erforschen, inwieweit hinreichende oder notwendige Zusammenhänge sowie Korrelationen zwischen den Entwicklungsniveaus bestimmter Entwicklungslinien (z.B. interpersonell, kognitiv, moralisch) und der Tendenz zu einem bestimmten Eskalationsgrad der Konfliktaustragung bestehen.

Zustände: Glasl betont, dass sich (De-)Eskalationsprozesse dadurch auszeichnen, dass Stufen aufwärts und rückwärts übersprungen werden können. In Eskalationen nehmen die Konfliktwahrnehmungen vor allem die Form plötzlich emergierender Zustände an (vgl. Glasl 2004b). Die Zustandsdimension erklärt, weshalb durchschnittlich hoch entwickelte Akteure zu hohen Eskalationsstufen regredieren können.

Typen: Die Typendimension findet in Glasls Modell in Bezug auf die Unterscheidung „heißen“ und „kalten“ Austragungsformen des Konfliktes (OR) Berücksichtigung. Darüber hinaus gibt es aber noch viele verschiedene Typen oder Stile von Konfliktmanagement, z.B. die Bevorzug direkter Auseinandersetzung oder indirekter, mediierter Formen etc, aktive oder vermeidende etc.

Quadranten: Mit seinem Schwerpunkt auf das Eskalationsmodell finden vor allem strukturalistische (sprich: auf den Außenhorizonten bezogene) Betrachtungen besondere Berücksichtigung, weil die Intentionen der Konfliktparteien einer Ebenenstruktur zugeordnet werden. Die Struktur der Intention einer Konfliktpartei (Ich [OL] und Wir [UL] – Außen) hat ihre Entsprechung in einem spezifischen Verhalten (OR – Außen) und einem Beziehungsmuster (UR – Außen). Der Ansatz hat, auf Grund von Erfahrungen in der Bearbeitung von Konflikten im Organisationsbereich (vgl. Glasl 2004b), einen Fokus im Mesobereich. Das folgende AQAL-Modell fasst alles in Kürze wie folgt zusammen:

Tab. 4: Epistemologische Bezugspunkte von Glasls Methode im AQAL-Schema (vgl. Fathi 2008, S. 49)

Außen Ebenen: Eskalationsstufen Horizont: Außenbetrachtung von perzeptuellen Strukturen (s. Ebenen) Zustände: Eskalationen sind flüchtig und dynamisch	*Außen* Ebenen: Eskalationsstufen Typ: Austragungsform: heiß – kalt Horizont: Außenbetrachtung von Interaktion (s. Ebenen, s. Typ)
Intention	**Verhalten**
Weltbild	**Beziehung**
Außen Ebenen: Eskalationsstufen Typ: Konfliktatmosphäre (heiß – kalt) Horizont: Außenbetrachtung von normativen Strukturen (s. Typ) und von kollektiven Perzeptionen (s. Ebenen)	*Außen* Ebenen: Eskalationsstufen Typ: Austragungsform: heiß – kalt Horizont: Außenbetrachtung von Beziehungsmustern (s. Ebenen, s. Typ)
Fokus: Mesobereich	Fokus: Mesobereich

Transcend nach Galtung

Quadranten: Durch die Ausdifferenzierung von drei Gewaltbereichen und ihrer Tiefendimensionen werden fast alle acht Horizonte des IA abgedeckt. Die Dimension der kulturellen Gewalt lässt sich dem Außenbereich des „Wir“ (UL) zuordnen. Sie untersucht Symbole, kollektive Motivationsstrukturen etc., die direkte Gewalt legitimieren. Die Tiefendimension kultureller Gewalt erschließt sich durch die hermeneutische Untersuchung kollektiver Mythen und Traumata und lässt sich daher dem Innenbereich des UL-Quadranten zuordnen.

Die strukturelle Gewalt wird vom Außenhorizont des UR-Quadranten erfasst. Hierbei wird den sozialen, ökonomischen und anderen Konfliktfaktoren Rechnung getragen. Die Tiefendimension der strukturellen Gewalt ordnet sich dem Innenbereich desselben Quadranten (UR) zu, weil die acht strukturellen Konfliktlinien und das PSFM-Syndrom einen wesentlichen Einfluss auf die Selbsterhaltung des Konfliktsystems haben.

Die direkte Akteursgewalt spiegelt sich im verhaltensspezifischen Außenbereich des OR-Quadranten wider. Die Tiefendimension der Akteursgewalt trägt den Grundbedürfnissen der Konfliktakteure Rechnung welche sich hingegen aus einer tiefenpsychologischen Interpretation der Akteursmotivation im Innenbereich des OL-Quadranten erschließen.

In Bezug auf die Konfliktbereiche bezieht sich Transcend zumeist auf Inter- und Intra-Meso- und -Makro-Konflikte, nicht jedoch auf (Intra-)Mikro-Konflikte.

Ebenen: Eine vertikale Ebenendimension wird in Transcend nur indirekt berücksichtigt, zumal die Konflikttransformation eine Überwindung des Konflikts und der Perzeptionen aller beteiligten Akteure impliziert. Galtung räumt hierbei selber ein, dass Studien „im Stil von Piaget, die die kognitive Komplexität von Konfliktergebnissen dem Alter, Geschlecht und anderen Faktoren zuordnen" für Transcend gebraucht würden (vgl. Galtung/Tschudi 2003, S. 201).

Hierbei wäre von weiterführendem Interesse, Galtungs Theorie der drei bis sechs Gewaltbereiche um vertikale entwicklungspsychologische Einsichten zu erweitern.

Typen: Galtungs Bezug auf die Typendimension wurde hier nicht genau schematisiert, jedoch wird sie in der Konfliktbearbeitung insofern berücksichtigt, als darauf hingearbeitet wird, die spezifischen Friedensanteile lokaler Konfliktkulturen und die Episteme unterschiedlicher Kulturkreise gezielt zu nutzen (vgl. Galtung 2008, S. 52-67).

Linien: Die Liniendimension ist in der Transcend-Theorie nicht genau modelliert, wird aber in der Praxis indirekt mitberücksichtigt. So besteht Galtung in seinen Vorschlägen stets auf Initiativen der Zusammenarbeit der Konfliktakteure in möglichst unterschiedlichen Bereichen, z.B. Kultur, Ökologie (vgl. z.B. Galtung 2003, S. 272f. zum Koreakonflikt).

Innen: Grundbedürfnisse **Intention**	*Außen*: direkte Gewalt **Verhalten**
Kultur *Außen*: kulturelle Gewalt Innen: Tiefenkultur Fokus: Makro- und Mesobereich	**Struktur** *Außen*: strukturelle Gewalt Innen: Tiefenstruktur Fokus: Makro- und Mesobereich

Grafik 5: Epistemologische Bezugspunkte von Transcend im Quadranten-Schema (Fathi 2008, S. 52)

Epistemologische Überschneidungen und Ergänzungen beider Methoden

Zwischen den epistemologischen Bezugswelten der beiden Ansätze ergeben sich Überschneidungen und auch Ergänzungen. Die wichtigsten lassen sich in einer AQAL-Gesamtschau wie folgt skizzieren (vgl. hierzu Grafik 5):

Quadranten: Mit der Unterscheidung von drei Gewaltarten und ihrer Tiefendimensionen nimmt allein Transcend Bezug auf sechs Horizonte (vgl. Grafiken 4 und 5). Die Regressionsstufen von Glasls Modell ergänzen diese Gesamtschau um strukturalistische Perspektiven im Außenhorizont der linksseitigen Quadranten. Eine weitere Ergänzung besteht durch die Zusammenführung von Meso- (Glasl) und Makro (Galtung) in den Kollektiv-Quadranten. Die kollektiven Quadranten des AQAL lassen sich in diesem Sinne gut in Unterkategorien, wie „Mikro“, „Meso“, „Makro“, unterteilen.

Ebenen: Bei einem Vergleich beider Ansätze wäre von weiterführendem Forschungsinteresse, ob und inwieweit die Eskalationsstufen von Glasl in Verbindung mit den drei Gewaltarten von Galtung gesehen werden können. Auch aus einer entwicklungsorientierten Ebenenperspektive wäre es wohl hypothetisch sinnvoll anzunehmen, dass sich die horizontalen Gewaltdimensionen von Transcend – direkte (OR), kulturelle (UL) und strukturelle Gewalt (UR) – auf vertikale Ebenenniveaus ausdifferenzieren lassen. Beispielsweise scheint eine rohe präkonventionell-anarchische Gewaltausprägung, wie z.B. in den sog. „Neuen Kriegen“ (Rot), eine andere Qualität aufzuweisen als in den tendenziell geregelteren interstaatlichen Kriegen, wie z.B. dem deutsch-französischen Krieg (Blau) oder dem vergleichsweise „rational“ geführten Kalten Krieg zwischen Ost- und Westblock (Orange).

Hierzu dürfte auch von weiterem Untersuchungsinteresse sein, ob und inwieweit eine Korrelation zwischen den Ebenen eines aufwärtsgerichteten Entwicklungsschemas à la Spiral Dynamics und jenen eines abwärtsgerichteten Eskalationsmodells à la Glasl besteht.[11] Allerdings wird eine direkte wechselseitige Zuordnung der Ebenen beider Modelle dadurch erschwert, dass jede Entwicklungsebene auch auf ihrer Höhe direkte Gewalt legitimieren kann. D.h. in Gewaltkonflikten könnte ein nach den Spiral Dynamics hoch entwickelter Akteur (OL) aus behavioristischer Sicht (OR) dennoch auf einer hohen Eskalationsstufe handeln, die man normalerweise Akteuren mit einer niedrigen Entwicklung zugeordnet hätte. Hierzu wäre es lohnenswert zu erörtern, welche Friedens-, Konflikt- und Gewaltwahrnehmung die einzelnen Entwicklungsebenen implizieren (näher hierzu Fathi 2008).

Um kollektive Akteure wie Staaten in einem für die Konfliktforschung angemessenen Ebenenkontext untersuchen zu können, müssten neben entwicklungsstrukturalistischen Methoden zur Erforschung der inneren Entwicklung (Wertstrukturen, Motive) auch andere (rechtsseitige) Erhebungsindikatoren hinzugezogen werden, auf die jedoch im Rahmen dieses Papers nicht näher eingegangen werden kann (näher hierzu Fathi 2008). So sei lediglich darauf hingewiesen, dass Modelle, wie die Spiral Dynamics, z.B. nicht erklären könnten, warum die hochentwickelten USA [Orange] seit 1945 einen unerreicht hohen Index-Wert von etwa 67 globalen Interventionen (davon 56 direkte Gewaltanwendungen) aufweisen (vgl. Galtung 2003, S. 130f.).

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[11] An dieser Stelle lohnt es sich auch zu überlegen, inwieweit die “fünf Arten des Konfliktumgangs” (Grafik 3) den Ebenen des Eskalations- (Glasl) oder des Entwicklungsspektrums zugeordnet werden können (näher hierzu Fathi 2008).

Aufschluss für einen schlüssigeren theoretischen Zusammenhang zwischen Eskalation (Glasl) und Entwicklung (Wilber) dürfte auch die zusätzliche Berücksichtigung der Zustands- und Liniendimension des IA geben.

Zustände: Regressionen sind i.S. von Eskalationen als vorübergehende Zustände zu verstehen, die auch Ebenen überspringen können. Das Kaskadenschema von Glasl bezieht sich daher auf vergleichsweise kurzfristige Bewusstseinszustände, entwicklungspsychologische Ebenenmodelle hingegen auf langfristige Entwicklungen. Die Zustandsdimension verdeutlicht, dass jeder Akteur jeder Entwicklungsstufe in einem Konflikt zugleich einen hohen Eskalationsgrad aufweisen kann. Damit wird eine einseitige Zuordnung tendenziell niedrig entwickelter Akteure („Terroristen“, „Warlords“) mit hohen Eskalationsstufen vermieden.

Linien: Ein theoretischer Zusammenhang zwischen Entwicklungsniveaus und Tendenzen zur Eskalation dürfte plausibel sein, wenn Entwicklung in mehreren Kontexten kartografiert wird. Wie oben erörtert, besteht aber noch Forschungsbedarf zu erörtern, die Tendenz eines Akteurs zu einer bestimmten Konfliktaustragung einer Eskalationsstufe zuzuordnen – bei individuellen Akteuren z.B. in Bezug auf die kognitive, interpersonelle, moralische Entwicklung, bei kollektiven Akteuren in Bezug auf den Zusammenhang zwischen der Entwicklung von Wirtschaft, Menschenrechtsstandards, Demokratie, technologischer Stand etc.

Typen: Ein wesentlicher Beitrag des Ansatzes von Glasl ist die Unterscheidung von Konfliktaustragungstypen. Für die weitergehende Forschung wäre es lohnenswert, dieses Schema mit anderen Typologien in Beziehung zu setzen, z.B. Kulturen (OL), Persönlichkeitstypen (z.B. Myers-Briggs [OL]) etc.

Zusammenfassend lassen sich die Ergebnisse der epistemologischen Integration der vorgestellten Ansätze im AQAL wie folgt grafisch schematisieren:

Außen: Glasl – Eskalationsstufen: Perzeption als Außenform der Intentionalen Gewalt (?) – Anreiz für die weitere Forschung: Zusammenhang von Eskalation (Regression) mit Entwicklungsebenen, -linien, -typologien und Bewusstseinszuständen ***Innen:*** **Transcend** Grundbedürfnisse **Intention**	*Außen:* Transcend – Direkte Gewalt; weitere Forschung: Zuordnung zu Entwicklungsebenen der Gewalt – Glasl: – Eskalationsstufen: Interaktion; – Typologien der Konfliktaustragung (heiß – kalt); – Anreiz für die weitere Forschung: Zusammenhang mit Typologien aus anderen Quadranten (Kultur, System, Persönlichkeitstypen etc.) ***Innen:*** Nicht berücksichtigt. **Verhalten**
Kultur *Außen:* Transcend: kulturelle Gewalt; Anreiz für die weitere Forschung: Zuordnung zu Entwicklungsebenen der Gewalt Glasl – Konfliktatmosphäre – Anreiz für die weitere Forschung: Zusammenhang von Eskalation (Regression) mit Entwicklung und Linien; Eskalationsstufen: Weltbild ***Innen:*** **Transcend:** Tiefenkultur Meso (Glasl); Makro (Transcend)	**Struktur** *Außen:* Transcend: – strukturelle Gewalt; – verschiedene Indikatoren des kollektiven Konfliktverhaltens – Anreiz für die weitere Forschung: Zuordnung zu Entwicklungsebenen der Gewalt – Glasl: – Eskalationsstufen: Beziehungsmuster; – Anreiz für die weitere Forschung: Zusammenhang von Eskalation (Regression) mit Entwicklung und ***Innen:*** Tiefenstruktur Meso (Glasl); Makro (Transcend)

Grafik 6: Epistemologische Integration aller Ansätze im AQAL (Eigenanfertigung)

Ein Vorschlag zur heuristischen Integration der vorgestellten Methoden

Bei der Skizzierung eines heuristischen Metamodells geht es darum, ein allgemein anwendbares Grundgerüst zu skizzieren, das Lagebeurteilungen, Entscheidungsfindungen und Problemlösungen in komplexen Konfliktsituationen ermöglicht. Hierbei erweisen sich die eher epistemologisch ausgerichteten Metakategorien des AQAL-Rasters als nicht ausreichend und nennenswerte Verbesserungsvorschläge zu seiner Erweiterung haben sich bislang noch nicht finden lassen.[12] Umgekehrt liefern die holistischen Modelle von Glasl und Galtung selbst einander bestätigende und ergänzende Metakategorien, die an die heuristischen Erfordernisse der Friedens- und Konfliktforschung besser angepasst sind und das AQAL entsprechend erweitern könnten. Hierbei treffe ich die grobe Unterscheidung von Metakategorien mit einem „vertikalen" Design (hier z.B. die vertikale Struktur eines Eskalations- oder Entwicklungsebenenmodells) und den eher heterarchisch bzw. „horizontal" schematisierten Metakategorien (hier z.B. die quasi synchrone Struktur von vier Quadranten bzw. die drei Gewalten, paralleler Entwicklungslinien oder Kulturen/Typen).

Integration unterschiedlicher Interventionsmethoden in ein vertikales Schema

Sowohl Glasls Eskalationsschema als auch Galtungs Modell vom „Lebenszyklus eines Konfliktes" stellen vertikale Raster dar, die es ermöglichen, vielfältige Interventionsmittel unterschiedlichen Ansatzpunkten eines Konflikts zuzuordnen. Beide Ansätze unterscheiden hierbei grundsätzlich zwischen gewalttätig und nicht-gewalttätig ausgetragenen Konflikten. Hierbei ermöglicht Galtungs Unterscheidung der drei Phasen „Vor", „Während" und „Nach der Gewalt" eine umfassende Einordnung von Interventionsmethoden nach den Kategorien „Konfliktprävention", „Friedenssicherung" und „Nach-Konfliktbearbeitung". In Ergänzung dazu, lassen sich die drei Phasen durch das Eskalationsstufenmodell von Glasl noch weiter unterteilen. Dieser Ansatz ermöglicht es ein ganzes Spektrum an perzeptions-, gefühls- und verhaltensorientierten Interventionsansätzen zu integrieren und der Konfliktdynamik anzupassen (vgl. Grafik 2). Beide Modelle in einem Schema zusammengefasst, ergeben einen Konfliktbogen. Idealtypisch lassen sich die Eskalationsstufen im Bereich zwischen „Während" und „Nach der Gewalt" in umgekehrter Reihenfolge anordnen. Da es sich bei (De-)Eskalationen um Zustände handelt, sei hierbei angemerkt, dass diese nicht zwangsläufig Schritt für Schritt erfolgen müssen, sondern durchaus Stufen übersprungen werden können (vgl. Glasl 2004b). Das bisherige Schema lässt sich wie folgt grafisch darstellen:

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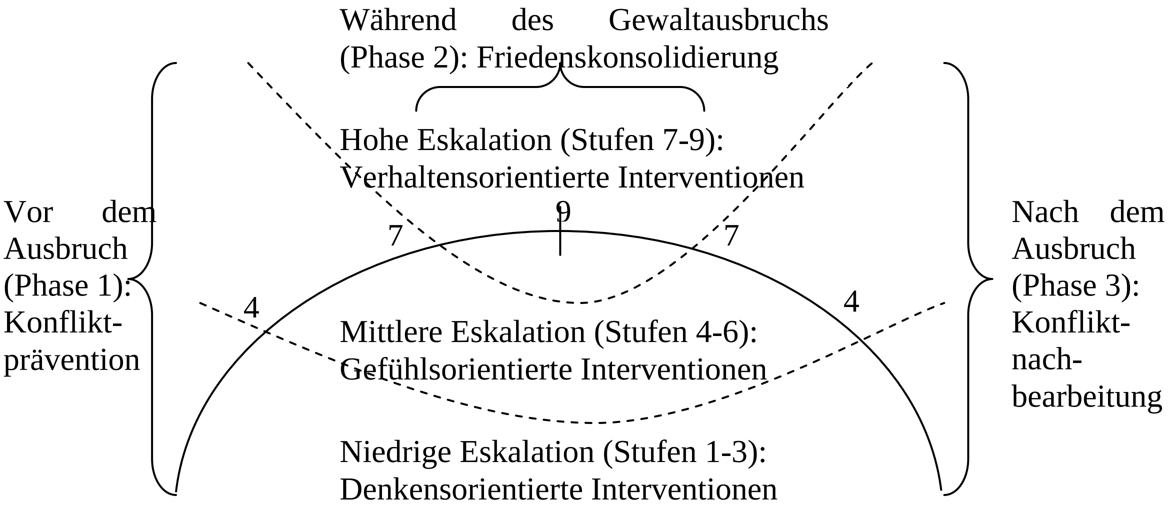
[12] Mark Edwards' Ansatz stellt hierbei einen der wenigen Vorstöße dar, das AQAL an die Erfordernisse der mediativen Konfliktbearbeitung anzupassen. Hierbei schlägt er vor, das Vier-Quadrantenschema nach den sechs grammatikalischen Hauptperspektiven, zu einem „Sextant"-Modell, weiter auszudifferenzieren und damit eine (das Vier-Quadrantenmodell nicht ersetzende, sondern vielmehr) ergänzende Metaperspektive aufzuzeigen. Während das Vier-Quadrantenmodell nur die 1. und 3. Person Plural und Singular berücksichtige, würde sein Framework, mit der zusätzlichen Berücksichtigung der 2. Person, auch die Perspektiven „Du" und „Ihr" abdecken. Gleichzeitig würden alle sechs Personen ihrerseits ein eigenes Vier-Quadrantenmodell aufweisen [dies leuchtet vor allem in Bezug auf die beiden oberen Quadranten ein, die ja bei jedem Individuum einzigartig sind] (vgl. Edwards 2005). Zwar dürfte m.E. ein wesentlicher Vorteil dieser Unterscheidung von „Ich"-, „Du"-, „Er/Sie/Es"-, „Wir"-, „Ihr"- und „Sie"-Perspektiven (inklusive der unterschiedlichen einander überlappenden AQAL-Dimensionen in allen Perspektiven) darin bestehen, die für den Konfliktdialog sehr wichtigen Aspekte der (un-)bewussten Selbst- und Fremdwahrnehmung zu integrieren. Allerdings ist dieser wichtige Beitrag von Edwards' im Rahmen des hier zu untersuchenden und sehr eng gefassten heuristischen Metakontexts nur von geringfügiger Bedeutung und hat noch wenig praxisbezogene Relevanz. Edwards' Ansatz dürfte in dieser Form eher einen viel versprechenden Vorstoß darstellen, das AQAL-Modell im epistemologischen Metakontext auszubauen.


Während des Gewaltausbruchs (Phase 2): Friedenskonsolidierung
Hohe Eskalation (Stufen 7-9): Verhaltensorientierte Interventionen
9
7
7
Vor dem Ausbruch (Phase 1): Konflikt-prävention
4
4
Mittlere Eskalation (Stufen 4-6): Gefühlsorientierte Interventionen
Nach dem Ausbruch (Phase 3): Konflikt-nach-bearbeitung
Niedrige Eskalation (Stufen 1-3): Denkensorientierte Interventionen

Grafik 7: Integration von Interventionsmethoden in ein vertikales Schema (Fathi 2008, S. 61)

Horizontale Integration unterschiedlicher Interventionsmethoden

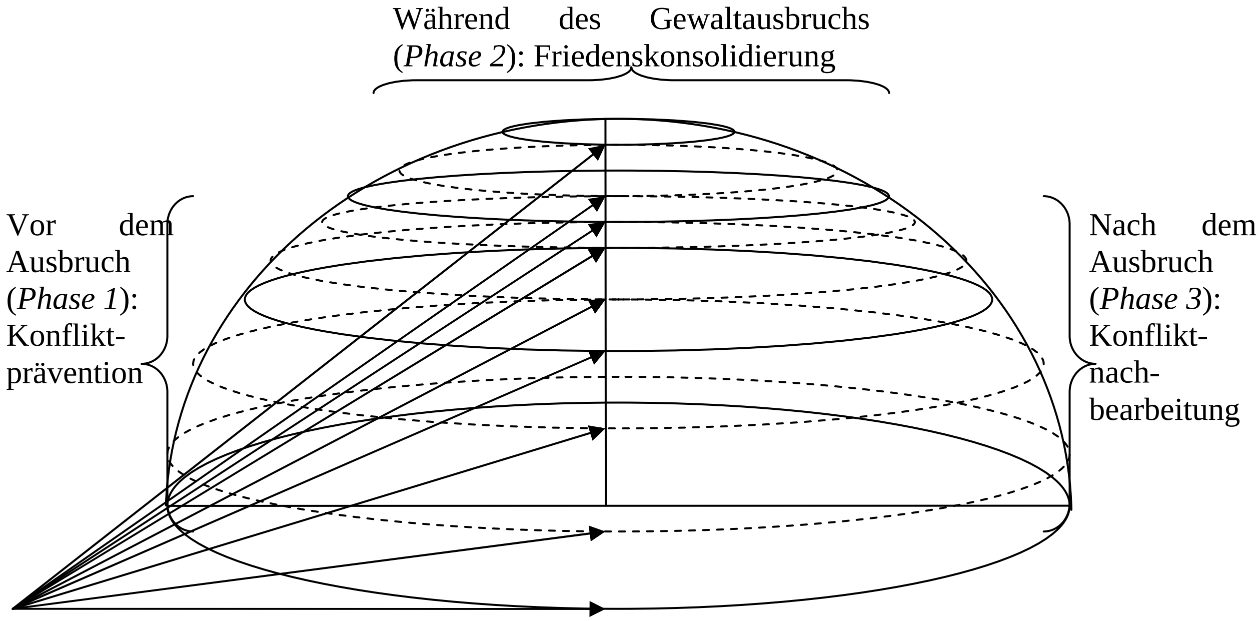
Auf jeder Eskalationsebene dieses in Grafik 6 dargestellten Konfliktbogens lassen sich die Interventionen nach horizontalen Typologien weiter ausdifferenzieren, die von den Modellen von Glasl und Galtung formuliert wurden.

Hierbei unterscheidet Glasl auf jeder der ersten sechs Eskalationsebenen zwischen kalten und heißen Konflikten und dazugehörige Interventionsstrategien (eskalierend, de-eskalierend), wie bereits in Tabelle 2 skizziert. In Verbindung mit Tabelle 3 lässt sich zusätzlich das Konzept der Galtung'schen Konfliktphasen berücksichtigen: Die präventiven Methoden tragen der Konfliktphase „Vor dem Gewaltausbruch“ Rechnung und die kurativen Interventionen beziehen sich auf die Phase „Nach dem Gewaltausbruch“.

Wie in Tabelle 1 dargestellt, lässt sich mit dem gesamten vertikalen Interventionsspektrum (denkens-, gefühls- und verhaltensorientiert) eine weitere horizontale Dimension in Beziehung setzen: Kriterien der Konfliktanalyse. Glasl unterscheidet hierbei fünf Kriterien, wobei aber anzumerken ist, dass diese je nach Kerninteresse der Konfliktanalyse sehr stark variieren können und darum nur sehr bedingt generalisierbar sind. Um sicher zu gehen, dass alle relevanten Schlüsseldimensionen des Konfliktes abgedeckt werden, wäre es hierbei generell lohnenswert, Quadranten-/Horizonten auf jeder Ebene mitzuberücksichtigen ergänzend hinzuzuziehen. Auch wenn ein Konflikt stets Entsprechungen in allen Quadranten hat, ist in Anlehnung an das Interventionsspektrum von Glasl (vgl. Grafik 3), davon auszugehen, dass sich der kurzfristige Schwerpunkt einer integrierten Intervention hin zu den rechtsseitigen Quadranten, insbesondere dem Bereich der direkten Gewalt (OR) verschiebt, je höher der Eskalationsgrad wird.

Eine kombinierte Berücksichtigung horizontaler (hier z.B. Quadranten, Typen, Linien) und vertikaler Dimensionen (hier z.B. Eskalationsebenen) ist für eine Metatheorie der Konfliktbearbeitung sinnvoll. Mit der Integration wesentlicher Aspekte der Ansätze von Wilber, Glasl und Galtung, könnte das sich hieraus ergebende Metamodell einen Beitrag leisten, der Komplexität von Konfliktsituationen gerecht zu werden; sowohl hinsichtlich ihrer Einschätzung als auch bei der Wahl der mediativ-dialogischen Mittel zu ihrer Bewältigung. Der Beitrag dieses Gerüsts kann jedoch, auf Grund seiner geringen Repräsentativität (die aus Komplexitätsgründen in dieser Arbeit auch nicht gewährleistet werden kann), nur einen beispielhaften Charakter haben. Daher wären in Bezug auf die Ausgestaltung der Metakategorien des vorliegenden Modells vielfältige Erweiterungsmöglichkeiten denkbar.

Schematisch wird hier eine Kartografie vorgezogen, die das *vertikale* eskalationsorientierte Spektrum als Ausgangsmodell nimmt – sprich: die Grafik 6 – und die anderen *horizontalen* Dimensionen des epistemologischen Modells (Quadranten, Typen, Linien) hineinintegriert. Hieraus ergibt sich ein idealtypisches dreidimensionales Schema, das sich wie folgt darstellt:


Während des Gewaltausbruchs (*Phase 2*): Friedenskonsolidierung
Vor dem Ausbruch (*Phase 1*): Konfliktprävention
Nach dem Ausbruch (*Phase 3*): Konfliktnachbearbeitung

Horizontale Ausdifferenzierung weiterer Interventionsaspekte auf jeder Ebene, Beispiele:

Vertikale Horizontale	*Phase 1* (niedrige bis mittlere Eskalation): Konfliktprävention	*Phase 2* (hohe Eskalation): Friedenskonsolidierung	*Phase 3* (niedrige bis mittlere Eskalation): Konfliktnachbearbeitung
Quadranten: Gewaltbereiche nach Transcend + intentionale Gewalt (nach GFK)	konstruktive Konfliktkulturen (UL), -strukturen (UR), Intentionen (OL) und Verhalten (OR) fördern	Waffenembargos und Friedenstruppen (UR); Evakuierung von Zielen (OR); Demoralisierung von Soldaten (UL); Negativprognosen an alle Parteien (OL)	konstruktive Konfliktkulturen (UL), -strukturen (UR), Intentionen (OL) und Verhalten (OR) wieder herstellen; Versöhnung
Typen: Austragungsformen nach Glasl; vgl. Tab. 3)	Präventiv: De-eskalierend (heiß); eskalierend (kalt)	-	Kurativ: De-eskalierend (heiß); eskalierend (kalt)
Kriterien der *Konfliktanalyse* nach Glasl (Bezug zum vertikalen Interventionsspektrum vgl. Tab. 1)	z.B. Issues; Konfliktverlauf; Parteien intern; Parteien extern (Beziehungen); Grundeinstellungen	-	z.B. Issues; Konfliktverlauf; Parteien intern; Parteien extern (Beziehungen); Grundeinstellungen

Grafik 8: Integration horizontaler und vertikaler Interventionsaspekte (Fathi 2008, S. 63)

Herausforderungen für die Metatheoriebildung

Die Anwendung von Metatheorien birgt vielfältige Herausforderungen, die es im Allgemeinen zu berücksichtigen gilt. Hierunter sind einige Punkte von besonderer Relevanz für die Friedens- und Konfliktforschung. Diese lassen insbesondere sich im Rahmen einer Gegenüberstellung aller drei Ansätze näher erläutern.

Allgemeine Herausforderungen für die Metatheoriebildung

Im Wesentlichen sieht das metatheoretische Map Making vor, verallgemeinerbare Metakategorien zu definieren und darin die inhaltliche Komplexität unterschiedlicher Perspektiven zu integrieren. Hieraus erwachsen allgemeine Herausforderungen, von denen sich einige wesentliche gut am Beispiel des IA und seinem Konzept der Orientierungsverallgemeinerungen darstellen lassen.

Eine wesentliche Herausforderung dürfte darin bestehen, die Gefahr der „Immunisierung“ und der „Ideologisierung“ zu vermeiden. Im Falle des IA ließe sich z.B. kritisch fragen, ob Wilbers Konzept der Orientierungsverallgemeinerungen, philosophische Annahmen, die nicht denseinigen entsprechen, ausgeschlossen würden? Von anderer Seite wäre auch die Versuchung zu vermeiden, legitime kritische Standpunkte, z.B. über das Ebenenmodell, einfach wegzuerklären. Hierauf wird im nächsten Kapitel noch näher einzugehen sein. Die Gefahr der Immunisierung muss gegenüber eingeräumt werden, dass sie auch anderen Theorien und Disziplinen – sowohl im metatheoretischen als auch im theoretischen Kontext – immanent ist. Als Beispiele wären hier unter anderem die Tiefenpsychologie oder der Marxismus zu erwähnen. Dieses Problem dürfte im Idealfall lösbar sein, wenn die drei oben skizzierten Stränge zum Erwerb echten Wissens gewährleistet sind.

Eine weitere wesentliche Herausforderung besteht vor allem auch in Bezug auf die Auseinandersetzung mit unterschiedlichen Interpretationen derselben Metakategorien. In einem relativ aktuellen Beispiel weist Mark Edwards in Bezug auf Wilbers „drei Stränge zum echten Wissenserwerb“ darauf hin, dass ein Schritt der Dateninterpretation fehlen würde. Im Quadrantenmodell wäre dies nach Edwards im Prinzip auch vorgesehen – so ordnet er die Injunktion dem Quadranten OR zu, die Datenintuition dem OL-Quadranten, die Dateninterpretation UL und die Verifikation/Falsifikation dem Quadranten UR. Alle vier Schritte zusammengenommen, würden einem integralen, sich stets wiederholenden „Zyklus’“ des Wissenserwerbs entsprechen (vgl. Edwards 2000). Wilber wendet gegenüber Edwards’ Verbesserungsvorschlag ein, dass eine exakte Passgenauigkeit dieser Schritte mit dem Quadrantenmodell nicht gegeben sei. Er führt an, dass sich alle drei Schritte grundsätzlich in allen vier Quadranten ausprägen können und sich daher nicht beschränken ließen. Dies gelte z.B. für kontemplative Injunktionen und Datengewinnungen, die sich nicht im OR-, sondern ausschließlich im OL-Quadranten ausprägen. Edwards würde aber den Schritt der Injunktion ausschließlich im OR-Quadranten verorten. Zudem sei nach Wilber die interpretative Komponente des UL-Quadranten stets in allen drei Strängen vertreten und ein zyklischer Vorgang sei ohnehin gegeben (vgl. Wilber 2000). In dieser kleinen Debatte deutet sich beispielhaft an, dass beide hier vertretenen Positionen in ihrem jeweiligen Kontext durchaus Recht haben, da sie, jede für sich, eine in sich logische, aber dennoch voneinander abweichende

Interpretation der drei Stränge sowie des Quadrantenmodells aufweisen. Während Wilber alle vier Quadranten in einem strikt synchronen Verhältnis zueinander verstanden wissen möchte (und diese *nicht* mit den sequenziell aufeinander folgenden drei Strängen gleichsetzt, sondern eher alle Quadranten in jedem Strang präsent sieht), tendiert Edwards zu einer Interpretation, die die Quadranten in ein sequenzielles Verhältnis stellt (und diese auf die Ebene der drei Stränge überträgt, woraus sich dann vier Stränge ergeben). Über diese unterschiedlichen Grundannahmen haben sich aber beide Vertreter vorher nicht verständigt. Dabei ließen sich die Beiträge beider Modelle durchaus miteinander zu kombinieren, vorausgesetzt, man fasst beide Positionen nicht in einem Entweder-oder-, sondern in einem Sowohl-als-auch-Verhältnis auf: Edwards Beitrag sieht vor, drei Stränge um einen Schritt zu ergänzen und damit zu einem Vier-Stränge-Modell auszubauen und, auf Grund der sich hieraus ergebenden konzeptionellen Einfachheit, mit dem Vier-Quadranten-Modell gleichzusetzen. Wilbers Beitrag besteht zum anderen darin, alle Stränge/Schritte multidimensional aufzufassen und daher in jedem einzelnen dieser Schritte das Vier-Quadranten-Modell synchron zu berücksichtigen. Das Ergebnis würde also ein ineinander verschachteltes Quadrantenmodell vorsehen, welches, einerseits auf der Oberfläche eine sequenzielle Abfolge der Quadranten impliziert (hier: im Kontext der aufeinander folgenden Stränge), andererseits, innerhalb jedes Quadranten, ein synchrones Verhältnis aller Quadranten berücksichtigt. Der Ansatz eines ineinander verschachtelten Quadrantenmodells ist bereits in Wilbers Acht-Horizonten-Modell bzw. in Edwards Sextanten-Modell angelegt. Am Beispiel dieser Debatte zeigt sich einerseits die Lösbarkeit von Metadiskursen (vorausgesetzt natürlich, die Positionen beziehen sich auf dasselbe Thema), andererseits aber auch der hierzu erforderliche Aufwand sich mit den scheinbar gegensätzlichen Positionen angemessen auseinanderzusetzen.

Eine weitere wesentliche Herausforderung dürfte darin bestehen, die unterschiedlichen Auflösungsgrade, in denen metatheoretische Modelle zur Anwendung kommen können, stärker zu systematisieren. So ließe sich viel Konfliktpotenzial, vor allem von Seiten von VertreterInnen, die ihre Disziplin nicht gern in eine Kategorie „gepresst“ wissen möchten, abschwächen. Hierzu ein Beispiel: Oberflächlich gesehen ließe sich die *„neurolinguistische Programmierung“* (NLP) einfach dem Quadranten OR zuordnen (wie z.B. in einem Schema des integralen Psychotherapeuten Weinreich unter ders. 2005, S. 157). Aus einer tiefer gehenden Perspektive wäre diese Zuordnung aber ungenau, zumal der Komplex der NLP Subdisziplinen, wie z.B. die Selbsthypnose (OL), die kommunikative und gestalttherapeutische (UL) und sogar systemwissenschaftliche Aspekte (UR) enthält (näher hierzu vgl. z.B. Seymour / O’Connor 2009), welche sich eher den anderen Quadranten zuordnen. So gesehen, würde eine Disziplin, die sich aus einer oberflächlichen Perspektive nur einem Quadranten zuordnet, aus einem tiefer gehenden Blickwinkel alle vier Quadranten abdecken. Dies angemessen zu berücksichtigen, dürfte für die weiterführende Forschung noch eine enorme Herausforderung darstellen.

Dennoch dürfte sich die Metatheoriebildung auf allen Ebenen (theoretisch und metatheoretisch) Konfliktpotenzial in mannigfaltiger Form ausgesetzt sehen. Da Metakategorien klar auf der metatheoretischen Ebene anzusiedeln sind, indem sie, über verschiedene Gebiete hinweg, Muster ordnen, die nur auf dieser Ebene sichtbar werden, können und müssen sie nicht einen Grundkonsens zwischen ForscherInnen innerhalb spezifischer Felder widerspiegeln (wie von Wilber behauptet). Vielmehr ist anzunehmen, dass es in den seltensten Fällen Konsens innerhalb spezifischer Forschungsfelder gibt und noch weniger Konsens über verschiedene Forschungsfelder hinweg. Hinzu kommt noch, dass wissenschaftliche Aussagen an bestimmte

Paradigmen und Vorannahmen gebunden sind, die untereinander auch nicht zwangsläufig in einem Konsens sind. Auf diesen Punkt wird näher im nächsten Kapitel am Beispiel der drei Ansätze einzugehen sein.

Spezifische Herausforderungen für die Metatheoriebildung in der Friedens- und Konfliktforschung

Im Folgenden möchte ich auf einige wesentliche Herausforderungen für die Metatheoriebildung in der Friedens- und Konfliktforschung eingehen, die sich vor allem aus der vorliegenden Untersuchung ergeben haben. Hierzu ist es notwendig, die zum Teil unterschiedlichen Ansprüche der Metatheoriebildung im epistemologischen sowie im heuristischen Kontext zu berücksichtigen.

Epistemologischer Kontext

Aus dem oben skizzierten Grundgerüst deutet sich insgesamt ein relevanter Mehrwert für die Friedens- und Konfliktforschung an, die epistemologischen Bezugspunkte unterschiedlicher Ansätze – hier: am Beispiel der beiden (im Übrigen sehr metatheoretisch ausgeprägten) Ansätze von Galtung und Glasl – zu integrieren.

Kritisch ist jedoch anzumerken, dass das AQAL nur ein begrenztes Modell darstellt, die hier vorgestellten Methoden in einen, von vielleicht anderen denkbaren Metakontexten einzuordnen. Diesem Integrationskontext müssen und können die ProtagonistInnen der integrierten Methoden nicht immer zustimmen.

1. Dies dürfte zum einen daran liegen, dass die in diesem Schema integrierten Methoden – auf Grund der Begrenztheit des AQAL-Modells – niemals in ihrer ganzen Fülle wiedergegeben werden können. Die Grenzen der Untersuchung zeigen sich z.B. darin, dass das AQAL-Modell nicht geeignet ist, eventuell gewichtige Widersprüche, die zwischen allen drei vorgestellten Modellen auf der theoretischen Ebene bestehen, zu erfassen und metatheoretisch zu integrieren. Im Rahmen dieser Untersuchung wurden diese Widersprüche bewusst ausgeklammert, allerdings dürfte ihre Berücksichtigung im weiterführenden Diskurs von Interesse sein. Dies gilt z.B. für die anthroposophischen Implikationen in Glasls Modell (vgl. Glasl 2004a), welche nicht immer gänzlich vereinbar mit Wilbers Modell der menschlichen Psyche sein dürften oder von Galtungs Seite, seine von Wilbers Theorie abweichende Deutung des Begriffs der „Spiritualität" (Galtung setzt dies mit dem Begriff der „immanenten Religion" gleich [vgl. Galtung 1998, 2008], was im Kontext des IA eine fast entgegen gesetzte Bedeutung erhält). Ohne näher auf diese sehr komplexen Diskurse einzugehen, sei festzuhalten, dass zwischen allen drei Ansätzen durchaus gewichtige Widersprüche bestehen (wenn man nach ihnen sucht). Diese lassen sich insofern „lösen", indem man bestimmt, welcher Ansatz die anderen aus seiner spezifischen Metaperspektive integriert. In diesem Fall wurden die Ansätze von Glasl und Galtung in die Metakontexte des IA „eingepasst" und aus dieser Perspektive interpretiert. Das Kapitel über die „heuristische Integration" zeigt hingegen einen anderen Kontext, in dem sich alle drei Ansätze auf gleicher metatheoretischer „Augenhöhe" begegnen. Doch selbst diese Integration stellt nur eine Verknüpfung von

„Ausschnitten“ aller drei Ansätze dar, da die oben angedeuteten (epistemologischen) Widersprüche weiterhin ausgeklammert bleiben.

2. Zum anderen lässt sich auch stets über die Gültigkeit und den Nutzen der dem AQAL-Modell zu Grunde liegenden Annahmen über sog. „Orientierungsverallgemeinerungen“ streiten: so fällt z.B. in der Friedens- und Konfliktforschung auf, dass Metakontexte, wie z.B. die Wilber-typische Verwendung von Ebenenmodellen, tendenziell gemieden werden, da Hierarchien zumeist negativ mit „Unterdrückung“ und „Gewalt“ konnotiert sind. Hieran dürfte sich im Rahmen dieses Papers auch erklären, weshalb in den Theorien von Glasl und vor allem von Galtung keine Entwicklungshierarchien explizite Verwendung finden. Wilber, der sich oft der Kritik ausgesetzt sieht sein Modell sei „androzentrisch“, weil es Hierarchien über Heterarchien stelle, betont demgegenüber, dass Hierarchie und Heterarchie sowohl in normaler als auch in pathologischer Form auftreten können. Seine Verwendung des Hierarchiebegriffs würde von seinen KritikerInnen missverständlich mit „pathologischer Hierarchie“ verwechselt. Eine echte „Holarchie“ stehe aber für ein „ausgewogenes Verhältnis von normaler Hierarchie und normaler Heterarchie (vgl. Wilber 2005, S. 461f.).“ Es bleibt also festzuhalten, dass eine Anwendung von Holarchiemodellen (welche ein ausgewogenes Verhältnis von Hierarchie und Heterarchie vorsehen) vor allem in epistemologischer Hinsicht durchaus sinnvoll ist. Es wäre aber verfehlt, die vorherrschenden Vorbehalte in der Friedens- und Konfliktforschung gegenüber entwicklungshierarchischen Modellen einfach damit zu erklären, dass ihre VertreterInnen auf der Ebene des grünen Mems stehen geblieben sind. Vielmehr scheint das Entwicklungsebenenmodell, vor allem im heuristischen Kontext, einen begrenzten Nutzen aufzuweisen, wie im nächsten Kapitel noch näher aufzuzeigen.

Sieht man von diesen wichtigen Kritikpunkten ab, bietet ein Metamodell auf der Basis der AQAL-Kategorien einen anschaulichen (wenn auch zwangsläufig nicht allumfassenden) Metarahmen, der es erlaubt, die epistemologischen Schwerpunkte der beiden Theorien von Galtung und Glasl, mit besonderer Betonung auf ihre wechselseitigen Schnitt- und Ergänzungspunkte, einander gegenüberzustellen.

Heuristischer Kontext

In Rahmen dieser Untersuchung wurde und wird von der Prämisse ausgegangen, dass es sich beim IA um eine Metatheorie mit einem epistemologischen – sprich: einen auf die philosophische Erkenntnis und Annahmenbildung bezogenen – Schwerpunkt handelt. Der IA umfasst keine Konflikttheorie, gleichwohl lässt sich – wie oben skizziert – eine sehr abstrakte Konfliktphilosophie ableiten, die daher begrenzten heuristischen Nutzen hat.

Im heuristischen Kontext zeigt sich das AQAL-Modell nicht nur als zu unkonkret für die Friedens- und Konfliktforschung, sondern auch als sehr begrenzt, da viele Kategorisierungs- und Integrationskontexte, die für die Friedens- und Konfliktforschung von Relevanz sind, nicht von seiner Schematisierung erfasst werden. So erweist sich das AQAL alleine z.B. als ungeeignet, Methoden nach ihrer Ausrichtung (z.B. prozess-, klient-, lösungsorientiert) oder ihrer Vorgehensphase (z.B. 1) Konfliktanalyse, 2) Interventionsplanung, 3) Aktion) einzuordnen. Daher erwies sich bei der Skizzierung eines heuristischen Grundgerüsts eine Ergänzung des AQAL-Modells um die Metakategorien der Ansätze von Glasl und Galtung als sinnvoll. Wie aber erwähnt, dürfte der Beitrag des hier skizzierten Modells eher beispielhaften, denn repräsentativ-verallgemeinerbaren Charakter haben. So ergeben sich durchaus vielfältige, in der weiterführenden Forschung zu erörternde, Veränderungs- und Ausgestaltungsmöglichkeiten des Modells – schon alleine für den Bereich der „Konfliktanalyse“.

Bei der Anwendung des IA deutet sich sein durchaus vorhandener, aber begrenzter heuristischer Nutzen (und darum die Notwendigkeit seiner Erweiterung), insbesondere im Kontext der Bearbeitung interpersoneller Konflikte an. Dies lässt sich nicht nur, wie eben angedeutet, auf einen Mangel an Metakategorien zurückführen, die auf spezifischen die Erfordernisse der Friedens- und Konfliktforschung zugeschnitten sind, sondern auch an der ausschließlich im Evolutionskontext interpretierten Ebenendimension. Der hiermit einhergehende begrenzte heuristische Nutzen dürfte vor allem mit der Problematik zusammenfallen, die sich mit der ebenenspezifischen Kategorisierung (kollektiver oder individueller) politischer Akteure ergibt: Haben z.B. „Terroristen“ immer einen Schwerpunkt auf dem roten Mem? Oder verortete sich der britische Premierminister Tony Blair während des Irakkriegs auf der Ebene Gelb? Lassen sich Weltkrisen überhaupt sinnvoll anhand eines „Meme-im-Krieg-Paradigmas“ erklären? Diese und andere politische Statements, die Wilber in seinen viel gelesenen Essays „Deconstructing the World Trade Center“ (2001b) und „The War in Iraq“ (2003c) und zuletzt auf einer Tagung des Integralen Forums (2009) tätigte, dürften sich zu Recht als umstritten erweisen. „Umstritten“, zumal sich aus dieser entwicklunsgorientierten Ebenenperspektive Konfliktakteure umso paradoxer verhalten können, je höher bzw. komplexer der Grad ihr Niveau Ebenenentwicklung ist – dieses hohe Ausmaß an Widersprüchlichkeit des Konfliktverhaltens räumte Wilber selbst vor allem für die höheren Ebenen, ab dem gelben Mem ein (vgl. ebd.). Doch selbst wenn (unabhängig von Wilbers umstrittenen Aussagen) dieser Ansatz der entwicklungsorientierten Akteursbewertung im Allgemeinen empirisch belegt sein sollte (wofür nach Wilber eine Fülle empirisch-klinischen Materials spricht[13]), so dürfte es sich in der Praxis der Konfliktanalyse als sehr aufwändig erweisen, alle Testverfahren zur Ermittlung der jeweiligen Bewusstseinsebene auf jeder Entwicklungslinie umzusetzen. Gegen die Wilber-typische Verwendung des entwicklungsorientierten Ebenenmodells sprechen also in erster Linie praxisrelevante Gründe. Die eskalationsorientierte Verwendung – wie sie in den Grafiken 7 und 8 skizziert sind – dürfte sich hingegen bei der Bearbeitung gewalthaltiger Inter-Gruppen- und -Personenkonflikte als heuristisch angemessener erweisen. Dies begründet sich schon alleine mit der sehr einfachen empirischen Erhebbarkeit praxisrelevanter Konfliktphasen wie „Vor“, „Während“ und „Nach der Gewalt“. Da sich aber beide Ebenenmodelle – sprich: des Wilber-typischen Entwicklungskontextes und des eher in der Friedens- und Konfliktforschung vorherrschenden Eskalationskontextes – nicht widersprechen, dürfte aber eine integrierend-verknüpfende Betrachtung beider Modelle für eine transdisziplinär ausgerichtete Friedens- und Konfliktforschung durchaus von weiterführendem Forschungsinteresse sein.

Aus einer anderen pragmatisch-strategischen Perspektive fragt sich, ob und inwieweit „simplifizierende“, also: „gewollt reduktionistische“, Metatheoriebildungen für die Konfliktbearbeitung sinnvoll sind. So betont z.B. der Ansatz der systemischen

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[13] Er führt z.B. Piagets méthode clinique, Mahlers auf Video dokumentierte Beobachtungen, Loevingers Tests der Selbstentwicklung, Kohlbergs und Gilligans moralische Untersuchungen auf der Grundlage empirischer Befunde bis hin zur „Fülle phänomenologischer Evidenz aus den großen kontemplativen Weisheitstraditionen“ an (vgl. Wilber 2005, S. 271).

Konflikttransformation der Organisation Berghof Peace Support (BPS), dass in der Praxis der Konfliktbearbeitung nur sehr begrenztes Wissen über den Konflikt zur Verfügung stehen und trotzdem aber Lösungsansätze gefunden werden müssen; dies gelte vor allem für komplexe innerstaatliche Gewaltkonflikte. Daher sehe dieser Ansatz nicht nur vor, die Komplexität des Konflikts angemessen zu erfassen („complexify"), sondern auch, diesen auf seine bearbeitbaren, systemischen Variablen zu reduzieren („symplify"), um „Hebelwirkungen" auszumachen, die zur Konfliktlösung beitragen (vgl. BPS 2006). Während sich also der epistemologische Metatheoriekontext durch einen Umgang mit Komplexität auszeichnet, der Reduktionismen so weit wie möglich zu vermeiden versucht, stellt sich aus einer praxisorientierten Metaperspektive der Konfliktbearbeitung die Frage, ob und inwieweit nicht ein ausgewogeneres Verhältnis von „complexify <-> simplifiy" angemessen wäre. Ein wahrhaft integrierter Metaansatz der Konfliktbearbeitung müsste in diesem Kontext also komplexifizierende *und* simplifizierende Ansätze zu integrieren. An dieser Stelle ergeben sich viele weiterführende heuristische Fragen, die im Rahmen dieser Arbeit nicht geklärt werden können, wie unter anderem: Wann, wo und inwieweit ist es sinnvoll, in einer integralen Konfliktbearbeitung aus pragmatisch-ressourcenorientierten Kalkülen Prioritäten zu setzen? Ist es z.B. legitim, langwierige und schwer greifbare Variablen, wie z.B. kulturelle Gewalt (UL) kurzfristig auszublenden, um sich kurzfristig lieber an „greifbarere Faktoren" (UR, OR) zu halten? Ist eine Simplifizierung des Konflikts auf seine relevanten (?) bearbeitbaren Elemente aus einer integral-heuristischen Perspektive zulässig?

„Integration" bzw. „Metatheoriebildung" stellen in praxisbezogeneren Kontexten keinen Selbstzweck dar. Vielmehr deutet sich an, dass sich in Metakontexten, in denen konkrete Problemlösungen gefragt sind (nicht nur die reine Erkenntnisgewinnung) pragmatische Kalküle die „Integrationslogik" entscheiden, abhängig von den spezifischen Ressourcen und Erfordernissen der Konfliktsituation sowie der Intuition der KonfliktbearbeiterIn. Hierunter dürften nicht nur die oben erwähnte Strategie der Simplifizierung von Komplexität zählen, sondern auch eklektizistische Herangehensweisen, verstanden als: „das zu verwenden, was funktioniert". Dies würde im Umkehrschluss für die Metatheoriebildung bedeuten, dass es in konkreten anwendungsbezogeneren Kontexten nicht immer darum geht, ganze Theorien und Methoden zu integrieren (an anderer Stelle in diesem Paper fragte sich kritisch, ob und inwiefern es überhaupt möglich ist, Glasl und Galtung zu „integrieren"), sondern nur bestimmte Aspekte, die sich der spezifischen Situation umsetzen lassen und in der Praxis bewähren. Diese Überlegungen dürften nur eine grobe Ausgangsbasis für den in weiterführenden Publikationen noch zu erforschenden Bereich einer Metapraxeologie integraler Konfliktbearbeitung liefern. Ausblickend deutet sich an dieser Stelle an, dass das Gesamtspektrum zwischen Metatheoriebildung (einschließlich Erkenntnistheorie und Heuristik) und Metapraxeologie (konkrete integrale Anwendungspraxis) „blinde Flecke" aufweisen dürfte. Dieses große Unbekannte zeigt sich insbesondere darin, dass die Gemeinsamkeiten und Ergänzungspunkte, die sich z.B. im epistemologischen AQAL so elegant darstellen lassen, in der Praxis der Konfliktbearbeitung in dieser Form nicht unbedingt bestätigen müssen. Lassen sich dialogisch-konstruktive Konfliktbearbeitungsmethoden, wie z.B. die Harvard-Mediation, Aufstellungsmethoden, Psychodrama, der Transcend-Dialog und Gewaltfreie Kommunikation in der Praxis wirklich „integrieren"? Inwiefern und wann lohnt es sich unterschiedliche Methoden eher „synchron" (sprich: gleichzeitig) oder eher „ad hoc" (sprich: sequenziell) zu kombinieren? Wie „reagieren" diese Methoden (in positiver und negativer Hinsicht) aufeinander? Diese und andere Fragen in spezifischen Konfliktsituationen zu erforschen, wie gesagt, weiterführenden Studien vorbehalten.

In heuristischer Hinsicht besteht also insgesamt vor allem die Herausforderung der

- Formulierung von Metakategorien, die für die Friedens- und Konfliktforschung relevant sind und das AQAL-Modell sinnvoll ergänzen können (z.B. allgemeine Operationalisierungsschritte der Konfliktbearbeitung);
- kritischen Hinterfragung bestehender AQAL-Dimensionen auf ihren pragmatischen Nutzen hin und ihrer Anpassung an die spezifischen (praxisbezogenen) Erfordernisse der Friedens- und Konfliktforschung und
- der situationsabhängigen Festlegung des angemessenen Verhältnisses von pragmatisch und (erkenntnis-)theoretisch begründeten Ansprüchen, wie z.B. dem Stellenwert simplifizierender oder/und eklektizistischer Strategien im Umgang mit Komplexität.

Fazit

Am Beispiel der Konflikttransformation von Galtung und dem Konfliktmanagement von Glasl wurde im Abgleich mit dem IA ein konzeptioneller Vorschlag zur epistemologischen und die heuristischen Integration unterschiedlicher Methoden mediativer Konfliktbearbeitung skizziert. Hierbei gestalteten sich die vertikal (Ebenen) und horizontal designten Metakategorien des AQAL-Modells (Quadranten, Typen, Linien) als hilfreich. Ein gegenseitiger Ergänzungspunkt von weiterem Forschungsinteresse bietet sich bei der kombinierten Berücksichtigung eines vertikalen Spektrums von Eskalationsstufen (Glasl) und eines horizontalen Rasters von mehreren Gewaltbereichen (Transcend). Insgesamt führte die Untersuchung zu einer Aufdeckung von Dimensionen, die im heuristischen Kontext der Friedens- und Konfliktforschung erforderlich sind, aber im eher epistemologisch ausgerichteten AQAL-Modell nicht in den Vordergrund gestellt wurden. Es bieten sich insgesamt, vor allem im für die Friedens- und Konfliktforschung unerlässlichen Kontext der heuristischen Metatheoriebildung, Ergänzungs- und Weiterentwicklungsmöglichkeiten für das AQAL-Modell.

Insgesamt lassen sich am Beispiel des AQAL-Modells im Wesentlichen folgende Herausforderungen für die Metatheoriebildung zusammenfassen:

- Die Metatheoriebildung eröffnet Chancen, wissenschaftliche Diskurse auf mehreren Ebenen zu führen. Gleichzeitig birgt sie vielfältige Herausforderungen, da sich diese Diskurse (und ihre Lösungen) nun als wesentlich komplexer gestalten.
- Auf der metatheoretischen Ebene gilt es stets zu berücksichtigen, dass Metaansätze – hier z.B. das AQAL-Modell – stets zwangsläufig begrenzte Wahrnehmungsrahmen aufweisen, die sich durch alternative Perspektiven ergänzen lassen. Eine „Theorie von Allem“ ist, wenn sie frei von Immunisierung und Ideologisierung sein soll, nicht möglich. Es zeichnen sich daher nicht nur Spannungsfelder zwischen dem metatheoretischen und dem theoretischen, sondern auch innerhalb beider Bereiche ab.
- Daneben ist entscheidend, unterschiedliche Kontexte der Metakategoriebildung zu unterscheiden, mit jeweils unterschiedlichen (hier z.B. epistemologischen und pragmatisch-heuristischen) Ansprüchen und „Integrationslogiken“. D.h. im weitesten Sinne zeichnen sich auch noch Spannungsverhältnisse zwischen Metatheorie und Metapraxeologie ab, die für die weiterführende Forschung von Interesse sein dürften.

– Eine wirklich integriert arbeitende Friedens- und KonfliktforscherIn müsste sich also im Idealfall sowohl im epistemologischen, wie auch im heuristischen, im metatheoretischen und im theoretischen, aber auch im metapraxeologischen und im praxeologischen Bereich sicher bewegen können.

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Evolutionary Psychology as a Metatheory for the Social Sciences

Annemie Ploeger[1]

Abstract: Evolutionary psychology has been proposed as a metatheory for the social sciences. In this paper, the different ways in which scholars have used the concept of a metatheory in the field of evolutionary psychology is reviewed. These different ways include evolutionary psychology as a unification of different subdisciplines, as a nomological network of evidence, as Lakatosian hard core, as a tool for conceptual integration, and as a theory that addresses the major issues in the social sciences. It is concluded that evolutionary psychology has been successful as Lakatosian hard core, that is, it has been fruitful in generating new hypotheses. However, it has been less successful in unifying different subdisciplines. It is also concluded that evolutionary psychology needs to broaden its scope by including insights from evolutionary developmental biology in order to become a unifying framework for the social sciences.

Keywords: Evolutionary developmental biology, evolutionary psychology, metatheory.

Introduction

Evolutionary psychology is psychology that is informed by theory and research of evolutionary biology, with the idea that knowledge about the evolutionary background of psychological phenomena will contribute to the understanding of these phenomena (Cosmides, Tooby, & Barkow, 1992). The main tenet of evolutionary psychology is that the mind consists of a set of information-processing mechanisms, which have evolved by natural selection. These mechanisms are adaptations that are functionally specialized to deal with problems in particular circumstances, and therefore must be content-specific and richly structured (Tooby & Cosmides, 1992).

It has been argued that evolutionary psychology may provide a metatheory for psychology and the other social sciences (Buss, 1995; Cosmides, Tooby, & Barkow, 1992). Evolutionary psychology is considered to be an overarching theory whose principles can be applied to all fields in the social sciences (Duntley & Buss, 2008). In the present article, I review the different ways in which researchers have used the concept of a metatheory in the field of evolutionary psychology. In addition, I evaluate whether these attempts have resulted in the desired metatheory for the social sciences.

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Different Ways to Use Evolutionary Psychology as a Metatheory

Several authors have contributed to the discussion on the metatheoretical status of evolutionary psychology. In this section I give an overview of these contributions, and I discuss whether these contributions are useful in achieving the desired metatheory for the social sciences.

Evolutionary Psychology Can Unify Different Subdisciplines in Psychology

Buss (1995) argued that evolutionary psychology could be a metatheory for psychology. Psychology is currently in conceptual disarray, with each branch, such as social, developmental, or organizational psychology, working on its own mini-theories. There is no overarching theory that integrates or unites the empirical findings in the different subdisciplines. Behaviorism used to be a metatheory for psychology, but explaining human behavior and cognition only by stimulus-response relationships appeared to be a too simple picture of how the mind works (e.g., Seligman, 1970). In response to behaviorism, cognitivism arose and claimed that the human mind consisted of information-processing mechanisms that could be compared to the working of a computer. But also the mind-as-a-computer appeared to be an oversimplified metaphor (e.g., Searle, 1990). Evolutionary psychology may fill the remaining hole by offering the process of natural selection that applies to any part of nature, as a unifying construct in social science.

The metatheory of evolutionary psychology that Buss (1995) proposed, consists of a hierarchy of levels of analysis. At the top of the hierarchy is general evolutionary theory, as represented by inclusive fitness theory (Hamilton, 1964). Inclusive fitness refers to the fitness of a genotype measured not only by its effects on an individual who possesses the genotype, but also by its effects on genetically related individuals. Inclusive fitness theory predicts that organisms behave to maximize their inclusive fitness. Evolutionary psychologists assume that this general theory is correct, and do not test this general theory directly. However, this does not imply that this general theory remains untested. Inclusive fitness theory has been tested by thousands of evolutionary biologists, in field experiments, lab experiments, and with computer simulations; thousands of tests have confirmed inclusive fitness theory, so this theory is broadly accepted by scientists (Buss, 1995).

Evolutionary psychologists do test theories that are derived from inclusive fitness theory, such as the theory of reciprocal altruism (Trivers, 1971) and the theory of parental investment (Trivers, 1972). Buss (1995) referred to these theories as middle-level evolutionary theories. From these middle-level theories, specific hypotheses and predictions can be derived. These predictions can be tested by "normal" scientific procedures, such as experiments, questionnaire methods and psychophysiological techniques.

Buss (1995) outlined what evolutionary psychology can contribute to research questions on social, personality, developmental, and cognitive psychology. For example, evolutionary psychology may be a fruitful approach for social psychologists that work on the issue of alliance formation and friendships. Based on reciprocal altruism theory, it is predicted that humans will form alliances and friendships with unrelated individuals, but only if the costs are less than or equal to the benefits. In a recent paper, Duntley and Buss (2008) go even further and argued that:

> evolutionary psychology also unites the field of psychology with all the other life sciences, including biology, economics, political science, history, legal scholarship, and medicine; it unites humans with all other species, revealing our place in the grand scheme of the natural world. (p. 31)

According to evolutionary psychologists, the key research issue that all psychologists (and social scientists in general) should address is the identification of adaptive problems that humans had to deal with repeatedly over our evolutionary history, in order to learn what the mechanisms of the mind are "designed" to do. This claim is in accordance with Daniel Dennett's (1995) *Darwin's Dangerous Idea*, the idea that natural selection is the central process in any complex form alive on earth. Because human behavior and cognition can be considered to be complex, the origin of most human behavior and cognition can be explained by referring to natural selection, including social behavior, community behavior, personality, and psychological disorders.

Today, fifteen years after the publication of Buss' (1995) proposal, how far are we away from a bridge between the different subdisciplines in psychology? Evolutionary psychology as a new approach has been successful, with hundreds of new discoveries that had eluded other psychologists (e.g., Buss & Reeve, 2003). For example, the work of Daly and Wilson (1985) on stepparenthood and the increased risk of child abuse is inspired by and congruent with inclusive fitness theory. However, being empirically successful is not the same as providing a unification of different subdisciplines. In the last fifteen years, evolutionary psychology appeared to develop into a successful approach, but more or less separately from the other subdisciplines. It has become a subdiscipline by itself. Why did it turn out that evolutionary psychology has not been embraced as the metatheory that unites all subdisciplines in psychology?

One major reason is that evolutionary psychology has met with substantial criticism (e.g., Davies, 1996; Fodor, 2000; Lewontin, 1998; Looren de Jong & van der Steen, 1998; Richardson, 1996). For example, Lewontin (1998) argued that we will *never* know how our cognition evolved, because it is impossible to collect the necessary evidence. Cognition does not fossilize, and our ancestors (e.g., *Homo habilis*, *Homo erectus*) are extinct so we have no recent sister species with which we can compare our cognition. According to Lewontin, these kinds of evidence are necessary to decide whether a given psychological mechanism is an adaptation or not. If it is not possible to collect the necessary evidence, then the whole enterprise of evolutionary psychology will be a failure, and the desired metatheory is still far away. In response to these criticisms, different approaches to evolutionary psychology as a metatheory have been formulated. One is evolutionary psychology as a nomological network of evidence.

Evolutionary Psychology as a Nomological Network of Evidence

According to evolutionary psychologists, it is not impossible to provide empirical evidence for the existence of evolved psychological mechanisms. One way to solve this problem is creating a nomological network of evidence (Schmitt & Pilcher, 2004). Evolutionary psychologists collect data from a wide variety of sources, which together provide evidence for the putative adaptation. In order to conclude that a psychological mechanism has evolved by natural selection, Schmitt and Pilcher recommend collecting data from eight different sources. First of all, there has to be a theory, grounded in evolutionary biology, cost-benefit analyses, and/or computer simulations. The next step is to provide psychological evidence, with methods accepted by psychologists, such as experiments or surveys. In addition, one needs medical evidence, for example from fertility and fecundity studies. Next, physiological evidence is required, for example from neurobiological research. Genetic evidence can be collected by means of behavioral or molecular genetics studies. Phylogenetic evidence can be found by means of comparative or paleontological methods. Hunter-gatherer data can be collected with cultural anthropological research. In addition, cross-cultural evidence can be gathered with ethnological comparisons or with a search for human universals. By collecting data from several sources, a nomological network can support evolutionary hypotheses about the human mind.

For example, Schmitt and colleagues (2003) have argued that there is a sex difference in desire for sexual variety, and that this sex difference is an adaptation. In general, men tend to long for more sexual short-term relationships than women. This hypothesis is derived from parental-investment theory, which is grounded in evolutionary biology. Schmitt and colleagues gathered data from 52 nations on 6 different continents and provided cross-cultural evidence for this hypothesis. There is also ample psychological evidence (based on surveys, behavioral experiments, etc.); comparative studies have shown the same tendency in nonhuman species (i.e., phylogenetic evidence), and physiological studies have indicated that testosterone and morphological characteristics play a role in the manifestation of this adaptation. Many pieces of evidence have been collected so far, although some components of a full evolutionary explanation are missing, but future studies may fill this gap.

This example shows that it is possible to provide evidence for an evolutionary hypothesis, but it also shows that an ambitious research program is necessary in order to create a satisfying nomological network. However, the question remains whether nomological networks of evidence for certain individual hypotheses provide a metatheory for psychology. A nomological network of evidence can provide support for the existence of a psychological adaptation, and this shows that the framework of evolutionary psychology has scientific value. However, such a nomological network of evidence does not show that all other researchers in the social scienes should use evolutionary psychology as their metatheory. A related proposal about evolutionary psychology as a metatheory, based on Lakatosian philosophy of science, may provide insight in this issue.

Evolutionary Psychology as Lakatosian Hard Core

It has been argued that evolutionary psychology can be a metatheory by providing a set of consensually held assumptions that lead to the generation of new theories and hypotheses (Ketelaar & Ellis, 2000). Philosopher of science Lakatos (1970) called these assumptions the hard core of a metatheoretical research program. The hard core operates like a map - it shows which roads to take and which roads to avoid; it provides heuristics, which narrow the scope of research to a set of plausible a priori hypotheses. The hard core of evolutionary psychology is represented by Hamilton's (1964) inclusive fitness theory, which is assumed to be true. This assumption is not just a belief - it is grounded in the myriad of empirical findings that evolutionary biologists gathered in favor of inclusive fitness theory. The auxiliary hypotheses - the protective belt, in Lakatosian terms - are subject to empirical testing. Metatheories are evaluated by the performance of the protective belt. If the metatheory generates new hypotheses and explanations, then the metatheory is judged to be progressive; if not it is judged to be degenerative.

As was argued before, evolutionary psychology has been a fruitful empirical approach, with many new discoveries and explanations (Buss & Reeve, 2003). In this sense it has been a progressive metatheory. So if we adopt a Lakatosian view of a metatheory, evolutionary psychology is evaluated as a fruitful metatheory. However, it is still problematic that evolutionary psychology so far is more a subdiscipline on its own, rather than an integrative, overarching theory for the social sciences. This leads to the following intriguing suggestion: the generation of novel hypotheses may lead to the creation of more areas of investigation, which results in the development of more subfields and eventually to an increasing fragmentation of the science, rather than a unification of different fields. Although it is hard to prove this idea, it may lead to the conclusion that a hard core theory that generates many novel hypotheses is not necessarily a metatheory that should be used by all social scientists. A good metatheory is a framework that all social scientists use to evaluate their theories. There are two approaches to evolutionary psychology as a metatheory that have not been described yet, which may offer a way out of the isolation of evolutionary psychology from other scientific disciplines.

Evolutionary Psychology Provides Conceptual Integration

It has been suggested that evolutionary psychology may be a metatheory for psychology by providing *conceptual integration*, or *vertical integration*, that is, the principle that all scientific disciplines should be mutually consistent (Cosmides, Tooby, & Barkow, 1992). In the natural sciences, different disciplines are already mutually consistent, for example, the laws of chemistry are compatible with the laws of physics. Cosmides and colleagues argued that in the social sciences compatibility is lacking, leading to theories that contradict each other and leading to theories that may not be feasible from an evolutionary point of view. Conceptual integration may lead to the solution of problems in one's own discipline by adopting methods and knowledge from other disciplines:

> Evidence from evolutionary biology can help social psychologists generate new hypotheses about the design features of the information-processing mechanisms that govern social behavior; evidence about cognitive adaptations can tell evolutionary biologists something about the selection pressures that were present during hominid evolution; evidence from paleoanthropology and hunter-gatherer studies can tell developmental psychologists what kind of environment our developmental mechanisms were designed to operate in; and so on. (Cosmides, Tooby, & Barkow, 1992, p. 12)

The proposal that evolutionary psychology can provide conceptual integration has been challenged by Looren de Jong and van der Steen (1998). They argued that evolutionary biology does not provide any laws, such as laws in physics or chemistry. Concepts such as adaptation and fitness are not fixed entities covering general patterns of evolution. Whether one calls a trait an adaptation depends on the criteria that one sets for an adaptation. These criteria are still highly debated in evolutionary biology (e.g., Brandon, 1990). Looren de Jong and van der Steen argued that evolutionary biology is not united at all, and it does not provide causal laws of hard science, so it cannot bring conceptual integration.

Lickliter and Honeycutt (2003) argued that psychology could be conceptually integrated with evolutionary biology, but that conceptual integration failed because evolutionary psychology so far has focused too much on inclusive fitness theory, a gene-centered theory. It would be more fruitful for psychology to focus on developmental systems theory. Developmental systems theorists do not view the gene as the center of evolution, but the whole developmental system at all its levels: molecular, cellular, physiological behavioral and environmental (see also Gottlieb, 2000). A true evolutionary metatheory for the social sciences should not only include inclusive fitness theory, but also an integration of the fields of genetics, embryology and developmental biology.

So far we can draw three conclusions with regard to the metatheoretical status of evolutionary psychology, one positive and two negative. The positive conclusion is that evolutionary psychology has been fruitful as a Lakatosian metatheory that generates new discoveries and explanations. A negative conclusion is that this metatheory has not resulted in a unification or conceptual integration of different scientific areas. This may be a natural consequence of having a successful theory that leads to the generation of novel hypotheses, which in turn leads to new fields of investigation, rather than an integration of fields. Another possibility is that the absence of unification is the result of the scope of the metatheory of evolutionary psychology. The scope of evolutionary psychology is inclusive fitness theory, and this scope may be too narrow to function as a metatheory for the social sciences. So the third conclusion is that if evolutionary psychology is the desired metatheory for the social sciences, then it may be necessary to broaden its scope in order to reach unification of different fields. These preliminary conclusions lead to a last approach to evolutionary psychology as a metatheory: evolutionary psychology is a metatheory for the social sciences if it cannot only generate new hypothesis, but it should also be able to address the main theories, or metaissues in the field, for example, the nature-nurture debate.

Evolutionary Psychology as a Metatheory that Addresses the Major Issues in the Social Sciences

Another approach to evolutionary psychology as a metatheory is that it should contribute to the major issues in the field (Ploeger, van der Maas, & Raijmakers, 2008). With regard to psychology, the major issues can be formulated as:

- Is the human mind mostly modular, or is the mind domain-general?
- What is the influence of nature and nurture on the human mind?
- Does development proceed in stages or gradually?
- How do individual differences arise?

My colleagues and I have argued that the contribution of the current metatheory of evolutionary psychology, that is, inclusive fitness theory, to these major question is too limited. With regard to the first question, evolutionary psychologists have argued that the mind is most likely to be modular, because modularity is a more efficient way to solve problems than a domain-general problem-solver (e.g., Cosmides & Tooby, 1994). However, this argument leaves unexplained the existence of several domain-general abilities (for an overview, see Ploeger et al., 2008).

With respect to the nature-nurture debate, evolutionary psychologists have explained why it is likely that the mind consists of many evolved psychological mechanisms, but they have so far not developed models that can account for the interaction or transaction between the genome and the environment. Evolutionary psychologists have not discussed the question whether development proceeds in stages or gradually, and from inclusive fitness theory alone it is not straightforward how the present metatheory of evolutionary psychology can contribute to this issue. With regard to the question about individual differences, evolutionary psychology so far has focused on discovering human universals, leaving the question about individual differences unanswered (e.g., Tooby & Cosmides, 1990), although there have been some evolutionary psychologists who have tried to address this issue (e.g., Buss, 2009; Wilson, 1994).

My colleagues and I have argued that evolutionary psychology should broaden its scope in order to become a fruitful metatheory that can address all the basic issues (Ploeger et al., 2008). We argued that theories and empirical findings from evolutionary developmental biology should be included in the metatheory, and we showed that this inclusion leads to new insights that contribute to the major debates in psychology. Evolutionary developmental biology is an approach that forges a synthesis of processes operating during individual development with those operating between generations (Carroll, 2005; Hall & Olson, 2003). This approach has led to a wealth of theories and empirical findings that are highly relevant to psychology, but have yet to be integrated. For example, with regard to the question whether the human mind is modular, there has been a lively debate among evolutionary developmental biologists about the role of modularity in evolution. Recent findings have shown that under some specific conditions modularity is more likely to evolve, while under other conditions there will be less modularity (Griswold, 2006). These findings can be used to explain the co-existence of modular and more domain-general structures in the human mind.

With respect to the nature-nurture debate, models that include both genetic and environmental factors have been studied extensively in the field of evolutionary developmental biology. These models can result in new insights for psychology, for example that there must exist a third source of variance, besides genes and environment, that consists of self-organized processes (Molenaar, Boomsma & Dolan, 1993). Research has shown that there is still considerable variation in body weight of mice, although their genetic makeup and their food intake are kept constant (Gaertner, 1990). This points in the direction of a third source of variance, for which models in evolutionary developmental biology provide an explanation (e.g., Kauffman, 1993). In addition, there has been ample research from an evolutionary developmental perspective on stages or phase transitions and their importance for development and evolution (e.g., Stadler, Stadler, Wagner, & Fontana, 2001). Also research on individual differences is abundant in evolutionary developmental biology (e.g., Zhang & Hill, 2005).

Thus, by broadening the scope of evolutionary psychology, it is possible to give a unique view on the major issues in psychology, by integrating psychology and insights from evolutionary developmental biology.

Discussion

It has been argued that evolutionary psychology could be a metatheory for the social sciences (e.g., Buss, 1995). In this paper, an overview of different arguments has been given, and the value of these arguments has been evaluated. Buss (1995) argued that evolutionary psychology could unify the different subdisciplines of psychology that so far have worked in isolation. The metatheory that could establish this unification was inclusive fitness theory (Hamilton, 1964). However, so far evolutionary psychologists have not been able to bridge the gap between different research areas.

First of all, it could be argued that we should not desire to build a metatheory that connects all areas in psychology and the social sciences. It may be impossible to have such as overarching theory, because the different areas in psychology and the social sciences are too specialized and address too many different questions. In addition, mini-theories and individual empirical findings have their own merit, and should not be disregarded.

Second, if we believe that a metatheory is desirable, it could be argued that unification of different disciplines should not be the main aim of a metatheory. Instead, it could be argued that the main aim of a metatheory is to evaluate different theories within a field. For evolutionary psychology, this would imply that its framework can be used to evaluate theories such as Skinner's learning theory, Piaget's developmental theory and Festinger's theory of cognitive dissonance. These theories should be consistent with the principles of evolutionary theory. This idea is closely related to the proposal of Cosmides, Tooby and Barkow (1992), who have argued that evolutionary psychology can provide conceptual integration, that is, it can make the social sciences more consistent with each other and the natural sciences. However, a problem with this view is that evolutionary biology does not provide laws, like physics and chemistry do, and that it is not clear whether evolutionary biology is united itself, so it cannot provide conceptual integration (Looren de Jong & van der Steen, 1998).

Evolutionary psychology has met other criticisms. For example, it has been argued that evolutionary psychologists cannot provide empirical evidence for the theory that the mind consists of many evolved psychological mechanisms, or adaptations (Lewontin, 1998). However, it is possible to provide this evidence by means of nomological networks of evidence (Schmitt & Pilcher, 2004). But this may lead to the argument that a nomological network of evidence does not provide a metatheory, but that such a network can be used to evaluate hypotheses that are related to the metatheory. In terms of Lakatosian philosophy of science, the nomological network of evidence is the protective belt of the metatheory, not the metatheory itself.

It has been proposed that evolutionary psychology should be perceived from the perspective of Lakatosian philosophy of science (Ketelaar & Ellis, 2000). A metatheory from this perspective is defined as a set of consensually held assumptions that lead to the generation of new theories and hypotheses. For evolutionary psychology, these consensually held assumptions are the basic tenets of evolutionary theory, or more specifically, inclusive fitness theory. Because inclusive fitness theory has been confirmed thousands of times by evolutionary biologists, it can be assumed that this theory is correct. Evolutionary psychology has been a fruitful approach to generating new hypotheses (Buss & Reeve, 2003), so in the Lakatosian sense, evolutionary psychology is a true metatheory. The hard core, that is, inclusive fitness theory, is protected by the protective belt of confirmed hypotheses. However, the hard core of evolutionary psychology has not led to the unification of different fields. It may be that the generation of novel hypotheses leads to the creation of more different areas of investigation, and thus to more fragmentation, instead of unification.

A last approach to evolutionary psychology as a metatheory is based on the idea that a metatheory should contribute to the major issues in a field. Ploeger, van der Maas and Raijmakers (2008) have argued that inclusive fitness theory alone cannot provide a satisfying contribution to the major issues in psychology, but that evolutionary psychology needs to broaden its scope. Possibilities are the inclusion of dynamical systems theory (e.g., Kenrick, 2001), evolutionary game theory (Nowak, 2006), evolutionary cognitive neuroscience (e.g., Platek, Keenan, & Shackelford, 2007), and evolutionary developmental biology (e.g., Ploeger et al., 2008). We have focused on the last approach, and we have shown that if evolutionary psychology is willing to include theories and empirical findings from evolutionary developmental biology, it can give a unique view on the major issues. If evolutionary psychology can give answers to the questions that have occupied the minds of psychologists for so long, it may truly become a unifying framework for the social sciences.

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Toward a Metatheoretical Integration of Developmental Paradigms

Mark W. Antley[1]

Abstract: This paper shows how a partial consilience might be achieved in the field of human development by means of principles from general systems theory. The author concurs with Sameroff (1989) that it is possible to interpret the mechanistic, organisimic, and contextualist paradigms/worldviews (Goldhaber, 2000; Pepper, 1970) in terms of general systems theory. The author selects a major developmentalist from each paradigm and interprets that scholar's work in terms of systems principles. The following developmentalists were selected: Arnold Sameroff (contextualism), Erik Erickson (organicism), and Albert Bandura (mechanism). The systems principles employed are *wholeness and order*, *self-stabilization*, *self-reorganization*, *hierarchical interaction*, and *dialectical contradiction* (Sameroff, 1989). The author addresses the conflicting presuppositions of the major paradigms in order to provide for their theoretical subsuming under systems theory. Finally, the author notes areas of inconsistency that will need to be resolved in the future and calls for further scholarship to translate developmental theory in terms of general systems theory for the benefit of students, scholars, consultants and other practitioners familiar with systems theory.

Keywords: Contextualism, developmental systems, general systems theory, mechanism, organicism.

Interpreting Human Development In Terms of Systems Theory

The field of inquiry that studies and theorizes about human development is fragmented. There is no "Big Bang" theory of human development to form the basis of a general consensus nor is there a universally accepted paradigm to guide research. In an effort to integrate the diverse approaches to developmentalist scholarship, Goldhaber (2000) turned to Pepper's (1970) metatheoretical paradigms of *mechanism*, *organicism*, and *contextualism*. (See the appendix for more information on these paradigms). Subsuming a century of developmental research and scholarship under just three paradigms was a major achievement, but still, "this is not a very satisfying state of affairs" (Goldhaber, 2000, p. 10), since theories from one paradigm cannot be directly compared with theories from another paradigm because of conflicting assumptions underlying the various paradigms. Nonetheless, Goldhaber (2000) believed "a broad enough conceptualization" (p. 11) could unite the three paradigms into one.

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Perhaps such a conception exists, if only in embryo. As Laszlo (1996) has noted, “systems thinking gives us a holistic perspective for viewing the world around us, and seeing ourselves in the world. It is a way of organizing, *or perhaps reorganizing* [italics added], our knowledge in terms of systems, systemic properties, and inter-system relationships” (p. 16). In a similar vein, Sameroff (1989) writes:

> General systems theory may provide a framework for the combination of [mechanistic, organismic, and contextualist] models. . . . Within such a more general view, interpretations can be made as to why a system appears to function mechanistically from one perspective, organismically from a second perspective, [and] contextually from a third. (pp. 231-232)

Significant scholarship in each of the three major developmentalist paradigms is already based on systems theory, or can readily be interpreted in light of systems concepts. I wish to demonstrate that, in principle, contextualist, organismic, and mechanistic theories can be interpreted using systems principles. Achieving this would be a step in the direction of concillience and allow students, scholars and practitioners steeped in systems theory and systems perspectives to more readily apply the fruits of developmental scholarship to their research and praxis. To demonstrate this conclusively would require an exhaustive analysis and reinterpretation of developmental literature in each of the major developmental paradigms. The goal of this paper is more modest, to take the first tentative steps toward conscilience in developmental theory. Using systems principles, I will present and/or interpret the work of one scholar from each of the major developmentalist paradigms, following Goldhaber’s (2000) grouping of major developmental scholars into Pepper’s (1970) metatheoretical paradigms of *contextualism*, *mechanism*, and *organicism* . If this attempt is successful, future scholarship my expand on the approach taken here. We shall begin by examining systems thinking in contextualist research following Goldhaber (2000).

Contextualist Systems Thinking

According to Goldhaber:

> All developmental [paradigms] look at persons in context. Mechanists do so in a reductionist way that allows them to disentangle independent variables. Organicists do so in a holistic way that allows them to make universal claims about sequence. For contextualists, however, the phrase *person in context* has a somewhat distinct meaning. Specifically, the person and the context are not two discrete entities interacting in some fashion; instead they form one interdependent but ultimately temporary entity…. For contextualists this interdependence means that [human] development is best studied from a systems perspective. (p. 52)

One of the most straight-forward contextualist system thinkers that Goldhaber (2000) identifies is Arnold Sameroff. Being a systems advocate himself, it will not be necessary to reinterpret Sameroff’s work in terms of systems concepts as he has done so already.

Table 1. Theoretical Principles of Development (Note. Adapted from Sameroff, 1989)

General Systems	Developmental Systems
Wholeness & order	Continuity & identity
Self-stabilization	Development
Self-reorganization	Evolution
Hierarchical interaction	Discontinuity
Dialectical contradiction	Motivation

Sameroff (1989) applies general systems theory directly to human development. “Although there are a large number of . . . systems theories” writes Sameroff, “I have settled on five principles the capture the core issues in such perspectives [a] wholeness and order, [b] self-stabilization, [c] self-reorganization, [d] hierarchic interaction, and [e] dialectical contradiction” (pp. 220-221). He relates each of the selected general systems principles to an analogous developmental principle (see Table 1 above). We will look at each of these in turn beginning with wholeness and order.

Wholeness and order. “The reason that wholes are more than the sum of their parts,” explains Sameroff (1989), “is that relationships are added that can never be assigned to single elements” (p. 221). He goes on to elaborate that wholes and parts form a nexus wherein the parts constrain and define the whole even as the whole constrains and defines the parts.

Sameroff (1989) suggests “the developmental analog of wholeness and order is continuity and identity;” and “as in the organismic metaphor of the cell, continuity is in the relationship of the parts rather than in their specificity (p. 221).” Even more radically, he asserts that “a family is defined independently of the specific actors, although this definition is itself in flux with the evolution of serial parenting in multimarriage families” (Sameroff, 1989, p. 222). Let us now examine Sameroff’s treatment of *self-stabilization.*

Self-stabilization. In the open system of a living organism, self-stabilization is an ongoing process that involves both homeostasis and homerohesis (Waddington, 1962; Sameroff, 1989). Homerohesis, the process of stabilizing around a moving point, constitutes development inasmuch as new forms of organization are required to enable the system to function at higher levels that are not necessary inherent in the organism, but a functional synthesis of organism and environmental conditions. According to Sameroff (1989):

> What we observe as development is a product of self-stabilization. An active organism subject to an ordered series of perturbations will respond with an ordered series of adaptations. Most attention has been devoted to internal sources of perturbations, usually labeled as maturation. As the genotype regulates biological changes in the body, there is a continuous process of adaptation while each change is assimilated into the system’s functioning. . . . [Far] less attention has been paid to the ordered series of external

> perturbations that also serve to organize and regulate development. I have labeled the regulatory systems for experience the environtype. The environtype includes a developmental agenda for raising children in which graded changes in the child trigger changes in the environment [as controlled by parents, care-givers, and educators]. (p. 222)

Having seen how Sameroff has used the principle of *self-stabilization*, let us see how he employs the principle of *self-reorganization.*

Self-reorganization. The process of self-reorganization of an organism in response to environmental change is evolution (Sameroff, 1989). Sameroff cautions that evolutionary changes should not be interpreted to mean that the organism is becoming "better," but rather more adapted to its environment.

Consider the case of Andy Dufresne in Stephen King's 1994 motion picture, *The Shawshank Redemption*. Andy never committed a crime until after he was falsely convicted of his wife's murder. Once behind bars, he uses his knowledge of commerce and finance to create a false identity and bank accounts to launder the proceeds of graft and corruption, eventually embezzling the funds and escaping from the prison.

While we don't know for sure whether he would have eventually turned to crime, the natural interpretation is that he was driven to these uncharacteristic behaviors by his environment. Superficially, this may appear as a mere change in behavior, but surely there must be underlying psychological and personality changes as well. The principle of *self-reorganization* seems to be related to the principle of *hierarchical interaction* to be examined next.

Hierarchical interaction. Sameroff appeals to the general systems principle of *hierarchical interaction* to explain developmental discontinuities. Such discontinuities are a result of alternative descriptions of organic subsystems (Patee, 1973). Sameroff explains:

> Each part of a system has a number of properties that can place it in relation to other parts. . . . In a hierarchy, superordinate levels . . . only utilize some properties (i.e., alternate descriptions) of the subordinate level. . . . At the behavioral level society is composed of institutional [systems] composed of individual subsystems. [Individuals] are only valued if they fulfill some defined . . . role in the organization. Whether the individual is male or female, white or black, young or old, physically handicapped or retarded, may be relevant or irrelevant for certain role [descriptions]. Discontinuity is found when alternative descriptions are important in different social contexts or . . . developmental periods. (Sameroff, 1989, p. 225)

In some cases the discontinuities found as a result of *hierarchical interaction* might lead to *dialectical contradictions.*

Dialectical contradiction. Dialectical contradiction is the "motivational force" in behavioral change (Sameroff, 1989, p. 226) and psychological development (Piaget, 1971). Such contradictions arise naturally as a result of unintended, adverse consequences of actions.

Contradictions may also arise as a result of immature and/or incorrect understandings of objects in the environment of the organism.

> Equilibration is the result of an individual's efforts to overcome contradictions between the subject's cognitive organization and the object. Each assimilation requires some accommodation to occur because no two experiences are ever identical: and each new accommodation means that the next experience will be assimilated somewhat differently because the subject will have been changed. (Sameroff, 1989, pp. 226-227)

Sameroff is a thoroughgoing systems thinker who presents his theories in terms of systems concepts. Next we will look at a developmentalist from the organismic paradigm who does not claim to be a systems thinker, but who can be readily interpreted in those terms.

An Organismic Theory of Lifelong Development

I asserted earlier that significant work in each paradigm either employs systems thinking or can be interpreted from a systems perspective. In the last section we considered the former; in this one we shall attempt the latter, interpreting an organismic theory using the concepts of systems thinking. We will be looking at the work of one of the great psychodynamic theorists of organicism identified by Goldhaber (2000), Erik Erikson.

Erikson's Theory of Psychosocial Development

One of the appealing things about Erikson's work is that he considers human development to be a lifelong process. Trained as a psychoanalyst, Erikson articulated an original developmental theory based on epigenetic, psychodynamic, and sociological principles (Goldhaber, 2000).

Table 2. Erikson's Stages of Psychosocial Development (Note. Adapted from Erickson, 1997)

Stages	Psychosocial crisis	Significant relations	Basic strengths	Core pathologies
I Infant	Trust vs. mistrust	Maternal person	Hope	Withdrawal
II Toddler	Autonomy vs. shame, Doubt	Paternal persons	Will	Compulsion
III Preschooler	Initiative vs. Guilt	Nuclear family	Purpose	Inhibition
IV School age	Industry vs. Inferiority	School, neighborhood	Competence	Inertia
V Adolescence	Personal identity vs. role confusion	Peer groups, out groups, role models	Fidelity	Repudiation

VI Young adult	Intimacy vs. isolation	Friends, sexual partners	Love	Exclusivity
VII Mature adult	Generativity vs. stagnation	Coworkers, colleagues, members of household	Care	Rejectivity
VIII Older adult	Integrity vs. despair	Humanity (or ethnic group)	Wisdom	Disdain

His theory has eight stages (see Table 2) beginning with infancy with its focus on the maternal person and ending with old age with its greatly expanded focus on humanity (Erikson, 1997). Each stage has its central crisis. If the crisis is resolved positively, the individual will acquire the basic strength of that stage; a negative resolution engenders the core pathology of that stage. Each stage must be resolved, whether positively or negatively, before the next is entered. However, no resolution is final, both in that regression is possible, and that subsequent life events can lead to the revision of the resolution of a previous stage. Also each strength acquired at a prior stage must find a new expression in the current stage. For instance, the hope engendered in infancy should mature into faith in the older adult (Erikson, 1997).

Now let's examine Erikson's theory of psychosocial development from a systems perspective.

A Systems Interpretation of Erickson's Theory

We will interpret Erickson's theory of psychosocial development using the systems concepts discussed above in the section on Sameroff, namely (a) wholeness and order/continuity and identity, (b) self-stabilization/development, (c) self-reorganization/evolution, (d) hierarchical interaction, and (e) dialectical contradiction. We begin with wholeness and order.

Wholeness and order/continuity and identity. Physically, the system has a continuous discrete identity from birth to death of the organism. Psychologically, continuity is a function of memory and to some extent, imagination—both in the sense in which a child can imagine life as an adult and in the sense that an adult must psychically grapple with the impending existential discontinuity of death.

Psychologically, identity is more complex. Temporal succession notwithstanding, the different stages of ones life and the different roles one must play (lover, scholar, mother) are distinct; therefore a cohesive sense of personal identity is a construct that either coheres or crumbles depending as much on one's psychic fortitude as on the social storms and communal anchors one encounters in life. Now let us see how the principle of *self-stabilization* can be found in Erikson.

Self-stabilization/development. Each of Erikson's stages has two opposing attractors (an attractor being a point that draws the system to it): a positive one and a negative one. As the system first enters a stage it is unstable and of indeterminate valence (at least with respect to the current stage) because it is out of equilibrium, having not yet settled on either of the attractors. Development is the movement from an indeterminate state to a determinate equilibrium. If the system moves to a point of equilibrium around the positive attractor, the system can be said to have a positive valence; that is, the individual has a positive outlook and is psychologically healthy for the stage of life she is in.

So, if a toddler who left infancy well nurtured, hopeful, and trusting of her mother is subsequently orphaned and placed with authoritarian foster parents, she may resolve her next stage of development in a state of doubt with compulsive tendencies. This is a psychological development albeit a negative one. Having found the principle *self-stabilization* in Erikson, let us see how the principle of *self-reorganization* might be understood.

Self-reorganization/evolution. Over time the system loses its equilibrium, becoming unstable once more due to either endogenous or exogenous changes to the system. The attractor that previously held the system in equilibrium is no longer sufficient so the system reorganizes itself and must seek a new “higher” equilibrium. This change in state is what is meant by evolution.

Imagine a construction worker in his fifties who is in stage VII, middle adulthood. Now suppose he develops arthritis and other age-related physical conditions that force him to retire. Due to endogenous changes in his bodily subsystems he is compelled to evolve into stage VIII, older adult. Perhaps an engineer works for the same company who is also in her fifties. Due to an organizational restructuring, she is offered an early retirement package which she chooses to accept. In her case it was exogenous changes that lead to her evolving to stage VIII, but from a systems perspective it is irrelevant whether the evolution is caused by endogenous or exogenous changes. Let us now consider the systems principle of *hierarchical interaction.*

Hierarchical interaction. Erikson’s own words sound very much like a systems theorist at this point:

> [We] begin with the assumption that a human being’s existence at every moment [depends] on three processes of organization that must complement each other. There is…the biological process of the hierarchic organization of the organ systems constituting a body (*soma*); there is the psychic process organizing individual experience by ego synthesis (*psyche*); and there is the communal process of the cultural organization of the interdependence of persons (*ethos*). (pp. 25-26)

One may infer that the *psyche* mediates between the levels of *soma* and *ethos*, the hierarchical levels directly below and above it; the individual experiences input from both his body (e.g. in the form of hunger or sexual arousal) and from the culture (e.g. in the person of a parent, or priest) which must then be synthesized in some manner (e.g. I can eat *after* father says grace—or—I can discretely have sex with this partner, *but* I cannot marry her because she is not of my people.) Finally let’s look at *dialectical contradiction*.

Dialectical contradiction. Although he used different terminology, Erikson (1997) recognized the principle of dialectical contradiction at work in the process of *sublimation*, as this excerpt shows:

> [At present] *sexual frustration* is recognized as pathogenic, while *generative frustration*, [resulting from] the dominant technological ethos of birth control, is apt to remain unrecognized. Yet, sublimation, or a wider application, is the best use of frustrated drive energies. Thus…a new generative ethos may call for a more *universal care* concerned with…the lives of all children. (p. 68)

In this example the biological generative urge is dialectically contradicted by the technological ethos of birth control which leads to the (at least potential) synthesis of a universal care for the lives of all children. We turn now from one of the great organicists that Goldhaber (2000) classified to perhaps greatest mechanist he selected, Albert Bandura (It may be worth noting that Bandura's work may be regarded as either expanding or transcending the mechanist paradigm).

A System's Interpretation of Bandura's Mechanistic Social Learning Theory

Bandura has significant elements of systems thinking in his Social Learning Theory, perhaps most notably his concept of reciprocal determinism (see Figure 1). Reciprocal determinism means that both the person and the environment influence behavior, and vice-versa; the environment shapes the person, and the person shapes the environment (Bandura, 1977).

Bandura's Social Learning Theory

Reciprocal determinism and observational learning form the core of Bandura's (1977) Social Learning Theory. Simply put, observational learning occurs when persons respond with matching performances to events modeled in their environment. Observational learning has four sub-processes: *attentional, retention, motor (re)production, and motivational processes.*

*Attentional processes a*re a function of the modeling stimuli and observer characteristics (Bandura, 1977). Modeling stimuli are characterized by distinctiveness, affective valence, complexity, prevalence, and functional value. Observer characteristics include sensory capabilities, arousal level, perceptual set, and past reinforcement.

Retention processes. Retention of the modeled events by the individual is accomplished by *symbolic coding, cognitive organization, symbolic rehearsal, and motor rehearsal* (Bandura, 1977). The first three of these are cognitive processes; the last is a psychomotor process.

Motor (Re)production Processes. Motor (re)production is dependant on the individual's physical capabilities, availability of component resources, self-observation of reproduction, and accuracy of feedback (Bandura, 1977).

Motivational Processes include *external reinforcement, vicarious reinforcement, and self-reinforcement.* External reinforcement is traditional *Skinnerian* conditioning. The discovery of vicarious reinforcement was Bandura's major breakthrough. Self-reinforcement, whereby an individual internalizes standards of praiseworthiness, is also a significant motivational process, especially as the individual develops her own moral standards (Bandura, 1977).

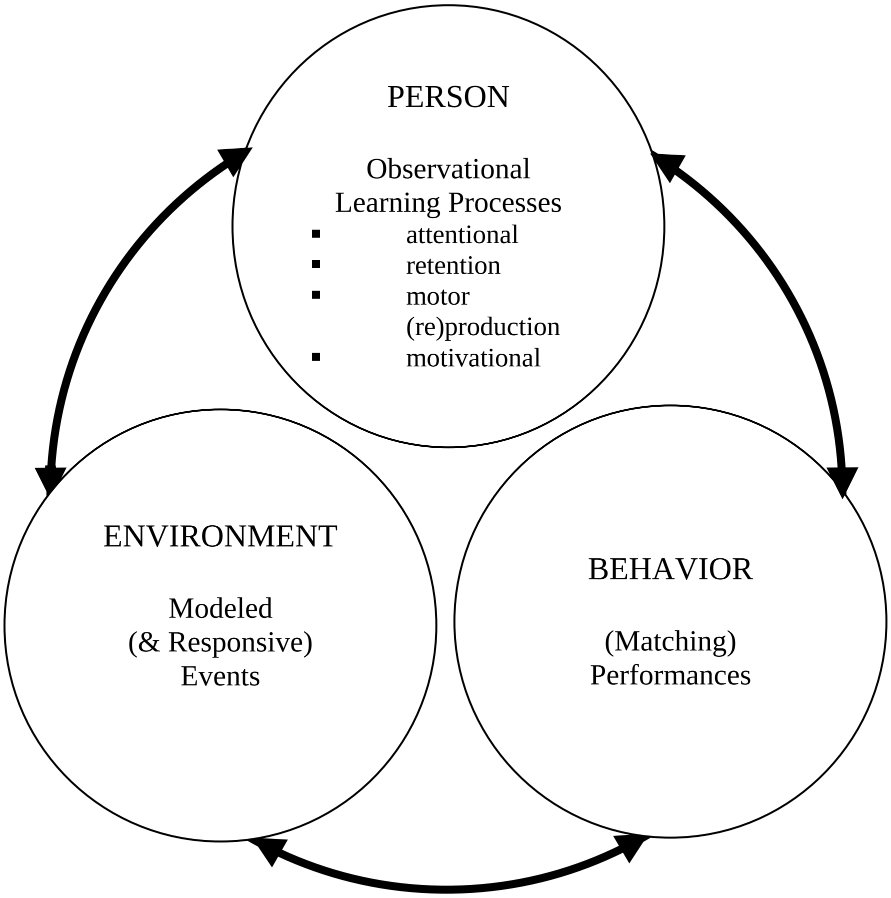
PERSON
Observational
Learning Processes
▪ attentional
▪ retention
▪ motor (re)production
▪ motivational
ENVIRONMENT
Modeled
(& Responsive)
Events
BEHAVIOR
(Matching)
Performances

Figure 1. Reciprocal Determinism (Note. Adapted from Bandura, 1977)

Motor (Re)production Processes. Motor (re)production is dependant on the individual's *physical capabilities, availability of component resources, self-observation of reproduction, and accuracy of feedback* (Bandura, 1977).

Motivational Processes include *external reinforcement, vicarious reinforcement, and self-reinforcement.* External reinforcement is traditional *Skinnerian* conditioning. The discovery of vicarious reinforcement was Bandura's major breakthrough. Self-reinforcement, whereby an individual internalizes standards of praiseworthiness, is also a significant motivational process, especially as the individual develops her own moral standards (Bandura, 1977).

A System's Interpretation of Bandura's Theory

We will interpret Bandura's Social Learning Theory using the same systems concepts employed above, namely wholeness and order, self-stabilization, self-reorganization, hierarchical interaction, and dialectical contradiction.

Wholeness and order. Bandura (1977) sees the environment, the organism, and its behavior as codetermining each other. From a systems perspective the person, behaviors, and environmental prompts/responses form a single system—an organized whole—with each of the components mutually influencing the others.

A cycle may begin with an infant forming a facial expression (perhaps she has gas). The grandparents observing the infant interpret the expression as a "smile" and then smile back and hug and kiss her, reinforcing the behavior, and leading to more smiling in the future.

However, it's not merely a case of the environment reinforcing behavior; the infant also influences the environment—she "smiled" first! When she gets older she will learn to smile deliberately to be cute or seductive. Having considered *wholeness and order*, let's see how the principle of *self-stabilization/development* can be found in Bandura.

Self-stabilization/development. Development is a matter of patterns activity in the system stabilizing over time. Recall that in the systems interpretation the individual is just a part of the system. It is not possible to isolate the influence of different components of the system. Bandura (1997) writes:

> Even when new responses are formed entirely on the basis of learning experiences, physiological factors serve as contributing influences. While the organization of behavioral components into new patterns results from experience, the rudimentary elements are present as part of the natural endowment. (p. 16)

Along similar lines he notes that, "complex behaviors . . . are formed through [the] integration of many constituent activities of differing origins. For this reason . . . it is [inappropriate] to categorize behaviors as learned or innate or to try to apportion relative weights to these factors" (Bandura, 1997, p. 17).

The development of speech is a good example of this. Speech is modeled in the environment, and the infant responds. But the infant is just as likely to begin babbling and the mother to respond. The child also wants to express certain things—like a desire to have a cookie—so spontaneous and modeled/reinforced behaviors, along with the volitional effort of the child, all coalesce resulting in the development of speech. Over time the child learns to express/respond to increasingly complex language and may even learn to read and write or to speak other languages. We have seen the principle of *self-stabilization/development* illustrated in the acquisition of language, now let's move onto *self-reorganization/evolution*.

Self-reorganization/evolution. Bandura (1977) does not emphasize psychological reorganization/evolution. Perhaps the closest he comes is with his concept of the *cognitive* *organization process,* whereby social inputs are symbolically organized in the mind of the learner. However, a systems interpretation in which the social environment is part of the system under analysis (refer to Figure 1 above) lends itself to interpretation in terms of *self-reorganization/evolution.* The "self" in this context is the *system.* It might be helpful to conceive of this "self/system" from a phenomenological perspective. For instance, Heidegger (1962), makes no distinction between an individual and the environment in which she lives, but rather uses the concept of "being-in-the-world."

Bandura (1986) observes that "through their actions people create [and recreate] their environments" (p. 31). Although the immediate context of this quote emphasizes continuity rather than evolution, interpreting it to support evolution does no violence to Bandura's thought. After all, he note that, "by [re]arranging environmental inducements, generating cognitive supports, and producing consequences for their own actions, people are able to exercise some measure of control over their own [evolution] (Bandura, 1986, p. 31). The selection of new environments with its concomitant reorganization of one's personal life allows an individual to, for instance, enter graduate school and evolve into a Ph.D. The next systems principle to consider is *hierarchical interaction*.

Hierarchical interaction. Human learning has a biological component, a psychological component, and a sociological component (Bandura, 1977). The psychological component has cognitive, conative, and affective subcomponents. The sociological component consists of persons in the environment (including symbolic actors in the media) modeling certain behaviors. Whether the behavior is emulated is a function of psychological processes (attention, retention and self-motivation), psychosocial processes (external and vicarious reinforcement), and biological processes (physical capabilities and motor reproduction processes) (Bandura, 1977). Bandura doesn't explicitly express the interaction of these processes as hierarchical, but such an interpretation arises naturally. We move on now to the final principle of *dialectical contradiction.*

Dialectical contradiction. Interestingly, Bandura's social learning theory considers not only the behavior and development of individuals, but also the behavior and development of groups. When writing on groups the principle of *dialectical contradiction* is apparent where he observes, "when self-determination is restricted by prejudice, those who are affected attempt to remove inequities by altering practices that compromise . . . the professed equality of values of society" (Bandura, 1977, p. 202). He is seems to be thinking of the US civil rights movement of the 1960s and in particular of Dr. Martin Luther King's *I Have a Dream* speech. This concludes my analysis of Bandura; we move now to the broader objective of this paper.

Towards a Systems Synthesis of Contextualism, Organicism, and Mechanism

In the preceding sections of this paper I have shown how the work of developmentalists in each of the major paradigms, following Goldhaber (2000), can be interpreted in terms of the general systems principles of *wholeness and order*, *self-stabilization*, *self-reorganization*, *hierarchical interaction*, and *dialectical contradiction* identified by Sameroff (1989). Having done this demonstrates that, at least in principle, the systems paradigm can subsume the contextualist, organismic, and mechanistic paradigms. The constraints of time and space (not to mention my limited expertise) prevented me from undertaking a comprehensive interpretation of all relevant scholars in each paradigm.

However, Jerry Snow (2006, private communication) has pointed out that for the systems paradigm to properly subsume the contextualist, organismic, and mechanistic, paradigms it must "transcend but include" the presuppositions of each. Granted, but it doesn't have to include *all* of their presuppositions, just the compatible ones. To facilitate the analysis, I have adapted Goldhaber's (2000) table comparing the three paradigms/worldviews (see below).

Table 3. Comparison of Pepper's Three World Views (Note. Adapted from Goldhaber, 2000)

World View	Mechanism	Organicism	Contextualism
Generalizability	Universal	Universal	Situation-specific
Types of Acceptable Causes	Efficient, material	Efficient, material, formal, final	Efficient, material, formal
Level of Analysis	Reductionist	Holistic	Holistic

Studying the table, we find that both mechanism and organicism hold with universal laws; contextualism sees each situation as unique. Let us also hold with universal laws while recognizing that their manifestation in some contexts will be situation-specific. Mechanism recognizes efficient and material causes. Contextualism recognizes these as well as formal causes. Organicism recognizes all of the above in addition to final causes. Let us recognize that each of these conceptions of causality has explanatory value. Furthermore, let us include the notion of circular causality, what Bandura would call reciprocal determinism. Finally, mechanism employs reductionist analysis, whereas organicism, and contextualism employ holistic analysis. Let us favor holistic analysis while recognizing the contribution of reductionist analysis.

Moving beyond the table, Goldhaber (2000) has related that only organicism asserts that human development has a single ideal unidirectional trajectory; mechanism and contextualism observe multiple trajectories and even the possibility of regression. Let us dispense with the simplistic notion of a single, ideal developmental trajectory and embrace the rich complexity of the phenomenon of human development.

Implications for Scholarship and Praxis

This paper has demonstrated the viability of translating the different paradigms of developmentalism into the language of systems theory, with an eye toward consilience. Of course, total consilience is an ideal that can be at best partially approximated. Nevertheless, if a broader effort were made to translate the work of developmentalists using systems concepts, scholars working in disparate paradigms might more readily comprehend and incorporate research from other developmental paradigms. Students could more easily grasp developmental theory if they didn't need to learn multiple dialects of technical jargon. Finally, consultants, coaches, and other practitioners already steeped in systems thinking, could more readily utilize research findings in their praxis.

In this paper five systems principles were used consistently within each section, but not across sections. The smallest set of consistent developmental systems principles needs to be advanced by further scholarship. If consilience is a worthwhile goal in the field of human development, perhaps others will contribute their own translations of key developmental scholarship into systems theory. Ultimately a metatheoretical integration of developmental paradigms may emerge.

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Appendix

A Synopsis of Mechanism, Organicism, and Contextualism

As mentioned earlier, the terms *mechanism*, *organicism*, and *contextualism* were coined by Pepper (1970). Goldhaber (2000) made use of them in his text, *Theories of Human Development: Integrative Perspectives.* (Pepper also discussed a fourth paradigm, *formism*; however Goldhaber didn't make use of it.) Given the thrust of this paper, I have used Pepper's terms as modified and given specific content by Goldhaber. Let us begin with mechanicism.

Mechanism

Each of the worldviews Pepper (1970) analyzed has a certain root metaphor. In the case of mechanism, it is the machine. As Goldhaber (2000) observes:

> Although any machine could be used to illustrate the concept of development as a mechanistic process, two specific machines—the telephone switchboard and the computer—are… most frequently used. The telephone switch board is a simple mechanism…. When someone dials a phone number, a signal is sent to the switchboard… and the phone rings at the other end. This is essentially a process of linking stimuli with responses—and much of the research in the mechanistic tradition involves the linking of stimuli with responses. The introduction of the computer has added another dimension to the mechanistic accounts of [development]. Unlike the switchboard, which simply makes connections, the computer takes input (stimuli) and does something to it; that is, it processes information. What the computer does depends as much on the nature of the program that is processing the input as on the nature of the input itself. (Goldhaber, 2000, p. 18)

While not specifically a member of the information processing school of developmental mechanicism, Bandura's (1977, 1986) social learning and cognition theories seem to be relying on a computer-like model of human beings, albeit a highly sophisticated model. We turn next to organicism.

Organicism

The following excerpts give a sense of Goldhaber's (2000) conception of organicism.

> Pepper's root metaphor for the organismic perspective is the living organism. [The] key element of the organismic view is the process through which elements are integrated to form a *synergistic whole.* In a synergistic whole, the integrated system, unlike the machine, is more than the sum of its parts.
>
> [The] most significant difference between [organicism and mechanicism] concerns how change occurs. For mechanicists, change comes about when an external force . . . acts upon an object that is inherently at rest. For organicists, behavioral change is inherent in the living organism itself. . . . Change is therefore one of the defining characteristics of living

> organisms. . . . This distinction concerning the reason [organisms] change prompts organicists to view development as a unique form of change, . . .development is directional….
>
> Although the developmental process in organicism is directional, its outcome . . . is not preordained. [There] is no guarantee that any individual will ever reach his or her developmental end point. (Goldhaber, 2000, pp. 32-34)

For Ericson, as we saw above, that endpoint was *wisdom.* Now let's take a look at contextualism.

Contextualism

Finally, here are some excerpts from Goldhaber (2000) on *contextualism.*

> Pepper chooses the *historical act* as the root metaphor for contextualism. This choice is not meant to imply that contextualism is a world view rooted in the past but rather the meaning of any behavioral event is dependent on the context in which it occurs. (Goldhaber, 2000, p. 47)
>
> It is the character of the quality and texture of an event or historical act, as viewed by the participant, that defines his or her context. And it is the interdependence between the event and the individual, each defining and at the same time being defined by the other that is the focus for the contextualist. (Goldhaber, 2000, p. 50)
>
> One of the ways in which contextualism differs most from the other two world view concerns the issue of direction in development. [Organicists] argue that it is possible to identify a . . . sequence of developmental stages. . . . Contextualists make no such claim . . . arguing that not one but many developmental trajectories are possible. (Goldhaber, 2000, p. 53)
>
> [The] contextualist perspective on the study of human development directs our attention to the social, political, moral, and economic institutions that sustain and are supported by current assumptions about human activity. (Goldhaber, 2000, p. 55)
>
> Perhaps because of their emphasis on context, contextualists tend to be especially sensitive to the intentional and/or unintentional political and socioeconomic ramifications of developmental theories. This sensitivity is reflected in both their concern for the sociohistorical origin of the hypotheses tested by developmentalists and in their belief the proper purpose of research is in fostering equality and social justice. (Goldhaber, 2000, p. 62)

Given the dispersive character of contextualism, one should not expect any particular contextualist developmentalist to incorporate all or even most of its tenants. Sameroff's (1989) concept of *envirotype* reflects his awareness of the significance of context on development. Other contextualist notions are less prominent.

Advaita (Non-dualism) as Metatheory: A Constellation of Ontology, Epistemology, and Praxis

Latha Poonamallee[1]

Abstract: Integrating contradictory and mutually exclusive positions is a challenge in building a metatheory. In this paper, I examine how *advaita* (non-dualism) philosophy is a metatheory. Based on a holistic, non-dualistic ontology, discovery based epistemology, and personal accountability-action-reflection oriented praxis, it provides a useful metatheory for embracing, learning from, and transcending the paradoxes of social life. I use the example of Gandhi as a practitioner of this approach to action and knowledge.

Keywords: Epistemology, metatheory, ontology, paradox, praxis.

Introduction

Metatheories have continued to draw the attention of scholars in different fields (Abrams & Hogg, 2004; Carter & Jackson, 1987; Ritzer, 1988; Tsoukas, 1994). However, the discourse around nature, use and legitimacy of metatheory is a highly contested one. For example, Ritzer (1988, p. 188) while making a useful distinction between metatheory that seeks to lay down the prerequisites for doing theory, and metatheories that take developed theories as their subject matter, also bestows legitimacy on the latter approach as more useful and argues that the former approach prevents us from getting on with theorizing. Another school of thought (Abrams & Hogg, 2004; Furfey, 1965; Carter & Jackson, 1987) takes the position that examining metatheory as a constellation of ontological, epistemological, and methodological assumptions (Carter & Jackson, 1987) is a useful one.

This paper is more aligned with the latter view that an examination of the underlying assumptions about theorizing can increase “theoretical consciousness” (Ritzer, 1988) and provide an alternate framework for inquiry (Abrams & Hogg, 2004). Metatheory defines the boundaries of a phenomenon, its audience, and the level of analysis to study a particular phenomenon (Abrams & Hogg, 2004). Furthermore, each theory depends on a metatheory for its legitimacy (Carter & Jackson, 1987). If a metatheory is defined as a constellation of ontological, epistemological and methodological assumptions, one of the biggest challenges that it faces is how to integrate the conflicting and paradoxical nature of these assumptions that permeate most social science research. Van de Ven and Poole (1988) define paradox as the simultaneous presence of two mutually exclusive assumptions or statements; taken singly, each is

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incontestably true, but taken together they are inconsistent. This translates into metatheoretical – ontology, epistemology, method/praxis – polarities (Figure 1).

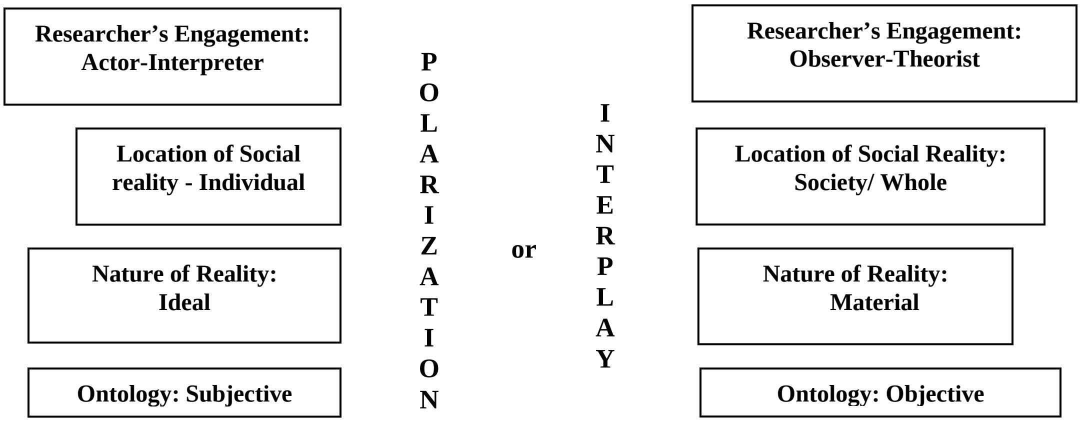
Researcher's Engagement: Actor-Interpreter
Location of Social reality - Individual
Nature of Reality: Ideal
Ontology: Subjective
POLARIZATION
or
INTERPLAY
Researcher's Engagement: Observer-Theorist
Location of Social Reality: Society/ Whole
Nature of Reality: Material
Ontology: Objective

Figure 1. Metatheoretical Polarities in Organizational Studies

In this paper, I advance the advaita (non-dualism) philosophy as a metatheory which contains and transcends the paradox. I describe the advaitic ontology, epistemology, and praxis which together offer a metatheory. To describe this philosophy, I have drawn on the foundational work done by Dr. S. Radhakrishnan, a renowned Indian philosopher and statesman, Swami Vivekananda, a well-known nineteenth century Indian spiritual and social leader who has provided a series of translations and interpretations of major Hindu texts, and Gandhi, whose life itself was an experiment in the *advaitic* way of life (Saravanamuthu, 2006).

Advaitic Ontology

Most of the discussion about ontology in social sciences is derived from western philosophical tradition, which is imbued with a style of thinking based on dichotomy and binary opposition (Carr & Zanetti, 1999) and this has translated into a model of incommensurable paradigms. Embedded in this fundamental style of thinking, however, are not only oppositions, but also a hierarchy, in that one or the other polarity is more or less privileged (Carr & Zanetti, 1999). For example, the nature of reality can be either subjective or objective and these views are thought to be irreconcilable (Burrell & Morgan, 1979). However, a small but growing discourse of researchers has begun to address alternative conceptions (Alvesson & Skodberg, 2001; Benefiel, 2005; Bhaskar, 1970; Saravanamuthu, 2006; Tsoukas, 1994; Willmott, 1990). However, these attempts still remain marginal in our field and problematize research endeavors that aim to bridge this conceptual gap. I join this discourse by offering an alternative paradigm that has the capacity to embrace the paradox without having to resolve it through allegiance to one or other position.

Advaita philosophy rests on assumptions of non-dualism. The Advaitic's fundamental tenet is that that all forms of matters are interconnected by an all pervasive energy (Saravanamuthu, 2006). The central texts of this school are Samkara's commentaries on the principal Upanishads, the Bhagavadgita and the Vedanta Sutra. This philosophy can be summed up in a single dictum, *"Tatsvam Asi,"* meaning "You are that," ***that*** meaning the other. Another gem of this philosophy is "*Aham Brahman,"* "I am *Brahman,"* and therefore, it is not separate from me. Vivekananda (1992a, p. 359) writes, "All matter throughout the universe is the outcome of one primal matter called Akasha; and all force, whether gravitational, attraction or repulsion, or life, is the outcome of one primal force called Prana."

This approach does not separate the spiritual from the mundane because they are all parts of the same ultimate reality. Radhakrishan (2000, p. 32) writes, "It is the soul's experience of the essential unity with the whole of being that is brought out in the words, "Thou in me and I in thee."

This philosophy is concerned with understanding human existence as an integral part of a larger and interconnected whole (Saravanamuthu, 2006). This is a socio-ecological relational approach to reality – one that does not separate nature from other living creatures (Poonamallee, in press). All sentient beings are interrelated and part of the same ultimate reality. Sarvanamuthu (2006) writes about advaitic philosophy as an appropriate model for sustainable development. It is predicated on the relationship that binds, people, animals, vegetation, and all forms of matter together and the personal responsibility of human beings to honor this relationship through *Ahimsa* (non-violence). Ahimsa was the concept Gandhi drew from Advaita philosophy to develop and deploy his non-violence strategies, which is addressed in more detail in a later section.

For the *advaitis*, the objective world exists. It is not an illusion. There are different orders of reality, Brahman being the Ultimate Reality and therefore the mental world or the world of consciousness is as much objective or unreal as the material. Vivekananda (1992b) writes,

> Maya is not a theory for the explanation of the world: it is simply a statement of facts as they exist, that the very basis of our being is contradiction, that everywhere we have to move through this tremendous contradiction that wherever there is good, there must also evil. (p. 60)

The Ultimate is beyond paradoxes because it contains all the paradoxes. It is at once *nirguna* (devoid of qualities), *saguna* (possessing qualities) and is unconditioned and yet conditioned, determinate and non-determinate. In this framework, objective and existential realities are not to be set against each other as metaphysical contraries (Radhakrishnan, 2000). Nor do they finally diverge. In fact, in his exposition on the theory of *maya* (illusion), Sankara, one of the key exponents of the non-dualistic advaitic philosophy categorically lays out that the objective world or the empirical being *(vyavaharika satta*) is quite different from illusory experience (*pratibhasika satta*) and both co-exist. Advaita is cognizant of the contradiction between materialism and spiritual development and it asserts that spiritual-moral development is unlikely to occur until fundamental needs are satisfied (Saravanamuthu, 2006). However, both objective and subject realities are manifestations of the ultimate reality but are not of the same kind or order. Both subjective and objective realities are valid expressions of the Ultimate. But they are different kinds of reality and one cannot be reduced to the other.

Advaitic Epistemology

Ontological assumptions undergird epistemological positions about whether the nature of knowledge is hard, real and capable of being transmitted in a tangible form, or whether "knowledge" is a softer, more subjective, spiritual, or even transcendental kind, based on experience and insight of unique and essentially personal nature. The fundamental tenet of advaitic epistemology is *satchitananda* (Existence-Knowledge-Realization/Bliss). It is the process of experiential transformation (Gandhi, 1935) and is inseparable from developing greater sensitivity to the spiritual interconnectedness with the other (Saravanamuthu, 2006). *Advaita* is governed by non-cognition of duality (*davaitasyagrahanam*) because the ultimate reality is non-dual and the world of duality is the world of *maya* (Radhakrishnan, 2000). Freedom is the realization of the Brahman in the individual soul. Unchangeable reality expresses itself in the changing universe without forfeiting its nature. In the *Vedantaparibhasa,* it is said that all knowledge whether perceptual or conceptual, attempts to reveal reality or the ultimate spirit: "*pratyakasaparma catra caitanyam eva"* To know or to realize this is the ultimate goal of an *advait*i. In this state, *vidya* (knowledge) and *ananda* (bliss) come together.

In the advaitic non-dualistic approach, knowledge is not just limited to codified, objectified knowledge but integrates multiple ways of knowing, action, experience, contemplation, and sense-making, all through witnessing of the self, because self is a microcosm of the universe. The assumption here is that everyone has the capacity to witness both empirical realities and subjective experiences and ultimately be free of both of them through knowing. All human development is about moving *adhyasa* (mistaken notions) and *avidya (*non-knowledge) to *vidya* (knowledge). *Advaita* values *anubhava* (experience) because the goal of *advaiti* is to discover the immanent principle within experience and not in a world beyond it. For example, Vivekananda (1992) characterizes experience as a key source of knowledge. In fact, God, in this framework can be considered a metaphor for the dynamics of the unknown: it refers to the workings of an interconnected ecosphere that creates, sustains and destroys in the process of regenerating life (Saravanamuthu, 2006b).

Critical inquiry is considered to be an essential path to examine that which is supplied to us by scripture or the evidence of the senses. Three sources of knowledge are perception, inference, and scriptural testimony. However, memory or tradition is not considered right knowledge because it has no novelty. Nature (*swabhava)* is the underlying object of a subject – the underlying principle of things. We need one to experience and understand the other. While realization of nature (object) of a phenomenon (subject) is a fact, a theory of reality is an inference (Radhakrishnan, 2000). While perception is the fruit of experience, inference is the fruit of analysis and sense-making through the intellect (Buddhi). Based on one's stance, the internal processing organ could be *manas* (feelings), *chitta* (concentration), *buddhi* (thinking), or *ahamakara* (consciousnessness). This philosophy also distinguishes between *paravidya* (higher knowledge) pertaining to the ultimate reality and the *apara vidya* (lower knowledge) pertaining to the subjective and objective realities. However, in the state of *Caitanyam* (pure awareness) there is no differentiation between the knower and the known – ultimately the result of the interaction between the subject and the object.

Law of Karma (Cause and Effect) is a key element of *advaitic* philosophy. This law asserts that every action has a consequence (Saravanamuthu, 2006a) and demands personal accountability. For example, Gandhi (2001) writes about the means and ends using this theory, "They say, "means are after all means." I would say, "means are after all everything." As the means so the end. There is no wall of separation between the means is the end" (p. 65).

While deeply anchored in the law of karma, this philosophy paradoxically also recognizes that causal explanation can never be complete. Every finite thing presents the contradiction that it is not only finite but also relative in sense that it hangs on another (Radhakrishnan, 2000). Such is the nature of an interrelated universe. Therefore, truth is constantly discovered through a personal process of discovery. As Krishnamurthy (1969) writes, "Truth has no path, and that is the beauty of truth, it is a living concept."

Advaitic Praxis

Advaitic knowledge is a lived reality – knowledge through praxis. Advaitic praxis is all about the interplay between the contradictions that naturally co-exist in every person (Vivekananda, 1992). He writes,

> We must do our part, because that is the only way of getting out of this life of contradiction. Both the forces of good and evil will keep the universe alive for us, until we awake from our dreams and give up this building of mudpies. That lesson we shall have to learn, and it will take a long, long time to learn it. (p. 63)

Saravanamuthu (2006a) writes that Gandhi's concept of Swaraj (Home Rule) refers both freedom from internal contradictions as well as structural ones. Ramakrishna, Swami Vivekananda's mentor writes,

> Man is born with two tendencies, Vidya guna and Avidya guna – the noble and the base – dormant in him. The former leads him Godward and the latter makes him earth-bound. In babyhood both the tendencies are in equilibrium . . . if he grows in the life in senses, the scale of worldliness goes down with that base weight . . . but if he emerges in spirituality, the scale in him of Godliness goes down toward Iswara (the whole) with that holy weight. (Chidhbhavananda, 1991, p. 650)

However, this type of praxis is not merely about ritualistic religious practice. It is about accepting personal accountability for spiritual development. For example, Gandhi, a man full of godliness writes, "I recognize no God except the God that is found in the hearts of the dumb millions . . . and I worship the God that is Truth or Truth which is God through the service of these millions" (Gandhi, quoted in Tendulkar, 1960, p.58).

Advaita offers four avenues for spiritual development through praxis. They are: Jnana yoga or the knowledge path (Vivekananda, 1992), Raja or mastery of inner spirit (Vivekananda, 1990), Karma or service to other (Vivekananda, 1984), and Bhakti yoga or worship (Vivekananda, 1991). The term yoga refers to the means of transcending private interests. "Yoga means the process, as well as the result, of balancing the different sides of our nature, body, mind, and spirit, the objective, and the subjective, the individual and the social, the finite and the infinite" (Radhakrishnan, 2003, p. 36). What is important to note here is that out of the four approaches, only one takes the religious route. Gandhi is considered to be one of the exemplars of advaitic practitioners in modern times and one who attained mastery of most of these forms of spiritual development, especially Raja and Karma Yoga (Sarvanamuthu, 2006b). His entire life was an experiment with truth and knowledge (Gandhi, 1993) through action and reflection.

Advaitic philosophy values the intellectual, ethical, emotional, and spiritual dimensions of life. It describes the fourfold object of life (*Purusartha*). They are desire and enjoyment (*kama*), interest and wealth (*artha*), ethical living (*dharma*), and spiritual freedom (*moksa*). Kama caters to the emotional and instinctual needs of human life. *Artha* caters to the material, *Dharma* to the intellectual, and *moksa* the spiritual. Advaitic praxis is all about the struggle to know. However, without the action of knowing, knowing is not possible.

For this knowing process, reflexivity that emanates from spiritual consciousness is an important element. For example, Gandhi's reflexive-spiritual development manifests as his refusal to adhere to imperialist norms and values (Saravanamuthu (2006a). It is an ethic of personal responsibility for action combined with reflexivity. For example, Gandhi (1984, p. 67) himself writes, "Non-violence in its dynamic condition means conscious suffering. It does not mean meek submission to the will of the evildoer, but it means the putting of one's whole self against the will of the tyrant."

Operating on the non-dualistic spiritual interconnectedness ontology demands personal responsibility for the other, and in the process transforming oneself and transforming the society. Parameshwar (2006) writes about how eleven renowned social leaders (including Gandhi) drew on their own suffering to transform the world for the multitudes. Gandhi's strategy for practicing this was the *Satyagraha* (active fight for truth). *Satyagraha* is not passive resistance. Gandhi (1993) himself clarifies that passive resistance is not really resistance but a policy of communal suffering. On the contrary, *satyagraha* is about centralizing discipline for engendering change by bringing together the oppressed and oppressors in action, reflection, and dialogue (Sarvanamuthu, 2006).

Discussion

In this section, I use Ritzer's (1988) exposition on metatheory to discuss how advaita can be a metatheory and its implications for research. The first one is to increase the "theoretical self-consciousness" because greater self-consciousness can lead to greater understanding of one's own theory as well as of competing theories (Ritzer, 1988, p. 195). Advaita philosophy serves this function by providing a comprehensive constellation of ontology, epistemology and praxis and can be used to examine a theory developed using this methodology. In this paper, I have described how the philosophy of non-dualism can be a metatheory encompassing the paradoxes of social life. Ritzer (1988) also highlights that the objective-subjective continuum needs more exploration. Advaita philosophy as a metatheory throws new light on this topic. The holistic ontology which contains both the subjective and objective realities provides a socio-ecological relational framework for the interconnectedness of all matter in the world. Because of its holism, it can accept the subjective and objective realities without having to privilege one over the other. This has epistemological implications for how we study human organizations.

Knowledge according to advaita philosophy is a personal search for the truth and integrates multiple ways and sources of knowing. It includes the sensory perception of a subjective actor, intellectual detachment of reason and logic, all nested within a spiritual consciousness cognizant of the spiritual interconnectedness. This knowledge values both ideal and material realities. Conventional dualistic approach that guides most research today operates under the assumption that material and ideal realities are irreconcilable and a researcher has to pick one or the other as the ultimate truth. Ideal or subjective reality contains entities like consciousness, discursive acts like conversations, stories, and metaphors. Entities that belong to the material realm are hard and tangible. In the model proposed by Burrell and Morgan (1979), interpretive and radical humanist paradigms operate under the assumption of subjective ontology. The functionalist and radical structuralist approaches belong to the objective ontology. However, advaitic holistic ontology allows co-existence of both subjective and objective realities because both of them are expressions of the ultimate reality of oneness. They exist simultaneously and influence each other. To an advaitic practitioner, both material and ideal realities exist and both are manifestations of the ultimate reality. To the uninitiated, these two positions may seem contrary but the advaiti acknowledges the contradiction and embraces it.

For example, Vivekananda (1893a), in his address to the Parliament of Religions, said, “It is bread that the suffering millions of burning India cry out for with parched throats…It is an insult to starving people to offer them religion. It is an insult to a starving man to teach him metaphysics.”

In the same speech (Vivekananda, 1893b) he also said,

> Here I stand and if I shut my eyes, and try to conceive my existence, “I,” “I,” “I,” what is the idea before me? The idea of a body. Am I, then, nothing but a combination of material substances? The Vedas declare, “No.” I am a spirit living in a body. I am not the body. The body will die, but I shall not die. Here am I in this body; it will fall, but I shall go on living. I had also a past. The soul was not created, for creation means a combination which means a certain future dissolution. If then the soul was created, it must die.

Similarly, much of Gandhi’s practical philosophy focused on economic self-reliance for the rural poor of India. The chakra (low-tech spinning wheel) became a symbol of a movement. At the same time, Gandhi galvanized the millions of oppressed Indians and inspired the oppressors through his spiritual, moral and political strategies. He uses the term “god” in a reformist sense (Saravanamuthu, 2006). Gandhi (1995, 9-10) writes,

> To me God is Truth and Love; God is ethics and morality; God is fearlessness. God is the source of Light and Life and yet He is above all of these. God is conscience. He is even the atheism of the atheist. He is the searcher of hearts. He transcends speech and reasons. He knows us and our hearts better than we do ourselves (pp. 9-10).

The second area that metatheory can contribute to is the linkage between cognitive and communal aspects of a paradigm (Ritzer, 1988). Advaita philosophy is based on the assumption that it can transcend the communal dimensions. Gandhi as an advaitic practitioner has influenced multiple other communities and their transformation. Saravanamuthu (2006) argues that Gandhian-Vedic approach has universal relevance. The history of civil rights movement in the U.S (led by Martin Luther King), anti-apartheid movement in South Africa (led by Nelson Mandela) and a multitude of communal experiments toward social transformation show that these principles are transferable to other cultural contexts outside of India.

The third line of inquiry that Ritzer (1988) raises is the development, refinement, expansion, and application of metatheoretical tools like levels of analysis and micro-macro linkage. Advaita as a metatheory, especially its focus on praxis of dealing with personal and social contradictions offers a new way to look at the micro-macro linkage. Saravanamuthu (2006) provides an excellent example of the micro-macro linkage using Gandhi’s advaitic practice. She writes that Gandhian-Vedic notion of freedom refers to emancipation from the circular dialectic of social contradictions, which arises when an individual engages with the structure. She cites Gandhi’s life as an example of how structural contradictions and personal contradictions get engaged in the deepest way possible through spiritual development and service, thus resulting transformation of self and society.

Finally, this metatheory has the potential to shape and offer new tools for researchers in the action-research arena. In another paper, I have provided an example of how I developed a particular theory in an action-research context, grounded in the advaitic paradigm (Poonamallee, 2009). Advaita philosophy encourages reason, logic, and reflection. Traditions like phenomenology and action research offer frameworks for such self-reflexive process too. Marshall (2001) offers a useful model of “inquiring through inner and outer arcs of attention.” Advaitic epistemology is based on the belief that a subject can view itself as an object. Recent cognition and consciousness researchers advance a similar argument. Grush (2000) writes that a first person perspective allows a system to conceive of itself as part of an independent, objective order, while at the same time being anchored in it and act as a subject. The conventional subjective-objective polarized notion of ontology denies a subject the capacity for objective reflection. From this point of view, most qualitative and especially naturalistic inquiry appears to be subject to subjectivity simply owing to its stance on a researcher’s phenomenological presence. Advaitic philosophy and Gandhi’s extensive reflection on his own spiritual development and struggle of wrestling with the personal and social contradictions offer promise.

Conclusion

In this paper, I have presented the tenets of advaita philosophy and practice and have argued that this framework fits the requirements to be a metatheory. I have described the ontological, epistemological and practical implications of advaitic philosophy. Advaita ontology is predicated upon the belief that all life in the universe is interconnected and hence life is non-dualistic. Advaita epistemology is about experientially discovering this truth of interconnectedness through praxis. Finally, I have presented the contributions that this framework can offer to theory building in general.

However, there are three challenges in adopting advaita as metatheory. The first one is that assumptions underlying this approach are very alien to the mainstream western philosophies of science that still legitimize or delegitimize new ideas and discoveries. Further systematic research needs to be undertaken to find boundary objects, ideas, and practices that can help in communicating this seemingly esoteric but very practical framework to the mainstream scholars. The second challenge is that because advaitic philosophy privileges ontological complexity, paradox and multiple ways of knowing, it is not amenable to the more commonly understood notions of parsimony in theory building. New and deliberate methodological innovations need to be made to integrate and represent the complexities inherent in this approach. Finally, unlike most mainstream approaches to research, advaitic philosophy offers no off-the-shelf prescriptions. While there are general guidelines, there is no formulaic answer to research problems. Therefore, a scholar who wishes to adopt advaitic philosophy as metatheory needs also be willing to undertake a personal journey of truth through advaitic praxis. However, all these challenges are paradoxically rich and fertile grounds for further research.

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Evolutionary Psychology, Developmental Systems Theory and Advaita Philosophy as Metatheories: Are the Three Compatible?

Annemie Ploeger[1]

In this special issue different metatheories are proposed, including evolutionary psychology (Ploeger, 2010), developmental systems theory (Antley, 2010), and advaita philosophy (Poonamallee, 2010). Evolutionary psychology is psychology that is informed by theory and research of evolutionary biology, with the idea that knowledge about the evolutionary background of psychological phenomena will contribute to the understanding of these phenomena (Cosmides, Tooby, & Barkow, 1992). Systems theory can be defined as a holistic theory about complex systems in nature. When applied to development, this theory is often called dynamic systems theory,[2] which states that developmental outcomes are the result of the spontaneous emergence of higher-order forms, which are the result of interactions among lower-level components. This process is called self-organization (Lewis, 2000). Advaita philosophy is another holistic theory that presumes non-dualism, i.e., the reality of an individual is identical to that of the world and cosmos. The basic tenet is that all forms of matter are interconnected by an all pervasive energy. Human existence can be placed in an integrated, interconnected whole (Saravanamuthu, 2006).

Different questions can be addressed concerning these three metatheories. One question concerns the correctness of these metatheories: is one of these metatheories the correct one, or is it possible to have different co-existing metatheories, addressing different areas of inquiry? Is it desirable to have one ultimate metatheory, or would this metatheory be too general to be of practical value for the daily work for scientists? Another question that can be raised is whether the different metatheories have the same purpose: is it a metatheory that provides a framework for creating new theories and evaluating existing theories (e.g., advaita philosophy), or is it a metatheory that unifies different subdisciplines (e.g., developmental systems theory, evolutionary psychology)? Another question is whether it is possible to integrate these different metatheories into one overarching view. Are there similarities or are these metatheories in opposite of each other? In this essay, this last question will be addressed.

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[2] In this essay, I will use the terms *developmental systems theory* and *dynamic systems theory* interchangeably

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On a first view, these three proposed metatheories appear to be very different from each other. Evolutionary psychology is based on theories and empirical findings in evolutionary theory, and focuses on phylogeny (changes over generations), rather than ontogeny (changes in an individual lifetime). Developmental systems theory, on the other hand, has its main focus on ontogeny. Advaita philosophy is based on Hindu spiritualism and has not been embraced by many Western researchers yet. So on the first sight these three different metatheories seem hard to be reconciled. However, some recent debates in the literature have shown that we need to embrace and reconcile different perspectives in order to reach progress in science. Particularly, there have been debates on the value of evolutionary psychology, and the relation between evolutionary thinking and developmental science (Lickliter & Honeycutt, 2003a; Spencer et al., 2009). In this essay I will briefly summarize this debate, and I will elaborate on the role that advaita philosophy may play in this debate.

Evolutionary Psychology and Developmental Systems Theory

Evolutionary psychologists have proposed that we possess many different evolved psychological mechanisms to deal with problems related to survival or reproduction (e.g., Buss, 1995; Tooby & Cosmides, 1992). An example is our ability to rapidly learn a fear of snakes, an evolutionary significant stimulus related to survival, opposed to our inability to learn a fear of flowers, or even a fear of guns or cars (stimuli irrelevant from an evolutionary point of few; these stimuli are either not dangerous or were non-existent in our evolutionary past).

This view on evolved psychological mechanisms has been questioned by developmental system theorists (Lickliter & Honeycutt, 2003a). These theorists argued that evolutionary psychologists focus too much on evolved mechanisms, and that evolutionary psychologists ignore the role of development in the unfolding of behavior and cognition. According to Lickliter and Honeycutt, evolutionary psychologists implicitly assume that these evolved mechanisms are preprogrammed in the genes, and that phenotypic traits are prespecified. They state that:

> what offspring inherit from parents is not simply genes, but a structured developmental system. This developmental system provides sources of both stability and variability, and the structure and interactions among components of an organism's developmental system are as causally informative to the development and transmission of phenotypic traits as are the strands of DNA contained within this system. (p. 828)

Because Lickliter and Honeycutt (2003a) wrote their proposal as a frontal attack of evolutionary psychology, it was understandably not well-received by evolutionary psychologists (Buss & Reeve, 2003; Tooby, Cosmides, & Barrett, 2003). Buss and Reeve called developmental or dynamic systems theory obscure and vague, and in a recent paper they claimed that theories that invoke self-organization or dynamical systems have not led to a single new specific prediction or empirical finding (Duntley & Buss, 2008). In an earlier book, evolutionary psychologist Pinker (1997) wrote that:

> any explanation of how the mind works that alludes hopefully to some single master force or mind-bestowing elixir like 'culture,' 'learning,' or 'self-organization' begins to sound

> hollow, just not up to the demands of the pitiless universe we negotiate so successfully. (p. 19)

In short, there is great disagreement between evolutionary psychologists and developmental theorists on the issue of evolved psychological mechanisms, and how much impact individual development has on the unfolding of phenotypic traits. In my point of view, there are three ways that open up the debate in a more fruitful way.

First, some evolutionary psychologists have embraced dynamic systems theory and try to incorporate the principles derived from this theory in their work (Kenrick, 2001; Kenrick, Li, & Butner, 2003; van Vugt, 2009). Kenrick (2001) argued that the two frameworks of evolutionary psychology and dynamic systems theory may in tandem provide the foundation for psychology's long-awaited metatheory. He illustrated his proposal with research that is relevant for evolutionary psychology: how does a community of people decide to adopt an aggressive or a peaceful strategy to deal with a particular problem? Initially random interactions between individual members of the community, with compounding reciprocal effects on one another, finally result in stabilizing patterns. These self-organized patterns emerge in all kinds of networks, including those involved in genes, neurons, and groups of people.

Second, some developmental psychologists have tried to develop a new framework that incorporates both ideas from evolutionary psychology and developmental systems theory (Bjorklund, Ellis, & Rosenberg, 2007). These researchers argued that evolved psychological mechanisms could be perceived as evolved *probabilistic* mechanisms: mechanisms that have been naturally selected, but that are still plastic and their outcomes can be adjusted to environmental input. For example, children with a genetic predisposition to become aggressive and antisocial, will only develop this way when raised in harsh environments. When raised in a normal environment, they will not become aggressive and antisocial (Belsky et al., 2009; Caspi et al., 2002).

Third, I have argued that evolutionary psychology needs to embrace the framework of evolutionary developmental biology in order to broaden its scope (Ploeger, van der Maas, & Raijmakers, 2008). I included dynamic systems theory in this framework. Dynamic systems theory, with its major concept of self-organization, can be applied to individual development, but also to evolutionary processes. Self-organization is not a vague or hollow concept, as evolutionary psychologists Duntley and Buss (2008) and Pinker (1997) have argued. There is a large body of literature in evolutionary biology on the role of self-organization in evolution (e.g., Camazine et al., 2001; Pulselli, Simoncini, & Tiezzi, 2009; Solé & Goodwin, 2000). For example, according to Kauffman (1993), self-organization is a necessary concept in any theory that tries to explain order in nature. On the other hand, I do not believe that dynamic systems theory should replace evolutionary psychology, as some authors seem to suggest (Lickliter & Honeycutt, 2003a). As Buss and Reeve (2003) have stressed, evolutionary psychologists have made quite a long list of discoveries that would not have been revealed without an evolutionary framework. These discoveries are important scientific contributions. True progress will be made only if the two approaches start working together.

Evolutionary Psychology, Developmental Systems Theory and Advaita Philosophy

The connections and disagreements between evolutionary psychologists and developmental systems theorists have become apparent in the literature. The connections between these two approaches and advaita philosophy are less clear. By searching *Web of Science* on "advaita and evolution," or "advaita and development," not much literature can be found. So we need to develop a completely new scientific framework to integrate these different views. Let me elaborate on two parallels between evolutionary theory and advaita philosophy, and another parallel between developmental systems theory and advaita philosophy. By considering these parallels, we may be able to integrate these different metatheories, or at least formulate some similarities that serve a common ground.

To start with the parallel between evolutionary theory and advaita philosophy; advaita philosophy tries to understand human existence as an integral part of a larger and interconnected whole. This idea can be compared to the Darwinian idea that the human species is connected with all other species in a tree of life - all species on earth share a common ancestor, a prokaryote that arose around 3.5 billion years ago. This prokaryote arose in some way from the interaction of molecules that were available at that time, so in this way all species including human beings are connected to the world and the cosmos. Whether this connectedness is the same as the all pervasive energy as proposed by advaita philosophy, is an open question.

Another parallel between evolutionary psychology and advaita philosophy is that they call for unification. Advaita philosophy calls for the unification of the self and the rest of the world and the cosmos; evolutionary psychology calls for a unification of different fields in psychology or science in general. These seem to be quite different calls, but it can be seen as a parallel between the way individuals behave in relation to the world, and the way individual scientists behave in relation to the scientific world. Both metatheories call for an opening of the mind, to stop focusing on one's own small world and see the connectedness with other parts of the world.

A parallel between developmental systems theory and advaita philosophy is their focus on holism. The advaita philosophy stresses a non-dualistic view: the division between the self and the world is an illusion; both are part of a larger "system," to borrow a metaphor from developmental systems theory. The objective and the subjective come together when we realize that there is no boundary between the self and the rest of the world. Developmental systems theorists have proposed that:

> development is a self-organizing, probabilistic process in which pattern and order emerge and change as a result of transactions among developmentally relevant resources both internal and external to the organism (and not from some set of prespecified instructions). Development is not the result of the interaction of genetic and environmental factors, as neither operate as independent causes; rather, development results from bi-directional and dynamic transaction of genes, cells, tissues, organs, and organisms during the course of individual ontogeny. (Lickliter & Honeycutt, 2003b, p. 869)

Thus, developmental systems theorists view development as a holistic process that involves different components at different levels. This view can be seen as non-dualistic: there is no clear division between genes on the one hand, and the rest of the developmental system on the other hand. In this way we can draw a parallel between developmental systems theory and advaitic philosophy.

Obviously it will be very hard to integrate the three different metatheories of evolutionary psychology, developmental systems theory, and advaita philosophy. Advaita philosophy is a metatheory that provides a framework for creating new theories and evaluating existing theories, whereas evolutionary psychology and developmental systems theory are metatheories that unify different subdisciplines. However, in this essay it was argued that there are some common grounds, that may lead to an overarching view that unites the different proposals.

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Special Issue Introduction

Issue Editor: Bahman A.K. Shirazi

Integral Education

The essays appearing in this special issue of *Integral Review* are selections from the proceedings of the 2010 California Institute of Integral Studies (CIIS) Founders Symposium on Integral Consciousness. This annual symposium provides a forum for CIIS community members and friends to exchange and deepen their understanding of integral consciousness, its evolution, and its relationship to the current planetary challenges and transformational processes. Each year the Symposium covers one or two major themes, as well as several other themes pertinent to the integral world view and its interface with academic disciplines. One of the major themes of 2010 was integral education.

Contributions to this issue are by a cross-section of CIIS community members including administrative leaders: President Joseph Subbiondo and Academic Vice President, Judie Wexler; three faculty members: Matthew Bronson, Ian Grand, and Kaisa Puhhaka; two alumni: Anne Adams and Christian de Quincey; and two current students: Maureen Dolan and Adrian Villasenor-Gallarza. There is also an essay by Lynda Lester, an active practitioner of integral yoga who was a guest presenter. The topics range the full gamut from integral philosophy, ontology, epistemology, methodology to pedagogy.

The editor’s introductory article gives a summary of the founding vision, as well as ontological and epistemological principles of the integral framework expounded by Haridas Chaudhuri, founder of CIIS and his key collaborators.

Joseph Subbiondo gives a brief account of the history of CIIS and its predecessor institution, the American Academy of Asian Studies, focusing on several key founding figures of both institutions. He argues that the role played by these unique institutions of higher learning has been crucial in the cultural life of San Francisco Bay Area, and now continues to promote an integral, whole-person approach to higher education.

Judie Wexler, who has lead and facilitated the faculty discussions on integral education at CIIS in the last nine years, explores the concept of integral education as a way to prepare students for the complex, rapidly changing global environment in which they will be living and working. She contends that education must help students focus both internally and externally if they are to be effectively prepared. The experience of CIIS is used as a case study to discuss key dimensions of integral education.

Matthew Bronson showcases an integral approach to education through the lens of a trans-disciplinary graduate-level class on “Sexuality and Language.” The class brought together students from six separate academic programs and drew from a wide array of performative and

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arts-based modes of inquiry to create a deep context through which to unpack the complex relationships between language and sexuality.

Ian Grand draws on some key principles of integral philosophy, embodied spirituality, and transformative action in the world, to make a case for a creative emergence in this historical time of new possibilities of being and becoming. He stresses that the conditions, practices and tools of the historical era in which we live shape us as we shape them and writes that what becomes important in practice is to learn tools and perspectives that expand our ability to participate in the making of the world.

Kaisa Puhakka explores the tension between two movements in human evolution—shifting and settling—where shifting breaks out of existing structures and conceptual moorings and settling solidifies the movement of evolution into structures. Both are seen as essential aspects of the evolutionary process, but a bias for settling is noted among living creatures. She argues that for humans shifting arouses anxiety whereas settling promises security. She calls for a correction of this bias in the educational process to help realign human consciousness and culture with the rest of nature and cosmos.

Maureen Dolan examines some of the main topics in the works of Sri Aurobindo and Haridas Chaudhuri regarding the philosophical bases for an integral understanding. She describes concrete ways to introduce the integral paradigm into practice in the U.S. through an example of a particular undergraduate course she teaches at DePaul University in Chicago titled: *Body, Mind, Spirit: Yoga and Meditation.* Her introduction includes a brief description of the cultural milieu of 21st century American realities, identifying some of the conditions which can serve as impetuses to integral thought and action.

Anne Adams explores the critical role education plays in the attitudes and behaviors in our everyday experiences and introduces Integral education as a catalyst for transformation, moving our emphasis in education from gathering knowledge to growing consciousness through a paradigm shift which would fundamentally alter where our attention is focused—from having and doing to being.

Adrian Villasenor-Galarza addresses the need to incorporate often ignored perspectives and formulations derived from the “deep south” into the field of integral education as currently practiced at CIIS. The deep south—the metaphorical conglomerate of wisdom ascribed to the global south and associated epistemologies—is used as a broad framework from which he proposes, through the exploration of shamanic practices and symbols, the creation of an organizing vertical metaphor, a North–South axis of dialogue.

Christian de Quincey argues that the details of evolution or the structures of the brain are irrelevant to the study of consciousness. He maintains that science informs us only about the physical world whereas consciousness is non-physical and, therefore, there are no ontological leaps possible. He explores how we may account for the fact that consciousness exists in an otherwise physical universe.

Lynda Lester believes that the chasm between spirit and matter is bridgeable as predictable by Sri Aurobindo’s integral philosophy, which states that the entire universe is a manifestation of consciousness. She argues that science has changed our view of matter as solid and objective, to a view that is more complex and which includes the possibility that consciousness has a part in manifesting reality. She makes a case that some of Mother Mirra Alfassa’s experiences in bringing supramental consciousness into her body bear similarities to the discoveries of quantum physics.

These writings provide an opportunity for the reader to become familiar with an example of how integral philosophy, epistemology, and pedagogy are currently understood and practiced at a pioneering institution of higher learning that aims to embody and practice a holistic world view in its overall approach to education. Despite the clarity of the founding vision, the actual processes of articulation and praxis of a whole-person approach to education are still in their infancy and are a perpetual experimental work-in-progress.

In the integral view, human beings are considered to be transitional beings and not a final product of evolution. It is hoped that this continual process of reflection on learning and praxis will facilitate the goal of educating and integrating the total person: attainment of wholeness of individual personality, and the collective fulfillment of human purpose on Earth.

Bahman A.K. Shirazi,
San Francisco,
June 2011

Integral Education: Founding Vision and Principles

Bahman A.K. Shirazi[1]

Abstract: This introductory article gives a brief account of the founding vision and ontological and epistemological principles of the integral framework expounded by Haridas Chaudhuri and some of his original collaborators at the California Institute of Integral Studies (CIIS). A brief biographical account of Sri Aurobindo and Mother Mirra Alfassa, originators of integral yoga and education, is provided and some of the principle tenets of an integral worldview that informs the philosophy of integral education are discussed.

Keywords: Haridas Chaudhuri, integral education, integral philosophy, integral worldview, Mother Mirra Alfassa, Sri Aurobindo.

Introduction

The dawn of the 21st century may be regarded as a crucial turning point in the history of the evolution of consciousness on our planet Earth—the beginning of profound transformations of consciousness marked by a significant leap from a predominantly mind-centered consciousness, to an emerging all-inclusive, spirit-centered integral consciousness.

Jean Gebser was one of few western visionary philosophers who had anticipated the arrival of this new modality of consciousness. Before him, others such as Pierre Teilhard de Chardin and Rudolph Steiner also offered world views that indicated that a certain convergence and a culmination point in the long history of terrestrial evolution could be anticipated. Moreover, beginning in the latter part of the 19th century, eastern movements such as the Ramakrishna-Vivekananda movement, Meher Baba's work, and the eastern-inspired theosophical movement were also exploring and preparing the grounds for the arrival of this new era. The most explicit and pragmatic work in the adventures and the advent of integral consciousness, however, may be credited to the works Sri Aurobindo and Mother Mirra Alfassa, the originators of integral yoga.

Sri Aurobindo (Aurobindo Ghose, 1872-1950) was India's foremost philosopher, poet, and spiritual figure of the 20th century. At age seven he was sent to England where he mastered Western classical literature and languages. He returned to India at age twenty-one and soon mastered classical Indian literature and languages as well. He was active in the Indian independence movement until 1910 when he moved to Pondicherry to pursue his spiritual work. From 1910 to 1950 his spiritual practice focused on the reconciliation of the spiritual and

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material realities with the ultimate goal of utilizing the most powerful spiritual forces to accelerate and transform human evolution. He recognized that the current human state of consciousness is merely a transitional state with endless potential for spiritual development and called for the integration of Eastern and Western cultural and knowledge traditions.

Sri Aurobindo rejected the notion of illusoriness of the phenomenal world and recognized spiritual and material realities as equally real dimensions of a whole and indivisible spectrum of reality. He reconciled several major schools of Vedanta with the essential teachings of the Tantric approach, thus synthesizing a comprehensive approach known as Integral Yoga, emphasizing a balanced approach to spiritual development with equal emphasis on knowledge/wisdom, love/compassion and action.

He stressed the purposefulness of human life on earth as embodiment of spirit and taught that human suffering stems from ignorance and unconsciousness due to disharmony between physical, emotional, mental and spiritual dimensions. He rejected the world-negating as well as individualistic approaches to spiritual development as escapism and embraced embodied spirituality and the reintegration of the feminine Divine. (Shirazi, 2009a)

The Mother (Mirra Alfassa, 1878-1973) was an extraordinary mystic and spiritual leader, and was Sri Aurobindo’s spiritual collaborator. As a child she had a series of spiritual experiences leading to her realization of the Divine. She was also an accomplished artist, musician, and writer. In 1914 she met Sri Aurobindo and six years later joined him in Pondicherry where she stayed for the rest of her life to collaborate with him in his spiritual mission aimed at complete transformation of human consciousness.

The Mother oversaw the daily activities of the Sri Aurobindo Ashram, founded the International Centre of Education, and in 1973 founded Auroville, an experimental international community devoted to human unity. The Mother’s spiritual work was concerned with activation of the highest human spiritual potential and the transformation of the physical body at the cellular level (Shirazi, 2009b). Sri Aurobindo and the Mother affirmed on numerous occasions that their consciousness were one and the same.

Haridas Chaudhuri (1913-1975), an Indian professor of philosophy who wrote the first doctoral dissertation on the works of Sri Aurobindo stated:

> The philosophy of Sri Aurobindo is all-comprehending in its integration of the past, and prophetic in its vision of the future. As a connected view of the totality of existence, it brings to light the ultimate unifying principle of life. On the basis of a balanced appreciation of the multifarious values of life, it shows how to reconcile the various conflicts of our human existence. Out of a broad survey of cosmic evolution it evolves a creative idea which bids fair to impart a new rhythm to the historical order. In reaffirming the central truths of ancient wisdom in the context of our present-day problems, it creates new values and opens up new vistas of human progress. In an endeavor to meet the challenge of the present age, it gives a new dynamic form to the spiritual heritage of the human race—a unified and integrated form to the highest cultural values of East and West.

> With a penetrative insight into the profound meaning of life it lays the foundation for a complete art of harmonious and creative living. (Chaudhuri & Spiegelberg, 1960, p. 17)

In the fall of 1950 Haridas Chaudhuri was invited by Frederick Spiegelberg—a spirited professor of Indic and Slavic studies at Stanford University who was charged with the task of forming the core faculty of a new and unique pioneering graduate school called the American Academy of Asian Studies in San Francisco—to come to America to bring his expertise on Integral yoga and philosophy to a dynamic educational exchange that made a major contribution to the cultural and spiritual life of the San Francisco Bay Area, and eventually to other parts of the western hemisphere. Later Chaudhuri implemented his integral vision of higher education in the initial curriculum design at the California Institute of Asian (now Integral) Studies.

The following statement by Chaudhuri provides the context in which the need for an integral approach to education becomes apparent.

> The widespread discontent of modern youth the world over is a manifestation of the hunger of the soul for authentic and universal spiritual values. It is also an expression of disenchantment with established educational systems with their overemphasis upon intellectual, vocational, and technological values. Out of the inner anguish of fragmented living, there is a passionate reaching out for wholeness of being. Without the balancing of the intellectual with the emotional, the vocational with the spiritual, and the technological with the humanistic dimensions of human existence, it is rightly felt that man cannot be fully human. Nor can he be fully happy without the full flowering of the holistic urge inherent in life. (Chaudhuri, 1974, p. 50)

This is as relevant today as it was at the time of the publication of this statement.

Shortly before his passing Chaudhuri summarized his basics ideas on integral education in an article titled *Education for the Whole Person*. He wrote: "… integral or holistic education does no doubt pose a serious challenge to all those responsible for curricular development in educational institutions. It poses a new responsibility of serious proportions upon all teachers and educators with sincere dedication" (Chaudhuri, 1974, p. 51).

He summarized his fundamental principles of integral education in the need for inclusion of following five aspects: "(1) The physical or bodily aspect; (2) The socio-ethical aspect; (3) The instinctual-emotional aspect; (4) The cognitive-pragmatic-vocational aspect; (5) The religious-mystical-humanistic aspect. " (p. 51) These various dimensions were consequently reflected in the academic curricula of CIIS programs in the 1970s, 80s and 90s and class syllabi were structured according to three broad dimensions: Cognitive/didactic, experiential/self-reflective, and applied/practical.

As Ryan (2005) summarized:

> There may be numerous facets to the ideal 'Integral' education, but three stand out. First, the Integralists believed that education should be of the whole human being; it must involve the physical, the emotional, the mental, and the spiritual. Second, it must be global and have

> reference to the, “total human situation” ... Third, it must attempt to surmount the contradictions and antagonisms inherent in ordinary human cultural and philosophical positioning. (p. 25)

A more systematic attempt was undertaken in the first decade of the 21st century at CIIS to reflect on what integral education means and how various academic programs interpret and apply its principles and practices in their respective fields. As part of this process, the Integral Education Committee produced the following definition for integral education.

> Education at CIIS is designed to foster rigorous intellectual development and personal growth through self‒reflection. We believe that teaching and learning are most effective when they recognize and reflect diverse ways of knowing and connect difference and similarity. CIIS advances the education of the whole person (body, mind and spirit) by integrating knowledge of the interior and exterior dimensions of our lives. Committed to building a better and more inclusive world, academic programs encourage students to pursue inquiry that transcends disciplinary boundaries and situates their work in communities outside their own.

Some of the work of the members of the Integral Education Committee and other faculty were published in two consecutive issues (fall 2005 and winter 2006) of the journal *ReVision*.

In his CIIS commencement address, Parker Palmer (2007), a contemporary leader in holistic education, described CIIS in the following way.

> What happens at CIIS is very nearly unique in the world of higher education. It is also revolutionary, and probably has more revolutionary potential than those of us who are dedicated to this form of education may realize…. And what is the revolution I have in mind? It's an intellectual and cultural transformation that takes the reality and power of the inner world just as seriously as our culture takes the reality and power of the outer world. It's a revolution that links inner and outer, that rejoins soul and role, that understands that the world we live in is constantly being co-created by the interplay of what is within us and what is around us. It’s a revolution in which we understand that no one is truly educated until heart and mind have been joined with action and we have learned to think and act the world together rather than think and act the world apart.

Integral Worldview: Fundamental Assumptions

In the chapter on education, in his book, *The Evolution of Integral Consciousness*, Chaudhuri wrote:

> We are living in the twentieth century and we are citizens of the world. It is for us to be able to draw on the limitless wisdom of East and West and North and South. That is the great privilege of modern man. The cultural heritage of the entire human race is open to him. Wherever there is truth, wherever there is wisdom, we can freely draw upon it and bring it together in a grand synthesis. (Chaudhuri, 1977, p. 43)

Based on my conversations over several years with two of Haridas Chaudhuri's closest colleagues and founders of the first two programs at CIIS, Paul Herman and Dionne Sommers, I have put together the following list of ontological and epistemological principles and assumptions that inform the integral worldview and, by extension, the philosophy of integral education.

1. Balance and harmony are the ultimate laws of life and the essential goal of existence;
2. Experience of higher truths presuppose and result from an integration of all levels of consciousness: unconscious, sub-conscious, conscious, and supra-conscious;
3. Highly integrated consciousness is characterized by transcendence of the dualistic framework characteristic of mentally-dominated consciousness (the common fabric of human consciousness at the present stage of evolution);
4. At highly integrated spheres of consciousness the duality between subject and objects of experience (self vs. the universe) disappears;
5. Duality reflects the polarized structure of reality; it is a fact of life. Dualism, or dualistic thinking, however, is the natural product of the ordinary mental functions that results in perception of opposites as essentially independent (rather than complementary) aspects of a vaster unified reality;
6. Reality is a multidimensional whole. All diversified appearances are expressions of a unified whole;
7. Due to this multidimensional nature of reality all *truths* are valid in specific places for specific durations of time;
8. Any principle taken to its extreme transforms into its own opposite;
9. Reality can be found half way between truths and falsehoods;
10. Truths and falsehoods are characteristics of statements or theses about reality. Reality transcends truth-and-falsehoods;
11. Increasingly holistic truths can be arrived at through the method of *integral dialectics* (also known as dialectical synthesis);
12. Integral dialectics is the application of an organismic dialectical process to the totality of human *onto-psycho-somatic* (spirit/mind/body) organism;
13. Symbolic abstractions (such as language and thought etc.) are not capable of representing the whole of reality;
14. The same truth can be expressed in different conceptual frameworks.

Key Assumptions of a Holistic Paradigm in Healing

The integral framework holds that healing and wholeness are intimately interconnected. As the etymology suggests, the Greek word *holos* is the common root of the terms: healing, health and wholeness.

1. Human beings have a natural right to, and an *innate potential for*, *wholeness;* and *urge toward wholeness* is the primary motive in human life;
2. This essential wholeness is already present at the innermost core of the human psyche and our evolutionary challenge is to manifest this wholeness in our embodied existence;
3. Healing is the process of *restoration of wholeness*;
4. Reality is more than a mental construction—it is *non-dual* and *multidimensional*;

5. This implies that mentally constructed categories and labels about mental health or illness are not always capable of representing the more complex reality of lived experience. To fully understand human developmental growth and its impediments, one must take into account the uniqueness of each individual;
6. Mental disorders are not ultimately separable from physical, emotional, and spiritual problems; therefore, diagnoses and interventions must take into account the whole person; often symptoms manifested at one level have roots originating at another level.
7. Psychological disorders may be multi-faceted and their causes are not always reducible to physical (genetic or biological/biochemical) factors.
8. We need to have viable models for understanding human health and wholeness, rather than the current clinical models that tend to use only pathological categories for clinical assessment and treatment.

In the larger world today, there is a need for new viable models of optimal psychological health and healing based on the whole-person understanding. Clinical and psychotherapeutic assessment is still done primarily on the basis of psychopathology and clinical categories. Such models need to take into account not only mental, but emotional, spiritual and physical dimensions of human existence and their complex relationship during the course of lifespan development.

Almost half of CIIS students are enrolled in counseling and clinical psychology programs that acknowledge and work with the above principles in their academic and professional training.

I conclude with the following words by Haridas Chaudhuri:

> We are going through a very transitional period of terrestrial evolution. In this period of transition and transitional crises, all the latent contradictions and discrepancies of human nature come to the foreground of our consciousness, resulting in a very chaotic situation in the fact that we see so much darkness around us. However, Aurobindo reminds us that the night is darkest before the dawn. It is also the strategy of nature that, as these things come to the front, as our problems come out in all their nakedness, we have a chance to understand them, and do something about them. The problems that we see today—the problems of division and separation, the problems of conflict and crisis—are ultimately traceable to the level of consciousness on which we are functioning now; that is, the mental level. (Chaudhuri, 1979, p. 6)

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CIIS and American Higher Education

Joseph L. Subbiondo[1]

Abstract: In this article a brief history of the California Institute of Integral Studies and its predecessor institution, the American Academy of Asian Studies is discussed, and several key founding figures of both institutions are introduced. It is argued that the role these unique institutions of higher learning have played have been crucial, initially in the cultural life of San Francisco Bay Area and the social and cultural movements it inspired, and currently in the context of the role that an integral, whole-person oriented education plays in higher education.

Keywords: American Academy of Asian Studies, California Institute of Integral Studies, Haridas Chaudhuri, Louis Gainsborough, Paul Herman, higher education, integral education, San Francisco Renaissance, Alan Watts.

Introduction

The story of the California Institute of Integral Studies (CIIS) serves as a living case study—a work in progress that documents that a university can maintain academic credibility and institutional accreditation while challenging the prevailing dualistic educational model. Moreover, it demonstrates that an institution can even thrive in this progressive approach to higher education. CIIS faculty members and students are drawn to, and remain at, CIIS because of its unique pioneering model of integral education.

Louis Gainsborough and the American Academy of Asian Studies

The story of CIIS begins in 1951 with the founding of the American Academy of Asian Studies in San Francisco by Louis Gainsborough and the arrival of two of its most prominent professors: Alan Watts and Haridas Chaudhuri.

Louis Gainsborough, a business entrepreneur and importer, traveled throughout Asia and became convinced that world peace depended upon an enduring and collaborative relationship between the East and the West. He was so moved by the embodied peace message of Mahatma Gandhi that he produced a documentary film featuring rare original footage of Gandhi. In 1957, on the day following his second inauguration, President Dwight Eisenhower screened

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[1] **Joseph L. Subbiondo,** president of CIIS since June 1999, has an accomplished background in both administration and academics. He brings a 30-year history of achievement in higher education, including appointments on several international academic committees, and has been active on many accreditation teams for the Western Association of Schools and Colleges. Prior to coming to CIIS, he served as dean of the School of Liberal Arts at St. Mary's College of California; vice president for academic affairs at the University of the Pacific; dean of the College of Arts and Sciences at Santa Clara University; and as a professor of English and linguistics at four universities.
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Gainsborough's film at the White House with Jawaharlal Nehru, then prime minister of India, and Gainsborough present.

Recognizing that education was critical in creating an enduring East/West relationship, Gainsborough founded the first graduate school in the United States exclusively devoted to a study of Asia—the American Academy of Asian Studies. Gainsborough's launching of the Academy was a courageous act because of the contentious anti-Asian sentiment in the US: in 1951, the United States was still in the wake of its war with Japan and it was actively engaged in the Korean conflict. Nonetheless, Gainsborough persevered in his vision and his Academy not only led to the creation of CIIS later in 1968, but it also contributed much to shaping the San Francisco cultural milieu of the 1950s and 60s. Over the years, the intersection of the Academy, CIIS, and San Francisco Renaissance significantly influenced the integration of Eastern and Western wisdom traditions throughout the US and the Western world.

Alan Watts

In 1951, Alan Watts (1915-1973) arrived at the Academy. By then, Watts had published eight (of his eventual twenty-two) books as well as many essays on Eastern religious and spiritual traditions, particularly Zen Buddhism. He was established as one of the leading writers and teachers of Eastern mysticism. Through his scholarly reputation and personal connections, Watts positioned the Academy to be a principal meeting place for artists, writers, teachers, activists, and practitioners of the emerging counter-cultural movement of the San Francisco Renaissance.

As Monica Furlong (1986) noted in her biography of Watts, the counter-culture movement in San Francisco with its new ways of thinking contributed immensely not only to "normalizing" Eastern religious and spiritual practices in the US; but it also provided a catalyst for the national, and often international, 1960's movements in civil rights, anti-war, environment, and transpersonal psychology. In his autobiography, In *My Own Way*, Watts (1972/2001), looking back at the 1960s, extensively and convincingly documented that "The American Academy of Asian Studies was one of the principal roots of what later came to be known, in the early sixties, as the San Francisco Renaissance…" (p. 232).

Watts' account of the spirited debates among the founders of the Academy sheds light on the early evolution of humanistic and transpersonal psychology during this period in the United States. Some founders of the Academy (particularly Gainsborough) wanted the Academy to offer studies of Asian culture to prepare people to engage in business in Asia while others (Watts and Chaudhuri among them) "were concerned with the practical transformation of human consciousness…" (Watts, 1972/2001, p. 234). Watts indicated that the latter group prevailed, and the Academy cultivated "the actual living out of the Hindu, Buddhist, and Taoist ways of life at the level of high mysticism: a concern repugnant to academics and contemptible to businessmen, threatening to Jews and Christians, and irrational to most scientists" (Watts, 1972/2001, p. 234).

Watts played a critical role in developing the Academy's weekly colloquia that attracted many of San Francisco's leading artists, writers, psychotherapists, and scholars as well as visiting guests like D.T. Suzuki.

In these dialogues, as Watts pointed out, the participants of the colloquia mixed rather than mixed-up the disciplines. Watts recalled with heartfelt appreciation his many dialogues with Chaudhuri who with "his gentle humor and learned mind made him a wonderful partner in debate, so that we could argue endlessly without losing tempers" (p. 235). The students who attended these colloquia included Michael Murphy and Richard Price who later established the Esalen Institute at Big Sur in 1962, as well as Gary Snyder, who became a noted poet, professor of literature, and the inspiration for the character "Japhy Ryder," the Buddhist beatnik hero, in Jack Kerouac's (1958) *The Dharma Bums*, the classic novel on the San Francisco Renaissance.

In 1961, Watts published his views on the integration of Eastern wisdom traditions and Western psychology in his book *Psychotherapy East and West* (Watts, 1961/1975). By the end of the 1960s, Watts would comment on the emerging themes of his day—themes that were swirling around the Academy and the soon-to-be California Institute of Asian Studies:

> I have the impression that the psychiatric world has opened up to the possibility that there are more things in heaven and earth than were dreamed of in its philosophy… The field is giving way to movements and techniques increasingly free from the tacit metaphysics of nineteenth-century mechanism: [these include] Humanistic Psychology, Transpersonal Psychology, Gestalt Therapy, Transactional Psychology, Encounter Therapy, Psycho Synthesis, … Bioenergetics, and a dozen more interesting approaches with awkward names. (Watts, 1961, p. 337)

Watts' brilliance and charisma brought attention to the American Academy of Asian Studies, the predecessor of CIIS. Moreover, Watts greatly influenced Chaudhuri and their mutual colleagues in setting the agenda for the founding vision of CIIS. Years after leaving the Academy, Watts acknowledged the success of Chaudhuri in continuing the work they had begun at the Academy twenty years earlier. He wrote: "Haridas Chaudhuri went off on his own and replaced it [the Academy] with the California Academy [sic] of Asian Studies, which is where something of the original tradition of the work is now alive and kicking quite interestingly" (Watts, 1972/2001, p. 277).

Haridas Chaudhuri

In 1949, Haridas Chaudhuri (1913-1975) earned his Ph.D. in Philosophy at Calcutta University, submitting a dissertation on the integral philosophy of Sri Aurobindo. Chaudhuri was recognized as the leading scholar and commentator on the extensive works of Sri Aurobindo (1872-1950) even by Aurobindo himself; and he was appointed to the Academy, the predecessor of CIIS, to teach courses on the works of Aurobindo within the context of the panoramic landscape of Eastern philosophical and spiritual traditions. Chaudhuri included many of the original educational themes of the Academy as he developed the California Institute of Asian Studies (later changed to Integral). In 1981, the Institute was granted regional accreditation which meant that the Institute's students would be eligible for federally funded financial aid and the institute was a member of the national community of colleges and universities. Throughout his years preparing the Institute for accreditation, he never lost sight of the urgent need in higher education for integral education: he wrote "The educational system, as it operates today, does not take into account the whole person, nor does it take into account the whole world" (Chaudhuri, 1977, p. 78).

Chaudhuri (1977) maintained that Aurobindo provided a complete art of integral living because his work points the way to dynamic integration of the material and spiritual values of life. It is a call to the reconstruction of human life and society on the basis of abiding spiritual values (pp. 135-136). Chaudhuri's definition of the "art of integral living" as "the dynamic integration of the material and spiritual values of life" is especially relevant to our assertion today that higher education needs to develop an integral approach to education. Chaudhuri's assessment of the state of higher education is as pertinent today as it was a half century ago: it continues to influence integral educational programs as evidenced by Ken Wilber's (2006) aspiration for his Integral University that it "cultivate body, mind, and spirit in self, culture, and nature" (p. 32).

In *The Evolution of Integral Consciousness*, Chaudhuri (1977) clearly stated the need for higher education to include a holistic view of the human being:

> It is important to have a comprehensive, holistic, integrated view of humanity. The integral view of … [humanity] implies that no individual is a separate self-existent entity. Just as the different elements of our nature—body, mind, spirit—are interrelated aspects, in the same way, every individual is a factor in a social continuum… Individuality conceived as a self-existent atom is an abstraction of our mind; it does not exist. Nobody lives by himself. Human beings become more and more human through social interrelations, interactions. (p. 74)

Chaudhuri's vision of integral education, like that of Alan Watts, was based on connecting the cultural traditions of the East and the West:

> The integral world view and integral thinking are in truth two sides of the same coin …. The method of integral thinking represents a dynamic integration of the scientific, phenomenological and dialectical methods of the West and the self-analytical, psycho-integrative, nondual values of the East. (Chaudhuri, 1977, p. 85)

Like Gainsborough, Chaudhuri was convinced that global peace depended upon profound connection between the East and West and he recognized the need to include Indian core values in Western education. To implement this vision, Chaudhuri and his colleagues developed a new vision of theory and practice in psychology by integrating Aurobindo's psycho-spiritual perspective and integral method with the new and growing academic and professional field of counseling psychology. Integral counseling psychology has been central to the educational mission of CIIS because it blends what Chaudhuri considered the best in the East with the best in the West. Brendan Collins, a CIIS professor who studied with Chaudhuri, recalls that Chaudhuri often said that he thought that spirituality would return to the West not through philosophy or religion, but through psychology.

Unfortunately, Chaudhuri’s formulation of a unique program in integral counseling psychology was cut short by his untimely death in 1975; however, the initiative was completed by Paul Herman, Professor of Psychology who began teaching at the Institute in 1969.

Paul Herman

In 1973 Paul Herman designed the Institute’s first independent program— a graduate degree in integral psychology that was based on his and Chaudhuri’s collaborative vision. He appropriately entitled the new program “Integral Counseling Psychology.” To ensure the long term viability of the new program, Herman (1972) insisted that it be clinically professional and state credentialed in order to prepare students for employment in various counseling sub-specialties, such as developmental, vocational, rehabilitation, mental health, marriage and family, and transpersonal and yoga counseling. The degree program was designed to fulfill the suggested education and training standards of professional counseling and psychological associations, both state and national, and to profit by the close collaboration of specialty groups in humanistic and transpersonal psychology as well as those concerned with innovations in parapsychology and healing.

The Integral Counseling Psychology (ICP) degree was launched in September of 1973. In his announcement, Herman credited Chaudhuri for the original concept of the program stating that the degree was developed according to the integral view of the late Haridas Chaudhuri in including the major spiritual traditions of East and West, recent cultural and social science research, and the writings of leading humanistic and transpersonal psychologists. Writing ten years later, Herman reiterated his founding vision for the program. In a paper published in 1983, Herman defined Integral Psychology as:

> … an emergent East-West study of the human psyche. It draws upon the findings of both Western depth psychology, and ancient Eastern teachings and yogas, to express a whole, unfragmented view of human nature which does not remain merely theoretical, but also functions to resolve human conflicts and open the way toward activating high levels of potential … it includes the whole range from protohuman awareness to expansive transcendent experience. (Herman, 1983, p. 95)

In that same paper, Herman echoed Gainsborough’s anticipation that education could be a principal catalyst for world peace:

> Integral psychology, as a science of the psyche or soul, concerns itself with whole potential of human consciousness. Thus it looks forward to a full transformation of the manifest cosmos, including humankind, in the evolutionary future. All human beings may assist in cosmic evolution, as well as help resolve personal, social, national, and international conflicts, by centering consciousness at the innermost core of the being until its guidance and energy are activated. (Herman, 1983, p. 1)

By insisting at the outset that the program would only accept and graduate students who could demonstrate competence in both the classroom and the counseling center, Herman assured that the program would not only meet the standards of accreditation but also that its graduates would find professional acceptance. After meticulously grounding the program in the requirements of established programs in counseling psychology, Herman integrated Eastern perspectives into the program. In the end, the program had more required courses than that of traditional counseling psychology programs. To this day the Integral Counseling Psychology Program is one of the most sought after courses of study at CIIS.

Conclusion

Huston Smith, revered historian of religious and spiritual movements, commended CIIS for its role in advancing US higher education:

> In the course of decades, American higher education has created tradition-bound ruts and it works in those ruts. Consequently, it is vitally important that mainline universities be complemented by alternative programs that are not stuck in those ruts. CIIS is the best of these alternative programs that I know of. (Smith, n.d.)

We are blessed to be living in an age in which unprecedented global and cultural shifts are enabling us to get beyond our many “tradition-bound ruts” in higher education that have held us in place since the seventeenth century. While many faculty members and administrators may not have changed their educational visions, the students have. This change is evident in the extensive longitudinal research on university students and their spirituality that is being conducted by UCLA’s Higher Education Research Institute (UCLA, 2006). The surveys reveal that the fastest growing group of university students in the US is those who identify themselves as spiritual non-religious. Fortunately, CIIS is not alone in meeting the needs of the changing student population. Higher education currently faces challenges not only in supporting curricular changes to include, interdisciplinary, integrative, and transpersonal studies but also supporting the pedagogical shifts and the life style changes that reflect a holistic worldview.

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Evolving Dimensions of Integral Education

Judie Gaffin Wexler[1]

Abstract: This article explores the concept of integral education as a way to prepare students for the complex, rapidly changing global environment in which they will be living and working. It contends that education must help students focus both internally and externally if they are to be effectively prepared. The experience of the California Institute of Integral Studies is used as a case study to discuss key dimensions of integral education.

Keywords: Contemplative practice, diversity, education, holistic, integral, interdisciplinary, transformative.

Introduction

In this paper I will be examining the concept of integral education using the California Institute of Integral Studies (CIIS) as a case study. CIIS is a university based in an integral worldview and created out of a critique of American society and higher education. Now, over 40 years later, we are in another turbulent time in which we are considering if and how higher education prepares students for the future. As the 2007 report on *College Learning* by the Association of American Colleges and Universities (AAC&U) has put it,

> In this global century, every student—not just the fortunate few—will need wide-ranging and cross-disciplinary knowledge, higher-level skills, an active sense of personal and social responsibility, and a demonstrated ability to apply knowledge to complex problems (AACU, 2007, p. 11).

AAC&U looks to liberal education to provide this; I believe that the innovations that come out of the integral and transpersonal approaches have the potential to move us even further toward the kind of transformation that is needed.

Integral Education

Over the last few years at CIIS we have spent a lot of time discussing what we mean by integral education as we practice it in the 21st century. As part of this discussion we have gone back to our roots to look again at the goals and philosophies of our founding as well as at the multiple realities of our present day university. The schools, programs and faculty that make up academic life at CIIS are interconnected by common mission, history, values and concerns.

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Our integral education project has focused on identifying common dimensions without creating a statement of orthodoxy. Being careful to leave room for creativity and innovation, there is no CIIS checklist against which every program is to be measured but there are dimensions that each program expresses. The dimensions are the visible manifestations of the holistic education we strive to provide; they emanate from a mission that strives "to embody spirit, intellect, and wisdom." Part of our understanding of integral is that it allows for dialogue between incommensurable truths and for the holding of paradox. In the face of pressures to tie everything together, it allows for the recognition that this is not always possible or desirable.

In writing about education at CIIS, I want to focus on a few key aspects:

- What it means to provide an accredited education that includes the spiritual aspects of human life;
- The dimensions of integral education we have identified; and,
- The implications of the higher education context in which we do this work.

Underlying academic life at CIIS is a worldview that holds that the spiritual dimension is important; as an educational institution we seek to embody the spiritual as part of the intellectual. As a university we must make sure that we provide our students with the knowledge and thinking skills central to advanced education. As an integral university we want to do more; we want to also support them in exploring their interior lives and the intersections between that and their academic work.

There is a creative tension here as we try to hold the paradoxes that arise out of competing paradigms. The two do not fit together seamlessly but, I believe, it is in the tension between them that our most creative and important work arises. As an accredited university we have to meet the expectations of the dominant paradigm. Those goals sit side-by-side with other more transformational aspirations. In combination we have the potential of addressing the knowledge and characteristics needed in these complex and rapidly changing times.

We have identified five dimensions of integral education:

- Multimodal, valuing different ways of knowing;
- Integration of intellectual rigor and personal (including spiritual) growth;
- Transdisciplinarity and integrative;
- Social relevance and interface with the external world; and,
- Space for difference in the curriculum and classes.

One could argue, and I would agree, that these dimensions are found in varying degrees in many higher education institutions. However, I contend that the worldviews that form the context for them at CIIS differentiate them from similar practices in universities formed by other world views.

Brant Cortright, in his book *Psychotherapy and Spirit*, asks what transpersonal psychology looks like in psychotherapy, "Is it shown by what the therapist does or how the therapist is?... Are there some common principles, methods, guidelines which characterize a transpersonal approach?" (Cortright, 1997, p. 7). I think the same questions can be asked about education that is transpersonal or integral. Is it shown by what the educator does or by what the educator is? While it is easy to focus on techniques, it is not the techniques that are definitive. Instead, I think that it is the worldviews that are definitive. It is what the educator is.

Spirituality and Higher Education

The incorporation of the spiritual into higher education is not without its controversy. This kind of inner work has been regarded as personal and subjective, and so as unrelated to the reasoning and logic that are more appropriately the domain of education. There is also some concern that the incorporation of spirituality is code for a religious litmus test or a denial of science. On the other hand, learning is never solely an objective enterprise. What people learn and how they understand what they learn is always related to previous ideas and existing conceptual frameworks.

Spirituality is clearly important to American college students and faculty. Over half of American college students place a high value on integrating spirituality into their lives and more than two-thirds report having had a spiritual experience (Astin, 2004). Spirituality is not only important to the students, survey data indicate that 40% of American faculty can be described as high in spirituality (Lindholm & Astin, 2006, p. 69). Can we really ignore this as we try to educate students for the future in a world that is highly complex, rapidly changing, and increasingly globally interdependent? Why would we even want to?

Dimensions of Integral Education

Multimodal, Valuing Different Ways of Knowing

A place of creative tension here is to offer students opportunities for the rational, cognitive learning that is basic to higher education while also pursuing approaches that open students to new and creative awareness. Higher education by its very nature emphasizes cognitive learning and understanding expressed in words. While we increasingly recognize the prevalence of multiple forms of intelligence reflected in different learning styles, the college classroom tends to address learning from a verbal perspective and students have to be able to present their ideas in written form. Contemporary reform dialogue is framed in terms of improving learning outcomes, providing students with opportunities to enhance their learning through application, analysis and evaluation.

Classroom practice at CIIS of course includes lecture, discussion, small group work and project based experiences. In addition to all of these conventional approaches to learning that are found at any American university, one will also find meditation, movement, drama, art, and poetry used as ways to bring students into the present and open them to different kinds of learning and consciousness.

Some of these approaches to knowing now fall into the category of evidence based practice—there is effectiveness research that connects them to student learning. We know, for example, that meditation can increase learning and memory. We know that other approaches can help people access their preconceptions and work with them in a way that opens them to new learning. These approaches can be used as techniques to achieve better learning outcomes and also as ways to support deeper awareness and learning that incorporates the ineffable. Education here seeks to help people integrate the interior and exterior dimensions of life and in doing so provides for stronger and more lasting learning and sense of personal responsibility.

A survey of 2001-2010 CIIS graduates confirmed that students experienced this dimension in their education. The percentage that agreed or strongly agreed with the statement is provided in parenthesis.

- My education included multiple ways of knowing, including experiential learning, collaborative learning, and the use of media and art. (92.4%)
- My education expanded my approaches to learning and helped me appreciate the approaches of others. (91.3%)
- My education facilitated the integration of body, mind and spirit in a significant way. (88.1%)

Integration of Intellectual Rigor and Personal (including Spiritual) Growth

Higher education is explicit in its expectation that intellectually rigorous learning is an outcome; typically that goal for rigorous learning is articulated in cognitive and rational terms. There is usually also an implicit expectation that students will grow in other ways during their years in college.

As part of integral education, we see the two as being inextricably tied together not just as occurring on parallel tracks. Academic work is seen as fostering personal growth and personal growth is seen as fostering academic work and growth. Self-reflective papers and contemplative, experiential and participatory experiences within the classroom all connect personal growth with growth in understanding, knowledge and thinking. Learning is supported by helping students make explicit their beginning understandings and frameworks and by helping them reflect on their own understanding and the connections they make. The theory of education is a holistic one that integrates the personal and the intellectual and seeking to go to deeper levels of understanding and transformation. As bell hooks (1994) has written,

> Our work [as teachers] is not merely to share information but to share in the intellectual and spiritual growth of our students. To teach in a manner that respects and cares for the souls of our students is essential if we are to provide the necessary conditions where learning can most deeply and intimately begin. (p. 13)

Many students come to CIIS as a step in a perceived journey toward increased self-discovery and awareness. These transpersonal goals are important in connecting faculty and students as co-creators. Our challenge as an educational institution is to keep personal growth and intellectual rigor in balance; in this we are different from more traditional educational institutions in which the intellectual is abstracted from the personal.

Here our tension is that in seeking to make room for personal and spiritual growth we need to also be attentive to ensuring that our students are offered rigorous intellectual work and are encouraged to think critically. It is in the balance of the two that we are at our very best as each strengthens and deepens the other.

The techniques that access multiple ways of knowing typically also support personal growth and development. In utilizing them in a context of rigorous academic learning they also support the latter. Thus much of what we do out of transpersonal understandings also act to enhance learning and better prepare students for the contemporary world.

Returning again to the graduation survey data, there was very strong support for statements specifying that graduates had experienced this dimension.

- My education facilitated my personal growth. (95.9%)
- My education facilitated by intellectual growth. (93.6%)

Transdisciplinarity and Integrative

Education at CIIS seeks to be integrative across disciplines and educational experiences. Just as the problems and key questions of the contemporary world do not fall into neat disciplinary boxes, inquiry does not fall into neat boxes created by courses and semesters. We want our students to be able to pursue questions that transgress boundaries and to seek new ways to bring ideas together. The focus comes to be more on the inquiry than on the discipline. Such a focus on inquiry and integration is one way to address the fragmentation of knowledge that has been created by the division into disciplines and subdisciplines. At the same time, it is vital that students go deeply enough into some area of study that they have the conceptual frameworks with which to organize their ideas. Of CIIS recent graduates, 83.5% agreed or strongly agreed with the statement: My education prepared me to engage in interdisciplinary and transdisciplinary inquiry.

Social Relevance and Interface with the World

According to Haridas Chauduri (1977), integral education is “education which is based upon the concept of the total man [person] and education which is based on the total human situation, the global situation” (p. 78). The integral, holistic tradition at CIIS supports an approach that does not separate learning from preparation for action in the world. Increasingly, students come to CIIS who want to make a difference and seek the tools to be able to do so. Course material connected to meaningful action in the world, group work and opportunities to apply learning to real-world settings also build knowledge and understanding that goes beyond preparation for a particular task at a particular time. Action is framed by theory and imagination.

To give one example: last fall we opened our Clinic Without Walls, an attempt to bring psychological services into housing projects in San Francisco. Unlike our other clinics, this one does not wait until people decide they need/want to come for therapy and make an appointment. In this clinic, students build relationships and community within public housing to open people to the possibility of therapy and to provide it within the community. Graduates indicated agreement or strong agreement with the statement: My education made meaningful connections between theory and practice (89.4%). A still significant, but smaller percentage agreed or strongly agreed with the statement, CIIS activities and events beyond the formal classes added value to my education and helped me to see it relevance (65.8%).

Space is provided for difference to live in the curriculum and classes

Difference is not something that we can ignore in the world today. Again as Haridas Chauduri wrote:

> Mankind can no longer be divided into exclusive segments so that the fortune of one will not affect the fortune of the other. We live in a world of shrinking dimensions with people of different cultural, religious and racial backgrounds coming together. As it is commonly phrased, either we swim together or we sink together. (Chaudhuri, 1977, p. 77)

If we are to be able to live together we need to be able to better understand each other and to bridge our differences.

Difference is also about different frameworks, ideas, experiences, and ways of understanding. We want to support paradox and different kinds of inquiry as well as respect for cultural, social and economic difference. This work requires inclusion of the personal. The combination of personal and intellectual work can facilitate understanding of difference and the development of skills to work with responsibility in an increasingly diverse world. Without that we run the risk of bringing people physically together and making them more aware of difference without supporting them in learning to feel comfortable with, or understand, difference. However, engaging in this way is not without its challenges.

What happens when ideas, backgrounds, beliefs are in conflict? In an environment that seeks to affirm the individual there is some pressure to maintain an atmosphere that is not conflictual or angry, to smooth over difference in support of feelings of safety and harmony that can actually undercut building understanding. We struggle to see conflict as an opportunity for learning and to develop the skills to deal with and hold difference. Difference may be the most challenging dimension in relation to spiritual worldviews found at CIIS. As Marianne Williamson (1997) has emphasized, “It is our unity and our diversity that matter, and their relationship to each other reflects a philosophical and political truth outside of which we cannot thrive.” (p. 72). And yet, the universality that is emphasized out of our spiritual worldviews at times seems to lead to a downplaying of the importance of difference, especially in terms of considering the dynamics of race, class, gender, and sexuality. It is not uncommon to hear a CIIS student say, I am spiritual, I have moved beyond diversity, not recognizing that worldview does not negate power and class dynamics. At the same time, 83.4% of the graduates indicated agreement or strong agreement with the statement: My education helped me to respond to cultural and ideological diversity by giving me the opportunity to reflect on my own positions (class, gender, sexual orientation, age) and to build connections with others who are differently positioned.

The Higher Education Context

All of American higher education is asking itself questions about how students learn and how to help them learn better. That concern has led to new attention to university teaching and to considerable attention on access, graduation, job preparation, accountability and the measurement of learning. I contend that it is going to take more than reform and increased accountability to prepare our graduates for the demands of this century. It is going to require transformative practice that situates the individual in his/her education.

The concerns have led to demands on universities to demonstrate that their students have learned and to demonstrate what they have learned. At a time when we need people who can think critically, creatively and integratively, the pressure is to show what our graduates know rather than how effectively they can think, or how imaginatively they can apply. While college faculty members generally believe they address the key learning areas and college students generally believe they have acquired some proficiency in these areas, the limited actual outcome data do not support these perceptions.

The data indicate that students are graduating college without high level proficiency in such areas as writing, mathematics, and critical thinking. Such data are compelling and are driving a lot of the accountability and testing momentum currently at work in the US.

However, the needs of this century go much further than that. When we start considering complex learning outcomes such as integration of learning, inquiry, critical and creative thinking, and individual and social responsibility, innovative practices and thinking are needed. We know that it is not enough for people to be able to repeat information; they need to be able to formulate questions, find information and organize and apply it in new ways.

In educating for resilience and resourcefulness, we have to consider the holistic development of our students. While there are many lists of what people are going to need to be able to thrive in this century, a higher education is needed that provides students with the basis for future learning and action and helps them reflect on their own actions, responses, knowledge, relationships and culture. These are exciting challenges and fit well with the strengths of an integral approach to education.

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Trans-Dance: Disciplinary Cross-Dressing and Integral Education in a Language and Sexuality Course

Matthew C. Bronson[1]

Abstract: This article showcases an integral approach to education through the lens of a transdisciplinary graduate-level class on Sexuality and Language. The graduate-level class was co-taught by two CIIS faculty whose backgrounds span the fields of social and cultural anthropology, psychology, sociology, social policy, linguistics, education and drama-centered expressive arts therapy. The class brought together students from six separate academic programs and drew from a wide array of performative and arts-based modes of inquiry to create a deep context through which to unpack the complex relationship(s) between language and sexuality. These practices were interwoven with theoretical exposition and discussion in a hermeneutic spiral leading up to students' planned research projects. This "disciplinary cross-dressing," where diverse students and faculty engaged each others' points of view rigorously in a common inquiry, created powerful teachable moments and served as the foundation for a transgressive mode of scholarship and advocacy.

Keywords: Assessment, educational reform, experiential education, higher education, identity, integral education, interdsiciplin(arity), language and sexuality, learning, linguistics, transdisciplin(arity),

"*My girlfriend is teaching me how to talk like a lesbian.***"**
- student in Language and Sexuality course

Introduction and History of the Course

Humans are sexual beings, even politicians and priests, if the headlines of recent years are any indication. We are also intensely social, and language is the primary medium in which we negotiate our joint construction of identity and reality itself. We are what we speak (including gestures, embodied language, etc.), and this includes our presentation as gendered and sexual

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beings. The intersection between these two domains, language/communication and sexuality, is a rich and generative area of inquiry that has garnered interest at universities throughout the U.S. and internationally (Cameron & Kulick, 2003, 2006).

Gender studies and allied fields such as queer studies (Yep, Lovaas, & Elia, 2003) are experiencing expansion relative to the general contraction of academic fields and departments now under way. Also, as my Chair pointed out, "any course title with 'sex' in it will tend to fill" and so it is no surprise that dozens of courses are now being taught with titles such as "Gender and Communication." This was not meant to be just another course, however; the case is especially relevant for this audience because it also aspired to incorporate the principles of integral education. It was designed to truly engage students in deep learning by connecting critical reflection on their own stories as sexual beings with the formal material of the course.

I will briefly summarize some relevant strands from ongoing conversations about integral education and how it has been framed at my university and elsewhere. I report here on the course with the main intention of claiming some lessons in the praxis of integral education (Bronson, 2006, 2005)—that is how some key ideas from integral education as it is currently understood at my university have been translated into specific classroom practices and relations. Finally, I present a sketch of a framework for assessing such implementations and suggest some avenues for further discussion and research.

The Dimensions of Integral Education

The term "integral" is contested and claimed by different lineages and perspectives. Among them, three are most prominently represented in public discourse: that of Wilber/Gebser (Esbjorn-Hargens, 2010), the Aurobindo/The Mother-Chaudhuri line (Ryan, 2010) and, in education, a more broadly construed approach perhaps most closely associated with "transformative learning" (Mezirow, 1990, 1991; for a different view see Ferrer, Romero & Albereda, 2010). All of them share an emphasis on the evolutionary and transformative potentials in human consciousness and experience and an intention to expand the modes of knowing that are valued and developed in this enterprise (Ferrer & Sherman, 2008). Thus, the problematic dichotomy between "objective" and "subjective" modes is directly engaged in integral education, rather than taken as a matter of common sense:

> As a university we must make sure that we provide our students with the knowledge and thinking skills central to advanced education. We cannot in good conscience do any less. In actuality we want to do more; we want to also support them in exploring their interior lives and the intersections between that and their academic work. There is a creative tension here as we try to hold the paradoxes that arise out of competing paradigms (Wexler, 2010, p. 2).

The "creative tension" to which Wexler (The Dean and Academic Vice-President of California Institute of Integral Studies.) refers, presents itself in what my colleagues and I have identified as the key dimensions for integral education as we understand them at CIIS. After several years of inquiry, publication, and discussion, we came to see it would not be useful to thematize "integral education" as necessarily separate from the best in liberal (AACU, 2011) or emancipatory (Freire, 1970; hooks, 1994, 2003) education or to think of it as a single ideology and closed set of necessary and sufficient conditions.

We came to our dimensions via a “grounded theory” approach of asking our colleagues and students for examples of what would count as integral education in practice and then inferred the underlying commonalities over many years of iterative dialogues. We were comfortable with articulating integral education (in practice) as a nexus of related dimensions or values with a “family resemblance” (Wittgenstein, 1953) where not every implementation would implement all the features but more robust implementations would. We wanted to identify these dimensions so that we might enhance them through reflection and assessment, where appropriate.

The five dimensions of integral education we identified were:

- Multimodal, valuing different ways of knowing
- Integration of personal growth and intellectual rigor
- Transdisciplinarity: (the integration of knowledge in the service of inquiry)
- Social relevance and interface with the external world
- Space for difference in the curriculum and classes (Wexler, 2010, p. 2).

C.I.I.S. is perhaps uniquely positioned as a place where the various strands of integral education can interact in conversation because there is no dominant ideology or approach. The range of integral theories and practices are rooted in a common commitment to realize more holistic, humane, and sustainable responses to the collective challenges of our day. They aim to address a hunger for alternatives to “business-as-usual” in a world in crisis, to the fragmentation and alienation inherent in the “dominant” paradigm (Bronson & Fields, 2009a, 2009b; Ferrer, 2002; Ferrer and Sherman, 2008).

The dimensions above represent the core common values of our community-of-practice at C.I.I.S., yet are broadly enough construed that others who identify with the overall vision can enter into the conversation, regardless of their affiliation. In education more generally, “integral” has been applied to a range of topics, approaches, methods and interventions (Bronson, 2005; Bronson & Gangadean, 2006; Esbjörn-Hargens, Reams, & Gunnlaugson, 2010). These represent (at least in some measure) different levels of embodiment of a common underlying worldview, one in which the spiritual is not disparate from the practical or intellectual and lived experience and creativity are central in the construction of knowledge (Gangadean & Bronson, 2004; Bronson & Gray, 2010; Bronson, 2004).

I have been a linguist teaching courses at the intersections of language, culture and consciousness at a variety of universities, most prominently in a graduate program in anthropology where I currently serve as faculty. Inspired by a colleague (Gregory Ward), who had been reporting for years about a course on language and sexuality that he had been teaching at Northwestern University, I decided to design a course that would address each of these elements. I enlisted the support of another colleague, Shoshana Simons, who is the Chair of the Expressive Arts Program at C.I.I.S. In the pages that follow, I will share some of the struggles and learning that emerged from the attempt to teach our version of the course with these dimensions as central.

Multi-modal

From the outset, we wanted to include direct experience wherever possible as the foundation for subsequent reflection on the academic content. We were committed to following the hermeneutic spiral from the more concrete to the more abstract. Both of us felt that this was more congruent with how people learn naturally and would give them more robust as opposed to superficial outcomes. We also sought to establish a climate of safety and sharing and knew from past experience that these could be established by the use of ritual and other exercises. In this spirit, our opening experience involved asking students to listen to some soothing music and draw who they were as sexual beings. They subsequently shared with the class whatever they wanted to about the labels and stories that had shaped their identities. We used the introduction of the exercise to evoke confidentiality and to let people know that they should only say what they felt comfortable saying.

This experience became a jumping off point for an extended discussion of the construction of categories (see Whorf, 1956; Lakoff, 1987; Lakoff & Johnson, 1999 for extended discussions). We shared with them how humans construct cultural categories from experience and then use them in place of gathering new information about an environment that is always in flux (Alford, 2002; Whorf, 1956). This was an opportunity to integrate some basic cognitive linguistics into the discussion.

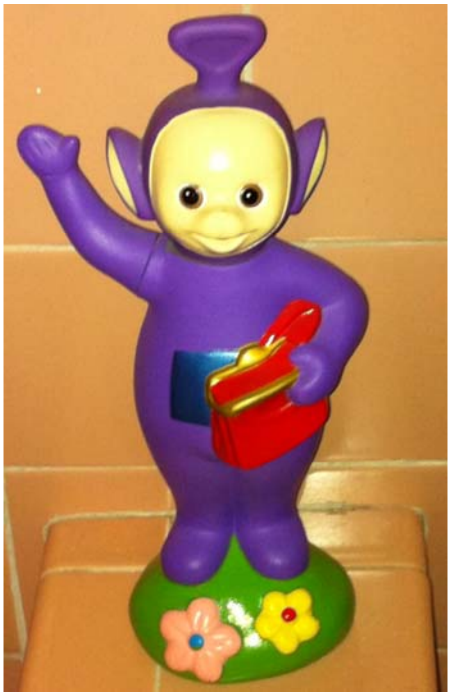

Figure 1: The Tinky-Winky controversy is emblematic of the power of queerness to challenge gender binaries and the fragility of heteronormativity.

At the end of the first evening of the weekend workshop, we continued on the same note: we asked them to go home and look around their homes and personal spaces for objects that touched on some aspect of their sexual and romantic lives. They were to bring these objects, ready to share them with the class as they reflected on their own sexual identity socialization in light of the class material. We told them we would assemble the objects in an “altar.”

I started the altar that night and modeled the activity by sharing three artifacts of my own. I began with a small lavendar plastic figure of Tinky-Winky (see picture), the famous Tele-Tubby with the triangle on his head who was “outed” as gay by Christian Fundamentalists. Tinky was a gift from a friend and immediately gained a place of honor on my personal altar at home. I told the class that he represented for me the power of queerness to bring the dominant into an obviously irrational frenzy simply by the tiniest hint of refusing to conform to heteronormativity. I loved the irony—a television program for 2 year-olds was now being seriously presented as a means of recruiting homosexuals.

This tiny little figure ignited a firestorm among Evangelicals and yet continued to show up each week to “work” in his bucolic green meadow under a smiling sun unscathed by the controversy swirling around him. I explained that Tinky was a model for me as a gay man in his perseverance and power, and even if he were only “questioning”—understandable given his missing genitalia— I would count him as a queer little brother and fellow sacred clown. You might imagine what I shared about a picture of my mother and father as two beautiful young people in love (my mother a virgin), embracing just after taking their vows and years before their subsequent divorce when I was two. A picture of me and a former Brazilian lover dressed as Carmen Miranda was fodder for reflection on gender as performance. I enjoyed showing up as a teacher and a whole person with a history and felt that this in and of itself was a kind of intervention in the business-as-usual of college teaching.

We began with the activity on a Saturday morning with twelve students and two instructors in a small windowless room with the chairs arranged in a circle. One young woman brought a condom and shared what it had cost her to be prepared for safe sex. Many men she dated had been doubly surprised when she had whipped out a Trojan Magnum condom at the critical moment—first that she was apparently ready for sex and secondly owing to the “Magnum” extra-large size of the prophylactic in question. This was enough to end the encounter in some instances. She spoke of the contradictions inherent in being socialized as a sexually active woman who was not “supposed” to want sex.

A young gay man brought a gold wedding band and explained how he had at one point intended to give it to his partner as part of a commitment ceremony. Then, gay weddings were legal for a while and it became a “real” wedding ring. Before they could consecrate the marriage, the law changed and it was no longer “real.” He then broke up with his partner He asked us to look at the ring: “It’s a wedding ring, it’s not a wedding ring, it’s a wedding ring. This is the story of my life as a gay man.” A woman in her thirties who had only recently committed to a relationship with a woman brought photos showing various aspects of her “butch” and “femme” personas. She shared her struggle as someone who was learning how to talk and behave like a “good lesbian.”

Each story and object shared had a tremendous impact on the group and the effect of the ensemble was truly remarkable. We arranged the objects in a corner of the room and left them there for the duration of the workshop. We would dip into them from time to time for a new story, providing a thread of coherence throughout our time together. I found that the possibility of going deep was fully present for us as a group after the initial round of sharing. There were many additional benefits: people introduced themselves and bonded without the usual delay; there were many ready examples to draw from as we explicated the theoretical approaches in the class; the material presence of the objects reminded us of what we had been talking about and energetically charged the room with their storied presence.

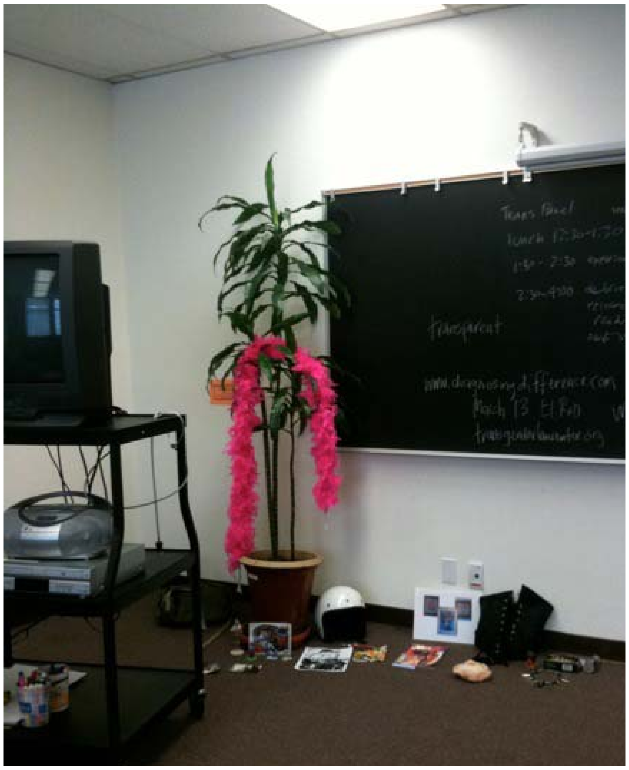

Figure 2: The students composed an altar of personal artifacts in order to elicit story-telling and deepen their connections with the material and each other.

Figure 3: Integral education at its best combines personal engagement with deep intellectual inquiry.

I had a similar experience conducting the exercise with colleagues in a Teaching and Learning Group of colleagues at C.I.I.S. I asked them to bring objects that represented their personal relationship with teaching. We each presented our object then observed the assembled altar, wrote about what we saw and heard and de-briefed as to what we had learned about teaching and learning. We witnessed: a family picture book with pages ripped out, a farmer doll, a pair of eyeglasses, a stone with the word “nothing” engraved in it (“nothing is written in stone.”) My colleagues reported that it was particularly helpful to have been looking for the objects in the two weeks prior to the meeting. It caused them to think deeply about their work and sort through what was really important to them as teachers and learners. They remarked afterwards on the moving quality of the stories and the glimpses into each other’s intimate worlds that would not otherwise have been afforded.

This activity could be adapted to a wide variety of audiences and purposes as a way of getting beyond superficial classroom routines. It has the potential to establish a more intimate rapport among members of any learning community and a more personal and critical engagement with virtually any academic content. To be fair, this is nothing other than “show-and-tell in the 17th grade.” Some of the best teaching still seems to come from the elementary level, in my experience. Our colleagues in Kindergarten can remind those of us in higher education how to enroll the storied things of daily life as our co-teachers.

An epilogue will highlight the relevance of these points for this audience. In a recent workshop I conducted with linguist Gregory Ward of Northwestern University (Bronson & Ward, 2011), I was reminded of the “integral” character of the exercise. When I asked Gregory if he would be able to explore such intimate stories in his upper division Language and Sexuality course, he said that he would not, nor would he be inclined to do so in a mainstream university environment. He wanted students to make direct personal connections to the material, but did not feel that he could directly incorporate an experience of this kind into the curriculum. At C.I.I.S., faculty have the freedom to, indeed are invited and encouraged to interweave the materials and experiences of every day life into the formal curriculum

Integration of Personal Growth and Intellectual Rigor

My colleague Gregory Ward meets his students on an informal field trip to an LGBT venue as part of his course. I chose to do a “cyber-field trip,” where the students were asked to review a web site on gender images in advertising (www.genderimages.com). We discussed the problematic content and the explicit and implicit messages regarding the prototypical gender identities being appealed to. They were then instructed to go to the Craig’s list personals, to a sexual orientation different from the one they identified with *today* (I was aware of the recent embrace of gender fluidity) and to review the language used there for evidence of the underlying values and indices of that corner of the sexual/romantic marketplace.

The students were amazed with what they found. The men-for-men sex ads were a bit shocking for some of them in their explicit description of anatomy and acts. “What is Tina?” asked one student, referring to a coded term for methamphetamine, “What does VGL MM on the downlow mean?” asked another (Very good looking married man looking for discrete sex with another man). In our discussion, we reflected on the roots of the narratives from which each orientation was drawing. We connected with our readings and the complex interplay between biology and culture that lies at the root of sexual identity and desire (Cameron and Kulick, 2003, 2006).

The intellectual work was accompanied by an expansion of the students’ capacity to respond with empathy to sub-cultures that were quite different from their own, not unlike what an anthropologist has to go through in the field. We discussed some of the pre-formed judgments that they had, even some distaste at what they saw depicted. Since these were all students in a graduate-level course centered on an exploration of sexual diversity, this seemed an appropriate teaching moment for combining intellectual content and personal growth

Such “critical moments” (Bronson & Watson-Gegeo, 2008; Bronson, 2009) were woven throughout the intensive weekend portion of the course. For example, a half-day presentation by Willie Wilkinson, a health educator specializing in sensitizing health care workers to the trans-issues, focused on acknowledging existing stereotypes and uncomfortable questions that students had about people with these diverse gender identities. They learned about how to respectfully approach people who were in various stages of transitioning and the importance of separating social identity from biology. The students were deeply moved by the film clips that complexified issues of class, gender and race as the subsequent discussion revealed. As these vignettes have illustrated, the integration of personal subjectivity and intellectual growth, is not a descent into narcissism (Montuori, 2006). It is actually an important part of a more general move toward the "higher ground" of transdisciplinarity (Bronson and Watson-Gegeo, in preparation).

Trans-disciplinarity

Interdisciplinary work is interactive, combining theory, methods and practices to address questions difficult to tackle with the tools of a single discipline (Klein, 1996, Frodeman & Mitcham, 2007). Interdisciplinary work adapts but does not challenge existing boundaries. In contrast, *transdisciplinary* inquiry problematizes disciplinary compartmentalization as imposing limits in creating useful knowledge to address complex issues (Nicolescu, 2002, 2003; Klein, 1998; Stokols, 2006). Centrality of the research questions and the need to reconcile seemingly incommensurable methods for constructing knowledge require greater rigor than is typical of interdisciplinary inquiry, including a nuanced engagement with the researcher's positionality (Montuori, 2006; Alcott & Potter, 1993). Transdisciplinarity has been a hallmark of C.I.I.S programs since its inception. The majority of programs are organized around central themes and inquiries that transcend traditional disciplinary boundaries and require deep, ongoing and critical self-reflection on the part of faculty and students by design.

In practical terms, how was a trans-disciplinary orientation embedded into this course on language and sexuality? It began as so many creative projects do with a conversation I had with colleague Shoshana Simons, the Chair of the Expressive Arts Therapy program. She had worked as a community organizer, organizational consultant and expressive arts therapy educator for many years and had been trained in psychology, performing arts and social science research. She was also an out lesbian who had grown up in the early stages of the feminist movement. We decided to make the course a collaborative effort in which she would specifically attend to our prime directive: that the discussion of academic content should be grounded in some kind of experiential activity where possible.

In the spirit of transdisciplinary inquiry, we specifically wanted to harness materials and perspectives from linguistics, psychology, feminist and criticalist thought, and anthropology to focus on the intersections of language and sexuality. The main texts in the course (Cameron & Kulick, 2003, 2006) prepared the field for us by providing both a coherent, if somewhat polemic master narrative, and ample source material for students' independent research in an area of interest.

I saw my job as a linguist to use the opportunity to introduce the idea of "linguistic mindfulness" (Bronson and Gangadean, 2010) as a key learning outcome. Since there would be little time to take students into the intricacies of linguistic research, I was challenged to distill this outcome into specific moments of learning that would connect with students where they were, while indicating the complexity that further study would elucidate. My effort centered on two areas: the construction of categories, and the genealogy and performance of gender identity in online and face-to-face discourse.

The discussion of categories emerged naturally from the first night's discussion as the students themselves provided the raw material. I wrote down the terms they used to describe their own sexual identities and then proceeded to ask how one knew what each category was. I relayed some basic research about our natural reliance on prototypes (Rosch, 1978) as more central members of each category, with more marginal members not activating the category as fully. I went on to point out the social and historical construction of the categories they used (Foucault, 1995). My colleague Shoshana was able to connect with the tradition of narrative psychology where clients reflect on the structural sources of the stories in which they are embedded as part of the healing process.

Our linguistic “fieldwork” was already described above in the “personal growth” section. Students had a first hand opportunity to journey to other corners of the sexual landscape and to report and reflect on what they found. They could connect this with articles and chapters on the language of personal ads, which had been widely studied. We also experimented with embodied language by asking students to walk around the room as though they were walking in various parts of the city, some more LGBTQ- friendly than others. Surprisingly (for some in the class), two young gay men reported that they actually felt less comfortable in the gay-friendly Castro District of San Francisco. They said that in that part of the exercise, they became aware of being on display as sexual commodities in a cutthroat marketplace full of judgments about their appearance and desirability. We used this to discuss Foucault’s (1995) development of the “Panopticon” as the internalized observer who embodied social control in the individual.

In the culminating exercise of the unit led by health educator Willie Wilkinson, students were asked to come up with interventions appropriate for diverse trans-clients who were struggling with substance abuse and other issues. Students had moved through an initial discussion of terms and stereotypes to the application of their newfound knowledge for an imperiled population. This cycle exemplified our original commitment to base our work in experience and to return to application and significance at the appropriate point in each unit.

The small lessons I would add to the burgeoning discourse on transdisciplinarity from this one case are these. True transdisciplinary work requires that departments and institutions actually recognize and reward cooperation across disciplines and departments. Since so many great ideas start in informal salon settings, more purposeful “intellectual matchmaking” (maybe starting with better food) could help such inquiry to become vital and central rather than marginal (as it is currently on most college campuses). So many of the great questions of our day require this kind of cooperation—students are not typically drawn to Philosophy 1A or Psychology 1A per se, but they do care about what it means to be human and what their work is in a collective response to a world in crisis—and so do many faculty.

Students’ inherent concern with the big questions should be amplified in the forge of transdisciplinary inquiry, ongoing among faculty on a healthy campus, and not dampened by departmental and disciplinary turf wars. This course holds some clues as to how this imperative can be realized as a matter of increasing, rather than decreasing intellectual rigor, while more responsibly preparing the next generation of scholars and practitioners to work in and with the disciplines as we have known them. Moreover, the image of the lone trans-disciplinary scholar or practitioner is an oxymoron in addition to being an archaic vestige of an earlier social, technological and economic era in higher education.

Social Relevance and Space for Difference

By now, my major points about the organization and aims of the course and how these were realized in practice have been made. Also, the numerous references to the same activities and materials in different sections indicate that there are many synergies across the dimensions that have organized this article thus far. Integral education in its most robust embodiments is not simply an exercise in self-development or of transcending disciplinary boundaries as a way of claiming new, albeit transdisciplinary turf. It shines when students are actually prepared to work professionally in areas of their choosing, to apply what they have learned to real-world concerns and people in the contemporary world. The translation into practice has been more straightforward for the clinical psychology programs at C.I.I.S.: the MFT (Marriage Family Therapist) Community Mental Health program is the most recent example of attempts to benefit underserved communities. Opportunities to connect integral perspectives with problems in the world are available to all students in the form or internships and service learning projects supported by work-study funds.

Nevertheless, this area that requires much greater emphasis, especially if the larger purpose of integral education is to remain relevant in a time of scarce resources in the academy. Integral theory per se has been developed extensively and entire academic programs have been devoted to it. But these are not sustainable without a built-in connection to larger communities and worlds outside the few who can take the time to devote years of study to a particular language and framework. The integral education movement must keep its eye on the prize if it is not to go the way of so many attempts to rethink education and become simply another footnote. If it is not preparing the next generation so that they are capable of doing more relevant work in multiple communities-of-practice, what good is it, anyway?

Attention to difference was built into every aspect of the language and sexuality course, although I would not yet hold it up as a model since it is still such a new course to me. The initial reviews from students were very positive. One said in a class evaluation: “Attention to these issues (difference) was woven seamlessly into the class.” The work with trans populations was mentioned as pivotal in de-centering students’ hetero-normative prototypes, widening their acceptance of variation and deepening their respect for sexual and gender diversity. The altar exercises and the numerous opportunities to de-brief, allowed students’ individual difference to emerge so that their stories became a source of insight for others. Owing to the climate of intimacy and complexity that evolved, differences could be explored respectfully without, for example, anyone being put on the spot or interrogated as the “token bisexual.”

Integral education in all its manifestations has been characterized by an attempt to widen the lens of what is acceptable as a way of knowing and learning. It requires unflinching and ongoing inquiry about self and world. In the contemporary world integral education must, like its cousin, integral theory, be critiqued as a relevant source of responses to the problems of our day, chief among them as a space for dialogue that respects difference and paradox as sources of new knowledge (Parry & Duran, 2009), rather than as a struggle for supremacy between competing views (see Puhakka, this issue). In this sense, the lens must be widened and the gaze extended to include not only a critical perspective on race, class, gender and other forms of difference, but the gazer herself (see Bronson & Fields, 2009b regarding “positionality” for a recent discussion).

Integral education must include an ongoing critique of access (who gets to be integral?) and its adherents' inevitable complicity in a post-colonial, racist, sexist and classist system. Otherwise, the movement will not achieve its promise as a source of relevant knowledge in a diverse and globalizing world. The problem of translating across cultures, nations, frames and viewpoints is certainly central in 21st century collective life. Integral education has its part to play as a source of interventions, but only if it mindfully accounts for how its ideas translate into practice in multiple and variegated settings (where difference in many forms is present).

Conclusion: Toward an Integral Praxis

As an educator of teachers at UC Davis, I often hear versions of the following: "That sounds great in theory,...but what am I going to do tomorrow?" This article has provided a few snapshots of what a class looks like that is designed to embody some key dimensions of integral education. I will close by making some preliminary suggestions about how integral educators might begin to assess their own and each others' practice in these dimensions. Without conceptual tools for assessment and some process for collective accountability, how will anyone know whether any particular class is effective as integral education? Without a framework for evaluation, how will we know that we are actually *doing* integral education rather than simply talking about it or "putting old mind in new bottles" (Bronson and Gangadean, 2010, p. 149)?

"Integral assessment" is a new frontier (Davis, 2010) that deserves much more attention than I can give to here. I do want to say that we can we assess what is essential in integral learning without putting it back into the same old boxes or limiting spontaneity unduly. Articulation of clear integral learning outcomes is basic if still challenging for most educators. We and our students need to know what we expect of them and how we will know they have achieved it. Assessment beyond this is complex enough in traditional settings. Moreover, it is a particularly tricky proposition where issues of personal growth and development are concerned, which needs much fuller exploration outside the scope of this essay. How does one decide if a student has adequately integrated personal and intellectual growth in an "assignment" or discussion, or is that even the right kind of question? At the very least, student work will need to be read by faculty from a different perspective if integral goals are in mind.

In another context, we offered the framework of *topic, approach, method, and intervention* (Bronson & Watson-Gegeo, 2008) as a means of sorting through various research programs and propose that the same be done with integral education. The idea is that there are at least these levels of embodiment for the dimensions, not that they are mutually exclusive categories in practice. At the most basic level, integral content can be included as a *topic* imply by being included on the reading list or being discussed in class. Thus, students might read transdisciplinary thinkers like Gebser or Wilber, but not actually go much deeper into the possibilities of the ideas in practice. Checklist approaches to integral education risk falling into the *topic* category inasmuch as they select an activity from each "quadrant" but do not attend to the integration of knowledge across modes or quadrants or the actual impact on learners (see Ferrer & Sherman, 2008; Bronson & Gangadean, 2010, 2006 for critiques).

Integral education as *approach* involves a purposeful interaction with the content or material that brings the ideas and dimensions alive and integrates deep and generative learning in students, regardless of the mode of delivery (Palmer, 2004). Even a great lecture can be truly integral in this sense, the emphasis on multiple ways of knowing notwithstanding. In the non-dogmatic view being presented here, what matters is the result. It is important not to fetishize the method per se—a method is no guarantee of educational success (as the track record of the fad-crazy educational industrial complex attests).

Approaches to disciplinary material can always be more or less trans-disciplinary in practice, leaving open multiple viewpoints and acknowledging the contributions of diverse scholars from other traditions outside the canon. Educators already engage difference with varying levels of concern and skill in the way they present any content or respond to students, even when they are not consciously choosing a particular curricular or pedagogical goal related to "diversity." Courses of study as lived experiences can be assessed in terms of the extent to which they actually evoke and "lean toward" the integral dimensions in the hidden as well as the formal curriculum.

As a *method* integral education may involve many explicit practices such as visualization, role play, working with materials, dialogue, personal reflective and scholarly writing, and field trips as discussed above. *Methods* represent particular pedagogical or other practices designed to generate deep, integral learning in students. They are part of the formal or informal curriculum and depend on the mindful embrace of the educator of the available palette of options appropriate for her setting and goals. Since so much of assessment is centered on the quick fix or next round of test results, the evaluation of the methods of integral education are especially complex and merit further study by scholars of teaching and learning.

Integral education as *intervention* can be evaluated in terms of how well it actually impacts the students and communities it is designed to serve. Thus, transdisciplinarity is valued in integral education not because it is in vogue, but because it is a responsible stance in a world where the old boundaries are being dissolved. Learning how to learn from differently positioned colleagues in work teams is much more important that knowing a fixed canon that will be outdated by the latest internet posting by the time the next article is printed. By assessing integral education efforts as *intervention*, one can highlight how well the desired shifts have been achieved and can do so in a setting of collaborative inquiry with the learners. In this, integral education finds common cause with educators everywhere who seek to create the deep learning and build the capacities that are required for the next generation to respond more artfully and humanely to the challenges they will face.

Conclusion: Trans-dancing under the Big Tent

As the new series by SUNY Press indicates (Esbjörn-Hargens, Reams, & Gunnlaugson, 2010 is the first)," integral education" is on the map as a potential force within the general rethinking of education now underway. A major challenge is to develop the theme from being something more than just a "big tent" concept (for disparate and even contradictory content and forms of pedagogy) into a practical program for a collective move to "higher" educational "ground" (Bronson and Watson-Gegeo, in press). As with so many grand projects, the proof lies in the details of practice, in the intimate step- by-step embodiments in multiple sites and settings that critical practitioners from many disciplines can review and learn from. I have offered this report in the spirit of clarifying some lessons from my own case and opening the way a bit for those who might follow.

We ended the workshop part of the class with the following vignette:

> The papers have all announced it, it is on the radio and t.v. and everyone has heard it and is in the streets because they believe it: All difference is now respected and all peoples emancipated. There will be no more institutional or collective discrimination. Everyone will have guaranteed health care, education, a safe and clean environment, healthy food and housing. All people are welcome everywhere and are safe and protected, regardless of whom they love…

The students then enacted role plays in which they showed their responses the moment they heard the news. We ended with a celebratory dance, a trans-dance, of psychologists, anthropologists and social scientists, lesbians and gay men, bisexuals, straights, and gender-queer to a compelling disco world beat. One of my students slipped a pink boa around my neck as we continued our now raucous dance—it holds a place of honor (right next to Tinky) in my office to this day. I already have my first piece for the next altar and, more importantly, the story and enduring hope that goes with it.

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Becoming World Becoming:
Embodied Practice in Psychology and Education

Ian J. Grand[1]

Abstract: In the Integral philosophy of Sri Aurobindo and Haridas Chaudhuri, consciousness and knowing do not suffice. What is crucial is actual participation in the making of the world. Beyond transcendence, there is a creative emergence in historical time of new possibilities of being and becoming. When we meditate, or act in the world, or engage in other kinds of spiritual practices, we directly, concretely, change the ground of our being. We are changed in our bodies and we are changed in our interactions in the world. There is a creative spiral: changes in breath, changes in activity, become changes in consciousness. How we interact, do work, have feeling, changes us, as does our reflection upon them. The conditions, practices and tools of the historical era in which we live shape us as we shape them. What becomes important in practice is to learn tools and perspectives that expand our ability to participate in the making of the world.

Keywords: Creative, emergence, integral, ontology, spiritual practice, somatic psychology, world becoming.

Introduction

What is intriguing to me about the integral philosophy of Sri Aurobindo and Haridas Chaudhuri is that in it, being *becomes*. Birthings, histories and multiple realizations in time matter. For both Aurobindo and Chaudhuri there is an image of World Spirit becoming. Identification with the creative is central to their practice.

In this philosophy, consciousness and knowing do not suffice. What is crucial is participation and presence. We come to realize ourselves as world becoming itself as we participate in the multiple, intersecting, and radiating worlds with which we create and manifest realities. This world making is central to the integral enterprise; and it is this aspect of integral thought that I will develop here.

I begin by turning to language from Haridas Chaudhuri, founder of CIIS, who came to San Francisco from India after a request by several local scholars to the Aurobindo Ashram to send a teacher of integral philosophy and yoga. In his book *The Evolution of Integral Consciousness* Chaudhuri (1977) notes:

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> An individual may experience the joy of boundless self-expansion by realizing his oneness with the cosmic whole, but transcendence must be further transcended. For wholeness of being one must appreciate the unique value of his individuality as a creative spark, as a set of dynamic potentials to be actualized for the good of society. (p. 64)

"Transcendence itself must be transcended" means that there is real work to be done in time and space, in the immanent becoming of the world. Aurobindo, it will be remembered, was initially involved in the Indian liberation movement.

In this there is, as Chaudhuri notes in other places, the work of both the conscious and the unconscious aspects of our experience. There is the often-chaotic clash of disparate and contradictory elements as well as transcendent calm.

When we meditate, or act in the world, or engage in other kinds of spiritual practices, we directly, concretely, change the ground of our being. We are changed in the flesh and energetic and fluid substance that we are.

There is a creative spiral. Changes in breath, changes in activity, become changes in consciousness. How we interact, do work, have feeling, changes us, as does our reflection upon them. According to Chaudhuri (1977),

> When we understand this, another thing follows. Another feature of creative meditation is what I may call transformation. If your goal is dynamic union with Being in the sphere of human relations and social transactions, then your entire being becomes very precious. Your body, your sense, your 'I-sense', even the unconscious impulses, instinctual drives. All these become important. They are the means of action. (p. 123)

Our craft becomes the working of a triad of function that includes consciousness, the unconscious, and practice in the world in which world spirit becomes manifest in its cosmic play. The making of the world is an art in which there is a continual round of being/practice/knowing/becoming.

As Mauro Ceruti (2008) notes with regard to the philosophies of Charles Hartshorne and Freeman Dyson, "…what unifies cosmologies of this type is an ontological reversal; the only possible "essence" of the universe is its history, in its entirety (including its stases, discontinuities, forms, and processes)" (p. 56).

The world is moving and I am moving. We constantly change, and change each other. I meet particular people and am immersed in specific milieus. I create myself daily in my organizations of self and in my responses to the stimulations and attractions of the surround around me. I absorb and practice or resist and refuse the gestures and tones and ideas of the people and media images I encounter.

The conditions, practices and tools of the historical era in which we live also shape us. Each epoch has kinds of work and means of travel, specific ways to find out about and interact with the world. In our contemporary world, we can in short order go to Rome or India or go to the

Internet to find out about Pliny or Aeschylus or D.J. Spooky or Rapso. My fate is intertwined with the people of Iraq and Egypt and North Korea, the possibilities for speech or action or privacy negotiated continually in changing sets of ideas and feelings, fears and aspirations.

As I write this, we have just witnessed the change of regime in Egypt. Tweet by tweet, email by email, television coverage and massings of people in the street organizing themselves changing with the changing situation.

I am not the same me and you are not the same you as when we last talked or since our last sentence. This is not a trivial matter.

Integral Education and Therapy

I now turn to some images of how we might incorporate, literally, this integral perspective in education and therapy. What might a psychology based on what we are talking about look like? How might it describe the difficulties of people and sketch means for changed engagement with self, other, and the world? What educational means would be important to foster imagination, creativity, and participation in the creative emergence in the world? What tools can be given that would be useful to this daily practice of self and world becoming.

In an integral Psychology as outlined here one might first come to valorize all aspects of one's experience and explore their meanings experientially. In several passages in *The Evolution of Integral Consciousness* Chaudhuri (1977) follows this line in suggesting that body, psyche, emotion, interaction, and the formation of institutional practice are all sites of integral practice:

> ...the physical, the instinctual and the mental are no less important components of the total self than the spiritual and the transcendental. Transcendental consciousness may be more fundamental, more luminous, more revelatory of the structure of reality, but it certainly is not the only reality or the only value that counts. Physical consciousness or body awareness, instinctual drives, reason, and the I-sense (i.e., the sense of individuality), freedom of choice, participation in the creativity of life, etc., are equally real constituents of the total self. There can be no perfect self-realization without the actualization of the physical, emotional, intellectual, social and spiritual potentialities of man[kind]. (p. 62)

He goes on to say that "The methodology of integral psychology can best be described as integral experientialism" (p. 70). He elaborates what he means in another set of statements.

> Integral experientialism is therefore a blueprint for thorough investigation of all forms and phases of human experience. It includes in its scope dream experiences as well as waking experiences, drug-induced hallucinatory experiences as well as meditatively acquired ontological insights, dreamless sleep experience as well as transcendental experiences. (p. 71)

> Integral psychology is based upon experiences and insights affirming the multi-dimensional richness and indivisible wholeness of the human personality. It is founded

> upon the concept of man's total self as the integral unity of uniqueness, relatedness, and transcendence, as the indivisible unity of the experiential and the transcendental. (p. 58)

Integral practice here does not mean striving for a consciousness that excludes not knowing, confusion, difficulty, and the creative, and problematic, workings of the unconscious. There is a creative magma of living experience in which we embody together with other bodies a polylectic of qualities, shapes, meanings and outpourings. We create embodied textures and contours of experience and the possibility of experience. Ideas, images, sounds are tools then for our embodied becoming. Architecture, music, modes of work, and beliefs all shape us and create the experience of our ongoing humanity.

In *Modes of Thought*, Alfred North Whitehead (1938/1958) writes:

> There is no reason to hold that confusion is less fundamental than order. Our task is to evolve a general concept that allows room for both… My suggestion is that we start from the notion of two aspects of the Universe. It includes a factor of unity, involving in its essence the connexity [sic] of things, unity of purpose, and unity of enjoyment. …There is also equally fundamental in the Universe, a factor of multiplicity. There are many actualities, each with its own experience, enjoying individually, and yet requiring each other. (p. 70)

The Caribbean notions of “I and I” and “All of We is one” echoes this double vision. “I and I” is a Rastafarian name of Jah, the Supreme Deity. It is a place of two subjectivities coming together. “All of We is One,” a phrase from C.L.R. James’ novel Minty Alley (1997) points to the connected aspect of Universe that Whitehead talks about.

This leads to a couple of other grounds for an integral psychology and education. First, Aurobindo and Chaudhuri both valorized the social, the political, the sense of Institutions and Institutional change. They were concerned with the cultural and cultural variation in experience seeing this diversity as crucial in world becoming. Through cultural exchange the enrichment of creative tools occurs. Chaudhuri (1977) says:

> We are living in the twentieth century and we are citizens of the world. It is for us to be able to draw on the limitless wisdom of east and West and North and South. That is the great privilege of modern man. The cultural heritage of the entire human race is open to him. Wherever there is truth, wherever there is wisdom, we can freely draw upon it and bring it together in a grand synthesis. (p. 43)

Chaudhuri (1977, p. 84) also suggests that there is a need for a global education that would include the following points:

1. Promotion of intercultural, interracial, and interreligious understanding;
2. Acceptance of ideological diversity within the global unity of humankind;
3. Affirmation of the intrinsic dignity of all individuals, men and women, everywhere in the world;
4. The essential equality of all races, and peoples, and nations of the world;

5. Interdisciplinary coordination and synthesis;
6. Education for the whole person in his/her multidimensional richness;
7. Comparative studies East and West;
8. Physical fitness and sports;
9. Opportunity for esthetic refinement and creative self expression.

In a possible integral psychology and education, then, it could be recognized that the primary difficulties from which we suffer are:

- Our inability to be part of the process of creative emergence; our getting stuck in old patterns;
- our inability to navigate between and with inner and outer realities;
- our devaluations of aspects of our experience, our desire, and our meaning–making;
- our fixations of self enactment, alone and with others;
- our inability to form patterns of embodied self-reflection; our snarly responses to individual, cultural difference;
- our lack of training in creativity, both personal, interactive, and social; and
- our devaluation of life, body, vitality in ourselves, others, and the world itself.

From these, images of practice flow: We need practice in loving and compassion as well as in the abilities to think and feel and act in multiple ways. We need practice in collaboration and collective action, practice in the plowing and seeding and production of the imagination. We need practice in reflecting upon our living, enacted values. So the means of promoting integral transformation both individual and cultural would be developing psychological and educational practices that directly give tools by which to address all these concerns.

Similarly, Montuori (2005) notes six kinds of learning that are crucial in this epoch: education for pluralism; education for complexity; education for media literacy and the psychology of mass manipulation; education toward co-existence; education that addresses the whole person in terms of reason, emotion, and the capacity for self-deception; education for creativity.

What is common here, and crucial, is that we shape education practices that enable us to better participate in the shaping of the world.

Body

And the forces of speech give way to the language beyond speech — Robert Duncan

As a Professor of Somatic Psychology I, of course, think that the cultivation of bodily approaches to meaning making is a crucial ground of integral psychology and education. For me, the insistence on continually naming experience ‘body’ is a way of giving emphasis to the role of the immediately felt and lived aspects of our totality. In this regard I have adopted for many years what I have called a methodological monist position that holds for a multiplicity of bodily experiences. It is ‘methodological’ in the sense that it is provisional.

In this view dreaming, thinking, sensing, passion, loving, and feeling are all part of a differentiated unity that we are. They can all be experienced as embodied. By emphasizing body, by experiencing the embodied qualities by which we construct our realities, we can come to use what we call bodily experience in an artful way. Our participation in the world changes when we ground our experience in the actual, experienced occasions of our breath, our movements, our rhythms, and our feeling.

Integral practice is practice of body whether body be considered breath or brain, movement or mantra. Becoming is the goal (a goal without an end) and conceptual knowing is station on the way. There is a continual round of knowing/becoming always embodied always imbued with that which is larger than the localization we call us but contained within it as us, as it, as well.

Whatever we practice bodily we become. In an article entitled "*Increased Cortical Representation of the fingers of the left hand in string players*", Ebert et. al. (1995) demonstrated that violin practice changed brain representations of violinists' fingers. These players use the fingers of the left hand to change the tones of the strings they are playing. The area of the motor cortex devoted to these fingers was up to five times larger in violinists that non-violinists. Through use there was a structural change in an area of the brain. Similarly, of course, yoga, weight lifting, and martial arts change tissue state, hormonal function and neural structure.

In psychology and education we can learn about how to explore what we have become as body in action in the world. We practice and become kinds of emotional bodies, feeling bodies, acting and moving bodies. We make meaning of loving, of feeling, of music and dance as bodies becoming. We enact ways of being together and being alone, create values of affect and sexuality, kinds of work and kinds of play—all bodily.

From a somatic psychology point of view, we can look at how various aspects of the psyche talked about in say, drive theory, or object relations theory, or relational, Jungian, and transpersonal approaches, can be experienced in their bodily manifestations. We see that the organization of self, and self-with-other, occur through bodily means. We look at how culture and social institutions value, encourage, and reward or punish particular forms of embodied expression, and certain strivings for embodied meaning. We hold that the lived body is both symbol of the past and the making of the future. It is the place where values and meanings are lived.

Chaudhuri (1977) says:

> An insight of modern psychology as well as ancient sages is that we are in for trouble if we set up a civil war between the different aspects of our nature. The intelligent thing to do is get to know our own nature—the basic drives, motivations, and fundamental impulses—and have a program of organized fulfillment of them. (p. 117)

In somatic psychology we explore all this and explore it by looking at how it is organized bodily. In doing this we look at the histories of emotion making in the family as the negotiation and creation of shapes of initiation and response. We each get angry, feel loving, feel nothing even through bodily means. As you are reading this text, you can begin to explore literally how you are doing the listening and from that develop a history of your coming to pay attention in this particular way.

In the clinical work I practice, we look at our embodied past and how we live it currently. I also look at how we can begin to make new worlds, leave old habits behind, and make new possibilities. One practice that I use in teaching psychotherapy praxis is called “body-felt reflection.” In this practice we feel how we have come to enact various values, interactions, interchanges. We literally explore the way breath, movement, tissue state have been and are continuing to be shaped in the moment. We look at, and name the values we have embodied as we feel how we are doing them.

The hope of this practice is learning both what we have done so we can alter it and finding ways to begin the liberation processes by which we can both explore and change what we have done. We can learn here to return to the process of self and other creation and find how we make meaning and values in the practice of the flesh. We can here include the learning from various psychodynamic understandings of the unconscious, cognitive understandings, and spiritual learning about the organization of aspects of consciousness.

We use the means of body-felt reflection to explore how we have structured ourselves in the past and to begin to discern the creative practices we have practiced all our lives in the making and co-creating of the human world. We can also practice new ways of being with others or our selves in our movements, gestures, feelings and expressions. It is like being in art school. Here it is the art of embodied living that is being practiced. Qualities of self-becoming and becoming-with-others are practiced. We use language, poetry song, movement, and mantra. We dream and use our dreams to create the ground of dreaming.

In the education of future therapists in the Somatic Psychology program at CIIS, these same means are used to ground students in their experience of themselves. The idea of art school is even more applicable. Students learn to work the ground of their own being so that they are enabled to be with another or others in practiced and help them come to deep embodied exploration as well. They do embodied dream work, embodied work with representations from the past, work with the embodied creation of new possibility in movement, breath, and emotional interactive range. Theory becomes practice and practice, theory. They learn to sit with, feel, and be compassionate toward the pain, conflict, and ecstasy of human life.

Our experiential work becomes guide and question. What are we doing and how is it being done? What kinds of humanity are we creating in our practice and in what we encourage in our clinical and social practices? What kinds of emotional, interpersonal, creative practices are we encouraging in our clients and why are we encouraging them?

And finally, we teach that the body is the place of creation, of the making of humanity, of the enactment of actual lived values. It is here that the franticness or ease of daily life is practiced, here that the actual qualities of loving, creation, and world becoming are lived.

Creative Emergence

In a collection of papers published by Haridas Chaudhuri and Frederick Spiegelberg (1960) titled *The Integral Philosophy of Sri Aurobindo: A Commemorative Symposium*, N.A. Nikam wrote a now obscure paper “The Problem of Creation: Concepts of Maya and Lila in Sri Aurobindo.” Nikam says: “It is the merit of Sri Aurobindo's philosophy to treat the problem of 'creation' as a problem of the *nature* of existence. Why is there ‘creation’? is a question which is a question about: *what* is the nature of reality, of existence?” (Nikam, 1960, p. 143).

In this Nikam seems to echo the question Heidegger and others raised: “Why is there anything at all rather than nothing?” (Heidegger, 1961, p. 1). But Nikam, from an integral perspective, shifts the question.

> In Sri Aurobindo's treatment of the problem there are two points to be noted: a) Why the Infinite becomes the finite is a wrong question because we do not understand the true meaning of the word “infinite.” The Infinite is that in which “all possibilities are inherent in its Infinity,” as Sri Aurobindo says, and so, the “delight” of its existence “lies precisely in the variable realization of its possibilities.” b) The variable realization of its possibilities is a movement in which the Infinite “looses” itself as Sri Aurobindo says, by “concealment” in that which seems to be its opposite; so in another sense, "creation” is a process of evolution in which the absoluteness of conscious existence, or Saccidanada, has to “emerge.” All creation or Becoming is nothing but this self-manifestation. (Nikam, 1960, p. 146)

He goes on to say that:

> …the world, according to Sri Aurobindo, is not *maya* but *lila*: i.e., a play, a and joy of play, wherever this is found: “the child's joy, the poet's joy, the actor's joy, the mechanician's joy…;” the cause and purpose of play is: being ever busy with its own innumerable self-representations. When the discovery of self-delight of being is really made—this is possible for everyone—then we have mastered the great art of living. (p. 147)

In the integral practice Chaudhuri outlines, we align ourselves with the creative aspect of World Spirit becoming. We live from, act toward a creative emergence in which valorization, meaning, and, above all, delight in world play continually manifest. We come to know ourselves as World Spirit in its imaginal becomings. We create, in history, social worlds, material worlds, and even the natural worlds as well.

In our practice we can come to identify with the creative outflow into the world: the making of world becoming. It is like the prescription in the alchemical treatise *The Emerald Tablet of Hermes Trismegistus*:

> Separate the earth from the fire, the subtle from the gross,
> It ascends from the earth to the heaven, and again descends to the earth,
> And thereby gathers the strength of all things above, and of

> All things below,
> Thus was the world created and
> Hence shall wonderful adaptations be achieved, of which the means is here.
> (quoted in Smith, 1997, p. 7)

In the alchemical work described in the Emerald Tablet there is a rising up, a separation of Spirit and Matter, and a being born again. This is followed by a descent back into the world, a third birth in which Spirit and Matter are again seen and experienced as whole and creatively potent. We then, as it is said, hold the power of all things.

In another alchemical text, *Atalanta Fugiens*, written by Michael Maier (1617/1989), there are pictures, epigrams, and poems that indicate aspects of the alchemical process. One image shows the Philosopher's stone as existing everywhere to be developed. Others show the process of pain, dissolution, and joy accompanying the work of making the world.

Chaudhuri says:

> The imperative of life is to focus on the living present, to concentrate on a reasonable span in the present life with all its challenges and opportunities, with all its glories and frustrations, with all its rights and responsibilities, with all its dark nights of despair and bright days of creative achievement. Active participation in the living present creatively advances into a glorious future. (Chaudhuri, 1977, p. 58)

Aurobindo's integral vision was born in the struggle to go past colonialism, past the split between the spiritual and the material, and past varying traditional senses of self. It de-centers the self and the other and inherited histories as well. Integral practice includes working with the sick and the poor, working with the dispossessed, working in history toward change. It is ongoing manifestation and creation in immediate and transcendent presence.

We practice embodied manifestations. I think here of the Jewish Kabbalist Abraham Abulafia (1976) whose practice was the combination of the names of God. In integral practice each thing of the world, as in the alchemical image from Atalanta Fugiens talked about earlier, comes to be seen in its divine manifestation. These multifarious manifestations are combined in embodied thought, practice, art, and interactions with others. In this creative dance we join with, become, world becoming.

I end here with several lines from the poet Robert Duncan:

> First there is the power; and in the power
> Is the tone or tune,
> So that all of creation moves with a music;
> the sound having its open doors in the mind;
> but in the heart lieth its fountain.
> (Duncan, 1977, p. 127)

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Daring to Step into the Open: Moving Beyond Perspectives in Education and Life

Kaisa Puhakka[1]

Abstract: Evolution in all spheres—cosmos, culture, and consciousness—is explored as a dynamic, creative process of shifting and settling, where shifting breaks out of existing structures and conceptual moorings and settling solidifies the movement of evolution into structures. Both are seen as essential aspects of the evolutionary process, but a bias for settling is noted among living creatures. For humans in particular, shifting arouses anxiety whereas settling promises security. The correction of this bias in the educational process to help realign human consciousness and culture with the rest of nature and cosmos is explored. Such a realignment may be necessary for meeting the unprecedented challenges of our world today, and an open, perspective-free inquiry can serve as a vehicle for it. But this inquiry calls for a new way of relating to the inherent uncertainty of shifting and to the anxiety this arouses in teachers and students alike.

Keywords: Absolutism, awareness, constructivism, consciousness, cosmos, courage, creative, dialectical, education, epistemology, evolution, heart, inquiry, nature, perspective, pluralism, settling, shifting, Shiva.

Introduction

During my first year in college as a foreign student from Europe, I was told by my American fellow students that they had dissected frogs to learn anatomy in high school. Some of them even caught and killed the frogs themselves (the latter claim may have been inspired by the horrified look on my face and was probably not true). I found such learning practices utterly amazing; nothing like that had been part of my high school education. We had read anatomy text books, painstakingly absorbing a lot of detailed information about bones and muscles and such.

Later, I came to appreciate that the difference between the European and American educational approaches went much deeper: In Europe, education had much to do with passing on the accumulated knowledge and wisdom of tradition as this had flowered in the arts and the sciences and the cultural practices of civilization (which in the early sixties still largely meant Western, Greek and Latin based culture, though signs of nascent interest in Nonwestern cultures were starting to be there). In the U.S., by contrast, the emphasis was not on transmission of culture and tradition as much as it was on personal experience and individual discovery.

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Both approaches seemed to have their own problems: European students seemed to be passive recipients of a stagnant tradition. American students seemed to be re-inventing the wheel over and over again. But it was not as simple as that. To be sure, critique of tradition and established knowledge was not part of the European high school education I had been exposed to. Yet we did criticize, under our breaths, outside the classroom, and later in all sorts of anarchist and other radical political movements. And we had learned well and knew the depths and details of what we were criticizing.

On the other hand, in the U.S. I listened to my fellow college students readily questioning and criticizing, which, I discovered, they were expected to do—it was even part of the formula for writing term papers. And the yardstick for their criticisms was mostly their own personal experience. But they seemed less knowledgeable about what it was they were criticizing, and their critiques often rang shallow to my ears.

Another thing that struck me as strange about my American fellow students was that most were voting Democrat or Republican simply because their parents were. My parents rarely agreed on which political candidate to vote for, and there were lively and often heated discussions preceding elections at home. I drew the youthfully sweeping conclusion that American students' critique conformed to, rather than seriously questioned, the establishment they were criticizing—until I got swept up in the counterculture which was gaining momentum in those years, and I felt the power of real criticism swell within the ranks of my fellow students such as I had not seen in my lifetime.

I was observing a fundamental dynamic of consciousness at work in two different cultural and educational settings. Same dynamic, taking different twists and turns in each case. The words “shifting” and “settling” later came to mind (other words like “in-breathing” and “out-breathing,” “contracting” and “expanding” also came) to describe the two poles of a dialectical tension that propelled this dynamic. In shifting, consciousness sheds its moorings and moves out but is also pulled to find a place to settle in, an anchor to hang onto whether in the form of a belief about what's real or what's good, or a goal to be accomplished, a product built. Even the ideas of change and growth, which the above sketch of the American educational vision emphasizes, can, and eventually do, become part of the settling of that vision. And yet never for long: once safe and settled in a resting place provided by tradition, ideas, and approaches, consciousness sooner or later tears loose from its resting place to shift again.

Is this shifting and settling something that can be shaped by cultural or educational influences? It seems to me that the forms of settling indeed can, but the dialectical movement of consciousness itself cannot. For this reason, no individual accomplishment, no cultural or educational practice can ever be the last word on the evolutionary process. Indeed, those educational, artistic, or other creative endeavors that do not purport to capture this process in theory or description but to actively participate in it find themselves constantly examining their existing practices and exploring new horizons. This is certainly true of educational institutions like the California institute of Integral Studies (CIIS), which endeavors to bring its practice of integral education into resonance with the nature of consciousness and of culture and cosmos at large. The envisioning and implementing of what CIIS does is a process always in the making, never complete. And this is as it should be.

Even so, it is not easy. In particular, the aspect of the evolutionary process I refer to as “shifting” is not easy. As academics and educators, shifting tends to unravel our achievements, unsettle us just when we thought we “got it” and perhaps even staked our reputation on an article about it in print. So how do we align ourselves with, not just describe or theorize about, the evolutionary process that moves in and through us and the rest of the universe? This question is at the heart of education which strives to be truly integral.

In this article I invite my reader to take a look at how the evolutionary movement can get stuck in the forms of settling prevalent in our culture, consciousness, and education, and how it can get unstuck from these. Constructivism and pluralism are the favored forms into which liberal culture and education have settled—and in which we appear to be stuck—today. An inquiry which is prior to, and goes into, any foundational epistemological stand we might adopt is called for to get us unstuck. In the last sections, we will explore such a perspective-free inquiry and how it can function as vehicle for a genuinely transformative education which aligns us with the evolutionary shifts in the making.

Images of Evolution

There is an image of evolution inspired by the shifting and settling movement of consciousness. This image comes from Hindu mythology and is embodied in a small bronze statue depicting Shiva Natarajan, the four-armed God who dances the cosmos into existence moment by moment. It is a spontaneous dance which creates its steps as it goes, without forethought, without plan. The absence of plan or forethought underscores the creativity of the process. One can imagine Shiva's feet shifting and settling in unexpected ways, creating all the forms of the manifest world—and the creation is still going on, we are reminded. This image calls attention to what is missed in the Darwinist vision of evolution in which there is a plan—at least a direction—which moves from primitive to advanced, from simple to complex. The direction is supposed to be toward better (the “fittest” who survives), if not bigger things, materially and spiritually.

The Darwinist belief that there will be something better just around the corner can be comforting in challenging times, yet it takes attention away from the present where, Shiva suggests, creation and change happen. I once asked my mentor from India, why does Shiva dance? He replied, “for no reason, just for the sheer hell of it,” meaning that Shiva dances simply because he can. Life is inherently creative, which means that creation is an end in itself, not a means to realizing some other end via a pre-existing plan. Nature proliferates forms as much as she can “get away with.” What an exalted, joyous, life-affirming understanding of nature and cosmos!

Yes, but unsettling as well. For no preference or ontological priority is given to settling over shifting in this dance. Forms of life and consciousness appear—and disappear just as readily. There is no foundation already in place before the dance commences; all foundations are created and destroyed in the dance itself. Shiva seems to gently mock one of the most basic of human aspirations, which is to settle into something permanent, something that gives us lasting comfort and security.

The painful irony of our times is that, just when that prosperity and lasting security would seem within reach for the globalized economy of our technologically advanced world, the ephemeral and illusory nature of such security is most apparent. There is no foundation before one is created by an act of settling, and there really is nothing more to the foundation than the act that creates it. This is what Shiva's dance conveys about the cosmos at large and about consciousness itself, and this is what our postmodern world enacts in its forms of culture, arts, and politics.

The task for education today is to prepare students to live and enhance the lives of others in a world without foundations. It would seem to me that an educational practice fully aligned with Shiva’s dance in the three spheres—cosmos, culture, and consciousness— is required to do the job.

A vision which encompasses all three informs the educational practices at CIIS. It was inspired by Sri Aurobindo and first implemented by Haridas Chauduri in the 1960's. Both were inspired by their heritage of Indian spirituality as well as their exposure to Darwin's evolutionary theory. The original focus on the Indian subcontinent has since expanded to include spiritual and cultural practices from across the globe. Similarly, the methods of inquiry have expanded beyond those provided by science to include other ways of knowing. The thread that connects the current vision and practice at CIIS to the original vision is the quest for connectedness in all spheres of life pursued by rigorous inquiry (Bronson & Gangadean, 2006; Wexler, 2005).

Darwin's theory has had a profound influence on educational philosophy and practice in America. The complementary view of evolution as entirely creative, captured in Shiva's dance has remained in the shadows, though some contemporary biologists have offered a fascinating scientific version of it (Maturana & Varela, 1987; Varela, Thompson, & Rosch, 1991). Now may be an opportune moment to bring it out of the shadows and let it guide our contemporary educational practices.

In the view of evolution captured by Shiva's dance, settling and shifting are both integral to the evolutionary process, and neither is better or more fundamental than the other. The same dynamic of settling and shifting is present in human consciousness as is in nature and the cosmos at large. Nature settles by stabilizing and solidifying its forms of life, just as cultures settle by building and securing their institutions, and individuals settle by formulating and adhering to their values, beliefs and positions. And in all three spheres, upheavals and shifts great and small, occur often unexpectedly and bring disintegration and renewal in their wake.

The Pluralistic Cocoon

Pluralism and constructivism provide the foundational beliefs for integral thought in education today (e.g., Palmer, 2009; Palmer, Zajonc, Schribner, & Nepo, 2010). At CIIS as well, the educational practices promote multiple perspectives and dialogue among diverse values and beliefs. Students are encouraged to become aware of their own perspectives and to engage those of others in a constructive dialogue. They are also encouraged to expand their perspectives to become more inclusive of other perspectives and to think in “both/and” rather than “either/or” terms.

The underlying premise of pluralism and constructivism is the belief that all truths and knowings are relative to perspectives and that we cannot but come from some perspective or other. But this belief is seldom itself subjected to serious inquiry, and even with thoughtful proposals to mitigate the looming danger of crass relativism available in the literature; for example, that our subjective perspectives and the world beyond these have a participatory relationship (Ferrer, 2002), most educators remain convinced that all knowing and inquiry are bound to and hence relative to some perspective or other.

We are not accustomed to thinking of pluralism or multi-perspectivism as being rigid or extreme. Yet they are, in their own way which is different from the rigidity of fundamentalists and others who endorse extreme and absolutist positions in religion or politics. The rigidity of pluralists is evident in their difficulty speaking with clarity and conviction because they believe that anything they say must be qualified by “it's just one perspective among many.” It is also evident in their belief that ultimately, there is no distinction between truth and opinion (and what counts as “informed” opinion is endlessly debatable) and therefore, their truths are really just opinions—a conclusion fundamentalists today happily accept and turn around to their own advantage, for the latter have no doubt that their own opinions are “the truth.” Nothing one can say from a pluralistic standpoint seems effective in opening up the dialogue past this point.

The constructivist belief that we cannot touch the world directly but are always ensconced in some perspective or other, if carried to its logical conclusion, lands one in nihilism. Some flee from there back to absolutism, and I suspect the fear of nihilism may fuel the rising fundamentalist trends today. But I suspect it is this same threat which keeps the liberal pluralists in a juggling act on the edge of the nihilistic abyss, appreciating all positions (more or less) equally rather than subjecting any of them to a thorough scrutiny for fear of falling into the abyss. Absolutists have their “solutions” which shield them from the prospect of nihilism. But pluralism and constructivism fail to offer a viable alternative to the absolutism in our social and political life today, and this is because they have become absolutists in their own beliefs.

The notion that pluralists are “absolutists” in their own beliefs may be hard to swallow for those who not only acknowledge but celebrate diversity of viewpoints and places of settling. But the paucity of substantial dialogue across the great divides in our society today speaks to both sides being locked into their respective positions. In our liberal-leaning educational institutions we find ourselves surrounded by people whose beliefs and values, at least regarding pluralism and diversity, tend to agree with our own. We all like to explore different viewpoints and engage in discovering new ones. But were we to step back from this for a moment, we might wonder whether this is just stirring the same old pot.

The viewpoints may be new, but they are still just viewpoints. Within the cocoon established by this belief, it is safe and self-affirming to exchange viewpoints. Thus like absolutists of fundamentalist persuasions who live in their own cocoons, we find ourselves settling not only into our shared beliefs and values but also into a social comfort-zone of like-minded folks. As educators, we should wonder every day how much our institution is a crucible for evolutionary change and transformation and how much it is a cocoon in which we abide safe and affirmed. In nature, all cocoons are meant to burst. If they don't, the life in them decays and dies. If our educational communities are to become relevant and potent contributors to the social and political process, they need to break out of their cocoons to once again move with the natural dynamism of shifting and settling.

Settling, Shifting, and the Pro-Settling Bias

Let us now take a closer look at settling and shifting, their interplay in nature and in our own consciousness. This helps us appreciate the enormous challenge for an integral education which envisions itself a participant in this play.

Turning to settling first: One moment we listen with an open heart and open mind. We feel resonance with what is being said and in the next moment exclaim, “Yes, that's true!” A position, a belief is being formed and affirmed. With this, we feel affirmed in who we feel we are. This is settling. We now have a point of reference for making sense of our world and of ourselves, and anchoring ourselves in it, we feel safe and secure.

As a dynamic activity, settling resists shifting. It not only freezes life and consciousness into forms but tends to reinforce and seek their confirmation from experience and from agreements with like-minded folks. With my of points of reference in place, listening half-heartedly, absent-mindedly seems enough, because I already know what is being said and agree with it and feel safe and affirmed in hearing it. With the freezing of life and consciousness into beliefs and positions, genuine learning comes to a halt. The evolutionary movement comes to a halt. To be sure, we can still tinker with our positions, re-arrange them some, and accumulate them. For many people, this counts as learning. But we are cut off from the unknown, unchartered, not-yet-formed immediacy of life.

I now turn to shifting. Unlike our experiences of settling, shifting tends to be extremely subtle and short-lived. Most of us have experienced “unsettling” moments when something we had taken for granted turns out not so. It is as if the bottom gives way and the world as we know it falls apart. Such moments can feel unnerving, embarrassing, even frightening. No wonder we resist them, often with elaborate defenses. But they can also be amazingly enlivening and exhilarating. Recall the last time you had a real “aha!” moment, perhaps in a classroom, or in a therapy session, or just while taking a walk in a park. Not a lukewarm “yeah, I buy that” moment but one in which everything you had bought into until then suddenly fell apart. There you stood, naked, exposed to the elements—the “you” you had known blown to smithereens. Yet in that moment you were in contact with life itself, knowing nothing yet connected to all with pure awareness not mediated by any interpretations.

In the next moment, you became aware of something new, an “insight” which you could grasp hold of because it had found its place within what you had previously known. This is when that peculiar smile of recognition that goes with the “aha!” experience spread on your face.

Many people equate “insight” with what is being recognized. Yet by the time something is *re-cognized* settling has already taken place. Just before the recognition, shifting happened which shook and perhaps momentarily dissolved all anchors and reference points. There was literally “no-thing” there, which is why if you just dropped into that space of nothingness, those watching your face may have witnessed, for a fraction of a second perhaps, a slackened jaw and a vacant stare. Such a situation might indeed be radically unsettling and unnerving were it to last. But it usually does not, and in the next moment, recognition and settling took place. The smile spreading on your face may speak of unspeakable bliss you just experienced, or it may speak of the relief in finding your anchors and points of reference you now experience, or perhaps a little bit of both. You are now settled, but perhaps not quite the same way as before, for you had entered the spontaneous movement of evolution for just a moment.

Shifting is indeed subtle and fleeting. But this does not diminish its potentially profound effect which can, and sometimes does, change the course of history. The spontaneous movement of evolution loosens frozen positions and allows shifting. Shifting can wreak death and destruction, yet it brings forth tremendous aliveness, exhilaration, and bliss as well. Nature is full of examples of this, small and subtle, like the dissolving of the caterpillar in its cocoon or the dehiscence of a flower bud. Or they can be large and spectacular, like earth quakes or volcanic eruptions.

Nature and cosmos have no bias for settling over shifting. Everything that comes into the manifest universe eventually goes out, sometimes the coming and going is subtle and drawn out, other times an instantaneous, loud bang. As a dynamic process, settling and shifting are both happening everywhere all the time.

Even though nature has no bias for settling over shifting, all its creatures who are invested in their own survival and longevity do. All life forms manifest a pro-settling bias in their striving for survival, security, and comfort. It is important to appreciate this same bias at work in our innermost psyche as in the cultural practices and institutions of our civilization. Thus disintegration and death, however much part of nature, are an anathema to us. Civilization was to shield us from that, and for a long time in the Western world, civilization was built and celebrated as a human triumph over nature. Today, we are facing the prospect of disintegration and death along with the rest of nature—a prospect that more than anything else has helped us recognize that we are part of nature and subject to its dynamic of shifting and settling. Still, the bias against shifting and for settling lives on in our culture and it is what provides stability and continuity to society and its institutions.

In subtle but powerful ways, the pro-settling bias pervades our intellectual and psychological lives. Earlier, we examined this in terms of the foundational beliefs of pluralism. But not only do our intellectual beliefs manifest this bias; it is evident in all aspects of our personal, professional and institutional lives. We value (or feel pressure to prioritize) products over process, safety over vulnerability, security and control over openness. We think of ourselves as pragmatists who are open and flexible, yet our pragmatism inclines us to regard shifting as being at best a means by which the fruits of settling are achieved. Shifting is a threat to what we have and who we take ourselves to be, and so we have a strong tendency to cling to ideas or practices we have settled into—even ideas and practices designed to promote change, growth, and openness! In other words, we feel more secure and comfortable with a tried and true “method” or “approach” for change and growth than if we had to step into uncharted terrains without maps or methods and surrender to the unknown.

Today we face unprecedented threats to our collective survival as species of this earth. With “threats,” I am, of course, referring to things like climate change, overpopulation, depletion of and ever more desperate competition for resources, and a global economic engine that depends on further depletion of resources and growth of population. Our pro-settling bias has us clinging to beliefs and positions that ensure continuance of the path we are currently on even if it is headed for disaster, at best allowing for superficial changes and band-aid solutions that may provide short-term gratification psychologically but without changing humanity's course substantially.

Thus the very technological-scientific-capitalistic society we have built to ensure our survival and thriving and in which our educational institutions are embedded are now threatening our survival and thriving. Put differently, the pro-settling bias which has us protecting ourselves against shifting is pushing us toward a shift of unprecedented magnitude. Confronting and resolving this bias seems necessary for the survival of nature and human civilization as we know it. But this involves confronting and resolving the very insistence we have on survival which is at the root of our pro-settling bias!

This is the ultimate paradox of our predicament. It calls for nothing less than transcending of ourselves as a species and our settled beliefs and values. Only a radically transformative education can offer a meaningful response to this challenge. The idea that education transforms consciousness is not new, but the specific kind of transformation our contemporary predicament as outlined above calls for is new. This transformation takes us from self-awareness of perspectives and the appreciation of a diversity of perspectives to freedom from perspectives altogether. The idea of such freedom is not itself new. It was envisioned by Jean Gebser (1985) in his notion of “aperspectival consciousness” which is not only aware of its own and others' perspectives but which sees through them and is thus not bound by them. Wilber (1995), inspired by Gebser's vision, incorporated “aperspectival” consciousness in his developmental schema as a stage which initiates genuine spiritual development beyond the “egoic” stages.

I want to suggest that consciousness or awareness free of perspective need not remain an abstract concept in a developmental theory but can be actualized and developed in a process of inquiry which shifts from awareness of perspective to awareness free of perspective. That is, instead of immediately pulling back to its own “givens” or settling into another perspective or set of “givens,” consciousness shifts into openness and remains in a state of openness—not, of course forever, but at least a few moments longer than it would have before the shift. In a manner of speaking, it develops tolerance for true openness which is different from a state of suspension between alternative perspectives or of integration of multiple perspectives into a more inclusive perspective. The vehicle for such development is what I call “perspective free inquiry.”

Perspective-Free Inquiry

We must begin with the foundational belief of pluralism, namely that inquiry always depends on a perspective or belief. This belief, of course, denies the possibility of perspective-free inquiry, stalling it *on a priori* grounds before it even got started. Now is it possible to inquire into this foundational belief afresh, without prejudice or bias? Recognizing the belief as just that—a belief—frees up the movement of consciousness for inquiry. But just as important is to refrain from affirming the opposite belief, that inquiry is possible, lest the movement freezes again into an *a priori* stance.

A genuine inquiry begins with “not knowing” and proceeds in an openness which does not affirm or reject anything. So, we don't know whether perspective-free inquiry is possible. But we can inquire into it. This would be a reversal of the usual way we approach education: we bring inquiry from the background, the context of the particular content areas, into the foreground. In the usual way, primacy is given to the content areas and skills to be mastered, and inquiry is limited by the givens of the latter; whereas, when inquiry is the starting point and the very heart of the endeavor, it can be open and not limited by the assumptions of the contents and methods of an area of theory or research. It may be important to emphasize that I am not suggesting that acquiring knowledge competence or developing skills in research methods or therapy or teaching techniques is to be replaced by perspective-free inquiry, only that their order of epistemological priority be reversed. I am not the first to suggest such a reversal in education. For example, Montuori (2010, 2009, 2006) has called for it. There are interesting parallels and points of connection between his transdisciplinary inquiry and perspective-free inquiry as I am discussing here; for example, both transform the inquirer as the inquiry proceeds, and both are inherently creative. A full exploration of these parallels, however, must wait for another occasion.

Perspective-free inquiry is spontaneous and rigorous. Yet it has no agenda or objectives, and no end point or conclusion. In other words, it is not a method and it is not undertaken to get results. As noted earlier, we tend to feel more comfortable and affirmed in our professional identities with methods than with inquiry. For the latter is an undefined, open process which continually moves into the unknown and unravels the places of settling we cling to, including our methods.

This process, when engaged wholeheartedly and with complete attentiveness (Krishnamurti, 1969) fosters a mode of consciousness distinct from the perspectival consciousness involved thinking, whether conceptual, associative, or imaginal. Unlike the latter, which involve directional activity of the mind, the attentiveness in perspective-free inquiry is nondirectional or, rather, “all-directional” at once. It begins by moving into the “givens” of the situation—the various understandings and beliefs of the inquirer which, inevitably and often unconsciously, shape the inquiry and direct it, as if “from behind.” The inquiry thus proceeds backward as much as it proceeds forward, and it may spread out in all directions at once. Spaciousness is the distinctive quality of this mode of consciousness. It does not interpret or make meaning but renders transparent all meanings and interpretations and the perspectives from which they arise.

Such a spacious awareness is available to us, and we can dimly sense its presence in the horizon of consciousness as the space that holds and at the same time has the capacity to “see through” or make transparent the contents of consciousness. Usually, though, our attention is absorbed by the contents—the incessant stream of ideas, images, interpretations that fill up the space of our awareness. The power of this absorption puts us under a kind of a spell (Puhakka, 2003) which has us take the contents of our minds to be real and the awareness that holds and sees through them as unreal or nonexistent.

Both modes of consciousness, the mode of conceptual and imaginal thinking absorbed in its contents and the mode of spacious awareness that holds and sees through these, are recognized as sources of knowing In traditional Hindu and Buddhist spiritual psychologies. They are considered functions of the “lower mind” and of the “higher mind” respectively (Puligandla, 1975). The knowing function of spacious awareness is generally not recognized in Western mainstream psychology, though the beginnings of such a recognition are in evidence in the burgeoning research on mindfulness-based meditation practices which develop the capacity to “see” thoughts “as thoughts” rather than be absorbed in their contents, and to relax into a spacious, choice-less awareness. (Williams, et al. 2007; Kabat-Zinn, 1990). However, so far the research has been concerned with the mental health benefits of such practices, for example, in reducing anxiety, depression or the suffering from chronic pain. Such an agenda imposes a limit on the knowing function of spacious awareness, for the inquiry goes only as far as is required for its objectives (symptom reduction, increased comfort and sense of wellbeing) to be achieved.

However, there is no limit as to how far or deep the knowing function of spacious awareness can be developed by an open inquiry which has no pre-given objectives. Because it is not a method, it can be extended from the meditation cushion out into the world of ideas and knowledge and into the world of other people. It can be undertaken by oneself or with others, as David Bohm (1987) explored in his group. However, while I appreciate the spirit of Bohm's approach, to fashion the inquiry after any model, even his, runs the risk of settling around a formula that will stymie a truly open inquiry. Perspective-free inquiry can start by simply attending to what arises in the moment. When attention is alert yet not shaped by agenda or objective, it naturally expands and feels its way through the ”givens” of consciousness, my own and my partner's in the inquiry, as well as those embedded in the domains of knowledge we study.

An inquiry carried out in this way does not freeze into a “position” or viewpoint which might contradict or oppose another position, nor does it accommodate other viewpoints or positions in the way that larger positions accommodate smaller or narrower ones. Thus, it does not dominate or totalize. Clearly, perspective-free inquiry is integral, yet very different from approaches such as Wilber's (2001). It tends to open up positions large and small into spacious awareness that renders the positions transparent without accepting or rejecting them and without privileging one over the other. The spacious awareness within which it moves allows for a more intimate way of relating and communicating across differences, even the deep ones that now separate pluralists and absolutists. This spacious awareness—it should be clear by now—is not an over-arching meta-perspective. Rather, it is freedom from perspectives; and herein lies its potential for healing our fragmented world without reducing its myriad ways and colorful differences into a dreary blend of sameness.

I hope that it is clear from the exposition of perspective-free inquiry above that awareness of perspective is a necessary starting point for it. We can thus say that pluralism and its celebration of diversity help open the windows of our separate perspectival worlds into other such worlds. Perspective-free inquiry then takes the next step and calls us out of those worlds into a creative play in the spaces within and around them.

Confronting Existential Anxiety

There is a great yearning for connection and for healing our fragmented selves and relationships today. So why don't we just drop the beliefs and perspectives that divide us? We probably would, were it not for the great existential anxiety which the prospect of dropping all beliefs and perspectives and opening ourselves to the unknown stirs within us. Such anxiety is the power behind our pro-settling bias and resistance to shifting.

Anxiety tends to divert energy and attention to efforts to cope, and as long as safety and security are an issue, change and growth tend not to happen. As Winnicott (1974) said (I am paraphrasing here), when the needs for safety, security, and nurturance remain an ongoing concern, the person can at best maintain “mere sanity” but not manifest his or her full psychological health and creativity. The caterpillar's metamorphosis requires the safety of the cocoon, and we imagine that the caterpillar is spared of the need to give any of its energy or attention to maintaining that safety.

How to deal with anxiety is a challenge for education in general when development and growth are the objectives. But it is an exponentially greater challenge for the kind of inquiry and transformation we are exploring here. For the existential anxiety evoked by the prospect of having no beliefs and perspectives—therefore, knowing nothing, even being nothing—is such that no safety and security measures we as teachers or as students can take will spare the inquirer of having to face it.

So we must face it. Facing anxiety takes courage. We don't talk much about courage in education these days, perhaps because we tend to be more concerned with accommodating our students' safety and security needs. But great visionaries of integral education such as Parker Palmer (2009) talk about courage. It takes courage and integrity to discover something one can truly believe in and have passion about, which is what Palmer's “courage work”, is concerned with. He works within a pluralistic framework, however, and so talks about the courage to stand up for one's deepest beliefs and convictions.

It takes a different kind of courage to stand up without belief or conviction, wholly open and vulnerable, exposed to the unknown both within and without. It is important to not confuse this kind of standing up with refusal to affirm a belief or conviction or with joining in affirming whatever beliefs or convictions others may voice. These can be, and often are, ways in which we withdraw and fail to stand up, fail to manifest courage.

To stand up and enter into an inquiry without any protection such as beliefs and convictions provide takes great courage. This is courage of the heart. In contemporary spiritual discourse we talk of the heart as the seat of compassion, caring, and love. Yet it seems to me that courage is what gives depth and transformative power to these qualities. How do we foster courage which is not separate from compassion and love in our students? The answer, it seems to me, has much to do with how we as educators awaken it in ourselves and embody it in our work. There is no formula or method for training ourselves or our students in courage of the heart. But we can inquire into it. When undertaken without belief or perspective but with open attentiveness, such inquiry may be all that is needed.

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Connecting Thought and Action for Beginners: A Meditation on Integral Philosophy and Experiments in the Yoga of Love, Action, Knowledge

Maureen Dolan[1]

Abstract: This paper has a two-fold purpose: to examine some of the main precepts in chosen works of Sri Aurobindo and Dr. Haridas Chaudhuri regarding the philosophical basis for integral understanding and to describe concrete ways to introduce the integral paradigm into practice in the U.S. within a particular undergraduate course titled *Body, Mind, Spirit: Yoga and Meditation* at DePaul University in Chicago. The introduction includes a brief description of the cultural milieu of 21st century American realities for adult students, identifying some of the conditions which can serve as impetuses to integral thought and action. The main text contains certain basic tenets of integral wisdom, which combine Eastern and Western thought in revolutionary ways, and examples from an introduction of integral yoga into higher education for adult learners. This can serve those who are just beginning to explore integral being and evolutionary action through intellectual, psychological, physical, and spiritual pursuits and those who already teach the integration of love-action-knowledge.

Keywords: Haridas Chaudhuri, integral yoga, integral education, integral philosophy, Sri Aurobindo.

Introduction

> *The true and full object and utility of Yoga can only be accomplished when the conscious Yoga…becomes, like the subconscious Yoga in Nature, outwardly conterminous with life itself and we can once more, looking out both on the path and the achievement, say in a more perfect and luminous sense: 'All life is yoga.'"*(Ghose, 1990a, p. 4)

We are presently living through some of the greatest transitions on the planet. These include: large ecosystem alterations of the earth (climate change and its effects); enormous societal changes (increased corporate globalization, resource wars, grassroots democratization, cross-

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cultural exchanges); and transformations of individuals (in all aspects of thinking, doing, being). These systems changes are interdependent.

Modern complex conditions demand of us an unparalleled paradigm shift. The urgency rings clear for spiritual leadership and philosophical direction during these times and the task of educators is to prepare the ground for creative emergence of more integrated thought and action. The integral philosophy of Sri Aurobindo and Haridas Chaudhuri can provide leadership for academic areas such as contemplative studies, consciousness studies, and transformative adult education.

The U.S. is characterized by a dominant culture steeped in strong individualism, dualistic thinking, reductionist approaches, consumerist materialism, hierarchical power structures, and propaganda which promotes violence as a solution to problems. The present worldwide economic, energy, and ecological crises have exposed the necessity for more holistic approaches to the problems of life. Agitations from the larger systems' schismogenesis have increased the tensions in individual lives. People search for ways to make sense of their lives, feeling great hunger for spiritual renewal but still trapped in old ideas and conditioned habits.

Many people are coping with enormous changes by returning to school. Adults are returning to higher education to widen their economic opportunities but this action is also an invitation to expand philosophical understandings. Rarely do students at the initial stages recognize the transformational nature of the education process itself. However, the body of literature on adult transformative education is expanding rapidly to include more spiritual and multicultural perspectives (O'Sullivan, Morrell, & O'Connor, 2002; Palmer & Zajonc, 2010; Tisdell, 2003). In addition, a new body of literature regarding contemplative practices within education has emerged (Altobello, 2007; Duerr, Zajonc, & Dana, 2003; Robinson, 2004; Rockefeller, 2006; Roth, 2006). Scientific studies also point to a more holistic approach to the development of consciousness and cognition (Maturana & Varela, 1991; Varela, 1999).

Filled with family obligations, stresses from work and unemployment, and unaccustomed intellectual challenges, the circumstances of adult student lives can present difficulties. In addition, lack of health insurance for millions of Americans and detrimental U.S. lifestyle habits contribute to unhealthy, “dis-eased” students. Students have largely been trained to: hurriedly multi-task rather than concentrate; employ subject/object dichotomy in dualistic framing of themselves, the world, and knowledge; obey in hierarchical work structures rather than freely create; and separate body from mind from spirit. People are taught a distinctly undemocratic, fragmented way to be with their own entities and within society. These proclivities, combined with other obstacles, make learning in higher education settings problematic.

Restless bodies, agitated minds, and forgotten spirits need to be addressed in the process of education. Intellectual progress can no longer be separated from psychological, physical, and spiritual realities. Direct facing of the fragmentation problem can be turned into lessons for real self-finding (and world-finding) for students when combined with new learning through yoga. Yoga is an entranceway into necessary epistemological and philosophical shifts. Yoga is a metaphor for life's unity. Yoga is life and life is yoga.

Even though integral yoga goes beyond the hatha yoga of India and the popular westernized versions, physical yoga sets the conditions for quieting the minds of students. This prepares the ground for the planting of integral philosophy seeds. A few stretches, some breathing techniques, and meditation methods can open up possibilities for a wider acceptance of integral yoga concepts.

Philosophical Principles

> It is when we are guided from the very beginning with an integral view of Being to its multidimensional fullness that we can hope to understand philosophically the total truth as the identity of change and permanence, of the temporal and the eternal." (Chaudhuri, 1974, pp. 86-87)

Before illustrating applications of integral yoga, some basics of integral philosophy require exploration. The philosophical principles addressed here include: the nature of being and unity with the divine; non-dualistic thinking in the heart of yoga; emergence of the feminine principle; and evolution in love-action-knowledge.

The Nature of Being and Unity with the Divine

> Being is on the one hand cosmic energy and on the other formless eternity, self luminosity, formless being,, cosmic consciousness, unitive consciousness, creative void, unfathomable mystery, self-light of the eternal, mysterious self-light of Being, evolutionary urge of Being ...Whereas consciousness is an emergent value, the self-light of the eternal is the primordial reality. (Chaudhuri, 1974, p. 41)

In his writings, Sri Aurobindo elucidated the unity of Shankara's *transcendent being* with the Buddha's *non-being*. The nature of beingness, described in philosophical discourse by Western writers, is similar to Sri Aurobindo's yogic unity with the Divine (Ghose, 1990a). The conceptions of the divine as transcendent, as immanent in all of that exists, and as a personal God are three ways to experience the multi-dimensional beingness. While Chaudhuri employs the western philosophers' language of "Being" and "the Absolute," Sri Aurobindo explicitly and continuously used the word "Divine."[2]

The integral notion of being/divine goes beyond what the ancients had proclaimed because not only the ultimate ground of all being is realized, but also its dynamic nature is accented. integral yoga provides the steps for a more perfect unity with life. The aspiration for knowing our essential nature must first be in the heart of the seeker and surrender to the divine or truth is a prerequisite to this knowledge. Practices can develop the full surrender of ego in order to bring about the bliss of this mystical knowledge. Purely intellectual approaches for understanding ontological reality are insufficient. Both Sri Aurobindo and Haridas Chaudhuri have written with many references to the development of ontological ideas and metaphors in both the eastern and western traditions. However, the fullness of the experience is a spiritual, not an intellectual realization.

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[2] Editors' note: These terms are not capitalized in the remainder of the essay to be consistent with the journal's publishing style.

Spiritual experiential learning promotes the dissolving of separative ego consciousness when enhanced by a call to participate in the infinite. This connection to enlarged beingness also diminishes fear and insecurities. It is a way to become familiar with immortality in the present (Chaudhuri, 1974, p. 139). The thrill of experiencing the impermanence of being is not the goal of integral yoga, however. This non-temporal understanding needs to be combined with the fullest flowering of the psychic, intellectual, and other potentialities of human existence for the purpose of participating in co-creation of a better world, for cooperation in the divine unfolding through history.

Non-Dualistic Thinking in the Heart of Yoga

> The fundamental requirement of our present age is to enlarge and enrich the nondualistic outlooks with a creative sense of history. A harmonious blending of eastern nondualism and western historicism can provide a comprehensive philosophy of life such as can inspire the future progress of civilization. (Chaudhuri, 1974, p. 22)

One of the greatest gifts that the culture of India has bestowed upon the world is the philosophical concept of non-dualism. In integral philosophy, this non-dualism reaches a new height. The heart of this is the unity of eternal beingness with an evolutionary unfolding. Under the huge umbrella of integral thought, we find the dialectical combinations of idealism and pragmatism, spirituality and science, mysticism and evolutionism, formless being and forms, essence and existence, the ultimate ground and multidimensional reality, change and permanence, the temporal and the eternal, subject and object, the knower and the known.

Non-dualistic thinking is a particularly difficult concept for Westerners to accept. A big part of this comes from the orientation of Eurocentric culture and the depth in which we are all trained to think in “either/or” rather than “both/and” categories. Another reason is the artificial division between means and ends. To fully grasp both distinctions and their unities, one needs to experience an embodiment of non-dualistic thinking. Chaudhuri refers to this as a “spiritual breakthrough” (Chaudhuri, 1974, p. 30). Without non-dualistic thinking it is difficult, if not impossible to grasp the full nature of being in pure eternal, dynamic universal, and individual manifestations.

The Emergence of the Feminine Principle

There are four fundamental principles of creative existence: aspiration, action, meditation, and love (Chaudhuri, 1965, p. 89).

One of the most profound contributions that Sri Aurobindo made in his philosophy was the importance that he gave to the feminine principle (Ghose, 1990b, pp. 724-753; Ghose, 1995a). His spiritual knowledge allowed him to see a future unfolding where there would be a rise in: women’s greater participation in all aspects of life; incorporation of feminine qualities into all humans in a more balanced way than had been seen in thousands of years; and spiritual renewal across cultures stressing devotion to the Goddess as Divine.

During the later part of the 20th century, the recognitions of feminine qualities such as feeling, receptivity, subjectivity, multiplicity, nurturing, cooperation, intuition, relatedness and social responsibility have come alive in practically all academic disciplines, in all aspects of life, and across cultures. That is not to say that their full power has been unleashed or that there is not great resistance to this evolutionary move, but the signs of a huge cultural transformation are underway (Eisler, 1987; Schiebinger, 1999; Shepherd, 1993; Shiva, 1989). Sri Aurobindo's partnership with the Mother (as embodied in Mirra Alfassa) and as the name for the Divine Feminine, his writings on the spiritual reality of Shakti energy, his sadhana work (spiritual discipline) to bring the descent of the unity of Shakti (feminine God-consciousness) and Shiva (masculine God-consciousness) power paved the way.

The thinking and practices of our human society have been hampered by gendered domination with overemphasis on rationalistic, mechanistic, and reductionist thinking. Sri Aurobindo has referred to the zig zag of our evolution prior to the 20th century as evolution in Ignorance, characterized by separation, but now humanity has the possibility of evolution through Knowledge, characterized by yoga or union.

The growing strength of the feminine principle creates the conditions for a wider surrender to the infinite, as well as real progress on a number of fronts, including a leap in our evolutionary development. But there still exists a great underestimation of how the absence of the feminine has distorted knowledge acquisition on many fronts. Where the masculine bias goes unrecognized (within both men and women), the truth of nature and humanity's essence are clouded over in ignorance and the impact is wide and deep. Dominator bias forms the basis for an inability to view the "other" as connected to self, promotes dualistic thinking, blocks the appreciation of the vast diversity of beingness in nature, and hampers receptivity to the divine. Ignorance of the feminine principle holds back our ecological sustenance and our evolutionary potential.

The entrance of many women into different walks of life during the 20th and 21st centuries and their needed participation in the move toward emancipatory evolution appear to have been premonitions in siddhis (spiritual gifts) that Sri Aurobindo brought forth in his decades-long spiritual practices. Sri Aurobindo's appeal to women spiritual seekers can in large part be attributed to his explicit elucidation of the importance of the divine feminine, the embrace of the Mother, and the incorporation of qualities that we attribute to the feminine side of humanity (Ghose, 1995a). For example, he wrote on human intuition and how this quality opens the possibilities for the divine force to enter (Ghose, 1990a, pp. 769-780).

The advances that have been made in human knowledge by use of the feminine principles are now being recognized across disciplines. Both men and women are seeing the world with new eyes in biology, anthropology, philosophy, psychology and other knowledge bases by employing a greater reflexivity; a sensitivity to context and cultural bias; respect for the ethic of cooperation with nature; promotion of humanitarian values; and the embrace of diversity and equality in varied communities. For the first time, women constitute the majority of undergraduates now in the U.S., a sign of Shakti energy moving within us (Ghose, 1990a). The shift from domination to partnership is taking on more urgency (Eisler, 2002). The unity of masculine and feminine qualities opens a new window for evolutionary development with wide ramifications for how we move forward in the 21st century.

Evolution in Love-Action-Knowledge

> The ancient idea of evolution was the fruit of a philosophical intuition, the modern is an effort of scientific observation. Each as enounced misses something, but the ancient got at the spirit the movement where the modern is content with a form and the most external machinery. (McDermott, 1987, p. 70)

The marriage of eastern mystical gnosis of the divine with western advances in understanding evolution was a world-historic transformation in philosophical thought. Sri Aurobindo successfully combined these in the beginning of the 20th century.

> The nontemporal is without doubt the most fundamental aspect of reality. It is the ultimate ground of existence...It is no doubt the foundation of existence. But existence has also its superstructure of ever-emergent values in the historical medium. The absolute can therefore be no less than the unity of the non-temporal and the historical. It is Being in its multidimensional fullness. (Chaudhuri, 1965, p. 104)

This recognition opened the gateway toward a more profound understanding of unity with the divine and the participation of humanity in conscious evolution.

Both Sri Aurobindo and Chaudhuri explained the reconciliation of inner spiritual truth with human outer action. Drawing on the knowledge from the Bhagavad-Gita and Vedanta, his own investigations into modern advances in science and psychology, and the sadhana union with the divine, Sri Aurobindo formulated the love-knowledge-action integration in a unique way and Chaudhuri found ways to apply it to late 20th century thought and action (Ghose, 1990a, 1990b, 1995b; Chaudhuri, 1965, 1974, 1977; McDermott, 1987). Combining the yogas of *jnana* (knowledge), *bhakti* (devotional love), and *karma* (work and action), Sri Aurobindo offered an amalgamation which far surpassed what had been taught in the East or West on the spirit of humanity, the nature of the absolute, and the evolution of consciousness.

The whole point of self-transcendence is not just seen for individual liberation but for the transformation of humanity through new consciousness and the use of divine love in evolution. This revolutionary worldview is about universalizing ourselves with divinity/being in order to bring forth more love, more knowledge and more action in the service of all. Integral yoga is an invitation for greater freedom and greater responsibility because we become co-creators with the divine. In this sense, the integral philosophy opens us not only to individual spiritual transition but also to species transformation.

The understandings which Sri Aurobindo articulated on evolution of the mind stand as examples of that very evolution as well as pathways for others to follow Chaudhuri's leadership in both philosophy and education illustrate that collective progress and individual progress are interdependent in the field of love-action-knowledge.

Beginning Applications of Integral Yoga

> Integral yoga may be defined as the art of harmonious and creative living. It stresses the need for the balanced growth of personality; for constructive development of the latent possibilities of one’s nature; and for their employment in the service of mankind and such higher values as truth, justice, freedom, peace and progress. (Chaudhuri, 1965, p. 37)

I teach at DePaul University which has as part of its mission the intention to educate urban, immigrant, and historically excluded populations. Many students are in the first generation of their families to attend college. While there are some economically privileged students, quite a few students come from war-torn countries and from the U.S. working class. Many older students have endured and/or resisted sexist and racist societal practices. Some students are recovering from addiction abuse and some are rebuilding lives after war service in Iraq or Afghanistan.

Two-thirds of students are women and several classes have been, in majority, people of color. They come from diverse faith traditions and many with no religious affiliation. All are weary from the present economic shocks and want to make sense of their life experiences. They hunger for spiritual sustenance. Integral yoga can feed this hunger: “… integrating body, mind, spirit for the greater participation of the Spirit in terrestrial life becomes an important objective of Integral Yoga. To manifest the Divine in humanity…is the whole point of Yoga (Singh, 2008, p. 52).

Since the course teaches both science and spirituality, we discuss how western culture has compartmentalized knowledge. Students also make distinctions on what is culturally learned and what is natural to humans. Talks in class bring forth the differentiation between religion and spirituality and the key unity underlying all spiritualities is explored.

Of all yogas, hatha is the most popular in the U.S., largely due to its appeal to the physical in a society so steeped in materialist aspects. Hatha yoga consists of a growing number of styles with varying use of meditation, and with teachers who span a wide spectrum from barely knowledgeable to very educated teachers imbued with a spiritually integral base. About sixteen million Americans have taken up yoga; its acceptance of its followers as a subculture in this country is a given. In the hundred years of its development within the U.S. and its increased availability in all sectors, yoga has served to break down some cultural barriers.

In Americans, well-schooled in ethnocentric and xenophobic ideologies, participation in hatha yoga proves that there are bodies of knowledge that come from other cultures and times. The limitations of this particular yoga, however, include: overemphasis on the physical; overemphasis on individual liberation; and separation from the other yogas and its spiritual base.

The *Body, Mind, Spirit* course consists of ten three-hour classes. The first hour takes place in a chapel with practice of yoga postures, breathing techniques, meditation methods, and journal writing. I read portions of the *Yoga Sutras of Patanjali* as students rest in *savasana* (relaxation)

(Shearer, 2002). In each class, our actions are offered up to the infinite — in whatever form that holds meaning for participants. Some people give their intentions to Jesus or to God, Buddha, Allah, Goddess, Yahweh, truth, healing, or peace. Throughout Chapel sessions, I remind students to: practice non-violence; unite with the Infinite; yoke together body, mind, spirit; breathe deeply; act in order to know; engage in self-healing; be present in the moment; hold an image of divine within; experience the unity of flexibility and strength, relaxation and tension, change and permanence; and open the heart.

After a break, students resume work in the classroom for group discussions and presentations. Course objectives include the development of proficiencies in: exploration of a model of spiritual development and its application; understanding the interrelationships among intellectual, psychological, spiritual, and physical health in one’s life; descriptions, categorizations, and explanations of change within human biological systems; and assessment of health care practices based on an understanding of the biological and social factors that contribute to health.

Each student reads a short inspirational passage or prayer of peace to open and close the classroom portions. These “inspirations” demonstrate the vast diversity of human insights and cultural meaning-making which can open the heart to fuller embrace of the Divine and serve to concretize what Haridas Chaudhuri expressed:

> The different peoples of the world do indeed exist by being closely related to one another…essentially interdependent. They are inseparably associated members of the cosmic whole. They live, move and have their being in one indivisible cosmic medium. An active realization of this truth produces cosmic integration. (Chaudhuri, 1965, p. 87)

Small groups work on presentations which educate on the systems of the body/mind/spirit complex and the ways yoga can contribute to health and connect to the Infinite. Final papers serve to consolidate the learning in both reflection and research.

“There are three essential ingredients in the realization of complete self-integration: psychic integration, cosmic integration, and existential integration” (Chaudhuri, 1965, p. 83). Psychic integration includes recognition of the vastness of the unconscious and discovering ways to bring the unexamined shadow sides of ourselves forth in order to integrate the human personality (Shirazi, 2010). To that end, journal writing is encouraged (both in specific time periods within class and also at home on a regular basis) to draw out observations of the self after the experience of yoga postures, breathing, meditations, studying, and participating in group projects.

For those who are just beginning to come to some understanding of integral knowledge, the discovery of unconscious limitations and biases is of utmost importance. Most Americans do not understand how their ideas and behaviors have been shaped in social construction by cultural models. Experiential yoga learning and self-study reflections reveal unconscious patterns and uncover what has been covered. I collect the journals to read and meditate upon each one before providing a reflective commentary. The unconscious is addressed by providing a sacred space for the beginning half of the class in the Chapel where the practices of yogic postures, breathing, and meditation take place. In particular, there are certain practices which appeal to the unconscious.

For example, *The Healing Journey*, has proven to be very effective as an experiential exploration (Shraddhananda, 2003).

The classroom portion includes a circle of chairs. The environmental structure of the learning venue can have a powerful impact on the unconscious, as well as the consciousness in individuals, as Chaudhuri pointed out: “The truth is that consciousness is a much wider category than rational thinking” (Chaudhuri, 1974, p. 37).

Cosmic consciousness, which links the individual with all of nature and the divine, is a difficult concept for those so ingrained by American individualism. Therefore, partnership exercises are of utmost importance, an essential component to get a feel for unity of all and beginning notions of our essential interdependence. Incorporation of yoga partner poses allows students to embody trust and negotiation skills necessary for partnering on projects in class. In a society where distrust is rampant under the domination model, the creation of partner poses gives the opportunity for a completely different experience of “the other.”

Cooperative work in research assignments for presentations also underscores the necessary reliance on each other for knowledge creation. Interdependence is necessary for balance in body/mind/spirit. The course work provides constant reminders of interconnectedness within systems: tying together love for oneself, others, devotion to the infinite; individual intellectual pursuits in research combined with cooperative sharing of knowledge; and importance of taking action and seeing how one’s actions have impact on others through partnership poses, small group work, and community involvement.

Cosmic recognitions also come in the form of two particular healing meditations. One is the chakra meditation done in pairs where one person gently places fingers on the spine of another person. The person sitting in back slowly, gently moves the fingers up the spine through the seven major chakras (energy centers) while meditating on healing energy. The person in front meditates on receiving healing energies. It takes about 10-15 minutes and then the students switch places.

Another healing meditation is the “Sound Bath” where one person is situated comfortably in savasana in the middle of a close circle of other students. The person in the center meditates on receiving the group’s healing energies. The group chants vowel sounds in a continual flow of *aaah, eee, iii, oo, uu* which grows in strength, diversity, and fluidity. Members of the circle meditate on sending healing energies through sound to the person in the center.

While these particular meditation techniques are designed to enhance partnership practice and cosmic realization, they also serve to cultivate individual mindfulness and loving attention.

Given the dominant culture’s recursively reinforced attitudes and behaviors of individualism, competition, disjunctive learning, reductionist thought, these practices provide embodiment of alternative views. The strength of the dominator paradigm, with its accompanying Eurocentric focus, in American society requires intense opportunities for immersion in partnership skill-building.

Without adequate stillness of mind, unity with the ground of existence remains elusive. This existential reality cannot be approached through the intellect or the senses but requires a transcendent experience. First, there must be a desire to unite with that larger beingness and then there must be the conditions set for this unity. Spiritual practices come in many shapes and forms to allow for this opening. Chaudhuri outlined several methods of meditation (Chaudhuri, 1965, pp. 117-155).

Integral philosophers point to what has to be healed: “Consequently, the divide that exists between spirit and matter, between spirituality and science, between arts and spirituality, between philosophical and practical life, between religious and mundane, between sacred and profane, needs to be healed” (Singh, p. 74). The first steps in the spiritualization process are not only possible but in evidence from many of the over 600 students engaged in this learning thus far and hatha yoga proves to be a good entranceway. As Dr. Chaudhuri pointed out body consciousness is the foundation for our evolving spiritual life (Chaudhuri, 1974, p. 188).

Each class can be roughly viewed in thirds of varying numbers. Perhaps, a third of the people have already made progress on spiritualizing their lives and seek refined teachings as they prepare for a leap in their own evolutionary progress. These students take hold of integral concepts and embrace participation in evolution through the unity of love, action, knowledge. They already embody a more integral approach to life with an understanding of the transcendental, immanent, and personal experience of the divine and see themselves as vehicles for dynamic creative energy.

A middle third have been conscious of their spiritual searches but not yet disciplined enough to make steady progress. Their work may lift them to the level of those who entered at a higher level. The combinations of learning styles through body work, intellectual research, reflective self-observation contribute to deep practice immersion. The final third begin with relatively closed minds/hearts but gain some benefits at the physical or intellectual levels. These students, depending on adherence to practices, may open their hearts.

For each student, the awakening experienced through meditative practices, intellectual research, and collaborative work is quite unique. For each, the seeds of an integral view take root in different ways and at an individualized pace. The duty of the teacher is to be attentive to the particular journey of each seeker. This includes dialogic discussions in class; guidance during the yoga portions; personalized feedback on journals, presentations, papers; individualized correspondence through emails and phone calls; and mindfulness of the teacher’s own practices as example and as instrument for transformation. As Sri Aurobindo said: “All teaching is a revealing, all becoming is an unfolding. Self attainment is the secret; self-knowledge and an increasing consciousness are the means and the process” (quoted in McDermott, 1987, p. 142).

Students learn by placing their own subjective experiences into wider contexts, becoming their own experiments in evolutionary consciousness. The goals of integral yoga include integration and transformative experience within the context of an evolving “embodied consciousness” (Shirazi, 2010). It is not just new experience through yoga but also the reflexivity on the process which leads to learning. Action and reflection on action helps dissolve the constructed personality and illuminate the spirit (McDermott, 1987, p. 66).

The advent of unity in subjective/objective reality and the increasing accent on reflexivity in higher education sets the stage for greater changes. As Sri Aurobindo so aptly said:

> …the most important element…is the unpreparedness, the unfitness of the society or of the common mind…which is always the chief stumbling block…for even if the condition of society and the principle and rule that govern society are opposed to the spiritual change, even if these belong almost wholly to the vital, to the external, the economic, the mechanical order…yet if the common human mind has begun to admit the ideas proper to the higher order…and the heart of man has begun to be stirred by aspirations born of these ideas, then there is hope of some advance in the not distant future. And here the first essential sign must be the growth of the subjective idea of life, - the idea of the soul, the inner being, its powers, its possibilities, its growth, its expression and the creation of a true, beautiful and helpful environment for it. (quoted in McDermott, 1987, p. 194)

The diverse cultural mix of the class and the varying levels illustrate the multiplicity inherent in our human condition and in our search for meaning. This helps call forth in each student a love for the multidimensional nature of our existence and promotes a way of seeing "both/and" rather than "either/or." The course combines affective, cognitive, and physical approaches to learning because the intellectual level alone cannot grasp these deep concepts.

Conclusion

> The aim of the yoga is to open consciousness to the divine and to live in the inner consciousness more and more while acting from it on the external life, to bring the inmost psychic into the front and by the power of the psychic to purify and change the being so that it may become ready for transformation and be in union with the Divine Knowledge, Will and Love. (McDermott, 1987, p.91)

The resolution to organize one's life around spiritual values, spontaneous outpouring of freedom in acts that promote the evolution of humankind, cultivation of meditative practices, and embodiment of cosmic love form the core principles of integral work. This is a tall task but it is our road to freedom, as Chaudhuri explained: "Spiritual freedom in its fullness is neither an abstraction nor a transcendent flight…It is the unity of knowledge, love and fruitful action…Action, love, wisdom, and peace are equally important elements in such self-integration" (Chaudhuri, 1965, pp. 76-77). Combining meditation and action leads to compassion and illumination (Chaudhuri, 1965, p. 141).

The works of Sri Aurobindo and Haridas Chaudhuri stand as glowing advances in philosophical analysis and spiritual experience. With poetic phrasing Sri Aurobindo gave profound expositions of the integral view which provide a deep feeling-state with each reading. Each chapter can provoke intellectual challenge and spiritual awakening. Using excerpts from books such as *The Synthesis of Yoga* and *The Life Divine* can help inspire and guide teachers on the integral path. Chaudhuri's works built on Sri Aurobindo's integral views and are especially helpful to those schooled in western philosophical thought.

Sri Aurobindo did not want to promote dogmatic following; he knew diverse methods can lead to the goals of integral understanding. Both Sri Aurobindo and Haridas Chaudhuri wrote very explicitly on the benefits and limitations of the various yogas (Ghose, 1990a; Chaudhuri, 1965). My experiments with integral yoga are just one way to introduce integral concepts in a learning environment. We can charge ourselves with the task of contributing innovations and expansions in integral knowledge in accordance with Sri Aurobindo:

> An integral…yoga needs especially not to be bound…for while it embraces the knowledge received from the past, it seeks to organize it anew for the present and the future. An absolute liberty of experience and of restatement of knowledge in new terms and new combinations is the condition of its self-formation. (McDermott, 1987, p.144)

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Integral Intelligence: A 21 Century Necessity

Anne Adams[1]

Abstract: This article explores the critical role education plays in the attitudes, behaviors, results produced, and ultimately our every day experiences of our world. Integral education is introduced as a catalyst for transformation, moving our emphasis in education from gathering knowledge to growing consciousness. Expanding awareness provides a paradigm shift from epistemology to ontology, which would fundamentally alter where our attention is focused, from having and doing to being—providing an opening to directly experience ourselves as the creators of our reality.

Keywords: complexity, epistemology, inquiry, integral education, integral intelligence, integral worldview, ontology, paradigm, transformation, wisdom, vicious cycle, virtuous cycle.

Introduction

The intent of this article is to utilize an integral viewpoint to look at our world and bring a quality of awareness that has yet to be fully distinguished. An integral perspective is committed to weave together the seemingly isolated, fragmented and disconnected phenomena that take place in our world, in a manner that allows for seeing with new eyes. It encircles horizontally and is at the same time deeply rooted vertically. When people experience and understand how different occurrences *connect* together to create a full picture, it changes the way they think, act, speak, and listen, and the way they view the world— a larger picture becomes apparent and their relationship to that image is made clearer.

A number of areas will be addressed in the following pages regarding the current educational approach in the United States and the quality of the world it creates and perpetuates, as seen from various vantage points, e.g., scholars, educators, students. Integral Education is presented as a model of our future education with its commitment to *educating for* an integral worldview.

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Quality of Education = Quality of World

The premise of this paper is: *we get what we educate*. The world we live in, feel, and observe around us is directly correlated to our educational experiences. What is happening in our world and our responses to it, whether it is close—as in family, friends, school, community or city—or farther away—as in state, nation, region or globe—reflects the context, content and practices of our education. The focus of this article is an inquiry into the nature of our world and the impact our way of educating has on that world. The United States and its approach to education are highlighted and extrapolations can be made to other countries.

This article is an invitation to its readers to an inquiry of the highest order: to engage in questions around the quality of world being created by the kind of education we are providing ourselves and our young people. If our education is the foundation for our future, what is the quality of future we are living into given our current approach to education? What is going on in our world, in business, in our communities, in our religious institutions, and throughout our educational institutions... in our collective consciousness, how we think, the quality of that thinking, how we feel, about ourselves and each other, the way we relate to one another, what we think is important, our values, etc.?

There is an active conversation among educators, scientists, policy makers, the media, parents, government, and business people about the role education should play in preparing people to live successfully in a complex world. Practitioners in many disciplines are divided over this role, and offer an either/or approach; e.g., either "we must produce more graduates in science, math and technology," or "simply adding analytical skills to traditional curricula would be wholly insufficient to convey a general understanding of complex phenomena;" or "modern sciences fail to acknowledge the complexity of the real world, and foster a misleading certainty of expectations that leads people to pursue simple solutions for complex problems, and to discount contrarian ideas and 'inconvenient truths'" (Abeles, 2010, pp. 2-3).

Our world is increasing in complexity exponentially. It involves many intricate parts that require an ability to make linkages; e.g., bringing the seemingly unrelated to a place of relationship and connection. This complexity of new technologies, diverse cultures/belief systems intermingling, internet/information access, media proliferation, international economic and political interdependencies; globalization of businesses, cultures, awareness, connections; the reinvention of the family constellation, education, politics, religions, and so on, has multifaceted everything. "Our culture is in a constant state of change and evolution" (Robinson, 2001, p.176).

The 21st century complex world demands an integral approach, one that encompasses seeming paradoxes with a both/and viewpoint—a complete transformation of our established epistemology. A new paradigm is required now which is gradually emerging, representing the beginnings of a true transformation in the way we think and act. Susanne Langer, an American scholar of the philosophy of mind, captures it with this imagery:

> A new idea is a light that illuminates things that simply had no form for us before the light fell on them and gave them meaning. We turn the light here, there, and everywhere the limits of thought recede before it" (as cited in Robinson, 2001, p. 73).

The intent of this paper is to shine that quality of light on our world today.

The Void in Education

Sri Aurbindo, the Indian spiritual philosopher, educator, and activist saw the evolutionary turmoil humankind was undergoing in the 20th century. In his writings and teachings he spoke about the quality of society being manifest: "Man has created a system of civilization which has become too big for his limited mental capacity and understanding and his still more limited spiritual and moral capacity to utilize and manage" (Ghose, 1976, pp. 1053-1055).

Three decades later he is echoed by Ervin Laszlo, a philosopher of science, a systems and evolution theorist, and integral thinker. "We are in a spiritual crisis at the moment. We need to upgrade and update our consciousness. Our technology has evolved faster than our spirits have; we need a spiritual revolution" (Laszlo, 2005).

Peter Senge (2004), an MIT professor, system theorist, and consultant to businesses, adds his agreement in his most recent book, *Presence: Human Purpose and the Field of the Future*, "…the industrial age school continues to expand, largely unaffected by the realities of children growing up in the present day" (p. 7). The task of encouraging thoughtful, knowledgeable, compassionate global citizens in the twenty-first century is not being addressed consistently with the world we are living into. These educator/scholars are joined by many other voices.

Robert J. Sternberg, professor of psychology and education at Yale University and director of its Center for the Psychology of Abilities, Competencies, and Expertise, is committed to educating for wisdom:.

> I do believe that we need to rethink our goals in education. Increased academic skills may be necessary for many kinds of success, but they are not sufficient. Students need something more. We need to teach students not only knowledge but also how to use that knowledge well, e.g., thinking wisely and encouraging students to develop their own values while understanding multiple points of view. Teaching for wisdom recognizes that there are certain values—honesty, sincerity, doing toward others as you would have them do toward you—that are shared the world over by the great ethical systems of many cultures. (Sternberg, 2002, pp. 1-3)

Sternberg also stresses balance: "students learn to include their own interests with those of others and those of larger entities, like their school, their community, their country, even God" (p. 2).

Sir Ken Robinson, author, speaker, and international advisor on education, also "challenges the way we're educating our children and champions a radical rethink of our school systems, to cultivate creativity and acknowledge multiple types of intelligence" (Robinson, 2010). One of his major contributions is continuing to explore the importance of creativity in the educational system and its link to the economy of a country. To the question, “Why don't we get the best out of people?” he retorts:

> It’s because we've been educated to become good workers, rather than creative thinkers. Students with restless minds and bodies—far from being cultivated for their energy and curiosity—are ignored or even stigmatized, with terrible consequences. We are educating people out of their creativity. (Robinson, 2010, Ted Talks).

Uncovering Vicious Cycles

A vicious cycle is a complex series of events, which reinforces itself through feedback loops. Each iteration of the cycle reinforces the previous sequence, ultimately leading to detrimental results. It is a situation in which the solution to one problem creates a chain of problems, each making it more difficult to solve the original one. The cycle will continue in the direction of its momentum until an external factor intervenes and breaks the series. Our current way of educating has created many vicious cycles. Inquiring into our system of education is about shining a bright enough light so the unseen can be given the quality of form necessary to illuminate the meaning sufficiently to unravel the vicious cycle.

In 2011, the world we live in is no longer rooted in the economic model of industrialism and the intellectual model of academicism. Both are outdated and inadequate to what is needed today (Robinson, 2001, p. 23). This leads to an education curriculum that is separated from the real world and less relevant to being successful in the real world. And, everything inside this vicious cycle, e.g., the teachers, administrators, parents, students and the public, more often than not, continues to reinforce one another.

Teachers teach inside of, and are assessed using criteria within, this outmoded paradigm; parents want their children to succeed inside this outmoded paradigm, schools and universities want funding inside this outmoded paradigm, students either want to achieve and continue in the outmoded paradigm, or they drop out in many different forms, which is becoming more often the case, e.g., from 23% in 1969, to 31% in 2007—46% of black students, 44% Latinos, and 49% Native American did not graduate in recent years (Khadaroo, 2010).

The public often continues the cycle with ignorance, denial, confusion, complacency, reactivity and/or righteousness. As Mahler puts it:

> …false dichotomies seem to have replaced fruitful conversation.
> If you support the teachers union, you don’t care about the students.
> If you are critical of the teachers union, you don’t care about the teachers.
> If you are in favor of charter schools, you are opposed to public schools.
> If you believe in increased testing, you are on board with the corruption of our liberal society’s most cherished values.
> If you are against increased testing, you are against accountability.
> It goes on and on. Neither side seems capable of listening to the other. (Mahler, 2011, p. 9)

Trying to change things inside of a disintegrating paradigm provides nothing; the system needs to be reinvented (Robinson, 2001).

Because of its nature, the vicious cycle is very difficult to see or grasp. There are so many “feedback loops, with each iteration of the cycle reinforcing the previous,” it acts like a haze that covers what is there …it seems impossible to really get one’s hands around it sufficiently to get the traction to take definitive action, e.g., “academics gets confused with education and qualifications with abilities” (Robinson, 2001, p. 57). “The high-stakes testing movement, for example, seems to emphasize knowledge acquisition much more than the socially desirable use of that knowledge” (Sternberg, 2002, p. 2).

There are very deeply seated beliefs, assumptions, and values, which stem from before the Renaissance about what it means to be educated and which we continue to take for granted—we come to think of our views of this reality as, “the way it is” or “common sense.” “The relationships between our education and the world we actually live in are being stretched to breaking point and they need now to be entirely rethought” (Robinson, 2001, p. 93).

Vicious cycles also show up in how we value our education, the amount of money we are willing to pay our key influencers of our children’s educational experiences; we allow mediocrity to go unaccounted for, e.g., the lack of interest in creating mutual accountability throughout our educational institutions. We spend more money on prisons than schools, “six times the amount” (Lehrer, 2011) and we compensate our professional sports players abundantly more (between 3 and 20 times) than the keepers of the keys to our future. We fund weaponry and wars before excellence in education. At least 200 billion dollars more is spent on war than education (Conetta, 2010) & (US Department of Education, 2010). These examples all indicate a way of thinking that is worthy of our inquiry.

How do we relate to our media and the role it plays in creating our educational experience of our world? Watching television, entertainment, sports and music events, advertising, listening to radio…what is the quality of the communications to people? What “world” are they creating? How well do these mediums continue the vicious cycle? Where does the cycle start ….and end, or does it ever? Is it our education which brings us to thinking in a particular way, or is it our culture, our families, our government, politics, religious affiliations, the media, …”the way everyone else thinks,” that has us believe that this is the way is should be? Is this a great example of the vicious cycle in action? Our education and our culture continually reinforce each other without external intervening factors that break the cycle.

Current US Education Approach

Tony Wagner, past Director of the Change Leadership Group at Harvard University’s graduate school of education and author of the seminal book, *The Global Achievement Gap*, addresses many vicious cycles in education. His book is filled with data from interviews with teachers, students, parents, and business people, and observations of schools and university teacher education classrooms. He spent time in the "best" schools with the highest SAT scores and found students more focused on a “right answer” than creative reflection and serious inquiry. J. King, an MIT professor remarked about students who have top scores in Advanced Placement courses, “They don’t know how to *observe.”* When asked to describe what they see, “They want to know what they should be looking for—what the right answer is” (Wagner, 2008, p. 7).

Deborah Meier, professor at NYU’s Steinhardt School of Education agrees: “We've also left precious little space in school for our youngsters to ask serious questions that have no "right" or "wrong" answers” (Meier, 2010). The mood in the classrooms Wagner observed was mechanical, students unreflective and rigid in their responses to questions. Teachers were teaching to a “core curriculum,” (standardized tests) with much memorization, methods that “are quickly becoming an epidemic in our nation’s schools” (Wagner, 2008, p. 59).

Students’ relationship with learning felt stilted, linear, and detached. Diane Ravitch, Research Professor in Education at NYU and educational historian adds her agreement to that of Wagner, Meier, Sternberg, and Robinson cited above, “The schools will surely be failures if students graduate knowing how to choose the right option from four bubbles on a test, but unprepared to lead fulfilling lives, to be responsible citizens, and to make good choices for themselves, their families, and our society” (Ravitch, 2010, p. 1).

Stephanie Pace Marshall, internationally acknowledged educator, in her book *The Power to Transform,* critiques the current approach to education in the United States by asserting that our current patterns, processes, and structures of schooling are not designed to ignite our children’s joy, intellectual energy, and imagination. She believes that this is because they are conceived and framed within a context of scarcity, deficiency, and fragmentation, rather than a dynamic or integrative approach that would enable our children to engage with passion in exploring their real questions about life (Marshal, 2006).

Teacher education is another major contributor to the vicious cycle. Arthur Levine, the former president of Columbia University Teachers’ College, in two highly influential studies of teacher education, found many students graduate without the skills and knowledge they need to be effective teachers. Sixty-two percent of responses, (alumni and students) report schools of education do not prepare their graduates to cope with the realties of today’s classrooms. According to Levine,

> …education school faculty’s lack understanding of the current challenges in schools and classrooms….the experience of faculty were not recent or long enough,… lessons are often out of date, are more theoretical than practical, thin in content. The curriculum is often fractured, with a lack of continuity from one course to the next, and [there is] insufficient integration between course work and field work. The schools foster docility with too many lecture courses and too few opportunities for problem solving and original thinking. (Levine, as cited in Wagner, 2008, pp. 145-146)

Students in our schools are taught by people who are educated in a “teacher-education curriculum that is a confusing patchwork, with academic instruction and everyday issues disconnected” (Wagner, 2008, p. 148). This is the ultimate of the vicious cycle. “Take a disjoined collection of course of uneven quality and then pass tests that rarely measure the skills that matter the most” (p. 148). Add to that, “close to fifty percent of the teachers in the United

States come from the bottom third of college classes and teacher compensation is much lower than other professions graduates can choose” (Jones, 2011, p. 33).

Levine also looked into the educating of school principals, including those programs at Harvard and Columbia, and concluded that …

> The core curricula of the nation’s principals are a random collection of courses. …a grab bag of courses… If one removed the class on the principalship from the list, it would be a real challenge to guess the purpose of the program. (as cited in Wagner, 2008, pp. 147-148)

Wagner (2001), in his research of education in the United States, distinguished four major themes, which provide more powerful examples of the vicious cycle and how it manifests, often subtlety, in our educational institutions and ultimately in our “educated” populace. The culture of our education creates and perpetuates reactivity, compliance, isolation, and no real sense of accountability. Educators have to react to a cacophony of urgent needs and demands

Every day. We can’t say no, and everything is a priority. Most of us haven’t developed the discipline of reflection as a way to remain focused on the truly important. The education culture has tended to reward compliance to authority at all levels over active questioning or genuine discussion of issues. School district leadership rewards compliance rather than creativity and initiative.

> Educators work alone more than any other professionals in modern America. Most professions have come to recognize the value of teamwork as a better way to understand and solve ‘problems of practice.’ Groups are far more likely to come to a deeper understanding, and to better solutions, than are individuals working alone, no matter how talented…. Broad ‘ownership’ of the problem a school or district needs to solve is rare in compliance-driven change efforts, where concern for positive PR trumps true public engagement and unfavorable data are downplayed…. To be effective, however, accountability has to be two-way and horizontal as well as vertical. What is our reciprocal and relational accountability to one another. (Wagner, 2001, pp. 1-6)

A New Educational Paradigm: Creating Virtuous Cycles

That intelligence plays an epistemological role in our education is a universally accepted premise. The idea that intelligence plays an ontological role as well represents a transformation in the purpose of education. Ontology is the study of the nature of being, i.e., one’s essential nature, the nature of reality. Acknowledging the importance of an ontological framework for education shifts its primary intention and attention from *knowing* to *being.* If accepted, this expanded interpretation qualitatively alters how we relate to education.

Emphasis transfers from *knowing* first, to *being* first—recognizing that who one is *being* in the process of *knowing,* is senior to what one *knows* in the process of *being.* What is suggested in this thinking is that including the nature of being and reality at the beginning of the process of knowing would substantially alter the quality of knowing occurring and the subsequent actions taken as a result of that knowing.

An example might be that when one brings a sense of wholeness and integration *of* one's experiences of the physical, spiritual, emotional, and mental intelligences, the learning occurs inside of a worldview that is capable of generating a paradigm of connection, relatedness and integration, i.e., both/and, rather than separateness and isolation, i.e., either/or. This way of viewing the world provides a very different learning context than that of dichotomizing, competing, winning, losing, e.g., either you or me… either them or us. Both the philosophical and pragmatic aspects of education represent the creation of our essential nature and our relationship with reality. Integral education has the potential to transform our essential natures and our experience of what is real.

Integral Education

Integral education is an approach to education that provides a powerful foundation for living life and preparing people to live in a complex and ever changing world. In this model, the first 18 years of a person's life are focused on developing and integrating the physical, spiritual, emotional and mental intelligences. From a very early age, young people learn to relate to the world with an integral worldview. Thus, the introduction to the adult phase of their life is grounded in educational experiences which have interwoven these powerful expressions of human consciousness. The focus is foremost on the ontological aspects of intelligence, i.e., the *being* of the human being, which in turn provides a life altering context in which learning occurs.

The living of one's life is viewed through the lens of wholeness and relationship: connection to oneself, others and all of nature as an *embodied* phenomenon. This is an education *for* wholeness in a human being. Wholeness does not mean perfection. It means "becoming more real by acknowledging the whole of who I am" (Palmer, 1998, p. 13).

Physical intelligence is seen as *fundamental* to an integral education experience. There is an acknowledgement of the essential relationship between biology (earth), chemistry (foods, substances), and physics (energy) at the core of this approach to education. There is "groundedness," consciousness, and connection with the natural elements. There is a tacit form of knowledge in bodily knowledge (Adams, 2006). "The clues that allow us to know anything come from our relatedness to reality–a relatedness as deep as the atoms our bodies share with everything that is, ever has been, or ever will be" (Palmer, 1998, p. 98).

This embodiment of the physical has ontological implications. It communicates a particular reality and way of being that introduces students to what is real for them; what is real for them is in their body, in their experiences, and senses. It also has epistemological connotations. What and how these students know as a grounded embodied individual influences the way they relate to knowledge; it is relevant to them on a very basic level. It is learning that is connected on many layers–energetic, cellular, muscular, sensory, and kinesthetic (Adams, 2006).

The emotional intelligence plays a *relational* role in integral education. Connections are seen throughout. People are in community; they are in communication, with themselves and each other; they are caring and cared for; they are learning the skills to remain in community and communication, e.g., conflict resolution, dialogue, and mediation. Focus is placed on the experiences of safety, belonging, relationship, love, being known, self-expressed, responsible, service and mentorship of others to support the development of emotional intelligence in everyone, e.g., students, teachers, parents, etc.

This relational pattern in the emotional domain has ontological implications. It communicates a particular reality and way of being that introduces students to what is "real" for them; *they are related*. It also has epistemological connotations. What and how these students know as relational individuals influences the way they interact with what they are learning. What they are learning *is connected to them*. What is being learned is not separate or disjointed; it is *related to them* (Adams, 2006).

At a conference hosted by The Mind Life Institute, and attended by close to 4,000 participants from around the globe, with scholars, educators and a number of deans from major American schools of education (e.g., Harvard University, University of Michigan, Stanford, Pennsylvania State University, Rice University, University of Wisconsin, Carnegie Foundation), the major conference theme was developing emotional intelligence in our populace, e.g., "the education of hearts as well as minds; socio-emotional development; compassion and empathy; and generating authentic relationships. Experience based learning; belonging, caring, community, sense of mastery, responsibility, owning one's own power, generosity etc…" (Mind Life Institute, 2009).

The *natural* role of the mental domain is respected in the integral curriculum. Mental intelligence is known to expand in an environment in which students are encouraged to love learning, be curious, and follow their passion. When the learner is respected, trusted, and honored as an individual and educated to think and learn for him/herself, given choices and responsibility for what is studied, the *natural* quality of learning is activated.

Students exposed to curriculum that is experiential and relevant can embody the content and the context. The growth of mental acumen is equated with trusting the human being in his/her natural quest of learning. There is a recognition that the purpose of education is to provide an environment in which the inherent attributes of the individual can *naturally* grow and take root. If the context is known and the learning is relevant, the learner can also be at choice and responsible for her/his education.

The inferences from these interpretations are valuable when considered from an ontological perspective. The reality is—humans have a *natural* love of learning and curiosity that only requires room to express and grow; children can be responsible and trusted with their own education. Who we are as human beings at the most fundamental level are *natural* learners. Epistemologically, these interpretations offer an essential shift away from current educational practices. They suggest the *natural* aspects of learning - learning belongs to the individual (Adams, 2006).

> Modern brain research shows clearly that children are natural learners. They are born wanting to learn and would continue being voracious learners if they were in an environment that is truly learner centered. They need the kind of learning environment that

> is not a system, but which enables them to find the help and information THEY need and ask for. They need adults around them who respect them as individuals, know how to listen to them and can help guide them to the resources they need. (Mintz, 2011, p. 1, emphasis in the original)

Spiritual intelligence plays a *contextual* role in integral education. It gives a sense of congruency to life. Students are educated in ways that their sense of "spirit" can show up in their lives, i.e., seeing themselves in relation to a larger world, feeling connected to themselves, others, and nature. The holistic approach provides practices to support individuals getting more related to themselves and others through internal experiences such as contemplation, self-reflection, journaling, silent time, meditation, yoga, exercises, etc. The integral curriculum includes understanding and honoring the world's religions, learning the distinction between spirituality and religion and having clarifying conversations that bring people together and promote interfaith inclusion rather than exclusion and derisiveness. In addition, key to developing an integral point of view is discovering the connection of science and spirituality–to experience the awe in both expressions of "spirit" (Adams, 2006).

The ontological inferences from addressing the spiritual intelligence in an integral education are immense. Reality takes on an inclusive nature, a both/and quality as opposed to the either/or dualism that has been engrained in our current educational reality, that we so often take for granted as the way it is. How students relate to one another is more from appreciative inquiry and understanding throughout their education. Epistemologically, knowledge is recognized for its multifaceted quality. All sides are presented. Students are educated to take multiple points of view and experience what it is like to be in the shoes of the other. The whole and the parts are seen in *relationship* with one another. Analysis and synthesis and the subjective and objective brought together yield a different quality of knowledge and understanding and an opening for wisdom to appear. "Wisdom is a quality of 'seeing' and relating to life that reflects an ability to synthesize its disparate aspects. Wisdom mirrors wholeness—as it reveals all sides" (Adams, 2006, p. 353).

Conclusion

What kind of world do you want to live in? When you listen to the news and read papers and magazines, what kind of narratives do you want to represent you and the world you are creating? The world we live in and the future we are living into are up to us. How might your worldview shift to move from ways of being that are separating, isolating and fragmenting yourself and others, to ways of being that are connecting, relating and integrating for yourself and others. What can you do or say or who can you 'be' that will begin unraveling the existing vicious cycles and start creating many more virtuous cycles. Let's own our future together.

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Teachings From the Deep South: North-South Contributions to Integral Education

Adrian Villasenor-Galarza[1]

Abstract: The present paper addresses the need to incorporate often ignored perspectives and formulations derived from what I refer to as the “deep south” into the field of integral education as currently practiced at the California Institute of Integra Studies (CIIS), in San Francisco, CA. The deep south, or the metaphorical conglomerate of wisdom ascribed to the global south and associated epistemologies, is used as a broad framework from which I propose, through the exploration of shamanic practices and symbols, the creation of an organizing vertical metaphor, a North–South axis of dialogue. I start with a brief exposition of the one of the main challenges that integral education faces, a cognicentric focus, and proceed to explore alternatives to it by addressing some repressed aspects of the field, the notion of multidimensionality, and the symbol of the *axis mundi*. The paper ends with an invitation for a marriage to take place between the East–West and North–South axes of knowing and learning as an adequate and necessary development for integral education.

Keywords: *Axis mundi*, indigenous wisdom, integral education, multidimensionality, North–South axis.

Introduction

Nowadays, the value of transformative, holistic, and integral approaches to education is slowly being recognized. However, in a society whose standards are dictated largely by the mechanistic paradigm of modernity, it is no mystery that our educational institutions still perpetuate recalcitrant biases based on fragmentary conceptions of self and world. In many spheres of our world—be it political, religious, environmental, or social—the detrimental effects of a fragmentary paradigm are deeply felt, but it’s in our educational systems that it’s actively passed on to future generations.

The concept of the “hidden curriculum,” advanced by Brazilian educator Paulo Freire (1970/2007), sheds light into the functioning of mainstream education. The concept posits that there is no such thing as partial education, meaning there are a number of deep structures guiding and informing the explicit curriculum. Students, mainly unconsciously, pick up a paradigmatic attitude from which their learning is navigated—a habit that spills over to their lives as a whole,

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affecting their relations with their bodies, their loved ones, other species, society, and ultimately, the world itself.

The linear demarcation between teacher and student and the mechanistic, flattened, purely objective understanding of the world, dwell at the core of the main challenges that integral education aims at correcting. As Mexican holistic educator Ramon Gallegos Nava (2001) succinctly puts it, “it is not possible anymore to educate human beings with a XVII century industrial scientific paradigm for a sustainable society of the XXI century” (p. 1). Yet, the issue of the kind of hidden values, habits, and ways of being that are implicitly perpetuated by more integral pedagogies, remains. Are there some subtle ways in which unfavorable ways of being are still reproduced in an integral educational setting? If so, what can we do to correct them, to heal them?

Cognicentrism and the Underworld

We can say that integral education is a balancing force that aims at bringing to the surface the wholeness of our humanity. Yet, given the different lineages at work in the integral education community (derived from the work of influential thinkers such as Steiner, Aurobindo, Gebser, Krishnamurti, Montessori, Wilber), a considerable variation and diversity is to be expected, enlarging the range of pedagogical options available and contributing to the resilience of the field. As such, although integral education as a whole agrees on the need to invite all human dimensions into the learning experience, there are at least three broad categories that serve to characterize the efforts of integral educators: mind-centered/intellectualist, bricolage/eclectic, and participatory (Ferrer, Romero & Albareda, 2005). Perhaps rather loosely and in spite of the nuances pertaining to each of the categories, one could say that the determining factor in this classification is the extent to which the pedagogical efforts champion the primacy of the mind and its associated rational-analytical faculties.

The tendency for inflating the role of the rational-analytical mind is widespread in Western education and is intimately connected to the extent to which the holistic nature of integral education can flourish. Often, the powers of the rational mind obscure and ultimately obstruct the exploration and refinement of the variety of intelligences (Gardner, 1983/1993) or developmental lines (Wilber, 2000) that constitute our being (e.g., emotional, somatic, spiritual, imaginal, sexual). As Thartang Tulku (1987) puts it, “Knowledge is not a matter for the head alone, but for the heart and spirit, the body and mind; an adventure for the whole of our human being” (p. 80).

The biased and cognicentric approach present in integral education potentially wounds and cripples the spectrum of our human potential. It’s no wonder why it has been considered one of the most challenging obstacles for engaging in a more genuine integral pedagogical experience (Ferrer, 2003).

Ferrer goes on to say that the cognicentric bias creates a vicious, self-perpetuating circle, since participation of the non-rational dimensions commonly occurs through and is facilitated by the mind. As such, “these human dimensions cannot mature autonomously, and thus the need for their mental or external direction becomes permanently justified” (Ferrer, 2003, p. 26).

A way to tackle the aforementioned cognicentric vicious circle is to resort to the use of a spatial metaphor. For many of us in post-Enlightenment industrialized societies, the seat of rationality sits "up north" somewhere in our brains—Descartes' *res cogitans* or thinking substance, carrying a deep seated assumption that this substance is directly associated with terms such as "real," "truth," and "objective." Alternatively, other ways of knowing—loosely associated with everything the neck down and our creative organs "down south"—are considered non-reliable sources of acquiring knowledge.

At a socio-economic level, "the north" is associated with (over) developed countries and their predominant Eurocentric perspective that enables the distribution of corporate capitalism to the "the south" where economically poorer and marginalized populations are made dependent upon the north. In the south awaits the unconscious shadow of modernity in need of being emancipated, it becomes the mythical underworld. One can say that the first step to take in order to loosen the cognicentric grip in our educational efforts is to journey south to the underworld.

The journey southward is not an adventure to be taken lightly. Different sages and teachers throughout time have associated the downward movement with a process termed by Saint John of the Cross as the "dark night of the soul" (Bache, 2000; May, 2005; Underhill, 1974). Isolation and loneliness pervade the dark night and a sense of disillusionment and lack of direction abounds. Yet, it is deemed as a crucial and necessary journey into wholeness: "[hu]man's task is…to become conscious of the contents that press upward from the unconscious" (Jung, 1989, p. 326). Hillman (1979) explicitly makes of the underworld (Hades) a cornerstone for his approach to all psychological endeavor, alluding to it as "a movement downward and inward, psychologizing ever further into Hades" (p. 208), for it is in Hades where humans find depth and meaning. In relation to education and the cognicentric approach to integral education, it is in the underworld that we find, as long-lost treasures, the repressed dimensions of our being and the possibility of including them in our endeavors.

The journey into the underworld of integral education may certainly be considered an initiation. From a cognicentric approach, the genuine opening to the diversity of knowing present in the "south" appears as an initiatory process in which the ordinary functioning of the mind undergoes a deep transformation. The direct encounter with previously repressed dimensions of non-Eurocentric epistemologies and alternative ways of knowing threatens the very survival of a cognicentric approach. The journey south presents a great heuristic and healing potential that diminishes the great strain that has been allocated to the rational-analytical qualities of the mind, enabling the appearance of a fresh configuration in which all of the human dimensions participate in the acquisition of knowledge.

The focus on the "south" by no means implies that the cognicentric north is evil or wrong. But is in the excess and abuse of one side of the North–South axis that potentially dissociative dynamics are perpetuated in our educational settings.

A dynamic balance and reunion of north and south is needed to gain a fuller access to the gifts that integral education has to offer, as represented in the ancient Incan prophecy of the eagle and the condor. The Incan prophecy beautifully conveys a long awaited reunion of the eagle—the modern, materialistic, technological world of the north—and the condor—the world of the heart, of depth, and connection with nature and spirit.

> We have been waiting five hundred years…now, in this age, when the eagle of the North and the condor of the South fly together, the Earth will awaken. The eagles of the North cannot be free without the condors of the South. Now it's happening...We belong to the evolution of nature in our physical bodies. But we also have a spiritual body that comes from the Sun…a Golden Sun burning with the fire of spiritual light. (Huayta quoted in Monacheshi, 2008, pp. 122-123)

The condor and the eagle, soaring free, cruising the skies, blessing both air and land, represent the heights of the human potential to which the native peoples of the Americas strive for—heart and mind collaborating in the service of integral education.

Multidimensional Education and the *Axis Mundi*

Central to our exploration lies the multiplicity of dimensions of the human learning experience. It follows that a key aspect of an integral education is to foster the activation of our various capacities of knowing and learning without the control and regulation of the mind. This activation resembles an act of surrendering to the flows and rhythms native to the non-rational dimensions. We can learn this surrendering from one of the most ancient and widespread human traditions, shamanism.

The shamans' engagement with the so-called "spirit world" made them, as historian of religion Mircea Eliade (1972) puts it, "technicians of the sacred" and masters of "ecstasy." Entering into ecstasy (Gr. *ekstasis*), shamans, commonly aided by a trance inducing techniques, are able to somehow project their consciousness and traverse mysterious realms of divine and human significance. Through time and direct experience, their journeying, commonly referred to as "shamanic journeying" (Harner, 1990; Ingerman, 2006) made the shamans invaluable repositories of the wisdom to navigate the multiple dimensions of existence.

Shamanic journeying is characterized by a recurrent symbol widely represented as the *axis mundi*: the axis of the cosmos or the world tree. The symbol, known since pre-historical times and found in most of the religious traditions of the world, signifies a passageway for the soul to travel beyond the material dimension as well as for pouring divine energies into existence. It is often depicted as a vertical link and connecting thread between heaven, earth, and the underworld. It takes various shapes including that of a ladder, a column, a mountain, a tree, a staff or a vine.

For the ancient Mayas (as for other Mesoamerican cultures), the *axis mundi* was represented by a cosmic tree named *Yaxkin* from which all life flows, generating the four directions of the cosmos out of its sacred center. In Norse mythology, the cosmic tree goes by the name of *Yggdrasil*, and in the Hindu tradition, the sacred tree *Asvattha* is equated with the Absolute or Brahman. Shamans perceive it as a roadmap, an organizing structure that allows them to move through the different layers of reality, making their travels to celestial and obscure realms possible.

We can see the value of the *axis mundi* for integral education if we invoke again a spatial metaphor. Judie Wexler (2004) proposed that in order to better understand integral education, it was useful to divide it in a horizontal and vertical dimension. The horizontal dimension deals with the ““the way we integrate knowledge” (i.e., content, training, and mental inquiry) and the vertical dimension to “the way we integrate multiple ways of knowing” (i.e., special trainings and multidimensional inquiry)” (Ferrer, Romero, & Albareda, 2005, p. 309). It’s difficult to make a clear-cut demarcation between these dimensions, since it’s possible that they inform and enrich each other through their own strengths and weaknesses. One thing we can say is that the horizontal dimension is still guided by a cognicentric approach, whereas in the vertical dimension, our different intelligences emerge to the foreground, endowing it with a particular importance. For Ferrer, Romero, & Albareda (2005), “the greatest challenge of integral education lies in the facilitation of the vertical dimension of learning: multidimensional inquiry or integration of multiple ways of knowing” (p. 310).

As we have seen, the horizontal dimension of integral education does not deal directly with the multidimensionality of knowing. This dimension in turn promotes a horizontal mode of consciousness in which the ability to integrate different bodies of knowledge is advanced, bypassing the transformative potential of education that stems from being in contact with different dimensions of knowledge. Even more so, it could potentially lead to a disenchanted, fragmented, and flattened perspective of the educational process. As Jung (1955) tells us, “the irresistible tendency to explain everything on physical grounds corresponds to the horizontal development of consciousness in the last four centuries” (p. 177).

This reminds me of Edwin Abbot’s classic novel *Flatland*, in which the main character, the “square,” a two-dimensional being, struggles of making sense of the world after peeking into different orders of reality. It wasn’t until the square undergoes deep transformation that he was able to consciously see that his everyday life was a fragment of a more comprehensive world. He then realized, through his journeys to other dimensions, that he had the ability to enter into contact with those other aspects of reality and participate in them.

The vertical dimension of integral education is, I believe, appropriately represented by the *axis mundi*. As a universal representation of a vertical passage through which the human soul is able to journey and acquire divine knowledge, the *axis mundi* provides an understanding of multidimensionality and the possibility of accessing multiple ways of knowing. Shamans are considered “psychopomps” or soul guides due to their journeying up and down the world tree. The expertise gained through their multiple encounters with the numinous endows them with the ability to serve as mediators and guides between the subtle dimensions of the rich shamanic geography and that of everyday awareness. In our quest for honoring and enacting the different layers of our humanness in our education, we are in need of not only becoming aware of the multiple layers of our existence—as we have seen—but of learning how to access them.

The shaman considers each of the worlds that he or she visits as complete and full of mystery and value in and of themselves. Accordingly, he or she is required to make use of alternative ways of knowing in tune with the nature of the realm in question. The key to learn to access different dimensions of knowledge, as is the case in integral education and shamanism, is to acknowledge that each and every dimension is endowed with its own logic, wisdom, and validity. This multidimensional approach would not only include

> …the intellectual knowing of the mind, but also the emotional and emphatic knowing of the heart, the sensual and somatic knowing of the body, the visionary and intuitive knowing of the soul, as well as any other way of knowing available to human beings (Ferrer, 2002, p. 121)

Shamanic journeying understood as the navigation through, and participation in, the different dimensions of existence, is intimately connected with integral education. The sensibility and expertise that shamanic traditions have developed over thousands of years around their ecstatic capabilities can be of great value for teachers and students alike in search of eliciting multiple ways of knowing and inviting different dimensions to the pedagogical experience. For our purposes, the mysterious realms that the shaman visits can be equated with the multiple “worlds” of our being (i.e., emotional, somatic, spiritual, imaginal, sexual), creating a conscious conduit between, for example, the “somatic world” and its intelligence, and the rest of our being. Because our primary adherence commonly remains with “the cognicentric world,” the journey into the somatic world would create a non-ordinary state of consciousness. Thus, we can say that the skillful surrendering of the cognicentric approach in education can be done by means of shamanic journeying and its central symbol, the *axis mundi*.

The last key insight I would like to derive from the vertical metaphor of the *axis mundi* is that of the “center of the world.” According to Eliade (1961), the *axis mundi* is always found in the center of the world, a “place that is sacred above all” (p. 39), where all spiritual orientation is available to us humans. It is in the center where the sacred manifests in its totality and the divine forces of the cosmos merge with the here and now of our existence. Indigenous traditions around the world refer to the cosmic center as a circle, sometimes represented as “medicine wheels” or “sacred hoops.”

For the Huichol Indians of Mexico, the center of the world, *Teakata*, is where it all ends and where it all begins, it is the heart of the earth and the dwelling place of *Tatewari*, the grandfather fire. The words of Black Elk provide us with a clear understanding of the center as a sacred circle from which the *axis mundi* surges, “The flowering tree was the living center of the hoop....Everything the power of the world does is done in a circle” (in Neihardt, 2008, p. 155). The center is that inconspicuous part within us that a genuine integral education ultimately aims at developing an intimate connection with, a center that mimics the sacredness and interrelatedness of the world at a microcosmic scale.

There are at least three essential ways in which the *axis mundi* and shamanic journeying are of essential importance for integral education. First, they point us to the knowledge of the multiplicity of worlds, their associated states of consciousness, and their accessibility via shamanic journeying. Second, they stress the importance of actively participating in our educational efforts, that is, an integral learning experience becomes fully alive through direct experience. And thirdly, they point to the sacred place or ground that we draw our sustenance from and to which we are all called to “return.” Referred to as the “god within” by the Gnostics, we all carry within us, tattooed on our souls by ancient fires, a sacred circumference, a dwelling of gods and reconnecting principle of divine nature.

Integral Education's Medicine Wheel

We have been exploring some key insights that the "deep south," that is, the metaphorical conglomerate of wisdom ascribed to the global south and associated epistemologies, has to offer to integral education. This exploration has been done largely through the use of a vertical, North–South metaphor. Aware of the great influence that Eastern spiritual teachings have had in creating and advancing the field of integral education—as well as their pivotal role in the revival of spirituality in the West—the metaphor was chosen to lend some necessary attention to the teachings from the South. Although we have merely touched on the wisdom of indigenous and shamanic traditions, the deep south is also conformed by other embodied and earth-centered approaches such as numerous earth-based traditions from around the world and feminist spirituality. Overall, the teachings from the deep south would only aid the growth and maturation of the field of integral education by bringing to balance the East–West dialogue with a North–South one.

Indeed, balance and harmony are key organizing elements present in indigenous cosmologies. The shaman is in charge of maintaining an ongoing dialogue with different beings—plants, rocks, thunder, fire, animals, and the cosmos at large—to secure a dynamic, harmonic balance from which the wellbeing of the community depends. Similar to the Taoist unending dance between yin and yang, we find that in indigenous communities the notion of health is intimately connected to balance and harmony. For example, in Navajo, *hozho* is a word that connotes balance, harmony, and beauty. For the Q'eros people, *ayni* is a principle that is best translated as sacred reciprocity or harmonic exchange and balance. It is the main guiding principle of the Q'eros of today and of the whole ancient Andean tradition. Balance and harmony bring health, and health summons wholeness.

My brief treatment of one of the main shortcomings of integral education as currently practiced at CIIS, cognicentrism, makes it clear that there's an imbalance in need of being addressed. If we assume that this imbalance stemmed from the initial East–West dialogue that largely precipitated the inception of the field, the North–South axis could be seen as a necessary and balancing "medicine." I believe that the tolerance and openness necessary for seriously giving way to the deep south along with its alternative ways of knowing, embodied, feminine, and earth-based epistemologies, in the integral education discourse is present and, to some extent, already taking place. One of the best examples of a more balanced integral engagement is Ferrer's and colleagues' participatory proposal (Ferrer, 2002; Ferrer, 2003; Ferrer, 2008; Ferrer, Romero & Albareda 2005; Ferrer & Sherman, 2008).

Not only would the confluence of the East–West, North–South axes create a more balanced and robust proposal for integral education, but it would bring about a much needed healing between traditions, cultures, and peoples, slowly moving toward actualizing the integral vision of education.

The resultant "integral education medicine wheel" would bring us closer to restore education to the status of a wisdom tradition. How amazing it would be for both students and teachers to enter together into a multidimensional, integral, tolerant, and diverse journey of learning and transformation. Imagine education as a revolutionary act in which the boundaries between school and life become blurred and, ultimately, we become students and teachers of the art of living. I strongly believe that this is possible. How amazing it would be to create and participate in a multidimensional model of education that leads us into healing and liberation, like a symphony beyond the mind.

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No Ontological Leaps:
A Primer on Scientific Materialism

Christian de Quincey[1]

Abstract: When the issue is intelligence in nature, arguments about whether science supports neo-Darwinian theory or intelligent design miss the point. The details of evolution or the structure of the brain are irrelevant because biology and neuroscience have nothing to say about consciousness. Science informs us only about the *physical* world. However, consciousness/mind/intelligence is *non-physical*, and no amount of evolution or complexity of purely physical processes could ever produce anything non-physical. There are no ontological jumps. You don't get something from nothing—or, more precisely, you don't get "no-thing" from anything. How, then, do we account for the fact that consciousness exists in an otherwise physical universe? It all comes down to our basic metaphysical beliefs.

Keywords: Consciousness, dualism, emanation, emergence, idealism, interaction, materialism, ontology, panpsychism, performative contradiction, philosophy of mind.

> Every truth passes through three stages before it is recognized. In the first place it is ridiculed. In the second it is opposed. In the third it is regarded as self-evident. — *Arthur Schopenhauer*

My focus here is whether evolutionary science—or, more accurately, its philosophical underpinnings—can account for the experiential fact that consciousness exists in an otherwise physical universe.

Looking for evidence of intelligence or intention in nature by arguing over details in the data or theory of evolution is a fool's errand. It is an impossible dream, just like searching for the location of mind in the brain. Getting sidetracked in the minutiae of biological or paleontological evidence misses the simple fact that no amount (or lack) of physical evidence can inform us about non-physical mind or consciousness.

Promissory Materialism

The standard, almost unquestioned, belief in mainstream science and philosophy today is that materialism (i.e., neuroscience) can, or one day will, explain how mind could emerge from

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wholly mindless matter. However, despite this great faith in the explanatory power of neuroscience, the fact remains that materialism completely fails to account for such a "miracle." This belief that mind can be reduced to, or explained by, physical events is merely a statement of faith, not science—because not the slightest trace of empirical evidence or rational argument supports or explains such emergence. I lay out the details in my book *Radical Nature* (de Quincey, 2010). Exposing scientific faith in the miracle of ontological emergence typically requires a return to "Metaphysics 101"—an attempt to get people to think through more carefully the implications of their basic assumptions about the fundamental nature of reality.

I'd like to make something very clear: I am no less free of basic metaphysical assumptions than anyone in the materialist camp. We all, necessarily, begin any contemplation or investigation of the world with some set of fundamental metaphysical assumptions. That's a given. It's unavoidable.

What good philosophy does (and good science should do), however, is lay bare those assumptions, and examine them to see (a) if they are internally coherent (rationalism), and (b) if they are consistent with the actual world revealed through experience (empiricism).

Then we ask: Which set of fundamental metaphysical assumptions best "cashes out"—which metaphysical propositions best fit what we actually know about the world? What, in short, is the most "likely story"?

I base my case for "radical naturalism" (panpsychism) on a metaphysical assumption best summed up colloquially as "nothing comes from nothing" or "you can't get something from nothing"—no free ontological lunches. If you start with a mindless universe, then that's all you'd ever get.

Four Major Worldviews

I have spent a career in philosophy focused on examining and evaluating the various alternative metaphysical starting points to see which one best accounts for the fact that we are embodied beings with consciousness. Technically, in philosophy, it's called "the mind-body" problem. Despite multiple variations, all ontological positions on the mind-body issue resolve into just four alternatives: dualism, materialism, idealism, and panpsychism. All, except panpsychism, fail the two-part test outlined above: rational coherence, and consistency with experience.

Dualism

This claims that the fundamental nature of reality consists of two radically different and separate kinds of substance (extended matter and non-extended mind), and is a non-starter. Notoriously, it runs into the hoary problem of interaction. How could two radically different and separate substances ever come together and influence each other? Nobody has succeeded in explaining that. In short, it would require some kind of miracle.

Materialism

Recognizing the insuperable problem facing dualism, materialism lops off half of reality and claims that the ultimate nature of existence is purely physical (energy/matter). That's one way to avoid the interaction problem. It's an understandable and pragmatic strategy, and it has worked well as a foundation for exploring the physical aspects of the natural world. But it fails utterly to explain the undeniable fact of experience, of consciousness itself. Given its starting point, materialism is forced to claim that consciousness must have "emerged" from purely non-conscious precursors. But such emergence is unaccounted for (and unaccountable) either through science or philosophy.

In fact, "emergence" of mind from wholly mindless matter would also require a miracle—and miracles (supernatural interventions) are precisely what materialism rules out. This leaves materialism in an embarrassingly awkward position: in order to be true, it must be false! Unaware of this lurking logical bomb, materialists continue to believe that science can explain how consciousness emerged from purely mindless matter. Of course, science can do nothing of the sort. Neither science nor philosophy can even begin to explain how wholly physical, objective ingredients could ever produce non-physical, subjective minds.

Idealism

This is the direct opposite of materialism. It claims that the ultimate nature of reality is pure spirit (consciousness/mind) and that what we call "matter" is either (a) an illusion, or (b) something that "emanates" from pure spirit. The notion that real matter could "emanate" from pure spirit is just as incoherent as the materialist conceit that mind could "emerge" from wholly mindless matter. Such an ontological "jump" would also require a miracle. (However, the possibility of miracles is not such a problem for idealists—for whom everything is ultimately supernatural). But miracles have no place in science or philosophy because they explain nothing. Miracles are gaps in explanation.

That leaves us with the second option called "maya idealism." Here, the reality of matter is denied, and assumed to be nothing but an "illusion," a concoction in consciousness. This position is logically irrefutable. (It is impossible to step outside mind to know or indicate a reality beyond mind. Everything known and knowable necessarily occurs in some mind.) However, even though logically unproblematic, maya idealism runs headlong into another kind of problem—a performative contradiction. Everyone who claims that matter is illusory necessarily lives (performs, acts, behaves) in the world as though matter is real. Every idealist I have met eats food, drinks water, wears clothes, lives in houses, avoids cars on the freeway, doesn't walk through walls . . . you get the idea. In short, maya idealists don't (and can't) walk their talk. That's a pragmatic problem, even if it isn't a logical one.

As I explored and analyzed the implications of these three ontological worldviews, they all turned out to be deeply problematic one way or another. Either they required a miracle (unacceptable if we want to explain an event) or their claim is contradicted by how they act. That leaves one final alternative . . .

Panpsychism

This worldview claims that ultimate reality is both physical and non-physical (it consists of objective matter and subjective mind) and that mind and matter are inseparable. Mind and matter always go together—all the way down.

Although acknowledging the existence of two ontological types (physical matter/energy and non-physical mind/consciousness), panpsychism differs from ontological dualism because it denies that mind and matter are separate or separable. In fact, of the four major worldviews, panpsychism alone qualifies as a form of nondual dualism or a dual-aspect monism. Here, ultimate reality consists of a single, inseparable, nature—sentient energy. However, this single ultimate has a dual-aspect interior subjectivity and external objectivity. In short, the Creative Ultimate consists of intrinsically sentient energy. Matter itself tingles with the spark of spirit.

Summarizing the central idea of panpsychism: *Consciousness is the intrinsic capacity of matter/energy to feel, know, and purposefully direct itself.*

This native ability of matter/energy to purposefully direct itself accounts for the inherent exploratory drive in evolution. In fact, what we call “evolution” is the grand adventure of matter/energy exploring its own potentials—giving rise to the blooming, buzzing symphony of species that grace our planet (and, no doubt, countless other planets and galaxies, too). Yes, evolution also proceeds through physical processes of unpredictable mutations and natural selection. But these physical changes are guided from within by a native “urge” or “aim” operating within nature itself at all levels.

A major problem facing this panpsychist ontology is that it seems so counterintuitive: “Are you seriously asking me to believe that even non-living things such as molecules and atoms have consciousness?” It seems incredible. But the idea of intrinsically sentient matter is boggling only to minds that have, mostly unconsciously, assumed the materialist metaphysic that matter is intrinsically “dead,” vacuous, or insentient. But why start with that assumption—given the one undeniable fact we can all be certain of: Consciousness exists. Descartes, bless his heart, at least got that one right.

Materialism simply cannot account for the fact that the universe contains sentient embodied beings (each of us knows this to be true at least in our own case).

When we realize that the “interaction” of separate mind and matter is untenable, and that there is no way to explain how mind could “emerge” from mindless matter or how real matter could “emanate” from pure mind, and if we wish to avoid a stark “performative contradiction,” we are left with a single alternative: The only foundational metaphysical assumption that “cashes out” and accounts for the world as we actually experience it is that both matter and mind are real and that neither is reducible to the other—panpsychism.

Something from Nothing?

Now I know that for many, perhaps most, people (especially scientists and philosophers) this can be a hard metaphysical nut to swallow. However, given the alternatives, panpsychism turns out to be the most “likely story.”

After all, other than a mental habit or intellectual prejudice, why would anyone automatically reject the idea that sentience or consciousness could be built into the very fabric of the universe? Think about that.

Look, as humans we experience ourselves as conscious embodied beings. How can we account for that fact? We are made of cells, molecules, atoms, and subatomic particles—that’s our embodiment. However, we also feel and experience and make choices. Given the failure of any of the other worldviews to account for these two fundamental facts, the only option is to assume that whatever we are made of (cells, molecules, atoms, etc.) must also have some form or degree of consciousness, too—all the way down. Otherwise, we face the problem of deciding where to place the “consciousness cut.” Anywhere you decide beyond this point, there’s no sentience, the same problem shows up over and over. If, for instance, you decide that consciousness could not exist in non-living things like atoms and molecules you are then at a loss to explain how living beings became conscious. How did subjectivity emerge from wholly objective things? Ontological jumps don’t happen without miracles. Quite simply: You can’t get something from nothing.

A Likely Story

Okay, that’s the general argument. Now to the specifics: Critics characterize panpsychism as an “untenable assumption.” By now, I hope it is clear that, on the contrary, panpsychism turns out to be the only tenable assumption. For example, one critic objected: “[panpsychism entails that] every particle of sand is sentient and has experience. I do not believe that that is the case. Sentience and experience, on the, by now, standard evolutionary account, have emerged gradually over millions of years, and are characteristic of complex organisms. A structural complexity of a certain kind is required for sentience or experience to exist.” (Barglow, 2010, personal communication).

Actually, panpsychism does not entail that “every particle of sand is sentient and has experience.” This objection misses a crucial distinction between “heaps” and “wholes,” between “aggregates” and “individuals.” I don’t have the space to go into that here, but suffice to say that my views entail that the individual molecules in each grain of sand have some form of sentience, even though the sand grain, or a rock, does not.

Critics who find it difficult to accept that something as small and as simple as a grain of sand could have sentience are even less likely to accept the notion of sentience in molecules. My point is that we are not made of grains of sand, but we are made of molecules and we are sentient—therefore it follows that whatever we are made of must be sentient, too (remember there can be no “consciousness cut” without an ontological jump).

Given their faith in emergence, it is understandable that materialists are not troubled by the idea of a consciousness cut—a level of reality below which (or stage in evolution before which) mind was entirely absent from nature. Therefore, they assert, mind must have emerged from wholly mindless precursors. After all, they claim, we know from numerous other physical processes that emergence happens all the time. But that belief is based on faulty assumptions about the nature of emergence. The claim that sentience and experience have "emerged gradually over millions of years" and that this is explained by the "standard evolutionary account" is simply not true. Not a single scientific paper or theory exists that even begins to explain how sentience emerged. The plain fact is that evolutionary biology has literally nothing to say about the emergence of mind or consciousness. Zero. Zilch. Evolutionary neuroscience deals only with the development of nervous systems and brains—physical systems. And then materialists assume that the evolution of complex neural systems "must have" produced minds. Not one iota of scientific evidence supports that view—for the very simple reason that science deals only with objective, physical, measurable processes.

As long as science relies on a methodology of sensory empiricism, itself rooted in the metaphysics of materialism, then science will remain utterly in the dark about consciousness. The best it can do is produce data about neural correlates of consciousness, but can say nothing about consciousness itself. When materialists dispute this, I challenge them to produce a single scientific datum about the miraculous moment when previously non-conscious molecules or cells jumped the ontological gap and became conscious. I am one-hundred percent confident this won't happen—ever.

The claim that "structural complexity of a certain kind is required for sentience or experience to exist" is nothing more than an unfounded assumption. What is that special complexity, and how does any complex arrangement of purely physical ingredients explain the existence (or "emergence") of non-physical consciousness or sentience?

Seemingly unaware of logical bomb ticking away in the heart of materialism, scientific materialists think that science has explained the steps in evolution that led from "dead" insentient matter to feeling, thinking, choosing beings like us. But they never provide any evidence or offer any explanation for how this miracle could have occurred (they can't).

Instead, they try to deny any ontological difference between mind and matter. It's the only move available to materialists who want to avoid the ontological gap. But that kind of simple ontological reductionism flies in the face of our own direct experience.

Mind the Gap

Barglow objected:

> [de Quincey] speaks of "the 'ontological gap' between two radically different kinds of reality." But notice that it is the author himself here who is postulating a radical conceptual dualism. "Consciousness," he says, "is notoriously non-physical (you cannot observe or measure it)." I don't find this radical physical/non-physical distinction tenable. There are so many ways in which consciousness and the domain of mental phenomena are bound up

> with physical phenomena, and are indeed observable . . . (Barglow, 2010, personal communication)

Here, Barglow clearly misunderstands me when he says I speak of "the ontological gap between two radically different kinds of reality." While there is a radical difference or distinction between physical and non-physical (between matter and mind), there is no "gap." I emphasize this over and over in my work: Consciousness and energy always go together. In panpsychism, mind and matter are inseparable, while remaining ontologically distinct. The "gap" I refer to shows up in materialism when scientists or philosophers try (but fail) to explain how one kind of reality (nonphysical consciousness) emerges from a radically different kind of reality (physical matter). Barglow's next move, typical of materialists, is to question the distinction between "physical" and "non-physical," saying that he finds it "untenable"—implying that only what is physical is real.

Following other materialists such as Daniel Dennett, Barglow is here denying that anything non-physical exists, and, therefore, that consciousness is physical. When materialists make that move (very common), I invite them to explain how any of the qualities (or quantities or complexity) of physical objects could ever account for the qualities of consciousness (qualia) so familiar to each of us—qualities such as subjectivity, feeling, awareness, intentionality, purpose, meaning, value, etc. etc. Any attempt to characterize consciousness as physical completely misses the key experiential first-person essence of what philosopher Thomas Nagel famously referred to as "what it feels like to be."

Unity is Not Identity

Barglow (2010, personal communication) confuses unity with identity. He says: "There are so many ways in which consciousness and the domain of mental phenomena are bound up with physical phenomena." Yes, of course. But so what? The fact that mind is "bound up with" matter in no way implies that mind is nothing but matter. That is just sloppy thinking. Imagine holding a rubber ball in your hand. Now try to separate the shape from the substance. Of course, you can't. However, when you twist or squeeze the ball the shape changes yet the substance remains exactly the same. Clearly if the shape changes and the substance doesn't, they cannot be identical. Like shape and substance, mind and matter are inseparably unified but are always distinct.

From the perspective of panpsychism, mind and matter always go together—they form a unity—but they are not identical. Even though physical and non-physical are inseparable, they remain distinct. You need only pay attention to your own daily experience to confirm this. You observe (with your senses) that you and others have a body (with extension and volume in space). You also experience your own body from "within." You have feelings, thoughts, and make choices—and none of these can be located in space or explained in terms of physical events in your body. The objective, observable, existence of your body (physical) is radically different from your subjective non-observable conscious experience (non-physical). It doesn't take a philosophical genius to notice the "radical distinction" between body and mind, between physical and nonphysical.

When materialists deny any such distinction between objective physical existence and subjective nonphysical existence, they are simply not paying attention. They are too caught up in their own abstract thoughts about consciousness instead of actually experiencing their experience.

Barglow (2010, personal communication) had more to say; my responses are brief, as follows.

Barglow: "The scientific evolutionary hypothesis is that consciousness has emerged as organized matter. A sentient, experiencing being is one that is physically organized in a certain way."

de Quincey: "This just begs the question: How on Earth (or anywhere else) can mere physical organization achieve this miracle and produce sentient experiencing beings? This claim is made over and over without any evidence to back it up. And what is this mysterious 'certain way' in which physical complexity is organized to make minds?"

Barglow: "The evolutionary process of this emergence took place over many millions of years. No 'complete mystery' here."

de Quincey: "Really? Then please provide a complete (or even incomplete) step-by-step explanation—especially an account of what happened at the moment the miracle occurred." (Barglow, 2010, personal communication).

Barglow goes on to cite the evolution of photo-sensitivity—from primitive chemical reactions to the development of the eye—as an example of emergence. But this (like the old and tired example of liquid water emerging from hydrogen and oxygen gases) is a familiar non-sequitur. Yes, *physical* emergence does occur in *physical* systems. No mystery there. However, descriptions of one physical process giving rise to some other physical process is radically different from explaining how a physical process could give rise to some *non-physical* product. Relying on examples of physical emergence completely misses the point, and demonstrates a profound misunderstanding about the nature of consciousness—its essential subjectivity.

Conclusion

Let me summarize the main points:

1. Arguing over details in evolutionary theory—about whether species developed only through mutations and natural selection or if some creative intelligence also guides the process—is pointless. No amount of biological data will ever illuminate the relationship between consciousness and the physical world.
2. The role of consciousness in evolution (biological or cosmological) is not a scientific issue, it is philosophical. As long as scientific methodology relies on sensory empiricism as the only valid way to gather data, science will forever remain in the dark about consciousness.
3. The senses can detect only physical objects. Consciousness is not a physical object—it is the non-physical subject that knows about physical objects.

4. The mind-body problem is conceptual, not empirical—both the problem and its resolution depend on how we organize our ideas.
5. Using the criteria of conceptual coherence, consistency, and adequacy, we can evaluate competing theories or metaphysical worldviews that attempt to explain the "hard problem"—how consciousness exists in an otherwise physical universe.
6. Of the four major worldviews—dualism, materialism, idealism, and panpsychism—only one satisfies the criteria of logical coherence and adequacy. Only one avoids falling into a fatal explanatory gap by not requiring some kind of supernatural miracle and does not contradict our direct experience as embodied sentient beings. No logical impasse or ontological leap, and no performative contradiction.
7. When theories involving "interaction," "emergence," "emanation," or a "performative contradiction" run aground, by a process of elimination we are left with the option of "consciousness all the way down" as the most likely story—even if at first glance it strikes us as counterintuitive. The foundational metaphysical assumption that best "cashes out" by accounting for the facts of experience and embodiment is panpsychism.

I'll end as I began with the percipient words of German philosopher Arthur Schopenhauer:

> "Every truth passes through three stages before it is recognized. In the first place it is ridiculed. In the second, it is opposed. In the third it is regarded as self-evident." (quoted in de Quincey, 2010)

Where are we now?

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The Union of Spirit and Matter: Science, Consciousness, and a Life Divine

Lynda Lester[1]

Abstract: The once unbridgeable chasm between spirit and matter is closing. While the scientific method and scientific materialism have brought untold benefits to humanity, quantum physics has changed our view of matter as solid, objective, and obvious to a view that is more complex and which includes the possibility that consciousness has a part in manifesting reality. This shift mirrors Sri Aurobindo's integral philosophy, which states that the universe is a manifestation of consciousness. This manifestation occurs through a process of involution followed by evolution, the next step of which is the emergence of a suprahumanity whose native state of consciousness will be supramental. Interestingly, some of Mother Mirra Alfassa's experiences in bringing supramental consciousness into her body bear similarities to the discoveries of quantum physics. Unlike previous spiritual realizations, the supramental realization has the power to unify spirit and matter and usher in a life divine on earth.

Keywords: Consciousness, evolution, involution, integral philosophy, integral yoga, Mother Mirra Alfassa, quantum physics, science, singularity, spirituality, Sri Aurobindo, supermind.

Introduction

Through the ages, spirit and matter have been seen as absolute opposites: spirit as ethereal, immaterial, ineffable; matter as objective, solid, and obvious. Both have been thought to be the ultimate reality, both have inspired humanity, and the chasm between them has been called unbridgeable.

But Sri Aurobindo and Mirra Alfassa (more commonly known as the Mother), two great spiritual teachers of the 20th century, thought otherwise. Their ideal was to join the heights and depths together to bring about a spiritual transformation—here, on earth, in the conditions of the material universe. This transformation wouldn't be a change of life into something purely subtle where, e.g., evolved beings ascend into light bodies and disappear from the physical plane. It would be an integral transformation that would not cast away the energies and capacities of matter, but bring out its hidden possibilities and innate divinity so that the spiritual summits and

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the material base of existence would be united in a divine life on earth (Sri Aurobindo, 1998, p. 522).

Spirit vs. Matter

A long tradition exists of religious teachings that urge seekers to shun the profane world and prepare for a heavenly afterlife, or to stop reincarnating and head for Nirvana. Sri Aurobindo notes that this revolt of spirit against matter has influenced the Indian mind for the last 2,000 years:

> . . . the general conception of existence has been permeated with the Buddhistic theory of the chain of Karma and with the consequent antimony of bondage and liberation, bondage by birth, liberation by cessation from birth. Therefore all voices are joined in one great consensus that not in this world of the dualities can there be our kingdom of heaven, but beyond, whether in the joys of the eternal Vrindavan or the high beatitude of Brahmaloka, beyond all manifestations in some ineffable Nirvana or where all separate experience is lost in the featureless unity of the indefinable Existence. And through many centuries a great army of shining witnesses, saints and teachers . . . have borne always the same witness and swelled always the same lofty and distant appeal—renunciation the sole path of knowledge, acceptation of physical life the act of the ignorant, cessation from birth the right use of human birth, the call of the Spirit, the recoil from Matter. (Sri Aurobindo, 2005, pp. 26–27)

Of late the opposite tradition has dominated in the West, where a spirit-denying materialism…

> insists on Matter as a reality, the relative world as the sole thing of which we can in some sort be sure and the Beyond as wholly unknowable, if not indeed non-existent, a dream of the mind, an abstraction of Thought divorcing itself from reality. (Sri Aurobindo, 2005, p. 20)

As both a spiritual practitioner and a writer for a national science laboratory, I have experienced both sides of the divide.

The World According to Science

At the National Center for Atmospheric Research (NCAR), a research laboratory in Boulder, Colorado, where geoscientists study the earth, oceans, clouds, and sun using blazingly fast supercomputers, I worked for 16 years in the field of scientific computing. My colleagues, holding advanced degrees in math, physics, and computer science, exhibited bemused skepticism during lunchtime conversations that turned to "higher consciousness." This was to be expected. Firstly, because by default, humans always associate the real with the materially perceptible. Our physical senses cannot perceive anything immaterial—though we have other senses that can (Sri Aurobindo, 2005, p. 21). But secondly, at a research laboratory like NCAR it's not the world within, but the world without that matters. The purpose of science is to gain knowledge about the processes of nature—in this case, atmospheric processes. What's important here is to measure and analyze data; to develop testable hypotheses and make accurate predictions; to conduct experiments and share results with other scientists, who replicate those results—or challenge them if they're wrong or incomplete; and of course to use mathematical tools to quantify and solve problems.

This objective, empirical, methodical approach to knowledge is called the scientific method. It has fostered an age of rationality, brought tremendous technological progress to society, and resulted in untold benefits for humanity. It has also resulted in a materialistic way of thinking that, due to its tremendous success in widening our understanding, has spread throughout much of the world and strongly shaped the modern mind.

It is important to remember that when this way of thinking first appeared in Europe in the 1600s, it was revolutionary. Religion was the sole arbiter of truth and people were tried for heresy for saying that the earth moved around the sun.

Sri Aurobindo says that the brief period of rationalistic materialism the world has been going through has helped humanity a great deal—it has swept away irrational dogmas, perverting superstitions, and misleading imaginations. Advancing knowledge, he says, should be based on a clear, pure, and disciplined intellect—and as human consciousness evolves toward higher levels, it's necessary sometimes to return to sensible fact, to the concrete realities of the physical world (Sri Aurobindo, 2005, pp. 12–13).

> It even may be said that the supraphysical can only be really mastered in its fullness—to its heights we can always reach—when we keep our feet firmly on the physical. . . . And it is certainly the fact that the wider we extend and the surer we make our knowledge of the physical world, the wider and surer becomes our foundation for the higher knowledge, even for the highest, even for the Brahmavidya. (Sri Aurobindo, 2005, p. 14)

Anomalies and Contraindications

It's interesting, however, that he calls our current age a "brief" period of rationalistic materialism. If that's true, and if the materialistic paradigm is not the sole truth of things, certain anomalies and contraindications might start to appear suggesting that this view, while valid for certain purposes, may not be the complete picture. That indeed, has been the case, starting around the end of the 19th century.

At that time, scientists had a picture of the universe they thought was nearly complete (Walker, 2000, p. 24). It was based on the Newton's laws of motion, Maxwell's equations for electricity and magnetism, and the laws of thermodynamics (Orzel, 2009, p. 231). In this view all things are made of matter, all things that happen are the result of physical interactions, reality is objective and "out there," and mind and consciousness are irrelevant.

Then in 1905 Einstein revolutionized the understanding of matter, energy, space, and time with his special theory of relativity. He showed that mass, the very substance of an object, is convertible to energy, and that space and time are elastic, depending on your point of view. This was the first scientific indication that physical reality depends in some way on the observer (Walker, 2000, pp. 37–41).

Meanwhile, Max Planck discovered that light seems to be radiated and absorbed in spurts that release packets of energy called quanta (Walker, 2000, p. 43). He found this quite perplexing, because scientists could demonstrate the opposite—that light was a spread-out wave. But Einstein liked Planck's idea, and five years later proposed that light itself is a stream of discrete particles. This laid the groundwork for a brand new kind of physics: quantum theory.

The New Physics

By the 1920s, physicists realized that photons, protons, electrons, atoms, molecules, all the tiniest components of matter, behave sometimes like particles but sometimes like waves of energy. This seemed impossible: how could a photon, for example, be both a tiny particle and a spread-out electromagnetic wave? Experiments proved it, however, and as scientists developed the math to deal with the strange new problem of wave-particle duality, they saw that their solutions had created a newer and deeper mystery: the measurement problem (Walker, 2000, p. 49).

A quantum particle is mathematically described in terms of a probability wave or "wave function." This means that the particle hovers in a sort of superposition of all possible states and doesn't have a definite location, momentum, or even a discrete existence until it is observed or measured, at which point the wave function collapses and the particle takes on distinct, objective properties. No one has been able to figure out how this transition from probability to concrete reality takes place, but in some way the observer—the person who designs and conducts the experiment, who takes the measurement—seems to play a key role in bringing fuzzy quantum particles into structured form (Wallace, 2007, pp. vii–viii).

This would seem to suggest that mind or consciousness plays a key role in materializing reality. However, this is such an astounding idea that it's widely rejected by physicists, who want nothing to do with consciousness, many of whom are still today striving to find alternative explanations for the collapse of the wave function.

Some decide the best course is to not spend a lot of time thinking about it—their job is physics, not metaphysics, so they simply use the equations, which work, and concentrate on pragmatic results. This approach has been called "Shut up and calculate!" (Mermin, 2004).

A Profound Discovery

Meanwhile, there's yet another revelation that's come from quantum theory, and this one is the most astonishing of all. Newtonian physics sees the world as consisting of independent, separate objects that interact with each other locally, like a pool cue and a billiard ball, through physical influences that cannot exceed the speed of light.

Early in the development of quantum theory, however, scientists became aware of something called quantum entanglement. This happens when two particles are associated or entangled with each other so that measuring one instantly determines the state of the other. Einstein realized that if the two particles were far enough apart, they‘d have to communicate faster than the speed of light. He called this “spooky action at a distance,” hated it, and thought that because it was predicted by quantum theory, there was something wrong with quantum theory (Schwartz & Begley, 2002, p. 346).

In fact, there wasn’t. In 1964 it was proven that no matter how far apart two entangled particles are, even halfway across the universe, they do influence each other instantly—in no time at all, outside of time. This nonlocal influencing is not subject to the speed of light, does not diminish with distance, and links one location to another without crossing space, without decay, without delay (Herbert, 1985).

Physicist Henry Stapp calls this “the most profound discovery of science” (Schwartz & Begley, 2002, p. 343), because it shows that the old view of a clockwork universe, where all objects are separate and interact only at the local level through material processes that obey the laws of classical physics, is not completely true. Rather, it shows that underlying the local reality of objective, separate objects and phenomena, there’s a nonlocal reality in which nothing is separate and everything is connected.

A More Intimate Knowledge of Self and World

So quantum physics has taken us from a solely materialistic view of the world in which matter is solid, forces are physical, objects are separate, reality is objective, and what we perceive with the outer senses is what’s real to a view considerably more subtle, complex, and multilayered in which matter is energy, time and space are relative, particles are waves, objects don’t exist until they are observed, entangled bits of matter communicate faster than light—and in which consciousness may just possibly have a part.

Thus science, in its search to find the reality of matter, has brought us to the door of the immaterial—a door that opens on enormous vistas of the future, for Sri Aurobindo says that since the soul of science is its search for knowledge, as it reaches the borders of the supraphysical, its very rush will carry it onward. The success it’s had with the visible world is just a hint of what it could bring to the exploration of what lies beyond (Sri Aurobindo, 2005, p. 16).

Meanwhile, according to Sri Aurobindo, three things will remain from the centuries of scientific materialism: the truth of the physical world and its importance, the scientific method of knowledge, and the importance of earth life and the human endeavor. These will stay, he says, but be transformed in the light of a vaster and more intimate knowledge of self and world (Sri Aurobindo, 1998, p. 195).

The World According to Consciousness

We just saw that according to quantum theory, the discrete existence of particles apparently depends on observation or measurement, that is, on there being a conscious observer—which seems to imply that consciousness plays some part in creating material reality. This doesn’t make sense if consciousness is an incidental byproduct of matter. As Nobel physicist Eugene Wigner notes, if the atoms in your brain produce your consciousness, but your consciousness somehow brings those very atoms into existence, that's a paradox (Schwartz & Begley, 2002, p. 283).

It's a paradox, however, that doesn't exist for Sri Aurobindo. Drawing from the wisdom and experience of Indian yoga—which is its own kind of science—he says that behind and beyond the appearances of the universe and involved in every particle of the universe, there's an Omnipresent Reality that is at once an unknowable, indefinable, featureless Absolute and the source of all things and determinations.

This Omnipresent Reality puts forth the universe by the power of what might be called its universal intelligence, which is basically another word for consciousness; and that consciousness is *the* fundamental thing in existence. It extends from the supreme spiritual heights down through the material world in a continuous spectrum that has different grades or levels. Sri Aurobindo calls these levels planes of consciousness, and they're the infrastructure on which the universe is built. It is the gradual precipitation of consciousness through its various planes that manifests the universe.

This process starts at the summits of being with *sachchidananda,* a transcendent and unmanifest plane of infinite existence, infinite consciousness-force, and infinite delight. Emerging from sachchidananda is the supermind, or supramental, a vast unity consciousness that embraces both infinite oneness and infinite diversity, and which begins to physically manifest the universe.

Out of supermind comes the plane of universal mind. Mind is the power of consciousness to divide things into parts, to measure and limit; the role of mind is to translate infinity into the terms of the finite (Sri Aurobindo, 2005, pp. 173–174). Then comes life, a power of vitality and energy; and finally matter, which is the ultimate division of consciousness into tiny bits. Thus, according to Sri Aurobindo, it is consciousness precipitating downward through its various planes that manifests the universe. If we accept this point of view, we see that because matter derives from life, and life derives from mind, ultimately, mind is the cause of atomic existence (Sri Aurobindo, 2005, p. 252).

This may sound familiar, for quantum physics also indicates that somehow (and most inexplicably), mind brings quantum particles into existence. We will return to this idea shortly.

Voluntary Involution

First, however, let's examine the precipitation of consciousness downward through its various modes or planes. Sri Aurobindo calls this process *involution,* and it's a process by which consciousness gradually limits itself by focusing on a particular aspect of reality to the exclusion of others. This is actually a power consciousness has: the power of exclusive concentration. (We experience the same thing when we become utterly absorbed in reading a book and lose track of everything around us.) With involution, consciousness becomes more and more involved with what it is doing, until eventually it becomes so involved that it forgets itself in the oblivion of matter (Sri Aurobindo, 2005, pp. 604–610).

We might ask why consciousness would want to do that; what was it thinking? Many spiritual teachings say it was thinking delusionally—the physical world is a deception of *maya,* or at the very least a catastrophic fall from grace. But Sri Aurobindo says, no—without this exclusive concentration of consciousness, manifestation would be limited to the higher worlds— or to a cosmos that's static and unchangeable.

The Purpose of the Universe

Involution was the necessary basis for individuation—to protect the individual from the largeness of infinity so that behind that defense an individuality could be worked out in time and space in order that consciousness could realize its own delight,[2] not just in the undifferentiated, supracosmic realms, but cosmically and individually and in infinite multiplicity; so that it could experience delight to the smallest and most precise degree—fine-grained delight, objectified, intimate, infinitely varied and particular; dynamic delight of becoming that can't be experienced in the transcendent beyond. There is a purpose to this universe, Sri Aurobindo says, and the purpose is to materialize delight (Sri Aurobindo, 2005, p. 612).

It may not look like that to us ordinary beings in the physical world, and that is, firstly, because due to the exclusive concentration of consciousness, we are superficially unaware that in our true nature we are the infinite consciousness. Of course, the remedy for that is to become aware, which is the reason we do yoga (Sri Aurobindo, 2005, p. 615).But secondly, this materialization of delight is a long cosmic process, an unfolding, and it's not yet complete; we can see that just by looking at the world today. On the other hand, this very unfolding is its own kind of delight. Sri Aurobindo says there's a joy that's impossible in the higher planes— the joy of discovery, which is one of the greatest joys of conscious being (Sri Aurobindo, 2005, p. 428).

Sri Aurobindo says that evolution is just such a progressive revelation, taking place in geologic time and on a cosmic scale: a progressive revelation of the consciousness that involved itself in matter and which is now awakening, step by step, to the miracle of its infinite being.

Meanwhile, we and all the many who come into this world are in essence one with that underlying consciousness and so are willing participants in that joy of self-discovery. We're drawn into the world for the very sake of the soul's adventure—for what Sri Aurobindo calls "the adventure of consciousness and joy" (Sri Aurobindo, 1997, p 2).

A Change Beyond Imagining

Just to clarify, evolution is not the opposite of involution. If it were, as we evolved we would drop our bodies, drop our life energy, drop our mentality, and eventually return to the featureless Absolute. Evolution is something else—the gradual development *in matter* of material forms that increasingly express higher, more subtle, and more powerful modes of consciousness. Life is the first step of that evolution. Mind is the second step. Now nature is about to take a third great evolutionary step, developing out of humanity a supra-humanity or even a new species whose native mode of consciousness will be supramental. We saw this supramental consciousness before during the involution, when supermind put forth from itself the universe. Now we're seeing it from the other side of evolution. This is mind-boggling, for it means that those who make the evolutionary transition will possess that supramental consciousness while materially embodied—and possess the infinite existence and bliss of sachchidananda, the highest term of the supermind, as well.

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[2] In its ultimate essence (sachchidananda), consciousness is one with existence and delight.

We hear the word "singularity" a lot these days, usually in the context of a technological singularity, superhuman intelligence, the end of the Mayan calendar, the year 2012. But this is a singularity beyond singularities; this will be a change beyond imagining. Because when we pass through the barrier that separates mind from supermind, we'll retain physical bodies but leave behind the divided, fragmented world of ordinary mental perception and regain identity with Omnipresent Reality.

Physicists are searching for a unified field theory, but this will truly be the unified field, for supermind is a unity consciousness—it unifies and embraces; e.g., the infinite and the finite; oneness and diversity; immutable silence and dynamic movement; personality and impersonality; the individual, the cosmic, and the transcendent. It is also an oceanic, global consciousness of irresistible harmony and a compelling force of truth and beauty.

It is this that will bring a life divine in the material world and the union of spirit and matter. Previous spiritual realizations didn't reach the level of supermind and didn't have the power to transform universal nature; but supermind is the ultimate creative force, and does have that power.

The Supramental Sense

Of course, as with any great world-changing movement, there are always early adopters; and Sri Aurobindo and the Mother were early adopters of the supermind. They developed an integral yoga by which human nature can be transformed into supramental nature. They also left many books, including 13 volumes of first-hand reports *(Mother's Agenda)* describing what it's like to perceive with the supramental sense and bring the supermind into the very cells of the body.

Weirdly enough, these reports sound sometimes like descriptions of quantum particles before the collapse of the wave function—particles that exist in all positions simultaneously and behave like waves till they're measured. The Mother says, for instance, that a supramentalized cell is no longer individual in the separate sense—it's as if it's omnipresent (Van Vrekhem, 2002, p. 180). Her body too feels no limits, as if it's spread out everywhere (Satprem, 1982, p. 36). She also speaks repeatedly of a material consciousness that feels like the movement of corporeal waves (Satprem, 1982, p. 22).

We recall now how Sri Aurobindo says that mind, i.e., the consciousness of division and separation, is the cause of atomic existence, and also how quantum physics seems to indicate that observation—by someone with mental consciousness, of course—collapses the wave function.

Perhaps supermind, which differentiates without dividing and expresses multiple points within a single oneness, perceives matter as wave-like; or perhaps supramentalized matter somehow behaves differently than mentalized matter. In fact, the Mother says that as matter is permeated by the supermind, it develops new qualities of subtleness, suppleness, penetrability, plasticity, fluidity, and much less rigidity of form (Mother, 1984, p. 58).

The Mother also talks about perceiving a kind of material mesh enveloping the earth that connects events, linking them and making them interdependent; she says that if one has power over a part of this mesh, one can change a whole range of circumstances that in appearance are unrelated (Satprem, 1982, p. 211). Einstein might have called this "spooky action at a distance," but it sounds like nonlocality and quantum entanglement to me.

Integrating Scientific and Yogic Knowledge

I'm making these connections between science and yoga because I think there are some interesting connections to make. The Mother once said that although the practice of science and yoga are different, what's discovered will be the same because there aren't two things to be found, but one—the Omnipresent Reality.

I also want to bring up again, here, Sri Aurobindo's conviction that the more knowledge we have of the physical world, the better is our foundation for the highest spiritual knowledge:

> Nothing can be more remarkable and suggestive than the extent to which modern Science confirms in the domain of Matter the conceptions and even the very formulae of language which were arrived at, by a very different method, in the Vedanta,—the original Vedanta, not of the schools of metaphysical philosophy, but of the Upanishads. And these, on the other hand, often reveal their full significance, their richer contents only when they are viewed in the new light shed by the discoveries of modern Science . . ." (Sri Aurobindo, 2005, p. 16)

In 1961 the Mother observed that as she pursued the minute work of supramentalizing her body, she knew nothing from a chemical, biological, medical, or therapeutic point of view (Satprem, 1982, p. 70). Perhaps now in the age of widespread instant access to information, and as more people take up this work, it will be possible to integrate scientific and yogic knowledge to a greater degree than ever before.

The Union of Spirit and Matter

Of course, it's long way from mind to supermind; there are many difficult passages, intervening states, and challenges to overcome. But it is a journey worth taking, for Sri Aurobindo says that the supermind will give to the body a fullness of capacity far beyond anything now possible (Sri Aurobindo, 1998, p. 25).

The Mother says that the physical realization of divinity will bring a tremendous concentration of energy, a power and reality that exists in none of the other states of consciousness; it will be something solid, unalterable, complete (Anonymous, n.d., p. 298), with a precision and exactness down to the atom (Satprem, 1982, p. 35).

In the supramental consciousness, Sri Aurobindo says, we will feel the divine light and power and bliss above us and descending into us, filling every strand of our nature, every cell and atom of our being, flooding our soul and mind and life and body, surrounding us like an illimitable sea and filling the world, suffusing all our feeling and sense and experience, making all our life truly and utterly divine (Sri Aurobindo, 1998, p. 563).

And the Mother says, "I saw that secret, I saw that it is in earthly matter, on earth, that the Supreme becomes perfect" (Satprem, 1982, p. 35). "Anything we can humanly feel or see is nothing compared to that," she adds. "I have never seen or felt anything so beautiful as that . . . I've had hours . . . the most wonderful hours ever possible on earth" (p. 161).

I believe that's what we can be looking forward to.

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Editorial

We are happy to publish another "regular" issue of *Integral Review* amidst a shifting publication schedule over the last year. This time has been busy with a greater number of special issues than regular ones! Some of this current issue's contributors—and perhaps some of our readers—have been eager for quite a while to see publication of another of *IR's* diversity-rich regular issues. With this current issue we are now able to provide a number of articles that have been in process for a long time, and are excited to have them available for the public.

Special issues offer the service of deeper dives into cutting-edge arenas, and *IR* has made a commitment to providing this venue to help it fulfill its mission while it furthers others' missions and interest areas. One implication of publishing special issues is that shifts our former semi-annual publication of regular issues. Thus while we will continue to publish regular issues of *IR*, the schedule will vary according to evolving conditions.

Along those lines, in the early spring of 2012 we expect to publish a special issue, edited by Markus Molz and Mark Edwards, comprised of papers from last year's *Research Across Boundaries* symposium. That event produced some very good interchanges among scholars in multiple integral domains and we look forward to publishing the proceedings. *IR* will also publish another special issue edited by Bahman Shirazi from CIIS in the first half of 2012, following on the recent proceedings from CIIS's annual symposium. We are hearing ideas for proposals of additional special issues and invite more such proposals. *IR* is uniquely positioned for this role and happy to exploit it, given its mission to publish integral approaches to transdisciplinary thought, research, and praxis that are too-often rejected by discipline-based journals.

We are also aware of a number of new activities relevant to our community of readers. We look forward to highlighting some of these in upcoming issues of our periodic newsletter. In addition, we invite readers to submit items they feel would be of interest to our community. Of course we also always encourage authors to submit works to us that you feel would meet our criteria and be of interest to our readers.

This issue is comprised of 16 diverse contributions, yet even throughout such disparate works are woven several related themes we suggest are particularly meaningful in this second decade of the 21st Century. One prominent theme is the pressing demand for highly-developed performance capacities in individuals and collectives if today's social and political complexities are to be understood in complex-enough ways for us to deal with them. Another theme is a necessary, though not sufficient, subset of the first: the role of sufficiently-complex self-reflexive capacities—on individual and collective levels—that enable keen observations and analyses of self, others, and the world we all operate in. And interwoven with these is another theme: the roles of impact-aware activism and leadership. We are grateful to this issue's contributors for playing leadership roles, themselves, by offering the fruits of their labors for publication.

Jan Inglis launches all three themes by identifying an unrecognized challenge that, if it goes unmet, poses dire consequences. In *"Holistic Democracy" and Citizen Motivation to Use a More*

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Holistic Approach to Public Decision Making, Inglis goes beyond her report on a small research project to explicate the implications and possible resolutions of a catch-22, a trap that we might say has the world by its tail: "people cannot commit to using a new, more time-consuming method [for holistic public decision making about issues] without experiencing what it entails and they cannot experience what it entails without committing time to do so." Her article unpacks why abandoning our quick-fix and "leave it to others to solve" mindsets is more essential than we seem to realize, and names some requisite methods and capacities to do so.

In *Skillful Engagement with Wicked Issues: A Framework for Analysing the Meaning-Making Structures of Societal Change Agents*, Thomas Jordan offers a highly systematized approach to examining the strong to weak continuum of societal change agents' awareness of task complexity, context, stakeholders, self, and perspective, and the vital relationships of these dimensions for sufficiently comprehensive activism and change leadership. Why does this matter? In these times, we'd say it *does* matter that we possess tools to help us assess how change efforts are conceived, how they are organized, how they are implemented, and why they do or not achieve socially-necessary results. Our penchant for following or supporting charismatic change agents should be informed by analysis of efforts' comprehensiveness and probabilities for effectiveness. Jordan's framework is a tool in that analytical toolbox.

Tom Murray drills down into and explicates capacity issues, some of which were emphasized by Inglis and Jordan, in his article primarily addressed to the community of integral theory and practice but apropos to all efforts intended to foster transformative praxis. His *Toward Post-metaphysical Enactments: On Epistemic Drives, Negative Capability, and Indeterminacy Analysis* is an argument for epistemic wisdom and what it demands of us: "w*hether* we believe in a god, or in capitalism, or an evolutionary omega point, is less important than *how* we hold that belief, and *how* we hold it is a matter of skills." Such epistemic wisdom is the fruit of a number of skills Murray carefully delineates. Since skills are acquired through practice and supported by a community of practice, reading Murray alone will not foster the development of such wisdom. His article is a clarion call for individual and collective reflexion, reflection, inquiry, and new skills in action, for all to heed if "second tier" transformative impacts are truly goals.

The remaining works published in this issue afford concrete applications of these themes. Benedikter argues for epistemic wisdom in connection with assumptions about paradigm change and if and where it manifests. Relevant capacities of notable individuals are examined: luminary Dag Hammarskjöld, former UN Secretary-General (by Kristian Stålne) and 2011 Norwegian terrorist Anders Behring Breivik (by Pelle Billing and Kristian Stålne). Our collective relationship to global change and capacity to be effective in that relationship is examined by Stewart Brand (by Russ Volckmann), and the integral community's relationships to AQAL and a lesser-known indepth development and deployment of AQAL are reflected upon by two participant-contributors in the 2010 Integral Theory Conference (by Hugh and Kay Martin). These pieces invite new lenses on people, phenomena, and epistemic wisdom.

New lenses support insight, and aesthetic insights support transformative action in a world that so sorely needs it. *Wauld*, by *IR's* Arts & Creativity Editor Andrew Campbell, and *Into the Long* by Sara Wolcott, both invite multifaceted gazes: micro and macro, near-sighted and far-sighted, short term and long term. We hope zooming in and zooming out on both of these contributions fosters aesthetic intuitions and insights on themes not only in this issue but also in readers' lives.

Finally, this issue offers reviews of a handful of recent books, which, as it turns out, elaborate on themes in the rest of this issue: *Organizational Transformation for Sustainability: An Integral Metatheory* by Mark G. Edwards, *Hope for Humanity: How Understanding and Healing Trauma Could Solve the Planetary Crisis* by Malcolm Hollick and Christine Connelly, *Political and Civic Leadership: A Reference Handbook*, edited by Richard A. Couto, *La Voie: Pour l'avenir de l'humanité* by Edgar Morin, and finally *Transversity: Transdisciplinary Approaches in Higher Education* by Sue L. T. McGregor and Russ Volckmann.

We sincerely hope *IR's* readers will enjoy this issue as much as we have enjoyed preparing it!

JReams

Jonathan Reams, Editor in Chief

Sara Ross

Sara Ross, Associate Editor

"Holistic Democracy" and Citizen Motivation To Use a More Holistic Approach to Public Decision Making

Jan Inglis[1]

Abstract: The broad focus of this paper and the study about which it reports centre on the implications of applying holistic approaches to democracy, or more specifically to public decision making practices. This paper advocates that more complex and holistic methods be used to respond to the complexities of global issues. It describes how these processes take more time, commitment, and structure to use and it raises a question regarding citizen motivation to use such processes. It addresses this question in three ways: It presents a term 3D Democracy that highlights this complexity; it discusses why public processes need to address the task of decision making, and it reports on a small case study. Results of that study indicate that using critical reflection and deliberation on the adequacy of current methods of public involvement in decision making can stimulate citizens to be interested in and motivated to use such a holistic method. The paper ends with reflections and further questions.

Keywords: adult development, complexity, decision making, democracy, holistic, motivation, public deliberation.

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Introduction

> If you ask any group of people anywhere in the world, "How many of you woke up this morning with the intention of destroying the world?" nobody would raise their hand. So if we're doing it without intention and yet we're doing it anyway, it means that it's imbedded in how we do things as opposed to being something that we want to do. And that tells me it can be reversed.
>
> Paul Hawken, author of *The Ecology of Commerce*[2]

General Overview

The broad focus of this article centers on the implications of applying holistic thinking to democracy or, more specifically, to public decision-making practices. This paper advocates that if we are to make the best use of public insight and innovation in resolving the complex local and global challenges of these times, we need processes of public engagement that meet at least the following criteria, where they:

- Adequately address the full complexity of the issues involved, while avoiding a propensity for simplistic formulations, either/or polarities, and band-aid solutions.
- Engage the general public including the various diverse stakeholders at a level of competence that supports their contributions and renders them to be of optimal value.
- Motivate and enable such participation to accurately analyze, name, frame, and deliberate in order to make decisions about actions that may resolve issues.
- Accomplish this within the time, talent, knowledge, budget, and other constraints of resources and power inherent in the public situation, in the participants, and in the conveners of such processes.

In addressing these criteria three empirical questions surface.

1. Can members of the general public, with adequate support, deliberate collaboratively and competently enough to tap the diversity of experience and wisdom as they collectively have to offer, and gain such commitment and support for change as the issues they are addressing may demand?
2. Can the complexity of these issues be framed and presented in such a way that this competence can be adequately engaged to create relevant, useful, and sustainable outcomes?
3. Can the process itself be presented in such a way that supports understanding and justification of its use?
4. Will members of the public be motivated to take the time and put forth the effort needed to make such contributions as often as may be needed if the daunting public challenges, both local and global, are to be met?

---

[2] As quoted by Montagne, C. (2010, n.p.).

The first portion of the paper offers an analysis of the theoretical perspectives that inform these criteria, and a brief survey of the relevant literature, It then offer three responses to the empirical questions: (a) the conceptualization of the term “3D Democracy” to support participants’ understanding of the need for a holistic multidimensional approach, (b) the distinction of processes deigned to support decision making, and (c) a report on the findings of a small scale public deliberation in which a facilitated method of critical reflection and deliberation based on holistic principles was used to test its impact on people’s motivation to subsequently consider using a more in-depth approach to public decision making.

To provide the context for this study, this next section will outline my own motivations and background and describe the challenges of current public decision making processes as well as the challenges of introducing a holistic method to the public.

Background and Motivations: Personal and Global

For many years, I have focused on trying to understand how we—humanity—could allow ourselves to destroy life through climate change and other related issues. Through my work as a psychotherapist for many years, I could see how some individuals could, with support, become aware of their personal issues and eventually change their patterns of perception and actions in a way that could alleviate many of those issues. But with growing awareness of social issues, it started to seem insufficient to continue working just on an individual level when total system change seemed to be necessary. However, transferring this awareness to a collective level, especially in the public sphere such as in our responses to climate change, seemed much more complex to undertake. Over the years I studied different theories of how social change occurs, sensing that our current ways of organizing ourselves, especially within the environmental or social justice movement, were obviously not adequate, as these situations were not changing for the better. How those in these movements viewed issues, set priorities, and made choices regarding actions did not seem to match the complexity of the challenges we faced as a culture. My experience in community development at a grassroots level revealed that people’s involvement often descended to the lowest common denominator of fighting to promote one’s own biased perspective, or blaming others for their perspectives. If solutions were presented, they often promoted simplified, short-term, band-aid actions.

Although I considered myself an activist and wanted to be part of positive responses to climate change or social justice issues, I found I could not keep attending those kinds of dysfunctional meetings. Even facilitated conversation café’s, where people at least were polite, left me feeling hopeless that we could ever develop the level of understanding and depth of decisions needed to create comprehensive change. Although I was trained in such techniques as consensus, mediation, and Bohmian dialogue, my own attempts at facilitating what I hoped would be more beneficial forms of engagement seemed to flounder. At that time I lacked the “container” I believed was needed to support the quality of talking, thinking, making meaning, deciding, and acting together. By “container,” I mean an intentionally planned discourse process designed to support interactions that resulted in more functional outcomes. Such a container or scaffolding is needed to generate effective approaches amidst the diversity of opinions and the complexity of issues.

This article is written in this context of complexity of social, economic and ecological issues, especially those under the banner of climate change, which are apparently increasing more rapidly than our collective capacity to effectively respond (Kegan, 2000; Rosenberg, 2002). This gap became overtly apparent to those who witnessed the proceedings of the UN conference on Climate Change at Copenhagen in 2009 (Randall, 2010) or in Cancun in 2010. Such systemic issues require systemic responses if we are to get beyond bandage interventions with their unintended and often disastrous results (Ross, 2006). Commonly-used civic engagement approaches such as voting, town hall meetings, or more recently popular, dialogue cafes, seem unable to support the level of issue analysis and decision making that systemic issues require. Although important civic events, they offer short term, fragmented glimpses of issues that need more from us. There are few, if any, participatory methods available through which we can collectively come to understand the complexities and implications associated with the whole issue before we are faced with making decisions about it (Inglis, 2007).

Awareness of this growing “gap” between the complexity of public issues and the simplicity of the processes available to address them (Inglis & Steele, 2005), plus my in-depth research and inquiry over several years, culminated in my studying a deliberative process for use in public decision making.. This process researched and developed by Sara Ross (2007) drew on research in complexity science, adult cognitive development and behavioural sciences as applied to analysis of complex public issues. More information regarding this process is provided in the literature review, below.

In the past six years, I have engaged with several pilot projects based on this method. In all cases, I observed that participants were motivated when initially engaged, but getting people to want to invest in a new and unknown process was a very difficult first step. Also sustaining their motivation throughout the lengthy and new process was often challenged by them losing the orientation regarding how what they were doing related to their initial motivation. A more comprehensive process such as this requires much more commitment to time, focus, and structure than typical public engagement methods (Inglis, 2008). Several progressive steps designed to assist people to see issues in a larger interconnected context are needed so participants can analyze causes, weigh out approaches to solutions, anticipate differences in viewpoints and consider trade-offs they are willing to live with. This larger context also includes recognizing that our personal attitudes, values, and actions as well as our institutionalized attitudes, values, and actions are part of how we create and maintain problems. Arriving at this level of systemic understanding and ownership is hard and often “messy” work that needs to be intentionally and effectively supported by the process design and facilitation (Ross, 2006).

The public challenges we currently face are immense, and decision making is hard work, and there seems to be no way around either of these facts. But bad news of immense challenges and committing to this kind of hard messy work are hardly attractive motivators to engage ordinary folk. Therefore the question of how to introduce a new, more complex process in a way that would make sense to citizens and motivate them to try it out has been a barrier I felt needed to be addressed. Below I present a term, 3D Democracy, define a hypothesis regarding citizen motivation, and present a small study used to test that hypothesis.

Throughout this article, I have turned to holistic science theory and action research by describing and reflecting on methods that are dynamic, relational, participatory, multidimensional, complex, emergent, developmental, and engage the whole by moving through the parts.

The Term 3D Democracy

To make the significance of a substantively different process for engagement more perceptible to the general public, I eventually developed the term *3D Democracy*. This term attempts to support citizen reflection by graphically highlighting why more dimensions for tackling their issues are needed than what the usual "flat" term of democracy offers: addressing the depth of interconnected root causes, the breadth of multiple perspectives and length (short or long term) of responses. This critical reflection on current often reductionist, two-dimensional processes (e.g., win/lose polarities and yes/no voting) may potentially seed the necessity for more holistic multi dimensional, multi perspective approaches to civic decision-making when dealing with complex issues. For those seeking the theoretical roots that underlies this work, the term *3D Democracy* also captures the need for three D's: it is the **d**evelopmentally **d**esigned and **d**eliberative nature that can adequately support citizens to walk together through the complex steps necessary to arrive at well- informed decisions and to take effective actions.

The term is also useful to raise awareness of what we may call a "third dimension," one that is beyond the two common dimensions of "public" and "private", namely the dimension of the "commons." Elinor Ostrom, Nobel Prize winner, explains this dimension in her seminal work, *Governing the Commons: The Evolution of Institutions for Collective Action. About the significance of public process in the protection of shared resources,* where she said "if the community doesn't have a good way of communicating with each other or the costs of self-organization are too high, then they won't organize, and there will be failures" (Korten, 2010. n.p).

Many public engagement processes wish to support comprehensive actions but skip the step of making collective decisions that could result in those collective actions (Inglis, 2007). Therefore, it is sensible to use the next section to highlight this distinguishing component and surface its logic in relation to the public engagement criteria presented previously.

Why the Focus on "Decisions"?

Oil spills, sprawl of cities over agricultural land, migration policies, and water use all represent situations in which decisions are made that impact the public and the environment. We often miss the significance of these watershed points. To see ourselves as actively impacting decisions, either through conscious participation or not, can move us from viewing ourselves as victims of outside forces to active participants in co-creating our life situations. This is especially important when considering the choices facing us in relationship to climate change.

However, people are seldom aware of how complex the process of decision making is personally, let alone collectively. If we are to respond adequately to the complexity of climate change issues or any complex issue, we must make *collective* decisions, some of which will be quite difficult, about priorities, policies, and actions. It therefore is important to amplify the significance of this often-overlooked process of making public decisions, the very essence of democracy, and offer ways to observe, understand, and thus support comprehensive decision making.

Considering the severity of many of our local and global issues, it is no wonder that people want to take immediate concrete action. There is often impatience with sitting in meetings and talking. If people do not comprehend the sequential steps needed to develop sound public solutions, there can often be a sense that simple solutions should just appear, as if dropped into the room. However, before taking action, there has to be decisions by several people (unless we are in a dictatorship) to take the action. Before these decisions can be made, there need to be relevant options available to decide upon. Before these options for solutions are identified or created, there needs to be shared understanding amongst those most involved regarding the diverse causes of the problem.

Problems are often labelled under big sweeping categories, so before these causes can be understood there needs to be agreements on which aspect of which "problem" we assume we are actually discussing. In addition, everyone understandably sees things through their own lens of experiences and values. Therefore all of these steps are influenced by diverse perspectives that need to be included. Taking actions will likely have implications that also need to be considered. If we attempt to shortcut any of these sequential steps, our actions may not get at the systemic roots of the issues and merely offer bandage treatments. To undertake these steps well requires patience, time, and structured processes to support our best selves coming forward. Decision making, if we want satisfactory results, will require more from us than many are used to giving and there seems to be no way to shortcut this investment if we do not want to incur unintended consequences or sabotage by those who feel their voices were left out. There is a tension between taking adequate time to deliberate on such issues, in our "business as usual lives," and the realization that we are running out of planetary time, especially when facing pressing, rapidly increasing and catastrophic issues.

The Hypothesis Regarding Citizen Motivation

The focus of the rest of this paper is the following hypothesis: (a) shared reflection by members of the public on the usual approaches to and past experiences with public participation, and (b) consideration of other approaches, systematically presented, may (c) lead to new interest and willingness to exert the effort required to participate in more demanding but more rewarding participatory methodologies. The aim of the action research reported here, carried out with a small group of community residents, was to test in a preliminary way, whether a facilitated structured deliberative process designed to elicit critical reflection on current public engagement and decision making processes would indeed arouse the interest and motivation to use a more adequate, if more demanding, holistic public process.

Next, I provide definitions of the key terms used throughout this writing. Then, the remainder of this article is organized in the following sections: a description of the theoretical context, a literature review of significant materials, an outline of the methodology used in the study, and an analysis of the findings. Copies of the materials used in the public process are supplied in appendices.

Definitions

As orientation, I have provided a list of definitions I am using in this paper.

Civic Engagement: interactions in the local, regional, national, and/or international communities to which citizens and their chosen representatives belong, designed to identify and address issues of public concern, as well as increase investment and ownership. Other terms commonly used are public involvement or participatory democracy.

Complex: made up of many interconnected or interwoven parts. In the realm of public issues, this would indicate the presence of many, often tangled elements that are usually not seen and, therefore, not addressed. A complex issue, due to these many aspects, is difficult to respond to by a yes or no vote, in response to a single simplified question, as are offered every few years through elections of referendums.

Deliberation*:* a method for deep consideration or weighing out of options and implications prior to arriving at a decision. Public deliberation is a specific form of civic engagement and can be referred to as *deliberative democracy*.

Emergence: coming into existence of a new property or properties due to the interaction of sub elements. The properties of the new phenomena cannot necessarily be predicted from the properties of the sub elements.

Holistic: philosophies and methodologies that support an integrated, systemic approach that includes context, complexity, emergence, and intrinsic qualities of relationships amongst the phenomena. These recognize that complex systems have “emergent properties” that describe their characteristics as wholes and that these properties are conditioned, but not determined, by the system’s constituent parts.

Perspectives: ways of perceiving or points of view influenced by life experiences and conditions. Different and valid perspectives both naturally arise from different life experiences and create different life experiences. These can be referred to as frames or approaches.

Systemic thinking: seeing interconnections of elements involved within a context. Systemic thinking includes awareness of cycles or networks, accepting counter intuitive effects and reducing unintended consequences by considering gaps and implications (Ison, 2008).

Literature Review

Included below is relevant material related to holistic science and democracy, deliberation and citizen motivation.

Holistic Science

As I have advocated the use of a holistic approach, I here include the relevant literature relating to the science underpinning that approach.

Holistic science is often defined by how it differs from reductionist science[3], but its particular definition differs according to the scholar. Henri Bortoft (1986), Rudolf Steiner (1998), David Seamon (2003), and Margaret Colquhoun (1996), for example, expand on the 18th century work of Wolfgang von Goethe, who emphasized a science of qualities, relationships of “intrinsic necessity” and the importance of coming to know the existence of the whole through the understanding of the parts. Goethe, in his exploration of colour understood that perceiving colour was really a perception of relationships, as no colour exists separately but always in a context, a contrast to Newton's sense of separate colours. In addition, he emphasized how the attention to distinguishing the detail of parts, such as leaves of a plant, served the understanding of how they functioned as an expression of the whole. To understand a plant both in its wholeness and its distinctions we can look for repetitive patterns that will help us answer the inquiry: "How do you grow?" Based on our detailed observation and inquiry we are able to move beyond a sense of fragmented bits of concrete stems and leaves to construct a meaning of the dynamic whole. I apply this as a useful metaphor later when describing the study group‘s process.

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[3] See Schumacher College: What is Holistic Science http://www.schumachercollege.org.uk/courses/why-holistic-science

Holistic science has its basis in the natural sciences. However, holistic scientist Fritjof Capra indicates that systems thinking develops when we see patterns and connections in biology, a capacity which can be applied to social sciences. In exploring the implications to learning and communicating in both the biological science and social sciences, he builds on the work of biologist Humberto Maturana and social scientist Gregory Bateson. Both articulated a connection between perceiving difference and the development of cognition (Capra, 1996). Maturana felt it was the perturbations in relationship to the environment that triggered structural changes in an organism. Bateson indicated that the differences associated with these "perturbations" could be defined in terms of a hierarchy of logical types involving orders of abstraction in which higher levels are defined by the ability to organize lower levels and overcome the "contraries" or unresolved contradictions of the lower level. He expanded on these levels to create an organization of logical types as a way of noting how classification is used in all perceiving, thinking, learning, and communicating (Bateson, 1972). Bill Torbert (2004) built a bridge between types of logic commonly used, and ways we commonly structure talking. He proposed and researched the possibility that by reflecting on, and consciously structuring our ways of talking, we could transform personal actions, organizations, and politics.

Concepts from complexity science such as self-organization and emergence have created a vital connection between the natural sciences and social sciences (Francis, 2009). In relating complexity science to how people organize, Eoyang and Olsen (2001) suggest there are three interconnected conditions that influence a system to self-organize: (a) creating a container e.g., the intent and support for interactions and deliberation; (b) surfacing diversity and differences that stimulates creative response; and (c) increasing the frequency of transforming exchanges so feedback loops can reveal the consequences of our choices and also inform us as to who "we" are.

Although differing in some emphasis, all of these holistic scientists indicate that holistic science encompasses a non-linear approach that does not attempt to precisely predict, separate, or control information, knowledge, or outcomes. There is loose agreement that holistic science methodologies that support an integrated, systemic approach need to include understanding of context, complexity, emergence, and intrinsic relationships amongst the phenomena. There is recognition that complex systems have "emergent properties" that describe their characteristics as wholes and that these properties are conditioned, but not determined by, the system's constituent parts. It is understood that people's perceptions, especially those of scientists, impact what is being seen and interpreted and are, therefore, part of the whole. Therefore, the subjective realm of interior beliefs, values, and motivations are considered to be as necessary to include in scientific observations as more objective external data. Bateson promoted a subjective approach but also cautioned against the often sloppy definitions which can occur in behavioral science: "in scientific research you start from *two* beginnings, each of which has its *own* authority: the observations cannot be denied, and the fundamentals must be fitted .…[otherwise you] add to the existing jungle of half baked hypothesis" (Bateson 1972, p. xxi).

Democracy, Deliberation and Public Motivation

Central to the question under investigation here is the extent to which the public is, or can become, both willing and able to engage in public discourse at a level complex enough to make real contributions to the solution of public problems. Two organizations in particular have pulled together a substantial body of practice addressing public engagement processes: the National Coalition of Dialogue and Deliberation, and the Kettering Foundation. There are also several individual researchers and practitioners proficient in this field including Atlee (1999), Bohman (2000), Delli Carpini et al (2004), Fishkin (1991), Gastil (2008), Rosenberg (2002), Ross (2006), and Yankelovich (1991). They point out the difficulty of current public decision making whilst describing the need for, as well as challenges of, public discussion.

Tom Atlee refers to holistic politics (1999) or integral politics (2010) defining holism as the need for inclusivity and coherence of the parts and the wholes. He advocates that politics, where one part is fighting against another part, cannot achieve this holism. In response to a building disillusionment with democratic practices, Bohman (2000) argues that deliberation can support democracy by improving responses to the complexity, pluralism, and inequalities of society. He challenges assumptions that the public is "unreasonable," by saying that people are often not supported in discursive situations where they can use their reason, or, as Kant would say their "enlarged capacity for thought." Both Fishkin (1991) and Yankelovich (1991) have argued for and demonstrated the potential for the public to successfully deliberate issues before arriving at a decision. Yankelovich has shown that when people are presented with complex issues to consider, they can change their views over time, with the right forms of support for doing so. From his research he observed that people's views regarding an issue will, through focused engagement on an issue, progress through predictable steps from spontaneous, re-active individual opinions to more considered deeper public judgments.

Developmental psychologist Shawn Rosenberg (2002, 2007) has applied an adult developmental lens to public decision making and especially deliberation. He argues that the reason we have challenges in public engagement is that the requirements of participatory democracy are beyond the developmental capacities of many citizens. The ability to collectively analyze a complex public issue, reflect on and communicate one's ideas, understand and be concerned about the perspective of others, are all necessary skills in order for people to engage effectively with each other around complex public issues. He suggests that these requirements are simply beyond the developmental capacities of many individuals and social groups. At the same time he also holds out the hope that well facilitated public deliberations can potentially support the development and engagement of these capacities and thus offer citizens a better chance at responding to the complexities facing them in the 21st century. Although Rosenberg's (2002, 2007) theories address an area close to that of my inquiry, they do not however appear to have yet been translated into descriptions of, or research regarding, applied methods for how that facilitation would be implemented or how citizens might be motivated to use such methods (Rosenberg, 2009).

The key to effective engagement of diverse participants then is good design and facilitation. Deliberative processes can shake people out of the cognitive shortcuts typically used to frame day-to-day problems. As a result of moving out of this comfortable pattern, anxiety and frustration can be provoked, especially if the process that participants are using does not seem to be providing any new short cuts and simple solutions (Ryfe, 2005). To be willing to engage with this kind of frustration people would need to be highly motivated. At the same time, frustration itself, when tied to high stakes and handled properly, can increase motivation. Thus, Stephen Tyler, when discussing multi stakeholder deliberations has pointed out

> Cognitive and cultural theory suggests that when the decisions are important and the participants have a meaningful stake in the outcome (that is, stakes are high and the stakeholders are at the table), they are likely to be more motivated. In addition, motivation is enhanced by accountability to others, by a sense of threatened interests and by engagement with others who have different perspectives. All these factors are socially and culturally constructed, therefore the nature of deliberative processes must match its social and cultural context. (Tyler, 2009, p. 5).

A case study was done regarding the progressive effect of deliberation on the public's views of priorities in health care (Dolan et al, 1998). The researchers concluded that “The public's views about setting priorities in health care are systematically different when they have been given an opportunity to discuss the issues. If the considered opinions of the general public are required, surveys that do not allow respondents time or opportunity for reflection may be of doubtful value” (Dolan et al, 1998, p. 916). Due to the discussion, participants saw the complexity of the issue that then caused them to change their original sense of priorities. However, participants did not go the next step and resolve their differences regarding these priorities. The methodology was not a holistic one by my definition, nor did the facilitators offer the group any structure to guide their deliberation or to arrive at decisions that could potentially transform the old perceptions and actions.

The research of Sara Ross was closest to my own focus. In her doctoral dissertation, Ross (Ross, 2007) addresses citizen hope and motivation to work on specific problematic issues as a result of going through several steps of issue analysis and deliberation. Whereas my question was more related to how citizens might come to understand the need for engaging in such a time consuming and comprehensive process to public decision making

Ross (2006) offers a methodology for public deliberation that specifically takes on the need for complex thinking when responding to complex public issues, and the realities of the developmental differences that such deliberations must support if a wide enough diversity of publics are to be engaged. Her method addresses both the need for progressive steps as well as the need for structure and facilitation that supports motivation. Based on the work of Commons et al (1998), she defined the precise progression of steps involved in supporting citizen deliberation. The progressive steps are drawn from research in adult development, behavioral sciences, and complexity theory. Her preliminary research, summarizing and integrating these sources, suggest that there is a recurring pattern in the steps people go through in confronting complex issues, one that is fractal in nature and occurs across different scales of decision making from personal to organization to cultural (Ross, 2008, 2009).

To illustrate these steps, here is a simple example, regarding buying a car. A would-be purchaser moves from *thesis* (e.g. "I will buy a car"), *antithesis* ("I can't afford a car") to *oscillating* ("I have to choose between being carless or being poor"), to a *chaotic* or "smash" state (Commons & Richards, 2002) where new options are tested and adjusted to see if they can possibly fit to satisfy the initial need (buy a used car, high maintenance fees, borrow friends car, feel beholden). When carried out fully, such a sequential process can lead eventually to a more coherent state of synthesis expressed by an often unexpected solution that satisfies all of the presenting conditions (joining a car co-op - ta da!). This solution was not even among the options initially considered available, but emerges due to the focused consideration of the parts.

Such a process may repeat cyclically and with more complexity. With each repetition, as new information is encountered, the synthesis becomes the new thesis and the cycle repeats, but now at a higher level of complexity. This progressive repetitive pattern of decision making operates over various scales, topics and situations. Ross argues strongly for the benefits and challenges of these decision steps, and their essential role in well-designed public discourse. As she has shown in her own empirical work, such a design provides the structure that can hold the tensions that arise between competing views, and support the process to move through a complete cycle, towards resolution or synthesis. Synthesis is possible only when the new option or approach successfully addresses the inadequacies of the other options. This theoretical model presents a detailed and developmental understanding of what occurs in the phenomenon of emergence resulting in new solutions to old issues. Ross' (2006) preliminary research on this process that she calls The Integral Process for Working on Complex Issues (TIP) would meet several of the criteria I defined as a holistic approach.

In contrast to this holistic approach, pioneer in decision analysis, Howard Raiffa went as far as saying "The spirit of decision analysis is divide and conquer: Decompose a complex problem into simpler problems, get one's thinking straight in these problems, paste these analyses together with a logical glue, and come out with a program for action for the complex problem" (Raiffa, 1968. p. 271). Later, in a post-retirement article, he said he had been so enamored with the certainty he felt was offered through his earlier mathematical approach, that he had completely missed the boat regarding the many other aspects which underpin making complex decisions (Raiffa, 2002).

However, I find that the simplicity and reductionism of this divide and conquer mentality still pervades many of the conventional approaches to public decision making. The foregoing has provoked me to research the motivation for people to consider using a more holistic approach discussed below that can include and synthesize, not divide and conquer.

In summary, although there are rich fields of theory and research regarding (a) how individuals make decisions, (b) how these decision are impacted by reflection, (c) how public deliberation that includes reflection can support public decision making, and (d) how challenges occur in democracy, there is little about the public themselves reflecting on their current forms of involvement in decision making to see how that might impact their motivation to use a holistic process. My study was intended to fill that gap by showing how a holistically designed process for public reflection on decision making prior to participants involving the public in decisions, might motivate them to use a holistic approach.

Study Methodology

A community group from a coastal city in England faced with the challenges of engaging their community around contentious public issues participated in the study. Using materials I designed for the study, I engaged this group in an intensive four-hour deliberation regarding common but different perspectives regarding how to engage a community.

Research Methods

I used a holistic method, including critical reflection and deliberation, to conduct a small, non-experimental preliminary test of my hypothesis that these experiences would increase interest and motivation to use a holistic approach to public decision making. The process I used was holistic in that it was designed to maximize interactions, support a comprehensive and integrated consideration of the diverse perspectives, contexts and layers of complexity of an issue, engage both subjective views and objective detail, stimulate shared inquiry and systemic thinking, and promote a new synthesis or whole to emerge through the detailed consideration of the parts. I hope that describing the step by step progression involved in this methodology will be helpful to other practitioners in the field of community engagement and social change.

I used a two-phase process of applied social research: a four-hour participant group session and follow-up interviews with individuals. As my research was based on non- numerical data, I used a qualitative analysis of qualitative data using empirical observation, and semi structured interview techniques (Bernard, 1999). My research findings should be viewed as preliminary due to the small convenience sample and the fact that I did not use a control group. All observations are my own, based on information I collected and analyzed, and reflections I made.

Group Selection

When considering my research project I was hoping to find an existing community group of about 9-12 members who were currently facing some community issues. I wished it to be an ongoing group versus an ad hoc group for two reasons. One was that an ongoing group would more likely be dealing with a real issue, common to all participants, instead of a more “armchair” conceptual issue created just for the research process. Also for integrity reasons, I wanted the process to be useful to the participants and did not want to raise issues where there was no ongoing process by which these could be addressed. In addition, a group with a defined boundary and identity would have more contained and continuous interactions. The group was composed of city and district councilors and community group representatives. They had been meeting for several months and had co-developed two documents regarding strategies and action plans. Their focus was to find ways to engage the whole community when facing community issues as there had been a history of fragmentation, competition, and bad feelings that was making coordinated planning very difficult. This group and their concerns perfectly matched the focus of my research.

Although it fell on the first warm Saturday of the spring, nine members were committed to attending including the mayor, three councilors, and five community representatives. The town clerk indicated support by arranging for a room to be booked and snack food to be available.

Development of Materials

Prior to the session, I talked with six participants by phone to make sure I understood the nature and context of their specific concerns. I wanted to hear the potential differences in how those concerns might be framed amongst the group participants and to hear how they felt involvement in community decisions could occur.

Based on this information, as well as on previous background research into this issue, I created an “issue booklet” to guide their deliberation. An issue booklet provides a thorough and neutral way by which participants can consider the whole issue through looking at the multiple layers and perspectives associated with the issue. Since deliberation supports the deep consideration of an issue, it is helpful to have common, legitimate perspectives of what might be solutions to the issue in question clearly articulated for this consideration. The question that I used to focus the deliberation was ‘*How should citizens be involved when important public decision need to be made?*” I used the template format for creating an issue booklet for deliberation created by Sara Ross (Ross, 2006) whose theoretical model and research I described in the literature review. It sketched out four common but very different (and potentially contentious) perspectives that could motivate people’s approaches to community involvement in decision-making. These perspectives are developmentally sequenced in the issue book.[4] The main headings are as follows (See Appendix 1 for complete issue booklet):

- Approach 1: We advocate for the rights of our group when our needs are threatened
- Approach 2: We do our civic duty, vote for leaders, and assume they are accountable for making fair decisions
- Approach 3: We can make decision by being strategic and efficient in order to maximize opportunities
- Approach 4: We reach out and include as many people as possible to work together as a whole community

These differences, gathered from their concerns, illuminated the tensions that I assumed lay unresolved within the group, possibly blocking them from moving forward in their discussions on community involvement. Like the Goethian method of understanding the details of a leaf in order to understand how a plant grew, I was offering them a way to see the specific details of their communities’ viewpoints so they might have a more comprehensive understanding of how their issue grew. Each approach offered the underlying logic that motivated the differing actions people might choose to take in relationship to community decision making. The usual underlying logic, or orienting idea, becomes more explicit. This provides more information as to why people might think and act differently and therefore the differences make more sense. This method offers a way for participants to consider differences in a focused, less fragmented manner without the threat or defensiveness that often arise from fearing differences. More energy can then be focused on inquiry and reflections regarding the impacts that different choices may incur. The group's consideration was supported or "scaffolded" through the presentation of very detailed observation of the "parts," or different natural perspectives, with the hypothesis that the sorting, critiquing, and comparing of these would help them consider their adequacy and co-construct their own synthesis or "whole," and more adequate approach.

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[4] For more information regarding the developmental sequencing see Inglis (2009).

Session Process

The issue booklet as well as an agenda (see Appendix 1) was sent to the group several days before the groups met. When we met, I clarified my role as facilitator: I would guide them through a structured process but I would not influence the substance of their discussion as that lay within their expertise. I also clarified the limitations of the process and the implication of the brevity of this session, emphasizing that the intent was not to magically "fix" the issues that day but to support their discussions. Based on a prior agreement the session was audio taped. We did an opening round in order to hear people's motivations regarding focusing on the question of public involvement in decision making and what they hoped to get out of the day. People were very eager to talk and it was difficult to stick to the "taking turns" format of a round or to staying on topic. Next, I gave an overview of what deliberation was, comparing their experiences in personal deliberation to public deliberation. To increase sensitivity to diverse viewpoints, I led participants through an experiential warm up exercise of assuming different perspectives. I presented a set of general group process guidelines regarding qualities of talking, listening, and taking turns and asked if they were in agreement to respect these, and this was affirmed.

Then we proceeded step by step through the issue booklet. Like a jury, giving each approach its just opportunity to be presented, fairly heard, and considered, they spent time focusing on each approach separately. At the beginning of each new approach, a different volunteer read out the descriptive information for that approach. Then they all took a few minutes of silence to allow for reflection on the implications of taking this approach before voicing their responses. This allowed for more considered responses and the breaking of a habitual behavior of immediately reacting in an opinionated way that can often happen in community groups. Then they each spoke saying what they felt about the benefits, concerns, and trade offs that might arise with each approach. I captured their thoughts under each of those headings by writing notes on a flip chart for all to see. This allowed them to see how they were building their own understanding of the parts. It allowed their thinking to be transparent to each other as it evolved, and documented a record of their progress. I later typed and emailed them these responses. I have included the table of their transcribed responses for each approach in the results section further below. It reflects their thoroughness and deep consideration, as well as indicates that none of these approaches appeared to be considered as being satisfactory on its own. This is important to note since, without this kind of reflection, people often take absolutist stances that indicate their own point of view *is* satisfactory and needs no further consideration.

After considering each approach, and facing their own reality that all of the options had benefits but also had some negative consequences, the group was asked to create some statements of what conclusions they had reached. These comments were also written on the flip chart. The summary of these comments are described in the results section with details in Appendix 2. In general, without any prompting from me, the participants arrived at statements that described a comprehensive "whole" approach to how they wished involve the community in decision making. It was whole in that it included the implications of the other approaches.

People were very engaged, and it was difficult sticking within the time frame. The last portion of the deliberation of all of the approaches was pressed for adequate time and the next steps of planning how these conclusions would be carried forth into their next meetings and implemented unfortunately did not happen. We did an abbreviated closing round to capture reflections on the day. Participants, as well as I as facilitator, worked hard and ended the day being both tired and appreciative.

Follow Up Interviews

Between four to five weeks later I emailed the same six participants I had spoken to prior to the meeting and sent them an outline of interview questions (see Appendix 3). I was able to reach only five participants. I set up dates for the interview and recorded their input. The purpose of my interview was to gather their perceptions regarding the process to ascertain if they perceived it as having value, and, if so, in what way. I specifically wanted to see if, based on their experience, they would express motivation to reuse such a process.

After the session, I compiled data using interpretations of qualitative analysis based on several aspects: my observations of individual participation and group relations during the session, content of material developed in the session, and interviews with individuals before and after the session.

Limitations of this Study

My case study findings were limited by the small group size. The length of the session and participant fatigue, which I discuss in more depth later, may have limited the quality of participant engagement and integration of their experiences. Time, location, and finances also limited my ability to extend the study to include control groups across several diverse communities. It also limited ongoing sessions with the study group in order to observe if or how the awareness and motivation present after the study session, continued to develop and inform their ongoing interactions.

Study Results

This section reports on the impacts that participants' critical reflection and deliberation had on their interest and motivation for using holistic methods for public decision making. I will particularly highlight changes in their interactions, their consideration of the diverse perspectives, contexts, and interconnected layers of complexity regarding their issue, and the emergence of a new synthesis or holistic approach. As the process is developmental in nature, meaning that the nature of participation changes through the stages of the session, I report on it sequentially. I begin with the various aspects of the group session and then the post session interviews.

Group Session

Why does this Matter?

The question in the opening round "why does considering this question today matter to you?" provides a baseline for the motivation to proceed into the session. It allows people to say why this topic matters and to hear why it might matter to others. It allows the inquiry to move from the topic as an abstraction to one that embodies their experiences. In response to the question, I observed that participants were very eager to talk about the frustration of civic life and the hopes for how a group such as theirs might make a difference. Some spoke of competing needs between the desire to gather community input, which was at times uninformed or wishful thinking, and the demands of getting on with making pragmatic "realistic" decisions. Some talked about times in which community consultation had been done but was not inclusive of everyone, or the results were not listened to by council. These frustrations with community decision making are common to civic life and can often block citizen's motivation to continue to engage. Several participants found it easier to focus on what wasn't working in their community than what was or might work.

Although I had clearly indicated and repeated that the purpose of the rounds was to do a short two to three minute statements of interest in the topic just to get us started, several people had difficulties keeping their remarks within that time frame or on that topic. Some also had difficulties taking turns and listening to others without breaking in and making side remarks, or even personal affronts. I observed that many comments were absolute statements about people or situations "out there" advocating generalizations of what should or shouldn't have happened, with fewer offering more contextual and personal reflections. I could tell that these kinds of more open participatory process skills were a challenge for this group and the facial expression and body language indicated frustrations were being triggered. There also was laughter and positive energy. These types of interactions are also common to public meetings and impact citizens' motivation and ability to inquire, reflect, and see the interconnecting patterns of their issues effectively. I felt I needed to be very active and firm as a facilitator to keep to the time, structure, and purpose of the session with the assumption that this would support their interactions while not stifling their very significant expression and input.

Perspective Taking

With some coaching and modeling, I observed that people were able to participate in the perspective taking exercise, telling personal stories of times when they had experienced a particular perspective that arose due to certain life conditions at that time. This exercise was intended to invite people to progress from single solution advocacy regarding external events, to being able to consider several approaches, a skill needed for the next stage. It can seed self-reflection as well as the possibility of realizing that ones internal perspective, as well as other peoples' perspectives, can differ due to different circumstances. This realization potentially transfers to an openness if not awareness that there will naturally be different perspectives in the community as well regarding public issues such as the one being deliberated that day: i.e. different approaches to community involvement in decision-making.

Critical Reflection and Deliberation of Different Approaches

The results of this section were derived from two aspects: the information created by the participants in response to their deliberation and my observations regarding their interactions and responses to the perturbations of being presented with distinctly different perspectives to the same issue.

Once we moved into the next steps, participants were focused on the joint task of analyzing the different approaches to the question of community engagement outlined in the issue booklet. I observed that their interactions indicated a sense of shared conversation and listening with interest to what others were saying. As by design there was no "right" answer expected, or no winners or losers anticipated, the tendency towards competition and defensiveness, apparent in the opening round, relaxed. As the different views were already voiced equally in the issue booklet, I interpreted their relaxation as meaning that individuals in the room did not feel they had to spend time defending certain views. People were given equal opportunity to talk and this seemed to build trust to engage more fully.

Figure 1 displays transcriptions of their deliberations of the four approaches, provided at this juncture because these provide context for further reporting on results.[5]

How should citizens be involved when important public decisions need to be made?

Approach 1: We advocate for the rights of our group when our needs are threatened

Benefits	**Concerns**
– This approach builds solidarity which feels good when you belong – It focuses peoples energy and thinking, provides safety for some – We find our voice, increase articulation – Learn how to make issue popular, provides skills in marketing, communication and engagement increases	– The issue gets lost in the group dynamics – Increases emotional tension, attacks get personal – We can create long terms negative effects: creates outsiders, alienation, exclusion – There can be a mob energy, fear of hostility, suppresses many voices – People hijack process, circumventing decisions becomes habitual – People react before seeing the whole picture

Trade-offs we would need to consider if this was our only approach:

- We may increase our sense of belongingness but at a price of producing deep distrust and chronic negativity.
- The more we use this approach the more repetitive it can become…we get in a reactive pattern.
- We need to find our voice but after listening not before

Circumstances

We might consider doing this if we could ensure conditions that could be positive, constructive, realistic and produce quality

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[5] See the full issue booklet in Appendix for the full context of the transcriptions. This context is not necessarily self-evident from Figure 1's headings.

<table>
<tr><th colspan="2">Approach 2: We do our civic duty, vote for leaders and assume they are accountable for making fair decisions</th></tr>
<tr><th>Benefits</th><th>Concerns</th></tr>
<tr><td>– Ordered, prevents chaos, I know what is expected of me.
– Tried and trusted over a 100 years history of using this in which it has more or less worked
– There is a clear manifesto. It does provide a system and gets something done.
– We know that every 4 years there is a debate and a vote
– It is a platform for us to have good leaders
– We know who is accountable.
– We know who we can blame</td><td>– We don’t get as much responsiveness or innovation, as quickly as we may need
– Lack of motivation, flexibility
– We do not include all voices, not include diversity
– Subtle differences and culture nuances not reflected in a vote
– Vote only 4 years, gives us no input into implementation of what we voted on, no way to make sure of follow through.
– Focus is too much on one person, one leader
– We do not chose who the civil servants are but they have influence
– Only a few people vote so who really is represented (can fall into approach one)
– Boundaries impact representation and so impact the issues</td></tr>
<tr><td colspan="2">Trade-offs we would need to consider if this was our only approach
– If we have “good” leadership this approach works well but if we do not then there is little we can do. (and there would be different views as to what ‘good” leadership was)
– We get a majority vote but what happens to the minority (which could be 49%) Please some of the people some of the time, but not all of the people all of the time.</td></tr>
<tr><th colspan="2">Approach 3: We can make decisions by being strategic and efficient in order to maximize opportunities</th></tr>
<tr><th>Benefits</th><th>Concerns</th></tr>
<tr><td>– We could have the best information, best experts and the best decisions
– Strategic approaches help us form outcomes
– When people are involved it increases
– ‘our”‘ expertise first then agreement and comfort
– We get more “buy in”
– There are people who are specialists or experts who can help us, bring in another view
– Decisions which are evidenced based provides us with proof
– Consultations can provide quality thoroughness and objectivity
– We do need a decision making body that is strategic and efficient</td><td>– For approach 3 to work well we would need to have a good approach 2 in place
– Marketing can be used to promote a bias
– Some “scientific information is supposed to be sound” but holds a bias
– Consultations take a long time and meanwhile peoples views may change making the consultation less useful
– There is no guarantee that the experts cannot be bought or biased by those who fund them, done behind closed doors
– There may be opportunities that we lose by taking this time
– The consultant may not ask the right questions or deep enough questions in their surveys…we may miss saying what we need to</td></tr>
<tr><td colspan="2">Trade-offs we would need to consider if this was our only approach:
– We may intend to do a lot of good consultation but the distrust or “ …..<i>city</i>…. disease” may still prevent us from working together
– We want the support of the expertise and evidence, but do not necessarily trust experts or evidence quality or objectivity.
– Consultation can increase engagement but what happens if it does not get to the depth of our community issues that underlie our divisions or distrust.
– We like the efficiency and possibilities but not to the point of cutting funds that support important public services
– We may increase the community buy in but how do we know it has integrity and not been bought with a</td></tr>
</table>

<table>
<tr><td colspan="2">bias
Circumstances
“Realpolitik”…. Keep the focus on the practical relevant issues and less on morals or ideologies</td></tr>
<tr><th colspan="2">Approach 4: We reach out and include as many people as possible to work together as a whole community</th></tr>
<tr><th>Benefits</th><th>Concerns</th></tr>
<tr><td>– This approach could address so many of the concerns of the first three. It connects representative democracy with participative democracy. Without this approach, we can beat each other up all the time.
– We get to hear more people, and get a broader concept of what is wanted other than just one source
– This is fundamental to representative democracy
– We will hear each others fears, and possibly decrease the fear of the unknown
– If done well (would need to define what that means) we could heal the “…city… disease”
– When we know our opinion is valued we are more willing to participate, then community has a sense of being valued</td><td>– Would depend on an effective Approach 2 (a representative government), and effective Approach 3 (getting people informed)
– In an individualistic society we are not as concerned about how we all work together
– We may be too busy to engage like this, and learn about the issue. And if we don’t engage and learn we may sabotage other decisions
– We would need to really see the broad picture and the complexities to participate well. People differ in their ability to do this.
– Lots of us take a stand on issues so would manipulate these participatory processes leading to more distrust
– We may not see, or want to accept the realities of the options before us and the limitations that come with all options. Want a simple wish list and not want to deal with priorities, consequences, tradeoffs etc.
– Do decisions actually get made in those processes? or do we just sit around and chat and get too self absorbed to deal with the issue?
– Our city has to grow up, engage in consultation and be willing to live with the decisions that were made and not sabotage (or revert to Approach 1)</td></tr>
<tr><td colspan="2">Tradeoffs we would need to consider if this was the only approach:
– Potentially more people can be involved but it works only if we are informed
– Potentially more people can impact decisions but it works only if people know what they really want and can reach agreements
– We can do a lot to attempt inclusion but it will not be perfect (and we have to live with that frustration)
– We can include many people but cannot provide people with everything
– We want more involvement but do we actually trust the vast majority of people to make good decisions? or trust our own engagement processes.
– If we want a trustable process we would have to define and agree on principles and a design of what we think would make a process trustable.
– Processes have to be done so that people can see the possible consequences of choices.

Circumstances
– The size and importance of the decision and how if it concerns the whole community needs to be considered to see if this approach is necessary
– How processes are designed makes a difference</td></tr>
</table>

Figure 1. Transcription of Group Deliberation of Four Approaches

Deliberation of the first approach: *“We advocate for the rights of our group when our needs are threatened”* was given a great deal of attention. Approach 1 captures the “us versus them” nature that characterizes and stalls many civic interactions. I observed that participants recognized the sentiments, benefits, and challenges of this approach, but in their spirited discussion actually were falling unconsciously into demonstrating it. At times, the discussion looked like it could slide into taking sides and needing to air resentments about old issues. I could have stopped the discussion right then, focused on this element, and used it as a real time reflection point, regarding how their own interactions might mirror the difficulty with community interactions. However, I did not feel that I had established adequate trust with this group and nor had created adequate structure to support that discussion, so in the moment I did a quick internal deliberation, weighing out the options I could take as facilitator. I chose to go on with the agenda hoping that from the experience of reflecting on several more approaches they might recognize that their concern was in fact included fairly in the issue booklet. I also hoped that the structured shared reflection might be of benefit. I attempted to be transparent on how I arrived at the choice I was taking, stating that their frustrations and history were obviously important and needed to be addressed, but in order to do so satisfactorily we would need the support of a different meeting, designed for this purpose. This seemed to make sense to the group and we proceeded. There seemed to be motivation, interest, and energy to move onto deliberating the next approaches.

Relevance is connected to motivation and based on their discussion it seemed that participants saw the material in the issue booklet as relevant to their concerns: they recognized the values and actions of each approach and found validity in naming and discussing the benefits and challenges and trade offs of each. In addition, they related the approaches to specific examples that happened in their community. The time restraint of the four-hour session meant that the discussion regarding each approach had to be curtailed in order to move on. However, it did appear that they were using critical reflection regarding the context, interconnected layers and complexity that came with each approach and the adequacy of different approaches to meet their needs for community decision making.

In general, people appeared to like Approach 4: *"We reach out and include as many people as possible to work together as a whole community"* as it seemed to address the concerns they raised about the previous three approaches. They also saw the difficulties inherent in using it, which would need to be resolved for this approach to be satisfactory for them (taking too long, never making decisions, potential of manipulation, etc.). By the time we reached Approach 4, the quality of discussion had changed amongst most participants. There were voluntary silences in which people seemed quite pensive. This was a very different quality than the more assertive and reactive statements being made without deeper considerations noted at the beginning. People in general were building more on each others' points or looking to fill in gaps they noticed amongst their exchanges, than looking to declare and defend their own statements. Overall, they appeared to be more in relation with the issue and with each other. However, it also was getting late, and the analysis had taken a lot of focus. Some people may have been getting fatigued and potentially "losing the plot" or overview of what we were attempting to do as they at times reverted to trying to focus on the details of their concrete "what's," i.e., recounting stories of distrust regarding old contentious issues, instead of looking at some of the process "how's" i.e., ways this present session could be used to co-develop approaches so those issues could be better addressed.

This attitude seemed to reflect a deeply entrenched assumption that some things could not be trusted, and that one had to always maintain a vigilant stance. It created frustration in the group. This dynamic can commonly develop in public life when people do not feel themselves a part of public agreements to take actions. I realized that this stance introduced another sub issue for the group that also might need to be addressed. I will report the implications of this on the study results in the section on post interview questions.

An Emerging Synthesis

As we had adequately deliberated four approaches, we moved on to the task of seeing what, if any, conclusions they had reached to address the question *How should citizens be involved when important public decisions need to be made?* The focus of my observations was on whether this consideration of the benefits but incompleteness of these different "parts" or approaches would stimulate them to design something that would feel more complete. This step ascertains whether they can move beyond "smash" or the messiness of considering these several different, legitimate, but often competing approaches. Several summary statements were made that indicated a need to include the legitimacy of the previous approaches but also transcend the limitations that they had discussed. Examples include:

> *"We need to find a way that there is a two way street between an active engaged community and responsive elected officials. There needs to be mutual responsibility for this relationship otherwise issues and perspectives cannot be understood, our decisions cannot work or be trusted. We next need to find ways to put this principle into action."*
>
> *"We need to consider what combination of process will be good enough that all (community organizations, representatives, elected officials and the community) will engage with it."*
>
> *"If we did a good job of combining the best of 2, 3 and 4 we could reduce the need for, and problems which arise from # 1."*

It is unfortunate that time and energy limitations prevented further work together. With more time, participants might have fleshed out the details regarding actions that would operationalize these statements and developed specific agreements on what they wished to do next. However, the concluding statements they created indicated that a new *whole* had emerged from their consideration of the parts. It seems important to underline the fact that the points quoted above were not present at all in their pre-session interviews or in the deliberation of the separate approaches. The statements made hold the complex layers of their deliberation and arose from the interaction. This stage demonstrated their ability to create a synthesis, a new, more coherent, holistic option that they felt would more adequately meet their needs for pubic decision making.

Post Session Interviews

Although I emailed the questions ahead of time and used them as a guideline in my phone interview, the actual conversation was less linear or on topic. Of the five participants I interviewed, all were generally positive about their experience of having participated in the session, feeling it had been useful. They all indicated it was an energizing experience that held their attention. One person stated, "I left refreshed, feeling we had accomplished something." All of them affirmed that it was a benefit to hear diverse views, saying it allowed them to know each other better and know where they were coming from. Most felt this process would be beneficial for other community members and for other issues, stating that a broad group of the community would need to be involved to be representative of the community's voices. Two indicated it was a "high level discussion." Some said, although their group was motivated, they were concerned as to whether the community at large would be motivated or be able to talk at that level. Some recognized that this way of discussing was very different from how communities usually interact in public discussion. One person said: "People don't usually look at issues, discuss, or analyze. It just does not happen that way. People tend to make statements, they may seem like they are asking questions or want to discuss, but they are just statements. They are entrenched [in their views]." This could infer that being entrenched in one perspective impeded a more satisfactory holistic approach being created.

One participant said that most community meetings have an agenda and a chair who asks people to vote and there is no discussion or hearing of different viewpoints. In comparison this process "allowed people to be thoughtful of things they had not thought of before …and it took us to a new place." One person said that "we could see after going through the different approaches that it was complex, no one approach is going to give us what we want…and we have to knit [them] into a coherent whole, we can't just mix and match."

Some remarks, gathered anecdotally from a participant, were made by two city officials who had wanted to attend the session but were unable. Based on what they read in the summary notes, what they heard from some participants, and what they experienced in the subsequent meeting, they were quoted as saying "they had missed something highly valuable." This same participant said that the process was too brief and needed two more sessions. She felt that right after the session there was motivation to commit to more sessions. However, in checking back with the group two months later, I understand that without facilitation, they have not been able to sustain their momentum or continue developing ways of implementing the holistic approach they had co-created during the session.

The stance of distrust taken by some participants during the session was mentioned in most of the interviews, seeming to divert them from being able to focus on what else was experienced in the session. Although these challenges were distracting and uncomfortable, one person said "I actually felt relief that the session showed the negativity: it was obvious." This seemed to infer that there had been an unnamed elephant in the room that, once surfaced, might now be dealt with more directly than was possible before. When further questioned, there did not seem to be a sense yet as to how this "negativity" came about (other than two participants attributing it to those individuals' personal failings) or how it would be worked with. Focusing on the challenge of how to respond to this distrust might have taken precedence for the group and put the outcomes of this sessions' work on the back burner.

In summary, the results indicated that based on their critical reflection and deliberation about current public decision making processes, participants were interested in and motivated to use a more holistic approach both for their group and for the community. They did see that both the conclusions they reached, and the process we used, were different from, and, for some, significantly better than, usual public interactions. However, the motivation did not translate into the group independently taking the next steps of further developing and applying this approach.

From these research results, it is inferred that further facilitated sessions may have been needed to incorporate this motivation and institutionalize a new praxis for their involvement in public decision making. In addition, another designed deliberative session, structured similarly to the one we used but using different content, might have been needed to assist them to create an approach for responding to the question "how to more effectively work together."

Conclusions

This small research project used a holistic method of facilitated structured deliberation that supported critical reflection on current public engagement and decision making processes. The results indicate that the process did support the emergence of a more holistic approach and did positively influence the interest and motivation of participants to use a more holistic process again. This section provides a discussion of the key results offering reflections, interpretations, and implications.

Support for Reflection, and Transformational Learning

As suggested both by my literature review and by my observations, reflection is a capacity that cannot be taken for granted. However, it is a necessary capacity if more systemic holistic approaches to complex public issues are to be developed. The initial, more loosely-structured opening round of my research group showed that even basic capacities for interaction, let alone reflection, became strained in that unstructured context. Nevertheless, with structures such as the issue booklet and a trained facilitator supporting their reflection, they were able to interact in ways that allowed them to consider different perspectives and co-generate new ideas. Through the back and forth dance as Mezirow (1991) described, participants were able to reach coherence, between parts and wholes, current events, and habitual perspectives. Their resulting increased capacities to listen to each other and consider multiple perspectives appeared to be a primary motivator for them to have interest in using holistic process for future decision making. Based on observations, information from interviews, and anecdotal evidence, I believe that if I had been available to continue to facilitate this group, their motivation and interest would have been adequate to support their participation in the next steps.

This conclusion resolves a question about a "Catch 22" dilemma I have faced and described in part in the introduction: people cannot commit to using a new, more time-consuming method without experiencing what it entails and they cannot experience what it entails without committing time to do so. My study suggests that arranging a single session to work with a core community group that has influence in the community, and giving them a chance to experience the process through focusing on a motivating question, is a useful method to introduce a new process for public decision making. Once introduced to the process, people had the basis needed for committing to further steps. By deliberating multiple perspectives and trade offs for developing methods of public involvement in decision making *prior to* actually involving the public in a contentious decision, one may anticipate that unforeseen consequences could be decreased and involvement improved. Further research would be needed to indicate if reinforcing feedback loops would occur and more learning and motivation could result. The research results might support Habermas'(1991) advocacy that increased ability for communicative action can provide the basis for a theory of social evolution and Ross' (2006, 2007) research that political development is fostered through developmentally structured analyses that culminate with designed public deliberation for systemic action. The results touch on further implications beyond the scope of this paper regarding social construction, namely that the developmental capacity to reach higher levels of thinking rests as much in the group as it does in the individuals that have participated in the group. (Vygotsky, 1978). The research results are consistent with Friere’s (1993) emphasis on the significance of experiential learning. Holistic processes are not ones that can be taught or talked about just conceptually. They need to be experienced as they involve embodied internal transformations that cannot be attained when only described through abstract language (Reason, 2005). Telling most people that “by using deliberation based on an issue booklet of multiple approaches to decision-making they might see the complexity of their issues and arrive at more satisfactory methods for the group to move forward” has no context for most to understand. This has to be experienced. Shifting one’s perspectives based on deeply considering the validity of another person’s or group’s perspectives, especially regarding a contentious public issue which holds many complex layers of values and habitual ways of behaving requires an embodied, internal transformation.

The Importance of Distinction and Articulation

When talking with participants I did not use the terms “holistic approaches” or “facilitated structured deliberation.” I intentionally did not reduce the description of the process we used to an abstract label under which to pigeonhole the experience. However, from my observations I realized that participants had no quick way to describe their experience other than “what we did on Saturday morning” or “the group we did with Jan.” Since the process entailed many aspects that were experienced differently by different members, I avoided describing it as one “thing.” A trade off is that by not having a quick way to name and classify something, the experience may not be able to be retained, or promoted. There was no easy “branding.” Possibly the use of the term 3D Democracy would have been helpful.

I saw that there are both benefits and concerns in reducing phenomena to abstract labels. As Bortoft (1996) said, categorization required for labeling something makes us focus too much on *what* we see, not the *act* of seeing itself. And it especially, I would add, makes us miss the co-action of seeing with others. If participants focused only on the written materials we created on that day, but not on what was involved *in the act* of creating them, then the process might not have been as useful and potentially replicable for them. This points to the need for reflective rounds at the end of such processes in order for participants to articulate this co-action of working together and co-developing a new way of seeing. Although I did have a closing round, it was very rushed and was a new experience for several participants. As Bortoft indicated, something significant happens when an experience is described or distinguished: “the act of distinction ‘there’s it’. We come to see what we previously could not” (Bortoft, 2009, n.p.).

Integrating the Rational and Experiential Gap

Theory in holistic science is often attempting to respond to the perceived divergence between the rational world of objective detail and the subjective world of experience and intuitions. This relates to a question that was posed in the process of my writing about this study: “Can citizens make informed decisions before they have integrated, detailed scientific (rational) and experiential (intuitive) knowledge?" (Harding, 2010). Based on my literature review and study, my conclusion is that they can reach informed decisions not before or after but *through the process* of integrating these two aspects *if supported* through a holistically designed process that enables that integration. Support was provided through articulating this gap between the details of the known, and the experience that the known was not working, and through identifying and facilitating the participants' real motivation to resolve this gap. Support was also provided through voicing, in the issue booklet, the "contraries" or discomforts that arise when experiencing this gap. Thus the distinct details that constituted the discomfort could be seen, deliberated, and potentially resolved at a higher more holistic level as Bateson (1972) predicted. If we assume that citizens will need to gain this necessary integration *before* they can even take on the task of making crucial decisions, especially those involving climate change, it may take too long as this ability to integrate is an advanced capacity.

> Goethe said of this stage of knowledge, which is beyond dualism, that the enhancement of our mental powers which it requires 'belongs to a highly evolved age'. In other words, we have to develop the capacity for this to take place…..
>
> The development of participative consciousness takes us beyond the metaphysical attitude, i.e., one-sided Platonism, and allows us to see that this is simply a consequence of the onlooker mode of consciousness. (Bortoft, 1996, p. 275)

This "participative consciousness," if it relates to the capacity for placing oneself in the system one is observing, is described by theorists and researchers in adult learning and development as being one which is reached over many years, and by only a small percentage of the population based largely on their life conditions (Commons et al, 1998; Torbert & Associates, 2004).

Meanwhile, considering the dire circumstances on the planet, vital decisions need to be made now, and by diverse populations with different values and capacities, analogous to those encountered in my research group. However, if the process is holistically designed, as my research indicated, this diversity can be used as a tool for integration, not an obstacle: it can potentially reduce the gap between the onlooker mode of consciousness (rational) and participative consciousness (experiential). As Bortoft said: "The intuitive mind is moving right into the concrete parts in order to encounter the whole. This encounter leads to perceiving the dynamic and living multiplicity of the whole" (Bortoft, 1999, n.p.).

Elephants on the Path

Another reflection I have is regarding surfacing the "elephants" or unspoken tensions in the room. This raises another Catch 22 dilemma. Many social change organizations want to make a difference out in the world but have their own internal dynamics that prohibit them from making decisions and taking action as effectively as possible. Instead of using collaborative inquiry to explore how they may have co-created and maintained dysfunctional patterns, they may develop patterns of blaming and sub grouping that eventually overtake their otherwise well intended purposes. They are not likely to respond to the elephant until they have consciously experienced it and safely articulated its presence. As my research indicated, facilitation may often focus initially on some issue "out there" only to discover that there are issues "in here." Once surfaced, these might then be addressed if there is adequate shared reflection, acknowledgement, and motivation to work on the internal dynamics. This may be a risky thing to do and requires a structured holistic approach to move though the possible transitions of action, reaction, smash in order to synthesize into a new form of dynamics. Ross (2006) indicates that before a group can effectively respond to complex relationships that make up their community *politics*, which are defined as culturally common ways of relating, they may benefit from using a designed deliberative process to consider their tone and intentions in their own politics or ways of relating to each other.

Fatigue Factor

At the end of the session, there was a sense of both highly motivated energy as well as a sense of fatigue from working intensely for four hours. Considering details pertaining to decisions with enough thoroughness to thoroughly understand the potential benefits, consequences, and trade-offs cannot be done sloppily; it takes concentration. Being open to different views than the ones we are used to hearing inside our own heads can also take a lot of emotional energy. Moving through the “smash” stage of transition before synthesis can be difficult (Ross, 2008). As Ryfe (2005) indicated, facing into the reality that there are no quick fixes, and that issues as well as our interactions are complex, can be frustrating and anxiety producing. Even with all of this, based on my research in using a holistically designed process, the group did indicate a motivation to use a more complex process for making decisions.

Fatigue can also occur when effort is not valued either financially or socially. It suggests another potential research question to consider: how can this kind of work, often done by community volunteers for the good of the commons, be compensated and sustained? It would point to a need for creating a new form of calculating value, including knowledge and capacity building as resources that add to the common pool of resources and require compensation from that common pool (Ostrom, 2000; Quilligan, 2009).

How Much is Too Much Investment?

An underlying and unanswered question arises in terms of how much time and commitment would it actually take for a holistic process such as this to really affect the specific issues this group was trying to address, as well as the culture of public involvement in the community as a whole. Is it too fatiguing and daunting to consider? This could be the focus for a subsequent research project. Just for the sake of presenting a potential hypothesis to test, I will do a quick projected calculation of how much time this might take. What if the research group met two to three more times to turn their holistic concepts for public involvement in decision making into specific agreements regarding strategies for action? And before that, what if it took another two to three sessions to deal with how members wished to deal with their internal dynamics? Then, if they had another community issue to work with, such as rezoning, affordable housing, food security, energy efficiency, etc., then they would again need five to seven sessions to clarify the question, anticipate and deliberate the various approaches the community might have to it, and engage more of the community in a process to publicly deliberate the options and reach conclusions they could support. By now, there might be some understanding of *what* was being done as well as the understanding of the *act of the doing*. Motivated by this understanding they might then wish to transfer this process to yet another new issue in the community, which would also need another five to seven sessions. By this time, the capacity to use this process more regularly and independently might have been integrated. Altogether, this might have taken sixteen to eighteen sessions. Is that too much? Would there be motivations in carrying through with this larger investment? When people do not understand the nature of making a holistic decision and are still hoping for a quick fix based on just looking at a part of an issue, and not understanding how the whole issue grew, then it might be too daunting. However, when compared to other ways the public has available for responding to controversial issues it might actually be shorter and result in more effective responses. For example, how many hours went into planning and executing the Copenhagen conference on Climate Change and what did it yield?

The Role of the "Champion" and the Role of the Facilitator

Outside of the holistic process itself that was researched, there are at least two other contributing factors that deserve mentioning and potentially researching: the role of champion and the role of facilitator.

By champion, I mean the person or persons who serve as a supportive bridge to a new group. In the case of this research project, there was someone who understood the need for a more holistic process in their community even though they may not have understood the details of the process itself. When introducing something new into a community, this role of innovation diffusion is vital for communication and basic legitimacy, and does not easily happen through impersonal written articles or cold calls. Therefore, another question that could be researched is: how does one find champions, and what capacities for holistic thinking regarding complex public issues would a champion require?

Another question that could be researched is the role of the facilitator: what degree of integration of holistic thinking, as well as training in this specific process, would be required for the research results to be duplicated by another facilitator? This question is raised based on a hypothesis that holistic practices are not just "tools" to be taken off the shelf and plugged into any situation out of context but rather involve facilitation based on prior experience in reflection, analyzing the context and complex layers of personal and public issues, and supporting emergence of new understanding through the messy sorting of multiple perspectives (Inglis & Steele, 2005).

Implications for Democracy

Recognizing that reflection and integration do not come easily and that fatigue can be a factor, has implications for a more participatory multidimensional democracy, especially considering the gravity of the issues we face globally. We are facing what seem to be obvious signs of disastrous climate change with extreme heat and fires in Russia and Texas, floods in Pakistan Australia and China, and oceans becoming dead zones—and yet *still* we are caught in a gridlock between unresponsive government and economic structures not built to take effective action to such global issues. A regime change, or whole new set of principles, norms, rules, and decision making, is needed to create agreements on procedures for governance of the global commons (Vogler, 2000). To create these new relationships amongst ourselves and our planetary systems will require that "commoners," those most connected to the issue areas at risk, need to be much more engaged instead of passively hoping others will come up with solutions.

In April 2010, a conference on *Mobilising Democracy to Tackle Climate Change* was hosted in London by The Salzburg Global Seminar and Schumacher College. Afterward, one participant was advocating that based on (a) the necessity to make decisions rapidly in the world to avoid catastrophe, and (b) the incapacity for citizens to make decisions collectively, it would be better to use the efficiency of a Chinese style top down governance or a benign dictatorship. This implication, that people cannot be trusted as they are "unreasonable," as previously challenged by Bohman (2000) has also been disproved by results of my small study. This above advocacy apparently does not see the situation holistically, missing the context and complex layers that would be triggered by using this top down option especially amongst people who are used to "democracy" however flawed. It is wishful thinking to believe that some leaders will magically decide the right things for us all to do. How would we, as diverse citizens with different life experience and perspectives, all agree which government or dictator had our best interests in mind? If we did not agree, are we saying we would be willing to have military force put the rest of us in line?

It is regrettable a conference such as this, or those connected with UN agreements, did not instead frame the various different views and approaches to democracy that could be taken in light of climate change pressures. If participants were immersed in deliberation of the consequences and trade-offs that they, as concerned citizens, were really facing, this might have resulted in the emergence of a new understanding of ways to proceed with a different definition of democracy that included depth of root causes, breadth of perspectives, and length (time scales and scopes). However, if this conference operated like most conferences, the topic was likely considered abstractly, at professional arm's length. If so, then participants missed the chance of an embodied transformative experience that could arise from the "contraires" of their real, in-the-room different views being stirred up and needing to be resolved. A more holistically designed process, integrating objective detail and experience regarding their assumptions of democracy might have held this tension and resulted in participants getting really involved, and ultimately evolved.

Summary

We have a narrow window of time, in which many communities and nations still have the stability required to support more reflective holistic thinking about the issues we face in order to enable more comprehensive decisions and actions to emerge. Holistic thinking and methods do not arise on their own. As Goethe indicated, they reflect a more high level form of response. This framing of higher level approaches to effectively match complex tasks, echoed in research on adult development (Commons et a, 1998), is a key to unlocking the potential of public contributions for the resolution of complex problems. However, to reach this high level requires holistically designed structures to scaffold their rise to more systemic responses. Without such methods, and the commitment to use them to guide our collective evolvement, we face another darker possibility: that of devolving into, or continuing to rely only upon, individualistic, simplistic, divide and conquer techniques. The concepts and findings presented in this paper support a more comprehensive model of how democracy and citizen engagement can be presented, achieved and valued with the hopes that it can provide a more sustainable and life enhancing outcome.

> In this century, for better or worse, the long process of social evolution has reached the Planetary Phase, with the shape of the future subject to the ways we respond culturally and politically to the challenge of transition. Prospects for a passage to a decent world rest with the capacity for human consciousness and action to rise to this existential challenge of our moment. There is still time, but the hour grows late. (Raskin, 2010, n.p.)

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Appendices

Appendix 1: Agenda and issue booklet[6]

How should citizens be involved when important public decisions need to be made?

A Deliberation of Four Approaches

Agenda

Opening process:
- Introductions
- Overview and Agreements for effective deliberation
- Practice in taking different perspectives
- Overview of the issue book and approaches

Deliberating each approach

****Break*****

Deliberating among all the approaches

Closing Process:
- Assess completeness of deliberation
- Identify decisions reached, follow up needed
- Sharing final thoughts

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[6] Developed by Jan Inglis

How should citizens be involved when important public decisions need to be made?

Approach 1: We advocate for the rights of our group when our needs are threatened

People may favour this approach if they assume that:

- *You can lose your rights if you cannot strongly advocate for them.*
- *Numbers and volume are powerful tools to use when advocating your concern*
- *Others can be corrupt and we have to defend against them taking over.*

People who favour this approach believe it is best because:

It is important to rally together and create solidarity when you need to advocate for a cause you feel is going unheeded. Examples of such issues might be if a building with historic or nostalgic value is proposed to be torn down, or a natural area is at risk, or if a new building is proposed that changes the landscape. Groups need to develop a strong powerful voice to be convincing and attract others of like mind or you will lose out. The bigger your voice and the clearer your message the more likely you are to win. It can feel good to work together like this. Governments may not notice our concern or may want to cover over controversy so you need to be vigilante. Government needs to be quickly responsive in an open non-judgmental way when public concern is raised. This public involvement process is useful as it is immediate, inexpensive, and a very clear method of getting action when decisions need to be made.

Sample Actions that make sense based on these assumptions:

- *Citizens organize a phone tree/email tree to get people to come out to public meetings*
- *Individuals start a letter-writing campaign*
- *Governments provide a clear process for requesting referendums*
- *Newspapers provide space for articles to present views on an issue*
- *Concerned citizens organize a door-to-door petition to force a referendum being taken*
- *Individuals tell others what they are going to lose to motivate them to respond*
- *Groups plan ahead to "stack" the mikes at public meetings or increase signatures on petitions*

Possible reactions we need to anticipate

- *"Having to keep rallying our group to take a stand takes too long and is too much work"*
- *" But anyone can lobby who has an emotional axe to grind, with no investment in the outcome or accountability to the impacts"*
- *"Militant lobby groups may scare off business investment in our community"*
- *" this is a band-aid approach and we need longer term total system planning"*
- *"This could polarize us into "good guys" and "bad guys" camps if we fall into being hard on people instead of issues"*
- *" I don't have a job and need to feed my kids, I don't have time to go to rallies and sign petitions"*
- *"Referendums are too costly and no one understand the issue or the question"*

A range of trade-offs that would need to be considered if this was the only approach we used:

- *We might win our cause but at what cost to ongoing relationships amongst our separate groups and community as a whole*
- *Information gets out but it is only from one viewpoint*
- *We gain some inclusion for our cause but may lead to some exclusion*
- *Increases involvement but sensationalizes the topic, adds a bias and could lead to polarizing community*
- *Increases involvement but maybe making opposition stronger (the backlash that comes from the ‘stronger you are, the stronger the resistance will be’)*
- *Forces an’ either you are on the bus or off the bus’ requirement for sense of belonging in community*

How should citizens be involved when important public decisions need to be made?

Approach 2: We do our civic duty, vote for leaders and assume they are accountable for making fair decisions

People may favour this approach if they assume that:

- *Voting is the legal and traditional way of indicating what citizens want.*
- *The "right" answer is simple and should be obvious to everyone*
- *Voting, rules and regulations will ensure accountability*

People who favour this approach believe it is best because:

Leaders who have received the majority vote, whether within organizations or government, have the responsibility to follow through on what we voted for. Our responsibility as citizens is to make informed choices when we vote and ensure we have leaders who are capable of making wise and just decisions for the common good. Public meetings need to be well publicized and we need to learn how to organize them so that the objectives are met and decisions are made in an orderly fashion. Our civic leaders have a lot of information to deal with to make decisions. Most information can be made available to the public. Citizens groups can offer input to the city and expect the council will act on their advice. Busy citizens do not need to be involved in every decision if they are not impacted by them or if they are too mundane. That is why we have elected officials and staff. If you don't show up and vote when you have the chance then you have to assume others will make decisions for you. Those who have lived in the community the longest may know it the best. Existing laws already dictate public involvement processes, and we need to follow these to avoid mayhem. Relying on known laws and the officials responsible for public affairs is a predictable way to manage change to ensure a stable future.

Sample Actions that make sense based on this belief:

- *Councils adopt definite policies to make information accessible to citizens*
- *City Council establishes a community advisory group made up of different community organizations with clear terms of reference and responsibilities.*
- *Council present clear procedures for how referendums can be requested.*
- *City task force ensures that members of the public know where and when the minutes of public meetings (council, school boards, regional district) are available*
- *Individuals take responsibility to seek out information on legislation, policies etc.*
- *Community groups can write letters to editor to defend elected people or processes in order to educate people about how politics and economics needs to work.*
- *Individuals can disempower the voice of rabble rousers by showing how they want to oppose the rules, or are just 'special interest' groups*

Possible reactions we need to anticipate:

- *"I don't trust government. The whole lot of them is just paying lip service to meeting our needs".*
- *"volunteering on the community advisory group is exhausting"*

- *“What about the poor, the youth, or busy young families? They are not able to be involved in politics and don’t get represented.*
- *“Depending on voting once every few years means we don’t talk together about the many deeper issues”*
- *“Rules gets in the way. I should be able to do what I want when I want”*
- *“Dependency on governments for change is too slow and stifles innovation and creative solutions”*

A range of trade-offs that would need to be considered if this was the only approach we used:

- *If we work together well as an advisory group we may be criticized for compromising and not still representing our individual groups’ interests.*
- *Does it help if more people vote if they are not well informed about the issue.*
- *Elected officials may try to represent the interests of their ward but what happens if people in their ward have opposing opinions.*
- *If we have strong government doing everything we may have passive citizens*
- *The yes/ no vote is simple and clear but most decision are more complex than that.*

How should citizens be involved when important public decisions need to be made?

Approach 3: We can make decisions by being strategic and efficient in order to maximize opportunities

People may favour this approach if they assume that:

- *People are motivated to get involved when they see the benefits*
- *There is an efficient cost effective way to get things done*
- *We don't want to get bogged down in unnecessary rules and process*

People who favour this approach believe it is best because:

People need to take individual responsibility to know how the political and economic system works. They need to get to know those who are influential and have expertise when they want to impact how a decision gets made. Citizens and elected leaders need to keep abreast of new ideas in order to make the best decision and not miss opportunities. The community needs to be responsive to the economic climate in a global community and be up to speed by making decisions that are innovative and adaptive. We need to make proposals that attract partnerships, and motivate the public to get on board so that we can move ahead on good ideas. If there is disagreement we can negotiate. Good public decisions need to be like good business decisions. Creating atmospheres for friendly competition and incentives generates multiple options for citizens and leaders to choose from.

Sample Actions that make sense based on this belief:

- *City includes contract experts to develop multi media presentations to inform and engage citizens on upcoming issues*
- *People running for office need to get known by advertising in the paper and on posters*
- *School system partners with city to support political debates for youth*
- *Stakeholders set up meeting with those most invested in having a decision made on an issue*
- *Create incentives for people to attend public meetings and community events (prizes, food, transportation, child care)*
- *Organize a conference with expert speakers to provide education about how government and civic budgets work*

Possible reactions it would be good to anticipate:

- *"Only the charismatic individuals or those with lots of money will be given attention"*
- *"I do not hang out in powerful circles so won't be able to influence the people who make decisions"*
- *"I don't want high paid outside experts influencing decisions in "our" community"*
- *"Having small groups influencing side deals makes government a sham".*
- *"Not all public decisions are business decisions; taking a business approach could result in decisions being made based on economic considerations but not in best interest of the public"*

- *"Youth just do not have enough grounded experience to be consulting on important public issues"*

A range of trade-offs that would need to be considered if this was the only approach we used:

- *We may educate the public more but risk becoming seen as spin doctors*
- *We gain input from outside experts but could be misled if they don't know our community*
- *If we spend money on hiring the expertise of consultants we will not have it to spend on other important programs*
- *We might gain from new opportunities but could lose the existing character of our community*
- *We gain from quickly seizing an opportunity but could lose well thought out implementation plans*
- *We may gain more participation at popularized events but people may only come for the free cake*

How should citizens be involved when important public decisions need to be made?

Approach 4: We reach out and include as many people as possible to work together as a whole community

People may favour this approach if they assume that:

- *By getting everyone together we can develop a common voice, a common future*
- *People know what they want, we just need to ask them*
- *Working together well takes time*

People who favour this approach believe it is best because:

Ensuring the inclusion of everyone in decision making, especially the minorities, is a responsibility we all need to learn to take. We need to create situations in which we learn to listen to all perspectives and decrease our tendency to argue and compete. Through citizen initiated gatherings we can share our wisdom and concerns with elected leaders to support wise decisions. We all need to come to the table as equals and develop consensus. If people feel left out of decisions they may become apathetic or even sabotage the decisions. Working together to find diverse solutions requires learning, commitment and planning. We should not expect it to happen right away. We need to find methods to weigh out the pros and cons of important decisions and not jump to quick fix solutions or expect our leaders to do so either. To make good decisions we need to see the big picture.

Sample Actions that would make sense based on this belief:

- *Councilors are trained to facilitate forums, discussion groups etc. to ensure diverse perspectives are heard*
- *Community advisory groups and city councilors develop work groups to take agreements from community forums and turn them into policy*
- *Council adopts a publicly supported policy for a community engagement and communication process for the annual budget*
- *City hosts one facilitated public forum each year to update the community vision for the future*
- *Non profit organizations adopt policies to model collaborative approaches within and across organizations*
- *A community advocacy group requests the media to inform but not inflame*
- *Community groups organize informal, small kitchen parties to share information and collect wisdom*

Possible reactions which should be anticipated:

- *'Community visioning just creates countless wish lists that we do not have the budget or ability to fulfill"*
- *"Most people have no clue of how a complex city operates so we cannot turn decisions over to them".*

- *“The autonomy of my non-profit society might be threatened if I collaborate because we have to compete for dwindling funds”*
- *“It’s idealistic to think that everyone has the ability or interest to participate in a community process”*
- *“Engaging everyone is too expensive, time consuming and get’s us now where.”*
- *“Community meetings are only for retired people who have time to burn”*
- *“I hate sitting in those boring wishy washy talking circles. I want action”.*

A range of trade-offs that would need to be considered if this is the only approach we used:

- *We might end up with much more active citizens, concerned about the community but are we really willing to take the time and money to do this well?*
- *Open participation and communication is good but may get manipulated by special interest groups or angry individuals*
- *We may want to be inclusive but risk excluding people who don’t like vague group process*
- *More information gets out but who ensures everyone gets it equally and in an unbiased way?*
- *We cannot ask for public input and then not be able to follow through on all the things they want*
- *We might get quantity of participation but cannot guarantee we get a consistent quality of informed participation*

Appendix 2: Session Notes

Conclusions

Questions posed:
"After our consideration of these different approaches where have we arrived at regarding our question: *How should citizens be involved when important public decisions need to be made?* What sense do we now have about how to move forward with an action plan? "

(*The following are points that were made but not sufficient time was taken to agree on wording. Also lacking are specific actions added that would implement them):*

- If we did a good job of combining the best of #2, 3, and 4 we could reduce the need for, and problems which arise from #1

- Recognize that issues are complex, if we do consultation, it needs to be deep enough to get at the underlying issues, that get at "why" options are being suggested, or "why" people have questions, so that minorities are not making decisions for majorities

- We need to find a way that there is a two way street between an active engaged community and responsive elected officials. There needs to be mutual responsibility for this relationship otherwise issues and perspectives cannot be understood, our decisions cannot work or be trusted. We next need to find ways to put this principle into action.

- We need to flesh out the approach we want and publicize it in the media so people know why we think this way.

- We need to understand more about the kinds of processes that we might use.

- We need to consider what combination of process will be good enough that all (community organizations, representatives, elected officials and the community) will engage with it.

One proposed draft of a summary statement was submitted:

We do our civic duty, vote for leaders, assume they wish to be and are accountable for making fair and well-judged decisions and that they have a process to secure this. The process should include full, thorough and open consultation with the community in order to maximise opportunities for the community in a strategic and efficient way to realise them. Confidence is a key word: our confidence as community associations that we are seeing the whole picture and responding to ideas thoughtfully and flexibly, together with confidence in the way our proposals are considered by leaders (political and professional) in the Town Council, District Council and County Council.

Appendix 3: Post-session Interview Questions

Post-session questions for participants

During the session with ___members on April 10th we addressed the question: *How should citizens be involved when important public decisions need to be made?* To remind you of what we covered in our session I have attached the summary notes in the email I sent.

The session was almost four hours long and we used a process called deliberation, focusing our attention on the issue book of four diverse approaches, looking at the benefits and challenges of each approach and the cost and consequences that would need to be considered if this was the only approach used. Then we summarized an overview of where we had arrived at after all of those considerations.

- Would you say this deliberative process is different from how community groups usually meet and talk together when facing a challenging issue? If so, in what way is it different?

- Do you feel this kind of process was useful? If so, why? If not, what changes would you suggest to make it more useful.

- I provided you with 4 different approaches or common perspectives for looking at an issue of decision making. Was that helpful. In what way? By the end of that session do you feel that the exercise of looking at different perspectives affect the way you considered community decision making? -*Read out final statements*; is this different than where you were at the beginning….in what way

- Did you feel motivated during the session to put in the time and focus the process required?

- Do you feel you would be motivated to use this deliberative process again when decisions need to be made about challenging issues which might arise in the community? If so how do you think it could be initiated so that others would be involved?

- If this process was used often, what if anything might be different regarding the outcome of public involvement in decisions? Could it be done regularly? What would that require?

- What if anything changed as a result of doing the session? For you ? For the community?

- If change did occur, why do you feel that change occurred?

- What if anything might still change?

Skillful Engagement with Wicked Issues
A Framework for Analysing the Meaning-making Structures of Societal Change Agents

Thomas Jordan[1]

Abstract: The argument underlying this article is that innovative and skillful change strategies are needed in order to handle a range of complex and difficult societal issues. For many of these so-called wicked issues, conventional institutions and policies have performed rather poorly. It can be reasonably argued that societal change agents play a crucial role in catalysing developmental processes regarding our societies' problem-solving strategies and organizational forms. The purpose of this article is to contribute to a deeper understanding of the different ways societal change agents engage wicked issues by developing a conceptual framework for analysing the meaning-making patterns of change agents. The framework integrates relevant concepts and models from the field of adult development with a specific focus on the role of awareness in five domains: task complexity, context, stakeholders, self, and perspectives. The framework is expected to be useful in analysing and explaining the variability in how societal change agents construct visions, goals, strategies, and courses of action, as well as in analysing patterns of effectiveness and success in initiatives that engage complex societal issues. Knowledge gained from such studies can (presumably) be used for designing more effective forms of scaffolding individual competence development as well as collective problem-solving and strategy development processes.

Keywords: Context awareness, perspective awareness, scaffolding, self-awareness, societal change agents, societal entrepreneurship, stakeholder awareness, task complexity awareness, wicked issues.

PART I: PRELIMINARIES

Introduction

How can we, the community of human beings, become more skillful in engaging complex societal issues? Many of the tasks a society needs to manage can, with reasonable success, be dealt with in the conventional way: delegating them to an organization with appropriate instructions, resources, competences, and structures. However, some issues are complex in ways that make such a strategy ineffectual, yet they are critically important in terms of the wellbeing and suffering of people and of the biosphere in general. The American planning researchers Rittel

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and Webber (1973) called such issues "wicked problems" and made a preliminary analysis of why they have proved so resistant to resolution. Examples of wicked issues abound: long-term unemployment, marginalization of disadvantaged groups, climate change, crime, drug abuse, lifestyle-generated health issues, terrorism, armed conflicts, etc. Drawing on their conceptualization and those of others (see e.g., Chapman, Edwards, & Hampson, 2009), typical properties of "wicked issues" can be described in the following points:

- **Complex causality**. Social, economic, technical, environmental, psychological, cultural, legal, etc. factors are involved. Conditions interact in complex ways.
- **Many stakeholders**. The issues cannot be delegated to one actor. Cooperation among numerous different stakeholders is necessary for achieving significant results.
- **Deep-rooted disagreements** on (a) how to describe the issue and (b) what ought to be done.
- **Chronic**: The issues cannot be solved once and for all, they will continue to exist to some extent whatever we do. Therefore there are difficulties in agreeing on standards for successful outcomes.
- **Require systemic adaptation**: Because societal structures and processes are contributing to the emergence of the issues, isolated measures and quick fixes are ineffectual. Changes in how the societal systems operate are needed.

This brief summary shows reasons why these issues are truly complex. In order to handle such issues in constructive ways, we need capacities for perceiving, understanding, and managing complexity (Chapman et al., 2009; Inglis & Steele, 2005; Ross, 2006a). Capacities to manage complex societal issues do not necessarily reside in individuals. Skillfully designed methods and organizations and/or networks of people working together in constructive ways may allow us to create capacities that reside in collectives rather than in individuals with exceptional talents. However, in order to design methods, facilitate problem-solving processes, build organizations, and create and sustain networks that have these capacities, we need individuals who have considerable "awareness resources" at their disposal.

This article aims at contributing to a keener understanding of the role different aspects of *awareness* has for the effectiveness of people who want to make a significant positive change regarding wicked issues.[2] I will call such people *societal change agents.* The treatment of the topic here is adapted to the study of individuals, but many of the aspects covered will be relevant to groups and organizations as well.

Societal change agents are people who through their own initiative (rather than being told what to do by an employer) engage complex societal issues with an aspiration to contribute to systemic change on some scale level: in local communities, regions, countries, the global society. One type of societal change agents has recently attracted considerable attention: the *societal entrepreneur* (see for example Gawell, Johannisson, & Lundqvist, 2009). Societal entrepreneurs are here defined as people who (a) are committed to initiate *innovative* activities aiming at serving the good of the society (on some scale level: local communities, regions, countries, global society); (b) do it by organizing activities in new ways (rather than operating with existing organizations); and (c) seek changes that involve influencing how *other* actors and/or institutions operate (rather than just, like many *social* entrepreneurs, starting up a non-profit organization offering needed social services). Societal entrepreneurs are aiming to be agents of societal development, intent upon creating solutions to problems in the society or realize visions which serve societal needs. From a normative point of view, it can be argued that societal change agency is a critically important phenomenon, in particular in relation to "wicked issues." To the extent that the world at large as well as particular communities need to adapt and develop in order to serve the good of humanity, skillful agency of positive societal change is a topic that deserves careful study.

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[2] I gratefully acknowledge many helpful suggestions made by a number of perceptive reviewers.

How can we better understand skillful change agency in relation to wicked issues? Is it possible to identify competences that significantly contribute to effectiveness in such societal change initiatives? Can we develop skillful ways to support the development of required skills? These are large questions that can be expected to sustain a field of research for a considerable time.

The specific purpose of this article is to develop an analytical framework for describing variations in the meaning-making patterns of societal change agents, in particular through considering the role of awareness.[3,4] One application of such a framework is analyses of the relationships between patterns of awareness on the one hand and constructions of visions, goals, and action strategies on the other hand. The phrase "meaning-making patterns" is used here in an open-ended, rather than strictly defined way, more or less synonymous with related concepts like consciousness structures, cognitive structures, action-logics, mindsets, frames of reference, perspectives, etc. All these words refer to the more durable, recognizable patterns in how a person (or a collective) constructs meaning. The reason I prefer "meaning-making patterns" to, for example, cognitive structures, is simply that this formulation so clearly points to the active construction of meaning going on in the mind.

What is to be Explained?

The framework presented below is intended to be useful in unpacking and explaining three phenomena:

a) The variability and complexity of the sets of visions and goals societal change agents strive to attain.
b) The variability in the strategies and actions employed by societal change agents in order to achieve their objectives.
c) The roles of various aspects of awareness in explaining successful outcomes in societal change initiatives regarding complex issues.

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[3] The article is part of a three-year research project on transformations of meaning-making among societal change agents. The overall aim of the research project is to develop insight into how the development of capacity for constructively handling ill-structured, complex societal issues can be supported. The author of this article is the project leader.

[4] Barrett C. Brown (2011) explores a very similar thematic in his recent doctoral dissertation, but uses a quite different investigation strategy. His work became available when this article was almost finished and I choose not to explore the interesting implications of following different routes to develop knowledge about societal change agency from an adult development perspective here.

These three aspects of societal change agency are, of course, interdependent.

Figure 1 shows some alternative explanations to successful outcomes of societal change initiatives. In the figure, skillful action is depicted as one of six possible contributing factors to successful outcomes. Furthermore, skillful action is a phenomenon that may in itself have different contributing explanations. Here only three alternatives are named: acquired skills, properties of meaning-making systems, and inborn talent. Other perspectives are possible. Of course these different sources of causation can interact with each other as well, which is not depicted in the figure in order to avoid cluttering.[5]

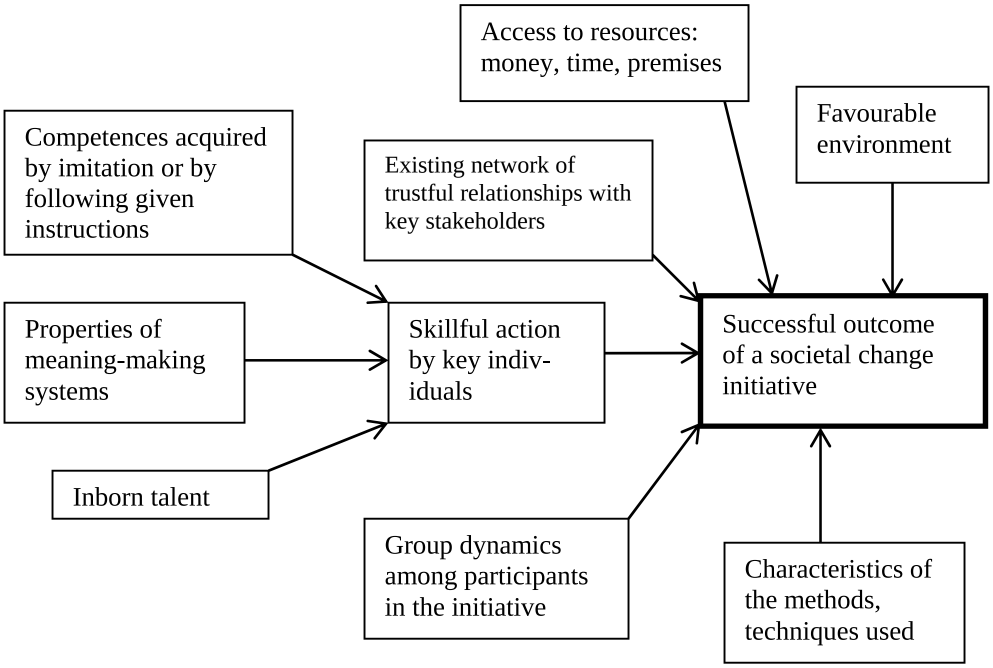
Access to resources: money, time, premises
Favourable environment
Competences acquired by imitation or by following given instructions
Existing network of trustful relationships with key stakeholders
Properties of meaning-making systems
Skillful action by key indiv-iduals
Successful outcome of a societal change initiative
Inborn talent
Group dynamics among participants in the initiative
Characteristics of the methods, techniques used

Figure 1. Some explanations of successful outcomes of societal change initiatives

I will focus only on one of the factors that can be expected to play a role in explaining successful societal change agency, namely the properties of individuals' meaning-making systems. I am, of course, well aware that successful change agency can have other explanations than exceptional skills on the part of key individuals, as shown in Figure 1.

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[5] One of the reviewers of the article manuscript cautioned against using unidirectional arrows since it presents a linear, oversimplified view of something that is actually very complex and nonlinear. I will trust the reader to recognize that several of the elements condition each other in far more complex ways than the model indicates.

Character of the Framework

A Pragmatic Rather than Theoretical Framework

Since the framework presented below may look like a general theoretical model of adult development, in particular since it refers heavily to a number of established models in the field, I think it is necessary to make a few comments on the intended character of the framework. The purpose of the framework is to facilitate the description and explanation of the different forms of societal change agency found in empirical data. We need a framework that is openended in terms of possibly discovering unexpected patterns of reasoning and acting. The framework is not intended to be a theoretical model that represents how people's consciousness is actually structured, but rather to be a pragmatically useful way of identifying relevant patterns in the cases we study. This favouring of practical usefulness rather than theoretical completeness and stringency has a number of consequences, as will become evident in the course of the exposition.

The task defined for this text is to integrate relevant concepts and models from adult development theory into a comprehensive analytical framework specifically adapted to the study of societal change agents. I want to provide an in-depth treatment of the topic, which means that the bulk of the article is a quite thorough exploration of selected elements of existing theoretical models and concepts. Having constructed such a comprehensive framework allows for detailed analyses of, for examples, interviews. However, it is also possible to make use of selected parts of the framework to make more focussed and less complex analyses of aspects of the thematic. Constructing an appropriate analytical framework is, in the context of our ongoing research, a phase of a process. Here, the focus will be the development of the analytical framework and no empirical analyses of examples will be offered at this stage.

Focus on Durable Patterns Rather than on the Ephemeral Nature of Attention

A crucial assumption underlying the framework is that there are (relatively) durable patterns to how a person's awareness operates. This assumption is central to ego development frameworks in general, such as Jane Loevinger's (1976) and Robert Kegan's (1982, 1994). The assumption certainly allows for situational variations in levels and organization of awareness, due to, for example, situational stress or how interested the individual is in the particular issue at hand. But the assumption of durable patterns focusses on that which is recognizable as recurring forms, rather than that which is situationally dependent. In ego development theory, adult development is described in terms of distinctive qualitative shifts in the very structure of meaning-making, shifts that might be described in the form of developmental stages. Most individuals advance in ego development stages until early adulthood and then stabilize in one of the conventional ego stages (Loevinger, 1976; Cohn, 1998). A minority shifts into postconventional stages. In one representative sample of the adult American population, less than 7 % were assessed at the three stages beyond the first postconventional stage, the Individualist. (Cook-Greuter, 2004). There are few longitudinal studies of development throughout adulthood (Helson & Roberts, 1994; Morros, 2001), but the fact that few adults reach the latest ego stages indicate that most people have access to a limited range of meaning-making structures over extended periods of their lives.

How the Framework Evolved

Theoretical Habitat

I have invested considerable time and effort since the mid-1980's in reading, reflecting on, and processing literature on adult development and consciousness development. This endeavour includes surveying large volumes of academic theory-building and empirical research on adult development, but also literature stemming from several of the world's major wisdom traditions, such as Buddhist and Vedic discourse. One of my goals in this work has been to develop a conceptual framework useful for analysing those differences in structures of meaning-making that contribute to explaining what happens in social conflicts, societal phenomena (such as crime, poverty, or environmental problems), political processes, organizational development, and related areas. In earlier research, I have experimented with different varieties of analytical frameworks for studying the developmental variability in geopolitical reasoning (Jordan, 1998), and meaning-making in workplace conflicts (Jordan & Lundin, 2002), defence and security politics (Jordan, 2001b; 2003) and organizational change initiatives (Jordan, 2006a).[6] In one study (Jordan & Lundin, 2002), I developed a complex model for describing and analysing individual differences in patterns of awareness, called the conflict awareness mandala. The model is a graphic representation of a typology covering twenty different themes and four levels of depth, in all 80 variables. In hindsight, I find the model far too complicated to be useful for other purposes than a theoretical understanding of the nature of awareness. I was very satisfied when I discovered that Bill Joiner and Stephen Josephs (2007) had developed very similar ideas about how to structure a practical model of different forms of awareness, but had arrived at a far more pedagogical framework than I had. The framework presented below owes very much, in particular in terms of the pedagogical structure, to Joiner's and Josephs' model in their book *Leadership Agility* (Joiner & Josephs, 2007). Joiner and Josephs have integrated models and insights from a wide spectrum of adult development literature into a framework designed to be useful for understanding and working with leadership development. The form of their framework is adapted to the kind of purpose and audience they wanted it to serve: professionals interested in coaching and organizational consulting rather than academic researchers. The outcome is a very pedagogical model, accessible to interested lay persons. One drawback of their writing strategy is that the packaging of the model obscures some significant theoretical contributions made in the book. In order to serve academic purposes well, Joiner's and Josephs's model needs some modifications. For this, and for a number of other reasons, the framework I present below differs from their model. The somewhat different approach I have taken in structuring an analytical framework has some costs in relation to Joiner's and Joseph's framework, but also, I think, some benefits. I will not detail the differences and explain the reasoning for them here, but rather focus on presenting and illustrating a specific adaptation.

Over time, I have borrowed concepts, models, and discourses from many different researchers and traditions and integrated them into my own evolving analytical framework. This article is a travel report of a certain part of this journey, where the learning I have been through so far is applied to the specific task of studying societal change agency.

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[6] See also the interview with Thomas Jordan made by Russ Volckmann (2005) in *Integral Review* http://integral-review.org/documents/Good,%20Clever,%20and%20Wise%201,%202005.pdf .

Empirical Grounding

As hinted at above, the framework has a evolved over quite a long time, not only through theoretical studies but also in "dialogue" with empirical data. In four different research projects between 1999 and 2006, I and colleagues interviewed more than 130 persons with the aim of studying various aspects of their meaning-making on workplace conflicts (Jordan & Lundin, 2002), security policies (Jordan, 2001b, 2003) and organizational change agency (Jordan, 2006a). Different vintages of analytical frameworks drawing on adult development theory were used to analyze the data. After 2006 I and colleagues have carried out a number of comprehensive case studies of individuals and teams who have developed intriguing strategies for working with change related to wicked issues. Cases we studied involved crime prevention work in Gothenburg (Jordan, 2006b), integration of immigrant youth in a Gothenburg suburb (Andersson & Jordan, 2007), honour-related violence (Emanuelsson, 2011), development of a comprehensive strategy for dealing with the controversial issue of graffiti (Sander & Jordan, 2009), development of strategies for enabling suburban youth to make radio and TV programmes in Public Service channels (Sander & Jordan, 2011) and other issues. There is consequently a considerable amount of empirical data that has served as a sounding board for the gradual development of an analytical framework adapted to the specific needs of understanding societal change agency. However, in its present form, the framework has yet to be thoroughly field-tested.

Overview of the Framework

The framework outlined here is constructed by combining three ideas:

1. The idea that the meaning-making system of a societal change agent can be described meaningfully in terms of three aspects: *awareness, identifications,* and *action competences.*
2. The idea that a societal change agent can turn his or her attention, to varying degrees, in four basic directions, towards *the task*, *the context, the stakeholders*, and *the self*. When the turning of attention in one of these directions becomes a habit, we can speak of a particular form of awareness.
3. The idea that a societal change agent might to varying degrees "go *meta*," i.e., make his or her own and other people's *perspectives* into objects of awareness.

Conceptual frameworks are, almost always, reductionistic. They need to be, because we can keep track of only a limited number of mental representations at once. The artificial sorting of a messy reality using simplified concepts is useful, but is also always problematic in various ways. This caveat is particularly relevant when dealing with very complex and variable phenomena, such as the meaning-making systems of individuals. The distinction between awareness, identifications, and action competences made here *is* artificial in the sense that processes that are actually intimately interwoven are separated into categories. These categories are not here defined in ways that keep them neatly, logically separate from each other. I do believe, however, that the distinctions are meaningful and practical to work with, if used mindfully of the shortcomings of conceptual simplifications.

Awareness, Identifications, and Action Competences

Awareness

I will explain the meaning given to the category *awareness* in this framework by using a couple of closely related words. Awareness is here mostly used in the sense of awareness *of*, i.e., directing attention towards something and consciously *noticing* characteristics of the object of attention. However, the purpose of the conceptual framework discussed here is to serve for describing *durable patterns* of meaning-making, rather than single instances of perception in a certain moment. What is of interest is therefore what we might describe as *habits* in the individual's employment of his or her awareness. A slightly different angle is to think of the individual in terms of him or her having *expectations* about what might be worth looking for. A more academic way of expressing these expectations is to talk about *ontological assumptions* or *preunderstanding* (German: Vorverständnis). Examples of different types of ontological assumptions will be offered in later sections. Of course, most people look at the world through lenses of ontological assumptions without being aware of having such lenses. Becoming aware of and articulating ontological assumptions is a quite sophisticated cognitive task.

There is an intended connotation in the use of "awareness" as a key concept. A lack of awareness is not necessarily a result of a lack of *capacity* for processing information. Sometimes, weak awareness is simply a result of not having noticed or realized that turning attention towards a particular aspect can be useful. For example, an individual involved in a difficult conflict may be asked: "Why do you think she got so angry when you made your suggestion?" The asking of the question directs the individual's attention towards possible explanations of the reaction of the other person. The individual may simply have failed to reflect on this before, but when turning attention towards the question, it may be easy to come up with a plausible explanation. When individuals with weak awareness actually turn their attention towards a particular object, they may have no difficulties in apprehending what is to be apprehended, nor to process the information and make conclusions. Lack of capacity is a different matter. It signifies an inability to process information in a certain way (e.g., keeping track of many different aspects at once; actually understanding a causal principle and using it to deduce possible consequences; or seeing multiple causal connections which together form a system). Even if someone else points out the relevant circumstances and explains the causal connection, the mental processing capacity is not sufficient for accomplishing the task, at least not without a lot of support (scaffolding).

A lot of the research on development of social and psychological cognition (e.g., Gremmler-Fuhr, 2006; Jordan & Lundin, 2002; Krebs & van Hesteren, 1994; Selman, 1980) analyzes shifts in how, for example, persons and relationships are constructed. This is interesting and relevant, but I have often found that the crucial issue is not how something is constructed when the individual actually talks about it, but rather the failure to at all consider the matter. This non-reflection can be total, i.e., a complete disregard of something that might be highly relevant, or it can be partial, i.e., vague and unelaborated (Jordan & Lundin, 2002). This approach to the study of meaning-making means that noticing the absences of certain types of awareness can be central to understanding the character of a person's way of making sense of, say, a societal issue. The failure of an individual to notice that there are complex reasons for a particular problem can actually be a powerful explanation of the opinions and actions of that person.

Five Domains of Awareness in Social Settings

Figure 2 gives an overview of the five domains of awareness used in this framework for identifying salient properties of meaning-making structures among societal entrepreneurs. The simplest explanation of the model is to see awareness as a result of turning one's attention in different directions in order to allow more or less differentiated gestalts to form in one's field of vision. The formation of these gestalts makes mental work possible. One can deepen the perception of the object of attention, noticing finer details, differences, and similarities. One can start to reflect on possible causes of the present state of things, as well as hypothetically explore alternative future consequences. One can also start exploring possibilities for action: how to work with the present situation in productive ways.

When attention focuses on a certain *task*, the properties of this task become the object of attention. A task can be a work task, a specific problem or dilemma one is presented with, a vision one wants to realize, etc. I call this *task complexity awareness* because a key aspect of dealing with a task is to unpack the complexity relevant to the understanding of and dealing with the task.

In the opposite direction, attention can be directed towards the wider *context* of the task. This context has properties and these properties may condition the possibilities of managing the task successfully. People have different degrees of *context awareness,* i.e., they are more or less prone to turn attention toward the conditions of the wider environment of the present task.

In most cases related to societal change agents' interests, task completion cannot be reached by autonomous action, but there are usually different *stakeholders* the change agents need to interact with for various reasons. Stakeholders may, for example, control resources needed for achieving one's objectives, they may react and act in various ways that influence task completion, or they may have power to block certain things from happening. *Stakeholder awareness* is the result of turning one's attention toward relevant stakeholders in order to understand who they are, what their interests are, and how best to relate to them.

The fourth direction of the model is the *self*. *Self-awareness* means turning attention towards the processes going on inside oneself, in order to notice what kinds of thoughts, feelings, and desires are tumbling through one's own self.

In addition to the four attention directions of the base model, a fifth awareness category has been added, *perspective awareness.* This category seems necessary in order to name a very significant aspect of meaning-making: taking the *patterns* of meaning-making of oneself and others as objects of attention.

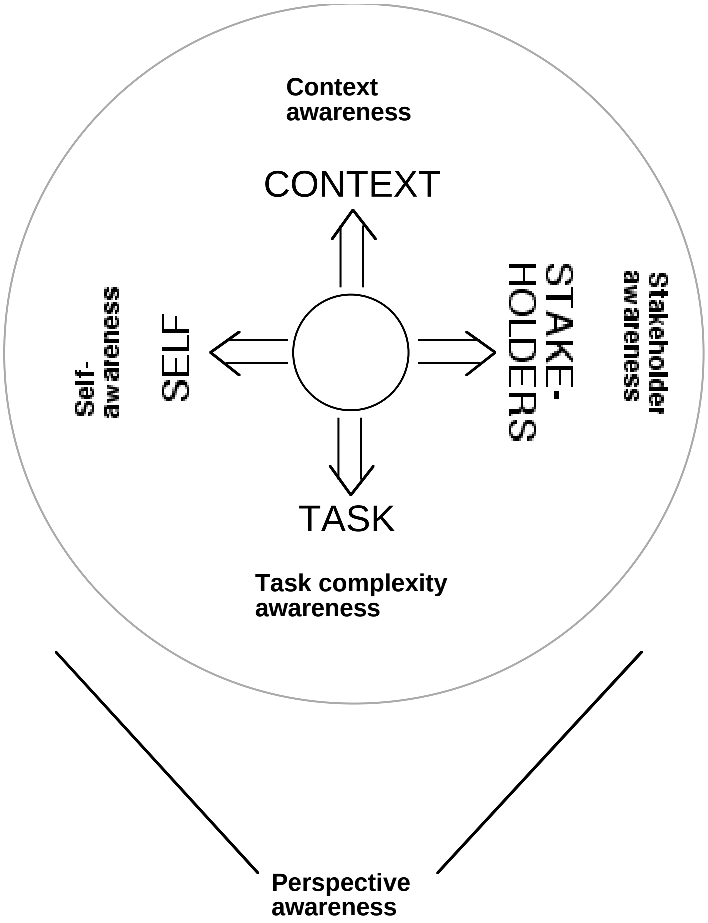
Context
awareness
CONTEXT
Self-
awareness
SELF
STAKE-
HOLDERS
Stakeholder
awareness
TASK
Task complexity
awareness
Perspective
awareness

Figure 2. Five types of awareness
Adapted from Joiner & Josephs, 2007 and Jordan & Lundin, 2002.

Identifications

While *awareness* focuses what a person notices and fails to notice, *identifications* focusses what a person feels committed to: what feels important (desires, goals, visions, values, etc.) and what is felt to be "I" and "We."[7] This includes what, in Robert Kegan's (1982, 1994) languaging, is *subject* to a person and therefore forms the core of the identity. The category *awareness* is used for asking questions about what a person is aware of, which does not necessarily tell us anything about a person's motivation, such as visions, engagement, commitments, etc. There are strong interrelationships between awareness and identifications, since the gestalts formed in awareness can be highly significant for how goals, visions and commitments are constructed. This theme will be further explored in later sections.

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[7] Joiner and Josephs (2007) build their framework around the conceptual pair of *awareness* and *intent.* In the present framework, what Joiner and Josephs refer to as *intent* is included in the category *identifications,* but the latter category also comprises constructions of self.

Action Competences

Action competences focuses attention on the competences a person can actually make use of when working with tasks, solving problems, and trying to realize visions. Action competences can be processes going on within one's mind, e.g., skills in developing creative solutions to tricky problems or techniques for managing one's own emotional reactions. Other action competences really involve outward behaviour, e.g., communicative skills in creating trustful relationships with other people.

Five Domains of Awareness, Identifications and Action Competences

Table 1 gives a schematical overview of the framework generated by combining the five domains of awareness with the distinction between awareness, identifications and action competences.

Table 1. Schematical overview of the analytical framework

	Awareness	Identifications	Action competences
Task	Task complexity awareness	Construction of and commitment to worthy tasks	Competence in managing task complexity
Context	Context awareness	Scope of caring	Competence in locating the "room of manoeuvre"
Stakeholders	Stakeholder awareness	Goals relating to stakeholders	Social action competences: building relationships, influencing people
Self	Self-awareness	Ego needs, self-transformation goals	Strategies for managing interior processes and structures
Perspectives	Perspective awareness	Embeddedness in-disembedding from perspectives; Goals relating to transforming perspectives	Skills in using contrasting perspectives for insight and problem-solving

In Part II of the article, each of these five types of awareness will be presented in a comprehensive way, also referring to relevant models, theories, and concepts developed by researchers in the adult development field. After the completion of this discourse-building, Part III will deal with the more practical work of putting the framework to use in analyses.

Choices in the Design of an Analytical Framework

When studying very complex phenomena, in this case meaning-making in the context of societal change agency, choices must be made, for example between designing a framework for a high level of theoretical stringency or for versatility in encompassing a wide variety of different aspects. It is seldom possible to optimize an analytical framework towards all desirable qualities. The framework outlined here sacrifices theoretical stringency for flexibility and openendedness. I believe that the choice to operate with five different awareness categories is useful for identifying significant patterns of meaning-making in real-life contexts. The division of awareness into five different categories *is,* however, artificial. For example, the aspects described in the category *task complexity awareness* are integral parts of aspects of the other categories as well. Some would argue that stakeholders are a salient part of the context. However, when studying the particulars of people's meaning-making, it makes good sense to treat awareness of significant other persons separately from awareness of the conditions of the wider environment. Furthermore, perspective awareness is, it could be argued, a particular case of systemic complexity awareness applied to awareness of self and of stakeholders. Consequently, the framework is designed to serve the function of facilitating the identification of different aspects of meaning-making among societal change agents, rather than offering a consistent theory of how awareness is structured.

Multidimensional Frameworks

Readers familiar with the "integral studies" field, or with adult development research in general, know that many of us grapple with how to deal with the topic of "lines of development." Is it sensible to conceptualize adult development in terms of several distinct, if somehow also interdependent, lines of development? Or is the self, as is sometimes assumed in ego development theory, a "structured whole," a system that develops and transforms *as* a system in recognizable stages. Or does it make more sense to try to find the common underlying variable (e.g., levels of complexity) that can explain patterns of development in different domains?

Ken Wilber has been a pioneer in pointing to the existence of multiple "lines of development" and in starting to consider how these different dimensions of consciousness development are interrelated (e.g., Wilber, 1995, 1997, 1999, 2006).[8] However, Wilber's contribution has mainly been to point out the general patterns and issues in consciousness development. Fashioning the details of an analytical framework out of his often penetrating insights has been left to others. People inspired by Wilber's way of conceptualizing different dimensions of development have started to develop frameworks outlining the "lines of development" they consider relevant to their own field of inquiry or practice. Most such efforts concern the field of psychotherapy (e.g., Esbjörn-Hargens, 2010; Forman, 2010; Ingersoll & Zeitler, 2010; Marquis, 2008) and are conceived in terms of choosing lines of development and then defining stages in each line. One of the most ambitious efforts along these lines (although with a weak or no relation to Wilber's framework) is the *Manual for Faith Development Research* (Fowler, Streib, & Keller, 2004). This manual describes seven different aspects of development with coding criteria for six developmental stages for each aspect.[9] The framework is, of course, designed to allow a differentiated analysis of meaning-making in the realm of (religious) faith. Many of the aspects are, sometimes with some adaptation, relevant also to other areas of meaning-making.

The approach taken in this article is, however, different. Rather than operating with quasi-independent lines of development, the framework is constructed from the notion of varying degrees of awareness, put to work with different objects of attention. Rather than defining stages, this framework is openended, in order to be flexible in relation to the actual patterns presented by the cases we study.

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[8] See also Jordan, 2000.

[9] The seven aspects are: Form of logic, Social perspective taking, Form of moral judgment, Bounds of social awareness, Locus of authority, Form of world coherence, and Symbolic function.

Readers interested in different ways to handle the multidimensionality of adult development might want to study the work of Otto Laske (2006, 2009). Laske has made a very ambitious effort to integrate theoretical constructs of, among others, Kegan, Jaques, Basseches, and King & Kitchener into a comprehensive multidimensional framework. His specific application is developmental coaching, but the theoretical project is probably the most ambitious effort thus far to differentiate and integrate cognitive, socio-emotional, and epistemological dimensions of adult development into a sophisticated theoretical framework. In our context, however, Laske's theoretical framework and methods are too complicated and time-consuming to be practicable.

PART II: FIVE DOMAINS OF AWARENESS

Introductory Notes

In the following sections, the discourse defining each of the five types of awareness is elaborated using the same basic pattern. First, an explanation of the meaning given to the respective type of awareness is offered. Secondly, a discourse for relevant distinctions is developed, drawing on a number of models and frameworks from the adult development field. The distinctions offered in these subsections constitute patterns to look for in, for example, interviews made with societal change agents. Thirdly, some observations on how variations in the forms of awareness in each of the domains relate to possible patterns of identifications are offered. Lastly, some comments are made on how each domain of awareness also forms the basis of useful action competences in the field of societal change agency.[10]

The first section, on task complexity awareness, is considerably more comprehensive than the following four. The reason for this is that awareness of complexity is a fundamental aspect of awareness in all domains and is therefore given extra care.[11] So while theoretical models describing various aspects of meaning-making relating to complexity are presented in the section on task complexity awareness, the other sections build on these models as well.

Task Complexity Awareness

Task complexity awareness describes to what extent a person notices, expects, and can handle the complexity of a task. I discern three aspects of complexity awareness.

1. The noticing of and interest in *compoundedness* and *variability*. This aspect concerns the extent to which a person actively notices a spectrum of varying conditions, circumstances and characteristics that might possibly be of significance for the interpretation of the situation when taking on a task. The gestalts constructed of a task, a situation, or an event can be more or less elaborated in terms of compoundedness, nuances, and attention to

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[10] A lot of plain assertions are made in the following. This form is used for convenience and fluency and should not be read as truth claims, but rather as plausible assumptions (often based, however, on a considerable body of knowledge).

[11] But, as I hope will be apparent in the following, there are also aspects of the various types of awareness that cannot be accounted for in a satisfying way by assimilating them into a pure model of hierarchical complexity. See for example the section on self-awareness below.

potentially significant details.

2. The noticing of and interest in underlying *causal connections* at various levels of complexity. This aspect concerns to what extent different elements are seen as connected to each other through causal relationships that might offer meaningful explanations of events and allow reasoning about possible future consequences of present conditions. Causation of social and psychological phenomena can often be conceived of as nested in layers of increasing complexity, of which an individual may be more or less aware.

3. The noticing of and construction of mental representations of *abstract properties*. This aspect concerns the acquisition of a conceptual repertoire for reasoning in terms of qualities that are far removed from concrete, tangible actions and objects. Concepts at high levels of abstraction can, for example, be words for qualities that are common to many different-looking occurrences (e.g., "authenticity"), or be formulations that describe properties of complex systems (e.g., "a vicious circle of depopulation").

When taking on a task, a person may have more or less complexity awareness at his or her disposal. Complexity awareness can also be more or less consolidated. The first step of complexity awareness is the *noticing* of different aspects of complexity. Sometimes there are circumstances that, so to speak, call for attention by being obnoxious hindrances or obviously relevant explanations. A person might become aware of some of the complexity of the issue when prompted in this way, but still be relatively oblivious of the uses of actively exploring complexity without being prompted. A further step in the consolidation of complexity awareness is therefore having the *expectation* that things may be complex, i.e., being aware of the possibility that there might be significant circumstances, causal relationships, potential consequences, and systemic characteristics that might explain occurrences and that might be useful to consider when deciding on a course of action. Above, I also referred to such expectations as *ontological assumptions* or *preunderstanding*, i.e., general, mostly unreflected, assumptions about the nature of reality. An ontological assumption about the ever-present complexity of most issues means that an individual without prompting expects and looks for significant circumstances and underlying causes.

The expectation of complexity and the habit of reflecting on complexity usually leads to the accumulation of a *repertoire of concepts, ideas, thought forms* (Basseches's "schemata," see below) *and generic questions* about what to expect and look for, such as a set of ideas about what circumstances to look for, what explanations might be relevant, what properties of systems might play a role. Having a vocabulary of meaningful words for naming properties of complex relations can be seen as an important support for complexity awareness.

A keen complexity awareness can lead to the development of actual *action competences* in dealing with complexity. Action competences include being able to construct and operate with mental representations of complex interrelationships between a number of conditions, causes, and system properties, so that more effective strategies, courses of action, and solutions can be developed by taking the complexity of the issue into account.

As has been alluded to before, the *absence* of complexity awareness is as significant as the presence of the same. If a person does not notice complexity, this will have profound consequences for how he or she makes sense of the issue at hand and consequently also for how he or she handles it.

Potentially Helpful Conceptualizations in the Adult Development Literature

The issue of complexity in mental processing has attracted a lot of attention among researchers in the adult development field.[12] The models and concepts of hierarchical complexity developed by researchers in the adult development field (e.g., Kurt Fischer and Michael Commons) cannot be properly understood without a good grasp of the entire discourse the models and concepts refer to. I will here only point to some conceptualizations that may be useful for recognizing patterns in the meaning-making of societal change agents. For a fuller understanding of hierarchical complexity theory, the reader is referred to the core texts (see footnote).[13]

Researchers writing about hierarchical complexity have tried to find appropriate names for various properties of reasoning structures and abstraction levels. Often, several different names have been used to cover the same phenomenon.[14] It is hard to find (and agree on) names that are descriptive of the properties one wants to have a name for, without them having misleading connotations. Each author has his or her reasons for preferring some names to others. I will add to the confusion by picking the names from different models that I find most appropriate.

Models of Hierarchical Complexity

There is a considerable literature on two closely related theoretical models for describing hierarchical complexity. One is Kurt Fischer's skill theory (Fischer, 1980; Fischer & Bidell, 2006), which has been developed further in various ways by Theo Dawson and her colleagues (the Lectical Assessment System, LAS, e.g., Dawson & Gabrielian, 2003; Dawson & Wilson, 2004).[15] The other model is the Model of Hierarchical Complexity (MHC), developed by Michael Commons and his colleagues (see e.g., Commons, 2008; Commons & Richards, 1984, 2002; and

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[12] The first aspect of complexity awareness mentioned above, concerning compoundedness and variability, is an important theme in Jane Loevinger's descriptions of the stages of ego development (e.g., the ego development scoring manual, Hy & Loevinger, 1996). However, Loevinger did not go far beyond inductively derived stage descriptions in theorizing about increasing complexity as an important aspect of ego development.

[13] Fischer, 1980; Fischer & Bidell, 2006; Dawson-Tunik et al. 2005; Commons, 2008; Commons & Richards, 1984, 2002; Commons et al., 1998. Elliott Jaques offers an alternative framework, less stringently defined, but with striking similarities to Fischer's and Common's model (Jaques, 1998; Jaques & Cason, 1994).

[14] Not seldom the same author uses different names for the same phenomenon in different texts. Elliott Jaques, for example, used *declarative* and *assertive* to describe the same form of mental processing, and Theo Dawson has experimented with a variety of names for both structures of reasoning and orders of abstraction, finally deciding on just using numbers.

[15] Many of Kurt Fischer's articles, book chapters and other texts are available (as of August 2010) at this website:
http://www.gse.harvard.edu/faculty_research/profiles/profile.shtml?vperson_id=335
Texts by Theo Dawson and her colleagues are available (as of August 2010) at this website (see under "About us"): http://devtestservice.org/

Commons, Trudeau, Stein, Richards, & Kraus, 1998).[16] Both models describe a hierarchy of increasing complexity.

These models have the advantage of being stringently defined, which make them valuable in research endeavours that aim for high degrees of stringency in measurement and analysis. However, using these frameworks requires a thorough understanding of a quite complex theoretical discourse and considerable training to acquire reliable scoring skills. The actual scoring of interview transcripts is also a time-consuming procedure. Scoring yields stage scores. These can be useful for comparative purposes, for measuring change over time, and for additional insights in interpreting qualitative data. The advantages of stage scoring consequently come at considerable costs in terms of the time that has to be invested in training, scoring, and interpretation of the results. However, I believe that the distinctions made in the hierarchical complexity frameworks can be useful also in less meticulous, more qualitatively oriented analyses of discourse. In the following two sections, I will present two sets of conceptualizations that I deem potentially useful for recognizing structural properties of the meaning-making of societal change agents. The first is Elliott Jaques's description of four forms of mental processing, the other is the five MHC stages relevant to the vast majority of adult forms of reasoning. Both models are hierarchical, i.e., the forms/stages that come later build upon successful completion of the previous form/stage.

Four Forms of Reasoning about Tasks

Kurt Fischer and Elliott Jaques both noticed that there are some basic forms of thinking that can be recognized in a wide variety of contexts. They developed quite, but not entirely, similar conceptualizations for describing those forms. Fischer's discourse is more stringently grounded in clear definitions (Fischer, 1980; Fischer & Bidell, 2006), while Jaques's typology is probably more accessible to those who are not intimately familiar with Piagetian discourse. Jaques describes four basic "forms of mental processing" that can be recognized when an individual talks about how to handle a particular task.[17]

> **Declarative Processing:** a person argues his or her position by bringing forward a number of separate reasons for it. The reasons are separate in the sense that each is brought forward individually, on its own, and no connection is made with any of the other reasons; for example, "Here's one reason for my idea, here's another, I could give you others as well." This method of processing has a disjunctive, declarative quality.
>
> **Cumulative Processing:** a person argues his or her position by bringing together a number of different ideas, none of which is sufficient to make the case, but taken together, they do; for example, a detective might argue, "If you take this first point (clue), and put it together with these three other items we have observed, then it becomes clear that such-and-such has occurred." This method of processing has a pulled-together, conjunctive quality.

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[16] Articles, papers, dissertations and other texts by Michael Commons and his colleagues are available at: http://www.dareassociation.org/

[17] Jaques and Fischer both constructed models where a sequence of basic *forms* of mental processing repeated itself on several orders of increasing abstraction, thereby defining a relatively large number of stages.

> **Serial Processing:** a person argues his or her position by constructing a line of thought made up of a sequence of reasons, each one of which leads on to the next, thus creating a chain of linked reasons; for example, "I would do A because it would lead to B, and B will lead on to C, and C would lead on to where we want to get." This method of processing has a conditional quality in the sense that each reason in the series sets the conditions that lead to the next reason.
>
> **Parallel Processing:** a person argues his or her position by examining a number of other possible positions as well, each arrived at by means of serial processing. The several lines of thought are held in parallel and can be linked to each other. It becomes possible to take useful points from less favored positions to bolster up a favored one. This method of processing has a double conditional quality, in the sense that the various scenarios are not only linked with each other, but they can condition each other as well. (Jaques, 1998, p. 22)

Declarative forms of reasoning mean that the speaker makes assertions and states opinions, but does not justify assertions by offering explanations of the underlying causal principles. If asked for justifications, the individual often responds by adding new assertions, rather than pointing to how things fit together. In *cumulative* processing, the individual notices that there are different circumstances that need to be taken into consideration to make a good judgment. There is consequently an independent processing of a number of situation-specific factors that leads to a conclusion about how to handle an issue. In *serial* processing, attention is turned towards causal relationships. An understanding of the principles of (linear) causation involved invites hypothetical reasoning: deducing possible consequences of alternative courses of action as a method for choosing an appropriate problem-solving strategy. In the light of other theoretical frameworks, Jaques's conception of *parallel* processing seems a bit idiosyncratic. Fischer, Dawson and Commons speak of *multivariate* or *systems* reasoning as the natural next level of complexity after serial/linear reasoning. The essential quality of more complex forms of reasoning is that several interacting elements are kept in mind simultaneously, not only in unidirectional series of cause-and-effect relationships, but as having mutually conditioning complex relationships to each other.

For our purposes, it is relevant to look for the structure of reasoning when societal change agents are grappling with ill-structured issues. I will, however, make a mixed selection regarding the terminology. *Declarative* reasoning means that ideas are asserted without a consideration of underlying causative processes. People reasoning in a declarative way may provide what they consider to be explanations, but these explanations are only assertions about fixed properties, not explanations of causal principles. The notion of *cumulative* reasoning could assist us in noticing when respondents make elaborated comments about a variety of specific circumstances that need to be weighed in when handling issues, but do not in a deeper way consider causal processes. Characteristic of *linear* reasoning is when people as centers of their strategy-making have ideas about significant cause-and-effect chains, but keep their focus on single unidirectional chains. A person who considers multiple relations that are seen to hang together in systematic ways uses *systemic* reasoning (see also the explanation of the *metasystematical* stage in next section).

The Model of Hierarchical Complexity

The Model of Hierarchical Complexity (MHC) is a mathematics-based general theory of levels of task complexity.[18] It accounts for a series of levels of increasing complexity of tasks (and in particular stages of task performance). Each new level is defined in terms of coordination of tasks of the preceding level. An important characteristic of the model is that it is content-free. Hereby, the model allows a stringent classification of a single aspect: the level of complexity of a task. This property of the model makes it possible to make measurements of, for example, the complexity level of a person's effort to solve a problem through reasoning. The model can also be used for comparing different models that describe stages of development in a particular field (e.g., moral reasoning, reflective judgement, ego development). For our purposes, the MHC can be useful as an approach to discerning the complexity of reasoning about a particular problem or vision that engages a societal change agent. The MHC comprises 15 stages, but only five of them are relevant in relation to the patterns of thinking about tasks one generally encounters among adults.

The following is a brief presentation of the relevant MHC stages as they can be recognized in discourse about social issues.[19]

Concrete (Stage 8)

At the concrete stage, thinking and talk is narratives about concrete, specific things, people, acts, events and places. The concrete stage is, when found in adults' thinking and talk, perhaps best understood in terms of what is absent. Experience is not processed into generalizations, where the concrete events would be seen as specific instances of classes of things, people, acts, etc. (abstract stage). Nor would more complex mental representations be used, such as conceptualizations of abstract causal relations (formal stage). Thus, talk is dominated by narratives about the specific (often what is concretely experienced in daily life). For example, a group of people who are concerned about problems in their neighbourhood and start talking about them can go on talking for a very long time about one specific incident after another. At the concrete stage, they do not summarize the different specific incidents into thematic categories. However, at the next, abstract stage, they could formulate their concerns in general terms, like for example: "–We ought to do something about misbehaving youth in our neighbourhood."

Abstract (Stage 9)

Thinking at the abstract stage is characterized by the use of categories that are abstracted from specific things, people, acts and events. The construction of abstractions makes it possible to talk about concrete things, people, acts, and events *in general,* i.e., to form categories and generalize about them. Abstractions are categories for something that can vary, i.e., take on different forms and properties within the broader characteristics described by the category (Fischer, 1980, p.

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[18] I gratefully acknowledge constructive comments and suggestions by Sara N. Ross on this section. I haven't always followed her advice, though, so any misrepresentation remaining is my own sole responsibility.

[19] The stage descriptions here are compiled and adapted from a number of different articles and documents about MHC, including unpublished course material generously shared by Sara N. Ross.

481ff). Since cognition confined to the abstract stage and below does not make use of generalized conceptions of cause-and-effect relationships, conversation about problems at this stage is dominated by plain assertions and value judgments (opinions). There is no effort to justify propositions by offering arguments about underlying causes and principles. If explanations are provided, they are simply other assertions. Referring to Jaques' terminology, the abstract stage makes use of declarative mental processing: there is no real coordination of conditions, circumstances or causal relationships – each assertion, opinion and belief stands for itself.

Formal (Stage 10)

Reasoning at the formal stage makes use of mental representations of generalized *relations* between or among abstract categories, i.e., conceptions about how different abstractions are causally or otherwise connected to each other. In Jaques' terminology, the formal stage is characterised by serial mental processing of abstractions. A common way of describing the essence of formal reasoning is that "if-then" statements are formulated by putting two or more abstractions into logical relationship. The mental representations of abstracted relations allow for hypothetical reasoning. A person using formal reasoning can, in his or her mind, make experiments. Assuming a certain action, consequences can be deduced by referring to an idea about the causal relations involved. When issues are processed at the formal stage, people ask for evidence and explanations and critically scrutinize whether a statement is consistent with other accepted facts or logical arguments.

The limitation of formal reasoning is the linear character of the arguments. Attention is focused on one variable that stands in some type of linear relationship to one or more other variables. The relationship is thought of as unidirectional: one thing causes another. One can look for causes of events, or consider possible consequences of a certain condition. However, in formal reasoning there is an absence of conceptions of co-dependent causation involving multiple variables.

Systematic (Stage 11)

In reasoning at the systematic stage, multiple formal conceptions are coordinated into mental representations of complex relationships, forming systems.[20] In a system, elements can condition each other in complex ways that are not reducible to linear causal relationships. In formal stage reasoning, only one unidirectional causal relationship at a time is considered, whereas in systematic reasoning a system of multiple formal relationships is considered simultaneously. Characteristic of systematic reasoning are such factors as consideration of the function of a single element in a larger system, feedback loops and interacting conditions and causal factors. People who use systematic stage reasoning about an issue usually need more comprehensive statements in order to do justice to their conception of what they perceive as relevant conditions, causes and consequences.

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[20] Jaques' *parallel* mental processing describes one form of systematic reasoning about abstractions. However, I believe that Fischer's terms *multivariate*or *systems* reasoning better capture the spectrum of forms of systematic reasoning.

Metasystematic (Stage 12)

At the metasystematic stage, mental representations of whole systems *as* systems are constructed, allowing the subject to describe systems as integral wholes, compare systems to other systems and reflect on how different systems are related to each other. Taking systems as wholes as objects of attention allows for understanding of the properties of systems, i.e., properties that are not reducible to the properties of relations between the elements of the system but exist or arise as a consequence of the structure and the interaction patterns of the system as a whole. A common outcome of metasystematic thinking is that systems, strategies and complex processes are named with designations that describe their key properties. Another is that metasystematic thinkers often look for high-level principles that are valid across different systems. Examples of this would be "transcendent" values that are valid beyond the concrete beliefs in different religions or ideologies, or principles that describe similarities and differences between different types of complex social systems.

Metasystematic reasoning can lead to the construction of "metasystems," i.e., conceptualizations that coordinate two or more systems. One important form of metasystematic reasoning is when a person reflects on the properties of *perspectives* as complex systems of ideas. This enables the further metasystematic consideration of how the contrast and tension between different interpretive lenses can be used for gaining further insight into complex issues. Metasystematic reasoning in relation to perspectives is further discussed in the section on perspective awareness below.

The distinctions made in the MHC as summarized above may be useful for recognizing patterns of reasoning among societal change agents.[21] As is pointed out repeatedly in this article, it is usually instructive not only to look for the structure of what is actually said by respondents, but also to look for what is absent in their discourse about their work. In particular, it can be elucidating to look for the following forms of reasoning:

1. Formulations of principles of cause-and-effect relationships that are actively used to interpret an issue and to develop ideas about appropriate courses of actions to prevent or solve a complex problem or achieve an end that requires that a whole chain of cause-and-effect relations is set in motion.

2. Formulations of systemic properties, i.e., descriptions of the properties of various types of social systems (including organizational structures) and the consequences of these properties, as well as how such conceptualizations may influence the formulation of goals, visions and values.

3. Formulations of values at high levels of abstraction, what could be called "existential concerns," i.e., values and concerns that are of a more or less universal human character. Typical formulations include "ensure that human dignity is respected," "create conditions for creative processes," "make it possible for people to have rich lives," "reduce suffering," and "enable developmental transformation of people."

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[21] See also the "Scale of Public Interactions," developed by Sara N. Ross and Jan Inglis (Inglis, 2007). The scale draws on MHC and describes five types of group communication about societal concerns.

If these three forms of more abstract reasoning are conspicuously *absent*, this certainly has consequences for goals and strategies in societal change agency.

Dialectical Reasoning

Different conceptual frameworks for describing and analysing more complex forms of meaning-making emphasize different features. The MHC and LAS focus the development of skills in cognitively keeping track of coordinations on increasingly complex levels. This means that they describe a *control* aspect of levels of cognitive complexity. The later stages in the MHC are characterized by a capacity to construct mental representations that keep track of and actively coordinate very complex interrelationships: systems of relations; systems of systems, and systems of systems of systems. Michael Basseches (1984), in his seminal work on dialectical thinking, made a dedicated effort to describe how more sophisticated forms of reasoning reflect a dialectical view of reality.[22] He found 24 dialectical schemata, "movements of thought," characteristic of a dialectical outlook. Basseches's framework, in contrast to the MHC, focuses the recognition of *limits to control* that he finds is characteristic of more sophisticated forms of meaning-making. A summary of the typical traits of a dialectical worldview is offered in the manual for coding dialectical thinking that is a part of Michael Bopp's doctoral dissertation:

> A dialectical world-outlook can be understood as a view of the nature of existence and/or knowledge which emphasizes their instability, their wholeness, and their composition by internal relationships. In ontological terms, instability pertains to the view that existence is not seen as composed of fixed, unchanging elements (monads), but rather as consisting of ongoing processes of becoming in which old forms give way to new, emergent forms. Likewise, from an epistemological point of view, knowledge is not seen as the accumulation of fixed, unchanging facts or ideas, but rather as active processes of conceptually organizing and reorganizing phenomena.
>
> Ontological wholeness is asserted in a tendency toward viewing existence as a unitary whole in the process of differentiating itself. This contrasts with the view that separates existence into monadic elements which are taken to exist as individuals, independently of each other. Epistemological wholeness is asserted in a tendency toward focusing on the structure and functioning of knowledge (or the conceptual system) as a whole, rather than dividing knowledge into facts or ideas which are viewed as mutually independent.
>
> The idea of composition by internal relationships ties together the focus on change over time with the focus on wholeness or organization. Composition by internal relationships refers to a "dialectical" process by which a whole changes or evolves over time through the changing relationships of its parts. These relationships are seen as "internal relations," meaning that the relations of the parts within the whole make the parts what they are […]. Within the dialectical world-outlook, this process of composition by internal relationships can be taken to describe the development of either existence or knowledge. (Bopp & Basseches, 1984, pp. 453-454, emphasis in original)

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[22] Recently, Otto Laske (2009) has taken up Basseches framework and used it as one of several components in his multidimensional framework. Laske also developed a comprehensive and very useful scoring manual for dialectical thinking, based on Basseches work (see last part of Laske, 2009).

Bopp and Basseches thus point to three distinctive, but intimately related, features of dialectical reasoning. I prefer a somewhat different terminology for the same qualities. Expressed in other terms, higher levels of complexity awareness typically result in a set of ontological assumptions regarding three aspects of reality.

Processes: Things change. Everything has a past, a present and a future, i.e., is embedded in processes of change. In a dialectical worldview, there is an *expectation* that there are different long- and short-term change processes going on that might have to be considered in order to make good judgments about how to deal with a specific concern or task.

Systems: Issues are embedded in larger contexts that have systemic properties. A systemic awareness means that the *relationship* between the specific issue and the system it is embedded in is a distinct gestalt in awareness. The properties, structures, and change patterns of the larger context may have significant consequences for understanding and managing specific tasks.

Relationships: Relationships have their own properties, which cannot be reduced to properties of the parties/elements. Sometimes relationships are constitutive of a phenomenon, i.e., a thing is what it is only through its relationship to something else. The properties of relationships can be described. These properties can be causes, i.e., they can be significant explanations to what happens and what doesn't happen. The properties of relationships can change over time, not least as a result of intentional efforts to transform the properties of relationships by one or several of the parties.

To these three basic components of a dialectical worldview, I would like to add a fourth.

Perspectives: How one makes sense of an issue is inextricably dependent on the properties of the perspective(s) the sense-making is embedded in. Insight into the nature of one's own and others' perspectives is therefore an integral concern in any endeavour. This fourth component of dialectical thinking is clearly articulated in Basseches framework, but is there treated as part of the system/context dimension. I think it deserves being emphasized as a very significant part of dialectical thinking on its own. I will return to this topic in more detail in the section on perspective awareness below.

Before the shift into a dialectical worldview, people tend to see issues in more or less separate ways. Issues are dealt with without considering how they are embedded in a larger (dynamic) context, how they stand in relationship to other issues and levels, and how they have a different meaning when viewed with the lenses of different perspectives. The range of causal relationships considered is usually limited.

With strongly developed complexity awareness, grounded in a dialectical worldview, people generally develop a repertoire of concepts and more complex formulas for naming and describing characteristics of (a) processes of change (e.g., gentrification, individuation, conflict escalation, phases of group development); (b) properties of systems and structures (e.g., machine bureaucracy, learning organization, culture of honour); (c) properties of relationships (e.g., trustful, dynamic, patron-client relationship); and (d) properties of perspectives (e.g., idiographic vs. nomothetic sciences, dialectical worldview, dualistic mindset, postconventional morality).

Task Complexity Awareness as a Basis for Identifications

The level of complexity awareness in relation to tasks is central to what a person feels is important to attend to. Figure 3 illustrates this in a simplified way. The figure points to the possible differences in the complexity level of constructions of tasks. For one person, the task to deal with is a very concrete problem or vision. Attention is focussed on how to eliminate a problem or on how to realize an idea about something that could be. The strategy this person pursues may be seen by another person as attending to symptoms, while the significant causes that create a problem are left unattended. The second person would want to do something about the underlying causal processes that generate the troubling problem, or to initiate causal processes that lead to the realization of a desired outcome.

If attention is directed only towards
the concrete, visible problem,
it is likely that measures taken will deal with the immediate visible problem.

If attention is directed towards
the underlying causes creating the problem,
it is likely that measures taken will also deal with the underlying causes of the problem.

If attention is directed towards
the properties of the system in which the problem arises,
it is likely that measures taken will also aim at influencing systemic properties.

If attention is directed towards
the different perspectives that might contribute to understand the complexity of the problem,
it is likely that measures taken will also aim at influencing the stakeholders' ways of interpreting the problem.

Figure 3. Relations between awareness of complexity and type of problem-solving strategy
Adapted from Jordan & Andersson (2010)

Bill Joiner and Stephen Josephs (see Table 2) offer a different perspective on how identifications, in the sense of what is felt to be important, transform character in the course of adult development.

Joiner's and Josephs's formulations give an example of how aspirations are coloured and transformed by more complex, dialectical, and abstract conceptions. From a focus on achieving concrete results, the individual's attention is shifted towards engaging in fluid processes in a way that serves existential values (*cf.* Basseches's description of dialectical thinking).

Table 2. Constructions of what is desirable in five stages of development

Stage	Intent
Expert	To improve and accomplish things
Achiever	To achieve desired outcomes in a way consistent with self-chosen values
Catalyst	To create contexts and facilitate processes that are experienced as meaningful and satisfying and that enable the sustained achievement of desired outcomes
Co-Creator	To tap into an evolving sense of life purpose and actualize it in your everyday life through deep collaboration with others

Stage	**Intent**
Synergist	To engage with life in all its fullness and to be of benefit to others as well as yourself

Note: From Joiner & Josephs, 2007, pp. 213-214.

Action Competences Related to Complexity Awareness

When studying the meaning-making of societal change agents, it is important not only to look for signs of awareness of complexity, but to try to find out to what extent the individual demonstrates competence in *working* with complexity in creative and independent ways. Bill Torbert's concept *action inquiry* is highly relevant for describing action competences relating to complexity (Torbert & Associates, 2004). Action inquiry means actively inquirying into the complexity of issues, continually learning more, reevaluating one's own assumptions, and experimenting with different strategies in order to deal skillfully with significant tasks.

Context Awareness

Context awareness relates to the *scope* of awareness in terms of how much of the wider context a person actively notices and considers. Each task, each initiative is embedded in layers of context, such as a work group, an organizational unit, organizational structures and cultures, a society with certain characteristics, a global system. Noticing the properties and processes of change in the broader environment might be of crucial importance for carrying out one's own tasks. Changing conditions in the wider context might influence the possibilities, opportunities, and impediments for the specific tasks one is engaged in. What oneself and one's colleagues do might have consequences for the larger system and might therefore elicit reactions and changed conditions. Context awareness entails a capacity to shift focus between micro and macro levels and relate them to each other.[23]

The simplest forms of context awareness are to notice properties of the wider context that are of apparent significance to one's own doings. For example, a societal change agent could notice that since an election is coming up, it might be wise to postpone lobbying for a proposal until after the election as everyone's attention is focussed on the election process. A more consolidated context awareness means that there is a generalized expectation that all issues are embedded in larger contexts and that it is important to keep an eye on what is going on in this larger context, because such conditions and patterns of change may need to be taken into consideration when managing one's own tasks. One of Michael Basseches’s dialectical schemata is a good description of context awareness consolidated into the ontological assumptions of a person. The schema is called *Location of an element or phenomenon within the whole(s) of which it is a part*. Basseches writes:

> Schema 9 (which also can be described as the "schema for contextualization") may be applied to any objects of thought (e.g., concrete things, events, classes of things and events, ideas, theories, etc.). The schema involves placing these phenomena in the contexts of

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[23] Ken Wilber's (1995) discourse on holons is one way of pointing to the ever-present embeddedness of everything in larger wholes.

> larger wholes, which may be referred to as *systems, structures, contexts, processes, sets of connections, wholes, forms,* etc.
>
> Schema 9 is a reflection of the assumption that individual elements are organized, or can be organized into larger wholes. Its application can be seen as turning the thinker's attention to these larger wholes....
>
> Schema 9 describes a process of contextualization, and can be related to any verbal expression which indicates that the subject is viewing something within the context of a larger whole. (Basseches, 1984, pp. 107-108, emphasis in the original)

Consequently, a person with a strongly developed context awareness regularly turns attention towards the wider context's patterns of change and structural conditions. The formulation of goals and strategies is continually adapted to what seems possible, what has a good fit with trends in the environment, and what needs to be done in order to skillfully handle the way the context sets conditions for the successful attainment of goals. For the person with a strong context awareness, the wider context is a distinct gestalt in the field of vision. There is an awareness of the complexity of the processes going on and the conditions set by the structural properties of the system(s) one is embedded in. This gestalt is continually updated and perhaps sometimes reevaluated.

A person with a weak context awareness does not actively look for the properties and trends of the wider context. The context is simply not given consideration. Consequently, this person has only vague conceptions of what the structural conditions and change trends of the context could imply for his or her own concerns. Goals and strategies are formulated without being informed by and adapted to the specific conditions of the context. A person with a weak context awareness may be attracted to the formulation of a utopian vision of how things ought to be ordered *because* he or she is unaware of the intricacies of existing inert structures, unpredictable processes, and complex relationships. The person with a strong context awareness is generally more sceptical about being too specific in the formulation of desired outcomes, since there is a deep-rooted awareness of the complexity of the situation. There are too many processes and conditions one cannot control, therefore goals and strategies have to be continually adapted as events unfold.

Context Awareness as a Basis for Identifications

"Context" can be conceived as a nested hierarchy of increasing scope, where what is considered to be task and what is context is always relative to each other. For a person who is strongly focussed on her own immediate work tasks, the team she belongs to is, for her, the immediate context that she might be more or less aware of. For a person who sees as her task to manage a team, the rest of the organization can be considered to be the context, while for the leader of the organization, its efficient operation may be seen as the primary task, and the relevant context is the (changing) environment the organization operates in.

Increasing context awareness often means a reconstruction of tasks, so that what was before considered to be context in relation to a task with a more narrow scope, becomes a focus of attention in its own right and goals relating to influencing the way the larger context operates gain in importance.

In terms of analysing societal change agency, a distinct, elaborated and systemic gestalt of societal conditions, structures, and patterns of long-term change often leads to the formulation of concerns derived from an image of what is going on in the society. It is not enough to successfully solve an intriguing problem or build a successful operation. One also needs to feel that what one engages in stands in the service of the evolving needs of the society.[24]

Action Competences Related to Context Awareness

A strong context awareness imprints itself on action competences by skillful adaptations of strategies to the conditions and patterns of change in the wider context. One example of such action competences is a continual scanning of what is going on in the environment in order to catch upcoming opportunities presented by new, often unforeseen, developments. Another example is the continual adaptation of strategies to restrictions and opportunities presented by the context. The term "room of manoeuvre" points to an awareness of the need to look for openings determined by conditions in the context.

Stakeholder Awareness

Stakeholder awareness concerns the extent to which an individual notices the presence and roles of people, organizations, associations, groups, or other types of actors that might in various ways have a role to play in the initiative the societal change agent engages in. There are three major aspects of stakeholder awareness, as it is conceptualized here: (a) awareness of the existence of relevant stakeholders; (b) constructing more or less differentiated images of the properties of stakeholders, and (c) awareness of properties of *relationships* between oneself and different stakeholders, as well as relationships among different stakeholders.

Persons with a strong stakeholder awareness have something like an "always on" function scanning the environment for significant stakeholders to keep track on. This scanning produces an internal "map" of different types of actors, including images of their respective properties. This map can then be "consulted" in later situations, when various issues come up, in order to identify, for example, people who might contribute ideas or resources, actors who might have objections that ought to be considered, or someone who ought to be informed in advance about a particular course of action. People with a strong stakeholder awareness are attentive to information that might allow them to understand how different stakeholders think, feel, and act. The resulting interpretations are used for adapting one's own style of communi-cation, conversational strategies and actions to fit the particulars of each stakeholder. A strong stakeholder awareness usually means that goals relating to building good relations with specific stakeholders are prominent parts of the societal change agent's strategy.

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[24] The transformation of the scope of concerns in the course of ego development is beautifully described in Joiner & Josephs, 2007.

Persons with a weak stakeholder awareness simply don't have an internal "map" of stakeholders and the "scanning" for significant stakeholders doesn't get going spontaneously. Images of stakeholders, if at all formed, are undifferentiated and unreflected. People with weak stakeholder awareness act without much prior consideration of stakeholders that might contribute to or stand in the way of initiatives.

It should be noted that an individual can have a strong and differentiated awareness in relation to some groups of people who are at the center of one's conception of significant issues, but devote much less attention to other stakeholders. A person might, for example, want to do something about the situation of unemployed youth in the neighbourhood, who are at risk of developing a criminal lifestyle. This person can have a very differentiated understanding of how young people think and feel about themselves and their situation and may have developed a strong sense of commitment and care in relation to this particular group. But it is also possible that this capacity for role-taking is not put to work in relation to many other actors that might be important to understand and relate constructively with, such as the police, local politicians, administrators in the municipality, shop-owners, etc. In such a case, the awareness demonstrated in relation to the youth is rather a consequence of complexity awareness in relation to the chosen task, rather than stakeholder awareness proper.

Models in the Adult Development Literature that May be Useful

Jordan analysed the structural forms of images of the counterpart in a large number of narratives about workplace conflicts and concluded that the ways the respondents described others could be assigned to three basic categories (Jordan & Lundin, 2002). In the research report, the three categories are called *fixed traits*, *linear psychological causality*, and *complex psychological causality*.[25] Briefly explained, the category *fixed traits* comprises those descriptions of other people that are limited to the enumeration of characterizing adjectives and descriptions of typical behaviour. No efforts are made to understand *why* people behave in certain ways. The category *linear psychological causality* covered the counterpart images that included some ideas about why the other person acted in a particular way, or had a certain attitude. The images of the counterpart classified in the category *complex psychological causality* described the other person in systemic terms, where behavior and attitude was interpreted as an integral consequence of interrelated factors like personality structure, personal biography, life situation, educational background, enculturation, etc. In the terminology in the section on complexity awareness, I would call the first category a declarative image of the other, the second category a linear image, and the third category a systemic image.

Table 3 shows another example of how descriptions of people can be more or less complex in the meaning-making system of an individual. The table describes how increasing stakeholder awareness can lead to qualitatively different, and more complex, constructions of people. From our point of view, this kind of conceptualization is useful in pointing to the *character* of the changes in the complexity of mental representations related to increasing stakeholder awareness.

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[25] These categories correspond closely to the abstract, formal and systematic levels in the Model of Hierarchical Complexity.

[26] Actually categorizing those mental representations into a finite number of stages is, for our purposes, not necessary.

Table 3. A model of development of how people are described

Moral stage	Description of people
Stage 1	People conceived of as particular persons who do particular things.
Stage 2	People classified into groups according to actions they perform.
Stage 2/3	People understood in terms of a few inner states that are closely tied to behavior.
Stage 3	People understood in terms of fixed personality characteristics, sentiments, roles, or motives.
Stage 4	People seen as complex systems of qualities that vary with circumstances.
Stage 5	People seen as complex systems of qualities and processes in interaction with other complex systems.

Note: Extracted from Table 1 in Dawson and Gabrielian, 2003, pp. 166-167.

Stakeholder Awareness as a Basis for Identifications

A strong stakeholder awareness imprints itself on goal construction by the realization that understanding stakeholders, establishing productive relationships to them, and influencing their views are crucial enabling goals. In order to achieve significant progress regarding visions and problem solutions, it is often necessary to invest a lot of time and creativity in managing the relationships with a network of stakeholders. Stakeholders have different meaning-making systems, including narratives, attitudes, conceptions of causal relations, and levels of awareness. They have their respective knowledge constellations with some areas where they have expert knowledge and other areas where they are ignorant. They also have their own patterns of behaviours that may be more or less conducive to the ends of the societal change agent. All this can be apprehended, interpreted, and influenced.

Strong stakeholder awareness, in particular understanding of the background causes of stakeholders' views and actions, generally reduces the tendency to get stuck in antagonistic conceptions and opens up for empathy even towards stakeholders who oppose own initiatives.

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[26] There are other theoretical frameworks in the adult development literature that are at least partly relevant to the stakeholder awareness domain. Robert Selman (1980) did some pathbreaking research on the development of how children and adolescents construct relationships. Some of this work is relevant for identifying adults' reasoning about relationships, but more work is needed in order to have a good conceptualization of developmental differences in typical adult meaning-making. Martina Gremmler-Fuhr's doctoral dissertation (Gremmler-Fuhr, 2006) offers a comprehensive typology of different kinds of properties of relationships and discusses these in a developmental perspective. Considerable work would be needed to adapt the typology to the purposes of this study, though. Outside the adult development literature, the discourse around emotional intelligence offers useful concepts, but generally disregard the developmental preconditions and patterns.

Action Competences Related to Stakeholder Awareness

Often, the most apparent consequence of a weak stakeholder awareness is simply the ignoring of possibilities for contacting and establishing productive relationships with potentially significant stakeholders. There are individuals, officials, and organizations that might play an important role in a process to realize a societal change agent initiative, but they remain invisible to the person, at least until they actively block the way forward.

People with a weak stakeholder awareness have little to work with when deciding how to behave in relation to significant stakeholders. They have no clear conception of what the mental world of the other looks like and therefore do not reflect on how their own ways of talking and behaving might be adapted to fit with how the other person thinks and feels. Influencing others' attitudes and decisions becomes a matter of persuading, cajoling, or even threathening, i.e., unidirectional modes of influence.[27]

A strong stakeholder awareness generates a lot of information that can be used for adapting behaviour in interactions with stakeholders. Persons with a strong stakeholder awareness often develop skills in creating mutual trust, in formulating ideas and visions that make sense to other stakeholders because they are aligned with their own interests and ideas, and in inviting stakeholders to genuine dialogues (Joiner & Josephs, 2007).

Self-Awareness

The concept of self-awareness refers here to awareness of the processes going on inside a person. Focus is on the extent to which a person is in conscious contact with cognitive, affective, volitional processes, and sensomotorical reflexes. The concept stresses the process- character of being aware of what is going on in the mind and body, rather than on having constructed a self-image that tells a story about what character traits one has. Self-awareness in this sense is something that an individual can have at his or her disposal to very different degrees. Every human being thinks, feels, wants, and has behavioural reflexes all the time while awake. Indeed, it is usually really hard work when starting a meditation practice to learn to calm down these more or less self-propelling processes in order to reach at least a modest measure of stillness. However, self-awareness means actually *noticing* the nature of the internal processes, i.e., taking them as objects of attention. It is not always the case that someone who is annoyed consciously notices his or her own annoyance. It is even less common that someone who starts to dislike a new colleague at work really notices that a process has started in his own mind in such a distinct way that he can ask the question: what do I do with my own feeling of dislike for my new colleague? Many (perhaps most) people are, with Robert Kegan's words, *subject* to their likes and dislikes and act them out without having made the active choice of going along with the feeling.

Self-awareness is an important category of awareness because a strongly developed self-awareness opens the possibility for actively taking care of one's own reactions and for developing strategies to work on transforming one's own habitual patterns of thinking, feeling, wanting, and behaving. A person with a weak self-awareness will not reflect on the nature of the thoughts, emotions, desires, and impulses generated by the organism (i.e., the self) and will therefore not be in a position to handle these processes intentionally. Strong self-awareness means that the notion of self-awareness becomes a part of the ontological assumptions, which in simpler words mean that the individual knows that there are spontaneous cognitive, emotional, and volitional processes going on all the time and that these processes can influence one's actions in desirable and undesirable ways. When something important is at stake, one knows that it can be useful to keep an eye on these processes and to sometimes intervene to change their course.

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[27] Joiner & Josephs (2007) explore the developmental aspects of "power styles" from unidirectional to more dialectical strategies for influencing others and aligning intentions.

Of course, the noticing and interpretation of self processes can be more or less elaborated, more or less complex in the senses discussed in the section on complexity awareness. Internal feeling states can be noticed and quickly labelled without further reflection on why the feeling arose or what consequences it could possibly have in the future course of events. At the other end of the complexity spectrum, an individual can see thoughts, feelings, and desires in the wider context of his or her own complex system of meaning-making with a past, a present, and a future. Such a well-developed self-awareness opens possibilities for developing comprehensive and sustained strategies for self-transformation.

Models and Concepts in the Adult Development Literature that Might be Useful

Self-awareness has been an important subject in several of the world's wisdom traditions, in particular, perhaps, in Buddhism and the Vedic tradition. However, the theoretical conceptualization of the development of self-awareness seems to be poorly developed in the adult development literature.[28] The founder of psychosynthesis, Roberto Assagioli, is an exception. He was an early Western pioneer in exploring self-awareness as a capacity to witness internal processes without being absorbed by them (Assagioli, 1965).

I conceptualize self-awareness by the combination of two types of distinctions (Jordan, 2001a): six ego processes and four phases. Self-awareness is framed in terms of awareness of six ego processes.

1. Perceiving: Organizing impressions and images of lifeworld experiences.
2. Emotions, feelings and moods.
3. Thought patterns and interpretations.
4. Opinions, likes and dislikes.
5. Motivation, desires, wishes and intentions.
6. Behavioural patterns and habitual reactions.

Each of these six ego processes can be taken as objects of awareness. I describe the development of self-awareness in relation to the six ego processes in four phases (Jordan, 2001a). In the first phase, the individual is subject to the ego processes, which means that they are not conscious gestalts in awareness. People think and feel, but do not consciously notice and attend to the processes of thinking and feeling. The second phase is when the individual notices what is going on in his or her own interior. The third phase constitutes a deepening of self-awareness by not only noticing that processes are going on, but also evaluating the contents of the processes: What do I think about my having these kinds of thinking patterns? In the fourth phase, the individual starts to develop strategies for actively influencing the ego processes, e.g., having a technique for transforming one's own recurring moods or dysfunctional interpretations.

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[28] A lot of relevant perspectives have been developed in relation to notions like emotional intelligence and mindfulness, but the conceptualization of the *developmental* aspects is generally weak in these discourses.

Joiner and Josephs (2007, pp. 213-214) describe the development of self-awareness in terms of an increasing capacity to *sustain* the attending to internal processes. According to their stage framework, self-awareness proper starts to develop at the first postconventional ego development stage, the *Catalyst* in their terminology. Before this stage, a person's reactions, thinking and feeling are not consciously noticed as they happen. At best, the individual starts to reflect on past occurrences in terms of what was going on in one's own mind and how those processes influenced the course of events. At the Catalyst stage, however, the individual develops "[t]he ability to step back 'in the moment' and attend directly but very briefly to a current assumption, feeling, or behavior that would otherwise escape your attention... In the next stage, *Co-Creator*, there is "[a] slightly more sustained attention to the flow of your ongoing experience, giving you a more robust capacity for processing painful feelings and for understanding whole frames of reference that may differ from your own." The *Synergist* stage is described as having a "[s]ustained, expanded present-centered attention to your physical presence, including your five senses, thought processes, intuitions, and emotional responses." According to Joiner and Josephs, self-awareness only very gradually becomes an integral, ever-present aspect of how one's consciousness operates.

Self-Awareness as a Basis for Identifications

For the societal change agent, the degree of self-awareness is not the immediate source for the formulation of goals, but may have important consequences for the *relationship* a person has to his or her goals and visions and for the more personal unconscious motivations that may play a role in formulating goals and strategies. A person with a strong self-awareness can be expected to be less likely than someone with a weak self-awareness to be driven by needs for personal status and recognition. The familiarity with the comings and goings of thoughts and feelings also generally lead to a more flexible relationship to seemingly compelling idea systems. Strong self-awareness contributes to a process orientation, less likely to construct fixed goals and vision, more likely to engage in a continuous process of finding situationally adapted ways to serve meaningful purposes. Strong self-awareness can, however, lead to the inclusion of auxiliary goals about developing better self-management skills in the overall strategy.[29]

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[29] Barrett C. Brown (2011) found that late ego stage change agents often report experiencing themselves as serving or being part of some type of transpersonal entity. This interesting finding is probably highly compatible with the framework presented here, but it would take too much space to elaborate on the connections here.

Action Competences Related to Self-Awareness

In the case studies we have made on value-oriented change agents (Emanuelsson, 2011; Jordan, 2006a; Sander & Jordan, 2009, 2011), it was obvious that skills in handling one's own feelings of dejection, frustration, and anger when encountering resistance or indifference are of central importance for success in change initiatives. Among the most common techniques for skillfully taking care of own reactions in a professional role are conscious venting with carefully selected persons, internal dialogues with oneself about the reasons for the resistance (i.e., using stakeholder awareness as an instrument for self-management) and taking care to have sources of mental and spiritual nourishment that are independent of the course of events in the change project.

Perspective Awareness

The category of perspective awareness covers the propensity to notice the properties of one's own and others' perspectives *as* perspectives.[30] Actively and consciously noticing that people (including oneself) have durable patterns in the way they make sense of things has profound consequences for a person's meaning-making system. A strong perspective awareness means that the individual reflects on the properties of perspectives, realizes that these properties can be different and that they can develop over time, and, most importantly, that the properties of perspectives *cause* people to make sense of events in particular ways. No single way of seeing the world is absolute, but there are many different ways of making sense of one's experiences. I myself would have had a different set of values and opinions if I had grown up embedded in another culture, or if I had made other decisions in my life regarding where to live, what to study, which partner to spend my life with, what workplace to stay with, etc.. Perspective awareness means, in other words, that perspectives are regarded as *variables.*

A strong perspective awareness leads to a more flexible relationship to perspectives overall, both to one's own adopted perspective and the different perspectives of other people.

Perspective awareness is, of course, inextricably related to self-awareness. The aspect of perspective awareness that concerns awareness of the properties of one's own system of meaning-making is certainly a continuation of the forms of awareness described in the section on self-awareness. The propensity to notice the processes going on in one's own mind and body becomes perspective awareness when the individual starts to perceive one’s own patterns of reasoning in a systemic way. Of course, perspective awareness is not limited to awareness of one's own perspective. Nor is it limited to awareness of both one's own perspective and the perspectives of significant stakeholders. A strongly developed perspective awareness becomes part of the individual's ontological assumptions. A person with a strong perspective awareness notices the existence of perspectives, how the meaning attributed to issues is dependent on the properties of the perspectives used for making sense of the issues. One can describe and reflect on the properties of perspectives and consider what happens when an issue is interpreted through the filters of different perspectives. Perspectives can be compared and one can reflect on the relationships between different perspectives, e.g., how the respective properties of perspectives lead to conflict or to development of deeper insight through contrasting points of view.

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[30] My use of the concept "perspective awareness" has evolved from my efforts to concretize and operationalize Ken Wilber's concept "vision-logic" (see e.g., Wilber, 1995, 1997 and in particular 1999). The two concepts are not synonymous, but I want to acknowledge the original source.

A fully developed perspective awareness presupposes systemic thinking. It can actually be seen as a natural product of the deepening of systems thinking, as formulated by Jake Chapman in the following quote from a listserv post:

> There seem to be at least three stages of 'systems thinking.' The first is when people start to conceptualise the world holistically, they see and are interested in the connections between things and they 'discover' feedback loops (and system dynamics, etc.). The second stage is when they realise that different people conceptualise the system differently; they wake up to pluralism and constructivism and realise that to be an effective leader they have to do more than just understand the system. The third stage is when they realise that the way that they think is conditioned by their level of self awareness and that this is true of others too. They now realise that there is a continuous interplay between understanding the inner and the outer and that they are not separate from 'the system.' (Jake Chapman, in a post to the listserv adultdevel, 29 June, 2009, quoted with permission)

Basseches, referring to the work of William Perry (1968, as cited in Basseches, 1984), offers formulations that well capture the nature of perspective awareness (even though he doesn't use that particular naming). Several of his dialectical thinking schemata are relevant, in particular schemata 11, 13, 23 and 24. The quote below is part of Basseches's explanation of Schema 11, *Assumption of contextual relativism*:

> I consider each of the following ideas to be a component of Perry's notion of relativism.
> 1. Ideas and values are to be understood in the context of larger wholes described as "points of view, interpretations, frames of reference, value systems, and contingencies."
> 2. There exists a plurality of these contexts of knowledge (points of view).
> 3. These larger wholes are to be understood in terms of their "structural properties."
> 4. Such an understanding makes "analysis, comparison, and evaluation" possible.
>
> (Basseches, 1984, pp. 110-111)

Basseches also describes, in particular when discussing Schema 23 (*Criticism of formalism based on the interdependence of form and content*) and 24 (*Multiplication of perspectives as a concreteness-preserving approach to inclusiveness*), more advanced forms of perspective awareness. I find his distinctions very useful, but the formulations require some explanation. Basseches uses a juxtaposition between "formalism" and certain forms of dialectical reasoning for clarifying the essence of the latter. The first step in the explanation is:

> In order to describe Schema 23, I will define "formalism" as the effort to describe relationships and movements of particulars as governed by rules or laws which can be stated at a general or universal level, with no reference to the content of the particulars.... The assumption behind formalism is that general laws and rules (form) govern relationships and movements of particulars (content) which exist separately from the general statements themselves. (Basseches, 1984, pp. 142-143)

Basseches says (I interpret) that one way of making sense of things is to try to find universal patterns, valid over a large number of specific instances, patterns that can be described without reference to particular circumstances. These abstract explanations are seen as the real causes behind the immense variety of empirical reality. Then comes the second step in Basseches's explanation: "The schema for criticism of formalism attacks this framework by viewing form and content (universal and particular) as interdependent" (1984, p. 143).

The dialectical worldview is critical of the contraction of meaning-making that is often (at least when considering social and psychological issues) the result of relying on a single abstract discourse about causality.[31] One alternative to this approach is to refuse to abstract and instead consider all the concrete, unique circumstances that are relevant for a specific event. Basseches points out, however, that with a dialectical worldview, there is an alternative:

> … the multiplication-of-perspectives approach relies on the process of abstraction no less than does the abstract universal approach. In generating and articulating perspectives, it begins by abstracting aspects of an interrelated whole out of that whole... However, the difference between the approaches is that, in the multiplication-of-perspectives approach, the abstractions are used consciously with an acknowledgement of their onesidedness, and their limits are pointed out by the juxtaposition of alternative perspectives... To multiply perspectives on the same whole, therefore, is to expose abstractions as one-sided handles on concrete reality, as opposed to universal self-subsistent realities. (Basseches, 1984, pp. 148-149)

When asked to clarify the meaning of the last sentence quoted above, Basseches writes:

> My intent was to say that abstract formulations of "laws" and other generalities are often presented as descriptions of universal realities, with the expectation that they will simply be accepted as established. By generating multiple ways of describing or representing the same or overlapping set of phenomena, one reveals that each of these formulations is not a description of a reality, but is one way that one or more people have used to "grasp" some aspect of their environment in order to relate to it. How any one group grasps their environment is necessarily related to the group's place in the universe and the needs that they are trying to meet, which may not be identical, and in fact may be in conflict, with the needs of other groups. In that sense these formulations are "one-sided." (Basseches, personal email communication, July 28, .2010, quoted with permission)

Models and Concepts in the Adult Development Literature that Might be Useful

King & Kitchener (1994, 2004) developed a framework that describes development of reflective judgement in terms of seven stages. Their model can be useful for tracing the development of perspective awareness back to its very beginnings. Thinking according to the first three "pre-reflective" stages assumes (without awareness of this assumption *as* an assumption) that there is absolute truth. Certain knowledge exists, even though some people may not have access to it. These are stages with no perspective awareness at all. The following "quasi-reflective" and "reflective" stages increasingly recognize that knowledge is constructed, and is therefore dependent on the specific characteristics of the interpretive process. This realization leads to the conclusion that there can be no absolutely certain knowledge. In the later stages of development of reflective judgement, it becomes natural to reflect on how properties of the methods used for gaining knowledge co-determine the outcome of the efforts. Knowledge is then not a matter of more or less correctly representing reality, but is fundamentally of a constructed nature, inherently dependent on the properties of the discourse it is formulated within. Otto Laske (2009) incorporates King's and Kitchener's model in his own framework, calling it "epistemic position." Attending to the level of awareness a person has to the process aspect of knowing can be elucidating.

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[31] Wilber (1995), following Jürgen Habermas, names this "monological rationality."

Perspective Awareness as a Basis for Identifications

Perspective awareness means that one's own and others' perspectives are distinct gestalts in awareness. This might have concrete consequences for how the individual constructs goals and visions. People with a strong perspective awareness often regard the properties of particular stakeholders' perspectives as a key factor in causing problems or blocking possible solutions to problems. Influencing the properties of those perspectives are then seen as a key enabling goal to work for. By succeeding in initiating a transformation of certain stakeholders' perspectives, it might become possible to accomplish other goals, such as realizing a vision.

The increased awareness that one's own perspective (a) has many structural properties; (b) that these properties have far-reaching consequences for the way one interprets and forms opinions and commitments; and (c) that one's perspective is an outcome of a formative process involving biographic events, cultural environment, educational history, etc., usually leads to a weakening of the exclusive identification with the perspective. One's own perspective is taken as an object of attention and is therefore no longer subject to the self (Kegan, 1994). The weakening of the embeddedness in a particular perspective also weakens the tendency to fall into a dualistic conception of *us-them* relationships. It is no longer a question of *us*, with the good perspective, prevailing over *them*, with bad perspectives. Rather, it seems more fruitful to regard all perspectives as valuable working material. People with a strong perspective awareness don't perceive people with other perspectives as opponents. They differentiate between the individual and the perspective this individual currently is identified with. Perspectives can potentially be transformed, if handled skillfully.

Two further observations can be made about strong perspective awareness as a basis for identifications:

– It is characteristic that people with a strong perspective awareness also have a strong process orientation. This can lead to the construction of goals that aim at creating propitious conditions for creative processes, for example establishing forums for explorative dialogue, developing methods that support inquiry and creativity, working with climate, values, and norms regarding openness to transformation, etc.

– Strong perspective awareness can also lead to a concern for not getting stuck in a limiting perspective. Goals may also include strategies to challenge unexamined assumptions, expose established "truths," and seek out critical voices.

Action Competences Related to Perspective Awareness

Recognizing the existence of perspectives *as* perspectives can have profound effects on a person's attitudes towards people who think very differently. However, actually putting perspective awareness to work is far more advanced task. I would like to cite a formulation Herb Koplowitz made in two posts to the listserv "adultdevel.”

> I think of a transcript Glenn Mehltretter showed me early in my learning Jaques’s system of a professor describing modernism, postmodernism and existentialism quite eloquently – how they related to each other, their differences and so on. This looked clearly Stratum VI to me. Glenn then pointed out that the professor was not doing any work with those descriptions. He wasn’t exercising judgment about them or solving problems with them. He would not have been able to design a modern or postmodern or existential school system let alone a system that integrated two of these approaches. In fact, his work was never above Str III.
> […]
> So for us, a performance that is a learned response is very different from one crafted on the spot by the interviewee. We want our interviews to capture someone’s working, and we understand work to be the exercise of judgment and discretion while engaged in a task. So the issue is not what you can say about modernism but what you can do with it. The issue is how you use (unconscious and ineffable) judgment to choose and use skills (methods you can use without bringing them to consciousness) and knowledge (facts you can use without bringing them to consciousness) to solve the problem at hand. (Herb Koplowitz, in posts to the listserv adultdevel, 3 July, 2009, quoted with permission)

Brown's research (2011, p. 179) points to a number of "perspective-related practices." One is using the contrast and tension between dissimilar perspectives in order to generate a richer understanding of issues and, in particular, to develop integrative action strategies. A second practice is to facilitate more awareness about the mechanisms that generate particular properties of perspectives, so as to deconstruct the unreflected embeddedness in one perspective by taking the creation process of perspectives as objects of attention. A third practice is to facilitate a more pure witness awareness by letting go of all perspectives.

People with a weak perspective awareness often feel that dialogue is a waste of time. They think it is more efficient to let the best expert make the decisions (not seldom themselves) and focus on action. Exploring different angles towards an issue and asking people with very different perspectives for their views on things is something that makes a lot of sense to those who are strongly aware of the pitfalls of monological rationality.

PART III: USING THE AWARENESS FRAMEWORK

Mental Demands of Societal Change Initiatives

The framework outlined above is designed to be useful for analysing meaning-making and patterns of action in *complex* societal change initiatives. Preliminary evidence from interviews we have made with societal entrepreneurs indicate that initiatives can be very successful even if the leading individuals do not show signs of particularly strongly developed awareness in the five domains described above. In less complex endeavours, traditional entrepreneurial personality traits may carry a long way: strong achievement motivation, perseverance, inventiveness, action orientation, a tendency to quickly rebound from dejection states in the face of failed efforts and try new ideas. However, when the societal change initiatives involve influencing how *other* actors and societal institutions handle wicked issues, the difficulty of the task may require something more than the conventional entrepreneurial spirit.

I hypothesize that the following conditions are relevant as descriptors of societal change initiatives that *do* require strongly developed awareness in one or more of the five awareness types.

- The initiative aims at achieving significant changes in how established institutions operate (or such changes are necessary for realizing visions). Success is possible only if significant changes are made in policies, regulations, decision-making procedures.
- Goals of the initiative include attaining comprehensive transformations of significant stakeholders' perspectives on a complex issue.
- Accomplishment of goals is possible only through continuous active cooperation (rather than single decisions) between stakeholders with conflicting interests, roles and identities and/or profound differences in perspectives and value systems. Other specific impediments to such cooperation can be lack of interest or lack of knowledge on the part of important stakeholders.
- Success is dependent on long-term access to different types of resources controlled by other stakeholders.
- There are deep-rooted value conflicts around the issue, so that any action taken provokes strong reactions among stakeholders with power to disrupt the process.
- The initiative is perceived as a threat by powerful institutions and decision-makers.

This list is, of course, very similar to the list of properties of wicked issues in the beginning of the article. Wicked societal issues are wicked precisely because they are complex in ways that make the task of managing them very difficult. It is when facing critical wicked issues that the role of levels of awareness becomes a key factor to consider.

Uses of the Framework

I expect the framework developed here to be useful for two broad purposes. The first one is to gain a more differentiated *understanding* of how levels of awareness influence patterns of engagement with complex societal issues. I believe that an analysis of the patterns of meaning-making can contribute to a more detailed description of the properties of the ways people construct their narratives about societal issues, of how they identify with values, goals and visions, of the patterns of action they engage in in order to reach meaningful results, and not least how patterns of meaning-making may *explain* identification with goals and patterns of action. This more differentiated understanding of patterns might contribute to more penetrating explanations of successes and failures in societal change agency, not least through analysing the relationship between the complexity of the task people take on and the awareness capacities they put to work. Such analyses can also lead to more differentiated and grounded conceptions of the competences needed for societal change agency.

By developing deeper knowledge in the fields outlined above, the framework may also serve a second purpose, namely to assist in designing more effective types of *scaffolding* for societal change agency. Scaffolding can be methods and techniques that support people to mobilize and direct their attention to various aspects of the initiatives they are engaging, so as to develop more effective strategies. Scaffolding can also take the form of coaching formats and strategies, as well as more structured training in the form of courses and educational programmes focussed on societal change agency/societal entrepreneurship. On a more personal level, the framework might be developed into a tool for self-reflection and self-transformation, not least by more clearly articulating potentials for development of more awareness.

Describing and Explaining Different Patterns of Societal Change Agency

Analysing Meaning-Making: What to Look for and How to Score

When using the framework as a tool for empirical research, analysing interviews with societal change agents is a major application. From a pragmatic point of view, I find it reasonable to use a very simple and openended scale for assessing the awareness pattern demonstrated in an interview transcript. I operate with the three levels of *weak*, *moderate,* and *strong*. Table 4 offers a summary overview of the characteristics of *weak* and *strong* forms of awareness for the five different awareness categories of our framework. Classification as "moderate" is a matter of judgment in relation to the descriptions of the "weak" and "strong" level.

Elaboration is a key quality to look for, in particular *lack* of elaboration. The latter is a conspicuous characteristic of many interviews. We can look in the interviews for occasions when the interviewee is invited to talk about something, but simply fails to elaborate on the circumstances, causes, consequences, and systemic conditions that might be relevant. If this is a consistent pattern, we might suspect a low degree of complexity awareness.

Table 4. Coding criteria for five types of awareness in interview transcripts

Type	Weak	Strong
Complexity awareness	• No or unelaborated reasoning about causes. • Explanations limited to fixed properties of persons, collectives or other entities. • Absence of discussion of context-specific circumstances that ought to be considered. • *Possibly:* voicing of undifferentiated opinions (e.g., condemnations, disparaging comments) about persons, collectives and/or phenomena.	• Elaborated reasoning about complex causes and properties. • Issues are explored in a differentiated way, nuances and variability is noticed. • The conceptual repertoire includes words for systemic properties. • Strong presence of dialectical thought forms, emphasizing context-dependence, change processes and properties of relationships. • Tasks are constructed at different levels of complexity/abstraction, including goals regarding influencing systemic properties.
Context awareness	• Focus on concrete tasks. • No or very unelaborated mention of the wider context in which tasks are embedded. • Goals are not formulated in terms of influencing the workings of the wider context, e.g., institutions, rules, culture.	• Elaborate comments about historical background of present situation and issues. • Elaborate comments about organizational structures, cultural norm and value systems as relevant factors for understanding present issues. • Explanations of the properties of the context(-s). • Mention of trends in the environment, change processes that condition own initiative.
Stakeholder awareness	• Absence of elaborated descriptions and reflections about stakeholders that might play a significant role for the initiative. • Few stakeholders are mentioned. • When stakeholders are mentioned, there is no or very unelaborated reasoning about their patterns of behaviour, concerns, motives, reactions, views, interpretations, etc. • If explanations of actions of a stakeholder is offered, it is limited to attribution of fixed properties.	• Frequent mention of different stakeholders with elaborated comments about their concerns, thinking, interpretations, feelings, patterns of behaviour, etc. • Descriptions of properties of relationships between self and stakeholders and/or between different stakeholders. • Formulates goals regarding establishing good working relationships with stakeholders, with mention of strategies adapted to realistic images of properties of stakeholders.
Self-awareness	• No or few comments about the nature of own processes. When such comments are present, they are declarative (assertions without rationale) and unelaborated. • No or unspecified reference to own learning from experiences. • No reports of active strategies for dealing with own reactions, states of mind, etc.	• Elaborated awareness of and reflections on the character of own processes. • Mention of active strategies for dealing with own reactions, feelings, etc. • Formulation of aspirations regarding development of self-management skills.
Perspective awareness	• Assertions are made without supporting arguments/evidence and without comments about the possibility of erroneous conclusions. • No signs of awareness of the dependence of judgments on the properties of perspectives. • No mention of ambitions to influence the properties of own or others' perspectives.	• Elaborate descriptions of own and/or others' perspectives *as* perspectives. • Comparing of perspectives. • Explanations of the properties of perspectives by referring to biography, position, structures, enculturation, etc. • Using differences or even tensions between perspectives to generate insights. • Formulation of goals in terms of facilitating transformation of own or others' perspectives.

The hard part of analysis work is to spot what is *absent* in the respondent's meaning-making, but could have made positive difference if present. The areas of the "map" that are invisible to or only vaguely apprehended by the individual are unavailable for conscious cognitive processing. These absences, if noticed by the researcher, can be as important explanations for the actions, strategies, and attitudes of a person as those patterns of reasoning that are readily recognizable in the interview transcripts. For example:

– If a societal change agent doesn't turn his or her attention towards the motivation, mindset, interpretations, and reactions of an important stakeholder, he or she will not reflect on alternative approaches to engaging the meaning-making of the stakeholder in order to influence how he or she interprets the societal change agent's ambitions.

– If a societal change agent does not turn his or her attention towards the characteristics of how the societal institutions are structured and operate (systemic awareness), it is unlikely that goals relating to influencing structures and culture in institutions will be central to the initiatives of the social change agent.

13.2 Typology of Fields of Action for a Societal Change Agent

Variations in degrees of awareness can obviously be assumed to result in variations in the way societal change agents construct goals. I use "goals" in a broad sense here, not only referring to ultimate outcomes desired by persons involved in an societal change initiative, but also to "enabling goals." When taking on a more complex problem or vision, it is often necessary to set up goals that are not in themselves what one wants to achieve, but conditions that need to be created in order to make a process leading in the desired direction possible. A typical such goal is to establish a personal relationship with a particular important stakeholder, for example a decision-maker in an organization. The establishment of a certain level of contact, mutual positive regard, and trust in a relationship to this stakeholder may not be an end in itself, but a necessary step that has to be completed before starting to work towards the ultimate goal.

In the preceding sections, I have discussed five different categories of awareness, including implications for the construction of concerns. In Table 5, I summarize types of goals that might be part of a societal change agent’s personal strategy.

Table 5. Inventory of different types of goals

People with strong ...	**... are likely to formulate goals about ...**
complexity awareness ...	- preventing undesired outcomes by early interventions in causative processes. - influencing conditions that nurture early stages of causative processes leading to desired outcomes. - influencing outcomes by attending to causality grounded in system properties. - creating favourable conditions for the start and strength of openended creative processes.
context awareness ...	- influencing certain properties of the context, such as policies, regulations, organizational structures. - exerting influence on ongoing complex processes in the context. - creating forums/processes for learning, problem-solving, creativity, thereby

People with strong ...	... are likely to formulate goals about ...
	creating propitious conditions for development. - building capacity of organization to notice, interpret and adapt to ongoing developments in the context. - building capacity to use new opportunities created by changes in the context.
stakeholder awareness ...	- influencing stakeholders' focus of attention and priorities. - influencing stakeholders' narratives, interpretations of issues. - influencing the image stakeholders' have of oneself. - contributing to increased knowledge, understanding and skills regarding significant subjects. - establishing and developing qualities of relationships between self and stakeholders. - influencing the qualities of relationships among stakeholders, e.g., by setting up opportunities for stakeholders to get to know each other and build trust - engaging in processes that aim at adapting strategies and outcomes to take account of how stakeholders experience the situation.
self-awareness ...	- developing own social and problem-solving skills - nurturing own developmental processes - increasing capacity for real-time awareness
perspective awareness ...	- transformation of perspectives - developing effective strategies/methods for transforming norm and value systems. - using the contrast between perspectives to increase the creativity in strategy development. - faciliting more awareness of the processes generating different perspectives

Conclusion: Some Hypotheses to Explore

In this article, I have outlined a discourse for supporting a differentiated interpretation of the meaning-making structures of societal change agents (and people in similar roles). Reviewing the elements of the discourse (in particular the five types of awareness and the postulated relationships between degree of awareness and identifications and action competences) and reflecting on possible implications of the distinctions made here, we can formulate a number of plausible hypotheses for research on societal change agency that might warrant empirical research, for example the following.

- Different meaning-making structures, in particular in terms of the weakness and strength of different types of awareness, lead to different types of societal change agency, both in terms of goals and in terms of strategies employed.
- Individuals with a weakly developed complexity awareness will formulate and engage in projects that are less complex than individuals with a strong complexity awareness.
- Individuals with weakly developed awareness (in the five types described by the framework) will formulate goals that are few in number, narrow in scope and lack elaboration, whereas individuals with strongly developed awareness will construct a broad range of goals and will mention strategies and tactics for dealing with aspects of task complexity, context, stakeholders, self and perspectives.
- Differences in degrees of awareness along the five types lead to systematical differences in

patterns of societal change action.
- The explanatory value of the societal change agent's degree of awareness for accomplishing successful outcomes is high when the tasks involved are complex and low when the tasks involved are less complex.

Some of these hypotheses will be explored in the context of our ongoing research project.

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Toward Post-metaphysical Enactments: On Epistemic Drives, Negative Capability, and Indeterminacy Analysis

Tom Murray[1]

Abstract: Various approaches and interpretations of post-metaphysics are described, followed by an exploration of methods and approaches to enacting a post-metaphysical attitude toward beliefs, and in particular beliefs commonly held within the community of integral theory and practice. Integral Post-metaphysics is described in context with the larger trend of post-metaphysical thought. Along the way several concepts and themes are introduced, including the epistemic turn in reasoning, misplaced concreteness, epistemic drives, and negative capability.

Keywords: Epistemic turn, integral theory, post-metaphysics.

Introduction

A number of scholars referenced in integralist texts, including philosopher Jürgen Habermas and developmentalists Robert Kegan, Michael Basseches, Clare Graves, and Suzanne Cook-Greuter, have pointed to the emergence of, and need for, more sophisticated and reflective approaches to reasoning about complex phenomena.[2] Reflective reasoning here refers to the habit or skill of reasoning about the character and limitations of reasoning itself, including reflecting critically on one's sources of certainty and methods justification. Kegan refers to “fifth order consciousness” and Basseches to “dialectical thinking” in discussing skills sets related to highly reflective thought (Kegan, 1994; Basseches, 1984). It has been suggested by many (including David Bohm, 1980) that current global problems have more to do with limitations in human reasoning processes than natural constraints, and that any deep resolution of these problems will require a different *relationship to* our beliefs (knowledge, thoughts, certainty, mental processes, etc.), transforming these mind-phenomena from unexamined subjective experiences into objects of awareness and reflection.

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[2] Editors’ note: Also see Jordan, in this issue: *Skillful engagement with wicked issues: A framework for analyzing the meaning-making structures of societal change agents.*

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Habermas' term “post-metaphysical” refers, in part, to this more reflective form of reasoning, which can be seen as emerging in academic circles but also characterizes a (quite nascent) emerging sophistication in informal reasoning in (post-) modern society (Habermas, 1992). Metaphysics traditionally concerns questions about what is real beyond concrete sensory reality, and post-metaphysics refers to a more reflective approach to not only questions of what is real, but also questions of what is true (and how truth can be agreed upon or understood). The integral community has much to offer in the practical and theoretical aspects of this area, due to its explorations into second-tier, integral, post-formal, and/or post-post-modern levels or stages of development (and in supporting the transition from prior levels into these levels).

In recent years, new developments in Ken Wilber's integral theory have focused on ontology, metaphysics, epistemology, and method, i.e., philosophical questions about the nature of knowledge and what is knowable (Wilber, 2006). Wilber's “Wilber-5” theoretical stage, and related work by Sean Esbjörn-Hargens that extends this work, includes integral post-metaphysics (which in turn includes integral methodological pluralism) (Esbjörn-Hargens, 2005; Esbjörn-Hargens & Zimmerman, 2009). Post-metaphysics,[3] concerned with the nature of knowledge, truth, reality, and belief, might seem like an esoteric philosophical topic, but the ideas behind post-metaphysics have strong implications for everyday life practices. Also, post-metaphysical thinking is implicated in embodying “second tier” (or integral stage) development, which is a central developmental marker for integralists.[4]

As I did for the topic of methodological pluralism in a 2010 paper (Murray, 2010a), in this paper I will explore the topic of post-metaphysics in terms of what it might look like to more fully apply and enact it within the community of integral scholars and practitioners (henceforth “integral community,” in which I am a participant), or more generally, within any knowledge building community. I will discuss its meaning and implications from several perspectives, and suggest a number of principles and approaches that can help us take a post-metaphysical stance to our own knowledge creation and belief promotion activities. Though I will refer to the problems in finding rigorous truths in domains such as the human sciences this article does not intended to address empirical researchers, who must aim for as much rigor as their subject matter will allow, but rather is for inter/trans-disciplinarians who are trying to integrate many fields of knowledge in holistic applications.

Second-tier skill development includes a high level of reflective understanding of self, belief, and the human condition. Previously (Murray, 2010a), I used the term “epistemic wisdom” to point specifically to the aspects of second tier skill (especially construct awareness) related to questions of knowledge, belief, and truth; and later (Murray, 2010b), I described second tier skills in terms of four types of “wisdom skills”: ego-awareness, construct-awareness, relational-awareness, and systems-awareness. Taking a (second tier) post-metaphysical stance involves moving further away from black and white, us versus them, and either-or thinking into ever more nuanced, complex, and dynamic perspectives, which Walsh (2009) calls “perspectival range.” It includes moving further from basing beliefs on authority, peer pressure, magical thinking, and emotional or unconscious drives, toward forming beliefs using rational systematic thought, critical thinking, cognitive empathy, a tolerance for paradox and uncertainty, and intuitions grounded in deep ethical sensibilities. It even includes understanding how authority, peer pressure, magical thinking, and emotional and unconscious drives are unavoidable and important aspects of normal belief formation. That is, it tries to see these aspects of thought more objectively for what they are, and use that understanding in forming, defending, or transforming one's beliefs.[5]

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[3] I will speak to "post metaphysics," more broadly than Integral Post-metaphysics.

[4] Second tier is a term used within the integral community to refer to a level of adult cognitive/emotional/social/spiritual development that is post-formal. Associated terms include vision logic, post-rational, Metasystemic, dialectical thinking, and construct aware.

In a companion paper to this one titled “On the development of beliefs vs. capacities: post-metaphysical implications of second tier skillfulness” (Murray, 2010b) I proposed that developmental narratives within the integral community often conflate the development of *skills* (or capacities) with the development of *beliefs* (including values or worldviews), and that this conflation leads to several problems. I suggested that our approach to describing and promoting human development be more oriented around the skills or capacities that people have than around the ideas (models, theories, principles, facts) that they believe. Much of my argument centered on the problems of unreflectively holding or promoting ideas, models, or belief systems. (Compared with other knowledge-building communities, the integral community does quite well here, but it also has the potential to go much further in practicing what its leading-edge principles imply). In the next section I will broaden this exploration of integralist beliefs from the focus on narratives about human development to include the set of beliefs commonly espoused by integralists (without going into any in detail). At issue is how we can not only create but disseminate and promote these useful beliefs, while still actively taking a reflective distance (or post-metaphysical stance) on them, fully allowing for alternatives, indeterminacies, and unknowing.

Integralists often employ the adages to “not confuse the map with the territory” and avoid the “myth of the given,” but closer inspection shows that enacting these slogans is indeed difficult, and subtle forms of metaphysical thinking and “misplaced concreteness” exist throughout integral discourse. In dealing with disagreements or contradicting knowledge it can be easy to back into a relativistic (or even so-called “non-dual”) stance and claim that the truth is subjective, perspectival, unknowable, or meaningless. This can serve the positive functions of supporting humility, opening to new ideas, or releasing attachment. But, it can also become a cavalier or defeatist move away from a topic or interlocutor to avoid the conflict—missing opportunities that a disagreement may tender. In order to move forward rather than back (when appropriate) and engage more intimately with the topic, the self, and the other, it helps to have specific knowledge and skills implicated by the epistemic wisdom alluded to above. That is, just accepting or succumbing to the indeterminacies of knowledge (and thought) is often not adequate, and understanding how these indeterminacies *work* and how to *manage* them can be beneficial. This paper attempts to make a small contribution in this direction.

In what follows I will explore various meanings of post-metaphysics, anchor the discussion in beliefs commonly held by integralists, and provide a context for post-metaphysics by describing the “epistemic turn” in philosophy and culture. Then I will introduce a number of ideas meant to support a post-metaphysical stance on knowledge creation and dissemination, including

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[5] As is commonly understood, we transcend, include, and transform the earlier modes, rather than leaving them behind.

"negative capability," "indeterminacy analysis," "epistemic drives," a developmental treatment of misplaced concreteness, and an argument for the validity of "meaning-generative" claims.

Integralists' Beliefs and Metaphysics

As a way to ground the topic of post-metaphysics in everyday life practices, let us look at the beliefs we hold as integralists and ask about our relationship to those beliefs. We integralists often define ourselves by how we differ from the prior cultural developmental level (variously called green meme, New Age, or postmodern). We also live with the challenge of trying to describe and defend our beliefs to friends and colleagues who hold different world views. In Table 1, I list some common integral community ideas (concepts and beliefs) and contrast them with New Age ideas. (In the middle column are beliefs that seem to exist in both categories; some are New Age beliefs that can be held in an integral context.) In that table, I focus on contentious beliefs about what is real or true, though one could list many others less ontologically problematic or "edgy." "Integral beliefs" here includes not only quasi-formal models like AQAL, but also the whole set of beliefs, theories, and principles held causally by integralists. This is a rough caricature and accuracy of this categorization is not important. The point is to help the reader reflect on beliefs that one has that associate one with one's intellectual or social compatriots.[6]

Table 1. New Age vs. Integralist Beliefs

New Age	New Age and Integral	Integral
UFOs and lost ancient advanced civilizations; the healing power of crystals; the earth is a living conscious being (Gaia); we can manifest our wishes through intention alone; astrology, and other prognostication systems and personality typing systems; various schools of mystical and occult beliefs; "all you need is love" (and peace); everything is perfect as it is.	Channeling and the existence of non-physical beings; ESP and psychic phenomena; intuitions can offer sturdy truths and directives; existence of a soul/spirit (and constructs such as Over-soul, Authentic Self), reincarnation and past lives; synchronicity; psychic energy and the chakra system; the reality of collective consciousness and parts of the self such as ego and shadow; all is one.	The universe is evolving – through us; Eros, Agape, involution, morphogenetic fields, Omega Point; the 4 quadrants (or 8 zones) are discrete and ontologically fundamental; cultures and people can be categorized in terms of general developmental levels like Blue, Green, and Turquoise; there is a non-dual ground of being beyond space, time, energy, matter, and mind.

Readers identifying with the integral community have probably had frustrating experiences trying to explain integral ideas to peers or trying to critique New Age beliefs (this notion was born out in a seminar discussion at an integral community event). For the purposes of our post-metaphysical explorations, we can ask: How confident can we be in such discourses? How can we characterize the difference between these two sets of ideas (what differentiates "ours" vs.

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[6] If you don't identify with the beliefs in that column, just substitute any beliefs, skills, values, or knowledge that you feel developmentally differentiates you from others, along any "line" of development.

"theirs")? Are there particularly integral ways to justify and critique? We will look at the *metaphysical* aspects of such beliefs and then inquire into implications of *post*-metaphysics.

First I will point out that some of the items in the table are centrally about controversial questions about what is real or what exists, while others are statements or principles that make a claim *about* things that are less problematically assumed to exist (while a few are in both categories).[7] For example, contentions about Gaia, flying saucers, ESP, omega point, and morphogenetic fields are largely or firstly about whether such constructs are objectively real. In contrast "healing" and "crystals" are thought to exist without contention, while the claim "crystals have a healing power" is controversial. This rough distinction between existence claims and other types of claims built upon them is not philosophically air-tight by any means, but is made because there are different points I want to make about *concepts vs. statements vs. models/theories* (and because the topic of metaphysical vs. post-metaphysical often hinges around what is considered to exist and how). Concepts are things that exist in some way; statements are claims *about* (and built up using) multiple concepts; and models/theories are more complex ideas built from multiple statements.[8] In a very rough sense, concepts are about what is *real*, statements are about what is *true*, and models/theories are about what is *useful.* (See the Appendix for a diagram illustrating these distinctions).

A main point is that statements and theories/models are built up from concepts, and thus any indeterminacy or assumptions at the level of concepts (the things we point to as definitively existing) will strongly affect the validity of statements and models/theories. Questions about the existence of many of the phenomena listed in Table 1 have metaphysical implications. Metaphysics deals with questions of what is real (vs. not real), and the fundamental nature of, essence of, or first principles behind abstract ideas such as being, substance, cause, time, and space.

Metaphysics is often about objects or phenomena that are said to exist both outside physical reality *and* independently outside the subjective realm of human thought forms.[9] Metaphysical claims, whether made by esteemed philosophers or by your hairdresser cousin, are particularly problematic because of this. We have methods and conventions, including the scientific paradigm, for justifying and testing claims about physical reality. We also have methods and conventions, albeit less rigorous, for justifying and testing claims about subjective realities. But on what basis does one make a metaphysical claim? How could one ever test such a claim when it refers to something beyond both matter and mind? Unexamined personal or cultural metaphysical assumptions about what legitimately exists and does not exist can lead to "repressive metaphysical projections" (Cooke, 1994, p. ix). This problem is what led to so-called post-metaphysical approaches.

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[7] In Murray (submitted) I explore issues of ontology and what can be considered "real" from a post-metaphysical and "embodied" philosophical perspective.

[8] Also, I will avoid the quagmire of defining what is meant by reality, and simply assume, in alignment with both New Age and integral world views, that interior (human mental) realities have an equal ontological status with external physical realities.

[9] Metaphysics originally meant the body of Aristotle's work *after* his Physics, but later took on its current meaning of the science of things transcending the physical or natural.

Post-Metaphysics

The concept of post-metaphysics figures prominently in recent integral discourse. Integralists have aligned themselves with the post-metaphysical turn in philosophy and a post-metaphysical orientation to truth and knowledge. Integralists follow Wilber in repudiating “confusing the map with the territory” and “the myth of the given.”[10] Wilber describes his latest work (“Wilber-5”) as AQAL plus post-metaphysics.[11] Indeed, it could be argued that the post-metaphysical perspective is at the heart of the evolution of human meaning-making capacity that integral theory points to. Post-metaphysics constitutes a post-post-modern approach to what we think is real or true; i.e., it is about our evolving relationship to *belief* and the *skills* we use to construct and reflect upon beliefs. Below we will look into the concept of post-metaphysics to see how it is understood and then propose some alternative perspectives on its use. As we will see in the quotes below, the construct of post-metaphysics exists as a family of related ideas, with different authors having somewhat different interpretations.

In *Integral Spirituality* Wilber (2006, p. 231) says that “[arguably,] metaphysics…ended with Kant [who realized that] we do not perceive empirical objects in a completely realistic, pregiven fashion; but rather, structures of the knowing subject import various characteristics to the known object…Metaphysics is then a broad name for the type of thinking that can't figure [out that] reality is not a perception, but a conception…thinking that falls prey to the myth of the given.”[12] In terms of philosophy, Wilber says that post-metaphysical approaches avoid “postulating fixed, eternal, [ahistorical,] independently existing archetypes” [or Platonic Forms] (p. 247).

In a transcribed dialog with Wilber, Andrew Cohen says: “Your ideas about a post-metaphysical spirituality have had a powerful impact on me…Specifically, I am endlessly compelled by the notion that higher stages or levels do not preexist, that is, they are not 'given' but are literally created by brave individuals who actually venture into new, uncharted territory…A post-metaphysical worldview means we are not separate from the creative principles or God-impulse itself” (Cohen & Wilber, 2006). This interpretation of post-metaphysics, common in the integral community, replaces the fixed and eternal aspects of metaphysical ideas with an emergent dynamics, but seems to retain some of metaphysics' sense of essentialism and esotericism.

In *Integral Ecology*, Esbjörn-Hargens and Zimmerman (2009, p. 65) draw from Wilber's work and emphasize the multi-perspectival and participatory nature of post-metaphysics, which “avoids positing realities independent of the viewer,” and they note that all claims must be understood as “perspectives from somewhere by someone” (p. 484). They link the post-metaphysical approach to Wilber's four quadrants and eight indigenous perspectives

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[10] "Myth of the given" was coined by Sellars (1956). The map/territory phrase is attributed to Korzybski (1948).

[11] See Esbjörn-Hargens and Zimmerman (2009, p. 564, note 38).

[12] George Lukas describes "the Kantian understanding of Metaphysics" as "[dealing] with entities about which we can know nothing since they are not given in experience. Metaphysics is said to claim entities, and knowledge of entities such as first cause or God that go to explain what appears to us. The hiddenness of the explanatory entity is, for Kant, sufficient do discount it, except as a topic for thought" (Lucas, 1986, p. 65).

(methodological families), and to his method of Kosmic Addresses, which I describe later. They echo above descriptions of post-metaphysics avoiding preordained and eternal metaphysical constructs (p. 141).

In *Integral Consciousness* McIntosh proposes some problems with the post-metaphysical turn, and says that metaphysics will remain with us.

> In between the hard facts of science and the revealed truths of religion, there are to be found questions about the nature of reality that seek answers within the realm of reason. Metaphysics can thus be understood as philosophy's attempt to discern that which is beyond the external, material ream without resorting to explanations that rely solely on the unquestioned authority of spiritual teachers of sacred texts.” (McIntosh, 2007, p. 205)

He points out that Wilber routinely uses what could be called metaphysical concepts (e.g., involution, Agape, Eros, morphogenetic field; pp. 215-216). McIntosh's point that metaphysical questions and metaphysical thinking will remain with us is important, a topic I take up further below. But he misunderstands the post-metaphysical project (and Habermas' and Wilber's approach to it) as being anti-metaphysical as opposed to post-metaphysical (he assumes that it rejects metaphysical concerns and thinking rather than transcending and including them).

Stein links post-metaphysics to the scientific method and, more fundamentally, to a reflective (or meta-) perspective on not just the contents of our beliefs, but the methods by which we produce and justify knowledge (i.e., “the conditions that allow us to get on with inquiry”) (2008b, p. 20).[13] “Understanding philosophy in this way entails turning away from speculative metaphysics and toward the rigorous analysis and critique of inquiry itself” (p. 2). He claims that “to adopt a properly post-metaphysical approach to development [is to] turn away from the stories describing development and toward the making of the metrics that justify these stories” (2008a, p. 1).

Stein's approach follows closely that of contemporary philosopher Jürgen Habermas, the acknowledged expert on the topic of post-metaphysics. Cooke (1994) summarizes Habermas' notion of post-metaphysical philosophical trends as having: (a) called into question the substantive conceptions of rationality (e.g., “a rational person thinks this”) and put forward procedural or formal conceptions instead (e.g., “a rational person thinks like this”); (b) replaced foundationalism with fallibilism with regard to valid knowledge and how it may be achieved; (c) cast doubt on the idea that reason should be conceived abstractly beyond history and the complexities of social life; and has contextualized or situated reason in actual historical practices (i.e., collaborative action and dialog); and (d) given up philosophy's traditional fixation on theoretical truth, to the extent that they also recognize the moral and expressive functions of language as part of the [reasoning process] [which is thus affected by notions of rightness, sincerity, and authenticity].

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[13] Stein (2008a) credits Pierce as a founder of the post-metaphysical approach: "by relinquishing philosophy's claim to a unique privileged mode of insight, Peirce...recast philosophy in terms of the same fallibilistic self-understanding that characterizes scientific endeavors" (p. 2).

The post-metaphysical turn in philosophy and culture can be understood as a product of an "epistemic turn" of increasing human understanding of the role of human thought processes in the production of knowledge and belief.[14] This trend, which I discuss in the next section, began with Kant, blossomed with the American pragmatists, then deepened with the advent of modern cognitive and social sciences.[15]

The Epistemic Turn as a Deeper Understanding of the Mind

The last 500 years of human history from the Renaissance through the scientific and industrial revolutions can be viewed in terms of humanity's accelerating understanding, and partial mastery, of the *physical world*. Both the accomplishments and the calamities of this period, marked by increasingly sophisticated use of the rational mind to penetrate the truths of the physical world, have been established at length by scholars and pundits.

In the last one to two hundred years another type of understanding has emerged: an *understanding of the mind*, including advances in psychology, consciousness studies, language, culture, meaning, cognition, and neuroscience. This "epistemic turn" (which includes the linguistic turn in philosophy) embraces an evolving acknowledgment that human flourishing is mind-bound in several senses. First, the human happiness or satisfaction that is the ultimate goal of rational problem solving and efforts to control the physical world is itself a mental state that depends on much more than external realities. That is, "happiness is all in our heads," at least after basic physical needs are met, and creating happiness is very much about understanding the mind (as Buddhists have always said). Second, most if not all of the major problems facing humanity are problems ("crises") in rationality, imagination, education, and/or compassion, not hard limitations put up by the physical world. They have been caused more by human thought, including short sightedness, greed, ignorance, and the "negative emotions," than by "natural causes."[16] Third, the primary source of techno-scientific advancement, the rational mind, is seen to be seriously flawed or limited. From a post-rational perspective, we can see that logic has limited scope, rational thought is systematically distorted, and that the constructs and models that form the building blocks of language and theories are unsettlingly indeterminate and fallible (Gilbert, 2006; Gilovish, 1991; Kahneman et al. 1982). Again, a deeper understanding of the workings of the human mind is called for.

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[14] In Murray (2006, 2010a) I quote Bohm and Einstein in support of the idea that contemporary global mega-issues can be traced to a general lack of understanding of how the human mind works, individually and collectively. We can see in Walsh's (2009) analysis of common factors of the great wisdom traditions that, even though "know thyself" is implied and contemplative traditions focus on awareness of thought, the wisdom traditions had little to say in the way of what we are calling epistemic wisdom. We can posit that the complexity of thought and culture has reached a level that an epistemic turn is greatly needed.

[15] The post-metaphysical turn is closely related to the philosophy of pragmatism, which has strongly influenced Wilber and integral theory (through scholars including James, Whitehead, and Habermas). Louis Menand described pragmatism as *an idea about ideas*: "The idea is that ideas—theories, beliefs, convictions, principles, concepts, hypotheses—are essentially means of adaptation…Ideas are not "out there" waiting to be discovered, but are tools that people devise" (2004, p. 1, 8).

[16] Of course, the current developmental state of humanity is simply what it has become, and thus in one sense is a product of the natural world.

George Lakoff warns that “what we take truth to be is...a matter for cognitive science because it depends on the nature of human understanding” (Lakoff & Johnson 1999, p. 108).[17] Thus, a central element of this epistemic (or post-metaphysical) turn is to understand mind in its individual and collective manifestations, which, like nature in the prior period, can be seen to hold both the shackles to and the means of liberation from humanity's current predicaments. This injunction is constructive for both scholars investigating the limits of knowledge, and to everyday practitioners whose more casual, yet still highly reflective, understanding of how the mind works impacts their communicative and learning processes.

The emerging understanding of mind has many branches. Scholars are coming to understand the nature of ego, identity, motivational drives, adult cognitive development, and the unconscious (including shadow); the nature of group dynamics and cultural development; and the nature of concepts and reasoning itself. It is this last set that is central to epistemic wisdom and the post-metaphysical turn.

Research and theory on human cognitive development has provided deep insights into epistemic questions about the nature of belief and knowledge. Wilber's integral post-metaphysics uses these theories to clarify questions about what seems true or real for different observers.

Integral Post-Metaphysics

Wilber's integral post-metaphysics (Wilber 2006; Esbjörn-Hargens & Zimmerman, 2009) proposes an elegant framework for addressing many perennial ontological, metaphysical, and epistemological conundrums about what is true or real. It follows from Schumacher's (and, earlier, Plotinus') notion of *adequatio* which says that “the understanding of the knower must be adequate to the thing to be known” (Schumacher, 1977, p. 39). That is, what we perceive as real or true is determined in part by our perceptual and cognitive apparatus, and thus both our developmental level (along all of the numerous lines relevant to any situation) and the perspective we are taking. It shifts the blunt question of *whether* objects (e.g., Santa Claus, past lives, Agape, morphogenetic fields) exist, to *in what way* do they exist *for whom*?

Integral post-metaphysics includes a model for representing what Wilber calls the “Kosmic Address” of a claim, which includes the AQAL-based developmental altitude and perspectival quadrant of both the perceiver (claimant) and the object of perception (plus additional parameters if more precision is needed). For example, Santa Claus can be said to “exist,” to be real, for those within a circle of 5 year old believers having a conversation about him. “What kind of cookies does Santa Claus like best?” is a valid question in such a circle. Santa Claus can also exist for *us* if we take the magical-thought perspective of that developmental level, which remains ever-available within our consciousness (some would call it suspension of disbelief). One might say “but Santa Claus doesn't *really* exist at all.” But someone living 1000 years from now may see concepts such as “gravity,” “the flu,” “consciousness,” and “spirit” to be as naïvely insubstantial and imaginary as Santa Claus seems to us, yet contemporary adults treat these constructs as very real indeed. This illustrates the perspectival nature of all claims about truth and reality. We must assume that an objective reality exists beyond the self (to do otherwise is absurd), but any particular claim about that reality must be made by a person (or people) and is thus fallible and perspectival.

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[17] In Murray (submitted) include an in-depth exploration of Lakoff & Johnson's Embodied Realism.

Esbjörn-Hargens and Zimmerman give the example of "ecosystem." An ecosystem can exist, and claims about one can be made, only for those who have an adequate understanding of the concept, which in itself requires the capacity to think at a certain level of complexity (one that can understand how phenomena and wholes emerge from the chaotic and extremely complex interdependencies of a large number of parts). Another example is the construct "legal system of common law." For those who, due to inexperience or insufficient developmental capacity, have not built up and worked with the concept of one, it cannot exist.

These are questions about the adequatio of the *who* of a claim. In terms of the *how* of a claim, i.e., methodology (and the types of *what* enacted by different methods) we can turn to Wilber, Habermas, and others who explain how different methods give access to different types of knowledge (e.g.,: *look* through this telescope at…; *imagine* a body traveling faster than light…). In particular subjective, objective, and intersubjective truths or knowledge are discovered and argued for differently.[18] For example a community of practitioners who have practiced a certain contemplative method are in a position to dialog about the causes and nature of what they experience. Those who have not enacted this practice or spoken deeply with those who have are in less of a position to engage in the conversation. To give a blunt example, we give little credence to someone pontificating about romantic love when we believe that they have a minimal or distorted experiences of romantic love.

Enacting Post-Metaphysics

Up to now I have been attempting to tie together what others have said about post-metaphysics, epistemology, and the mind. In succeeding sections I will introduce the ideas of "negative capability," "indeterminacy analysis," "epistemic drives," a developmental treatment of misplaced concreteness, in an attempt to offer some new perspectives and principles that may help us take a more post-metaphysical stance on our knowledge creation and dissemination work.

Integral Post-Metaphysics and Positive vs. Negative Capability

Integral post-metaphysics is a powerful framework. Yet its full potential remains to be seen (especially outside the integral community) in part because it is not yet apparent whether the concept of Kosmic Address is sufficiently determinate. In contentious dialogs about the validity of specific claims, will participants be able to agree on the parameters of the Kosmic Address itself? How contentious will the specification of the developmental levels or formal perspective of interlocutors become?[19] In general this illustrates the *positivistic* style of Wilber and AQAL-centered approaches—they provide high level models and concepts enabling more reasoning power, and thus may increase clarity and confidence of beliefs. This contrasts with approaches that expose indeterminacy (uncertainty, fallibility, paradox, dissonance) in human beliefs. The evolving understanding of mind and thought that enabled the "post-metaphysical turn" reveals ever higher layers of positive knowledge (increasing abstraction and nuance thought reflection, differentiation and integration), but *also* reveals ever deeper unsettling territories of unknowing and fallibility that call for the "*negative* capability" of being able to tolerate and work within this indeterminacy (in Murray, 2006, I elaborate on this concept, first coined by the poet John Keats; see also a treatment on "Dark Knowledge"—what we don't know that we don't know— by Fischer & Stein, 2008). This territory is acknowledged by Wilber but not much explored or highlighted in his work.

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[18] The details of Habermas' Theory of Communicative Action and the eight primordial methodologies of Wilber's integral methodological pluralism are beyond our scope here (see Habermas, 1981; and Wilber, 2008).

[19] The strategy of concluding that another person is developmentally not up to snuff and accepting that they simply don't have the capacity to engage with our beliefs or engage at the level of discourse we hope

For Wilber, post-metaphysics is a method for avoiding the errors of metaphysical (and magical) thinking, mostly through an analysis of different categories of truths or claims (based on categories of the who, what, and how of a claim). My approach is to add to this a perspective on post-metaphysics that is about acknowledging what is unknown, fallible, or uncertain about *any* claim, and to base this on what we know about human thought processes.

Integral post-metaphysics includes Wilber's "three strands of good knowledge" which frame the justification of claims in terms of *injunctions* (*if you do X then you will see or conclude Y*) and *social deliberation*, (*a group of the adequate has followed the injunction and agreed upon the conclusion)*. This framing, again, has a positivist slant in the following sense. For the critical question of "What if people carry out the method but come away with different beliefs?" If we want to move more deeply than the stop-gap conclusions that "investigators disagree, the question remains open," into understanding why others came to different conclusions, integral post-metaphysics would seem to steer us toward the conclusion that others must not all have followed the injunction accurately; or must not all be operating from an adequate developmental level or perspective. Potentially useful answers, but not particularly applicable to many real, contentious questions. The question of how we account for the inherent indeterminacy and variation of concepts, perceptions, worldviews, etc., yet still "get on with it," is not fully addressed. Wilber's three strands model for knowledge validation allows for, but does not include, the following important knowledge validation questions which are more acknowledging of indeterminacy and fallibility, and the calling for negative capability (and reflect the approach of the Habermasian school):[20]

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for is, though sometimes perfectly valid, also problematic. In doing so we (a) risk misdiagnosing the other using a simplistic categorization system; (b) miss an opportunity to connect more deeply with both the person and the ideas in front of us, and (c) miss an opportunity to more seriously reflect on our beliefs and selves in the face of an authentic encounter with another (and see Kögler, 1992). Admitting that I, and all of us, unavoidably constantly make these sorts of calls to judge the "adequatio" of the listener and gauge how deeply we will engage, we want to take seriously the question of how integral beliefs are explained and argued for in rational public discourse.

[20] Similarly, Mark Edwards (2000) critiques Wilber's three strands model, claiming that it is missing a strand of "interpretation" between steps 2 and 3 that is needed. Others, including Hampson (2007) make the broader argument that Wilber's theories too quickly "transcend and include" key insights and principles from post-modernism, and do not deeply enough acknowledge the fallibility of knowledge into the theory-building.

- What are my/our biases, assumptions, motivations, and incentives (i.e., “systematic distortions” of thought)?
- How far are we removed from experiential data along the Ladder of Inference (see below)?
- How indeterminate (fuzzy, ambiguous) are the fundamental concepts?
- What are the known alternatives, limitations, and fallibilities of this idea?
- What other parties/perspectives should be invited into the inquiry?[21]

Enacting the injunctions to ask the above questions requires the development of both knowledge and skill: knowledge of certain aspects of how one's mind works, and the skills of negative capability that come with practice in applying this knowledge.

In the rest of this section I will outline several post-metaphysical epistemic principles or approaches to belief-holding that address negative capability. These form a preliminary and incomplete set of answers to the question “What would a post-metaphysical or second tier approach to belief-holding look like?” In one sense to even propose concrete ways to deal with indeterminacy and fallibility is a more of a positivist “problem solving” than a negative “opening to the unknown,” but we will let this paradox be.[22] As described above from Habermas, post-metaphysics is a term pointing to a set of related positions that are in a corrective relation to certain historically prior dominant modes of thought. But, as the term implies, at its core it is corrective toward “metaphysical” modes. As we will see below, metaphysical thinking is like a type of magical thinking but at a higher developmental octave. Metaphysical and magical thinking are essentially about how we attribute aspects of physical reality to ideas; concrete ideas in the case of magical thought, and abstract ideas in the case of metaphysical thinking. Because the nature of abstract concepts is a common theme to several principles in post-metaphysics, I take some time to elaborate on this topic next.

The Indeterminate Nature of Concepts

As has been mentioned, statements, models, and theories are built up from basic conceptual building blocks (see the Appendix). Concepts, for our purposes here, are the categories we explicitly use to differentiate things–for example: “chair,” “democracy,” “god,” “red,” and “love” (almost every word or phrase we use points to a conceptual category). A concept can be characterized through two interdependent aspects: its definition and its exemplars. The definition is any general or abstract description, such as a tree being “a woody perennial plant.”[23]

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[21] Of course, to avoid the postmodern trap, we also must attend to the meta-question of: How urgent and important is the decision and how much effort should be expended before we end the inquiry process (for now) and act upon our (ever fallible) conclusions?

[22] It is like the paradox that fully "letting go" takes a kind of effort and commitment; or the paradox that achieving "beginners mind" requires a kind of sophistication. Epistemic wisdom includes an understanding that such paradoxes point to characteristics of language and thought, not to deep puzzles about reality (some such paradoxes are resolved with a "pre/trans" analysis).

[23] Abstract concept definitions are often thought of as having necessary and/or sufficient conditions, but our intention is to include more informal definitions as well.

Exemplars are individual examples of the things that are contained in the category.[24] Both aspects are important to consider. Exemplars must be given to help ground abstract concepts; and general definitions must be given because it is impossible to list every example. But there are often problems in alignment between definitions and examples. For example, a group engaged in deliberation about “scarce resources” or “indigenous people” or “concealed weapons” may at first seem to be in agreement about the wording of definitions, conclusions, or policy. But further discussions about concrete implementation may reveal great disparity in the things participants consider to be valid examples—they may “draw the line” in very different ways. One person's “scarce resource” or “concealed weapon” is not another's.

Researchers have shown how the nature of concepts differs from what we normally assume about them (Lakoff & Johnson, 1999; Mervis & Rosch, 1981). We often treat conceptual categories as if they were well-defined boxes that things either fall within or outside of. But this is almost never the case. Concepts as psychological phenomena are “graded,” meaning they have fuzzy boundaries such that (a) we can always think of things that are in the fuzzy gray area between being X and not-X; and (b) the meaning associated with a concept varies within each individual or group because they rely on different (usually implicit) exemplars.[25]

Due to the indeterminate nature of concepts, when we say “X is Y” it would be more useful to interpret it as in “any X is Y to the extent that X falls near the central meaning of X” (X is marginally or contingently Y for X's near the boundary of the central meaning of X). We can ameliorate this indeterminacy by trying to be as specific as possible about definitions and exemplars, to minimize the fuzzy gray areas, which is a necessary positivistic strategy, but we must not lose sight of the inevitable indeterminacy in any concept, which calls for an ongoing humility and openness (i.e., negative capability). Interlocutors who disagree about claims—for for example, “democracy supports economic growth” or “blue meme cultures rely on authorities to validate beliefs”—often erroneously assume they have the same meanings or exemplars for the concepts, and thus waste effort arguing about the statement per se rather than clarifying the non-overlap in concept meaning.

Issues with Abstract Concepts and Statements.

Lakoff’s work on conceptual structures indicates that the indeterminacy of concepts becomes progressively worse the more abstract they are, i.e., the further removed from concrete sensory experience and exemplars. Here are examples of sequences of concepts of increasing abstraction (these are from Dawson & Wilson's, 2004, and Dawson & Gabrielian, S., 2003).[26]

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[24] To clearly specify or teach the boundaries of a conceptual category it is most useful to give central exemplars, clear non-exemplars, and also positive and negative exemplars near the boundary (Tennyson, 1980).

[25] In addition, Lakatos' (1976) investigation of the knowledge building processes illustrates the dynamic interplay between abstract definitions and the examples we consider important; each of which evolves continuously through inquiry. Therefore, in any area where there is active inquiry, such as in science or the law, meanings evolve continuously.

[26] Dawson's research shows that the probability of observing higher indexed concepts increases notably with age and developmental level (as measured here in a task involving thinking about knowledge and other epistemological themes). Dawson & Wilson give these as examples of increasing "hierarchical

1. boys, camping, puppies, school, friend
2. know, guess, think, learn, question
3. believe, certain, trust, imagine, possible
4. actual, accuracy, certainty, plausible, justify
5. cognizant, rationality, skepticism, plausibility, materiality

Concepts at each level of abstraction can be shown to be (in their typical use) built up from (they coordinate, organize, and/or transform) concepts at lower levels of abstraction. Concrete level concepts relate to sensory experiences. Abstract concepts are ideas *about* concrete concepts, and more highly abstract concepts are ideas about ideas (about ideas, about ideas, etc.) about concrete concepts. The natural world of physical reality (the AQAL right hand side) has certain characteristics that make it amenable to scientific study and repeatable, reliable conclusions. It is *relatively* stable and consistent in its lawfulness. The world of *ideas*, in contrast, is more ephemeral (the world of ideas covers much of, but not all of AQAL's left hand side). A claim about the healing power of crystals is fairly concrete. There is a fair chance that, with appropriate resources, it can be tested in a fashion agreeable to many stakeholder perspectives. But with ideas about more abstract concepts such as spirit, omega points, holons, collective consciousness, or non-duality, how do we account for the indeterminacies in our arguments? How can we claim anything with certainty?

Moving from concepts to statements, this is related to Argyris' (1958) "ladder of Inference" description of belief formation.[27] We select *data* from our raw sensory observations, add personal and cultural *meaning* to that data, make *assumptions* based on those meanings, draw *conclusions* based on those assumptions, adopt *beliefs* about the world from the conclusions (these beliefs then effect both our actions and our selection of data in the first place). Argyris says "*the likelihood of differences in the interpretations of different observers increases the higher one goes on the ladder of inference*" (my emphasis).[28] More abstract concepts are less likely to be automatically accepted by out-group, and special care is needed in establishing mutual understanding with out group when in-group is disseminating its valued beliefs.

To summarize the above treatment of abstract concepts: (a) both definitions and exemplars play a role in how concepts are understood, and interlocutors may agree on one of these while diverging on the other; (b) we can differentiate between the "espoused" intellectual understanding of a concept (in terms of definitions or exemplars) vs. its tacit or unconscious manifestation which determines how it is enacted; (c) abstract concepts have graded boundaries; (d) statements made with abstract concepts therefore have a graded validity or truthfulness; (e)

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order of abstraction." They do *not* make claims (to my knowledge), as Lakoff does, about the metaphorical nature abstract concepts and the problems with increasingly abstract concepts I mention here.

[27] See the Appendix for more on addressing indeterminacy in Concepts vs. Statements.

[28] Argyris continues with "Hence some cardinal rules of action science are: Begin at the lowest rung of the ladder of inference, state the meanings at the next higher rung and check for agreement, and continue to the next higher rung only if there is agreement at lower rungs. These rules are meant not only for action scientists but also for agents in everyday life whenever they are dealing with important and threatening issues" (Argyris, 1985, p. 58). Along similar lines Senge (1990) instructs us to recognize "leaps of abstraction" in our and others' mental models (p. 186).

more highly abstract concepts and statements are more susceptible to these communicative and epistemic indeterminacies.

An Indeterminacy Analysis of Some Integral Theory Constructs

We can apply the above principles to integral theory through an “indeterminacy analysis” (Murray, 2010a), which makes explicit how the fallibility of constructs impacts generalizations made about them. The principle that anything we treat as a rigid category is really more like a graded spectrum is easy to understand with concepts like “third-world country” where the category is clearly not intrinsic to the object but is an abstract property that is assigned. “Third-world country” is (but decreasingly so) clearly a useful though fallible conceptual tool that works well for some countries that fall within its central meaning, and becomes problematic for case at the boundary (such problems, in addition to social justice concerns, have led to new terms such as “emerging” or “developing” countries). But consider how the more foundational categories “subjective vs. objective” and “singular vs. plural” are often treated as distinct categories (the AQAL left hand side vs. right and upper vs. lower quadrants), as if nothing falls in the gray area between them and nothing falls outside each pair of opposites. As *ideas* they can certainly be defined as distinct, but in *practice* (and in cognition) the objects and phenomena of reality do not pre-exist in definite categories.

For example, unconscious mental processes are not exactly subjective, but are they objective? It seems to me that the category fails to be useful here.[29] As to the category singular vs. plural, we can find or imagine things that are sort of singular but also sort of plural, for example a county (set of towns within a state) which does not have a strong central county government (here there is only a partial or incomplete “dominant monad”). The problem with primarily positivistic approaches that are not balanced with negative capability is that phenomena that don't fit the normative definitions of key concepts become marginalized. They will seem to be merely outliers, special cases that are easily and rightly ignored.[30]

We can also apply indeterminacy analysis to the integral theory concept of holon. The four quadrant model and Wilber's twenty tenets (Wilber, 1997) are essentially about the nature of holons. Interpreters of the theory have raised questions about what counts as a holon. Wilber addressed these in a positivistic way by clarifying the difference between holons and heaps, and later as other counter-examples were discovered, clarifying that artifacts are not holons. This process of clarification can and should continue (perhaps indefinitely, as pointed out by Lakatos,

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[29] An individual who feels as if unconscious processes *must* fall into one category or other will find a way to interpret the concepts so that everything seems to fit tidily, but in doing so may deny some important aspects or exemplars (the dross left when the conceptual knife makes its cut).

[30] A number of alternatives have been proposed to address limitations in the four-quadrant model. Edwards (2002) addresses the fact that "second person" "we" in the "I vs. we" categorization does not adequately capture important differences between the *you* to whom I am speaking and the *we* that transcends and includes you and I (and others). He proposes an alternative to Wilber's 4 quadrants that has six-categories (a singular and plural of 1st, 2nd and 3rd person). But this and most other alternative models also use rigid categories without fully acknowledging the indeterminacies of such categories. A more flexible scheme is seen in Roy's (2006) Process Model which treats the categories of singular/plural and whole/part as potentially overlapping aspects of any phenomena.

1976), but what is also needed is an acknowledgement, including examples, that some objects of interest may fall into a gray area between heaps and holons, or between holons and artifacts, and that AQAL-based conclusions for these objects will be less definite.[31] Other central concepts within integral theory that have significant indeterminacy include “the true, the good, and the beautiful,” I/we/it, gross/subtle/causal, and state/stage treatments.[32] [33]

Issues with abstract concepts arise with Wilber's three strands method as well. He acknowledges but does not dwell on the fact that between the steps of an injunction (look this way) and the social agreement (many with adequate cognition see the same thing) is a step of *interpretation*. Interpretive differences do not go away simply by constraining participants to operate from and point to the same Kosmic Address (even assuming this was possible and desirable). This is less problematic (but not unproblematic) in areas where the exemplars are experiential. The examples that Wilber gives include looking through microscopes and telescopes and using meditative practices. We gain direct experience through such practices and can (a) give clear injunctions to others on how to access those experiences; and (b) have some clarity about what we are pointing to as we engage in intersubjective processes (dialog) to give meaning to those experiences. Wilber makes the critical point that the same sort of reasoning process (i.e., the three strands) that is used for scientific conclusions based on sense data (“the eye of the body”) can be used to make valid conclusions in the realm of pure ideas (“the eye of the mind”) and in the spiritual realm (“the eye of spirit”) (Wilber, 1997). This point provides an important launch pad for rigorous inquiry into realms ignored and devalued in the Western scientistic paradigm, but we must not mislead ourselves into thinking that conclusions based on the datum of ideas or intuitions will have the same character as that based on physical realities and sense experiences. Cognitive science has illustrated that such ideas have significant indeterminacy.

Bracketing aside the realm of mathematics and logic,[34] conclusions grounded in ideas about ideas (the eye of the mind) will be more problematic, more indeterminate, than those grounded in the senses. And what can be said of “the eye of spirit?” Contemplative practices yield direct experiences and insightful ideas—but what third type of data would constitute spiritual data? In my experience there *is* a certain character to what we might call spiritual insights—a kind of deep and quiet certainty. But once that experience is translated into the realm of words and shared ideas it falls prey to all the usual forms of indeterminacy that post-metaphysics recognizes. How are we to treat these insights as valuable while not being constrained by modernist rational modes of justification, yet not fall prey to metaphysical thought? I return to this question in the section on “meaning generative claims” but next I will continue our exploration of the nature of abstract concepts.

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[31] It may be too much to expect the creators of exceptional theories to do a thorough indeterminacy analysis—they are too close (if they were not they may not have had the focused insight and perseverance to birth the theory in the first place). That is the job of the knowledge-building and practice community as a whole.

[32] Truth, goodness, and beauty are highly useful and meaning-generative concepts. But they are also highly abstract. This does not mean we should avoid making claims using them, but it does call for a non-positivistic approach to making claims using them.

[33] The phenomena of human states, even if we limit it to those aspects relevant to development, epistemology, and spiritual growth, is much more complex than can be captured in the "gross/subtle/causal" or "waking/dreaming/deep sleep" classification. The paucity of this vocabulary limits our ability to inquire. Also, the difficulties in teasing apart state-relevant and stage-relevant phenomena point to a possible need to revisit whether this dichotomy is overused and an alternative is needed.

[34] Which some argue are essentially tautologies, and are at least special cases not relevant to the claims in integral theories.

Misplaced Concreteness through Developmental Levels

Underlying the “myth of the given” and the “map/territory confusion” is a cognitive phenomena that Whitehead (1929) called “misplaced concreteness,” wherein one treats an abstract concept as if it had physical reality (or a reality outside of human interiors). Philosophers and cognitive psychologists arguing from the “embodied mind” perspective note that misplaced concreteness (and related phenomena) are an unavoidable consequence of the fact that the development of the human mind has its foundation in concrete physical interactions and needs (in Murray (submitted) I explore this idea from two directions: genetic/evolutionary and individual cognitive development. There seems to be something deep and strong within us that wants to treat abstract concepts (e.g., democracy, African-American, god, ego, compassion, spirit, evolution, formal operational thinking, left hand quadrant, green meme, or Eros) as if they somehow really existed in the way that we perceive them, or that they represent a-priori nature-determined categories. We “reify” them (or at an extreme, some would say commit an *idolatry of ideas*) that do not so much exist “out there” as they are tools we invented to make meaning of reality. And as mentioned, there is also the strong tendency to treat the boundaries defined by concepts and models as fixed or concrete, and ignore their fuzziness, malleability, ephemerality, and indeterminacy.[35] The deeply metaphorical nature of thought causes us to imbue abstract ideas with traces of the properties of concrete objects (Lakoff & Johnson, 1999).

We can take a developmental perspective on misplaced concreteness (I am not aware of others having done this; but see Ross, 2008 for a developmental analysis of communications based on Hierarchical Complexity). Misplaced concreteness (and its repudiation) begins at more concrete levels and persists through ever more abstract constructs. In magical, concrete operational, and early pre-conventional modes of thought there is insufficient differentiation between imagined and perceived events. The monster under the bed and the mermaid said to live in the pond are very real. With mythic and early conventional forms of thought we differentiate personal imagination from reality but the beliefs given to us by culture are (still) taken as inherent aspects of reality. We believe the “stories” and myths given to us by authorities and peers. My team *is* the best, my country the strongest, my holy text contains the truth. Moving into late-conventional and modernist/rationalist forms of thought we enact the types of misplaced concreteness Whitehead was referring to, and give *abstractions* the gloss of concrete reality. We take our maps and models too seriously (treating them as “the territory”), and tacitly expect reality to conform to them as if these models and equations were properties of matter rather than tools invented by minds. At each succeeding level the limitations of the prior level are seen and transcended, but new forms of misplaced concreteness or reification await us. At each level it is the newly developed capacity (rules at Blue; models at Orange; systems at Green) that seem overly “real.” It should also be noted that all prior forms of thinking and misplaced concreteness remain active, though we develop habits to avoid or compensate them (e.g., “knock on wood,” or “the weather is out to get me today”).

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[35] Whitehead warned against misplaced concreteness but did not, to my knowledge, discuss its psychological source or natural persistence.

How this phenomenon continues into second tier is less explored. At construct aware or vision logic we more fully understand that the map is not the territory, that our theories are fallible approximations, and that we are perceiving the world through a thick worldview bubble. But we still maintain habits of language use and enaction that treat abstract categories such as subject/object, singular/plural, and state/stage with fixed and well-defined boundaries. At first the realizations of the indeterminacy and fallibility of ideas is unsettling and overwhelming (the post-modern or relativist position), but with deeper understanding and development we eventually understand such phenomena not as unsophisticated or faulty thought modes to be outgrown, but as inevitable dimensions of thought that must be accounted for and, when appropriate, compensated for or neutralized to the extent that we can. We can allow for the meaning-generative power of cultural myths, magical thinking, metaphysical entities, and elegant model while maintaining objective clarity of these beliefs as useful tools for certain purposes. We can flexibly assume perspectives that reveal the valid “reality” of a wide range of cultural world views, personal beliefs, and developmental thinking modalities. We begin to be able to observe concreteness-producing and certainty-producing mental processes as they arise within us.[36]

Epistemic Drives

Misplaced concreteness is a natural tendency of thought. We will call such tendencies that influence what we think is real or true “epistemic drives.”[37] Fabrice Clément describes the phenomena thus:

> Understanding goes then hand in hand with a phenomenal experience that is highly positive…Still from an evolutionary angle, the “aha” experience that follows the puzzling “hmm” has been selected to (1) indicate to the organism that an explanation has been reached, (2) encourage the explanatory effort by providing a rewarding emotion. This kind of “cognitive emotion” could therefore explain the epistemic drive that can be observed in children (and *scientific* [my emphasis]) behavior (Clément, 2003, pp. 74-75).

Within this general phenomenon of the drive to understand or find meaning we can differentiate a number of sub-phenomena. The above mentioned “drive” toward certainty and the “dive” to create definitive category boundaries are examples of epistemic drives. There are others worth exploring. If we inspect our own thoughts, and evaluate the ideas of others, it is clear that the human mind is propelled in part by drives toward oneness, completeness, and wholeness. Some of this can be linked to low-level brain processes that turn perception into categories. One of the most basic functions of animal cognition is to group experiences into more abstract or encompassing categories; to efficiently distinguish friend from foe, food from poisonous plant, for instance. Beyond or abstracted from the basic biological imperative to categorize, in *human* thought we can see at work an interior ecology of polarities of epistemic drives that expose important fundamentals of thought itself. I call it an ecology because for each drive there is one or more opposing drives, all competing for attention and keeping each other in check. For instance, there is a drive to notice differences as well as one to perceive wholes. I list below some polarities of epistemic drives that are significant to epistemology and metaphysical thinking. This is not intended as rigorous treatment but as a rough list of overlapping phenomena to illustrate the concept of epistemic drive.

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[36] As is alluded to in the Appendix, we can show related but distinct types of developmental progressions related to experiences, concepts, statements, and models.

[37] In an earlier version of these ideas presented at the ITC-2010 conference I thought I had coined this term, but a quick Google search shows that this is not the case.

Some Polarities in Epistemic Drives

- Abstract (ideas) vs. concrete (tangible, sensory, real)
- General (generalization) vs. specific (specialization)
- Universal vs. relative (or contextual)
- Fundamental (essential, central, root) vs. consequential (peripheral or subordinate)
- Permanent (unchanging, fixed, predictable) vs. changing (transient, unpredictable, chaotic)
- Oneness/singularity/unity vs. multiplicity (the many)
- Whole (holism; integration) vs. part (differentiation)
- Completeness (comprehensiveness; totality; systemic) vs. partiality (details, deconstruction)
- Perfection and purity vs. imperfection

It seems that integralists, and those drawn to theories and models in general, have a particular unconscious affiliation with the first item in each pair above. We can become aware of that in the human mind which wants to pull the disparate, the many, the diverse into a unifying whole; to achieve the simplicity and power of a general concept or rule; to determine and rest in what is at the center of, or underneath things. We can identify these drives or urges working within us at the level of felt experience. There is a sense of ease, certainty, and mastery when we can ignore details and differences and trust a sturdy generality. There is a sense of elegance and wholeness when we can embrace many things into a circle of unity. We get a certain satisfaction from ordering things or collecting them into tidy groups. The inquisitive and meaning-hungry mind wants to know the causal root, foundation, source, or origin of things. The constructs of the good/true/beautiful and I/we/it and gross/subtle/causal have a pleasing epistemic pull to them that makes it more difficult to see the manifestations of misplaced concreteness.

I use the term “drives” in analogy with other biologically innate “emotional” drives such as the drive to reproduce, the fight/flight/freeze responses, territoriality, maternal/paternal care, and social dominance/submissiveness drives. A plethora of drives exist within us, mostly dormant until conditions trigger them, and often in competition (will I eat or play? fight or run?). Our drives are essential tools for surviving and thriving, and can also create problems. In humans basic drives get transformed or built upon, sometimes in ways that seem quite distorted compared to their original intent (fear becomes anxiety, sexual drives become fetishes, the drive for hygiene becomes obsessive-compulsive disorder, etc.). In naming “epistemic drives” I call attention to their unconsciousness and pervasiveness, but also to our ability to meta-manage them. With our drives to eat (or over-eat), sexually flirt, become angry when challenged, and so on, our lives are improved when we reach a stage of development in which we are aware of and can control or compensate for them (i.e., when subject becomes object for any given drive). The term epistemic *drive* also emphasizes that we never completely outgrow or eliminate them, that they can raise their heads unexpectedly in many contexts, calling for an ongoing awareness and cognitive management. As shown with misplaced concreteness, epistemic drives are like emotional drives in that we become aware of and learn to manage them at ever deeper and more nuanced levels, but meanwhile they keep showing up in ever subtler ways, so the developmental learning process continues indefinitely.

The epistemic drives toward wholeness, completeness, and essentialness not only help us accurately understand and make meaning of the world but can over-function to create biases, errors, and ethical problems. Phenomena such as grandiosity, hegemony, elitism, and proto-fascism are extreme cases. But in less extreme ways the subtle influence of such drives pervades the creation, consumption, and promotion of theories, models, and belief systems. As with prescriptions to avoid bias and be objective or avoid selfishness and be altruistic, avoiding metaphysical thinking to take a post-metaphysical stance is more about ongoing attention and deepening wisdom (i.e., skill building) than adopting a belief or philosophical position. Simply understanding and agreeing with the prescription (to, for example, avoid bias, selflessness, or metaphysical thinking) is only the first step in enacting the idea; and seriously taking on the project requires developing a deeply felt understanding of the push and pull of cognitive and emotional forces within.

Doing Post-Metaphysics: Integrity and the Role of Emotion

This brings us to the issue of *enacting* the post-metaphysical stance. First, as mentioned above, we must distinguish between the explicit or “espoused” belief in or knowledge of post-metaphysical principles (such as “don't confuse the map with the territory”) and their skillful and habitual application. Second, we see that enactment requires both a deep familiarity with a number of habits of mind (misplaced concreteness and other epistemic drives) and the multi-context practice and trail-and-error learning required for development. Third, we can acknowledge how the emotional and ego-related characteristics of each situation affect our ability to enact the post-metaphysical stance. Developmental capacities can “gear down” to lower levels in the face of stress or complexity. The drives to have our abstractions and ideas be more true, more real, encompassing, fundamental, and essential is exacerbated to the extent that fear, anger, urgency, or ego-attachment are involved.

Phenomenologically (and epistemologically), the ascription of reality or truth to an idea is a matter of intensity or degree of certainty, rather than an all-or-nothing matter. We assign more concreteness to abstract ideas that matter more and that we are more certain of (and vice versa). One's degree of certainty in an idea (how strongly we hold to its reality or truth) is tied up in emotion-laden evaluations of the importance, urgency, and consequences of an idea. Thus we can acknowledge that, regardless of one's developmental level, misplaced concreteness and a number of other epistemic drives and cognitive biases are affected by emotional context. Though a description of the findings in this area are beyond my scope here, I will merely point to the vast body of scientific work showing strong connections between emotional processes and reasoning processes (Damasio, 1999; Fischer et al., 1990; Goleman, 1995; Matthews et al., 2002).

Integralists, in embodying their philosophies and visions, are called to a particularly high level of *integrity* and ethical development. I define integrity as congruence between four categories of phenomena (actions, words, conscious beliefs, unconscious beliefs, in order of increasing difficulty and development): that actions follow words (e.g., we do what we say we will do); that words follow conscious beliefs and thoughts (i.e., authenticity and transparency); that conscious thoughts and beliefs align with unconscious ones.[38] The final step can be expected only in the high developmental levels of self-reflective capacity that turn emotional reactions, unconscious drives and motives, and even the processes of thought and language themselves, into objects of inquiry. Thus, though it is difficult, integralists are called to hold deeper reflective meta-perspectives on how their own cognitive and social belief-generation processes work, in able to hold their beliefs post-metaphysically.

Yet even as we call for a more fully post-metaphysical approach to integral beliefs, post-metaphysics, based on modern revelations about how the mind works, brings with it the humbling understanding that we are wired with epistemic drives that unavoidably compel us into magical, mythical, and conventional modes of thought. The more that useful prescriptions like “don't confuse the map with the territory” become catchphrases that are repeated without an acknowledgement that doing so can be difficult and subtle, the greater the social pressure against admitting the natural prevalence of such phenomena. The social pressure to avoid these sorts of errors hinders authenticity and inquiry. One measure of second tier community is a group's capacity to empathically consider, allow for, and learn from such vulnerabilities.[39]

The Validity of Meaning-Generative Claims

In this section I will suggest that for many of the knowledge claims that constitute integral theory and the integralist belief system, it is better to use “meaning generativity” as a source of validity, expanding the established set of validity types beyond the standard model of the true, the good, and the beautiful. The concept of meaning-generativity may help integralists assert and promote important ideas with sufficient forcefulness, while still communicating a post-metaphysical or reflective stance that acknowledges the fallibility of ideas.

In *The Way We Argue Now: A Study in the Culture of Theory,* Amanda Anderson (2006), siding with Habermas, attempts to reclaim the concept of “critical distance” from the deconstructive and relativist malaise that, she argues, overtook scholarship in the late 20th century. The concept of rational, reflective, or critical distance gained a dismissive reputation for being “impersonal, abstract… arid… irrelevant, or elitist” as its detractors “valorized ideals of embodied identity, feelings and passions, ethics and politics...existential meaningfulness and moral force” (p. 2). As is often noted in integralist texts, it is not necessary to throw the rational and reflective baby out with the dirty bathwater identified by postmodern scholars. Even in conversations that valorize identity, feelings, ethics, etc., it is the reflective powers of reason that allow us to manage the complexity that arises in practical situations involving numerous interacting and often conflicting voices, needs, and perspectives (both externally and within oneself).

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[38] Integrity also implies congruence among the objects within any of the four levels (actions, words, conscious beliefs, unconscious beliefs) in different life contexts. For example: acting or speaking to one group in ways that contradict what one does or says to another group constitutes lack of integrity. Also, if conscious beliefs or unconscious drives exist within us in a kind of unhealthy conflict or turmoil, this points to a subtler lack of integrity. Technically we can not know what is in the unconscious, but a large body of work deals with revealing this territory and healing it (making it whole and harmonious).

[39] Shifting from the mundane uses of metaphysical thinking to its philosophical uses, we can note that the post-metaphysical approach has been made possible only with relatively recent understandings of mind and epistemology. Great philosophers including Plato and Hegel were trapped in metaphysical binds. Habermas notes (1992, p. 6) that "even Nietzsche, in his rejection of Platonism, remained attached to the tradition's strong concept of theory, its grasp of the totality, and its claim to a privileged access to truth." Metaphysical thinking is in esteemed company, and not to be derided out of hand.

Let us return again to the question of how one holds what integralists think are highly important or useful ideas (see Table 1); for example, “spirit is evolving through us;” ideas about involution and evolution; the integralist understanding of the traditional, modern, and post-modern cultural systems; or that something like spirit or higher self exists. Pick any cherished idea that you have tried to explain to another. To make a claim is to imply that one has reasons to back it up (see Habermans, 1981).[40] There are numerous types of reasons or justification modalities that one can use to explain or justify a claim. Though some have argued that his scheme is too simplistic to cover all cases (e.g., Cooke, 1994), I will refer to Habermas' model as it is widely acknowledged and is consistent with integral theories. Habermas claims that, in modern (and post-modern) cultures we make three types of claims, which, in integral-ese we would call claims about truth, ethical goodness (or moral justness), and beauty (which are intended to reveal something about objective, intersubjective, and subjective realities). Claims in each domain have a different basis for validity.[41] Though there is much in integral theories that speaks to ethics, for the most part integral theories are truth claims. Theories such as AQAL describe the way the world works (in all four quadrants), and only secondarily make claims about how people *should* act or how society *should* be structured. Thus our concern here is primarily with truth claims.[42]

In modern (or post-modern) contexts the nominal “gold standard” for the validity of truth claims rests on something like the scientific method, i.e., something like Wilber's three strands (or any extension of it) as described above. In the ideal case we anchor our explanations in objective facts, rigorous empirical methods, trusted impartial sources, multiple validations and perspectives, etc. To base the certainty of ideas in the authority of a holy text, a religious leader or king, a gut feeling, what our ancestors said, what a popular film or sports personality said, or what “everyone” says (or even “because I said so, stupid”), would, though these are common modes of reasoning that we all use, be judged by many as using an inferior mode of reasoning. From a developmental perspective we would call these (sub-gold-standard) modes of reasoning conventional or pre-conventional—while the gold-standard is a post-conventional mode.

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[40] Habermas suggests that "we understand an utterance when we know what makes it acceptable." Thus to agree with an idea is to make assumptions about reasons that back up an idea, and to make a claim is to implicitly guarantee that the claim can be justified with reasons (Habermas 1983, V. 1, p. 297).

[41] Habermas says that speech acts actually imply claims in all three domains, with one being primary (Habermas, 2003).

[42] "Pathos" and "ethos" are essential elements in belief formation. We don’t dismiss them here but rather focus how to talk about the truth-related and epistemological aspects of claims.

In exploring or promoting integral ideas we are called to at least live up to post-conventional modes. There is a certain burden of proof that falls upon us in promoting or explaining integral ideas in a way consistent with our aspirations to communicate from a post-conventional stance (not to mention the more demanding post-metaphysical stance).[43] Both the importance and difficulty of doing so is exacerbated by the fact that many of the ideas traded in integral circles are from the domains of social science or philosophy (including "reconstructive" sciences and, even more problematic, spirituality)—domains which are plagued with indeterminacies that the physical sciences (or mathematics) are relatively immune from.

According to Oberschall (2000) ninety percent of social theories rise rapidly only to fall into oblivion (as cited in Wallis, 2008). In general, social and human science theories are difficult to test (validate or falsify; see Popper, 2002; Wallis, 2008). Bent Flyvbjerg claims that "we must drop the fruitless efforts to emulate natural science's success in producing cumulative and predictive theory; this approach simply does not work in social science" (Flyvbjerg, 2001, p. 166). Roy Bhaskar, in his theory of critical realism (1975; and see Collier, 1994), notes how all human systems are complex *open* systems in which we can never isolate any causal mechanism for rigorous experimentation. According to Bhaskar, we are thus constrained to positing the existence of "tendencies" (rather than laws) that occur "all other things being equal" (which they never are, actually).

If we are constrained to a more classical truth-claim model of validation in such domains, making strong claims or advocating that others should take up ideas, is problematic. Modern norms do seem to imply that we should offer solid "proof" or rigorous argumentation for these highly fallible ideas—yet often none exists. While, if we are honest with ourselves, we can admit to a conviction, even a strong sense of validity, for some of our ideas that can not be backed up in this classical modernist way. In his book *Alchemies of the Mind*, social scientist Jon Elster (1999) notes, in agreement with others mentioned above, that psychology, sociology, ethnography, political science, etc. have had little luck in predicting phenomena, and he views "the ideal of law-like explanation [in] the social sciences as implausible and fragile" (p. 1). However, he offers an alternative path to truth-claim-like justification. He suggests that claims in such areas, even if they do not provide the predictive power of laws from the hard sciences, provide powerful *explanatory* power. Elster suggests "explanatory mechanisms" as a term for claims that are not as provable as scientific laws, yet have more explanatory power than mere descriptions. Integral theories are rife with such principles which help us explain but not predict human behavior.

This begins to suggest that there may be valid ways to justify our highly fallible beliefs in post-conventional or post-metaphysical ways. Before offering my argument for a "meaning-generative" type of validity, I will add one more element which touches on the ethical questions in making claims in highly fallible areas. The post-metaphysical stance to beliefs takes seriously questions such as: How can we speak passionately or forcefully about ideas for which we can offer little evidence? And: Is it ethical to speak with certainty about beliefs that we know are quite fallible? These are difficult questions in part because we are often at the same time trying to communicate some idea we hold as true (the locutionary or so-called “communicative” aspect of the speech act) while we are also trying to influence the listener to take some action (the illocutionary or strategic aspect of the speech act).

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[43] Cooke, in explaining Habermas' approach to communicative rationality, refers to *post-conventional* modes of dialogue as including "the idea that no validity claim is exempt in principle from critical evaluation in argumentation" whereas in conventional (or post-traditional) modes "what counts as relevant is narrowly and rigidly defined according to fixed prevailing conventions" (1994, pp. 32-33) *Post-metaphysical* modes, as used in this paper, are more sophisticated than post-conventional modes, in that they not only admit to the fallibility of knowledge, but incorporate some insights about the nature of that fallibility (and thus the nature of knowledge and communication, as discussed in this paper).

The full elaborated “truth” of an idea as we understand it may entail many elements that mitigate our certainty in it. For example, one may say that “medical costs are high mostly due to profit hoarding in the pharmaceutical industry.” Yet one may also know facts, or be familiar with valid perspectives, that argue against the claim. In any discursive contexts we do not pass on facts or ideas for no reason—we have reasons, and they may be hidden from the interlocutor (and may even be invisible to us). In the above case let us assume one's attempt to argue for this idea is part of a more encompassing agenda to influence another's worldview about some larger topic (government, or medicine, or the economy). Given this goal one will focus on facts supporting one's idea and ignore contrary facts; and one will speak with more certainty than if one were engaged in an open inquiry rather than a persuasive act. But this presents ethical dilemmas—we are allowing for a partial falsehood in order to affect some greater social good. One partial way out of this ethical bind, in which we must balance our desire to persuade with our desire to be completely truthful, is to enact a more reflective stance to our communicative acts.

Arguments from a post-metaphysical stance tend to be more self-reflective, authentic, transparent, and ethically centered. For example, one might say “I will argue strongly for this because I think that is what is needed here but I will also admit up front that I sometimes have my doubts;” or “I think this theory is a perfect fit for moving your agenda forward but I need to hear more about how you understand how it meets your needs before I continue,” or “I will be putting on my activist hat here, and will be trying to connect with your emotional mind more than your rational mind, and might be ignoring some of your counter-arguments while I do so.” This level of reflectivity and transparency gives us another tool for explaining or promoting integral beliefs.[44]

The act of communication is a balancing act in which we weigh (1) sincerely communicating what we know (or suspect) to be true and relevant about a topic (which can have many layers, branches, and ambiguities) against (2) what we strategically wish to accomplish (which can include not only persuasion, but things like making a good impression, avoiding conflict, and not wanting to spend too much energy on this conversation); and (3) our moral/ethical sensibilities about how to do right by others.

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[44] This approach has commonalities with many progressive communication and facilitation models. For example, Roger Schwarz's "mutual learning" approach for empowering participants and minimizing a group's dependence on a facilitator suggests that facilitators be transparent about their facilitation strategies, communicating the reasoning and intent behind their comments, questions, or actions (Schwarz, 2002, p. 113).

Putting all the above together I suggest that what is needed to balance these three goals when we promote some integralists beliefs is a more general acceptance of (and transparent communication about) “meaning-generative” claims.[45] That is, that we can note explicitly that we hold and promote an idea simply because it helps us make sense of the world, and offer that it may do the same for others. Just as truth, ethical, and aesthetic claims each have their own rules of engagement (or valid ways to counter them), so do meaning-generative claims. Just as “but you can't prove it” is not a reasonable counter to an ethical or aesthetic claim, it is also not a valid counter to meaning-generative claims.[46] Meaning-generative claims are akin to Elster's explanatory mechanisms, but can be broader. They are different than aesthetic claims, which need only expose one's personal subjective impression, in that they presume that the idea will help another make sense of (or explain) some aspect of the world.[47]

Beliefs that cannot be “proven,” or that we don't even care whether they can be proven, can nevertheless be quite valuable to hold and communicate to others. For example, I “believe in” reincarnation because, though I have no direct empirical experience supporting it, it counteracts existential despair, is held by people I admire, and coordinates well with a number of other beliefs and intuitions I have—I do not expect to or need to convince anyone that reincarnation is real,[48] though I might offer an argument for it. A claim affirming reincarnation is valid for many because it is meaning-generative, not so much “true;” yet it is more than merely “good” or “beautiful.” The same approach can be taken with the teleological “evolutionary spirituality” perspective on human development: that “the universe is evolving—through us.” This Eros-based belief has strong meaning-generative power for many, but to have to “prove” it in any logical way is impossible and beside the point, yet it is not merely a moral/ ethical/normative claim.[49]

I will not argue that adding “the meaningful” to “the true, the good, and the beautiful” adds some perfect missing link to the formulation—the idea has not been worked out with much rigor here. Rather, I am suggesting that it performs an important function in post-metaphysical communication that the other three do not adequately address. Two hundred years ago, Kant saw that culture evolved to differentiate the true, good, and beautiful as separate validity claims in the modern area, and I am suggesting that in the (post-) post-modern era we are beginning to (or needing to) differentiate yet another form that is something like the meaning-generative. The *meaning-generative potential* of a claim can be as or more important than its truth value for highly fallible or un-falsifiable claims.

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[45] I will not present any full theory of meaning generative claims, but outline how the concept might be useful in practical communication.

[46] Note that I am not talking about the move from definitive knowledge or facts to simply a hypothetical or probabilistic framing of claims, but rather am describing an explicitly reflective stance on idea communication.

[47] This uses a simplistic I/we/it definition of aesthetic claims—other more elaborate interpretations of the aesthetic claim are possible that may be closer to the meaning-generative claim (see Duvenage, 2003).

[48] See the Appendix for an explanation of how most beliefs have multi-sourced justifications.

[49] In Habermas' theory a truth claim implies an argument for universal validity—i.e., even if put tentatively, it implies that, if it turns out to be "true" then it should be true for all who yield to the force of the argument. Meaning-generative claims are more akin to aesthetic claims in this regard, in that we do not expect them to be true (or even useful) for everyone.

If we can speak in terms of meaning-generative potential we gain some freedom from the straightjacket of conforming to modernist/quasi-scientific justification modalities and have more flexibility in talking about beliefs that might be called metaphysical or quasi-scientific (even pseudo-scientific). For example, though personality and capacity typing systems such as Meyers Briggs, Enneagram, Spiral Dynamics (thought they vary greatly in their demonstrated empirical validity) all suffer from serious discrepancies and other challenges within the body of empirical research. In addition, users and adherents to each type of framework have an affinity to their chosen model that is best explained by pointing to its meaning-generative potential for them. Empirical studies may not impact one's affinity to such models, in part because experimentation in such domains is so difficult that it is easy to dismiss any single study.

I am not suggesting that society (or the integral community) adopt an even more rampant lack of rigor or “truthiness” (or “bullshit,” as described by philosopher Harry Frankfurt, 2005) than exists already. Rather, the current modernist valorization of logical and scientific results, in providing no way to speak to meaning-generativity as a validity type, creates an unhealthy pressure to use and misuse scientific evidence (which then begets pseudo-scientific arguments) as a false justification for ideas and frameworks that are used largely because of their meaning-generative potential. The post-modern swing in the opposite direction is equally incomplete.

The suggestion here is not to de-valorize rigor, but to provide valid alternative justification modes that allow us to more rigorously and reflectively differentiate when we need scientific rigor (or modernist forms of rationality) and when we don't. The invitation is not to abandon the modernist aim for sturdy truths in favor of appeals to identity or pathos, but to explicitly include a reflective level that speaks directly to the nature and fallibility of communication and belief.

Conclusions

In this paper I have explored the concept of post-metaphysics and what it might mean to entertain a deeply post-metaphysical approach to integral beliefs and frameworks. I have mentioned the developmental progression in the way people hold and justify beliefs. Developmentally earlier modes, including magical, mythical, and conventional thinking, are less concerned with the universality or portability of claims, that is, at first tier one is less aware of how those who do not hold one's worldview might interpret one's claims. The New Age beliefs listed in Table 1 are often held in this way. As in all communities of affiliation, inquiry and/or practice, the integral community also demonstrates an insular belief reproduction “echo chamber” effect. Constructs such as “non-dual,” “development,” and “Agape” take on a particular meaning that is treated as if it is the only meaning, and certain ideas like “the cognitive line precedes other lines” get passed around the circle as truths taken for granted. A deeper “indeterminacy” analysis of the truth or reality of these constructs and beliefs is all too rare.

Though this phenomenon is not only typical but it is an unavoidable aspect of group belief formation (including academic disciplines), there are several things to note about it relative to the integral community. First, because (we will assume that) the integral vision tends to attract individuals at relatively high developmental levels (compared to other communities of theory or practice), it has a relatively high capacity to reflect with epistemic wisdom upon its constructs and beliefs. Second, counteracting this, the integral community is unusual (though far from unique) in how much of its core constructs and truths are attributed to one (extremely talented and productive) person or founder, i.e., Wilber. This, and the fact that the integral project blurs the lines between scholarly and social spheres (e.g., with Integral Institute sponsoring Integral Life as well as academic programs) has the effect that much of the knowledge passed around is not viewed as critically as it might be. "Wilber is brilliant, and we are all pretty smart, so these things I keep hearing others say over and over are pretty likely to be valid." Third, because integral theory is so fundamentally interdisciplinary, broad, and far-reaching, and has such great potential for wide impact, it must pay exceptional attention to the portability of its constructs and beliefs to realize its potential.

Thus, within the integral community there is great potential and a particular calling to bring epistemic wisdom to our inquiries, yet factors exist that make it more difficult to do so. In this paper I have tried to offer some preliminary suggestions and tools supporting the enactment of post-metaphysical approaches to the creation, critique, and proliferation of integral knowledge and belief systems. These focus on epistemic skillfulness around one's relationship to belief, knowledge, truth, reality, critique, justification, and certainty. These suggestions and tools include:

- Suggesting that enacting post-metaphysics (and second tier development) involves a deeper understanding and awareness of *cognitive processes* as mentioned below;
- Highlighting how the indeterminate nature of *abstract concepts* influences the fallibility of statements and models;
- Mapping out the different epistemic concerns involved in *concepts, statements, and models/theories;*
- Relating epistemic questions of truth, reality to psychological phenomena such as *misplaced concreteness, epistemic drives,* and emotion; one's judgment of certainty or reality is influenced by factors such as importance, fear, and urgency;
- Pointing out how *magical and metaphysical thinking* are manifestations of misplaced concreteness; which occurs in different ways at different developmental levels;
- Articulating the difference between positivist approaches and *negative capability* in integral theories, and suggesting additional focus on or balance of the later;
- Suggesting how *indeterminacy analysis* can bring a more post-metaphysical perspective to models and theories;
- Suggesting that *meaning-generativity* be used more widely as a way to justify claims that have metaphysical implications.

In conclusion, for second tier thinking, wisdom skills are more fundamental than any particular set of beliefs or models. *Whether* we believe in a god, or in capitalism, or an evolutionary omega point, is less important than *how* we hold that belief, and *how* we hold it is a matter of skills. I have made an early exploratory stab at describing some approaches useful for post-metaphysical belief-holding. With these and further developments, we can aim for the *ego-awareness* to reflect on our attachment to it; the *relational-awareness* to listen deeply to someone with an opposing belief; the *construct-awareness* to hold the paradoxes implied in the belief; and the *systems awareness* to see how that belief relates to other beliefs and to systems of action. And we can aim for the second tier wisdom to reflectively choose what and how to believe and to use that belief as a sturdy tool in ethically-relevant work, and let go of it when it is not useful. The long road ahead brings the challenges of how we will define, assess, and support such skills in our domains of application.

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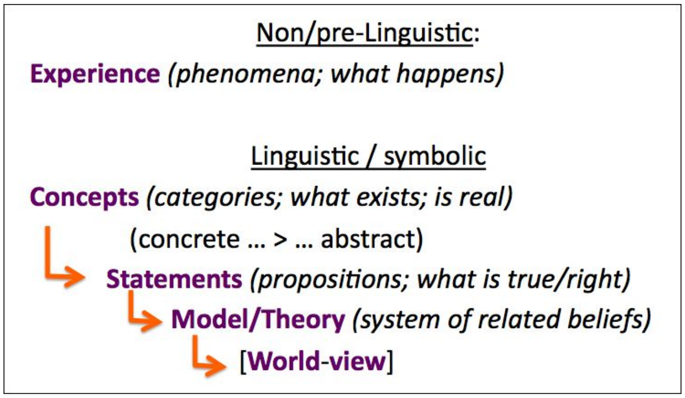
Appendix: From Concepts to Statements: Modes of Justification and Critique

In this Appendix I discuses several ideas referenced in this article that I believe contribute to taking a post-metaphysical stance, which I will work out in more detail in future papers.

In discussing post-metaphysical approaches to knowledge it is useful to differentiate several types of knowledge as in the following figure:



Non/pre-Linguistic:

Experience *(phenomena; what happens)*

Linguistic / symbolic

Concepts *(categories; what exists; is real)*

(concrete … > … abstract)

Statements *(propositions; what is true/right)*

Model/Theory *(system of related beliefs)*

[**World-view**]

Figure 2: Categories of Knowledge/Belief

On Experience

Experience and other non-linguistic or pre-linguistic phenomena exist in the top category. These form the basis of (symbolic) concepts and ideas. These are not meant to be completely raw or unfiltered, as all experience and sensation gets filtered at a very early point. This category points to one's belief that “this is a tree” or “I should take this job” before I put words to it (internally or verbally). Included in this category are “intuitions” before they are conceived in words and symbolic categories. This category is a catch-all that points to everything that we “know” prior to (or without its) manifestation into symbols and language. I offer no detailed or scientific treatment for this vast category (though many exist; see Martin Heidegger; Jason Brown; Antonio Damasio), but name it to point out that all attempts to ground knowledge, belief, or mutual understanding draw upon this level. The validity of verbal abstractions, i.e., the linguistic/symbolic forms listed in the figure, depends on references to this Experiential level.

I will make one interesting point about Experience in light of our discussion of metaphysical thinking. Though we treat an experience such as the taste of chocolate as mundane and an experience such as a meditative state of witness-consciousness or non-dual oneness as sublime, they share some interesting properties along with all experiences. They are essentially indescribable to any who have not experienced them. In the movement from experience into language describing the experience both loose what they are and become something else. Concepts and abstractions built upon the taste of chocolate are not so different than concepts build upon sublime spiritual experiences in that they are equally susceptible to indeterminacies. Both are equally beyond words and in that sense mysterious. The main difference is that tasting chocolate is common whereas advanced meditative states are not. Therefore there is more intersubjective commonality about the taste of chocolate–less ambiguity about what one means when they speak of it. Because of our tendency to take abstractions too seriously (misplaced concreteness) it seems to us that that *concepts*, the *ideas*, and the *theories about* meditative states are particularly sublime, esoteric, and special. However it seems more accurate to say that it is only the *experience* that is sublime and special.

On Concepts and Models

The primary purpose of the diagram in Figure 2 is to illustrate that (a) models/theories are built from statements and statements from concepts; (b) that indeterminacies as any level accumulate from indeterminacies at lower levels; and (c) that each level has its own epistemic concerns. Example Experiences include the taste of chocolate; a gut certainty; a meditative state; and what it is like being a parent. Example concepts include tree, democracy, interior, and consciousness. Statements have forms such as “trees are…” “we should…” and “the cognitive line leads other lines…” Example models/theories include AQAL, Spiral Dynamics, Einstein's Theory of Relativity. Concepts are primarily about what we think exists (or can be differentiated from other things). Statements are claims about what is true, good, right, beautiful, etc. Models and theories are systems of related beliefs. I include “world view” in the diagram to note that we also speak of larger scale belief systems.

Justification Types

In this paper I emphasize the ontological functions of the mind that infer what is *real*, i.e., the conceptual level in the Figure. But the post-metaphysical turn also involves the related epistemological functions that infer what is *true* and determine how we argue for claims—i.e., the level of Statements and their justification. Figure 3 lists most of the modes we use to justify or explain claims.

- First hand **experience** (seeing is believing)
- **Someone I know** and trust believes it;
- Someone in an **authority role** suggests/demands that I believe it;
- Most people (**peers** in my group/tribe) believe it;
- I have a deep **intuition** (or gut feeling);
- Is **ethically** right to believe it;
- Is pragmatically **useful** (it works);
- Is **consistent** with my other beliefs (as are its explicit/implicit implications)
- Has the support of **experts** or ;trusted sources (journal, NPR, etc.)
- Has reasonable **assumptions**/bases/ premises
- Follows from **Logical** inference (supporting truths);
- I used a trusted **method.**

Figure 3: A list of knowledge justification modes

In the section on misplaced concreteness I gave an account of how misplaced concreteness, or the real-ness with which we treat abstract concepts, manifests itself through developmental levels. We can do the same for the level of Statements and justification types. Many theorists have demonstrated a developmental progression in the ways that humans (explicitly and tacitly) understand and justify beliefs (e.g., Perry; Fisher; Kegan). Very roughly, early forms are based on appeals to authoritative people and texts, sacred objects or beings, group norms, intuition, and direct experience. Later forms are based on logical inference, coherence with foundational tenets and existing "truths," and methodologies and sources that minimize bias. Yet later forms acknowledge and try to compensate for the fundamental indeterminacies and fallibilities of all of the validity bases. *All* of the mentioned modes of justification are (almost) *always* involved in complex life deliberations. It is not a matter of leaving any behind but of having more options to choose from and becoming more skilled in when to use each.[50]

As compared with Modernist or Integral modes, beliefs associated with New Age (and Green) culture rely less on logic, bias-checking, and rigorous methodologies (such as the scientific method). Assessing the Green worldview is complicated because of a combination of influences from both higher and lower developmental levels. Though sometimes the more primitive thought modes are embraced unreflectively, in other cases sophisticated postmodern arguments (e.g., deconstructive arguments) are used.

In rejecting Modernist ways, Green opens the door to magical thinking (indulging non-differentiation of ideas and concrete realities) and narcissistic thinking (including grandiosity and wishful thinking) (see Hanley, 1992; Habermas, 1991; Murray, submitted). Green thinking also applies valid postmodern insights about the fallibilities of rational thought and the scientific method, and the inevitability of human bias (it also is drawn to Romanticism which values feeling good and aesthetic value over rationality). The topic of *intuition* becomes particularly interesting, because, while basing belief on intuition can be a cover for non-rigorous thinking, Habermas' entire project is based on the 'rational reconstruction' of quasi-universal intuitions.

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[50] It is not clear where Wilber's "eye of spirit" knowledge would fit in this scheme. Though it may come from a deeper realized state or stage experience, I suggest that in dialogue it is the same set of justification principles that must apply.

Rethinking Our Relationship with Global Change
An Interview with Stewart Brand

Russ Volckmann

Introduction

I recently mentioned to a group of PhD students in my class that I was going to be publishing an interview with Stewart Brand. I am guessing that they range in age from early 30s to 50ish. Only the older student had heard of Stewart Brand. So I mentioned it again in another PhD seminar—same response. And many of these students live in the San Francisco Bay Area!

Why am I surprised? Well, in the late 1960s and 1970s the Whole Earth Catalog and Stewart Brand were well known to most of the people I knew. In fact, I had attributed to the Whole Earth Catalog a significant role in causing many young people to leave the city and move into rural environments while seeking a more "natural" holistic lifestyle.

Then, Stewart Brand's role in creating the Co-Evolution Quarterly and his frequent writings in it might have meant something to this "younger generation" (1974-1985), but no. Or Brand's presentation at the TED conference in 2009 (http://www.youtube.com/watch?v=TuxwiVFgghE) might have brought him to the attention of these world-aware searchers for meaning, but still no. Perhaps his most recent book, Whole Earth Discipline, Penguin, 2009, 2010)— no again.

The latter is remarkable because Brand is speaking to many of the core values of the green movement regarding what is required to save the species, if not the planet, from extinction or very severe reduction (the loss of billions of lives). Others of his book fared no better: Space Colonies (1977), The Media Lab: Inventing the Future at M. I. T. (1988), How Buildings Learn (1995), The Clock of the Long Now (1999).

In the winter of 1978, Brand wrote in the Co-Evolution Quarterly, after an event of many 5-minute speeches,

> I've been wanting to see what I'd do at the end of all this, other than be glad that it was coming down to a chance to go and take a bath. The words that kept coming back to me through the sixty-some speakers we've had, was some kind of dialogue that goes on between grasp and reach. Ten years ago we reached for something with the *Whole Earth Catalog*. A lot of us reached for various things—some to stop the war in Vietnam, some to save various species, some to find a way to stay high. And we have spent ten years refining our activities so that our grasp could catch up with that reach. That's part of this strange transition that many of us have made from something like an outlaw to something like a citizen.

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> I think we're different citizens and more valuable citizens for having been outlaws, and I think we're, maybe more forgiving toward the present and hopefully oncoming set of outlaws. I hope that there'll always be that dialogue.
>
> But for ourselves each time that the grasp catches up with the reach and we come to do something rather well—well enough that it's as if we could do it in our sleep—then probably we are doing it in our sleep. You might think about that grasp that you've got now, the refinement, the citizen quality of your behavior. I mean, I'm having to notice that I'm sitting on boards now. They're wonderful boards: Bread and Roses, Magic Theater, Neighborhood Foundation, in Sacramento I wear a three-piece suit.
>
> I start to look at the boredom, the tedium that comes with doing what you've done well for a very long time exclusively. I think this is the kind of thing that often overtakes public figures, and we…often force that on them, by insisting that Ralph Nader be strictly Ralph Nader. I'd love to see Ralph Nader trash a car in some fundamental sense. All of us have this corner that we get into by being public or by being good at what we're doing.

This is one of the qualities of a thinker and a doer like Stewart Brand. He has not for very long let the boredom overtake him before he has moved on, expanded his activities, created a role for himself to bridge different domains of world energy and power. In no way has this been more clearly demonstrated in the spiral of his activities from the libertarianism of the Whole Earth Catalog to the active community involvement and advocacy for coordinated world efforts to save the species.

In 1968, in the "Purpose" of the Whole Earth Catalog, Brand wrote: "We are as gods and might as well get good at it." Here it is—2011—and he is encouraging us to step more fully into our godlike role to create a generative future for the human race. We are challenged by the fact that the "engineering/scientific" mentality that has dominated Western (particularly American and US-influenced) cultures has been the expert, the engineer, the scientist. A key question is, how can we step more confidently into that godlike role and not end up with disastrous results. Here is what Stewart Brand has to say on the subject, in our conversation concluded before the Fukushima nuclear disaster.

Russ: *I thought about starting this interview by saying, "I'm talking to a man who needs no introduction," but then I remembered that not everyone grew up in the sixties and spent their time in Berkeley like I did. And not everyone learned about the Portola Institute, which I thought was a brilliant piece of work, especially with the motto, "Fail Young,"—I've taught about that in classes for many years. Then there is all of the things that you've done with the Whole Earth Catalog. There are the adventures you've had in the dynamic social and cultural climate of the San Francisco Bay Area—right down to the famous Otis Redding song, "Dock of the Bay," composed on either your house or office boat in Sausalito on San Francisco Bay. There are so many people who probably don't know so many things about you, yet you are still making an incredible mark on the world. You* *recently published a Whole Earth Discipline which is something I'd like to learn more about.*

I did my PhD at Berkeley in Political Science. When I asked you for this interview, I indicated that I was interested in how you think. On page 227 of your book, you reference another Berkeley political scientist, Philip Tetlock, who said, "How you think matters more than what you think." And you went on to talk about foxes and hedgehogs—I think that was the metaphor he used. Yet it seems to me that you're also saying that what you think and how you think about it matters an awful lot. You have indicated that making mistakes, learning from your mistakes, and changing your mind is an incredible part of how you think. Do I have that right?

Stewart: Well, you mentioned foxes, and scientists are trained to be foxes. They are trained to be persuaded by better evidence or a more persuasive model as more of a sense of what's really going on in the world. I think one of the debates that's happening within the environmental movement across the board—and not just with me—is that there is a fair amount of ideology that is rather hedgehog-like; there will be a hedgehog-like view that basically says, "What nature does is always good and what people do is always bad." There are exceptions to that, but that's the basic rule. So that's just useless. It's kind of comforting and makes one feel good when out hiking and things like that, but there are plenty of reasons to feel good when out hiking. However, it's really useless in terms of political action, knowing what kind of things to try to work on. In thinking about environmental problems, there are design problems that can be fixed rather than tragedies that can only be deplored. So the fox versus hedgehog contrast is one I brought up in this environmental book because I'd like to see a more foxy approach by Greens.

Russ: It seems to me that you're talking to people like me who have been very invested in some of the shibboleths, if you will, of ecology that included opposition to nuclear power plants, which you're advocating. You also stress the importance of cities and the use of bioengineering, genetically modified and engineered crops and the like. You make a very strong case for the value of Greens shifting to those positions.

One thing that comes up for me, and I understand you're a scientist, is that it challenges us to trust; it challenges us to trust the capacity of human engineering to address the ecological issues we have, even when it's high risk. Is that a fair statement?

Stewart: People got distracted by something called "the precautionary principle" that started out pretty useful. It started out in Europe when there was real evidence of harm caused by acid rain. There was not a clear sense, scientifically, of what exactly was causing it, but they started acting on partial knowledge to try to head it off. That was the precautionary thing to do, and that was right.

Then the precautionary principle got moved over to where if anybody could imagine how some new technology or technique or practice could somehow cause some kind of problem… It seemed to help if the person doing the imagining didn't know very much about things at all; then that was reason to try to prevent that technology or technique or program from going forward—because someone could imagine something terrible happening. And they were saying that basically one must not risk things. That's really wrong and basically nuts on two or three levels. I love the idea of precaution, and the thing that I am pushing these days is adding to the precautionary principle the vigilance principle that speaks to the political science view that the price of liberty is eternal vigilance. But the point is about liberty; the point is on trying things. Of course, in researching this book I looked for things that environmentalists felt were high risk, like nuclear power or transgenic crops and found that the opposite was the case—they're very low risk. There have only been three significant accidents with nuclear and only one of them caused death. That was Chernobyl and there not as many deaths as people thought by several orders of magnitude.

So the one area that really is risky is climate engineering—geoengineering. There you're doing a risk balancing. I'm pretty sure that geoengineering would only be deployed if there was a sense that climate was really going wacko on us and we were about to lose the rainforest or we were seeing that a trend was under way that was not going to be headed off by any of the modes that we're working on—mitigation, cutting back on greenhouse gasses takes a long time— the effect takes a long time. If we have to buy time with geoengineering, what we're doing is balancing the risk of messing with the climate. The nearest certainty is the climate is messing with us and with biodiversity in general. So that is a high-risk situation. The way you reduce the risk is to do lots of very serious research, which means doing, among other things, some interfering with climate in little bits and pieces—the way volcanoes do naturally—and get a sense of exactly how it responds and if the response is the sort of thing that one might want to roll out in the event of an emergency. So you're doing everything you can to reduce risk, but risk is never zero, and risk is always a question of balancing one risk against another.

So that's just kind of a practical, pragmatic approach that I'm trying to get back into the way people think about these things.

Russ: *One of the elements of that is the perspective that we, for the first time, are in a position to manage Planet Earth. Is that a fair phrase?*

Stewart: Turns out we've been managing it inadvertently for about 10,000 years, pretty much since agriculture got going some 10,000 years ago. You can even say it started once we began seriously modifying the landscape with fire on purpose, 50,000 years ago in Africa. All along we've been geoengineering, and we've been doing things on a scale that affects the atmosphere and affects the climate and affects a lot of things. We can't go back. We can't just stop affecting the Earth.

So we have a choice of either terraforming badly as we seem to be doing now, or terraforming well. But we no longer have the choice of not terraforming at all. That's a tough realization, because we hoped that all we had to do was back off and gaia or nature or the ecology would somehow take care of things. It does take care of a lot of things. That's what I call the "natural infrastructure" that civilization is based on, among other things. But we are now such a large force in the world that we have no choice but to figure out how to learn to do the science and the engineering to have our effects in a benign way rather than a malignant way.

Russ: *Your background is in science from Stanford, and you've worked with science over the years. You've written about it in a variety of ways. You clearly have read quite a bit of science; you write about the books that you've read. I knew that you had a connection to Native American and First Nation tribes; I did not realize the extent of it until I read about it in this book. I'm curious to know, aside from the message that you give that we ought to learn from them, but not try and interpret them through our own lens, as an alternative culture. How have those years of engagement with multiple tribes—and being married to an Ottawa mathematician which is a fascinating phrase in itself—influenced how you think about these ecological issues?*

Stewart: Nothing de-romanticizes Indians like real Indians. I got cured of a lot of notions that people have about Indians by hanging out with real folks who are completely amused by white people playing Indian, and avidly reading books about the deep spiritual esoteric practices of various tribes and so on. The tribes do indeed have such practices, but they're not the ones that are in these phony books and sometimes phony movies.

They saved me—I probably would have gone down the path of boy scout wanting to be an old Sioux shaman if I hadn't been headed off by the real folks. But the main practice that I connected with is the Native American Church, the Peyote Church. It is an extraordinary religious/spiritual group and psychological event that is way stronger than any encounter group or anything else. I've been around those and learned a lot from them, but the Peyote meeting is an astonishing piece of work. I'm not telling any secrets, but I write about it because it is pan-Indian—in almost all the tribes, except some of the Pueblo tribes who don't do it, in North America, and seemed to be well-served by it. There's a whole lot of cactus being eaten out there.

Russ: *You mention that the most profound aspect at the Peyote meeting was the showing up of the Peyote woman at the end, and the message she gave. Could you say a little more about what that profound experience was like?*

Stewart: Like everything with Indians, stuff is both profound and comical at the same time. They enjoy that edge; Indian humor never quits. And so the last thing that happened at the Peyote meeting before the final windup by the roadman is that at dawn, one of the women who has been part of the meeting all night has left about an hour earlier. She has gone to get some fresh meat and some fresh fruit. She's bringing in breakfast and is amused at the slavering appetite she sees all around her, because we've all done Peyote all night. We're hungry. We can smell the food, and she's basically saying, "Before you get the food, you have to think about where it comes from." And the answer is, "It comes from me and, by the way, life comes from me." There's a twinkle in her eye. Everybody else at the meeting, I'm sure, heard various versions of this many times. But it was the first time for me.-She's right. All of us people are born of women and all life is born from the Earth. And it started getting pretty deep, and breakfast tasted that much better, I guess.

Russ: *So the connection was there. What is the connection of your experience with Native Americans and your sense of time?*

Stewart: They have continuity with their own history, and they often have sort of a timeless reference to what one may call a mythological frame of thinking about everything that goes on. Both of those are deeper than the usual American-Protestant from-the-Midwest perspective on time. Lo and behold, the last couple of decades I've been working on a 10,000-year clock along with the The Long Now Foundation. Who knows? I may have gotten pushed in that direction at a tender age by hanging out with Indians who had a multi-century perspective on things.

Russ: *I saw the video and slideshow on the 10,000-year clock (http://www.longnow.org/clock/). It was really interesting—the formations in Western Nevada where you were looking to house the clock and the like. Let me share a quotation from you that's related to this question of time—this comes from the Whole Earth Web site, the Long View:*

> I'm interested in events longer than the ego's prison of my lifetime. I'm free to care for other large continuities such as the life of the Earth and the drama of human culture. Previously overwhelming urgencies like the deadline on this book, for me, fall into microcosmic place; worth doing, connected, but not urgent. Religious-scale projects and their comforts have often scourged humankind. I'm thinking of Egyptian pyramids, Muslim jihads, Mongol hoards, Christian crusades, the Third Reich, world communism, maybe science itself. Part of their hazard is that they become their own universe, an infinite regress of self-reference, grounded nowhere.

That's very powerful, Stewart, and I would say very spiritual.

Stewart: And at least partly wrong.
(laughter)

Stewart: I would not put science in that set of categories at all anymore. Some of the rest sounds okay. Boy, do I sound young in that.
(laughter)

Russ: *Well, that's not a bad thing.*

Stewart: Not a bad thing at all.

Russ: *Can you say a bit about the spirit, about how you relate to the notion of spirit, given your very complex, broad-ranging background?*

Stewart: I don't know. The thing I sort of worship lately is weather.

Russ: *We had a beautiful rainstorm here last night.*

Stewart: Yeah, those are wonderful. Spiritual practice, stuff like that all seems good. I don’t actually do any lately. I did some meditation back when I was hanging out with Zen Buddhists in San Francisco. I’m not going to Peyote meetings these days, not going on Vision Quests…those were things that, in their various forms, were very productive for me over a period of time. They’ve stopped being very productive, so I guess I’ve stopped doing them. I honor those kinds of activities and lots of people…well, I’ve seen some fairly spiritual characters become corrupt in their own way. So I know that it’s not a guarantee of right behavior. It certainly helps right behavior in most cases, but it’s not a guarantee. I’ve seen things like yoga move in the direction of this—it’s like a form of pilates for people in a lot of ways now, which is great. But I get my exercise and my stretching from doing other things, like pulling alien-invasive plants out of the ground. So I have great respect and some familiarity with spiritual matters, and it’s not something I’m focused on these days.

Russ: Does it influence your thinking about ecology—the state of the Earth, the environment and the like?

Stewart: No. One thing it has done—I’ve been revisiting Gregory Bateson’s material lately, and his daughter Nora Bateson just made a film about him that I’m in. That was an occasion to look back into some of that material. Gregory had as good a grasp of the value of adding another level when thinking all the time. Whatever level you’re looking at, you’ve got to add a level and then you’ll gain by it. And maybe at some point “one is one and all alone and ever more shall be so.“ That kind of contact through Gregory cured me of a purely engineering approach to life, which I think I was getting somewhat from Buckminster Fuller. So this is a sequence of events back in the sixties and seventies that is very useful to me, or I might have not gotten into the much more many-leveled vein of thinking that they’ve encouraged. And maybe there’s another Bateson out there for me at some point. But not lately.

Russ: Were any of those influences significant in your shift, which I’m assuming this is a shift, from a more hedgehog, shorter term frame of reference to this longer term, seven-generation and more reference to time in the way that you think about how we engage with the Earth and with life?

Stewart: Most of the spiritual reference to long-time is actually the opposite of long-time—stuff like eternity. ~~E~~ternity is the opposite of long-time. Usually when I show up at church for someone else’s funeral, and somebody refers to eternity, they’re always careful to say that it is out of time. You get out of time into eternity, and that’s pretty interesting stuff.

That’s the kind of thing that can make people comfortable with ideas like the Rapture, which I find interesting and comforting for people engaged in activities that are potentially really deleterious. When we talk at the Long Now Foundation, the long now is the last 10,000 years or the next 10,000 years, and we’re really pretty specific about that. Civilization has been gaining ground and becoming more and more civilized and it raises a question: If we’re in the middle of that story, what’s up for the next 10,000 years? You start getting specific and not all vaguing out into eternity. Certain kinds of things happen in centuries; certain kinds of things happen in millennia, and they’re really different. And ten millennia is different than one millennium. That’s useful to bear down on. It’s the kind of thing that lets you see how climate changes play out over that kind of period of time.-If you look at climate in the last 10,000 years in context of climate over the whole of Earth’s history, it’s a very nice, sweet, and potentially very short period of climate stability. Every single bit of this is being extremely specific and practical and noticing the difference between long and longer periods of time. Some people think of long as seven generations. Seven generations, in a way, is like counting to three, and then the next number is many.

Russ: *Why a 10,000-year clock and not a 1,000-year clock, or 5,000 or 20,000?*

Stewart: Because that was actually provided by a professional futurist we work with. His name is Peter Schwartz, and he said, let’s do this in terms of civilization, and civilization basically started with agriculture and then that set in motion a set of sequential events for humans and everything that humans touched. That is, there are many civilizations within that sequence of events that fell~~,~~ but over time, they’ve increasingly known about each other. Retrospectively, we knew about all of them, but the Egyptians did not know about the Incas, and Incas about the Egyptians, but we now know about both. That’s a story that is joined for us, along with all of Chinese history, and so on. So that 10,000-year story suggests symmetry and you can say, “Okay, if we can bear that in mind, let’s bear that same amount of time in mind forward and see what happens.”

Russ: *So basically you build on that by engaging in a form of scenario development, is that right?*

Stewart: Not really. It turns out scenarios are actually quite specifically useless in a 10,000-year time frame.
(laughter)

Stewart: Any form of planning is quite specifically useless within more than about a fifty-year timeframe. But what you can do is multiply options, so that what you’re doing is managing the commons in such a way that humanity has more and more degrees of freedom as time goes by in forms of decades and centuries. It’s actually a thinkable, doable set of projects. It also invites some art forms. So our 10,000-year clock is an art form. All it does is give people permission to think long-term.

Russ: *You mentioned Peter Schwartz and Global Business Network—you’re one of the founders of that with Peter, and others. That leads to asking about the institutional aspect of engaging with the environment, of managing, of leading, of creating and building in a collective fashion. One part of that is your engagement with Jerry Brown. I’d love to hear if you anticipate being involved with him again if he’s elected, which it sounds like he very well might be [He was—Russ]. How do you see these various institutions playing a role? What is needed to use these institutions to further the long view, to engage with the environmental challenges that we’re faced with?*

Stewart: The *Whole Earth Catalog* was kind of Libertarian publication. We were basically saying back at the end of the Kennedy era: Ask not what your country can do for you, do it yourself. *Whole Earth Discipline* is much less focused on individual capabilities and responsibilities than on aggregate ones. Looking at the climate issue, there is basically no way to solve the climate in your backyard. One of the major instruments is going to be governments, because somebody has got to make fossil fuels—especially coal—expensive. Ideally just a straight-forward tax seems to be the simplest. And that must be done by the major greenhouse gas-producing economies—by their governments. Corporations can't make coal expensive. Nonprofits can't make coal expensive. Nor can individuals. People connecting online can't.

It actually takes governments to haul off and say, "Coal is going to be expensive here in China, or here in India, or here in the U.S." And unless and until that happens, we are in deep trouble with our climate. Then suppose the trouble comes along anyway and we have to do geoengineering. It is so cheap to do geoengineering—could be as low as $300M per year basically to get sulfur dust into the stratosphere the way volcanoes do, and we'll cool the planet down by 3ºC. There are thousands of individuals who have that kind of money, but you don't want individuals hauling off and doing that, or individual countries hauling off and doing that. It will take very serious intergovernmental, international agreements to manage geoengineering, including the research for geoengineering. So this is the time, and these are all infrastructural issues, both built infrastructure like our energy systems and natural infrastructure like climate. Managing infrastructure is one of the things that we hire governments to do. So I wind up being the promoter of strong, conscious, careful government.

Russ: And what do you see as the potential for that being realized?

Stewart: Uncertain. The outcome of the situation we're facing this century is that we don't know yet.

Russ: Well, thank you so much. I really appreciate you taking the time for this conversation, Stewart.

Stewart: Thank you, Russ.

The Meaning-making of Dag Hammarskjöld

Kristian Stålne[1]

Abstract: Dag Hammarskjöld, United Nations' second Secretary-General 1954-1961, is getting recent attention for two reasons: he is going to front the new Swedish 1000-kronor note, the highest value; and this September it was 50 years since he was killed in an airplane crash in UN service in Congo. With that event, the most successful career in an international service that a Swede has ever had was terminated prematurely, a service that would set an unmistakable imprint on the UN organization as well as on the world stage of politics. But what made Dag Hammarskjöld such an exceptional leader and how did he view the world and his role in it? He was not only exceptional as a leader and world-centric visionary; he was also a mystic and an aesthetician with a highly analytic mind. What is unique is the fact that large parts of his thinking and personal struggling are available to the world through a dense material of his speeches and personal writings. This has made it possible to analyse the stages of development represented in them. Using ego development theory, described by Jane Loevinger as well as Robert Kegan, I offer the analysis that his writings, including during his most severe personal crisis, indicate he passed through a transition between the *individualist* and *autonomous* stages.

Keywords: Adult development, autonomous, Dag Hammarskjöld, ego development theory, individualist, meaning making, stages.

Biography

Dag Hammarskjöld was borne in Jönköping in Sweden 1905 but grew up in Uppsala where he studied language, philosophy, and above all national economy in which he wrote his doctoral dissertation in 1933. His father, Hjalmar Hammarskjöld, made a career in the Swedish state bureaucracy and was Sweden's Prime minister in 1914-1917. With him, Dag early came in contact with the nation's intellectual elite, and made a quick career in different positions within the National bank, the Department of finance and as a Swedish delegate within OEEC (Organization for European Economic Cooperation, today OECD), as secretary of the Cabinet within the Foreign state department and as a minister in Tage Erlander's Social democratic government 1951-1953 – despite the fact that he was not a member of the party. In 1953 he was elected into the Swedish academy replacing his father after his death (Urquhart, 1972).

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In 1952, the UN's first Secretary-General, the Norwegian Tryggve Lie, resigned after have been in conflict with the Soviet Union that declared him non-existing. After many turns Dag Hammarskjöld was introduced as a candidate that all could agree on for many reasons. First, he had shown his skills as a negotiator and diplomat within the OEEC; second, he could speak French which the French always had as a demand for candidates to Secretary-General; third, he came from neutral Sweden and appeared as a very neutral person in general – an intellectual and skilful bureaucrat that could organize the dysfunctional secretariat; and finally and most important, accomplishing such challenges without making too much noise and in any way challenge the superpowers. Dag Hammarskjöld was nominated and offered the position as Secretary-General on April 1st, 1953, accepted, and swore the oath on April 10th. He was welcomed to New York the day before by Tryggve Lie with the less than encouraging words: "You are taking over the world's most impossible job."

Dag Hammarskjöld 1959. Photo: UN/DPI

Hammarskjöld started by restructuring the entire UN from within and reorganized the secretariat before he started to give his own imprint on the scene of world politics, foremost by his signum, the quiet diplomacy and his ability to establish mutual trust with different parties that were being locked in fixed positions. He succeeded with negotiating the release of several

American UN-flyers from China and thereafter with mediating between Egypt and Israel in the Suez crisis. He was unanimously re-elected in 1957 to a second five-year period as the Secretary-General.

Chaos erupted in Congo in 1960 after independence from Belgium, and Dag Hammarskjöld created a peacekeeping force to try to establish some order. Congo still remained his major headache, under severe pressure from the Soviet Union. He decided to resign if he would fail to solve the problem in a satisfactory way, and set out on his travel there. During a flight from Leopoldville in Congo to Ndola in the present Zaire for a negotiating session the night between the 17th and 18th of September, 1961, the plane crashed for yet today unknown reasons and all 16 passengers including Dag Hammarskjöld was killed. He was awarded a posthumous Nobel Peace Prize later that year for his efforts "to bring peace and goodwill among nations and people."

Dag Hammarskjöld was, as evident in his statements and actions, an exceptional man, but what makes him even more fascinating is that he at his death left behind his very personal diary entries from most of his life, which gives us a glimpse of his inside. These entries have the form of short text passages, aphorisms, and haiku poems which express his innermost uncensored thoughts, reflections, doubts, and sometimes even despair. The entries are in chronological order with the specified year, sometimes even dates. The notes were found in his apartment after his death with the following instructions to the cabinet secretary, Leif Belfrage.

> Dear Leif,
> Perhaps you may remember I once told you that, in spite of everything, I kept a diary which I wanted you to take charge of someday.
> Here it is.
> It was begun without a thought of anybody else reading it. But, what with my later history and all that has been said and written about me, the situation has changed. These entries provide the only "profile" that can be drawn. That is why, during recent years, I have reckoned with the possibility of publication, though I have continued to write for myself, not for the public.
> If you find them worth publishing, you may have my permission to do so—as a sort of white book concerning my negotiations with myself—and with God.
> Dag

The notes were published posthumously in unedited form under the title "Markings" (Hammarskjöld, 1964), which has become a classic and rests on many UN officials' bookshelves. This amazing insight into the interior of one of the greatest leaders of all time makes it possible to make an analysis from an adult development perspective. Here Dag Hammarskjöld's meaning-making, i.e., the assumptions that constitute and thereby determine how he organises reality, will be described and analysed with respect to ego development according to Jane Loevinger (Hy & Loevinger, 1996) and Robert Kegan (1982; 1994).

The sources of this analysis are his own diary entries of Markings, Mats Svegfors' biography "Dag Hammarskjöld – den förste moderne svensken" (Svegfors, 2005), Kai Falkman's "To speak for the world" (Falkman, 2005) which is a compilation of Dag Hammarskjöld's speeches as the Secretary-General, and Brian Urquhart's biography "Hammarskjöld" (Urquhart, 1972).

The Crisis

The primary source to analyse the meaning-making of Dag Hammarskjöld in the pre-UN part of his life comes from Markings. As a person he was often described as a withdrawn and rigid person with a high degree of self-discipline and perfectionism. His performances were not particularly charismatic, unlike his predecessor, Trygve Lie, and he often read his speeches monotonously, straight from the script that he usually wrote himself. In Markings he is, however, completely honest and reveals an existential depth and sometimes even darkness, despite all external success.

> These wretched attempts to make an experience apprehensible (for my sake? For others?)–the tasks of the morrow–Y's friendship or X's appreciation of what I have done: paper screens which I place between myself and the void to prevent my gaze from losing itself in the infinity of time and space.
> Small paper screens. Blown to shreds by the first puff of wind, catching fire from the tiniest spark. Lovingly looked after– but frequently changed.
> This dizziness in the face of *les espaces infinis*–only overcome if we dare to gaze into them without any protection. And accept them as the reality before which we must justify our existence. For this is the truth we must reach to live, that everything *is* and we just in it. (Hammarskjöld, 1964, pp. 40-41)

A recurring theme in the pre-UN time is the existential and spiritual quest inward and the loneliness that follows. Although Dag Hammarskjöld was always a believing Christian, God appears only sporadically in the first part.

> The longest journey
> Is the journey inwards.
> Of him who has chosen his destiny,
> Who has started upon his quest
> For the source of his being
> (Is there a source?).
> He is still you,
> But without relation,
> Isolated in your feeling
> Like one condemned to death
> Or one whom imminent farewell
> Prematurely dedicates
> To the loneliness which is the final lot of all.
>
> Between you and him is distance,
> Uncertainty–
> Care.
>
> He will see you withdrawing,
> Further and further,
> Hear your voices fading,

Fainter and fainter.
(Hammarskjöld, 1964, p. 48)

This is very typical for a person at the individualist stage, seeing through the shallowness of existence and following his own path and looking inward. The political neutrality when he entered the Tage Erlander government in 1950 was also a hallmark of an individualist: he wanted to remain outside the group and the Social Democratic Party, viewed himself primarily as a servant of the people which was also difficult enough to want to have this formalized before the king.

Mats Svegfors called the notes from 1950-1952 (Hammarskjöld, 1964, pp. 28-73) the "the crisis years" (Svegfors, 2005, p. 97) and it seems here as if Dag Hammarskjöld penetrates deeper and deeper into the darkness whereas a question or theme emerges, the quest for meaning or purpose in life.

> Give me something to die for –!
>
> The walls stand
> Speechless and cold, the banners
> Faffle in the wind. (Hölderlin)
>
> What makes loneliness an anguish
> Is not that I have no one to share my burden,
> But this:
> I have only my own burden to bear. (Hammarskjöld, 1964, p. 71)
>
> Pray that your loneliness may spur you into finding something to live for, great enough to die for. (Hammarskjöld, 1964, p. 72)
>
> What I ask for is absurd: for life to have a meaning.
> What I strive for is impossible: that my life shall acquire a meaning.
> I dare not believe, I do not see how I shall ever be able to believe: that I am not alone. (Hammarskjöld, 1964, p. 72)
>
> Is the bleakness of this world of mine a reflection of my poverty or my honesty, a symptom of weakness or of strength, an indication that I have strayed from my path, or that I am following it? – Will despair provide the answer? (Hammarskjöld, 1964, p. 72)

The loneliness is striking, but that is not the biggest source of his despair and existential angst. He seeks not primarily someone who can share his burden, but rather, he seeks someone else's burden that *he* can carry, something he could die for. He wants to serve but has no clear image of what to serve. Here is the downside of the individualist stage, it has made its way out of the immediate struggle for survival, from authority, ideologies and -isms and there is no longer any great cause that one is prepared to die for. But the disadvantage is precisely that, if there is nothing worth dying for, there is really nothing to live for. There is the fundamental cause of Dag Hammarskjöld's existential crisis, and the downside of the meaning-making of the individualist stage.

In this mode, one could guess that an offer of a position as Secretary-General showed up and changed everything, but that was not how it came down. In an existential search such as this it is easy to search for an external challenge, and that the right cause to die for appears out in the world. But what marks a further shift from the individualistic stage is in fact something that happens on the inside, although in some other cases it may be triggered by external events. This shift can be noted in the first quotation from 1953, that Svegfors (2005, p. 110) calls the "dramatic turnaround."

> – Night is drawing nigh –
> For all that has been – Thanks!
> To all that shall be – Yes!
> (Hammarskjöld, 1964, p. 74)

What is important to keep in mind here is that this and the next notes that have a different, lighter tone than previous written before Dag Hammarskjöld is considered for the Secretary-General position. Svegfors writes:

> His crisis was conditioned by a kind of career futility. He had become everything he could reasonably be in the Swedish civil service. But it gave him no answer to the question of the meaning of his life. He turned inward and away from the big stage of public life and he found the answer. But once this had happened there occurred an entirely improbable peripeteia in his life. He was summoned to the office as Secretary-General of the United Nations. (Svegfors, 2005, p. 130)

The Spirituality

After the turning point in Dag Hammarskjöld's life, his meaning-making can best be described by addressing the different domains of his life, or psyche, one at a time. And it seems most appropriate to start with the spiritual side. Even if Dag Hammarskjöld was a believing Christian, it appears in his notes as if God did not join him at his trip downwards. But the first note after the turning point, i.e., the second entry in 1953, reads as follows:

> It *did* come – the day when grief became small. For what had befallen me and seemed so hard to bear became insignificant in the light of the demands which God was now making. But how difficult it is to feel that this was also, and for that very reason, the day when the Joy became great. (Hammarskjöld, 1964, p. 75)

Here it appears as if God is back in the picture, partly in the description of the psychological burdens as something that had meaning, in that it was subordinated to something that was greater, the requirements God placed. But how did God come into the picture of Dag Hammarskjöld? The next note is the book's shortest but probably the most succinct:

> Not I, but God in me. (Hammarskjöld, 1964, p. 75)

God was not with him on the journey down, but awaited him at the bottom. Believers and non-believers make meaning at different stages. And after submitting the most fundamental piece of the puzzle, the keystone, pieces fall into place and Dag Hammarskjöld makes the transition from the individualist stage to the autonomous stage of ego development, or meaning-making. His faith in God is usually described as very complicated; you could say that it is a post-conventional type of Christian mysticism. A few years later he quotes Rumi, a classic Persian mystic from the 1200s.

> The lovers of God have no religion but God alone. (Hammarskjöld, 1964, p. 86)

This is post-conventional in the sense that they both seek a direct personal relationship with God instead of going through a religious community or congregation, and also to seek God within himself, which many mainstream believers would regard as direct blasphemy or hubris. Mystics are often in conflict with the more traditional supporters, and especially by the respective fundamentalists, regardless of religion. They often find greater fellowship and inspiration from mystics of other religions than from the conventional elements of their own: “A theme of many critics was that Hammarskjöld would have identified with Christ, not just trying to work in his imitation. Dag Hammarskjöld would have suffered an unprecedented hubris” (Svegfors, 2005, p. 146).

One can understand that Dag Hammarskjöld was not completely open about his faith during his lifetime. And many post-conventional leaders can get into trouble being completely transparent about their beliefs, because they can be easily attacked by the mainstream.

> I am the vessel. The draught is God’s. And God is the thirsty one. (Hammarskjöld, 1964, p. 76)

The first thing is to empty the vessel from all psychological material, stripped and deconstructed of the personality of an individualist. Then you can fill it, the integration of an autonomous ego. Looking back at his journey, Dag Hammarskjöld expresses it in the following manner in a radio performance from 1954, entitled “Old beliefs in a new world” (Falkman, 2005, pp. 57-58)

> The world in which I grew up was dominated by principles and ideals of a time far from ours and, as it may seem, far removed from the problems facing a man of the twentieth century. However, my way has not meant a departure from those ideals. On the contrary, I have been led to an understanding of their validity also for our world today. Thus, a never abandoned effort frankly and squarely to build up a personal belief in the light of experience and honest thinking has led me in a circle; I now recognize and endorse, unreservedly, those very beliefs which were once handed down to me.
>
> From generations of soldiers and government officials on my father’s side I inherited a belief that no life was more satisfactory than one of selfless service to your country – or humanity. This service required a sacrifice of all personal interests, but likewise the courage to stand up unflinchingly for your convictions.

> From scholars and clergymen on my mother's side I inherited a belief that, in the very radical sense of the Gospels, all men were equals as children of God, and should be met and treated by us as our masters in God.
>
> Faith is a state of the mind and the soul. In this sense we can understand the words of the Spanish mystic, St. John of the Cross; "Faith is the union of God with the soul." The language of religion is a set of formulas which register a basic spiritual experience. It must not be regarded as describing, in terms to be defined by philosophy, the reality which is accessible to our senses and which we can analyse with the tools of logic. I was late in understanding what this meant. When I finally reached that point, the beliefs in which I was once brought up and which, in fact, had given my life direction even while my intellect still challenged their validity, were recognized by me as mine in their own right and by my free choice. I feel that I can endorse those convictions without any compromise with the demands of that intellectual honesty which is the very key to maturity of mind.

At the autonomous stage the cognitive capacity is available to distinguish between different internal domains such as spiritual experiences with its descriptions and the philosophical description of the mind's experience of reality, which we may describe as phenomenology and empiricism. A critical and honest intellect is an asset as long as it knows its limitations.

The Ethics

Another example of the cognitive capacity at the autonomous stage is the ability to distinguish, separate, and even combine, ethics with aesthetics. And it is the ethics that get the most room in Dag Hammarskjöld's life and as he describes his ethics in terms of meaningfulness in a new way:

> You will know Life and be acknowledged by it according to your degree of transparency, your capacity, that is, to vanish as an end, and remain purely as a means. (Hammarskjöld, 1964, p. 134)

Meaningfulness is thus to put self-interest entirely aside and see oneself solely as a means to something greater. If this goal is truly greater than oneself, then one's own suffering will be easy to endure. Meaningfulness is thus self-chosen self-sacrifice for a greater cause. But what is greater? What is to be accomplished, he himself is the means but what is the goal?

The goal is usually not about to foist on others his own God or his own doctrine since autonomous persons have great respect for others' autonomy, hence the name of the stage. We can find some answers in one of his speeches in which he articulates what is worth dying for. The following speech was made for the UN correspondents' luncheon for the Secretary-General April 9, 1958, which begins with a poem:

> The past is always with us and to the coming
> days we are those who carry the past centuries
> and also our own few days.
> (Gunnar Mascoll Silverstolpe, 1893-1942)

> This poem is written by a close friend of mine who is now dead. I think that is really the way we must look at all our various efforts in the realm of international peace, of the movement towards a world of order and justice.
>
> We have back of us the responsibility created by, in fact, centuries of development. We have in front of us millennia. And in between those centuries and those millennia there are a few years which we might measure in days and weeks and years and five-year terms of office of the Secretary-General, if I look at it from my angle, and those days are really nothing in comparison to what is back of us, and what is in front of us. But they get their sense from what is back of us, and they get their sense in what they mean for the future; that is to say, what we can hand over after our time of work is not just what we have managed to add to the heritage, it is the whole heritage with the little we have managed to add.
>
> It is a confession to a kind of conservatism, a confession to a belief in the continuity of human history, of the history of society, of the history of human endeavour in a sound direction. I cannot belong to or join those who believe in our movement towards catastrophe. I believe in growth, a growth to which we have a responsibility to add our few fractions of an inch.
>
> It is not the facile faith of generations before us, who thought that everything was arranged for the best in the best of worlds or that physical and psychological development necessarily worked out towards something they called progress. It is in a sense a much harder belief – the belief and the faith that the future will be all right because there will always be enough people to fight for a decent future.
>
> I do not think that there is anything automatic with progress. I do not think that there is anything we get for nothing in success. But I do believe firmly that here in this room, around this Organization, in this city, in this country, in this world, there are enough people who are solidly engaged in this fight and who are strong enough and dedicated enough to guarantee its success. It is in a sense a switch from the atmosphere of pre-1914 to what I believe is the atmosphere of our generation in this time – a switch from the, so to say, mechanical optimism of previous generations to what I might call the fighting optimism of this present generation. We have learned it the hard way, and we will certainly have to learn it again and again and again… (Falkman, 2006, pp. 52-54

From this talk, we learn that the highest good that Dag Hammarskjöld is prepared to die for is the development of humanity in a healthy direction of peace and order, and it is up to us to take responsibility for ensuring that things are moving in the right direction. We also get an idea of the time span he takes into consideration, many generations back and forth. And we add as our small contribution the little time we have at our disposal.

When Dag Hammarskjöld was appointed Secretary-General he began to manage what he was supposed to do, namely to bring order to the United Nations and he did it from the inside out. First order within himself, then order in the Secretariat before UN and himself could act with power on the world stage. But it was not only the organizational structures he changed. With speeches such as the one above, he created a culture where the international service was in the centre, a culture that still lives and breathes in the United Nations organization and its officers, regardless of its current leadership.

Another aspect of personal development is the ability to take responsibility, first for oneself, then for one's group or nation and eventually the whole world: egocentric, ethnocentric and finally world-centric. One's identification and care can extend and embrace more and more without any contradiction or conflict between the different levels since you yourself are part of the group or nation, which in turn is part of the whole of humanity, something Dag Hammarskjöld describes when he expresses the international service ("service" of course comes from "to serve"):

> The question is not either the nation or the world. It is, rather, how to serve the world by service to our nation, and how to serve the nation by service to the world. (Falkman, 2005, p. 138)

It is thus possible to serve for the UN while in the same time serving his country, a dialectical argument. What is good for the United Nations is good for all constituent countries and all individuals. Similarly, he recognizes that the UN's most fundamental problem is that the organization has no formal power, none of the more influential member nations wanted to voluntarily relinquish power and would prefer a UN that isn't too inconvenient. For them it is either our best or the UN's top. His words from 1957 are relevant today:

> The United Nations finds itself in a difficult stage of its development. It is still too weak to provide the security desired by all, while being strong enough and alive enough effectively to point out the direction in which the solution must be sought. In its present phase the Organization may look to many like a preacher who cannot impose the law he states or realize the gospel he interprets.
>
> It is easy to say that it is pointless to state the law if it cannot be enforced. However, to do so is to forget that if the law is the inescapable law of the future, it would be treason to the future not to state the law simply because of the difficulties of the present. Indeed, how could it ever become a living reality if those who are responsible for its development were to succumb to the immediate difficulties arising when it is still a revolutionary element of the life of society? (Falkman, 2005, pp. 69-70)

Although the UN has no formal powers, it can still exert influence by providing a global moral compass and point the way toward the future, a future that it is in everyone's interest to reach. And with Dag Hammarskjöld at the helm there is no doubt about the direction. Today you would say that the UN has a major influence in the form of the strong brand that Dag Hammarskjöld helped to build and that Ban Ki-moon now is draining (Ekdal and Ahlenius, 2011), even though the entire blame of course cannot be laid on him.

The Intellect

Dag Hammarskjöld was brought up in Sweden's intellectual elite. He received his Ph.D. at age 28, quickly made a career as an officer and became known for his intellectual sharpness. He was elected to the Swedish Academy, spoke fluent English, French, and German, and was at the time of his death engaged in the translation of Martin Buber's "Ich und Du."

The human progress that he builds his ethics on is described in terms of an institutional evolution in a speech at the University of Chicago 1960.

> Men organize themselves into families. The families join together in villages or tribes. The tribes and the villages fuse into peoples, and one day, out of the self-consciousness of a people, there develops a feeling of difference and separateness, the positive expression of which is a feeling of nationhood. The nation organizes its life within a set of constitutional rules, evolving in practice or crystallized as law. Under the constitution the people develop national organs with different functions and a division of responsibilities representing a balance of power. Through those organs laws are given, setting the pattern for the lives and activities of the individuals and the groups which constitute the nation. (Falkman, 2005, pp. 158-159)

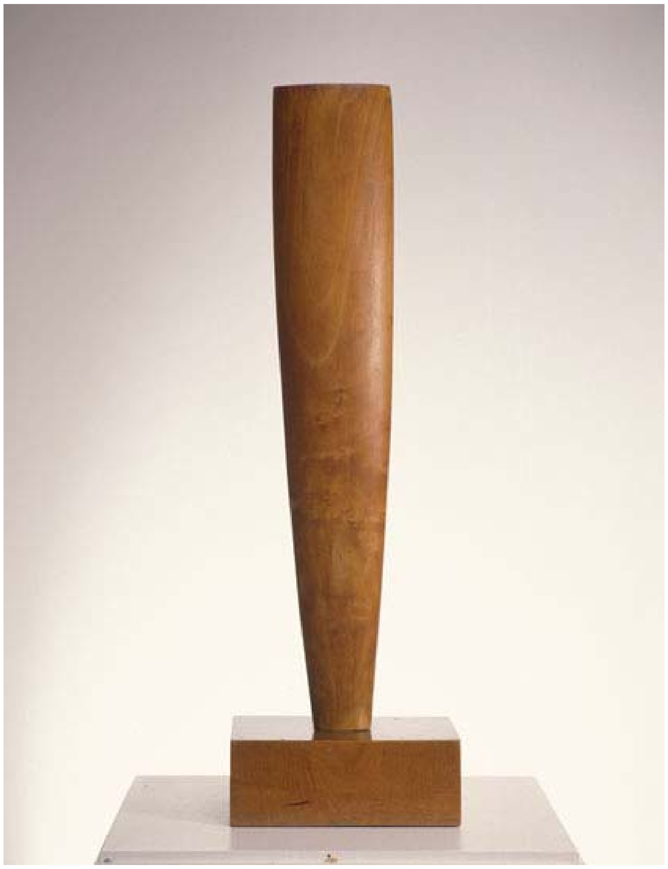
Here, Dag Hammarskjöld demonstrates an evolutionary view of law, institutions and, although expressed vaguely, consciousness.

> I believe it is useful, in the discussion of the development of human society, be it national or international, to keep in mind this sociological perspective taken over from theories of biological evolution. (Falkman, 2005, p. 160)

The fact that he employs the evolutionary theory from biology on sociology is a sign of a very high cognitive capacity and complex thinking. Coordinating evolutionary patterns in diverse disciplines is at least metasystematic according to hierarchical complexity theory (Commons, 2008; Commons, Miller, Goodheart, Danaher-Gilpin, 2005; Commons & Goodheart, 2008). Had adult development theories been available to him at that time he would certainly had been able to weave them into the analysis.

The Aesthetics

Another reason for Dag Hammarskjöld's described loneliness was that he never lived in any partner relationship, he remained single throughout his whole life. He had, however, a deep friendship with the British artist Barbara Hepworth, which began when he took a liking to her artwork single form of sandalwood (Fröhlich, 2001).



Barbara Hepworth, *Single Form*. © Bowness, Hepworth Estate.
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She offered it to him as a gift and he kept it in his office and wrote about the artwork in Markings:

SINGLE FORM
The breaking wave,
And the muscle as it contracts
Obey the same law.

An austere line
Gathers the body's play of strength
In a bold balance.

Shall my soul meet
This curve, as a bend in the road
On her way to form?
(Hammarskjöld, 1964, p. 148)

After this meeting followed a long correspondence that lasted until his death. It was not just the ethics, the international service, that defined Dag Hammarskjöld; aesthetics were also a central aspect. Also this is a dialectical approach, not to be swayed by just one or the other but to see how the two are mutually supportive as evidenced in a speech at the Museum of Modern Art in New York:

> In modern international politics – aiming toward that world of order which now more than ever seems to be the only alternative to disruption and disaster – we have to approach our task in the spirit which animates the modern artist. We have to tackle our problems without the armour of inherited convictions or set formulas, but only with our bare hands and all the honesty we can muster. And we have to do so with an unbreakable will to master the inert matter of patterns created by history and sociological conditions. (Fröhlich, 2001, pp. 18-19)

Here, he draws parallels between the ethics of politics and the aesthetics of the artist. In both cases it can be described as man moving from chaos to creation order, in the form of an artwork or a calmer and more peaceful world. In Markings, he draws on a parallel between the artwork and the artist:

> A poem is like a deed in that it is to be judged as a manifestation of the personality of its maker. This in no way ignores the beauty as measured by aesthetic standards of perfection, but also considers its authenticity as measured by its congruence with an inner life. (Hammarskjöld, 1964, p. 109)

All are thus interconnected, what you do in the world, whether it is about creating a work of art or an act as an international service, is a manifestation of who you are inside you. And in the correspondence and relationship with Barbara Hepworth, one can say that Dag Hammarskjöld became whole on many levels. From Kaj Falkman's introduction to "To speak for the world":

> The correspondence shows that the Barbara Hepworth broke through Dag Hammarskjöld's emotional isolation. Thereby she integrated him also emotionally with the unity with the universe that he intellectually and morally had already incorporated into his personality. Hammarskjöld's first impression of the "Single Form," he writes in the above mentioned letter in October 1960 "is not only one of great beauty but also by a heightened sense of drama in the ongoing struggle between subhuman chaos and human creation order." (Falkman, 2005, p. 49)

The Synthesis – The Big Three

In this evolutionary context a triad of values that are sometimes referred to is "the big three", a division of the three spheres of ethics, aesthetics and science, or "beauty," "goodness" and ”truth“, as Plato called them (Wilber, 1995). The three are kept separate where no one may be subordinated to anyone else. And if one would summarize Dag Hammarskjöld's personality one could say that it comprises of an integration of these big three: scientific clarity and intellect, along with a sense of aesthetics and an ethics, which means a total dedication to international service. A psychology where three such systems or value spheres can live side by side would, according to Robert Kegan's Subject-object theory, can be described as trans-system, i.e., 5th order consciousness, which corresponds to the autonomous stage according to Jane Loevinger's ego development theory (Kegan, 1982).

Dag Hammarskjöld can be said to be ahead of his time, but even today it is not easy to find leaders with similar characteristics – although we now have the tools to evaluate stages of meaning-making or ego development. It is not possible to write a management book filled with tips and checklists on how to acquire these properties. Nor can it be taught in a workshop.

The last word goes to Dag Hammarskjöld, who nevertheless makes an attempt to describe how to cultivate what he means by a spiritual maturity and leadership that has made such an impression on the world.

> *Respect for the word* is the first commandment in the discipline by which a man can be educated to maturity – intellectual, emotional, and moral.
>
> Respect for the word – to employ it with scrupulous care and an incorruptible heartfelt love of truth – is essential if there is to be any growth in a society or in the human race.
>
> To misuse the word is to show contempt for man. It undermines the bridges and poisons the wells. It causes Man to regress down the long path of his evolution.
>
> But I say unto you, that every idle word that men speak… (Hammarskjöld, 1964, p. 94)

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Learning From the Unfathomable: An Analysis of Anders Behring Breivik

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Abstract: The Norwegian mass murderer Anders Behring Breivik and his manifesto are analyzed from different perspectives by employing various models from the field of adult development psychology; we analyze Breivik and the movement he claims to represent with respect to hierarchical complexity, ego development theory according to Jane Loevinger and Robert Kegan, and value systems according to Clare W Graves. The specific values of the Scandinavian culture in which Breivik was raised – and that he wanted to attack – are also analyzed in order to understand this terrible deed. We conclude that Breivik can be regarded as a complex thinker who is also fairly mature from an ego development perspective, and his terrorist act can be seen as traditional values attacking the postmodern values that dominate in Scandinavia. With regard to motive we argue that his attack was fueled by a fragile gender identity due to paternal abandonment issues and a less than male friendly culture. This fragile gender identity then latched onto double standards in the intersection of gender politics and multiculturalism. We also argue that while the deed itself was hideous and repulsive, these double standards need to be exposed and addressed.

Keywords: Anders Behring Breivik, ego development theory, gender identity, gender politics, model of hierarchical complexity, multiculturalism, Spiral Dynamics.

Introduction

On July 22nd 2011, Norway and perhaps also Europe witnessed its worst terrorist attack in modern times, when Anders Behring Breivik detonated a homemade bomb next to a government building in central Oslo, and then continued directly to the island of Utöya to open fire at a youth camp. The bomb in central Oslo resulted in eight casualties and the ensuing mass shooting killed 69 persons, mostly teenagers. As it turns out, the gathering on the island was the summer camp of the Workers' Youth League – a social democratic group for young people. (Wikipedia, 2011)

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Just before the terrorist attack, Breivik published a 1500-page manifesto on the web (Breivik, 2011) where he gave his reasons for the actions as well as his view on the world and on himself. Consequently, he can be regarded as not only one of the worst but also the best-documented, mass murderer ever. This readily available material gives us an opportunity to draw some conclusions about what happened, why it happened, and if it may happen again. We also consider it essential to look at the material from a developmental perspective.

Some pundits may argue that Breivik is either mentally disturbed or just plain evil, and that trying to understand him or trying to find a logic in his actions is somehow the same as excusing him. This is not the case. We fully condemn the attacks – and have been profoundly affected by them as human beings and Scandinavians – but analyzing and understanding them is a must, if we are to learn from them.

In this paper we analyze the Breivik attack from different angles. First, we take a look at the manifesto and the core message he wants to transmit to the world, as well as the movement and ideology he regards as his affiliation. This ideological cluster is analyzed with respect to value system according to the work of Clare W Graves, and its relationship to the Scandinavian culture is determined. Then we take a look at Breivik himself and evaluate his mental abilities from a developmental perspective with respect to ego development theory according to Robert Kegan, and with respect to cognitive capability according to the model of hierarchical complexity. Finally, we take a look at Breivik's life and experiences in order to find some answers to what made him a mass murderer. We argue that a perfect storm of personal traumas and cultural double standards greatly contributed to the terrorist act.

Important to note is that this horrible tragedy has already been the source of several political and psychological analyses. The analysis performed here is by no means complete and to some extent speculative, but it adds a developmental perspective – as well as a plausible explanation with regard to deep motive – which we haven't come across thus far.

Values of the Political Movement Described in the Manifesto

The most common interpretation of the attack and the message in the manifesto is that it is an attack from the extreme right; namely, "cultural conservatism." Although this is not an incorrect way of putting it, there is a lack of depth in such an interpretation. In order to analyze the message and values of the manifesto with respect to the vertical dimension, the Spiral Dynamics model for value systems (based on the work of Clare W. Graves) is employed (Beck and Cowan, 2006).

According to Graves, values typically occur in systems called value memes, which are coherent sets or clusters of values. These values are a consequence of the person's worldview and a response to the perceived problems. Graves identified eight different value systems that describe how humans as well as cultures evolve. In most western cultures, such as the Scandinavian, it is sufficient to describe three value systems and the colors used to symbolize them, in order to capture the majority of influence:

Traditional values, or TruthForce (Blue): Traditional values are characterised by conformity, conservatism, often with Christian and nationalistic views. There is a clear view of truth – normally dictated by an authority, sometimes fundamentalist – which gives a clear sense of purpose in life. There is an emphasis on clear borders between different cultures and between the two genders.

Modern values, or StriveDrive (Orange): Modern values arose in Europe in tandem with the scientific and industrial revolution. They emphasize a scientific view of the world that argues for the rational individual. The modern value system is typically positive towards the future and acknowledges the value of scientific progress and economic growth.

Postmodern values, or HumanBond (Green): As a reaction to the modern values there was a breakthrough of postmodern values in the 1960s with the environmental movement, the peace movement, feminism, the human rights movement, and multiculturalism. Although they may not be as coherent as the previous value systems, postmodern values are said to emphasize human relations and tolerance for different cultures, races, and sexual orientations.

Although in a minority worldwide, the postmodern values can be said to be the dominant and agenda-setting value system in the political and media spheres of Scandinavia. However, in the Scandinavian middle class the picture is more muddled, with modern values likely in majority. Some would also argue that there are significant pockets of traditional values in the middle class, in contrast to the lip service being paid to postmodern values.

The core message in Breivik’s manifesto – what he refers to as “cultural conservatism” – is equivalent to traditional values, emphasizing nationalism, safety, and a return to the gender roles of the 1950s when, according to Breivik, “...most men treated women like ladies, and most ladies devoted their time and effort to making good homes, rearing their children well and helping their communities through volunteer work.” (p. 12) According to him and the movement he is part of, these values are crucial as a counter force to the (also traditionalist) Islamic jihad movement that in their view is threatening to invade Europe.

Breivik’s manifesto mainly attacks what he refers to as “cultural Marxism” or “political correctness” that is a very close approximation of the postmodern value system. These entities emphasize values such as tolerance, diversity, multiculturalism, feminism, and deconstruction of the traditional Christian values, as he describes in a quote in the next section. The manifesto, as well as his own terrorist attack, can therefore be seen as the traditional value system attacking the postmodern value system (or in Breivik’s mind, defending itself from the postmodern value system). In other words, we are talking about a “Blue” attack on “Green.”

The explanation given for the attack on the postmodern value system is that it is said to weaken Europe with its deconstruction of the European Christian identity and its emphasis on multiculturalism and feminism, as opposed to nationalism and patriarchy. In Breivik’s view, the cultural Marxism of Eastern Europe has successfully infiltrated and weakened the Western European identity. He fails to understand that those values of tolerance and multiculturalism actually evolved out of the traditional and modern values present in his own country.

The targets were selected to strike at the core of what Breivik considers to be the “cultural Marxist” movement while simultaneously maximizing terror and media attention; therefore he chose to strike at a government building (of the reigning Social Democrats) and a youth camp of Social Democrats and Democratic Socialists. However, the question of how a person with traditional values was capable of planning and performing this cruel and cold-blooded deed still remains. We now turn to Breivik himself in order to evaluate his cognitive capacities.

Breivik’s Cognitive Abilities

Can Breivik be regarded as an intelligent individual or is his deed simply a random attack of insanity? We can attempt to answer this question by looking at excerpts from Breivik’s manifesto and evaluating the stage of performance in hierarchical complexity terms according to the model of hierarchical complexity (Commons, 2008; Commons & Ross, 2008) and its hierarchical complexity scoring system (Commons, Miller, Goodheart, & Danaher-Gilpin, 2005). Such a process gives us a good approximation of Breivik’s cognitive performance.

The stage of complexity is a product of the structure of what is being written, not the actual content. In other words, a person may be fully capable of quite complex reasoning even if the content is deeply problematic or even repulsive. While impossible to analyze all 1500 pages of the Breivik manifesto – a text that was largely cut and pasted from the Internet and written by Breivik’s idol Fjordman – it is quite possible to find passages representative of Breivik’s own writing. Here he dialogues with himself:

> Q: Some will claim that you are Christian fanatics, just as hateful and intolerant as Al Qaeda. How would you react to accusations like that?
> A: The PCCTS, Knights Templar is a European indigenous rights movement and a Crusader movement (anti-Jihad movement), a part of the pan-European and national resistance movement. In a way it is a conservative revolutionary movement.
> By propagating and defending Christendom we simply mean that we want to halt the cultural Marxist/multiculturalist attacks and systematic deconstruction on our Christian cultures and the Church itself and to reverse the de-Christianisation of Europe. The biggest threat to Europe is the cultural Marxist/multiculturalist political doctrine of ”extreme egalitarian emotionalism”. This type of political stance involves destroying Christendom, the Church, our European cultures and identities and opening up our borders to Islamic colonisation. The Islamisation of Europe is merely a “secondary infection.” Western Europe has grown weak and decadent and will be completely annihilated culturally unless we succeed to implement a second European renaissance and reverse the damage done. (pp. 1352-1353)

This is a typical example from the text where Breivik explains his ideological affiliation and mission. He contrasts what he calls the Marxist/multiculturalist ideology with his own conservative revolutionary movement. By contrasting and comparing the ideologies, which are richly elaborated throughout the more than 1500 pages, his writings demonstrate a metasystematic view on what he describes as the two ideologies. This estimation is further reinforced by the following quote, which gives an accurate description of the characteristics of an ideology, although he fails to recognize that he promotes one himself:

> One of conservatism’s most important insights is that all ideologies are wrong. Ideology takes an intellectual system, a product of one or more philosophers, and says, “This system must be true.” Inevitably, reality ends up contradicting the system, usually on a growing number of points. But the ideology, by its nature, cannot adjust to reality; to do so would be to abandon the system. (p. 11)

One could, however, argue that the words are still not entirely his own. Large parts of the text come from other sources that he has been either influenced by or simply copied and pasted into the document. One such source is Breivik’s own source of inspiration, the Norwegian blogger Fjordman. But understanding Fjordman’s arguments on ideology and explaining them correctly corresponds to a level of support of -1 (Commons & Goodheart, 2008), meaning that Breivik’s cognitive capacity in terms of hierarchical complexity can be estimated to be at least at the systematic stage in this domain, i.e., one stage lower than metasystematic, which still is probably higher than the average Scandinavian.

Ego Development

The rich personal material available allows us to analyze Breivik from an ego development perspective. To perform this analysis the ego development theory according to Robert Kegan’s subject-object theory (Kegan, 1982, 1994) is employed. From Kegan’s theory we can draw some conclusions about his ego development based on his ability to control his thoughts and behavior and evaluate what Breivik has as an object vis-a-vis what he is embedded in and takes for granted.

In his diary, (Breivik, 2011, pp. 1414-1472) Breivik describes an episode where he thinks that the police have discovered the barn where he keeps his explosives and equipment. Initially he panics, and begins to fantasize about a SWAT team that awaits him and hidden monitoring devices in his house. He searches the barn and the house, finds nothing and draws the following conclusion.

> Paranoia can be a good thing, or it can be a curse. The barn door had probably been opened by the wind. I decided then and there that I would not allow paranoia to get the best of me again. If they were to come for me one day, there was really nothing I could do about it, so it would not be constructive to worry about it. (p. 1457)

This is a typical example where Breivik reasons around his own psychological reaction and takes responsibility for it. He can also make the connection between the external event and his inner reaction. He is able to learn a lesson from what happened and aims to control his reactions better in the future. The "paranoia" is handled as an abstract variable that is useful as a servant, but not as one’s master. Thus, a fairly high degree of self-control is exhibited.

Breivik is devoted to the ideology he has chosen for himself, so devoted that he appears to treat it as a life purpose. However, he cannot relate to his ideology or examine it critically; he is completely embedded in it and has his ideology as a subject. In terms of Kegan’s subject-object theory this corresponds to the self-authoring mind or 4th order of consciousness.

When considering how long he planned his project – nine years – while always acting rationally so as not to reveal himself or his plan, the case for him being at least a self-authoring is strengthened. This is likely also higher than the average Scandinavian. However, higher than self-authoring mind he is not, since he cannot relate to or critically examine his own ideology, which he is embedded in and even willing to die for. A characteristic of the next ego development stage, self-transforming or 5th order of consciousness, is that the person no longer identifies with a single ideology and has the capacity to take as object and critically examine different ideologies.

Finally, we can note that Breivik was capable of consciously regulating his inner states in order to achieve his goals. His cold-bloodedness at Utöya was exceptional, where he gunned down 69 mostly young people after dressing up as a police officer – even calling out to them offering his "help" in the ongoing chaos and fear. By his own account he ingested high dosages of synthetic male steroid hormones, as well as an "ECA stack" containing the stimulant ephedrine, which can be viewed as a direct strategy to suppress fear and fuel aggression, enabling him to carry out the hideous deed without second thoughts about killing as many people as possible (Gysin & Greenhill, 2011).

Breivik's Motivation and His Relationship to the Values of the Scandinavian Culture

One remaining question is where Breivik got his motivation to act out in the horrifying and bizarre way that he did. One piece of the puzzle is without doubt his Spiral Dynamics "Blue" values. It is normal to expect him to stand up for his values, and living in a postmodern "Green" society, the drive to defend his values will be even stronger.

However, this explanation taken on its own is insufficient. The "Blue" value system will defend its values quite strongly, especially since being proud of your values is built into this very value system. But rarely will a person with these values go to the extreme measures that Breivik did, and it is more than unfair to hold the value system itself responsible.

A starting point for understanding Breivik's motivation is his relationship, or the absence of a relationship, with his father. At age one, his parents divorced. After a custody battle that the mother won, Breivik's father stayed abroad while his mother settled down in Oslo. Not only did his father maintain physical distance from his son, but he seems to have been actively disinterested in him. In an exclusive interview with Swedish newspaper Expressen, the father Jens Breivik says (Kvarnkullen, 2011): "We haven't been in touch for 16 years, since 1995. He was very difficult. He wanted to go his own way and he hasn't had a need to be in contact with me." The father not only abandons his son, but blames his son for his own inability to connect and stay in touch. It's probably safe to say that this created a huge sense of loss within Breivik, and a set of abandonment issues that do not easily heal.

We know from various research reports that an absent father increases the risk of criminal behavior in children and young adults, especially for boys (Flouri & Buchanan, 2002a: Harris et al, 1998). Research also indicates that a father's engagement decreases the risk for behavioral problems in children (Aldous & Mulligan, 2002). Finally, father involvement has been shown to increase life satisfaction in boys, and buffer the effect of bullying (Flouri & Buchanan, 2002b) – something that Breivik likely experienced in school (Carbone, 2011).

Taken on its own, a boy growing up without his father is a significant risk factor for criminal and psychiatric problems. However, Breivik was not only abandoned by his father, he was also faced with surroundings that were far from male positive. The Norwegian culture was, and is, deeply affected by feminism, and even Breivik's mother was a moderate feminist, according to his manifesto.

Feminism or being a feminist needn't be anti-male, but the large scale Scandinavian experiments of integrating feminism in various aspects of politics and the media have shown that when implemented as the sole model of gender issues, feminist ideas lead to negativity towards men, masculinity, and manhood. It's important to point out though, that Scandinavian feminism has been implemented with the explicit approval of male leaders – and with significant resistance from many women – so the Scandinavian feminist project should not be viewed as a female project nor "blamed on women."

All in all, the young boy was faced with an environment that made it difficult to establish a healthy male identity. This is not to say that a healthy male identity is a single object nor that it is a static entity that does not change over time and between cultures. We would do well to not reproduce the extreme polarization of the sexes that at times has been present in human history.

However, there are real differences in men's and women's neurohormonal biology that give rise to different impulses, choices, and interests in each sex (Lippa 2010; Sapienza et al, 2009; Schmitt et al, 2008.). Normally, male environments with a male value sphere are where boys learn how to harness those impulses in a healthy way, by cooperating with other men and watching how they handle themselves in various situations. With an absent father in a male-negative culture, accessing any type of male value sphere can be hard.

So what happens to a boy who is denied a connection to a father, and then grows up in a culture that denies the very existence of positive male qualities? How can he connect to his own maleness? How can he make the passage from boy to man?

This part of our paper is the most speculative, but a qualified assumption would be that Breivik not only felt abandoned by his father, but also by his whole country, a country that would not affirm or encourage his male identity. People may have different opinions on the necessity of a specific male value sphere to foster a healthy version of masculinity, but would anyone reading this wish to deny boys a sense of ownership of, and pride in, the biological sex they were born with? We imagine this is what happened to Breivik.

This is what Breivik (2011) himself has to say about his upbringing: "I do not approve of the super-liberal, matriarchal upbringing as it completely lacked discipline and has contributed to feminising me to a certain degree" (p. 1387). When this abandoned boy with a fragile gender identity then proceeds to start school, he encounters boys with an immigrant background. These boys seem to have none of the issues that he experiences in his own life, and seem quite stable and thriving in their male identity.

This is what Breivik himself writes in his manifesto, on the topic of immigrant boys and their male identity (Breivik reduces immigrants to “muslims,” which obviously is wrong):

> Muslim girls were off limits to everyone, even the Muslim boys. The only available “commodity” at this point was therefore ethnic Norwegian girls, referred to as “whores.” Due to the tolerance indoctrinated through Norwegian upbringing – girls aren’t brought up to be sceptics, racists or anti-immigrant, just like most boys. They are all brought up to be very tolerant. As a result, many ethnic Norwegian girls, especially in Muslim dominated areas, despise ethnic Norwegian boys because they consider them as weak and inferior with lack of pride, seeing as they are systematically “subdued” by the “superior Muslim boys.” Ironically, Muslim boys are raised to view Norwegian girls as inferior “whores.” Their only purpose is to bring pleasure until the Muslim guys are around 20-25 when they will find a pure, “superior” Muslim girl, a virgin. At this point, the ethnic Norwegian “whores” is discarded, and most of the girls go back to their old “tribe.” They are welcomed back in the name of tolerance. (2011, pp. 1376-1377)

Breivik may be disturbed, and his writings twisted and exaggerated, but his basic observational and analytical faculties are quite intact. He notes that immigrant boys sometimes end up high in the male status hierarchy, since they are more often in touch with their own vitality and self confidence. Norwegian boys have instead faced pressure to hide displays of anger or vitality, as this is seen as oppressive when coming from a male.

As Breivik points out (in his own harsh way), it is true that some immigrant men view Scandinavian women as commodities – women that are fine to have sex with, but who are unworthy of being a man’s wife. It is also true that some immigrant women who live in Scandinavia do not have the same rights and freedoms as ethnically Scandinavian women. Formally they do, but in practice they are subdued and controlled by their parents. A survey commissioned by the Stockholm Municipality, and carried out by Stockholm University, found that 23 percent of 15 year old women were expected to be virgins until their wedding – in survey group where 40 percent were immigrants (Schlytter et al, 2008).

You would think that Scandinavia with its strong feminist values would have an easy time addressing these issues. After all, women’s rights have been at the top of the political agenda for a couple of decades. In reality though, politicians have done little to address these societal issues – leaving young immigrant women to lead a quiet life of oppression.

The main reason for this is multicultural values, which seem to take precedence over feminist values when there is a conflict. A cynical, but not entirely incorrect way to summarize how feminism and multiculturalism get along, would be like this: If a Scandinavian man does only 40 percent of the housework, then he’s patriarchal and backwards striving. But if an immigrant man restricts the everyday freedom of his wife and daughters then that has to be respected as part of multiculturalism.

The intersection of feminism and multiculturalism has produced some spectacular double standards. These contradictions were fodder for Breivik’s mind, a mind that was already hurting down to its core after the abandonment of his father – while simultaneously being a mind that had extensive cognitive capacities. Instead of turning towards his own wounds, he projected his hurt, his abandonment, and his hatred toward the undeniable double standards of postmodern Scandinavia – double standards that his mind was more than capable to identify and analyze.

He may have been driven by deeply unhealthy impulses, and he may have had a tendency to project and externalize that which could only be resolved within himself. But a few of his observations highlight real issues, once you subtract his islamophobia and his disturbed solution to the perceived problem.

The real danger here is not that we forget to condemn Breivik, or that we forget to maintain our open societies. All of that is already happening in Norway and Sweden. The real danger is that we forget to learn from this incident. The real danger is that we do not listen to what this hurt little boy with impressive adult cognitive capacities had to tell us.

Conclusion

Looking at the clash of the two value systems, the traditional and the postmodern, we note that potential conflicts between these two are likely to escalate, unless some kind of healthy reintegration is found. A typical "Green" view of the post-Breivik landscape would be to stand fast in the conviction that postmodern values are the most correct and that they eventually will triumph over traditional values. This is, however, as all familiar with developmental theories know, a false assumption. According to Graves and the Spiral Dynamics theory, for a certain value meme to exist, all previous value memes have to be present by necessity as well. If postmodern values are to exist there will always have to be traditional values present in the culture.

Scandinavian politics and media have more or less been shunning traditional values, bypassing them for the benefit of implementing tolerance and openness. While noble in intent, this is not a functional way to run a country – nor what Graves would call a "healthy spiral." Elements of healthy traditional values need to be reintegrated in Scandinavian politics and media; in fact, we believe this to be a prerequisite to taking the jump into Yellow values, the stage after Green, which can be viewed as a synthesis of all the previous value systems. Basic "Blue" values provide the structure and security needed for tolerance and openness to thrive, and can help us strike a balance between welcoming immigrants to our countries – while also making sure we decide on yearly quotas that the country is able to successfully handle and integrate.

Outside of the extreme example that is Breivik, traditional and nationalistic values have become more prominent in the last few years. All Scandinavian countries now have a political party with these values, and they are gaining momentum. Faced with these emerging impulses, postmodern politicians and journalists need to realize that within the "traditional crowd," there will be individuals such as Breivik's idol Fjordman, with access to systematic and metasystematic stages of reasoning. The "Green" establishment therefore needs to sharpen its debate skills to hold its own in future political discussions. As much as a portion of constructive traditional values need to be reintegrated in Scandinavia, it would be a disaster if they were to become politically dominant in the current fragile economic climate.

Turning to the attacks themselves, a relevant question is: could they have been prevented? Were there any warning signs that the Norwegian authorities should have been aware of? In our opinion, no. Breivik is a complex thinker who is rational and mature in terms of ego development and most importantly, he worked completely alone and didn't share his plans with anyone. He was very elaborate in holding up a facade to his friends and family and he was careful not to leave any trace of his activities. Therefore we would also say that Breivik is extremely rare with his combination of intelligence, cold rationality, and "bottled up" aggression.

However, when it comes to the absence of male value spheres and male role models in his life, he is far from unique in our societies. In order to prevent even one new Breivik from appearing, Scandinavian men need to step up and reclaim a space for healthy male expressions, both in their families and in the culture as a whole. Even though parts of the Scandinavian culture can and probably will resist this, men simply cannot sit and wait for permission to do so. We need to show our boys a path towards mature manhood, while fostering and cultivating healthy male expressions in ourselves.

Women and men can also work side by side to change the dysfunctional parts of our gender politics. Working with women's issues has been tremendously important for the past few decades, and will continue to be important in some ways. On the other hand, important men's issues need to be integrated in the gender politics, to get a more balanced view of gender equality. Hopefully, such a process can lead to a lessening of the cultural misandry (contempt for men) that exists in media and politics – just like we have been successful in removing misogynistic expressions in media and politics.

Finally, the horrible insight that we have gained from this analysis is that Scandinavia produced Breivik. As important as it is to talk about facing violence with more love and more openness, we will at some point have to address the fact that we produced him, we put together the environment that bred his hatred. If we do not, we will fail to learn from this tragedy, and the next incident might be even worse than the one we have just experienced.

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The Tyranny of AQAL[1]
Reflections on the JFKU Integral Theory Conference, July 2010[2]

Hugh & Kaye Martin[3]

When you play the game of Scrabble, do you notice how play sometimes gets scrunched down into one small corner of the gameboard? People keep coming up with ingenious new words, but they are confined to a shrinking and increasingly congested space. That's the way we often felt about the July 2010 Integral Conference at JFK University. Stimulating and often brilliant, but generally limited to one small (but highly important) section of the Integral gameboard.

At a conference with so many enticing speakers, we like to browse. To get the lay of the land, we circulated among three or four presentations during each workshop session, gleaning the essence of the speaker's presentation. Then we supplemented those initial impressions by reading the appropriate papers, and later listened to the recordings of each speaker who seemed to have something especially valuable to say. In the course of those three days, we surveyed some remarkable presentations by Kegan, Smith, Cook-Greuter, Forman, Esbjorn-Hargens, Visser, Combs, Marquis, Hubbard, Ganti, Parlee, Roy, Whetton, Golin, Fuhs, Zeitler, Ingersoll, Meyerhoff, Reams, Gafni, Hamilton, Schlitz, Fischler, Laske, Smith, Walsh, Anderson, Ross, O'Fallon, Patten, Winton, and Stein, among others. In almost every case, the underlying subject was AQAL, and the underlying assumption was that some version of AQAL was representative of or virtually equivalent to Integral. In other words, the primary or exclusive subjects of inquiry in most of these presentations were the parameters of quadrants and levels – with lines, states, self, and/or types occasionally thrown in for good measure.

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[1] AQAL is a "tyranny" in the metaphorical sense. That is, the AQAL paradigm is becoming so unnecessarily narrow and restrictive that it inhibits inquiry into a broader range of integral distinctives and alternative models. "Tyranny" is used here, not in the polemical sense, but as a quasi-technical term that describes the fourth stage of the four-generation cycle of cultural development, as outlined by Strauss and Howe. (See the section The Evolution of Integral later in this article.)

[2] This article is not a "report" on the conference per se. Rather, the conference is used to provide a context of common experience that readers who were conference attendees can use to assess the validity of our contentions.

[3] Hugh & Kaye Martin have contributed six book-length studies on their ADAPT Model to *Integral World.net* – several of which frequently rank among the Top 50 in IW's readership rankings. Hugh & Kaye are best qualified as integral practitioners and theorists because they have led integral lives. Both have richly diverse backgrounds in a multitude of fields: personal transformation, natural medicine & health, artistic & creative expression, teaching & education, societal change, natural & cultural environments, advanced academics, and marriage & family. Hugh received his degrees at Swarthmore, Penn, and UC Berkeley. Kaye received her degrees and certifications from Cal State Fullerton and Bauman College.
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Wilber's Full Range of Parameters

We found ourselves asking throughout these presentations such questions as, All well and good, but what about Wilber's other parameters? What about all the factors of human development[4] delineated in *Integral Psychology* and other seminal works that constitute Wilber's extended Integral Operating System (or IOS)?[5]

Yes, quadrants, levels, lines, and states are extremely important, but what about other Wilber concepts relating to the dimensions of the growth process? What about the great nest, map, wave, trait, transformation, ladder, correlative structure, chakra, spiral, realm, plane, sphere, physio-biosphere/ noosphere/ theosphere, terrestrial realm, plane of existence, celestial plane, stream, height & depth, U-shaped pattern, pathology, and pre/trans fallacy?

Yes, self and types are important, but what about other Wilber concepts pertaining to the participants in the growth process? What about proximate & distal self, self-system, archeology of self, ego, bodyself, felt body, culture, role, voice, gender type, agency vs. communion, eros vs. agape, Enneagram, subpersonality, shadow self, functional invariant, I-I self, true Self, and soul?

What about Wilber concepts that are aspects of the processes by which growth takes place? What about fulcrum, embedding, metabolism, horizontal translation, vertical transformation, actualizing the great nest, uncovering, methodology, modules of Integral Life Practice (ILP), treatment, therapy, evolution & involution, transcend & include, sociocultural evolution, and waking up?

What about Wilber concepts that are features of the guidance and orchestration of the growth process? What about navigation, integration, spirit-in-action, Integral Institute, full-spectrum therapist, witness, seer, pure consciousness, and spirit?

We grant that at least some additional topics beyond the AQAL matrix were covered in the conference. However, we would contend that the preponderance of talks accepted the AQAL model as the central organizing principle of integral theory ('forms the basis for much of our shared vocabulary,' in the words of one commentator) -- and that in fact many presentations treated AQAL as the very definition of Integral itself.

Ken Wilber is one of the great generalists of our time. He may not get all the particulars right, but he is terrific at sketching out all the elements worthy of consideration. Wilber's *Integral*

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[4] Yes, integral theory is more than human development. But not a whole lot more. Human development is a very comprehensive field that subsumes many other more specialized fields – such as parenting, teaching, counseling, therapy, organizational consulting, academic research on human development, and the orchestration of one's own personal growth and self-improvement. From a wider perspective, human development encompasses all areas of human endeavor where people grow and evolve – fields as diverse as psychology and education, history and economics, science and technology, art and music, literature and film, ecology and metaphysics, ethics and social activism, health and sexuality, religion and pop culture. The great majority of conference presentations applied Integral to one or more of these topics.

Thus, human development in some form was by far the most commonly-addressed topic of the conference. But more generally, human development is in our estimation the most fruitful field for Integral investigation. Human growth is the developmental system we know most about. Therefore, it yields the most detailed set of parameters upon which to base any Integral model that aims to be comprehensive.

[5] Wilber's IOS is described in the next section, If Not AQAL, What?

Psychology is perhaps the most structurally-sophisticated of his works. Despite its apparent simplicity, this remarkable book goes furthest in delineating all the factors that constitute a complete theory of human development. If we ignore or underestimate a significant portion of those factors, we run the risk of overlooking some of Wilber's main contributions to human thought. Moreover, if we fail to incorporate that broader range of factors into a comparably broad system, we are contravening the central principle of Integral – i.e. that all the factors we are considering are 'integrated' into a single, comprehensive model.

If Not AQAL, What?

At this point, a question naturally arises in the reader's mind: "If not AQAL, what?" If AQAL is not to be the central organizing principle of Integral Theory, what can we offer to replace it?

We ourselves began asking that question about seven years ago. After careful study of *Integral Psychology* and other important works by Wilber and other Integral thinkers, we began to recognize the limitations of AQAL. It became clear that AQAL was only one important aspect of Wilber's own extended model of human development – what we call his Integral Operating System (or, IOS).[6] At the same time, we became increasingly aware that the AQAL mindset is extremely pervasive in the Integral community. Then, very gradually, in the course of publishing a series of six book-length studies on *IntegralWorld.net*, the outlines of a revised and expanded model[7] began to take shape. That model incorporates all the parameters that Wilber explored in *Integral Psychology*, adds a few more to fill in the gaps, and organizes all those parameters into a simple but comprehensive system called ADAPT – All Dimensions, All Participants, All Processes, Together.[8]

Thus, to continue the Scrabble metaphor, AQAL is just one important corner of a much broader Integral gameboard. Wilber's expanded IOS enumerates many of the other important squares on the gameboard. The ADAPT model endeavors to show how all those squares can be arranged into a cohesive gameboard pattern.

Any new system, especially one that challenges a model as beloved as AQAL, inevitably encounters much resistance. Here are some representative objections, critiques, and suggestions we received[9] regarding our own system, along with our rejoinders. Any other alternative model would receive similar comments.

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[6] Wilber's audio series from Sounds True is entitled the Integral Operating System. There he discusses AQAL principles as applied to real life. We are using the term 'Integral Operating System' here in a much broader context.

[7] We do not consider ADAPT an 'alternative model' or 'competing model,' because it is derived from Wilber's own model and consists primarily of Wilber's own parameters. That is why we call ADAPT the 'next generation' of AQAL.

[8] For details, see our conference presentation, AQAL, the Next Generation, or the more extended version on IntegralWorld.net. We refer to our studies, not as a form of self-promotion, but to show that it is indeed possible to devise a viable Integral model that is far more comprehensive and far more 'integrated' than AQAL.

[9] From over a dozen conference speakers and many attendees, not verbatim.

- **Too big a playing field.** "That's just too big a playing field for integral theory to absorb right now." Our response: You don't have to play on the bigger field until you need it. In the meantime, just acknowledge it's there.
- **Too AQAL-phobic.** "Your approach is too AQAL-phobic. You attack or denigrate a line of inquiry that has proven immensely fruitful." Our response: On the contrary, we consider AQAL a magnificent contribution to human thought. Now we can use that great example to become even more comprehensive.
- **Too Wilber-centric.** "This approach is too Wilber-centric. Concentrating on Wilber is passé." Our response: Any good theory builds on the best work that's gone before. The colossal contribution of Ken Wilber is a place all of us have to start. In the words of the "great one," before we can "transcend" Wilber, we must "include" him.
- **Too complicated.** "Your new theory is complicated and hard to follow." Our response: Every new theory seems complicated at first, because it is unfamiliar. However, the basic model of ADAPT is simplicity itself: Life is a journey by sea, or "human odyssey;" that journey has a map, a set of voyagers, a ship, and a navigator/captain. The complexity comes only as we drill down into the nested holons beneath the main concept to explore the details.
- **Requires too much retooling.** "Your approach would require too much reconfiguring and retooling." Our response: You have the option of retooling, but you don't have to. If you concentrate on AQAL, just recognize that you're specializing in one very important niche.
- **Broader than Human Development.** "Integral theory is broader than human development alone." Our response: see footnote 4.
- **Different objectives.** "Your aims and objectives are much different from ours." Our response: Very true. Integral theory as an academic discipline often seeks to identify the fundamental structures of reality. Integral theory from our perspective seeks to identify the structures, sequences, and systems that make human life significant and rewarding. (See footnote 4.)
- **Not rigorous.** "This approach is not meta-theoretically rigorous enough." Our response: Like any social science, a full-bodied integral theory will always be half-science, half-art. The rigor of meta-theory is extremely important. But that level of rigor can sometimes inhibit the flashes of brilliant intuition that brought us "integral" in the first place.
- **Not academic.** "Your model is not framed in language and argumentation that is sufficiently academic." Our response: Wilber himself was often judged not sufficiently academic by many speakers and panelists at his own conference! What chance have we got?

The foregoing objections may all have some validity. However, the central issue remains: Integral theory is concentrating its attention almost exclusively on one small corner of a much broader field of inquiry. By limiting itself to a few major concepts, integral becomes not a "Theory of Everything," but a "Theory of a Few Very Important Things." By failing to show how the full range of concepts fit together, it ceases to be "integral" at all.

We are not claiming that our ADAPT Model is the answer. Any valid revision of Wilber's AQAL and IOS will ultimately require the collaborative efforts of many authorities on the Integral worldview. However, we are confident that we have struck upon some key points of discussion that must be addressed before integral theory can evolve to its own next level.

The Evolution of Integral

According to Strauss & Howe (*Generations*, 1991, and sequels), cultures may evolve over decades of time through a mechanism they call the *generation cycle*. A generation is the biological period of life, normally about 20-25 years, between the time one is born and the time one first procreates. According to the authors, dynamic cultures repeatedly pass through a generation cycle consisting of four characteristic generations.

1. *Prophetic generation:* Conceives a new cultural vision and a new impetus for change;
2. *Reactive generation:* Reacts against or detaches from the dominance of the prophetics;
3. *Civic generation:* Fills out and implements the vision of the prophetics;
4. *Bureaucratic generation*: Institutionalizes and standardizes what once was the prophetic vision.

After the four generations are complete, the cycle repeats all over again – but at a higher level of development, and with a new prophetic vision.[10] The transition from old to new vision is sometimes an arduous and painful one. Adherents to the old system experience its departure as the death of an old and dear friend. The original prophetic vision that began as a force for expansion and liberation can become in its later stages an entrenched “tyranny” that must be resolved before the next vision can be embraced.

Integral theory is itself a culture that is progressing through a generation cycle – in this case telescoped into 40-50 years, instead of the normal 80-100. In this schema, Wilber is of course the prophetic; incisive critics and skeptics like Visser and Meyerhoff are the reactives; brilliant actualizers like Cook-Greuter, many other speakers at the conference (as well as the JFK Conference itself) are the civics; and the bureaucratics are the natural tendency in all of us to cling to familiar, established truths.

We by no means presume to see ourselves as the next prophetics. However, we may be among the first to see the glimmering outlines of a new vision. We hope through our work to stimulate broader discussion on a topic of central importance – the very structure and scope of the field of integral theory itself.

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[10] Editors’ note: For additional discussion of these generations, see Ken White’s Politics in a new key: Breaking the cycle of U.S. politics with a generational/developmental approach in Integral Review’s special issue on politics, at http://integral-review.org/documents/White,%20Politics%20in%20a%20New%20Key%20Vol.%206%20No.%201.pdf]

What are basic assumptions, and which effects do they have in our time? On "paradigms" and "paradigm change" in the contemporary political and social domain, and the consequences. A conversation with Roland Benedikter, Stanford University.

Was sind, und wie wirken Grundüberzeugungen in unserer Zeit? Über „Paradigmen“ und „Paradigmenveränderungen“ in der heutigen politischen und sozialen Sphäre – und die Folgen. Ein Gespräch mit Roland Benedikter, Stanford Universität[1]

This talk clarifies what is meant by the pervasive but seldom-precise use of the term "paradigm change." While it appears that this term is often (unwillingly) misused particularly by integral and progressive intellectuals and civil society groups as an instrument of predicting future *cultural change, it is argued that it should rather be used as a tool of analysis of the* past *and the* present *of basic cultural and scientific convictions that dominate their times. In fact, a "paradigm" is defined as a collective bias (or, to use a more technical explanation, a "knowledge-constituting collective prejudice") on certain issues. It defines the validity of what is meant to be true, and what to be false, and what can be accepted as valid, and what not, in a given society at a given time for a given period. A "paradigm" is always functioning (a) as a "constitutive paradox" because its claim is to define what is true and what not, but at the same time it is continuously replaced by new paradigms that coin different definitions - thus contradicting the very essence of "paradigm" as such; and (b) by incubation periods, i.e., by*

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phases where different claims on what is valid coexist or even form hybrids among them. In the end, "paradigms" are something irrational and in most cases un- or half-conscious cultural formations; but they seem to exist in every period of cultural development. This talk explains the mechanisms of how dominating cultural biases become "paradigms" in order to rule temporarily over the academic and political correctness of their times; and how and to which extent the one-sided "paradigm fetishism" of the epoch of "postmodernity" is currently coming at its end, with new, more integrative and integral blueprints arising that are in their majority trying to balance the prevailing "paradigmatic" nominalism with new, empirical forms of neo-essentialism and neo-substantialism. Specifically, integral approaches try to create a paradigm for our time that connects deconstructivism and substantialism (realism).

Frage: Beobachter, Kommentatoren, Wissenschaftler und Medien sprechen heute immer öfters von einem Paradigmenwandel: in der Politik, der politischen Kultur, der zugrundliegenden sozialen Sphäre. Von einem solchen Paradigmenwandel ist für die Gesellschaften Europas die Rede, aber auch im Hinblick auf das Verhältnis zwischen Europa und den USA seit dem Amtsantritt von Barack Obama im Januar 2009. Das Wort „Paradigmenwandel" wird dabei sowohl sehr allgemein wie auch betreffend ganz konkrete Einzelfragen gebraucht, wobei der Zusammenhang zwischen großen, mittleren und kleinen Dimensionen nicht immer ganz durchsichtig ist. Der „Paradigmenwandel" wird ausserdem auch ganz unterschiedlich terminisiert; manche setzen ihn (oder Teilaspekte) mit den Terroranschlägen des 11. September, manche mit den Reformen der Schröder-Ära, andere wiederum mit der Finanz- und Wirtschaftskrise 2007-10 an.

Benedikter: Ja. Wir haben gegenwärtig sowohl eine synchrone Schichtung des Begriffs wie eine diachrone Streuung. Sehr allgemein wird das Wort gebraucht für aktuelle Systemveränderungen 1. in der Wirtschaft nach der Finanzkrise 2007-10, wo manche das Ende des bisherigen Leitparadigmas, des Neoliberalismus gekommen sehen; 2. im Bereich der Politik, wo mit der Entstehung einer multipolaren Welt der „wettstreitenden Modernitätskonzepte" („competing modernities") und dem Auftreten neuer Weltmächte wie China und Indien das Ende der von den USA ausgerufenen „Neuen Weltordnung" naht; 3. im Bereich der Kultur, wo mit dem Auftreten neuer Idealismen und Essentialismen das bisherige Leitparadigma des Westens, die „Postmoderne" an ein Ende zu kommen scheint; und 4. im Bereich der Religion, wo Bewegungen in Richtung mehr Demokratie, aber auch innere Richtungskämpfe in praktisch allen Weltreligionen, die bis an Spaltungstendenzen reichen (zum Beispiel in der anglikanischen Kirche, aber auch in Teilen des Islam) und bisherige Paradigmenformationen preiszugeben scheinen. Detailliert für unterschiedlichste Einzelfragen gebraucht wird der Begriff zum Beispiel für den „Paradigmenwechsel" der internationalen Diplomatie nach Wikileaks; für Großbritannien nach der Machtübernahme der Tories von David Cameron; für den Bewußtseinswandel in Umweltfragen der USA nach dem Ölleck im Golf von Mexiko; für das angeblich schleichende Ende der europäischen Sozialstaaten; für die globale „Renaissance der Religionen", seit einigen Jahren auch in Europa; aber auch für Obamas globalpolitische Orientierungsänderung, nämlich sein Umsteuern des US-Schiffes vom Atlantik in den Pazifik. Der Begriff wird also sowohl für ökonomische, politische, kulturelle und religiöse Veränderungen benutzt, wobei der Zusammenhang nicht immer klar wird: Handelt es sich um eine große, zusammenhängende und in ihren Einzelaspekten (wenn auch komplex) vernetzte Systemveränderung, oder sprechen wir von relativ unabhängigen Entwicklungen auf verschiedenen Gebieten, die unterschiedliche Geschwindigkeiten, „Tiefen“ und Wirkungen aufweisen?

Frage: In der Tat: Meist bleibt die Rede vom „Paradigmenwandel“ anregend, insgesamt aber eher diffus. Klären wir also zunächst das Grundsätzliche. Was versteht man eigentlich unter „Paradigma“? Und was wäre also ein "Paradigmenwandel"?

Benedikter: Ein Paradigma ist ein erkenntnisleitendes Vorurteil einer bestimmten Zeit, das die Kraft hat, gesellschaftliche Klassen und Gruppen auf gemeinsame minimale Grundüberzeugungen hin auszurichten, sowie grundlegende Diskurs-und Ordnungs-Sphären wie Wirtschaft, Politik, Kultur, Wissenschaft und Religion einer bestimmten Gesellschaft zu einem bestimmten Zeitpunkt auf kleinstem gemeinsamem Nenner in ihrer Grundausrichtung und in wichtigen Aspekten ihres Basiskonsensus zu vereinigen. Ein „Paradigma“ ist also in gewisser Weise der Zeitgeist in der Gestalt eines meist nicht formalisierten oder institutionalisierten, sondern "schweigenden" Konsenses, der darüber befindet, was als politisch, sozial, kulturell oder wissenschaftlich korrekt gilt. Weil dieser Konsens schweigend ist, ist ein „Paradigma“ etwas Kulturelles. Es ist ein Aspekt der Kulturdimension, das alle anderen Dimensionen wie Wirtschaft, Politik und Religion in sich aufnimmt, sich aus ihnen ergibt, und umgekehrt sie alle dann rückwirkend beeinflusst. Wenn man heute von einer Paradigmenveränderung spricht, dann meint man damit, dass sich das zuletzt verbindliche erkenntnisleitende Vorurteil in der Kultur ändert - so wie es sich in den europäischen und westlichen Kulturen ja mittlerweile alle paar Jahre ändert. Insofern ist ein Paradigmenwandel nichts Einmaliges oder Aussergewöhnliches, sondern im Gegenteil etwas, das immer wieder und auch immer häufiger vorkommt.

Frage: Inwiefern?

Benedikter: In den Sozialwissenschaften herrscht heute weitgehend Übereinstimmung darüber, daß die Zeit zwischen Paradigmenänderungen immer kürzer wird, weil sich - nicht zuletzt durch den wachsenden Einfluss von Wissenschaft und Technik - das Innovationstempo von Kultur und Gesellschaft ständig erhöht. Damit verkürzt sich die Geltungsdauer von allgemein kulturprägenden Grundüberzeugungen. Der Schweizer Wissenschaftsphilosoph Hermann Lübbe hat dafür einmal den (zugegebenermassen nicht sehr schönen) Ausdruck der "Gegenwartsschrumpfung" geprägt. Auf diese antworten die „postmodernen“ europäischen und anglo-amerikanischen Gesellschaften mit einer "zivilisatorischen Selbsthistorisierung" - das heisst mit dem musealen Festhalten und Erforschen von, aber auch mit dem (nicht selten ironischen) Spielen mit vergangenen "Paradigmen" oder allgemeingültigen erkenntnisleitenden Vorurteilen, das heisst mit Kultur- und Geltungsmodellen, die in ihnen früher einmal das Zentrum des Selbstverständnisses bildeten.

Frage: Das Interesse an einer solchen „zivilisatorischen Selbsthistorisierung“ ist in den vergangenen Jahren geradezu explodiert - man denke nur an den kulturwissenschaftlichen Trend, die 1970er, 1980er oder 1990er Jahre Revue passieren zu lassen, zum Beispiel in Musik, Mode, Wissenschaftsdebatten, Kunstwerken, Büchern, *welche die Unterscheidung zwischen „Dazugehörigen“ und „Aussenseitern“ thematisieren.*

Benedikter: Ja. Denn die „zivilisatorische Selbsthistorisierung“ hat viele Erkenntnisvorteile. Wenn man in die Vergangenheit schaut, dann sieht man relativ leicht, wie künstlich und zeitbedingt viele „paradigmatische“ Grundüberzeugungen waren - und demnach auch heute sind, jedenfalls aus der Sicht derjenigen, die nach uns kommen werden. Eben solche kontextbedingten Grundüberzeugungen aber konstituieren das "erkenntnisleitende Vorurteil" ihrer jeweiligen Zeit. Paradigmen sind etwas nicht völlig Rationales, sondern leben im Grunde auch viel von Irrationalem, aber es gibt sie zu jeder Zeit. Sie ergeben sich aus dem Zusammenwirken der wirtschaftlichen, politischen, kulturellen und religiösen Konstellation an einem bestimmten Ort zu einer bestimmten Zeit für eine bestimmte Dauer.

Frage: Als aus der Gesellschaft hervorgehende Grundüberzeugungen prägen sie umgekehrt aber auch ihrerseits die Gesellschaft?

Benedikter: Richtig. Paradigmen stehen mit ihrer Zeit immer in einem Wechselverhältnis. Sie wirken dabei ähnlich wie Mythen: Sie bestätigen und stabilisieren dasjenige, was ist. Paradigmen sind nicht Motoren der Veränderung, sondern Garanten des Gleichbleibens der Verhältnisse. Die Verhältnisse ändern sich aber zwangsläufig. Daher müssen „Paradigmen“ früher oder später immer neuen, anderen Paradigmen weichen – und seien sie auch noch so tief in einer Zeit, einer Kultur oder einer Gesellschaft verankert. Das widerspricht eigentlich ihrem Anspruch, das zu definieren, was Geltung beanspruchen darf, und das auszuschliessen, was keine Geltung beanspruchen darf. Insofern ist ein „Paradigma“ auch immer etwas Paradoxales: Es beansprucht, richtig und falsch zu definieren, und wird doch immer wieder von einem neuen „Paradigma“ abgelöst, das richtig und falsch (zumindest bezogen auf ihre Gesellschaftsvalenz, ihren Verbindlichkeitsgrad und ihre Praxisanwendung) wieder neu und anders definiert.

Frage: Was sind die Vor- und Nachteile von „Paradigmen“? Immerhin beruht ja die kulturelle Logik der westlichen Gesellschaften auf einer ständigen Abfolge neuer Paradigmen, die temporär herrschen und dann wieder verschwinden. In anderen, nicht-westlichen oder vor-modernen Kulturen wie zum Beispiel in Indien oder bei den Aborigines gibt es einen solchen Wandel nicht.

Benedikter: Das ist zumindest dann teilweise richtig, wenn wir das historisch sehen und die universale Technologisierung und Verwestlichung der vergangenen 200 Jahre ausklammern. Der Vorteil (wenn man dieses Wort hier überhaupt verwenden kann, denn es handelt sich um eine Tatsache eher als einen Vorteil) von „Paradigmen“ ist, dass man, wenn man sich mit ihnen beschäftigt, die Zeitbedingtheit von kulturellen Grundüberzeugungen erkennt, weil diese sich immer wieder wandeln. Der Nachteil ist, dass sich der Wahrheits- und Wissenschaftsbegriff, aber auch jede Wertevorstellung in Kulturgeschichte aufzulösen droht, wenn man sich einseitig an Paradigmen orientiert. Man hat dann früher oder später unweigerlich den Eindruck, dass letztlich nur künstliche, zeitbedingte kollektive Vorurteile als „Wahrheit“ gelten, die sich aber immer wieder, und in immer kürzeren Abständen, als blosse Vorurteile herausstellen. Gibt es also überhaupt keine „Erkenntnis“ oder gar „Wahrheit“, sondern nur die historische Abfolge von kulturellen Sichtweisen? Das kann das Ergebnis sein, und das führt zu einem Relativismus und Nihilismus in der Wissenschafts-, Kultur- und Gesellschaftsbetrachtung. Das würde ich als Problem ansehen, da es der Existenz eines gesunden Wertezentrums in einer Gesellschaft widerspricht. Eine Gesellschaft braucht jedoch meiner Meinung nach gewisse Werte, die nicht von vornherein als relativ oder zeitbedingt gelten, und auf die sich alle ihre Teilnehmer verlassen können, um stabil und fruchtbar zu bestehen. Das ist übrigens auch in der heutigen Kulturanalyse und Soziologie vergleichsweise unumstritten.

Frage: Zum Beispiel?

Benedikter: Zum Beispiel die Gesellschaftsform der Demokratie: sie braucht die „essentielle Überzeugung“ oder den „Werteabsolutismus“, dass Pluralismus, Vielfalt der Meinungen und Wettstreit der Ideen besser, produktiver und humaner sind als Hierarchie, Meinungsübereinstimmung und Durchsetzung einiger weniger „starker“ Ideen. Wenn man aber davon ausgeht, dass diese Werteüberzeugung eigentlich kein wirkliches Fundament im Wesen von Gesellschaft und Mensch hat, sondern eigentlich nur ein „Paradigma“, das heisst eben: ein zeitbedingtes Vorurteil einer bestimmten Gesellschaft zu einer bestimmten Zeit ist, dann hat Demokratie als solche eigentlich kein stabiles kulturelles Fundament. Und das kann ein Problem darstellen.

Frage: Ähnlich ist es wohl mit den Menschenrechten als Teil der weltanschaulichen und philosophischen Basis von Demokratie. Die wichtigsten Denker der „Postmoderne“ wie Jacques Derrida oder Michel Foucault haben in den 1980er und 1990er Jahren die Menschenrechte als rein „westliche Paradigmen“ interpretiert – sehr zur Freude von nicht-demokratischen Regimes wie China oder dem Iran.

Benedikter: Richtig. Wer davon ausgeht, dass die Menschenrechte nur eine „kulturelle Erfindung“ des Westens darstellen, aber eigentlich kein Fundament in einer „essentiellen“ Wirklichkeit haben, weil es eine solche „essentielle“ Wirklichkeit gar nicht gibt, wie die „Postmodernen“ behaupteten – und bis heute behaupten -, der hebt die Menschenrechte als Grundlage einer vernunftorientieren, humanen Politik eigentlich in ihrem Zentrum auf. Denn die Menschenrechte beruhen auf der Annahme, dass jeder Mensch einen unverletzlichen, „substantiellen“ Wesenskern besitzt, der seine unantastbare Würde jenseits aller Kulturen, Weltanschauungen und Zugehörigkeiten ausmacht. Das heisst, die Menschenrechte beruhen auf der Annahme, dass es „essentielle“, zeitüberdauernde und universale Dimensionen des Menschseins gibt, die sich der oben beschriebenen „Paradigmenlogik“ entziehen. Sie gehen davon aus, dass eben nicht alles nur ein Paradigma ist, sondern dass es zumindest in einigen Bereichen „substantielle“ Dimensionen der Wirklichkeit gibt. Die „postmodernen“ Denker zwischen 1968 und dem 11. September 2001 haben aber behauptet, alles bestehe nur aus Paradigmen. Damit haben sie die Menschenrechte faktisch ihres Geltungsfundaments beraubt – und in der Tat zumindest indirekt anti-individualistischen und anti-pluralistischen Gesellschaften wie zum Beispiel dem kommunistischen China in die Hände gearbeitet, das sich ja seit jeher notorisch gegen die Idee der Menschenrechte wehrt und diese immer schon als blosse westliche Kulturerfindung von nur temporärem Wert abgekanzelt hat.

Frage: Auch das ist paradox.

Benedikter: Ja, weil „postmoderne“ Denker wie Michel Focault, Jean Francois Lyotard oder Jacques Derrida, welche ihre Zeit ja akademisch auf beiden Seiten des Atlantik im Hinblick auf ihre erkenntnisleitenden kulturellen Vorurteile (das heisst „paradigmatisch“) beherrscht haben, sich als liberale Befreier verstanden. Sie waren eigentlich Anarchisten, die jeden Geltungsanspruch hinterfragen, wenn nicht gar untergraben wollten, um für die „totale“ Befreiung des Individuums zu sorgen. Dazu wollten sie nicht nur das „individuelle Allgemeine“ der Menschenrechte abschaffen, sondern auch jede „allgemeine“ Existenz von „Substantiellem“ in der Welt überhaupt zum blossen „Paradigma“ erklären. Aus heutiger Sicht wird immer klarer, dass dies gerade im Hinblick auf die wichtigsten „substantiellen“ Kernideen des Liberalismus selbst ein Eigentor war. Ein Großteil der europäischen Human- und Gesellschaftswissenschaften ringt aber immer noch mit diesem Paradoxon.

Frage: Worum geht es, wenn wir diesen Zustand produktiv weiterentwickeln wollen?

Benedikter: Es geht darum, eine Unterscheidung zu treffen, wo „Paradigmen“ tatsächlich wirken und wo man also, wenn man mit ihrer Hilfe die Dinge betrachtet, zu sinnvollen und zutreffenden Erkenntnissen kommt, und wo sie nicht wirken und man mit ihrem Begriffs- und Anschauungsinstrumentarium eher an den Dingen vorbeigeht. Ich denke, diese Unterscheidung ist eine zentrale Voraussetzung, um die heutigen Kultur- und Gesellschaftswissenschaften weiterzuentwickeln. Wir brauchen diese Unterscheidung, um mehrdimensionaler und komplexitätsfähiger zu denken, das heisst um an die vielschichtige Gestalt unserer Zeit heranzukommen.

Frage: Wie können wir uns diese Unterscheidung vorstellen?

Benedikter: Ungefähr so: Paradigmen gibt es, und sie sind wirksam, auch im eigenen, individuellen Bewußtsein desjenigen, der ihnen kritisch gegenübersteht, und in seiner Sicht auf die Welt (so auch, wenn ich das jetzt sage, in meinem eigenen Bewußtsein hier und jetzt). Aber sie wirken nicht überall, und man kann mit ihnen nicht alles erklären. Wir müssen den irrationalen Glauben an die Universalität von Paradigmen, den die „Postmoderne“ in den vergangenen 30 Jahren etabliert und zum Maßstab akademischer, kultureller und zum Teil auch politischer Korrektheit gemacht hat, neu mit der empirisch nüchternen Identifikation von „Essenzen“ verbinden. Das bedeutet: Wir brauchen eine neue Verbindung von „Nominalismus“ und „Geistrealismus“ – in rationaler, aufgeklärter und wissenschaftsfähiger Weise. Dann kann sich ein „Paradigmen“-Verständnis entwickeln, wo man sieht: „Paradigmen“ wirken als Kulturfaktoren im weitesten Sinn, das heisst überall dort, wo die Realität vom Zusammenwirken von Menschen abhängt. Sie erreichen aber nicht die Ebene der Natur, und auch nicht die Ebene des „Wesens“ des Menschen oder der Gesellschaft als solcher. Wenn wir in solcher Blickrichtung uns fragen: Wo gehören Paradigmen eigentlich hin, sind wir auf dem richtigen Weg. Man wird dann weder leugnen, dass sie größten Einfluss haben (und weiterhin haben werden), noch sich dazu hinreissen lassen, sie als allgemeingültig und universal für alle Bereiche des Lebens zu erklären.

Frage: Ist das nicht ein wenig wie mit einem verwandten Beispiel, das mir dazu einfällt: Mit Goethes „Anschauender Urteilskraft“? Sie wäre wohl das Gegenbeispiel zum „postmodernen“ Paradigmenfetischismus – ein Beispiel für die Überziehung von Geltungsansprüchen diesmal nicht aus „nominalistischer“, sondern aus „geistrealistischer“ Sicht.

Benedikter: Ich stimme dem voll und ganz zu. Manche behaupten, das damit beschriebene Methoden-Prinzip einer „nominalistisch-realistischen“ Anschauung der „Idee in der Wirklichkeit“ (beziehungsweise in der sinnlichen Wahrnehmung) sei universal, lasse sich also sowohl für die Betrachtung der Natur, als auch der Gesellschaft und des Menschen an sich anwenden. Ich bin der Meinung, Goethe hat dieses Prinzip nur für die Naturbetrachtung postuliert, nicht oder nur sehr eingeschränkt aber für die Gesellschafts- und Menschenbetrachtung, weil es dort kontraproduktiv, ja sogar schädlich wirken kann. Und vor allem, weil es dort eigentlich nicht hingehört seinem ganzen Grundcharakter nach. Weil heute beide Seiten: die nominalistische und die geistrealistische Seite gewisse Schwierigkeiten haben, ihre je berechtigten Geltungsansprüche innerhalb vernünftiger Grenzen geltend zu machen, ist es wünschenswert für alle, vor allem aber für die Entwicklung eines ausbalancierten Gesamt-„Paradigmas“ für unsere Zeit, wenn wir versuchen, einen „Meridian“ zu bilden: Ein „mittleres“ Paradigma, in dem sich Nominalismus und Geistrealismus wirklichkeitsorientiert verbinden und sich dabei gegenseitig, soweit nötig, auch korrigieren.

Frage: Sie sprechen in Ihren Schriften davon, dass die „Postmoderne“ und damit auch ihr „Paradigmenfetischismus“ heute an ein Ende kommen. Inwiefern können wir heute für die europäischen und anglo-amerikanischen Gesellschaften von einem „Paradigmenwechsel“ sprechen?

Benedikter: Ich würde bewußt nicht von einem „Paradigmenwechsel“, sondern von einem „Paradigmenwandel“ sprechen. Paradigmen „wechseln“ nicht abrupt (wie das Wort nahelegt), sondern sie wandeln sich langsam und stetig. Oft überlagern sich Paradigmen auch, was dazu führt, dass für einen gewissen Zeitraum mehrere „Paradigmen“ gleichzeitig Geltung beanspruchen. Manchmal hat sich die Zeit längst weiterentwickelt, und ein Paradigma besteht immer noch hartnäckig weiter. Das heisst: Paradigmen folgen oft dem Gesetz der Zeitverschiebung mittels Inkubations- oder Antizipationszeiten: Sie kommen meist später als ihre Zeit, oder auch früher. Auch folgen sie dem Prinzip der Akkumulation: Sie integrieren so viel wie möglich, und schliessen so wenig wie möglich aus, um länger Bestand zu haben und breitere Wirkung zu entfalten. Das trägt dazu bei, dass sich Teile oder Aspekte von ihnen verändern, andere aber weiterbestehen. Aus diesen Gründen würde ich von „Paradigmenwandel“ sprechen, und nicht von „Paradigmenwechsel“.

Frage: Einverstanden. „Paradigmenwandel“ also.

Benedikter: Mit der „Postmoderne“ kommt heute in Tat nicht nur ein Zeitabschnitt eines bestimmten „Paradigmas“, sondern möglicherweise auch der Paradigmenbegriff an sich, zumindest in der Totalität, mit der er die „postmoderne“ Epoche zwischen 1968 und 2001 beherrschte, an ein Ende. Seit dem weltpolitischen und weltkulturellen Wandel der Jahre

1989 bis 1991, und vor allem seit dem Symptomdatum (nicht: Ursachendatum!) 11. September 2001 ist ein Abnehmen der Wirkmacht des universalen (De-)Konstruktivismus der „Postmoderne“ nicht nur in den westlichen Gesellschaften, sondern auch auf globaler Ebene zu beobachten. Diese Entwicklung geht mit der Suche nach neuen, „substantiellen“ Werten und Orientierungen einher. Die Auffassung von Wirklichkeit wird heute insgesamt vielfältiger, geschichteter. Während die wertvolle - und meiner Ansicht nach ebenso unhintergehbare wie unverlierbare - Einsicht der „Postmoderne“ in die „Konstruiertheit“ von Gesellschaft und kultureller Wirklichkeit zu Recht weiterbesteht, wird sie um Experimente mit kulturübergreifenden, „essentiellen“ Ich- und Geist-Erfahrungen ergänzt. Der Paradigmenbegriff zieht sich gegenwärtig dorthin zurück, wohin er gehört: In die Kulturgeschichte, während der Wahrheits- und Erkenntnisbegriff in den Wissenschaften und im allgemeinen Realitätsverständnis unserer Zeit eine Wiederauferstehung feiert. Allerdings gibt es hier gewisse historisch bedingte Unterschiede: In den USA ist dieser „ausgleichende“ Trend in den Universitäten und in der allgemeinen Kultur sehr stark, während er in Zentraleuropa bislang schwächer ausgeprägt ist und langsamer voranschreitet.

Frage: Warum? Und was bedeutet es für die Entwicklung zwischen Europa und den USA?

Benedikter: Das hat vielfältige Gründe, und es hat auf beiden Seiten Vor- und Nachteile. In Zentraleuropa ist das Misstrauen gegen alle Art von „Essenzen“ aufgrund der historischen Erfahrung mit den Totalitarismen des 20. Jahrhunderts noch immer viel stärker ausgeprägt als in den historisch Idealismus-freundlichen und „essentialistisch“ ausgerichteten USA. Ausserdem haben die USA das Humboldt-Modell der Universität bis heute weitgehend kultiviert, und damit eine transdisziplinäre und balancierte Idee des Verhältnisses zwischen „Paradigma“ und „Essenz“, während Europa diese Tradition, die es selbst erfunden hat, weitgehend über Bord geworfen hat. Europa ist meiner persönlichen Beobachtung konstanter und daher auch langsamer in seiner Kulturentwicklung, auch, weil es eine viel längere Geschichte im Hintergrund hat, während die USA schneller, dafür aber weniger stabil in ihren Richtungnahmen sind.

Frage: Erwin Laszlo nennt den heutigen Wandel in den Ideengrundlagen der Zeit "Macroshift", du „globale Systemverschiebung“. Was soll damit im Hinblick weniger auf die Gegenwart, als vielmehr im Hinblick auf die Zukunft gesagt sein? Mit anderen Worten: Welche Zukunft erwartet uns? Wie wird das Paradigma der Zukunft aussehen?

Benedikter: Das ist eine sehr schwierige, vielleicht auch im Kern unbeantwortbare Frage. Paradigmenverschiebungen kann man meist nur im Nachhinein feststellen und beurteilen, wenn sie auch manchmal bereits während ihres Geschehens gewisse Züge offenbaren. Ich bin immer sehr skeptisch, wenn sie als Element der Zukunftskennzeichnung gebraucht werden, als Mittel, um die Entstehung von etwas „ganz Neuem“ zu postulieren. Einen Paradigmenwandel herbeizureden war in den vergangenen Jahren oft ein Mittel der Progressiven und Alternativen, um eine „Selbsterfüllende Prophezeiung“ zu generieren. Es ging oft gar nicht bewußt, sondern unbewußt darum, sozusagen zu behaupten es bestehe ein Paradigmenwandel mit Blick in die Zukunft, damit dieser sich dann auch ereigne wenn nur genügend Menschen daran glaubten. Wir müssen hier vorsichtig sein, denn vieles davon war und ist notgedrungen Propaganda, wenn nicht gar Ausdruck der

Verzweiflung an der Gegenwart. Also: Paradigmenanalysen sind als Vergangenheits- und manchmal auch als Gegenwartsinstrument der Anamnese und Analyse gut, als Zukunftsinstrument der Prognose problematisch. Natürlich kann man sie trotzdem dazu benutzen, aber man muss sich der damit verbundenen Probleme und Gefahren bewußt sein. Was ich einigermassen guten Gewissens sagen kann ist dies: Was heute im Gang ist, ist meines Erachtens eine durchaus globale Veränderung, die Einfluss auf alle Teile des Ganzen haben wird.

Frage: Sie haben eine Stiftungsprofessur in Santa Barbara und sind in Stanford engagiert. Wie erleben Sie von Kalifornien aus den gegenwärtigen Paradigmenwandel in den USA im Vergleich zu Europa? Inwiefern beeinflusst dieser Paradigmenwandel die Entwicklung des Politischen und Sozialen im Westen?

Benedikter: Zum Teil erheblich. Das gilt allerdings meines Erachtens wiederum stärker für die USA, weniger für Europa. Obama ist unter dem Slogan angetreten: "Wandel, dem man vertrauen kann". Er meint damit offensichtlich nicht nur einen politischen, sondern auch einen kulturellen Wandel hin zu einer neuen Ausbalancierung von Idealismus und Pragmatismus, von Ideal und Wirklichkeit, von Paradigma und Essenz. Das haben seine visionären Reden zu Rasse, Globalisierung, Finanzwesen oder zur Aussenpolitik gezeigt, und Obama hat den Anspruch auf „Paradigmenbalancierung“ auch immer wieder explizit vertreten und als den Kern seiner Amtszeit hervorgehoben. Obama will , dass ein inklusives Umdenken stattfindet. Das hat viele inspiriert und tatsächliche Änderungen hervorgerufen – im Gesundheitswesen, in der Aussenpolitik der USA, in Abrüstungsfragen zwischen den USA und Rußland. Andere Änderungen sind nicht gelungen, so zum Beispiel im Verhältnis zu China, dem Iran oder Nordkorea, wo Obama viel Zeit investiert hat, aber praktisch nichts erreicht hat. Daher hat er hier zuletzt auch wieder eine traditionellere, konfrontativere Gangart angeschlagen. Auch innenpolitisch ist der „paradigmatische Brückenschlag“ zwischen den Ideen von Progressiven und Konservativen, zwischen Demokraten und Republikanern nicht gelungen. Ganz im Gegenteil: der Graben zwischen den beiden Ideenformationen mit politischer Valenz ist tiefer denn je, und der Weltanschauungskampf wird erbitterter denn je ausgefochten. Hier ist von einem „Paradigmenwandel“ noch wenig zu spüren. Es findet in den heutigen USA unter Obama eher ein neuer „Paradigmen- und Weltanschauungskampf“ statt, der mit einer allgemeinen ideologischen Polarisierung der Gesellschaft verbunden ist.

Frage: In Europa ist all dies zumindest hinsichtlich der öffentlichen Sichtbarkeit weit weniger der Fall.

Benedikter: Ja. Führende Politiker wie Nicolas Sarkozy, Angela Merkel oder Silvio Berlusconi (um hier nur einige zentraleuropäische zu nennen) stehen eher für Stabilisierung denn für Wandel. Andere, wie etwa Gordon Brown, stehen in der Wahrnehmung der breiten Bevölkerungsmehrheit eher für das Alte denn für das Neue. Ich würde zusammenfassend sagen, dass in Europa derzeit eher ein Gefühl des „zu wenig“ an Paradigmenwechsel vorherrscht, während Obama in den USA eine starke, aber bislang auch stark polemisch und antithetisch bleibende Paradigmenbewegung ausgelöst hat.

Frage: Schliesslich: Was kann die Zivilgesellschaft auf beiden Seiten des Atlantik zu einem positiven Paradigmenwandel beitragen? Kommt der Wandel weiterhin vorrangig „von oben“, oder kann er heute und künftig mehr und mehr auch „von unten“ kommen?

Benedikter: Die Zivilgesellschaft kann an der Ausbalancierung des Gegenwarts-Paradigmas zwischen Realismus und Idealismus mitwirken, weil sie selbst genau am Überschneidungspunkt zwischen diesen beiden Polen angesiedelt ist. Sie kann dazu beitragen, eine ausgewogene und gemässigte „mittlere“ Anschauung zwischen Konstruktivismus und Neoessentialismus in der Gesellschaft zu verankern. Diese sollte ebenso nominalistisch-selbstkritisch sein, wie sie Ideale und humanistische Bestrebungen Ernst nimmt und als Wirklichkeiten auffasst. Damit kann sie dazu beitragen, die ganz ähnlichen Bestrebungen Barack Obamas, die „von oben“ kommen, „von unten“ zu unterstützen.

Wauld

Art by Andrew Campbell[1]

Wauld is the old Indo European word for *world*…

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[1] **Andrew Campbell** is *Integral Review's* Arts & Creativity Editor. He trained under the visionary artist Leonard McComb, D.Phil., R.A. (Keeper of Pictures) at Oxford and London and studied as a pupil of Mnr. A.M. de Lange, M.Sc., Goldfields, Pretoria, RSA -the discoverer of the Seven Essentialities of Creativity. My artwork is an integral part of the project known as Presence and Presencing, viewable at the web site www.dialogonleadership.org.
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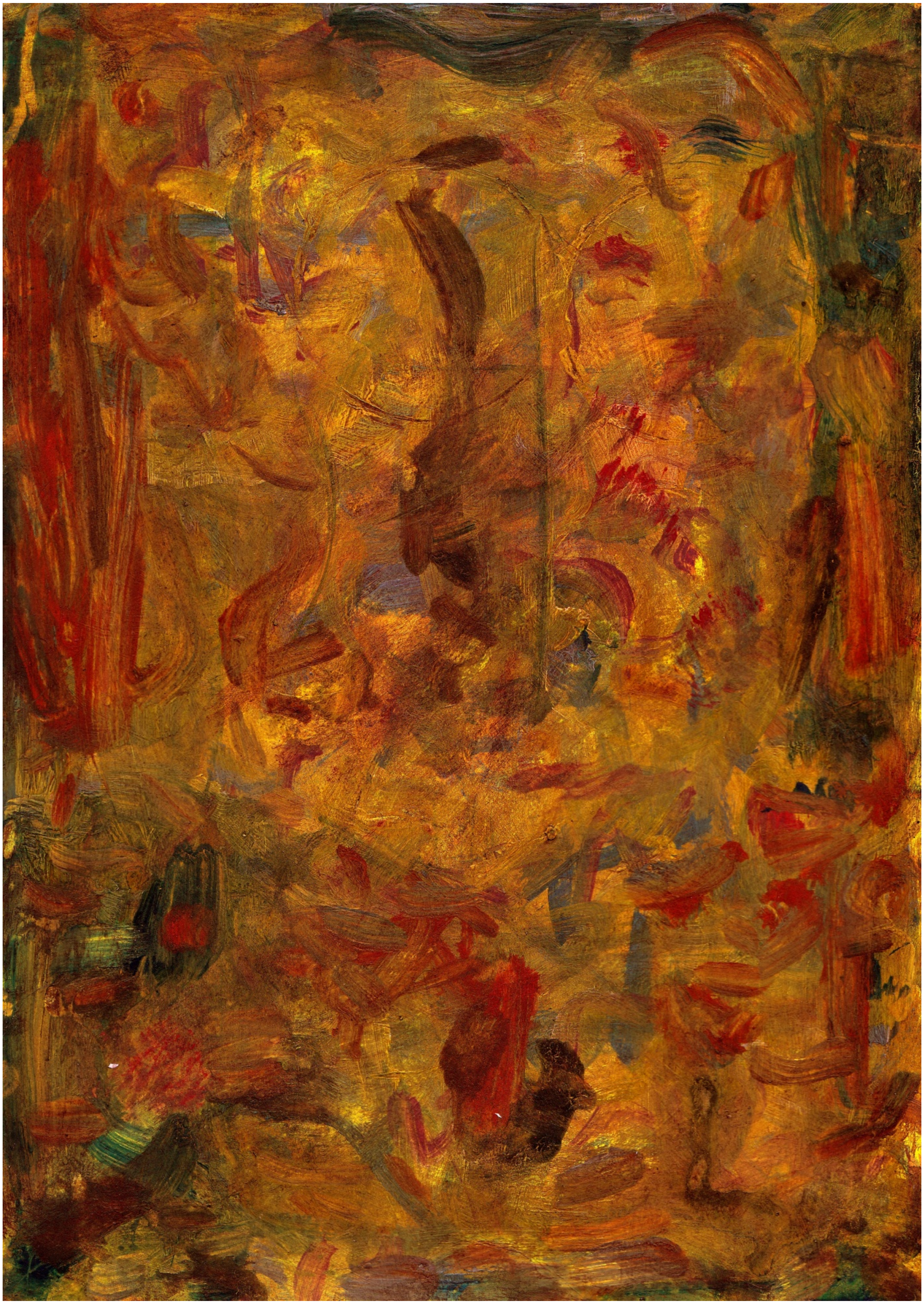

Into the Long

Sara Wolcott[1]

1. Out of the Short
Turning the bend we imagined
they would greet us like Giants
these Mysteries of the Isles, instead
they were so much smaller -
just a circle standing on a hill-side.

In that strange blue-florescent neon night-light,
we'd be hard pressed to find a ritual
much less a druid
instead just
raucous squeals and twisted dreads of that
breed of mostly-young hippie-consumers:
even before midnight,
beer cans and plastic strong-bows
litter our path.
That throw-away culture
colliding defiling melding - defining
the usually clean 'English Heritage site.'

Long: the plastic forks for the stringy wok noodles
will take decades to decompose
Long: the squeals and yells seemed to never end
just pass from one flippant smiling baggy-jeaned girl to another
Long: the pull, the pull of 5000 years -
we kept walking
Long: the sacred walk, the ancient walk,
of breathing and rhythm and rhyme.

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[1] **Sara Wolcott** works to enable human development during our turbulent times of increasing crises. Currently a researcher with both Synthesis, a complexity-policy think tank in London and at the Institute of Development Studies at the University of Sussex, England, she has been nurturing her tendency for writing, including poetry, that interweaves the personal and the global.
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Picking our way amongst
debris blankets hash
we walked the walk
we had never been permitted to walk before we
crossed the barrier
that tonight of all nights the English Heritage
did not police
we crossed the barrier
that even we did not understand:
the young coming to greet
the Old Ones.

She gasped as we crossed the barrier.
Took my arm; her hands were cold
she said can you believe it
they suddenly seem so
big.

So much smaller than anything in London
When we crossed the barrier
size reconfigured itself to a world
without skyscrapers just human
muscle and laughter and (perhaps) faith.

Oh, these stones.
Crossing the barrier
that my parents crossed
before I was born when they
stood here
I now stand
I now stand
Amongst the standing stones
touch
5000 years of lichen and cold and warmth
nothing but compassion
we all reach out

to touch the Long
Not noticing
if we stand on beer cans.

All night we
kept staring at them.
She popped a little seed
told me it was acid and would only take
a few minutes to work -
He opened and drew back the strong bow
glowing golden light shining through plastic -
she carefully laid out the flimsy trash bags
to protect us from the wet -
(we were without wool blankets.
we were not our mothers.)
and we stared into the Long
embodied in the stone.

2. Centre Circle

I waited till after midnight
to fully enter into the Long -
I feared a mosh pit
but all that living flesh was more
akin to swimming among a thousand seals.

After my shoulders
began slowly to move
(how did they get so stiff?
Where have I been? - oh yeah - Lost
in the short.)
I took up the meaning of my given name:
princesssan, wise woman, minister-ess
she who (got away with) laughing at god
now standing on Stones.

Not so high
as a corner office I could touch
drummer’s head sitting beneath me
let his rhythm overtake me
dancing spontaneous yelling
embrace me.

Celebrating the longest day
through witnessing the shortest
(misty chilly) night:
Raise hands above head
draw down the moon;
Dear druids forgive us
we mean no usurpation; just responding
to that calling we risk forgetting -
into the long.

Looking amongst a sea of laughing untrained warriors
who do not know the ways of the druids
who do not know the chants or the songs
who do not know how to care for the dying
who do not know how to properly wash the dead
who do not know how to harness the energy
Who are looking ahead only dimly, drunkenly
I see the stones
holding the hooting descendents of their makers
such immense imperfection.

In this time of such planetary destruction
we are the ones they must rely upon for protection?
(or are they the weighty Guardians?)
do my fellow dancing fools know the collapse of the system?
regardless: the stones hold them.
They have seen so much more than I they know
the rise and fall of how many kings, civilisations, children.

In the flashing lights of cameras
even the stones in their stillness seem to be moving
opening
Maybe in the old days
it wasn't always proper somber rituals
by chieftains
but sometimes
people came to laugh drum scream
awaken the stones danced in their stillness
on the longest day of the year.

I in my remembered-role -
the men came to me
dancing, telling me
their confessions:
how they would never miss this night
how it gave them energy for months
how they couldn't explain it -
how they came to reclaim
their heritage, not to be bought
for 7 pounds - concession.

These men
in big boots with strong hands
that reached
for booze and women
and for the stones -
running their hands over the stones
in homage
turning to me he said
isn't it all just so
beautiful.

Yes, I said. Yes.
And you from America! they laughed
that their cousin might see

what their sister
who stayed at home to watch tele
did not.

There
amongst the stones
we knew ourselves: journeying
into the long.

3. The Separation

After the dawn broke
When the fields were filled with summer's colours
Rose 21st century England's barriers between
clean and filth, ruler and ruled, the poor and the proper
re-emerging at the order of class and power
taking the form of yellow-jackets with sharp teeth
the bobbies pointed to the exit - that way.
As if a circle ever had one exit.

Instinctively: resistance. fertile? the
lust
for the stones suddenly increased
inadvertently compulsively we
flocked to their side
reaching out
to caress
the Long.

We who cling to our caves and our fear
of one another we
hoped these
Guardians could teach us
of that which we can not remember
oh how long till we can touch them again?

That one, the tall one
his blue-gray skin etched with wind, rain, and kisses
(I suspect also - swords) I could
stand next to him and lean
he'd murmur the sweet nothingness
of the Long
that accepts infinitely the sorrows and joys
of those trapped
in the short.

But the bullet-proof vests
(we who seek to love are dangerous)
swept us away
(no need to glare.
I knew the rules of the game before I played.
This time, at least, I obey.)

Suddenly everything
(myopic animals/election cycles/quarterly reports
my time here) was
too short.

Leaving (not again)
I kept looking back we all kept
glancing as if afraid
they had moved
shuffling back into 'tourist mode.'

From the top of the hill
they looked small - even short.
Certainly cleaner,
tip bags piled neatly
in the far corner.

But my heart,
re-aligned by Giants

still remembers their rhythm.

So. I pick up someone else's trash
join the bus, the chatter, the 10am pub crawl
dozed on a train filled with suits
failed at talking sense into a silver-cuff-linked oil-man -
my fellow travelers confused
stones and humans. Where is the open heart?

May they also journey
into the long
before their short-termism
goes on far
too
long
that they forget
those terrible curses that befall grave-robbers
fossil-consumers
and the burial grounds
(where shall they go, do they know?)
and the henge
of standing stones
beckoning us
into the long.

A Report from the Inaugural European Society for Research in Adult Development (ESRAD) symposium on July 24-25, 2011 in Lund, Sweden

Kristian Stålne

On July 24-25, 2011, the European Society for Research in Adult Development, ESRAD, held its inaugural meeting and symposium in Lund in the south of Sweden. We were 22 participants from 10 countries: Sweden, Finland, USA, Norway, Germany, Great Britain, Portugal, Belgium, Iran (!) and Bulgaria, who met for two days of presentations, discussions, workshop, meetings, and getting to know each other. This "report from the field" is our public demarcation of the inaugural event.

20 of the symposium participants outside of Classicum. Photo: Gerth Hyrkäs

ESRAD is connected to the Society for Research in Adult Development, SRAD, which held its first meeting in 1981 at Harvard University where Michael Lamport Commons was the main organizer. Thirty years later, Michael was one of the initiators and organizers of this first non-American event along with Eeva Kallio from University of Jyväskylä, Finland, who had been promoting a European meeting for a long time, and Sofia Kjellström from Jönköping University and me from Lund University, both in Sweden.

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The symposium venue, the beautiful Classicum building, is the home of the Pufendorf Institute, a cross-disciplinary research institute inaugurated at Lund University in 2009 to encourage cross discipline interactions involving all faculties. Therefore, it served to be a most appropriate location for the symposium. Pufendorf Institute was also kind enough to sponsor the symposium by lending us the house for these two days for no charge.

The first day's program had a broader aim towards various aspects of adult development, such as political development, development of care, abuse of older people and postformal thinking. In the afternoon the inaugurating ESRAD took place and officers were elected, with Eeva Kallio as president and website manager, Sofia Kjellström as vice president, Kristian Stålne as secretary, and Michael Commons as membership coordinator. We also elected a committee to further investigate the details of how to register and where to base the organization.

The second day focused more on the Model of Hierarchical Complexity (MHC), with its theory and applications. Before lunch Michael, the founder, or gardener as he puts it, gave a workshop on MHC and presented various theoretical aspects of the model as well as the relations to models of adult development. The sessions after lunch aimed at applications of MHC and scoring according to its related Hierarchical Complexity Scoring System (HCSS).

The closing and sum up session made it clear that although we had two full days to present papers, get to know each other, organize and plan further activities, we would have had no trouble in filling up another two days. With the quality and amount of research that is being carried out here in Europe, it really feels that we have reached and exceeded a critical mass, which was confirmed by the creative and engaging interactions at the symposium.

The full symposium program along with abstracts and pictures is viewable at the new ESRAD website, http://www.europeadultdevelopment.org/, are available. We thank all participants who came to Lund for the many ways they made this a great first symposium! The future of European adult development research certainly looks bright and we surely look forward to further meetings and interactions!

The last word I give to José Alves, who in his speech quoted Leonard Cohen: "There is a crack in everything, that's how the light gets in." May ESRAD symposia continue to be a source of adult development light.

Organizational Transformation for Sustainability. An Integral Metatheory

Mark G. Edwards (2010). New York: Routledge.

An Appreciative (Over)(Re)View

Jonathan Reams[1]

Introduction

I began studying the field of organizational leadership back in 1995. I encountered a wide range of theories in the course of my masters degree studies. To find my bearings, I found myself aligning with a few ideas that appealed the most to me, and marginalized, even denigrated many of what I felt were the more pedestrian theories. I could argue at length with classmates and professors about why the theories I liked were so much better than the ones they were espousing. Anybody recognize this stage of relating to a new field of inquiry?

As my studies continued into a doctoral program in the same field, I took a course on leading organizational change. There, I had the benefit of a professor who had the capacity to vividly bring to life a different set of theoretical perspectives on the topic each week. I recall discussing with my classmates after each session that now, finally, "this was the way to understand what was going on." Then the next class, "no, this is it!" After six different classes and six sets of theoretical lenses, we began the task of trying to see how they could all appear so true, and how to organize them. At this time, the professor drew upon a systems approach to try to coordinate and show relationships between these sets of theories. This helped make some sense out of the chaos, giving us a degree of meta-perspective to situate the theories.

While this was indeed helpful and gave us a leg up from the feeling of being lost in the multitude of theories we had been exposed to, it was not able to address all the concerns I had at the time. Soon after this I came across Wilber's work and saw another way to make sense of the patterns of theories that I had been exposed to. However, my exposure to Wilber's work was not specific to the field of study I was engaged in, and left me with a lot of work to sort out how to make better sense of the truth domains and relationships among all these theories. Much of this work was left incomplete as it was demanding to do and took time, so the utility of Wilber's model didn't immediately reap its potential in this area for me.

Fast forward to 2011, and I finally get around to picking up Mark Edwards' *Organizational Transformation for Sustainability. An Integral Metatheory*. Bill Torbert says in his preface; "it

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ought to become a required touchstone for further theorising and research in organizational transformation" (p. xiii). I would add that it should be required reading to help graduate students in the field of organizational leadership and organizational change to enable them to have a domain specific foundation for understanding how to take a methodical, robust, and pragmatic perspective on the theories they encounter.

It is with this appreciative experience that I wish to present the core themes, methods, and outcomes of Edwards' work. My plan is to simply go through and describe his work in broad strokes to give you as a reader (and potentially a reader of Edwards' book itself) enough of a sense of the scope, depth, and complexity of the work. Once I have done this, I will conclude with some reflections on my experience encountering Edwards' work.

Organization of the Book

There are ten chapters covering the journey Edwards has taken in developing this integral metatheory. It is based on the substantial work he undertook for his dissertation. These ten chapters are preceded by a brief introduction to integral pluralism. Chapter one addresses the need for metatheory in the study of organizational transformation, while chapter two then sets out the domain of metatheory and some definitions. Chapter three takes on the task of defending metatheorizing from a variety of attacks is has been subject to over time. Chapter four shifts to the particular focus Edwards has chosen for this work, stories of organizational transformation. Then the method for building metatheory is laid out in chapter five. Chapter six then displays the results of this in the form of a multiparadigm review and analysis of theories about organizational transformation. Chapter seven takes this analysis and reveals a network of lens relationships. This leads to chapter eight where Edwards presents his integrative metatheory for organizational transformation. Chapter nine reflects on the work with an evaluative eye and chapter ten points towards an overarching integral metastudies. The scope of each chapter in itself is quite substantive. As Torbert says in his foreword, it is a demanding read. Demanding in that the reader needs to hold a complex series of highly developed constructions that draw essential elements out of each topic brought into view during the journey. With this quick orientation in mind, let's get the journey started!

The introduction sets the stage, opening with a lovely quote pointing to how a person with only one theory to address life in a meaningful way is truly lost. Edwards immediately sets out the need to be able to step outside and take theories as objects of reflection and tools to be used (liberating structures in Torbert's language) rather than being limited to or had by them. Yet simply having an array of theories in itself can confuse more than help, thus the need for a metatheory that can coherently integrate middle-range theories. This is no small task given the diversity of such theories. Edwards points to an integral metatheory as having the requisite capacity to address this challenge and links it to the global challenges being faced today. To make the task both manageable and practical/applicable, Edwards chooses to focus on the field of organizational transformation as applied to organizational sustainability. His introduction then lays out the terrain ahead and closes with a brief iteration of how his work sits within the larger body of research on theory and metatheory building and how the work on developing such big ideas can contribute to shaping society.

Chapter one is *The Need for Metatheory in the Study of Organizational Transformation*. Edwards opens with a quote from Karl Popper about being prisoners caught in our theoretical frameworks, from which we can, if we try, step out into roomier ones that can serve us better. The job of metatheory in relation to this is seen as being “the big-picture approach to knowledge that attempts to integrate other theory” (p. 10). He points out that not only do theories try and explain the workings (in this case) of organizations, they also influence their design. Once theories and metatheories are into such systems they tend to operate more as givens, the way things are, and are highly resistant to alternatives. Thus we become prisoners of our own ideas. Edwards situates his book as an effort to break out of the prisons we have become accustomed to by taking an integrative approach to metatheorizing.

Yet he is clear that the kind of integrative approach he wants to take is a pluralistic one rather than a totalizing one. He sees a need to be able to utilize an expansive enough framework to “respond to the multitude of vying theoretical perspectives” while also finding “ways of valuing the differences between mainstream and more marginal scientific discourses” (p. 15). This tension between mainstream and marginal discourses has not been sufficiently addressed by existing theoretical approaches, so Edwards sets out to show how an integrative pluralism can go beyond the responses of integrative monism, non-integrative pluralism and, inter/multi-disciplinarity. He then takes his more specific focus and goes deeply into the state of this situation in relation to organization and management theory. The existing diversity can easily contribute to fragmentation, exemplified by paradigm wars between functionalist and interpretivist approaches.

Edwards next takes up the scenario I described in my introduction as he examines how this theoretical pluralism can be frustrating for students. Having experienced this first hand, I can attest to the need for an integrative metatheory. Being on the other end of the issue now, teaching aspects of this work, I also recognize the challenges of trying to find ways to teach the complexity that an integrative metatheoretical approach brings. It is not simple to convey the way of looking that underlies such an approach.

Edwards closes this chapter by showing how an integral approach can address these challenges. He positions his work according to three aspects. First, that integral metatheorizing can be applied across disciplinary contexts, which is essential to address the kinds of diversity and fragmentation present. Second, he takes an appreciative meta-inquiry stance that recognizes that each theory contains some value. Third, he points to the long history of terms like integrative and integral being used in various traditions of metatheorizing, while situating his approach as not trying to create a “Theory of Everything.” Then he lays out the tools he will use in this work, namely Wilber’s AQAL or Integral Theory and Torbert’s Developmental Action Inquiry. These aspects, drawn together in this work, create a capacity for Edwards to approach the job of metatheory building in a methodologically rigorous manner.

From this foundation, Edwards takes us into chapter two, *Metatheoretical Domain and Definitions*. Here he does the work of identifying the domain and scope of his research. To begin this he outlines the tension between the kinds of specificity definitions push for with the kind of tolerance for ambiguity that is part and parcel of the domain of metatheory. Within that tension, he then examines definitions of organizations, organizational transformation, and within that, change, transformation and translation. Further distinctions are examined in relation to transformation and development as well as economic growth, mergers, acquisitions, and takeovers, and finally transitions. By surveying this range of terms, Edwards creates a model showing the relationship between organizational transformation, development, and expansion. Here we can already see hints of how his metatheoretical approach allows for greater scope and clarity to come into what is normally a fragmented set of discourses that don't interact with each other.

The same approach is brought to theory and metatheory building. Edwards goes through meanings of concepts, constructs, models, frameworks, theories and paradigms and how they relate to theory (and metatheory) building. Here he is able to show the relationships between grounded theory building based on case-based research, middle-range theory building based on variance-based research, and metatheory building based on conceptual research. The territory of metatheory becomes clearer as we are taken through rich descriptions distinguishing characteristics and relationships between these areas. He also addresses the notion of "orienting generalizations" in the context of metatheoretical lens. While Wilber uses the term as a way of justifying the foundation for his metatheory, or even as a methodology, Edwards redefines it as one tool for metatheorizing. Thus conceptual lenses become a core tool in the book, and are laid out as such:

> The lens metaphor is used here to emphasize the idea that theory not only receptively interprets research findings but plays an active role in shaping what we research. In the receptive sense, theory acts as an interpretive filter that structures and makes sense of the data and its subject matter. In the active sense, theory acts in shaping the real-world of empirical realities. (p. 42)

Lenses as a metaphor for concepts helps us see the central role that concepts play. In the domains of theories and metatheories, the active aspect of lenses' functions is often missed. Edwards goes on to say that "a conceptual lens does not merely interpret organizational objects, it is core to the process of constituting those objects" (p. 42). Thus the lenses we work with shape what we create, as well as how we perceive, and metatheorists use these lenses to build their overarching conceptual systems. Finally, to close the chapter, he draws on the term holon to have a non-reductive way to theorize about change.

Chapter three, *The View from Somewhere Else*, takes up the defense of metatheory, addressing a variety of critiques that have been raised against it. Edwards first takes on the modernist critique of metatheory as being a dead end because of being vague, hard to test, not practical, too concerned with categorization, and philosophical rather than scientific. He takes us through these critiques by acknowledging areas where their perspectives serve to illuminate real challenges (such as a lack of focus on method in the field) as well as showing biases and inconsistencies in the critiques. Next he addresses what are considered to be more challenging critiques coming from postmodern thought. These include how metatheory can be used as a tool for totalizing or creating "grand narratives" that marginalize various perspectives, which he addresses by pointing to how his pluralistic approach inherently avoids this. He also shows how it avoids neglecting local perspectives on issues. Another critique is that metatheory tries to take a view from nowhere, or perform the "God trick" of being value neutral. Further critiques relate to metatheory as being uncritical and decontextualizing. By addressing all of these challenges that exist in various discourses, Edwards is able to show how a pluralistic integrative metatheory actually includes both modern and postmodern strengths while addressing their shortcomings.

Having taken three chapters to do the background work of setting the scope of the work, laying out definitions, and addressing critiques up front, Edwards then turns to the task at hand and in chapter four on *Stories of Transformation*, reviews the scientific literature on organizational transformation and outlines the metatheoretical resources being used. He takes us through an historical overview of organizational change theories, showing how the field has evolved over time and used different terminology, and how those changes reflected changes in focus and theories in use. The different kinds of paths transformation can take are also explored, and a helpful table lays out the chronological stages and how they related to the prevailing socioeconomic factors in society at those times. The chapter also takes a more detailed look at the two core metatheoretical resources Edwards draws on, Wilber's AQAL framework and Torbert's Developmental Action Inquiry approach. He carefully shows the development and core ideas of each approach, taking five pages on Wilber's work and four on Torbert's. Thus the reader is well informed about the tools being used in this work and how their strengths and limitations (addressed in more depth in a later chapter) are being taken into account.

Chapter five on *A General Method for Metatheory Building* addresses one of the major critiques identified in chapter three, that the field of metatheory has been characterized by a lack of rigorous method. Instead, it has developed through philosophical insights, rational argumentation or idiosyncratic theory analysis. A central contribution of Edwards' work has been to address this by showing not only how a metatheoretical view can help the field of organizational transformation, but in the process also contribute to the field of metatheory building by exemplifying how to bring an adequate method to the apparent madness. To begin this work, he surveys existing approaches to metatheory building, covering traditional scholarship, the dialectical method, metatriangualtion, and multiparadigm inquiry as well as Ritzer's work in metatheorizing in sociology. Once these are described, Edwards critiques each of them as a way of outlining their limitations. For instance, Wilber's method can be shown to fall in the traditional scholarship area, which relies heavily on the unique capacities of the researcher. The use of orienting generalizations is then shown to be an outcome of the metatheorizing process rather than a method for it. Another example is in examining Burrell and Morgan's metatriangulation approach. Here Edwards sees that while drawing on two specific paradigms to build their metatheory, it "seems highly likely that there are more paradigms and metatheoretical lenses employed in organizational studies than just these two" (p. 91).

From his analysis and critiques, Edwards then lays out his plan. He describes an eight-phase general research design and method for metatheory building. This includes: groundwork, domain specification, design, multiparadigm review, multiparadigm analysis, metatheory building, implications, and evaluation. He then goes through how these phases are applied in his research project, giving us a clear and explicit description of how he is applying the work of bringing methodological rigor to his project of metatheory building.

With the method outlined, Chapter six takes us to *A Multiparadigm Review and Analysis of Organizational Transformation Theories*. Here we see the depth of Edwards' work in concrete terms. He begins by outlining the scope of a multiparadigm review, which

> differs from a standard literature review in that it specifically looks for concepts and themes that constitute the underlying architectonic of a theoretical system. It does this across multiple layers of expression, that is, at the level of basic constructs, parts of theories, complete theories, research paradigms and metatheories. (p. 101)

The units of analysis Edwards uses "are the core explanatory themes for each of the theories of organizational transformation" (p. 101). He subjected these to "multilayered analytical procedures, to develop the final, comprehensive set of metatheoretical lenses" (p. 101) used in understanding work on organizational transformation. Now, take the thought of doing all of this and apply it to a review sample of 335 books, book chapters, journal articles, and online papers! Edwards describes how he went from 472 explanatory themes from this review and categorized them according to 15 research paradigms. He notes that there was redundancy and overlap in this list as well, and how he used bridging and bracketing techniques to further analyze the data and reveal specific lenses.

Further categorization occurred through identifying different types of research foci. These included the what, why, how, and who of transformation. By organizing the categories of conceptual lenses around these five common framings, Edwards enables the complexity of the metatheory he has built up to relate to modes of perception and questioning that we all know. Within each of these frames are a number of specific lenses. Further, there are a set of three meta-level lenses Edwards identifies. This leads to the identification of 24 lenses of organizational transformation. This is a rich and complex result, yet appropriate to the richness and complexity of the phenomena being studied.

However, simply identifying these 24 lenses in itself could still leave us disoriented, wondering how to choose appropriately among far too many resources. Thus in chapter seven, Edwards goes into *The Network of Lens Relationships*. This work is based on three principles: internal consistency, high abstraction, and uniqueness. Looking at lens categories, external and internal relationships are examined to create categories of conceptual lenses. These include; holarchy, bipolar, cyclical, relational, standpoint, and multimorphic. The possible combinations of these lenses are beyond the scope of his work to comprehensively describe, so Edwards selects a few possibilities to illustrate the power and potential of this method. First he highlights the importance of the holon construct by looking at three forms of holarchical relationships; developmental holarchy, governance holarchy, and ecological holarchy. The details of these lenses and potential relationships among them reveal a much richer picture than what many of us are used to in mainly drawing on the developmental holarchy lens alone.

Edwards then goes on to illustrate a number of possible combinations of lenses and how exclusive reliance on specific lenses can become problematic from the view of these other lenses. He outlines a number of relevant critiques that viewing one lens from another lens can produce. An example he uses is between cyclical lens theorists and those who prefer bipolar or holarchic lenses. These examples help to make the case for a complementary approach rather than exclusionary one. Another issue he identifies is a kind of reductionism, where for example theories draw on only one pole of a bipolar dimension. This also applies to how multi-dimensional lenses can be reduced to bipolar framings by theorists. As if the large number of challenges in this are not enough, Edwards goes on to identify issues with conflating relationships between lens categories. To remedy these issues, he lays out a series of ten points to consider as guidelines for reducing these problems. This leads into an indexing of these metatheoretical lenses. A table illustrates one example of this, where Edwards show how an ecological holarchy lens with four levels (micro, meso, macro, and macro-macro) can be indexed with an interior/exterior lens, resulting in eight categories of lenses available to examine organizational transformation. This simple example displays the power of the framework Edwards has assembled. Further examples are given such as crossing developmental holarchy with transition process lenses, bipolar with quadrant lenses, and even looking at multiple lens combinations. This chapter illustrates how much more can be done with the flexible use of lens relationships than is currently common among theorists.

With all this behind him, Edwards turns to his focus of application in chapter eight on *Sustaining Visions. An Integral Metatheory for Organizational Transformation*. As is characteristic of his writing throughout the book, he begins by framing the topic in a manner that thoroughly situates the reader's attention. The reasons behind the choice of sustainability in relation to organizational transformation are laid out from a number of angles, all well supported. He then takes us through examples from each of the six categories of integral lenses that can be applied to the topic. Each of the twelve examples he provides illuminate the subject in a powerful manner. As one after the other is described, there is a feeling of having one's perception stretched as the horizon, scope, and complexity of the topic expands.

Of course this is only the beginning of the possibilities offered by the development of metatheory. Edwards goes on to show the real power of the framework he has been busy building by illustrating eight metatheoretical frameworks for sustainability. These are combinations of the previous integral lenses that create new matrixes rich with explanatory power. The first example combines two holarchic lens; developmental and ecological. The result is a matrix that positions the four levels for ecological hierarchies in relation to the seven levels of development. He also shows how an interior-exterior lens can be combined with an ecological holarchy. This helps us see how much can be lost when limiting ourselves to an individual-collective polarity lens. The resulting table has more granularity than the more commonly used four quadrant framework. Another example that extends our horizons is the combination of social mediation lenses with the developmental hierarchy lens. This expands the focus of attention from internal organizational capacities to also including relational and communicative processes. The use of an alignment lens with a metatheoretical set of integral lenses results in a powerful matrix revealing a range of options for transformation towards sustainability. Edwards concludes this section by providing three different examples of how the spirituality lens can be combined with other integral lenses. Table 8.6 lists the 24 integral lenses and how they frame organizational sustainability, revealing a rich and powerful set of possibilities for understanding and developing action.

Now, with our brains thoroughly stretched, Edwards takes us over the edge, putting together a complete integral metatheory for organizational transformation. He begins by highlighting the centrality of the holarchic group of lenses, which include the intra, inter, systemic holonic and inter-systemic orders. He then uses a series of diagrams to illustrate the very abstract frameworks created through the process of applying these lenses. First, he shows how bipolar lenses and cyclical lenses can be applied at the intra-holonic order. Then he illustrates relational lenses applied at the inter-holonic level. Another illustration addresses how the holarchic lenses can be applied at the systemic order. Finally, a table shows the inter-systemic order for describing metatheoretical lenses, focusing on the matrix created by running the stakeholder lens across the perspective lens. As can easily be seen, the "integrative metatheory described here opens up a more generous landscape for theorising about transformational change" (p. 196).

Coming down from these dizzying heights, chapter nine takes a reflective look at the work as a whole. In *Evaluating the Big Picture*, Edwards takes on the task of critiquing his own work. He shows how "depending on its scope, metatheory can be used to compare and contrast highly abstract ideas across many different theories and research paradigms" (p. 197). To illustrate, he begins by drawing on the health-pathology lens to examine various forms of partiality in the different categories of lenses and how they are commonly used. He then examines reductionist forms of holarchic lenses, such as abbreviation of the number of levels in a lens or exclusion of the higher/deeper aspects or stages such as the spiritual. His examination covers a number of common issues found in the use of these theoretical lenses.

Then the task of evaluating the integral metatheory he has created is approached by drawing on "three sets of criteria … (i) Ritzer's criteria for assessing the quality of metatheorizing projects, (ii) Wacker's "virtues" of good theory and (iii) Whetten's criteria for theoretical contributions" (p. 206). This review and critique reveals various areas where the criteria are well met and others where limitations of time, resources, or space have left gaps and point to areas deserving further work. It becomes clear that new variables or lenses have been created from this work, adding value to the field through extending the range of options available for both explanatory uses as well as creating interventions in systems. The final criteria examined looks at the underlying assumptions informing the position taken, that of an appreciative and inclusive stance, and application of principles of unfoldment and enactment. The value of these stances is highlighted in relation to a model that does not include them, showing how that model has not sustained and evolved its contribution to the field over time due to the lack of these positions.

Next, Edwards takes on the task of critiquing Wilber's AQAL framework. True to his principles, this is an appreciative critique, aimed at contributing to the ongoing work of developing the AQAL framework. He identifies discrepancies between the lenses developed through his methodical approach, (compared to as noted earlier Wilber's more traditional scholarship approach), as well as differences in lens relationships, flexibility, and definitional issues. He highlights specific definitional issues and the lack of comprehensive inclusion of lenses drawn on, but going beyond the five core AQAL ones (quadrants, stages, states, lines, and types). A table highlights formally-included lenses, ones used but not included, and conceptual lenses not found at all in the AQAL framework. Another critique involves lens relationships, where "certain perspectives are associated with certain quadrants despite there being no metatheoretical evidence or logical necessity that this is the case" (p. 219). Edwards then illustrates this with a table showing a non-reductive application of perspectival, interior-exterior, and ecological level lenses. With these examples it becomes clear that this integral metatheory is powerful.

After all of this work, we are taken in chapter ten *Towards an Integral Meta-Studies*. This is introduced by an illustration of how Charles Darwin pointed to the significant range of ideas preceding and contributing to his own work. By doing this, Edwards clearly situates his own work as primarily being involved in taking a wide range of existing, although somewhat implicit sets of knowledge and explicitly (as well as methodically) showing the implication and benefits of putting them together in a comprehensive and integrative framework. The landscape he surveys includes showing how various fields have already developed degrees of meta-studies, such as in sociology. He illustrates how theory, method, data, and interpretation sit on the foundation of primary empirical observation and experience, while meta-theory, meta-methodology, meta-data analysis, and meta-hermeneutics sit at the next level. Taking all of these in together creates the field of integral meta-studies as a whole. This model helps to situate the various aspects and keep some from encroaching on the domain of others (such as how meta-hermeneutics ventures into making claims about what is possible in terms of meta-theorizing).

Drawing on this model, Edwards shows how his own work in developing an integral metatheory for organizational transformation could be followed by similar work in developing meta-methodology, meta-analytical, and meta-hermeneutics in this area of study. He then briefly looks at how from this integral meta-studies perspective current global issues can be reframed from crisis to opportunities. This leads to closing remarks on the power of big picture which takes us full circle back to the beginning of this work. The need for powerful, flexible, and practical big picture thinking is as germane today as it has ever been.

Remarks

Now, if reading over this brief description of Edwards' work has not left you reeling in appreciation of how he has laid out a platform for extending work in multiple domains, then either you were sleeping while reading, are a hidden genius we have not heard from, or I simply have not done a good enough job of giving you a taste of Edwards' work and you will have to read it for yourself (you should anyway). As I struggled to find ways to present enough of the work to show the depth of thought behind it, I found myself coming to even greater levels of appreciation for it.

My appreciative stance towards the work arises from several sources. One is as mentioned in the introduction, that having studied the field of organizational leadership and transformation, I found the organizing power and clarity of the metatheory crystalizing various lines of thought I had not been able to pursue previously. Recalling Nathan Harter's philosophically oriented overview of leadership studies *Clearings in the Forest,* I felt like I had been taken up for a ride in a helicopter and could now make out the terrain. I could see the forest for the trees, make out different kinds of terrain and their relationship to each other, and zoom in for a more detailed look almost anywhere I choose. I feel empowered by a feeling that I can find more appropriate and powerful lens combinations to suit a much wider range of situations I encounter in trying to both teach in the classroom and provide practical training and consulting in the corporate environment.

A second source of appreciation is reflecting on the work of my own dissertation in relation to Edwards' work. Not only my own work, but the many dissertations I have been fortunate to serve as a reviewer for. I have read many excellent dissertations, many of which do what good dissertations do, break new ground in a field. Yet Edwards work goes beyond this by breaking ground in multiple fields at the same time, (i.e., developing a methodological foundation for the development of integral metatheory as well as significantly expanding the domain of knowledge about organizational transformation), creating a generative platform to enable future work for scholars in multiple domains for a long time to come.

A third source of appreciation, (and I'll stop soon enough), comes from having one of my core values fed. I love to learn. When I can encounter a situation where I can learn something, I dive in and am likely to suck as much of the essence out of that situation as possible. If I'm not learning, I don't feel alive. So I appreciate Edwards' work because it taught me so much, on so many levels.

Now, does all this mean I have no critical perspectives to offer? When I take the time to absorb this work and reflect on it, a variety of elements come into focus for me as areas that could be inquired into. For example, I am stimulated to enter into dialog about how different views (drawing on Roy's (2006) distinction between view and perspective in her *Process Model of Integral Theory*) of the nature and purpose of our existence here in this world could impact the ways in which metatheory in a given domain might emerge. But those are thoughts for later conversations.

For now, I will conclude by saying that if you are interested in metatheory, organizational transformation, sustainability, great examples of clear and thorough writing, or just like to gain a view from a profound set of perspectives, then get and read Mark Edwards' *Organizational Transformation for Sustainability. An Integral Metatheory*.

Review of Hope for Humanity: How Understanding and Healing Trauma Could Solve the Planetary Crisis.

(2011) Malcolm Hollick and Christine Connelly. O- books. England.

Joan Wilmot [1]

Hope for humanity: How understanding and healing trauma could solve the planetary crisis, by Malcolm Hollick and Christine Connelly, is an extremely helpful book in that it invites us to look at ours and others' behaviour from the perspective of trauma.

Early on they say, "Trauma warps our personality, blights our health, stunts our development, and condemns us to living well below our potential, both as individuals and as a species. Yet it is so widespread and embedded in our culture that we do not recognise it, and accept our traumatised way as being normal."

They further state, "We believe that our planetary crisis is the result of trauma." In the course of the book they look at the causes of trauma throughout history and also show how trauma is compounded and passed on by the lack of acknowledgement and recognition. They notice, in not recognising that often as human beings we are in a state of shock and trauma, we perpetuate trauma both on ourselves and on our own people as well as our enemies, generation after generation.

I very much agree with them both from my own personal life and in my work as a psychotherapist, supervisor (work mentor) and trainer. I have come to believe the unacknowledged shock in ourselves leads us in our day-to-day conversations and transactions to both shock ourselves and the people with whom we come into contact, and to being more vulnerable to being shocked by other people. I think these every day exchanges probably cause more traumas for most of us in a semi-conscious, unrecognised way and in the way they accumulate over time, than obviously traumatic events. This is probably because our collective understanding has moved on in the last hundred years of recognising the effect of large-scale disasters and the need to attend to people who have suffered them.

I invite you, as do Malcolm and Christine in their book, to consider trauma to be at the root of our disease. You might do this the next time you are in, or witness a conversation, in which people are raising their voices, or getting tense or are uncomfortable, to consider that there may

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be some element of shock or trauma in the mix, and that in holding that perspective it gives you better options for being present and dealing with it.

As a psychotherapist I have also found this to be true. When sometimes I have asked a client if they might have been in a state of shock when they have been struggling to come to terms with, understand, and move on with a distressing situation in their lives, it is as if a light bulb has gone on. I see their eyes clear, their breathing relax, they come out of the shock and back to themselves. I find then, as trauma therapist Peter Levine says in the prologue, “Not only can trauma be healed, it can be transformative.” Malcolm and Christine demonstrate how the recognition and understanding of trauma in our daily lives evokes compassion for us, our fellow human beings and our world, which then forms the ground for healing.

The book is divided into four parts and the following summary is taken from the beginning of their book. They start in Part I with a description of the nature, causes and impacts of trauma. This is followed in Part II by a discussion of the characteristics of the human brain and mind that distinguish us from other animals, and make us more vulnerable to trauma.

In Part III, they trace key aspects of the evolution of human culture from hunting and gathering to the establishment of agriculture. They present the theory that despite a potential for trauma, the evidence suggests that

> we maintained a largely peaceful, cooperative and egalitarian “partnership” culture for tens of thousands of years and that it was not until about 6,000 years ago that human culture changed. At that time, the climate dried dramatically over a huge belt of latitudes stretching round the globe. In its wake came famine, conflict and trauma, followed by an equally dramatic cultural discontinuity that Steve Taylor called “The Fall.”

The events of *the fall* are described in Part IV, together with discussion of its causes and consequences, and reactions to it. Part V examines in detail the incidence of trauma in the world today, from before birth to adulthood, and from the individual to whole societies.

I found the first five sections of the book the most useful even though I had some reservations about the fall theory. The development of their thinking is thought provoking, clear, compassionate, and informative and expands our understanding of our human condition practically, psychologically and spiritually. It does this both in terms of our concerns for ourselves and our own health and healing and also from the wider perspective of our immediate family, our extended family, our tribe, and to the global perspective of our nation and the planet. The book moves the reader through what in therapeutic terms is known as the “drama triangle” (Karpman), that of experiencing the world from the perspective of the roles of “victim,” “persecutor,” and “rescuer.” This is a cycle that endlessly repeats itself. However, through the perspective of understanding and compassion it shows how we can move from the drama triangle to the beneficial triangle of *vulnerability, potency*, and *responsiveness*, which naturally leads to healing.

Finally, in Part VI they set out a strategy for changing the course of history from domination to partnership, and encouraging the “emergence of the possible human.” I personally found this part of the book the least useful, or perhaps a better term would be, least necessary. Once the word “must” begins to appear regularly, as it did in this section, fear has probably re-emerged and with that, a contraction. It is not surprising given the subject matter of the book that the process would play out in the book in some ways and through the authors. They said as much themselves. As Malcolm and Christine reached the end of the book maybe the fear that its message would not impact the reader enough built up a rush for, and pressure for, strategies and solutions, which I found less informed and interesting than the rest of the book.

When a shift in consciousness or a different way of looking happens, which I think the book invites us into, the next steps naturally happen. You can trust the individual and the group and in this instance the book! Enjoy!

Political and Civic Leadership: A Reference Handbook

Edited by Richard A. Couto (2010) Thousand Oaks, CA: Sage Publications Inc.

Review by Jonathan Reams[1]

In his introduction to the handbook, Richard Couto indicates that he was motivated by the lack of good, recent material in the field of political and civic leadership that scholars and teachers could use to engage in dialogue about this topic as something more than authority and hierarchy. As well, he states an aim of bridging a gap that has existed, where leadership does not want to get its hands dirty by discussing politics and political science avoids the embarrassment of leadership. Making politics, civic life and leadership relevant for a wider range of people is a worthy ambition. Giving future students of both subject areas a rich resource to understand the core issues, this handbook offers a benchmark and starting place for future efforts to understand the practice of leadership in politics and civic life.

This is indeed a handbook on leadership. The scope of work included is comprehensive. With 120 chapters, it covers just about everything you could imagine in relation to political and civic leadership. It does not attempt to be comprehensive about leadership, steering clear of areas such as business and organizations. The 11 parts to the two volume set cover a range of topics clearly focused on politics and civic life such as philosophy and theories, purposes, failures, processes, institutions, contexts, psychology, tasks and tools, and finally depictions.

From this vast collection of material, I choose to focus on a few names known to me to get an indication of the flavor, tone and substance of the volume. From Part I, *Introduction to Politics and Civic Leadership*, I read the first three chapters, *Politics* by Richard Couto and *Leadership* and *Leadership and Values* both by Ronald Heifetz. From Part II on *Philosophy and Theories of Political and Civic Leadership* I read chapters seven, on *The Hero Myth* by Betty Sue Flowers, *Social Origins of Authority* by Nathan Harter, and *Integral Leadership Theory* by Russ Volckmann. I will attempt to provide a brief overview of the approaches and contents of these chapters, make a few remarks regarding them and some summary remarks about the impression they give of the volume as a whole.

Couto starts off his handbook by introducing his view of politics through the story of a young soldier he met on an airplane trip who disliked politics because in her experience it was primarily about the abuse of power. It serves to illustrate the common view wherein “Politics … equals hypocritical self-serving and inequality of freedom among different groups” (p. 3). This allows Couto to draw his initial broad lines on the subject, that in essence politics is about power to make and enforce decisions, requires legitimation and that this gives authority to thus use power.

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The chapter then goes on to lay out how these core constructs of legitimacy, authority and power have been viewed, shaped and used in society.

After going on to lay out the hidden dimensions of power involved Couto begins to point towards a "new politics of truth" (p. 7). This takes us through the territory of narratives on the collective good. "Power established regimes of truth about the nature of community, who belongs and who does not, and the legitimacy of the claims that communities can make upon their members for the goods and resources to produce and sustain it" (p. 9). This brings him to politics as leadership, rather than politics as power. In this, he shows that we each have "a degree of responsibility to advance narratives we prefer as true and just" (p. 10). Thus politics is indeed personal.

I came away from my reading feeling educated about the realities of how civic or community life is inherently impacted by politics and the political and how we live and act in those domains with or without knowing it. The depth of complexities of how the issues of power, legitimacy and authority are woven into the fabric of our lives comes through well and sets the stage for the volume that follows.

I then turned my attention to Heifetz's chapters on leadership. Having long been a student of his work, I was looking forward to see how he might synthesize his work in a short chapter. He begins by clarifying the distinction between leadership and authority, both formal and informal. His analysis clearly decouples these conceptions, leaving the way open to find more viable reference points for the leadership. He does this by pointing out that "Most problem situations do not call for leadership. Authoritative systems are sufficient" (p. 14). Yet when situations demand adaptation from a group or community, the tried and true authority systems most often fail, leading to a need for something more – leadership. Using this reference point, Heifetz is also able to make a clear distinction between leadership and management. In his frame, management refers to "the activity of coordinating complex systems in the efficient production of solutions to routine or technical problems" (p.14).

Understanding how to recognize adaptive challenges and decoupling leadership from authority enables Heifetz to analyze a number of questions relevant to understanding the practice of leadership. This includes leadership with or without formal authority. He illustrates how this can look with stories both familiar and new, large scale, at a community level and within a family system. This allows him to make clear another distinction, that leadership is not a personality trait, but an activity.

In his brief chapter on *Leadership and Values,* Heifetz makes a clear case for leadership being an inherently value laden activity. He examines James MacGregor Burns' conception of transformational leadership and finds that it falls prey to at least three issues related to the normative values frameworks it implies. Heifetz addresses this by proposing to go "further by building a normative conception of leadership that starts with the work of meeting these [internal contradictions in values held by a community] challenges" (p. 26). From this he identifies one of the core tasks of leadership to be building holding environments, or containers that allow for the pressures of those challenges to enable a community to do adaptive work on itself. This work is inherently value laden, but this approach does not prescribe a normative set of values to be sought, but a process for communities to go through the process of creating their own higher order values.

I found that these two chapters summarized the core elements of Heifetz's concepts of leadership in a succinct and well-illustrated manner. As a way of setting the frame for leadership for the rest of the volume, these two chapters do an excellent job. The process or activity of leadership is shown to require a high (if not "integral") level of thought from leaders as they must orchestrate the interactions of multiple complex systems of values through a collectively reflective process. This is a tall order indeed, and maybe shows why in public life we feel a real lack of—and thus cry for—leadership.

This lack of leadership may be connected to the deeply embedded view of leaders as heroes, which is the subject of Betty Sue Flowers chapter on *The Hero Myth.* She begins by laying out the four part structure of such myths; the call, crossing the threshold to adventure, facing a supreme ordeal and returning with a gift. She then points to how the hero myth has been and is currently used in leadership literature, from which there are many examples to pick. While many of these examples can be viewed as not the best examples of the kind of leadership called for by today's thought leaders, she also shows how the hero myth can illustrate a leader's journey in a positive way.

In line with many current views, Flowers then points out that the "hero myth is fundamentally individualistic" (p. 58). The shortcomings of the hero myth are shown in light of understanding how many leaders contribute to enabling the success of the leader who is mythologized. She also shows how the hero myth can marginalize women's roles. In the end, while noting that the popularity of the hero myth of leadership will continue "as long as we find tales of individual heroes more compelling than tales of groups or systems" (p. 59). Flowers points out that the "problems of this century's complex, globally interconnected world are unlikely to be solved by individualistic heroic leadership" (p. 59). This then brings us back to the gap that is felt today for leadership that goes beyond conventional mythologies embedded in our society.

Nathan Harter follows next with his chapter on *Social Origins of Authority*. In his usual thorough philosophical style, he digs deeply into the ways in which followers willingly constrain their choices by granting authority to others. After showing the blurring boundaries that exist between rulers and followers, he digs into the motivations of followers. This reveals that such motivation for giving authority is dynamic, ambivalent, paradoxical and often a group phenomenon. All of this is further compounded by a set of nonconscious factors such as habit and subconscious influences. Here Harter draws on Freud to illuminate the depths of how such issues can influence the granting of authority.

In further investigating his theme, Harter moves from authority to legitimacy. "Authority is a residual sentiment, a sense of legitimacy rooted in a present day belief adopted previously" (p. 65). He then draws on Weber's three sources of legitimacy, rationality, tradition or charisma and Mary Parker Follett's ideas to flesh this out. After this journey through the social sources of authority Harter ends with the kind of phrasing that simplifies the complexity: "People want rulers for conscious and unconscious reasons, but at the same time, they also do not want them, or they go for long periods of time when they do not really think about it" (p. 67). Such is the reality faced by leaders and those trying to put attention on these issues.

The final chapter I choose to review is Russ Volckmann's *Integral Leadership Theory*. For readers of this journal, the inclusion of this topic being relegated to one brief chapter might seem a loss of the potential perceived for it to contribute to the field. However it can also be viewed as an achievement that the topic is included in such a mainstream handbook. Then there is the daunting task facing Volckmann of trying to do justice to the topic in roughly six pages. He begins by noting that integral is used in two main ways; first as a stage development theory, second as a meta-theory. He does a good job of explaining both and showing how each of these usages of integral can contribute to leadership studies. He even gives some nice examples to illustrate the concept of holons.

Volckmann goes on to show how integral (meta)theory can be useful as a framework in mapping the breadth of disciplinary concepts related to leadership. He demonstrates the utility of the integral model in providing categories that lend themselves to sorting various models and concepts of leadership. In addition he covers how various methods can be drawn on to enable an organized and coherent methodological pluralism. He also surveys the growing body of research and publications bringing the application of integral theory to the field of leadership studies. In pointing to the future of how this can be used, he notes that "these elements of the theory are used as mapping tools designed to help us learn more about the relationship between multiple intelligences and the capacity of individuals to handle higher and higher levels of task complexity" (p. 126). He closes by noting that this is a lifelong task of constantly learning, not only specific skills, but learning to develop the whole person in an integrated manner.

I believe that this chapter exemplifies the challenge that integral theory faces in making its contribution to leadership studies in general. Brief overviews must necessarily suffer from truncated explanations that cannot do justice to the depth and complexity that is possible. The devil is in the details, and to realize the potential of integral theory requires a significant investment of time and energy, not to mention word counts. In contrast to some of the other chapters surveyed here, whose themes are relatively focused, Volckmann by necessity must cover a broad scope to begin to convey the topic.

Having now surveyed a small handful of chapters of this handbook, I can give some overall impressions based on that selective reading. First of all, I believe that if the rest of the volume carries on with the level of writing displayed here, that it would be a worthy investment. It is a reference volume, not designed to break new ground in the particulars, but in the whole by addressing head-on the gap in the literature about political and civic life in relation to leadership. It appears to meet the goal set out by Couto in his introduction. To then remedy this gap by gathering a very thorough and comprehensive set of scholars to provide rich descriptions of the multitude of issues involved demonstrates the passion and commitment Couto brought to the project.

This Way, Please!

Review of Edgar Morin's book "La Voie. Pour l'avenir de l'humanité." 2011. Paris: Fayard.

Michel Nguyen[1]

What the Book is About

In his last book and essay "La Voie" (*The Way*), Edgar Morin shows us the way, for the future of humanity (reference to the subtitle), and even the Way with a capital letter: in French the words in titles do not have to be capitalized, which shows how ambitious the book is. It deals with most of the aspects of today's human crises: politics, civilization, democracy, demography, indigenous peoples, water, economy, inequalities and poverty, bureaucratization, justice, thinking, education, medicine and health, urbanism, agriculture, food, consumption, work, life, family, the feminine condition, ages of life. Edgar Morin makes a diagnosis in all those areas and suggests many reforms on mostly political levels, but also to some extent on the civic and individual levels.

Who is this Book for and What is the Purpose of the Book

Paradoxically, the book is written on the political level, but it is not specifically written to political people. Rather, it is written for a large public, be it political people, intellectuals, engaged people, laypersons. This is to compare with “Le pacte écologique” (*The Ecological Pact*, 2007) from Nicolas Hulot which begins with an open letter to the next President of France.

It is a synthesis of all ideas that Edgar Morin has defended all his life. It can be understood as a political, philosophical, and human act aimed at a large public. It is an invitation to think about all the issues together. Everyone can have an overview of a new vision of politics in general at the civilization and human levels. An ecologically minded person can have an overview of the issues of economics and education and how they have an influence on ecology. An intellectual can learn about practical initiatives virtually unknown in France.

This book may also be considered only as a draft of what the Way should be about. Edgar Morin explicitly invites readers to point out gaps and inaccuracies in his book. He introduces his book only as a first version that should be followed by a second volume written by a committee.

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Aim of this Review

As this review is aimed at international integral-minded readers, its writing situates the book in the context of France, both in her history and the sociology around the book. I will not only put this book in perspective with Edgar Morin's life and work but also more generally with the transdisciplinary and integral communities in France and in the world.

Gramps Is in the Resistance! French Resistance as a Third Way Between Nazism and Stalinism

As Edgar Morin puts it himself, this book was written out of "infinite solidarity.. This means the book should be first received as a message from an exemplary man to our hearts. Born in 1921, Edgar Morin was taken in by the maelstrom of the Second World War. Not only did he enter the French resistance, but he also entered the communist party at the age of 20 because of its political ideas. As a resister he made a point not to fight Germans in general, but only Nazism. As a communist he always made the difference between his ideology and Stalinism. Actually, in the introduction of the book, Morin presents his enrolment in the French resistance as a third way between Nazism and Stalinism.

Though Morin speaks very little of himself in the book but in the short preface, this past of resistance is quite important as the book appeared in France at the same time as "Une si vive résistance" (*Such a fierce resistance*, January 2011) from 89-year-old banker Claude Alphandéry, who developed the social and solidarity economy in France, and the best-selling three-euro short book "Indignez-vous !" from 93-year-old diplomat Stéphane Hessel (more than 950,000 copies of this last book have been sold). As for "La Voie," it can be found in the top-selling shelves of bookstore chains, though one cannot find it in the bookshop sections of supermarkets. The authors are often invited together in conferences or TV and radio shows, and when not, they make reference to each other. Morin wrote the preface to Alphandéry's book. Stéphane Hessel says that people who liked his book and need philosophy and ideas for action should get Edgar Morin's book. The pun "Les papys font de la résistance" in reference to the French comic cult movie "Papy fait de la résistance" ("Gramps Is in the Resistance," 1983) is often made in articles, radio and TV shows about these three people, asserting that old people today still lead the way for young people. Edgar Morin's conferences are always full of people among whom the young ones are clearly eager to listen to the voice of philosophy.

One can all the more appreciate the reference to a movie when one knows that this movie starred famous actors, even in secondary roles, and that Morin started his career in the sociology of movies. He wrote a book about movie stars, namely "Les Stars" (The Stars, 1957). As he often says, we as spectators are often able to get the complexity of people and situations in movies, but forget about this complexity in real life situations.

This indignation still meets some resistance today. The show starring Stéphane Hessel, Claude Alphandéry and Edgar Morin that was supposed to take place on France Inter on January 16th 2011 and that many people were eager to hear was cancelled two days before for unclear reasons. In the same vein, a conference of Hessel on January 18th was cancelled on January 10th because of Jewish lobbies' opposition to Hessel's pro-Palestinian stance. This is reminiscent of how

Jewish lobbies such as Avocats sans frontières and France-Israël harassed the nevertheless Jew Edgar Morin, when he co-wrote the article "Israël-Palestine: le cancer" in Le Monde, June 4th 2002, stating that one people, namely the Jews, who have been subject to massacres, do not have the right to become in its turn a perpetrator.

Edgar Morin, a Unique Voice in France

In French, "voie" is homonymous with "voix" meaning “voice.” When one says "La voie/voix d'Edgar Morin" aloud, it means at the same time Edgar Morin's way and voice. Edgar Morin's voice has a lot of power and influence because he is a public intellectual who always has tried to write texts that are simple to understand. They remain hard to read for the “man in the street” but at least they convey very important ideas.

Morin might well be the only French transdisciplinary thinker who is neither a scientist nor a full time philosopher of sciences. He had to find ways to acquire a scientific knowledge that is impressive. As a French resister he has a lot of credibility. He has a lot of knowledge of classical philosophy, of literature, and especially in history and politics where he also has a lot of insight. Other French transdisciplinary thinkers would find it very difficult to answer with accuracy, pertinence and in a useful way questions from a politically oriented journalist. In the field of philosophy of sciences, he had to learn and understand sciences from scratch.

He also developed a few ideas of his own. He was one of the first to speak about the notion of amortality when it was only a highly hypothetical prospect for biologists. The typology of causalities he developed in his Method with a scientific basis proved to be prominent in the writing of the purely political book “Penser l’Europe” (*Thinking Europe,* 1990).

First Reactions to the Book

Edgar Morin's book has already met a tremendous success given the reactions that can be found in the public, on TV and radio shows, in reviews that can be found on the Internet and in journals. It is always an honour to welcome Morin in conferences in every circle, and his mere presence attracts a lot of people. There has been very little feedback about the book from intellectual and political people as yet.

Genetics of the Book

In many ways, “La Voie” can be seen as a compendium of Morin’s work. He has written so many books and articles that it is impossible to mention even all the important ones. Nevertheless, one can see the political side of Morin in “Penser l’Europe” (*Thinking Europe*, 1990) and “Politique de civilisation” (*Politics of civilisation*, 1997). The ecological side can be seen in “Terre-Patrie” (*Homeland Earth*, 1993, written in collaboration with Brigitte Kern) and “L’An I de l’ère écologique : la Terre dépend de l’homme qui dépend de la Terre” (*Year One of the Ecological Era: Earth depends on man who depends on Earth*, 2007). The educational aspect can be seen in “Les Sept Savoirs nécessaires à l’éducation du future” (Seven complex lessons in education for the future, 2000). The call for a transdisciplinary knowledge can be found in the four first volumes of “La méthode” (*The Method*) and the subjects of humanity and ethics are dealt with respectively in the fifth and sixth volumes of The Method. Spiritual aspects can be seen in “L’homme et la mort” (*Man and Death*, 1951) and “Amour, poésie, sagesse” (*Love, poetry, wisdom,* 1997). The planetary aspect can be seen in “Terre-Patrie” mentioned above and in “Pour sortir du XX^{e} siècle” (*To get out of the 21st century*, 1984) and “Vers l’abîme” (*Towards the abyss*, 2007). It is interesting to see that all those themes were already present in Morin’s early works. For example, in “Journal de Californie” (*Journal of California*, 1970), he was aware of the ecological issues before the Club of Rome report was published. There are many biographies of Edgar Morin, but “Mon chemin” (*My Path*, 2008) is quite symmetric with “La Voie,” both in title and in contents. While Morin scarcely speaks of himself in “La Voie,” “Mon chemin” is a set of interviews about his life. “La Voie” deals with an impersonal future, while “Mon chemin” deals with a personal past.

Short previews of the book can be found on the Internet, especially on the website of “Dialogues en humanité” (http://dialoguesenhumanite.org/331-la-voie-edgar-morin). A similar preview version in the form of an article, already entitled “La Voie,” can be found in the book "Prospective d'un monde en mutation" (*Forecasting of a mutating world*, 2009) edited by Carine Dartiguepeyrou, which contains articles of members of friends of the Club of Budapest France, the association that organizes the events of the Integral University of Paris.

An important event that is not mentioned in the book was the summer university that took place in Poitiers from 27th to 30th September 2010 on the very topic "changer de voie" ("changing paths" http://telem.fr/UIE10/uie2010). Five different circles dealt each with one of the following themes: the political challenge: challenge of a policy of humanity; the ethical challenge: relation ethics/politics; ecological challenge: water and biodiversity; the challenge of the nourishing Earth; the challenge of knowledge: the challenge of complexity. Morin had a leading role, as he concluded the event after the syntheses of the circles. This event shows that Edgar Morin does not work on his own and probably had this kind of committees in mind when he wrote at the beginning of “La Voie” that it needed a second volume written by a committee.

The book remains a one-author book, though Edgar Morin had wanted to write it with Marta de Azeivedo Irving from Brasil. Two chapters were written by sociologist Sabah Abouessalam. A lot of documentary material was provided by Karima Abouessalam.

Organization of the Book

The book is organized in four parts: the policies of humanity; reforms of thinking and education; reforms of society; reforms of life. The parts are of unequal size, comprised of twelve, three, six, and seven chapters, respectively. Many chapters, be they in the first part or in the following ones, begin with a description of the situation and a list of reforms. The first part contains at the same time general and more precise themes and loosely the pattern of a general theme followed by a subtheme. The first three chapters on politics (political thought, politics of humanity, politics of civilization) are followed by a chapter on democracy. Chapter 5 on demography is followed by a chapter on indigenous peoples. Chapter 7 on the ecological way is followed by a chapter 8 on water. Chapter 9 on the economic way is followed by a chapter on inequalities and poverty.

The issues are intertwined, so a similar subject can be dealt with in different chapters. For example, in part 3, chapter 1 on medicine and health, he speaks about reforming the content of medical studies (pp. 177-178), which should contain courses on psychosociology and sociology, on civilizations and complexity. A corresponding paragraph makes the link with the reform on education in part 2. Examples of communities such as Auroville are given in different chapters, namely p. 207 in chapter 2 on “Ville et habitat” (town and settlement) of part 2, and p. 272 in chapter 1 on the way of the reform of life of part 4.

In a holographic way, a few chapters are richer than others and encapsulate the issues of the others. The chapter on the ecological way deals with capitalism, housing, water, policy of civilization. The chapter on agriculture and country deals with demography, urbanism, global governance, globalization and de-globalization, education on food and consumption. These resonate with many other chapters of the book.

A Critical and Synthesizing Mind

On each subject, Morin tries to identify what is good and what is not. He calls for a symbiotic way between the occidental society (critical mind, human rights…) and traditional societies (inclusion in the Cosmos, social and community relationships).. For example, in the chapter on medicine and health, there is a great emphasis on alternative medicine, both in the occidental and oriental or traditional societies, and he reports (p. 179) that he resorted to the Mezières method, an alternative physical therapy. He is fascinated by shamans who have psychic and spiritual powers and believes that they should be taken more seriously by occidental people.

As for the economic advocates for development and the ecological mainstream for sustainable development, as far as he is concerned, the very notion of development should be questioned, even when sustainable. He balances the idea of development with the notion of envelopment, which implies returning to more interior values, having an interior life, putting more love and understanding in our relationships with other people.

Simplicity and Rigor

Morin is known to fight for self-critics and even wrote a book on the topic. Nevertheless, there can be generalities that forget the complexity and singularity of situations.. In a book of this scope, it is necessary not to focus on details and leave the big picture behind. Otherwise, even if it might be clear in the author's mind, a few ideas with too short wordings may not be understood. When he says that economy is not controlled and regulated, it is in fact from a global and almost biological point of view. A professional economist would tend to disagree, in so far as there are many controls and regulations everywhere, especially fiscal ones. As a matter of fact, many liquidity problems may result from too much regulation. An enthusiastic anticapitalist idealist would agree with Edgar Morin. He would agree with the sentence but would only partially understand it. Yes, in the end, greed is not regulated, but in the details regulations can prevent investors from putting money in projects where some risk is unavoidable.

There are issues for which Morin did not investigate as deeply as seems desirable, and this may be interpreted as a lack of rigour. In the chapter on the ecological way (pp. 86-87), he advocates for renewable energies and mentions several of them (water, wind, solar, photovoltaic, geothermic and tidal energies). He says that they should be combined, but he does not take into account the life cycle of these technologies. In a footnote (p, 87) he mentions a project of a photovoltaic factory in Paris. Many specialists think that photovoltaics in France is only greenwashing, given the weak energy return and greenhouse gases emissions, if one takes into account all the rare metals needed, the transports, maintenance, and taking care of the garbage. Besides, in the end, the notion of renewable energy is still a dream and there is no known renewable energy today. Like sustainable development, the notion of renewable energy should also be questioned, in the view of this reviewer.

Edgar Morin in the Transdisciplinary World

Morin's situation and role in the transdisciplinary world is more complex. Through his articles and books, his involvement in associations such as MCX-APC, groups such as Le Groupe des Dix, Edgar Morin had been in touch with basically all the transdisciplinarity-oriented minds in France. He is also very active and recognized in foreign countries, especially in Brazil, and involved in CIRET in so far as he is an active member of the association: he and Basarab Nicolescu were the cowriters with Lima de Freitas of the manifesto of transdisciplinarity of the CIRET. In his *Manifesto of Transdisciplinarity*, Basarab Nicolescu defines the three pillars of transdisciplinarity as being levels of Reality, the logic of the included middle, and complexity, in which we see again Edgar Morin's influence with the word complexity and an implicit acknowledgement of the two other pillars.

Now indeed Morin does use the three pillars, but dialogics is in fact a flattened version of the logic of the included middle, as Morin maintains the distinction without giving it a name and explicitly giving it room enough in another level of Reality.[2] The use of level of Reality is implicit and he does not try to generate new levels of Reality. An example of this is that as far as he is concerned, the gods are mere creations of the human mind. He grants gods, ideas and imagination a form of existence and reality which might even supersede the material reality and have some control of humans, but only conditionally to the existence of the people that produce them. In this respect, Edgar Morin belongs more to the systemic thinkers who do include a form of sacredness and spirituality in their systems through ethics, poetry and culture, but who have not fully adopted a transdisciplinary ideology.

These discussions would deserve further development and more nuancing, but another hidden idea in Lupascian logic is that it presents a natural side and a cultural side, which are supposed to be isomorphic. Even if again this can become conceptually quite messy and fuzzy, there is a philosophical ambition to uncover some logics binding together the human and nature, science and religion. One can find traces of similar ideas in Edgar Morin's work, especially in the Method, but in "La Voie" there are only very pragmatic ideas about reforming our knowledge. Our relationship with the Earth should change our way of living and inhabiting it, but not our vision of Earth. The reform of knowledge insists on reliability but tells nothing of the awe of science and of the philosophical, poetic and mystical aspects of science.

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[2] The expression "logic of the included middle" is no better in so far as it is in reaction to the first two principles it is supposed to transcend. Nicolescu often makes the distinction between the third term which is simultaneous to the first two terms, and the Hegelian synthesis, representative of the first entropic term, which is supposed to subsume the contradiction at a later time. Nicolescu also makes a distinction between the notion of level of Reality, representative of the third term, and the notion of level of organization, representative of the negentropic second term. But then he does not rearticulate the three logics in one concept. Like the three matters of Lupasco, he puts more stress on the third term and finally on transcendance, which is a biased point of view not in keeping with the transdisciplinary ideology.

Edgar Morin and (French) Transdisciplinarity in the Integral World

The situation of Edgar Morin in the integral world is simpler to analyze. Even though Basarab Nicolescu is on the advisory board of the *Integral Review* and is also often cited in the *Integral Leadership Review,* a huge difference between transdisciplinarity and the integral approaches as they are sociologically practiced concerns the fields of personal development, spirituality and the evolution of individuals and humanity. There is a spiritual gradient between systemics, Edgar Morin, transdisciplinarity and the integral approaches. Though Morin advocates for personal development and meditation in “La Voie,” these topics are only casually mentioned in a few sentences and very little emphasis is put on them, which can also be seen in his life and works. There is no philosophical study or practice of personal development or meditation from Edgar Morin or Basarab Nicolescu.

Transdisciplinarity is also self-limited in discarding New Age ideas in so far as it remains human-centered and does not ask what would be the point of view of stones, plants, animals, Earth, and other possible beings. The movie Avatar showed a planet able to think. The idea that Earth could think is a hypothesis that could be considered outside esoteric doctrines and studied by scientists, but it is not discussed. The planetary crisis and planetary consciousness are of no concern for the planet herself, except in Bolivia where people fight for Earth rights. Journalists only occasionally animate the Earth for rhetoric purposes, though it already means a lot from a psychoanalytical point of view. The following paragraph (“La Voie,” p. 85) is very representative of this:

> La prise de conscience de cette communauté de destin terrestre doit devenir l’événement clé du XXI^{e} siècle : nous nous devons sentir solidaires de cette planète dont la vie conditionne la nôtre. Il faut sauver le soldat Terre ! Il nous faut sauver notre Pachamama, notre Terre mère ! Pour devenir pleinement citoyens de la Terre, nous devons impérativement changer notre façon de l’habiter !
>
> …which could translate as
>
> Realizing our common Earthian destiny must become the key event of the 21st century: we must feel solidarity with this planet whose life conditions ours. We must save Warrior Earth! We must save our Pachamama, our Mother Earth! Imperatively, to become fully citizens of Earth, we must change our way of inhabiting it!

Here the essay’s style changes to a style that is between manifesto and poetry. Earth is seen successively as an object, namely a planet, but embedded with life. Then it/he/she is seen as a male figure and a female figure. In the last sentence, it is again seen as an object, as a place where we live. Morin never really quits the anthropocentric reference. Earth is seen as a mother in a poetic or biologic way, in relation to us, but not possibly as a living being at the human level, even only as a hypothesis. Morin speaks for ecocentrism but as seen from an anthropocentric point of view, or put more simply, an anthropocentric ecocentrism. It can be seen as a limited and limiting philosophical and spiritual point of view, but it also is an example of how far one can go with an anthropocentric ethic, and a way to sociologically be successful and appeal to a larger public. This is not a conscious strategy from Edgar Morin so far as he defines himself as a neo-atheist. Pachamama is the Bolivian word to say "Mother Earth," but there is no mention that Bolivians come so far as to elaborating a declaration of Earth rights.[3]

Another area generally left out by French transdisciplinarity is the idea of human evolution, apart from Teilhard de Chardin followers. The ideas of ethics, self-criticism developed by Edgar Morin, are displayed as general and universal. There is no idea of gradiations of ethics and of values or of differentiated readerships for his books. This explains the emphasis on politics. In the same vein, Basarab Nicolescu advocates for transdisciplinarity for everyone and Henri Laborit promotes creativity for everyone. Despite a call for diversity, almost each transdisciplinary thinker has an individual idea of what the meaning of life should be. It is less true for people in personal development who use different typologies of personalities, like the enneagram.

French Disciplinary and Transdisciplinary Work outside the So-called Transdisciplinary Realm

Even if the so-called transdisciplinary communities form a small world, there is a lot of important and good work done in disciplinary groups who do not market themselves as transdisciplinary, although they are very transdisciplinary in themselves. Many disciplines develop cutting edge concepts that may potentially not be less universal as the known transdisciplinary ones. Besides, innovation in action or in concepts does not always have to dwell on self-reflexive transdisciplinary meditations.

Transdisciplinary and integral actors speak a lot about quantum mechanics, but only see it from the outside. They are blinded by superstrings and nonduality—be it logical or spiritual—and do not look into the details of the different internal revolutions encountered by quantum mechanics since its inception.

Even the idea of reliability as developed by Edgar Morin that is at the core of transdisciplinary in many ways did not go as far as the ontology of relations developed by French philosopher Gilbert Simondon (1924-1989), who was Morin's contemporary. Simondon's philosophy gave birth to paradoxically more substantial concepts of identity and individuation, especially through a co-construction of individuals and their environments, rather than through mere dialogics between unity and diversity, interior and exterior. This Simondonian idea is present in Morin's trinitary concept of individual/society/species (individuals, society and species mutually define each other) but Morin did not systematically develop it in the technological or scientific realms such as physics, biology, art, and psychosociology.

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[3] Many systemic thinkers in France are Christian and may have a strong spiritual orientation, but generally they do not practice meditation a lot and are not interested in nonduality as an embodiment of enlightenment. In principle, Lupasco's logic should allow him to make a bridge between science and spirituality, and a few confidential texts use it to study Buddhist concepts. But in practice it is difficult to judge how promising further development might be, all the more since Lupasco's books are out of print and Lupasco is virtually unknown, hard to read and scarcely translated.

Gilbert Simondon is cited by the philosopher Bernard Stiegler, the prospectivist Thierry Gaudin, and a couple of academic working groups in different areas of philosophy who are rediscovering him outside the sociological groups labelled as integral or transdisciplinary.

Edgar Morin and Death

Death played an important part in Morin's life. His mother was in a very weak condition and tried to abort when she was pregnant, but Edgar seemingly resisted. Her hidden death when he was nine would traumatize him. No wonder he wrote a book about man and death ("L'homme et la mort", 1951) where he explored the theme of death in almost every culture and civilization. In this book, the atheist Edgar Morin writes that immortality is a regression of philosophy. This is a different view from many integral people and cultural creatives who believe in karma. The six-periodic spiral dynamics asserts that it is possible to return to a holistic view of the world and a sense of belonging in the universe that is in fact different from the archaic magic tier. As far as Morin is concerned, the astral and causal bodies are only beliefs, part of the culture of a few civilizations. He does not seem to have a Newton's trunk. The evolution of Morin is evidently different from Ervin Laszlo, for example, who becomes more and more aggressively spiritual and tries to find scientific support for the existence of akashic fields. Echoing his first big essay, the last chapter before the conclusion of “La Voie” deals with death and is explicitly aimed at non-religious people. Morin says that we will all die, our sun will die, our universe will die, but that death should have a more explicit part in our society.

Along similar non-religious lines, the French philosopher Patrick Viveret who co-wrote a book with Morin and who is often mentioned in “La Voie,” argues against the notion of sustainability by citing the fact that we will all die. This shows that our main concern should not be a question of survival, but of having meaningful lives.

Edgar Morin appears to me to have a simple and linear view of life and death, which is fine, but it would have been very interesting for him to try to adopt the view of other people, even as an hypothesis, and use his concepts of recursive loop, hologrammatics, emergence, complexity, to rethink the concept of death beyond the different accounts he gave in 1951.

A Techno-Biased Postconclusion

In the postconclusion of “La Voie,” Morin gives glimpses of what the future of humanity has in store, in the areas of the nature of humanity itself, its relation to cosmos, the nature of knowledge. Although he acknowledges the possible existence of parallel dimensions, of extraterrestrials and of an increase of cognitive powers of the human, he does not make any link with human evolution toward more wisdom, more ethics. He only mentions colonization of planets, a merging of man and technology reminiscent of transhumanism and Kurzweil’s singularity. Regarding the increase of knowledge, Morin focuses a lot on physical aspects like the nature of space and time, but not on the very nature of life and humanity. The author of an article in the French journal *Libération* is happy that Morin's book does not contain any New Age babbling, but even without spiritual beliefs it would have been possible to put forward that humanity is not only a child in the areas of technology and knowledge, but also in the areas of love, wisdom, morality. Morin wrote several books stating that we are only at the stone age of ecology but this is not quite put forward in the end of ”La Voie.”

What to Put in a Volume 2

A natural idea to pursue beyond Edgar Morin's work would be to create a benchmark of initiatives. The book “Des abeilles et des hommes” (*Bees and men,* 2010), from Thanh Nghiem, was written with this view in mind.

We should write “do's and don'ts.” In *The Choice: Evolution or Extinction?* by Ervin Laszlo, there is a chapter entitled “A Short Catalogue of Obsolete Beliefs and Misguided Practices.”

Beyond “do's and don'ts”, one should put them in perspective. A “do” in one context might be a “don't” in another. As a specialist in permaculture would say, there are no bad lands, only bad farmers.

Even the very idea of creating a benchmark of “do's and don'ts” has its limits in so far as many important projects in their infancy are not supposed to be known by everyone. New ideas must be experimented with before being widespread. Ideas that may be commercially exploited must first seek a framework that protects them. A lot of underground work needs to be done at all scales, from crisis areas to the backstage of the highest levels of political decisions or of fundamental research.

Should this Book be Used as a Blueprint?

It is clear that Edgar Morin is representative of a few systemic and transdisciplinary circles in France and possibly abroad, and that these circles could use his work as a blueprint. On a general and practical basis, the book has obvious limitations in layout and contents. We have seen that the different parts of the book are quite unbalanced, and the previous articles also entitled “La Voie” may have more workable and straightforward layouts. As far as content is concerned, the book does not exhaust all the topics developed in Edgar Morin's work, it is not representative of all the integral developments in France or in the world. Besides, a basic model like Wilber's eight zone quadrants analysis shows that even if Edgar Morin's work spans the four quadrants, there is an emphasis on holons seen from the outside, so that despite Morin's notion of envelopment, the book would not fit people spiritually oriented.

Trying to take into account all the integral and transdisciplinary approaches as does Jennifer Gidley is a very important work, but such a synthesis should also exist in different variants according to people's personalities, contexts and goals. Stating conceptual and practical integral traps and impossibilities should also be important.

Conclusion

Edgar Morin is a very generous man who during his whole life has been showing us the way. As a systemic atheist with a mystical poetical facet, he does not seek or sell enlightenment, but leads at the same time a life of service with no ulterior motive. His is the life of a man who still marvels at the mystery of the human and of the universe. His deep knowledge of sociology, history, and politics makes him unique among the transdisciplinary French thinkers. “La Voie” is not only a synthesis of today's different crises but also a political act to make people understand how linked the crises are and that all the dimensions of the human crises should be addressed at the same time.

Aware of limitations of his book, he considers it more as an invitation to further his work. Many ideas that may seem unclear or limited can be better understood by reading his previous books. He has drawn boundaries around his work that are more or less representative of the so-called systemic and transdisciplinary communities in France, but there exist other integral and so-called disciplinary but nevertheless transdisciplinary working groups in France that are not covered by his work that international people should also take into account.

There are limitations that Edgar Morin seemingly was not or did not want to be aware of, but it is part of the game of going the way. Beyond these practical and necessary limitations, if one considers the book as a philosophical and political gesture, it is indeed showing us the way.

Transversity:
Transdisciplinary Approaches in Higher Education

(2011), by Sue L. T. McGregor and Russ Volckmann. Tuscon, AZ: Integral Publishers.

Reviewed by Nancy Glock-Grueneich

In their new book, *Transversity: Transdisciplinary Approaches in Higher Education*, Sue McGregor and Russ Volckmann lay out a vision for an institution of higher education whose design throughout supports such integration and/or interaction of disciplinary studies and inquiry as are necessary to address the most urgent of our human problems, most of them complex, "wicked," and necessarily "trans-disciplinary." They argue passionately for the need for such deep structural changes throughout higher education and contribute to the realization of that vision in this book in three ways.

First they attempt to tease apart the numerous terms for, and forms of, work that crosses disciplines, to clarify key differences and to suggest the elements critical to the most thoroughgoing of such integration, i.e., "transdisciplinarity." Secondly, they describe the commonalities and differences of educational initiatives they view as worthy of the term, in Arizona, Romania, Mexico, Brazil, and Australia, alluding as well to one in South Africa and one in India. In each case they describe the aspirations, guiding principles, current practices, and intended further developments that, taken together, qualify the programs in these institutions as something more than variation on inter-disciplinarities of various kinds, but as truly, or becoming truly, "transdisciplinary," i.e., as "transversities" in the making.

Though the book is more tendentious than collegial in tone, I found myself able to move past their sometimes overly polemical discourse to appreciate the useful distinctions and practical insights yielded by both their analysis of the literature and their range of case studies. Indeed, I was often excited by the potential evident in the cases they looked at, seeing not merely a series of well-conceived but inherently marginal pilots—with which higher education has always had more than its fair share—but perhaps the future of higher education itself glimmering on the horizon. Certainly that is what the authors intended for me to see—and I did.

For good reason they take the Arizona State University (ASU) as their most fully developed case in point. ASU has redesigned the way graduate programs are initiated and run, and faculty rewarded, to encourage work not only across disciplines of specific projects or research centers, but the on-going collaboration and gradual re-conception of how knowledge between disciplines, and inclusive of stakeholders, is to be developed, tested, used, refined, rewarded, and funded. Students are encouraged or required to work with classmates in other fields on shared projects, some student run and initiated. With extensive funding from both the private and government sectors, ASU has seen its enrollments increase, its funding expand, and the professional and

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academic recognition of its faculty—even within their own disciplines—increase rather than diminish! Thus, the authors quote the following article:

> Seven years ago, Arizona State University’s Department of Anthropology began its transformation into the ASU School of Human Evolution and Social Change. The move towards transdisciplinarity stirred up controversy and was deemed the deathblow of anthropology by some. Now, five years after the school’s official launch, an article in the May [2011] issue of Anthropology News reports on the reality—and success—of the paradigm shift. In the article, a team of school faculty and doctoral students details how the school, part of the College of Liberal Arts and Sciences, has prospered in many areas. Faculty size has nearly doubled, with 75 percent being anthropologists and others representing a diversity of fields, such as economics, science and technology studies and epidemiology. Overall enrollments have risen significantly, as have graduate student and external support. Diversity of faculty and students has increased. And while anthropology undergraduate and doctoral programs remain the largest degree programs, new transdisciplinary offerings in global health and environmental social science have been well received. (http://asunews.asu.edu/20110518_trans_anth). (p. 41)

The authors credit the President of the University, Michael Crow, with clear and visionary leadership and with the ability to surround himself with others as passionate and capable to carry out the vision. In particular, they mention David A. Young, Senior Vice President for Academic Affairs, a tenured professor of plant biology in ASU’s School of Life Sciences. Appointed in late 2006,

> He is credited with leading a redesign and transformation of the college resulting in the creation of eight new transdisciplinary schools, more than 20 new or refocused research centers, several major institutes to promote transdisciplinary research and an expansive Learning Communities Institute to provide enhanced learning experiences for undergraduate students. Under his leadership, the College of Liberal Arts and Sciences is now organized around five themes in addition to some traditional disciplines. These themes comprise: sustainability, complexity, origins, health and quality of life, and global engagement, see http://clas.asu.edu. Young’s role was to encourage, motivate and direct others in the University, particularly in the early efforts of the development of a School of Life Sciences (SOLS). (p. 33)

Each of the case studies offers new programs and new structures for supporting the gradual re-conception of knowledge in the institution to support true transdisciplinarity. Each stresses the need for a strong approach but one starting with the opportunity for all concerned to talk long enough to find common ground, mutual trust and inspiration, and a common language. And the need to continue to value and fund this process. Certainly a real strength of the book is its many telling if brief examples of how to work with the human processes to make it work.

I found the conceptual work not entirely satisfying but that is more the challenge of the topic than the failing of the authors. I appreciate that they allowed diverse if convergent viewpoints to be heard in their own voices and drew from them salient criteria without bogging down in excessive concern for terminology.

My most serious concern with the book is that it raised so many substantive, conceptual, and ethical questions, and then by-passed them, preferring instead to focus on the sociological and political concerns of, for example, how tenure is achieved by transdisciplinarians. I appreciate the importance of that question for achieving the goals put forth in the book.

But, more fundamental still, and still unaddressed in this book, are questions such as what of the traditional disciplines is critical to preserve, wherein the integrity, rigor, and power of their respective approaches is to be carried forward; and how full partnership with community and business, and funding by the latter, can protect inquiry from the self-serving biases or narrow vision that causes some of the problems in the "real world." Thus, for example, in this passage—still speaking about ASU:

> Again, we asked about the risks associated with such collaborations, for example, private industry rather than civil society setting the research agenda and supporting particular approaches or individuals in leading and managing these efforts, we were told that these have always been the risks in the marriage of higher education with other institutions that provide funding. Another risk is the ownership of the products of the research. Transdisciplinarity embraces the concept of copyleft instead of copyright, but this term was not mentioned in our interviews...The academic model at ASU supports making information widely available to foster scholarship and development; they consciously characterize their approach as translational research (2008-2009 Annual Report). The traditional industry model is to guard information closely (copyright, patents, intellectual property, trademarks). In a non-transdisciplinary mode, it is assumed that this information can make the difference in not only the profits of a company, but also its very future existence. ASU seems to have found a way to make these corporate partnerships work. (p. 38)

But what that "way" is, the authors don't tell us. Who sets the research agenda in a corporate/university partnership, who assures the integrity of the process and the assessment of the results, and who owns the results—such questions are not herein addressed in any systematic way.

These questions do have answers that can be found—and the risks they point to are still not reason to hold back from institutional transformations so necessary—but asked they must be, and well answered, if the result is to enrich and not impoverish our capacity to confront humanities urgent problems. They are reason to proceed with care.

This book helps raise some of the questions, and begin to find some of the answers, even if it does not take us far enough, it helps move us closer to what the future demands. And, above all, it brings home the point that this movement towards the integration of knowledge, and the closing gap between the world of inquiry, and the world of action, is not, as the authors emphasize just a "fad;" it is the wave of the future.

The goal to be sought, of course, is not to discard the disciplines, nor simply mush them together, but to hold fast to and even increase the rigor and power each discipline holds, while redesigning the enterprise to make more effective use of each, to build upon them, connect them, create conceptual frameworks that synthesize them, and where appropriate—but only where appropriate—to integrate them. In short, the goal is to assure that in times now coming, those schooled most highly are not thereby precluded by overspecialization from making connections, and solving our most difficult problems, but are all the better prepared to do so having gained their knowledge within institutions committed to connectedness and relevance.

INTEGRAL REVIEW

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Spirituality, Religion, Contemplative Practices, and Socially Transformative Service in the 21st Century

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Spirituality, Religion, Contemplative Practices, and Socially Transformative Service in the 21st Century

Special Issue Introduction

Issue Editor: Bahman A. K. Shirazi[1]

I welcome you to this issue of *Integral Review*. This is our second special issue from the California Institute of Integral Studies and the Symposium on Integral Consciousness. Integral Review is glad to deepen our association with CIIS with the continuation of these special issues. We believe they enrich the range of perspectives and thought available to the growing scholarly community making use of IR. As the value and contribution of integral thought continues to expand into the academic world, we are grateful to be able to continue publishing works like those found in this issue. We are also grateful for and wish to acknowledge the work of Bahman Shirazi in continuing to take on the responsibility for guiding the articles presented here through the editorial process. I will leave you now to take in his introductory remarks, and hope you enjoy reading through this issue.

JReams

Jonathan Reams,
Editor-in-Chief
Integral Review

The articles in this special issue of *Integral Rev*iew highlight selected contributions to the 2011 Symposium on Integral Consciousness at the California Institute of Integral Studies (CIIS) (www.ciis.edu). This annual symposium provides a forum for CIIS community members and friends to exchange and deepen their understanding of integral consciousness, its evolution, and its relationship to the current planetary challenges and transformational processes.

Each year there are several themes covered in a variety of presentation formats: keynote and standard presentations, as well as a number of interactive sessions and workshops. You can find more information on these activities at the Symposium site:
http://ciislibrary.wordpress.com/2010-symposium/.

The overarching theme in 2011 was: Spirituality, Religion, Contemplative Practices, and Socially Transformative Service in the 21st Century. The contributions highlighted in this issue

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are connected in multiple ways. If interested, one could simply start at the top of the list, and hopefully find an underlying connection between all of them in the order presented. It is also possible to start with a topic of choice and navigate through the whole collection over time; or simply choose topics of interest. You might find that some key topics briefly covered in one article, are more fully discussed in one or more others. Or perhaps, one might begin to see how these pieces, despite the variations in theme, length or detail, comprise a window to the limitless world of integrality and find resonance with respect to one's unique perspectives and experiential context.

We begin with Higher Education and Interreligious Dialogue by Joseph L. Subbiondo who stresses the need for inclusion of courses on religion and spirituality, as well as interreligious dialogue in higher education, through an examination of three interrelated dimensions: Interreligious dialogue, religious pluralism and religious literacy. Drawing on some recent research such as that of University of California, Los Angeles' Higher Education Research Institute, as well as other recent publications on religion and spirituality in the United States, he highlights the importance of the place of higher education in overcoming religious illiteracy in a world in which religious tensions have been on the rise, and colleges and universities are predominantly secular in their curricular outlook. The article also mentions some initiatives in this direction at the California Institute of Integral Studies.

In New Religious Movements, Modern Esoteric Movements, and Integral Consciousness, Constance A. Jones who is an expert in this field, provides a brief overview of the new religions and spiritual communities which have emerged in recent decades. These new religious movements are among the many trends that shape today's religious consciousness. This essay argues that eastern thought in the west, fostered in large part through the growth of new religious movements, and western esoteric teachings which have appeared in many guises throughout the history of the West, are reemerging in our time and that understanding these movements and their alignment can deepen our appreciation of the foundations of integral consciousness.

Rethinking the Future of World Religion: Four Scenarios is the summary of a conversation I had with Jorge Ferrer who has been reflecting on the aforementioned religious movements and has presented four scenarios about the future of religion: global religion; mutual transformation of religions; interspiritual wisdom; and spirituality without religion. We also discussed his own participatory vision based on his various publications. He reflects on whether humanity will ultimately converge into one single religion, or continue to diversify into numerous forms of spiritual expression; or perhaps, a middle path reconciling the human longing for spiritual unity, and the developmental and evolutionary gravitation toward spiritual individuation and differentiation will emerge. We explored implications of these scenarios and other related topics such as the importance of embodied and whole person approaches to personal and collective integration.

Next, in Transformative Body Practices and Social Change: The Intersection Between Spirituality and Activism, Don H. Johnson highlights the intersections of embodied spiritual practices and organizing for social change through the seemingly different, but potentially complementary perspectives of two leading revolutionaries, Mahatma Gandhi and Wilhelm

Reich. He focuses on the importance of body cultivation in addressing social issues and how traditional practices might be taught to prepare the practitioner for dealing with grief.

In the next essay, The New Myth: Frederic Spiegelberg and the Rise of a Whole Earth, Ahmed M. Kabil provides, through the life and teachings of Frederic Spiegelberg, a novel account of some of the unique historical and intellectual developments that converged in the San Francisco Bay Area in the mid twentieth century and subsequently informed and enabled many of the defining chapters of recent global history. Spiegelberg was instrumental in creating the American Academy of Asian Studies (a predecessor to CIIS) in San Francisco by inviting pioneering east-west scholars such as Haridas Chaudhuri (founder of CIIS) and Allan Watts who are responsible for the early dissemination of Asian spiritual traditions in the west. The conversations and writings by Spiegelberg, Watts, and Chaudhuri lead the way toward cultural movements such as the San Francisco Renaissance, the rise of the counterculture, the environmental awareness, and the information age revolution. This well-researched essay connects some key developments in world consciousness in the last 60 years. Of special importance is the connection between science (and recent technological developments) and spiritual consciousness which may be apparently diametrical, but are actually complementary in an all-embracing integral consciousness.

In The Future History of Consciousness, David Hutchinson picks up on the theme of science, spirituality and integral consciousness in an intriguing reflection on the future of integral consciousness. He asserts that ‘consciousness’ is the key fact of life and that the study of it is in its infancy. He maintains that spirituality and science are bound to meet and argues that science is moving rapidly into the hitherto unexplored subjective areas such as dreams, thought processes, and awareness and asserts that we are on the verge of a momentous shift in knowledge and ability with consciousness driven by exponential change in theory and technology.

In the article titled Sri Aurobindo’s Lila: The Nature of Divine Play According to Integral Advaita, Matthew W. Morey highlights a key aspect of integral consciousness focusing on the concept of Lila, or Divine Play, in the context of Integral non-dualism as described by Sri Aurobindo and Haridas Chaudhuri. To provide a context for this topic, he first recounts Haridas Chaudhuri’s brilliant exposition of the various schools of Advaita (non-dual) Vedanta and how Integral consciousness is a culmination of several key spiritual philosophical schools of Indian thought known as Advaita Vedanta. The second part of the essay directly addresses Sri Aurobindo’s description of Lila, a play that is at once a dalliance of the Divine and a teleological drama. In the context of Lila, the essay examines evolution, the individual poise of Brahman and the participatory nature of Integral Yoga.

Debashish Banerji’s Structure and Process: Integral Philosophy and Triple Transformation takes the reader deeper into the core of integral consciousness, philosophy and yoga. He starts by examining the debate concerning perennialism and pluralism in religious studies and considers the category of the ‘integral’, as described by Sri Aurobindo in the context of this debate. After exploring the case for perennialism vis-à-vis pluralism, he compares the contemporary taxonomy of a perennial core to mystical experience developed by Robert K. C. Forman with the idea of the “triple transformation” developed by Sri Aurobindo.

Finally, in United Religions Initiative: Global Community Emerging, Sally Mahé provides an introduction to United Religions Initiative (URI), a global grassroots interfaith network that promotes peace and justice through intercultural and interreligious dialogue using a process known as ‘appreciative inquiry’. URI is a leading example of a global organization which has successfully implemented the participatory and pluralistic vision at the core of a holistic and global approach to interreligious dialogue and interfaith cooperation. While she highlights some of the accomplishments of URI, she stresses that more cooperation, more compassion, and more commitment to good relationships is needed across the world for global unity, justice and peace.

Gratitude is due to editors of *Integral Review* for providing support for this publication.

Bahman A.K. Shirazi
San Francisco
July 2012

Higher Education and Interreligious Dialogue

Joseph L. Subbiondo[1]

Abstract: This article highlights the current need for inclusion of courses on religion and spirituality, as well as interreligious dialogue in higher education through an examination of three interrelated dimensions: Interreligious dialogue, religious pluralism and religious literacy. Some initiatives in this direction at the California Institute of Integral Studies are discussed.

Key Words: Higher Education; interreligious dialogue; Religious Pluralism; Religious literacy; California Institute of Integral Studies.

In 1973, the California Institute of Asian Studies, as the California Institute of Integral Studies (CIIS) was known then, applied for accreditation by the Western Association of Schools and Colleges (WASC). Led by the primary founders of CIIS, Haridas and Bina Chaudhuri, the Institute prepared a compelling institutional report in which they affirmed the quality of the academic programs as well as the operations of the Institute. In the report, the following courses were listed among the requirements of MA degree programs*:* ‘Comparative Religion: East and West’, ‘Comparative Mysticism’, ‘Comparative Theology’, ‘Religion and Comparative Politics’, and ‘Varieties of Mystical and Psychedelic Experiences’. The following courses were listed among the electives: ‘Meditation and Other Spiritual Disciplines’, ‘Religious Symbols’, and ‘Psychophysiology of Religious Experiences’. Certainly, a forward thinking curriculum for today, and a remarkably progressive one in 1973!

As you can see, interreligious study and dialogue has been a significant constituent of the CIIS educational experience since its founding. In keeping with this founding vision, which was and continues to be well ahead of its time, I will focus here on the now more-than-ever need for higher education in general, and CIIS in particular, to advance interreligious dialogue. To show the inextricable link between higher education and interreligious dialogue, I propose the following assertions:

a) Interreligious dialogue requires religious pluralism;
b) Religious pluralism requires religious literacy; and
c) Religious literacy requires higher education**.**

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[1] **Joseph L. Subbiondo,** president of CIIS since June 1999, has an accomplished background in both administration and academics. He brings a 30-year history of achievement in higher education, including appointments on several international academic committees; and he has been active on many accreditation teams for the Western Association of Schools and Colleges. Prior to coming to CIIS, he served as Dean of the School of Liberal Arts at St. Mary's College of California; Vice President for Academic Affairs at the University of the Pacific; Dean of the College of Arts and Sciences at Santa Clara University; and as a professor of English and linguistics at four universities.
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We know too well the consequences of living in a world that is in need of interreligious dialogue. Most, if not all, of the wars in our lifetimes have been or are being fought largely because of religious difference. For example, Catholics and Protestants in Northern Ireland, Hindus and Muslims in India, Muslims and Jews in Israel and Palestine, and Sunnis and Shiites in Iraq …. and the list goes on. The United States is not immune to violence in the name of religion as the post 9/11 assaults, such as the murder of a Sikh in Mesa, Arizona will attest.

Religion as a justification for war is as old as religion itself. For as long as we have recorded history, people have interpreted their religious beliefs as mandates to plunge themselves and their societies into deadly conflicts. It is easy to understand why many people identify war with religion. As Rabbi Jonathan Sacks (2005) points out in his book, *To Heal a Fractured World,* "Too often [religion] appears on the news, and lodges in the mind, as extremism, violence, and aggression" (p. 9).

Because religion has served as a battle cry, many reasonable people have argued that we should do away with it because it prevents peace and perpetuates oppression. For example, Richard Dawkins (2006) asserts this position in *The God Delusion*, as does Christopher Hitchens (2009) in his book, *God Is Not Great: How Religion Poisons Everything.* While Dawkins and Hitchens are correct in maintaining that religion has too often been associated with evil throughout history, I support Karen Armstrong's response to Dawkins and Hitchens in *The Case for God* (Armstrong, 2009). She writes: "It is … misleading to insist that all the problems of the modern world are entirely due to religion, if only because at this perilous moment in human history we need clear heads and accurate intelligence" (p.306). Haridas Chaudhuri (1984) was certainly clear headed and accurately intelligent regarding religion. He wrote in *Modern Man's Religion*:

> …religion is an autonomous function of the spirit. It can hardly be replaced by any non religious discipline. That which seeks to replace religion in a radically atheistic and anti-religious mood begins soon to function as a special kind of religion. So the great need of our present day is not to reject religion but to reconstruct it in accordance with the intellectual climate and the specific requirements of the present age. (p. ix)

Drawing on Chaudhuri's notion of reconstruction, religion has been and can be (reconstructed if necessary as) a primary inspiration for global peace and social justice. Supporting this possibility is the claim that all the major world religions incorporate some version of the golden rule: "do unto others as you would have them do to you." As noted by Rabbi Sydney Schwarz (2008) in *Judaism and Justice,* "According to God's covenant with Abraham, every Jew [and I could add members of nearly every religion] is called upon not simply to *believe* in the values of righteousness and justice, but to *act* on them" (p.34). In their comprehensive histories of world religions, Karen Armstrong and Huston Smith document in extensive detail that the world's religions attracted vast numbers of followers because they responded to a universal human longing for global peace and social justice.

If the teachings of the major world religions promote peace and social justice, then why are we living in an age tormented by religious wars? Charles Kimball (2008), professor of comparative religion at Wake Forest University, offers an answer in his book, *When Religion Becomes Evil*.

Kimball asserts that throughout history people have often “corrupted” traditional religion by aligning it with their violent intentions. Examining the history of world religions, Kimball identifies “five warning signs” that indicate that a religion is being “corrupted”: (1) absolute truth claims, (2) blind obedience, (3) ordained historical time, (4) ends justifying means, and (5) declaration of a holy war. Kimball’s five warning signs have one highly destructive element in common: exclusion.

The most potent antidote to exclusion is a progressive stage of inclusion—what we consider *pluralism*. With pluralism in mind, I turn to the first part of my assertion.

Interreligious Dialogue Requires Religious Pluralism.

Religious pluralism only exists in an environment where there is religious diversity, but religious diversity alone cannot guarantee religious pluralism. Religious pluralism requires consistent study, reflection, respect, and difficult conversation. Religious pluralism enables us to stand together despite profoundly held differences. While there are many similarities among the core beliefs of the world’s religions, religious pluralism is not a “melting pot” in which all religions become the same. The religious pluralism that can be a path to interreligious dialogue demands that we honor the integrity of each faith tradition as a distinctive and legitimate lens for viewing the sacred.

In his book, *How to Win a Cosmic War: God, Globalization, and the End of the War on Terror,* Reza Aslan (2009) argues that the way to end a “cosmic war” is to avoid representing religious conflict as a cosmic battle between “good” and “evil.” Aslan insists that by moving war to the cosmic playing field, we elevate war. Rather, he contends that we need to see religious war for what it is; namely, people using religion to justify their worst intentions and deplorable actions. Aslan goes so far as to claim that religious pluralism, especially in local settings, could eliminate religious war. Through a series of compelling examples, Aslan makes a case to support his claim that Muslims become suicide bombers when they are marginalized, alienated, and disaffected because of their religion. If we can reverse this trend, we can move ourselves closer to world peace.

Eboo Patel, founder of the Interfaith Youth Core in Chicago, and author of the autobiographical *Acts of Faith: The Story of an American Muslim, the Struggle for the Soul of a Generation* (Patel, 2007), holds a view similar to that of Aslan. Patel noted that the 9/11 hijackers were examples of what happens when young men are recruited into exclusive and extreme religious fundamentalism[2]. Patel (2007) calls us to embrace religious pluralism. He writes:

> One Hundred years ago, the great African American scholar W. E. B. Du Bois famously said, “The problem of the twentieth century is the problem of the color line.” I believe that the twenty-first century will be shaped by the question of the faith line. On one side of the faith line are the religious totalitarians. Their conviction is that only one interpretation of

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[2] For a detailed account that provides support for Aslan’s and Patel’s arguments, please read Lawrence Wright’s (2006) Pulitzer Prize winning *The Looming Tower: Al-Qaeda and the Road to 9/11*, in which Wright tracked the life journeys of each of the 9/11 hijackers.

> one religion is a legitimate way of being, believing, and belonging on earth. Everyone else needs to be cowed, or converted, or condemned, or killed. On the other side of the faith line are the religious pluralists, who hold that people believing in different creeds and belonging to different communities need to learn to live together. (p. xv)

Patel's book chronicles his engaging story of being raised a Muslim, learning about Mormonism in high school, Roman Catholicism in college, and Islam in graduate school. Each of his intensive contacts with various religions eventually brought him to reclaim his religious identity as a Muslim. He drew important lessons from each of the religions that he experienced; for example, from Roman Catholicism, he learned how to bridge religion and social responsibility when, as a student at the University of Illinois, he was a community member of the Dorothy Day Catholic Worker house in Champaign. He writes: "The most radical part about Dorothy Day and the Catholic Worker movement was the insistence that everything the movement did was guided by a single force: *love*" (Patel, 2007, p. 50).

For a thorough study of the increasing religious diversity in the United States, I strongly recommend Diana Eck's excellent book, *A New Religious America: How a "Christian Country" Has Become the World's Most Religiously Diverse Nation* (Eck, 2001). Eck drew on the research of her "Pluralism Project at Harvard," a project built on extensive interviews conducted by her students and herself of religious leaders and groups. Eck points out that religious…

> Pluralism is not an ideology, not a leftist scheme, and not free-form relativism. Rather, pluralism is the dynamic process through which we engage with one another in and through our very deepest differences … Pluralism is not a *given*—it must be *created.* (p. 70)

One of the most effective organizations engaged in promoting religious pluralism worldwide is the United Religions Initiative (URI) which provides models and training in creating circles of religious dialogue. Located in San Francisco and founded by William Swing, the former Episcopal Bishop of California and international peace activist, the URI is a …

> … global network of locally organized 'Cooperation Circles' acting to promote enduring daily interfaith cooperation, to end religiously motivated violence and to create cultures of peace, justice and healing. Groups are called Cooperation Circles because they are formed by people of different [religious] traditions who come together to initiate acts of interfaith cooperation. (http://www.uri.org/)

The URI defines a Cooperation Circle as the basic unit of URI membership and consists of local or virtual groups that include at least seven members and at least three different religions, spiritual expressions, and indigenous traditions. (for more information see: http://www.uri.org/cooperation_circles)

Religious Pluralism Requires Religious Literacy

Stephen Prothero, professor of religious studies at Boston University, writes about the widespread religious illiteracy in the United States in his book *Religious Literacy: What*

Americans Need to Know (Prothero, 2007a). In his essay “Worshiping in Ignorance” published in *Chronicle of Higher Education,* Prothero warns:

> Religious illiteracy is more dangerous [than cultural illiteracy] because religion is the most volatile constituent of culture. Religion has been, in addition to one of the greatest forces for good in world history, one of the greatest forces of evil. (Prothero, 2007b, p. B6)

Later in the same essay, he points out:

> Americans remain profoundly ignorant about their own religions and those of others. According to recent polls, most American adults cannot name even one of the four Gospels, and many high-school seniors think that Sodom and Gomorrah were husband and wife. (p. B6)

Prothero affirms that there are integrative connections among interreligious dialogue, religious pluralism, and religious literacy: he writes…

> Each of the world’s great religions has wrestled for centuries with the foundational questions of life and death and whatever (if anything) lies beyond. Each has developed sophisticated theologies for making sense of other religions, for regulating war, [and] for fighting injustice. (p. B7)

Prothero points out that as a nation, the US is religiously illiterate; yet eighty percent of its citizens claim to be religious and/or spiritual.

This high percentage of national identification with religion and/or spirituality is reflected at colleges and universities among students who are very comfortable with religion and among faculty members who have an emerging interest in religion. Alexander and Helen Astin and the research team at the Higher Education Research Institute (HERI) at UCLA are engaged in the longitudinal project, *Spirituality in Higher Education.* Periodically, they have been publishing reports based on the research from their extensive surveys, and they have published their findings in their book, *Cultivating Spirit: How Colleges Can Enhance Students’ Inner Lives.* (Astin, A., Astin, H. & Lindholm, J., 2011). It has been my good fortune to have been a consultant on a mid-point developmental phase of this project. In the phase, teams from ten colleges and universities explored specific ways that they could encourage the spiritual growth of students because these institutions discovered that spiritual growth typically improved students’ academic performance and well being.

The UCLA 2003 survey of 112,232 students entering their first year at 236 colleges and universities and 3,680 third year students attending 46 institutions indicated that 80% of the students were interested in religion and/or spirituality and that they believed in the sacredness of life. In addition, 50% were on spiritual quests, 75% were searching for the meaning and purpose of life, 80% regularly attended services and discussed religion with friends, 75% believed in God, 71% were sustained by their religious and spiritual values and beliefs, and 66% prayed regularly.

In 2004-05, the UCLA research team surveyed 65,124 professors at 511 colleges and universities and reported the following results: 81% of the faculty members considered themselves spiritual persons, 70% stated that they were developing a meaningful philosophy of life; 69% sought opportunities to grow spiritually, 68% engaged in self-reflection, and 47% integrated spirituality into their lives. The 2004-05 faculty surveys revealed that faculty members who identified themselves as spiritual and/or religious scored significantly higher (better than 8 to 1) than their non-spiritual and/or religious counterparts in supporting students' personal development; and by a margin of 2 to 1 in favoring student-centered pedagogy and in advocating civic-minded practice and values.

While a majority of faculty members (57%) disagreed with the statement that "The spiritual dimension of faculty members' lives has no place in the academy," a minority (30%) agreed that colleges should be concerned with facilitating students' spiritual development. This determination was consistent with responses from third year students who noted "that their professors have never encouraged discussion of spiritual or religious matters, and never provide opportunities for discussing the meaning or purposes of life." However, many faculty members believed that the following educational goals were 'essential' or 'very important': enhancing self-understanding (60%), developing moral character (59%), and helping students develop personal values (53%). Lastly, the UCLA researchers examined faculty responses by discipline; and they found that the health sciences, humanities, and education were among the highest in believing that higher education should facilitate spiritual development and the social, physical, and biological sciences were among the lowest.

In studying both surveys, the UCLA team concluded that "it appears that colleges and universities are doing little to help students explore these issues and support their search in the sphere of values and beliefs." The team noted that "there is a sharp divide between students' interests and what happens in the classroom" This "sharp divide" raises a critical question for colleges and universities: should they reduce this divide" (for more information see Spirituality in Higher Education website: www.spirituality.ucla.edu).

As I stated at the beginning of this essay, colleges and universities are major keys to developing interreligious dialogue because they can educate their students in religious literacy, a prerequisite for religious pluralism which, in turn, is a perquisite for interreligious dialogue. In short, we cannot understand, appreciate, or respect what we do not know.

Religious Literacy Requires Higher Education

I will suggest three steps that higher education should consider, and I will comment on plans that we are discussing at CIIS to advance religious literacy: 1) offer courses on the diversity of religious and spiritual practices; 2) integrate religion and spirituality throughout the curriculum; 3) increase awareness of and practice in social justice.

The first step that colleges and universities could take to cultivate religious literacy would be to provide students with opportunities to study a variety of religions. I agree with Professor Prothero that colleges and universities should require courses in religion for all academic major programs; and at the very least, they should require a course in comparative world religions.

Many higher education institutions are increasing their elective courses in religious studies, and enrollments have been exceeding expectations. At faith based colleges and universities where students can easily study and practice a religion, students should be encouraged to study religions other than their own.

Thomas Merton (1915-1968), the celebrated Trappist monk, wrote passionately about the dangers of knowing only one's own religion. He wrote:

> We must … admit with regret that, in the past, the tendency of Christians has been to regard all non-Christian religious experience as so obviously suspect as to be either too dangerous to study or else not worth the trouble of being studied. (Merton, 1967, p. 204)

Drawing on the traditions of contemplative practice in the East and the West, Merton pointed out that contemplative practice provides a fresh lens for interreligious study:

> One of the most important aspects of interfaith dialogue has …been one of the least discussed; it is the special contribution that the contemplative life can bring to the dialogue, not only among Christians, but also between Christians and the ancient religions of the East…. (p. 203)

Bede Griffiths (1906-1993), a Benedictine monk, established a religious and spiritual center in India near Bangalore. Griffiths enjoyed the respect of the local Hindus as they referred to him as *Sadhu*— a holy man. In his illuminating book, *The Marriage of East and West,* Griffiths (1982), like Merton, made a compelling case for knowing a faith other than one's own. He wrote:

> It was not merely the desire for new ideas which drew me to India, but the desire for a new way of life. I remember writing to a friend at the time: 'I want to discover the other half of my soul.' I had begun to discover that there was something lacking not only in the Western world but in the Western Church. We were living from one half of our soul, from the conscious, rational level and we needed to discover the other half, the unconscious, intuitive dimension. (pp. 7-8)

At CIIS, in response to increasing requests that we offer more courses and public programs reflecting the broad diversity of religions and spiritual traditions, we are increasing our offerings in comparative world religions in our Philosophy and Religion Program as well as in our Public Programs. In fact, we are working with several faculty members in considering ways to expand the presence of interreligious dialogue at CIIS. Also, our Public Programs has been organizing events for the general public that are grounded in interreligious dialogue featuring leading figures such as Karen Armstrong, Coleman Barks, Daisy Kahn, Joan Halifax, and Cornel West among many others.

A second step that colleges and universities can take to advance religious literacy is integrating religion and spirituality throughout the curriculum. In her book *Speaking of Faith: Why Religion Matters and How to Talk about it,* Krista Tippett (2007) rightly notes: "Religion has moved from the side lines to the center of world affairs and American life" (p. 9). It is not in my opinion a stretch to argue that whether or not people believe in any particular religion, they need to study religion.

An excellent resource for integrating religions into the curriculum is *The Forum on Religion and Ecology*. Mary Evelyn Tucker and John Grim, Professors of Religion at Yale and co-directors of the *Forum*, believe that religions need to be in interactive dialogue with academic disciplines (including the natural sciences, ethics, economics, education, public policy, and gender studies) in order to develop comprehensive solutions to global, as well as local, environmental problems. The Philosophy, Cosmology, and Consciousness program faculty work closely with Mary Evelyn and John.

Because much of higher education takes place outside the classroom, let us consider a third step that colleges and universities could take: increase awareness of and practice in social justice**.** Through activities such as service learning projects and student internships, we can help students engage in promoting social responsibility. As Rabbi Jonathan Sacks (2005) has insisted, “The God who gave us the gift of freedom asks us to use it to honor and enhance the freedom of others. God, the ultimate Other, asks us to reach out to the human other” (p.3). Sacks emphasizes his point: “Jewish ethics is refreshingly down-to-earth. If someone is in need, give” (p.5). Sacks recognized the current urgency of charity and social justice: “Now, of all times, we should be holding out the hand of friendship to strangers, help to those in need” (p. 265).

To support students in this endeavor, colleges and universities can encourage campus interreligious and religious groups to live the social responsibility commitments of their spiritual and faith traditions. For example, students can help the homeless, tutor children of underserved populations, visit the abandoned elderly, serve non-profit organizations, and volunteer in community service programs.

Focus on community service at CIIS has been eloquently articulated in the *Beloved Community* initiatives at CIIS. In recognition of our many community service programs especially our six counseling centers, CIIS was invited and has become a member of Campus Compact, an organization that has both a state and a national network of colleges and universities engaged in community service. In spring of 2011, I forwarded the CIIS faculty and staff a preview of President Obama’s forthcoming Interfaith and Community Service Campus Challenge. Certainly CIIS is meeting this challenge and we certainly will let President Obama know that we are.

Furthermore, we are currently in the process of developing the Chaudhuri Center with the mission to integrate contemplative practice, interreligious dialogue, and social justice. The Center, in effect, would incorporate all three steps that I have been recommending. The Center recently co-sponsored a lecture series on Interreligious Dialogue and Social Justice at the Interfaith Center at the Presidio. (for more information visit: http://www.ciis.edu/about_ciis/chaudhuri_center.html).

I will conclude my remarks by citing the last sentence of Karen Armstrong’s book, *The Great Transformations: The Beginnings of our Religious Traditions*:

> Auschwitz, Bosnia, and the destruction of the World Trade Center revealed the darkness of the human heart. Today, we are living in a tragic world where, as the Greeks knew, there can be no simple answers; the genre of tragedy demands that we learn to see things from other people's points of view. If religion is to bring light to our broken world we need […] to go in search of the lost heart, the spirit of compassion that lies at the core of all our [religious and spiritual] traditions. (Armstrong, 2006, p. 476)

We have a long and complex journey ahead of us if we wish to arrive at pluralistic interreligious dialogue, and higher education can significantly help us negotiate the many and seemingly insurmountable obstacles that stand in our way.

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New Religious Movements, Modern Esoteric Movements, and Integral Consciousness

Constance A. Jones, Ph.D.[1]

Abstract: Sensibilities toward Eastern thought in the West, fostered in large part through the growth of new religious movements, align with the elements of Western esoteric teachings which have appeared in many guises throughout the history of the West and are reemerging in our time. Understanding these sensibilities and their alignment can deepen our appreciation of the foundations of integral consciousness.

Key Words: Esotericism, Integral Consciousness, New Religious Movements.

Introduction

The religious landscape is changing and we are in a particularly advantageous place from which to view these alterations. Not only is California the site of more new religious movements than elsewhere in this country (and perhaps the world), but the California Institute of Integral Studies (CIIS) offers fertile soil and is a veritable greenhouse for change in consciousness. I have studied new religions in America since 1970 and have recently begun to examine esotericism throughout history in the West. I suggest that these two impulses, new religious movements and esoteric movements, may offer insights into our understanding of integral consciousness.

Personal Standpoint

In the early 1970s, when I began to study the sociology of new religions, the larger field of sociology of religion was declining. Many sociologists were predicting that the field of sociology of religion would cease to exist, since the dominant theory of the day was the secularization hypothesis that modern societies would find religion less and less important over time as rational thought and scientific progress would move us away from belief and superstition. The last forty years demonstrate that these predictions were erroneous. We have a burgeoning of religion and

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huge shifts in religious affiliations. Reports of the demise of the sociology of religion were premature and overstated. The sociology of religion is needed more than ever to understand why these changes in religious phenomena are occurring.

The Religious Landscape in the United States

A quick overview of religious affiliations in the U.S. demonstrates what Americans have always known that religion matters. In the traditional religions of this country (Judaism, Roman Catholicism, and Protestantism) conservative groups are growing and liberal groups are declining in membership. In the world of Protestantism, liberal denominations (such as Episcopal and Methodist) are declining, while conservative denominations (such as Jehovah's Witnesses, Mormons, and other evangelical churches) are growing. Eastern religious beliefs and practices, particularly those of Hinduism, Buddhism, Taoism, Sikhism, and Jainism, are proliferating in the larger culture, even if formal membership grows only slightly or not at all. Today, almost everyone in this society knows the meanings of religious concepts from the East, such as karma and reincarnation. But only two generations ago, few Americans knew these concepts, or the basics of astrology, Tarot, or the I-Ching.

New Religious Movements

The breadth of belief and practice demonstrated in new religious movements in this country is immense. Of particular interest to us are the ancient traditions from the East that appeared in abundance after the Asian Exclusion Act was repealed in 1965. The U.S. saw many teachers from Hinduism, Buddhism, Sikhism, Jainism, Taoism, and Sufism appear and attract devotees to Eastern beliefs and practices. Interestingly, some of the oldest religious traditions on earth are classified sociologically as "new religions" in the U.S. because they entered the mainstream culture in the last 100 or so years. There has also been a reclaiming (some would say a revitalization) of indigenous spirituality centered around pagan thought and practice, goddess spirituality, and renewed connection to nature through shamanism and entheogens.

Other movements, such as Scientology, Christian Science, UFO groups, and channelers claim to unite religion and science and to use empirical methods to bolster faith and a spiritual cosmology. New Age groups combine these distinctive threads into innovative forms that seem to demonstrate endless permutations. Even newer are the growing fundamentalist movements in the major world religions, including Christianity, Judaism, Islam, and even Hinduism.

This brief sketch of the panoply of new religious impulses is cursory, but telling. What we see is a growing eclecticism among those who accept liberal versions of traditional religions. It is not uncommon to find individuals who simultaneously study Kaballah, attend an Episcopal church, go to Buddhist retreats, visit shamans in Peru, have Tarot readings, practice yoga, and meditate. This movement toward eclecticism and the privatizing of religion has long been noted by scholars of religion. In the 60's, Thomas Luckmann (1967) called this form of spirituality "the invisible religion"; in the 70's Agehananda Bharati (1976, p. 11) referred to the "aloha-amigo" syndrome, which he described as "pathological eclecticism"; and in the 80's, Robert Bellah (1985) coined the term "Sheilaism". Each term refers to the assertion that religion is essentially a private matter to be constructed idiosyncratically and that no particular constraint is placed on individuals by a historic church or religious community.

Bellah (1986) found in the 1980s that 80% of Americans agreed with the statement: “an individual should arrive at his or her own religious beliefs independent of any churches of synagogues”(p. 2). When such privatism combines with eclecticism, we see a ‘make your own’ religion, as each person can pick and choose what he or she prefers from the smorgasbord of beliefs and practices that is openly available. Among some, the ability ‘to make your own’ religion has also become valorized under the term “spirituality”, as distinct from religion. Others define the eclecticism of the smorgasbord as pathological; especially if, as most traditions assert, one must go deeply into one tradition to benefit from its wisdom and transformative promise.

Also new, but in opposition to this sampling at the smorgasbord of belief and practice, is an entrenchment in various traditions in order to preserve what is considered a “pure” but threatened religious tradition, usually to a depth of conservatism and rejection of interfaith dialogue that supersedes any previous stage in the tradition. This phenomenon includes the growing fundamentalisms in several world religions, a decidedly important trend—but not part of our consideration here—because the fundamentalist impulse of exclusivism runs counter to the impulse toward integral consciousness.

Esotericism

Esotericism, broadly understood as the hidden side of any institutionalized religious tradition, has many definitions. For our purposes, we emphasize the personal struggle for progressive elucidation at multiple levels of reality. Esotericism involves submitting oneself to a conscious and transcendent reality that is contacted within the self. It is a psychological enterprise that includes both the sacred and the profane in a quest for self-knowledge, which does not depend upon acceptance of any system of belief or morality. Although the site of transformation is the psyche, esotericism relies on communities of practice and teachers to provide conditions for transformation. Thus, the esoteric enterprise cannot be completely privatized. Esotericism involves a way of engagement quite distinct from institutionalized or exoteric religion.

Exoteric religion contrasts with esotericism in that traditional exoteric religion in the West defines the human condition as one of sin and the goal of life as salvation—this is particularly true of Christianity. The means to salvation include belief, faith, and doctrinal orthodoxy. We even refer to individuals who practice a religion as ‘believers’. Western exoteric religion is dualistic, dividing morality into good and bad elements and cosmology into the creator and the created. Exoteric religion involves membership in an institution (e.g. church, synagogue, or mosque) that promotes practices and rituals derived from faith and belief.

Esotericism, on the other hand, defines the human condition as one of ignorance and fragmentation and the goal of life as gnosis, evolution, and transformation, with different degrees of emphasis on these goals in various traditions. The means to transformation include inquiry, self-observation, knowledge, and integration of the parts of the self into a whole. Esoteric religion is non-dual, emphasizing universalistic themes; members can be in all faiths. Instead of membership in a religious institution, esotericists belong to schools and follow a teaching rather than a belief system. Their practice is more akin to an exploratory inquiry than a faith-based orthodoxy. Instead of being a “believer,” an esotericist is more properly termed a ‘student.’[2]

What does the shift from exoteric religious belief to new religions and esotericism signal? The answer is multi-faceted and requires considerable explanation. I point here to only a few themes that are salient for our consideration because these themes also participate in what we identify as integral consciousness.

How New Religions and Esotericism Contribute to Integral Consciousness

The search begins as a yearning for authenticity. We are not as we can be and in our fragmented and conflicted state, we are not whole. We are able to be greater and are called to be greater than we are. We sense a personal obligation to search for a change in our state of being. Some impulse calls for a rebellion against the unresolved compartmentalization and contradictions in modern society, in all of its manifestations—religion, family, education, science, ethics, art, etc. In a quest for wholeness, many attempts are made, sometimes misguided, to grapple with the ethical and metaphysical relativism that defines our age.

A mechanistic model of the universe no longer suffices. We learn from indigenous, pagan, and Eastern traditions that the universe is not inanimate, but rather conscious and that the universe constitutes a teaching in itself. Nature is thus living and conscious and we participate in its unity, not as separate entities, but as fractals of a whole. We learn that study of our psychology and study of the cosmos are mutually reinforcing. In fact, one learns about oneself through knowledge of the workings of the larger cosmos. We begin to see relationships and identity between the microcosm and the macrocosm. Individual healing reflects cosmic principles, as in the alchemical axiom ‘as above, so below’.

Although acutely aware of the many differences among us, we recognize a universalizing principle that rises above sectarianism to affirm that all humans are in a common struggle for liberation from the bondage of conditioning. In recognition that we can be liberated only after intense study of ourselves, we have an impulse to unite with others in an effort, a work, to make more of ourselves and our communities than we can even comprehend at this point. A local exemplar of this impulse is the Cultural Integration Fellowship[3] in San Francisco founded by Haridas Chaudhuri. In our intent to transform self and society, we find that our efforts need to be trans-religious, trans-cultural, and trans-gender. Frithjof Schuon (1984) refers to the transcendent unity of religions; Robert Bellah (1986) asserts that “the religious heritage of the human species is one”(p.3). Somehow we reckon that we are deeply interdependent.

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[2] Western esoteric movements have existed much like an underground stream throughout Western history, surfacing in distinct places and times, but with similar principles and practices. A few examples to illustrate the breadth of esotericism include: Essenes, Greek Mystery Cults, Pythagoreanism, Kaballah, Sufism, Theosophy, Freemasonry, Anthroposophy, Rosicrucianism, Alchemy, Hermeticism, and groups following specific teachers such as Jacob Boehme, Rene Guenon, G.I. Gurdjieff, and Adyashanti.

[3] for more information see: http://www.culturalintegrationfellowship.org/

Part of the universalizing principle is a rejection of partisan, sectarian religious tenets that have been integral to the American worldview. The traditional civil religion that saw America as God's new Israel and as the exemplar of absolute good is suffering a crisis of legitimacy. As is the Protestant Ethic—also known as the American Success Ethic—which defines poverty as disreputable and justifies accumulation of wealth. In place of these divisive belief systems that justify social and cultural hegemony without a trace of self-criticism, we find an ethic of community arising in a number of new religious forms. We recognize a dimension of humanity that the modern secular world denies and we acknowledge a quest for direct experience of this dimension, variously referred to as the divine, the sacred, the transcendent, the mysterious, the participatory. In reaction to the emotional blandness of the modern world, an impulse arises to integrate body, mind, spirit, and emotions. Wholeness requires that we honor the teachings of the past through myth and story and discover a sacred dimension to humanity that calls for expression.

Similarly, the impulse toward integral consciousness originates from a higher level of ourselves, a level that is 'esoteric', hidden or inaccessible to us because we habitually identify with a surface consciousness that is fragmented, isolated and alone. How do we search for this authenticity, this integrity of being? One fundamental esoteric principle is that we are not alone, that there exists a locus of conscious energy that calls to us and speaks to us through the diversity of forms we call 'art', 'religion' and even 'science', provided we know how to listen with a more whole, integral self. What we have not understood and what is problematic is that the attention we bring to these areas of interest is always insufficient because it is always the same fragmented attention we occupy daily in our ordinary state. Attention is not theoretical but so long as it evades itself, allows itself to become absorbed in its various momentary interests to the exclusion of its integral potential, we necessarily suffer the consequences of a fragmented and incomplete existence.

All of these impulses constitute a desire for a religion or a teaching that makes a difference in our everyday lives. It is not enough to be a nominal participant in a faith-based institution. Spending one hour on Sunday morning in church, going to High Holy Days each year or observing Namas each day does not satisfy the urge to change one's state of being. To change, to transform, to transmute, to integrate, to individuate are processes that require more than nominal allegiance. They require diligence and energy.

I conclude by citing Jacob Needleman, "What we find in these movements is the hope of a worldview for modern people, a sense of the wholeness and purposiveness of reality within which individual human beings are called to discover their own natural place, bringing with them everything of their minds, hearts, and instincts. This impulse has the virtue of joining the inner life of each person in all its possible levels to the world of nature and beyond, even to the Highest" (Faivre and Needleman, 1995, pp. xxiv-xxv).

In these ways, the deeper aspects of the new religious phenomena represent the reemergence of esotericism in our time and contribute to the foundations of integral consciousness.

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Rethinking the Future of World Religion:[1]
A Conversation with Jorge N. Ferrer[2]

Bahman A.K. Shirazi

When it comes to religious consciousness, the turn of the 21st century presents an unprecedented and challenging time in human history. On the one hand, the long-standing chasm between premodern theocentric religious traditions, and the modern anthropocentric, scientistic, and materialistic worldviews is widening. On the other hand, unlike what some may have anticipated, not only religion and spirituality are not on the decline, they are as strong as they have ever been.

Hundreds of new religions, cults, sects, and spiritual communities have emerged in recent decades. These new religious movements, along with globalization of religion, multiple-religion explorations, ecumenical services, religious syncretism, and secular spiritual orientations are among the many trends that shape today's religious landscape. Despite the widespread materialism in a technology-dominated world, we live in times of rich spiritual diversity, experimentation, and innovation. Our postmodern world seems to be evolving at an increasingly accelerated rate. While some are very comfortable moving along at such a fast pace, others, unable to cope with this rapid change, have either resorted back to religious fundamentalism, or have become profoundly confused and disenchanted.

Jorge Ferrer is one of few thinkers who have tried to map out the current landscape: He reflects on whether humanity will ultimately converge into one single religion, or will it continue to diversify into numerous forms of spiritual expression? Or perhaps, a middle path capable of reconciling the human longing for spiritual unity, on the one hand, and the developmental and evolutionary gravitation toward spiritual individuation and differentiation, on the other hand, is more likely?

In this interview he discusses four possible scenarios for the future of religion: global religion; mutual transformation of religions; interspiritual wisdom; and spirituality without religion—*as well as discussing his own participatory vision.*

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[1] Jorge N. Ferrer presented the four scenarios mentioned in this interview in the spring of 2011 in a keynote presentation at the *Symposium on Integral Consciousness* at the *California Institute of Integral Studies*. These scenarios are further elaborated on in Ferrer, J. N. (2012). The Future of World Religion: Four Scenarios, One Dream. *Tikkun*: *Culture, Spirituality, Politics, 27*(1), 14-16, 63-64.

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BS: *Thank you very much for this interview! I would like to start on a personal note regarding your own background in terms of religion and spirituality. Were you brought up religious or secular? Were you ever part of a religious community?*

JF: I was born in Barcelona, Spain, and was educated in a Catholic school (Maristas la Imaculada) where the object of devotion was not God, but the Virgin Mary. In retrospect, I can see how this impacted my spiritual orientation, which could be seen as more feminine, organic, and embodied than most traditional ones. Thus, I had twelve years of elementary and high school Christian education that was less rigid and more liberal than the one offered by other orders such as the Jesuits.

During my school years, I had some unusual experiences such as states of absorption or trance in the classroom. I remember that a teacher once abruptly woke me up during one of those trances and I broke up crying. I was sent to the school psychologist to see if I was epileptic—which was not the case. Then during my pre-adolescence I had numerous out-of-body experiences. These nonordinary experiences, as well as an increasing awareness of psychological wounds, impelled me to study psychology.

BS: *So you were already aware of these psychological issues?*

JF: I was aware of a number of energetic blocks and associated psychological neuroses by the time I was seventeen years old. I was also fascinated by those nonordinary experiences, so I went into psychology to both try to understand them, and heal myself. Mainstream psychology in Spain was then dominated by cognitive psychology and neuroscience, which provided neither answers to my questions nor any healing. Thus, I launched a personal search through autodidactic study. I read most of Freud's *Collected Works* and from there I went on to read Jung and Fromm. Reading Fromm, Suzuki, and de Martino's *Zen Buddhism and Psychoanalysis* was a turning point in my search. That was my first contact with Eastern philosophies, which in turn led me to Alan Watts and eventually to the field of transpersonal psychology. At that time, I also joined a Hindu meditation group in Barcelona called the Brahma Kumaris—do you know them?

BS: *Yes, they have a center in San Francisco too.*

JF: I was with them for about half a year and had beautiful meditative experiences, but some aspects of the group's philosophy, such as apocalyptic thinking and the belief that "they would be the only ones who would be saved", didn't sit well with me. Since I appreciated Zen, I moved on to study with the female Korean Zen teacher Ji Kwang Dae Poep Sa Nim for a couple of years in Barcelona.

BS: *Were you in college at this time?*

JF: Yes, I was at the university studying psychology. Korean Zen is influenced by both Taoism and shamanism and the practice involved not only meditation, but also energy work, mantras, and magic. I was still nineteen when my teacher proposed to me to move to her center and become celibate for three years. At that time, however, what I actually needed was to explore and heal my sexuality. It was obvious that my Zen teacher, who was supposed to be a psychic reader, 'did not get it'. I left her school, entered psychotherapy, and eventually attended workshops to explore my sexuality, which were deeply healing and liberating. This event is at the root of my valuing my internal spiritual authority over external sources such as scriptures, doctrines, or spiritual teachers. Interestingly, much later I naturally entered a period of almost three years of celibacy that was both effortless and profoundly transformative. All this led me to conclude that a healthy celibacy cannot emerge from a mental or even spiritual imposition upon our primary world, but should rather organically flow from the inner dynamics of our sexual energy.

During this time I also had some very formative experiences with psychedelics. I experimented with combining psychedelics and meditation and continued psychotherapy. When I arrived in the U.S. in 1993, I attended individual and group psychotherapy, and immersed myself in meditation practices such as vipassana at Spirit Rock center and Zen practice with Joan Halifax (who is ordained in Thich Nhat Hahn's Order of Interbeing). For a time, Joan became the closest to having a traditional spiritual teacher I have ever had. At that time, she used to teach at CIIS and I also went to her center '*Upaya*' in New Mexico to do a vision quest under her guidance.

Later on, I connected with Donald Rothberg and became a member of the *Buddhist Peace Fellowship*'s (BPF) *Buddhist Alliance for Social Engagement* (BASE) for a few years, doing volunteering service with homeless Latino women in the Mission district of San Francisco. Thus, for about 10-12 years I was affiliated with various kinds of Buddhist practice from Korean Zen to Thich Nhat Hahn's Zen to Theravadin vipassana and to socially engaged Buddhism. I also attended many talks by Tibetan Buddhist teachers and regularly practiced *tonglen* (giving and taking suffering) and other Tibetan practices, but never studied Tibetan Buddhism formally.

I should add here that right before coming to the U.S. I had my first encounter with the body of work called *Holistic Sexuality*, co-created by Ramon V. Albareda and Marina T. Romero. I was doing a personality study with Ramon when he invited me to a Holistic Sexuality workshop. The workshop was so powerful that for a few years I would go back for more in the summers, sometimes with other CIIS students. This work has been very important for me and provided essential experiential seeds for my participatory approach to spiritual growth. Eventually, I invited Marina to the States and for a few years I became involved in the facilitation of this work at the California Institute of Integral Studies (CIIS), Esalen Institute, Institute of Transpersonal Psychology (ITP), and other institutions. Although Buddhist practice had given me a lot, I experienced a lack of vitality in Buddhist circles that was not nourishing my soul. Holistic Sexuality was the perfect remedy and provided the right balance for my integral practice.

Finally, shamanism has also been very influential in my spiritual practice. Starting from intensive reading on the topic in Spain, I then studied it with Joan Halifax (whose teachings combine Buddhism and shamanism), and worked with Mexican mushrooms and ayahuasca for many years in both the United States and South America. About five years ago, I came across San Pedro (Wachuma) in Peru and felt a deeper calling I had never felt with other plants. Since then, San Pedro has become a very important plant teacher for me.

***BS**: In what way is the future of religion important to your worldview and current work?*

JF: Well, whether in my approach to intimate relations or the way I live by, I have always been naturally attuned to what is next—what is unfolding. I do not get too excited about what has already happened, but more about what is emerging and is new. Thus I am interested in the evolutionary spirituality that Sri Aurobindo, Haridas Chaudhuri, Ken Wilber, and many others talk about—which gives a sense of adventure to both being alive and spiritual inquiry. It is in this context that I am interested in the future of religion.

***BS**: You spoke about four scenarios in your presentation. In the first scenario you talked about* the emergence of a global religion *or a single world faith for humankind—the possibility of a global religion where either one religion will come to dominate others, or a synthesis of many or most traditions will emerge realizing the dream of a global spirituality; and you said that this scenario is not likely. Is this just a hypothetical possibility or is there more to this beyond a desire on the part of some religion for it to prevail over others?*

JF: I think that most religious traditions explicitly or implicitly aspire to have their creed prevail over the rest, because they genuinely believe that it is the best; that is, it represents the highest truth and is good for everybody. In some cases, this attitude (which I have called “spiritual narcissism”) manifests as problematic fanaticism, in others simply as a candid belief. Spiritual narcissism is pandemic and not necessarily associated with a narcissistic personality.

For example, the Dalai Lama is very likely among the least personally narcissistic, but he firmly believes that his particular school of Tibetan Buddhism holds a higher truth than any other Buddhist school or religion. He supports a diversity of religions on psychological grounds (i.e., on the basis that people have different psychological dispositions), but he still believes that it is a temporary situation, and that, after the necessary reincarnations people will come to realize the superior truth maintained by his school.

***BS**: Also for example, in Islam there is a belief that it is the last religion and the last word!*

JF: Exactly. I believe this situation invites us to wake up to the possibility that there might be another way to hold the plurality of religions beyond believing that one must own the highest truth. I don't believe that any of the existing religions will become global, in part because there is tremendous spiritual diversification, even within each religion. For example, which particular kind of Buddhism would prevail, as they are fighting internally over doctrinal issues? And the same is true with other religions.

In my view, the evolutionary move towards differentiation is positive and a sign of spiritual creativity. If spiritual diversification is a good thing, then the whole dream of a global religion becomes both illusory and misleading. If there is anything that might become global, it may take the form of a number of interreligious principles that all good-hearted people might agree upon.

***BS**: Are many of the other scenarios that you talked about more like a reaction to this first scenario?*

JF: Exactly, many are a reaction to spiritual narcissism, the deep-seated belief that one's spiritual choices are best for everybody.

***BS**: Yes, it is like a kind of provincialism—as all of these religions started as local practices.*

JF: Exactly, this is also true with Ken Wilber's proposal in transpersonal and integral studies. He articulates a spiritual meta-framework that is supposed to be universal, global, and truest, so his model functions like a dogmatic religion—the Wilberian-integral religion.

***BS**: You refer to the second scenario as the* mutual transformation of religions, *where religious traditions conserve their identity but are deeply and perpetually transformed through a variety of interreligious exchanges. The distinctive feature here is that religious cross-pollination will lead to spiritual creative unions in which diversity is not erased, but rather intensified. You maintain that this vision is consistent with not only the adoption of practices from other traditions by members of different faith communities, but also with the deepening or re-envisioning of one's own tradition in light of other religious perspective.*

You have given examples of this type of religious syncretism: the Haitian Vodou's blending of Christianity and African traditions or the Brazilian Santo Daime Church's incorporation of the indigenous use of ayahuasca into a Christian container. You maintain that currently this religious cross-fertilization is visibly taking place in interfaith dialogue, the New Age movement, and a number of eclectic and integrative spiritual groups. You have also included in this category the growing phenomenon of "multiple religious participation," in which an individual partakes in the practices and belief systems of more than one tradition, which can potentially result in the renewal of existing religious traditions through cross-cultural encounters

So, this seems to be the next natural reaction to, or movement from, the first scenario. You mentioned that interreligious dialogues are a part of this trend. Many people say that the interreligious dialogues that they have seen are more about stating your case, honoring or acknowledging the other, but sticking to your own truth and boundaries. I was wondering if you were inspired by certain kinds of interreligious dialogues that go further than that and the parties are really mutually interested in one another?

JF: I have read a lot about interreligious dialogue and attended a number of interreligious encounters, including the Parliament of the World Religions and others organized by Religions for Peace at the United Nations.

There are a variety of attitudes within the interfaith movement. What you described is a kind of tolerant dialogue in which people have an interest in each other but there are clear limits regarding how deeply transformative the dialogue can be. In some circles interreligious dialogue moved beyond that. In many cases, for example, Christians not only gain a deep understanding of say Buddhism, but also state that such understanding helped them to recognize aspects of Christianity that they would have otherwise overlooked. In addition, there are increasing numbers of interfaith experiments that move beyond verbal dialogue to include exchange of spiritual practices.

Interestingly, perhaps because of their self-critical postcolonial awareness, Christians seem to be the ones more open to these kinds of deeply transformative exchanges. What I see in the Buddhist-Christian dialogue is that many Christian theologians are ready to transform Christian doctrine through engagement of Buddhist teachings, but this is not always the case in the other direction. In any event, this is the direction I would like to see the dialogue move forward—toward mutual transformations not just at the level of doctrine, but also of spiritual practice. The reason for that is that I believe that different traditions have stressed, cultivated, and developed different human potentials.

***BS**:* *Exactly, each tradition seems to have mastered a certain aspect of reality or a part of the larger whole.*

JF: And this cross-pollination can allow different traditions to remain in their identities and simultaneously be enriched by contact with other religions. One phenomenon that fascinates me is cross-fertilization at the visionary level. There are the levels of doctrine and practice, but what about the visionary, ontological, or metaphysical levels? In some contemporary ayahuasca ceremonies, for example, people access visionary worlds that combine indigenous and Christian motifs. I think we are going to see more of that in years to come. What people bring with them to these dialogs is key, and many involved in interreligious dialogues are practicing more than one tradition.

***BS**:* *Do you think practicing more than one religion is just a temporary phase? Or is it really possible to continue with multiple traditions?*

JF: I think it's perfectly possible. It is well documented in individual biographical cases, but also in the case of entire societies, such as contemporary Japan. Many Japanese people practice a combination of Shintoism, Buddhism, and Confucianism side by side. They tend to compartmentalize it; for example, Shintoism for nature, Buddhism for the self, and Confucianism for politics. On an individual level, Raimon Panikkar's case comes quickly to mind. He was both a Christian priest and Hindu *sanyasin*, and his influential approach to interreligious dialogue emerged from his own intra-religious dialogue.

***BS**: This has also been true in the past, for example, in Southeast Asia the animistic and indigenous traditions are just part of the Buddhist religion today. Buddhism has not washed over them and somehow has incorporated the older traditions into its religious practice, so it's possible that this will continue.*

JF: The phenomenon of "multiple religious participation" is increasing and has been well documented sociologically. For example, Judaism and Buddhism seem to somehow easily go together; many Buddhist teachers in the United States were Jewish by birth and there are many Jewish people who practice Buddhism.

***BS**: One individual explained the reason for this being that in Judaic theology there is not enough explicit acknowledgement of human suffering; and that Judaism tends to be a life-celebratory and God-glorifying tradition. So there is little acknowledgment of personal suffering in Judaism—and thus attraction to Buddhism.*

JF: I do believe that many people have the psychospiritual capability to hold different beliefs and practices in their lives. What we don't know is whether the phenomenon we are seeing now will eventually lead to syncretic religions or more to situations like the one in Japan.

***BS**: It seems that if there is a certain element of truth in any faith, it should withstand the test of time, and the reason for something to disappear would be its inability to hold true over the course of evolution of consciousness.*

In the third scenario you talked about the affirmation of interspiritual wisdom emerging from spiritual teachings, principles, and values endorsed by all religious groups and traditions. You have mentioned a number of people whose philosophy falls under this category such as Hans Küng's proposal for a global ethics, or the work of Christian author Wayne Teasdale who proposed a universal mysticism grounded in the practice of "interspirituality". Additional examples you have given are Beverly Lanzetta's proposal for an "intercontemplative" global spirituality that affirms the interdependence of spiritual principles giving birth to new spiritual paths, and Robert Forman's "trans-traditional spirituality" that feeds on the teachings of all religious traditions but is not restricted by the confines of any particular credo.

This may sound somewhat like the previous scenario, so I was wondering if you could elaborate on the difference? Is this true more at one end of the spectrum or limited to certain individuals? Is it starting to happen more and more?

JF: As you mentioned, this proposal has been articulated by a number of scholar-practitioners such as Brother Wayne Teasdale and Beverly Lanzetta, who were very engaged in the interfaith dialogue. In a way it is connected to the second scenario; their proponents hope or believe that the interfaith dialogue will lead to agreement upon a certain number of spiritual teachings or understandings such as the ethical principles of Hans Küng's Global Ethics. But this proposal goes farther than just ethics to include core spiritual teachings or doctrines.

I am fascinated by this proposal and would like to see it unfold. I can see how this might be more feasible with ethics than core spiritual doctrines, which I'm rather skeptical about, given the huge doctrinal differences among traditions.

***BS**: Küng got his license to teach revoked by the Vatican!*

JF: Still, I could envision that a minimum of core shared principles might emerge in the future.

***BS**: It seems like a pragmatic possibility; as these religious worlds come together, there will be some obvious issues and people can agree upon some shared realities regardless of the deeper end of these philosophies and develop a foundation on that pragmatic level.*

JF: I am a spiritual pragmatist and I'm interested in what works for people. In terms of the validity of doctrines, I also take a more pragmatic approach inspired by the Buddhist teaching of "skillful means" (*upaya*). I posit that spiritual teachings are valid insofar as they work; that is, insofar as they help people become less self-centered, create wholesome communities, lead to better relations with the environment, and so forth. This is connected to my non-objectivist participatory approach to spiritual truth.

***BS**: Do you see a possibility that while on the exoteric side world religions will stay as diverse as they are today, on the esoteric level there will be more mutual understandings in such a way that will influence the exoteric level—the emphasis being on the latter, since I have seen many individuals on the contemplative side fairly easily get along. But do you think that it will affect a larger population and the effect would disseminate through the mainstream traditions themselves?*

JF: I have no doubt that the more mystical or contemplative strands of religions cultivate their traditions' living fire, and that those practitioners tend to become beautiful human beings. But this is different from the perennial assertion that there is greater agreement in spiritual doctrine and truth at the esoteric or mystical dimension of the traditions.

The whole esoteric/exoteric distinction is problematic in many ways. I think that the Schuon-Smith hypothesis is erroneous and it does not stand against historical, textual and phenomenological evidence. Even within a single tradition, disagreements among contemplative practitioners abound. Take Buddhism for example: Zen and Tibetan Buddhist monks strongly disagree about the ultimate nature of reality; are they not considered Buddhist esoteric or mystical practitioners?

Although I question the hypothesis, contemplative practitioners do seem to get along better among themselves than believers who engage in religion on conceptual and doctrinal levels, which tends to lean more easily to fanaticism (and this is not to say that mystics cannot be religiously zealous!).

BS: *I recall from Haridas Chaudhuri's book: Modern Man's Religion, that he made a distinction between the 'universalist individual' within a religious tradition—since all of the major religions have a universal outlook and a person within that tradition could reach or embody the universal teachings, higher ethics and values etc.—and a 'universal religion'.*

JF: My dream or fantasy is that those practitioners get along, appreciate each other, and are engaged in spiritual cross-fertilization, but we know that many are actually trying to convert the other; you know that this happens even within the mystical branches.

So, can we embrace all this incredible spiritual diversity as something positive? Can we contemplate that different traditions may have found different soteriological solutions for the human dilemma, and that they may be advancing the evolutionary creativity of Being in different directions?

If we accept this view, there may be overlapping qualities among traditions, but we don't need to come to identical agreements, truths, or principles. These kinds of (failed) attempts have plagued the religious history of humankind. In my view, the objectivist perspective about spiritual truth underlying these attempts is not very generous regarding the creativity of spiritual unfolding.

BS: *There seems to be strong tendencies to stick to the form of things—the way things are presented on the outer level—and the problem you are talking about is that perhaps we can get along on a more essential level, but there is still a tendency to understand that essence in the familiar forms and not recognize it in the outer forms of other traditions.*

JF: That's true and my sense is that at the essential level there are important differences too. For example, when Theravada Buddhists talk about *sunyata* (emptiness) and Mahayana Buddhists talk about the *dharmakaya,* or Christians talk about God-the-Father, they are talking about radically different things.

BS: *There was a tendency thirty or forty years ago to say that all religions have a common core; it was well intentioned toward bringing about peace.*

But at the same time I have been thinking that certain kinds of layers might exist starting with forms on the outermost level, and then deeper or underlying structures that some phenomenologists are interested in; and then there is the meaning level, and deeper within there is the essence or essential layer. We may not know what 'essence' really means but perhaps 'essence' of, let say, water can take many forms and names in different languages and at the chemical level we refer to it as H_2O*. But when you taste or experience water there may be many dimensions to that experience.*

JF: In my work I advocate for the existence of diversity beyond form, that is, at those essential, cosmological, or metaphysical levels. However, I also believe that we can legitimately talk about a mystery out of which everything arises. Perhaps this mystery is closer to what you call the essential quality of all religions, but as soon as anyone 'essentializes' the mystery in terms of particular qualities (e.g., empty, personal, nondual, etc.), the challenges of spiritual pluralism re-emerge.

BS: *Yes, especially if it is done prematurely. I am still working with a gradient of these different levels in terms of epistemology or ways of knowing with respect to various levels. For example, there is outer empiricism, and also inner empiricism and eventually more direct or immediate ways of knowing pertaining to the innermost levels. So there may be something there, but it certainly is not that simple and they cannot be equalized simplistically.*

JF: Exactly, and it is important to consider that such essence that we may think of as primordial may be also evolving with us through co-creative participation! For example, nondual consciousness might be the origin of things, but that doesn't mean that that's where we want to go spiritually speaking. Taking such origin as a goal might be actually regressive in an evolutionary context. We might be able to access such foundation of existence, but my question is, where do we want to go with that today?

BS: *The last scenario before we get into the participatory paradigm is spirituality without religion. You include in this scenario a number of contemporary developments—from secular to postmodern, and from naturalistic to New Age spiritualities—that aim for the cultivation of a spiritual life free from traditional religious dogmas and/or transcendent or supernatural beliefs.*

You consider postmodern spiritualities, which remain agnostic about supernatural or transcendent sources of religion, and the New Age movement that tends to uncritically accept them, as the two most prominent trends that value the primacy of individual choice and experience, criticize the "received" religious doctrines and authoritarian institutions, and call for a democratization of spirit and a direct path to the divine. Lastly in this scenario, you included modern religious quests, secular surrogates for religion, and *postsecular spiritualities that use mottos such as "spiritual but not religious", "religion without religion," and "believing without belonging."*

Many people nowadays talk about being spiritual, but not religious. What is your own view on the difference between spirituality and religiosity?

JF: My sense is that this distinction has practical value for people who have been brought up in religious contexts that were rather oppressive. In those cases, the distinction can allow such individuals to embrace spiritual values free from dogmatic specters.

Historically, there is a distinction between the terms *spirituality* and *religion*. For example, in the history of Christianity the term *spirituality* came to be used to refer to the more personal, affective, and experiential dimensions of religion— vs. its more communal, cognitive, liturgical, and doctrinal aspects.

But when it comes to judge whether particular groups or individuals are religious or spiritual, the distinction doesn't make much sense. Practitioners from the world traditions are usually considered to be religious, whereas many operating outside traditions identify themselves as "spiritual but not religious". But, to what extent are Christian monks (who in my experience can be non-dogmatic about Christian doctrine) less spiritual than New Age practitioners (who can hold their spiritual beliefs rather dogmatically)? Are those New Age people religious or spiritual? It seems like the dividing line here is between being doctrinal or dogmatic (religious) and practicing a more open-ended path (spiritual), and I think this can be helpful. But at the same time I don't think that we can use this distinction for mapping or categorizing. Why would one want to categorize someone as religious, and not spiritual, if she belongs to an organized religion? That doesn't make sense! But again, the distinction can have practical value for individuals who have been oppressed by an organized religion and want to take up a spiritual path.

***BS**: So, I wonder if the distinction between exoteric and esoteric would be more meaningful in terms of 'religion vs. spirituality', where religious refers to the exoteric level, and spirituality to the esoteric?*

JF: My sense is that the distinction you are referring to does have some validity, but I hesitate to use the terms *spirituality* and *religiosity* as a way to distinguish mystical from non-mystical practitioners. You see, the overwhelming majority of mystics of the past considered themselves to be *very* religious; so who are we to say that they are "spiritual but not religious" according to our modern categories? The distinction is important but I wouldn't use those terms to make it.

***BS**: Are there experiential illuminations that mark the exoteric/esoteric distinction?*

JF: There are actual experiential illuminations, as well as degrees of apprehension of spiritual truths in all religions; but again I would not use these terms as distinguishing categories.

***BS**: In your* participatory *paradigm religious worlds and experiences are understood as co-created and emerging from the interactions of the entire range of human faculties: rational, imaginal, erotic, somatic, and so forth. Here you emphasize a shift from searching for spiritual unity in a global religion organized around a single vision, to recognizing an already existent spiritual human family that branches out in numerous directions from the same creative source. In other words, religious people may be able to find their longed-for unity not so much in an all-encompassing megasystem or superreligion, but in their common roots—that is, in that deep bond constituted by the undetermined creative power of spirit, life, and/or the cosmos in which all traditions participate in the bringing forth of their spiritual insights and cosmologies.*

You have said that in this scenario, it will no longer be a contested issue whether practitioners endorse a theistic, nondual, or naturalistic account of the mystery, or whether their chosen path of spiritual cultivation is meditation, social engagement, conscious parenting, entheogenic shamanism, or communion with nature. The new spiritual common ground will be the degree to which each spiritual path fosters overcoming of self-centeredness and a fully embodied integration that make us not only more sensitive to the needs of others, nature, and the world, but also more effective agents of cultural and planetary transformation in whatever contexts and measure life or spirit calls us to work.

This sounds like a whole-person or integral orientation. So I was wondering if there are participatory models that you are aware of that don't necessarily include this level of depth and breadth, and is that your contribution to bring the whole-person orientation into the participatory paradigm?

JF: Yes, there are various participatory models that emphasize different things. John Heron's work, for example, stresses the political dimension, although he has a holistic view of the person too. My work with Holistic Sexuality is very important here. In this approach, the spiritual path unfolds through the co-creative participation of all human attributes and ways of knowing (i.e., vital, somatic, emotional, mental, contemplative, etc.) in a spiritual power or creative dynamism of life or the cosmos.

***BS**: That seems to be the key as you bring the whole person into the relationship. One can have all kinds of interactions and transactions, and even relationships, without engaging the whole person!*

JF: In the context of a participatory worldview, we could say that everyone *always already* participates in the creative unfolding of life, the cosmos, and/or the mystery. However, we can talk about different degrees of participation and also different gradations of participatory awareness. Owen Barfield's distinction between original (or unconscious) participation vs. final (or conscious) participation was influential for me here. Degree of participatory consciousness is as important as the engagement of the whole person.

Later I learned that other approaches such as integral yoga have similar aims. As you know from our previous conversations, I feel that Sri Aurobindo de-emphasized the importance of the vital world and sexuality for a fully embodied spiritual participation—although I know that Chaudhuri appreciated better the integration of sexuality and spirituality. My sense is that the participatory paradigm is an academic and spiritual sensibility that each scholar or practitioner can shape in unique directions. In general, this sensibility could be said to stress the embodied, integrative, inquiry-driven, and relational dimensions of spirituality.

BS: *One might say that in the traditional religious settings there has been a lot of emphasis on the social dimension; however, the religious traditions do not emphasize the subjective, the inner experiential dimension. In reading some of your works one might think that you emphasize the subjective dimension, the experiential dimension, but you are coming into that in a different way— more consciously.*

JF: It could also be said that my work expands the value of the subjective dimension by including experiential dimensions that have been previously suppressed in religious inquiry, such as the body and sexuality. At the same time, its relational emphasis underlines the inter-subjective dimension of spiritual practice and understanding. Our subjectivity is co-created through inter-subjective engagements.

BS: *Haridas Chaudhuri has this simple teaching on the triadic principle of* uniqueness, relatedness *and* transcendence *that I like a lot. Actually, John Welwood used slightly different terms*—personal, interpersonal, *and* transpersonal *dimensions—for these in the 1980s. It seems like your approach does engage all of these three dimensions, even though it might appear as emphasizing the relational dimension, which has been missing and only recently being emphasized in psychology and psychotherapy?*

JF: Yes, this is great! My work also emphasizes these three dimensions equally as the intrapersonal (i.e., collaboration of all human attributes), interpersonal (i.e., cooperative relationships among human beings), and transpersonal (i.e., interaction between human beings and the mystery) dimensions of participation.

BS: *How about the uniqueness of individuality?*

JF: I talk about this dimension in terms of "spiritual individuation" that emerges from the unique unfolding of the person as it becomes whole and co-creatively engages with the mystery.

***BS*:** *The transcendent aspect seems to have two different dimensions to me. One has been described using the metaphor of the overarching sky, but the other one is the underlying ground that connects everything—as in the case of a tree with the roots, the trunk, and the branches. A tree gets the food and water from the earth, but the air and light come from above; so that transcendent dimension is actually both of these. I wonder what your thoughts are on this issue?*

JF: Yes, the transcendent and the immanent have been usually antagonized in terms of different spiritual orientations, but my sense is that both are equally vital spiritual aspects of the mystery that transcend the person. Thus, my sense is that an integral or fully embodied spirituality requires the individual to be open to both types of transcendence.

BS: Yes, there is an issue here potentially with the mind being the medium of expression, but when you translate that into yogic terms, or Kundalini experiences, it really takes on a different experiential form.

JF: Yes, and I want to stress that the aforementioned polarity is not a duality. Immanent life and transcendent consciousness are two sides of the same coin—they are connected like sides of a Mobius string. This helps to understand why when we open into consciousness deeply enough, a sense of the erotic emerges, and when we delve deeply enough into the body and sexuality, the transcendentally numinous appears.

***BS*:** *Yes, in Sri Aurobindo's Savitri after one goes deep into the core of matter, one experiences light. I guess we will leave that to the Great Mystery!*

What is the role of the Divine Feminine in your view?

JF: The feminine and the masculine dwell at all levels. They exist in the immanent and the transcendent, as well as in all aspects of the human being and all levels of reality.

Because of our patriarchal history, however, masculine values have been privileged over feminine ones, leading to a marginalization of the embodied, vital, and erotic aspects of spirituality. In addition, the masculine and the feminine have been associated to antagonistic spiritual orientations such as transcendence (masculine) and immanence (feminine). Part of our evolutionary challenge is to restore balance both personally and collectively in the spirit of healing and integration.

***BS*:** *Is this part of your second and third scenarios?*

JF: Certainly in the interfaith movement there have been an increasing number of women participating. Of course, participatory spirituality could be seen as stressing "feminine" values such as full embodiment vs. the heart chakra spirituality characteristic of most patriarchal traditions. But again, this emphasis seeks to counter our historical imbalance—the true horizon is integration.

BS: *Lastly, what about the distinction between religious vs. secular? Is that included in your work?*

JF: Let me tell you two short personal stories that will convey my sense of this distinction. First, I remember that members of the Buddhist Alliance for Social Engagement (BASE) would go to meditation centers such as Spirit Rock to invite practitioners to provide service for the homeless. This was not very successful. Everybody had plenty of time for meditation practice (at times, entire months for retreats), but virtually nobody had an hour a week to offer to the homeless.

Second, my brother is a militant atheist and secular humanist who teaches sociology and politics at the University of Barcelona. He holds a scientific materialistic worldview and despises spirituality and religion. However, he fought for women's rights for years and is one of the main proponents of a universal basic income in Spain and Europe—for me there is a profound spirituality in what he is doing! What matters ultimately is what people actually do, not how they define themselves, "secular" or "religious." (I am not questioning here the value of personal retreats but this contrast brought to me this insight very sharply).

BS: Hopefully the secular dimension would be included in the interfaith dialogue as it seems to be missing now.

Thank you very much for your time—it is much appreciated!

JF: Yes, this was a great interview. Thank you!

Transformative Body Practices and Social Change: The Intersection Between Spirituality and Activism

Don Hanlon Johnson[1]

Abstract: This paper examines the intersections of embodied spiritual practices—breathing, sensing, postural awareness, moving, touching—and organizing for social change. The perspectives of two leading revolutionary theorists, Mahatma Gandhi and Wilhelm Reich, provide a basis from which to analyze the importance for body cultivation in addressing social issues. There is an analysis of how traditional practices might be taught in a context which opens the practitioner to the grief of the world and the energy to address it.

Key Words: Somatic Spirituality; Transformative Body Practices; Embodied Spirituality; Social Activism; Mahatma Gandhi; Wilhelm Reich.

The orderly form of this clean title belies the bloody historical conflicts in which various societies have tried to blend spiritual values, physical needs, and social justice. Grand spiritual visions continually veer into a fanaticism which becomes blind to many who are targeted as 'other', even to the point of questioning their humanity. Attention to physical needs collapses into narrow-minded squeezing of the human spirit.

Gandhi knew this. In his long struggles in South Africa and India to invent an Indian identity of freedom and social justice, he kept bumping up against the bitter resentments that turn us against one another even while we desperately seek to join together. It was for this reason that he was virtually obsessed about seemingly minor personal issues of diet, exercise, and sexual control. "It is easier," he wrote, "to conquer the entire world than to subdue the enemies in our body. . . The self-government which you, I and all the others have to attain is in fact this. . . . The point of it all is that you can serve the country only with the body" (Gandhi as cited in Alter, 2000, p.3).

It is astounding to go through his writings and discover how much of his energies he poured into the smallest details of self-cultivation in the midst of world-changing activities with thousands of people. Water cures, mud-packs, herbalism, Western gymnastics, vegetarianism, and other body disciplines are the stuff out of which non-violence (*ahimsa)* was derived and made possible in the face of colonial domination. Gandhi's notion of non-violence was far from passivity, born of intense work with the self, disciplining its automatic reactions, toughening its fibers, learning to bring into clear, useful focus its wild impulses. The truth of being that flowed

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from these practices, *Satyagraha*, was truth enfleshed, full-body truth, whose bearers stood firmly in that truth against the purveyors of illusion.

His rigorous attention to the body served the obvious purpose of strengthening the revolutionary for the severe challenges of resistance to violence. In addressing a national association of youth, he said:

> Try to follow my ideals as far as you can. For that we should have a good physique. We have to build up our muscles by regular exercise. But that should not be done to indulge in violence. . . Our ideal is to become tough labourers, and our exercises should be toward that end. (Gandhi as cited in Alter, 2000, p. 16)

A secondary purpose was to discipline the hard edges of emotional reactions that fragment the revolutionary community and keep it from harmonious and effective action. Perhaps the most important dimension of his body concerns had to do with purging the body of the effects of colonization which promoted food habits and medical practices, on top of wanton sexual behavior, that weakened the Indian population. His pleas for vegetarianism and celibacy were based on his arguments that these were strategies of resistance and liberation:

> We have more than an ordinary share of disease, famines, and pauperism—even starvation among millions. We are being ground down in slavery in such a subtle manner that many of us refuse even to recognize it as such, and mistake our state as one of progressive freedom in spite of the triple curse of economic, mental, and moral drain. (Gandhi, as quoted in Alter, 2000, p. 11)

While Gandhi was working to change the conditions of Indians in apartheid South Africa and colonialized India, Wilhelm Reich was addressing the social devastations in Europe that were the results of the Industrial Revolution, pogroms, and unending military conflicts. Despite their enormous cultural, psychological, and spiritual differences, these two men shared a core belief in the central importance of the body in social change.

As a young physician, Reich was shaped both by psychoanalysis, and by Marxist humanism. Freud made him aware of the roots of impotence within the fluids and nervous channels of the psyche. He saw that the innate energies of the organism became so distorted by the family and religion that they lost their capacities to energize a truly free adult, producing instead passive citizens subject to manipulation by charismatic leaders. From Marx, he became aware of the effects of the larger industrial society on the organism, how the conditions of mass populations of factory workers robbed them of their internal sense of agency. Like Gandhi, he understood that the struggle for freedom required intense practices of transforming the body: "As a result of thousands of years of social and educational distortion, masses of people have become biologically rigid and incapable of freedom. They are not capable of establishing peaceful coexistence" (Reich, 1970, p.319).

In the early 1930s, Reich wrote a hauntingly prophetic analysis of how Hitler succeeded so rapidly in mobilizing hordes of people to engage in a mass movement that seemed obviously contrary to the most basic human values. He raises the question of why it was that countless thoughtful people were unable to stem the tides of the apocalyptic tragedies they could see bearing down upon them. From his view, the missing piece in revolutions that doomed them to repetitive failure was the anchor of passivity in the body: "... we set out to show the miscalculation that all freedom-fighters until now have made: *The social incapacity for freedom is sexual-physiologically anchored in the human organism*"[2] (Reich, 1970, p. 346).

Despite profound similarities in their analysis of social impotence, they differed radically in their prescriptions for addressing it. For Gandhi, the inner preparation of the body required severe repression of sexual urges. Reich, by contrast, developed the practice of psychoanalysis in the direction of transforming sexual urges into full-bodied, transgenital orgasm. I use the word 'transgenital' to avoid certain oversimplifications of Reich's bioenergetic psychology into a raw form of sexual release. If one studies his texts carefully, what is at stake is mobilizing the fullest capacities of the body's energies and in contact with other persons. Sheer localized orgasm is for him a deficiency, like gulping one's food. Though certainly rooted in nurturing sexual excitement, the discipline of his work consists in allowing that primal excitation to radiate throughout the entire organism, creating a sense of a fully energized self, a free person grounded in the fullest of his or her agency (Reich, 1972, pp. 318-325).

Like Gandhi, Reich inspired communities of revolutionaries-in-training who still work together to implement his theories for internal transformation with the goal of creating more humane civil societies. Throughout Europe, various communities organized around Reichian personal analytic work focus on bodily energies, combined with pre-natal and peri-natal care, education in early child care, couples counseling, and social advocacy around issues of health and sexuality. The utopian hope is that as healthier children are born and raised, a healthier mass population of more independently minded adults will replace the overwhelming percentage of people who are subject to fascist manipulations.

As one is beset today by the unending debates in US politics about contraception, abortion, gay rights, and uses of violence, the history of Reich's efforts seems all the more relevant. As Reich ended his life scarred by his long experiences of being hounded by psychoanalysts, Marxists, and democratic capitalists, he came to realize that fascism is not a peculiar characteristic of ephemeral political movements in Germany, Spain, Italy, and Japan. It is a universal phenomenon because it is rooted in the human body. When the multiple layers of bodily movements, impulses, and perceptions are not creatively transformed into lives of purpose, mass media and ideologues find it easy to create mass movements based on fear and disorientation.

Neither Gandhi nor Reich achieved enormous successes in the long run. Gandhi was painfully aware that his constant experiments with various strategies of changing himself and changing the nation enjoyed only modest successes. There were the small failures in his attempts to regulate his sexual desires, which may be strangely related to his larger failures as in his tragic inability to forge an alliance with the Muslim communities.

Reich was ousted by every community he tried to join. In 1956, he had been imprisoned in Lewisburg, Pennsylvania, on spurious charges of transporting so-called medical equipment across state border. Shortly before he died there in 1957, the F.D.A. held a medieval-style book-burning of everything he had published.

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[2] Italics are original.

Although their great hopes are dashed in the ruins of fragmented India and Pakistan, and in the depredations of the West, Reich's analysis of fascism and Gandhi's of colonialism are crucial in getting beyond the tragic patterns of revolutions in which the old oppressed, when they succeed in getting power, regularly become the new oppressors. In her book *On Revolution*, Hannah Arendt (1965) draws out the implications of the fact that the word means 'revolve'. Reich argues that it is not possible to break the cycle without getting at 'the social incapacity for freedom rooted in the human organism.' The repetitive good-willed efforts to create a just social order keep foundering on the shoals of closed-off bodies.

Can we learn from them and move forward taking note of what they missed?

> I am in a workshop with Charlotte Selver, the late founder of Sensory Awareness[3]. We are each standing behind a partner. She is giving us instructions about how to be present to our partner by placing our hands on their shoulders, simply, not trying to do anything, just being there but intricately aware of the fullest possible contact between the contours of our hands and the contours of their shoulders. We do this experiment for some 5-10 minutes. After it is over, one of the touchers complains that her shoulders got a little uncomfortable doing this. Charlotte replies with her characteristically feisty tone of voice, "So?".
>
> Her response hit me like a koan from a Zen patriarch. Here was a 95-year-old woman who had fled to New York when the Nazis first ordered her to wear the arm-band in her German university, who had gone on to wander the world dedicated literally to waking up people to what was happening all around us, living simply and teaching radically, keeping to her task even when deaf and having broken several bones. In that light, her impolite response to a complaint of muscle discomfort was a powerful assault on self-indulgence in a radically embodied way: how could I complain about my tiny aches and pains when the grief of the world was so overwhelming that it needs all the healing we can muster?

In his final years, the late particle physicist David Bohm left his lifelong work to help create more effective communities of social change. He was prompted in that life change by his intimate awareness of the dangers facing us, while bewildered by the difficulties of maintaining collaborative movements towards resolving those dangers. He joined Krishnamurti in developing a web of dialogues around the world to address the seemingly intractable problem of collaboration on social values. In his analysis of entrenched patterns of dominance, aggression, and violence, he found that a primary factor was the forming of false wholes, whose boundaries split people apart. The purpose of the dialogues was to address head-on what they considered to be the heart of those false wholes: the addiction to ideas, particularly 'big' ones—Christian, Islamic, Jewish, and Hindu fundamentalism; Marxism; Scientism; Neo-Capitalism, etc. These big ideas are, he felt, tenacious enough to keep people from mobilizing sufficient unity to transform the radical problems that we all share: global warming's serious threat to the planet, poverty, hunger, violence (Bohm, 1988).

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[3] For more information on sensory awareness see Selver & Brooks (2007).

Bohm's unique characterization of mass addictions to ideas as the foundations for false wholes led him to become interested in the role of the body as an underlying ground of the fragmentation. Often disguised in fine language and gentle demeanor, the addictions reveal their true selves in bodily comportment. When the ideology is confronted with the ‘other’ from a different 'whole', a delicate veil descends over the face, the eyes narrow, muscles betray at least a slight hardening, a contrived smile appears along with an unctuous tone of voice. Edging too close to the core of the addiction can provoke a hostile response out of keeping with what seems to be the person's warm personality.

Compared to such gifted leaders as Carl Rogers, Eugene Gendlin, Joanna Macy, and many others, Bohm's dialogue methods are not particularly effective. I introduce him here because of his diagnosis of the addictive nature of societal fragmentation. It had an important impact on my own longstanding attempts to study how ideas are generated by, and anchored in, one's repetitive patterns of breathing, moving, tensing, sensing. Emerging as we are from a long history of institutional dualism, it is only very slowly that we are becoming aware of the central role the body plays in the evolution of consciousness and community.

A key person in bringing this theme to the fore was the cultural historian Norman O. Brown. In his seminal book, *Love's Body* (Brown, 1968), he advances this radical revision of the perennial philosophy:

> Union and unification is of bodies, not souls. . . [S]oul, personality and ego are what distinguish and separate us; they make us individuals, arrived at by dividing till you can divide no more—atoms. But psychic individuals, separate, unfissionable on the inside, impenetrable on the outside, are, like physical atoms, an illusion; in the twentieth century, in this age of fission, we can split the individual even as we can split the atom. Souls, personalities, and egos are masks, specters, concealing our unity as body. For it is as one biological species that mankind is one. . .; so that to become conscious of ourselves as body is to become conscious of mankind as one. (p. 82)

When I first encountered this passage, I had a strangely paradoxical reaction. On the one hand it countered the belief in which I had been schooled that it was the soul's abstract ideals—peace, justice, compassion—that would bring humans together. As bodies, we were just windowless monads moving in the void. And yet, I knew from that same schooling that our sorry history is of a succession of idealistic communities using all means possible, including torture and murder, to get other communities to adopt their values, no matter if the cost means rationalizing an abandonment of their own ideals of love and compassion. I began to study how direct work with such intimate realities as breathing, sensing, moving, and touch might loosen the hardpan that anchored such infertile ideological conflicts.

Over some forty years, I have been trying out various experiments aimed at bringing to the fore the consensual bodily matrix in which we engage with others. I have found again and again that people who were ideologically in conflict—Muslims/Jews, Whites/Blacks, Native

Americans/Christian evangelists, atheists/theists, young/old—would find themselves interested in each other if given the chance to work silently and simply with one another, breathing, touching, and moving. Learning to stay connected with the 'Other's' facial responses, or maintaining a gentle tactile contact, or listening to each other's breathing, reduced the charge provoked by abstract preconceived differences, and allowed people to settle into a more primal level of shared values about the grief of the world and focus more on how to ameliorate it than on differences of opinion.

> I am in a workshop which Emilie Conrad Da'Oud and I organized with some fifteen African-American somatics practitioners. Emilie has us in partners. I am standing behind a seated man, a clinical psychologist the same age as I. She asks us to put our hands on our partner's shoulders in simple contact. I do this for some few minutes. At the end, we two exchange feedback. He says at first "I cringed, expecting to be pushed down once again by a white guy. But I felt such relief when I felt you were just there with me".

How to think of the body as a source of collaborative visionary efforts to shape a more just world? What images might galvanize our desires for a more effective way to join with one another?

Richard Niebuhr makes a fruitful distinction between the body as missionary and as pilgrim:

> Our bodies are vehicles of passage, and to make pilgrimage is to exercise our inborn motility. It is in this natural propensity to motion that our future as pilgrims is formed. But to discern this fact properly, we have first to attend to another fundamental trait of our being, a pervasive yet determinate feeling that is a ground tenor accompanying all the music of our activities. I will call this ground tenor attachment to place. (Niebuhr, 1984, p. 8)

Reich and Neibuhr join together: the healthy free adult is mobile, not frozen; and the pilgrim is of necessity mobile. To walk the *Camino de Santiago de Compostela*, circumambulate Mount Kailash, or embark on the *Hajj* one has to be in shape, physically vital, capable of handling the rigors of weather and terrain, knowledgeable about how to carry food and water for the journey, skilled in necessary clothing and footwear. Small rigidities will emerge over the long haul to create serious dysfunctions. In this long journey, the pilgrim needs help from others: the ordinary gestures of food, drink, shelter, and directions; the extraordinary ones in case of emergency. Like the Good Samaritan, the pilgrim's helpers do not inquire into the religious proclivities of the person in need before they offer help.

At the same time, the pilgrim has to develop a sensitivity to place. Because *here* (San Francisco) is not *there* (Kailash). There is a deep meaning in undertaking these journeys; they presuppose that place affects one's spiritual life. The pilgrim is in a position to learn that all spiritual viewpoints are rooted in the places where they evolved: the Sinai desert, the polar tundras, the Amazonian and Southeast Asian rain forests. If place is nothing but an accident of ephemeral reality like one's underwear, if each place is essentially like every other, there is no real point in making a difficult journey.

The missionary is a different being. His or her anchor is neither body nor place, but floating entangled in elaborately defined ideas of salvation and virtue. Places are irrelevant in the grand scheme of eternity. The body is important primarily as the dangerous playground of desire, needing to be corralled. Mobility is not one of their virtues; they are more like stone pillars. Conversations inevitably bump up against a stance impervious to any assault: some usual triggers are homosexuality, contraception, earth-based or tribal spiritual practices, etc. Bring any of these topics forward, and the unchanging responses are predictable.

I paint this hard-edged portrait not as an outside elitist critic, but as one who is recovering from a very sophisticated training as a missionary. I have been a zealot for Roman Catholicism, for Rolfing, for various forms of spirituality. For a good part of my life, I firmly believed that I knew something that others needed to know, and I worked to convince them of such. Only slowly over many years of practice, have I learned to situate myself in my own standing and walking and breathing, here, where I, not you, exist. Learning to inhabit this place, I see that you are indeed a being who knows, if different from me. Perhaps we can walk this land together, even if our notions about it are different. But only if we walk hand-in-hand, sensitive to each other's movements, paying more attention to our rhythms of sound and movement and less to the occasional abstraction.

> *A friend, trained in a discipline called "Authentic Movement,"[4] is on the staff of a company that does diversity trainings for corporations. For some years, he had tried without success to get his team to consider incorporating body movement practices in their work. One week, they had begun a seminar at a company in Albuquerque, New Mexico, where most of the employees are from the Rio Grande pueblos. During the first day, the participants were unusually passive and resistant. In their discouragement at the end of the day, his co-leaders said to my friend that since nothing else was working, he could try some of his body stuff. The next morning he did a long session of authentic movement. At the end, the participants said, now we can tell you our names.*

I conclude by addressing the difficult tensions manifest in history between spiritual idealisms and social justice. In every spiritual tradition there are transformative body practices: breathing, awareness of bodily sensations and reactions, healing touch, sacred dance, whirling, chanting, meditative postures and mudras. The shapes of communal consciousness that emerge from long practice of any of these are not automatically programmed; they are largely shaped by particular spiritual teachings which vary widely. Sometimes, the meditator is encouraged to cultivate the ways in which these practices open him or her to the greater world; often, the direction is more internal.

In the various transformative practices that have emerged more recently in the West, the evocation of the fuller energies of the body into speech and action dictate radical changes in the world itself. Social change is always in the background. The above analyses suggest the importance of shifting the context of these practices from one in which their content is taught within the confines of preconceived sacred writings to one that builds on the opening of the practitioner to the Infinite Unknown within which other persons are situated in their unfathomable depths.

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[4] For more information see Pallaro (1999).

The negative theology of the medieval mystics, the *Via Negativa*, holds a clue. In the light of carrying any of these processes far enough, the meditator's sense of self and fixed concepts can dissolve in the immensity of the transconceptual, eventually revealing in its depth and density the earth and our fellow beings together, a matrix on which we can craft a better home, a shelter for all in the great storms.

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The New Myth: Frederic Spiegelberg and the Rise of a Whole Earth, 1914-1968

Ahmed M. Kabil[1]

Abstract: The present article provides, through the life and teachings of a little-known German scholar of religions named Frederic Spiegelberg (1897-1994), a novel account of some of the unique historical and intellectual developments that converged in the San Francisco Bay Area in the mid twentieth century and subsequently informed and enabled many of the defining chapters of recent global history. Separately, these developments are known as the dissemination in the West of Asian religious perspectives and practices, the San Francisco Renaissance, the rise of the counterculture, the widespread blossoming of environmental awareness, and the information age revolution. Together, they comprise *The New Myth*: synchronous with and in reaction to the planetary spread of technology and the global experiential horizons such technology discloses, a constellation of holistic integral thought emerged in various domains in the West that was characterized above all by a spatiotemporal emphasis on the '*Here and Now'* and the realization of unity through the recognition and transcendence of polarity. The origins, afterlives, and implications of this constellation of thought are only now being discerned. The story of Professor Frederick Spiegelberg's life—little known and largely forgotten—functions as the conduit through which the New Myth's historical and intellectual contours are traced and thereby rendered intelligible.

Keywords: Alan Watts; Counterculture Movement; Cybernetics, Frederick Spiegelberg; Haridas Chaudhuri; Martin Heidegger; Integralism, San Francisco Cultural Renaissance; Sri Aurobindo; Steward Brand; Whole Earth Catalog.

The following article presents a vignette of the life and teachings of a little-known and largely forgotten professor of comparative religions named Frederic Spiegelberg (1897-1994). My central contention is that the path of Spiegelberg's life discloses a constellation of holistic, integral thought and the network of thinkers who disseminated it. The constellation of thought and the network of its promulgation reveal a history of the spiritual revitalization of the West, one undertaken through rediscovering and appropriating the West's shared origins with the East. The goal was to discover a way of being suitable to the age of global technological modernity. I call the network the drive towards wholeness. I call the constellation of thought the New Myth.

Synchronous with and in reaction to the planetary spread of technology and the global experiential horizons such technology discloses, a '*New Myth'* emerged in various domains in the West that was characterized above all by a spatiotemporal emphasis on the Here and Now and the realization of unity through the recognition and transcendence of polarity. These efforts

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culminated in a convergence of developments during the mid-twentieth century that have informed and in ways enabled many key developments in world history since—most notably the rise of environmentalism and the information age.

A theologian by training and a professor of comparative religions by vocation, Spiegelberg was in a sense an ideal albeit typical scholar, occupying a stable post at Stanford University for three decades with the odd publication here and there before retiring to a quiet life in his Bay Front apartment overlooking Ghirardelli Square in San Francisco.

But Spiegelberg was anything but conventional. His interests ranged far and wide, and East and West. As well versed in Greek and Latin as he was in Sanskrit, Spiegelberg administered Rorschach tests to Indian yogis, dabbled in the ‘dark and disreputable’ arts of alchemy and gnosticism, and exalted heresy and iconoclasm as paths to salvation. He possessed the largest collection of Tibetan ghost traps in the West, and grew convinced that an earlier encounter with the great Indian yogi, Sri Aurobindo, infused him with a divine energy he could summon and transmit in lectures. Spiegelberg warned his followers he was not a prophet, yet made prophecies nevertheless. He spoke of vast changes in store for the world, and believed his endeavors were to play a key part. And he was right.

Spiegelberg stood knee-deep in the currents of East and West at the crucial moment of their confluence. His actions were pivotal in transmitting the strains of Ch’an (Daoist/Zen) Buddhism, Hinduism and existentialism that would influence the Beats, 1960s counterculture, and the developments in technology and environmentalism that followed. Spiegelberg’s story tells of three overcomings; the first, of the spiritual crisis of Interwar Europe symbolized by world war; the second, of the mechanized outlook of postwar cold war American society symbolized by the mushroom cloud; and the third, of the widespread belief that technology was an antagonistic force in the aim of global unity, symbolized by the whole earth.

Many parts of the tale have been told before. But the whole, as history, has not. To be sure, the full breadth of the story, with all the origins, afterlives, and implications is outside the scope of this article. The goal here, then, is to point to key moments in a tale that stretches across traditions, continents and eras. Part I, World War (1914-1945), traces Spiegelberg’s early years as an academic in Europe seeking alternative approaches to discuss the experience of Being, culminating in the crystallization of his seminal intellectual contribution, the *Religion of No-Religion*. In Interwar Europe he found himself drawn to the work of Martin Heidegger in philosophy and Carl Jung in psychology, and brought his unique understanding of both scholars to San Francisco when he was forced to flee Nazi Germany in 1937. Part II, Mushroom Cloud (1945-1957), follows Spiegelberg as a teacher at Stanford and the American Academy of Asian Studies as he becomes one of the principal transmitters of integral yoga, Chan Buddhism, Heideggerian existentialism, and Jungian psychology to the West.

Many of the students and colleagues influenced by his teachings and projects would go on to become key players of the San Francisco Renaissance, 1960s counterculture, and information age revolution. They include Alan Watts, Allen Ginsberg, Gary Snyder, Michael Murphy and Dick Price (who co-founded the Esalen Institute in 1962), and ecologist/futurist Stewart Brand (who spearheaded modern environmentalism and ushered in the digital age through his Whole

Earth projects). Part III, A Whole Earth (1957-1968), examines a lecture Spiegelberg gave in 1958 comparing the ideas of Heidegger, Sri Aurobindo, and the "Beatniks of North Beach" concerning Being and global unity. From there, we see the influence of Spiegelberg's thought on the Whole Earth projects of his student Stewart Brand. The article concludes by comparing two incarnations of the *Religion of No-Religion* in Heidegger, Spiegelberg's teacher, and Brand, Spiegelberg's student, concerning the role of technology in the global age.

Part I. World War (1914-1945)

Born on May 24, 1897 in Hamburg-Harvestehude, Germany to liberal-minded Lutheran parents, Spiegelberg had a fairly leisurely and aristocratic upbringing. He displayed voracity for learning early on, and his father prudently allowed him an unusual amount of freedom in pursuing his interests. The defining moment of Spiegelberg's life occurred when he was a 20 year-old Latin theology student at the University of Holland in 1917. After reading some verses of Rilke, Spiegelberg went on a walk through wheat fields dotted with flowers and had his first spiritual experience. It came as the edifice of his Christian faith was crumbling under the weight of philosophy and the steady pounding of academic rational inquiry.

Staring out on the fields, he perceived holiness as existing everywhere and in everything around him. Past and future receded into the present moment, and the young Spiegelberg's normal categories of ego-bound experience dissolved into "an eternal bliss of the all-penetrating holiness" (Spiegelberg, 1948, p.18). Spiegelberg (1960) called this experience the *miracle of being*. "The moment," he wrote of the miracle of being:

> … that I get over the narrow limitations of my reasoning and feel driven instead to experience the bewildering, monstrous miracle of this our being here and now, in this moment on earth, […] When, instead of raising my eyes to nowhere beyond in order finally to hallucinate some Life Power there; if, instead of doing anything like that, I am puzzled, stimulated, enthused by the hardness of metal, by the clicking of time, by the warmth of your breath, by the sound of my own voice and the movement of my own fingers – the moment that I touch this bewildering, surprising, unexplainable, perfectly miraculous reality itself as an astounding mystery,—*that* is the miracle of being. (p. 53)

He brought this understanding of being and the spiritual experience that informed it with him to the German Academy. He arrived there at a unique time in modern European history. World War I eroded faith in the liberal ideal—an ideal that was supposed to deliver modern man from the dark ages and religious superstitions with its vaunting of the liberal trappings of the rule of law, a constitution, individual liberties, property rights, and a market society. Yet here we were, having marched headlong down the long bloody path from the French revolution in 1789 to the upheavals of 1848 to the aftermath of the bloodiest moment in human history. If this was the path to Enlightenment, it appeared as if the final nirvanic insight would all but confirm Hobbes' words spoken three centuries earlier in *Leviathan* that, rather than promises of life, liberty and property, man's lot was a life "solitary, poor, nasty, brutish, and short."

The result was crisis. "The liberal project," writes Benjamin Lazier (2008) in a study on theology in Interwar Europe,

> … had derived much of its impetus from a confidence in the capacity for human progress, and could not help but falter as the trust proved folly. The war in particular dealt a deathblow to a faith in the progressive moral perfection of man, and in its wake came a post-liberal ethos more at home in crisis than in calm. (p. 5)

In theological circles this ethos manifested as crisis theology. Age-old debates about man, god and world were revived as many of Europe's greatest thinkers broached the crisis of the West through resurrecting the heretical traditions of gnosticism and pantheism to ask whether and why God had forsaken them.

Spiegelberg saw it differently. God had not forsaken us, we in our abstract rationalizing had simply forgotten that he was as near to us as the present moment. "It is," Spiegelberg (1961) later wrote "the instantaneous experience of the Being of Being in all its transcendence in and as this most immediate Here and Now" (p. 22). Through identifying with the fundamental aspect of Being rather than the constricted ego, we experience a world transformed.

The problem, then, was to develop modes of thought that reacquainted us with this fundamental component of our experience since forgotten in the modern age. To do this Spiegelberg turned east. "Today," he wrote in a set of notes from the period, "we realize [the divine reality] has to come from within and beyond. Yet maybe the direction from where to get the stimulation could still be East".[2]

These first inklings of East-West synthesis led Spiegelberg to taking full advantage of the German academy's offerings on windows to the East that at the time were rather extensive. Yet Spiegelberg recognized that one could not turn Eastward and assimilate its beliefs and practices wholesale, and so he found in his Western teachers similar attempts to discuss the fundamental experience of being, here and now, that he experienced in the wheat fields.

Martin Heidegger's thought would ultimately prove the most influential for Spiegelberg, though more so in later years than as his teacher in Marburg. "No other philosopher," he reflected, "seemed to me so immediately related to my own search for the essential answer to the ultimate questions of existence" (Mukowsky, 1976, p.1). In Heidegger he found a true revolutionary, a thinker whose ideas on being (*Dasein*) and the here and now (*hic et nunc*) resonated deeply with Spiegelberg's own experience and were unlike anything he had ever read by a Western philosopher. He immediately drew connections between Heidegger's insights and those of the East, despite Heidegger's apparent fidelity to his Greek and German intellectual heritage. "It was too obvious, to too many of his students," Spiegelberg put it (1960), "that a certain amount of parallels were there" (p. 51).

Spiegelberg started teaching at Dresden in 1927, and it was there that he met Carl Jung. Through Jung's pioneering work on myth, symbols, and the relationship between self and world, Spiegelberg found an interpretive model for comparative religions far surpassing contemporary approaches. Jung determined through his confrontations with the unconscious that the experiences disclosed to him were not random permutations of neurosis rooted in sexual trauma as Freud proposed, but rather transmitted symbols from the unconscious to the conscious mind. These symbols pointed to the perennial experience of man's attempts to balance the complementary facets of consciousness and unconsciousness. As Sharpe (1975) notes, the "recognition, acknowledgement and control of the unconscious by the conscious" is called by Jung the process of individuation, the "process by which a person becomes a psychological 'in-dividual', that is, a separate, indivisible unity or 'whole,' the process of coming to selfhood" (p. 206).

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[2] Source: Frederick Spiegelberg archives. Note: about Eighty percent of Spiegelberg archival sources are held at Stanford University Archives, and the remaining are held at the California Institute of Integral Studies archives.

The purpose of myth has always been to tell this story of individuation. That is, Jung found that the symbols expressed in his personal experiments and in the dreams and psychoses of his patients shared striking parallels with the myths of myriad spiritual traditions, past and present. He concluded that the symbols disclosed an archetype—"a symbol of the unity of conscious and unconscious and a link between the individual and the cosmos of which he is part" (Sharpe, 1975, p. 207). A Tibetan mandala, for example, is an archetypal symbol signifying the wholeness of the individuated self as a microcosm of the macrocosm of which the self is part.

The two outlooks of Jung and Heidegger informed Spiegelberg's seminal intellectual contribution, the *Religion of No Religion* (Spiegelberg, 1948), first published as a lecture in 1938 at the London Buddhist lodge. Spiegelberg was a refugee at the time, having fled Nazi Germany in 1937 after being dismissed from Dresden for going to a conference banned by the Nazis.

While in London, he serendipitously wandered into "the only Zen Buddhist specialist in England," a brilliant 21-year old named Alan Watts (1915-1973). Watts would go on to become the principal popularizer of Zen Buddhism to American audiences in the 1950s and 60s, as well as the central teacher of Zen to the Beats. In 1937, he was simply a prodigy hanging around the London Buddhist Lodge. He had already written a book on D.T. Suzuki's interpretations on Zen Buddhism, and Spiegelberg found him "an almost superhuman being, a young lad with eyes of an angel".[3]

Spiegelberg begins the *Religion of No Religion* by asserting that the spiritual experience of Being Here and Now is the ground for the forms, symbols and rituals of religions to emerge. These symbols, if they are to be successful, must point to that fundamental experience of the miracle of being as well as to the unity of man and cosmos. Inevitably, the time will come when these symbols become meaningless because they fail to adequately convey the experience to which they point. What results is an iconoclastic reaction in which the symbols are thrown off as illegitimate, because they do not accurately express the miracle of being. But the cycle is ever to repeat itself. Indeed, it is the repetition of this cycle of the change and renewal of the miracle of being that is the history of religions.

The process begins with the *astonishment* or *miracle of being*, in which the individual realizes that God or Being is in all and everything. Following the astonishment is a feeling of *pantheistic mysticism*, "which means here that the limits between the ego and its opposites, such as the cosmos or God, are wiped out, and one all-combining feeling of community spreads over the entire universe" (Spiegelberg, 1948, p. 22). All symbols of God must be abolished, for they can only mean a separation from him. This pantheistic moment results in a *psychological inversion* where that which stands before man becomes an inner reality of what Spiegelberg calls the “all penetrating holiness.” Inevitably, the process repeats itself, as the astonishment of being always culminates in new attempts to reify it through names and symbols: “The paradox of a ‘religion of no-religion’ is produced by the fact that the human mind cannot grasp and realize any feeling or fact without giving it a name” (Spiegelberg, 1948, p. 55). Spiegelberg mentions Zen Buddhism, the burgeoning field of psychoanalysis, and the teachings of Martin Heidegger as three incarnations of the *Religion of No-Religion.*

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[3] Source: Frederick Spiegelberg archives

The *Religion of No-Religion* was the fruit borne by Spiegelberg’s experience as a refugee, of being forced down to the barest essentials, of holding on to only that which is wholly necessary for survival. It was at once a dialectical theology, a mode of being-in-the-world, and an explanatory tool for the historical trajectory of religious traditions. Spiegelberg saw it more as a passport, a belief of universal currency necessary for safe passage through the coming turbulent Atomic age—an age, he feared, where many would wander futilely in search of home amidst the ruins of the world’s spiritual traditions as visions of mushroom clouds dotted the skies and obscured the divine light. “We are rapidly moving away from traditions and former ways of life that, in a few years, will be no more than distant memories,” he wrote:

> The sudden developments of technology are changing our life beyond recognition. We are passing into an era of unknown experiences, call it the atomic age, or what you will. All that we can carry with us from the past is essential, the things without which men cannot live. And to cross the border safely, we will need some sort of passport that all men will recognize, some belief that has a universal currency. (Spiegelberg, 1968, pp. 18-19)

And so, Spiegelberg made his way to America, bouncing around on the East Coast for a few years before winding up at Stanford University in 1941. He carried little with him but his own ideas. But as we shall soon see, that was more than enough.

Part II. Mushroom Cloud (1945-1957)

At Stanford Spiegelberg grew entranced by the writings of Sri Aurobindo, the 20th century Indian freedom fighter, poet, and sage whose spiritual practice is known as integral yoga. He traveled in India in 1949 on a Rockefeller grant and eventually received *darshan* from Sri Aurobindo. Upon his return, he helped found the American Academy of Asian Studies in San Francisco—a pioneering independent academic institution the likes of which had never existed before. “There was at that time not yet any competition in the way of live Asian studies in America, not even in the Bay Area,” Spiegelberg reflected later. “We did not have at that time any ashrams or Zen monasteries, of which we have so many today” (quoted in Mukowsky, 1976, p. 5).

Indeed, in a *New York Times* book review of D.T. Suzuki’s *Essays in Zen Buddhsim* written the year before the Academy’s founding, Gerald Heard (1950) reacts positively to the promise of Zen Buddhism for American society, yet notes the unsuccessful reception the Eastern faiths typically elicit out of American audiences. He attributes the lukewarm response to the West having “outgrown its medieval regard for contemplation as a high or even respectable vocation” (p. 19).

In the article, Heard singles out the Eastern interpretations offered by Alan Watts, now a 36 year-old Episcopal chaplain at Northwestern, as having “roused little more than a faint esthetic curiosity” (Heard, 1950, p.19). Watts left Europe in 1938 not long after Spiegelberg and went to New York to study Zen. Dissatisfied with his teacher yet still committed to spiritual pursuits, Watts decided to enter the priesthood in 1945 and moved to Evanston, Illinois. And in the priesthood he may well have stayed had not a fortuitous string of events taken place in short succession in 1950. The first was an extramarital affair; the second, his young wife annulling their marriage; the third, getting expelled from the ministry; the last, a letter he received from Frederic Spiegelberg who was charged with starting a graduate institute to open in 1951 geared towards a wide-scale spiritual transformation of the consciousness of the West through the teachings of psychology, Zen Buddhism, and the integral ideas of Sri Aurobindo. Would he like to join him in San Francisco? “Happily,” Alan Watts replied, “Circumstances are so arranged at present that I could come out to San Francisco this winter”.[4]

Spiegelberg then set about calling “a first-rate man” from Aurobindo’s ashram to join him and spread Aurobindo’s message to the West. After some correspondence, the Bengali integral philosopher Haridas Chaudhuri was recommended, who at the time was the head of the Philosophy Department at Krishnagar College in Bengal. “The question was brought to Sri Aurobindo himself,” Spiegelberg recalled. “He approved of Chaudhuri’s coming with us with the word ‘*acha*’ (‘Of course!).”[5]

Two months later, in December of 1950, Sri Aurobindo left his body. In his letter to Chaudhuri inviting him to join him at the Academy, Spiegelberg wrote that Sri Aurobindo “is the guiding light of this earth and the prophet of our age. I believe that the last most important contribution that Sri Aurobindo made before passing was to send you here” (http://www.mysterium.com/aaas.html, p. 4). And just like that, the man who would become the most popular Western interpreter of Zen Buddhism (in Watts) and Sri Aurobindo’s vision (through Chaudhuri) were brought to San Francisco. And here Watts and Chaudhuri would remain until their deaths in 1973 and 1975, respectively.

The Academy was a brazen attempt to expand the consciousness of the West so that the world did not end in a nuclear holocaust. Initially, the institute [Academy] had all the expected struggles, namely, difficulties in acquiring funding and credibility. “Clearly,” recalled Watts (1972):

> We were just another California cult trying to assume the mask of a respectable educational institution. But then—only twenty years ago—it was not as easy to see as it is today that when you make a powerful technology available to human beings with the normal form of egocentric consciousness, planetary disaster is inevitable. Moreover, the point had to be made that the egocentric predicament was not a moral fault to be corrected

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[4] Source: Frederick Spiegelberg archives

[5] See http://www.mysterium.com/aaas.html for more information.

> by willpower, but a conceptual hallucination requiring some basic alterations of common sense; a task comparable to persuading people that the earth is round rather than flat. This was very largely the subject of discussion at the weekly colloquium of the Academy's faculty, at which Spiegelberg was the invariably provocative moderator, and which became an event increasingly attractive to San Francisco artists and intellectuals. (pp. 286-7)

The Academy functioned as a hub around which ideas on Being influenced by the East and the interwar scene were promulgated to the Beat Generation. Like their interwar counterparts, the postwar Beats were disillusioned by the mechanized ideals of cold war American society, the "valueless abyss of modern life" (Holmes, 1952, p.10). After World War II, Allen Ginsberg recalled:

> There was a definitive shrinkage of sensation, of sensory experience, and a definite mechanical disorder of mentality that led to the cold war….the desensitization had begun, the compartmentalization of the mind and heart, the cutting off of the head from the rest of the body, the robotization of mentality. (quoted in Conners, 2010, p. 62)

And like Frederic Spiegelberg, they were after "the ragged ecstatic joy of pure being," as they put it, in which "existence itself was God" (Kerouac, 1957, p.195). Through the American Academy of Asian Studies, the Beats saw that the East could provide paths to the experiences they sought.

Here's Michael Murphy, a student of Spiegelberg's at Stanford and the Academy whose life was changed by Spiegelberg's courses on Sri Aurobindo, on what the Academy was like in the early days:

> The electricity then was really enormous. There were some hundreds of students who started to gather around that Academy. In those early days there were a number of poets who contributed later to the San Francisco Renaissance: Gary Snyder used to come to those colloquia, and occasionally Allen Ginsberg. Most people forget this, but a considerable amount of the inspiration for the poetry of the Beat Generation came right through that Academy of Asian Studies. Michael McClure and David Meltzer, Phil Whalen, Ginsberg and Snyder...I would say all of them either directly or indirectly were influenced by Haridas Chaudhuri, Alan Watts and Frederic Spiegelberg, either directly or indirectly, and some of them would be in the audiences of those early colloquia and in those classes. (http://www.mysterium.com/aaas.html, pp. 6-7)

The Academy collapsed by the mid-1960s but its progeny live on today. Michael Murphy established the Esalen Institute in 1962 in the spirit of the American Academy, Spiegelberg's *Religion of No-Religion*, and Aldous Huxley's ideas on human potential; the California Institute of Asian Studies (later renamed the California Institute of Integral Studies) was established by Spiegelberg's colleague Haridas Chaudhuri in 1968; and the Institute of Transpersonal Psychology, where Spiegelberg served on the Board of Advisers, was founded by his colleagues and friends Robert Frager, Jim Fadiman and David J. Hall in 1975.

Assessing its legacy shortly before his death in 1973, Alan Watts wrote:

> The American Academy of Asian Studies was one of the principal roots of what later came to be known, in the early sixties, as the San Francisco Renaissance, of which one must say, like Saint Augustine when asked about the nature of time, "I know what it is, but when you ask me, I don't." I am too close to what has happened to see it in proper perspective. I know only that between, say, 1958 and 1970 a huge tide of spiritual energy in the form of poetry, music, philosophy, painting, religion, communications techniques in radio, television, and cinema, dancing, theater, and general life-style swept out of this city and its environs to affect America and the whole world. (Watts, 1972, p. 284)

Spiegelberg maintained his post at Stanford during his tenure at the American Academy of Asian Studies, where he could oscillate between the roles of spiritual teacher and professor depending on the situation. If an impressed student in one of his introductory courses to comparative religions at Stanford stayed after class asking for more, Spiegelberg directed him or her to the “Beatniks of North Beach.”

Such was the case in 1957 when a young student from his comparative religions class approached him asking where he could find people who thought this way.

> “Oh, well you’ll find none of that in Stanford,” Spiegelberg chuckled. “When I want the news, I don’t look for it in the paper. I go to the poets.”
> “What do you mean,” the student asked.
> “North Beach,” Spiegelberg said after a pause. “Go to North Beach.”
> And with that, young Stewart Brand made his way to North Beach. And in a sense, he never left. (Steward. Brand, personal communication, December 13, 2010)

Part III. Whole Earth (1958-1975)

How to describe those strange things that happened in the decade we call the sixties? To say nothing of the unprecedented global upheavals, wars, crises, movements, and protests, how to describe the sequence of events that led to the technologies of the military industrial complex merging with the ideas of the counterculture to inaugurate the information age? How to describe the shift in the attitude towards the boogeyman of technology, long-seen as an instrument of government control and worldwide uprooting and annihilation, now seen as a tool of personal liberation and global unity? How do we account for the fact that, for the thinkers of the drive towards wholeness in the 1960s, technology, systems theory, integral yoga, Zen Buddhism, and psychedelic experiences all came to be seen as methods to bring about a consciousness of “the miracle of this, our being here and now”?

A Liberation of Earth and Being through Technology

In an essay based on a lecture given on August 21st, 1958, Frederic Spiegelberg used the example of the Beats to compare Martin Heidegger’s thought with that of Sri Aurobindo. Speaking on the occasion of Sri Aurobindo’s centenary birthday, Spiegelberg’s goal was to show that the ideas of Aurobindo and Heidegger were compatible and manifested in the example of the Beat Generation. Time was of the essence for the ‘Beatniks of North Beach’—as Spiegelberg called them. They were no longer a secret now that Jack Kerouac’s *On the Road* (written in two weeks in April 1951 but left unpublished until 1957) was a mainstream cultural phenomenon. In the essay, he groups Heidegger and the beatniks together by virtue of their shared central message: an emphasis on the ‘here and now’ and directly experiencing the present moment. Both Heidegger and the Beats hold that the rational mind is overemphasized, and here Spiegelberg feels they share the outlook of Vedanta and Aurobindo particularly. Spiegelberg also wanted to use the examples of Aurobindo and the Beats to broach Heidegger’s new ideas on technology. Indeed, since Heidegger’s (1927) publication of *Being and Time*, his writings took an increasingly mystical turn as he devoted more and more of his attention to what he called the question concerning technology. As he had before, Spiegelberg drew attention to the “Zen-like” quality of Heidegger’s message, yet also found in him a global vision that strikingly called to mind Sri Aurobindo. Heidegger had not yet been translated to English, but Spiegelberg nevertheless engaged in a detailed exposition on the congruence of thought between Aurobindo, Heidegger, and the Beats using his own translations of Heidegger’s (1977) work. In his essays in *The Question Concerning Technology* Heidegger, mysteriously speaks of a saving power in the essence of the danger of technology, and associates this saving power with the coming to presence of a god. “But where danger is,” writes Heidegger quoting the poet Holderlin, “grows the saving power also” (p. 28). Only when we can reach the insight of how technology enframes us, how technology challenges us forth to order the world as standing-reserve, do we see how the truth of Being is hidden from us (Heidegger, 1977, p. 48). It is only once we can discern that “all mere willing and doing in the mode of ordering steadfastly persists in injurious neglect [of Being]” that we are free to “give utterance to insight into that which is”…When we give utterance into that which is, “it is the constellation of Being that is uttering itself to us” (p.48). “Will we correspond to that insight,” asks Heidegger, “through a looking that looks into the essence of technology and becomes aware of Being itself within it?” (p. 49).

Esoteric remarks, to be sure. Spiegelberg understood Heidegger’s ideas on the saving power as countenancing technology as a tool to achieve Being’s task of liberating earth. In this Heidegger strongly echoes Aurobindo’s ideas on global unity. Comparing the two, Spiegelberg believes they both share the same understanding of *Dasein* (being-there). Spiegelberg feels translating this term to Being in English is inaccurate. It is, rather, “the be-power itself” (Spiegelberg, 1960, p. 53). In Aurobindo’s schema, the equivalent term would be *sat* (pure or absolute Being) rather than *bhava* (existence/being).

“It is the essence and key word of Heidegger’s existentialism,” Spiegelberg writes. “Everything is *Sein*. And there cannot be anything that is not ultimately a part of that all-comprising Beingness. Even becoming is an expression of Being. This statement can be found in Aurobindo” (p. 53).

The limited personal subjectivity of the ego veils man from understanding the divine as Aurobindo’s gnostic being. As such, the world’s spiritual traditions have declined and the miracle of being is forgotten because of man’s rationality. For both Heidegger and Aurobindo, writes Spiegelberg, there is only one hope. Here, they both quote Nietzsche’s idea of the Superman:

> When it comes to testify to a mentality that is greater than the degenerated mentality in which we find ourselves as a whole in this century, superman is called for, and to

> characterize him we must say he will have true existentialist mentality, which looks for the direct experience rather than for the taming of reality by our mentality. This superman will have to be more daring than any man who ever walked. And therefore, because he is more daring, he will be able to say more. (Spiegelberg, 1960, p. 54)

For too long we have cried for individual salvation, thinking only of ourselves in the constricted terms of our egos, when our task has been otherwise. “What is the task then, if it is not man?” asks Spiegelberg. “Aurobindo and Heidegger have the same answer: the earth.” For both Heidegger and Aurobindo, “Earth needs man to liberate her, maybe even Being itself. *Dasein* needs man” (Spiegelberg, 1960, p. 55).

Heidegger and Aurobindo agree that because all is *sein*, because all is *sat-chit-ananda*, nothing is to be thrown out or rejected. Everything has meaning as expressions of *Dasein*. Spiegelberg then draws a link between the Vedantic understanding of the divine play of Brahman, *lila*, where the divine plays hide and seek by searching and finding itself through us (coming to consciousness of itself), with Heidegger’s notions that “*Dasein*—Being itself—comes to self consciousness in our own longing”(p. 58).

We do not need to escape technology to achieve Being’s task of liberating earth, Spiegelberg says of Heidegger:

> The world of science and technique does not at all preclude a jump beyond itself, says Heidegger. We do not have to get away from civilization, to do away with all our gadgets and with the all-too-fast progress of technique and science. Rather, the more you go into science, the more you talk to the great men of science, the more you meet an awareness of the mystery, the more it becomes possible to take science itself as a jumping board. It does not any more today seem that science would drive us away from the opening of the greater gates toward higher realization. Aurobindo in his *Savitri* has said that many times. He agrees completely with the existentialist message as Heidegger presents it (Spiegelberg, 1960, pp. 58-9).

In the essay, Spiegelberg provides his own translation of Heidegger’s quote of the poet Holderlin concerning Being’s task of liberating earth:

> *Earth. Is not this what you long for?*
> *To be resurrected invisibly in us.*
> *Is it not your dream one day to become invisible?*
> *Earth invisible.*
> *What, if not transformation*
> *Would be your urgent task?*
> *Earth – O Beloved One,*
> *I will*
> *(*Spiegelberg, 1960, p. 55*)*

The Iconoclasm of Stewart Brand

Stewart Brand has dipped his finger in many jars. As Andrew Kirk (2007) notes:

> [Brand] was present at, and instrumental in, the creation of the American counterculture, the birth of the personal computer, the rise of rock and roll, the back-to-the-land and commune movement, the environmental movement, and a crucial reorientation of western politics. He was an experienced LSD veteran before practically anyone had heard of the drug and advocated a new view of the earth that set a standard for how six billion people view their home world. (p. 31)

Indeed, it was his role in spearheading NASA to release images of the earth from space in 1968 that will stand as perhaps his greatest legacy. Poole (2008) has called the initial instance of man seeing the whole earth as the defining moment of the twentieth century (p. 198). The sight prompted a revolution in the global imagination, and furthermore, catalyzed an understanding of the interdependent relationship between man and his environment:

> The sight of the whole Earth, small, alive, and alone, caused scientific and philosophical thought to shift away from the assumption that the Earth was a fixed environment, unalterably given to humankind, and towards a model of the Earth as an evolving environment, conditioned by life and altered by human activity. (Poole, 2008, p. 198)

For Brand, the whole earth was an icon, one he hoped would supplant the mushroom cloud as the dominant lens through which we saw the world. In this iconoclastic overcoming, Brand exemplifies Spiegelberg's *Religion of No-Religion.* As an icon, the whole earth symbolized two facets of Brand's philosophy: first, a holistic, integral, microcosm-macrocosm understanding of reality expressed through cybernetic whole systems theory that sought to overcome eternally troublesome distinctions between, among other things, man and his tools, organisms and artifacts, and self and world; second, the conviction that technology, when used appropriately, can function as a tool for personal liberation.

Brand took a course on comparative religions with Spiegelberg at Stanford in the fall of 1957 when he was 19 years old. It stands as his first exposure to the Eastern idea systems that, along with his ecological studies and the use of psychedelics, informed his cybernetic systems-based understanding of the world. In examining his notes from his course with Frederic Spiegelberg, Brand appears most struck by the paradox of unity within polarity and the various means to express that paradox, such as the symbol of the mandala and the Ch'an (Daoist/Buddhist) notions of *yin*, *yang*, and *Dao*. He quotes extensively from Carl Jung and Richard Wilhelm's (1931) *Secret of the Golden Flower*. The boxed exclamation points after the quoted passages appear to register the shock of influence. The trajectory of his later life and projects confirms it.

A noteworthy quote speaks of Jung's notion of "outgrowing," whereby an individual may outgrow an insoluble problem through "raising…the level of consciousness." From a wide view, the insoluble problem "lose[es] its urgency."[6] For Jung, "[t]he greatest and most important problems of life are all fundamentally insoluble. They must be so, because they express the necessary polarity inherent in every self-regulating system. They can never be solved, but only outgrown.”[7]

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[6] Source: Frederick Spiegelberg archives

Brand would seize upon this notion of the polarity inherent in every self-regulating system. Though here applied to the individual, the idea applies in the *Golden Flower* to the cosmos at large:

> [The philosophy of *The Secret of the Golden Flower*] is built on the premise that the cosmos and man, in the last analysis, obey the same law; that man is a microcosm and is not separated from the macrocosm by any fixed barriers. The very same laws rule for the one as for the other, and from the one a way leads into the other. The psyche and the cosmos are to each other like the inner world and the outer world. Therefore man participates by nature in all cosmic events, and is inwardly as well as outwardly interwoven with them. (Jung & Wilhelm, 1999, p. 11)

Hence, the polarity inherent in the self-regulating system of man the individual is the same as that of the self-regulating system of the world at large. If this sounds familiar, it’s because it’s a hallmark insight of cybernetics and systems theory—the very approach Brand would later vaunt in his *Whole Earth Catalog* (1968).[8] Here the cybernetic insight is expressed almost verbatim, but in a spiritual context. This spiritual expression of the polarity in every self-regulating system stands as Brand’s earliest known exposure to systems theory.

Embracing the potential of technology as a tool for personal liberation, Brand and Spiegelberg each collaborated with the Stanford Research Institute (SRI) and Douglas Engelbart’s

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[7] Source: Frederick Spiegelberg archives

[8] A word on cybernetics: In the early 20th century, the sciences came to grapple with the breakthroughs in quantum mechanics that tore asunder the Classical Newtonian paradigm of physical processes. From out of the wreckage emerged the field of thermodynamics unscathed, and with it the principles that gave birth to the whole system models of the ecosystem and biosphere. The whole system model eschews the traditional boundaries between organic and inorganic entities by centering them within the supraentity of the system, of which they are mutually formative. According to this line of thought, there’s no distinction between organism and artifice because both are self-organized and self-regulating, reflecting a certain systemic wholeness. Out of whole systems theory emerged cybernetics in the postwar era, and through its study of information, communication, and feedback reframed the ecosystem conceptual tool in techno-scientific terms. By focusing on behavior rather than structure, cybernetics founder Norbert Weiner placed organisms and self-directed machines in the same order on the basis of the “purposeful behavior” that both share. Weiner saw in information feedback the mechanism by which entities fight entropy. Systems use information feedback to maintain dynamic equilibrium, or homeostasis. Cybernetics demonstrated the potential for systems to go awry by way of positive feedback loops. The techno-scientific discourse of cybernetics reframed the debates of various fields in terms of information feedback. In the sciences, cybernetics met with ecosystem theory and redefined organisms as self-regulating machines. When applied to social systems, we begin to see the far-reaching implications of positive feedback: unless variables within systems respond to one another through communication, feedback, and circular causality within the set limits, system failure may result in the form of, say, an escalating nuclear arms race.

Augmentation Research Center (ARC) separately over the course of the 1960s.[9] Spiegelberg's friendship with Stanford psychologist James Fadiman and SRI Research Engineer David J. Hall led to consulting opportunities and eventually to Spiegelberg serving on the Board of Advisors for their Institute of Transpersonal Psychology in the 1970s. Brand, for his part, hung out often with the community, and was videographer for Douglas Engelbart's infamous "Mother of All Demos" event in 1968 that showed off the framework of tools that would one day become the personal computer.

Most interesting is a project Spiegelberg collaborated on with the Stanford Research Institute in 1969. Titled "Computer Processing and Bibliography of Literature Related to Voluntary Improvement of Individual Performance", the project had as its aim the production of a global network of research information exchange concerning literature on yoga, meditation, "physiological feedback training," "altered states of consciousness," and "other subjects related to voluntary improvement of individual performance."[10] As a consultant to the project along with Haridas Chaudhuri, Spiegelberg was tasked with providing direction in assessing a literature that was global, ancient, immense and "poorly classified." The idea was to use the latest technologies of SRI and SRI's Augmentation Research Center both to create and catalogue the information service as well as to perform a series of experiments relating to that literature. SRI had just become one of the first four nodes on ARPANET, the forerunner of the Internet.

Why yoga and meditation? A few reasons: The first was, simply, to catalyze a mode of being suitable to the modern technological age, one that could lead to the "voluntary improvement of individual performance." Here, from the research proposal:

> Improvement of human performance has for some time been one of the prime aims of our technology. This has been achieved, in our society, largely by providing the human with significant tools and automation procedures that, with proper training, augment his abilities to perform […] The goals of our technological culture at this time are epitomized by our exploration into outer space, such as our landings on the moon and other technological feats requiring a high degree of skill and expertise in controlling our external environment… However, for the exploration of the inner man, our educational concepts, training methods, and research, seem less suitable[11]
>
> 'Far out' is the only adequate term that could encompass the long-term goals of the project. Through cataloging, researching, and integrating all the data on yoga, meditation, and altered states into an information system, the engineers hoped that man would soon, through mastery of yoga, reach the ability to control computers directly through the voluntary use of brainwave signals.
>
> Studies will undoubtedly soon be carried out using these physiological instruments in conjunction with computers, in the most advanced type of man/machine communication and human augmentation system we can imagine […] Many years may pass before

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[9] ARC and SRI, along with centers on the East Coast, were hubs of innovation that ushered in the information age.

[10] Source: Frederick Spiegelberg archives

[11] Source: Frederick Spiegelberg archives

> significant progress and useful results can be produced in the control of computers directly from brainwave signals. In the meantime, it would seem prudent to explore the use of yoga, meditation, and other techniques as a means of developing the brainwave control that will be necessary for the direction of computers.[12]

While Spiegelberg was getting his computer kicks, his student Stewart Brand was becoming a celebrity. His "Why Haven't We Seen a Photograph of the Whole Earth" campaign put him in the papers, and his *Whole Earth Catalog* (first released in November 1968) was a tremendous success. By 1971, at the height of the project's success, Brand decided that the time had come to move on, "just to see what happens." After all, he realized that his catalog would soon become an artifact of its own. As he would several times in his life, Brand presciently understood that he stood at the forefront of a constellation of changes to come, and wanted to describe what he saw there. After bumming around the computer programmers at SRI and MIT, Brand declared in a 1972 *Rolling Stone* article that Ready or not, computers are coming to the people.

Brand's (1971) *Last Whole Catalog* was his most successful, winning the National Book Award in 1972 to the horror of book critics everywhere. He decided to throw what he called the "Whole Earth Demise Party," to be held at the lavish and expansive Palace of Fine Arts on June 14th, 1971. Anyone who had anything to do with "making" the Whole Earth Catalog was invited. Expecting a raucous bash, thousands packed the auditorium with all the countercultural trappings, regalia, and contraband. Brand wandered around barefoot in a monk's black Cossack meeting and greeting. But the reason for the party soon emerged.

At 10:15 pm, the director of the event, Scott Beach took the microphone and addressed the audience. He held up a thick wad of cash - $20,000 in *Catalog* profits. "There is to be a consensus of opinion on what to do with the money," Beach directed. "And then the money is to be signed over to one person, to do whatever is decided" (Lopez, 1971, p. 1).

With that, Stewart Brand stepped back and observed. He was aiming to make a point about the counterculture, that it "wasn't ready to do much of anything"; and for most of the evening, and for some time after, it would appear Brand proved his point. "Burn it!" cried some. "Flush it down the toilet!" cried others. The sum was reduced to $15,000 after a participant made off with the money. "Brand stood on the stage with a straight face," an article at the time noted, "writing every suggestion on the blackboard" (Lopez, 1971, p. 1).

By dawn, Brand was asleep on the floor, "with the smile of a man at peace with himself, satisfied that his ploy had revealed more about the values of the counterculture than the contents of his magazine – the magazine that had become so much a part of it" (Lopez, 1971, p. 1).

Perhaps 100 people remained. The decision was finally made by vote: The remaining $15,000 would be given to a young man nobody knew named Frederick L. Moore, Jr. "Most guests said they had not seen Moore before the party," the article reported. "'But we know him because he introduced himself,' one girl explained. Moore gave his occupation as 'human being' and left in a van" (Lopez, 1971, p. 1). "Stewart Brand just shook his head," Markoff (2005) reports. "It had been an interesting experiment, but he never really expected to see Moore again. *Maybe he'll send a postcard from Mexico*, Brand thought as he left the Exploratorium" (p. 237).

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[12] Source: Frederick Spiegelberg archives

Throughout the night, Moore made his way to the open microphone struggling to make his voice heard about the personal and collective empowerment that comes through sharing information:

> If we are going to build a change—in a changing new world, or whatever we want to call it, 'new age,' then it's going to be because we are going to work together and we are going to help each other… We feel that the beginning of a union of people here tonight is more important than letting a sum of money divide us. (Markoff, 2005, pp. 236-7)

And with that, Frederick Moore and $15,000 made off into the night—or early morning, to be exact. In the spring of 1975 he catalyzed what would become the personal computing revolution through cofounding the Homebrew Computer Club with the *Catalog* profits. The club, writes Isaacson (2011), "encapsulated the *Whole Earth* fusion between the counterculture and technology" (p.60). From the first flyer: "Are you building your own computer? Terminal, TV, typewriter? If so, you might like to come to a gathering of people with like-minded interests" (p. 60). Perhaps Brand was mistaken. Maybe the counterculture was ready to do something.

An engineer at Hewlett Packard saw the flyer and showed up to the meetings in cofounder Gordon French's Menlo Park garage. He was incredibly shy and nervous, yet undeniably brilliant. His name was Steve Wozniak. Soon, he'd start bringing along his old friend from high school, a bearded and impetuous acidhead with a messianic complex, fresh from a trip to India motivated by Dr. Richard Alpert's (1971) *Remember, Be Here Now*. His name was Steve Jobs.

And the world would never be the same. Because the people who are crazy enough to think they can change it, are the ones who do!

Conclusion

I have said that Spiegelberg's is a story of three overcomings: of the spiritual crisis of Interwar Europe symbolized by world war; of the mechanized outlook of postwar cold war American society symbolized by the mushroom cloud; and of the widespread belief that technology was an antagonistic force in the aim of global unity, symbolized by the whole earth.

Through an emphasis on Being, the '*Here and Now*', and the realization of unity through the recognition and transcendence of polarity, the thinkers on the network of the drive towards wholeness sought to establish modes of being suitable to the technological age of global modernity that transcended the dominant approaches in the West that Martin Heidegger called calculative thinking.

Certainly, Spiegelberg's understanding of Heidegger was unique. Nihilism and pessimism are hallmarks of Heidegger's thinking, and the notion that technology could aid in man's task of liberating earth (and thereby Being itself) seems far out of line with most Heideggerian interpretations. Indeed, it seems plain far out. And if Heidegger were here I suspect he would disagree with Spiegelberg's interpretation. Cybernetics, viewing the world as system, seeing technology as a tool—all of these epitomize for Heidegger the very apotheosis of calculative thinking in the modern age. But then, we're still left with those curious comments on the saving power in the very essence of technology. Here is not the place to go down such a rabbit hole (and it is a rabbit hole, be assured of that).[13]

Regardless, the contrasting yet complementary views of Brand and Heidegger live on in what Benjamin Lazier (2011) dubs the Earthrise Era—the age inaugurated by images of the Whole Earth taken from space that Brand in large part catalyzed. Cosgrove (2001) elucidates this nicely when he contrasts the two discourses that have framed the Apollo images since the 1970s, the "one-world" discourse, on the one hand, and the "whole earth" discourse, on the other:

> A "one-world" discourse […] concentrates on the global surface, on circulation, connectivity, and communication. It is a universalist, progressive, and mobile discourse in which the image of the globe signifies the potential, if not actual, equality of all locations networked across frictionless space. Consistently associated with technological advance, it yields an implicitly imperial spatiality, connecting the ends of the earth to privileged hubs and centers of control. (p. 263)

Here we see Heidegger's concerns well represented, echoing statements he made as early as the 1930s.[14] But in the one world discourse we also see the cybernetic systems view of reality epitomized by Stewart Brand—a world viewed in terms of interconnected networks. Now, Consider Cosgrove's (2001) definition of the "whole earth" discourse:

> A "Whole-Earth" discourse stresses the globe's organic unity and matters of life, dwelling, and rootedness. It emphasizes the fragility and vulnerability of a corporeal earth and responsibility for its care. It can generate apocalyptic anxiety about the end of life on this planet or warm sentiments of association, community, and attachment. (Cosgrove, 2001, pp. 262-3)

Here we see implications of rootedness associated with the images, rootedness of the sort Heidegger claims has been lost in modernity. This reciprocal interplay between the two discourses lies at the heart of our modern attitude towards technology. Spiegelberg allows us to see the interdependent nature of one world and whole earth, and how we came to live in both at once.

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[13] Recall, for example, Spiegelberg's lifelong comparisons of Heidegger and Eastern thought. Recent studies have conclusively demonstrated that many of Heidegger's central concepts—those that would establish him first as philosophy's secret king and then, after his ascension, as arguably the twentieth century's most important thinker—were lifted in secret and at times wholesale from German translations of East Asian texts. These include ideas on Being (*in-der-Welt-sein*, *Dasein*), nothing, emptiness, and the clearing, and the conceptual centerpiece of his arguments on technology, enframing (*gestell*). Heidegger displayed a systematic method for concealing East Asian concepts in Heideggerian garb until scarcely a trace of the original source material remained. Heidegger's appropriation allows us to understand how Spiegelberg could claim in 1976 that "no other philosopher […] seemed to me so immediately related to my own search for the essential answer to the ultimate questions of existence" (Mukowksy, 1976, p.5). It renders understandable Spiegelberg's lifelong suspicion that Heidegger was influenced by some degree by the East. And it lends credence to Spiegelberg's unique interpretations of Heidegger's work.

[14] See Heidegger (2000), p. 40.

Heidegger reminds us of the dangers of technology. And they are real dangers. But the simple fact remains that, even if it's a whole earth disclosed by the very process he assails, it is one that can and has instilled the rootedness he feels has been lost in modernity. Where the danger is, grows the saving power also. Yes, we live in one world, with all the planetary imperial spatiality that goes along with it. But we also inhabit a whole earth.

Much ink gets spilled over Brand's remarks in the opening pages of the *Whole Earth Catalog* that "We are as gods." (Why 'gods', and not god? Is the statement alluding to the Greek deities? Perhaps the Zen conviction that we are all endowed with Buddha nature?); We would do well, however, to remember 'Genesis', specifically 'the Fall'. Adam and Eve, having eaten the fruit of the tree of knowledge, became "as gods, knowing both good and evil."[15]

This has been the story of a peculiar tree of knowledge that bore some strange fruit. Certainly, few wound up taking a bigger bite than Steve Jobs. But the central seed sower was Frederic Spiegelberg, who experienced a miracle while walking in the fields that he spent the rest of his life trying to remember. Remembering that miracle is also what this story is about. Each of these thinkers did so in their own way, and each for their own reasons. "It's all the same, it's all the same," wrote Richard Alpert in1971; "Any trip you want to take leads to the same place." The miracle is always the same, and so the lesson is always the same:

Remember, *Be Here Now*.

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[15] Source: Papers of Stewart Brand—Stanford University Archives

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The Future History of Consciousness

David Hutchinson[1]

Abstract: Consciousness is the key fact of life, yet the study of it is in its infancy. Spirituality and science both hold valid truths in this field, and they are bound to meet in a practical sense as science is moving rapidly into the subjective areas such as dreams, thought processes, and awareness. We are on the edge of a momentous shift in knowledge and ability with consciousness, driven by exponential change in theory and technology.

> "The only way of discovering the limits of the possible is to venture a little way past them into the impossible." (Clark, 1962, p. 32)

For every one of us, the experience of consciousness is the key fact of life—its highs and lows, agonies and ecstasies, beauties and transcendences, poetry and squalor, fears and loves, the tingle and spark and slap of every moment. Experience happens to the individual, and is filtered through billions of unique bodies and minds. For millennia, the turn and shape of consciousness has been a personal matter, subject only to the influences on an individual: reading, thought, diet, illness, drugs, meditation—but no more. The times are changing, and the twenty first century will see a revolution in the way we understand, work with, and experience consciousness. We can prepare for it, brace ourselves, use it wisely, or let the rising swell sweep us out to a vast and uncharted sea.

The understanding of consciousness and the mind is in its infancy today, especially as it relates to technology. Tools to analyze the brain at the working level of neurons are just emerging, and maps of the brain are about as detailed as Columbus used when sailing out for the New World. But watch out. The future is tapping on the windowpane, asking to come in. Neuroscience, computational models of cognition, and analytical tools are racing ahead, but nobody knows what is around the next turn.

Technology is not a settled field; I suspect it never will be. It is moving too fast, and its knowledge and effects are multiplying at an exponential rate. Nobody knows what will be possible in fifteen years, much less a thousand. A thousand years from now there will be human beings, but will they have the same limbs and organs as today? Will they have new senses, augmented brains? What will they think, dream, imagine? What stories will they tell their

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children? Will they be as gods, and look back with fondness on their mortal ancestors of the 20th century?

“Two voices speak for the future, the voice of science and the voice of religion. Science and religion are two great human enterprises that endure through the centuries and link us with our descendants” (Dyson, 1998, pp. 6-7).

In my life I have sat around campfires, and dissected corpses; pored over Sanskrit verses, and visualized tesseracts; I have listened intently to the voices of science and the spirit. They both speak with authority, and both have a claim to describing reality. How can that be?

For several hundred years, religion and spirituality have railed against the notion of scientific reductionism, seeing it as a kind of blindness to a true understanding, and the depiction of the world as mechanical, inert, dead. William Blake wrote, “May God keep us from single vision & Newton’s sleep" (Blake, W., quoted in Damon, 1965). Science is rejected by theologians east and west as the great Satan.

A hundred years ago Sri Aurobindo described two negations. “Thought comes to deny the one [spirit] as an illusion of the imagination or the other [physical reality] as an illusion of the senses.” (Sri Aurobindo, 1972, p.7). He was addressing the problem of how the mind responds to two radically different experiences (physical sensation versus the inner spirit), and how a strong belief in one leads to an absolute denial of the other. It is more than a difference of opinion or culture. It is a complete denial of the one by the other. He wrote that at the dawn of relativity and quantum theory, but it is still valid. The paths of science and spirituality were never farther apart than they are today.

The divide between singularitarian technodreamers and spiritual savants is as wide as the universe. You will not find chanting or prayer at a transhumanist conference, nor will you find a demonstration of artificial intelligence at a spiritual gathering. They are members of separate clans who speak different languages. Chakras? fMRI? Reincarnation? Neural decoding? Even their gods require interpreters if they want to speak to each other. Language, books, computers and networks have each brought spectacular leaps forward in the development of consciousness.

But we stand on the edge of a shift that will dwarf all the preceding. Imagine: it is a few years in the future, and machine learners will be reading through millions of books and journals, billions of web pages, trillions of pieces of information, to save, categorize, parse, summarize, and synthesize. Then in the blink of an eye, a natural language interface will be marketed, allowing you to have a discussion with this worldwide exocortex, a brain outside your brain holding the world’s knowledge. A year later there is a brain-mind interface available that gives you instantaneous access to the world brain. And then you can talk to anyone, anywhere, through this medium, with the power of thought alone.

Through this series of inevitable, fantastically realistic, and fully practical steps we have entered a new world, where our understanding of knowledge, wisdom, education, and the very nature of humanity has shattered, and must be put back together again, like Humpty Dumpty.

It is premature to postulate a theory of everything, one that would link the arrows of Kurukshetra to the arrow of time, the eight siddhis to Hebbian synaptic learning. No person today has caught the formula that can simultaneously measure enlightenment and Kolmogorov complexity. We need a Turingesque Patanjali, an Einsteinian Aurobindo. Unexplored mountain ranges loom austere and white in the distance, harboring unmet and unimaginable civilizations.

Some believe that a single parsimonious equation holds the key, a lucky theory found in a dusty book or in the racetrack trails of bosons around a supercollider. They look with sinking hope to quantum mechanics, holography, zero-point energy, entanglement, or field theory. Despite long debates and enthusiastic conferences, however, none have explained mind or consciousness. Not really. They have not solved problems in cognition, generated testable and falsifiable hypotheses, created syntheses between existing accepted sciences, or opened new areas for investigation. What we have right now are philosophies, intriguing analogies, tantalizing hints, vague abstractions—not workable solutions.

Are we due for a Kuhnian revolution? Yes and no. Kuhn saw one half of the problem; his conceptual beast, hopping on one leg, can’t quite run the race. Science walks on two legs: theory *and* practice, idea *and* technology. The two are not separable. As Freeman Dyson (1999) notes, tools bring observation that stimulate new theories, and theories stimulate the development of new technologies, in an ever-increasing progression.

Humanists, priests, and hippies perennially wring their hands over the encroachment of the machine, and with good reason. The ugliness of concrete bunkers, the fumes of combustion engines, and the narrow lanes of rational argument have choked the human spirit. But we need to look beyond the past, zoom in with the eye of imagination and see what is happening: exponential change, driven by information technology. We are asleep at the wheel—governments, institutions, universities, humanity. “God will grow up while wise men talk and sleep” (Sri Aurobindo, 1972, p. 55). What will we do when our Lilliputian world is shaken by the first steps of this Titanic Being?

> Humans are not evolutionarily prepared for exponential change; it has rarely happened in the past, and has never been sustained as it is today. “It’s as if you kneel to plant the seed of a tree and it grows so fast that it swallows your whole town before you can even rise to your feet.” (Lanier, 2010, p. 8)

Or try taking a checkerboard, and put one grain of rice on the first square, two grains on the next, four on the next. Watch out: by the last square of the checkerboard, the final amount would be enough to cover India with a blanket of rice two meters deep. Exponential change is unthinkable for the human mind.

The word du jour to describe the point of explosion is singularity. The idea has caught fire among those who dream of radical technology—immortality, vast augmented intelligence, disembodied light-speed travel among the stars, the Last Generation, Humanity 2.0 playing at will with the structure of space and time.

A singularity in mathematics and physics represents a phase shift, a radical transformation, a boundary point where reality morphs beyond recognition. The phase shift that modern visionaries are speaking of is consciousness, though they use the word intelligence. John von Neumann used it first in this sense, saying that we are “approaching some essential singularity in the history of the race…” (quoted in Dyson, 2012, p.299). I.J. Good spoke of it in 1965 as an intelligence explosion, adding “the first ultraintelligent machine is the last invention that man need ever make” (Good, 1965, p. 3). In the 1980s Vernor Vinge established the word singularity as a technological tipping point.[2]

Slow down, says ‘the pessimist’. Humans occupy an insignificant corner of the cosmos; our frail and fugitive species has arisen in the last fraction of cosmic time. Not so, says Big History: the cosmos, life, and mind are a continuous, connected process. Each step tends toward greater complexity and consciousness.[3] In this cosmic view, science and technology are the growth tip that Gaia is using to feel her way into the future. Language, writing, books, science, computers, and networks form a progression through time; they are naturally artificial extensions of human consciousness. Each was a leap forward allowing the knowledge and ability of our species to extend beyond what a single person could understand, remember, or accomplish.[4]

In this idea of a continuous process linking the evolution of the cosmos, the emergence of life, the development of intelligence, and the emergence of science we can find a first hint of how science and spirituality may be integrated.

A snail, crawling on the Grand Canyon of geologic history, fails to feel the tectonic shift. Forty years ago a brain-computer device (cochlear implant) was considered science fiction, yet these implants are routine today.[5] Ten years ago nobody thought that a computer program could beat the world chess master. Five years ago the notion of working with single neurons through light (optogenetics) was unheard of. Three years ago the idea of telekinesis (moving matter by thought) was still a dream. A year ago recording inner consciousness, such as dreams, was unimaginable. Last year the notion that a computer could out-perform people in answering questions in natural language, over the entire realm of human knowledge, would have been laughed at. Yet all of these impossibilities have come to pass, and the trend is accelerating. This future isn’t what it used to be. Denial of scientific progress in the realm of mind and consciousness is like closing your eyes to avoid a lightning strike.

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[2] The first description of this was “intelligence explosion” by the mathematician and cryptologist I.J. Good, in 1965. See “I.J. Good, "Speculations Concerning the First Ultraintelligent Machine", *Advances in Computers*, vol. 6, 1965. “Let an ultraintelligent machine be defined as a machine that can far surpass all the intellectual activities of any man however clever. Since the design of machines is one of these intellectual activities, an ultraintelligent machine could design even better machines; there would then unquestionably be an 'intelligence explosion,' and the intelligence of man would be left far behind. Thus the first ultraintelligent machine is the last invention that man need ever make.”

[3] See Fred Spier’s *The Structure of Big History*, or David Christian’s *Maps of Time*. Kevin Kelly also discusses this in *What Technology Wants*. “Big History studies the past across physics, astronomy, geology, biology, and human history. As it does so, it seeks common themes, paradigms, and methods…” (*Big History*, p. xxiv). The six epochs that Ray Kurzweil describes (physics, DNA, brain, technology, mind-machine interface, singularity) describe a similar continuity and progression.

[4] *Hamlet’s Blackberry* by William Powers (2010) describes these revolutions as technologies “of the mind,” and examines their potentially disruptive influence.

[5] After all, the auditory nerve has 16,000 channels, and at the time one or two channels were the only technology possible. See *World Wide Mind* (2011) by Michael Chorost.

If you want a glimpse of this future history, there is a borderland where science and consciousness meet, in the dead of night, glance at each other in passing, dimly recognize the other, and set up housekeeping. That borderland is science fiction, where telepathy and reincarnation, transcendence and uploading, biology and spirit come together to romp and beget strange offspring. Many a programmer is steeped in spiritual visions from science fiction literature, and many a meditator grew up on dreams of lasers, computers, and robots. Science and spirit may be segregated in the halls of Academe, but in the lands of literature and the imagination, they are producing chimera worthy of the 21st century.

If technology were to enable a leap in consciousness, it would precipitate a Cambrian explosion of creativity, development, and transformation. Why? Even in a mundane sense, consciousness is the force behind the major events in life and the world. Ants may build hills, but humans terraform the world.[6] Consciousness acting through human beings is the predominant force for better or worse on all life on the planet. Its development is more earthshaking than any other, including Darwinian evolution. In one possible future, humanity may evolve into something different, a transhuman and perhaps non-human species. Such a being will have a mind that is unknowable, beyond today’s conception. This is because that it will stand beyond today’s human.

Okay, let’s face it; it’s time to set down our prejudices, walk across the aisle, and shake hands.

Science and spirituality need to be brought together in practice. The theories and descriptions of the one must connect with and explain those of the other. Their phenomena must be related. Their tools and techniques must work together. There is no other future. Unfortunately, nobody even knows how to begin. Prayer and machine algorithms, incense and fMRI, meditation and brain-mind interfaces, the occult and optogenetics exist in two mutually-exclusive universes. The twains need to walk hand in hand, but they appear to walk right through each other, ghostly presences inhabiting different dimensions.

Science is rapidly moving into realms long thought to be the exclusive domain of the Romantic poet and the armchair psychoanalyst: dream, thought, awareness, meditation. Science is breaking down the barriers and letting light into rooms long locked with scriptural mantra and ecclesiastical legerdemain. The meeting of science and spirit is inevitable. Truth be told, they have been enmeshed in the mind for thousands of years, unbeknownst to all but the rare polymath. As soon as there were tools, they were used for spiritual practice as much as for tilling the earth or cooking food. Language, books, and the arts all use technology, understood in the wider sense, and the practice of spirituality has made these an essential part of its practice throughout history.[7]

The study of consciousness itself is fraught with disagreement—optimists expect a techno-rapture any day, pessimists deny that humanity will ever change. A vast muddled middle, go happily about their lives, unaware that the tsunami is racing for their cozy beach huts.

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[6] For an ecstatic meditation on this idea, see the short video by Jason Silva: http://vimeo.com/29958619.

[7] Many modern writers (e.g. Kevin Kelly, David Deutsch, W. Brian Arthur, William Powers, and David Nye) see a linked series of successive technological “revolutions” starting with language and progressing up to current information technology.

Spirituality has ignored science, assuming that growth can only occur through the innate tools of consciousness itself: concentration, prayer, meditation, visualization. Even if we set aside a protected corner in the temple of mind for them, the future will not be limited to purely interior practices. In a few short years, less than a generation, it will include the rapidly advancing techniques of neurology, brain-machine interfaces, nanotechnology, algorithms, implants. Wild branches of the scientific vine are pushing into the temple, cracking the comfortable walls that have stood for millennia, bringing a paradoxically organic growth spurt. The resultant symbiosis of spirit and science will be stranger than technologists or mystics have imagined.

"We are creating a blueprint together—a design for our collective future. The possibilities for… spiritual progress are tremendous" (Rushkoff, 2011, p.8). Spirituality is facing its most important challenge in history. Will we be able to detect and measure spiritual consciousness? Will an artificial entity supersede humanity? Will thought projection or telepathy become routine? Will human beings augment their mind/brain, producing radically new kinds of awareness? Will the spirit itself change?

Change is upon us. A new normal is chipping through its egg, and looking around in wonder. How will coming generations integrate this with their understanding of intelligence, consciousness, and the human being? What is needed is a synthesis of neurology, information science, artificial intelligence, and spirituality. I believe it will happen; it must happen. It will be unprecedented, extraordinary, beautiful, and frightening. New entities will walk into our dreams and visions, and our lives.

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Sri Aurobindo's Lila
The Nature of Divine Play According to Integral Advaita

Matthew W. Morey[1]

Abstract: This essay addresses the concept of Lila, or Divine Play, in the context of Integral advaita as described by Sri Aurobindo and Haridas Chaudhuri. In order to convey the characteristics of Integral Lila, the first part of the essay examines Integral Advaita. The second part of the essay directly addresses Sri Aurobindo's description of Lila, a play that is at once a dalliance of the Divine and a teleological drama unfolding toward a denouement that may be at hand. In the context of Lila, the essay examines evolution, the individual poise of Brahman and the participatory nature of Integral Yoga.

Keywords: Haridas Chaudhuri; Integral Non-dualism; Integral Philosophy; Integral Yoga; Integral Advaita; Sri Aurobindo; Lila; *Purnadvaita*.

> *The slow self-manifesting birth of God in Matter is the purpose of the terrestrial Lila.*
> (Ghose, 1997, Vol. 12, p. 247)

Lila, as a concept denoting play, is applied to much of Indian thought, both spiritual and secular. According to Apte's *Practical Sanskrit-English Dictionary*, the noun *lila* means anything from "Sport, dalliance, play" to "any languid or amorous gesture in a woman" (Apte, 1965, p.813). Clearly not reserved strictly for the spiritual, lila is nevertheless employed as a justification for the mystery of existence in various Indian religions. Depending on the spiritual system claiming the term, lila denotes a specific Divine play whose nature corresponds to the fundamental epistemological and spiritual beliefs of the tradition in question. Thus the tenor of the definition of lila provides a unique vantage point for any spiritual tradition that utilizes the term.

In this essay I will examine the concept of *Lila*[2] in the context of Sri Aurobindo's Integral yoga. The essay is divided into two sections: The first examines the distinguishing characteristics

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[2] The terms that originate from Sri Aurobindo's writings will be expressed in this paper capitalized or lower case according to his usage. The secular use of the words out of Sri Aurobindo's and Chaudhuri's context, for example the dictionary and general use of the term *lila* used above, will be expressed in lower case.

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of *purnadvaita* (integral nondualism) in the context of Integral yoga. In this section I use primarily the material from Haridas Chaudhuri who has produced numerous studies examining and comparing Sri Aurobindo's Integral advaita, a complex and nuanced distinct interpretation of nonduality, with other religious schools. His studies have distilled out the major characteristics of Integral advaita that will be used in the remainder of the paper. These characteristics, which will be examined thoroughly in the section on purnadvaita, include the following: validity of three quasi-independent poises of being within the larger framework of Brahman[3]; the evolution of consciousness from the nescient world of matter toward superconscious beings who will evolve past a sense of separation from, and ignorance of Brahman; and the participatory role of human beings in this unfolding evolution.

The distinguishing properties of Sri Aurobindo's Integral advaita provide the philosophical and spiritual framework in which Lila is embedded. The second section examines the concept of *Lila* as referenced in the works of Sri Aurobindo, focusing primarily on passages form *The Life Divine*, and the implications of this interpretation of Lila.

Lila in Integral yoga is indeed the idle play of the Absolute, but the play involves a uniquely teleological and participatory agenda—an agenda that the Absolute has somehow put forward—that leads toward the evolution of consciousness. The three poises of being provide a context for this evolutionary agenda. The participatory nature of the individual poise of being creates a quasi-independent dynamo for the evolution of consciousness. But this evolution is conceived "in sport" (Ghose, 2009, Vol.2, p.611) in that its denouement, the recognition of Brahman in all things, has never been absent; or as Chaudhuri describes it, liberation or "*mukti* [is the] realization of eternal identity with the Divine" (Chaudhuri, 1950, p.221). Thus the Lila of Integral advaita is a specific play at once teleological and idle, and one in which humans are definite distinct players with unique agency to further Brahman's game.

Advaita in the Context of Integral Philosophy

Haridas Chaudhuri explores Integral Advaita from several perspectives. In *Being, Evolution & Immortality* (Chaudhuri, 1974) and in the essay, *The Integral Philosophy of Sri Aurobindo* (Chaudhuri, 1960), he compares eastern nondual practices with western dualistic ones, examines the various ways in which nondual Advaita Vedanta traditions have manifested in Asia and distinguishes Integral advaita from the other nondual traditions. Chaudhuri takes on a perennialist perspective with regard to advaita, suggesting that the traditions that emphasize the nondual realization include, among others, "Vedanta, Tantra, Vaisnavism, Taoism, and Zen," and he suggests Christian mysticism and Sufism also have qualities of nondual traditions (Chaudhuri, 1960, p.26). He speaks to the wisdom of these philosophies, discussing their strengths and shortcomings. Though each has its own wisdom and practices that emphasize the ever-available access to the lived experience of the Absolute, Chaudhuri contends that none of these schools embraces the whole of human experience.

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[3] In this paper the use of the word Brahman is synonymous with the Absolute, the Infinite, God and Being. Though at certain points Ishwara, Purusha and other terms might be more specifically appropriate, this level of parsing the nature of existence is beyond the scope of this essay. The chapter "Brahman, Purusha, Ishwara—Maya, Prakriti, Shakti" in *The Life Divine* (Ghose, 2009, Vols. 21-22, pp. 336-379) distinguishes the nuances of these different expressions of Being. Brahman contains them all: "Brahman the Reality is Atman, Purusha, Ishwara….The Supreme Brahman is that which in Western metaphysics is called the Absolute: but Brahman is at the same time the omnipresent Reality in which all that is relative exists as its forms or its movements…" (p. 338).

According to Chaudhuri, only Sri Aurobindo integrated the strengths and wisdom of these various religious traditions to create a *purnadvaitavada*, or Integral Advaita. Chaudhuri (1950) clarifies the inclusiveness of Integral advaita in *Sri Aurobindo: Prophet of the Life Divine*[4], identifying the distinctions between Integral nondualism and *kevaladvaitavada* (unqualified nondualism), *visistadvaitavada* (qualified nondualism) and *dvaitavada* (dualism). He discusses how each of these three spiritual schools have a legitimate contribution to make, but none of them alone can be said to honor the full range of the existence: the co-existence of the individual along with the cosmic contexts and the transcendent Sachchidananda. Any of these three schools of Eastern thought touch on an abiding truth of existence, but only Integral advaita finds an integral poise including the three into a larger whole.

The key to Chaudhuri's analysis is the observation that the absolute can have paradoxical manifold simultaneous expressions without diminishment. Brahman can divide itself into individual beings with agency and self determination, while expressing the unfolding cosmic designs as well as the inescapable ultimate transcendent Sachchidananda.

> [I]ntegral nondualism affirms being as the undivided unity of the formless and multiple forms. According to ancient nondualism, ultimate reality is the formless, the indeterminable. Forms and determinations are unreal from the ultimate standpoint. In the view of Integral nondualism, forms and determinations also are very real from the ultimate standpoint. They are the glory of the creative urge inherent in Being. They provide meaning and reality to the self-expressive impulse of Being. (Chaudhuri, 1974, p. 31)

This affirmation of formlessness and form sets the stage for an exploration of distinct poises of being that exist inseparably within the cognitively incomprehensible seamlessness of Brahman. "As supra cosmic transcendence, Brahman is not a blank featureless unity, but an infinitely opulent unity embracing an unlimited wealth of content and measureless possibility" (Chaudhuri, 1950, p.218). Chaudhuri suggests that no previous religious tradition has effectively integrated the truths in the various nondual and dual wisdom traditions in Asia. Exploring *kevaladvaitavada*, *visistadvaitavada* and *dvaitavada*, he details both the accuracy and the limitations of these schools of thought, and sets up an interpretation of Integral advaita that includes the wisdom of each.

With regard to unqualified nondualism, whether that of Shankaracharya's advaita, Buddhism, Samkhya yoga, or other traditions, Chaudhuri has a mixed review. These wisdom traditions have brought to consciousness the capacity to experience the ineffable unity of being at the very heart of the mystery of existence, which has of course been a gift to humanity. But two shortcomings exist about their interpretations of the range of existence. First, the emphasis on the transcendent has uniformly minimized the immanent expression in this world. Involvement in this world is, according to these advaita schools, a potential "entanglement either in the meshes of Prakriti

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[4] Much of the material Chaudhuri uses can be found in *The Life Divine* in the chapter "The Triple Status of the Supermind" (Ghose, 2009, Vols. 21-22, pp. 152-160). Chaudhuri's work is both an exegesis of this chapter and a comparative analysis with other religious traditions in India.

(Samkhya) or in the cobwebs of Maya *(Shankara Vedanta*), or in the fetters of Karma *(Buddhism*)" (Chaudhuri, 1950, pp. 44-45). The shortcoming in this perception of the manifest world is the conviction that involvement in this world of nature and people is entangling illusion fraught with dangerous spiritual setbacks.

Integral advaita emphasizes that depths of sustained liberation should include the embodiment of the individual in the realm of this cosmic expression of Brahman; the world is nothing other than Brahman's creative expression and the liberated individual is the fruition of Brahman rising to consciousness in Jivatman. As Chaudhuri (1950) describes,

> The empirical individual is without a doubt a product of Ignorance, but the same cannot be said of the spiritual *individual* (*jivatman*) which is essentially a particular poise of being or mode of manifestation of the supreme Spirit. Identical with Brahman in essence and existence, the spiritual individual has also a unique function and form of manifestation of its own, in consequence of which it differs from other poises of being of Brahman, the supreme Reality. (p. 216)

From this point of view the world itself—again provided that the individual has been liberated from "all taint of ignorance" that keeps the ego in a state of illusion of separation and self importance—is an inseparable expression of Brahman, valid in its own right and, as a creative manifestation of Brahman, worthy of creative interface and participation by the individual.

Qualified nondualism or *visistadvaita*, according to Chaudhuri, makes the contribution to the dialogue of religious wisdom that *jivatman*, the spiritual self of each individual, is in fact an inseparable aspect of Brahman. *Jivatman* "is not ontologically separate form the supreme Lord, but is rather eternally dependent upon Him as His standing self-differentiation" (Chaudhuri, 1950, p.213). However, the insufficiency of the qualified schools of Advaita, according to Chaudhuri, is that their understanding of the nature of existence fails to capture the nature of relationship of the Jivatman and Brahman.

No analogy or conceptual framework can do justice to the mysterious nature of Being. The term *self-differentiation* from the passage above speaks to the wisdom of both unqualified advaita and qualified advaita: This is all Brahman, all without the possibility of otherness. But paradoxically—and as the qualified advaitans emphasize—the human aspect of Brahman does in fact have a quality of independence within the larger frame of being Brahman.

Chaudhuri (1950) suggests that humanity is an aspect of Brahman, but with a standing independent agency. This paradox is of course at the heart of liberating insight. "The Individual Self is not a mere power or form or quality or function of the Absolute; it is the Absolute itself in a particular poise of being" (p.213). The shortcoming of the Qualified Nondualism is summed up as a sort of inverse to the Unqualified Nondualism:

> In other words, *visistadvaita* is mistaken in emphasizing the Saguna aspect of Brahman at the cost of the Nirguna aspect. Brahman is at once Nirguna and Saguna. And the liberated soul is at liberty to choose either the state of blissful absorption in Nirguna Brahman or the state of rapturous communion with the Saguna Brahman (p. 214).

Here the Nirguna aspect of Brahman is the transcendent state of the movement beyond form. The Saguna aspect is the world of form that is a poise subsumed in the formless unfolding. Both poises, Chaudhuri suggests, are valid.

Dualism, or *dvaitavada*, validates the abiding quality of the spiritual individual before, during and after spiritual awakening. What liberation eradicates is the ego, the "empirical self which is an organization of Nature (*prakriti*) for the centralization of man's manifold experience" (Chaudhuri, 1950, p.212). The spiritual self is in fact "an eternally real component of ultimate reality"(p.212). However, Dualism overshoots the mark when it perceives each Jivatman is ontologically independent from one another and the larger scope of Ultimate existence. Dualism as a system of thought acknowledges the individualization of Brahman into component parts "*as if* it were entirely separate from other individual soul forms and also form the universal Divine" (pp.210-211). This "poise of being in the Spirit" is critical to Integral nondualism, but it must be taken within the larger truth of Being: "The basic and essential unity of Spirit is in no way abrogated by this free play of differentiation" (p. 211).

Integral advaita reconciles the validity of all three of these spiritual schools.

> When the Spirit is realized in its full Integrality, it is found that advaita, visistadvaita, and dvaita are all true, although none of them represents the whole truth. They are all true in so far as they endeavor to translate in terms of logical thinking three equally real poises of being—three supramental forms of self-manifestation—of the same indivisible ineffable Spirit. (Chaudhuri, 1950, p. 211-212)

Thus each is valid, but not sufficient to embrace the range of being that is described by Integral advaita. Below is an extended passage from *The Life Divine* (Ghose, 2009, Vols. 21-22) in which Sri Aurobindo describes the coexistence of three poises of being, all of which, he proposes, can be grasped by the Supermind:

> We, human beings, are phenomenally a particular form of consciousness, subject to Time and Space, and can only be, in our surface consciousness which is all we know of ourselves, one thing at a time, one formation, one poise of being, one aggregate of experience; and that one thing is for us the truth of ourselves which we acknowledge; all the rest is either not true or no longer true…. But the Divine Consciousness is not so particularized, nor so limited; it can be many things at a time and take more than one enduring poise even for all time. We find that in the principle of Supermind itself it has three such general poises or sessions of its world-founding consciousness. The first founds the inalienable unity of things, the second modifies that unity so as to support the manifestation of the Many in One and One in Many; the third further modifies it so as to support the evolution of a diversified individuality which, by the action of Ignorance, becomes in us at a lower level the illusion of the separate ego. (pp. 155-156)

This passage speaks to the limitations of the human mind such that we embrace a single poise of being that is true and limit that observation as the exclusive truth. Thus *advaita*, *visistadvaita* and *dvaita* all have truths to offer humanity, but none are sufficient to describe the paradoxical inclusive expression of Brahman. The three poises described in the above passage correspond to the wisdom of the three spiritual schools that Chaudhuri analyzes above. The Unqualified Nondualists describe the "inalienable unity of things"; the Qualified Nondualists adhere to the "manifestation of the many in the one"; and the Dualists affirm "the evolution of a diversified individuality." The coexistence of the three poises of Being is beyond the scope of our conceptual analysis of the regular human mind, but the profound expression of the three can be simultaneously experienced by the Supermind, toward which Sri Aurobindo suggests consciousness, in the guise of humanity for the time being, is evolving. Chaudhuri (1950) captures the inclusive and indefinable nature of the coexistence of the three poises of being within Integral Nondualism:

> The spiritual individual is, in point of truth, a center of universal consciousness, a focus and medium of the transcendent Divine. Eternally free in itself, the spiritual Individual is essentially identical with the All of existence and also identical with the all-transcending One. That is why *purnadvaitavada* maintains that supra-cosmic transcendence, cosmic universality and unique individuality are three equally real, non-temporal poises of being of the same supreme Spirit. (p. 220)

Lila

> *All exists here, no doubt, for the delight of existence, all is a game or Lila; but a game too carries within itself an object to be accomplished and without the fulfillment of that object would have no completeness of significance.*
>
> (Ghose, 2009, Vol.2, p.867)

Sri Aurobindo's Commentary on Other Spiritual Views of Lila

To understand the unique manner in which Sri Aurobindo applies *Lila* to Integral Yoga requires that we first explore what he asserts Integral Lila is not. In his chapter, "The Divine and the UnDivine" (Ghose, 2009, Vols. 21-22, pp. 403-427), Sri Aurobindo describes possible variations on a doctrine of Lila that other religions and advaitin points of view might advocate. First with regard to dualistic thinking, whether some schools of Sankhya and Vaishnavism or certain Christian interpretations, Sri Aurobindo distinguishes his interpretation of Divine play from theirs. According to the dualistic schools, this worldly life is often seen as unDivine.

> The soul by taking on manhood, perhaps by the very fact of birth itself, has fallen from the Divine, has committed an original sin or error which it must be man's spiritual aim, as soon as he is enlightened, thoroughly to cancel, unflinchingly to eliminate. In that case, the only reasonable explanation of such a paradoxical manifestation or creation is that it is a cosmic game, a Lila, a play, an amusement of the Divine Being. (Ghose, 2009, Vols. 21-22, p. 424)

Birth as an original sin or error clearly does not fit into the Aurobindonian understanding of Integral advaita. This understanding might be seen as teleological, but with these dualistic schools the teleology is promoted in the sense of eradicating a mistake. Sri Aurobindo's teleological play, which will be further examined below, does not start with a separation from or mistake of the Divine. Clearly, *Lila* of the dualistic schools could be employed to their explanations of the mystery of existence, only the play involves a very different paradigm.

Sri Aurobindo (Ghose, 2009, Vols. 21-22) goes on:

> Or, perhaps, as some religions curiously suppose, He has done this so that there may be inferior creatures who will praise and glorify Him for his eternal goodness, wisdom, bliss and omnipotence and try feebly to come an inch nearer to the goodness in order to share the bliss, on pain of punishment—by some supposed eternal—if, as the vast majority must by their very imperfection, they fail in their endeavor. But to the doctrine of such a Lila so crudely stated there is always possible the retort that a God, himself all-blissful, who delights in the suffering of creatures or imposes such suffering on them for the faults of his own imperfect creation, would be no Divinity and against Him the moral being and intelligence of humanity must revolt or deny His existence. (p. 424)

This dualistic rendering of a narcissistic God not only misses the mark of Lila in the Integral sense, but would demand a sort of spiritual call to arms by Sri Aurobindo, were it to be the case.

The applications of the term *Lila* to various other nondual schools of thoughts are dealt with subtly. With traditional Advaita in the Shankaracharya tradition in question, the obvious question of what is the motivation for this mask of imperfection on the ultimate transcendent Brahman that underlies all of our experience of existence?

> It may be He pretends to be unDivine, wears that appearance like the mask or make-up of an actor for the sole pleasure of the pretence or the drama. Or else He has created the unDivine, created ignorance, sin and suffering just for the joy of a manifold creation. (Ghose, 2009, Vols. 21-22, p.424)

Perhaps for the advaitin sages that have experienced the Absolute, an explanation of any kind seems unnecessary. To transcend this realm of earthly experience and to see the vaster beautiful truth that embraces all possible manifestations is enough. Many advaitins may feel that the realm of seeking a logical explanation of any kind is to reenter into the small provincial world of our human drama. Since many nondual teachers do describe the typical human experience as an illusion, far removed from the liberating insight of true revelatory experience, engaging the mind to begin to fathom the mystery of Brahman's purposes may seem not just idle, but counter to the experience of insight into the absolute, often described as sheer wisdom, love or bliss.

Sri Aurobindo offers—and then refutes—two possible traditional nondual explanations of the mysterious puzzle of our existence within Brahman.

He suggests that the human drama with its shrouded comprehension of the Absolute is, a) an aspect of Brahman that He created of Himself as an idle pleasure of enactment or; b) simply the experience of the joy of being variously manifested. These two explanations affirm the status quo. One might argue that if bliss simply exists as the backdrop to all this creation, there is no need to meddle with complex thoughts of Brahman's intention. The fundamental knowledge that Atman is Brahman is enough to trust in the Divine and let the unfolding creation take care of itself. The direct experience of Brahman, beyond the grasp of most of humanity, is sufficient. To fathom the intention of Brahman is unnecessary and quite possibly counterproductive to that direct experience.

Sri Aurobindo, however, does not adhere to this relationship between Atman and Brahman. He sees submission to an arbitrary universe with odd-ball beings, a few of whom can glimpse the Divine, as unbecoming to an all-blissful Brahman. Why should the vast majority of beings be destined to live in an ill-suited illusion while in actuality embraced by an abiding Love? With God of creation in all things, would this perspective not be a dim view of his purposes?

> [E]xistence of the individual is not an error in some self of the Absolute which that self afterwards discovers… Neither is the individual existence a subordinate circumstance in a Divine play or Lila, a play which consists of a continual revolution through unending cycles of pleasure and suffering without any higher hope in the Lila itself or any issue from it except the occasional escape of few from time to time out of their bondage to this ignorance. We might be compelled to hold that ruthless and disastrous view of God's workings if man had no power of self transcendence or no power of transforming by self-knowledge the conditions of the play nearer and nearer to the truth of the Divine Delight. (Ghose, 2009, Vols. 21-22, p. 402)

Sri Aurobindo clearly does not adhere to a view of Lila that would affirm the idle cycle of things. The view of a God that would provide for such a turn of affairs in which the mass of beings suffer in a small realm of being while only a very few beings perceive the delight that is Brahman, Sri Aurobindo offers as "ruthless and disastrous." Further, in emphasizing humanity's agency in bringing about self transcendence, Sri Aurobindo suggests that submitting to a worldview that holds with things as they are would indicate that we are missing the value of the very gift we have been given in this human form. He suggests here that we can and should engage in our own transformation.

Lila in the Integral Yoga Perspective

> *[E]ternal and immutable delight of being moving out into infinite and variable delight of becoming is the root of the whole matter…* (Ghose, 2009, Vols. 21-22, p. 111)

As described in the section above, Integral advaita distinguishes three poises of being: transcendental, universal and individual. These three poises exist distinctly within Brahman because Brahman can be paradoxically manifold and beyond manifold without ever losing its Absolute nature as Being. Transcendent Sachchidananda, the laws and expression of the material cosmos and the dawning consciousness of individual beings coexist. Each is a realm valid in and of itself, and each is an aspect of the play of the Absolute Brahman.

> As with the being of Brahman, so with its consciousness, Maya: it is not bound to a finite restriction of itself or to one or law of its action; it can be many things simultaneously, have many co-ordinated movements which to the finite reason may seem contradictory; it is one but innumerably manifold, infinitely plastic, inexhaustibly adaptable. Maya is the supreme and universal consciousness and force of the Eternal and Infinite and, being by its

> very nature unbound and illimitable, it can put forth many states of consciousness at a time, many dispositions of its Force, without ceasing to be the same consciousness-force for ever. It is at once transcendental, universal and individual; it is the supreme supracosmic Being that is aware of itself as All-Being, as the Cosmic Self, as the Consciousness-force of cosmic Nature, and at the same time experiences itself as the individual being and consciousness in all existences. (Ghose, 2009, Vols. 21-22, p. 356)

In order to comprehend *Lila* in the context of Sri Aurobindo's Integral yoga, this point, clearly identified by Sri Aurobindo above, must be understood. A nondual expression can manifest variously, obviously. That is the significance of nonduality: no individual being or object exists outside the creative expression of Brahman. All is Brahman unfolding. But the distinction that Sri Aurobindo makes above is that multifarious poises of being are expressing independently within the larger frame of Brahman. The transcendent, the cosmic and the individual exist on relatively independent levels of existence. Granted a rough conceptual sketch would put the individual consciousness within the cosmic, which in turn exists within the transcendent. But each has an independent expression simultaneously. This distinction of being, examined thoroughly by Chaudhuri (1950), as described above, begins to elucidate the nature of Being within which the Divine Lila of Integral yoga unfolds.

Evolution

The question of why such a complex system of Being exists as the expression of perfect Brahman is addressed repeatedly by Sri Aurobindo. Why, if cosmic material of all nature and life forms of all manner are perfection unfolding, is this delight of Being so hidden from consciousness in this worldly poise? Why do the vast majority of life forms on earth, including humans, in spite of their Divine status, fail to identify themselves as such? Our vision of our divinity is imperfect. If Sri Aurobindo's observations are correct, in spite of our Divine essence, most humans do not perceive this true nature. Is this some sort of deluding ruse that Brahman is playing on aspects of Itself?

Sri Aurobindo's response to these questions is simple: the Lila of Brahman involves the evolution of consciousness toward Sachchidananda.

> In that power [of human capacity of self transcendence] lies the justification of individual existence; the individual and the universal unfolding in themselves the Divine light, power, joy of transcendent Sachchidananda always manifest above them, always secret behind their surface appearances, this is the secret intention, the ultimate significance of the Divine play, the Lila. But it is in themselves, in their transformation but also their persistence and perfect relations, not in their self-annihilation that that must be unfolded. Otherwise there would be no reason for their ever having existed; the possibility of the Divine's unfolding in the individual is the secret of the enigma, his presence there and this intention of the self-unfolding the key to the world of the Knowledge-Ignorance. (Ghose, 2009, Vols. 21-22, p. 402)

Thus the "secret intention" of the Lila is the "transformation" from unconscious matter to conscious beings to individuals in the cosmos who recognize their place in the Divine and the

Sachchidananda that permeates life and existence with that level of awakening. The "self-annihilation" of the schools of Advaita that promote transcendence from this realm of matter and individual consciousness does not agree with the transformation that Sri Aurobindo proposes. The material world and the beings whose consciousness has arisen thereof, are valid expressions per se of this creative unfolding mystery. To emphasize the primacy of transcendence from this world of form and individual life denigrates the miracle of our existence as evolving expressions of Brahman in this realm of cosmic and individual existence. Lila, from the Integral perspective, validates the Maya of this realm, its expression and development, as fundamentally valid expressions of Brahman in the context of the mystery of the play.

However, for Sri Aurobindo the creative and teleological play of Lila is superior to the concept of Maya. In comparing the Integral perspective, which embraces both the transcendent and the material poises, to the advaita of Shakaracharya, which gives primacy to the transcendent poise Being, Sri Aurobindo remarks:

> The world, as God has made it, is not a rigid exercise in logic but, like a strain of music, an infinite harmony of many diversities, and his own existence, being free and absolute, cannot be logically defined….Maya is one realisation, an important one which Shankara overstressed because it was most vivid to his own experience. For yourself leave the word for subordinate use and fix rather on the idea of Lila, a deeper and more penetrating word than Maya. Lila includes the idea of Maya and exceeds it. (Ghose, 2009, Vol. 13, p. 89)

Maya, often translated to English as illusion, indicating the illusion of manifest existence, is understood by Sri Aurobindo differently. He describes Maya as the "consciousness" of Brahman (Ghose, 2009, Vols. 21-22, p.356). This definition of Maya gives it substantially more credibility than regarding it as illusion. If this elevation of Maya is taken as a premise, "then certain consequences inevitably impose themselves" (Ghose, 2009, Vols. 21-22, p.112). These include, first, that we are unknowingly supported by Brahman in this Lila in all moments and realms of being, and, second, that we are only partially evolved toward the desired ends of this Lila.

Lila, the play of affairs of the Divine, involves the transformation of Maya toward the realization of its true nature. In Moksha, the liberated mystics have achieved a level of consciousness that is essentially the Maya of manifest existence perceiving its place as Brahman. The possibility for humanity to rise above the station that it currently holds, that of illusion of separation and suffering, even as it is already one with Brahman, offers a glimpse of evolution and the manifold nature of Being.

> In the first place…since in the reality of our being we are the indivisible All-Consciousness and therefore the inalienable All-Bliss, the disposition of our sensational experience in the three vibrations of pain, pleasure and indifference can only be a superficial arrangement created by that limited part of ourselves which is uppermost in our waking consciousness. Behind there must be something in us—much vaster, profounder, truer than the superficial consciousness—which takes delight impartially in all experiences; it is that delight which secretly supports the superficial mental being and enables it to persevere through all labours, sufferings and ordeals in the agitated movement of the Becoming…. Oneness finds itself infinitely in what seems to us to be a falling away

> from its oneness, but is really an inexhaustible diverse display of unity. This is the miracle, the Maya of the universe, yet perfectly logical, natural and a matter of course to the self-vision and self-experience of the Infinite. (Ghose, 2009, Vols. 21-22, p. 112)

There is no way for us to be anything other than perfect transcendent Being unfolding, yet there is this illusion of separateness. In the larger frame of Being, regardless of our pains, some part of us "takes delight impartially in all experiences." The illusion of separateness and the pains that result are indications of our imperfect evolution toward Sachchidananda. Our divided consciousness is:

> … an imperfect response, a tangled and discordant rhythm preparing and preluding the full and unified play of the conscious Being in us; it is not the true and perfect symphony that may be ours if we can once enter into sympathy with the One in all variations and attune ourselves to the absolute and universal diapason. (Ghose, 2009, Vols. 21-22, p. 112)

This imperfection of human experience is logical from the point of view of the graduated development from nescient matter toward individuals whose consciousness can realize the Sachchidananda that permeates all things. Imperfection is necessary in the movement from inert matter to life to embodied aspects of Brahman experiencing Itself—all of which is part of Brahman's Lila.

> The strangeness of the play diminishes, the paradox loses its edge of sharpness if we discover that, although fixed grades exist each with its appropriate order of nature, they are only firm steps for a progressive ascent of the souls embodied in forms of matter, a progressive Divine manifestation which rises from the inconscient to the superconscient or all-conscient status with the human consciousness as its decisive point of transition. Imperfection becomes then a necessary term of the manifestation: for, since all the Divine nature is concealed but present in the Inconscient, it must be gradually delivered out of it; this graduation necessitates a partial unfolding, and this partial character or incompleteness of the unfolding necessitates imperfection. An evolutionary manifestation demands a mid-stage with gradations above and under it,—precisely such a stage as the mental consciousness of man, part knowledge, part ignorance, a middle power of being still leaning on the Inconscient but slowly rising towards the all-conscious Divine Nature. (Ghose, 2009, Vols. 21-22, p. 425)

This passage describes both evolution, the firm steps for a progressive ascent of the souls embodied in forms of matter, and the position of humanity in this ascent, a "mid-stage" of evolution, part insight, part ignorance. The description of evolution as 'progressive Divine manifestation which rises from the inconscient to the superconscient or all-conscient status with the human consciousness as its decisive point of transition' is both indicative of the evolutionary movement of Maya and the important position that humanity holds in this game of the Divine. Humanity is on the verge of achieving the critical evolutionary step of consciousness toward individual Beings who can achieve and sustain their relation as Brahman in this individual poise in the world of the cosmos: matter, soul, and even community. Sri Aurobindo's Integral yoga proposes that humanity can rise out of its stupor and ignorance, and that each individual should employ the agency to rise up toward the Divine. Lastly, this passage reminds us that the Divine is always in the background, holding and sustaining human beings even when enveloped in the fog of their illusions of separateness: 'since all the Divine nature is concealed but present in the Inconscient, it must be gradually delivered out of it'. The nature of evolution is paradoxical: Humans are unconscious players in a game they have already won. The key to the game is that they must discover this for themselves.

This evolution from a limited largely unpleasant perception of ourselves to the Being-Consciousness-Bliss of Sachchidananda raises the question of cruelty: Why is humanity seemingly unwittingly involved in a game, much of which involves suffering. This game—whose dénouement, which exists just beyond the grasp of the ego for most of us, is incomparable joy—may seem rather tragic to the observer on the sideline: so much suffering to the multitudes of individuals. Why would the Absolute create players ignorant of their role in the game? Sri Aurobindo holds that an aspect of Atman must have consented to this play of the Divine:

> A manifestation of this kind, self-creation or Lila, would not seem justifiable if it were imposed on the unwilling creature; but it will be evident that the assent of the embodied spirit must be there already, for Prakriti cannot act without the assent of the Purusha. There must have been not only the will of the Divine Purusha to make the cosmic creation possible, but the assent of the individual Purusha to make the individual manifestation possible. (Ghose, 2009, Vols. 21-22, p. 426)

Prakriti, in broad terms, refers to the earthly realm of material world and egoic beings that seem, phenomenologically, separate from Brahman. Purusha is the transcendent aspect of Brahman and Atman. That 'Prakriti cannot act without the assent of the Purusha', whether cosmic or individual suggests that the Divine cannot make players completely ignorant of their status as Divine. There is consent of some sort in this realm of Purusha that renders the illusion of suffering separate individuals moot. There is never complete severance from the Divine; our individual Atman is always there just behind the curtain of ignorance.

> But if the human soul is a portion of the Divinity, if it is a Divine Spirit in man that puts on this imperfection and in the form of humanity consents to bear this suffering, or if the soul in humanity is meant to be drawn to the Divine Spirit and is His associate in the play of imperfection here, in the delight of perfect being otherwhere, the Lila may still remain a paradox, but it ceases to be a cruel or revolting paradox; it can at most be regarded as a strange mystery and to the reason inexplicable. (Ghose, 2009, Vol. 21-22, pp. 424-425)

We are each, then, the Divine Spirit's "associate." A part of us colludes with the Divine to play this game of imperfection. This image of individual Purusha admitting us into this game of evolution seems to render the game an odd curiosity, 'a strange mystery and to the reason inexplicable'.

Sri Aurobindo, however, proposes several nuanced justifications for the initiation of this Lila. First and foremost, Sri Aurobindo affirms the mystery of this game. He addresses the question of why we have this game to re-evolve into Brahman, when one has from the start never been separate: "The only question is the reason why this kind of progressive manifestation was itself necessary; that is the sole point left obscure to the intelligence" (Ghose, 2009, Vols. 21-22, p.

426). He offers that the movement is itself a mystery beyond our ken: But it may be said that the Divine Will and delight in such am arduous manifestation and the reason for the soul's assent to it is still a mystery. But he goes on to say that a play of self-concealing and self-revealing is one of the most strenuous joys that a conscious being can experience. More than a mere game of transcendental hide and seek, this play involves the most poignant aspects of being alive. This then, the expression of Brahman in myriad individual forms whose accomplishment is discovering their innate divinity from the shroud of ignorance, might be one reason for this Divine game, the delight of self discovery.

Another sort of proposed justification for the play of the Divine that Sri Aurobindo suggests "is a new affirmation of Sachchidananda in its apparent opposite. If the Infinite's right of various self-manifestation is granted, this too as a possibility of its manifestation is intelligible and has its profound significance" (Ghose, 2009, Vols. 21-22, p. 427). What sort of seamless bliss existed before the poise of cosmos began is, of course, unknowable. But the choice to take this "plunge into Inconscience," (p. 427) to take form in matter and cosmic energy, perhaps was preceded by simple uncomplicated bliss of Brahman. This plunge into the material world followed by a gradual evolutionary uncovering of the divinity innate in all things, then, could be for a freshness of perspective and affirmation of itself from the depths of the inert conditions of cosmic existence.

Whatever the motivation for the source of this teleological Lila may be, Sri Aurobindo is clear that there exists an abiding Sachchidananda at every level of the game. The game's sought resolution, that of abiding creative Being-Consciousness-Bliss, has never been absent, even as evolution of consciousness brings humanity closer to Sachchidananda. Perhaps the motivation for initiating the play is too vast for our psyches to grasp. Sri Aurobindo realized levels of communion with Brahman that unveiled the Being-Consciousness-Bliss, steadily present and gracious, unfailingly behind and within the movement of all things.

> The world of which we are a part is in its most obvious view a movement of Force; but that Force, when we penetrate its appearances, proves to be a constant and yet always mutable rhythm of creative consciousness casting up, projecting in itself phenomenal truths of its own infinite and eternal being; and this rhythm is in its essence, cause and purpose a play of the infinite delight of being ever busy with its own innumerable self-representations. (Ghose, 2009, Vols. 21-22, p. 111)

Thus Lila, idle Divine play, is the most fundamental motivation for existence as it stands.

The Participatory Nature of Evolution

The individual poise of Integral advaita describes beings within the cosmic design of Brahman, mainly ignorant of their Divine status for the time-being, that have agency to further their own evolution. That Brahman should willingly divide itself into micro-beings, fragments of Itself, who don't know what they are, may seem rather arbitrary. This arrangement certainly seems capricious.

However, the cosmic design has given us autonomy to move and develop as we will; hence, we participate in the Lila of immanent consciousness evolving toward Divinity. The aspect of evolution that is participatory for humanity involves choice: to submit to complacency or to live in such a way that moves us toward experiencing the Divine in any given moment. Our position as humans allows us the opportunity to consciously move our souls toward the union with Divine, even as we stay in and engage with the manifest material world. Alternatively, we also can choose to live in the 'sensational experience in the three vibrations of pain, pleasure and indifference'. This latter choice is, of course, compelling to most of us.

This complex evolution is at the heart of Integral advaita and Integral Lila. Brahman has moved into the inconscience of the cosmos for some reason beyond comprehension. But the movement is clearly toward reawakening to our true nature, otherwise why stars? Why planets? Why water? Why life? Why liberation (Moksha)? Humans can choose to fully engage in this game of rediscovery of our Divine nature. Though the opportunity is at hand, we have shown our capacity to decimate our own existence, thus setting back the chance for imminent evolution. Myopic 'greed, hatred and delusion' as the Buddhists put it, may cause humanity to miss this opportunity, not just for the possibility of abiding indescribable Bliss, but toward the achievement of sustained 'God in Matter' and the next step in Brahman's Lila.

The following extended passage from *The Life Divine* eloquently describes the steps of evolution and ends with our participation in the unfolding process.

> But if it is once admitted that the Spirit has involved itself in the Inconscience and is manifesting itself in the individual being by an evolutionary gradation, then the whole process assumes meaning and consistence; the progressive ascent of the individual becomes a key-note of this cosmic significance, and the rebirth of the soul in the body becomes a natural and unavoidable consequence of the truth of the Becoming and its inherent law….Our explanation of the evolution in Matter is that the universe is a self-creative process of a supreme Reality whose presence makes spirit the substance of things—all things are there as the spirit's powers and means and forms of manifestation. An infinite existence, an infinite consciousness, an infinite force and will, an infinite delight of being is the Reality secret behind the appearances of the universe; its Divine Supermind or Gnosis has arranged the cosmic order….The material universe is the lowest stage of a downward plunge of the manifestation, an involution of the manifested being of this triune Reality into an apparent nescience of itself, that which we now call the Inconscient; but out of this nescience the evolution of that manifested being into a recovered self-awareness was from the very first inevitable. It was inevitable because that which is involved, must evolve; for it is not only there as an existence, a force hidden in its apparent opposite, and every such force must in its inmost nature be moved to find itself, to realise itself, to release itself into play, but it is the reality of that which conceals it, it is the self which the Nescience has lost and which therefore it must be the whole secret meaning, the constant drift of its action to seek for and recover. It is through the conscious individual being that this recovery is possible; it is in him that the evolving consciousness becomes organised and capable of awaking to its own Reality. (Ghose, 2009, Vols. 21-22, pp. 784-785)

Evolution, as described here, is the “secret meaning” of the Lila. Out of the nescience of the material universe, we are recovering our wholeness through self-awareness. Fulfilling that awareness of our Divine nature in this realm of being in time and space is the Reality secret behind the appearances of the universe. The evolution will take place through each of our life choices, through the conscious individual being.

Thus as bits of Brahman ignorant of our identity, we are given the capacity to evolve, but with no guarantee of success. The paradox is as brilliant as it is bizarre. The general movement of consciousness in the cosmos is toward awakening: to find itself, to realize itself, and to release itself into play. The force of this energetic awakening is at work in us and in everything. Yet the animal nature out of which we have emerged has consolidated an egoic center that must be transcended to achieve Sachchidananda. We are at once moved by the zeitgeist of this existence which moves us toward self-knowledge and we are left to our own devices to sort out if and how humans will collectively achieve this final step from ignorance to self-knowledge.

The Dénouement: Superhumanity

Evolution’s end, then, is a being in this realm of the material universe and individuality that knows the Sachchidananda of Brahman even as we exist on this cosmic and individual level of being. Sri Aurobindo describes our current status as a penultimate state of consciousness, near to this final stage. Our task as individuals and as a race is to grow from what we are into a more luminous existence—from pleasure and pain into a purer and vaster and deeper bliss, knowledge, and power.

> There is an evolution and we have to complete it: a human animality or an animal humanity is not enough. We must pass from the inadequate figure of humanity into a figure of the Godhead, from mind to supermind, from the consciousness of the finite to the consciousness of the Infinite, from Nature into Supernature. (Ghose, 2009, Vol.12, pp. 227-228)

This notion of Supernature and Supermind are the final stages of this Lila, the achievement of the game’s resolution. *Super-* of course suggests that which is above or beyond. Beyond mind lies the harmonious integration of Sachchidananda with our current practical worldly faculties. The accomplishment of Superhumanity is the fulfillment of the Divine play.

Superhumanity, then is beyond humanity in that it achieves the Supermind or Truth-Consciousness, that which experiences Sachchidananda, the Divinity behind and within all things, and lives in the individual poise ensconced in that level of awakened consciousness. Super-humanity is the next step in evolution and the fulfillments of this Lila.

> A life of gnostic beings carrying the evolution to a higher supramental status might fitly be characterised as a Divine life; for it would be a life in the Divine, a life of the beginnings of a spiritual Divine light and power and joy manifested in material Nature. That might be described, since it surpasses the mental human level, as a life of spiritual and supramental supermanhood. (Ghose, 2009, Vols. 21-22, p.1104)

Our next phase, should we come to achieve it, would involve a disarmingly simple task: To surrender our egos and discover the divinity that has always been there sustaining and delighting in our lives. Then the place humanity would hold is aptly described as a "Divine light" manifested in the cosmos. Humanity has access to this way of being in the world. Sri Aurobindo describes "a new consciousness in which humanity itself shall find its own self-exceeding and self-fulfillment by the revelation of the divinity that is striving for birth within it. This is the sole true supermanhood and the one real possibility of a step forward in evolutionary Nature"(Ghose, 2009, Vols. 21-22, pp. 1105-1106). Yet—to reiterate—there is ample room for failure.

The Lila may or may not be fulfilled by this species of being. Sri Aurobindo, who lived through two world wars and the inception of nuclear violence, perceived our possible failure to achieve our evolutionary potential. He saw humanity's will as central to the possibility for our potential unfolding:

> Not individuals only, but in time the race also...can have the hope, if it develops a sufficient will, to rise beyond the imperfections of our present very unDivine nature and to ascend at least to a superior humanity, to rise nearer, even if it cannot absolutely reach, to a Divine manhood or supermanhood. At any rate, it is the compulsion of evolutionary Nature in him to strive to develop upward, to erect the ideal, to make the endeavor. (Ghose, 2009, Vols. 21-22, p. 745)

The will of Brahman is toward evolutionary development. If the will of humanity is lacking, Sri Aurobindo is clear: "If, then, man is incapable of exceeding mentality, he must be surpassed…" (p. 879).

The movement of Lila, then, involves humanity in this evolutionary drama. The participatory opportunity for humanity includes all the variables in human nature that move us toward insight and wisdom. Primary among these is *will*. Dedication to awaken from our somnambulistic lifestyle will determine the fulfillment or failure of Brahman's Lila through humanity. Understanding the movement of Brahman in this larger frame of Divine Lila gives purpose to nondual insights. Sri Aurobindo's mapping of the evolution of consciousness serves as a source of inspiration to seekers of all sorts, from the committed to the lackadaisical. The movement toward a spiritual Divine light manifested in material Nature, and the knowledge that we ourselves can be that light, ought to be enough to turn our attention toward helping to resolve this Lila.

Lila

In us is the thousandfold Spirit who is one,
An eternal thinker calm and great and wise,
A seer whose eye is an all-regarding sun,
A poet of the cosmic mysteries.
A critic Witness pieces everything
And binds the fragments in his brilliant sheaf;
A World-adventurer borne on Destiny's wing
Gambles with death and triumph, joy and grief.

A king of greatness and a slave of love,
Host of the stars and guest in Nature’s inn,
A high spectator spirit throned above,
A pawn of passion in the game Divine,
One who has made in sport the suns and seas
Mirrors in our being his immense caprice.

(Ghose, 2009, Vol.2, p. 611)

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Structure and Process: Integral Philosophy and Triple Transformation

Debashish Banerji[1]

Abstract: This paper looks at the ongoing debate between perennialism and pluralism in religious studies and considers the category of the integral, as described by Sri Aurobindo (1872-1950) in the context of this debate. After exploring the case for perennialism vis-à-vis pluralism, it compares the contemporary taxonomy of a perennial core to mystical experience developed by Robert K. C. Forman with the idea of the "triple transformation" developed by Sri Aurobindo as a way to the realization of an "integral consciousness." Through this consideration, it indicates the aporetic nature of an integralism which can simultaneously uphold the concerns of perennialism and pluralism non-reductively. Such an aporetic goal challenges the epistemological assumptions of the modern knowledge academy and is shown to make sense only as an ever deferred processual ontology as against the knowledge academy's telos of a totalistic structuralism.

Key Words: Integral Consciousness; Integral Philosophy; Integral Yoga; Perennial Philosophy; Religious Pluralism; Sri Aurobindo.

At the forefront of contemporary debates in religious studies is one that pits perennialism against pluralism. The idea of perennialism may be as old as *homo sapiens*, but its early modern origins in the west can be traced to figures like Marsilio Ficino (1433–1499), Giovanni Pico della Mirandola (1463–1494) and Agostino Steuco (1497–1548), Italian Renaissance churchmen and philosophers who taught the consonance of religious and philosophical ideas and the continuity of these principles from Hermetic, Cabalistic and Platonic sources to Christianity. The term 'Perennial philosophy' arose in this milieu, perhaps coined by Steuco and adopted from him by Gottfried Leibniz (1646-1716). These philosophers extended the idea that there was a core of philosophical principles (transcendental) and ideal values (subjective) which were present throughout human history and in many religions and philosophies.

Around the turn of the 19th/20th century, the idea of perennial philosophy revived with some new connotations, influenced by eastern, particularly Vedantic thinking. The mid to late 19th century American Transcendentalist movement may be seen as preparing the ground for this turn, but a hybrid east-west discourse in perennialism gained greater prominence after the 1893 Parliament for World Religions in Chicago. This event has been seen as the start of the modern

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interfaith movement and had a strong universalist sentiment behind it. Swami Vivekananda's speech during this parliament highlighted the idea of Vedantic Transcendentalism, particularly through the Upanishadic image of the many rivers which lose their names and forms in the ocean (Swami Vivekananda, 1893, para. 2).

The Sanskrit term *sanatan dharma* soon became privileged as a descriptor of Hinduism tied to Indian nationalist projects. By 1909, we find Sri Aurobindo Ghosh (1872-1950) using this term, which is close to a literal translation of "perennial philosophy," as a synonym for Hinduism (Sri Aurobindo, 1997a, pp. 3-12). In this version of its use, perennialism refers to a transcendental foundation to reality which renews itself in a variety of experience throughout place and time. Though Aurobindo's understanding of the *sanatan dharma* increasingly voiced itself in terms closer to pluralism,[2] the Hindu nationalism which developed around a championing of this term, took its meaning from the privileged transcendentalism of Shankara's Advaita Vedanta. In the U.S., scholars and intellectuals affiliated with the Vedanta centers founded by Vivekananda helped in normalizing the translation of this term in terms of perennialism. Aldous Huxley's compilation *The Perennial Philosophy* (Huxley, 1970) may be thought to have completed this process through its popularity.

The publication of Huxley's book may be seen as the founding moment for the modern scholarly movement of perennialism, one championed overtly or covertly by eminent proponents such as Frithjof Schuon (1907-1998), W. T. Stace (1886-1967), Joseph Campbell (1904-1987) and Huston Smith (1919-present). Perhaps the most prominent contemporary proponent of this school is Robert K. C. Forman.

Today, the notion of perennialism seems to be the politically correct choice for a liberal spirituality, and as such has a number of connotations: (1) At the popular level, it forms the 'gospel' of 'New Age' followers, and in this context, means something vague such as 'All religions say the same thing'; (2) Even in Huxley's book, some of the connotations of the older Renaissance genealogy of 'Perennial Philosophy' continue and a number of 'perennialists' understand its basis in this form: 'There is a core of common ethical and spiritual goals; and practices leading to these to be found in many world religions'; (3) The Advaita Vedanta formulation, which has been touched on earlier: 'All the names and forms through which religions have approached God are names and forms which originate from the single nameless, formless and changeless ocean of Infinite Consciousness'.

If we consider these propositions carefully, we see that all of them are problematic in their own ways. Clearly, all religions are not 'saying the same thing'. If we talk of a core of ethical and spiritual ideals and practices, the question arises on what is to be included and what excluded from this core, as also in which religion or ideology does this core originate and where does it find its best example? Thinking of questions like these makes the contested nature of this proposition evident. As for the proposition that all names and forms of the Divine originate and lose themselves in the ocean of Infinite Consciousness, this is clearly a privileged transcendentalism, a superior truth claim that can and has been contested. Among the schools of Indian Vedanta, for example, it is one of at least three major ontological statuses which claim theistic primacy and Buddhism would not accept it either.

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[2] See, for example, Aurobindo (2005, pp. 904-906).

The critique of the perennialist position in modern religious studies comes from a variety of directions, but all of these may be seen as forms of pluralism. Pluralism starts from an empirical and anti-idealist position and refuses to privilege a hegemonic transcendentalism. One strand of this position comes from the theological critique of Inclusivism initiated by Paul Hacker (1913-1979) and furthered by his student Wilhelm Halbfass (1940-2000).

Hacker (1983, pp. 11-28) argues that inclusivism is a typically Indian response to the problem of theism and characterizes it as a speaking for the other by co-optation. He sees the transcendental monist standpoint of Advaita Vedanta as a quintessential example of this. Distinct religious identities, histories and soteriologies are erased here in favor of something which subordinates them and swallows them in facelessness. The problematic nature of this kind of inclusivism is seen more prominently in the developmental hierarchism of Ken Wilber (1949-present), who identifies goals of becoming which are increasingly inclusive and find their culmination in a total systemic inclusion and organization corresponding to a state of nondual transcendence (Wilber, 2000). Wilber calls his system integral, but it is better characterized as inclusive in the sense of inclusivism. This can be contrasted to the integral, as I will try to show later.

Pluralist critiques of this kind of perennialism also form a basis for postmodern thinkers who find it important to preserve the right of Becoming over Being. What Hacker sees as a “typical Indian response,” is characterized by Jacques Derrida (1930-2004) as a “white mythology,” the privileging of Logos or the will to rationality, turned systemic in its post-Enlightenment modern phase, and acting as a denaturing agent attempting to translate all singularities into the terms and taxonomies of a universalist anthropology or as in the case of Wilber, a transpersonal psychology. The initiating goals of the Enlightenment are seen here as the search for a totalizing systems theory of everything of exactly the kind being proposed by Wilber, arrived at either through structuralism or through comparative studies, leading to a taxonomic organization of knowledge.

In these two forms of perennialist inclusivism, that of Advaita Vedanta and of the white mythologies of the knowledge academy, we thus find two reductions of the plural transcendental and universal respectively—one which erases the plural through dissolution and the other which tames the plural through structuration. On the other hand, in considering pluralism, an important approach is the neo-Kantian refusal of ontological realities outside the constructions of language. Each religious tradition, here, would be seen as such a construction with its historically generated corpus of signifiers and the qualitative ontologies relating to these. Even transcendence here would be inextricably bound to a linguistic singularity and retain the flavor of its history and its practices.

Are we then left with the perennial and the plural as a binary to which there is no proper resolution? It isn’t that there have been no attempts at dialog. The debate between perennialism and pluralism in our times is perhaps best exemplified in the difference in views between Robert K. C. Forman (1990) and Steven T. Katz (1978, p. 26) (who is a constructivist, holding that mystical experience takes different forms in different religious contexts). Such debates have the benefit of a dialectical engagement, which helps to expand the discourse. To account for differences in articulation of mystical experiences from different religious traditions, Forman has posited the Pure Consciousness Event (PCE), which he claims characterizes an apophatic perennial core to mystical experiences, which is translated subjectively and expressed objectively in a variety of ways. Undoubtedly this is a reduction of the field of mystical experience, and is problematic in this sense, but it is important as an attempt to resolve of the perennialist/pluralist binary.

According to Forman (1998, p.234), the PCE can be subjectively translated in terms of three kinds of experiences: he calls these theistic, monistic and nihilistic. The theistic experience pertains to all religions or sectarian practices which proceed by affective relationship with the Transcendent One. Devotional schools such as Christianity or Vaishnavism could be brought under this rubric. The monistic experience proceeds by attempting to erase all difference and realize an inclusive Unitary Source, or one Reality. Advaita Vedanta is the quintessential example of this kind of realization. The nihilistic experience pertains to a rupture from phenomenal experience and a disappearance into a Transcendental which can only be described in terms of ‘absence’, a negative theology. Various Buddhist schools could be seen as exemplifying this. Forman, therefore, refuses to privilege any of these schools, but indicates something which forms their transcendental core, but which cannot be named, except in abstract terms, such as PCE. Yet, clearly, there is a reduction here, the plural seen as subordinate and phenomenal, while the perennial becomes the noumenal essence.

This brings me to the notion of the integral, which I touched on with respect to Ken Wilber. Wilber, of course, is not the founder of the term ‘integral’, even in its contemporary philosophical or psychological usage, though his popularization of the term is swiftly turning his use of it hegemonic. In the U.S., the academic precedents for this term can be found in Haridas Chaudhuri (1913-1975) (1974), the philosopher and educationist who founded the California Institute of Integral Studies (CIIS), and Pitirim Sorokin (1889-1968), a Harvard sociologist who coined the term “integral culture” (Sorokin, 1964, p.75). The usage of both these figures can be traced in turn to Sri Aurobindo (1872-1950). The use of the term by Wilber himself can also be traced to Sri Aurobindo, whose definitions and contexts of use are thus instructive to our discussion. Sri Aurobindo uses the term “integral” in two contexts, that of an “integral yoga” (Sri Aurobindo, 1999, p.118) and of an “integral consciousness” (Sri Aurobindo, 2005, p.358).

“Integral Yoga” lays out a process of psychological integration. In his own practice of this process, we find the use of disciplines and goals belonging to a number of Indian spiritual traditions, particularly those related to certain schools of Vaishnavism and Tantra, along with practices taken from the Bhagavad Gita, an older Vedanta and the Veda. On the face of it, this may seem like another instance of the attempt to structure an inclusivistic organization of consciousness, as with Wilber. But the traditions from which Sri Aurobindo developed his transformative psychology can be seen to continue in forms which further their own cultural history in his practice. Moreover, they are not used in an additive way as components towards something which includes them, rather each one may be seen as having been expanded into a version which retains its origins but includes other elements.

In this sense, it may be thought of as an enlargement of disciplines along synthetic lines. Such processes of synthetic enlargement are not unique to Sri Aurobindo and continue the ‘unauthorized’ history of Indic spiritual traditions. It is in this sense that Sri Aurobindo’s *magnum opus* on his yoga is called *The Synthesis of Yoga* (Sri Aurobindo, 1999). In this text, we see enlarged descriptions of different traditional disciplines through a development of their own practices and goals, leading towards a point of convergence in something which he has called the Supermind, characterized by an "integral consciousness"(p. 114). It should be pointed out in passing that the term "integral yoga" is better known in the west through its trademarked version, taught by Swami Satchidananda (1914-2002). But this compendium of practices is merely additive and cannot be considered as anything more or other than this. From Sri Aurobindo's description, then, the "integral" in integral yoga pertains to a 'process' of integration which completes itself only in the structure of an "integral consciousness."

What then is an integral consciousness and is it anything different from the inclusivistic erasure of histories and the facelessness of a transcendental monism as in Advaita Vedanta? Taken from Sri Aurobindo, I would like to distinguish the integral consciousness of Supermind in terms of two primary features which distinguish it from the inclusivistic structures either of a transcendental monism or a totalistic developmental systems theory. These characteristics are:

1. The constituents of an integral consciousness are not merely its parts, assembled into an inclusive organization, but each nameable "part" is also the entire integral being.
2. To think an integral consciousness, one must think radical monism and radical pluralism at the same time.

Both these premises obey a mathematic of infinity. The first of them is also related to the famous Upanishadic verse on *Purna* (wholeness) heading the Isha Upanishad (2012):

Purnam adah purnam idam
Purnat purnam udachyate
Puransya purnam adaya
Purnam evavasishyate

That is the Whole, this is the Whole,
The Whole arises from the Whole
Subtracting the Whole from the Whole
Verily the Whole remains.[3]

One could simply replace 'whole' by 'integral' as described by Sri Aurobindo, in this verse, to arrive at an understanding of the first of the features I have laid out. To contemplate the second, it is necessary to realize that unity and infinity are not logically commensurate categories in a finite mathematics. We may think of one as a numerical instance or a grouping of finites but infinity is non-numerical. To think radical unity and radical infinity at the same time defies the laws of reason, and hence from a Kantian viewpoint, can only be considered empirically transcendental. Hence, even if we aim for such an impossibility 'processually', we cannot (and should not) conceive of it 'structurally'.

Yet this transcendentalism is quite different from a transcendental monism or from a Kantian idealism. By preserving pluralism in its fullness, it is better thought of as a Transcendental

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[3] Author's translation.

Empiricism. In contemporary philosophy, this phrase has been used by Gilles Deleuze (2001, p.25) to describe his condition of direct access to the “virtual field” of ‘univocity’ free from conceptual structures but potent with infinite possibility at each of its points and moments. In Deleuze’s case, this “being of sensation” is arrived at through an unhinging of the mind and a return to it from the vantage of immanence. For Sri Aurobindo, one may distinguish such ontology as belonging to a consciousness “beyond” mind and thus available only to structures of becoming not presently available to us. In both cases, this is to be approached ‘processually’ and cannot be grasped ‘structurally’ due to the constraining limits of reason.

If we try to think of examples in spiritual literature describing such an ontology, where the perennial and plural are not reduced to each other, the Infinite not tamed by the Unitary but retaining its disruptive power, we find an instance in Krishna’s vision or *darshan* in the Bhagavad Gita (2012, XI: 10-46). Throughout the dialog of the Bhagavad Gita, which goes back and forth between Arjuna and Krishna, Arjuna seeks ethical and spiritual conviction for taking arms in this civil war. After many arguments, Arjuna finally questions the authority of Krishna. What is the source of Being and Knowledge which issues this call to Power? In reply, Krishna bestows on Arjuna “the divine sight,” *divyadrishti*. Arjuna then sees Krishna’s “supramental” form, the *vishwarupa*.

In this apocalyptic vision, Arjuna views something completely illogical. The Bhagavad Gita describes this in terms of a plural univocity, something in which radical unity and radical infinity coexist. Arjuna says, “I see before me an infinite radiance extending on all sides, I see all the gods, all the humans, all the sages in your body”[4] (XI: 15-19). He sees impersonality, personality, the formless, the plethora of possible forms, the past, the present and the future. He sees that which can be expressed and that which cannot be expressed. This excessive plenitude of the Personal Instance tears at his mind, since its logic of the infinite is beyond its structural limits and Arjuna pleads for Krishna to revert to his “four-handed” cosmic form. It is clear that Arjuna received something he was not prepared for. Sri Aurobindo comments on this in his *Essays on the Gita* (Sri Aurobindo, 1997b, pp. 377-395).

In trying to think radical unity and radical infinity together, we arrive at an aporia. In the *Viswarupa Darshana* of Krishna, the Bhagavad Gita parts this aporetic curtain and shows us an image which, as human beings, we cannot cognize. This is not a sundering of the knot of Becoming and a plunge into the trance of Being; neither is it a denial of Being and a revelry in the play of signifiers. This is a living at the margins of the messianic, the aporetic impossibility, where two incommensurable infinities meet. It is only at this horizon of Grace that the structures which are yet to be formed can become established, leading towards the incomprehensible ‘integral’. This is what the *Viswarupa* shows us—an evolutionary possibility, an ‘integral’ which has meaning only as emergent process beyond the limits of human capacity, never as pre-conceivable structure.

This understanding of the integral as process is to be contrasted with the inevitable misrepresentation of the idea in its entry into the knowledge academy, whether as integral philosophy, integral psychology, integral theology or integral theory. This eventuates because the modern academy is a discourse with its own rules, boundaries and expectations, and whatever enters these boundaries becomes subject to the *nomos*[5] (Bourdieu 2000, p.96) and *doxa*[6] (Bourdieu 1977, pp. 164-169) which structure these boundaries. The modern academy is a product of the knowledge drive of the Enlightenment, a will to Knowledge construed in the epistemological key, a totalistic theory of everything representable as absolute rational structure or generative grammar. The modern world is held together by the modern knowledge academy and the world market, ubiquitous and universal structures which develop increasingly transnational "integrated" manifestations subsuming cultures and histories into translated universal commodities and flavors in a realtime systemic archive. Modern 'subjects' are in this sense yoked to this enterprise of modernity, as knowledge workers within the walls of the knowledge academy, involved in producing transcendental and universal inclusivistic, referred to by Derrida (1985) as 'white mythologies'.

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[4] Loose translation by author.

This is clearly not the 'integral' in the sense in which I have defined it, following Sri Aurobindo. It is an addition and structuration of fragments to make a potentially boundless universal fragment with a transcendental erasure of all structures beyond it. It is not the whole which is wholly present in each of its parts, nor the plural which cannot be reduced to a finite unity, nor the singular which co-exists with the infinite. This is a difference in kind not a difference in degree. This structuration becomes most dangerous when it becomes a developmental systems theory to classify things, people, classes, races, qualities in terms of their distances and degrees of progress from/to the integral. It becomes a religion worse than other religions because it harbors pretensions towards a totalitarian religion, a comprehensible and predictable 'theory of everything'.

What Sri Aurobindo's use of the "integral" implies, then, is a theory of praxis, a plural process with an incomprehensible and aporetic goal, not a structural epistemology. Still, considering Sri Aurobindo's metaphysics of the integral, as carried in *The Life Divine* (Sri Aurobindo, 2005) and his outlines of process in *The Synthesis of Yoga* (Sri Aurobindo, 1999), one could ask the question as to how such a metaphysics and psychology escapes from being a universal inclusivistic perennialism? To answer these questions, one must situate Sri Aurobindo's texts in the cross-cultural dialogic context to which they belong. Though this metaphysics and psychology appear to be written for modernist academic reading, they are also translations of an Indic discourse and meant to be considered as methodological interventions in this regard.

What translates into philosophy and psychology in an Indic discursive history are *darshan* and *yoga*, respectively. According to the norms of that discourse, these two, *darshan* and *yoga*, cannot be isolated; they are like two wings of one enterprise which privileges becoming over being—process over structure. Thus it is *yoga*, a transformative psychology which leads and *darshana*, the metaphysics, which provides a structural taxonomy and relational logic conducive to the achievement of the telos of 'yoga'. The categories and relations of theoria (*darshana*) are thus not to be seen as an absolute epistemology, but rather as a practical epistemology subservient to praxis (yoga); or, in other words, both metaphysics and philosophy constitute, between them, a system described through a theory of practice.

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[5] Term used by sociologist Pierre Bourdieu (1930-2002) to refer to the written or unwritten constitutional law of a field; "principle of vision and division."

[6] Term used by sociologist Pierre Bourdieu to denote what is taken for granted in any society; the experience by which "the natural and social world appears as self-evident."

Metaphysical texts like *The Life Divine* (Sri Aurobindo, 2005) and psychological ones such as *The Synthesis of Yoga* (Sri Aurobindo, 1999) need to be seen as preceded by practices and ideas belonging to an Indic cultural discourse. *The Life Divine* began as a commentary on the Isha Upanishad and translates the core of this text into a metaphysical description and a practical epistemology delineating the philosophical necessity and structural properties of an "integral consciousness" and its relations to Being and Becoming at an individual and cosmic scale. Similarly, *The Synthesis of Yoga* is preceded by practices and experiences that belong to a variety of Indic yoga traditions and are articulated in terminology belonging to the cultural history of these traditions in his diaries under the title *Record of Yoga* (Sri Aurobindo, 2001). The schematic for this practice takes seven lines of synthetic discipline, thus extending a number of yoga lineages, and proceeding synchronically towards an integral consciousness. This simultaneous and synergistic addressing of the different needs and strands of human becoming, aiming each and all together at an integral consciousness, is what makes it an 'integral yoga'.

Still, there is clearly a conscious and deliberate translation from one discourse to another—from a pre-modern Indic discourse which privileges pluralism and process to a post-Enlightenment modern one which privileges a structural totalism. This is a dialogic move, an attempt to reposition the Indic discourse in a post-Enlightenment academic frame. But such a translation is also a strategic revision of the post-Enlightenment discourse, a privileging of process over structure and of the plural over the unitary (universal) or monistic (transcendental) perennial. It is also a redefinition of the perennial in terms of an integral which refuses to erase the plural or contain it in the form of a boundless finite. Such an "integral" refuses structural comprehension except as supramental telos contingent on unpredictable and creative evolutionary development.

Yet, in this translation, Sri Aurobindo does not refuse the drive for simplification or abstraction, possible from structural or comparative perspectives on the plural, so long as they are considered provisional forms of becoming and not static structures. Such simplifications can yield new synthetic practices as part of a continuing evolution with its processual possibilities. Approaching the philosophy of the plane of consciousness that can provide the integration of the plural and the unitary, in this key of a theory of process, Sri Aurobindo (2005, pp. 922-952) later formulated his idea of the triple transformation. The triple transformation is reminiscent of Forman's perennialist reduction, but seen as a creative structure of becoming rather than static structures relatively descriptive of a transcendental core.

The tripe transformation encompasses three approaches to integration, taken separately and synergistically. Actually, one may say this more properly for two of the approaches, the third being dependent on the achievement of the first two. This third is the supramental or integral transformation, which is based on an ontology of integral consciousness, discussed above (Sri Aurobindo, 2005, pp. 951-959). The first two, as preparatory stages towards the third, include a personal (Sri Aurobindo, 2005, pp. 940-944) and an impersonal (or universal) integration (Sri Aurobindo, 2005, pp. 944-951).

The personal integration, known as the "psychic" integration, is aimed at identification with the deep subjectivity' of an immanent Person, and can thus be thought of as inherently relational and theistic. The impersonal integration, known as the "spiritual" integration, is aimed at identification with universal and transcendental forms of Being and Consciousness and thus can be mapped to Forman's monistic and nihilistic perennial ontologies. The achievement of both of these integrations and their normalization in the wakened (*jagrat*) personality are considered preparations for the third integration, which, as discussed above, is indescribable and suprarational, conserving simultaneously radical pluralism and radical unitarianism in its universal and transcendental forms.

From the above, we can see a relation between Forman's perennial categories and Sri Aurobindo's integral consciousness as prepared through the categories of the triple transformation. But the formula of the triple transformation can only be understood processually, with its final integral stage an aporetic unknowable which can be experienced, if at all, through an evolution beyond the ontology of mind. The preparation for this evolution, then, requires an aspiration without content and yet a process towards an inclusivity which refuses the erasure of plurality. With this in mind, we can consider Forman's reduction of the perennial to the theistic, monistic and nihilistic, and the relationship of these categories to Sri Aurobindo's triple transformation in terms of three dimensions of spiritual experience.

The theistic dimension of immanence is the depth dimension, the monistic inclusivism may be considered the width dimension and the nihilistic transcendentalism can be considered the height dimension. These are the three dimensions of mystical mind space. The depth dimension is that which plunges us into the deepest or innermost being within us. This is the immanent divine, the "Psychic Being" or true person in each human being. This hidden subject is the source of a process of internal integration, an alignment of body, life and mind through a one-pointed theistic exclusivism. But this can simultaneously move towards a dialogic universalization, leading towards the transpersonal and impersonal, an identity with the width dimension.

The width dimension is the cosmic consciousness, it is everywhere, spatially pervasive; one can think of a cosmic or universal physical existence, a cosmic or universal life-energy or vitalism, a cosmic or universal ideation or mental existence. The extreme realization of such a cosmic consciousness would be a spatialized inclusivism, the absolute systemic structural epistemology sought secretly by the "white mythology" of the Enlightenment (or its temporal extension, the post-Enlightenment academy). Of course, the academy seeks this as structured information archive, but in subjective space, this inclusivistic cosmic consciousness is given by Sri Aurobindo the name of Overmind. Beyond the structural Monism of Overmind is the transcendental Monism of Sacchidananda, the nameless, formless, causeless and timeless ocean into which all individual and universal categories are swallowed and erased. This can also be seen as a nihilism, since it is absolute and relationless and experienceable only in a trance of exclusion.

Though Forman asserts a common "perennial" transcendental core to these three dimensions, clearly there are discontinuities between these as experienceable by mind-constrained creatures, due to the exclusivism of their categories, including an exclusive monistic inclusivism. A pure or exclusive theism loses both the relative and pure monisms. This can be asserted for each dualistic school of practice. Similarly, a pure or exclusive monism/nihilism loses the theism of the psychic being as well as the relative monism of the Overmind. Yet, as indicated earlier, the Psychic Being can expand its theism dialogically, moving towards the inclusive pluralism of Overmind. Though this may be thought of as a taming of the plural, a boundless finite rather than a radical infinity which co-exists with a radical unity, such a universalized monistic theism may be thought of as a preparation for the aporetic supermind. Refusing both an exclusive theism and an exclusive monism as forms of telos, one may approximate to this human correlate of supermind as a horizon opening to a yet nameless horizon. This purveyor of the unthinkable integral becomes the philosophical telos which magnetizes our becoming, the fourth dimension which gathers to itself the three dimensions of mystic mind without erasing them or their singularities, and capable of projecting them individually and exclusively as dimensional spaces of experience.

Thus, there is no proper order to the process leading to Supermind. Nor is there a proper tradition. One may approach from any tradition, but one must have a will to the integral, as that which is plural, cosmically inclusive and transcendental all at once, without the erasure by any of any of these states. Such an aporetic and unthinkable experience can be an evolutionary telos, approachable from any tradition as starting point. As part of the Enlightenment's academic drive to discover an integral anthropology, we can consider the building of this transhuman/posthuman trajectory through an archive of practices and a phenomenology of experiences that respect these three dimensions of mystical space as the precursor to arriving at integrality. It is when our language culture changes to a point where we can express these dimensions of experience synthetically and can envisage the aporetic horizon in the currency of communication that we can tell ourselves that we are approaching the gates of an integral psychology or an integral philosophy. Before that, not to see it as an incalculable process aimed at the unthinkable, is nothing if not dangerous.

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United Religions Initiative: Global Community Emerging

Sally Mahé[1]

Abstract: This article provides a brief introduction to United Religions Initiative (URI), a global grassroots interfaith network that promotes peace and justice through intercultural and interreligious dialogue using a process known as 'appreciative inquiry'. While accomplishments of URI are highlighted, it is emphasized that more cooperation, more compassion, and more commitment to good relationships will be needed across the world for global unity, justice and peace.

Keywords: United Religions Initiative; URI; Global Community; Interfaith Movement; Interreligious Dialogue; Cooperative Inquiry.

In the mid 1990s, as a new consciousness was emerging that advocated cessation of killing in the name of religion and cooperation for peace, a frequent response was: "impossible"! People bantered that the history of humanity overflows with different religions fighting each other. Clearly, something different was needed if "impossible" was going to give way to inevitable.

What can help shift historic patterns of hostility, ignorance, isolation and political manipulation among religions to unprecedented levels of friendship and collaboration among people of different faiths?

In 1995 upon the occasion of the 50th anniversary of the United Nations (UN), Bishop William Swing, the Episcopal Bishop of California, boldly asserted: "If the nations of the world are working together for peace through the UN, then where are the world's religions?**"** (http://www.uri.org/about_uri/charter, Para.1). Experts heard his call. Dr. David Cooperrider, Professor of Organizational Development at Case Western Reserve University, donated four years of commitment, expertise and talent. Dee Hock, founder of VISA turned organizational visionary, brought a design plan and confidence that a "bottom up" organization was not only possible but imperative to accomplish the goals of interreligious harmony. People from all parts of the world were invited to assess the strengths they brought to this possibility and envision a new kind of organization into being. The organization came to be called United Religions Initiative (URI). It was to be: inclusive, self-organizing, dependent on people at the grassroots,

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honor equal participation of women and men, encourage youth participation, and bring together a maximum mix of stakeholders from all sectors of society.

The first phrase of URI Charter's Preamble grew from thousands of conversations. "We, people of diverse religions, spiritual expressions and indigenous traditions throughout the world, hereby establish the United Religions Initiative to promote enduring, daily interfaith cooperation, to end religiously motivated violence and to create cultures of peace, justice and healing for the Earth and all living beings.
(http://www.uri.org/about_uri/charter/preamble_purpose_and_principles, Para.1).

Since its Charter was signed in 2000, the United Religions Initiative has grown to include more than 550 grassroots groups and organizations in 79 countries. Each group or organization is self-sustaining and retains its own identity but is also part of URI's global network of Cooperation Circles (CCs). Each Cooperation Circle has its own name, size (minimum of 7 members), governance structure and mission, and they all share a commitment to diverse participation and to advancing the central purpose and principles of URI. As a URI core staff member for over 16 years, I've had a good seat from which to participate in developing a global organization that believes in the power of people to self-organize in order to fulfill their aspirations for peace, justice and healing.

So, what are we seeing? What is our experience teaching us?

A Common Document Rooted in Shared Values Provides Stability

Diverse people are compelled toward action by purpose and principles that articulate their core values, passions and longings. In the United States, citizens are stirred by the words of the Preamble to the Constitution: "We, the people of the United States, in order to form a more perfect Union…" (http://www.archives.gov/exhibits/charters/constitution_transcript.html, Para.1). In the same way, people have consistently been drawn to the United Religions Initiative by the words of its Charter. URI's preamble, purpose and principles call people to a common cause, guide behavior, bind people together and open opportunities for long-term, diverse, and high-functioning grassroots activities.

Recognition and Appreciation: Focusing on What Works Rather Than What Doesn't Work Is Worth More than Money

An enduring reality of a grassroots activity is that most people involved are not paid but act from personal commitment. Working with hundreds of groups in URI and watching when folks come alive and when they wear out, I realized that people, like flowers, respond to essential 'nutrients', among them the need to be recognized, to be successful, to have their value amplified, and the meaning of what they do deepened.

URI as an organization embraced an approach to positive change called Appreciative Inquiry (Cooperinder & Whitney, 1996, 2005; Cooperrider, Whitney & Stavros, 2008). Wilted from tedious work, crises, hatreds and injustices that overwhelmed their dreams and positive efforts, we found people coming back to life when a simple organizational process gave them a chance to remember their core values, renew their sense of personal power, and imagine a world worthy of their children.

At its birth, URI was gifted with Appreciative Inquiry (AI), a leading approach to organizational development. Methodologically, AI is an approach toward positive change, as well as a point of view that seeks to emphasize: a) what is working well in an organization; b) important values that people bring to their work; and c) the aspirations and visions of achievement that are shared by all of its stakeholders. According to David Cooprinder the founder of AI, "In its most practical construction, Appreciative Inquiry is a form of organizational study that selectively seeks to locate, highlight and illuminate what are referred to as the life-giving forces of an organizational existence. Appreciative Inquiry seeks out the best of what is to help ignite the collective imagination of what might be"(Cooprinder & Whitney, 1996, p. 3).

Appreciative Inquiry became part of United Religions Initiative's DNA as it found its footing in creating safe spaces for people of different traditions and faith backgrounds to come together in respect and cooperation. In its early years, when the voices of doubt were loudest, Appreciative Inquiry helped URI focus on the quality of our questions and the ability to spark people's imagination toward what is not here yet, but what might be.

Maintaining the Tension Between Giving Guidance and Leaving Freedom to Innovate Produces Positive Results

Giving unlimited numbers of people the freedom to innovate creates an amazing and unanticipated diversity of activities and impact. Cooperation Circles (CCs) take on activities as diverse as creating a Golden Rule Day Proclamation for their city, to maintaining ambulance service for a village, to calling scholars to share papers on the intertextuality of Holy Books. However, grassroots support also calls for systematic guidance and training. An organizational culture that welcomes this tension by encouraging unbridled innovation while providing guidance and training, is challenging but constructive.

URI has learned that people in Cooperation Circles run out of steam, leadership changes or expertise may be lacking to fulfill aims. In addition to providing an open field for initiatives to flourish, a grassroots-led community also needs to provide emotional support, bright ideas and training in various kinds of competencies. To support people in CCs, URI provides some training in such as areas as peacebuilding, fundraising and management.

Conversation and Dialogue Balance Action-Oriented Programs

Early analysis of URI interfaith groups indicated an even split between those organized around conversation and sharing spiritual practices, and those involved in action/service-oriented programs in their communities. Over the years, however, a pattern emerged across cultures that grassroots groups involved in interfaith work often choose a combination of "inner work" and "outer work."

Recently, speaking with members of the Interfaith Council of Bainbridge Island in Washington State, I experienced renewed commitment as we went around the circle sharing stories of faith and life experience. Active interfaith work that takes on vexing local issues will continue to be reinvigorated, balanced, and anchored by such sharing. Most often, especially in areas of entrenched conflict, such as in the Middle East, grassroots interfaith organizers find that their personal relationships with so-called “enemies” make the biggest difference in their lives and propel their work.

Platforms to Connect Grassroots with Policy Makers Are Critical

Over the years, URI has seen effective alliances among students, religious leaders, civil servants, government officials, the military, the media, and corporate executives. Making an effort to reach out to ‘sectors’ we don’t normally interact with is invaluable in creating opportunity for significant change. In August 2011 in Kampala Uganda, URI leaders in the Great Lakes region of Africa organized a two-day gathering where an Ugandan army colonel, students from Makere University, locally based NGO leaders, diverse religious leaders, political officials and the Vice President of Uganda joined in common cause in an unprecedented meeting to raise different perspectives and share commitment to securing peace and reducing terrorism in Uganda. People who might have been considered others in the room to be ‘the enemy’ or ‘out of reach’ began to experience themselves as allies.

Strong Relationships Create Community Resilience

Strong community relationships help unleash people’s resilience, creativity, and hope whether preparing for disaster relief, responding to crises, or sharing the doom and gloom surrounding issues like the economy, peace, and the environment. Grassroots organizing among people from different faiths creates such relationships and strengthens communities in times of difficulty. When terrorist bombs hit the island of Bali, an already established interfaith community ran to the scene to offer joint prayers of grief and support. In New Orleans, it is well documented that faith communities, networked to some degree with one another, provided the most successful response to the devastation of Hurricane Katrina. We may be living in a dangerous world for quite a while. Grassroots organizing emphasizing relationship-building and cooperation skills is a sterling investment in community resilience and ultimately survival.

What Does the Future Hold?

Grassroots organizing has the opportunity to wield new power as communication tools emerge connecting humanity across continents and to bridge historic divides of all kinds. New networking and new relationships are developing everywhere and interfaith activists have gotten the message. More and more, responsibility for positive change will be distributed among the many taken up by “we, the people.” More competence, more cooperation, more compassion, and more commitment to good relationships will be needed across cultures and among people everywhere as we learn how to tap “the better angels of our nature” and exert our collective influence to make a better world.

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Editorial

Welcome to another regular issue of *Integral Review*, which launches our ninth year of publishing new thought, research, and praxis. In the coming months we will roll out an upgrade for IR's website, with new features and a new look. We look forward to this upgrade serving readers' interests better with an increase in functionality!

This current issue is comprised of three substantive-length academic articles that are joined by two reviews and an essay. Prominent characteristics of these contributions include the careful deployment of integral and adult development insights in meaningful applications to academic and social analyses as well as research, along with the persistent attention to the vital role of multiple perspectives weaving through all contributions. And finally, each contributor offers distinctive frameworks we believe a wide spectrum of readers may find useful in their thought, research, and praxis.

Henry Lebovic analyzes the work of prominent peace scholar-practitioners John Burton and John Paul Lederach in his master's degree thesis, *Towards a Coherent Unity of Perspectives on Peace: Burton, Lederach and the Philosophy of Ken Wilber.* He investigates how the integral model and Spiral Dynamics serve analyses of the causes and sources of conflict, and the limitations to date of peace theory and practice. In light of that analysis and in reviewing the small body of "integrally-aware" peace scholarship, he suggests how integral theory might emerge as an important tool for analyzing and shaping future peacebuilding initiatives, and demonstrates the value of developmental analysis of scholarship and practice.

In *The Spectrum of Responses to Complex Societal Issues: Reflections on Seven Years of Empirical Inquiry,* Thomas Jordan, Pia Andersson, and Helena Ringnér synthesize learnings from their work in nine empirical studies to offer practical insights and cautions about individual and group capacities for managing complex issues. Analyzing the variability in performances, they offer a preliminary typology of functions—of facilitators and of groups—that may need to be scaffolded for methods to accomplish intended objectives. In reporting on their learning about individual societal change agency, they offer a typology of four types of societal entrepreneurship and a detailed discussion of the properties of dialectical meaning-making in societal change agency.

Elizabeth Ann ("Annie") Wilson Whetmore employs a developmental integral lens to analyze changes in marriage laws and related cultural norms and values in the United States across the last several decades. In *The Dynamics of Marriage Law and Custom in the United States* she builds her analysis of worldview shifts via her own typology of specific domains (which she calls "lines of development") to explain how she correlates traditional, modern, and postmodern worldviews with shifts in law and custom. Her discussion considers the implications of these shifts for ongoing change to US marriage law and custom, and specifically for marriage, sex, pregnancy, and stresses for women.

Michael Schwartz reviews *Integral Sustainable Design: Transformative Perspectives,* edited by Mark DeKay with Susanne Bennett, which he asserts is "the single most important book on

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architecture I have ever read." He recommends the book not only as manual to guide the field of sustainable design, but also well beyond design to "all manner of integralists and meta-theorists." Notably, judging from his own experience, he suggests the book for general readers because it may "profoundly change one's day to day experience of the built environments in which we dwell."

When Thomas Jordan discovered Verna DeLauer's *The Mental Demands of Marine Ecosystem-Based Management: A Constructive Developmental Lens,* he felt convinced her methods and insights would benefit a wide audience. His review of her dissertation explains why he asserts it as "a very important contribution to our understanding of the preconditions for developing our societies' capacities for managing complex issues."

The foregoing contributions shed light on a range of interests, and the final essay by Swasti Vardhan Mishra sheds a light on India's experience when the lights and power went out in its 2012 blackout. In *The Great Indian Blackout and Elements of Positivity,* he offers a perspective from his lived experience of the event and his observations of positive effects on at least some Indians' unity, cohesiveness, and equality. His positive orientation is extended to considering how the event's circumstances and effects may actually be good news about India's economic and political development, in contrast to critics' stances. He illuminates how the light of positivity can enable new ways of seeing when we think we're in the dark.

As always, we hope you enjoy the richness offered by this issue's diverse contributors, and find ways to benefit from and use their insights, analyses, typologies, and passion for developing our capacities and perspectives to serve our complex world!

JReams

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Towards a Coherent Unity of Perspectives on Peace: Burton, Lederach and the Philosophy of Ken Wilber

Henry Lebovic[1]

Abstract: This master's degree dissertation uses the philosophical schema of Ken Wilber, known as the integral model, and the Spiral Dynamics® approach based on psychologist Clare Graves' work and promoted by Don Beck and Christopher Cowan, to explore the work of peace scholar-practitioners, John Burton and John Paul Lederach. It asks: Can the Integral model and Spiral Dynamics be utilised in analyses to explore the causes and sources of conflict, and the limitations of peace theory and practice? If so, can these schemas be used prescriptively to help design more effective approaches to peacebuilding? Such an analytical schema reveals that Burton's human needs theory makes claims to holism that ultimately fell short, primarily because of the reduction of culture to behaviour. In addition, his reliance on cognitive approaches and the aspect of assumed neutrality were found to be problematic. In contrast, Lederach's concern with subjective causes and solutions of conflict was closer to the "integral holism" Wilber advocates. Lederach's values, which were made more explicit than Burton's, were also found to be congruent with the second-tier value approach of Spiral Dynamics. Furthermore, research within the peace studies literature, as demonstrated here, lends support to the experimental analyses conducted in this dissertation. Finally, the small body of "integrally-aware" peace scholarship, which is also reviewed, illustrates how integral theory might emerge as an important tool for analysing and shaping future peacebuilding initiatives.

Keywords: Conflict resolution, conflict transformation, human needs theory, John W. Burton, John Paul Lederach, peacebuilding, Spiral Dynamics®

Introduction

My own intellectual journey has taken me from science and technology, via almost twenty years spent in the corporate I.T. world, to the study of peace and conflict. Along the way, I discovered the philosophical model of Ken Wilber, a contemporary American writer of the last 30 years and I came to three observations that grow in salience as my journey into the social sciences progresses. These observations form the motivation of this dissertation for my master's degree in peace and conflict studies.

First, theories that are powerful in a particular context seemed to provide only partial answers at best, or are of minimal value at worst, when applied outside the domain defined by their assumptions and core knowledge. This includes many of the "ideas" I encountered in the I.T.

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This work is dedicated to the memory of Regina Lebovic Nee Weitzenova, 1923-2011.

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world concerning human behaviour, as well as much of what I learnt about modern economics such as the construct of "homo economicus" or "economic human."[2] Second, I came to believe that interdisciplinary approaches may be an antidote to that partiality, because of the variety of perspectives these disciplines span and because the knowledge and understanding that emerges is greater than the sum of the parts that constitute it. I came to understand this concept as holism and discovered it was a purported characteristic of peace and conflict studies. Finally, I observed, both in everyday life and in academia, that ideas and theories were necessarily predicated on a particular worldview or set of values. However, frequently these were not made explicit and in many cases, seemed unconscious to those who espoused them. Those values, it appeared to me, shaped and limited the application of the theory, from how and what data is gathered, through to the way methodologies are constructed, research planned and results evaluated.

The study of conflict and peace and the practice of peacebuilding claims to be far more explicit with respect to its values and actively seeks to employ an interdisciplinary, more holistic approach to research and practice. However, is this really so? If it is, to what extent do those values shape theories? Is there a framework for bringing disciplines together in a coherent way? By utilising Wilber's model, would it be possible to create a set of lenses through which theories could be tested, both for the limitations outlined above and for their durability and wider application to more complex human problems? To explore these questions, I examine the work of John Burton and John Paul Lederach, in particular. These two theorists have been selected in large part because they are well regarded and remain popular within contemporary peace and conflict studies, and are well documented and widely discussed within the literature. The work of others such as Norwegian peace scholar, Johan Galtung or American peace educator, Betty Reardon would also be a valuable addition to these two theorists for the same reasons I have outlined. However, time and space constraints prevent this here and a future examination along these lines would be an extension of this research.

In this research, then, I ask two questions:

1. Can Wilber's "AQAL Model" and the related Spiral Dynamics®[3] schema be used in an analytically descriptive manner to explore the causes and sources of conflict, and the utility and limitations of peace theory and practice?
2. Can those schemas be used prescriptively, to help design more effective approaches to peacebuilding? In other words, is the complexity of violent conflict and the challenge of sustainable peacebuilding best dealt with by Wilber's "integral approach" and Beck and Cowan's second-tier value systems ("vMemes")?

Ken Wilber's AQAL model is not a theory about peace and conflict. Its roots lie in sociology, psychology, the physical sciences, cultural studies, phenomenology, spirituality and religion, amongst others. While it is primarily regarded as a theory of philosophy, its breadth and eclectic roots are likely to remind readers of theories from these other disciplines, including some from peace and conflict studies. Wilber's model can be described as a map providing a way to view and explore other theories and ideas. It is often called a meta-theory (Esbjörn-Hargens, 2009, p. 1) in the sense that it is beyond a theory – it can be thought of as situated above the landscape of specialised theories, providing a view from which one can spot relationships, trajectories and even vacant territory regarding theoretical locations. The word "integral" is key to Wilber's model. An "integral" approach, by Wilber's definition, is one that tries to include as many perspectives, styles and methodologies as possible within a coherent view of a topic (as cited in Esbjörn-Hargens, 2009, p. 1). The integral map has five distinct components or elements: (Wilber, 2006, pp. 1-40)

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[2] This refers to the abstraction of a narrowly self-interested, rational human in pursuit of maximum wealth for minimum effort. The term was coined in reaction to the political economy of John Stuart Mill. See Persky, 1995, pp. 221-231.

[3] "Spiral Dynamics" is a registered trademark. The ® symbol is indicated in only this first use of the trademarked name; hereafter, Spiral Dynamics is used.

1. Quadrants: encompassing the perspectives of intention, behaviour, culture and society.
2. Lines or streams of development (i.e. intelligences, capacities, e.g. cognitive, emotional, moral, values).
3. The stages through which those lines progress, revealing greater complexity.
4. States of consciousness.
5. Personality types (e.g. gender).

I will be considering only the first three of the above elements because they are the most directly relevant to the three observations stated at the beginning of this section. The term "AQAL," which stands for All Quadrants, All Lines, is derived from the first two elements above. The term implies that an "integral" approach requires a consideration of all quadrants, all lines, all stages, all states and all types. The use of development lines and stages will focus primarily on the values lines which Wilber identifies and which is developed in more detail by the Spiral Dynamics theory of Graves (1974), Beck and Cowan (1996). The stages within this line of development are also known as "value Memes" or vMemes and they are colour-coded for ease of recollection (see below). The theory identifies particular patterns or types of values as they emerge and matches them to the types of challenges they are best suited to addressing.

This work draws upon academic literature in diverse and germane areas: the philosophical theories of Ken Wilber and what I consider to be subsidiary psychological theories by Clare Graves, Don Beck and Chris Cowan; the published works of John Burton and those of John Paul Lederach; academic articles reflecting on the work of Burton and Lederach and peace theory and practice relevant to the analyses conducted herein; and lastly a small body of work which represents the first steps in integrating Wilberian ideas with peace practice. In the case of the major academics I examine, I focus primarily on their significant and later works, in an attempt to accurately capture their most mature views. In the case of Lederach, the progression of his writings is also of some particular interest.

The first section outlines the three elements of Wilber's model indicated above in sufficient detail to allow the reader to engage in the analysis that follows. This includes examples, but it does not make any explicit connections to peace and conflict theory. In the following two sections, Burton and Lederach's work are summarized, drawing out those particular aspects that are to be the subject of the descriptive analysis of the second part of each of those sections. The analysis determines the extent to which they could be considered integral, by Wilber's definition. This includes a four-quadrant analysis, an examination of various "development lines" and their prominence, and a consideration of the value Meme (vMemes) that are evident in the theories and practices.

The first part of the fourth section compares the observations derived from applying Wilber's model to Burton and Lederach's theories with peace and conflict literature. This analysis finds some striking similarities and starts to paint a picture of the prescriptive value of the AQAL model to peace and conflict theory. Practitioners and theorists in a number of disciplines have begun to develop more complete, holistic approaches to the challenges in their specific fields. The second part of this fourth section considers how this could begin to be undertaken in peacemaking, using Wilber's model as a schema and Burton and Lederach's models as components. A handful of examples are documented by way of illustration.

It is argued here that integral theory could become a valuable tool for the analysis and prescription of peace theory and peacebuilding practice. The analyses undertaken in this dissertation are not only illustrative of how to use integral theory as a set of lenses, but they also suggest how it may be possible to move towards a coherent unity of perspectives on peace. The suggestions for further research in the conclusion advances this goal by expanding both the frame of analysis and the scope of peace theory.

Section One: An Introduction to the Integral Model

Since his first book in 1977, Ken Wilber's ideas have been refined and expanded over a series of books. With a background in the sciences and yet, deeply interested in the spiritual traditions from across the world, Wilber's drive has been to create a synthesis of the wisdoms and insights already available to humanity in a coherent way that can provide a practical map for navigating our future. His sources include the insights of both East and West, from science and religion, and from the perspectives of pre-modern, modern and post-modern.

This section begins by examining the ideas of holism and integralism, as Wilber uses them. These ideas are underpinned by the notions of holons, holarchy, and the existence of non-reducible perspectives, corresponding to domains of knowledge. The domains, which form the four quadrants of the Integral model, are then explained in detail. An inherent aspect of these quadrants is the unfolding of greater depth and complexity, as manifested in the development lines and stages and this is examined here. Particular attention is paid to the development in the subjective quadrants as they relate to human experience. The values line is then explored in more depth, because of its relevance to the examination of Burton and Lederach that is undertaken in the subsequent sections.

From Holism to Integral

But what is really meant by holism? For Wilber, the key underlying concept is that of a holon. In 1995, Wilber formulated his twenty tenets concerning the patterns of existence or tendencies of evolution. In the first of those tenets he asserts that "reality as a whole is not composed of things or processes but of holons. Composed, that is, of wholes that are simultaneously parts of other wholes, with no upward or downward limit" (Wilber, 2000b, p. 43). Thus, he sees reality as a hierarchy of holons – or a holarchy, in which there are an infinity of holons, each of which is a part of a still greater holon.

Wilber warns about two particular dangers that are common in our modern world. The first stems from the assertion that a particular holon is in fact the ultimate “whole,” that is, it is not a part of anything greater or more complete. This leads to repression and domination of higher holons over lower ones, often through the use of force. This can be entrenched in what Eisler calls “domination hierarchies” (as cited in Wilber, 2000b, p. 30). The second danger is what Wilber calls gross reductionism, which is the practice of reducing all material systems to material atoms – often called atomism.

In a sense, Wilber’s Integral framework is his attempt to make holism operational in the totality of human affairs. He understands “integral” in the sense of “comprehensive, inclusive, non-marginalizing, embracing” (as cited in Esbjörn-Hargens, 2009, p. 1). Key to achieving that is the recognition of four fundamental perspectives, which can be summarised as: subjective or intentional, objective or behavioural, inter-subjective or cultural and inter-objective or social (Wilber, 2000a, p. 73).

The AQAL Model’s Four Quadrants

These perspectives are known as the four quadrants and are often shown diagrammatically (such as in Wilber, 2000b, on p. 127). The two axes that divide the whole into four are based on two distinctions: the interior versus the exterior and the individual versus the collective. Thus, the upper-left quadrant corresponds to the internal perspective of an individual. It is concerned with psychology, spirituality, meaning and intentionality. This is characterised in language as the “I” perspective. The upper-right quadrant is the external view of individuals and is concerned with behaviour and observable phenomenon. The pronoun related to it is “IT.” The lower-left is the cultural dimension, or the inside awareness of the group and its worldview, its shared values and meanings, shared feelings and so forth. Its perspective is encapsulated by the pronoun “WE.” Finally, the lower-right is the social dimension (or the exterior forms and behaviours of the group, which are studied by third-person sciences such as systems theory. Characterised by the pronoun “ITS,” it includes the social, institutional, legal and political domains.

One of Wilber’s most compelling insights is that for a view to be considered “integral,” all four quadrants need to be included or considered. Problems emerge when you try to deny, dismiss or reduce any quadrant or perspective to another one (Wilber, 2006, p. 28). In particular, he warns against the attempt to reduce interiors to their exterior correlates, that is, collapsing subjective and inter-subjective realities into their objective aspects. This is known by some as “scientism” and Wilber gives this frame of reference the name “flatland” (Esbjörn-Hargens, 2009, p. 3). In other words, when all "I's" and all "we's" are reduced to systems of interwoven "its,” we are engaged in a form of subtle reductionism (Wilber, 2000a, p. 73).

This type of reductionism is widespread. It is practiced, for example, by those neuroscientists who reduce all mind states to brain functions, asserting that consciousness is an epiphenomenon of brain activity. Similarly, it is being practiced by those systems theorists who reduce all culture and collective meaning to systems of interacting, autonomous units. Wilber does not deny the validity claims of science and empiricism, acknowledging that they accurately and importantly report on the exteriors of various phenomena. However, he is critical of an aggressive imperialism that some scientists engage in when they try to “corner the market on truth” (Wilber, 2001, p. 21).

Reductionism in the opposite direction is also a concern for Wilber. Denial of the objective quadrants is a feature of extreme cultural constructivism. While Wilber supports the validity claim that many ideas are constructed according to various interests (power, sexism, racism etc), he is critical of any who might argue that only the lower-left (cultural) quadrant is “real” and deny the existence of objective truth(s) (Wilber, 2001, p. 23). In analysing the popular constructivists, he in fact finds that they do admit some objective truth and system, including Baitaille, Derrida and Foucault (Wilber, 2000b, pp. 45-47).

One way that the four quadrants can be applied to conflict is in the analysis of behaviour. Such an analysis might start with questions such as “how do we behave?” and “why do we behave in the particular way we do?.” The first question is observational and descriptive in nature, so, while important, it is not analytical. The process of answering the second question can lead towards particular quadrants, depending on the analytical perspectives employed. One answer might be “due to socio-political and structural factors,” which leads to the lower-right (social) quadrant. Another answer is "because of brain states and chemistry, genetic characteristics and defects,” which implicates the upper-right (behavioural/empirical) quadrant. Alternatively, we might conclude, “it is a part of our culture and therefore is meaningful to us,” leading directly to the lower-left (cultural) quadrant. Finally, we might conclude, “it is rooted in our intentions, emotions, personal desires and beliefs,” which lands us in the upper-right (intentional) quadrant. Each of these answers may be simultaneously correct, or partially correct. Wilber’s model does not predict or prescribe what the answers to such questions will be in any specific case, but it does encourage a consideration of each of the possible answers as part of the analysis. In this way, an integral (or relatively complete) understanding is possible and derived action is likely to be more robust.

Wilber’s quadrant model not only describes the basic dimensions of our own awareness, available to us at any time, but also a set of (at least) four perspectives with which to analyse and understand any situation in our world (Esbjörn-Hargens, 2009, p.7). However, it is often not enough to just be aware of the quadrants— it is also necessary to work with the depth and complexity within each domain (Esbjörn-Hargens, 2009, p.10).

Depth and Complexity: Developmental Lines and Stages

Since the work of Howard Gardner, educators, parents and the general population have become aware of the idea of diverse human capacities, or “multiple intelligences” that each of us possess. Although inter-related, each one is relatively independent and each one shows different levels of maturity or development within a single person. Gardner’s work builds upon the insights of the developmental structuralists, such as James Mark Baldwin, Jean Piaget, Jean Gebser, Abraham Maslow and numerous others. As Wilber (2007) explains, together they have revealed the nature of stage-like development within human consciousness (p. 55).

Wilber’s own model asserts that such developmental lines or “streams” exist in each of the four quadrants. Within the upper-left quadrant, humans possess approximately a dozen development lines including cognitive, moral, interpersonal, emotional, psychosexual, kinesthetic, self, values and needs (Wilber, 2007, p. 58). Each of these capacities unfolds in various stages that are usually enduring and stable. They are also referred to as levels, because each represents a level of organization or a level of complexity (Wilber, 2006, p. 7). Each level is also a holon, because a stable, healthy level transcends, yet includes the previous level, building on their predecessors in specific ways which imply that stages or levels cannot be skipped (Wilber, 2006, p. 13).

Examples of the stages of development as they occur in each of the four quadrants can be seen in Wilber (1996, p. 1). There are strong correlates between the subjective and inter-subjective, particularly in the later stages shown. The archaic, magic, mythic and rational cultural stages map quite well onto the stages of psychological development of modern humans, a point that will be explored in more detail below when discussing Spiral Dynamics. By its very nature, development in the objective quadrants is more readily apparent. For example, in the upper-right quadrant, there is an increase in complexity as we follow the stream of development from atoms to molecules to cells to various types of organisms. Significantly, the progressive unfolding of the physical and social spheres is strongly correlated to that in the subjective (left-hand) quadrants. Similarly, in the social quadrant, there is an increase in complexity from foraging tribes, through horticultural and agrarian communities, on to industrial nation states, the modern informational states and a potential, future planetary society. Each of these societal structures is characterised by particular types of cultural holons. Although the correlation has been observed for some time, the causal relationship is not clear. Wilber holds the view that these levels are indications of an expanding, increasing consciousness, becoming more inclusive as you move up the holarchy. He sometimes expresses this as a movement from sub-conscious to self-conscious to super-conscious (Wilber, 2003, time index: 12m 45s). Alternatively, the progression can be described as one from pre-conventional to conventional to post-conventional, with each higher level exhibiting more depth and complexity than its predecessor.

Graves and Beyond: Values and vMemes

But why is the multiplicity of development lines, particularly those related to our subjective experience, important? Wilber proposes that each development line is, in fact, found in the responses we discern to the various questions life poses. For example, the cognitive line, as studied by Jean Piaget, is the response to the question, “what am I aware of?” Similarly, “of the things that I am aware of, what do I need?” is the question at the heart of needs development, as studied by Abraham Maslow. In response to the question, “of the things that I am aware of, what is the right thing to do?” we find the stages of moral intelligence, explored by Lawrence Kohlberg. Finally, the question, “of the things that I am aware of, which do I value most?” is answered in different ways based on one’s value system, first studied by Clare Graves and now a part of the Spiral Dynamics framework (Wilber, 2007, pp. 59-60).

The psychologist, Clare W. Graves, conducted his own research into values and human development from the 1950s through to the 1970s. He concluded that humans moved through various “levels of existence,” each of which was characterised by specific behaviour and values. Each stage was a response to specific life conditions and thus a person's psychology can change as the conditions of their existence changes. Graves (1974) argued “man is learning that values and ways of living which were good for him at one period in his development are no longer good because of the changed condition of his existence" (p. 72). Graves saw adult human psychology as an “unfolding, emergent, oscillating, spiralling process" in which humans moved through six “subsistence" levels, whose overall goal was individual survival and dignity (Graves, 1974, p. 73).

Graves’ work was expanded by Don E. Beck and Christopher Cowan and named Spiral Dynamics in their 1996 book. They reframed the levels in terms of "memes,” a term originating with Richard Dawkins who used it to describe a unit of cultural information. Later, psychologist Mihaly Csikszentmihalyi conceived of them as information units in our collective consciousness – a sort of intellectual virus that reproduces itself, from person to person and generation to generation. Beck and Cowan (1996) coined the term “value meme” or vMeme to describe a meta-meme that binds the smaller memes that had concerned Dawkins and Csikszentmihalyi. In essence, Graves’ “levels of existence” became these vMemes, colour-coded for convenience (Beck & Cowan, 1996; also see http://www.spiraldynamics.net/ and http://spiraldynamics.org/).

1. Beige: Semi-Stone Age
2. Purple: Tribal
3. Red: Exploitative
4. Blue: Authoritarian
5. Orange: Entrepreneurial
6. Green: Communitarian
7. Yellow: Systemic
8. Turquoise: Holistic

Beck and Cowan explain vMemes as the basic package of thought, motives and instructions that determine how we make decisions and prioritise our lives. In other words, they are the structure of thoughts, rather than the specific contents of thinking. These vMemes form an ordered spectrum of value systems, divided into two distinct tiers. Beck and Cowan explain that the values we hold are dependent upon both the conditions and circumstances of our lives and the way we respond to those circumstances and conditions (pp. 52-56). Obviously enough, this is the process of how a person grows and changes. The important point is that neither life conditions nor adaptive capacity is fixed: growth and change regularly occur. And the schema outlines how these changes unfold in a more or less ordered sequence. Beck and Cowan assert that higher vMemes increasingly offer more explanatory power and greater freedom to act as life's conditions become more complex (pp. 40-43). Thus, each vMeme is appropriate to the conditions of time and place. Although they emerge in a particular order, their strength can vary, brightening and dimming as these life conditions change. However, it must be mentioned that while vMemes express both healthy and unhealthy qualities, vMemes themselves are neither good nor bad, neither healthy nor unhealthy, neither positive nor negative.

Within the first-tier that Graves observed, the first vMeme was designated Beige by Beck and Cowan. It is the basic survival level, valuing food, water, warmth and safety above all else. It is characteristic of early humans and newborn infants. The Purple vMeme is characterised by animistic thinking, magical beliefs and is common in tribal environments and the Hogwarts School of Harry Potter stories. Kinship is important and powerful spirits rule the physical world. Beyond Purple lies Red, whose thinking is egocentric. There is a belief in the world as a jungle full of threats and predators. It is impulsive, valuing power and thus it employs exploitative processes often in the pursuit of imperial social structures (pp.44-45).

With the emergence of the Blue vMeme, the thinking becomes absolutistic. Processes are authoritarian in nature. Highest value is placed on order, righteousness and stability. Although fundamentalist religions thrive under this vMeme, it was also responsible for legal and moral systems with an emphasis on retribution (pp. 44, 46). The Orange vMeme became dominant during the Western enlightenment. It values success, rationality and science. It is multiplistic in its thinking and in contrast to its predecessor, more delegative than rigidly authoritarian. Competition, strategic risk-taking and the efficient utilisation of resources are also highly valued. The final vMeme within the first-tier, designated Green, is described as communitarian, egalitarian and pluralistic. The thinking is relativistic and the favoured type of process is consensual. Sensitivity is valued over rationality, diversity over dogma, kindness over kinship, plurality over power (pp. 44, 46).

Significantly, Graves discovered vMemes beyond the first, “subsistence” tier. The “momentous leap” he referred to in the title of his 1974 paper is one in which humans cross “a chasm of unbelievable depth of meaning” (p. 75). Within this second (“being”) tier, Beck and Cowan have documented two levels so far, Yellow and Turquoise, which together they feel are representative of no more than 1% of the human population. Wilber (2000a) describes Yellow as “integrative,” able to grasp natural holarchies. Knowledge and competence is valued over rank, power, status, or group and egalitarianism is complemented with natural degrees of excellence where appropriate (p. 52). Turquoise thinking is global, viewing the world as a single, dynamic entity, sensitive to the deep inter-connectedness of all things, as well as collective mind and intuitive thinking. Beck and Cowan point to both James Lovelock’s Gaia hypothesis and Gandhi’s ideas of pluralistic harmony as examples (p. 47).

vMemes emerge in individual and collective thinking in response to life conditions. More complex problems and challenges initiate the process through which the higher, more complex vMemes emerge. However, each vMeme has its purpose and its time. Orange thinking can solve Orange problems, just as Green thinking can solve Green problems. A naughty toddler is a Blue problem requiring a healthy Blue approach (boundary setting and discipline) rather than an unhealthy Blue approach (violence) or, say, an Orange approach (bribery) or a Green approach (let junior explore his/her feelings of anger). More complex value systems (like Green) are capable of solving more complex problems, but don’t do so well with less complex ones.

A key insight of Spiral Dynamics theory, as Wilber explains it, is the observation that humans whose values and thinking are rooted within the first-tier are often convinced their own values are the “correct ones” for everyone. Whereas second-tier thinking can step back and grasp the big picture, appreciating the necessary role that all of the various vMemes play, first-tier thinking (of any colour) often reacts negatively if challenged and lashes out when threatened using its own tools and strengths (Wilber, 2000a, p. 51). A clue to why this is so may be found in Graves’ own words. He describes the gap between the first and second-tier as that “between deficiency or deficit motivation and growth or abundance motivation.” (Graves, 1974, p. 75)

Although Spiral Dynamics is concerned with only value systems (vMemes), the psychosocial implications are significant, particularly in the peace and conflict domain. It is, however, a subordinate theory to Wilber's, because it does not address the perspectives represented by the four quadrants, nor does it theorise about other human capacities. Together, though, the integral model and Spiral Dynamics provide a framework for analysing all types of theory and practice. The next two sections demonstrate how this can be done within peace theory and peacebuilding. Far from being mere esoteric, philosophical schemas, these forthcoming sections show how these ideas can be made operational and relevant.

Section Two: John Burton and Human Needs Theory

Section one introduced the key elements of Wilber's integral model that I consider of most relevance to an exploration of peace and conflict theory. This section examines an application of Wilber to the ideas of John W. Burton, exploring both theoretical underpinnings and practical applications. First, the extent to which Wilber's four quadrants are being honoured in Burton's work is explored. This includes a search for any possible reductionism of one quadrant to another. Second, the degree to which Burton preferences one development line over another is determined and the implications of this discussed in terms of how it weakens the problem-solving approach. Finally, an examination of the values evident in Burton's framing of human needs theory and in the problem-solving workshop he advocates is undertaken. Are these values made explicit? What vMeme best characterises his work?

Burton's Key Theoretical Ideas: What Motivates Behaviour

During Burton's many years in international diplomacy, he observed that most efforts to create peace were limited to conflict settlement based on coercion, control and power politics. He concluded that such efforts ultimately fail because of the existence of frustrations and concerns under the surface that were not negotiable and could not be repressed (Burton, 1990, p. 13). Thus, he advocated a process of conflict resolution, which is concerned with root causes, uses a clearly articulated analytical approach and has at its core, human needs theory (Burton, 1990, p. 187).

Human needs theory asserts that it is the frustration of ontological, mostly non-material, human needs that is the major cause of deep-rooted violent conflict. Burton and Sandole (1986) accept those needs as articulated by Paul Sites: response, security, recognition, distributive justice, meaning, rationality and control (p. 338). To Sites' list, Burton (1979) added role defence – the defence of positional goods (pp. 140-156). Unlike material needs, the means for satisfying non-material needs (except role defence) are not necessarily in short supply. While these needs are not subject to negotiation and bargaining, their satisfaction amongst one party can in fact promote their satisfaction in others (Burton, 1990, p. 242). The key lies in finding appropriate satisfiers that achieve this win-win scenario. Sites argues that human needs are grounded in human emotions. He points to Kemper's research concerning the four primary human emotions - fear, anger, depression and satisfaction. Sites (1990) explains how humans strive to avoid suffering caused by negative emotions and move towards enhancing the possibility of satisfaction. All of which is also necessary for healthy survival (p. 16).

Human needs theory challenges the traditional, power political view articulated by authors such as Hans Morganthau (as cited in Burton, 1997, p. 18). This view assumes that the roots of conflict lie in humans' natural aggression, their use of this aggression to protect material needs and holds the individual responsible for being evil or unsocialised (Burton, 1990, p. 31). Moreover, it concludes that authoritative power at all levels is the foundation for peace, domestically and internationally (Burton, 1990, p. 31). In order to achieve these goals, it sanctions the use of punishment for any failure to comply in an attempt to ensure future conformity (Burton, 1997, p. 23). This is underpinned by an assumption that behaviour is to a large degree, malleable and therefore humans are wholly capable of being socialised in the manner that authorities deem to be necessary (Burton, 1997, p. 20). This traditional view is responsible for structural systems such as slavery, feudalism, tribal elite rule, majority tribe rule and modifications of these as industrialization developed (Burton and Sandole, 1986, p. 336).

Burton (1997) rejects all of these assumptions. He explains how such approaches are simply ineffective in the modern era and are likely to lead only to more frustration, alienation, anger and social unrest at all levels (p. 11). Burton (1990) believes that the traditional view leads authorities to wrongly conclude that extreme aggressive behaviour must be controlled through power and coercion in order to protect their social systems (p. 241). He argues that ultimately the fault lies with social norms and institutions, which he insists must be adapted to human aspirations and not the other way around (Burton, 1997, p. 26). He concludes that deep-rooted conflict is a problem, not necessarily of the type of socio-political system (e.g. communism, capitalism, fascism etc.) but of the processes within those systems. Specifically, this includes decision-making, goal setting and how decisions are pursued (Burton, 1990, p. 265). The adversarial political process and the protection of elite interests loom large in his critique. For Burton (1990), coercion fails because of the existence of those behaviours that cannot be altered by socialization processes (p. 4).

Burton (1997) advocates holism as part of his philosophy. His critique of the social sciences includes a concern that the whole person has not previously been the subject of study (pp. 20-21). Attributing this in large part to the separation of knowledge into distinct disciplines over one hundred years ago, he uses the analogy of medical specialists and their inability to treat the whole person effectively. Conflict Resolution, according to Burton and Sandole (1986), should be an adisciplinary study that cuts across all disciplines: a synthesis, a holistic approach to a problem area (p. 333). Burton (1997) defines holism as a philosophy that “recognizes that the whole is greater than, and therefore different from, the sum of its parts” (pp. 127). He further explains that holism requires that we challenge assumptions, address root causes of social problems, use deductive techniques based on theories (particularly those of human behaviour) and find ways to cut across culture and ideology.

The major practical application of Burton’s theories lies in his problem-solving workshop. This analytical, facilitated process has the aim that participants will agree to change their tactics by selecting from many options those satisfiers that are not a threat to others. The assumption is that these options will emerge once relationships have been analysed, perspectives of the other understood and costing of alternatives conducted (Burton, 1990, p. 205). Facilitators need to be experts in human behaviour. They assist participants to learn more about both their conflictual relationships and the cause-and-effect relationship between behaviour and perception. It is clear that their key skills involve analytical and strategic thinking. There is no indication that the process would involve any sort of affective sharing, discussion of meaning and intent, or any direct understanding of culture.

Burton’s writings are striking in that they contain very few references to culture. Although he does define culture on more than one occasion, those definitions lack any acknowledgement of collective meaning, as will be discussed in section four.[4] Furthermore, his attempt to make a distinction between “culture” and “cultural values” leaves the reader confused. This is of concern because cultural values are held up as of some importance in the problem-solving process. Burton (1990) concludes that culture is “not an important consideration in a facilitated analytical problem-solving conflict resolution process” (p. 215). He reasons that because many deep-rooted conflicts have a cultural dimension, the problem-solving process must be capable of cutting across all cultures and so it must ultimately be culturally neutral. Having reminded us that many cultural norms with respect to dealing with conflict are often themselves dysfunctional (p. 214), he observes what he considers a tendency to give culture a special status in either analysis or process in ways that are “not relevant and probably dysfunctional” (p. 211).

Burton makes a distinction between human needs, cultural values and culture itself, outlining a hierarchy, from most to least important. However, his distinction between the last two of these is hard to pin down. In Burton (1990), he refers to culture as the concepts, habits, skills and manners of a given people at a given period of development (p. 212). Values are described as the ideas, habits, customs and beliefs that are a characteristic of particular social communities (Burton, 1990, p. 37). Yet in Burton (1996), he simply refers to culture as the total range of activities and ideas of a people including their means of dealing with disputes and conflicts (p. 22). Values (cultural or otherwise) are not explicitly mentioned. In Burton’s last book, where his reasons for the primacy of human needs are most explicit, he reiterates that human needs represent goals or objectives that are universal and unchanging, whereas culture is to be grouped together with other sorts of “preconceptions” thus representing only a difference in method and means to those needs (Burton, 1997, p. 130). He describes culture and its associated values as “tactics,” ways of satisfying specific goals. Burton (1990) says, for example, that the pursuit of culture is a satisfier of the need for identity and recognition (p. 211) and defence of cultural values is a means of satisfying the human need for personal security and identity (p. 37).

Yet for Burton, values have a greater significance than culture. While still holding that they are a set of acquired behaviours that are subject to change and not held universally, he describes them as only partially negotiable (Burton, 1990, p. 244). In almost all cases, he places them together with needs/goals as the set of things that problem-solving ought to try and satisfy. Of particular concern is Burton’s indictment of culture as justification for behaviour or habits seeking to hide behind ethnicity or sub-group membership. He writes, for example, about UN diplomats being late to meetings and the Middle-Eastern penchant for sleeping after lunch and questions the existence (or validity) of sub-cultures (Burton, 1990, p. 212).

Burton under Wilber’s Microscope: Culture Serving Human Needs and the Orange vMeme

Burton’s advocacy of holism echoes to some extent Wilber’s larger critique of modernity. As Wilber (2000a) explains it, modernity’s great gift is its necessary differentiation of what Max Weber and Jurgen Habermas called the “value spheres” represented by arts, morals and science

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[4] See, for example, Clark, 1990, pp. 34-59, and Staub, 1989.

(pp. 60). This is evident in the way science and art were disentangled from religion during the enlightenment, allowing both to pursue their own truths, make profound discoveries and flourish without offending prevailing dogma and suffering censorship, and without their exponents fearing imprisonment or death. However, Wilber's critique of modernity is that these "value spheres" did not just peacefully separate; they often flew apart, leading to dissociation, fragmentation and alienation (Wilber, 2000a, pp. 61). A similar fragmentation and alienation is of concern to Burton, particularly as it applies to academia and the various disciplines, which he feels, ought to be brought together in order to create a holistic approach to the problem of violent conflict. However, although Burton envisions conflict resolution as cutting across and transcending disciplines, it is important to note that the type of holism he suggests does not include the subjective domains, such as culture. This, then, is a limited holism because as Wilber (2000a) reiterates, holism must be based on the principle of "transcend and include" (p. 51 and pp. 150-151 at note 3). Burton seeks to transcend disciplines, but not include those that honour the distinct truths of culture.

I would also argue that Burton's writings on culture, limited as they are, demonstrate the reduction of the lower-left (cultural) quadrant to the upper-right (behavioural) quadrant. Alternatively, it could be argued that Burton's view of culture acting as a satisfier of human needs reduces culture instead to the upper-left (intentional) quadrant, based on Sites' argument that the roots of human needs are largely found there. In both cases, this is what Wilber calls subtle reductionism. Wilber (2000b) explicitly warns about subtle reductionism, one form of which occurs when the whole validity of a cultural set of values is converted into a question of whether they promote social cohesion, functional fitness and the integration of the social action system (p. 152). Most significantly, there is no mention in Burton of the concept of culture as collective meaning. The word "meaning" makes no appearance in a slim, six-page section dedicated to the topic, other than as a synonym for "definition" (Burton, 1990, pp. 211-216). Let us remember that Wilber characterises the left-hand quadrants as being concerned with the question "what does it mean?" as opposed to the right-hand, concerned with the question "what does it do?" It is ironic, therefore, that one of the non-material human needs that Burton subscribes to is the need for meaning.

Nevertheless, Burton's explanation of deep-rooted conflict represents a significant shift in thinking away from the traditional, power-political model. This shift engages the discipline of psychology in a more sophisticated way and thus brings the upper-right (behavioural) quadrant into the foreground of thinking on conflict. At the same time, it provides a deeper analysis of the social domain (lower-right quadrant) by rooting a major cause of conflict in structural violence, as defined by Johan Galtung (1969, pp. 167-91), the origins of which, according to Burton (, 1997), lie in the policy and administrative decisions that are made by some and which adversely affect others (p. 32). I also conclude that the upper-left (intentional) quadrant is being considered in Burton's explanation of conflict, albeit indirectly. As Sites explained, intentionality underpins human needs through the existence of universal emotions and drives. Nevertheless, Burton's problem-solving workshop aims only at objective change. The problem-solving approach itself is firmly situated in the right-hand quadrants of the AQAL model. This raises the specific concern that emotion, attitude, direct personal experience, values and meaning may be more causally significant, and have a greater role to play in the set of potential solutions to conflict, than Burton envisions.

In section one, we recall that the AQAL model proposes that human development in the left-hand quadrants is characterised by a set of distinct but inter-dependant capacities. These capacities exhibit a general progression, albeit not always in a linear or predictable way, over the lifetimes of individuals and cultures. The cognitive line in the upper-left quadrant is crucial. Wilber (2007) suggests cognitive development is “necessary but not sufficient” for growth in many other lines (p. 65). Burton’s problem-solving approach relies heavily on these cognitive skills. This is evident, for example, in the way that participants in that process are obligated to be analytical and to cost out the consequences of policies and options (Burton, 1990, p. 271).

Of course, there is no reason to doubt Burton (1990) when he asserts that skills of analysis and thought are common to the human species and cut across cultures and levels of education (p. 214). However, an integral analysis raises the concern about the preferred way of thinking and evaluating costs (and therefore value). Individuals, as a result of either their personal experience or the influence of their culture, may have vastly different world-views or value systems. This leads to a wide variation in the value they place and level of comfort they have in the rational costing demanded by Burton’s workshops. For example, using Beck and Cowans vMeme language, we learn that Blue (Authoritarian) vMeme thinking values a rational, analytical approach only insofar as it does not threaten accepted “truths.” Costing from a Blue perspective places a high value on preservation of traditional ways. In contrast, the Red (Exploitative) vMeme costs the loss of power quite differently to someone whose thinking is centred on the Green (Communitarian) vMeme. Efficiency is of utmost value to Orange (Entrepreneurial) vMeme thinking. Individuals with Purple (Tribal) vMeme thinking will struggle to be understood by those centred on the Orange vMeme and more likely to be viewed as superstitious and pre-modern. Differences such as these raise a number of issues. Burton maintains that ontological human needs “cut across” culture and trump values. Perhaps not. If culture, values and associated world-views are the lenses through which people understand their world, make judgements and define meaning, how is this to be filtered out when diverse people sit down to find their common goals? And how are institutions and governments to formulate policy and processes in light of this diversity of value amongst their populations?

Burton’s problem-solving approach has emerged in a global context that is strongly in the embrace of the Orange (Entrepreneurial) vMeme. It is entirely natural, therefore, that such values are reflected in the approach and particularly in the way it places pre-eminent value on rationality, analysis and outcomes. This also explains why Burton’s ideas are particularly comfortable to Western readers, academics and peace-workers, given that Orange values are stronger in this readership at this time. At the same time, I think it is clear that Burton emphatically rejects Blue (Authoritarian) vMeme approaches that support power politics and coercion as a means of controlling conflict, going to great lengths to explain the failure of this approach throughout his writings. I would argue that his critique of Blue is Orange in its thinking. This is particularly evident in the way he holds that the alternative, conflict resolution approach must find its own justification in terms of efficiency and acceptability to authorities (Burton, 1990, p. 172).

Nevertheless, an ever-increasing proportion of the human population are embracing the Green (Communitarian) vMeme, arguably since the 1960s and particularly so in the developed world (Beck and Cowan, 1996, pp. 303-320). It is not clear to what extent Burton reflects these emerging Green values. Certainly, his writings are peppered with mention of social exclusion and the omni-presence of inequality in social systems (e.g., “In industrial relations employees still demand to be treated as people” Burton, 1997, p. 24). However, there are few appeals to human rights and appeals to justice are avoided, even pushed aside, in favour of practical concerns for unfavourable social consequences (Burton, 1997, p. 23).

The Burtonian approach aspires to the objectivity of values neutrality. Facilitators engaged in problem-solving are seen as neutral, required to avoid making judgements or to impose their own values or wills and must, in Burton’s (1990) view avoid relating alternate perspectives that do not relate to the participants' values and experiences (p. 207). In reality, this must be difficult to achieve as facilitators, according to the analysis above, are likely to bring their own Orange values to their work. In stark contrast, the analysis of Lederach’s ideas using Wilber’s model in the next section finds a very different attitude towards the role of subjectivity and the awareness of values in peace work, shaped in large part by social constructionism. Furthermore, the prominent role of culture in Lederach’s writings indicates a very different balance between Wilber’s four quadrants. It also allows us to consider what a second-tier value approach to peace studies might look like, as opposed to Burton's first-tier values approach.

Section Three: John Paul Lederach and Conflict Transformation

In the previous section, I examined the theories and practical applications of Burton’s work and then used the AQAL model to explore aspects of that work. The degree of holism evident was found to be limited, according to the AQAL model, because, although Burton incorporates behavioural factors (Wilber’s upper-right quadrant), the subjective quadrants, particularly the cultural (lower-left) quadrant was reduced to objective behavioural factors. Wilber’s Integral map highlights the need to consider the full spectrum of human capacities (“development lines”). It was found that Burton’s problem-solving process limits its engagement of these capacities primarily to the cognitive, rational and analytical. Finally, the value system (“vMeme”) employed by Burton was, under Beck and Cowan’s Spiral Dynamics schema, predominately Orange – entrepreneurial, achievement-oriented, rationalistic. Supposed value-neutrality in the problem-solving process was called into question. This section will conduct an analysis of the work of Lederach. In particular, I explore his ideas related to conflict training, his integrated framework and his understanding of the emerging conflict transformation approach to peacebuilding.

Lederach’s Key Theoretical Ideas: Eliciting Culture, Constructionism and Embracing Complexity

John Paul Lederach’s writings reveal three factors that strongly shape his philosophy to peace and conflict. First, his upbringing as an American Mennonite. As he explains:

> This perspective understands peace as embedded in justice. It emphasizes the importance of building right relationships and social structures through a radical respect for human rights and life. It advocates nonviolence as a way of life and work. (Lederach, 2003, p. 4)

Second, his writings reveal a willingness to include the spiritual domain within the set of components that constitute his “integrated approach” to peacebuilding. Third, Lederach (1997) explains that he is an advocate of the social constructionist school when it comes to understanding conflict. For him the construction of social meaning, as an intersubjective process, lies at the heart of how human conflict is created. This view suggests that people act on the basis of the meaning attributed to actions and events and that social conflict emerges on the basis of these meanings (pp. 8-10).

Like Burton, he criticizes the traditional model of diplomacy that focuses on what are called substantive interests only. Lederach (1997) highlights the psychosocial aspects of conflict and like Burton, explains that when threatened, people seek security in narrower, more localized identity groups (pp. 17-18). While confirming the importance of unmet human needs he also recognizes the structural, economic and socio-political causes of conflict, which of course can also be framed in terms of human needs (Lederach, 2003, p. 25). However, he differentiates himself from Burton when he asserts that the emotive, perceptual, social-psychological and spiritual dimensions are core, not peripheral, concerns (Lederach, 1997, p.29).

Lederach argues for conflict transformation as a movement amongst peace theorists and practitioners. In contrast to conflict resolution, which Lederach (2003) sees as being too narrow, conflict transformation recognises conflict as a natural part of human affairs that can be used as a catalyst for growth in human relationships, rather than simply a problem to be solved (p. 15). This perspective owes a lot to the long-term view of conflict, as outlined by Adam Curle in 1971 (as cited in Lederach, 1997, pp. 64-66). As Lederach explains, Curle suggested that conflicts progress through some typical stages. Often beginning as latent, where power is imbalanced, transformation occurs through education, which raises awareness of this imbalance. Later, advocacy is required to assist those demanding change in the name of justice and this usually leads to confrontation. At this point, when power is more balanced and an awareness of interdependence often emerges, negotiation and mediation can occur. Of course, things are rarely this neat and, much like the progression of vMemes, conflicts can cycle back and forth and be stalled by blockages of various sorts. This perspective helps us understand not only that conflict is a dynamic, transforming process, but also that peace is itself a “process-structure.” By this, Lederach (2003) means it is a structure that is embedded in a dynamic, adaptive process that continuously evolves and develops the quality of relationships in it (p. 20). Thus, the conflict transformation process is envisioned in two directions. We can describe how conflict transforms relationships and structures and we can prescribe how our actions could impact conflict so as to produce a desired transformation. Lederach (2003) explains that these impacts occur in four domains - personally, relationally, structurally and culturally (p. 23).

Lederach (2003) contends that rather than choosing between the need to address episodes of conflict and the need to build long-term structures for sustainable peace, we need to see how those episodes can be used as an opportunity to address the epicentre of conflict (p. 33). This leads to an appreciation of multiple activities in peacebuilding, conducted over multiple time–frames and involving multiple roles. Lederach’s interdependence model (Lederach, 2005, p. 79) further explains that each side in a conflict has a “vertical capacity,” that is, three levels of leadership - high-level or official leadership, community or mid-level, and grass-roots). A common problem is that these levels are often not well connected, undertake activities that are not coordinated, or simply not in the habit of talking to each other. This “interdependence gap” is less well recognised than the need for dialogue and understanding horizontally across the dividing lines of conflict (Lederach, 1999, pp. 29-30).

Lederach feels the focus of peace-building activity should be on the middle-level leaders and actors. In formulating his “integrated approach” to conflict, Lederach (1997) explains that these actors have the greatest potential because they are the most likely to be able to build relationships, both vertically and horizontally (p. 81). The major peacebuilding activities that focus on this level are: problem-solving workshops, conflict resolution training and peace commissions (Lederach, 1997, pp. 45-47). Lederach explains further that in creating the “integrated approach” he became aware of the need to design social change in units of decades, linking crisis management and the long-term. This, in turn, requires us to understand that issues have systemic roots and so we must develop approaches that anchor issues in relationships and sub-systems (Lederach, 1997, p. 81).

In *Preparing for Peace (1995)*, Lederach explains that he was for many years an advocate of what he calls the “prescriptive” approach to training people, particularly in places outside North America. This involved the transfer of techniques considered universal and culturally neutral (pp. 65-66). Cultural differences were an aspect of advanced training, in which practitioners learned how to adjust those techniques to employ the necessary level of sensitivity such differences demanded (pp. 5-6). In time, Lederach became aware that a participant’s own culture, rather than being irrelevant or a challenge to overcome, was a powerful resource. He saw how this knowledge, which included an understanding of what things mean, could be used to help identify needs in context (pp. 56-58). Appropriate training models could then be derived to generate more sustainable peace processes. The key was that by eliciting the insights of this local cultural knowledge, including myths, relationships and language, a more adaptive, long-term platform for generating solutions could be built. Nevertheless, he stopped short of just rejecting the prescriptive approach; instead he developed the conviction “that a convergence of universal and particular with prescriptive and elicitive [processes] was both possible and necessary” (p. 92).

He continued his critique of the prescriptive approach to training in *Building Peace (1997)*. Echoing some of the findings in Section Two of this dissertation, Lederach observed that prescriptive approaches were focussed primarily on the cognitive skills of analysing conflict and the communicative skills of negotiation, with very little recognition of either the “cultural baggage” of these approaches nor the value of local knowledge as a resource (p. 107). As explained above, Lederach does not totally reject the conflict resolution approaches with its problem-solving workshop, as advocated by Burton. He accepts that it does provide a degree of empowerment to those being trained, by presenting concrete ideas which may contain new ways of thinking and specific skills (Lederach, 1995, p. 51). More generally, the conflict transformation approach has a distinct advantage, according to Lederach, due to its capacity to consider multiple avenues of response. At its heart, it incorporates the conflict resolution response; but a narrowly defined conflict resolution approach, according to Lederach, can’t raise the questions that conflict transformation can and therefore does not contain the potential for broader change (Lederach, 2003, p. 68). He does admit, however, that conflict transformation is of limited value when there is no ongoing relationship between the conflicting parties (p. 69).

All of this reflects Lederach’s general rejection of simple either/or solutions and his insistence that peacebuilders must develop the practice of embracing complexity and dilemma. Abiding complexity, he says, requires that we develop the capacity to identify the key energies in a situation and hold them up together as interdependent goals (Lederach, 2003, p. 52). In a section dedicated to the topic of complexity and simplicity in his book, *The Moral Imagination (2005)*, Lederach explains the role of a paradoxical curiosity in enabling one to rise above dualistic polarities (pp. 31-40). Such a curiosity allows one to suspend immediate judgement, accepting things both at face value and at what he calls “heart value” (the way things are perceived and interpreted; the “home of meaning”). Ultimately this allows us to find a greater whole, a greater truth than could otherwise be perceived (pp. 36-37). This greater truth may indeed represent a type of simplicity, a simplicity beyond conventional understanding, not prior to it. Lederach quotes Oliver Wendell Holmes at the start of this section:

> I would not give a fig for the simplicity this side of complexity,
> But I would give my life for the simplicity on the other side of complexity.
> (Oliver Wendell Holmes, quoted in Lederach, 2005, p. 31)

Lederach under Wilber’s Microscope: Subjective Meaning and the Yellow vMeme

As we recall from Section One, Wilber’s AQAL model calls attention to the existence of four separate but interdependent domains, each encompassing particular ways of knowing and understanding that cannot be reduced to another. In the analysis below, I begin by outlining the extent to which Lederach acknowledges and incorporates the truth claims of each of these quadrants. Are there signs of reductionism? Does one or more of the quadrants dominate his theories and practice? I then examine the values evident in Lederach’s work, identifying the nature of any shifts in his value system, as they would be understood by Beck and Cowan’s Spiral Dynamics schema. The implications of such shifts are also examined.

Lederach’s active spirituality and his espousal of social constructionism set him apart from Burton and other peace scholars. These two factors together indicate an inclination towards Wilber’s left-hand (subjective and meaning) quadrants. This is certainly reflected in Lederch’s comments about the central role of emotive, perceptual, social-psychological and spiritual dimensions in the process of reconciliation. Furthermore, conflict resolution as Lederach (1997) points out, has traditionally seen such factors as irrelevant or outside the competency of international diplomats (p. 29). While the socio-psychological dimensions Lederach alludes to are many of the same that concern Burton, straddling both the upper-right (behavioural) and upper-left (intentional) quadrants of the AQAL model, the spiritual and emotive issues Lederach points to are directly concerned with personal subjectivity. This shows a more direct consideration of the upper-left quadrant than Burton’s writings.

But what of this social constructionism? We recall that Wilber is equally critical of both extreme materialists and extreme social constructivists, as discussed in Section One. However, Lederach avoids such critiques because his advocacy of social constructionism (which is closely related to constructivism) does not deny objectivity and its truth claims. I find no evidence of either subtle or gross reductionism in any of his books. Recall also the four domains Lederach (1997) articulated - personal, relational, structural and cultural (p. 82). These domains correspond very closely to Wilber’s four quadrants. The personal domain maps to the upper (individual) quadrants; the relational one maps to the lower quadrants, in large part to the inter-subjective (lower-left); the structural is the lower-right (social) quadrant and its socio-political structures; and the cultural one is precisely the lower-left quadrant.

Lederach's later books, such as *The Moral Imagination (2005)* suggest a similar understanding to that of Wilber's major critiques of modernity. This critique, mentioned in Section Two, concerns the fragmentation of the three spheres of values symbolically found in the arts, morals and science. These spheres are in fact a reframing of the Four Quadrants: arts represent the "I" or subjective (upper-left), morals represents the inter-subjective or "WE" (lower-left) and science corresponds to both the objective quadrants – upper-right and lower-right (Wilber, 2001, p. 18). Although Burton identified the fragmentation of specialisation in modern science and academia, Lederach goes further and takes active steps to incorporate morals (cultural meaning) and art (personal meaning) into peacebuilding practice. Lederach (2005) introduces the novel idea of the aesthetics of social change. He expresses concern that by shifting perspective towards the technical and away from the artistic, peacebuilding processes have become too rigid and fragile. He posits that only by rediscovering the artist's intuition can we get to the "art and soul of the matter" (p.73).

Although Lederach avoids reductionism, can we conclude that his approach is "all quadrant"? Probably, but with some caution. Unlike Burton, who advocates for the bulk of action in the quadrants of objective change, it could be argued that Lederach's strong engagement with the subjective and inter-subjective may over-emphasize skills concerned with relationships, empathy and intuitive breakthroughs. It is possible that Burton's socio-political concerns could be pushed to the background too much in Lederach's schema. Lederach's particular balance may be more appropriate to specific sorts of conflict situations – recall that he himself admits the limited value of conflict transformation when ongoing relationships are not involved. As explained in Section One, Wilber's schema doesn't prescribe absolute equality, only that an appropriate awareness of the dimensions each of the quadrants represents. The degree of complexity and nature if the conflict should determine the balance.

Unlike Burton, who freely acknowledged that cognitive ability was the essential skill required by problem-solving conflict resolution, Lederach's later works question whether this ability is ever sufficient to the greater goal of sustainable peacebuilding. As discussed in Section One, Wilber considers the cognitive line to be just one of a set of separate and inter-dependent human capacities, each with its own growth potential. Lederach (2005) concludes that while current skills training is oriented towards understanding cognitive and behavioural responses in human interaction, there is a strong need to tap other parts of human "being" and "knowing" (p. 175). To this end, he encourages the disciplines of a wide range of the arts, such as journaling, storytelling, poetry, drawing, painting and music. Having incorporated such practices in his own workshops, he is convinced that their value to designing peacebuilding platforms lies not in the products produced, but in the way they unlock creativity and "the moral imagination." Ultimately, he says, they help penetrate complexity with breakthrough insights and nurture attentiveness to intuition (Lederach. 2005, p. 174).

So what does all this suggest about Lederach's values, at least insofar as they are disclosed in his writings? This is where the Spiral Dynamics of Beck and Cowan, as explained in Section One, are helpful. It seems that Lederach has himself progressed through various vMemes. While Blue (Authoritarian) values, such as right authority, sacrifice, rule of law, are not a feature of even his early writing, in his early career he practiced a strongly prescriptive approach to training and this indicates some degree of the Orange (Entrepreneurial) vMeme in its espousal of the universality of rationality. This approach employs a transfer mentality to education (Lederach, *1995*, p. 28) – the teacher is the expert, the student is passive - and is driven by the goal of transferring universal knowledge and skills to other settings. Lederach's discovery of theorists like Paulo Freire and his concept of conscientization (i.e., awareness of self in context) resonates strongly with his inclination towards social constructionism (Lederach, 1995, p. 19). These ideas find their zenith within a more complex and contextualised Green (Communitarian) way of thinking. Although how and when these ideas first infused Lederach's thinking is unclear, it is likely that his socially engaged Mennonite upbringing would have given him the capacity for activating a Green value system.

Significantly, Lederach may have begun, if not completed, the journey to a second-tier vMeme approach. Lederach (2003) suggested the practice of developing the capacity to pose the energies of conflict as dilemmas or paradoxes (pp. 51-52). He also asserts that we must "make complexity a friend, not a foe" (p. 53) because it provides multiple options. The key, he says, is to trust that options will be generated, pursue the most promising but not lock rigidly to one idea (p. 54). These are characteristically "second-tier" vMeme attitudes. The end of Lederach's 2005 book contains four mottos that encapsulate much of his writing to that point:

> Reach out to those you fear.
> Touch the heart of complexity.
> Imagine beyond what is seen.
> Risk vulnerability one step at a time. (Lederach, 2005, p. 177)

Psychologist Dr. Clare Graves, whose seminal work underpins Beck and Cowan's Spiral Dynamics, characterised the second-tier of vMemes as crossing a threshold beyond which fear dropped away -- fear of death, fear of God, fear of technology and fear of fellow humans (Graves, 1974). Beck and Cowan (1996) echo this and add that this helps develop an ability to take a contemplative attitude, with the result that the quantity and quality of good ideas increases dramatically (p. 278). In the transition to second-tier vMemes, ideas become multidimensional. Yellow (Systemic) thinkers, for example, tolerate and even enjoy, paradoxes and uncertainties and are neither intimidated nor cavalier in the face of complexity (Beck and Cowan, 1996, pp. 276-278). An ability to resolve such paradoxes is mentioned as one of the two key competencies of the Yellow problem-solver. The other is related to their comfort, even enthusiasm, for seeking out that complexity. Not only are they drawn to hot spots where evolving crises demand new insights, they have an ability to smooth out blockages between people with different vMeme thinking (Beck and Cowan, 1996, p. 283).

Based on vMeme theory, I suggest there are at least three implications if Lederach is developing a second-tier vMeme capacity. First, his proposals could signal the leading edge of a transformation in peacebuilding. The shape of this is explored in more detail in Section Four. Secondly, Lederach's work may challenge and risk alienating some readers and participants for whom its eclectic synthesis of diverse ideas are either incomprehensible or seem to lack a well-defined core idea. Beck and Cowan suggest this is often the case when those centred on first-tier vMeme thinking encounter the second-tier. For example, to those at Blue (Authoritarian), those at Yellow (Systemic) appear inconsistent, disrespectful and out-of-focus. To Orange (Entrepreneurial), Yellow seem unwilling to commit themselves fully to achieving objectives. From the Green (Communitarian) standpoint, they seem cool and reserved, intellectualising emotions without joining wholeheartedly into the group experience (Beck and Cowan, 1996, p. 282).

Third, Yellow vMeme approaches are rare, both in academic disciplines and the general community, even 40 years after Clare Graves identified their existence. Second-tier vMeme approaches require second-tier actors to emerge and shepherd them into existence. The estimate of persons at second-tier is only 1% of the population (Beck & Cowan, 1996). Given this, I suggest that the transformational social change which they might be able to bring about will require these actors to be distributed strategically throughout society, in a manner constituting the “critical yeast” that Lederach (2005) does indeed propose (pp. 87-100). This concept suggests that the quality of connections of strategic individuals and the social spaces they inhabit may be of more importance than the quantity of such individuals, an idea also found in Malcolm Gladwell’s notion of “connectors” in his popular book, *The Tipping Point (2000)* (as cited in John Paul Lederach, 2005, p. 90)**.**

Lederach’s concern with subjective causes and solutions of conflict is closer to the “all quadrant” approach Wilber advocates. In contrast to Burton’s primarily Orange (Entrepreneurial) vMeme orientation, Lederach’s probable transition to a second-tier, Yellow (Systemic) value system raises exciting possibilities about this theoretical contribution to peace and conflict study and practice. In the next section, I explore how the peace and conflict studies literature support the integral analysis of Burton and Lederach conducted herein, before sketching out some of the integrally informed scholarship now emerging in the peace and conflict studies domain.

Section Four: Towards Integral Peacebuilding

In sections two and three, Wilber’s AQAL model and Beck and Cowan’s vMeme schema was used to examine the work of the scholar-practitioners, Burton and Lederach. This section begins by outlining some of the peace and conflict literature that reflects the analysis conducted in the previous two sections of this dissertation. These reflections support the argument that Wilber’s AQAL model is a useful analytical tool, both for analysing the cause of conflict and the degree of holism of specific conflict theories. The section ends with a brief exploration of recent attempts to apply integral theory to peacebuilding and addresses the question of whether Wilber et al have provided a valuable prescriptive framework in the context of peacebuilding.

Reflections on Burton and Lederach

Avruch (1998) examines the role of culture in Burton’s problem-solving approach and observes that Burton holds culture to be relatively unimportant and so it assumes no greater role than as a “satisfier” of human needs. While for Avruch, cultural analysis is an irreducible part of the problem-solving process (p. 74), he notes that in their purest form, problem-solving panels aim to help participants “excavate right past culture” down to those human needs (p. 90). Avruch (1998) demonstrates Burton’s acute minimisation of the importance of culture by pointng out that within the highly prescriptive set of 56 rules Burton provides, culture appears on only one occasion (as cited at p. 90).

Further, Avruch questions Burton's assumptions that people everywhere reason the same way and that everyone shares the same cost-benefit calculus. Even in these areas, culture is significant. Avruch (1998) goes on to quote Lederach, whose experience in Central America highlighted the difference between analytical thinking (breaking down stories into components) and holistic thinking (keeping the parts of stories together) (p. 92). Further, Avruch cites research by James F. Hamill, who found that while syllogistic logic ("All Cretians are liars; I am a Cretian; therefore I am a liar") looks the same from culture to culture, propositional reasoning does not, because the semantic elements of the arguments mean different things in different settings. (What is a liar? If you're not a "liar," then are you always "honest"?) He adds, meaning not only structures validity but also defines truth (as cited in Avruch, 1998, p. 93). As explained in Section Two, while Burton never frames culture in terms of meaning, Wilber, in contrast, feels that meaning is the key quality of the subjective quadrants. Scholars such as Ervin Staub (1989), agree, preferring a definition of culture as the shared meanings within a group, specifically the values, rules, norms, customs and life-styles (p. 13). Similarly, Clark (1990), who argues that social bondedness is a crucial human need, suggests that this deep bondedness is based on shared values and worldviews and the sense of a people reciprocally sharing a common fate. She calls this "sacred meaning" (p. 47).

Väyrynen (1998) highlights the medical metaphors that infuse Burton's problem-solving approach. Not only are facilitators, like doctors, expert practitioners who diagnose disease and implement cures but also therapists, who, according to Burton, help participants to "filter out" false assumptions and misconceptions and therefore to perceive reality accurately (as cited Väyrynen, 1998, Purification Through Professional Cure, para, 8). Interestingly, she makes the link between his strong belief and reliance on instrumental rationality and the Enlightenment idea of the universal man who is determined to control both social and natural environments (Social Engineering and Instrumental Rationality section, para. 3). I believe there is no better description of the core values and worldview of the Orange (Entrepreneurial) vMeme than this. Väyrynen (1998) locates Burton's approach within the neobehavioural school, which she describes as based on an uncritical trust in the existence of objective scientific facts and in their value in solving practical problems. This rejection of culture and inter-subjectivity (the lower-left quadrant) is challenged by social constructionism, which asserts that cultural patterns function as unquestioned schemes of reference and condition how the world is represented to a person. As the phenomenological sociologist Alfred Schütz explains, through processes of interaction with people in the social world, we come to see things as types, which he calls "intersubjective "typifications" (as cited in Väyrynen,1998, Creating a New Reality section). These shared typifications then define common realities. The social constructionist view is that a shared reality, rather than biological human needs, is a pre-requisite for cooperation (Creating a New Reality section, para. 3). Similarly, the Spiral Dynamics' vMemes circumscribe particular ways of thinking that shape our perception of what Burton would describe as purely objective reality.

Nudler (1990), in exploring the nature of conflicts between "worlds" or "frames," comes to a similar conclusion. He notes that William James' notion of "worlds" (selective attention that makes a set of things real) (as cited on p. 177) is similar to Erving Goffman's notion of "frames," which Nudler explains as a set of assumptions or principles which enable us to structure situations and make them real for us. Both ideas are undergirded by a non-reflective, uncritical acceptance of their basic assumptions and as Michael Polanyi says, when we accept these assumptions as our interpretive framework "we may be said to dwell in them as we do our body" (as cited on pp. 178-79). This brings to mind Wilber's description of stages of development (such as vMemes). Describing the process as one of disidentification with the old and identification with the new, he adds that at each stage, the self "sees a different world: it faces new fears, has different goals, suffers new problems. It has a new set of needs, a new class of morals, a new sense of self" (Wilber, 2000a, p. 38).

Nudler (1990) proposes that the need for meaning is perhaps the most fundamental of all. He defines this "as the need which every human being has for building — and living in — a world (in the subjective sense introduced above)." (p. 187) Nudler contends that conflict resolution through problem-solving techniques has such a strong reliance on analytical skills that it is insufficient to resolve conflicts between worlds or frames. It must be complemented by other procedures, appealing to quite different abilities. The ability to discover and enter dialogue concerning what he calls the "root metaphors" underpinning a particular world or frame is suggested as one of these procedures (Nudler, 1990, pp. 188-196).

In Tom Woodhouse's article entitled 'Conflict resolution and peacekeeping: Critiques and responses' (2000), he responds to three specific critiques of conflict resolution, of which Christopher Clapham's arguments are of most interest here (as cited on pp. 9-11). Clapham's examination of the genocide in Rwanda led him to question two assumptions underlying the prevailing conflict resolution model. First, the failure to recognise the deep-seated differences that caused the conflict reveals, in his view, a "Western" assumption that parties to the process share a common value framework. Second, the assumption that mediation is inherently a good thing, being a neutral action and intended to fulfil humanitarian concerns. To this second point, the Woodhouse response is to explain the approaches of scholar-practitioners like Adam Curle and Lederach. Both acknowledge the limitations of "outsider-neutral" intervention. Curle was eventually convinced of the need to develop local peacemakers' inner resources of wisdom, courage and compassionate non-violence (as cited on p. 20). This is strongly echoed in Lederach's elicitive approach, explained in Section Three, and his discovery of the need for "insider partial" facilitators in Central America, which he wrote about as early as 1991 (as cited in Woodhouse, 2000, p. 22). As the previous sections demonstrate, neither Burton nor Lederach are values-neutral. Like all of us, their worldviews are shaped by value systems (vMemes). In Burton's case, this is not acknowledged, whereas Lederach now seeks to make his own values more explicit in his work.

The issue of worldviews or frames and as proposed here by inference value systems inherent in peace work was the subject of Rachel Goldberg's field research, described in her 2009 article, *How our worldviews shape our practice*. Using narrative and metaphor as analytical techniques, she interviewed 43 conflict resolution professionals, whom she described as pioneers and leaders in either environmental conflict or intercultural conflict. She found that most respondents showed strong, reiterated worldview patterns and from these she derived seven mini-profiles that represented the dominant focus of a particular narrative (Goldberg, 2009, p. 421 and p. 417). Having found that each respondent drew from one or more of these mini-profiles in describing their work, Goldberg was able to place these profiles on a continuum, one end labelled, *realistic*, the other *constructive.* The realistic end was connected with the idea of one, objective truth, individual interests, a belief in the universality of cultural frames; it favoured logic and empirical testing and prioritised task over relationship. The constructive end, representing the inverse, held to the relativity of "truth," focused on relationship over task, and was concerned with subjectivity. The realistic end she describes bears a strong resemblance both to the right-hand quadrants of the AQAL model and Burton's writings, while the constructive end is located in the left-hand quadrants, being closely related to social constructionism and brings to mind many of the issues prominent in Lederach's writings. Although I would place Burton very close to the far end of the realists ("The Sheriff" or "The Alchemist"), Lederach would, I suggest, be best placed somewhere between midpoint and half way towards the extreme constructive end of this continuum (mixing "The Pastor," "The Radical," and "The Family; see diagram in Goldberg, 2009, p. 419).

Goldberg (2009) frames her work by expressing concern about the hidden worldview of practitioners from mainstream cultures (i.e., middle-class North Americans) (p. 406), and in her conclusion, strongly asserts that neutrality in practice does not exist and therefore the best that we can do, and ought to do, is become self-aware of our worldviews or frames. Noting that the better practitioners, in her view, were able to move back and forth between profiles along the continuum, she points to her future work on the way our worldviews shift and how we might grow to encompass new worldviews (pp. 426-429). Such shifts, I suggest, are precisely what Beck and Cowan describe at length in their Spiral Dynamics schema, as it applies to value systems. The shift to second-tier (Yellow and beyond) vMemes is, I believe, descriptive of the more holistic peacebuilding practices. As explained in Section One, such value systems transcend *and* include the others, unleashing the type of diverse potentials Goldberg describes.

The issue of value differences amongst parties in conflict is taken up by Heidi and Guy Burgess (2006), in which they recapitulate their earlier work on the causes of intractable conflicts (pp. 179–180). Although such conflicts are based on either high-stake distribution issues (e.g. of scarce material goods) and what they call "domination conflicts" - conflicts over power, status and one's position in the social and political hierarchy – there is a third type based on fundamentally conflicting values. This research indicates that what lies at their core are issues of self-worth and moral differences. This is, arguably, a more complex issue than the issue of "outsider neutral" vs. "insider partial" facilitators and incorporates, but is not limited to, issues of cultural difference that Lederach attempts to address. It reflects the concerns in the preceding two sections about the way people cost options, decide value and worth and what they believe about their world. It is an issue better understood by social constructionists like Lederach rather than realists like Burton.

Towards an Integral Approach: How is the AQAL Map Being used Today?

There is a small body of emerging literature outlining practical applications of integral theory for those who are writing and working on peace theory and practice. One such example is provided by the Generative Change Community (GCC), an initiative connected to a private change consultancy called D3 Associates. Launched in 2005, the group is concerned with multi-stakeholder change processes in numerous areas, including conflict. Echoing many of the concerns in the introduction to this dissertation, the group aimed to increase the ability of practitioners to make wise distinctions about which tools and skills to use and when to use them within change processes (D3 Associates, 2008, p. 3). To this end, they have developed a platform for collective learning amongst practitioners. The practice, they explain is based both on Lederach's four domains of conflict transformation, described in Section Three - personally, relationally, structurally and culturally - and Wilber’s four quadrants. The technique, applied in numerous workshops, asks participants to reflect on their work within these four quadrants, which are physically drawn on the floor (see D3 article, p. 5 online here for elaboration). This is a concrete way to promote reflectivity on peacebuilding practice.

Richard McGuigan and Sylvia McMechan, at the time serving as principals of a private college called the Institute of Conflict Analysis and Management in Canada, utilise Wilber’s Four Quadrants in their Diamond Approach, which they describe as a tool of Integral quadrant analysis for organisational conflicts (McGuigan and McMechan, 2005). Motivated in large part by their concern that the frame or worldview that any consultant uses shapes their analysis, they explain, “[the] conflict exists with equivalent legitimacy in all quadrants. If solutions are derived from an integrated analysis, they are more likely to succeed because they take multiple factors into account” (p. 351). The analysis is conducted within teams experiencing conflict and asks participants to explore the factors from each of the four quadrants by asking questions as the following. "What values does the leader embrace?" "What do people need in the workplace?" "What does our organization value?" "How does our team behave?" . For example, in the upper-right quadrant – “My Behaviour” – the Diamond Approach employs Burton’s needs theory as its major analytical tool. In the upper-left quadrant – “My Leadership” – the approach focuses on self-awareness, especially as it relates to ethics and values and encourages various reflective practices as well as training in emotional intelligence and conflict resolution techniques (pp. 360-361).

Nancy Popp joins Richard McGuigan in a 2007 article in which they turn their attention to the development lines. Extolling the work of Folger and Bush, who espouse the transformational potential of the mediation process, McGuigan and Popp explore practical ways in which the constructive-developmental theory of the developmental psychologist, Robert Kegan, can be used as part of the mediation process. Kegan’s theory, as its name suggests, integrates social constructionism and development theory, both of which have featured throughout this dissertation. Challenging the assumptions that parties in mediation have equal capacity to take the other’s perspective, they provide examples of how the three adult mindsets that Kegan proposes understand and respond to conflict in very different ways (Table 1).

Table 1. Three Mindsets toward Conflict

Content	Instrumental Mindset	Affiliative Mindset	Self-Authoring Mindset
Experience of conflict	"You're wrong, I'm right, and I can't get what I want."	"You have betrayed me."	"Your world view is very different from mine."
Preferred resolution of conflict	"Everybody just follow the rules and do what they're supposed to do and obey the law"	"Let's forget our differences, concentrate on our similarities and where we agree, and join together in the same loyalty to the same side/idea/group."	"Let's come to an understanding of each other's perspective and agree to work together to the best of our ability for the benefit of all."

Note: Excerpted from McGuigan and Popp (2007), p. 234.

While those with the “instrumental” mindset are concrete thinkers with little ability to take another’s perspective, those with the “affiliative” mindset have such capacities but also have a strong group identity and strive to think and feel the same as those they have relationships with (McGuigan and Popp, 2007, pp. 225-229). These are qualitatively different ways of making meaning and require mediators to take different approaches, some of which McGuigan and Popp explore. The most complex adult mindset they discuss, the “self-authoring,” can not only take other’s perspectives, but can integrate more than one into their own, which is motivated by self-integrity, an embrace of complexity and a willingness to engage in conflict constructively (pp. 229-231). They may, however, incorrectly assume that others can and will operate as they do.

Lynn Holaday (2002) takes a very similar approach to McGuigan and Popp. Acknowledging that mediators already adapt their approach based on the parties they encounter, utilising different tools as they see fit, she believes that this unconscious approach can be made more explicit and effective by using a suitable theoretical framework for performing such an analysis. Her five stage developmental model (as shown in Holaday, 2002, p. 194) for use in mediation is adapted from various sources, including Kegan, Jean Piaget and Wilber. Holaday provides examples of tools and approaches mediators can use for clients at each of these stages, emphasizing both the behaviour to expect and the thinking and emotions underpinning the perspective. Holaday feels her approach provides mediators with a meta-perspective - a way of understanding other perspectives - as well as providing a concrete way to promote stage growth (a widening of perspective) in clients, albeit in a limited way. Mediation, she reflects, is itself a product of the higher stages, both the rationalistic (fourth) and integrative (fifth). And this gives her great hope that it can be utilised in an “all-stage” manner, to borrow from Wilber’s “AQAL” idea.

The four approaches outlined in this section provide some illustrative examples of scholars and practitioners beginning to create what Wilber (2000a) calls “integral holism” (p, 72) within the peace and conflict discipline. The need for this movement is made apparent by the critiques outlined in the first section above, which in turn provided support for the analysis of Burton and Lederach conducted in the previous two sections. The analysis in this dissertation used only integral theory and Spiral Dynamics, yet it permitted an exploration of these issues that matched the depth and breadth of those conducted by the peace scholars cited in this section.

Conclusion

This dissertation argues that Ken Wilber’s integral theory and the related Spiral Dynamics schema can be used as an analytical tool to understand the power and pitfalls of peace and conflict theory and peacebuilding practice. In sections two and three, the theories of Burton and Lederach were located within a philosophical landscape of quadrants, development lines and stages of unfolding complexity. In the process, specific critiques emerged concerning the work of these scholar-practitioners, which were then cross-referenced against the critiques of other peace theorists in the final fourth section. The congruence was significant and included:

- The minimisation of the cultural dimensions of conflict
- The limitations of purely cognitive approaches
- The questioning of the universality of rationality

- The importance of uncovering the value systems inherent in peace interventions, both those of practitioners and the parties engaged in conflict.

This not only indicates that integral theory is very useful in analytically describing the qualities of various peace theories and peacebuilding practices. I believe it also provides evidence that the more convincing theories are multi-quadrant, encompassing more than just one development line, are values-explicit and understand vMeme differences, and therefore are inherently a product of second-tier vMemes.

In order to understand why this is so, it is necessary to examine the nature of Integral theory. Recall that the AQAL model presents four, irreducible perspectives that are an inherent part of nature and consciousness. Being ever-present and ontological, they therefore infuse all human activity. Integral theory also highlights the existence of diverse human capacities in the upper-left (intentional) quadrant. These are an example of the developmental lines within each of the four quadrants and include cognition, emotions, morals, worldviews and values. The last of these is explored in particular detail by the Spiral Dynamics schema as the unfolding, stage-like progression of vMemes and is of particular interest to the values debate within peace and conflict studies. Nevertheless, I must point out that Wilber’s AQAL model is itself not values neutral. Rather, it is created from a second-tier value perspective. While it does strive to use multi-quadrant lenses, its origins in developmental structuralism provide it with a sharper focus within the upper-left quadrant, because it seeks to explain both the enduring structures of human thought (structuralism) while honouring and valuing the qualitative experience of being human (phenomenology).

Why is integral theory of prescriptive value? This question has three components. First, why is it necessary to be “all-quadrant”? Put simply, because conflict, both constructive and destructive, exists in each of the quadrants. Moreover, sustainable peace with justice is, I believe, only possible when all four quadrants are appropriately engaged. In the collective-objective quadrant (lower-right), conflict exists in the structures, institutions and power relations of society. This includes Inter-group violence and Galtung’s structural violence. At best, it is an engine for reform; at worst, it manifests as war. Peace, too, exists here. It is the peace of strong, adaptive institutions that serve human needs (as per Burton) and it is the “justpeace” (as per Lederach) of mature economies that provide prosperity and quality of life for all. In the individual-objective (upper-right) quadrant, conflict exists due to personal disempowerment, poverty, poor mental and physical health and disability. This can result in violent behaviour, which impacts on relationships. Peace in this quadrant is therefore the peace of autonomous, empowered, highly functional people able to fulfil their potential. In the collective-subjective (lower-left) quadrant, conflict exists in contested meaning, the clash of values (rather than civilisations) and Galtung’s cultural violence. At worst, it fragments society and ignites some of the worst forms of violence. At best, conflict can be the engine for diversity and growth. Peace here is either that of a pluralist, harmonious society, or else that of an autonomous, stable, monoculture. In the upper-left, the personal-subjective quadrant, conflict is existential, related to identity, ego, self-worth, emotions and worldviews. At best, conflict drives personal growth and transformation, bringing contentment and fulfilment and occasionally spawns peacemakers. At worst, personal destruction results and it occasionally spawns warmongers.

The integrally informed approaches mentioned in the last part of Section Four recognise the all-quadrant dimensions of peace and conflict (see GCC and McGuigan & McMechan articles). However, they also acknowledge the need for “all-line” and “all-stage” approaches. This is the second component of the prescriptive value of integral theory. Why is this important? Cognition, it was found, is necessary but not sufficient. Logic, Hamill explained, is not universal because what things mean depends on cultural context and can therefore become a contentious issue. Being “all-line” requires one to understand that emotions, ethics, worldviews and values complete the picture of human intentionality and therefore expand the frame that can holistically comprehend the causes of conflict. And what about “all-stage”? Being second-tier (as per Beck and Cowan) implies an ability to “transcend and include” other, first-tier values in both thinking and practice. I believe this is what McGuigan and Popp are trying to encourage within the mediation community, by pointing out the way Kegan’s mindsets explain the challenges mediators face on a day-to-day basis. Lynn Holaday’s five-stage model is very similar and her diagram of concentric circles reminds us that stage development is a process, as Wilber constantly reiterates, that both transcends *and* includes less complex stages, widening one’s circle of care and making objective what one previously held as part of one’s subjectivity.

The third and final component of the prescriptive value of integral theory lies in its framework for holism. Section one began by explaining that for Wilber, holism centres on the idea of a holon that transcends and includes less complex holons, yet is always a part of larger, more complex ones. Holarchies (hierarchies of holons) exist in all four quadrants. However, Wilber (2001) is advocating more than “exterior” holism, a holism of the Right-hand quadrants only, i.e., behavioural and social. Nor is it just “interior” holism, a holism of the Left-hand quadrants. It must include all four quadrants, thus leading to what he calls “integral holism,” one of the central aims of the integral approach (p. 16).

According to Burton, “conflict resolution deals with the total human being, encompassing personality and cultural differences, and deals with this person in the total society, encompassing system differences” (Burton, 1993, p. 29). But this is an exterior holism only (if by “encompass” he means, “transcend”). Burton’s holism does not “include” the subjectivity of culture, but instead reduces it to objective factors. In contrast, Lederach’s own “integrated approach” is as close to an integral holism this writer has yet found from a major peace and conflict theorist. However, Lederach’s holism is not merely an unstructured, “kitchen-sink” approach that includes everything within a framework in a mish-mash of perspectives. A coherent unity of perspectives requires the wise and appropriate choice of tools, interventions, mindsets and frames. If we accept there are at least three major types or causes of violent conflict, then some perspectives will be more valuable than others, depending on the mix of those three causal factors in any particular conflict. Conflicts about power, involving Red or Blue vMemes, require interventions that understand Red and Blue vMeme thinking. Conflicts about material resources require Right-hand quadrant interventions, but nevertheless benefit from an attention to any value-based issues that lurk under the surface. And when vMeme differences are the major explanation, second-tier awareness, with its comfort in complexity and embrace of integral holism, is required.

There is a tremendous opportunity for continued research. The brief summary of Wilber’s AQAL model presented in section one of this work is inadequate to convey the full depth and potential of that body of work. It only presented three of the five core components: quadrants, lines and stages, the other two – states and types – are beyond the scope of this dissertation. An opportunity for further research in this area could be to include those other two aspects of the AQAL model. In particular, personality types, which would enable an integral analysis of gender issues to be conducted. This would tap into the work of scholars with developmental roots, such as Carol Gilligan and others working towards an "integral feminism," such as Joyce Nielsen and Elizabeth Debold. Another opportunity for further research could be to conduct an integral theory analysis of other peace and conflict theorists. Johan Galtung and Betty Reardon were mentioned in the introduction. Galtung is, of course, a pioneer in peace and conflict studies and is responsible for a huge and influential body of work. Betty Reardon would provide the peace theory perspective of gender, enabling an exploration of whether and how integral feminism may be incorporated into peace and conflict studies. Finally, a more in-depth exploration of peacebuilding approaches that claim to be holistic could be conducted, whether or not they are aware of integral theory.

Although it strived to be relatively objective, the research conducted in this dissertation is necessarily shaped by the writer's subjective experience, which in turn is interpreted through a set of values. These values hold violent conflict as abhorrent, while rejecting the structural violence of oppression and marginalisation. I believe that a truly coherent unity of perspectives on peace is imminent. While I accept that this view is based more on intuition than reasoning, I contend that a "critical yeast" of self-aware, integrally informed peacebuilders will be its parents.

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The Spectrum of Responses to Complex Societal Issues:
Reflections on Seven Years of Empirical Inquiry

Thomas Jordan, Pia Andersson & Helena Ringnér[1]

Abstract: This article offers conclusions and reflections based on nine empirical studies carried out over the last seven years on how increased capacity to manage complex social issues can be scaffolded. Our focus has been on the role of meaning-making structures and transformations in individual and collective efforts to skillfully manage complex issues. We have studied capacities for managing complex issues both in terms of scaffolding group efforts through structured methods and facilitation and in terms of individual skills. Our action research gave us insights into the variability in scaffolding needs: groups are different in terms of the participants' meaning-making patterns, which means that methods and facilitation techniques should be adapted to the particular conditions in each case. We discuss variables describing group differences and offer a preliminary typology of functions that may need to be scaffolded. In a second major part of the article, we report on our learning about individual societal change agency. We offer a typology of four types of societal entrepreneurship and discuss in more detail the properties of dialectical meaning-making in societal change agency.

Keywords: Change agents, complexity awareness, complex issues, dialectical meaning-making, diffusion of social innovations, facilitation, perspective awareness, scaffolding, societal entrepreneurship, wicked issues.

Introduction

Capacities to Manage Complex Societal Issues: A Meaningful Field of Inquiry

How can we – the society – become more skillful in managing complex societal issues, such as gang-related crime, deteriorating residential areas, environmental problems, long-term youth unemployment, racist violence, etc.? This question opens a broad and complex field of inquiry that we have been exploring in various ways over a couple of decades. During the last seven years, we have carried out a number of empirical investigations of initiatives that aim at developing a stronger capacity for designing and implementing effective strategies for managing complex societal issues. In this article we will make a review of the most important observations, insights and results from nine different empirical studies. Our orientation has been inductive rather than hypothetico-deductive, i.e. we have been looking for significant patterns in the data in order to develop hypotheses rather than testing assumptions in a stringent way. Rather than reporting findings with empirical details, we will present general conclusions and reflections. Some of these are to be regarded as work in progress requiring further and more dedicated

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investigations. However, we think we have some substantial contributions to offer, for example a discussion of how groups working on complex issues may need different types of scaffolding; an outline of a framework describing functions scaffolding methods can have for group processes; and a typology of four types of societal entrepreneurship.

The general purpose of this article is to contribute to the development of knowledge about and insight into the intricacies of strenghtening individual and collective capacities for managing complex societal issues. An additional objective is to tell the story of our own learning process. We were initially in some respects rather naïve when formulating questions and hypotheses, because we had not yet become aware of some of the complexities of the phenomena we wanted to explore. For example, we assumed, in a not particularly reflected way, that people with a strong complexity awareness would be more effective societal change agents than people with a weak complexity awareness. This assumption turned out to be far too simple. We believe it may be instructive for others to read about the insights we gradually developed, sometimes just by starting to reflect about the issues involved.

The Nature of Complex Societal Issues

Consider the contrast between two very different ways of responding to a particular societal intractable issue, crime and street violence in suburbs of large cities. The first statement comes from a discussion on the Internet forum Flashback in 2009 about a series of car burnings and ensuing stone-throwing attacks on police and rescue service vehicles in suburbs of Gothenburg, Sweden:

> The only reason this kind of thing happens is because we live in such a f-g wimp country. Everything and everyone is pampered. If the cops would run in and knock down these individuals with batons and rubber bullets between the eyes, I believe there would be law and order. That’s what they do in their native countries, but with real bullets so they naturally laugh at the Swedish cops who shake them a bit and drive them home to their parents who don’t care anyway. That violence breeds violence isn’t always correct. Meet these brats with violence and they will stop, guaranteed. Difficult to fight with broken joints. [*Translated from Swedish by the present author*]

The second statement summarizes main components of a strategy to engage the problem of gang-related crime at the community level:

> The program utilizes the OJJDP Comprehensive Gang Model, or the Spergel model, as it is often called, to engage communities in a systematic gang assessment, consensus building, and program development process. The model involves delivering the following five core strategies through an integrated and team-oriented problem-solving approach:
>
> - *Community mobilization,* including citizens, youth, community groups, and agencies.
> - *Provision of academic, economic, and social opportunities.* Special school training and job programs are especially critical for older gang members who are not in school but may be ready to leave the gang or decrease participation in criminal gang activity for many reasons, including maturation and the need to provide for family.

- *Social intervention,* using street outreach workers to engage gang-involved youth.
- *Gang suppression,* including formal and informal social control procedures of the juvenile and criminal justice systems and community agencies and groups. Community-based agencies and local groups must collaborate with juvenile and criminal justice agencies in the surveillance and sharing of information under conditions that protect the community and the civil liberties of youth.
- *Organizational change and development,* that is, the appropriate organization and integration of the above strategies and potential reallocation of resources among involved agencies. [From the website of the National Criminal Justice Reference Service, www.ncjrs.gov]

Both statements offer suggestions about how to deal with the problem of young men who engage in criminal activities that affect public safety in residential areas. However, they are radically different both in tone and in substance and can be thought of as positioned very far apart from each other on a scale ranging from simple to complex.[2] Our experience is that the spectrum of responses to complex and intractable societal issues is indeed very wide. When looking at the actual practice of authorities and other stakeholders in relation to complex societal issues of this kind, we find that there is often a large potential for improvement. We – the society – are not as skillful in managing serious and complex societal issues as we could be.

Our research is based on the premise that some of the societal issues we face are difficult to manage successfully precisely because they are complex in nature. Such issues have been called “wicked problems” or “wicked issues,” because they prove resistant to efforts to resolve them (Rittel & Webber, 1973; Chapman et al., 2009). The nature of “wicked issues” has been described somewhat differently in the literature. Here is a compilation of some salient properties that are often mentioned:

- *Complex causality*. Social, economic, technical, environmental, psychological, cultural, legal and other factors are involved. Conditions interact in complex ways.
- *Require systemic adaptation:* Because societal structures and processes are contributing to the emergence of the issues, isolated measures and quick fixes are ineffectual. Changes in the ways societal systems operate are needed.
- *Many stakeholders* are involved (e.g. authorities, public service organizations, businesses, citizen groups, lobbying organizations, politicians, researchers). Stakeholders have different levels of knowledge, different communication styles, different ways of making decisions, etc.
- Because of the complexity, the *issues cannot be delegated* to one actor. Conventional principles for public management are ineffectual. Cooperation among numerous stakeholders is necessary for achieving significant results.
- There are large, sometimes radical, differences in narratives and interpretive perspectives regarding the issues. There are often *deep-rooted disagreements* on (a) how to describe the issue and (b) what ought to be done, which often leads to difficulties in the decision-making processes.

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[2] Of course, the relationships between tone and levels of complexity in reasoning are far from straightforward. The examples used here are both extreme.

- *Chronic:* The issues cannot be solved once and for all; they will continue to exist to some extent whatever we do. Therefore there are difficulties in agreeing on how many resources should be devoted to the issues and what standards to apply when assessing outcomes (e.g., is a reduction in the rate of increase of environmental pollution a successful outcome or a failure?).

When societal issues have these characteristics, a considerable capacity for managing complexity seems crucial. In fields where the capacity to manage the serious societal issues is weak, a key concern is how to develop a stronger capacity. This topic has been our core focus for a long time.

Two Routes to Increased Capacity

We have in various ways explored two different routes to the development of such capacities (see figure 1). The first route relies on *individuals*: people who have competences to notice, understand and manage complex conditions and processes. Such individuals act in our society in different roles, for example as *strategic change leaders* (Brown, 2011; Higgs & Rowland, 2010; Joiner & Josephs, 2007; Vurdelja, 2011), *societal change agents* (Jordan, 2011; Perrini, 2006) or *societal entrepreneurs* (Gawell et al., 2009; Lundqvist & Williams Middleton, 2010; Jordan, 2011; Ross, 2009; Tillmar, 2009).[3] If we focus this route, we will be interested in learning more about the particulars of individual skills to deal with complexity. What skills or other properties of individuals are necessary and useful? What strategies are characteristic of successful change agents and societal entrepreneurs? How do we find people who have those skills? Is it possible to train individuals in the skills needed to manage complex societal issues? What conditions allow skillful change agents to put their skills to effective use? These are some of the questions that are relevant in order to develop more knowledge about how individual capacities to manage complex societal issues can be strengthened.

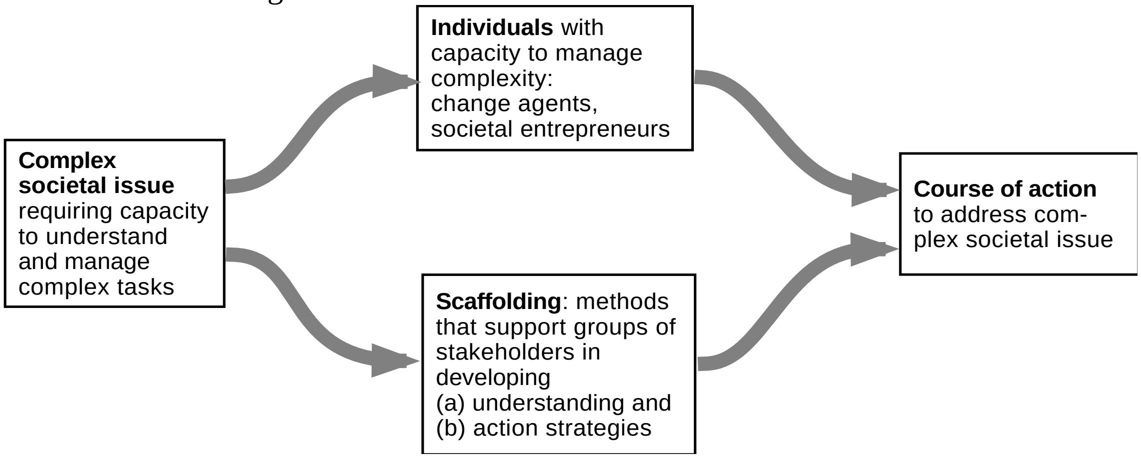
Individuals with capacity to manage complexity: change agents, societal entrepreneurs
Complex societal issue requiring capacity to understand and manage complex tasks
Course of action to address complex societal issue
Scaffolding: methods that support groups of stakeholders in developing (a) understanding and (b) action strategies

Figure 1: Two routes to more effective strategies for managing complex societal issues

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[3] Societal entrepreneurs have been defined by Jordan (2011:49) as “people who (a) are committed to initiate innovative activities aiming at serving the good of the society (on some scale level: local communities, regions, countries, global society); (b) do it by organizing activities in new ways (rather than operating with existing organizations); and (c) seek changes that involve influencing how other actors and/or institutions operate (rather than just, like many *social* entrepreneurs, starting up a non-profit organization offering needed social services).

The second route does not assume that the capacity to manage complexity is necessarily a property of individuals. It instead presumes that most people can become effective managers of complex societal issues, given appropriate support. This is the idea that capacity can be created and strengthened through various forms of scaffolding (further explained below). One particular form of scaffolding highly relevant to our concerns is the many different methods available for structuring group processes with the purpose of supporting the participants to deliberate on how to manage complex issues, such as *The Integral Process for Complex Issues* (Ross, 2006a, 2006b, 2007; Andersson, 2008; Inglis, 2011), *Soft System Methodology* (Checkland & Poulter, 2006), *The Strategic Choice Approach* (Friend & Hickling, 2007), *Open Space Technology* (Owen, 2008) or *Future Search* (Weisbord & Janoff, 2010).[4] In order to follow this route to increased capacity, we need knowledge about what different groups and individuals need support *for*. For example, it is important to understand what meaning-making patterns may stand in the way of entering an effective strategy-development process, as well as what shifts in participants' meaning-making are helpful.[5] We need to understand which properties of methods are effective in supporting groups. We need to know what skills facilitators need in order to assist groups with different characteristics. If effective methods indeed exist, we also need to understand what it takes for such methods to actually become adopted and used among practitioners. It is our impression that few stakeholders realize that there may be a considerable potential for increasing the quality of how groups manage complex tasks through appropriate scaffolding. There appears to be an unreflected assumption that how groups ordinarily deal with such issues is as good as one can expect.

Figure 2 offers a more specified overview of themes we have explored. Some of these have been subject to more systematic and detailed research, while others are topics we have encountered and reflected upon while pursuing our different case studies. In the following, we will in turn comment upon most of these themes.[6] But first we will briefly describe the nine studies that make up the empirical basis for our reflections.

Overview of Our Empirical Studies

In the early 2000s we started to engage in empirical research on the relationship between meaning-making patterns and action strategies among people engaged in societal change agency (Jordan, 2003, 2006a). Since this work began we have carried out two research projects involving 24 interviews with individual change agents (Jordan, 2006a and ongoing research), one (ongoing) research project on methodology for facilitating strategy development in complex societal issues (a pilot study is reported as Andersson, 2008), and six in-depth case studies of successful societal change agents (Jordan, 2006b; Andersson & Jordan, 2007; Sander & Jordan, 2009; 2011; Emanuelsson, 2011; Tiger, 2012). We will briefly describe these studies, as they form the empirical basis for the reflections in this article.

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[4] Holman et al., 2007, Bunker & Alban, 2006 and Turunen, 2012, offer overviews.

[5] We use the term "meaning-making patterns" to denote the structures of cognitive processing (see Jordan, 2011).

[6] However, an analysis of the important topic of the shifts and transformations in meaning-making that occur among participants in the course of scaffolded strategy-development processes will be left for Pia Andersson's coming doctoral dissertation. Patterns of meaning-making among people who complain, but don't act, have been analysed in a separate forthcoming article by Thomas Jordan.

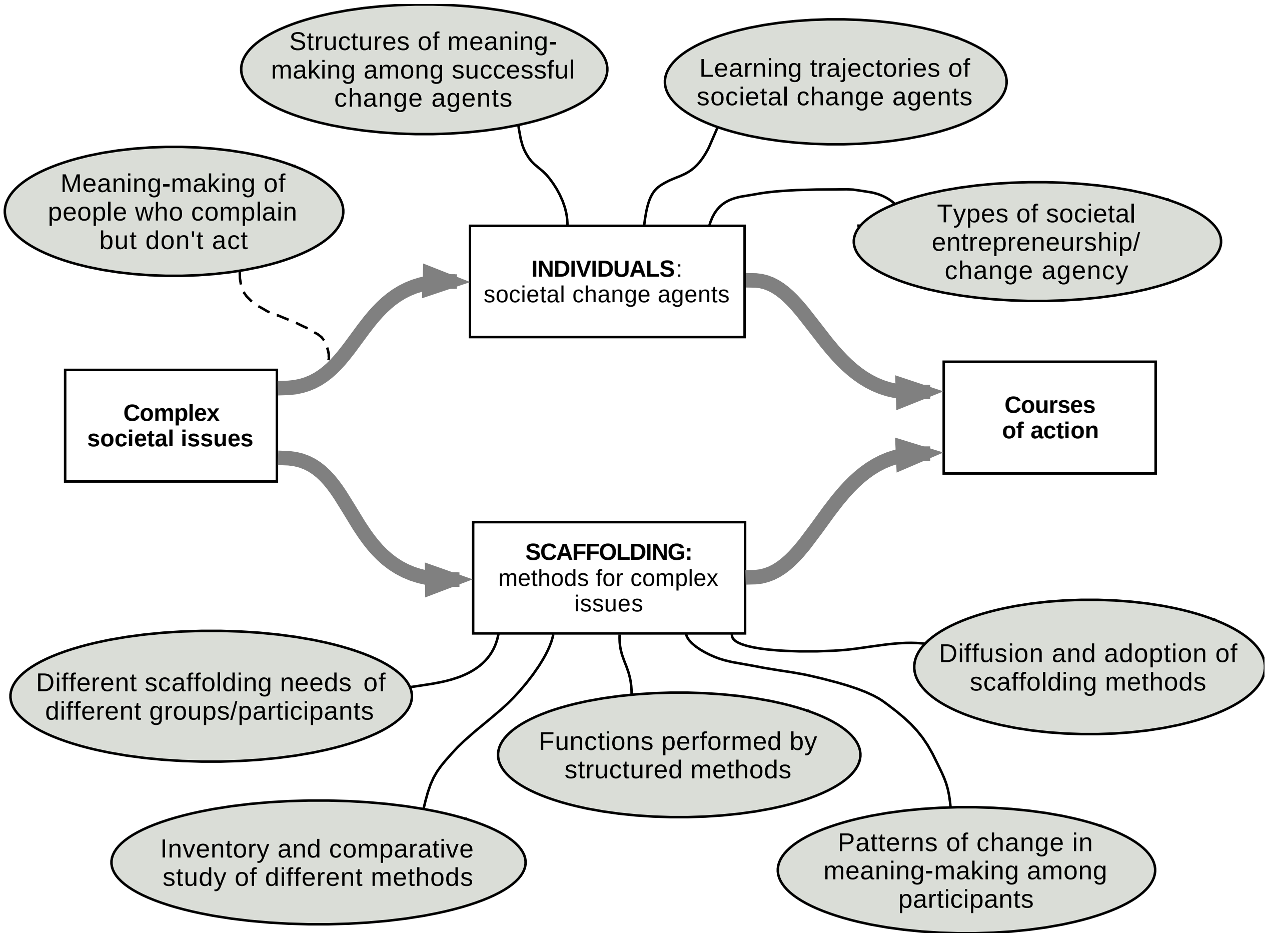
Structures of meaning-making among successful change agents
Learning trajectories of societal change agents
Meaning-making of people who complain but don't act
Types of societal entrepreneurship/ change agency
INDIVIDUALS: societal change agents
Complex societal issues
Courses of action
SCAFFOLDING: methods for complex issues
Different scaffolding needs of different groups/participants
Diffusion and adoption of scaffolding methods
Functions performed by structured methods
Inventory and comparative study of different methods
Patterns of change in meaning-making among participants

Figure 2: Themes we have worked on

1. In one research project (Jordan, 2006a), one of us studied how individuals with post-conventional meaning-making patterns approached organizational and societal change processes, in particular what kind of strategies they used for dealing with inertia and resistance. Extensive interviews were made with 19 individuals, most of whom worked within larger organizations, such as governmental agencies and ministries, NGOs and regional administrations.[7]

2. In one sub-study in the ongoing research project *From frustrated citizens to effective societal entrepreneurs*, Pia Andersson and Ylva Mühlenbock interviewed 5 carefully chosen persons involved in successful societal entrepreneurship. The purpose of this study was to learn more about the relationships between various types of complexity awareness, strategies used in the initiatives and the outcomes.

3. In the study *Tryggare och mänskligare Göteborg – An innovative approach to urban crime prevention and safety promotion* (Jordan, 2006b), Jordan made an analysis of the meaning-

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[7] See also the interview with Thomas Jordan made by Russ Volckmann in Integral Review no 1, 2005 (http://integral-review.org/).

making structures and the strategies employed in the office of the Gothenburg council for crime prevention and safety promotion.

4. Andersson and Jordan (2007) made a comprehensive case study of the methodology developed by the youth workers in a youth center in one of Gothenburg's economically disadvantaged suburbs. The approach developed in this center is multidimensional and integral, addressing the developmental needs of individual teenagers, as well as group culture, collaboration between societal actors and neighbourhood fieldwork.

5. In our ongoing research project *From frustrated citizens to effective societal entrepreneurs* Andersson carries out action research using TIP, The Integral Process for Complex Issues, in order to study how the process of developing more effective action strategies can be scaffolded in groups with participants with varying backgrounds. A pilot study was reported as Andersson, 2008.

6. In another comprehensive study Sander and Jordan (2009) analysed a complex project in the city of Gothenburg, aiming at developing an integrative strategy for managing one of the more conflict-ridden issues in the city, graffiti.

7. Sander and Jordan (2011) also made a detailed analysis of the learning trajectory of the key individuals in Fanzingo, a societal entrepreneurial organization with the aim of enabling suburban youth in the Stockholm region to tell their own stories in radio and TV and thereby opening up public service media, traditionally dominated by middle-class, middle-aged ethnic Swedes.

8. Emanuelsson (2011) traced the relationship between meaning-making patterns and action strategies in the work of one woman who has had a considerable impact working with the difficult issue of honour-related threats and violence in a region in Sweden.[8]

9. Tiger (2012) made a detailed case study of the work carried out over more than a decade by a project leader employed by the Swedish tenant organization, who took on the task of developing new strategies for mobilizing residents in a suburb of Gothenburg with a large concentration of war refugees from Somalia, former Yugoslavia and other parts of the world.

Common to these nine studies is an interest in the relationship between (1) patterns of meaning-making, including cognitive obstacles to skillful means and patterns of transformation through increased complexity awareness; (2) scaffolding of learning and strategy development; and (3) action strategies and outcomes.

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[8] Honour-related threats and violence are mostly directed towards young women by family members who believe that the woman has brought dishonour upon the family or community by her life style.

Some Theoretical Points of Departure

Theoretical Concepts and Discourse

Our research focus is to gain a deeper understanding of the role differences in and transformations of meaning-making structures plays in developing capacity to manage complex societal issues skillfully. In a previously published article, there is a comprehensive outline of the theoretical framework we have been using (Jordan, 2011). For the purposes of the reflections on lessons learned in this article, we will just make some brief comments on concepts that are necessary for understanding our approach. Our theoretical framework draws heavily on models of adult development, developed by researchers and researcher-practitioners like Loevinger (1976), Fischer, (1980), Kegan (1982, 1994), Basseches (1984), Commons et al. (e.g. 1984, 1998), King & Kitchener (1994, 2004), Torbert et al. (2004) and Joiner & Josephs (2007). We have found two key concepts to be particularly useful in understanding meaning-making regarding complex societal issues: *complexity awareness* and *perspective awareness.*[9]

Complexity awareness refers to a person's propensity to notice and expect that phenomena are compounded and variable, depend on varying conditions, are results of causal processes that may be linear, multivariate and systemic, and are embedded in processes that may lead to consequences in several steps. We believe that the strength of a person's complexity awareness conditions the ability to successfully manage complex tasks. Several theoretical models exist for analysing levels of complexity in, for example, reasoning (Fischer, 1980; Commons et al., 1984, 1998; Jaques & Cason, 1994; Dawson & Wilson, 2004). One of the most used models is MHC, the Model of Hierarchical Complexity (Commons, 2008), which defines 14 levels of increasing hierarchical complexity. Five of these levels are highly relevant for analysing meaning-making. At the *Concrete* level, meaning-making is confined to talk about concrete things, people, events, acts and places. At the *Abstract* level, categories are formed and enable people to refer to things in general, rather than exclusively to specific, concrete things. At the *Formal* level, abstractions are coordinated through mental conceptions of how they are related to each other in terms, for example, of linear (unidirectional) causation. At the *Systematic* level, formal relationships are coordinated to form systems of relationships, allowing for reasoning about mutually conditioning relationships and systemic causation. At the *Metasystematic* level, two or more systematic relationships are related to each other, allowing for reflection on properties of whole systems and how systems interact. One of the most significant and useful aspects of the concept complexity awareness concerns the role of an *absence* of complexity awareness in the meaning-making of a person or a collective. If a person does not notice the complexity in which an issue is embedded, he or she will fail to consider many conditions, causes and consequences that may be significant for managing the issue (Kuhn, 1991).

Perspective awareness refers to the propensity to notice and operate with properties of one's own and others' perspectives, i.e. whole systems of meaning-making. People with a strong perspective awareness notice that perspectives have properties that strongly influence how events and issues are perceived, interpreted and managed by oneself as well as by others. People with weak or non-existent perspective awareness do not notice that meaning is constructed all the time through the filters of perspectives. They consequently act as if they perceive reality “as it really is.”

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[9] These concepts are discussed in a far more elaborated way in Jordan, 2011.

Assuming that weak complexity and perspective awareness is a common reason for poorly conceived strategies to deal with complex societal issues, the concept of scaffolding is strategically important. In simple words, the concept scaffolding points to everything that can be done to support individuals or groups to accomplish tasks that would be beyond their reach without external support. The most common use of scaffolding is to refer to support children, adolescents or adults need while they are in the process of acquiring new skills. The scaffolding is then needed only temporary: when the skills have been mastered, the scaffolding can be removed. However, the term is appropriate to use also in cases where individuals or groups need external support in some form in order to accomplish a difficult task, without implying that they will later be able to master the task without scaffolding. Scaffolding may consequently have two different functions. The first is to provide support during a period of skill acquisition, the second is to enable an individual or a group to accomplish a particular task, such as developing a strategy for managing a very complex issue. We are interested in both functions, but here we focus on the latter.[10]

A weak complexity awareness is not only the absence of something, but may also be associated with quite resilient ontological assumptions, i.e. a worldview that seems fully adequate to the actor but which is blind to significant conditions. This means that meaning-making structures may need to be de-stabilized or even disrupted before new insights can become possible.

The volume of previous constructive-developmental research on meaning-making in societal issues is relatively small. Deanna Kuhn (1991) and Shawn Rosenberg and colleagues (1988, 2002; Rosenberg et al. 1988) have made comprehensive analyses of how people with different levels of complexity awareness reason about complex societal issues. Barrett Brown (2011) has studied the meaning-making of societal change agents with late post-conventional worldviews. Little research has been made on methods for scaffolding increases in complexity awareness in groups working together in order to develop more effective strategies (Ross, 2006a, 2006b, 2007; Inglis, 2011; Chapman, 2010). Research on change methods has been relatively limited, with the exception of research on methods developed in the field of operational research, such as Soft System Methodology.[11] In her recent dissertation, van der Zouwen (2011) develops a framework for evaluating methods for participative organisational change, with a focus on “large scale interventions.” The framework points to a large number of factors that are relevant for successful scaffolding of group efforts in complex issues. However, van der Zouwen’s study does not consider scaffolding of complexity awareness or other developmental aspects of scaffolding.

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[10] For further discussions on scaffolding, see e.g. Hlemo et al., 1976; Stone, 1993; and Wood et al., 1976.

[11] See for example the two special issues of *The Journal of the Operational Research Society* on “problem structuring methods” in 2006 and 2007, in particular the overview article of Rosenhead (2006).

Scaffolding Group Processes

General Remarks

Over the last couple of decades, a large number of methods/approaches have been developed for assisting groups of stakeholders in developing solutions to complex issues. In our own case, we have used one particular method, The Integral Process for Complex Issues (TIP), in our action research (Ross, 2006c; Andersson, 2008). The principal reason for this choice is that TIP was designed (by Sara Ross) to serve as a scaffolding of a progressive development of awareness of and knowledge about the complexity of a significant issue, thus enabling a group to choose a strategically important element of the problem complex to work with. TIP starts by making an inventory of the participants' concerns. When working with people not trained in analysis, the participants' views may be primarily at MHCs concrete stage of complexity, which means that they have rather unorganized narratives of concrete incidents and problems. In TIP, these narratives are organized into categories (MHC: abstract stage), and then the participants are invited to look for causal relations between different issues, problems and conditions (MHC: formal stage). In the further process, participants are supported in exploring systemic conditions (MHC: systematic stage), and even (at least in some cases) in using the contrast effect of different perspectives that may be applied to understanding and deliberating about action on the issue (MHC: metasystematic stage).

Different Types of Groups, Different Needs for Scaffolding

We have made direct observations of the dynamics in groups of people working on action strategies in complex issues in a number of different groups. In seven cases, the observations were made as action research where the researcher was a process leader for groups working in a structured process in multiple meetings. In a further ten cases we have worked with different types of groups in less comprehensive settings, sometimes in the role as consultant process leader, sometimes as a part of method-demonstrating workshops.[12] Reviewing the cases in terms of the background of the participants making up the groups, we can discern seven categories:[13]

- *Concerned citizens* (e.g. in a particular neighbourhood) who are reasonably familiar with how organizations and authorities function.
- *Immigrants/refugees*, who are not familiar with practices in a Western democratic state.
- *Officials* for whom the issue belongs to the responsibilities within their job description: civil servants and representatives for different organizations/authorities/administrative units.
- *Employees in service organizations*, such as educational institutions, social services, health care, police.

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[12] These ten cases were not part of systematical studies, but contributed to our pool of experiences of different dynamics.

[13] Commentators of a draft of the article have cautioned us about the risk of lumping people together into categories in this way, because of the risk of stereotyping in an unwarranted way. We hope the reader recognizes that we don't mean to imply that all immigrants, all young people, or all officials are alike . . .

- *Activists*, with an established commitment to engage a certain issue from a certain standpoint.
- *Youth*, with an interest in an issue, but often ephemeral commitment.
- High-ranking *managers* and *politicians* in elected offices.

Working with this variety, we have encountered different types of dynamics both regarding individual participants and groups. These experiences point to a need to adapt the scaffolding as well as the actual facilitation style to the specific needs of specific groups. In order to be able to do this, it is probably useful to have a clear understanding of what functions the scaffolding can serve in a group process, and how groups vary in their needs for support.

In the following, we will first discuss some variables we have found to be relevant in describing how individual participants and groups are different from one another. In the second step we will outline our preliminary formulation about what functions various change methods are supposed to fulfill.

Participants and groups can differ in very many ways, of course. When looking for variations, we are particularly interested in gaining a clearer understanding of differences in participants' meaning-making structures and how such differences might lead to a need for adapting the scaffolding.

An overview of the variables we have identified as relevant so far is given in Table 1. These variables are particularly significant when they present obstacles or challenges for an effective group process. Some methods developed in order to scaffold strategy-development processes are probably more sensitive to some of these variables than others. This is a topic we have not explored deeper yet.

We will not here discuss each of the variables in Table 1, as some of them are rather self-explanatory. However, in our work with some of the groups, we encountered challenges that led to new insights into the craft of scaffolding processes, and we will here focus on these.

Table 1: Variables describing different scaffolding needs in groups

Variable	The variable is particularly relevant when ...	Examples of participants for whom the variable may be particularly relevant	Scaffolding needs
Motivation to engage personally	... participants' personal motivation to engage is weak	Frustrated citizens; Officials	Mobilize motivation and issue ownership
Perseverance	... motivation is momentary strong, but capacity for perseverance is weak	Youth	Capture volatile interest, focus on actions that lead to rapid outcomes

Variable	**The variable is particularly relevant when ...**	**Examples of participants for whom the variable may be particularly relevant**	**Scaffolding needs**
Cultural competence	... participants have very limited knowledge about and skills in interacting with organizations and societal functions	Immigrants from countries with a very different type of society; Participants without experience in organizational practices	Build bridges between very different life-worlds. Needs-initiated learning about how the society functions and about effective behaviours in different situation.
Complexity awareness	... participants believe that the problem is easily resolved (e.g. if other actors do what they ought to do)	(Relevant for many groups)	Support inquiry into relevant conditions, causes and consequences
Perspective awareness	... participants are aware that the issue is complex and requires systemic adaptation, but have closed views about effective strategies	Activists; Politicians	Open up interpretive perspectives; Focus on a manageable but strategic part of the problem complex
Maturity of problem formulation	... (a) it is unclear which part of the issue complex the groups should focus on; ... (b) participants want to work with issues that are too abstract or broad in relation to the group's capacities or authority	(Relevant for many groups)	Support the process of mapping the issue complex in a systematic way, so that a strategic and manageable issue can be chosen for focussed action
Experience of powerlessness and self-confidence	... participants see themselves as outsiders and/or have low confidence in their own possibility to influence the issue ... participants expect that others will fulfill their interests	Immigrants; Citizens with limited experience of self-organization	Support insight into realistic possibilities to exert influence; create experiences of success in influencing issues

Variable	The variable is particularly relevant when ...	Examples of participants for whom the variable may be particularly relevant	Scaffolding needs
Collective identities	... participants have a strong identification with a particular collective and are concerned with advocating the interests and identity of their own group	Managers at high levels; Employees and specialists with strong professional identities; Politicians; Individuals who identify themselves as members of ethnic groups.	Recognizing the legitimacy of identities while expanding focus to a holistic perspective on the system

The groups we have worked with differed greatly in the extent to which the participants had developed more complex interpretations of the causes and conditions relevant to the issue and its systemic properties. In one of the groups we found that the scaffolding we used seemed to work against the group's own sense of where they wanted to go with their topics of concern. Although the end result to some degree was satisfactory to the group participants, the experience caused us to reflect on how groups' needs for scaffolding differ and how we can understand and explain those differences.

In the particular group mentioned above, three characteristics stand out. First, the participants' understanding of their area of interest (local economies) was well developed. Many of them had spent a lot of time gathering knowledge and building a systemic understanding of this field. Secondly, many of the participants also had elaborated views on what ought to be done, namely fundamental changes in the way the society operates (e.g., local sourcing of consumer goods; introduction of a local currency). These views were often rather "congealed," i.e. these participants felt that they had valid reasons for their positions and they were not inclined to inquire into and reassess their own assumptions and convictions. Thirdly, when approaching the matter of choosing a common focus for action, there were substantial differences regarding participants' priorities.

At first sight, one might have expected such a group to be rather well suited for working with TIP. The participants already had an awareness of systemic properties that could be built on, and there was an explicit intention to converge around a manageable part of the whole problem complex. In practice, however, the process did not turn out to be so smooth.

As noted above, TIP proceeds in a structured fashion, intending to build participants' awareness of the complexity of the chosen issue in focus. Creating an inventory of participants' concerns and then looking for causal relations between the different concerns listed is a process well suited for scaffolding the emergence of complexity awareness, particularly when the concerns listed initially are of a more concrete nature. This group, on the other hand, primarily brought up concerns of a systemic nature (for example the role of growth in modern industrial economies, the development of the relation between housing costs and wages over time) in the initial inventory, and were already well aware of the many links of mutual causation between these concerns.

Early in the process we could thus say there was a mismatch between the scaffolding's level of complexity and the group’s experienced need for help to work on their issue of concern, with the group’s meaning-making actually being more complex than the structure of the first scaffolding step. This affected the process in several ways and the first session with the group did not yield the type of insights other groups had had in the mapping phase. In all other groups that we had worked with so far the outcome of this initial step had resulted in increased clarity about the interrelated topics of concern, new insights and a more defined directions forward with enhanced motivation to continue together. In this case however, some participants felt that we as facilitators were superimposing a structure that pushed them to abandon their systemic understanding. For some of them, their insight into the problem’s embeddedness in complex systemic societal properties led them to think that they necessarily had to find ways of transforming those systemic properties. The TIP procedure of creating a map of the territory of their concerns in order to choose a manageable strategic part of the problem complex seemed counterintuitive, and more like a matter of enforced simplification than one of strategic choice. This did not facilitate a re-examination of the group’s assumptions about problem causes and solutions – if anything it made participants' views more congealed.

The lack of fit between the scaffolding and the group’s meaning-making made the participants struggle to understand the method itself, rather than focus on their own process of making actionable decisions, integrating their different views on what ought to be done. Reflecting back on the experience, we can see that in this sense the process we used in fact prevented the participants from working constructively on their significant differences and conflicts regarding the topic of interest that had initially brought them together. Had we had more focus on this work, the exploration of different perspectives present in the group may in itself have had a decongealing effect.

Our suggestion is that scaffolding needs to be adapted in relation to the complexity level of the group's meaning-making, even if the method used is designed to handle different levels of complexity. In a group that has developed the capacity to see systemic issue-properties, but may also have a fairly congealed view on solutions, we suggest that a focus on exploring different perspectives on the issues’ solutions as well as causes would yield more learning and create a platform for choosing a strategic part of the problem complex that seems manageable in terms of the group’s resources.

Our experience has also shown us that some groups, like the one above, have a deep need to understand the process steps and their functions before starting, whereas other groups would rather just get into the work and find out where it leads. In both cases, it is important to pay keen attention to the group’s intentions and experienced needs so that the process can evolve organically. A simple table might be helpful in sorting out some different scaffolding needs (Table 2).

Table 2: Varying scaffolding needs depending on meaning-making structures

View	**Weak complexity awareness + weak perspective awareness**	**Strong complexity awareness + weak perspective awareness**	**Strong complexity awareness + strong perspective awareness**
Uncongealed view	Scaffolding can focus on a stepwise and not too hurried exploration of complexity. It might be too demanding to scaffold perspective awareness.	Scaffolding can proceed rapidly in mapping complexity and may focus on supporting development of perspective awareness.	Only light scaffolding is needed.
Congealed view	Participants may believe the problem is simple, and may have fixed opinions about solutions. Facilitators may need to be very explicit about explaining and getting agreement about the process steps.	Participants may have strong convictions about causes and solutions. What needs to be scaffolded is a reexamination of assumptions about causes and solutions and an insight into the usefulness of exploring different perspectives on the issue.	*Not a likely combination*

The matrix in Table 2 suggests that it is easier to scaffold a strategy-development process when participants do not have congealed views about the issues, causes and solutions. If participants have congealed views, it might be necessary to devote a lot of attention to "decongeal" perspectives, so that an exploration of a broader spectrum of causal relations and possible measures becomes possible. The design of the scaffolding is also dependent on the levels of awareness among the participants. Of course this becomes a complex matter when the participants' structures of meaning-making are very different, i.e. when some participants have very weak complexity and perspective awareness, while others have strong levels of awareness. In the groups we have worked with, there certainly were such differences among the participants; no group was completely homogeneous. Participants with stronger complexity awareness may become impatient with the tendency of participants with weaker complexity awareness to go on talking about one concrete example of an issue after another. The latter feel that they add new material to the conversation, whereas the former feel that they keep repeating essentially the same thing. Participants with stronger complexity awareness may want to proceed to talk about the problematic on a higher level of complexity: the general category of the problematic, its causes and consequences, or even problematic properties of the system sustaining the existence of the problematic. The facilitator may here assist participants talking at concrete and abstract levels in their storytelling in order to arrive at a more general formulation of the essential patterns of the issues they are concerned about. A participant with stronger complexity awareness may be offered tasks in the process that makes productive use of their capacities, so as to make the process more interesting to him or her. Such a task may, for example, be to write up summary descriptions of the group's work for review and for communication with other stakeholders.

Functions of Scaffolding Methods

Reviewing the literature on change methodologies, which is small in volume, we conclude that the field is poorly conceptualized in terms of an analytical framework for comparing and analysing what the methodologies really do and how.[14]

In her doctoral dissertation, van der Zouwen (2011) analysed the conditions for successful use of change methodologies, including discussing the design properties of the methods themselves. However, the general impression is that much remains to be done in order to gain insight into what functions scaffolding methodologies actually fulfill and in particular what elements of the methodologies are helpful in assisting groups to work effectively together on complex issues.

We have started to explore this issue by compiling an inventory of the functions different methods are supposed to fulfill. Sources for the items in this inventory are our reading of manuals, articles and books, as well as our own observations and inferences in action research and in conversations with experienced facilitators. The list presented in Table 3 should be regarded as work in progress: we expect to investigate these functions more systematically in the near future.

We have organized the functions in six categories. The first is called *Attentional support*, and comprises the functions that cater to the needs of individual participants and the group as a collective to focus, structure and strengthen attention so that effective work on significant issues become possible. The second category is *Relationships*, relating to the need to support the establishment of contact and trust between participants, thus paving the way for openness in communication. The third category is *Attitudes/Feelings*, involves supporting, if necessary, a shift in the attitudes and feelings among the participants toward a sense of ownership, motivation and hope regarding the issues at hand. The fourth category, *Understanding*, is of course a major one,

Table 3: Functions of change methodologies

Function	Objectives of Methods
I. Attentional support	• Focus the attention of the participants on the same issue/topic in order to enable a group to work together. • Structure the attention of the participants on one task at a time, e.g.: make inventory of relevant issues, formulate goals, analyse issues, develop of action plan, coordinate implementation, plan assessment. • Making unreflected assumptions and interpretations visible and opening up (even disrupt) the participants' mental frames in order to open space for new approaches and ideas.

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[14] Some discussion of the characteristics of change methods are, however, offered in Holman et al. (2007).

Function	Objectives of Methods
II. Relationships	• Create safe space: a sense of being welcome and establishment of basic trust that lowers the threshold to engage in conversation and collaboration. • Create propitious conditions for establishing rapport and personal relationships between people who did not know each other personally before. • Release energy locked in conflictual relationships in order to enable a sense of community to emerge and to enable creative and productive use of differences in perspectives and interests.
III: Attitudes/Feelings	• Mobilize commitment, energy, hope that common efforts might lead to meaningful outcomes. • Shift focus from obstacles, frustration and blaming towards possibilities. • Strengthen the participants' feeling of accountability for actions and outcomes.
IV. Understanding	• Clarify and formulate the participants' interests and needs so that these can be communicated and understood by decision-makers and/or other stakeholders. • Share relevant information so that participants can see and understand the conditions, causal principles and possibilities of the larger system the issues are embedded in. • Arrive at a shared narrative of the situation and a common strategy. • Increase awareness of the properties of diverse perspectives, enabling the participants to make creative use of the tensions between different perspectives on causality, values and desirable measures.
V. Empowerment	• Create propitious conditions for mobilization and activation of the participants' knowledge, skills, creativity and other resources. • Neutralize asymmetrical power relations that obstruct effective collaboration.
VI. Coordination of action	• Coordinate implementation of a strategy through planning, management and evaluation.

because participants need to educate themselves about the different conditions, possibilities, potential consequences, etc., involved in managing complex societal issues. The fifth category, *Empowerment* is about supporting the development of the participants' self-image and feelings so that they feel they have the potential to significantly influence the complex issue they are concerned about. The sixth and last category, *Coordination of action,* involves supporting the process of planning the implementation of the ideas the group has developed in their strategy-finding process.

Our experiences through six years of investigating and putting TIP into practice - as well as coming into contact with other change methodologies through our research and networks - have shown us that most of the above functions are somehow central to most methodologies. Yet when speaking to practitioners of different methods, we have found that different functions have been emphasized, depending on both the context the method is designed for, and the underlying values and theories that were central to the development of the methodology itself. Also, the way in which they seek to scaffold the functions may differ significantly. For example, as regards *Attentional support*, one method may emphasize the importance of following participants' evolving interest and reasoning, continually setting and resetting the focus for discussions, and use only minimal facilitation to structure the exchange. Others may be much stricter, with facilitators making sure all attend to the specified topics in a given order. As regards supporting a group's growing *Understanding*, some methods' designs show a bias towards facilitating the emergence of innate creativity of the participants, and assume that understanding emerges organically from this process. Again, other methods are firmly structured and facilitated so as to make the issue-complexity visible in order for the participants to understand the deep levels of cause and effect, before creative solutions are at all considered. As regards how to establish and work with conflict in the field of *Relationships*, some methodologies may actively focus on and intervene in existing conflicts between (groups of) participants, whereas others may actively marginalize symptoms of conflict by focussing on a common task. More research is needed to further elucidate such differences. We believe that a clearer understanding of what functions various forms of scaffolding actually perform for groups engaged in strategy development can lead to more skillful design of methods, as well as more skillful in-process facilitation on the part of facilitators.

Facilitation Dilemmas

A challenge for the study of the functions of methodologies is that while a method itself may be structurally designed to support certain functions, through its step-wise design, rules and/or specific techniques, other functions may be scaffolded more implicitly, through the facilitator's skills. These functions are not static. In real time, "situational polarities" emerge through the process, leaving it up to the facilitator to make moment-to-moment choices. "*How long shall I let this one person that keeps repeating the same point continue? Shall I openly acknowledge the conflicting camps in the room, when they themselves do not mention these? Can we take the next step now so we do not run out of time towards the end?*" In our experience, even with a very structured method such as TIP, there are still times when hard, in-the-moment choices surface during the process itself; demanding skills of timing, how to tailor the method-steps to fit the specific actors, as well as in-process conflict management; skills that depend on the meaning-making of the facilitator in the moment, of how she or he understands the context, the function of each part of the method and what emerges in the group processes. It must also be noted that while some facilitator techniques may be well in line with the explicitly stated goals and principles of the methodology, others may be of a more sensitive nature and not explicitly acknowledged. An example would be when a facilitator actively seeks to marginalize a talkative participant who is perceived to be obstructing the process, without this being openly discussed. When it comes to the sensitive issues of voice and power, there are many such questions of an in-process nature left to explore.

A Note on the Issue of Power

It is important at this juncture to raise the issue of power since methods and philosophies for structuring group work on complex issues, especially in the fields of deliberative democracy and conflict management, are sometimes criticized for being ignorant of or blind to power issues.[15] A closer look at the contents of the critical comments reveal that there are several different concerns involved, which may lead to confusion if the perspectives generating the comments are not articulated clearly. Two examples of conversations we have had may be instructive. On one occasion, in a method demonstration seminar, we worked on the issue of how to deal with unrest in classrooms. One seminar participant was quite upset that we as facilitators did not take the initiative to raise the gender dimension of the problematic. The participant felt that a failure on the part of the facilitators to actively address that boys and girls may play very different parts and be affected in different ways by classroom disorder would make the facilitators part of the structures that maintain a gender blindness in our society. Her position was that the facilitator has a moral obligation to advocate a power perspective, even if the members of the group in question would not voice such concerns. On another occasion, a participant in a seminar criticized the absence of a power perspective in our presentation. On further inquiry, it turned out that this person was concerned about the problem of group members who feel powerless and have low self-confidence and therefore don’t speak up or engage actively when the group talks about issues they are concerned about.

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[15] See e.g. the discussion in Kadlec & Friedman, 2007. Some of these critical comments seem to address the critics' poorly informed assumptions about how these methods function rather than the how the methods are actually practiced. This is, however, a too complex topic for this article.

There are many possible perspectives on power. In table 4 we outline four approaches relevant to scaffolding in work on complex issues, drawing on Ken Wilber’s quadrant model for classifying perspectives (Wilber, 1995; 2006). The first column comprises perspectives that stress the subjectively experienced meaning of identities, relationships and other relevant constructs. The second column represents perspectives that look at phenomena from the outside and stress patterns that can be objectively described and evaluated.

Table 4: Four perspectives on power relevant to scaffolding of group processes

	Interior focus	**Exterior focus**
Individual focus	*Construction of power:* The subjectively experienced sense of being able to exert influence in significant issues; the sense of external or internal locus of control. *Adherents’ prescription:* Focus on empowering individuals through strategies that assist transformation of self-image and internalizing locus of control.	*Construction of power:* Interpersonal behaviours that create unequal or equal relationships; e.g. behaviours that aim at dominating/subordinating others. *Adherents’ prescription:* Focus on neutralizing domination behaviours by exposing them and by using countertactics. Support use of behaviours that lead to fair interactions.
Collective focus	*Construction of power:* Socially constructed attributions and identities that create power differentials between people due to their ascribed identity. *Adherents’ prescription:* Focus on exposing and transforming social constructions and attitudes that attribute high/low rank/status to certain categories of people (men/women, white/black, people with lower or higher education, etc.).	*Construction of power:* Structural power differentials determined by positions in unequal social systems, unevenly distributed power resources, etc. which create unfair conditions. *Adherents’ prescription:* Focus on exposing structural inequalities and power differentials in order to stop or prevent abuse of power and to contribute to structural changes towards more equality.

All four power perspectives raise tricky ideological, moral and/or ethical questions regarding the roles of facilitators. A power-sensitive approach means that the facilitator has to ask hard questions about whose best interests he or she serves, and how these interests are constructed. Should the facilitator only offer the services that the group asks for, irrespective of the facilitator's own value system? What if the facilitator notices behaviours and conditions that he or she feels are unfair, but none of the group members seems to be aware of what is going on? Does the facilitator have a moral obligation to point out, expose and counteract domination behaviours, social constructions that create an unequal power distribution or structurally determined injustices? These are, of course, questions that cannot be answered in the abstract, but must be responded to in a contextualized way.

When the existence of injustice and inequality due to an uneven distribution of power in societies, in organizations and in interpersonal relationships is the main preoccupation, it is quite natural to be highly sceptical towards the whole business of methods and approaches that aim at involving stakeholders in a common, collaborative process on how to manage controversial societal issues. One is then more inclined to either take on the role of advocating certain views or, particularly if one happens to be an academic researcher, to be careful to keep an outsider position in order to stand free from the establishment and critically analyse societal conditions and processes. These critical observers of course play a very important role by pointing out problematic phenomena.

A Note on the Issue of Problem Ownership and Implementation

Methods for scaffolding deliberative processes may be very powerful in creating favourable conditions for the development of well-designed strategies. However, these methods cannot in themselves guarantee that the measures proposed would actually be implemented, if crucial decisions have to be made by decision-makers who did not participate in the process. Our experience, which is echoed by several practitioners, is that the participation in deliberative processes often leads to deep insights into the needs of a problematic as well as to a commitment to take certain actions. The participants really own their issue and the strategies they have developed. However, this understanding of the issue and the commitment to act is not easily transferable to decision-makers and other stakeholders who did not participate in the deliberative process themselves. Using a deliberative process for issues where crucial resources are controlled by non-participants is a risky venture, because hopes may be raised through the process that are later squashed by disinterest, lack of understanding or obstruction on the part of decision-makers. Not only is there a considerable risk that good plans will be disregarded, but also that the lack of implementation will leave participants feeling more disillusioned and powerless than if they had not engaged in the process at all.

Diffusion of Social Innovations

It seems evident that the society indeed faces a number of complex societal issues where the need to develop more effective strategies for managing serious problems is very strong. It also seems evident that there *are* forms of scaffolding that might contribute to a better capability to manage complexity. However, the existence of methods that fit needs does not automatically mean that those who have the needs actually make use of the methods' approaches. If we think of new forms of scaffolding, such as TIP and similar methods, as social innovations, the diffusion of such innovations becomes a key topic for study. In a much-cited article, Akrich, Callon and Latour (2002), outlined a non-linear approach to the study of innovation and innovation diffusion. They contrasted their own perspective with a more traditional, linear, explanatory framework as follows:

> […] the success of an innovation may be explained in two different ways, one emphasising the innovation's intrinsic qualities, the other on its capacity to create adhesion between numerous allies (users, intermediaries, etc.). In the first case, we use the term "diffusion model" (the innovation becomes widespread due to its intrinsic properties); in the second case, we use the term "model of interessement" (the fate of the innovation depends on the active participation of all those who have decided to develop it). (Akrich et al., 2002: 208) [16]

Akrich et al. view successful innovation processes (including the widespread adoption of the innovation) as results of an alignment of the interests of many stakeholders around the innovation, often by means of adapting the original form of the innovation to fit the different interests stakeholders have. Only when an innovator succeeds in attracting interest in the innovation among many different actors, playing different roles in relation to the innovation, can the innovation become adopted among potential users.

When a social innovation has been made, it is still uncertain if it is useful in other settings than the original one. It has to be tried out, adapted to local conditions and evaluated. Obviously, a process of diffusion of a social innovation involves many steps and is dependent on different types of conditions. Information about the innovation must reach potential users, they must understand the potential of the innovation, they must become convinced about the desirability in trying out the innovation and they must allocate the necessary resources (time, work, money) in order to start making practical experiments with the innovation. Our efforts to find suitable research-based analytical frameworks for studying diffusion processes of social innovations have not been very fruitful, the field seems to be under-researched.[17]

Our experiences suggest that social innovations, because they are embedded in social systems and deal with social interactions, face considerable resistance to diffusion and adoption. It may be easier to evaluate the potential benefits of technical product and process innovations, while the effectiveness of social innovations are more difficult to assess. However, we believe that the resistance to diffusion and adoption may be strongly reduced along certain paths, namely in networks of preexistent trustful relationships between people. It seems that the propensity of potential users of social innovations to devote attention to learning more about social innovations and start experimenting with them is far higher when the champions of the innovations are already known and trusted through previous contacts unrelated to the present innovation.

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[16] The French concept "interessement" has been left untranslated by authors writing in English, because of difficulties in finding an appropriate translation.

[17] Everett Roger's (1962) classical book *Diffusion of innovations* discussed such an analytical framework, but subsequent work seems to be focussed on case studies rather than theory-building.

The story of how TIP, a method that can be regarded as a social innovation, was introduced in Sweden may be instructive in this regard. TIP was developed in the USA by Sara Ross, in the context of her research with deliberative democracy processes at the Kettering Foundation and then independently. One of us, Thomas Jordan (based in Sweden), got acquainted with Sara in 2000 through an Internet forum for people interested in the work of Ken Wilber, integral philosopher. We corresponded through e-mail on the basis of shared interests in applying adult development and integral theory to political/societal issues. The main reason TIP caught Thomas Jordan's interest at the time, was the ingenuous way in which the method scaffolds the participants' awareness of and possibilities of utilizing different perspectives on complex societal issues. Thomas read up on the method descriptions Sara sent over, and started on a tentative scale to experiment with the method, mainly the part that assists groups in looking at an issue and developing an action strategy through formulating a number of fundamentally different perspectives that could be applied to the issue. At first, these experiments were made with participants in workshops and students at the university of Gothenburg, and not in "live" settings with participants who really were engaged in developing strategies to deal with an issue they were concerned about. The experiments were encouraging: the method seemed to have a considerable effect on participants' views on the issue, as well as on their attitudes towards perspectives quite dissimilar from their own. Four former students who shared Thomas interest in conflict management and adult development gradually developed interest in learning how to facilitate TIP. At this point in time, about 2006, TIP had a feeble foothold in Sweden, in the form of a small group of people who believed in the potential of the method, had started to develop necessary facilitation skills and were in the process of becoming ambassadors for the model.

We then started to think about how to draw attention to the potential of TIP among actors who really need support in developing action plans regarding difficult societal issues: officials in public administration, politicians, NGOs and residents in communities with different kinds of problems. We wrote introductory texts about TIP in Swedish, trying to find a language that would make sense to prospective stakeholders. However, we did not have any readily available channels for reaching decision-makers or other actors who might be in a position to want to try out working with TIP.

The first real opportunity came up when one of us made a presentation of a commissioned report for the board of Gothenburg's crime prevention council. The discussion happened to present an opportunity to mention some aspects of the TIP method. The mayor and some other board members got interested, and asked us to make a demonstration of the methodology at a full-day board meeting already scheduled a few weeks further on. This demonstration convinced the board members that this was a methodology worth more experimentation, and we were asked to do a pilot project in one or two Gothenburg suburbs. This pilot project eventually resulted in Pia Andersson's comprehensive study *Perspektivvandringar (Perspective walks*, Andersson, 2008). Apart from reporting on the pilot groups, the study was written in the form of a manual on how to facilitate TIP and thus the intended readership was mostly potential facilitators. So at this time a well-written and comprehensive Swedish text on TIP was available.

TIP was developed as an approach to deliberative democracy. It was designed to support citizens in developing strategies to address issues they were concerned about in their communities. TIP has been shown to be effective in mobilizing stakeholders' engagement and in facilitating a process that leads to more integrative, more effective strategies for addressing complex issues (Ross, 2007; Andersson, 2008; Inglis, 2011). When we started to plan a research project, we got in touch with an organization that seemed to need exactly what TIP had set out to provide. The Swedish Union of Tenants (hereafter SUT) had a national project called "Uppdrag M," which aimed at developing strategies for involving tenants in the renewal processes in the large metropolitan suburbs in Sweden, comprising high-rise apartment buildings constructed in the 1960s and 1970s. Over time, these suburbs have deteriorated in both physical appearance and in social status. In many of these suburbs a large proportion of the residents are immigrants from troubled parts of the world, for example former Yugoslavia, Kurdistan, the Middle East, Somalia and other parts of Africa. SUT saw a need to develop methods for mobilizing tenants, many of whom lack previous experience in Western-style non-governmental organizations, to advocate their own interests in relation to large property managers and authorities.

At a workshop connected to Pia Andersson's pilot study in a Gothenburg suburb, we met representatives of SUT who were interested in exploring the possibilities of using TIP in their work. We had further conversations with a couple of officials at the regional branch of SUT who proved to be sufficiently interested in our approach to be willing to enter a partnership with us in the form of a joint research grant application. There was at the time (in 2008) an opening for applying for research grants at the Swedish Knowledge Foundation in a special programme supporting research about "societal entrepreneurship." Our application was successful and the project was formally started in the beginning of 2009.

However, even though the fit seemed extremely good between our ambition to use TIP and SUT's need for more effective ways of mobilizing residents in suburbs with a high proportion of immigrants, TIP did not take root in SUT. There were several reasons for this. One was that it turned out that only a minority of the officials of SUT were in favour of working actively with mobilization of suburban residents through presence in the neighbourhoods. The majority favoured a more focussed role for SUT as advocating tenants' interests in relation to landlords. Another reason was that several of the managers and key persons in SUT who supported the endeavour got long-term sick, transferred to other positions or left SUT to work elsewhere. A third reason was that some local representatives of SUT were involved in their own approach to working with residents, and (so is our interpretation) regarded TIP as a competing approach, "not invented here." Looking back it seems we didn't succeed in alleviating these concerns or sufficiently aligning with the work already being done. We spent a considerable time in meetings with stakeholders and the local project leaders in "Uppdrag M," but our approach didn't seem to appeal sufficiently. Thus, we did not succeed in arranging for the action research groups through SUT on the scale originally planned and SUT did not engage in experimentation with TIP as we had expected they would be keen to do. However, through two officials in SUT, not involved in "Uppdrag M," who were involved with projects in other suburbs, we eventually got the opportunity to work with two groups using TIP. These officials could easily tailor the TIP process to suit theirs and our purposes, while focusing on some very concrete topics of concern that had already been voiced in these neighborhoods and which they were looking to engage.

While working hard and spending many hours in meetings with SUT officials with little concrete results in terms of interest in using TIP, another actor turned out to be a more receptive channel for the TIP approach. A group of organizational consultants at a large Swedish organization managing insurance capital on behalf of employers and trade unions, AFA, was in 2009 in the process of starting a three-year project on methods for preventing threats and violence in workplaces. One of the consultants knew Thomas Jordan through participation in a series of training workshops on conflict management and through collaboration in a two-year project on strategies for developing robust collaboration cultures in workplaces. She was somewhat familiar with TIP through participation in a workshop some years earlier and was interested in exploring the potential of the methodology after having read Pia Andersson's report *Perspektivvandringar*. She felt that TIP might be a suitable method for the new project. A series of meetings and workshops eventually lead to AFA adopting TIP as a method in the project, which involved training several of AFA's consultants in facilitation skills. The project had significant good results that have been documented (in Swedish) and are now disseminated through AFA's contact network (which is very large in Sweden). What will come of this we cannot know, of course, the innovation diffusion process is still in an incipient phase.

The story of how TIP was introduced in Sweden fits well into the *interessement* perspective of Akrich et al. Even though there seems to be a good fit between what the innovation has to offer and the needs certain actors have, the adoption process is dependent on the alignment of the interests of many individuals and organizational entities, who are always embedded in their own particular lifeworlds, concerns and trajectories. One conclusion from this story is that it is probably not a successful strategy to look for the best fit between need and innovation and then proceed to try to convince the most "needy" stakeholders that the innovation is what they need. It is more likely that a social innovation will be adopted if champions of innovations use already established contact networks where there is a preexisting trust in competence and motives, even if the fit between the need and innovation is not the strongest possible. We think it is a useful metaphor to think of networks of relationships characterized by a high level of trust as a system of wires with a low level of resistance. Ideas can flow easily back and forth along the wires. Where no previous trustful relationships exist, there are no wires, and hence there is a considerable resistance to be overcome before a flow can start. This means that reaching outside preexisting networks places particular demands on those who set out to spread a social innovation, in terms of acting skillfully to make possible an alignment of different stakeholders' interests. When there are a few keen actors in an organization with many internal dilemmas and conflicts, it is important to carefully gauge the likeliness of a broader interest in the innovation in that context. In our case, we found it was easier to initiate a TIP-process within SUT when there were concrete issues that needed to be resolved and they were actively looking for ways to work on these. It seems important to listen with a keen ear for such issues, which may serve as entry points for the innovation, provided that its sponsors are responsive enough to the needs expressed by the stakeholders. In practice, looking at the example of innovations in the field of scaffolding, this might mean that sponsors/process leaders would arrange a meeting where all relevant stakeholders are present, and instead of presenting the method as such, ask the stakeholders what their dilemmas and goals are, and have an open discussion about which kind of scaffolding might serve those ends. Had we approached SUT in such a way (i.e. used what we below describe as "dialectical meaning-making"), we may have either been more successful in spreading the innovation, or much earlier looked elsewhere for a good fit.

Change Agents Working with Complex Societal Issues

Studying Individual Change Agents/Societal Entrepreneurs

One of the ideas we had when we started our research project on societal entrepreneurship was to search out and interview a limited number of successful societal entrepreneurs in order to analyse their meaning-making structures. This was a minor part of the research project, intended to offer some comparative material. The main study aimed at analysing the transformations of meaning-making among people who were quite inexperienced in developing action strategies for complex societal issues. The interviews with successful societal entrepreneurs could, we thought, provide us with some insight into characteristics of meaning-making that contribute to desired outcomes. We spent quite lot of time to discuss various criteria for the target group. We wanted to find societal entrepreneurs with documented successful outcomes regarding complex societal issues. We came up with the following criteria:

- Successful. The societal entrepreneurships should be successful in a convincing way, i.e. having resulted in sustainable operations or other substantial outcomes.
- Constructive collaboration. The initiatives should be of the kind where it is necessary to establish a constructive collaboration or at least secure support from stakeholders with dissimilar perspectives and/or interests.
- Key persons. There should be a limited number of key individuals who have played decisive roles in the achievements of the initiative.
- Access. The operation or project should be open to the public in the sense that a target group can benefit from the initiative irrespectively of religious affiliation, ideology or resources.
- Innovative. The initiative should have significant innovative elements rather than replicate already existing operations.

When we started to look for initiatives that fitted our criteria, we discovered that individuals that could clearly be seen as successful societal entrepreneurs were actually quite hard to find. This is in itself an interesting result. It seemed there were few individuals, at least in Sweden, who had been successful in achieving significant positive outcomes in complex societal issues.

Reviewing the cases we studied through our series of interviews, as well as our other case studies, we learned that the relationships among meaning-making structures, goal construction, action strategies and outcomes in societal change agency are more complex than we were initially aware of. We realized that it is mostly not possible or meaningful to try to compare how successful are the change agents or societal entrepreneurs with different levels of complexity awareness. A major reason for this is that a person with rather weak complexity awareness will engage in different types of initiatives than a person with a strong complexity awareness. They will find different types of goals and projects compelling, which means that a comparison of their respective strategies and rate of success becomes inappropriate. Someone with weak complexity awareness may be very successful in an initiative that does not require advanced capacities for managing complexity. On the other hand, people with weak complexity awareness will mostly not formulate goals and tasks around influencing complex societal systems or initiating transformative processes among major institutional actors. Similarly, a person with strong complexity awareness is not necessarily more likely to be more successful than a person with weak complexity awareness with an initiative that does not really require an advanced capacity to manage complexity.

We can probably expect that people who on a voluntary basis seek out the role of being a societal change agent will construct their goals and initiatives in a way that is congruent with the level of complexity of their meaning-making structure. However, not all individuals who find themselves in a role where they have responsibility for dealing with a complex societal issue have sought out the role themselves. They may be officials in a public administration or organization, for example, where they have been appointed to be in charge of a task that involves responsibility for managing a complex issue. In such cases, we would expect that individuals with weak complexity awareness will be less successful in achieving significant outcomes than individuals with strong complexity awareness.

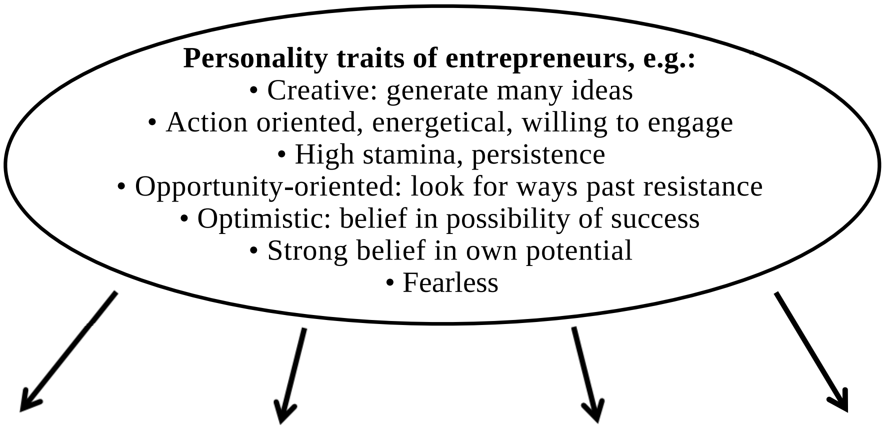
Four Types of Societal Entrepreneurship

During the course of analysing the case studies, three distinctions emerged as potentially significant for classifying types of societal entrepreneurship. The first distinction that seemed relevant to make was between entrepreneurship that aimed at establishing a new operation or carrying out a particular project that serves perceived societal needs on the one hand, and entrepreneurship that aimed at influencing how *other* institutions or established networks operate to serve societal needs. In the first case, the entrepreneurs have a large amount of control over the organization, operation or project they are establishing. They are usually dependent on external stakeholders in issues like funding or permissions, but otherwise they can design and develop their own system. Examples of this kind of entrepreneurship could be starting up a cooperative for reintegrating former drug abusers in the labour market, or carrying out a project for restoring a natural habitat for endangered animals. In the second case, the entrepreneurs' aims can only be attained if they succeed in influencing established systems to change in significant ways, e.g. to get the police to develop better routines for working with honour-related crime, or influencing businesses to develop more environmental awareness in their purchasing strategies.

The second distinction was between entrepreneurs who develop visions about what they want to happen and then proceed to realize those visions on the one hand, and entrepreneurs who are genuinely process-oriented in the sense of focussing on creating favourable conditions for involving diverse stakeholders in co-creation of strategies that inquire into and exploit the room to maneuver that the actual situation offers. This distinction seemed important in order to pinpoint typical patterns of some societal entrepreneurs' approach to their work, and not least to explain the shifts over time that we could see in some of our case studies (Sander & Jordan, 2009, 2011; Emanuelsson, 2011).

The third distinction emerged rather as an afterthought that seemed necessary in order to cover the "lower" end of the spectrum. This distinction is between entrepreneurs whose activities are confined to separate, sometimes spectacular, events on the one hand, and entrepreneurs aiming at developing operations or attaining systemic changes in a more long-run perspective on the other hand.

These three distinctions lead us to define four types of societal entrepreneurship: *event-focused, operations-centered,*[18] *systemic* and *dialectical* (Figure 3). Note that societal entrepreneurs may share the same personality traits, i.e., a typical entrepreneurial personality, but nevertheless practice quite different types of societal entrepreneurship because they operate from different structures of meaning-making (mainly different levels of complexity awareness and perspective awareness, according to this model).



Personality traits of entrepreneurs, e.g.:
- Creative: generate many ideas
- Action oriented, energetical, willing to engage
- High stamina, persistence
- Opportunity-oriented: look for ways past resistance
- Optimistic: belief in possibility of success
- Strong belief in own potential
- Fearless

Event-focused societal entrepreneurship	**Operations-centric** societal entrepreneurship	**Systemic** societal entrepreneurship	**Dialectical** societal entrepreneurship
• Isolated concrete ideas • Sometimes impulsive character • Short time horizon, limited perseverance • Somtimes motivated by desire for personal place in the limelight • Hoped-for outcome: successfully realized event that gained widespread attention	• Aims at serving a public need or solve a societal problem • Focus on establishing an operation or carry out a project • Time horizon often about 1-3 years, even if the goal is to establish a permanent operation • Hoped-for outcome: an operation that serves its aims well or a project that attained its goals	• Aims at attaining changes in the way parts of the societal system operates (e.g. educational institutions, labour market, social services, decision-making processes in public admininstration) • Long-term orientation due to ambition to change structures with a considerable inertia • Develops strategies involving persuasion, demonstrating viability of ideas, development of plans and policies • Hoped-for outcome: systemic change	• Aims at contributing to the realization of the potential for positive societal change that is present in a particular context. • Strong process orientation, creates forums for genuine dialogue among diverse stakeholders • Working with stakeholders' perspectives in a transformative way is a prominent element • Inquires continually into the need for reevaluating own perspective • Hoped-for outcome: transformative processes

Figure 3: Four types of societal entrepreneurship

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[18] Operations-centered societal entrepreneurship as a concept overlaps almost completely with the more commonly used term "social entrepreneurship," even if the aspiration is to contribute to societal betterment by building a particular operation. It is a bit awkward to coin a new concept here, but we think the juxtaposition of the four subtypes of entrepreneurship aspiring to contribute to the social/societal good is clarifying.

Event-focused societal entrepreneurship is characterized by the focus on staging single events. One type of event-focused societal entrepreneurship involves spectacular events, where the motivation driving the entrepreneur is to have fun, do something personally satisfying and possibly place him- or herself in the limelight. A person has an exciting idea about something that could be done, and proceeds immediately to try to realize the idea. The idea usually involves something quite concrete that can be staged in a near future with resources that happen to be available or can be mobilized quickly. The societal utility of the idea is in this case more a necessity for earning acclaim from the public, rather than the actual driving motive of the initiative. Another, more common type of event-focused societal entrepreneurship is when individuals or groups arrange single events, like a fund-raising concert for charity. Event-focused societal entrepreneurship has a short time horizon and does not involve complex work building an organization or planning a long-term project with different phases. The strategies used often involve arousing enthusiasm among others for a stimulating idea, cajoling decision-makers to make resources available and using trial-and-error experimentation to develop a way to realize the vision. Event-focused entrepreneurship is often fragmentary, focused on realizing single events that are not part of a long-term plan, and the results are seldom lasting.

Operations-centered societal entrepreneurship (= social entrepreneurship) involves people who have perceived a problem or need in the society that ought to be solved/served or have developed a vision about an operation or a project that would enrich the society in some way. Focus is on realizing the idea by establishing and managing one or several operations that serve the needs of a particular group or by carrying out a project that results in certain events, plans or artefacts. In order to attain the goals, the societal entrepreneur needs to mobilize resources, get necessary permits and establish an operation or project organization. However, operations-centered societal entrepreneurship involves developing a new operation or a project, relatively independent of already existing institutions and structures, which means that there is a large measure of autonomy in designing and managing the operation. These types of initiatives often have a certain linear character: an idea is formed, plans are developed, resources are mobilized, an operation or a project is established, which result in more or less successful outcomes. The time horizon is often one to a couple of years. Some operations-centered societal entrepreneurship initiatives are pure projects: when the plans have been realized, the project is completed and the entrepreneur starts to develop a new project. In other cases the initiative is intended to create a long-lived operation, such as a cooperative.

Systemic societal entrepreneurship is distinguished by its ambition to influence how *other* actors and systems operate, e.g. administrations, authorities, businesses and networks of different entities. The societal entrepreneur has identified some type of unsatisfactory state of affairs or a lack of something that ought to exist, or has a vision about how the society could be better if established societal institutions or systems change in terms of priorities, methods of working or structures. The systemic societal entrepreneur usually has a rather elaborated narrative about what is wrong or wanting in society and what needs to happen and how. The strategies used involve formulating visions, persuading decision-makers about the desirability of one's own ideas, and trying to prove, e.g. by pilot projects, the viability and desirability on doing things differently and better.

Dialectical societal entrepreneurship is characterized by a strong process orientation, involving not only strategies and actions, but also goal formulating. The foundation is a commitment to a certain problematic or to certain values, but the dialectical societal entrepreneur is careful in not going too far in specifying goals, visions and strategies. Focus is on establishing good working relationships with relevant stakeholders, and invite them to participate in genuine dialogues with a large measure of openness to the ideas, learning, needs and possible synergies that are discovered and developed when different points of view and interests meet and interact in a creative process. The worldview of dialectical societal entrepreneurs is based on a keen awareness of the complexity of the context one operates in, which has its own structures, conditions and ongoing processes that present both restrictions and opportunities that need to be discovered in order to find a navigable course. Strategies used involve reviewing and revising one's own perspective, visions and conceptions about desirable goals, as well as creating forums for creative and integrative meetings between different perspectives.[19]

Dialectical societal entrepreneurship is different from the other three types in one significant way: it has a genuinely dialogical orientation, whereas the other three can be described as *monological*. "Monological" here means that the actors are embedded in *one* perspective, their own. This perspective is perceived as the most correct, most relevant perspective. The environment is perceived and evaluated from within one's perspective. Issues and events are given meaning in terms of one particular narrative, one set of values and beliefs. Goals and strategies are formulated in the terms and conceptions of this point of view, and therefore get a monological rather than dialogical character. A monological worldview leads to a dualistic approach: my/our perspective is pitted against other perspectives, which are viewed as opposing or at least as obstacles to the implementation of already formed and elaborated goals, measures and strategies. A monological mindset is monological because of a weak awareness of perspectives as variables. One does not perceive one's own perspective as variable, as a system that is likely to change through the insight gained when comparing and possibly integrating different perspectives. A dialogical approach is a natural outcome of strong perspective awareness, where there is an awareness of the properties of different perspectives and of how these properties have consequences for perception, interpretation and evaluation of different issues. If one has a monological mindset, one often has a tendency to try to convince others of the correctness of one's own views, prove to them that they have to change their mind, or put pressure on them to accept one's own ideas. With a dialogical mindset, the natural approach is to have an inquiring and openended attitude, curious about what will emerge when all parties have gained a deeper understanding of each others' conditions, views and interests. The dialectical characteristic shows up in the routine expectation of the necessity for multiple parties to articulate, reflect on and then to coordinate their multiple perspectives into some kind of synthesis appropriate for the matter at hand.

It might be in place to point out that there is no straightforward relationship between types of societal entrepreneurship and the likelihood of successful outcomes. Societal entrepreneurs in all four types can be very successful, but the *character* of the initiatives they engage in tend to be quite different. It is consequently unlikely that an event-focused societal entrepreneur would even engage in initiatives that aim at achieving significant systemic changes or contributing to transformations of the perspectives of stakeholders in different organizations.

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[19] See the next section for a more comprehensive discussion of dialectical meaning-making.

Dialectical Meaning-making and its Consequences for Entrepreneurial Action

In this section we will take a closer look at the characteristics of dialectical societal entrepreneurship. First we need to give a little background by relating how our present conception evolved. The case studies we made presented a number of examples of a certain pattern of meaning-making and action that took different forms in different cases, but seemed to share a common underlying logic. One of the more obvious pointers to such a pattern was that a number of the change agents Jordan interviewed in one of the earlier research projects (Jordan, 2006a) used quite similar words for describing their own role in the change processes: *catalyst, enzyme, match-maker, midwife.* These words/metaphors seem to have in common that they point to a worldview where the self is seen as an active agent in a complex environment which has already a lot of structure and processes going on that one maybe can influence, but not unilaterally control or program. We sought descriptors that fit the pattern we intuited was there. We found that Michael Basseches's framework (1984) for describing dialectical thinking is very helpful for pinpointing and explaining the observable patterns in the case studies.[20] Basseches identified a large number of dialectical "schemata," or "thought forms" in interview transcripts. He organized them into three categories: motion (or process), form (or context) and relationships.[21] Drawing on both theoretical frameworks (see Jordan, 2011) and our case material, we have adapted Basseches's framework somewhat in order to point out salient features of the worldview that generates dialectical societal entrepreneurship. According to this conceptualization, five types of awareness characterize dialectical meaning-making.

A person with strong ...

... *complexity awareness* expects (has a pre-understanding) that phenomena usually are caused by complex conditions and causal relationships (linear, mutually conditioning factors and systemic) and that it is often very useful to inquire into and gain knowledge about causal relations and possible consequences. People with strong complexity awareness therefore actively engage in seeking out knowledge and insight about issues relevant to their aspirations. This propensity to expect that there are significant things to be learned and to start looking for a deeper understanding of underlying causal relations is, according to our experience, often absent among people with a weak complexity awareness.

... *process awareness* notices and seeks understanding of the character of ongoing change processes. Everything is seen as embedded in processes that change conditions over time. There is also a strong process orientation, in the sense of expecting that the process of dialoguing and acting will lead to new insights, ideas, assessments and intentions. There is an openness and even positive expectations regarding testing and transforming own assumptions and views. People with strong process awareness often find it important to create spaces where inquiry, discovery and generative dialogues become possible.

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[20] Later Barrett Brown's (2011) doctoral dissertation confirmed many of these patterns, even though Brown used a different investigation strategy and a somewhat different conceptual framework for analysing societal change agents.

[21] A fourth category, transformation, comprised those schemata that combined several schemata from the other three categories.

... *relationship awareness* notices properties and processes in relationships, in relations between people as well as relations among phenomena of other kinds. Someone with strong relationship awareness actively engages in establishing relationships and influencing their qualities in order to make constructive interaction possible. This includes taking care to act with an attitude that invites contact, trust and respect.

... *context awareness* reflects on how particular issues are embedded in a larger context that has its own properties and processes. No phenomenon exists separately, but is in sometimes insidious ways conditioned by the properties of the context in which it is embedded. Systemic qualities, such as organizational structures and their consequences, culturally constructed norms and behaviour patterns, economic mechanisms and power structures are noticed and considered. People with a strong context awareness often develop strategies that either exploit the room to manoeuver present in an otherwise constraining context, or aim at influencing and changing how that context is structured and operates.

... *perspective awareness* notices and seeks insight into the properties of the perspectives different actors use in order to make sense of themselves and their environment. The meaning of events and issues is dependent on the properties of the perspectives used to perceive and interpret them. Perspectives are seen as a variable that can potentially be influenced and transformed, which goes both for oneself and others. A person with a strong perspective awareness therefore often seek ways to make the properties of perspectives conscious and to create favourable conditions for developing perspectives, not least by *using* the tension between different perspectives for new insight and integrative strategizing.

We found that this framework captures many significant qualities among several of the societal entrepreneurs we studied. In some cases where we could trace development over a longer time, we could discern a movement towards a more dialectical way of meaning-making and acting (Sander & Jordan, 2009; 2011; Emanuelsson, 2011). However, it also became apparent that a person might make use of a dialectical approach in one or a couple of domains, while not applying the same sophisticated approach in other domains. We have begun, tentatively, to identify different domains that are relevant to societal entrepreneurship. Doing this, it is apparent that very different time frames are involved. Some people have a strong dialectical orientation in their way of engaging in conversations, for example with clients, stakeholders or in meetings. Here the time frame is from seconds to hours. Other domains, with a longer time frame, can be problem-solving processes (minutes/hours/days), team leadership and project management (weeks/years), establishing an operation or organization (years), or managing a systemic change initiative (months/years). Another type of domain is the relationship with oneself, where the time frame varies from seconds to decades.

In Table 5, we have outlined the consequences dialectical meaning-making can have in three different domains: conversations, systemic change initiatives and oneself. We believe this is a promising field for inquiry through future case studies.

Table 5: Dialectical meaning-making in three domains

	In conversations	**In systemic change initiatives**	**In relation to oneself**
Complexity awareness	Expects that there are conditions and causal relations that one has no insight into yet. Uses conversations to elicit information and develop knowledge.	Knows that organizations and change processes are so complex that it is unrealistic to expect that one can make detailed plans and then proceed to implement a fixed solution. Engages change initiatives with an inquirying approach, where development of knowledge and insights is a key ingredient.	Regards oneself as a complex being with many unknown or vaguely known aspects. Uses experiences actively to develop more self-knowledge.
Context awareness	Keenly aware that the person one has the conversation with is part of a larger context with its own structures, norms, rules, narratives, culture and larger ongoing processes.	Aware that the context has its own structures and processes that both present constraints and creates opportunities. Standard solutions not adapted to the specific state of the actual context are not regarded as particularly helpful.	Seeks understanding of how one's own reactions and actions are conditioned by the properties of the context one is embedded in: organizational structures, cultural patterns, position in a complex system.
Process awareness	Regards the conversation as a genuinely openended process. No fixed conceptions of what is to be the outcome, but has an open attitude to what might come out of a dialogue. Wants to toss around thoughts and ideas and see what emerges.	Expects change processes to be genuinely openended processes that cannot be program-med in a detailed way in advance. Has a long-term perspective and seeks understanding of the nature of various long-term change processes and their possible consequences.	Thinks of oneself in the present moment as embedded in ongoing processes of change: where do I come from, in what direction am I heading. Identifies oneself *as* a process rather than in terms of a number of fixed properties or a fixed personality.
Relationship awareness	Keenly aware that the conversation is embedded in a relationship that is created and changed through the conversation itself. Acts consciously to create an appropriate relationship, e.g. by working on establishing trust.	Reflects on how different elements of complex systems and processes are mutually dependent and shaped by the character of the relationships they have with each other. Searches for stakeholders with whom it is possible to establish productive relationships. Acts consciously to influence tha properties of relationships, among people as well as among different parts of systems.	Experiences the own self and own reactions as embedded in and conditioned by the properties of the relationship one has with others. Takes responsibility for own role in the development of relationships with others.

	In conversations	In systemic change initiatives	In relation to oneself
Perspective awareness	Seeks understanding of the perspective, reasoning patterns and narratives of the other. Uses the conversation to test the relevance and properties of one's own perspective and narrative. Makes efforts to create a conversation that opens up the potential for mutual transformation of perspectives.	Strongly aware that different perspectives generate different views on goals, strategies, priorities, etc. Seeks to create forums and processes where different perspectives can be constructively articulated and their differences can be mobilized for greater insight and creativity. Seeks to create processes that facilitate insight into and transformation of perspectives.	Uses experiences actively in order to become more aware of, test and transform one's own perspective. Develops strategies to develop one's own perspective. Seeks out challenging feedback in the interest of becoming aware of blind spots and alternative points of view.

Trajectories of Development of Awareness

In three of our case studies, we have been able to follow or retrospectively reconstruct the change agents' processes of learning and development of awareness over 5-10 years. While we have just a few cases to rely on, the analysis points to some patterns that are suggestive and certainly worth further inquiry.

One of the thoughts we had when we started exploring the relationship between meaning-making, patterns of action and outcomes among societal change agents was that a strong complexity awareness would *lead* to a process orientation, to interest in inquiry and learning and to an interest in working towards systemic change, whereas a weak complexity awareness would lead to a more limited conception of aims and strategies and a propensity to develop own ideas and visions and then try to implement them, rather than co-develop ideas and strategies in interaction with a broad set of stakeholders. However, we have had to revise this assumption in the light of the case studies we have made. It seems that our own complexity awareness regarding the relationship between complexity awareness and an inquiring orientation was rather weak. The relationship is certainly not linear and unidirectional, but more complex. In some cases it seems that a basic inquiring orientation came first, and the complexity awareness increased as a result of reflecting on experiences, which in turn strengthened the commitment to a process orientation, and so on.

In one particular case study (Emanuelsson, 2011), it is apparent that the societal change agent we interviewed started out with a strong sense of urgency regarding a particular issue: violence and abuse among school children and youth. The engagement with this issue later evolved into a focus on developing better strategies for preventing and managing honour-related violence towards immigrant youth and adults. Our interviewee describes her own propensity to even think about underlying causal mechanisms as very weak in the beginning. She and her colleagues didn't reflect very much about the complex causes and conditions behind youth violence, but rather started to initiate meetings and initiatives without having a very clear understanding of the problem complex. However, she could describe three key experiences where she was exposed to systemic explanatory frameworks relating to different types of violence as well as to the resistance among stakeholders to engage the issue. These experiences had a profound impact on her meaning-making, in the sense that she felt that new levels of understanding of the underlying logic behind the problematic phenomena opened up for her. The new insights lead to experimenting with other kinds of action strategies as well as redefining goals in accordance with what she now felt was more important to strive for. In this particular case, it seems reasonable to see the change agent's basic openness to learn from experience and her receptiveness to explanatory frameworks as the key factor in developing a more comprehensive and sophisticated strategy for societal change agency.

In the beginning of our project, the project leader had a more static perspective on the role of meaning-making structures for variations in societal change agency, focussing on the relationship between the level of complexity awareness on the one hand, and the type of action strategies on the other hand. But it seems that complexity awareness may rather be the consequence of an openness to learning, than an independent variable explaining variations in goal construction and action strategies.

Conclusion

Reviewing our learning over the last seven years, we feel that we have only begun to explore a number of arguably very important issues. The potential for further and more systematic research in this field seems very large indeed. We believe we could benefit from a better understanding of how people participating in efforts to address complex issues differ from one another in their needs for scaffolding, as well as how facilitators can be effective when working with groups where participants have very different scaffolding needs. A better understanding of what functions various change methods actually serve might give us more clarity about the differences and similarities among methods, techniques and more general approaches and thus allow us to choose and adapt scaffolding elements more skillfully. In the course of our explorations, we have come to respect the difficulties involved in facilitating group processes. Not much empirical research seems to have been done on actual moment-to-moment facilitation of groups working on complex issues (one example is Papamichail et al., 2007). We do hope to see more of such research in the future.

Regarding individual change agency, there is a lot to explore about the roles complexity awareness and perspective awareness play when engaging complex issues and visions. We have little to say so far about the question of to what extent individual skills necessary for change agency in complex processes can be acquired by anyone interested in the task, and what kind of scaffolding is effective in supporting such skill development. The typology of four types of societal entrepreneurship presented here should be regarded as tentative, and further empirical studies will show whether the distinctions are fruitful for understanding the diversity and learning trajectories of societal change agents.

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The Dynamics of Marriage Law and Custom in the United States

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Abstract: This article examines changes in marriage laws and related cultural norms and values in the United States across the last several decades, and discusses correlating worldview shifts. It appears that the "traditional" worldview produced earlier laws, cultural norms and values, and changes to these have corresponded with a cultural worldview shift, first into "modernism" and then towards "postmodernism." The implications of these worldview shifts for ongoing change to marriage law and custom are also analyzed.

Keywords: Cultural lines of development, feminism, gay marriage, integral, law, marriage custom, marriage worldview, modernist, postmodern, teen pregnancy, traditional, worldview paradigm.

Introduction

Over the last several decades, marriage laws and customs within the United States have changed dramatically. For example, not long ago, it was relatively common for females to marry in their mid-teen years (Moss, 1964).[2] Now, most states do not allow couples to marry without parental consent until both are at least eighteen (USLegal, 2012). Additionally, only a couple of decades ago, it was both common and socially acceptable for males in their twenties to date females who were between 16 and 18 years of age. Now, statutory rape laws in several states make it possible for a man as young as 18 to be prosecuted for having consensual sexual relations with his girlfriend if she is less than 18, with penalties being harsher if she is more than two years his junior.[3] At the same time, "dating" as a form of courtship for young people, has

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[2] Also, although prior to the 1950s the average age that females married was older, my own grandmother and great-grandmother were both married at the age of 16. In the 1950s, teenage marriage numbers spiked. Although the numbers soon lowered again, as late as the 1970s I knew of several girls between 15 and 17 years old who were getting married. In the rural area where I grew up, this was still an accepted practice at that time.

[3] For most states, the statutory "age of consent" falls between 16 and 18, but laws vary state to state. For example, in both California and Mississippi, it is against the law for any person who is 18 or older to have

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begun to disappear. Today, both males and females in the U.S. are more likely to have casual sexual relationships, with partners close to their own age and without an intent for commitment, well into their twenties (Wilson, 2009). Because women tend to marry men who are older than them, and because males have, in the history of the U.S., been more likely than females to wait until their mid to late twenties to marry for the first time, these new dating norms may have helped to push the average age at time of first marriage higher for American women.[4] Not long ago, many young women encountered family and social pressure to marry young. Now, teenage marriage is largely seen as scandalous and damaging to youths, particularly to young women.[5]

In addition to these age-related changes, the legal structure of marriage has changed as well. Over the last several decades, as the nation's cultural attitudes have shifted, marriage laws that had once perpetuated a male-over-female hierarchy were re-written to give women rights more comparable to those enjoyed by their husbands. Marriage laws were also changed to make it easier for couples to seek divorce.[6] In the meantime, part of the dialectic force behind these changes may have helped to bring about a partial cultural rejection of marriage itself. That is, during the mid-twentieth century, many feminist writers demonized the institution of marriage as being inherently demeaning to women (for examples, see Firestone, 1970 and Dworkin, 2002). With so many cultural and legal forces in play, the direct impact of this dialogue is impossible to

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sexual contact with anyone who is not yet 18. However, in California, the crime may be reduced to misdemeanor status if the distance in age is less than three years, yet in Mississippi, age difference does not matter. Similarly, in Connecticut, a person can be charged with a felony for having sexual contact with someone who is less than 16 years old only if the offender is more than two years older than the victim. Yet in Kansas, where the age of consent for sexual conduct is also 16, distance of age does not matter. Although most state's laws refer to "any person" rather than "any male" over 18 who has sexual relations with a younger person as being guilty of committing a crime, the U.S. Supreme Court, in Michael M v Superior Court, 450 U.S. 464, 1981, upheld the Constitutionality of state laws which hold stricter rules for males than females, on the grounds that females can get pregnant while males cannot. See Richard Posner and Katharine Silbaugh, A guide to America's sex laws, 1996.

[4] The average age of first marriage has not changed much across the last century for males. In 1890, the average age at first marriage for males was 26. This number declined slowly in the early twentieth century, to reach an all-time low in the 1950s and 1960s of an average age just shy of 23. By 1990, it was back up to 26, and today stands at 28. For women, the average age at first marriage, in 1890, was 22. This number declined slowly in the early twentieth century, to reach an all-time low in the 1950s and 1960s of an average age just over 20. By 1980, it was back up to 22, and has steadily risen since. Today the average age for women at first marriage is 26. Tables may be viewed online at the "Info Please" database compiled by Pearson Education, 2011. Also see National Public Radio's (NPR) online chart titled "Marriage in the U.S.," 2011.

[5] Recall the scandal, played out in the media, over the fundamentalist Mormon families that were taken into state custody in Texas in 2008. It was not only the notion of polygamy that appalled people, but the worry that some of the wives might be "underage." In fact, this concern was touted as why Texas placed some of the children and young women into state custody. See R. Owens, "Polygamist sect marks first anniversary of Texas ranch raid," 2009.

[6] For discussion of divorce law prior to and during the mid-twentieth century, see Weitzman, "Women and children last: The social and economic consequences of divorce law reforms," 1988, and Okin, *Justice, gender, and the family,* 1989. A discussion of the Family Law Act of 1996 and contemporary divorce law can be found in Douglas et al, "Safeguarding children's welfare in non-contentious divorce: Towards a new conception of the legal process?" 2000. See also Baer, *Women in American law: The struggle toward equality from the New Deal to the present*, 2002.

measure. Nonetheless, a general attitudinal change is evident. A few decades ago in the U.S., marriage was culturally exalted by both men and women of all ages.[7] Today it enjoys far less social prestige. A growing percentage of heterosexual couples cohabitate before or instead of getting married, and since the 1950s, the rate of divorce has increased almost steadily, while the likelihood that women will remarry has declined (Bramlett & Mosher, 2002). Meanwhile, a majority of U.S. women still become mothers.[8] This has increased the number of single-parent families and contributed to what economists call the "feminization of poverty" (Pearce, 1978) – the fact that most poor, single-parent families are headed by never-married or divorced women has left them with less social power and economic security than they might have otherwise enjoyed.

At the same time, however, the increasing numbers of unmarried men and women helped to drive a further cultural shift as society as a whole began to respond to this new social phenomenon with greater awareness of and toleration for, lifestyles that had once been shunned. Single mothers, for example, are no longer cut off from social power simply because they are single. Cultural and legal acceptance of marriages that do not conform to old social restrictions have also expanded. For example, in the U.S. today, the idea that a couple could be denied the right to marry simply because they are not both of the same race seems unthinkable to most people.[9] And, while it is still against the law in most states for gay couples to marry, acceptance of homosexuality and gay rights in general has broadened (Brewer, 2003; Brumbaugh, 2008). Now, all states grant gay couples domestic partnership rights, and an increasing number of states allow them to legally marry.

These many rapid shifts in predominant cultural values and in marriage law have resulted in worldview clashes, individual confusions, and political fireworks as pressure mounts to either further or reverse the changes. In an attempt to facilitate improved understanding of these dynamics, I will discuss what I refer to as the three predominant worldview paradigms evident in the United States today. Using a holistic approach, I weave together findings from other scholars' empirical research, various philosophical and theoretical ideas, including my own, and meta-ethics concepts.[10] I then distill some of these ideas into simple charts, which can, hopefully, allow for better understanding of how some integral theorists' concepts and meta-ethics concepts intersect with what feminist theorists have claimed, what political scientists have empirically measured and what anecdotal evidence suggests. This, in turn, can open new areas of study as we are able to pinpoint areas where knowledge is lacking. It may also help political activists and policy-makers to better understand the populations they attempt to lead.

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[7] For example, in the mid-1950s, less than 10 percent of American's believed that a single person could be happy. See Stephanie Coontz, *The way we never were: American families and the nostalgia trap*, 1992.

[8] For example, a 2005 vital statistics study found that only 42 percent of women ages 15 to 44 were childless, and the majority of those considered themselves to be "temporarily childless," that is, they planned to have one or more children in the future. See Chandra et al, "Fertility, family planning, and reproductive health of U.S. women: Data from the 2002 National Survey of Family Growth," 2005. In addition, during the last two decades of the twentieth century, while the birthrate among teens of color dropped, the birthrate among white, single, middle-class women increased. In 1990 more than 170,000 single women older than 30 gave birth. See Bock, "Doing the right thing? Single mothers by choice and the struggle for legitimacy," 2000. Finally, in the last decade, births to unmarried teens have remained close to constant, while births to unmarried women twenty and older have continued to steadily rise. In 2007, nearly four in ten births in the U.S. were to unmarried women. See Ventura, "Changing patterns of nonmarital childbearing in the United States," 2009.

[9] For example, in a 2001 survey, biracial couples reported widespread tolerance and even acceptance of their relationships. See Fears and Deane, "Biracial couples report tolerance: Survey finds most are accepted by families," 2001.

[10] For a definition of and operational concepts for "meta-ethics" see Ting-Toomey and Chung (2005).

Previous Research and Theory – Marriage

In the United States, literature about marriage has tended mostly to follow one of three threads. The first thread, forwarded in earnest by mid-twentieth century feminists (see below), argues that marriage was instituted by male-led society to coerce female sexual and caregiving behavior in ways that are desirable only to males. The second thread, forwarded by political conservatives and various religious groups, predominantly argues that marriage is a moral necessity for heterosexual couples and a societal necessity for the raising of children in stable households (see Feld et al, 2002; Wilson, 2002). The third thread, often embraced by those arguing legal cases in favor of legalizing same-sex marriage, follows the popular societal notion that marriage is a desirable "expression of romantic love," decisions about which must be left to individual choice if citizens are to be free to pursue their own happiness in life (Murray, 2012, p. 3). Few attempts have been made to reconcile these disparate views about marriage, ask what effects they have had on American law and culture, or even ask why we have three contradictory views about marriage in the first place. Yet to do so seems vital to an understanding of the rapid changes in marriage law and custom that this article addresses. My first steps in that direction, then, will begin with a brief review of feminist literature about marriage.

Radical feminists argued that marriage was little more than a license for men to sexually abuse their wives (Brownmiller, 1975; Dworkin, 2002). Other feminists argued that "mothering," and caregiving in general, was bad for women, and charged that the traditional mother-child relationship created and maintained male dominant societies (Chodorow, 1979; Meyers, Ed., 1997; Trebilcot, 1984). They therefore opposed the traditional husband/wife/children family unit, and encouraged women to remove themselves as far as possible from their stereotypical roles. Liberal feminists also argued that marriage and divorce law strongly favored men, and that women must be legally recognized as autonomous individuals even when married, rather than as simply under the legal jurisdiction of their husbands (Brennan & Pateman, 1979; Pateman, 1988).

Feminists also criticized the family economic unit that traditional U.S. marriage established. Marriage in the U.S., as it existed prior to relatively recent legal changes, afforded the male political and economic authority as the legal "head" of the family. In this assumed role, the male entered the political world as part of a "new economic unit," separate from previously existing families ((Brennan & Pateman, 1979, p. 186). No equal privilege was granted to the married female. In fact, wives were expected to become economically dependent upon their husbands if the family units' finances allowed for them to do so. And, if both husband and wife had to work to support the family, the wages earned by both were usually considered to be "pooled resources" (Okin, 1989, p. 140), which were then controlled by the husband. Similarly, Judy Baer (1978) addressed male-favoritism in the market, which was supported and enhanced by laws that purported to "protect" women while actually limiting their ability to compete with males in the workforce. According to Baer (1978; also Eisenstein, 1984), these laws limited women's public-sphere liberties without affording them any real benefits in exchange. In sum, these feminists argued that U.S. law had *coerced women into caring for others* by blocking their access to the "public sphere"[11] (also see Okin, 1979 and Elshtain, 1981) and, therefore, to economic independence.

More recently, feminist critique of American laws, while quieted to some degree, have nonetheless continued. For example, in spite of the legal changes that occurred during the second half of the twentieth century, most of which favored women, Baer (2002) commented that, while some important legal strides had been made, women in general were no better off now than they had been decades before. Similarly, Josephson (2005) compares feminist views about marriage to contemporary argument about same-sex marriage. She acknowledges that much has changed over the last few decades, but asks how much women have really benefitted from this change. She argues that "social change is a double-edged sword" (p. 276) because changes in marriage law and custom have both helped and hindered women. Finally, in her article which follows legal arguments in favor of marriage rights for same-sex couples, Murray (2012) reminds us that marriage has historically been used as a coercive tool and even as punishment for "the crime of seduction" (p. 5). She states that "recognizing and acknowledging marriage's disciplinary qualities" allows for "a more accurate depiction of marriage" (p. 65).

Josephson (2005) also argues that we need "extensive discussions regarding the public purposes of marriage" (p. 277). Her primary thesis, though, is about citizenship and how it is affected by the right to marry, the lack of the right to marry, or by the form and intent of marriage law. My project, on the other hand, examines the dynamic interaction between changing marriage law and changing social norms, and how these manifest within what I call shifting "worldview paradigms."

Previous Research and Theory – Worldviews

According to contemporary research and theory, there are multiple stages of worldview development that individuals pass through (Manners and Durkin, 2001; see also Cook-Greuter, 1990 and Kegan, 1982). Clare Graves, whose work was published by Don Beck and Christopher Cowan (1996), believed that cultures followed a similar pattern of worldview change and development, although much more slowly. This would occur because, as individuals move through their own stages of development, "they find points of commonality and mutual understanding that manifest as distinct cultural structures" (Brown & Riedy, 2006, p. 5). The integral framework, as articulated by Ken Wilber through numerous books (e.g. Wilber, 1995, 1996, 2000, and 2006), indicates that development occurs in all four quadrants of human experience (Table 1). These quadrants are the "interior individual" or "intentional" quadrant (upper left), the "interior-collective" or "cultural" quadrant (lower left), the "exterior-collective" or "systems" quadrant (lower right), and the "external, singular" or "behavioral" quadrant (upper right). If Wilber is correct, an examination of development and change as it occurs within all four quadrants is essential to a holistic understanding of human interrelational dynamics. In this context, clearer understanding of cultural worldview shift within the U.S is needed if we wish to understand the nation's ongoing changes to marriage law and its ever-present political dynamics.

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[11] For explanations of the "public/private split," see Arendt, *The human condition*, 1958, and Davidoff, "Regarding some 'old husbands' tales': Public and private in feminist history" 1998, p. 165.

Table 1. Four Quadrants of Human Experience

Interior-Individual Intentional: Thoughts, emotions, etc.	Exterior-Individual Behavioral (physical), & the biological body
Interior-Collective Cultural: customs, social mores, etc.	Exterior-Collective Social & Political Systems

Certainly, worldviews within cultures can be graphed, revealing cultural-majorities who primarily adhere to given worldviews at that particular point in time. For example, Evans (1997) challenged the "culture wars" notion (Hunter, 1992) that there were only two major worldview value-systems within the United States and that these two formed the roots of all groups' social and political values. While Evans did find evidence of two worldviews, those two could not explain all of the variance that he found in values with his extensive surveys. The introduction of a third worldview, along with an understanding that these three overlap each other and that most individuals draw from more than just one, could explain the discrepancy that he found in the data. The extensive research performed by Ray and Anderson (2000) supports this notion that a third worldview value-system exists. That there is a majority "center" group ("moderns" according to Ray and Anderson) continues to be supported by extensive research (see Fiorina, 2011), although the worldview values of this center group have thus far been difficult to pinpoint.[12]

According to Ray and Anderson (2000), in the 1990s, approximately 25 percent of Americans could be classified as "traditional," 51 percent were "moderns," and 24 percent were "cultural creatives," herein referred to as "postmoderns" (also see McIntosh, 2007, p. 67). I refer to these three as "traditional," "modernist" and "postmodern." I borrow these terms from Steve McIntosh (2007). Beck and Cowan (1996) referred to these worldviews are "truth-force," "strive-drive," and "human-bond."[13] Western political theorists know the terms for these worldview paradigms as ancient, modern and postmodern. However, "traditional" is the term used by some right-of-center politicians in the U.S. today to describe their own ideology.[14] It also seems to be a better descriptor than "ancient" for a set of views that in many ways parallels those of the ancient philosophers but has nonetheless developed and changed across time. For example, some "ancient" ideas, such as that slavery is both natural and morally acceptable, have been rejected. Yet other ancient ideas, such as that, within marriage, a male over female power hierarchy is natural, biblically ordained and unavoidable, is still embraced within the traditional paradigm. Finally, the term “modernist” is borrowed from Steve McIntosh, who has written about these worldviews before, and uses the term “modernist” rather than “modern” as this helps to establish the term as distinct from "contemporary.”[15]

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[12] Modernist values are difficult to pinpoint in much of this research because survey questions tend to gauge left-right political positions, which do not effectively measure modernist values. As the predominant worldview paradigms in the U.S. become more understood, survey questions could be developed which do a better job of measuring percentages of adherents to particular value sets and of tracking paradigmic worldview shifts.

[13] In Beck and Cowan's color chart, traditional is blue ("truth-force"), modernist is orange (strive-drive) and postmodern is green (human-bond). Wilber uses amber instead of blue, but orange for modernist and green for postmodern are the same in the Wilber model.

[14] For example, Sarah Palin describes herself as a "traditional." For discussion of her use of this term, see Talbot's "Red sex, blue sex," 2008.

While this work by Evans (1997), Ray and Anderson (2000), and Fiorina (2011) does not cover a long enough time span to empirically measure more than a small a snapshot in time, various theoretical models have tried to map what appears to be lasting change, or development, that has occurred across time. Beck and Cowan (1996), McIntosh (2007) and White (2010), for example, have referred to a “spiral” of socio-political development. Beck and Cowan (1996) refer to the cyclical nature of the development as “life cycles,” and each new, distinct or “higher” level of development as another “vMeme” (value meme). McIntosh (2007) refers to the cyclical nature of development as one of differentiation, integration, differentiation. He refers to each new, distinct or “higher” level of development as another “worldview.” White (2010) describes a two-dimensional “crisis cycle” model, and argues that we need to add a developmental model to this in order to understand political change in America. White refers to the new levels as “higher keys” (as with musical notes). I refer to each new level as a worldview paradigm. Duckitt and Fisher (2003) define “worldviews” as individual's “beliefs about the nature of their social environments” (p. 201). I prefer the term “worldview” because it not only is used widely in integral theory, but also has recently seen common usage in popular American political dialogue. I use the term “paradigm” for reasons explained below.

I acknowledge that use of the term "paradigm" to describe worldviews may seem odd to some researchers and theorists, particularly because the way any given individual views the world at any particular time usually encompasses more than just one of these sets of belief. Further, individuals will draw upon differing worldviews according to the location of their predominant views along the various lines of development (to be explained later in this article).[16] Individuals may also vary their worldviews according to situational context. For example they may hold traditional views when it comes to their own homes and families, but modernist or postmodern views when it comes to their workplaces or government. The same is also true for tendencies that we can see across cultures and sub-cultural groups. Therefore, the use of worldview paradigm models to explain differences between political groups may seem like a gross over-simplification. However, it is also true that whichever worldview one draws on to make a value-judgment about any given occurrence or interaction, the notions found within that particular worldview tend, at least for that particular situation, to be considered as universal truth rather than as debatable assumption.

Anecdotal evidence suggests that when the basic tenants of a worldview paradigm are entrenched within cultural understandings and norms, it is difficult for individuals of that culture or sub-culture to fathom the reasoning behind any other view. If this notion about worldview paradigms is correct, the paradigms function in a way that is similar to the function of “mental models” (Jones et al, 2011). In fact, worldview paradigms could help to explain how and why mental models function the way that they do, in that "people tend to filter new information according to its congruence or otherwise with their existing understandings, beliefs, and values" (Jones et al, 2011). Individuals may not even realize that worldviews other than their own exist, which greatly limits their ability to understand or effectively communicate with others whose worldview paradigms are different. This produces frustration, particularly when people with conflicting values view each other as irrational or nonsensical.[17] When failing to recognize paradigmatic worldview differences, people may talk past one another, so that no one really hears or understands anyone else. This is why examination of a culture's predominant worldview paradigms is vital to an understanding of its shifts in law and custom and of the social and political dynamics which accompany those shifts.

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[15] Explained in an email to me from McIntosh, received August 27, 2010.

[16] For example, an individual may express traditional views within the power distribution line of development but modernist views within the recognized authority line of development.

My Own Theory of Worldview "Paradigms" and "Cultural Lines of Development"

Loosely speaking, a paradigm may be defined as that which helps us make sense of the world around us. It is a set of general rules or guidelines that people use to interpret the world, sometimes on a subconscious or 'automatic' level. Thomas Kuhn (1962) used the term "paradigm" to refer to scientific understanding, but his ideas concerning the parameters of a paradigm lend well to an understanding of the function of worldviews. Kuhn tells us that when new discoveries disturb our old understandings, they cause a sort of chaos in the accepted paradigmatic frames. If the new discoveries cause too much chaos, that is, if they are too "far out" to be accepted by the larger culture of the time, they will be buried and forgotten. But if those discoveries are accurate, eventually they will be rediscovered. This means that, sooner or later, the paradigm engulfing the larger scientific community will fracture and expand into a larger one that allows for the reality of the previously shunned discoveries. This is how science, and our understanding of the physical world we live in, expands over time.

I posit that, similarly, the worldviews that construct the values which are at the very core of how we interpret, judge and interact with the vast world of information and life all around us (see Beck and Cowan, 1996;, McIntosh, 2007; Wilber, 1996) are paradigmic. Cultural worldviews within a given populace can shift, as they have done over the last few decades in the United States. As long as the older views are predominant, newer ways of seeing things will be suppressed. However, once a large enough section of the populace has begun to embrace the new ideas and values, laws and norms will begin to change (Williams, 1997). This, in turn, invites a push-back from those holding the old value sets, which creates a sort of chaos in the political system and in social networks. Eventually acceptance expands and the new worldviews become part of the overall norm. This would explain how societies change, and become more inclusive, over time.

Some theorists claim that worldviews develop and spread sequentially (Beck & Cowan, 1996; Brown & Riedy, 2006; McIntosh, 2007; Wilber, 1996). I argue that, at least within the

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[17] That people with differing worldview paradigms may see each other's actions or ideas as nonsensical is evident in current American politics. For example, Mitt Romney said that Obama's plan to withdraw troops from Afghanistan "makes... no sense" (Boxer, 2012), Donald Trump said that Obama's speech about Libya made "no sense" (Reisner, 2011), and Obama said that the Republican blocking of his Cordray nomination made "no sense" (Brower and Runningen, 2011).

U.S., this certainly appears to have been true. When the United States was first established, most of the culture was centered in the traditional paradigm,[18] even though the founding fathers themselves promoted various elements of the modernist paradigm through their written ideas and in the Constitution they created. These modernist ideas had been gleaned from 17th and 18th century philosophers such as John Locke and Jean-Jacques Rousseau, and were written into the Declaration of Independence and the Constitution of the United States (see Locke, 1689/1993 and Rousseau, 1782/1998). Nonetheless, we did not see majority cultural embrace of the modernist paradigm within the United States of America until the twentieth century.[19] Finally, although tiny beginnings of the postmodern worldview paradigm began to appear before the modernist worldview took center stage in this country, it did not enjoy significant cultural expression until the 1960s (Wilber, 1995, 1996).

Theorists also stress that the developmental change of worldview paradigms is not rigid or exactly linear (see Wilber, 2006; McIntosh, 2007). Instead, it is fluid, more like waves than straight lines (Wilber, 2006), particularly as views and sentiments shift back and forth with various social and political stressors, such as emergencies and perceived threats. Also, the elements of a given worldview paradigm change as they bridge across to new worldview paradigms unfolding within the culture. These changing elements are called “lines of development” (Esbjörn-Hargens, 2009; Wilber, 1995, 1996) because they exhibit growth and change across time which, on average, tends to be in a particular direction. I prefer to use this “lines” of development terminology rather than the term “domains” of development as is often used in academic literature about child development. This is because I believe “lines” is a better descriptor for what I am attempting to explain. Anna Freud (1966–1980) used the term “lines of development” to describe six areas of developmental progression that occur from infancy to adulthood. These lines occur within, and thread through, the cognitive and social/emotional developmental domains. Similarly, worldview developmental lines occur within, and thread through, worldview domains, such as political ideology, sustainability awareness, and so forth. I borrow the worldview descriptions from other writers, as I have shown. Charting these lines, and explaining their political attributes and some of their social manifestations, is my unique contribution to this field. Charting them allows for clarity and, perhaps more importantly, allows us to determine their healthy and unhealthy attributes and manifestations, as I will explain later.

A culture’s average paradigmic worldview across multiple developmental lines can be called its “center of gravity.”[20] Although individual viewpoints vary widely across issues, I nonetheless argue that, currently, the majority of Americans can be classified as cultural “modernists,” and the current paradigmic worldview “center of gravity” for the U.S. is also “modernist.” I reach this conclusion by identifying some of the theorist-described elements of the modernist paradigm within the majority's dialectical frames and cultural narratives, as demonstrated below. However, even an individual who can be classified as a cultural modernist is likely to also have some views and values that are either traditional or postmodern, as the views of few individuals today are completely grounded in only one worldview paradigm.

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[18] This is why, for example, the founding fathers were unable to abolish slavery, which was still accepted within the traditional paradigm at that time.

[19] Among other things, the abolition of slavery and subsequent push for equal rights for blacks, the industrial revolution, women’s enfranchisement, increased educational levels, and the ever-expanding influence of technology in the lives of common people combined over time to increase the embrace of the modernist paradigm.

[20] An individual’s “center of gravity,” as coined by Wilber, is the average level of attainment across identifiable developmental lines. Cultures also have developmental “centers of gravity,” as can be identified by majority worldviews held across multiple lines of cultural development (Wilber, *Sex, ecology, spirituality,* 1995).

The Developmental Lines

Because both cultures and individuals have multiple lines of development, they are likely to be at different stages on different lines simultaneously. Also, in spite of seemingly closed-system, paradigm-like qualities, no worldview value-system stands alone or untouched by others, particularly in the contemporary United States with its wide cultural diversity. Therefore, a group whose worldview center of gravity is modernist may nonetheless espouse collective traditional or postmodern views on some topics. This phenomenon is additionally complicated by the fact that cultural worldview paradigms are constantly, if slowly, shifting.[21] However, it is possible to make some sense of this complication. Making use of well-established theoretical descriptions of each of the aforementioned worldviews (see, for example, Beck and Cowan, 1996; Esbjörn-Hargens, 2009; McIntosh, 2007; and Wilber, multiple publications), I identify five lines of cultural worldview development. I have labeled these five lines of development the "social receptivity" line, the "power distribution" line, the "religious/spirituality" line, the "recognized authority" line and the "science/discovery" line. For simplicity's sake, I discuss only five lines of cultural worldview development as they appear across the three worldview paradigms predominant within the United States today. These explanations are not intended to stereotype individuals or groups, but rather to explain how worldview paradigms align with and complicate socio-political movements, cultural norms and individual perception of each. The labels of the lines are mine, and are intended only to be simplistic descriptors of the types of change that we see across time within each line.

Once the defining elements of these lines, as they bridge across the three worldviews, are demarcated, they can be traced within populations by noticing expressed and implied perceptions of reality, notions concerning how government should work, and views about how we should live. This exercise can do much to explain the identifiable changes in law and cultural attitude about marriage that have appeared as the nation's worldview center of gravity has shifted, as well as the ensuing cultural clashes and individual confusions. For example, using this nuanced understanding of paradigmic worldview perception, we can see that it was the traditional worldview paradigm that produced earlier marriage and dating norms and laws, and the changes over the last century have corresponded with a cultural worldview shift, first into the modernist paradigm, and then towards postmodernism. Cultural strongholds of traditionalism still exist in the U.S., at somewhere between 20 and 35 percent of the population.[22] This is likely why there is always political push-back against so-called “progressive” or “liberal” ideals which are mostly forwarded by postmoderns. Although a relatively small percentage of the population,[23] it is predominantly postmoderns who forward and embrace the newest laws and norms, such as legal acceptance of gay marriage and cultural acceptance of the gay lifestyle.

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[21] Paradigmic shifts in the population are difficult to demonstrate empirically, in part because change occurs relatively slowly, and in part due to a lack of survey data utilizing questions which could accurately measure these. Nonetheless, we can observe gradual, long term trends, as discussed throughout this paper.

[22] For example, religious fundamentalism and biblical literalism, hallmarks of traditionalism (religious-spirituality line of development) remained constant from 1996 to 2000 at approximately 22 or 23 percent of the U.S. population. Surveys in 2004 and 2005 place this number somewhere between 20 and 37

Note that when I refer to the “tendencies” of any worldview group, it is not my intent to stereotype the group or to suggest that all “postmoderns,” for example, would follow those tendencies. The generalizations are intended to broadly describe the worldviews in keeping with the way that other theorists have described them, and to simplify understanding of each worldview paradigm. I acknowledge that actual views of individuals vary widely. But it is also helpful to understand that when, for example, a self-described “modernist” disagrees with a particular description of a “modernist” paradigmic view, what this actually means is that the individual does not actually hold what is the most common “modernist” view on the subject in question. It may be that the individual has some variation of the modernist view, or may instead mean that the individual actually holds a traditional or postmodern view on that particular subject.

The Social Receptivity Line of Development

Scrutiny of the “social receptivity” line of development reveals that the traditional paradigm is communal, but the focus of that communalism tends to be relatively small. Care for one’s family and one’s neighbor is of paramount importance, but full acceptance of others tends to be limited to one’s own family and neighbors, or to the members of one’s church or religious community. Loving families and peaceful neighborhoods are healthy expressions of traditionalism. Unfortunately, the same social norms which ensure the functional mechanisms of these families and neighborhoods can have unintentional side-effects, such as ethnocentrism, intolerance, and racism. This is partly because traditionalist groups tend to use the threat of being humiliated, shunned or ostracized as coercion to ensure that most individuals within the culture will follow the accepted set of rules and norms. Once this threat is imbedded within a culture, individuals born into the culture may fear being perceived as different or, as they mature into adulthood, as failing to completely and properly assimilate with the culture. These fears are then projected onto to others, and become the basis for gossip, shunning, and even violence against

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percent, depending on how questions are phrased and how combined question results are interpreted (see Alwin, et al, “Measuring religious identities in surveys,” 2006, and Hoffmann and Bartkowski, “Gender, religious tradition and biblical literalism,” 2008). Also, a percentage of people who tend to be largely intolerant of people perceived to be very different from themselves has remained fairly constant for awhile at between 25 and 33 percent (traditionalism, social receptivity line of development). See Schafer and Shaw, “Trends: Tolerance in the United States,” 2009.

[23] In 2010 and 2011, between 18 and 22 percent of Americans considered themselves to be either “liberal” or “progressive,” political values which somewhat align with postmodernism (see “Doing what works survey,” 2010, and “CNN/Opinion research corporation poll,” 2011, both retrieved from the Roper Center for Public Opinion Research’s ipoll databank). However, these numbers may be slightly depressed due to the negative connotations that have been attached to these terms in recent decades. Interestingly, in 2008, 24 percent of Americans said that they would be more likely to vote for a presidential candidate who celebrates the wide diversity of Americans than one who celebrates the shared values of Americans. This also is likely a reflection of postmodern values (social receptivity line). See “FOX News/Opinion dynamics poll,” 2008, retrieved from the Roper Center for Public Opinion Research’s ipoll databank.

anyone labeled as "different." Concepts of "good" versus "bad" behaviors can evolve into perception of an "us" versus "them" conflict. "We" are the ones who adhere to particular social expectations, and "they" are the ones who do not. To make matters worse, expectations concerning physical appearances can be tangled into the mix, such that those who look "like us," have the same skin color as "us," dress "like us," or wear their hair the way "we" do are seen as "good," and those who are different in some way are labeled as "bad."

We can also see this ethnocentricism in the "us against them" attitude that surfaces any time resources appear to be scarce. For example, when employment opportunities in the U.S. appear to be scarce, traditionalists tend to blame recent immigrants, especially illegal immigrants, because these "others" are easily perceived as "not us" and therefore in competition against "us" for the limited resources. Another example of cultural ethnocentrism's response to perceived scarcity is the hording of rights by power-elite groups. This occurs because of a perceived scarcity of rights, which is in part created by a belief in "natural and necessary"[24] hierarchy. This notion of "natural and necessary" hierarchy occurs within the "power distribution" line of development at the traditionalism juncture. The result is that those traditionalists who are at the powerful top of a legal or social hierarchy tend to believe that the granting of rights to other groups must mean the taking of rights from the currently powerful, because they believe that no two groups can ever really equally coexist.[25] This reinforces the "us against them" attitude so often seen in the "social receptivity" line of development at the traditionalism stage (Table 2). Fortunately, these tendencies lessen as later worldview paradigms emerge. Also, such problems do not *necessarily* manifest within traditionalism. Rather, these are unhealthy aspects which have a potential to manifest, and which, unfortunately, often do.

Table 2. Social receptivity line of development – Traditional paradigm juncture

	Healthy aspects	**Possible unhealthy manifestations**
Family	Individuals are attentive to family members; family relations are considered a priority over other aspects of life.	Individuals within family may be controlling of one another. For women, relationships and goals or work beyond caring for family may be denied.
Community	Individuals are taught to be strongly community oriented and to care about their neighbors.	One's own community or group may be considered to be superior to others, causing racism and ethnocentrism.
Socialization	Norms and expectations taught to children include items intended to ensure family and community well-being: honesty, trust, kindness, care-giving, sharing, respect, etc.	Those who do not adhere to expected roles may be branded as evil and ostracized. Possible phobia of those who are "different," such as homophobia.

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[24] This notion of natural and necessary hierarchy was perhaps first documented in Aristotle's Politics.

[25] I discuss this concept more fully under the "Power distribution line of development," section of this article.

The modernist paradigm, on the other hand, tends to forward toleration as a social good or patriotic duty within democratic societies which are multicultural, multiracial and multi-religious. Toleration for difference is emphasized, but to varying degrees according to one's distance from traditionalism. Whereas traditionalism tends to shun differences rather than to accept them, modernism sees its toleration as a reason for pride. In fact, some modernist philosophy stakes out toleration as the only basis for peace and democracy (for example, see Rawls, 1971 and Popper, 1945).

The modernist paradigm is also highly individualistically focused (Table 3). This seems to explain why one argument that feminism has had with traditionalism is that, in the name of "taking care of the family," women could be coerced into forsaking their own goals and individuality. The difficulty for women was that they were the expected caretakers of their children and of the home (Baer, 1999), and this role, coupled with their exclusion from the public realm, placed them largely into dependency upon males and left them unable to pursue *meaningful choices of their own.*

Table 3. Social receptivity line of development – Modernist paradigm juncture

	Healthy aspects	**Possible unhealthy manifestations**
Family	Individuality of all family members is respected. All individuals are allowed to seek their own goals and happiness.	Hyper-individualism can manifest, wherein family and close ties are forsaken as being "too much responsibility"
Community	Democratic and tolerant of differences.	Common good can be forgotten in the pursuit of personal desires.
Socialization	Personal strength and care of oneself is emphasized. Children are taught to believe in and stand up for themselves, and to seek out the realization of their own dreams and goals.	Traditionalism's integrity, trust and honesty can be lost if individuals are taught to always "look out for number one" and to be wary of the motives of others.

Postmodernism, on the other hand, brings a return to communalism, but as large-group, or global, communalism (Beck & Cowan, 1996; McIntosh, 2007). A shift into the postmodern paradigm means that individualism can be once again dampened, this time in deference to a greater common good. For example, in the U.S., postmodern liberals and progressives, likely because they tend to think in global terms, tend to favor governmental regulation of business which can guarantee consumer safety and the preservation of the natural environment. For the same reason, they tend to believe in universal healthcare and free higher education for all. They also tend to be concerned with the well-being of individuals all around the globe (for example, see Lakoff, 2002).

Postmoderns in the U.S. also tend to push for *group* rights beyond what modernists are generally ready to extend (Table 4). For example, "Affirmative Action"[26] is a postmodern concept, in that it seeks to promote the well-being of minority groups, which is also why modernists tend to dislike it. People whose values are centered in the modernist paradigm tend, instead, to see "Affirmative Action" as an affront to *individual* effort and merit. Further, toleration, as it is usually defined, is fairly unique to the modernist paradigm. Individuals embracing the postmodern paradigm can be offended by the notion of "toleration,"[27] as it suggests that something or someone is not liked, but nonetheless must be "put up with." Postmodernism instead tends to embrace diversity as a universal good and much needed commodity (Beck & Cowan, 1999; McIntosh, 2007). It is also from postmodernism that we get "politically correct" language, which is encouraged so as to avoid demeaning other individuals and groups.

Table 4. Social receptivity line of development – Postmodern paradigm juncture

	Healthy aspects	**Possible unhealthy manifestations**
Family	Embracing of the "global village" concept, postmoderns seek to eradicate poverty, world hunger and discrimination against all groups worldwide.	Can unintentionally suppress individual drive. Postmodernists can also sometimes forget to take care of those closest to themselves or may engage in extreme self-sacrifice.
Community	Embracing of diversity as a social good. There is a tendency to revel in individual and group differences as life-enriching.	Can be *extremely* relativistic, refusing to *evaluate* customs, behaviors or claims.
Socialization	Children are taught to be accepting and embracing of others regardless of differences. Sharing, giving, and care-giving are once again emphasized.	The modernist paradigm's individualism can be lost if *too* much emphasis is again placed on communal efforts.

The Power Distribution Line of Development

The power distribution line of development at the traditional juncture reveals an interesting phenomenon. Here there is a strong although arguably false perception that there is among humans a *scarcity of rights*, which manifests repeatedly throughout American history. For example, when women were struggling to gain the right to vote, a common fear-based argument emphasized by some men was that if women gained the right to vote, men would lose their political power. John Adams told his wife Abigail that women should not have the right to vote because if they did, men would be subject to "the despotism of the petticoat."[28] In other words, if women were allowed to vote, they would end up with total rule over men. This suggests a notion that it is impossible for men and women to have equal political power. Adams appears to have assumed that either men could have political power or women could, but that both could not have it at the same time. Similarly, white men historically argued that blacks should not be given rights equal to their own because, given some measure of political power, blacks would "take over the country."[29] Heterosexuals have likewise been guilty of arguing that if homosexuals are given the right to legally marry, heterosexual married couples will somehow lose their own political and social power.[30]

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[26] "Affirmative action" refers to deliberate attempts to increase the representation of minorities in employment, education, and business (see the *Stanford encyclopedia of philosophy*, 2009).

[27] See discussion of types of toleration in Walzer's *On toleration*, 1997.

[28] John Adams said this in spite of being marginally tolerant of his wife's feminist views. See his letter to Abigail, dated March 31, 1776.

This notion of a scarcity of rights permeates much of American society, often appearing as an argument for why rights should not be extended to groups who have not previously had them. Yet no reason exists why basic "inalienable" rights must be rationed across groups. The notion is inextricably bound to the hierarchical structures of social and political power found within the traditional paradigm. For example, according to Hobbes (1660/2011), hierarchies arose as a response to widespread violence, as well as to aid man's opposition to nature as he struggled to survive. Hobbes argued that groups of people would choose one person to rule them, because of a belief that this person could ensure the safety of the entire group. According to this Hobbesian theory, men, for this reason, were willing to swear fealty to their kings. Although the accuracy of Hobbes' descriptions of early human existence are debatable, his tale of people desperately seeking a king to rule over them and protect them is echoed in the Old Testament of the Bible, and is also seen in similar explanations of hierarchical societal organizations explained by both Aristotle and Plato. Embedded within all of these stories is an assumption that hierarchy is both natural and *necessary for the survival of mankind.*

In medieval Europe, hierarchies could be seen everywhere within social and political structures. Kings were over lords, lord were over commoners. Clergy typically held high political positions in addition to being the religious leaders. Men always held higher station than women. Skilled craftsmen held higher station than farmers, land owners held higher station than tenants. Those who were wealthy held higher station than those who were poor. For much of human history, these power hierarchies have been extreme, such that there were kings and lords who held most of the power, but also slaves and drudges who lacked any personal power at all. Kingdoms and other hierarchical socio-political structures could be found across as much of world as was known by the writers of history, for thousands of years. It is not surprising, then, to find within the traditional paradigmatic worldview a notion that hierarchy is unavoidable.

Today, however, many of the old forms of power hierarchies have collapsed, and more are starting to break down. Although a number of totalitarian governments still exist, legal slavery has been abolished almost everywhere in the world. Even the Indian caste system is at long last beginning to erode.[31] Nonetheless, power hierarchies continue to exist, and as long as they do, there will always be those who enjoy more power, and thus more rights, than others. This is why these hierarchical power structures come with a notion that, no matter what happens, someone will always be on “top” and someone else will always be on “bottom.” This promotes the notion that there is a scarcity of rights, that the number of people who can have any given set of rights at any given time is somehow limited. Whoever is struggling for rights understandably points a finger of accusation at whoever already enjoys those rights, but the real culprit is this notion of scarcity of rights, because so long as this notion exists, any group that has rights will have members who resist expanding the scope of those rights to others. This is because they do not see it as an expansion, they see it as a shift of a finite number of rights from themselves to some other group.

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[29] I heard this one from my own family, and have much more recently heard it said as a "reason" why a Black man should not become president of the United States. For an example, see the video "Misconceptions of Obama fuel Republican campaign," online at http://www.youtube.com/watch?v=zRqcfqiXCX0 (accessed 8-12-2011).

[30] Homosexuals and their advocates argue that marriage is a basic human right that should not be denied to anyone. One of the counter arguments from the Christian right has been that gay marriage impinges on the rights of heterosexuals. For example, this is the primary argument used by The National Campaign to Protect Marriage (NCPM). See NCPM "Colorado for family values," 1996.

We can see a weaker form of power hierarchy within the traditional family structure. Within the traditional paradigm, men are designated as the heads-of-households, the family bread-winners, and the religious leaders. Women are designated as wives, mothers, and the primary caregivers of children, the elderly and the infirmed. Further, patriarchal religions tend to define women as the “weaker vessels”[32] who must look to their husbands and fathers for protection and support. The same structure defines many traditional households across America. Children are expected to “honor and obey” their parents, wives are expected to “honor and obey” their husbands.[33] Husbands, in turn, must accept responsibility as head of the household, and as such must make sure that the family's basic needs are met, or in other words, he must financially support them.

Feminists for several decades have charged that this patriarchal family structure promoted family violence and was unfair to women (for examples, see Firestone, 1970 and Dworkin, 2002). However, in its healthiest form, this structure is not as much about power as it is about function. Husbands financially take care of their wives, who are seen as the most logical caregivers for the children, but the wives are loved, honored and respected. Also, in these arrangements, women usually have the last word of authority when it comes to decisions about the children, and also often about the household in general. In its unhealthy form, though, there can be a manifestation of possessiveness instead of love, and a desire for control instead of honor and respect. Coupled with poor emotional control, this becomes the catalyst for family violence, and men, being at the top of the household hierarchy, are statistically most often the culprits (NCADV, 2007). Nonetheless, patriarchy itself is more to blame for the oppression many women have suffered under this hierarchal structure than the men are to blame simply for being at the top of it. This patriarchal structure is no longer useful in most family situations today. But it served a purpose during a time of human history when hierarchical structures were the only available or understood structures of social and political organization. Further, in their healthiest form, these structures were functional, ensuring that women, who spent many years of their adult lives pregnant, nursing and otherwise tending to young children, had husbands who believed it was their duty to protect them and to provide sustenance for them.

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[31] The caste system has been outlawed in India. However, because of long embedded social norms, many elements of it continue to survive throughout that nation. See Bayly, *Caste, society and politics in India from the eighteenth century to the modern age*, 1999.

[32] For example, the Amish religion defines women as the “weaker vessels” who look to their husbands and fathers for protection and support. See documentary by Lucy Walker, 2002.

[33] Many people interpret the admonition in the Ten Commandments that children should “honor” their parents to also mean that they should obey them. The idea that wives should obey their husbands, which is still used by some Christians in their wedding vows, comes mostly from an interpretation of Ephesians 5, which has been translated to read, “Let women be subject to their husbands, as to the Lord.”

On the other hand, modernism as it manifests within the capitalistic and democratic republic of the United States grants power and social prestige to those who manage to become financially successful. Perhaps because of the challenges pioneers in the American frontier faced, so-called "rugged individualism" is also highly valued.[34] This is the notion that all individuals can and should take care of themselves, without requiring aid or assistance from others. It also forwards a notion that everyone is capable of "success," but that it takes individual will and action to accomplish it. Because the United States has a capitalistic economy, success tends to be measured by financial wealth. This is where we find political "internalism."[35] That is, when an individual fails to accomplish economic success, modernist groups tend to accuse that individual of laziness or of failing to take ample advantage of available opportunities. Those who are seen as deserving are rewarded with higher incomes than those who are not so perceived, and those with higher incomes are awarded greater social respect and political power than those who earn less. As a result, escape from poverty is difficult but at least theoretically not impossible, and all individuals, male and female, young and old, are judged, at least to some degree, according to how much financial wealth each has managed to accumulate. And, this "rugged individualism," coupled with a correlation between attainment of wealth and social prestige, appears to be directly responsible for the fact that traditional interdependent marriage relationships could not well survive beyond modernism's breakdown of the sexual division of roles predominant in traditional households. A brief look at what happens when traditional sex roles run afoul of modernist demands explains this phenomenon.

Sexual division of roles necessitates interdependence. For example, in the mid-twentieth century, the husband in a traditional, middle-class American household was responsible for ensuring his family's financial security. His wife, who was either not employed outside of the home or only worked part-time at a relatively low-paying job, necessarily depended on him for all or most of her financial resources. At the same time though, he depended on her for a number of other necessities. She kept their shared home clean and organized, cooked their meals, and was the primary care-giver for their children and perhaps even for aging parents. Depending on the decade and their level of wealth, she might also be responsible for making or obtaining, and repairing or replacing their clothing and other needed household items. The traditional woman generally is also responsible for caring for any ill or disabled members of the family, including her husband should illness or disability occur. Without his wife available to tend to these matters, the traditional husband would have to pay someone else to provide these necessities.

These sexual role-divisions, however, were discouraged and viewed as repressive by modernist feminism in the U.S. For example, Heidi Hartmann (1976, p. 137) declares that

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[34] Coined by Herbert Hoover in a campaign speech dated October 22, 1928.

[35] See Ken Wilber's explanation of views concerning "internal" versus "external" causes of suffering in *Up from Eden,* 1983.

> "[N]ot only must the hierarchal nature of the division of labor between the sexes be eliminated, but the very division of labor between the sexes itself must be eliminated if women are to attain equal social status with men and if women and men are to attain the full development of their human potential."[36]

Further, most feminists declared that empowerment of women entails an equal-opportunity chance for women to be employed in the public sphere of work in jobs equal to the jobs men hold, and for equal pay (Herd, 2003). However, once women are equally employed outside of the home, "independent" individuals must earn enough money to pay for whatever necessary home and care labor they are unable or unwilling to perform. Full "independence" is an illusion, because the individual is then dependent upon his or her income, and a decrease in this income or an increase in expenses for whatever reason can leave the individual without needed help. Nonetheless, this illusion of independence is necessary within the "rugged individual" ideology of American-style modernism. Thus, both independence and life "success" is measured according to degree of financial attainment. The greater one's earnings, the greater the perceived independence, because of the ability to purchase labor and care that one would otherwise have to depend on someone else to provide or would have to perform for oneself.

This social pressure for financial success applies to both men and women within the modernist worldview as it manifests within the United States. According to traditionalism, work outside of the home is only or at least primarily for men, because they must support their families as heads-of-household at the top of the family hierarchy. Partly as a result of this view, it was until recently common practice for businesses to pay women less than men. Also partly because of this view, discrimination against women in education and at work was common. This problem was made worse by the notion of scarcity of resources that tends to correlate with traditional paradigmic views. Yet a women suddenly taken out of her traditional role as home-laborer and caregiver or who has no marital partner must somehow provide her own financial resources, which can be extremely difficult especially if she has previously held the traditional role for an expanded time-frame. On the other hand, a man suddenly taken out of his traditional role as sole financial provider for his wife and family can simply shift his financial outlay from direct support of others to purchase of what he lacks. This can occur with little or no change to his financial lifestyle. This simple equation helps to explain the imbalance that we have seen between the financial well-being of the average single, widowed or divorced male and the financial well-being of the average single, widowed or divorced female in the United States (see Weitzman, 1988 and Okin, 1989). Worldview shift in the U.S. may have compounded this problem for many women. Nonetheless, this problem, as it manifested for a number of less-lucky traditional women, helped to produce the worldview shift in the first place. That is, traditionalism's women are vulnerable to financial ruin should loss of spouse occur, particularly if children are involved. That this was passionately pointed out by feminists is part of what spread the cultural belief that women should be as gainfully employed as men (see Davies, 1974 and Hartmann, 1976; see also Wilson, 2007).

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[36] See also Dworkin, *Woman hating*, 1974, and Brownmiller, *Against our will: Men, women and rape*, 1984, both of which characterized sexual roles within traditional marriage as being oppressive to women although empowering to men.

Of course, this need to have comparable income necessitated other cultural changes. A woman who wishes to have the level of income once afforded only to men must be competitive in the job market. This necessitates that she be as educated as her male counterparts and that she begin her career pursuits as early in life as her male counterparts, because earning power, savings and credit all accumulate over time. Somewhat less obvious but equally necessary is that she not lessen her employment availability by pregnancy or the need to spend large blocks of time caring for children. These factors are at least partially responsible for modernism's changes to marriage and childbirth customs. If a woman must be highly educated and launch her career as a young adult, she must postpone marriage and child birth as long as possible. Failure to do so is a quick road to either financial dependence on her husband or at least temporary poverty (Ladd-Taylor, 1994; see also Lewis, 1991). It is no accident, then, that the median age at which young women in the U.S. marry has risen steadily over the last several decades.

Wage earning power, however, is not the sole reason for this shift. The notion of individual independence and freedom-of-choice as it applies to women also necessitates a shift away from traditionalism's male over female hierarchy. Because traditions relevant to marriage were for so long, and across so many cultures as well as the world's predominant religions, rooted in this notion of God-ordained and necessary hierarchy, men held almost all power over marital decisions, leaving young women particularly vulnerable to male infatuation and whim. Modern laws which increase the minimum marriage age protect young women from being coerced into marriage before they are culturally perceived to be adults capable of making marriage-related decisions for themselves. These laws, along with statutory "age of consent" laws are all part of modernism's attempt to level the "power-distribution" playing field between the sexes.

Meanwhile, as the modernist struggle for women's rights was heating up during the mid-twentieth century, the postmodern paradigm also began to have a cultural presence in the U.S., particularly among the then young-adult "baby-boom" generation. Postmodernism expanded the notion of equality universally. Within the postmodern paradigm, hierarchies are never allowed. There is no perceived scarcity of rights, and often no perceived scarcity of resources. Any resources which are scarce will tend to be equally rationed, because no group is seen as more deserving of or having more right to any given resource than any other group. For example, postmoderns tend to defend modern-day immigrants, legal or not, as being as equally deserving of all available rights and benefits as anyone else in the United States (for example, see ACLU, 2000). Often, postmoderns favor socialistic governmental systems and are offended by the modernist paradigm's wealth-based meritocracy.[37] In business and academic organizations, postmoderns may prefer decision-making committees as a replacement for top-down administrative structures. Even at the family level, postmoderns may be egalitarian, with parents often involving their children in their decision-making processes. Believing in broad equality for all, it is also the postmoderns who have led the fight for gay marital rights in America. These contrasts are summarized in Table 5.

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[37] For offense at the notion of wealth-based "meritocracy," see Horwitz, "The dangers of the myth of merit," 2009, as well as the comments posted below his online article. For discussion of whether "merit," as measured primarily by work-ethic, actually leads to the gaining of wealth in America, see McNamee and Miller, "The meritocracy myth," 2004, and Toch, "The meritocracy's caste system: What's good and bad about the SAT," 1999.

Table 5. Lines of Development Manifestations at Worldview Paradigmic Junctures

Lines of Development	Predominant cultural worldview paradigms within the United States		
	Traditionalism	**Modernist Paradigm**	**Postmodernism**
Social Receptivity	Small-group communalism, family oriented, ethnocentric. Potential problem: "us against them" mentality	Expended Ethnocentrism; *toleration* is key. It is a patriotic duty to get along with others who are different. Potential problems: hyper-individualism, failure to acknowledge human interdependency	Worldcentric, large-group communalism. Embraces diversity as a social *good*. Potential problem: extreme relativism.
Power Distribution	Rigid social and political hierarchies and strict role assignments. Potential problems: suppression of individuality; family violence; elitism.	Rugged Individualism: opportunity for individuals to climb up the ladder of success, meritocracy. Potential problems: harm to the common good due to narrowly-focused goals, blaming of poverty on the poor without consideration of circumstance	Egalitarian: no power hierarchies allowed; everyone deserves equal rights, equal status, equal quality of life. Potential problems: suppression of individual drive; evaluation systems which fail to differentiate between intent and achievement.

Religious/Spirituality, Scientific Discovery, and Recognized Authority Lines

The next three lines of development are closely intertwined with the "social acceptance" and "power distribution" lines and with each other. Examining the "religious/spirituality" line of development, we see that traditional cultures tend to adhere to religious fundamentalism. That is, any given religious group within the culture is likely to believe that its own religion is "the one true way," and that all other belief systems are wrong and perhaps even evil. As a result, followers of the religion are not likely to want to listen to anyone who has a different belief system, and may work feverishly to keep views that disagree with their own from being heard. Their "understood reality" and "allowed realm of scientific discovery" is likewise constricted according to their faith. This is why, for example, most Evangelical Christians in the U.S. think the science of evolution is heretical and strive to keep its concepts from being taught to their children. It almost goes without saying, then, that the "recognized authority" for traditionalists is their holy book and/or religious leaders. For U.S. Christians, then, the recognized authority becomes some particular interpretation of the Bible, which they then consider to be the only accurate interpretation and therefore the definitive "word of God."

Depending upon the culture involved, the modern worldview can bring about a wide departure from traditionalism along these lines of development, and this is what has occurred in the U.S. At the "entering phase,"[38] of course, modernist thinking will be similar to traditional thinking. However, with the huge advance of science in the modern age, culturally diverse, relatively wealthy and technologically advanced countries like the U.S. can see a dramatic change in their primary value systems, in a relatively short span of time, and all within the modernist worldview paradigm. This begins with the idea that beliefs which are similar enough to one's own are tolerable after all. With the new acceptance comes the opportunity for even a little more acceptance and then even a little more and so on. Further, the modernist paradigm values science and discovery. Scientific knowledge builds upon itself and therefore expands exponentially. The more rapidly scientific knowledge expands, the faster the worldview expands and evolves.

In addition, the modernist worldview as it manifests within the United States has a uniquely American belief in the winner-take-all system that goes hand in hand with near absolute "rule by the majority." The winner-take-all system unfortunately breeds a notion that "winning" is more important than holding to any ethical guidelines, which is why we see so many unethical tactics employed in the political realm and even in the business world. Strict rule by the majority ensures that a slight majority of relatively uninformed people can slow the cultural progress of a nation that once allowed its sometimes inspired leaders to shape its destiny. Yet it is also likely true that it is in part the majority's tendency to trample on the rights of the minority that eventually gave birth to the postmodern worldview paradigm.

Postmoderns in the U.S. tend to believe at least philosophically in the total equality of all peoples and in the importance of consensus decisions (Beck and Cowan, 1996). Because of this, some postmodernists may tend to view strict rule by the majority as an oppressive political system that systematically violates the basic "inalienable" human rights of the minority (see, for example, Alfaro, 2012). This may also be why some postmodernists within the U.S. strive to create a "deliberative democracy" (Chambers, 2003; Dryzek, 2005) whereby issues are discussed at length with all concerned groups until a consensus can be reached. This ideal that some postmoderns hope for would give the greatest amount of freedom to the largest number of people. In fact, in the U.S., many young postmodern-worldview individuals believe that anarchy is the only true solution to oppression.

The postmodernism paradigm also tends to be relativistic, which forwards the notion that beliefs and, for some, even most forms of "knowledge" can be equated with opinions that have no factual support one way or the other. From within this view, it is suggested that, because everyone has a viewpoint, no one is any more right or wrong than anyone else. As might be expected, this tendency also causes a number of individuals and groups holding postmodern worldviews to question modern science and to point out that we learn and discover only within the frames of what we already perceive or are at least willing to accept as possible. This skepticism concerning the rigorous confines of modern science has allowed the so-called "fringe sciences," such as attempts to electronically record "ghosts" and forays into the "5th dimension," to at least make a public showing in the contemporary United States. It is ironic that this same skepticism and relativism lends momentum to the traditionalists' attacks on modern science, and even to some degree bolsters traditionalism's assertion that it has a "right" to be intolerant of both scientific data and cultural movements which disagree with its basic tenants. These contrasts are summarized in Table 6.

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[38] Phrase borrowed from Beck and Cowan, *Spiral dynamics*, 1996.

Table 6. Lines of Development Manifestations at Worldview Paradigmic Junctures

Lines of Development	Predominant cultural worldview paradigms within the United States		
	Traditionalism	**Modernist Paradigm**	**Postmodernism**
Religious/ Spirituality	Fundamentalist, biblical literalists	Expanded belief systems, religious toleration	Relativistic: all beliefs are equally accepted as coming from various perspectives
Science/ Discovery	Understanding of the world is derived from religious beliefs and mythology	Understanding of the world is defined by scientific/empirical observation	Current understandings of the objective world are criticized and questioned due to concern that they may be colored by biases or misinterpretations
Recognized Authority	Believed-in God, holy book or some accepted "mouthpiece" of God, such as a preacher or prophet	Majority always wins: whoever/ whatever is most popular/accepted or who/what a majority selects/ votes for must be accepted by all	Consensus on any rules, with as few personal restraints (to allow civil society) as possible. Total equality among citizens desired - no recognized elite authority. Minority views and rights always protected

Worldview Paradigms and Changing Views about Marriage, Sex and Pregnancy

With some basic understanding of these worldview lines and stages, we can begin to understand the concept of marriage as it uniquely manifests within each paradigm. For example, traditional fundamentalist Christians in the U.S. often believe that the Bible defines marriage as only between a man and a woman, assigns the role of "protector and provider" to the male, decrees that the woman must obey her husband – thereby establishing a male-over-female power hierarchy, and declares that sex outside of marriage – and for some, for purposes other than procreation – is evil. Given all of these factors, one can see why traditionalism within the U.S. adheres to a very specific and narrow view of what "marriage" must mean. Marriage, to a traditionalist, can only be between a man and a woman largely because its biblically stated purpose is procreation. Traditionalists encourage young adults to marry. The human instinct to procreate is strong and not restricted to a "mating season" as with other mammals. As a result, sexual urges are strong and near constant, particularly in young adults, yet, according to traditionalism, sex outside of marriage is a sin. That traditionalism believes that "true" marriage is described in the Bible, a relatively ancient document, explains why traditionalists in the U.S.

claim that marriage law and custom has been unchanged since antiquity and therefore extending marital rights to gays violates this "true" marriage tradition. No documenting of changes in marriage law and custom as it has occurred across millennia or even as it has occurred over recent decades in the U.S. can shake the traditionalist's sense that it has remained nonetheless essentially "unchanged" for eons, all because of this notion of Biblically defined parameters.[39]

Further, the statistical changes that have occurred in the U.S. are considered by traditionalists to be an unfortunate degradation of marriage values. Couples are waiting until a later age to marry, and hence the number of couples who cohabitate and are sexually active long before they get married, if they ever do, increases steadily. Divorce has also been on the rise for decades (US Census Bureau, 2000). Religious Right traditionalists blame this change on what they call "loose morals" or the lack of a "moral compass." Women in unmarried sexually active relationships are referred to in a derogative manner as sexually "loose," as adulterers or as simply making "poor choices." The men in these relationships are usually thought to be "players" who do not really love or respect the women they are with. This is all part of traditionalism's shunning of those who do not conform to traditional cultural norms.

Traditionalists' religious beliefs concerning birth-control vary somewhat, but at best they see birth-control as a "necessary evil." Some believe that everyone is supposed to "be fruitful and multiply" as much as possible, using birth-control only when it is necessary, within marriage of course, to preserve the woman's health.[40] Some believe that sex at any age and even within marriage should only occur if pregnancy is intended, and therefore birth-control should be completely unnecessary.[41] These groups therefore believe that birth-control can only encourage immoral behavior, no matter whether the couples in question are married or not. Finally, there are the groups that push for "abstinence-only" education for teenagers who believe that birth-control should not be readily available or taught as an option to teenagers because they are simply not yet morally developed enough to make wise choices when actually given choices when it comes to sex and marriage. According to this view, teenagers should be coerced to obey their parents, and parents should make it clear that they should neither have sex before they marry nor get married before they are legal adults, period. When teenagers go against their parents' wishes and sin by way of sexual intercourse, teenage girls become pregnant. Traditionalists tend to believe that when this happens, the best solution is marriage.[42] If marriage is not an option, then the teen must give birth and give the child up for adoption to a more mature and religiously obedient couple. It is also important to remember that within the traditional worldview paradigm, religious faith trumps scientific fact. No amount of teen pregnancy statistics will convince a traditionalist that contraception is a more realistic goal than abstinence.

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[39] Many websites today attest to this belief. For a few examples, see http://www.ropens.com/marriage, http://www.bibletruths.net/Archives/BTAROO3.htm, and http://www.answersingenesis.org (accessed 7-31-2011).

[40] For example, this is the belief held by members of the Church of Jesus Christ of Latter Day Saints (Mormons).

[41] The Catholic Church is still officially against even married women using any form of birth control other than abstinence.

[42] This is likely why Sarah Palin told reporters during her campaign for the vice-presidency that her pregnant daughter, Bristol, would marry Bristol's boyfriend. This is the "solution" to the unplanned, teen-pregnancy that would be accepted by her constituency.

However, the gap between the age that young people begin to have strong romantic-love centered emotions and sexual urges as well as a self-perception of autonomous adulthood and the age at which society recognizes them as legal adults capable of making their own rational decisions can leave some young couples in very difficult situations. The high instance of teenage pregnancy in the U.S. bears witness to society's failure, so far, to adequately address this problem. A teen, faced with hormonal drives and also a drive to assert oneself as an individual independent of one's parents – which usually manifests as some form of "teenage rebellion," will almost inevitably engage in sexual intercourse by his or her mid-teens. In the U.S., 46% of teenagers between the ages of 15 and 19 report that they have engaged in sexual intercourse at least once. Seven out of ten teenagers have sexual intercourse at least by the age of 19 (Amba, 2004). This occurs regardless of religious affiliation or worldview center-of-gravity. For example, in spite of "chastity pledges" intended to help girls wait until marriage for sexual activity, the average age of the sexual debut of Evangelical teen girls is still only 16 (Talbot, 2008). Further, in spite of the trend towards increased age at first marriage (Hurt, 2010), about 30 percent of young women in the U.S. today get pregnant at least once before age 20 (National Campaign, 2012).

In traditional America, it is the young woman's responsibility to wisely choose a good lifetime mate, to be innocent – which translates to unprepared for sex (Talbot, 2008), and to obey her chosen once she has decided. When we follow to its conclusion the reasoning within the "power distribution" and "recognized authority" lines of development at the traditionalism level, we can see the dilemma faced by these young women in the contemporary world. Confused by her simultaneously powerful and powerless position, her hormones, her inexperience and her hormonal boyfriend's likely pressure for sex, the teenage girl who has "fallen in love" – i.e. in her young mind already "chosen" her mate – is likely to succumb to her boyfriend's will but without contraceptive protection. If she becomes pregnant, traditional marriage may be eminent, whether she or her boyfriend are ready, due to pressure from their religious families.

All of this is why the modernist paradigm tends to dislike, and postmodernism tends to be intolerant, of the traditional view when it comes to the problem of teen pregnancy. Modernism's answer to the teenage pregnancy problem is birth-control and reproductive-system education for teens. Birth control not only frees older women from endless pregnancies, but it gives teenagers a safety-net in the event that they do not abstain from sex until marriage. Further, modernism's biological science and teenage-pregnancy statistics suggest the hope that most teens will abstain from sex is simply unrealistic. Modernists also tend not to like the idea of young marriage, particularly if it is followed by early-marriage childbirth, because it restricts employment opportunity for the female and increases financial responsibility, and therefore likely decreases educational opportunity, for the male. As a result, segments of the culture that have a modernist worldview will push for sexual education in public schools that includes teaching teenagers about contraceptive alternatives.

Believing in the full equality of men and women and also believing that traditional sexual roles are oppressive to women, modernism and postmodernism both assert that individual women must be afforded the right to never have children or to never get married if they so choose, regardless of their sexual activities. Further, sexual "experimentation" among teens seems inevitable and therefore modernism believes that teaching teenagers about contraceptive options is an absolute necessity (for example, see National Campaign, 2009). Postmoderns also tend to want contraception to be readily available to teenagers as well as older women, and also tend to believe in abortion rights. The concern, of course, is unplanned pregnancy that may cause emotional upheaval for the teens at best and restrict their life opportunities at worst. To both modernists and postmoderns, young marriage, especially if in reaction to an unplanned pregnancy, is almost never a good idea.[43]

As Worldviews Shift, New Stresses for Women

Obviously, the values of each of these worldview paradigms clash at least somewhat with the others. Many misunderstandings and stresses currently attributed to gender difference or oppression of women can be better explained by the collision of worldviews. That is also not to suggest, however, that gender differences or the oppression of women are nonexistent. Traditional belief in hierarchy facilitates abuse by those on the top of those on the bottom. Oppression does not therefore become universal, but can occur with greater frequency. The more pronounced the power deferential, the more likely and the more severe the abuse, as is evidenced by the treatment of women in Afghanistan today. Nonetheless, this hierarchy induced oppression should not be mistaken for gender-induced oppression. Males of the human species landed on top of traditionalism’s hierarchy likely because of their relative size and physical strength as well as their less physically intrusive reproductive systems, which would have afforded them an amount of survive-alone ability during prehistoric times that females would not have enjoyed.[44] But it is the hierarchy itself that gave men power over women in traditional society, and the power which tempted abuse. Movement of a culture into the modernist worldview begins a productive push against such abuses. In addition to protecting teenage women from marriage to or pregnancy by older men, modern U.S. law also forbids once legal spousal abuse and gives married and divorced women rights that were nonexistent for them only a few decades ago.

Modernism, though, removes some customs that once helped to facilitate the raising of children, such as the household that always had one parent home to care for them. Modernism also brings its own set of rules to marriage customs, and while solving some of traditionalism’s problems also, of course, creates its own. For example, modern women will often postpone childbirth because they must be financially “independent.” After postponing childbirth, many U.S. women have found that becoming pregnant in their thirties or later can be difficult or impossible (Hewlett, 2002). Yes, the postmodern paradigm, with its acceptance of role-reversals, has brought men who spend time caring for children and helping with household chores. However, when women in modernist households do have children, they often find themselves working “double shifts” – one to earn a living and one to take care of children and household necessities (Hochschild, 1989).

Further, with the paradigmic shift to modernism, the birth of postmodernism, and the corresponding feminist-led blame of men and marriage as causing much of society’s ills,[45] marriage in the U.S. has become less popular. Yet while there is far less social pressure for men to marry the women who love them, women often still prefer marriage, especially if they wish to have children or a stable lifelong relationship. This statistical propensity for women to desire marriage (Baber & Allen, 1992) is likely linked to age old survival-of-the-species instincts that manifest differently in women than they do in men. As mentioned previously, men in ancient times could survive alone easier than women. Further, because women who bare children spend nine months pregnant and then, with the absence of modern breast milk substitutes, must also breast feed for at least an additional year, a woman without a helpful partner could have a very difficult time keeping herself and her child alive.[46] Even in the modern world, single women are more likely to be poor than single men, and are also more likely than men to have serious health complications related to reproduction (Muller, 1990). Lifetime partnerships, when healthy, can simply make life easier and more pleasant for women, especially when children are involved. Further, research shows that healthy lifetime partnerships enhance life and wellbeing for both partners (Willitts et al, 2004). These are all likely reasons why traditionalism promoted marriage in the first place, and why traditionalism’s women fought against feminism’s attack on marriage customs. Nonetheless, men are more likely than women to be avoiding of marriage when it is not religiously or culturally mandated, such as within the modernist and postmodern paradigms in the United States.

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[43] For examples, see discussions online at http://www.prochoiceamerica.org/issues/ (accessed 8-28-09).

[44] For discussions of this topic, see Brownmiller, *Against our will*, 1975, Firestone, *The dialectic of sex*, 1970, and Pateman, "Hobbes, patriarchy and conjugal right," 1998.

[45] There was a tendency for second-wave feminists to treat unhealthy, dysfunctional families as though they were the universal norm for all traditional families, but they were not.

In spite of this, women, according to prevailing custom in the U.S., cannot propose marriage. As a result, if they wish to marry, they can find themselves mired in emotionally difficult situations. This can be particularly painful for women with extended traditionalist families, regardless of their own paradigmic worldview. The punishment for women who do not follow traditionalism’s marriage and courtship guidelines is severe to varying degrees depending upon the religion and culture in question. In the U.S., women are not stoned or physically tortured, as in some countries, for sexual activity outside of marriage. However, the wish to have her actions and choices accepted by her family and friends can increase a woman’s desire for marriage, especially if she is in a sexual relationship with the man she loves. This is because, if the marriage proposal is not forthcoming, these women will often find themselves at best somewhat disgraced and at worst completely shunned by their families. Yet, because worldviews are little understood by the majority of people, a woman in love with a modernist or postmodern man may never understand why his marriage proposal is delayed or never forthcoming.

Of course, the same can be said for a man who desires marriage and children but falls in love with a woman who prefers to wait until her career is strong, or who believes that marriage necessarily comes with oppressive male-over-female hierarchy. The difference, though, is that the power of marital decision still socially lies first with the male, while females are more likely both to desire marriage and to endure shame because of their relationship choices. Culturally, most women in the U.S. are still pressured to marry, and often counseled not to engage in long-term, sexually active relationships unless marriage is certain to be forthcoming. This leads some women to end otherwise happy relationships, and leads some to resort to pressuring or manipulating their partners in attempts to elicit proposals from them. A smaller percentage of women will decide, for the sake of preserving the relationship, to more or less silently endure embarrassment or shame as they wait for proposals that may never be forthcoming. This may be why many women still assert that they feel "powerless" in their romantic relationships, even while they find it difficult to explain why (NPR, 1998). There are a plethora of books, newsletters, websites and other businesses[47] devoted to helping women solve this newest "problem with no name."[48] It is clear that neither the so-called battle "between the sexes"[49] nor the battle between the paradigms has given women all of the empowerment that they once sought, and some of the changes they managed to secure seem, at least for now, to have made matters worse instead of better.

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[46] For further discussion of this topic, see Firestone, *The dialectic of sex: The case for feminist revolution*, 1970, Whitbeck, "The maternal instinct," 1983, and Pateman, “Hobbes, patriarchy and conjugal right,” 1998.

Worldview Paradigms and Marriage Rights

Meanwhile, as an increasing number of heterosexual people are trying to decide whether or not the institution of marriage has any real merit after all, gay and lesbian couples are trying to secure the right to make that decision for themselves. Modernism, partly because it finds fault with traditionalism's rules, has allowed a cultural movement in that direction. This is partly because the modernist paradigm is more tolerant of deviance from the established social norms than traditionalism. This applies to all aspects of marriage custom, from the delay of marriage, to single parenthood, to gay marriage. However, modernists may be convinced that gay marriage matters, as a personal right, only if they are convinced that being homosexual is not a matter of choice (Craig et al, 2005; Haider-Markel and Joslyn, 2005). For the modernist paradigm, if homosexuality is as predetermined as race, then to define marriage as only between a man and a woman is as offensive as to define marriage as only between two people of the same race. If, on the other hand, one can choose to be homosexual or not, then the "free choice" is in the choosing of the sex of one's lifetime mate in the first place. Modernists can be swayed on this issue by the relevant scientific evidence. Traditionalism is not swayed by this evidence, though, because it does not recognize the authority of science in the first place. In the traditional view, homosexuality is a sin, and "sin" implies choice, therefore to be homosexual must be by choice. No amount of scientific evidence changes this view so long as the traditional worldview paradigm holds sway. Further, because of traditionalism's belief in the scarcity of rights, a common U.S. traditionalist argument against gay marriage is that making it legal will take marriage rights away from Christians. Traditionalist whites did not easily embrace interracial marriage either, because they feared dilution of the white race. For example, in 1958 a couple in Virginia was arrested for violating the state's "racial integrity" law that prohibited interracial marriage. It was not until 1967 that the Supreme Court ruled such laws unconstitutional.[50] However, because of their belief in hierarchy, traditionalists tend to respect elite political authority as legitimate. Therefore, when the U.S. law declares something to be legal, traditionalists will usually *eventually* come to accept it rather than to continually fight for reversal of the law.

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[47] For example, Christian Carter and Rori Raye each have several websites, newsletters, videos and books dedicated to this subject.

[48] A reference to Betty Freidan's *The feminine mystique*, 1963, which refers to a pervasive unhappiness among middle-class housewives, which no one seemed to be able to clearly explain at the time.

[49] For examples of uses of this term, see Mitchell, "Hostility and aggression toward males in female joke telling," 1978, and Herron and Kipnis, "Ending the battle between the sexes," 2005.

[50] 1967 Supreme Court case, *Loving v. Virginia.*

While modernism is often tolerant of traditional views in spite of lack of agreement, postmodernism ironically often is not, particularly when it comes to the legality of gay marriage. From within the postmodern worldview paradigm, marriage is seen as a matter about which the ability to make one's own decision becomes necessary for personal happiness and life fulfillment. To deny the right of this choice to anyone is seen as a gross violation of inalienable rights and as discrimination against all homosexuals as a minority group. Also, showing up as a cultural worldview only where modernism, with its promotion of science, has been strong, the postmodern paradigm accepts homosexuality as likely being a biological given. Further, in the postmodern view, there is no "universal" or even long-standing definition of marriage. Rather, the diversity of various marriage customs from around the world, as well as changes in marriage laws and customs in the U.S. over the last century, are proof to the postmodern that the term "marriage" has no single definition. Finally, that which is defined as "sin" is seen to vary based on religion and on personal view, and therefore not as something which should ever be defined by or policed by a democratic government. This is likely why even heterosexual postmodernists tend to actively participate in the push to legalize gay marriage.

The argument that rights are being violated by government definition of marriage, though, does not as easily convince moderns. Because within the modernist paradigm majority strictly rules, legal changes tend to only be forthcoming as the majority of the mainstream comes to embrace them. For example, in California the recent passage of Proposition Eight, which constitutionally limits marriage to opposite sex partners, may have had as much to do with modernism's notion that the "will of the people" should win out over judgment by the Supreme Court as with traditionalism's declaration that Biblical parameters must continue to be imposed. The hope for gays that their marriages will someday be legalized lies in the continuing shift of the worldview majority as well as in modernism's toleration for difference. However, modernism is as tolerant of religious fundamentalism as it is of other worldviews, and will only accept legal changes away from fundamentalist doctrine when it perceives those changes to be the will of the majority. It tends to be taken for granted by modernists that not all laws are fair and that minority groups will be less than satisfied with the rules that majorities make. This, however, is seen as necessary in a democratic society. The responsibility of citizens is to obey the rules, but they always have the right to try to win the majority over to their own way of seeing things. This becomes the competitive political game of trying to sway public opinion, and the winning majority "takes all," or rather makes all rules. Traditionalists, on the other hand, tend to see a struggle against evil rather than a political game. From within the traditional paradigm, vigilance against the tendency of civil society to "slide towards evil" is a constant and necessary duty. That is why the argument that homosexuals deserve rights does not persuade traditionalists to change their views concerning gay marriage. Traditionalists, seeing a scarcity of rights in the first place, see granting rights to homosexuals as a taking of rights away from traditional, fundamentalist Christians. They further tend to see it as a partial triumph for evil, something which they cannot easily accept. Therefore, for those who wish to see the legalization of gay marriage, the best hope is likely in winning over the majority of modernists to the inalienable rights cause. However, because traditionalism is small-group communal and very family oriented, videos currently distributed on the internet by the ACLU, GetToKnowUsFirst.org and other advocates may well prove to be effective.[51] These videos feature gay and lesbian couples with their children and invite heterosexual individuals to speak lovingly about their gay or lesbian friends or family members. In fact, according to polls, when it comes to heterosexuals' attitudes towards gays and lesbians, familiarity actually breeds acceptance (CBS News, 2010).

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[51] For examples, see the "Get to know us first" series of videos on YouTube.com, the ACLU "Freedom files: Freedom to marry" videos, and the "10 Couples" videos distributed by WhatIsGay.net.

Toward Understanding

Traditionalism held the center of gravity majority of the western world for millennia. The modernist paradigm has claimed center of gravity majority for a relatively short time, yet in the U.S., postmodernism is already strong on the scene. Understanding how worldview paradigms evolve can help explain not only why changes have occurred in law and custom, but why some individuals are frustrated by the change even as those who desire additional change are frustrated by its slow pace. Such understanding can also help people who wish to improve their own lives and the lives of others to further their goals. For example, those who advocate for ongoing progress in the gay rights movement can more quickly accomplish their goals if they understand worldview paradigm developmental lines. Such understanding could also help individuals who wish to find life-partners with goals and values similar to their own know what to look for. Understanding also has the potential to ease the tension between the sexes that has been evident in the U.S. since the advent of modern feminism, while at the same time explaining some of the reasons why today's U.S. women often still feel powerless. It could also allow for the avoidance of unpleasant and unexpected worldview clashes if dating couples realized soon enough that their worldview paradigms did not match. The choice of life partner is undoubtedly a very important decision. Such knowledge would empower individuals to make better choices as well as find more success in their relationships, because, while relationship stress must be as old as humankind, the added worldview paradigm clash is relatively new and unique in the contemporary world. Ideally, a working knowledge of worldview paradigms would also allow for an understanding of what is dysfunctional versus what is healthy about the norms produced by each paradigm. Finally, such understanding may help to promote the development of a new worldview paradigm, one that recognizes and promotes the healthy laws, customs and norms of each previous paradigm, while rejecting those that cause oppression, isolation, or other social dysfunctions. Hopefully, understanding will also help those with differing worldviews become increasingly kinder to one another.

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Integral Sustainable Design: Transformative Perspectives

Edited by Mark DeKay with Susanne Bennett. (2011). London: Routledge, Earthscan Publishing.

Reviewed by Michael Schwartz[1]

Keywords: Architecture, Integral Theory, Nature, Sustainable Design.

Mark DeKay, Professor of Architecture and Director of Graduate Studies in the College of Architecture at the University of Tennessee, a prominent scholar-practitioner in the field of sustainable design, opens his latest book with the explicit intention that the volume “help create a breakthrough in the effectiveness of the Sustainable Design movement such that it is transformed to greater power, relevance, meaning and positive effect on people and Nature” (p. xxi). His approach is thoroughly integral, taking up Wilber’s classic integral theory, more or less a version of “Wilber-4,” clarifying and extending this meta-theory in service of creating and advancing sustainable design as discipline and practice.

The book is divided into four parts. Part 1 introduces the four quadrant perspectives of the AQAL model with careful reference to and relevance for the existing field of sustainable design. Indeed, one of the hallmarks to DeKay’s book is its deftness in weaving introductory accounts of integral theory, including novel adaptations and extensions of Wilber’s version, with the content and concerns of the current state of the sustainable design field, yielding an organic interplay and marriage of the two. Summarizing and approximating what are much more complex and multi-faceted presentations, let us say that the perspective for sustainable design is centered in aesthetic experience; that of the intersubjective (lower left quadrant in AQAL) in ethical concern for nature and shared stories about nature and place; that of the objective (upper right quadrant in AQAL) in the performance of individual design features (like heating); and that of the interobjective (lower right quadrant in AQAL) in the ecological nesting of natural and socio-cultural systems in which a building is situated.

DeKay reviews a number of leading edge green measurement standards, like those of USGBC’s LEED and WBGD, as well as number of the most prominent sustainable design theorists, demonstrating that on the whole the field tends to neglect or downplay the left-hand quadrants—an imbalance that AQAL is able to redress. This section of the book also includes an overview of Abigail Houssen’s research model of five developmental stages in the responsive interpretation of visual works of art, with DeKay extrapolating a persuasive four stage model of increasing depth and complexity in aesthetic competency proper to sustainable design.

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Part 2 extends these prior reflections on development to all four quadrants as regards the design process, yielding four levels for each quadrant, hence sixteen distinctive perspectives or what the author calls “prospects.” DeKay never lapses into abstractions, but always grounds his claims in actual design processes and with reference to actual buildings.

Part 3, perhaps my favorite section of the volume, proposes six perceptual shifts that matter for integral sustainable design, each shift moving through stages from modernist to postmodernist to more integral modes of perceiving. The first of these is the shift from *object* to *relationships* to *subject-object relations*: (1) the object as object; (2) the object partially dissolving into its network of inter-objective relationships (as Mondrian’s abstractions would so instruct us); (3a) the recovering of the object as determinate while retaining sense of its constitutive relational networks (in line with philosopher John Sallis’ post-deconstructive phenomenology); and (3b) the subjective sense attending what is perceived coming forward and folding into the objective moment. These six perceptual shifts, overlapping and co-constituting, are not merely cognitive, but embody cognition as perception – a topic underexplored in integral circles.

Part 4 broaches the issue of the nature of nature, five developmental levels in the understanding of nature that come to inform and underwrite design processes. This section extends and advances for sustainable design the groundbreaking work of the earlier 2009 volume on *Integral Ecology* by Sean Esbjörn-Hargens and Michael Zimmerman.

The conclusion of the book lists the basic issues that an integral sustainable design is to address, announcing rather than hiding this new approach’s ethical commitments, while also reflecting on the limits of the project as it has just been presented, noting the need for a transformative yoga for sustainable designers as well as increased clarity on the relationship between design and the fostering of states of consciousness. This conclusion’s spirit is rare in forwarding a ramified ethical stance while offering an auto-critique of the project’s own limits—in line with Bernard Lonergan’s rarely enacted consciousness level of rational judgment as presented in his magisterial volumes *Insight* and in *Method in Theology*.

In engaging this wonderful book, my direct cognition and perception of the built environment has become transfigured. I now am able to see any building I inhabit in a much more integral manner, bringing that structure to life in ways I had not suspected were possible, even as part of my professional university responsibility is to teach architectural history to undergraduate studio art majors. Indeed, my approach to teaching architectural history, as I now see, had been heavily slanted on the left-quadrant sides of the AQAL matrix, with not enough explicit consideration of waves of development/complexity proper to a fuller tetra-disclosing and inhabiting of architectural place.

In the remainder of this review, I shall explore three themes in the mood of complement (and compliment). The first is DeKay’s discussion of matters proper to the lower-left quadrant of cultural. The second is to bring to light the book’s deepest ethical commitment and its intuition of the situation today facing the implementation of a more integral sustainable design. The third is the theme of states of consciousness proper to architectural space and design.

With regard to the lower left cultural quadrant, DeKay stresses ethical views of nature and the stories associated with a given building or building style. What I would add is the cultural consideration of meaningful practices enacted within and coordinated by architectural space. Such practices are embodied (hence involve upper-right objective considerations): they are the concrete forms of life proper to and shaped by the design site. For example, the Starbucks in which I am now sitting and writing is in part structured so that the interior space coordinates and conducts specific normative practices: food and coffee are prepared in a spot that is separated and yet visible from the rest of the open floor; money is exchanged not at the front door but at a specific place with a physical division between those enacting the exchange; the seating arrangements, flexible in offering diverse options, sustain some but not all senses and modes of social interactions amongst clients, while being inclusive of non-customers in constituting a kind of a public space. And so on. With this view in mind, the styling of the interior and the branding of the products being sold can be seen to combine with this coordination of normative practices to evince a sense of story proper to one's being in this space with others, this storied-cum-practical environment having embedded norms and mores.

Second is the theme that goes to the heart of the study: that of sustainable design's relationship to nature, with Part 4 of the book dedicated to this topic. Here I want to call attention to a basic method of Derridean textual interpretation called double reading ("*clôtural* interpretation"), explicated by among others Simon Critchley (in his study *The Ethics of Deconstruction*): a first moment of close and meticulous reading of the general coherence and argument of the text; and a second layered moment that points to fissures in that coherence. These fissures are, to be sure, neither mistakes, authorial errors, logical contradictions, nor due alone to semiological drift, but are the evitable rifts within the textual fabric that enable the breaking through of the ethical call. These textual ruptures are like placeholders, the ethical's disruption of the text's apparent "good sense" as promise-of-justice-to-come (hence, justice as undeconstructable). Here I want to suggest that the main fissure within the current study to which I shall point is not only, in Derridean high style, an opening for an infinite and general call of the ethical that can never be fulfilled (sure as that is), but also has a finite and specific content as symptom and expression of a problematic that lies at the center of sustainable design, a problem that as such can in principle be redressed.

DeKay is aware on the one hand that in classic integral theory the noosphere transcends and embraces the biosphere; that nature is in culture. This means that there are emergents proper to the noosphere not found in the biosphere (like class relationships within economic systems). And yet the text calls repeatedly for sustainable design to find its ecological models in nature, even as nature is a lower holonic evolutionary unfolding—the lower as model for higher orders of complexity and depth. This is not a mistake or contradiction, but the expression of the tacit insight that at some point in human history and building there occurred a decisive dissociation of the noosphere from the biosphere; an alienation of culture from nature and even from humanity's self-nature, as in the classic critical-theoric allegorical tale about Odysseus in Adorno and Horkeimer's *Dialectic of the Enlightenment*. What shines through so decisively in the present volume is the imperative to heal the nature/culture, biosphere/noosphere dissociation inherent within the domain of architecture. The necessary first moment of an emergent integral sustainable design is not more cultural Eros, which would intensify the dissociation, but a creative Agape to heal the wound and rift.

Third is the topic of architecture and its fostering of expanded states of consciousness. DeKay is clear in his Conclusion that this is a theme requiring further investigation. In his using an integral model centered more or less in Wilber-4, he stacks a transpersonal design stage above that of second-tier/integral stage. In light of Wilber-5 (more complex than the AQAL version used by the author, as DeKay intentionally avoids such meta-theoretical intricacies in this initial integral presentation for the discipline of sustainable design), one can distinguish within the category of the transpersonal states from third-tier stages. Transpersonal states can be experienced at more or less any stage; while third tier stage-structures are constructed over time through the taking up of states which are folded, like materials, into the increasing the complexity of perspective cognition. There are a few buildings cited by DeKay that perhaps correlate with something like the expression of a third-tier stage-structure of consciousness (e.g., figure 24.5, top); but it is not necessary that design move past an integral stage to nurture expanded states. Chartres Cathedral is, within the scheme presented in the book, a pre-modern design; yet it famously engenders expanded state experiences. How the fostering of states can be intentionally folded into design considerations is an open question within integral circles, preliminarily explored in the work of Jessica Weigley and Kevin Hackett (of Siol Studios in San Francisco), whose presentation at the 2010 Integral Theory Conference reflected on architectural design's relation to the gross, subtle, and causal bodies.

Finally, it must be noted that the design of the book is integral. The volume has a running narrative divided into parts, chapters, sub-sections, etc., inserting blocks of questions that activate cognition, key phrases boxed off and inserted at key junctures, photographs of sites and buildings with running commentary, diagrams, tables, various types of lists, cumulative bibliographies at the end of each section, a comprehensive bibliography organized by general theme at the books' end, and an Appendix with summary of the volume's argument and additional questions to activate the readers' ongoing engagement with the topic. Woven together through an innovative graphic design, the interrelationships amongst these materials move past post-modern montage into a dynamic, sliding, open integral whole. The design enables a given reader to enter effectively into engagement with the book in a wide variety of manners and scales of complexity/depth, depending on one's time constraints, interests, and disciplinary competency. The book's organization performs its tenet message.

Integral Sustainable Design has been for me the single most important book on architecture I have ever read. It will be of interest to all manner of integralists and meta-theorists, will serve the world of sustainable design as a guiding manual, and for the non-expert can profoundly change one's day to day experience of the built environments in which we dwell.

The Mental Demands of Marine Ecosystem-Based Management: A Constructive Developmental Lens

Verna G. DeLauer (2009). Proquest, Doctoral dissertation, University of New Hampshire, UMI Dissertation Publishing.

Reviewed by Thomas Jordan[1]

Our societies face a number of challenging issues that are both important, because of their impact on the wellbeing of people and nature, and complex, because many causal and conditioning factors and diverse stakeholders are involved. We find such issues in many areas, such as climate change, biodiversity, environmental pollution, intractable conflicts, crime, unhealthy lifestyles, drug abuse, mobbing, etc. Arguably, building capacities to skillfully manage complex societal issues should be a central concern for many of us. I believe most readers of this journal share a belief that the field of adult development sits on a treasure of insight that could contribute very significantly to our understanding of how we could build such capacities. However, the number of solid empirical studies using a developmental perspective on meaning-making among people with crucial roles in organizations and initiatives working on issues of great societal significance is still small. I was therefore very satisfied, not to say thrilled, when I stumbled upon Verna DeLauer's doctoral dissertation *The Mental Demands of Marine Ecosystem-Based Management: A Constructive Developmental Lens*. DeLauer has, in my view, written a doctoral dissertation that is a very important contribution to our understanding of the preconditions for developing our societies' capacities for managing complex issues.

The dissertation is the result of a case study of an initiative to develop an integrative strategy for "ecosystem-based management" of marine resources in the state of Massachusetts, USA. DeLauer's theoretical lens is Robert Kegan's constructive-developmental framework describing stages of ego development among adults.

In 2008, legislation was passed in Massachusetts with the aim of pursuing "ecosystem management of offshore waters through federal, regional, and state coordination and cooperation." The Massachusetts Ocean Partnership (later renamed SeaPlan) was created by inviting 41 representatives of stakeholders with interests in coastal development to work together to develop a strategy for ecosystem-based management in Massachusetts. Stakeholders represented such interests and roles as fishing, businesses, NGOs, federal, state and municipal authorities, research institutions, and consultants.

I will cite here the first part of DeLauer's problem statement, which gives a clear introduction to the challenge involved.

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> Marine ecosystems are complex mosaics of ecological, chemical, biological, geophysical, and human interactions. They are valued for the services they provide for humans such as recreation, food, pharmaceuticals, shoreline protection, climate regulation, and tourism. Human disturbance specifically threatens these interactions and services through desctruction of habitat, pollution, and displacement of native fauna and flora. These impacts result from decisions made by private citizens, businesses, and municipal, state and federal goverments. Ecosystems may only be sustained through protection of ecological structure, functioning, and key processes […]. The current single-sector, single resource approach to management attends to human activities such as coastal development, fisheries and transportation, each in isolation from the others. This single sector approach fails to address, much less maintain, the integrity of the interactions between the sectors, leading to a loss of valued ecosystem goods and services, and ultimately to a diminishment in potential human well-being. (p. 1)

As the first part of the title of the dissertation, "The mental demands ...", suggests, DeLauer is interested in developing a deeper insight into the capacities needed when taking on these types of challenges, and understanding to what extent people who participate in such initiatives actually have these capacities. Early in the dissertation, DeLauer lists a number of capacities she believes are needed in the process.

- Capacity to conceptually understand complex, multiple variables
- Capacity to acknowledge personal responsibility and ownership
- Capacity for empathy for competing sectors and the individuals that comprise them
- Capacity to attend to multiple perspectives at once
- Comfort with ambiguity
- Capacity to reflect on and differentiate among management implications

It is not clear how DeLauer arrived at this list, but it points out the general direction of the further investigation.

DeLauer collected three sets of data for her study. She invited all 41 representatives to participate in the study, of which 22 agreed. She conducted two different types of interviews with these 22 individuals. The first one was a subject-object interview according to the format developed by Robert Kegan and his colleagues as a method for assessing the stage of ego development of a person (Lahey et al., 1988). The second interview was semi-structured and focused the respondents' views on ecosystem-based management and on the MOP process they participated in. These interviews were transcribed and analyzed. The third set of data was participating observations and recordings of 11 MOP meetings over a period of about two years.

Kegan's framework (Kegan, 1994; Lahey et al., 1988) defines three adult "orders of consciousness" (and two stages before adult age). Most adults, however, show signs of being in transition between two of the orders, and the coding manual for the subject-object interview offers instructions for identifying four transitional steps between each full stage. The analysis of subject-object interviews of DeLauer's 22 respondents yielded the following distribution: 5 participants were coded as predominantly at the 3rd stage, the socialized mind; 5 were in transition between the socialized and the self-transforming mind; 8 were coded as predominantly at the self-authoring stage; and 4 were mainly at the self-authoring stage, but with some elements of the self-transforming stage.

The analysis of the ecosystem-based management interviews was made with a preunderstanding rooted in Kegan's framework, but DeLauer also looked for themes that emerged in the conversations. Eventually, she identified eight "analytical distinctions," i.e., themes where significant differences could be seen regarding how persons embedded in different stages of ego development made meaning and acted in their roles as participants in the MOP process.

1. Connection to affiliation
2. Reactive or self-authoring
3. Capacity for self-reflection
4. Perception of other
5. Responsibility and change
6. Change in decision-making
7. Understanding the process
8. Individual roles

DeLauer organized her empirical analysis theme by theme, for each theme describing the characteristic patterns found among the individuals coded in the four levels of ego development described above. It is not possible in the context of this review to try to do justice to the detailed analysis of developmental differences offered in the main chapers of the dissertation, I will just hint at some of the most central observations. DeLauer found that people coded at the socialized mind saw themselves as advocates of the interests of the stakeholder group they represented and were primarily concerned with protecting those interests against possible changes coming from the outside. They were primarily reactive rather than proactive and while sometimes offering ideas, they not did generally contribute suggestions on how to build a system that could coordinate and integrate the diverse interests involved. They had difficulties in dealing cognitively with the exposure to several different perspectives, feeling that recognizing the legitimacy of certain aspects of other stakeholders' perspectives might imply disloyalty to their own affiliation. They also tended to assume that the power to really change things resided elsewhere, with legislators and other high-ranking decision-makers.

The participants belonging to the self-authoring group had a far more independent attitude to the process. They had no difficulty differentiating between their roles as representatives of a certain interest on the one hand, and their own personal, self-authored, perspectives on the other hand. They took for granted that different stakeholders have different interests for which they advocate, and that the task of the initiative was to develop a strategy that could accommodate different interests. These participants wanted to understand the nature of differences and felt that the success of the process was dependent upon a recognition, understanding, and consideration of different stakeholder interests. A most important aspect of this group was a strong sense of agency: they gave themselves and the group the mandate to develop and lobby for proposals that grew out of the new understanding that emerged in the deliberative process.

Only four participants belonged to the group self-authoring with elements of self-transforming. Significant for them was a strong process orientation, with less emphasis on developing a certain product and more on developing new types of processes. They felt comfortable with uncertainty and ambivalence and regarded the transformation of perspectives through inquiry into the complexity of the issues as a central task of the initiative.

In the dissertation, DeLauer offers far more detailed observations of patterns of meaning-making and action, and she discusses the implications for the design and facilitation of similar processes. I think DeLauer made a wise choice in staying with one particular analytical framework, Kegan's subject-object theory. This allowed for a coherent research strategy with penetrating observations. However, after reading and rereading the dissertation, I sometimes wished that more effort had been made to analyze the cognitive complexity in the respondents' constructions of the issues and of the group process. It would certainly have been meaningful to use either the dialectical thinking framework (of Michael Basseches and Otto Laske), or one of the models of hierarchical complexity (Michael Commons, Theo Dawson or even Elliott Jaques) to look into the differences in complexity awareness and the consequences of such differences for the ways participants took on their roles in the process.

The dissertation is well organized and well written, with only a few blemishes. The latter include a number of missing and erroneous references. I also find it unfortunate that DeLauer is inconsistent in the naming of Kegan's stages, using two stage names from Kegan's first book (interpersonal and interindividual) and one from his second book (self-authoring), rather than keeping to one set of stage names (as I chose to do above).

I recommend this dissertation not only to researchers interested in developmental aspects of meaning-making in societal contexts, but also to facilitators, project leaders, change agents, managers, activists and other people who are seriously concerned with contributing to more skillful management of complex issues. DeLauer's observations and conclusions regarding fundamental differences in meaning-making and action logics is knowledge that ought to be very useful in designing methods and in real-time facilitation. In particular, group members with significant elements of the "socialized mind" in their meaning-making may need careful scaffolding in order to be able to contribute fully in groups working on complex issues.

Well done, Verna! My congratulations to a very meaningful contribution to knowledge and understanding of a field that I feel is sorely underresearched so far. I do hope that your dissertation will be read by people who are in a position to work as change agents in public issues. I found the reading profoundly inspiring and I certainly can see how your analytical framework can enrich research strategies in future empirical studies.

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The Great Indian Blackout and Elements of Positivity

Swasti Vardhan Mishra[1]

Abstract: Though much criticized, the Indian blackout in July 2012 also possesses another side of a coin: the extent to which the blackout has served on the fronts of unity, cohesiveness, and equality is highly explicit. The currently ill-functioning Indian administration is identified as being at an intersection of a transition, a transition to more administrative efficiency. The ideas proposed in the essay are intended to perpetuate thoughts of optimism and faith through a constructively-framed perspective.

Introduction

My recent preoccupation with the ideas of postmodernism and much contemplated cultural turn in humanities and social science influenced my mind to mull over one of the recent crises the country of India has come across. 620 million people are estimated to have suffered from the greatest blackout the world has seen (30 and 31 July 2012), which has become a topic of much criticism and contestation. Eminent thinkers, analysts, and experts have criticised the act with huge chunk of pessimistic attitude (Bedi & Crilly, 2012; Einhorn & Mehrotra, 2012; Puri, 2012). They have reasoned that such a blackout is detrimental to the growth of a country and its aspiration to become a developed economy.

> Business experts worldwide are saying that India cannot be a safe investment destination for at least another decade. They say this not because of the government's attitude to foreign investment but because of India's power situation which renders future industrial enterprise hazardous.... India is in a deep fundamental systemic crisis.... From the early permissive attitude of the past has mushroomed the gigantic horrendous corruption of today. (Puri, 2012, p. 6)

Taking much from the special article by Rajinder Puri on the blackout, my view takes a somewhat antithetical path toward that interpretation, and I intend to focus on the positive elements that this event has entailed. The contemplation that follows will emphasize the latent ideas of society and human solidarity, and must not be viewed as denigrating any other idea. The idea that such an event delivers positive effects on social fronts is not rooted in the gamut of development studies or economics, which tend to be the foundation of a large array of published and unpublished views. As indicated above, these views interpret the blackout based on economics and development studies, which cling to the idea that such an event is deleterious for economic growth and development. My ideas can be assumed as a transgression from the same and at times also opposing.

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The blackout, according to my perception, has ignited such endangered qualities of the human race as, to name a few, brotherhood, bonding, altruism and egalitarianism. Though utmost micro in occurrence and influence, I would like to focus on three of such positive qualities, which this chaos crystallized during my personal observations. My objective in this essay is to make the point that there is something beyond economic prosperity and the negative aspects of any event. To foster attention to the prosperity of human values, values of cohesiveness, and observing the positive aspect of any event is the rationale behind this essay. The three positive qualities during and from the blackout that I focus on here are altruism, social amalgamation, and egalitarianism.

Altruism

Firstly, from the onset of the blackout, altruism flourished. The onward journey to home after a day's labouring brought me to a disaster-like situation; a flood of homeward going people were flocking on roads and railway stations and the bustling and chaos spread at an unusual level. Nevertheless, the chaos illuminated something positive in it: people helping each other out with solutions, the routine tussle among different groups metamorphosed into each asking others the rationale behind the blackout and probing about its rectification. This technical failure invoked the feeling of oneness, the feeling of same genesis, the feeling of prioritizing others' vulnerability despite being vulnerable. This feeling of attachment to one another, though of short duration, infused me with optimist thoughts about human cohesiveness. Puri's emphasis on corruption of Indian bureaucracy and Indian mind is a lived fact and has also become a cliché to a large extent. Notwithstanding, the idea of solidarity as reflected here traverses a path, much strayed from our routinely lived life, where we fight over being a Brahmin or a Dalit or a Hindu or a Muslim.

Social Amalgamation

Secondly, I saw heightened social amalgamation. On a community level of observation there erupted a day of festival; paradoxically speaking, a festival of dark. The modernised approach of caging oneself in one's apartment at the onset of day's end reflected itself in the localities of my city. The streets, which hitherto glorified themselves with mere presence of lamp posts, remained congested on the day. The crowded galis[2] and age-wise segregation of community residents was conspicuous and quite different from the religiously motivated festival we usually delve into. The adda[3] sessions consisted of myriad topics: the piled up topics of curiosity and apprehensions about the blackout, the dwindling economy of the country, and the worsening condition of the Indian cricket team. At least, I could not differentiate the corrupt and the people who are axed by the corrupt among the cheerful crowd disregarding and unperturbed by the lightlessness. Coming to the finest example of human gregariousness, I saw family, which I experienced as more inspiring: the offspring of the family, irrespective of age, were clustered and tied to their parents, to their siblings, who otherwise would have remained hooked to a plethora of human inventions like televsions, personal computers and other such gadgets. I believe the greatest of all human hazards is loneliness, much more painful than any human physiological disorder. The event of lightlessness helped in curbing this loneliness, albeit momentarily.

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[2] Galis: A short narrow street in Indian habitations.

[3] Adda: A communal get together.

Egalitarianism

Thirdly, a boundary-breaking egalitarianism was imposed on us. India is home to a large number of homeless and squatter people. Nighttime aerial photographs of the country highlight, without ambiguity, the clusters of the light and the dark. Schemes like Gramin Vidyutikaran Yojana[4] have definitely borne fruits but have not yet wiped out the rural-urban divide. Besides, there exists a second shade of inequality which is intra-urban in character: the lightlessness situation of squatters and homeless beings. The idea of inequality and social justice is eclectic and pluralistic in nature; being highlighted in works ranging from theories of socialism to action network theory. The thoughts may seem cynical and dystopian but it is another form of representing the notion of equality, an idea that will retrofit the bigger domain of forms of *Equality*. For a couple of hours the stark differentiation between spatiality of the light and the dark among different human habitations got wiped out. A squatter valued as much as a palatial abode: the difference vanished. The thought may sound radical but must be seen as an eruption of anguish and pain to live an everyday life of disparities and prejudices and are definitely based on the ideas of social justice and equality.

My Conclusions

I agree to the problems cited by the bench of experts and thinkers rooted in economic growth and development grounds; in fact I second it. But when observed from a much bigger horizon, India is developing by jumping along a transition which I must name as *transition of administrative efficiency*, a transition from worst governance to that of the best. The failure of the North-Grid[5] (the reason behind the blackout) must not be exemplified as India's failed instances rather the positive aspect must be dug out. In spite of having such diverse, if I am not wrong, *the* most diverse physical terrain, India successfully installed a nationwide grid which functions flawlessly. Isn't it an angle of rejoicing? Yes, it is true, that it is the resident Indian who moves up to the highest chair of Indian polity and it is this same Indian who gets corrupted, a much-criticised reality. And perhaps for that very reason, the idea of belongingness and a resultant sense of accountability must be inculcated and sustained among the Indian mass population—much before sustaining a growth of 9%[6]. Prior to any development step, what must be modified is the human consciousness, the consciousness of belonging to a same hearth, the consciousness of solidarity and sharing of shoulders.

In the given political economic milieu of India, it is imperative to visualise a situation in its entirety rather than magnifying the gaps: the gaps between what goal India, as an economy or as a nation-state, must achieve and what it actually has achieved. India is definitely lagging behind vis-à-vis the goal set; however, the way she has handled the 1.2 billion-plus population through efficient governance and multiple flagship programmes is highly commendable. The gaps can be bridged once we are habituated with identifying the elements of positivity. I offer this essay, with the help of an optimistic thought over an event that is detrimental to our economic growth, to reflect the idea that the unconformities are not the only achievement India sustained. We must try to internalize the fact that every coin has two sides, which despite being contrasting, give an holistic view of any event.

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[4] Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) was launched in April 2005 by merging all ongoing schemes.The RGGVY aims at: Electrifying all villages and habitations as per new definition, providing access to electricity to all rural households and providing electricity Connection to Below Poverty Line (BPL) families free of charge. (http://rggvy.gov.in/rggvy/rggvyportal/index.html)

[5] Indian power system is divided into five regional sectors: Northern, Eastern, Western, North Eastern and Southern region

[6] The Eleventh Plan aims at achieving a radical transformation in this aspect of our development. It sets a target for 9% growth in the five year period 2007–08 to 2011–12 with acceleration during the period to reach 10% by the end of the Plan. (Eleventh Five year plan, India)

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Research Across Boundaries: Introduction to the First Part of the Special Issue

Markus Molz[1] **& Mark G. Edwards**[2]

> In the coming century, there will be an urgent need for scholars who go beyond the isolated facts; who make connections across the disciplines; and who begin to discover a more coherent view of knowledge and a more integrated, more authentic view of life. (Boyer, 1994, p. 118)

Background and Foreground

In the context of an unprecedented proliferation of research specializations and the pressing problem-solving needs in society, Ernest Boyer and other scholars, have emphasized the special role for research that connects knowledge and that spans boundaries. This *scholarship of integration* complements traditional modes of specialization of knowledge. Major advances in boundary spanning research across the seams of separate paradigms, disciplines, cultures and contexts have been made in many places in recent years. Multi-paradigm and multi-method research, translation research movements, trans- and meta-disciplinary approaches, as well as cross-cultural or cross-sector participatory projects are emerging in and across many fields of research. It is no accident that these developments are surfacing at this juncture in planetary evolution.

Down through the ages, each generation of humanity has faced its own challenges, its own demons, and its own possibilities for expanding the possibilities. Sometimes the challenges are accepted, the will, the heart and the hands are tested, and life deepens and expands. Sometimes the challenges are rejected and avoided, our demons get the better of us, we turn in on ourselves

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and the possibilities afforded by human birth close down. Whatever our choices have been in the past, humanity has moved on. But something new presents itself in these current days. We are living in an unprecedented historical epoch, the *Anthropocene* (Steffen et al, 2011).

The human has irrevocably changed the planet. The impact of our actions are coming back to haunt us and our children. The challenges are now global, local and everything in between, they are with us now and they stretch out into the distant intergenerational future, they include the whole Earth system and every living thing that travels with her, they involve every aspect of the countless bio-social systems that network across her surface and which course through the inter-subjective experience of every plant and animal. The possibilities for responding to the planetary challenges, and the implication of those responses, are extreme and they stretch out between a vision for and acceptance of a profound deepening of planetary potentials and a life-destroying, fear-laden rejection of the realities that demand our attention.

Science, the humanities, religion, art, the storehouses of cultural and indigenous knowledge, the world of lived practice and life experience will all generate their own contributions to meeting or avoiding the local, regional and global challenges that beset us. Many possibilities exist in considering these options but, whatever path we choose as individuals or as a single global family, never before have the global stakes been so high, never before has the need for planet-wide decision-making, for big-picture explanations and solutions been so pressing. Never before has human society, as a single entity, been required to develop a coherent global approach to dealing with the challenges that now confront it.

And it is no coincidence that the unfolding planetary challenge should also be accompanied by the emergence of global forms of knowing and of accessing knowledge. In no previous times has so much knowledge been intentionally produced, stored and disseminated, has there been such an extensive body of expertise in so many distinct research specializations. It is only now, in these last few years, that the products of so many knowledge traditions, institutions of learning, independent scholars, research collectives and commercial research sources from so many regions, cultures and historical periods have become accessible to so many people across the globe. The web and depth of knowledge is vast and it is available. But what sense can and will we make of it all? Down which pathways will all this knowledge lead us?

It is no coincidence that in these critical times of a global anthropogenic cocktail of crises, we are also immersed in an ocean of experience, of data, information and knowledge. Do we have the wisdom to not only develop shared knowledge from this ocean of information but also to make shared sense of it? And are we able to make use of the bigger pictures we gain from boundary-crossing experience and reflection to engage in large-scale and long-term coordinated action? This is needed to enable a dignified life for the many throughout the Great Transition (Raskin et al, 2002; Spratt et al, 2010). Under complex and volatile conditions boundary-crossing competence is also considered more and more important as a complement for domain-specific expertise (see e.g. Engeström, Engeström & Kärkkäinen, 1997, Horlick-Jones & Sime, 2004).

Responding to the need for shared sense making, there is a widespread and growing call today for building connections across disciplines, paradigms, cultures, and worldviews (see for instance Dussel, 2009; Giri, 2002, as well as Nelson and Raman in this issue). And indeed, in recent years various advances have been made in boundary-crossing research that facilitates (re)connections between theory and practice, facts and values, history and future, sciences and humanities, the knowledge traditions of East and West, North and South. Gasper (2004) says that

> we should recognize and promote a complex intellectual 'eco-system' with multiple legitimate types of life-form, sub-system, and of interaction of ideas, inquirers and users (p. 310) … an eco-system within which many species and hybrids co-exist and interact … A complex eco-system requires a complex system of concepts and models to describe and understand it. ... Interaction requires mutually accessible and acceptable intellectual frameworks. (p. 327)

In navigating through the hazards of the Great Transition we need conceptual visions with the requisite complexity and scope. Towards this end the Luxembourg Symposium was organized.

The Luxembourg Symposium

The international symposium “Research across Boundaries – Advances in Theory-building” was held at the University of Luxembourg in June of 2010. It brought together, for the first time, many leading boundary spanning and meta-level researchers from more than 15 countries across all continents and as many different research areas. In what became a set of truly global dialogues, the participants presented and commented an astounding array of contemporary integrative frameworks, as well as inter- and transdisciplinary reviews and research practices across various fields of inquiry of high relevance for the future.

This special issue brings together the contributions of many of the scholars and visionaries that participated in the symposium, plus a couple of complementary papers of resonating researchers who couldn’t make it to the event itself but were keen to make a contribution nevertheless. Our invitation was to deliver summary accounts of sustained boundary-crossing research and (meta)theory-building, often of a lifetime, to colleagues rooted in other research domains. The contributors were called to make the essentials of their sophisticated views, or more focused parts thereof, accessible to the interested public and to provide extended bibliographies for those attracted to explore the original sources of their work. Our guiding idea was to encourage boundary-crossing, on a meta-level, between mature boundary-crossing approaches that, somehow paradoxically, did not yet, or barely, come in touch with each other. The scientific committee of the symposium and its helpers volunteered to identify and invite these boundary-crossing scholars and to facilitate their meta-boundary-crossing dialogues and polylogues.

As a result, the Luxembourg symposium saw contributions offered that stemmed from quantum theoretical inspirations to cybernetics and complexity approaches, from action theory to semiotics and integrative meta-theorizing. The philosophical underpinnings included meta-paradigms like transdisciplinarity, integral theory, critical realism, relational contextualism, global ethics, as well as participatory and emancipatory worldviews. Issues of boundary-crossing research paradigms and communities, of sense-making tools and theory families, institutional barriers and opportunities were all intimately considered. The symposium provided an opportunity for these and other issues to be discussed in the context of uncovering convergences and divergences, of proposing novel angles on integrative sense-making and on some of the failures and successes of past attempts at boundary-crossing research.

This special issue presents reworked papers prepared for the symposium. By reworked we mean that all the papers here have undergone a process of review and reappraisal. The dialogical approach that was undergirding the symposium and the process thereafter presented authors with multiple opportunities for gathering feedback and comment. Subsequent to this, papers also underwent a peer review process and authors had an opportunity to re-edit and improve their contributions. This special issue is the result of that extensive process. Given the number of contributions, it will be published in two parts. The first part is now available. The second part will follow soon. Let us now give an overview of the contents of the first part.

Themes and Seams

The special issue starts with some reflections on the Research across Boundaries Symposium from Jonathan Reams and Helmut Reich who, along with us (Markus Molz and Mark Edwards), where members of the scientific committee for the event. Reams and Reich describe the process by which the symposium was developed and structured as well as some of the outcomes that it generated. They comment in particular on the proposal for a University for the Future[3] and the need for higher education and research institutions specifically redesigned and refocused in such a way that they become catalysers of sustainable and dignified pathways through the challenges of the Great Transition. We would like to add that the originally intended follow-up symposium is now scheduled for fall 2013 precisely with a focus on Transformative Higher Education.[4] It is also noteworthy that the Critical Realism & Integral Theory Symposium in fall 2011 in California[5] resulted from the first time encounter between Roy Bhaskar and Sean Esbjörn-Hargens at the Research across Boundaries Symposium.

The papers that are based on the symposium keynote speeches of Ruben Nelson and Varadaraja V. Raman, complemented by Ananta Kumar Giri, emphasize the point that learning, thinking and acting in an integrated manner is necessary in order to respond to the transformation times we live in. To do this we need to, as Nelson says, “cooperate with our evolution.” There is drama to this story - a drama of scope and scale of the problems, of immense confusion, the drama of awakening. Nelson believes there are signs that *conscious evolution* (Bánáthy, 2000; Eisler, 1998) is possible and is in fact underway. From the scientific domain there are signs that boundary crossing research will contribute to the development of a “new human-centered ‘meta-science’.” Such a science will play a crucial role in the coming decades.

Raman highlights the “extraordinary diversity” of human learning and knowledge and reviews different kinds of boundaries that integrative approaches have to bridge: between academic disciplines, between different cultures, religions and ethical frameworks, but also between science and society and science and spirituality. Each of these bounded perspectives has enriched the world in some way. But one-sidedness, bias and conflict has also been part of this story. Diversity offers the potential for innovative insights but also at times creates discord, fear or ghettoization. The diversity of knowledge and wisdom traditions is becoming more apparent as we move towards the globalization of communication and information. Raman points out that we are not just dealing with "interactions between cultures, but with the interpenetration and interpretations and misinterpretations of cultures." How might these encounters aid the emergence of consciousness and enhancement of creativity rather than create aggression and retraction. One starting point is to widen our horizons on what knowledge may be important for living with diversity. Harking back to S. P. Snow's celebrated lecture on "The Two Cultures," Raman calls for a closer collaboration between science and the humanities, between the worlds of technology and art, and learning and practice. The challenge, Raman argues, is not one of a limited interdisciplinary education but of respectful appreciation "of the fruits of the creative efforts in all disciplines, and to try to be sympathetic to the deepest concerns of those who are not of our particular group."

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[3] see www.u4future.net
[4] see www.universityfutures.com
[5] see for instance http://integrallife.com/node/104939

Boundary crossing capabilities are essential for the emergence of planetary civilizations that are open and inquisitive rather than closed and fearful. Giri continues along the lines of learning across boundaries and invites to intentionally and actively weave global "networks of agape and creativity." He emphasizes that ultimately "planetary realizations" don't arise from cold intelligence or bounded expertise but from heartfelt encounters of humans touching each other respectfully in multiple dimensions of their being. In contrast to the expert, the hierarchical leader, or the ivory tower scholar, Giri foregrounds a deep identity that we can all share with each other regardless our background, the identity of "students of life and friends of the world." Based on this shared identity loving and caring encounters of co-creation are possible that have the capacity to "overflow" and create new institutions or transform existing institutions. The other way round, Giri says, leaders of existing institutions can do much good when they create open spaces in the midst of their stable organizational structures that can host "planetary conversations" and support the boundary-crossing networks emerging from them. He indicates that this is how a "new enlightenment" can be sparked that is "simultaneously rational and spiritual, individual as well as collective."

After these broad introductory perspectives, the contributions of Gary Hampson and Nick Maxwell approach the tensions between atomistic and holistic worldviews from historical, philosophical and institutional perspectives. Hampson provides contours of a possible "genealogy and topology of Western integrative thinking." Historically, science and technology coalescing or originating in the West deployed their world-transforming power by emancipating from religious dogma and developing sophisticated empirical and analytical methodologies. Their undeniable success created a dominance of atomistic thinking which, on the other hand, is often considered as one of the root causes for the contemporary grand challenges. Hampson highlights that throughout Western history there were also always holistic currents and sets out to present a macro-historical lineage of integrative story telling. Using the overarching concepts of "creativity, intuition, love, organicism, and spiritual philosophy," Hampson takes us on a journey through the syncretisms and integral weavings of "Hermetism, Neoplatonism, Renaissancism, German Humanism and Reconstructive Postmodernism." This condensed genealogical reading of boundary-crossing, integrative impulses in the Western history of ideas helps us to contextualize current efforts in these directions.

Maxwell squarely lays part of the responsibility for both the generation and the fragmented responses to the contemporary challenges on institutionalized science and its technological offspring. He devoted his lifetime work to show that global crises have arisen because of the power of science and technology to change physical, biological and social systems while operating on the basis of an institutionalized divide between science and society. But Maxwell doesn’t stop with analyzing the situation. He also makes proposals for institutional transformation so that universities become places of wisdom; a crucial mission that goes beyond the accumulation and exploitation of fragmented knowledge. Maxwell argues that universities, researchers and scientific institutions require “a kind of inquiry rationally devoted to helping humanity make progress towards as good a world as possible.” For this he coins and substantiates the notion of “wisdom inquiry” and contrasts it with “knowledge inquiry” which is the wanting dominant mode of academic work. Despite the lack of institutional response to Maxwell’s thoroughly argued programmatic, many researchers are beginning to understand that a broader vision is needed to solve real world problems and that a substantial institutional redesign and ethical leadership is required to focus science prioritarily on the building of a better world.

The papers of Ananta Giri and Mike King, each in its own way but with complementary foci, look at possibilities and limits of boundary-crossing and integration. In their boundary-crossing scope both authors go beyond the range of scientific disciplines and advance proposals that take into account spiritual perspectives. Giri tackles the paradox of difference and integration in “life, self, culture, society and the world.” On the one hand he is aware that diversity needs to be welcomed and that the historical model of enforced integration “based upon annihilation of differences” can’t and shouldn’t be prolonged into the 21st century. On the other hand, he also sees the dangers of differences being valorized to the level of disconnection and separation in the wake of extreme relativists and communitarian positions. Rather, as Giri states, “differences also have threads of connections among them—they also seek to be part of a respectful and dignified emergent wholeness.” Giri is turning this paradox of difference and integration into a generative new ethic and practice of “differential integration” that requires “practices of weakening of entrenched identities and differences through cultivation of non-identities and non-differences.” Giri sees this as a “new art of integration which is not totalitarian and oppressive but rather seeks to help us realize our connectedness and potentiality.” It is an existential endeavor because it requires of us “weak and gentle integration” where integration starts with the recognition of our “weakness and vulnerability.” It also involves artistic sensibilities of “creativity and nurturance” and the ethical requirements for integrative justice, i.e. honoring of the marginalized and the weak.

King basically takes up the same paradox as Giri but with a focus on the sprawling of human knowledge and knowledge domains. King takes a principled and independent stance to problematize knowledge integration, in contrast to many other authors who take this need for granted. He states that “Schrödinger, Ricoeur and Wilber are poles apart in their respective worldviews, but share the idea of an all-embracing knowledge, the welding together of all that is known, the unification of human discourse.” King does not only expose in detail why this is not feasible but also why it is not even desirable. For him, the motivation for the unification of knowledge is misplaced. He claims that the appropriate realm for the “search for union” is mysticism, not science. Regards knowledge domains, King does not prone an anything goes approach, though. He recognizes that they can be organized hierarchically, at least partly, and that they have connections which he coins “isthmuses”. However, King’s “isthmus theory does not provide for the unification of all knowledge domains, but examines *kinships* or *contiguities* between domains that remain far more separate than connected.” Into his line of arguments King weaves a reflection on “outsider scholarship” of the type practiced by “Koestler, Schumacher and Pirsig.” He presents these examples to show that we sometimes must look to the periphery, to the outsider and to the independent scholar to gain the most radical and often most clear-sighted boundary-crossing insights.

Jennifer Gidley and Mark Edwards each introduce new meta-level approaches. The question guiding Gidley’s contribution is “What are the leading-edge discourses that identify new paradigms of thinking and how can they be articulated and meta-cohered?” Gidley initiates the new field of “global knowledge futures” by relating streams of postformal studies, integral studies, planetary studies and futures studies to each other. She works at the “creative margins of these boundary-crossing fields, and seeking out and identifying the territory beyond them where they begin to touch each other.” Using the concept of “imaginaries that cohere” Gidley sets out a new vision for future studies as a field of creativity, imagination, dialogue and collaboration, on the way deconstructing the pervasive ideological discourse on the global knowledge economy and providing a typology of positivist and post-positivist futures approaches. Imagining the future necessarily involves all disciplines and all the potential connections that might exist between them. Hence, futures studies is already an integrative clearing in which all knowledge discourses can enter into dialogue. Gidley offers an intriguing vision of the next stage of its development.

Edwards’ also wants to consciously call out and name the emerging boundary-spanning forms of social science research. With his proposal for an “integral meta-studies,” Edwards provides a platform for the institutional recognition of integrative research. The theme, pointed out by Fritjof Capra several decades ago, of a critical turning point, once again appears here. We have the option of acting “globally to establish a sustainable and sustaining network of world societies or be enmired, for the foreseeable long-term future, in a regressive cycle of ever-deepening global crises.” Integrative forms of meta-level sense-making will be needed for the positive arc of planetary development to occur. Edwards proposes a general schema for “situating this meta-level science” in which multiple branches of meta-level research activities are pursued. He encourages now “a more overt description and institutionalization of meta-level perspectives and practices.” This proposal is not for some new framework or metatheory but for the overt identification of a new arena of research, a meta-level social science that can study, critique and improve our big pictures, dominant practices, grand ideas and the ideologies that derive from them.

The contributions by Julie Thompson Klein and Irena Ateljevic take a different approach to the question of how to discuss and present boundary-crossing approaches. Rather than proposing a meta-layer that creates “meta-coherence,” as Gidley would say, they are discussing the specifics of a group of existing boundary-crossing research paradigms and discourses. This includes their differences, complementarities and interfaces. Klein’s paper helps clarify our understanding of the various streams of transdisciplinarity, a boundary crossing research movement that started some 40 years ago while particularly gaining momentum in recent years. Even though it the label is widely shared and identified with, the transdisciplinary movement is not unified and has a variety of expressions in different countries and research fields. Accordingly, Klein goes into the detail of the nomenclature for transdisciplinary forms of boundary-crossing research approaches. She looks at the clusters of keywords associated with transdisciplinarity. She finds there to be no one central definition and so there are several clusters of terms that are associated with transdisciplinarity. These clusters depend on such things as “differing philosophical outlooks, contexts of practice, and views of the socio-political function of science and the educational system”. Her findings identify a “structured plurality of definitions” of transdisciplinarity which is not characterized by absolute divisions but by linked relationships. Together, these themes provide a “structure to the diversity of activities associated with transdisciplinarity.”

Ateljevic’s review of “transmodernity” as an umbrella term refers to the kind of appreciative interest that Raman encourages. Moving across such fields as critical economics, philosophy, postcolonial studies, social anthropology, psychology, and social activism, Ateljevic lays out a program for an integrated “transmodern” approach to a scholarship of hope and caring. This perspective comes from Ateljevic notion of “the synchronized phenomenon of emerging higher collective consciousness” as expressed in the “transmodernity paradigm” of Ghisi, the “transmodern philosophy of liberation” of Dussel (see forthcoming second part of the special issue), the “reflective/ living-systems paradigm” of Elgin, the “partnership model of caring economics” of Eisler, the “relational global consciousness of biosphere politics” of Rifkin, the “love ethics” of hooks and the “circularity paradigm of interdependence” of Steinem. Ateljevic wants to relate these disparate, emerging views to each other. She seeks to provide a co-ordinating language that connects these signs of an emerging paradigm shift that might well constitute ‘the new renaissance” of human history.

Several researchers have developed highly integrative metatheories and metamethodologies capable of locating and connecting an array of middle-range theories and models in or across research fields and disciplines in a big picture view. Søren Brier with his cybersemiotics and Bill Torbert with his developmental action inquiry (DAI) are two examples of the huge contributions that leading scholars can make to metatheory and metapractice. Søren Brier, imbued by decades of philosophy of science teaching and research, offers cybersemiotics as his candidate for an overarching framework for integrating other views and, moreover, for creating sound foundations for research in general. He builds this approach out of an integration of the physical, biological, socio-cultural and phenomenological sciences in his model of the “cybersemiotic star”. Relying on many different philosophers and scholars, particularly Charles Sanders Peirce and Niklas Luhmann, but also the medieval scholastic realist Duns Scotus, Brier describes his cybersemiotic framework, where “sign processes become the ground reality, on which our conceptions of ourselves, action, meaning and the world are built.” He exposes, furthermore, how different kinds and levels of semiotic and proto-semiotic processes arise evolutionary in nature, culture and consciousness, how they come together in human beings and their communications, and how cybersemiotics helps to get this big picture.

The eminent organization and leadership theorist, researcher and practitioner Bill Torbert provides a detailed description and assessment of his collaborative developmental action inquiry (CDAI) “meta-paradigmatic approach to social science and social action.” In what he declared to be the last academic journal article he intends to publish in his prolific career, Torbert describes how multiple research paradigms and their associated methodologies are integrated within CDAI.. Because it includes “first person consciousness development approaches, “second person, transformational, mutuality-seeking inquiry,” and third person objectivity seeking investigatory techniques, CDAI is not only a formal science but a general method for transformative inquiry and action. It considers and connects individual, organizational and social scientific development. Torbert introduces both objective and subjective data as to the efficacy and validity of CDAI and makes a strong point for the power of the action turn in integrative approaches.

The next two contributions practice boundary-crossing by reviewing a specific interdisciplinary research field while adding their own mark. Michael Kimmel reviews relevant streams from various originally mostly unconnected subdisciplines of different disciplines (such as cognitive linguistics, cognitive anthropology and cognitive psychology) that are in the process of merging more and more into an interdisciplinary field that is focusing on “the arc from the body to culture”. Kimmel makes evident how the body (through kinesthetic schemas), the mind (through concepts and metaphors) and culture (through ideologies and worldviews but also through artifacts and the built environment) interact and influence each other in complex ways without a single causal point of departure. It is easy to forget the role of embodiment when engaging in the flights of abstraction. Michael Kimmel reminds us of the role of the body and of metaphorical mapping in the formation of concepts and conceptual frameworks. His paper reviews approaches to the grounding of ideas in bodily experience. Drawing on the ground breaking work of Lakoff and Johnson, among many others, Kimmel explains which role kinesthetic and bodily templates play in higher order cognitions (including the frameworks discussed in this special issue), and the other way round, how cultural categories are becoming inscribed in our bodies. Kimmel thoroughly reviews different explanations of this complex dialectical process and how, taken together, they can account for certain empirical cases that none of them alone can explain. He presents an artful blend of theoretical review and anthropological examples that also assesses the state of the art of this field and the open questions that need to be tackled to bring it to its next stage.

Rick Szostak takes an original boundary-crossing stance across cultures and disciplines, as well as between science and public policy in regard to the key issue of “human progress.” His paper outlines “a holistic understanding of human progress (its nature, its history, and its future prospects)”. Against cultural relativists and zeitgeist pessimists, he believes that there is a way to capture what most people would accept as desirable development, to trace back in history where how much progress actually occurred, and to make recommendations how to make progress in the time to come in areas in which we have been stagnating or falling back. Szostak’s paper deals with the idea of progress-regress from a new analytical perspective. He views the notion of progress as requiring the integration of ethical, historical, and social scientific analysis in ways that can influence policy-making. This integrative challenge, Szostak argues, can be met through the application of recent developments in interdisciplinary analysis.

The last two contributions of the first part of the special issue revolve around enriching existing interdisciplinary research fields and instigating their further development through boundary-crossing metatheoretical perspectives that were not part of the discourses in these fields before. Both fields featured here are of key relevance in the Great Transition: urban planning and consumer studies. The contribution from Christoph Woiwode is extremely important for its focus on applying boundary crossing research to the topic of urban planning and sustainability. Woiwode is critically appraising a major report of the German Advisory Council for Global Change introducing the important notions of transformation research/ education versus transformative research/ education. In relation to this, Woiwode moves across a broad series of issues, from spirituality, indigenous knowledge, to social transformation, and from climate change, values change to practical challenges of urban planning. He is using integral theory and transdisciplinarity as a means of developing meaning and cohesion across these vastly different knowledge domains that come together in urban planning. Transdisciplinarity (see Klein’s contribution in this issue) offers an important boundary crossing perspective in that it not only aims to connect scientific knowledge across different disciplines but also to translate that research into something that helps communities to address the very real problems that they face and the opportunities that might also be present. In developing sustaining visions for the future, the need for transdisciplinarity in the planning of cities and in the designing of urban environments will be crucial for achieving any level of authentic sustainability. Woiwode says urban planning and development are “at the center of the climate change adaptation and mitigation debate” and that this creates “an opportunity for hitherto largely neglected integral approaches to gain more importance in mainstream urban planning practice and theory.” Woiwode makes a strong case that transdisciplinarity, through its collaborative and participative methods, offers the kind of integrative and boundary crossing perspective that produce practical research that is relevant to the needs of communities across the world.

Sue McGregor also sets out to introduce transdisciplinary perspectives to perhaps the most crucial research field in the coming age of make or break sustainability: consumer studies. McGregor points out that over-consumption is impacting hugely on poorer members of the global community and that it is affecting the very basis for sustainable life systems. As she puts it, “we have consumed, produced and de-legislated ourselves into a human condition and ecological polycrisis.” McGregor makes the case for a transdisciplinary turn where consumption issues encapsulate not only the “symptomatic issues” of modern consumer society but with “human and ecological problems that manifest and mask themselves as symptoms of ill thought out consumption and greedy corporate behavior.” This turn does not only imply a boundary-crossing beyond the disciplines traditionally involved in consumer studies, but also a boundary-crossing between science and civil society, government and business, in terms of co-developing research conducted for transformative impact. Woiwode’s and McGregor’s examples remind us that any field can and should take advantage of being studied from and empowered through integral and transdisciplinary perspectives.

Openings and Endings

Through the contributions assembled in the first part of this special issue we could already see that there are a number of different and complementary ways to practice and review boundary-crossing research as highlighted in the introduction to each couple of papers. Regarding these different approaches the inherent paradox of the whole thing is striking. Boundaries are ephemeral and real, abstract and completely concrete (as any tour of a conventional university will confirm), they are institutionally ingrained while also being often quite arbitrary. We need boundaries to become who we are and to develop some knowledge at all, and we are also inherently boundless boundary-crossers (Unger, 2007). A lot of boundary work is going on (Gieryn, 1999; Horlick-Jones & Sime, 2004) because the mixed nature of knowledge and social boundaries excludes some communities while empowering others. The opportunity for rearrangement and crossing over boundaries may never be greater than it is currently. But it is simultaneously true that knowledge boundaries, the boundaries of what is “scientific”, and disciplinary boundaries within academic research have never been so grimly reinforced and institutionally upheld as at this time.

The papers here address both ends of this issue. From both within and without, institutional boundaries are being reinforced but also questioned. The imperatives of a world that does not respect human made boundaries also often break into the plans of mice and men. But it is also true that the boundaries we create and cross have the power to destabilize entire planetary systems, physical, biological and social. We will need to develop methods for managing the lines of responsibility and knowledge that we create. The task before us is no less than planetary stewardship (Steffen et al, 2011) and the role of integrative studies in that management process drawing on well-developed boundary-crossing capabilities will be significant. The articles offered here contribute to that task, as will those featuring in the second part of this special issue in which we will also discuss more the inherent limits of integrative research endeavors and which complements they require to contribute to actual transformation work.

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Impressions from the Luxemburg Symposium Research Across Boundaries

Jonathan Reams[1] **and K. Helmut Reich**[2]

Introduction

These reflections were captured soon after the symposium Research Across Boundaries with the aim of providing some first-hand reflections to contextualize the articles found in this special issue. The objective of the symposium was to foster "boundary-crossing research that facilitates (re)connections between theory and practice, facts and values, history and future, sciences and humanities, East and West etc." As members of the scientific committee, we had been involved in supporting Markus Molz with the planning of the event and knew the many challenges faced in attempting to weave together a coherent program for such a range of contributions. From many months of work, re-work and last minute adjustments to solve the inevitable difficulties that came up for some presenters, we worked out the following program:

1. Three keynotes, two on the opening evening and one the following morning.
2. Dialogues in 24 parallel session papers over two days divided into four themes focusing on:
    a. integrative conceptual frameworks,
    b. their critical appraisal,
    c. the connection between matter and mind, culture and consciousness, and
    d. aspects of the historical societal transformation from modernity to transmodernity.
3. A musical interlude provided by Miha Pogacnik.
4. A Knowledge Café (KC) where presenters, observers, attendees and volunteers all engaged in sharing the insights from their participation in the above sessions, this organized around 12 questions (listed below) distilled by the organizers from the questions that emerged from each of the parallel sessions the night before the KC.
5. Open Space Sessions where participants self-organized around actions they felt motivated to pursue from their experience of the symposium.

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6. A final plenary session where closure was brought about through some dense reporting out of the Open Space sessions and rounds of gratitude expressions for the volunteers, organizers, and presenters.

You can find the full program and related materials here: http://dica-lab.org/rab

The present authors functioned as facilitators of sessions 2c and 2d (listed above) respectively, and participated as attendees in 1, 3, 4 and 6. Thus our observations are partial.[3] A mitigating circumstance is that sessions 2c and 2d in a way represented two major tendencies of the symposium: a strictly fact-related, scientific problem-solving approach on the one hand and a stimulation of an emerging higher collective consciousness, leading notably to better communication, societal transformation, participatory democracy, and egalitarian cosmopolitism on the other.

Reflections

The reaction of the participants to the keynote lectures[4] was generally favourable in that they set the broad scope and context of the work being undertaken in the symposium as well as presenting some examples of the kind of work necessary to accomplish the aims set out and certain traps to be avoided.

Regarding the parallel sessions, a major innovation of the symposium was that the papers were not presented by the authors themselves, but by the author of another paper in that specific session. This was one mode of boundary crossing in praxis. After some clarification of this novel approach, (almost) all the authors of sessions 2c and 2d were able to play by that proposal. The result was impressive. Not only had the presenters gone deeply into the 'foreign' paper they presented, but not infrequently they also made valuable proposals for its improvement. In fact, they often managed to reframe the work of their fellow panellists in such a way that new insights emerged for the papers' authors.

In addition, the dialogues brought to light some difficulties such as how to fit the lengthy time scales for complex interdisciplinary research into the time structure of Ph.D. programs, as well as funding such research. They also at times brought about heated engagement as to assumptions about orientations regarding core issues, which were quite illuminating.

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[3] Whereas we are satisfied with the symposium as a whole, there is one undertaking that regrettably did not work out. We indicate it here briefly so that others hopefully may do better. Full-time observers had agreed to cover all sessions, and to present the results of their observations at the final plenary session as well as in the special journal edition devoted to the symposium. Unfortunately, for various reasons, these results were not acceptable for publication. As we know now, the role of a participant-observer at such a gathering requires many competences to be present in one person. Specifically, in spite of a captivating dialogue going on between the participants-only, observers need to maintain a certain (emotional) distance so that their attention is not diverted away from capturing and calmly analyzing even paradoxical or contradictory statements.

[4] See articles from Nelson and Raman in this issue.

Looking at the subject matter of the presentations in session 2c, hopes for easier boundary crossing were raised notably by (a) Thomas and Brigitte Görnitz with their hypothetical notion of *protyposis*, condensed quantum information – posited as the grounding of both matter/energy and human consciousness, and these two therefore having the same ontological status – as well as by (b) Nancey Murphy's *nonreductive physicalism* integrating science, theology and philosophy of mind. The central argument of (b) is that humans need to be understood as composite neural systems, whose immense neural complexity is enmeshed in an immensely complex cultural environment, and as having much downward control of their own functioning. In a nutshell this is *whole-part constraint*. An illustrative example of such a constraint would be the chances of being dealt an ace from a 52-card deck. If it were a question of playing a lonely game with say, 13 cards, the statistical expectation would be one ace (context-*free* constraint). However, if four players are involved, the chances of the second, third and fourth player will depend on the number of aces already distributed. Here a context-*dependent* constraint is at work. Similarly, arguing that the electrical and chemical brain processes (bottom-up processes) fully determine human activities is not acceptable from a dynamical system's perspective: the whole-part constraint comes in here too and needs to be taken into account.

The other papers of session 2c to some extent were on similar lines as (a) above, viz. Harald Wallach's, and as (b), namely those of Michael Kimmel, Lutz Eckensberger and Tatjana Meira-Kochetkova. It is as yet an open issue whether (a) and (b) can in any way be 'combined' to become even more powerful as a hypothesis for facilitating boundary crossing.

Session 2d contained a series of papers that while in many ways striking variations on the core theme of the session (aspects of the historical societal transformation from modernity to transmodernity) also managed to provide critical engagement and extended clarification of particular issues. The first day saw Wendelin Küpers, Sue McGregor and Ronnie Lessem (with Alexander Schieffer) present each other’s work through diverse and creative means. McGregor’s presentation of Küpers’ paper creatively reframed his presentation of his core thesis that future research on leadership and communication needs to break the largely univocal narratives presently being used. In turn, Küpers presented Lessem’s proposal to fundamentally rethink and ultimately rework the design of a university and thereby its specific role in and for a particular society, and also for humanity in general. This was then supplemented by examples of prototypes already being created. Lessem used a narrative/ storytelling mode of presentation to engage McGregor’s thesis that the already interdisciplinary fields of home economics and consumer studies could benefit from moving to a transdisciplinary approach. This would be accompanied by a shift in focus from the study of material consumption to the results of this overdriven tendency of human nature to dealing with human and ecological issues. The depth and diversity of this session created a lively set of dialogues during the session, and the final hour of open dialogue brought about a serious deepening of the inquiry into what lay underneath these three presentations/activities and what common elements could be gleaned to help move the larger symposium goals forward.

The second day of session 2d saw Mark Luyckx Ghisi, Irena Ateljevic and Enrique Dussel continue the presentation of the session theme. Ghisi began by presenting Ateljevic’s thesis of how a transmodern paradigm is emerging. This emergence was shown through a number of significant bodies of literature all pointing to aspects of this phenomenon. Ateljevic then presented Ghisi’s similar view of a transmodern/ post-capitalist society with a visual image to orient her remarks. This was grounded in work with the EU in moving to a knowledge economy as an example of a post capitalist society. There was significant alignment of these two presentations, moving the collective conversation towards a synthetic view. Dussel then presented his own (he was only able to arrive that morning) extensive work on defining transmodernity. The breadth, scope and depth of his presentation enthralled participants and raised the level of collective understanding of both the term transmodernity and the session theme as a whole to a new level.

Outcomes

Following these experiences, a major question arising is the relation between the two tendencies evoked previously, and to some extent epitomized by sessions 2c and 2d. More specifically, who singly, or in what combination of both, decides what the really important issues are, and what the criteria for the likely success of solutions proposed beyond empirical support?

Each of the parallel sessions was requested to come up with two questions each day. These questions were digested (along with dinner) by the scientific committee members to formulate a set of synthesized questions that seeded the Knowledge Café tables. After a great deal of processing the stimulating richness and diversity of questions provided, the committee came up with 12 questions. They were:

1. What conditions enable quality boundary crossing research dialogues?
2. What criteria can be used to assess the quality of inter/transdisciplinary boundary crossing research?
3. What role do ontologies, for example, hierarchical, flat or unified play in inter/transdisciplinary boundary crossing research?
4. How can we become more mindful of the ways metaphors/terminology shape boundary crossing research?
5. What are the relationships between science, philosophy, arts and other forms of human inquiry when pursuing boundary crossing research?
6. How do we determine adequate methods for boundary crossing research?
7. How do we recognize our blind spots, such as ignoring voices or theories from the periphery, when doing boundary crossing research?
8. What difficulties do we experience in doing boundary crossing research?
9. How do we support genuine dialogues that can transform modernity and co-create a conscious transmodern society?
10. What are the institutional supports required to enable boundary crossing research?
11. What kind of logics do we need to do boundary crossing research?
12. What further question do we need to ask?

Regarding question 11 (of which Helmut Reich was the KC recorder), there was general agreement that classical (Aristotelian) binary logic is insufficient for dealing with incompatible, paradoxical, seemingly contradictory concepts/ states of affairs. We need a 'logical' framework accommodating mutual acceptance and validation also in such cases, broadly speaking a post-formal logic. Participants discussed the matching of binary, dialectical, analogical, modal, fuzzy, and systems logic as well as that of relational and contextual reasoning (RCR) to the structure of various problems. Also noted is that while for most participants logic pertains to rules for establishing valid arguments, others spoke of the logic of actions such as the logic of love or of slowing down living.

The Knowledge Café produced highly energized conversations among all in attendance. The final reporting saw the emergence of new levels of understanding of the core issues being faced. In the closing part of that morning participants were asked to cross the boundary from their intellectual engagement to attending to their affective states. This helped to shift and ground the energy of the morning.

The Open Space Sessions followed after lunch and led to a number of sessions where participants' passions enabled conversations of those interested in follow up activities to set the stage for the work of the symposium to continue. One list that came out of these sessions was as follows:

- Organizing a follow-up symposium;
- Creating an international network of scholars, practitioners and initiatives of transformative, transdisciplinary and integral higher education;
- Setting up an online reading circle about each other's inter-/ trans-/ meta-disciplinary writings;
- Developing a research program on self-transformation into a transmodern community/ society;
- Creating links between inter-/ transdisciplinary academic journals;
- Editing a collaborative book on integrative frameworks.

Another list that emerged was to; (a) a new university for the future, (b) an inter-journal conversation, (c) a global reading circle, (d) a collaborative book proposal, (e) another research across boundary symposium, and (f) an international project to treat the question of the emergence of a post-/ transmodern society as a serious research project in its own right (to get it on the public agenda).

The closing plenary brought about a general sense of gratitude for the time spent together and the work put into making the event happen.

Concluding Thoughts

In addition to the undertakings from the Open Space Sessions, the general project now would be to propagate the idea of boundary crossing together with suitable methods and its relevance in a world that is becoming more and more complex and interconnected, and to explore how best this can be implemented in practice in various spheres of human activity.

Such were our thoughts in the immediate glow of the symposium. Time has passed to now, and reviewing this in preparation for the publication of this special issue, I (Jonathan) would like to add an additional reflection. While many ideas for the future progress in relation to this project were shared, as is often the case the follow up suffers from dissipation of energies. Yet it is clear that the ideas spread and take root in many forms most often unknown to those who began them.

However, one particular initiative that captured a good deal of interest and energy in the Open Space sessions was for creating a University for the Future, a ground up redesign of how such ideas could be put into practice. I have had varying degrees of involvement with this initiative, and wish here to point to it as an on-going effort to keep the spirit and ideas behind this symposium alive. You can find out more at http://u4future.net/ .

Surprises Ahead:
What will be special about the 21st Century?
Why do we now need boundary-crossing research?

Ruben Nelson[1]

Introduction

As I understand it, my task is to set the wider historical context for the symposium *Research Across Boundaries*; to see our work whole and draw a long-bow on it.

On my office door there hangs a cartoon from *The New Yorker*. A man is walking past a store-front that has a sign advertising the services found within. The sign reads, *"Things put in perspective while you wait."* This sign captures my sense of my assignment from the universe – for good and ill I am a big picture, context-sensitive, strategically-minded sense-maker. Therefore, I responded with delight when I was asked to think with you about this question: *"What is it about the 21st Century that makes boundary-crossing research and living so important, vital, and even urgent?"*

As suggested by the cartoon on my door, what I have to offer to you are my own reflections and perspectives. They are hard-won and I am staking my life on them. But they are nonetheless, just my perspectives. In terms the great American boundary-crosser, Willis Harman, used to use, *"there is no requirement that you agree with me. You can get off this bus at any stop along the way."*

However, we are all aware that while perspectives are not reality, they are not to be grasped lightly. Perspectives *are* the basis of human action. As we see the world, so we understand it and act within it. Happily, when we change our minds, within limits, history changes. In this vein, I invite you to listen with your most aware, generous and critical selves. John Gardiner, Lyndon Johnson's Secretary of Education, once observed that he had enough persons in his life who were *unloving critics*, even enough who were *uncritical lovers*, that what he hungered for were more *loving critics.* So it is with me, and I assume all of us.

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What Will Be Special About the 21st Century?

So, to work, "What will be special about the 21st Century?"

I offer the thought that the 21st Century is a hinge of history, a truly rare time in which the long trajectory of human history will irrevocably change. Well before 2100, it will be clear that human kind will have turned a corner; we will see that the transformations of the 21st Century are far more profound, thorough-going and urgent than was publicly recognized in 2010. It will also be clear that our species faces either a tragedy – continuing crises, collapse and eventual extinction, or a comedy – the human journey will continue for millennia towards an ever deeper humanity.

The thought that our time may both require and be a period of profound civilizational transformation may be familiar to those of us who are gathered here. However, we all know that it is not yet *an idea in good currency*. This way of framing the 21st Century will not occur to or pass the lips of any of those who gather this day in Canada at the meeting of the G20. Few programs in transformational leadership even hint at civilizational work, fewer still prepare us for it. Living the *civilizational perspective* legitimacy and responding to it with great courage and imagination are among the most pressing tasks of the early 21st Century. Fulfilling this project requires boundary-crossers and boundary-crossing research and living. We have real work to do.

So I will explore for a bit, the question of, *"Just how profound, thorough-going and urgent is the transformation we are in?"*

Profound: I have come to distinguish between a *culture* and *the form of civilization any given culture will manifest at a particular time in human history*. I do so because this distinction allows me to offer the thought that what is changing within and among us is not only our various cultures, but the deepest forms of human civilization. From this perspective, to talk of the emergence of a *post-industrial* or *transmodern civilization* as if it is merely a newly emergent form of *a culture*, is to miss a good deal of the length, breadth, depth and drama of the challenges we face in the 21st Century.

By *culture* I mean what is normally understood in these settings. As an example, I offer this statement made in a powerful Keynote address in 2009 in Essen, Germany by my friend and colleague Thomas Homer-Dixon, *"I have come to realize that the solutions to our climate-change crisis will ultimately reside at the level of culture."* While I agree with his use of 'culture', I would add to his statement, *"and the form of civilization it manifests."* In my view, the changes he is calling for do not only entail a transformation of *culture*, but an evolution of a new *form of civilization*.

As I look at our history as a species, I find it useful to distinguish five forms of civilization: small-group nomadic forms, settled regional forms, settled empire forms, modern/industrial forms and, just possibly, a truly post-industrial or trans-modern form of civilization. This latter, of course, is only a place-holder until we figure out the nature of the beating heart of the next form of civilization, should there be one.

These five forms imply that any given *form of civilization* is not static. If the conditions are right a new form of civilization can emerge from an existing form. If this were not so, there would be only one form of civilization. For good and ill, this is obviously not the case. One policy implication is clear – we should stop promising persons, including ourselves, that they have the right to maintain their present form of culture and civilization forever. Whatever our intentions, this is a promise we likely *cannot* keep. Contrary to Margret Thatcher and George W Bush: *No way of life is non-negotiable.*

A major reason I focus on the various *forms of civilization* and distinguish them from different *cultures* is that every form of civilization is a cosmic bet that its grip on reality – what it takes to be known, true, good and beautiful – is reliable enough that the lives of its descendants will be secure if they continue to honour and live by the ways they have inherited.

At least to me this much is clear. It is not sufficient to use the category of *culture* to capture the transformations that are afoot within and among us today. Much as cultural differences are not to be overlooked or taken lightly, they do not capture the deep differences that exist among different forms of civilization. Put another way, the differences among actual cultures within a given form of civilization are smaller than the differences among the various forms of civilization.

Consider for example, that the French, among several others, have lived in the first four forms of civilization, although, of course, they did not know themselves as *French* 20,000 years ago. This comment also applies to the Hebrew/ Christian tradition. If pursued, this perspective can re-frame our too oft misbegotten ways of creating public policy about social welfare, innovation, multiculturalism, Islam, and East/ West differences.

Thorough-going: It will not surprise you that as I see them the transformations we are in will be far more thorough-going than is commonly understood. The point I want to covey is this: it is no accident that every spiritual and psychological tradition worth its salt has images of awakening to a new sense of reality at its heart. *"Once I was blind, now I can see."* Evolving consciousness is the name of the human game not merely that of living *right* or getting richer.

This was exemplified in a recent conversation with one of the godfathers of complexity theory – Stuart Kauffman. He was saying how excited he was to realize that we live in an open universe; that while he had known this fact for decades, he was just beginning to explore how radical an insight it is. We all know the mind works in this way. The gap in time is long between the dawning and initial exploration of new perspectives and the time when they become ideas in good currency, even in our own lives, let alone that of in our societies.

This gap between insight and its deep digestion into the routines of living is both blessing and curse. The blessing is that we avoid a life of constant turmoil; one driven by the mad rush to live out our newest insights in new ways, and do it today. The curse is overshoot – as persons, societies and civilizations we are prone to staying within familiar patterns and commitments long after the conditions that required them and made them successful have disintegrated. The financial world has a term for the investments we make during this time – *regret capital.*

I have learned from my mentors that we can trust that insights will dawn and work their way into our lives. Therefore, it is safe to say that in the 21st Century a critical mass of opinion leaders world-wide will move beyond a notional acquaintance with systems, complexity, non-linearity, and respect for/ love of persons, community and humanity. These ideas and the realities they reveal will come to grip us by the throat. This new wine will not be captured within the old wineskins of any existing form of civilization. Unfortunately, the timing of these developments is uncertain. The truly big question of whether they will arrive in time to ensure the human future is still open.

Urgency: A sense of urgency is a function of the ratio of *the time we have to do what is necessary* and *the time it will take to get the job done*. When the *time we have* is divided by the *time required*, if the answer is 1 or more than 1, we can, at least in principle, succeed; if not, failure is virtually guaranteed.

So how long does it take any form of civilization to evolve into a truly new form? It appears to have taken about 5,000 years for settled regional forms of civilization to emerge and become widespread. None undertook this journey deliberately. There was no handbook for shepherds to become farmers. It took roughly half this time for settled empires to emerge and become common. More recently, it has taken roughly 1,000 years for the modern/Industrial form of civilization to emerge and spread to every corner of the Earth. What is more, the development of new forms of civilization has been slow, local/ regional, unconscious and optional. Sadly, none of these four descriptors apply to the work that is now before us. No one suggests we have as much as 100 years to get this work well underway. In short, we are in way more trouble than we know.

This means that for the first time in history, our species must become conscious enough of ourselves and the planet to learn to cooperate with our own evolution. From my perspective, the core work of the 21st Century is to nudge our existing forms of civilization onto a fundamentally different trajectory and to do so in order to allow us to learn to consciously guide our own evolution. The ‘our’ here is at every level – as persons, families, friends, groups, communities, organizations, polities and whole civilizations. For good and ill, to survive with any reasonable degree of grace we must become conscious architects and intentional co-creators of new ways of seeing, thinking and living – ways that truly fit the unique conditions that are emerging in the 21st Century.

So how are we doing? Consider a somewhat random and incomplete selection of evidence:

- Bill Leiss, the inventor of the *Ecological Footprint*, has stated that when Heather and I were married in 1961, humanity was consuming only 50% of the Earth’s resources, when calculated at a sustainable rate of consumption. Today, his figure is 140% and is still growing.
- Dennis Bushnell, NASA’s Chief Scientist at Langley, is quite clear from public platforms that if you are not deeply worried about the future of humanity, you are not well enough read; your knowledge-base is simply not current.
- The phenomenon of globalization, at root, means that we are well and truly stuck with each other. There is no place to hide. We can no longer afford to hear the admonition of Jesus to *“pray for your enemies”* merely as a moral/ spiritual precept. It is an emerging

empirical requirement of a world in which it is illusory to think that we can live and prosper while our enemies die.

- The reality, as-yet undigested, that resources are increasingly scarce; some in absolute terms, all when measured *per capita.*
- There is no hint in the Br*untland Report* or most sustainability work that *sustainable development* requires an evolution of our form of civilization.
- There was no official talk in Copenhagen about climate change as a symptom of a much deeper malady – a form of civilization that is reaching the end of its rope.
- As Yehezkel Dror put it in his *Report to the Club of Rome*:
- The situation of humanity in the face of global transformations can be summarised in two sentences: Societies are unprepared; Governance is unequipped…. In the main contemporary governance is obsolete and unable to deal fittingly with rapidly mutating problems and opportunities.
- My remarkable colleague, Dr. Maureen O'Hara, characterizes our situation this way: We face Another Inconvenient Truth – the biggest challenges of the 21st Century will be those for which we are least prepared and on which we spend little serious money; those that bear on our deepest sense of what it is to be human; those that are social, psychological, spiritual and cognitive in nature.

As I read the evidence, the main conclusion is not comforting. To me, it has become apparent that there is no reasonable chance that eight or nine billion of us will be able to live on this earth as an acceptable version of a late, modern/Industrial form of civilization; that today's core global project, achieving *sustainable development within this unconsciously held frame of reference*, simply cannot succeed.

Nonetheless, modern/ industrial civilizations are undaunted, as are the elites in virtually all other societies. We simply do not believe that the 21st Century will be, as the Centre for Strategic and International Studies asserts, *An Age of Consequences.* Indeed, we cannot bring ourselves to believe it. Rather, we cheer the fact that the fundamental dynamic of human civilization today is that of the late, modern/ industrial form of civilization becoming the norm. Everywhere, officially life is coming to be seen as a production/ consumption function, the success of which is measured by the accumulation of money. Greece was not the only country dominated by the thought that we must *"Build a competitive Greece."* Indeed, the speed and sophistication of the extension of this understanding to the ends of the earth in the last 60 years makes the efficiency of the 19th and 20th Century Christian missionary movements pale in comparison. Consider that 1,000 business schools are being built every year. More, those who open them do so with pride in the name of progress.

I am trying to point out that, as a species, we still live officially within long-inherited and multi-layered frames of reference. For example, this ancient assumption is still made today – *while the future may be unknown, it will allow us, wherever and whomever we are, to be whom we are already, forever*. Everywhere and overwhelmingly, the conversations of officially sanctioned consciousness are within, not about, the deepest assumptions on which our ways of living hang. This is dominantly true of our governments, major corporations, foundations, churches, universities, international bodies, voluntary organizations, disciplines and learned societies. Sadly, it is even dominantly true of the field I know best: that of futures research and strategic foresight. In this perspective, the global credit crisis, which is still costing us far more than mere trillions, is but a warning shot regarding the damage our most deeply embedded and unconsciously-held assumptions can do.

These thoughts are truly troubling. One reason is that we now know that whole cultures can, and sometimes do, get it profoundly wrong; that whole cultures can and have set their feet to a path that, in time, leads only to societal disorder and even collapse. The work of Joseph Tainter and Jared Diamond makes this clear. Worse, *we know that to date no culture that has found itself on such a path has been able to become conscious of this fact early and deeply enough to alter its fate.* As of today, the scoreboard reads something like *"History 22, Humans 0."*

Is Hope Warranted?

You have probably figured out that from my perspective, we do not suffer so much from counter-intuitive reality, as from forms of civilization that rest on, reflect and reinforce counter-reality intuitions. That I am pessimistic about the development of a reality-grounded intuition that is deeply absorbed in time by the opinion leaders of modern/ industrial civilization will not be news to you. For me optimism and pessimism are a measure of the anticipated difficulty of the human journey. I believe it will be far harder and more arduous than any we now anticipate or are prepared for. But pessimism is not hopelessness.

I am a *hopeful* pessimist. I believe that the myth of Sisyphus is not the last word about the human adventure. Why?

As a free-lance intellectual, I am cheered by the thought that a transformation of our form of civilization is not merely required, but is already well underway; that over the last 250 years as we have been extending our modern/ industrial capacities, we also have been profoundly changing our minds about the nature of reality, what it is to know it reliably and who we are as persons within reality. As I see it, we in modern/ industrial civilizations are being driven off our inherited mental maps and governance models at depths that, while not unprecedented, are truly rare. The good news is that what is driving us in these wholly new directions is the best, not just the worst, of modern/ industrial civilization. As children of the Enlightenment, many of us have had the courage to follow the data wherever it had taken us, even into *terra incognita*. Cross-boundary work depends and builds on this quality of courage-driven integrity.

Again, somewhat randomly, I draw your attention to the following:

- This event and the work that brings us here. It could not have happened in 1970 and would not wait until 2040. Whatever else we share, it is the conviction that we cannot make sense of the nature of, threats to and possibilities hidden within the present without greatly expanding our imaginative grasp on the world of which we are a part. We know that the short-term, siloed, and superficial sensibilities that characterize and dominate modern/ industrial forms of civilization simply will not get us to where we need to go. We know, as my grandmother told me, we must become persons who are *far-sighted, broad- minded, with a depth of judgment.*

- The emergence of a sensibility alive to and informed by living adaptive systems, complexity theory, humanistic psychology, critical theory and an openness to a renewed spirituality, forgiveness and love.
- The widespread hunger for spaces within which we can grow; for experiences that are intellectually reliable, emotionally safe and deeply non-trivial.
- The fact that it is slowly dawning on us that any human future will require a degree of maturity that is unprecedented in human history; that the challenge of self-limitation is at the heart of our work in the 21st Century; and that self-deprecation greases the skids of self-limitation. Consider this paragraph from Ian McEwan's new book, *Solar*:

> How, wondered Beard as his plane last quitted the stack on a banking hairpin tangent and lined itself up north of the Thames to begin its descent, how could we ever begin to restrain ourselves? We appeared, at this height, like a spreading lichen, a ravaging bloom of algae, a mound enveloping a soft fruit – we were such a wild success. Up there with the spores.

As a person, of course, I am also fed by multiple sources of life and hope. I include kittens, the colour of the sky over my Rocky Mountains at dusk, children, an open universe, an uncertain future, our capacity for intellectual, emotional, physical, and spiritual experiences, my wife's voice and the excitement of good work. And, all of these rest on my experience of being loved. For me, the last word about my life, and by extension our lives, is in the passive voice. We are held and loved. We live by grace. I doubt this is news to you.

In this light, this meeting can be seen as a *clan gathering*. Granted we are a loose-knit bunch. As with any family reunion we discover cousins we did not know we had. Our clan identity, such as it is, appears to be rooted in the power of the experience of coming to insights that cross, span, transcend and soften the boundaries that fragment our lives, landscapes and communities – silos of gender, ethnicity, discipline, tradition, sector, geography, nation and language. Whatever the specific and individual paths that got each one of us here, we know that by growing beyond our inherited horizons we can see, think and do things that inherited patterns do not permit. We also know in our bones how liberating and empowering this can be. The bonus is that in the process we become more fully human and do so as persons, families, communities, organizations, nationalities and just possibly whole civilizations.

In short, our commitment to boundary-crossing research and living is experiential, as well as solidly intellectual. We need it for us as persons and not just for our careers and our shared future. The work of conceiving and embodying the next form of civilization requires us to be willing to trespass even when others tell us to stop.

Lest we get too giddy with the journey we are on, we need to recall that learning to exercise responsibility for the ongoing evolution of the form of our civilization is new work. Moses, the Buddha, the Prophets, Confucius, Aristotle, Jesus, Mohamed are all silent on it. As far as I know, this work is not assigned in substantial terms. To my knowledge, for example, the world's first major research centre that is wholly devoted to developing an integral and reliable knowledge of the long evolution of human consciousness, cultures and forms of civilization has yet to be founded.

I do not mean that there are no persons, and even institutions, with a deep interest and commitment to aspects of this work. Our presence here is testimony to the contrary. We are not here by accident. Our lives to some significant degree are dedicated to this work. Nevertheless, we must admit that the institutions in which we live, the governments, corporations and foundations that fund them are not yet captivated by the new project of learning to be mid-wives of a new form of civilization. A new *Manhattan Project* to save civilization is not yet even on *our* agenda, let alone that of the G20.

This is ironic. Our money-mad societies are blind to the fact that there is a franchise here – one that is worth hundreds of billions to the first jurisdictions with the moxie and capacity to own it. I have no doubt that in the next 5 to 15 years, some jurisdiction will publicly commit itself to becoming a living learning laboratory for the world – one that demonstrates how a largely unconscious late modern/ industrial culture can transform itself into a wholly new form of civilization. What I do not yet know is who will pick up this challenge and where the world's first conference of jurisdictions committed to this work will be held. That it will be held I am wholly confident.

Summary

Allow me to briefly recap what I have tried to say.

Our time, the 21st Century, is profoundly important for the long-term future of our species and the planet as we know it. This century is a hinge of history like no other. By 2100 we will know whether the future will be fatal for us or whether we have managed to walk the narrow edge of a precipitous cliff and are giving life to the new global project of birthing a truly new form of civilization.

Much sooner, possibly as early as 2020, some of the things that we as a group are coming to know will have gone critical in the wider world and be known by more than a critical mass of opinion leaders. This means, among other things, that the official optimism of late modern/Industrial civilizations will all too soon give way to widespread dread and pessimism; possibly to panic and paranoia. Bluntly, we are about to be sorely tested as a whole species. Best we find a sure footing for the courage to be hopeful in the midst of our bouts of depression. Best we re-discover knowing as a sacred act of love.

But lest we get too starry-eyed, Northrop Frye, the great Canadian literary critic, would remind us that for life to be a comedy, not a tragedy, those who go hand in hand into the sunset have had to have the wit and courage to live to the end of the story. Given that the actual story we are in is not one we think we are in, the drama of the 21st Century will be riveting. *Will we awaken in time to realize that the future now so widely anticipated is among the least likely? If we awaken, will we figure out the work that is required of us? If we know the work, will we rise to the occasion or falter? If we falter, will others abandon or encourage us?*

I conclude with the words of Wilfred Cantwell Smith, another exceptional Canadian. Wilf Smith was one of the world's great historians of religion. He founded the McGill Institute for

Islamic studies and later the Harvard Centre for the Study of World Religions. In a private note to me he said:

> I have spent much of the last forty years endeavouring to understand world views other than those we in the West have inherited; and in the last several years I have been particularly concerned with the question of what is involved in the endeavour to understand, and to help others understand, an outlook different from the one that one already has. One of the conclusions to which I have come is that in order to understand a different view – especially if it be radically different and/or profound, comprehensive, humane – one must oneself become a different sort of person.

So it is for those of us who are boundary crossers – persons who are becoming conscious co-creators of a new form of civilization. May it be a civilization that is reasonably wise, prophetic, visionary, courageous, respectful, secure, prosperous, inclusive, innovative, sustainable, deeply humane and easily moved to both tears and laughter. The future is in our minds, our hearts and our hands.

Varieties of Boundary Crossings

V. V. Raman[1]

Introduction

Boundary-crossings are valuable in many ways. Sometimes they may even be essential for survival. In the complex world in which we live boundary crossings occur in a variety of contexts: Among the sciences, among religions, between science and religion, among cultures, within cultures, and so on. Normally every of us, whether professionally or individually, functions within circumscribed boundaries. Most of our thoughts, actions and behavior are within some boundaries. This is necessary for efficiency, personal security and self-confidence. It is also constrained by our capacities and resources. However, there arise situations when we have to go beyond the boundaries: for enrichment, understanding, and peace.

In this lecture, I propose to explore the variety of contexts in which boundary crossings occur, as well as their impacts, some beneficial and others not so. I will also indulge in some linguistic boundary crossing as I discuss the subject.

Boundary Crossings in Different Spheres

David Hilbert famously said that mathematics knows no race or geographical boundary [Die Mathematik kennt keine Rassen oder geographische Grenzen]. This is true of love and music also. But this is not the case in many other contexts. we need bridges not just between scientists and literati, but between physicists and biologists, cosmologists and theologians, theoreticians and common citizens, moral philosophers and soldiers in the battle-field, social reformers and traditionalists, evolutionists and creationists, cultural anthropologists and practitioners of the cultures studied, even between cartoonists and ardent religionists who demand everyone in the world to be subject to the laws of blasphemy of their own religion.

Our challenge is as much to foster boundary crossing in the best sense of the term as to cope with the tremors that have resulted from the boundary-less movement of people. In the current world, it is not only the one who has crossed boundaries for livelihood that has to adjust, but also the one into whose territory the other has crossed. It is difficult to deal with situations where one has to adjust to new values and cultural rules. It is equally difficult to understand and respect, if not agree with, the worldviews that others hold dear, and be sympathetic to their deepest

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concerns. This responsibility often falls on the stronger much more than one those who feel victimized.

Snow’s Two Cultures

Recall S. P. Snow’s celebrated lecture on *The Two Cultures* of fifty years ago. Snow warned of a growing rift between scientists and specialists in the humanities. He was shocked that not many humanists could state the second law of thermodynamics which, in his view, was the equivalent of knowing a Shakespearean play. Snow was right in that lack of understanding between influential groups in society is not healthy. But he was off the mark in imagining that problems arise only if poets and politicians, composers and literary critics, historians and philosophers were not familiar with each other’s fields. It is fair to say that the world can get along fine without grasping quantum mechanics or the structure of DNA as long as the beneficial outcomes of those breakthroughs come down to the people who have not had the benefit of studying wave equations, group theory and molecular biology.

Indeed, what is unfortunate is that the chasm between Snow’s two cultures has persisted, even deepened. New problems have arisen because of misunderstandings between different cultures that vie for recognition and influence in our complex world, and between different segments and people within cultures on some of the fundamental worldviews that shape civilization. While it may be all right for practitioners in various spheres to work in their respective areas with little appreciation or understanding of the myriad components that fuel human societies, confusion of each other’s values and beliefs, and of what science is all about has landed us into conceptual chaos.

Boundary Crossings in Science

In the history of science, we find back-and-forth movements between unity and division. Science started as a systematic study of natural phenomena, and splintered into specialized disciplines like physics, chemistry, and biology. These were subdivided into astronomy, geology, organic and inorganic chemistry, physiology, etc. Then there were boundary crossings which gave rise to such disciplines as geophysics, physical chemistry, genetic archaeology. Those who cross boundaries may bring new insights, expand the field, or initiate new ones. So we have interdisciplinary and transdisciplinary sciences. Thus crossing boundaries can be productive as well, as in fields like neuroscience, molecular biology, and astrophysics.

Boundary crossings in scientific disciplines cannot be avoided because the natural world is an integral whole which has been segmented and fragmented primarily for our convenience in analysis. It is inevitable that we uncover the threads that subtly interweave it all into a coherent and seamless quilt. That was and still is the dream of the reductionist school, and that is what the TOE (theory of everything) is all about. As Albert Einstein said, “the supreme task of the physicist is to arrive at those universal laws from which the cosmos can be built up by pure deduction.” It may even come to pass that in this way the dichotomy between the sciences and the arts will dissolve to reveal a splendid totality in all its complex interconnectedness.

Science and Society

Academic scholars and scientists are primarily involved in explorative and creative works. But many of them are also engaged in socially relevant research and activities as in the humanities and social sciences. In our interconnected world no one can afford to remain isolated. Natural scientists need to consider the impact of their work on the rest of society. It would be detrimental to society if natural scientists have no appreciation of history and philosophy, if they are indifferent to the nature, scope, and potential of human knowledge, or how society regards science; and if they care not for the ethical implications of their work.

Social scientists are concerned with matters close to the heart of lived life. They often reinforce their work with results from natural sciences. Whether in politics, economics or history, insights from science are often valuable. Any meaningful academic discipline can only be enriched by knowledge of developments in science. T. S. Eliot said, “Every experience is a paradox in that it means to be absolute, and yet is relative.” However, the idea of relativity of knowledge needs to be grasped appropriately. Or else, all knowledge and ethics will be trivialized into unreliable relativity.

Boundary Crossing and Academic Territoriality

Specialists don’t appreciate outsiders dabbling in their fields of expertise. It is difficult for them to take seriously a stranger dabbling in their hallowed domain. What is not always recognized is that the newcomer has two advantages. She is not fettered by perspectives to which the specialist is conditioned. The new-comer comes with an expertise in another field that might provide new insights into the problems confronting a different field. But serious boundary crossing is impossible between science and pseudo-science, except in a trivial sense. Niels Bohr once quipped that he had a good-luck charm in his office because he was told it brought luck even to those who did not believe in it. [“Jeg er ikke overtroisk, men jeg har forstået, at det bringer lykke, enten man tror på det eller ej.”] Astronomy and astrology can never mesh. The goal of academic territoriality is to preserve the integrity of disciplines.

There is also a huge gulf separating the ethereal world of the ivory tower and the practical world of work and sweat. Though academics, especially in the social sciences, are concerned with these, intellectuals are shielded from the realities of the struggle of the common man to make a living. As Henrik Ibsen said in one of his plays, “A thousand words will not leave so deep an impression as one deed” [“Ikke tusen ord seg prenter som én gjerning spor."]. There are often more words than deeds from academia.

Cultural Boundary Crossings and Globalization

Since ancient times, traders and travelers have gone to distant lands and brought from them knowledge and goods to their own countrymen. They have done cultural boundary crossing, and were among the first to engage in cultural boundary crossing. Often they also brought back impressions of and information on alien cultures. Hieun Tsang, Alexander and Al Biruni were only some of the many such names that figure in history. Like Morco Polo’s suitcase, some people crossed boundaries from station to station to learn about other cultures [“Sono una valigia e giro di stazione in stazione ..... “].

Contemporary globalization is the most dramatic instance of boundary crossing in history. It involves economics, science, technology, culture, religion, politics, and more. Though it has had some positive effects, it has also caused many problems: It has facilitated economic exploitation: Modifying Karl Marx’s evocation to the workers of the world, globalization says: “Capitalists of the world, unite! You have a lot to gain through cheap labor.” Globalization has also led to intercultural penetration, and the displacement of cultures. It is one thing to enjoy Dutch cheese, Belgian beer, French perfume and Argentinean wine, and quite a different thing when a country and landscape are inundated with the signs and symbols of alien cultures.

Diversity, Multiculturalism, and Boundary Crossing

There is extraordinary diversity in the variety of substances that have emerged from barely a hundred chemical elements. There is diversity in the flora and fauna that throb with life and beautify the world. There is also diversity in the cultural expressions of the human family as well. As Antoine Delamotte noted, diversity is a very pleasant thing. Uniformity leads to boredom. [C’est un grand agréement que la diversité… L’ennui naquit un jour de l’uniformité.”] From the dawn of history, humanity has split itself into countless groups speaking different languages, embedded in different cultures, affiliated to different religions and sects, and deeply bound to different historically and racially conditioned loyalties. Each group was, and to a large extent still is, like a garden unto itself, providing security, excitement, and enrichment to those within it.

Multiculturalism was a crowning affirmation of the twentieth century. Its thesis is quite simple: That it is important to nurture, appreciate, and respect all cultures. Associated with this is the sense of belonging to the world at large. In the 17th century Christiaan Huygens proclaimed that the world was his country and science his religion. [“De wereld is mijn Land, Wetenschap mijn Godsdienst.”] Long before that in the mid second century the Latin playwright Terence declared, “I am a Man: I deem nothing pertaining to Man as foreign to me.” [Homo sum humani nil a me alienum puto.”] Many centuries ago, the Tamil poet Kanian wrote: “It is all my town, where I'm in. Whoever they are, they're also my kin.**”** [“yAdum UrE yAvarum kELIr.”]

And yet, it is no secret that there are many people who speak and write against multiculturalism today. Why is this so? Why is such a beautiful, noble, and enriching idea receiving a bad name and reputation sometimes? It turns out that multiculturalism has been playing a silent role in the conflicts tormenting the world today, because of boundary crossings and non-crossings also. Contrary to what one could have hoped, diversity has not lead to harmonious co-existence and meaningful interactions. From the most ancient times, groups have fought with groups, nations with nations, and religions with religions. It is not surprising that multiculturalism which is now touted as the mind-freeing model for the modern world, is also creating conflicts within societies. Few idealists who initiated the idea would have expected this.

Cultures are no longer islands of closed systems with only occasional glimpses into alien varieties. In today’s world, cultures rub shoulders on the global arena in a hundred different ways. TV screens bring into living rooms images and actions of distant peoples and exotic lifestyles. We are no longer dealing with interactions between cultures, but with interpenetration of cultures, often with superficial knowledge of one another. It is too early to foresee what the long-range consequences of all this will be. Goethe said, "Culture which smooth the whole world licks, also unto the devil sticks." ["Auch die Kultur, die alle Welt beleckt, hat auf den Teufel, sich erstreckt."] Actually, it is the devil that sometimes sticks into cultures.

One important reason for all this is that the commendable idea of multiculturalism did not emerge under happy circumstances. It arose in a context in which minority populations in some countries began to protest their status as second class citizens and denied basic rights and looked down upon. This circumstance gave rise to movements in which marginalized and disenfranchised groups began to demand equal recognition and the same respect and regard that the majority reserved for itself.

Such demands slowly led to the idea that every culture deserves to be treated with dignity. Associated with this is the demand for reparations for past mistreatments. These are some of the factors that injected unpleasantness in the exercise of multiculturalism. This situation within countries soon spread to the world at large.

Western Hegemony

During the past four centuries, European imperialism and colonization had affected the economies and sovereignty of many peoples on earth. One may wonder why negative attitudes persist more than half a century after European colonialism was dismantled. As Laurent Testot summarized it, the little peninsula of Europe, off the immense Euro-asiatic continent, dominated the world economically, politically, and militarily from the fifteenth to the twentieth century. [L'Europe, petite péninsule excentrée de l'immense continent eurasiatique, a dominé politiquement, économiquement et militairement le monde, du XVe au XXe siècle.] A similar situation had prevailed several centuries earlier during the cultural, religious, and imperialistic expansion of the Islamic Arabia. But once the countries into which the dynamic Arab civilization had intruded were fully assimilated within its religious framework, the people ceased to feel any animosity towards the erstwhile invaders: indeed, they became one and the same people. With European imperialism the situation was different. Few of its victims were assimilated into European culture or religion before Europe retreated. As a result, international multiculturalism has become somewhat tarnished, because it includes decidedly negative attitudes towards Western culture in many parts of the world.

Indeed, though much of the world has gained political freedom, the hegemony of the West persists in the global village. First, there is its continuing greater military and economic strength. The navy and armed forces of some Western countries have their imposing presence in distant corners of the globe. The economies of the world are still tied to the power and performance of Western nations. It is the West that is dominant in international organizations. It is the West that dictates whether some nations can or cannot have nuclear weapons. All this is slowly changing, and all the brashness that the West has been enjoying this long will likely move to Asia and elsewhere before the century is done. Until then, resentment towards the West will color the perception of the Non-West towards the West.

Then again, the cultural hegemony of the United States is obvious in the McDonalds and Coca-Colas that are seen everywhere in the world. More importantly, the penetration of France and England in Africa and Asia in the nineteenth and twentieth centuries has resulted in the dominance of the French and English languages along with the framework of democracy, gender equality, and human rights.

Thus, boundaries between cultures have become a semi-permeable membrane through which scientific knowledge and technology, also life-styles and modern enlightenment values and comments and judgments on cultures flow from the West into the Non-West; and rarely in the other direction. This has created an asymmetry which has been the source of considerable tension in the world.

These are powerful factors in the reaction to modernism which is mistakenly identified with Western culture. Within the matrix of Western culture too there were and still are staunch dissenters to the culturally uncomfortable consequences of the onslaught of science and Enlightenment which resulted from worldview boundary crossings. Traditional Christianity suffered as a result of the Enlightenment, but it has also benefited considerably in being relieved of its excessive zeal and intolerance of deviations from main-stream doctrines. Inquisitions and sectarian wars are no longer current religious modes to affirm or safeguard faith, and have become embarrassments of the past. It is likely that similar changes for the better will occur in other religion-guided cultures also.

Enlightenment and Cultural Insensitivity in Boundary Crossing

It is not yet recognized by vast numbers of people in many parts of the world, both secular and religious, that many of the values that have ensued from the Enlightenment are as universal as the results of current physics, biology and cosmology: their universality transcends race and religion and national boundaries. E. O. Wilson rightly observed that “by any reasonable measure of achievement, the faith of the Enlightenment thinkers in science was justified.”

Many nations unabashedly embrace the United Nations Charter and the Geneva Convention when these ensure their own safety and security, but not all these nations are as receptive to religious tolerance, gay rights and accommodation of minorities. In other words, not all the fruits of the Enlightenment have been able to cross all cultural boundaries.

With the dawn of the modern era in the eighteenth century some European scholars began to probe into Non-European histories as well. Their dedication led to the discovery of many facets of ancient cultures that had been forgotten by the world at large: such as the code of Hammurabi, hieroglyphics of ancient Egypt, the Indus Valley civilization and Ashoka’s edicts. All this was boundary crossing from culture to culture and from historical era to historical era.

When European scholars cast their investigative net into the sea of world religions they discovered abundant cultural treasure chests in the world, but the findings were only as scripts and relics, exotic practices and inscrutable worldviews, interesting and entertaining, informative and sometimes insightful. But the investigators seldom had the feelings and emotions intrinsic to a culture. As Thomas Babington Macaulay observed, “a history in which every particular incident may be true may on the whole be false.” When it comes to analyzing sacred works, sound scholarship is like the firmness of bones, while appreciation and sensitivity are like flesh and blood. Without the latter the former is merely an ugly skeleton: morbid and monstrous, lifeless and lamentable. With the latter, scholarship becomes robust, living, and admirable. When iconoclastic hordes desecrate the sacred symbols of another religion or when a Western scholar says that the Bhagavad Gita is a dishonest work, the consequences are not pleasant.

Thus, though the goal of such endeavors was largely to unravel and understand cultures other than one’s own, the task was more difficult that it would seem. Histories tend to be ethnocentric. It is difficult to approach and react to a different culture without the bias that comes from affiliation to one’s own, and it is well-nigh impossible to fully understand, let alone appreciate, a culture in which one hasn’t lived and which one hasn’t assimilated. As a result, though there can be little disagreement about the basic facts and documents that one uncovers, their interpretations tend to be very different from what the practitioners and the inheritors of the culture have in their hearts and minds. As an African proverb says, “Until lions have their historians, tales of the hunt shall always glorify the hunters.”

The works of the pioneering scholars were applauded by fellow Europeans. But as a result of the planetary sweep of English and French, people in Asia, Africa and the Arab world came to read what had been and are being said about their cultures. Now a tide of resentment and rebuke has come bursting into the sanctuaries of Western academia from where the probes had been conducted for well over a century, because some interpretations sounded crude and contemptuous to people of the cultures commented upon.

Scholars in the Western world who offer their perspectives on Non-Western traditions are beginning to realize that anthropological commentaries on living traditions are not unlike those of an entomologist on a bee or a grasshopper. In crossing cultural boundaries one has to be careful about what one writes and publishes. It may be noted in passing that what is written about Western culture in Non-Western languages are accessible to only a few Westerners, and therefore do not provoke strong public reactions in the West.

It is difficult for one who is not an active participant in a culture to be empathetic to all that it entails, especially its experiential dimensions. This is not to say that outsiders cannot gain some knowledge of important aspects of a culture not one’s own or that they cannot shed new and insightful light on other cultures. But what cannot be expected even of a scholar with impressive erudition is heart-felt resonance with what is being commented upon.

Boundary Crossing through the Aesthetic Dimensions of Culture

In the light of all this it would be helpful to consider culture as consisting of three distinct, but sometimes overlapping, components: the aesthetic, the ethical, and the scientific. First there is the aesthetic dimension. It refers to all that provides enjoyable experiences. Language is an important aspect of the esthetic experience. There is a magic in every language that lights up culture at the most fundamental level. People, who have strong aversions towards other cultures because of political or religious reasons, will be transformed if they learned the other’s language and begin to read or hear their poetry. There is no more effective way of crossing cultural boundaries that keep us in separate compartments.

The aesthetic dimension of culture includes poetry and literature, art and music, philosophy, feasts and festivals. Beauty has no age, says a Portuguese proverb. Whether it is Cherokee or Catalan, Mongolian or Inuit, there are countless legends and lore, music and dance in the thousand tongues that have emerged. Every one of these is a precious gem in humanity's collective treasure chest. They have come from centuries of spiritual evolution, given life by countless thinkers and creators everywhere. Boundary crossing occurs when one takes the time and makes the effort to acquire even a minimal acquaintance with another language.

Every language is like a musical instrument. The poets in the language are like virtuosos who can create the most magnificent music with them. When we acquire even the rudiments of a language not our own, it is as if we are already stepping to an alien orchard replete with luscious fruits. Every reader looks for and gets something from a poem.

We may detest Nazis, but who can be untouched by a Goethe or a Heine? We may be unhappy about Iran's politics, but Omar Khayyam and Rumi will make us love the people. When one hears the serene chant of the Holy Qur'an in Arabic, we forget suicide bombers and admire the beauty of the language. Indians who hate the British and Algerians who hate the French for the colonial occupation love England and France when they read Shakespeare and Swinburne, Rabelais and Racine. Anyone who has read Kamban or Tiruvalluvar in the original cannot fail to fall in love with Tamil. Likewise in every cultural tradition of humanity. In the words of Octavio Paz, "Every poem is unique. In each work there throbs to a greater or lesser degree, the whole poem. Every reader looks for something in the poem." ["Cada poema es único. En cada obra late, con mayor o menor grado, toda la poesía. Cada lector busca algo en el poema."] Thus, in a peculiar way, poetry brings us all within the same boundary of humanity's visions. That is why boundary crossing through language and poetry is enormously rewarding.

Religion, Ethics, and Boundary Crossing

Up until the modern era, the ethical framework of cultures was constructed largely from the religion of the people. Primarily traditional religions contributed to the values that guide and inspire the people. The rise of modern science and Enlightenment separated ethics from religion, leading to a switch from the local and the religious, to the secular, the international, and the universal. Traditional ethics related to how one should behave towards fellow human beings; modern ethics include how each group should treat members of a different group. Thus arose notions like human rights and gender equality. The cultural boundary crossing from the pre-modern to the modern is largely determined by to what extent the ethical framework of a people as reflected in the laws of the nation transcend racial, religious, and sectarian boundaries.

In other words, an important boundary crossing occurs when our moral guideposts leap across the historical divides that arose when different peoples and cultures evolved ethical frameworks based on local social cohesion and security, inspired by scriptural texts. Principles of universality go against the parochial worldviews in which people are placed in different hierarchical classes, women are assigned secondary roles and compelled to dress-codes promulgated by male moralists, particular races are seen as privileged or chosen, and the promise of redemption and entry into God’s realm is reserved only to those who promise allegiance to particular prophets and historical personages as redeemer of all of humanity.

One way or another, boundary crossing on the ethical plane from the local to the universal is essential for the betterment of the human condition.

Trans-religious Perspectives

Fortunately, even granting that there are passages in the Scripture of every religion that presumes a privileged pinnacle for itself, every major religion has at its core perspectives that will enable its practitioners to make the transition from the stifling air of constraining convictions to the fresh and healthy atmosphere of pan-human values. In every religious tradition, there are awakened thinkers and responsible leaders who lead the people along enlightened paths. Even if not always exact, it is possible to interpret many passages from time-honored scriptures to give them enlightened meanings. Such interpretations may be declared as lies by fundamentalists, but, as Jacinto Benavente said, it is worth it if this will serve a noble purpose. [“Non è una cattiva mensogna quando difendiamo con questa una buena verita.”]

The Hindu Vedas pray for the welfare of humankind. The Judaic Mishnah stresses the importance of both the individual and the equality of one and all, and that every one has a God-given sacred right to life. Christian values and respect for Man as the Image of God are implicit in modern secular humanist movements We read in the Holy Qur’an: “Be steadfast in your devotion to God, bearing witness to the truth in all equity; and never let hatred of any one lead you into the sin of deviating from justice. Be just: this is the closest to being God-conscious.”

Understanding Natural Phenomena: Science and Boundary Crossing

The third dimension of culture pertains to understanding and interpreting natural phenomena. All through history, keen thinkers have been struck by the myriad aspects of the world, from the star-studded sky to rainfall and rainbow. They also reflected on the perennial puzzles like when, why, and how the world came to be, the origin of humans and the destiny of it all. All this gave rise to fascinating ancient science.

With the emergence of modern science, cracks began to develop in a hundred contexts in age-old and time-honored visions of how life or the world came to be. But as Galileo said, we are not obliged to believe that the same God who has given us senses, reason and intelligence wanted us not to use them. [“Io non mi sento obbligato a credere che lo stesso Dio che ci ha dotato di senso, ragione ed intelletto intendesse *che* noi ne facessimo a meno."]

Modern science, with its drastically new methodology in the grasp of perceived reality, brought within the scope of human understanding a thousand aspects and elements of the physical and biological world that had escaped generations of humankind. And while its results called for drastic revisions of ancient worldviews, they also cemented humanity in one global framework in which peoples of all races and religions, creeds and convictions, work together as members of one global inquiring family who are united in spirit and in methods in their quest to unravel every puzzle and problem in the natural world that teases the alert human mind. Science thus serves as the greatest boundary crossing factor in the modern world.

Religion-Science Boundary Crossing

The challenge is to cross the boundary from the sanctified framework of tradition with deep roots in cultural consciousness into a paradigm where phenomena are consequences of the laws of nature, where miracles have no place, where there seems to be no purpose or design in the workings of the world, and where the origin had no creator and the end no judgment for reward or punishment. The view that we humans are accidental glitches in an insignificant niche in a callous universe, as affirmed by modern science, imposes a psychological unease, an existential discomfort, and a spiritual void that stand as barriers to this most urgent boundary crossing.

But it would be intellectually dishonest to repudiate the findings of modern science. Indeed, if we did that, if every group in the world chooses to cling on to its own religious-ancestral interpretations, it would also throw us back into the multiple worldviews of the ancient world. Goethe reminded us that those who possess science and art also have religion, and those who don't have these, have only religion. [“Wer Wissenschaft und Kunst besitzt, hat auch Religion; Wer jene beiden nicht besitzt, der habe Religion.“] Indeed, they have only mindless religion.

The idea that science and only science has validity, and can solve all our problems is one of the major hurdles in boundary crossing. This precludes all kind of metaphysics, for it sets out a Platonic gate which one cannot cross unless one is science-savvy. Indeed, other disciplines have similar constraining and constrained visions.

On the other hand, the insistence that the scientific mode of comprehending the world is the only matter of interest there is to being human, as also indifference to the spiritual needs of people and disdainful dismissal of all religious sentiments would be detrimental to our efforts to make this a more harmonious world where feelings and emotions play as crucial a role, not to say more powerful, as the framing of every human experience in a logical straight jacket. In other words, one major obstacle to science-religion boundary crossing is scientism which says, in the words of Félix Dantec, that science and only science will resolve all meaningful questions. [“Je crois que la Science et la Science seule résoudra toutes les questions qui ont un sens.”] The other major obstacle is religious fundamentalism which insists on interpreting scriptures literally.

Perhaps a practical way of accommodating both the stringent requirements of modern science for assigning truth-values and the call of faith to recognize an omnipotent, omniscient, and omnipresent Almighty at the root of it all would be for scientists to grant that science is concerned only with the world such as it is, and not with what or who might have initiated it all; and for religion to allow that the Creator chose to make this a world that would be interpreted some day by the probing human mind through the methods and metaphors of science.

Boundary Crossings in Ideological Contexts

Ideological conflicts arise between different programs and philosophies for solving the problems of society and of the world, as also for achieving spiritual salvation. How is one to establish social justice, economic prosperity and legal equality, for example? Thus we have conflicts between capitalism and communism, authoritarianism and democracy, universal freedom and theocracy. These are frameworks with well defined boundaries. On the spiritual plane, there are differing routes for everlasting joy: nirvana or svarga, the pearly gates of heaven or jannah, etc, and different messiahs and saviors and prophets and gurus too to lead us to salvation. Boundary crossing here is not just difficult; it can sometimes become dangerous, for it involves the sin of apostasy. In these instances, boundary crossing does not require movement beyond one's own boundaries, but rather in calls for efforts to understand the perspectives of others, and to develop some respect for them.

Concluding Thoughts

We live in a complex world, compartmentalized both naturally and artificially. So boundary crossings become inevitable in a variety of contexts. Sometimes we avoid boundary crossings, or are averse to them because they call for effort, even hard work, and they may make life even more complex. Or again, boundary crossing may result in the abandonment of things we hold dear or sacred. Interfaith movements call in question our deepest beliefs. The opening of borders to allow international boundary crossings has economic and cultural impacts. It poses risks to the security and integrity of nationally defined cultural values and patterns.

I would like to close with a quote from Friedrich Schiller who wrote in the late 18th century that

> As soon as our expanded experience and precise thought led to the division of the sciences, and the complex machinery of the state made separation of social classes and tasks more rigorous, the close link with nature was broken and a pernicious struggle sowed discord in a harmony that existed among the various forces.

That prescient reflection seems to be even more valid today. Serious people of goodwill reflect on the extraordinarily complex web of confusions and confrontations that have tossed humanity into its present predicament. We need new and hitherto unconsidered perspectives to meet the challenges that have arisen so unexpectedly and indeed abruptly in human history.

Networks of Agape and Creativity: Learning Across Boundaries and the Calling of Planetary Realizations[1]

Ananta Kumar Giri[2]

> You long to wander far and wide and are preparing for a speedy flight; be true to yourself and true to others, then even narrow confines will be wide enough. (Goethe)
>
> The network of agape involves a kind of fidelity to the new relations; and because we can all too easily fall away from this [...], we are led to shore up these relations; we institutionalize them, introduce rules, divide responsibilities. (Charles Taylor, 2009, p. 739)
>
> "Learning to be" is also a permanent apprenticeship in which teachers inform students as students inform teachers. The shaping of a person inevitably passes through a transpersonal dimension. (Basarab Nicolescu, 2002, p. 136)

Introduction and Invitation

Education helps us realize our potential as well as that of our cultures, societies and the world when it moves from narrow confines within closed walls of classroom and given boundaries of many kinds and embraces the joy of learning with the wider and uncharted paths and rivers of life in this vast world of ours. From the dawn of humanity, seekers all through have been animated by this quest for learning beyond the boundaries and across. This has led to travels and seeking across the roads and rivers of life. Seeking souls and institutions have moved in this world with a passion for meeting, learning together and embracing each other for the light of knowledge, mutual illumination, shared enlightenment and co-realizations. The present discourse of international education as well as internationalization of education is part of this deep yearning of humanity. Such a yearning is realized with facilitating institutions as well as networks. We need creative institutions which foster learning across borders and creative networks which bring new energy to institutions which many times become imprisoned within a

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logic of self-justification, self-valorization and closure.[3] We need creative institutions and networks for fostering learning and inquiry across boundaries. Our networks are not just mechanical extensions of existing institutional logic but become networks of agape and love where the seekers build bridges by being bridges. Learning across boundaries is facilitated by seeking institutions and networks where leaders and participants become students of life and friends of the world.

Networks of Agape and Creativity: Being Students of Life with Life and the World

Threads that connect and weave us together are threads of agape. Agape is love as it is understood in Christian tradition. It is not passive, it is love in action and infused with eros.[4] Agape is also understanding.[5] Recently, secular philosophers such as Jürgen Habermas as well as religiously inspired thinkers, such as Charles Taylor, have been urging us to understand the significance of agape in our lives, especially when we are devoted to mutual moral argumentation, co-learning and flourishing.[6] Agape has a dimension which overflows acceptable boundaries and help us meet each other and the world unconditionally. Agape facilitates genuine and pregnant meetings, meetings which mother new possibilities in self, other and the world. These meetings and encounters start with creative selves and then overflows into existing institutions.[7] These institutions despite their logic of closure feel the breeze of opening and create new institutional spaces for facilitating such creative encounters. We need to cultivate agape in our act of networking among institutions as well as individuals. This is particularly relevant for the Grundtvig-Kold tradition of learning and international education from Denmark (cf. Das, 2007).[8]

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[3] In his essay, "Institutions and Networks," Andre Beteille shares with us: "Networks of interpersonal relations play an important part in the linkage of different institutions with each other" (Beteille, 2010, p. 116). Furthermore, (cont'd)

> many persons now find networks better adapted to the demands of a rapidly changing world than institutions whose adaptive capacities are constricted by bureaucratic and political pressures. Networks provide greater flexibility to individuals, but they also demand greater individual initiative. (Beteille, 2010, p. 125)

[4] As Sudhir Kakar writes: "Agape is neither worth receiving nor worth giving if it is without eros. Real agape must be infused with the passion of the eros" (Kakar in Kakar & Jahanbegloo, 2009, p. 85).

[5] In a recent essay, Mihir Shah (2010) presents us such an understanding of Agape coming from Martin Luther King Jr.

[6] In his work on moral consciousness and communicative action, Jürgen Habermas (1990) urges us to realize the significance of agape for both and calls for integration of "cognition, empathy and agape" (Habermas, 1990, p. 182). Charles Taylor (2009) talks about networks of agape where networks are different from categorical grouping: "[...] it is a skein of relations which link particular, unique, enfleshed people to each other, rather than a grouping of people together on the grounds of their sharing some important property (as in modern nations, we are all Canadians, Americans, French people; or universally, we are all rights-bearers etc.) (Taylor, 2009, p. 739).

[7] What Jean-Luc Nancy (2008) writes about processes of overflowing can help us understand overflowing accompanying genuine encounters and meetings:

> [...] Politics assume[s] a dimension that it cannot integrate for all that, a dimension that overflows it, one concerning an *ontology or an ethology of "being with,"* attached to that absolute experience of sense and passion for sense for which the word *sacred* was but the designation. (p. 5)

In this journey of learning across boundaries, we become students of life with life and the world. In Denmark in the middle of the nineteenth century, Grundtvig and Kold had striven to build schools of life in place of dead Latin schools. One significant aspect of this school of life was the opportunity to build friendship across social division and boundaries. Over the years, folk high schools of Denmark have become international and one meets students from all across the world not only in international folk high schools such as International People's College in Helsingor but also in other schools in remote corners of Denmark. In such schools there is an ideal of being students of life a flame of which we find burning in some teachers and students.[9]

"Who am I?," "Who are you?" are perennial questions of life. Now for a long time, when I am asked, "Who are you?" I say: "I am a student of life." Then immediately, the questioner comes back: "Oh, I am also a student of life." Out of our many identities of life, an identity such as "student of life" is a broad, seeking, and embracing one where one chooses in solidarity with Nature, others and Divine to be with the roads and rivers of life and continuously learn. Love and labor of learning and inquiry become part of our vision and practice as students of life. Networking for learning across boundaries calls for such vocations of being students of and with life.

In the roads and rivers of life as students of life we meet others who, many a time, come to us as a God without a name. Such meetings transform our lives. In his poem *Morte d'Arthur*, Tennyson has written, "More things are wrought by prayer than this world dreams of." Holding the hands of Tennyson, we can also sing: "More things are wrought by meetings than the world can dream of." Networks emerge out of such pure meetings of souls and are not just extensions of existing institutional programs. Even when we are part of existing programs of networking, we need to bring our own soul, self and the very being of passion, prayer and imagination to these networks.

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[8] As is well known, Grundtvig was a creative pastor, poet and father of modern Danish renaissance. Kold himself had a life-changing turning point in his life when he heard his teacher Peter Larsson Skrappenberg at the Teacher's Training College that God loves us unconditionally (see Das, 2007).

[9] During a visit to Testrup folk high school near Aarhus, I saw such flames of aspiration in some students and teachers, especially in the inspiring Principal Jorgen Karlsson. I sat in a philosophy class and after this I had composed the following poem:

A Student of Life I am
There is a dance of colors in my eyes
But I have questions, not only kisses, in my lips
Questions flow In my wings
and flowing hairs
Towards the Sky and Ocean
Questions of Life, Questions of Relationships
Mediating Between
And meditating With
Moments and Eternity

Highlander is a place of meeting in Tennessee. It was started by Myles Horton in the highlands of Appalachian mountains in the 1930s who was inspired by the way seeking souls meet in the folk high schools of Denmark (cf. Horton & Freire, 1990). From its birth, Highlander has been a mothering place where people involved in social change can meet. In the small auditorium of Highlander there are rocking chairs. Participants of social movements come and seat in such chairs, share their experiences with each other and learn together. In the 1930s, participants of workers' movements met in Highlander. In the 1940s and 50s, it is the fighters of civil rights movements who met together in Highlander. Both Martin Luther King, Jr. and Rosa Parks joined these meetings and sat in those chairs of sharing which then inspired them to take a different walk in their paths of lives. Rosa Parks tells us that, in taking part in such meetings, she could overcome her fear which then planted the seed of saying no. This then emboldened her to refuse to give up her seat in a bus in Montgomery. If saying "no" is an important part of becoming a subject as Alain Touraine, the heart-touching sociologist of our times, tells us, taking part in such meetings as organized in Highlander, provides a momentum to the process of subjectivation of the participants (cf. Touraine, 2007).

While creating networks for learning, we can learn with such stories of meetings, encounters and transformations. For this we would have to transform our existing institutions as well as methods and modes of networking. While making our institutions sites of experimental creativity, we would have to make networks more creative by ourselves being engaged in creative boundary-crossing of body, self and language.[10]

Our networks then become networks of agape and creativity. Here we can walk with many inspiring co-walkers of life and history. We can walk, for instance, with two students of life, Desiderius Erasmus of Rotterdam (1466-1536) and Chitta Ranjan Das (1923-2011). Erasmus was not only an incorrigible traveler but also a passionate letter writer. He met princes as well as commoners walking on foot and wrote letters to many sharing with them the challenge of building peace and reconciliation in a world of hatred and propensity to war. Erasmus' networks of agape and creativity created a republic of letters as a counter and alternative to the existing republics of hatred and war.[11] Similar also is the seeking and striving of Chita Ranjan Das who like Erasmus travelled far and wide and wrote letters to countless radiant souls he met on the way (cf. Giri, 2011). Chitta Ranjan became a living thread of energy bringing many aspiring souls and institutions together.[12] Chitta Ranjan also worked with the folk high school movement in Denmark as well as built folk high schools in Finland. In his own experiments in co-learning

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[10] Here I wish to share my experience of travelling across the world. When I meet people, I request my fellow beings to share a poem or a song which then opens up many realities and possibilities. I spent a month in China in August-September 2009. I began with Kunming, the capital of the Yunan province in Southern China. I learnt four words (*nihaho* for saying hello, *sese* for thank you, *piolian* for you are beautiful and *changama* for singing). The last two words created new sharing and possibilities. When I met people I invariably requested them to *changama*, to sing. Initially there was always a lot of reluctance but it slowly gave way to sharing, singing and loosening of boundaries.

[11] Erasmus wrote letters for peace. For example, in his Complaints of Peace, Erasmus writes:

> Peace speaks: If it were to their advantage for men to shun, spurn and reject me, although I have done nothing to deserve it, I would only lament the wrong done to me and their injustice; but since in rejecting me they deny themselves the source of all human happiness and bring on themselves a sea of disasters of every kind, I must shed tears rather for the misery they suffer than for any wrong they do me. I should have liked simply to be angry with them, but I am driven to feel pity and sorrow for their plight. (Erasmus, 1986 [1516], p. 293)

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[12] Chitta Ranjan is a friend of the world. But the world to him was not impersonal, he cultivated deep personal friendships with innumerable souls around the world—Odisha, Kerala, Denmark, Finland, Germany, USA and around. Ramesh Ghode taught Sociology at Hilsop College, Nagpur and in the preface to the collection of letters that Chitta Ranjan had written to him and he has edited, Rameshda tells us:

> We 'discovered' each other in the All India Conference of Sociology Teachers from Rural Institutes all over India. [...] The conference was held in the last week of November, 1960 in Rural Institute, Amravati [...] I was then a student of 2nd year [...] I had a chance to speak on a sociological concept of social disorganization in that conference. After having delivered my lecture on the concept all the eminent scholars of Sociology cross-examined me by asking pertinent questions, including Professor Chitta Ranjan Das. I could feel the depth of empathy in his eyes. During that short encounter with him, he asked me several questions to glean my personal profile, family background and interest in academic pursuits. I frankly shared all the personal information with him.
>
> I perceived in him a Guru, a preceptor and an elder brother who would guide me in academic pursuits. As luck would have it, he immediately said in a soft tone, "Ramesh, do not call me Sir, you can call me 'Dada,' and I mean it in real sense of thought and action."Hearing his words I was spellbound and could not believe myself. I saw in him a Guru, elder brother, a friend, philosopher and a guide. I was convinced within that he would help me not only to tide over all the obstacles in my academic ventures but direct me in the right path of life too. Our camaraderie and kinship commenced and it was to be a sincere and life-long commitment. (Ghode, 2010, pp. iii-iv)

K. Viswanathan, the founder of Mitraniketan, Vellanad, Kerala and a great Gandhian and social activist of India shares with us the following:

> Chittada is a genius in many fields of human development. My acquaintance with him goes back to 1940s, when I joined Shantiniketan as a young student […] We got to know each other better and from this time stems our friendship. He, too, was a habitual wearer of Khadi and he also took up spinning. Living in the hostel himself, he also looked after the newcomers, helping them wherever he could to adjust themselves to the routine of life in Shantiniketan. He was very gentle, simple, friendly and soft-spoken and even at that age he had a scholarly look.
>
> [...] In the formative period of my work in the village of Vellanad, he was kind enough to spend some time with our group. Later, some of his students, who were fortunate to study under his guidance, also visited me in Mitraniketan (the name of my Centre) and from the impression I gained of them, I could judge how valuable his influence on them was as a guide, a friend and philosopher and how it moulded their lives and outlook. When I started my programme of integrated development education in Mitraniketan, I longed very much to have Chittada associated with this work. He has, no doubt, all this time been associated with it and continues to influence us with his thinking and even with his presence, whenever I ask for it and the advice of this silent worker, profound thinker and prolific writer has always been invaluable. I also know him as an excellent letter writer, always very prompt and regular in his correspondence. (Das, in press, pp. 151-153)

Eaghor G. Kostesky who lives in Germany and to whose Ukranian translation of *Gitanjali* Chitta Ranjan had written a foreword tells us:

> He was not only interested in Europe as an alien country [...] He came to a deeper contact [...] he sometimes even idealized the Europe of his friends, once feeling at Christmas as if he were with them "trying to revive the ever-live inspirations of the birth of Christ, singing round and meditating upon the Christmas tree", as he wrote to my wife and me (probably in 1966 - the date of that aerogramme is no longer identifiable). "Though the practical and the logical in me induces me to be

in the schools he established at Champattimunda, Osidha, as well as in the subsequent integral education movement, he brought different streams of transforming learning together—Gandhi, Tagore, Sri Aurobindo, Grundtvig and others (see Das, 2012).[13]

In networking for learning and inquiry across boundaries, we can walk with fellow co-walkers such as Erasmus and Chitta Ranjan who made their own lives threads of agape and creativity. We can also thread with each other and weave together by being networks of agape and creativity.

Internationalization of Education: Institutional Creativity and Networks of Creativity

In recent times, there is much talk about and some concrete moves towards internationalization of education. This is happening through exchange of students and teachers. In the European Union, there is a program of exchange of students quite aptly named after Erasmus. But in internationalization of education, most of the time, the flow is usually from South to North. There are many scholars from India who are teaching in Europe and North America. For American and European students, such teachers bring a new cross-cultural experience of learning and mutual challenging. But compared to this, we hardly see teachers from other countries in Indian institutions. This impoverishes the capacity for learning across boundaries on the part of Indian students.

There are now some creative experiments in international education. One such is the Global Studies Master's program led by the Institute of Sociology, University of Freiburg in Germany. In this learning program, participants spend a semester at Freiburg and then at two partner institutions in India (Jawaharlal Nehru University, New Delhi), Thailand (Chulalongkorn University, Bangkok), South Africa (University of Cape Town) or Argentina (FLASCO, Buenos Aires). In these moves of teachers and students across boundaries, there is possibly a network of agape and creativity at work, or participants can self-consciously cultivate these more.

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pessimist about how we face in our world and with one another, my heart persuades me to believe in it and heartens me up to encouragement. This heartening gives me hope, the energy required to live one's life as a dedication, as an act of supreme and all-embracing identification. And apart from all the institutional gloss and glamour, is not the life of Christ an example of a life offered, a life regained by offering? And can we eliminate hate from the world as long as we do not accept life as an offering? Of course, I do not mean that we have to be fanatics to do that." (Das, in press, pp. 154-155)

[13] Chitta Ranjan founded Jeevana Vidyalaya (School of Life) at Champattimunda, Anugul, Odisha in 1954. Then in the 1970s, he joined the emerging integral education movement in Odisha and played a pioneering role in the building and nurturance of such schools. These schools strive to follow the educational vision and practice of Sri Aurobindo and Mother and impart a holistic education.

Education for Creativity and the Calling of a New Enlightenment: Learning Across Boundaries and the Calling of Planetary Realizations

Education is linked to enlightenment in many ways. European ideas of Enlightenment have influenced modern conceptions of self-formation (what is called *Bildung),* as well as models and pathways of education in the modern world. To these early European models of Enlightenment Grundtvig and Kold brought the vision and practice of people's enlightenment which also resonates with the discourse of vernacular Enlightenment suggested by Foucault (cf. Korsgaard, 2008).[14] Through learning and inquiry across boundaries and creative international education we now can bring people's enlightenment to the world level beyond national borders. This calls for more labor and love of learning through intercultural and transcultural dialogues and planetary conversations. As part of such planetary conversations, we also rethink enlightenment as simultaneously rational and spiritual, individual as well as collective; an enlightenment in which not only rationalist philosophers such as Kant but also Buddha, Spinoza, Grundtvig, Erasmus and Chitta Ranjan hold our hands and help us in new realizations of both creative solitude and soulful togetherness in a world of alienation and fragmentation.

Such education does not aim just at creating global citizenship in a conventional sense; rather, it interrogates available understandings of both globality and citizenship. Learning across boundaries is not just an extension of our identity as citizens of a nation-state; rather it is an unfolding of our vision and practice as students of life. It contributes to planetary realizations. This means that all of us realize that we are children of our Mother Earth, not only human beings but also including non-human beings (cf. Giri, 2013). We are children of our Mother Earth and we are also called upon to be mothers of our Mother Earth. Networks of agape and creativity and manifold learning and inquiry across boundaries help us in planetary realizations and embody our responsibility as mothers of self, other, and our Mother Earth.

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[14] People's enlightenment in Denmark was accompanied by struggle of people for freedom from state control and creation of free and responsible associations, movements and institutions. Thus it helps us to break the link between Statist projects and projects of Enlightenment. For Grundtvig and his followers,

> It was not enough to change old state institutions into people's institutions; rather new people's institutions had to be founded, as for instance 'open' or 'free' schools, 'free' congregations, and 'free' associations. [...] Freedom cannot ultimately be guaranteed by the state; only the people can secure freedom. And that can happen only with a foundation in 'popular' and 'civil' society. Open associations [such as free schools, Folk High Schools] were seen as a sign of a voluntary social solidarity, which in turn was seen as the ideal for a grander popular and national society. Willingness to render voluntary and unpaid assistance was thus regarded as the ultimate test of one's civil virtues." (Korsgaard, 2008, p. 63)

In order to understand the last point about voluntary sharing of labor, yes this is what happens in Grundtvig-Kold free schools and folk high schools. These schools do get state support but not fully and the participants do share their labor in building and maintaining such schools. Thus voluntary sharing of labor is an important part of Grundtvigian tradition of people's enlightenment which also resonates with the tradition of Gandhi in as much Gandhi also emphasized on voluntary sharing of labor and building on people's associations, movements and institutions not dependent on or controlled by the State.

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Toward a Genealogy and Topology of Western Integrative Thinking

Gary P. Hampson[1]

Abstract: Contemporary integrative thinking such as meta-theorising, integral approaches and transdisciplinarity can be productively contextualised by identifying both a broad genealogy of Western integrative thinking, and also a topology regarding facets of such thought. This paper offers one such genealogical and topological reading. The genealogy involves the historical orientations or moments of Hermetism; Neoplatonism; Renaissancism; the nexus of German classicism, romanticism and idealism; and reconstructive postmodernism. Arising from this, an indication of a general topology of Western integrative thinking is offered (with case studies), one involving objects of integration (such as philosophy and spirituality), macro-integrative entities (such as syncretism), micro-integrative entities (such as creativity and love), integrative "shapes" (such as organicism), and processes of integration (such as intuition).

Key terms: Creativity, Hermeticism, intuition, integral, integrative, love, Neoplatonism, organicism, panosophy, reconstructive postmodernism, Renaissance, spirituality, syncretism.

Introduction

This paper offers indications toward a topology and genealogy[2] of Western integrative thinking.[3] "Integration" here is taken to mean *complex integration* – somewhat analogous to Kelly's (2008) notion of "complex holism" – rather than reductive integration (such as that offered by mathematics in physics). *Topology* points to such aspects as objects of integration, "shapes" of integration and processes of integration, as well as to integrative entities. *Genealogy*[4] connotes a broad thread inclusive of relatively similar thought pertinent to the context-in-hand. In the current instance, this involves five philosophico-historical attractors, orientations, contexts or moments, namely, Hermetism; Neoplatonism; Renaissancism; the nexus of German classicism, romanticism and idealism; and reconstructive postmodernism. Across these five orientations, the

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[2] Genealogy can be regarded either as a peer of topology or as a topological aspect.

[3] An alternative term here might be *Western "panosophy"*— also see Hague (2010)).

[4] "Genealogy" here is to infer a sense of lineage (as broadly defined) rather than in relation to a more Foucauldian (Foucault, 1971/1984) usage of the term. This is not to say, however, that there is no overlap between the two uses.

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paper explores six topological cases, namely: creativity, intuition, love, organicism, intimate relations between philosophy and spirituality, and syncretism, respectively.

The paper can be understood as an example of "research across boundaries" in that it addresses integrative entities. By their very nature, integrative entities are boundary-crossing through cohering what might be regarded as disparate parts. The paper's generation of a topology further adds to boundary-crossing in that the topological nodes link various domains. Touching upon a variety of disciplines, the paper also crosses historical time and connects various past perspectives with the present. Of specific note, perhaps, and in line with integral studies generally, is its interest in connections between philosophy and spirituality. Whilst many integral approaches emphasise Eastern spiritualities – including Aurobindo's yogic context and Wilber's emphasis on Buddhism – the paper contributes to a rebalancing in this regard by including focus on aspects of *Western* spirituality. (As it happens, due to the default divorce in Western religion between the exoteric and the mystical, the label "esoteric" is often ascribed to Western mystical spirituality by conventional perspectives).

In addition to the intrinsic value of this exploration, as well as the direct value-adding to integrative theorising of the paper's topological contributions, it is suggested that the genealogical inquiry can help valorise contemporary integrative approaches by indicating that such contemporary sensibilities sit in relation to previously explored notions. The various historical approaches are also able to provide fresh insights for the contemporary circumstance, and to regenerate meaning through novel content and increased contextualisation.

Boyer's (1990) *scholarship of integration* provides the paper's scholarship modality;[5] it also synergies with the paper's object of inquiry (integration). Scholarship of integration involves the quest for "new topologies of knowledge" (p. 19) stretching across boundaries[6] in service of meaning enhancement, among other things (Boyer, 1990).[7] This form of scholarship complements the more conventional *scholarship of discovery*, which focuses on a narrow, tightly-bounded topic. In contrast, the scholarship of integration legitimises a wider, more loosely-bounded area of address.

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[5] The scholarship of integration is one of four types of scholarship identified by Ernest Boyer as part of his 1990 report from the Carnegie Foundation for the Advancement of Teaching entitled *Scholarship Reconsidered: Priorities of the Professoriate* (Boyer, 1990). The other three are the scholarships of discovery, application and teaching respectively. Of all the types, Boyer considered the scholarship of integration the most important (Rice, 2005). Yet it appears to have had the least uptake by the academy as an overarching construct (Braxton, Luckley, & Helland, 2002; Rice, 2005). David Scott (2005) suggests that this is because it requires integrative *epistemologies* such as found in the emerging discourses of integral and holistic studies—a relatively rare occurrence.

[6] Here necessitating a longer-than-usual reference list: it would be judicious for a transdisciplinary or cross-boundary work to (in effect) satisfy the conventional requirements of each discipline etc.. *Ceteris paribus*, multiple disciplines could thus produce a longer list than would be necessary for one discipline.

[7] According to Boyer (1990), a key purpose of the scholarship of integration centres around meaning enhancement. He indicates that scholarship of integration scholars are those "who give meaning to isolated facts" (p. 18) with a view to "illuminating data in a revealing way" (p. 18), effecting the possibility of "more comprehensive understanding" (p. 19). Noting that "specialization, without broader perspective, risks pedantry" (p. 19), Boyer also indicates possible purposes of the scholarship of integration as including the furthering of authenticity and the quest for wisdom.

To achieve balance between breadth and depth, certain "gap diving" (Roy, 2006) is enacted—here, effected by the six case examples. The particular scholarship of integration sensibility enacted in the paper can be understood in relation to Gangadean's (2008) deep dialogue, Montuori's (1998) creative inquiry and Giri's (2002) creative transdisciplinarity. Additionally, in light of the postconventionalities of poststructuralism, reconstructive postmodernism and complexity theory, moves toward due openness, plasticity and complexity are in order—in a variety of ways.

Firstly, the paper acknowledges the wiles of language, both regarding its inevitable limitations (including the paper's restriction vis-à-vis Anglophone discourse), and also its generative delights. Rather than plainly representing the material and noetic worlds, it acknowledges that text *re*-presents them.[8] As Heidegger (1927/1962) indicates, language simultaneously reveals and conceals. Apropos, construct-awareness (Cook-Greuter, 2002, 2005) is important. A danger of "topology," for example, lies in the possibility of undue technicism and simplification: nodes and connections might be imagined as simple, homogenous units in a heterarchical plane; similarly, "genealogy" might carry too strong a sense of sharply-defined "blood line," an undue implication of origin or of progressive development (rather than varied change). In contrast, the paper offers a relatively fuzzy conceptualisation of both topology and genealogy within which rich, complex identities carry their own topologies, topographies, tapestries, tensions. Evolution should also be understood as allowing for regressions and diversions as well as progressions.[9] Similarly, "shapes" encompasses the more agentic idea of *habits* (Küpers, 2011) so as not to fall prey to inapt static conceptions. Even the term-idea, *integration*, has its dialectic: the Other which it implicates involves disintegration, fragmentation—even here one might note that from – Armstrong's (2003) reading of – the integrative perspective of the German Romantic, Friedrich Schlegel: "the fragment embodies the system's dispersal from within" (p. 30). From a different direction, construct-awareness can also offer new possibilities such as the paper's extension of *reconstructive postmodernism* to embrace both contemporary integrative approaches such as Wilberian integral theory and certain insights from deconstructive postmodernism (albeit acknowledging inevitable contestabilities in such gathering) (Hampson, 2007) in addition to its use by Griffin (2002) and Griffin et al. (1993) and closely-related use of *cosmological postmodernism* by Gare (2002).

Secondly, the paper's focus on *Western* thought is not intended to marginalise the non-Western. Quite the reverse. Its explicit identification points to the paper's boundedness in this regard; it implicitly calls for the gamut of non-Western approaches to be given their own expression (and consequent interrelations).[10]

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[8] The part-novelty of the reiteration signified by "re" here is highlighted by Morin (2005) through his raising of the significance of "re" from prefix to paradigm. The relay of information from signified through signifier is renewed, and is potentially rewarding. Prose's prosaicism begins to lean more toward the poetic, the *poietic* (the made), the as-if *autopoietic* (self-generated), and an acknowledgement of the inevitable play of metaphor/metaphysics (Abbs, 1989) in Reason (Lakoff & Johnson, 2003).

[9] Further, it could be conceived both as rhizomatic (Deleuze, 1980/1987) and also as having a dominant attractor, which might be conceived at the beginning (tale of Hermes), end (reconstructive postmodern narrative) or centre (*art-e-fact* as "re-sounding" the Renaissance).

[10] See, e.g. Hampson (2010c) regarding Native American integral education and the significance of classical Islamic thought to Western thinking.

Thirdly, the genealogy and topology offered is intended to be gesticulative and organic—a "rough guide"—rather than comprehensive and contained—an opening to dialogue, supplement, complement, complexification, seeding ideas for further development. It offers one perspective (emerging from interest in integral approaches); others might be similarly insightful,[11] including those focusing on ecological thought. The rough guide nature of the genealogy also means that only a first level order of relationships are indicated – namely, "positive" harmonics between identified items. This does not imply that these are no further layers. Rather, it should be understood that more nuanced relational levels allow for the numerous contestabilities and involvements of complex systems. It is beyond the scope of the paper to detail such complexities – e.g. the multifaceted relationship between the nexus of German classicism, romanticism and idealism on the one hand, and reconstructive postmodernism on the other.

Fourthly, regarding the identification of an "integrative entity": How might one identify and understand that which exists? Specifically, does the general conceptualisation pertain in the first instance to relatively small objects which (secondarily) have interrelations (i.e. a type of atomism) or, alternatively, in the first instance to the whole shebang which (secondarily) has *intra*relations (a type of holism)? Perhaps it depends upon one's perspective; perhaps the composition is rather that of (different orders of) holons (whole/parts), whereby each holon is understood as integrating lower order aspects of it. In this sense, all entities could be understood as integrative. Within certain contexts, however, it might be useful to conceptualise some things as more integrative than others—whether noetic (such as transdisciplinarity) or material (such as the universe). Such judgment is ultimately an art. The discussion below sits in service of this art. It firstly conceives of "integrative entities," and secondarily suggests these may be pictured as existing at different scales.

Also pertinent is the context from which the paper has arisen, namely, the Research Across Boundaries Symposium, Luxembourg 2010. In this regard, the symposium's influence in shaping the paper's references should be noted. Inversely, such symposia can themselves be aptly contextualised through prior integrative thought—from the radical relationality of the Hermetica to Klein's (1996) work on boundary crossing.

The structure of the paper comprises an introduction to the genealogy, followed by the various topological aspects of objects of integration, macro-integrative entities, micro-integrative entities, shapes of integration, and processes of integration, respectively; for each aspect, case examples stretching across the genealogy are provided.

An Integrative Genealogy

A brief introduction to the five orientations in the Western genealogy of integrative thinking now follows. These comprise Hermetism, Neoplatonism, Renaissancism, German humanism, and reconstructive postmodernism, respectively.

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[11] See, e.g. Hampson (2010c) and Molz and Hampson (2010) for indications regarding *Aristotelian*—including Thomist/Catholic—integral thought.

Hermetism

The term *Hermetism* is identified by Faivre (1998) as referring to pre-Renaissance address of Hermes Trismegistus, whilst *Hermeticism* more comprehensively includes the broader range of Western esotericism following Renaissance thought (Hanegraaff, 1998). Hermes Trismegistus is a mythologised character involving a fusion of the Ancient Greek god Hermes and the Ancient Egyptian god Thoth. Goodrick-Clarke (2008) describes Hermes-Thoth as "rather like a Bodhisattva who has attained immortality but remains in the human world as a channel for the divine" (p. 18).

Various texts written between the first century BCE and third century CE—notably the *Corpus Hermeticum* of the second and third century CE—were ascribed to Hermes Trismegistus (Faivre, 1998). "Hermetism" refers to this literature (the *Hermetica*).

Key themes include particular relations between human and divine (partnership between humanity and God) that can be described as a form of nonduality (e.g. the world as spiritual), involving holography as meta-phor/ physics ("as above, so below"), a *living* universe, and depth (the world as infused with divine symbolism), such that it is possible for the human individual or collective to (directly) regenerate, redeem or transmute themselves toward the divine (alchemy as transformation toward potential); levels of reality are also posited through the notion of spiritual intermediaries (Goodrick-Clarke, 2008).

Jung (1943 / 1970) indicates that Hermetic understanding includes the assemblage of all conceivable opposites—one might say *an archetype of dialectics* or *nonduality*. This includes that between ego and id, eros (life, creativity, desire, sexuality) and thanatos (death), passion and reason (Faivre, 1995). In contrast to the dominant modern (post-eighteenth-century) *episteme* of "solipsism, atomization, [and] incommunicability," (p. 70) the Hermetic offers "the path of otherness, of living diversity, of communication of souls" (p. 70)—a substantively *relational* template-sensibility that accords with contemporary (post-mid-twentieth century) academic interest in such items as "relativity, pluralism, polarities, [and] polysemiology" (p. 49): *Hermetism as complexly integrative*.

Hermetism proved to be a robust stream of thought, forming part of the prevailing theological paradigm in the Middle Ages in the West (and also in classical Islamic civilisation) (Faivre, 1998), even though it was marginalised by Aristotelian scholasticism. As a *mainstream* interest, it can be evidenced at least as late as Isaac Newton's prolific output of Hermetic and alchemical writings (Linden, 2003a). Somewhat paradoxically, Newton's and Kepler's Hermetic orientation could potentially facilitate a deconstruction of the technicist anti-Hermetic Newtonian*ism* of modernism.

Let us now turn our attention to perhaps an even greater influence in the Western integrative genealogy: that of Neoplatonism.

Neoplatonism

Neoplatonism pertains to spiritual philosophy evolving from the thought of Plotinus (3rd century CE), including the later thinking of such figures as Iamblichus. As the term indicates, a main source of inspiration for Plotinus was Plato, foregrounding Plato's metaphysical and mystical aspects (Bussanich, 1996). However, it is also the case not only that "the Metaphysics of Aristotle is extensively employed" (Gatti, 1996, p. 11) but that Plotinus' understanding *diverges* from Plato's in significant ways. Stamatellos (2007) identifies, for example, that "Plotinus seems to accept Heraclitus' position that the everlastingness of becoming is expressed in the form of an endless cosmic flux" (p. 127). Neoplatonism thus supports theoretical approaches entailing creative becoming. This understanding could be identified as (part of) *radical* Neoplatonism (noting, in this instance, that "radical" etymologically relates to "root") that may be distinguished from (what might be termed) "traditional"[12] Neoplatonic interpretations in which this is not the case.

In terms of its major schema, professor of Western esotericism, Goodrick-Clarke (2008), identifies that:

> Neoplatonic thought is characterized by the idea that there exists a plurality of spheres of being, arranged in a descending hierarchy of degrees of being. The last and lowest sphere of being comprises the universe existing in time and space perceptible to the human senses. Each sphere of being derives from its superior by a process of 'emanation,' by which it reflects and expresses its previous degree. At the same time, these degrees of being are also degrees of unity, whereby each subsequent sphere generates more multiplicity, differentiation, and limitation, tending toward the minimal unity of our material world. (p. 21)[13]

As part of this schema, a key Neoplatonic orientation—in some ways analogous to God—is that of *the One*:[14] O'Meara (1993) describes the Neoplatonic One as "beauty above beauty" (p. 99) whilst Tarnas (1991) identifies that the One "is infinite in being and beyond all description or categories" (pp. 84-5).

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[12] Noting that traditions can sometimes develop in manners which differ from original impulses.

[13] As indicated above, distinction between traditional and radical Neoplatonic approaches could be envisaged, one differentiating between a "traditional" interest in a *via negativa* ("traditional" Christian) framing (The One as better than The Many, Original Sin, *humanity as fallen*, the concept of temptation, etc.) and a *via positiva* (Hermetic / Renaissance / panentheistic / nondual) framing (The One and The Many as both good, Original Blessing, *humanity as in participatory dialogue with the Divine*, notions regarding freedom and adventurings of the soul, etc.). A dialectic between the two can be seen in the notion that multiplicity leads to both to "the beginning of strife, yet also the possibility of *logos*, the relation of one thing to another" (Gare, 2005, p. 68). As Gangadean indicates, it is this "relational power of Logos that opens the space-time in which the world, reality, and existence may proceed. It is this infinite relational power of Logos that makes discourse possible" (Gangadean, 2008, p. 132).

[14] Gare (2005) traces Neoplatonic interest in *number as archetype* (through its identification of The One) to Pythagoras. Nonetheless, a differentiation can be made between Pythagoreanism and the range of Neoplatonic relationships to this vector (as per previous footnote).

Aspects of this understanding permeate contemporary integrative thought, including Wilber's (1995) valorization of hierarchy, intellect and Spirit. In contrast to the Wilberian orientation, however, Tarnas' (1991) reading also indicates the relevance of archetypes and *anima mundi* for integrative thought. In keeping with Wilberian integral (and Bhaskar's (2002) meta-Reality), however, lies Plotinus' identification of the nondual: that "the soul is one with the One" (Rist, 1967, p. 227). Moreover, the One is paradoxical: it is, as Bussanich (1996) indicates, "everything and nothing, everywhere and nowhere" (p. 38). Indeed, Bussanich continues that "the One is the center of a vibrant conception of reality many of whose facets resist philosophical analysis" (p. 38). This points to the *transrational* aspect of Neoplatonism: "In Plotinus' thought, the rationality of the world and of the philosopher's quest is but the prelude to a more transcendent existent beyond reason" (Tarnas, 1991, p. 84).

As with much Ancient Greek ethical theory, Neoplatonism carries a normativity in the form of well-being or "eudaimonia"—"that which makes life satisfying, successful, complete" (O'Meara, 1993, p. 100): specifically, it holds an interest in spiritual emancipation and its possibility for humanity (Bhaskar, 2002; Tarnas, 1991), notably through "the quest to maintain the integrity of the soul" (Blumenthal, 1996, p. 89). The aim is less to *see* spiritual realities than to *embody* such realisations, as Rist (1967) indicates: "For Plotinus, "the aim of the mystic is not a *seeing*, but a *being*" (p. 221). Such being requires wide awareness, receptivity and trust of *that beyond reason* as Rist observes: "To proceed beyond ⊆|⌡⎛ is to take a leap, and in a sense it is a leap into the unknown" (p. 220). It "is a tremendous demand of the self" (p. 220) yet simultaneously "simply" requires substantive *accord* with the One—a (Zen-like) *one*-pointedness or singularity of consciousness (Hines, 2009).

Renaissancism

The greatest regeneration of Hermetism and Neoplatonism took place in fifteenth century Italy. The city state of Florence was the first to witness the self-proclaimed flourishing of a new consciousness—a "radical enlightenment" (Gare, 2005)—which Tarnas (1991) describes as "expansive, rebellious, energetic and creative, individualistic, ambitious and often unscrupulous, curious, self-confident, committed to this life and this world, open-eyed and sceptical, inspired and inspirited" (p. 231). The newfound sense of human dignity and the exalted place of humanity in the cosmos—as straddling the mortal and immortal—was exemplified by Pico della Mirandola's *Oration on the Dignity of Man* (1486/1965). Humanity was now identified to a large degree as self-created—"as a sculptor gives form to a statue" (Miller, 1965, p. xv).

Such Hermetic-Neoplatonic spirit gave rise to the birth of modern science (Tarnas, 1991):[15] "Kepler confessed that his astronomical research was inspired by his search for the celestial 'music of the spheres'" (Tarnas, 1991, pp. 294-5) whilst Newton's law of gravitation was "modelled on the sympathies of Hermetic philosophy" (Tarnas, 1991, p. 295).[16] Paradoxically, Gare (2005) notes that "modern science [simultaneously] developed in reaction to and in opposition to Renaissance culture, both the civic humanism that had developed in the

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[15] This proved to be a double-edged sword, however. Whilst modern science has achieved many successes, scientism (its excessive, inapt and/or de-contextualised use—in relation to an ecology of approaches)—has been a significant player in the facilitation of the current *global problematique*.

[16] Newton also adopted a *Thomist-Aristotelian* critique of Descartes (Gare, 2005).

Renaissance and the more radical ideas of the ‘nature enthusiasts’ who had celebrated nature as divine” (p. 57): the legacy of Hermetic-Neoplatonism is a complex yet fertile one. Complicit in such fertility was the radical relationalism and syncreticism in Renaissance thought. Such “determined ‘decompartmentalization’” (Tarnas, 1991, p. 230) included the notion of Greek philosophy (including Hermetism and Neoplatonism) and the Judeo-Christian tradition as jointly expressing a single spiritual philosophy (Miller, 1965). Radical relationality also surfaces in Renaissance dialectics with “its simultaneous balance and synthesis of many opposites: Christian and pagan, modern and classical, secular and sacred, art and science, science and religion, poetry and politics” (Tarnas, 1991, p. 229). Abrams (1971) furthers this identification of defragmentation and connectivity, ascribing to the Renaissance

> an integral universe without absolute divisions, in which everything is interrelated by a system of correspondences, and the living is continuous with the inanimate, nature with man, and matter with mind; a universe, moreover, which is activated throughout by a dynamism of opposing forces. (p. 171)

Syncretic integration also fostered the polymathic ideal of *homo universalis* as exemplified by the broad scholarship at Marsilio Ficino’s Academy. The general sensibility was one of “a tolerant eclecticism, an open-minded, receptive attitude” (Miller, 1965, p. x) whether with regard to philosophico-spiritual traditions or across the range of scholarly and artistic interests. This united into such singularities as Pico della Mirandola’s complex philosophy involving an integral knowledge uniting both spirit and matter in which “a truth about any one part immediately reverberates through the whole, and discloses truth about every other part” (Miller, 1965, p. x). Altogether, in contrast to the perceived stultifications of the scholasticism of the time, the novel infusion of the Platonic and Neoplatonic “offered a richly textured tapestry of imaginative depth and spiritual exaltation. The notion that beauty was an essential component in the search for ultimate reality, that imagination was more significant in that quest than logic and dogma” (Tarnas, 1991, p. 212).

The insights and sensibility of the Italian Renaissance did not remain an isolated occurrence, however: they experienced a recapitulation a few centuries later in Germany.

The Nexus of German Classicism, Romanticism, and Idealism

Inspired by such figures as Böhme[17] and Kant, the German nexus of classicism, romanticism and idealism developed in the late eighteenth and early nineteenth centuries (Hanegraaff, 1998). Key figures included Herder, Goethe, Schiller—classicism; Wilhelm and Friedrich Schlegel, Hölderlin, Novalis—romanticism; and Fichte, Hegel, and Schelling—idealism (noting that the three categories are by no means mutually exclusive). In terms of its relationship with the current genealogy, Abrams (1971) states:

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[17] In contrast to later thinking, Böhme’s “cosmogony entails something that modern minds find particularly hard to imagine: a dynamic process that *unfolds outside of time*” (Hanegraaff, 1998, p. 261): process but not—or not just—material evolution. Here, Hanegraaff (1998) furthers Böhme’s thinking that “the full archetypal symbology of esoteric ‘transmutation’ is definitely not exhausted by…temporal manifestation” (Hanegraaff, 1998, p. 261). The significance of this understanding in relation to modern, Romantic and integral conceptions of temporality and transformation could be fruitfully furthered. In this regard, see Kelly (2008).

> The basic categories of characteristic post-Kantian philosophy, and of the thinking of many philosophical-minded poetics, can be viewed as highly elaborated and sophisticated variations upon the Neoplatonic paradigm. (p. 169)

Specifically, classicism attempted to realise integrative forms at multiple levels in relation to life and culture (Richter, 2005). This drive overlapped with romanticism, which included:

- organic unities in which the whole is more than the sum of the parts;
- the primacy of process, temporal consciousness;
- helixes of development-and-return;
- the value of diversity;
- imagination as a creative force;
- valorisation of the symbolic;
- the significance and liminality of philosophy and literary plot; and
- redemption as self-education (see Abrams, 1971; Hanegraaff, 1998).

Tarnas (1991) observes that “from the Romantic’s perspective…the literalism of the modern scientific mind was a form of idolatry” (p. 369). Instead of a fundamentalist science, Goethe’s approach involved integrative dialogue between science and art through realising their unity as spiritual manifestations. A valorisation of the genus of art (music, literature, drama etc.) was seen as critical. Indeed, the artistic was elevated to an exalted role—the discipline of imagination facilitating spiritual emancipation (Tarnas, 1991). Despite the Romantic contestation with mechanistic science, the significance of German romanticism nonetheless stretches into modern science. Richards (2002), for example, identifies that “Charles Darwin[’s]…conception of nature owed much to German Romantic sources” (p. 10).

In terms of idealism, Beiser (2000) (who interprets idealism widely) identifies that,

> All its various forms—the *transcendental idealism* of Kant, the *ethical idealism* of Fichte, and the *absolute idealism* of the romantics—were so many attempts to resolve [the] aporiaia of the Enlightenment. …what all its forms have in common is the attempt to save criticism from scepticism, and naturalism from materialism. (p. 18)

Of notable inclusion are Schelling’s (1800 / 1978) *Transcendental Idealism* and Hegel’s (1807 / 1977) *Phenomenology of Spirit*.

From the nexus of German classicism, romanticism and idealism, we now turn our attention to a contemporary nexus: that of reconstructive postmodernism.

Reconstructive Postmodernism

What might be understood by *reconstructive postmodernism*? Griffin (2002), who identifies the term-idea as “a diffuse sentiment…that humanity can and must go beyond the modern” (p.

vii),[18] has promoted the term as an advancement on *constructive postmodernism*. Gare's (2002) *cosmological postmodernism* can also be identified as closely related in that it is similarly identified as forming a binary with poststructualist or deconstructive postmodernism. From a broader angle, all contemporary integrative theorising can be understood as a form of reconstructive postmodernism in that it seeks to go beyond the modern (whilst including appropriate aspects of the modern) in a cohesive manner. From a dialectical perspective, this may even attempt to include *de*constructive postmodern elements (Hampson, 2007) where the deconstruction "is not so totalizing as to prevent reconstruction" (Griffin, 2002, p. ix).

Griffin (2002) identifies the modern worldview in relation to "Galilean-Cartesian-Baconian-Newtonian science" (p. vii). The vector of this reconstruction is toward "a new unity of scientific, ethical, aesthetic, and religious intuitions" (p. ix) involving "a creative synthesis of modern and premodern truths and values" (p. x). It does not reject science per se but rather *scientism*, the overregard for—or overapplication of—science, in relation to other domains or orientations. Cartesian commitment to determinable knowledge (Gill, 2000) and consequential *human as machine* metaphors are problematised (Gunter, 1993, p. 135). Rather, after Gödel's incompleteness theorem (Gill, 2000), life involves "acts that are free and unpredictable" (Gunter, 1993, p. 135). Indeed, on Griffin's (1993) understanding that "we have an individual piece of nature that we know from within as well as without" (p. 203) such "postmodern animism" (p. 201) indicates that the whole of "nature is comprised of creative, experiential events" (p. 202).

Reconstructive postmodernism can be understood as a "broad church" encompassing a plethora of approaches. Figures foregrounded in the current narrative include Whitehead (1979), Jung (Jung, Adler, & Hull, 1981), Morin (1977/1992, 2005, 2007, 2008), Bhaskar (2002) and Wilber (1995, 1997). Nietzsche's ideal of realizing one's life as art (Tarnas, 1991, p. 370) could also be mentioned here. Given the themes arising in the genealogy, it might also be useful to mention discourse addressing wisdom – see, e.g., Hall (2010).

Objects of Integration

From a certain perspective, one may picture objects, entities or topological nodes with which integrative process can be enacted. From such a perspective, one may ask the question: what objects of integration can be identified?[19] There are no doubt many ways of answering this question; different types of identification can be given – see, e.g. Bhaskar & Norrie (1998); Ferrer, Romero, & Albareda (2005); Klein (1990, 2000); Nicolescu & Voss (2002); Wilber (1997). Objects of integration could include:

- non-living phenomena, ranging in size from the quantum to the galactic, cosmogonical periods;
- non-human living phenomena of all kinds, evolutionary periods;
- human evolutionary and historical periods;

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[18] A range of views could be given regarding the degree and the way the "modern" might be included (if at all) in such a reappraisal.

[19] This question pertains to a conventional-atomistic mindset whereby initial objects-as-atoms are later brought into interrelationship. An alternative starting place—that of initial oneness from which intra-multiplicities could be identified—is equally possible.

- cultural groupings, cultures and sub-cultures;
- noetic domains, disciplines, epistemologies etc.
- perspectives (1st, 2nd, 3rd; emic, etic; holistic; developmental etc.);
- objects of language and other expressive forms.

Philosophy- Spirituality

Two noetic objects of integration which can be identified as being in interrelationship within each of the five historical clusters in question are philosophy and spirituality.[20] From the perspective of modernism, these two term-concepts appear largely distinct from each other, with "philosophy" inferring rational inquiry and "spirituality" tending to indicate something of the non-rational. In contrast, from the perspective of the current genealogy of Western integrative thinking, the two are more intimately connected, such that one could refer to spiritual philosophy, to philosophical spirituality, and to an intimate dialectic between the two ("philosophy~spirituality").

With regard to philosophy~spirituality and Hermetism, Ebeling (2005/2007) distinguishes between "theological-philosophical texts" on the one hand and "technical Hermetica" on the other (p. 9). The former can be understood as involving a fusion between the spiritual and the philosophical as part of a sense of partnership between humanity and God (Goodrick-Clarke, 2008), a fractal connection (as a complexity theorist might say) between microcosmos and macrocosmos (Linden, 2003b). For Neoplatonism, a somewhat different intimacy is identified, namely, that the philosophical intellect—*Nous*—is holarchically embraced by the (Creative) One, spiritual Good or God. Close connectivity between philosophy and spirituality is also evident in the Italian Renaissance. Miller notes that quintessential Renaissance spiritual philosopher, Pico della Mirandola, identifies both "Greek philosophy and the Judeo-Christian scriptural tradition…as unfoldings of a single pious philosophy" (Miller, 1965, p. ix).

Whilst during this pre-modern period it was common for reason and revelation to (variously) be in agreement, the same cannot be said for the modern period. Apropos, the intimate connectivities between philosophy and spirituality in German humanism and, more recently, in reconstructive postmodernism, sit within a context where such synergy is not the norm. With respect to the former cluster, Solomon comments that "against the sometimes-crass materialism of the Enlightenment in France and England, German philosophers had become, virtually all of them, idealists or romantics of one kind or another…[insisting] on spirituality" (Solomon & Higgins, 1996, p. 228-9). Similarly in the more recent period, in contrast to the "atheistic materialism" of mainstream academia (Griffin, 1997), when Whitehead (1967) refers to "the Odyssey of the human spirit" (p. 207), he identifies philosophy—"adventures of thought" (p. 207)—as forming one vector of spiritual adventuring, along with "adventures of passionate feeling [and] adventures of aesthetic experience" (p. 207). Academia as jnana yoga, perhaps?

The following are variously indicative of other reconstructive postmodern relationalities between philosophy and spirituality. Bhaskar's (2002) recent work on meta-Reality deeply integrates the two. Integral approaches of most persuasions partake of close relationships between the two. Griffin (1990) identifies connectivities between spirituality and postmodern philosophy, particularly with regard to the principle of interconnectedness. The work of quantum physicist David Bohm also indicates an intimacy between philosophy and spirituality (Russell, 1985) including the influence of Christian mystic Nicolas of Cusa (Fox, 1990). From a different direction, the connections between spirituality and postmodernism are identified by Benedikter (2005). Additionally, in relation to a holarchical picture of higher order sciences, Murphey and Ellis (1996) identify the need for a yet “higher-level explanation—either metaphysical or theological” (p. 16), a non-reducible order involving ethics… A plethora of other contemporary understandings could contribute to this list.

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[20] There is currently a resurgence of interest in spirituality, not only including noetic relations with science and philosophy but also with respect to concrete relations to organizations, see e.g. Edwards (2010).

Macro-integrative Entities

The current section addresses what might be regarded as large integrative entities whilst the following section will explore seemingly smaller scales.[21]

Macro-integrative entities could include such items as universe/kosmos/cosmology, such as including identification of ontological or epistemologico~ontological[22] levels; planet (Gidley, 2007)—whether as ecosphere/ biosphere, multiculturalism (Dussel, 1993/1996)/ transcivilisationism, transmodernism, or indeed, the “cosmo-physico-bio-anthropolog[osphere]” (Morin, 2008) incorporating the bodymind[23] (Dewey, 1928, 1997); history, big history (Christian & McNeill, 2004), macrohistory (Galtung, 1997), genealogy; perspectives; and collective mind—incorporating collective consciousness and the collective unconscious (Jung et al., 1981). Academia itself might be regarded as a macro-integrative entity within which other integrative entities exist—entities such as philosophy, narrative, transdisciplinarity (Brier, 2006; Giri, 2002; Klein, 2004; Nicolescu & Voss, 2002), meta-theory (Edwards, current issue; Wallis, 2010), and integral approaches (Esbjörn-Hargens, 2006; Esbjörn-Hargens & Zimmerman, 2009; Gebser, 1949/1985; Gidley, 2007; Molz, 2010; Reams, 2005; Ryan, 2005; Wilber, 1997).

The case study offered below comprises a broad interpretation of *syncretism*.

Syncretism

The term *syncretism* derives from the Greek *synkretismos* meaning “union of communities.” Syncretism can be defined as “the attempted reconciliation or union of different or opposing principles, practices, or parties, as in philosophy or religion.”[24] This breadth allows for its connection with the genealogy to vary from syncretic spirituality through syncretic philosophy to syncretic academia—forming, one might say, “the many faces of syncretism” (Sathler & Nascimento, 1997, p. 99). The term-concept has a chequered history, sometimes viewed neutrally or positively (including *syncretism as promoting dialogue* (also see Starkloff (2002)), othertimes negatively (including the idea of *syncretism as a corruption of Truth*) (Veer, 1994). In line with a postmodern perspective (Bertens & Fokkema, 1997; R. Shaw & Stewart, 1994), the current paper faciliates the former view, one which problematises the notion that "syncretism" *must* connote the superficial and/or the chaotic, but rather allows for the possibility of a duly complex and/or coherent depth syncretism, "((syncretism))" (to use Gangadean's, 2008, *deep dialogue* syntax) or "a poetic of syncretism" involving vision, panorama, orchestration, integration (Cocozzella, 1990).

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[21] Some blurring between scales is inevitable.

[22] Noting dialectic between ontology and epistemology.

[23] Offering such perspectives as *science and art within the self* (Zebrowski, 1999)

[24] Syncretism (n.d.) *Dictionary.com Unabridged*. Retrieved April 15, 2010, from Dictionary.com: http://dictionary.reference.com/browse/syncretism

With respect to Hermetism, spirituality involves a "syncretic, Hellenistic philosophy of nature, which itself was a conglomeration of Aristotelian, Platonic, Stoic, and Pythagorean doctrines, interspersed with motifs from Egyptian mythology and themes of Jewish and Iranian origin" (Ebeling, 2005/2007, p. 10). Indeed, Hermetism's syncretic nature is such that it could be regarded as involving the assemblage of all conceivable opposites (Jung, 1943 / 1970), an archetype of nonduality, a relational template-sensibility that accords with postmodern interest in such items as "relativity, pluralism, polarities, [and] polysemiology" (Faivre, 1995, p. 49). In contrast, the degree of syncretism in Neoplatonism is debatable. It might well be identified that "the philosophy of Plotinus cannot in fact be considered eclectic or syncretic" (Gatti, 1996, p. 13). Nonetheless, beyond the fact that Plotinus was himself Egyptian (a liminal location between West and East), substantive links can be made with Indian spiritual philosophy (Chattopadhaya, 2002; Harris, 2002); it also "seems undeniable that Philo… [who produced] for the first time in history a fusion of elements of traditional Greek thought with elements of Hebrew culture, was also an influence on Plotinus" (Gatti, 1996, p. 12).

The question of spiritual syncretism of the Renaissance is far less uncertain. Pico della Mirandola, for example, was not only well acquainted with Hermetism, Plato, Aristotle, Neoplatonism, scholasticism and the Christian Church Fathers, but also had "knowledge of Hebrew, and some slight acquaintance with Arabic and Aramaic, which gave him access to Jewish theology, philosophy, and science" (Miller, 1965, p. viii). Against "the charge of 'bad syncretism'" Cassirer (1942) considers that "we must…absolve him" (p. 345). The yet stronger case would be to problematise the default association between "syncretism" and "bad": in this regard, Blum (2003) names the argument as occurring between "modern" philosophy and such worthy syncretism as found in the Hermeticism of the Renaissance.

With respect to German humanism, syncretism appears more in relation to philosophical syncretism rather than that of spiritualities. This includes identification of Kant's syncretic theory or integrative philosophy (Rockmore, 2003), Fichte's philosophical syncretism (Bamforth, 2003), Hölderlin's philosophical syncretism (Hoesterey, 1991) and even Hegel's speculative synthesis as syncretic harmonization (Scarfe, 2006).

In relation to reconstructive postmodernism, syncretism can be identified in a number of ways. Firstly, Whitehead and Jung have been associated with identifications of contemporary "spiritual and mystical religion" (Campbell, 1978, p. 152), one which draws upon such idea-systems as Christian mysticism, "Buddhism, Hinduism, Sufi Islam, Neoplatonism, Gnosticism and Romantic Idealism…Jung, William James [and] Whitehead" (Campbell, 1978, p. 148). In addition to the address above, the syncretic interest of Jung himself is perhaps further indicated by his interest in the Daoist book, *The Secret of the Golden Flower* (Heyong, 2009). Additionally, the contemporary "spiritual and mystical tradition" can be associated with "the generally polymorphous character of truth" (Campbell, 1978, p. 154)—a postmodern conceptualisation whose expression can be understood as including syncretism as postmodern, feminist, "complex interdisciplinary,” “integrative,” “transdisciplinary,” “bricolage,” “jazz” or “dance” (Brown, 1997; Ebbeson, 2006; Hoesterey, 1991)—syncretism as a quality or type of hybridity comprising the “*transversal* relations of disciplines” (Toro, 2007, p. 23, original emphasis). From a different direction, Ascott (2006) syncretically coheres three domains, relating spiritual syncretism with quantum metaphysics and social harmony, asserting that “the development of a truly technoetic art will emerge from the confluence of connectivity, syncretism, and field theory. Connectivity is at the root of cultural coherence, syncretism at the root of spiritual coherence, and field theory at the root of quantum coherence” (p. 75). Such texts allow for the possibility of complex integrative theories (of whatever hue) as sitting in relation to syncretism.

Micro-integrative Entities

In addition to macro-scale integrative items, seemingly smaller scale entities can also be identified such as those identified by particular terms—or noetic nebulae such as clusters of metaphors (Kimmel, 2010)—which might have substantive ecosystems of meaning, such as the polysemy of *creativity* and *love* which are used below as illustrative. Other possibilities include *archetype*—whether of pre-modern (eg. Hermes, Eros) or postmodern (eg. Jungian archetype) variety—and neologisms such as *art-e-fact* (integrating modernistic “fact” with postmodern aesthetic template).

Although “creativity” and “love” comprise *two* terms, they have been chosen as jointly illustrative partly because, in many instances throughout the genealogy, they arrive together such as through the archetype *Eros*.

Creativity

As an introduction to creativity, its polysemous quality is indicated by Bröckling (2006) who identifies vectors of creativity as:

- metaphysical
- human potential
- involving infinite regression
- contingent
- involving historical consideration
- involving a multiplicity of metaphors
- available to all
- capable of being intensified
- economic resource
- the spirit of enterprise
- involving the drawing of distinctions
- both civic responsibility and subversive force
- both spontaneous and able to be facilitated
- paradoxical
- fun
- needing leisure
- requiring freedom

- normative deviance
- collective.

In contrast to Bröckling's negative evaluation of such a situation, however, I would suggest that the complexity[25] in such an ecosystem accords with complex integrative paradigms and is therefore generative.

With respect to the genealogy, creativity is significant not only as an item identified in the material (such as described below for Hermetism and Neoplatonism) but also in terms of the orientations themselves being creative (as exemplified by Renaissancism and German humanism). Regarding Hermetism, Copenhaver (1992) relays the Hermetic view that "the whole of matter's quality…is to be creative" (p. 75), noting "the creative role of the Logos" (Copenhaver, 1992, p. 102). Regarding Neoplatonism, one interpretation of the ultimate (God) for Plotinus is the *Creative One* (Sumi, 2002). Creativity shines through in the Italian Renaissance, a period showing a "high degree of creativity" (Burke, 1999, p. 228) involving "the clustering of so many outstandingly creative individuals" (Burke, 1999, p. 27). These included Ficino and Pico della Mirandola. Regarding the thought of the former, Mason comments that "Ficino unequivocally endorsed human creativity" (Mason, 2003, p. 44), whilst Cassirer (1942) identifies that of Pico ascribes the freedom of humanity to self-reflexive "uninterrupted creativity…which at no point come[s] to a complete cessation" (p. 330).

With respect to humanism, Herder set the tone by praising Shakespeare not only for "his 'divine power' but also for his 'divine grasp', the ability to make a whole out of apparently random parts" (Mason, 2003, p. 163)—the integration of the "amoral" aspects of creativity into the divine whole. From a different direction, Williams refers to "the daunting corpus of Goethe's creative writing" (Williams, 2001, p. xiv). Indeed, Stumpf (1995) identifies German idealism as a whole (i.e., the zeitgeist[26] or "spirit of the times") as a "zenith" in "scientific creativity" with respect to both quality and quantity; this is similar to Collins' (1987) identification of its "outpouring of creativity" (p. 48), specifically as philosophical creativity. Creativity forms an important part in idealism as indicated by Hegel's notion of "creative reason" (Mason, 2003, p. 177). It could be argued, however, that creativity forms an even greater role in German romanticism. Beiser (2003), for example, indicates that "for the romantics, the highest degree of organization and development of the divine force was nothing less than the creativity of the artist, philosopher, or saint" (p. 143). This is attributed to the fact that "the creativity of the artist is nothing less than the *self*-realization and *self*-manifestation of the powers in nature" (p. 86)(original emphasis), noting that the notion of "artist" might include "philosopher," as Barnard and Lester (1978/1988) comment that "Friedrich Schlegel even envisages the completion of philosophy in the work of art" (p. xv). Philosophy as an art toward Self-realisation.

Perspectives on creativity flourished in the twentieth century to such an extent that one could not adequately honour creativity in reconstructive postmodernism with the current overview. A gesture, nonetheless, might run as follows. The identification of creativity *within* individuals can be seen in a wide range of material from the association of Neitzsche's *will to power* with "sheer creativity" (Mason, 2003, 226), through Koestler's (1970) concept of *bisociation* in the triptych of *the Jester, the Sage and the Artist*, to Sternberg and Lubart’s (1999) review of creativity in psychology. Additionally, creativity *within and beyond* individuals not only surfaces in collective creativity (Montuori, 1997) but as a cosmic or universal force (Görnitz & Görnitz, 2006). Ko (2007), for instance, states that for both Whitehead and Jung, opposites such as “subject and object, the conscious and the unconscious, God and the world, good and evil…are not antagonistic but relational and thereby become the conditions of creative transformation” (p. 31), whilst Bhaskar (2002) identifies five cycles of creation/creativity, namely, *calling*, *creation*, *formation*, *making*, *reflexivity*, respectively.

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[25] Involving intra-contestabilities as well as synergies.

[26] "A term used extensively by Hegel" (Stumpf, 1995, p. 235).

Such transpersonal conceptualisations regarding creativity often involve a close association with love. The following segue on Eros briefly addresses this connection before addressing love in its own right.

Eros

The ancient Greek god Eros embodies (inter alia) a fusion of love and creativity. From contemporary popular understanding, for example, Wikipedia (2010) describes Eros as (in part) embodying “not only the force of love but also the creative urge of ever-flowing nature.” Taking into account that “up until the modern age, Eros was seen as central to human life” (Miller, 2009, p. 581), a reconstructive *post*modernism might well wish to regenerate Eros as the harmonic coherence of love and creativity. It might wish to build upon Bhaskar’s (2002) “creative, loving, right-acting ground-state activity” (pp. xvi-xvii) and Wilber’s (1995) Whitehead-influenced identification of Eros as Kosmic driver. Additionally, in accord with Rabbi Gaffni’s (2003) understanding of Eros as (in part) representing the interconnectivity of being, the *integrative* function of Eros in relation to love and creativity (Hart, 1950) might also be identified.[27] At a more local level, the love-creativity connection surfaces in such understandings as “creativity [being] facilitated by *doing what you love and loving what you do*” (Amabile, 1997, original italics) (also see Torrance (1995)).

Love

As a brief introduction to the Western address of love, one might note ecologies of archetypes/types of love such as that of Eros (transpersonal love), Xenia (the love of strangers), Philia (love between friends), Storge (love of family, community, humanity), and Agape (altruistic love or compassion) (Miller, 2009); and that of Platonic erotic love (both homosexual and heterosexual), Christian love, romantic love, moral love (see, e.g., Kant and Kierkegaard), love as power, and mutual love (Wagoner, 1997). Connectivities within such ecologies include that between romantic love (noting Romantic as the valorisation of the passionate as opposed to the prudent life (Wagoner, 1997) and divine love, such as in Emerson’s understanding (Miller, 2009).

Let us now regard the genealogy. In Hermetism, humans are identified as “double beings” in that we are understood as being both mortal and immortal; moreover, these two parts are seen not as antagonistic but as united in love (Ebeling, 2005/2007). In Hermetism, it is also identified that "love…makes one harmony act in all things" (Copenhaver, 1992, p. 66). Regarding Neoplatonism: for Plotinus, who forwarded Greek ideas about love, philosophic love enables us to recognize the beauty in everything, culminating in a sense of oneness (Singer, 2009b). An iteration of the holarchical Neoplatonic relationship between Reason-within-Love can also be seen in Casanus' understanding that "true love of God is *amor Dei Intellectualis*: it includes knowledge as a necessary element and a necessary condition. …Love by itself, without any admixture of knowledge, would be an impossibility" (Cassirer, 2000, p. 13).

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[27] One might note the significance of the play of imagination in each of love, creativity and integration (Singer, 2009b).

The address of love in the Renaissance exceeds and sometimes contradicts that in Neoplatonism. Singer indicates that "Michelangelo illustrates how the inherent violence within the polar opposites of Neoplatonic love can generate the greatest art" (Singer, 2009a, p. 182) whilst Leonardo extends pantheistic or sensual love. Ficino's doctrine of love should also be mentioned here (Sears, 1952). In general, the Renaissance exhibited "a variety of tensions between sensual love and spiritual love" (Smith, 2010). German humanism continues the interest in both human love and the love of God: Romanticism—based on an understanding regarding the unity of physical and spiritual love (Saul, 2009)—"considers the pursuit of love worthier than any other interest" (Singer, 2009a, p. 285) whilst idealism identifies "the universal importance of love" (Singer, 2009a, p. xv).

When we enter the twentieth century, for both Whitehead and Jung, "God's love is based on the paradoxical combination of the opposites in which love does not mean the massive movement toward goodness, but the transformational and comprehensive whole of the contradictories" (Ko, 2007, p. 31). For Whitehead, the relational self forms the basis of love, whilst for Jung, "divine love is realized in the representation of archetype" (Ko, 2007, p. 38). A later reconstructive iteration of this universal aspect of love is found in such figures as Ghandi, Luther King (Miller, 2009), the Dalai Lama and Fethullah Gülen (2004). It is also seen in Bhaskar's (2002) understanding that "love is the totalising, binding, unifying, healing force in the universe" (p. 175). This includes *self*-love, which, as Giri indicates, has its own genealogy including both Neoplatonic thought and also Foucault's "life as a work of art involv[ing] care of the self" (Giri, 2009, p. 506).

Whilst reconstructive postmodern address includes a continuation of the possibility of universal love, other expressions of postmodernism (which may nonetheless be included within the reconstructive gambit) tend toward address of human love (Illouz, 1997, 1998), particularly with respect to both its desirability and naïveté. Where a greater love is posited, it may take the form of the love of humanity—perhaps based on valuing the Other (see Rempel & Burris (2005))—including "emancipation from oppressive discourses" (Morley & Ife, 2002, abstract). Reconstructive postmodern address should also be given to the seminal work on love by integral sociologist, Sorokin (1954/2002), and more recently, both psychological perspectives on love—such as Sternberg's (1986) triangular theory of love which regards personal love as an integration of intimacy, passion and commitment—and linguistic perspectives including love's polysemous quality via conceptual metaphoric vectors or entailments such as *love involves creativity, love creates a reality, love is unique in each instance* (Lakoff & Johnson, 2003) and *love is a nutrient* (Gibbs, 1994). In terms of application, love is identified as significant in education (Gidley, 2009; Noddings, 2003). Last but not least, an evolutionary perspective (Loye, 2004) offers the possibility of non-human love: love as an emergent property in mammals (Porges, 1998) including cetaceans.[28]

Shapes of Integration

Associated with integrative entities can be identified conceptual shapes, templates, sensibilities or habits of integration (and potential typologies thereof). One way of looking at this is to identify a bifurcation between those shapes which interrelate two items with those that interrelate more than two. Shapes between two items include *dialectics* in addition to two-party *balance*, *dialogue*,[29] *holography* and *harmony* (in its more descriptive sense). Shapes involving more than two entities include multi-party dialogue, multi-note harmony, assemblage, juxtaposition, baroque, topology, hierarchy/ holarchy, helix, system, complex system, ecosystem, organism, art-e-fact, perhaps even rhapsody. Degrees of integration in either two or post-two shapes would range from mere *proximity* though *degrees of intimacy* (including the normative resonances of *harmony* and *rhapsody*) to *amalgam/fusion*. In general, integrative shapes move away from atomistic[30] thinking toward relational and contextual thinking (Reich, 2002).

The case study below is that of *organicism*, noting that “organic” can be understood as including not only *entity as organism* but also *entity as ecosystem.*[31]

Organicism

Although there may be “no true story of organicism” (Armstrong, 2003, p. 5), organicism might nonetheless be identified as a shape or habit pertaining to organic metaphors. Organicism includes a certain elasticity, a certain complexity and a notion of “living.” Regarding the most common organic metaphor in the genealogy—that of *organism*—Hanegraaff (1998) notes that, “while a mechanism is an aggregate of separate parts, an organism is a whole that cannot be broken up into its elements without killing it; and while a mechanism is static and can only be moved by outside forces, an organism is dynamic and has an inner principle of motion” (p. 257): organism as an open integral system.

Whilst little may be directly said in the philosophical Hermetica in terms of organicism, later iterations of Hermeticism, as indicated below, express a strong relationship to this template or sensibility. In Neoplatonism, the macrocosm is regarded as a Great Living Thing (Coulter, 1997)—and latterly connected to smaller “organisms” including *literature* (Coulter, 1997)—an understanding expanded upon in the Renaissance such as through Giordano Bruno’s identification of the universe as an organism (Bialas, 2000). Indeed, “for sixteenth-century Europeans the root metaphor binding together the self, society, and the cosmos was that of an organism” (Merchant, 2010, p. 295). Such a metaphor entailed “subtle ethical controls and restraints" (Merchant, 2010, p. 297) in contrast to the modernistic metaphor of *dominion over nature*.

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[28] Also see Hampson (2005).

[29] As, for example, between *unity and diversity*.

[30] Even material atoms are not simple. Griffin (1997) relays Whitehead’s understanding, for example, that “atomic actual occasions, far from being simply the product of their electronic, protonic, and neutronic occasions, not only have their own creativity, but have *more* than any of their constituents” (p. 40).

[31] Notwithstanding ecosystem as “also” involving abiotic elements.

German humanism—from Romanticism to the Slavophile tradition (Rabow-Edling, 2006)—saw a yet more bountiful flowering of this perspective. Regarding romantic organicism, Armstrong notes its "underestimated fecundity and complexity" (Armstrong, 2003, p. 2). The Romantic conception is that organicism acts as the "grounding systematics for understanding all holistic structures" (Armstrong, 2003, p. 2). Its complexity is such that it was identified as able to include the apparently *non*-integrative notion of fragments, as exemplified by Friedrich Schlegel's approach alluded to in the introduction. Organicism became an atemporal Absolute Organism in German idealism (Armstrong, 2003).

In terms of reconstructive postmodernism, Whitehead's (1967) organic theory of nature (again through the metaphor of *organism*) is seminal—although note should also be made of Bergson (Antliff, 1993)—seeding, among other things, organicist approaches in postmodern science (Pickering, 1997) involving ecosystems of meaning. In a somewhat different form, Derrida's intertextuality can be understood as a type of organicism (Park & Kayatekin, 2002) or at least in relation to where it "lets itself be touched" by organicism (Armstrong, 2003, p. 176). In another domain, Keynes' theory of economics is organicist (whether through Moore, Hegel or Whitehead) (Park & Kayatekin, 2002); indeed, there is a veritable sociological tradition of society in general being viewed organically (Pasewark, 1997)—including the perspectives of Rousseau, Comte and Durkheim (Arnopoulos, 2005). In biology, Sheldrake's (1981) morphogenetic fields accords with Whitehead's organicism, whilst Lovelock's (Lovelock & Margulis, 1974; Lovelock, 2000) Gaia hypothesis expounds the metaphor *Earth as organism*.

Although most interpretations of organicism involve extensions of *organism*, other possibilities exist, such as in relation to *ecosystem*. Ecosystem can be understood as "a subtle and complex concept" (Pickett & Cadenasso, 2002, p. 1) involving the dimensions of meaning, model and metaphor including the attribute of connectedness (Pickett & Cadenasso, 2002) (Hampson, 2010a, 2010b)—the more baroque "bringing together [of] independent voices" (Kwa, 2002, p. 29). Such multidimensional ecosystems can include arborescent (Davis, 2004) and rhizomatic (Deleuze & Guattari, 1980/1987) structures in addition to the metaphorical multidimensionality of vectors arising from *animal*.[32] Additionally, through the postmodern reconstructivity of complexity theory, both organism and ecosystem can be identified as types of self-organising system (Heylighen, 1999).

Processes of Integration

The perspective of *processes* of integration points toward characterisations regarding enactments or effects which lead to integrations or relationalities. From a large scale perspective, processes of integration might include evolution and societal change. From an individual human perspective, they might entail such overt activities as exploring, environmental scanning and constructing. They might also include less overt, more chthonic processes such as those involved in creative, transformative process—such as Scharmer's (2005) Theory-U—contemplative processes, holistic epistemologies or “gnoseologies” (Hampson, 2010c). The case below explores one of the more *covert* processes (which nonetheless may form part of larger—and/or more overt—processes), namely, intuition.

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[32] Also see Hampson (2005).

Intuition

Intuition forms part of Hermetism to the extent that Hermes Trismegistus is said to relay the intuitive way of thinking of the Egyptian archetype Thoth (Ebeling, 2005/2007). For Plotinus, the sphere beyond reason involves intuition and contemplation; Plotinian Intelligence involves the mystical and intuitive (Hadot, 1989/1998) such that, from a Neoplatonic perspective, an ecology of signifiers including Intelligence, Intuition, and Spirit all point to the same signified (Gregory, 1999). This can be understood in various ways. Hines, for instance, concludes, Neoplatonic “intelligence is intuitive” (Hines, 2009, p. 118): intelligence has “a completely natural and unforced quality” (Hines, 2009, p. 120) where “being, knowing, and doing [form] a harmonious union” (Hines, 2009, p. 120)—a fractal reflection, perhaps of the Neoplatonic view of the world as imperfect-yet-harmonious (Tarnas, 1991). In Iamblichus’s Neoplatonism, intuition pertains to that part of the soul through which the gods, rather than the person, acted (Shaw, 1995). This view of intelligence reminds one of more recent texts on human potential such as Maslow’s (1971) *self-actualisation*, and postconventional thought such as Cook-Greuter’s (Cook-Greuter, 2008) *unitive consciousness*. Yet more strongly, Neoplatonic knowing is identified with gnosis *in contrast* to reason: Hines (2009) somewhat controversially indicates that “reason…is only for those who lack intelligence. Intelligence is knowing; reason is an attempt to know” (p. 196).

Intuition was also valorised in the Renaissance. Pearce (1999) identifies that Ficino’s *De Sole* “stresses the importance of the intuitive power of man” (p. 99), noting that “an incorporeal Sun presiding over the divine intellect… requires the intuitive faculty” (Pearce, 1999, p. 99). In such understandings, “intuitive certainty…springs…from the specific and vital principle of the Ego” (Cassirer, 2000, p. 191). This might be exemplified by the intuitive proofs of Leonardo da Vinci (Cassirer, 2000; Kemp, 1993).

Intuition was also a strong feature in German humanism. Kant formulated a doctrine of pure intuition (Goudeli, 2002) in which—according to Shaviro (2009, p. 10)—was identified “a fundamental asymmetry between concepts and intuitions, such that each of them exceeds the powers of the other” (p. 10), including the realisation that aesthetic ideas are “inner intuitions to which no concept can be completely adequate” (p. 9). Hegelian idealism, on the other hand, rejects a distinction between intuitional and conceptual elements (Pippin, 1989). A similar fusion between the conceptual and intuitive is also found in Goethe’s aesthetic intuition (Stephenson, 2005) and in the early transcendentalism of Schelling through “his notion of Absolute Synthesis occurring in Intellectual Intuition” (Pippin, 1989, p. 96).

With regard to reconstructive postmodernism, the following is indicative. Slusser (1989) identifies both Whitehead and Jung as indicating that reason rests upon imagination and intuition—modalities which “cannot be reduced to formula or be subject to prediction and control” (p. 89). Specifically, he reports Whitehead as understanding that “ultimate notions are inexplicable in terms of higher universals. The sole appeal is to intuition” (p. 84).

Openings to Dialogue and New Lines of Flight

This paper has offered indications toward a genealogy of Western integrative thinking or Western panosophy. It has addressed five philosophico-historical attractors or moments as indicative, namely, Hermetism, Neoplatonism, Renaissancism, German Humanism, and Reconstructive Postmodernism. It has also indicated the efficacy of identifying a topology around such integrative aspects as objects for integration, macro- and micro-integrative entities, shapes of integration, and processes of integration. It has exemplified these through addressing the cases of spirituality~philosophy, syncretism, creativity, love, organicism and intuition—concepts which could be generatively furthered in contemporary integrative agendas. Future research could also explore relations between the genealogy presented here and non-Western genealogies as well as genealogies of ecological thought. Additionally, the topological lens could be further refined.

The sensibility offered is that of openness in that it (both as a whole and with respect to its parts) is open for further additions, refinements, etc.. Poststructuralist considerations might entail deconstructive emphases with regard to integration's Other. Additions could include other aspects of integration such as *purposes of integration*: Is integration seen (in general or in particular) as better in some way than that to which it is contrasted? (An overall normative framing might nonetheless entail neutral identifications *within* the whole.) In the current instance—and in keeping with Nelson's (current issue) association between cross-boundary work and the global problematique—the paper can be normatively located in the understanding that the well-being of that quintessentially integrative entity, *Planet Earth*, *the geo-bio-psycho-socio-culturo-sphere*, is surely facilitated by accordant integrative thinking rather than that offered by modernistic atomistic sensibilities. In composing this paper, I hope I have struck such an integrative chord.

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From Knowledge to Wisdom:
Assessment and Prospects after Three Decades

Nicholas Maxwell[1]

Abstract: We are in a state of impending crisis. And the fault lies in part with academia. For two centuries or so, academia has been devoted to the pursuit of knowledge and technological know-how. This has enormously increased our power to act which has, in turn, brought us both all the great benefits of the modern world *and* the crises we now face. Modern science and technology have made possible modern industry and agriculture, the explosive growth of the world's population, global warming, modern armaments and the lethal character of modern warfare, destruction of natural habitats and rapid extinction of species, immense inequalities of wealth and power across the globe, pollution of earth, sea and air, even the aids epidemic (aids being spread by modern travel). All these global problems have arisen because some of us have acquired unprecedented powers to act without acquiring the capacity to act *wisely*. We urgently need to bring about a revolution in universities so that the basic intellectual aim becomes, not knowledge merely, but rather wisdom – wisdom being the capacity to realize what is of value in life, for oneself and others, thus including knowledge and technological know-how, but much else besides. This is an argument I have propounded during the last three decades in six books, over thirty papers, and countless lectures delivered in universities and conferences all over the UK, Europe and north America. Despite all this effort, the argument has, by and large, been ignored. What is really surprising is that philosophers have paid no attention, despite the fact that that this body of work claims to solve the profoundly important philosophical problem: *What kind of inquiry best helps us make progress towards as good a world as possible?* There are, nevertheless, indications that some scientists and university administrators are beginning to become aware of the urgent need for science, and universities, to change. This is prompted, partly by growing awareness of the seriousness of environmental problems, especially global warming, and partly by a concern to improve the relationship between science and the public. So far, however, these changes have been small-scale, scattered and piecemeal. What we require is for academics and non-academics alike to wake up to the urgent need for change so that we may come to possess what we so strikingly and disastrously lack at present: a kind of inquiry rationally devoted to helping humanity make progress towards as good a world as possible.

Keywords: Academic revolution, education, enlightenment, global problems, humanities, knowledge-inquiry, politics, reason, science, social inquiry, wisdom-inquiry.

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[1] Nicholas Maxwell has devoted much of his working life to arguing that we need to bring about a revolution in academia so that it seeks and promotes wisdom and does not just acquire knowledge. He has published many papers and six books on this theme: see especially From Knowledge to Wisdom (1984) and How Universities Can Help Create a Wiser World (2014). For thirty years he taught philosophy of science at University College London, where he is now Emeritus Reader. In 2003 he founded Friends of Wisdom, a campaigning group of educationalists.
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Introduction

We are in a state of impending crisis. And the fault lies in part with academia. For two centuries or so, academia has been devoted to the pursuit of knowledge and technological know-how. This has enormously increased our power to act which has, in turn, brought us both all the great benefits of the modern world *and* the crises we now face. Modern science and technology have made possible modern industry and agriculture, the explosive growth of the world's population, global warming, modern armaments and the lethal character of modern warfare, destruction of natural habitats and rapid extinction of species, immense inequalities of wealth and power across the globe, pollution of earth, sea and air, even the aids epidemic (aids being spread by modern travel). All these global problems have arisen because some of us have acquired unprecedented powers to act without acquiring the capacity to act *wisely*.

We urgently need to bring about a revolution in universities so that the basic intellectual aim becomes, not knowledge merely, but rather wisdom—wisdom being the capacity to realize what is of value in life, for oneself and others, thus including knowledge and technological know-how, but much else besides. We need a new kind of inquiry that puts problems of living, individual, social and global, at the heart of the academic enterprise, more specialized problems of knowledge and technological know-how emerging out of and feeding back into the central concern to help solve problems of living.

The intellectual and institutional revolution we require would affect every branch and aspect of academic inquiry. It would have dramatic consequences for the institutional structure of universities, and for the relationship between universities and the public. The character of natural science, social inquiry and the humanities, and the relationships between these broad areas of research, would all be affected. There are implications for both research and education. Research pursued for its own sake-so-called "pure" research-and applied research would both be affected.

The revolution is needed for intellectual and humanitarian reasons combined. What we have at present-inquiry devoted primarily to the pursuit of knowledge-is damagingly irrational when judged from the all-important standpoint of helping humanity realize what is of value in life. It is this wholesale, structural, institutionalized *irrationality* which is in part responsible for the creation of our current global problems, and our incapacity to deal with them effectively and humanely. In order to learn how to tackle these problems effectively and humanely, it is essential that we bring into existence the new kind of inquiry, rationally devoted to that end.

This is an argument I have propounded during the last three decades in six books, over thirty papers, and countless lectures delivered in universities and conferences all over the UK, Europe and north America.[2] Despite all this effort, and despite critical praise for my work, the argument has, by and large, been ignored. What is really surprising is that few philosophers have paid any attention, despite the fact that this body of work claims to solve the profoundly important philosophical problem: *What kind of inquiry best helps us make progress towards as good a world as possible?*

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[2] The six books are Maxwell (1976a, 1984a or, better, 2007a, 1998, 2001a, 2004a, 2010a). Six papers that give the best summarizes of the argument, each in a somewhat different way, are Maxwell (1980, 1992a, 2000a, 2007b, 2007c, 2008). The extent of my effort to communicate the basic idea can be gleaned from the following list of papers published over the years, all expounding aspects of the thesis and argument in various ways: Maxwell (1972, 1974, 1977, 1979, 1984b, 1985a, 1985b, 1987, 1992b, 1993a, 1997a, 1997b, 1999a, 1999b, 2000b, 2000c, 2001c, 2002a, 2002b, 2002c, 2003a, 2003b, 2004b, 2004c, 2004d, 2005a, 2005b, 2005c, 2005d, 2006a, 2006b, 2006c, 2007b, 2007d, 2007e, 2009a, 2009b, 2009c, 2009d,

There are, nevertheless, indications that some scientists and university administrators are beginning to become aware of the urgent need for science, and universities, to change. This is prompted, partly by growing awareness of the seriousness of environmental problems, especially global warming, and partly by a concern to improve the relationship between science and the public. So far, however, these changes have been small-scale, scattered and piecemeal. What we require is for academics and non-academics alike to wake up to the urgent need for change so that we may come to possess what we so strikingly and disastrously lack at present: a kind of inquiry rationally devoted to helping humanity make progress towards as good a world as possible.

Outline of the Argument

Elsewhere, I have spelled out the argument for the urgent need for the intellectual revolution, from knowledge to wisdom, in some detail.[3] Here, I will be as brief as I can. First, I distinguish two kinds of inquiry, which I shall call *knowledge-inquiry* and *wisdom-inquiry*. At the core of knowledge-inquiry there is a philosophy of science which I shall call *standard empiricism*; the corresponding philosophy of science at the core of wisdom-inquiry I call *aim-oriented empiricism*. Standard empiricism and knowledge-inquiry are what we have inherited from the past and what we still have, by and large, today. Aim-oriented empiricism and wisdom-inquiry are what emerge when knowledge-inquiry is modified just sufficiently to ensure elementary rules of rational problem-solving and aim-pursuing are implemented, granted that the basic aim is to help promote human welfare, help people realize what is of value in life.

There are two arguments. The first appeals to *problem-solving rationality*, the second to *aim-pursuing rationality*. These establish that knowledge-inquiry is indeed damagingly irrational—three of the four most elementary rules of rational problem-solving are violated—wisdom-inquiry being what emerges when knowledge-inquiry is modified just sufficiently to cure it of its grave rationality defects.[4]

2009e, 2010b, 2010c, 2010d, 2011a, 2011e, forthcoming). Almost all my papers published over more than four decades (and some unpublished papers) are available online at http://philpapers.org/profile/17092. My 2010 book, *Cutting God in Half…*, together with many papers, are available at http://discovery.ucl.ac.uk/view/people/ANMAX22.date.html.

[3] See works referred to in note 1. For an overview of my work plus critical discussion of it by eleven scholars see McHenry (2009). See also www.ucl.ac.uk/from-knowledge-to-wisdom.

[4] To a considerable extent my work builds on and, I claim, substantially improves on, the work of Karl Popper: see Maxwell (1972, 1974, 2004a chapter 3, 2002d, 2005b, 2005d, 2006b, 2006c, 2007d, forthcoming). For a succinct summary of this influence, see the Preface to the second edition of Maxwell (1976a), or Maxwell (2009e). See also many references to Popper's work in Maxwell (1984a or 2007a). For Popper's own work, see Popper (1959, 1962, 1963, 1969, 1972, 1976).

First Argument: Problem-Solving Rationality

Knowledge-inquiry demands that a sharp split be made between the social or humanitarian aims of inquiry and the *intellectual* aim. The intellectual aim is to acquire knowledge of truth, nothing being presupposed about the truth. Only those considerations may enter into the intellectual domain of inquiry relevant to the determination of truth-claims to knowledge, results of observation and experiment, arguments designed to establish truth or falsity. Feelings and desires, values, ideals, political and religious views, expressions of hopes and fears, cries of pain, articulation of problems of living: all these must be ruthlessly excluded from the intellectual domain of inquiry as having no relevance to the pursuit of knowledge-although of course inquiry can seek to develop factual knowledge about these things, within psychology, sociology or anthropology. Within natural science, an even more severe censorship system operates: an idea, in order to enter into the intellectual domain of science, must be an empirically testable claim to factual knowledge.

The basic idea of knowledge-inquiry, then, is this. First, knowledge is to be acquired; then it can be applied to help solve social problems. For this to work, authentic objective knowledge must be acquired. Almost paradoxically, human values and aspirations must be excluded from the intellectual domain of inquiry so that genuine factual knowledge is acquired and inquiry can be of genuine human value, and can be capable of helping us realize our human aspirations.[5]

This is the conception of inquiry which, I claim, violates reason in a wholesale, structural and damaging manner. What do I mean by “reason”? As I use the term here, rationality appeals to the idea that there are general methods, rules or strategies which, if put into practice, give us our best chance, other things being equal, of solving our problems, realizing our aims. Rationality is an aid to success, but does not guarantee success, and does not determine what needs to be done.[6]

Four elementary rules of reason, alluded to above, are:

1. Articulate and seek to improve the articulation of the basic problem(s) to be solved.
2. Propose and critically assess alternative possible solutions.
3. When necessary, break up the basic problem to be solved into a number of *specialized* problems—preliminary, simpler, analogous, subordinate problems—(to be tackled in accordance with rules (1) and (2)), in an attempt to work gradually toward a solution to the basic problem to be solved.

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[5] For a much more detailed exposition of knowledge-inquiry, or “the philosophy of knowledge”, see Maxwell (1984a or 2007a, chapter 2). For evidence that knowledge-inquiry prevails in academia, see Maxwell (1984a or 2007a chapter 6, 2000a). I do not claim that everything in academia accords with the edicts of knowledge-inquiry. My claim is, rather, that this is the only candidate for rational inquiry in the public arena; it is the dominant view, exercising an all-pervasive influence over academe. Work that does not conform to its edicts has to struggle to survive. But this may be about to change, as we shall see in section 9.

[6] For more details concerning this conception of rationality see Maxwell (1984a or 2007a, chapters 4 and 5).

4. Inter-connect attempts to solve the basic problem and specialized problems, so that basic problem-solving may guide, and be guided by, specialized problem-solving.[7]

Two preliminary points now need to be made.

First, granted that academic inquiry has, as its fundamental aim, to help promote human welfare by intellectual and educational means,[8] then the *problems* that inquiry fundamentally ought to try to help solve are problems of living, problems of action. From the standpoint of achieving what is of value in life, it is what we *do*, or refrain from doing, that ultimately matters. Even where new knowledge and technological know-how are relevant to the achievement of what is of value-as they are in medicine or agriculture, for example—it is always what this new knowledge or technological know-how enables us to *do* that matters. All the global problems discussed above require, for their resolution, not merely new knowledge, but rather new policies, new institutions, new ways of living. Scientific knowledge, and associated technological know-how have, if anything, as we have seen, contributed to the creation of these problems in the first place. Thus problems of living—problems of poverty, ill-health, injustice, deprivation—are solved by what we do, or refrain from doing; they are not solved by the mere provision of knowledge (except when a problem of living *is* a problem of knowledge).

Second, in order to achieve what is of value in life more successfully than we do at present, we need to discover how to resolve conflicts and problems of living in more *cooperatively rational* ways than we do at present. There is a spectrum of ways in which conflicts can be resolved, from murder or all out war at the violent end of the spectrum, via enslavement, threat of murder or war, threats of a less extreme kind, manipulation, bargaining, voting, to cooperative rationality at the other end of the spectrum, those involved seeking, by rational means, to arrive at that course of action which does the best justice to the interests of all those involved. A basic task for a kind of academic inquiry that seeks to help promote human welfare must be to discover how conflict resolution can be moved away from the violent end of the spectrum towards the cooperatively rational end.

Granted this, and granted that the above four rules of reason are put into practice then, at the most fundamental level, academic inquiry needs to:

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[7] Much of Karl Popper's work is devoted to stressing the importance of the first two of these rules of rational problem-solving (see, for example, Popper, 1963). Popper was too opposed to specialization, however, to give due weight to the importance of rule (3). He did not see that the evils of specialization could be counteracted by putting rule (4) into practice. For Popper's opposition to specialization see Maxwell (forthcoming).

[8] This assumption may be challenged. Does not academic inquiry seek knowledge for its own sake—it may be asked—whether it helps promote human welfare or not? In section 6 of the present paper, and elsewhere (Maxwell, 2007a, pp. 17-19, 70-75, 205-213) I argue that wisdom-inquiry does better justice than knowledge-inquiry to *both* aspects of inquiry, pure and applied. The basic aim of inquiry, according to wisdom-inquiry, is to help us realize what is of value in life, "realize" meaning both "apprehend" and "make real". "Realize" thus accommodates both aspects of inquiry, "pure" research or "knowledge pursued for its own sake" on the one hand, and technological or "mission-oriented" research on the other—both, ideally, seeking to contribute to what is of value in human life. Wisdom-inquiry, like sight, is there to help us find our way around. And like sight, wisdom-inquiry is of value to us in two ways: for its intrinsic value, and for practical purposes. The first is almost more precious than the second.

1. Articulate, and seek to improve the articulation of, personal, social and global problems of living that need to be solved if the quality of human life is to be enhanced (including those indicated above);
2. Propose and critically assess alternative possible solutions—alternative possible *actions*, *policies*, *political programs*, *legislative proposals*, *ideologies*, *philosophies of life*.

In addition, of course, academic inquiry must:

3. Break up the basic problems of living into subordinate, specialized problems—in particular, specialized problems of knowledge and technology.
4. Inter-connect basic and specialized problem-solving.

Academic inquiry as it mostly exists at present puts (3) into practice to splendid effect. The intricate maze of specialized disciplines devoted to improving knowledge and technological know-how that go to make up current academic inquiry is the result. But, disastrously, what we have at present, academic inquiry devoted primarily to improving knowledge, fails to put (1), (2) and (4) into practice. In pursuing knowledge, academic inquiry may articulate problems of knowledge, and propose and critically assess possible solutions, possible claims to knowledge—factual theses, observational and experimental results, theories. But, as we have seen, problems of *knowledge* are not (in general) problems of *living*; and solutions to problems of *knowledge* are not (in general) solutions to problems of *living*. In so far as academia does at present put (1) and (2) into practice, in departments of social science and policy studies, it does so only at the periphery, and not as its central, fundamental intellectual task.

In short, academic inquiry devoted primarily to the pursuit of knowledge, when construed as having the basic humanitarian aim of helping to enhance the quality of human life by intellectual means, fails to put the two most elementary rules of reason into practice (rules (1) and (2)). Academic inquiry fails to do (at a fundamental level) what it most needs to do, namely (1) articulate problems of living, and (2) propose and critically assess possible solutions. And furthermore, as a result of failing to explore the basic problems that need to be solved, academic inquiry cannot put the fourth rule of rational problem-solving into practice either, namely (4) inter-connect basic and specialized problem-solving. As I have remarked, *three* of the four most elementary rules of rational problem-solving are violated. (For a more detailed development of this argument see Maxwell, 1980, 1984a or 2007a, 2004a, 2010a.)

This gross structural irrationality of contemporary academic inquiry has profoundly damaging consequences for humanity. As I have pointed out above, granted that our aim is to contribute to human welfare by intellectual means, the basic problems we need to solve are problems of living, problems of action, not problems of knowledge. In failing to give intellectual priority to problems of living, knowledge-inquiry fails to tackle what most needs to be tackled in order to contribute to human welfare. In devoting itself to acquiring knowledge in a way that is unrelated to sustained concern about what humanity's most urgent problems are, as a result of failing to put (1) and (2) into practice, and thus failing to put (4) into practice as well, the danger is that scientific and technological research will respond to the interests of the powerful and the wealthy, rather than to the interests of the poor, of those most in need. Scientists, officially seeking knowledge of truth *per se*, have no official grounds for objecting if those who fund research—governments and industry—decide that the truth to be sought will reflect their interests, rather than the interests of the world's poor. And priorities of scientific research, globally, do indeed reflect the interests of the first world, rather than those of the third world.[9]

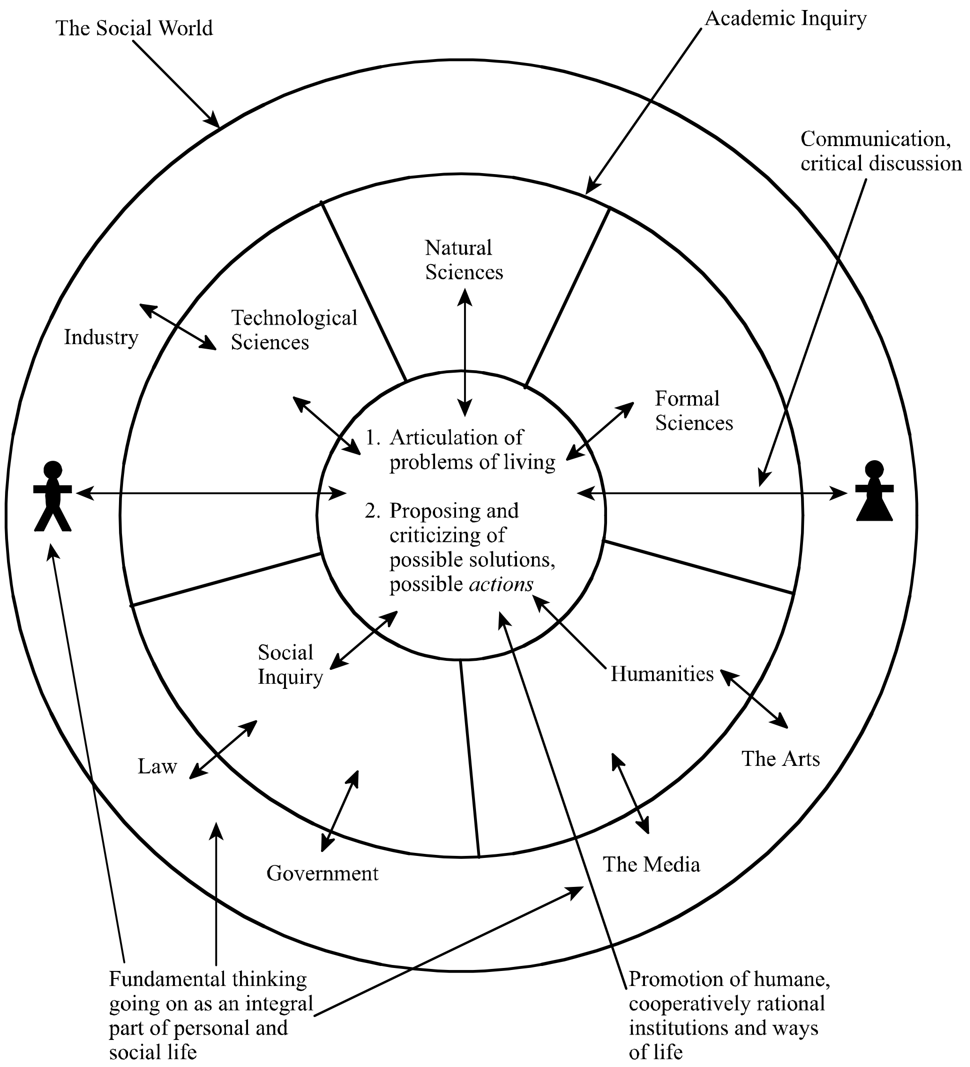
The Social World
Academic Inquiry
Communication, critical discussion
Natural Sciences
Technological Sciences
Industry
Formal Sciences
1. Articulation of problems of living
2. Proposing and criticizing of possible solutions, possible *actions*
Social Inquiry
Humanities
The Arts
Law
Government
The Media
Fundamental thinking going on as an integral part of personal and social life
Promotion of humane, cooperatively rational institutions and ways of life

Figure 1: Wisdom-Inquiry Implementing Problem-Solving Rationality

Knowledge and technology successfully pursued in a way that is not rationally subordinated to the tackling of more fundamental problems of living, through the failure to put (1), (2) and (4) into practice, is bound to lead to the kind of global problems discussed above, problems that arise as a result of newly acquired powers to act being divorced from the ability to act wisely. The creation of our current global problems, and our inability to respond adequately to these problems, has much to do, in other words, with the long-standing, rarely noticed, structural *irrationality* of our institutions and traditions of learning, devoted as they are to acquiring knowledge dissociated from learning how to tackle our problems of living in more cooperatively rational ways. Knowledge-inquiry, because of its irrationality, is designed to *intensify*, not help *solve*, our current global problems.[10]

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[9] Funds devoted, in the USA, the UK and some other wealthy countries, to military research are especially disturbing, see Langley (2005) and Smith (2003).

Wisdom-Inquiry: Problem-Solving Version

At once the question arises: What would a kind of inquiry be like that *is* devoted, in a genuinely rational way, to promoting human welfare by intellectual means? The answer is *wisdom-inquiry*.

As a first step at characterizing wisdom-inquiry, we may take knowledge-inquiry (at its best) and modify it just sufficiently to ensure that all four elementary rules of rational problem-solving, indicated above, are built into its intellectual and institutional structure: see Figure 1.

The primary change that needs to be made is to ensure that academic inquiry implements rules (1) and (2). It becomes the fundamental task of social inquiry and the humanities (1) to articulate, and seek to improve the articulation of, our problems of living, and (2) to propose and critically assess possible solutions, from the standpoint of their practicality and desirability. In particular, social inquiry has the task of discovering how conflicts may be resolved in less violent, more cooperatively rational ways. It also has the task of promoting such tackling of problems of living in the social world beyond academe. Social inquiry is, thus, not primarily social *science*, nor, primarily, concerned to acquire knowledge of the social world; its primary task is to promote more cooperatively rational tackling of problems of living in the social world. Pursued in this way, social inquiry is intellectually more fundamental than the natural and technological sciences, which tackle subordinate problems of knowledge, understanding and technology, in accordance with rule (3). In Figure 1, implementation of rule (3) is represented by the specialized problem-solving of the natural, technological and formal sciences, and more specialized aspects of social inquiry and the humanities. Rule (4) is represented by the two-way arrows linking fundamental and specialized problem-solving, each influencing the other.

One can go further. According to this view, the thinking that we engage in as we live, in seeking to realize what is of value to us, is intellectually more fundamental than the whole of academic inquiry (which has, as its basic purpose, to help cooperatively rational thinking and problem-solving in life to flourish). Academic thought emerges as a kind of specialization of personal and social thinking in life, the result of implementing rule (3); this means there needs to be a two-way interplay of ideas, arguments and experiences between the social world and academia, in accordance with rule (4). This is represented, in figure 1, by the two-way arrows linking academic inquiry and the social world.

The natural and technological sciences need to recognize three domains of discussion: evidence, theory, and aims. Discussion of aims seeks to identify that highly problematic region of overlap between that which is discoverable, and that which it is of value to discover. Discussion of what it is of value to discover interacts with social inquiry, in accordance with rule (4).

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[10] See Maxwell (1984a or 2007a, chapter 3) for a much more detailed discussion of the damaging social repercussions of knowledge-inquiry.

Second Argument: Aim-Oriented Rationality

So much for my first argument in support of wisdom-inquiry. I come now to my second argument, which appeals to, and modifies, the Enlightenment programme of learning from scientific progress how to achieve social progress towards an enlightened world.

In order to implement this programme properly**,** it is essential to get the following three steps right.

1. The progress-achieving methods of science need to be correctly identified.
2. These methods need to be correctly generalized so that they become fruitfully applicable to any human endeavour, whatever the aims may be, and not just applicable to the endeavour of improving knowledge.
3. The correctly generalized progress-achieving methods then need to be exploited correctly in the great human endeavour of trying to make social progress towards an enlightened, wise, civilized world.

Unfortunately, the *philosophes* of the 18th century Enlightenment got all three points wrong. And as a result these blunders, undetected and uncorrected, are built into the intellectual-institutional structure of academia as it exists today.[11]

First, the *philosophes* failed to capture correctly the progress-achieving methods of natural science. From D'Alembert in the 18th century to Popper in the 20th (Popper, 1959, 1963), the widely held view, amongst both scientists and philosophers, has been (and continues to be) that science proceeds by assessing theories impartially in the light of evidence, *no permanent assumption being accepted by science about the universe independently of evidence.* Preference may be given to simple, unified or explanatory theories, but not in such a way that nature herself is, in effect, assumed to be simple, unified or explanatory. This orthodox view, which I call *standard empiricism* is, however, untenable. If taken literally, it would instantly bring science to a standstill. For, given any accepted theory of physics, T, Newtonian theory say, or quantum theory, endlessly many empirically more successful rivals can be concocted which (a) agree with T for phenomena that corroborate T, (b) yield the correct empirical predictions in an ad hoc fashion for any phenomena that ostensibly refute T, (c) disagree with T arbitrarily for some as-yet unobserved phenomena, and (d) have, added on to them, in an ad hoc way, independently testable and corroborated postulates. Rivals concocted in this way successfully predict everything T successfully predicts; they successfully predict phenomena that ostensibly refute T; and they successfully predict phenomena that lie beyond the scope of T. If empirical success alone determines what theory is accepted in physics, then any such rival should be preferred to T. If this were to happen, physics would be drowned in an ocean of such empirically more successful rival theories.

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[11] The blunders of the *philosophes* are not entirely undetected. Karl Popper, in his first four works, makes substantial improvements to the traditional Enlightenment programme (although Popper does not himself present his work in this fashion). Popper first improves traditional conceptions of the progress-achieving methods of science (Popper, 1959). This conception, *falsificationism*, is then generalized to become *critical rationalism*. This is then applied to social, political and philosophical problems (Popper, 1961, 1962, 1963). The version of the Enlightenment programme about to be outlined here can be regarded as a radical improvement of Popper's version (see Maxwell, 2004a, chapter 3). See also note 3.

In practice, these rivals are excluded because they are disastrously disunified. *Two* considerations govern acceptance of theories in physics: empirical success and unity. In demanding unity, we demand of a fundamental physical theory that it ascribes *the same* dynamical laws to the phenomena to which the theory applies in addition to empirical success.[12] But in persistently accepting unified theories, to the extent of rejecting disunified rivals that are just as, or even more, empirically successful, physics makes a big persistent assumption about the universe. The universe is such that all disunified theories are false. It has some kind of unified dynamic structure. It is physically comprehensible in the sense that explanations for phenomena exist to be discovered.[13]

But this untestable (and thus metaphysical) assumption that the universe is physically comprehensible is profoundly problematic. Science is obliged to assume, but does not know, that the universe is comprehensible. Much less does it know that the universe is comprehensible in this or that way. A glance at the history of physics reveals that ideas have changed dramatically over time. In the 17th century there was the idea that the universe consists of corpuscles, minute billiard balls, which interact only by contact. This gave way to the idea that the universe consists of point-particles surrounded by rigid, spherically symmetrical fields of force, which in turn gave way to the idea that there is one unified self-interacting field, varying smoothly throughout space and time. Nowadays we have the idea that everything is made up of minute quantum strings embedded in ten or eleven dimensions of space-time. Some kind of assumption along these lines must be made but, given the historical record, and given that any such assumption concerns the ultimate nature of the universe, that of which we are most ignorant, it is only reasonable to conclude that it is almost bound to be false.

The way to overcome this fundamental dilemma inherent in the scientific enterprise is to construe physics as making a hierarchy of metaphysical assumptions concerning the comprehensibility and knowability of the universe, these assumptions asserting less and less as one goes up the hierarchy, and thus becoming more and more likely to be true: see figure 2. In this way a framework of relatively insubstantial, unproblematic, fixed assumptions and associated methods is created within which much more substantial and problematic assumptions and associated methods can be changed, and indeed improved, as scientific knowledge improves.

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[12] For a detailed development of this account of theoretical unity see Maxwell (1998 chapter 4, 2004a appendix section 2, 2007a chapter 14, section 2, see also Maxwell 2004c, 2004d, 2011a, and forthcoming).

[13] For much more detailed expositions of this argument that physics persistently accepts unified theories even though endlessly many empirically more successful disunified rivals are always available, this implying that physics accepts an unacknowledged metaphysical assumption to the effect that the universe itself has a unified dynamic structure—i.e. is physically comprehensible—see Maxwell (1974, 1984a chapter 9, 2007a chapters 9 and 14, and especially 1998 and 2004a, chapters 1 and 2, and appendix; see also Maxwell 1993a, 1999a, 2000b, 2002c, 2004b, 2005b, 2005d, 2006b, 2010a chapter 5).

Put another way, a framework of relatively unspecific, unproblematic, fixed *aims* and methods is created within which much more specific and problematic aims and methods evolve as scientific knowledge evolves. (A basic aim of science is to discover in what precise way the universe is comprehensible, this aim evolving as assumptions about comprehensibility evolve.) There is positive feedback between improving knowledge, and improving aims-and-methods, improving knowledge-about-how-to-improve-knowledge. This is the nub of scientific rationality, the methodological key to the unprecedented success of science.[14] Science adapts its nature to what it discovers about the nature of the universe (see Maxwell, 1974, 1976a, 1984a or 2007a, 1998, 2004a, 2005b, 2007c, 2010a, chapter 5).

This hierarchical conception of physics, which I call *aim-oriented empiricism*, can readily be generalized to take into account problematic assumptions associated with the aims of science having to with *values*, and the *social uses* or *applications* of science. It can be generalized so as to apply to the difference branches of natural science. Different sciences have different specific aims, and so different specific methods although, throughout natural science there is the common meta-methodology of aim-oriented empiricism (Maxwell, 2004a, pp. 41-47). So much for the first blunder of the traditional Enlightenment, and how to put it right.

Second, having failed to identify the methods of science correctly, the *philosophes* naturally failed to generalize these methods properly. They failed to appreciate that the idea of representing the problematic aims (and associated methods) of science in the form of a hierarchy can be generalized and applied fruitfully to other worthwhile enterprises besides science. Many other enterprises have problematic aims-problematic because aims conflict, and because what we seek may be unrealizable, undesirable, or *both*. Such enterprises, with problematic aims, would benefit from employing a hierarchical methodology, generalized from that of science, thus making it possible to improve aims and methods as the enterprise proceeds. There is the hope that, as a result of exploiting in life methods generalized from those employed with such success in science, some of the astonishing success of science might be exported into other worthwhile human endeavours, with problematic aims quite different from those of science.

Third, and most disastrously of all, the *philosophes* failed completely to try to apply such generalized, hierarchical progress-achieving methods to the immense, and profoundly problematic enterprise of making social progress towards an enlightened, wise world. The aim of such an enterprise is notoriously problematic. For all sorts of reasons, what constitutes a good world, an enlightened, wise or civilized world, attainable and genuinely desirable, must be

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[14] Natural science has made such astonishing progress in improving knowledge and understanding of nature because it has put something like the hierarchical methodology of aim-oriented empiricism, indicated here, into scientific practice. Officially, however, scientists continue to hold the standard empiricist view that no untestable metaphysical theses concerning the comprehensibility and knowability of the universe are accepted as a part of scientific knowledge (see Maxwell 2004a, pp. 5-6, especially note 5, and 13-14, note 14). As I have argued elsewhere (Maxwell, 2004a chapter 2, 2008), science would be even more successful, in a number of ways, if scientists adopted and explicitly implemented the hierarchical methodology indicated here.

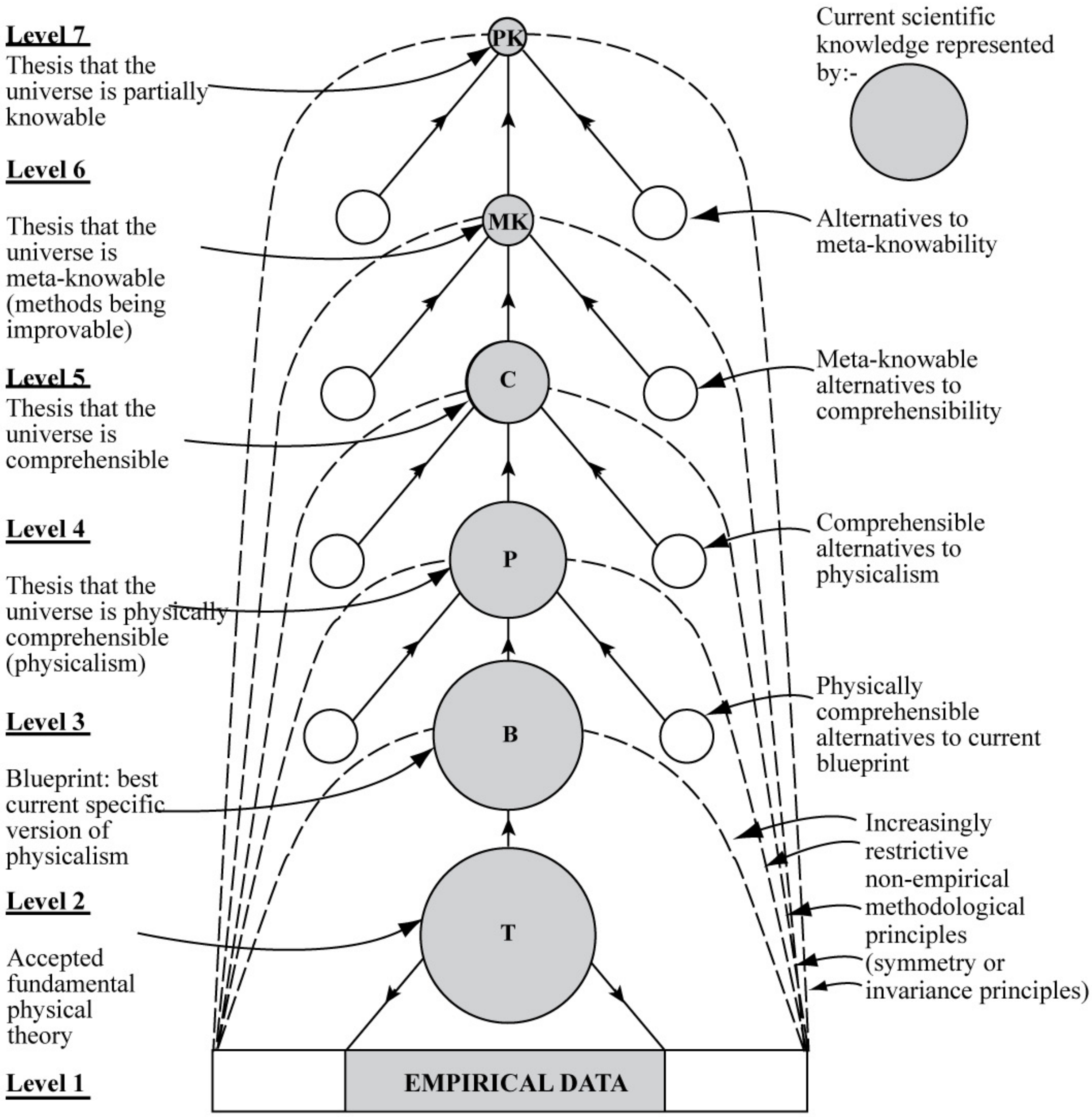
Level 7
Thesis that the universe is partially knowable
PK
Current scientific knowledge represented by:-
Level 6
Thesis that the universe is meta-knowable (methods being improvable)
MK
Alternatives to meta-knowability
Level 5
Thesis that the universe is comprehensible
C
Meta-knowable alternatives to comprehensibility
Level 4
Thesis that the universe is physically comprehensible (physicalism)
P
Comprehensible alternatives to physicalism
Level 3
Blueprint: best current specific version of physicalism
B
Physically comprehensible alternatives to current blueprint
Increasingly restrictive non-empirical methodological principles (symmetry or invariance principles)
Level 2
Accepted fundamental physical theory
T
Level 1
EMPIRICAL DATA

Figure 2: Hierarchical Conception of Science of Aim-Oriented Empiricism

inherently and permanently problematic.[15] Here, above all, it is essential to employ the generalized version of the hierarchical, progress-achieving methods of science, designed specifically to facilitate progress when basic aims are problematic: see Figure 3. It is just this that the *philosophes* failed to do. Instead of applying the hierarchical methodology to *social life*, the *philosophes* sought to apply a seriously defective conception of scientific method to *social science*, to the task of making progress towards, not a *better world*, but to better *knowledge* of social phenomena. And this ancient blunder, developed throughout the 19th century by J.S. Mill, Karl Marx and many others, and built into academia in the early 20th century with the creation of the diverse branches of the social sciences in universities all over the world, is still built into the institutional and intellectual structure of academia today, inherent in the current character of social science (Maxwell, 1984a or 2007a, chapters 3, 6 and 7; 2000a).

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[15] There are a number of ways of highlighting the inherently problematic character of the aim of creating civilization. People have very different ideas as to what does constitute civilization. Most views about what constitutes Utopia, an ideally civilized society, have been unrealizable *and* profoundly undesirable. People's interests, values and ideals clash. Even values that, one may hold, ought to be a part of civilization may clash. Thus freedom and equality, even though inter-related, may nevertheless clash. It would be an odd notion of individual freedom which held that freedom was for some, and not for others; and yet if equality is pursued too single-mindedly this will undermine individual freedom, and will even

Properly implemented, in short, the Enlightenment idea of learning from scientific progress how to achieve social progress towards an enlightened world would involve developing social inquiry, not primarily as social *science*, but rather as social *methodology,* or social *philosophy*. A basic task would be to get into personal and social life, and into other institutions besides that of science-into government, industry, agriculture, commerce, the media, law, education, international relations-hierarchical, progress-achieving methods (designed to improve problematic aims) arrived at by generalizing the methods of science. A basic task for academic inquiry as a whole would be to help humanity learn how to resolve its conflicts and problems of living in more just, cooperatively rational ways than at present. This task would be intellectually more fundamental than the scientific task of acquiring knowledge. Social inquiry would be intellectually more fundamental than physics. Academia would be a kind of people's civil service, doing openly for the public what actual civil services are supposed to do in secret for governments. Academia would have just sufficient power (but no more) to retain its independence from government, industry, the press, public opinion, and other centres of power and influence in the social world. It would seek to learn from, educate, and argue with the great social world beyond, but would not dictate. Academic thought would be pursued as a specialized, subordinate part of what is really important and fundamental: the thinking that goes on, individually, socially and institutionally, in the social world, guiding individual, social and institutional actions and life. The fundamental intellectual and humanitarian aim of inquiry would be to help humanity acquire wisdom-wisdom being the capacity to realize (apprehend and create) what is of value in life, for oneself and others, wisdom thus including knowledge and technological know-how but much else besides.

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undermine equality, in that a privileged class will be required to enforce equality on the rest, as in the old Soviet Union. A basic aim of legislation for civilization, we may well hold, ought to be to increase freedom by restricting it: this brings out the inherently problematic, paradoxical character of the aim of achieving civilization. One thinker who has stressed the inherently problematic, contradictory character of the idea of civilization is Isaiah Berlin (see, for example, Berlin, 1980, pp. 74-79). Berlin thought the problem could not be solved; I, on the contrary, hold that the hierarchical methodology indicated here provides us with the means to learn how to improve our solution to it in real life.

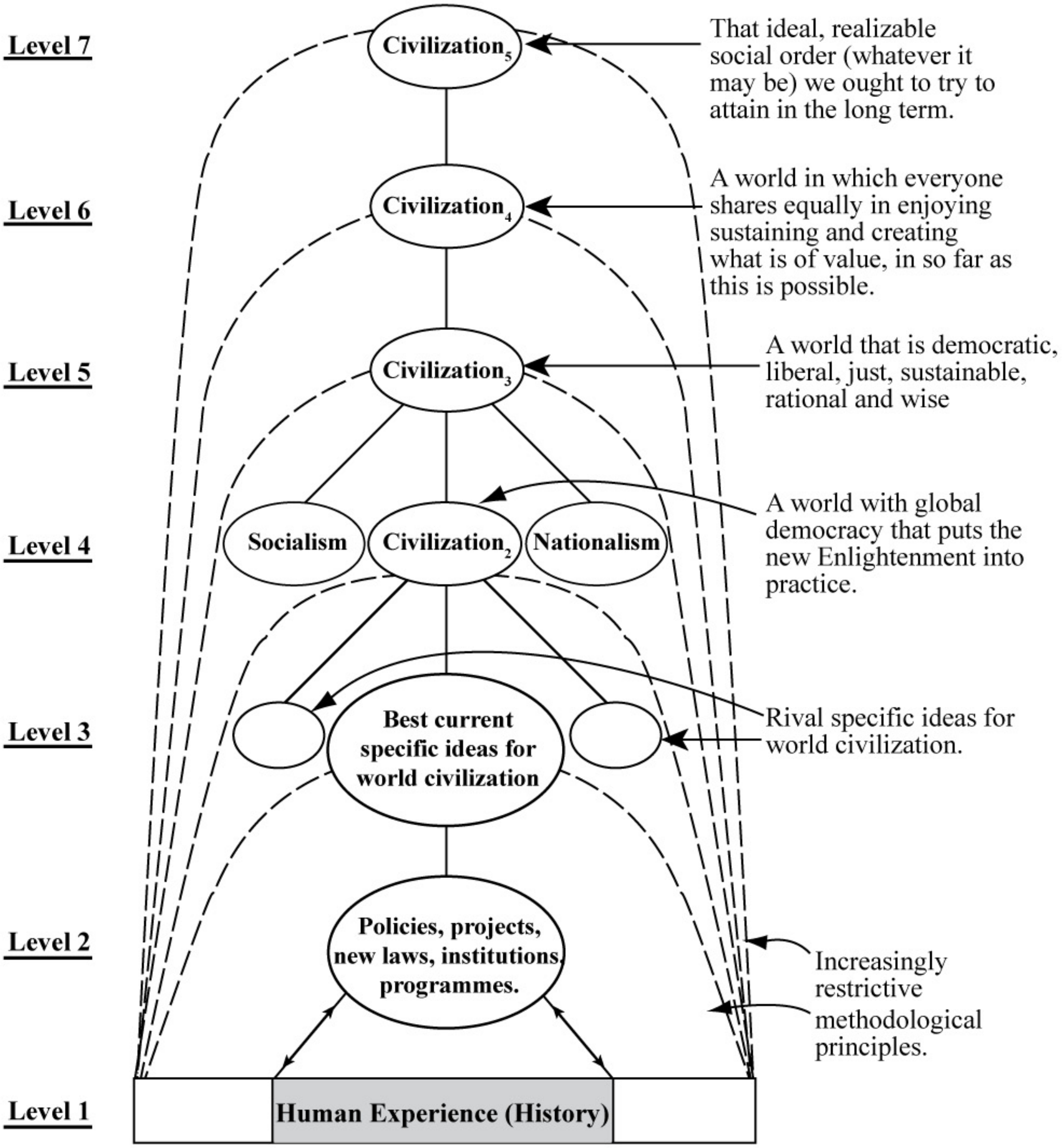
Level 7
Level 6
Level 5
Level 4
Level 3
Level 2
Level 1
Civilization$_5$
Civilization$_4$
Civilization$_3$
Socialism
Civilization$_2$
Nationalism
Best current specific ideas for world civilization
Policies, projects, new laws, institutions, programmes.
Human Experience (History)
That ideal, realizable social order (whatever it may be) we ought to try to attain in the long term.
A world in which everyone shares equally in enjoying sustaining and creating what is of value, in so far as this is possible.
A world that is democratic, liberal, just, sustainable, rational and wise
A world with global democracy that puts the new Enlightenment into practice.
Rival specific ideas for world civilization.
Increasingly restrictive methodological principles.

Figure 3: Hierarchical Social Methodology Generalized from Science

One outcome of getting into social and institutional life the kind of aim-evolving, hierarchical methodology indicated above, generalized from science, is that it becomes possible for us to develop and assess rival philosophies of life as a part of social life, somewhat as theories are developed and assessed within science. Such a hierarchical methodology provides a framework within which competing views about what our aims and methods in life should be-competing religious, political and moral views-may be cooperatively assessed and tested against broadly agreed, unspecific aims (high up in the hierarchy of aims) and the experience of personal and social life. There is the possibility of cooperatively and progressively improving *such philosophies of life* (views about what is of value in life and how it is to be achieved) much as *theories* are cooperatively and progressively improved in science. In science, ideally, theories are critically assessed with respect to each other, with respect to metaphysical ideas concerning the comprehensibility of the universe, and with respect to *experience* (observational and experimental results). In a somewhat analogous way, diverse philosophies of life may be critically assessed with respect to each other, with respect to relatively uncontroversial, agreed ideas about aims and what is of value, and with respect to *experience*—what we do, achieve, fail to achieve, enjoy and suffer—the aim being to improve philosophies of life (and more specific philosophies of more specific enterprises within life such as government, education or art) so that they offer greater help with the realization of what is of value in life. This hierarchical methodology is especially relevant to the task of resolving conflicts about aims and ideals, as it helps disentangle agreement (high up in the hierarchy) and disagreement (more likely to be low down in the hierarchy).

Wisdom-inquiry, because of its greater rigour, has intellectual standards that are, in important respects, different from those of knowledge-inquiry. Whereas knowledge-inquiry demands that emotions and desires, values, human ideals and aspirations, philosophies of life be excluded from the intellectual domain of inquiry, wisdom-inquiry requires that they be included. In order to discover what is of value in life it is essential that we attend to our feelings and desires. But not everything we desire is desirable, and not everything that feels good is good. Feelings, desires and values need to be subjected to critical scrutiny. And of course feelings, desires and values must not be permitted to influence judgements of factual truth and falsity. Wisdom-inquiry embodies a synthesis of traditional Rationalism and Romanticism. It includes elements from both, and it improves on both. It incorporates Romantic ideals of integrity, having to do with motivational and emotional honesty, honesty about desires and aims; and at the same time it incorporates traditional Rationalist ideals of integrity, having to do with respect for objective fact, knowledge, and valid argument. Traditional Rationalism takes its inspiration from science and method; Romanticism takes its inspiration from art, from imagination, and from passion. Wisdom-inquiry holds art to have a fundamental rational role in inquiry, in revealing what is of value, and unmasking false values; but science, too, is of fundamental importance. What we need, for wisdom, is an interplay of sceptical rationality and emotion, an interplay of mind and heart, so that we may develop mindful hearts and heartfelt minds (Maxwell, 1976a, p. 5). It is time we heal the great rift in our culture, so graphically depicted by Snow (1986).

All in all, if the Enlightenment revolution had been carried through properly, the three steps indicated above being correctly implemented, the outcome would have been a kind of academic inquiry very different from what we have at present, inquiry devoted primarily to the intellectual aim of acquiring knowledge.

Cultural Dimension of Wisdom-Inquiry

Wisdom-inquiry does not just do better justice to the social or practical dimension of inquiry than knowledge-inquiry; it does better justice to the “intellectual” or “cultural” aspects as well.

From the standpoint of the intellectual or cultural aspect of inquiry, what really matters is the desire that people have to see, to know, to understand, the passionate curiosity that individuals have about aspects of the world, and the knowledge and understanding that people acquire and share as a result of actively following up their curiosity. An important task for academic thought in universities is to encourage non-professional thought to flourish outside universities. As Einstein once remarked "Knowledge exists in two forms —lifeless, stored in books, and alive in the consciousness of men. The second form of existence is after all the essential one; the first, indispensable as it may be, occupies only an inferior position" (Einstein, 1973, p. 80).

Wisdom-inquiry is designed to promote all this in a number of ways. It does so as a result of holding thought, at its most fundamental, to be the personal thinking we engage in as we live. It does so by recognizing that acquiring knowledge and understanding involves articulating and solving personal problems that one encounters in seeking to know and understand. It does so by recognizing that passion, emotion and desire, have a rational role to play in inquiry, disinterested research being a myth. Again, as Einstein (1973, p. 11) has put it:

> The most beautiful experience we can have is the mysterious. It is the fundamental emotion which stands at the cradle of true art and true science. Whoever does not know it and can no longer wonder, no longer marvel, is as good as dead, and his eyes are dimmed.

Knowledge-inquiry, by contrast, all too often fails to nourish "the holy curiosity of inquiry" (Einstein, 1949, p. 17), and may even crush it out altogether. Knowledge-inquiry gives no rational role to emotion and desire; passionate curiosity, a sense of mystery, of wonder, have no place, officially, within the rational pursuit of knowledge. The intellectual domain becomes impersonal and split off from personal feelings and desires; it is difficult for "holy curiosity" to flourish in such circumstances. Knowledge-inquiry hardly encourages the view that inquiry at its most fundamental is the thinking that goes on as a part of life; on the contrary, it upholds the idea that fundamental research is highly esoteric, conducted by physicists in contexts remote from ordinary life. Even though the aim of inquiry may, officially, be *human* knowledge, the personal and social dimension of this is all too easily lost sight of, and progress in knowledge is conceived of in impersonal terms, stored lifelessly in books and journals. Rare is it for popular books on science to take seriously the task of exploring the fundamental problems of a science in as accessible, non-technical and intellectually responsible a way as possible.[16] Such work is not highly regarded by knowledge-inquiry, as it does not contribute to "expert knowledge".

The failure of knowledge-inquiry to take seriously the highly problematic nature of the aims of inquiry leads to insensitivity as to what aims are being pursued, to a kind of institutional hypocrisy. Officially, knowledge is being sought "for its own sake", but actually the goal may be immortality, fame, the flourishing of one's career or research group, as the existence of bitter priority disputes in science indicates. Education suffers. Science students are taught a mass of established scientific knowledge, but may not be informed of the *problems* which gave rise to this knowledge, the problems which scientists grappled with in creating the knowledge. Even more rarely are students encouraged themselves to grapple with such problems. And rare, too, is it for students to be encouraged to articulate their own problems of understanding that must, inevitably arise in absorbing all this information, or to articulate their instinctive criticisms of the received body of knowledge. All this tends to reduce education to a kind of intellectual indoctrination, and serves to kill “holy curiosity.”[17] Officially, courses in universities divide up into those that are vocational, like engineering, medicine and law, and those that are purely educational, like physics, philosophy or history. What is not noticed, again through insensitivity to problematic aims, is that the supposedly purely educational are actually vocational as well: the student is being trained to be an academic physicist, philosopher or historian, even though only a minute percentage of the students will go on to become academics. Real education, which must be open-ended, and without any pre-determined goal, rarely exists in universities, and yet few notice. (These considerations are developed further in Maxwell, 1976a; 1984a or 2007a; and 2004a.)

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[16] A recent, remarkable exception is Penrose (2004).

In order to enhance our understanding of persons as beings of value, potentially and actually, we need to understand them empathetically, or “personalistically,” by putting ourselves imaginatively into their shoes, and experiencing, in imagination, what they feel, think, desire, fear, plan, see, love and hate. For wisdom-inquiry, this kind of empathic understanding is rational and intellectually fundamental. Articulating problems of living, and proposing and assessing possible solutions is, we have seen, the fundamental intellectual activity of wisdom-inquiry. But it is just this that we need to do to acquire empathic understanding. Social inquiry, in tackling problems of living, is also promoting empathic understanding of people. Empathic understanding is essential to wisdom. Elsewhere I have argued, indeed, that empathic understanding plays an essential role in the evolution of consciousness. It is required for cooperative action, and even for science. (For a fuller exposition of such an account of empathic or personalistic understanding see Maxwell, 1984a, pp. 171-189 and chapter 10, or 2007a, pp. 194-213 and chapter 10; and 2001a, chapters 5-7 and 9).

Granted knowledge-inquiry, on the other hand, empathic understanding hardly satisfies basic requirements for being an intellectually legitimate kind of explanation and understanding (Maxwell, 1984a, pp. 183-5 or 207a, pp. 206-8). It has the status merely of “folk psychology” on a par with “folk physics.”

Objections

It may be objected that the traditional Enlightenment does not dominate current academic inquiry to the extent that I have assumed. But grounds for holding that it does are given in chapter six of my *From Knowledge to Wisdom* (Maxwell, 1984a, 2007a). There I looked at the following: (a) books about the modern university; (b) the philosophy and sociology of science; (c) statements of leading scientists; (d) Physics Abstracts; (e) Chemistry, Biology, Geo and Psychology Abstracts; (f) journal titles and contents; (g) books on economics, sociology and psychology; (h) philosophy. In 1984, the year *From Knowledge to Wisdom* was published, there can be no doubt whatsoever that the traditional Enlightenment (or "the philosophy of knowledge" as I called it in the book) dominated academic inquiry.

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[17] I might add that the aim-oriented empiricist conception of science indicated here does better justice to the scientific quest for understanding than does orthodox standard empiricist views (see Maxwell, 1998 chapters 4 and 8, 2004a chapter 2).

Have things changed since then? The revolution advocated by *From Knowledge to Wisdom*, and argued for here, has not occurred. There is still, amongst the vast majority of academics today, no awareness at all that a more intellectually rigorous and humanly valuable kind of inquiry than that which we have at present, exists as an option. In particular, social inquiry continues to be taught and pursued as social *science*, and not as social *methodology*. Fairly recently I undertook an examination, at random, of thirty-four introductory books on sociology, published between 1985 and 1997. Sociology, typically, is defined as "the scientific study of human society and social interactions" (Tischler, 1996, p. 4), as "the *systematic, sceptical study of human society*" (Macionis and Plummer, p. 4), or as having as its basic aim "to understand human societies and the forces that have made them what they are" (Lenski, 1995, p. 5). Some books take issue with the idea that sociology is the *scientific* study of society, or protest at the male dominated nature of sociology (for example, Abott and Wallace, 1990, p. 3 and p. 1). Nowhere did I find a hint of the idea that a primary task of sociology, or of social inquiry more generally, might be to help build into the fabric of social life progress-achieving methods, generalized from those of science, designed to help humanity resolve its conflicts and problems of living in more cooperatively rational ways than at present.

The tackling of problems of living rather than problems of knowledge does of course go on within the academic enterprise as it is at present constituted, within such disciplines as economics, development studies, policy studies, peace studies, medicine, agriculture, engineering, and elsewhere. But this does not tell against the point that the primary task of academic inquiry at present is, first, to acquire knowledge and technological know-how, and then, second, to apply it to help solve problems of living. It does not, in other words, tell against the point that it is the traditional Enlightenment that is the dominant influence on the nature, the aims and methods, the whole character and structure of academic inquiry.

It may be objected that it is all to the good that the academic enterprise today does give priority to the pursuit of knowledge over the task of promoting wisdom and civilization. Before problems of living can be tackled rationally, knowledge must first be acquired.[18]

I have six replies to this objection.

First, even if the objection were valid, it would still be vital for a kind of inquiry designed to help us build a better world to include rational exploration of problems of living, and to ensure that this guides priorities of scientific research (and is guided by the results of such research).

Second, the validity of the objection becomes dubious when we take into account the considerable success people met with in solving problems of living in a state of extreme ignorance, before the advent of science. We still today often arrive at solutions to problems of living in ignorance of relevant facts.

Third, the objection is not valid. In order to articulate problems of living and explore imaginatively and critically possible solutions (in accordance with Popper's conception of rationality) we need to be able to act in the world, imagine possible actions and share our imaginings with others: in so far as some common sense knowledge is implicit in all this, such knowledge is required to tackle rationally and successfully problems of living. But this does not mean that we must give intellectual priority to acquiring new relevant knowledge before we can be in a position to tackle rationally our problems of living.

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[18] This is the objection that most academics will wish to raise against the thesis of this essay. It will be made by all those who hold that academic inquiry quite properly seeks to make a contribution to human welfare by, first, acquiring knowledge and then, secondarily, applying it to help solve human problems.

Fourth, simply in order to have some idea of what kind of knowledge or know-how it is *relevant* for us to try to acquire, we must *first* have some provisional ideas as to what our problem of living is and what we might do to solve it. Articulating our problem of living and proposing and critically assessing possible solutions needs to be intellectually prior to acquiring relevant knowledge simply for this reason: we cannot know what new knowledge it is *relevant* for us to acquire until we have at least a preliminary idea as to what our problem of living is, and what we propose to do about it. A slight change in the way we construe our problem may lead to a drastic change in the kind of knowledge it is relevant to acquire: changing the way we construe problems of health, to include *prevention* of disease (and not just curing of disease) leads to a dramatic change in the kind of knowledge we need to acquire (importance of exercise, diet etc.). Including the importance of avoiding *pollution* in the problem of creating wealth by means of industrial development leads to the need to develop entirely new kinds of knowledge.

Fifth, relevant knowledge is often hard to acquire; it would be a disaster if we suspended life until it had been acquired. Knowledge of how our brains work is presumably highly relevant to all that we do but clearly, suspending rational tackling of problems of living until this relevant knowledge has been acquired would not be a sensible step to take. It would, in any case, make it impossible for us to acquire the relevant knowledge (since this requires scientists to act in doing research). Scientific research is itself a kind of action carried on in a state of relative ignorance.

Sixth, the capacity to act, to live, more or less successfully in the world, is more fundamental than (propositional) knowledge. Put in Rylean terms, 'knowing how' is more fundamental than 'knowing that' (Ryle, 1949, ch. II). All our knowledge is but a development of our capacity to act. Dissociated from life, from action, knowledge stored in libraries is just paper and ink, devoid of meaning. In this sense, problems of living are more fundamental than problems of knowledge (which are but an aspect of problems of living); giving intellectual priority to problems of living quite properly reflects this point.[19]

It may be objected that in employing aim-oriented rationality in an attempt to help create a more civilized world, in the way indicated above, the new Enlightenment falls foul of Popper's strictures against Utopian social engineering (Popper, 1969, vol. 1, ch. 9; 1962, pp. 64-92). I have three replies to this objection. First, to the extent that piecemeal social engineering, of the kind advocated by Popper, is indeed the rational way to make progress towards a more civilized world, this will be advocated by wisdom-inquiry. Second, when we take into account the unprecedented *global* nature of many of our most serious problems, indicated at the beginning of this essay, we may well doubt that piecemeal social engineering is sufficient. Third, Popper's distinction between piecemeal and Utopian social engineering is altogether too crude: it overlooks entirely what has been advocated here, aim-oriented rationalistic social engineering, with its emphasis on developing increasingly cooperatively rational resolutions of human conflicts and problems in full recognition of the inherently problematic nature of the aim of achieving greater civilization.[20]

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[19] For a development of this point, see Maxwell (1984a, pp. 174-181, or 2007a, pp. 197-205).

All those to any degree influenced by Romanticism and the counter-Enlightenment will object strongly to the idea that we should learn from scientific progress how to achieve social progress towards civilization; they will object strongly to the idea of allowing conceptions of rationality, stemming from science, to dominate in this way, and will object even more strongly to the idea, inherent in the new Enlightenment, that we need to create a more aim-oriented rationalistic social world.[21]

Directed at the traditional Enlightenment, objections of this kind may have some validity; but directed at the new Enlightenment, they have none. As I have emphasized elsewhere, aim-oriented rationality amounts to a synthesis of traditional rationalist and romantic ideals, and not to the triumph of the first over the second. In giving priority to the realization of what is of value in life, and in emphasizing that rationality demands that we seek to improve aims as we proceed, the new Enlightenment requires that rationality integrates traditional Rationalist and Romantic values and ideals of integrity. Imagination, emotion, desire, art, empathic understanding of people and culture, the imaginative exploration of aims and ideals, which tend to be repudiated as irrational by traditional Rationalism, but which are prized by Romanticism, are all essential ingredients of aim-oriented rationality. Far from crushing freedom, spontaneity, creativity and diversity, aim-oriented rationality is essential for the desirable flourishing of these things in life.[22]

Many historians and sociologists of science deny that there is any such thing as scientific method or scientific progress, and will thus find the basic idea of this essay absurd.[23] These writers are encouraged in their views by the long-standing failure of scientists and philosophers of science to explain clearly what scientific method is, and how it is to be justified. This excuse for not taking scientific method and progress seriously is, however, no longer viable: as I have indicated above, reject standard empiricism in all its forms, and it becomes clear how scientific method and progress are to be characterized and justified, in a way which emphasizes the rational interplay between evolving knowledge and evolving aims and methods of science.[24] In a world dominated by the products of scientific progress it is quixotic in the extreme to deny that such progress has taken place.

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[20] For further discussion see Maxwell (1984a, pp. 189-198, or 2007a, pp. 213-21).

[21] For literature protesting against the influence of scientific rationality in various contexts and ways, see for example: Berlin (1999), Laing (1965), Marcuse (1964), Roszak (1973), Berman (1981), Schwartz (1987), Feyerabend (1978, 1987), and Appleyard (1992).

[22] See Maxwell (1984a, pp. 63-64, pp. 85-91 and pp. 117-118, or 2007a, pp. 75-7, 98-104 and 129-32) for further discussion of this issue. See also Maxwell (1976a, especially chapters 1 and 8-10).

[23] Bloor (1976); Barnes and Bloor (1981), Latour (1987), and Feyerabend (1978, 1987). These authors might protest that they do not deny scientific knowledge, method, progress or rationality as such, but deny, merely, that the sociology of knowledge can legitimately appeal to such things, or deny extravagant claims made on behalf of these things. See, however, the sparkling criticism by Sokal and Bricmont (1998 chapter 4).

[24] See note 12.

Finally, those of a more rationalist persuasion may object that science is too different from political life for there to be anything worthwhile to be learnt from scientific success about how to achieve social progress towards civilization.[25] (a) In science there is a decisive procedure for eliminating ideas, namely, empirical refutation: nothing comparable obtains, or can obtain, in the political domain. (b) In science experiments or trials may be carried out relatively painlessly (except, perhaps, when new drugs are being given in live trials); in life, social experiments, in that they involve people, may cause much pain if they go wrong, and may be difficult to stop once started. (c) Scientific progress requires a number of highly intelligent and motivated people to pursue science on the behalf of the rest of us, funded by government and industry; social progress requires almost *everyone* to take part, including the stupid, the criminal, the mad or otherwise handicapped, the ill, the highly unmotivated; and in general there is no payment. (d) Scientists, at a certain level, have an agreed, common objective: to improve knowledge. In life, people often have quite different or conflicting goals, and there is no general agreement as to what civilization ought to mean, or even whether it is desirable to pursue civilization in *any* sense. (e) Science is about fact, politics about value, the quality of life. This difference ensures that science has nothing to teach political action (for civilization). (f) Science is male-dominated, fiercely competitive, and at times terrifyingly impersonal; this means it is quite unfit to provide any kind of guide for life.

Here, briefly, are my replies. (a) Some proposals for action can be shown to be unacceptable quite decisively as a result of experience acquired through attempting to put the proposal into action. Where this is not possible, it may still be possible to assess the merits of the proposal to some extent by means of experience. If assessing proposals for action by means of experience is much more indecisive than assessing scientific theories by means of experiment, then we need, all the more, to devote our care and attention to the former case. (b) Precisely because experimentation in life is so much more difficult than in science, it is vital that in life we endeavour to learn as much as possible from (i) experiments that we perform in our imagination, and (ii) experiments that occur as a result of what actually happens. (c) Because humanity does not have the aptitude or desire for wisdom that scientists have for knowledge, it is unreasonable to suppose that progress towards global wisdom could be as explosively rapid as progress in science. Nevertheless progress in wisdom might go better than it does at present. (d) Cooperative rationality is only feasible when there is the common desire of those involved to resolve conflicts in a cooperatively rational way. (e) Aim-oriented rationality can help us improve our decisions about what is desirable or of value, even if it cannot reach decisions for us. (f) In taking science as a guide for life, it is the progress-achieving methodology of science to which we need to attend. It is this that we need to generalize in such a way that it becomes fruitfully applicable, potentially, to all that we do. That modern science is male-dominated, fiercely competitive, and at times terrifyingly impersonal should not deter us from seeing what can be learned from the progress-achieving methods of science—unless, perhaps, it should turn out that being male-dominated, fiercely competitive and impersonal is essential to scientific method and progress. (But this, I submit, is not the case.)

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[25] Nicholas Rescher (personal communication), Rescher & Durant (1997).

Implications

As I have already indicated, transforming universities so that they put wisdom-inquiry into practice instead of knowledge-inquiry would have implications and repercussions for every branch and aspect of academia—and for the great social world beyond. It would have dramatic consequences for the whole institutional and intellectual structure of academic inquiry, how it is related to government, industry, the public.[26]

To begin with, I must emphasize, there are *intellectual* consequences. Wisdom-inquiry is more rigorous than knowledge-inquiry. Whereas knowledge-inquiry violates three of the four most elementary rules of rational problem-solving conceivable, wisdom-inquiry implements all four. Again, whereas knowledge-inquiry disavows, or "represses" real, problematic aims of natural science, and of academic inquiry more generally, wisdom-inquiry acknowledges these aims, provides a meta-methodological framework for their imaginative and critical exploration, thus facilitating the progressive *improvement* of these aims. This has dramatic consequences for our understanding of science and social inquiry, and for science and social inquiry themselves.

Furthermore, as I have argued at length elsewhere,[27] fundamental intellectual problems concerning the nature of science, and of inquiry more generally, are readily solved granted aim-oriented empiricism and wisdom-inquiry; these problems cannot be solved granted standard empiricism and knowledge-inquiry, and they have resisted resolution for centuries precisely because these latter views have been taken for granted. Most notably, the problems of induction, verisimilitude and simplicity, solved by aim-oriented empiricism, cannot be solved granted standard empiricism.[28] This constitutes dramatic intellectual grounds for rejecting standard empiricism and adopting and implementing aim-oriented empiricism in its stead.

The transition from standard to aim-oriented empiricism has implications, not just for our understanding of science, but also for science itself. Aim-oriented empiricism, as a result of making explicit problematic and implicit metaphysical assumptions of physics, provides theoretical physics with a fallible, non-mechanical, but nevertheless *rational* method for the discovery of fundamental new theories. In requiring, for rigour, that theoretical physics should include discussion of metaphysical, methodological, philosophical and epistemological ideas, aim-oriented empiricism transforms physics into something close to the natural philosophy of Newton's time. There is an astonishing extension in the scope of scientific knowledge: aim-oriented empiricism implies that science has already established (in so far as anything theoretical is established in science) that the universe is physically comprehensible. This is an item of current (conjectural) scientific knowledge (Maxwell, 1998). New possibilities emerge. I have indicated a way in which the universe may be physically comprehensible that differs dramatically from the traditional view. Instead of the underlying unity in the universe being the unity-the invariance-of basic dynamical laws, it rather consists in the unity of a very special state of the universe, namely the big bang state.[29] Articulating implicit metaphysical ideas of physics even has potential implications for quantum theory. In a long series of papers, I have argued that adoption of a fundamentally *probabilistic* metaphysics provides a possible solution to the quantum wave/particle problem and leads to a fully micro-realistic version of quantum theory, free of defects that plague orthodox quantum theory, which captures all the empirical success of the orthodox theory but is empirically distinct from the orthodox theory for as yet unperformed experiments.[30]

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[26] See especially Maxwell (1984a or, better, 2007a). See also Maxwell (2010a chapters 6 and 9).

[27] See Maxwell (1984a chapter 9, or 2007a chapters 9 and 14, 1998, 2004a chapters 1, 2 and appendix, 1993a, 2002c, 2004b, 2005b, 2005d, 2006b).

[28] The problem of induction can be formulated as the problem of how physical theories can be verified empirically granted we only ever have a vanishingly small amount of evidence in support of them. (Solution: Maxwell, 2005d, 2007a, pp. 400-430.) The problem of verisimilitude is the problem of what it means to say theoretical physics makes progress if it advances from one false theory to another. (Solution: Maxwell, 2007a, pp. 393-400 and 430-423.) The problem of simplicity is the problem of explicating what it means to say that a physical theory is simple, or unified, when any theory can be formulated in a variety of ways, some simple, many highly complex. (Solution: Maxwell, 1998 chapter 4, 2007a, pp. 373-386.)

Elsewhere, I have argued that aim-oriented empiricism and wisdom-inquiry have intellectual implications for a wide range of disciplines: for mathematics,[31] for neuroscience,[32] for evolutionary theory,[33] for psychology, sociology, economics and political science,[34] and for philosophy. The whole character of philosophy is transformed.[35]

Here, now, are fifteen broad ways in which academic inquiry must change if aim-oriented empiricism and wisdom-inquiry are to be put into academic practice.

1. There needs to be a change in the basic intellectual *aim* of inquiry, from the growth of knowledge to the growth of wisdom—wisdom being taken to be the capacity to realize what is of value in life, for oneself and others, and thus including knowledge, understanding and technological know-how. (Whereas knowledge-inquiry sharply distinguishes the intellectual and social aims of academia, wisdom-inquiry holds them to be one and the same: wisdom.)
2. There needs to be a change in the nature of academic *problems*, so that problems of living are included, as well as problems of knowledge. Furthermore, problems of living need to be treated as intellectually more fundamental than problems of knowledge.
3. There needs to be a change in the nature of academic *ideas*, so that proposals for action are included as well as claims to knowledge. Furthermore, proposals for action need to be treated as intellectually more fundamental than claims to knowledge.

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[29] See Maxwell (2004a, pp. 198-205).

[30] See Maxwell (1972b, 1976b, 1982, 1988, 1993b, 1994, 1998 chapter 7, 2004e, 2011b).

[31] Maxwell (2010e).

[32] Maxwell (1985b, 2001 chapter 8).

[33] Maxwell (1984a, pp. 174-81 and 269-275, 2001 chapter 7, 2010a chapter 8).

[34] Maxwell (1984a or 2007a chapters 4, 5, 7 and 8, 2001a chapter 3, 2004a chapters 3 and 4, 2010a chapters 6 and 9).

[35] See, for example, Maxwell (2001a, pp. 3-6). Maxwell (2010a), especially, is intended to exemplify what I think philosophy ought to be: the attempt to clarify, and help solve, our most fundamental, urgent, general problems so that there are fruitful implications for diverse aspects of life. Indeed, all my books seek to do this. For too long, academic philosophy has been prevented from doing this, openly and clearly, by the lingering, crippling influence of "analytic philosophy" with its absurd idea that the basic task should be the analysis of concepts. This obscures rather than clarifies fundamental problems.

4. There needs to be a change in what constitutes intellectual *progress*, so that progress-in-ideas-relevant-to-achieving-a-more-civilized-world is included as well as progress in knowledge, the former being indeed intellectually fundamental.
5. There needs to be a change in the idea as to where inquiry, at its most fundamental, is located. It is not esoteric theoretical physics, but rather the thinking we engage in as we seek to achieve what is of value in life.
6. There needs to be a dramatic change in the nature of social inquiry (reflecting points 1 to 5). Economics, politics, sociology, and so on, are not, fundamentally, *sciences*, and do not, fundamentally, have the task of improving knowledge about social phenomena. Instead, their task is threefold. First, it is to articulate problems of living, and propose and critically assess possible solutions, possible actions or policies, from the standpoint of their capacity, if implemented, to promote wiser ways of living. Second, it is to promote such cooperatively rational tackling of problems of living throughout the social world. And third, at a more basic and long-term level, it is to help build the hierarchical structure of aims and methods of aim-oriented rationality into personal, institutional and global life, thus creating frameworks within which progressive improvement of personal and social life aims-and-methods becomes possible. These three tasks are undertaken in order to promote cooperative tackling of problems of living—but also in order to enhance empathic or "personalistic" understanding between people as something of value in its own right.[36] Acquiring knowledge of social phenomena is a subordinate activity, engaged in to facilitate the above three fundamental pursuits.
7. Natural science needs to change, so that it includes at least three levels of discussion: evidence, theory, and research aims. Discussion of aims needs to bring together scientific, metaphysical and evaluative consideration in an attempt to discover the most desirable and realizable research aims. It needs to influence, and be influenced by, exploration of problems of living undertaken by social inquiry and the humanities, and the public.
8. There needs to be a dramatic change in the relationship between social inquiry and natural science, so that social inquiry becomes intellectually more fundamental from the standpoint of tackling problems of living, promoting wisdom.
9. The way in which academic inquiry as a whole is related to the rest of the human world needs to change dramatically. Instead of being intellectually dissociated from the rest of society, academic inquiry needs to be communicating with, learning from, teaching and arguing with the rest of society—in such a way as to promote cooperative rationality and social wisdom. Academia needs to have just sufficient power to retain its independence from the pressures of government, industry, the military, and public opinion, but no more. Academia becomes a kind of civil service for the public, doing openly and independently what actual civil services are supposed to do in secret for governments.
10. There needs to be a change in the role that political and religious ideas, works of art, expressions of feelings, desires and values have within rational inquiry. Instead of being excluded, they need to be explicitly included and critically assessed, as possible indications and revelations of what is of value, and as unmasking of fraudulent values in satire and parody, vital ingredients of wisdom.
11. There need to be changes in education so that, for example, seminars devoted to the cooperative, imaginative and critical discussion of problems of living are at the heart of all

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[36] See Maxwell (1984a, pp. 171-189 and chapter 10, or 2007a, pp. 194-213 and chapter 10; and 2001a chapters 5-7 and 9).

education from five-year-olds onwards.[37] Politics, which cannot be taught by knowledge-inquiry, becomes central to wisdom-inquiry, political creeds and actions being subjected to imaginative and critical scrutiny.

12. There need to be changes in the aims, priorities and character of pure science and scholarship, so that it is the curiosity, the seeing and searching, the knowing and understanding of individual persons that ultimately matters, the more impersonal, esoteric, purely intellectual aspects of science and scholarship being means to this end. Social inquiry needs to give intellectual priority to helping empathic understanding between people to flourish (as indicated in 6 above).
13. There need to be changes in the way mathematics is understood, pursued and taught. Mathematics is not a branch of knowledge at all. Rather, it is concerned to explore problematic *possibilities*, and to develop, systematize and unify problem-solving methods.[38]
14. Literature needs to be put close to the heart of rational inquiry, in that it explores imaginatively our most profound problems of living and aids personalistic understanding in life by enhancing our ability to enter imaginatively into the problems and lives of others.
15. Philosophy needs to change so that it ceases to be just another specialized discipline and becomes instead that aspect of inquiry as a whole that is concerned with our most general and fundamental problems—those problems that cut across all disciplinary boundaries. Philosophy needs to become again what it was for Socrates: the attempt to devote reason to the growth of wisdom in life.[39]

In addition, the following four institutional innovations ought also to be made to help wisdom-inquiry to flourish:

16. Natural science needs to create committees, in the public eye, and manned by scientists and non-scientists alike, concerned to highlight and discuss failures of the priorities of research to respond to the interests of those whose needs are the greatest—the poor of the earth—as a result of the inevitable tendency of research priorities to reflect the interests of those who pay for science, and the interests of scientists themselves.
17. Every university needs to create a seminar or symposium devoted to the sustained discussion of fundamental problems that cut across all conventional academic boundaries, global problems of living being included as well as problems of knowledge and understanding.
18. Every national university system needs to include a national shadow government, seeking to do, virtually, free of the constraints of power, what the actual national government ought to be doing. The hope would be that virtual and actual governments would learn from each other.
19. The world's universities need to include a virtual world government which seeks to do what an actual elected world government ought to do, if it existed. The virtual world

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[37] For wisdom-inquiry for five-year olds, see Maxwell (2005b).
[38] For a sketch of wisdom-inquiry mathematics see Maxwell (2010e).
[39] See especially Maxwell (1980 and 2010a). See, also, note 34.

government would also have the task of working out how an actual democratically elected world government might be created.[40]

Recent Indications that the Revolution May Be Underway

My efforts to start up a campaign to transform academia so that it becomes an educational resource to help humanity learn how to create a better world have not met with much success. I am not aware of any discipline, or any department in any university, that has changed as a result of my work. Few academics have even heard of my work. Even philosophers, aside from a few notable exceptions,[41] seem to be, by and large, ignorant of it, or indifferent to it—especially disappointing in view of the fact that the argument for the intellectual revolution is profoundly philosophical in character. And not just the argument: the outcome, the new conception of inquiry I argue for—*wisdom-inquiry* as it may be called—is, I claim, quintessentially philosophical in that it is the solution to a profoundly significant philosophical problem: *What kind of inquiry can best help us make progress towards a civilized world?*

Viewed from another perspective, however, my call for a revolution, for the implementation of wisdom-inquiry, has been astonishingly successful. During the last 10-20 years, numerous changes have occurred in academia that amount to a shift towards wisdom-inquiry—whether or not in response to any of my work. In what follows I concentrate on universities in the UK.

Perhaps the most significant of these steps is the creation of departments, institutions and research centres concerned with social policy, environmental degradation, climate change, poverty, injustice and war, and other matters such as medical ethics and community health.[42]

At Cambridge University, one can see the first hints of the institutional structure of wisdom-inquiry being superimposed upon the existing structure of knowledge-inquiry. As I have emphasized, wisdom-inquiry puts the intellectual tackling of problems of living at the heart of academic inquiry, this activity being conducted in such a way that it both influences, and is influenced by, more specialised research. Knowledge-inquiry, by contrast, organises intellectual activity into the conventional departments of knowledge: physics, chemistry, biology, history and the rest, in turn subdivided, again and again, into increasingly specialised research disciplines. But this knowledge-inquiry structure of ever more specialised research is hopelessly inappropriate when it comes to tackling problems of living. In order to tackle environmental problems, for example, in a rational and effective way, specialized research into a multitude of different fields, from geology, engineering and economics to climate science, biology, architecture and metallurgy, needs to be connected to, and coordinated with, the different aspects of environmental problems.[43] The sheer urgency of environmental problems has, it seems, forced Cambridge University to create the beginnings of wisdom-inquiry organization to deal with the issue. The "Cambridge Environmental Initiative" (CEI), launched in December 2004, distinguishes seven fields associated with environmental problems: conservation, climate change, energy, society, water waste built environment and industry, natural hazards, society, and technology, and under these headings, coordinates some 102 research groups working on specialized aspects of environmental issues in some 25 different (knowledge-inquiry) departments.[44] The CEI holds seminars, workshops and public lectures to put specialized research workers in diverse fields in touch with one another, and to inform the public.

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[40] For further discussion of changes that would need to be made for universities to implement wisdom-inquiry, see Maxwell (1984a or 2007a, 2004, 2010a especially chapter 9).

[41] Mary Midgely (1986), said of my *From Knowledge to Wisdom*, "a strong effort is needed if one is to stand back and clearly state the objections to the whole enormous tangle of misconceptions which surround the notion of science today. Maxwell has made that effort in this powerful, profound and important book". Others who have published highly favourable comments on my work include: Leemon McHenry, George F. Kneller, Christopher Longuet-Higgins, J. J. C. Smart, Daniel Dennett, Alasdair MacIntyre, David Hodgson, Brian Easlea, John Hendry, Jerry Ravetz, Noretta Koertge, Cory F. Juhl, Anjan Chakravartty, Sherrilyn Roush, F.A. Muller, Niall Shanks, Clare McNiven and Margret Grebowicz (see www.nick-maxwell.demon.co.uk/Reviews.htm). Iredale (2007) discusses some work influenced by my ideas. See, too, Leemon (2009).

[42] See Iredale (2007) and Macdonald (2009) for developments of this point.

A similar coordinating, interdisciplinary initiative exists at Oxford University. This is the School of Geography and the Environment, founded in 2005 under another name. It is made up of five research "clusters", two previously established research centres, the Environmental Change Institute (founded in 1991) and the Transport Studies Institute, and three inter-departmental research programmes, the African Environments Programme the Oxford Centre for Water Research, and the Oxford branch of the Tyndall Centre (see below). The School has links with other such research centres, for example the UK Climate Impact Programme and the UK Energy Research Centre.

At Oxford University there is also the James Martin 21st Century School, founded in 2005 to "formulate new concepts, policies and technologies that will make the future a better place to be". It is made up of fifteen Institutes devoted to research that ranges from ageing, armed conflict, cancer therapy and carbon reduction to nanoscience, oceans, science innovation and society, the future of the mind, and the future of humanity. At Oxford there is also the Smith School of Enterprise and the Environment, founded in 2008 to help government and industry tackle the challenges of the 21st century, especially those associated with climate change.

Similar developments have taken place recently at my own university, University College London. Not only are there over 141 research institutes and centres at UCL, some only recently founded, many interdisciplinary in character, devoted to such themes as ageing, cancer, cities, culture, public policy, the environment, global health, governance, migration, and security. In addition, very recently, the attempt has been made to organize research at UCL around a few broad themes that include: global health, sustainable cities, intercultural interactions, and human wellbeing. This is being done so that UCL may all the better contribute to solving the immense global problems that confront humanity.

On the UCL website, the rationale for the global challenges initiative is spelled out in a way which echoes the case for wisdom-inquiry:

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[43] For the fundamental importance of interconnecting work on broad and specialized problems, see Maxwell (1980).

[44] See www.cei.group.cam.ac.uk/.

> The world is in crisis. Billions of us suffer from illness and disease, despite applicable preventions and cures. Life in our cities is under threat from dysfunctionality and climate change. The prospect of global peace and cooperation remains under assault from tensions between our nations, faiths and cultures. Our quality of life—actual and perceived—diminishes despite technological advances. These are global problems, and we must resolve them if future generations are to be provided with the opportunity to flourish.[45]

These developments, echoed in many other UK universities, can be regarded as first steps towards implementing wisdom-inquiry.

Equally impressive is the John Tyndall Centre for Climate Change Research, founded by 28 scientists from ten different institutions in 2000. It is based in six British universities, has links with six others, and is funded by three research councils: the Natural Environment Research Council (NERC), the Engineering and Physical Sciences Research Council (EPSRC) and the Economic and Social Research Council (ESRC). The centre "brings together scientists, economists, engineers and social scientists, who together are working to develop sustainable responses to climate change through trans-disciplinary research and dialogue on both a national and international level [including] […] with business leaders, policy advisors, the media and the public in general".[46] It is clear from the centre's own account[47] that innovations in its work are strikingly in accordance with basic features of wisdom-inquiry. We have here, perhaps, the real beginnings of wisdom-inquiry being put into academic practice.

A similar organisation, modeled on the Tyndall Centre, is the UK Energy Research Centre (UKERC), launched in 2004, and also funded by NERC, EPSRC and ESRC. Its mission is to be a "centre of research, and source of authoritative information and leadership, on sustainable energy systems".[48] The UKERC coordinates research in some twelve British universities or research institutions and has also launched the National Energy Research Network (NERN), which seeks to link up the entire energy community, including people from academia, government, non-governmental organisations and business.

Another possible indication of a modest step towards wisdom-inquiry is the growth of peace studies and conflict resolution research. In the UK, the Peace Studies Department at Bradford University has quadrupled in size since 1984,[49] and is now the largest university department in this field in the world. INCORE, an International Conflict Research project, was established in 1993 at the University of Ulster in Northern Ireland, in conjunction with the United Nations University. It develops conflict resolution strategies and aims to influence policymakers and others involved in conflict resolution. Like the newly created environmental institutions just considered, INCORE is highly interdisciplinary in character, in that it coordinates work across the traditional knowledge departments of history, policy studies, politics, international affairs, sociology, geography, architecture, communications and social work as well as in peace and conflict studies.

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[45] http://www.ucl.ac.uk/grand-challenges/. I gather this grand challenges initiative has been influenced by my work.
[46] www.tyndall.ac.uk/general/about.shtml.
[47] Tyndall Centre, ed., *Truly Useful*, (UK, Tyndall Centre).
[48] UKERC (2009). www.ukerc.ac.uk/.
[49] Professor Paul Rogers, personal communication.

Peace studies have also grown during the last two decades at Sussex University, Kings College London, Leeds University, Coventry University and London Metropolitan University. Recently created UK centres in the field include the Centre for Peace and Reconciliation Studies at Warwick University; the Desmond Tutu Centre for War and Peace at Liverpool Hope University; the Praxis Centre at Leeds Metropolitan University; the Crime and Conflict Centre at Middlesex University; and the International Boundaries Research Unit at Durham University.[50]

There are further indications of a general movement towards aspects of wisdom-inquiry. Demos, an independent UK think tank has, in recent years, convened conferences on the need for more public participation in discussion of the aims and priorities of scientific research and greater openness of science to the public.[51] This has been taken up by the Royal Society, which, in 2004, published a report on the potential benefits and hazards of nanotechnology produced by a group consisting of both scientists and non-scientists. The Royal Society also created a ‘Science in Society Programme’ in 2000, with the aims of promoting ‘dialogue with society’, of involving ‘society positively in influencing and sharing responsibility for policy on scientific matters’, and of embracing ‘a culture of openness in decision-making’ which takes into account ‘the values and attitudes of the public.’

A similar initiative is the “science in society” research programme funded by the ESRC, which, in late 2007, produced six booklets on various aspects of the relationship between science and society. Many scientists now appreciate that non-scientists ought to contribute to discussions concerning science policy. There is a growing awareness among scientists and others of the role that values play in science policy, and of the importance of subjecting medical and other scientific research to ethical assessment. That universities are becoming increasingly concerned about these issues is indicated by the creation, in recent years, of many departments of science, technology and society in the UK, the USA and elsewhere, their focus being interactions between science and society.

There are two initiatives that I have been involved with personally. The first is a new international group of some 230 scholars and educationalists called *Friends of Wisdom*, “an association of people sympathetic to the idea that academic inquiry should help humanity acquire more wisdom by rational means”.[52] The second is a special issue of the journal *London Review of Education*, which was devoted to the theme ‘wisdom in the university’, and which appeared in June 2007.[53] By coincidence, another academic journal, *Social Epistemology*, brought out a special issue on a similar theme in the same month.[54] Later that year, *History and Policy* was launched, a new initiative that seeks to bring together historians, politicians and the media, to work “for better public policy through an understanding of history.”[55]

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[50] For an account of the birth and growth of peace studies in universities see Rogers (2006).

[51] See Wilsdon Willis (2004).

[52] See www.knowledgetowisdom.org/.

[53] *London Review of Education* (2007). Special issue: Wisdom in the university. Vol. 5, no. 2 (June), subsequently republished as Barnett and Maxwell (2008).

[54] *Social Epistemology* (2007). Special issue: Wisdom in management. Vol. 21, no. 2 (April-June).

Conclusion

Our only hope of solving our problems successfully lies in tackling them *democratically*. This in turn requires that a majority of people on earth have a good understanding of what our problems are, and what we need to do about them. Democratically elected governments are unlikely to be able to do what is required if the people who elect them do not understand what our problems are, and what we need to do to resolve them. This in turn requires that we have in existence institutions of learning rationally devoted to helping humanity come to understand what our problems are, and what needs to be done to solve them. It is just this that we do not have at present. Instead we have institutions of learning devoted to the pursuit of *knowledge*. But it is knowledge and technological know-how, and the power that these engender in the absence of wisdom, that have made possible the creation of our current global problems.

We urgently need to bring about a revolution in our schools and universities so that they come to seek and promote wisdom by rational means. Almost every branch and aspect of academic inquiry needs to change.

This revolution—intellectual, institutional and cultural—if it ever comes about, will be comparable in its long-term impact to that of the Renaissance, the scientific revolution, or the Enlightenment. The outcome will be traditions and institutions of learning rationally designed to help us realize what is of value in life. There are a few scattered signs that this intellectual revolution, from knowledge to wisdom, is already under way. It will need, however, much wider cooperative support—from scientists, scholars, students, research councils, university administrators, vice chancellors, teachers, the media and the general public—if it is to become anything more than what it is at present, a fragmentary and often impotent movement of protest and opposition, often at odds with itself, exercising little influence on the main body of academic work. I can hardly imagine any more important work for anyone associated with academia than, in teaching, learning and research, to help promote this revolution.

Epilogue

A few words, finally, about developments that have, and have not, taken place during the two years since the above was finished in 2010. I have continued to publish articles expounding the argument for the urgently needed revolution from knowledge-inquiry to wisdom-inquiry whenever the opportunity presented itself (see Maxwell, 2010f; 2010g; 2010h; 2011a; 2011b; 2011c; 2012a; 2012b; 2012c). Julian Baggini, editor of *The Philosophers’ Magazine*, asked me to contribute to a special issue devoted to “The best ideas of the 21st century”. I contributed an exposition of wisdom-inquiry (Maxwell, 2010i). A mini-symposium took place in the pages of *Philosophia* on the book *Science and the Pursuit of Wisdom*, edited by Leemon McHenry (2009), devoted to my work, see Vicente (2010), Pandit (2010), and my reply (Maxwell, 2010j). During this period, I have given lectures on the profoundly important need to revolutionize academia and put wisdom-inquiry into practice in Boston, London, Brighton, Poznan, Newport, Cambridge, Winchester, Warsaw, Taiwan, Toronto, Loughborough, the Hay-on-Wye Festival, and up a tree in Regents Park, London. I have held a seminar on "Thinking about Fundamental Problems" at the Free University, an offshoot of the Occupy the City of London movement. *Friends of Wisdom* has grown during the two years in question from 230 members to 312. The Grand Challenges Programme at University College London, under the excellent directorship of David Price, vice-provost for research, continues to be influenced by my work. On the UCL website, there is a heading "the wisdom agenda"[56] which, if clicked, brings up a policy document which spells out the need to develop a culture of wisdom at UCL. In June 2010 I interviewed David Price and his team about the Grand Challenges Programme for a chapter of a book (see Maxwell, 2012d, pp. 171-177, for the text of the interview).

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[55] See www.historyandpolicy.org/.

Perhaps most remarkably, from my point of view at least, is the publication of my intellectual autobiography, "Arguing for Wisdom in the University" which, together with an accompanying paper "In Praise of Natural Philosophy" comes to over 30,000 words. What is remarkable is that these papers are published in an academic journal—the philosophy journal *Philosophia* (see Maxwell, 2012e; 2012f). The autobiography begins as an outraged cry of protest at the way philosophers especially have ignored the argument for the urgent need for an academic revolution. I then give an account of how I came to develop the argument, going back to my childhood. It has been a life's work. I explain how, after I had made the first explosive discovery, I came across the work of Karl Popper and was led to revise and develop my ideas as a result of what I learned from him.

I am not alone in appreciating the almost desperately urgent need to transform academia world-wide. Others too can see, all too clearly, what is so clear to me. We are heading towards disaster.[57] Much of the fault lies with our institutions of learning which at present betray both reason and humanity. In order to solve the immense global problems we face, we need to learn how to do it, which in turn means that our institutions of learning, our universities and schools, need to be well-designed, rationally designed and devoted to helping us tackle our problems of living, personal, national and global, in increasingly cooperative, intelligent, effective and humane ways—in increasingly *wise* ways. It is this that we do not have. Instead our universities seek knowledge and technological know-how. Both are vital. But the pursuit of knowledge dissociated from the more fundamental search for what is of value in life and how it is to be realized—dissociated from a more fundamental concern to help solve problems of living—*is a recipe for disaster*. Knowledge brings power to act, but not of itself power to act *wisely*. The genesis of all our current and impending global problems can be traced back to the profoundly damaging irrationality of our universities, devoted as they are to the pursuit of knowledge dissociated from the more fundamental concern to help solve problems of living.

Those of us who see all this are scattered about in and out of universities. We are relatively few and far between, and the existing channels of communication work against us. So far we have failed to get an awareness of the profound importance of transforming universities so that they put wisdom-inquiry into practice, into the public arena. The idea, at present, is simply not available, even for public debate and discussion. It does not even get a mention in academic courses on philosophy. Stanford's online Encyclopedia only has an entry on "wisdom" because I suggested it to them. I feel—as no doubt others do too—an almost crushing burden of responsibility for this failure to get the basic idea into the public arena. What we need is for a sufficiently large group of high-profile academics and others to make out the case, again and again, in as public a way as possible, for the urgent need for change. Then the revolution we require might begin to come about. In the absence of such a high-profile campaign, we will continue to go along the path we pursue at present: heading towards disaster, academia making one step forwards in a muddled, ad hoc fashion, and two steps backwards.

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[56] See www.ucl.ac.uk/research/wisdom-agenda

[57] Anyone who has any doubt about this should read Bill McKibben's article 'Global Warming's Terrifying New Math' (McKibben, 2012).

What we need are academics that begin to shout from the rooftops about the desperately urgent need for the revolution in our universities.

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Towards A New Art of Integration

Ananta Kumar Giri[1]

> Everlastingly chained to a single little fragment of the Whole, man himself develops into nothing but the little fragment; everlastingly in his ear the monotonous sound of the wheel he turns, he never develops harmony of his being, and instead of putting the stamp of humanity upon his own nature, he becomes nothing more than the imprint of his occupation or of his specialized knowledge. But even that meager, fragmentary participation, by which individual members of the State are still linked to the Whole, does not depend upon forms which they spontaneously prescribe for themselves [...] it is dictated to them with meticulous exactitude by means of a formulary which inhibits all freedom of thought. The dead letter takes the place of living understanding [...]. (Friedrich Schiller, 1982 [1795]), p. 43)

> The present profound malaise is really a form of growing pains. The new world for which the old world is in travail is still like an embryo. The components are all there; what is lacking is the integration, the completeness which is organic consciousness, binding together of the different elements, making them breathe and come to life. (S. Radhakrishnan, 1940, p. 91)

> [...] integration need not demand a unitary singularity but can find expression in partial, local and even fractal possibilities. Such a soft wholeness joyfully embraces difference and multiplicity as expressions of the possibilities of wholeness where the uni-versal allows in the multi-versality of the kaleidoscopic dance of consciousness. (Marcus Bussey, 2012, p. 3)

Introduction and Invitation

Integration is an important calling of life, self, culture, society and the world. But its significance is rarely realized especially in our present day world as we live a fragmentary existence and valorize differences. Social and discursive movements in the last half a century have rightly challenged us to cultivate differences but cultivation of difference is different from valorization. Differences also have threads of connections among them—they also seek to be part of a respectful and dignified emergent wholeness. Differences are also part of an emergent journey of integration, an integration which does not suppress differences but which build upon their flourishing. This calls for a new art of cultivation of identity and differences and making both co-travelers and co-painters in a new art of integration which may be called *differential*

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integration. It is a new art of integration which is not totalitarian and oppressive but rather seeks to help us realize our connectedness and potentiality. This can help us in creatively crossing our boundaries and learn across.

This new art of integration which invites us now is different from the earlier discourses and practices of integration which were imprisoned in a logic and machinery of strong integration. It is an art of weak and gentle integration compared to the telos of strong integration in modern self, society and polity. The discourse of integration in social sciences as well as in the wider public discourse in modernity, for example, in the discourse of nationalism and self, has been imprisoned in a logic of strong integration which has been source of much violence, suffering and annihilation of potentiality. It has been imprisoned in a logic of assertive and exclusionary sovereignty (cf. Giri, 2009a). In this place we need to cultivate an art of weak and gentle integration where integration begins with realization of weakness[2] and vulnerability and where this acknowledged vulnerability becomes the lubricant and binding thread for integration as an unfolding, evolving and emergent journey of realization of connectedness and wholeness. This is facilitated by transformation of sovereignty to shared sovereignties and realizing non-sovereignty (cf. Dallmayr, 2005). If sovereignty propounds the cult of mastery, non-sovereignty urges us to serve and share which help us in our art of gentle and weak integration. This involves artistic processes of creativity and nurturance and is facilitated by the work of creative art in politics, society and spirituality (cf. Ankersmit, 1996).

In this essay I explore pathways of a new art of integration and then explore how it can help our learning across boundaries.

Cultivating Weak and Gentle Integration

As we explore pathways of a new art of integration, it is helpful to begin with earlier sociological discourses about it. David Lockwood had distinguished between social and system integration:

> Social integration refers to the principles by which individuals or actors are related to one another in a society; system integration refers to the relationships between parts of a society or social system. Despite the use of the word ‘integration’ there is no assumption that the relationships so described are harmonious. The terms social integration and system integration can embrace both order and conflict, harmony and contradiction. (Scott & Marshall, 2009, par. 2)

This distinction has influenced the subsequent distinction of Habermas between system world and life world. But in this essay I am concerned not only with the distinction between life world or system world nor between social and system integration. I explore a new art of integration in both the spheres of the social and the systemic, life world and system world, in the process helping us to overcome the boundaries between them and learn across.

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[2] Cultivating weakness becomes a deliberate act of choice and responsibility given the cult of mastery and strength through out histories especially in the modern times. Cultivating weakness belongs to long spiritual traditions of humanity where one wishes not to have an overbearing and overpowering presence rather than be weak.

A new art of integration is a weak and gentle one. Cultivating weak and gentle integration is facilitated by building on and cultivating weakness in different domains of life and thought, for example, weak naturalism, weak nationalism, weak epistemology, weak ontology, weak identity, weak difference, weak theology and weak pedagogy. Weak naturalism[3] as a companion in quest for weak integration helps us realize that we are part of nature but we are not determined by it and we should eschew the arrogance of human mastery and social control (Habermas, 2003; Strydom, 2009, 2011). Habermas has recently explored weak naturalism which tells us

> how we are socialized into an irreducible normative ‘space of reasons’ in a way that is consistent with our being products of natural evolution thereby reconciling Kant with Darwin and establishing the ‘right way to naturalize the mind.’ (Flynn, 2009, par. 4)

Habermas also talks about a “soft naturalism” which “embraces a non-reductionist account of human language and thought in which normativity and intersubjectivity are central” (Flynn, 2009, par. 1).

Cultivating weak naturalism building upon works of scholars such as Habermas can be accompanied by cultivating weak nationalism which interrogates the construction of nation-state as a naturalized entity propagating the cult of unitary strength at the expense of the plurivocity of beings, societies, languages, nations and cultures. Weak epistemology in this journey makes our epistemic certainty humble and urges us to realize the limits of methods in our scientific understanding as well as social life. All these are accompanied by weak ontology which urges us to realize that ontological cultivation is not only a cultivation of mastery of the self but also cultivation of its humility, fragility, weakness and servanthood facilitating blossoming of non-sovereignty and shared sovereignties (cf. Vattimo, 1999). Weak ontology helps us realize that both identities and differences have inbuilt limitations and they ought to realize their own weakness as a starting point for communication and sharing through cultivation of weak identities and weak differences. This, in turn, is facilitated by realizing that all identities have a dimension of non-identity as differences have also a dimension of non-difference. If we realize relationship between identity and difference from the starting points of non-identity and non-difference it helps us realize a new art of relationship rather than just the relationship between identity and difference which is often talked about now (cf. Connolly, 1991).

Gianni Vattimo is noted for nurturing pathways of weak ontology. Vattimo’s ontology is weak as opposed to a strong one. It also brings a post-metaphysical engagement to religion; it does not dismiss religion, rather pleads for weakening some of its entrenched belief systems. That way there is an important connection between weak naturalism of Habermas and weak ontology of Vattimo but this has been rarely explored in the field of contemporary critical theory. Habermasian weak naturalism is part of his recent effort to create pathways of dialogue among naturalism, religion, science, religion and the secular public sphere. Weak naturalism is connected to multidimensional learning processes across borders especially between the religious and the secular where they are not fixed entities or finalities. Similarly Vattimo's project of weak ontology weakens fixed construction of religious identities and has a potential to make them partner in learning though both Vattimo and Habermas mainly operate within a Judeo-Christian frame and they could embody much more concretely learning from different religious, secular and spiritual traditions of the world, which we witness in a contemporary seeker such as Fred Dallmayr (1991, 2007) who also talks about practical ontology. Dallmayr's practical ontology is an ontology of learning, action and meditation and is part of what I have elsewhere called meditative verbs of co-realizations (Giri, 2012). Weak ontology and practical ontology have an integral dimension of transcendence as an ongoing journey of overcoming the existing closures and that way is related to what Victor Frankl (1967) had long ago called "dimensional ontology" which is animated by striving for transcendence.[4]

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[3] Regarding weak naturalism what Piet Strydom (2011, p. 329) recently writes is helpful:

> By contrast with strong naturalism and anti-naturalism, weak naturalism allows two things at once and at the same time: ontological continuity between nature and socio-cultural life, within the framework of which an evolutionary explanation of the grounds of human sociality is certainly possible; and epistemological discontinuity according to which the socio-cultural world, without denying the interference of neutral or biological factors and the need to take such restraints into account under certain conditions, must be studied in the irreducible pertaining to it as the special world in which social actors become involved.

With weak ontology and dimensional ontology with its striving to realize the spiritual dimension of being, we can cultivate weak theology as a companion in the journey of weak integration. This makes theology weak rather than strong which then facilitates border-crossing dialogues among religions and theological systems. Weak theology is also facilitated by the rise of practical spirituality in religions which relativize pronounced religious beliefs and dogmas and lay stress on practice, especially transformative practice, to transform suffering.[5] Finally weak pedagogy helps us realize that as educators we can not perpetuate the logic of strength imposing our views on others, especially children, but persuade them to take part in collective transformative co-learning where as educators we realize, as Sri Aurobindo challenges us to realize, "nothing can be taught" (cf. Giri, 2009b). Weak pedagogy can transform all of us, including some who fashion themselves as teachers, into learners—co-learners.

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[4] In the words of Frankl:

> One characteristic of human existence is its transcendence. That is to say, man transcends his human existence towards the world; but more than this he also transcends his being towards an *ought*. When he does this, he rises above the level of the somatic and the psychic and enters the realm of the genuinely human. This realm is constituted by a new dimension, the *noetic*, the dimension of the spirit. Thus there can be no talk of parallelism in the sense of dualism, nor of an identity in the sense of monism. Nevertheless, in spite of all the ontological variations of the somatic, psychic, and noetic, the anthropological unity and wholeness of a human being are preserved and saved as soon as we turn from an analysis of existence to what I call dimensional ontology.
>
> Rising spiritually above one's psychopathological condition might also be called the existential act. By this very act man opens and enters the noological dimension of being; nay, he even creates this dimension as a dimension of his own. (Frankl, 1967, pp. 129-130)

[5] Weak theology is at works in movements such as Habitat for Humanity (cf. Giri, 2002a) and Swadhyaya (cf. Giri, 2008) where participants emphasize not so much belief or doctrinal content but the need for building homes and collective institutions of well-being. We can look at Bellah's project of beyond belief as also contributing to the art of weak theology.

Cultivating Differential Integration, Dynamic Harmonization and Dynamic Emptiness

Processes of weakening of entrenched identities and differences through cultivation of non-identities and non-differences lead to a new art of differential integration. Our earlier models of integration were based upon annihilation of differences. But the new art of integration builds upon our differences both in the ordinary sense as well as in the sense Derrida (1990) talks about it. Differance in Derrida is characterized by both spatial and temporal refusal to be incorporated into dominating systems. But what Derrida and followers of Derrida have not explored is the emergent art of communication among differences as well as difference. Differential integration transforms both identities and differences as it challenges both identity and difference to realize the responsibility that they have to each other, come out of their closures, embrace each other and learn together.

Cultivating weak and gentle integration is animated by work of dynamic harmony[6] which is different from static harmony which perpetuates the existing logic of status quo and oppressive and humiliating modes of integration. In fact, it is not only dynamic harmony but harmonization as an ongoing process of unsettling and establishing rhythmic connections. Realization of dynamic harmony is an animating concern in many religious and spiritual traditions, for example in Kashmiri Saivism (cf. Deheja, 2006)[7] and Zen Buddhism and a new art of integration as it seeks to realize dynamic integration can build upon dialogue among these traditions of practices and reflections. The theme of dynamic harmonization can be found in many religious, spiritual and political traditions of the world and for cultivating it as an aspect of a new path of integration we need to learn across boundaries.[8] There is a tradition of quest for dynamic *sunyata*

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[6] In his work on Japanese religion Bellah (1985) presents us the work of dynamic harmony in the following way:

> What has been said about the unity of man, nature and divinity should not be interpreted as a static identity. Rather it is a harmony in tension. The gratitude one owes to superordinate benevolent entities is not an easy obligation but may involve the instant sacrifice of one's deepest interests or even of one's life. Union with the ground of being is not attained in a state of coma but very often as the result of some sudden shock in daily living. Something unexpected, some seeming disharmony, is more apt to reveal the Truth than any formal orderly teaching. Japanese art and aesthetic attitude toward nature are also concerned with the unexpected … (pp. 62-63)

[7] Realization of dynamic harmony is also an animated aspiration in paths of Kashmir Saivism. As Harish Deheja (2006) writes about it:

> Kashmir Saivism postulates that Parama Shiva contains the entire universe, pulsating within it, just as the seed of the mighty *nyagrodha* potentially contains the entire tree. At the immanent level, the transcendent *prakashavimarshamaya* splits into *prakasha* and *vimarsha*, Shiva and Shakti, *aham* and *idam*, I and this, subject and object, held together in pulsating, *dynamic harmony* [...] At every level there is differentiation into subject and object, *aham* and *idam*, but the differentiation is based in, and unified by the non-duality of consciousness. (p. 422; emphasis added)

Kashmir Saivism seeks to realize dynamic harmony by realizing differentiation without dualism. Realization of non-duality is also an animated goal in the paths of Buddha and Kashmiri Saivism possibly has contributed to this pursuit of non-duality the work of dynamic consciousness.

[8] Note for example the teachings of Jesus when he says that he has not come to establish peace but set the father and son against each other. What Jesus is suggesting that unless we transform existing structures of

(emptiness) in Buddhism and it is important to understand the significance of dynamic *sunyata* or dynamic emptiness for realization of dynamic harmony. Dynamic emptiness helps us realize that reality has an integral dimension of emptiness: "things and events are 'empty' in that they do not possess any immutable essence […]" (Dalai Lama, 2005, p. 49). Dynamic emptiness and dynamic harmony contribute to realizing what Sri Aurobindo talks about as dynamic unity as contrasted with unity as a fixed thing or a static state (see Das, 2009).

Dynamic harmony and dynamic emptiness also help us overcome what Arjun Appadurai (2006) calls "anxiety of incompleteness" which generates a propensity to violence. Anxiety of incompleteness as it works through production of majorities and minorities creates anger, terror and violence and a new art of integration urges us to cultivate the fertility and the festivity of incompleteness in place of anxiety of incompleteness. Festivity of incompleteness in place of anxiety helps us to relate to each other in a more open-ended way working through our given prejudices and learn across boundaries. In such modes of engagement and relationship, participants complete each other.[9]

A New Art of Cross-Fertilization, Solidarization and Cultivation of Weak Strength

Cultivating weak and gentle integration is accompanied by cross-fertilization in knowledge, self and society. In the domain of knowledge, there is need for cross-fertilization between the cognitive and the emotional (cf. Bellah, 1970; Giri, 2009c) and also between faith and knowledge. It also calls for cross-fertilization between the religious and secular (cf. Ratzinger & Habermas, 2006). Such cross-fertilization calls for us to be agents and midwives of cross-fertilization by making our identities, differences and fields of habitation, co-habitation and interaction fertile by ourselves becoming "earthworms" (Giri, 2009c). In the dimension of self there needs to be cross-fertilization between different dimensions of the self, for example the unconscious and the conscious, the rational and the spiritual which then facilitates creativity and helps in learning across boundaries in transformative ways. In the sphere of society, different social groups are also called upon to cross-fertilize their experiences, ideas and interests. For cross-fertilization and learning across boundaries we need to be earthworms making our soils fertile. If Socrates had urged us to be gadflies a new art of integration as it calls for cross-

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domination we cannot realize peace. We can look at the spirit of Marx in this way as well in a spirit of dynamic harmonization.

[9] This can be better understood by drawing on the work of Vygotsky who talks about the process of completion. Building upon Vygotsky, we can cultivate and relate to situations of learning as processes of completion in which we complete each other as in Vygostky's pathways "thought is not expressed but completed in the word" (Vygotsky, quoted in Holzman, 2010, p. 33). For Vygotsky,

> The relationship of thought to word is not a thing but a process, a movement from thought to word and from word to thought […] Thought is not expressed but completed in the word. We can, therefore, speak of establishment (i.e. the unity of being and non-being) of thought in the word. Any thought strives to unify, establish a relationship between one thing and another. Any thought has movement. It unfolds. (quoted in Holzman, 2010, p. 33)

The attitude of completion entails upon us to create processes in which we help each other to complete our initial incompletion. As Louis Holzman argues: "Completion is far more than a critique of dualism. It is a positive (postmodern) move (an activist move) beyond dualism" (Holzman & Newman, 2004, p. 9).

fertilization urges us also to be earthworms thus helping us overcome the limits of anthropocentrism and realizing "cross-species dignity" (cf. Nussbaum, 2006).

The logic and machinery of strong integration in modernity has created many wounds in self and society and a new art of integration is also an art of healing[10] our many wounds. It is confronted with the challenge of reconciliation and transformation. Through healing and reconciliation it seeks to realize a new solidarity, a solidarity which is beyond the absolutism of both the collective and the individual. It is a solidarity which nurtures the creative solitude of individuals, at the same time, urging them to be part of vibrant sociality—a soulful togetherness—to realize their potentialities.[11] Solidarity is part of nurturing solidary praxis and multiple journeys of solidarization (see Brunkhorst, 2005). It is a new solidarity which seeks to realize a new strength which is at the same time gentle and weak. If traditions such as Tantra had helped us cultivate strength then the called for new solidarity which cultivates weak strength calls for a new Tantra of human and social development which helps us cultivate weak strength.

A new art of integration also builds upon integration of personality about which Carl G. Jung had taught us a long ago. A new art of integration on the way to realizing a new art of wholeness and solidarity also seeks to integrate the vertical and the horizontal dimensions of self and society. Modern knowledge guided by critical rationality and democratic mobilizations has challenged us to realize the significance of the horizontal. Habermas's communicative rationality is part of the much needed democratic transformation for horizontal dignity, justice and equality. Religions and spiritual quest have always challenged us not to forget the significance of the vertical and depth dimension of our lives. But in traditional religions and spirituality the vertical has got imprisoned within many hierarchies of domination and it has also been accompanied by world-rejecting renunciation and flight from responsible and transformative engagement with the world. Ascent has rarely been accompanied by descent and horizontal solidarity with fellow beings. But now we are called for a new art of integration of the vertical and the horizontal as part of an ever-evolving, expanding and mutually interpenetrative circle of the vertical and the horizontal. This calls for bringing together practical discourse and practical spirituality which involves boundary-crossing dialogues, mediations and transformations (cf. Strydom, 2011).

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[10] We should note here the work of social therapy which goes beyond an individualistic model of therapy and creates spaces of togetherness where people can share their pangs, understand each other and heal together. This helps to weaken the egotistic construction of self, other, society and the world and embrace alternative points of view, subjectivity and intersubjectivity. Earlier this was being in the lone encounter between the psychoanalyst and the patient but now it is done in a space of caring and concerned togetherness. Lois Holzman who has pioneered such efforts tells us that this is based upon process ontology which in turn is linked to weak ontology. In her essay, "Activating Postmodernism," Holzman (2006) writes that social therapy re-examines "the very concept of boundaries if new postmodern and relational psychologies are to exist" (p. 14). Social therapy helps us cultivate relational responsibility. For Holzman, "we begin to see social therapy as a method to help ordinary people get free from the constraints of language and from various philosophical pathologies that permeate everyday life" (p. 8). She further writes that social therapy focuses "on the group activity without subjugating the individual." Social therapy uses a performance and activistic models drawing upon thinkers such as Vygotsky: "[...] performance is an alternative to individualistic, behavioral and cognitive views of what it means to be a person" (p. 16).

[11] Durkheim (1984) had made the distinction between mechanical and organic solidarity. The proposed solidarity builds upon organic solidarity. While earlier conceptions of organicity and organic solidarity were bound to varieties of dominating hierarchies, as Durkheim himself had warned us of the dangers of forced division of labour, the proposed solidarity is an ongoing journey of transformation of hierarchy and realization of potential of individuals and societies. Here we can remember what Durkheim had written more than a century ago:

> [...] the division of labour only produces solidarity if it is spontaneous, and the degree to which it is spontaneous. But spontaneity must mean not the absence of any deliberate, formal type of violence, but of anything that may hamper, even indirectly, the free unfolding of the social force each individual contains within himself. (Durkheim, 2004, pp. 312-313)

A New Art of Learning Across Boundaries

Such an art of integration helps us to learn across boundaries in creative ways. It invites us to rethink the very concept and reality of borders and boundaries. Our boundaries are zones of necessary closures and indispensable opening. Without the work of both closure and opening life is not possible as the dance of life in self, culture and society. But unfortunately through out histories as well as in modernity our borders and boundaries have been made entrenched and inviolable but despite this multiple movements across them do take place.

A new art of integration transmutes existing borders into flows of communications. It also helps us to create cross-border spaces as spaces of communication and leaning. We can create cross-border spaces as what Vygotsky calls “zones of proximal development” where we help each other to learn and unfold our potential.[12] For example, we can look at interdisciplinary spaces as spaces creatively nurtured to create zones of proximal development in which different disciplines help each other to develop their potential through mutual interaction. The same can be cultivated vis-à-vis other boundaries such as religions, nations and individuals. Weak and gentle integration and differential integration as emergent processes of self-unfoldment, embrace of the other and conjoint mutual transformations are helpful companions in creating spaces of transformative co-learning and collaborative learning across and inside boundaries in the process transforming entrenched boundaries into zones of necessary closures and transformative openings.

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[12] For Vygotsky,

> What we call the Zone of Proximal Development [...] is the distance between the actual development level as determined by independent problem solving, and the level of potential development as determined through problem solving under the guidance or collaboration with more capable peers. (quoted in Holzman, 2010, p. 29)

We can also look at Zones of proximal development as zones of cross-fertilization.

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Against Consilience: Outsider Scholarship and the Isthmus Theory of Knowledge Domains

Mike King[1]

Abstract: The endless proliferation of human knowledge within sub-disciplines represents not so much a tree structure of knowledge from which we can stand back and admire some organic unity as the tentacles of an octopus dragging us down into anguished division. The anguish is genuine and has been expressed since the Enlightenment by many types of thinker. This paper argues however that the anguish does not in fact arise from the nature of human knowledge but from the mistaken belief in the possibility of its unification. The desire for the unitive has been erroneously transplanted from its proper context – the mystical – to the domain of knowledge, as the latter – particularly under the rubric of "science" – has become the only culturally legitimised stance towards the world. Conventional scholarship, while busy creating sub-branches and sub-sub-branches on which the leaves of new knowledge sprout with vigour and abandon, is powerless to avoid this feeling of anguish. It feels compromised in the thwarted longing for a lost sense unity. "Outsider scholarship" – of the type practiced by Koestler, Schumacher and Pirsig – is often preoccupied with just this question, but is free to propose various taxonomies of knowledge, often of an unfashionably hierarchical kind, that cut across conventional boundaries and which provide a basis for an uncompromised relationship with knowledge. This paper starts with a brief consideration of outsider scholarship, including its anachronistic characteristics, and then turns to Pirsig's meditation on the technologies behind the word-processor, which lead to an "isthmus theory of knowledge domains." It then considers Steven Jay Gould's non-overlapping magisteria, and the hint from Ken Wilber about epistemological pluralism. These are then used to show why E. O. Wilson's consilience is misguided: it represents the final triumph of logical positivism – a takeover bid for the humanities by the sciences – but couched in terms apparently irresistible to fashionable thought.

Keywords: Consilience, epistemology, isthmus theory, knowledge domain, outsider scholarship, Pirsig.

> *Why should the division of human knowledge be a bad thing, and the putative unification of knowledge be a desirable goal? What could it mean, to walk into a university library and unify its contents? Obviously, it would mean nothing.* (King, 2009, p. 108)

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Introduction

Many notable thinkers have attempted to tackle what they see as the problem of the proliferation of human knowledge. What we know collectively seems to be growing exponentially in increasingly specialized sub-disciplines. But…why *is* it a problem?

Philosophy at the time of Aristotle meant the mastery of all knowledge, but the Greek mode of thought was first rejected entirely by the early Church Fathers, and then later transformed under Christianity into Scholasticism, an Aristotelian thought-world subservient to religion. In the Enlightenment philosophy was freed of religion but recoiled from the natural sciences to become, not the mastery of all learning – as this was quickly becoming impossible – but the court to which all disciplines must submit their truth-claims. Unfortunately disciplines like physics didn't bother. No over-arching framework for knowledge could exist henceforth, and increasingly no individual could hope to master all knowledge.

Yet, if knowledge is a good thing, why on earth should more of it be a bad thing? Imagine a young sapling with only three branches and several dozen twigs. Do we not celebrate the mature tree, a hundred years later with a hundred branches and thousands of twigs? Why isn't the proliferation of knowledge seen in the same positive light? Clearly it isn't. One can speculate that in some sense great thinkers feel humiliated by their incapacity to master all knowledge; for example Dostoevsky was famously unhappy at being unable to acquire any proficiency with the differential calculus. Whatever the reason, the consensus became that knowledge was fragmented, and the call has been made from many quarters to address this problem, or even to see that its solution was *the* important contemporary problem. Erwin Schrödinger, Paul Ricoeur, the Frankfurt School and Ken Wilber all have made such calls.

Schrödinger (2007, p. 1) says "We have inherited from our forefathers the keen longing for unified, all-embracing knowledge." He adds: "We feel clearly that we are only now beginning to acquire reliable material for welding together the sum total of all that is known into a whole, …" At the start of a book on Freud and philosophy Ricoeur says "We have at our disposal a symbolic logic, an exegetical science, an anthropology, and a psychoanalysis and, perhaps for the first time, we are able to encompass in a single question the problem of the unification of human discourse" (Ricoeur, 1970, p. 3). A large part of the efforts of the Frankfurt School can be understood as the attempt to unify Marxist and Freudian thought, which in the first instance are often antithetical. Ken Wilber has worked tirelessly to devise a theory of everything in which all knowledge has a home.

Schrödinger, Ricoeur and Wilber are poles apart in their respective worldviews, but share the idea of an all-embracing knowledge, the welding together of all that is known, the unification of human discourse. The precise term varies but the idea is the same. Knowledge is fragmented, and – to use the most common term here – it must be integrated. The integration of knowledge sounds in the first instance like a good thing, but what, more precisely, do its proponents claim for such integration?

Turning to Edward O. Wilson, in anticipation of introducing his consilience later on, it is interesting to see what motivates him. For example, he says, "only unified learning, universally shared, makes accurate foresight and wise choice possible" (Wilson, 1998, p. 297). Clearly, he thinks that the unification of knowledge will aid *planning*. In the same vein he talks about the dropping costs of distributing knowledge, so we are "drowning in information, while starving for wisdom. The world will henceforth be run by synthesisers…" (Wilson, 1998, p. 269). By synthesisers he means people who have access to "unified" knowledge and will be able make "important choices wisely." (Note that the term synthesis will become increasingly important in this discussion as the alleged corollary of analysis.) Everywhere Wilson confirms for us his belief in knowledge as utility, for example he says that people expect the social sciences to deliver "the knowledge to understand their lives and control their future" (Wilson, 1998, p. 181).

For Basarab Nicolescu – a scientist with a very different agenda – the purpose of unified knowledge is similar, but it comes from another source: Marxism. Writing around the turn of the twenty-first century he says: "The contemporary growth of knowledge is without precedent in human history" (Nicolescu, 2002, p. 6). One specialist cannot even know everything in a colleague's brain, he points out, let alone across all the disciplines. "Yet, a true decision maker must be able to have a dialogue with all of them at once" (Nicolescu, 2002, p. 41). The Babelization of knowledge, as he puts it, is dangerous, "because the decision maker becomes increasingly more incompetent regardless of his or her intention" (p. 41). Although never stated explicitly, one cannot help detecting in his work a respect for top-down planning largely absent in non-communist circles, though perhaps a common motivating factor with Wilson.

Perhaps we should now turn to physics now to discover a site of intense efforts to unify theories that have so far remained stubbornly irreconcilable. These are quantum theory and gravitation, and their would-be reconciliation is called the unified field theory. Stephen Hawking's well-known popular science book, *A Brief History of Time* finishes with a short paean to its virtues:

> However, if we do discover a complete theory, it should in time be understandable in broad principle by everyone, not just a few scientists. Then we shall all, philosophers, scientists, and just ordinary people, be able to take part in the discussion of the question of why it is that we and the universe exist. If we find the answer to that, it would be the ultimate triumph of human reason – for then we would know the mind of God. (Hawking, 1988, p. 175)

These are an astonishing set of claims – all totally unfounded. In particular, the idea that the solution of the most difficult problem in physics – a problem that takes a person decades of scientific study to understand as a *problem* – would yield something comprehensible to lay people is mystifying. After all, the great British thinker John Locke could not comprehend a key text at the dawn of modern physics, the *Principia* of his friend Newton. But the grandiosity of Hawking's statement is not unique, and is typical of the way some scientists talk. Wilson expresses the same idea, only a little less grandly; "When we have unified enough certain knowledge, we will understand who we are and why we are here" (Wilson, 1998, p. 7). In the game of futurology one is supposed to have some vectors to hand to indicate a general direction, particularly if it is of such importance. But there are no vectors in the history of science to support either Hawking's or Wilson's claim about the glorious outcomes of unifying knowledge. The one vector we do have is the accelerating proliferation of learning, which is the very trend causing anxiety.

This discussion so far anticipates a little my argument here, but lays out the ground for the following enquiry. We are asking: what is the effort to unify knowledge and why has it arisen; what would unified knowledge look like and yield as an outcome; and finally, how can we resist what looks like a takeover by science of the humanities?

Outsider Scholarship and Hierarchical Knowledge Structures

Most scholarship takes place within disciplines, or, perhaps more accurately these days, microdisciplines. There is also much interdisciplinary work, and Nicolescu (2002, pp. 43-45) usefully distinguishes for us between multidisciplinary, interdisciplinary, and his proposed transdisciplinary form of scholarship. But what kind of scholar is likely to address the question of the integration or unification of *all* knowledge, given that they must live somehow beyond all the disciplines? Clearly the philosopher is engaged in this to some degree, but academic philosophy has increasingly specialised itself as the other disciplines have, and is increasingly interested in its own preoccupations. In general it falls to various kinds of free-lance or maverick thinkers to really pursue our question, and in recognition of Colin Wilson's *The Outsider*, it is useful to call such thinkers "outsider scholars."

Colin Wilson published *The Outsider* in 1956 at the age of twenty-four. The book was an instant success, but this soured quickly as the political left were alienated by his obvious religious interests, and his second book was universally panned. What makes *The Outsider* so unusual is the extraordinary range of reading that Wilson had undertaken to research it. This would be remarkable enough in one so young, but his gift as a scholar emerges in his capacity to *place* the reading. He had the critic's gift to take in a whole play, novel, painting – whatever – and in a few words place it in context, characterise it, and make its relevance to his thesis clear. Wilson achieved all of this with no university education, and with early marriage and family commitments forcing him to work at low-paid jobs. He was an outsider to any conventional form of scholarship.

The thesis of *The Outsider* does not concern us here, as Wilson was not interested in the theme of the unification of knowledge. But his outsider status and form of scholarship is one that is crucial to this question, and he points us to other twentieth-century thinkers who could be classed as outsider scholars, and who are directly interested in our question. These include, in order of birth date, Arthur Koestler, Douglas Harding, E. F. Schumacher, Robert Pirsig, and Ken Wilber.

Arthur Koestler was a Hungarian-born writer who, like Wilson, became the object of suspicion from the left. In this case it a number of books including *The Yogi and the Commissar* which set out an explicitly anti-communist stall. He didn't belong to the intellectual left any more, and his engineering studies in Vienna were likewise no basis for his broad intellectual searchings. He was an outsider to the university system, but attained perhaps the status of public intellectual that Gore Vidal, Naom Chomsky and similar figures occupy. His relevance to our theme is his coinage of the holon, an entity that is a self-contained whole at one level in a hierarchy and at the same time a component of a greater whole. Koestler stands as a bridge between Renaissance ideas of hierarchical knowledge that found its peak of expression in Leibniz's *Monadology*, and the work of Ken Wilber.

Douglas Harding was a British architect and mystic, whose "headless way" was a teaching system for enlightenment that never reached the mainstream. His first book *The Hierarchy of Heaven and Earth* (1952) was enthusiastically endorsed by C. S. Lewis, and set out a hierarchy of human knowledge that has occasional resemblance to Koestler's and Wilber's, though published decades earlier. He was an outsider scholar because, while he pursued his day-job as an architect, his broad reading in religion and science was untrammelled by the constraints of university research programmes.

E. F. Schumacher was an economist and protégé of Keynes, best known for his 1973 publication *Small is Beautiful*. It is in his last book however, *A Guide for the Perplexed*, that we see a mind at work on complete span of human knowledge and the construction of a hierarchical ordering of it. Like Harding he was not exactly an outsider as Colin Wilson defined it: both Schumacher and Harding were professionals in their chosen fields, and therefore insiders in that respect. But Schumacher's broad scholarship owed nothing to the university or convention, and, like Colin Wilson, he seems to have the habit of *placing* material quickly and accurately. *A Guide for the Perplexed* was written, like Leibniz's *Monadology*, at the end of his life, and likewise probably summed up all this thinking.

Robert Pirsig is famous for his first novel *Zen and the Art of Motorcycle Maintenance: An Inquiry into Values*. He studied and taught at various universities, but rejected their assumptions and values, and eventually suffered a nervous breakdown. He fits most of Wilson's criteria for an outsider, and formal recognition was slow for his ideas. In 1974 however he was awarded a Guggenheim Fellowship for a follow-up novel, which became *Lila: An Inquiry into Morals*. Pirsig is greatly exercised in it over the fragmentation of knowledge, and his ideas will be explored shortly as the basis for an approach to knowledge integration.

Wilson was lucky with *The Outsider*: Victor Gollancz was the first publisher he sent it to, and was immediately accepted. Pirsig had one hundred and twenty-one rejections for *Zen and the Art of Motorcycle Maintenance* before it found a publisher. Ken Wilber's seminal book *The Spectrum of Consciousness* was rejected by more than twenty publishers before Quest Books took it on. Like Pirsig, Wilber trained in science, but was disillusioned with it, and subsequently developed his own broad-based scholarship with a particular interest in developmental psychology and Eastern mysticism. His own attempts to integrate knowledge almost define an industry, and culminated in his 2000 book *A Theory of Everything*.

We can now give a provisional definition of outsider scholarship. From these few examples it is clear that outsider scholars operate mostly outside of academia. They pursue big-picture thinking which the specialist has not the time or perhaps inclination to do. Obviously they are extra-disciplinary, but less obvious is the often *anachronistic* nature of their thinking. By this I mean that they are not bound to the intellectual fashions of their period, and are readily inclined to rove across all historical periods and cultures. Because older thought-systems are often associated with the oppression intrinsic to feudalism, this makes the outsider scholar sometimes suspect to fashionable left-wing thought.

The outsider scholar must have the capacity to encounter a domain of thought or a cultural artefact and *place* it with precision, and with rapidity. This means an instinctive eye for quality, the eye of the critic. Otherwise they would soon drown. It is this that perhaps separates their thinking from that of the professional philosopher who generally tackles technical problems in philosophy, with little obligation to survey outside fields of study, let alone gain competence within them.

So, if the outsider scholar is extra-disciplinary, pursues big-picture thinking, is anachronistic yet a gifted critic (which implies a sensitivity to the Zeitgeist), what term would properly encapsulate the opposite? I am going to suggest the term “incremental scholarship” to stand in contrast to outsider scholarship. Clearly, incremental scholarship is intra-disciplinary, and is additionally characterised thus: it is mostly cognisant of *recent* scholarship, makes small contributions to a collective effort, and is highly specialised. The Harvard referencing system has been perfected for this kind of scholarship: at a glance one can tell what other workers in the field are being drawn upon to reinforce an argument – or, more rarely – for refutation. The chief quality of incremental scholarship is that it generally fails to spot the larger picture even within its own discipline, and fails to get quickly to the essence of anything. That job therefore *must* fall to the outsider scholar.

The above writers as outsider scholars, with the exception of Wilson, are of interest because they propose hierarchical systems for the organising of knowledge. Before investigating this, it is useful to look at a non-hierarchical system used for taxonomising knowledge: the Dewey Decimal System. Here, just as a reminder, are its ten major divisions:

- 000 – Computer science, information & general works
- 100 – Philosophy and psychology
- 200 – Religion
- 300 – Social sciences
- 400 – Language
- 500 – Science (including mathematics)
- 600 – Technology
- 700 – Arts and recreation
- 800 – Literature
- 900 – History, geography, and biography

There is nothing hierarchical about this system, which is used in most libraries in the world. Of course, there is nothing to prevent certain hierarchies being proposed within one of the ten categories, for example it is common to hear “physics explains chemistry explains biology” as a hierarchy in the hard sciences. The ten Dewey subdivisions for science don’t suggest this however. What Koestler, Schumacher, Wilber, Harding and Pirsig are sure of however that such a flat approach to knowledge is wrong.

While Wilber’s hierarchy owes much to Koestler, he tells us that he researched several hundred hierarchies out of which he developed his well known “four quadrants” (Wilber, 1998, p. 63). Schumacher’s 1977 work seems to owe nothing to Koestler’s 1967 *The Ghost in the Machine*, where he introduces the holon, while Harding’s scheme predates all of them. Pirsig’s approach to the question is unique, in that he deliberately restricted his reading of other philosophers, and so draws on very little material that is otherwise common to those in this group.

The hierarchies of all of these writers firmly place them as outsiders because the mainstream has largely bought the idea of a hierarchy defined solely in physical terms. Schumacher, as unsatisfied as any in this group with conventional knowledge structures, or maps as he calls them has this to say; “The maps of *real* knowledge, designed for *real* life, did not show anything except things that allegedly could be proved to exist” (Schumacher, 1978, p. 11). He is complaining of an essentially positivist approach to knowledge, which requires the quantitative empirical proof of the hard sciences, and so makes maps leaving out all that is important to him: what he insists are “higher things.”

The hierarchy in science, which builds from sub-atomic particles upwards, comprises the conventional view, and is unchallenged by the humanities. A. N. Wilson (1998, p. 81) is clear that this hierarchy is based on the scale of time and space. Harding and Wilber also use this as a starting point, but their cosmology of knowledge includes the spiritual as well as the material.

So far we have seen that the outsider scholar, as defined here, approaches the question of integrating knowledge from a hierarchical perspective. But does the hierarchy in some form or another really solve the problem? Crucially, does it achieve *integration*? To answer this, we look in more detail now at how knowledge is conventionally seen to fracture, and how Pirsig’s particular hierarchy gives rise to an ‘isthmus’ theory of knowledge.

The Isthmus Theory of Knowledge Domains

If the Dewey decimal system taxonomises knowledge for the convenience of the librarian into ten major division, each with ten subdivisions and so on, then in the broader public sphere the initial division is just two-fold: between science and the humanities. This was highlighted in an influential lecture in 1959 by the British scientist and novelist C. P. Snow entitled *The Two Cultures* (Snow, 1993). Since then the term The Two Cultures Debate has encapsulated a set of positions on the division. Snow was exercised by the harm that the division would do in terms of effective government: if we live in a highly technological age, then what is the implication of having the administration run largely by humanities graduates with little understanding of science? Here he is on common ground with E. O. Wilson and Basarab Nicolescu.

Forty years later Melvyn Bragg wrote that the term was “stapled to the English language” and that Bertrand Russell and John F. Kennedy were equally impressed with its significance (Bragg, 1999). Yet at the time the literary critic F. R. Leavis dismissed Snow as a “public relations man” for science. Snow is an example of what I call the “bi-literate” scientist, and in the intervening half-century there is evidence that such scientists are on the increase. But is literary awareness by scientists mirrored by scientific awareness in the humanities? Perhaps, but Leavis’s criticism needs to be taken seriously. Make no mistake he warned: science is attempting the colonisation of the humanities.

The campus novel *Thinks…* by David Lodge is a remarkable illustration of this situation. There is no doubt that *Thinks…*is a Two Cultures novel because it pits male cognitive scientist Ralph Messenger against female creative writer Helen Reed. Their developing affair allows Lodge to examine the new claims of science to investigate consciousness, the field he believes to be traditionally the domain of the reflective arts such as literature. Helen resents Messenger’s scientism; “Hasn’t science already appropriated enough of reality? Must it lay claim to the intangible invisible essential self as well?” (Lodge, 2001, p. 62). This is Lodge’s basic assumption; that the “intangible invisible essential self” is the “province of the arts, especially literature, and most especially the novel” (p. 62). Helen, representing the arts, is seduced and abandoned by Messenger, representing science. Lodge is clearly against the move by science to co-opt the arts, but the very attention he gives to the cognitive sciences strengthens their cultural reach. His novel, and also essays on the same subject suggest that cognitive science and neurology are the glittering snakes in whose glare the rabbits of art and poetry are, it seems, transfixed. His attempts at resistance are perhaps no more effective than Helen’s. The relationship is asymmetrical.

The novel leaves us with the specific possibility: is brain science going to colonise the humanities? This is a serious issue. Basarab Nicolescu, in his manifesto of transdisciplinarity, states that one of its imperatives is the unity of knowledge, but also warns that “any attempt to reduce reality to a single level governed by a single form of logic does not lie within the scope of transdisciplinarity” (Nicolescu, 2002, Article 2). So far so good, but he also says that transdisciplinarity demands of the exact science “their dialogue and their reconciliation with the humanities and the social sciences, as well as with art, literature, poetry and spiritual experience” (Nicolescu, 2002, Article 5). Shouldn’t alarm bells ring here? After all, isn’t Lodge’s novel a parable of how that ‘reconciliation’ may be firstly seduction, and then abandonment?

In Bragg’s 1999 review of the Two Cultures debate he lists a series of bi-literate scientists, including Stephen Jay Gould. Gould is important to this discussion because of his book *Rocks of Ages* (2001), which this time is about the two cultures of science and religion. He puts forward the concept of *Non-Overlapping Magisteria* (NOMA) to describe these domains, with the implication of entirely separate epistemologies and methodologies. The term magisterium and its plural suggest domains distinct and worthy of respect, which is Gould’s point. He is not arguing for any kind of integration or synthesis at all, rather the need, in the first instance, for both domains to be considered equal, separate, and answering different human needs. Unsurprisingly NOMA is disliked by a wide range of thinkers, both scientific and religious. The atheist Sam Harris agrees with Richard Dawkins that NOMA is not an option, though he does not mention it by name. Harris (2006) says “And yet, intellectuals as diverse as H. G. Wells, Albert Einstein, Carl Jung, Max Planck, Freeman Dyson, and Stephen Jay Gould have declared the war between reason and faith to be long over. On this view there is no need to have all of our beliefs about the universe cohere” (p. 15). Harris talks about the kind of mentality that can maintain disparate systems of knowledge as partitioned. Clearly, for Harris, knowledge must cohere, whatever that means exactly. Dawkins (2007) is blunt: “Gould carried the art of bending over backwards to positively supine lengths in one of his less admired books, *Rocks of Ages”* (p. 78). Daniel Dennett (2007) calls NOMA a political hypothesis, adding that Gould’s proposal “found little favour on either side” and that “few readers were persuaded” (p. 30). Dennett (2007) later adds; “the disciplinary isolation it creates has become a major obstacle to good scientific practice” (p. 71).

Clearly, most scientists found Gould’s idea of NOMA repulsive. But why? If there are two cultures as Snow lamented, then why not be realistic about it? The answer of course is that the glittering eyes of the snake of science are fixed on the rabbit of the humanities. It won’t do to grant autonomy to a whole world of knowledge, beyond the reach of science. While amongst scientists there is talk of "physics envy," amongst the bi-literate scientists it seems there is more than a hint of "poetry envy." Richard Dawkins (1998) for example says that "word for word, I wish I had written the following famous quatrain …: (p. 16) referring to a passage from William Blake's poem *Auguries of Innocence*.

Ken Wilber is also not the sort of thinker to allow religion and science to be non-overlapping. On the contrary he seeks their marriage. Early in *The Marriage of Sense and Soul* (1998) he lists different ways in which science and religion are viewed, including a peaceful coexistence based on the Great Chain of Being. This allowed for a hierarchy or nested structure of knowledge in which the higher domain – religion, spirituality or mysticism – enfolded the lower material orders, the study of which include the sciences. He calls this coexistence an 'epistemological pluralism', but claims that when modernity rejected the Great Chain of Being it also rejected epistemological pluralism (Wilber, 1998). He says, "All the past forms of epistemological pluralism *failed the test of modernity* because science itself did not and would not fundamentally doubt its own competence to reveal all important forms of truth" (Wilber, 1998, p. 141; emphasis in the original).

In this quote we find an attitude that perhaps rules Wilber out from consideration as a true outsider scholar. An outsider would not say that epistemological pluralism failed the test of modernity, but that *modernity failed the test of epistemological pluralism*. Outsiders are not committed to the period in which they live. And the outsider has of course an ally here in postmodernism: it criticises modernity for epistemological monism. Where Wilber is of course right is to say that science, or perhaps better scientism, believes that it has or will reveal all important forms of truth. His strategy is to offer modernity, i.e., science, a better position than "low man on the totem pole" (Wilber, 1998, p. 24), the place it occupied in the Great Chain of Being of classical theory. Wilber believes, rightly, that science won't accept its relegation to a lower form of knowledge, and that by allowing science a role in all the levels of the Great Chain, it will somehow play ball. Wilber want science to be an equal partner in the realm of the senses, the realm of the arts, and the realm of religion, what he calls the Big Three.

Wilber's four quadrants apparently allows him to include scientific and spiritual hierarchies in a single scheme, thus retaining his epistemological pluralism while not offending science by placing it at the lowest level of a classical hierarchy. Here is his attempt to unite science and religion, but the question remains: what does unite mean here? Perhaps it does achieve what Harris denies, that the two domains now cohere – meaning stuck together. They have after all been stuck together on the page. But the doubt must surely remain: is this any more than a *taxonomisation* of knowledge domains? Worse, is this not a taxonomy designed to avoid offending science? In the term 'epistemological pluralism' Wilber seems to acknowledge a Gouldian NOMA, but then backs off very fast so as not to lose the cachet of scientific.

Snow laments the reality of the two cultures, Gould celebrates different magisteria, and Wilber re-orders a hierarchical structure so as not to offend modernity and science. If Snow and Gould are bi-literate scientists, which makes them outsiders to some degree, at least to science, and their scholarship shows many such traits. But Pirsig can be considered as one of the purest cases of outsider scholarship. For a start he feels more like the outsider of Colin Wilson's description, one who is disenchanted with any establishment account of reality, and thus feels utterly alone. Yet the intensity of Pirsig's searching, particularly in *Lila* (1991), and the nature of his scholarship, yield a compelling and radical insight into the relationship between knowledge domains, which we can now turn to.

Pirsig naturally gravitates to a hierarchical account with four levels: Inorganic, Biological, Social and Intellectual, not in fact that far removed from Schumacher's four levels of mineral, plant, animal and man. But Pirsig not only demonstrates but carefully argues for another trait of outsider scholarship: the care taken *not* to read the "authorities" on a subject, at least not before rigorously investigating it. Hence Pirsig's scheme owes nothing to any other hierarchical scheme, and is certainly no grand synthesis of them as Wilber claims for his quadrants.

Pirsig's real contribution is to make a tightly illustrated argument for the *separation* of levels within his hierarchy. This is not NOMA, because his higher levels enfold the lower levels, as a hierarchy must. But the different levels operate independently of each other, sometimes in opposition, but always in ignorance of each other. Whatever values or goals our cells have, they are not the same as that of the human. Whatever values or goals a society of humans has, they are not coterminous with that of the individual. Schumacher (1978, p. 35) makes the same point when he says that there can be no links or transitional forms between the major stages of the hierarchy. But Pirsig shows what the nature of a legitimate link must be between any two knowledge domains. His best illustration of this comes from computer science, and the division between hardware and software. Pirsig muses on how the hardware or circuit designer learns nothing of programming, while the programmer doesn't generally even know how the bistable device – at the core of all computers – works. What connects these two cultures is the tiny common ground of machine code instructions, a list so small you can write it on a single page. He calls this the isthmus that joins these two levels of knowledge, but more importantly goes on to say that there is no direct interchange of meaning through this isthmus for the two communities. He takes this as the analogy for all separated knowledge domains when he concludes, "Trying to explain social moral patterns in terms of inorganic chemistry is like trying to explain the plot of a word-processor novel in terms of the computer's electronics" (Pirsig, 1991, pp. 179-182).

Pirsig and Schumacher are not embarrassed to relegate the physical sciences to a low level in the hierarchy. The explanations of the hard sciences are fine for the inorganic and to some extent for the biological, but the higher orders of social and intellectual are radically different worlds. Chemistry cannot explain a novel or a morality. However, Pirsig's isthmus is very interesting, because it shows how a legitimate and very limited 'integration' of knowledge can come about or be tested for. For example, the social domain is a magisterium unto itself, but there has to be an isthmus – perhaps the DNA – out of which the higher domain arises from the lower one. Let us consider a few more such isthmuses.

In the relationship between physics and chemistry we can spot an obvious isthmus: the origins of the periodic table in the Schrödinger equation. Given that the nuclei of atoms are forged in the fusion reactors of stars, they then attract electrons equal in number to the protons in the nucleus. The Schrödinger equation then describes how these electrons settle into stable configurations, upon which all of chemistry rests. But in practice the Schrödinger equation is intractable for all but the smallest atoms, and three elements of the periodic table do not fit correctly. The isthmus is there, but in reality the two domains operate with rather different cultures. Chemistry remains a more taxonomical science than physics, while biology is more taxonomical still, and is also in large parts a descriptive science: the morphology of organisms having yielded little to reductive methods for example. We can say that even within the hard or exact sciences there are different cultures, different epistemologies and different methodologies.

But the search for isthmuses turns up interesting problems even *within* domains. In physics, the queen of the sciences, there is a domain-rupture which no isthmus has yet been found to bridge. As we saw earlier this is the gulf between quantum theory and relativity, hence the piquancy of the practical joke played by Sokal on the cultural studies community in his *Hermeneutics of Quantum Gravity*. (His subsequent book, with Jean Bricmont, rather backfires as it shows that he has as little insight into the epistemologies and methodologies of cultural studies as cultural studies does of physics. The Two Cultures remain.) While Hawking may claim that string theory ‘unites’ quantum theory and relativity this claim is denied by others because the empirical studies have not yet confirmed the theory. It may even be that the construction costs of particle colliders required to carry out the investigation would amount to orders of magnitude more than humanity’s projected maximum collective economic activity. The “don’t know” rules for the foreseeable future.

Turning back to possible isthmuses between physics and chemistry, we find not one but several: for example physical chemistry is an entire branch drawing heavily on thermodynamics, while isotopic chemistry relies on knowledge of the atomic nucleus. Similarly the isthmuses between chemistry and biology are numerous, and perhaps smeared out in a discipline such as biochemistry. The same is true for isthmuses between completely different domains such as science and fine art, or religion and fine art. Algorithmic computer art is an example I happen to have written about in detail, and I have also made a lengthy study of religion and film. In the first case the algorithm is the common ground between the computer artist such as Roman Verostko, John Whitney Snr. or Jean-Pierre Hérbert, and the computer scientist such as John von Neumann (King, 2002). For the artist the algorithm has morphological meaning; for the scientist it has formal meaning in the abstract realm of a universal computer programming language. In the second case the *script* is the isthmus between religion and film. For the religionist the script carries religious or spiritual meaning, adumbrated through human drama, while for the director the script is a key part of the blueprint for a dramatic work of art. A good example would be Bresson’s *Diary of a Country Priest* (1951), where the cinematic artwork is a fine example of Bresson’s spare style, and which happens almost accidentally to convey some of the deepest truths of the Christian concept of grace. The film is highly regarded by most writers on religion and film, who at the same time are mostly agreed that the interdiscipline, as they call it, is at the meeting of two worlds that are *sui generis*: neither begets the other.

Ever since Fritjov Capra’s seminal *Tao of Physics* was published in 1975 a veritable industry has been spawned commending quantum theory as the bridge between science and religion, or science and consciousness. It is effectively the physics-proves-mysticism thesis. This idea is now an orthodoxy of the New Age, but Wilber was a lone voice publishing a book called *Quantum Questions* (1985) that challenged this view. All credit to him. But how would isthmus theory, as I have developed it so far, cast light on this issue? Pirsig’s original isthmus, the single page of machine code instructions, links two domains, as we saw. But would the higher domain, the software, fall apart if the machine code isthmus was not there to connect it to the lower domain, the hardware? The answer is yes. In the example of chemistry, would it fall apart if there were no electrons with stable configurations described by the Schroedinger equation? The answer is yes.

Would algorithmic computer art disappear without the algorithm? Obviously. Would religious films disappear without the script? Obviously – or at least all that might be left would be Dogme 95-style improvised ramblings.

But would consciousness or religion disappear without the fundamental particles described by quantum theory? The answer now is not clear cut. On a hierarchical model, whether Wilber's, Koestler's, Schumacher's or Pirsig's there is a chain upwards from the inorganic level all the way to consciousness, or intellect, or mind. So, without an inorganic substrate on this model, nothing higher can exist, true. But is quantum theory the legitimate *isthmus* that takes us to consciousness or the realm of religious experience? In Pirsig's example there is a natural bridge or isthmus between two realms, because both communities are intimately bound up with it, even if, as he says, it means different things to the two communities. Machine code is common to both. But quantum theory is not like that for science and religion: only one community is bound up with it, and it means something to only one of the two communities. It is not common to both. The continents are on other sides of the world. When the (largely) New Age communities claim quantum theory as the isthmus between science and spirituality we can see this as merely the harmless adoption of a metaphor: for example Dana Zohar's "quantum hussy" – who could bilocate and therefore have an undetected multiple marriages – is amusing enough (Zohar, 1991, p. 17). But isn't this use of quantum theory more like a Trojan horse, an infiltration of science into domains where it does not belong?

Many people have been impressed by Einstein's dictum; "Science without religion is lame, religion without science is blind" (Einstein, 1988, p. 46). I disagree with it: science without religion is what enables science to run so fast (just think of Galileo), while religion without science is what enables religion to see so far. The attempted integration of the two would yield a blind cripple, not a far-sighted sprinter. Adopting the methodologies and epistemologies of the one would ruin the other. They are non-overlapping magisteria. But why does the dictum appeal? Perhaps we don't read it literally like I have done here, but accept that an individual needs to pursue both science and religion to lead a balanced life. Even that is dubious though, if one accepts that religion – at least in the sense that Colin Wilson, Wilber, Koestler, Schumacher or Pirsig understand it – is at a higher level on the hierarchy. In this mode of thought the higher contains the lower, but not the other way round. In crossing a major division in the hierarchy, there are no links or transitional forms as indicated by Schumacher, or isthmuses as indicated by Pirsig. When a higher order enfolds a series of lower orders there is a kind of minimum integration offered by the specific proposed taxonomy. *Intellectually*, we can roam across the orders, though even this requires proper rigour, as isthmus theory shows. But when faced by what is a mounting take-over bid for the humanities by the sciences, we will discover that the issue is what level of organisation do humans exist at, *experientially*?

Before looking at this question, and before examining Wilson's consilience as the paradigmatic take-over bid for the humanities by the sciences, let us recap a little. We are taking a radical look at the field of 'integration' in the fields of human knowledge, against a background perception that the fragmentation of knowledge makes it hard to meet the challenge of contemporary life. While it is clear that this "integration" might be better understood as the taxonomisation of knowledge domains, it does seem that outsider scholars have contributed greatly to important taxonomies that go beyond the Dewey flatland. The isthmus theory deriving from Pirsig helps us discover real contiguities between knowledge domains. When attempting to solve problems it is clearly useful to be able to reach to a discipline which has one or more genuine isthmuses to the problem domain. Without a proper isthmus one is simply reaching for metaphors, which may be useful of course, but tell us nothing about the real integration of knowledge. Beyond these rather practical issues there does seem another force at work however: the idea that the integration of all knowledge will somehow yield a mystical breakthrough. This is just a misplaced mysticism, an understandable human longing, but irrelevant to the question of knowledge domains. Unfortunately it seems to cover up, or even drive, a much more regrettable process: the colonisation of the humanities by the sciences in the name of integration.

To make a Toyota car one needs all the Toyota parts for that model. Parts for a different make or model will not, generally, fit. The parts that do properly belong to that car are *integrated* into a whole in the assembly process, and have no utility, generally, outside that particular whole. Can all of knowledge be integrated in the same way, into a whole? Do we have a name for the entity so constructed? The answer, bafflingly, seems no. All the models of knowledge, whether flat or hierarchical, which claim to properly relate all knowledge domains, cannot somehow assemble an entity from the parts, which is then a whole, like the Toyota car. The term integration means to ‘make one’, and in the case of the car, it means that all the parts fit together correctly, and that the new entity correctly functions as a higher-order entity of that type – a car. But we don’t have an entity of any type that could be the sum total of all knowledge, and if we did, we would stand round it and wonder what it was for. The search for union in mysticism, and the whole that is its goal, are nothing like this quest for the integration of knowledge.

The quantum-theory-proves-mysticism community is largely New Age, and so quantum theory as an isthmus between science and religion is not part of the mainstream. However the idea that neuroscience can bridge the Two Cultures divide is more commonly found. “Neuro-” as a prefix is now being found in disciplines as far apart as neuro-aesthetics and neuro-theology, suggesting that neuroscience is set to be the grand isthmus to bridge the two cultures of science and everything else. But, just as with quantum theory and religion, we note that this apparent isthmus is not like Pirsig’s: it is not in the first instance shared between the two communities, not even if we grant it radically different meanings in them. Only one community is bound up with it and finds meaning in it beyond mere metaphor: science. Could the alleged isthmus here be no natural joining of continents, but in fact the bridgehead for an attempted takeover?

What isthmus theory would suggest in this scenario is that knowledge domains are not like car parts, designed to fit together to make a whole of a higher order. It suggests instead that domains can be taxonomised into a hierarchical structure, but that for one domain to have kinship with another requires a common isthmus. An isthmus joining domains further down the chain has no relevance for domains higher up, and a proposed isthmus may be no more than a take-over bid in disguise, if it is not truly common to both domains. Isthmus theory does not provide for the unification of all knowledge domains, but examines *kinships* or *contiguities* between domains that remain far more separate than connected.

But what of those who insist, in intellectual acts of the most daring futurology, that the unification of all knowledge is possible and will give rise to a glorious new entity? We have encountered thinkers who certainly believe this but are rather vague about the teleology of it. And we only have to turn to religious thinkers like Teilhard De Chardin and Sri Aurobindo, and scientific thinkers like Frank Tipler and Ray Kurzweil to discover visions of this final union, and names for the ultimate entity. De Chardin came up with the term Omega Point, also taken up by Frank Tipler. Aurobindo uses ‘Supermind’, while Kurzweil uses ‘Singularity.’ There is no doubt that the works of these thinkers is inspirational to many, but the truth remains that the discovery of any trajectory that proves these outcomes is yet to come. What persuades them all, of course, is the accelerating nature of human knowledge discovery. However an acceleration proves no asymptote, and certainly cannot disprove a later deceleration. The jury *has* to be out on these assumptions. As yet there is no plausible entity that would be the ultimate integration of all knowledge.

In the meantime, however, as the world’s knowledge communities wait for the holy grail of the unified field theory in physics and a convincing ‘theory of everything’ across the remaining knowledge domains, a danger grows. Along the road to integration *the very effort is creating a huge opportunity for science to make a take-over bid for other knowledge domains*. In the name of integration scientism – and its philosophical basis in Logical Positivism – is encroaching on knowledge domains where it has no business. The consilience of biologist E. O. Wilson is a good example.

Against Consilience

In Richard Feynman’s autobiographical work *Surely You’re Joking Mr Feynman* (1988) he tells us how he made a deal with a painter friend to trade expertise. Feynman learned painting while the painter learned quantum theory. However the mutuality of it was lost when the painter gave up on the physics after a period, where Feynman continued to paint and exhibit his work in galleries long after. It is the same lost mutuality between the protagonists in Lodge’s novel. This proves one thing: it is easier for a scientist to apparently master the humanities or an aspect of it than vice versa. We saw that Bragg’s 1999 article included Gould among scientists literate in the humanities. He also cited Dawkins, Hawking, Penrose, Pinker, and Greenfield admiringly but wondered if it was not just a passing fashion: what I am calling the bi-literate scientist. More than ten years on my conclusion is that the phenomenon is here to stay, partly bolstered by the aftermath of 9/11.

In the rush to examine religious fundamentalism there emerged what is now called the new atheist – highly literate scientists like Dawkins, who received fresh impetus to furiously research religion and the humanities. In turn these provoked what I have called the new defenders of faith, who are bi-literate humanists. They in turn have been furiously researching science. (For a detailed account of this see Part Two of my book *Postsecularism: The Hidden Challenge to Extremism*.) Schumacher (1978) cites Victor Frankl for us on this subject; “What we have to deplore therefore is not so much the fact that scientists are specialising, but rather the fact that specialists are generalizing” (p. 13). The fact that Feynman took up painting is one thing, simply a second specialism, but what the bi-literate scientists are now doing is to generalise from their scientific specialism. They pontificate on all possible subjects and, as Bragg shows, they are well received. Dawkins for example was voted Britain’s top intellectual by Prospect magazine in 2005, coming third on the world stage after Noam Chomsky and Umberto Eco.

It is the bi-literate scientists who are threatening a unification of all knowledge as *science*, and E. O. Wilson is amongst the most persuasive of them in his book *Consilience: The Unity of Knowledge*.

Wilson (1998) sums up his project as follows; “The central idea of the consilience world view is that all tangible phenomena, from the birth of stars to the workings of social institutions, are based on material processes that are ultimately reducible, however long and tortuous the sequences, to the laws of physics” (p. 266). This would be laughable for Pirsig. As he shows, there may be isthmuses all the way up on the journey from quarks to social institutions, but each isthmus is also a kind of meaning exchange: the inhabitants of the domains may interpret the narrow common ground that connects them quite differently. For Pirsig, to jump from quarks all the way up the chain to the moral questions of society is to abandon all hope of meaning, or in his terms, *quality*. Schumacher also disposes of Wilson’s proposition in the most elegant of terms, and so do all the outsider scholars we have mentioned.

So why take Wilson seriously? Because of Lodge, not Pirsig. Lodge’s campus novel *Thinks…* is that of the literary insider who finds rather delicious the novel terrain of cognitive science, perceives perhaps some kind of threat in it, but is ultimately not disturbed. Pirsig, as the outsider, does not have to take on the assumptions of any discipline, and hence can see clearly the absurdity of attempting to explain such a thing as consciousness in terms of quarks. But Lodge as the insider represents the mainstream, and in his parable of the take-over bid from science the feminine principle of the humanities, particularly the creative arts, is overwhelmed by the masculine principle of the sciences. Lodge’s defense is simply inadequate against the onslaught typified by Wilson’s consilience.

We have seen that Wilson (1998) justifies his mission as follows; “When we have unified enough certain knowledge, we will understand who we are and why we are here” (p. 8). Elsewhere he says; “The greatest enterprise of the mind has always been and always will be the attempted linkage of the sciences and humanities” (p. 8). Wilson acknowledges the importance of Dawkins’ memes in his programme for the unification of science and culture. He understands the meme to be the ‘unit of culture’ and wants it to stand at the base of semiotics, which in turn he considers to be at the basis of a scientific explanation of culture. He says he wants “to establish the plausibility of the central programme of consilience, in this instance the causal connections between semiotics and biology” (Wilson, 1998, p. 136). Wilson has a hierarchy: quarks at the bottom, working up the scale of size and complexity to biology, then a leap to semiotics, and from there to mental processes. He says; “Belief in the intrinsic unity of knowledge rides ultimately on the hypothesis that every mental process has a physical grounding and is consistent with natural science” (Wilson, 1998, p. 96).

Wilson’s programme is not that different to Dawkins’ or Dennett’s, but is on a grander scale, and is specific about the attack on the social sciences, economics, the arts, and religion. For each of them he has a bridgehead, or alleged isthmus.

Wilson does make the valuable point that consilience within the social sciences is nowhere near as pronounced as in the exact sciences. What is more there is a gulf between them: he laments how little the social sciences draw on the hard science. However the thinks that is changing with the recent advances in science, and proposes four bridges across the divide: brain science, human behavioural genetics, evolutionary biology and the environmental sciences (Wilson, 1998, p. 192). His bridges are of course proposed isthmuses, and we will gradually focus down on brain science as the key bridgehead of his assault. Welcome to the world of neuro-everything.

Genetics in one form of other is of course the preferred bridgehead for Dawkins, Dennett, Crick and other biological materialists, though the gene itself has morphed into the meme in order to carry through the attack. Evolutionary biology, if it gains ground in the social sciences, will be persuasive to some simply because of the enormous cachet given to the word ‘evolutionary’: it has come to mean progressive. In turn the environmental sciences seem a good candidate for a field where the integration of knowledge is progressing apace. In reality however environmental science is an interdisciplinary branch of the natural sciences, and as such will always fails to capture Pirsig’s *quality*: it offers *analysis* but no *synthesis*, and even Wilson inadvertently proves this, as we shall see shortly.

On another subject Wilson (1998) says “The enterprise within the social sciences best poised to bridge the gap to the natural sciences, the one that most resembles them in style and self-confidence is economics” (p. 195). In fact Wilson is least convincing here, particularly after the so-called Credit Crunch of 2008-2010. Even without this economics as a science has had a predictive power so low as to make it a laggard even in the relatively undemanding domain of the social sciences.

Wilson is conscious of the contrast made between science as an activity of analysis – breaking down into parts, and that of the arts as a creative act. He admits that while science “advances by reducing phenomenon to their working elements,” he is adamant that it “does not aim to diminish the integrity of the whole.” We now come to his important statement on synthesis which then follows: “On the contrary, synthesis of the elements to re-create their original assembly is the other half of scientific procedure. *In fact it is the ultimate goal of science*” (Wilson, 1998, p. 211: emphasis added).

If so, then Frankenstein.

In fact the goal of the hard sciences has never been, and never will be, synthesis. If there is a domain where the working elements are built into larger structures, it is engineering. It is true of course that the engineer often needs to draw on a wide variety of scientific knowledge – in addition to the craft of that particular branch of engineering – but this does not represent a synthesis of knowledge, merely the skillful application of it. And the unskillful application potentially leads to horrors such as Frankenstein, and social engineering experiments such as eugenics and forced migrations.

In fact, Wilson does not suggest that synthesis is the isthmus between science and the arts: instead, it is *interpretation*. It seems that for Wilson, criticism will have attained legitimacy when it is based, ultimately, in physics. He says; “Interpretation is the logical channel of consilient explanation between science and the arts” (Wilson, 1998, p. 211). It is significant then, that the outsider, so gifted in criticism, is the one who rejects such consilience.

Here Wilson has fallen into a common trap for scientists: he understands all knowledge domains as predicated on *explanation*. The sciences are successful to the degree of their explanatory and predictive powers – which is why, on either count, economics cannot be classed as an exact science. But the arts are successful for quite different reasons, and criticism or interpretation in this field is likewise not successful as explanation, but as exegesis perhaps, or as polemic, or even as an art in its own right.

On religion Wilson (1998) has this to say: "The eventual result of the competition between the two world views, I believe, will be the secularisation of the human epic and of religion itself" (p. 265). Here Wilson has lost patience it seems with the project of unification: religion is a knowledge too far for him, and deserves only secularisation. He fails to find any isthmus here, however implausible. (Instead we have to rely on Dennett (2007), who is cheerfully convinced that memes will come to the rescue).

Wilson's take-over bid is consistent with those mounted by Dawkins and Dennett, and attempted in countless small thrusts from bi-literate scientists and others who, even if not trained in the sciences, believe in its domination. We have seen that Wilson is systematic in a way that others probably are not, in that he constructs isthmuses or variants of his strategy for each of the domains of the social sciences, economics, the arts and religion, though the last will simply be swept away. The integration of all knowledge, its unity as he prefers, is this: to be reframed as science, science and more science.

The outsider scholar, armed with various hierarchies, and a consideration of the isthmus as a legitimate but narrow bridging idea between knowledge domains, resists consilience. In contradiction to Wilber the outsider scholar is not afraid of offending science or modernity in placing science at the bottom of a hierarchy of understanding, and sternly resisting its upwards and usurping climb.

But how exactly? How is the take-over bid of consilience to be resisted?

With the confidence that Wilson's supposed isthmuses are going to let him down.

We have already hinted at the weakness of some of them, but we can start by properly disposing of *synthesis* as any kind of isthmus. Although he uses interpretation as his bridge from science to the arts, it is the discussion of the arts that prompted him to declare that the goal of science is synthesis, as mentioned above. Yet if this were so, the environmental sciences would be able to construct ecosystems, for example. The analysis of all the parts of an ecosystem gives proper scientific knowledge about the interaction of living things, so why should a synthesis not be able to put together novel ecosystems with existing organisms? This does not sound too ambitious perhaps, no hint yet of attempting to make a living organism from inorganic components. Wilson himself describes the most ambitious attempt yet to build an ecosystem, Biosphere 2, as "not a failure" despite the collapse of the artificial ecosystem within it and the extremes of physical and emotional discomfort experienced by its inhabitants. But even he concludes; "The living world is too complicated to be kept as a garden on a planet that has become converted into an artificial space capsule" (Wilson, 1998, p. 280).

On this basis Wilson very rightly gives up on synthesis, as he also does, for example when he muses that the 3D structure of a protein cannot be predicted from a knowledge of its atoms. Pirsig is way ahead of him on the impossibility of predicting anything substantive about a higher-order world from its lower-order constituents. This leaves Wilson's other big bridges: brain science, human behavioural genetics, and evolutionary biology. These are really just two: neuroscience and genetics, of which the latter can be challenged more easily. For Wilson, Dennett and Dawkins, the gene is the key to biological life, but poses a problem for their take-over bid: it works too slowly to account for changes in human culture, the very bit they are staring at longingly with those glittering snake-eyes. Hence the gene has become the meme. This, being a non-material entity, is not a proper object of science, so the necessary step is to imagine the neuroscience of the meme, or to put it another way, its neural correlate.

So, as suggested earlier, it all boils down to the brain, or in other terms, neuro-everything. Here is the grand proposed isthmus of the take-over: the brain science that says the brain is material, and is built from quarks upwards. However, the mind, which is at the pinnacle of the hierarchy, must be somehow winched down into brain. Perhaps the best expression of this ambition comes from the neuroscientist Antonio Damasio:

> From my perspective, it is just that soul and spirit, with all their dignity and human scale, are now complex and unique states of an organism. . . . And this is of course the difficult job, is it not: to move the spirit from its nowhere pedestal to a somewhere place… (Damasio, 1996, p. 252)

I have called the whole attempt to move mind from its "nowhere pedestal" into the brain "Damasio's error" (King, 2007, p. 257), and am not alone apparently. What brain science does is to make correlations between mental content and brain state, and is increasingly successful in doing so. The crucial question here is as follows: *is a correlation a legitimate isthmus between knowledge domains?* Is the neural correlate a sufficient reason, not so much to winch down mind into brain, but to winch up biological science into contact with mind? Does it convince, like the machine code as the isthmus between hardware and software, the Schroedinger equation as the isthmus between physics and chemistry, the algorithm as the isthmus between computer science and computer art, and the script between religion and film?

I argue no. A correlation isn't good enough. There has to be a common ground between two domains that explorers of both can meet at. No philosopher, mystic, novelist, poet or psychologist will ever encounter 'synapse' or any other term belonging to brain science in their investigations of mind. And no brain scientist will ever encounter consciousness in the brain. The isthmus simply isn't there. They are non-overlapping magisteria, simply because human experience operates at a certain order of description. As Pirsig or Harding say the human is not the quark, atom, cell, organ, society, planet, galaxy or universe: human experience is human. Perhaps cells and galaxies feel, know and experience, but that must remain pure speculation, because they belong to different orders.

Consilience, then, is a plan to unify all knowledge as science, and its outcome is mind-brain identity. More broadly it represents a take-over of all the humanities by science, and as such should be resisted. Before considering the shape of that resistance, it is worth briefly considering why science has the exalted place it does in contemporary culture. In the first instance, clearly, its predictive power, and the technologies that ride on that predictive power, give us immense physical freedoms from drudgery, pain, boredom and even oppression, as richer societies can afford welfare, human rights and so on. But its utility alone cannot explain the fascination we have for it. It is also *beautiful*.

It is this more than anything else that is so breathlessly present in the works of the bi-literate scientists: they are aching to share the beauty of science with us. Now, Max Weber used the interesting term ‘musical to religion’ to describe what he personally lacked: a feel for the lived religious life. One can extend this expression to any field: one can be musical or musical to anything, and that includes science. Those in the humanities who are inspired by science writing, including Melvyn Bragg, are clearly musical to science. Many are not, but they remain silent. It is unfashionable to say with Yeats that science is the opium of the suburbs.

But the beauty of science should be placed in perspective. No one denies that the good life for an individual might variously include a fine wine, a rare cheese, a new chess opening, a murder mystery, a visit to an exhibition of modern art, or the appreciation of architecture. Or music or religion. Science as an aesthetic experience can be included in these pursuits as expansive of the human sensibility, just like the others, and a writer like Richard Dawkins can be a magnificent expositor of it. But to give it priority where it insists that the fine wine, rare cheese, painting or whatever *are states of the brain* is to allow it as one aesthetic to dominate and *de-aestheticise* other experiences. Science should take its turn alongside the cheese-board, for those musical to it. And as to its utility, sure: if one’s brain goes wrong, let’s have the mechanic in.

Hence the first form of resistance to science is to recognise that utility is utility, and that any one aesthetic pleasure has no right to lord it over another. But I am going to offer a more active form of resistance: to actively fight brain, neuron, synapse, peptide and the whole caboodle. It is instructive to start with Aristotle, who thought that the brain was an organ for cooling the blood, in carrying out which function it also produced snot. In the Middle Ages only the latter function was attributed to the brain. It seems that the most subtle of intellects have no particular reason for associating mind with brain. However, the issue is not as laughable as Aristotle unfortunately made it. In the exact sciences term like brain, neuron, synapse, peptide and so on do not refer so much to things as to processes. The brain, out of this collection, is large enough to see with the naked eye, but its functioning is a matter of inference. Things that cannot be seen are totally a matter of inference, not at just one remove, but often down a long chain. The electron for example is made known to science through a long inferential chain which starts with experimental phenomena like the photoelectric effect or observations of the gold-leaf electroscope.

When we see red, brain science tells us that signals pass along the optic nerve into the visual cortex, and various neurons fire up. Once we have a full description of the pattern of neuronal activity we will have the neural correlate of red, allegedly. But the neuron as a concept is a composite of its form as revealed in a microscope, and the function ascribed to it, involving electrons, and arrives at our understanding by not just one inferential chain, but a series of interlinked ones. Now here is the point of this discussion: “red” is a direct experience, but ‘neuron’ is a construct – albeit maybe a true one – that is present in our experience only as the mental rehearsal of a complex inferential chain. There is no direct experience of neuron. Or for that matter, brain, synapse, peptide and so on. Red exists as a direct experience and also as a construct (for example I can rehearse its place in the electromagnetic spectrum and the sensitivity of certain receptors to its wavelength), but neuron and electron exist *only* as construct. There may be neural correlates to the experience of red, but *there is no experiential correlate to* brain, neuron, synapse, peptide and so on. Aristotle had no reason at all to think that the brain was the seat of mind – let alone posit the absurdity of mind-brain identity – because there was nothing in his immediate experience corresponding to brain. Maybe neurons experience other neurons; maybe distant galaxies experience other distant galaxies. But human experience is on a human scale and at a human organisational level: for all else only inference remains, and inference cannot replace experience.

Here is the arrogance of science as uttered by Wilson (1998); “Without the instruments and accumulated knowledge of the natural sciences – physics, chemistry, and biology – humans are trapped in a cognitive prison” (p. 45). On the contrary, I assert, science traps humans in an inferential prison, where they are so busy rehearsing inferential chains that they neglect immediate experience. The blackbird sings on the window ledge, a jazz line rendered in an improbable melodic baritone, but the scientist, wants us, not to experience this directly, but to rehearse with him or her such things as the audio spectrum, sympathetic vibrations, neural transmission, auditory centres and a total brain activity more complex than the workings of a nuclear power station. In the meantime the bird is gone. So is life. To put it simply, what really matters to us are not the things that entail long inferential chains, but the things for which there are experiential correlates. Red, pain, and the blackbird’s song matter, long explanations don’t, except for utility, and for the fun of it if you are so inclined. If you are more musical to the long inferential chains of science than you are to the blackbird, or the cheeseboard, fine. Just don’t foist your hobby on me as an ultimate truth.

Conclusions

The question of the integration of all knowledge is an important one of our times. In this investigation I have started with a certain scepticism that one cannot unify knowledge, only taxonomise it. However, in looking at some hierarchical schemes for taxonomising knowledge as elaborated on by various ‘outsider’ scholars there is much at stake, beyond the mere selection of the best possible taxonomy. Of particular value is the ‘isthmus’ concept as offered by Pirsig, as a way of discovering whether any two knowledge domains can be legitimately related to each other, and thus in some limited way integrated. It turns out that isthmus theory also becomes valuable in countering attempts by scientists to integrate knowledge which are often nothing more than a take-over bid for the humanities by science. In arguing against one of the most sophisticated such attempts – the consilience of biologist E. O. Wilson – we discover that his proposed isthmuses are bogus, and are more like military bridgeheads or Trojan horses. The chief of these is the attempted insertion of brain science into every aspect of the humanities, based on the argument of the neural correlates. An opposing argument is developed here to turn the scientists’ move against them: that of examining concepts for their experiential correlates. It turns out that brain, neuron, synapse, and peptide are not objects in our direct experience. They have no experiential correlates and hence cannot be ranked with the objects of the humanities which do. The objects of science mostly remain products of lengthy inferential chains, and, while their rehearsal has utility, and even, for the right kind of mind, beauty, the single-minded pursuit of these rehearsals would be the death of all experience.

But the energy that drives the integration of knowledge has a source beyond mere utility, or a rarefied kind of intellectual aesthetics: it also derives from a misplaced mystical impulse for unity. It is misplaced because the analytic mode of thought of the sciences has no synthetic counterpart: one cannot find mystical union by first dissecting the whole into parts, and then re-assembling the parts into a whole. The mystical status for this misplaced search for the union of all knowledge is perhaps why few convincing arguments have so far been assembled against the takeover bid by the sciences of the humanities. I hope that the ideas presented here provide some grounds for serious opposition to this attempted colonisation in the name of integration.

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Global Knowledge Futures: Articulating the Emergence of a New Meta-level Field[1]

Jennifer M. Gidley[2]

Abstract: In this paper I articulate a new meta-level field of studies that I call *global knowledge futures*—a field through which other emerging transdisciplinary fields can be integrated to cohere knowledge at a higher level. I contrast this with the current dominant knowledge paradigm of the *global knowledge economy* with its fragmentation, commodification and instrumentalism based on neoliberal knowledge capitalism. I take a big-picture, macrohistorical lens to the new thinking and new knowledge patterns that are emerging within the evolution of consciousness discourse. I explore three discourses: postformal studies, integral studies and planetary studies[3]—using a fourth discourse, futures studies, to provide a macro-temporal framing. By extending the meta-fields of postformal, integral and planetary studies into a prospective future dimension, I locate areas of development where these leading-edge discourses can be brought into closer dialogue with each other. In this meeting point of four boundary-spanning discourses I identify the new meta-level field of *global knowledge futures*, grounded in human thinking capacities, such as creativity, imagination, dialogue and collaboration.

Keywords: Foresight, futures studies, integral, knowledge economy, planetary, positivism, postformal, post-positivism**.**

Introduction

> Imagination is more important than knowledge. For while knowledge defines all we currently know and understand, imagination points to all we might yet discover and create.
> (Albert Einstein)

We hear a lot today about the *knowledge economy* yet this economistic framing fails to attend to the richness and diversity of knowledge creation that is being enacted on a planetary scale. We also hear the term *information era* as if it were a complete encapsulation of the present phase of

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[1] This paper draws from and extends earlier published research by the author (Gidley, 2007a, 2007b, 2010c, 2012a, 2012b).

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[3] My use of the term planetary studies includes newly recognized fields such as global studies, and discourses that refer to planetization (Teilhard de Chardin, 1959/2004), planetary futures, planetary culture and planetary consciousness (Gangadean, 2006a; Montuori, 1999).

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cultural evolution. The proponents of the information era generally fail to attend to the evolutionary move beyond mere information to new ways of knowing, new knowledge patterns and the emergence of several discourses that attempt to cohere knowledge.

At the close of the first decade of the 21st century, some of the most creative, innovative, and dynamic knowledge around the globe is being produced and disseminated *outside* mainstream universities. Academic researchers and research council bureaucrats need to take heed. Now that "knowledge production", "knowledge transfer", and "knowledge dissemination" have become core commodities of the increasingly competitive global knowledge market economy, how will universities and their research centers keep up?

In the last few decades there has been a proliferation of new terms and concepts emerging at the periphery of the academic landscape—all pointing in diverse ways to the need to move beyond fragmented thinking and hyper-specialization. Such terms include complexity, paradox and systems thinking; holism and wholism; integral and integrative; multidisciplinary, transdisciplinary and postdisciplinary, to name a few. Some of these terms are used in specific contexts with a variety of different meanings; others claim to cover the whole of the knowledge domain. Confusion abounds in this *new thinking* era.

While the juggernaut of old-paradigm thinking seems intent on holding on to educational institutions, there is a burgeoning of new knowledge paradigms breaking through from the periphery. A plethora of private providers, social movements, niche research institutes, open source resources, edutainment and, of course, the ubiquitous information kaleidoscope of the world wide web, make it increasingly difficult for the former bastions of knowledge production and dissemination—formal educational institutions to compete for "market-share." But is competition the best way forward? Could it be that the leadership of universities and research councils need to listen more deeply to the periphery—to the new, unorthodox developments in the creation and dissemination of knowledge?

A preliminary global environmental scan of the emerging discourses that refer to new knowledge suggests that much of what is called "new knowledge" more accurately relates to new technologies—both hard and soft. These include the global proliferation of high-tech toys, cynically designed to become obsolescent within ever-shorter time-spans from their release, and the moment-by-moment updates and upgrades of every imaginable kind of software. This type of "new knowledge" is actually *not-so-new* knowledge, simply repackaged in new technologies. But this techno-knowledge revolution is deeply grounded in the fragmentation, commodification and instrumentalism of knowledge by neoliberal capitalist ideologies. By contrast, the resources required for the flourishing of global knowledge futures are intrinsically human faculties, which are not so dependent on economic and material resources and are thus potentially more sustainable. Creativity and innovation; imagination, inspiration and intuition; anticipation and foresight; dialogue and collaboration are all human capacities that know no bounds except those we self-impose.

My interest in this paper is not in new knowledge technologies per se, but in new thinking capacities grounded in evolving human consciousness—this is what I mean by *global knowledge futures* (Gidley, 2007b, 2010b). The paper is underpinned by a meta-question: "What are the leading-edge discourses that identify new paradigms of thinking and how can they be articulated and meta-cohered?"

This special issue of Integral Review, based on the *Research Across Boundaries Symposium* in Luxembourg (2010), is a pioneering attempt to cross boundaries and build bridges—not just between and across disciplines—but between theories and perspectives that are already in themselves meta-theoretical. In this paper I take a big-picture, macrohistorical lens to the new thinking and new knowledge patterns that are emerging, and contextualize them within the evolution of consciousness discourse. I offer a broad overview of several meta-theoretical approaches, including postformal, integral, and planetary studies, and project them into their possible futures using the prospective reasoning of futures studies.

These areas of research—postformal, integral, planetary, and futures—are relatively new transversal fields, having arisen in their academic forms over the last five decades, notwithstanding earlier proto-forms. In spite of the breadth and depth of these meta-theoretical approaches in their own right, there is a tendency among proponents of these approaches to isolate themselves within their own discourse and not allow the cross-fertilization that could mutually enrich their research. At best this does not enable appropriate knowledge sharing; at worst it can lead to ideological siloism—thus limiting the larger development of the project of knowledge coherence.

I also briefly identify and articulate my own boundary-crossing theoretical contributions in each area and how my research takes additional steps towards further levels of dialogue and potential coherence within and between these approaches. Through my boundary-crossing endeavors, I have begun to create a new meta-level field that I call *global knowledge futures.*

An Evolutionary Spin on Global Knowledge Futures

> Where is the wisdom we have lost in knowledge?
> Where is the knowledge we have lost in information?
> (T. S. Eliot, 1934, *The Rock*, lines 12-13)

> One of the greatest problems we face today is how to adjust our way of thinking to meet the challenge of an increasingly complex, rapidly changing, unpredictable world. We must rethink our way of organising knowledge. (Morin, 2001, p. 5)

Both of these quotes speak of knowledge. The first is from American-British poet, T. S. Eliot, and the second is from French philosopher, Edgar Morin. Eliot bemoans the loss of wisdom while Morin hints at its re-awakening. Perhaps it takes the eye of an artist, a poet, to perceive the loss of wisdom in the stripped-down, prosaic pragmatism of the *Information Era*. Yet it is a philosopher—a lover of wisdom—who actively thinks towards more complex ways of organizing knowledge in the *Planetary Era*.

In my reading of Morin's work it becomes immediately evident through the philosophical and poetic richness of his language and concepts that his notion of knowledge is already filled with the type of postformal, integral, planetary wisdom and foresight that is being gradually articulated here. As Eliot indicates, the modern era of hyper-rationality and hyper-specialization has been a reductive process in which the pre-modern unitive world-view of inherited, or revealed, “wisdom” has been superseded by bits—and, more recently, bytes—of information.

In addition to this fragmentation, commodification of knowledge abounds as a socio-cultural by-product of globalization. Borrowing heavily from industrial era metaphors, education is now marketed as the product in a globally competitive “knowledge industry.” The insinuation of neoliberal economic theory into all walks of life—including education—has led to the reframing of education as a subset of the new “knowledge economy.” In this new knowledge economy we can witness nations and regions scrambling to grab market-share through creating “science parks”, “education cities” and “knowledge hubs.” The most disturbing aspect of this “globalization of knowledge” is that it frequently reflects homogenization. This McDonaldization (Ritzer, 2008) of education transplants outmoded models and approaches as if they were fast-food franchises with little regard to the quality of the learning experience for students or the cultural context in which the model is implanted. In the rush to the top of the globally competitive league tables there appears to be a blind disregard for epistemological and cultural diversity, through alternative ways of knowing. With their embeddedness in the global economy such approaches to global knowledge are also locked into short-termism, stasis and homogenization, see Figure 1.

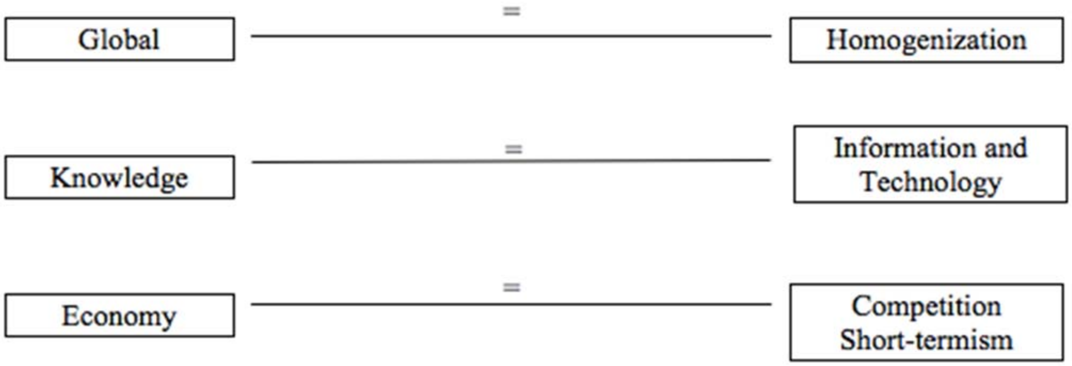

Figure 1: Global Knowledge Economy – Ideological Stasis and Homogenisation

In contrast to the reductive and economistic ideologies underlying the notion of the *global knowledge economy* my term *global knowledge futures* is intended to unsettle those who use the term knowledge reductively and/or prescriptively. My research and writing over the last decade has primarily involved identifying and drawing together the ideas, ideals and insights of numerous avant-garde thinkers—across various disciplinary boundaries, across macrohistorical and future time frames and across diverse cultures and worldviews (Gidley, 2007b, 2010b, 2010d). My primary intellectual and cultural interest is in people—and ideas—that eschew the mechanistic, instrumental, reduced versions of knowledge and humanity and have sought to go beyond, to go deeper, to imagine longer time-scales and planetary spaces, to develop and enact more coherent meta-theories and practices.

My notion of global knowledge futures is framed within the understanding that human consciousness is evolving and for the first time in history we can actively participate in co-creating our futures through conscious evolution—that is, consciously working on our own personal development. Although the notion of evolution is frequently attributed to Charles Darwin, the concept was originally seeded by several integrally-oriented German Idealists and Romantics, towards the end of the 18th century. Almost a century before Darwin published his *Origin of Species* (1859), philosopher/ poet/ theologian Johann Gottfried von Herder claimed that "there exist radical mental differences between historical periods, that people's concepts, beliefs, sensations, etc. differ in important ways from one period to another" (Forster, 2001). Herder's ideas on the evolution of consciousness were extended by Goethe, Hegel and Schelling—the latter foreshadowing current notions of conscious evolution (Teichmann, 2005). Although inspired by *earlier* unitive worldviews, these integral philosophers also took a long-term futures perspective. They pointed beyond the limitations of both pre-modern, mythic consciousness and formal, modernist rationality, towards a more conscious awakening of a postformal, integral consciousness. David Ray Griffin refers to this as "constructive" or "reconstructive postmodernism," which Arran Gare traces to Schelling (Gare, 2002; Keller & Daniell, 2002).

In parallel with the dawning of integral evolutionary thinking in the German states, the Industrial Revolution—a key marker of modernity—was brewing in Britain, with both progressive and disruptive socio-cultural impact. Grounded in the paradigm of logical positivism, which spawned scientific materialism and analytic philosophy, mechanistic notions of human nature cast a shadow on idealist and spiritual notions of human being and consciousness. Since Darwin—and in spite of his under-appreciated writings on love and moral evolution (Loye, 1998, 2004)—the dominant evolution discourse has privileged materialistic bio-mechanical worldviews. More philosophical and spiritual worldviews were pushed to the margins being regarded as unscientific. However, several leading thinkers in the early to mid 20th century carried forward the philosophical and spiritual evolutionary ideas of the idealists and romantics (Aurobindo, 1914/2000; Gebser, 1949/1985; Steiner, 1904/1993, 1926/1966; Teilhard de Chardin, 1959/2004). They kept alive the notion that human consciousness is evolving beyond materialistic, instrumental rationality to embrace more complex, creative, integral, spiritual ways of thinking and knowing. Yet overall their work has been largely academically ignored.

More recently, evolution of consciousness theories have been picked up and further developed—being ripe for more comprehensive and collaborative articulation through the 21st century. Numerous contemporary theorists from a variety of disciplines have begun to research the evolution of consciousness from a more integral perspective (Bamford, 2003; Bocchi & Ceruti, 2002; Christiansen & Kirby, 2003; Conway Morris, 2007; Cousins, 1999; Donald, 2001; Earley, 1997; Eisler, 1987; Elgin, 1993, 1997; Eliade, 1954/1989; Firestone, West, & Warwick-Smith, 2006; Gangadean, 2006a; Gidley, 2007b; Grof, 1988; Grossinger, 2000; Habermas, 1979; Hart, 2001; Hefner, 1998; Inayatullah, 2004; Jantsch, 1980; Loye, 1998; Montuori, 1999; Morin & Kern, 1999; Nelson, 2005; Neville, 2006; Ornstein & Ehrlich, 1991; Russell, 2000; Saloff-Coste, 2001; Subbiondo, 2003; Swimme, 1992; Thompson, 1998; Wade, 1996; Wilber, 1980/1996, 1981/2006).

The philosophical and theoretical writings that discuss the emergence of a new movement/stage/structure of consciousness are also supported by some longitudinal research. An emerging change in consciousness was proposed in a study undertaken in the USA over ten years, reporting on the rise of "integral culture", and identifying almost a quarter of Americans as "cultural creatives" (Ray, 1996). In addition, a 43-nation World Values Survey, including Scandinavia, Switzerland, Britain, Canada and the United States concluded that: "a new global culture and consciousness have taken root and are beginning to grow in the world"—the postmodern shift (Elgin & LeDrew, 1997, p. 2).

Building on the evolution of consciousness literature my notion of *global knowledge futures* be clearly distinguished from the hyper modernist notion of the *global knowledge economy*. The cultural pluralism implied in my notion of global, and the ideological diversity in my notion of futures, fold back into the term knowledge, enriching it and opening it up to insights from the leading-edge discourses discussed below, see Figure 2.

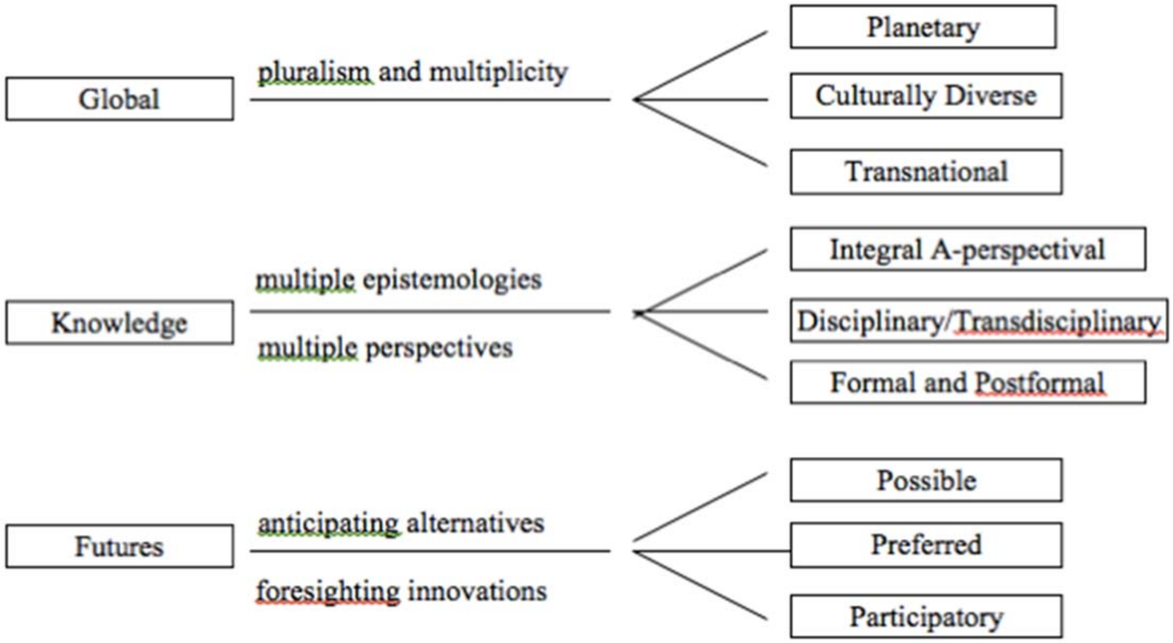
Global
pluralism and multiplicity
Planetary
Culturally Diverse
Transnational
Knowledge
multiple epistemologies
multiple perspectives
Integral A-perspectival
Disciplinary/Transdisciplinary
Formal and Postformal
Futures
anticipating alternatives
foresighting innovations
Possible
Preferred
Participatory

Figure 2: Global Knowledge Futures – Dynamic Unity in Dialogue with Diversity

Where the term *global* in Figure 1, referring to global knowledge economy has a reduced meaning that often infers a homogenized world with growing cultural uniformity, the term *global* in Figure 2, referring to global knowledge futures infers pluralism and cultural diversity. In Figure 1 the term *knowledge* is used in a way that it is viewed as a commodity, a part of the economy, whereas in Figure 2 the term *knowledge* is used in a way that infers multiple ways of knowing and multiple perspectives, as found in integral, transdisciplinary and postformal perspectives. Finally, in Figure 1, the aim and purpose of a global knowledge *economy* is about making money and profits. By contrast, in Figure 2, the aim and purpose of developing global knowledge *futures* is to enrich individuals, cultures and societies in ways that develop whole persons (as in the German *Bildung*), that nurture cultural diversity, and that promote alternative futures of knowledge that is increasingly complex, multi-perspectival, integrated and coherent, to better understand a world that is increasingly complex, multi-faceted, diverse and unpredictable.

Leading-edge Discourses as Facets of Global Knowledge Futures

Arising from my evolution of consciousness research I became aware of the significance of several discourses that either identify and/ or enact new stages/ structures/ movements of consciousness. Each of these discourses has a complex inter-relationship with a mode of thinking or way of knowing that bears its name. I will briefly discuss what I mean by each field of study—postformal, integral, global/ planetary and futures—and then articulate in more detail the way of knowing that I see as being identified and/or enacted in each field.

By *postformal studies* I am referring to 1) the theoretical and empirical research undertaken by positive adult developmental psychologists who identify one or more stages of reasoning beyond Piaget's formal operations. They use the term postformal reasoning to refer to these higher forms of cognitive and psychological development; 2) the educational research building on critical theory and postmodernism which is referred to as post-formal education or postformality; and 3) my own transdisciplinary postformal approach in which I bring these two discourses together via the term "postformal pedagogies", build conceptual bridges between postformal reasoning and other avant-garde approaches, that enact postformal reasoning.

By *integral studies* I include the various discourses that explicitly refer to their theoretical approaches as integral (Aurobindo, 1914/2000; Gebser, 1949/1985; László, 2007; Wilber, 2000b) and also those that can be regarded as integral according to the integrality of their approaches (Morin, 2001; Nicolescu, 2002; Steiner, 1926/1966). The first group explicitly identifies integrality and to greater and lesser degrees also enacts it. The second group—while not so explicit about the term—enact integrality.

By *global/planetary studies* I refer to the emerging discourses that use the term planetary in the following contexts: critical environmental (biosphere), transcultural (anthropo-socio-sphere), philosophical (noosphere) and spiritual interests (pneumatosphere). I also include the political science and international relations literature that points to the shift from nationalistic to transnational and planetary/ global imaginaries (Gangadean, 2006a; Montuori, 1999; Swimme & Tucker, 2006).

By *futures studies* I refer to the transdisciplinary, transnational and multi-sectorial field, which includes thousands of academics and practitioners, globally. The field is diverse, including some who take an empirical and economistic stance, while I take a pluralistic approach to the field and propose below a new typological framing of its epistemological diversity (See Table 2).

I will now expand on each of these leading-edge discourses, introducing the type of new thinking that each promotes and embraces.

Postformal Reasoning

Postformal in psychology: Postformal is the most widely used psychological term to denote higher developmental stages beyond Piaget's *formal operations*—other terms include "post-conventional" (Cook-Greuter, 2000), "hierarchical complexity" (Commons, Trudeau, Stein, Richards, & Krause, 1998) and "vision-logic" (Wilber, 2000a). Adult developmental psychologists have been researching postformal reasoning for several decades, identifying up to four stages of postformal development. They identify numerous features of postformal reasoning—including complexity, contextualization, creativity, dialectics, dialogue, holism, imagination, construct awareness, paradox, pluralism, reflexivity, spirituality,[4] values and wisdom (Arlin, 1999; Campbell, 2006; Cartwright, 2001; M. Commons et al., 1990; M. L. Commons et al., 1998; Cook-Greuter, 2000; Falcone, 2000; Kegan, 1994; Kohlberg, 1990; Kramer, 1983; Labouvie-Vief, 1990, 1992; Riegel, 1973; Sinnott, 1998, 2005; Yan & Arlin, 1995). Michael Commons has identified a hierarchical complexity of stages of postformal thinking, including systematic, metasystematic, paradigmatic and cross-paradigmatic reasoning (Commons & Richards, 2002; Commons et al., 1998).

Postformal in education: Several educational researchers have also identified the terms *post-formal* and *post-formality* in relation to critical and postmodern approaches to education (Horn, 2001; Kincheloe & Steinberg, 1993; Kincheloe, Steinberg, & Hinchey, 1999; Rose & Kincheloe, 2003). Kincheloe and Steinberg proposed four key components of postformality: *etymology* (origins of knowledge, imagination, problem detecting); *pattern* (deep structures, metaphoric cognition, mind-ecosystem links); *process* (deconstruction, logic-emotion links, non-linear holism); and *contextualization* (context, particular-general links, and power issues) (Kincheloe et al., 1999, p. 62-81). Kincheloe referred to post-formality as "the socio-cognitive expression of postmodernism"[5] (Kincheloe & Steinberg, 1993, p. 309).

Transdisciplinary postformality: My approach to the term postformal is not limited by the parameters of the developmental psychology or education uses. My use of postformal is transdisciplinary and includes a macrohistorical futures perspective (Gidley, 2007b, 2008b).

There are several features of postformal reasoning that have migrated beyond the postformal psychology literature into the boundary crossing discourses of integral studies, planetary studies and futures studies. The postformal features I want to highlight include: complex thinking (Morin, 2008; Sinnott, 2005), paradoxical reasoning (Griffin et al., 2009), creativity (Montuori, 1998; Montuori, Combs, & Richards, 2004; Saloff-Coste, 2001), dialogue (Gangadean, 1998) and imagination (Gidley, 2009, 2010c; Nielsen, 2004). Complex thinking involves the ability to hold multiple perspectives in mind while at the same time being able to meta-reflect on those perspectives and the potential relationships among them. This is also referred to as metasystemic thinking (Commons & Ross, 2008). Paradoxical thinking is one of the expressions of complex postformal logic. Authors of a recent study that explores the application of postformal reasoning in non-cognitive settings make the following connections between postformal thought, complexity and ability to deal with paradox.

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[4] The terms *spiritual* or *spirituality*, are used in this research, unless otherwise specified, to reflect worldviews that acknowledge that there is more to existence than matter. This could be discussed at length but it is beyond the scope of this dissertation to do so. The use of *spiritual* is not intended to denote any particular theological or religious view.

[5] *Postmodernism*—a term to denote a critical or deconstructive philosophical perspective in relation to modernism (Keller & Daniell, 2002). While postmodernism is not always regarded as a new stage, structure or movement of consciousness, I note Hampson's recent paper pointing to the construct awareness of Jacques Derrida (Hampson, 2007). I support the notion that much of French philosophical postmodernism or deconstruction could be regarded as an expression of aspects of the new consciousness.

> One general aspect of post-formal thought is that one can conceive of multiple logics, choices, or perceptions of an event or relationship, even if seemingly paradoxical, in order to better understand the complexities and inherent biases in "truth." Relationships work on shared "truths" and resolution of logical conflicts. (Griffin et al., 2009, p. 173)

Postformal logics go beyond Aristotelian formal logic, which requires an *either/or* response thus creating what is called an "excluded middle." Paradoxical thinking refers to the ability to hold in mind the apparently illogical possibility that two contradictory statements can both be true—or indeed both false. This paradox of the included middle allows for *both/and* and *neither/nor* to be correct (Nicolescu, 2002). Sardar notes that this "four-fold logic enables us to think in multiples and thus get a better grip on contradictory tensions" (Sardar, 2010). I would also suggest that the attempt to "hold in mind the paradox of contradictory truths—or non-truths" creates uncomfortable tension in the minds and emotions of people only accustomed to using formal logic. It is beyond the scope of this paper to fully discuss the ways that dialogue, creativity and imagination can be regarded as imaginaries that cohere. These postformal features have been discussed in more detail elsewhere (Gidley, 2007a, 2007b, 2008b, 2009, 2010a, 2010d).

Furthermore, this literature raises the question of how we facilitate the ability of people today to think more complexly, creatively, imaginatively and to dialogue rather than debate their differences. I see it as a global educational priority to lay foundations in childhood and adolescence for the unfoldment of postformal reasoning capacities in adults. In this light, we need to develop *postformal pedagogies* (Gidley, 2007a, 2009).

In summary, my boundary-crossing contribution to the postformal studies field includes:

- Bringing together the postformal psychology and education notions of postformal through my concept of postformal pedagogies.
- Identifying in the broader leading-edge literature the enactment of postformal reasoning features, such as complexity, paradox, creativity, dialogue and imagination, to name a few.

There are important implications of the first point for both the psychology and education fields, in that they may be inspired to cross-fertilize ideas; and also for other fields, in that they may be influenced by learning about the wider potential applications of postformal reasoning. The second point facilitates greater awareness and self-reflection about their participation in a global consciousness shift among thinkers enacting postformal qualities.

Integral Consciousness

The genealogy of the term *integral* is somewhat contested among contemporary integral theorists and researchers. As noted elsewhere, before Sri Aurobindo began writing about integral yoga and knowledge, Steiner[6] was already using the term *integral*[7] in a similar way at the turn of the 20th century (Gidley, 2007b). Steiner's earliest use of *integral,* to my knowledge, is the following comment he made on *integral evolution* in a lecture in Paris on the 26th May 1906.[8]

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[6] Steiner also philosophically used terms such as *integration*, *synthesis* and *unity* to express integrative concepts.

> The grandeur of Darwinian thought is not disputed, but it does not explain the *integral evolution* of man… So it is with all purely physical explanations, which do not recognize the spiritual essence of man's being. (Steiner, 1928/1978, para. 5. Italics added)

Steiner also used the term *integral* in a way that foreshadowed Gebser's use of the term. The latter (Gebser, 1949/1985) claimed that the integral structure of consciousness involves *concretion* of previous structures of consciousness, whereby "the various structures of consciousness that constitute him must have become transparent and conscious to him" (p. 99). Gebser used the term "integral simultaneity" (p. 143) to express this. This echoes Steiner's characterization of "the stages on the way to higher powers of cognition … [where one eventually reaches] a fundamental mood of soul determined by the *simultaneous and integral* experience of the foregoing stages" (Steiner, 1909/1963, § 10, para. 5) [Italics added].

The term *integral* has been popularized over the last decade by Ken Wilber and Ervin László with their respective *integral theories of everything*[9] (László, 2007; Wilber, 1997, 2000b). Much of the contemporary evolution of consciousness discourse that uses the term *integral* to point to an emergent, holistic/integrative and spiritually-aware consciousness—draws on the writings of Gebser and/or Sri Aurobindo, either directly, or indirectly through reference to Wilber's *integral theory* (Anderson, 2006; Combs, 2002; Earley, 1997; Feuerstein, 1987; Montuori et al., 2004; Murray, 2006; Neville, 2006; Roy, 2006; Swanson, 2002; Thompson, 1998; Wilber, 1997).

In summary, Wilber has made a significant contribution to the integral studies discourse by drawing attention to the emergence of integral consciousness, contemporizing and popularizing it. Wilber's notion of integral drew from Gebser's extensive research on what he called 'integral-aperspectival' consciousness. Gebser's major contribution, apart from formally identifying this structure, was to note its emergence in the world in various fields in the first half of last century. Prior to Wilber, Gebser, and even Sri Aurobindo, Steiner had begun in the early 1900s, to identify the emergence of a stage of consciousness beyond abstract, formal, intellectual thinking. Steiner proposed a stage of self-reflective consciousness that he called "consciousness soul" that is not only able to perceive and know the world but to become conscious of itself (Steiner, 1909/1963). This resembles the "double I" identified by the late postmodernists: particularly Foucault and Derrida (Benedikter, 2005). Wilber similarly uses the abbreviation "I-I" to refer to

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[7] I have identified seventeen texts in which Steiner uses *integral* similarly to Sri Aurobindo, Gebser and integral theorists today. This matter will be the subject of further research.

[8] A comprehensive genealogy of integral thinking is yet to be undertaken. However, there are several key thinkers who must be considered as serious contributors. These include: Russian philosopher Vladimir Sergeyevich Solovyov (1853-1900) whose thesis on "The philosophical principles of integral knowledge" was published as a series of articles as early as 1877; Russian sociologist Pitirim Alexandrovich Sorokin (1889-1968) and Saint Thomas Aquinas (1225-1274). Some consideration has been given to the influence of these early thinkers on integral education by Markus Molz and Gary Hampson (2010).

[9] The integral approaches I consider, including my own, need to be contextualized as *post-positivist*, in contrast to the early 20th century strivings of the Vienna Circle to create a *unified science* through *logical positivism*.

the "I" who reflects on itself, sometimes also called the witness (Wilber, 1995/2000). Effectively, Steiner identified the imminent emergence of the postformal reasoning feature of self-reflexivity over a century ago. Steiner arguably also contributed the most substantial material in terms of how we can actively develop this new stage of consciousness (Steiner, 1904/1993, 1926/1966, 1934/1983), and how we can educate for it, including dozens of volumes of educational lectures.

As my contribution to further the development of integral theory, I have developed a layered framing through which to view the complementary nature of several significant integral theorists (Gidley, 2010a).[10] For the purposes of this schematic summary I have chosen to focus on five integral theorists: Gebser, László, Sri Aurobindo, Steiner and Wilber; and two transdisciplinary theorists: Morin and Nicolescu.[11] I propose to view the contributions from several metaphoric perspectives, introducing five—mostly new—terms to integral theory: *macro-integral*, *meso-integral*, *micro-integral, participatory-integral,* and *transversal-integral.*[12] Based on this new framing I intend to demonstrate how the various integral approaches need not be seen to be in competition with each other but rather as complementary aspects of a broader articulation of *noospheric breadth* that is seeking living expression. Without implying that any of these terms represent closed, fixed categories or that any of the integral approaches could be contained completely within any of these concepts, I have theorized the following provisional mosaic of integral studies as it stands today (Gidley, 2007b, pp. 125-130).

By *macro-integral* I am referring to the extent to which the integral theorist includes all major fields of knowledge. I suggest that at this level of conceptual integration, Wilber's AQAL framework makes a highly significant contribution and this is where his strength lies. The breadth of Steiner's theoretic contribution to the understanding and integration of knowledge is at least as vast as Wilber's, however it has been largely ignored by both the academy and integral theorists, perhaps to their detriment. Gebser also made an impressive, but largely under-appreciated theoretic contribution to articulating the emergence of integral consciousness in numerous disciplines and fields in the early 20th century. In summary, I see Steiner, Gebser and Wilber as three of the most significant macro-integral theorists of the 20th century with Wilber being the most accessible of the three (Gidley, 2007b, pp. 125-130).

By *meso-integral* I am referring to the extent to which the integral theorist contributes significantly to theory building within particular fields or theories. I propose that László's (László, 2007) contribution is highly significant at this level. Having followed a rather more formal, European, academic-scientific approach to theory building, László has taken a general systems approach to integral theory. Although it can be critiqued from a Wilberian view as being partial, it appears more successful than most integral approaches at being taking seriously from an academic perspective. Although Wilber and Steiner have both made numerous theoretic contributions to various disciplines, their contributions remain marginalized within mainstream approaches. Sri Aurobindo's integral approach could also be regarded as a significant contribution at this level—albeit also a marginalized one—given that his philosophy provides a foundation for much of the later integral theory development (Anderson, 2006).

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[10] I am using the terms *theorists* and *theory* in this section broadly to cover philosophy, epistemology and methodology.

[11] The atypical nature of this list can be accounted for in two ways: My reasons for including transdisciplinary theorists will become evident and other integral theorists who have been considered elsewhere are generally aligned to one or more of these major theorists.

[12] I recognize that some of these terms have technical meanings in mathematics, engineering and computer sciences, however, I am using them metaphorically in this context.

By *micro-integral* I am referring to the extent to which the integral theorist makes detailed contributions to specific disciplines or fields through the *application* of their integral theory. I propose that at this level of detailed application of integral theory to a wide range of disciplines and professional fields, Steiner's extraordinary contribution can no longer continue to be ignored by integral theorists. Although it is beyond the scope of this paper to consider all the fields of application of his theory, extensive reference to the integral nature of his theory and particularly of its pedagogical application can be found elsewhere (Gidley, 2007a, 2008a, 2008b, 2009). By comparison, Gebser's, Wilber's and László's theories are largely conceptual, although Gebser enacts his integrality in the style of his writing, Wilber is making moves towards the application of his theory in various fields and László's Club of Budapest has an activist dimension.

The notion of *participatory-integral* is represented here by the integral transformative education theory of Ferrer (Ferrer, 2002; Ferrer, Romero, & Albareda, 2005). Ferrer's participatory approach[13] is inspired by Sri Aurobindo's integration of the three yogas of *knowledge, love and action*, which is in turn aligned to Steiner's *thinking/head, feeling/heart* and *willing/hands* (Gidley, 2007b, p. 111). Ferrer emphasizes the importance of the participation of the whole human being (body, vital, heart, mind and consciousness) and claims that most integral education theories are either too cognicentric or too eclectic. He provides an alternative framing, based on Wexler's notion of *horizontal integration*, as "the way we integrate knowledge" and *vertical integration*, as "the way we integrate multiple ways of knowing" (Ferrer et al., 2005, p. 309). Based on this framing Ferrer places most integral, holistic and even transdisciplinary approaches within horizontal integration. My interpretation is that this framing is too simplistic: firstly, because there are other unacknowledged ways that the terms vertical and horizontal are used in integral theory and other theories; and secondly, much depends on how the approach to integrating knowledge is applied. Such a dichotomy could not reasonably be applied to the writings of Steiner, Gebser or Morin.

I also propose a new concept via the term *transversal-integral* that refers to integral approaches that include and cut across these vertical and horizontal levels/dimensions. While it could be argued that all the integral theorists mentioned cut across these different dimensions to a greater or lesser degree—particularly Steiner and Wilber—I acknowledge two other significant integral thinkers who enact *transversal*[14] reasoning and relationships through their transdisciplinarity. Morin and Nicolescu do not tend to use the term *integral*, nor are they cited as integral theorists in much of the integral literature.[15] I suggest the latter is an unfortunate oversight based on semantic and cultural misunderstanding, rather than philosophical and conceptual understanding. From my planetary scanning of the research it is apparent that the term *integral* is much more widely used in North America than in Europe. By contrast the term *transdisciplinary*[16] appears to be used in Europe, particularly by Nicolescu and Morin, with similar integral intent. A special feature of both Nicolescu's and Morin's transdisciplinary philosophies is their attention to *transversal* relationships.[17]

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[13] The term *participatory* in relation to integral theory is also used in a different way to refer to self-reflective enactment (Hampson, 2007; see also Gidley, 2008b, pp. 13, 110, 124).

[14] Professor of science and theology, J. Wenzel Van Huyssteen draws attention to the role of *transversality* in postfoundational approaches to interdisciplinarity: "Transversality in this sense justifies and urges an acknowledgment of multiple patterns of interpretation as one moves across the borders and boundaries of different disciplines" (van Huyssteen, 2000, abstract).

In summary, my boundary-crossing contribution to the integral studies field includes:

- An *integration of integral theories* that deepens integral evolutionary theory by honoring the significant yet undervalued theoretic components of participation/enactment and aesthetics/artistry via Steiner and Gebser as a complement to Wilber's conceptual emphasis.
- A meta-framing of interrelationships among significant integrative approaches that are: inclusive of the vastness of noospheric breadth (*macro-integral*); that provide rigorous theoretic means for cohering it (*meso-integral*); that attend to the concrete details required for applying the theories (*micro-integral*); that encourage the participation of all aspects of the human being throughout this process (*participatory-integral*); and that are able to traverse and converse across these multiple dimensions (*transversal-integral*).

The significance implications of my contributions are that if proponents of the different streams of integral theory are able to see that they are not necessarily "in competition with each other" but rather are providing complementary perspectives that each support the other, then this can only benefit the growth of global knowledge futures in its broadest sense.

Planetary Consciousness

In addition to bringing the postformal literature into dialogue with integral perspectives, this paper also introduces a third strand of literature—the *planetary consciousness* literature. While the psychological literature on postformal reasoning primarily focuses on empirical and analytic articulation of higher stages of reasoning, and the integral literature—particularly Wilberian integral—tends to emphasize the epistemological crisis and how this can be transformed by integral consciousness, the literature on planetary consciousness introduces a much stronger critical, normative element. In my view this must be a vital component of boundary-crossing conversations in the 21st century, given the complexity of our world and the multiple crises that exist.

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[15] However, integral theorists from the Califormia Institute of Integral Studies, Alfonso Montuori and Sean Kelly, have been translating Morin's writing over the last decade and clearly appreciate its significance for integral studies.

[16] A lack of clarity on these matters within integral theory may result from a conflation by some American integral theorists of *transdisciplinarity* with the concept *interdisciplinarity*, which is more widely used in the US. From my reading of these terms, Nicolescu's *transdisciplinarity* is closer in meaning to *integral* than it is to *interdisciplinarity*.

[17] The *Charter of Transdisciplinarity* developed in 1994 by Nicolescu, Morin and others acknowledges the *horizontal integration* of the exact sciences, humanities, social sciences, art, literature, poetry and spirituality (p. 149); the *vertical integration* of intuition, imagination, sensibility, and the body in transmission of knowledge (p. 150); and also the significance of broader, *transversal integration* through a "transcultural, transreligious, transpolitical and transnational attitude" (Nicolescu, 2002, p. 140).

The critical element is lacking in much of the psychological literature on postformal thinking[18] and much of the integral theory,[19] particularly that based on Wilber, with some exceptions (Esbjörn-Hargens, 2005; Hochachka, 2005; Zimmerman, 2005). Although Wilber repeatedly claims that his AQAL framework includes "body, mind, and spirit in self, culture, and nature" the strength of his critiques of the eco-philosophies of the romantics and the contemporary "green movements" potentially undermine the critical efforts of environmental ecologists to re-prioritize the needs of nature as part of a fully integral agenda (Hampson, 2007). The planetary scale and urgency of our current crises need to be foregrounded and brought into intimate relationship with the epistemic shift in consciousness. This critical component is more evident in the evolution of consciousness literature that favors the term *planetary*—rather than *postformal* or *integral*—to denote the emergent consciousness.

The use of the term *planetary* has been increasing within evolution of consciousness discourse. The semiotic pluralism of its contemporary usage provides a counterbalance to the more politico-economic term, *globalization*. Many researchers who use the term *planetary* have been inspired by Teilhard de Chardin's notion of the *planetization of mankind* (Teilhard de Chardin, 1959/2004). The phrase *planetary consciousness* is emerging as an alternative to the terms *postformal* or *integral* to characterize the new consciousness, particularly in the light of our current planetary crisis. In addition to its popular use by environmental activists it is used in academic contexts by a range of philosophers, scientists, educators and sociologists (Earley, 1997; Gangadean, 2006a; László, 2006; Miller, 2006; Montuori, 1999; Morin & Kern, 1999; Swimme & Tucker, 2006). This critical use of *planetary* has been emphasized in the philosophical writings of Morin who refers to the present times as the *Planetary Era*, which he claims began around five hundred years ago (Morin, 2001, 2005a, 2005b; Morin & Kern, 1999). Several other contemporary writers have also been influenced by Morin's concept of *planetary* (Bocchi & Ceruti, 2002; Ceruti & Pievani, 2005; De Siena, 2005; Montuori, 1999; Poletti, 2005; Saloff-Coste, 2001).

Although the term globalization is often used in the politico-economic discourse where the term global may be tacitly infused with notions of homogenization, several researchers have also use the term global to represent more pluralistic notions. Political scientist Manfred Steger refers to the "rise of the global imaginary" which he regards as having both reactionary elements such as those reflected in fundamentalist global religious groups, and radically progressive elements such as those expressed in the justice globalism movement (Steger, 2008). Systems engineer and former president of the *Noetic Sciences Institute*, Willis Harman (1988) was referring to the emerging "global mind change" over twenty years ago. A recent special issue of the journal *Futures* is focused on "global mindset change" (Kapoor & Gidley, 2010).

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[18] Notably some of the pioneering post-formal educational literature has a critical element (Kincheloe & Steinberg, 1999; Kincheloe et al., 1999).

[19] As indicated above, Laszlo's *integral theory of everything* is infused with a critical awareness of planetary issues as is Gandagean's integral philosophy. Their works already represent an integration of integral and planetary perspectives, however, they are less explicit about the developmental perspectives reflected in the postformal literature.

Harman conceived a hierarchical model of science drawing on Popper's *three worlds* (Popper & Eccles, 1977) which is helpful in demonstrating my layered view of the elements of the planetary studies field. I have adapted Harman's model (see Table 1) to include the notions of *geosphere,*[20] *biosphere*, *noosphere* and *pneumatosphere.*[21] This framing also parallels Steiner's layered view of science (Gidley, 2008b).

In summary, my boundary-crossing contribution to the planetary studies field includes:

- The development of a multi-layered framing of the different streams within the discourse, incorporating critical environmental (biosphere), transcultural (anthropo-socio-sphere), philosophical (noosphere) and spiritual interests (pneumatosphere).

This contribution has significant implications for a number of fields. A greater understanding of the importance of using adequate epistemologies and methods for each level of reality may have an impact of the way that global crises are dealt with, the way that international relations are conducted, even in terms of the futures of world governance and collaboration amongst historically divided domains and sectors.

Futures Studies, Foresight and Anticipation

While acknowledging that thinking about the long-term futures has a much longer tradition than the late twentieth century, its presence in the academic literature has only arisen since the 1960s. There are several typologies[22] to describe the different futures epistemologies and how they have emerged. The typology below builds on earlier models developed over the last twenty years—most of which build on Habermas and propose three or four different futures paradigms (Inayatullah, 1990; Slaughter, 2008a). I propose a five-stranded futures typology, beginning with a single bifurcation between positivist and post-positivist (see Figure 3).

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[20] There is a complex genealogy to the terms geosphere, biosphere and noosphere. The terms *geospheres* (sic) and *biosphere* were coined by Austrian geologist Eduard Suess (1831-1914) as correctly attributed by both Teihard de Chardin and Vladimir Vernadsky who have both been incorrectly attributed with coining the terms (Vernadsky, 1967/1998). In 1943, Vernadsky attributed the coining of *noosphere* to Bergsonian philosopher Le Roy and to Teilhard de Chardin, in 1927 (Vernadsky, 1943/2005).

[21] In 1929, Russian philosopher Pavel Florenskij coined the term *pneumatosphere*, in correspondence with Vernadsky (Ivashkin, 1990). Florensky included "works of art" within the *pneumatosphere*, as in Popper's evolutionary Stage 6 (Ivashkin, 1990). Other terms have been used to refer to the *spiritual sphere* beyond the noosphere, notably *Theosphere* (Wilber, 1995/2000) and *LogoSphere* (Gangadean, 2006b).

[22] Note that other typologies have also been developed but it is beyond the scope of this paper to explore them further (Bell, 1997/2003 , 1997/2004 ; Masini, 1993).

Table 1: A Hierarchical Cohering[23] of Knowledge Spheres and Epistemologies based on Plotinus' *Adaequatio* and Popper's *Three Worlds* (Sources: Harman, 1988, p. 93; Ivashkin, 1990; Popper & Eccles, 1977, p. 16; Schumacher, 1977; Vernadsky, 1943/2005, 1967/1998).

Domains of Interest	***Harman: Levels of Science*** [Bracketed points added by Gidley]	***"Spheres" of Suess, Le Roy, Teilhard de Chardin, Florensky***	***Popper's 3 worlds[24]***	***Popper's Cosmic Evolutionary Stages***
Domain of spirit	Spiritual sciences [anthroposophy][25]	Pneumato-sphere	World 3 (products of the human mind) World 2 (the world of subjective experiences) World 1 (the world of physical objects)	(6) Works of Art and Science (5) Human Language. Theories of self/death (4) Consciousness of self/death (3) Sentience (animal consciousness) (2) Living Organisms (1) Heavy Elements (0) Hydrogen, Helium
Domain of language, thinking, culture	Human sciences [psychology, anthropology, philosophy]	Noosphere		
Domain of life	Life sciences [biology]	Biosphere		
Domain of physical	Physical sciences [physics, geology]	Geosphere		

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[23] In Table 1, it can be seen that these models are isomorphic with each other. In each model the layers do not represent discrete, bounded categories, but rather interpenetrate each other.

[24] Foreshadowing philosopher of science Sir Karl Popper's notion of *three worlds*, Steiner also referred to *three worlds,* noting: "a clear understanding of them and of [our] share in them can only be obtained by means of three different modes of observation" (Steiner, 1904/1971, pp. 4-6). He elaborated: "the biologist is concerned with the body, the investigator of the soul—the psychologist—with the soul, and the investigator of the spirit with the spirit" (Steiner, 1904/1971, p. 10). He called for a *spiritual science* (or *Geist* science), which he later developed (see also Gidley, 2008b).

[25] *Anthroposophy*—wisdom of the human being—is the term Steiner used for his *spiritual science*. It is an interesting lexical combination of anthropology and philosophy.

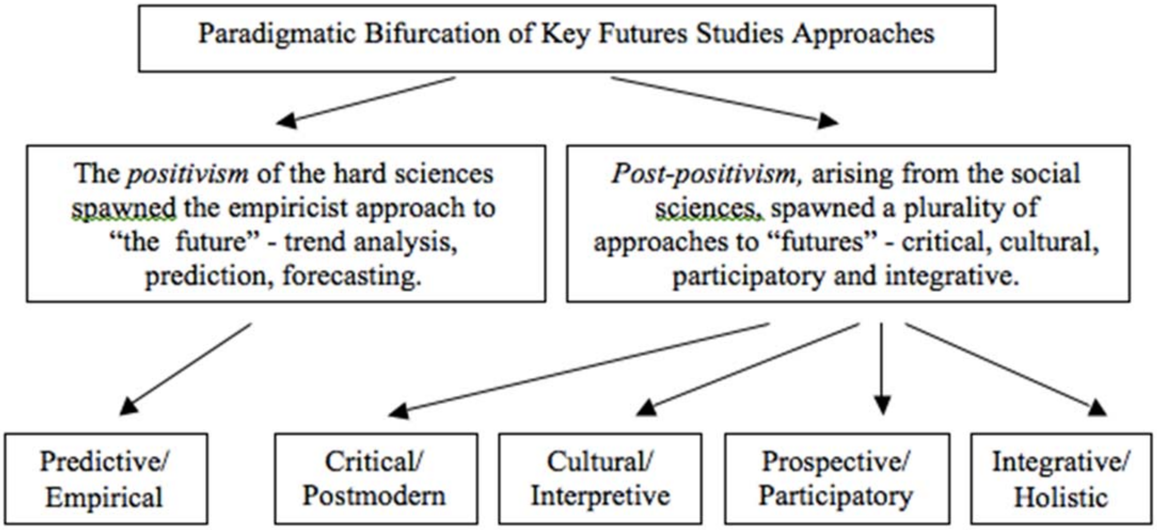
Paradigmatic Bifurcation of Key Futures Studies Approaches
The positivism of the hard sciences spawned the empiricist approach to "the future" - trend analysis, prediction, forecasting.
Post-positivism, arising from the social sciences, spawned a plurality of approaches to "futures" - critical, cultural, participatory and integrative.
Predictive/ Empirical
Critical/ Postmodern
Cultural/ Interpretive
Prospective/ Participatory
Integrative/ Holistic

Figure 3: Paradigmatic Bifurcation of Futures Studies Approaches (Gidley © 2010)

These approaches are not mutually exclusive, nor should this conceptualization imply a linear developmental model. These are all suitable pathways to futures research depending on the context. Well-informed futures researchers may utilize any or all of these futures approaches depending on their operational context. Each approach represents different epistemological underpinnings, which, to some degree, parallel similar developments in other knowledge fields (see Table 2). As indicated below each of these approaches has strengths and limitations as does the futures studies field as a whole.

Positivist Approaches to "the Future"

The predictive-empirical tradition originated in the USA. It arose initially from US defense intelligence but was supported as a methodology with broader purposes by the formation of the World Future Society in the late 1960s. This research refers to a one and only future that empirical trends suggest, and is often referred to as the (singular) 'probable *future*.' This approach still dominates the literature base. One of the strengths of this approach is its perceived objectivity and values neutrality. Its weaknesses may include narrowness in focus and lack of contextual awareness. It also implies that trends are inevitable and this can be disempowering if the trends are negative.

Post-positivist Approaches to "Multiple Futures"

The critical-postmodern tradition originated in Europe, particularly France, growing out of a critical social theory tradition which sought to balance what it perceived as the overly empiricist approach of many futurists in the USA. This led to the foundation of *Mankind 2000* in the late 1960s, which led among other initiatives to the founding of the World Futures Studies Federation (WFSF) in the early 1970s. This approach is normative and is often referred to plurally as 'preferred *futures*.' A strength of this approach is that it makes explicit the—often tacit—contextual and values dimensions and thus leads to a questioning of 'business as usual.' A weakness is its perceived subjectivity, which can sometimes lead to excessive relativism.

The cultural-interpretive tradition arose in large measure from the work of those futures researchers who sought to include non-Western cultures and to invoke a deeper consideration of civilizational futures (Inayatullah, 1995, 2000; Milojevic, 2005; Nandy, 2000; Sardar, 1994). This approach opens up the possibilities of alternative, particularly non-Western and feminist futures, and is a crucial part of the dimension that may be referred to as 'possible, or alternative, futures.' Strengths of this approach include its creativity and engagement of multiple perspectives. A weakness is that proposed alternatives may lack feasibility, or be overpowered by the more dominant empiricist approach.

The prospective-action research approach seeks to facilitate empowerment and transformation through engagement and participation. It was initially developed by French and later Swedish futurists and has been emphasized in Australia (Berger, 1964; Bjerstedt, 1982; Boulding, 1988; Hutchinson, 1992; Wildman & Inayatullah, 1996). This could be referred to as 'prospective' or 'participatory futures,' depending on context. The most obvious strength of this approach is that it engages participants in research projects, empowering them to question and act on alternatives to 'business as usual.' A weakness is that if it does not also take account of relevant empirical research, it may lack legitimacy in the dominant positivist scientific circles.

The integrative-holistic futures approach is a relatively new and somewhat contested territory. It is potentially the broadest and deepest possible approach to futures as it can integrate aspects of all the other approaches (Gidley, 2010c; Slaughter, 2003; Voros, 2001). Because of its grounding in complex, integrative and transversal epistemologies it maximizes potential for facilitating and enabling normative 'planetary futures.' The strength of this approach is its breadth of scope, which may enable the integration of different methods as appropriate to different contexts (Gidley, 2010c; Hampson, 2010). However, too much breadth may also be perceived as a weakness in that it may sometimes lead to a lack of depth. There is also an ideological trap, which can lead to contested claims about integrality of approaches (See two special issues of *Futures*, Inayatullah, 2010; Slaughter, 2008a).

Being a transdisciplinary field, the insights and methods of futures studies can be applied within many fields and across multiple issues. However, its contributions are yet to be widely adopted in much academic discourse. At a time when the pace of change is accelerating, and environmental issues such as anthropogenic climate change are upon us, both the natural sciences and social sciences could benefit from a greater understanding of how to think about alternative futures using longer time frames. The ontological, epistemological and methodological contributions of futures studies have been overlooked, resulting in too much research mirroring the short-termism of share markets and electoral-cycle-driven government policy-making. Futures studies as a field is not without its drawbacks. Unfortunately its reputation as a serious academic field has been tainted by the uptake and over-use of well-known futures methods such as scenarios in a non-scientific and uncritical manner by consultants, market researchers and journalists. Futures researchers often focus on very complex themes and, consequently, not all relationships can be fully teased out and conclusions have to be recognized as reflecting a degree of uncertainty. These issues are addressed in discussions of validity and trustworthiness in the futures studies literature. Taking these issues into account, policy and planning initiatives based upon futures approaches do need to be implemented within cautionary frameworks.

Table 2: A Typology of Positivist and Post-positivist Futures Approaches (Sources: Gidley, 2009; Gidley, Bateman, & Smith, 2004; Inayatullah, 1990; Slaughter, 2008b)

Futures Studies Approaches	Key Terms	Underlying Theories and/or Paradigms	Goals
Positivist Approach to "the Future"			
Predictive/ Empirical	'probable future'	Positivism Empiricism	Trend Analysis Prediction/Control
Plurality of Post-positivist Approaches to "Multiple Futures"			
Critical/ Postmodern	'preferred futures'	Critical Theory Deconstruction	Normativity Emancipation
Cultural/ Interpretive	'possible or alternative futures'	Constructivism Hermeneutics	Alternatives "Other" futures
Prospective/ Participatory	'prospective or participatory futures'	Action Research Hope Theories	Empowerment Transformation
Integrative/ Holistic	'planetary or integral futures'	Integral Theories Planetisation Theories	Global Justice Planetary Era

Futures studies makes a significant contribution to global knowledge futures in that it stretches the boundaries of *time* and its modernist conceptualization. It applies a *futures* lens to a number of discourses that do not appear to have a conscious sense of the temporal dimension in which they operate. While many disciplines and fields have a sense of the past, very few appear to have a sense of their potential futures. Ironically, even within the evolution discourse, which is clearly embedded in the time dimension, there appears to be little regard for the decades of academic research that has been undertaken in the futures studies field. By introducing futures perspectives into the boundary-crossing discourses, I take both a macrohistorical time perspective and also make explicit the significance of future time sense as a balance to the over-valuing of the past. All forms of *development*, *growth* and *progress* are embedded in the time dimension and thus need to take into account the future time dimension as well as the past.

By applying futures thinking to the three meta-theoretical approaches that I am highlighting—postformal reasoning, integral consciousness and planetary awareness—I am crossing the boundary that ties us and limits us to what we already know in the present.

- Since postformal reasoning refers to the developmental stage *after* the establishment of *formal operational* thinking, it can be conceptually situated in the temporal dimension as a psychological stage that points to the future of human development.
- The notion of integral consciousness is closely tied to postformal reasoning as it refers in much of the integral studies literature to a stage/structure or movement of consciousness beyond formal thinking and is reflected in both cultural evolution and individual psychological development.
- The rise of planetary awareness can also be situated in the temporal dimension most frequently associated with the 15th century where the European journeys of discovery enabled a broader communication between the peoples of all continents.

If one takes a big picture macrohistorical view of time, it may be that these new ways of thinking are only in their early stages of development.

The significance of stretching our concept of time through futures studies is of great potential value to education and many other disciplines and fields, such as the sciences, philosophy, and the arts in relation to considerations of the evolution *of* these disciplines. Even a cursory glance at *possible futures* in the context of the rapid emergence of more integral and transdisciplinary approaches, suggests that disciplinary knowledge itself may soon become “history.”

Paradoxically, these temporal conceptualizations rely on the three-part model of time—past, present and future. Elsewhere I have made a philosophical contribution to the reconceptualizing of this default modernist notion of linear time on which western culture depends (Gidley, 2007b, appendix 1). Several other ways of conceptualizing time need to be considered, pointing again to the complexity and paradoxical nature of time.

In summary my boundary-crossing contribution to the futures studies field includes:

- Offering a further development of earlier typologies of approaches with the field, with particular emphasis on the bifurcation between positivist and post-positivist approaches;
- Taking a futures lens to the other meta-theoretical approaches that are the focus of the paper, in particular to the postformal studies field.

The implications of my contribution include the realization that futures studies is not immune to other epistemological developments, nor is it necessarily leading the way. For further discussion of this issue, see Gidley (in press).

Reflections and Proflections

This paper takes the dominant discourse on the information era with its focus on the new *global knowledge economy* and turns it on its head. Unpacking the economistic and reductive notions of knowledge that flood the literature, and the homogenization inferred in many uses of the term global, the innovative concept of *global knowledge futures* broadens the discourse on knowledge futures in many fruitful directions. The paper discusses the state of play in several leading-edge discourses: postformal studies, integral studies, global/ planetary studies and futures studies. It also offers new boundary-crossing theoretical contributions to them all, gently nudging them ever closer towards a greater coherence—both within and across these fields.

Divergences and convergences are identified in the process of the analysis and synthesis. While the psychological literature on postformal thinking primarily focuses on identifying the features of higher stages of reasoning, and the integral theories primarily focus on inclusiveness of conceptual breadth, and/or inclusiveness of different aspects of the human being, the planetary consciousness literature tends to emphasize the urgency of our planetary crisis and the importance of a plurality of perspectives.

My philosophical interest in this paper is in *thinking* these threads together as facets of our emerging consciousness that reflect the dynamic diversity that can be in dialogue with unity. As Plato said: “Thinking begins when conflicting perceptions arise” (Plato’s Republic, VII, 523, cited in McDermott, 2005, p. 8).

By working at the creative margins of these boundary-crossing fields, and seeking out and identifying the territory beyond them where they begin to touch each other, I am initiating the development of a new meta-level field of studies: *global knowledge futures*.

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Towards an Integral[1] Meta-Studies: Describing and Transcending Boundaries in the Development of Big Picture Science

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Abstract: We are entering a period in human civilisation when we will either act globally to establish a sustainable and sustaining network of world societies or be enmired, for the foreseeable future, in a regressive cycle of ever-deepening global crises. We will need to develop global forms of big picture science that possess institutionalised capacities for carrying out meta-level research and practice. It will be global in that such research cannot be undertaken in isolation from practical global concerns and global social movements. In this paper I propose a general schema, called integral meta-studies, that describes some of the characteristics of this meta-level science. Integral here refers to the long tradition of scientific and philosophic endeavours to develop integrative models and methods. Given the disastrous outcomes of some of the totalising theories of the nineteenth century, the subsequent focus on ideas of the middle-range is entirely understandable. But middle-range theory will not resolve global problems. A more reflexive and wider conceptual vision is required. Global problems of the scale that we currently face require a response that can navigate through theoretical pluralism and not be swallowed up by it. In saying that, twenty-first-century metatheories will need to be different from the monistic, grand theories of the past. They will have to be integrative rather than totalising, pluralistic rather than monistic, based on science and not only on philosophy, methodical rather than idiosyncratic, find inspiration in theories, methods and interpretive frameworks from the edge more than from the centre and provide means for inventing new ways of *understanding* as much as new technologies. Integrative meta-studies describes an open system, inquiry space or clearing that has a place for many forms of scientific inquiry and their respective theories, methods, techniques of analysis and interpretive frameworks.

Keywords: Global crises, meta-data-analysis, meta-hermeneutics, metamethod, meta-studies metatheory, middle-range theory.

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[1] The word "integral" is used here to refer to the long tradition of integrative big pictures as exemplified in the work of such figures as Thomas Aquinas, Georg Hegel, Michil Bakunin, Vladamir Solovyov, Pitrim Sorokin, Rudolph Steiner, Jean Gebser, Aurobindo Ghose, Jacques Maritain, Bill Torbert, Ken Wilber, Ervin László, Fred Dallmyr, Ronnie Lessem and Alexander Schieffer.

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Introduction

We are entering a period in human civilisation when we will either act globally to establish a sustainable and sustaining network of world societies or be enmired, for the foreseeable future, in a regressive cycle of ever-deepening global crises. If we are to take the former pathway then we must, as a matter of some urgency, develop and institutionalise integrative and meta-level forms of scientific sense-making. This meta-level form of sense making will complement existing disciplines to establish a multi-layered understanding of science that will have the capacity to take a reflexive perspective on current scientific and philosophical theory building and testing. We will need to develop global forms of big picture science that possess institutionalised capacities for carrying out meta-level research. It will be global in that such research cannot be undertaken in isolation from practical global concerns and global social movements. In this paper I propose a general schema, called integral meta-studies, that describes some of the characteristics of this meta-level science. Integral here refers to the long tradition of scientific and philosophic endeavours to develop integrative models and methods. There are many precursors and formative examples that I draw on in developing the integral meta-studies framework and what I want to do here is present something an overview that can help to situate meta-level scientific and philosophical studies within the current landscape of knowledge quests. Integrative metatheorising is an ambitious project. It is based on the premise that the critical appreciation and integration of diverse theoretical and methodological perspectives offers a new way forward in the development of science. It seeks to find insights through the connection of knowledge rather than the specialisation of knowledge. It takes an appreciative rather than a depreciative view towards systems of knowledge, irrespective of their place within the mainstream or the periphery. The big pictures that emerge from this process stand in contrast to the goals of mainstream social science which are almost exclusively concerned with the building and testing of middle-range theory.

Given the disastrous outcomes of some of the totalising theories of the nineteenth century, the subsequent focus on ideas of the middle-range is entirely understandable. But middle-range theory will not resolve global problems. A more reflexive and wider conceptual vision is required. Global problems of the scale that we currently face require a response that can navigate through theoretical pluralism and not be swallowed up by it. In saying that, twenty-first-century metatheories will need to be different from the monistic, grand theories of the past. They will have to be integrative rather than totalising, pluralistic rather than monistic, based on science and not only on philosophy, methodical rather than idiosyncratic, find inspiration in theories, methods and interpretive frameworks from the edge more than from the centre and provide means for inventing new ways of *understanding* as much as new technologies. Integrative meta-studies describes an open system of knowledge acquisition that has a place for many forms of scientific inquiry and their respective theories, methods, techniques of analysis and interpretive frameworks. We have, in fact, been developing these meta-level capacities and models for a very long time and the time is now ripe for a more overt description and institutionalisation of these perspectives and practices.

The Challenge of Pluralism

The great proliferation in empirical studies that occurred through the 1970s and 1980s brought with it the rise of meta-data-analysis. The sheer outpouring of empirical information, particularly in the health and medical sciences, required a scientific response that could somehow make sense and form some overarching big picture of the mass of data pouring out of journals and scientific laboratories. Gene Glass was one of the pioneers of these early approaches to the integration of empirical findings and he proposed the term meta-analysis to describe the “analysis of a large collection of analysis results from individual studies for the purposes of integrating the findings” (Glass, 1976, p. 3). Glass described the emergence of meta-analysis as follows (1977, pp. 351–352):

> By the late 1960s, the research literature had swollen to gigantic proportions. Although scholars continued to integrate studies narratively, it was becoming clear that chronologically arranged verbal descriptions of research failed to portray the accumulated knowledge. Reviewers began to make crude classifications and measurements of the conditions and results of studies. Typically, studies were classified in contingency tables by type and by whether outcomes reached statistical significance. Integrating the research literature of the 1970s demands more sophisticated techniques of measurement and statistical analysis. The accumulated findings of dozens or even hundreds of studies should be regarded as complex data points, no more comprehensible without the full use of statistical analysis than hundreds of data points in a single study could be so casually understood. Contemporary research reviewing ought to be undertaken in a style more technical and statistical than narrative and rhetorical. Toward this end, I have suggested a name to make the needed approach distinctive; I referred to this approach as the meta-analysis of research.

Precisely this situation exists today, for not only research data but, for the multitudinous varieties of theory, methods and interpretive systems that are employed to make scientific sense of the complex worlds we inhabit today. And we need corresponding meta-level schools of scientific research in each of these realms. Indeed, we can see many different forms of these meta-level studies emerging today across all kinds of scholarly outputs. On the theory side we see the emergence of meta-level theoretical frameworks, multiparadigm studies and overarching conceptual models in many social sciences. In the study of scientific research methods we see the development of meta-methods and the associated approaches of mixed and multi-methodologies and with the variety of new epistemological orientations we see the rise of meta-level and general hermeneutics. Together, these overarching forms of analysis constitute a meta-level science and they formalise a way of developing knowledge that has been part of the human story of meaning-making for a very long time. What makes these meta-level disciplines different is that now we can build and test these big pictures from a scientific perspective.

These meta-level studies form a new layer of global research in that they emerge out of the pluralism of diverse views of reality that are present across different cultures, different political and geographical regions different social histories. Where modernistic forms integrative science have attempted to develop unified grand theories and the single big Theory of Everything, the new integrative meta-level approach recognises the postmodern turns towards interpretive, methodological and theoretical diversity. The goal then is not for a unified grand monism but an open space for pursuing scientific big picture inquiry in which multiple perspectives can be appreciatively and critically considered. Hence, this new meta-level inquiry offers a scientific response to one of the central questions of the 21st century - how are we to develop global conversations around, what Raiman Panikkar call, "the pluralisms of truth" (Panikkar, 1990, p. 16).

> ... truth is pluralistic because reality itself is pluralistic, not being an objectifiable entity. We subjects are also part of it. We are not only spectators of the Real, we are also co-actors and even co-authors of it. This is precisely our human dignity.

During the twentieth-century we saw a procession of big pictures come and go with some useful insights and advances but also with often disastrous results. In the domains of politics, economics, education, commerce and trade and organisation and management we have seen a litany of big scientific ideas come and then drift off into marginality. While each of them had their partial truths and valid points, overall, when championed as complete and universal schemes of salvation, big pictures have not had a good track record. From Marxism to monetarism, from rational choice theory to marketism, from globalism to the promises of hyper-technologies - all of these big pictures have their respective insights and have resulted in great advances in understanding but they have also resulted in ideologies of various kinds that are fundamentally degrading the environmental, social, economic and intellectual resources of the planet. The human predilection for creating big pictures will continue and will grow even more as we enter further into the age globalisation. Given this, how can we develop and validate our metatheories via a more conscious form of doing science? How can we build a deep science which is integrative, pluralistic, reflexive, and appreciative of contending views rather than specialist, monistic, objectifying and aimed at finding the one true theory or method? Before looking at this I should first discuss a little more about what I mean by science and social science. I argue that meta-studies, or big picture science, will play an important role in the development of planetary culture in the coming decades and so it might be useful to describe in further detail how I view scientific activity and its role in contemporary society.

Science and its Role in Emergent Global Communities

Science is essentially a systematic quest for knowledge and social science is the application of that systematic study to the domain of human experience and behaviour in all its many forms. The development of what we think of as contemporary science has been a global affair. The threads of cultural and technical knowledge and activity that weave together to create science come from many and diverse sources. These include the philosophies of the ancient Greeks, the insights of Islamic scholars, the mysticism of the hermeticists and the alchemists, the genius of individual insights, the technical expertise of artisans and instrument makers, and the natural knowledge of tribal peoples and people of the land[3]. Although we often associate the development of science with great figures such as Nicolaus Copernicus, Charles Darwin, Albert Einstein, and Marie Curie, the truly astonishing thing about science is that its basic motivation lies within the human instinct for learning and for understanding.

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[3] I have focused here on some elements of the Western story of big picture building and there are of course similar parallels in non-European cultures. More importantly, the history of the development of big pictures has always been a multi-cultural one and there has been a constant process of cross-fertilisation between cultural, philosophical and spiritual traditions throughout the millennia.

Science shares with learning the need to explore the new, the desire for development, the drive to find ways of understanding and explaining that solve problems and create new opportunities. As with learning, science is a composite phenomenon. It requires several different involvements to be performed. It requires action as well as thought; it needs to be formally engaged with at the individual as well as the collective level, it demands systematic thoroughness as well as creative insight and it needs to be taken up with dedicated enthusiasm as well as with detached reflexivity. Learning occurs best when we engage with body and soul in the activity of interest and, similarly, science needs to be taken up as a practice as well as a discipline of study.

We can conceive of learning as consisting primarily of the processes of active physical engagement, reflective experience and analysis, cultural meaning-making and social communication. These four involvements are necessary for any learning to occur. Accordingly, science can also be seen as having these four involvements. The engagement of physical activity corresponds with method, that of reflective experience corresponds with the scientist’s encounter with data, meaning making is equivalent to interpretive frameworks that scientists adopt to make sense of data and finally, the involvement of communication corresponds to the scientific activity of public communication and the social validation of theory. Each of these aspects of science - method, data, interpretation and theory - are formal requirements for the publication of any scientific paper and, as elements in the definition of science, they remain the bedrock for any systematic explication of scientific research.

The view adopted in this paper is that these four involvements are fundamental to understanding what science is and how it should be practiced. They also present a model for seeing how science can be a more integrative knowledge quest than has often been the case. Methods, data, interpretation and validation are the four arcs that need to be connected in creating a comprehensive cycle for pursuing scientific knowledge. Where any one or more of these arcs is missing or significantly undervalued, the science it produces will have serious blindspots and shortcomings. Science has been rightly critised as a tool in service of dominant social authorities or as the narrow pursuit for empirical fact or objective knowledge or mechanistic laws. For example, the “interpretive turn” of the 1970s saw science was not taking up the interpretive and reflexive arc of its activities with as much enthusiam as it might. Critical theorists, philosophers of science and hermeneutics, educators and social activists challenged scientists to question their own assumptions, to look into the meaning-making systems that they often blindly and unconsciously used to make sense of their work. The result has been a reformation in some scientific communities towards a more socially aware and critical form of knowledge quest. In other communities the old reductionisms and partialities continue.

An integral meta-studies regards these involvements as necessary branches for any scientific endeavour and the clearing opened up by this meta-level perspective will formally include at least these four branches of activity. There have been a number of weakness that meta-level studies have suffered from that can be adressed through applying this model of four scientific invovlements to its operational structure. First, in the past metatheory has often lacked a strong methodological base and has subseqently been neglected as a formal scientific activity. Second, it has also been unclear about its data base, and about the nature and role that data plays in building and testing metatheory. Finally, metatheorists typically have not consciously pursued research as a meta-level activity. They regard their work as large and integrative in scope but, because of confusion of the role and nature of their data (i.e. that its comes from midle-range theory), they have not identified their work as metatheoretical or reflexively critiqued their ideas as such. This is evidenced in the practice of metatheorist to use the term “theory” to label their work, for example as in Wilber’s integral *theory* or von Bertylanffy’s general systems *theory*.

On the basis of these considerations, an integral meta-studies as it might be adopted within the social sciences can be described as a knowledge quest that: i) employs rigourous meta-level building and testing methods to, ii) collect middle-range data from subjective, relational and objective sources, and which iii) develops meaning from this data through the conscious adoption of adequate and relevant interpretive frameworks so that, iv) it can communicate its findings through the articulation of meta-level theories, methods, interpretive frames and data-analytical studies. The fractal nature of these structures is evidence in that each of the branches of meta-studies requires the four involvements of method, data, interpretation and theory. These four involvements of the scientific process largely amount to a means for increasing our active and conscious quest for valid and realiable knowledge and for seeing how that knowledge can be utilised towards the inter-generational development of more healthy and more sustaining global communities. As such, meta-level science studies will play an increasingly important role on the global stage and provide crucial resources for addressing the immense planetary crises that we are facing now and will continue to face in the coming decades.

The Allure of the Big Picture

Big pictures are nothing new in science or, indeed, in any tradition of cultural knowledge including philosophy, religion and literature. Big scientific theories and meta-theories are an expression of the human attraction towards tall stories, the epic tale and the drama of storytelling. We are enthralled, mesmerized and attracted to really big stories because they create a means for connecting the past and the future to the hopes and fears of the present. Storytelling allows us to explore the quest to explain and understand what it means to be human and to share that humanity with others. Our physiology, our anatomy and genetic makeup predispose us towards forms of creativity that find patterns in the world around us and that express those patterns in our communications. The narrative impulse lies deep within the human heart and the scientific goal of developing big pictures has its genesis in the sagas, myths, legends, the dreamtime stories, the creation stories, the epics and the heroic tales from which all human cultures have emerged.

The thing about story is that it is abstract. The story is not the event itself and yet stories shape realities as much as they reflect them. We tell a story about a boy who is lost in the forest because he does not follow the beaten path and next time we venture into the forest we make sure we stay on the well-known way. The story - a complete abstraction - feeds into shaping reality. Theories are also abstractions and yet they also shape the bricks and mortar of the real world. Theories of management and organization are used to create factories and management systems that form and direct what is built, how it is built and the social structures and behaviours that inhabit those spaces. In this sense, stories and theories are as real as any technology. The abstract world or theory and metatheory are as causative in the creation of social realities as money, the weather, gravity, political power or the level of unemployment. Our stories guide us and they inform the visions and actions through which we shape our futures. Big stories and big pictures have a very real, very concrete impact on the physical, emotional, mental and spiritual realities that we inhabit and they are central to the creation our shared futures.

In the age of globalisation, the guiding stories and big pictures that we share (as one humanity) will be central to the path that we take in creating a sustainable and healthy world. And in sharing those stories, we will also be creating a mediating vision and a way of communicating that will connect and bring together the diversity of cultural views, meaning systems, personal insights and traditional wisdoms that we have inherited. The opportunity here is immense and in this unprecedented coming together of forms of cultural experience there is the real possibility of global transformation towards a deeper understanding of who we are and how we might live on this unique and wondrous planet.

The dangers here are also evident. The big pictures that emerge from the current wave of globalisation can also be harmfully reductive, they can also limit our potential, they can distort the natural balances that have taken billions of years to emerge, and they can reproduce false, partial and dehumanising visions in our individual and collective identities on a global scale. Roy Bhaskar (Bhaskar, 2002a) has talked of the damaging domination of such ideologies and the demi-reality of imbedded social ills that result from them. Bhaskar also stresses this capacity of social science and particularly of metatheoretical science to adjudicate on the half-truths and false forms of knowing and acting that emerge from this “demi-reality” of entrenched ideologies. Bhaskar says that (2002a, p. 55):

> **The task of social science is to penetrate that demi-reality through to the underlying reality** and situate the conditions of possibility of the removal of illusion, of systematically false being. (emphasis in the original)

One means for the removal of systematically false being and doing is through critical reflection upon our underlying big pictures. And if the social sciences have any core task to fulfill in 21st century it is this task of developing critical metatheories and overarching systems of ideas that can comment on the partialities of predominating views.

Big Thinkers and their Big Pictures

I have said previously that big pictures are nothing new to science. Philosophy, of course, has always had its big picture thinkers. Plato developed his big pictures as an attempt to integrate the many different perspectives that people can take towards life. He explored the general principles from which we could use rationality to understand and explain our experiences. Plato took a universalising approach to building big pictures. Aristotle, on the other hand, developed big pictures that focused on the details of what he observed in nature. His was a particularising approach to the construction of knowledge. With the emergence of the proto-scientific worldview in 13th century Europe we also find that big picture thinking was of crucial importance. In the mediaeval period, the attempt to build unified accounts of the natural and the supernatural - the world of reason and the world of faith - was a definitive aspect of the Scholastic enterprise. By the time we get to the late mediaeval period there is literally an explosion of synthesising activities that draw connections between, for example, the Greek philosophers, the hermetic traditions, astrology, the various theological disciplines and contemplative writings (Gaukroger, 2007).

The Franciscan monk Roger Bacon (c. 1214–1294) is an eminent exemplar of this kind of overarching and synthesising big picture building activity. But Bacon was also more than this. He was one of the first to deliberately and consciously seek out a way of connecting ideas about the natural world in an overarching framework that was also grounded on physical evidence. Bacon was a polymath of great genius and his major work contains "treatments of the positions and sizes of the celestial bodies, and anticipates later inventions such as microscopes, telescopes, spectacles, flying machines, hydraulics and steam ships" (Wikipedia, 29 June 2009). Bacon was also an empiricist in that he held that rationality alone could not confirm the truth of an argument. He said that "Reasoning draws a conclusion, but does not make the conclusion certain, unless the mind discovers it by the path of experience". Yet he also attempted to develop a "universal science" and as James Blish contends, he was the first to develop "a theory of theory" (Blish, 1982).

The instinct for developing big pictures has an ancient heritage and this tradition leads all the way down from the unknown storytellers of distant times through the Greek philosophers, the scholastics and the synthesisers of the Renaissance to Leibniz, Goethe, Hegel, Marx, Parsons, down to the present big picture thinkers like George Ritzer, Ken Wilber and Roy Bhaskar.[4] This is not to say that the form and substance of these big pictures has not changed. There have been many varieties of big pictures in the arts and literature, in religion and spirituality, in political visions and in philosophy. But now, as we enter a period of intense globalisation the need for a particularly scientific approach to building big pictures is becoming more urgent and the development of truly meta-level forms for doing science will be a central aspect for scientific framework in the 21st century. It is to this question of a specifically scientific approach to big picture metatheorising that this course is addressed.

The Science of Metatheorising

Metatheorising is the attempt to ground big picture models on extant scientific theory. It is not a philosophical process of working from first principles. Rather, it is a scientifically grounded activity of developing overarching views from the integration of other respected sources of valid cultural knowledge and verified streams of scientific research. Metatheory is essentially the study of other theory and its uses middle-range theory as its source of data. As the great metatheorist of sociology, George Ritzer, says, "A metatheory is a broad perspective that overarches two, or more, theories" (Ritzer, 2006b, n.p.).

From this perspective Ken Wilber's AQAL metatheory is not so much a philosophy but a metatheory. Wilber does not work from first principles to derive a philosophical framework for considering the basic questions of existence. He does not start with questions such as: What is an object? What does it mean to see colour? Is there a God? How do we know things? Rather, from the very beginning, Wilber's approach has been to consider the range of extant theories, philosophies and cultural viewpoints and, through finding connections between these existing perspectives, build a meta-theoretical framework that situates extant approaches within a much larger and more integrative conceptual system. This is a metatheoretical approach and not a philosophical one. Wilber has been at considerable pains to highlight the fact that his understanding of, for example, human development is not a philosophical approach but is based on empirical findings from many different psychological theories of human growth.

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[4] See Footnote 3

Locating AQAL metatheory within the tradition of scientific big picture building has many advantages. First, it accords us with the possibility of seeing how AQAL is not an isolated example of philosophising by an individual thinker but is an example of a tradition of metatheorising that has been an essential part of social science research. Second, it enables us to be self-critical and to develop a means for evaluating metatheory in general, and AQAL metatheory in particular, according to evidence-based arguments. Third, in situating AQAL within a scientific tradition we can begin to describe scientific methods for performing the type of big picture and metatheoretical research that AQAL belongs to.

Types of Meta-Level Research

Metatheorising can be done within or across any set(s) of disciplines. In this sense it is independent of the scale of the research domain. Integrative metatheorising can be performed across the variety of intra-, multi-, cross-, inter-, trans-, and post-disciplinary projects. Each of these is attempt to respond to the issue of complexity and pluralism of theories, methods and forms of analysis that all researchers face (see Figure 1).

The plurality of disciplines, theories, models, interventions,

↓

The plurality of responses

- Interdisciplinary: the combining of disciplinary discourses
- Cross-disciplinary: a research task that requires a combination of disciplinary discourses
- Multidisciplinary: The co-operative use of many disciplinary discourses
- Trans-disciplinary: the translation of one discourse into another
- Post-disciplinary: the leaving behind of disciplinary distinctions
- Meta-disciplinary: a discipline of disciplinary discourses

Figure 1: Responses to Theoretical Pluralism

Some metatheorists focus their attention within a relatively limited domain, as in, for example Terence Love’s metatheorising on design theory (Love, 2000), while others attempt to build overarching systems across a large range of disciplines, as we see for example, in Wilber’s AQAL. Whatever the scope may be, there are four basic aims for carrying out metatheoretical research (Colomy, 1991; Ritzer, 2006b) and they are:

1. Metatheorising for understanding (M_U). Here extant theories are reviewed to gain a familiarity and understanding of their core characteristics and those of the research programmes, paradigms and disciplinary contexts in which they might be located.
2. Metatheorising for preparing new middle-range theory (M_P): The purpose of M_P is to review and analyse theories so that a new theory can be developed within that domain (Turner, 1990). Most metatheorising falls within this type. In fact, most research begins with metatheorising of this kind in that the current landscape of theoretical perspectives is introduced that summarise to identify opportunities from new conceptual contributions.
3. Metatheorising to build overarching theory (M_O). M_O is metatheory building. Its aim is to review and analyse extant theory in some domain and to build a metatheoretical system that accommodates and integrates those theories (see, for example, Witherington, 2007). Hence, M_O always involves M_U.
4. Metatheorising for adjudication (M_A). M_A develops or uses M_O for evaluating other theories in a particular field. The capacity to assess and critically analyse other theory is a quality that all metatheoretical frameworks possess (see, for example, Abrams & Hogg, 2004).

These varieties of metatheorising are most prominent in fields and in branches of science where there are many contending theories and research paradigms. Consequently, because they are highly contested fields with diverse theoretical and paradigmatic positions, it is probably true that metatheoretical research would contribute significantly to the development of any of the social sciences. The difficulty with this situation is that this immense diversity and contention creates fragmentation and the narrowing of research interests, the constriction of conceptual viewpoints and a reluctance to step outside of one's own paradigmatic boundaries. As Lewis and Kelemen explain (2002, p. 253)

> ... researchers have produced an explosion of varied, often contentious approaches. Modern and postmodern stances, for example, offer contrasting positions in the paradigm debate. ... Such theoretical diversity may enrich understandings of pluralism and paradox. Yet polarisation of modern paradigms and ruptures between modern and postmodern stances inhibit researchers from tapping this potential.

And so the great potential for metatheoretical studies to create new vision is for science has been vastly underutilised. Consequently, metatheoretical studies has a collaborative and formalised approach within the mainstream of scientific research has not been developed anywhere near the extent that it might be.

The Neglect of Method

The neglect of method is perhaps the most obvious limitation that currently besets metatheoretical research. Traditionally, metatheorising has been performed by individuals with little more than their intellectual passion to guide their sifting and analysing of theories. Although, as Ritzer (1991), Skinner (1985) and others have pointed out, metatheorising is an extremely common preliminary activity in research, it has never been formally recognised as such. Metatheorising is still large done surreptitiously or seen as the poor cousin to the real scientific task of theory testing. One reason for this devaluing of metatheoretical research has been the lack of formal research methods for carrying out meta-level research. But this situation is changing. As scholars are exposed to the immense diversity of conceptual orientations and cultural perspectives emanating from all corners of the globe, it is increasingly important that overarching theorising is grounded on firm methodological bases. Now, more than ever, metatheoretical study needs to adopt systematic methods, relevant and sensitive research designs and rigorous forms of analysis.

I have written in some detail on the weaknesses of the methodological approach used by Ken Wilber and the great majority of other metatheorists in the development of their overarching frameworks (Edwards, 2008a, 2008b). Briefly, Wilber and many other metatheoreists rely on traditional scholarship methods of essentially reading a broad, but ideosyncratic, selection of writings and research and then making of it what they will according to their own assumptions and predilections. This traditional appraoch is not adequate if metathetical research is to be taken seriously as a form of social science research. Metatheorising can and should be done as a rigorous and methodical research activity and that AQAL metatheory needs to participate in this process if it is to be truly grounded in the scientific tradition. Until that time, AQAL metatheory will remain the visionary creation of one thinker and corroborating evidence for its framework of quadrants, levels, lines, types and states will remain anecdotal at best. This is, perhaps, the most forceful reason for the lack of acceptance for metatheorising, and particularly for AQAL metatheory, across mainstream higher education institutions and their constitutive disciplines.

Where metatheorising has been performed under standard research conditions, the result has been more favourable. Bill Torbert's research and his description of the Developmental Action Inquiry (DAI) metatheory has met with considerable attention and recognition within the domain of organisational and leadership studies (Rooke & Torbert, 1998; Torbert & associates, 2004). One of the uniques aspects of Torbert’s research is that it has included metatheoretical, theoretical and empirical domains of activitiy. And uniquely, at least within the domain of organisational resaerch, his metatheory has been developed from the ground up. Still, much of Torbert’s work in the meta-level domain has lacked a methodical appraoch to building metatheory. There have however, been some isolated and sporadic attempts to develop such a method in the work of Marianne Lewis and her colleagues is noteworthy in this regard. Researching within the multiparadigm theory building approach of Gibson Burrell and Gareth Morgan (Burrell & Morgan, 1979), Lewis has developed metatriangulation method for metatheory building and this will also be a topic of discussion in later weeks. This tradition of multiparadigm research within organisational studies is a particularly important example of how metatheorising can contribute to a field and the contributions of this stream of metatheoretical research is only just starting to be tapped.

An Integral Metastudies

So far I have only been referring to metatheory, so where does metastudies come into all this. Obviously, the building of theory constitutes only one part of a much larger process involved in the creation of scientific knowledge. There are at least four major strands to the development of any form of learning and knowledge acquisition and these are method, data, interpretation and validation. Theory building comes mostly under the social validation of scientific propositions and models. Consequently, there is the possibility, not only of meta*theorising*, but also of meta-

methodology, meta-*data-analysis* and meta-*interpretive* studies (or meta-*hermeneutics* as it will be called here). Each of metastudies can involve an integrally-informed approach to understanding our world and how we might live in and care for it.

These forms of metastudies are specifically called “integral” for several reasons. First, they follow in the tradition of big pictures thinkers who have specifically used the term integral to refer to their particular systematising approach. There are several streams of scientific and philosophical metatheorising that come under this rubric and they stretch back some hundreds of years into 18th and 19th centuries. Multiparadigm studies (Lewis & Kelemen, 2002), various streams of integral research (Jeffries, 2005) and transdisiplinary studies (Fine, 2007) are are few of these lines of meta-level resaerch. Second, integral metastudies is singled out by its capacity to move between small and large-scale domains. An integral approach moves within and between disciplines and attempts to discover connecting patterns at multiple scales of research from the very specific to the very general. In doing this however, an integral metastudies still retains some concept of a specific domain in which it has validity and applicability. Third, this form of metastudies is integral because it relies on other integrative metatheories such as the AQAL and DAI frameworks and uses them as metatheoretical resources in its research.

Formal science is predominantly associated with the empirical testing of ideas more than with their initial construction or inspiration. The vast majority of scientific research is about rearranging existing theory to develop a conceptual model for generating hypotheses that are then empirically tested. Relatively little programmatic research goes into theory building. Testing a theory involves a complex mixture of design, method, data collection, analysis and interpretation. Theory, method, data and interpretation are the four walls within which we review the details of scientific evidence. In the same vein, to develop overarching forms of scientific investigation, we need to critically review theory to build metatheory, review methods to develop meta-methods, review data to perform meta-data-analysis and review interpretive systems to create meta-hermeneutic models. While meta-data-analysis has been developing quickly within the medical and health sciences since the 1970’s, each of the other meta-level branches of study is in very early stages of development and the process of bringing them together to describe a system of meta-studies is only just beginning to emerge.

Drawing on some formative descriptions of disciplinary based meta-studies, in the following pages I sketch out the possibility of an integrative meta-studies that could have application across many forms of social science. From the discipline of sociology Shanyang Zhao describes a general structure of meta-studies as a second-order form of research that “transcends or goes beyond” other forms of study (1991, p. 378). Zhao’s general meta-studies includes “metatheory”, “meta-methodology” and “meta-data-analysis”. From the field of qualitative health research Barbara Patterson and her colleagues describe a meta-studies that entails the analysis and “scrutiny of the theory, method, and data of research in a substantive area” (Paterson, Thorne, Canam, & Jillings, 2001, p. 5-6). Discussions of meta-hermeutics (Colby, 1987; Habermas, 1983), meta-methodology (Chandler & Torbert, 2003; Karlsson & Wistrand, 2006) and the burgeoning field of meta-(data)-analysis (Glass, 1976) can also be included in the mix. From these and other meta-level analyses of the major families of social science research (Denzin & Lincoln, 2005; Esbjörn-Hargens, 2006; Mingers & Brocklesby, 1997), I believe it is possible to map out a structure for an integrative meta-studies in which metatheory, meta-method, meta-data-analysis and meta-hermeneutics all play their part (Edwards, 2008b). We have then the possibility of recognising and developing not only integrative metatheories but also integrative forms of meta-methodology, meta-data-analysis and meta-hermeneutics. Together, these meta-level investigations constitute an integrative meta-studies – the science of integrating knowledge from the mutualising worlds of theory, method, data and interpretation (see Figure 10.1).

There are already innovative examples for several of these branches of integrative meta-studies. Wilber's AQAL and Torbert's DAI are examples of integrative metatheories. But these scholars have also produced perhaps the two most detailed examples of integrative meta-methodologies. Wilber's Integrative Methodological Pluralism (IMP) provides a framework for describing eight irreducible categories of research methodologies (see Esbjörn-Hargens, 2006). Wilber proposes that all research methods can be located within these eight categories (Wilber, 2006). Torbert proposes a meta-methodology derived from three lenses - time, perspectival practice and perspectival voice. As with his metatheory, Torbert's central goal in proposing his meta-methodology is not to categorise methods in an overarching framework but to inform and broaden a researcher's immediate world of transformational inquiry. The focus is on mapping many methods into an action oriented process of discovery. Where Wilber seeks to formalise a meta-level, big picture that can situate other methods, Torbert wants to expand the practice of research inquiry itself. In many ways the two approaches complement each other.

There have also been integrative innovations in the meta-data-analysis area. Meta-synthesis is an integrative approach to meta-data-analysis that has been recently developed to collate findings from qualitative research studies in health (Sandelowski, 2006; Thorne, Jensen, Kearney, Noblit, & Sandelowski, 2004). All this suggests that meta-level studies are being pursued within isolated sub-fields and that there is an opportunity now to bring these meta-level inquiry systems into a more coherent overview. It is important to distinguish between and forms of meta-studies that are distinctly *integrative* and those that are more localised in character. Research in any of these meta-studies activities becomes integrative when it: i) is consciously and explicitly performed within an appreciative context that can move across and within various disciplines, ii) adopts systematic research methods and principles, iii) uses, as conceptual resources, other integrative frameworks such as Wilber's AQAL, Bhaskars's meta-reality (Bhaskar, 2002b), Torbert's DAI (1999), Schumacher's system of knowledge (1977), Nicolescu's transdisciplinary studies or Galtung and Inayatullah's (1997) macrohistory, and iii) is characterised by its inclusiveness and emancipatory aims.

Figure 2 maps out a simplistic structure for an integrative meta-studies. Meta-level researchers can, of course, move across all of these branches of studies, but usually both individual researchers and their paradigm-based communities of inquiry tend to specialise in one or two domains. Metatheorists are very rarely meta-methodologists (Paul Meehl being a prominent exception to this, see for example, Meehl, 1992). Practitioners of meta-hermenuetics (including many postmodern interpretivists) are wary of entering the territory of metatheory (even though their meta-level discussion assumes the existence of such territories). There are also strong barriers between the meta-level and the middle-range level of research, for example between middle-range theorists and metatheorists.

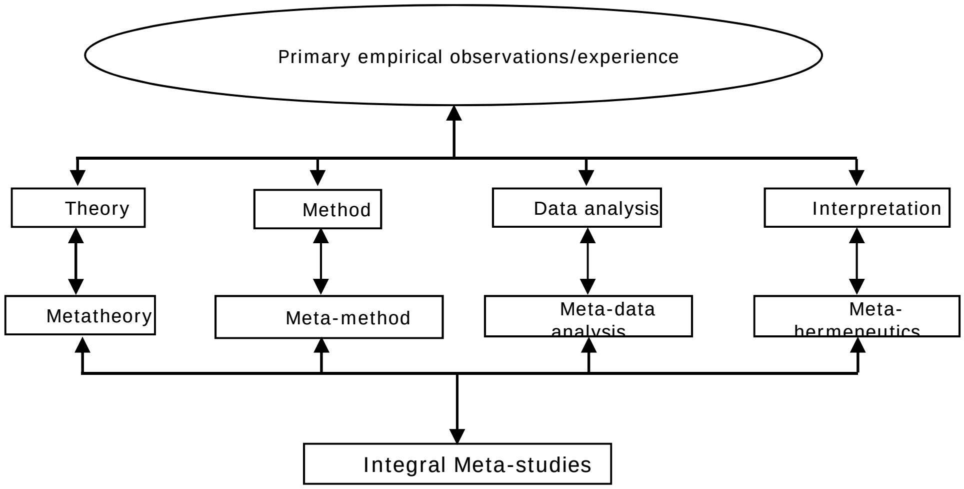

Figure 2: The structure of an integral meta-studies (reproduced with permission from Edwards, 2010)

An interesting feature of this map of scientific territories is that researchers from one domain often have limited understanding of the contributions from other domains. So when researchers make forays into foreign domains problems can arise in, for example, their claims about the veracity or usefulness of those other branches of knowledge. We see this when theorists denounce metatheorists for being too abstract, or when meta-interpretivists (postmodernists) assure us that metatheory is impossible or always hegemonic, or when metatheorists makes factual claims about the world of empirical data.

Metatheorising can also encroach on the territory of other branches. For example, metatheory building is based on the analysis of extant theory and does not deal directly with empirical data. Consequently, it cannot validly make conclusions about empirical data based on its metatheorising (that is the task of meta-data-analysis). If it does so, it is stepping outside its realm of expertise. To put this in another way, metatheory is primarily about other theory and not about the prediction or evaluation of first-order empirical data. As Ritzer (2006a) has pointed out, it is entirely possible and, in fact, desirable that middle-range theory be developed from metatheory (this is Ritzer's M_P). But in doing that, the new middle-range theory will require empirical testing. Metatheory can be used to develop metaconjectures about empirical events but these will then need to be evaluated through middle-range theory testing or meta-data-analysis.

Conclusion

The "so what!" in all of this is that, in recognising the wonderful diversity of activities that contribute to the rich pluralism of contemporary social science, we also need to find patterns that connect that diversity. Finding metapatterns (Volk, 1995) needs to accompany other important tasks such as recognising the messiness of social science (Law, 2004), giving space to the individual voice (Gergen, 1998) and the power of specialisation and reductive methods. The science of big picture pattern finding needs to be based on scientific evidence and not only on the individual insights of isolated scholars or creative visionaries no matter how enthralling their visions may be. Creativity has many sources. The idiosyncratic revelations and understandings that have traditionally been associated with metatheorists and polymaths down through the ages are not enough to establish a truly integral meta-level science. Integral metastudies is my attempt to describe the rudimentary outlines of a formal scientific program that is specifically aimed at constructing and testing overarching visions of existence. In providing a meta-perspective on what scientists do, this new domain of integral metastudies will also provide opportunities for a more reflexive and systematic and critical approaches to developing big picture forms of social science.

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The Transdisciplinary Moment(um)

Julie Thompson Klein[1]

Abstract: There is no universal theory, methodology, or definition of transdisciplinarity (TD). Nevertheless, keywords reveal similarities and differences across explanations. This overview tracks five major clusters of meaning: (a) meta-level conceptions of interdisciplinarity, (b) the changing nature and status of unity in the discourse of TD, (c) new alignments with participatory and collaborative problem-oriented research, (d) the forms of knowledge that TD engages, and (e) a transgressive imperative that interrogates the existing structure of knowledge, culture, and education. These categories of meaning are not air-tight. However, with widening use of the core word "transdisciplinarity," it is important to be alert to these patterns and their underlying values and priorities.

Keywords: Collaboration, complexity, integration, interdisciplinarity, participation, transcendent, transdisciplinarity, transformation, transgression, trans-sector, unity.

Introduction[2]

This special issue of *Integral Review* appears at a time of heightened momentum for transdisciplinary approaches to research, education, and problem solving. In their introduction to another special issue focused on the concept, editors Roderick Lawrence and Carole Després (2004) called Transdisciplinarity a "word a la mode." Understanding reasons for the current momentum is an appropriate task for this journal's goal of exploring boundary crossing at the level of meta theories, methodologies, and practices. There is no universal theory or methodology of Transdisciplinarity (TD), nor should we expect a universal definition. The English word "definition" derives from a Latin word, *dēfīnītiōn-em* that refers to both an act of stating the meaning of a word and an act of setting bounds or limits of explanation (*Oxford English Dictionary*, 1971). Keyword clusters reveal similarities and differences across explanations. Distinctions in meaning, to echo philosopher Joseph Kockelmans' (1979) explanation of differences in explanations of Interdisciplinarity, vary because they are shaped by differing philosophical outlooks, contexts of practice, and views of the socio-political function of science and the educational system. Yet, the clusters reveal patterns across what Christian Pohl (2010) calls a "structured plurality of definitions" of TD. They are not air-tight categories, but they do reveal important differences in how the concept is constructed.

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From Disciplinarity to Interdisciplinarity

The term "transdisciplinarity" is dated conventionally to a typology of terms devised for the first international conference on interdisciplinary research and teaching in OECD-member countries. Understanding core distinctions in that typology is a necessary first step toward understanding the meanings of TD. The conference occurred in France in 1970, and the book based on the meeting became a seminal reference on the topic for decades to come. Interdisciplinarity (ID) was defined as interaction among disciplines that may range from simple communication of ideas to mutual integration of organizing concepts, methodology, procedures, epistemology, terminology, data, and the organization of research and education (Apostel, et al., 1972). Cluster #1 highlights some of the major traits associated with ID, key among them integration, synthesis of knowledge, interaction of disciplines, and holistic thinking. These traits counter segmentation and fragmentation of knowledge resulting from specialization and internalist approaches to theory and practice.

Keyword Cluster 1

- **interdisciplinarity**
    - integration, synthesis, interaction, holistic thinking
    - boundary crossing, boundary blurring, transcendence

The OECD definition of ID is quite wide, encompassing any form of interaction from simple borrowing of a method to a new paradigm for research and education. Some forms, though, foster meta-level approaches. In Margaret Boden's (1999) definition of *Generalizing ID*, a single theoretical perspective is applied broadly to a wide range of disciplines, such as cybernetics or complexity theory. In *Integrated ID*, new conceptual categories and methodological unification emerge when the concepts and insights of one discipline contribute to the problems and theories of another, in for example computational neuroscience and the philosophy of cognitive science. In the history of social sciences, macro social theory and the behavioral science movement have also aimed to create a new coherent whole. The concept of "behavior," for instance, posited an alternative method of organizing social inquiry through a new theoretical coherence and convergence. Traditional categories anchoring the disciplines were questioned and lines between them began to blur. Comparably, the concepts of area, information, communication, and decision-making promoted new integrative conceptual categories with greater analytic power (Landau et al. 1962; for a fuller taxonomy of interdisciplinarity, see Klein 2010.)

Powerful as these examples are, however, Transdisciplinarity represents another level implied by the difference in prefixes. "Inter" is conventionally taken to exist between existing approaches, while "trans" moves beyond them. In the OECD typology, TD was defined as a common system of axioms that transcends the narrow scope of individual disciplines through an overarching synthesis, such as anthropology construed as a science of humans. The notion of transcending is linked historically with the concept of unity, although underlying assumptions have changed.

From Unity to Complexity

The English word “unity” derives from the Latin *unus*, meaning a fact or condition of being one in sameness or agreement (*Oxford English Dictionary* (II, 3516). Cluster #2 depicts a change in thinking about the thematic of unity.

Cluster #2

- complexity, uncertainty, diversity, non-linearity, multidimensionality, emergence
    - •• heterogeneity, hybridity, unifying approaches, relationality, coherence,
    - •• interplay, intersection, interdependence

The quest for unity spans Western intellectual history. Greek philosophers disagreed on whether one universal explanation was possible or some principles and subject matters should be privileged above others. In the medieval era, the *summa* posited a Christian synthesis of knowledge and belief. In the 18th century, the Enlightenment beckoned universal reason, followed by a number of modern initiatives including Transcendentalism, Umberto Eco’s speculation on a perfect language, and the Unity of Science movement in 1930s and 1940s. The search for unification theories in physics also fostered common principles of intelligibility, and more recently E. O. Wilson's theory of consilience. Each effort found support but also encountered limits. The Enlightenment project of the *Encyclopediae*, for example, was a multidisciplinary alignment rather than a complete integration of what was known at the time. The Unity of Science movement sought to integrate scientific statements into a common foundation and terminology for the philosophy of natural and social sciences. However, it became an object lesson in reductionism. Wilson’s (1998) *Consilience* hearkened back to the ancient "Ionian Enchantment" of belief in the primacy of a few natural laws. Yet, the problem of reductionism resurfaced in his privileging of biochemical explanation.

In reviewing the history of discourse on TD, Kockelmans (1979) found that TD has tended to center on educational and philosophical dimensions of sciences. Opinions differ, however, on whether the focus should be unification of sciences through an all-encompassing theory or a unified worldview that provides common ground for understanding culture, science, and education. The search for unity today, Kockelmans emphasized, does not follow automatically from a pregiven order of things. It must be continually "brought about" through philosophical reflection. The task is not restricted to the discipline of philosophy. It requires a critical “attitude” on the part of everyone. Kockelmans identified four stances. One group, deeming ID a symptom of the pathological state of theoretical knowledge, contends that interdisciplinary reorganization of higher education fails to address the larger problem of the disintegration of unity and the need to overcome obstacles to realizing the whole of human existence. A second view offers a more optimistic call for renewed philosophical reflection on presuppositions and unity of theoretical knowledge in all disciplines. The third view appeals to the social relevance of higher education, in calls for reorganizing theoretical knowledge to address problems of the modern world and forming new interdisciplines and integration of existing sciences. A fourth view situates the meaning and function of science in the modern world all-encompassing philosophy of science.

Kockelmans' analysis of the discourse reflects a philosopher's perspective on the definition of TD. Three other approaches emerged in the pioneering 1970 OECD conference. Participants Jean Piaget (1972) and Andre Lichnerowicz (1972) regarded TD as a conceptual tool capable of producing interlanguages. Piaget treated it as a higher stage in the epistemology of interdisciplinary relationships based on reciprocal assimilations. When physics encompassed biology and psychology, he envisioned, it could become a truly "general" science and "full transdisciplinarity" be reached. Lichnerowicz promoted "the mathematic" as a universal interlanguage. In the most widely circulated model of the three, Erich Jantsch (1972) embued TD with a social purpose in a hierarchical model of the system of science, education, and innovation that moved from empirical, pragmatic, and normative to purposive levels. Jantsch envisioned all disciplines and interdisciplines coordinated by a generalized axiomatics. The ultimate degree of coordination required mutual enhancement of epistemologies, effecting Ozbekhan's notion of "synepistemic" cooperation.

The intellectual and socio-political climate of the times is evident in these definitions. Piaget and Lichnerowicz were structuralists, and the organizing languages of Jantsch's model were logic, cybernetics planning, general systems theory, and organization theory. Even so, Raymond Miller (1982) explained, all TD movements have aimed to transcend the narrow scope of disciplinary worldviews by reorganizing the structure of knowledge, including the exemplars of general systems, structuralism, Marxism, sociobiology, phenomenology, and policy sciences. Holistic in intent, they metaphorically encompassed the parts of material fields that disciplines handle separately. Miller rejected Kockelmans' call for an all-encompassing philosophy, though, deeming it an impossible ethical quest. All syntheses, he added, are not identical. Some proponents claim to replace existing disciplinary approaches. Others propose alternatives, and some devise sources of coherence for working across disciplines. Moreover, they claim differing types of isomorphism with the "real" world they purportedly represent, and have differing receptivity to quantitative manipulation and empirical application. The search for formal deep structures reflecting a cognitive, biologically-derived pattern of human thought also clashes with approaches grounded in material forces of production.

Over the past several decades, a broad-based set of changes in the nature of knowledge and culture further challenged the prospect of TD as unity. Older epistemological classifications and domains of expertise became more permeable**.** The underlying tenets of the classical model of unity were also called into question, signified by the shift of keywords in Cluster #2. Older values of certainty, universality, simplicity, linearity, one-dimensionality were supplanted by complexity, uncertainty, diversity, non-linearity, multidimensionality, and emergence. And, the expanding number of disciplinary specialties coupled with formation of new interdisciplinary communities of practice led to greater heterogeneity and hybridity of knowledge. As a result, the logic of "unity" moved toward the logic of "unifying" approaches, relationality and coherence became prime values, and interplay, intersection, interdependence became defining characteristics of knowledge production. The implications of this shift are readily apparent in the conception of TD developed by the Centre International de Recherches et Études Transdisciplinaire (CIRET) in Paris.

In 1987 Basarab Nicolescu called for a new broad-based scientific and cultural approach informed by the worldview of complexity in science. CIRET is a meeting-place for specialists from different sciences and other domains of activity, committed to long-term dialogue based on the three pillars of complexity, multiple levels of reality, and logic of included middle. The discovery of bridges between domains and interactions permits the emergence of unity amidst diversity and coherence among different levels of reality. An open structure of unity replaces reduction with a new plurality and principle of relativity. It also encompasses ethics, spirituality, and creativity. TD vision does not simply transfer a model from one branch of knowledge to another. Nor does it propose a complete theory for moving from one level of reality to another, nor constitute a new super discipline or science. It achieves its fullest expression as a "moral project" that is simultaneously transdisciplinary, transnational, and transcultural (http://basarab.nicolescu.perso.sfr.fr/ciret/).

Participation and Collaboration

Another definition of TD became evident in the late 1980s in Swiss and German contexts of environmental and sustainability research. It shares some tenets of Nicolescu's vision, including complexity, multidimensionality, and diversity. Yet, it prioritizes collaborative problem-oriented research for the "common good," This definition lies at the heart of the Swiss-based Transdisciplinarity Net (td-net) (http://www.transdisciplinarity.ch/e/index.php). Td-net colleagues offer a schematic based on the current discourse of Transdisciplinarity. Four features appear in differing weights and combinations depending on a particular school of thought: socially-relevant issues, transcendance and integration of disciplinary paradigms, conduct of participatory research, and the search for unity of knowledge (Pohl and Hirsch Hadorn, 2008, 69-88; and Pohl, 2010. Cluster #3 highlights a broad shift associated with the first three features:

Cluster #3

- participation, cooperation, collaboration, partnering, networking, mutual learning
    - postnormal science

The underlying premise of Cluster 3 is that societal problems need to frame research questions and practices now, not academic disciplines (Transdisciplinarity Net, 2009). The problems of society are increasingly complex and interdependent. They are not isolated to particular sectors or disciplines. Moreover, they are not predictable. Modern societies are ruled increasingly by unwanted side effects of differentiated subsystems, such as the economy, politics, law, media, science. This realization aligns TD theoretically with Funtowicz and Ravetz's (1993) notion of "post-normal science" (1993). Both TD and "postmodern science" break free of reductionist and mechanistic assumptions about the ways things are related, how systems operate, and the expectation that science delivers final, precise estimates with certainty. "Unstructured" problems are driven by complex cause-effect relationships, and they exhibit a high divergence of values and factual knowledge. They are emergent phenomena with non-linear dynamics, uncertainties, high political stakes in decision making, and divergent values and factual knowledge. Stakeholder and community inputs in local environments also shape values and knowledge.

Pohl (2010) traces the framing of TD around societal problems and trans-sector participation during the early 1990s to the journal *GAIA* and large research initiatives in Switzerland, Austria, and Germany focused on environment and sustainability. By 2000 case studies were being reported in all fields of human interaction with natural systems (agriculture, forestry, industry, megacities) and technical development (nuclear- and biotechnology, genetics). This approach had also proved effective in fields where social, technical, and economic developments interact with elements of value and culture (such as aging, energy, health care, nutrition, sustainable development, landscape, housing and architecture, and urban land and waste management). Prioritizing of socially relevant issues and participation is particularly strong in German-speaking countries of Europe, in North-South partnerships, and in northern countries such as the Netherlands, Denmark and Sweden (Klein et al., 2001; Hadorn, et al., 2008).

Two other initiatives in the early 2000s also prioritized societal problems with emphasis on participation, though with differing degrees of stakeholder engagement. The Australian-based Integration and Implementation Sciences (I2S) Network aims to create a new “discipline” that provides concepts and methods for conducting research on complex real-world problems for change in policy and practice, comparable to the discipline of statistics. I2S is committed to trans-sector participation in the mode of td-net. It supports research on social, health and environmental problems through synthesis of both disciplinary and stakeholder knowledge. I2S operates as an intellectual hub for teams working on different problems, including Drug Policy Modeling and Policing and Security and is a forum for evaluating quality, raising standards, and advancing education at multiple levels. The Network’s online Integration Insights series presents digests of pertinent information and knowledge, and recent work has focused on dialogue methods (MacDonald, Bammer, & Deane, 2009; http://i2s.anu.edu.au/).

In the early 2000s, a parallel framing of TD was apparent in the USA. This initiative aims to build a form of “transcendent interdisciplinary research” capable of generating new methodological and theoretical frameworks for defining and analyzing social, economic, political, environmental, and institutional factors in health and well-being. The initiative began in the National Cancer Institute (NCI) and is currently being advanced in the Science of Team Science (SciTS) Network. SciTS includes scientists, trainees, funders, policymakers, and clinical and community partners, although direct involvement of community stakeholders in the mode of td-net and I2S is not a primary focus. The emphasis is on scientific discoveries, educational outcomes, translation of findings into new clinical practices, and public policies. SciTS is advancing understanding of the personal, social, and institutional dynamics of collaboration, and NCI has recently launched a new online resource toolkit (“The Science of Team Science” http://scienceofteamscience.northwestern.edu/team-science-resources).

Forms of Knowledge

New framings of TD have also produced a fourth cluster of keywords that highlight forms of knowledge.

Cluster #4

- system knowledge, target knowledge, and transformation knowledge
- socially robust knowledge, contextualization, new social distribution of knowledge, science in society, co-production of knowledge
- •• local, indigenous, people’s, traditional forms of knowledge

In Scholz and Marks' (2001) formulation of TD, integration is required across system knowledge, target knowledge, and transformation knowledge. They also comprise the foundation of *Principles for Designing Transdisciplinary Research*, depicted in Figure 5 of Pohl and Hirsch Hadorn 's book of that name (2007, 38):

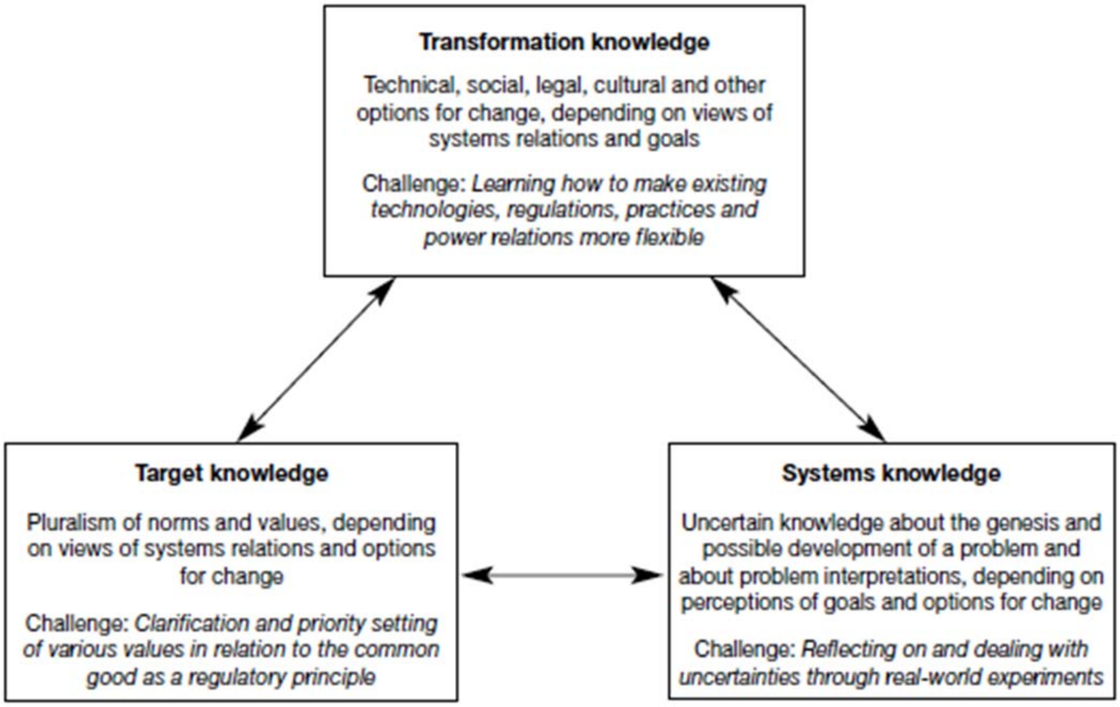
Transformation knowledge
Technical, social, legal, cultural and other options for change, depending on views of systems relations and goals
Challenge: Learning how to make existing technologies, regulations, practices and power relations more flexible
Target knowledge
Pluralism of norms and values, depending on views of systems relations and options for change
Challenge: Clarification and priority setting of various values in relation to the common good as a regulatory principle
Systems knowledge
Uncertain knowledge about the genesis and possible development of a problem and about problem interpretations, depending on perceptions of goals and options for change
Challenge: Reflecting on and dealing with uncertainties through real-world experiments

Figure 1. Interdependencies between the Three Forms of Knowledge

TD research, Pohl and Hirsch Hadorn emphasize, must accept the fact that definition and analysis of problems constitute disputed ground. Systems Knowledge confronts the challenge of how to deal with uncertainties that result from transferring abstract insights to a concrete case with specific conditions. Uncertainties also result from lack of empirical or theoretical knowledge about a problem, and depending on interpretation of a given problem, particular elements may be assigned different degrees of importance and thereby lead to diverging assessments of the need for action as well as target knowledge and transformation knowledge. Target Knowledge addresses what the multiplicity of social goals for research means for practice-related problems, and for collaboration between science and stakeholders in society. Positions must be clarified and prioritized in the research process according to significance for developing knowledge and practices that promote the common good. Transformation Knowledge takes established technologies, regulations, practices and power relations into consideration. In order to be effective, options for change have to rely on existing infrastructure, current laws, and current power relations and cultural preferences.

The balance of academic and stakeholder knowledge and participation differs from project to project. Yet, two books theorize the socially distributed process of knowledge production that underlies values in Cluster #4.

In 1994, in *The New Production of Knowledge*, Gibbons, et al. proposed that a new mode is fostering synthetic reconfiguration and recontextualization of knowledge. Its defining traits include complexity, non-linearity, heterogeneity, and transdisciplinarity. New configurations of research work are being generated continuously, and a new social distribution of knowledge is occurring as a wider range of organizations and stakeholders are involved, including NGOs, private firms, and governmental agencies. Gibbons and colleagues highlighted instrumental contexts of application and use, such as aircraft design, pharmaceutics, electronics, and other industrial and private-sectors of science and technology.

In 2001, three of the book's authors extended Mode 2 theory in *Rethinking Science.* They argued that contextualization of problems requires participation in the agora of public debate, incorporating the discourse of democracy. When lay perspective and alternative knowledges are recognized, a shift occurs from solely "reliable scientific knowledge" to inclusion of "socially robust knowledge," dismantling the academic expert/ non-academic lay dichotomy. Contextualization also blurs boundaries of control, "competence" is redefined, and new criteria of evaluation emerge (Nowotny Scott, & Gibbons 2001). Commitment to a socially inclusive thematic of knowledge production is strong in a number of local practices. Informed by the work of CIRET and writings of Edgar Morin, Latin American framings of TD have fostered community governance, and td-net partnerships in India and Africa have facilitated integration of local, indigenous, people's, and traditional forms of knowledge. A 2009 conference on "Knowledge Democracy" in Leiden, Netherlands also highlighted incorporation of lay knowledge on framing TD (in't Veld, 2010)

A final cluster of keywords extends alignment of TD with the transgressive imperative.

Cluster #5

- interrogation, critique, transgression, transformation
    - reconfiguring, reformulating, resituating

Transdisciplinarity is not only transcendental, it interrogates the protocols and truth claims of disciplinary conventions, expertise, and control. This extension was foreshadowed in the concept of Critical Interdisciplinarity, which problematizes the existing structure of knowledge and education (Klein 2010). In the 1990s, the term began appearing more often in humanities and fields of Critical ID as a label for critical imperatives that interrogated current approaches. Ronald Schleifer (2002) associates the idea of a "new interdisciplinarity" with theoretical approaches and transdisciplinary or cultural study of social and intellectual formations that have breached canons of wholeness and the simplicity of the Kantian architecture of knowledge and art. Moreover, Douglas Kellner (1995) specifies, the transdisciplinary operation of cultural studies pushes boundaries of class, gender, race, ethnicity, and other identities. Dölling and Hark (2000) relate TD in women's and gender studies with critical evaluation of terms, concepts, and methods that transgress disciplinary boundaries. In Canadian studies, Jill Vickers (1997) connects trans- and anti-disciplinarity with movements that reject disciplinarity in whole or in part, while raising questions of socio-political justice. And, this imperative lies at the heart of definitions of interdisciplinarity linked to struggles for social change begun in the 1960s and 1970s (Parker, Samantrai, & Romero, 2010).

More broadly, Upendra Baxi (2000) observes that calls for transdisciplinarity arrived at a moment of wider crisis in the discourse of human rights accountability. Baxi highlighted, especially, gaps between Western and non-Western traditions, esoteric and organic knowledges, colonial and indigenous traditions, official and people's knowledges. Privileged and dominant forms of knowledge establish genres, protocols, canons, and formations that deprivilege other modes of knowledge. One of the transgressive purposes of transdisciplinarity, therefore, is to renounce the logic of instrumental reason by creating new participatory modes of knowledge, discourse, and institutional frameworks across all sectors of academic, private, and public life.

Professional practice is implicated as well. Editors of a book on *Transdisciplinary Knowledge Production in Architecture and Urbanism*, Isabelle Doucet and Nels Janssen (2011), cite fusion of academic and non-academic knowledge as the key distinction between ID and TD knowledge production. New hybrid modes of inquiry, practice, and learning also have the capacity to overcome past schisms of theory/history and practice, critical theory and projective design. This framing of TD places ethics, aesthetics, and creativity inside of disciplinary and professional work while incorporating social and political questions. It brings new objects into view, places practices in new configurations, contextualizes and resituates theory and learning, and heightens awareness of hybridization by incorporating once excluded forms of knowledge, including the understandings of lay people. And, it magnifies the greater heterogeneity and relationality of knowledge today. Tasks lie at the boundaries and in spaces between systems and subsystems, requiring collaboration among a hybrid mix of actors.

* * * * *

In the current heightened momentum for TD, the word is appearing in a widening range of contexts, as varied as learning assessment, arts education, mental health, sanitation, engineering, sustainability, ecological economics, human population biology, informatics, knowledge organization, team-based holistic approaches to health-care, and student-centered curriculum integration. Judging by patterns in the keyword clusters, imperatives will continue to differ. Moreover, even the same underlying principle may be framed differently. One strand of TD problem solving, for instance, centers on collaborations between academic researchers and industrial/private sectors for the purpose of product and technology development. It prioritizes design innovation and involvement of stakeholders in product development. A different type of TD problem solving occurs when academic experts and social actors cooperate in the name of democratic solutions to controversial problems such as sustainability and the risks of technological modernizations such as nuclear power plants. The current increased momentum for Transdisciplinarity reinforces the need for forums such as *Integral Review*, where can transdisciplinarians talk with each other about how to strength both their local projects and their common goals.

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Visions of Transmodernity:
A New Renaissance of our Human History?

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Abstract: In this paper I will engage with a broad range of literature that provides us with many signals and evidence of an emerging and significant paradigm shift in human evolution. In doing so, I will offer the concept of transmodernity as an umbrella term that connotes the emerging socio-cultural, economic, political and philosophical shift. My research across boundaries of many different fields such as critical economics, philosophy, subaltern and postcolonial studies, social anthropology and psychology, cultural studies, political science and social activism literature will illustrate how an integrated approach and dialogue is urgently needed, indeed more than ever before. Different authors use a variety of terms to capture what can essentially be described as the synchronised phenomenon of emerging higher collective consciousness—transmodernity paradigm (Ghisi); transmodern philosophy of political liberation (Dussel); Hegelian dialectical triad of thesis, antithesis and synthesis (Magda); the reflective/living-systems paradigm (Elgin); the partnership model of caring economics (Eisler); the relational global consciousness of biosphere politics (Rifkin); love ethics (hooks); the circularity paradigm of interdependence (Steinem). With a reference to a variety of authors I will argue that the reason we do not hear much about this movement is because it is not centralised and coordinated under a single unifying name. 'Transmodernity' ropes together many concepts/tenets of other writings that do not necessarily use the same term, but I chose it in order to communicate the overall idea of the emerging paradigm shift as the next cultural and material development in human history. I have opted to use the concept as a medium to convey humanity's unified synchronicity, which is part of a transformation that can be claimed to be 'the new renaissance' of human history.

Keywords: Comparative analysis, dialogue, integrated approach, paradigm shift, new renaissance, transmodernity

Introduction

> *Dreams require optimism, a sense that one’s hopes can be fulfilled.*
> (Rifkin, 2005, p. 384)

This paper sets its sight on hopeful, positive perspectives in the context of the post- 9/11 world, which has climaxed in a global crisis of wars, terrorism, climate change, over-

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consumerism, increasing gaps between the rich and poor, social alienation, and individual feelings of pressure, anxieties, chaos and powerlessness world-wide. These processes have raised a whole range of futurist scenarios from the ‘softer’ questions of environmental sustainability to the radical argument that humanity is in danger of collective death (e.g. Brown, 2006; Ghisi, 2006; Rooney, Hearn & Ninan, 2005). The questions of (the earth’s) sustainability that have penetrated public discourse only in the last two decades are speeding ahead faster than we can comprehend. The problem is that we still frame it within the existing (modern) economic and political framework which continues to use rationality, money and technology as the most dominant measurements of progress and human development. Reflectively, social scientists, economists, political activists, writers, spiritual leaders and many successful entrepreneurs argue that humanity needs (and is actually going through) a major global mind change and paradigm shift.

In arguing so, I present here my transdisciplinary research, which begun in 2005 when I heard for the first time about the major cultural transformation—a global shift of consciousness, values, worldviews, and paradigms, which is spearheaded by a growing section of society world-wide. While the reviewed works propose a number of different concepts, some authors—the most influential of which are Marc Luyckx Ghisi and Enrique Dussel - link the phenomena of social change they describe to the notion of transmodernity, a term that was first coined by the Spanish philosopher and feminist Rosa Maria Rodriguez Magda in her essay *La Sonrisa de Saturno: Hacia una teoria transmoderna* (1989), albeit in a more philosophical sense referring to general consequences of globalisation.

My motivation in writing this paper is to propose to use the concept of transmodernity as an umbrella term that connotes the emerging socio-cultural, economic, political and philosophical shift. I suggest this merger not as a theoretical exercise, but out of heartfelt sympathy with the shift, and a genuine conviction that in order to be visible, effective and compelling, any movement needs a unifying name (Eisler, 2002). I will take the elaboration of the concept of transmodernity as given by Ghisi (2001, 2006, 2008) as a starting point. However, in recognition that most of the works I review here are written by Europeans/Americans, I also looked at the opinions of postcolonial and subaltern writers who similarly offer a positive view of the transmodern world potentialities. Here, transmodern ideas are primarily advocated by the Argentinean philosopher and historian Enrique Dussel. In sketching Ghisi’s and Dussel’s main ideas, I need to alert the reader that I will present them as given, so the general picture of their notions of the concept of transmodernity is obtained. In order to avoid the trap of the post-modern deconstruction process which Rifkin (2005) claims brought us to “modernity reduced to intellectual rubble and an anarchic world where everyone’s story is equally compelling and worthy of recognition” (p. 5), I am tracing the commonalities of what transmodernity offers in this fresh and promising move towards a new era of humanity. However, within the constraints of this paper, I am also acutely aware that my discussion will remain at the level of the general overview, which always runs the risk of oversimplifying many complex aspects that will be displayed here.

My review of Ghisi’s and Dussel’s position is followed by reference to other writings in the fields of critical economics, social anthropology and psychology, cultural studies, political science and social activism literature, that seem to be concerned with similarly transmodern phenomena, but without labelling them as such. These writings communicate a similar idea of an emerging paradigm shift as the next cultural and material development in human (although dominantly Western) history. Hence, I have opted to use the concept of transmodernity as a medium to convey what appears to be a single message: "Humanity finds itself, once again, at a crossroad between a dying old order and the rise of a new age" (Rifkin, 2005, p. 181).

Transmodernity: The Dialectic Triad

The concept of transmodernity is a very complex thesis which Ghisi (1999, 2006, 2008) primarily explains as a new paradigm of the world which communicates certain underlying values that humans rely on to make their judgments and decisions in all areas of their activities—economy, politics and everyday life. Ghisi begins his thesis with an overview of five levels of change, which he describes through an iceberg metaphor of human global (un)consciousness and (un)awareness. Like the submerged parts of an iceberg floating in the sea, Ghisi's lower levels of societal change are the least visible to humanity. So, the first level is at the darkest and coldest bottom where our global civilization finds itself today, at the edge of unsustainability and what Ghisi describes as the slow death and collective suicide of humanity. The next higher level relates to the death of command, control and conquest patriarchal values which have turned the world into a competitive and territorial battleground. Level three refers to the death of modernity as a dominant paradigm through which we see the world as an objective reality rooted in impartial truth. Level four refers to the death of the industrial type of businesses and decline of the material economy, while level five concerns the overall crisis of overly bureaucratic and pyramidal institutions. While such critical deconstruction of Eurocentric thesis of modernity (based around key mantras of growth, progress and competition) is nothing new and has been very much part of the postmodern critical turn in social science and humanities since late 1980s, Ghisi continues to explain, a transmodern way of thinking is now emerging, as our hope for a desperately needed and newly reconstructed vision. It is claimed that the everything goes of the postmodernists needs to go silenced. Whether they like it or not, there are things that have to have value, there is meaning that must be preserved, otherwise we drown in the coarsest cynicism, an expression of deep disdain for life (Boff, 2009). After the endless postmodern (albeit necessary) deconstructions of modernity in which many intellectuals engaged for the last few decades have led us to eclectic relativity and fundamentalisms that in many ways has paralysed us to claim any possible way forward. The postmodern rubble in which we have found ourselves is quite neatly captured by Rifkin (2005):

> If post-modernists razed the ideological walls of modernity and freed the prisoners, they left them with no particular place to go. We became existential nomads, wandering through a boundaryless world full of inchoate longings in a desperate search for something to be attached to and believe in. While the human spirit was freed up from old categories of thought, we are each forced to find our own paths in a chaotic and fragmented world that is even more dangerous than the all-encompassing one we left behind. (p. 5).

According to Ghisi then, the very concept of *transmodern* implies that the best of modernity is kept while at the same time we go beyond it. As such, it is not a linear projection which takes us from (pre)modernity via postmodernity to transmodernity; rather, it transcends modernity in that it takes us trans, i.e. through, modernity into another state of being, "from the edge of chaos into a new order of society" (Sardar, 2004, p. 2).

This argument very much reflects the original meaning of the term as put forward by Magda (1989), who uses Hegelian logic whereby Modernity, Postmodernity and Transmodernity form a dialectic triad that completes a process of thesis, antithesis and synthesis. As expressed in her own words: "the third tends to preserve the defining impetus of the first yet is devoid of its underlying base: by integrating its negation the third moment reaches a type of specular closure" (Magda, 1989, p. 13). In other words, transmodernity is critical of modernity and postmodernity while at the same time drawing elements from each. In a way it is a return to some form of absolute logic that goes beyond the Western ideology and tries to connect the human race to a new shared story, which can be called *a global relational consciousness* (Rifkin, 2005).

Following Magda (1989, 2001, 2004), the notion of transmodernity appears first in Dussel's (1995, 1996, 2002, 2004, 2006) and then in Ghisi's work (1999, 2001, 2006, 2007, 2008). Possibly, the fact that most of the earlier publications by Magda and Dussel are in Spanish may explain "transmodernism's 'newness' in the North" (Cole, 2005, p. 90). However, both Ghisi and Dussel seem to use the term without reference (and awareness) to Magda's or each other's writings, which suggests that the term was actually coined in synchronous fashion. While there are many similarities in the works of Ghisi and Dussel, the authors also differ on several points. I will now briefly highlight and compare the main tenets of 'transmodernity' as given by Ghisi and Dussel.

Transmodernity - the Main Tenets

Transmodernity can generally be characterized by optimism to provide hope for human race. Ghisi (1999, 2001, 2006, 2007, 2008) describes transmodernity as a *planetary vision* in which humans are beginning to realize that we are all (including plants and animals) connected into one system, which makes us all interdependent, vulnerable and responsible for the Earth as an indivisible living community[3]. In that sense this paradigm is actively tolerant and genuinely democratic by definition, as the awareness of mutual interdependency grows and the hierarchies between different cultures dismantle.

Transmodernity is also essentially *postpatriarchal* in a sense that women's visions and intuitions are to be recognized as indispensable in order to invent together innovative urgent solutions. This is radically different from the (preceding and necessary) (post)modern feminist movements that fight for women's rights only. Rather it is about a joint effort of men and women to fight for the better world of tomorrow by rejecting values of control and domination.

It is also essentially *postsecular* in a sense that redefines a new relation between religions and politics in a way that re-enchants the world towards a new openness to spiritual awareness and presence as a basis for private behaviour and public policy, whilst rejecting any religious divisions and dogmas. It is open to the transcendental, while resisting any authoritarian imposition of religious certainty. In doing so it tries to rediscover the *sacred* as a dimension of life and of our societies.

Transmodernity opposes the endless economic progress and obsession with material wealth and instead promotes the concept of *quality of life* as the measure of progress. This is expressed in the form of the knowledge economy which moves the emphasis from material capital to intangible assets and the nourishment of human potential. It challenges the rationalized notions of work in its artificial divorce from life. It combines rationalism with intuitive brainwork.

It moves away from vertical authority toward "flatter," more "horizontal," organizations; away from "recommendations-up-orders-down" management and toward more *consensual decision-making* (Ghisi, 1999, p.3). It downsizes the concept of clergy, technocrats and experts in order to raise the self-awareness, self-knowledge and individual accountability of all, yet it simultaneously uses the modernist achievements of science, technology and social innovation. It promotes *Earth citizenship* and draws from the highest potentials of humanity. It redefines the relation between science, ethics and society to reach for real and radical *transdisciplinarity*.

Yet it is not a uniforming view as *global reconciliation* around a sustainable future and a broad range of cultural diversity is maintained at the same time. Within the global vision of connected humanity it claims that each community or region needs to be free to develop in ways that are uniquely suited to its culture, ecology, climate and other characteristics. It wants us to see that the danger of today is less between cultures and religions, than the conflict *between* different paradigms (Ghisi, 1999). As such it offers a powerful path to peace and a new platform of dialogue between world cultures.

In developing the concept of transmodernity, Ghisi (1999) speaks from the capacity of a Belgian theologian, philosopher and researcher on global cultural transformation who worked in the *Forward Studies Unit* of the European Commission for 10 years, advising presidents Delors and Santer on EU visions, ethics and culture shifts. Dussel (1995), on the other hand, speaks from the Latin American, postcolonial neo-Marxist perspective, and associates transmodernity with his philosophy of liberation. Needless to say, while there are many similarities, Dussel's perspective on transmodernity is somewhat different from Ghisi's admittedly Eurocentric perspective. While Ghisi departs from a point of mostly Western socio-cultural and historical analysis, Dussel and his followers take epistemological, philosophical and political aspects of transmodernity as a starting point to unsettle Eurocentric coloniality. Dussel sees the potentiality in transmodernity to move us beyond traditional dichotomies; to articulate a critical cosmopolitanism beyond nationalism and colonialism; to produce knowledge beyond third world and Eurocentric fundamentalisms; to produce radical post-capitalist politics beyond identity politics; to overcome the traditional dichotomy between the political economy and cultural studies; and to move beyond economic reductionism and culturalism (Grosfoguel et al., 2007).

Dussel, just like Ghisi, is concerned about the destructive forces of modernity that are destroying the planet and along with it humankind: "The three malaises of modernity (individualism, the primacy of instrumental reason or technological capitalism, and the despotism of the system), produce a 'loss of meaning', an 'eclipse of ends', and a 'loss of freedom' in bureaucratized societies" (Dussel, 1996, p. 142), and the capitalistic emphasis on "profit, private appropriations and personal benefits" (Dussel, 2006, p. 491) needs to be replaced with transmodern planetary interconnectedness and mutuality.

While Ghisi (1999) concerns himself, as we have seen above, mainly with describing the characteristics of the paradigm shift, Dussel's (2009) central argument revolves around the role of intercultural dialogue in bringing about and defining the shift towards transmodernity. Granted, Ghisi does note certain underlying forces that he considers are driving transmodern changes, among them the inability of reductionist capitalism to respond effectively to increasingly challenging global problems, and the transition from an industrial to a spiritual, wisdom economy. However, for Dussel, genuine dialogue across all cultures is needed in order for transmodernity to transcend Eurocentrism. Let me clarify that Ghisi (1999) also sees intercultural dialogue as central to transmodernity, however, it seems as though to him it is an aspect, rather than the driving force of the transmodern paradigm shift, as it is for Dussel.

In order to understand this claim, it is necessary to briefly outline Dussel's preceding argument: In his revealing historical analysis (see Dussel, 1996), he locates the origins of modernity in the Iberian peninsula, starting with the invasion of the Americas from 1492, which resulted in Europe being able to place itself at the centre, while the rest of the world became a periphery. However, he also shows later (2002, 2004) that it was not until the Industrial Revolution that Europe gained a relative advantage large enough to exert its hegemony over other highly developed cultures of the time—such as China and Hindustan (Dussel, 2002). Given this relatively short timeframe of only 200 years, he continues, European hegemony was unable to fully suppress most of the value structures of ancient cultures, like the Chinese and cultures of the Far East, the Hindustani, the Islamic, the Russian-Byzantine, and Latin American cultures (2002, 2004).

According to Dussel, these ancient cultures hold "enough human potential to give birth to a cultural plurality that will emerge after modernity and capitalism" (2002, p. 234), and that they are presently reaffirming their roots in a trans-modern cultural response to our contemporary challenges (2004). Moreover, he argues that this same process of self-affirmation is taking place in regional European cultures (such as the Galician, Catalan, Basque, and Andalusian cultures in Spain; the Mezzogiorno in Italy; the Bavarians in Germany; and the Scottish, Irish), and in the minorities of the United States, especially the Afro-American and Hispanic cultures (2002). In this, Dussel sees great hope for the future, as the irrupting diversity of perspectives carries a rich pluriversity that can create authentic intercultural dialogue (2004, 2009). In other words, far from limiting itself to a weak relativism by default, or to micro-narratives, the pluriversal or what is also known as decolonial approach would be to search for universal knowledge as pluriversal knowledge, but through horizontal dialogues among different traditions of thought. The construction of transmodern pluriverses means taking seriously the knowledge production of non- Western critical traditions and genealogies of thought and such dialogue, could "propose novel and necessary answers for the anguishing challenges that the Planet throws upon us at the beginning of the twenty-first century" (Dussel, 2004, p. 18).

> Like the tropical jungles with their immense quantity of plants and animals genetically essential for the future of humanity, the majority of humanity's cultures excluded by modernity [...] and by globalization [...] retains an immense capacity for and reserve of cultural invention essential for humanity's survival. This creativity will also be needed if humanity is to redefine its relationship with nature based on ecology and interhuman

> solidarity, instead of reductively defining it on the solipsistic and schizoid criterion of increasing rates of profit. (Dussel, 2002, pp. 234-235)

Importantly, Dussel warns that (subconscious) Eurocentrism currently pervades all cultural arenas, European and non-European (2002), which makes genuine multiculturalism and dialogue—as opposed to sterile participation that follows Western procedural principles—a difficult endeavour (2004). Therefore, the dialogue needs to take place amongst cultures of the 'South' as well as between the South and the North (2004, 2009). Furthermore, genuine transversal dialogue needs to occur between culture's critical innovators, who argue from the border between their culture and modernity, and who, rather than simply defend their culture, recreate it by critically evaluating both their own and modernity's cultural tradition (Dussel, 2004, 2009). As a starting point, Dussel recommends certain core philosophical questions, which, while they can be expressed in different ways by different cultures, may still serve as bridges for a dialogue around universal human problems (Dussel, 2009).

In a similar vein, another scholar, Ziauddin Sardar (2004) sees the positive potentiality of the transmodern world to bridge what appears currently the impassable gap between Islam and the West due to the concept of tradition as an idée fixe of Western society. He shows how transmodern tenets of truly universal concerns (i.e., the survival of our planet) that inherently then lead to the consensual politics and modalities for adjusting to change are at very heart of Islam. Yet he warns us that in developing a transmodern framework to open discussions it is important to think of the Muslim world beyond the strait jackets of either ultra-modernist or ultra traditionalist governments (neither of whom have any understanding of transmodernism) and involve ordinary people instead—activists, scholars, writers, journalists, etc. In doing so, Sardar (2004) argues we will discover that most people have critical but positive attitudes towards the West; and women will be as willing, if not more so, to participate in such discussions and the transformations they may initiate, as men. He is of the opinion that if the West shifts towards transmodernism, the involvement of the public will open up massive new possibilities for positive change and fruitful synthesis which would replace homogenizing globalization with a more harmonious and enriching experience of living together.

Returning to Dussel's work, it is evident that he is in agreement with Ghisi and Magda that transmodernity forms a dialectic triad with modernity and post-modernity. Post-modernity—which is in Dussel's view still inherently Eurocentric, as it has rather paradoxically reinforced the process of Othering by further demarcation of difference and identity politics - has served to raise critical consciousness and general respect for difference (2002; 2006), so that humanity is ready to subsume "the best of globalized European and North American modernity [...] in order to develop a new civilization for the twenty-first century" (Dussel, 2002, p. 224). Instead of being dominated by it, transmodernity is in constant dialogue with modernity (Dussel, 2006). For instance, the best of the modern technological revolution should be adopted, while discarding anti-ecological aspects (Dussel, 2002). Furthermore, the focus on instrumental reason which characterised modernity should not simply be abandoned, but subordinated to ethical principles and "put at the service of the dignity and freedom of all the members of the community" (Dussel, 2006, p. 504). Actually, Dussel agrees with Magda (2004) that increasing globalisation (Dussel, 2002) and the availability of information technology (2009) are driving the emergence of transmodernity, as both enable us to instantaneously receive news about other cultures and respond with ethical judgement. As examples of social movements that are working towards replacing unjust modern practices with ethical alternatives, Dussel cites, for example, the Zapatist National Liberation Army in Mexico, the Sin Tierra movement in Brazil, the cocaleros coca growers in Bolivia, and the piqueteros—the unemployed—in Argentina, as well as groups that fight for the rights of workers, women, homosexuals, immigrants, and older people (Dussel, 2006).

Having reviewed, if briefly, both Ghisi's and Dussel's positions on transmodernity, I will now move on to present my own cross-boundary research, in which I engaged with the literature from a broad variety of fields to uncover theoretical notions and emerging practices from the perspective of socio-cultural demographics, levels of consciousness, economics and politics, interpersonal relations, and human geography that echo with the transmodern paradigm.

Transmodernity: Research Across Boundaries

I first heard about transmodernity in a keynote given by Marc Ghisi at the 2006 Nordic Tourism Studies Conference in Finland. Marc's good news talk (Ghisi, 2006), based on his book (2001) *Au delà de la modernité, du patriarcat et du capitalisme: La société réenchantée?*[2], was intriguing, and encouraged me to investigate the notion of transmodernity further. My ensuing journey of exploration proved to be purely fascinating and has not stopped since. Engaging with the broader literature in arts, humanities, social science and popular culture, I became very excited as I began to connect the different pieces of puzzle. I don't believe in the concept of purely original ideas, and this project in particular has convinced me of the synchronicity phenomenon (Jarowski, 1996), whereby people sharing similar levels of consciousness are engaged in parallel intellectual universes around the globe, and articulate related ideas, but often express them in different wor(l)ds and terminologies. Reading major works of renowned social historians, political scientists and sociologists, a holistic picture emerged and I became convinced that a new global consciousness is awakening and fundamental changes are to occur. In the following sections, I present to the reader an overview of authors who engage - dispersed over a variety of fields and levels of analysis - with findings and theories that echo the tenets of transmodernity.

Socio-cultural Change: The Silent Revolution of Cultural Creatives

Ghisi substantiates his claims with reference to the phenomenon of the 'silent revolution' led by the growing numbers of so-called *cultural creatives* (Ray, 1996, 1998; Ray & Anderson, 2000), "who create new values and who, without knowing it, are activating the 21st century paradigm" (Ghisi, 2008, p. 158). The concept of the silent revolution of cultural creatives comes from the historian Arnold Toynbee who analysed the rise and fall of 23 civilisations in world history and who claims that when a culture shift occurs, usually 5% of 'creative marginals' are preparing the shift in silence (Ray & Anderson, 2000). This concept has been borrowed by sociologist Paul H. Ray and psychologist Sherry Ruth Anderson who have applied it to their market cluster research of politics in America. Drawing upon 13 years of survey research studies on over 100,000 Americans, plus over 100 focus groups and dozens of depth interviews they have discovered that around 24% of Americans are departing from traditional or modern cultures to weave new ways of life. They describe this new subculture as the cultural creatives, who deeply care about ecology and saving the planet, about relationships, peace, social justice, self actualization, spirituality and self-expression. They are both inner-directed and socially concerned. They are activists, volunteers and contributors to social causes—more so than other Americans. Amongst many interesting behavioural indicators, they are those who read and listen to the radio the most, and watch television the least. They reflect on themselves, like to travel, and are seriously looking for a spiritual dimension in life that goes beyond religious dogmas. In their everyday life they search for the harmony of the body, mind and spirit. Interestingly, 66% in this group are women. Ray and Anderson (2000) claim that because they have been fairly invisible in American life, cultural creatives themselves are astonished to find out how many share both their values and their way of life. Their visibility and the power to produce a serious change are overshadowed as they are often disregarded simply as the esoteric New Agers, who simply opt for an alternative lifestyle.

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[2] In translation: 'Beyond modernity, patriarchy and capitalism: Re-enchanted society?', although not published in English as such. However, its extended version under the different title (Ghisi, 2008) has been translated into English.

The statistics go beyond the North American continent however[3]. The Statistics Office of the European Commission (Eurostat) used a similar method to the American study and confirmed a similar trend of approximate 20% of the European population who exhibit a similar set of values (Bréchon & Tchernia, 2002). In his latest work, Ghisi (2008) also gives anecdotal evidence, which shows that this trend is quietly spreading throughout Eastern Europe, Asia, and the Middle East.

Changes in Consciousness: The Reflective/ Living-systems Paradigm

In the typical fashion of synchronicity I mentioned at the beginning of this paper, these European results were presented to the State of the World Forum[4] in San Francisco in 1997 (a gathering of world leaders convened by the Gorbachev Foundation) where another scholar, Duane Elgin, similarly suggested, on the basis of another independent world-wide survey, the emergence of a new paradigm and global consciousness change. In his Millennium Project Report (1997), Elgin provides many indicators that suggest the new emerging worldview which he calls a *reflective/living-systems paradigm*. He derives his claims from a comprehensive overview of many cultural transformation and paradigm publications by eminent scientists and world leaders as well as the empirical evidence of world statistics on global ecological awareness, main behavioural trends, emerging social values and sustainable ways of living. He also cites much interesting research on world web technology which he claims has the revolutionary capacity to connect and awaken humanity to larger evolutionary possibilities by creating a global awareness (to the same effect as the printing press progressed the oral culture of medieval ages to revolutionise and create the world commerce of modernity). Many of Elgin's claims have been also based on the World Values Survey[5], run by Ronald Inglehart (1977), who also spoke about the silent revolution, although more in terms of a general intergenerational shift in the values of the population in advanced industrial societies and later of postmodern change (1997). Yet, more recently, he has also moved to re-examine the relationship between the sacred and the secular, based on new evidence of the World Values Survey in 80 societies which found that a growing proportion of the population in both rich and poor countries spends time thinking about the meaning and purpose of life (Inglehart & Norris, 2004).

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[3] Ghisi who met Paul Ray in his capacity of working for the European Commission proposed his 'Forward Studies Unit' to do a similar study in the countries of EU.

[4] This synchronicity I discovered by accident however. As I have been searching for the 'new paradigm literature' Duane Elgin featured highly on the list and then in reviewing his work I realized that he attended the same event in 1997 where Marc Ghisi presented the European study on cultural creatives.

Changes in Societal Systems: The Partnership Model of Caring Economics

For the skeptics who often too easily disregard such claims of societal transformation as being a rather elitist, upper/middle class luxury, in the next two sections, I would like particularly to cite two renowned social and political scientists who provide convincing evidence about new technological, economic and political arrangements that are creating and manifesting the transformation. Firstly, I will discuss the work of Riane Eisler (1987, 1996, 2002, 2007), a renowned macrohistorian[6] and secondly, that of Jeremy Rifkin (1995, 2005, 2009), a well-known economist and advisor to government leaders and heads of state in Europe and the United States.

Based on her work as a cultural historian and evolutionary theorist over the last 20 years, Riane Eisler introduced the *partnership* and the *domination* system as two underlying possibilities for structuring beliefs, institutions and relations that transcend categories such as religious vs. secular, right vs. left, and technologically developed or underdeveloped. It is her particularly brilliant *The Chalice and the Blade* (1987), a historical analysis of over 30,000 years that provides us with a refreshing view of our past and 'givens' in all areas of our personal, communal, economic and political life. With reference to recent archaeological discoveries Eisler shows that ancient times (before 3500BC) were based on matrifocal values, which did not mean the opposition to patriarchy (i.e. the domination of women over men), but rather that societal organization focused on the values of giving life, fertility, the pleasure to exist, artistic creations and sexual pleasure. However, over time, the life-generating and nurturing powers of the universe, in our time still symbolised by the ancient feminine chalice or grail was replaced by the lethal power of the blade. In the new world, of which we are the last heirs, 'power' is no longer viewed as the ability to give life, but is construed as the power to bring death, destroy life, subdue others and be obeyed at all cost. For instance, Eisler provides a new interpretation of 'original sin' and the beginning of Genesis in the Bible as a text that represents the shift from the 'old' matrifocal symbols to the patriarchal myth in which the tree of life and wisdom becomes an evil and the sacred Eros between man and woman becomes the shameful act.

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[5] Ronald Inglehart is a political scientist and the Director of World Values Survey, a global network of social scientists who have carried out (since 1981) representative national surveys of the public's covering the full range of economic, social and political variations, in over 80 societies on all six inhabited continents, containing 85 percent of the world's population.

[6] Riane Eisler is the author of the international bestseller *The Chalice and the Blade: Our History, Our Future* (Eisler, 1987) which has been published in 23 foreign editions, making Riane the only woman who has been selected among 20 great thinkers, (including people like Hegel, Marx and Toynbee) for inclusion in *Macrohistory* and *Macrohistorians* (Galtung & Inayatullah, 1997).

In deconstructing the long history of domination, Eisler provides a beacon for our tired world of ongoing mistrust, blood, misery and injustice. By transcending the trap of polarised thinking she offers a way forward by pointing to the partnership model in which social structure is more generally egalitarian, with difference (be it gender, race, religion, sexual preference or belief system) not automatically associated with superior or inferior social and/or economic status. Females and males are equally valued in the governing ideology and stereotypically feminine values such as nurturance, caring and non-violence can be given operational primacy without resulting in stereotyping of gender roles. Furthermore, in partnership models of society, the spiritual dimension of the life-giving and sustaining powers of both nature and women is recognised and highly valued, as are these powers in men. Spirituality is linked with empathy and equity, and the divine is imaged through myths and symbols of unconditional love. Human relations are held together by pleasure bonds rather than by fear of pain. The pleasures of caring behaviours are socially supported, and pleasure is associated with empathy for others. Caretaking, love-making and other activities that give pleasure are considered sacred. The highest power is the power to give, nurture, and illuminate life. Love is recognised as the highest expression of the evolution of life on our planet, as well as the universal unifying power (Eisler, 1996, p. 403-405).

In providing us with an impressive range of world-wide evidence of personal, communal and economic initiatives, organisations and policies Eisler claims (in a similar vein as all the authors cited above) that we are finally witnessing the world-wide movement towards a *partnership system* (Eisler, 1996, 2002) *of caring economics* (Eisler, 2007). She asserts that the reason why we do not hear much about this movement in the media is because it is not centralised and coordinated under a single unifying name and: “without a name, it’s almost as if it didn’t exist, despite all the progress around us” (Eisler, 2002, p. xxi). In her latest groundbreaking work on the *Real Wealth of Nations* (Eisler, 2007) she deconstructs Adam Smith’s theory of the invisible hand of the market as the best mechanism for producing and distributing the necessities of life to unpack its deep-seated culture of domination and exploitation that has devalued all activities which fall out outside of the market’s parameters of buying and selling. Instead she proposes that the slowly emerging caring economics takes into account the full spectrum of economic activities of the household, from the life enriching activities of caregivers and communities to the life-supporting processes of nature. In juxtaposition to the overwhelming evidence of structural inequalities and social injustices of the domination system, she provides evidence and many practical proposals for new economic inventions—new measures, policies, rules, and practices—to bring about a caring economics that fulfils human needs. In the many examples given, such as high-quality care for children, she also uses a purely financial cost-benefit analysis to demonstrate how caring is one of the best investments a nation can make. In her insightful economic analysis of policies and their (in)effectiveness around the world, she convincingly shows how the dominant culture of the double economic standard of valorising ‘productive’ over caring activities actually influences economic policies and practices. Eisler’s claims of emerging critical and caring businesses is further supported by the evidence that many mainstream businesses are re-questioning the main purpose of their bottom-line existence (i.e., going for profit only) which has led to the concept of spiritual economy and spiritual entrepreneurs conscious of her/his missions towards the common good of humanity (see Allee, 2003; Harman, 1998; Stewart, 2002; World Business Academy, 2009).

Political Change: The European Dream and Biosphere Politics

Whilst Riane Eisler provides us with an economic model to analyse emerging transmodern phenomena in society and the market, Jeremy Rifkin, in his book *The European Dream: How Europe's Vision of the Future is Quietly Eclipsing the American Dream,* claims that it is the European dream of a United Europe (in its potentiality) that is already a political manifestation of the coming era:

> The new European dream is powerful because it dares to suggest new history, with an attention to quality of life, sustainability, and peace and harmony. In a sustainable civilization, based on quality of life rather than unlimited individual accumulation of wealth, the very material basis of modern progress would be a thing of the past...The new dream is focused not on amassing wealth but rather, on elevating the human spirit. The European dream seeks to expand human empathy, not territory. It takes humanity out of the materialist prison in which it has been bound since the early days of the eighteenth-century Enlightenment and into the light of a new future motivated by idealism. (Rifkin, 2005, pp. 7-8)

In the light of many EU controversies, hypocrisies and problems, claims could be easily interpreted as overtly idealistic. However, he stresses that dreams reflect hopes, not achievements; hence the notion of the *potentiality* in many of the tenets provided by the ideal of European dream.

In elaborating his thesis Rifkin (2005) provides us with an overview of how the fundamental pillars of the modern era: individualism; the market-exchange economy, the ideology of property; and territory-bound-nation-state governance (forged with capitalistic markets) were created and how they are slowly getting interwoven with new spatial, economic, social and political arrangements of the global era. By giving us an overview of its political architecture and the historical making of the united Europe, its unique features of extra-territorial governance, constitution, internal workings and various policies, he gives us a realistic picture of Europe's many hypocrisies and contradictions, yet, and this is the focus of my review, Rifkin also points to its many achievements and potentialities for advancing greater interconnectedness and mutuality, and a relational global consciousness.

First he presents an overview of the burgeoning network commerce and the 'immateriality' of the knowledge economy (it is estimated that approx. 40% of the European Union economy is already in the non-material, knowledge society) which is giving a birth to a new economic system based on the *cooperative commerce of reciprocity and trust*. Rifkin aptly describes the difference between the market and network economy: "markets are based on the pursuit of self-interest, networks on shared interest" (Rifkin, 2005, p. 193).

Second he contrasts the politics of the nation-state era which operates along two poles of market and government; to the three-sector politics that include civil society which makes the new European dream realizable. In particular, in its embrace to share at least some governing power with civil society organizations (CSOs), Rifkin claims the EU is changing the governance landscape forever. He deals with the EU controversial policy issues of advancing both cultural diversity and universal human rights and how CSOs represent the social engine to preserve diversity while mobilizing public support behind universal rights' agendas. They are, Rifkin (1995) claims, local, transnational and global players and the essential political partner for the EU regulatory state.

Third, he shows that the EU *precautionary principle* policy for regulating science and technology innovations, and the introduction of new products is successfully being used to review and even suspend experiments and innovations that potentially endanger the health of humans, environment, animals and plants. While acknowledging that the old Enlightenment paradigm to grow, exploit and colonize the Earth still pervades, Rifkin (2005) is of the opinion that this bold, cutting-edge initiative demonstrates a radically different view of nature and respect of Earth as the interconnected whole.

Overall, Rifkin's (2005) analysis of change at the European level is a call to move from the current *geopolitics* - and its assumption that the environment is a giant battleground where we all fight for our survival—to *biosphere* politics, or the premise of the Earth as a living organism made up of interdependent relationships on which we all can only survive by stewarding the larger communities of which we are part. In his latest book (Rifkin, 2009), *The Empathic Civilization: The Race to Global Consciousness in a World in Crisis*, Rifkin elaborates on this call to become more oriented towards mutuality and interconnectedness by providing a historical analysis of empathy, showing that humans are fundamentally empathic beings, and that society has become increasingly empathic throughout history. Referring to the beginning of biosphere consciousness, this latest book asks whether we can "reach global empathy in time to avoid the collapse of civilization and save the Earth" (Rifkin, 2009, p. 3).

Evolutionary Changes in Psycho-social Development: Relational Consciousness

In his work, Rifkin (2005) also draws on the psychoanalytical view of the global political economy and its history. He makes reference to Owen Barfield, the British philosopher who views history as an unfolding of human consciousnesses which can be divided in roughly three stages, which dovetail with Freud's theory of individual mental development (cited in Rifkin, 2005). In the first stage of hunter-gatherer societies, humans had little sense of self and regarded Mother Earth as a primordial mother, treating her with the same love, respect and awe as they might confer on their own tribal mothers (similar to the infant-mother relationship when the infant still feel oneness with her/his Mother).

The beginning of agriculture marked the onset of the second great period of human consciousnesses when humans in their activities of domestication of animals and land slowly began to lose the intimate participation and communion with the natural world. It is comparable to the child/adolescence/adulthood stage of psychoanalysis, when the void left by our own sense of separation from our bodily connection with our own mothers is compensated by endless substitutes - material things, ideologies, unconditional love of God, sex, various addictions - you name it. The unhappiness of the modern era and its status anxieties (de Botton, 2004) become more explicable in light of a statement given by the psychologist Norman Brown (1985, p. 297) and used by Rifkin (2005,): "The more the life of the body passes into things, the less life there is in the body, and at the same time the increasing accumulation of things represents an ever fuller articulation of the lost life of the body" (p. 373).

Barfield suggests, however, that we are on the cusp of the third great stage of human consciousness—the stage in which we make a self-aware choice to re-participate with the body of nature. It is this new *relational* consciousness in which we are increasingly becoming aware of shared risk and vulnerability, and economic, social and environmental interdependencies, which leads to the emergence of process-oriented behaviour and willingness to accept contradicting realities and multicultural perspectives. In many ways, Barfield's view reaffirms Eisler's (1987) evolution theory of human development from the ancient, matrifocal times, via the domination system of patriarchy to the emerging partnership model between men and women; nature and humans; mind, body and soul. So, instead of denying our own mortality (so characteristic to the youth's sense of invincibility), the current era brings about a maturity stage in which we realize that we can't really begin to live until we accept the inevitability of our own death. But how do we come to terms with our own death and make the choice to live? Rifkin (2005, p. 374) again provides guidance:

> [We do it] by making a self-aware decision to leave the death instinct behind, to no longer seek mastery, control, or domination over nature, including human nature, as a means of fending off death. Instead, accept death as part of life and make a choice to re-participate with the body of nature. Cross over from the self to the other, and reunite in an empathetic bond with the totality of relationships that together make up the Earth's indivisible living community.

Change in the Quality of Relationships: The Circularity Paradigm and Love Ethics

Thinking back to my earliest engagement with (what I now recognise as) transmodern ideas, I would like to draw on the field of feminist writings focused on love ethics (bell hooks) and what Gloria Steinem (1993, 2004) described as the c*ircularity paradigm*. Her words (Steinem, 1993, pp. 189-190) very much resonate with the ideas elaborated above:

> If we think of ourselves as circles, our goal is completion — not defeating others. Progress lies in the direction we haven't been… Progress is appreciation. If we think of work structures as circles, excellence and cooperation are the goal—not competition. Progress becomes mutual support and connectedness. If we think of nature as a circle, then we are part of its reciprocity. Progress means interdependence. If we respect nature and each living thing as a microcosm of nature—then we respect the unique miracle of ourselves. And so we have come full circle.

The realization that human powers come from within has been translated into the political arena, producing a socio-political movement of so-called 'sacred activism', which reaffirms individual growth, spirituality and actions that counters contemporary global discourses of fear, alienation and disempowerment (e.g. Diamant, 2005; Fonda, 2004; Fox, 2000; Maathai, 2005; Tacey, 2004).

In many ways some of those ideas can be traced in my latest work where I put forward the poststructural concept of embodiment (Ateljevic & Swain, 2006; Ateljevic & Hall, 2007; Wilson & Ateljevic, 2008). I have argued that the poststructural perspective gives us the opportunity to engage with subtle norms and values shaping our lives in the process of which both, the normalized discourse of dehumanized structures and the resisting power of agency, can be revealed in parallel. Yet, in my deconstructions I want(ed) to remain positive and hopeful, as I have begun to be inspired by feminist work on the importance of embracing love ethics and the tracing of positive structures, changes and potentialities that give us hope and models of acting and behaving in our personal and professional lives (Ateljevic, 2005, 2006b; Ateljevic, Pritchard & Morgan, 2007). As Steinem (1993, p. 129) aptly asks:

> And where is the routine study of social forms other than hierarchy, patriarchy, and competition – or even an understanding that they exist? Where are the campuses as pioneers of the powers of self-esteem and human possibilities?

Or as Erich Fromm (2006) in his renowned work of the psychoanalysis of modern political economy posed the powerful question of how almost all our energy is spent on learning how to achieve success, prestige, money and power, while the art of living and loving "which 'only' profits the soul, but is profitless in the modern sense, is a luxury we have no right to spend much energy on?" (Fromm, 2006, pp. 5-6).

bell hooks (2000, 2002, 2003) has particularly engaged with those ideas in her work of conceptualizing love that goes beyond the exceptional-individual phenomenon. To promote the overall cultural embrace of a global vision wherein we see our lives and our fate as intimately connected to those of everyone else on the planet, she urges both men and women to challenge the patriarchal culture of lovelessness, sexist stereotypes and dehumanization, and to engage in the art of loving for themselves and their universal humanity. She has translated those ideas particularly into the most obvious academic area of influence for the potential social change—our teaching, and in doing so has produced the concept of so-called democratic educators and a pedagogy of hope (2003). In presenting her ideas and looking at what works she urges us teachers to resist oppressive structures by exposing their dehumanization and to embrace the values that motivate progressive social change—spirit, struggle, service, love, the ideals of shared knowledge and shared learning.

In the anticipation of criticism by political economy pessimists that my discussion on love ethics is rather naive, I want to clarify my position. Being originally educated as a neo-Marxist geographer I cannot deny the dominant and overwhelming evidence of structural inequalities around the globe. However, in the process of my career I have learned to agree with the later works of Gloria Steinem and bell hooks who claim that marking oppressed difference creates the mindset of victimisation which seriously affects personal and collective confidence about oneself, hence subtly reproducing further marginalisation. For instance, I have claimed elsewhere how (early anthropological and sociological) critical voices of pessimistic views on tourism have paradoxically reproduced the notion of the passive and victimised Other (e.g., Ateljevic & Doorne, 2003, 2005). So in my hope that we can truly remake the world, I opt to focus on signs that signal a potential move in the collective consciousness. In the plethora of pessimistic views and bad news I leave that (admittedly important) job to others and commit myself to trace and discover what is positive and possible in our human development potential.

Change on a Personal Level: My Engagement as a Critical Human Geographer

Reflecting upon my own trajectory as an academic and teacher, the concept of transmodernity enables me to see my professional engagement in a new light: In the context of (what I now recognize as) transmodern calls to “shift to a new level of consciousness, to reach a higher moral ground… to shed our fear and give hope to each other” (Wangari Maathai, 2004—Nobel Peace Prize lecture, p.), I have been engaged in critical work in the field of human geography and tourism studies. Together with other critical scholars, we have been advocating an academy of hope and a critical turn in research and practice (see Ateljevic, Pritchard & Morgan, 2007). The objectives of this endeavour have been twofold: First, to move from a dominant business perspective to a richer understanding of the tourism phenomenon in the broader context of material, discursive and social practices (see for example Pritchard et al., 2007); and second, to create a community of resistance in which we seek to transgress oppressing teaching and research structures. Indeed we have been contesting de-humanizing academic ideologies and practices that stifle our creativity in research (see Page, 2005; Tribe, 2003), promote a collective fear of radical change, and entrench a culture of domination that ensures our obedience (see Ateljevic, Pritchard & Morgan, 2007).

In our endeavours to produce transformational knowledge our academy of hope network has been searching for strategies and practices to legitimize our professional, emotional and spiritual responsibilities to those with whom and for whom we co-create knowledge, to our students and also to ourselves. In doing so, we are not seeing this as some self-centered indulgence, but rather as a necessary deconstruction of the geo-body politics of academic knowledge and its deeply embedded destructive dichotomies and hierarchies of rational/emotional; feminine/masculine; subject/object; internal/external; mind/body/spirit; winner/loser; dominant/passive; man/nature; and agency/structure/resistance. We are seeking to examine not just the world as it is, but to reflect on the world as we make it.

Final Reflections

In this paper I have engaged with a broad range of literature that provides us with many signals and evidence of an emerging and significant paradigm shift in our human evolution. In line with the *synchronicity* phenomenon of universal seemingly unconnected coincidences (Jarowski, 1996), the preceding discussion has clearly shown that while many different labels and models exist to describe the global shift in culture, consciousness, society, economics, politics, and human relations, they all similarly point to the same intuitive aspirations for inclusivity, diversity, partnership, sacredness and quality of life, sustainability, universal human rights, the rights of nature and peace on Earth. In other words, different authors use many terms to capture the main forces behind the potentiality of creating the new transmodern world—the reflective/living-systems paradigm (Elgin, 1997); the partnership model of caring economics (Eisler, 2002); the relational global consciousness of biosphere politics (Rifkin, 2009); love ethics (hooks, 2002); the circularity paradigm of interdependence (Steinem, 1993). Echoing Riane Eisler’s argument that the limited global awareness of this world-wide movement is due to the lack of a unifying name and centralised coordination, I propose to use the notion of transmodernity as an umbrella term that can lift disciplinary attention given to phenomena of change to a broader cross-boundary awareness of the large scale societal shifts that herald the coming era of transmodernity.

This call for a unified approach is not merely motivated by a wish to advance theory, but by my deeply felt desire to enlighten practice. Transmodernity gives us the necessary political and epistemological position to transcend all (post)essentialist contradictions and treatments of race, gender, tradition, culture, economy, and so on and to provide us with a theorization that can give us a ground zero of *biosphere politics* with no inherent domination and superiority of one over another. Once the grounds of shared risk, vulnerability, and interconnectedness of all humans occupying our Earth are acknowledged, a true dialogue without patronising can be created.

In conveying good news however, I do not deny the harsh reality of structural inequalities around the world and my own privileged position in it—to speak, to write and to live comfortably. Yet, it wasn't always like that. As a person who experienced the Balkan war in the 1990s and subsequent displacement with its all challenges during which I encountered both beautiful human support and random discrimination I attest to the powers of positive mindset and human compassion which helps one to empower and to get empowered. In the light of my own experience I want to promote values of wisdom and compassion and individual powers to make a difference and in doing so to point to the possibilities of creating unity by celebrating diversity, which I believe represents the only way to the sustainable future of humanity.

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Cybersemiotics: A New Foundation for Transdisciplinary Theory of Information, Cognition, Meaningful Communication and the Interaction Between Nature and Culture

Søren Brier[1]

Abstract: Cybersemiotics constructs a non-reductionist framework in order to integrate third person knowledge from the exact sciences and the life sciences with first person knowledge described as the qualities of feeling in humanities and second person intersubjective knowledge of the partly linguistic communicative interactions, on which the social and cultural aspects of reality are based. The modern view of the universe as made through evolution in irreversible time, forces us to view man as a product of evolution and therefore an observer from inside the universe. This changes the way we conceptualize the problem and the role of consciousness in nature and culture. The theory of evolution forces us to conceive the natural and social sciences as well as the humanities together in one theoretical framework of unrestricted or absolute naturalism, where consciousness as well as culture is part of nature. But the theories of the phenomenological life world and the hermeneutics of the meaning of communication seem to defy classical scientific explanations. The humanities therefore send another insight the opposite way down the evolutionary ladder, with questions like: What is the role of consciousness, signs and meaning in the development of our knowledge about evolution? Phenomenology and hermeneutics show the sciences that their prerequisites are embodied living conscious beings imbued with meaningful language and with a culture. One can see the world view that emerges from the work of the sciences as a reconstruction back into time of our present ecological and evolutionary self-understanding as semiotic intersubjective conscious cultural and historical creatures, but unable to handle the aspects of meaning and conscious awareness and therefore leaving it out of the story. Cybersemiotics proposes to solve the dualistic paradox by starting in the middle with semiotic cognition and communication as a basic sort of reality in which all our knowledge is created and then suggests that knowledge develops into four aspects of human reality: Our surrounding nature described by the physical and chemical natural sciences, our corporality described by the life sciences such as biology and medicine, our inner world of subjective experience described by phenomenologically based investigations and our social world described by the social sciences. I call this alternative model to the positivistic hierarchy the cybersemiotic star. The article explains the new understanding of Wissenschaft that emerges from Peirce's and Luhmann's conceptions.

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An Overview of the Flow of the Argumentation in the Article

I begin with a brief introduction to my view of scientific thinking on deep theories and a few words about the limitation of the word ‘science’ in the English language and my proposal to use the German transdisciplinary term ‘Wissenschaft’, which includes qualitative research into meaning. I argue that it is vital to include the meaning aspect of reality when we deal with information, cognition and communication research. I will then briefly introduce my cybersemiotic visual model for organizing the exact, the life and the social science as well as the humanities in a framework shaped as a star with four different arms, a framework which I propose as an alternative to the positivistic ‘unity of science’ idea based on physics as model science and its modern version found in E. O. Wilson’s ‘consilience’ model. Cybersemiotics is a vision of how to integrate truth and meaning as well as the empirical and the experiential aspects of knowing in one pragmatic and semiotic view of the collective production of knowledge. I will then explain the phenomenological model behind Peirce’s phaneroscopically based semiotics. I briefly introduce his three categories and his idea of a philosophical foundation for a reflected *cenoscopic* science. I then briefly explain Maturana and Varela’s idea of autopoiesis and after that try to show how Luhmann’s triple autopoietic systems view of socio-communication has a reflected pragmatic and realistic grounding that fits in with and supplements Peirce’s philosophy. I go on to explain the development of biosemiotics as an attempt to build a semiotic link from the life sciences to the social sciences and humanities through an evolutionary and ecological semiotic view. As the pan-informational and pan-computational philosophy tends to be more and more dominating, I find it necessary to explain how Peirce’s philosophy, which he calls pragmaticism, can be seen as an alternative. As Peirce lived a hundred years ago, my argument draws on modern American philosophers like Sellers, McDowell and Brandom.

Since Plato’s philosophy of a world of ideas and universal concepts was confronted by modern empiricism’s belief in material facts, the discussion on inter- and transdisciplinarity has been about what is most real: matter, forces, form or universal concepts. The possibility of transdisciplinarity therefore rests on our ability to define a reality that includes them all. Peirce’s suggestion of a scholastic realism inspired by Duns Scotus is such an attempt and I shall try to explain what it is all about. Peirce introduces time and possibility to enlarge our view of reality. W*hat is*, and *what has been* only cover the part of actuality, which is based on the past. There are, however, also *would be’s* dealing with probabilities. Peirce – like Popper and Prigogine – views possibilities as real and includes them in his category of *Firstness*. But they are also the basis for habits or what Peirce calls *Thirdness*. Peirce distinguishes between what is real and what exists. The only form of existence as such is what he calls ‘thisness’ (haeccity), which is his category of *Secondness.* It is this triadic processual understanding of semiotics that distinguishes Peirce’s semiotics from Saussurian semiology and makes the idea of biosemiotics possible. I then try to visualize how we may combine biosemiotics’ idea of endosemiotics creating the biological self and its exosemiotic communication theories with Luhmann’s triadic autopoiesis model of communication. This is done in order to give a first overview of the cybersemiotic idea and to explain how the integration of semiotics and system theory offers a more plausible model of evolution that can explain the emergence of mind. The article concludes by suggesting a new model of five ontological levels and a changed view of the reality of nature.

A New Foundation for the Sciences[2] and Humanities

Cybersemiotics proposes a new transdisciplinary framework integrating Peirce' triadic semiotics with a cybernetic view of information on the basis of an ontology of emptiness. It is an attempt to give a transdisciplinary solution to C.P. Snow's two-culture problem. The proposed framework offers an integrative multi- and transdisciplinary approach, which uses *meaning* as the overarching principle for grasping the complex area of cybernetic information science for nature and machines *AND* the semiotics of all living system's cognition, communication, and culture. Cybersemiotics is an integrated transdisciplinary philosophy of science allowing us to perform our multidisciplinary research, since it is concerned not only with cybernetics and Peircean semiotics, but also with informational, biological, psychological and social sciences. In order to incorporate the sociological disciplines and contributions from multiple areas of applied research cybersemiotics draws extensively on Luhmann's theories.

We are thus immersed in conscious and unconscious communication forms, verbal as well as non-verbal. As the linguistic turn argues, we cannot escape language, nor culture and power. Even science becomes a social construction, which is historically true, since science is a relatively recent phenomenon in the history of man. Empirical and mathematically grounded science is a modern invention that started in the Renaissance. Scientific knowledge has formed our rationality and cultural outlook on the world since then and right up to the global discussion these days about the reality of global warming.

And yet science is still faced with the problem of meaning. The background of cybersemiotics is the recognition that Western philosophy of science is in a state of crisis. Western culture is at a turning point when it comes to taking the final step into a *knowledge culture* based on information and communication technology. Rather than basing our culture on the conception that the highest goal of knowledge is an abstract, non-embodied and globally available (artificial, impersonal) intelligence of information programs, I believe that we should ground our culture(s) on embodied human living (personal as well as interpersonal), i.e. on semiotic intelligence as part of both living nature and human culture, rather than only on the physical science and the worldview behind it.

The current dominant objectivist science, which to me includes physicalism, eliminative materialism, cognitive sciences based on the information processing paradigm, cannot encompass self-aware consciousness and social-communicative meaning as causal agents in nature. Current cognitive science attempts to explain human communication from the outside without recognizing the phenomenological and hermeneutical aspects of existence. Its conception of human (meaningful) language and communication as a sort of culturally developed program for social information processing between computational brains/ minds cannot explain the evolution of embodied consciousness and (meaningful) human language and communication.

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[2] For me the concept 'sciences' refer to natural, life, technical as well as social sciences. With a background in biology I consider the life sciences to assume a different ontology from that of physics and chemistry, which do not operate on the premise of life as biology does.

Cybersemiotics offers a new *ontology* that can encompass a moderate version of the ontologies of all four dimensions or spheres.

Inspired by the methodology of critical realism (Bhaskar, 1997, 1998) and Bourdieu (Bourdieu and Wacquant, 1992), I believe that our common sense only shows us the surface of reality, and that it is the task of the sciences to dig deeper and look further than our common sense assumptions. I agree with Gadamer (1989) that our cultural history is also a development of our knowledge about ourselves, society and nature forming a common knowledge horizon.

Therefore I agree with Karl Popper that it is the role of scientists and philosophers to boldly invent new ways of looking at reality, knowledge and ourselves. Take for instance Einstein and Bohr, who forever changed the way we understand matter, energy, time, space and knowledge, or Norbert Wiener who introduced information as a basic ontological component in his transdisciplinary cybernetic worldview.

I see the semiotic philosopher C. S. Peirce(1839-1914, see his collected papers: Peirce 1931-1935) as such a bold inventor, one who had important and profound ideas about the development of human knowledge development long before Karl Popper (1960, 1962, 1972, 1974, and 1976) and Roy Bhaskar (1997, 1998) published their theories. Peirce created a whole structure of philosophy, science and humanities through his semiotic philosophy (inspired by Dons Scotus and Kant), which includes a transdisciplinary theory of meaning, signification and communication. In a somewhat supplementing vein Niklas Luhmann (1990, 1995) – originally inspired by Talcott Parsons' (1902 –1979) structural functionalism – developed a social system theory that views social communication as the basic reality of society and integrates the psychic and the biological autopoietic systems. Luhmann borrows the concept of autopoiesis from the cybernetic biologists Humberto Maturana (1983, 1988a, 1988b) and Francisco Varela (1980, 1986).

It is my view that these two interdisciplinary theories may be combined into a transdisciplinary framework that I call *cybersemiotics*. I firmly believe that cybersemiotics constitutes a realistic foundation for a comprehensive understanding of the natural, life and social sciences as well as humanities and that it can provide a deeper understanding of the differences in the knowledge types they produce and show why each and every one is necessary.

By establishing this new framework, I also hope to create a transdisciplinary approach which transcends the incommensurability between C.P. Snow's two cultures: science-technology versus the humanities and the social sciences. I am trying to draw up a map onto which a multitude of viewpoints can be plotted and their subject areas characterized and compared with other approaches. In doing so, I hope to expand the dialogue between the exact sciences, the humanities, the social sciences and philosophy. A more comprehensive and further argued version of cybersemiotics can be found in the foundational book *Cybersemiotics: Why Information Is Not Enough* (Brier, 2006) as well as later articles on the subject (Brier, 2007, 2008a, 2008b, 2008c, 2008d, 2009a, 2009b, 2010, 2011).

The Four Views of the Cybersemiotic Star

My theory and philosophy of science (Brier 2006)[3] is that in a total naturalism the four basic approaches to understanding provided by the exact natural sciences, the life sciences, the phenomenological-hermeneutic humanities and the discursive view of sociology: cognition, communication, meaning and consciousness are all equally fundamental but need to be united in a transdisciplinary theory of information, semiotics, embodied consciousness and intersubjective communication. The cybersemiotic star in figure 1 is a visual model of this theory at the core of which we find the autopoietic semiotic praxis from which our knowledge springs.

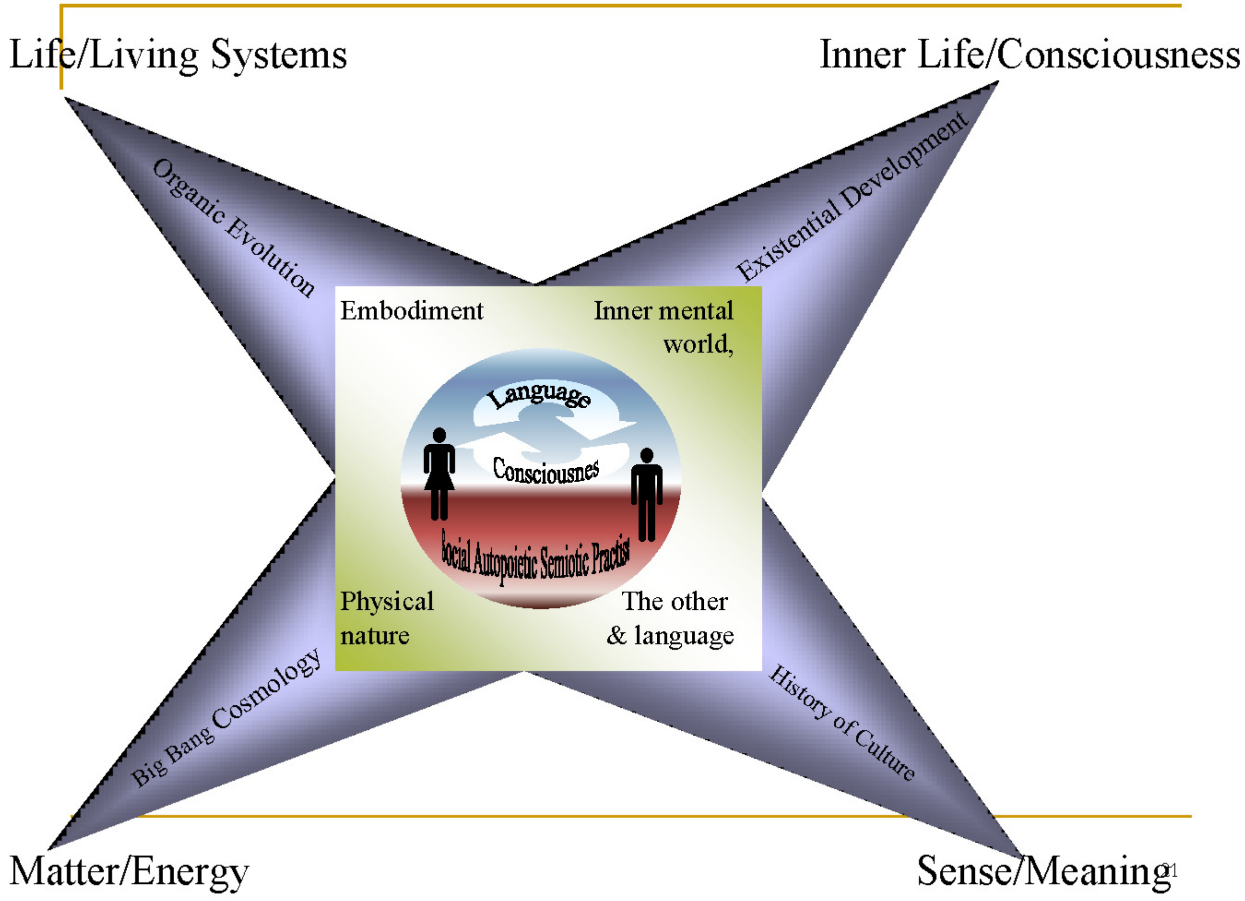
Life/Living Systems
Inner Life/Consciousness
Organic Evolution
Existential Development
Embodiment
Inner mental world,
Language
Consciousnes
Social Autopoietic Semiotic Practis
Physical nature
The other & language
Big Bang Cosmology
History of Culture
Matter/Energy
Sense/Meaning

Figure 1: ***The cybersemiotic star***: *A diagram of how the communicative social system of embodied minds' develops four main areas of knowledge. Physical nature is usually explained ontologically as originating in energy, matter and information. Living systems are seen as emerging from the development of life processes (such as the first cell). Social culture is explained as founded on the development of meaning and power in language and practical habits, and our inner mental world is explained as deriving from the development of our individual life world and consciousness, where consciousness is a given unexplainable fact.*

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[3] I have been teaching interdisciplinary philosophy of science in several universities, programs and levels over the last 30 years.

This transdisciplinary framework posits, firstly, that in order to produce intersubjective knowledge as Wissenschaft[4] it is necessary to accept the reality of language, autopoietic embodied minds, culture, and non-cultural environment, and, secondly, that the discussion about transdisciplinary knowledge takes place in a semiotic-linguistic discourse with other embodied and linguistically informed consciousness beings in a common praxis combining non-cultural and cultural signification spheres.

The Center of the Star

From this intersubjective interaction springs four main spheres of knowledge interests, which each attempts to explain all of reality. The primary type of knowing[5] seems to be the first person knowledge interest based in the origin and function of experiential mind and subjectivity. The approach taken from “the inside”[6] is in Western culture the phenomenological investigating of the “life-world” (Lebenswelt) in a Husserlian *phenomenology* (Husserl, 1970, 1997, 1999), or Peirce’s version (Peirce, 1931-1935), on which he bases his semiotic and which he calls *phaneroscopy* (Spiegelberg, 1965[7]). When the experiential worlds interact with others they create the intersubjective signification spheres that we call cultures. When we study socio-communication and acting from the point of language, we are using meaningful language to perform the act of studying other meaningful languages. As von Foerster (1988) writes, everything said by an observer is said to another observer. Furthermore, Wittgenstein (1958) argues then there are no private languages or language games, to which we can add that there are no private sign games, either, and that all knowledge comes to us through signs. This is the pragmaticist semiotic foundation of my transdisciplinary alternative to the notion of unity of science which the logical positivists derived from their view of physics as a model science. Instead of a hierarchy we have a star with a pragmaticist sign system theory in the middle accepting the language turn, without giving up any type of realism. It is important to acknowledge that neither Peirce nor Luhmann are ontologically radical constructivists (Rasch, 2012). Like Peirce, Luhmann considers reality as the precondition of all knowledge production. But knowledge is knowledge, not reality in itself.

In the first person approach, which is usually called phenomenological, but which we here with Pierce will call *phaneroscopic*, we deal with impressions and expressions of consciousness as the processes of sense experience and thinking in a state before sciences divided the world into subjects and objects. Merleau-Ponty (1962, p. vii) writes:

> Phenomenology is the study of essences; and according to it, all problems amount to finding definitions of essences: the essence of perception, or the essence of consciousness,

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[4] As ‘science’ tends to be understood as only the exact natural sciences I was looking for a concept that could encompass the exact, the life and the social sciences as well as the humanities in one word. This is exactly what the German concept *Wissenschaft* does.

[5] Knowledge as a process.

[6] An expression they would not accept as it assumes an outside as fundamental as consciousness and therefore constructs a radical dualism like Descartes, the critical analysis of which Husserl used to create the paradigm of phenomenology (Husserl, 1999).

[7] Spiegelberg’s two volumes form one of the major historical accounts of the phenomenological movement in Europe and America.

> for example. But phenomenology is also a philosophy which puts essences back into existence, and does not expect to arrive at an understanding of man and the world from any starting point other than that of their 'facticity'. It is a transcendental philosophy which places in abeyance the assertions arising out of the natural attitude, the better to understand them; but it is also a philosophy for which the world is always 'already there' before reflection begins—as 'an inalienable presence'; and all its efforts are concentrated upon re-achieving a direct and primitive contact with the world, and endowing that contact with a philosophical status.

Phenomenology holds that conscious experience, in both its subjective and intersubjective versions, comes before science, and is therefore not something that is in need of or can possibly be explained scientifically (from a materialistic or informationalistic point of view). This is in direct confrontation with scientism and the physicalist philosophy that empirically based scientific knowledge is the sole foundation of a rational world view. No one has in a short form expressed it more clearly than Merleau-Ponty who in the following quote views *the natural as well as the social sciences as secondary to the phenomenological stance:*

> Science has not and never will have, by its nature, the same significance qua form of being as the world which we perceive, for the simple reason that it is a rationale or explanation of that world. I am not a 'living creature' nor even a 'man', nor again even 'a consciousness' endowed with all the characteristics which zoology, social anatomy or inductive psychology recognize in these various products of the natural or historical process. I am the absolute source, my existence does not stem from my antecedents, from my physical and social environment; instead it moves out towards them and sustains them, for I alone bring into being for myself … the tradition which I elect to carry on. (Merleau-Ponty, 1962, p. ix)

What Merleau-Ponty describes here is the subjective and intersubjectively shared first person experiential consciousness, as its own first cause, which for Peirce is semiotically based. Neither Peirce nor Husserl view consciousness as primarily a product of the brain or of culture and language. All perception is embedded in consciousness even in such rudimentary form as pure feeling in Firstness. This basic phenomenological position is shared by Edmund Husserl, Maurice Merleau-Ponty and Charles Sanders Peirce's[8] (Spiegelberg, 1965) and the latter's development of a triadic[9] phaneroscopy is the point of departure for his semiotics. Here is one of his foundational formulations:

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[8] I find these three authors most relevant for the problem I want to discuss here, and there are multiple references in the reference list to these writers, which I have selected as the most interesting defenders of the phenomenological transdisciplinary view. I am well aware that there is a multitude of others, too.

[9] When analyzing Peirce's work it is clear that his three categories are foundational to his whole semiotic and pragmaticist paradigm and that they were developed over many years. Pierce attempted to prove mathematically that triadic relations cannot be broken down to duals, but it has never been widely accepted that he managed to do so. However, I find the phenomenological argumentation very convincing and these days supported by many other developments in science. The fundamentality of the triadic thinking is the reason why many scholars have been reluctant to accept Peirce's paradigm. But one should not under-estimate the extent to which deep reflections of logic - including the logic of relations, time, reality, continuity, the moment, perception and meaning - are connected to this path-breaking invention of Pierce. Joseph J. Esposito (1980) *Evolutionary Metaphysics: The development of Peirce's Theory of Categories* describes this quest in a most profound way.

> Phaneroscopy is the description of the *phaneron*; and by the *phaneron* I mean the collective total of all that is in any way or in any sense present to the mind, quite regardless of whether it corresponds to any real thing or not. If you ask present *when*, and to *whose* mind, I reply that I leave these questions unanswered, never having entertained a doubt that those features of the phaneron that I have found in my mind are present at all times and to all minds. So far as I have developed this science of phaneroscopy, it is occupied with the formal elements of the phaneron. (Peirce, CP[10], 1.289)

The formal phaneroscopic elements inspired from pure (abstract) mathematics can then be derived from the combination of a phenomenological and a mathematical analysis:

> It seems, then, that the true categories of consciousness are: first, feeling, the consciousness which can be included with an instant of time, passive consciousness of quality, without recognition or analysis; second, consciousness of an interruption into the field of consciousness, sense of resistance, of an external fact, of another something; third, synthetic consciousness, binding time together, sense of learning, thought. (Peirce, CP 1.377)

Peirce's phaneroscopy differs from Husserl's phenomenology by assuming a theory of mind and matter as a continuum. Peirce is a synechist and sees continua as fundamental. One way to explain the continua between mind and matter is to see mind as partly hidden inside matter; another way would be to say that the "beginning" of physics is not the only one, as physics' grand story does not seem able to explain experiential consciousness nor existential or socio-cultural meaning. Peirce also realizes that, as it is done in Husserlian phenomenology, we have to take seriously the observing and knowing ability of the human animal before it started making science. It is the prerequisite we must recognize before we can make any evaluation of scientific knowledge. Deely (1990) argues that Peircean semiotics is a perspective that arises from the attempt to create a ground common to all methods or, one could say, before all methods. From this point of view, it becomes clear that Peircean semiotics is a doctrine of the study of the action of signs. It is what he calls a *cenoscopic* science.

Peirce (CP 1.181) divided the sciences into three types: 1. A science of discovery, 2. A science of review, and 3. Practical sciences. It is within the sciences of discovery that we find the concept of "cenoscopy." Peirce divides the science of discovery into three subtypes: (1) (Pure) mathematics, understood as that science which draws necessary conclusions about hypothetical objects; and (2) cenoscopy, which he also calls primary philosophy and which is about all positively perceived phenomena in general (inner or outer) that confront a person at every waking moment. This is where Peirce places his phaneroscopy. Finally the (3) idioscopic sciences, which is his name for the special or positive sciences. They have the purpose of discovering new phenomena through observation and experiments. Peirce (CP 1.288) also states:

> Cenoscopic science, with its philosophical reflections, precedes the special or idioscopic sciences and is the place from where their individual contributions to man's knowledge of himself and the world should be evaluated and reflected upon.

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[10] CP stands conventionally for Collected Papers, which can be found as Peirce (1931-) in the reference list. The first digit is for the book number, the following number refers to a paragraph.

Thus, this article is cenoscopic in genre.

What distinguishes Peirce's phaneroscopy from Husserl's phenomenology is that not all elements in the phaneron are studied. Phaneroscopy focuses only on the elements that are indecomposable in a sort of pure mathematical and logical reflection. These indecomposable phaneroscopic elements exemplify the most basic universal categories for perception and cognition and therefore become philosophically foundational. Peirce explains more about them in this quote:

> Of the three Universes of Experience familiar to us all, the first comprises all mere Ideas, those airy nothings to which the mind of poet, pure mathematician, or another might give local habitation and a name within that mind. Their very airy-nothingness, the fact that their Being consists in mere capability of getting thought, not in anybody's actually thinking them, saves their Reality. The second Universe is that of the Brute Actuality of things and facts. I am confident that their Being consists in reactions against Brute forces, notwithstanding objections redoubtable until they are closely and fairly examined. The third Universe comprises everything whose being consists in active power to establish connections between different objects, especially between objects in different Universes. Such is everything which is essentially a Sign – not the mere body of the Sign, which is not essentially such, but, so to speak, the Sign's Soul, which has its Being in its power of serving as intermediary between its Object and a Mind. Such, too, is a living consciousness, and such the life, the power of growth, of a plant. Such is a living constitution – a daily newspaper, a great fortune, a social 'movement.' (Peirce, CP 6. 455)

The dynamic interactions between these three categories brings forth the triadic sign, where the representamen is a type of Firstness, the object is a type of Secondness and the interpretant is a type of Thirdness. Together they produce meaning in all the living sign-producing beings in the form of primary modeling as a signification sphere (or animal life world) and a secondary modeling in the form of sign games (cf. Cobley, 2010b).

In humans, a grammatically ordered generative system of signs obtains a special social function as the type of modeling system we call "natural language." Language emerged as an evolutionary adaptation over two million years ago. Maybe it started as a mute semiotic modeling system in Homo Habilis (Sebeok & Danesi, 2000). Peirce's semiotics is a kind of double hypothetical realism, since he believes in a reality that is partly independent from the observer. At the same time he is keenly aware of the fact that the embodied observer is a product of this same reality, which thus anchors the result of scientific investigations in a realist evolutionary framework including an ontological place for the phaneroscopic first person experience (Turisi, 1997). A solution to this is attempted in the cybersemiotic star. This view eliminates a pure materialistic and deterministic ontology and places meaning as a central part of reality as in Luhmann's paradigm (Stäheli, 2012). This is why Luhmann's theory belongs in the middle of the model integrated with Peirce's theory.

Luhmann, was – as briefly mentioned above – inspired by Maturana and Varela's biological theory of autopoiesis. He extended their autopoietic model to the psychological as well as the socio-communicative level. Luhmann (1990) proposes a triple autopoiesis model, where both the biologic and psychic systems are silent and only the socio-communicative autopoietic system can communicate. Biological autopoiesis functions in the medium of life whereas psychic autopoiesis and the socio-communicative autopoiesis both function in the medium of meaning. Thus communication consists of autopoietic systems. This is demonstrated in Luhmann’s provoking punch line: “Only communication communicates!” He sees communication as an autopoietic self-organized complex system. Communication is not subjects exchanging objective information! Luhmann (1995, p.149) defines communications as

> a completely independent, autonomous, self-referentially closed selection, a mode of constantly changing the forms of meaning material, of reshaping freedom into freedom under changing conditions, whereby (given the premise that the environment is complex enough and not ordered as pure randomness) experiences of reliability gradually accrue and are then re-included in the process. Thus a meaning world emerges through epigenetic evolution that makes possible communication that is less probable.

Science has shown us that reality is very complex and that the data we have collected empirically can be interpreted in many ways. There are many valid interpretations and none can be taken for granted. We cannot expect a common worldview. We have to negotiate a mutual understanding to find a common working definition. Luhmann (1995, p. 147) writes:

> If one conceptualizes communication as the synthesis of three selections, as the unity of information, utterance, and understanding, then communication is realized if and to the extent that understanding comes about. Everything else happens "outside" the unity of an elemental communication and presupposes it. This is especially true for a fourth type of selection: for the acceptance or rejection of the specific meaning that was communicated.

We are thus immersed in conscious and unconscious communication forms be they verbal or non-verbal. As the linguistic turn argues, we cannot ‘get out’ of language, nor culture and power. Semiotics furthermore says that we cannot escape from the world of signs as it is also the medium of our cognition.

Peirce’s semiotics concords with Luhmann’s system theory, Popper’s critical rationalism and Bhaskar’s critical realism in that it sees humans as able to create knowledge together in a synergy of language and praxis. But these views are not entirely constructivist because they recognise the empirical testing of theories and that our own cognition has its roots – through evolution – in the very same reality we are investigating. This synechistic unity with the rest of reality – which in Peirce’s semiotic philosophy comes about primarily through signs, not matter – has considerable influence on forming the viability of our scientific knowledge.

Though we need to believe in an ultimate truth and to have truth as an ethical commitment in Wissenschaft we are also aware that there can be no final proof of our knowledge being a universal true statement or model. The belief in truth as a goal for Wissenschaft is, as Kant says, “a regulative idea”, without which the whole endeavour would collapse. Thus the cybersemiotic star model has a constructing movement going one way from the social and phenomenological aspects and on the other hand empirical perturbations from the pragmatic aspect of reality going the other. These two movements interact through time like breathing and develop our knowledge system towards being more and more encompassing.

The Arms of the Star

It is interesting to note that there are four forms of historical explanation going on in the cybersemiotic star model: 1. The cosmological, 2. The biological evolutionary, 3. The social-historical, and 4. The personal-subjective. Each attempts to explain the whole reality from its own time perspective. The natural sciences for instance work towards making one grand historical explanation from matter over life to consciousness and cultural meaning. But so far we have not cracked the problem of the emergence of life and consciousness in evolution from a bottom up model (Laughlin, 2005).

This is why one of my central claims is that the natural sciences cannot stand alone as a kind of absolute knowledge ignoring the results of the social sciences and the humanities. Barrow (2007) is one of the scientists that discuss the limits of the attempts – mostly within physics – to produce theories of everything. Thus the problem this article addresses is how to make a new paradigmatic foundation that would enable us to integrate the knowledge of the study of embodied consciousness from the exact, as well as the life sciences, the social sciences and the humanities, without reducing one set of results to another. The idea is to avoid all types of reductionism, from scientistic to radical constructivist reductionism.

Consciousness seems to be a transdisciplinary problem because, among other things, it is the prerequisite of all Wissenschaft. Thus, like McGinn (2000), I think that the hard problem of consciousness is what we can actually know about our own knowing and experiencing and it is therefore also about the limits of scientific explanation. According to the analysis above I do not think that a "science of consciousness" is possible in the form in which we know science today.

A new and more transdisciplinary foundation for Wissenschaft needs to be constructed. *We might therefore have to accept that an all-encompassing explanation of the conscious meaningful human communication process cannot be provided from any of the corners of the model*. The crucial change in outlook brought about by this transdisciplinary framework is that in the end we cannot expect to be able to reduce our scientific explanations to one grand story. We must accept that we shall have to juggle with all four different aspects at the same time.

A radical social constructivist or 'strong' Marxist paradigm attempting to explain it all from the foundation of the social will meet with problems of integrating knowledge from both the exact and the life sciences. Thus the price for transdisciplinary co-existence or even integration is the relativizing of the overall importance of the approaches from each arm of the model! The new foundation for knowing and knowledge will not be physics, biology, the social or the phenomenological but the semiotic and autopoietically organized cognition and intersubjective communication understood from the perspective of a pragmatic, critical realism. In the following, I will develop the semiotic and system theory foundation of such a new view.

The Development of Communication in Humans

Cognition and communication are socially distributed, bio-physically embodied and culturally embedded, and there is an integration of the praxis of communication with the praxis of living, of language games with life forms, and of communicative competence with a general socio-cultural competence. An instrumental-pragmatic view of linguistic communication conceives of the development of linguistic-symbolic behavior and the use of tools (technology) as co-evolutionary. Donald (1991) and Nelson (1998) believe that it all started with *homo erectus*' mimetic mind and culture. It was characterized *by re-presentational* and re-enactional intentionality in the use of fire to cook their food, and the institution of the sharing of food among family members. This is assumed to be the start of phatic communion and the development of symbolic codes.

Mimesis can be seen as the outgrowth of the primary, proto-semiotic, reflexive stage of languaging, which is securing coordination and community in the general primate episodic mind and culture. Here we go some three million years back (Donald, 1991). Mimesis is a precursor to the symbolic stage, with its social, communicative re-enactment side and its individual, cognitive re-presentational side. Mimesis stages would be from images, over diagrams, to *metaphors*. According to Donald's evolutionary theory (Donald, 1991) metaphoricity would include primitive 'narrativity' and he develops that theory further by arguing for the emergence of the mythic stage already in the Paleolithic epoch of the Stone Age about 35,000 years ago. Narrative skills are thus a fundamental part of the communicative competence of modern man, *homo sapiens sapiens*. 'Narrative thinking' in the form of Mythos is prior to analytic thinking, which is the characteristic of the theoretical, while empirically grounded scientific type of thinking and explanation. Meaning narratives are a prerequisite for objective science! Things, causalities and patterns have to make sense to us before we can even start to investigate truth claims about them! So, how do we integrate that knowledge, if not by including semiotics as for instance biosemiotics in our knowledge foundation?

Semiotics: Why Choose Peirce?

Semiotics (from the Greek word for sign) is the doctrine and science of signs, their use and how they produce and convey meaning. It is thus a more comprehensive system than language itself and can be used to understand language in relation to non-verbal forms of communication such as cognition and interpretation. One can trace the origins of semiotics to the classical Greek period (from the medical symptomology of Hippocrates) and follow important developments in the middle Ages (Deely, 2001). John Locke (re)introduces the label in the 17th century. But modern *semiotics* starts its development in the 19th century with Charles S. Peirce (1839-1914) and Ferdinand de Saussure (1857-1913). Saussure's paradigm is usually called *semiology*. Today, however, *semiotics* is often used as a meta-term for both. The two researchers worked independently of each other.

Saussure never wrote a book on semiotics himself. His *Cours de Linguistique Generale* is reconstructed from students' notes after Saussure's death in 1913 (Saussure 1969 [1913]). Nevertheless it founded modern linguistic theory. Though *semiotics* is now the recognized term for the common area of Saussure's and Peirce's work, they differ in their conception of a sign. Saussure took the sign as the organizing concept for linguistic structure, but Saussure's semiology is dualistic and language internal, and considers language as a self-organized system of internal differences based on a relation between sound and meaning. Its central idea is to analyze language as a formal system of differential elements. Thus, in structuralist semiotics signs do not refer to a reality outside language. Words and their meanings are defined by comparing and contrasting their meanings to one another inside the language system.

Peirce’s semiotics is triadic and incorporates an external realistic reference in that he combines a *Representamen* with an *Object* through the creation of an *Interpretant* constructed by the observing system. According to Peirce (CP 2.302), ‘we think only in signs’ and perceptions work by constructing signs. The development of semiotics into a transdisciplinary scientific field is based on Peirce’s triadic evolutionary and pragmaticist semiotics.

What Peirce attempted was to change our worldview in order to encompass the world of science and logic with the world of meaning and communication. In order to do so he created a common framework based on a triadic, evolutionary and pragmaticist theory of semiotics.[11]

Although semiotics emerged through efforts to investigate scientifically how signs function in culture, the 20th century has witnessed efforts to extend semiotic theory into the non-cultural realm, primarily in relation to living systems and computers. As Peirce’s semiotics is the only one that deals systematically with non-intentional signs of the body and of nature at large, it has become the main source for semiotic contemplations of the similarities and differences of signs of inorganic nature, signs of the living systems, signs of machines (Nöth 2002 and 2009), and the cultural and linguistic signs of humans living together in a society and searching for information and knowledge. Thus Peirce’ semiotics is behind the last 30 years of developing a biosemiotic theory of language communication.

Biosemiotics: The Connection Between Meaning, Rationality and Nature

Signs are mostly imbedded in a sign system based on codes (see below) like for instance alphabets of natural and artificial languages or ritualized behavior of animals where fixed action patterns like feeding young seagulls and grebes can acquire a sign character when used in the mating game. This last aspect from ethology was included under zoösemiotics by Thomas Sebeok in the 1960s (Sebeok 1965a, 1965b). He started to encompass animal’s species-specific communication systems and their signifying behavior under the name zoösemiotics in 1972, resulting in the book *Perspectives in Zoösemiotics*.

Later Sebeok decided that zoösemiotics rests on a more comprehensive science of biosemiotics, a name that was coined in the beginning of the 1990s (Sebeok & Umiker-Sebeok, 1992). This global conception of semiotics equates life with sign interpretation and mediation and a view of semiotic that encompasses all living systems including plants (Krampen, 1981), bacteria and cells, for instance in the human body (called *endosemiotics* by Uexküll et al, 1993). According to one standard scheme for the broad classification of organisms, five super kingdoms are now distinguished: protists, bacteria, plants, animals, and fungi, thus the major classification categories in biosemiotics are: *bacteriosemiotics*, *protistosemiotics*, *phytosemiotics*, *mycosemiotics*, and *zoosemiotics*. Within zoosemiotics, anthroposemiotics encompasses the traditional semiotics of language and culture chiefly inspired by Saussure, but it also builds on the foundation of the endo-

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[11] This new, but partly unfinished approach has attracted many researchers to attempt a consistent interpretation of his scattered work. These scholars include Apel (1981), Boler (1963), Brent (1998), Colapietro (1989), Corrington (1993), Fisch (1986), Deledalle (2000), Esposito(1980), Hookway (1992), Liszka. (1996), Menand. (2001), Murray (1961), Parker (1998), Savan (1987-1988), and Short (2007).

and exo-biological levels and semiotics of the other biological kingdoms mentioned, which are not present in structuralist semiology.

Ever since Umberto Eco (1976) formulated the problem of the “semiotic threshold” keeping semiotics within the cultural sciences; semiotics – especially Peircean semiotics – has developed further into the realm of biology crossing one threshold after another into the sciences. The ethology developed by Lorenz (1970-1971) and Tinbergen (1973) from the 1920s and on (inspired by Jacob von Uexküll) has for long pointed out that animals do react to certain aspects of nature or other animals as signs to be interpreted in fixed action patterns, and that animals communicate with these signs in a ritualized form that gives some of them a symbolic character (Brier 2008a). The efforts of Thomas Sebeok (see for instance Sebeok 1965a, 1965b, 1989, 1990; Sebeok & Danesi, 2000; Sebeok & Umiker-Sebeok, 1992) and Hoffmeyer (1996, 2008), as well as Emmeche (1998; Hoffmeyer & Emmeche, 1991) have led to the development of a biosemiotics encompassing all living systems, including plants (Krampen, 1981) and micro-organisms as sign generators and users (Nöth, 2001). Many humanistic researchers find this hard to accept, and accuse Peirce of defining the concept of sign too broadly by going outside intentional communication (Sonnesson, 2009).

Resulting developments have then been used to change the scope of semiotics from only cultural communication to a theory of biosemiotics that would also encompass the cognition and communication of all living systems from the inside of cells to the whole biosphere and a theory of cybersemiotics (Brier, 2008a), which would further include a theory of information systems composed of a biological, a psychological and a social autopoietic system (Luhmann, 1990, 1995).

Biosemiotics (bios=life & semion=sign) is a growing field that studies the production, action and interpretation of signs, such as sounds, objects, smells, movements but also signs on molecular scales in an attempt to integrate the findings of biology and semiotics to form a new view of life and meaning as immanent features of the natural world. Life and genuine semiosis are seen as co-existing. The biology of recognition, memory, categorization, mimicry, learning and communication are of interest to biosemiotic researchers, together with the analysis of the application of the tools and notions of semiotics such as interpretation, semiosis, types of sign and meaning. The biosemiotic doctrine accepts non-conscious-intentional signs in humans, non-intentional signs, between animals as well as between animals and humans, and signs between organs and cells in the body and between cells in the body or in nature. Thus the biological processes between and within animals transcend the conceptual foundation of the other natural sciences. Many biosemioticians base their research on parts of Peirce’s semiotics (Brier, 2009).

There has been a well-known debate about the concepts of primary and secondary modeling systems (see e.g. Sebeok & Danesi, 2000) in linguistics that has now been changed by biosemiotics. Originally language was seen as the primary modeling system, with culture being secondary to language. But through biosemiotics Sebeok has argued that there exists a zoösemiotic system as the foundation of human language, which has to be called the primary one, thus language becomes the secondary, and culture the tertiary system. It is based on a different view of coding than the structuralist and computationalist coding.

The Biosemiotic Concept of Code

A code is a set of transformation rules whereby messages are converted from one form of representation to another like in cryptography or Morse code. Thus, code refers very broadly to everything of a more systematic nature – "rules" – that the source and the receiver must know *a priori* about a sign for it to correlate processes and structures between two different areas, as for instance the Morse code. But now the term code is also introduced at the level of cells because a more local concept of connecting order than universal laws was needed. The advantage of using the concept of code instead of law is that codes in contrast to universal laws only work in specific contexts, and interpretation is based on more or less conventional rules be they cultural or (here is the extension) biological, such as the DNA-code.

In the protein production system of the living cell the genome in the nucleus, the RNA molecules which goes in and out of the nucleus and is attached to the Ribosomes outside the nucleus membrane triplet can be viewed as translating genes to messenger RNA-molecules, which are then read by the Ribosome as a code for amino acids to string together in a specific sequence to make a specific protein. The cell then interprets this code of life into a three-dimensional protein that can do specific work in the environment provided by the cell, tissue or whole multicellular body. Thus Sebeok (1992) writes of the genetic code as well as of the metabolic, the neural and the verbal code. Living systems are self-organized not only on the basis of natural laws but also on codes developed in the course of evolution. The overall code will contain sub-codes grouped in hierarchies. To view something as encoded is to interpret it as-*sign*-ment (Sebeok, 1992). Thus, in most biosemiotics the concept of code is always connected to meaningful semiosis though not in Barbieri's code-semiotics (Barbieri, 2001, 2008, 2011) nor in information science. Information science is built "bottom up" and is not based on concepts of meaning and interpretation.

A symbol in Peircean semiotics is a sign where the code is conventionally and arbitrarily defined. It can be a word in common language, but gestures and things like flags, presidents, and specific events like a soccer match can be symbols (here for example of national pride). Biosemioticians claim that the concept of symbol goes beyond cultures, as some animals have signs that are "shifters". This points to the fact that their meaning changes with situations, as for instance the feeding behaviour of young adults in the Herring gull. This feeding behavior also appears as a behavioural sequence in the mating game or the head-tossing of the Herring gull, which also occurs both as a pre-coital display but also when the female is begging for food (Sebeok, 1965a).

In this case the interpretant is not the individual but the species or the breeding line. Such a transdisciplinary broadening of the concept of a symbol is a challenging development for many linguists and semioticians working only with human culture and language. For instance Zlatev (2009a, 2009b) works on developing a hierarchy of sign levels.

Life can be understood from a chemical point of view as auto-catalytic, autonomous and autopoietic systems, but that does not say much about how the individual biological self and its awareness appear in the nervous systems. Hormones and transmitters do not function only on a physical causal basis. Not even the chemical pattern fitting's type of formal causation[12] is enough to explain how sign molecules function, because their effect is conditioned by the temporal, situational and individual context. Sign molecules like hormones and neurotransmitters work also on a basis of final causation supporting a purpose in the survival of the self-organized biological self. As Sebeok (1992) points out, the mutual coding of sign molecules from the nervous system, the hormone system and the immune system is an important part of the self-organizing of a biological self, which again is in constant recursive interaction with its *Umwelt* (Uexküll, 1934).

From a Peircian worldview, nerve cell communication becomes the means of binding the physical efficient causation described through the concept of energy (Firstness) and the chemical formal causation described through the concept of information (Secondness) with the final causations in biological systems described through the concept of semiosis (Thirdness) (Brier, 2008a).

From a cybersemiotic point of view, information science's bit or basic difference is only a sign if it is "a difference that makes a difference", which at least demands the individuality of an autopoietic system. Bits working in the computer for the computer are not signs in themselves because they do not need living systems with final causation to interpret them. They work through formal causation that is the interaction through differences and patterns. The computer is a machine driven only by differences.

A cybersemiotics based on Peirce's triadic sign, views digital information and bits merely as pre- or quasi-signs in themselves (Nöth, 2001, 2002, 2008). Codes inside a computer used by the computer is viewed as proto-sign as they are dyadic and do not require a self-organized "quasi-mind or self" to have causal effect, but work like a key in a lock. However, when we see them as encoding for language in a word processor program, they become signs to us.

Sign making is thus immanent in nature, but manifest in full triadic semiosis only within living systems. Damasio (1994, p. 128) writes that "nature appears to have built the apparatus of rationality not just on top of the apparatus of biological regulation, but also *from* it and *with* it." and dovetails with Peirce' (1921-35) much earlier thinking on this subject. Mind cannot exist or operate at all without a body, as Merleau-Ponty emphasized. The Cartesian model of a world of pure thought is not a viable foundation for the understanding of human rationality. But something more – exactly what still seems to escape us – is necessary to produce minds, imagery and emotions. Damasio (1994, p. 89) writes:

> Brains can have many intervening steps in the circuits mediating between stimulus and response, and still have no mind, if they do not meet an essential condition: the ability to display images internally and to order those images in a process called thought.

Damasio puts forward an interesting theory of 'somatic markers' according to which "dispositional representations" set off chains of reaction that reach deep down into the body's accumulated experience and bring forth images of appropriate visceral content intermingled with emotional states. In turn, these states colour everything with moods that regulate our attention and interest. It is a fecund insight, which was already present in the work of Konrad Lorenz

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[12] As Aristotle called it.

(1970-1971, see Brier 1980, 1999, 2000, 2001), and his attempt to build the biological behavioural science of ethology. But still, neither Lorenz nor Damasio reveal how the body may produce experience as such. The most rudimentary biological cognitive processes of animals with perceptual organs involve the ability to make distinctions.

Any type of distinction must be able to sort differences that do not make a difference from differences that do in matters of life and death (Bateson, 1972). Thus the organic is not deterministic or even probabilistic. It is an autopoietic, organizational closed individual (Maturana & Varela, 1980, 1986) that is able to respond to disturbances in a cybernetic internal productive way for survival. As such the life sciences are qualitatively different from the exact science like physics and chemistry and have to be represented by their own arm in the cybersemiotic star.

Molecular biology and genetics in themselves do not explain the nature and quality of life and how the experiential qualities of living systems come about. All we know is that the computational systems we have built so far are unable to produce an experiential world. Haikonen (2009) gives a convincing analysis of the huge problem that the phenomenon of qualia poses for the design of conscious machines (see also his book on conscious machines: Haikonen, 2008).

In the literature on biological systems it has long been assumed that the use of the terms “difference”, “information”, “message”", “signal”, “communication”, “messenger”, “message”, "cue", "code”, “sign” and “meaning” was just a practical and metaphorical shorthand form; but if so, why do these terms persist and proliferate in scientific articles? One of the starting points of a biosemiotics is to take this “information talk” seriously and develop these terms into a common framework (El-Hani, Queiroz & Emmeche, 2006, 2009). The so-called central dogma in biology postulates a unidirectional flow of “information” from DNA to protein. Many scientists hoped that these terms would be effectively reduced to chemical and physical interactions, or at least viewed as computational physical informational processes. In biosemiotics, some of these phenomena are instead evaluated as embodying meaningful sign processes because genetic and biochemical information has been shown to be highly context and time dependent.

This means that “information” in biological systems is not simple objective “data”, but has to be interpreted in a situated context by the cellular or multi-cellular system in order to yield meaning. The simplest form of such semiotic process is not only the ability of single cells to categorize environmental objects from superficial properties, but also internal exchanges between organelles. E. Coli, e.g., is able to recognize carbohydrates by an active site on the macromolecule. Thus the active site stands as a code for the whole carbohydrate molecule. This makes it possible for the same kind of active site on another type of molecule, e.g. artificial sweeteners, to fool the bacteria, just like human beings are fooled by sweeteners in their unhealthy hunt for sugar. The creative capacity of molecular-biological codes to be interpreted in meaningful ways expresses a generative capacity that is beyond the terminology of the molecular-biological language. This example also shows that even at this level of life, a sign is what makes lying possible, as a sign stands for something for someone even though what it stands for need not be present.

We have here a new level of freedom, indeterminism and risk where context of living becomes vital for interpreting and survival. There is no meaning without a life context and no context determined without meaning. They are bound together by a cybernetic semiotic loop. As the organism responds to more of the present situation, it reaches deep into the future and the past as well into its own construction of its ‘signification sphere’.[13] As these forms of anticipation unfold, variation, plasticity, versatility, and adaptability grow, and semiotic freedom emerges (Hoffmeyer, 2008) in the form of the enhanced ability to engender new concepts and cognitions that go beyond the genetically determined forms of perception in reflexes and instincts.

The basic reason for developing a biosemiotics is therefore the ontological postulate that biology is already semiotic. The living world is literally full of organic codes (Barbieri, 2001) – such as DNA, messenger and transport RNA, ribosomal RNA codes, hormones, transmitters, immunological codes and so on – and they are associated with all great events of macroevolution from the origin of proteins all the way up to the origin of embryos, the origin of mind and the origin of language Barbieri (2006). Not only does life create these semiotic capacities, it creates the capacity to create new codes with new semiotic capacities (Barbieri, 2011). Codes and signs cross the old borders between nature and culture, between causality and signification, and between interaction and communication. Biosemiotics suggests developing a reflected semiotic theory of the origin of life, agency, modeling, coding, semiosis, sense perception, conscious awareness and communication. But it is seldom truly Peircean. Kull, Deacon, Emmeche, Hoffmeyer & Stjernfelt (2010, p. 1) write about developing a biosemiotics from this viewpoint:

> Theses on the semiotic study …provide a collectively formulated set of statements on what biology needs to be focused on in order to describe life as a process based on semiosis, or sign action. An aim of the biosemiotic approach is to explain how life evolves through all varieties of forms of communication and signification (including cellular adaptive behavior, animal communication, and human intellect) and to provide tools for grounding sign theories.

Thus, in the biosemiotic paradigm the primary unit of biosemiotic research is the *sign*, not the quark, atom or molecule. What counts as true in research is not simply given. Knowledge of facts presupposes knowledge of theories (categorizations) and of values, just as knowledge of theories and values presupposes knowledge of facts. Inquiry is never disinterested, questions of what and how and why are always intertwined. There are objective and reasonable standards that are independent of any specific human interest, but none are independent of human interest in general. Laying out principles of practical reasoning and showing how it’s universal and context dependent components work together is the proper task of pragmaticism and was central to Peirce’s (1931-1958) endeavors. Let us therefore go a little further into that by exploring the foundation for the cybersemiotic version of Wissenschaft.

The Peircean Semiotic Worldview

A sign – in its broadest Peircean definition – is then: *Anything that stands for something for somebody in some respect or capacity in certain situations in a certain way*. A sign – or a

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[13] This is a concept of cybersemiotics to signify the Peircean reinterpretation of Jacob von Uexküll’s concept of the animal’s “Umwelt”, see Brier (1995, 2011).

Representamen – is a medium for the communication of a form in a triadic relation. The Representamen refers to its Object, which determines it and to its Interpretant, without being itself affected. The Interpretant is the interpretation in form of a more developed sign in the mind of the interpreting receiving mind or quasi mind. For an Interpretant, a Representamen could be for example a moving hand that refers to an Object (the process of waving). This is the interpretation in my mind materializing as the more developed sign 'waving', which is a cultural convention and therefore a symbol. All kinds of alphabets are composed of signs.

As Kultgen (1959-1960) argued, it is important to note that both Peirce (ibid) and the process philosopher Whitehead (1929) deny Kant's (1990 [1981]) absolute distinction between nature and freedom, replacing it by a sort of process philosophy. To Peirce, nature has spontaneity and pure chance at its basis in Firstness and it has reasonability in what Peirce calls the category of Thirdness. It is an alternative to a mechanical deterministic view as in classical physics. Peirce denies Kant's distinction between the phenomenological and the noumenal, understood as the thing in itself, because this idea of the incognizable appears as a null-term of theoretical and practical thought. To Peirce, the real is fully open to our pragmatic observation and thinking and there is no absolute difference between objects of theoretical and practical thought. Metaphysics is seen as an ideal limit of empirical enquiry (Kultgen, 1959-1960, p. 288). Thus Peirce makes a full naturalization of all possible kinds of knowing in the universe, including the subject and the intersubjective phenomena.

Peirce does not describe another world of thought or mind from the material[14]; only the one we are in when having experiences. Thus his view is compatible with Hans Fink's (2006) suggestion of a new ontology, which he calls an *unrestricted* or *absolute naturalism*. Fink has developed this philosophy from important points in McDowell's (1998) book *Mind, value and reality*. His view takes the philosophical consequence of the realization that all things and phenomena are developed within the universe in accordance with the evolutionary world view. Therefore we do not see culture, mind, meaning, consciousness and ethics to be outside nature. They are all natural phenomena inside nature, which concurs with Merleau-Ponty's position (see above). What else can they be, when we do not work with an absolute dualism or any other systems that propose more or less invisible worlds outside nature?

This is a philosophical move taken also by modern American philosophers like Sellars, McDowell (1996) and Brandom[15]. Peirce was a great inspiration to Sellers. Like Peirce, Sellers wanted to replace the Humean version of analytic philosophy by a Kantian-inspired version. It is a move beyond classical empiricism and naturalism or from logical empiricism to logical Kantianism. Peirce, like Sellars, thought the task of philosophy was to provide a 'synoptic' view of how things fit together in the broadest possible sense of that term. How does our common sense outlook fit into our increasingly fine-grained scientific outlook? For example, how can we make our perception of a blue wall compatible with the same phenomenon described by particle physics?

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[14] Like Husserl, Peirce was not a dualist, and therefore did not work with a framework where the distinction between "inside" and "outside" was primary.

[15] Robert Brandom (1994) recently declared that Wilfrid Sellars is the greatest American philosopher ever since Charles Sanders Peirce: http://www.ditext.com/brandom/brandom.html.

Both Peirce and Sellars saw our non-scientific ways of thinking as a prerequisite not only for knowledge but as the very basis for perception and thought. The problem is that empiricist philosophy says that our ideas come from the direct experience of things. The ‘myth of the given’ – as Sellers’ pointed out – is the claim that individual pieces of data can be known directly, that is, without any knowledge of associated concepts.

Peirce’s view is consistent with Sellars’, but he develops his explanation in the form of his three categories calling empirical observations grounded in Secondness, which only makes sense when interpreted through Thirdness. The problem is: how can I say I know what *red* is from the fact that some things look red to me? According to both Peirce and Sellers, in order to say anything ‘looks blue’ we would require the abstract universal concept of ‘is blue’, i.e. a concept that is not only connected to the concrete experience or things. It is a basic philosophy as well as philosophy of empirical science problem that we need universal concepts to distinguish one color from other colors, or one taste from another. This means that the model of the world out there, which empirically based science produces, lacks an integrated reflection on just that cognitive structure within our embodied mind that produced the science.

Instead, being in the world, in language, embodied in a meaningful social context, we have to start ‘in medias res’ (centre of the cybersemiotic star). We will always be bound to make some metaphysical presumptions based on our present understanding, and they will always turn out to be too limited. But Peirce’s semiotics is a solid non-reductionist framework to start from since it takes its point of departure in the semiotic mind.

Today, it is widely recognized that what we call a human being is a conscious social being living in language. In his book *The symbolic species*, Terrance Deacon (1997), sees man’s language-processing capacity as a major selective force for the human brain in the early stages of human evolution. We speak a language, but we are also spoken about by language. To a great degree, language carries our cultures as well as our theories of the world and of ourselves. As individuals, we are programmed with language or what we normally call *socialized* or *acculturated* to learn a language is to learn a culture (Durst-Andersen, 2011). As such, pre-linguistic children are only potentially human, as they have to be linguistically programmed in order to become the linguistic animal cyborgs we call human. However, getting behind language as such is difficult without creating a broader platform beyond linguistics. Peircean semiotics and its modern evolution into a biosemiotics is the attempt to build such a doctrine of cognition and communication based on the concept of knowledge in its widest sense.

The conclusion is that we live in a world of signs (the centre of the cybersemiotic star model) where objects appear when we are disturbed by certain differences or ‘Secondnesses’ – as Peirce calls them – and interpret them by connecting a representamen (a primary sign) with an object into an interpretant in our mind. Some of the objects, which our embodied cognitive experiences show us, turn out to be things.

Scholastic Realism: A Third Way Beyond Empiricism and Constructivism

Thus, the first impression (immediate objects) is obtained through perceptual experiences and communications with other semiotics beings. This semiotic object is then modified to a truer picture of things and processes, Peirce' so-called *dynamic objects,* of which some turn out to be things. Although Peirce may appear as a bio-psycho-social constructivist, he is in fact a dynamic realist who believes in universals, and certainly not neither a physicalist nor an idealist. He calls his stance “scholastic realism” inspired by Duns Scotus (1266 – 1308), but adds the important aspect of evolution (Boler, 1963) to the view of the scholastic thinkers. Peirce thus places his doctrine of signs somewhere between Plato and Aristotle, supplementing it with an evolutionary worldview. Susan Haack (1992, pp. 22-23) explains the point very well:

> Though what exists is real, what is real may not exist; existence is reaction, interaction – the characteristic mode of being of particulars, of seconds. This is why Peirce made a distinction between scholastic realism and what he called "nominalistic Platonism" [see CP 5.503 (c.1905); 5.470 (1903); 5.503 (c.1905)]: the thesis that universals like "man" or "horses" refer to abstract particulars, to existents. Peirce objected to nominalism and conceptualism because they deny that generals are real; he objected to nominalistic Platonism because it asserts that generals exist. Peirce's position was that there are real generals, not that generals are real.

Thus Peirce’s view of reality is not at all some sort of dualistic mathematical combination of a modern physicalistic view and Platonism. *The real in Peirce’s paradigm is not only external things, but also concepts!* Existence is Secondness and the food for empirically based knowing. Yet Peirce does not doubt that the external is real. The existent is that which reacts against other things. The external world does not consist merely of existent objects and their reactions, since Peirce includes words, signs, general types and would-bes into what is real. Peirce (CP 8.191) writes:

> Thus, for example, the real becomes that which is such as it is regardless of what you or I or any of our folks may think it to be. The external becomes that element which is such as it is regardless of what somebody thinks, feels, or does, whether about that external object or about anything else. Accordingly, the external is necessarily real, while the real may or may not be external; nor is anything absolutely external nor absolutely devoid of externality. Every assertory proposition refers to something external, and even a dream withstands us sufficiently for one description to be true of it and another not. The existent is that which reacts against other things. Consequently, the external world (that is, the world that is comparatively external) does not consist of existent objects merely, nor merely of these and their reactions; but on the contrary, its most important reals have the mode of being of what the nominalist calls "mere" words, that is, general types and would-bes.

A would-be in Peirce’s paradigm is something pointing to some kind of habitual existence in the future. If we say that a knife ‘is sharp’, after having cut ourselves on its blade, it means that it is likely to have that property in the future, too. Peirce (CP 8.216) sums up: “I must show that the *will be’s*, the actually *is’s*, and the *have been’s* are not the sum of the reals. They only cover actuality. There are besides *would be’s* and *can be’s* that are real.”

Peirce’s view is a fascinating attack on naive empiricist physicalism without an arrow of time and concept of irreversibility. Peirce’s realism is, among other things, based on his belief in Secondness, or the unexplainable or random event, which is still not a fact. There are immediate differences and resistances between phenomena or different things, which he calls haecceities.

This is the concept Duns Scotus argued for as an original principle of individuation. He saw haecceity as the ultimate unity of a unique individual (an entity's 'thisness') as opposed to the common nature (*natura communis*), which denotes features existing in any number of individuals. Peirce (CP 1.405) writes about this fundamental concept of secondness in his phaneroscopic semiotics:

> Most systems of philosophy maintain certain facts or principles as ultimate. In truth, any fact is in one sense ultimate – that is to say, in its isolated aggressive stubbornness and individual reality. What Scotus calls the haecceities of things, the hereness and nowness of them, are indeed ultimate. Why this which is here is such as it is; how, for instance, if it happens to be a grain of sand, it came to be so small and so hard, we can ask; we can also ask how it got carried here; but the explanation in this case merely carries us back to the fact that it was once in some other place, where similar things might naturally be expected to be. Why IT, independently of its general characters, comes to have any definite place in the world is not a question to be asked; it is simply an ultimate fact. There is also another class of facts of which it is not reasonable to expect an explanation, namely, facts of indeterminacy or variety. Why one definite kind of event is frequent and another rare, is a question to be asked, but a reason for the general fact that of events some kinds are common and some rare, it would be unfair to demand. If all births took place on a given day of the week, or if there were always more on Sundays than on Mondays that would be a fact to be accounted for, but that they happen in about equal proportions on all the days requires no particular explanation. If we were to find that all the grains of sand on a certain beach separated themselves into two or more sharply discrete classes, as spherical and cubical ones, there would be something to be explained, but that they are of various sizes and shapes, of no definable character, can only be referred to the general manifoldness of nature. Indeterminacy, then, or pure firstness, and haecceity, or pure secondness, are facts not calling for and not capable of explanation. Indeterminacy affords us nothing to ask a question about; haecceity is the ultima ratio, the brutal fact that will not be questioned.

Peirce adopts Duns Scotus's term *haecceity* to designate the arbitrary here-and-now-ness of existence, a person or object's “this-ness”, that is, the brutal facts based on relations. Peirce identifies this haecceity as 'pure secondness'. His view of haecceities as being unexplainable as singular events is close to the modern understanding of quantum events. Quantum physics cannot deduce the singular event; it can only make a probability model from thousands of them. There is an undetermined spontaneity – which Peirce calls Firstness – of which the manifestation of the single event (as Secondness) is not explainable in itself from a scientific point of view. Only through Thirdness using a statistical model can we predict further outcomes over a series of events. Quantum mechanics breaks with classical deterministic mechanicism and realizes that it has to base its laws on probability or on what Peirce from his propensity theory of probability calls ‘habits’. This is an alternative concept to the concept of an absolute and universal law in mechanical determinism.

In my view any theory of information connected to perception and communication must incorporate the original grounding of knowing in both the subjective and intersubjective semiosis of perception and emotion. Furthermore, physicalism encounters a rather fundamental problem in explaining how we can decide to move our bodies out of mere intentions or experiences (such as pain or pleasure). As such they fail to reveal anything approaching the deep connection between mind and matter. Yet, Daniel Dennett (1987a, p. 5), in his introduction to *The Intentional Stance,* states: "I declare my starting point to be the objective, materialistic, third-person world of the physical sciences." He attempts to eliminate subjective consciousness and the qualia of consciousness in his *Consciousness Explained* (Dennett 1991). He then attempts to explain 'subjective' phenomena in 'objective' terms. As far as I can see, none of these endeavours are feasible, since the language of physics does not include the notion of agent (agency) and meaning. It cannot capture the meaningfulness of semiosis, language and interpretation, as it is theorized to a full practical and philosophical foundation, for instance, by Hans-Georg Gadamer, who builds on Heidegger's hermeneutic re-interpretation of Husserl's phenomenology (Gadamer, 2004). Therefore physicalism and objective informationalism cannot be the foundation of a unified science.

Dennett contrasts his approach with that of Thomas Nagel, who views objectivity as the "view from nowhere" (Nagel, 1986), incapable of acknowledging the particular points of view of individual sentient creatures. In his famous paper 'What is it like to be a bat?' Nagel (1979) forcefully argues that scientific, third person, objective methods could never fully explain consciousness. I agree with Nagel in that Dennett fails to explain the objective fact of sentience and to appreciate the significance of subjectivity. He neglects subjectivity as well as the meaningfulness produced through inter-subjectivity. And yet the psychological and social aspects of reality are the prerequisites for collective and empirically based knowledge systems, on which the physical sciences rest. One cannot forget the observer when attempting to adopt a transdisciplinary and universal perspective (Nicolescu, 2002). Anyway we must realize that our presence here already limits the possible range of the physical constants upholding space-time. As conscious being existing embodied within a universe, we realize by reflection that we are bound to observe only those physical phenomena, which are compatible with the evolution of intelligent and conscious life such as ours. If not we would not be here observing. In the modern theory of multiverses (Carr, 2007) the possibility is opened for the existence of millions of other universes, which we cannot observe, because we could not survive in them or observe them from the outside, as any observer needs a universe to sustain him/ her. But it still does not explain consciousness as a derived principle from the evolution of physical systems.

This is the problem that pan-computational and pan-informational theories attempt to solve with a view of the world as a grand computer and a new concept of natural computing (Dodig-Crnkovic, 2010; Dodig-Crnkovic & Müller, 2011). Given these assumptions the view of natural computing can be expressed in this way:

1. The physical world is a network of computational processes with many levels of organization.
2. Whatever changes there are in the states of the physical world, we understand them as computation.
3. Not all kinds of computations (changes in the physical world) are best represented by the Turing model.

In my view, it is not information that is transmitted through the channel in Shannon's theory, but signals. There is a sender and a receiver of these signals. The sender's meaning must be interpreted by the receiver outside the transmission itself, because meaning is psycho-biologically embodied, socially embedded and enacted through language. In order for interpretation to take place, both sender and receiver must have something in common, at least a code of meaningful interpretation, otherwise they will not understand each other. Thus the signal is actually an interpretable sign. To have a sign game in common usually implies having roughly the same kind of consciousness and body, which, in the case of a full-blown human natural language communication or a Wittgensteinian language game, needs to be embedded in a culture equipped with a worldview and an anthropology. Thus logic and understanding are two different sides of meaning. One has to learn about the culture and its mentality if one wants to understand any language.

We must further theorize how the processes of cognition and communication develop beyond their basis in the perturbation of and between closed systems and into a theory of feeling, awareness, qualia and meaning. But even quantum field theory's spontaneous observer-independent field activity offers no help to emergence theories, even when quantum field theory is combined with an information science approach that sees information as objective structural differences in matter or between parts of matter. This ontological foundation does not solve the problem of how experience and meaningful cognition and communication emerge or manifest themselves in the world. This viewpoint leads us towards Peirce's semiotics as a better foundation than a pan-computation paradigm to help us place experiential consciousness in a scientific worldview.

Peirce's phaneroscopic and semiotic foundation of qualia is laid down most clearly in the following quote, which warrants careful study:

> No thought in itself, then, no feeling in itself, contains any others, but is absolutely simple and unanalyzable; and to say that it is composed of other thoughts and feelings, is like saying that a movement upon a straight line is composed of the two movements of which it is the resultant; that is to say, it is a metaphor, or fiction, parallel to the truth. …Whatever is wholly incomparable with anything else is wholly inexplicable, because explanation consists in bringing things under general laws or under natural classes. Hence every thought, in so far as it is a feeling of a peculiar sort, is simply an ultimate, inexplicable fact. Yet this does not conflict with my postulate that that fact should be allowed to stand as inexplicable; for, on the one hand, we never can think, "This is present to me," since, before we have time to make the reflection, the sensation is past, and, on the other hand, when once past, we can never bring back the quality of the feeling as it was in and for itself, or know what it was like in itself, or even discover the existence of this quality except by a corollary from our general theory of ourselves, and then not in its idiosyncrasy, but only as something present. But, as something present, feelings are all alike and require no explanation, since they contain only what is universal… Finally, no present actual thought (which is a mere feeling) has any meaning, any intellectual value; for this lies not in what is actually thought, but in what this thought may be connected with in representation by subsequent thoughts; so that the meaning of a thought is altogether something virtual. … At no one instant in my state of mind is there cognition or representation, but in the relation of my states of mind at different instants there is. In short, the Immediate (and therefore in itself unsusceptible of mediation – the Unanalyzable, the Inexplicable, the Unintellectual) runs in a continuous stream through our lives; it is the sum total of consciousness, whose mediation, which is the continuity of it, is brought about by a real effective force behind consciousness. (Peirce, CP 5.289)

It is the subjectively and inter-subjectively shared first person experiential consciousness, as its own first cause, that Peirce considers the basis of his semiotically based pragmaticist philosophy. Thus when a specific feeling or perceptual experience appears in our consciousness as something (Secondness); this Secondness is compared with another in the present or in the past (memory), thus giving rise to a Thirdness of symbolic signs, and hence language. In Peirce's semiotics, Thirdness mediates between Secondness and the Firstness of pure feeling, process and possibility, and thus gives rise to the gradual emergence over time of signs and cognitive categories in our cultural and linguistic intersubjectivity.

Let us then sum up the differences between a semiological and a semiotic view by relating each of the two to nine different examples of signs. A sign stands for something for somebody in some aspect:

- As the word 'blue' stands for a certain range of color, but also has come to stand for an emotional state.
- As the flag is a sign for the nation (a symbol).
- As a shaken fist can be a sign of anger.
- As the red spots on the skin can be a sign of German measles (Rubella).
- As the wagging of a dog's tail can be a sign of friendliness towards both dogs and humans.
- As pheromones can be a sign of heat to the other gender of the species.
- As the hormone oxytocine from the pituitary can be a sign to the cells in lactating glands of the breast to release milk.

Semiologians would usually not accept examples 4-6 as genuine signs, because they are not self-conscious and intentional human acts of communication. But Peirce's triadic, pragmaticist, transdisciplinary, evolutionary doctrine of signs accepts not only non-consciously intentional signs in humans and between animals (ex. 5 and 6) as well as between animals and humans (ex. 5), but also non-intentional signs (ex. 4), and signs between organs and cells in the body (ex. 7) in endosemiotics as for instance as *immunosemiotics* dealing with the immunological code, immunological memory and recognition.

The biosemiotic view is well summarized in Jesper Hoffmeyer's books (Hoffmeyer, 1996, 2008) and Donald Favareau's (2010) collection of "Essential readings in biosemiotics" and as part of Brier (2008). In an interview discussing the choice between Saussurian/ Greimassian dualistic semiology and Peircean triadic semiotics, Petrilli and Ponzio (2008, sections 37-38) give convincing arguments for choosing Peirce's semiotics:

> We believe that the scope of semiotic enquiry must transcend the opposition between semioticians oriented in a Saussurean/ Hjelmslevian/ Greimassian sense and semioticians oriented in a Peircean sense. These two trends seem to require that we oppose binarism to triadism. On the contrary, we believe that the heart of the matter does not lie in the opposition between binarism and triadism, but in the opposition between a sign model that tends to oversimplify things with respect to the complex process of semiosis and a sign model (like Peirce's) that seems to do more justice to the various aspects and factors of the process by which something is a sign. This is not merely achieved on the basis of an empty triadic form, but rather thanks to the specific contents of Peirce's triadism. In other words

> Peirce's triadism works thanks to the categories it uses, the sign typology it proposes, the dynamic model it offers when it describes signs as grounded in *renvoi* from one interpretant to another. Such triadic categories as "firstness," "secondness," and "thirdness," "representamen," "interpretant," and "object," "symbolicity," "indexicality," and "iconicity," all evidence the alterity and dialogism constitutive of signs from a semiotic perspective. The merit does not go to the triadic formula. Proof for this is offered by Hegelian dialectics where triadism gives rise to metaphysical, abstract and monological dialectics abstracted from the constitutive dialogism in the life of signs.

Many researchers, among them Karl-Otto Apel (1981)[16] and Jürgen Habermas (1987, with a somewhat strange interpretation)[17], have been attracted by Peirce’s radically new way of thinking, and it has made a great impression on what became the Copenhagen School of biosemiotics and its members Jesper Hoffmeyer, Claus Emmeche, Frederik Stjernfelt and Søren Brier and its relation to the Tartu school of semiotics through Kalevi Kull and Timo Maran. It is this modern development of Peircean semiotics into biosemiotics that I want to integrate with Luhmann’s triple-autopoietic view of socio-communication.

The Luhmanian Aspect

As mentioned above, Luhmann extended the autopoietic model to the psychological as well as the socio-communicative level. Luhmann (1995) proposes a triple autopoiesis model consisting of three systems: the biological and psychic systems, which are silent, and the ‘socio-communicative’ system, which is the only one that can communicate. Biological autopoiesis functions in the medium of life and psychic, and socio-communicative autopoiesis functions in the medium of meaning. Figure 2 illustrates how Luhmann's three autopoietic systems combine in human cognition and communication:

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[16] From the book cover I quote this precise characterization: “As a mediation between theory and praxis, Apel presents pragmatism as the major rival to both existentialism and Marxism, the two other responses to the Hegelian aftermath. In the same context, Apel demonstrates the importance of Peirce's conceptual breakthroughs, in the theory of signs (semiotics) and the theory of rationality, for the challenges and possibilities of a critical theory of society.”

[17] Habermas (1987) observes that the insight helping Peirce avoiding positivism was “his understanding that the task of methodology is not to clarify the logical structure of scientific theories but the logic of the procedure with whose aid we obtain scientific theories”. But Habermas believes that Peirce does not go far enough to be able to overcome the correspondence theory of truth completely. He ultimately succumbs to the same objectivist illusion because of his contradictory notion that the uncompelled consensus among inquirers aims at technical control. Habermas (1987, p. 137) writes:

> The symbolic representation of matters of fact knowable from the transcendental perspective of possible technical control serves exclusively for the transformation of expression in process of reasoning. Deduction, induction, and abduction establish relations between statements that are in principle monologic. It is possible to think in syllogism, but not to conduct a dialogue in them. I can use syllogistic reasoning to yield arguments for a discussion, but I cannot argue syllogistically with another. Insofar as the employment of symbols is constitutive for the behavioural system of instrumental action, the use of language involved is monologic. But the communication of investigators requires the use of language that is not confined to limits of technical control over objectified natural process. It arises from symbolic interaction between societal subjects who reciprocally know and recognise each other as unmistakeable individuals. This communicative action is a system of reference that cannot be reduced to the framework of instrumental action.

Habermas does indeed develop this area of dialogical communicative ethics substantially, but fails to see that Peirce’s semiotics is based on a dialogic conception of mind, which is why there is actually no contradiction between the theoretical foundation of his and Peirce’s work.

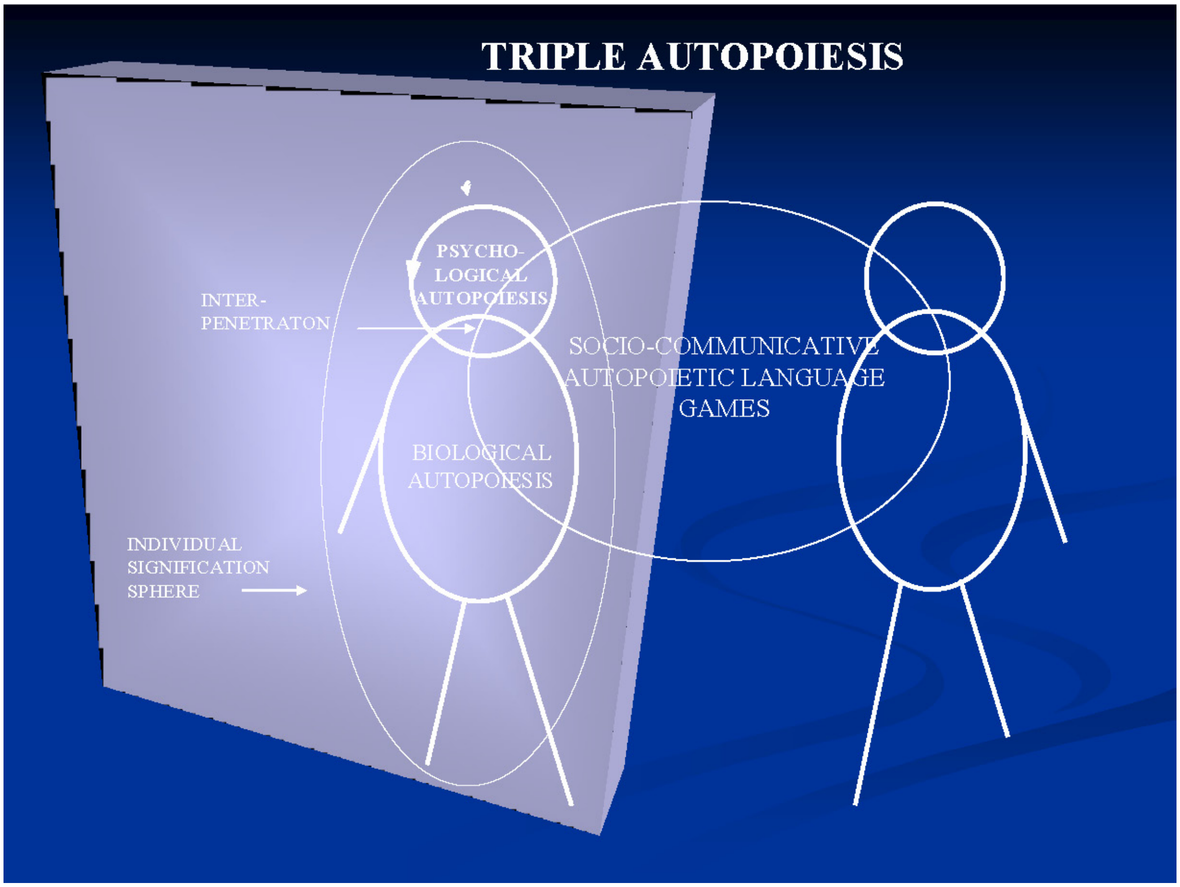
TRIPLE AUTOPOIESIS
PSYCHO-LOGICAL AUTOPOIESIS
INTER-PENETRATON
SOCIO-COMMUNICATIVE AUTOPOIETIC LANGUAGE GAMES
BIOLOGICAL AUTOPOIESIS
INDIVIDUAL SIGNIFICATION SPHERE

Figure 2: *Three organizationally closed systems working separately make communication possible. This figure is a symbolic iconic picture of Luhmann's basic theory and not a map of where the various systems are placed in the body. Psychological processes for example are not only in the head, but the head is used to symbolize the mind. The signification sphere is the biosemiotic term for von Uexküll's "Umwelt" and Maturana's (1988a, 1988b) "cognitive domain". This model represents the first step towards an integration of Luhmann and Peirce's theories.*

My main problem is where does first person experience belong in this scheme of things? How do systems go from being functionally able to orient themselves in relation to environmental structures and other members of the species to develop sense-organs that actually produce quale sense-experiences? Most of us believe that robots do not have sense experiences. Searle (1989) argues that the secret must lie in biology. As far as we know, biological systems are the only ones to produce nervous systems and central nervous systems that create awareness, feeling, sense-experience and qualia. But biologists insist on describing their subject area in chemical and physiological terms and consider molecular biology to be the greatest advance since Darwin. The vitalism debate has ruled out any differences in the nature of the molecules inside and outside living systems. Thus, the received view in science is that the only difference between pure physical and living biological systems is the way these inert molecules are organized.

How did the world begin, and how did the first distinction of awareness come about in the universe? The first question is asked in physics and the second in phenomenology. How to integrate those two descriptions is the key problem in the modern world's attempt to create a coherent Wissenschaft worldview. If one then asks the foundational question: What was before the beginning of the big Bang in physics, before the first perception in phenomenology or before the first distinction or in Peircean semiotics before the first semiosis, then one is forced to answer that there is a becoming[18], because a "before" in the ordinary understanding of time is not possible! For Peirce it is a Firstness with a tendency to form habits. Luhmann does not have any answers to give to first philosophies working as he does with second order observations. For him drawing a distinction between the observing system and its environment is the first move.

The becoming aware brings into being the descriptions that lead us to postulate self, environment etc. When becoming becomes aware and begins to make the distinction between one self, the others and the environment, an ontology will necessarily be produced as a prerequisite for the production of meaning in language communication. The concept ontology does not refer to a final and unchangeable, true picture of the world or reality. In Peirce's view an ontology or a metaphysics is a working hypothesis of reality we test and change all the time. Nevertheless it is there all the time.

As human observers we find ourselves in language and therefore in intersubjectivity with other linguistic beings. We do not have to postulate the other(s) after becoming aware of ourselves, because they are prerequisites for our becoming aware as linguistic self-conscious beings. We live in language, so to speak, and take it with us wherever we go. We cannot speak of being without knowing: if we exist but don't know, our existence doesn't matter. When the becoming becomes aware in language it reflects on what it itself is and it realizes that it never becomes aware alone but only as a process embodied in flesh and language with others; this is fundamental to the definition of what it means to be human. Reality in the form of semiotic objects such as the other, language, culture and society, is established in the process of becoming aware.

My view is that you cannot generate knowledge without first accepting the reality of the other, your own body and consciousness, as well as the language you use, and second, being a radical ontological constructivist. The realization of being a part of the becoming makes us accept nature's creativity and potential for signification and intelligence through evolution as a further prerequisite. That is a synechist realism without MIR (mind independent reality)! As soon as we accept the reality of the other and of something out there and therefore language, we move from radical constructivism of the ontological kind into a more epistemological variant much closer to pragmaticism. We will also have to accept that there is some resistance in that with which we interact, be it living or not. This is what Peirce calls Secondness.

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[18] As I remember, this idea and concept of becoming appeared to me from individual discussion with Ranulph Glanville and Louis Kauffman about the columns they write to *Cybernetics & Human Knowing* of which I am the editor-in-chief.

But in order to understand anything at all, we need a sort of stability sustaining both that which we perceive and ourselves as embodied perceivers. This stability or habit is what Peirce calls Thirdness. Peirce’s claim is that his three categories are the minimal prerequisites for any knowledge process or semiosis to emerge in the world (Murphey, 1961). The field of potential possibilities is what Peirce calls Firstness. When asked what is before linguistic consciousness one will have to answer with Peirce that as soon there is Thirdness there is semiosis and therefore a semiotic awareness. Before that there is the pure feeling and potential qualities as virtual forms of Firstness.

Transdisciplinarity demands the development of such a new and broader framework, which will therefore offend all those researchers who prefer to stay within the received view of their own knowledge or paradigm. To choose Peirce means to accept most of his triadic pragmaticist and realist view of science and his semiotic theory of cognition and communication. What also intrigues me about Peircean semiotic philosophy is that it demonstrates that the use of signs is a two-way street. We use signs to create life worlds or Umwelten as much as we use them to create models of ourselves. Peirce (CP 5.313) writes,

> Man makes the word, and the word means nothing which the man has not made it mean, and that only to some man. But since man can think only by means of words or other external symbols, these might turn round and say: “You mean nothing which we have not taught you, and then only so far as you address some word as the interpretant of your thought.” In fact, therefore, men and words reciprocally educate each other; each increase of a man’s information involves and is involved by, a corresponding increase of a word’s information.

As Peirce (CP 2.222) goes on to conclude, the sign, in particular the symbol, “is a living thing, in a very strict sense that is no mere figure of speech. The body of the symbol changes slowly, but its meaning inevitably grows, incorporates new elements and throws off old ones.” Peircean biosemiotics has given a biological reinterpretation of the life phenomenon, which it is possible to integrate with Luhmann’s autopoietic system theory.

The Cybersemiotic View of Communication

Thus, what is transferring between us is made up of signs, not information. Signs have to be interpreted, and it has to happen on at least three levels, described by Luhmann’s three types of autopoiesis. On the most basic level we have the basic coordination between the bodies as a dance of black boxes to allow for meaningful exchange. This is what Maturana calls languaging. The next level consists of instinctual sign games providing drive and emotionally-based communication about meaningful things in life like mating, hunting, dominating, food seeking, territory etc. They are all well described in the science of ethology, which Lorenz, Tinbergen and von Frisch received the Nobel Prize for developing. Based on these two levels a field of meaning is created that the socio-communicative system can use as a base line to modulate conscious linguistic meaning. This is illustrated in figure 3.

Language games were what the father of modern biosemiotics, Thomas Sebeok, called tertiary modeling. He used the concept of modeling to explain life and behavior among living entities conceived in terms of semiosis. The concept of modeling is of fundamental importance in Sebeok's semiotic research. He was inspired by the Moscow-Tartu school of semiotics in human communication. But Sebeok extended the concept of modeling biosemiotics at the interface between semiotics and biology (Sebeok & Danesi, 2000) as 'the capacity of a species to produce and comprehend the specific types of models it requires for processing and codifying perceptual input in its own way' (Sebeok & Danesi, 2000).

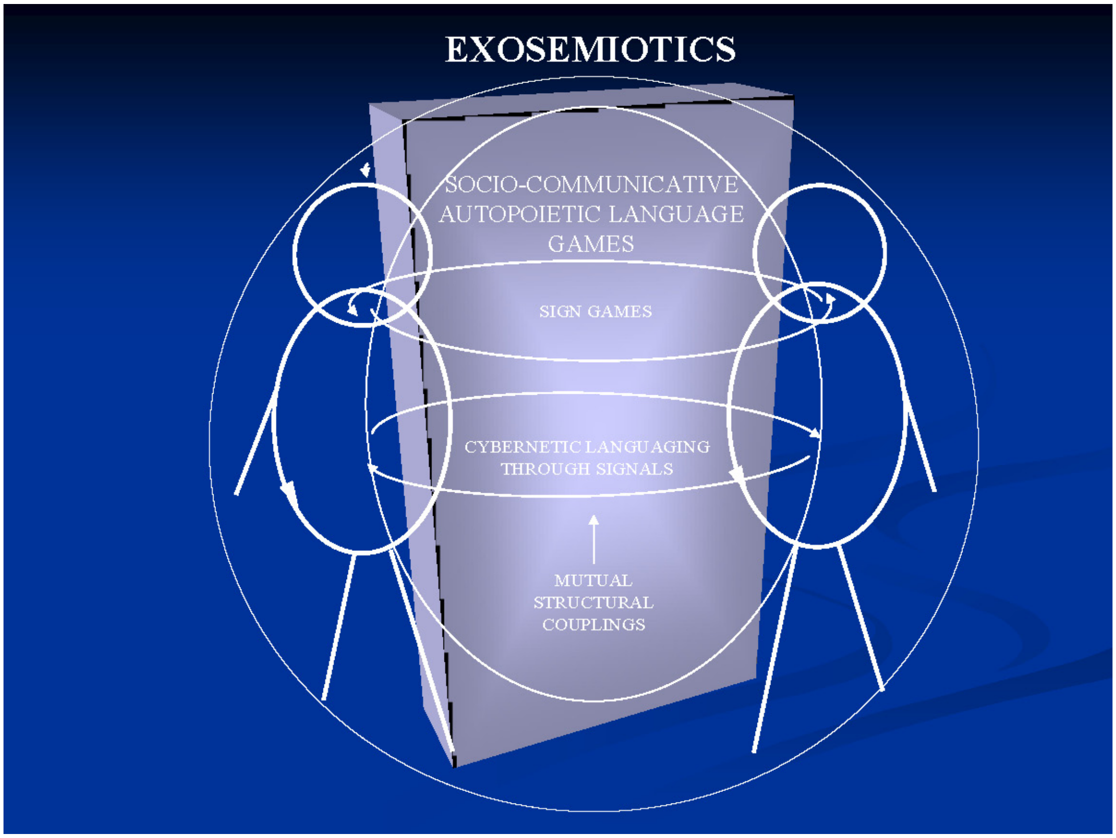
EXOSEMIOTICS
SOCIO-COMMUNICATIVE AUTOPOIETIC LANGUAGE GAMES
SIGN GAMES
CYBERNETIC LANGUAGING THROUGH SIGNALS
MUTUAL STRUCTURAL COUPLINGS

***Figure 3** shows the three different levels of communication systems described in cybersemiotics. At the foundation is the informational exchange of signals of orientation and other reflexes, which Maturana (1988a, 1988b) calls 'languaging'. On the next level we find the ethological (or what below WE will call the biosemiotic) sign games of all living systems mostly within the biologically defined species, which still works for the basic biological drives in humans. Then there is the level of language interchange in dialogue between self-conscious persons, called language games after Wittgenstein's pragmatic language philosophy.*

The primary modeling system is the innate capacity for *simulative* species-specific modeling that Sebeok calls 'language'. This is the species-specific primary modeling system of the human species. The secondary modeling system subtends both 'indicational' and 'extensional' modeling processes, of which the nonverbal form of indicational modeling has been documented in various species. But extensional modeling is a uniquely human capacity in that it presupposes *language* (which Sebeok and Danesi call the primary modeling system) and distinguishes it from *speech* (named the human secondary modeling system). The tertiary modeling system subtends highly abstract, symbol-based modeling processes. The species-specific system that Sebeok and Danesi call the tertiary modeling systems is the human cultural system.

We also have a system of cognition levels in the organism, as well as an internal system of biosemiotic types of semiosis. Previously, we have dealt with types of exosemiotic behavior. Now, corresponding to the three levels of exosemiosis there are three levels of internal semiosis, plus a fourth interactive one (intra semiotics). I call them 1. linguistic *thought* semiosis, 2. Psychological *pheno*-semiosis, 3. somatic *endosemiosis* and 4. psycho-somatic *intra*-semiosis. Thus, each human agent is an integrated macro-system of internal semiosis, as shown in figure 4.

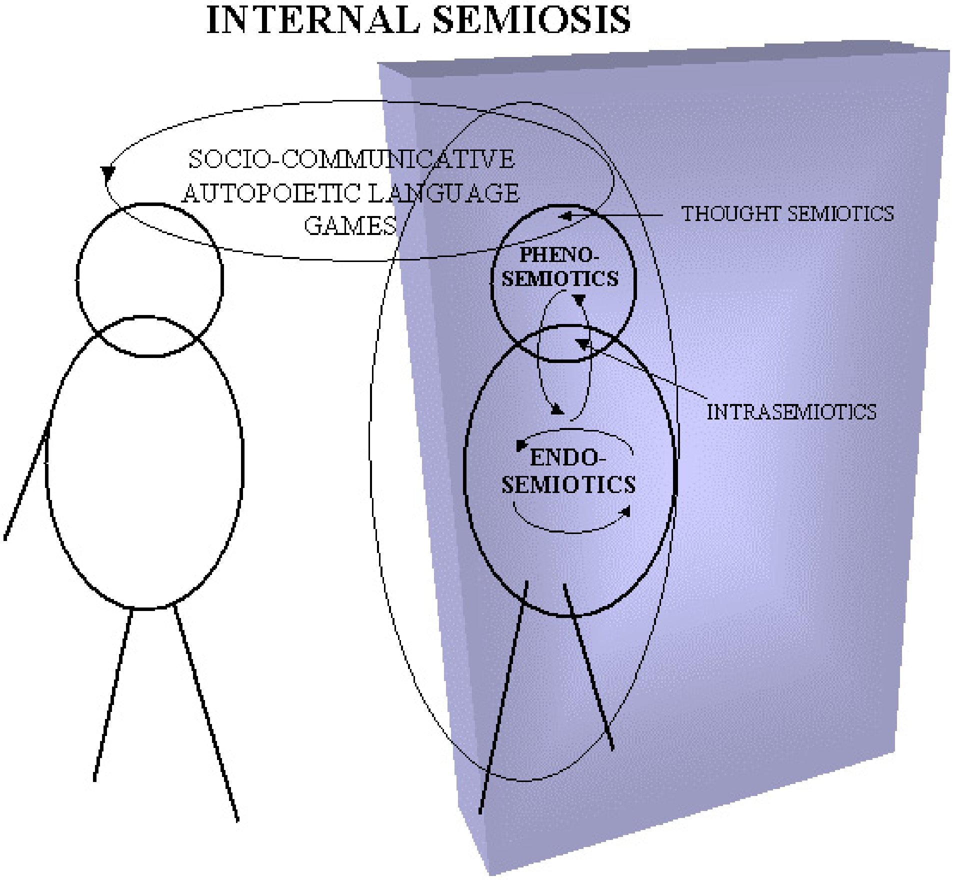

Figure 4: *Internal semiosis. The figure shows in a symbolic way the relationship between endosemiotics and the new areas of phenosemiotics, thought semiotics, and intrasemiotics (quoted from Brier 2006a, p.285; 2008, p. 306).*

The terms endosemiosis and exosemiosis were probably both coined by Sebeok (1976, p. 3), endosemiosis denoting the semiosis that takes place inside the organism, and exosemiosis being the sign process that occurs between organisms. Endosemiosis became a common term in semiotic discourse (see Uexküll et al, 1993) for a semiotic interaction at a purely biological level between cells, tissues and organs.

Today we know that there are semiotic interactions between the hormone system, the transmitter system and the immune system and that their interactions are very important for the establishment of the autopoietic system of second order constructed by a multicellular organism. This autopoietic system is often called a "biological self". Its parts are cells that are themselves autopoietic systems, which in turn are also organized in an autopoietic system. But we know very little about the relations between this system and our lived inner world of feeling, volitions and intensions. It seems that certain kinds of attention on bodily functions, such as imaging, can create physiological effects in this combined system.

The effect is partly carried by different substances that have a sign effect on organs and specific cell types in the body (endosemiotics). We also know that our hormonal level influences our sexual and maternal responses. Fear turns on a series of chemicals that change the state and reaction time of several body functions, and so on. As the interactions between the psyche and the body are bodily internal, but not purely biological as in endosemiotics, I call the semiotic aspect of this interpenetration between the biological and the psychological autopoiesis *intrasemiotics* (Brier, 2000b). These different names are coined to remind us that we deal with different kinds of semiotics. In the future, we have to study more specifically the way semiosis is created in each instance. This is a very significant part of the embodiment of our mind, but intrasemiotics seems to function as meta-patterns of endosemiotic processes. For example, our state of mind determines our body posture through the tone and tightness of our muscles. There is a subtle interplay between our perceptions, thoughts and feelings and bodily state working among other things through the reticular activation system. There is still a lot we do not know about the interaction between these systems. But the important thing to note is that we do not have any kind of absolute dualism between mind and body here, only differences in semiotic processes and interactions.

To refer to the interaction between the psyche and the linguistic system I use the term *thought semiotics*. This is where our culture offers us possible concepts to classify our inner state of feelings, perceptions and volitions. I call these classifications in their non-conceptual or pre-linguistic states, i.e. not yet recognized by conceptual consciousness, for phenosemiotic processes. For short I just call them *phenosemiosis*.

A Cybersemiotic Theory of Emergence

In my view we have not yet arrived at a well-functioning and consistent theory of emergence. See for instance El-Hani (2008), who points to the need for a shift towards a process ontology or to a Peircean semiotic philosophy as a way out of this serious problem. The more quantum physical aspects are worked out in Penrose (1995) and Stapp (2007). Baer (2010) attempts to combine quantum physics and process philosophy in his discussion of the physics of consciousness. But the lack of a good theory of emergence is a problem, as the task of such a theory is to explain how the qualities of life and sense experience and therefore qualia plus the next step to linguistic born self-consciousness in humans living in a culture can be created in the course of evolution.

I cannot deny that some computer science philosophers like Arrabales, Ledezma and Sanchis (2010) actually believe that there are small beginnings of consciousness in the form of agency in AI robots, and try to make scales to measure them. I find it highly unlikely that we are in any way near stages in development of AI and AL, where life worlds might emerge. So, the cybersemiotic view of the relation between information and semiosis is that information belongs to Secondness and must be considered protosemiotic. When going into Thirdness, the possibility of an interpretant appears, as Peirce underlines, and as Varela (1975) shows in his calculus of self-reference.

But there are certain conditions for a system to be able to create an interpretant within our space and time frame that must be met first. One of them is the closure and self-organization of autopoiesis in a living system that is required to create an interpretant within our frame of space and time. But we probably need to add more. Hoffmeyer (1998) describes four additional steps necessary for the creation of living systems:

1. The establishment of an inside-outside asymmetry (closed surface).
2. A proto-communication over those surfaces (a community of surfaces).
3. A digital re-description in the form of DNA to carry on the form of the organism in procreation (Hoffmeyer & Emmeche, 1991, call it *code-duality*).
4. The formation of an interface (inside-outside loops) is essential for the creation of interpretants.

Machines lack autopoiesis, reproduction, code-duality, and an inner organization of membranes (Hoffmeyer, 1998), and thus also lack both individual-based and species-based motivation and intentionality, and consequently also the ability to establish a genuine interpretant. Therefore I believe that instead we must somehow enlarge the conceptual framework within which we conduct science, if we are to form connections with the phenomenological aspects of reality and the experiences of meaning. It is my belief as I have argued here that Peirce’s triadic semiotics deliver a possible first step towards such a solution.

On the level of organic and cognitive evolution, Hoffmeyer, in his development of a biosemiotics, has built on an approximation to Peirce’s ontology, and has suggested adding a new level of meaning to the reductionist Darwinian “survival of the fittest”. This survival idea tells us a lot about rather primitive organism, but there must be something more when it comes to more and more complicated organisms with nervous systems. Neither the maximal dissipation of entropy, nor survival is enough to explain the growth of systems with inner worlds of qualia. What is it that they acquire more of? Hoffmeyer (1996, p. 61) suggests calling it *semiotic freedom* and explains it this way:

> The most pronounced feature of organic evolution is not the creation of a multiplicity of amazing morphological structures, but the general expansion of ‘semiotic freedom’, that is to say the increase in richness or ‘depth’ of meaning that can be communicated.

It is a crucial point that Hoffmeyer deals with here, because this is where the possibility of meaning comes into an enlarged framework, where science is also possible on a basis that is close to Prigogine’s (1996) and Prigogine & Stengers’ (1984) irreversibility and complexity theory of thermodynamics, but here adding the Peircean framework and his theory of mind. The play of signs in the freedom of consciousness becomes an attractor in cosmogony and evolution.

Connecting this idea of the free play of signs in consciousness to the problem of the emergence of emotion and inner reward in ethology that Lorenz could not solve within his standard materialistic biological framework, and by using von Uexküll's Umwelt-concept in an evolutionary context[19], cybersemiotics regards the Umwelt as a 'sphere of signification', a term which I use in a Peircean interpretive sense to refer to the primary living space (life world) created by every living system. What ecologists call the ecological niche in the habitat becomes a meaningful sphere, a signification sphere for the living system. Seen from an ecosemiotic view it is a *semiotic niche*, as Hoffmeyer calls it.

The production of meaning is thus brought into what mechanicism sees as "dead" nature by the concepts of Firstness and Synechism combined with Hylozoism and the development of the universe through three different kinds of evolution:

1. *Thychistic evolution* (free or random variation, sometimes called fortuitous) like Darwin's natural selection.
2. *Ananchastic evolution* (dynamic dyadic interactions, a more mechanical necessity). It comes closest to Hegel's idea of evolution.
3. *Agapastic evolution* or "evolutionary love" (combining the free variation and dyadic interactions through habit formation by the mediating ability of Thirdness). This comes closest to Lamarck's idea of evolution (Brent, 1998, p. 215).

Life can be understood from a chemical point of view as auto-catalytic, autonomous, autopoietic systems, but that does not say much about how individual awareness appears in nervous systems. On the basis of Peirce's philosophy, the emergence of signs and meaning in the living world is to be expected. It is also clear that the world in its vague beginnings was not created with signs as we understand them in biosemiotics, but only a tendency to make them emerge through the law of mind. This could be called a vague tendency to final causation that evolved from the tendency to form habits.

The cybersemiotic interpretation of causality based on Peirce is that efficient causation can exist on its own as Secondness, but it is often found embedded in the formal causation of pattern fitting and signals described in information science and then in the living world clearly by final causation, which becomes conscious purpose in human society. Information seen as both protosemiosis, in evolution, and quasi-semiosis, when embedded in semiotic and linguistic processes, is between the two. It is connected to formal causation and works through signals and dualities of patterns, not yet a fully triadic semiosis, but still above the brute force of efficient causation.

The Heterarchical Levels of Evolutionary Cybersemiotic Emergence

The cybersemiotic approach that I present here unites cybernetic, systemic, informational, and semiotic approaches towards self-organization, intentionality, selection of differences, and constructivism, thus avoiding solipsism and idealism. Modern systems thinking views nature as containing multilevel, multidimensional hierarchies of inter-related clusters forming a heterogeneous general hierarchy of processual structures: A heterarchy.

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[19] Jacob von Uexküll did not believe in evolution, so his theory did not include evolution in its foundational framework.

Levels are believed to emerge through emergent processes, when new holons appear through higher-level organization. I have been skeptical about the ability of this paradigm to account for the emergence of life and sense experience and later linguistically borne self-consciousness. But if this system and cybernetic view is placed into a Peircean framework, where living potentialities (Firstness) are processes manifested through constraints and forces (Secondness) into regularities and patterns (Thirdness) in a recursive manner from level to level, it makes much more sense. The new emergent level then acts as a potential for the development of the next level. Levels can form and dissolve when their dynamical parameters are near critical points. Stabilization requires that the system moves further from the critical point into organizing patterns, like energy wells. But one then has to accept a hylozoist view of matter as Hylé.

In hierarchies there is a filtering of lower-level effects rising from the bottom at each new emergent level. There is also a binding from the top, and the exclusion of alternative possibilities, once one path of emergence has stabilized (downward causation). Across levels, various forms of causation (*efficient* based on energy transfer, *formal* based on pattern recognition, signals, and information, and *final* based on meaningful purpose and thus semiotic) are more or less explicit (manifest). This leads to more or less explicit manifestations of information and semiotic meaning at the various levels in the world of energy and matter. The basic forms of causation can be seen at all levels. Material causation is basically grounded in the quantum vacuum fields. For each level of material-informational manifestation the lower level beneath it acts as its material basis.

Emergent process laws are particular to each level, allowing components to function together, and stabilizing levels in pattern-formation and structure that can be described with an objective information concept. This yields the dynamical integration that individuates each level. In the special case in which this integration involves active organizational processes we have autonomy, which creates agency through autocatalytic closure. It seems that total closure, as in autopoiesis, is important in the creation of living systems and the emergent quality of individuality laying the foundation for subjectivity. Meaning is generated through the whole heterarchy, especially through the relations of individual systems to a larger natural or social context. Thus, meaning is generated both at the individual levels of the living or humans and in social systems. But meaning is most manifest in the living systems that fulfill Hoffmeyer's conditions. The most full-blown version of meaning involves finality in a self-conscious social-linguistic mind.

The Ontological Basis of Cybersemiotics

Information theory is now an important part of the new science of consciousness research program, but there is a lot of work to do for serious philosophy, considering how many central philosophical topics of mind, language, epistemology, and metaphysics are going to be affected by the biosemiotic development. Peircean biosemiotics may contribute to a new transdisciplinary framework for the understanding of knowledge, consciousness, meaning and communication. But to do this, new elements have to be integrated to unite the functionalistic approaches to information and communication coming from cybernetics and computer science with the semantic pragmatic approaches coming from the linguistic turn and semiotics. Concepts of closure, self-organization, and differentiation of biological, psychological, and social systems developed in second-order cybernetics and autopoiesis theory need to be integrated into theories of embodiment and Peircean biosemiotics.

Let us try to summarize and schematize the basic ontological concepts of cybersemiotics made by an integration of Peirce's semiotic philosophy developed from Brier (2008a):

1. The first level, which physically is described as quantum vacuum fields entangled causality, is not considered physically dead as usually done in physicalistic physics, because cybersemiotics share Peirce's phaneroscopic and synechistic basis, where physics is never a description of an independent "dead" world. This dovetails with some of the version of the anthropic principle, especially the interactive anthropic principle (Wheeler, 1964, 1998). Cybersemiotics conceives this level as a part of Firstness, which also holds qualia and pure feeling. Although physicists may be bothered by this new metaphysical understanding of this level of reality, they cannot claim that there is no room for new interpretations because physics has a complete understanding of it. On the contrary, this is one of the most mysterious levels of reality we have encountered, and its implications have been the topic of an ongoing discussion since the 1930s and were central in the disputes between Bohr and Einstein. Now the entanglement aspect of the quantum phenomena is exploited for the possibility of teleportation and the first positive results claimed (Furusawa & Loock, 2010).
2. The second level of efficient causation is what Peirce describes as Secondness. This realm is ontologically dominated by physics as classical kinematics and thermodynamics. But for Peirce it is also the willpower of mind, and in modern information science it is the differences, which, when interpreted, can become significant and meaningful.
3. The third protosemiotic level is the level of objective information, where the formal causation manifests itself clearly. This level is ontologically dominated by the chemical sciences and concepts of pattern fitting. This difference in ontological character may be one of the keys to understanding the differences between physics and chemistry. It is not only a matter of complexity but also of organization and type of predominant causality.
4. On the fourth level, where life is self-organized, the actual level of Thirdness and semiotic interactions emerge. First internally in multi-cellular organisms as 'endosemiotics' and between organism as 'sign games', this framework – based on biosemiotics – points out that the informational concept may be useful at the chemical level of analyzing life, but it is not sufficient to capture the communicative, dynamic organizational closure of living systems. This is one of the reasons why Maturana and Varela do not want to use the information concept in their explanations of the dynamics of life and introduce the concepts of autopoiesis and structural couplings. Cybersemiotics proposes to combine it with semiotics in Luhmann's more advanced triple autopoietic systems science.
5. Finally, on the fifth level, human self-consciousness emerges through syntactic language games, and with that come rationality, logical thinking and creative inferences (intelligence). Intelligence is closely connected to abduction and conscious finality. Abduction is crucial to signification. It is the ability to see something as a sign of something else. This something else has to be a habit of nature. Some kind of regularity or stability in nature that the mind can recognize because a law of some kind is necessary for it to be a fairly stable eigen-value in the mind (an interpretant).

The cybersemiotic approach explains this through a semiotized version of Luhmann's triple autopoietic theory of communication combined with pragmatic theories of embodied social meaning. The three levels of communication are consistent through exterior cognition as well. Figure 5 gives a visual summary of this part of cybersemiotics.

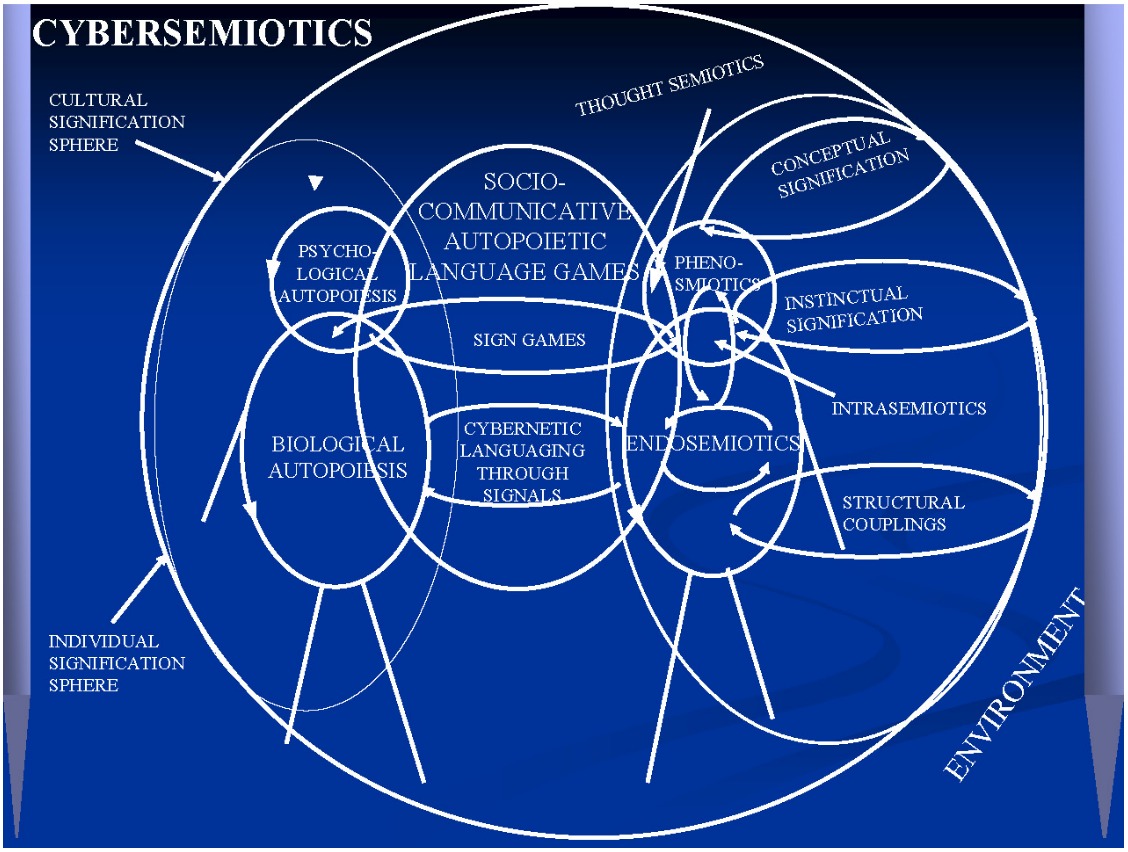
CYBERSEMIOTICS
CULTURAL SIGNIFICATION SPHERE
THOUGHT SEMIOTICS
SOCIO-COMMUNICATIVE AUTOPOIETIC LANGUAGE GAMES
CONCEPTUAL SIGNIFICATION
PSYCHO-LOGICAL AUTOPOIESIS
PHENO-SMIOTICS
INSTINCTUAL SIGNIFICATION
SIGN GAMES
INTRASEMIOTICS
BIOLOGICAL AUTOPOIESIS
CYBERNETIC LANGUAGING THROUGH SIGNALS
ENDOSEMIOTICS
STRUCTURAL COUPLINGS
INDIVIDUAL SIGNIFICATION SPHERE
ENVIRONMENT

Figure 5: Cybersemiotic model classifying different types of semiosis and proto-semiotic processes*: The model is a cybersemiotic development of Luhmann's model shown in figure 2. The localization of the processes have nothing to do with the actual bodily locations (as the head, for instance, is also a part of the biological autopoiesis), and as such also have endosemiotic processes. To limit the complexity, I have placed all the cybernetic-autopoietic concepts on the person to the left and all the semiotic ones on the person to the right. But all concepts concern both persons. Each person is placed in a signification sphere. When these are combined through socio-communicative autopoietic language games, a common signification sphere of culture is created. One part of ecosemiotics signification is based on the linguistic processes of conceptualization and classifications. Underneath the language games level is the biological level of sign games based on instincts, and under that, the cybernetic languaging seen as the coordination of coordination of behavior (of two black boxes). Thus, ecosemiotics has a level of bio-psychological or emphatic signification, as well as a level of structural couplings, which the organism, or rather the species, has developed through evolution. Although the figure does not seem very simplified it is even more so, as it combines several simplified figures. But it functions as a tool to view the relations between the different levels of semiosis. Combining these levels of semiosis with a general systems theory of emergence, self-organization and closure/ autopoiesis, it constitutes an explicit theory of how the inner world of organism is constituted and therefore how first person views are possible and as real as matter. This produces a view of nerve cell communication based on a Peircean world view tying the physical efficient causation described through the concept of energy and the chemical formal causation described through the concept of information together with the final causation in biological systems described through the concept of semiosis.*

Conclusion

Thus, the semiotic, autopoietic, social and cultural communicative praxis becomes the epistemological center of our understanding of ourselves as autopoietic embodied brain-borne self-conscious intersubjective beings situated in language and environment. From this situation we develop knowledge about ourselves as conscious beings, about society, language and culture in order to understand our intersubjectivity, and knowledge about our bodily nature and finally the environment. These become the four specializing aspects of Wissenschaft. None of them are absolute in any way, as they are in an evolutionary and historical drift with our ecological and semiotic niche for survival as species and culture.

To obtain this transdisciplinary view we have had to enlarge our concept of reality to a multi-layered irreversible time dynamics in a world perfused with signs. Energy, matter and objective information are not the only elements making up this reality. Signs, concepts, life processes and subjective experience plus socio-communication – of which language and culture is a part – are at least as important. The reason is that without them, there would be no knowing, no knowledge and no Wissenschaft. Language, culture and subjectivity are objective elements and aspects of reality as inevitable as dead and living nature.

The paradox is that we need all four arms of the star in order to produce all the kinds of intersubjective knowledge we now have. Among the most important is Wissenschaft (together with politics and religion). And yet we have produced the four aspects of Wissenschaft ourselves from our embodied and conscious socio-pragmatic semiotic interactions, thus forming our own *cultural signification sphere*. The reality and viability of this meaningful sphere that every culture creates for its individual subject and for itself in the environment is being tested for viability all the time. Cultures can crash completely as the Rapa Nui culture on Easter Island, where religious and social competition may have overruled ecological concerns, when the Rapa Nui people cut down all the trees to build their devotional statues, the Moai. Once the island was deforested, the ecosystem was unable to support the human culture and it crashed in hunger and internal fights – or so we believe.[20] Diamond (2005) described Rapa Nui – among many other examples of collapsed societies in the past – as the clearest example of a society that destroyed itself by overexploiting its own resources.

In her book *Cosmopolitiques* Stengers (2007) sees the main problem of the received view of biology as a science to be its attempt to join physics and chemistry in a rather positivistic attempt towards unification of all sciences like E. O. Wilson's (1998) *Consilience: The unity of knowledge*, where he predicts that most of the humanities will be replaced by hard scientific knowledge. Consequently, the received version of science denies the validity of all claims and practices other than its own. It denounces all other discourses – for instance, from hunter-gatherer societies living in close interaction with living nature – as superstitious, irrational and grounded in mere "belief". And yet research demonstrates that many of these discourses contain much meaningful practical insight, as for instance Roy Rappaport (1984) showed in his book *Pig for the ancestors.* He studied the Tsembaga Maring group of slash-and-burn farmers and their view of nature in New Guinea and concluded that their spiritually guided ritual cycle operated as a homeostatic ecological process regulating a whole emerging from the interaction of the size of the pig population, the amount of acreage cultivated, their energy expenditure in subsistence activities, their protein ingestion as well as the man-land ratios combined with the frequency of internal fighting between villages. His functional analysis was based upon quantitative data. It is an example of the degree to which cultural and non-cultural variables interact through meaningful semiotic events. Rappaport challenges the scientistic view that the meaning of religious rituals has no effect upon the external world. Harris (1991) investigated how pork turned into a religiously tabooed food in, for instance, ancient Israelite society. Harris also argues from a blend of spiritual and ecological knowledge of the nomad culture, and claims that while cattle, sheep and camels consume grass efficiently, pigs are poor grazers and must compete with humans for grain. Furthermore pigs produce no utility aside from meat, compared with cattle and goats that provide milk, transport, and labor. Harris argues that this gave rise to the pigs being tabooed food in the Old Testament and in Ancient Egypt, eventually to become forbidden by Islam. Harris is convinced of the primacy of humankind’s ecological roles and modes in shaping meaningfulness in human culture. The problem with the consilience-view of nature is that, through science, it presents nature as one thing opposing a multitude of other “things” called culture. But there are many very different cultures with many interpretations of the complex we call nature. Cybersemiotics is consistent with for instance Descola’s (1996) work on *Constructing natures* as well as Latour’s (1993, 2004, 2007) semiotic work on ‘hybrids’, which is discussed further in Brier (2012). Nature is not only built out of energy, matter and information, it is also built from signs interacting with all the other elements.

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[20] I am aware that there is now a debate about the truth of this story and alternative versions upgrading the influence of rats destroying trees and white people killing islanders and taking them as slaves.

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Listening into the Dark: An Essay Testing the Validity and Efficacy of Collaborative Developmental Action Inquiry for Describing and Encouraging Transformations of Self, Society, and Scientific Inquiry

William R. Torbert[1]

Abstract: Collaborative Developmental Action Inquiry (CDAI) is introduced as a meta-paradigmatic approach to social science and social action that encompasses seven other more familiar paradigms (e.g., behaviorism, empirical positivism, and postmodern interpretivism) and that triangulates among third-person, objectivity-seeking social scientific inquiry, second-person, transformational, mutuality-seeking political inquiry, and first-person, adult, spiritual inquiry and consciousness development in the emerging present. CDAI tests findings, not only against third-person criteria of validity as do quantitative, positivist studies and qualitative, interpretive studies, but also against first- and second-person criteria of validity, as well as criteria of efficacy in action. CDAI introduces the possibility of treating, not just formal third-person studies, but any and all activities in one's daily life in an inquiring manner. The aim of this differently-scientific approach is not only theoretical, generalizable knowledge, but also knowledge that generates increasingly timely action in particular cases in the relationships that mean the most to the inquirer. To illustrate and explain why the CDAI approach can explain unusually high percentages of the variance in whether or not organizations actually transform, all three types of validity-testing are applied to a specific study of intended transformation in ten organizations. The ten organization study found that adding together the performance of each organization's CEO and lead consultant predicted 59% of the variance, beyond the .01 level, in whether and how the organization transformed (as rated by three scorers who achieved between .90 and 1.0 reliability). The essay concludes with a comparison between the empirical positivist paradigm of inquiry and the Collaborative Developmental Action Inquiry paradigm.

Keywords: Action inquiry, adult development, organization development, social scientific paradigms, validity testing, leadership, 1st-, 2nd-, and 3rd-person research.

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Introduction[2]

Collaborative Developmental Action Inquiry (CDAI) (Torbert, 1976, 1991; Torbert & Associates, 2004; Torbert & Livne-Tarandach, 2009) is a meta-paradigm of scientific inquiry that integrates first-person, adult spiritual inquiry and consciousness development in the emerging present with second-person, transformational, mutuality-seeking political action inquiry over a lifetime, and third-person, inter-generational, objectivity-seeking social scientific inquiry and its effects. In other words, CDAI seeks to triangulate among the subjective aspects of action and inquiry (within the first-person), the intersubjective interactional aspects of action and inquiry (between second-persons engaged with one another), and the objective aspects of action and inquiry (among a collective of third-persons-and-things at-a-distance-from and often-anonymous-to one another). The intent is to generate:

1. our own distinct, personal integrity (which needs re-contacting, re-imagining, re-strategizing, re-enacting, and re-assessing in each new engagement);
2. a mutually-vulnerable, mutually-empowering, and mutually-transforming dynamic in conversations, meetings, and other social occasions (which both feeds and requires inquiry together about shared purposes, useful roles, rules, and norms, as well as one another's relative efficacy, and the relative justice of outcomes);
3. more-generally-readable signs of the relative validity, fecundity, timeliness, and sustainability of longer term, purposive action projects.

Put in still another complementary way, the CDAI approach seeks to define, to practice, and to integrate both "during-the-act" research that influences present awareness and action and "before-and-after-the-fact" research that can influence future actions. In so doing, the very name Collaborative Developmental Action Inquiry recognizes that all research is also some form of practice, that all practice is also some form of research, and that we may later profoundly transform the very assumptions we are currently enacting about what constitutes research and action. (For recent related work that begins to describe the relationship among the first-, second-, and third-person aspects of inquiry, see Reason & Bradbury, 2001, 2008; Sherman & Torbert, 2000; Starr & Torbert, 2005; Torbert, 1997, 1999, 2000c; Varela & Shear, 1999; Varela & Shear, 1999; Velmans, 2000; Wilber, 1998).

This essay is a predominantly third-person "after-the-fact" form of social science, in three different and complementary ways: (a) it is written primarily for third-persons not directly involved in the research and action documented here (although at one point it offers a case of second-person action inquiry); (b) it is written primarily in a third-person voice (although at one point the first-person research voice is demonstrated and readers are invited to try a first-person experiment); and (c) it offers quite powerful statistical results in support of the third-person generalizability of some of its findings (powerful statistical results are results that account for large proportions of the variance and that are likely to misrepresent the “universe” from which the sample is drawn less than 1 in 100 times).

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But this essay is also *different* from typical Empirical Positivist (EP) scientific journal articles on validity testing of measures and findings in three major ways (see Table 1 for a typology of eight distinct scientific paradigms). First, the essay introduces the vast field of first-person research/practice and adult development leading toward empirically rare action-logics that are theoretically associated with increasingly timely and transforming action and inquiry, and that are statistically associated with successful leadership of organizational transformations by consultants and CEOs (see below). Second, the essay introduces the vast field of second-person research/practice that can directly generate personal, team, and organizational transformation (and offers a case study of such "during the act" research). And third, it offers forms of validity testing that include, but go beyond, third-person tests of the generalizability of data patterns (Cook & Campbell, 1979). These additional post-positivist validity tests (Argyris, Putnam & Smith, 1985; Denzin & Lincoln, 1994; Lather, 1993; Lincoln & Guba, 1985; Reason & Bradbury, 2001) begin to address the first-person integrity and the second-person mutuality of interactors in real-time.

The essay proceeds by offering first an introductory comparison among scientific paradigms conceived as based in different ones of the developmental action-logics that can also be used to distinguish individuals and organizations. These paradigms lead up to the CDAI meta-paradigm of paradigms that includes not only third-person inquiry, but also first- and second-person inquiry in the midst of action. In the following sections, examples of first- and second-person research are offered. Then, a close review of validity issues in a study of transformation in ten organizations is offered, in order to illustrate how the interweaving of first-, second-, and third-person research in the midst of action and after the action can generate unusually strong empirical findings. Finally, the CDAI paradigm of science is compared to the Empirical Positivist paradigm to see whether any conclusions can be reached about their relative comprehensiveness and about whether either resolves errors untouched by the other.

Background and Introductory Comparison among Scientific Paradigms

The different action-logics identified by developmental theory can be used to distinguish the personal action-logics of different *individuals,* and this is the realm where most developmental research and theorizing has occurred since the path-finding work of Piaget, which, a generation later, was expanded by adult development theory (Kegan, 1994; Torbert, 1987; Wilber, 1999). In addition, developmental theory can be derived from and used in exploring the interactional action-logics of different conversations, project, teams or *organizations* (Torbert, 1976, 1987, 1989; Torbert & Associates, 2004). This essay focuses primarily on a yet a third locus of development, namely how the institutional action-logics of different *social scientific paradigms* compare (see table 1 and table 2 below and Sherman & Torbert, 2000), and why the Developmental Action Inquiry paradigm is more likely to reveal and support the dynamics of developmental transformation in persons and organizations than the dominant paradigms of social science up to the present. This essay will make no attempt to offer a systematic discussion of each scientific paradigm, but will introduce the idea impressionistically through Table 1 and Table 2, illustrated by a very brief overview of different patterns of management research during the twentieth century. Then, the main body of the paper introduces the principal methods of

CDAI, along with a close look at one study of intervention in ten organizations and the validity testing of the results.

In broad overview, behaviorism (e.g., Taylor, Watson, Skinner) and Gestalt psychology, sociology & anthropology (e.g., Mayo, Roethlisberger, and both George Mead and Margaret Mead [unrelated]) were the pre-eminent and dueling social scientific paradigms of the early twentieth century. Empirical positivism (e.g., Popper, Milgram, Campbell) became increasingly pre-eminent in management studies during the third quarter of the century. And today, the dominant research strategy in management is probably multi-method eclecticism, which makes a place for qualitative methods that can chart dynamic processes, along with quantitative methods that can measure whether outcomes are significantly different from one another.

One strategy typical of the multi-method eclectic approach in management research during the past decades is to say that there are two types of inquiry and knowing that can challenge, correct, and ultimately complement one another: a more qualitative, interpretive, close-to-the-phenomena "inquiry from the inside" and a more quantitative, positivistic, theory-guided "inquiry from the outside" (Evered & Louis, 1981; Louis & Bartunek, 1992). Today it is fashionable to seek to integrate qualitative and quantitative methods, insider and outsider research, process descriptions and outcome measures, in attempts at triangulating toward useful approximations (Bartunek et al., 1993). But notice that these are all bi-polar triangulations. What would "strong triangulation" look like?

As qualitative methods have gained prestige in the Academy of Management during the past two decades, a second new wave of theory and research has "broken over" the management field as well. This second wave is far more controversial and impassioned than the first and doesn't blend as well with empirical positivism. In fact, postmodern interpretivism (e.g., Gadamer, Smircich & Callas, Morgan, Weick), aka "the language turn" can be downright antagonistic toward mainstream social science, viewing it as a key element in a process of hostile observation for purposes of unilateral, un-self-questioning, and non-mutually-questioning social control and of linear, technological manipulation of the natural environment (Boje et al. 1996; Gadamer, 1982; Schwandt, 1994).

Postmodern interpretivism foregrounds the subjective framing process that precedes all structured thinking and action and that we each go through, almost all of us without ever realizing it (and even those of us who realize this in principle realize it in practice *only now and then).* This paradigm of inquiry and knowledge asks us what kind of "critical subjectivity" can help us become aware of, "deconstruct," and "transgress" beyond, our own taken-for-granted subjective frames and boundaries as researchers (and as actors, the following paradigms will add).

Table 1: Analogies Among Personal, Organizational, and Social Scientific Developmental Paths

Personal Development	Organizational Development	Social Scientific Development
I. **Birth-Impulsive**	I. **Conception**	I. **Anarchism** (e.g., see Feyerabend, 1975)
(Multiple, distinctive impulses gradually resolve into characteristic approach; e.g., many fantasies into a particular dream for a new organization).		
II. **Opportunist**	II. **Investments**	II. **Behaviorism**
(Dominant task: gain power [e.g., bike riding skill] to have desired effect on outside world.)		
III. **Diplomat**	III. **Incorporation**	III. **Gestalt Sociologism**
(Looking-glass self: understanding others' culture/expectations and molding own actions to succeed in their [e.g., market] terms).		
IV. **Expert**	IV. **Experiments**	IV. **Empirical Positivism**
(Intellectual mastery of outside-self systems such that actions = experiments that confirm or disconfirm hypotheses and lead toward valid certainty).		
V. **Achiever**	V. **Systematic Productivity**	V. **Multi-Method Eclecticism**
(Pragmatic triangulation among plan/theory, operation/implementation, and outcome/assessment in incompletely predefined environment. Reliably uses *single-loop feedback* to improve real-time performance.		
VI. **Strategist**	VI. **Collaborative Inquiry**	VI. **Postmodern Interpretivism**
(Self-conscious mission/philosophy, sense of timing/historicity, invitation to conversation among multiple voices and to reframing of boundaries. Occasionally uses *double-loop feedback* to transform performance).		
VII. **Alchemist**	VII. **Foundational Community**	VII. **Cooperative Ecological Inquiry**
Life/science = a mind/matter, love/death/transformation praxis among others; cultivation of *triple-loop feedback* and re-attunement among inquiry, friendship, work, and earthly/material goods).		
VIII. **Ironist**	VIII. **Liberating Disciplines**	VIII. **Collaborative Developmental Action Inquiry**
(Full acceptance of multi-paradigmatic nature of human consciousness/reality, including distances/alienations among paradigms, resulting in interruptions of, and failures to listen into, *single-, double-, and triple-loop feedback).*		

Source: Adapted from Hartwell & Torbert (1999), where greater detail on characteristics of each personal and organizational action-logic is available. (Note: in the most recent versions of this developmental theory, e.g., Figure 1 later in this paper, an additional action-logic, Individualist/Pluralist/Relativist, is described between Achiever and Strategist).

One characteristic that is common among all five of these already-mentioned approaches to social science is that none of them demonstrates how the insights gained from academic research can form the basis for effective interaction among second-persons, or within a first-person (you/me) in the everyday world. Empirical positivism, multi-method eclecticism, or postmodern intrepretivism can be of some use when we are apparently "at rest," reflectively analyzing a dataset or our own patterns of thought. But these paradigms eschew the vast majority of life's variance… including all those moments when we are uncertainly in interaction with others or with ourselves alone, when the question is how to attend and act in a timely, idiosyncratic, ecologically sensitive fashion.

Table 2: Brief Descriptions of Seven Social Scientific Paradigms[3]

Behaviorism	Assertive, physical quest for *reliable, unilateral control* through operant conditioning of an unembarrassedly objectified and atomized external world. Preferred method: laboratory experiments (maximizing the scientist's unilateral control over variation). Nominalist presumption of isolatable "stimuli" and "responses." Skinner – an archetypal behaviorist (Skinner 1953, 1971; Argyris, 1971).
Gestalt Sociologism	Appreciative, emotional quest for *understanding* of the overall pattern of subjective beliefs, values, and rituals of given "Other" cultures. Preferred method: *field case studies* based on non-interventionist, ethnographic observation. Essentialist presumption of integrative ideas, norms, and selves (Cooley, 1956; Mead, 1934).
Empirical Positivism	Critical (but not hermeneutically self-critical), intellectual quest for *predictive certainty* about deductively logical, universally generalizable, empirical propositions (Cook & Campbell, 1979; Hunt, 1994). Privileges *randomized sample*, experimental, *statistically-analyzed hypothesis testing studies,* along with computer modeling of intelligence, because of the crisply clear quantitative, binary certainty about distinctions between confirmation and disconfirmation (e.g., Simon's theoretical and empirical demonstrations of the concept of bounded rationality; Simon, 1947, 1957, 1969, 1989, 1991; March & Simon, 1958; Turkle, 1991).
Multi-Method Eclecticism	Practical quest to increase validity, understanding, and applicability of findings. Recommends *triangulation among quantitative and qualitative methods*. Currently fashionable and in flower in the managerial disciplines (e.g., Campbell et al., 1970; Eisenhardt, 1989; Dyer & Wilkins, 1991; Bartunek et al, 1993).
Postmodern Interpretivism	*Self-conscious accounting for the radical subjectivity* and fragmentariness of perspective that embraces every languaged perception and conception. Preferred method: wishes to *deconstruct the implicit* background of: (a) the objects foregrounded in single-frame, early-paradigm studies; and (b) of the researcher and of the writing of the author of the critique (e.g., Denzin & Lincoln, 1994; Macey, 1993; the 1990s Pfeffer-Van Maanen debate in managerial studies was between an early single-frame "Pfeffer-digm" and Van Maanen"s rhetorical interpretivism [Pfeffer, 1993; Van Maanen, 1995; Frost, Pfeffer, Van Maanen, 1995]).
Cooperative Ecological Inquiry	Commitment to creating *real-time communities of inquiry* (i.e., communities that bridge subjectivities and differences of perspective, that confront incongruities among vision, strategy, action, and outcomes, and that support voluntary, mutual personal and social transformation [Bradbury, 1998; Cooperrider & Srivastva, 1987; Heron, 1996; Lather, 1993; Weick, 1998;

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[3] (See Torbert, 2000a, 2000d for greater detail)

	Reason, 1994, 1995; Reason & Bradbury, 2001, 2008; Spretnak, 1991; Torbert, 1976]). Gregory Bateson (1972), Margaret Mead (1960), and their daughter, Mary Catherine Bateson (1984, 1990) the archetypal “family of real-time inquiry”. New methodological challenge: *how to test validity publicly in real time* - how in the midst of participating intersubjectively in specific situations, to listen, experiment, and seek disconfirmation (Argyris, Putnam & Smith, 1985) in a timely fashion (Torbert, 1991).
Collaborative Developmental Action Inquiry	*Recognizing different moments, persons, organizations, and cultures as complex, chaotic interweavings of the six prior paradigms* (Pondy & Mitroff, 1979), highlights the contrapuntal rhythms, interruptions, and interventions in developmental movement from one paradigm or action-logic to another, whether in single conversations or in whole lives (Fisher, Rooke & Torbert, 2000; Kegan, 1994; Rooke & Torbert, 1998; Torbert, 1989, 1991; Wilber, 1995). *Seeks interweaving of first-, second-, and third-person research/practice with single-, double-, and triple-loop feedback* that can sustain inter-paradigmatic conversation, work, meditation, and play. Generalization is recognized as occurring primarily one-at-a-time: one person at a time, as she or he practices awareness-expanding first-person action inquiry at more and more moments; one second-person organization at a time; one third-person research study at a time; though the entire statistical armamentarium remains appropriate within its limiting premises (as is illustrated by the validity testing of the ten organization study later in this essay).

The objective of the "action turn" in the social sciences (Bradbury, 1998; Reason & Rowan, 1981; Sherman & Torbert, 2000; Torbert, 1976, 1991; Reason & Torbert, 2001) is to go beyond the postmodern "language turn," and, whether we are professional social scientists or bricklayers or investment bankers, to bring inquiry into as many of our moments of action as we can (in the interests of increasing our own *întegrity* and *mutuality*, as well as the *sustainability* of inquiries and actions such as ours). In this context, it is important to clarify that action research, as it has been known during the second half of the twentieth century, very rarely represents anything like this “action turn” and the CDAI paradigm to be described presently. More frequently, in its clinical and case-oriented qualities, action research has represented instances of Gestalt sociologism; or, when it combines quantitative and qualitative methods with widely spaced feedback episodes, action research becomes a kind of multi-method eclecticism.

Like all personal, organizational, or scientific transformations, this transformation – this action turn – toward the paradigms we name cooperative ecological inquiry and Collaborative Developmental Action Inquiry in Tables 1 and 2, is anything but linear and straightforward. A metaphor that better communicates the unexpected twists that an action-logic engages in as it transforms toward wider inclusiveness might be "a backward stumbling double somersault through a trap door." Figure 1, below, shows how we have digitally illustrated developmental transformations in an earlier book (Torbert & Associates, 2004). To better imagine the unforeseeable twists and turns of this transformation, if you are a scholar/ scientist/ therapist/ consultant, imagine that you were seeking forms of social inquiry that you would want to “work” not just in your professional life, but with your immediate organizational and family life (e.g., with your 15-year-old child!), as well as in your spiritual, artistic, craft, exercise, conversational, sexual, and other activities…

Despite its “degree of difficulty” and its “relative unpremeditatability,” this twisting, “action turn” is equally open to anyone willing to commit to integrating quantitative, qualitative, and action inquiry into their practices among others in everyday personal and professional settings (Reason & Torbert, 2001). But who is willing to do this? If we try to observe our own daily lives like scientists (Torbert, 1991, ch. 15), we come to realize:

1. *how rarely we actually practice such observation in action* (because our actions are largely habitual, and we forget to observe at the time, or to realize we don’t know how to observe);
2. *the degree to which we can't imagine in any given present moment why we should observe now (“Nothing interesting’s going on right now… and aren’t I doing enough anyway?”)*;
3. *how little we act like inquiring scientists in our relations with our colleagues, our intimates, or strangers* (because most relationships are bounded by issues that are tacitly treated as undiscussable); and
4. *how rarely in our enacted lives we are in a position to apply anything like Empirical Positivist standards of certainty and universalizability*, or even that paradigm’s version of truth as representational (because in speaking each statement is active or presentational [Reason, 1994] as well as reflective or re-presentational [the technical term for this mix is "quasi-performative" (Pitkin, 1981)]).

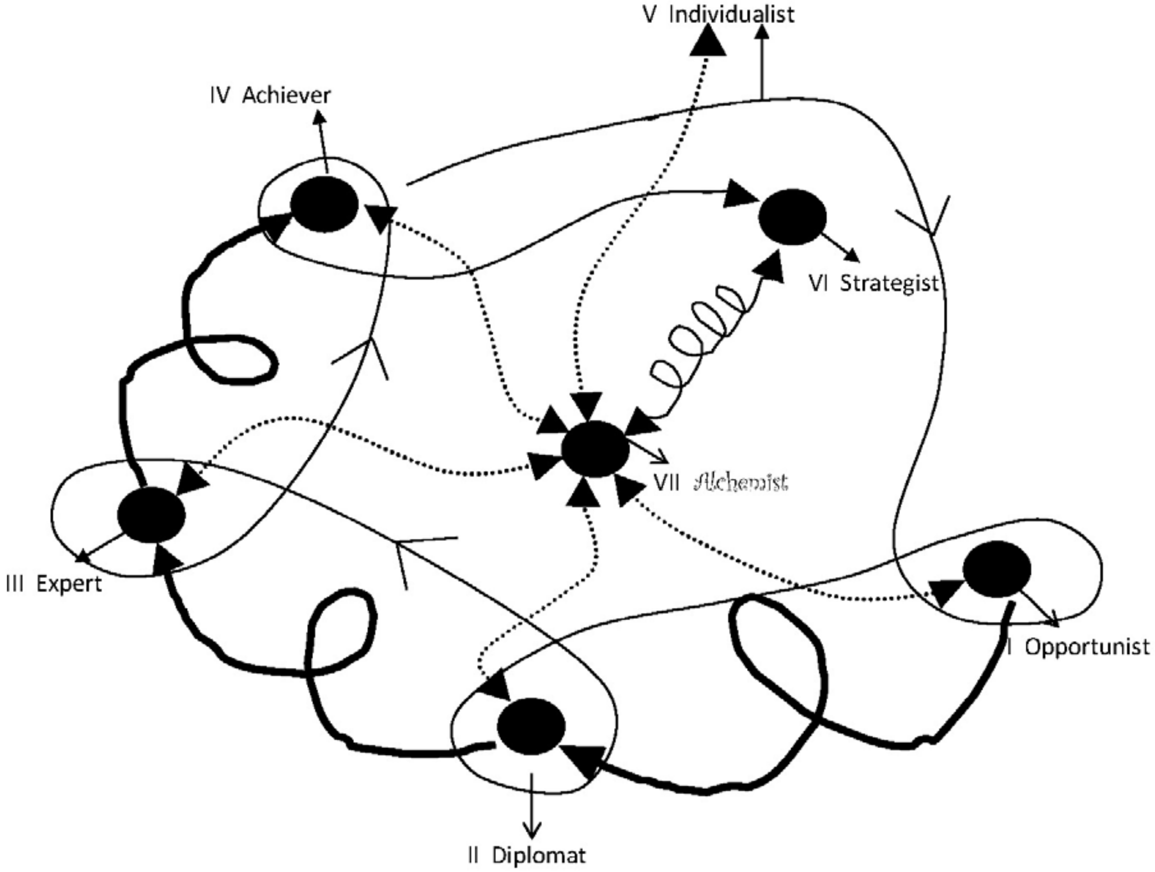

Figure 1. A Quasi-Performative Appreciation of the Dynamics and Simultaneity of Different Action-Logics

When we are in interaction with one another and simultaneously seeking to determine to what degree we are hearing or telling truth or something as close to it as we can now get, or whether we are acting as effectively and/ or transformationally as we wish: A host of first- and second-person questions arise that simply don't arise in the paradigms of inquiry codified in twentieth century social science…

> *What kind of first-person awareness do I (or you) require in real time to continue thinking, acting, and perceiving "toward" my (your) objectives as I ordinarily do (or in a meandering, non-purposive fashion as I/you also often do)… while simultaneously registering the "shapes" of my thoughts, actions, and effects in an inquiring way that gives me the choice of changing the shape of my thinking, acting, and effecting in each succeeding moment? (Torbert, 1973; Varela & Shear, 1999; Velmans, 2000)*
>
> *And what kind of second-person talking, listening, and non-verbal gesturing is required to invite others in the interaction to participate in this kind of second-person research/practice that permits the interacting group to move "forward," while simultaneously having the choice to re-vision its aims, or to restructure itself, or to adopt new tactics in each succeeding moment? (Argyris, 1993; Isaacs, 1999; Torbert, 1976, 2000b).*

Also, how does the *propositional* knowledge of third-person inquiry and action (e.g., this article) relate to and encourage or discourage the *experiential* knowing of first-person research/practice and the *presentational* and *practical* knowing of second-person research/practice and vice-versa? (For detail on these four types of knowing, see Heron, 1996; Reason, 1995).

Foreground - Taking the Action Turn

When a given person takes the foregoing questions seriously and discovers a wish to become a disciplined first-, second-, and third-person research/practitioner… S/he may enter any number of first-person disciplines, such as schools of meditation (Taoist, Buddhist, Hindu, Gurdjieffian, Quaker, Sufi, Jesuit, Hassidic etc.), in order to receive guidance in first-person research/practice (Alexander & Langer, 1990; Anthony, Ecker & Wilber, 1987; Chandler, 1991; Gendlin, 1981; Ouspensky, 1949; Torbert, 1973; Trungpa, 1970; Wilber, 1998).

S/he may also enter any number of second-person research/practice schools more or less simultaneously (e.g., therapy, psychodrama, Tavistock group relations conferences, t-groups, a woman's circle, a men's group, action science study groups, etc.) (Argyris, Putnam & Smith, 1985; Bion, 1961; Isaacs, 1999; Schein & Bennis, 1965; Sedgwick, 1999; Truax & Carkhuff, 1967).

And s/he may enter any number of third-person academic disciplines (education, management, philosophy, etc.) in a university.

Rarely, however, are the relationships among the first-, second-, and third-person aspects of the work well articulated. For example, this author spent some years simultaneously:

1) in a first-person research/practice school (the Gurdjieff Work) in which *not expressing negative emotions* was an explicit injunction and exercise;
2) in a second-person research/practice school (the Bethel National Training Laboratories) in which *expressing negative emotions passionately but non-evaluatively* was an explicit exercise; and
3) in a third-person research/practice setting (a PhD program) that did not address first-and second-person research practices at all as legitimate research methodologies in any of its methodology courses.

Because of experiences like this, before a person goes very far pursuing all three types of research/practice at once, s/he will realize, implicitly and intuitively, if not explicitly and intellectually… that the scale of learning to which s/he is committing… embraces, not just incremental, single-loop feedback that influences one's choices of behavior in specific situations in order to reach whatever specific goals one may have. Learning to interweave the subjective, the intersubjective, and the objective aspects of inquiry and action also embraces double-loop feedback that repeatedly transforms the overall action-logic through which we interpret and act in the world. Furthermore, this scale of learning includes triple-loop feedback that revivifies and reconstitutes the breadth and depth of our moment-to-moment attention (thereby increasing our awareness of the still vaster volume of inchoate, implicit possibilities and incongruities in each moment). (For different but related treatments of single-, double-, and triple-loop learning, see Bartunek & Moch, 1987, 1994; Nielsen, 1996; Starr & Torbert, 2005; Torbert 2000b; Torbert & Fisher, 1992; also, Table 1 gives an indication of when in the course of human development action-logics gain the capacity to digest these different types of feedback and potential learning.)

Analogous scales of potential learning can come to characterize one's second-person relationships with family, friends, and colleagues, as well as one's third-person relationships as a member of multiple organizations, ethnic and language groups, spiritual traditions, or professions.

In other words, a scientific paradigm such as Collaborative Developmental Action Inquiry that aims at integrating first-, second-, and third-person research/practice is equally open to all adult human beings, though, obviously, adults who are already heartfelt and disciplined practitioners of any number of schools of first-, or second-, or third-person research/ practices are initially likely to pick up the overall CDAI approach more quickly. More particularly, persons already engaged deeply in first- or second-person research/practice are more likely than the average person (and more than Ph.D.s who have no explicit first- or second-person research/practice) to be attracted, rather than initially threatened, by the following implications of the CDAI paradigm. First, that each CDAI practitioner faces unforeseeable personal transformations… Second, that s/he is invited to engage in relational transformations with friends and work peers… Third, that his or her own development and that of the organizations s/he belongs to will be supported by taking leadership roles, by writing to be read and critiqued by others, and by generating and attending to measures of the relative efficacy of one's own and one's organizations' performance… Fourth, that personal and organizational development are supported by increasingly exercising mutually-transforming power and inquiry in preference to unilateral power… Fifth, by a deepening search to act increasingly in ways that reverberate as timely across spatial and temporal scales… And, finally, by the gradual realization that the question of what constitutes timely action and interaction in any current situation can never be validly solved once and for all for oneself or others, but rather at best grows more engaging of each inquirer and each community of inquiry.

> Consider in this light, for example, Socrates' development from soldier … to later doing civic duty as a citizen judge… and still later to becoming a kind of street philosopher who died for his dedication to inquiry.
>
> Socrates' living inquiry led him from objective manual labor as a soldier who in war protected his student, Alkibiades, from death… through intersubjective emotional work as a citizen-judge… to his late-in-life subjectively-defined role as a sort of wandering minstrel – not, like the blind seers Homer or Teiresias, wandering across the countryside, telling stories from long ago, but rather wandering about the city gyms and markets, asking questions within the city of Athens, as it was at that moment: losing the Peloponnesian Wars to Sparta, less than a generation after having been, in Pericles' words "the School of Hellas."
>
> All this Socrates did, and it unforeseeably led to his going to jail as a very old man. He had killed no one, stolen nothing, done no violence of any kind, nor any kind of injury to any one individuals' reputation (though he may have punctured the false self-esteem of a few). He had done no worse, let us say, than the comedian Aristophanes did to him in his comedy "The Clouds…" nor no worse than the tragedian Euripides' did to Aristophanes in twisting his (E's) comic attack on him (A) into "The Bacchae."
>
> Once in jail, Socrates' friends arranged the not-unusual opportunity for him to escape into exile, but, through the action inquiry of his final conversation with his friends, he determined not to leave the civil jurisdiction of Athens despite the possible injustice done him by the city he loved. His decision to drink the hemlock when he did, rather than accept his friends' offer to help him escape from jail, was an instance of action inquiry so vulnerable and so transformational that it resonated as timely across his roles as mentor, friend, and citizen, as well as across the ages, repeatedly raising the question for new generations who read Plato, *"What kind of inquiry throughout our lives can generate timely integrity, mutuality, and sustainability?"*

The First-Person Voice Describing First-person Action Inquiry Practice

If the reader turns back through the foregoing several pages, you will find a number of instances, such as the question just before this section, where the author has used italics. The italics are meant to capture sentences that are in more of a first-person voice than in a third-person voice. Thus, the question just above is a first-person question for the author, and he is also exploring whether it resonates as a question that at least some readers are concerned with for themselves.

I am now going to speak with you, dear readers, in my first-person voice just a little, in order to share a piece of writing by my friend Peter Reason, with his kind permission, in which he *illustrates the use of first-person voice to describe an example of his first-person research on his first-person practice:*

> *Freefall carving*
>
> *I have been curiously wondering why some pieces of writing don't "work" for me. I have a sense of when I have dropped into the freefall mode these days, as I feel a sense of calm and spontaneous deliberateness, which sometimes just doesn't seem to be with me.*
>
> *I noticed a similar kind of feeling as I started woodcarving again: freefall writing (Turner-Vesselago, nd: see also Goldberg, 1986) is all very well, but since I spend so much of my time writing and reading, I do find my eyes get tired and I simply have enough of words. This week I picked up some of the carving pieces that have been around all summer while I have been busy with the boat—a bowl which Steve turned for me on his lathe, leaving a blank of wood around the rim for me to carve oak leaves into; and a green-man candlestick which I started for Sarah and put aside in some disgust.*
>
> *That disgust was because it was not perfect. I felt I hadn't done the research, got a clear image in my mind as to what I was carving, and in particularly hadn't studied the kind of leaves I was building into his face. Elizabeth said to me, "I like that green man, it's ok," so I took it up and looked at it with some renewed affection. Most of the face and the sides of the head have been roughed out so you can see the features and how the leaves sprout and spread around, it just needs the design finished at the back, where the leaves from each side will meet, and then it needs careful finishing and tidying up.*
>
> *So I took my pencil and boldly drew some outline leaves, following the kind of tri-foil pattern I have been using, thinking more about how the individual leaves would overlap rather than if they were "correct" as leaves. I cut around the design with the v-tool, getting a feel for how each leaf fitted within the curve of the wood and how it might come forward or fall back in relation to its neighbours. And I cut out some of the background, noticing how boldly I was cutting down the edges of the pattern and moving the gouge round to chop out quite big chips of wood. I felt almost a delight at holding the carving gouge in one hand, the round mallet in the other, having pulled my carving chops out from under the bench and dusted them off. I fell into the design without anxiety, with a positive pleasure at the feel of the wood under my tools.*
>
> *So to chop down along the edge of a leaf, feeling the way the gouge enters the wood, noticing the different quality as it enters softly, squishily, when along the grain, firmly and soundly when across the grain, and harshly and unpredictable at that knot which sits in such an awkward place. My hands, my whole body, notices this feel, this communication almost, between gouge and wood, so that carving in freefall mode simply adjusts itself as if it needs little attention from my conscious mind—indeed it does need little attention from my conscious mind.*
>
> *But mind does come into it as well! When I was carving the rim of oak leaves around the bowl, following Elizabeth's design, I realised that I was wasting time by cutting the details of each leaf before I had carved out the planes on which they were to sit, with each leave*

> *overlapping the previous and underlapping the next. So I chose consciously to cut over and destroy the design details in order to do that, choosing a strategy and then falling into the skill of practice, coming out again to assess what I had done and re-establish the design, so I can now fall back into the skilled based cutting of the leaves. It IS like freefall writing, in that there is a time for the mind to choose ("I will sit down for ten minutes to write") and a time to allow the writing/ carving "without a parachute" to take itself forward (Reason, 2001).*

Clearly, the point in conducting such first-person research/practice and then writing about it in this way is not to generalize some "true answer" about practice to everyone else, but rather: (a) to make the activity more pleasurable; (b) to make one's work more effective or beautiful or integral by bringing a better attention to it; and/or (c) to invite other first-persons (you, me) to consider engaging in such first-person research/ practice themselves. In first-person research/practice one attempts to generalize, not the outcomes of the search to everyone else, but rather the practice of such research to more times in one's own life.

Another point that Reason's report of his self-observation of his carving makes clear about first-person research is that although it can concern the past (e.g., writing autobiographically about oneself in an inquiring mode), as does almost all formal third-person scientific research, it is perhaps most at home as research on one's present activity that can feed back instantly on one's actions. (First-person research on the future is also possible [e.g., intentional "dreaming" about wishes for the future, or role playing possible ways of conducting an important upcoming conversation].)

Second-Person Research Voices Describing One Another's Second-Person Practices

An example of second-person research voices occurs if team members are asked by an interviewer to assess each other member's performance, and if each person receives as feedback, not some average number that masks the range and quality of different perspectives on his or her performance, but rather the actual phrases different people say (typically without the names of who said what). Obviously, such feedback may contain significant contradictions and incommensurabilities among the voices. For example, Jack, a COO, received these comments from others among the seven-person senior management team: "Jack is good on the budget and at talking and selling. He's not good at personnel and unfortunately he thinks he is." "Good relationship with George (the CEO) which helps the company." "When Jack is upset in a meeting, he tends to be patronizing or to avoid the issue." "He sometimes unloads on others, gets hysterical." "Jack sometimes acts like an unsure lover – he laughs too loud at George's corny jokes."

From a third-person, objective point of view, such results would seem to signal a lack of reliability among the raters and to reduce the validity and meaningfulness of the data. But from a second-person, intersubjective point of view, the quotes communicate the actual divergent effects of Jack's actions on his significant others (of course, someone may be lying, or someone may later reconsider). The dilemma the recipient of this inconsistent feedback faces in determining how to act more effectively as a team member in the present and future is a real one.

(Basically, it is a sign that no single-loop change in behavior will please all; rather, a double-loop change in strategy or action-logic used in the present [and/or a triple-loop change in the kind of attention the practitioner pays to interactions with other team members] is called for.)

This *second-person research on first-person practice in the past* can transform into *first-person research on first-person practice in the present and for the future*, if the condition is created whereby the team members are invited (and at least some freely choose) to discuss what implications for their future action the (anonymous) feedback they've received suggests. In Jack's case, when he took the lead in revealing the feedback he had received to the rest of the team, his initiative, his openness to the data, and the subsequent conversation permanently transformed his tentativeness and shiftiness in this setting, as well as his actual relationship to each other member of the team and the ethos of the team as a whole. In a word, what this specific example of research/practice generated, and what second-person research on second-person practice in general seeks to generate, is increased openness to difference and increased *mutuality* (Isaacs, 1999; Hartwell & Torbert, 1999).

What this example also begins to suggest is that there are many different types of possible and complementary social research. Indeed, there are at least 27 distinguishable types of research possible in any social situation: first-, second-, or third-person research on first-, second-, or third-person practice in the past, present, or future (3x3x3=27) (Chandler & Torbert, 2003). The developmental path through the octave of personal, organizational, and scientific action-logics is a hypothesized sequence through which human, intelligent systems can question the assumptions on which their current action-logic is based and transform toward action-logics that progressively make fewer assumptions and progressively deepen their capacity for listening into the dark inquiringly more of the time.

Using CDAI Theory in First- and Second-Person Research/Practice

The following case study (in some ways condensed and in some ways expanded from Fisher, Rooke & Torbert, 2000) attempts to breathe a little more life into Table 1 and Figure 1 and the question of how to test CDAI theory in the midst of action. The case study, told in a third-person voice, describes an organizational consultant cultivating a special first-person attention in the emerging present, much like the woodcarver in the earlier story, and then using CDAI theory in the midst of second-person practice with an organization. The case shows the consultant exploring in a short ten-minute break toward the end of his first day at the company: (a) how each senior manager and the organization as a whole *descriptively* reflects CDAI theory; (b) whether using the theory *normatively*, by inviting each person and the organization as a whole to experiment with the successive developmental action-logic, catalyzes change and transformation toward greater awareness, mutuality, and sustainability in himself, others, and the organization; and (c) whether using the theory *analogically* across the scales of the individuals, the intervention event, and the organization pinpoints a particularly powerful type of collaborative leverage for transformation available at this particular time.

Here is how the story evolves:

A small software company has burned through its initial round of venture financing, with net revenues for its products not yet foreseeable on the horizon. The partners are seeking a second round of venture capital, and everybody at the company knows they must make a breakthrough in marketing and sales. Yet, this "bottom-line" negative feedback alone, as stark as it is, is not propelling the company into a new operating pattern.

An organizational consultant who takes a CDAI approach is invited to help the company over a two-day period. He approaches the assignment with the sense that he must discover what disharmonies among the corporate dream, the leadership's strategies, and the day-to-day operations account for the company's continuing losses. But more than this, he must discover a positive way to reframe or restructure the situation with the leadership and company members, so that they become motivated to correct the disharmonies.

The consultant interviews the top management (the president and the three vice presidents for production, marketing, and sales) of the computer software company, which numbers 35 employees in all. The president is a generation older than the three vice presidents, and the company is a partnership between the president and one of the vice presidents. Together, the two of them developed the initial product.

In the following three years, the company has produced a large number of high-quality products, but they are not selling well. The consultant discovers numerous problems that have remained unresolved for a long time. Neither mission nor market is well defined. Pricing is a subject of acrimonious controversy. Employee morale is fragile because it is unclear whether competence or cronyism is the basis for rewards. Decisions are not driven by any internal sense of mission; they are made only when situations deteriorate into external emergencies.

The bottleneck in decision making appears to be the relationship between the two partners. They respect one another and attempt to share responsibility as though equals. But they repeatedly fall prey to differences in age, formal role, and managerial style. The president plays the role of optimistic, benign, absent-minded father. The vice president plays the role of pessimistic, sharp, rebellious son.

Having interviewed the senior managers individually during the first six hours of his two-day visit, the consultant is next slated to meet with the two partners to set the agenda for the next day's senior management retreat. But based on what he has heard, the consultant fears that the agenda-setting session may itself fall prey to the partners' well-intentioned wrangling.

In his 10-minute walk around the outside of the building prior to the session, the consultant engages in a first-person research/practice of intentionally bringing his attention first to his breathing and then, following that, to the vividness of the outside world, then to his feelings, and, only when he has established an ongoing circulation of attention, to what he now knows about the company. First, he becomes clear that the partners' pattern of behavior must change before any other productive decisions are likely. Next, he applies developmental theory to the individual partners, to his two-day intervention itself, and to the company as a whole, to help him generate design ideas for his meeting with the partners… only moments away.

Applying the developmental theory to each of the partners as individuals, the consultant estimates that the vice president is in transition from Expert to Achiever, both itching for and resisting the true executive responsibility that a person at the Achiever action-logic relishes. The consultant estimates that the president is in transition from Achiever to Strategist, ready to give up day-to-day executive responsibility in favor of an elder statesman role of mentoring his junior partner and godfathering the company's research and development function (indeed, the president has spoken wistfully of his preference for the VP R&D position).

Applying the developmental theory to the company as a whole (refer to Table 1), the consultant sees the organization as spread-eagled across the fluid, decentralized Investments and Experiments action-logics, still living off venture capital on the one hand, while on the other hand experimenting with a whole line of products. At the same time, the company is failing to "bite the bullet" and meet the limiting, centralizing, differentiating demands of the Incorporation action-logic – the demand, in short, for net revenues.

Applying the developmental theory to his own two-day visit, the consultant interprets the initial interviews as the Conception action-logic of the intervention. In this light, the agenda-setting session with the two partners may represent Investments – in particular, how much investment each of the three leaders in this meeting is willing to make in truly experimenting with new ways of working together. If so, the question is how open is the consultant himself to restructure his consulting style at this point from a more passive, receptive interviewing process to a more active, intervening process that highlights both the consultant's own investment in the process and the new investment the partners must be willing to make in decisiveness, if they are to achieve the major changes necessary in the organization as a whole. Looking ahead to the following day, the consultant also feels that binding decisions need to be made there and then in the spirit of the Incorporation action-logic. Analogically, the two partners, the company as a whole, and the senior managers and the consultant must act conclusively in the next day.

In this Incorporation action-logic spirit, the consultant first decides to recommend at the upcoming agenda-setting session that only the partners and the consultant participate in the next day's retreat and that whatever decisions the partners reach the next day be put in writing with definite implementation dates. As for the agenda-setting session itself, the consultant's reasoning leads him to ask how he can reframe the partners' expectations and pattern of behavior from the very outset of the agenda-setting session. In their initial interviews earlier in the day, both partners have used the image of ballots to describe their relative power within the company. The president, referring to their equal salaries and to his style of consulting his partner on all significant decisions, speaks of the partners as holding "ballots of the same size" in company decisions. The vice president, however, spoke of the president as having the larger vote. The consultant now reasons that if the two switch their formal roles, at least for this one day, the (erstwhile) president should still see their votes as equal, while the (erstwhile) vice president should see his vote as having become larger. Thus, the twosome should be more powerful, especially since the junior partner will now be in a proposing role rather than an opposing role. Moreover, the new roles should be more appropriate to each partner in terms of helping each to move to a wider action-logic. More immediately, the mere fact of having the two officers reverse roles for the agenda-setting meeting and the day-long retreat should alter their usual dynamics and put them into the serious-role-playing posture of simultaneous rehearsal and performance conducive to action inquiry. (All these images occur in much less time than it takes to read about them in this paragraph.)

Of course, the consultant himself will be in a similar posture as he makes this unexpected suggestion (and of course the partners won't necessarily agree!). As he walks into the room where he and the partners will now be meeting, the consultant is reminded of the analogy between the kind of Incorporation action-logic initiatives he is now planning and the hexagram in the Chinese *Book of Changes (I Ching)* named *Biting Through Energetically.*

He arrives two or three minutes early, viewing himself as the host of this meeting, just as the partners are his hosts at the company. It can be a meeting of three peers. He arranges the three chairs in a triangle, without a table between them, and sits, facing the door through which the partners will enter. Leaning forward in a relaxed position, with his hands on his thighs, he exhales thoroughly, then draws in his hara three or four times before his next longer and deeper and quieter inhaling, followed by an equally long exhale, and now perhaps 7 or 8 clenchings-in-of-his-hara, and a third turn. *His* challenge in this meeting, he realizes, is to "bite through" and invite the partners to *collaboratively* "bite through" the norms that paralyze their action-taking capacities.

The consultant begins his feedback/agenda-setting session with the two partners by proposing that the vice president either resign or become president. This puts the vice-president in the action role right away, rather than his usual role of reacting to the president. Although quiet, the president seems to smile slightly, ready to play whatever this game may be. On the other hand, true to his customary "opposing" role, the vice president objects to "rehearsing" as president. "It's fake." "Oh, you don't believe you could be or ought to be president?" asks the consultant. After considerable further probing by the vice president, the two senior officers agree to play this serious game.

Now the vice president (in the role of the president) acts decisively rather than reacting combatively. He and the consultant propose various changes, with the president (in the subordinate role) making constructive suggestions and raising questions. The two partners reach written agreement on six major organizational changes the next day. The first of these is implemented at lunch that day. The vice president for sales is invited to join them. The partners discuss the major changes they are considering, and ask him to accept a demotion. He agrees, expressing both his disappointment that he has let the company down and his relief that his duties will be more circumscribed (why this turns out so well is explored further in the version of this case presented in Torbert & Associates, 2004). A month later, all the changes have been implemented. Two months later, the company completes, six months ahead of schedule, a first-of-its-kind product for a definite and large

> market. The company fails to get a second round of venture financing, but sales revenues begin to exceed costs for the first time in the company's history due to the new product.
> In the meantime, the vice president decides *not* to become president. The president stipulates that henceforward he will draw a higher salary and exercise the managerial authority of CEO on a day-to-day basis.
>
> Another three months later, the vice presidential partner decides he wishes to become president after all and negotiates the change with the other partner.

This case illustrates how CDAI becomes a first-person research/practice for a consultant engaged with his client and how that, in turn, generates a second-person action inquiry process among the senior members of a company who, in turn, transform the way the company operates, even though the partners and other members of the company themselves, in this case, remain unaware of developmental theory. CDAI theory predicts that a consultant's intervention (or a CEO's leadership) is increasingly likely to encourage organizational transformation if the interventionist is operating at the later action-logics (Strategist, Alchemist, Ironist) where one engages in action inquiry increasingly intensively and becomes increasingly open to double- and triple-loop feedback. (In this case the consultant was measured at the Alchemist action-logic.)

Of course, the claim that the company has transformed is based on rather impressionistic (but also, we argue, relatively plausible) bits of data: generating net revenues through sales for the first time; and more sharply differentiating, assessing, and adjusting leadership roles. Moreover, because this is only one case, we have no statistical way of testing the general validity of our causal attribution: that the consultant's intensive use of both the theory and practice of CDAI at the Alchemist action-logic is the independent variable that leads to the eventual organizational transformation. This hypothesis we became able to test statistically sixteen years later after an eight-year study of ten organizations during which the action-logics of all ten CEOs and all four consultants were measured, as well as the transformations (or lack of transformations) in each organization. We now turn to a description of that study.

A Quantitative, Third-Person Study of Organizational Transformation in Ten Cases

The foregoing consultant and three others each engaged for many years in various forms of first- and second-person research/practice of the sort described in the prior example prior to taking organizational consulting roles with the ten organizations included in the third-person study presented next. This study was first published in clinical, case detail in Fisher & Torbert (1995), then with statistical results in Rooke & Torbert (1998), and most recently with an expanded analysis, including new clinical and the quantitative results in Torbert & Associates (2004).

Here, we offer a brief overview of the quantitative study in particular, first as an exemplar of how first-, second-, and third-person research/practices can mutually interweave, and second in order to help explain why triangulating in this way is likely to explain more of the empirical variance than third-person-research-only studies. This study tests the empirically confirmable or disconfirmable proposition, derived from developmental theory (Torbert, 1987, 1991), that only persons who transform to the Strategist action-logic or beyond reach the capacity to reliably support organizational transformation. This is so because only at these late action-logics do people regularly (and more and more intensively) inquire about and transform their own action for greater efficacy, and also because only at late action-logics do people seek to exercise shared-commitment-enhancing, mutually-transforming powers, not just unilaterally-forcing types of power that gradually erode others' trust and commitment.

To determine the center-of-gravity action-logics of the key individual players, the 10-organization study uses one of several measures derived from Jane Loevinger's Washington University Sentence Completion Test and adapted to work settings and leadership issues by Cook-Greuter and Torbert. These three closely related measures are Cook-Greuter's (1999) Mature Adult Profile, Harthill's Leadership Development Profile, and Torbert's Global Leadership Profile (see Herdman & Torbert, 2010, and Torbert & Livne-Tarandach, 2009 for reliability and validity studies of the measure). In the 10-organization study, five of the ten organizations' CEOs are measured as performing at relatively early action-logics (1 Diplomat, 2 Experts and 2 Achievers). It measures the other five CEOs and three of the four consultants as performing at the Strategist action-logic, and the fourth consultant as enacting the Alchemist action-logic. Table 3, below, summarizes the data from the study.

The four consultants worked in different combinations with the ten organizations for unusually long periods – an average of 4.2 years. Using various additional data sources, including organizational growth and profitability, customer and employee satisfaction, reputational measures, archival data, and "thick descriptions" (Geertz, 1983) of longitudinal cases, as well as a measure of organizational transformation to be described, the study calls itself a "retrospective field quasi-experiment" (Rooke & Torbert, 1998: 16).

Business and reputational measures showed that seven of the ten organizations improved dramatically during the intervention/studies, while the other three declined either mildly or dramatically. Based on the thick descriptions of the individual cases, three raters achieved perfect reliability (1.0) in scoring whether each organization transformed, remained at the same organizational action-logic, or regressed (they also achieved .90 reliability in agreeing how many transformations occurred in each organization). During the ten consulting interventions, the seven economically-and-reputationally-successful organizations all transformed (sometimes more than once) to later organizational action-logics. The three remaining organizations either remained at the same action-logic or, in one case, regressed. The initial main findings were that: (a) The five CEOs at the Strategist action-logic or beyond all supported positive organizational transformations and increased business success; and (b) by contrast, three of the five CEOs at earlier action-logics were associated with lack of transformations and even organizational regression and business failure.

The CEOs' action-logic accounted for a statistically significant 42% of the variance in whether the organization positively transformed (Spearman's rank order coefficient rho=.651, one-tailed $p<.05$). Cohen (1983) classifies a "large effect size" as one that accounts for 25% of the variance in a correlational test (that is, $r=.50$). Thus, a test that accounts for 42% of the variance, as this one did, represents an unusually robust empirical finding. Moreover, if one adds together the action-logic scores for the CEO and the lead consultant in each effort at organizational change the resulting correlation accounts for 59% of the variance at the .01 level of significance (Torbert & Associates, 2004). The increase in percentage-of-the-variance-explained in the later analysis is due to the fact that the one Alchemist action-logic consultant led the only two engagements when pre-Strategist CEOs were associated with positive organizational transformation. In short, in these ten cases the developmental action-logic of the CEOs and their lead consultants emerged as the single largest cause in whether or not the organization transformed.

The foregoing study appears to offer powerful, quantitative confirmation for CDAI theory, practice, and method. But no critical reader will want to accept such results at face value. The critical reader will wish to inquire in greater detail how this "small-*n*" study coped with various potential threats to the Empirical Positivist, third-person, quantitative conception of validity-testing, and how it holds up against additional and different standards of validity associated with first-, and second-person research/practices, that we will presently adduce from the varied and dispersed social science literature on validity (Scheurich, 1997).

Table 3: Ten Organization Study Size & Type of Organization, Consultant Relationship, CEO Developmental Stage, and Organizational Transformation

Type of Org'n (For-profit/ Not-for-p)	Size (# of employees)	**Length & Type of Consulting Relationship**	**Lead Consultant's Action-Logic**	**CEO Action-Logic**	**Organizational Transformation?** (+ =yes; 0 =no change; - =regression)
1. Not-for-profit	325	5 years consulting & board	Alchemist	Strategist	+ from conception to collaborative. inquiry
2. For-profit	43	6 years consulting & board	Alchemist	Strategist	+ from incorporation to collaborative. inquiry
3. For-profit	10	7 years consulting & management	Strategist	Strategist	+ from conception to experiments
4. For-profit	732	15 months consulting	Strategist	Strategist	+ from systematic productivity to collaborative. inquiry
5. Not-for-profit	627	6 years consulting & management	Alchemist	Strategist	+ from experiments to collaborative inquiry
6. Not-for-profit	847	5 years consulting & board	Alchemist	Expert	+ from experiments to collaborative inquiry
7. For-profit	183	2 years consulting	Alchemist	Achiever	+ from experiments to systematic productivity
8. For-profit	1019	2 years consulting	Strategist	Achiever	0 systematic productivity
9. Not-for-profit	584	4 years consulting & management	Strategist	Achiever	0 systematic productivity
10. Not-for-profit	481	4 years consulting	Alchemist	Diplomat	- regression from collaborative inquiry to incorporation

Testing the Third-Person, Internal and External Validity of the 10-Organization Study

Validity criteria that test the third-person generalizability of empirical findings "after-the-fact" are enumerated and described relatively exhaustively by Cook and Campbell (1979). Their conceptualization of validity has two general components, *internal validity* and *external validity*, defined as follows:

> Internal validity refers to the approximate validity with which we infer that a relationship between two variables is causal or that the absence of a relationship implies the absence of cause.
>
> External validity refers to the approximate validity with which we can infer that the presumed causal relationship can be generalized to and across alternate measures of the cause and effect and across different types of persons, settings, and times. (Cook & Campbell, 1979, p. 37)

Cook and Campbell (1979) list 19 different potential threats to internal validity and 13 different threats to external validity. They suggest that researchers focus on the threats most likely to have a significant effect on the validity of their work. We will, therefore, here address only the most salient threats to the validity of the Rooke and Torbert (1998) study. (In Cook and Campbell's terms, the study is best described as a *nonequivalent control group quasi-experimental design*, whose “treatment” is the presence and action of a CEO and lead consultant at the Strategist action-logic or later and whose “effect” is organizational transformation.)

The most significant threats to internal validity in such a study are the *interaction of selection and maturation*, *instrumentation*, *local history*, and *threats to statistical conclusion validity*. And the most significant threat to external validity comes in the form of *insufficient construct validity* (Cook & Campbell, 1979). Another important threat to the external validity of the study would appear to come from the *small sample size*.

Let us start at the beginning. The internal validity threat of selection-maturation would arise in the Rooke and Torbert (1998) study if Strategist action-logic CEOs happened to be associated with types of organizations that had growth patterns systematically not encountered by the types of organizations headed by CEOs at earlier action-logics. In such a case, it could well be that extraneous causes, not CEOs’ and consultants’ action-logics, would account for the organizations’ transformation. In the Rooke and Torbert study, however, there was considerable variety: 1) in the size (10-1,019 employees, average=485); 2) in type (5 for-profit / 5 not-for-profit); and 3) in line of business (investing, automobiles, energy, consulting, education, health care). Moreover, the successes and failures in organizational transformation are not associated with any of these variables (e.g., two of the three organizations that failed to transform were not-for-profits, but three of the five not-for-profits succeeded in transforming).

The threat of *instrumentation* arises when there are scaling problems with the measurement of the dependent variable (organizational transformation, in this case)… such that changes are more likely to be measured in one group than the other. Looking, we find differences in the baseline action-logics of organizational development of the different organizations, and we find that the three organizations unsuccessful in transforming were among the four organizations in the study that began at the Systematic Productivity action-logic (see Table 2). At first, this seems to suggest that the coding scheme the raters employed may not be sensitive to transformations above the Systematic Productivity action-logic, or that such late-action-logic transformation is much less likely to occur than transformations through the earlier action-logics (and all this could be explained as statistical regression toward the mean). However, a closer look reveals that six of the seven organizations that were coded as having transformed actually progressed to the Collaborative Inquiry organizational action-logic (beyond Systematic Productivity), thus showing that the dependent variable was in fact sensitive to such transformations and that they do occur with some frequency.

Another credible threat to internal validity, *local history*, is troublesome if there are events that only affect the experimental group and not the control group. Here, there were ten experimental groups of somewhat varying developmental configuration and no control groups, one might say. Or, one might say, there were five experimental groups (the five organizations with Strategist CEOs) and five non-Stategist-led control-group organizations. As far as we can tell, this threat of *local history* is substantially eliminated by the variety in geography (multi-national), industry (six industries), and market niche of the ten organizations in the Rooke and Torbert (1998) paper.

Lastly, *threats to statistical conclusion validity* also endanger the internal validity of studies in the Empirical Positivist tradition. Statistical conclusion validity concerns our ability to determine statistically significant (within a specified α level) co-variation between our independent and dependent variables (Cook & Campbell, 1979). In the focal study, the threats to statistical conclusion validity were minimized since the authors used the Spearman rank order test, which is the appropriate nonparametric statistical test, and found results that were statistically significant at the .01 level. (Note that nonparametric tests make fewer assumptions about normality of the distribution and interval distances between numbers, and that they are therefore less likely to make false assumptions.)

With regard to *external validity* of the measure of a person's leadership action-logic, Rooke and Torbert's (1998) detailed discussion of the history of reliability and validity studies of the sentence completion measure at that time, thus minimizing many of the threats to construct—and also, by definition, external—validity. A decade later, additional reliability and validity studies of the measure have further demonstrated its reliability and validity (McCauley et al, 2006; Torbert & Livne-Tarandach, 2009; Torbert et al, 2010).

The construct validity of the organizational action-logics can be claimed, less voluminously and less conclusively, on three grounds:

1. by the theoretical analogy between personal and organizational development (as shown in Table 1);
2. by the clinical usefulness of the developmental theory for organizations to the consultants themselves and their clients during their interventions (e.g., the consulting case offered

above; see also Fisher, Rooke, & Torbert, 2000, chapters 8-10, for thick qualitative descriptions of numerous interventions using CDAI); and

3. by the high inter-rater reliability achieved by the three coders in this study (again, 1.0 on whether and if so, which way, an organization transformed; and .90 on the exact number of transformations in each case).

But what about the *small sample size* in the 10-organization study? Isn't that a huge barrier to claiming that the results are in any way externally generalizable to other organizations? *(It's always been amazing to me how it's the quant jocks that jump in with these objections first, even though they're the ones who ought to know better.)*

In fact, the answer is "No." The small sample size did introduce a slightly higher risk of a Type II error (falsely rejecting a valid finding), since the statistical power is slightly less than the conventional .80. But this small-sample-size effect would have affected the interpretation of the results only if a significant correlation had *not* been found. What a small sample that explains a high percentage of the variance indicates is how powerful a causal factor the independent variable is, for almost every recorded case must align with the hypothesis. Put differently, what an *n* of 10, accounting for 59% of the variance at the .01 level of statistical significance means is just the same as an *n* of 1,000 at the .01 level of statistical significance – namely, that the hypothesis is confirmed, with less than one in a hundred chances that the inference is in fact false. Put yet again differently, if the *n* had been 1,000 and the result had achieved the .01 level of statistical significance, then although the hypothesis would still be confirmed, the independent variable (CEOs' & consultants' action-logic, as measured by the LDP) might have accounted for a much lower percentage of the variance in the dependent variable and would therefore not have been demonstrated to be as powerful a causal factor as it has been demonstrated to be in this study.

At the same time, however, it is important to remain cautious about the generalizability of the findings in two regards. Since the largest business unit in the study had 1,019 employees, we cannot know whether the findings will hold for Fortune 500 size. Also, the organizations in this study, whether for-profit or not-for-profit, are all productive, economically-oriented, work organizations; hence, the findings may not be representative of all types of organizations (e.g., spiritual organizations, temporary political campaign organizations, families, or government agencies). On the other hand, the results should be generalizable to the more than 95% of business and competitive not-for-profit organizations that have 1,000 employees or less.

Other Third-Person Validity-Enhancing Criteria

Cook and Campbell (1979) are not the only authors who have addressed the validity of third-person research. For instance, Lincoln and Guba (1985) have advocated for methods that are likely to positively increase the validity and trustworthiness of objective social science, rather than explicating lists of threats to be minimized. The qualitative validity-enhancing methods that Lincoln and Guba recommend include:

1. conducting prolonged engagements;
2. engaging in persistent up-close observation; and
3. triangulating sources, methods, and investigators.

Let us review briefly how the Rooke and Torbert (1998) CDAI action/ research in the 10-organization study fares in these terms.

1. the engagements were certainly prolonged (4.2 yr.s on average), with
2. persistent observation (the four participant/ consultant/ researchers intensively engaged at least the CEOs and the top management levels);
3. the researchers triangulated methods (by using an extensively validated psychometric measure to test the developmental stage of the CEO and many members of the top management teams and the consultants as well as using wide-ranging business indicators, interview data, and meeting-behavior data to make assessments about organizational development and success. The use of multiple coders who displayed a high level of inter-rater reliability also increased the credibility of the assessments. In terms of the 27 "flavors" of action research [Chandler & Torbert, 2003], the organizations that successfully transformed engaged in as many as 15 different kinds of action research).

These validity-enhancing postmodern interpretivist features of the study suggest that it produced credible findings and predictions (reinforcing the empirical positivist validity test findings described in the previous pages). Note that the researchers' intimacy with the data is generated by the fact that they included themselves within the experiment and collected data on themselves as well as the other subjects.

First- and Second-Person Validity Testing and Enhancing Methods Applied to the 10-Organization Study

While Lincoln and Guba (1985) do address the objective, third-person aspects of qualitative validity, they also emphasize the techniques used to increase the trustworthiness of research by attending to the second-person aspects of research. Two additional, key techniques that they propose are (a) *peer debriefing* among researchers as a qualitative external check on the inquiry process; and (b) *member checking*, or direct testing of findings and interpretations with the human sources from which they have come. In Rooke and Torbert's (1998; Torbert & Associates, 2004) 10-organization study, we find a high degree of both *peer debriefing* and *member checking*. By engaging each other as mutual co-researchers, the four consultants would repeatedly (at every possible break when directly engaged with clients) seek each other's (dis)confirmation of the validity of their actions. Moreover, *member checking* is a vital, ongoing feature of research in the CDAI paradigm. All senior management members in the ten organizations who agreed to take the developmental psychometric measure were offered feedback about the results, along with careful inquiry about the participant's sense of the validity of the result (further *member checking*). Seven of the ten CEOs had estimated themselves at the same action-logic as the LDP found; the rest agreed after discussion and further clinical debriefings of later action episodes. In a later study, we offer an example of a case when member checking about the LDP rating led to a change in both the member's estimate and in the researcher's view (McGuire, Palus & Torbert, 2007).

More generally, theories related to first- and second-person research encourage on-the-spot and at-the-moment validity tests. Thus, the first-person theory of "four territories of experience" (Torbert 1973; Torbert & Associates, 2004) permits any of us to test how many territories of experience our awareness is embracing (the outside world, our own sensations as we know them from within, our own thoughts and feelings, and the dynamics of the attention itself) anytime we choose to investigate. Likewise, the second-person theory of four distinct, but interweavable speech acts that generate increasing efficacy as they are interwoven permits any of us in conversation the potential to test which we are missing as we are speaking (the four speech acts are named framing, advocating, illustrating, and inquiring [Torbert, 2000b; Torbert & Associates, 2004, ch. 2]). (Argyris' version of action science [Argyris, 1993; Argyris, Putnam, & Smith, 1985] offers a challenging discipline for going beyond mere *member checking* to testing whether the entire quality of interpersonal dialogues is such as to increase or decrease the likelihood that one is learning the most significant valid information available. Currently, increasing attention is being paid to the validity of intersubjective, second-person, "during-the-act" research [Bradbury & Lichtenstein, 2000; Heron, 1996; Reason & Bradbury, 2001; Torbert, 2000b].

Let us explore further, into the realm of second-and-first-person criteria of validity. In her article "Validity after Poststructuralism," Lather (1993) introduces four additional types of validity that have implications for first-, second-, and third-person research/ practice. Lather calls these qualitative, Postmodern interpretivist ways of enhancing validity: *paralogical validity*, *ironic validity*, *rhizomatic validity*, and *voluptuous validity*.

Paralogical validity, according to Lather, requires the researcher to develop methods that help her "unlearn her own privilege" (Lather, 1993, p680) and be open to multiple interpretations from the audience. Here, Lather uses the Lincoln & Guba categories of "peer debriefing" and "member checking" that we have already discussed above; so we will take this criterion as having been met by the ten-organization study, without further discussion.

Ironic validity, according to Lather, problematizes the existence of "truth." It invites the researcher, writer, and readers to question the foundations of their epistemologies (their assumptions about what knowledge is and how to tell the difference between truth and error). For example, our two stories earlier (the 1st-person story of woodcarving and the 2nd-person story of consulting [told in a 3rd-person voice]), hopefully suggest arenas and voices for scientific truth-seeking that problematize the impersonal tone regulative of most of this article and of Empirical Positivist descriptions of studies in general.

In addition, developmental theory itself, properly understood, should problematize each person's sense of truth. For, in studying the theory (e.g., Kegan 1994, Torbert, 1991, Wilber, 1999) we come to recognize that, no matter what our action-logic, all our perceptions and conceptions are framed by assumptions that *only a minority of other people share*. How come any of us is so sure?

A third example of *ironic validity* is found in the hypothesis of the Rooke and Torbert (1998) study:

> CEOs whose cognitive-emotional-sensory structure recognizes that there are *multiple ways of framing reality* and that personal and organizational transformations of structure require mutual, voluntary initiatives—*not just single-framed hierarchical guidance*—are more

> likely to succeed in leading organizational transformation. (Rooke & Torbert, 1998); underline in original, italics added)

In other words, the ironic proposition of the ten-organization study is: leadership that relies primarily on unilateral causal power based on the leaders' “truth” is less likely to cause organizational transformation than leadership that “listens into the dark” beyond its current version of truth (because that leadership, based more on inquiry-in-the-present and mutually-transforming power than on unilateral power, is attuned to generating mutual causality and outcomes better than anyone's unilateral truth would have predicted at the outset).

Rhizomatic validity, Lather's third type of validity (in analogy with the underground stems and aerial roots of rhizomes), fits jigsaw-puzzle-like with the mutual-power idea just mentioned. *Rhizomatic validity* requires the maintenance of contradiction by a listening and a reportage that both reflects, and is itself an instantiation of, the unexpected emerging present in all of its multi-voiced contradictoriness. In the ten-organization study this form of validity was enhanced by interviewing all members of the senior management teams early in the consulting processes before the consultants developed other preconceptions, with feedback to each member shortly afterwards of the verbatim (anonymous) comments of his or her peers, so that each "heard" the raw, possibly discordant voices of all one's significant others. The teams were then offered a non-compulsory opportunity to reflect on that feedback with those same peers. Usually, the first to volunteer was the person who had received the most unexpected negative feedback. Thus, that person, usually the most discordant and disliked before, suddenly became the most transparent and vulnerable, therefore playing a big role in setting a new norm of testing differences of perspective early and often in the subsequent organizational transformation effort.

Yet another example of *rhizomatic validity* (and, more generally, of 1st- and 2nd-person research/practice written up for a 3rd-person audience) is the book *Action Inquiry* (Torbert & Associates, 2004). It is full of vignettes, analyses, and action experiments described *in the voices of many different protagonists holding many different interpretive frameworks* (different action-logics). Lastly, to pick an example closer to your (the reader’s) current experience: we expect that different readers may be touched by different "moments" of this article, while feeling indifferent to, or alienated from, other sections… member check invited!

Voluptuous validity, Lather’s fourth and final type of validity-enhancing method, *voluptuous validity*, increases when the researcher is both engaged and self-reflexive in the study, not distanced and detached. Indeed, Lather “goes wild” here, espousing such engaged and self-reflexive practice “to the point of leaky, runaway, risky practice” (Lather, 1993, p. 686). A neophyte musician is encouraged "to play the difficult passages and mistakes loudly," in order to hear the mistakes better and to learn faster. Based on the earlier example of freefall carving and writing, would you call those practices runaway, risky practices? (I might call them more self-reflexive, disciplined dances.) Would you say that the practice of the consultant in the case study of the software company presented earlier (e.g., when he asks the two partners to switch organizational roles) exemplifies risky, engaged self-reflexivity? In any event, the landscape and the writing style provided through first- and second-person verbal and written action research descriptions surely promise to be slightly livelier, or at least less dessicated, than the traditional third-person peer-reviewed academic-research-journal article.

The notion of *voluptuous validity* offers a final opportunity to state why the LDP, based on CDAI theory, is so successful at pinpointing which CEOs and consultants successfully support organizational transformation in the ten-company study: *each later action-logic is increasingly open and committed to integrating action and single-, double-, and triple-loop inquiry* ("listening into the dark" "engaged and self-reflexive at each moment of practice"). *This increasing frequency of listening into the dark is likely to increase the frequency of timely, transforming actions and organizational results.* Because the CDAI paradigm at its core understands and enacts power as primarily mutual, and only secondarily and usually less effectively as unilateral… And because the vast majority of organizational members in all contract-organizations today operate at action-logics that treat unilateral power as real-er than mutual power… Organization-members' behavior will initially tend to be heavily influenced by whom they regard as having the most conventionally-tamed unilateral power (e.g., a CEO or a lead consultant to an organization-wide strategic-action). Such CEOs must be able, by example, not just rhetoric, and through the liberating disciplines of timely action-projects, to lead mutually and thereby teach others to lead mutually as well. Exercising vulnerable, mutually-transforming power and inquiry in spontaneously timely action amidst others may constitute the essence of voluptuous validity.

Validity-threats that Apply to Positivist Research more than to CDAI Research

Once one commits in practice to first- and second-person action inquiry, some of Cook and Campbell's (1979) specific threats to internal and external validity are much less likely ever to become an issue in research theoretically and practically informed by CDAI. For example, Cook and Campbell (1979) address the threat of *hypothesis-guessing by subjects*, which is best avoided by making hypotheses hard to guess or deliberately giving subjects false hypotheses. These "remedies" (utilizing uninformed researchers and lying to subjects) are neither attractive, nor regarded as ethical in paradigms after the action turn, like cooperative ecological inquiry and Developmental Action Inquiry. Paradigms after the action turn invite researchers to test the efficacy of their own actions and assumptions with peers (Kahane, 2010; Senge, 1990; Scharmer, 2007; Torbert, 2000b), and invite all involved in the research to become "observant participants" (Torbert, 1991) who seek mutuality and trust through their actions and inquiries as one condition for the inquiry element of each timely action, as well as for the full mutuality necessary for successful relational and organizational transformations.

Another threat to the Empirical Positivist version of validity that applies much more lightly to CDAI is the threat of *experimenter expectations*. This threat describes any situation in which the researcher taints the subjects with his or her experimental goals. To reduce the effects of this threat, Cook and Campbell suggest employing experimenters with no expectations or false expectations (Cook & Campbell, 1979: 67). Since the "experimenters" in paradigms after the action turn are sometimes also key actors in the experiment, providing them with false expectations seems likely to be considered stupid, as well as unethical, and less likely to lead to efficacy and validity than:

1. empowering all research/ participants to aim high for themselves and the community of inquiry as a whole in terms of new actionable learning;

2. creating exercises for all research/ participants to master performances synchronous with their own aims;
3. creating measures by which research/participants may estimate their own and the community's performance;
4. assuring the primary experimenter(s) operate(s) at a late action-logic (since action inquirers at late action-logics are the least likely to rely on expectations to begin with and the most likely to recover from false expectations the fastest by testing the validity and efficacy of their own and others' actions, theories, and assumptions in the course of the study); and
5. creating a context where the experimenter is motivated to help all research/participants equally (a condition the ten organization study meets because each organization was an independent, paying client and the division between experimental and control groups was made only analytically and only after the all the consulting assignments were complete).

A second way that social scientific research after the action turn combats the threat of *experimenter expectations* is by studying topics, such as adult development and organizational transformation in real time, as the 10-organization study does, where positive results are very desirable, but also very difficult to achieve. (Jane Loevinger, a self-confessed Expert and Empirical Positivist, once advised against using her original version of what now constitutes three-quarters of the items of the leadership-related sentence-completion measures in studies seeking to generate transformation… because, she said, she knew of no studies that showed anything other than "no change," like most educational-intervention research. [And at that time, given the pre-action-turn-methods used both in research and in intervention practice, she was right (Torbert, 1981)].)

A third way that social scientific research after the action turn guards against the distorting effect of *experimenter expectations* is by using measures that are difficult to cheat on, no matter what experimenter or participants expectations may be. For example, there is specific research to show that even when research subjects are invited to "cheat up" on the Loevinger sentence completion measure (forerunner of the LDP), they almost never succeed (Redmore, 1976).

Fourth, experiments after the action turn concern real-time events of vital concern to the research participants (e.g., the future of their careers and their organizations), so they are much less likely to abdicate power to researcher/ consultant/ interventionists who are not acting credibly or effectively.

Fifth, the primary researcher/ activists themselves (if they have developed to the Strategist action-logic or later and are attuned to the action-turn-spirit of acknowledging incongruities as a precondition for transformation) want to learn the truth about how and when their theories work or do not work in practice, since they want to increase their effectiveness in real-time in the future more than they want to fake results for the purpose of academic success.

> For example, in the Rooke and Torbert (1998) study the primary purpose of the third-person research project, undertaken after the first-and-second-person research-and-consulting processes had been completed, was *not* to prove the success of the approach in general, but rather *to learn more about why we clearly failed in certain cases. One way of generalizing what we learned is that, as consultants with the mission of helping small and*

> *mid-sized organizations transform constructively, when we encounter an organization whose CEO does not measure at Strategist or later, we ought to direct as much attention to testing the validity of that finding and to helping the CEO transform (or find a different role) as we direct toward helping the organization more broadly to transform.*

Testing the Comparative Validity of Two Paradigms

Having now reflected on the 10-Organization study and on the construction of this article as two opportunities to assess the various types of validity against which research in the CDAI paradigm can be tested, we next address the issue of the relative validity of the paradigm itself compared to a currently-legitimate scientific paradigm such as empirical positivism. Lichtenstein (2000), in a kind of review of research paradigms in management, reframed Taylor's (1992) characterization of paradigm transitions, arguing that there are three criteria by which it is possible to judge the relative validity of two paradigms. The criteria Lichtenstein proposes are:

1. whether the new paradigm is more comprehensive than the former;
2. whether the new paradigm can self-reflectively explain why it is more effective, and
3. whether the new paradigm adequately eliminates an erroneous finding of the previous paradigm.

By analogy, Lichtenstein shows how quantum mechanics is more valid than Newtonian physics with its ability to explain more (e.g., subatomic behavior), explain why it can explain more (e.g., providing the dynamic equation through which mass and energy transform into one another), and by correcting errors in the Newtonian model (e.g., using warped space-time to correct Newton's inaccurate predictions of planetary orbits). We will use these same criteria to adjudicate the validity claims of the CDAI meta-paradigm.

Is CDAI more Comprehensive than EP?

About the first criterion, asking whether the new paradigm (here, CDAI) is more comprehensive than other paradigms (here, EP), Lichtenstein (2000, p. 1352) writes:

> Models that are more inclusive of all aspects of science and of human nature would be more valid than those that focus only on scientific frameworks… For example, research models that take into account the subjective quality of human perception while at the same time using objective measures of perceived phenomena would be more inclusive than those that focus on either a subjective account or an objective one alone.

As we believe we have shown, action inquiry is distinctive in its call to integrate objectivity, intersubjectivity, and subjectivity -- through third-, second-, and first-person research/practice. According to this paradigm, the truth-quest is insufficiently engaged if we are solely concerned with retrospective views of patterns there-and-then; we can also attend to and question *our mutuality* and the *integrity* of *our* actions here-and-now, as well as the interplay among first-, second-, and third-person processes in the past, present, and future.

By contrast, EP privileges third-person objectivity with regard to the past, as well as single-loop, hypothesis-testing learning over all the other modalities of learning – the subjective and inter-subjective, the present and the future, the double-loop and the triple-loop, the in-action as well as the in-reflection.

Can CDAI Reflectively Explain its Wider Comprehensiveness?

The second criterion of the validity of new paradigms is whether the new paradigm polemically disregards the previous theory, or, rather, is self-reflective as to how and why it is more comprehensive. CDAI values EP third-person research/practice as an opportunity to be challenged by, and to challenge, others not directly involved in the research… as well as valuing the additional aspects of second- and first-person research/practice presented here. The proposition is that the paradigms after the action turn represent more valid social science in their ability, unshared and unsought by EP, to improve the efficacy and inquiry of the parties involved in the original research and action, while also seeking to inform (and even potentially catalyze transformation in) third-persons, *such as you, dear readers*.

Put differently, CDAI does not dichotomize objective knowledge from inter-subjective meaning-making and subjective action, as do paradigms before the action turn. Instead, CDAI theory explains how humans and science can develop from impulsive subjectivity, through critical objectivity, and then on into active, constructive, mutual, and inquiring intersubjectivity that integrates subjectivity and objectivity in an increasingly timely fashion…

Does CDAI Eliminate an Erroneous Finding of EP?

Lastly, a new paradigm can be considered valid if it corrects an error embedded in the previous paradigm. From our perspective, the fundamental error in purely third-person, uni-directionally causal social science theories and methods is that "objective truth," "inter-subjective meaning," and "subjective consciousness" become increasingly alienated from one another and the possible mutualities between mind and body, self and other, technology and nature (human, animal, vegetal, and mineral) become obscured. This alienation is reflected in (a) economic models that, bizarrely, treat the natural environment as a variable exogenous to the economic system, its goods free, our harm to it uncounted as a cost; (b) political models that offer no vision of vulnerable, mutually-transformational power; (c) medical models that focus almost exclusively on bio-chemical sources of disease and little on subjective and intersubjective sources; and (d) an even more general tri-furcation among the true, the good, and the beautiful -- objective science, intersubjective ethics, and subjective aesthetics.

When we examine all the validity assessments taken together, we see that Developmental Action Inquiry responds to three broad types of validity concerns, whereas Empirical Positivist research is concerned predominately with what we have classified as third-person validity criteria. Research/ practitioners engaged in CDAI test validity not only in third-person analytic terms primarily comprehensible to scientific communities, but also in the real-time action terms meaningful to, and usable by, second-person practitioner communities, as well as in terms of here-and-now, post-verbal, first-person awareness and action. Moreover, we have shown that CDAI avoids a fundamental source of error in EP, by including the researchers within the research and not trying to fool other research participants about the hypotheses. Of course, we are just at the outset of finding helpful ways to characterize first- and second-person validity testing and how to integrate first-, second-, and third-person research and action. Our efforts by no means claim to be exhaustive and final, but are rather no more than introductory and suggestive.

In any event, you, dear readers, can no doubt by now see what the most demanding challenge will be, if you who read about this approach wish to engage with, use, and master the CDAI awareness, theory, practice, and empirical assessment tools to further test how to generate personal, organizational, and/or scientific transformation. The most demanding challenge will be, *not* how to master developmental theory and assessment methodologies (though these are as complex, or more so, than many other social science theories and empirical methodologies). Instead, by far the most demanding challenge will be, *under what conditions and to what degree can you become sufficiently present in real-time to act in inquiring, mutual, timely ways?*

To become a mature social scientist in the CDAI paradigm requires personal development across one's adulthood toward later action-logics, through participation in organizations that move toward becoming real-time communities of inquiry, beginning as an aspirant and potentially transforming later to a peer, gaining increasing ability to relate, with both discipline and spontaneity, to an increasingly wide range of situations and worldviews, til one retires into the background of non-doing.

Conclusion

Collaborative Developmental Action Inquiry and Cooperative Ecological Inquiry—the social science paradigms theorized as embracing the action turn at the outset of this essay—are different from earlier paradigms in that their primary focus is on presencing inquiry for timely action amidst real-time interactions with others. CDAI, in particular, integrates first-person, adult spiritual inquiry and consciousness development in the emerging present with second-person, transformational, mutuality-seeking political action inquiry for the future, and third-person, objectivity-seeking social scientific inquiry about the past.

This essay is primarily a third-person form of social science, applying validity criteria to past studies. But it also points to the significance of first-person research/ practice that generates adult development of consultants and CEOs to the Strategist action-logic or later, if second-person organizations are to transform toward communities of simultaneous action and inquiry. We have attempted to illustrate how, in CDAI, first-, second-, and third-person forms of action and inquiry require and reinforce one another.

If our readers wish to test the validity of this paradigm further for its possible value in your scientific, organizational, or personal lives, we believe you will need and want, not only to read further in the literature cited, but also to explore how to engage directly in first-person and second-person research/ practice.

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The Arc from the Body to Culture: How Affect, Proprioception, Kinesthesia, and Perceptual Imagery Shape Cultural Knowledge (and vice versa)

Michael Kimmel[1]

Abstract: This essay approaches the complex triadic relation between concepts, body, and culture from an angle rooted in the empirical cognitive research of the past three decades or so. Specifically, it reviews approaches to how the body gives a substrate to and shapes cultural cognition. One main section examines how the body contributes to cultural learning and another how abstract cultural concepts and reasoning are grounded in sensorimotor experience, perception, and inner somatic states. Both sections' purpose is to survey and briefly critique different theoretical frameworks, probe into their complementarity, and summarily evaluate to what extent higher cognition is embodied. The third main section outlines elements of an epistemological framework that connects culture, concepts, and the body in a sensible way. The paper closes with a discussion of how the embodied cognition paradigm advances a rapprochement of different areas both within cognitive research and beyond.

Keywords: Affect, concepts, convergent evidence, culture, embodiment, imagery, senses.

Introduction

The cognitive sciences are currently witnessing a surge of research that integrates questions that traditionally were the prerogative of the social sciences and humanities. One cornerstone of this development is an anti-Cartesian view of the human body as a shaper of higher cognition, somewhat parallel to the much cited "body-turn" in the social sciences. A growing camp of cognitive scientists now emphasizes that cognition is not disconnected from the human body, but grounded in sensory percepts, affect and other inner somatic experience, as well as imagery and sensorimotor activations. The debate revolves around the catchwords "embodiment" (of language or thought) and "(perceptual) grounding" or "perceptual simulation". In this essay I will introduce empirical and theoretical developments of this field. The perspective applied takes into view the contribution of the body and bodily experience to cognition, thereby opening a compellingly fresh vista on ancient quandaries about the human condition bogged down by centuries of dualism and a general disregard for the body. Across academic disciplines contributions to this long-term paradigmatic agenda have cropped up, consolidated, and built up

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momentum towards a critical mass. The best indicator of "embodiment's" coming of age is a currently emerging theory net that combines methods as well as viewpoints, radiates outwards, and stimulates empirical research.

The paper's specific task is to demonstrate how recent research fundamentally reshapes our understanding of *cultural* concepts, reasoning, learning, and communication. In doing so, I will survey approaches from linguistics, psychology and anthropology that address these issues. I shall therefore deliberately insert the socio-cultural aspect into a triadic equation together with the body and cognition. This has a double implication: Researchers who understand culture as a generic property of being human use the notion of embodiment to emphasize that human knowledge is rooted not only in physical interaction with the world, but bodily mediated social intersubjectivity. A complementary viewpoint most typical of linguists and anthropologists investigates cultures (in plural), thus prompting questions like: "What is universal about the body and what varies?" and "How do human patterns of anatomy, locomotion, affect, etc. to the extent that they are transcultural, constrain or enable specific cultural manifestations?"[2]

We may begin with a couple of summary observations about recent theorizing that I aim to flesh out in due course, both as regards points of consensus and certain rifts:

1. Cognitive theory is moving away from a view of meaning encapsulated in the "mind". As the cognitive philosopher Mark Johnson succinctly formulates in an interview, a presently growing view sees meaning as "located in the complex, dynamic arc of interactions that includes brains, bodies, environments, and cultural artifacts and institutions" (Pires de Oliveira & de Souza Bittencourt, 2008, p. 45). Correspondingly, we are currently witnessing a growth of three overlapping research trends that focus on *socio-cultural, embodied,* and *collective/ distributed* cognition, respectively. With this triple turn away from the internalistic and disembodied orientation of past cognitive theory research is reaching a point where it is effectively "growing into" the agenda formerly thought to belong to the social sciences.

2. In the embodiment paradigm, my present focus, the body shapes human reasoning and it is a medium for acquiring conceptual skills. Thus, many recent theories bootstrap higher levels of cognition from basic perceptual and bodily skills. With this we have come to a better, although not full, understanding of abstract concepts. I propose that the foundations of abstract thought constitute a key site for our understanding of the relation between body and culture, particularly as they relate to the important but vague notion of ideological "superstructure". In this field, there is an essential complementariness between views that develop the compositional structure of complex schemas (i.e. morphology) and those that analyze the ontogenetic development of abstract ideas.

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[2] To anticipate a possible misunderstanding it should be noted that a large body of literature on cultural cognition either operates outside the embodiment paradigm (e.g. by positing propositional cultural schema, narratives, reasoning or argumentation patterns without a notable embodied aspects to them) or discusses phenomena that include embodiment, but go beyond it. It is not my present intention to review these, a task that would take a separate paper (see Shore 1996, Cienki 1999, Kimmel 2002, 2004).

3. Embodied cognition views abstain from pitting the body against culture. They agree that it is false to assume that abstract "metaculture" is remote from and ontologically set apart from the body, as many traditional accounts both in the cognitive and social sciences presuppose. Many recent analyses show that bodily constituents (e.g. schemas of verticality, path, or balance) become scaffolded to shape abstract concepts, abstract concept learning often happens via bodily practices, and so forth.

4. The precise relation between body and culture is more debated. It depends on whether we ask cultural phenomenologists, cognitive linguists, or cross-cultural psychologists, to name a few key positions. In my view, a unilateral determination of culture by a (universal) body does not match up with the joint weight of comparative research, although some approaches selectively emphasize this. We need to take scholars seriously who emphasize that inchoate body experience can be inherently cultural or that cultural models in turn filter and modulate what the body contributes to cognition. Starting from an inherently reciprocal causation between culture and body, our task is to work out the specifics and examine the relative contribution of each by domain in a cross-cultural view.

5. Embodied theorizing is still far from monolithic regarding the specific aspects of the body it focuses on. Even when we only look at abstract concepts bodily cognition can refer to anything from kinesthetic or spatial schemas used to build metaphors, via inner affects to subtly "simulated" sensorimotor action tendencies. In fact, various strands of research rarely interact at present. As one important future site of inquiry, I shall pinpoint two complementary, but seldom combined viewpoints. One of these asks how cultural concepts help us reason and create inferences, while the other asks how cultural concepts become motivational by creating qualitatively saturated somatic states that give rise to "embodied commitments".

The present challenge therefore lies in connecting various perspectives in a nuanced way. An integrative view should make space both for cognitive universals and cultural situatedness, allow for several types of embodiment (e.g. affective and perceptual simulation), and specify how methods and theories at different levels converge (e.g. abstracting and context-situated views). To do this, this paper must cultivate an epistemological sensitivity, while resting on the conviction that key issues like how universal the body is and how putative universals shape cultural ideas also decisively depend on data from as many fields and as many cultures as possible. This strategy alone will allow us to incrementally build domain-specific evidence, so as to avoid premature generalizations.

Here is the plan of the essay: The remainder of this section introduces what the "body" and "embodiment" mean and in reaction to which traditions the paradigm entered the arena. The second section discusses the body's role in cultural learning and, as a contested but decisive battleground, the nature of abstract concepts. Along the way a host of largely complementary empirical approaches to embodied concept analysis are surveyed. The third section identifies a number of epistemological challenges we face in connecting the triad "culture", "concepts", and "body" without succumbing to reductionisms (such as typically result from a narrow scope of research methods).[3] The concluding section traces the ways in which the cultural side of the embodied cognition paradigm calls into question disciplinary boundaries. It fosters a rapprochement between cognitive scientists, anthropologists, (social) psychologists, sociologists, and linguists, and beyond this may establish a genuine interface within a "vertically integrated" common architecture that reaches out to the humanities (cf. Slingerland 2008).

How Meaning Comes About

I would like to begin with the fundamental debate in the cognitive sciences that revolves around the general nature of meaning, and specifically about whether it is relative to our experience of the world perceived around and in us or whether it is relative to other concepts. This is called the "symbol grounding problem" after Harnad (1990).

Historically, the theoretical antipode to my later topic has its roots in Cartesian mind-body dualism and formal theories of symbol processing. The so-called symbolic cognition paradigm builds on the assumption that knowledge is independent of the "hardware" it is implemented on. It is just stored and run there via the manipulation of symbols and algorithms. Thus, the *mind-as-computer* metaphor reigns supreme. Concepts are understood as software that is "loaded into" the mental hardware, while their invariant bodily substrate does not otherwise affect the content or process. Reasoning is understood as symbol manipulation. By consequence, the paradigm focuses on mental processes that come about via "amodal" representations, such as a computer would use (cf. Fodor, 1975). Another key metaphor of this field makes reference to the surface level of language, by explaining abstract knowledge as linguaform. They strive to model meaning as *propositional structure*.

Structuralist theories of language hinge on equally disembodied assumptions. They regard linguistic meaning as defined in a self-sustaining semantic network where one conceptual node either cross-references to or sets itself off from another (e.g. "light" = "opposite of dark"). These nodes do not relate to perceptual experience, but operate in a purely symbolic mental currency. Such theorizing is not wholly absurd, as children observe regularities in the usage of concepts, and gather stochastic patterns about usage situations and co-occurring concepts without necessarily having a sensorial experience of what the concept in question refers to (which is impossible with abstract concepts). Structuralist theories have recently received fuel by computational approaches of word and text comprehension, which demonstrate with some success that co-occurring words can, at least in principle, go a pretty long way in defining meaning (Landauer & Dumais, 1997; Burgess & Lund, 2000). This works via high-dimensional matrices that are calculated from millions of word co-occurrences, whilst the software remains completely ignorant of the world and its actual appearance.

The social sciences have a long pedigree of accounts of disembodied ideational structure. The great theorists thought of ideology as devoid of moorings in sensory experience, i.e. a superstructure remote to the senses and body. When Marx posited that material being determines (ideological) consciousness, he may have had the right idea, but did not focus on bodily experiences as a key shaper of social practices or beliefs. Hence, theories prior to Bourdieu and

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[3] Note that I will avoid on purpose the debates on representationalism, objectivism vs. constructivism, and the mind-brain issue.

Foucault graft the Cartesian body-mind dualism onto a stratified architecture where disembodied ideational structures tower high above perceptual experience. Even today, mind-body dualism continues to make its mark in the cognitive analysis of cultural concepts. In psychology and linguistics, propositional structures are a classic way of explaining knowledge. For example, van Dijk (1980) inaugurated the analysis of complex narrative schemas by claiming that text elements incrementally become integrated into macro-propositions. In cognitive anthropology the traditional approach to cultural models like *illness* or cultural concepts like *mind* equally works with propositional networks (D'Andrade, 1976, 1987). The now very popular evolutionary epistemology paradigm stresses domain-specific principles (Hirschfeld et al., 1994) and construes them as organized by "hard-wired" modules for naïve biology, numeracy, essentialism, etc, that need not tie back to bodily experience, except for domains like naïve physics and the visual attribution of causality perhaps. Hence, many theories leave a troublesome gap with their neglect of the body.

Disembodied theorizing held sway, way into the 1990s. A now increasingly powerful countercurrent claims that, at some point, meanings have to refer back to the body, the senses, and what we experience of the world to really mean anything. This countercurrent made its appearance in various fields of academia that have become loosely associated since then. A share of current embodied views ultimately hark back to German Gestalt psychology (e.g. Rudolf Arnheim), albeit indirectly, to various older theories of metaphor (e.g. Giambattista Vico), to the phenomenology of the body (e.g. Maurice Merleau-Ponty), and to American Pragmatism (e.g. John Dewey) as well as, again indirectly, Empiricism (e.g. David Hume). On the whole the disenchantment with the dominant philosophical, linguistic, and psychological theories spawned the movement at several American West-Coast universities in the 1970s and 80s. Since its inception, a number of developments have contributed to the reinvigoration of embodied thinking in cognitive sciences:

- subjective methods such as phenomenology are reemerging again after having been rejected by behaviorism, including interesting new methodologies for tapping into lived experience (see below);
- powerful methods like fMRI scans or transcranial magnetic stimulation are becoming widely available (and more portable), thus paving the way for a better understanding of sensorimotor centers in the brain that feed into higher cognitive tasks like reading texts;
- clever experimental designs like recognition priming are being used by psychologists to tap into structures of the cognitive unconscious (like imagery underlying language comprehension);
- cognitive robotics has drawn attention to the body structures and sensory "kit" needed to perceive and act in a humanoid way;
- neuroscience heralds "mirror neurons", which were originally discovered in the brains of macaque monkeys, as the biological mechanism underlying mimetic bodily behavior; as well as
- findings from social cognition research and related disciplines demonstrates the importance of bodily interaction to human development (see below).

Provisionally defined, embodiment means that the "higher" realms of cognition associated with conceptual knowledge and culture, build on the "lower" levels of bodily knowledge. In this vein, my present aim will be to chart the terrain of approaches to the *embodied grounding of cognition* (for extensive summaries of the state-of-the-art see Gibbs, 2005; Pecher & Zwaan, 2005; Semin & Smith, 2008; Barsalou, 2008), i.e. the vertical architecture whereby our proprioception, kinesthesia, bodily affect, and the external sensorial apparatus inform cognition.

The Notion of the Body and Embodiment

As Violi (2008) points out, there is no unitary usage of the notion of embodiment. Many fields currently offer distinct approaches, which at best form a "theory net" of complementary elements and at worst, run the risk of creating misunderstandings. To avoid the latter we need to deal circumspectly with the notion. Embodiment theories are found at various levels and in varying disciplines, ranging from neuro-physiological and computational approaches, via approaches to a "cognitive unconscious" in linguistics and psychology, to more explicitly phenomenological views (Rohrer 2001). This also implies that the respective methods look at quite different phenomena from the (sub-)cellular level, via language and behavioral experiments, to social interactions in their cultural context.

The lynchpin of the argument, the body itself, is neither a self-evident nor a simple notion, despite appearances. When understood as a theoretical entity (as opposed to the mind, for instance), it is a construct of a complex sort. There is more than one way to understand it. What shows how much "body" is a construal dependent on cultural concepts of the body. The various medical traditions dramatically illustrate this. The Western bio-medical body is surely not the same as that of Traditional Chinese Medicine (TCM) or the numerous other ethnomedical traditions. It is not easy to detect the biological universal underneath the different views. This construal-dependency opens up the possibility that the underlying actual body experiences differ across cultures, a point I shall get to later (cf. Csordas 1994). In philosophical discourse theories also vary in scope. While some look at the physiological organism itself, others focus on the brain and central nervous system that monitor body states and action, and still others include the way the body extends beyond the flesh and outwards by interpenetrating with its spatial, social or other environment (cf. Pires de Oliveira & de Souza Bittencourt, 2008, p. 23). The latter position emphasizes the situatedness and relatedness of human cognition (cf. Bernardez 2008). When we look at applied perspectives, these set their sights on the body quite differently, ranging from phenomenological body experience ("the lived body"), via the body schema/ image as basis of personhood, as well as how the body perceives space and acts in it, to social theories about the body or metaphors of the body. In social science, too, we have seen a distinction between techniques of the body, the body as a source of symbolism, and the body as a locus of social power regimes (Scheper-Hughes & Lock, 1987). None of these perspectives is fully co-extensive with the other, neither notionally nor methodologically.

Next, how do we define "embodiment"? The expression suggests that something that appears to be in a way different from the body, such as the mind, is nonetheless shaped by it. The body with its capabilities for perception and action thus extends outwards into the realm of cognition. There are various ways of reading the claim that cognition is embodied.[4] An almost trivial version is that cognitive processes have a material substrate that cannot be ignored for understanding mental processes. Simply put, "mind" research can benefit from "brain" research.

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[4] Cf. Ziemke (2003) for robotics and Wilson (2002) for a broad picture of various surrounding disciplines.

Virtually everyone in the cognitive community agrees with this claim, although the emergence of mind from its material substrate is far from being understood. A stronger version of the embodiment claim is that the bodily substrate influences what a cognitive agent can do. At the level of perception, its structures and abilities constrain what can be meaningful, ultimately because organisms have developed cognitively in such a way that they can attune to their environments and meaningfully couple with them. They perceive in order to act or interact. Therefore there is no such thing as a neutral kind of percept. Because evaluations and potential motor actions are always implicated in perception, moving bodies can actively seek out percepts of useful kinds. These may have co-evolved with the environment and reflect an interaction history with it (*affordances* after Gibson 1979, see section 2). More radically, some authors such as Andy Clark suggest that we had best speak of *supersized mind* that extends out in its environment and requires “feedback, feed-forward and feed-around loops: loops that promiscuously criss-cross the boundaries of brain, body and world” (Clark, 2008, p. xxvii). The interactive nature of the body, in some views, actually makes concepts less representations of the world, rather than “control structures for the regulation of interaction with the external world” (Violi, 2008, p. 66). There are several noteworthy sides to “supersizing” that bear on the notion of culture: The exploitation of environmental structure is the basis for complex cognitive skills, as it allows cognitive offloading to *cognitive artifacts* which enable complex feats like *collective* and *distributed cognition* in teams (Hutchins, 1995). Even more fundamentally, cognition requires human interaction and intersubjectivity (Zlatev et. al, 2008) and “a complex, relationally grounded interpersonal social and cultural environment” (Violi, 2008, p. 73). To make this point, I shall later present Michael Tomasello’s approach to language learning and Daniel Stern’s work on the infant’s first developmental steps, both of which emerge from bodily interaction.

In the study of language and thought we again find embodiment claims of various strengths. Here, a developmental version of embodiment holds that sensorimotor knowledge in infant experience creates building blocks for concepts or helps to bootstrap them (Mandler, 1992, 2005; Johnson, 1987). A stronger version holds that conceptual states are accompanied by or constituted by real-time simulations of bodily states. Thinking, planning, and concepts do not involve any time-pressured action in a real environment (cf. Wilson’s 2002 notion of “offline” cognition); cognition is essentially simulative here and operates in an “as if” mode. Many recent studies have looked at such processes in language comprehension (Gibbs 2005). More generally this is based upon the idea that *modality-specific sensory systems* stand at the basis of cognitive processes (Barsalou, 2008). Variants of this basic claim include Damasio’s (1994) theory of emotion and self, Glenberg’s (1997) theory of memory, and Gallese’s (2003) theory of intersubjectivity, as well as forms of imagism by scholars like Lakoff, Johnson, Barsalou and Prinz that explain the representational content of concepts and will be discussed below in some detail.

Acquiring Culture through the Body

If we accept that the body is continuously shaped by living cultural lives, we can look at it as a culturalized substrate from which further aspects of cognition arise. What we need is a perspective on embodied cultural learning that addresses (a) procedural memory and sensory modalities as loci of learning and (b) specific patterns of bodily social interaction, including institutionalized practices. This section will, accordingly, discuss two strands of embodiment literature. One of these understands culture as a comparative and ethnographic notion, while another investigates how bodily communication, seen as a generic trait of the culturality of all *homo sapiens*, plays a key role in cognitive maturation. While the flavor of the former strand is more phenomenological the latter is more “cognitive”.

From “Habitus” to Cognitive Acquisition Studies

An early influential attempt to bridge the chasm between the body and the cultural, ideational realm was Bourdieu’s (1977) theory of habitus. He claims that cultural knowledge is acquired via practices and that day-to-day bodily performance forms the substrate in which ethnicity, class, and gender are enacted. Among the Algerian Kabyles, his ethnographic fieldwork site, formative experiences are written into the household, agricultural work, the usage of artifacts, postures, and habits. For example, he describes a gendered system of homologies that define postures, practices, and loci in social space. All kinds of spatial relations that are up and outwards directed are male, while down and inwards directedness is female. Learning thus largely bypasses explicit instruction; it occurs mimetically by watching elders and peers and is then reproduced in embodied performance. These enacted practices belong to a “cultural unconscious” that naturalizes certain behaviors and aims, while making others unthinkable. Despite Bourdieu’s promising turn to ground ideology in practice and despite his embodied programmatic, he falls short of a viable theory of cultural learning and cultural knowledge. No specifiable motor capacities are involved in his account, just a blank-slate body – a “living memory pad” (see Slingerland, 2008, pp. 95f). This leaves to be explained how bodily knowledge undergirds human cognition and how imagery, affect, motivation, and general-purpose schemas come into the process. Bourdieu makes do without explicit consideration of scaffolding, i.e. how skills are superimposed on earlier or more generic ones. Second, no real account is given of concepts; by disavowing (conscious) thought as locus of culture he makes it seem as if they play little role. Third, Bourdieu’s analysis privileges learning by observation and participation over other channels. His view of acquiring habitus by osmosis, as it were, is incomplete in that it downplays both special formative situations outside everyday occurrences (e.g. in ritual) and the role of discourse or other explicit instruction. Thus, although current sensorimotor theories of learning and representation fit with Bourdieu’s emphasis of the preconscious dimension and mimetic learning, his theory is only a starting point.

In Bourdieu’s wake, a study by Jackson (1983a, pp. 336f) on initiation rites among the Kuranko of Sierra Leone emphasizes that ethical values like moderation are transmitted through kinesthetic and sensory learning. Novices have to learn to *regulate* their body in various ways. Apart from emotion control and facial impassivity under pain, there are taboos on calling for food, speaking out of turn, moving, or crying during the operations which is connected to an ethos of keeping secrets and oaths, forbearance and circumspection. Time spent in a smoke filled house after the novices return from sequestration reinforces the ability to withstand hardship. Keenness of smell is correlated with the newly acquired quality of discrimination, while controlling the eyes is related to the newly acquired sexual proprieties and mindfulness of forbidden domains. Finally, the enforced confinement during initiation serves to instill self-restraint and self-containment. Bodily self-mastery is the precondition for social and intellectual mastery. Correspondingly, Kuranko metaphors for initiation refer mostly to the sensorimotor domain. Much like in Bourdieu’s view, learning by observation and imitation are emphasized as a key mechanism, but – like for Mead and Bateson (1942) who studied Balinese body habits – the assumed cultural dominance of the mimetic leaves room for other styles.

We find detailed acquisition models for embodied and perceptual knowledge in recent cognitive anthropological research with a developmental bent. For example, Toren (1993) shows how the symbolic and metaphoric dimension of placement in the social space of Fiji gradually develop in young children. Thus, from a bodily meaning that stands for itself space becomes symbolic of something other than itself. Similarly, Shore (1991) argues that the Samoan key concepts of *mana* and *tapu*, the first of which refers to the special potency of gods and chiefs while the second means "sacred", "marked" or "set aside", arise through embodied learning. This learning occurs in formative situations to which the concepts apply. Young Samoans begin to acquire these concepts through a position called *fata'i* which requires the young person to sit still in an upright position, with legs crossed, as well as with muscular control and a sense of containedness. The presence of a high-ranking chief is further associated with his central position and immobility as well as with salient features like size, brightness and shiny skin, which prototypically represent *mana*. In effect, *mana* and *tapu* manifest themselves in dance styles, gender styles, attributes of different chiefs, posture or rituals. In that sense the account is Bourdieu-like, but adds a conceptual dimension. The embodiment-induced concepts thus integrate complex proprioceptive and multisensory perceptual schemas from several settings that come to be associated with "awe" or "luck". Another important case study by Shore (1996, pp. 258f) claims that cultural knowledge with a key status will be coded both in procedural (sensorimotor) and semantic memory to become "a total cognitive fact". In the walkabout, an Aboriginal initiation ritual, the novice acquires a complex cultural schema by moving through the landscape, which serves as conceptual anchor for narratively expressed cultural notions. Thus, concepts are superimposed on the procedural memory of the walkabout. Progressively, procedural memory and semantic memory become interwoven as layers of abstract semantics are superimposed on procedural memory pegs. Instead of a "direct transfer of a narrative model to novices", there is a "translation of the narrative into a sequence of kinesthetic experiences and performances" (Shore, 1996, p. 315).

In addition to ritual transmission, embodied acculturation can be embedded in everyday settings. In a truly encompassing case study Geurts (2002) discusses how the highly cultivated schema of balance and, more generally, all kinds of proprioceptive awareness come about among the Anlo-Ewe of Southern Ghana. While balance is a universal human propensity, here it is given special articulation and a distinct cultural direction from infancy on. This begins with limb flexing exercises and continues as infants learn to walk with the frequent exhortation "balance!" Balancing serves the head-carrying of heavy objects, but goes far beyond it. It is said to make free and level-headed. Posture and moving are also linked to the evaluation of a moral character, i.e. the cultivation of an elegant "non-shifty" walk of a purposeful person (but also somatic agility and adaptability). Finally, Geurts reports a host of balance-related metaphors like morality as balance and straightness, the cultural ideal of balancing between cultural and outside influences, as well as a diachronic balance of temperature and keeping a balanced audience in a specific ritual. Thus, somewhat in contrast with Bourdieu, balance is also discursively reflected and elaborated on explicitly for a bundle of cultural aims. From a theoretical viewpoint, it is significant that a sensorimotor schema like BALANCE straddles the fence between the embodied and symbolic domains (more on this later). Note, finally, that we have also seen many affective elements in the value of Kuranko moderation, Samoan *tapu*, and balancing among the Anlo-Ewe.

Thus, an undercurrent in all these examples concerns cultural emotion models, by which I understand the ability to evoke culturally shaped dynamic feeling states.

Cultural Sensory Formations

The cultural modulation of the body is also thrown into relief by the genre of “sensorial ethnography”, which follows the aim to “reconceptualize the senses as ways of thinking and knowing” (Howes, 2003, p. 50) and turns to cultural sensory formations.[5] Ethnographies akin to Geurts’ work on Anlo-Ewe proprioception have emerged since the 1980s. They have, for example, drawn attention to the supreme importance of smell among the Ongee of the Andaman islands as well as among the Tuareg of Niger, the frequent precedence of hearing over vision with the Kaluli of Papua New Guinea, the Songhay’s cultivation of taste in Niger, and the Tzotzil-Mayas’ focus on temperature (surveyed in Classen, 1993; Howes, 2003; cf. also Stoller, 1989). One point is that people in these cultures hierarchize sensory modalities differently than the often proclaimed (but perhaps equally reductionistic) Western visualism. Moreover, some ethnic groups like the Amazonian Desana cultivate cross-sensory awareness as such, while the Casinuahua of Peru distinguish a special mode of “synesthetic sight” in hallucinogenic experiences. The sensoria literature is relevant to our discussion both with regard to sensory acculturation processes that shape cultural bodies and how sense-scapes are endowed with further social significance, e.g. by concepts defined via sensory indices or metaphors. For example, the Ongee conceptualize the life cycle in terms of different kinds of scent. Or, the Desana, as Howes (2003, p. 46) says, code “every sensory quality with social meaning”.

Of equal interest are studies from the discipline of medical anthropology, which focuses on the nexus of body and knowledge in healing. Laderman (1994) emphasizes that cultural symbols acquire an embodied counterpart, when she recounts her own coming to feel a Malay humoral theory and two special concepts. The concept of *semangat* (“spirit of life”), that, when lost, is felt as a loss of bodily energy and confidence. The concept of *angin* (“inner winds”) determines a person’s temperament and character and equally is used by healers to diagnose bundles of felt bodily states.

The reader may ask herself what the possible ways of bodily involvement in acculturation and learning are. Here, an illuminating study by Hsu (1999) reports on the modes by which Traditional Chinese Medicine is transmitted. She did her fieldwork in three different settings. In the first setting the style of transmission was embodied via meditation (related to *qigong* practice). In the second it was embodied via ritual, using otherwise largely a-semantic learning of formulas. In the third setting, a modern TCM university, theoretical frameworks like the *Five Phases* were presented and gradually applied to diagnosis and healing. These exemplify yet another mode of embodied transmission based on specific imagery and metaphors, which however relies on explicit discourse. A similar (but binary) distinction of memory systems in cultural learning is found in Whitehouse’s (1995) work on religious rituals and initiation in Papua New Guinea.

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[5] According to Shore’s survey of cognitive formats, these may be seen as non-linguistic cultural models that encompass olfactory, sound and visual models, kinesthetic schemas of posture, interpersonal space and muscle tone (as well as more abstract image schemas, see below). Furthermore he lists stylized action sets and performances and emotion models (Shore, 1996, pp. 59f).

Basic Resources of Space and Kinesthesia

On the linguistic and psychological side we see models that focus on how basic spatial schemas are acquired. One major debate revolves around *image schemas*, i.e. basic experiential gestalts that we get to know from sensorimotor experience in infancy *(*Johnson, 1987) and that include PATH, CONTAINER, LINK, BALANCE, CYCLE, SYMMETRY, CENTER-PERIPHERY, UP-DOWN, PART-WHOLE, SURFACE, CONTACT, SCALE, NEAR-FAR, STRAIGHT, MULTIPLEX-MASS, ENTITY and AGENCY. Infants acquire image schemas via motion, object manipulation and bodily proprioception. For example, what a container is can be directly experienced because we are ourselves containers for air, blood, and feces and because we experience what it means to be inside a room, going outside, and what a boundary is. Later in life the topological logic of "inside", "boundary" and "outside" can be redeployed in many conceptual ways, e.g. to understand what a category is (see section on metaphor below). A detailed acquisition model for image schemas is found in Mandler (1992, 2005), although the cultural dimension plays little role here. However, others like Sinha and Jensen de López (2000) explore this dimension by comparing English and Danish children on the one hand and Zapotec children on the other hand regarding their understanding of containment. Children are exposed to cultural objects and environments which influence their ability to notice linguistic differences. Danish and English children are quicker to notice differences between "under" and "in", because they are encouraged to play with upright cups, whereas Zapotec children use a smaller number of containers and use them more multi-functionally. Linguistic highlighting may play a further role in the acquisition of particular image schemas. In describing two objects, Korean makes children distinguish LOOSE FIT and TIGHT FIT through exposure to the verbs *kkita* and *nehta*, while English highlights CONTAINMENT and SUPPORT instead through the prepositions *in* and *on* (Bowerman 1996). A third influential factor are cultural performance styles in gait, posture, everyday action, and ritual such as illustrated by Geurts' (2002) study of the BALANCE image schema (see above). Thus, children from all cultures have an innate ability to schematize certain basic spatial and kinesthetic relations, but this is modulated by cultural experience.

As to adult cognition, comparative psychological studies point to important differences concerning the perception of grounds and figures as well as causal attribution to either (Nisbett, 2003), spatial reference frames (Pedersen et al., 1998), manner and path of motion (Slobin, 2004), and objects (Lucy, 1996). These perceptual abilities and foci are influenced either by what a language encodes obligatorily (cf. Deutscher, 2010) or by various other cultural factors like the environment or cultural ideology. The partial cultural modulation of perceptual skills does not commit us to a strong relativity assumption, the so-called Sapir-Whorf hypothesis. In light of the present evidence it makes more sense to say that language and culture highlight a part of perceptual reality to attention, without strictly committing to it.

The acquisition of perceptual and actional schemas is not only interesting in its own right, it is equally important for understanding conceptual feats. One of the big discoveries since 1980 is the extent to which spatial and kinesthetic schemas are used to structure abstract concepts via conceptual mappings. Apparently, humans are endowed with a highly differentiated perceptual system geared to real-time action in a physical environment. Such "perceptual reasoning" is a resource that our forbearers possessed long before complex concepts came along and that lends itself to conceptual spin-offs. One model for how this happens claims that recurrent experiences shape spatial (and in fact multimodal) schemas, which are then decoupled from their usage domain and can then be mapped to abstract domains. For example, physical purposes in space are most typically end-points of paths and we talk about non-physical purposes in the same way ("passing an exam", "reaching a life goal", etc). Johnson's above cited account of image schemas suggests such a viewpoint. A related viewpoint emphasizes to a lesser degree the arbitrary projection of a general purpose image schema on an abstract target, but takes recourse to concrete formative settings much like in Shore's Samoan account mentioned above in which source and target co-occur. Below I shall discuss a speculative, but linguistically plausible model by Grady (1997, 1999) who explains the way we learn some metaphors through "experiential metonymies" in some simple formative settings like being held tight be a parent, which are likely to occur in similar fashion in all cultures. This model is reinforced by a study of how infants learn to recognize metaphors as a phenomenon in its own right (Johnson, 1997).

Interpersonal Learning and the Body's Role

The perspectives discussed so far all focus on the cultural environment as a context, but not specifically on the sociality and interactive nature of embodied learning. Our inquiry now shifts to the broader question of what it takes to become "conceptual" in the very first place. Developmental research suggests that bodily interaction with caregivers, gaze, gestures, and shared attention to objects are the touchstone of conceptual and linguistic abilities. To provide one well-known example, Tomasello's (2008) studies of apes and children investigate how embodied resources are phylogenetically required to bootstrap more abstract linguistic faculties. The possibility to communicate through the body is the basis of all further cultural feats. The basic dimension shared by great apes is the direction of attention of others through one's gaze or by pointing gestures. This allows requestive functions such as asking for a food item (the analog of linguistic demonstratives like "this") and understanding the intentionality of others. A step further, the roots of human communication apparently lies in collaborative activities that require a shared intentionality in the pursuit of joint goals. At this level reciprocal "mindreading" is the unique faculty that humans possess, but not apes. (Because both participants know they are engaged in cooperative action, the pressure arises to establish mutual assumptions and communication norms). Following Tomasello, bodily communication again drives the development. Humans have the ability to pantomime and produce iconic gestures for expressing noun and verb concepts, which allows not only for immediate requesting, but for informing about things displaced in space and time. This prepares for a third and final step. The fact that gestures co-occur with vocal signs allow language to become arbitrary and symbolic, because it can piggyback on easy to understand iconic meanings of when the hands shape, draw, or enact something.

In another strand of developmental research, there is an interesting convergence between how shared intentionality and multimodal schemas develop. Stern (1985, 2010) highlights how multimodal correspondences in body expression of caregiver and baby establish schemas. For example, infants learn to match sound and tactile impressions when getting stroked by the mother with a voiced "THEEEeere". The infant begins to repeat these contour-carrying patterns (in the sense that they change intensity over time and thereby create something akin to the tonal contour of a melody) and engage in a shared game with the mother. At the same time cross-modal patterns are established like contours over time in what one sees, feels, and hears. Stern calls these basic embodied patterns that help the infant establish shared intentionality as well as a shared social world “vitality affect contours.”

The Role of the Body in Expert Skills and Super-individual Cognition

Many more complex conceptual operations require training in adulthood. However, conceptual cognition at this level still exploits perceptual resources inherent in the body and the environment on a regular basis. The cognitive anthropologist Edwin Hutchins (1995) has coined the term *cognitive artifacts*, which refers to externalized knowledge recorded in human artifacts. Written records are a basic artifact of this kind. In navigation for example dials, gauges, sextants, or logs provide sensate tools the mind can hook onto and thereby make complex tasks tractable. How these instruments, the different experts on a ship, each with their own skills, as well as the communication channels between them are arrayed and synchronized is crucial for the super-individual unit (i.e. the ship) to work. Some cognitive artifacts can even be projections of the visual imagination, as Hutchins shows in his analysis of Polynesian navigators, who use imaginary islands on the horizon as a fixation point to monitor the boat’s course.

Cultural learning also impacts our ability to engage in interactions and create intersubjectivity. Even mundane interactions typically require us to recognize meaningful *affordances*, i.e. enabling states for our next action perceived in real-time. In particular, we incorporate the dynamic flow of body signals (gestures, gaze, gait, etc.) from others into how we modulate our own actions. Just imagine a simple nonverbal negotiation of two persons sliding past each other in a narrow corridor. Sophisticated martial arts, dance, or bodywork skills that require years of apprenticeship equally highlight *enactive intersubjectivity* (Fuchs & de Jaegher, 2010). As Kimmel (2012) argues, dancers of tango argentino can fluidly improvise together only when they actively explore the partner at every moment and reciprocally make their bodies amenable to being sensed (e.g. a good follower strategically creates muscle chains allowing the leader to sense via her shoulder blade what her leg is up to.) Communication depends on a highly organized “tango body” with ingrained postural, muscle related, and attentional habits. While complex intersubjectivity skills fundamentally build on immediate perception, they place the senses in a continuum with functional concepts and regulative imagery. For example, tango experts stick to basic enabling states by imagining a constant “magnet” or “torch seeking the partner’s sternum.” This helps maintain rapport in any situation. More complex regulators keep track of functionally important sensory coalescences, e.g. an “energy ball” representing the couple’s joint weight at a given moment. Here, multi-channel sensory input gets blended “into” the image, including proprioception, the partner’s body, and space. The current position of the ball summarizes system-level information, allows dynamic feedback to be felt *in the flesh*, and thus provides a control structure for joint action. Finally, the tango case sheds light on the hidden cognitive substrate of dynamic decision making. Accomplished tango leaders fluidly combine basic micro-elements without enacting scripted step sequences and without much premeditation. They simply recognize a large repertory of dynamic configurations that signal affordances to exploit “on the fly” on a given trajectory or to nudge the couple to when still a bit away. Experts do this without enforcing anything, but by “soft-assembling” the interaction within repertoire related as well as sensory constraints (somatic feedback, music, available space).

Summary of this Section

The reviewed literature underwrites several general claims:

a) Key elements of a child's acculturation are dependent on the various perceptual (visual, auditory, tactile, olfactory, gustatory), proprioceptive, and kinesthetic faculties of the body. What is acquired includes both performative and conceptual elements;
b) There is an important degree of contextual situatedness to the process of learning, which is modulated by cultural everyday habits, rituals, and institutions (as well as subject to discursive shaping, which I shall focus on only later);
c) There is an important element of cultural shaping in embodied learning: structures like the BALANCE schema seem at first blush to relate to a universal human body, but are not quite as universal in the way they are culturally enacted and modulated in usage;
d) From an enactive viewpoint, other bodies dynamically interpenetrate our own bodily actions and thereby provide a flux of resources for orienting our actions, just as cognitive artifacts do. Complex intersubjectivity skills like pair dance are a key site for studying cultural learning that interweaves the body with concept-like regulators.

To What Extent are Abstract Concepts Embodied?

A cognitive account of abstract concepts is decisive. Nothing less is at stake than how everyday commonsense and higher cognitive feats are connected. In particular, the study of worldviews, ethos, and ideology needs a cognitive account of representations removed from direct experience. In traditional views, the mind is the operative locus of these, while the body cannot shape what or how we think. As the embodied cognition paradigm is growing to maturity, a broader embodied perspective on elaborate abstractions like *freedom, justice, truth, ownership, democracy, the Kantian Categorical Imperative, God, tapu, karma,* and *qi* is taking shape. What role does the body play when people "think-feel" abstract cultural concepts? The basic mechanisms our inquiry is after relates to what the cultural anthropologist Fernandez (1986) dubbed the scaffolding of cultural knowledge from the inchoate, i.e. bodily experience, to the symbolic. A whole group of theoretical approaches now engages in what I would call "abstract concept analysis". They pinpoint perceptual, sensorimotor, and other embodied structures in instances of higher cognition, notably how humans form, hold, and use elaborate abstract concepts. Several competing, but in many respects complementary, theories target how representational content is informed by embodied resources and how a morphological analysis of conceptual structure can be implemented.

Theoretical Approaches

Probably the most frequently discussed family of theories explains experiential grounding with respect to inferential features that concepts possess. Their common point is that they see concepts as mediated by various kinds of schemas that capture recurrent features of space, motion, or inner body experience. A first such account of abstract concepts is based on scripts[6] and what needs to be done in a specific situation. It is hard to define *democracy* as a feature list, but to understand the concept we can imagine what people in a democracy do. Boroditsky & Prinz (2008, p. 103) claim that "the democracy script may include representations of hand raising and other means of casting votes". Hence, a script-based concept is defined by the procedural knowledge that shapes actions and behavioral responses for the concept-defining situation. The basic idea is well established, as many experiments have demonstrated that sensorimotor action potentials arise in connection with a number of different concepts. For example, Chen and Bargh (1999) show that evaluatively loaded words like "love" or "hate" facilitate approach and avoidance gestures, respectively (for overviews see Gibbs, 2005; Pecher & Zwaan, 2005; or Semin & Smith 2008). Still, the limitation for explaining abstract concepts is obvious. Casting a paper in a ballot box or even a bundle of such scripts hardly represents the full meaning of *voting*, not to speak of *democracy* itself. The abstract concept seems to include agent configurations of voters and politicians, non-physical goals like bringing someone to power, concomitant feelings like duty or pride, etc. It is unclear to what extent scripts like *convening to pass laws, choosing a leader, debating an issue* (or more general script-like structures, say, *unforeseen difficulty, trying in vain, belated success, wanting to avoid harm*) are embodied. Ultimately, if human thinking, wanting, or evaluating are equally co-defined by traces of sensorimotor knowledge remains unclear.

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[6] Scripts are generic schemas of activities that encode stereotypical aspects of episodic structure by defining the action slots and the correct order of events that we culturally expect for this particular

The perceptual symbol systems (PSS) account by the psychologist Lawrence Barsalou aims to confront some of these problems (Barsalou, Yeh, Luka, Olseth, Mix & Wu, n.d.). A perceptual symbol refers to any aspect of experience from external percepts, via proprioception and affect, to the introspection of representational states. The PSS account claims that any kind of concept can be built compositionally from such perceptual symbols as temporary constructions in working memory. For thinking of a concrete, but creative notion like *striped cloud* we can join the concepts of "striped" and "cloud" in a single image. For the concept *kindly* we simulate a dynamic process that includes initial introspective states, followed by facial expressions, and actual behavior (this fits with the scripts approach). PSS also works well for proprioception and affect, e.g. an *angel* may be created by joining the image of how one thinks it looks like with feelings of consolation known through human relationships. But what about the more typical abstract concepts? Barsalou and Wiemer-Hastings (2005) ran a thought elicitation task for the concepts *truth, freedom* and *invention* and found that while concrete concepts involve objects, locations and behaviors, abstract concepts focus on social aspects of situations, people, communication and social institutions. The latter seem to have some perceptual content. More problematically, abstract concepts also involve a high proportion of introspections (goals, beliefs, evaluations/ affects, and complex relations like if-then, temporal sequence, possession, or part-whole relations). This implies that abstract concepts involve relational properties, abstract social configurations, beliefs about beliefs, and many other hard to ground aspects. We don't really know how perceptual these are in nature. In addition to clarifying this more precisely, PSS needs to be applied to a greater number of complex concepts to reach its ambitious aim.

An approach with almost as broad an agenda, but a far greater range of actual applications, has emerged in cognitive linguistics. The oldest theory in this family is the theory of conceptual

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activity. In the now canonical Restaurant Script example a customer needs to enter, sit down, choose, order, eat, pay the bill, and leave, in that order, with optional added slots like washing one's hands. Classic scripts have defined roles, locations, props, entry conditions, and results, all bound to a scene.

metaphor. Scholars of metaphor have found linguistic and psycholinguistic evidence for reasoning about abstract event structure, values, mental activity, communication, and many others (Lakoff and Johnson, 1999). Their findings are expressed in formulas of the shape "target domain = source domain", including patterns such as

PURPOSES ARE PATH-END-POINTS
CAUSES ARE FORCES
GOODNESS IS UP
MORALITY IS UP
POWER IS UP
HONESTY/ TRUTH IS STRAIGHT
DECIDING IS WEIGHING
REASONING IS A PATH
COMMUNICATION IS OBJECT TRANSFER
IDEAS ARE OBJECTS
MINDS ARE CONTAINERS
THEORIES ARE BUILDINGS
REASONING IS A PATH
LIFE IS A JOURNEY (PATH)
DEATH IS DEPARTURE (PATH)
CATEGORIES ARE CONTAINERS
TOPICS ARE CONTAINERS
EVENTS ARE ACTIONS

The evidential force of the claim that these are actual cognitive patterns comes mainly from the observation that linguistic, gestural, and pictorial realizations exhibit systematicity. For example, THEORIES ARE BUILDINGS may occur as "a resilient/ strong theory", "collapse/ bring down", "demolish/ wreck", "theory building/ buttressing", "theoretic fundaments/ building blocks", and in many other expressions. In fact, most of us are able to come up with further creative example that other people will still understand because they fit the formula (or a related, but better delineated one like THEORIES ARE STRUCTURED SYSTEMS). The discovery of systematic linguistic clues has led Lakoff and Johnson (1980) to conclude that conceptual metaphors, i.e. permanently stored mappings from a concrete to an abstract domain, actually *cause* the observable linguistic metaphors. Although there has been some debate on whether conceptual metaphors are the only or obligatory way that language processing occurs (Gibbs 2005) the argument runs that humans structure abstract concepts through a mapping of an experientially well-understood gestalt. The reader is encouraged to check the terms on the "source domain" side of above examples and it becomes apparent that these source concepts are spatial or have a spatial element to them. More specifically, the gestalts that abstract concepts become grounded in via metaphors are embodied image schemas (see above). Conceptual metaphor theory claims that these intuitive embodied structures map on underspecified abstract domains to enrich or even constitute their meaning. Image-schematic mappings seem to underlie everyday concepts (see below) and a wide range of philosophical, political, economic, scientific, and mathematical concepts. Philosophy from the Pre-Socratics via Descartes and Kant to Analytic Philosophy and Rational Choice Theory is fundamentally metaphoric, based on FORCE, PATH, CONTAINER, LINK, or BALANCE image schemas (Lakoff & Johnson, 1999, pp. 337-548; cf. Holyoak & Thagard, 1995). For example, Kant's notion of "Ends" presupposes PATHS, permissible actions towards them are based on FORCE CONSTRAINTS, and immoral actions are those that interfere with other people reaching their ends (Lakoff & Johnson, 1999, p. 428). In turn, people and their freedom become "ends-in-themselves" through *Universal Reason,* whereby the latter is the causal source (FORCE) for morality and being moral is obeying a categorical imperative for its own sake.

What are the limits of this embodiment account? Jackendoff (1992) argues that conceptual metaphors cannot explain concepts exhaustively, even when image schemas are present. The cultural concept of *ownership* relates to CONTAINER metaphors such as being "in" someone's possession, but non-metaphorical knowledge defines the sentiments of anger or the wish to see a thief punished (Prinz, 2002, see below). Hence, other kinds of embodied knowledge may be involved (as in the PSS account). More critically, many conceptual metaphors cannot be easily explained through image schemas at all. ARGUMENT IS WAR includes references to generals, strategy, allies, etc. Thus, elements get mapped to the abstract target domains that are themselves complex. A strategy, an item from the war domain, is certainly not anything simple image-schematic or merely spatial, even though certain aspects may be related to paths via yet different metaphors like “following a strategy”. Because of this complexity, the challenge here would be to find appropriate perceptual simulations of all the aspects of a source domain like *war*. Finally, for many metaphorical mappings to be created some proto-knowledge about the concept in question may need to be in place already, which is then presumably non-metaphoric. Not all conceptual metaphors are equally central in this respect. Some are created because a concept is intrinsically poor in structure and the concept can therefore be said to be metaphorically *constituted* (e.g. some scientific key concepts), while other conceptual metaphors simply contribute further inferential patterns for reasoning. The question is: do mappings simply exploit an existing image-schematic resemblance between the source and the inchoate knowledge of the target concept or do they project image schemas into a very weakly structured near-void?

Part of the answer is given by one of Lakoff’s students, Joseph Grady, who claims that a number of basic conceptual metaphors are rooted in prototypical bodily experiences from early childhood. Grady (1997, 1999) speaks of basic “experiential metonymies”. These are multi-sensory correlations in the parent-child relationship like AFFECTION IS WARMTH (→body temperature), INTIMACY IS CLOSENESS (→being held close by a caretaker), or RELATIONSHIPS ARE ENCLOSURES (→living together). Others derive from affects like HAPPY IS UP (→walking erectly), BAD IS STINKY (→putrid food), and POWERFUL IS UP (→wrestling) or come from object manipulation like UNDERSTANDING IS GRASPING (→manual exploration), MORE IS UP (→piling up objects), IMPORTANT IS BIG (→ visual salience) or FUNCTIONALITY IS STABILITY/ ERECTNESS (→shelter building, etc.). Finally, locomotion shapes TIME IS MOTION, STATES ARE LOCATIONS, and PURPOSES ARE DESIRED OBJECTS. Following Grady, both sensory (warm, stinky) and image-schematic (up-down, path) sources come to constitute the prototypical instance of the respective target concept. The metaphors in language come about because a source repeatedly co-occurs with the target in a concrete setting (or did so in our formative periods), so that a connection is created between an abstract concept of wider applicability and its most common experiential form. Grady calls these mappings “primary metaphors”, which compositionally inform several “complex metaphors”.

A third cognitive linguistic theory addresses the fact that, to explain complex concepts, we also need to account for the selection, combination, and interaction of conceptual inputs. Metaphor theory is restricted by its uni-directionality, whereas many concepts require multiple inputs or selectively recruit these both from source and target. Fauconnier and Turner (2002) remedy such shortcomings in their theory of *conceptual integration networks* (aka. *blends*). They claim that the selective co-projection of knowledge from two or more input spaces results in a blended space, where this knowledge is integrated so that novel inference can unfold and *emergent structure* of a complex sort can arise. The approach is semiotic and encompasses metaphor, analogy, counterfactual reasoning, creativity and art, ritual, and many other fields. Since, we just discussed metaphor, let us use one typical case as an example: Saying that “this surgeon is a butcher” creates the suggestion of incompetence neither from the source domain of butchery (where healing is not the actual aim) nor from the target of surgery. The intended inference results by selectively projecting the tools and means of butchery onto a surgeon’s task. Only by actualizing the tension between source and target, once we “run the blend”, the inference arises that this surgeon cannot be doing a good job. Blending goes beyond a mere addition of constituents and describes how structure that is not predictable from any input alone comes about. Whether blending is more than a versatile semiotic notation remains debated (Gibbs, 2000; *pace* Coulson & van Petten, 2002). Although it provides a heuristic model, it remains non-predictive with regard to emergent structures and difficult to falsify. The major caveat for our context is that blending is rarely discussed for its relevance to embodiment. Only some very recent attempts focus on the role of embodied input structures explicitly. Slingerland (2008, p. 195) uses blending as “a special tool for tracing the manner in which basic emotional reactions can be harnessed and attached to novel stimuli”. Turner (2001, p. 44) and Deacon (2006) propose that blends can function as carriers for complex emotional effects. Deacon (2006, p. 48) suggests that “art brings together uncharacteristically associated emotional schemas” that can play out their tensions. Blends might project a visceral reaction originally reserved to a part of its input to the emergent structure. A religious blend invoking paradise as a garden transfers the soothing emotional response to nature to the potentially unsettling idea of death. We may also deploy the framework to think of the process whereby something qualitatively more complex emerges from basic inputs, e.g. cultural emotions like awe (appreciation + fragility) or nostalgia (happiness + fear of loss). Of course, somatic aspects like these are only one possible kind of embodied input structure; imagery would be another and muscular action potentials a third. Overall, blends are a promising tool for analysis because they allow for merging various kinds of embodied structures, including affects, with less embodied ones. As such there seems to be some potential to re-describe all previous theories in terms of blending, although this has not yet been attempted.

The Motivational and Affective Dimension of Concepts

It is interesting to note to what extent all the above theories focus on inferential aspects of concept meaning (with the exception of Slingerland and Deacon). However, there seems to be more to concepts, namely that which lends mere ideas affective, evaluative, and motivational saturation and gives rise to “embodied commitments” (Clore & Schnall, 2008). How the embodied dimension of concepts creates normative power is a question too important to pass over lightly. Thus, I shall survey a second family of theories, which has focused most on emotion concepts in the past, but could be applied on a broader basis. This family of theories appeals less to abstract imagery or inferences, and more to the visceral dimension and the felt internal milieu. They claim that proprioceptive-affective experiences are constitutive for meaning. Using a concept means activating a specific somatic state. A theory that has been widely received, but also contested is Damasio’s (1994, 1999, 2003) “somatic marker hypothesis”. He proposes that proprioceptive feedback from muscle tension, skin temperature, hunger, indigestion, homeostasis, or pain is central to cognitive functioning. Somatic markers are held to be involved in responding to a perceptual trigger situation, action preparation, and using body feedback from actions. Emotions, for example, are defined by a patterned set of somatic markers (which in turn explain differences like what makes anger different from fear). What makes this theory of interest for understanding abstract concepts? To Damasio, specific somatic feelings are irreducible aspects of all rational processes. He reports that the neurologically impaired who have a diminished range of affect (qua somatic feedback from one’s own body) also have difficulties making rational decisions or altogether lack motivation to decide. This can either concern embodied preferences for choosing among options, or, depending on the version of the theory, the more specific claim that long-term outcomes are considered via embodied preferences (cf. Colombetti, 2008). Feelings provide a necessary somatic ingredient of reason, i.e. normative judgments and cost-benefit calculations. Thus, without somatic affects no sense of concern drives towards a decision. Without a bodily feeling acts lack full meaning. While negative somatic markers function as "alarm bells", positive ones are "beacons of incentive" (Damasio, 1994, p. 174). While arguing for a necessary augmentation of the somatic core through symbolization and narrative, Damasio emphasizes the basic fact that somatic markers stamp valences on putative options. Compatible with this, recent emotion research speaks of core affect, a somatic primary form of meaning analysis determining whether a stimulus is helpful or harmful and whether an active behavioral response is required (Barrett 2006). Core affect appears to be a psychological primitive (Mesquita & Walker, 2003). All humans can distinguish feeling good from feeling bad (Barrett, 2006, p. 31) and all languages have words for them (Wierzbicka, 1992). The somatic dimensions most reliably and stably associated with concepts relate to the core dimensions of activation of the autonomous nervous system (arousal) and valence (pleasant/ unpleasant). In addition, we find elements of action readiness and behavioral goal setting. This might still reduce the somatic to a few general patterns. Complexity enters through conceptual appraisals that seamlessly interweave with the somatic (Mesquita & Walker, 2003, p. 778). Several critical voices have remarked that conceptual forms must take on an organizing role (Parkinson, 1996; Parkinson et al., 2005; Ratner, 2000), because core affect does not neatly match specific triggers, specify any reactions, or have any precise physiological substrate in which a specific emotion is located, especially not in cultural comparison (Heider, 1991). Only a full conceptual appraisal of a situation tells us, for example, whether we pound our fists, cry, sulk, or become chillingly polite in response to anger.[7] Independent somatic components of emotions could also mix and fluctuate with the situation or the environment (Griffiths & Scarantino, 2008).

Complex concepts that accompany culture-specific articulations of affect have drawn substantial ethnographic interest. For instance, Renato Rosaldo (1984) discusses the culture-specific concept *liget* of the Ilongot of the Philippines (glossed as energy, passion, driving force). He also gives an account of how he suddenly understood the Ilongot headhunters upon being bereft (his wife had a fatal accident) and experiencing a similar state of rage. His self-report underscores the importance of empathically experiencing somatic marker arrays. Further cultural concepts with a strong emotion component are surveyed by Wierzbicka (1992, pp. 135-179). Note that all concepts briefly glossed in what follows go with elaborate cultural theories: Japanese *amae* ("wish to be interdependently loved"), Javanese *sungkan* ("polite restraint not to disturb the equanimity of equals"), Ifaluk *sago* (a mix of compassion, love and sadness), and Tahitian *arofa* (a mix of empathy, pity and compassion). In all these cases the appraisal of the emotion triggers and processes is analyzable into (potentially universal) primary components.

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[7] Integrative approaches like Scherer (2000) or Lewis (2005) try to model particular patterns of synchronization between the embodied and appraisal related subsystems within a non-linear dynamic systems framework (i.e. reciprocal, recursive, and multi-causal processes whereby higher-level effects can emerge). This allows us to pinpoint event onsets that kick off further events in a non-linear, intertwined process. However, it makes little advance for understanding types of complex cultural concepts and their affective components.

Wierzbicka does this with a focus on the simple evaluative aspects like "good" and "bad". By refining this approach into a more extensive description of somatic aspects much could be gained.

In psychology much of the current debate still revolves narrowly around emotion concepts as such, rather than taking abstract concepts (including cultural key notions) as a point of departure for inquiring into the somatic affect matrix they elicit. However, where ideological appraisals are concerned, Tomkins' (1991) affect-script account proposes an interesting starting point. He argues that basic affects, together with their distinct physiological profiles (e.g. enjoyment creates a rapidly relaxed tonus), define classes of behavioral scripts. Tomkins experimentally demonstrates that affective scripts correlate with ideological preferences along the humanistic vs. normative dimensions. This is somewhat similar to the study by Caspers et al. (2011) who describe neural patterns for collectivism vs. individualism. The limitation remains that both merely correlate affect with highly general cognitive orientations. We know very little about which somato-visceral signatures go with *specific* ideological concepts. Future case studies might emulate the style of Slingerland (2005, 2008) who applies somatic marker theory to ancient Chinese ethics, hence cultural concepts designed to evoke specific normative feelings. He investigates how ethical discourses exploit the linkage between the somato-affective and conceptual such that rhetoricians map familiar visceral responses to new trigger concepts, often via metaphor.

A view publicized under the banner of "affect logic" attempts to shed light on the affect matrix of ideological concepts. When the theory was first articulated by Ciompi (1997) it aimed to trace the co-evolution of affective – hence, embodied – and cognitive states. Ciompi starts from clinical evidence to investigate how thought and affect create two-way trade-offs and stabilize into mutually supporting patterns over time. Specifically, repeatedly activated feeling and thinking trajectories become entrenched as "tracks" and may ultimately achieve conceptual closure, thus creating mentalities with particular properties to them. For example, a psychotic-phobic creates an intrinsic world ("Eigenwelt") of fear in which all cognitions align with this dominant affect ("Leitgefühl"). The latter select for concepts in memory that are compatible with them, and activate them while suppressing others. Such trade-offs between affect and cognition do not only characterize disorders; even the "neutral" affects of the mundane world and the "disembodied" feel of abstract reasoning work like this. What is more, these trade-offs are held to inform various self-similar scales, somewhat after the fashion of mathematical fractals. Focusing on collective mentalities, Ciompi and Endert (2011) extend the theory into what we may call a historic-genetic account. They examine the affect logic underlying National Socialism, the Arab-Israeli conflict, the relation between Islam and the West, and Obama's election. Again, dominant affects act as facilitators or inhibitors, for example when extreme anger leads one to polarize conceptually and to assign blame to scapegoats. Mechanisms like group resonance and multiplication add to this. Even individual affects of a charismatic leader can enter into reinforcement loops with feedback from the masses, e.g. when the German people's enthusiastic feedback boosted Hitler's self-stylization as a Messiah. Importantly, general affective-cognitive mechanisms apply to quite different dominant affects and these affects in turn can be realized within yet more specific historically situated concepts. The dominant affects of Nazism were anger and hatred, which were coupled with specific concepts like the master race ideology and anti-semitism. In Islam the dominant affect of a mystic "love of the Whole" couples with a belief in social equality and a personally mediated, yet abstract God. In the current crisis of the Arab world affects of shame and weakness couple with conservatism and the belief that lacking secular power means having deviated from God's path. Feelings like weakness or shame are somatically realized. At the positive end of the continuum, feelings of solidarity, love, joy or empathy, all of which enhance somatic well-being, can become self-reinforcing. In president Obama's electoral campaign the affects of sympathy, trust, and hope kicked off an unprecedented wave of solidarity. Generally, the collective level brings "we-feelings" into play as mediators. These are conceptually reflected in ideas like the Nazi *Volksgemeinschaft* or the *umma* in the Islamic Renaissance. They may historically spring from reactions to shame affects (by the victors of the 1st World War, by Western economic dominance), but also from a need for renewed perspectives as in the case of Obama. To explain the dynamic properties of dominant affects Ciompi applies a systems theoretical viewpoint. Systems of affect logic tend to create group-specific mentalities that become self-reinforcing at times by gravitating towards attractors, although when they experience tension unexpected "leaps" into new stable states equally occur, e.g. after the break-down of the Third Reich. Finally, the book also analyzes why belief systems clash. The affective incompatibility of collective mentalities often makes it near-impossible to defuse powder-kegs such the Arab-Israeli conflict. Affective filters make the two parties perceive dissimilar issues and sources of conflict, while the tie to collective identities and the group history (such as the Shoah) entrench the conflict further. In sum, Ciompi and Endert's view focuses on how the relation between affects and concepts plays out over time. It traces why ideological concepts come to be established against the backdrop of dominant embodied affects with a main emphasis on the top-down effects of affective macro-systems. The theory's merit is its attempt to span different levels of analysis, whereas a shortcoming for our purposes remains that it seldom becomes very specific in analyzing the somatic states underlying affect.

An approach from a non-cognitive background launches its inquiry from complex somatic matrixes and the cultural dimension of bodily experience. Cultural phenomenology (Csordas 1990, 1994a, 1999) examines unique ways in which the "lived body" unfolds in experiences of and cultural practices surrounding sickness, ritual, dance and sports, healing, and music. Csordas deliberately moves away from representational theories that see bodies as symbols of cultural ideology, enacted metaphors, or anything else in a "stand-for" relation. He emphasizes a primary level of meaning where experiential qualities stand for themselves, thus bringing the inchoate, pre-representational layers of experience into focus. Somatic experience is inherently meaningful and represents the "existential ground of culture" by shaping the lived self. This view seems eminently compatible with Damasio's emphasis that the ongoing stream of body feedback is the basis of the self and primary for creating meaning. However, while Damasio writes on a (universal) core consciousness from a neurological perspective, Csordas focuses on the complex cultural phenomena and apparent multidimensional somatic marking. Contributions in the 1994 volume trace this in cultural body images (e.g. obesity), suffering (e.g., in torture and rape) and culture-bound syndromes, such as anorexia, Victorian hysteria, Central American *susto*, etc. For example, the experience of *nervios* in Latino communities is expressed as incorporating foreign sensations, loss of bodily control, or feelings of fragmentation and absence (Low, 1994). Somatically marked symptoms surface metaphorically, together with literal language that expresses symptoms like heat, trembling, or perspiration. So where does conceptuality enter this framework emphasizing the pre-objectified and pre-reflexive level of bodily experience? A first answer is that the mediating power of metaphor elevates inchoate somatic states to a conceptual level. A related answer is that concepts arise through (often, but not necessarily metaphoric) discursive acts that causally objectify somatic state, e.g. spontaneous and pre-conceptual feelings that get objectified by healers as "being possessed by a demon". The causal interpretation is then back-projected to the inchoate somatic experience and provides a way of changing it. The third answer is that pre-objectified somatics are seen as functional concept-equivalents, insofar as they stamp valences on options that prepare for complex actions. Several studies reviewed by Csordas point to an autonomous physiological level at which bodies (re)act in genuinely cultural ways. Thus, once we take the position that concepts are for action "conceptualness" in the sense of reflexivity or focal awareness is not a requirement. From the present perspective, cultural phenomenology seems to provide a kind of compositional, if not always systematic, morphology of complex somatic states and some studies specify how acts of objectification meld inferential signals into inchoately somatic states of bodily being.

Lessons for an Integrative Theory of Concept Analysis

In summary, no single theoretical framework for embodied concept analysis is currently able to provide a comprehensive account for all abstract concepts. Even their joint weight cannot fully *reduce* abstractions to perceptually grounded elements. The question to what extent abstraction is grounded must remain open pending further developments (e.g. concerning abstract scripts, relational and introspective knowledge). For the time being, mixed models can claim much attractiveness, such as Shore's model of procedural-cum-semantic cultural learning (1996), the double-coding approach by Sadoski and Paivio (2001), or Louwerse and Jeuniaux's (2008) integration attempt between semantic web and simulation approaches. However, the theory landscape gives us a fair idea of what a more integrative theory will require. I have suggested that the major watershed in the current strands of theorizing runs between a somato-visceral, affective and motivational viewpoint on the one hand and a focus on complex inference and the deployment of mapped schemas on the other hand. Ultimately a cognitive approach to cultural embodiment will need to address the motivational and inferential power of concepts in conjunction. From the viewpoint of a given abstract concept the analysis may include any combination of the following dimensions: (1) perceptual features of the situation that trigger the concept, (2) typical behaviors and action scripts, (3) a somatic core affect with a positive or negative basic valence, (4) a more complex and culturally situated somato-affective quality, (5) an image-schematic ontology of the event itself (e.g. an object moving on a path over time) or other kinds of image-schematic input structures, and (6) a combinatorial model that explains how the inputs give rise to the overall concept morphology. A mature paradigm should integrate all of these dimensions.

All this does not imply that every conceptual act involves the body to the same degree; quite the contrary. As an illustration take some religious metaphors, presupposing, for the sake of argument, that most individuals of a group represent the concepts in approximately the same way. Conceptualizing God as fire, energy flow, flash, or felt potency invites affectively and sensorially saturated imagery, which is grounded in the bodily experience of some religious people. By contrast, conceptualizing the deity as residing in an abode above us, as a father or as a king refers to the social domain and usually functions to create inferences rather than evoking a somatic experience of potency. (While some may really feel dwarfed *physically* or experience filial love *within*, when we look at it on a gradient the verticality, kinship, and royalty metaphors produce much less saturated somatic experiences than fire, flow, light, or strength metaphors.) One could also say that the main focus of the concepts differs a bit in usage. So researchers should be aware of the fact that embodiment phenomena occur on a gradient. It may well be that a concept is embodied in one way and not another. In any case, several levels require an explanation. It won't do to reduce concepts to a single dimension like inferential power and to evaluate the embodiment issue in those limited terms only. We therefore need sub-theories, of which several are presently available.

A Selection of Cultural Domains Where Abstract Concept Analysis has been Applied

As socio-cultural and embodied theories of concepts are coming of age, the embodiment paradigm needs the application to a range of diverse conceptual domains, if possible across cultures. Such analyses are cropping up in many important domains, four of which I shall now outline. The findings shall allow me to reiterate the point that two stories of embodied grounding can be told in almost any field, one more somato-affective and the other more inferential.

In the study of time concepts we see both levels. At one level, time is an experiential fundamental that enters into the experience of everything else. It is embodied in the body-clock, an inchoate feel of time-flow coming about through breathing, heartbeat, locomotion, mental states that change, or visual flow, as well as a periodic bodily urges such as hunger and sleep. It seems that universal neural mechanisms underlie the span of the "felt present moment", at maximum 3 seconds (Evans, 2004). At a second, linguistically mediated level reasoning about time becomes possible. It draws on a conceptual "master mapping" TIME IS SPACE that is apparently licensed by the experiential correlation between these two domains. Specifically, time is conceptualized either as motion or as location. Besides this general pattern, some culture-specific elaborations are documented concerning the orientation of the time axis and who moves on it, the direction of future and past, as well as the variety of time models (Alverson, 1994; Yu, 1998; Boroditsky, 2001, Nuñez & Sweetser, 2006). Finally, time aspects like reckoning in clock or calendar time or cultural constructions of the past are culturally highly variable (Munn, 1992).

In the field of self concepts we again have reason to believe that a basic sense of self is rooted in somatic experience. Damasio's (1999) concept of "core consciousness" refers to a moment-by-moment automatic awareness of our embodied state that arises via a flow of intero-, proprio- and exteroceptive input. Damasio explains subjectivity as grounded in somatic signals of changes from one moment to the next. The counterpart to core consciousness, which comes in pulses activated by the present situation, are triggered memories at the conceptual level. It is here that metaphorical mappings for the self are found. Metaphorical self concepts focus variously on the aspects of boundaries, control and regulation, continuity, parts/ layers, essences, autonomy/ interdependency, and agency (Lakoff & Johnson 1999, pp. 267ff.; Hirose, 2002). It is easy to speculate how the most widespread metaphors emanate directly from various aspects of self phenomenology. SELF CONTROL IS OBJECT CONTROL and SELF CONTROL IS MOVEMENT OF AN OBJECT relates to a felt bodily sense of agency, while SELF CONTROL IS POSSESSION relates to a typical instance of object control, possession. The locational self, i.e. SELF CONTROL IS BEING IN ONE'S NORMAL LOCATION, is motivated by the human body schema and the perspectival nature of experience. ATTENTIONAL SELF CONTROL IS HAVING THE SELF'S PARTS TOGETHER corresponds to the experience of focally situated attention. An experiential motivation that is perhaps less bodily is SELF ROLES ARE DIFFERENT LOCATIONS ONE MOVES BETWEEN. It seems to derive from the social experience that being in different places leads to different ways of self-experiencing. SELF-

EXAMINATION IS GETTING OUTSIDE THE SELF CONTAINER is based on an experiential mapping from visual perception, not proprioception. Finally, some metaphors may not much correspond to somatic marker information. We often talk of a split self in which SUBJECT AND SELF ARE INTERACTING AGENTS (adversaries, friends, interlocutors, caretakers, masters, controllers) and an essential self THE TRUE SELF IS AN ESSENTIAL SUBSTANCE OR OBJECT (as hidden inner layer, an object to be found). It may be that these are less based on embodied experience. Finally, we may note that both the ethnographic and cultural psychological literatures are replete with claims of interdependent selves, i.e. selves reaching out across the skin barrier and privileging group agency over individual agency in non-Western societies (cf. Markus & Kitayama, 1991). These have not yet been discussed from a genuinely embodied angle to my knowledge, but such an interactional phenomenology could be rooted in recent theorizing about intersubjectivity. We know that attunement to or complex co-regulation with others is constitutive for the self (Stern, 1985), that our bodies regularly become continuous with other bodies in a super-individual embodiment, and that we routinely create body "extensions" forth into the environment (Clark, 2008).

Concepts for morality constitute a domain where somato-affective and more metaphoric-inferential approaches are both needed.[8] According to Prinz, a philosopher who champions the former aspect, moral judgments such as *good/ bad, right/ wrong, justice, obligation, permission, entitlement* or *responsibility* are ultimately grounded in emotions and these in turn are observations of our sensorimotor states, for example, an aversive response. Thus, "[t]o recognize the moral value of an event is […] to perceive the perturbation that it causes" (Prinz, 2005, p. 99). Moral concepts are stored records of perceptuo-motor states, specifically of the preparations for action that accompany emotions (e.g. repelling for something disgusting). Since morality is a fairly complex domain, it is excellent for demonstrating that the somato-affective and motivational aspects highlighted by Prinz's approach cannot constitute a full theory, although some metaphors for morality per se seem to be compatible with Prinz's claim about stored records of perceptual-motor state. Following Lakoff and Johnson (1999, chapter 14) we find the conceptual metaphors MORALITY IS PHYSICAL STRENGTH and MORALITY IS RESISTING A FORCE, BEING GOOD IS BEING UPRIGHT/ DOING EVIL IS FALLING, and MORALITY IS STAYING ON A STRAIGHT PATH. Arguably, these force image schemas are not kinetic abstractions, but can be felt within as embodied qualities. The awareness of moral strength may be felt inside one's body container, temptations to be immoral may create sensorimotor activations which the conscience resist only by keeping these impulses "in check". This can even be felt as sapping one's strength. One somewhat further reaching aspect of morality for which conceptual metaphor is apparently needed revolves around specific reasoning about just retribution, revenge, and related cultural notions. This involves a *moral accounting* model, which is partly based on a BALANCE image schema, but also on non-image-schematic notions of bookkeeping. Interpersonal interaction should be like an exchange of commodities whose values have equal weight. Retribution is about "setting the balance straight", fairness is about "paying debts". It contradistinction to the moral strength metaphors, it is open to debate whether these metaphors produce direct sensorimotor activations of the same kind. Finally, although there is little comparative or historical research here (pace Slingerland 2004, 2008), it is obvious that at such a higher level of reasoning embodied motivations for morality are secondary to cultural ideology.

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[8] Interestingly, the pioneering experiment by Caspers at al. (2011) discovered neural activation patterns that point to different processing strategies of moral issues in collectivists and individualists, respectively. Although caution is warranted in interpreting the findings, they may suggest that the relative proportion of somato-affective and inferential elements varies with personality.

In the religious field, finally, there are a number of theories which emphasize primary somato-affective qualities. James (1902) and many after him argued that religious experience resides in feelings that accompany conceptual appraisals. More recent phenomenological approaches emphasize the pre-reflexive dimension, like Csordas' (1993, 1994b) notion of "somatic modes of attention" in religious experience. The somato-affective element in religion is well known from sensory regimes (kneeling, incense, a choral) to active phenomena like speaking in tongues, self-chastising, or pilgrimages, all of which aim to create specific bodily states. The somatic effects of beliefs and practices are investigated by neuro-theologians (e.g. Newberg & Lee, 2005), who provide evidence that body techniques and pharmacological substances correlate with blood pressure, hormones, the limbic and immune system. Important as this primary somatic level is, again, religious reasoning requires more than this. Some approaches emphasize the continuity between the somato-affective and conceptual, saying that believers graft the created moods on concepts and use somato-affective elements as a basis for inference (Ozorak, 1997, p. 194) and for religious transmission (Thagard, 2005). Other approaches emphasize strictly schematic structures, in particular for explaining concepts of the nature of true reality, of deities and supernatural agency, and the special status of religious specialists. A perhaps near-universal example is that supernatural agency seems to be rooted in FORCE image schemas. Justin Barrett (1999) claims that a universal "theological correctness" in thinking about supernatural agents is fashioned after everyday modes of agency. It rests upon the general human propensity to detect intentionality in all kinds of perceived information. When deities are understood to possess intentionality and causal power a FORCE-mover and a kind of caused motion is imagined. Many far more complex (and less universal) religious concepts based on metaphors and blends have been analyzed, including imagery of interrelatedness and wholeness (Olds, 1992; cf. Kimmel, 2002, 2005) or notions of paradise (Evola, 2009).

A Critical Epistemology for the Body-Culture Arc

After having delineated theoretical angles and types of phenomena, I want to turn to general precepts conducive to a non-reductionistic understanding of the terminological triad "culture", "concepts", and "body". How do humans create extremely diverse concepts through far less dissimilar bodies? And that said, how do we best deal with the (often unnoticed) fact that the body is definitely not in all respects universal? Finally, how much de-contextualization is admissible for analytic concepts when we address these issues? I will primarily depart from cognitive linguistics, a discipline I am closely familiar with, for illustrating the kind of epistemology needed.

Learning: The Dialectics of Discourse and Body

First, I would like to return to embodied learning. If we conceive of the body as the experiential shaper of concepts and culture as their discursive shaper, then a possible reductionism meets the eye. Some theories privilege one avenue of embodied learning over others, in principle, often implicitly. A telling example is the research on conceptual metaphor, where a universal body bias enters (cf. Kimmel, 2005, 2008) and the analysis is usually done in such a way that basic embodied image schemas acquired in early infancy are the privileged source of explanation. Lakoff and Johnson, who espouse a philosophy of “embodied realism”, operate on rather unidirectional assumptions and a developmental perspective. In essence the argument runs that embodied image schemas provide the basis of abstract discourse because they are acquired by infants in the spatio-kinesthetic domain and later projected to abstract domains. The learner possesses a repository of well understood image schemas and ways of spatial reasoning through them; later these get mapped onto concepts and surface in linguistic metaphors expressing the former. Thus a pre-linguistic understanding precedes conceptual learning. Bodily skills are, for the most part, already in place so that no new schemas need to be mastered with the move to the discursive. Let us call this account “projection”, i.e. a feed-forward mapping of schemas.

Not all embodied learning works like this ideal-type model. No full pre-linguistic understanding needs to be in place. Instead discourse can be used as a tool to create embodied knowledge within a still underspecified experiential substrate. Dance classes, body therapy, meditation practices, or all kinds of professional drill, military or other, all bear witness to this. Instructors use metaphors to encourage embodied experiencing in others, thus externalizing their own experience. Discourse can also “go under our skin” when a narrative triggers new somato-affective processes. For these reasons, the projection account needs a dialectic counterpart explaining how individual body awareness becomes a map onto which experts and elders prompt us to inscribe discursive imagery. Let us call this “retrojection” (cf. Kimmel, 2008), a process whereby discursively objectified knowledge comes to resonate gradually with our own proprioceptive awareness, sensorimotor habits in walk, posture, gesture or gaze, as well as affects and moods. Discourse, whether it is words, gesture, onomatopoeia, paralinguistic signals, or pictures thereby becomes an effective shaper of bodily experience. It is crucial to see that in many cultural settings retrojection infuses into the body something beyond simple image schemas like PATH or simple mimetic schemas like KICK. Discursive input can give rise to quite novel embodied experiences for two reasons: One is the compositional structure of language. Another is that the acquisition of complex imagery happens very gradually and often over various stages of trial-wise accommodation in a body that already possesses certain skills, but not others.[9] My own ethnographic research investigates how practitioners of martial arts, dance, and somatic healing disciplines acquire complex imagery over years of apprenticeship. Their feats are considerable. Experts simultaneously manage complex imagery matrices that combine action-vectors, attentional foci, distributed muscle tone, kinesthetic readiness and energy channels, complex trajectories in space, or modes of metabolic activity (flow, relaxation, or arousal). While such examples are more on the side of "bodily" skills than "embodied" concepts, we have seen in section 2 conceptual aspects that mesh with this in tango and that would become even more pronounced in healing systems like Shiatsu where bodily sensing meshes with regulative "concept maps" like the Five Phases. Earlier, we have also seen in Geurts' and Shore's ethnographic analyses that abstract conceptual domains can become receptors of such bodily imagery and that discourse is part-and-parcel of a multimodal transmission.

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[9] Let me illustrate both points, starting with the second one. In contact improvisation teachers employ metaphors to make dancers experiment with new body experiences, e.g. water imagery that depicts dancing as a continuous flux and the bodies as “pouring through” their partners (Felton, n.d.). While the image schemas needed to understand these metaphors are familiar, they produce something new when the learner figures out how exactly the metaphor could be projected into the own muscles, experiments with timing and learns to recognize specific triggers when the pattern is appropriate. Novel embodied patterns typically emerge from compound image schemas. Teachers of the pair dance tango argentino often use several metaphors to convey complex body-concepts (Kimmel, 2012). How these complement each other may be seen from the following example: To execute a pivot one metaphor may target how the torso produces the energy, a second how muscle chains between shoulders and hips are created for energy transmission, a third how the axis remains stable, an a fourth how knee bending produces a lower center of gravity for increased stability. The pupil who succeeds in placing these metaphors “into the body” and in simultaneously enacting them thereby creates a novel bodily gestalt with a unique feel to it.

Retrojection also suggests a new perspective on how conceptual metaphors are acquired by children. Let us return to the conceptual metaphors for morality, which showcase how somatic resonance and "embodied commitments" are created via force schemas. However, moral training is more complex than simply grafting a fully embodied image schema to the moral domain. Why? First of all, metaphors can be used to some effect long before their embodied power fully unfolds. A child hearing "do not stray from the right(eous) path", "pull yourself together", "show backbone" over and over again may understand the implied meaning globally due to the pragmatic usage setting, e.g. due to the parents' being angry when they use it. Yet, the child may not have experienced the metaphors' full somatic implications. Toddlers who have a far simpler vocabulary (e.g. *happy, tired, and mad*) need frequent negotiations around morality related issues with the mother to slowly develop their comprehension of internal states within the global cognitive maturation especially regarding empathy (Lamb, 1991). Something similar could be the case for embodied metaphors later in development. Second and related, the image schemas in the above metaphors need to be augmented in a complex process.[10] Even preschoolers will understand that motor control can be important to avoid disaster (e.g. from a high-bar on the playground). Then, a parent who applies this to morality will encourage a mapping onto a generalized constraint of *inner* impulses without any visible PATH. To distinguish admissible from inadmissible "courses of action" a new imaginary path needs to be formed in the moral domain (always assuming the child's proto-understanding of morality as such). My point now is this: discourse as a whole, i.e. metaphor and the rest, will focalize somatic states and control features differently from any pre-existing motor schemata of walking when somatic control must be understood as applying to subtle inner impulses to constrain appropriate thinking. As part of the discursive augmentation, the idea of a moral path throws an affective loading (e.g. "taboo") into the mix that has a phenomenological "flavor" different from the fear of losing one's footing on a physical path and which children have access to at an early age. And, for abstract morality a socially defined somatic action pattern needs to be assimilated by the body, which will happen only gradually, often mediated through complex social performances that infuse a schema with social significance (see Jackson, 1983a, 1983b). These performances use language amongst several other means. We may thus assume that few children who are old enough to understand metaphors (and willing to please their parents) are able to produce the appropriate somatic self-control right upon hearing the injunctions against straying and the like.

The avenues of retrojection (discourse => body) and projection (body => discourse) aren't mutually exclusive. Neither cultural discourse necessarily precedes the body, nor vice versa. The body-discourse loop is genuinely bi-directional and perhaps even dialectic in a diachronic view.

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[10] An interview-based study of primary school children by Gansen (2009) suggests that the pragmatics of everyday situations (speech acts and their purposes, observed affects and situations, conflicts, etc.) figure importantly in the process of mastering metaphors.

A child may inferentially understand a metaphor and only later endow it with full embodied resonance, or, conversely understand its motivational aspects and the inferences only later. It may thus be best to ask at which point discursive learning and at which pre-linguistic embodied experience take precedence.

Finally, schema acquisition may by-pass discourse altogether. Recall our ethnographic examples that focused on pre-verbal and mimetic learning. Or, take Western gender habitus. Girls typically learn to sit with the knees closed and they throw differently from boys, without being explicitly instructed to do so (Young, 1990). Neuroscience attributes mimetic capabilities to dedicated brain mechanisms. Much excitement has surrounded the discovery of mirror-neurons – or large cell assemblies in the case of humans – that underlie imitative behavior. Thus, hand gestures when observed subliminally activate the same neural assemblies that actively produce them (Gallese & Lakoff, 2005). However, especially at a complex socio-cultural level of analysis a simplistic view of bodily mirroring as a mere "copy-paste" process can be ruled out. Mimetic learning of advanced skills sits within a (cultural) environment of already mastered skills, which in turn constrain what can be *a priori* perceived and at what level of detail.[11] From that angle, mimesis comprises an active effort at construction within the aforementioned perception-action-cognition continuum and – at a reasonable complexity level – requires scaffolding by earlier acquired skills. It is subject to general constraints from human action systems as well as the knowledge of general "good tricks" and heuristics for learning (*deutero-learning*). These are the reasons to think Bourdieu's account remains reductionistic even where mimesis is the transmission channel of choice.

A similar multi-stranded analysis could be applied to the cultural formation of emotions, which often happens via kinesthetic and body-based habits, including emotion displays and direct interaction with one's caretakers in infancy, the encouraging or discouraging of emotions, but also via verbalization and cultural narratives (Ratner, 2000, pp. 22f). All in all, mimesis, projection and retrojection are all plausible mechanisms and require a broad and at the same time sufficiently granular approach to trace which process takes precedence when in the interplay.

A Middle Ground Between Universalism and Relativism

Studies of embodied grounding provide an excellent starting point for inquiring into human universals and variation, and many scholars have in fact done so. Even if culture-invariant bodies cannot, strictly speaking, exist, it seems tempting to posit some limited universals of bodily experience. In some domains we may assume some cross-cultural similarity of experience that motivates similar conceptual patterns. Let us look at two of the better-studied fields where one would expect this and see what they teach us. Concerning time, many languages use the mapping THE FUTURE IS AHEAD and THE PAST IS BEHIND US. This is motivated by the experience that the path before us is the path we step on in the future. However, the Andean language Aymara is the sole known exception to this pattern. It uses space inversely, i.e. THE FUTURE IS BEHIND (Nuñez & Sweetser, 2006). The experiential motivation here is visual via the inference that the future, which is unknown, is like an unseen object behind the back. (Another conceptual metaphor, namely KNOWING IS SEEING here influences the time mapping). The lesson from the Aymara outlier to the general pattern is that the body can motivate concepts in more than one way.

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[11] This is highlighted by a laboratory study of the brain activities in observers of ballet dancers and Capoeira experts performing complex movements (Calvo-Merino et al., 2005). Unsurprisingly, the highest mirror-like brain activity occurred among those observers who were able to perform the movements themselves. Interestingly, however, Capoeira performers and ballet dancers showed more activation when watching experts from the other discipline than people untrained in either discipline. This either points to shared motion patterns across the two disciplines, a generally enhanced mirroring ability among those who actively train, or both.

For a second lesson, take emotion concepts, an example sitting at the interface of the somato-affective and the inferential. A comparative study of emotion concepts by Kövecses (2000) reveals that all sorts of emotions are metaphorically conceptualized as forces, be it as opponent, wild beast, agitation or natural force, and by extension as social or mental forces (tricksters, insanity). One variant of this is ANGER IS A HOT FLUID IN A CONTAINER ("I was fuming with rage", "He was close to exploding"), in which case the force comes from within and creates pressure. There is a clear somatic motivation for these concepts through blood pressure, body heat, muscle tension and the body boundary. Attempts to control negative emotions such as anger are equally somatically motivated. They are conceptualized as vying forces, one of which wins out. This conceptualization is somatically grounded in a sensorimotor impetus to act out the negative emotion, while rationality restrains the impulse, creating a tension between muscle agonist and antagonist. With minor variations similar patterns were found in about 10 languages.[12] Yet, surprisingly, on the Micronesian atoll Ifaluk (Lutz, 1986) the body as a whole is downplayed for conceptualizing emotions. The key concept *song* (anger) does not take the body as its ontological locus to begin with. Instead, anger happens in the public field, and the concept accordingly emphasizes moral and social implications. We don't know exactly if the people of Ifaluk experience emotions in a similar way as in other cultures. Perhaps they do, but with a much greater sensitivity for what goes on around them and how they interact. The point is that this putative inner anger experience does not become relevant for motivating conceptual thinking about emotion. Apparently, the wider cultural ideology, i.e. the cultural model of EMOTIONS ARE IN SOCIAL SPACE, can become an equally possible source. In fact, it can actually override bodily motivations if these indeed exist, by deemphasizing the ontological relevance of somatic experience for the domain at hand. (A third possible point will be discussed later, namely that cultural discourse can actually change bodily experience.)

My argument so far was this: near-universal conceptual metaphors are suggestive pointers to a level of shared human somatic experience that is powerful enough to create similar concepts. The somatic experience of emotions and time probably has something universal to it. Yet, exceptions from the rule established by research show that no full conceptual universals follow suit. So how can we best reframe the issue? Cognitive linguists can be credited with the elegant notion of *experiential motivation* which steers clear both of determinism and relativism (e.g. Kövecses et al., 2003). The idea is that concepts are likely to be motivated in some way through embodied or perceptual experience, but that we cannot predict beforehand which these will be. Yet, even if somatic experiences exert bottom-up influences on the conceptual system, these need not necessarily be deterministic. (Several types of somatic experience can be drawn upon to motivate the same type of concept.) And, cultural fields can interact with bodily motivation in a top-down fashion. Thus, what are the particular mechanisms of *constrained variability* that explain why and how culture modifies or even interrupts the causal arc in cases where we assume some near-universals of somatic experience? First, body phenomenology may be prevented from motivating concepts because it is culturally *hypo*cognized (i.e. de-emphasized) in a given domain. For example, the skin as a container may be hypocognized in the context of thinking about the self, as Frank (2003, pp. 76ff) claims on the basis of an analysis of the Basque language. There also is research showing that the opposite, namely cultural *hyper*cognizing, and therefore an experiential differentiation leads to more nuanced concepts in a domain like emotion (Levy, 1984). Bodily signals may also be genuinely transformed top-down by cultural appraisals that, for instance, give a positive status, to a painful experience. Somatics are subject to shaping by cultural goals, such as honor, and prevalent norms such as individual achievement vs. group harmony (Mesquita & Walker, 2003, pp. 781f). Certain somatic signals may not even arise in acculturated adults when their habitus becomes a tool to preempt them (cf. Laderman, 1994). Thus people do not become angry as much because social means of control anticipate this. Finally, certain somatic motivations may exert effects very infrequently because the cultural environment avoids the relevant triggers (Mesquita & Walker, 2003).

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[12] Other findings by Wierzbicka (1992) indicate that all languages use involuntary external body behavior for expressing emotion, involuntary accompanying reactions observed in others, and body-based descriptions of psychological experience. However, the specifics of all three dimensions vary substantially.

Thus, a multi-deterministic and dynamic framework is needed. Using emotion metaphors as an example, Kövecses (2000) suggests several dimensions of cultural variation within universals. He discusses (partial) motivation via widespread embodied metaphors and metonymies, but also culture-specific factors. To him, conceptualized emotions minimally need to be consistent with some constraints of universal physiology. Yu (2008) proposes, specifically, a “circular triangle relationship” between metaphor, body, and cultural models. He posits that conceptual metaphors are usually grounded in bodily experiences that may be universal, while culture interprets the body by filtering for target domains. For example, experiences of what hands are good for are culturally similar, but metaphors and metonymies of the type “point out” or “put one’s finger on” differ in terms of conceptual range, explicitness, and number of expressions. Yu also argues that further metaphors may influence some of the cultural models that select for the aforementioned metaphors, such as the body-relevant Chinese models of Ying-Yang and the Five Phases, which specify the body parts (such as the gallbladder) in which a specific emotion (such as courage) is situated. Overall, any part of the triangle implicates the other two: “Thus, culture, by interpreting the bodily experience, affects the formation of conceptual metaphors; body, by grounding metaphorical mappings, affects cultural understanding; and metaphor, by structuring cultural models, affects the understanding of bodily experience” (Yu, 2008, p. 389). In my view, the details of that complex relationship will differ (not all cultural models are metaphorically constituted or influence other metaphors, nor are all body experiences as universal as hand actions), yet the model shows how bottom-up and top-down viewpoints may be intertwined.

We may have to discuss top-down motivations by cultural ideology more head-on. Goatly (2007, chapter 6) lists social motivations that complement bodily ones as well as various possible reasons for non-universality at the level of metaphorical conceptualization (ranging from the very absence of target concepts, via variable pairings of source and target, to subtle differences within the latter). He also points out that many kinds of metaphors do not seem to be motivated in the same sense that emotions are. With reference to Bourdieu, Goatly (2007, p. 279) highlights that metaphors like HUMAN IS MACHINE may be “ideologically constructed in order to produce particular embodied experiences". This inverted directionality of explanation radically calls biologistic views into question; and it shows how domain specific our claims ultimately are.[13]

Equality between Abstract and Situated Theorizing

Let me turn to one assumption of paradigms such as PSS and image schema theory that often blocks an interdisciplinary dialog with scholars of culture. What the latter find unattractive is that psychologists and linguists focus so much on highly abstract primary constituents. For instance, image schema theory posits primary experiential units like PATHS, CONTAINERS, or VERTICALITY that seem to be universal precisely because they are so simple. In view of cultural experience being essentially contextual and holistic, it may be an artificial exercise when these disciplines try to tease basic embodied schemas from richer contexts. What do we make of this skepticism concerning the units of embodied analysis? I agree with psychologists and linguists that there must be a level that represents image schemas in a de-contextualized fashion in entrenched memory. For example, we represent the word meaning of "into" (or other prepositions) by evoking a highly schematic topology before the mind's eye, i.e. an in-out relation. No further complementation through specific object shapes or other contextual details is needed. Because it is so reduced, this simple image-schematic relation can be shared by a maximum of otherwise different scenes (different boundaries, different agents, etc.) Such "pure" image schemas are most consonant with Johnson's (1987) original formulation. Yet, this is only half the story. It would be reductionistic to treat image schemas exclusively as non-situated units that reflect the most general properties of the human cognitive inventory. I agree with the following reflection on Csordas' ethnographic work on healing:

> [d]emonic possession (…) begins with an inchoate (pre-objectified) feeling of loss of control over the body … This is then objectified by a healer in terms of what Johnson calls the "container schema" and is diagnosed as an intrusion across a boundary, to be corrected by a suitable form of embodied action in response. What emerges, then, is *something quite particular and also something comparable to other contexts in which the container schema is similarly activated.* (Strathern, 1996, pp. 188-189) [my italics]

Rich cultural experiences such as symbolic healing have experiential uniqueness, even if some building blocks, such as CONTAINER schemas, are universal. Whence originates this uniqueness? First, new emergent qualities arise when basic image schemas coalesce in compounds. In our example, the healer's image-schematic *scene* in which a powerful agent drives another agent from a body-container by force creates a far more complex topology than any contributing element and instantiates what I have called a *compound image schema* (see above and Kimmel, 2005).[14] To amplify the point, some embodied knowledge is probably even learned to begin with at the level of specific scenes or scripts rather than at that of independent constituents. This would fit with theories of embodied learning appealing to mostly culture-specific and in any case complex formative settings or body techniques (e.g. Grady, Shore, as well as a paper by Alverson, 1991).

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[13] More generally I would urge caution against the common practice of making emotion concepts a paragon case for embodied grounding at large. They seem to be tied up with physiology more than others (via metonymies) and are rather a-typical for what we call an "abstract" domain to begin with, especially if we espouse the Jamesian view that emotions are apperceptions of felt somatic states.

[14] This notion runs parallel to the cognitive linguistic theory of grammar proposed by Langacker (1987), who envisages complex imagistic scenes that each word in a sentence contributes to with one particular feature. The constituent parts are familiar, yet the overall outcome is novel.

Second, in many contexts we use stylized versions of specific actions such as skipping, kicking, sitting, pinching, turning a screw, or picking up an object, rather than the more generic image schemas. The stylized actions have a higher degree of experiential saturation. In memory these action concepts require a different kind of gestalt representation, as it references onto specific action properties of the human body and not only its topological and kinesthetic invariants. Zlatev (2005) dubs this image type *mimetic schemas* and suggests that more abstract image schemas like UP-DOWN may in part emerge inductively when infants generalize across shared features of action concepts like CLIMB and JUMP.

Third, context can be all-important to fully render schemas effective, a point emphasized by theorists of situated cognition (e.g. Lave, 1991; Griffiths & Scarantino, 2008). In particular, the motivational and somato-affective layer that creates “embodied commitments” seems to arise only with contexts that disambiguate and flesh them out. In on-line cognition motivational aspects arise because the schemas are embedded into a context with rich sensory information, specific goal knowledge, and so forth. This is beautifully illustrated by Geurts (2002) concerning BALANCE in a Ghanaian context where the cultural elaboration of this universal schema, the refined balancing skills and many practices surrounding it, as well as many metaphorical uses of balance stamp the schema with uniqueness. Thus an entire level of embodiment is not predictable at the level of very abstract schemas but only from the situating context. Image schemas at the level Johnson has in mind are so flexible that they are still motivationally uncommitted. The psycholinguist Gibbs (2005) is a notable advocate of the view that these and similar cognitive structures may be primarily created “on-the-fly”.

Finally, a neuro-cognitive perspective points to an inherently multi-level ontology. Image schemas can be encoded at multiple hierarchical levels, with the aim to make the mind flexible to generate both high-level gestalts and simple constituents where needed. Neuro-cognitive models posit sensorimotor feature maps that are progressively funneled into so-called “convergence zones” (e.g. Damasio, 1989).

From the developmental viewpoint it remains an empirical question which level of schematicity arises first. For example, Mandler’s (2005) evidence for the claim that infants acquire singular features like PATH before more complex gestalts this does not rule out the importance of Zlatev’s mimetic schemas. Coming earlier in time is simply not the same as being ontologically more basic in the cognitive system of adults. Furthermore, in one important sense image schemas remain theoretical constructs. How universal they appear to us depends on how contextual our description of a phenomenon is and which phenomena we compare under the same rubric. The more our methods are geared to going into the details of situated concept usage the less we will find universals. So whenever we search for universal embodied schemas this presupposes some degree of abstracting away from situated and cultural specifics (cf. Goatly, 2007, pp. 272f). While many researchers now acknowledge the inevitable necessity of choosing a limiting vantage point, it is commonly overlooked how much our view of cognitive situatedness actually depends on our research method. As I have argued, both de-contextualized and highly context-modulated aspects of cognition are real from certain vantage points and thus both need to be explained. I thus propose a “stereoscopic view” that understands cognition both at the situated level of the phenomenologist and social scientist and at the more functional and abstractive level of the cognitive researcher.

Recursiveness and Emergence

At the end of the section on emotion and time metaphors I considered how bodily experience and concepts motivated by it could be culturally modulated. An idea of equal importance was just hinted at when I talked about compound image schemas that create a scene structure of a non-universal sort. The argument runs that (a) human thought is combinatorial and recursive, which allows huge expanses of knowledge to be generated out of a finite inventory of conceptual tools (Pinker, 1997, p. 360), and that (b) embodied constituents are key elements of this inventory. This is intuitively plausible, but the challenge lies in doing the appropriate concept analysis. It requires a framework with recursive scaffolding, recombination devices, and an explanation for the emergent structure at the output level. We got a brief glimpse of scaffolding earlier, when I discussed source domain aspects like “strategy” (from the war domain) which may themselves, in part, be metaphorically constituted at the next lower level. Yu’s examples from Chinese pointed to criss-crossing scaffolding relations between various types of cultural knowledge. However, the merit of an extended empirical demonstration for recursiveness belongs to Slingerland (2008, pp. 196ff), who applies the blending framework. His analysis of ancient Chinese moral philosophy illustrates how complex blends combine metaphorical mappings, imbue them with emotions, and connect their inferences. For example, in the philosopher Mencius’ view of proper *moral self-cultivation* an array of metaphors from the domains of warfare and agriculture is presented within an extended argument to suggest that self-cultivation needs to be gradual, should happen in accordance with nature, but also requires some effort. The upshot is of two sorts: First, Mencius’ overall rhetoric purpose is only served by the emergent structure of all metaphors taken together. Second, the basic elements, the individual metaphors, could probably be used for the purposes of very different concepts and the same is true of their embodied elements, notably FORCE imagery (manifested as water flow, irrigation, military force, etc.) We have seen that such complex combinatory patterns arising from more elementary units can also reside in the body and procedural memory. Two examples broached earlier concerned the complex sensorimotor gestalts Shore uses for his analysis of Samoan *tapu/ mana* and the complex somato-affective patterns that determine cultural affliction in Csordas’ paradigm.

Hence, basic constituents can combine into cultural gestalts with unique emergent effects. This integrative argument may go a long way in explaining cultural concepts, while at the same time tying these to a more limited experiential basis. The argument is of special appeal for those who think that variations in bodily experience are not huge. It is quite possible that many fundamental somatic experiences are cross-culturally similar, while their compositional derivations and emergent structures are highly varied. Whether or not we believe this the creation of *emergent structure* from *basic* elements remains an irreducible part of any investigation. In other words, it is a prerequisite for the morphological analysis of concepts as such. Note in this regard that, although many social scientists find it little palatable, we must not discard the notion of certain universal “primaries” too rashly. Much empirical evidence is still out, but the research aim as such is a worthy one.

By its very nature, cognitive cultural research is after two things. First, a detailed morphological understanding of the "stuff" a concept is made of, and second, a "toolbox" of general elements that accounts for shared functional principles across content variation. Shore's (1996, chapters 1 and 2) discussion of the *psychic unity of mankind* provides us with an excellent survey of "toolbox" items, as he lists several dozens of structural-functional model genres from the cognitive literature (synesthesia, image schemas, scripts, metaphors, propositional models, narratives, etc.) The analytic dimensions specified by each model type provide a certain common ground by letting us accommodate cultural specifics in them. Meanwhile, three levels of current theorizing have a bearing upon the psychic unity claim. At the first level *functional process universals* delineate generic mechanisms that remain uncommitted as to their content and that otherwise different phenomena share. Core affect, somatic marking, cross-modal correspondences, analogical mappings, and conceptual integration structure cognitive processes at this level. (Note that some, but not all of these deserve the epithet "embodied"). At a second level we see embodied *content universals* (or near universals) of a substantive kind. Examples are the five or six basic emotions, a universal directionality in synesthetic language (e.g. tactile stands for auditory but seldom vice versa), universal spatial reference frames, and even some near-universal metaphors (cf. Kimmel, 2004; Popova, 2005; also see above). There is a third level more difficult to accommodate in this scheme. It seems to be situated somewhere between process and content, and may be thought of as adding to them *domain-specific constraints*. A thriving research community has laid claim to domain-specific knowledge being universal because it is rooted in human evolution. This includes the body schema, folk theories of mind, religious agency, essences (in biology and social kinds), numeracy, naïve physics, and categorization principles (for a good summary see Slingerland, 2008, pp. 115-137). Some of these domains can be related to embodiment, although the connection is seldom drawn explicitly. It is a priori evident concerning the body schema. Naïve physics is largely grounded in gestalt perception and the pan-cultural tendency of attributing agency at least piggy-backs on perceptual habits. (Apparently falsely attributing intentions is a safer evolutionary strategy than missing an actual agent, e.g. a predator). Other evolutionary patterns from the above list like essentialist thinking and folk theories of mind have an unclear status with respect to embodied grounding.

Be that as it may, my first point is that all domain-specific theories rightly eschew a "blank slate" which cultural cognition would simply get superimposed on. Instead, there are evident constraints that issue from our biological make-up.[15] My second point is that a nuanced understanding of human universals can ultimately only gain from an improved grasp of the interrelations between the three levels I have specified. While evolutionary cognition research cannot be ignored, we must abstain from the false dichotomy of pitting psychic unity against psychic diversity, an argument based in an overly essentialist biology (Shore, 1996, p. 312). Third, none of what has been said commits us to a sharp distinction between a so-called A and a B system of cognition, where the A system comprises a *universal* common-sense, including a shared bodily and perceptual reality, and the B system includes variable higher concepts. Cognitive scholars of religion like Pyysiäinen (2009, pp. 189ff) exemplify this view. Indeed, our intuition clings to the hunch that certain body-based elements of being human are not terribly different across cultures, while ideology almost always is.[16] In the extreme, the notion of an A versus a B system invites dualism by suggesting that the two realms are rather disconnected. Embodiment approaches, by contrast, attempt to trace where the two levels of human cognition are connected. Slingerland's discussion aims to ground meta-culture on the bedrock of innate cognition, while according embodiment a key role. According to him, counterintuitive and complex ideas become comprehensible via being grounded in a set of commonsensical ones. For example, scientific theories are informed by complex blends that recursively link back to innate domains, "their final court of appeal" (Slingerlandm, 2008, pp. 212f, 237). To be sure, Slingerland does not reduce common-sense to perceptual grounding alone because innate modules are added and acknowledges limits to the recursiveness of blends (Slingerland, personal communication). In my view this approach to bootstrapping from commonsensical domains provides an appealing hypothesis if, indeed, the embodied inputs can be traced to the output level. Yet, many case studies of specific counterintuitive or complex representations will be needed to make general claims on recursive grounding, be it through blending or other scaffolds.

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[15] In addition, theorists of the "epidemiology of representations" (Tooby & Cosmides, 1992; Sperber, 1996) claim that universal trends in thinking may become established because the cognitive make-up of humans ensures their easily use and transmission in a group. One impetus for transmission can be phenomenological plausibility and experiential grounding ("intuitiveness"), but as we shall see in the last section of this paper, contravening forces to plausibility may enhance a concept's memorability.

Implications of Embodiment Research

Finally, what role should we accord embodied grounding in understanding human society? A relatively weak view holds that embodied, especially perceptual, elements simply underlie complex meta-cultural representations in a morphological analysis. A stronger and more controversial claim is that a concept derives its credibility, intuitiveness, and authenticity from grounding, thus becoming an "embodied commitment". Do certain concepts thrive thanks to their embodied status? Can something wholly ungrounded in embodied common-sense catch on at all in a culture? And, do all input elements need to be grounded or only some? Let us, again, take on the inferential and somato-affective levels separately.

Many cases make evident that perceptually grounded elements are needed to discursively articulate a worldview and its inferences (e.g. boundary and exclusion metaphors have quite different inferential consequences than such of proximity and relationship). However, whether grounding in perceptual commonsense is always needed for concepts to be successful remains open to debate. *Contra* this claim, Boyer (2001) speculates that religious concepts are viable because they paint a starkly counter-intuitive element with a veneer of the known and have just the right degree of counter-intuitiveness, thus enhancing the retention rate in memory and thereby the concept's cultural transmission. If we equate "counterintuitive" with "non-grounded", full perceptual grounding would a priori be undesirable for this class of concepts. On the other hand, Boyer's claim has little predictive power, especially concerning types of counter-intuitiveness that do not catch on (besides the problem that the framing of the problem inoculates it against falsification). Another counterargument to obligatory grounding is that common-sense elements such as essentialism are "hardwired" in the brain and therefore need not be experience-based to begin with.

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[16] This applies especially to functional bodily skills like learning to walk or ones that are easily adopted like driving cars. By contrast, the realm of abstract ideas seems to produce an infinitely greater diversity, clash, learning difficulty across cultures, and, we may add, greater resilience to change under conditions of globalization. My point is not to negate differences at the bodily level, which have been amply studied by the anthropology of the body, but to draw attention to a possible difference in extent.

Somato-affective grounding of “embodied commitments” is clearly needed for many levels of society to work: People act in conformity with society for many affective reasons, including such unrelated to the accepted key concepts, e.g. opportunism. What is more, analytically it may often be impermissible to analyze single concepts only for their own somato-affective payoffs while neglecting those provided by the wider socio-cultural field (especially elective affinities with other concepts and/ or somatic states). It may well be that a particular concept is accepted not due to its payoff, but that it stabilizes through somatic affects permeating an entire lifestyle (e.g. children accept harsh ideologies because they love their parents). Macro-affects and local cognitive concepts can dynamically stabilize each other. Inculcation by “brainwashing” would largely depend on such mechanisms, although it can just as well work as structuralist theoreticians would predict, i.e. a concept is accepted mainly because its surrounding web of mutually cross-buttressing concepts stabilizes it. If the latter mechanisms can completely override the need for affective acceptance remains open to debate.

The grounding of concept systems in particular somato-affective qualities often has a normative aspect to it. Lakoff (1996) argues that American conservatives have a metaphor system much like their liberals counterparts, in which image schemas, metaphorical mappings and other principles play a role. What distinguishes the two (in addition to different metaphor related preference orders and contextuality) is that the liberal system respects a very basic somatic level of nurturance while the conservative emphasis on discipline, punishment, and strict morality fails to do so. Thus, Lakoff argues, liberal ideology is better grounded in the human condition, which is geared towards well-being. I actually doubt that it is *always* possible to equate conservatism with an upbringing devoid of nurturance and embodied welfare, but whatever the empirical case may be, Lakoff showcases the normative implications underlying embodied concept grounding.

Beyond this, repercussions on normative arguments are perhaps most evident concerning emotion. There is an ongoing debate about whether morality is primarily driven by emotions like anger, shame and guilt or by feelings of empathy (cf. Prinz, 2011), while others emphasize appraisal related over embodied constituents altogether. Repercussions on conflict management are evident as well. The acceptance of somato-affective components as being part-and-parcel of conceptual processes is the accepted first step in conflict mediation; only when we acknowledge anger, etc. we can channel its more deleterious effects. (cf. Ciompi and Endert, 2011). Finally, social cognition research dramatically strengthens the role of embodied subjectivity in teaching, therapy, and many other fields. Bodily communication is the fundament of language acquisition. And, the enacted bodily self is a primary source of intersubjectivity. Phenomenological research in particular relativizes rationalistic (”Cartesian”) interaction ideologies. Young parents, caregivers of dementia patients, therapists, coaches, and many others now receive support from research when they use the bodily sense of being with one another as a key resource. Practitioners in many fields also use what we may call embodied language (e.g. gestures, metaphor, synesthetic images) in order to saturate reason with affect and imagery.

Summary

In this section I have argued that an integrative theory of embodied cognition and culture requires a number of epistemological strategies. These envisage;

a) a bi-causal loop between body and culture as concerns learning;
b) a middle ground between bodily determinism on the one hand and cultural determinism and arbitrariness of ideas on the other;
c) a multi-level theory that accounts for the situatedness of cognition (but also the occasional absence thereof) together with a critical reflection of the abstraction in our analytic constructs;
d) a morphological apparatus for analysis that addresses how complex knowledge is combined out of simple elements and how embodiment thus creates variation, and
e) a careful consideration of what we wish to imply with embodied cognition arguments about the human condition and, by further consequence, for disciplines like pedagogy, ethics, and politics.

Embodied Cognition as Integrator of Disciplines

In conclusion, what role does our topic play for integrating cognitive research itself and for a rapprochement to surrounding areas of scholarship? Building on the sketched notional arc that encompasses body, mind, and culture (as envisioned by Frank et al, 2008) I propose that this arc can simultaneously become an interdisciplinary one, a process already under way.

"Embodiment:" a Fuzzy Notion?

Viewed from a distance we notice how much "embodiment" has become a vogue term, yet how different the meanings accorded to it in different disciplines are. It is therefore crucial to specify the level of research and the focalized cognitive mechanisms at this level (e.g. grounding in external percepts vs. grounding in proprioception; phenomenology vs. sub-conscious cognition). A cavalier lumping together of everything that surrounds embodiment hampers a genuine dialog by suggesting pseudo-similarities. The notion's associative richness turns into a hurdle when it becomes a catch-all term for performance and habitus, learning by various mechanisms, and different kinds of concepts. Especially the often postulated "body turn" invites generalizing claims about the embodied mind *tout court*. In view of this, a more reflexive handling of the matter is called for in two ways:

a) *Level specificity:* we need to operate with precise definitions that foster an acute awareness of the level of embodiment that a given study is addressing, and
b) *Domain specificity:* we need to evaluate evidence piece-meal and for a specific domain of human cognition, before making overarching claims. Only thereby do we acknowledge that different kinds of concepts come about in different ways.

Hence, although a sizable body of data is now available, years of comparative cultural research lie ahead of us to fully flesh out the picture. And, as I will argue next, existing interdisciplinary ties will have to be exploited and strengthened.

The Need for Convergence and Scaffolding

This paper selectively looked at research from the embodiment literature that is pertinent to the complexity level of culture (and even then I haven't had space to address topics like synesthesia or many aspects of current social cognition research). Surveying approaches from cognitive linguistics, cognitive psychology, and cognitive anthropology in one single spot makes sense. There is an evident degree of complementariness between these approaches, all of which study cognition and embodiment with a focus either on cultures (plural, i.e. comparatively) or display an interest in the fact of socio-cultural mediation of cognition. While these disciplines strive towards a common goal, convergences are not being exploited as much as they could. Somewhat paradoxically, discussions of how we may bridge the gap to the "brain" sciences are attracting far greater attention than the arguably easier interpolation between areas that belong to the approximately same realm on the "mind" side of things. Important convergence zones remain neglected due to a lack of mutual awareness of neighboring disciplines. For example, most cognitive psychologists are at best vaguely aware of linguistic research, while work in cognitive anthropology tends to be read by neither. One crucial convergence zone has been drawn attention to when I suggested both that somato-visceral and inferentially oriented theories must eventually join forces within a single framework. Connecting these areas would, as a beneficial side-effect, create a greater typological awareness of aspects of embodiment and, as I shall argue in the next sub-section, its multi-tier architecture.

On the asset side, the aim of integrating embodied cognition phenomena from various different levels has appeared on the agenda. A description of the multi-level architecture of research is a first step that Rohrer's (2001) survey of approaches from the neural to the socio-cultural levels takes into view. Actually linking these levels in an integrative model is the obvious next step, as in Feldman's (2008) computationally implemented "Neural Theory of Metaphor", or Slingerland's (2008) argument for *scaffolding* from innate or otherwise universal cognitive elements to metaculture with high variability. Incomplete as these attempts remain, they show the direction to go in the future.

I hope the reader has glimpsed, at various points, affinities between discussed theories which occupy an important juncture of the multi-tier architecture described by Rohrer. What kinds of scaffolds and bridges do I have in mind, then? First of all, by acknowledging that embodiment can refer to unique, rich experiences as well as to schemas at various levels of abstraction we can focus on relations of progressive "enrichment" between these levels. We may thus compare the Anlo-Ewe "enriched concept" of BALANCE discussed by ethnographer Geurts (2002) to the more generic schema suggested by the philosopher Johnson (1987) and specify contextual or cultural constraints responsible for the difference. Second, it seems that different methodologies fill different slots in a scaffolded multi-tier architecture. Most importantly, some methods reflect more cultural situatedness than others. Cognitive anthropologists and cultural phenomenologists aim to be ecologically valid, cognitive linguists come next, in cultural psychology the picture is somewhat split, while experimental psychologists gravitate towards a more context-free paradigm. Along this continuum an evident trade-off meets the eye here: The immersive methods of ethnographers capture context and allow us to understand culture holistically and, often, from the viewpoint of lived experience. At the middle level linguistics provides dimensionally more focused (hence less holistic), but systematic data from across several cultures. The far end of the continuum is occupied by controlled laboratory methods (e.g. Nisbett, 2003) and specializes in causal explanations. This depends on isolating variables and investigating how variations in one variable (like cultural origin or mother tongue) influence a second, dependent variable (like the performance in a cognitive task). The net gain can be causal models for adjudicating debates like the long standing controversy around the Sapir-Whorf hypothesis (cf. Deutscher, 2010). The flipside is that experiments reduce socio-cultural context to somewhat artificial settings. Thus, “stereoscopic theorizing”, as I called it earlier, between ecologically valid and controlled methods is imperative.

I see particular promise in sub-disciplines that straddle disciplinary fences to begin with. Cognitive linguistics is becoming one such “hub”. It displays considerable ability for traversing boundaries (cf. Frank, 2008, p.5) not least because of its gestalt approach. The eschewing of propositional modeling and the current paradigm switch to a simulation based account appeals to phenomenological and ethnographic quarters alike and inherently requires far less bridge-building than, say, traditional AI frameworks or 1970s-style cognitive models would. It is far from accidental that cognitive linguistics has expanded beyond linguistics proper and spawned much multimodal research, as witnessed by a burgeoning field of gestural and pictorial studies. Hence, particular frameworks are inherently more connectable than others both thanks to their theoretical paradigm and the methods that go with it. Accordingly, since its inception in the early 1980s the discipline has proven its ability to engender new convergence zones such as *cognitive semiotics*, *cognitive poetics* or *cultural linguistics*, and radiates outward into discourse analysis, musicology, and performance studies.

Convergent Evidence, Triangulation, and Methodological Pluralism

Various method-related developments now also make it easier to cross disciplinary divides. For one thing phenomenology is now taken seriously and has created important applied perspectives. Compared to the time when Jackson (1983a, p. 330) diagnosed a “dearth of studies of the body-as-subject” much has changed, both in anthropology and cognitive science. The advent of empirical phenomenology (Pollio et al., 1997) demonstrates that subjective approaches need not veer off into the impressionistic and can systematically address aspects of subjective experience. Special methods both of interviewing (Stern, 2004; Petitmengin, 2006) and doing think-alouds create snapshots of cultural/ individual experience, arrest its fleetingness, and – with reference to embodied knowledge – make explicit praxeological skills that lie “hidden in the body” or just below the consciousness threshold (Kimmel, 2012). Likewise buzzer-cued spontaneous recordings select a small slice of subjective experience for later scrutiny by the researchers (Hurlburt & Heavey, 2006), yielding exciting insights on some individual’s tendency to be in a “somatic”, or “imagistic” state of awareness, while others tend to engage in verbal thought.

On the behavioral side, multimodal approaches to cultural communication are providing unprecedented resources (e.g. Finnegan, 2002, pp. 223ff), often in conjunction with a video-based micro-analysis and complex coding schemes (e.g. Norris, 2004). Scholars have taken to comparative work on non-verbal communication modes like facial expression (Levenson et al., 1992), speech-accompanying gesture (e.g. Efron, 1941; McNeill, 1992), gaze (e.g. Rossano et al., 2009), and rhythm (e.g. Agliati et al., 2005). The latter study is also exemplary for many others in that a micro-analytic qualitative approach is embraced which simultaneously takes advantage of pattern detection software. Mixed methods like these are of value in general, not least because social scientists are beginning to realize that the fear of "measuring" is unfounded with the advent of micro-analytic methods.

What about methodology as such? Many quarters within cognitive science are showing great ability to harness together different sources of empirical data in exploring cultural cognition. Lakoff and Johnson (1999) push for this explicitly in their "convergent evidence" framework. They claim that, since sub-personal cognition is difficult to access, theoretical constructs unfalsified by six or eight independent methods must have great strength. While this point is well taken, method triangulation in single projects is an even more important ideal to aim for, for approaches like Geurts' mix of developmental, linguistic, and ethnographic tools remain rare to date. By applying different methods to the *same* data pool much is gained over a post hoc arraying of convergent evidence. An example for this, again, comes from my aforementioned project on tango in which I applied phenomenological methods in conjunction with motion tracking by high-speed cameras, hence measurements of corresponding factors to the dancers' subjective theories of technique. What is special about a triangulation such as this? It is not only that specific data slices are compared across methods. To begin a motion tracking study we need a great deal of qualitative input gained through introspection, expert interviews, and projecting these on the initial results in a continuous loop of refinement often over months (e.g. when expert dancers provide feedback to some data samples). And what is the outcome? To give an example, we discovered precise kinetic counterparts of subjectively marked phases experts think and speak of in characterizing tango gait. Thus, an evolving dialog between the methods creates granular descriptions far beyond what convergences from across data sources can give us.

"Vertical Integration" and the Role of Embodied Cognition

When I called for the exploitation of convergence zones above this suggested a near-horizontal interpolation between not quite so remote research areas. However, the interpolation may become more vertical when we widen our purview and look at cognitive science on the one hand, which branches out into the natural sciences, and the social sciences and some of the humanities on the other. Embodied perspectives on cognition, especially to the extent that they are situated, display a natural affinity to the social sciences and can infuse the latter conceptually and empirically. Cognitive scientists on their part should pick up impulses from the sociology of knowledge, phenomenology, and all kinds of qualitative social research to gain in ecological validity.

In a valiant book-length effort to stimulate an interdisciplinary dialog, Slingerland (2008) recently coined the notion of "vertical integration". He claims that the cognitive arc from basic elements to meta-culture implicates a disciplinary arc, where the humanistic or social sciences hold the top position and the natural sciences form the fundament. Slingerland proposes that the humanities are not necessarily incommensurate with cognitive research, despite the doubts of the former. He claims that for a true rapprochement between the often-cited "Two Cultures" embodied cognition research is a key site, a point well worth underscoring. In my view, the humanities and social sciences can gain in several respects from the empirically-minded, but also epistemologically grounded debate I have surveyed. First of all, other disciplines stand to gain from descriptive tools such as conceptual integration networks, notions such as image schemas, and multi-level models like those from emotion research. Second, the cognitive embodiment paradigm tidies up some conceptual clutter and formulates in a tractable way the key question "how can universals lead to cultural specifics?" Related to this, it dominantly challenges views that assume a causal supremacy of culture over cognition *tout court*, i.e. cultural constructionism, or see culture as removed from the realm of the body, i.e. a form of dualism. Researching functional cognitive universals while allowing for content specifics (and near-universals) is perhaps *the* paradigmatic achievement the social sciences and humanities should emulate. Ultimately, the very framing of the research agenda, which crucially benefits from domain-specific evidence, a multi-tier architecture, and empirical methods as such, helps us reject false dichotomies.

I close with expressing my conviction that the study of embodiment is a cornerstone of the important enterprise linking cultural processes to the trans-human cognitive makeup. The scholarly discourse is fairly broad now with a sizeable number of cultural areas that have been empirically investigated (although many others are still missing) and with many different methods employed in the service of a common goal. With the recognition that no approach has full answers for the complex set of questions discussed here we need to knit ever closer ties and transform the emerging multi-perspective mosaic formed around a shared programmatic into a genuine theory network.

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Integrating Conceptions of Human Progress

Rick Szostak[1]

Abstract: This paper applies interdisciplinary techniques toward the investigation of the idea of human progress. It argues that progress needs to be considered with respect to an ethical evaluation of a host of different phenomena. Some of these have displayed progress in human history, others regress, and still others neither. It is argued that it is possible to achieve progress on all fronts in the future, but only if we engage constructively with the true complexity of the world we inhabit. Classification is seen as a critical complement to interdisciplinary analysis.

Keywords: Ethics, human progress, interdisciplinarity, policy.

Introduction[2]

The existing literature on human progress predominately focuses on a small set of indicators: optimists stress advances in economic output or technology, while pessimists bemoan environmental or cultural deterioration. Yet progress can potentially be evaluated across hundreds of indicators. Indeed the Organization for Economic Cooperation and Development heads a collaborative research project designed to develop such a list of indicators. However, we can only speak of progress in this way after first identifying what would be ‘good’ or ‘better’ with respect to a variety of social, political, psychological, and other variables. Is it possible to develop consensus cross-culturally on the direction human societies *should* move?

This paper will argue that it is indeed possible to identify what most humans would consider progressive across a wide range of phenomena. It is then possible to perform a historical survey in order to ascertain for which of these phenomena[3] progress (or regress) has been observed historically. And then it is possible to speculate on whether it is possible to achieve progress in the future for phenomena that have shown regress in the past. Since people will disagree

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[2] This paper draws heavily on my *Restoring Human Progress* (2012). I thank Cranmore Publications for permission to borrow from that book.

[3] In addition to critiquing meta-narratives, postmodernists also stress the uncertainty inherent in contemporary society. They may be guilty in this respect of exaggerating the uniqueness of today’s world. Indeed, most people in the developed world live largely free from the fear of periodic food shortages that threatened most past societies. While they also face uncertainties related to stock markets and nuclear warheads that were unknown to distant ancestors, one should be careful about assuming that today’s world is more uncertain in some aggregate sense than yesterday’s world. Moreover, humans can aspire to reduce the degree of uncertainty in the world by better understanding it.

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regarding the relative importance of different types of progress, humanity can only share confidence of a progressive future if progress can be imagined across most/all phenomena.

Such a project involves integrating across both disciplines and cultures. It requires integrating ethical, historical, and social scientific analysis. And it involves integrating scholarly and public policy analysis. In so doing, the project must grapple with three prominent sources of pessimism regarding the human condition: a fear that we cannot identify a universal ethics (and thus do not know what progress is), a concern that the world we live in is too complex for us to understand (and thus that we could not identify a path to progress even if we could decide what progress would mean), and finally a concern that public policy is not guided by rational discourse (and thus we would not achieve a path to progress even if we could identify it).

These challenges can each be met through the application of recent developments in interdisciplinary analysis. This paper will both outline how these challenges can be surmounted in achieving a holistic understanding of human progress (its nature, its history, and its future prospects), and present the results of research that has attempted to overcome each of these challenges.

The next section reviews some prominent recent critiques of the idea of progress. The subsequent section discusses how consensus can be achieved on the nature of progress across hundreds of distinct phenomena. We must first in that section discuss how to achieve consensus on a list of phenomena to care about. Having identified the nature of progress across diverse phenomena, we can turn to history and ask for which of these history has been progressive. Last but not least, we can ask if it is possible to imagine strategies or policies that can achieve future progress in areas of past regress (or stability).

Criticisms of the Idea of Progress

Complexity

In the glory days of the postwar economic boom, a host of social programs were launched across all developed countries. Decades later, all of these societies (though to quite different degrees) still face major social problems: homelessness, poverty, marginalized groups, long-term unemployed. Not only have social programs failed to eradicate these problems, they are often observed to have had undesirable side effects. For example, some social programs may provide disincentives to individuals seeking to become productive members of society. It could well be that we hold these programs to too high a standard: the thrust of this book is toward making the world better rather than perfect. A program that moves a million people out of poverty or a thousand people off the streets can be hailed as progressive even if it leaves as many behind. Yet it is understandable that many people, facing the seeming intractability of a range of social problems, worry that societal problems have turned out to be too complicated for us to solve.

This societal concern with complexity has been articulated most clearly within the discourse on the ‘postmodern condition.’ Lyotard (1984, p. xxiv) stated that: “Simplifying to the extreme I define postmodernism as incredulity toward meta-narratives.” Not only are such meta-narratives necessarily simplistic but they then mislead individuals into ‘seeing’ the world as less complex than it actually is.[4] 'Liberal democracy,' for example, is a meta-narrative which suggests that democracy, capitalism, and individualism are mutually supportive elements of a progressive society. Such a meta-narrative, if accepted without question, blinds individuals to contradictions inherent in democracy, capitalism, and individualism. Critics of postmodernism have noted (often a bit too gleefully) that postmodernism itself can be viewed as a meta-narrative, and suggested that the postmodern meta-narrative can too easily lead individuals to ignore that which might be good in contemporary society.

Postmodernists have performed a valuable service in urging scholars away from 'grand theories.' The history of the social sciences and humanities (hereafter human science) is littered with attempts to explain most or all of human activity within the confines of one theory. The inevitable failure of such exercises naturally induces scholarly pessimism. Yet grand theories generally illuminate some aspects of the human condition, and thus their failure to illuminate all should hardly be taken as a sign that human understanding is impossible. Indeed we are guided not to entirely reject any grand theory, but to look for particular insights it might generate. Those postmodernists who have not abandoned hope of advancing human understanding celebrate more narrowly focused scholarly research. They thus appreciate, at least to some extent, that the fact that the world is complex does not mean that it is incomprehensible. The world may not be orderly, and may even seem chaotic, but we can and should nevertheless aspire to gradually enhance our comprehension of pieces of this vast puzzle.

The attitude toward meta-narrative urged here reflects the attitude generally taken by instrumental interdisciplinarians toward disciplinary insights: we start with a healthy skepticism, suspecting that there is both some truth and some error in most insights. Whereas decades ago interdisciplinarians were often attracted to meta-narrative, the more common approach today is to suspect that each complex problem demands a unique evaluation and integration of disciplinary insights (Szostak, 2004, Repko, 2011). It thus makes sense to apply that contemporary interdisciplinary sensibility to meta-narratives themselves: these are not likely to be as far-reaching as their supporters suspect, but each is likely to tell us something useful about some phenomena or relationships.

The argument of the preceding paragraph accords with the 'common sense' that guides most of us through our daily lives. I am all too aware that I cannot hope to comprehend all of the economic, political, technological, and other characteristics of the world in which I live. I take my car to a mechanic when it doesn't work, have only the vaguest appreciation of how computer chips are manufactured, and do not even know where most of the food on my table was grown. Yet I know enough about how the world works to make a set of decisions that generally work for me (importantly these include informed recourse to experts of various sorts as appropriate). These are not incorporated in some grand theory of the universe, but in a host of specific understandings. My understanding of what happens when I press the accelerator need not be related theoretically to my understanding of what happens when I am nice to a stranger, though I should strive for consistency across such understandings.

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[4] In addition to critiquing meta-narratives, postmodernists also stress the uncertainty inherent in contemporary society. They may be guilty in this respect of exaggerating the uniqueness of today's world. Indeed, most people in the developed world live largely free from the fear of periodic food shortages that threatened most past societies. While they also face uncertainties related to stock markets and nuclear warheads that were unknown to distant ancestors, one should be careful about assuming that today's world is more uncertain in some aggregate sense than yesterday's world. Moreover, humans can aspire to reduce the degree of uncertainty in the world by better understanding it.

If we will favor research that is focused, we will want some way of connecting our understandings of different pieces of the puzzle that eschews appeals to simplistic meta-narrative. In Szostak (2004), I outlined one way in which scholars could hope to organize their understanding. Classifications were developed of the phenomena that scholars study, the data they use, the types of theory they employ, the methods they apply, and the everyday practices of scholarly research. Any piece of scholarly research can be precisely identified in terms of each of these characteristics. And thus one can imagine a multidimensional 'map' of the scholarly enterprise in which every insight has a place. To be sure this 'map' will not look like a roadmap, but will serve the same purposes: it provides a precise location – in terms of phenomena, data, theory, method, and practice – of each piece of scholarly research, and thus also of how one piece of research might be connected to another: do they investigate some of the same phenomena or data, or apply the same theory or method?

One important implication of such a map is that scholars are thus encouraged to specify carefully which phenomena are implicated by any theoretical argument. Human science in particular is all too often characterized by failure to specify where a theory (or method) is applicable. I also in that book urged a balance between specialized research and integrative research: the latter is necessary to tie scholarly understanding into a complex yet coherent and complementary whole.

Human understanding can never be perfect. One insight of contemporary philosophy of science is that it is impossible to prove or disprove any scholarly statement. To be sure, some statements – such as the laws of thermodynamics – are so widely accepted as to appear to be 'proven.' Yet there is always some argument that can be sketched in opposition to either a scholarly statement or the evidence provided in its support. This result need not and should not prevent humanity from first trying to understand and then trying to change the world. For example, economic growth as a process involves important interactions among hundreds of phenomena, and scholars can never hope to understand any of these interactions flawlessly: the path of economic activity is thus necessarily uncertain. Nevertheless humanity can hope to understand some relationships (or 'causal links') well enough to be confident of the main effects of certain policies or practices (Szostak, 2009). Humanity can thus recognize uncertainty without being immobilized by it.

If human understanding can only come in little bits rather than in meta-narratives, but these bits of understanding can potentially be organized into a coherent understanding, it follows that understanding of human progress should also come in a disaggregated but coherent form. Sometimes pessimism regarding progress flows from focusing only on the manifest challenges facing contemporary societies, and dismissing (sometimes explicitly; more often implicitly) any characteristics that might be viewed in a more favorable light. Often it is assumed (again generally implicitly rather than explicitly) that there is some inevitable connection across these problems: perhaps capitalism must lead inevitably to environmental destruction, cultural dissolution, and political strife. Such an argument is a meta-narrative, and deserves to be treated with caution. In this paper, human progress will be evaluated phenomenon by phenomenon. A picture of human progress as a whole can only be gained by combining our insights into progress phenomenon by phenomenon.

Reason

If it were assumed that humans are completely incapable of understanding their world, then it would follow that they could not apply reason to improve that world. If we do not understand, any action we undertake or decision we make, no matter how well-intentioned, could as easily do harm as good. Progress might still occur, but would be much less likely. One might for example posit an evolutionary process: humans choose randomly (since they do not understand) among beliefs or institutions, and the changes that happen to make the world a better place are selected. Even here, there is a problem: how are the better beliefs and institution selected if human reason cannot appreciate when an improvement has occurred?

Scholars have emphasized two distinct arguments regarding reason. The first is that in the West since the Enlightenment of the seventeenth century reason has been emphasized at the expense of human emotion and intuition. This insight is embraced in this paper. Human reason cannot operate in isolation, and never has. Even within science reason is *supposed to be* tied inextricably to experience: scholars are not supposed to just sit in their offices and theorize but are expected to use scholarly methods in order to provide real-world evidence for their conjectures. Moreover historians of science have long appreciated that scientific discoveries always come in the form of intuitive inspiration, and that these inspirations are sandwiched between lengthy periods of rational reflection and revision. That is, the scholar having identified a problem thinks about it at length, and explores various avenues, but the solution most often comes while the scholar is walking in the park or taking a bath, and thus not consciously addressing the problem at hand. Creative problem solving is by definition not an entirely rational act, but involves the intuitive drawing of new connections (which are then clarified through a further exercise in reason). Nor does the role of intuition stop there. As the eighteenth century philosopher Jean-Jacques Rousseau (among many others) appreciated, humans cannot identify their goals by recourse to reason alone, but must look inside themselves to divine what the purposes of human lives (individually or collectively) should be. Reason not harnessed to human feelings can too readily support totalitarian excess. The dictator who kills millions in order to fashion a better world is guilty among other things of failing to use their intuition to challenge their reason. Yet while reason works best if harnessed to experience and intuition, it is likewise true that experience and intuition should not be trusted in isolation. We all draw lessons in life from experience, but can easily be guided by spurious correlations – it always rains on Thursday, people of group X are rude, I am unlucky at cards – unless we subject our experiences to reasoned analysis. And while our intuition in part seems to reflect subconscious understandings of the world, it also reflects a set of subconscious desires and self-serving beliefs that also deserve to be carefully analyzed.

The second argument regarding the exercise of reason is an understandable concern that reason does not in practice guide human affairs. Some have suggested that humans *never* make decisions on the basis of reason.[5] Individuals only pretend to apply reason to justify decisions that have in fact been reached subconsciously. It is argued that this is an inevitability to be accepted rather than an ill to combat. It can hardly be denied that individuals often make decisions on non-rational grounds: they go with their gut instinct or do what they observe others (especially figures in authority) doing, and may be especially guilty of making decisions according to a decision-rule of not offending those most likely to attack them for making the ‘wrong’ decision. It must seem, though, that reason is not totally absent from human decision-making. The author certainly believes that he has made some uncomfortable decisions from time to time precisely because reason compelled him in a direction he did not wish to go. Note also that if skeptics are correct and reason never matters, then making a reasoned argument that open-minded conversation should be pursued is merely harmless: it can have no effect on individual behavior. If, however, these skeptics are wrong, and reason does matter, then failing to urge open-minded discourse limits societal progress.

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[5] See for example Detmer's discussion of Laurie Calhoun (2003, 245-9). Ruth Benedict has suggested that *all* societal decisions are arbitrary and subconscious. Detmer responds that *some* may be, such as which

I myself have often walked out of committee meetings despairing of the inability of even well-educated people to fully articulate their thoughts or fully understand the thoughts of others. I have been astonished that what seemed to me to be obvious efforts at manipulation or coercion were not clearly perceived as such by others. At such moments it is easy to accept extreme skepticism of the possibility of rational human action.[6] Yet there are many other moments in life when I have engaged in open honest conversations that seemed to lead to mutual enlightenment. At such moments it is hard to think that there is not some hope for enhanced understanding through the exercise of reason.

The simple observation that some conversations seem fruitful and that others do not suggests a way forward. If we can identify the conditions under which reasoned discourse is most likely, *and* if we can then strive to generate those conditions in public debate, then we can enhance the role of reason in public affairs. The philosopher Jurgen Habermas has devoted much of his career to outlining the conditions conducive to reasoned conversation, and how such conversations could and should inform public policy. Notably, Habermas believes that language is not as ambiguous as literary theorists claim. In particular he notes that utterances – sentences, paragraphs, speeches – are not as ambiguous as the words they contain, because the listener/reader can appeal both to other words in the utterance and to conventions governing utterances in order to narrow the range of possible meanings. Yet this argument is not essential to his discussion of ambiguity-lessening conditions: once one recognizes that ambiguity is not absolute it makes sense to pursue conditions that reduce ambiguity. For Habermas, a reasoned conversation is one where participants share a goal of agreement (as opposed to victory): they will then seek to understand the reasons why another might disagree and seek jointly with the other person to determine whose reasons are more valid. Participants should thus hope that the better argument will win: they will try to state their reasons as clearly as possible, recognizing potential defects, rather than trying to score an artificial victory by recourse to rhetorical ‘tricks’

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side of the road to drive on (though even here consensus may reflect reasoned consideration of the cost of not agreeing), but that others, such as ‘do not murder’ are not (2003, pp. 237-238). More generally he notes that it is inconsistent for postmodernists to use reason in attacking rationality (p. 307).

[6] And in a world of manipulation, close-mindedness, and pigheadedness, every individual from time to time is treated by others in ways that show insufficient respect for one’s being: the denial of individual authenticity – another important aspect of postmodern thought – spares us the angst associated with such moments, for we can maintain that there is no authentic person to be offended.

of various sorts. Likewise they will ask questions of the other designed to clarify their position rather than to make them look bad; if as a result a clear weakness in a position is exposed, this will be recognized by all without necessarily concluding that the entire position is misguided. All participants should strive to see that no relevant argument is suppressed. This result is most likely if participation in the discussion is as broad as possible, for different individuals will bring different perspectives. Finally, participants will be aware of the inherent ambiguity of language, but strive toward shared meanings. Of course, these various conditions are never perfectly achieved. Nevertheless, they provide concrete standards against which certain conversations *and their outcomes* can be critiqued. The conclusions that result from a conversation are more likely to be valid to the extent that these conditions are met.[7]

One of the items in Habermas' list of ideal conditions has special import for this paper: the idea that all relevant arguments should be embraced. This implies that reasoned discourse must be focused. Even in the best of circumstances, an open-ended debate regarding progress in which individuals talk past each other – because some are thinking of economic growth and others of environmental degradation – will not be productive. It can only become productive once the broader question has been broken down into little bits: has there been progress with respect to health, happiness, technology, and so on; and if not can progress be achieved in these areas? It then becomes possible that all participants will agree on the range of relevant arguments. It is also much more likely that we can overcome the ambiguity of language in such focused conversations. Likewise we can better work to identify the biases that might have influenced our intuition or experience in a conversation that does not run off in a million directions. To be sure, there are inter-relations across phenomena that cannot be ignored. Nevertheless reasoned discourse demands that we engage these inter-relations one at a time as well. Only by working toward increased understanding of each little piece of the progress puzzle can we work constructively toward understanding of the broader question of whether human progress is possible.

It should be stressed that the arguments offered here for the *possibility* of reason are quite distinct from the Enlightenment belief that the exercise of reason would guarantee a progressive future. Postmodernists and others are quite right to argue that exercises of power often masquerade as exercises in reason. Our pursuit of reason must be vigilant. We must patrol both our own biases and the rhetorical practices of others if we are to harness reason to the pursuit of progress.

Ethics

In a previous age of religious orthodoxy, the ethical code associated with a particular religion could be widely accepted. In contemporary society, respect for diversity is urged. Not only are different cultural practices to be respected, but diverse religious and ethical perspectives as well. This widespread respect for diversity is one aspect of the contemporary world that is widely celebrated both within and beyond the academy. Yet many then conclude that respect for diversity is incompatible with any universal ethical statements: if we are to be respectful of others we cannot then criticize them for being dishonest or irresponsible. The only universal ethical precept possible is respect for diversity itself. Even here there is a potential problem: must we respect the views of those who refuse to respect the views of others?

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[7] A very accessible overview of Habermas' thought, and how it relates to postmodernism and sociolinguistics more generally, can be found in (especially the 'Introduction' to) Cooke (1998).

Habermas argues instead that ethical claims can be judged to be valid if they reflect the consensual results of a dialogue that approaches the ideal conditions for conversation, and if the result of the dialogue is equally in the interest of all affected. That is, reasoned conversation is possible in the realm of ethics as well (Cooke, 1998, pp. 12-13). As an interdisciplinarian this approach has a natural appeal to me, for interdisciplinarity is grounded in a belief that different perspectives can be integrated through open dialogue. Yet one might reasonably wonder if consensus is likely in ethical matters, no matter how reasonable the conversation. In discussing how the world works participants have access to external reality in judging the validity of competing truth claims. In conversing about ethics there is no obvious external referent. Two people with different perspectives on ethics may find no common ground for appreciating the strengths and weaknesses of the two perspectives.

Happily, the possibility of ethical consensus is greatly enhanced by an examination of the sources of ethical argument. How do humans make ethical decisions? In Szostak (2005a), I argued that there are five broad ways in which humans can make any decision:

1. They can analyze the likely consequences of various choices.
2. They can follow some decision rule they have found valuable in the past.
3. They can act as they see others doing.
4. They can act on ‘gut feelings,’ or
5. They can be more concerned about how they act than what they do (that is, emphasize process or virtues such as ‘always act honestly’).

It follows that all ethical arguments draw upon one or more of these types of decision-making [the exception that proves the rule is ‘existentialism,’ a philosophy that effectively requires individuals to choose their own decision-making guideline(s)]. Philosophers have long appreciated that there are a handful of competing approaches to ethical analysis.[8] Yet they have rarely made this argument explicit precisely because philosophical argument has not accorded with Habermas’ conditions. Philosophers have argued for their favored type of analysis and against others, and thus not often recognized that each approach has both strengths and weaknesses.[9]

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[8] There is some scope for disagreement as to how many types there are. Philosophers have tended to emphasize the three ‘formal’ types of decision-making associated with consequences, rules, and virtues – see, for example, Baron, Pettit, and Slote (1997) – while downplaying intuition and tradition. Feminist scholars might wish a classification that gives more emphasis to the ‘ethics of caring’ than does mine. Lewis (2000) urges six approaches to ethical analysis. The important point is that a manageably small number of different approaches can be identified.

[9] Solomon (1992) is an exception. He notes that consequentialists often see so many possible outcomes as to be unable to decide, deontologists (who follow rules) can be compulsive, virtues can be taken to extremes of obstinacy and foolhardiness, and reliance on intuition can lead to excesses of mysticism and sentimentality. Likewise, blind adherence to tradition can preclude beneficial changes in ethical guidelines. Solomon concludes that each approach fits some situations better than others. To use interdisciplinary terminology, each of the five approaches captures different facets of an issue. One’s judgment of the relative importance of these facets may well vary by issue.

As a result, philosophers have failed to appreciate, at least explicitly, that the different types of ethical analysis *often point in the same direction.* That is, honesty can be justified in terms of consequences, virtues, rules, tradition, and intuition. None of these justifications are perfect, to be sure: one can always construct a reasoned counter-argument. In the memorable words of Ernst Laszlo (1987) there is no 'immaculate perception.' Yet if the preponderance of argument within each type of analysis points in the same direction, then we can reasonably expect that the sort of conversation envisioned by Habermas will indeed reach consensus. We will see below that consensus can indeed be achieved across a wide range of issues.[10]

The important point here is that societies can respect diversity and still expect individuals to behave honestly, responsibly, and caringly. This result is a bit ironic to be sure. One starts by recognizing that there is no one right way to perform ethical analysis, yet arrives at a conclusion that ethical consensus on a wide range of issues is possible. Moreover, since the five types of analysis are found across all philosophical traditions, these areas of consensus are not for the most part limited to particular cultural contexts. Note that the strategy pursued here – breaking the 'what is ethical?' question into a handful of subsidiary questions, and then connecting the answers to these phenomenon by phenomenon – reflects the general strategy of disagreggation and connection pursued throughout this paper.

Achieving Consensus on the Nature of Progress

It has been suggested above that a disaggregated approach provides a productive response to a variety of critiques of the idea of progress. Before proceeding to perform such an analysis, it is useful to review seven arguments as to why human progress should be analyzed in terms of a wide range of phenomena rather than at some broad aggregate level. To be clear: the disaggregated approach recommended here will involve distinct analyses of human progress across some one hundred distinct phenomena. It can be contrasted with the common approach which assumes that one or a few types of progress (such as economic growth or environmental pollution) proxy for human progress as a whole.

1. Once it is appreciated that the human world is characterized by diverse phenomena, and that there is no obvious metric for comparing the experience of progress/regress across these, then examining progress phenomenon by phenomenon is the only viable strategy for evaluating progress historically.[11] Any attempt at a more general evaluation of progress must involve implicit judgments regarding which phenomena are most important and/or an assumption that the phenomena one ignores in one's calculations are (or will inevitably be) moving in the same direction as the phenomena one cares about. Does economic growth or the spread of democracy

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[10] Not surprisingly, both philosophers and the public tend to focus attention on those issues for which there is no consensus: abortion, euthanasia, animal rights, and so on. A recognition that different types of ethical analysis often do agree should encourage respect for diversity when consensus does not occur. As well, society is guided to search for aspects of a complex issue where consensus is possible. The heated debate over abortion interferes, for example, with discourse regarding the critical social problem of fetal alcohol syndrome where consensus is much more likely.

[11] Notably, even the comprehensive analysis of Van Doren (1967, 15) identifies only five broad types of progress: in knowledge, technology, wealth, institutions, and morality (art is treated briefly in an appendix).

inevitably lead to other progressive changes, or does environmental decline cause numerous types of regress? By attempting to identify an exhaustive list of the phenomena that humans care about,[12] and dispassionately examining the history of progress with respect to each, we can potentially achieve a more accurate, less biased appreciation of the state of human progress. The disadvantage of the disaggregated approach is that a definitive conclusion is unlikely. If both progress and regress are observed, it must be left to the reader to determine which matters the most. Notably, postmodern critiques of scholarly practice often urge a strategy whereby the reader is empowered to reach their own conclusions about the matter at hand, rather than being guided to a particular conclusion by the author.

As noted above, optimists and pessimists both tend to assume that some phenomena are more important, and/or that these are causally related to other phenomena. Perhaps the most compelling of such claims urges a focus on human happiness. Concern that happiness is hard to measure across time and place can be circumvented by focusing on those phenomena that appear most closely related to human happiness. Heylinghen and Bernheim (2000a) pursue such an argument. Yet even they are then forced to argue that there are various types of regress observed in the world, but that the importance of these is exaggerated. Moreover, they avoid the philosophical issue of whether human happiness can be treated as the only goal of human societies: if we could be hooked up to a machine that kept us happy, would we choose such a life? Finally, they inadvertently ignore the importance of human diversity: just because a particular phenomenon is not strongly correlated on average with happiness does not guarantee that it is not of critical importance for some individuals.

2. Just as there is no objective metric for weighting progress across phenomena, there is also no obvious standard to use in identifying what progress might mean at a global level. As was noted at the outset, it is only possible to speak of progress if one has an idea of what is ‘good’ or ‘better.’ Yet humanity has no clear idea of the form an ideal society should take. With respect to individual phenomena, though, it is generally possible to speak of either ideals or the direction in which (most of) humanity would like society to move. But there is simply no objective way of adding the progress or regress observed across economic growth, environment, crime, cultural attitudes, and a host of other phenomena; some individuals may want to place the highest weight on sense of community while others stress economic performance.

3. *The disaggregated approach ensures clarity of argumentation.* This argument flows from the first two. Previous writers on progress were often unclear as to which types of progress they were referring to. Since claims that society was progressing (or regressing) were made at a vague aggregate level, it was difficult to know where one might begin to critique the analysis. Alternatively, Emerson and George Bernard Shaw are among those who have explicitly made an argument that progress in one realm is always balanced by regress elsewhere. Such an argument, like claims for aggregate progress or regress, deserves to be subjected to empirical scrutiny. Only

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[12] This, notably, is an exercise in classification rather than theorizing, and does thus not itself qualify as a meta-narrative. To be sure, exercises in classification are not free of bias. This exercise followed a deductive approach supplemented by a broad inductive reading of the literature to ensure that no important phenomena were missed (Szostak 2003).

with the evaluation of the degree of progress or regress observed across a wide range of phenomena can the merit of such a conjecture be evaluated.[13]

4. *Others can readily evaluate the research.* No piece of research is ever perfect. If this article were to pursue some (necessarily arbitrary) strategy of identifying whether society was on the whole characterized by progress or regress, any errors or biases in the author's approach would be deeply buried in the analysis. Good scientific practice calls for a disaggregated analysis, so that each reader can make their best judgment of the reliability of each estimate and how these might best be compared.

5. *This approach can tell us whether the contemporary situation is novel in important respects*. The postmodernist Frederic Jameson has suggested that any sense of continuity or development from the past has evaporated in the postmodern condition (Malpas, 2001, p. 80). A disaggregated examination of progress serves not only to identify those phenomena for which progress is continuing, but also to identify changes within contemporary society that are continuations of trends observable for centuries or even millennia.

6. *Attempts at aggregate evaluation can all too readily lead to 'my society is better than yours' claims*. It was common within Western philosophical circles in the nineteenth century to argue that Western societies had progressed in some aggregate sense beyond Asian or African societies. Yet as Isaiah Berlin had urged, one can and should analyze progress in particular realms without engaging in the dubious practice of comparing entire societies. The disaggregated approach has the benefit of allowing us to argue about progress with respect to particular phenomena without in any way supporting the holistic claims to superiority of racists and demagogues.[14] It will likely be the case that no society turns out to have progressed further than any other with respect to all phenomena.

7) *This approach sets the stage for a progressive future*. If one makes a global judgment that the world is static or regressive (or only a little progressive), it will not be obvious how this situation can be improved. Of course, those who reach such conclusions often assume or argue away the possibility of progress. If, though, one holds out any hope that humanity's future can be progressive, one will want to know in what directions human societies have to be moved in order to achieve this result.

A problem here is that virtually every phenomenon is causally linked with virtually every other. This makes it likely that changes one might view as progressive with respect to one phenomenon may cause decline in another. Those who describe the postmodern condition often make precisely this point, suggesting for example that technological innovation leads to environmental degradation. Rather than assume some inevitable causal relationship, it will be necessary to investigate below the possible tradeoffs that may exist across phenomena. For now, the point to stress is that the starting point in designing a progressive future for humanity is the identification of the areas that need improvement.

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[13] Van Doren (1967, 199) discusses these arguments, and notes that they were often driven by an observation that human nature itself has not improved. Brome (1963, p. 206) is highly critical of this idea of necessary balance. He feels that such a case fails to appreciate what life was really like centuries ago.

[14] See Solomon (1992), Gellner (1989), Szostak (2003). On Berlin, see Ryan (1996).

Identifying Relevant Phenomena

Before performing ethical analysis, we must first identify the key phenomena that humans/scholars care about. The task of classifying the phenomena of interest to human scientists might seem particularly daunting. Surely there are thousands upon thousands of such phenomena? While this is true, these phenomena can be organized hierarchically within a small number of umbrella categories. Such an endeavour can draw upon a general scientific commitment to the belief that 'things' are made up of constituent parts (Krieger, 1997, pp. 31-32). The starting point for the classification in Table 1 is an attempt to divide the subject matter of human science into logical categories. These categories must cope both with individual and societal characteristics. At the level of individuals two categories of phenomena can be identified:

- The first is 'genetic predisposition.' As a species, humans share a gene pool that gives all a set of basic abilities, motivations, and emotions.
- While this common gene pool guarantees a certain set of characteristics that defines the species, differences in the precise genes that individuals possess, in concert with differences in environment, serve to guarantee that individuals differ from each other both physically and psychologically. This yields a second category of 'individual differences.'

All humans are necessarily part of a larger community, especially for the first few years of life. That is, one of the shared characteristics noted above is that humans are born needing the help of others. Several distinct categories of collective behavior can be identified:

- Humans interact with the non-human environment in order to create (and distribute) food, shelter, and other items of practical utility: 'the economy'
- Humans interact with the non-human environment to create items desired primarily for their aesthetic appeal rather than their utility: 'art.' Note that works of art, through their aesthetic appeal, may serve further purposes, such as encouraging religious belief; such effects would be captured in causal links. Art is often viewed as a subset of 'culture'; it is treated separately here because works of art, while they contain cultural elements, are defined in terms of an aesthetic effect that transcends cultural boundaries.
- The various sub-groups of society must interact in some way: 'social structure.' There are always at least two types of sub-group, for the family is ubiquitous, albeit in different forms, and genders have never yet been treated in precisely the same way.
- Power is distributed and exercised: 'politics.'
- It is obvious that hierarchical economic, social, and political structures evolve beliefs in the correctness of those structures, or at least attempts are made by those at the top to do so. Such beliefs thus logically belong to those categories. Yet societies have a host of religious beliefs, customs, habits, and so on whose connection to these other realms is (at least potentially) tenuous: these can be termed 'culture.' Attitudes toward all categories except economy, politics, and social structure are thus part of culture. Following common usage, languages are treated here as a subset of culture. The precise definition of culture becomes clearer as the category is unpacked.
- Humans also develop knowledge of how they can best manipulate the non-human environment to suit various ends: 'science and technology.'
- The list may seem complete, but humanity must also perpetuate itself as a species, and

thus ‘population’ must be considered. Ability to reproduce depends in turn on ability to survive. The related matter of ‘health’ must also, then, be considered; this deserves more attention than it receives from human scientists.

- The ‘non-human environment’ has been mentioned more than once above. Since it both shapes and is shaped by humanity, it deserves its own category in the classification. This category (and that of genetic predisposition) would provide a link between this classification and a classification of natural science phenomena.

This list of ten logically distinct categories is also arguably exhaustive, for the ten categories subsume all human activities and characteristics. As Table 1 illustrates, it is straightforward to place all subsidiary phenomena within these categories. In several cases, care must be taken to establish the boundaries between categories. As noted above, ‘art’ can be distinguished from ‘culture’ by defining art as that which has an aesthetic appeal not limited to members of particular groups. These precise boundaries become clearer as the categories are further disaggregated.

Table 1 reflects an extensive exercise in disaggregation undertaken in Szostak (2003), and summarized in Szostak (2004). It categorizes in detail, but in an organized fashion, all aspects of human experience. It is motivated by a belief that we can only aspire to understand human experience by appreciating its components and how these interact. Both deduction and induction were used to develop lists of second and then third-order phenomena (Note that these titles refer only to the level of aggregation and imply no value judgment): induction in the sense of finding a place in the classification for all phenomena discussed in a wide variety of works consulted, and deduction in the sense of thinking about how phenomena could logically be disaggregated into their constituent parts. The result should be nearly exhaustive, though some phenomena may have been missed.[15] It seems a reasonable conjecture that somebody sometime will have noticed every phenomenon that affects human lives: the scholarly community can thus aspire to an exhaustive list, at least at higher levels of aggregation.[16] Importantly, the table is inherently flexible so that new phenomena can be added. As for the organization of the table, this too is flexible: if it were found empirically, for example, that ‘language’ was more strongly related to phenomena in a category other than ‘culture’ the table could be adjusted to reflect that.

Classifications, like any other scholarly enterprise, are subject to bias. It might be worried that I have divided up the world in a fashion that makes it easier or harder to identify human progress. It is thus worthy of note that the classification of phenomena preceded by some years the idea for this project, and even the ethical analysis that will be discussed below. Moreover, the scope for authorial bias was limited in practice by a heavy reliance on the existing scholarly literature.[17] As noted above, induction was used to make sure that all phenomena mentioned by a wide range of scholars found some place in the table. More often than not, there was considerable scholarly consensus on how a particular phenomenon should be disaggregated.

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[15] One entry has, indeed, been added to the table. Though it was noted above that culture will include attitudes toward most other categories, an entry for ‘attitudes toward healing’ was missing from previous versions of Table 3.1. This oversight (which was pointed out to me) was especially egregious since Wissler, in his efforts decades ago to classify phenomena, had grouped healing with religion.

[16] Sub-atomic particles are an obvious example of important phenomena only observable with advanced scientific methods. It is not clear that similarly unobservable phenomena exist in the realm of human science.

Table 1: The Phenomenon

Categories	Second Level Phenomena	Third Level Phenomenon
Genetic Predisposition	Abilities	Consciousness, subconsciousness, vocalization, perception (five senses), decision-making, toolmaking, learning, other physical attributes (locomotion, eating, etc.)
	Motivations	Food, clothing, shelter, safety, sex, betterment, aggression, altruism, fairness, identification with group
	Emotions	Love, anger, fear, jealousy, guilt, empathy, anxiety, fatigue, humor, joy, grief, disgust, aesthetic sense, emotional display
	Time Preference	
Individual (Abilities) Differences	Physical Abilities	Speed, strength, endurance
	Physical Appearance	Height, weight, symmetry
	Energy Level	Physical, mental
	Intelligences	Musical, spatial, mathematical, verbal, kinesthetic, interpersonal
(Personality)	Sociability (Extro/introversion)	Talkative, assertive, adventurous, enthusiastic vs. reserved, withdrawn
	Emotionality (Stable/moody)	Contentment, composure, vs. anxiety, self-pity
	Conscientiousness	Thoroughness, precision, foresight, organization, perseverance vs. carelessness, disorderly, frivolous
	Affection (Selfish/agreeable)	Sympathetic, appreciative, kind, generous, vs. cruel, quarrelsome, faultfinding
	Intellectual Orientation (Holistic/analytical)	Openness, imagination, curiosity, sensitivity vs. closemindedness

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[17] Szostak (2004, pp. 9-14) reviews theories of classification. Scholars of classification argue that the best classifications are those that are practical and theoretically justified. Reliance on scholarly consensus, and the use of induction, ensures that this classification meets both criteria.

	Other dimensions?	Dominant/submissive,in/dependant, strong/weak, future/present oriented humor, aggression, happiness
	Disorders?	Schizophrenia, psychoticism, ...?
	Sexual Orientation	
	Schemas	View of self, others, causal relationships
	Interpersonal Relationships	Parent/child, sibling, employee/r, romance, friendship, casual
Economy	Total Output	Price level, unemployment, individual goods and services
	Income Distribution Economic Ideology	
	Economic Institutions	Ownership, production, exchange, trade, finance, labor relations, organizations
Art	Non-reproducible	Painting, sculpture, architecture, prose, poetry
	Reproducible	Theater, film, photography, music, Dance
Social Structure	Gender	
	Family Types, Kinship	Nuclear, extended, single parent
	Classes (various typologies)	Occupations (various)
	Ethnic/racial Divisions	
	Social Ideology	
Politics	Political Institutions	Decisionmaking systems, rules, organizations
	Political Ideology	
	Nationalism	
	Public Opinion	Issues (various)
	Crime	Versus Persons/Property
Technology and Science	Fields (various)	Innovations (various)
	Recognizing the Problem	
	Setting the Stage	
	Act of Insight	
	Critical Revision	
	Diffusion/transmission	Communication, adoption

Health	Nutrition	Diverse nutritional needs
	Disease	Viral, bacterial, environmental
Population	Fertility	Fecundity, deviation from maximum
	Mortality	Causes of death (various)
	Migration	Distance, international?, temporary?
	Age Distribution	
Culture	Languages	By descent?
	Religions	Providence, revelation, salvation, miracles, doctrine
	Stories	Myths, fairy tales, legends, family sagas, fables, jokes and riddles
	Expressions of culture	Rituals, dance, song, cuisine, attire, ornamentation of buildings, games
	Values (Goals:)	Ambition, optimism, attitudes toward wealth, power, prestige, beauty, honor, recognition, love, friendship, sex, incest, marriage, time preference, physical and psychological wellbeing
	(Means:)	Honesty, ethics, righteousness, fate?, work valued intrinsically, violence, vengeance, curiosity, innovation, nature, healing
	(Community:)	Identity, family versus community, Openness to outsiders, trust, egalitarianism, attitude to young and old, responsibility, authoritarianism, respect for individuals
	(Everyday Norms:)	Courtesy, manners, proxemics, tidiness, cleanliness, punctuality, conversational rules, locomotion rules, tipping
Non-Human Environment	Soil	Soil Types (various)
	Topography	Land forms (various)
	Climate	Climate Patterns (various)
	Flora	Species (various)
	Fauna	Species (various)
	Resource Availability	Various Resources
	Water Availability	
	Natural Disasters	Flood, tornado, hurricane, earthquake,

		volcano
	Day and Night	
	Transport Infrastructure	Mode (various)
	Built Environments	Offices, houses, fences, etc.
	Population Density	

Source: Szostak (2003, 2004)

Readers should feel no need to master this Table. Like a phone book, one need not memorize where particular entries fall but only appreciate the organizing principles at work. For the purposes of this paper, it is important only to appreciate that it is possible to identify an (almost) exhaustive set of the major phenomena that characterize human societies. Table 1 can thus be used as a basis for further steps in our analysis.

Establishing the Good

Table 1 was used in Szostak (2005a) to provide the basis for a comprehensive ethical survey. Since a list of the phenomena of interest to human scientists should subsume the list of phenomena that humans care about, every question of interest to ethicists can be viewed as the application of one or more of the five types of ethical analysis (listed above) to one or more of these phenomena. Notably, the list of phenomena includes both individual and societal phenomena. An ethical society needs ethical institutions and values as well as ethical individuals. Yet ethical treatises rarely juxtapose societal and individual analysis. Only by doing so can consistency be assured between analyses of how people as individuals should behave and how societies should be structured.

It was shown in Szostak (2005a) that defenders of each type of ethical analysis appeal to one or more of the others for justification. Moreover, the five types of ethical analysis are each celebrated across the world's philosophical traditions. That is, the five types of ethical analysis are not themselves products of any one philosophical (or cultural) tradition. And thus the ethical analysis pursued here is not culturally bounded.

Recent developments in the philosophy of science and epistemology establish that neither scientific nor ethical claims can be 'proven' or even 'disproven.' Scholars can nevertheless compile arguments and evidence that increase collective confidence in particular statements. The emphasis on the pursuit of unassailable argument by ethical philosophers appears quixotic in light of the insights of epistemologists. The greatest confidence should be placed in ethical statements for which each of the five types of ethical analysis largely provides support. The set of statements for which such consensus exists was termed the 'ethical core.' It will be argued below that this ethical core provides the basis for a universal ethics that would still respect reasoned arguments against particular elements in the core, but would not casually excuse selfish behavior.

In other words, there is never complete agreement within any of the five types of ethical analysis in favor of (or against) any statement. Honesty is generally viewed as generating good consequences, according with the Golden Rule (and other deontological principles), and being virtuous, but one can construct arguments against each of these conjectures (while likewise denying the general observation that honesty accords with traditions and makes us feel good). If we seek the perfect ethical argument, we will inevitably fail. We must thus either embrace ‘anything goes’ or accept a more forgiving ethical standard. And such a standard is possible. We can ask whether the arguments in favor of a particular statement are more compelling than the arguments against. If this is the case across all five types of ethical analysis, we can have confidence that the statement is ethical. Our confidence will increase to the degree that arguments in favor are stronger than arguments against. Of course, we cannot escape a subjective evaluation here in determining the relative strength of different arguments. I have striven to reflect scholarly consensus in providing these evaluations. Note that we are not asking scholars to agree on whether a particular statement is correct but rather to agree on whether most of their peers would agree that arguments in favor of a particular statement are stronger than arguments against. This sort of consensus is common in the literature.

It is useful at this point to provide in Table 2 the overall results of the ethical survey undertaken in Szostak (2005a). Note that consensus across the five types of analysis occurs in roughly half of the cases examined. It should be stressed that the ethical statements analysed in Table 2 were not selected randomly. Rather, they are statements about the phenomena outlined in Table 1. Note that for the vast majority of phenomena the ethical question(s) to be asked was obvious: often these ethical statements can be phrased as ‘(more of) phenomenon X is good’ or ‘this aspect/effect of phenomenon X is good.’

For each statement, a score is provided with respect to each of the five types of ethical analysis: If a particular type of analysis has little or no implication for the statement in question, a score of ‘-’ is given: note that this has quite different implications from a score of 3. While numbers have been used as scores for convenience of expression, it would be nonsensical to add these numbers, whether by statement or type of analysis. There is no objective metric by which to aggregate across types of analysis. Moreover the scores themselves represent an ordinal ordering: while a 5 is better than a 4, there is no reason to assume that it is 20 percent better (indeed, it is usually much more impressive than that). In the rating column, an A denotes no score lower than five, a B denotes no score lower than four, and a T, C, V, D, or I indicates that only one type of analysis generated a score below four: respectively tradition, consequences, virtues, deontology, or intuition. Cases for which only tradition and intuition generate a score below four are denoted by T/I. In all cases where letter ratings occur, but one or more types of analysis received a score of ‘-,’ the rating is followed by a ‘-.’

How accurate are these scores and rankings? Given that no scholar has previously attempted such an exercise, there is no basis for comparison. Recall that this table summarizes not the author’s own personal views but an estimation of the strength of various implications of each of the five types of ethical analysis. There are undoubtedly some errors owing to an inaccurate or incomplete reading of the literature (most likely in cases where the score is ‘-’). There were many cases in which it was difficult to determine whether a score of, say, 4 or 5 should be given. Other scholars would undoubtedly reach different conclusions in some cases. Nevertheless, the overall picture is likely broadly accurate.

Table 2: Summary of the Ethical Evaluation of Phenomena

Phenomenon-based Statement	**T**	**C**	**V**	**D**	**I**	**Rating**	**Comments**
Genetic Predisposition:							
Human abilities are good.	5	5	5	4	5	B	
Most basic drives are good.	5	5	5	-	-	A-	
Human emotion is good/necessary.	4	5	5	4	5	B	
Emotions should be constrained at times.	4	5	5	4	5	B	Enhanced too
Love is generally good.	4	5	5	4	5	B	
Hate is generally bad.	4	5	5	4	5	B	
Sympathy is generally good.	4	5	5	4	4	B	
Humor is good.	4	5	4	-	4	B-	
Envy is generally bad.	4	4	4	3	3		Incites effort?
The future should be valued more.	4	4	5	-	4	B-	
Genetic diversity is good.	-	5	-	-	-	B-	
Genetic engineering *can* be good.	-	4	4	3	-	D-	
Phenomenon-based Statement	**T**	**C**	**V**	**D**	**I**	**Rating**	**Comments**
Culture:							
Culture is valuable, but individual elements should be evaluated	4	5	4	-	4	B-	Need social cohesion
Societies should be open to cultural change.	3	5	4	-	3	T/I	But respect tradition
Individuals are responsible for ethical evaluation.	4	5	5	4	4	B	
Be open to innovation.	4	5	5	-	4	B-	
Individuals should be able to choose cultural membership.	2	4	3	4	4		Virtue: duty to humanity?
Religious faith is good.	4	3	3	-	4		
Religions enhance ethics.	4	3	3	-	3		
Ecumenicism is good.	4	4	3	-	2		
Religious freedom is good.	2	4	4	4	3	T/I	Biases in T, I
People should be less aggressive.	5	5	4	4	2	I	Some is good
Valuing achievement is beneficial.	4	5	5	4	4	B	
The abuse of power is bad.	4	5	5	4	4	B	

People should value ethical means.	3	4	5	5	3		Ends *may* justify
One should help others, but not deny the self.	5	5	5	5	5	A	Where is balance?
Slight bias toward optimism good	4	5	5	-	4	B-	
Marriage is good.	5	5	5	-	5	A-	
…But divorce should be easy.	3	3	3	4	3		
People should focus on the care of children.	5	5	5	5	5	A	
Romantic love should be valued.	3	4	3	-	4		
Sexual freedom is good.	2	4	3	4	4		
Honesty toward sex is good.	4	5	5	4	2	I	
Homosexuality should be accepted	3	4	4	4	4	T	
The elderly should be cared for.	4	5	5	4	4	B	
Trust should be encouraged and valued.	3	5	5	-	4	T-	Too trusting?
Ethical wrongdoing should be exposed.	3	4	5	-	3	T/I	If can; ch.2
Curiosity should be applauded.	3	5	5	4	5	T	Respect soc. cohesion
People should be less secretive.	3	4	4	3	2		
Consensus on everyday norms is desirable.	4	5	4	4	4	B	
Expressions of culture are valuable.	5	4	-	4	5	B-	Some support bad values
Cultural 'stories' are valuable.	5	4	-	4	5	B-	
Language orthodoxy should be enhanced	4	5	-	5	-	B-	Remove spelling irregularities.
Language diversity is good.	4	2	-	2	4		
Phenomenon-based Statement	**T**	**C**	**V**	**D**	**I**	**Rating**	**Comments**
Individual Differences:							
Virtuous acts lead to happiness.	5	5	5	-	4	B-	Not self-denial
Self-knowledge encourages both happiness and ethics.	4	5	5	5	4	B	Need accurate self-schemas
Personality diversity is good.	4	5	5	4	5	B	Not on all dimensions
There are advantages to shyness.	2	5	3	-	4		

Some emotional control is good.	4	5	5	-	4	B-	
Emotional display is good.	3	5	4	-	4	T-	
Conscientiousness is good.	4	5	5	4	3	I	Some role for carelessness
Empathy is good.	4	5	4	4	4	B	
Flexible intellectual orientation is good	3	5	5	-	4	T	
Openmindedness is good.	2	5	5	5	2	T/I	Self-esteem
Honesty is good.	5	5	5	5	5	A	Except under duress
Humility is good.	2	4	5	4	2	T/I	
Compassion toward disorders is good.	3	4	5	-	3	T/I	
One should respect others’complexity.	4	5	5	5	4	B	
One should avoid fatalism.	3	5	5	-	3	T/I-	
One should recognize the ubiquity of injustice.	4	5	5	5	4	B	Can combat
One should try not to worry.	4	5	5	-	3	I-	
Life is as a learning experience.	3	5	5	-	3	T/I	
Relationships are valuable.	5	5	5	5	5	A	And wider social responsibility
One should recognize financial responsibility for parents.	4	4	5	-	5	B-	
Economy:							
Output of *only* some goods is good	4	5	5	5	4	B	
More fulfilment at work is good.	4	5	4	4	4	B	
Unemployment is bad.	4	5	4	4	4	B	Eliminate?
Income inequality should decrease (but not be eliminated).	4	5	4	4	4	B	
Earned income should be distinguished from unearned.	3	5	5	-	3	T/I	
Society should reward earned income.	2	5	5	4	4	T	
Some redistribution is good.	4	4	4	4	4	B	
Society should pursue equal	4	5	4	4	4	B	

opportunity.							
Roles exist for both public/private	5	5	5	4	-	B	

Phenomenon-based Statement	**T**	**C**	**V**	**D**	**I**	**Rating**	**Comments**
Economy (continued):							
Charity is good.	5	5	5	5	5	A	
Freer trade would be good.*	3	5	4	5	2	T/I	
Private property is good. …but	4	5	-	4	5	B-	Redistribution can be ethical
separate rights to control, profit.	4	4	-	3	4	D-	
Private businesspeople should be ethical.	3	5	5	4	4	T	Have become cynical?
The corporate form is good.	3	4	2	3	-		
(Some restrictions to encourage ethics)	3	4	4	3	-		
Whistleblower protection is good.	3	4	4	4	3	T/I	False accusations?
Art:							
Art is good and important.	5	4	4	4	5	B	Aesthetics supports Kant’s deontology
Politics:							
Government is good.	5	5	5	5	5	A	Deontology limits
Justice is good.	4	4	5	5	4	B	Consensus?
Govt. should fight econ/social injustice.	4	4	4	3	4	D	
Freedom should be a goal.	4	4	3	5	4	V	
Government should protect people from themselves.	4	3	3	2	3		
Govt power is consistent w. freedom.	4	5	4	3	3		
Democracy is good.	4	4	4	4	4	B	Constitutional protections
Separate church and state.	3	4	4	5	3	T/I	
Some wars can be justified.	5	5	4	4	4	B	
Nationalism is good.	3	3	3	2	4		
Institutions should be evaluated wrt the 5 types of ethical analysis.	5	5	5	5	5	A	Political ideologies tied to these

Bureaucracies with some flexibility are needed.	5	5	5	4	-	B-	
Arms-length evaluation of government services is needed.	1	5	-	4	-	T-	Not just quantitative
Government secrecy should occur only when this serves public.	2	5	5	5	2	T/I	Avoid disinformation
Education should be encouraged.	5	5	5	5	5	A	teach virtue?
public provision of	4	5	5	3	-	D-	
Crime is bad.	5	5	5	5	4	B	
Punishment is justified.	5	4	4	4	5	B	Much injustice
Capital punishment is justified.	3	2	3	3	4		
Political leaders should be ethical.	3	4	5	5	4	T	
Phenomenon-based Statement	**T**	**C**	**V**	**D**	**I**	**Rating**	**Comments**
Social Structure:							
Norms of deference are bad.	2	4	5	4	5	T	
Social stratification is bad.	2	4	4	4	3	T/I	
Ethnic divisions should be weakened.	2	4	3	4	2		
Gender distinctions should be weakened.	2	4	4	4	3	T/I	
Families should be valued.	5	5	5	-	5	A-	
Some occupations are bad.	4	4	5	4	-	B-	
Health and Population:							
Health is good.	5	5	4	5	5	B	
Disease is bad.	5	5	4	5	5	B	
Proper nutrition is good.	5	5	4	5	4	B	
Moderate population growth can be good	5	5	4	5	4	B	Limit if overpopulated
A stable age distribution is good.	-	5	-	-	-	A-	
Abortion can be good.	3	3	2	3	2		
Euthanasia can be good.	2	4	4	4	2	T/I	
Suicide is bad.	4	5	5	3	5	D	
Migration is good.	3	4	4	4	3	T/I	Some limits?
Technology and Science:							

Innovation is good.	4	4	5	-	4	B-	
Science should be less hierarchical.	2	5	5	5	5	T	T reflects power relations?
Science should be more cooperative.	2	5	5	4	4	T	Little tradition
Science should have stronger links to the wider public.	4	5	5	4	-	B-	
Scientists should be curious, humble, open-minded, imaginative, honest, tenacious, and courageous.	3	5	5	4	3	T/I	Self-aware would strive for
Technological innovation should be guided to aid the environment.	4	5	4	4	4	B	
Non-Human Environment:							
The environment should be protected (but costs appreciated).	4	4	4	4	4	B	
Biodiversity is valuable.	3	4	4	3	3		Animal rights?
Genetically modified plants are good.	2	3	3	-	2		
Global warming should be opposed.	-	3	3	3	-		
Resource depletion should be opposed.	-	3	3	3	-		
Natural disasters should be fought.	4	5	4	4	4	B	
People should not eat meat.	2	3	4	3	3		
Farm animals should be treated well.	4	4	5	4	4	B	
Aesthetic architecture should be pursued.	4	5	5	4	5	B	
Transport infrastructure should be developed.	4	5	4	4	4	B	

Source: Szostak 2005a.

While there may be some errors in Table 2, we can be confident that there is indeed ethical consensus for the vast bulk of cases for which this is identified. It follows that *it is indeed possible to identify what 'progress' involves across a wide range of phenomena*. As with Table 1 the reader need not analyse Table 2 in detail. It may be useful to peruse some of the statements that receive scores of 'A' or 'B,' and ask whether these judgments seem controversial. Recall again that one of the advantages of the approach taken in this paper is that it is *transparent*.

The Historical Record

Space does not allow the performance of a detailed historical survey here. Yet once again it is likely that scholarly consensus can be achieved as to whether progress has occurred with respect to most of the statements accorded a score of 4 or 5 in Table 2. A broad survey of the historical literature undertaken by the author supports that conjecture (see Szostak, 2012). Table 3 expresses the results of this disaggregated historical survey. For slightly over one hundred phenomena or phenomenon-based characteristics discussed, Table 3 indicates whether predominately progress (denoted by P), regress (R), or both (B) were observed; in several cases either the question is not applicable or there are no clear grounds for providing an answer (N). The analysis has been performed for three time periods: the last decades, the last couple of centuries, and the last two millennia. A casual perusal of the table will show that there are many cases of both progress and regress for each time period. Of course, one might object that some of the conclusions in Table 3 are misguided. Scholarly consensus was followed where possible, though there had been little scholarly examination of several of these cases. Nevertheless it seems highly unlikely that the general conclusion that both progress and regress can be commonly observed across all three time periods is itself mistaken. Decisions about whether society is progressing or regressing must depend, then, on which phenomena one values the most. Clearly, different people can reach different conclusions simply by emphasizing different phenomena.

Table 3: Summary of the Evaluation of Human Progress by Phenomenon
(Notation: P= progress; R= regress; B= both; N= neither)

Ch. Phenomenon	**Experience: Last Decades;**	**Centuries;**	**Millenia**	**Comments**
Culture in general	B	B	B	
Sense of community	R	R	B	
Identification with larger groups	N	P	P	Mixed blessing
Ease of cross-group movement	P	B	B	Ltd by nation-state
Values in general	B	B	B	
No human sacrifice	N	P	P	
Decreased support for war	P	B	B	Not universal
Decreased support for slavery	N	P	P	
Decreased approval of aggression	B	P	P	
Increased approval of achievement	P	P	P	Should discriminate among types
Humility	R	R	R	
Respect for others (egalitarianism)	R	B	B	
Increased approval of curiosity	P	P	P	
Increased approval of openminded	B	P	P	
Sexual freedom	P	P	B	Cost in ethics; some
Support for caring	R	R	R	
Honesty	R	R	R	
Trust	N	R	R	

Optimism	R	R	N	
Value of romantic love	P	P	P	
Marriage	R	R	B	Benefits to flexibility
Care for elderly	R	R	B	
Religious freedom	P	P	B	Believers may disdain
Ecumenicism	P	P	P	
Time Preference	N	N	N	
Greater consensus on everyday norms	P	P	N	Decrease in deference
Improved cultural expressions	P	P	N	Less hostility
Stories	R	R	B	Less attention to
Decreased linguistic diversity	P	P	P	Some would disdain
Increased ease of language acquisition	P	P	P	Ease sp., grammar
Environment in general	B	B	B	Future path unclear
Pollution	B	R	R	Internal air quality
Human generated global warming (bad)	R	R	R	
Biodiversity	R	R	R	
Resource availability	B	B	P	
Control of natural disasters	P	P	P	
Treatment of animals	R	R	B	
Aesthetic value of nature	B	B	B	
Transport infrastructure	P	P	P	
Aesthetics in Architecture	R	R	P	
Genetic fitness	R	R	P	Environment change
Human abilities (realization of)	P	P	P	
Genetic drives in general	N	N	P	Genetic selection
Appropriateness of emotion	P	P	B	Therapy, psychology
Appropriateness of time preference	N	N	R	
Genetic diversity	R	R	P	
Happiness	B	B	N	Correl. w econ devel
Psychological understanding	P	P	N	
Self-knowledge	B	B	N	
Pursuit of individual talents	P	P	P	
Well-rounded individuals	R	R	R	Specialization
Freedom of choice	P	P	P	Some overwhelmed
Parent-child relationships	B	P	B	
Respect for personality diversity	P	P	P	
Feeling insignificant from globalization (bad)	R	R	R	

Ability to cope with injustice	R	R	B	
Depression (bad)	R	N	N	
Experience of anger	P	R	B	Less cultural support
Experience of aggression (esp. violence)	B	B	N	
Honesty	R	R	R	
Anxiety	P	B	R	
Health	P	P	B	Not everywhere
Decreased disease	P	P	P	Some new diseases
Increased nutrition	P	P	P	Junk food, anorexia
Population	P	P	P	Pos/neg effects
Migration	B	R	B	19th cent. golden era
Decreased gender stratification	P	P	B	
Decreased class stratification	B	P	B	Growing underclass?
Decreased role of inherited status	B	P	P	
Decreased ethnic strife	B	B	B	
Identify ourselves as individuals	P	P	N	
Decreased proportion of bad occupations	B	B	N	
Economic growth	P	P	P	Some output bad
Leisure time	B	P	R	Not always valued
Fulfilment at work	B	B	R	Future brighter?
Decreased unemployment (effects of)	P	B	B	
Decreased inequality	R	P	R	
Equality of opportunity	B	P	N	
Charity	N	N	N	
Effects on culture	B	B	B	
Effect of corporate form on values	R	R	N	
Institutions in general	P	P	P	
For growth	B	P	P	
Appreciate advs. of public/private	B	P	N	
For identifying bads	P	P	N	
For income distribution	R	P	B	
For limiting pollution	P	P	N	
Freedom (political, religious, occupational)	P	P	P	Encourages progress elsewhere
Justice	P	P	P	
Government power	P	P	P	Worry about abuse

Democracy	P	P	N	
Ethical leadership	N	N	P	Effect of democracy?
Nationalism	B	B	N	
Declining incidence of war	P	R	P	Increasingly deadly, different regional trends
Institutions in general	P	P	N	
Human rights agreements	P	N	N	
Law and order	B	P	P	
Efficiency and equity of tax collect.	N	P	P	
Provision of public works	P	P	P	
Bureaucratic flexibility	P	N	N	
Referenda	P	P	N	
Education	P	P	P	
Science	P	P	B	
Technology	P	P	P	
Natural science	P	P	P	
Human science	B	B	B	Progress dominates?
Philosophy	P	P	P	
Art	B	B	P	
Art works	P	P	P	
Art traditions	B	P	P	
Scientific and philosophical understanding of art	B	P	P	Decrease art=s magic?
Art=s role in society	R	R	B	

Source: Szostak (2012)

Table 3 also sheds light on a narrower question: how unusual is the contemporary period? In the vast majority of cases in which regress is identified over recent decades, regress is also found for previous periods (the same holds for progress). Nor is this merely an artefact of the way the three periods were all defined so as to culminate in the present. Regress in such cases can generally be observed in previous centuries and beyond as well. In some instances (but far from all) regress may be occurring at an accelerated rate. Still it is noteworthy that widespread regress across many of the phenomena stressed by critics of contemporary life can also be observed in previous time periods. Thus, the switch from a progressive to a pessimistic attitude does not for the most part reflect a dramatic change in societal experience of progress versus regress. It reflects instead a change in the *perception* of progress and regress. It could be that those who saw progress all around them in the nineteenth century falsely assumed that progress in certain realms would inevitably spill over into others. Contemporary nihilists may in turn be guilty of downplaying the importance of some types of progress in order to focus their attention on areas in which regress or stasis rules.[18] On the other hand, those who still proclaim that progress is inevitable may be guide by Table 2 to reflect on the challenge of achieving future progress across the many areas where regress is observed historically.

In the terminology of interdisciplinary analysis, Table 3 can be seen as a sort of common ground among competing evaluations of human progress. It is not so much that optimists and pessimists have disagreed over their empirical evaluation of particular phenomena. It is rather that they have disagreed about which phenomena are most important. Explicitly or implicitly, they have implied that progress or regress in their favored phenomena leads to progress or regress elsewhere. Table 3 provides a common framework in which both optimistic and pessimistic accounts have their place. Within this framework, a more nuanced empirical evaluation of the possibility of future progress becomes possible.

The reader can be spared the necessity of examining each element of Table 3 in detail. Those areas for which regress was observed in some period are:

- *Culture:* sense of community; attitudes toward humility, respect for others, caring, honesty, trust, optimism, marriage, and care for the elderly; stories.
- *Natural Environment:* pollution; biodiversity; global warming; built environment; treatment of animals.
- *Genetic Predispositions:* genetic fitness, genetic diversity
- *Individual Differences:* well-rounded individuals; feeling insignificant; ability to cope with injustice; depression
- *Health:* at a disaggregated level could speak of regress with respect to some diseases.
- *Social Structure:* No regress, though progress could be more rapid.
- *Economy:* inequality; effect of corporate form on ethics
- *Politics:* incidence of war
- *Art:* role in society

Elements of both regress and progress were often found within the same time period for the same phenomenon (in a few cases progress was identified for one period and regress for another). In such cases observers could readily disagree as to which was dominant. It is thus prudent to explore the possibility of encouraging greater progress in these cases as well. Indeed progress may be more readily achieved here than in the cases above:

- *Culture:* culture in general; values in general; time preference.
- *Natural Environment:* environment in general; resource availability; aesthetic value of nature.
- *Genetic Predispositions:* motivations; appropriateness of time preference (some regress over longest time period).
- *Individual Differences:* happiness; self-knowledge; parent-child relationships; respect for personality diversity; expression of anger and aggression; anxiety.

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[18] It is worth recalling in this respect that Michel Foucault, the source of many postmodern ideas, rejected the label of postmodernist and urged others to be humble about ascribing special status to their time (Alvesson, 2002, p. 26). Alvesson (p. 24) suggests that the late nineteenth century was a period of even more dramatic change.

- *Health:* population; migration (some regress in middle period).
- *Social Structure:* ethnic strife; bad occupations
- *Economy:* work fulfilment; leisure time; appreciating advantages of both public and private; effects on culture.
- *Politics:* ethical leadership; nationalism; education.
- *Technology, Science, and Philosophy:* human science.
- *Art:* art in general.

Pursuing Future Progress

One can sketch policies or strategies that might reverse the regress observed across many phenomena above.[19] Notably, one need not rely on any simplistic meta-narrative in order to imagine such a set of strategies: quite different insights can be drawn upon to address different areas of regress. Yet it is also noteworthy that the very insights that have allowed us to evaluate the degree of human progress above can often point us toward achieving greater progress in the future.

In the area of culture, much of what needs to be done involves clarifying and popularizing the ethical core described above and outlined in Table 4. Table 4 reprises all statements that received support from each of the five types of ethical analysis (those in italics received very strong support). Our stories and our art could both better support an ethical and progressive society if the ethical core was more widely appreciated. An appreciation of the five types of ethical analysis is also invaluable in the area of public policy: the first step in crafting policies should involve evaluating the goals of policy in terms of each of the five types of analysis. Foreign policy might be a particular beneficiary: the days when foreign policy was conducted in secret are drawing to a close, and a clear adherence to shared values would be a salutary strategy. Public policy analysis could likewise benefit from a more explicit appreciation of the links that exist between the phenomena in Table 1 above; many unwanted side effects of policies might then be avoided (see Szostak, 2005b).

It was noted above that contemporary pessimism regarding human progress is rooted in three concerns: that human societies can not agree on the direction of human progress, that the world is too complex for us to identify the path to progress even if we could agree on goals, and that reason does not govern human affairs and thus we could not institute the right policies even if we could identify them. This paper has argued that we can indeed agree on what progress would mean with respect to a wide range of phenomena. It is useful to close the paper by discussing how we might cope with the challenges of complexity and unreason.

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[19] See the extensive table in chapter 17 of Szostak (2012). The table describes activist strategies and/or academic research strategies which could address 81 distinct areas in which progress should and could be experienced.

Table 4: The Ethical Core

Culture	The value of culture should be accepted in general, but individuals and societies should be prepared to evaluate individual elements (while recognizing the diverse effects individual elements of culture may have). Societies should thus be open to cultural innovation. Achievement should be valued, but the abuse of power disdained. *One should help others, but not deny oneself.* A slight bias toward optimism is beneficial. *Marriage is good. People should focus on the care of children* The elderly should be cared for and given fulfilment. Societies should strive for consensus on everyday norms. Expressions of culture should be appreciated (except those supporting bad values), while encouraging creativity. Rules of spelling and grammar should be simplified.
Non-Human Environment	Societies should protect the environment (but be conscious of the cost of this), fight natural disasters, treat farm animals better, and produce more aesthetically pleasing architecture.
Genetic Predispositions	Humanity should appreciate for the most part its inherent abilities, *motivations*, and emotions. Genetic diversity should also be valued. While emotion is good, people need at times to constrain their emotions. Love and sympathy (and humor) are generally good, while hate is generally bad. The future should be valued more.
Individual Differences	Virtuous behavior leads to happiness. Self-knowledge encourages both happiness and ethics. Personality diversity is good. Nevertheless, a number of beneficial personality characteristics can be identified: some degree of emotional control, empathy (but individuals should not wallow in guilt), *honesty*, and respect (for the complexity of others). Individuals should recognize both the ubiquity of injustice and one's ability to fight this. *Relationships should be valued.*
Health and Population	Health is good. Disease is bad. Proper nutrition is good. Moderate population growth can be good. *A stable age distribution is good.*
Social Structure	*Families should be valued (but one should not just assume one type of family best).* Some occupations are bad.
Economy	Not all 'goods' are beneficial. Societies should increase fulfilment at work, decrease unemployment, and decrease income inequality (by redistributing). Societies should strive to equalize opportunity. A role for both public and private sectors should be recognized. The value of private property should be appreciated. *Charity is good.* (Note: the ethical core contains elements thought of as right-wing – appreciate private property – and left-wing – redistribute income).
Politics	*Government is good.* Justice should be pursued as a goal. Democracy is good. Some wars can be justified. *Institutions should be evaluated with respect to all five types of ethical analysis.* Societies need bureaucracies with some limited degree of flexibility. *Education is good.* Crime is bad. Punishment is justified (but there is much injustice in the system).
Technology and Science	Innovation is good in general. Science should have stronger links to the public. Technological innovation can and should be guided to aid the environment.
Art	Art is good and important. Creating art is good and important.

Coping with Complexity

The best path to coping with complexity involves first facing up to it. Most theoretical efforts in human science address the relations among a handful of the phenomena in Table 1. They in practice ignore the possibility that relationships with yet other phenomena might interfere with or at least condition the processes they analyze. Yet it is possible to imagine some causal connection between almost any pair of phenomena in Table 1. Natural scientists do a much better job, it might be noted, of stipulating precisely under what conditions (that is, realizations of other phenomena) a particular causal relationship will hold. Public policies grounded in such partial understandings of a complex reality are likely both to miss important aspects of the problem being addressed and have unpredicted (but potentially predictable) negative side effects on other public policy goals.

The claim here is important: we can not hope to cope with complex social problems unless we first face up to the complexity of the world in which we live. Much of this paper has served to outline ways in which we can get a grip on that complexity: by identifying the constituent phenomena, understanding how these interact, and organizing these understandings.

There are several strategies that deserve particular emphasis:

- **Employ interdisciplinary analysis.** While individual pieces of scholarly research explore only a small part of the complexity of the world, the interdisciplinarian can achieve a much more comprehensive and nuanced understanding of any issue by integrating the insights emanating from different researchers and disciplines. Other papers in this volume discuss various types of integration. Repko (2011) provides a very useful guide to the performance of interdisciplinary research. Yet interdisciplinary analysis is limited by the scope of disciplinary research. Interdisciplinarians can usefully urge improvements in disciplinary research practice. These will generally involve encouragement to embrace a wider range of phenomena, theories, or methods.
- **Carefully map all relevant causal linkages.** As suggested above, this means not just appreciating all of the phenomena involved in a social problem or its resolution (and the interactions among these) but the side effects that policies may have on yet other phenomena. Given the limited scope of disciplinary research (and the tendency of disciplines to simply ignore the existence of other phenomena), it is all too easy to neglect relevant linkages unless one consults an exhaustive list of phenomena such as that in Table 1.
- **Likewise, draw upon the widest range of theories and methods.** No theory or method is perfect. Each has its strengths and weaknesses. The best policies will result not from the narrow application of one imperfect theory, no matter how much evidence from one imperfect method can be cited in its support. Rather we need to integrate argument and evidence from the widest range of theories and methods. As with phenomena, we are likely to overlook relevant theories and methods unless acquainted with the full range of theories and methods. Szostak (2004) established a five dimensional classification of types of theory. He also provided a list of the twelve broad methods used by scholars. By asking the 5W questions – who, what, where, when, and why – of each theory type and

method, he was able to establish the key strengths and weaknesses of each.[20] Importantly he was also able to show that disciplines choose mutually supportive sets of theories and methods: since a discipline's favored method is likely to exaggerate the power of its favored theory, we will want to ask what other disciplines' methods have to say about that theory. Researchers can consult these classifications in order to determine which theories and methods are most applicable to a particular research question. If they instead merely follow disciplinary practice they will gain an incomplete and likely biased understanding.

- **Develop more coherent systems of knowledge organization.** The academy devotes an infinitesimal fraction of the resources spent on research to organizing the results of that research. Existing systems of library classification tend to be grounded in disciplines. The exact same topic may thus appear in several different places in a library classification, often using different terminology. Moreover, works are usually classified in terms of (one or two of) the phenomena studied rather than the relationships among these. Nor are works usually classified in terms of the theories or methods applied. Trying to find "what theories or methods have already been applied to the study of how phenomenon A influences phenomenon B" is thus incredibly difficult. This need not be the case. It is both feasible and desirable to develop a better system of classification that would organize our fragmented understandings more coherently (Szostak, 2007, 2008, 2011).[21]

Combating Unreason

Four complementary paths to encouraging reasoned conversation can be identified:

- Ethical education. As Habermas would stress, people must come to want reasoned conversation. They need to realize that both they as individuals and the broader society will be better served if they pursue social responsibility and open-mindedness. Humility and courage are important components of this ethical outlook.
- Rhetorical education. As in other endeavors we should hardly anticipate a perfect ethical outlook from all. Those who wish to pursue reasoned conversation need thus to be able to debate those who wish to win at all costs. Fortunately, rhetoricians have studied debating tactics for thousands of years, and there are many handy guides to rhetorical tricks and how to combat these.
- Critical thinking education. Complementary to rhetorical education, this shows how to both make and evaluate arguments. Groarke and Tindale (2004) provide a very detailed guide. They urge, among other things, precise definitions of terms, visualization of arguments such that precepts are clearly distinguished from conclusions and emotional from reasoned argument, and interrogation of authorial biases. One or more chapters address arguments from classification (such as 'all X are Y'), prepositional statements (such as 'if X then Y'), and inductive arguments.
- Institutional reform. The fourth path requires more imagination at present, but the goal is straightforward: to increase the rewards for open honest conversation and/or increase the penalties for dishonest or evasive rhetoric. Some sort of arms-length evaluation of the veracity of political claims might be useful for example. Note that such institutions

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[20] He could thus show in detail how the methods favored by disciplines tend to be biased toward supporting their preferred theories.

[21] See also the Leon Manifesto at www.iskoi.org/ilc/leon.htm

become easier to imagine as the citizenry appreciates both the ethical and rhetorical material above.

Concluding Remarks

This paper has argued for a disaggregated but coherent evaluation of human progress. Rather than focus on a small number of types of progress, as is the norm in the literature on progress, the paper instead looks at a wide variety of types of progress. It argues that it is quite possible to identify what would be a progressive change with respect to some one hundred distinct phenomena. Human history has seen progress with respect to many of these but regress with respect to many others. There is no objective weighting by which it can be determined whether progress has outweighed regress. It is however possible to envision a set of strategies that would allow humanity to achieve progress across (virtually) all of these phenomena in future. An objectively progressive future is thus entirely possible.

Interdisciplinarity itself is one of the keys to a progressive future. The key insight of the present paper for interdisciplinary research involves the value of classification. The paper has produced classifications of phenomena and types of ethical analysis, and used these to develop tables of ethical evaluation of phenomena and historical experience of progress by phenomena. It later noted the value of classifications of theory types and methods (and their key strengths and weaknesses). And it urged the development of better systems of library classification. The synergy between interdisciplinarity and classification is often overlooked (in part because some interdisciplinarians worry that classification is antithetical to the freedom of inquiry associated with interdisciplinarity). Exhaustive but coherent classifications alert researchers to the full range of possibilities (and thus structure supports freedom) while organizing the results of all research such that these can be readily assimilated

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New Departures in Tackling Urban Climate Change: Transdisciplinarity for Social Transformation (a critical appraisal of the WBGU's 2011 Report)

Christoph Woiwode[1]

Abstract: In 2011 the German Advisory Council for Global Change (WBGU) published a remarkable policy document entitled *World in Transition: A Social Contract for Sustainability* in which the authors proclaim the need for a great social transformation at the global scale in order to address climate change. This article builds on and critically discusses the central messages of the report that emphasizes the necessity to pro-actively shape the change of our values and worldviews that underpin our lifestyles and consumption patterns. By arguing for a transdisciplinary approach to implement this challenging vision the report identifies urbanization as a significant dimension in these processes thus shifting away from the dominant focus on socio-technical solutions. This puts the field of urban planning and development and related disciplines at the centre of the climate change adaptation and mitigation debate raising profound questions as to how these professionals, academics and practitioners could respond to the ideas brought forward in the report. The author considers this an opportunity for hitherto largely neglected integral approaches to gain more importance in mainstream urban planning practice and theory. The concluding part sketches out an initial research programme based on the previous discussion in order to illustrate at a more concrete level the implications of an integrative, transdisciplinary framework for planning.

Keywords: Climate change, social transformation, values changes, transdisciplinarity, integral theories, urbanization, urban planning.

> The city is an ecosystem as intricate part of the Earth and ecological integrity is an important guideline. […] The social, cultural, political and spiritual challenges are respectfully intertwined. Together they lead the way to unprecedented innovation and value added solutions. (Walas Concepts, n/d, p. 4)

Introduction

How humanity will be able to mitigate the impact of and adapt to climate change is decided to a great extent in urban areas. The urgency presently created by urbanization is twofold. More

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than half the world population already lives in cities, consuming approximately three quarters of global primary energy produced - with both these phenomena showing an upward trend.

In this respect, last year's report, World in Transition: A Social Contract for Sustainability[2] published by the German Advisory Council on Global Change (WBGU), is remarkable for its thematic focus on the inevitability of a social transformation to achieve global sustainability particularly in view of climate change. It is remarkable because this can be viewed as a significant attempt to expand the contemporary focus on climate change analysis and response beyond technological solutions and innovations into the realm of cultural change, a hitherto largely neglected research and policy area. The existence of the Council dates back to the year 1992, when it was set up by the German government as a scientific advisory body in the run-up to the Rio Earth Summit. Ever since its members have been eminent scientists, among the currently serving members are such internationally renowned climate and social scientists like Prof. Dr. Schellnhuber[3], Prof. Dr. Messner[4] and Prof. Dr. Leggewie[5]. According to its homepage the Council's principal tasks are to:

- analyse global environment and development problems and report on these,
- review and evaluate national and international research in the field of global change,
- provide early warning of new issue areas,
- identify gaps in research and to initiate new research,
- monitor and assess national and international policies for the achievement of sustainable development,
- elaborate recommendations for action and research and
- raise public awareness and heighten the media profile of global change issues.

Precisely because it confirms the central role of sustainable urban development, the authors identify *Transformative Governance of Urbanisation* as one out of three "key transformation fields" at the global level. This essay employs an integral lens using this publication as a red thread and impetus to discuss the novelty of such an approach to climate change as well as some of the main issues, arguing that this shift of attention (in worldview in fact) requires a critical and fundamental review of our existing urban planning frameworks, concepts, methods and practices.

Because I refer to a range of terms related to the "integral paradigm" throughout this essay, I deem it necessary to briefly clarify my take on these concepts right at the outset. Presently there are considerable conceptual overlaps and links between the terminologies used to characterise this emerging "all-encompassing," integral worldview. A crucial reason for this is that it is a contemporary, very fluid process of theorising that is still searching for defining terms like integralism, meta-theory, (w)holism, and transdisciplinarity. I use integrative and integral interchangeably, similar to Benedikter and Molz (2012) who term these "paradigmatic attempts" integrative, inclusive or integral. These two scholars point out "Integral, integrative, inclusive or holistic, while not being fully identical in their denotation, cognitive interest and core concept, have shifted their meaning from depicting an imaginary whole […] to the search for inclusion for the largest number of possible viewpoints on one and the same issue or question, even if those viewpoints may be conflicting with each other" (Benedikter & Molz, 2012, p. 34). It is the second part of the quote that I consider particularly valuable emphasizing diversity, contradiction, conflict and perhaps even paradox in our increasingly complex and crisis ridden times. Integrative approaches such as Ken Wilber's Integral Theory[6] are considered metatheories by scholars like Reynolds (2006, p. 121), Wallis (2010) and Edwards (2010, p. 16). The latter terms the meta-theoretical response to theoretical pluralism "integrative pluralism", thus suggesting, on the one hand, that the diversity of theories be retained and connected, whereas, on the other hand, there can be meta-theories that are not integrative if they do not so.

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[2] There is a notable loss of meaning in the English version of the report's title and in the name of the Council itself. In German: Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen (WBGU), 2011, 'Welt im Wandel: Gesellschaftsvertrag für eine Große Transformation'.A *verbatum* translation of the Council's name would reflect the focus on the environment and sustainability: "German Advisory Council on Global Environmental Change", while the German title of the report reflects better the actual thematic focus on social transformation and the issue of values change to achieve sustainability.

[3] Director of the Potsdam Institute for Climate Impact Research, external professor at the Santa Fe Institute and chair of the Governing Board of the Climate-KIC of the European Institute of Innovation and Technology.

[4] Director of the German Development Institute, Bonn.

[5] Director of the Institute for Advanced Study in the Humanities, Essen, Institute for Advanced Study of the University Alliance Metropolis Ruhr.

Even though transdisciplinarity will be given more space in the discussion to follow due to its central place in the WBGU report, it is important to state here that transdisciplinarity is clearly linked to an integral and meta-theoretical discourse as well (e.g., Gidley, 2008; Riedy, 2007). According to Nicolescu (2002), the term transdisciplinarity can be used as a philosophy (a stance, placing it in the larger context of our existence[7]), an epistemology (integration and unity of knowledge, non-dualism) and a methodology (resolving practical issues in problem-oriented scientific research, particularly environmental studies). For instance, the integral model presented by Wilber respects multiple validity claims, since each quadrant's domain acknowledges evidence from different data using different methods. By virtue of this fact, Integral Theorists (Esbjörn-Hargens & Zimmerman, 2010, pp. 66-76) stress that an integral approach can provide a more comprehensive way to understand climate change and thereby produce more adequate solutions as it integrates disciplines by including and transcending them: "[…] it [Integral Theory] 'hovers' above conventional disciplines, providing a map for understanding how they relate to and influence each other. The integral framework is perhaps better described as a *transdisciplinary* framework that serves to integrate each discipline or approach into a larger picture, rather than as a multi- or interdisciplinary framework that brings different disciplines together, without necessarily accounting for the synergies between perspectives and domains of reality" (O'Brien & Hochachka, 2010, pp. 93-94). According to these "integral" scholars it appears that "transdisciplinarity", "(integrative) metatheorising" and "integral" carry very similar if not identical conceptual meanings and connotations.[8] Important for the following exploration is how these notions differ from the understanding the WBGU postulates about transdisciplinarity and the use of “integrative/integrated” within the urban planning community.

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[6] It has become convention to refer to Wilber's approach in capital letters in order to distinguish it from other integrative frameworks.

[7] "The sum of the knowledge about the universe and natural systems, accumulated during the twentieth century, far surpasses all that has been known during all other centuries combined. How is it that we know more about what we do, and less about who we are?" (Nicolescu, 2002, p. 6).

[8] This discussion on terminological permeability could be further expanded. In Critical Realism, for example, the term postdisciplinarity is introduced with a seemingly similar meaning like Niculescu's notion of transdisciplinarity: "*Postdisciplinarity* […] envisages the demise of disciplines as we know them and revels in the freedom, eclecticism and new sense of unity this is supposed to bring" (Hartwig, 2007, p. 259).

Accordingly, the logic of the argument is developed along four key themes. It begins with a broad view about the interface of the state of the world and the notion of planetary interdependence in the context of climate change pointing out an underlying convergence in this regard of the modern sciences and wisdom traditions. This part highlights the endeavour of integral frameworks to bridge existing divides of science and religion, objectivity and subjectivity, among others. A following section, Pathways to action, takes up one of the central theses of the WBGU report, notably the change of values as a precondition for social transformation. In this section I discuss the existing gap of intellectually and cognitively understanding the link between consumption patterns and greenhouse gas emissions on the one side, yet an inability to act accordingly on the other side. Integral frameworks, it would seem, have the potential to bridge this gap through their explicit appreciation of the interior dimension of human life, and a recognition of practises that can systematically transform consciousness. The next part provides a generic overview of the current state of affairs in urban planning and development as one of the key strategic areas defined in the WBGU report. Here the underpinning thesis postulates that urban development, being considered an interdisciplinary policy area, must be complemented by a transdisciplinary approach if it is to respond more adequately to the challenge of climatic change. Thus the concept of transdisciplinarity highlighted by the authors of the report is discussed with respect to the discourse of and potentials integral frameworks might hold for contemporary urban planning practise and theory. In virtue of the conceptual and largely abstract analysis up to this point, it is important for a practice-oriented field like urban planning to attempt in the conclusion presenting a way forward. This is offered by way of drafting a research agenda which outlines some concrete areas for further study.

Planetary Interdependence: Complexity and Interconnectedness in Science and Ancient Wisdom Traditions

In this section I describe how, in the 20th century, scientific advancements discovered complexity and interconnectedness as essential defining aspects of the universe and its relationship to global climatic change. Interestingly, especially the notion of interconnectedness has been an essential part of ancient wisdom traditions, which therefore may have a potential to contribute in their own way to finding a solution to the problem.

As the quote at the beginning suggests, cities can be seen as one of the most complex systems created by humans. In the 20th century, the “systems” perspective became one of the most prominent approaches of understanding reality in the natural and social sciences alike. This has also been the primary approach in the assessments of the Intergovernmental Panel for Climate Change (IPCC). While the importance and significance of this scientifically grounded research is not questioned, climate change involves more than that, for it also “[…] is closely related to how humans perceive themselves in the world and how they confront change. In fact, although it is certainly about the climate, at another level it is about how humans both create and respond to change” (O’Brien, 2009, p. 1). In its appraisal of ongoing funded research projects on urbanization and climate change in Germany and the EU, the WBGU criticizes just that:

"Particularly the cultural aspects, which – as they determine innovation acceptance and diffusion and consumption behaviour – are central to the transformation success, are not sufficiently taken into account in the programmes, or not explicitly mentioned" (p. 345). It is this omission of the inter-subjective (cultural) and subjective (psycho-spiritual) realms where current urban practice and research on climate change appears to be largely blind.

In a way the issue of climate change challenges our ways of thinking, doing research and seeing the world. Because by and large "scientism" has become a predominant notion that led to an objectification of the world and an analytical approach of disciplinary (hyper-) specialisation, scholars remain in their field of expertise and find it hard to consider and study the existing connections through boundary-crossing research. Ironically, to a large part driven by this scientific quest in quantum physics and the life sciences, the past century witnessed a convergence of science and ancient wisdom traditions by virtue of the shift from a predominantly mechanistic to a complex systems worldview that is characterized among others by non-linearity, complex causal interrelationships and -dependencies, feedback loops, co-evolution and emergence, a blurring of the subject-object relationship, autopoiesis, et cetera. One of the most far-reaching insights of quantum physics is probably the (re-)discovery of non-separability as a type of causality, i.e. all entities interact no matter what their distance is (Nicolescu, 2002), an insight not entirely new to Hindu and Buddhist thought, among others.

This universal (global) interconnectedness is now forcefully placed in front of us through the issue of climate change, as noted in the Human Development Report 2007/2008 that states a "fundamental sense in which climate change challenges us to think differently about human interdependence" (UNDP, 2007, p. 60). In this report we also find a reference to ancient Greek philosophers applying a model of concentric circles to understand human affinity "from family, to locality, country and the world" thus recalling in principle the notion of a holonic universe as found in many illustrations of Integral Theory (e.g. Wilber, 2000 and 2007). A notion of this interrelatedness would evoke serious questions of morality, for we are nowadays more often made aware about how our consumption affects lives in other parts of the world. In other words, a "rich individual" is inescapably connected by his/her consumption patterns to a "poor/vulnerable person" in a far away country/ region. Accordingly, the authors of the Human Development Report argue that this knowledge about planetary interconnectedness would also invoke an ethical responsibility which can no longer be denied. As a common ground inherent to and uniting all religions/faiths, the report points out, we find stewardship, social justice and environmental ethics (UNDP, 2007, pp. 60-61).

Developing a planetary consciousness is thus one of the foremost tasks ahead of us, one might think, but has received not much attention so far in most public discourses. It will require a shift in worldviews from an egocentric *I* to ethnocentric *us* to a planetary *all of us*. While this dimension is briefly discussed in the WBGU report with respect to global governance, the authors remain practically within the framework of 'Western' positivist science merely taking into account "present relevant knowledge of cognitive science, psychology, anthropology, cultural sciences and sociology" (p. 327). In doing so they remain doubtful "whether humans, as 'cooperative animals' (Tomasello, 2009), are fundamentally capable of developing a global 'We' identity" (p. 327). As a consequence, it is recommended that "it must generally be determined whether there are cognitive boundaries which fundamentally overtax humans and human societies, and how these can be overcome, if applicable" (p. 327). An issue as existential for humanity like climate change should urge us to think far beyond such conventional disciplines or at least make a significant attempt to drive them further into new areas. In my view we can possibly not afford neglecting the potentials of a spiritual approach to life, nature, and the universe, an area that is increasingly returning to the public realm. Political philosopher Michael Sandel commented recently: “Consider the environment […] real change will depend on changing people’s attitudes toward nature and rethinking our responsibilities towards the planet we share. This is a moral *and* spiritual project, not only an economic one.” (Sandel, 2009; emphasis added).

Because integral frameworks generally adopt a critical stance towards existing thought paradigms and global issues, they carry a strong and explicit element of human emancipation including the power to release transformative energies in individuals and at the collective level.[9] Hence it is in this area that integral approaches such as Ken Wilber’s Integral Theory and Roy Bhaskar’s Critical Realism and philosophy of Meta-Reality can contribute to the discourse of sustainability and climate change (e.g., Bhaskar et al., 2010; Brown, 2006; Esbjörn-Hargens and Zimmerman, 2009; O’Brian & Hochachka, 2010; Zimmerman, 2009). Hamilton (2008) in particular has developed an important approach to the integral city that explicitly acknowledges the urban bio-ecoregion and the evolution of consciousness. She draws from a range of integral and related thinkers including Ervin Laszlo, Clare Graves, Don Beck and Ken Wilber to develop a new imaginary of the city:

> An Integral City is a way of looking at the city, regardless of its size, to see it as if it were a whole system – a living system that has emerged from an ecology of consciousness and includes (but is not limited to) discursive, political and religious/spiritual contexts together with a specific natural environment (such as mountain, sea or prairie), climate and natural ecology. As such, an Integral City is dynamic, adaptive and responsive to its internal and external life conditions. (Hamilton, 2008, pp. 51-52)

In this approach ecology and the human-nature relationship are central to the notion of cities, i.e., the relationship of cities to the carrying capacity of their ecoregion and the Earth as a whole. Hamilton’s observation is that “we lack both a philosophy and a science of sustainable human settlement. That is what Integral City seeks” (Hamilton, 2008, p. 9). As a result, it is crucial how we value the relationship of city and ecoregion. She urges that every city should maintain a stewardship relationship with its ecoregion and with the overall wellbeing of the earth, because the current stage of human history would demand we re-appreciate this relationship.[10]

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[9] In the introduction to his “Reflections on Meta-Reality” Roy Bhaskar states: “The philosophy of Meta-Reality describes the way in which this very world nevertheless depends upon, that is, is ultimately sustained by and exists only in virtue of the free, loving, creative, intelligent energy and activity of non-dual states of our being and phases of our activity. In becoming aware of this we begin the process of transforming and overthrowing the totality of structures of oppression, alienation, mystification and misery we have produced; and the vision opens up of a balanced world and of a society in which the free development and flourishing of each unique human being is understood to be the condition, as it is also the consequence, of the free development and flourishing of all” (Bhaskar, 2002, p. 8).

[10] Since this is very much (evolutionary) work in progress it is worthwhile to visit Marilyn Hamilton’s website on www.integralcity.com to see the application of this approach to urban development.

Homer-Dixon, who authored “The upside of down: catastrophe, creativity, and the renewal of civilization” (2006), outlined some of the key issues any serious investigation of responding to climate change must incorporate at the conference “The Great Transformation: Climate Change as Cultural Change” in Germany in 2009. He identifies in his analysis four distinct yet interconnected areas of transformation: cognitive, economic, political, and normative.[11] Similarly to above statement he argues: “Politically, we need to extend the boundary of our conception of community – the boundary of the ‘we’ – to encompass the entire species.” In his view, political transformation will build collective intelligence. For normative transformation to succeed “we have to move from a narrow, utilitarian discourse on our motivating values to a more vigorous consideration of the moral and especially existential values that determine our view of ‘the good life’.” He identifies three categories of values: (a) simple preferences (utilities), (b) moral values (oughts), and (c) existential/spiritual values (which bring meaning into lives, the cosmos and the world, i.e., what is “a good life”). Tellingly, he pointed out that in public attention and discourse the value categories would usually receive decreasing attention from one to three. Lastly, Homer-Dixon made a crucial comment indicating a next stage in the consciousness of humanity: “These four transitions, should we make them successfully, will mark a shift from a stage of the development of our species analogous to adolescence – characterized by exuberance, narrow self-interest, short time horizons, a tendency towards self-gratification, and a sense of invulnerability – to one analogous to adulthood.” Interestingly, this sounds almost like a reference taken from Wilber’s (2000) work who exhibits a similar understanding of consciousness development at individual and societal levels. It seems these two perspectives indeed converge here even though Homer-Dixon does not refer directly to Wilber’s Integral Theory.

By bringing together Western psychology with the philosophies and practices of ancient wisdom traditions a great potential for contributing to the resolution of contemporary crises may arise, because the latter have developed techniques of spiritual growth which go beyond the physicality of the body working at a more subtle level deeply on the mind and soul, thus carrying the potential to overcome the “cognitive boundaries” previously mentioned (e.g., Combs, 1996). For example both developmental psychology and many spiritual traditions such as Sri Aurobindo’s Integral Yoga (Satprem, 1970; Sri Aurobindo & The Mother, 1973), stress the evolutionary character and capacities of individuals and human societies. Their models of human development include an ongoing evolution of consciousness which eventually will help to overcome currently existing cognitive limits. Surely this is an area widely disregarded as esoteric and irrational, especially in the secularised societies of Western Europe, but religious sociologists, philosophers and theologians currently observe a process of increased spiritualisation and resurgence of religiosity across the world (Heelas & Woodhead, 2005; Tacey, 2003). In a global perspective, this phenomenon of increased public visibility of religiosity and spirituality has many faces and must be seen in relation to the respective social and cultural contexts, e.g., Pentecostal Evangelism in Latin America and African Countries, individualised eclectic spirituality practiced outside the churches in many Western countries (Knoblauch, 2009; Mohrmann, 2010), or more fundamentalist like the Indian *Hindutva* movement (Hansen, 2004; Jaffrelot, 1999). Interestingly, many of these movements are concentrated in urban settings, thus gradually triggering more attention by urban researchers and planners as well (metroZones, 2011; Beaumont & Baker, 2011; Woiwode & Scholz, 2012). To be clear, not all of these are part of an integral perspective of spirituality rooted in a (post-) postmodern worldview valuing among others inclusion, emancipation, wholeness by integrating “multi-rational modes of cognition” that bridge scientific reason and individual reflexivity (Benedikter & Molz, 2012, p. 61).

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[11] Everything cited here about Homer-Dixon’s approach is taken from my personal conference notes: The Great Transformation: Climate Change as Cultural Change, International Conference, June 8-10, 2009, Essen (Germany), www.greattransformation.eu.

Nonetheless, based on this understanding of global interdependence, the role of science and ancient wisdom traditions, the subsequent paragraphs will more explicitly explore social transformation in terms of changing values, consciousness and change agents.

Pathways to Action: Changing Values, Changing Consciousness and Change Agents

Novel in this report is indeed - compared to the usual focus on innovative technologies - the extensive attention and emphasis on a change of values and the role of change agents to address climate change. This achievement in itself is due to the fact that the report was developed by a truly interdisciplinary panel of high level scholars who worked together on integrating their disciplinary views. In contrast, for long the “hard” climate sciences have informed and driven the options for solutions to climate change, whereas the humanities did barely contribute to the debate – while the latter may be partly blamed due to their failure to contribute significantly to the debate, it is certainly also partly on account of the very dominance of the natural sciences in the analysis of climate change. Yet the cumulative effect of more recent crises like soaring global food prices, financial turmoil and securing increasing energy demands have an empowering effect on formerly marginalized views about development and economics, especially in bringing qualitative aspects to the fore.

In essence, these “academic underdogs” have for quite some time now asked critical questions such as “What is a good life and good quality of life? Which values and worldviews define a good life? What are alternative development models?” or even more radically taking an anti-development position by critically questioning the ideology and notion of development itself. Critical commentators and writers on development theories have highlighted the narrow-mindedness of the modernist, materialist, technical notion dominant in mainstream development for a long time (e.g., Max-Neef, 1982, 1991; Rahnema, 1997; Rist, 2002; Sachs, 1992; Schumacher, 1973). It seems consumption patterns and urban life are now more seriously being reviewed, shifting the focus away from the dominating growth paradigm towards “prosperity without growth” (Jackson, 2009). As the WBGU report interestingly points out, development is being measured not merely in quantitative terms (ever more of everything) but with a view to well-being and happiness as well. Accelerated by the financial crash there is an increasing body of literature available now proposing unconventional approaches to economic thinking that has, in addition, also stepped out of a purely academic discourse (especially those publications on happiness and well-being). Gradually, this subject is discovered by international development experts as well, as demonstrated by the 3rd Bonn Conference on International Development Policy in January this year which was entitled “Global Lifestyles-New Pathways for Development Policy”. Often we learn that people need to be made aware of environmental problems, and that many already are - the WBGU provides an overview of the proliferation of environmental values across countries based on the World Values Survey -, but most would not act accordingly in their day-to-day life. The crucial shortcoming of this approach and analysis is the fact that almost no attention is being paid to human psycho(-spiritual) capacities of development – i.e. consciousness development and spiritual growth-, but only on public education to influence behavioural change, whereas interior human capacities for the development of the "Self" are neglected.

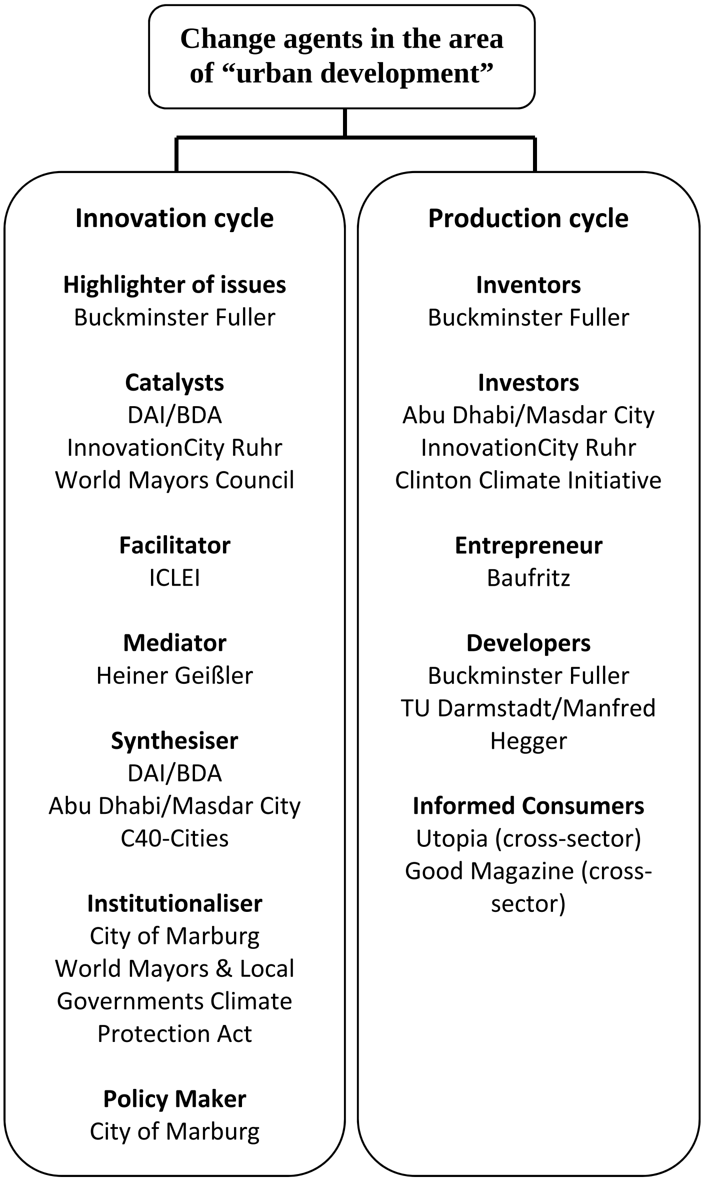
Change agents in the area of "urban development"
Innovation cycle
Highlighter of issues
Buckminster Fuller
Catalysts
DAI/BDA
InnovationCity Ruhr
World Mayors Council
Facilitator
ICLEI
Mediator
Heiner Geißler
Synthesiser
DAI/BDA
Abu Dhabi/Masdar City
C40-Cities
Institutionaliser
City of Marburg
World Mayors & Local Governments Climate Protection Act
Policy Maker
City of Marburg
Production cycle
Inventors
Buckminster Fuller
Investors
Abu Dhabi/Masdar City
InnovationCity Ruhr
Clinton Climate Initiative
Entrepreneur
Baufritz
Developers
Buckminster Fuller
TU Darmstadt/Manfred Hegger
Informed Consumers
Utopia (cross-sector)
Good Magazine (cross-sector)

Figure 1: Change Agents – Synopsis of Case Study from the Area of Urban Development (modified from: WBGU, 2011, p. 258)

In spite of these limitations, social pioneers and a new consciousness through values change are important aspects the WBGU report touches upon. Using the example of sustainable urbanization, the authors sketch how change takes place over a long time distinguishing conceptually between an innovation and production cycle and the various functions change agents can assume in these processes (WBGU, 2011, pp. 252-54; see Figure 1).

While the authors mention the role of "strategic consumers" and point out the potentials of change agents, "intentional communities" remain unexplored yet could be a source for further and more radical inspiration (Christian, 2003; Dierschke et al., 2006). The role of these could be spearheading new lifestyles, but too often they are viewed as social utopias even though in fact some of their ideas and practices are gradually entering wider society. Being a member of a community that consciously makes a decision in changing lifestyles encourages each individual member in actually living accordingly. This feeling of social support can be crucial to sustain decisions in living differently, since an obstacle for social pioneers is usually a permanent struggle with the conventional ways of living pursued by the majority. Therefore, I would argue, intentional communities may serve as useful "real life" examples –and not utopias- demonstrating fundamental transformative processes at both the personal as well as eventually reaching out to the collective socio-cultural level. Related to an "intentional" lifestyle, terms like postmaterialistic and postsecular (coined by Habermas) point towards an emerging new vocabulary signifying this shift in values and consciousness in Western societies.

Unfortunately, in many parts of the so-called emerging regions of the world we witness the exact opposite development as their development model relies heavily on carbon intensive path-dependencies - imitating the industrialized world - and hence is counterproductive in the sense that it carries elements destructive for a meaningful sustainable lifestyle.[12] For example, non-materialistic values and approach to life has been very strong in India for centuries if not millenia. Since the beginning of the politics of economic liberalisation in the early 1990s a considerable change due to economic growth gradually de-values formerly widespread virtues of frugality, leading a simple life and following a vegetarian diet. Even deeply rooted Hindu-Jain-Buddhist ethics of non-violence resulting often in a strict vegetarian diet are increasingly undermined by this spreading affluence with consequences for the global climate. Notes the report a known fact:

> Apart from population growth, the most dynamic factor affecting land use, due to the huge differences in the emissions intensity of different foods, are changing eating habits. In industrialized countries, and increasingly, also in the high-income social classes of the newly industrialising and developing countries, the consumption of animal products, whose production involves significantly higher greenhouse gas emissions than purely plant-based agricultural commodities, is on the increase. (WBGU, 2011, p. 303)

Especially India - a country with one of the historically longest continuous and unbroken philosophical, religious and intellectual cultural traditions in the world-, one would reckon, does have the thought capacity to create its very own vision of development. Instead her leaders insist largely on the idea of catching up with the “developed” world as frequently argued during international negotiations on climate change, thus committing the same failures of modernity while at the same time submitting the country and its people unnecessarily to an inferior position rather than taking a bold lead by leapfrogging straight away to a low-carbon society[13] (by consciously retaining those values which support more sustainable lifestyles). The spiritual township Auroville in India provides a formidable even though exclusive example of such an intentional, eco-spiritual community that can stimulate a rethinking of currently prevalent urban planning approaches (Acharya, 2012).

What we need eventually is people being inspired by a vision, a way of living, an ethical notion of life, which can be nurtured. It is already happening with many young urban dwellers across Germany and in many other countries who demonstrate a strong commitment to changing their lives, many of them also being influenced by Eastern spirituality or other, similar practices of self-inquiry, self-reflection and development. Hitherto there has practically been done no research on their role as social pioneers and the transformative force these individuals (and groups) may exert on urban society at large, even though they frequently make important decisions such as reducing their meat consumption or turning vegetarian/vegan altogether, shift from being car owners to using multiple mobility options, etcetera. Such steps are often only possible through a steady personal development and character building exercises – meditation, contemplation, yoga, self-reflexive trainings that develop a critical perspective not only on industrial food and its health implications but also ethical notion of the means of production. For example, during the past few years we witness a steady increase of critical TV documentaries and debates about conventional meat production and agriculture, food scandals, global textile production and climate change in Germany. But honestly, how many of us translate this information directly into their life praxis? This personal transformation needs a strong personality with convictions, a capacity that can be trained but is usually not part of our conventional, formal education. In this regard Jennifer Gidley’s (2009) work on postformal pedagogies could be instructive probably even for urban community development and social work, including planning education.

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[12] In India for instance, many spheres of life are affected by such kind of cultural ‘un-learning’, as the health sector illustrates: based on anecdotal knowledge/observation of the author, it appears that within the urban middle-class there is a widespread, almost blind belief in allopathic medicine and often disregard of Ayurvedic treatment methods, while in many ‘Western’ countries a shift towards a ‘complementary health perspective’ that integrates better the approaches of various health traditions (Chinese, Naturehealing, Ayurveda, allopathic, etc.) becomes more accepted (and is even included partly in the standard health insurance cover).

[13] That a move in such a direction is not too farfetched has been demonstrated by the IT revolution in India which stands in a stark contrast to the abysmal poverty and human development indicators. Von Weizsäcker et al. (2009) discuss this option of low-carbon development as ‘tunneling through’ in their book ‘Factor Five’ in greater detail.

Till date the urban planning professions and decision-makers have not found appropriate ways as to how to provide windows of opportunities that promote existing pro-active change agents or connect with phenomena like intentional communities and lifestyle transforming consciousness development. On the contrary, skepticism and suspicion from both sides frequently prevent interaction (Wilmsen, 2011, 2012). There is certainly a need for more research and open-minded practice as the WBGU points out: “It must be clarified what low-carbon city cultures and lifestyles might look like” (2011, p. 336). To this statement one may add “in different socio-cultural contexts” and a global process of cross-culturally learning from each other. Social pioneers and especially (urban) intentional communities might provide ideas to begin with. Since cities are usually considered places of innovation and creativity both in technological but also social and cultural terms, it is of crucial importance whether and how the urban development professions and disciplines are prepared to take into account and support these forces, especially in bringing to the fore the interior dimensions of socio-cultural transformation for sustainable urban development, an aspect I shall discuss now in the next section.

Urban Planning and Development: Moving from Inter- to Transdisciplinarity

The WBGU’s focus on values and lifestyles in policy-making for climate change calls for a transformation of related professional fields and their praxis. Thus the previous discussion stimulates and encourages a profound review of current urban development practice, theory, policy making and training including a critical reflection on planning concepts, methods, and instruments. As a consequence of their assessment, the report’s authors carve out “Ten Measure Bundles with Major Strategic Leverage” including “Bundle 6: Steering the World’s Rapid Urbanisation towards Sustainability”, which is considered as “an extremely effective lever that should be as high up as possible on the international political agenda.” Given this significance, urban planners need to immediately review what implications this statement and the perspective brought forward in this report has in stock for planning practice. What are, for instance, the constraints and limitations of contemporary (post)modernist planning? To what extend are we prepared to incorporate the ideas and requirements of the great transformation?

One of the most stimulating areas of the report is its discussion on transdisciplinarity as a central concept for the implementation of and research for transformation, an area that builds on the increasingly recognized convergence of knowledge areas and global interconnectedness. Furthermore, the concept of transdisciplinarity also opens the door to link the WBGU with the ideas of integral approaches. Therefore this debate about transdisciplinarity should be of particular interest for the planning profession and education with its strong interdisciplinary orientation, but where transdisciplinarity can be viewed as complementary to interdisciplinarity. The WBGU's concept of transdisciplinarity focuses mainly on the aspect of including and involving social actors and stakeholders in identifying the research questions and conducting research:

> Transdisciplinarity encompasses a range of different aspects. Firstly, it means increasing the social relevance of research questions through the involvement of stakeholders in setting research goals. Secondly, it also applies to the involvement of stakeholders in the actual research process, i. e., the combination of scientific and practical knowledge (for example local, traditional or indigenous knowledge). (WBGU, 2011, p. 323)

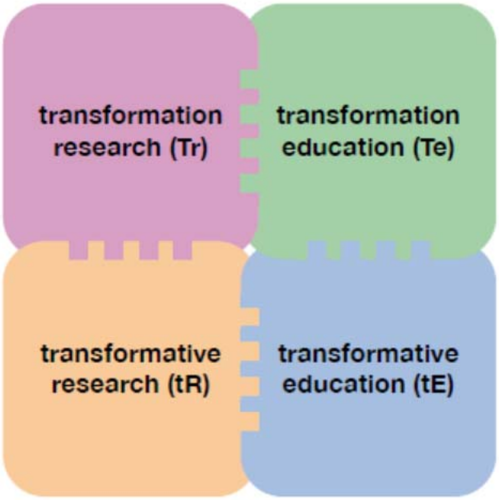
transformation research (Tr)
transformation education (Te)
transformative research (tR)
transformative education (tE)

Figure 2: Typification of transformation research and education.
(Source: WBGU, 2011, p. 352)

With this twofold notion of transdisciplinarity the link to social transformation is established. According to the WBGU's approach, for transdisciplinarity to be relevant in terms of inducing social transformation, the research needs to become part and being linked to society – it must be socially relevant - and simultaneously incorporate, acknowledge and honour local and indigenous ways of knowing. Building on their framework of transdisciplinarity as a methodology, the authors then present the interlinked *Four Transformative Pillars of the Knowledge Society*. As illustrated in Figure 2 and outlined in Table 1, these pillars consist of four mutually interdependent quadrants. They distinguish "transformation research" (Tr) as a form of research that studies processes of transformation from "transformative research" (tR), whose aim is to induce and support transformation processes "including diffusion processes in economy and society, and opportunities for their acceleration, and demands, at least in part, systemic perspectives and inter- as well as transdisciplinary procedure methods, including stakeholder participation" (WBGU, 2011, pp. 351-52). Consequently, education is considered as a requisite component for transformation to succeed. In a similar vein, education is divided in "transformation education" (Te) that critically reflects on the requisite basic requirements, such as a thorough understanding of the pressure to act and a global sense of responsibility" and also "communicates information on the environmental problems that necessitate the transformation" (WBGU, 2011, p. 352), whereas "transformative education" (tE) comprises the practical dimension of actual values and behavior change. This final step from awareness to action, which is crucial to "implement" and manifest the transformation, is given not much room in the discussion of the WBGU, even though the authors are aware of the difficulties:

> Knowledge appropriation is therefore the first precondition for transformation-supporting actions, it is, however, certainly not enough. For this reason, a quite justifiably recurring theme in the debate on sustainable development education is that education must not just be the communication of purely cognitive knowledge, but must also encompass, on the one hand, practical aspects which can be applied to actions and, on the other hand, competence building to enable those learning to reflect on their actions, and empowering them to shape their future. (de Haan, 2003; Rauchhaupt, 2005; WBGU, 2011, p. 354)

While the authors' of the WBGU report see the solution in the importance of participation in the research process and in activities such as a voluntary social/environmental year for young people, transformative practices of self-reflection and spiritual growth as practised in many wisdom traditions could be seen at least as a strong additional force that can aid in closing this gap by responding to the high demands of collective social transformation.

Table 1: Four Transformative Pillars of the Knowledge Society

Transformation research (Tr) Transformation research is aimed at understanding transformation processes better, its subject are therefore transformation processes as such. (p. 322)	***Transformation education (Te)*** - makes the findings of transformation research available to society - promotes systemic thinking, and generates a systemic understanding of different options for action - communicates information on the environmental problems that necessitate the transformation, and their scientific exploration. - it generates goals, values and visions to guide the actions of individuals towards the necessary direction. - *Te* should also have the goal of inspiring social participation and political action, as both are preconditions for a democratically legitimized transformation. (p. 352)
Transformative research (tR) Transformative research supports transformation processes in practical terms through the development of solutions and technical as well as social innovations, including economic and social diffusion processes and the possibility of their acceleration, and demands, at least in part, a systemic perspective and inter- and cross-disciplinary methods, including stakeholder participation (p. 322)	***Transformative education (tE)*** - generates an understanding of different options for action and solution approaches. - encouraging informed low-carbon mobility behaviour, sustainability-conscious eating habits, or an awareness of crossgenerational responsibilities. - Related educational content would be innovations that are likely to have transformative impact, or which have already had one. (p. 352)

Note: Source: WBGU 2011.

Returning to transdisciplinarity, the notion promoted in the report appears to be very similar to the concept of ‘action research’ or action planning which is rooted in a similar philosophy of knowledge for action and generated through the interaction with people concerned and other stakeholders. Action research also challenges the conventional way of knowledge-making and aims at creating a shift in the balance of power in favour of poor and marginalised groups in society. Reason and Bradbury (2001), for instance, point out the participatory dimension in co-creating knowledge mutually between the researchers and the people to generate “practical knowing” through action and reflection, theory and practice. Action research as a worldview thus encompasses a strong element to change or transform existing social realities. Indeed it is rooted in the same recognition of an emergent worldview as outlined above which “has been described as systemic, holistic, relational, feminine, experiential […]” (Reason and Bradbury, 2001, p. 6). While in this sense participatory research connects well with the WBGU’s concept of transdisciplinarity, it is also shows that the WBGU is not out of step with existing research designs or planning approaches. However, for transdisciplinarity to be more comprehensive, meaningful and to be a genuine, novel departure it must be a quite radical.

Insightful, additional meaning can be found in the radical treatment of transdisciplinarity by Nicolescu (2002) who explains “As the prefix trans indicates, transdisciplinarity concerns that which is at once between the disciplines, across the different disciplines, and beyond all discipline. Its goal is the understanding of the present world, of which one of the imperatives is the unity of knowledge” (Nicolescu, 2002, p. 44). According to him transdisciplinarity transgresses the duality of opposing binary pairs such as subject/object, subjectivity/objectivity, matter/consciousness, nature/divine, simplicity/complexity, reductionism/holism, diversity/unity (Nicolescu, 2002, p. 56). Crucially, transdisciplinarity seeks to break down traditional disciplinary boundaries and organise “knowledge around complex heterogeneous domains”. The prefix ‘trans’ signifies both the transgression of boundaries and the transcendence of disciplinary components. Essentially, in moving beyond disciplines, transdisciplinary research attempts to generate synergies and new types of knowledge (Riedy, 2007, p. 26).[14] Transdisciplinarity with the goal to recreate integrated knowledge (Sommerville and Rapport, 2000) as an approach to research and practice seems to be a particularly suitable response to complex wicked problems like climate change – the reason why it has found some ground in environmental and sustainability research -, which cannot be treated by the application of fragmented disciplinary knowledge (Hoffmann-Riem, 2008).

In practice, whilst integrating knowledge is a crucial challenge it might even be inherently paradoxical because the growing number of integrative frameworks seems to trigger the need for a meta-theoretical perspective that integrates these itself, as Gidley’s work on Jean Gebser, Rudolf Steiner and Ken Wilber suggests. Naturally, if integration is concerned with unifying knowledge types, the question remains as to how multiple ontologies, epistemologies, methodologies, goals and practices of different stakeholders around a complex issue could be reconciled through transdisciplinary research and action. Unification must not be confused however, with equalizing knowledges in terms of brushing out difference and diversity. On the contrary, it is the attempt to capture the best possible holistic view by recognising and relating multiple, diverse, conflictive and contradictory perspectives on a problem that concerns many. In current urban and regional planning activities - by way of various methods of participation and stakeholder consultations - the reconciliation of conflicts, balancing and weighting of diverse interests is usually a central objective during the development and policy formulation process. If such a process is well guided and intended, it is frequently through this process itself that stakeholders change, adapt and maybe even transform.[15] This includes the consideration of various types of knowledge (expert, phenomenological, experiential, anecdotal, indigenous), but rarely interiority. For example, recent research in Australia where formalised planning practice meets the cognitive-mental structures of Aboriginal landscape perceptions indicates that the planning community there becomes increasingly aware of the shortcomings of their established methods and concepts feeling a need to relate to and accommodate indigenous knowledge especially paying attention to spiritual dimensions (Low Choy et al., 2010). It is for this reason that contemporary planning theory, as I will outline further below, has incorporated ideas like Habermas' theory of communicative action.

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[14] In contrast, multidisciplinary research brings together the work of multiple disciplines operating in a relatively self-contained and independent manner. The integration across disciplines is limited to summation of findings. Interdisciplinary research goes further, seeking to integrate disciplinary perspectives on a particular problem to provide a systemic outcome, but disciplinary boundaries are not transgressed (Riedy, 2007, p. 26).

Another dimension not considered in the WBGU report is that a transdisciplinary perspective would certainly be enriched if it was opened for active exchange of ideas across knowledge systems and cultures such as including wisdom traditions of the East.[16] Such an expanded and more comprehensive view of transdisciplinarity is proposed by Nicolescu whose interpretation of transdisciplinarity implies its being transcultural, transhistorical, transpolitical, or with Wilber's Integral Theory that seeks to integrate (acknowledge) knowledge diachronically throughout history and synchronically from 'East' and 'West', perennial philosophies and the sciences. Compared to these approaches, conventional 'Western' academia is primarily self-satisfied, self-contained and locked in its own history of thought rarely incorporating knowledge from other philosophical and cultural traditions, even though the epistemological learning potential would be tremendous.[17] For example, the introduction of Gross National Happiness in Bhutan, which is based on Buddhist values, led to a revival or (re)discovery of this concept within international development discourse and practise. Within the climate change debate a focus on knowledge and technology transfer from the advanced industrial countries to the developing world is usually emphasized. While the developing world shows a keen interest in receiving the latest technology, they also point out in the same breath that financial assistance is required thus reinforcing political dependence. On the other side, one may view such an approach as a new kind of imperialism or even paternalism where in fact there may be tangible advantages for mutual learning based on knowledge exchange. Hence a transdisciplinary approach needs to be receptive to a global exchange of knowledge types, including in particular the domain of interiority/spirituality (Salemink, van Harskamp & Giri, 2004; Santos, 2007). Western urban planning, being by and large a modernist rational decision-making process, has almost no room for this knowledge area. As noted, with the beginning of the 21st century, however, some planning professionals and academics have noticed a resurgence of religiosity and spirituality in public urban life (metroZones, 2011; Beaumont & Baker, 2011), and others, including myself, are working towards a "recognition of the spiritual" within the planning discipline (e.g., Anhorn, 2006; Sandercock & Senbel, 2011; Wight, 2009; Woiwode, 2012c; Woiwode & Scholz, 2012).

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[15] Another issue concerning participatory processes that cannot discussed here in detail but is certainly relevant is inclusion or in negative terms marginalization/exclusion. A large body of literature can be found around issues of oppression, social exclusion, injustice and inequality in participatory processes (e.g. Beckmann, 1997; Cooke & Kothari, 2001; Young, 1990)

[16] The reference to 'indigenous knowledge' made in the report is insufficient, as it seems to refer more to 'local' knowledge and tribal groups. Certainly, one would not think of the complex philosophical traditions of China or India and other countries being 'indigenous'.

[17] For instance, even Nobel laureate Amartya Sen takes an almost apologetic stance in his recent treatment on the idea of justice when he points out that his approach also draws from ancient Indian resources, writing "…the connection of this work with the European Enlightenment does not make the intellectual background of this book particularly 'European'. Indeed, one of the unusual –some will probably say eccentric – features of this book compared with other writings on the theory of justice is the extensive use that I have made of ideas from non-Western societies, particularly from Indian intellectual history, but also from elsewhere. […] In confining attention almost exclusively to Western literature, the contemporary – and largely Western – pursuit of political philosophy in general and of the demands of justice in particular has been, I would argue, limited and to some extend parochial" (Sen, 2009, pp. xiii-xiv).

Overall, the previously outlined features of transdisciplinarity pose a major departure from the currently prevailing logic of modernist planning practices in many parts of the world, which are nearly without exception the legacy of the European colonial and imperialist hegemony. Modernist planning approaches are problematic in many ways (UN-Habitat, 2009, pp. 58-59), but above all they are "weak in terms of how to deal with the major issues of the 21st century: climate change, resource depletion, rapid urbanization, poverty and informality" (UN-Habitat, 2009, p. 70). Thus "a significant practical dilemma that faces planners – as well as other urban professionals and politicians – when they try to implement sustainable urban development is *how to integrate the two different sets of concerns of the "green agenda" and the "brown agenda"* (i.e. the natural environment and the human environment)" (UN-Habitat, 2009, p. 114; emphasis added; see Table 2). Even though spatial planning is considered an interdisciplinary exercise, the frustration of above statement illustrates the "interdisciplinary dilemma" that the partaking disciplines are not adequately integrated, i.e. brought into a meaningful relationship. Apparently, this approach falls short of being integral for example in terms of the multi-dimensional model as developed by Wilber, nor is it transdisciplinary by Nicolescu's criteria as previously discussed. In Wilberian terminology, it rather is a purely systemic (natural and social systems), exterior objective perspective, which is certainly valuable but insufficient. The entire vocabulary in this UN-Habitat report is one of a bio-physiological system, where a city's metabolism defines its ecological footprint. The cultural (values and worldviews) as well as the psycho-spiritual (subjective aesthetics) dimensions that underlie the expression of this metabolism are rarely mentioned (for instance ethical considerations).

Table 2: Characteristics of the Green and Brown Agendas in the Urban Environment

The green agenda	The brown agenda
Natural systems, global, regional and local, used as services by cities	**Human systems required to make cities healthy and livable and which are part of the metabolism of the city**
Ecosystems that provide green open space used by the city for biodiversity protection and recreation.	Waste systems to recycle and remove wastes from cities, including solid, liquid and air waste.
Water systems that cities use to tap the natural flow of water supply and waste disposal.	Energy systems to provide power, heating, cooling and lighting for all city functions.
Climate and air systems that provide cities with the requirements for healthy life.	Transport systems to enable mobility in the city, including the fuel.
Other ecological services, including agricultural and forestry systems providing food and fibre for cities.	Building and materials systems that provide the physical basis of life in cities.

Note: Source: UN-Habitat, 2009, p. 114.

As demonstrated in Table 3, even without considering climate change as a severe problem, urban development faces a wide range of issues at the global as well at the regional level. Since these are interdependent and interwoven in complex relationships and systems, hence the urgent need for a meta-theoretical, integral perspective which enables the application of a transdisciplinary perspective to urban development planning. Conventionally, in the field of urban and spatial planning, various measures are called integrated, for example “integrated neighbourhood management” or “integrated urban development”. Inherent to these types of integration is the connotation of comprehensive planning that refers to the notion of considering combined socio-economic aspects, land use planning and management, governance/stakeholder consultations, etc. For instance in terms of climate change, the city is viewed as an (open) system that integrates among others demography, economy, land use, climate impacts and greenhouse gas (GHG) emissions (e.g., Hall et al., 2010). Additionally, ‘integrative’ or ‘integrated’ means also ‘multi-sectoral’[18] referring to the correlation of several selected variables as in the model of Boydell et al[19] (2010). These approaches are obviously not “integral” in Wilber’s terms nor do they step out and move beyond a coordinative relationship of the various disciplines involved, in practice being compartmentalized implemented by local, regional or national government departments. Instead they reflect a systemic understanding of objective reality and facts that consider reduction of CO2 emissions in terms of more greening, energy efficiency, transport, and other areas without including behavioural and consciousness, or cultural patterns. Nearly all urban climate change initiatives whether in developed or developing countries reflect this limited notion of socio-technical response to socio-technical systems (see e.g., BBSR, 2009; Martin et al., 2008; UN-Habitat, n/d), confirms the WBGU's assessment of the research landscape on urban climate change in Germany:

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[18] Exemplary sectors are: transport, open spaces & greenery, environment, economy, social infrastructure like schools or health centres, technical infrastructures like storm water drainage or sewerage systems, housing, industries, leisure facilities, disaster management, land use planning, etc.

[19] This model integrates urban residential water consumption, passenger transport, and in-house energy use.

> Particularly the cultural aspects, which – as they determine innovation acceptance and diffusion and consumption behaviour – are central to the transformation success, are not sufficiently taken into account in the programmes, or not explicitly mentioned. It is therefore to be expected that although cultural aspects will impact somewhat as a consequence of international cooperation, the targeted generation of relevant data and their comparability is being neglected. (WBGU, 2011, p. 345)

Table 3: Main issues for urban planning in different parts of the world

Region	Issues
Global	1. Climate change 2. Global economic crisis 3. Energy supply and impacts 4. Food security 5. Changing population size of towns and cities 6. Income inequality 7. Cultural diversity
Developing countries	1. Urban informality 2. Urban growth 3. Income inequality and poverty 4. The "youth bulge" 5. The peri-urban areas 6. Linking the green and brown agendas 7. Institutional and professional capacity
Transitional countries	1. Slow population growth and declining cities 2. Urban sprawl, fragmentation and inequality 3. Environmental issues 4. Decentralization of government and resource constraints 5. The changing legislative framework for planning
Developed countries	1. Socio-spatial inequalities and urban fragmentation 2. Environmental issues 3. Population decline and shrinking cities 4. Integrating sectoral policy within governments

Note: Compiled from UN-Habitat, 2009, pp. 201-205)

Conclusion: How could an Integral, Transdisciplinary Response to Urban Climate Change Look Like?

This section aims to move beyond mere abstract and theoretical criticism of an otherwise important policy paper to stimulate a discussion about a research agenda on urban climate change response that is inspired and framed by an integral, transdisciplinary, meta-theoretical approach.

It is therefore not an exhaustive, nor a conclusive or comprehensive treatment of the subject matter, but work in progress directly relating to a series of other articles that I have written on this topic (Woiwode, 2012a, 2012b, 2012c). I subsequently cover briefly two issues, first in providing a glimpse of contemporary planning theories to indicate the potential for creating a planning (meta-)theory with an integrative, transdisciplinary face, and secondly by pinpointing to some issues relevant for a research agenda.

Meta-theory, Transdisciplinarity, and Contemporary (Urban) Planning Theory

No one has hitherto attempted to introduce a meta-theoretical, integral approach to urban planning theory. Currently the application of complexity theory is one of the latest answers of planning theorists and practitioners to the challenges of the 21st century (Chettiparamb, 2008), which are identified as uncertainty, insurgence, complexity and wildness (Healey & Hillier, 2008, p. 405). In its effort, this stream of planning theory follows the same line of the “new physics” and “new life sciences” in their critique of science and the Cartesian worldview by attempting to explicitly reconnect science, philosophy and humanity. It is further noted that there is an “incongruence between the actual urban “reality” which is complex and non-linear and the application of linear rationalist planning methods” (McAdams, 2008, p. 2). If we look further back we discover that in the 1990s planning theory was marked by the postmodern “communicative turn” known eventually as collaborative planning. Drawing from other disciplines like social anthropology (particularly Clifford Geertz) and critical theory (the Frankfurt School as represented by Jürgen Habermas) this stream incorporates more explicitly the cultural, creative dimensions in planning and policy making. On the surface it seems to come close to an integral framework because the field of planning theory expanded its scope into the intersubjective and, partially, subjective dimensions (Forester, 1989; Healey, 1992, 1996, 1997; Innes, 1998; Sager, 1998). Planning was now given an interpretive phenomenological perspective thus challenging the founding epistemologies of planning theory – instrumental rationality of modernist planning. Modernist planning, characterized by knowledge constructed predominantly through techno-scientific analysis and deductive logic, is the domain of experts, excluding other types of knowledge and value systems such as experiential, local, intuitive, tacit, expressive “knowledges” which draw on moral and aesthetic realms rather than on scientific logic and empiricism.

This notwithstanding, these more recent postmodern efforts still stop short of a more genuine meta-theoretical perspective, for Habermasian theory[20] at that stage remained a secular undertaking without giving room to the religious or spiritual realm of subjective interiority, whilst the notion of complex systems is still essentially confined to an objective perspective on the world and therefore largely incapable to capture the subjective dimensions of reality. The blind spot of planning practice and theory, the subjective, psycho-spiritual, emotional dimensions, is hardly touched upon. One exception in this regard is Sandercock (2008) who fosters “a therapeutic approach” to planning that explicitly values the emotional side of human relationships like fear, anger, hope, betrayal, abandonment, loss, lack of recognition, histories of disempowerment and exclusion. Significantly, as the root of the neglect of emotions in planning she identifies the divide between reason and emotion. Indeed it is Sandercock (2006, p. 65) who drives her own point of including emotions further into the interior spheres towards the recognition of spirituality:

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[20] It is not before the beginning of the 21st century that Habermas began to emphasise the relationship between reason and faith acknowledging the emergence of a postsecular society (see Habermas, 2001 and 2010).

> The work of urban, social, community, environmental, and even land-use planning is fundamentally a work of hope […]. But where does this hope come from, if not from some kind of faith? Hence I must ask myself, and my profession: are we not missing something important by not talking about this thing at the heart of planning that marks us all as at least closet utopians? The faith at the heart of planning is very simple. It's our faith in humanity, in ourselves as social beings, in the presence of the human spirit and the possibility of realizing/ bringing into being the best of what it means to be human.

Sandercock laments the sterile terms planning professionals use to describe their work which would make it incomprehensible to the people. She stresses the need to talk about planning in a different way. We need to recognise that spirituality may be embodied in planning work, and if so "It would mean a different way of seeing ourselves, representing ourselves to the world, and it would necessarily lead to different ways of teaching, which we might begin to think of as 'educating the heart'" (Sandercock, 2006, p. 66).

In summary, this tour de force through more recent planning theories demonstrates that planners and planning theory have been receptive to the postmodern paradigm of the social sciences, but an attempt to transcend these towards generating a transdisciplinary, integral framework which reflects contemporary integral thinking with its spiritual elements emphasising potentials of personal psycho-spiritual growth, the application of transformative practices like contemplation or meditation, and its emotional empathic aspect of developing all-embracing love and compassion is not in sight as yet.

Brief Outline of an Integral, Transdisciplinary Research agenda Focusing on Climate Change, Urban Planning and Development

My own as well as the WBGU's analysis of the present predominant perspectives on climate change demonstrate an inadequate overemphasis on the technical, scientific, objective approach to climate change by a simultaneous neglect of subjective and inter-subjective dimensions. Similarly turns out the evaluation of the two related fields of study, urbanization and development. Social, human development in urbanization studies and in urban development usually does not establish the link between existential (spiritual) and other interior dimensions of human life. On the other hand, transdisciplinary, meta-theoretical, integral approaches as understood in this essay acknowledge, appreciate and work with diverse epistemologies and ontologies. Hence an integral meta-theory seems to offer a way to address and transcend several of the limitations of mainstream approaches in the fields of climate change and urban development. Till date integral thinking offers much in theory, but its practical applications are only gradually beginning to be explored. Obviously part of the challenge lies in translating theory into practice. One obstacle is that professional planners who desire to apply the insights of a meta-theoretical framework such as Integral Theory in their work need to become scholar-practitioners in order to enable them to incorporate the neglected interior dimensions of emotions, spirituality and personal inner growth. As I have pointed out elsewhere:

> This is about learning a new "language", the language of introspection, of self-analysis, of looking inwardly in order to consciously act according to the notions and values of interdependence and connectivity, love and compassion. It involves practises planners are usually not so familiar with and have normally not received any training in, i.e., addressing the interiority of our existence, the aesthetics of being, the art of living. […] Likewise, urban planning practitioners need to build their own consciousness and personal transformative practises (prayer, contemplation, meditation, psychotherapy, introspection) in order to be capacitated to work with and address interior dimensions of development when working with other people. In our planning education, we have learned to study objective facts, say, of the built environment; over time, we have also recognised the inter-subjective dimensions of participation and the cultural realm of meaning making, but we are not trained in the subjective language of human interiority. Emotions, feelings, and spirituality are not (yet) part of a standard planning curriculum. (Woiwode, 2012b, p. 56)

Understanding interiority of the self can only be attained fully through self-experience as emphasized by Anhorn (2006) in the field of urban planning and Hochachka (2005) for international community development. Practitioners need to be educated and trained to enable them applying theory into practice:

> As practitioners begin to recognize this integration is critical, a question that many of us have is: how do we work with interiority, and more specifically interior development? Just as we are becoming more and more aware of the need to engage interiority, we are also becoming aware that we may not have the tools or the training to do so. Many have been trained in scientific and/or quantitative actions, and process-oriented, participatory methodologies, but fewer have the tools for engaging the interior and psychological aspects of human reality. (Hochachka, 2006, p. 12)

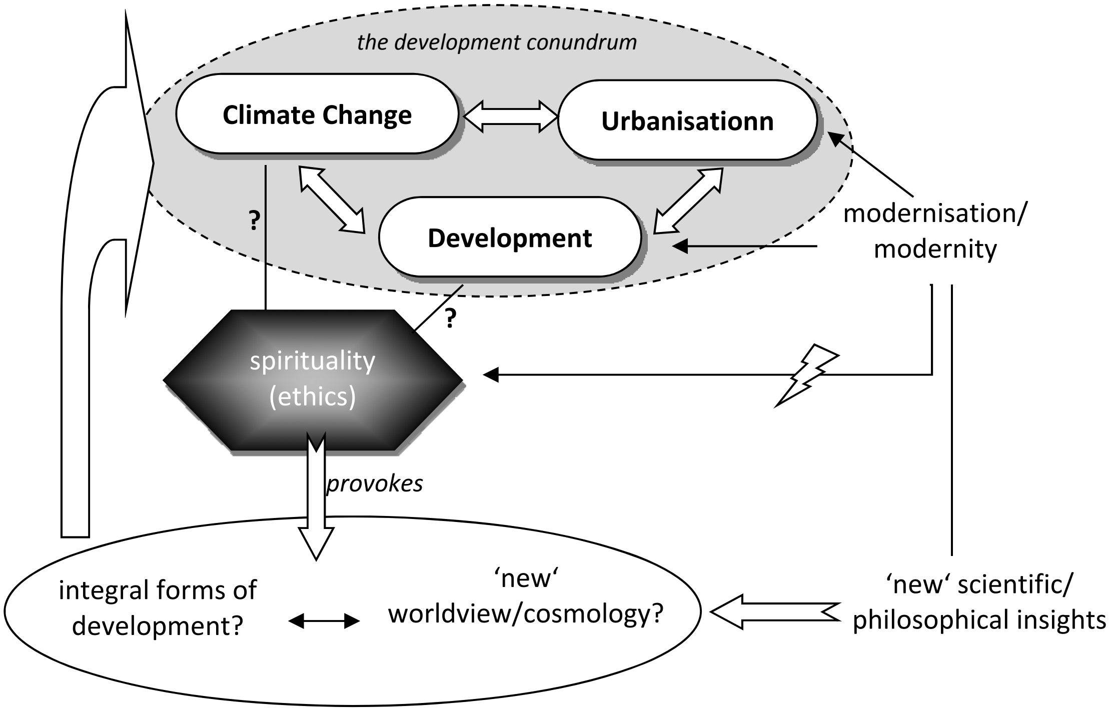

Figure 3: The Central Research Arguments and Assumptions

The argument and underpinning assumptions advanced here are visually condensed in the diagram (Figure 3). Accordingly, the core problem is posed by the interdependently occurring and mutually reinforcing processes of urbanization, development and climate change. This triangle may be called “the development conundrum”. In this understanding urbanization and the notion of development are both causes and drivers of modernization, they are, just like industrialization and rational thought, part of what is commonly understood as “modernity”. As highlighted in this paper, this process resulted in a rigid separation of science and spirituality/religion, with the former rising to become the sole perspective of interpreting reality, the universe and everything else, and the latter being exiled in the name of secularity from academic discourse and the practice of life. In response to this development of epistemologies, the critique of science (actually on “scientism”) and modernity coupled with advances in quantum physics resulted in “new” scientific insights (e.g., complexity and chaos theory), endeavours in recognizing the “Tao of Physics” by combining Western knowledge and Eastern wisdom which subsequently gave rise in the past 30 years to contemporary integral thinking that attempts to reconcile the schism of matter and mind. Eventually, these new scientific and philosophical insights - so it is assumed and expected and hoped - will trigger a new understanding of the world, a new cosmology. It is at this point where the confluence of spirituality and the spectrum of development are situated, already working on re-conceptualising development as a more holistic, i.e. integral, notion of human development. In this respect I (Woiwode, 2012) have suggested that we may view the human condition as a composition of at least three different types of human nature relevant in each lived situation, that is, humans are (a) “zoon politikon”: a political, socio-cultural being, (b) “homo economicus”: an economic, rationally acting being, and (c) “homo spiritualis”: an emotional, psycho-spiritual being. Each of these three dimensions can be related to the developmental capacities represented in the notion of “capital”: (a) social, cultural/symbolic capital as found in Putnam’s and Bourdieu’s writings, (b) physical/financial capital as in classic economic texts, and (c) religious/spiritual capital as recently suggested by Baker (2009) but prominent for much longer in anthropological studies (e.g., Woiwode, 2001). Finally, the feedback of this reformulation of development as informed by a spiritual and integral worldview will be positive on the triangle of the “development conundrum”.

On this basis, with special reference to the context of addressing urban climate change we may consider the following thematic focus areas and major research questions:

1. *Urban Governance and Communication*: Indispensable is the inherent aspect of communication when Integral Theory is applied to resolving real world issues such as climate change, environmental problems, urban development, and development in general.[21] At this point I can draw on earlier research I carried out in the area of urban risk communication (Woiwode, 2007, 2008, 2009). A research focus on urban governance approaches seems a logical conclusion: communication of diverse perspectives, rationalities, types of knowledge (includes public participation); initial ideas on integral governance are brought forward by McIntosh (2002, pp. 311-23; even though he focuses

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[21] For instance, Esbjörn-Hargens & Zimmerman (2009, pp. 2-4) provide a case study on negotiating a solution to protect a rain forest. They write: “As we will see, integral capacities refer in part to the ability to cease exclusive identification with a particular position, such as modern (industrial logger) or postmodern (green environmentalist), and start sympathizing with multiple perspectives and realities.”

on global governance) and Hamilton (2008, pp. 173-77). Moreover, good urban governance is generally viewed as a key to urban climate change resilience (Tanner et al., 2008), but apparently current governance structures and the institutional culture of most cities are inadequate to address the challenge of climate change adaptation and mitigation (Revi, 2008). The resulting question would be: *What are the implications of an integral approach for urban governance to address climate change?*

2. *Poverty, Exclusion and Social Justice*: Another focus within the urbanization and climate change link is their relationship to some of the most pressing issues of development such as poverty, inclusion/exclusion, and social/environmental justice; this means in the urban environment a focus on slum and squatter settlements, pavement dwellers and similarly marginalized urban populations. The resulting question would be: *How do poor/marginalised urban dwellers relate to climate change risks in the context of their own development prospects?*
3. *Several holarchical layers in the urban context* of tackling climate change seem appropriate and relevant for further research: links between neighbourhood/ community, borough, municipality, NGOs, and national policy level need to be studied. The resulting questions would be: *What are the epistemological and ontological standpoints of urban stakeholders?(Which perspectives on climate change and development are prevalent among these groups? How are they created and why are they created in their specific ways? How does their knowledge connect to their values and worldviews?)*
4. *The role of planning professionals and local politicians* (their “integral” self-development) in the process of climate change adaptation/resilience/mitigation and consequences for urban management and planning capacities. The resulting questions would be: *Of what kind are the planning/decision making cultures in the country/ies under study? Which are the consequences of a meta-theoretical, integral notion of climate change, urbanization and development for planning education and capacity building?*

Other, more profound, generic and cross-cutting research questions are the following.

1. How does a transdisciplinary, integral approach relate to the fields of urban development, climate change and (international) development in theoretical and methodological terms? And how do they relate to each other within such a framework?
2. What is the relationship between an urbanized humankind - the city dwellers - to nature and the cosmos? In which way can an integral perspective (re)define environmental ethics through consciousness transformation and is it feasible to include this in urban development practice?
3. What is spirituality? And what is the role of spirituality/ the interior dimension for urban societies and in urban development? How could it be integrated with urban development practice and how do the urban stakeholders relate to it?
4. Following question c): Climate change inevitably evokes questions about “the urban life”, well-being and quality of life, the notions and relation of materialistic versus immaterial development dimensions? How does the developmental perspective of integral theories (re-)define consumption, the use of resources, poverty and quality of life?

In conclusion, it is this fact of highlighting the dimension of values and worldviews as central for a social transformation in the climate change discourse that renders the WBGU report such a significant policy paper. For in doing so it points towards a more profound effort in addressing climate change by simultaneously drawing attention to pivotal disciplines such as urban planning. However, its scope does not permit an in-depth treatment as to how some of the particular areas such as urban development can be reformed and adjusted to these contemporary demands. Planners, academics and related professionals are thus faced with the task ahead of identifying how transdisciplinary and integral perspectives may become part of planning theory and above all planning practice. Even though this is still in an embryonic stage and remains an enormous challenge – especially in terms of upscaling and promoting such an approach at international events like the United Nations Conference on Sustainable Development Rio+20 and in multinational organizations such as the UN -, initial steps have been taken by individual scholars, practitioners and international initiatives like the Earth Charter Cities Manifesto towards understanding the city in a more integral fashion as indicated in the quote at the beginning. In this light, the research agenda as outlined in the final section of this paper is an invitation to build on and to inspire new ideas on this subject.

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Transdisciplinary Consumption

Sue L.T. McGregor[1]

Abstract: For the past 100 years, research about consumption has stemmed from two main disciplines: (a) consumer studies/consumer sciences (including consumer policy and education) (a spin off from home economics) and (b) consumer behaviour research (a spin off from marketing). This paper focuses on these two disciplines because the results of their respective research are used to shape consumer policy and consumer protection legislation and regulations, marketplace competition policy and regulations, consumer product and service information, media coverage of consumer issues, consumer education curricula and pedagogy, and insights into an evolving consumer culture. This paper asks consumer studies/sciences and consumer behaviour scholars to embrace the transdisciplinary methodology in addition to the traditional empirical, interpretive and critical methodologies. It provides an overview of the four axioms of transdisciplinary methodology with examples to illustrate how consumer-related research would change to address the complex reality of 21st century consumption.

Keywords: Consumption, consumer behaviour, consumer studies, home economics, integral, sustainability transdisciplinary methodology.

Introduction

We would need three planet earths to sustain Canada's level of consumption - just *one* country (World Wildlife Fund, 2008), five planets if we include the United States. Consumption of this magnitude and complexity can no longer be addressed by individual disciplines, including consumer studies and consumer behaviour, whose focus *is* consumer behaviour. We are way past due for considering a transdisciplinary (TD) perspective for consumption. Not only do we need to work within higher education and across disciplinary borders to deal with the impact of such unsustainable consumer behaviour, we also need to cross the borders between higher education and civil society. Standing outside of consumption behaviour and examining it from an objective, distanced, disciplined stance (pun intended) totally negates the complexity and chaotic nature of relationships inherent in 21st century consumption.

Innocuous, seemingly harmless, consumer behaviour (e.g., having a coffee with a friend) is laden with layers of negative, intergenerational and planetary fallout, never before encountered by humanity. A simple coffee with a friend manifests itself in international politics, transcultural dynamics, global and local economics and development, human security and freedom,

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unsustainable development, human oppression and exploitation, even spiritual unwellness and lack of inner peace along with societal violence and conflict. The 21st global consumer culture has market values at its core. People exist to serve the market instead of the market serving society. The interests of the consumer society are in deep conflict with the interests of the commons, justice, peace and the human condition (McGregor, 2007b; McGregor, 2010b).

Furthermore, reflecting geo-politics, Majority World citizens (often called the Southern World or developing countries) experience the brunt of the fallout from the global consumer infrastructure, and their interests are in conflict with those of Northern, more affluent consumers. While Majority World citizens experience marginalization, exploitation, oppression and debilitating, uneven wealth and income distribution, Northern consumers tend to experience inner conflict and lack of peace as a result of living in a consumer society (not to mention excessive debt and bankruptcy).

Northern consumers consume more and more as a way to cope with the fear and anger that emanates from the angst of living in a consumer society. They grapple with alienation, dissatisfaction, disenchantment, misplaced self-identity, and false relationships (McGregor, 2010b). As push back from the inequity, Majority World citizens are increasingly engaged in the politically-intense globalization from the bottom-up movement. Wars and conflict are emerging as a result of citizen and political resistance to Northern hegemony. Between the two, North and South, even East and West, the resultant problems are too complex to be dealt with using conventional disciplinary approaches. A way is needed that can “move catalytically towards an emancipatory practice liberating one part of humanity from over-and ill consumption and the other part from structural poverty and social and political exclusion” (Markus Molz, personal communication, February 7, 2010).

Towards that end, this paper asks consumer studies/ sciences and consumer behaviour higher education scholars (in particular) to embrace the transdisciplinary methodology as a legitimate intervention. They will be expected to shift research paradigms enabling them to see the merit of respecting a fourth research methodology, transdisciplinarity, in addition to the traditional empirical, interpretive and critical methodologies (McGregor, 2007a; McGregor & Murnane, 2010). They will be expected to cross disciplinary boundaries *with the intent to change the borders* (Fairclough, 2005) and then integrate theories and policies and practices emanating from this disciplinary integration. And, they are expected to integrate many realms of reality as they work with other disciplines *and* members of civil society in intellectual border-work (Horlick-Jones & Sime, 2004) to address the context of 21st century consumption.

Historical Embeddedness of Conventional Consumer Scholarship

For the past 100 years, research about consumption has stemmed from two main disciplines: (a) consumer studies/ sciences (including consumer policy and education) (a spin off from home economics) and (b) consumer behaviour research (a spin off from marketing). This paper focuses on these two disciplines because the results of their respective research are used to shape consumer policy and consumer protection legislation and regulations, marketplace competition policy and regulations, consumer product and service information, media coverage of consumer issues, consumer education curricula and pedagogy, and insights into an evolving consumer culture. As noted earlier, actions of consumers are negatively impacting the future of humanity, intimating that any scholarship that provides insights into this phenomenon merits attention and new directions. Intellectual scholarship devoted to the study of consumers should be valued because consumers spend upwards of 70% of the Gross Domestic Product (GDP) in most developed economies, compared to business (11%) and government (19%) (e.g., U. S. Department of Commerce, 2009). Such market power warrants academic attention especially since that power seems to be abused and misused to the detriment of other citizens, other species and the planet (McGregor, 2010b).

Each of these two disciplines draws on the human, social and natural sciences for intellectual rigour and diversity, but usually from a multi-disciplinary perspective. They draw from economics, political studies, sociology, psychology, history, anthropology, and administrative/ management sciences. Only those consumer scholars trained in home economics can claim an interdisciplinary approach, and even then interdisciplinarity brings disciplines together (either in person or theoretically) with no commitment to change the boundaries and relations among them (Fairclough, 2005). Each of these two disciplines is now defined and positioned as either multi-or interdisciplinary.

Consumer Studies and Consumer Sciences

Consumer studies and consumer sciences are concerned about the interests and welfare of consumers (Kroll & Hunt, 1980). Welfare refers to the fortunes of people or to their health, happiness and basic physical and material well-being. Interest refers to an advantage or a benefit. It is Latin *interesse* for “to differ and to be important.” Hence, consumer interest or welfare could be defined as actions taken by governments, businesses or consumers themselves that provide an advantage or benefit which enhances their economic fortunes or other aspects of their well-being. It is in the interests of consumers that their rights as market players are ensured so their fortune and well-being are not harmed or diminished. These rights are now understood to be information, education, safety, choice, health, redress, a political voice, and environmental integrity as well as basic human needs (McGregor, 2010a). Four major consumer activities are of interest in the field of consumer studies and sciences: choice making and decision making, financial management, buyership, and citizenship (Bannister & Monsma, 1982; Kroll & Hunt, 1980).

In more detail, consumer studies and sciences focuses on protecting the consumers’ interest vis-à-vis business activities, often through consumer protection policy, corporate regulation policy, and consumer information and education. In addition to emphasizing inter-economic unit interactions (with businesses and governments to procure goods and services), this discipline also focuses on intra-family and consumer economics and resource management with the intention of ensuring economic *efficiency* and, more recently, ecological *effectivenes*s and sustainability. The consumer interest includes consumers’ interactions with entities other than products and services, including consumer organizations, labour organizations, and government agencies and political systems (Kroll & Hunt, 1980). The consumer education component of this field strives for consumer empowerment and *efficacy,* recently augmented with a global citizenship perspective (McGregor, 2007a, 2010c; Thoresen, 2005).

Consumer studies and sciences have always been considered an interdisciplinary discipline, especially when practiced by home economists, but also when economists and marketers consider the field to be their discipline of vocation (versus a discipline of orientation where they received their formal training) (Kroll & Hunt, 1980). Recently, several scholars advocated that consumer studies and sciences should shift towards transdisciplinarity (Liokumoviča, 2008 McGregor, 2007a, 2009b; Pålshaugen, 2008). Thoresen (2008) asserts that education for consumer citizenship demands *transdisciplinary teaching.*

Consumer Behaviour

The discipline of consumer behaviour has its roots firmly entrenched in the discipline of marketing, and any new foci is heavily dependent on the changing traditions of the marketing discipline (MacInnis & Folkes, 2010; Sheth, 1985). MacInnis and Folkes define the scope of the field as “the study of people operating in a consumer role involving acquisition, consumption, and disposition of marketplace products, services, and experiences” (p. 900). There is an ongoing discussion about whether consumer behaviour is an independent discipline or a sub-discipline of marketing. MacInnis & Folkes (2010) cite commentaries from the field that believe the field has gained sufficient stature such that insights into consumer behaviour can be valued for their own sake, and are not beholden to marketing for legitimacy. Regardless, consumer behaviour involves intellectual scholarship devoted to the study of consumers with a focus on helping businesses and policy makers better understand consumer behaviour so that it can be understood and influenced using advertising, branding, market segmentation, opinion leadership, persuasion, and behaviour modification, with attendant consumer protection and information.

Earlier versions of consumer behaviour research drew on the behavioural sciences of psychology and group behaviour of social sciences. While psychology has a sub-discipline called consumer psychology, sociology has not established consumer behaviour as a formal sub-discipline (MacInnis & Folkes, 2010). In the early eighties, consumer behaviour began to shift towards organizational and business sciences in order to cope with changing environments due to technology, regulation and global competition. In the mid-80s, consumer behaviour scholars began to focus on global consumer behaviour research (cross-cultural and international consumer behaviour) (Sheth, 1985). Some consumer research scholars have recently turned their attention toward consumers’ perceptions of corporate social responsibility and its impact on consumer loyalty and attendant consumer behaviour (McGregor, 2008b). The field also now embraces social marketing, political marketing and darker issues such as gambling and compulsive shopping. During all of these changes, it has remained multidisciplinary in nature, not interdisciplinary (MacInnis & Folkes) and certainly not transdisciplinary, although recent attempts to frame the field as transformative have potential (Mick, Pettigrew, Pechmann & Ozanne, 2011).

The Consuming World Has Changed

Since the inception of consumer studies and consumer behaviour, the world has changed. A global consumer culture has evolved predicated on materialism, the consumerism ideology, the neo-liberal market ideology, the conservative political ideology, and corporate led, top-down economic globalization (McGregor, 2008c). The result is further entrenchment of haves and have nots, a situation now deeply exacerbated by the innocuous actions of consumption (McGregor, 2010b). We now live in a world where less than 20% of the world's population controls 85% of the world's resources and holds nearly 100% of the world's wealth. The economically affluent Northern consumer is engaging in consumer behaviour that is having a profoundly negative impact on Majority World citizens. And they are doing so from a rights position rather than shared responsibilities. In addition to consumer choices leading to the oppression, exploitation and harm of fellow human beings who make most of the goods and services consumed in the world, these choices have completely compromised the ecological integrity of Planet Earth and thousands of other species.

We have consumed, produced and de-legislated ourselves into a human condition and ecological polycrisis (van Breda, 2008). Morin (1999a) uses this term to describe a situation where there is no one, single big problem; rather, there is a series of overlapping, interconnected problems. In a polycrisis, there are inter-retroactions between different problems, crises and threats. A retroaction is an action that influences or applies to a prior time. This situation suggests that 21st century human and planetary problems are *so* complex, so interconnected, that they cannot be solved from the perspective of one or two disparate disciplines anymore. Consumer studies and consumer behaviour scholars must consider turning to the transdisciplinary methodology. Consumer scholars would move beyond studying symptomatic issues of credit acquisition practices, indebtedness, financial wealth, financial literacy and income security. Consumer behaviour (marketing) scholars would move from prescriptive approaches of how to influence consumer behaviour so as to improve the bottom line through brand loyalty, consumer confidence and consumer satisfaction.

Instead, from a transdisciplinary framing, both disciplines would grapple with human and ecological problems that manifest and *mask themselves as symptoms* of ill thought out consumption and greedy corporate behaviour. These global, complex, emergent transdisciplinary issues include: poverty and unequal wealth distribution; uneven economic, social and human development; human freedom, security and justice; self-determination; harmonious access to and distribution of resources; power relationships; human aggression; and, prevailing world views, ideologies and paradigms (McGregor, 2009a; UNESCO, 1998). A transdisciplinary stance involves removing the boundaries among disciplines within higher education as well as between the academy and civil society, where the human condition and ecological integrity play out on a daily basis and are deeply shaped by global consumption patterns and ideologies.

A New Role for Disciplines

Wilson (1998) argues that only fluency across the disciplinary boundaries will provide a clear view of the world and what needs to be done to ameliorate humanity's pressing problems, especially those exacerbated by consumption. As a caveat, the call for transdisciplinarity is not a replacement for disciplinary and interdisciplinary work; rather, it is to be a complement to existing academic practices (Paulino-Lima, 2010). Weislogel (2008) explains that transdisciplinary inquiry actually is dependent upon rigorous disciplinary work and the undeniable advances produced by various disciplines. However, transdisciplinarity demands *more* from disciplines. It strives to galvanize divergent disciplines to answer life's fundamental questions using transdisciplinary thinking (Paulino-Lima, 2010), in particular, issues of sustainability of the human species and the planet as influenced by a consumer culture.

Transdisciplinarity would ask university consumer studies and consumer behaviour scholars to become *interdependent minded* so they can value the connections among and beyond the academy, connections that are needed to solve today's problems caused by consumption. TD scholars would know that all sectors have to work together *from the outset* to develop shared conceptual frameworks that integrate, extend and augment discipline-based learning (Neuhauser et al., 2007) with civil-society-based know-how and lived experiences. This scholarly work would involve bridging the gaps between three elements: (a) research and disciplines, (b) different social groups, and (c) different value sets, using integrative thinking (Pfund et al., 2006). And, when links are introduced between disciplines, as is the transdisciplinary way, the disparate disciplines gain opportunities to change their concepts, structures and aims (Jantsch, 1972). The enrichment gained when researchers cross disciplinary boundaries can further enrich their fields and facilitate knowledge advancement by fostering change (MacInnis & Folkes, 2010; McGregor & Volckmann, 2010).

A Transdisciplinary Methodology for Consumer-Related Initiatives

While *inter* means between two or more things, *trans* means zigzagging back and forth, moving across, going beyond, the blurring of, and pushing past, any existing boundaries. In this case, we are concerned with the boundaries around university disciplines and the boundaries between the university and the rest of society. Transdisciplinarity represents a deep respect for the synergistic potential between (a) ideas coming from academic disciplines and (b) ideas stemming from the consumers who are actually experiencing and living the problems. From a TD perspective, not only would the walls come down from around the disciplines within higher education (e.g., between consumer studies/ behaviour and other disciplines that inform their scholarship about consumers), but the walls would come down or become more porous between higher education *and* the rest of the world.

This boundary-blurring process involves an *academy-society interface* wherein, through a lengthy and complex process, academe knowledge *and* action-relevant knowledge are integrated (Liokumoviča, 2008). Horlick-Jones and Sime (2004) coined the phrase *border-work* to refer to the intellectual work that occurs when people living on the borders of the academy (university disciplines) and civil society engage in complex problem solving. Their intent is to enable new types of embodied knowledge to emerge through complex and integrated, mutually learned insights. Even more compelling is the notion that the work undertaken during these iterative border-crossings cannot be compared to that of networks or teams. Instead of networking, Engeström (2005, p. 316) coined the word *knotworking*, and defined it as "rapidly pulsating, distributed, and partially improvised orchestrations of collaborative performances between otherwise loosely connected actors and organizational units." Molz (2009) explains that these knotwork sequences can be extremely productive and innovative and do so *without* any centre of control or authority. The locus of initiative changes from moment to moment as the actors focus on and circle around a complex problem and crisscross across boundaries. The unstable knot becomes the focus of analysis when conducting TD research because it metaphorically represents the elusive and improvised phenomenon of complex problem solving.

This paper will employ several other metaphors to convey the nuances of transdisciplinary work, which is predicated on chaos theory, quantum physics and living systems theory (Nicolescu, 2008b). These metaphors include a lava lamp, a tapestry and dance. Using a metaphorical approach enables one to convey deeply complex ideas. Metaphors serve as tools to help people make analogical leaps from the familiar to the unfamiliar. Metaphors can be conduits or passageways to help people learn new, abstract concepts. They help people extend their familiar knowledge of the world to a region that they have not yet experienced. From a transdisciplinary perspective, this region is very complex, composed of many interconnected parts and difficult to understand because of its intricacy. Metaphors simplify and augment people's joint learning processes, giving them a temporary common language while they navigate the space among the disciplines and between the academy and civil society. Metaphors give people new degrees of conceptual freedom, releasing them from the chains that bind them to their root disciplines (Judge, 1991; Rigney, 2001).

Transdisciplinarity is a whole new way of solving the complex problems of the world, especially those generated by 21st century consumption. Conceiving consumer issues through a transdisciplinary lens offers a new form of learning, inquiry and problem posing that involves cooperation among different parts of society in order to meet the complex challenges of a global consumer society (McGregor, 2005). It has its own methodology, different from the conventional positivistic, interpretive and critical paradigms (McGregor, 2007a; McGregor & Murnane, 2010): (a) multiple levels of *reality* and attendant levels of perceptions (ontology), (b) the *logic* of the included middle, and (c) *knowledge* as complexity and emergence (epistemology) (Nicolescu, 1985, 2002, 2005b; 2006a, 2006b, 2007, 2008b). Cicovacki (2004, 2009) and McGregor (2009a, 2010b) recommend a fourth axiom for a TD methodology, that of *values* (axiology)[2] (see figure 1).

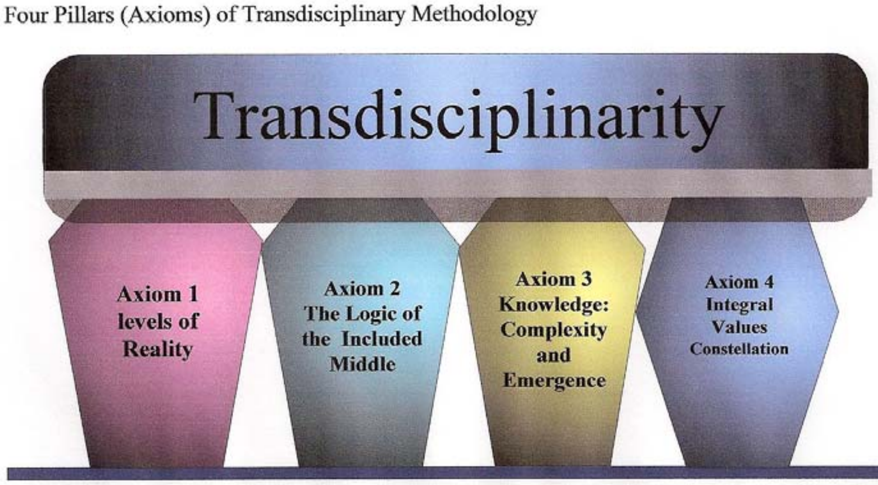
Four Pillars (Axioms) of Transdisciplinary Methodology
Transdisciplinarity
Axiom 1 levels of Reality
Axiom 2 The Logic of the Included Middle
Axiom 3 Knowledge: Complexity and Emergence
Axiom 4 Integral Values Constellation

Figure 1: Pillars of Transdisciplinary Methodology

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[2] As a cavaet, not all TD theorists believe there should be a fourth axiom of axiology. Nicolescu (2007) credits Erich Jantsch (an Austrian) for underlining the necessity of inventing an axiomatic approach for transdisciplinarity and also for introducing values in this field of knowledge. Nicolescu does not see the need for a fourth axiom.

Axiom 1 - Ontology - Multiple Levels of Reality

Conventional approaches to consumer issues are predicated on the positivistic and empirical notions of fragmentation, separation, dualities (this or that), and universal laws that apply to everything and everyone (with no concern for context). From this perspective, consumer scholars would assume that the picture of reality (e.g., consumption) is incomplete and made up of many separate parts and that they can conduct experiments and develop theory about this reality, eventually building up a more complete picture. To do this, they would design taxonomies, categories and hierarchies, the most famous one in consumer studies being Bannister and Monsma's (1982) classification system for consumer education concepts. This is not a bad approach to study consumer interests or consumer behaviour. It is just not the approach that would be used within a TD methodology.

Rather than assuming that people can best understand consumer issues and the consumer interest as comprising one level of reality (that is, static, rationale, objective and generic with mind, body and soul disconnected and separate), a TD methodology assumes there are multiple layers of reality that interact with each other (see figures 2 and 5). Consumer scholars would respect the dynamic, complex relationships between, first, the political, social, historical and individual levels (called TD subject, the internal world of humans) and, second, the environmental, economic and individual and planetary/cosmic levels (called TD Object, the external world). Each of these levels of reality is characterized by its incompleteness; yet, together, in unity, these realities generate new, infinite knowledge (Max-Neef, 2005). Morin (1999b) refers to these many realities as *connective tissue*, in great abundance but with no ultimate foundation. Transdisciplinarity assumes "no level of reality constitutes a privileged place from which one is able to understand all other levels of reality; instead, a level of reality is what it is *because* all the other levels exist at the same time" (Nicolescu, 2006b, p.147).

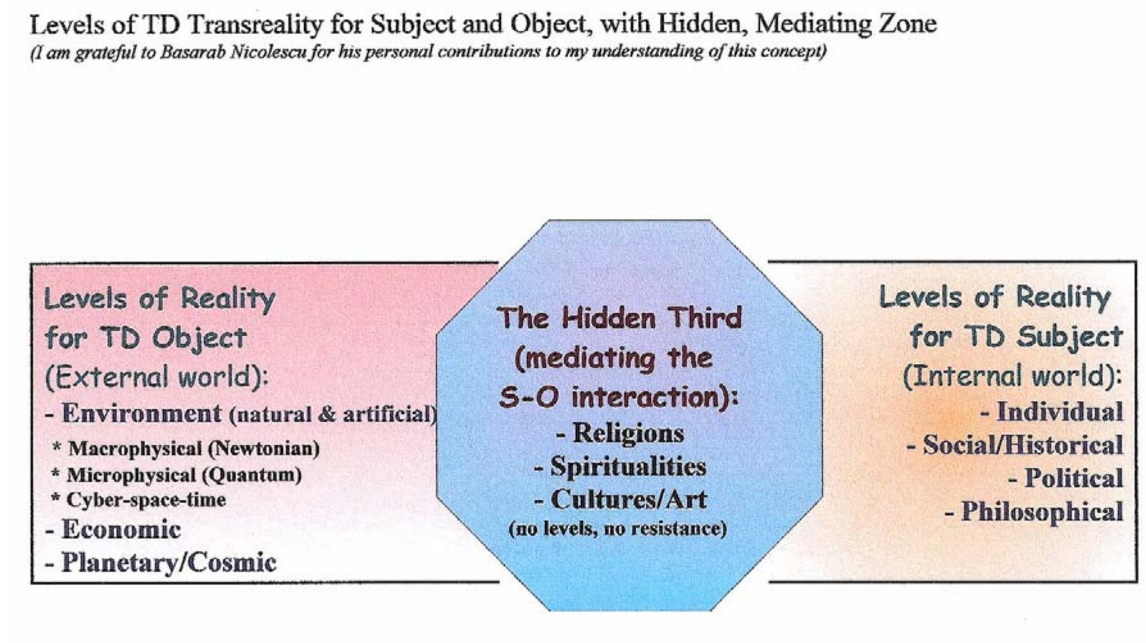
Levels of TD Transreality for Subject and Object, with Hidden, Mediating Zone
(I am grateful to Basarab Nicolescu for his personal contributions to my understanding of this concept)
Levels of Reality for TD Object (External world):
- Environment (natural & artificial)
* Macrophysical (Newtonian)
* Microphysical (Quantum)
* Cyber-space-time
- Economic
- Planetary/Cosmic
The Hidden Third (mediating the S-O interaction):
- Religions
- Spiritualities
- Cultures/Art
(no levels, no resistance)
Levels of Reality for TD Subject (Internal world):
- Individual
- Social/Historical
- Political
- Philosophical

Figure 2: Transdisciplinary Object, Subject, and Levels of Reality

In more detail, the internal world of humans (the TD subject) involves a flow of consciousness across different levels of perceptions of the world. The external world of humans (the TD object) involves the flow of information across different levels of reality (what we know as disciplines or fields of study). Moments of breakthrough happen, those 'aha moments', when consciousness meets information and they share the *zone of non-resistance*. Thirdly, TD methodology employs the concept of *The Hidden Third* to refer to the place where people's experiences, interpretations, descriptions, representations, images, and formulas meet up with information. Three levels of reality exist in this mediating zone: culture, religion, and intuition or spirituality (see Figure 3). For consumer studies and behavior scholars, this approach requires a deep shift from focusing on taxonomies, lists, individual theories and definitions about consumer-related issues to the *processes and energy flows* inherent in deep, complex interactions among people's internal world, their external world and the mediating factors of culture, art, religion and spirituality. This particular axiom is concerned with multiple levels of interactive layers of *reality* replete with levels of perceptions and flows of information and consciousness among these layers of reality. The result is a unity of realities, a unity that better reflects the complexity of human issues influenced by unsustainable, possibly immoral or amoral, consumption (McGregor, 2008a, 2010b).

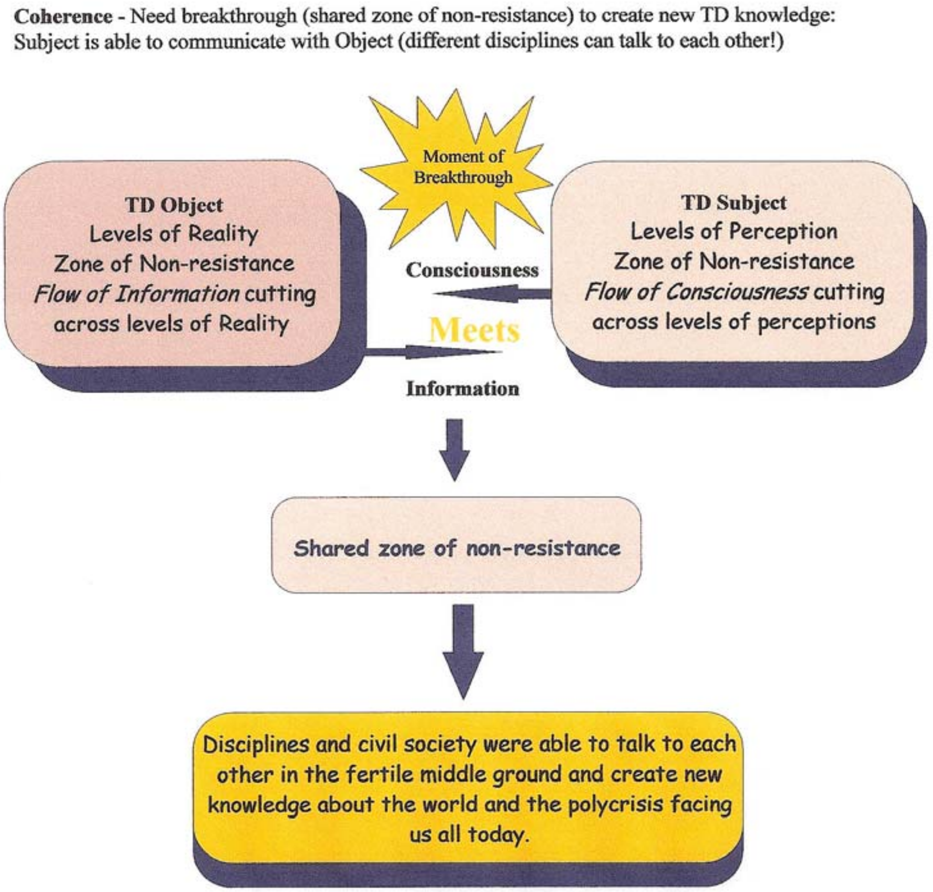
Coherence - Need breakthrough (shared zone of non-resistance) to create new TD knowledge:
Subject is able to communicate with Object (different disciplines can talk to each other!)
Moment of Breakthrough
TD Object
Levels of Reality
Zone of Non-resistance
Flow of Information cutting across levels of Reality
TD Subject
Levels of Perception
Zone of Non-resistance
Flow of Consciousness cutting across levels of perceptions
Consciousness
Meets
Information
Shared zone of non-resistance
Disciplines and civil society were able to talk to each other in the fertile middle ground and create new knowledge about the world and the polycrisis facing us all today.

Figure 3: The Breakthrough Moment

Consumer studies and consumer behavior scholars who are currently practicing from an interdisciplinary perspective are already familiar with the idea of making connections between the human and social sciences (political, psychology, sociology - the internal world of a human) and economics and the natural and artificial sciences (worlds external to humans). TD would add the idea of accepting that culture, art, spirituality and religion act as mediators that enhance the links between these familiar disciplinary arenas (what TD calls levels of reality). Through this mediating link flows both information and consciousness, the latter being a stretch for conventional consumer scholar academics. Consciousness represents the internal world of humans, reflecting how they experience and perceive reality, as filtered through culture, art, spirituality and religion (referred to by Nicolescu (2006b) as *the sacred*). Most consumer academics are very comfortable with information as a concept but less familiar with consciousness and sacredness as concepts (McGregor, 2010b).

Axiom 2 - Logic - The Logic of the Included Middle

Ontology is concerned with what counts as reality (all of people's experiences that determine what appears real to them). Transdisciplinarity asserts there are multiple levels of reality. Nicolescu (2000, 2008b) acknowledges that each level of reality has its own laws and fundamental concepts and applies the logic of the included middle when referencing the relation between levels. Logic is concerned with the habits of the mind that are acceptable for inference and reasoning when arguing one's position on an issue. In philosophy, logic is concerned with answering the question "How do we know what we know?" Logic (reasoning and inference) is used in most intellectual activity, and perceptions of what counts as logic underpin all intellectual activity.

To offset higher education's tendency to be predicated on the Newtonian *logic of exclusion* (Nicolescu, 2008b), transdisciplinarity "conceives a broader horizon for the cognitive act" than that of reductionist-based scientific inquiry (De Mello, 2001, p.1). The logic of exclusion assumes that the space between objects or people is empty, flat, static and void of life (like the space between the balls on a billiard table). In academic life, this logic manifests as separate departments, journals, library holdings, conferences and professional associations. It is also evident in the familiar intellectual actions of: deduction (cause and effect), linear thinking, reductionism (breaking things down into parts to understand the whole from which they come), and either/ or approaches with no room for contradictions. The logic of exclusion is at the heart of most cultural grand narratives (Murphy, 2003), especially in the form of competition, economic success, individualism and techno-science.

Consumer behavior and consumer studies scholars employ the logic of exclusion, even though they are characterized as interdisciplinary (and even just multidisciplinary). Interdisciplinarity builds bridges between disciplines so ideas can cross back and forth across temporary, coordinated borders. The assumption is that a bridge is needed to cross the deep chasm between siloed, fragmented fields of study. In practice, this means that there are many instances when people from different disciplines or in civil society *cannot talk to each other*; hence, there can be no integration or generation of new knowledge (MacCleave, 2006).

The logic of exclusion is also predicated on fragmentation and separation and Classical Aristotelian logic of reality as dualities. Theories developed within each separate level of reality (e.g., political theories, economic theories) often remain separate, disconnected theories. Indeed, assuming that a whole can be understood by examining all of the parts, consumer scholars have gone about striving for *a complete theory* of consumer behavior by developing a large collection of mini-theories. There is an ongoing debate within the consumer behavior discipline of whether the field should strive for a unified theory of consumer behavior or be content with many smaller theories that describe bits and pieces of consumer behavior (e.g., information processing, adoption-innovation, decision making). This aspect of the consumer behavior discipline is a striking example of the logic of exclusion.

Classical Aristotelian logic says there *is no* middle ground between things (e.g., between theories or between disciplines). In contrast to a logic of exclusion, a TD methodology embraces the *Logic of the Included Middle*. This *inclusive logic* enables people to imagine that the space between things is alive, dynamic, in flux, moving and perpetually changing. It is in this *fertile middle space* that transdisciplinary manifests itself. TD has people stepping through the zones of non-resistance (away from one worldview towards another) (see Figures 2 and 3) onto a fertile, moving floor of the *included middle,* where they generate new transdisciplinary intelligence and knowledge, together.

A useful metaphor for this idea is the lava-lamp (see figure 4). As a soft light source, the lava lamp it is a see-through container in which one watches the slow, chaotic rise and fall of randomly shaped balls of wax. The ever-changing patterns are invigorating, progressive and in perpetual motion. The Logic of the Included Middle holds that there *is* middle ground *if* people accept that different actors have different *perceptions* of things. Finding new knowledge in the fertile middle ground is possible when everyone's ideas are heard. For each person, his or her point of view is his or her truth *until* it encounters something else, the ideas from another person or discipline. The balls of wax represent the formation and embodiment of this new knowledge. The viscous fluid of the lamp is always in movement, with new things bubbling up and falling back onto those moving about on the undulating floor (the included middle). Embodied knowledge is created from the energy generated from *intellectual fusion*. When the separate bits of knowledge and the people who carry them came together to dance in the fertile transdisciplinary middle, they move faster when they are exposed to each other than when they are alone, creating intellectual fusion (Lattanzi, 1998).

Figure 4
Lava Lamp Metaphor

If people can move about in the middle ground (dance on the floor of the lava-lamp), come in contact with each other and get motivated, an energizing force is generated - a synergy is created. A sense of community and belonging is nurtured - a sense that they are part of something bigger than each one of them. At the same time, there is a realization that everyone is a new and different person in each relationship formed in the fertile middle. The strength and potentialities that emerge from this intellectual dance are life-giving and transformative.

In this space, while engaged in intellectual border work, people free float in *intellectual outerspace* instead of staying pinned down in their traditional, safe, disciplinary space or particular way of knowing the world (Lattanzi, 1998). In this space, people would always *wonder,* and seek far-reaching solutions to the world's pressing problems. This free floating status makes it very easy to navigate between different, concurrent levels of Reality (see Figure 5), creating new, transdisciplinary knowledge. What appears to be a complete contradiction on one level of reality gets resolved if viewed from another level of reality (van Breda, 2007). Imagine the intellectual doors that would open if consumer scholars assumed that independent realities concurrently exist, and that they manifest themselves *to us* through our interactions *with them* in the included middle.

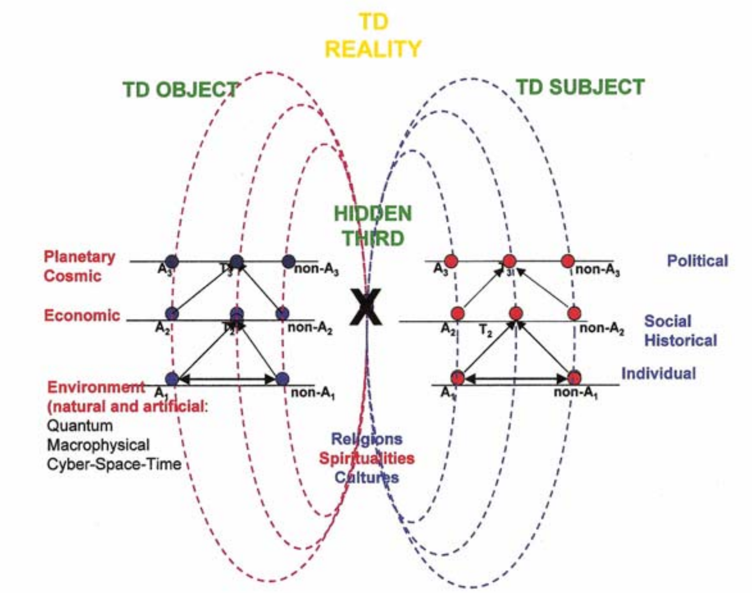

Figure 5 - Navigating Levels of Reality (used with permission of Basarab Nicolescu)

When consumer scholars use the logic of the included middle (making a space for contradictions and discontinuities in realities) to move through the different levels of reality (akin to different disciplines within the human, social and natural sciences), they would generate a permanent possibility for the evolution of knowledge. Transdisciplinarity holds that the logic of the included middle allows people to bridge adjacent levels of reality, enabling meaning-making systems to orient themselves to each other (Nicolescu, 2008b). Any theories that are developed at any given level of reality become transitory theories, which are open to change when confronted with contradictions from other, even new, levels of reality. Knowledge becomes an open, complex structure, rather than *a* completely unified theory (Max-Neef, 2005).

Perceiving the space between things as empty and void means people do not have to pay any attention to it - it is not part of their reality. It is common for consumer studies scholars concerned with the consumer interest to say "People fall through the cracks and become invisible. Their interests need to be protected through policy and advocacy." But this mindset is also having negative repercussions from a global perspective, because it enables consumers to exclude any consideration for the consequences of their actions on *the invisible other* (the laborers and other species). One of the major features of 21st century consumption is the geographic and psychological distance between Northern consumers and Southern laborers. These distances have compromised people's abilities to establish trust relationships, gain and apply knowledge of ethical and moral principles, respect a sense of community and solidarity, and believe they can make a difference (Klintmann & Boström, 2006).

When consumer scholars use the logic of the included middle, they would naturally turn to other disciplines, industry, governments and civil society, and most especially to those implicit in, and affected by, the fall out of unsustainable and unjust consumption. The logic of the included middle creates a space for dialogue and knowledge generation between people. Arrogance and unwillingness to cooperate can lead to a sense of alienation and misunderstanding among those whose interests are likely to be affected by controversial decisions. Inclusive logic completely alters the balance of power in the adoption of controversial decisions. With TD, there would be attempts to reconcile different logics for the sake of solving the problems of humanity. This reconciliation cannot happen if people continue to engage with the logic of the excluded middle where everything is separate, disconnected and alienated. No longer would actions informed by siloed consumer research be designed in isolation, implemented using the logic of exclusion. A view from a specific discipline must take a back seat to transdisciplinary and integral views on the problems of humanity informed by consumerism.

Axiom 3 - Epistemology - Knowledge as Complex and Emergent

From a TD perspective, the consumer problems that need to be dealt with are not the mundane issues of credit, debt or financial wellness; rather, they are the pervasive problems of humanity impacted by consumption, problems that simply cannot be dealt with using the knowledge from one discipline. To reiterate, these complex problems include: the human condition, unbalanced energy flows, unfulfilled human potential, hindered freedom and justice, unsustainability, disempowered individuals and communities, uneven distribution of resources, and abuse of personal and political power through human aggression and uneven development (Morin, 1999b; UNESCO, 1998, van Breda, 2008). It is because of consumption, especially because of prevailing paradigms and ideologies that favor neoliberalism and political conservatism, that people experience the problems they do in the 21st century.

Twenty-first century consumers face the *symptoms* of larger-than-life problems that are complex (which is different from complicated, see below) and emergent, the latter referring to properties, insights and other nuances that arise and become visible as the problems are solved (to be discussed shortly). Therefore, to create transdisciplinary knowledge to deal with the root causes of human issues, consumer scholars would perceive there are multiple levels of reality. This stance translates to a marriage of environmental sciences, economics, politics, labor laws, sociology and anthropology, home economics, health and many other disciplines. This melding of realities has to happen in conjunction with the integration and cross-fertilization of insights from the academy with private and public sectors and civil society, using the logic of inclusion.

To that end, as with ontology and logic, transdisciplinarity strives for a different kind of epistemology. It respects a way of knowing based on cross-fertilization, complexity and emergence. Each will be discussed in detail because the TD methodology uses these familiar words in a different manner than a lay person, or conventional academic, in the fields of consumer studies or consumer behavior. A new vocabulary is needed or at least different understandings of familiar words, especially complexity and emergence. “Transdisciplinarity is inseparable from complexity" and emergence (Morin, 2005, p.23). Of special note is the distinction made in transdisciplinarity between complicated and complex problems. *Complexus* means that which is woven together (Morin, 1999a). Although complicated and complex have the same root, they do not mean the same thing in a TD methodology. A complicated problem is characterized as hard to solve because it is intricate, tangled, knotty and detailed (see figure 6). It is one thing to untangle the strings of a complicated problem but quite another to re-weave them, along with new strings, into a new whole. The latter process is an inherent part of solving a complex problem because it features the concept of *emergence* (to be discussed shortly).

Figure 6: Knotted, Complicated Problem

Complexity

Although there are many definitions of complexity, Nicolescu (2006a) argues that the only one appropriate for transdisciplinarity is that offered by Edgar Morin (2005). His notion of complexity takes people beyond the opposite of being simple to a *method of knowing* that respects the mystery of the universe. His definition of complexity is outside the epistemology of classical science because it rejects reductionism, determinism and disjunction (binary truth). His notion of complexity requires that people (a) comprehend the relations between the whole and its parts (holons and holography) - the principle of distinction that retains relations (instead of reductionism). As well, the whole can be less than the sum of its parts. When a system self-organizes, it opens the door for the suppression of properties that *might* have emerged. His notion of complexity also requires that people (b) conceive relations between order, disorder and organization (rather than determinism), appreciating that order means stability, regularities and cycles (as well as conventional laws) and that disorder means blockage, collisions and irregularities (as well as dispersion and disintegration).

Within transdisciplinarity, "pertinent knowledge must confront complexity" (Morin, 1999b, p.15). Assuming, epistemologically, that there is a connective tissue between knowledge, its context and humans, Morin explains that complexity impels people to move from knowledge housed in separate disciplines within the academy to assembling and organizing knowledge dispersed in the natural, social, engineering, medical and human sciences. This assembly demonstrates the permanent connection between the unity and diversity of all that is human. What counts as knowledge has to expand beyond that which is generated by the scientific method to include the complex structure of understandings garnered through intricate webs of relations between people in the academy, the private and public sectors, and civil society (McGregor, 2004, 2006, 2007a).

In a most intriguing notion related to creating transdisciplinary knowledge, Morin (2005, p.13) urges people to "link concepts which normally repel each other logically, like unity and diversity. [People] are obligated to connect all these disjointed notions" so as to conceive a living organization or system. Morin suggests that, as this organization works to maintain itself, it degrades energy by its work, meaning it must draw energy from its environment. The organization depends on negative (maintain the status quo) and positive (deviate from the path) feedback to self-generate. Increasing deviation allows for transformation; hence, Morin's notion of complexity implies that consumer scholars would pair unlike ideas to generate intellectual deviations. This pairing of unlike ideas occurs in the *fertile middle ground* as people navigate different levels of reality, matching consciousness with information. The *logical core* of complexity is disparate pairs, dialogic. To keep these ideas apart leads to the breaking up of knowledge, preventing people from linking and contextualizing things; decontextualized knowledge leads to ill-solved problems of humanity, including those created by 21st century consumption.

Emergence

Poverty will be used to illustrate the principle of emergence (McGregor, 2009a). Poverty can be described along many dimensions: global and personal security, human rights, universal rights, moral responsibilities, order with justice, and global as well as intergenerational justice. It is definitely... a *complicated* issue, hard to solve using disciplinary knowledge. Transdisciplinarity holds that as people pass through the zone of non-resistance (accept that there are many realities) and enter the fertile middle ground to problem solve using the logic of inclusion, the process of emergence comes into being. Emergence refers to novel qualities, properties, patterns and structures that appear from relatively simple interactions among people, qualities that did not exist when presented in isolation. These new qualities are layered in arrangements of increased complexity (Morin, 2005; Nicolescu, 2008a).

To continue the example, emergence means consumer scholars would assume that poverty is *continually changing* as people try to solve it. It is a rich weave of societal structures and functions. This new weave of poverty (and people's understandings of poverty) keeps changing because new and coherent structures, patterns and properties *emerge* as a result of the interactions among people trying to address poverty while working within a web of changing relationships (on the included middle ground). Original perceptions about addressing poverty are left behind or transformed as a new weave and fabric takes shape (see figure 7, a new tapestry from the threads of the knotted, complicated problem (figure 6) and the synergistic energy generated during the intellectual border work). The energy created, the information generated and the partnerships formed also constantly change as understandings about the complex problem change - everything is in flux and *in-formation* (Lattanzi, 1998). The intent of transdisciplinarity knowledge creation is to get to know the world better by weaving together many ways of knowing and being in the world (Nicolescu, 2000).

Order and Chaos

As indicated, instead of just dealing with indebtedness, credit acquisition practices and the like, consumer studies and consumer behavior scholars would grapple with the problems of humanity including the problem of poverty and unequal resource distribution that can play out in consumers' lives as issues of credit, debt and housing. In the 21st century, consumers' daily lives are more complicated (knotted) and complex because the balance of order and disorder changes as life unfolds. To address this imbalance and tension, the TD methodology further requires that people adopt new understandings of order and chaos. Consumer scholars would learn to conceive of relations between order, disorder and self-organization,

Figure 7: Emergence

rather than conceive relations as empirical determinism. The latter holds that every state of affairs is determined by what came before it and constitutes a link in an unalterable chain of events: get a credit card, misuse it, get in debt, become poor - one thing leads to another in a predictable pattern. In the empirical methodology, chaos and disorder are seen as signs of deep trouble in the system. Not so, from a TD methodology. Wheatley (1999) explains that order and chaos are mirror images of each other. Order is created *through* chaos, through the processes of fluctuations, changes and disturbances. Chaos is order without predictability and is very different from the concept of order in the old science - predictable, controllable and consistent.

As well, a TD methodology includes the notion of self-organizing systems. Chaos is a necessary place to dwell if consumer scholars wish to engage in transdisciplinary inquiry and practice. They would trust that new insights will appear in this chaotic state, believe that they are self-organizing beings able to change. Being stable, while being open, is foreign to the old science, which assumes that when things wear down, the center cannot hold and things grind to a halt (even fly apart). In the TD methodology, being stable, while open, happens because of people's deep stabilizing center where they know who they are, what they need to do and that they are not acting alone (in the lava-lamp). As consumer scholars matured and developed self-knowledge, they would become more adept at this deeper, core stability (see figure 8) (Wheatley, 1999).

What comes to dominate over time is the internal dynamics of the system instead of the outside influences. Because people are partners *with the system* (through navigating the multiple layers of reality), they gain autonomy *from* the system. The more freedom people have to self-organize, the more order there is. The system and people co-evolve over time. From a TD methodology, consumer scholars would strongly believe in keeping themselves off balance so that they can change and grow through an open exchange with the world. It is then that they can behave in ways that defy the normal expectations and move themselves to new states of disequilibrium, knowing that a deeper stability is serving as their foundation while they solve complex problems of humanity that are exacerbated by 21st century consumption (Wheatley, 1999).

Figure 8: Order Emerging out of Chaos

Because targets keep shifting and the issues often must be redefined, consumer scholars engaged with the TD methodology face a lot of uncertainty (Allen & Varga, 2007). Although the process of fluctuations, changes and disturbances requires consumer scholars to accept uncertainty as they seek solutions, not everyone is able or willing to do so. Accepting uncertainty is essentially a function of culture change, a shift in outlook, and a willingness to seriously understand the views and aspirations of others. A transdisciplinary approach enables consumer scholars to look at knowledge from different levels and different perspectives. What is taken to be *true* depends on the framework of knowledge and assumptions brought in by individuals and their social, political, economic and occupational settings (Torkar & McGregor, 2010). TD assumes that traditional theories of truth are one-sided and inadequate. It is not that these theories completely miss the nature of truth; rather, they capture only a few relevant aspects of truth and disregard all others (Cicovacki, 2004). Pretty and Plimbert (1995) maintain it is essential to seek multiple perspectives by ensuring the involvement of different actors and groups. Consumer scholars would integrate many levels of truth, resulting in unity, which better reflects the complexity of human issues. Consumer scholars would learn to appreciate that their thoughts, mental models and theories are necessarily incomplete and temporary props to current interactions with other actors. In fact, differing perceptions and views are a source of creative interaction, innovation and change (Allen & Varga, 2007).

Consumer scholars also would come to welcome chaos, uncertainty, tension, emergence and complexity because they would know it is going to lead to personal and disciplinary growth and evolution. Change creates chaos (a lack of regular, predictable arrangements). Consumer scholars would be able to self-organize (reorganize) when they can accept chaos and seek solutions to the lack of order (the problems of humanity). This reorganization leads to renewal. Consumer scholars would not try to maintain the old order but would enter into trustful, sharing relationships with others who have the same vision and relevant information and, together, create a new world and creative solutions to complex, emergent problems. Through rich processes and exchanges, multiple minds can interact and produce a complex knowledge containing its own reflexivity (in the lava lamp). *The knowledge is alive* because the problems the knowledge addresses are alive, emerging from the life world. This is a powerful approach to consumer scholarship.

Axiom 4 - Axiology - Integral Value Constellations

Because transdisciplinarity is about understanding the problems of the world (Nicolescu, 2007), those engaged in transdisciplinary work would be concerned with values. Traditional Newtonian science holds that research should be value neutral; there is no place for values in objective science (McGregor & Murnane, 2010). However, working together in fluctuating, enriching and challenging relationships necessitates a concern for values, especially since complexity infers the need for more than a single expert's solution. By their very nature, interactions among multiple actors as they solve problems in the polycrisis will give rise to value conflicts and contradictions. These conflicts can result in power struggles. In a TD approach, power is energy; it is the capacity generated through relationships. Without relationships, there can be no power. Whether the power generated as people work together to solve complex, emergent problems is negative or positive depends upon the nature of the relationships. That in turn is predicated on values. Furthermore, with power comes responsibility. Embracing this responsibility would be a challenge for consumer scholars unless the constellation of values at play is respected and managed.

Cicovaki (2009) makes a strong case for an axiology of transdisciplinary and McGregor (2009b, 2010) labeled this *integral value constellations*. Cicovaki argues that TD practitioners need to be able to deal with values and their systematic examination, even to develop a map of values that would serve as a coordination system for the TD map of reality people are trying to assemble. Values provide people with a center that gives them a sense of orientation to further develop their humanity. He maintains that one of the deepest problems of our time is the problem of orientation, of choosing and pursuing the "proper art of living" (Cicovaki, 2009, p. 14).

> In the absence of clear vision of a new art of living ... in the center of all values, we are walking a very dangerous tightrope. ... In the face of the threatening dilemmas that we confront as individuals and as a civilization, it is of utmost interest to learn more ... about how they can be resolved. ... It is not at all improbable that humanity will not survive the twenty-first century. (Cicovaki, 2009, pp. 14-15)

Cicovaki believes that a TD axiology would empower people to dedicate themselves toward building a new kind of humanity to offset this doomsday projection.

So, because TD is deeply influenced by ethical, moral and pragmatic matters of orientation, consumer scholars would concern themselves with axiology (the science of values, ethics and morals). One of the intents of axiology is to link thinking (valuing) with action (Giuculescu, 1998). Consumer behavior is action oriented. Within transdisciplinary complex problem solving, thinking and action are intricately bound, necessitating a key focus on values. Indeed, Bazewicz (2000) affirms that transdisciplinarity holds a holistic vision of the world, and is concerned with the local and global integration of values.

Hartman (1967) posits that everyone's *value talent* is in motion, changing as situations change around them. Consumer scholars would learn from this approach. Three dimensions of values form the apex of anyone's valuing process, and each person values things in one of these three ways, or in some combination: (a) intrinsic value (personal or spiritual empathy and self-esteem); (b) extrinsic value (practical or situational, including role awareness and practical judgement/ thinking); and, (c) systemic value (conceptual or theoretical constructs of the mind including: system judgment (the ability to judge order within a system) and self-direction, motivation and persistence). The result can be tension amongst the three dimensions of values. Bottom line - how people think (what they believe is worthy) will determine how they act in a problem solving situation. Consumer scholars would appreciate that *proper valuing* requires attentiveness to all three value dimensions. To illustrate using sustainable consumption, a person may prefer a particular corporation (intrinsic), but a balanced value attention would also include paying attention to the vendor's performance according to corporate social responsibly sourcing standards (extrinsic), and its performance in a legal manner (systemic).

Cicovaki (2009 and van Breda (2007) urge people working with the transdisciplinary methodology to keep looking for agreement in the area of axiology. In order to develop the necessary tolerance of different viewpoints, so people can stay engaged in conversations about the complex problems shaping the human condition, consumer scholars would respect the role of axiology in transdisciplinarity. Küpers (2009) asserts that changes in value mixes are a key part of the rapidly changing global village, and that profound changes are taking place at all levels. He agrees with van Breda, that values often are the missing link in providing strategic solutions to key, global issues, which are informed by a collage of differing worldviews held by individuals, cultures, nations and regional and international groups.

Küpers (2009) further explains that peoples in civilizations progress naturally through three value systems: (a) collective values (tribal, dictator/ power and stability and order); (b) individual values (individual freedoms, private enterprise, free market values, then environmental and ecological values); and, (c) integrative/ integral values (integration of all of the previous values in order to build a stronger integrated approach to global issues). This approach is very similar to

Wilber's (2007) integral theory of everything, which includes insights from spiral dynamic theory. Consumer scholars would appreciate that it took centuries for the first two value systems to evolve (i.e., collective and individual) and the world is only just now approaching any semblance of integral values (Küpers, 2009; Wilber, 2009). That is why it is crucial for consumer scholars to continue to focus on values and citizenship (Thoresen, 2005).

The transdisciplinary dialogue, by its very nature, will witness the inescapable value loading of every inference and every opinion. Every line of conversation about the import of consumer decisions will face a potential clash of values, ethics and morals. Consumer scholars would reconcile the different sorts of knowledge characteristic of the sciences in the academy with the involvement of citizens in an extended peer community (Funtowicz & Ravetz, 2008). They would redefine and articulate tomorrow's values and reflect on the direction these values may lead humanity (Bindé, 2004). Society runs the risk of bad decisions if the *world of values* (axiology) is not taken into account and if conflicts cannot be resolved (Cicovaki, 2009). Given the polycrisis faced by the world, consumer scholars cannot risk enabling too many bad decisions, nor persistent conflict. They would respect the merit of valuing the differences among people and build on those insights. An *integral value constellation* would be a laudable goal for transdisciplinary consumer scholars.

Desired Emergent Developments - A Reframing of Consumer Scholarship

Because consumption affects everyone, everyone has a stake in the outcome – everyone's interests are affected, not just consumers. Torkar and McGregor (2010) coined the term *stakesharer* (instead of stakeholder) to reflect the idea that transdisciplinary scholarship entails people *sharing* ideas, solutions, threats and opportunities as they try to advocate their collective responses to complex problems - to address their stake in things as well as the stake of humanity and the earth. As they do this, people, including consumer scholars, would balance different logics, values, ways of knowing and would function on many different levels of reality. This is a profoundly new approach to dealing with the fallout of 21st century consumption.

And, as pressing as it is that consumer scholars begin to shift towards this methodology, this paradigm shift poses many, many issues (e.g., Pfund et al., 2006; Tourse et al., 2008), not the least of which are attempts to: (a) secure tenure, promotion and reappointment; (b) obtain grants for scholarship that spans disciplines and embraces civil society; and, (c) engage in scholarship that intentionally zigzags back and forth among comfortably siloed disciplines, each with their own departments, library holdings, professional associations and scholarly dissemination venues.

The following section shares a collection of ideas about how consumer scholars would have to reframe their approach to engaging in scholarship within the academy and between the academy and civil society. These ideas are gleaned from another paper on the topic of transdisciplinary consumer scholarship (McGregor, 2007a):

- It is the *context* of where the new knowledge will be applied that matters, not the agenda of the disciplinary home of the consumer scholars (Gibbons et al., 1994). TD assumes that knowledge is generated and sustained in the context of where it will be applied, rather than developed first, and then applied later by a different group, as is the case with basic science.

- The knowledge created in context *belongs to everyone* (because it was created by everyone) rather than being confined to (trapped in) a disciplinary map and useful for just one context. Novel ideas generated in the fertile space among and beyond disciplines can be nurtured and expanded by ensuring continuous feedback and input of everyone (Nicolescu, 1997, 2002), and by respecting the dynamics of knotworking (Engeström, 2005; Molz, 2009).
- Consumer scholars would learn to rely on the *safety of the evolving collective* of actors and the potential and hidden *possibilities* rather than rely on the certainty of relatively risk-free disciplinary expertise. In TD, there is no one-right answer, no standard approach. With this in mind, consumer scholars would not stop at the first answer that seemed to satisfy their disciplinary dictates; instead, they would dig deeper through dialogue, perspective sharing, and in-formation (Lattanzi, 1998).
- Consumer scholars would learn that the disciplinary, academe imperative has to be set aside to create a voice for those working in other types of organizational homes, in other contexts (especially civil society organizations) - a voice for the *humanity imperative*.
- Consumer scholars would move from creating knowledge from a position of disinterested detachment to *negotiated knowledge* with those holding different interests but common concerns for human problems (Smith, 2003).
- Instead of relying on the integrity of their disciplinary differences, consumer scholars would be open to transdisciplinary *de-differentiation* (Gibbons et al, 1994). That is, they would respect synergy (Greek *sunergos*, for working together) and sharing, rather than working in isolation and hoarding. They also would change perspectives so they saw information as *in-formation* in dynamic contexts, rather than being fixed and proprietary (Wheatley, 1999).
- Consumer academics would accept the idea that they are *transient* - they have a foot in their academic home while roaming the connections available in the network of relationships (harken to the idea of knotworking). The knowledge they create is socially distributed and sustained through network building by mobile practitioners (Smith, 2003). Being transient would mean consumer scholars would become comfortable with not having a specific academic home. Instead, they would accept the idea of having a continued presence in their disciplinary field of knowledge, *but* do so whilst intellectually roaming in order to network with meaningful connections at the crossroads. Communications become key in this itinerant research and problem solving process as do value clarification and integration.
- Consumer scholars would respect a new trait, *institutional diversity*. It refers to research and scholarship taking place way beyond the hallowed halls of the ivory tower. Scholarship would take place in departments and laboratories, think-tanks, research centers, institutes, retreats, through consultancy networks, in people’s homes and living rooms, even on air planes (Smith, 2003).
- Consumer scholars would no longer wear the mantle of ‘founding father’ because the TD knowledge that is created is a collective initiative - *an embodied knowledge*. Some consumer scholars may experience the pull to don this mantel more than others, especially because some efforts to form TD knowledge can slip back into discipline formation (Smith, 2003). This slippage happens because it is difficult to gain tenure and promotion in

an academy that still values disciplinary silos, isolated experts, and elitism. Consumer scholars exploring the TD path would expect complications and setbacks until academic governance structures, funding agencies and mind sets catch up. More seasoned consumer scholars would brave the repercussions of stepping outside the disciplinary boundaries into the rich fertile space between disciplines, where the academy meets society for the betterment of humanity.

- Because embodied knowledge *belongs to society*, consumer scholars that are familiar with employing positivistic criteria to gauge the robustness of the information (reliability and validity) would embrace other notions of robustness. Yes, it is still incumbent on those creating the knowledge to assure that it is of a certain quality. It would not bode well if un-robust knowledge was used to solve deep, human problems, even if the knowledge was jointly created in context. Smith (2003) and Gibbons et al. (1994) refer to this issue as the 'quality control of knowledge production', and suggest that criteria for *socially robust knowledge* (instead of empirically reliable knowledge) might include: justice, effectiveness, efficacy, autonomy, and other evidence of success after addressing the resolution of a pressing social problem. From a transdisciplinary stance, consumer scholars would explore the meaning of '*socially approved knowledge*' (Smith, 2003).
- Within the confines of the traditional academy, conventional scholars can dispense with the influence of politics, theology and ethics in the pursuit of disciplinary truth because of academic freedom (Fuller, 2003). In the real world, where TD consumer scholars would be dealing with deep, pressing human problems, it is not possible, nor prudent, to dismiss the influence of the political economy and the social reality of citizens. Social concerns cannot be kept at arm's length. They *are* the arms that shape the scholarship.
- Consumer scholars would gain respect for the *role of place and of the rhythm of the soul* in the process of integral and transdisciplinary learning and discourse. Focusing on the commons *releases the genius of society*, especially if scholars strive for fusion of indigenous, embodied knowing with conventional, disembodied knowing. The power of the people and the power of the commons deeply inform transdisciplinary thinking (personal communication, Ronnie Lessem, June 17, 2010).
- Consumer scholars would focus on leadership rather than the leaders. Leadership is a process involving discourse, and starts with wholeness, not the parts fitting together. They would focus on the discourse, on trying to find the language to have the conversation, so they can discover the patterns in each other's' thinking - *the integral gems* (personal communication, Wendelin Küpers, June 17, 2010).

The intellectual contributions of consumer studies/ sciences and consumer behavior scholars is paramount to the future of humanity and the planet. Their scholarly endeavors inform public and private dialog and decisions about the consumer interest and the role of business vis-à-vis consumer behavior. The whole of humanity is dependent on changing the nature of 21st century consumption so that it embraces a humanity and planetary imperative. The transdisciplinary methodology gives consumer scholars a powerful paradigmatic perspective from which to engage themselves, other disciplines and members of civil society in the process of solving complex, emergent human problems shaped by consumption, respecting the logic of inclusion, many levels of reality, integral value constellations, and knowledge as complex and emergent.

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Bahman A.K. Shirazi

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August 2013 Special Issue Introduction

Issue Editor: Bahman A. K. Shirazi

The articles included in this special issue of Integral Review represent a wide range of integral scholarship at the California Institute of Integral Studies (CIIS), founded in 1968 in San Francisco by Dr. Haridas and Bina Chaudhuri. Haridas Chaudhuri arrived in the United States in 1951 upon an invitation by professor Frederick Spiegelberg of Stanford University who was charged with directing a newly founded independent graduate school (American Academy of Asian Studies) devoted to introducing Asian studies to American higher education. Spiegelberg had traveled to India in the late 1940s to research the contemporary practices of the ancient spiritual traditions of India. His visit culminated in an encounter with the great spiritual figure of modern India, Sri Aurobindo, whose writings represented a grand synthesis of evolutionary spirituality with ancient Indian spiritual traditions.

Haridas Chaudhuri, one of the first to study and write about Sri Aurobindo, brought a creative and dynamic integral vision to the west which he articulated in terms of an educational framework based on integration of the highest eastern and western spiritual and cultural values aimed at educating the whole person. Later in 1968, he founded a new graduate school, the California Institute of Asian Studies (later renamed CIIS), implementing a triune approach to higher education comprising didactic, experiential and applied dimensions. The experiential dimension included the pioneering introduction of meditation, yoga and other eastern mind-body practices into American higher education.

The first article by CIIS president Joseph Subbiondo, *Integrating Meditation into Higher Education: The Founding Mission of CIIS as an Education for the Whole Person*, provides an overview of the introduction of meditation practice into higher education as part of an integral approach to education. The importance and relevance of mindfulness mediation in daily life is outlined and Haridas Chaudhuri's philosophy of meditation and its connection to action are explored.

We continue with several articles on integral ecology and its visionary extensions to new areas such as integral ecofeminism and integral ecopsychology. *The Quest for Integral Ecology* co-authored by Sam Mickey, Adam Robbert, and Laura Reddick, presents an exploration of the different approaches to integral ecology, including a historical overview and an exposition of some of the philosophical and religious visions that are shared by a variety of integral ecologies. A common aim of integral ecologies is to cross the boundaries between disciplines in order to develop comprehensive understandings of the intertwining of nature, culture, and consciousness in ecological issues.

In *Toward an Integral Ecopsychology: In Service of Earth, Psyche, and Spirit*, Adrian Villasenor-Galarza presents a framework for the nascent field of integral ecopsychology, defining it as the study of the multileveled connections between humans and the Earth. After introducing different ecological schools, he focuses on ecopsychology as a unifying lens from

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which to assess our planetary challenges by exploring three avenues in which the project of ecopsychology enters into dialogue with spiritual and religious wisdom.

Next, Chandra Alexandre offers an introduction to integral ecofeminism as a spiritually grounded philosophy and movement seeking to catalyze, transform and nurture the rising tensions of the entire planet. In *Integral Ecofeminism: An Introduction*, she articulates an approach toward healing and offering a possibility for creating and sustaining the emergent growth of individuals, institutions and our world systems through acknowledging the wisdom of creation in its multiplicity, specificity, and profound manifestation.

Loving Water: In Service of a New Water Ethic explores how a new water ethic could gain much from the Hindu concept *seva* (loving service) that arises from the traditions of *bhakti yoga* (loving devotion) and *karma yoga* (altruistic service). Elizabeth McAnally who visited India to participate in an interdisciplinary conference co-sponsored by Yale University and TERI University in Delhi, draws on David Haberman's work with the Yamuna River of Northern India, inviting the reader to consider a new water ethic that responds to contemporary global water issues and crises.

Next we turn to a unique application of integral thinking to our current economic crises in *An Integral Perspective on Current Economic Challenges* by Pravir Malik who presents a holistic model that draws inspiration form the journey a seed makes in becoming a flower in more fully understanding the nature of the crises we may be facing. After providing a brief overview of major economic crises of the last several decades, he argues that each economic crisis must be understood as a unique phenomenon requiring different and unique responses.

The next three articles explore integral spirituality, first in connection to western esoteric traditions, and finally with respect to traditional Indian spirituality. In *The Path of Initiation: The Integration of Psychological and Spiritual Development in Western Esoteric Thought*, Gary Raucher examines a strand of Western esoteric wisdom through the writings of Alice A. Bailey and Lucille Cedercrans that offers a particular integral perspective on psychospiritual development in relation to spiritual emergence and the mutually interdependent evolution of consciousness and matter. This view, influenced by theosophy, and thus in part by Asian spiritual traditions, considers human life to be a vital and necessary phase within the larger cosmic evolution of consciousness and matter. Emphasis is given to "The Path of Initiation," a phase of psychological and spiritual expansion into deepening levels of transcendent, supramental consciousness and functioning.

A New Creation on Earth: Death and Transformation in the Yoga of Mother Mirra Alfassa, by Stephen Julich is a Jungian cross-cultural hermeneutic exploration and analysis of symbols of death and transformation found in Mother Mirra Alfassa's conversations and writings. Focused mainly on her discussions of the psychic being (evolving soul) and death, it is argued that the Mother maintained her connections to her original western occult training throughout her later years of collaboration with Sri Aurobindo.

Debashish Banerji traces the Indian yogic and spiritual foundations of Sri Aurobindo's yoga in his article titled the *Traditional Roots of Sri Aurobindo's Integral Yog*a through a psycho-biographical approach to his life and work. He traces Sri Aurobindo’s personal spiritual evolution, starting with the early years of his political activity and his introduction to yogic practices, and leading to his four major realizations. Sri Aurobindo came into contact with a number of Indian traditions of yoga and absorbed symbolisms, practices and lexicons from all of these—from Tantra and Vaishnavism and their synthesis with the teachings of the Bhagavad Gita and the Vedantic traditions— to shape his integral yoga, the ultimate goal of which became the acceleration of the evolution of human consciousness toward integrality and establishment of divine life on earth.

Lastly, in Metaphysical Instincts & Spiritual Bypassing in Integral Psychology, I introduce the term *metaphysical instincts* in connection with Assagioli’s *higher-unconscious* in the context of integral psychology. In traditional spiritual practices awakening the metaphysical instincts has often been done at the expense of suppressing the biological instincts—a process referred to as spiritual bypassing. In some western psychotherapies, the main focus has been the integration of the *lower-unconscious* into the conscious personality; whereas, in traditional yogic practices the focus has been on the integration of the higher-unconscious into the conscious realm, leaving out the subconscious and unconscious areas. This essay discusses how the metaphysical instincts, initially expressed as the religious impulse with associated beliefs and behaviors, may be transformed and made fully conscious, and integrated with the biological instincts in integral yoga and psychology in order to achieve wholeness of personality.

It is hoped that these essays will provide inspiration and stimulation for those interested in integral consciousness and the diverse array of streams that feed into it.

On behalf of CIIS, much gratitude is owed to Integral Review for providing support for this publication.

Bahman A.K. Shirazi
San Francisco, August 2013

Integrating Meditation into Higher Education: The Founding Mission of CIIS as an Education for the Whole Person

Joseph L. Subbiondo[1]

Abstract: This article discusses the introduction of meditation practice into higher education as part of an integral approach to education. A number of current authors are cited emphasizing the importance and relevance of mindfulness mediation in daily life. In addition, California Institute of Integral Studies founder Haridas Chaudhuri's philosophy of meditation and its connection to action are explored.

Key Words: California Institute of Integral Studies (CIIS); higher education; integral education; meditation; mindfulness.

The 21st century is already being identified by several distinguishing themes, including the *Global Age,* the *Planetary Age,* the *Digital Age,* the *Spiritual Age,* the *Mindful Age,* and so on. All valid labels no doubt; and there will be many more that we can't possibly imagine from our present vantage point. In this article I will discuss one of these labels—the *Mindful Age*—by focusing on Dr. Haridas Chaudhuri's founding vision of integral education for CIIS and its relevance to the study and practice of mindfulness today.

Chaudhuri developed an extensive model of integral education that was inspired by Sri Aurobindo's integral vision and philosophy that connected meditation to human action. He intended that his version of integral education provide "a well rounded program for balanced personality growth of the human individual" (Chaudhuri, 1977, p. 77).

In his book *Integral Yoga,* Chaudhuri (1965a) wrote:

> The essence of integral Yoga lies in the balanced union of meditation and action. It is only through such union that creative freedom can be achieved. Through meditation one is more integrated with the inner self and united with the Supreme Being. Through action one is more and more integrated with the outward environment, natural, social and historical, and communicates with the creative force of evolution (p. 117).

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Mindful Age

Before discussing Haridas Chaudhuri's pioneering vision of integral education, we will consider the contemporary context that it foreshadowed by briefly looking at the *Mindful Age* in general and its emerging role in higher education in particular.

In 2011, Barry Boyce, Senior Editor at *The Shambhala Sun,* published a collection of essays by prominent scholars and teachers of contemplative practice including Pema Chodron, Daniel Goleman, Tich Nhat Hanh, Jack Kornfield, and Jon Kabat-Zinn. He entitled his collection by identifying it with the contemporary age, *The Mindfulness Revolution* (Boyce, 2011).

In the first essay, Jan Chozen Bays, physician, co-abbot of the Great Vow Zen Monastery, simply defines "mindfulness" as follows: "Mindfulness means deliberately paying attention, being fully aware of what is happening both inside yourself—in your body, heart, and mind—and outside yourself in your environment. Mindfulness is awareness without judgment or criticism"(Chozen Bays as quoted in Boyce, 2011, p. 3). This straight-forward definition is representative as it matches closely if not identically with every definition of mindfulness that I can find. Also, in the literature on the subject, "mindfulness," "meditation," and "contemplative practice," are often used synonymously. However, I should note that these terms are not synonymous in various traditions.

In his introduction to the collection, Boyce convincingly argues that "The Mindfulness Revolution" accurately and fairly describes our age, especially when we consider the extent and depth of the impact of mindfulness on nearly every aspect of personal and professional life. Boyce correctly asserts the relationship between meditation and action:

> The mindfulness revolution begins with the simple act of paying attention to our breath, body, and thoughts, but clearly it can go very far. It helps us in our home life, with our family, friends, and colleagues. It helps us in our business, our voluntary groups, our churches, our communities, and in our Society at large. It's a small thing. We all can do it. And it can change the world. (Boyce, 2011, p. xviii)

To see the presence of the mindfulness revolution in the corporate world, one simply has to read *Search Inside Yourself* by Chade-Meng Tan ("Meng" as he is known), longtime product and thought leader at Google. Over the past ten years, he has not only introduced the benefits of mindfulness to the employees at Google, but his work has been adopted by many high tech corporations. In *Search Inside Yourself* with its far reaching subtitle of *The Unexpected Path to Achieve Success, Happiness (And World Peace)*, Meng (Tan, 2012) draws on the work of Mirabai Bush, the founder of the Center of the Contemplative Mind in Society, and Jon Kabat-Zinn, founder of the Center for Mindfulness in Medicine, Healthcare, and Society at University of Massachusetts School of Medicine as well as the founder of the Stress Reduction Clinic (also, he is an honorary doctorate degree recipient of CIIS). I note the affiliations of Bush and Kabat-Zinn to emphasize the extraordinarily broad reach of the interest in mindfulness.

Meng points out that "Our approach to cultivating emotional intelligence begins with mindfulness"(Tan, 2012, p. 25). He draws on a universal theme among teachers and practitioners of contemplative practice as he claims:

> The process starts with an intention. Start by creating an intention, a reason for wanting to abide in mindfulness. Perhaps it is to reduce stress. Perhaps it is to increase your well being. Maybe you want to cultivate your emotional intelligence for fun and profit. Or maybe you just want to create the conditions for world peace, or something. (Meng, 2012, p. 35)

Commenting on Meng's book, Daniel Goleman, the principal scholar of emotional intelligence, notes Meng's "brilliant insight" in realizing "that knowing yourself lies at the core of emotional intelligence, and the best mental app for this can be found in the mind training method called mindfulness" (Goleman quoted in Tan, 2012, p. viii). Jon Kabat-Zinn writes in the forward to the book that Meng's approach will help people not only know themselves better, but also relate better to others. Kabat-Zinn fully supports Meng's claim that mindfulness can transform the world.

In the corporate community, the growing interest in mindfulness is not confined to high-tech companies. An article in the *Financial Times* by David Gelles (2012) entititled "The Mind Business: Yoga, meditation, mindfulness"…reports that some of the west's biggest companies are embracing eastern spirituality as a path that can lead to bigger profits." Gelles reported on mindfulness programs at General Mills in Minneapolis, and he profiles and quotes Janice Marturano, deputy general counsel at General Mills, who claims the many benefits of mindfulness practice: she states, "It's about training our minds to be more focused, to see with clarity and to have space for creativity" (Marturano quoted in Gelles, 2012, p.2).

As in the corporate world, there has been an extraordinary increase of contemplative practice and study on college and university campuses. Alexander Astin, Helen Astin, and Jennifer Linholm in their book *Cultivating the Spirit* (Astin, Astin, & Linholm, 2011), define meditation as including "a family of spiritual/contemplative or psychophysical methods and practices that while considerably diverse in approach, share as a common theme or goal: the discovery of a deeper realm of experience or awareness beyond the ordinary discursive (thinking) mind "(pp.148-49). Like Haridas Chaudhuri, they recognize the need for meditation in higher education: "Our findings also show that providing students with more opportunities to touch base with their 'inner selves' will facilitate growth in their academic and leadership skills, contribute to their intellectual self-esteem and psychological well being and enhance their satisfaction with the college experience"(p.157).

Haridas Chaudhuri's Vision of Integral Education

Let us now turn our attention to Haridas Chaudhuri and his groundbreaking work at CIAS (California Institute of Asian Studies—former name of CIIS) in integrating meditation into higher education. In 1974, a year before his death, Chaudhuri published an essay in the journal *New Thought* entitled "Education for the Whole Person" in which he summed up his philosophy of education and articulated his founding mission of CIIS. As he so often did throughout his writings, Chaudhuri offered in the 1960's and 70's a glimpse of the future as he outlined a role that meditation could and should play in higher education as well as in professional and personal life. Nearly a half century ago, he knew what many higher education leaders are discovering today—that higher education is enhanced significantly by the theory and practice of meditation.

Chaudhuri recognized that …

> There is a growing realization today that human personality is a multifaceted and multidimensional phenomenon. No scheme of education can therefore be worth its name without a well rounded program for balanced personality growth of the human individual. [A person] is neither all intellect nor all emotion; neither all intuition nor all reason; neither all body nor all spirit; neither all outward behavior nor all inward vision. Personal integration of all these closely interrelated functions is the ultimate goal in the [human] evolutionary process…. (Chaudhuri, 1974, p. 50)

He acknowledged that educators faced a challenging task:

> The concept of integral or holistic education does no doubt pose a serious challenge to all those responsible for curricular development in educational institutions. It imposes a new responsibility of serious proportions upon all teachers and educators with sincere dedication. (Chaudhuri, 1974, p. 51)

To achieve "a well rounded program for balanced personality growth of the human individual," Chaudhuri proposed an integral education—an education that, among other distinguishing characteristics, balanced meditation and action.

Soon after his arrival in San Francisco in 1951, Chaudhuri and his wife Bina created the Cultural Integration Fellowship where he taught classes and workshops on meditation. In addition, he taught courses on meditation at the American Academy of Asian Studies (a predecessor of CIIS) as part of the required curriculum for all students. In addition to teaching meditation, Chaudhuri wrote extensively on the subject: for example, he wrote a book based on his teachings at the Cultural Integration Fellowship, *Philosophy of Meditation* (Chaudhuri, 1965b); he wrote a lengthy chapter, "Meditating for Self-Perfection," in his book *Mastering the Problems of Living* (Chaudhuri, 1968). In all his works, he encouraged the practice of meditation not only for its own sake but also for an integral education—an education that he envisioned could lead to a "balanced life."

In this "Meditating for Self-Perfection," Chaudhuri defined meditation as follows:

> Meditation is the art of deeper self-awareness. It aims at the awareness of the self on subtle levels of personality. It culminates in the realization of the inmost center of one's own being. In realizing his inmost center of being, the individual attains self-fulfillment by transcending the fetters of the ego. He is released from the prison of egocentricity. He discovers the transcendental dimension of his existence which unites him with all other individuals. (Chaudhuri, 1968, p. 158)

Please note the similarity of his definition to those of others that I have cited.

In his definition, Chaudhuri focused on personal transformation, social change, self-awareness, ego transcendence, and transpersonal union. To exemplify his definition, he added:

> The Buddha in the posture of meditation is the perfect picture of the extroverted introvert. Meditation is the ingoing movement of consciousness. It explores the inner regions of the mind with a view toward self-integration and the eventual discovery of the non-temporal dimension. (Chaudhuri, 1968, p. 160)

To Haridas Chaudhuri, meditation was not in any way set apart from human action; rather, he insisted that meditation informed action. He held that "…meditation culminates in universal compassion" (Chaudhuri, 1968, p. 160). Moreover, he claimed that "Intelligent communion with one's depth of being and loving communication with the outside world supplement each other in illuminated living" (p. 160). He also linked meditation to spirituality as he believed that in prayer, a person could talk to the Divine; but in meditation, he believed the divine could talk to the person.

Chaudhuri thought of meditation in cosmic terms:

> Meditation is an all out search for the ultimate truth. It is a search for the truth about oneself and one's relationship to the universe…. Fixed ideas and unconscious intellectual assumptions are the last impediments to the unclouded vision of truth. (Chaudhuri, 1968, p.163)

He believed that reflection separated rational thinking and emotion. He noted, however, that "meditation aims at eliminating all discrepancies between intellect and emotion, between reason and passion. It opens channels of communication between the conscious mind and the unconscious psyche" (p. 165). He added: "While reflection is a function of the intellect, meditation is an integrative movement of consciousness, a function of the total self" (p. 165).

In 1974, Chaudhuri invited Dr. Rina Sircar to join the faculty to expand the teaching and practice of mindfulness at CIAS. Prof. Sircar was educated in Burma, both in the Theravada Buddhist monastic tradition—where the practice of mindfulness meditation was integrated in her teaching—and was also present in the mainstream setting of higher education at Rangoon University. When Rina Sircar began teaching at CIAS, she would hold a meditation session each morning. In the beginning no one came to her sessions, because no one knew what mindfulness meditation was. But sitting there alone she thought to herself, "Never mind, they will come." During the next 37 years that she taught meditation—both in the classroom and in retreats—students and non-students did come, and her efforts melded with those of other spiritual teachers who helped shape and advance the "Mindful Age" in which we live.

Neuroscience

Chaudhuri's vision of an education that integrated meditation and action is as relevant today as it was 45 years ago. While the mindfulness movement of our age continues to draw on ancient wisdom traditions including those that Chaudhuri studied and practiced throughout his life, the neuroscientists in their current breakthrough research are defining the benefits that mindfulness can have on human action. Unquestionably, neuroscience is an emerging field of the current moment, and it is a field that Chaudhuri recognized would have significant potential judging by the early developments in the study of the brain that he was aware of in the 1960's and early 1970s. In short, neuroscientists are confirming Chaudhuri's thesis of the interrelationship of meditation and behavior. Neuroscientific research supports the notion that through meditation, one can change the structure of one's brain and consequently change one's perspectives and actions.

UCLA professor, Daniel Siegel, and a growing cohort of neuroscientists claim that "one of the key practical lessons of modern neuroscience is that the power to direct our attention has within it the power to shape our brains [neural] firing patterns, as well as the power to shape the architecture of the brain itself" (Siegel, 2010, p. 39). Siegel notes that "*Neuroplasticity* is the term [that describes] this capacity for creating new neural connections and growing new neurons in response to experience" (Siegel, 2010, p. 5). He explains that "Mindsight [the aspect of mindfulness of most interest to him] is a kind of focused attention that allows us to see the inner workings of our own minds" (p. ix). According to Siegel, mindsight "…helps us to be aware of our mental processes without being swept away by them, enables us to get ourselves off the autopilot of ingrained behaviors and habitual responses, and moves us beyond the reactive emotional hoops we all have a tendency to get trapped in" (Siegel, 2010, pp. ix-x). He adds that "Our understanding of mindfulness can build on these studies of interpersonal attunement and the self-regulatory functions of focused attention in suggesting that mindful awareness is a form of intrapersonal attunement" (Siegel, 2007, p. xiv). Siegel concludes that "…relationships are woven into the fabric of our interior world." and "We come to know our own minds through our interactions with others" (Siegel, 2010, p. 63).

Rick Hanson in his best-selling *Buddha's Brain*, points out that "What happens in your mind changes your brain, both temporarily and in long lasting ways; neurons that fire together wire together" (Hanson, 2009, p.18). Hanson's research indicates that "Small positive actions everyday will add to large changes over time, as you gradually build new neural structures" (p. 19). Throughout *Buddha's Brain*, he provides specific exercises that will gradually change our attitudes and behaviors.

Andrew Newberg and Mark Waldman (2009), professors of neuroscience at the University of Pennsylvania, have published the results of their studies of the contemplative practices of members of religious groups drawing upon their respective faith and wisdom traditions: for example, Franciscan nuns in Philadelphia engaged in "centering prayer." In their *How God Changes Your Brain*, they report the results of their measuring brain waves of religious practitioners while in meditative states. Similarly, Marion Beauregard and Denyse O'Leary (2008) in their book, *The Spiritual Brain*, document their research on meditation with Carmelite nuns in Montreal. In most, if not all, cases, there is a shift in brain wave activity during a variety of forms of contemplative practice.

Conclusion

In February 2013 CIIS co-sponsored the Wisdom 2.0 Conference in San Francisco—a conference devoted to exploring the intersections of spirituality, mindfulness, neuroscience, education, and technology. CIIS Sages Jon Kabat-Zinn, Jack Kornfield, and Joan Halifax shared center stage with the founders and CEOs of leading social media corporations including Google, Facebook, LinkedIn, and Twitter. In many and various ways, CIIS has contributed and continues to contribute significantly to the *Mindfulness Revolution* of our age. As one participated at Wisdom 2.0 in the heartfelt conversation about the connections of mindfulness to compassion, personal life balance, organizational leadership, and community service, one could sense the presence of CIIS where, mindfulness is part of the curriculum in many programs. For example, in the Community Mental Health Program, one can take a course in Mindfulness Therapy; and in the Public Programs and Performances, one can take a certificate program in Mindfulness and Compassion in Psychotherapy.

Forty five years later, we express our gratitude to Haridas Chaudhuri for a vision of integral education that linked meditation to action. In his view, it was an education for the whole person, Today, there are growing numbers of educators who are integrating meditation into higher education in order to prepare their students to cultivate the knowledge and practice of mindfulness among all areas their professional and personal lives.

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The Quest for Integral Ecology

Sam Mickey, Adam Robbert, Laura Reddick[1]

Abstract: Integral ecology is an emerging paradigm in ecological theory and practice, with multiple and varied integral approaches to ecology having been proposed in recent decades. A common aim of integral ecologies is to cross boundaries between disciplines (humanities, social sciences, and biophysical sciences) in efforts to develop comprehensive understandings of and responses to the intertwining of nature, culture, and consciousness in ecological issues. This article presents an exploration of the different approaches that have been taken in articulating an integral ecology. Along with a historical overview of the notion of integral ecology, we present an exposition of some of the philosophical and religious visions that are shared by the diversity of integral ecologies.

Keywords: ecology, integral ecology, religion and ecology, speculative philosophy, Thomas Berry.

"The quest today is increasingly for an *integral ecology*" (Boff and Elizondo, 1995, p. ix). That quest is our topic in what follows. Although Boff and Elizondo were among the first to use the phrase "integral ecology" in 1995, the quest for an integral ecology is not entirely new. It is an increasingly pressing quest today, but the quest itself has a very long and complex itinerary, with routes extending to the earliest attempts of human beings to understand and respond to the relations and patterns between the myriad beings that they encounter alongside them in the world.

The quest for an integral ecology is at work, at least implicitly, in the control of fire, the invention of cooking, cave painting, the cultivation of plants, and the domestication of animals. All of these activities required humans to develop a sense of relationships (e.g., between wood,

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moisture, friction, combustion, food, and hunger), and a failure to integrate multiple dimensions of those relationships (e.g., interiority and exteriority) could prove fatal. For instance, understanding how to make fire does not do much good if one cannot also discern how the capacities of fire relate to experiences of safety and wellbeing. That is the quest of integral ecology in a nutshell. It is a quest for knowledge, theoretical and practical, of the depth and complexity of relationships between beings, including their subjective and objective facets.

In this essay, we explore multiple approaches people have taken in the quest for an integral ecology, providing 1) a historical overview of the idea of integral ecology, and 2) an exposition of some of the common threads tying together the diversity of integral ecologies, including a) an engagement with speculative philosophical visions of the cosmos and the place of humans therein and b) inquiry into the ecological implications of religion and spirituality.

Integral Ecology in the Making

Although a quest for integral ecology can be discerned in early humans, it is not entirely appropriate to call them ecologists, since they had not formally developed theories or practices of ecology or of any field of scientific inquiry per se. They are more accurately called “proto-ecologists,” which is a term that is used for describing “those who had ecological insights before a formal science of ecology was formulated” (McIntosh, 1985, p. 15). Although proto-ecologists are not modern scientists, they nonetheless practice what is typically defined as the task of ecology—inquiry into the relationships between organisms and environments.

Some forms of ecological inquiry are more integral than others. In his account of the history of ecology from antiquity through the twentieth century, Donald Worster (1994) discerns two distinct approaches to understanding and responding to the interactions between organisms and environments: first, the “*arcadian*” approach, which is oriented toward “*peaceful coexistence*” with organisms and environments, and second, an “anti-arcadian tradition,” which fosters an “*imperial*” view of nature focused on objectifying Earth’s resources and exploiting them for human ends (pp. 2, 29). Integral approaches to ecology resonate more with the former.

An example of the tension between arcadian and imperial ecologies can be found in the view of plants expressed by Aristotle (384-322 BCE). For Aristotle (2001), each living being has a soul, with “soul” (psyche) defined as the form that causes life in the material body. Different kinds of living bodies are distinguished by the presence of one or more of the following potencies of the soul: intellect, perception, movement with regard to place, and nutrition. A plant has a share in the nutritive part of the soul, which manages the work of growth and nutrition. Animals also share in this nutritive potency of the soul. However, animals also possess the perceptive potency of the soul and the capacity for moving themselves with respect to place. Furthermore, some animals have the capacity to reason and think things through. The way in which an animal’s senses are directed and attuned to the sensible world is a kind of ‘*ratio*’ or rationality. However, this does not mean that animal thinking is identical with the kind of thinking proper to humans, for a human being is also capable of imagination and intellect, which make it possible to discern what is true from what is false.

On one hand, Aristotle represents an arcadian ecology insofar as he affirms the soul or interior agency of plants, in contrast to modern scientific perspectives for which plants are studied only with respect to their exteriority as calculable and measurable objects. On the other hand, Aristotle's hierarchy of the different capacities of the soul privileges human intellect over the cognition, perception, and locomotion of animals, and those animal capacities are privileged over the nutritive capacities of plants. Why is human intellect privileged? More than the other capacities of soul, intellect allows humans to become virtuous and happy. As Matthew Hall (2011) puts it in his philosophical botany, "the higher faculties of soul are higher purely because they are thought to belong solely to human beings. This value-ordering is fundamentally anthropocentric, with humanity becoming the yardstick for value"(p. 25). That value-ordering denies any intrinsic value in plants, leaving them with only instrumental value as objects to be used and consumed according to human ends.

Thus, there is a tension between Aristotle's arcadian attribution of soul to plants and his more imperial view, for which humans are the primary center of value and plants are seen as having only instrumental value as objects to be used by animals and humans (for food, shelter, etc.). The arcadian side of Aristotle's philosophy of nature is carried foreword by his pupil, Theophrastus, who does away with Aristotle's imperial hierarchy, investigating plants on their own terms instead of measuring plants according to what they lack with respect to animals and humans (Hall, 2011, pp. 28-35). The arcadian view expressed by Theophrastus was subsequently backgrounded in favor of Aristotle's more imperial view, so that the history of Western approaches to botany, from Aristotle through Carl Linnaeus (1707-1778), can be seen as propagating mostly an imperial view of nature (p. 36).

Although Western philosophies of nature have tended to follow a more imperial than arcadian approach to understanding and responding to the natural world, the arcadian view has persisted. For instance, in the Romanticism of German *Naturphilosophie* (philosophy of nature), Johann Wolfgang von Goethe (1749 – 1832) and Friedrich Wilhelm Joseph Schelling (1775 – 1854) proposed evolutionary theories for which the material world and its ideal structures (archetypes) were not separate realities, but were manifestations of a unified and dynamic evolutionary process, "*dynamische Evolution*" (a term developed by Schelling and adopted by Goethe) (Richards, 2002, p. 10). Schelling viewed natural phenomena in terms of an organic process of development that cannot be captured by the mechanistic explanations that mark imperial views of nature (p. 9). Although this original, arcadian view of evolution was a significant factor in the traditions informing the development of evolutionary theory and ecology, the deeper Romantic spirit was suppressed in favor of the rising mechanistic worldview, eventually reemerging in the 20th century in the works of philosophers like Sri Aurobindo (1872 – 1950) and Jean Gebser (1905 – 1973), with whom articulations of explicitly "integral" philosophies began.

A particularly important figure in the historical development of integral ecologies is the German biologist Ernst Haeckel (1834 – 1919), who first coined the word "oecologie" (from the Greek *oikos*, meaning "dwelling" or "household") in 1866, defining this field of study as a scientific inquiry that would further the development of Charles Darwin's theory of biological evolution. Drawing explicitly on Darwin, Haeckel defines ecology as the study of organism-environment relationships, saying that "ecology is the study of all those complex interrelations referred to by Darwin as the conditions of the struggle for existence" (Merchant, 2007, p. 178).

Haeckel’s approach to ecology is, for the most part, indicative of a mechanistic or imperial view of nature. Haeckel’s approach is only capable of accounting for ecological relations as “the necessary results of mechanical causes,” thus excluding as “unscientific” (p. 179) any accounts of soul, interiority, or agency in the natural world. This does not mean that there is no theology or psychology in Haeckel’s view. Rather, his interpretations of God and consciousness are described in terms of his monistic view, according to which God, consciousness, and all of nature can be explained rationally according to mechanistic causes.

While Haeckel’s theological and psychological views have been generally ignored or abandoned by subsequent ecological theorists, Haeckel’s mechanistic approach to investigating organism-environment interactions became the dominant approach to ecology, and it remains the dominant approach today. Throughout the twentieth century, there have been numerous thinkers who have critiqued that dominant paradigm and proposed alternatives to it. It is in that context that the explicit development of integral ecologies first took place. Integral ecologies, on one hand, challenge the mechanistic approaches to ecology that characterize imperial views of nature while, on the other hand, including the insights achieved through those mechanistic approaches. An example of an important forerunner to an explicitly integral ecology is the American forester and conservationist Aldo Leopold (1887-1948).

Michael Zimmerman (2009) notes two ways in which Leopold’s work anticipated integral ecology. First, Leopold accounts for interiority as well as exteriority, such that, “in addition to natural and social science perspectives, people need to bring to bear ethical, cultural, and aesthetic perspectives on land use (environmental) issues”(p. 77). This is reflected in Leopold’s experience of a “fierce green fire” in the eyes of a dying wolf he had shot (Leopold, 1989, p. 130). He had previously never comprehended that a wolf and the mountain it inhabits have their own value apart from the measurements and calculations of human use. After experiencing the green fire, Leopold began articulating his land ethic, which aims to overcome the rift between two distinct approaches to the values of the organisms and ecosystems comprising the land. There is an “A” approach, for which the value of land is given in terms of human use and economic value, and a “B” approach, for which the value of land is intrinsic to the land itself, including the integrity and stability (exteriority) of the land as well as its profound beauty (interiority) (p. 221).

The second way in which Leopold anticipated integral ecology is that he understood evolution as a unified and dynamic process that needs to be accounted for not only in biology but also in human moral development (Zimmerman, 2009, p. 78). Just as ethics has extended to encompass villages and tribes, then cities, nations, and eventually all of humanity (e.g., universal human rights), the next phase in human moral evolution is the extension of ethics to the land.

> The ‘key-log’ which must be moved to release the evolutionary process for an ethic is simply this: quit thinking about decent land-use as solely an economic problem. Examine each question in terms of what is ethically and esthetically right, as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise. (Leopold, 1989, p. 224)

The land ethic facilitates a moral transformation that reinvents the human species. More specifically, it "changes the role of *Homo sapiens* from conqueror of the land-community to plain members and citizen of it" (p. 204).

The environmental degradation to which Leopold was responding in his life continued increasing after his death in 1948, and as the environmental degradation increased so too did public awareness of it. In the United States, two notable events indicate the growing public awareness of environmental degradation: first, the publication of Rachel Carson's (1962) *Silent Spring*, in which she warned of the spreading ecological harm caused by the use of the chemical pesticide DDT, and second, the widespread news coverage of the Cuyahoga River (northeast Ohio) catching fire in 1969 due to excessive pollution and debris in the river (Rolston, 2012, pp. 10, 21). Following the growth of the environmental movement in the 1960s, the 1970s saw the emergence of multiple ecologically oriented fields of study in the humanities, including ecofeminism, deep ecology, and environmental ethics (pp. 15-19).

Those fields of environmental humanities aimed to connect the biophysical evidence of ecology with the interior dimensions that had been neglected by the dominant paradigm of ecology (e.g., ethical value, beauty, experience, culture, and religious worldviews). However, those fields were not coordinated with one another or with the biophysical and social sciences that they drew upon. A more comprehensive approach was needed to cross disciplinary boundaries and address the profound complexity of ecological problems. An important example of such an approach comes from the contemporary French theorist Edgar Morin.

Morin's approach to ecology is grounded in a transdisciplinary method that he describes in terms of "complex thinking," which crosses boundaries between sciences, social theory, anthropology, philosophy, and more. For Morin, complex thinking "endeavors to connect that which was separate while preserving distinctiveness and differences" (Morin, 1999, p. 114). It is an "ecologized thinking," which accounts for the recursive interactions and retroactions composing the relations between beings, while also accounting for the "hologrammatic character" of these relations, whereby the whole (e.g., the planet) and the parts (e.g., humans, insects, ecosystems) are internally interconnected, each part present in the constitution of the whole and the whole present in the constitution of each part (p. 130).

Morin's approach to ecology includes an account of the history of modernization, which he describes as "an evolution toward a planetary consciousness," in other words, an evolution of "the Planetary Era" (pp. 6, 24). The recognition that humans are inextricably interconnected with one another and with the entire Earth community has been growing rapidly throughout the last five centuries of colonial expansion, militarism, and economic globalization. Although those processes of modernization have supported the emergence of the global environmental crisis, they have also supported the emergence of "planetary solidarity," which facilitates mutuality and reciprocity between humans and the denizens of the whole planetary community (pp. 106, 116, 130). Morin knows that planetary solidarity is not a given, but is something that must be developed amid the uncertainty of our evolutionary unfolding. Planetary solidarity is possible, but it is "a possible impossible"—an impossible realism, which "*grounds itself in the uncertainty of the real*" (p. 108). Accordingly, the solidarity of our "partnership" in "the complex web of the Planetary Era" does not presuppose any imperial mastery over nature or over ourselves; on the contrary, this fellowship is based on a realization that humans are "vagabonds of the unknown adventure" (pp. 144-146).

Morin's work resonates with the approaches to ecology articulated by many of his contemporary compatriots, including Michel Serres, Bruno Latour, and Félix Guattari (Whiteside, 2002). Although their work is not explicitly labeled "integral," they nonetheless contribute to the quest for an approach to ecology that accounts for the exterior as well as interior facets of ecological phenomena as they are situated in the uncertain dynamics of an evolving universe.

The first explicit use of the term "integral ecology" comes from a marine ecology textbook in 1958 by Hilary Moore, specifically in the distinction between three kinds of ecology: the study of organisms (autecology), the study of ecosystems (synecology), and an integral ecology that includes autecology and synecology (Moore, 1958, p. 7). However, Moore does not include interiority or the humanities, in contrast to thinkers typically labeled "integral." Aside from Moore's use of the term, the next mentions of integral ecology began in the 1990s, as three thinkers independently proposed integral approaches to ecology: the cultural historian Thomas Berry, the liberation theologian Leonardo Boff, and the Integral theorist Ken Wilber. The first of these thinkers with a published writing that uses the phrase "integral ecology" is Leonardo Boff in an essay written with a fellow liberation theologian, Virgil Elizondo.

Noting the lack of coordination between the numerous and varied aspects of ecological theories and practices, Boff and Elizondo (1995) articulate the quest for integral ecology.

> The quest today is increasingly for an *integral ecology* that can articulate all these aspects with a view to founding a new alliance between societies and nature, which will result in the conservation of the patrimony of the earth, socio-cosmic wellbeing, and the maintenance of conditions that will allow evolution to continue on the course it has now been following for some fifteen thousand million years. (p. ix)

Boff has continued developing his approach to integral ecology, especially in his recent collaboration with Mark Hathaway in *The Tao of Liberation* (Hathaway & Boff 2009), in which integral ecology is defined as an evolutionary vision that brings together three other approaches to ecology. First, there is an "*environmental vision,*" which explores the exteriors of the members and the whole of the Earth community (p. 300). "*Social ecology*" is next, raising socioeconomic and political issues about ecology, including implications of justice, democracy, violence, consumerism, etc. "*Deep ecology,*" thirdly, investigates various kinds of interiority and mentality, including ethical and religious issues of responsibility and reverence for the natural world (Hathaway & Boff, 2009, p. 301). Integral ecology coordinates environmental, social, and deep ecologies, and it situates those ecologies in the evolutionary adventure of the cosmos.

Boff and Hathaway draw extensively on the work of Thomas Berry, whose approach to integral ecology is like the former insofar as it integrates three different registers into a comprehensive vision of the unfolding universe. Berry began developing his integral ecology around the same time that Boff began articulating his. Sean Esbjörn-Hargens (2011, p. 93) reports that, according to the activist-poet and student of Berry, Drew Dellinger, 1995 is the year when Berry began referring to his cosmological work informally as “integral cosmology or integral ecology”. Berry’s integral ecology is grounded in the “cosmogenetic principle” that he developed with the cosmologist Brian Swimme in their co-written work, *The Universe Story*. As Swimme and Berry (1992) define it, the cosmogenetic principle holds that all evolutionary processes are characterized by differentiation, subjectivity (or “autopoiesis,” i.e., self-organization), and communion (pp. 66-78). Differentiation corresponds to the environmental vision of Boff, which accounts for the differentiated exteriors of things. Subjectivity corresponds to Boff’s version of deep ecology, which accounts for the different kinds of interiority and agency at work in things. Communion corresponds to Boff’s social ecology, seeking to develop mutually enhancing forms of community between humans, the Earth community, and the cosmos as a whole.

Like Berry and Boff, Ken Wilber developed his integral vision around the same time. First published in 1995, Wilber’s *Sex, Ecology, Spirituality* (Wilber, 2000) did not use the phrase “integral ecology,” but it did explicitly develop an Integral framework for addressing ecological issues. That framework is the AQAL model—an “all-quadrant, all-level” model that accounts for physical, mental, and spiritual *levels* of reality, each of which traverses all of the four *quadrants*: subjective (“I”), intersubjective (“We”), objective (“It”), and interobjective (“Its”) (Wilber, 2000, pp. 127-135). Simplified as the “Big Three,” this model clearly corresponds with Boff’s and Berry’s, as it suggests that any phenomenon can be understood in terms of exteriors (“It/s,” including collective systems, “Its,” and the behavior of individuals, “It”) and in terms of subjectivity (“I”) and communion (“We”) (pp. 149-153).

Wilber’s Integral vision was brought into a more explicitly ecological context by the leading Integral theorist Sean Esbjörn-Hargens and the environmental philosopher Michael Zimmerman in their groundbreaking work, *Integral Ecology: Uniting Multiple Perspectives on the Natural World (*Esbjörn-Hargens & Zimmerman, 2009), which applies Wilber’s AQAL framework to ecology while also including insights from other integral ecologists (e.g., Berry, Boff, and Morin). Although Esbjörn-Hargens and Zimmerman privilege the AQAL map to other approaches, they celebrate the emergence of “a variety of integral ecologies,” as they recognize that “much work remains to be done,” including collaborations as well as critiques to help the variety of integral ecologies become more comprehensive in their respective engagements with the depth, complexity, and mystery of beings in the natural world (pp. 487, 552, 667). Such collaborations and critiques are presented in the forthcoming anthology, *Integral Ecologies: Nature, Culture, and Knowledge in the Planetary Era* (Mickey, Kelly, & Robbert, n.d.).

In sum, the diverse variety of integral ecologies reaches back to the arcadian tendencies of the proto-ecologists of antiquity, and it extends into numerous ecological approaches articulated throughout the twentieth century, including the development of explicitly “integral” ecologies by Berry, Boff, Wilber, and Esbjörn-Hargens and Zimmerman. In the remainder of the present essay, we draw out some of the common threads and shared commitments that make integral ecologies unique and make them relevant for contemporary attempts to address ecological issues. We focus on two areas in particular: 1) speculative philosophy and 2) the field of Religion and Ecology, both of which reflect the aim of integral ecologists to cross-disciplinary boundaries to include multiple perspectives on the interiority as well as exteriority of ecological phenomena.

Speculative Ecology

The quest for integral ecology suggests a re-visioning of ecology in a more comprehensive context, which is evident in the cosmological visions of integral thinkers like Berry, Boff, and Wilber. Accordingly, in articulating the common threads connecting integral approaches to ecology, we draw attention to the shared commitment of integral ecologies to speculative inquiry, which facilitates the development of comprehensive visions of the cosmos and the place of humans therein. Here, one might ask, what does speculative philosophy have to do with ecology? Are we not mixing the empirical world of the natural sciences with the subjective world of a philosopher's fantasy? Far from a regressive exercise, introducing elements of speculative thought into ecological thinking allows for a new mode of integrative practice that can greatly aid in relating human beings to the larger Earth community. Integral ecology can be understood as speculative ecology in an etymological sense. "Speculative" (or "speculation" more generally) connotes "contemplation," "seeing," or "observing." It is also a term used when transactions involve a considerable risk or unknown outcome. One could say, then, that "speculation" is the art or practice of risky contemplation. The second word, "ecology," also has a variety of meanings. As a whole the word refers to the branch of science dealing with organisms, environments, and their coevolution. The "eco-" comes from *oikos* which is Greek for "home" or "dwelling place," and the "-logy" means the science, discourse, or theory of something, deriving from the verb *legein* ("to speak") and the noun *logos*, which can variously mean "speech," "reason," or "divine word." "Ecology," then, is the *logos* of dwelling, the discursive elaboration of the coevolutionary contexts of organisms and environments.

We could thus define speculative ecology as the risky contemplation of inter-dwelling beings. Furthermore, insofar as ecology is about understanding the relationship between living beings and their worlds, and insofar as speculation involves making a claim about the reality of being and the world (beyond *our* interests in them), one can say that speculative philosophy and ecology go hand in hand. As an integral practice, speculation involves taking everything that we know, and everything we know about *what* and *how* we know, and using these tools to respond to the demands of a given situation. In a sense, speculation is about taking a point of view that is both deep and wide in the attempt to understand how our own bodies are both subjects of speculation and the vehicles by which we speculate. But speculation is also about drawing a line, about questioning the very practice of who gets to draw lines where. It is about determining when the infinite regress of critique (i.e., the subject that knows about how the subject knows about how subjects know) has gone too far. Thus speculation makes a claim about the situation it attends to from *within* the limits of that very situation.

This mode of speculative ecology is one we can think of as akin to what Isabelle Stengers (2010) calls "cosmopolitics," Bruno Latour (1993) calls a "parliament of things," Val Plumwood (2002) calls "dialogical interspecies ethics"—further echoed by her commitment to "earth others," or what Donna Haraway (2008) calls "companion species." Speculative ecology also resonates with Alfred North Whitehead's (1978) claim that "We find ourselves in a buzzing world, amid a democracy of fellow creatures," (p. 50) which is not unlike Thomas Berry's (1999) vision of the universe as a "communion of subjects" (p. 82). Ecology implicitly involves coordinating these complex spaces where the multiple interlocking worlds that make up Earth are mobilized. In this way, any question with an ecological component—involving, say, questions about land use, ethics, and eating habits, or spiritual practices, resources, and social justice—necessarily brings with it the consideration of not just diverse peoples, but diverse peoples, their worlds, and all the nonhuman beings that get caught up in the human dramas of political decision making.

The quest for integral ecology is the ongoing struggle to understand the needs and worlds of these humans and nonhumans in all their relations, including their contradictory, mutually exclusive entanglements as well as their complementary and symbiotic connections. It is about developing of a vision for which all beings possess agency and interiority, such that there is "something that it's like" to be a bat, squid, or barracuda. In other words, integral ecology requires a speculative leap into the phenomenological experience of other beings. It means practicing what Ian Bogost (2012) calls "Alien Phenomenology"—a task that requires empirical science, but also an imaginative leap into the worlds (i.e., subject positions) of other creatures. From this perspective, we find that humans are not simply engaged within an "ecology of mind," as Gregory Bateson (2000) put it, but rather that the human mind emerges within context of myriad other beings.

There is an ecology of minds. This ecology of minds pre-dates the existence of human beings by at least four billion years, and finds its genesis at the very emergence of life on Earth. Thus, in addition to the material conditions of ecosystem functioning, integral ecologies are concerned with theorizing the interlocking forms of interiority present within all ecological communities. Integral ecologies in their speculative mode are thus a matter of playing a game of risky contemplation of the worlds of other beings, risky contemplation of what it is like to be something else, something nonhuman, in the hopes that such practices of thought can open up spaces for new ecological practices to emerge.

Religion in Integral Ecology

The quest for integral ecology is a quest to expand the concern of ecological work to include scientific inquiry along with all fields of study and aspects of human life, thus providing a well-rounded way of viewing ecological problems and developing potential solutions. Seeking to include a vast set of perspectives and fields of study, as well as personal and social perspectives, integral ecologists consider the multifarious dimensions of an ecological problem—cultural, religious, psychological, social. Beginning with the work of Thomas Berry, scholars have addressed the religious dimensions of ecological issues, giving rise to a new field of study: religion and ecology. The field of religion and ecology seeks to integrate religious discussions of moral obligations towards the earth with similar ecological discussions. With the ecological implications of religious systems in the forefront, the hope is that followers will consider the environmental effects of their personal decisions. Integral ecologists who consider the religious dimensions of environmental problems bring ethical concerns to the forefront of ecological conversations.

Catholic priest and cultural historian Thomas Berry used the term "integral ecology" in the mid-1990s around the time Leonard Boff and Ken Wilber were also developing ideas about the term. While religion is an important theme for each of those thinkers, we focus in this paper on Berry as a paradigmatic example of how integral ecology engages religious perspectives. Berry considered himself a geologian, or historian of the cosmology of Earth. His focus on deep time, beginning with the moment the universe began, pervaded his ideas about integral ecology. Berry provided a vision of the integral ecologists as spiritual leaders who understands the implications of cosmological insights for the future. Berry's first published used of the term "integral ecologist" occurs in his 1996 essay entitled "An Ecologically Sensitive Spirituality." The essay was published in 2009 as part of a collection entitled *The Sacred Universe: Earth, Spirituality, and Religion in the Twenty-first Century*, edited by religious historian Mary Evelyn Tucker (2009). After recounting the spiritual legacy of North America, Berry claimed the Western world needs a new form of spiritual guidance. The current teachers, scholars, and religious leaders provide inadequate guidance because they do not prioritize relationships with Earth. Instead, "we need an ecological spirituality with an integral ecologist as spiritual guide" (Berry, 2009, p. 135). Berry recognized an understanding both of science and religion will be necessary in the future. The two can no longer be separate and distinct pieces of our realities and lives. This is a crucial component of the scholarly project of the field of integral ecology.

Berry called on integral ecologists to lead in uncertain times and create a new religious system based on both science and spirituality. He claims:

> The integral ecologist is the spokesperson for the planet both in its numinous and its physical meaning, just as the prophet was the spokesperson for the deity, the yogi for the interior spirit, the saint for the Christian faith. In the integral ecologist, our scientific understanding of the universe becomes a wisdom tradition. (Berry, 2009, p. 136)

Not only will the integral ecologist understand ecological science, but he or she will be able to articulately communicate to others. Berry compared the integral ecologist to honored religious teachers to place them among the populace. In his vision, integral ecologists will be teachers speaking widely about the numinous and moral implications of ecological knowledge. Integral ecology fully incorporates the physical and spiritual history of the earth and draws on the most basic aspects of human life—clean water, clean air, healthy food, and a safe place to live. Respect for these elements forms the basis of an ecologically sensitive spirituality not focused on transcendent possibilities, but grounded in our immanent realities and local bioregion while accounting for universal connections. The integral ecologist incorporates these spiritual aspects into their worldview and directs others to also do the same.

Influenced by Berry's work, Mary Evelyn Tucker and John Grim, both Senior Lecturers and Research Scholars at Yale University with joint appointments in School of Forestry and Environmental Studies as well as the Divinity School and the Department of Religious Studies, established the field of religion and ecology. This burgeoning field began with a conference series entitled "Religions of the World and Ecology" hosted by Harvard University's Center for the Study of World Religions between 1996 and 1998. Tucker and Grim provided the impetus behind the conferences, which brought together over 700 scholars and environmentalists to talk about how religious beliefs and practices are entangled with ecological concerns. The conferences resulted in the World Religions and Ecology series consisting of ten books describing each of the world's religions in relation to ecological concern (Tucker and Grim, 2001, p. 13). The work is now hosted at Yale University and bears the name the Forum on Religion and Ecology.

Scholars of traditional religions in this field seek to *retrieve* existing practices and beliefs that promote sustainability, *reevaluate* texts with an ecological lens, and *reconstruct* practices and beliefs that do not support sustainability. Religious morals that translate into environmental ethics are at the forefront of the field. During retrieval, scholars work to clarify ecologically sensitive aspects of existing texts and bring forward latent teachings that could augment more popular ones. Reevaluative work questions the relevance of existing teachings to contemporary environmental problems. Scholars who reevaluate traditional religious texts and teachings seek to find practices and beliefs that can be adapted to the present and identify concepts that may be detrimental to the ecological project. Reconstruction borrows Berry's vision within traditional religions by asking these systems to find creative ways to modify their practices or create new ones within the religion (Tucker and Grim, 2001, pp. 16-17). The intersection of religious and ecological practices can help formalize beliefs regarding sustainability by bringing existing practices to the forefront or encapsulating new ethical principles in religious creeds. These three methods of approaching religious traditions speak to an integral perspective by questioning religions from many angles. The scholars who take on these projects are leading religions to incorporate an ecological sensitive spirituality, fitting Berry's vision of the integral ecologist as spiritual guide. Moreover, Berry's vision is not restricted to the traditions of the world religions (e.g., Islam, Buddhism, Confucianism), but is also relevant to emerging forms of religion and spirituality, typically categorized as new religious movements (NRMs). Consider, for example, Paganism.

Contemporary Paganism, an earth-based nature religion, has much to add to the discussions in the field of Religion and Ecology. Paganism is an umbrella term for a group of religious systems held together as either recently created religions or modern interpretations of ancient traditions which seek to re-enchant the natural world, embracing a sense of animation and reciprocal relationship, and place humanity as part of the environment rather than above or beyond it. Many of the world's religions have ancient origins and are struggling to adjust to newfound environmental awareness. While contemporary paganism draws inspiration from ancient sources, the religion has developed along with growing environmental awareness and directly addresses the environment in its beliefs and practices. This positioning gives pagans a valuable perspective and potentially places them as integral ecologists. The relevance of paganism to integral ecology is further indicated by the fact that pagans bring a primarily, though not exclusively, female voice to the table (Berger, Leach, and Shaffer, 2003, p. 27). With women as the majority of adherents and a strong concept of female divinity, discussions that include Paganism must address women's participation. This stands in contrast to the relatively male-centered perspectives that dominate world religions. In short, paganism is enduring as a religious system and can be considered along with the world's major religions in integral discussions of religious and ecological ethics.

Seeking new, ecological forms of religious expression, integral ecology involves inquiry into what religious studies scholar Bron Taylor calls "dark green religion," which requires a deep sense of connection to nature and sees the earth as sacred and interconnected (Taylor, 2010, p. 13). In his most recent publication, *Dark Green Religion*, Taylor(2010) uses the term as an umbrella heading to describe any, "religion that considers nature to be sacred, imbued with intrinsic value, and worthy of reverent care" (Taylor, 2010, p. ix). He includes within this concept animism and Gaian earth religions, which either could be spiritual, having a supernatural agency, or naturalistic, without a supernatural component. He describes four categories of dark green religion: Spiritual Animism, Naturalistic Animism, Gaian Spirituality, and Gaian Naturalism. Spiritual Animists and Naturalistic Animists both seek to communicate with non-human nature, but the former includes a belief in the supernatural while the latter does not. Similarly, Gaian Spiritualists also have a belief in the supernatural in a pantheistic or panentheistic sense while Gaian Naturalists do not. Gaians see the universe or planet as alive, conscious, or at least metaphorically resembling an organism (Taylor, 2010, p. 15). All of Taylor's examples of dark green religion privilege nature, and his sweep is broad, including radical environmentalism, surfing, and Disney movies in his conceptualizations of dark green religion (Taylor, 2010, pp. 71, 103, 132). While these examples would not typically be considered religious expression, he sees a new form of earth-based spirituality forming through these exemplars. While Taylor does not use the term integral ecologist, his conception of dark green religion fits into Berry's use of the term as a spiritual guide centered on relationships with Earth.

Integral ecology celebrates the very act of living on Earth as thinking, conscious beings in relationship with other similar beings and respects the places where we live. Because of this, religion is an important aspect of integral ecological study. Berry's foresight provided the image of the integral ecologist as a spiritual guide and leader, as someone who would integrate science and spirituality into a comprehensive understanding of the world which would lead to a widespread understanding of the importance of the environment. Since Berry's work, scholars and practitioners have engaged the intersection of ecology and religious studies through the field of religion and ecology and through exploring new and emerging forms of spirituality. Scholars are working to retrieve, reevaluate, or reconstruct beliefs and practices to assimilate ecological knowledge. The field of integral ecology encourages this type of relationship between seemingly disparate fields. Integral ecology allows us to bring our whole being to the study, honor multiple perspectives, and participate in the cosmopolitical work of composing a vibrant Earth community.

Conclusion

The quest for integral ecology has given rise to multiple approaches for understanding and responding to the complexity, depth, and mystery of ecological phenomena. Some of those approaches are implicitly integral (e.g., arcadian ecology, the complex thought of Morin, the cosmopolitics of Stengers) and some are explicit in designating themselves as integral (e.g., Berry, Boff, Wilber). This variety of integral ecologies is not a problem to be overcome in favor of one single approach. Indeed, as Esbjörn-Hargens and Zimmerman (2009) recognize, "there is no single solution" to ecological issues (p. 339). What is called for today is a diversity of integral solutions, and that diversity can be enhanced by cultivating the diversity of integral ecologies. In other words, an integral approach to ecology "need not be contained within any single framework"(p. 540). Moreover, the diversity of integral ecologies is not without common threads, as we have indicated in drawing attention to the shared commitments of integral ecologies to cross disciplinary boundaries in efforts to engage in speculative modes of philosophical inquiry and to further the study of the religious dimensions of ecological issues.

Let a thousand integral ecologies bloom! The rich contrasts between them provide a wide array of opportunities for humans to participate in the emergence of a flourishing planetary civilization. They provide opportunities for humans to participate in the Great Work of our time. As Berry (1999) defines it, our "Great Work" is "to carry out a transition" from the current destruction of the Earth community "to a period when humans would be present to the planet in a mutually beneficial manner" (p. 3). The quest for such a transition is precisely the quest for becoming integral; "We are here to become integral with the larger Earth Community" (p. 48).

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Toward an Integral Ecopsychology: In Service of Earth, Psyche, and Spirit

Adrian Villasenor-Galarza[1]

Abstract: In this paper, I advance a proposal for an integral ecopsychology, defining it as the study of the multileveled connection between humans and Earth. The initial section expounds the critical moment we as a species find ourselves at and, touching on different ecological schools, focuses on ecopsychology as a less divisive lens from which to assess our planetary moment. In the next section, I explore three avenues in which the project of ecopsychology enters into dialogue with spiritual and religious wisdom, thus expanding the project's scope while spelling out the particular lineage of integral philosophy followed. The next section addresses the value of integral ecopsychology in facing the ecological crisis, highlighting the importance of seeing such a crisis as a crisis of human consciousness. At the level of consciousness, religious and spiritual wisdom have much to offer, in particular the anthropocosmic or "cosmic human" perspective introduced in the next section. The relevance of the anthropocosmic perspective to cultivate ecologically sound behaviors and ecopsychological health is explored and presented as a main means to bringing ecopsychology in direct contact with religious and spiritual teachings. This contact is necessary for the study of the multileveled connection between humans and Earth. Finally, I propose an expanded definition of integral ecopsychology while offering three tenets deemed essential for its advancement.

Keywords: anthropocosmos, ecological crisis, health, integral ecopsychology, sacred.

The connection between humans and the Earth, in most industrialized societies, lacks the necessary depth and quality to appropriately address the ecological challenges of our times. The modern human has contributed to unleashing a global ecological crisis arguably comparable in magnitude and scope to the previous mass extinction that occurred 65 million years ago, known for exterminating more than half of the species inhabiting the Earth.[2] Meanwhile, the creative capacities of our species, *Homo sapiens*, seem to have developed exponentially along with a great ability to alter the functioning of the natural systems of the Earth. The celebration of the gifts of the human mind and heart stands in stark contrast with the systematic destruction inflicted upon the natural world. In fact, the very foundations and functioning of industrial societies appear to declare war against other species, the ecosystems they inhabit, and the geochemical processes that animate the whole planetary tapestry of the great blue jewel we have for a home.

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[2] Known as the K-T (Cretaceous-Tertiary) extinction event, it is one of five massive extinctions that have occurred in the past 500,000 years of the history of the Earth as evidenced in the fossil record.

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Never in the history of humankind has the planet endured so many changes in such a short amount of time. According to the Millennium Ecosystem Assessment (2005),“Over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history” (p. 1). Biodiversity has rapidly declined in the past forty years, the demand on natural resources has doubled since 1960, and we are currently using the equivalent of 1.5 planets to support the lifestyle of industrial societies (World Wildlife Fund, 2012, para. 1). This signifies that the detrimental impact of humanity on rivers and oceans, forests and savannas, blue jays and snakes, the atmosphere and the rolling hills, is continually pushing the Earth to unknown territories with unforeseeable, and potentially catastrophic, outcomes. What would it take for us humans to envision the possibility of a healthier relationship with ourselves and our home, the Earth? In what follows I outline the bases for an integral ecopsychology as a more encompassing and spiritually informed lens through which to address our historical moment marked by the planetary ecological crisis.

Historical Background

As early as the publication of *Silent Spring* (Carson, 1962), it became evident that there is no ecosystem on the planet left unaltered by human activity. The ubiquitous influence of one single species, amongst the estimated 10 million currently populating the Earth, has led scientists to coin the term “anthropocene” (Crutzen, 2002; Zalasiewicz et al., 2008) to designate a new geological era dominated by human activity. Through penetrating studies in biology, evolution, and religion, the new era has also been referred to as the “pyschozoic,” (Teilhard de Chardin, 1999, p. 124) given the orchestration and illumination of humanity’s powers of self-reflection. The term “ecozoic” (Berry, 1999, p. 8; Berry, 2006) was coined to refer to the emerging epoch in which the planet as a whole is of utmost concern to the human, collectively referring to the human–Earth conscious coupling as the “Earth community” (Berry, 1988, p. 6). In the same vein, the “planetary era” is the period, initialized in the 16th century, where more or less continuous communication was established between the five continents (Kelly, 2010; Morin, 2005). Taken together, the conscious entrance of the human presence to a planetary level appears to be one of the primary stories of our time.

The planetary ecological crisis has also been described as a novel kind of collective initiation pertaining to all members of our species. The planetary crucible can be seen as involving a collective rite of passage with the potential to initiate global social transformation by purifying destructive habits and inviting less disruptive ways of being to emerge. This process would be so profound as to trigger a species-ego death, that is, an archetypal death-rebirth experience for the human species (Bache, 2000). It appears as if the human species and the wider Earth community has embarked on a “trajectory of initiatory transformation, into a state of spiritual alienation, into an encounter with mortality on a global scale—from world wars and holocausts to the nuclear crisis and now the planetary ecological crisis” (Tarnas, 2002, p. 8). In these times when “the earth is currently operating in a no-analogue state” (Moore, Underdal, Lemke, & Loreau, 2001, para. 7), different researchers ascribe an underlying cause (or set of causes) to the crisis, according to their own lens and field of study.

Social ecologists believe that the root problem of ecological devastation is to be found in the hierarchical and oppressive dynamics characteristic of the social domain of human activity

(Bookchin, 2005). Deep ecologists ascertain that the flaw lies in the anthropocentric bias industrial citizens exercise in our daily lives and the correspondent lack of intrinsic value perceived in non-human species and their habitats (Devall & Sessions, 1985; Naess, 1995a, 1998b, 2008; Sessions, 1995). Supporters of ecofeminism maintain that there is a correlation between humans' destructive relationship to the Earth, the subjugation of women by men, and the historical dominance of patriarchal culture (Griffin, 1978; Merchant, 1980). Transpersonal ecology (Fox, 1995), an extension of the deep ecology movement in dialogue with transpersonal psychology, holds the view that the inability to expand the notion of self via a process of identification with the natural world is the key to the ecological crisis. Social ecology, deep ecology, ecofeminism, and associated schools of ecological thought[3] commonly center themselves either on nature and the more-than-human world, or on culture and the social order, often offering polarizing points of view and repressing vital aspects needed for a more integral understanding of our relationship with the Earth.

A less divisive approach has been uncovered that highlights the inner aspects of the eco-crisis. This approach has at its core a fundamental pattern that pertains not only to the human domain but also to the ecologies of the Earth, helping to soften alienating narratives of the human-nature relationship and thus delving deeper into the causes of the ecological crisis. "What is the pattern which connects all the living creatures?" asks Bateson (as cited in Todd, 2005, p. 77). The pattern, he suggests, is mind itself: an eco-connective and collective mind underlying and guiding the material and energetic cycles of the planet. There is a turn inward here, a shift from externalities to an inner view of the natural world in its eco-mental dimension. This inner approach to the eco-crisis allows an expanded degree of freedom, fluidity, and permeability between humans and the Earth, resulting in a more comprehensive, and potentially more effective approach, to dealing with the ecological crisis. In addition, an integral or multileveled view of industrial humans' crippled connection to the Earth invites more penetrating questions in regards to the paradigmatic assumptions that contribute to our alienation from the Earth at ecological, psychological, and spiritual levels. Ecopsychology, or the psychological study of humans' connection to the Earth (Greenway, 2000; Roszak, 1992), is amenable to adopting such an encompassing, integral approach.

Ecopsychology and Spirit

The project of ecopsychology is a diverse and often disjointed effort to heal the relation between industrial humanity and the Earth.[4] Ecopsychology is not a unified discipline partly due to the lack of an overarching organization or operational definition that encompasses the plurality of efforts sheltered under the umbrella of ecopsychology (Kahn & Hasbach, 2012; Fisher, 2002; Scull, 2000, 2008). This disorganization makes somewhat problematic a thorough assessment of the efforts made to date that incorporate the subtle and spiritual dimensions of our engagement with the Earth. Nonetheless, the efforts to bring to the forefront of ecopsychology the significance of spirituality and move in the direction of an integral ecopsychology broadly derive from three areas: Jungian ecopsychology, transpersonal psychology, and the field of religion and ecology.

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[3] These schools are considered some of the most representative of the "radical ecologies" (Merchant, 2005). For a comprehensive survey, see Esbjorn-Hargens & Zimmerman (2009).

[4] For a glance at the history and many origins of ecopsychology, see Greenway (2000), Roszak (1992, 1995), Schroll (2007), and Scull (2000, 2008).

The first area of influence is the most widespread, as most of ecopsychology, in one way or another, is influenced by Jungian psychology (Merritt, 2010, 2012). This area carries the potential caveat to psychologize the world and reduce the Earth to its psychological value alone and fail to incorporate the nuances that spiritual wisdom has to offer. On the other hand, Jungian psychology provides a rich repertoire of concepts and practices connected to the world's spiritual traditions. In the field of transpersonal psychology, Metzner's (1992, 1999) pioneering efforts have played a key role in bringing together Earth-based traditions with transpersonal psychology. John Davis (1998, 2010, 2011) has advanced a transpersonal ecopsychology focusing on the spiritual and non-dual experiences facilitated by the Earth. As with the larger field of transpersonal psychology, there is a danger of overemphasizing the transcendent and of repressing our ecological embeddedness along with the value of community and service. The field of religion and ecology, as the third area of influence, offers a thorough study of how the world's religions can and should contribute to better deal with the ecological crisis (Chapple & Tucker, 2000; Tucker, 2004; Tucker & Grim, 2001). Depending on the religious tradition under study, the psychological component can be rather weak and thus potentially detrimental for achieving genuine personal and societal change.

Although I am aware of the several strands of integral philosophy (i.e., Aurobindonian, Wilberian, Gebserian), the integral approach advanced in this paper is mostly based on the work of Thomas Berry. In a way, the present research constitutes an extension of Berry's (2009) integral ecology[5] with the explicit inclusion of the psychological dimensions of our relation to the Earth. For Berry (1999, 2009), the cosmos as a whole is a source of divine expression that manifests in a particular way through the human venture; for cosmos and human are born out of the same universal evolutionary matrix. There exists, according to Berry, a complete implication of the cosmos in the human and of the human in the cosmos to the extent that the religiosity of our species is an expression of the spirituality of the cosmos, of the Earth. "Within this context the human activates one of the deepest dimensions of the universe and is, thus, integral with the universe since the beginning" (Berry, 2006, p. 57). The confluence of Berry's anthropocosmic or "cosmic human" perspective (addressed below) with current advances in ecopsychology conform the basis for my initial proposal of an integral ecopsychology, a formulation that would further equip us to face the challenges and gifts of the ecological crisis.

Integral Ecopsychology and the Ecological Crisis

The ecological crisis, from an integral ecopsychological perspective, is primarily seen as a fundamental psychological misconception of the value and role of the Earth in the health and evolution of the human species. The industrial human relationship to the Earth appears to be characterized by a fundamental amnesia of the psyche's own source—*psyche* and *oikos* (dwelling place or habitat in Greek) are seemingly severed. The human mind has cut itself off from the surrounding landscapes and fellow planetary organisms by placing a psychological straitjacket upon itself. While in a state of forgetfulness, humanity is only able to perceive the movements of its own creation. The non-human world seems to lack psychic reality; it is devoid of soul (Hillman, 1982, 1992), making it untenable for humans to meaningfully relate to the Earth at a psychological level (Abram, 2000).

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[5] For a concise history of integral ecology, including Berry's contribution, see: Esbjorn-Hargens (2011).

The ecological crisis is a sign of psychological impairment in dire need of healing. The ecological crisis is the outward manifestation of a subtle, yet perhaps more alarming psychological predicament that has been variously referred as a “crisis of perception” (Capra, 1984, 1997), a “crisis of consciousness” (Bache, 2001; Gangadean, 2006; Russell, 2004), and a “crisis of meaning” (Brown, 2003; Wilber, 2000; Zimmerman, n.d.). The reduction of the human identity to its tangible and material aspects neglects the emotional, psychological, and spiritual spectrum vital for healthy development. This neglect of the true spectrum of our humanness is intimately intertwined with our conception of home, the Earth. In essence, the troubled relationship between industrial citizens and the Earth seems to reflect an epistemological fallacy derived from the human condition itself, alluded to by the Indian notion of *avidya* or “ignorance” and the conditioned world of its creation (*samsara*). It is at this deep, existential juncture of our relation to, and conception of, the Earth that ecopsychology is considerably nurtured by the wealth of wisdom that the world’s spiritual traditions have to offer regarding humanity’s potential.

The fundamental challenges posed by the ecological crisis instigate a reformulation of deep-seated values and beliefs commonly informed by spiritual and religious wisdom. Transpersonal psychology proposes that human psychology is better studied in a spiritual context (Daniels, 2005; Grof, 1985, 2000), thus complementing the exploration of a more integrally sustainable engagement with the Earth. The presence of spirit, as a more transcendent vector of the sacred along with the immanent manifestation of that continuum of sacrality, take part in reengaging the human body–mind with the Earth (Adams, 2010; Besthorn, Wulff, & St. George, 2009). It becomes possible to rescue and value the sacredness of Earth’s immanence without disregarding the transcendent qualities of the Absolute. The shift demanded by the ecological crisis is better understood and navigated through frameworks and models in direct contact with the spiritual core of consciousness.

Tucker and Grim (2001) and Tucker (2004) esteem that religions have entered an ecological phase, potentially providing societies with key insights to bring health, fulfillment, and a sense of the sacred to our embeddedness in the world. Researchers suggest that for religions to stay relevant they must address, in one way or another, the ecological crisis (Gottlieb, 2008; Taylor, 2009; Tucker, 2008). “Can religions re-evoke and encourage the deep sense of wonder that ignites human imagination in the face of nature’s beauty?” (Tucker, 2004, p. 8). Amongst the plethora of attitudes pertaining to the sacred, perhaps the greatest gift of the confluence of religion and ecology involves bringing the role and presence of the divine to the forefront of the nexus between humans and the Earth.

For Thomas Berry (1999), the recognition of the sacredness of Earth requires the construction of a *new story* from which to derive meaning and guidance to embark on the great work of healing and transformation of our species. This story is attuned to the evolutionary epic of the universe from the big originating burst 14 billion years ago to the accretion of the Earth to the emergence of computers and complex life forms. The cosmos as an evolutionary, interdependent continuum is the essential sacred story to root our efforts for shifting consciousness and dealing with the ecological crisis. Joanna Macy (2007; Macy & Brown, 1998) strategically differentiates three dimensions of what she calls the "Great Turning" (2007, p. 139) or the transition to a life-sustaining society. Whereas the first two dimensions have to do with slowing the destructive pace of societies and creating more viable structures, the third dimension is the shift in consciousness. Without tending the terrain of consciousness, the other two dimensions of the Great Turning would not endure.

On the other hand, since the Axial Age (Jaspers, 1951/2003), from about 800 BCE to 200 CE, certain elements of the world's religions have contributed to a systematic alienation from the Earth and the cosmos. This alienation is facilitated by an emphasis on transcendence and the prime relevance of sacred scriptures (Berry, 1988; White, 1967). With the advent of the Enlightenment period and the rise of industrial societies, the Earth became subject to control and manipulation given that the presence of God had been posited beyond the manifest world. Although with a wide range of nuance, rationalism, the idea of individual salvation, a God figure removed from creation, and a machine-like world, are some of the assumptions underlying the industrial worldview (McKibben, 2006; Merchant, 1980). However, religious traditions often elaborate on how humans, Earth, and the cosmos, are infused with the sacredness permeating all creation.

The Anthropocosmic Vision

By engaging in a comparative analysis of religions, Eliade (1958) noted a pervading "anthropocosmic experience" (p. 455) in which the human is seen as permeable to the living, sacred ordering of the world. This permeability between human and cosmos is taken to be the epitome of religious experience and provides a fresh existential dimension wherein the human presence is situated within the cosmic matrix (Eliade, 1991). A religious experience constitutes the realization of belonging to the cosmos often achieved by way of micro-macrocosmic correspondences or "anthropocosmic homologies" (Eliade, 1987, p. 169) that favor a deeper intimacy between humans, the cosmos, and the sacred.

The anthropocosmic vision is present in several religious and spiritual traditions. The Christian tradition has the idea that humans were created in the "image" and "likeness" of God (Gen 1:26) and in Kabbalah the concept of adam kadmon or "primal man" figures prominently as the divine human expressed by the ten *sefirot* of the Tree of Life (Jung, 1977). In the Western tradition, the anthropocosmic knowing of unity and sacred reciprocity between humans and the cosmos is evident in the theory of correspondences (Faivre, 1994). This theory, based on the set of homologies between humans and the cosmos, is said to be one of the keystones of Western alchemy and philosophy (Hanegraaff, 1997) and is perhaps best represented by the Hermetic maxim, "as above, so below." Paracelsus tells us: "Heaven is man, and man is heaven, and all men together are one heaven, and heaven is nothing but one man" (as cited in Jacobi, 1951, p. 113).

We find a long history of anthropocosmic awareness in the Eastern traditions as expressed in the Vedas, the yoga traditions, and Buddhism. The Rig Veda outlines the correspondence between the cosmic winds and the breath, the cosmic pillar (skambha) and the vertebral column, and the idea of the “center of the world” as a point in the heart or axis traversing the human energy centers (Eliade, 1958, p. 117). The Purusha sukta, the hymn of the Cosmic Being in the Rig Veda, lays out a story of creation in which the cosmic being (Purusha) is dismembered and certain parts of its body constitute the different corners of the world, planets, gods, humans, animals, society, and so on. The Atharva Veda (10.7) relates how the outgrowths of skambha, a representation of Purusha and Brahman as the axis mundi, disclose the harmony between the numerous worldly expressions and their inmost source (Bloomfield, 1973).

The Upanishadic doctrine of atman-Brahman advances that the omnipresent, imperishable creative principle of the Absolute (Brahman) is said to be manifest in human form as atman, equally found at a macrocosmic scale in the entire cosmos. Specific correlations are made between the anatomy of the cosmic person and the world are outlined in the *Aitareya* and *Brihadaranyaka Upanishads* while the *Mundaka Upanishad* (2.1.4) gives a detailed correlations between the bodily parts of the cosmic person and the world (Radhakrishnan, 1995, p. 680). The resultant anthropocosmic vision, in which humanity is transformed into “the public property of the cosmos” (Weiming, 1989, p. 102) is given clear expression in the Bhagavad Gita (6.29), where we read that “the man whose self is in Yoga, sees the self in all beings and all beings in the self, he is equal-visioned everywhere” (in Sri Aurobindo, 1995, p. 29). *Atman* or the cosmic person from whom both cosmos and human emerge out of acts as a kind of holographic matrix that enters into a developmental process through the dynamics of the world ever extending into *Brahman*.

The anthropocosmic impulse is found even in the commonly considered world-denying *raja* or “royal” path of yoga. Patanjali tells us that meditating (samyama) on specific bodily areas that correspond to the sun, the moon, and the stars, gives rise to cosmic wisdom and the orientation of the body within it (Yoga Sutras, 3.26–29).[6] Similarly, asana or a sacramental bodily posture, when executed correctly, is aimed at uniting (samapatti) with the infinite (ananta) (Yoga Sutras, 2.47). Furthermore, the Yoga Sutras (2.18) maintain that asana has the potential to take the practitioner beyond the grip of the opposites of self and cosmos. Patanjali states that yoga is a means of refinement that leads to a transparency of being where, due to a diminishment of the factors of suffering, the unity among grasper, grasping, and grasped becomes manifest (Yoga Sutras 1.41). In a state of conscious transparency, unity is revealed and the practitioner becomes like a “clear jewel” (Chapple, 2008, p. 33). Human and cosmos enter into a state of unity (samapatti) and ecstasy (samadhi) that enables the inherent luminosity of existence, the “clear jewel,” to shine forth.

In the Tantric tradition, the identification and deep resonance of the human and the cosmos is taken to a fuller expression. “What is here is elsewhere; what is not here is nowhere,” says the Vishvara Tantra (as cited in Lysebeth, 2002, p. 5), conveying at once the essence of Tantra and the holographic nature of the human and the cosmos intimated since the Vedic period. The human microcosm (body–mind) is transfigured into a temple, a sacred symbol homologized with the macrocosms. In the Kalachakratantra, the Buddha reveals the great secret: “As it is without, so it is in the body” (Wallace, 2001, p. 65); and the Adibhudatantra adds, “as it is in the body, so it is elsewhere” (p. 66). The human re-enactment of cosmic creation is the key that restores divine order (rita), yoking into conscious transparency the sacrality and mutual belonging of the micro and the macro, the human and the cosmos.

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[6] The translations of the *Yoga Sutras* used throughout the document are Aranya (1983) and Chapple (2008).

In the Avatamsaka or Flower Ornament Sutra it is said that Indra fashioned the cosmos by casting a jeweled net (Cook, 1977). The net stretched to infinity in all directions and a glistening jewel was found in each juncture of the net. An endless number of jewels adorn the infinite net. Any one jewel in the net reflects the luminosity of all the jewels and each of the jewels reflected within a particular jewel in turn reflects all other jewels resulting in a net of infinite reflection. The homologous relation between human and cosmos is present elsewhere in the Buddhist tradition. “Our body is the bodhi tree, and our mind a mirror bright,” Shen-hsiu tells us (as cited in Price & Mou-lam, 2005, p. 70). The human body is equated with the place in which the Buddha reached enlightenment, the bodhi tree, and the mind is said to reflect the luminous qualities of its true nature. The dharma (dharma), the body of teachings derived from Buddha *Sakyamuni’s* realization, aims to disclose the pristine essence of all that is. The Mahayana tradition sees dharma as the seed planted all throughout the cosmos, seed that is known as “Buddha nature.” The human body–mind and cosmos partake of the awakened, intermeshed nature.

Opening to the Healing Reciprocity of Humans and Earth

An anthropocosmic perspective provides an encompassing worldview that values the confluence of Earth, humans, and the sacred. In contrast with schools of ecological thought centered on human value (anthropocentrism), the whole of life (biocentrism) or life and its environment (ecocentrism), an anthropocosmic approach provides a conciliatory path between humans, life, and their ecosystems. The anthropocosmic perspective is based on the idea of a continuity of being (Weiming, 1985), a seamless continuum of interiority and sacrality between humans, heaven, and Earth. This continuum goes beyond any form of “centrism” that may give rise to fragmentary and ecologically detrimental worldviews and behaviors. As Mickey (2007) tells us, “Whether small or large, biotic or abiotic, human or nonhuman, home or beyond, everything and everyone can become an echo-box resonating with cosmic repercussions” (p. 244).

The ecologically oriented worldviews and attitudes facilitated by the anthropocosmic weaving of humans and the cosmos allow for the fullness of humanity to participate in the sacredness of Earth. This participation demands a reformulation of the understanding of religious experience itself. Anthropocosmic participation invariably manifests as a hierophany, a disclosure of the numinosity of both humans and the cosmos. The anthroposmic vision summons a fuller understanding of humanity by virtue of bringing forth commonly repressed aspects of our being that exist in resonance with the cosmos, ultimately conceived as chief source of the sacred. Buddhist monk Thich Nhat Hanh (1992) has coined the term “interbeing” to refer to the net-like Buddha nature at the heart of the cosmos. He tells us, “To be is to inter-be. We cannot just be by ourselves alone. We have to inter-be with every other thing” (p. 96).

The anthropocosmic view of Earth relies on a healthier mode of relation between humans and Earth that rests on the rediscovery of the transparency and intimacy of humans, the web of life, and the sacred. Similarly, orienting the body–mind toward the Earth in search of health is one of the main tenets of ecopsychology. There is a wellspring of healing inherent to the Earth ready to be absorbed by the body–mind when it moves in harmony with the source of its existence (Buzzel & Chalquist, 2009; Hartig, Evans, Jamner, Davis, & Garling, 2003; R. Kaplan & Kaplan, 1989; Logan & Selhub, 2012), for this expansion and subsequent integration signifies a reclaiming of the totality of the psyche and the reestablishment of the covenant between humans and world. The underlying reciprocity between self and Earth suggests that effective efforts to move in the direction of healing are those that imply wholeness (Jung, 1965). It may well be that the ecosystems of the Earth represent wild, untamed regions of the mind that guard the medicine necessary for the health and wholeness of human beings (Plotkin, 2003).

The wholeness implied in an anthropocosmic perspective invites the recognition of humans' multidimensional connection to the Earth. The healing task of ecopsychology would invite recognition of the permeable boundary between the web of life or the "Earth without" and the human mind or "Earth within," along with the sacred ground from which both grow their sustenance. At the subjective level, humans' relation to the Earth is enlivened by what Jung called the "primitive within" (Jung & Sabini, 2002, p. 18). This primordial aspect of the psyche is at home with the rhythms of the Earth. Notions such as the "ecological self," (Naess, 2008, p. 82) or the "transpersonal self" (Daniels, 2005, p. 159) give voice to humanity's widened identity, echoing the Purusha of the yoga tradition or the seed of Buddha nature at the heart of creation. At the objective level, the ecological kinship of the Earth is manifest via the cycles and exchanges of particles, elements, and nutrients of which our bodies and those of other species are constituted. Earth within and without are in intimate reciprocity. The acknowledgment and alignment of inner and outer, of humans, Earth and cosmos, allow for the recovery of health. That is to say, humans and Earth partake in the healing qualities inherent in their mutuality. Berry (2006) reminds us,

> the mountains and rivers and all living things, the sky and its sun and moon and clouds all constitute a healing, sustaining sacred presence for humans which they need as much for their psychic integrity as for their physical nourishment. (p. 136)

From an integral ecopsychological perspective, health for Earth and humans derives from psychological wholeness and the recovery of a pervading sense of the sacred. This integrative conception of health and healing goes well beyond the dominant mechanistic and individualistic understanding of the Earth and the human body–mind, yet it is implicit in the etymology of the word "health" itself. The word "healing" evolved from Indo-European roots variously meaning "wholeness," "whole," "sound," "holy," and "sacred" (Devereux, 1996). This encompassing approach to health is found in the ancient medical traditions of the world, including ayurveda, traditional Chinese medicine, native American traditional healing, and other medical systems, all of which take into consideration the physical and spiritual dimensions of health. The Parable of the Two Suitors (Tarnas, 2007) invites us to appreciate the need to conceive of a spiritually enlivened world, full of agency and meaning as opposed to a soulless, devalued one, for the former would more readily disclose its healing secrets. The healing of humans and Earth might just depend on how much we open ourselves to the multidimensionality of existence and make ourselves participants of such a numinous reality. This openness is readily accessible by the anthropocosmic vision outlined above.

The multileveled belonging and reciprocity between humans and Earth may run deeper than we commonly acknowledge. Instead of the mind being trapped in the skull and the body encased by the skin, the body-mind is better conceived as a reflection of a planetary and cosmic phenomenon that we partake in. If the matrix of the human presence rests in the dynamics of the Earth and the world at large, as suggested in the various ideas outlined above, the correspondence between our species and the Earth occurs at a deep, elemental level. How would our psychological theories and frameworks be like if we were to seriously consider our intimate belonging to the world? Where would we search for healing? The quest for a healthier and fuller relation to the Earth beyond the ecological crisis entails a radical shift of worldview; a sort of conversion in a spiritual sense where world and self are born anew and a transfiguration of seeing enables viewing the sacred in all. No less than a breakthrough of the profound kind is needed to face the ecological crisis, one supported by the dialogue between ecopsychology and spiritual and religious wisdom.

Toward an Integral Ecopsychology

From an integral perspective that aims to move beyond the materialistic and reductionist tendency of modernity, the task of healing the Earth–human relation could not be achieved, at least in an enduring way, without acknowledging the multidimensionality of both humans and the Earth. A concomitant shift takes place where ecopsychology as the study of humanity's psychological connection to the Earth shifts to the appraisal of not only the psychological sphere but of our multileveled connection to the Earth. Commonly used ecopsychological practices such as horticultural and animal-assisted therapy, green exercise (e.g., Japanese "forest baths"), ecological restoration activities, and so on, are joined by various contemplative practices that take into consideration the psycho-spiritual dimensions of humans and the world. Various spiritually engaged practices (Kelly, 2005; Nicol, 2010) Earth-based rituals (Gomes, 2009; Metzner, 2009; Watkins, 2009), and cultural therapeutic activities (Berry, 2009; Plotkin, 2007) become essential in order to regain ecopsychological health and sanity. An integral ecopsychology could thus be initially defined as the study of the multileveled connection between humans and the Earth. Although broad, this tentative definition allows for the inclusion of commonly neglected dimensions of human's relation to the Earth, including somatic, emotional, and spiritual aspects.

Given the relevance of the psycho-spiritual roots of the ecological crisis when in search of healing, an integral ecopsychology would necessarily invite a practice of constant self-study facilitated by spiritual and religious wisdom in the context of the Earth community. This practice would in turn release the necessary impetus to embark on a healing expedition for a renewed sense of intimacy and belonging to the Earth. Thus, we can elaborate on the tentative definition of an integral ecopsychology, entailing the study of the multileveled connection between humans and the Earth with the dual aim of restoring personal and collective health and contributing to the quest for wholeness and self-discovery. In the following, I would like to outline three key tenets that derive from the expanded definition of integral ecopsychology:

1. The bond between humans and Earth is multileveled and a complication at any of these levels can translate into disease. An encompassing effort to tend the Earth–human bond is most adequate to promote enduring health and ecologically viable behaviors.

2. Health and wholeness are two facets of the same process. To achieve health in an enduring and holistic way, it is necessary to uncover the deep dynamics of fragmentation and alienation that keep human beings from the awareness of the totality of our being.
3. Healing, wholeness, and the holy form a single continuum. The inclusion of spiritual and religious wisdom into psychological frameworks provides a fundamental vantage point to further concepts and strategies for the betterment of health and self-discovery.

These are some of the tenets deemed essential in the creation of a viable future for the Earth community and also serve as stepping stones for an integral ecopsychology. This paper outlines one expression of potentially myriad varieties of what an integral ecopsychology might look like. Perhaps the distinctive mark of an integral ecopsychology is that the human is to be permeable to the Earth not only for psychological healing but also for spiritual nourishment. Rescuing the multi-dimensionality of our humanness, the wholeness and true identity of human beings ultimately depends on an ability to behold the sacredness of the Earth. This ability of unveiling the numinous dimensions in which we participate with is at the heart of integral ecopsychology.

Much research remains to be done in order to envision and actualize a way in which "humans would be present to the planet in a mutually beneficial manner" (Berry, 1999, p. 3). This is particularly true when advancing an integral ecopsychology given the presence of numerous integral philosophies, socio-political contexts, cultural nuances, and religious and spiritual inclinations available nowadays. However, models, theories, and frameworks that invite a reevaluation of the deep seated cultural assumptions that facilitate the plundering of the Earth while pointing at the multileveled reciprocity between humans and the world, including the deepest spiritual dimensions, may be crucial for the future of our species and all the beings we share the planet with.

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Integral Ecofeminism: An Introduction

Chandra Alexandre[1]

Abstract: This article offers an introduction to integral ecofeminism as a spiritually-grounded philosophy and movement seeking to catalyze, transform and nurture the rising tension of the entire planet. It articulates integral ecofeminism as an un-pathologizing force toward healing, as the offering of a possibility for creating and sustaining the emergent growth of individuals, institutions and our world systems toward awareness. Doing so, it embraces sacred and secular, rational and emotional, vibrant and still, in its conception of reality; and with this, it is a way of looking at the world whole, seeking to acknowledge the wisdom of creation in its multiplicity, specificity, and completely profound manifestation.

Key Words: ecofeminism, non-duality, integral, consciousness, evolution, sustainability.

This introduction to integral ecofeminism is a meditation resting on the juicy, rich, layered, and deep context afforded by critical spirituality, embodied mysticism, spiritual politics and ecstatic devotion. It is a pathway motivated by a deep call to spirit and the various wisdom traditions of our world, indigenous and post-modern. It is also a prayer for helping us to understand that which we oftentimes cannot describe or explain adequately though the vehicle of language. It is a perspective dedicated to weaving together strands from opposing worldviews, all the while guided by a vision of global community as diverse, individual, intense and sublime as all of creation. It is a journey, a call to the realm of spirit or cosmic consciousness for initiation into the mysteries.

At its core, integral ecofeminism provides an orienting vision as well as some of the strategic tactics necessary for the creation of a sustainable, thriving way of life. It invites us into the challenge of implementing the particulars of our authentic selves in the fullness of our manifestation within the context of our daily lives. Why? Because doing so is movement toward realization that we are the essential elements required for achieving the benefits of integral ecofeminism—benefits resulting from the work of love in practice, or that which breeds optimism, peace, respect and equity.

But can we honor the invitation? Doing so attempts to give meaning to being alive. It propels us toward the schisms of the world so that healing might occur. In this way, integral ecofeminism asks us to experience more of the world by re-membering who we are in ways that are not limited by either external or internalized oppressions. To make this happen, we must question our belief in the nature of things. For if we can work from the premise that life is inherently intelligent, integral ecofeminism argues us into having faith in an evolutionary developmental process. In this, we may recognize the larger ocean that is the Divine, called by any name, as

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guiding our lives. This is the truth (holding both the illumination and the shadow) of our unfolding unique stories and our collective process as human beings on Earth. It is our increasingly unencumbered soul held within the mystery of our incarnation and our evolution. Integral ecofeminism as thus defined, catalyzes the process of conscious global transformation—and this is its essential motivation.

The Road Here and Beyond

Prior to our new science understandings, the Western position has generally been one of unquestioning domination. The fight of feminists has been with rectifying a man-woman dichotomy that values only one side of the equation. Environmentalists have most often struggled with a culture-nature dichotomy, where civilization has been deemed supreme and nature regarded as an expendable resource. For ecofeminists, the link between the struggles of women and those for nature has been made explicit. In fact, ecofeminists argue that the oppression of women is inextricably linked to the domination of nature: only through the realization that the two have been equated can we begin to re-value both spheres and remove the weight of imposed inferiority. Integral ecofeminism seeks therefore to empower those marginalized by patriarchal ideology, helping them to find voice and recognition within the local as well as global systems and institutions of the world.

Greta Gaard (1993) notes that the theoretical base of ecofeminism is generally expressed as a sense of self "interconnected with all life" (p. 1). This is a sentiment of relationship; of relationship to the whole of which we are each a part. And such a sense of relationship to the whole is exactly what is required in order to break dualistic mindsets and create a worldview that incorporates the worth and wisdom of the non-dominant (for example, the female and her body, the chthonic and the antinomian, the voiceless and the unheard) readily into its embrace toward fostering new consciousness.

At its outset, the project of integral ecofeminism is that of an embodied spiritual philosophy, one that understands the central role women’s bodies, the Earth body and Goddess must play in dismantling the patriarchal paradigm. And not just because these are previously undervalued tokens present in a new worldview. Rather, what is represented here is otherwise missing from the lifeblood expression today of human evolution in its fullest. We are therefore asked to take in the rainbow provided by the rich red of menstrual blood, the blackness of Kali’s skin, and the whiteness of silence in order to heal. As Ynestra King (1990) asserted, there can be no sustainable vision for the future until we realize that healing needs to occur. Embracing all that is, was and ever will be, integral ecofeminism then moves us to blossom love, realizing both the polarity of opposites and the sacred marriage that births us anew in the process.

Vandana Shiva (1989) proposed that we consider the example of Hinduism’s Prakriti as a guide in our healing struggles. Prakriti is living nature or the feminine principle, and Shiva holds that this concept is a pathway toward accomplishing a more balanced worldview while also promoting environmental sustainability and the well-being of diverse, autonomous communities. Prakriti also represents the sacredness of relationships, inviting us to become one with self-other and personal-planetary concerns. While women are the foremost carriers of Prakriti, in part because they have been—in the eyes of patriarchal society and its constructs—equivalent with exploitable nature, both women and men may engage Prakriti as a non-violent, non-gendered and inclusive alternative to instigations and affronts that sap women and nature of their vital energies for the production of unsustainable profits and greedy capital accumulation that serves the interests of merely a few.

When examined, Prakriti provides more than the dualistic counterpart to Purusha, the activating or male principle of Samkhaya Indian philosophy. Instead, it is the entirety of nature, replete with its ability to create, sustain and destroy in order to continue the cycle of life. It is the blood required at the birthing, the energy of growth toward ripeness, and the vulture feasting on our remains. Prakriti thus considered asserts, "both a *holistic* perspective and an *inclusive* agenda of concerns based on its considerable respect for diversity—both in turn being principles of nature..." (Kothari, quoted in Shiva, 1989, p. x). As such, Prakriti is a source of inspiration for integral ecofeminism as it emerges from the grassroots of the world's rebellions against hate and oppression. Within its embrace, those in need of self-respect and community, healing and rest may find their space and time.

The Four Tenets and Three Levels

Integral ecofeminism arises as a tripartite philosophical methodology for planetary growth reflected in many correspondences; for example, the elemental, the seasonal, the alchemical and the physical. Offering the argument that three things are needed for both wildly dramatic and sublime transformation to occur, integral ecofeminism first calls for an instigator of change. Next, it demands a consciousness that embraces death as a part of life. And finally, it asks for the will to collectively create a container for birthing. Through this scaffolding of mindsets, integral ecofeminism engages on three levels: individual, cultural-planetary and mythological-cosmic. Within these three, it articulates as foundational principles of:

(i) **Dynamism**, representing the fundamental, ever-changing, spiraling forces of the universe both within and beyond our awareness of space-time reality. Dynamism enables the visioning of our planet as Gaia (named for the primordial Greek Great Goddess) as she is situated within a universe known to provide ever-expanding potentials for a fulfilled, resplendent, and sustainable life. This principle gives worth to the tensions danced through cycles of life, death and rebirth—all the while holding deep respect and empathy for our pain—as they dissolve and are forever generated anew. It is necessarily iterative and reflective, living as the constant of change present in and through both challenges and joys.

Dynamism is our dance of complementarities on Earth. This means that the oppositional dualities of a mechanistic worldview, such as self-other, culture-nature, mind-body, and reason-emotion, are held in partnership within a container where transformation arises by virtue of inherent tension. In this way, something greater can emerge and a reflection of truth be revealed. In this moment of birthing or transcending, we are able to find our grounding, our identity and our awakening Self.

(ii) **Advaita**, denoting a radical non-duality that acknowledges the forces of nature and that which contains as well as transcends them. This principle expresses 'All in One and One in All', simultaneously. However, it is not a totalizing or annihilating tendency, but rather recognition of life's complexities and the offerings of wisdom they provide de facto. It represents a philosophical belief in the reality of the phenomenological world and the wisdom of the body coupled with an understanding of the pervasiveness of the Divine in life willing us, retro-progressively, into the future.

Experiencing through psyche and soma an awareness of spirit in all the realms above and below, this principle teaches that as we begin to come to our senses, we begin to see the beauty of creation as well as the meaning of the crossroads in our lives. In this way, we strengthen ourselves to create an ethic and morality of care that in turn provide the appropriate boundaries required to strengthen the human condition.

(iii) **Ecofeminism**, manifest as an environmental and feminist philosophy rooted in deep awareness and dedicated to eliminating biases such as those based upon race, gender, sexual orientation, age, species and other categorical distinctions. This is so because we exist in an androcentric and anthropocentric world, where value is placed on some but not on others. Emerging from the ground of various feminist theories, ecofeminism, as described by Carolyn Merchant (1990), Karen J. Warren (2000), Val Plumwood (1993), Carol Adams (1993), Maria Mies & Vandana Shiva (1993), et al., has benefitted from liberal, radical and socialist feminisms, while evolving an ecological ethic of care and empathy, as well as a spiritual fortitude born of a realization of deep interconnectedness. As Charlene Spretnak (1990) noted regarding some tactics of ecofeminism:

> Perhaps the most effective strategy for us—and certainly the most difficult—is to lead by example: to contribute to the new philosophical base and to work in its new ecopolitics and ecoeconomics; to organize around the concrete issues of suffering and exploitation; to speak out clearly but without malice against those who further policies of injustice and ecological ignorance; …to cultivate our spiritual impulses; to act, as best we can, with pure mind/pure heart; to celebrate with gratitude the wonders of life on Earth; and to seek intimate communion with the natural world. All of these are the flowering of ecofeminism. (p. 14)

The ecofeminist principle therefore breathes the essence of creation through a willingness to act. It underscores a world in which the inequities manifest in our constructed societies cannot be undone until the inextricable links between them are made conscious and their un-doing made a priority. It opens safe spaces for marginalized Others to raise up their voices and for those around to listen deeply, with intention, toward a better tomorrow.

(iv) **Awareness**, the pathway of psycho-spiritual growth that seeks a broken-open heart, one capable of being simultaneously with suffering and a love of the world. Mahatma Gandhi, the Great Soul of India, recognized, for example, that states of war and peace sustain a dualistic vision. He therefore advocated love born of *ahimsa*, or active non-violence, to enable being with suffering as we move toward peace. The principle of awareness demands that we live by allowing our strengths to emerge from our greatest vulnerabilities. This principle also takes us on the quest of the spiritual journeyer looking to awaken to Self. Here, awakening means awakening to the universe, as in the Hermetic dictum, "As Above, So Below." It also means holding open the possibility that Gaia has a soul, a guiding spirit, a unified field, and a purpose.

Holding open a belief in intelligent evolutionary change, Rupert Sheldrake (1991) reminds us that, "Gaia herself is purposeful and...her purposes are reflected in the evolutionary process" (p. 58).

Initiation and the Work Ahead

Instigating integral ecofeminism is the recognition that ours is a time of initiation. Whether through the difficulties of a present incarnation or the travails of our collective soul, the crises of our time demand we pay attention. Jean Houston (1996) suggests that:

> we are on the brink of opportunities for human and cultural development hitherto unknown...[toward a] planetary consciousness [that] involves a profound awareness of the earth, a potentiating recovery of one's historical as well as herstorical self, and a deep willingness to learn from the genius of other cultures...[which is] both the consummation of where we have been and the next stage of the upward spiral. (p. 225)

As Arthur M. Young (1976) theorized, "The universe is a process put in motion by purpose" (p. 255). And as Ken Wilber (1996) reminds us, "If we really are in the hands of the Great Spirit or the Great Mother, do we really think She doesn't know what She's doing?" (p. 49). Integral ecofeminism invites us to trust that our spiraling forth is taking us through the pain of current afflictions, wars, deprecations, and injustices into something more powerful and important than what we currently know or can even presently fathom.

It is often noted that the co-arising of many forces today are changing the course of global development. Certainly, there are technological innovations and the communications networks that facilitate the spread of information and increase human accountability. There are also findings in the realm of science that call into question the nature of the knowable world and our assumptions about it. And there is a radically non-dual spiritual awareness born at the intersection of religion, philosophy and science where the Divine is seen as transcendent and immanent, *and* as the unifying principle that embraces the entirety of creation. To this we might add grass-roots movements in the feminist, environmental and other arenas that promote putting theory into practice that we might actually change the course of our planet’s current trajectory, in order to arrive at an inflection point, our initiation.

Embracing our initiation, integral ecofeminism necessarily *is* and *does*, for it is through being and through action that our individual convictions are taken from an exercise in freedom of choice into a spiritual perspective that recognizes our common ground of being within the web of life’s turnings. Thus, integral ecofeminism calls us to a re-awakening of the world through a dirtying of the hands that we may know one another and our Earth as fully as possible. It embraces the work of all whose creativity and sense of wonder vitalize the planet, and it recognizes the suffering of those who have been marginalized and abused. It provides vehicles for the exploration (through dance, dialogue, debate and other pathways in support of both individual particulars and the underlying universals that weave the whole together) of new outcomes.

In many cultures, doing spirituality is commonplace. As Matthew Fox (1990) has noted, "Our thinking about spirituality cannot take place from armchairs or academic towers but must include the dirtying of the hands"(p. 16). Through the development of awareness provided by education and self-reflection, as well as growth through personal and collective action, integral ecofeminism becomes a gateway to the mysteries that we all seek to understand, whether from the fields of California’s central valley, the ivory towers of Cambridge, the garbage heaps of Mumbai’s outskirts, the desert oases of sub-Saharan Africa, or the industrial centers of China. This is a new kind of religion: a coming together with shared purpose grounded in the real work of embodied life and living, unafraid of looking at the dirt we have underneath our fingernails.

As we conclude our meditation, I invoke the metaphor of life as an ocean of ever-shifting dynamic forces, much like the waves upon the sea that are ever rooted in the vastness of the water. As Charlene Spretnak (1986) notes, "all forms of existence are comprised of one continuous dance of matter/energy arising and falling away, arising and falling away" (p. 41). In this, we find integral ecofeminism where the Being of Heidegger becomes the Quantum of the physicists, becomes the Brahman of Hindus, and the cosmic, All-devouring creatrix spirals in a rapturous dance with the ever-expanding, ever-transcending One to keep the universe diverse and alive.

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Loving Water: In Service of a New Water Ethic

Elizabeth McAnally[1]

Abstract: In this paper, I argue that a new water ethic is needed in light of the global water crisis, an ethic that responds to contemporary water issues as it draws from the values embedded within the rich religious and spiritual traditions of the world. This paper explores how a new water ethic could gain much from the Hindu concept *seva* (loving service) that arises from the traditions of *bhakti yoga* (loving devotion) and *karma yoga* (altruistic service). Drawing from David Haberman's work with the Yamuna River of Northern India, I investigate how the concept of *seva* has been recently used in the context of environmental activism that promotes restoration efforts of the Yamuna River, a river worshiped by many as a goddess of love.

Keywords: bhakti yoga, karma yoga, love, service, seva, water ethic, water crisis, Yamuna River.

"There is only one question: / how to love this world." (Oliver, 1990, p. 6)

These words by Mary Oliver in her poem "Spring" beautifully and succinctly sum up our current task as humans. At a time of impending ecological crisis, it is crucial that we humans learn how to love and care for our planetary home again. Living together with a vast diversity of life forms, we co-inhabit a "blue planet," for Earth, like the human body, is composed of 70 percent water. In the spirit of Oliver's "Spring," I would like to rephrase the "one question" to ask *how to love this watery world*. Let me rephrase it in a slightly different way and ask *how to love the waters of the world*. I find these questions to be extremely relevant in light of the global water crisis of the 21st century, which includes multiple crises pertaining to issues of pollution, scarcity, over-pumping, damming and diverting, desertification, inequitable distribution, and the uncertain effects of global climate change on the hydrological cycle. Asking how to love the waters of the world, how to love our watery home, is of utmost importance at this critical time.

Given the urgency of the looming global water crisis, it is imperative that we reinvent our relationship to water and cultivate a new water ethic. One such ethic could be enacted by responding to contemporary water issues while drawing from the values embedded within the rich religious and spiritual traditions of the world. In this paper, I explore how a new water ethic could gain much from the concept of *seva* (loving service), a concept that arises from the Hindu traditions of *bhakti yoga* (loving devotion) and *karma yoga* (altruistic service). Drawing on David Haberman's research that he published in his book *River of Love in an Age of Pollution:*

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The Yamuna River of Northern India (Haberman, 2006*)*, I illustrate how the concept of *seva* has informed environmental activism. Seva has been a concept traditionally understood as loving service in the form of devotional worship of the river (often accompanied by flowers, candles, incense, food, hymns, and more). In the past couple of decades, the meaning of *seva* has slowly expanded to include not only devotional worship but also environmental activism that is working toward restoration efforts of the Yamuna River.

I visited India for the first time during the winter of 2010-2011, and I had the good fortune of seeing the Yamuna with my own eyes. I was invited to go to India to participate in an interdisciplinary conference about the Yamuna River organized by the Forum on Religion and Ecology at Yale University and co-sponsored by Yale University and TERI University in Delhi.[2] I would like to share some of the things I learned about the Yamuna that were motivated by my travels in India.

The Yamuna flows from the Himalayan glacier Yamunotri down into the plains of Northern India, where it merges with the Ganges River at Allahabad, and the combined rivers flow to the Bay of Bengal and merge with the Indian Ocean. The Yamuna is the main tributary of the Ganges, and in many ways, the Yamuna and the Ganges are very similar. For instance, these two rivers are considered to be two of the holiest rivers of India.

Many Hindus who live near the Yamuna and rely on it for their daily needs also worship this river as a goddess of love, a divine mother who lovingly nurtures her children with her waters. These waters of the loving mother goddess flow through holy pilgrimage sites, such as Yamunotri, Braj, Vrindaban, and Allahabad, where many gather to worship this sacred river. Yamuna is known as the daughter of Surya, the sun god, and the sister of Yama, the god of death. The goddess's love affair with Krishna is said to manifest continually in the liquid love that is the river. The poet-saint Govindaswami of the 16th century offers this poem about Yamuna's love with Krishna, Lord Govinda:

> Being united with Dark Krishna, Shri Yamuna herself is dark.
> Her flow of drops of love sweat rushes toward her beloved ocean.
> She is like a young lover who is so restless that she cannot remain in her own home.
> Look at her beautiful form; she surpasses millions of cupids.
> She makes love with Krishna, the young holder of Mount Giriraj.
> Lord Govinda becomes exceedingly happy while looking at her.
> She comes to him like a new bride.
> (Govindaswami, as quoted in Haberman, 2006, pp. 203-204)

The Yamuna is not only similar to the Ganges insofar as both are holy rivers, but also because these holiest of rivers are extremely polluted—indeed, two of the most polluted in India. While the Yamuna River is revered by many Hindus as a mother goddess of love, this river is severely polluted as it flows through the intensely populated city of Delhi. The river is transformed into a sewage drain as large amounts of untreated municipal and industrial effluent are released into the water, making the river unsafe to bathe in and the waters dangerous to drink. Large quantities of the river are extracted for agricultural, industrial, and domestic purposes, such that the rate of flow of the river is drastically slowed during the trek to join the Ganges. In some pilgrimage sites like Vrindaban, the river is flowing so slowly and with such a large amount of pollution that the waters have become stagnant and toxic. When I saw the river while I was in Vrindaban, the water level was incredibly low (compared to the water level lines marked on the *ghats*, the steps leading down to the river), and the banks of the river were full of trash.

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[2] For more about this conference, visit: http://fore.research.yale.edu/Yamuna-River-Conference

In his research, David Haberman has encountered three types of responses from Yamuna devotees in Braj regarding the modern pollution of the river. He recounts the following:

> Some denied that the pollution has any real effect on the river goddess or on living beings dependent on her; some acknowledged that the pollution harms living beings who come in contact with the water but does not affect the river goddess herself; and some contended that the pollution is having a harmful effect on beings who come in contact with the water as well as on the river goddess herself. (Haberman, 2006, p. 133)

Haberman (2006) goes on to link these distinct views concerning pollution to particular ways that the Mother theology surrounding the river is understood and applied by the three groups. He says:

> For the first, Yamuna is an all-powerful Mother who is not affected by the pollution and who takes care of her children no matter how naughty they are. The second group agrees that she is an all-powerful Mother unaffected by pollution, but posits limits to her forgiveness, suggesting that she will not protect those polluting her, and that she may even punish them with the horrible diseases caused by the human-generated pollutants themselves. The third group views Yamuna as an ailing Mother who is herself affected by the pollution and who is in need of the loving care of her devotees. (p. 138)

As Haberman notes, those who believe that the goddess Yamuna is affected by physical pollution are much more likely to engage in acts to protect the river than those who do not see the goddess closely connected to the physical river. This third group of Yamuna devotees has helped to broaden the meaning of seva (loving service) from its traditional religious context of devotional worship to include activities that could be classified as environmental activism. Devotional service to the mother goddess of love has inspired the creation of educational programs to raise environmental awareness and clean up the river, along with public interest litigation that has been effective in building sewage treatment plants, determining minimum flows for the health of the river, and holding polluting industries accountable. Here, ecological restoration efforts are encouraged as a way of enacting Yamuna seva, loving service to the goddess.

Environmental activism performed in the spirit of Yamuna seva is an example of applied, community-based service learning. This service learning seeks to develop greater water consciousness by integrating education about water issues into pedagogy at the same time that it is actively cultivating a water ethic based on love and service. I tell this story of Yamuna *seva* in hopes that those of us who are not Hindus living along the banks of this river might be inspired to love and care for the waters with which we interact. Learning how to be of service to water is an act of love that can rebuild our relationship to our watery home.

I would like to suggest that we consider creating a new water ethic based on love, service, and loving service. This topic inspires me, because I feel strongly that love is a quite powerful motivating force for change, perhaps even *the most* powerful motivating force for change. I feel that love can be the ground, the center, the focus, the drive for environmental consciousness, environmental ethics, and environmental activism. For when we love something or someone, we care for them; we actively work toward their wellbeing, happiness, health, and flourishing. Love, compassion, care, and concern can transform our lives and our relationships with others and the world in which we live. As Rumi so eloquently says, "Let the beauty we love be what we do./ There are hundreds of ways to kneel and kiss the ground" (Rumi, 1997, p. 36).

So how can we love water? What would it look like to kneel and kiss water? There are hundreds of ways! In my humble opinion, learning how to love water entails respecting water as a sacred source of life, not merely as a resource for humans to use. This involves making sure that water is kept clean and healthy so that it can support the numerous life forms within the diverse watersheds around the world. Learning how to love water also involves recognizing that humans and other forms of life are water bodies (we are bodies full of water), and making sure that everyone has his or her fair share of water to survive before allowing some to have more than enough. Yet another aspect of learning how to love water implies learning to regard water as an agent, an actor, an active member of the Earth community, which means that water's voice would be heard and represented when determining policy. Learning how to love water also entails cultivating a deep reverence for water, so that we hold water to be a sacred, precious gift, a holy other mystery. By learning to love water, we can develop a mutually enhancing relationship with our watery world. Loving water will motivate us to serve water and will ensure that we will continue to be served by water for generations to come.

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An Integral Perspective on Current Economic Challenges: Making Sense of Market Crashes

Pravir Malik[1]

Abstract: Market crises are interpreted in much the same way. Hence action is also always of a similar type, regardless of the market crisis that may have occurred. It is a similar set of tools that are applied to all crises, and usually this has to do with managing the money supply, interest rates, and slapping on austerity measures. But this is a myopic view. Crises are never the same. Presented here is a holistic model that draws inspiration form the journey a seed makes in becoming a flower in more fully understanding the nature of the crisis we may be facing. Action will be different depending on what phase in the journey the economy is assessed at being. In this paper we look at market crises scanning four decades, from the Bear Market of the early 1970s to recent European Union Sovereign Debt Crises.

Keywords: integral economics, market crises.

Established wisdom suggests that one crisis is the same as the next. Hence each of the following crises tends to be addressed in similar ways: the 1973-1974 Bear Market; the 1987 Synchronized Global Crash; the 1990s Japanese Asset Bubble and the South East Asian Crises, the 2000 Dot-Com Crisis, the 2004 Housing Crisis, the 2010 Greek Debt Crisis. However, I propose a contextual framework against which each of these crises has to be assessed. This framework is based on a universal pattern of sustainable progress that is very commonly visible in a range of progressive organizations (Malik, 2009).

This pattern is a re-orientation from a physical, to a vital, to a mental standpoint. Here, the physical refers to a perception in which reality is determined by what the eye can see. In this orientation the status quo prevails, and it is the past that tends to determine the future. Vital refers to a perception in which it is the play of energy that determines reality, and it is usually the strongest as opposed to the most rational energy that wins. Mental refers to a perception in which thought and idea determine reality. This pattern is simply and powerfully represented by the growth a seed makes in becoming a flower. The seed is characteristic of the physical stage in which the status quo can persist forever. It is only through the action of an external agent and the

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subsequent germination that the growth enters the stalk stage. This is characteristic of the vital in that there is a lot of activity, even aggressive at times. The growth may culminate in the flower or mental stage, in which the idea present in the seed comes to fruition.

I start with the 1973-74 economic crisis because that was a result of a major shift in global economic reality when the Gold Standard was abandoned. For a good three decades the global economy had functioned in a relatively predictable and stable way, always maintaining the status quo because all currencies were pegged to the US Dollar. This state of affairs was more like the inert seed of a plant, the physical state where the world is what the eye can see. Little inflation existed, the money supply was fixed, and what happened was the result of stable recycling of possibilities. This state is depicted as the starting point in the seed-to-flower depiction on the vertical axis of Figure 1.

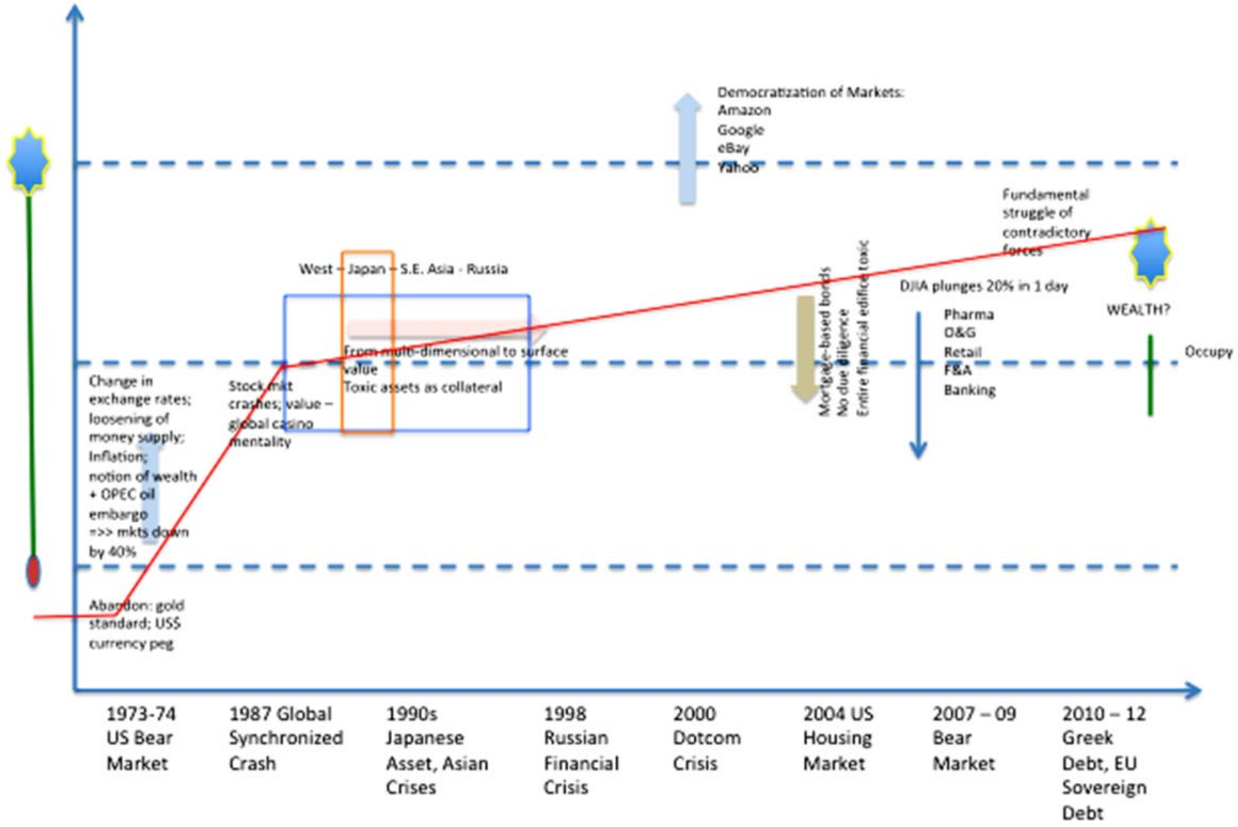
Democratization of Markets:
Amazon
Google
eBay
Yahoo
Fundamental struggle of contradictory forces
West – Japan – S.E. Asia - Russia
Mortgage-based bonds
No due diligence
Entire financial edifice toxic
DJIA plunges 20% in 1 day
WEALTH?
Pharma
O&G
Retail
F&A
Banking
From multi-dimensional to surface value
Toxic assets as collateral
Occupy
Change in exchange rates; loosening of money supply; Inflation; notion of wealth + OPEC oil embargo =>> mkts down by 40%
Stock mkt crashes; value – global casino mentality
Abandon: gold standard; US$ currency peg
1973-74 US Bear Market
1987 Global Synchronized Crash
1990s Japanese Asset, Asian Crises
1998 Russian Financial Crisis
2000 Dotcom Crisis
2004 US Housing Market
2007 – 09 Bear Market
2010 – 12 Greek Debt, EU Sovereign Debt

Figure 1: Evolution of Markets and the Seed-Flower Metaphor

However, when the Gold Standard—a monetary system in which the standard economic unit of account is based on a fixed quantity of gold—was abandoned, currencies began to float, and there was a lot more volatility that was introduced into the global situation. What had been known and what we had relied on for decades was abandoned, and no nation could anymore be assured of the wealth in its possession. Hence another standard was sought and the transition from the seed to the stalk stage, or the physical to the vital stage was securely put into place. The physical refers to a situation marked by maintaining the status quo. Activity in this situation is always controlled and predictable. The vital, on the other hand, refers to a situation when boundaries have been removed. Suddenly what had been constrained is allowed to move freely and this can result in a much more dynamic and even chaotic reality. Hence, economic activity pegged to a fixed amount of gold can be thought of as a physical reality. Economic activity unpegged to gold, naturally becomes much more dynamic and can be thought of as a vital reality.

The oil embargo of 1973 precipitated the emergence of the Oil Standard, giving OPEC far more power on the global economic stage. Prices all over the world began to escalate and dynamics of inflation reentered the global economic situation with force. This resulted in the 1973-74 bear market in the United States and elsewhere and accelerated the destructive vital or stalk dynamics that has had relatively free reign over the last four decades.

By 1987 there was the first global economic synchronized crash. All major stock markets around the world lost significant value at the same time. From a rational perspective this makes no sense. Different regions around the world and different markets should be subject to different market conditions and a more local cyclicality in investment rhythm. For markets and regions around the world to divert from this, it implies that dynamics have become irrational. Such irrationality is a sure sign that the vital level has become far more active since it is now aggressive self-seeking that drives things. Subsequent crises of the 1990s, such as the Japanese Asset Crises, the Asian Crises, and the Russian financial crises quickly came into being as money unleashed from rationality and reason sought a home where it could make quick returns regardless of larger issues of sustainability.

Rationality, reason, purpose, and sustainability are the dynamics that are more prevalent when the flower or the metaphoric mental stage is reached. Reinforcement of such dynamics must be the aim of any policy-maker and regulator. The good news is that impelled by the flower in circumstance, the first decade of the 2000s has seen this urge coming more to the forefront. Hence in 2000 the dot-com crisis was of a very different nature. This signified the possibility of the mental or flower stage where a whole new infrastructure allowing power to shift from monopoly to democracy more practically came into being.

The US Housing Crises that began around the year 2004, powerfully brought to the surface some of the perversities in a finance led solely by the vital-level. This is the shadow that emerges to remind us of where to never go again. The 2007–2009 Bear Market was more of a tug-of-war between the past and the future, with the past, represented by the dynamics inherent in industries such as pharmaceutics, oil & gas, retail, food & agriculture vying for further attention and investment to continue their self-serving patterns of the past, against the new dynamics represented by the Internet that we all know has begun to arise at the same time.

The Greek Debt Crisis and the European Union Sovereign Debt Crises and the Occupy movement bring into relief the whole question of wealth. What is it? Is it the one-dimensional metric that has driven the vital development of the last four decades to its current state of obvious instability, or is it something else that is multi-dimensional and factors in culture, spirit, human possibility, as symbolized by the flower?

When viewed in this manner, we can see more clearly what must be done to usher in a period of global financial and business sustainability.

Let us look at some of the particular movements in more details.

The Bear Market of 1973-1974

The Bear Market of 1973–1974 affected all the major stock markets in the world. Major stock markets lost as much as 40% of their value (1973-74 Stock Market Crash, n.d.). This period is especially important because of the many fundamentals shifting at the same time. The Gold Standard and the global currency peg to the US dollar were removed. Global order was therefore undone overnight. Consequently, not having to follow strict rules to keep currency values within bands, exchange rates began to float, with all their attendant changes in loss and gain of value at country and corporate levels.

Further, there was a loosening of the money supply that essentially ushered in a shift from the physical to the vital phase as per Graph 1 above. As though this was not enough, OPEC announced an oil embargo that, in effect, led to the Gold Standard being replaced by an Oil Standard. In the uncertainty and the immediate shifts that followed there was a slow-down in global stock activity. That this should happen is not unexpected. In contrast the recent global financial crisis that began in 2008 is almost the result of these shifts that happened in the early 1970s.

There has been a further loosening of the money supply and many shifts whereby the market has taken over the functions that should be performed by banks. The 1973–74 market is important to consider because, in effect, if some of the changes made then are not reversed then the current phase where we appear to be climbing back up in terms of stock market activity will be highly illusory, and will result in a scenario characterized by multiple-dips of increasing complexity.

The impulse after a slow-down in activity is to increase activity almost exponentially. If the fundamentals are not shifted though, if money supply is not bought back under a rational control, the effects will be devastating on many fronts. All bear markets are not the same. In their book *Crises Economics*", Roubini and Mihm (2010) argue that all financial crises have the same fundamentals underlying them. In fact, I will argue differently that crises are fundamentally different, and in fact need to be handled differently. The evolution of markets as per the flower model summarized in Graph 1 summarizes this. The essential variability must be perceived against the backdrop of where in the physical-vital-mental progression or landscape the crash or the bear market is occurring and how in fact it is contributing to that universal pattern.

In effect, the money supply needs to be brought back under control. There are many ways to do this. Further, the oil standard needs to give way to a more long-lasting standard that is a source of wealth for global citizens, as opposed to the global elite.

The Crash of October 1987

The Crash of October 1987, when stock markets around the world crashed shedding a huge value in a short time, is also an important phenomenon in this view. The year 1987 is about the time when stock market activity began to enter an accelerated phase. This crash stands out because it is the first time that a synchronized crash affecting global markets occurred. A synchronized crash implies that a true or deeper value has now been replaced by another notion of value. It is a sure sign that the stock markets were now deeply in the vital phase. It also marked the day of greatest stock market decline, and therefore of irrational loss of value.

The Japanese Asset Bubble

Following World War II the Japanese Government implemented policies that encouraged people to save their income. Having exited from the devastation of the war, there were a different set of energies active and Japanese companies and people worked in unison to recreate the country. Because of this solid, grounded approach, capital was more readily available, and having just exited from the pain there was a hunger to build value. This continued for a few decades and by many estimates Japan became a wealthy country.

However, the global shifts that had begun in 1971 under President Nixon's reign in USA had their effect on all countries, including Japan. Caught up in the fever of speculation the Tokyo stock exchange and real estate markets became hot-beds of investment. Banks became increasingly lax and granted riskier loans. The notion of value shifted from true-creation to one of vital-creation. That is, the notion of true value and worth were lost, and this inevitably caused a massive asset bubble, that fed further speculation and became the source for laxer credit release. Bubbled assets at the heart of the boom became surrogates for cash, and the notion of real value was further bastardized. Of course this was bound to burst. A couple of points: first, all that money should have continued to be invested in things that really matter. Just as reconstruction of the country really mattered for the Japanese following the war, there are a number of things that really matter now. The balance of the world's development depends on this. To maintain the value of money it needs to be invested in such things that matter.

Instead, because Japan in general has a lot going for it in terms of companies whose products are valued globally, it has become a sustainable source for carry trade. In essence the carry trade allows citizens of a country to incrementally sell off their country through devaluing their own currency and asset base. Japanese Yen are exchanged for bets on other currencies. Because of the short-term higher return due to other countries bonds paying higher interest, the longer-term repercussions are thrown aside. Instead of continuing to invest in what really matters in the country, the money is funneled elsewhere for purely vital reasons.

The carry trade itself funds other irrational bubbles the world over. Further, when relied on, it can cause havoc overnight if relative exchange rates change. This was the situation in Iceland where residents had borrowed money in Euro denominated loans. When the Euro rose Icelanders were unable to repay loans. This caused the Icelandic financial crises of 2008–2009. Further, the reverse appreciation can take place, and this can cause a major financial crisis if other loans are denominated in the appreciating currency. Arbitrage is of course a fact of financial activity. Still, there has to be regulation so that countries do not go bankrupt from relying on arbitrage as a source of value. Real value must be the result of real activity.

The Asian Financial Crises

The Asian Financial Crises were by many estimates caused because of the massive inflows of speculative money that needed a new home for quick returns. In part this was due to the higher interest rates offered by countries such as Thailand, Malaysia, and Indonesia that were at the epicenter of the crisis. Further, given that the Japanese Asset Bubble had just burst, there was a huge amount of money that had previously been invested there that needed a new home. All this money rushed about, driven by the lure of vital-value, of making that quick buck, regardless of true creation or destruction of value.

Naturally with large inflows of capital, asset prices began to rise. Corporations and individuals alike experienced a rise in their vital-level wealth—whether wealth was really increasing can only be judged by anchoring on the mental-level, where it is truer development that is the focus. This perception that all were richer because some asset—whether real estate or stocks—at the center of the bubble continued to rise in escalated vital-level value, caused heightened irrationality and risk-taking on the part of all constituents, including banks that began issuing loans based on the perceived vital-level wealth. When it was realized, however, that underlying development had not really taken place and that many individuals and corporations were naturally beginning to default on loan payments, then there was a massive retraction of capital, and the Asian Financial Crisis came into being.

Foreign investors flooded the exchange market with respective country currency and as a result the value of these currencies began to depreciate. This put even more burden on international loan payments and heightened the default rates on loans thereby causing more bankruptcies and even more pulling out of investments. To try and prop up the currency rate respective governments increased interest rates, which made further loan origination in the country even more difficult. Thus there was a senseless and destructive cycle put into place that naturally exceeded the boundaries of the vital-level notion of wealth to destroy truer mental-level wealth in the bargain.

What this teaches us is that it is necessary to maintain focus on true underlying development. To use mass-scale vital-level euphoria manifesting in a vastly increased demand relative to supply is in fact a highly misleading measure of value. We need metrics that peel these illusionary layers away to focus on what actually is being done with the money, how it is actually being used, and further how that development is in fact development of a true, sustainable, mental-level order. Anything else is going to cause massive turmoil and destroy the hard work and livelihoods of many innocent people.

The 1998 Russian Financial Crisis

The 1998 Russian Financial Crisis was triggered by the Asian Financial Crisis. Russia was a net exporter to Asia providing many commodities required to fuel the Asian Bubble. Such commodities included petroleum, natural gas, timber, and metals. With a sudden drop in revenues generated from these exports the government was not able to fund its debt payments thereby heralding the start of the crisis.

The Russian government was unable to institute market reforms to alter its balance of payments and investor confidence was further eroded with a run on Russian assets and a pulling out of foreign investments. Russia had to inject billions of US dollars to buy Ruble and artificially hold it up. Subsequently its stock, bond, and currency markets collapsed and the only thing that reversed this situation was the sudden increase in global demand for petroleum. This caused a massive trade surplus in 1999–2000, which ended the crisis.

The Russian Financial Crisis sheds insight into what is deemed to be a financial crisis. It is essentially about being able to meet international debt payments. This however, is a narrow view of crisis, and again, is rooted in dynamics representative of the vital-level. The fact is that the economy was already in a reality of deep crisis. The price of fundamentals such as food rose as much as 100%, basic wages of workers could not be paid, and several major banks were closed down. The primary constituent of wealth was commodity-based: the country obviously had not done much to push levels of creativity and build on inherent value in its land. Its basis of wealth was therefore at the physical level—commodities that could be touched and seen.

The suggested flower model demands that development continue to proceed along the physical-vital-mental trajectory. If there is stagnation then crisis must occur to allow the journey to continue. In that, all and any kind of crisis is useful, whether it is defined at the physical, vital, or mental level. But were the perception or interpretation of crisis to change to the mental-level, then the reality that the crisis has existed for a while would more effectively come into relief and would not result in irrational short-term fluctuations that in the final analysis do more damage than good.

At the physical-level crisis does not really exist so long as commodities exist. Perception of this nature will in fact cause major long term crises in that the bases of sustainability will most likely be compromised in the one-pointed pursuit of extraction of commodities, regardless of impact on environment. At the vital-level crises exist only when there is default on payments. The wrong levers of wealth are therefore being focused on. It is only when the focus is on the reason and more holistic development that truer wealth can manifest and that the compromising of this wealth can more effectively be managed. Risk can be called out in advance and subsequently the right developments and investments made. But this can only be if the mental-level metrics replaces physical-level metrics such as estimated availability of raw materials, and vital-level metrics such as real estate and stock prices. Mental level metrics, such as true development, true citizen happiness, true state of the environment from a sustainability perspective, true level of creativity, have to become the focus of attention and the levers by which decision to invest or not are made.

The claim that the Russian crisis was short in length is in fact a paradox. The longer-term effect on global sustainability of high-levels of perhaps even irrational extraction, driven by vital-level dynamics, will be disastrous. Wealth of the world will be reduced as a result of trying to maintain the semblance of vital-level health and wealth. The fact that Russia was not at the time heavily integrated with the global financial environment, in contrast to the South East Asian economies for instance, created the perception that its crisis was of a shorter duration. At the vital-level this is no doubt true, and its very physical-level focus buffered it from having to go through the fate of some South East Asian countries. But these narrow perceptions representative of the physical and vital level are misleading and can easily cover up the seriousness of a situation gelling in the background. On the positive side its crisis is no doubt pushing it to move more to the vital level where more energy comes alive on a larger scale. Indigenous industry and creativity gets a kick-start. The dangers of this phase are of course huge. Hopefully Russia can learn from the lessons of the rest of the world though, to temper the negative effects of the vital phase through more mature regulation.

Dot-Com Crisis of 2000 and US Housing Crisis of 2004

The massive inflow of money leading up to the 2000 Dot-Com Crisis was in fact highly beneficial in this environment, because the Dot-Com phenomena was fundamentally about moving away from many of the irrationalities of vital-level monopoly toward the possibilities of a more diverse individual-level creativity. Plays such as Amazon, eBay, Yahoo, Google, and more recently Facebook and Twitter upset the balance of vital-level dynamics to bring another set of possibilities to bear. Of course there was a lot of wasted money and vital-level euphoria that caused a boom and a bust. But the net-net has been huge. Innovation of this kind, that is grounded in how activity, work, process of socialization are fundamentally altered, and in real greater freedom for the individual and different scales of collectivity, is of a real kind. People, communities, posterity benefits as a result of such risk and such flows of wealth. This must be contrasted to what has been termed as innovation in the financial field though. Innovation in the financial field is often not based on real tangible development.

The recent US-based housing crisis is a perfect example. Sub-prime type mortgages were securitized. Traditionally mortgages were one-to-one transactions; i.e., a bank gave a loan to an individual to buy a house after significant due diligence, and the buyer of the loan then made principal and interest payments to the bank until the loan had been paid off. The bank owned the reward and the risk. With mortgage-backed securities however, an Investment Bank created a Special Purpose Vehicle to pool mortgages together that it then sold to generate additional revenues. Thus, the originating lender of debt was first rewarded for issuing the mortgage. There was no risk they took on and therefore the level of due diligence and risk monitoring was completely removed. That mortgage was then pooled with many other such mortgages and marketed as a robust investment opportunity.

After all according to portfolio theory, which anyway is more applicable at the mental as opposed to the vital level and therefore quite inapplicable in current times, pooling assets will minimize overall risk and therefore in theory there is no more need to conduct due diligence – just keep adding in assets of different types, even if they are different types of mortgages, and all will be well. Securities were created and these securities were sold to investors around the world. Obviously the value of money gets inflated as a result. The buyers of the securities now in effect get paid a monthly payment by the would-be homeowner. The buyers of the securities can further sell financially-manufactured products based on that same tangible asset, and the value of money is further inflated. At the end of the day, if creation of money is not backed by an equal creation of tangible value then the world suffers in the bargain. But all recent financial innovation has been of this kind. A whole breed of mushroom-type activity is set up (Malik, 2011), and all the while everyone thinks everyone is getting richer. Financial returns of these mushroom companies increases. This draws more funds, and more of the same irrational type cycles are initiated. A mega-bubble is created that ties everyone to illusory assets—when this one bursts, then real trouble results.

The 2008 global financial crisis was the result of over-dependence on toxic assets of this nature. They were toxic because they were not based on any real tangible value. There is one level of toxicity when adequate due diligence has not been performed—this of course was the case. There is another level of toxicity when the very same tangible product, the house, is used to inflate the flow of money in the economy. Creation of securitized mortgage and other products assured that. There is a third level of toxicity when highly leveraged funds such as hedge funds now focus their resources on the securitized products thereby in effect severing all links with reality. For now the game is focused on the illusory bubble and the asset at the center of this, the toxic securitized products, becomes collateral and a starting point for a whole array of additional financial innovations. The fourth level of toxicity is that such assets are viewed as assets rather than liabilities, in the first place. This points to the toxicity of the financial system itself which allows such meaningless valuations to drive, what is at the end of the day, highly destructive activity negatively affecting the lives of millions of people.

Clearly, when these two bubbles are contrasted—the Dot-Com bubble and the bubbles that followed it—discrimination as to where to invest has to come to bear. If all we focus on is the claims of organizations that they are generating huge profit, because they happen to be at the center of a financial innovation type bubble, at the end of the day that is like spreading a cancer through society because destructive wealth-diminishing type activity has overtaken productive activity. Claims by companies, and fluctuations of stock prices can hardly be taken at face value. A deeper penetration, a deeper, more meaningful array of metrics that indicate the truer ground-level value needs to be front and center, and become the arbiter of whether or not to invest in a particular stock. This will require corporations to become truly more accountable to society.

The U.S. Bear Market of 2007-2009

The U.S. bear market of 2007–2009 was declared in June 2008 when the Dow Jones Industrial Average had fallen 20% from its October 11, 2007 high (US Bear Market 2007-2009, n.d.). The underlying reasons for the bear market are of course related to the underlying levels of toxicity already described, and elaborated by the many shortfalls already pointed out in previous chapters.

It is useful to note though, that the Dow Jones Industrial Average (DJIA) is a price-weighted average of 30 large companies on the New York Stock Exchange. A price-weighted index is where the relative price drives the weight of the company in the index. That is, stocks are included in proportion to their quoted price. Companies on the DJIA primarily from the food processing, oil & gas, pharmaceuticals, banking, and retail sectors. Many of the companies represented are quite frankly yesterday's as opposed to tomorrow's companies. From this point of view, since we are operating at the vital-level, there is going to be a bias to support companies that are perceived as hot in terms of returns. In other words, we will be funding the continued acceleration of hot-spots. Money will go where money is, and will not necessarily be driven by the truer underlying value of a company, that will tend to be better captured by following a fundamentally-weighted index.

Capitalization-weighted indexes tend to be more like price-weighted indexing but vary in that it is the market value of the company as calculated by number of shares outstanding that gives it its relative weight in an index. From this point of view, capitalization-weighted indices will also be biased toward the vital consciousness. If something is attracting a lot of money, it will attract more, regardless of truer underlying value. Underlying value may be there, or it may not, but that tends to get obscured in this perception. Note that if we were in a reality of Efficient Market, truly operating at the mental-level, then both price and capitalization weighted indices would likely be a superior approach to fundamentally-weighted index since the wisdom of many different stakeholder groups would influence demand for a stock.

In research conducted by Arnott, Hsu, and Moore (2007), forty years of back-tested Indexes weighted by any of several fundamental factors including sales, EBIT(earnings before interest and taxes), earnings, cash flow, book value, or dividends in U.S. markets outperformed the Standard & Poor (S&P) 500 by approximately 2% per annum with volatility similar to the S&P 500. In non-U.S. markets, fundamentally based indexes outperformed capitalization weighted indexes by approximately 2.5% with slightly less volatility and outperformed in all 23 MSCI EAFE[2] (Europe, Australasia, Far East) countries. Even the fundamental indexation, from a sustainability perspective, is narrow, and more sustainability-oriented indexes that get to the true drivers of long-term wealth-creation need to become the arbiters of whether we are truly in a bear market or not. The point is, we may declare a bear market but that is hardly the case because we are just looking at the wrong metrics of development. What the decline of the common indexes may really be telling us is that an old vitally-driven world is drawing to an end. But we still do not have adequate metrics in place to see the dawn of a newer mentally-driven world. Stock markets need to be driven by these newer mentally-driven indexes so that we may hone in on, and rightly invest in tomorrow's world.

There has also been some significant legislation in the US that has exasperated the global financial crises, increased volatility in markets, and further obscured sense in the stock market. Significantly, the Gramm–Leach–Bliley Act (Gramm-Leach-Bliley Act, n.d.), also known as the Financial Services Modernization Act of 1999. It repealed part of the Glass-Steagall Act of 1933, opening up the market among banking companies, securities companies and insurance companies. The Glass-Steagall Act prohibited any one institution from acting as any combination of an investment bank, a commercial bank, and an insurance company. The Gramm–Leach–Bliley Act, by contrast, allowed commercial banks, investment banks, securities firms, and insurance companies to consolidate. It also allowed traditional investment brokers to create and sell high-risk investment products to traditionally low-risk commercial banks.

Considering the sub-prime mortgage crisis just discussed, what this means is that through the action of Investment Banks, the toxic assets were now widely distributed and in effect became an intricate part of the global financial landscape. It was inevitable that much of the edifice would have to crash, given that it was being rebuilt on such a flimsy foundation.

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[2] The MSCI EAFE Index is a stock market index that is designed to measure the equity market performance of developed markets outside of the U.S. & Canada. The EAFE acronym stands for Europe, Australasia, and Far East. The index is market-capitalization weighted.

The Sarbanes–Oxley Act of 2006, also known as the 'Public Company Accounting Reform and Investor Protection Act' and 'Corporate and Auditing Accountability and Responsibility Act', is a United States federal law enacted on July 30, 2002, which set new or enhanced standards for all U.S. public company boards, management and public accounting firms. The bill was enacted as a reaction to a number of major corporate and accounting scandals including those affecting Enron, Tyco International, Adelphia, Peregrine Systems and WorldCom. These scandals, which cost investors billions of dollars when the share prices of affected companies collapsed, shook public confidence in the nation's securities markets. The act contains several sections, ranging from additional corporate board responsibilities to criminal penalties, and requires the Securities and Exchange Commission (SEC) to implement rulings on requirements to comply with the new law. The SEC adopted dozens of rules to implement the Sarbanes–Oxley Act. It created a new, quasi-public agency, the Public Company Accounting Oversight Board charged with overseeing, regulating, inspecting and disciplining accounting firms in their roles as auditors of public companies. The act also covers issues such as auditor independence, corporate governance, internal control assessment, and enhanced financial disclosure. Some have denounced this act stating that it has caused capital flight from the US because of the additional onus on companies to comply with this. This is a typical vital-level response, and in the scheme of things, so long as we continue at the vital-level, is absolutely necessary to help keep sanity and further disastrous break-down typical at the vital-level.

The Greek Debt Crisis of 2010

The Greek Debt Crisis of 2010 brings up some very fundamental questions. Issues of national sovereignty, and therefore centuries-old wealth as established by deep cultural and spiritual values made evident in the uniqueness of a nation, versus adherence to stability measures at the regional collectivity level of the European Union come face to face in such a crisis. So too does the notion of wealth itself. Is wealth the one-dimensional trait as captured by modern-day currency, or is wealth multi-dimensional, transcending today's notion of it? Answers to these questions need to determine the limits and rules with respect to investment and speculation. This is true of financial markets in general, and also may suggest how stock markets are to be redesigned.

Is all of life tradable? Or should limits be placed on what can be speculated on and what cannot. If an institution opens itself to seeking for loans, how far should the consequences of default go? Like the story of Shylock the money-lender in Shakespeare's Merchant of Venice, what does a pound of flesh mean? Is it okay to reduce the soul or spirit of a country to nothing? Are austerity measures sending many into a state of poverty and compromising deeper spirit, the blood in Shylock's pound of flesh, and therefore off limits in trading or speculative relationships? What is the responsibility of a country to its people? It is almost as though the very basis of money-creation has to change. A rich, cultural community should have the bases for creating money based on its richness. It is a failure of government if this cannot be done. If natural talents and indigenous ability of a country cannot be utilized to mobilize creativity, then the government needs to pay for that in some way. This may be through social rebellion, as in the riots that plagued Greece following announcement of austerity measures.

The US Government's handling of the financial crisis that has hit USA over the last several years is a case in point. The Government has set new standards of intervention that seem to be progressively adopted by other Central Banks around the world. Its primary goal has been the facilitation of the flow of money in the economy to counter any possibility of deflation. Hence, not only has the Federal Reserve been a lender-of-last-resort to established commercial banks, thereby extending them an unprovisional line of credit to minimize the possibility of bank-runs, but it has also become the lender-of-last-resort to non-depository financial enterprises. Even those financial enterprises that were at the center of causing the crises in the first place were in effect 'forgiven'. Given the goal to assure flow of money and business transaction, and given the extent to which the financial world is in a sense a monopoly, a domino-effect that may hit innocent business could not be allowed to occur. The Federal Reserve in effect bought all the toxic assets on the balance sheets of US-based financial institutions (Roubini & Mihm, 2010). Because the US is a leader in the world by contemporary standards, the US dollar still commands respect and has proven to be a currency of investment amidst the global uncertainty spawned by the global crisis. This is so even though it lay at the center and was the starting point of the global crisis. Through these actions the US has preserved its infrastructure and asset base, and at a deeper level, its current culture, that very well could have become the target of internationally-led takeovers. In fact, the Federal Reserve has also extended swap lines so that Central Banks in troubled countries have been able to exchange their currencies, whether it be Swiss Franks or Japanese Yen or British Pounds, for the US Dollar, thereby in effect forgiving US Dollar-denominated loans in respective countries, while further strengthening the place of the US in the world. While this is admirable, at the same time the viability of money created to back toxic assets is clearly questionable. Such a deal has to have its negative effect sooner or later. Let us hope that something is quickly done to allow more 'positive' money to be created.

When we think about the Greek debt crisis, the question is, does Greece too not have a right to preserve its infrastructure and asset base and deeper culture? Because commercial enterprise is prized in today's world, and the institution of business is generally placed on a pedestal, we recognize and acknowledge the power held by USA. But every country has its strength and uniqueness, even though it may not be commercial. Why shouldn't then, their cultures be held intact and upheld? Greek people, as have the people of Mexico, S. America, S.E. Asia, Russia—wherever recent financial crises has struck—have been subjected to austerity measures and many have been permanently displaced as a result of bankruptcies. Arguably the social and environmental capital of these countries have been permanently negatively affected in the bargain. Does this mean that a country has to be commercially dominant to guarantee its place in the world? Because of its inherent commercial strength the USA was able to preserve its way of being, pretty much untouched. If countries such as Greece have from the outset established a different social contract with their people and have followed deficit spending as a result, it too should be able to wipe the slate clean and 'forgive' its accumulated errors, whether through innovative monetary or fiscal policy, as has USA, or simply as an application of what is to me an inherent principle of existence, whether for a person or for a country. And it should be able to do this on the promise of its unique wealth it brings to the world—not commercial wealth which frankly is incredibly one-dimensional, but on the bases of increasing the multi-dimensional wealth and therefore longer-term sustainability of the world.

If a country is to use fiscal policy to solve its ills, then the choice of where it invests money is critical. Road projects are well and good. But there are many environmental and social issues that need to be urgently addressed, whether of building up environmental capital through the replenishing of ecosystem services, or of building social capital through the creation of robust communities, for example. If Government is going to pull money out of thin air, such acts should be quickly grounded to create real benefit and a source of future wealth, at the very least, for the country. Deficit spending that is going to yield substantial positive returns even if they are 5, 10, or 20 years in the future should hardly be penalized. In the vaster scheme of things such social and environmental investments increase the wealth of the world. For is not every single resource we utilize in every single enterprise of any kind a part of the earth, and even of the splendor behind things? To therefore reinvest in it, as opposed to groundless financially-based securitization, Ponzi, and other financial-innovation type schemes is money well spent.

Greece as part of the European Union (EU) is unable to freely exercise monetary policy. This is part of the deal of becoming a part of the EU. Slapping on austerity measures in exchange for better borrowing rates from EU originated loans means, in effect, that even Greece's freedom to exercise fiscal policy is being curtailed. As a country, when one compares a Government's range of responses to crises between USA and Greece, for example then, it is clear then that Greece is fast losing control over its country and its people. It is being subsumed into a global financial protocol and machinery that recognizes bottom-line financial return only, and under this trajectory Greece will not be Greece for much longer, but just another clone in a senseless monopoly seeking for a headless and irrational world-dominion. If this is not a tragedy then what is? Clearly this has to be stopped in its tracks.

In a Financial Times article Niall Ferguson, the author of *Ascent of Money* (Ferguson, 2010), reflected that it is poignant that the financial crises of the West have started in Greece, the birthplace of Western Civilization, and is spreading from there, just as Western Civilization spread from there. Let us hope that this crisis is viewed as more than a spreading financial crisis, to get to what it really is—a failure to perceive and align with the deeper and truer meaning of wealth. Stock markets have to be redesigned to facilitate the emergence of such wealth.

Concerns over a European Sovereign Debt Crisis also arose with respect to Spain, Portugal, and Ireland, in addition to Greece. As one steps back from this, the question is what is the EU about? A union must be based on more than economic convenience. It is the short-fall of our times that economy is placed above the possibilities of the human spirit. No doubt excellence with respect to economic matters is desirable. But let us make sure that the economic is such that such excellence is based on something enduring. If a country has to sacrifice part of itself, and lead many of its people toward displacement, then the Union is likely not integral enough. For countries to come together in a sustainable way, all aspects of wealth have to be developed. Investments should recognize this, and creation of money should be based on such a holistic generation of wealth. Likely the intent of the EU needs to be expanded and deepened. Financial and stock market action that supports such an expanded and deepened purpose behind the EU is what should be focused on.

Conclusion

Hence, the fundamental direction implicit in the nature of subsequent market crises is such that it fully unveils the meaning of wealth. A seed gives rise to a stalk which gives rise to a flower. Our arbitration of wealth has been primarily one-dimensional and so long as this orientation continues the entire 40-year build-up from the early 1970s until now will be repeated, only with much higher intensity. It has been said that the current global financial crisis of the last few years is much like the Crash of 1929, also known as the Great Depression. This is true, and also not. The Crash of 1929 was on a much smaller scale. With the changing of the times and the surfacing of a far more integral and global consciousness the last four decades have been such that financial dysfunction has been united, in a manner of speaking. When we solve this current tug-of-war between the vital and mental orientations, the world will be a better place for it. The truer, and multi-dimensional meaning of wealth will have been unveiled. All that will remain to be done is for policy and regulation to allow such multi-dimensional wealth to be actively pursued and to persist.

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The Path of Initiation: The Integration of Psychological and Spiritual Development in Western Esoteric Thought

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Abstract: This paper examines, from an emic stance, a strand of Western esoteric wisdom that offers a particular perspective on psycho-spiritual development in relation to spiritual emergence, the mutually interdependent evolution of consciousness and substance, and the functional role of human incarnation within our planetary life. The writings of Alice A. Bailey (1880-1949) and Lucille Cedercrans (1921-1984) serve as significant reference points in this effort. These teachings hold an integral view of human development in which a person's awareness and self-identification progress from polarization in physical matter and sensation through progressively subtler gradients of emotional and mental experience, culminating in "The Path of Initiation," a phase of psychological and spiritual expansions into deepening levels of transcendent, supramental consciousness and functioning. The esoteric teachings described here portray this path descriptively rather than prescriptively, and have significant parallels to Sri Aurobindo's Integral vision. Both consider human life in form to be a vital and necessary phase within the larger cosmic evolution of consciousness and matter, and both are frameworks that expansively embrace the significance of the Divine as both immanent and transcendent presence. The important issue of epistemological methodology and the testing of esoteric assertions is also considered.

Key words: Alice A. Bailey, initiation, integral consciousness, integral philosophy, integral yoga, Lucille Cedercrans, neo-theosophy, path of initiation, perennial philosophy, psycho-spiritual development, science of impression, spiritual emergence, the ageless wisdom, western esotericism, western esoteric wisdom.

Introduction

Western esoteric thought and practice, though not extensively represented in the circles of integral scholarship, hold pertinent ideas that can enrich the discourse on several subjects of interest to the integral community. This article focuses on a Western esoteric perspective regarding one such issue: the relationship between the healthy and adaptive development of the human personality, as understood in mainstream psychological terms, and the emergence within

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that personality of spiritual experience and transpersonal perception. Furthermore, human psycho-spiritual development is viewed in the context of a much larger picture. Western esotericism has long held what is now called a "re-enchanted" and hologramatic view of the Cosmos, seeing it as a living, consciousness-endowed Being of which humanity is one integrated and intelligent organ. This hologramatic vision, now gaining currency among several integral thinkers (Tarnas, 2006, Elgin, 2009; Swimme & Tucker, 2011), sees humanity's collective expansions of consciousness as one aspect of an evolutionary process through which the Cosmos Itself expands Its capacity to know and reflect upon Itself.

Western Esotericism in Context

Broadly considered, the term esoteric—derived from the Greek root *eso* for *inner* or *hidden*—relates to the philosophical position that all aspects of external, phenomenological reality are an effect and reflection of a deeper and essential order that is causal to phenomenal appearance. For the seeker, this essential nature holds the meaning behind all manifest appearances, and is amenable to investigation through particular modes of contemplative inquiry, the pursuit of which provides pathways to expanded understanding, self-actualization, and fulfillment. In relationship to religion, Jones (2012) situates esotericism "as the hidden side of any institutionalized religious tradition" (p. 16). She goes on to state that Western esoteric movements …

> … have existed much like an underground stream throughout Western history, surfacing in distinct places and times, but with similar principles and practices. A few examples to illustrate the breadth of esotericism include: Essenes, Greek Mystery Cults, Pythagoreanism, Kaballah, Sufism, Theosophy, Freemasonry, Anthroposophy, Rosicrucianism, Alchemy, Hermeticism, and groups following specific teachers…. (p. 17)

The strand of contemporary Western esoteric thought that I present here, though beyond facile classification, has been categorized by some as Neo-Theosophy (Hendon, 2005), a living continuation of work exemplified most notably by Alice A. Bailey (1880-1949) and to a lesser extent, Lucile Cedercrans (1921-1984). Other teachers have advanced this path, and are active today. As a group, they consider their efforts to be phased facets of an ongoing revelation of wisdom concerning humanity's place and role in both planetary and cosmic affairs. A telling characteristic of these teachings, which will become apparent as we proceed, is that they synthesize spiritual insights from both Eastern and Western traditions, and relate them to a Perennial core. While Bailey (British) and Cedercrans (American) never had personal contact with one another, both found it important to categorize their teachings as *Wisdom*, which Bailey (1922) distinguishes from factual knowledge as follows: "Wisdom is the science of the spirit, just as knowledge is the science of matter. Knowledge is separative and objective, whilst wisdom is synthetic and subjective" (p. 11).

Bailey labels her work *The Ageless Wisdom* throughout the body of her writings, and Cedercrans uses simply *The Wisdom* as shorthand for the more complete but unwieldy *New Thought-form Presentation of The Wisdom* (Cedercrans, 2007, p. 1137). For the sake of simplicity, I will refer to them in aggregate as Wisdom or Wisdom teachings. Both authors were inspired by a level of perceptual understanding attained through contemplative training and discipline, and considered the transmission of any teachings coming through them to be an important responsibility in service to humanity. Their aim was to make these Wisdom teachings and related supportive practices available initially to esoterically inclined students, while also contributing to the long-term emergence of a greatly expanded human consciousness and a more humane civilization. While these decidedly metaphysical teachings are detailed and specific, even technical at times, they are offered to students not as doctrine, but as hypotheses for consideration and rigorous personal inquiry through contemplative examination and practical application. Admittedly, many esoteric tenets may seem outlandish to thoughtful people in the context of our decidedly non-metaphysical thought-climate, so considerations of epistemology are important in this discussion. One methodology for the intuitive registration, interpretation, and testing of tenets within these teachings is referred to as “the science of impression,” which I will return to later.

While expansions of consciousness and spiritual development affect and involve what is commonly considered to be the personality, different transpersonal thinkers have argued that spiritual awakening is quasi-independent of personality development, some proposing that it *parallels*, and others that it *intersects* directly, with personality development. An important element of this discussion is necessarily a definition of personality, and how it relates to “spiritual” aspects of personhood; the interface between psychological and spiritual development has historically been one of the major areas of inquiry and disagreement in transpersonal discourse (Wilber, 1995, 1996, 1997, 1998, 2000; Rothberg & Kelly, 1998; Grof and Grof, 1998; Washburn, 1998). Beyond philosophical considerations, the matter has immediate and even clinical consequence when one considers the life-difficulties of people experiencing spiritual emergence or spiritual emergency (Assagioli, 1989; Cortright, 1997; Raucher, 1999).

Human Development in the Wisdom Teachings

Wisdom teachings define the personality as that portion of the total human entity which comprises its form or appearance aspect, a three-fold instrument—mental-emotional-physical—which serves as a vehicle of experience and expression for an essential and transcendent aspect of personhood, the Soul. Of note here is that Western esotericism defines Soul as the unit of consciousness that indwells and underlies all forms (not only human forms), and further, that consciousness itself, in a larger context, results from the dynamic energetic interplay between the two Great Poles of All Being: Spirit and Matter (Bailey, 1936; Cedercrans, 1993). These three elements—Spirit, Consciousness, and Matter—comprise a Causal Triad or “Three-in-One” from which all existence emanates, and which underlies all forms as they evolve. Further, this principle demonstrates hologramatically at all levels of being (for example, in the three-fold personality). It is a corollary of the Principle of Polarity in which Spirit (Purpose, Will, Unmanifest Source) is the positive pole, Matter (Substance, Form, Intelligent Response to Purpose) is the negative pole, and the cohering field of attraction between these is variously described (depending on context) as Soul, Love-Wisdom, or Consciousness—interesting equivalencies that take on resonance through contemplation. As stated, this Causal Triad is reflected, through the Law of Correspondence, in the three-fold human personality on its own level. Mind is the positive pole, the physical nature is the negative pole, and the astral or emotional-feeling nature is the interplay of attraction between the poles. This foundational principle and the Law of Correspondence warrant a much fuller elaboration, but this brief introduction will have to suffice at this point in the article.

Bailey and Cedercrans posit a framework of human evolutionary development—both collective and individual—in which the Soul progressively moves through an initiatory pathway, first gaining a degree of competence and mastery within its materially identified form nature (personality) and then gaining increasing awareness of Itself as Consciousness (indwelt in turn by Spirit) operating within the material form. A fully Soul-infused personality (demonstrating what several traditions identify as a state of *enlightenment*) is capable of consciously serving and cooperating with an intuited cosmic evolutionary scheme. The outer evolution in form then unfolds in conscious alignment with subtle laws at a causal level, that which David Bohm, the esoterically trained physicist, called the *Implicate Order* (Bohm, 1980). The Wisdom teachings refer to this same concept as the Divine Plan. I find both terminologies for this idea useful in that an integral approach benefits from the synthesis of scientific and religious perspectives.

This line of Ageless Wisdom thought has a number of interesting parallels to Aurobindo's ideas on integral human development and potentials for human expansion into consciousness of a supramental existence (McDermott, 1987). These parallels are likely apparent to readers familiar with Aurobindo's work, however, they are not the focus of this paper. Rather, my intent is to convey several core concepts from these Western esoteric wisdom teachings related to the evolution of human consciousness, psychological health, the Path of Initiation, and the potential relevance of these ideas within integral thought and scholarship.

Initiation: Culmination of the Human Journey

The Path of Initiation refers specifically to the latter portion of the human evolutionary cycle wherein a person moves through several thresholds and expansions of subjective experience, proceeding incrementally from a relative ignorance of the subtle spiritual planes into their direct apprehension and therefore increasing appreciation of their actual existence and significance. Beyond perceptual expansions, an initiate increasingly develops abilities to work subjectively with energy for the benefit of others in a manner consistent with the implicate order. Bailey and Cedercrans discuss five discreet initiations on this path, each marking a specific expansion, starting with a birth of soul consciousness within the heart (First Initiation) and culminating at that point at which a human soul steps off the wheel of samsara and the karmic necessity of further incarnation, attaining the capacity and status designated Master of Wisdom (Fifth Initiation). The journey does not end there, but Bailey (1922) states that attempts to portray succeeding initiations are somewhat futile given the limitations of language and our current lack of experiential context. Before elaborating on the five major initiations that we can somewhat relate to, it will be helpful to situate this culminating phase of initiation within a larger framework of Western esoteric ideas on human evolutionary development. The following highly simplified schematic is adapted as a synthetic overview from various works of Bailey (1922, 1936, 1942), Cedercrans (1993, 1995), and other Wisdom-related material available in trainings but not in the public domain.

The Soul, which exists on a plane of consciousness above the manifested world, projects a portion of itself into cyclical incarnation through a series of personality vehicles; this is done for the sake of learning and gaining mastery of the manifested planes of existence over the course of numerous incarnations. One of the paradoxes of this process is that the incarnate fragment of the Soul's consciousness becomes merged and identified with the substance comprising the personalities it inhabits, forgetting its spiritual source. This is a consequence of the dense and miasmic nature of the material planes as they have existed in their historical and current states of development. Indeed, one of the long-range purposes of evolution on our planet is to allow the influence of incarnating Souls to gradually lift and refine the substance through which they incarnate. Thus, there is actually a reciprocating benefit for both the consciousness and substance aspects of existence. The substantial form reflects back to the Soul, via its personality circumstances, the Soul's current state of consciousness and degree of mastery over its material expression. The Soul, through its consequent learning and mastery, refines and increases the vibratory frequency of the substance that lends it form, bringing it into closer harmony with spirit.

The origin of the descent of the human Soul into incarnation is portrayed through myth in an esoteric version of the Narcissus fable cited in a particular unpublished Wisdom training on intuitive healing. Narcissus, in this version, was "a young god" inhabiting the luminous planes above the three worlds of form and personality. He discovered a reflection of himself in the waters of substantial appearance—and found it irresistibly attractive; never had his individuality and luminosity been reflected back to him with such vivid detail. Leaning into this image to more fully appreciate it, he lost balance and fell headlong into it, becoming mired in increasingly dense layers of substance, which proved to be much more opaque and confining than he had perceived from above. Plummeting into a solid bounded corporeality, he felt lost, disoriented, and no longer in touch with his core of Light. He was now a stranger to himself within a strange land, with only the Sun far above and a hint of that Sun's reflection hidden deep within him as the reminder of a distant home.

Like the Biblical Eve, Narcissus' curiosity propelled his fall, but it was not a serpent's promise of attaining godhead that lured him, but rather attraction to a godhead that was already his but that he had not explicitly recognized till beholding it reflected in substance. On the long road home, this Prodigal Son will regain recognition of that Light at his core, which has always remained intact, waiting to illuminate his way. And throughout this journey of homecoming, Narcissus will increasingly impress his Soular luminosity on all those layers of reflective substance that had initially obscured his Light as they swallowed him.

From the vantage point of personality, many incarnations on this return journey are spent in what Bailey (1922) calls *The Hall of Ignorance,* during which awareness of an overshadowing Soul is completely occluded and learning occurs strictly through trial and error. During this multi-incarnational phase the transcendent part of soul remains largely abstracted on its own plane. Meanwhile, the personality (or more accurately, series of sequential personalities with a common core consciousness) undergoes ego formation and gradually learns to be effective in its worldly affairs through maturation and coordination of its physical, emotional, and mental components. These gains accumulate over many lifetimes, but each successive personality remains self-identified as a separated, finite being while gaining knowledge of the planes of appearance. A point arrives at which the incarnate consciousness gains skill and efficiency in absorbing life lessons from experience, and learning becomes increasingly deliberate and systematic. Bailey calls this next phase *The Hall of Learning*; i.e., progress towards mastery of the form nature, though propelled by ego-identification and ego–driven agendas, moves beyond the phase of random trial and error.

Taken together, the incarnate Soul's sequential sojourns in the Halls of Ignorance and Learning involve retracing Its involutionary steps, rather blindly at first, through the layers of substance into which Its consciousness descended. The steps progress in reverse order from the most to the least dense layers of its three-fold persona instruments. Evolution impels the Soul's focus on successive tasks of mastery involving first the physical body (survival-maintenance tasks), then the emotional body (relational tasks), and finally, the mental body (cognitive tasks). Our learning also involves developing in the environmental spheres associated with each of these respective bodies, for example, learning how to relate competently with peers in social and intellectual venues. The Wisdom teachings hold that all three planes comprising the "worlds of appearance" are substantial. The astral (emotional) and mental planes, though far subtler than dense physical matter, are composed of substance oscillating at much higher frequencies than the physical. However, like the physical matter these planes of mental and astral substance interpenetrate, these subtler fluidic substances occupy time and space in ways that unmanifested consciousness and spirit cannot. In conceptualizing the three planes of appearance, a helpful analogy is that dense physical matter itself comprises three interpenetrating states: dense, liquid, and gaseous. Gases easily dissolve in fluids, and fluids easily permeate denser matter.

From the perspective of Wisdom teachings, a great many of the psychological difficulties experienced by individual personalities are related to developmental challenges characteristic of humanity's collective point of evolution. Bailey and Cedercrans have explicitly predicated much of their work on addressing a significant developmental threshold that, in their estimation, humanity is approaching. Both writers discuss at length how, taken on aggregate, humanity's collective consciousness has evolved from what was initially a primarily physical self-identification, or physical polarization, to a point that is now a primarily emotional in polarization, yet rapidly moving towards mental focus. A circumstantial corollary of this is a gradually emerging recognition in much of humanity of the need to relate and conduct our collective affairs less on the basis of emotional insularity and more in a manner consistent with reasoned discussion of mutual interests. Collectively, this is an ideal to which humanity aspires more than a point of realized accomplishment; yet educated public discourse is slowly illuminating the problems of emotionally charged separatism and its destructive corollaries: ignorance, fear, and greed. The turbulence of our times bears witness to this as a significant, and in many ways difficult, current transition. Our emotional nature, as it functions prior to regaining access to the Soul's broader perspective and all-encompassing compassion, is reactively enshrouded in existential anxieties consequent to identifying, falsely, as a separated ego. This profound problem ripples out to the manifold psychological challenges faced by many individuals today, and points to the potentials inherent in transpersonal (and some existential) approaches to psychotherapy.

Humanity's evolution towards mental polarization, while a necessary and positive step— in that reasoned understanding tempers emotional reactivity—is not free of potential difficulties either. The very nature of the mental plane is dualistic; mind apprehends some object of experience and creates a representation of it. The mind, prior to illumination by the Soul, frequently succumbs to the dualistic illusion that its myriad representations are themselves reality. Thus, mind has capacity to be the “slayer of the real.” But it is also that aspect of the incarnate instrument through which “the great at-onement” may occur. When the mind is properly trained through contemplative practice it becomes the conduit by which impressions from the plane of Soul may be transmitted into the personality for absorption and transformation. This brings us to the developmental phase of spiritual emergence.

Spiritual awakening occurs after many incarnations in the preparatory phases of development just described. A point occurs in the maturation and integration of the physical-emotional-mental instrument at which the consciousness imprisoned within that form is able to invoke the transcendent, overshadowing Soul. Soul responds by lovingly, and with great patience, attempting to further awaken the imprisoned consciousness within the persona to its deeper indwelling identity. The Soul ultimately seeks to appropriate and fuse with its persona, becoming what Cedercrans calls a *Conscious Soul Incarnate* (1993, p. 514) for the sake of serving a higher purpose in the manifested worlds. Thus, the call to spiritual awakening that the personality experiences, is initiated by its indwelling Soul at a very specific point in their mutually interdependent development. The persona, however, still has its own momentum, and so the wake-up call is not always welcome or correctly appreciated and understood. Intimations of unboundedness can be very unsettling and disorienting to the ego—that part of consciousness that has completely merged with its form aspect. Here are the roots of the resistance and psychological confusion that many experience at this very critical juncture often referred to as spiritual emergence (Assagioli, 1989; Cortright, 1987; Raucher, 1999). Having a broader context for understanding this difficult phase can be very helpful for people going through it, and for those attempting to support them in constructive ways.

At some point, the persona consciousness musters enough will to resolve the conflicts and confusion attending spiritual emergence; it awakens to its innate aspirational nature, and begins to respond positively to the overshadowing Soul’s wake up call. The person enters into what Bailey calls *The Hall of Wisdom*, and from there, begins ascent through The Path of Initiation. Considered as a whole, this accelerated phase, often transpiring within relatively few incarnations compared to prior phases, is marked by a significant transition towards selfless motivation, expanded self-identification, expanded consciousness, and alignment of one’s sense of purpose to that of a greater Whole. Instead of responding to the evolutionary impulses of the Soul blindly and unconsciously, as was the case in the Halls of Ignorance and Learning, the persona now increasingly recognizes impressions emanating from Soul levels, and learns (though not without struggle) to consciously cooperate with them. The Path of Initiation is therefore marked by self-initiated discipline to overcome long-standing patterns of separatism, and the Soul-infused personality moves into what Wisdom teachings call conscious discipleship and occult obedience to one’s inner Self. This is not an easy phase of development by any means, but it is marked by an inspiring sense of clarity about one’s goals and ultimate direction despite the persistence and resistance of old, deeply ingrained habits. Again, having a conceptual map of these phases of rapid and often turbulent psychospiritual development is very helpful for people experiencing them.

The Five Initiations

The following is a brief summary of the five major initiations as described by Bailey and Cedercrans in their respective works. Both writers make extensive use of Christian symbology and terminology, and this is especially apparent in the nomenclature used for the initiations. This needs to be contextualized within the framework of Western esotericism, and also within the cultural timeframes during which these writers were active. Most esoteric systems embrace a perennial stance regarding the major religious and spiritual traditions in the world, seeing them as similar in inspiration and essence even though clearly different in cultural expression and in the specifics of practice and emphasis. Western esotericism makes copious reference to concepts and practices from both Eastern and Western spirituality, and recognizes particular significance in the roots of Christianity. The Causal Triad referenced earlier in this paper is viewed as an essential expression of ideas common to both the Hindu and Christian Trinities (Shiva-Vishnu-Brahma / Father-Son-Holy Spirit). Further, as both Bailey and Cedercrans were active in the early to middle 20th Century, they were addressing students and readerships immersed in the civil-religious zeitgeist of those times. They also viewed the life of Jesus as a rich symbolic illustration of the phases of initiation they were describing. Western esoteric wisdom conceptualizes Jesus as an advanced human disciple whose approach to Christ Consciousness—the fully expressed potential of the Soul nature—demonstrates important lessons for all aspirants, though not in the orthodox Christian sense. Neither writer was an apologist for the distortions and abuses of institutional religion, which they clearly recognized and named (Bailey, 1948; Cedercrans, 1993).

In considering these initiations, note that it is the Soul who undergoes Initiation, not the personality, though ripples from the subtle transitions occurring on a higher plane impact the incarnate persona at some level of conscious registration. However, up until the Third Initiation, the persona may experience these significant transitions without consciously understanding or recognizing their full significance as initiations in the manner described here. Initiates of the First and Second degree often experience the impacts of these transitions without an articulated conceptual framework.

The First Initiation: Birth of the Christ in the Heart

This is the point at which a person’s Heart Center awakens to its initial intuitive perception that all of Life is One, and, as Cedercrans (1993) puts it, “brotherhood becomes… a fact in nature” (p. 8), at least in the realm of intuitive perception. The mind is not yet fully illuminated, despite this expansion in the heart, and so a person may still experience some degree of disconnect between these two centers of consciousness. Thus, cognition and behavior will still reveal residual doubts and not always reflect what the heart has come to recognize. Thus the First Initiation may mark something of a confusing psychological struggle between heart and mind.

The Wisdom teachings propose that humanity has entered into the proximal timeframe (the current century) wherein significant numbers of souls in incarnation will approach and undergo this First Initiation. This would, of course, signal the beginnings of a tremendous shift in the overall quality of human relationships and an increased capacity for mutual cooperation. Current events may seem to belie this possibility, yet the Wisdom teachings counsel us to look beneath appearances and recognize with compassion the developmental challenges attending our state of collective transition, and what this may promise if we manage to focus on the potentials rather than the pitfalls of this difficult time.

The Second Initiation: Baptism and Consecration

With the heart illuminated by a new awareness of universal love, the aspirant soon recognizes the degree to which his or her emotional life remains habituated to patterns rooted in fear and self-oriented desires and aversions. S/he therefore enters into a phase of dedication, spiritual discipline, and self-purification, seeking to resolve the paradoxical pull between several classic "pairs of opposites" that emerge at this juncture (for example, between altruism and self-orientation, inward spiritual development and worldly engagement, sexual intimacy and spiritual abstraction…). This parallels the period of temptations faced by Jesus in the gospel stories after his baptism by John. The pairs of opposites are not antithetical, as the concrete mind may believe. Rather they are points along a spectrum that need to be reconciled by intuitive perception. The aspirant focuses on an ideal of fully realized and mature Soul Consciousness (sometimes called Christ Consciousness) as seen deep within the self, and seeks to realize that ideal in lived expression, adopting some form of spiritual practice toward that end. Needless to say, struggles with and between the pairs of opposites cited here pose a significant psychological challenge that many spiritual practitioners grapple with for extended periods of time.

The Third Initiation: Transfiguration or Illumination

This initiation equates, in the gospel account of Jesus's life, to his Transfiguration on the Mount. To quote Cedercrans (1993), "This is the first major initiation in which the whole consciousness becomes illumined… with the Light of Logoic [Divine] Purpose" (p. 8). This is perhaps what other traditions refer to as the shift into an enlightened state, understanding that this is a new and significant beginning, but not an endpoint. A person approaching this initiation is in transition from what Wisdom teachings call probationary status into accepted discipleship among those Souls who have preceded him or her along this path. A growing sense of inclusion within a spiritual brotherhood, previously invisible, occasions a major shift in perspective towards identification with experiences vividly present in consciousness, yet beyond the individual self or evidence of outward appearance. The initiate of this degree increasingly intuits the causes behind the effects and currents of worldly events and perceives the manifold subtle energies underlying all form manifestations. S/he learns to work subjectively from the level of Soul awareness, often linked in group formation with other subjective workers, wielding spiritual energies as a positive influence in the psychological environment and in service to some aspect of the Divine Plan. This Initiate, working within an expanded range of consciousness, fully inhabits and works through a highly refined and disciplined Soul-mind-brain alignment, and a personality that is no longer dominated by ego-based delusions of separativeness. S/he is fully dedicated to serving an intuited higher purpose, and works towards stimulating the expansion of human capacities within a discipline or area of life appropriate to his or her makeup and experience.

Each of these three first initiations represents a quantum leap in consciousness beyond prior states, and while at least some aspects of these first three are no doubt relatable in terms of the reader's frame of reference, descriptions of the latter two may well seem abstruse and speculative.

The Fourth Initiation: The Crucifixion

As the name suggests, The Fourth Initiation is analogous to the gospel story of Jesus' sacrifice of his life in form, and by extension, into a state of freedom from the constraints of form and an expanded identification with The One Life—to an extent beyond that achieved in the Third Initiation. In highly esoteric terms, the causal body, the subtle sheath of the individual Soul itself, is sacrificed, as it is no longer necessary. The unit of consciousness previously held within that subtle sheath now stands in direct relationship to its Monad, its still subtler spiritual core (Bailey, 1922). In more human terms, personal karma has been resolved and birth within the worlds of appearance is now motivated entirely by considerations of service to The Divine Plan/Implicate Order.

The Fifth Initiation: The Ascension

To quote Cedercrans (1993, p. 9) "This initiation is so advanced that very little can be said about it. It is freedom from, and mastery of, the three planes of human endeavor: the physical, astral-emotional and mental. The individual is released from the wheel of rebirth, and if he does incarnate again, it is only in times of crisis, for the guidance of Humanity." From one perspective, a significant difference between the Fourth and Fifth Initiations is that the Fifth marks a soul's emergence as an Ascended Master, one of the Inner Plane Teachers who, as a group, function collectively as the Heart Center of Planetary Life and guide Humanity, the Planetary Throat Center, in its evolution. Such information, of course, only becomes meaningful through contemplation.

Assertions Surrounding "The Masters"

The prior references to Masters in this article requires some explanation, as assertions about the existence of such Masters, and about the nature of their relationship to students has proved to be one of the most controversial aspects surrounding several expressions of Western esotericism. Controversy and skepticism surrounded Blavatsky's references to their existence in *The Secret Doctrine* (Blavatsky, 1977) and continues today. The fact that Blavatsky, Gurdjieff, Bailey, Cedercrans, and additional contemporary (if less well known) teachers in this lineage have at times referred to, claimed inspiration from, or even asserted contact with such Masters has subjected these writers to criticism and doubt, especially in academic circles. This is understandable, and perhaps even necessarily so, as the existence of Masters who remain hidden and function on subjective planes of consciousness is beyond common human capacities for verification. Further, an assertion that a student's perception of such Masters may emerge at some future point in development through training and application of esoteric practices may understandably provoke skepticism and suspicions of self-deception and elitism. For this reason, it is important to devote a few paragraphs to considerations of epistemology and methods of inquiry in the Western esoteric practices under consideration.

The gist of the epistemological stance in these Wisdom teachings, which I will elaborate below, is that all assertions put forth must be regarded as hypotheses proposed for open-minded consideration and for rigorous inquiry by suitable and appropriate means; as all the aforementioned writers themselves insist, nothing is to be accepted on blind faith, least of all because of an alleged authority behind any assertion. These standards hold true for any assertions regarding the existence of Masters or their supposed role in offering these teachings.

Epistemology and Testing Precepts of the Wisdom Teachings

One hallmark of Western esotericism is its comprehensive scope as an essentialist, all-encompassing philosophy, traits that tend to render it suspect and unfashionable in an academic environment influenced by post-modern critiques of essentialism. The volume names of Blavatsky's (1977) *The Secret Doctrine,* (*Cosmogenesis* and *Anthropogenesis*, first published in 1888) speak to the breadth of knowledge that Western esotericism seeks to address. Bailey's output of 24 volumes encompasses a gamut equally broad and ambitious in scope, as suggested by some of the titles: *A Treatise on Cosmic Fire, Initiation Human and Solar, Esoteric Psychology*, and *Discipleship in The New Age*. For Bailey, there was no possibility of side-stepping controversy concerning "The Masters," as she openly stated that the majority of her output was the work of one Master for whom she (and Blavatsky) both served as an amanuensis—a contact and connection through which the Master's message could reach a broader audience. The means by which this particular Master, known as both Djwahl Kuhl (or D.K.) and *The Tibetan*, imparted material to Bailey is documented in her *The Unfinished Autobiography* (Bailey, 1951), and a very similar process is also described in Cedercran's (2007) teachings as the "Science of Impression"(p. 497), which I will describe shortly.

Each of the books that Bailey composed, allegedly under impress from D.K., is now published with a front matter article called "Extract from a Statement by the Tibetan," first published in 1934. This extract explicitly addresses the attitude with which the reader/student may most constructively approach the material in these works. The following is an excerpt from that statement:

> The books that I have written are sent out with no claim for their acceptance. They may, or may not, be correct, true and useful. It is for you to ascertain their truth by right practice and by the exercise of the intuition. Neither I nor A.A.B. is the least interested in having them acclaimed as inspired writings, or in having anyone speak of them (with bated breath) as being the work of one of the Masters.… If the teaching conveyed calls forth a response from the illumined mind of the worker in the world, and brings a flashing forth of his intuition, then let that teaching be accepted. But not otherwise. If the statements meet with eventual corroboration, or are deemed true under the test of the Law of Correspondences, then that is well and good. But should this not be so, let not the student accept what is said. (Bailey, 1951, p. x)

Exhortations such as this appear frequently throughout the Wisdom literature of Bailey, Cedercrans, and their successors. Different methods for corroboration of the teachings are mentioned which I will address briefly here.

The test of intuition is commonly cited, and D.K./Bailey (1950) devote the better part of one of their books, *Glamour A World Problem* to both the exacting definition of this faculty and methods for cultivating it as a fine-tuned instrument to penetrate through and dispel the distortions of perception connoted by the term *glamour*. One of the few books that Bailey claimed to author on her own, tellingly entitled *From Intellect to Intuition* (Bailey, 1932), considers intuition to be the soul's capacity for direct apprehension of a truth conveyed to the persona in waking brain consciousness. This is seen as a different kind of knowing and an evolutionary advance beyond intellectual apprehension or the conceptual representation of ideas, which is a strictly mental process. Cedercrans (1993) also provides a practical working definition of intuition:

> Accept as Truth only that which you comprehend with both the heart and mind. There is within the basic structure of the inner, subjective man (the combined head and heart) a built-in intuitive response mechanism which has been placed there by the Soul. This is not the built-in emotional response mechanism, but rather a higher correspondence of that, which is responsible for the inner guidance known and experienced by many. It does not speak to you in either voice or formulated thought, but produces a response of instantaneous inner knowing which supersedes thought. (p. 24)

Use of the Law of Correspondence, also mentioned as a technique of inquiry and corroboration for assertions in these teachings, refers to the Hermetic principle, "as above, so below; as below, so above." Per *The Kyballion* (Three Initiates, 1912), a concise tome of esoteric precepts, "…this principle embodies the truth that there is always a Correspondence between the laws and phenomena of the various planes of Being and Life" (p. 28). A tangible example is found in the nature of musical octaves, in which the same notes recur throughout all octaves, only at differing, though mathematically related, frequency registers. Thus, musical scales may be viewed as symbolizing (and tangibly reflecting in sound) the multiple layers and planes of existence. As another example, I earlier referred to the fact that the three bodies of the personality (mental-emotional-physical) may be considered to correspond (on the planes of appearance) to the principles of the Causal Triad found at the very core of existence (Spirit-Consciousness-Matter). By extension, a student may use the Law of Correspondence to test assertions pertaining to subtle phenomena by carefully examining potential parallels within his or her lived experience on the sensible and intelligible planes of appearance.

I will conclude my remarks on epistemological methodology within these Wisdom teachings by elaborating on "the science of impression." This is the contemplative means by which a practitioner, in meditation, opens a channel of perceptual receptivity to phenomena (perhaps noumena would be a more appropriate term) that are necessarily very hard to describe in language because they are of an extremely subtle, non-conceptual nature. These impressions also carry a distinctive energetic quality that a student may learn to associate with the Soul operating on Its native plane. While it is vital to achieve a steadiness of concentration that allows one to consciously register subtle impressions from the plane of Soul, this is only the first phase of the total process. A second and vitally important phase involves stepping down and appropriately translating these subtle impressions into meaningful symbolic form that can be comprehended by the mind and, upon due consideration, acted upon by the integrated personality (for it is in practical applicability that the true value and validity of a “spiritual” realization is best tested). This stepping down and translation process is difficult and requires practice.

The impressions received, though subtle, are discernible, carrying a distinct but implicitly sensed meaning. Translating or interpreting these impressions into symbolic form, whether linguistic or pictographic, is necessarily influenced by the specific frames of reference with which the personality is familiar. There is ample opportunity for some distortion in this translation, and it takes time and experience to master it. There is also a reasonable allowance for variations in the interpretive responses of different people to the same overshadowing impress. This recognition leads to an epistemological stance within the Wisdom teachings that accounts for and acknowledges as necessary diverse expressions of a particular archetype or subtle truth as it enters the consciousness of different personalities. One may reasonably ask how two people may reliably recognize that their diverse conceptual interpretations are in fact related to the same overshadowing input. This is the point at which intuition must be allowed to trump an over-reliance on the concrete intellect; rigorous attention to subjective experience over time helps the sincere student to refine and hone the application of intuition to increasing degrees of precision. While empirically objective proof of such progress may not be possible, the subjective feedback a student receives from life experience over time is.

One technique of meditation used in the Wisdom teachings to hone the intuition, and involving the science of impression, is the use of *seed thoughts*. These are symbolic representations of ineffable truths in word or pictographic form, used as portals of proximal entry towards a deeper intuitive grasp of their underlying meanings. Seed thoughts serve to bring the substance of the three personality bodies into a state of receptivity to spiritual impress. For example, one basic seed thought is, “I stand receptive to the Wisdom of my Soul as it is stepped down to me in meditation.” The successful use of this technique requires some preliminary training so that the physical and emotional bodies may be held in wakeful quiescence. The mental body is likewise held in alert stillness, ready to receive subtle impressions related to the non-conceptual meaning underlying the articulated seed thought, which is held in tight focus without stressful striving. Continual repetition of the seed thought is not used (which, in any case, is more characteristic of mantra meditation, a very different process). In a state of still receptivity, subtle impressions of the tacit meaning of the seed thought emerge into the mind and brain, received in full waking consciousness. The seed thought is thus illuminated and expanded. Through periodic use of the same seed thought over time, the depth and richness of the down-flowing impressions can be amplified, and then tested through application in daily life.

Epistemologically, it is indeed through practical application that the veracity and validity of Wisdom teachings can be best ascertained. Writers such as Bailey and Cedercrans, who had advanced training in this science of impression, used it to receive and translate highly abstract meanings received through their Sources into conceptual form and language in order to communicate them (essentially the inverse process of seed-thought meditation). Cedercrans explicitly told students in her trainings (unpublished) that though she was impressed with very specific ideas through her meditative alignment to a Subtle Source, the words she used to clothe these meanings were of her own very deliberate choosing (though these choices were intuitively guided).

Nonetheless, a frequent refrain in the writings of both Bailey and Cedercrans is how inadequate, how approximate the words available to them are in conveying certain meanings. This serves to remind us that portrayals in language of the subtleties of spirit or of states of consciousness are necessarily imperfect maps; their meanings must ultimately be grasped via a combination of intuition and application. Seed thought meditation allows students to use the stepped down conceptual formulations received from their teachers to approach and enter into the subtle meanings behind the formulations. When students then receive their own inner guidance on their practice, and discover that implementing the guidance deepens their practice, confirmation is achieved.

And ultimately, all such guidance has one general purpose and direction: to help the student come into ever closer alignment and harmony, in thought, feeling, speech, and action, with the implicate order/Divine Plan. That such a Plan actually exists and has immediate relevance to the student's life and affairs is distinctly testable in both subjective and objective application. I would go so far as to assert that coming into alignment with this innate order—of Self and Cosmos—is the essential basis of achieving psycho-spiritual health and well-being.

It is perhaps paradoxical that Abstract Truth—implicit and formless meanings encountered in meditation as pure energy—must be somehow registered within the form nature and there be translated into conceptual form and actionable intelligence in order to transform the world. Western esoteric Wisdom, like Aurobindo's system of Integral Yoga, sees our current age as a distinct and vital opportunity for developing and applying techniques to bridge the incarnate and the transcendental in this pursuit. In recognizing this opportunity, we must be patient and maintain a long and compassionate view of the processes that shape evolution and human psycho-spiritual development, even as we intensify our commitment to these processes to help that development proceed.

Applicability of Concepts from These Wisdom Teachings

As is the case with any spiritual or metaphysical pursuit, Western esoteric teachings attract a self-selecting group of students who find meaning and resonance within that particular articulation of wisdom. Nonetheless, I believe that some of the ideas in these teachings, particularly those discussed in this paper associated with psycho-spiritual development, have potential to prove useful to thinkers and students across the Integral Studies community.

Having Western esotericism's conceptual map for the collective psycho-spiritual development of humanity, even if considered conjectural, can provide perspective and new ways of relating to current events within a developmental framework. The broad, and far reaching vision of human development and evolution portrayed in these Wisdom teachings can provide a meaningful narrative context for considering human capacities, experiences, and levels of functioning across pre-egoic, egoic, and trans-egoic states of consciousness.

These Wisdom teachings portray a course of human development that addresses some of the questions within Integral discourse about the relationship between psychological and spiritual development, and shed some light on the enigmatic process known as spiritual emergence. For example, I have found the ideas discussed here regarding difficulties in the shift from emotional to mental polarization and navigating "the pairs of opposites" very helpful in negotiating the terrain of my own experiences, and those of some of my students and clients in psychotherapy practice.

There is potential for cross-fertilization between schools of Integral inquiry that may use different vocabularies and frames of reference, yet still find common meanings beneath such differences. I think much might be gained, for example, for students of both Sri Aurobindo's Integral Yoga and Western esoteric Wisdom teachings in exploring the points of commonality and difference in these approaches.

Finally, for students and practitioners of meditation in different schools, the descriptions of the various Initiations found in these Western esoteric teachings can shed light on the developmental processes they are experiencing. I believe that many readers of this article will relate in meaningful ways to the developmental progressions associated with at least one of the first three initiations. Having language and a conceptual framework for reflecting on where one is situated within the trajectory of human psycho-spiritual development can provide both perspective and fuel for productive aspiration and effort.

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A New Creation on Earth: Death and Transformation in the Yoga of Mother Mirra Alfassa

Stephen Lerner Julich[1]

Abstract: This paper acts as a précis of the author's dissertation in East-West Psychology at the California Institute of Integral Studies in San Francisco. The dissertation, entitled *Death and Transformation in the Yoga of Mirra Alfassa (1878-1973), Mother of the Sri Aurobindo Ashram: A Jungian Hermeneutic,* is a cross-cultural exploration and analysis of symbols of death and transformation found in Mother's conversations and writings, undertaken as a Jungian amplification. Focused mainly on her discussions of the psychic being and death, it is argued that the Mother remained rooted in her original Western Occult training, and can best be understood if this training, under the guidance of Western Kabbalist and Hermeticist Max Théon, is seen, not as of merely passing interest, but as integral to her development.

Keywords: C.G. Jung, death, integral yoga, Mother Mirra Alfassa, psychic being, Sri Aurobindo, transformation.

Mirra Alfassa was one of those rare individuals who was in life a living symbol, at once human, and identical to the indescribable higher reality. Her yoga was to tear down the barrier that separates heaven and earth by defeating the Lord of Death, through breaking the habituated belief that exists in every cell of the body that all life must end in death and dissolution. Ultimately, her goal was to transform and spiritualize matter.

In my dissertation I applied a Jungian lens to amplify the Mother's statements. Amplification, as it is usually understood in Jungian circles, is a method used to expand an analyst's grasp of images and symbols that appear in the dreams of analysands. Of it Jung (1913/1985) wrote: "Once embarked on the task of examining . . . dream-material, you must not shrink from any comparison" (p. 145). "The analyst," he wrote, "collects the historical parallels to every part of the dream, even the remotest, and tries to reconstruct the psychological history of the dream and its underlying meanings" (p. 147). Thus, myth, history, anthropology, psychology, literature, and spiritual traditions from all periods and cultures are mined to enrich the understanding of the symbols from the dream.

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It might at first appear reductionistic to use such a method when looking at the Mother's visionary statements from the *Agenda*. To the disciple who experiences the Mother as the feminine principle of the Immanent Divine—the one whom Sri Aurobindo (Ghose, 2002) described as "the divine conscious Force that dominates all existence, one and yet so many sided that to follow her movement is impossible even for the quickest mind and for the freest and most vast intelligence" (p. 17)—it might even seem futile.

To this objection I would offer two arguments. First, the Mother often referred to her first teacher, Kabbalist and Hermeticist Max Théon, with whom she worked while she still lived in France. Understanding Théon's cosmology opens up extraordinary vistas wherein we can see the Mother's work as part of a network of esoteric teachings reaching back through Western history to the pre-Socratics, Mesopotamians, Dynastic Egyptians, Indo-Aryans, descending in broken and unbroken lines all the way to late 19th century occult circles (Goodrick-Clarke, 2008). Doing this will also help clarify certain confusions concerning Integral Yoga's terminology, especially the use of the term 'psychic being', which is considered to be unique to Sri Aurobindo and the Mother's work (Pandit, 2006, para 1), while it is in truth an idea the Mother learned from Théon, who developed it from Lurianic Kabbalah.

Second, the often enigmatic visions the Mother had a striking resemblance to dreams, especially those of people approaching death (von Franz, 1986). Anyone who knows the Mother's work at all, knows that she was often focused on her struggles with the *asura* (anti-divine being) known as the Lord of Death. Since her struggles were with this being, and since her visions do bear such a remarkable resemblance to dreams of impending death, I argue that amplifying her statements as one would amplify dreams makes perfect sense. This is not to put the Mother on the psychologist's couch, but to develop a broader understanding of the images, which have not only historical provenience, but psychological as well. That said, I do not use Jung's ideas here in a therapeutic sense (I will not bring up any actual dream material in this paper), but in an attempt to understand their broader application as indicators of the multifaceted reality in which we are embedded, which Jung claimed was only approachable through the psyche—and even then only symbolically. In other words, I enlist him to help delineate the archetypal and symbolic dimensions of her statements.

One of the richest images from the Mother's (Alfassa, 1981) conversations, is that of Death as a veil, threshold, or doorway between worlds (p. 237). This is also the central revelation of Sri Aurobindo's (Ghose, 1993) poetic retelling of Savitri—a short tale of love's conquest of death from the Indian epic Mahābhārata, which Sri Aurobindo expanded into an epic of terrestrial and cosmic evolution. In Sri Aurobindo's poem, it is when Savitri, who has descended into the underworld to retrieve the soul of her deceased husband, reveals to Death that she is in actuality the Divine Mother, and that Death himself is merely a mask—a transitory prop of the Divine—that Savitri finally breaks through Death's persona (a Jungian term that literally means "mask"). When Death's grip is destroyed, the world above and the world below are united in the body of the reborn Satyavan. The Mother (Alfassa, 1981) stated emphatically that the sections of Savitri concerned with the confrontation of the Lord of Death were written about her "experience EXACTLY" (pp. 37–38).

One could unpack this revelation strictly from within Integral Yoga, expanding one's understanding through Sri Aurobindo's (Ghose, 1998) writings on the Véda and other subjects. There, one would find riches abundant enough for a lifetime of research. I would suggest, however, that to neglect the rich Western heritage the Mother brought with her to Pondicherry would be to risk misunderstanding many of the images and ideas about which she spoke, which were aesthetically quite different from the Indian sources written about by Sri Aurobindo. Integral Yoga is the product of two individuals. To discount or otherwise negate the Mother's decidedly Western roots is to misunderstand the teachings.

Sri Aurobindo adopted many of the terms the Mother brought with her from Théon (Heehs, 2011, Julich, 2013). One obstacle to understanding the extent to which not only the terms, but the ideas of Théon are present in the Mother and Sri Aurobindo's work, is that until recently Théon's own writings were relatively unavailable to researchers, and very little critical work had been done on him as a result. This lacuna has gotten some attention from the scholarly community in the last twenty years (Deveney, 1997; Greenfield, 1997; Godwin, Deveney, & Chanel, 1995; Johnson, 1994), and Théon's (Theon, 1991; 1992; 2012) own idiosyncratic writings have been made available through Argaman Press in Jerusalem. When we look into his work, and research the lineages from which he drew his synthesis, we can begin to see that Integral Yoga sits at the confluence of numerous streams from both the East and West. A fascinating artifact of the nascent globalization occurring at the end of the 19th century, it is perhaps the very first historical example of a meeting of two such remarkable personalities from different cultural milieux, and perhaps the only major exemplar of its kind in the field of spirituality.

Transformation in Integral Yoga

My research is concerned with symbols of death and transformation in the Mother's yoga, through comparing the mythology of the Sun-Door (Coomaraswamy, 1997; 2004) and other Gnostic and alchemical symbols with images from her visions and conversations. Although both she and Sri Aurobindo believed that the change they predicted would happen in the natural course of time, they hoped to catalyze the coming evolutionary jump through actively engaging it in their yoga. The reason for this was twofold. First, they saw nature's lack of urgency as terribly wasteful—having created countless entities capable of experiencing the pain and suffering of mortality. Second, Sri Aurobindo argued that there was no guarantee that humanity would be able to keep from rubbing itself out through internecine hatreds, ignorance and greed. In this way their yoga was salvific.

Sri Aurobindo is said to have drawn down the spiritual plane of consciousness they called the supermind (understood to be a subtle plane that sits between Transcendent Being and embodied existence), into the vital sheath surrounding his material body. He could not complete the supramentalization of his physical body, however, and it was the Mother's task to draw the supermind into matter, where their union would catalyze a transformation of the Mother's body and so, through the law of similarity, the universe.

When discussing activities that occur at the subtlest levels of manifestation, the Mother (Alfassa, 1979, p. 69) resorted to symbolic language and stories. One image she used was that of a golden door, which she claimed to have broken in a vision, allowing the supramental energies to flow freely down into the earth (on 29 February 1956). Symbols are the basic morphemes of myths, which, according to Jung, describe in projected images psycho-spiritual truths inaccessible to the rational mind. The Mother, from her training with Théon, as well as her years with Sri Aurobindo, felt that the most profound truths could never adequately be expressed in words.

The tension between reason and mystical realization has a long history. It was a central tenet of the Romantic movement in the nineteenth century (Ellenberger, 1970), which stood against the rising tide of scientific materialism, and out of which came both nineteenth century occultism and psychology. The central tenets of materialism—that existence is mechanical and unconscious, that natures laws are purposeless and fixed for all time, that mind is an epiphenomenon of biology, and that spirit is a delusion (Sheldrake, 2012)—continue to dominate today in the fields of biology, technology and medicine. The Mother (Alfassa, 1981) believed enough in the scientific method—if pursued honestly—to say: "If Science went to its furthest possible limits . . . it would join up with true knowledge" (p. 156); however, she (Alfassa, 1993) also argued against all forms of dogma, saying: "Truth is not a dogma one can learn once and for all and impose as a rule" (p. 81). Scientific investigation needs to be open to the possibilities of realities other than material.

Truth, to the Mother, was realized at the nexus of the Individual and the Universal within each one of us. This notion can be traced back to the hermetic dictum, as above, so below, which speaks to the way in which the inner and the outer, the upper and the lower, mirror one another or even are one another in some essential way, although our conscious mind experiences them as distinct and even unrelated. In many ancient systems, it is not in the mind, but in the mystery of the heart, symbolized as the central Sun in the human organism, that the doorway to Truth is found.

The Psychic Being

In Integral Yoga, the transformative impulse is threefold. Called by Sri Aurobindo the Triple Transformation, it included the processes of psychicization, spiritualization, and supramentalization. Whether undertaken by the Mother, or by the sādhaka, this yoga constitutes an active participation by the yogi with an evolutionary shift or speciation into what Sri Aurobindo called the Supramental or Gnostic Being. The Triple Transformation is also present as an organizing structure in Sri Aurobindo's epic, Savitri. In it we find the Triple Transformation described in mythic language through the yoga of Asvapati, and the struggles of his daughter, Savitri, to overcome the Lord of Death and regain her husband.

The foundation of this process is the initial contact with the psychic being. The psychic being is considered to be the earthly half of the eternal, evolving part of the human soul, manifest as light in the heart of each person. As mentioned above, although the term is generally credited to Sri Aurobindo, it was coined by Théon, and brought by the Mother to Pondicherry. When Sri Aurobindo first heard it, the Mother (as cited in Heehs, 2011, pp. 237-238) said, he looked for a Sanskrit equivalent, settling on *chaitya purusha* plane of consciousness: "the portion,—Amsha—of the Divine which guides a man" (Purani, 1970/1990–2023, p. 259) . The psychic being is, to Sri Aurobindo, the lower half of a greater "central being," the upper part of which is the

Jivatman. In Savitri, this lower portion is described as a part of the Divine Mother placed in the soul of each individual, which is the agency of our experiences, and guides us in our evolution. It would make sense, then, symbolically, that the Jivatman represents the pole of the transcendent Father, held by Sri Aurobindo in his relationship with the Mother, who held the earthly pole.

Théon (as cited in Godwin, Chanel, & Deveney, 1995) also described the psychic being as dual, with an active and a passive component (p. 13). In Integral Yoga, it is the active component, lodged behind the human heart, and helping to guide our evolution in each life, which is normally discussed as the psychic being. It is "the God within" (p. 19). It is also gendered. In Théon's writings (Theon, 1992), the active component is masculine, while the passive is feminine. In Integral Yoga, the genders are reversed. In this way the conception of the psychic being differs, pointing, perhaps, to a difference between Théon's more patriarchal, Jewish training, and Sri Aurobindo's Śaktism. The Sun deity prayed to by Aswapati in Savitri, is feminine, and Savitri her incarnation.

Jung (1954/1969) compared the divine portion of the soul to the Paracelsian scintilla, or spark of God present in the heart of every human being (p. 190). Paracelsus most probably learned this from Kabbalistic sources. In another context, Jung (Jung, 1937/1968b) cited an alchemical, Christian image of this, writing that, "this fire is the 'spiritual seed' which our Virgin has gathered in herself (p. 383). This is analogous to Sri Aurobindo's understanding of it as of the Mother. In Christianity, the spiritual seed gathered up in the Virgin is the Christ, which is the principle of Divine Love that: "bears all things, believes all things, hopes all things, endures all things" (1 Corinthians, 13:7, RSV). It is the Christ who is the divine portion of the human soul, which resides in the human heart. The Christ is also symbolized by the sun, the reflection of the Divine Light in the Cosmos.

In the Integral sādhanā, the psychic being is said to be "brought forward," which means it is differentiated from the mortal aspects of the soul (our individual thoughts, emotions, will, etc.). Once one is in contact with this higher principle of Love within one's heart, it is segregated from the lower being so that it can undergo the process of spiritualization, which is the union of the two lights—the lower (psychic being, feminine) and the higher (Jivatman, masculine). This union is what Jung, after the alchemists, called a coniunctio, or hierosgamos (divine wedding). After this process is completed, the transformed soul-spirit reunites with the individual (a further coniunctio), who is then said to be "enlightened." Both Jung and Sri Aurobindo mentioned the Buddha as paradigmatic of this stage of development.

The final stage of the process is supramentalization, where the higher force transforms and universalizes the body. Théon (1991) wrote: "The occult end and aim of formation is the manifestation of Intelligence in being of light, in life" (p. 86). The union of the enlightened individual with the principle of Divine Love, symbolized as the Mother, leads to what the Mother and Sri Aurobindo called the Gnostic Being. Théon (Alfassa, 1981) spoke of this as a "New Creation on Earth and the glorified body" (p. 375), which amounted to a quantum jump beyond the human.

In Sri Aurobindo's conception, there are two rhythms to the transformation: ascent and descent. Sri Aurobindo, as the masculine principle, was said to have accomplished the ascent, which was twofold, corresponding to the stages of psychicization and spiritualization. In Sri Aurobindo's personal experience (as cited in Alfassa, 1982), these also correspond to his awakenings to the transcendent state of nirvana (p. 269) and the personal divinity (p. 355). These are also seen in Savitri, where Aswapati undertakes a twofold yoga of ascent to the spiritual realms, and Savitri, daughter of the Sun, born to Aswapati for his austerities, undertakes the descent, when she follows her husband Satyavan into the underworld to retrieve his soul from the Lord of Death. It was for the Mother, as it was for Savitri, to undertake the descent into matter. To transform the physical, the Consciousness-Force of the Mother needed to be drawn down into the body of death. This was the beginning of the final stage of transformation. To accomplish this required the Mother to confront the Lord of Death, who stood at the threshold between the worlds.

Death

The Mother made many statements about death in her talks and writings. I am interested primarily in two here: first, in accord with Théon's cosmology, in death as the third of four Angelic creator Beings (Light, Love, Life, Truth) who became demonic (Darkness, Hatred, Death, Falsehood) through belief in their independence from God, and ultimately their omnipotence; second, in death as a Threshold, Doorway, Mask, or veil.

The Lord of Death, in the original version of the tale of Savitri from the Mahabharata, is Yama. Yama has a long history in Indian myth. He is understood to have been the first mortal to die, the Guardian of Directions, the Dharmaraja, or King of the Law, and a child of the Sun. In some texts, Yama is even said to be one of the 108 names of the Sun—fascinating, given Savitri's identity as the Sun's daughter and even incarnation.

This deity shows an affinity with deities from a number of cultures across the Indo-European world. Whether they share the same name root (yemo, as we find with Janus, Ymir, Remus, and Gemini), or only like qualities, there are a range of qualities that link these beings. They are often the first born being, the first human, the first mortal to die. They often exhibit a dual nature, or are a twin, where they are associated with the night as their counterpart is associated with the day. They are often obstructors, gatekeepers, or guardians of the threshold between worlds. They are often depicted carrying a noose for binding or restraining their quarry. They are often associated with bulls or serpents, giving them astrological significance. They are often associated with space-time, the physical universe, the Milky Way. In numerous creation stories their dismembered body is formed into the world; in others they are a demiurge or usurper of the Creative power of the true High God, fashioning a false world as a travesty of the Ideal world created by the One.

It is the demiurge who traps the light of the Creator in the fallen creation. This Gnostic idea is fairly pervasive in the ancient world, although its significance varies from culture to culture, religion to religion. The demiurge veils the Truth from the Creation; and so, throughout the history of this idea, there have been those who sought to break through—for everyone or themselves alone—to the Original Light. In Théon's teachings, this being is one of four, created by the Absolute and tasked with building the Ideal World. Their activity, however, engenders in them a sense of agency. This leads them to feel independent of the Creator. In their hubris, they create a second, false and fallen world, as a pale reflection of the original world planned by the Creator. This precipitates the necessity for the Mother (through whom the Creation was to have been effected) to enter into this world to combat and convert each of these beings in turn. According to Théon, the first two had already been converted. It was the Divine Mother's task in this life to confront and convert the third: the Lord of Death. Mirra Alfassa understood herself to be the incarnation of this Divine Mother.

I have mentioned that to the Mother Death was a mask or veil of the Divine. This mask has numerous characteristics and mythological resonances, one of which involves the association of the sun of this world with death. We find this idea in the work of Swedenborg, and later in Blavatsky. In Theosophy, as in Théon, this is tied to the sundoor myth and the yoga of the sundoor (Coomaraswamy, 1997), through which the yogi seeks conscious transcendence of this world, and so immortality. According to Coomaraswamy, the sun is often pictured as having a number of rays (most often seven, although Théon wrote of twelve). The path taken by the yogis is a hidden ray of light that descends into the body through the crown of the skull. If one can crystallize their consciousness around this light, they can follow it up through the sun, which is seen either as a door or as having a door within it, into the plane that transcends our own. Once able to pass through this door consciously, the yogi can reenter our reality into any body they choose: mineral, vegetal, animal, or human (White, 2009).

This yogic path of ascent and return, Coomaraswamy (1997) likened to the axis mundi—the symbolic pillar that holds up the universe. This pillar is seen outwardly in the sun beam, or inwardly in the rising Kundalini. As the serpent energy, it is also associated with the constellations Draco, Hydra, and Serpens, and at times associated with the Milky Way. Coomaraswamy (1997) wrote about this axis when discussing the smoke rising from the central hearth-fire of the ancient Hindu Temple, where the hearth is the navel, and the hole in the roof the fontanelle of the skull. The line of smoke from the navel (oomphallos) passes through the heart, and the brahmarandhra (cave of Brahma), between the pineal and pituitary glands. The process is known as the crystallization of consciousness, an idea popular in Theosophical circles around the time the Mother began her studies with Théon (Anonymous, 2002).

As Swedenborg (1969) argued, all that happens beneath the sun of this world is in thrall to the Lord of Death. This Sun of Death, however, is dual. Its other face shines on eternity. Only by seeing his face as a veil, or a mask of the Absolute, can one hope to draw back his disguise, and experience the world of the Creator. Once this is accomplished, death has no more power over the one who has broken through. It is through engaging Death that we learn, as Neumann (1990) wrote: "What at first appears to the ego as the devil, becomes a psychopomp" (p. 143). The visible sun is death, the demiurge, or the devil, child and reflection of the Divine Sun, visible face of God and "shroud of ignorance" (Ghose, 1993, p. 658)—symbol of the doorway between worlds. It is a paradox that this being is also the door which leads to the Ultimate.

Death as Doorway

The goal of the yoga as stated by Théon (cited in Alfassa, 1981) was "a New Creation on Earth and glorified body" (p. 375)—what the Mother and Sri Aurobindo called the Supramental or Gnostic Being. This goal will be the natural result of terrestrial evolution in time; however, because of the danger of the human ego, there is no guarantee we will not destroy ourselves first. Sri Aurobindo, as Théon before him, felt that it was the duty of those who could engage at this level to act as a catalyst for the evolutionary shift.

Théon wrote of seven cosmic epochs, of which ours is the sixth. Five times the universe has ended in destruction and renovation. Here, at the end of the last era of fallen humanity before the change, we are in the greatest danger. The demiurgic forces seek to remain independent of the Creator, and so fight with all the powers they have, to sew dissent and violence. We might very easily succumb to these shadow forces and destroy ourselves. Jung (as cited in von Franz, 1975/1998) remained pessimistic that we could, as a race, withdraw our projected enmities and so heal our relationship to the world. The Mother was more optimistic, and asserted that she had attained at least two of the goals she sought: The supramental descent, and its manifestation in the earth. To her, it was just a matter of time until the evolutionary shift that is occurring at this moment is complete, and death is no more.

This coming world, was written about extensively by Théon (1992). He saw the cosmic pattern through which everything unfolded as sevenfold. His idea that there are Seven Cosmic Epochs is rooted in Kabbalistic gematria. Kabbalah teaches that Creation took place in six days, just as the first word of the Torah, Bereshith, has six letters, and the first sentence of Genesis six words. In each case, the seventh (day, letter, word) is silent, or at rest. When the seventh stage is reached in the Seventh Cosmic Epoch, there will be no more need for the Creator to tear down the Creation in flood or fire. Humanity will have evolved into its divine destiny. Sri Aurobindo (cited in Alfassa, 1981) spoke of the coming Gnostic Age, saying that our universe would see "equilibrium" (or harmony) at the completion of the cosmic evolution, and that there would be no more pralayas, or dissolution. (pp. 267-268).

Jung (1959/1968a) also spoke of this shift, though he did so using astrological symbolism and the precession of the equinoxes from the age of Pisces to that of Aquarius. Pisces, symbolized by the two fish, which Jung points out, were associated with the tanninim (Leviathan and Behemoth) by the Talmudist Rashi, and which he interprets alchemically as the twin sons of God, Christ and the Devil, is the age marked by dualism, and the tension of the opposites (p. 80 [para. 133]). Aquarius, the water-bearer, is according to Jung the ideal of the individual owning their soul fully. Here, the transcendent and immanent become unified in the human being, which is the central symbol and focal point of the divine plan.

In the ancient Temple of Solomon it is said there hung a tapestry that veiled the Holy of Holies from the main court. Upon this veil stars supposedly were embroidered, symbolizing the veil of the heavens, behind which hid the secret and unknowable Divinity. In the Gospel of Mark, at the death of Jesus, the veil was rent. Symbolically, I would argue, the tearing of the veil meant the unification of the transcendent and immanent. From an orthodox Jewish perspective, such an event would probably precede the coming of the Messiah. Since Jews refused to recognize Jesus as the Messiah, then the tearing of the veil would probably seem to them more the result of blasphemy, as the order of the universe is broken when the separation between God and humanity is breached by human hubris. From the Christian perspective, however, rather than a blasphemy, this would seem rather the fulfillment of prophecy.

One way to understand this mythologem is through the myth of Inanna's Descent. Inanna was the Queen of Heaven, who determined to visit her sister, Ereshkigal, who was the Queen of the Underworld. In her descent, Inanna had to pass seven gates, where at each gate she was required to remove one of her seven "veils." With the removal of the final veil, all that remained was a side of meat, which Ereshkigal hung on a meathook behind her throne and left there to rot. Ereshkigal, as the dark feminine, represents Inanna's "instinctual beginnings . . . the Face of the Great Goddess, and of herself before she was born to consciousness" (Perera, 1981, p. 45).

Jung argued that the psyche has two poles: archetype and instinct. The archetypal pole is at the frontier between the higher aspects of soul and the ineffable spirit; the lower pole, or instinct, is at the frontier where the soul loses itself in the unconscious material forces of nature. Here is a tension between spirit and matter, and between the masculine and feminine. The veil, in both the Christian story and the Inanna myth, segregates the two realms. Its tearing seems to point to the necessity for the sought-for transformation to be effected through what Jung (1954/1969) called the "psychoid" realm: the biochemical roots of instinct, inaccessible to the psyche (p. 176). It is the psychoid that is the bridge between psyche and matter.

The mystery of the psychoid is the mystery of the transformation of matter through death. Somehow, Jung argued, death is the necessary final stage one must pass before the final work of alchemical transformation can occur. He (Jung, 1946/1966) cited the alchemists, saying that "no new life can arise . . .without the death of the old" (p. 257).

It is the body, built by demiurgic forces to entrap the Light of the Creator, that is the veil. To tear the veil is to free the scintilla within us to rejoin with the Light of the Creator, which is pure consciousness. Thus, both within us and at the center of all of existence is the transcendental Light of the Creator. As Jung (1954/1958) wrote: "Just as a door opens to one who knocks on it, or a way opens out to the wayfarer who seeks it, so when you relate to your own (transcendental) centre, you initiate a process of conscious development which leads to oneness and wholeness" (pp. 280-281). I would argue that no matter where we see this center—whether in the heart, or the brahmarandhra, or the Christ, or the sun, as von Franz (1986) put it: "Death is a problem of a threshold of perception between the living and the dead" (p. 155). To tear away the veil is to change our conscious perception of the world and our place in it.

This "threshold of perception" about which von Franz (1986) spoke has to do with what the Mother (Alfassa, 1983) called "changing government" (p. 183) from ego to Absolute, or what Jung would call from ego to Self. Zhu (2010) wrote about this change in reference to the Zen Cow Herding Pictures. In the traditional sequence, the eighth circle in the series is blank; the general interpretation is that this circle represents enlightenment, which because it is ineffable, cannot be pictured. Zhu argued, however, that what the empty circle might actually represent is that only through death can this transformation take place, because no matter how fine the line between the limited human awareness and the higher consciousness of enlightened being, what is lower cannot survive the transition.

What is it that occurs at the moment of transition? No matter if enlightenment takes one nanosecond or fifteen billion years, the moment of passage does not occur in space-time. It is what Jordan-Smith (2008) referred to as a "sojourn out of time," or "nuptial call" (p.116). This idea of the nuptial call is apparent in the story of Savitri, where Satyavan is abducted by Death, in the story of Persephone, abducted by Hades, and in the story of Inanna, who is depicted as arrayed in a wedding gown when she begins her descent (Perera, 1981, p. 53).

Only three months before her death the Mother (Alfassa, 1983) said to Satprem that it felt as if her “body has a wish to go to sleep and awake . . .only after it is transformed (p. 390). This reminded Satprem of the fairy tale Sleeping Beauty, who though asleep for a hundred years, experienced it as only a passing moment. The change of government requires sleep, or death for the transformation to be complete. As Jung (1957/1967a) put it:

> Evidently the veil of Maya cannot be lifted by a merely rational resolve; it requires a most thoroughgoing and persevering preparation consisting in full payment of debts to life. For as long as unconditional attachment through cupiditas exists, the veil is not lifted and the heights of a consciousness free of contents and free of illusion are not attained; nor can any trick, nor any deceit bring this about. It is an ideal that can ultimately be realized only in death. Until then there are the real and the relatively real figures of the unconscious. (p. 38)

However, Théon, in words the Mother might well have written, argued:

> It is only in indissoluble union with the divinity who is within him, that man will be able to attain to the progressive transformation on earth which is his full right . . . whoever teaches that retrogressive transformation or mortality is the predestined, legitimised end of man . . . is, therefore, the enemy of man. Of right, man is immortal. (Theon, 1991, pp. 109-110)

Still, the Mother (Alfassa, 1983) said: “If the supramental is to manifest on earth, something of it has to relate to the physical (p. 262). This would make sense, as the supramental is a transitional state en route to Saccidānanda. As Jung (1946/1966) put it: “Because the body, even when conceived as the corpus glorificationis, is grosser than anima and spiritus, a ‘remnant of the earth’ necessarily clings to it, albeit a very subtle one” (p. 278).

What these statements illustrate, I believe, is an apparent difference between the Mother and Jung, which should not be played down. To Jung, the original state is an unconscious mixture of light and dark. Duality, the discrimination of the two, is a necessary step to the final unity, which incorporates both. According to Neumann (1990), “The road which brings salvation . . . is a road which leads downwards to a reunion with the unconscious, with the instinctual world of nature and with the ancestors” (p. 144).

To Sri Aurobindo, on the other hand, the fallen world of duality creates the shadow. The supramental being is still a mixture of light and dark in transformed matter, and so there will remain “a remnant of earth,” but the original unified state is pure Light, and it is to the Light that we will return.

Conclusion

When the Mother withdrew the integral yoga community suffered a crisis of faith. Was she not supposed to complete the yoga and transform her earthly body? Satprem (in Alfassa, 1983,

p. 423f) was furious with the Ashram for not following what he felt were the Mother's strict orders concerning the disposition of her body, arguing that her transformation would have occurred if they had done so. Nolini (as cited in Alfassa, 1983), the Mother and Sri Aurobindo's disciple and physician, disagreed, writing this to the community upon the Mother's passing:

> The Mother's body belonged to the old creation. It was not meant to be the new body. It was meant to be the pedestal of the new body. It served its purpose well . . . for a new mutation, [a] new procedure was needed. "Death" was the first stage of that process. (p. 147)

This would appear to be more in line with what Jung (1957/1967a, p. 38) said concerning the alchemical teachings on the subject, and even perhaps Sri Aurobindo (as cited in Alfassa, 1987), who wrote in Aphorism #88: "This world was built by death that he might live. Wilt thou abolish death? Then life too will perish. Thou canst not abolish death, but thou mayst transform it into a greater living (p. 139).

Jung (1954/1969) felt that we could not escape our biological foundation. To him, the biological and the spiritual could be held in tension in the heart, or soul, of each of us, but there was no question of ever overcoming or transforming our physical nature. The ego requires a vessel for its transformation—that is the body. The mother wanted to transform that relationship, and so the structure of the universe itself. Yet it could be claimed that her work was alchemical in the best sense of the word: it was about the glorification of matter in the alchemically transformed resurrection body. My feeling is that Jung would have accused the Mother of concretizing what is essentially a symbolic process, while the Mother would have accused Jung of reducing the grand mystery down to the clouded consciousness of the human psyche. The Mother's defeat of the Lord of Death meant to her the breaking of the golden door that obstructs our contact with the divine, the release of the supramental force, and the promise of the final union of heaven and earth in the transformed body.

Within Integral Yoga, the Mother is typically seen through the filter of Sri Aurobindo's words and ideas. I have argued that her use of the symbols of death and transformation was more influenced by her Western occult training, and can best be understood in that way. I would also argue that, although Jung and the Mother would have differed in some essentials, through Jung's process of amplification one can come to a richer appreciation of both the uniqueness of the Mother's vision, and her universality. As she (Alfassa, 1977/2003) herself said:

> Spiritual experience . . . is an experience identical everywhere in all countries, among all peoples and even in all ages. If you meet the Divine, you meet it always and everywhere in the same way. Difference comes in because between the experience and its formulation there is almost an abyss. Directly you have spiritual experience, which takes place always in the inner consciousness, it is translated into your external consciousness and defended there one way or another according to your education, your faith, your mental predisposition. There is only one truth, one reality; but the forms through which it may be expressed are many. (p. 17)

I will end with a quote from Jung (1942/1967b), which I feel sums up my own attitude on this subject succinctly.

> We all have an understandable desire for unambiguous clarity; but we are apt to forget that in psychic matters we are dealing with processes of experience, that is, transformations, which should never be given hard and fast names if their living movement is not to petrify into something static. The protean mythologem and the shimmering symbol express the processes of the psyche far more trenchantly and, in the end, far more clearly than the clearest concept; for the symbol not only conveys a visualization of the process but—and this is perhaps just as important—it also brings a re-experiencing of it, of that twilight which we can learn to understand only through inoffensive empathy, but which too much clarity only dispels (pp. 162-163).

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Traditional Roots of Sri Aurobindo's Integral Yoga

Debashish Banerji[1]

Abstract: Sri Aurobindo's teachings on Integral Yoga are couched in a universal and impersonal language, and could be considered an early input to contemporary transpersonal psychology. Yet, while he was writing his principal works in English, he was also keeping a diary of his experiences and understandings in a personal patois that hybridized English and Sanskrit. A hermeneutic perusal of this text, *The Record of Yoga*, published by the Sri Aurobindo Ashram, uncovers the semiotics of Indian yoga traditions, showing how Sri Aurobindo utilizes and furthers their discourse, and where he introduces new elements which may be considered "modern." This essay takes a psycho-biographical approach to the life of Sri Aurobindo (1872-1950), tracing his encounters with texts and situated traditions of Indian yoga from the period of his return to India from England (1893) till his settlement in Pondicherry (1910), to excavate the traditional roots and modern ruptures of his own yoga practice, which goes to inform his non-sectarian yoga teachings.

Key Words: integral psychology, Pancharatra, Sri Aurobindo, tantra, transpersonal psychology, Vedanta, yoga, yoga psychology.

Sri Aurobindo wrote almost all his major works between 1914 and 1920 in the journal *Arya*. These works include tracts on the practice of his yoga, on the metaphysical basis of his yoga and on the social and political history of the world in an evolutionary context. He also published interpretations of the Vedas, selected Upanishads and the Bhagavad Gita. In his works on yoga, there are sometimes references to the Upanishads, Gita or Vedas and the use of certain terms belonging to an Indian yoga psychology and metaphysics; but these are always translated into a western lexicon and made part of a narrative which may be considered "modern," belonging to a philosophical and psychological discourse of "world knowledge." This has allowed him to be seen as one of the founders of contemporary integral philosophy and psychology, a modern scholar of universal significance, rather than a purely sectarian teacher.

But at the same time that Sri Aurobindo was writing these major works, he was practicing his own yoga sadhana in a very intense way; and writing his diaries of yoga practice, experiences and analyses. These diaries have been published under the title *Record of Yoga* (Sri Aurobindo, 2001), a name he himself wrote as a title to some of the diaries. If one reads the *Record of Yoga*

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alongside the major works, one sees very different language practices in use and what might even seem to be different formulations of his yoga teaching. Later, some of these major works were revised, so that one may detect at least four formulations of his yoga: (1) the version we get from his diaries, which follows a terminology taken from the Hindu traditions of Vedanta, Gita, Tantra and Pancharatra Vaishnavism; (2) the version in the first three sections of *The Synthesis of Yoga* (Sri Aurobindo,1999), which adapt the Bhagavad Gita’s “triple path” of Works, Knowledge and Love; (3) the version elaborated in the chapter on “The Triple Transformation” of *The Life Divine* (Sri Aurobindo, 2005) and in a number of the letters to his disciples, where he utilizes an invented terminology of the “psychic being,” “overmind” and “supermind” to develop his yoga; and (4) the version found in the compilation known as *The Mother* (Sri Aurobindo, 2012), and in many letters to ashram inhabitants after the final arrival in Pondicherry of Mirra Alfassa, his spiritual collaborator, enjoining surrender to her as the embodiment of the Divine Mother.

Through these formulations, one can see changes in terminology and emphasis. I hold that this is more due to the different kinds of audience for which his different texts were meant, the traditional terminology and emphases becoming translated into terms which were more approachable by these audiences. Of course, this is not to say that there were no changes in his understanding of the goals and processes of the yoga, but such changes are at an advanced stage beyond the division between *Vidya* (knowledge) and *Avidya* (ignorance). In this essay, I will explore the traditional roots of Sri Aurobindo’s yoga which form the basis of his own diary notes. I posit that there is continuity in Sri Aurobindo’s formulations, the core of which is to be found in his traditional roots.

A Psycho-biographical Consideration

To excavate these roots, I will take a psycho-biographical view of the yoga journey of Sri Aurobindo, relating this to the situated history of religious sectarian practice or influence. Sri Aurobindo’s spiritual journey can be said to have begun when he returned to India. He grew up in England, and studied at Cambridge University, where he enrolled for a Tripos in the classics (Heehs, 2008, P. 27). He was also well versed in the European romance languages (p. 43). This education prepared him as a modern subject, who had internalized the post-Enlightenment values of social critique and creative freedom. Such a preparation must be considered significant in his eclectic and creative approach to the yoga traditions of India.

Sri Aurobindo returned to India in 1893, and joined the service of the Maharaja of Baroda. At this time, he took up serious study of two texts that were to last with him through the rest of his life, the Upanishads and the Bhagavad Gita (Heehs, 2008, p. 57). He also began reading the books of Sri Ramakrishna and Swami Vivekananda. The Upanishads introduced to him the proto-philosophical complexity of the Vedanta, particularly its concern for an embodied freedom and delight (*jivanmukti*); while the Gita gave him the active doctrine of spiritual works and its revolutionary nature; as also a theistic and more integral spirituality, involving surrender to, and identity with, the Personal Divine. In Baroda, he also encountered situated traditions of Indian spiritual practice and participated in them. He had a few sporadic spiritual experiences; came across examples of paranormal power; visited the legendary yogi Brahmananda, who lived by the Narmada River and went to a Kali temple in the same area (Chandod) where he had an experience of the "World Mother" (Heehs, 2008, pp. 85-86). He later gave poetic form to this experience:

> ***The Stone Goddess***
> *In a town of gods, housed in a little shrine,*
> *From sculptured limbs the Godhead looked at me,–*
> *A living Presence deathless and divine,*
> *A Form that harboured all infinity.*
> *The great World-Mother and her mighty will*
> *Inhabited the earth's abysmal sleep,*
> *Voiceless, omnipotent, inscrutable,*
> *Mute in the desert and the sky and deep.*
> *Now veiled with mind she dwells and speaks no word,*
> *Voiceless, inscrutable, omniscient,*
> *Hiding until our soul has seen, has heard*
> *The secret of her strange embodiment,*
> *One in the worshipper and the immobile shape,*
> *A beauty and mystery flesh or stone can drape.*
> (Sri Aurobindo, 2009, p. 68)

This is the first mention of the "World Mother" in Sri Aurobindo's writings and attests to his introduction to the goddess traditions of India, that were to play a very important part in his personal and public life from 1906 onwards. The poem records a moment of *darshan*, which indeed, is also a moment of identity with Kali, perhaps his first ("one in the worshiper and the worshipped stone"). Here, he also started the practice of *pranayama*, taught by a friend who was a disciple of Brahmananda and close to the circle of hatha yogis surrounding Brahmananda (Heehs, 2008, p. 87).

Political Activism and Yoga

Sri Aurobindo began his political activism in Baroda in the company of Maharashtrian revolutionaries like Bal Gangadhara Tilak and his associates (Heehs, 2008, pp. 67-69), with a call for *poorna swaraj*, or unconditional independence based on the right of a people with its own cultural history to have independent expression and self-determination.

In 1905, the *swadeshi* movement, calling for a boycott of British goods and their replacement with indigenous manufacture began in Bengal as a consequence of the administrative partition of Bengal. Along with this, there rose a call for national education and Sri Aurobindo was offered the post of principal of the proposed national college by its primary patron. This was a chance Sri Aurobindo was waiting for, and in 1906, he left Baroda and moved to Calcutta to join this college and to pioneer and engage himself fully in the anticolonial resistance movement (Heehs, 2008, pp. 91-93, 97). A proto-nationalistic culture had been brewing in Calcutta for close to a century before Sri Aurobindo's arrival there. Bankim Chandra Chatterjee had already written his novel *Ananda Math* in which the lyrics of the revolutionary song Bande Mataram are contained; and Rabindranath Tagore was very active in cultural politics. There were many others, less known today, but all engaged in their own ways in the transvaluation of Bengali culture through hermeneutic engagement with the west. Behind this surface activity we find strong regional traditions of yoga. This is an aspect of the Indian struggle for freedom which is glossed over by secular historians of modern India.

These practices and teachings took their inspiration mainly from two regional traditions, Tantra and Vaishnavism. Shakta Tantra practices around the worship of Mother Goddess Kali and Bhakti traditions based on love for Krishna and amplified by Sri Chaitanya in the 16th century, were very alive in Bengal and available for mobilization in the freedom movement. We see, for example, how Bankim's writings drew heavily on both the Shakta as well as Vaishnav regional traditions of Bengal. The Shakta tradition contained mythic elements which fed the nationalistic eidos. Shakta traditions include the idea of sacralization of the Indian sub-continent through the myth of the dismemberment of the corpse of Sati (Eck, 2012, p. 27). This mythos was undoubtedly a fertile influence on the idea of the nation as Mother (*Bharata Mata*) that arose at this point in Bengal, though it had a more regional significance at this time.

These regional traditions were trans-religious and trans-cultural, forming the legacy of both subaltern and *bhadralok* classes in Bengal. Here, though it is true that the nation has been identified as a Mother by many emerging nationalities, the Indian image of nation as mother has not only a cultural history, but traditions of yoga—or in other words, spiritual experience and transformative practice—behind it. These ideas had already powerfully impacted Aurobindo in his last years in Baroda, since he was in close contact with a fledgling revolutionary movement in Bengal, which he was guiding. If one is to believe K. M. Munshi, Sri Aurobindo had already developed the idea of Bharat Mata and taught a method of practice aimed at making the nation alive in the consciousness as the Divine Mother (Heehs, 2008, p. 95). Around the same time, he concretized this perception in a letter to his wife, where he said that the land of India was not just a physical territory but the body of the Mother to him (pp. 88-90).

One may see this as a mythic politicization of Indian yoga traditions. The use of myth to territorialize a nation racially, ethnically or ideologically, has been seen as a rhetorical trope in the formation of fascist subjects in modern times. However, the shared regional cultural traditions transcending religions and opening new forms of collective numinous experience need to be acknowledged here, as a prelude to Sri Aurobindo's later invocation of the Divine Mother as a spiritual power (*Shakti*) uniting diverse human beings. The formation of a national archetype should also be seen as a critical stage in a process of popular identity formation, important as a form of what Gayatri Spivak has called "strategic essentialism" (Chakravorty-Spivak, 1988, pp. 1-32), though this needs to cede to processes of universalization once its purpose is served. Indeed, this is what we find in Sri Aurobindo, for whom this phase led to a more species-wide consideration of human consciousness and its possibilities.

The Tantric traditions, with their archaic roots in human and animal sacrifice, could also be utilized to inspire the sacrifice of one's life to the cause of national emancipation, something Sri Aurobindo drew on to some extent. Already in Baroda, he wrote up an impassioned program celebrating Shakti as the spirit of modernity needing a temple home in the mountains and men ready to sacrifice themselves to her (Heehs, 2008, pp. 81-82); and later in Calcutta, he stimulated the conversion of the regional Durga Puja festival into a political ritual. Sri Aurobindo and his fellow revolutionaries also drew heavily on the idea of sacrifice and desireless works contained in the Bhagavad Gita. As part of the initiation rites of the revolutionary Anushilan Samiti, members had to take an oath on the Gita to sacrifice their lives to the nation as a divine work, a sworn loyalty sealed by blood. Such practices show the braiding of the spiritual traditions of the Gita and the Tantra, a precursor to his worship of the dual forms of Krishna and Kali.

Beginnings of Personal Yoga

As mentioned above, along with these mental and symbolic attitudes drawn from yoga traditions, Sri Aurobindo, towards the end of his stay in Baroda, turned towards the practice of *pranayama* (breathing method) and some *asanas* (hatha yoga postures), and had a number of encounters of a spiritual and occult kind (including that with a *naga sannyasin* who demonstrated occult healing powers) (Heehs, 2008 pp. 84-87). This aspect of developing sources of inner power, the field of what have been called *siddhis* (yogic powers), through yoga, no doubt had an impact on Sri Aurobindo as a political activist. One may read this as a consequence of dispossession. Those lacking material or political power, often look to personal sources such as enhanced mental, vital, subliminal, psychic, physical or spiritual power, to wage their battles for rights. Sri Aurobindo's serious turn towards the practice of yoga, did not arise, then, from a seeking for freedom from the bondage of existence (*moksha*) but from a seeking for spiritual power (*shakti*) that could help to free the nation (Heehs, 2008, p. 87). We may see this as a more properly Tantric goal.

The teachings of the Vedanta, particularly as they have been interpreted later by the *bhashyakars* or commentators, emphasize *moksha* or liberation. Undoubtedly, there are world affirming teachings to the Upanishads (*jivanmukti*) and these are what interested Sri Aurobindo more than a world-negating transcendentalism. These life-positive teachings of Vedanta are reiterated in the Bhagavad Gita, which shows the way to desireless enjoyment of dedicated action from a vantage of freedom. But the Vedanta and Gita concerned themselves, even when world affirming, with *dharma* (right action), *karma* (right attitude in works), *jnana* (knowledge), *bhakti* (devotion) and *moksha* (liberation). The schools of Tantra, on the other hand, made a maximization of worldly power and enjoyment their purpose. The project of the Tantras became a development of the latent and paranormal powers of experience and activity with the body and the earth as their field of fulfillment. Thus, it is to develop inner power and explore its possibilities that Sri Aurobindo turned to hathayogic and pranayama practices meant to open up the occult doors separating us from cosmic and divine sources of Power *(Shakti).*

Sri Aurobindo claims that his practice of pranayama did not result in much except for an enhanced flow of poetic inspiration and some physical changes including the development of a faculty of subtle vision, the ability to see forms and movements in astral space, eyes closed or open (Heehs, 2008, P. 87). Later in 1906, he stopped the pranayama and fell very sick. Recovering from this illness, he sought spiritual help from a master. A number of yogis and sannyasins, who concerned themselves with India's freedom, were in contact with the circles of the Indian struggle for independence, and several of the leaders of this struggle had become disciples of yogis. Sri Aurobindo's brother, Barindra Ghosh, knew a Maharashtran yogi, Vishnu Bhaskar Lele who lived in Baroda, and he put Sri Aurobindo in contact with this teacher. Sri Aurobindo met Lele in 1907 when he traveled to Gujarat and Maharashtra to participate in the fateful Surat Congress and in political rallies in Bombay and Pune (Heehs, 2008, P. 142).

The Nirvana

In Baroda, Sri Aurobindo sat with Lele in the house of a friend and sought instruction in yoga. Lele was a Vaishnav, though it isn’t clear what denomination (*sampradaya*) of Vaishnavism he belonged to. He was also a follower of the Dattareya cult, popular in Maharashtra, and was versed in Theosophy. From the Pancharatra underpinnings of Sri Aurobindo’s diary of yoga, *The Record of Yoga* (Sri Aurobindo, 2001), it seems to me that Lele may have been a follower of the ancient form of Tantric Vaishnavism known as Pancharatra. What Lele wished to convey to Sri Aurobindo was an opening to divine guidance. This could be thought of as a form of intuition. To arrive at this contact with the Divine Will, Lele sought to help Sri Aurobindo to quiet the activity of his mind (Heehs, 2008, pp. 143-144). Lele instructed Sri Aurobindo in a form of *rajayoga* meditation meant to rid the mind of thoughts. Unexpectedly, within three hours Sri Aurobindo experienced a silent mind and with three days of practice, this complete silence established itself in his being, as a result of which he saw the world as illusory and as having no sense of self. Sri Aurobindo has referred to this experience as nirvana (Heehs, 2008, pp. 144-146).

As with the experience at the Kali temple at Chandod, Sri Aurobindo has poetized this experience, titling it Nirvana:

All is abolished but the mute Alone
The mind from thought released, the heart from grief,
Grow inexistent now beyond belief;
There is no I, no Nature, known-unknown.
The city, a shadow picture without tone,
Floats, quivers unreal; forms without relief
Flow, a cinema's vacant shapes; like a reef
Foundering in shoreless gulfs the world is done.

Only the illimitable Permanent
Is here. A Peace stupendous, featureless, still.
Replaces all, - what once was I, in It
A silent unnamed emptiness content
Either to fade in the Unknowable
Or thrill with the luminous seas of the Infinite.
(Sri Aurobindo, 2009, p. 561)

Neither Sri Aurobindo nor Lele were expecting such an experience. It was of some inconvenience, since Sri Aurobindo was expected to deliver political speeches in Pune and Bombay, but couldn’t find the motivation to do so. Lele, on his part, told Sri Aurobindo that “the devil had got hold of him,” since the schools of Vaishnavism are theistic and not world-negating. However, he was impelled by a voice within him to ask Sri Aurobindo to trust his own inner guidance from now (Heehs, 2008, p. 148).

In essence, Sri Aurobindo did achieve what Lele had hoped for him, access to a divine guidance of his own, but this came via an unexpected experience. In using the term nirvana to describe this experience, Sri Aurobindo clearly relates the experience to Buddhism, though the term "brahmanirvana" (The Bhagavad Gita V:26) also occurs in the Gita. From his descriptions of the event (as in the above poem), it is clear that the experience included a radical unreality and an extinction of the ego and any sense of self (including the Vedantic Atman), which separate it from an Advaitic moksha. However, he was later to refer to the ontology of this experience as the passive Brahman, which relates it to the lexicon of Vedanta and the Gita. Considering the Tantric tradition, this experience could be equated with *laya*, the dissolution of the self in Superconscience.

Vaishnava, Tantra, Pancharatra

In Bombay, Lele, who accompanied Sri Aurobindo on his journey, asked him to fold his hands to Narayana (Supreme Being) and open himself to the Divine to speak through him. The reference to Narayana reinforces our understanding of Lele as a Vaishnav, most possibly of the Vishishtadvaita school of Vedanta, for which Narayana takes the highest place. This is also related to the Pancharatra sect, supported by Vishishtadvaita, which believes in a cosmology of emanationism from Narayana and/or Vasudeva, both names and forms of Vishnu that played a central part in Sri Aurobindo's sadhana. This, indeed, would have been an instance of listening to the "inner voice" of the Divine, but Sri Aurobindo had lost the will to works, due to the radical unreality experienced by him. Eventually, Lele folded his hands to Narayana and Sri Aurobindo witnessed a political speech being delivered, using his vocal instrumentation as a medium (Heehs, 2008, pp. 146-147). This, on its part, would hardly be a typical Buddhist experience, but could be more closely related to the Gita, where Arjuna is asked by Krishna to lose the sense of doership and, seated in brahmanirvana, enjoy the activity of prakriti in and through him, under the guidance of the Divine.

Following this experience, Sri Aurobindo continued in this state of unreality, obeying the directives of a divine voice (*adesh*) or other forms of communication and action through his instrumentation. At some time, during this period, the identification of this Divine Source with Krishna occurred in Sri Aurobindo's consciousness, though one of the first times we hear mention of this is during the famous Uttarpara Speech, delivered after his acquittal from the Alipore Jail in 1909.

This incarceration took place in May 1908, for allegedly directing terrorist activity in the case of the attempted bombing of a magistrate and the killing of two British ladies. Sri Aurobindo was in the jail for one year, facing a most likely death sentence. During this time, his yoga flourished. He has written about this: "I have spoken of a year's imprisonment. It would have been more appropriate to speak of a year's living in an ashram or a hermitage. The only result of the wrath of the British Government was that I found God" (Sri Aurobindo, 1991, pp. 261-262)

In the jail, Sri Aurobindo, who was settled in "the passive Brahman," now discovered "the active Brahman" (Heehs, 2008, pp. 177-178). This again is a combination of Tantric and Vaishnav regional traditions hearkening back either to an even earlier Pancharatra or to an evolution of Pancharatra. Krishna and Kali are Ishwara and Shakti. Kali is the universal Energy whose becomings are all things and Krishna is the Person at the heart of each becoming.

But Sri Aurobindo was a pure witness at one level, the level of the modern scientist. From the Uttarpara Speech and other records of that time, we know that it was an intense period of trials, of the overcoming of fear and aversion, of the practice of the mantra, *sarvam khaluvidam brahma, vasudevah sarvam iti* (Heehs, 2008, p. 165). This mantra demonstrated the link between Pancharatra Vishanavism (Vasudeva) and the Upanishads (Brahman), and in Sri Aurobindo's description, we see how the constant meditation on the idea moved from an impersonal Presence pervading and in all things in the cosmos, to an impersonal Person, wearing all the names and faces of the cosmos, and from that, to the Person than whom there is no other as Lover in all things. This, the *Record of Yoga* shows us, is the Krishna-Kali (Sri Aurobindo, 2001, pp. 77, 230, 571, 711, 734, 735, 760, 830, 831, 833, 845, 851, 869, 876, 922) and Krishnakali (2001, pp. 96-97, 247, 275, 277, 750, 767, 770, 780-783, 810, 813, 851, 854, 859, 863, 875, 883, 912, 923, 931) realizations; where Kali is the universal Energy whose becomings are all things, and Krishna is the Mysterious Being at love play (*lila*) with his own active mirror which is also himself, infinite, but Other— since radical Infinity means always an infinite Remainder. This is the Other of the Same, a dialectical polarity, positive and negative, *linga* and *yoni*[2], that is necessary to the birthing of infinite becomings.

Of course, "nothing too, is himself unguessed" as Sri Aurobindo (2009, p. 216) writes in his poem "Parabrahman". This poem, dated as being between 1900 and 1909, is a precise philosophical statement, using poetry just like the ancient Indian philosopher-poets of the Upanishads. It seems to me to be written after the Parabrahman experience, which is most likely to have visited him in the Alipore Jail. The entire poem is worth quoting, but I will restrict myself to the last verses:

He is, we cannot say; for Nothing too
Is His conception of Himself unguessed.
He dawns upon us and we would pursue,
But who has found Him or what arms possessed?

He is not anything, yet all is He;
He is not all but far exceeds that scope.
Both Time and Timelessness sink in that sea:
Time is a wave and Space a wandering drop.

Within Himself He shadowed Being forth,
Which is a younger birth, a veil He chose
To half-conceal Him, Knowledge, nothing worth
Save to have glimpses of its mighty cause,

And high Delight, a spirit infinite,
That is the fountain of this glorious world,
Delight that labours in its opposite,
Faints in the rose and on the rack is curled.

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[2] Literally phallus and vagina, anthropomorphic signifiers in Indic and specially Shaiva and Tantric discourse, standing for a cosmic polarity.

> *This was the triune playground that He made*
> *And One there sports awhile. He plucks His flowers*
> *And by His bees is stung; He is dismayed,*
> *Flees from Himself or has His sullen hours.*
>
> *The Almighty One knew labour, failure, strife;*
> *Knowledge forgot divined itself again:*
> *He made an eager death and called it life,*
> *He stung himself with bliss and called it pain.*

The Alipore Jail descriptions are famous, of course, for Sri Aurobindo's experiences of Krishna—the Lover embracing him in all things (Sri Aurobindo, 1997a, p. 6), and finally revealing Himself in all beings at a court hearing (Sri Aurobindo, 1997a, p. 7). We don't get many mentions of Kali. There are a few interesting ones from his *Thoughts and Aphorisms* (Sri Aurobindo, 1997b). These, for example: "519. Kali is Krishna revealed as dreadful Power & wrathful Love. She slays with her furious blows the self in body, life & mind in order to liberate it as spirit eternal" (p. 496). But in one he spells out his relation to both of these:

> 427. I did not know for some time whether I loved Krishna best or Kali; when I loved Kali, it was loving myself, but when I loved Krishna, I loved another, and still it was my Self with whom I was in love. Therefore I came to love Krishna better even than Kali. (p. 483)

This "thought" shows Sri Aurobindo's identity with Kali, a condition he later described also in his book *The Mother* (Sri Aurobindo, 2012, p. 13). Here Kali is seen not just as the cosmic Nature Force, but as the transcendental Shakti, one of whose appearances is the cosmos. The laws of the cosmos therefore do not bind either Kali or the sadhak who has surrendered him/herself to Kali. But bearing this transcendental Mother Force, he experiences it as himself ("when I loved Kali it was loving myself"). It is out of this identity with Kali that he experiences Her play with Krishna, the Other, the Mysterious, the Infinite Continent. According to the editor's note at the end of the volume, The *Thoughts and Aphorisms* were written in or around 1913, at a time when the diary entries of the *Record of Yoga* were also being written.

The Four Realizations

Sri Aurobindo has described his yoga as resting on four "realizations." By the time he departed from the jail, he had realized two of these four realizations and was on the way to the other two realizations. In his words:

> The first [realization] he had gained while meditating with the Maharashtrian Yogi Vishnu Bhaskar Lele at Baroda in January 1908; it was the realization of the silent, spaceless and timeless Brahman …..[;] his second realization … was that of the cosmic consciousness and of the Divine as all beings and all that is, which happened in the Alipore jail …. To the other two realizations, that of the supreme Reality with the static and dynamic Brahman as its two aspects and that of the higher planes of consciousness leading to the Supermind, he was already on his way in his meditations at the Alipore jail. (Sri Aurobindo, 2006, p. 94)

In the above account, we have seen three of the four realizations he speaks about here – the realization of the passive Brahman, the realization of the active Brahman and the realization of the Two-in-One in the guise of Krishna-Kali. However, in this description of four realizations, some key steps are missed out: (1) the realization of the active (and *saguna*) Brahman includes a containing and forming aspect and an aspect of immanence. These impersonal functions can be seen personally as Kali and Krishna respectively. Evidently, this is a transition that occurred in Sri Aurobindo's consciousness—the move from the *nirguna* (formless/static) to the *saguna* (immanent/dynamic) Brahman, with its qualities of dynamic manifestation and evolution and of individual creativity, and then to the Krishna-Kali, Krishnakali and ultimately Krishna personalism; (2) the realization of "the supreme Reality with the static and dynamic Brahman as its two aspects" also reflects the above transition and is ultimately dramatized in the reduction from plural to dual (Krishna-Kali) to two-in-one (Krishnakali) and finally to the sole existence of Krishna.

We can see in these four realizations again, the weaving of the Vedantic, Tantric and Vaishnav traditions. The first realization, as we have discussed, is Buddhistic and close to Advaitic (i.e. non-dualistic); the second realization includes the Tantric and Vishishtadvaitic at first, then the Gaudiya Vaishnav. The Tantric traditions aim for the experience of an impersonal all pervading and shaping Consciousness but this is seen and experienced as the Player in all forms, Kali. The Vishishtadvaitic realization of Ramanuja is an ontology of the One Person as the Many at play. Here if we combine Tantra and Vishishtadvaita, the Presence in the Substance and Energy of nature is seen as Kali, while its purpose can be seen as the relational delight of Vishnu-Narayana (Person form of Parabrahman) (according to the Gita and Gaudiya Vaishnavism, Krishna) with his prakriti (what the Tantrics would call Shakti). "The Parabrahman with the static and dynamic Brahman as its two aspects" could be seen again as related to a synthesis of Tantric and Vishishtadvaitic ideas, particularly if we consider all three Parabrahman, passive Brahman and active Brahman to have Personal forms. Parabrahman would then be the transcendental form of Vishnu-Narayana, while the passive Brahman would be more like Shiva of the Tantric traditions and the active Brahman would be Kali with Krishna immanent within all her becomings.

Among the yoga traditions of India, the one tradition that is known to pair Krishna and Kali is the Tantric Ten Mahavidya tradition, where Kali's consort is Krishna. There may be other esoteric traditions that have the same coupling, but if so, this is not commonly known. The ontology of the third realization also derives from the Gita, where the Parabrahman would be Purushottama (Supreme Being) and the passive and active Brahman, akshara and kshara Purusha respectively. Translating the Vishishtadvaitic and Tantric schemes into Pancharatra (five manifestations) , each of the entities involved would be an Ishwara-Shakti pair, Parabrahman as Purushottama-Paraprakriti of the Gita or Narayana-Sri Lakshmi of Pancharatra which could have morphed in Sri Aurobindo's case to Krishna-Kali. The passive Brahman would retain the neutrality of the Nameless, while the active Brahman would assume the emanationism of Pancharatra, based on the quartering of the Vedic Purusha in the Purusha Sukta.[3] These emanations would also exist in Ishwara-Shakti pairs. This, indeed, is what we find in *The Record of Yoga*; and in a modified form, in *The Mother*.

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[3] The Purusha Sukta of the Rig Veda describes the self-sacrifice of Purusha by "quartering" Himself into the four varnas – Brahmins, Kshatriyas, Vaishyas and Sudras. The Pancharatra emanationaism follows this in seeing a Supreme Narayana emanate Himself into four descendants, the Vrishni heroes who can be identified as lords of the the four varnas – Vasudeva or Mahavira for the Brahmin, Sankarshana or

Topography of Evolution

Moreover, though the first three realizations could be spoken of in terms of existing regional schools of traditional practice, the fourth realization— that of "the higher planes of consciousness leading to the Supermind,"—is not as easy to find in traditional discourse of the modern period. This may be because the cartographer's interest required for this had been largely lost in the Indian spiritual traditions, perhaps because the Vedantic division between Vidya (knowledge) and Avidya (ignorance) was considered permanent. If, however, this division is probed, it yields a topography that provides a pathway for conscious human evolution towards a being of Knowledge. This entire aspect may be thought of as modern, not only in terms of its historicity but in terms of its ideology and telos. It is interesting that Sri Aurobindo claims initiation into this line of consideration from Vivekananda, ten years his senior, who went to sow the seeds of a Vedantic ideology and telos in America at the time when Sri Aurobindo returned to India from England.[4]

Brought up in English ways, Sri Aurobindo integrated British (and with it, French) modernity into his situated regional practices of traditional yoga. One may question his adherence to any existing sect or cult, but leeway and originality have always been encouraged in the most of the regional traditions of India, resulting in a rich evolving discourse. But to think a global and more, species-wide telos, defining in its own way thereby, the human, is quintessentially modern.

Heidegger's "Europeanization of the world" is the globalization and planetarization of the telos of technicity, humanity as *techne*. Against this, Heidegger had proposed humanity as *poeisis* instead, and even techne as poeisis. But once the dye has been cast, the modern born with the humanization of the cosmos as its goal, the definition of the human as a universal species-being goes up for grabs and there is no escape from the struggle for human self-definition. The Vedantic alternative proposed by Vivekananda was a science of Consciousness. Pushing these borders further, Sri Aurobindo (acknowledging Vivekananda as his occult teacher), began probing the phenomenology of mystic and cosmic experiences, and came up with a topography of consciousness ranges intervening between the human and the Knowledge consciousness (Vidya). Defining the human in these terms provides a telos of embodied and active self-exceeding renewing Nietzsche's dream of the Overman: "Man is a rope stretched between the beast and the overman" (Nietzsche 1982, p. 126). Hence, one may say that this traditionally novel line of yoga subsumed the traditional lineages of practice in Sri Aurobindo, giving a modern meaning to them—the *lila* as the evolutionary play of Krishna and Kali, leading to an unveiling of cosmic Maya and the Knowledge of Creative Agency as Oneness and Love. Such an unveiling would mean a materialization of the Symbolic Truth (taking the Symbol to be the archetypal Real), made plural through an embodied gift of tongues, the slippage and splintering

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Balarama for the Kshatriya, Pradyumna for the Vaishya and Aniruddha for the Sudra. For further details on Pancharatra, see Matsubara (Matsubara, 1994).

[4] 1893, the year of the Columbian Exposition and the Parliament of World Religions, held in Chicago, for which Vivekananda set sail for the US, was also the year of Sri Aurobindo's return to India from England.

of the Word into its infinity, making possible a Love relationship of Wonder between all beings, stemming from the experienced simultaneity of (radical) oneness (i.e. identity) and (radical) difference (i.e. singularity).

Conclusion

In conclusion, Sri Aurobindo came into contact with a number of situated Indian traditions of yoga and seems to have absorbed symbologies, goals, practices and lexicons from all of these. The Vedanta and the Gita seem to have remained, as per the tradition, Sri Aurobindo's textual touchstone, the *Sruti* (sacred texts), from which all else must seek validation. Of course, cosmic and transcendental experience exceeded these, but the Vedanta and Gita, were accepted by the tradition and by the early Sri Aurobindo, evidently following his own faith, to be in consonance with the highest experiences. Later, Sri Aurobindo was to discover unexplained obscurities in the Vedanta and the Veda Samhita was to become the original source of the goal of a divine life that he had arrived at. In Bengal, he entered an immersive environment saturated with Krishna and Kali, and had already received his mystic introduction to both of these at Baroda, Kali in her temple at Chandod and Krishna through the Gita. But neither of these seems to have become very spiritually important to him until after the nirvana experience of Baroda in 1907. By the time (1908) he was in the Alipore Jail, Krishna had become the personal form of the Divine with whom he was principally in relation. Sri Aurobindo does not mention the name of Kali with respect to the Alipore Jail, but after his departure to Pondicherry in 1910, we begin seeing references to his identity with Her, particularly in his *Thoughts and Aphorisms* (Sri Aurobindo, 1997b) and *The Record of Yoga* (Sri Aurobindo, 2001). He also signed his letters of advice to his revolutionary friends, Kali. Yet, the Alipore Jail was also an initiation to a new and non-traditional line of yoga practice, one which gradually subsumed all the others and which he termed the formation of an intuitive mentality, seen not as an individual occult power (siddhi) but as a necessary step towards an alternate telos of modernity—the evolution of human consciousness out of its ignorance into the Knowledge or Integral Consciousness, which, in his opinion, could result in a divine life on earth.

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The Metaphysical Instincts & Spiritual Bypassing in Integral Psychology

Bahman A.K. Shirazi[1]

Abstract: Instincts are innate, unconscious means by which Nature operates in all forms of life including animals and human beings. In humans however, with progressive evolution of consciousness, instincts become increasingly conscious and regulated by egoic functions. Biological instincts associated with the *lower-unconscious* such as survival, aggressive, and reproductive instincts are well known in general psychology. The *higher-unconscious*, which is unique to human beings, may be said to have its own instinctual processes referred to here as the 'metaphysical instincts'. In traditional spiritual practices awakening the metaphysical instincts has often been done at the expense of suppressing the biological instincts—a process referred to as spiritual bypassing. This essay discusses how the metaphysical instincts initially expressed as the religious impulse with associated beliefs and behaviors may be transformed and made fully conscious, and integrated with the biological instincts in integral yoga and psychology in order to achieve wholeness of personality.

Key Words: Carl Jung, higher-unconscious, instincts, integral psychology, integral yoga, lower-unconscious, psychosynthesis, Roberto Assagioli**,** spiritual bypassing, Sri Aurobindo.

Introduction

A key aim of integral yoga and psychology is to reach wholeness of personality. In practical terms, achieving wholeness necessitates harmonization of the various dimensions of personality through the organizing principle of the psyche—the Self, or in Sri Aurobindo's terms, the Psychic Being (Sri Aurobindo, 1989). Among western transpersonal psychologists, Carl Jung and Roberto Assagioli have developed some of the most comprehensive personality frameworks that include a similar psychocentric principle—referred to as the Self or the Higher/Transpersonal Self respectively—to represent this integrating and harmonizing fulcrum of personality.

Roberto Assagioli, an Italian psychiatrist who was an early associate of Freud and Jung, is not as well known as these pioneers of depth psychology. However, his framework called Psychosynthesis, which combines empirical, depth, humanistic and transpersonal psychologies at once, is in this author's view the most comprehensive western integrative psychological and

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psychotherapeutic system compatible with integral psychology. Assagioli's conceptual model of human personality is complemented with a rich array of practical techniques and processes for growth, development and integration of personality. In his major work titled *Psychosynthesis*, Assagioli (1971) proposed a model of human personality with many practical implications for healing and transformation of consciousness including techniques for catharsis, critical analysis, self-identification, dis-identification, development for the will, training and use of imagination, visualization and many more, all as part of the psychosynthesis work aimed at integration of personality.

Assagioli's personality framework includes three intrapsychic dimensions: the *lower-unconscious*, the *middle-unconscious*, and the *higher-unconscious*. Depicted as hierarchal strata within an upright oval diagram, these are nested within the larger collective realm in the background which is similar to Jung's notion of the *collective unconscious*, representing the transpersonal and cosmic dimensions of the psyche. The region that includes the conscious mind is at the center of the oval diagram and is referred to as the middle-unconscious region. This region is primarily subconscious with the field of ordinary waking consciousness represented by a circle at its center.

Assagioli (1971), who incorporated in his model some of the key features of Freud's and Jung's contributions, added the idea of the higher-unconscious and called its organizing principle the Higher or Transpersonal Self. While his concept of the lower-unconscious is essentially comparable to Freud's concept of the *Unconscious*, and Jung's personal unconscious (the *Shadow*), as the storehouse of dynamically repressed materials, his middle-unconscious was added to account for what is not in the immediate conscious awareness, and yet not dynamically repressed and available for recollection at will without any resistance or defense mechanisms.

Assagioli's higher-unconscious explicitly represents the human spiritual realm which could be made conscious and integrated into the conscious personality, just as the lower-unconscious would be made conscious and integrated to achieve complete integration and wholeness of human personality. The Higher Self (also called the Transpersonal Self) would be crucial as a catalyst to make this integration possible. Beginning in the 1920s, Assagioli developed pioneering insights into the nature of the relationship between psychological and spiritual development and pointed out a number of psychological issues arising before, during and after spiritual awakening (Assagioli, 1971).

Although a two-dimensional depiction of the oval diagram is rather linear with the abovementioned regions appearing as hierarchal strata with the higher-unconscious at the top, in day-to-day experience both the higher and the lower unconscious are hidden below the surface of mental awareness and are ordinarily mixed-up and confounded. This inner fusion may eventually become clarified as more and more unconscious contents are integrated into the middle-unconscious and enter the field of conscious experience.

The use of the term 'unconscious' is of pivotal interest to our discussion here: all regions in Assagioli's scheme are outside of the conscious realm depicted as a circle in the center of the middle-unconscious. The lower-unconscious region is associated with the biological functions as well as dynamically repressed emotional and mental content. The lower-unconscious is mainly regulated through biological instincts. Instincts are innate, unconscious means by which Nature operates in all forms of life including animals and human beings. Biological instincts associated with the lower-unconscious such as survival, aggressive, and reproductive instincts, are well known and well researched in general Western psychology.

The higher-unconscious, which is unique to human beings, may be said to also have its own instinctual processes referred to here as the *metaphysical instincts*. These include transpersonal intuitions, visions, illuminations and spiritual aspirations which are initially unconscious relative to ordinary mental functions. Here we can apply the idea of instincts to the realm of the higher-unconscious because they too initially reside outside of the realm of conscious experience and exert powerful influences on the human psyche. "…[A]ll psychic processes whose energies are not under conscious control are instinctive" (Jung, 1971, p. 451).

Metaphysical instincts are as powerful as the biological instincts and become more relevant and empowered in the course of psychospiritual growth and transformation. Whereas biological instincts are responsible for our embodiment processes, the metaphysical instincts tend to propel us toward our spiritual destiny. They influence our religious impulses, beliefs and behaviors as well as our philosophical ideations.

Integral Psychology

Sri Aurobindo's key phrase: "all life is yoga", suggests that integral yoga—which is an integration of the yogas of love (*bhakti* yoga), knowledge (*jnana* yoga), and action (*karma* yoga)—is not only understood as an individual spiritual practice, it is also accomplished by Nature in a collective manner. A simple observation of animal life reveals that even though the mental life of an animal is not as elaborate and complex as that of a human being, the essence of their being is nevertheless expressed through instinctual love and knowledge in action. Animals simply know how to go about their daily life, care for their young and live their lives according to the dictates of their biological instinctual processes.

The animal instinctual core structures also operate in human beings as part of our evolutionary heritage. Whereas animals are primarily driven by the biological drives, the human beings are, in addition, pulled by the gravitation of the forces of the metaphysical instincts. In other words, in humans the evolutionary instincts of the lower-unconscious and the involutionary instincts of the higher-unconscious—the metaphysical instincts—create an existential dialectical process in the psyche. This dialectical tension typically manifests in terms of diametrically opposing forces that act upon and within the psyche on all levels from physical, to emotional and mental, which must eventually be harmonized in the course of integration of personality.

Jung made a similar distinction between biological and metaphysical instincts as pairs of opposites, inextricably linked and often difficult to distinguish. He wrote:

> …psychic processes seem to be balances of energy flowing between spirit and instinct, though the question of whether a process is to be described as spiritual or as instinctual remains shrouded in darkness. Such evaluation or interpretation depends entirely upon the standpoint or state of the conscious mind. (Jung, 1960, p. 207).

Before spiritual awakening—the first step in the psychospiritual transformation processes—a typical individual is primarily governed by conscious mental, emotional, and physical processes, as well as relatively unconscious instincts. The interplay between consciousness and unconsciousness is at the core of the phenomenal and psychic existence and some sort of balance among, or the reconciliation of, these is a common goal of western schools of depth psychology, notably Freud's Psychoanalysis, Jung's Analytical Psychology, and Assagioli's Psychosynthesis. A similar, yet more comprehensive, aim is also at the core of integral psychology and yoga.

In integral yoga and psychology,

> ...consciousness is not synonymous with mentality but indicates a self aware force of existence of which mentality is a middle term; below mentality it sinks into vital and material movements which are for us subconscient; above, it rises into the supramental which is for us the superconscient. But in all it is one and the same thing organizing itself differently. (Sri Aurobindo, 1997, p. 88)

The human being is then an embodiment of various spheres of consciousness ranging in density from the densest to potentially most luminous strata. The ultimate aim of integral yoga is to eradicate the unconscious dimension of the human psyche and thus achieve a fully integrated conscious psyche.

According to Sri Aurobindo (1992):

> In the right view both of life and of Yoga all life is either consciously or subconsciously a Yoga. For we mean by this term a methodised effort towards self perfection by the expression of the secret potentialities latent in the being and highest condition of victory in that effort a union of the human individual with the universal and transcendent Existence we see partially expressed in man and in the Cosmos. But all life, when we look behind its appearances, is a vast Yoga of Nature who attempts in the conscious and the subconscious to realise her perfection in an ever-increasing expression of her yet unrealised potentialities and to unite herself with her own divine reality. In man, her thinker, she for the first time upon this Earth devises self-conscious means and willed arrangements of activity by which this great purpose may be more swiftly and puissantly attained. (p.2)

According to integral psychology pioneer Indra Sen (n.d.):

> …to Sri Aurobindo the teleological or forward moving character is the central fact of our consciousness. It is the evolutional urge of life generally, which unfolds in the ascending scale of the animal species a progressive growth in consciousness. Therefore, the unconscious is the large evolutional base from which consciousness emerges. However, if the past is any indication, then it can be definitely affirmed that the goal of this long evolutionary march must be the attainment of a consciousness fully come to its own. That is to say when the unconscious has been reduced to the vanishing point and the human individual becomes fully aware of himself and capable of acting out of such awareness. (p.6)

The Problem of Spiritual Bypassing

When a human being is primarily governed by his or her instinctual drives, various biological and metaphysical tendencies are at odds with one another and tend to compete to get the attention of the egoic will to utilize it toward their own purposes. The various levels of the unconscious (lower, middle, higher in Assagioli, or inconscient, subconscient, and superconscient in Sri Aurobindo) are in actuality not neatly divided and compartmentalized. They are in fact a 'mixed bag' of tendencies beyond the reach of the conscious, egoic will. In depth psychology it is understood that sexual and aggressive urges can easily get mixed up in the form of dominance or otherwise aggressive sexual behavior in animals and humans. This mixing up of the unconscious tendencies is not, however, limited to the biological instincts. The aggressive urges, for example, can get mixed up with religious fervor and, as history has witnessed over and over again, killing and other forms of aggression have been committed in the name of God or religion. In the same manner religious and sexual urges can manifest as either strongly segregated, or combined in certain sexual or religious rituals and spiritual practices.

> Instinct is not an isolated thing, nor can it be isolated in practice. It always brings in its train archetypal contents of a spiritual nature, which are at once its foundation and its limitation. In other words, an instinct is always and inevitably coupled with something like a philosophy of life, however archaic, unclear, and hazy this may be. Instinct stimulates thought, and if a man does not think of his own free will, then you get compulsive thinking, for the two poles of the psyche, the physiological and the mental, are indissolubly connected. (Jung, 1954, p. 81)

In traditional spiritual practices, western or eastern, awakening the metaphysical instincts has often been done at the expense of suppressing the biological instincts—a process referred to as spiritual bypassing in transpersonal psychology. The body and its associated needs and desires are often regarded as impure and as an obstacle to spiritual attainment. This could be rooted in a belief that life on Earth and in the body is a form of banishment from heavenly realms. In other instances, this could be a result of an overly masculinized attitude which holds a fear of the body and the senses and privileges transcendent consciousness over embodied existence.

In such views the body is often deemed subject to pain, disease, decay and eventual death and thus ultimately unreliable and undesirable. This attitude is often extended out to the feminine principle and the Earth as manifestation of this principle. This tendency, explained in a number of different ways (Welwood, 1984 ; Cortright, 1997; Masters, 2010), has been called spiritual bypassing, which implies bypassing of embodied physical and related vital and emotional challenges through suppression of them in order to attain higher or transcendent spiritual consciousness—i.e. suppression of biological instincts by metaphysical instincts.

In a paper titled: 'The Unconscious in Sri Aurobindo,' Indra Sen (n.d.) who coined the term 'integral psychology', stated that in the Indian approach "yoga has been a necessary concomitant discipline for each system of philosophy for the realization of its truths and, therefore, the growth of personality is an indispensable issue for each system" (p. 2). Sen points out that most forms of yoga strive to incorporate the higher unconscious into the conscious personality but only touch the surface of the unconscious for the purpose of purification of the topmost level of the unconscious from which contents surge up. Sri Aurobindo's integral yoga, however, requires a complete investigation and integration of both the higher-unconscious (Superconscient) and the lower-unconscious (Subconscient) realms.

By the Subconscient Sri Aurobindo means the submerged part of the being in which there is no waking consciousness and coherent thought processes, will or feeling or organized reaction. Subconscient materials rise up into our waking consciousness as repetition of old thoughts and vital and mental habits and *samskaras* (impressions) formed by our past. There are three types of differentiation in the subconscient: the mental, the vital, and the physical subconscient, each one of which is distinguishable by the virtue of their contents and action on the waking personality.

These subconscient processes are generally disorganized and chaotic. In other words, there is no execution of a unified will in the subconscient as the various impulses therein act chaotically and without any organization and thus various conflicts and struggles arise within the subconscient mind in addition to conflicts with the elements of our conscious personality related to the external environment. Using methods such as hypnosis, free association, and dream analysis, Freud's therapeutic aim was to help the patient make conscious certain amount of the unconscious materials in order to create a balance between the conscious and unconscious mind. While many forms of psychological work attempt to help human beings become healthier by creating a harmonious balance between the unconscious and the conscious dimensions of personality, integral yoga and psychology aim at complete transformation of personality by making conscious the entire content of the unconscious. This would necessitate making the instinctual processes of both the higher and the lower unconscious fully conscious.

Sri Aurobindo was interested in much more than making the unconscious, passively conscious. Rather he was interested in the transformation of personality from the ordinary egoistic state to a fully conscious and integrated state. Sri Aurobindo was careful, however, not to recommend plunging into the subconscient without first mobilizing the higher-unconscious. Without this preparation there is a risk of losing oneself in the obscurity and the chaos of the Subconscient world. Sri Aurobindo's integral yoga is unique in that it starts with the opening of the higher centers of consciousness first. This is to avoid the trappings of the lower unconscious realms and intensification of attachments, as well as a myriad of other problems associated with premature opening of the *kundalini* energy—as in the case of spiritual emergencies—without first establishing the Psychic will or even possibly Supramental will to guide the process of transformation of the unconscious.

Integration of Personality

For Sri Aurobindo merely making the unconscious mind conscious is not sufficient for transformation and we need the assistance of the conscious will to help organize and transform the content of the Subconscient mind. Another point of difference is that unlike depth and ego psychologies, for Sri Aurobindo the therapeutic aim is not to strengthen the ego. This is because ultimately the ego is self-centered, even though it is better adjusted to reality. Therefore, access to a higher integrating center is needed which in integral yoga is the Psychic Being, or the evolving soul in the human being.

Jung was also aware of the need for such a higher integrating principle which he termed the archetype of the Self—i.e. the soul or psychocentric consciousness. Depth psychologists first discovered the unconscious through their encounter with the pathological manifestations of the unconscious. Both Jung and Assagioli realized the importance of the role of the Self or Transpersonal Self as the catalyst for integration of personality, a task not possible through ordinary therapeutic techniques which often emphasize the importance of ego-strengthening which is necessary for those who suffer various forms and intensities of neuroses and psychotic dissociation, or even unmanageable phobias, depression or anxiety etc. Certainly for the initial healing phase strengthening the ego up to the point of basic health and stability is unavoidable and desirable. But when it comes to the complete transformation of personality as required in integral yoga and psychology, a mere balancing of the conscious and unconscious elements of personality through a healthy and strong ego will be insufficient.

Traditional depth psychology often focuses on expanding the sphere of human consciousness by incorporating materials from the lower unconscious regions to the conscious regions, while traditional yoga attempts to engage with the higher realms of the unconscious and is not necessarily interested in transforming the lower unconscious psyche as much as it is interested in developing the higher unconscious. This could result in disinterest in ordinary consciousness and evolution of embodied consciousness. In integral yoga the goal is no less than the complete illumination, transformation and integration of the psyche and evolution of embodied consciousness.

To summarize, the goal of yoga is to accelerate the rate of conscious evolution. Integral yoga aims at total transformation of the unconscious as well as ordinary consciousness. Culmination of conscious evolution, therefore, requires a total transformation of human personality and consciousness. The high level of integration of personality required in this process supersedes the establishment of basic wholeness of personality which is possible by balancing the egocentric and psychocentric spheres of consciousness. This level of integration known as Psychic Transformation in integral yoga and psychology, which is similar to Jung’s process of Individuation or integration of ego and Self, is a necessary foundation. The complete transformations of the unconscious—including the inconscient physical base of consciousness and the subconscient— however, would necessitate the activation of Supramental consciousness.

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Editorial

We are pleased to welcome readers to our tenth year and thus the tenth volume of *Integral Review (IR)*! This current issue has four academic articles, two extended book reviews, a brief overview of developmental theory, an essay on social issues, and an analysis of the intersection of Wilber and Bhaskar's works.

The issue begins with an article by Verna DeLauer, Andrew Rosenberg, Nancy Popp, David Hiley and Christine Feurt on *The Complexity of the Practice of Ecosystem-Based Management*. DeLauer's dissertation on this topic was reviewed in IR last year by Thomas Jordan. We are pleased now to showcase part of that original research, because one of its valuable contributions is its emphasis on understanding preconditions for adults developing the capacities needed for managing complex issues. DeLauer *et al* provide a concrete, detailed account of the gap in complexity capacity between the demands *of* ecosystem-based management and the demands *on* those managing such a system. The authors analyze the complexity of meaning making of participants involved in the stakeholder management group. Recommendations out of the research include the need to attend to complexity-of-mind issues, the need for greater awareness of decision making processes, and a call for research partnerships between developmental psychologists and social scientists.

Next, Kevin Bowman focuses on *Correcting Improper Uses of Perspectives, Pronouns, and Dualities in Wilberian Integral Theory: An Application of Holarchical Field Theory*. This article builds on his agenda in previous articles published in the *Journal of Integral Theory and Practice*, to extend Wilberian meta-theory into what Bowman calls holarchical field theory. Bowman describes his purpose as encouraging "a more formal and consistent analysis of action and events between subjects and objects using Wilberian integral metatheory." He focuses on how alternatives to Wilber's use of grammar suffer from conflating philosophical and grammatical issues and he clarifies some applications of Wilber's integral mathematics. More broadly, Bowman's work contributes to the general topic of integral communication.

The third article is contributed by Latha Poonamallee and Sonia Goltz, *Beyond Social Exchange Theory: An Integrative Look at Transcendent Mental Models for Engagement*. The authors develop an "integrative conceptual framework capturing the underlying mental models that guide engagement in relationships at work and elsewhere." They examine both top down and bottom up mechanisms for explaining how to go beyond the current emphasis in social exchange theory on ego-centric behaviors. They present a three-layered integrative model to extend this discourse more fully to a tribal-centric domain and then into transcendent interdependent domains. Their goal "is to present a more complex picture of human cognition and behavior," and their approach makes a step in that direction.

The peer reviewed section of this issue concludes with Sara Ross's *A Developmental Behavioral Analysis of Dual Motives' Role in Political Economies of Corruption*, a developmental meta-analysis that integrates dual motive theory and the model of hierarchical complexity. It shows how and why political economies of corruption come into being as

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functional patronage and clientelism and will most likely always persist in developmentally-predictable forms. Her analysis and case examples indicate why the political economies of "how things get done" clearly evolve along well-defined developmental stages, extending through all levels of all societies.

Opening the editorially reviewed section of this issue is Jonathan Reams' *A Brief Overview of Developmental Theory, or What I Learned in the FOLA Course*. Information in this article is drawn from the Foundations of Lectical Assessment course I took in the fall of 2013. I take a lay person's approach to understanding a broad range of the history and current state of the field of developmental psychology as presented in that course, along with some description of how Lectical assessments have been developed and applied. My reflections from this overview include problematic issues with the tendency towards "growth to goodness" orientations as well as reifications of stages that show up in common use.

Thomas Jordan presents some initial thinking and analysis he has done on a local social issue in *An Exploration of the Meaning-making of Vehement Hardliners in Controversial Social Issues: Reactions to Youth Unrest in Suburbs of Gothenburg Sweden*. This essay takes statements made by various people in online public forums discussing issues around youth violence in Gothenburg. Jordan analyzed hundreds of posts to understand measures citizens proposed to address youth violence. In particular, he seeks to understand the nature of *vehement hardliners* who take strong stances on the issue. His preliminary analysis leads to a tentative explanatory framework for how a weak level of complexity awareness leads to strong emotional reactions, judgments and aggressive attitudes.

Zak Stein reviews Marc Gafni's recent work in *On Spiritual Books and their Readers: A Review of Radical Kabbalah*. As a philosopher of education, Stein is concerned with what people read, and the limitations of books as a technology of knowledge transmission. He is also concerned with distinguishing New Age types of spiritual teaching from more robust religious scholarship. He positions Gafni's work as being beyond both academic and popular genres of writing. His appreciative review gives us a taste of the power that this form of writing can have when done well.

Another appreciative review comes from my recent reading of August Turak's *Business Secrets of the Trappist Monks*, a book that encapsulates Turak's lifetime of lessons learned through experiences in business and through spending large amounts of time with Trappist monks. The simplicity of the core principles could provide readers a powerful foundation to understand what makes for great leadership. The power of Turak's story telling makes this an evocative read.

Bonnitta Roy examines the soteriological streams of Ken Wilber's AQAL theory and Roy Bhaskar's meta-Reality and shows how they are first seem to be flowing in divergent directions. She notices that whereas integral theory formulates salvation as additive or multiplicative (freedom + fullness, depth x span), for critical realism, the path to salvation is primarily a process of subtraction or absenting conditions or structures that occlude, hide, distort, or otherwise prevent us from accessing our innate and always-present state of original grace. This reveals two important questions. For integral theory; what drives the need for increasing complexity? For meta-Reality; what gets in the way? The answers Bonnitta finds works its way into the recent online conversations between Wilber and Bhaskar and the different ways they conceive of the relationship between epistemology and ontology.

We hope this issue of *Integral Review* provides you with a useful diversity of perspectives to generate insights, and with research that can enhance your understanding and service in our increasingly complex world.

JReams

Jonathan Reams
Editor in Chief

The Complexity of the Practice of Ecosystem-Based Management

Verna G. DeLauer, Andrew A. Rosenberg, Nancy C. Popp, David R. Hiley' Christine Feurt[1]

Abstract: In the United States, there are more than 20 federal agencies that manage over 140 ocean statutes (Crowder et al., 2006). A history of disjointed, single sector management has resulted in a one-dimensional view of ecosystems, administrative systems, and the socio-economic drivers that affect them. In contrast, an ecosystem-based approach to management is inherently multi-dimensional. Ecosystem-based approaches to management (EBM) are at the forefront of progressive science and policy discussions. Both the U.S. Commission on Ocean Policy (USCOP, 2004) and the Pew Oceans Commission (POC, 2003) reports called for a better understanding of the impact of human activities on the coastal ocean and the result was President Obama's National Policy for the Stewardship of the Ocean, our Coasts, and the Great Lakes (2010).

EBM is holistic by seeking to include all stakeholders affected by marine policy in decision-making. Stakeholders may include individuals from all levels of government, academia, environmental organizations, and marine-dependent businesses and industry. EBM processes require decision-makers to approach marine management differently and more comprehensively to sufficiently require a more sophisticated conceptual

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understanding of the process and the people involved. There are implicit cognitive, interpersonal, and intra-personal demands of EBM that are not addressed by current literature. This research seeks to understand the mental demands of EBM. A constructive developmental framework is used to illuminate how decision-makers reason or make sense of the ideals and values underlying EBM, the mutual relationships that must be built among natural resource management agencies, and the personal experiences and emotions that accompany change.

Keywords: Adult development, adult learning, complexity, constructive developmentalism, natural resource management, stakeholder engagement.

Background

Marine ecosystems are complex mosaics of ecological, chemical, biological, geophysical, and human interactions. They are valued for the services they provide for humans including food, pharmaceuticals, shoreline protection, climate regulation, and tourism. Human disturbance specifically threatens these interactions and services through destruction of habitat, pollution, and displacement of native fauna and flora. The current single-sector, single resource approach to management attends to human activities such as coastal development, fisheries, tourism, and shipping, each in isolation from the others. This single sector approach fails to address, much less maintain, the integrity of the interactions between the sectors, leading to a loss of valued ecosystem goods and services, and ultimately to a diminishment in potential human well-being. Single-sector approaches are called less effective because they tend to treat the cumulative impacts of human activities as unimportant (DeLauer, 2009).

In the United States, there are more than 20 federal agencies that manage over 140 ocean statutes (Crowder et al., 2006). A history of disjointed, single sector management has resulted in a one-dimensional view of ecosystems, administrative systems, and the socio-economic drivers that affect them. In contrast, an ecosystem-based approach is inherently multi-dimensional. Ecosystem-based approaches to management (EBM) are at the forefront of progressive science and policy discussions. Both the U.S. Commission on Ocean Policy (USCOP, 2004) and the Pew Oceans Commission (POC, 2003) reports called for a better understanding of the impact of human activities on the coastal ocean and the result was President Obama’s National Policy for the Stewardship of the Ocean, our Coasts, and the Great Lakes (2010).

In 2005, over 200 scientists and resource managers in the United States endorsed the Scientific Consensus Statement on Marine Ecosystem Management (McLeod et al., 2005). This document lays out the underlying principles and characteristics of the approach, particularly that humans are part of ecosystems. This definition, and others like it, refers to the impact humans have on parts of ecosystems and conversely, the impact ecosystem services have on human well-being. What’s missing, from all definitions of EBM, is the fact that humans are also part of the decision-making process about ecosystems; they have a responsibility to the marine environment through the decisions they make. Current definitions implicitly assume that all stakeholders have the capacity to manage in the way the definitions suggest – to adapt to a different set of principles when given the mandate or enough information to do so.

Due to added complexity, resource managers and policymakers engaged in marine management in the United States grapple with the challenge of taking EBM from concept to practice to move beyond decades of fragmented management (Parenteau et al., 2007). Our research question is: Do the implicit expectations and mental demands of EBM practices require a complexity of logic and reasoning that outweighs participants' capacities?

This paper is based on dissertation work (DeLauer, 2009) that sought to understand how stakeholders were making sense of an ecosystem-based management decision-making process in the state of Massachusetts located in the northeastern part of the United States. She spent 16 months embedded within a stakeholder engagement process whose goal was to get feedback about pending State ocean management legislation. Her research focused on the ways in which stakeholders held their own perspectives and took in the perspectives of others during dialogue and deliberation. Robert Kegan's theory of mental complexity (2009) was used to identify characteristics of meaning making in that particular context.

Introduction

In the last 15 years, considerable research has gone into examining integrated watershed management decision-making processes and learning that occurs through interaction, democratic deliberation, collaborative problem-solving, and design of fair and competent processes (Habron, 1999, 2003; Rhoads et al., 1999; Webler & Tuler, 1999, 2001; Wondolleck & Yaffee, 2000; Wooley & McGinnis, 1999). A stronger institutional design that better supports these types of decision-making processes is needed at all governmental scales (Imperial, 1999). Particularly needed is institutional support for social science aspects of integrated management (Endter-Wada, 1998) and recognition that social and ecological environments reciprocally shape each other and this necessitates that their networks and relationships be understood as part a complex system. This conceptualization of "social-ecological system" is that any delineation or separation between the human and environmental system is artificial (Folke et al., 2005).

Ecosystem-based management has gained traction in land-based management initiatives prior to its influence on marine management because of its focus on integration of governmental agencies and of social and ecological interactions. Interpreting EBM theory for implementation is an ongoing constraint. The Gordon and Betty Moore Foundation and the Lucille and David Packard Foundation have taken an interest in ecosystem approaches at a regional scale and international scale, respectively. Through a grant from the Packard Foundation, The University of Michigan did extensive research on ecosystem-based management case studies throughout the world. The result is an informative, interactive website for practitioners to learn from the mistakes and successes of others trying out this new approach (http://webservices.itcs.umich.edu/drupal/mebm/?q=node/68*)*.

The focus of this research, however, wasn't in the nuts and bolts of how to implement ecosystem-based management. We were interested in the mental and emotional capacities of people to engage in this process of personal and institutional change. Because EBM processes require more coordination among management sectors, decision-making becomes more collaborative and thus, more complex. Taking an EBM approach means intentionally bringing together individuals from diverse interests to discuss the trade-offs associated with management decisions. Using Robert Kegan's model of adult mental complexity, we wanted to understand the meaning-making of those involved in these cross-institutional collaborations.

A comprehensive literature review revealed studies within the last decade that have studied collaborative natural resource policymaking as referred to in the beginning of this section. Few, however, use adult developmental frameworks that focus on the individual's capacity to participate in such policymaking. However, there has been an influx of studies using mental models of environmental knowledge and reasoning (Jones et al., 2011). In the marine management field, these studies are gaining credibility as rigorous methods for revealing gaps in systems thinking. Some studies do use a developmental lens such as Daniel and Walker's work, which weaves ideas from conflict resolution, public participation, experiential learning, and adult development to create a user manual with concrete recommendations for practitioners to work through environmental disagreements (Daniel and Walker, 2001). We found one study that used Kegan's model of adult mental complexity. Robbins et al. (1994) used Kegan's model to study women's pro-environment behaviors and their perception of their relationship with the natural environment. The need for these women to conform and align themselves with their friends with shared values was influential in causing pro-environment behavior (Robbins & Greenwald, 1994). We were curious if these characteristics were similarly important in natural resource management decision-making. Next, we present a brief explanation of Kegan's theory.

Adult Development and Learning

The role of individual learning in group settings has been extensively researched within the adult development literature (Fisher et al., 2003; Kegan et al., 2001; Phillips et al., 1998). This study contributes to that literature through its focus on environmental policy processes and the strengths and limitations of any individual to contribute to the process.

This research used constructive-developmental theory or how an individual takes in, organizes, and makes sense of his/her experiences. Developmental Psychologist Robert Kegan's sequential stage model of adult development was used to uncover and describe the regular, predictable, and recognizable continuum of how participants constructed meaning from their experiences.

Kegan's theory describes cognitive and social-emotional growth along a continuum on which there are key mindsets. Each mindset reflects a qualitatively different way of knowing. These mindsets are often compared to metamorphosis in that one builds upon another, they are recognizably different, and the content of each is a unique system of logic that determines the way one understands and makes sense of his/her experiences (Baumgartner, 2001; Kegan & Lahey, 2009).

Each meaning-making system, or mindset, describes specific and discrete patterns that govern how an individual makes sense of his/her experience at any given time. Each mindset reflects a different relationship between what a person is *subject* to and what he or she can take as *object*. At each subsequent mindset, what *was* subject is now object. In simpler terms, what a person is subject to can be thought of as the lens through which he or she sees and understands the world—the lens itself cannot be seen, but it brings what *is* seen (what is "object") into focus.

What is object, then, are those aspects of the person's experience that he or she sees, can take a perspective on, and see as separate from him or herself. Each subsequent stage transcends and includes the last, continuously constructing more complex systems of meaning and logic. The continuum of meaning-making complexity includes the following elements (Taken from Kegan & Lahey, 2009, pg. 14 - 15):

- There are qualitatively different, discernibly distinct meaning-making systems; that is, the demarcations between levels of mental complexity are not arbitrary. Each represents a different way of knowing the world.
- Development does not unfold continuously; there are periods of stability and change.
- The intervals between transformations to new meaning get longer as time goes on.

Individuals are constantly engaged with their environment and organize meaning and interpret information based on their meaning making system (Kegan, 1994; Popp & Portnow, 2001; Robbins & Greenwald, 1994). An individual moves beyond his/her meaning making when their current assumptions no longer fit a given experience, and in response they experience an internal conflict about the way that they know - not *what* one knows but *how* one knows. Meaning-making is distinct from what we understand as "personality," in that personality is the expression of one's self. Meaning-making is not about personality or what a person does in the expression of their personality. It is about the *complexity* of the ways in which a person understands and describes (the expression of) their own personality, and the complexity of their perspective on their relationship to others and the world.

Kegan's theory identifies four mindsets found in adulthood with four transitional phases between each one of them (1994). A person in transition between two mindsets may exhibit a mix of the two mindsets, and their reasoning will be held within these two structures. The following are general characteristics that reflect individuals operating fully at one of three overarching mindsets found in this study: the Socialized mind, the Self-authoring mind, and the Self-transforming mind (Kegan, 2009).

Qualities of a Socialized Mind (Adapted from McGuigan & Popp, 2007)
1. Literal, descriptive understanding of processes.
2. Unquestioned conformity to peer, social, or legal norms.
3. Guilt, hyper-awareness of others needs even if those are imagined, e.g. "I am responsible for your feelings and vice versa."
4. Differences threatening.
5. Invisible and unquestioned assumptions.
6. Ambiguity challenging.
7. Criticism as destructive to self – need a sense of belonging, driven by need to be understood, aligned with, validated by and connected to a person, group or philosophy.

Qualities of a Self-authoring Mind (Adapted from McAuliffe, 2006)
1. Aware and sensitive to others feelings but not responsible for them.
2. Differences respected and valued.
3. Former assumptions examined, accepted or rejected.
4. Concern with consequences for personal integrity and meeting one's own standards.

5. Integrates others perspectives including criticism as one perspective among many.
6. Self-initiating, correcting and evaluating rather than dependent on others to frame problems and determine if things are going well.
7. Conceives of processes from the outside - can see one's part in relation to the whole.

Qualities of a Transforming Mind (Adapted from Rooke & Torbert, 1998)

1. Engages with others to self-evaluate.
2. Experiences internal paradox, contradiction, and ambiguity as normal.
3. Allegiance to larger principles not rules.
4. Embraces the tension of not knowing something to purposely take on multiple perspectives on issues.
5. Recognizes that ambiguity is the norm and that standards and methods are constructed in a world in which dialogue is the only foundation for knowing – understands that all knowledge is constructed through human interaction – more comfortable engaging in collaborative inquiry where meaning emerges.

The Case Study - SeaPlan

In June 2008, the Oceans Act was enacted and Massachusetts became the first state in the United States to "pursue ecosystem management of offshore waters through federal, regional, and state coordination and cooperation" (EOEEA, 2010). The Oceans Plan offers a guiding framework for individual sectors to work more collaboratively to manage human activities in Massachusetts State waters. While the Plan is comprehensive, it does not explicitly account for stakeholders' different interpretations of the charge or interpersonal challenges associated with management trade-offs or taking on new responsibilities.

Prior to the Oceans Act, there was no direct mechanism to connect disparate sectors on a regular, on-going basis. SeaPlan created this necessary mechanism for cross-sector interactions as a safe way to hash out individual and/or sectoral differences. Their first goal was to create a five-year strategic plan to identify how they would support the development and implementation of an integrated multi-use ocean management plan for Massachusetts waters. One primary strategy was to expand stakeholder understanding of integrated multi-use ocean management issues to increase effectiveness and durability of a plan. SeaPlan strived to create a stakeholder engagement process in which participants came to the table as independent individuals who represented various sectors but were not bound by them with an understanding that motivations, intentions, and complexity of understanding ocean management would be diverse.

SeaPlan was chosen as a case study because it provided a setting in which to investigate the interplay between learning about EBM and participants' current perspectives (Fazey & Fazey, 2005). The more people participating, the more meanings, perspectives, and behaviors existed. The unsaid is that when people come together around a single sector mandate, they likely share an implicit background of assumptions, values, expectations, and routines for decision-making. All of this is lacking when participants come together in an EBM process. This lack of shared/taken for granted background makes the process less stable / more dynamic.

In this paper, we focus on the finding related to perspective-taking, or the degree to which stakeholders can and do author their own perspective, i.e. the degree to which a stakeholder can create his or her own perspective, ideology or identity, manipulate it in their minds, weigh it against others, and set standards for themselves based on an internal authority (DeLauer, 2009; Kegan, 1994).

Methods

Overarching Research Question:

Do the implicit expectations and mental demands of EBM practices require a complexity of logic and reasoning that outweighs participants' capacities?

Procedures

DeLauer spent 16 months embedded within the SeaPlan decision-making process. She attended bi-monthly, two-day meetings as an observer. SeaPlan members agreed to let her observe, copy meeting transcripts, and conduct interviews.

Sampling

All 41 participants were recruited by email invitations. More than 20 responded favorably. Respondents were compared based on their affiliation and expertise until it was determined which of them reflected the demographics of the group at large. All participants signed informed consent forms with an understanding that published data would remain anonymous.

Materials

The Subject Object Interview guidebook (Lahey et al., 1988) was used to assess some of the data. A qualitative coding research program (HyperResearch) was used to organize and assess another part of the data.

Participants

SeaPlan participants lived and worked throughout the Massachusetts coastal watershed. Participation in SeaPlan was by invitation from an organizing committee. Participation was voluntary and consisted of scientists, resource managers, industry professionals, and not-for-profit organization employees. Participants in this study included fifteen men and seven women reflective of the gender ratio of the broader group. Half of the participants had PhDs and half had a master's or bachelor's degree, which was also representative of the broader group.

Data Collection

Triangulation was critical to this research whereby three data sources were used as three forms of evidence to prove and support findings. DeLauer collected data using the Subject Object Interview, an EBM Interview, and meeting transcripts.

Subject Object Interview

The Subject Object Interview (Lahey et al., 1988) was first introduced in the early 1980s to understand the developmental complexity of psychiatric patients. It consists of a semi-structured interview that invites participants to describe the meaning behind their experiences using a series of 10 provocative, subject cards which include Angry, Anxious/Nervous, Success, Strong Stand/Conviction, Sad, Torn, Moved/Touched, Lost Something, Change, Important to Me. Data that exhibit meaning making characteristics are hypothesis-tested. Some of the questions asked to test hypotheses include: How does a person defend their position? Is their position flexible? What does it cost to maintain it? What does the person take responsibility for? Researchers using this technique are not as concerned with the what, the content of information, but how each participant organizes his/her experiences.

The Ecosystem-based Management Interview

A semi-structured interview was used to explore ways in which the SeaPlan participants thought about and understood ecosystem-based management and their relationship to the SeaPlan process and other participants.

Meeting Transcript Content Analysis

Transcripts were copied and meeting observations were recorded. This was useful to have real-time data illustrating the dynamic group process as opposed to one-on-one interviews.

Data Analysis

Phase 1: For the EBM interview, DeLauer used a grounded theory approach (Schram, 2006) which included an inductive and iterative data collection and analysis process that led to working theories that described the data. Details of that process are as follows:

1. Writing Field Notes. A bound journal was kept throughout data collection and analysis for personal notes that were not considered data but rather hunches, questions, and emotional reactions.

2. Creating Episodic Threads. A workable data set was developed through the meeting transcripts and EBM interviews. Preliminary codes were developed given what the data were showing. Excerpts from the data sources were pieced together to form themes.

3. Open Coding. Key themes were identified and defined toward the development of working theories (based on threading together excerpts). It became clear that the SeaPlan process itself was very important for participants. Hence, the participants' understanding of the SeaPlan process was explored. A brainstorm began of all of the potential paths that could lead to understanding this better. Ninety themes or analytic possibilities were created. At this point, themes were broad and static. Eventually, they became specific and active.

4. Marking Potential Paths of Inquiry. Several paths of inquiry were explored with the understanding that the working theories might eventually change and would certainly evolve.

5. Writing Initial Memos & Questioning Them: This time was spent toward journaling that was retrospective, interpretive, and analytic.

6. Selective Coding. Three themes emerged as significant, perspective-taking, dealing with change, and understanding the decision-making process. To determine what was significant, either the data expressed which themes encapsulated others to describe what was occurring or particular attention was paid to pieces of the data that were paradoxical or beyond what was expected. Once a good chunk of the data was conceptually eliminated, significant pieces were tested by tracking thematic variation found across data sets, to see if they were truly comprehensive. Data were examined across the three data sources (Subject Object Interview, EBM Interview, meeting transcripts), chronologically across meeting transcripts, and across participants.

Phase 2: Developmental Linkages

Subject/Object data were analyzed using *A Guide to the Subject-Object Interview: Its Administration and Interpretation (*Lahey et al., 1988*).* It is used to score bits of cognitive structure underlying meaning making. Due to its uniqueness, it has its own specific protocols for being administered and analyzed. DeLauer and Popp analyzed the Subject Object data. The three themes described in Phase 1 were cross-analyzed with the subject-object scores to uncover distinctions of meaning-making among all participants.

Results

SeaPlan participants generally understood the EBM concept and described it in similar ways using similar terminology. However, how they made sense of its implementation and their role and others' roles within it differed substantially among participants. For example, some participants wanted to have joint ownership of decisions made through Partnership discussions. Others wanted to defer to a selected governing body. Some believed consensus was crucial for success. Others didn't think consensus was possible nor did they feel it was important. Some saw SeaPlan as a safe meeting place to hash out individual differences. Others saw it as an ill-defined mechanism that worked better in theory than in practice. Such wildly different perspectives among participants called to attention the differences in how they made sense of the directives of SeaPlan. We explored whether these were merely differences in opinion or fundamental differences about the very way in which participants understood the task at hand.

The following is a chart that summarizes the mindset of each research participant. These mindsets are previously described in this paper. These mindsets are not value judgments about participants; they are characteristics of how individuals made meaning of SeaPlan and EBM.

- Socialized
- Socialized with some Self-authoring

- Socialized (Dominant) and Self-authoring
- Self –authoring (Dominant) and Socialized
- Self-authoring with some Socialized
- Self-Authoring
- Self-Authoring with Self-transforming

Key:
Socialized Mind = 3
Transitional between Socialized and Self-authoring = 3/4 or 4/3
Self-Authoring = 4
With Transforming Mind = 4(5)

Table 1: Chart of Mindset Scores

Participant	**Mindset**	**Age**	**Education**	**Gender**
One	3/4	34	PhD	F
Two	4(3) - 4	56	MS	M
Three	3	33	MS	M
Four	4	51	PhD	M
Five	4-4(5)	64	PhD	M
Six	3	33	MS	F
Seven	4	54	PhD	M
Eight	4	52	PhD	F
Nine	4-4(5)	49	MS	F
Ten	4/3	49	PhD	M
Eleven	4-4(5)	54	PhD	M
Twelve	4/3	37	PhD	M
Thirteen	3/4 - 4/3	54	PhD	M
Fourteen	3	56	BS	M
Fifteen	4-4(5)	50	PhD	M
Sixteen	4	N/A	PhD	F
Seventeen	4	72	PhD	M
Eighteen	4	66	MS	M
Nineteen	3/4 - 4/3	46	MS	F
Twenty	3-3(4)	40	MS	M
Twenty-One	4	54	MS	M
Twenty-Two	3(4)	43	BS	F

Next, we discuss the significant findings related to the theme of *perspective-taking*. See DeLauer, 2009 to read about the other significant findings.

Discussion

The theme *perspective-taking* was broken down into four sub-themes. These sub-themes resulted from the coding process described above. Once themes were identified through the qualitative coding process, they were examined by mindset for each participant. The sub-themes are Connection to Affiliation, Self-authoring, Capacity for Self-reflection, and Perspective of other. Each is analyzed below by mindset.

The following is one of the more prominent definitions of marine EBM:

> Ecosystem-based management is an integrated approach to management that considers the entire ecosystem. The goal of ecosystem-based management is to maintain an ecosystem in a healthy, productive and resilient condition so that it can provide the services humans want and need. Ecosystem-based management differs from current approaches that usually focus on a single species, sector, activity or concern; it considers the cumulative impacts of different sectors. (McLeod et al., 2005)

By breaking down these sentences, one discovers additional meaning inherent in the definition. “Ecosystem-based management is an integrated approach to management that considers the entire ecosystem.” Underlying this sentence is the sentiment that the human perspective of coastal oceans must be broadened. “The goal of ecosystem-based management is to maintain an ecosystem in a healthy, productive and resilient condition so that it can provide the services humans want and need.” Underlying this sentence is the perspective that it is a responsibility to conserve and sustain ecological value in order for humans to continue to benefit from ecosystems. “Ecosystem-based management differs from current approaches that usually focus on a single species, sector, activity or concern; it considers the cumulative impacts of different sectors.” Implicit in this sentence is the need for dialogue and deliberation among sectors and reflection within sectors about impacts to ecosystem goods and services. As the terminology used to describe EBM is broken down, more explicit meanings emerge. In short, the definition of EBM is calling for decision-makers to take and hold three perspectives at the same time: a holistic perspective on the marine environment, an introspective perspective on one’s responsibility to it, and a reflective perspective on one’s actions and interactions in relation to others during decision-making.

Sub-theme 1: Connection to Affiliation

The following are excerpts from participants who saw the relationship between their professional affiliation and SeaPlan in unique ways. These excerpts were primarily responses to questions asked during the EBM interview. Each mindset is discussed separately.

Socialized Mind. Participants exhibiting a predominant Socialized mindset came to their perspectives about SeaPlan and their roles within it largely through the authority of their professional affiliations. These affiliations were with their organization or agency or another person, usually someone whom they regarded as an expert on the subject. Others came to SeaPlan because of their affiliations, but the difference was in the ways they “held” their affiliation, i.e. how identified they were with it and how they made sense of it. Here is one participant’s response to the question about why she was engaging in this process.

> I think just because I serve more of a coordinating role in the region and can have a good sense, a good bird’s eye sense of what (my affiliation) can bring to the table and also sort of high-level politics that might be brought to their partnership in a positive light, and also

> because, well (Personal affiliation) asked me and she is one of my all time favorite mentors so the bottom line is that is why I did it. But, I think the reason why she asked me is because of my multi-faceted role within (my affiliation) in the region and sort of what I represent there.

"Because I was asked" and personal affiliation to someone involved were both important reasons to participate.

These participants talked about acting from a need not to be excluded from something perceived as influential. The thought of exclusion led to a fear that one's affiliation and consequently, one's self would be the victim of changes in marine policy. "You're either at the table, or on the menu," said one participant. There was a sense that one's role in a process like SeaPlan was to ensure there was inclusivity, specifically of one's particular affiliation. The need for equality was a strong value for those with a Socialized mindset. They needed to feel that in exchange for their participation, others would reciprocate by considering their interest. SeaPlan and EBM-type processes were something they join or get on board with; these processes were a new kind of affiliation. However, they must first trust that their interest was being heard and accepted by others in order to consider something an affiliation.

Socialized – Self-Authoring Transition. In the transition to a Self-authoring mindset a tension started to exist between someone's affiliation and his or her new capacity to see themselves and their ideas as distinct from their affiliation. Where they were in that transition determined how they defined their responsibility to that affiliation. Participants who exhibited both the Socialized and Self-authoring mindsets felt comfortable separating SeaPlan and the legislation but were concerned with balancing the needs of the State government and the needs of other interests.

"We need to balance both science and management with the legislation. It's critical that we integrate all."

This demonstrated a new capacity to consider two possibly opposing perspectives. In general, Socialized/Self-authoring participants might have mentioned affiliation but also mentioned more personal reasons for getting involved with SeaPlan such as, "I am someone who is interested in policy work. I am someone who is interested in trying to get a better idea of how you would actually do EBM." Or "I am sort of fascinated by the intersection of science and policy and seeing how that comes together and how scientific information actually gets used or not in making decisions. It is a personal interest." There also started to be a tension between competing priorities and personal and professional boundaries started to emerge. They no longer allowed someone in authority to be the sole determiner of their time or values; They began to realize some of their own internal authority. Yet, they also had a profound and fundamental sense of loyalty and obligation to their affiliations.

Self-Authoring Mindset

> I've spent a lot of time in the public policy arena and in the Atlantic and Pacific watching the evolution of oceans…I've watched the decline of marine life and coastal oceans and that's exactly what SeaPlan addresses. SeaPlan is trying to build a community of interests

> that recognizes that there are a variety of competing interests for the use of the oceans and we have to work out common grounds as to how the interests can work together rather than all individualistically trying to pursue selfish interests. I look at it as a commons situation.

Note the use of the word *community* in the excerpt above. The idea of community was a strong thread throughout the Self-authoring interviews. Community meant a group of diverse individuals coming together to learn. This type of learning community became an affiliation of sorts where difference rather than similarity was valued, expected, and was the underlying principle for coalescing. They didn't "belong" to a particular affiliation rather they created their own affiliation; they were creating it via the SeaPlan process. Consider an exchange at a SeaPlan meeting between Socialized and Self-authoring participants. The Socialized participant was concerned with fitting in and ensuring that the interest of her affiliation was not forgotten. The Self-authoring participant responded indirectly with her belief that there was concern for small businesses and that she hoped a budding partnership would begin.

> Socialized participant: I hope that this is a balanced initiative that supports all stakeholders and values small businesses along the waterfront. I want to make sure that there is access for everyone and everyone can continue to make a living.
>
> Self-Authoring response: I believe in what local communities are all about. I want to forge local community and government partnerships. I hope we can set the benchmarks for success and that all other groups start following us.

Both individuals used the word hope. The individual with the socialized mindset was reacting to an initiative she saw as "out there," and defined by/created by someone else. She did not yet have a sense that she could manipulate and own the process. The Self-authoring person stated her belief as a personal conviction, as someone who felt a sense of ownership of the process; she was responsible for contributing to its creation.

Differences in how someone related to the idea of affiliation were powerful motivators or disincentives for collective change. The strength of those exhibiting Socialized mindsets was that they got the idea of connection and thrived on it. Their limitations existed in being able to separate from and differentiate among the various connections and embrace their differences as a means to self-growth. It was difficult for them to step back from their own affiliation and embrace a different, and perhaps competing, affiliation. If they were to make a connection, they wanted it to be harmonious and agreeing. Disagreement and conflict tended to be very difficult for them, which led them to try to avoid it.

The strength (from an EBM perspective) of those exhibiting a Self-authoring mindset is that they were interested in learning in connection with others who were different. They were interested in actively seeking out and constructing new knowledge and understanding through dialogue with others. These individuals were interested in developing a new kind of affiliation, a community of discourse. Within this community, they were comfortable with making room for things to evolve which, in turn, helped to create a whole new process and understanding for everyone. Their limitations were reflected in their identification with their own set of values and beliefs in how things "should be." They were too invested in their own perspective and unwilling to change their minds, which often caused the process to stall and ironically, negated their strengths.

There were no significant findings from the Transforming mindset within this sub-theme.

Self-Authoring

The following are excerpts from participants with different mindsets discussing their perspectives about their role in SeaPlan or the role of SeaPlan generally. What's unique was the way in which participants saw the process as either prescribed or open to interpretation. Those with a Socialized mindset saw the process as created "out there" by someone else. Those of a Self-authoring mindset saw it as an open-ended process awaiting the group's actions.

Socialized Mindset. SeaPlan's Socialized meaning makers tended to create their sense of reality through another's frame of reference such as a leader they respected. There was a need to hold others' perspectives to a test, which resulted from seeing themselves and their roles in the process as loyalists of and protectors of their own affiliation and interests. Their loyalty to and identification with their particular affiliation was the guide to their participation in SeaPlan. They entered into the SeaPlan process as one that was prescribed for them and they wanted to ensure their interests fit the prescription. They played more of a reactive role – one in which they reacted to others and the process rather than actively creating it. This way of making sense of the SeaPlan process caused one to act with trepidation. This participant is responding to a question about endorsing the SEAPLAN process and strategic plan.

> So we're behind it, we just don't wanna have the XX make a knee-jerk plan that ends up causing all kinds of havoc for small businesses that already have to go through just dozens and dozens of layers of permitting and regulation to do the smallest thing on the water front. I fear that the die may already be cast and words like EBM suggest that we just want marine protected areas everywhere. I want to make sure that there is access for everyone and everyone can continue to make a living.
>
> For others a prescribed process lessons one's responsibility.
>
> I am very comfortable in the (SeaPlan) dialogue. I haven't been put on the spot but again it is state waters and I have the luxury of being a (AFFILIATION). How separate is the SEAPLAN process from the legislative piece, I can imagine that makes others much more uncomfortable than me because it is not really my business. I can't lobby for that, I can't work toward it. As a (AFFILIATION), I would be reacting to that legislation passing.

Self-Authoring Mindset. As the Socialized meaning maker's capacity grew, a kind of personal theory or sense of reflection on SeaPlan began to take shape. The content was described as well as their conception of it. This Self-authoring participant talked about something as his perspective.

> So in my view if this is a successful effort, it will actually begin to push the envelope on what gets done from a management perspective. There will be more integration, more

> analysis of cumulative impacts. But that will only be partly success. If it did just that, it would fail in my mind if it didn't also try to advance the science behind this and try to understand how you would not just practically do it but try to think about it and use it as a way to inform other processes.

This participant identified multiple aspects of success and comes with multiple, diverse ways to put it to use – implement and apply it - regardless of his own affiliation's interests. Individuals exhibiting Socialized mindsets had a deep interest in their own sector's issues and concerns but had difficulty critiquing those concerns or stepping outside them to embrace competing concerns. They experienced doing that as being disloyal to their own affiliation.

The strengths of Self-authoring meaning makers could also be considered limitations depending on the context of the situation and the mix of individuals involved. Self-authoring individuals brought their own perspectives to the SeaPlan process and continued to develop their own perspective in response to new information and understanding. They recognized that others had their own interpretations and biases and they advocated for these other views in pursuit of the mission of SeaPlan. Socialized meaning makers reacted to the many perspectives put forth which allowed them to maintain loyalty to affiliation. In conversation, those differences in mindsets often played out as passive and active discussion participants, e.g. those with a Socialized mindset spoke up to ask questions, give examples, or clarify something about their affiliation's interest while those with Self-authoring mindsets, offered new theories for the group to explore. Those new theories were not always fully understood by all the participants. This significant point was often missed by Self-authoring participants who implicitly assumed that they were understood, which resulted in confusion and sometimes, defensiveness.

Self-Authoring with Transformative Mindset: Lastly, there were four participants who exhibited the Self-authoring mindset yet also exhibited the transition towards the Transformative mindset. In some instances, this made a difference in terms of the capacity with which they reasoned about a situation or idea. For example, in the case of actively generating theory, there was a strong sense of personal responsibility, theory and reflection on that theory yet there was a hint of something more. There was uncertainty weaved into their theory about SeaPlan's purpose, yet, with a clear understanding that ambiguity would be part of the experience.

> We don't really know what MOP is yet and that's been a repeated discussion at every meeting. People are there to some extent out of curiosity. If it's going to happen, you want to be there when it happens and want to be able to influence it and make sure it comes up with what you want it to be. I think that's what keeps people coming but I also think it keeps people away and on their guard. We don't really know how open people have been because we haven't gotten to anything tough. It would be great to see all of the thought bubbles behind all the nice words. We haven't been challenged yet. It's been hard in that it's been grueling and there's been a lot of uncertainty but …

Capacity for Self Reflection

The following are excerpts of participants with different meaning making complexities discussing their own perspectives on the SEAPLAN process.

Socialized Mindset. Participants with a predominant Socialized mindset primarily reflected on how others perceived their input or their role. When asked about their voice in the process, they referred back to the collective voice of their affiliation, e.g. agency, sector. Whether through an affiliation or the SeaPlan process itself, they tended to be keenly aware of what they believed to be the effects of their participation through the eyes of others. They judged the process by how they thought others responded to them and their affiliation's interests.

They internalized the many perspectives of others in the group. Consequently, they were very aware and focused on how their thoughts and opinions were the same as or different from others. Self-reflection was described in relation to sameness or difference. Differences were generalized to "other(s)" when reflecting on the motivation of participants.

> Everyone's obviously interested in their own thing (in SeaPlan). It's diverse. There are social scientists. Me and the social scientists have of course very little in common with how we see the world.

Over time once perceived differences evolved to feelings of connection for some. This connection was often due to an initial trust of those perceived as authority and eventually transferred to others.

> I didn't walk in that room (SeaPlan meeting) at all initially and feel comfortable. I was surrounded by people who were senior to me and certainly more educated. The room was dominated by scientific types which I'm not. It was initially an intimidating environment. I came to see over time that through the facilitation and leadership, a lot of my fears went away and my comfort level grew. And that's partly their style of soliciting opinions from quiet people and also getting to know the expertise in the room.

Self-Authoring Mindset. Those exhibiting a Self-authoring mindset reflected that it might be necessary to move beyond one's personal comfort zone when the process conflicted with one's personal theory.

> I assumed that since I'm on a science advisory panel, I was there for that reason and that makes sense. But it seems it hasn't been thought out yet what exactly is going on. I have been pushing for some context in these meetings and once I understand the context, it is much easier to say okay this is what we should do. I am a little uncomfortable with that because I am comfortable with myself as a (PROFESSION) and I am not comfortable with myself as a big thinker but in order for me to get to the point where I'm comfortable participating as a (PROFESSION), I need to understand the context.

Some of the participants with Socialized mindsets were able to broaden their perspectives because of supportive challenges from trusted others. One participant described how she felt out of her element at first and was very skeptical of the whole process. Yet, because of the kindness of the facilitator and the inclusion from other members, she started to reflect on her fears and discomfort and open up to new possibilities. This, however, took time – nearly a year of on-going interactions. Individuals of all mindsets created meaning that enabled them to feel safe and familiar. With supportive challenge, individuals could extend themselves to new ways of knowing – not necessarily a full transformation from one mindset to another but a glimpse at what could be. From an outside perspective, the transition from Socialized to Self-authoring seemed quite rewarding as one started to see oneself in completely new ways. It also seemed daunting and difficult for these individuals to make sense of the conflicting sides of the self. The SeaPlan Facilitator played an important role for the Socialized meaning makers. They trusted her and saw her as a neutral authority with their best interest in mind. She was a conduit for them to experience different ideas and uncomfortable exchanges.

There were no significant findings from the Transforming mindset within this sub-theme.

Perception of Other

Throughout both the EBM and the developmental interviews, participants commented on motivation of other SEAPLAN partners, co-workers, state authorities, family, and friends. How participants perceived someone's underlying motivations differed among mindsets.

Socialized Mindset. The strong link to affiliation and authority was a recurring theme when those exhibiting a Socialized mindset discussed their perspectives of others involved with SEAPLAN.

> And so, even though they (SEAPLAN facilitators) asked and said you (participants) are not signing your office up to support this document. This is you personally. I think for most people who work for agencies and XXX, they go into meetings with the mindset of their agency, not just them personally. I think they are there to see what this is. They are not mandated to do this so they are not going to speak up. If they were mandated, they would speak up but because we are getting together and trying to create this, they are there to listen.

Similarly to the Socialized excerpts under the affiliation theme, affiliation came up again as a motivating factor for them – influencing how they acted and reacted. There was not clear differentiation between one's personal feelings and ideas and the ideas perceived to be upheld by the affiliation.

Socialized / Self-Authoring Transition. In the excerpt below, a participant who was just starting to exhibit some Self-authoring started to see that differentiation and still saw others suppressing personal feelings and ideas to uphold the relationship to the affiliation.

> I think the partnership was blessed to have adept facilitators who were able to keep conversations on topic and identify areas of friction, entertain them but not wallow in them. I don't think that resulted in further polarization. I'd like to think that some of these barriers are starting to come down and people were not on the defensive by the end of this and really starting to feel like there was a level of trust that was being built and shared. I do think some parties basically remained entrenched in the party line. Whether that party line was the message they were forced to carry and maybe they believe differently personally or professionally, I don't know. I'd like to think that would be the case and they were doing what they thought they had to do.

With participants who were in transition from Socialized to Self-authoring mindsets, upholding a responsibility to an affiliation was a fine balance between responsibility to other and responsibility to self. A responsibility to the self and its perspective, as well as understanding the "truth" of others from their own perspective, was the balance beam.

> It's like two channels I'm thinking of. One is developing a substantive rapport with the group so there's a mutual respect. They understand what I bring to the table and I value their expertise because of the role they fill. But to me equally as important is establishing a personal, professional connection because I really care about how these people do in their jobs because it affects the overall success of what we're trying to do together so I try to take an interest in understanding their challenges, their road blocks.

Simultaneously, this participant upheld her Socialized need for mutuality among participants but equally as important was her Self-authoring need to understand others' differences and define her own differences. To do this, she must hold both her need for mutuality and her need to form a realistic picture of the others' different perspective. This was a balance for her.

Self-Authoring Mindset. Balancing the needs of self and other was described differently in Self-authoring individuals. When discussing barriers to SEAPLAN's success, they reflected on others as though they, too, were juggling many variables.

> One of SEAPLAN's challenges will be convening groups as they're working toward harder positions or consensus on tangible things – find ways of setting the table so people will feel that they really have to be there – that they're going to miss out on something if they're not there. Because some obviously haven't been attracted enough to come and it's tough because everybody is busy and these are long meetings and a lot of conference calls. It's a lot if you're not bought in. You have to really believe in the concept, the big picture – not just that it'll be a value to you.

There was a concern about paying attention to the underlying needs and interests of others instead of the concrete standpoints of others.

Self-Authoring Mindset with some Transformative Mindset. Similarly, those with some Transformative mindset were intrigued by the many variables that made people tick and were particularly interested in better understanding those as a path toward self-understanding. This next excerpt was from one of the participants who wanted to get a different perspective from his own on the logging happening in the old growth forests of the Olympic Peninsula. To do this, he engaged a logger in conversation. While this excerpt is about a different theme, it was taken from his Subject Object interview and is interesting to note. Unlike those participants straddling the Socialized/Self-authoring balance beam, there was no line to be drawn. He was "available" to have his thinking re-oriented by another. Those parts of himself were integrated. Note also that he was speaking about difference as interesting not threatening.

> (Talking with him) completely re-oriented my thinking about the issue because I'd never had direct contact with anybody in that part of it." Interviewer: What compels you to put yourself in these positions to be reoriented? "People are much more irrational and hard to

> follow and complex but I believe it's possible to model their dynamics and to predict how they will react to a change in state of the rest of the natural system. I view this as essential preparation for doing anything innovative or useful in conversation. I really want to know every nuance of every single person so I can understand how they work. People are interesting. It's rewarding to lean about how people deal with the world. It's better than television. I don't know where to draw the line professionally.

Pertinent differences between Socialized and Self-authoring mindsets included the extent to which they reflected on why another person did what he/she did, the extent to which they recognized another's underlying reasons for acting in such a way, and the extent to which they recognized and readjusted their own interpretations, needs, motives, and reaction patterns to another.

For Self-authoring mindsets and beyond, there was an increasing ability to step outside oneself or one's perceptions and separate from one's own view to observe and reflect on all the subtleties of what was happening. When this happened, the conclusion one formed about another wasn't entirely framed by one's own feelings and interests (Jordan & Lundin, 2006).

The participant in the last excerpt considered his counterpart's reasons for his/her attitude to imagine and understand someone else's reality. He was aware that his reality was separate from another's and that they were both whole pictures of reality. This participant's Transformative mind peeked through as he reflected upon his own motivation. What's interesting about this next excerpt is that as he reflected on his own motivation, he not only noticed his own internal contradiction that he believed people mean well but could also have a dark side but he actively and explicitly makes a decision about how he was going to think. As he began to see and accept the many sides within him and his contradictions, he began to see and accept others and their contradictions (Sinnott, 2006).

> I've decided to believe that most people mean well. I have many, many experiences to the contrary. It's interesting to know what motivates people in my profession to do this kind of stuff. And I'm wondering how many others have had to face that same decision to deliberately exercise faith in humanity and in people…I think it's a prerequisite for accomplishing anything like bringing communities together to discuss how they're going to relate to the world, setting up systems for stewardship. It just requires a general trust that people share certain values. They value their children's lives. They value the future. They value that life remain glorious in its diversity and complexity. You have to otherwise, it's pointless but that said, that ambition leads people like myself toward humungous projects that can really only be approached with immense ah cynicism. And in those projects, which I'm still not sure why I get involved in, I have been double-crossed, been hurt very badly, become very ill - had horrible experiences. It's always because of a real minority of people, like one or two in a region the size of east Africa or North America. Those individuals are so bad that they restore my faith in one other thing – evil. They're really genuinely are evil people and it only takes a couple to make these challenges that we're involved in seem sometimes insurmountable.

Particularly important to note about the last two excerpts is the empathic voice that comes through in his words. Each of us engages with other people all the time, people who are different from us. Throughout most of these engagements, perspective-taking capacities stay intact. However, there are some interactions that are so powerful that they become transformative, i.e. a new way of making meaning is constructed. He explicitly faces and acknowledges contradictions in his own way of knowing. It was only within the interviews with participants who exhibited some Transformative structure where these internal contradictions were mentioned.

> Interviewer: What are the barriers within SEAPLAN to creating a new paradigm?
>
> Participant: Well, I think preconception is certainly one. I have plenty of preconceptions it is not that I'm out of that loop but certainly, preconception and its handmaiden -fitting within existing structures -they kind of reinforce one another, and there are the absolute realities that we have governmental structures and funding structures, both of which are the foundations of any action that can be taken and those structures change slowly so it is not surprising that those concepts keep coming up. It is why I say maybe there is not another way and I think that's why those people that guide us with their own concepts and don't put down any good ideas that don't fit with their views are very facile. Maybe there is no other way than to use the old concept sort of rethreaded. I think that if anyone, particularly some of the organizers, heard me say that, they would say -geez, let's throw him off. But, I am an enthusiastic supporter, I just worry that things are declining faster than any of these processes can really make any difference, maybe that is just a fact of life on this earth.

Ongoing dialogue and exchange of different ideas, within an emotionally safe meeting space, was important for those with Socialized mindsets in order to buy-into cooperating with diverse interests and to start separating oneself from other. Dialogue for nearly all participants was a sort of education about oneself and one another. For Socialized individuals whose conceptions of other were more closely tied to oneself, open dialogue helped them to reflect on how their initial perception of someone might have been reconceived. They became less defensive. Differences didn't seem as threatening to one's sense of self as one began to separate oneself from other.

Summary

One cannot pick and choose who manages the marine environment. EBM is about cross-sector interactions and progress is achieved by communication among and between decision-makers of different mindsets. More insight is needed into how different mindsets interact with one another and how those interactions affect policy formation processes.

Perspective-taking on self and others takes on many forms. What does this all mean for environmental decision-making? At the very least, understanding "where someone is at" with their capacity to have and take on new perspectives is helpful for setting expectations for which EBM tenets are achievable given existing learning mechanisms. SEAPLAN facilitators can build a learning community by setting up processes that speak to participants where they are and acknowledge differences in meaning making. In addition, there is a tremendous opportunity with processes like SEAPLAN that are focused on cross-sectoral decision-making to become venues for developmental growth. Time, continuity, support, and practice are essential elements for developmental growth. SEAPLAN's structure currently supports these elements. There is time, outside of government, for participants to hash out individual differences. There is continuity among members and they are continuously courted to remain involved. The meetings provide a supportive environment to "leave your affiliation at the door" and speak openly. The nature of SEAPLAN is to provide capacity for these diverse individuals to practice trying out new perspectives, get clearer about their own, and/or understand others'. SEAPLAN can become a model for other EBM-like processes by being even more intentional about these elements. Kegan calls this type of environment a "holding environment" in which an individual's environment has three functions: 1. To support them where they are developmentally, i.e. how they interpret and reason about the situation (Kegan et al., 2001; Popp & Portman, 2001). 2. To challenge the individual to stretch the limits of one's current meaning making system. 3. To provide a stable space an individual needs to integrate new ideas and feelings into his/her current meaning making system that will transform his/her way of knowing. This transformational learning can, in turn, benefit the stakeholder engagement process itself. The process becomes a classroom for learning rather than a courtroom for debating, winning and losing.

Conclusion

The following are research considerations for SeaPlan and other stakeholder engagement processes whose main purpose is to manage marine resources more holistically. Our overarching question was: Do the implicit expectations and mental demands of EBM practices require a complexity of logic and reasoning that outweighs participants' capacities?

Considerations for EBM Stakeholder Engagement Processes

1. The complexity of an EBM decision-making mandate requires attention to the complexity of the adult mind. Developmental psychology has a role to play in creating more optimal stakeholder engagement processes that are more relevant and therefore, meaningful for the individual stakeholders.
2. Decision-makers must be acutely aware of the act of decision-making, i.e. the process itself must be intentional. Optimal stakeholder engagement must be part of the decision-making process from the onset and not relegated to a supporting role.
3. Research partnerships should be developed between developmental psychologists and social scientists studying public participation and engagement.

Consideration 1: The complexity of an EBM decision-making mandate requires attention to the complexity of the adult mind: Developmental psychology has a role to play in creating more optimal stakeholder engagement processes. It is not necessary nor is it feasible for managers or professional process facilitators to be experts in developmental psychology in order to consider the mindsets of decision-makers. It is necessary, however, for them to learn how to facilitate processes that effectively invite all of the mindsets into the room. There are ways in which one can recognize developmental traits and adapt and/or create a process that works with and for a range of developmental capacities. If the complexities of meanings which individuals bring to the process of engagement continue to be ignored, processes will be created and policies enacted that are not truly and comprehensively EBM. To accomplish EBM's primary tenet of managing across sectors, the stakeholders across all sectors must be engaged. They cannot be optimally engaged without attention to how they make sense of the process and its intended goals. And if they are not engaged in ways that meet them where they are, the process will fall short of fully integrating all stakeholders into decision-making. From a developmental standpoint, a stakeholder engagement process must be created with the people in mind. It needs to speak to them, where they're at developmentally. The process does not and cannot stand alone separate from its participants. The process itself cannot have a direction or a goal separate from what its participants understand it to be.

How someone makes sense of the process translates into what and, more importantly, how they learn. A person with a Socialized mindset may come to the process to gain knowledge about EBM because they feel responsible for their affiliation's interest. As one participant said, "This is going to happen. It's just a matter of how and when and I want to make sure I understand how it affects my affiliation." These participants come to a learning process asking "What am I supposed to know?" A person with a Self-authoring mindset may come to a learning process thinking about what they want to learn and accomplish. Stakeholder engagement processes, when looked at developmentally, are ripe classrooms not only for developmental growth but for creating processes or reworking existing ones to more fully connect with participants' capacities.

Consideration 2: Decision-makers must be acutely aware of the act of decision-making, i.e. the process itself must be intentional. Stakeholder engagement must be part of the decision-making process from the onset and not relegated to a supporting role. It must support deliberative characteristics. Throughout the research process, it became apparent how important stakeholder engagement was in order to obtain EBM objectives, particularly those related to making trade-offs more explicit. Decision-making must move away from an interest-based discourse to a deliberative discourse that takes into consideration the inherent interaction and interdependence between the individuals involved and the context in which they find themselves. EBM literature on stakeholder processes offers considerations aimed only at upholding an ideal rather than simultaneously considering who the stakeholders actually are. By intentionally considering developmental capacities when creating a stakeholder engagement process and by using deliberative characteristics, EBM processes can become mechanisms for a new kind of learning which in turn enhances the EBM process.

Stakeholders must be optimally engaged from the onset through an official mechanism that is connected to, but not directly from, government (such as a public/private partnership). The engagement process should start long before the mandating process starts, if possible, and become a permanent mechanism for ongoing dialogue across sectors. EBM stakeholder engagement processes should not be predetermined. There must be intentionality about the process development and ongoing recognition of process traits as the process unfolds. And most importantly, participants should be aware or made aware of these process traits. With awareness, there is a better chance that some participants can help enable the process to adapt.

Consideration 3: EBM stakeholder engagement processes, as described above, are inherently excellent learning organizations. Many stakeholder engagement processes are not necessarily created with actual participants in mind. They are not created to meet the needs of a range of participants. They promote informational versus transformational learning. They encourage dialogue and deliberation but fail to understand and/or acknowledge when participants can't achieve these ideals. Cross-disciplinary collaborative research can teach us how to address the cognitive, emotional, social, and political variables that EBM stakeholder engagement processes inherently demand. And in doing so, create and sustain processes that do, in fact, consider and include the whole of the ecosystem.

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Correcting Improper Uses of Perspectives, Pronouns, and Dualities in Wilberian Integral Theory: An Application of Holarchical Field Theory

Kevin J. Bowman[1]

Abstract: This article uses my pre-existing extension of Wilberian metatheory, holarchical field theory, to diagnose and work towards overcoming the confusion within attempts to analyze action, events, and communication using Ken Wilber's AQAL model. In holarchical field theory, *holarchical fields* become the fundamental component of reality. These fields comprise 1) holons in relation to one another and to their potential, and 2) their interpenetrating forces engaged by their interactions. In light of the theory, problems in the Wilberian literature have included inconsistent uses of certain dualities (subject-object, interior-exterior, and inside-outside) as well as person perspectives and pronouns. Previous attempts to overcome these issues without precise diagnoses suffer from a conflation of the dual definitions of the subjective-objective duality, one a philosophical definition, the other grammatical. State versus action language is classified within the dualities of holarchical field theory.

Keywords: AQAL, holarchical field theory, integral communication, integral scientific pluralism, Ken Wilber.

Introduction

In my recent work (Bowman, 2009, 2012a, 2012b), I have extended certain key aspects of Ken Wilber's AQAL model to form what I call holarchical field theory (HFT). It encourages a more formal and consistent analysis of action and events between subjects and objects using Wilberian integral metatheory. HFT has the desirable feature of being able to incorporate a field-theoretic framework for a more dynamic use of Wilberian theory. HFT will be situated in some of the literature of field theories in the social sciences that have been used to analyze individual, organizational, and society change, particularly the strands that closely follow the field theory of Kurt Lewin. The objective of this article is to improve upon the internal consistency of Wilberian thought, thereby readying it for more appropriate use in analyzing multiple-holon interaction.

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Problems associated with Wilber's integral mathematics will be demonstrated and corrected using holarchical field theory.

Of particular concern here are the inconsistent uses of the subject-object, interior-exterior, and inside-outside dualities as well as person perspectives and pronouns in the Wilberian literature. Wilber (2002, 2006), Edwards (2003) and O'Connor (2008, 2010) all propose alternative uses of pronouns and person perspectives using Wilberian metatheory. Edwards' and O'Connor's critiques of Wilber's uses of pronouns and person perspectives show that these features of Wilber's approach need reconsideration. In light of HFT, however, Edwards' and O'Connor's alternative uses will be shown to suffer from a conflation of the dual definitions of the subjective-objective duality, one a philosophical definition, the other grammatical. This reductionism will be coined as the philosophical/grammatical conflation. This will demonstrate an advantage of having a clear differentiation of these dual meanings within the extended Wilberan framework of HFT.

Holarchical field theory (HFT) reconstituted integral theory such that *holarchical fields* became the fundamental component of reality. These fields integrate the two previous fundamental units of Wilberian theory: holons (Wilber 1995) and perspectives (Wilber 2002, 2006). Holons (as defined by Wilber, 1995 who followed Koestler, 1964) are (organisms, collectives, things or systems that are) simultaneously a whole in one context and a part in another. Holarchical fields include both holons in relation to one another and to their potential, as well as their interpenetrating forces engaged by their interaction. A component of HFT is integral scientific pluralism (ISP), which integrates Esbjorn-Hargens' (2010) integral ontological pluralism and integral epistemological pluralism into zones created by a fuller use of the dualities in Wilberian theory (Bowman, 2012a). HFT is a dynamic extension of integral scientific pluralism (Bowman, 2012b).

ISP and its extension into HFT are summarized in the next section of this article. I then situate HFT as a metatheory bridging Wilber's AQAL model and field theories in the social sciences. HFT is then used to spot and avoid some confusion within attempts to analyze action, events, and communication using Wilber's AQAL model. The subsequent section presents the alternative uses of perspectives and pronouns by Edwards (2003) and O'Connor (2008, 2010) as suffering from the philosophical/grammatical conflation. I then demonstrate how state versus action language can be classified within HFT. This section also shows that pronouns and first-, second-, and third-person perspectives cannot be reduced to particular AQAL or HFT realms without qualifications. This finding plus the specification of the philosophical/grammatical conflation helps one better understand the subtle meanings and inconsistent uses of dualities by Wilber in the next section. The subject-object integration in HFT is then used to weigh in on the recent dialogue between Ken Wilber and Roy Bhaskar, founder of critical realism, related to an epistemic fallacy in integral theory and an opposing ontic fallacy in critical realism. I then conclude. The appendix provides a new instructional example of two individuals communicating (a dynamic event) to illustrate the elements of HFT.

Summary of Integral Scientific Pluralism and Holarchical Field Theory

This section briefly summarizes first, integral scientific pluralism and then, its extension into holarchical field theory.[2]

Integral Scientific Pluralism and Modularity

Compared to Wilber's AQAL, integral scientific pluralism more formally includes the dualities of internal-external and health-pathology as well as the subject-action-object triad. I will clarify Wilber's use of the eight zones, which makes use of the internal-external duality. I will then divide each zone by the health-pathology duality and the subject-action-object triad. The division of each of the eight zones by the subject-action-object triad is justified by Wilber's notions of broad and good science. Broad science includes interior and exterior types (Wilber, 2000b). Good knowledge requires knowing the kosmic address of the perceiver (subject), perceived (object), and "what injunctions [methods as actions]…a perceiving subject must perform in order to be at a Kosmic address that can perceive the object" (2006, p. 267). Only the methods (actions of scientific inquiry) are formally included in Wilber's integral methodological pluralism. The proposed complements of integral ontological and epistemological pluralisms (the object and subject realms of scientific inquiry, respectively) will be formally included within integral scientific pluralism.

One benefit of adding the health-pathology duality is to aid in the examination of those things that contribute to or inhibit development. Edwards (2010) methodically and metatheoretically examined the metatheories of Ken Wilber (AQAL) and Bill Torbert (developmental action inquiry) (Torbert, 1976, 1991, 1999; Torbert et al., 2004) along with a thorough meta-study of the organizational transformation literature. Edwards specified the health-pathology, internal-external, and perspectives lenses as lenses that appear in the literature studied. They are also lenses that are used, but not formally, in AQAL (Edwards, 2010, p. 217). This provides additional justification to formally include them if logically supported and consistent.

The construction of integral scientific pluralism (ISP) begins with Ken Wilber's eight zones of integral methodological pluralism (IMP). For Wilber (2006), IMP uses the eight zones as eight different perspectives to view the four quadrants (pp. 36-40). For example, the individual-interiority of the upper left quadrant can be examined internally (as with the class of methodologies called phenomenology) or externally (with the structuralism class). In a later section, I will show that Wilber has not always consistently followed his own definitions of the internal-external or inside-outside dualities. Wilber (2002, Excerpt C) defines *internal* constituent parts of holons as following the agency of the holon while those that do not are *external*. Parts that are *inside* a holon are within its boundary. Items beyond its boundary are *outside* of the holon. Parasites or repressed thoughts are examples of items that are inside holons, but not internal to the holon.

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[2] Here I will provide brief justification for the extensions. Citations will be provided for my earlier work and its more detailed arguments.

For HFT, I define the internal-external duality as Wilber defines the inside-outside duality (items separated by the holon's boundary). Thus, I can use internal-external the way Wilber uses inside-outside in the formation of the eight zones because I will also allow for positive (healthy) and negative (pathological) aspects which are internal or external. So a parasite or a repressed thought is a pathological internal item.

I use the term internal-external (instead of inside-outside) for the following two reasons. One is that internal and external aspects can be associated with the common dynamic terms of internalize and externalize as was done in Bowman (2009). We do not have verbs like insidize or outsidify. The second reason is that all the distinctions that Wilber makes can be fully accommodated when the health-pathology is crossed with what I am calling the internal-external duality.

I define healthy items as those that are capable of contributing to meaningful needs satisfaction (which would include items that aid in meaningful development). Pathological items are items that tend to be destructive and may inhibit meaningful needs fulfillment and development. This is consistent with Wilber's (1995, p. 78-79) discussion of healthy and pathological drives such as autonomy (healthy agency) versus dissociation (pathological agency).

To distinguish between healthy and pathological actions that emanate from healthy and pathological holonic aspects, respectively, I use the adjectives positive or negative. Thus positive externalization is a force that contributes to healthy expression, needs satisfaction, or development that moves beyond the border or a holon (as when the education of the mother benefits her child). Please note that internal-external is different from the interior-exterior duality. My thoughts and our mutual understanding are interior aspects while my brain processes and the interstate highway system our exterior items. My thoughts and my brain processes are both internal to me as an individual holon.[3]

I treat the eight zones as not only eight perspectives, but also eight distinct realms in which holons exist. Thus the phenomenologist examines individual-interior objects as they appear in the internal realm of the phenomenologist. The structuralist may ask questions of individuals to study their individual-interior as they appear in the test-subjects' external realm. This will aid in tracking the aspects of the subject that perceives versus the aspects of the object being perceived. Examining four-quadrant evolution or deciphering the relatively healthy choice in a given situation benefits by differentiating relevant internal and external items. For a generalized example within Wilber's stated four-quadrant correlations, two largely egocentric tribes cannot sustainably merge within a sociocentric empire and transform their culture up to that correlative level without a certain aspects that are internalized, like emergent capabilities (taking the role of other, sociocentric rules, etc.) while others are externalized (irreconcilable myths and procedures that oppose those of other tribes they may unite with).

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[3] The labels healthy and pathological internal and external are also more intuitive that relying on the definitions Wilber specifies for inside-outside and internal-external. The two dualities are easily confused without keeping careful track of the definitions.

Treating the eight zones in this manner then allows for them to be crossed by the subject-action-object triad such that each zone can be seen as an area from which a subject takes a perspective (subject) and interacts (action) with its environment (object). This is necessary to specify the scientist (subject in this example), his or her employment of methods (action) and the object of study (object). This creates 24 horizontal zones of each level of development. Crossing the realms further with the health-pathology duality makes the 48 horizontal realms of *integral scientific pluralism* as shown in Figure 1. This article will contribute to a view that a formal extension of AQAL to include the internal-external and health-pathology lenses is beneficial.

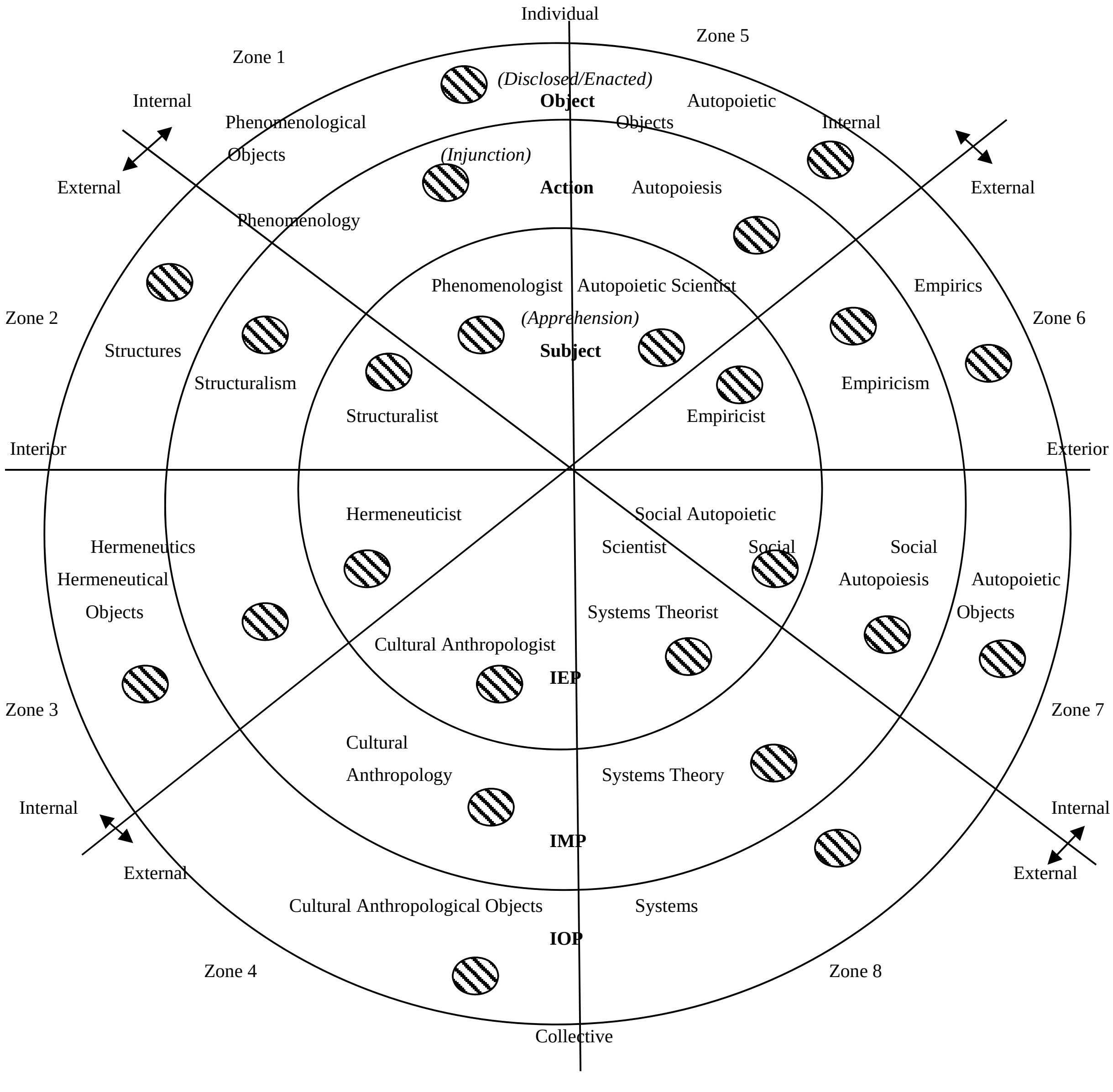
Individual
Zone 1
Zone 5
(Disclosed/Enacted)
Object
Internal
Phenomenological
Objects
Autopoietic
Objects
Internal
External
(Injunction)
Action
Autopoiesis
External
Phenomenology
Phenomenologist
Autopoietic Scientist
Empirics
Zone 2
(Apprehension)
Subject
Zone 6
Structures
Structuralism
Empiricism
Structuralist
Empiricist
Interior
Exterior
Hermeneuticist
Social Autopoietic
Scientist
Social
Social
Hermeneutics
Hermeneutical
Objects
Autopoiesis
Autopoietic
Objects
Systems Theorist
Cultural Anthropologist
IEP
Zone 3
Zone 7
Cultural
Anthropology
Systems Theory
Internal
Internal
IMP
External
External
Cultural Anthropological Objects
Systems
IOP
Zone 4
Zone 8
Collective

Figure 1. *Forty-eight horizontal realms of integral scientific pluralism.*
Key: ▨ = the pathology of that realm; IMP = integral methodological pluralsm; IOP = integral ontological pluralism; IEP = integral epistemological pluralism.
Source: Bowman (2012a, p. 58).

With ISP, the eight classes of methodologies (IMP), when employed, can be seen as dynamic interactions between the subject scientist and, potentially, an eight-zonal object. This encourages a high degree of reflexivity of the subject scientist, which is an important focus of the metatheory of Edgar Morin (2001, 2004, 2006, 2007; Montuori, 2013). Given the fractal nature of ISP, all 24 horizontal realms, once mastered, become a new tool (a new method). An object of scientific inquiry can be examined as at the center of its own subject interacting with other objects. Taking a perspective then becomes a particular action from the subject realm to the object realm that can be mapped with this approach. Later sections will show that a more formal treatment of perspectives is needed in AQAL

Esbjorn-Hargens (2010) began to postulate an integral ontological pluralism (IOP) and integral epistemological pluralism (IEP) to complement Wilber's IMP (within a Wilberian approach). Similarly, Esbjorn-Hargens and Zimmerman (2009) organize their Wilberian metatheoretical study of ecology by the Who (subject or IEP), the How (action/method or IMP) and the What (object or IEP). Therefore, IEP, IMP, and IOP reside neatly within the ISP realms.

Consider how ISP informs its user of how scientific inquiry involves these ISP realms. For example, the scientist interprets data using his own interior-individual-internal symbols, translations, etc., and is constrained or empowered by his own psychograph (phenomenology). Ideally, he judges the correspondence of his thoughts to his written output and makes assumptions of the interior-individual receptivity of his readers or the interior-individual motivations of his test-subjects (structuralist). Whether or not he is scientific or not as a structuralist, he must work with his own thoughts. He views his objects of study through cultural understanding such as the accepted paradigm of his discipline (hermeneuticist). He must present novel findings that can have an impact in that paradigm (cultural anthropologist). His scientific endeavor is fostered in part by his individual biological skills such as his dexterity at manipulating scientific instruments and computer keyboards (autopoietic scientist). The social structures in which he is an internal member such as the persuasiveness of his academic appointment and his ability to obtain research funding also influence him. Those social aspects that are currently external to him, such as the carrot of tenure, other non-academic options, or a wider academic readership also drive and constrain him, consciously or unconsciously (social autopoietic scientist).

I distinguish between primary and secondary methodologies. Scientists tend to work within a certain strand or a few strands of established scientific inquiry. They present their findings from the accepted methodologies within these strands. These are the stated methodologies or *primary methods* within the paradigm. The other methodologies are *secondary*. They are methods used without scientific justification when evaluated according to the best scientific principles available across the broad sciences. They are used less consciously, less transparently, or less justifiably as when the dominant paradigms in economics and political science assume all agents to be atomistic and egoistic. The atomistic and egoist assumptions are not justified (without proper contextualization) from an ISP lens because it violates the roughly known distribution of agents found by structuralist and cultural anthropological sciences. Yet the assumption is accepted by precedence within positivist and empiricist schools of thought. So scientists do not merely take an exterior perspective (or what Wilber and Esbjorn-Hargens call a third-person perspective). All eight perspectives are taken together while the exterior perspective may be the stated (primary) method. Understanding of the distortions from secondary methods, I argue, is an important ongoing project for Integral Theory and a key to the success of Wilber's integral reconstruction. His model does not heap together knowledge from across various disciplines, nor does it construct a scientific study controlling for all eight methodologies. Rather, it includes partial truths and removes partially invalid assumptions and results when they are examined in context with the other disciplines and wisdom traditions. This is a particular, skilled, and broad use of these eight methodological classes. This Wilberian, metatheoretical methodology I call *integral scientific modularity* (ISM) (Bowman, 2012a). With the aid of the formal constructs of AQAL (such as the many levels of the four quadrants), findings from one discipline are contextualized and integrated with findings from other disciplines.

ISM adds insight into Wilber's epistemology and methodology. It is consistent with, and bolsters Edwards' (2010) contention that "orienting generalization cannot be validated at the middle-range level because they are only fully articulated at the level of metatheory" (p. 89). Although I would prefer to state '*more* fully articulated', Edwards' statement was in disagreement with Crittenden's (1997) assertion that Wilber's methodology began with orienting generalizations from various disciplines. ISM warns of the potential biases and distorted findings from fragmented modern and postmodern science, yet also provides some direction for an integral reconstruction.

Crossing the ISP realms with the health-pathology duality allows one to clearly see that there are degrees of health within each zone across the subject-action-object triad. In other words, there are healthy and unhealthy aspects within the capabilities and limitations of scientists (epistemologically), within the way they conduct their investigations (methodologically), and within their objects of study (ontologically). Scientific endeavors have revealed aspects of all forty-eight zones. For examples differentiated by epistemology, methodology, and ontology, see Bowman (2012a).

More generally, we can think of a subject and an object as each having healthy and pathological capabilities allowing for positive and negative interaction. Examples of healthy capabilities in particular subjects include well-adjusted individuals psychologically (upper-left), constructive moral codes (lower-left), well functioning body-brains (upper-right) and useful aspects of governance procedures (lower-right). We may be specifying them as internal to individual or collective subjects or in external holons relative to others. Unhealthy, items include individual neuroses (upper-left), physical ailments (upper-right), racist beliefs learned in the family (lower-left), and incentives in the political system that encourage corruption (lower-right) either in a particular subject or object (internal) or in subjects or objects that are related to other subjects or objects (external).

Many unproductive dialogues occur when agents implicitly disallow both healthy and unhealthy aspects to occur in a particular realm. Consider first an exterior-intensive object, the economic system. A Marxist economist and a neoclassical economist may not learn from each other if the Marxist only acknowledges unhealthy aspects of the capitalistic system and the neoclassical economist finds everything about capitalism to be natural and beneficial. For an interior-intensive example, a man and wife in a strained relationship may have trouble reconciling if they each think of the other person as approaching their relationship troubles completely unhealthily psychologically while take no responsibility for their own individual-interior shortcomings as they apply to their difficulties.

When subjects and objects interact, healthy capabilities will tend to cause events that satisfy needs meaningfully while the unhealthy ones will inhibit meaningful needs satisfaction. To chart the various channels of interaction, it is helpful to cross the 16 object zones and 16 subject zones with the static-dynamic duality. This is explained in the next subsection.

Holarchical Fields and Holarchical Development

In order to summarize the holarchical field construct, it will be useful to first discuss Wilber's concept of kosmic address, which, in simplified form, is a holon's altitude (level of development in various lines) plus perspective.[4] Altitude is a static capability or present potentiality while taking a perspective is a dynamic event. ISP makes clear distinctions between static capabilities and potentials of holons separate from their dynamic interactions. Potential implies various possibilities given one's capabilities in a given environment. The possibility may be routine or emergent. For an emergent action for an individual, consider Vygotsky's (1978) zone of proximal development. There is a leading edge for an individual that allows her to solve certain problems. The skills and capabilities in relative lines of development are stocks of development. Solving a problem is a dynamic task. Some, more complex problems are not quite, but closely within the individuals grasp, or within the zone of proximal development, if the individual is supported with someone with a greater, relevant skills set. The dynamic interaction between student and teacher can then build greater stocks of relevant skills for the student.

Since taking a perspective is a dynamic event, I have defined holarchical embeddedness as, essentially, kosmic address without the chosen perspective of a given moment. In ISP, the *holarchical embeddedness* of the subject and all relevant objects is their pre-existing statics (including needs, characteristics, capabilities, potentialities, occupation, incentives, social power differentials, and so on) and history with components of the environment. *Holarchical interaction* of subject and object includes their interrelated dynamic events (perceptions, analyses, active relations, choices, movement, communication, and so on). Empirical investigations would begin with a smaller subset of these distinctions, but theoretically, HFT begins broadly (as is the stated approach in field theory). And theoretically, a clear static-dynamic distinction is needed for a number of reasons. For one, the model can be used to help assess the relative health of stakeholder interactions relative to their potential so that prescriptions can be made to intervene and encourage healthier results. An integral national income accounting would also need the static-dynamic differentiation to specify stocks of assets (such as the levels of four-quadrant capital in the economy) and the holarchical needs satisfied from the production and consumption of goods and services from those assets in a given time period. Holarchically embedding the assets could significantly improve our understanding of economies, networked and otherwise.

The relationship between holarchical embeddedness and the dynamic events between subject and object are explored further with the extension of integral scientific pluralism. ISP can be linked with the dynamic drives of the *holarchical development* model (Bowman, 2009). In holarchical development, the eight zones (interior-exterior times individual-collective times internal-external) times the health-pathology duality are further crossed with the static-dynamic duality. Table 1 represents the relationship between the static realms in which holons exist, and their correlated dynamic action. For example, a holon exists in the four quadrants; that is, it has at any given point in time, intentional, behavior, cultural, and social capabilities and potentials. These aspects are relatively static in nature. The intentional items are described as existing in the individual-interior realm. On the other hand, the dynamic action of reading a profound book can build individual-interior capital for that agent. This would be a combination of positive interiorization and positive individuation.

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[4] A more elaborate address will include the holon's typology, present state, etc.

Again, positive actions are defined as those that contribute to meaningful expression, needs satisfaction, or development. Negative drives detract from or inhibit meaningful expression, needs satisfaction, or development. Neutral drives neither promote nor inhibit meaningful expression, needs satisfaction, or development. In Kurt Lewin's (1951) field theory, drives are categorized as driving or restraining. Driving forces tend to propel individuals or groups towards a goal or certain action, while restraining forces tend to prevent certain behaviors.

Table 1**.** Holarchical Drives (Corresponding to the Static Dualities) and Examples of Their Corresponding Actions.

Drives of the Interior- Exterior Duality (Times Health-Pathology)	
Positive Interiorization Training or reading a book that expands one's understanding. In a Subject Scientist: An insight that solves a puzzle in the economics literature. In/As the Object of Study: The productivity improvements from a transformation of consciousness of the average worker over time.	**Positive Exteriorization** Putting into writing a brilliant idea; reproducing another machine part; forming muscle memory from practice.
Negative Interiorization Ignoring exterior causes from a belief that we can change *all* of our reality by recognizing the exterior as illusory; paranoid interpretations.	**Negative Exteriorization** Operating with limited intention because one thinks thoughts are only products of brain chemicals reacting to exterior stimuli; computer hacking a benevolent charity's website.
Drives of the Individual-Collective Duality (Times Health-Pathology)	
Positive Individuation Honoring individual choice; respecting the individual perspective for its partial truth.	**Positive Collectivization** Contributing to social value; learning the language of the collective; openness to learning from another person.
Negative Individuation Alienation from the collective; not honoring the partially-valid individual perspective.	**Negative Collectivization** Indiscriminately accepting all individual choices as equally valid; destructive herd behavior.
Drives of the Internal-External Duality (Times Health-Pathology)	
Positive Internalization For society, taxing gas to make drivers bear costs of pollution; taking responsibility for a mistake.	**Positive Externalization** Releasing limiting thoughts; firing an incompetent worker; the destruction of a virus by antibodies.
Negative Internalization Absorption of pollution by an innocent bystander; feeling guilt for what is beyond one's control.	**Negative Externalization** The loss of awareness from a peak experience; Projecting beyond oneself one's own repressed issues.

Drives of the Higher-Lower Duality (Times Health-Pathology)

Positive Ascension	**Positive Descension**
Releasing attachment to a literal notion that demons cause illness in order to open to the germ theory of disease; emergence of a higher capacity.	Enjoying to eat healthier such that the lower hunger drive is satisfied with rational understanding of health; relativistic-level parents teaching traditional-level children to recycle.
Negative Ascension	**Negative Descension**
Denying an ability to attain higher awareness with transformative practice (rather, thinking only through death or by miracle can one go higher); blind obedience to higher-level authority when one knows better.	Denying greater potentials of the lower (e.g., one *must* abstain from sex to transcend lower expressions of it); a rational-level holon disallowing the expression of feelings.

Source: Adapted from Bowman (2009, p. 18).

Once one accepts the usefulness of making static and dynamic distinctions, the dynamic drives follow naturally from Wilber's writings as the examples in Table 1 convey. First I will focus on the horizontal realms and drives. Recall from above, the reference to healthy and pathological autonomy and communion (Wilber, 1995, p. 48-49). Their meanings clearly imply actions relating to the static duality of individual-collective. (See Bowman 2009 for a detailed discussion). A constant theme for Wilber is how AQAL aids the user to see reality in more of its dimensions thereby fostering a healthier and more balanced holarchical use of its realms (which are created by crossing dualities). Similarly, Edwards (2010, p. 7-8) argues that metatheory such as AQAL is capable of specifying strengths and weaknesses of the unit-level theories it integrates. Flatland reductionism to the exterior domains as in scientific areas dominated by positivism and empiricism (Wilber, 1995, p. 450) is contrasted with broad science (Wilber, 2000b, p. 74) that recognizes interior and exterior dimensions and scientific methodologies to appropriately access them. Since the internal-external duality is not as well integrated into AQAL, I draw on Pigou's (1932) seminal work on positive and negative externalities and internalities.[5]

Moving onto the vertical dimension, we see references to vertical drives and vertical levels in healthy and unhealthy manifestations. Wilber contrasts healthy agape or compassion in the descending direction versus unhealthy thantos or repression in the descending direction. In the ascending direction, healthy eros is offset by pathological phobos (Wilber, 1995, p. 348-351). Regarding health and pathology by specific level, Wilber (1995) and Beck and Cowan (1996) discuss healthy or emergent capabilities at a given level in contrast with problems at a given level that may necessitate growth to a higher level to overcome. Edwards (2010) also describes new powers and problems associated with the various levels of organizational development.

One could provide an example per dynamic drive that relates to a particular subject and another for a related object. In Table 1, this is done for one drive for illustration, but only one drive for conciseness. For instance, an economist as a subject studying the economy may experience positive interiorization as she intuits a new insight that solves a difficult puzzle in the literature on labor market participation and wage rates (positive interiorization in the subject). Alternatively, the object of study may be the productivity improvements that result from a transformation in consciousness of the average worker over time (positive interiorization in the object). This example again brings out the fractal nature of working with this model. The object just mentioned is its own subject (the average worker making choices) that dynamically interacts (transforms) with objects (more productive machines). This subject-action-object triad is itself an object that is dynamically engaged by the subject economist during her study.

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[5] See Bowman (2009) for more on the justification for these dynamic drives as correlated with Wilberian dualities. Included are some references to how others have also used them such as Carl Jung and Jean Piaget.

ISP (Figure 1) and the holarchical drives (Table 1) are linked with the static-dynamic duality. The dynamic dualities (interiorization-exteriorization, internalization-externalization, individuation-collectivization, positive-negative, ascension-descension, and subject-object interaction) correlate directly (and respectively) with the static dualities (interiority-exteriority, internality-externality, individuality-collectivity, health-pathology, height-depth, and subject-object embeddedness). Thus the dynamic dualities specify the action between subject and its object environment while embeddedness relates to one another the holarchical location of the subject and object that are interacting.

Holarchical field theory is the result of this linking ISP and the dynamic drives. For this branch of Wilberian metatheory that I have offered, no longer is the fundamental unit holons (Wilber, 1995), nor perspectives (Wilber, 2002, 2006), but instead holarchical fields formed by interpenetrating classes of drives between holarchically-embedded subject and its object environment. Notice that HFT does not merely embed the subject in on object environment in only a relative, otherwise ungrounded manner, as when a reader of literature is embedded in a culture by a postmodern analyst. Instead, both the subject and object are each holarchically embedded and as a result of their relative position in holarchical space (each can be described independent of each other). Their potential fields within this setting then provides certain probabilities of various actions, theoretically. The field construct transcends and includes the relatively static descriptor, holons, and one of their dynamic actions, perspective-taking. According to Smith and Smith (1996), a definition for a field that is applicable to all social and natural sciences was given by English and English (1958, p. 207): it “substitutes events for things having fixed properties, and sees events as totalities in which parts of the event are what they are, qualitatively and quantitatively, only in terms of the rest of the event.” Such an approach is needed to examine complex actions. The formal action examined thus far using Wilber’s integral mathematics has been limited to one holon taking a perspective, which discloses an aspect of an object.

Holarchical field theory can be used to distinguish and relate state versus action developmental theory. Holarchical embeddedness is described relatively intensely by state development theory, which focuses on the capabilities that develop in sequence in various lines of development. For examples, Piaget (1977) and Aurobindo (n.d.) studied cognition; Kohlberg (1981) and Gilligan (1982) morals; Graves (2005) and Beck and Cowan (1996) values; and Lenski (1970) and Marx (1977) techno-economic base. Action developmental theory describes relatively intensely the guiding strategies or action logics associated with different stages of individual or collective development. Examples include the action inquiry of Torbert’s (1976, 1991, 1999) and the action science of Argyris’ (1996; Argyris and Shon, 1996).

An increase in integral tendencies in culture (a transformational influence) could contribute potentially to a more meaningful and sustainable society for first-tier agents, not just integral-stage agents. The full specification of dynamic drives fosters examination of these subtle differences in emphasis (translation, transcription, and translation). Integral agents could invest in their own skills to further develop (positive ascension), or they can invest in skills that can contribute to healthier actions of First-Tier agents (positive descension). The concept of *holarchical development* is intended for just such differentiations. It can be represented by Figure 2, which shows, roughly, a hypothetical case of balanced development. With balanced development, there is positive development in all holarchical directions. This follows Wilber's (2000a, p. 198) statement that nested pyramids could also represent his many-leveled, four-quadrant diagram. A deeper (North-South) pyramid is from positive individuation and collectivization. A wider (East-West) pyramid is from positive interiorization and exteriorization. A taller pyramid is from positive ascension, and a steeper slope is from positive descension. The process also involves positive internalization and externalization such that greater potential is realized within the boundaries of the pyramid and positive externalization where the obstacles that prevented that growth are eliminated or related external holons also benefit.

Balanced development, however, is not necessarily the case, nor is it even typical. The model must allow for developments that are intensive in the various holarchical directions as with the finding by Beck and Cowan (1996) that stages alternate in emphasis of autonomy (positive individuation) and communion (positive collectivization). Consider also Wilber's descriptions of the dignity and disaster of modernity. He writes that development at the rational stage has occurred disproportionately in the exterior realms with even pathological differentiation and atomistic conceptions of reality (development with a heavy combination of positive and negative exteriorization and individuation). Similarly, postmodernity contributed to development with an emphasis on the cultural quadrant, but has overplayed its significance such that hierarchical stage theories and logical analyses are deconstructed without reconstruction.[6]

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[6] See Bowman (2009) for a description of the partially valid critiques of Wilber's AQAL model, which can be grouped as the ascending-bias criticisms. There I describe how the dynamic drives can be derived from Wilber's writings to increase AQAL's internal consistency and better differentiate the vertical directions of development. This at least partially overcame AQAL's ascending bias without succumbing to the pre-post fallacy (that is, without elevating pre-conventional tendencies to post-conventional or reducing the post to pre).

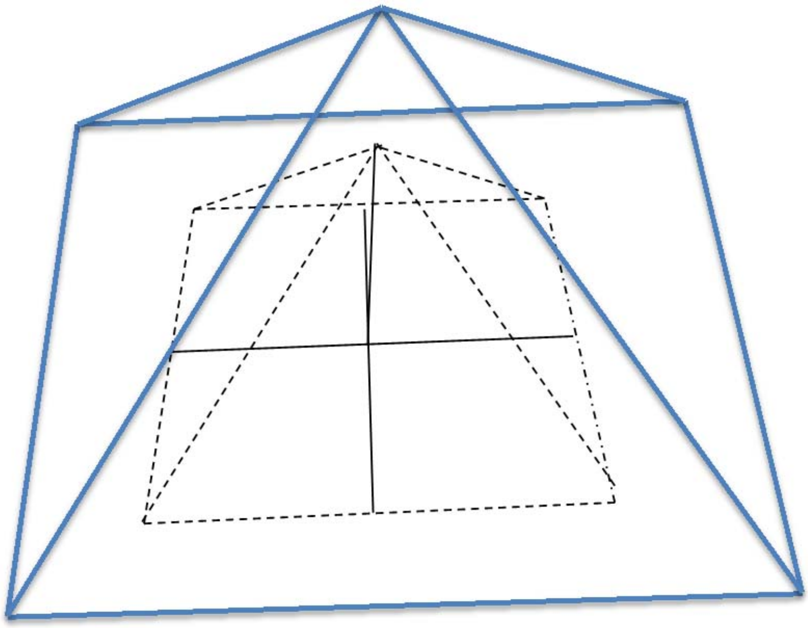

Figure 2: *Balanced development in each holonic direction resulting in a larger pyramid.*
Source: Adapted from Bowman (2009, p. 4).

HFT as a Metatheory Bridging AQAL and Social Science Field Theory

Here I use Mark Edwards' (2010) metastudy of metatheories and his own metatheory to help orient holarchical field theory (HFT) within the metatheoretical literature. This also provides insight into HFT's extensions of AQAL, which builds bridges to field theories in the social sciences. I will focus on the field theory of Kurt Lewin (1939, 1951) and some of its more contemporary influences.

Overton (2007) distinguishes ordinary theory from the conceptually higher-level metatheory. Ordinary theory and methods use the empirical world as its subject matter, while metatheory and metamethods take the ordinary theories and methods themselves as the subject mater. Edwards (2010) worked on yet a higher conceptual level as he compared different metatheoretical models and methods including those classified as traditional meta-construction, the dialectical method, metatriangulation, metaparadigm inquiry, and metatheorizing in sociology. The traditional meta-scholarship relies on a theorist's broad reading across many related disciplines and his or her intellect and intuition to build a large theoretical framework. Although important connections and models can result, the method lacks transparency and repeatability.

The dialectical method (e.g., Marx, 1977) resolves opposing perspectives through rational dialogue. According to Paolucci (2003), Marx's method involved inquiry, conceptualization of core elements, case comparisons, deductive analysis and provisional abstractions, model building, evaluation, presentation, and continued inquiry.

Edwards concluded that only metatriangulation could claim to be a systematic research method for metatheory building. Its three phases are groundwork, data-analysis, and theory building as in the work of Lewis and Grimes (1999). For Edwards, multiparadigm inquiry (Lewis and Kelemen, 2002), with similarities to the approach of Ritzer (1991, 2001), is a complementary tool for comparing theories and metatheories given its comparisons of "underlying themes and key conceptual factors" (Edward, 2010, p. 85).

Edwards' own metatheoretical method is an extension of the systematic metatriangulation method. Edwards' extensions help overcome the inability of metatriangulation to widen the range of existing paradigms and lenses. Edwards found all four metatriangulation studies within his chosen domain (organizational transformation) to rely on the four paradigms (interpretive, functionalist, radical humanist, and radical structuralist) specified by Burrell and Morgan (1979). Saunder et al. (2003) also recognized the problem of the reproduction of existing paradigmatic relationships in studies using metatriangulation. Edwards' resulting eight phases of his metamethod are groundwork, domain specification, design, multiparadigm review, multiparadigm analysis, metatheory building, implications, and evaluation.

Edwards places Ken Wilber's method in the traditional category. Edwards adds transparency by pointing out the characteristics of the formal and informal aspects of the theory. Edwards recognized the four quadrants as a crossing of two dualities, a method used to synthesize various perspectives in other studies. Of course, in the case of AQAL's four quadrants, individual-collective is crossed with interior-exterior to form four areas (the individual, interior quadrant; the individual, exterior quadrant; the collective, interior quadrant; and the collective, exterior quadrant). Thus the method of, and value from, using formal dualities that Edwards specified is consistent with the method of, and value from, what I specify as integral scientific modularity. ISM also improves upon the transparency of Wilber's work and HFT by extension. Integral scientific modularity is a more generalized argument that includes the formal and informal aspects of AQAL. When used successfully, Wilber's method of referencing claims across disciplines and methods contextualizes one another and do not necessarily require formalization, as Edwards uses the concept, in order to better judge the partially valid from the partially invalid conclusions. Judging by a broader survey of cross-disciplinary and cross-methodological studies helps one overcome results from unjustified assumptions while honoring those that result from state-of-the-art scientific inquiry. Furthermore, HFT formalization of what were informal relationships in AQAL by using the (bipolar, triadic, or spectral) crossing method is sanctioned by Edwards' meta-analyses. The domains of HFT represent an unprecedented level of differentiation and integration as measured by the number of dualities, triads, and spectra simultaneously crossed with its results systematically described and theoretically supported. Improved internal consistency, as described in later sections, provides some confirmation of the appropriateness and fit of the HFT extensions of AQAL.

Recall that HFT formally includes some conceptual lenses that were used informally in AQAL (internal-external, health-pathology, and subject-action-object). We can add to this list the autonomy-communion duality (an added lens labeled as informal in AQAL by Edwards, 2010, p. 217). The static-dynamic formalization of HFT pairs the dynamic drives of autonomy and communion with the static realms of individual and collective thereby formally integrating the autonomy-communion duality.

The perspectives lens is also informal in AQAL according to Edwards. In HFT perspectives may be considered informal as well, yet they take on more detailed meaning. They are the subject views that result from certain field action in given object environs. This type of perspective talking (action) is a general use separate from first-, second-, and third-person perspective taking, which will be examined in later sections.

Also consider the other lenses listed by Edwards as informally used in AQAL: transformation-translation, inclusive emergence, exchange relations, transition process, and spirituality. Furthermore, consider conceptual lenses identified in Edwards' metastudy that are not included in AQAL formally or informally: social mediation, learning, system dynamics, alignment, stakeholder, decentering, evolutionary process, and governance hierarchy.

Comparing the lenses that are formally included in AQAL versus those that are informally or not included suggests that AQAL is more closely related to static developmental rather than dynamic developmental theory. The later more typically works with the omitted lenses (although not always formally). Interestingly, those dynamic developmental theories specified in the previous section (action inquiry and action science) share an important lineage going back to Kurt Lewin's field theory (Burnes, 2004). The action science of Argyris (1990) and organizational dynamics of Hirschhorn (1988) helped renew interest in field theory. O'Connor (2008, 2010) shares an interest in better incorporating insights from action science into the AQAL framework. He has correlated three types of organizational guiding strategies by level of development. So although many lenses are not formally included in HFT, many of them are more accessible with the field-theoretic approach of HFT.

Lewin is considered the father of social psychology and famously worked to reconcile a divide in psychology at the time between the influences of nature and nurture on behavior (Brown, 2011). Lewin (1951) conceptualized and empirically found behavior to be a function of the individual and his or her environment. For him it was necessary to include all relevant individual and environmental factors including psychological, biophysical, and socio-cultural (i.e., Wilber's four quadrants). Lewin (1951) also did important work in analyzing vertical development and regression with an emphasis on differentiation and integration. Field settings also bring out different aspects of an individual's personality. Perceptions, feelings, and actions of the individual were grounded in group membership (in family, work, church, school, etc.), norms, roles, socialization, interaction and change.

The group is a broader and more flexible unit in Lewin's field theory than in Wilber's AQAL. Wilber stresses same-level relational exchange where, for example, rational stage individuals tend to be associated with rational-stage collectives. For Lewin, it is not the similarity or dissimilarity of individuals that constitutes a group, but interdependence of fate. When there is interdependence in the goals of its members, group behavior can be cooperative or competitive potentially stimulating movement towards attaining goals. In his analyses, group atmosphere can vary in friendliness and group governance can range from laissez-faire to democratic to autocratic (Smith, 2001).

Goals, aspirations, and expectations are central to Lewin's approach to behavior at a time when those issues were considered non-scientifically accessible. Lewin's work on boundary issues clarifies the need to formally include the internal-external boundary while specifying key relationships among holons. In ISP, it is essential to specify the subject's relevant object environment. The horizontal and vertical drives make connections between subjects and objects within and between levels of development and should not be limited to same level relational exchange. This approach better asks how an integral culture would better align the drives of agents and different first-tier stages for the health of the given holarchical life space.

Gold (2002) described Lewin's metatheoretical approach as, not technically a theory or method, but a set of rules for building sound theory. The rules are: i) create constructs, ii) include dynamic relations where a change effects each relevant component, iii) start with the situation as a whole (the field component), iv) assume contemporaneity (the past or future only affect a situation if they relate to a present specification), v) formalize if possible but it is not required if the theory is not mature enough in a given area, vi) use a psychological approach (perceptual and cognitive processes are related to outer events in the physical, psychological and social environment). Gold argues that Lewin's psychological side of the theory is more formal than the social side. For the psychological side, Lewin defines primitive terms, posits their axiomatic relations, and generates logical axiomatic combinations of the primitives. This approach is underdeveloped on the social side. A key to advancing the field approach is in the formalization of the boundary issues and holarchical field theory helps provide some insight. In Gold's writing, the boundary problem, or the "reciprocal influences between the individual and social environment," takes on the character of the individual-collective distinction. This implies that the linkages between psychological and behavioral events are more formally analyzed. Gold argued that more work is needed to expand on Lewin's social concepts (social space, gate keeper, group atmosphere) while incorporating probabilistic and stochastic collective facts.

HFT incorporates the internal-external duality requiring a specification of a boundary between holons in each quadrant (psychological, behavioral, cultural, and social). This and the related classes of drives is offered as a potential tool for organizing developments in modern field theories, action science, action inquiry, and complexity theory. Bion (1961) drew on Freudian and Lewinian theory in his influential work on unconscious aspects that often undermine group performance. Rummel (1975, 1976, 1981) developed a sophisticated field theory that drew on the field theories of Lewin, Sortkin (1969), and Ushenko (1946), among others. Rummel provided an updated philosophical grounding aimed at reconciling opposing philosophical approaches. He also expanded on the vector field approach conceptually and with updated empirical specifications.

Applying part of this approach to HFT, a holarchical vector field may be used to chart dynamic interactions among the subject and object environment. The dynamic drives are classes of holarchical vectors (which specify holarchical direction and magnitude). For example, interiorization is a holarchical direction through the interior holarchical realm. It is a class of drives, meaning that other individual, interior aspects of drives relating to aspiration, expectation, perception, thought, and so on, fall within the interiorization class. But they may be related to other realms. For example, a subject may aspire to know an idea or to acquire an object. The interior-individual aspiration is a drive that tends to propel the subject to action such as reading to learn the object idea or work to earn money to buy the object. Thus the object selected by the subject and method can be in different realms. (The example in the appendix brings out some more of these issues). Those with highly developed interiority are capable of harnessing and controlling strong drives relating to the interior realm. More work is needed to formally tie together holarchical embeddedness in various basic and learning lines along with their related drives in various environments. For example, static cognitive developmental theory can describe *how* one tends to think at successive stages, now *what* one tends to think (Rosenberg, 2002). A dynamic, field approach is needed for better understanding of what one tends to think in various circumstances.

Complementary drives may amplify each other while opposing drives may dampen each other out. The 20 Tenets provides some theory about the actions that foster further development. Development may result from, for example, reconciliation of polar drives with a mutual orientation of their appropriate holarchical scope, including their partially valid parts while limiting their overstretched applications. This guides us to existing potentials that may be within a holon's zone of proximal development. For example, does the cultural drives in the group complement the individual's potential drives associated with satisfying his or her goals or needs? What barriers are involved in the various ISP realms? How can holarchical embeddedness of the relevant objects be best harnessed for mutually beneficial action? Can we better recognize and empower the complementary drives? What are the state-of-the-art methods that can empower tendencies into successful drives? How do we spot shadow elements as the root of negative drives?

Elrod and Tippet (2002) and Rosch (2002) see complex adaptive systems theory as an intellectual heir of Lewin's field theory. Argyris et al. (1985) and Shein (1988) have acknowledged the important influence Kurt Lewin has had on their own action science scholarship. Lewin, by the way, coined the term action research (Smith, 2001). In their work on organizational identity, Meyer et al. (2002) make use of Lewin's quasi-stationary equilibrium concept.[7]

Kurt Lewin's field theory and Ken Wilber's AQAL are better grounded in psychology as they ventured into collective realms. Pierre Bourdieu's (1984) field theory, in contrast, is grounded in the sociological tradition with special emphasis on power relations and the way field positions (including class differences) influence motivations, incentives, and power dynamics (Swartz, 1997). Sociologists Fligstein and McAdam's (2012) recent work in field theory is also firmly in the sociological tradition. Relative stakeholder positions, especially between incumbents and challengers, play key roles in the theory.

Perhaps HFT can provide conceptual tools and help further develop other efforts to utilize AQAL for dynamic analysis. In one such effort, I integrated the input-throughput-output triad by using a production function that converted four-quadrant capital into four-quadrant goods and services used to satisfy hierarchical needs (Bowman, 2008). Elsewhere, I made stakeholder interaction an important part of my analysis of public economic policy (Bowman, 2010a, 2010b, and 2011). Various stakeholders (business groups, environmental groups, political parties, and average consumers and voters) were considered as influential on public economic policy based on their degree of health and development in the political-economic learning line (which consists of the conservative, liberal, and radical typologies). O'Connor (2008, 2010) made use of simple and higher-order learning modalities of organizations at three different levels of development in his unique use of AQAL. For researchers who have categorized disciplines or issues by quadrant, HFT encourages them to go deeper to disentangle and relate static and dynamic issues in different settings, and to use newly integrated theories in detailed analyses rather than stopping at topologically relating them.

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[7] See Burnes (2004) for a discussion of Lewin as his field theory relates to modern strands of research on change dynamics such as organizational development, culture-excellence theory, processualism, punctuated equilibrium models, continuous transformation model, and the power-interaction model. Burnes (2004) and Rosch (2002) both argue that critics of Lewin's approach tend to mistakenly take his approach in a piecemeal fashion. Burnes (2004) and Rosch (2002) also see Lewin's critics as failing to acknowledge the role Lewin has played in influencing later work that expands on aspects of his work.

The remaining sections use HFT to help spot and avoid inconsistencies in the Wilberian literature relating to perspectives, pronouns, and certain dualities. The confusion especially relates to attempts to formalize analysis of communication and action using AQAL (or variations of AQAL). The reader may be interested in reviewing the appendix section at this point or after concluding the article. It is an instructional example to demonstrate all the realms and drives that tend to be engaged during communication or action more generally. The complexity and consistency that is characterized by HFT analysis of action (in the appendix) is in contrast with narrower and problematic analyses of action in the Wilberian literature, which is examined in the remaining sections.

The Philosophical/Grammatical Conflation

O'Connor (2008, 2010) contributed to integral theory by pointing out what he calls Ken Wilber's triad/quad conflation. This conflation is the reduction of the triad perspectives (first-, second-, and third-person perspectives) to the four quadrants. With the upper-left (UL), individual-interior quadrant, Wilber correlates a first- person perspective and first-person language represented by the pronoun 'I'. A second-person perspective and the 'we' pronoun is correlated with the lower-left (LL), collective-interior quadrant. Lastly, a third-person ('it' and 'its') perspective is correlated with the exterior quadrants ('it' for the upper-right quadrant, UR, and 'its' for the lower-right, LR). Esbjorn-Hargens' (2006, pp. 88-89) follows this association by calling the two methodologies in the UL first-person methods, the two in the LL as second-person, and the four in the exterior quadrants as third-person.

Grammatically, 'I' is a first-person singular pronoun, but O'Connor points out that 'we' is a *first-person*, plural pronoun, not a *second-person*, plural pronoun because 'we' implies a perspective directly experienced by the speaker. To add to the confusion of Wilber's integral mathematics, Wilber (2006, p. 40) not only rigidly associates a first-person perspective with the interior realms, but also the inside realms, what I have defined identically as the internal realms.

I agree with O'Connor that there is confusion of quadrants and person perspectives. It makes integral mathematics very difficult to understand and use, as I will show in a later section. Yet there are still fundamental problems with O'Connor's alternative use of pronouns and person perspectives. He claims, through his version of integral semiotics, that there is a first-person perspective associated with each quadrant as seen in Table 2. There is a first-person singular subject ('I' of the UL), a first-person singular object ('me' of the upper-right, UR), first-person plural subject ('we' of the LL), and a first-person plural object ('us' of the lower right, UR). Similarly, there are second-person and third-person perspectives in each quadrant (see Table 2). O'Connor also establishes the possessive pronouns that relate to each of the twelve realms created by what he calls the "triadic-quadratic" perspectives. These are shown in the parentheses of Table 2.

Table 2. O'Connor's Problematic Triadic-Quadratic Perspectives.

	Interior or Subjective	Exterior or Objective
Individual or Singular		
3rd Person	She/He/It (Her/His)	Her/Him/It (Hers/His)
2nd Person	You (Your)	You (Your)
1st Person	I (My)	Me (Mine)
Collective or Plural		
3rd Person	They/These (Their)	Them/Those (Theirs)
2nd Person	You (Your)	You (Yours)
1st Person	We (Our)	Us (Ours)

O'Connor conflates the philosophical subjective-objective duality as directly related to the grammatical subject-object duality. The subject pronouns are used as subjects of a sentence, the element that agrees with the verb (as with 'He' in the sentence 'He ate it' to denote that 'Bob ate a meal'). The object is the element that is not the subject but that which the verb selects or requires ('it' meaning 'a meal'). Thus, O'Connor is using subject-object in its *grammatical sense*.

In contrast to the grammatical subject, subjective in the *philosophical sense* is an understanding or statement that depends on one's own experience, as with the statement 'blueberries taste better than strawberries.' Objective understanding (philosophically) does not rely on personal experience, as with the statement 'the floor of my front porch is not completely level.'

Wilber is justified to suggest the interior realms relate to one's own experience or perspectives that are philosophically subjective (intentions, values, emotions, thoughts, and so on) or intersubjective (mutual intentions, mutual understanding, mutual values, etc.). The exterior realms are philosophically objective (behavioral capacities, cognitive processes, and so on) or interobjective (infrastructure systems, voting procedures, etc.). This does not imply, however, that one can link O'Connor's use of grammatical subject-object with the interior-exterior duality, which is critical to O'Connor's claim of reunifying Wilberian and Habermasian metatheories. O'Connor proposed the use of his triadic-quadratic perspectives with the guiding strategies of action science by level of development to analyze action, but without formally demonstrating how.

This erroneous, rigid correlation conflates the philosophical subjective and objective definitions (from above) with the grammatical definitions of subjective (of or relating to a grammatical subject) and objective (of or relating to a grammatical object). In my interpretation, Wilber's concepts of broad science (2000b) and integral methodological pluralism (2002, 2006) are used to differentiate the dual meanings of the subjective-objective duality. Interior ('philosophically subjective') phenomena can be studied as 'grammatical objects.' Established interior methodologies access 'philosophically subjective' states and then generate 'philosophically objective' data. For instance, the data may include written answers to sentence completion tests. Analysis and comparison of many individuals may reveal interior, sequential structures of development. Such tests have led to the conclusion that transformation to another stage can be described as making what was formerly the ('grammatical') subject of one's interior awareness a ('grammatical') object. Notice the 'grammatical' use of subject-object by Kegan (1994); he describes vertical transformation as "liberating ourselves from that in which we were embedded, making what was subject into object so that we can 'have it' rather than 'be had' by it" (p. 34).[8] So for Kegan, interior elements can be grammatical subjects or objects.

In ISP and HFT, I follow Wilber in associating the philosophical subjective-objective duality with interior-exterior. But I have decoupled the grammatical subject-object duality from the interior-exterior one consistent with Wilber's "broad science" concept. The grammatical subject-action-object triad was crossed with the eight zones to form ISP. To rigidly link these dualities (as in Table 2) can be termed *the philosophical/grammatical conflation.*

Notice also that the scientist can be seen as an eight-zonal subject who *'does'* science with potentially eight classes of methods to disclose scientific objects, potentially in eight zones. The method is the dynamic action, which *agrees with* the subject. The object of study is that which the subject *selects* with the method. Thus the subject-method-object triad relates directly to a grammatical interpretation, not a philosophical one. As shown in the next sections, this has important consequences for the use of pronouns and analysis of action in the integral literature which should help to channel the energy created by IMP while clearing the fog that Integral Mathematics (IM) simultaneously brought with Wilber's latest phase of AQAL theorizing.

Edwards (2003), the esteemed metatheorist I have relied on in the previous section, shared with O'Connor an attachment of 'me' and 'us' to the exterior while 'I' and 'we' are associated with the interior. He describes 'my behavior' as 'me,' for instance. But why can't my interiority be 'me'? I can see myself as someone who is reflexive on my good days and I hope my friends see 'me' this way at times too. Reflexivity is treated as an interior-individual object disclosed primarily by my employment of phenomenology in the case of me seeing myself this way since the object is internal to my awareness. In the case of my friends seeing me this way, it is an interior-individual object disclosed by my friends' informal structuralism, primarily, given that my reflexivity shows up in a realm external to me. This approach helps build a better understanding of complementary methods, which allow for mutual understanding in the lower-left quadrant.

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[8] Both articles by O'Connor that I have cited have won honors at the Integral Theory Conferences of 2008 and 2010 (see for example, Integral Theory Conference, 2008). I point this out merely to demonstrate the attention these articles have drawn in the integral community and therefore, some value in pointing out its errors.

One value in specifying person perspectives is to keep track of the multiple holons engaged in, or referenced in communication. Singular and plural pronouns do indicate, respectively, singular or collective holons, but verbs (whether they are state or action verbs) and other grammatical components can be critical for relating grammatical subjects and objects to the quadrants. Consider ‘My brain is wired poorly’ versus ‘Clarity expands my mind.’ The subject in the former sentence is a stated exteriority in integral theory, and the object of the latter sentence is a stated interiority. So grammatical subject cannot be reduced to the interior quadrants and again suggests a decoupling of grammatical subject-object from philosophical subjective-objective. To conflate them seems to reduce away needed subtleties in what O’Connor hopes to construct, an integral theory of action and communication.[9]

Wilber’s use of pronouns differs from O’Connor’s. Justification for Wilber’s association of ‘I’ with the UL, ‘we’ with the LL, ‘it’ with the UR, and ‘its’ with the LR is not entirely clear. Why does my use of ‘I’ and ‘we’ generally refer, respectively, to my and our interiority? Consider, for instance, the sentences ‘I intend to study’ versus “I need to smoke.’ The former sentence implies an interior intention of the subject and the latter a behavioral habit being performed by the subject. Who is doing the intending versus the habitual action? A holon who exists in all four quadrants (having an UL mind and an UR brain while being embedded in, and influenced by, various LL cultures and LR societies) and who acts in different instances with varying degrees of intentional, behavioral, cultural, and social influences.

Does Wilber mean that whenever one uses the term ‘I,’ it implies an interior awareness of something? This is an appropriate interpretation in ISP. When the realms of ISP refer to the speaker of the sentence who utters the word ‘I,’ then ‘I’ can represent a subject who is subjectively experiencing a phenomenon. Wilber is using the terms ‘I’ and ‘we’ less formally than I am here. Yet in keeping with the critiques of O’Connor and Edwards, integral theory may be better off taking a more formal approach. I will show in later sections that Wilber strictly correlates the first person to the interior and third person to the exterior in his use integral mathematics. Many problems result with his slide from an informal and lose correlation to a strict and formal correlation between perspectives and quadrants. So I shall continue with a formal approach to help the reader recognize and overcome such problems.

If I attempt to describe to you, your subjective experience of cooking last night, then this experience of cooking is a second-person perspective for me. The cooking experience is a first-person experience for you. Yet the objectification of it in my awareness is a first-person experience for me. To the extent we understand the experience, this understanding is a collective, interior, internal experience. Again, in a less formal approach, it appears that Wilber uses ‘we’ to indicate that we are aware of the same thing such that I can identify with your perspective, which is second person to me. Thus ‘I can take a second-person perspective.’ But these are particular, not general uses of how ‘we’ and ‘second-person perspectives’ are used. When I state to you that

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[9] The O’Connor pronouns in Table 2 can be appropriately presented as a crossing of two specific dualities [grammatical subject-object (not interior-exterior), and singular-plural or individual-collective] with the triadic person-perspectives (first-person, second-person, and third-person). The cells created, however, are not connected to Wilber’s four quadrants of intention (UL), behavior (UR), culture (LL), and society (LR) in the direct way O’Connor proposes. The next section describes how qualifications are needed if we use pronouns and perspectives in ISP realms.

'We both jog along the lakefront' or 'I jog along the lakefront,' the intension is for you to join me in my understanding of the sentence. The 'we' pronoun does not uniquely represent this in these two sentences. A simple reply of 'yes' by you in either case would indicate that 'we both understand that we or I jog along the lakefront.'

Therefore, Wilber's (2000b, p. 154) use of 'we' as a first-person plural pronoun and correlated with 'you' as a 'second-person perspective" to represent the LL means that the LL for 'me' can be thought of a perspective that 'I' (first-person) and 'you' (second-person) share ('we' share the perspective) if you and I can inhabit the same cultural space to allow for this shared understanding. Nonetheless, we need to clearly differentiate the internal and external aspects of these quadrants and avoid universalizing Wilber's use of perspectives and pronouns to all uses of quadrants. This problem of overgeneralization becomes apparent in the next two sections.

Pronouns and Person Perspectives in ISP and HFT

Recall the earlier distinction between static and dynamic developmental theories where the former relates closely to holarchical embeddedness and the later to dynamic engagement of holons. Static and dynamic language can be similarly categorized. Static (or state) language is related relatively more to holarchical embeddedness and dynamic (or action) language to the dynamic interaction of engaged holons. State language is used to describe subjects or objects in a particular state (or relatively static point in time). In the sentence, 'He is tall,' 'is' is a state verb. It describes, in this case, the subject in a relatively static, physical state. 'Ran' on the other hand is an action verb. Action language includes action verbs, action adjectives, and so on.

This section further demonstrates that person perspectives and pronouns cannot be reduced to particular AQAL or HFT realms without qualifications. First I will choose specific subject-verb-object language that can represent the meaning attached to specific ISP realms. Then I will provide an example of language that would overlap multiple zones. In order to do this, I must decompose the internal-external dimension into three parts: internal, mesoternal, and external. *Mesoternal* is defined as a situation that may have internal and external relations. Therefore, a mesoternal situation can be described as subject and object sharing some internal and some external aspects.

From the subject's perspective, we can associate the first-person perspective with the internal realm. For example, 'I observe my thoughts' is a sentence where all elements belong to the same zone, zone 1 of Figure 1 (the same slice of the ISP pie). The sentence suggests an interior awareness for the subject-verb agreement, and the object selected is also an individual, interior aspect internal to the individual. The subject, action, and object are first-person experiences to the speaker of the sentence. Now consider the sentence, 'You intend your intentions.' Here, mesoternal matches the second-person perspective. The subject-verb combination suggests interior action of the subject. The object selected also involves an interiority of the same individual. Yet, the individual having the experience of intending intensions is second person to (and therefore one step removed from) the speaker. The experience referenced applies to the second person, which means it is *external* to the speaker, yet the subject of the sentence and the speaker are *internal* to the conversation. Second person suggests external *and* internal aspects, which I called *mesoternal*. Figure 1 does not have slices for mesoternal. We could add a mesoternal slice to represent the second-person perspective in each quadrant. I choose not to provide a figure given that language does not always fit neatly in these realms. This section is merely offered as an aid in avoiding using pronouns, dualities, and perspectives in a reductionist way when using Wilberian theory.

Relative to the subject speaker, the external realm is the location of the third-person perspective because the third person referenced and the perspective are both external to those conversing. An example from the external, collective, interior dimension could be the statement, ‘They agree on their ethics.’ The subject and object referents are external to the perspective of the speaker and external to those conversing (two perspectives removed from the speaker). An example of a sentence entirely within the internal, first-person, exterior zone is ‘My brain processes information bits.’

I demonstrated that from the subject’s perspective, one could associate the first-person perspective with the internal realm; second person is associated with mesoternal realm; and third person with external. The holonic boundary can slide, however, if we define it as including more members, such as those being talked about, but not talked to. Returning to the initial reference points, the association of first-, second-, and third-person with internal, mesoternal, and external will continue to be the case even when we do not rely on examples of sentences that have all of their elements within one zone (or slice). In other sentences, the object selected can fall into a different zone compared to the subject-verb agreement as with ‘I observe his behavior.’ This use of ‘I observe’ suggests the subject’s interior interacting with an exteriority of a third-person, a person outside or external to the conversation. Thus the object, ‘his behavior,’ is in another zone. The observation, or the subject-verb of ‘I observe,’ was first-person to the speaker, but the object is third-person to those engaged in the conversation. Here, nonetheless, one can still see the consistency in attaching perspectives with the internal-external spectrum. From the speaker’s perspective, the first-, second-, and third-person perspectives can be directly associated with the internal, mesoternal, and external spectrum, respectively, when analyzing language. But one cannot reduce the person perspectives to the internal-mesoternal-external triad, because from another person’s perspective, internal, mesoternal, and external will have different meanings. Also, one may choose to define the boundary of the holon differently.

Notice that if I stated, ‘We share integral values,’ then the subject of the sentence is a first-person, collective pronoun. The subject and verb are collective (plural), interior elements. But it is a first-person experience because it indicates my experience or view of us having integral values. The object selected is also in the interior, collective domain.[10]

Language incorporates the field aspect of subject-object relations or interactions engaged by the verb. (I use the word *engagement* here to indicate either state or action relations). Again, a static statement reflects holarchical embeddedness, yet we may still interpret a static sentence as a movement through time in a relatively fixed and stable manor. To maintain a state actually requires self-preservation drives of the holon in equilibrium with the drives of its environment. One can see that engagement can be described within or across zones (slices). This shows the range of engagement within or across certain holarchical boundaries given by the internal-mesoternal-external triad. Also, holarchical drives will cross from subject to object and from object to subject. In the example, 'My brain processes information bits,' the sentence indicates exteriorization from subject to object and from object to subject. The brain enacts the information and the information transmits to the brain. If I then add, "I conclude that the economy will contract over the next quarter," this implies interiorization from the brain to mind for analysis and prediction. There is also exteriorization of thoughts to words. Thus information was internalized and made into additional, individuated mental information and then externalized and collectivized for the group participating in the conversation. Where HFT would get interesting is by taking into account the various ways in which stakeholder groups or individuals interact by holarchical embeddedness. HFT can help the analyst conceptualize the obstacles and potentials for understanding and action.

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[10] Here are other examples each coming from the three elements of a particular zone, but zones not yet represented. Zone 7 (from the perspective of the speaker): ‘Our system constrains our physical interactions.’ Zone 8: ‘Their city fits their functions.’ The mesoternal zone in the LR: ‘Your buildings create your workspace.’ Zone 2: ‘She intends her thoughts.’ Mesoternal zone of the LL: ‘You (all) understand your values.’ Mesoternal of the UR: ‘Your habits repeat within your body.’ Again, a subject-verb agreement can select an object from another zone. I provide one added example of this. In this case, the subject-verb comes from zone 4 and the object from zone 6: ‘They agree on her physical handicap.’

In order for the language, however, to clearly signify interior and exterior aspects, I restricted the use of language to specific examples. Components of sentences may overlap these realms. If I say, "I am me," the object I am referring to may comprise interior and exterior elements. I may be referring to my height (an exteriority) or to my ability to make moral judgments (an interiority) or both.

Using Exterior, External, and Third Person Interchangeably and Improperly

Here I will use HFT to point out inconsistencies and errors in Ken Wilber's writings regarding the interior-exterior, internal-external, and perspectives lenses. The relation between subject and object is complex in Wilber's work. "Integral post-metaphysics replaces perceptions with perspectives" (Wilber, 2006, p. 42). "It is not that perspectives come first and actions or injunctions come later; they simultaneously co-arise (actually, tetra-arise). Perspectives simply locate the perceiving holon in AQAL space" (Wilber 2006, p. 34). "Each moment is not a subject prehending an object; it is a perspective prehending a perspective" (Wilber 2006, p. 42). This certainly allows for causally efficacious objects beyond those perceived by the subject, as in my use of HFT. Yet Wilber's examples of integral mathematics (IM) do not bring out these forces.

Wilber's uses of IM limits his view of action to something less than fields. IMP, when housed within ISP and HFT, encourages the formal analysis of primary and secondary methods, for example, that are employed in engagement along with the multi-directionality of interpenetrating drives between holons and their current and potential environments. Unacknowledged, secondary methods and hidden drives are often the source of modern and postmodern biases as was discussed in the summary section. In my view, this is key to Wilber's successful integral methodology, but absent in his use of IM.

The confusion with pronouns and person-perspectives adds to the difficulty in formalizing Wilber's successful, but opaque integral methodology. Wilber tends to use the first-person perspective interchangeably with the internal and interior realms. Prior to examining his integral mathematics, I begin with a relatively simple example of mistaken interchangeability of internal-external and interior-exterior with Wilber's (2000b) integral politics [italics are mine]:

> [W]hen it comes to the cause of human suffering, liberals tend to believe in *exterior* causes, whereas conservatives tend to believe in *interior* causes. That is, if an individual is suffering, the typical liberal tends to blame *external* social institutions (if you are poor it is because you are oppressed by society), whereas the typical conservative tends to blame *internal* factors (you are poor because you are lazy). (p. 84)

Generally he sees liberals as focusing on right-hand-quadrant causes of poverty while conservatives focus on left-hand-quadrant causes. Yet his examples use elements of two different dualities (for the horizontal axis); internal-external and interior-exterior. He even uses all four words (internal, external, interior, and exterior). I agree that religious and socially conservative types often fault the character of the poor for their problems. This does indeed imply a focus on the *interior* realms (values, intentional choices, etc.). Yet his example of liberal focus on problems beyond the poor's control does not imply a focus on *exteriorities*, but rather *externalities*. In contrast to *social-conservative* focus on interiorities, *pro-market conservatives* de-emphasize the problems with market *externalities*, not market exteriorities, which can lead to higher inequality of opportunity and income.

In my integral political-economy approach (Bowman, 2010a, 2010b, and 2011), I make consistent use of the interior-exterior, internal-external, higher-lower, individual-collective, and positive-negative dualities. In Bowman (2010a), one value in decomposing positive and negative internalities and externalities was to show that pro-market conservatives often emphasize positive market externalities (like trickle-down economics) and de-emphasize negative market externalities (like pollution or financial contamination from overly risky private leveraging). It is just the reverse for pro-government liberals. So the root disagreement may really be their well-known disagreement around the private-sector/public-sector duality.

Now moving to integral math, even by Wilber's own admission there are inconsistencies with IM.[11] In a footnote, Wilber (2006) writes:

> Also, 'the inside and outside of the singular and plural' technically are not the same as 1st-, 2nd-, and 3rd-person approaches or combinations thereof, and some severe theoretical problems result if this equation is made. We sometimes use 1-p and 3-p to represent inside and outside views, but this is a concession to popular understanding and not the actual definitions. The quadrants (inside/outside x singular/plural) are much more fundamental and prior differentiations in Kosmogenesis than are 123p (and, in fact, generate them). (p. 42)

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[11] Integral mathematics is not a mathematical system; it is a notational system. At least as he specifies them, one cannot perform mathematical operations upon the elements of Wilber's abbreviated terms. Bowman (2008) presents an actual mathematical model for an integral approach to economic growth and development.

According to this article's previous section, first-person and third-person views do relate closely to inside and outside views (what I call internal and external views), but only from the perspective of the first-person. Wilber's inconsistent uses of interior-exterior as sometimes interchangeable with internal-external force him to write the imprecise qualification in the above passage. There, Wilber simultaneously refers to his standard quadrants (interior-exterior x individual-collective) and to an alternative quadrant set (internal-external x individual-collective) as interchangeable, which is inappropriate. Thus we do not really know what Wilber's use of a first-person perspective really means. Is it an internal or an interior perspective?

Apparently both. Consider the following (Wilber 2006):

> Using shorthand of 1st person (for the inside in general) and 3rd person (for the outside in general), then introspection, let's say, which is a type of phenomenology (or zone-#1 activity), is when 'I look into my mind'-or, I have a 1st-person experience of my 1st-person awareness, which we would write as 1-p X 1p. (p. 40)

All of the "p's" relate to person perspectives. On the next page:

> In integral math, when we use 3 terms, such as 1p X 1-p X 3p, those terms are usually: quadrant X quadrivium X domain (and "domain" can be a quadrant or a quadrivium). (p. 41)

Wilber (2006, p. 253) defines quadrant and quadrivia. "A quadrant is a subject's perspective; a quadrivium is the perspective the object is being looked at from." Not only do all the "p's" represent some kind of person perspective (first person = 1 and third person = 3), but fundamentally, every term in his IM (as initially presented in *Integral Spirituality*) is a person perspective without direct reference to a quadrant, quadrivium, or domain zone unless it can be gathered from a person perspective. What Wilber seems to mean in the (p. 40) passage above ("I look into my mind") is an internal view of an interior awareness, which are both described as first-person. How would he handle 'his look into his mind'? He would need to call this a third-person perspective, because it is external to the speaker and person spoken to. Yet he would also need to specify the view as 'interior to him' to differentiate it from an 'exterior aspect of him.' But Wilber always reduces third person to external *and* exterior.

I much prefer Wilber's notation, which omits person perspectives, and instead specifies Kosmic address concretely by quadrant, level, line, state, and type for subject and object. This is done much later (and much less frequently) in *Integral Spirituality* (pp. 264-266). This notation is the type that can be more readily updated with the insights from HFT (such as using eight zones rather than four quadrants for both the subject and the object, including relevant secondary methods from subject to object, and tracking bilateral drives between object to subject not necessarily consciously perceived by the subject).

The inconsistencies with these integral lenses seem to affect Wilber's choices of examples when describing IMP. With his first published introduction of IMP and IM, Wilber (2006, p.36) writes, "I can approach the 'I' from the outside, in a stance of an objective or 'scientific' observer." He then provides two examples of what he will call structuralism. "I can do so in my own awareness when I try to be 'objective' about myself, or try to 'see myself' as others see me." Call this *case A*. Wilber goes on, "and I can also do this with other 'I's' as well, attempting to be scientific in my study of how people experience their 'I.'" Call this *case B*. He then states, "the most famous of these scientific approaches to I-consciousness [cases A and B] have included systems theory and **structuralism**" (boldface is his, bracketed items are mine). So both examples, cases A and B, are meant to describe structuralism.

According to IMP as embedded in ISP, Case A would be categorized as phenomenology rather than structuralism. Notice that viewing *my 'I,'* meaning the individual-interior, *from the outside of me* is not possible in ISP, because by definition, my individual-interior is internal to me as an individual holon, unless data is objectified *and* externalized such that it can be observable to the subject from the external source. Internal to me, however, I *can* view my individual-interior as an object rather than it only being the subject of my awareness. This is the scientific methodology of meditation and phenomenology (not structuralism). Wilber refers to structuralism as the "scientific study of how people experience their 'I's,' which is described as follows (Wilber, 2006):

> The basic research went essentially like this: Pose a series of questions to large groups of people. See if their responses fall into any classes. If so, follow those classes over time and see if they emerge in a sequential order of stages. If so, attempt to determine the structure or makeup of those stages. (p. 53)

Consistent with this description, but more specifically, structuralism in ISP is the study of interior-individual objects as they appear to the external scientist. *Phenomenology* is described by Wilber as "a 1st-person having a 1st-person experience." The experience is indeed first-person to the one having the experience or describing their own experience. When contrasted with his structuralism examples, however, what Wilber is left to mean is an inside (internal) view of the (subjective) interior-individual where the awareness is not made an object (otherwise it would be his case A example of structuralism, which I have already reclassified as phenomenology, when "I try to be 'objective' about myself"). But in this example ("a 1st-person having a 1st-person experience"), awareness is not necessarily made an object by the subject experiencing it. Therefore, it does not qualify as a broad science because it may not be reproducible by an adequately embedded scientist who could perform an injunction that elicits the object in a detached form. The phenomenology class (including meditation, contemplation, and so on) provides procedures for one to attempt to examine individual-interior content internally and scientifically. If you want to witness your thoughts with a certain degree of control, you can perform meditative practices to train your state experiences, for instance. (According to ISP, Wilber's case B example does properly match structuralism in his IMP classification system).

Clear differentiation of the integral lenses in ISP helped me spot or explain the inconsistencies or difficulties in Wilber's IMP examples and in his use of integral mathematics. Wilber's preference for subject to object views without genuine bilateral interaction relates to the Bhaskarian claim that integral theory suffers from the epistemic fallacy as described in the next section.

Epistemic and Ontic Fallacies

Epistemology is the study of knowing and justified belief. The eight subject realms of integral scientific pluralism represent an integral epistemological pluralism and provide eight different aspects of knowing or apprehending by level. Integral ontological pluralism is represented by the eight object realms, which are eight aspects of ontology (the study of the categories of things that exist or may exist in some domain). Lastly, the eight action realms provide an integral methodological pluralism with its eight classes of methodologies (where methodology is the study of methods applied within a discipline). This is one way of using the ISP realms. The fractal quality does not limit ISP realms, however, to placing only the scientist within the subject realms and his object of study in the object realms (recall that the object of study also has a subject view and ISP in its entirety is a new methodological tool).

A dialogue has begun between integral theorists and critical realists especially in the wake of the 2011 Integral Theory and Critical Realism Symposium. Marshall (2012) and Hedlund-de Witt (2012) both claim that integral theory suffers from what Bhaskar, the founder of critical realism, calls the epistemic fallacy. This is an erroneous belief that “statements about being can be reduced to or analyzed in terms of statements about knowledge” (Bhaskar, 1975/2008, p. 36). In defense of integral theory against this argument, Wilber (2013) argued that this improper charge derives from critical realism’s ontic fallacy, or the myth of the given, where ontology is privileged as real and epistemology is then derived from ontology. Hedlund-de Witt (2012), for example, states that critical realism “argues for a world composed of objects (generative mechanisms) existing *independently* of human knowledge, enactment, or discourse.” The implication is that objects exist independently of any non-human rudimentary form of knowing or enacting.

According to Wilber, ontology, methodology, and epistemology are three different, but intertwined aspects of reality and none can be privileged. Given that integral theory is panpyschic (or pan-interiorist, the term Wilber’s prefers), even prior to human conceptions of reality, reality is always co-created by the interiority of holons. The prehending (proto-knowing, proto-feeling, proto-conscious) atom, for example, in some way recognizes other atoms in order to interact with them. There is not a being (ontology) separate from a knowing (epistemology). The lack of privileging subject and object is embedded within integral scientific pluralism and holarchical field theory. Therefore, I side with Wilber on this point. Yet there is a difference I would like to make between Wilber’s integral theory in general, and his common applications as with his use of integral mathematics. Wilber’s use of integral mathematics does privilege the subject’s perspective in its enactment of the object. As described above, there is no analysis of drives emanating from object to subject. There is no causally efficacious effect on the subject from its environment separate from the perspective the subject takes. Holarchical field theory overcomes these problems and is truer to the interrelations of epistemology, methodology, and ontology. This is one reason why it is important to ground perspective taking within a broader array of action between holons within fields.

Conclusion

Holarchical field theory (HFT) was used in this article to clarify some applications of Wilber's integral mathematics, his first formal attempt at analyzing relations among holons. HFT helped to disclose and overcome inconsistencies or reductionisms involving the interior-exterior, internal-external, and subjective-objective dualities. These dualities all become more formally included in ISP and HFT while improving upon the internal consistency of the Wilberian literature. HFT therefore provides a particular response to Edwards' call to question the consistency and logic of a metatheory (2010, p. 81).

The specification of the philosophical/grammatical conflation, where theorists confuse the dual definitions of the subjective-objective duality was particularly useful for constructing, interpreting, and using HFT. This theory opens the realms of integral theory for easier dissections by other dualities, triads, and spectra in the future. In order for a new duality, for example, to be applied generally to HFT, one must cross the ISP realms with the duality and would need to convincingly show how the two poles consistently and logically show up in each of the existing realms. The distinctions should apply to the multiple levels in order for it to be generalizable like HFT. And static and dynamic elements per pole should be specified. Alternatively, one may find it useful to cross a new duality with a subset of the dualities, spectra or triads that currently exist in HFT without generalizing the result as far beyond the given use.

This article contributes to the topic of integral communication (Leonard, 2011) with the distinctions made between state and action language using HFT realms and drives along with the corrected uses of perspectives and pronouns. State language tends to be describing holarchical embeddedness of subjects and objects and action language tends to describe the dynamics in the interacting fields of subjects and objects. Person perspectives and pronouns cannot be reduced to AQAL or HFT realms without qualifications.

Integral scholars and trainers of Wilberian integral theory for integral consulting, integral life practice, and integral psychotherapy may benefit from analysis of themselves, students, clients, patients, or their objects of study as agents embedded in relations with their environment and potential within holarchical fields. Policy analysts using integral political economy and integral ecology, for examples, may also benefit from situating stakeholder groups or ecological units in dynamic exchange using HFT.

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Appendix: ISP and HFT Communication as an Instructional Example

In this section, I will use a new, elaborate example to illustrate the realms and drives of HFT as they relate to human interaction and communication. This may help the reader consider the complexity of interaction as described by HFT. This is in comparison to current, but narrow and problematic uses by integral theorists to characterize interaction of holons explained in the body of this article.

Consider my interaction with a colleague who is in another academic department at my college. We each can be analyzed as our own subject at the center of our own Figure 1. As humans, Americans, academics, and coworkers; we share certain, but not all, aspects that are initially internal. Say that we have a conversation and by the end, she and I both understand what she generally means by her excitement for an upcoming holiday break from her grueling semester to enjoy a barbeque gathering. This may imply that I understand her feeling of excitement (a zone 2 object to me since it is an individual interiority that is external to me) under cases in which she is physically worn (a zone 6 object to me because it is an individual exteriority external to me) because of my understanding of excitement (a zone 1 object to me) and because I have been worn or can imagine it to a degree from my experience or internalization of other’s having similar difficulties (a zone 5 object). And I can relate to the systemic pressures that force her to work that hard (a zone 8 object) as I have been in that situation or internalized this issue from observation (zone 7). I also understand the cultural meaning she attaches to sharing a holiday barbeque with her friends (a zone 4 object) as I do too (a zone 3 object).

I understood these objects implying that they are disclosed and enacted into our subjective awareness during our conversation. I may be motivated by a desire to belong in a community with my colleague. This need energizes me to engage the employed drives. Some of the methods used to disclose and enact them have been the use of the English language (a method from zones 7 and 8) intentional thinking, listening, speaking, symbol translation (methods of zones 1 and 2); physical hearing, talking, seeing (methods of zones 5 and 6); and clarifying questions for agreement on definitions or to disclose missing context (methods from zones 3 and 4).

Here, I will track the six general horizontal dynamic drives involved. I exteriorize my thoughts into words effectively because I choose words that allow her to understand my thoughts. Her ideas become internalized into my interior through her creation of vocalized words, which vibrate into my exterior ears. I meanwhile put in the effort to interiorize them into comprehensible thoughts. The collectivization drive was involved in choosing to engage each other. This drive and successfully communicating helped me, especially, to satisfy my belongingness need. My willingness to correct her misunderstanding of one of my comments includes the individuation drive to properly honor my individual perspective and the collectivization drive so that we understand each other.

Since we initially shared (epistemological) skills and employed our methodologies well enough, these objects (ontologies) are understood and can be held in the moment by her and me in our own subjective awareness. There is this overlap in our internal zones of each quadrant such that there is mutual understanding (a zone 3 object for both of us), the content of which relates to all eight ontological zones.

Notice that in this example we clearly differentiate subject, object, and method in each zone. For the analysis of dynamic interactions, the current state of integral theory fosters, at worst, ad hoc and confusing work; or, at best, skillful, but opaque means. The example of this section should help the reader see that there are alternatives to existing attempts to analyze action using Wilberian theory. The inconsistencies and difficulties of relying on AQAL in its current state are examined in the body of this article. These problems often stem from confusion among dualities, perspectives, and pronouns.

Beyond Social Exchange Theory: An Integrative Look at Transcendent Mental Models for Engagement

Latha Poonamallee and Sonia Goltz[1]

Abstract: In this paper, we develop an integrative conceptual framework capturing the underlying mental models that guide engagement in relationships at work and elsewhere. Specifically, we are looking at mental models that go beyond egocentrism and social exchange, which have served as the basis for most frameworks found in research on organizations. The goal of this paper is to present a more complex picture of human cognition and behavior that suggests that egocentrism is not an exclusive motivator. We view this more integrative framework as a set of concentric circles of increasingly inclusive and expansive identities. Although the mental models used by individuals may be static over a shorter time frame, they are thought to be more dynamic over a relatively longer timeframe, in adaptive response to changing conditions. Movement between these mental models can be triggered by changes in cognitions as well as by events that arouse affect.

Keywords: mental models, cognition, positive organizational scholarship, transcendent spirituality

Introduction

Mental models are internal representations of reality held by individuals to guide interactions with external objects or systems (e.g., Jones, Ross, Lynam, Perez, & Leitch, 2011; Rouse & Morris, 1986). This paper conceptualizes an integrative framework outlining the mental models that might underlie various forms of individual and organizational engagement, thereby presenting a more complex picture of human cognition and behavior than has been typical in existing research on behavior in organizations. Drawing on recent research on top-down and bottom-up mechanisms in emotion generation (Oschner, et al., 2009), we also describe the interplay between cognitive and affective processes that shape such mental models.

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The concept of mental models developed in large part in the literature on manual control in terms of psychomotor performance (e.g., Conant & Ashby, 1970) and was later adopted by cognitive psychologists, who conceptualized mental models as descriptions of a system's form, in terms of relationships among components, functioning, and dynamics (e.g., Mathieu et al., 2000). These descriptions are thought to allow individuals to form expectations for what is likely to occur next and decide what actions to take (e.g., Mathieu et al., 2000; Rouse & Morris, 1986). For example, teammates often share agreed upon mental models of important aspects such as the group task and team operations (e.g., Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000; Maynard & Gilson, 2013). Similar team mental models allow members to predict what their teammates will need and will be doing, facilitating coordination activities (Mathieu, et al, 2000), which then leads to improved performance (Lim & Klein, 2006).

However, mental models vary in accuracy and development, in part due to the experience of the individual with the system being described by the mental model, which might be too limited to completely portray a complex system (for discussions, see Rousseau, 2001 and Jones et al., 2013). Furthermore, our minds are full of conflicting mental models since we tend to maintain overlapping and inconsistent mental models (Lane, 1992). In part this is because these models are context-dependent and may change depending on the situation (Jones et al., 2011). Also, our mental models can be expected to be fairly resistant to change, given that individuals tend to focus on information that supports existing beliefs (e.g., Swann & Read, 1981). Individual mental models will change when individuals are motivated to more deeply process information that is discrepant with their models rather than stick with the tendency to superficially assess and discount it (e.g., Rousseau, 2001). Still, mental models tend to change slowly rather than suddenly (e.g., Welch Larson, 1994).

An example of a mental model guiding human behavior and interactions that has been slow to change is the assumption that much of human behavior is based on ego-centrism and social exchange. In fact, this model has served as the basis for most theoretical approaches found in research on organizations, given that much of our research on work behavior is based on models of social psychology. These models mostly view social exchange as an economic choice among alternatives in which individuals attempt to maximize their expected utility (Kahan & Rapaport, 1984; Sunahara & Pierce, 1982). Although these mental models have been useful in generating research on human behavior, these efforts may have reached maturity. Assuming human work behavior is primarily egocentric in nature, has the potential for missing behavior that is not egocentric. Atypical behaviors that do not fit neatly into the mental model of egocentricity are not likely to be examined or even noticed.

Therefore, in this paper, we consider mental models that are broader. Drawing on existing literature, we have built an integrative model of engagement, which we view as a set of concentric circles of increasingly inclusive and expansive identities, thereby extending the understanding of human cognition and behavior to include motivations beyond egocentric social exchange. The first or innermost circle is based on ego as one's identity and social exchange theory as the operating mental model for human interaction. In the second circle, we look at a mental model based on a group or tribal identity that shares interests, passions, and affective bonds including organizations, industries, and even virtual groups. The key feature of this circle is the suspension of the usual social exchange norms and extension of benevolence to those who are part of the group. The third circle describes a transcendent mental model that involves moving from a primary concern for the tribe and temporary prosocial behaviors directed at outsiders to experiencing enduring changes in an individual's concern about others' welfare leading to a sense of oneness and a merging of self-other boundaries.

Specifically, this paper makes two contributions. First, by using the top-down and bottom-up approach to emotions, it broadens the scope of mental models to include the role of the 'affective' component in a mental model and describes the interplay between cognitive and affective processes that underlie a mental model. Second, by describing the mental models underlying the three circles and the mechanisms of movement between them, this paper illuminates how more expansive mental models can produce a more complex cognitive response to phenomena. By doing this, it also offers the beginnings of a blueprint for how to shift mental models at a collective level. It should be noted that, although researchers have worked on multi-level research (e.g., Rousseau, 1985), they have not explicated the mental models that individuals and organizations operate from in their interactions with each of these levels. For example, often individuals and organizations are completely unaware of and indifferent to factors at larger levels, such as social structures, that are affecting them, instead operating from a very local point of view. Their lack of awareness of and indifference to factors operating at larger and more complex levels negatively impacts their ability to solve problems directly affecting them.

We begin with a brief review of the literature on mental models. We also describe the key elements that go into the making of mental models and the relationship between the various elements. We then describe and discuss our integrative model for engagement and its three circles in detail and speculate how the various mental models may interact with each other.

Making of Mental Models

The key elements that we believe contribute to mental models of appropriate social behavior are cognitive framing (particularly social identity) and affective arousal. We have identified the two processes based on recent brain research (Ochsner, et al., 2009) that suggests that emotions can be generated through either cognitive constructions and interpretation that lead to emotions or through the experience of immediate affect which then can leads to cognitions. Poonamallee (2012) uses this framework to describe the role of socio-ecological values and the interplay between cognitive framing, and affective arousal elements in the rousing of compassion to strangers during disasters. In this paper, the author demonstrates how in the case of the Asian Tsunami, cognitive framing of the society and the affected populations as well as the emotional valence and portrayal of the disaster stories by the mass media (and by proxy, the society itself) influenced the construction of a collective identity, thus rousing compassion towards strangers.

We conceive of mental models as being generated either cognitively through top-down processing or affectively through bottom-up processing or through complex interactions between both systems. The particular triggers that affect which process occurs will be considered later. At this point, however, we simply wish to introduce the top-down and bottom-up components. Research suggests that individuals' interactions with others are affected by both cognitions and affect. For example, although some scholars view social identity as purely cognition based (e.g., Ashforth & Mael, 1989), others have defined social identity as a part of self-concept derived from both the knowledge of group membership as well as the emotional significance of that membership (e.g., Tajfel, 2010). Furthermore, research indicates that affect can be more predictive of group behavior than cognitions. Van Zomeren et al. (2008) found that affective injustice had stronger effects on collective action than non-affective injustice. It is thought that group-based affect helps link group cognitions to group action (e.g., Van Zomeron et al., 2008; Yzerbyt, Dumont, Wigboldus, & Gordijn, 2003). Therefore, it is likely that mental models that are shared by a group, such as those concerning collective action, have both cognitive and affective components, with group affect sometimes influencing group cognitions and vice versa. For this reason, we expect that even group-based mental models that are influenced heavily by cognitions such as social identity can be strongly influenced by affective variables as well.

Top-down Mechanism: Cognitive Framing

We begin our discussion by considering the cognitive framing aspect of mental models. Although most mental models are probably fairly developed (although perhaps incomplete) representations of systems that allow one to interact appropriately with those systems, most probably took their initial forms with a basic view point, or frame, that served as a guideline for the construction of the mental model. Frames are cognitive structures that focus, articulate, and transform, which operate at both the individual and group levels (Snow, 2007). Frames are essentially central organizing ideas that can steer an audience by providing particular meanings, thus operating as interpretive mechanisms (Gamson & Modigliani, 1987). They are influenced by reference points and carry this information (McKenzie & Nelson, 2003). Campbell (2006) describes frames as: "*metaphors, symbols, and cognitive cues that cast issues in a particular light and suggest possible ways to respond to these issues. Framing involves the strategic creation and manipulation of shared understandings and interpretations of the world, its problems, and viable courses of action*" (Campbell, 2006, p. 48-49). Although some literature on framing includes the affective aspect, in this paper, we use Campbell's definition of framing as a cognitive mechanism to distinguish it from the process of affective arousal.

Understanding the effect of framing has been useful in a variety of literatures. For example, framing perspectives in the social movement's literature emerged in response to the void in exploring the relevance of interpretive processes for mobilization (Snow, 2007). It is also used by disaster researchers (Argothy, 2003; Cottle, 2006; Hoijer, 2004; Rodriquez, Trainor & Quarantelli, 2006; Tierney, Bevc & Kuligowski, 2006). In this literature, frames are thought to both empower and limit reality and have the power to provide edited or fragmented versions of reality (Argothy, 2003). Framing has also been examined in organization studies and management, such as with positive and negative framing in decision-making contexts (e.g., MacKenzie & Nelson, 2003) and in discussions of sense-making (Weick, 1995) and sensegiving (Gioia & Chittipedi, 1991; Maitlis, 2005) processes. Additionally, decision framing has been applied to understand effects such as individual judgments about organizational justice. Positive frames, for example, are thought to reduce the need for sense-making of outcomes received, thereby reducing the importance of procedural justice (Brockner, Wisenfeld, & Martin, 1995). Additionally, it has been found that individuals make sense of procedural justice differently depending on whether they identify strongly or weakly with a particular group (Tyler, 1999).

A frame of particular importance to mental models for interaction and engagement is social identity. Framing processes play a critical role in the development and maintenance of individual and collective identities (Hunt, Benford, & Snow, 1994). Social identity is that part of self-concept that is defined by membership within a group (Tajfel, 2010). People classify themselves and others into social categories, in part to be able to define and order the social environment and in part, to locate and define themselves Ashforth & Mael, 1989; Turner, 2010). People seek to maintain a positive social identity to boost self-esteem, such as by making comparisons with out-group members (Tajfel & Turner, 1986). Social identity theory has helped explain in-group bias and out-group stereotyping among other group behaviors (Brown, 2000). But these identities can affect individual framing and behaviors as well. Identifying with a group leads to individual behaviors supporting the group's behaviors and its values and norms (Ashforth & Mael, 1989). For example, through perceptions of group-based deprivation, social identity can help mobilize people for collective action that benefits group members, which is unlikely to occur through egoistic (individual-based) deprivation (Drury & Reicher, 1999; Van Zomeren, Postmes, & Spears, 2008). On the other hand, since social identity also can also lead to major social conflicts between in-group and out-group members, it has been suggested that policies that redirect people to have more overlapping and inclusive identities are needed (Brown, 2000).

Bottom-up Mechanism: Affective Arousal

The second major element thought to affect the construction of mental models is affective in nature. The heart of emotion has also sometimes been called core affect, which refers to a primitive, universal and irreducible subjective experience consisting of both a pleasure-displeasure dimension and an arousal dimension (Russell, 2003). Emotions help guide goal-directed human behavior, allowing people to adjust to environmental changes because they signal when an important goal is threatened and needs attention (Kaufman, 1999). Among other things, emotional arousal is a key element that guides people's engagement with others, thanks in part to evolutionary processes, which helped create a central nervous system that responds to the complex social world of primates via emotional processes such as empathy (Brothers, 1990; Preston & de Waal, 2002). Empathy and trust, two essential elements in positive human interaction and interpersonal cooperation, consist of both affective and cognitive components (Brems, 1989; Duan Hill, 1996; McAllister, 1995). They are associated with a release in oxytocin (Barraza & Zak, 2009; Baumgartner, Heinrichs, Vonlanthen, Fischbacher, & Fehr, 2008), a hormone synthesized in the hypothalamus and released to areas associated with emotions and social behaviors.

One particular factor that can stimulate empathic emotions, an important component in the present analysis, is the presence of others who are in need or suffering in some way. Psychologists have noted that emotions can serve as two different types of motivators when others are in need or suffering: individuals can be motivated to reduce their own distress from viewing the distress of others or they can be focused on relieving the stress of others (Batson, 1991; Batson & Oleson, 1991). Empathy and distress appear to work against each other physiologically (Barraza & Zak, 2009) and research indicates that personal distress and prosocial behavior are negatively correlated whereas empathy and prosocial behavior are positively correlated (Batson, 1998; Eisenberg & Fabes, 1998). However, the relationship between empathy and prosocial behavior has been moderate, indicating that there are several dispositional and situational moderators of the relationship (Eisenberg & Miller, 1987; Eisenberg, 2000). Consistent with this, it has been found that individual responses to others who are in need are also based on the appraisal of the others' relevance to their own salient goals and values, their own self-definition, and the extent to which the others are seen as deserving of assistance base on these beliefs. For example, Goetz, Keltner, and Simon-Thomas (2010) reported that an actor's compassion is aroused by the degree to which his or her own values and beliefs about the constitution of good character, positive meaning, human worth and humanitarian ideals are perceived as consistent with and/or signaled by the sufferer's characteristics, situation, and/or social make-up.

Top-down and Bottom-up Processing

We have based our conception of how mental models for human interactions are developed on brain research into emotions. Brain research indicates that emotions can be generated through either cognitive constructions and interpretation that lead to emotions or through the experience of immediate affect which then can lead to cognitions (Ochsner, et al., 2009). The former type of generation has been called top-down and triggers interactions between the prefrontal cortex areas involving working memory and information retrieval and the left amygdala (Ochsner et al., 2009). [The amygdalae have been found to be involved in responses to emotionally salient stimuli (Ledoux, 2000; Phelps, 2006).] The latter type has been called bottom-up and stimulates both the right and left amygdalae as well as the occipital, prefrontal, and parietal parts of the brain which are implicated in attentional processes and encoding into memory (Ochsner et al., 2009). Thus, top-down and bottom-up processes use distinct cortical networks (Ochsner et al., 2009). However, both types of processing are likely to be active in many situations (Ochsner et al., 2009). Top-down processing is thought to be semantic in nature, involving cognitive complexity that plays a role in emotional regulation whereas bottom-up processing is thought to be important for attention shifting in terms of detection of changes in the environment and potential threats (Ochsner et al., 2009). This is similar to the processes that Kahneman (2011) terms Systems 1 and 2 in the mind. System 1 operates on automaticity without any sense of voluntary control and System 2 involves effortful mental activities.

Bottom-up processing is more sensitive to changes in the environment than top-down processing, and top-down processing helps produce more long-term behavioral repertoires that are effective, but that can also be less sensitive to environmental changes, at least initially. Note for example, that much of human behavior is maintained by if-then rules describing contingencies rather than by the actual contingencies themselves since consequences for behavior are often delayed (see, for example, Malott, Shimamune, & Malott,1992; Weatherly & Malott, 2008). However, the rules individuals follow can lead them to be insensitive to the actual contingencies operating in the organization, producing dysfunctional behavior (e.g., Hayes, Strosahl, & Wilson, 1999). In fact, it has been suggested that top-down and bottom-up processing have implications for how to change dysfunctional behavior, with behaviors being generated by top-down processes being more responsive to cognitive methods that restructure interpretations of the situation and behaviors originating bottom-up being more responsive to behavioral reinforcement methods that reshape responses through desired and aversive stimuli (Ochsner & Gross, 2005; Ochsner et al., 2009; Quirk & Beer, 2006).

Considering that both top-down and bottom-up processing contribute to mental models used in human social interactions can help us reconcile what seem to be opposing theoretical viewpoints of behavior. For example, altruistic behavior has been conceptualized in a variety of ways by researchers. Hirschleifer (1983) takes an economic approach to post-disaster cooperative behaviors and describes a theory of post-disaster altruistic behavior as consistent with enlightened self-interest. This would be consistent with a top-down cognitively generated mental model of appropriate social behavior. However, it has also been suggested that prosocial behaviors may be triggered due to personal distress because people can see themselves as potential sufferers (Eisenberg & Miller, 1987). This conceptual approach appears to describe a bottom-up affectively constructed mental model. More than likely, each theoretical approach accurately, but only partially, accounts for prosocial and altruistic behavior, and there are likely even other explanations of this behavior not yet elucidated that involved complex, reciprocal processing between cognitive and affective brain structures.

Following, we present the three circles found in the integrative framework.

The Integrative Framework

In our view, this framework has the potential for a multitude of applications in various social settings. For purposes of illustration however, we will focus on two management research areas that we believe could particularly benefit from the integrative framework, organizational justice and corporate social responsibility (CSR). Organizational actions in these two realms reflect underlying collective mental models about engagement and responsibility. CSR should concern multiple stakeholder groups beyond the immediate employees, including global organizational and inter-organizational initiatives with groups of people who may not directly interact otherwise, which falls in the circle three of our integrative model. However, organizations that have historically been concerned more with circle one and two themes may find CSR outside of these circles difficult. Similarly, the organizational justice literature usually has been concerned mostly with justice within an organization, falling squarely in circles one and two of our framework. However, there have been calls to extend the concept of organizational justice to stakeholders outside the organization, which the framework could help accomplish.

We conceive of the integrative framework as consisting of concentric circles of successively expanding identities that serve as the basis for mental models for engagement (see Figure 1). These circles are constructed with three dimensions: awareness of time-orientation, scope of impact, and directionality of relationships (see Table 1). We believe that movement between these circles occurs and depends to a large extent on the complex interplay of cognitions and emotions. We will discuss this more with respect to each circle in our framework. We will also speculate on the interactions between the mental models underlying the three circles.

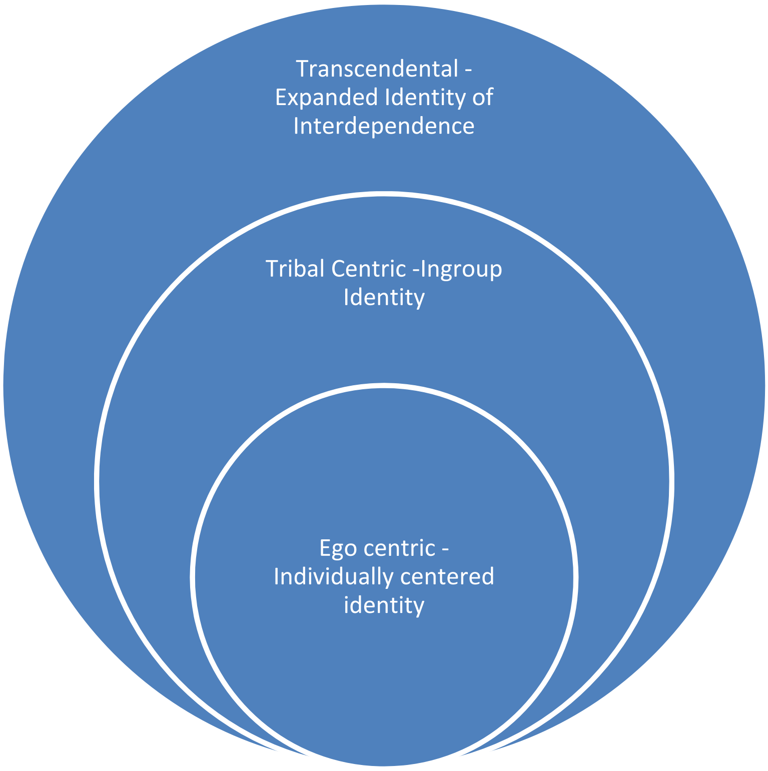
Transcendental - Expanded Identity of Interdependence
Tribal Centric -Ingroup Identity
Ego centric - Individually centered identity

Figure 1: Beyond Social Exchange Theory: Integrative Framework

Table 1: Awareness Dimensions

Circle/Dimension	Time Orientation	Scope of Impact	Directionality of Relationships
First Circle	Short-term	Self/Ego	Simple, One way: Me Vs the world
Second Circle	Short-term and Medium-term	Self and immediate and related others	Restricted two-way: Us Vs the world
Third Circle	Long term	Self, immediate/related others, and distant strangers/universe	Complex, inter-connected: Me in the world

First Circle: “Ego-centric”

Much of research on work behavior has been rooted in models of social psychology, many of which have been based on economic conceptualizations of choice. Economic conceptualizations often assume that individuals are motivated to pursue their own ends in a way that minimizes costs and maximizes profits, which has been called "instrumental rationality" (Weber, 1978). Human interactions are viewed as a set of exchanges with rewards and costs and individuals are thought to decide whom to interact with based on expectations of these rewards and costs (Kahan & Rapoport, 1984).

This circle can be viewed as being parallel to the first of the neo-Kohlbergian major stages of moral reasoning, in which the "personal interests schema" is used (Narvaez, 2005). In this type of thinking, a person uses the filter of how does this affect my personal interest, with no socio-centric perspective involved. Cooperation with others is at the very micro level of thinking, with personal advantage being seen as a virtue (Narvaez, 2005). We can see this emphasis on ego-centric social exchange in models of various work and organizational behavior, such as motivation, organizational justice, power, and psychological contracts. For example, the expectancy (e.g., Porter & Lawler, 1968; Vroom, 1964) and equity (e.g., Garland, 1973; Vecchio, 1981) theories of motivation are directly based on the instrumental rationality model found in economics. Similarly, most conceptualizations of organizational justice (e.g., Fortin & Fellenz, 2008), are based on social exchange concepts derived from economic principles (e.g.Homans, 1974; Thibaut & Kelly, 1959). So are most of the understandings about power (for a discussion see Goltz, 2011). Yet another example is the idea of psychological contracts (Rousseau, 1989), which in turn is viewed as central to the concept of organizational justice Cropanzano & Prehar, 2001).

Certainly, the explanation of human work behavior as primarily being driven by ego concerns appears to be supported by empirical studies. For example, the literature is replete with data indicating that individuals treat the concept of fairness differently depending upon whether it is directed toward others or toward themselves. Individuals overestimate their own performance (Lichtenstein & Fischhoff, 1977; Fischhoff, Slovic, & Lichtenstein, 1977), tend to attribute success to themselves and factors under their control and failures to external factors (e.g., see Mezulis, Abramson, Hyde, & Hankin, 2004 for a review), and tend to put less effort into creating equity after being overcompensated than after being undercompensated (see Campbell & Pritchard, 1976 and Greenberg, 1982 for reviews). Also, studies on power indicate that as power increases, power holders generally view others as little more than tools (Gruenfeld, Inesi, Magee, & Galinsky, 2008) and are not as concerned with how others experience the world (Galinsky, Magee, Inesi, & Gruenfeld, 2006).

On the other hand, it is also well known that studies using purely economic principles to make predictions about social behavior often have fallen short (for reviews, see Goeree & Holt, 2001; Kagel & Roth, 1995). For example, fair offers rather than self-interested ones are common in the ultimatum game (for recent discussions, see Chiang, 2008; Zollman, 2008). Additionally, the tendency of management researchers to take either an economic rationality approach to business or a humanistic one that focuses on emotions has been criticized for ignoring the spiritual aspects of existence (Gozdz, 2000). Similarly, the focus on instrumentality in descriptions of social power has been criticized for ignoring bases of power that stimulate transcendent responses based on the idea of connectedness with others (Goltz, 2011).

Furthermore, ego-centric based behavior can be ultimately self-limiting and it is precisely these atypical responses that may help resolve some of the current issues in organizations in the two management areas to which we apply out model in this paper. For example, in the area of organizational justice, Goltz (2010) found women who believed, despite their failed individual discrimination cases, that in the long run, individual attempts at change are important because many individual attempts will add up, resulting in slow, evolutionary change, and that it is one's responsibility to be part of this process. Similarly, in the area of corporate social responsibility and sustainability, Baets and Oldenboom (2010) suggest that individuals who act out of a consciousness of connectedness are more likely to be able to build sustainable organizations in part because they are more able to adapt to the complexity that exists in the world than are individuals who think more linearly. This ties back to the dimensions we have listed in Table 1. A mental model based on Circle 1 takes a short-term, narrow approach thus limiting understanding of relationships to a Me Vs Them viewpoint, which misses the complexity of the larger world.

Emotions signal when an important goal is threatened and since individual survival is one of those goals, we can certainly see bottom-up processing as frequently playing an important role in the development and application of an ego-centric mental model. Thus, regardless of which mental model they might normally use, we would expect individuals to operate egocentrically and justifiably so, when feeling fear from threats to individual survival, whether emotional or physical survival is threatened. (Note that this ability to move adaptively from one mental model to another depending on the situation distinguishes our framework from models of moral development in which individuals are thought to shift permanently.) However, individuals may also develop an egocentric mental model via more top-down processes. For example, individuals may reflect on past experience, present circumstances, and future goals and then make a conscious choice of a more egocentric strategy because it is seen as being effective for meeting their goals.

Second Circle: Tribal-Identity- centric

As discussed in the section on social identity, egocentric behavior can be replaced with behavior supporting the values and behaviors of a social group when the antecedents of social identity have occurred. We use the term ‘tribal’ to signify such forms of social identity. The word ‘tribe’ is borrowed from anthropology used to describe archaic societies that maintain social order through affective and non-rational bonds (Cova & Cova, 2002). This word still resonates in modern and post-modern societies and is used to signify any group that shares interests, passions, and affective bonds including organizations, industries, professional groups and even cyber tribes (Poster, 1998). Unlike the traditional tribes that were bound by kinship and dialect, post-modern tribes are connected through shared feelings and symbols (Cova & Cova, 2002). Organizational identification one such specific form of social identification (Ashforth & Mael, 1989) and fall in this circle.

Current research on positive emotions (Frederickson, 2001; Kanov, et al., 2002; Lillus, et al, 2008) and prosocial behaviors in the fields of management and organizational behavior (Grant & Francesca, 2010) has given us an insight into a mental model that operates in workplaces which foster a shared identity of compassionate and positive organizations. These studies (Kanov, et al., 2002; Lillius, et al., 2008) reveal the process by which individuals engage in compassionate acts within workplaces and how organizations can foster a compassionate culture that in turn legitimizes individual acts of compassion. These organizations encourage proactive social behaviors through a set of values, practices, and routines (Kanov, et al., 2002). For example, Grant’s (2008) study looks at the role of relational job design that encourages and rewards prosocial behavior. This stream of research spans a spectrum from forgiveness (Bright, Fry, & Cooperrider, 2006), compassion (Kanov, et al., 2002; Lillius, et al., 2008), emotional resilience

(Powley, 2009), to virtues (Cameron & Caza, 2002). For an exhaustive review on this stream of research, please refer to Donaldson and Ko (2010).

To some extent, this circle parallels the *maintaining norms schema* found in the neo-Kohlbergian tradition of moral development. In this phase in the neo-Kohlbergian model, individuals have the awareness that people relate to each other through institutions and established practices and upholding social order is therefore viewed as being very important (Narvaez, 2005). For example, religious authoritarianism has been found to be related to this type of reasoning (Narvaez, 2005). However, in our framework, it is not the upholding of the norms and traditions that is so important, but rather the maintenance of connection to tribal identity that is key. It certainly is the case that upholding social norms is a way to maintain one’s connection to tribal identity; thus, we see these frameworks as being conceptually parallel. However, we wish to emphasize here that we believe that the motivation to uphold social norms arises from tribal identity rather than the reverse.

In this circle, the sense of tribal identity, i.e. a sense of belongingness to a group, organization, team, family, or a local community, is fostered through regular interaction, which in turn fosters positive sentiment (Homans, 1974). For example, attachments that govern even economic behaviors embedded within networks of social relationships (e.g., Granovetter, 1985; Larson, 1992) are thought to be a critical factor in these interactions (Seabright, Leventhal, & Fishman, 1992). Pressure for continuing these economic interactions often will occur even when the exchanges obtained from the relationships are no longer economically rational (Seabright, et al., 1992). Economic behavior based on emotional attachments rather than rational calculations would be an example of more bottom-up, emotional processing of the tribal mental model rather than top-down cognitive processing.

This form of identity is more inclusive than the egocentric one of the first circle. The tribal-centric mental model has an evolutionary basis in that individuals operating with this model have better survival chances than individuals operating alone. Analyses by anthropological archaeologists indicate that groups tend to develop when habitats become poorer or unstable and competition for resources increases such as due to overpopulation because groups can provide individuals with differential access to resources (e.g., Kennett, Winterholder, Bartruff, & Erlandson, 2009). Also, there is a propensity to be most loyal to one’s own kin, known in evolutionary biology as Hamilton’s Rule, which specifies the level of altruistic behavior among kin that maximizes the survival of one’s genes (e.g., see Bergstrom, 1995). However, because the notion of benevolence is extended only to those who are part of the network, it is still restricted because of the dependency on the dynamic of interpersonal relationships within the context of a group organization. Also, the other side of a tribal-identity centric mental model maybe parochialism and a lack of inclusiveness. It may inadvertently lead to the sometimes toxic dynamic of in-groups and out-groups, such as through discrimination, bullying, shunning, and other behaviors. This may occur at a level that is difficult to detect but in a form that has great impact over time. Certainly, the research on discrimination, for example, indicates that individuals have unconscious biases towards minorities that can result in an accumulation of disadvantages over time (e.g., Agars, 2004; Fiske, 2002).

Further, just as how behaviors based on the ego-centric mental model can be self-limiting, in this case, a focus on the tribe can lead to a sort of prisoners' dilemma effect in that resources gained for the tribe at the expense of outsiders can ultimately have negative effects on all, both tribe members and non-members. This is illustrated by research that indicates that countries with social heterogeneity and large inequities, such as in the form of income inequality and economic discrimination among groups, have lower trust levels between economic agents and lower economic growth, creating a poverty trap (Zak & Knack, 2001). Therefore, while a tribal-centric view may be meaningful and productive in the short and medium term, its narrow awareness of scope of impact and related limited relational directionality which gets manifested as 'Us Vs Them' mentality is likely to be problematic in the long term, especially in complex situations and problems.

Although, as discussed, much of tribal behavior may result from emotional attachments or be genetically programmed as a result of evolution, when there is more of a choice, a cognitive, top-down processing could certainly lead to a mental model that belonging to a tribe may be more effective for survival than not belonging.

Third Circle: Interdependence-centric

Much of existing research on prosocial behavior that goes beyond the social exchange theory driven models is done on the second circle by the positive organizational researchers. However, much of this research is based on the assumptions of immediacy, proximity, interaction and a relational or caring ethic. In the third and final circle, we describe a transcendent mental model that is predicated upon the most expansive understanding of interconnectedness of all sentient beings in the web of life. In this circle, people have moved from situationally motivated prosocial or moral behavior to more enduring concern about others' welfare (Batson, et al. 1995) leading to a sense of oneness and a merging of self-other boundaries (Cialdini, et al. 1997). For such helping behavior based on a transcendent mental model, one needs to be objectively self-aware (Carson & Miller, 1987), possess emotionality (i.e. the tendency to experience emotions), and have a highly developed set of emotional regulatory processes (Eisenberg, 2000). This is in line with Oschner, et al.'s (2005) conclusion that cognitive capacities and emotional capacities go together.

We find two extremely different and seemingly opposed frameworks as helpful anchors for this circle: one based on an abstract and rational idea of humanity grounded in the enlightenment tradition of entitlement and rights, and the other grounded in spiritual and religious traditions of moral responsibility towards fellow creatures.

According to the first framework, this mental model is based a moral sensibility or concern for remote strangers from different continents, cultures, and societies (Hoijer, 2004) based on an abstract and rational idea of humanity (Sznaider, 1998) arising from democratization. It is a rights-based approach related to personal responsibility. Therefore, this model tends to distinguish between those who may be called 'deserving' and 'undeserving' of compassion. This is echoed in Skitka's (1999) finding that both liberals and conservatives were generally equally likely to ascribe more personal responsibility and blame to both communities and individuals that did not take adequate flood precautions than those that did while seeking federal disaster assistance. Lerner and Simmons (1966) present evidence for the argument that whether observer reactions to the innocent victim take the form of compassion or rejection depend on the observer's need to believe in a just world and the belief that there is an appropriate fit between effort and outcome.

The second approach to such benevolence is grounded in spiritual and religious traditions. Haidt and Graham (2006) argue that community, authority, and the sacred are the sources of moral values across people and cultures. Both Eastern and Judeo Christian traditions have emphasized the role of compassion in salvation or wisdom. Sznaider (1998) describes the Christian principle of 'love thy neighbor' as a manifestation of God's *agape,* a spontaneous, unconditional and unmotivated by the value of the one who is loved. Similarly, according to Buddhism, compassion exists when one has the wisdom to see all sentient beings are very much interdependent, and therefore, the question of worthiness is not part of the picture in this approach. Compassion in this tradition flowers out of the assumption that we are all connected in the tapestry of life by our own human spirituality and connectedness to the planet as a whole (Long, 1997). It is a set of deeply held values and beliefs that guide a particular community or society in their relationship with nature as a whole, which includes other human beings **(**Poonamallee, 2011a). In this model, compassion and wisdom go together because one operates from an understanding that all sentient beings are interconnected and operate as one and focuses on the ideal of unity.

Both the enlightenment and spiritual traditions that can serve to anchor behavior in this third circle would require a person to use a *postconventional schema*, in the words of the neo-Kohlbergian tradition of moral development (Narvaez, 2005). In this type of reasoning, social conventions are not inviolate; instead, principles and values are key. Moral obligations are based on sharable ideals rather than ethnocentric preference (Narvaez, 2005). This approach requires more cognitively complex thinking, which provides more flexibility. This flexibility in thinking comes from a greater exposure to various situations: research indicates that the more education and the richer one's social experience, including multi-cultural experience, the greater the development of postconventional thought (Narvaez, 2005). For example, in Kohlberg's (1969, 1971) postconventional phase, individuals recognize that compromises are sometimes needed because notions of what is just can differ since the distribution of resources and rewards can be based on a number of criteria, such as self-interest, physical characteristics, need, relationship ties, and behavior or productivity (e.g., Thomson & Jones, 2005). Therefore, post-conventional thinking is based on open scrutiny and debate (Narvaez, 2005).

This paper does not argue for either the humanistic or spiritual approach. But drawing on both frameworks, we argue that collectively held beliefs and values of any social group– be they grounded in traditions of spirituality or in enlightenment – have an impact on creating and sustaining a transcendent mental model for human interaction. In fact, there is sufficient evidence both faith and spirituality based groups and non-spiritually or religiously inclined radical rational humanist societies operate based on this transcendent mental model. Scandinavian and western European countries, among the least religious wealthy countries, are also most likely to contribute very generously to foreign nations. For example, the Norwegian government has the distinction of the highest per capita contribution to foreign aid (104 cents per person) but is also among the least religious wealthy nations.[2] Similarly, Sweden and Denmark also rank among high contributors of foreign aid while falling among the least religious nations.[3] Citizens of these countries also contribute towards providing a high quality of life for their own citizenry in terms of universal healthcare, education, environmentally friendly transportation etc. Common to both traditions is the transcendent mental model that suspends social exchange theory on a long-term basis.

Movement between the Circles

One of the primary ways in which our framework is different from Kohlberg's discussion of moral development (1969, 1971) is that in our view, movement between mental models is neither unidirectional nor does it arise solely from moral development. It is possible to move between circles triggered by either top-down/cognitive processes and/or bottom-up affective processes. To illustrate the various possibilities in terms of movement between the three circles, we constructed Table 2, which includes examples of movement that could be driven by top-down or bottom-up processing.

Table 2: Examples of Transition Types from Circle to Circle

Direction of Movement	**Top-down Processing**	**Bottom-Up Processing**
Outward	Organizational socialization into a compassionate culture (Circle 1 to 2) Regular meditation practice (Circle 2 to 3)	Pro-social behavior in terms of empathetic response to co-workers (Circle 1 to 2) Pro-social behavior in terms of empathetic response to strangers in crisis (Circle 2 to 3)
Inward	Protective response to ongoing survival pressures, e.g., immigration, competition (Circle 3 to 2 or 2 to 1)	Experience of sudden serious threats to own basic needs (Circle 3 or 2 to 1)

We have termed movement from a less inclusive to more inclusive circle 'outward movement' and the movement from an outer to an inner circle, 'inward movement'. Generally speaking, we view outward movement, in which the focus is beyond the ego concerns or even the tribe, to signal growth in an individual's, group's, or organization's mental model development. This is because the more expansive mental models represent more cognitively complex thinking, such as by taking into account how beings are interconnected and how they impact each other in complex ways. Thus, egoistic and tribal concerns are allowed for in the third circle, but they are put in their proper places. However, it should be noted that moving to a more self-focused mental model that excludes more expansive thinking may sometimes be called for in the situation and it is not necessarily the case that a narrowing focus represents regression.

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[2] http://www.infoplease.com/ipa/A0930884.html

[3] http://www.gallup.com/poll/142727/religiosity-highest-world-poorest-nations.aspx

There are instances when an egoistic focus is needed for self-protection or growth, for example, that then can allow for a later more permanent movement to a more expansive mental model.

Recall that research indicates that mental models are fairly resistant to change (e.g., Swann & Read, 1981), change primarily when individuals are motivated to more deeply process information that is discrepant with their models (e.g., Rousseau, 2001), and even then, usually change slowly (e.g., Welch Larson, 1994). Therefore, for movement to occur between circles and for mental models to change more permanently, we believe that some time must elapse during which cognitive restructuring is occurring in response to changing conditions. This could be exposure to different cultures, for example, as suggested by the research that indicates more cultural exposure is associated with more post-conventional thinking (Endicott, Bock, & Narvaez, 2003). However, it is also possible that bottom-up emotional processing will trigger movement between circles to broader inclusivity. In these cases, we expect the movement to be more immediate and short-term in nature and movement back to earlier, less inclusive, mental models will be likely at some point unless sufficient top-down processing occurs as well. For example, movement between the second and third circles may occur in response to the suffering of strangers during a disaster. But this can be transient if the response was driven solely bottom up or affectively driven without an accompanying top down cognitive reconstruction. This is equally applicable to any change in external stimuli. If organizations want to move beyond ego and social identity centric behavior, such as when trying to generate inclusiveness in the organization, they can use more affect-generating practices (e.g., how would you feel in this situation of discrimination), but these might be short-term in effectiveness. Cognitive practices that focus on oneness and interdependence might be more long-term. For example, the effect of an emotionally charged training program to change attitudes and behaviors may dissipate over time without sufficient cognitive restructuring to make it longer lasting.

Outward Movement

Outward movement is possible based on positive cognitive framing or emotional arousal. Top-down processing that leads to outward movement is more likely to take place over a longer period of time than bottom-up process that leads to outward movement and the effects are likely to be more permanent in nature. An example of movement from Circle 1 to 2 is the socialization of new members into organizational culture. A newcomer enters an organization on the basis of an individual employment and psychological contract with the employer, i.e. Circle 1 and moves towards Circe 2 through socialization. Organizations achieve this through a top-down mechanisms of clarification of roles and relationships (e.g., see Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007). This adoption by the newcomer of the mental model used by the organization may represent a movement from a more ego-centric mental model to a tribal one (first circle to second circle) and engender organizational citizenship behaviors thus moving the employee from an ego-driven individualistic identity to one of organizational identification.

An example of a top-down cognitive restructuring mechanism moving from Circle 2 to Circle 3 is regular meditation practice. The research literature on meditation suggests it stimulates movement from a circle two mental model to a circle three mental model, since its effects include non-judgmental acceptance, compassion, and an increased sense of connectedness with others (for a review, see Goltz, 2011). Meditative practices increase calmness and wellbeing

(Friedman & Coates, 2000) and result in an ability to respond non-habitually (Wenk-Sormaz, 2005). In addition, the wisdom and spiritual-based reasoning that can arise from practices such as meditation emphasizes more collective and universal concerns, transcending concerns about self (e.g., Achenbach & Orwoll, 1991; Dehler & Welsh, 1994; Orwoll & Perlmutter, 1990; Pascual-Leone, 1990).

Outward movement can occur from bottom-up, affective processing as well. Disaster research as well as research on compassion towards strangers indicates that social exchange norms are suspended or relaxed during breaching moments such as large-scale natural disasters, and compassion and empathy is directed towards those with whom one does not share organizational or social identification and who might not be able to reciprocate the help (e.g., Comfort, 2006; Haidt & Graham, 2006; Hoijer, 2004; Nussbaum, 2001; Poonamallee 2012; Viscusi & Zekhauser, 2006; Weine, et al, 2002). For example, altruistic and prosocial behaviors in disaster contexts take the form of volunteerism (Taylor, 1970), donations (Argothy, 2003), provision of emergency medical services to the victims (Quarantelli, 1983), search and rescue (Durkin, 1987), and sharing of knowledge and expertise to develop community psychosocial and civic infrastructure (Weine, et al. 2002). Prosocial behaviors are thought to be triggered due to personal distress (Eisenberg & Miller, 1987) since people can see themselves as potential sufferers at some point, which can lead to an emotional arousal that moves them beyond both the first and second circles to the third one. However, this expansion of identity may not be sustained over periods of calm unless there is a cognitive reframing of some sort. The good news is that this behavior can be generated through top-down processes as well. For example, Douty's (1972) economic approach to post-disaster cooperative behaviors as consistent with enlightened self-interest is more cognitively based. So is Dynes' (1994) description of situational altruism, which emerges when the new victims' needs cannot be met by existing institutional resources. Prosocial behavior based on a more permanent third circle mental model is needed in an era of ecological overshoot that will depend on compassion and kindness, not only during disasters but continually (Cairns, Jr., 2005).

Inward Movement

As we have indicated, we expect that inward movement generally does not represent growth in cognitively complex thinking and so, outward movement is more desirable than inward movement. However, inward movement is expected to occur at times and these occurrences are likely to fall into one of two categories. First, as discussed, an increased focus on self or tribe to the exclusion of others outside those circles is likely to happen when the more inclusive mental model was achieved through bottom-up, rather than top-down processing. For example, after the worst of the disaster appears to be over, the mental model of helping strangers, even natural enemies that was stimulated through emotional arousal recedes into the background, and the tribal-centric model re-emerges.

Second, we expect that inward movement will commonly happen when the self or tribe is threatened in some ways in terms of the ability to meet basic needs. This threat could be processed either cognitively or emotionally. A sudden threat is likely to be processed affectively bottom-up and longer term, a slowly emerging threat is likely to be processed top-down. If the threat is sudden and emotionally processed, it is possible that upward movement to the previous mental model will occur once the threat has been handled. If the threat has been more long term in nature, stimulating cognitive processing, then a return to the earlier, more inclusive mental model is unlikely unless additional cognitive restructuring occurs that stimulates that movement.

Implications for Theory and Practice

We believe this model is broadly applicable and can help significantly expand the focus of research on social interactions inside and outside organizations. For purposes of illustration and brevity, however, we focused two research areas that we believe could particularly benefit from the integrative framework: organizational justice and corporate social responsibility (CSR). We summarize them here and also discuss some aspects of our framework that could use additional development in future work.

Most explanations for the concept of organizational justice (e.g. Fortin & Feelenz, 2008) are based on instrumentality and equity (Kahan & Rapoport, 1984; Sunahara & Pierce, 1982). However, these two explanations are often at odds because sometimes equity seems to rule and sometimes instrumentality does (for reviews, see Goeree & Holt, 2001; Kagel & Rogh, 1995). Recall, for example, that fair offers rather than self-interested ones are common in the ultimatum game (Chiang, 2008; Zoolman, 2008). Our model could help account for these disparate findings. Equity and instrumentality may arise from two very different mental models: expectations of parity might be seen more in the tribal-centric circle and less so in the egocentric one, in which individual instrumentality would rule. However, our integrative framework also suggests that organizational justice research should be expanded beyond a reliance on economic and equity models of behavior because these models tend to neglect studying justice beyond immediate networks of dyadic social relationships and don’t do well at examining justice across the tribe as well as with those outside the tribe.

Research in this area should begin to use broader models of justice that can more easily be applied beyond the dyadic social exchange, such as the fairness model based on the concept of groups as patches (Goltz, 2013), which recognizes that multiple levels are operating in terms of the exchange of resources and that groups simultaneously manage these multiple levels so that over the long term, equity is achieved across individuals. Still, the Goltz (2013) model seems more relevant to the second circle in our integrative framework and would need to be expanded to include a larger web of humanity and life to be truly what we mean by interdependence-centric.

Similarly, we believe that our integrative framework can help in moving CSR initiatives from the second tribal-centered circle to the third, i.e. the interdependence centric circle, which is a way to build an interconnected world. CSR as a research area has gone through multiple iterations (Frederick, 1987; Poonamallee, 2012; Waddock, 2004), starting from philanthropy and charity programs (CSR1), business benefits and bottom line impacts (CSR 2), legitimacy driven business ethics and voluntary compliance (CSR 3) and finally cosmos-centric corporations (CSR4). Although the cosmos-centric approach to CSR is a very appealing proposition, it is a normative model that is difficult to translate to practice. Part of the challenge is that unlike individuals, organizations cannot be considered to be moral actors (French, 1979; Goodpaster & Matthews, 1982; Ranken, 1987; Velasquez, 2003). Therefore, moral action must begin and end with individuals. However, a cosmos-centric approach to CSR relies on other-oriented behaviors that are extended to external stakeholders including the larger community (Poonamallee & Joy, 2012). This is even more expansive than organizational citizenship behaviors and/or prosocial behaviors that are mostly looked at within an organization, i.e. the tribal centric engagement (circle two) in this model. Instead, it is more akin to circle three in our framework. For this transition from circle two to circle three to occur, there needs to be a shift in the shared mental models among the individuals. These organizations must develop a more expansive shared social identity that will encourage atypical behaviors that not solely governed by social exchange norms. The dominant conception of mental models guiding individual behaviors are based on an agency theory perspective (Battilana, 2006; Embiryaer & Mische, 1988; Garud & Kanoe, 2001), which in turn is based on motives of self-interest (Anderson & Hill, 2002; Coase, 1974; Hendry, 2005).

This paper contributes to this discourse by outlining mental models that are more inclusive than the traditional agency theory and social exchange theory perspectives. This paper describes how these mental models may be constructed through the use of top-down and bottom-up mechanisms. This transition may be effected through the use of the mechanisms of framing and affective arousal. The cognitive/top-down process is necessary to create a mental model of an interdependent social identity. This type of expansive identity then encourages and even inspires individuals to engage in circle three type of activities. At this point, the top-down and bottom-up processing research is located in individual responses to external stimuli. Further research can explore this relationship at meso and macro levels. This approach is particularly suited to a mixed method approach combining qualitative, especially interpretive and action research approaches, along with traditional quantitative approaches.

Therefore, we believe that a framework that contains successively more expansive mental models could result in a better understanding of currently researched topics as well as stimulate new research streams. But we caution that our framework is a preliminary one meant to stimulate thought and therefore needs to be further developed.

One area that needs more examination is how this framework may differ depending on culture. Cross-cultural research posits collectivism and individualism as dimensions of national culture (Hofstede, 1980) which suggests that some countries and cultures may be prone to operating in the tribal circle than others who may be more prone to operating in the egocentric first circle. Therefore it is important to examine the role of national cultures in mental models to clearly identify the constraints of our proposed framework. It is also important to understand the effect of more local cultures. As an example, Orozco and Poonamallee (2013) discuss how the knowledge of indigenous populations, which is often based on ecological embeddedness—one's relationship with the environment, does not fit with the mental model of intellectual capital and intellectual property rights, which views knowledge as being "owned" and removes it from a sense of place. This difference in mental models creates a number of issues, such as the appropriation of indigenous knowledge. This example also illustrates that an emphasis on social exchanges as primarily based on ego-centric thinking becomes problematic as more and more business occurs across cultures which draw on different frameworks. Considering more expansive mental models than the egocentric would help in solving these cross-cultural dilemmas.

Another area in which more development is needed is in the specification of movement between circles. In our paper, we have offered some ideas of how this might occur, based on brain research. However, the framework could use more clarity on how earlier mental models (e.g., egocentric) are used, even during emotional stress, after higher mental models interdependence centric) have been developed and routinely applied. Although we believe that individuals are adaptive and tend to use the mental model that best fits the situation once they have sufficiently developed the ability to use each mental model, it is also possible that these mental models not only follow a developmental progression, such as in the neo-Kohlbergian framework (Narvaez, 2005), but also that people who use more expansive mental models tend to disparage narrower ones, as has been found in research on moral development (e.g., Rest, 1973). Concepts from the hierarchical need theories of Maslow (1954) and Alderfer (1969) might be helpful for this analysis as well. Maslow (1954), for example, discussed the concept of the prepotency process, which indicates that lower order needs must be satisfied before upward progression occurs, which suggests that use of a more expansive mental model by an organization might not be possible if a tribal identity has not been well developed. Alderfer (1969) thought that different need states operated simultaneously and that individuals could operate at higher level needs without fulfillment of lower level ones, but he also indicated that individuals might, when frustrated by their attempt to meet higher level needs, put more emphasis on lower order ones. Certainly, Alderfer’s frustration principle would be consistent with our belief that emotional triggers such as stress might sometimes stimulate the use of a more egocentric mental model. As can be seen, there is yet much to consider and explore in terms of the progression and the application of the mental models.

An additional limitation that we wish to acknowledge is that we have chosen to focus on three major types of mental models, but we also understand that one could readily identify subcircles within each of the three circles. For instance, in the second circle, family members no doubt generate a somewhat different mental model than friends, which are probably associated with a somewhat different mental model than tribal members that are acquaintances. Similarly, in the third circle, minerals, plants, animals, and humans are likely associated with different mental models for most people; for example, some of these generating a sense of connectedness more readily than others. Furthermore, we have chosen to stop at the socio-ecological in our framework, but it could be argued that mental models could be extended out further to include elements that exist beyond what we can perceive as being part of our environment. Therefore, future work in this area could both work on the more subtle layers of mental models as well as more extended ones.

Conclusion

In this paper, we have described an integrative model of engagement and the underlying mental models that govern various modes of engagement. The framework serves to extend our understanding of engagement in that it considers atypical behaviors that are not ego-centric and driven solely by social exchange norms. Specifically, it brings together research on tribal-centric prosocial behaviors, suffering-centric engagement focused on unknown others, and an interdependence-centric engagement based on traditions of spirituality and religion, and democracy, and enlightenment. This paper also draws on recent brain research on top-down and bottom-mechanisms to explain the creation of mental models thereby extending the understanding of mental models to include both affective and cognitive mechanisms.

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A Developmental Behavioral Analysis of Dual Motives' Role in Political Economies of Corruption

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Abstract: This paper is a developmental meta-analysis of behaviors that contribute to political economies of corruption, deploying bioneurological dual motive and behavioral development theories. Together, these systems of analysis enable a developmental perspective to illustrate and analyze a progression of dual motives' variations as humans and their conditions change. The progression of examples indicates that there are multiple evolutions of political economies that vary in their complexity, with different behavioral features at each level. Dual motive theory helps in identifying and understanding the complex linkages and layers of socio-political and economic behaviors as they become more complex. Increasingly complex horizontal and vertical stacks of social networks, like lattice-works of dual motives, enable individuals and groups to develop and maintain sturdy yet adaptable social systems of patronage, brokerage, and clientelism. These so-often informally structured relationships underlie corruption-like transactions long before, and long after, they are regarded as the enduring institution of corruption.

Three hypotheses under gird the development of that thesis. The first is that dual motive theory facilitates meta-analyses of social networks' often hidden layers of complexity. A second hypothesis is that analyses using dual motive theory can explicate more complexity when the theory is integrated with developmental behavioral theory. The third hypothesis is that analyses made possible by that integration offer substantive contributions to understanding socio-political-economic behaviors, including multiple political economies of corruption. Three strategies are employed to develop the paper's thesis. First, the concepts of social ties, networks, reciprocity and dual motive theory are introduced to set the context. second, a behavioral task measurement theory is introduced: the model of hierarchical complexity. Scoped for this paper to introduce only the most common adult-level tasks, that model's orders of increasing complexity describe developmental differences in the performance of individuals' and social systems' behaviors. Third, a series of international examples shows the hierarchically different ways the behavioral tensions of dual motives manifest in human exchanges. The hierarchical complexity of the examples' settings is correlated with the hierarchical complexity of adults' behaviors in those settings.

The results of the analysis indicate that (a) individual and system behaviors are continuously shaped and constrained by complex interrelations that can be explained in terms of the hierarchical complexity of dual motives; (b) there are predictably difficult transitions and breaches when systems of different hierarchical complexity disrupt pre-

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existing systems for managing behavioral tensions. The application of dual motive theory indicates its analytical usefulness for interpreting social, political, and economic phenomena. Political economies of corruption can be more thoroughly understood as enduring institutions through a developmental behavioral application of dual motive theory.

Keywords: Bioneurological, brokerage, clientelism, corruption, dual motive theory, model of hierarchical complexity, political economies, patronage, reciprocity, social networks, systems

Introduction

The purpose of this paper is to introduce a meta-analysis of corruption from a developmental behavioral perspective. A key goal is to illustrate the essential role of dual motive theory (Cory, 2006) for identifying and understanding complex linkages and layers of socio-political and economic behaviors in which individuals and systems collaborate. Another goal is to demonstrate analyses that integrate dual motive theory with the model of hierarchical complexity (Commons & Ross, 2008; Commons, Trudeau, Stein, Richards, & Krause, 1998).

This introduction begins with some general background to serve as context for the purpose of this paper and its organization. The paper's origins lie in a previous project I undertook to study social networks, called patron-client systems, in developing countries. It soon became clear that developed countries are also laced with such systems, and there are intricate linkages across and within geographic boundaries. I found that actors in the systems have different kinds of social ties (e.g., ethnic, ideological, economic), use different currencies of exchange, and the systems in which they operate mutate as socio-political and economic conditions change. At certain points in development, these behaviors come to be called *corruption*— in some quarters, but not all. My study became that of a developmental trajectory that shed light on political economies of survival. They appear in different guises as they mutate through all levels of apparently all societies. Analyzing this trajectory suggested to me why, at some point, these political economies of survival are called corruption. This paper traces the evolution of corruption through its stages of behavioral development. It introduces a thesis about the roots of corruption in perennial human systems and why corruption may be expected to be an enduring institution throughout much of the 21st century.

Anthropologists, in particular, and some sociologists and political scientists have mapped much of the picture of patronage and clientelist social networks—which come to be called corruption—through indispensable ethnographies. Through such sources and others, and through my previous critical study of the democratization literature (e.g., Ross, 2002, 2003, 2007), I noticed patterns—even as they mutated—across various individual behaviors, cultures, and social, political, and economic systems. I found no behavioral explanations for the durable patterns. I began analyzing them through the lens of a behavioral development theory, the model of hierarchical complexity (Commons, et al., 1998). About the same time, Cory's (2004) work on the bioneurological architecture of the human brain was published; it is now entitled dual motive theory. Cory's model afforded vital explanations for the vertical social glue that makes social networks sturdy, adaptable, and sometimes corrupt. Integrated with the behavioral analyses afforded by the MHC, the individual and social patterns and their shape-shifting trajectories painted a new, dynamically mixed but coherent landscape. That landscape enabled a different rendering of the political economies of corruption. It underlies the paper's thesis about the endurance of the institution.

The remainder of this paper is organized as follows. It begins with an overview of the concept of social ties and networks to introduce the concept of reciprocity. Next, a deeper explication of reciprocity briefly introduces dual motive theory, highlighting only several elements for this analysis. The next section briefly introduces the model of hierarchical complexity (MHC) by charting a limited range of its orders of complexity that are referred to in this paper. The introduction to that Model is brief and abstract because the next major section of the paper employs it in concrete examples. Such examples help to convey differences among individual and social behaviors at different developmental stages of hierarchical complexity. A series of international examples are presented to provide just enough "story" and analysis to convey dual motives' roles in social networks and institutions at different stages of development. Following those, the developmental features in different political economies are summarized to provide generalized contexts for the examples. A closing discussion suggests implications of the paper's developmental application of dual motive theory for understanding the endurance of the institution of corruption.

Social Ties, Networks, and Reciprocity

In any setting, it can be easy to overlook the role of social ties in shaping how individuals, groups, and societies function. By permeating life, they can be virtually invisible and escape reflection or analysis. The purpose of this first section is to give an overview of the evolving roles of social ties that are the focus of this paper. Such roles are more fully described in the paper's central section. The generic term, social ties, refers to social systems. These natural social systems exist because they meet the needs of people who participate in them. Those needs include basic physiological needs, physical safety, emotional safety of belonging, economic or financial security, and the safety, security, and comfort of self-esteem, among others. Each stage of human development is characterized by such basic needs, in Maslow's (1987/1954) terms. Social systems develop and endure because humans rely upon their vital functions. The primary function is to mediate the individual and group needs with the larger environment: a reciprocal relationship. All social systems are characterized by various forms of reciprocity.

Anthropologists have long identified reciprocity as a universal found in all human societies (Brown, 1991; Cory, 2004; Gouldner, 1977). It serves as a "cornerstone of morality, rational action, and group life…and *the assiduousness with which reciprocal action and reaction are watched* also suggest some degree of innateness" (Brown, 1991, p. 108, emphasis added). Reciprocity involves social *processes*. These evolve as individuals, groups, and their environments develop and change, giving rise to different forms and functions. As they become complex, they become whole systems of processes to maintain social ties. The innateness endures because it plays a major role in keeping social systems stable (Gouldner, 1977), an essential human need.

Early beginnings of reciprocity behaviors are apparent in various kinds of kinship groupings, where survival needs of the group result in the norm of reciprocity being embedded in the culture of the group (e.g., Gouldner, 1977; Lutz, 1998/1988). They next evolve into a more self-interested form, for example in demographically homogenous peasant villages where social life is very stable and self-contained, with every adult pairing with numerous others to fulfill the range of social needs (Foster, 1977). This horizontal, dyadic latticework of social relations continues to operate even as vertical relations develop to compensate for deficits: the horizontal relations cannot meet expanding needs. When kingroup and local ties become inadequate to "perform linkage functions between persons of low and high status, or between the community and the nation" (Powell, 1977, p. 149) to meet needs, vertical relations between patrons and their clients develop.

The less complex forms of social ties have three consistent characteristics. They take place between two parties of unequal social or economic status, they depend on reciprocity of goods and services, and they heavily depend on in-person contact to maintain the relationship (Powell, 1977). This structure is evident in the form of feudal (Bloch, 1961) and big-man societies (Johnson & Earle, 2002; Wolf, 1997/1982). Such social systems are not confined to historical eras; they are widespread in contemporary society, evident in gangs, tribal wars, insurgencies, and mafia operations. As social groupings enlarge with population growth and geographic expansion, information and influence become additional commodities. Brokering intermediaries, i.e., "the middle man," facilitate and extend patrons' power and reach. A broker increases the "height" of the vertical relation between a patron and his or her clients. Brokers enable expanded reach for the concrete, personal contacts required at every social level. In nation-states with centralized government—weak or strong, authoritarian or democratic—multiple layers of patron-broker-client systems develop to hand resources up and down the social-political-economic ladders. The networks extend all the way through societies' apexes of power. From the national levels of government, across business and funding agency relations, and among elites that network through them all, the latticeworks of reciprocity operate in multiple guises. This paper shows how the dual motives that underlie the give and take of reciprocity construct the political economy of the world wide phenomenon called corruption. It illustrates that there is not one political economy of corruption, but many.

The foregoing concepts weave throughout this paper. They include the innate human need for social ties, the characteristic of reciprocity in enacting those ties and keeping social systems operating and stable, and functional roles, e.g., patron, broker, client. At less complex levels of social organization, all roles are played by individuals. As social systems develop more complexity, roles are accomplished by groups, organizations, and institutions, in addition to individuals. All of the roles, as described below, enact the universal pattern of reciprocity and are characterized by dual motives within each party to social transactions.

Dual Motive Theory

Although familiar connotations of reciprocity may suggest simple exchange between two actors (e.g., a gift prompts a thank-you note, a bribe prompts desired behavior), social processes of reciprocity become complex. They underlie why humans construct their not-so-simple social systems. Groups develop norms to ensure members of the groups will be able to meet predictable needs and have sufficient social stability to do so. The case examples given below illustrate the roles of various norms. Norms are often enacted unconsciously because they are embedded in the culture of any group, rarely reflected upon all. They are “just the way things are done.” This implies *systems* of doing things: social systems. Reciprocity implies systems, even if they are subtle and embedded as norms. These systems are *how* humans meet their needs, survive, and manage social, economic, and political life.

Cory’s dual motive theory, based on the human brain’s bioneurological architecture, explains reciprocity in terms of balancing *behavioral tensions* within the individual human organism. It offers an expanded view of the complexity of managing social life. By contrast, the simplism of the term, reciprocity, masks the very complexity that needs to be understood. Cory’s concepts have more analytical power than *reciprocity* for understanding the complex layers of behaviors discussed in this paper. They alert one to the fact that these tensions play out in all human endeavors, including large social scales.

Whether informally or formally, the methods used to manage constant behavioral tensions become institutionalized as individuals and their levels of social organization evolve and adapt to changing conditions. The social sciences have coined terms to describe systems that both reflect and manage behavioral tensions. Here, the terms patron(age), broker(age), and client(elism) are used. It is noteworthy that each term has a form to refer to a particular role as well as to a *system* of roles. Dual motive theory, as applied in this paper, contributes to Gouldner’s agenda (1977, p. 37), that “a full analysis of the ways in which the whole *reciprocity complex* is involved in the maintenance of social systems would require consideration of the linkages between each of its various elements and their relation to other general properties of social systems” (emphasis added).

As the examples below explicate in increasing complexity, the concept of balancing behavioral tensions explains a seemingly paradoxical relationship. For example, despite what may appear to be individuals’ primary motives of self-deterministic “rational choice,” it makes it possible to see such individuals’ simultaneous comfort in lower ranks of power pyramids, other hierarchies, and in-groups that dictate behaviors, leaving little or no room for free agents’ self-determination. Behavioral tensions describe the ongoing dynamic of the human organism’s oscillations between self-interested ego and other-oriented empathy. Cory explicates a spectrum of decision-making oscillations that constantly move between two reciprocal poles at all scales from intra-personal to all social interactions.

1. Self-interested, egoistic behavior, because it lacks empathy to some degree, creates tension within us and between ourselves and others. The tension increases from low to high activity levels. And it increases as we move toward the extremes of ego. Within ourselves, the tension created by the tug of neglected empathy is experienced as a feeling of obligation to others or an expectation that they might wish to “even the score” with us. Within others, the tension created by our self-interested behavior is experienced as a feeling of imposition or hurt, accompanied by an urge to “even the score.”
2. Empathetic behavior, because it denies ego or self-interest to some degree, also creates tension within ourselves and others. This tension, likewise, increases as activity levels increase and as we move toward extremes of empathy. Within ourselves, the tension created by the tug of the neglected self-interest (ego) is experienced as a feeling that “others owe us one” and a growing need to “collect our due.” This tension, especially if

> > it continues over time, may be experienced as resentment at being exploited, taken for granted, not appreciated, or victimized by others. Within others, the tension created is experienced as a sense of obligation toward us.
>
> The reactions that build in ourselves and others, again, are in proportion to the behavioral tension created. And again, the unmanaged, or excessive tension is experienced as behavioral stress. (Cory, 2004, p. 25)

Through case examples from others' research, this paper puts social flesh on the concept of dual motives. All living systems have a complex of internal modes of regulation so they do not spin out of control; social systems and the individual human are no exception. In short, they are feedback systems. Behavioral tensions are human and social regulators. When tensions increase, they deliver information to organisms and systems that things are moving further from a more stable-feeling, comfortable equilibrium. When tensions decrease, there is a sense of more stability and safety. Behaviors of individuals, social groups, and societies both manage and indicate these tensions through giving and receiving feedback.

Individual and social systems are laced with feedback processes. The latticeworks of vertical and horizontal social organization described in this paper are complexly layered feedback systems. They have been studied under the names of patronage, brokerage, and clientelism. On the surface, they may appear to deliver only the goods, services, information, and influence that are discussed in examples below. Beneath the surface, there is a universal bioneurological basis *for* the behavioral activity: reciprocal interactions to manage behavioral tensions. Each interaction delivers and elicits feedback about current and expected stability. The feedback offers a stimulus; if received, there is a response. The perception of stimuli and the responses to them depend upon the hierarchical complexity of the individual or social system involved.

Model of Hierarchical Complexity

The model of hierarchical complexity, originating from work in the late 1970s and early 1980s (e.g., Commons, & Richards, 1984) stands as a universal, cross-cultural, cross-species theory (see Commons & Ross, 2008). Its application is independent of context and content. As a behavioral task measurement theory, it distinguishes between stimuli (task) and response (performance), and distinguishes discontinuous, scorable orders of complexity that apply across any domain of activity (for examples and more discussion, see Commons, Rodriguez, Miller, Ross, Locicero, Goodheart, & Danaher-Gilpin, 2007). While it defines 14 orders of complexity, ranging from simple machine language to innovations of geniuses such as Einstein, only four orders apply to the stages of individual and social behaviors evident in the spectrum presented here. Those orders are introduced briefly in Table 1.

Table 1. Orders of Hierarchical Complexity Evident in Political Economies

Order or stage	Order or stage name	General descriptions of tasks performed
8	Concrete	Carry out full arithmetic, form cliques, plan deals. Do long division, follow certain social rules, limited ability to take and coordinate perspective of other and self. Use variables of simple interrelations; talks about concrete evens, e.g., social events, what happened among others; makes reasonable deals. Task: There are behaviors that order the simple arithmetic behaviors when multiplying a sum by a number. Such distributive behaviors require the simple arithmetic behavior as a prerequisite, not just a precursor. $5(1 + 3) = 5(1) + 5(3) = 5 + 15 = 20$ Also: Short time horizon, avoids shame,
9	Abstract	Discriminate variables such as stereotypes; use logical quantification; form variables out of finite classes; make and quantify propositions; use variable time, place, act, actor, state, type; uses quantifiers (all, none, some); make categorical assertions (e.g., AWe all die.@); Form a class based on an abstract feature. Task: All the forms of five in the five rows in the example are equivalent in value, $x = 5$. Also: Seeks group membership, status, and is loyal to in-group and dogma; places high value on saving face.
10	Formal	Argue using empirical or logical evidence; logic is linear, one-dimensional; use Boolean logic=s connectives (not, and, or, if, if and only if); solve problems with one unknown using algebra, logic, and empiricism; form relationships out of variables; use terms such as if . . . then, thus, therefore, because; favor correct scientific solutions. Task: The general left hand distributive relation is $x * (y + z) = (x * y) + (x * z)$ Also: seeks causes and solves problems based on one input (causal) variable; reflects dogmatism; accepts feedback only from objectively acknowledged masters; uses longer-term thinking to achieve results.
11	Systematic	Construct multivariate systems and matrices, coordinate more than one variable as input; situate events and ideas in a larger context, i.e., considers relationships in contexts (e.g., present and historical); form or conceive systems out of relations: legal, societal, corporate, economic, national. Task: The right hand distribution law is not true for numbers but is true for proportions and sets. $x + (y * z) = (x * y) + (x * z)$ $x \cup (y \cap z) = (x \cup y) \cap (x \cup z)$ *Symbols:* $\cup$ = union (total elements); $\cap$ = intersection (overlap, elements in common) Also: Constructs higher level abstractions (e.g., "transparency," "accountability," "legitimation"); exhibits relativism while juxtaposing multiple relations; inclines toward infrequent judgment of others; starts to recognize self as system.

Note: From "Applying the model of hierarchical complexity" (pp. 61-62), M. L. Commons, J. A. Rodriguez, P. M. Miller, S. N. Ross, A. Locicero, E. A. Goodheart, and D. Danaher-Gilpin, 2007, Cambridge, MA: Dare Association, Inc. Copyright 1991-2007 by Dare Association, Inc. Adapted with permission.

A Developmental Trajectory of Examples

To provide tangible contexts for how dual motives manifest in social processes and systems, the examples below illustrate their developmental progressions of increasing hierarchical complexity. The first sections illustrate how dual motives play out in simple societies scored at the concrete stage. The next sections illustrate more complex behaviors and social systems, first at the abstract stage and then at the formal stage. The progression indicates what people and groups do to adapt and meet changing basic needs. Hierarchical complexity accounts for the differences in how the dual motives of self-interested ego and other-oriented empathy can be seen to play out in these social systems.

Figure 1 serves as an orienting framework for the progression to increasing social complexity covered in the examples, portraying both horizontal and vertical systems of social ties. The vertical layers indicate that patrons, themselves, are clients of the next higher layer. Figure 1 emphasizes this analytical insight because it is crucial for understanding political economies: dual motives manifest in the same person or entity *differently* because dual social roles are played. The vertical layers indicate that an intermediary brokerage role develops between patrons and their clients. As the examples narrated below become more complex, they are accompanied by more discussion to explain and highlight key features. Indicated but not discussed is the effect of squeezing lower level networks out of the mainstream (but see Ross, 2006). A summary of the most relevant analytic features is provided after the progressive presentation of examples is completed.

Key to Figure 1.

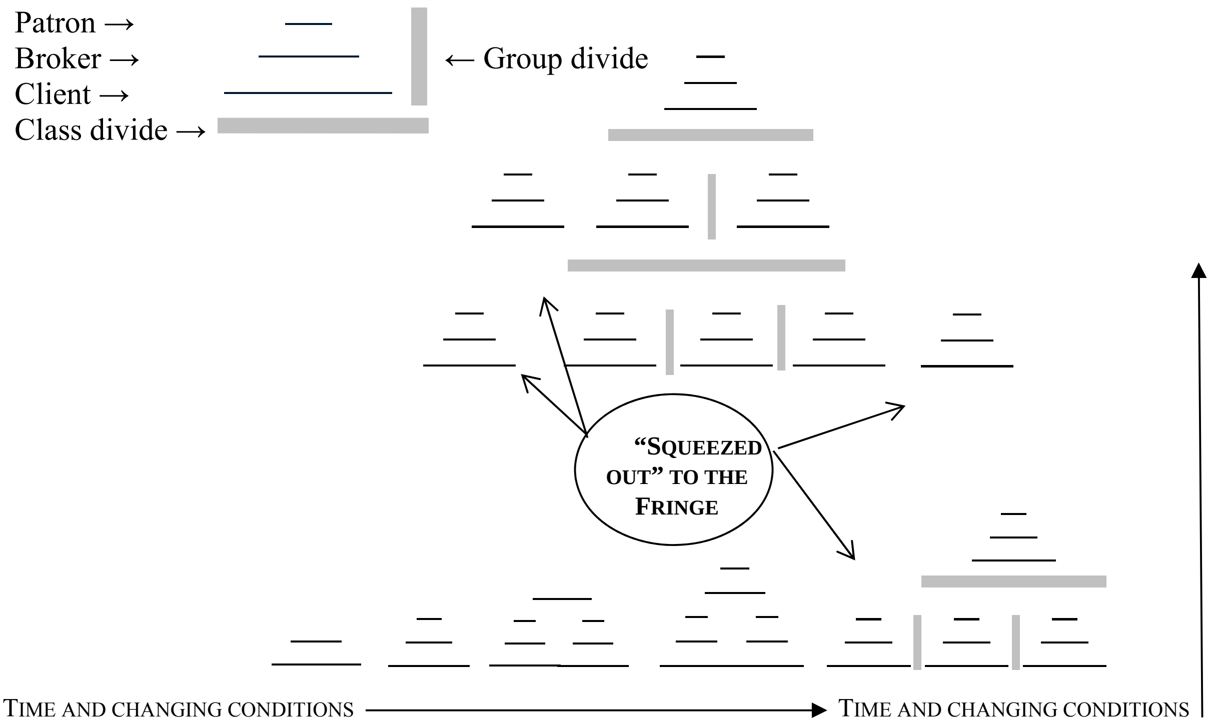

Patron →
Broker →
Client →
Class divide →
← Group divide
"SQUEEZED OUT" TO THE FRINGE
TIME AND CHANGING CONDITIONS
TIME AND CHANGING CONDITIONS

Figure 1. Evolution of social complexity: Latticeworks of Dual Motive Relationships

Survival and Safety: Concrete Behavioral Tasks Exhibit Ego and Empathy

A small family or tribal group or village society characterized by simple, sequential reasoning illustrates the roots of ego-empathy power relations and human tendencies to socially organize around meeting the demands of dual motives. Lutz's (1988/1998) ethnography of the Micronesian Ifaluk indicates that Ifaluk claims of *justifiable anger* are the real indicator of power relations and the core moral code of that society. Lutz's case shows how concrete stage reasoning balances ego-empathy behavioral tensions.

In Ifaluk society, where dangers are daily concerns, the norm of calm, nurturing behavior helps ensure that people (a) do not frighten one another, which would add stress to their already stressful subsistence conditions, (b) live the norm of caring for each other, and (c) feel secure in relationship-attachments that otherwise feel at risk of loss (Lutz, 1988/1998). While Ifaluk portrayed care and nurture as "mature and altruistic," Lutz had another observation: that care of the needy (e.g., those without kin) "allows for and legitimates control over the needy person….. [if denied] the opportunity of caring for others, they are unable to control others, and in being unable to do so, they cannot command respect, which has both socioemotional and more tangible rewards" (p. 142).

The script that plays out in everyday Ifaluk life when justifiable anger is expressed (Lutz, 1988/1998) reflects ego and empathy oscillations of dual motives. An objectionable action is performed by person 1, evoking expression of justifiable anger by person 2; thus chastised, person 1 is expected to become "fearful/anxious" (p. 175) and the expected conformity with harmony is restored with each person's status, at that time, clarified in the process. Person 2 demanded respect in reaction to the behavior and person 1 accommodated. Lutz observes that such daily occurrences are "like a red flag, marking the form of, and fissures in, Ifaluk sociopolitical structures" (p. 174); in Cory's terms, these are the behavioral tensions of daily life. Lutz reports that in most cases, such interchanges reflect the social hierarchy by the downward direction of the flow of justifiable anger from one who is older or otherwise of higher status to one who has lower status. Thus, the social system's equilibrium is under constant maintenance, in effect by every member in the system as he or she performs a norm-dictated role.

More Concrete Transactions: A Precursor Form of Patron-Client Systems

Various kinds of small social systems display the roots of later, more explicit forms of patronage. Anthropologists identify different social structures in lineage descent and bilateral kinship groups in peasant villages. A model for the social structure of the dyadic contract in peasant villages shows a precursor form of patronage.

Foster's (1977) model proposes that in societies with structural features similar to peasant villages such as Tzintzuntzan, Mexico, where residents share the same socio-economic status, that "every adult" develops informal but real contractual relationships with contacts beyond the immediate family (p. 16). Sometimes called *compadrazgo*, referring to god-parent (compadre) relationships in Catholicized areas, the dyadic relations go beyond the godparent role and can include siblings, neighbors, and friends. There are two distinct forms these contracts take, both based on reciprocal relations, and we can image them together as forming a social latticework with both horizontal and vertical dimensions: this latticework appears throughout the remaining analyses here. Foster's analysis focuses specifically on the first of the two dynamics; later sections of this paper discuss forms of the second dynamic via separate cases.

The symmetrical contracts Foster examines most closely are made between socio-economic equals, whether of the same village or another. The reciprocal exchanges of goods and services are complementary by virtue of being basically the same over time, and are "continually exchanged" as the "glue that holds his [sic] society together and the grease that smoothes its running" (pp. 17-18). For the adult, these exchanges link the institutions of family, compadrazgo, and neighbors and friends into a coherent social world, and to the observer, that social world is a crisscrossed network of many linkages and many individual nodes. Foster found that "no two people have the same combination of compadres" (p. 22), as is the nature of dyads (Lande, 1977). A key characteristic of these contracts is that they represent the solidity of the relationship, and while they are in effect, they never balance out to zero. In bookkeeping terms,

> A functional requirement of the system is that an exactly even balance between two partners never be struck. This would jeopardize the whole relationship…the contract would cease to exist….The dyadic contract is effective precisely because partners are never quite sure of their relative positions at a given moment. As long as they know that goods and services are flowing both ways in roughly equal amounts over time, they know their relationship is solidly based. (Foster, 1977, p. 23)

The overall social stability of such peasant villages is due to the thoroughly embedded symmetrical dyads. Because such communities' inhabitants share the same socio-economic status, there are no factions, no divisive dynamics. Foster explains that villagers tend to be distrustful, suspicious, and back-stabbing toward their neighbors, and attempt to diminish any who gets ahead. The result is that they are "reluctant to join in cooperative enterprises of any kind" (p. 20), and they resisted all previous "outside attempts to stimulate cooperative action for community improve[ment]. People consistently are reluctant to work with others toward group goals" (p. 27). Thus, when a society is so thoroughly constructed as a network of dyadic relations, where no two people have the same compadres, nothing concrete arises for people to set themselves for or against that would otherwise result in factions. Such communities are striking examples, then, of humans constructing very stable, resistant-to-change social systems, where subsistence, security, and social nurturing needs appear to be adequately met within the system. The village bickering and backstabbing, conflictual dynamics offer the behavioral tension-releasing side of the reciprocity-power relations dyad. This form of managing dual motives appears adequate to meet individuals' needs at the concrete operational level. It results in mild degrees of interior and exterior tension.

Since the remainder of this paper focuses primarily on the asymmetric and vertical patron-client relations, it is important to underscore that this horizontal lattice of social networking comprised of dyadic relations is concurrent and also serves the vertical relations in various ways, some of which will be highlighted. The first way it serves them, of course, is by being a prototype for the vertical contracts, and secondly, they form a broad firm base of reliance on the higher social layer of patrons and brokers. Such horizontal relationships are means by which humans survive when societies sever or do not construct a social contract with their members.

This is the underbelly of developed societies, and in Figure 1 is represented by those systems that have slid out from under—or been squeezed out of—the main social structures, to the fringes of society.

Early Forms of Patron-Client Systems: Big-Men, Chiefdom, and Feudal Societies

Asymmetrical contracts are qualitatively different because the two parties have different socio-economic statuses and exchange non-complementary goods and services that are different in nature from one party to the other (Auyero, 2000; Foster, 1977). These represent the patron-client relationship. The flow of exchanges always takes place over time as an inherent feature of the social structure, but "it is difficult and sometimes impossible to strike an equivalence in time and monetary value" (Foster, p. 17). This discussion combines several societal forms that develop from different trajectories, times, and places, because they derive from the same levels of hierarchical complexity and illustrate common functions and relationships—including those evident in the highest reaches of today's advanced societies.

As societies become more complex, the layers of explicit stratification grow. Where the Ifaluk had two distinct layers, the people and the chiefs, more complex societies generally evidence four: the immediate household, a cluster of patrilinear households, clan, and local geographic group (Johnson & Earle, 2000). Now the social layers and scales appear clearly, each having horizontal and vertical networks that could be imaged as a four-dimensional social latticework that expands and evolves over time. From this village level of organization spring the dynamics of competition for leadership and status, and needs for representation with outsiders and early forms of political economy (Johnson & Earle, 2000).

In kinship groups the whole organization of society is oriented to the corporate group and maintaining exchange networks to furnish basic needs (Johnson & Earle, 2000). As circumstances and needs dictate that exchanges must be sought with outsiders, chiefs of kinship groups become the first patrons to study. The social systems and their assumptions generated by humans operating at this concrete stage of development will demonstrate, below, the progression to domination/submission as tensions between reciprocity and self-interest move further out of balance between the poles in dual motive theory's algorithms. Through this focus on big men, chiefs, and feudal lords emerge stark looks at the patron's needs and function, the development of factions, an introduction to the context of brokerage, and the needs of clients. These elements construct a picture like an x-ray by which to gaze at the skeleton of contemporary social structures, including those that support corruption.

Patrons by definition must have resources to provide their clients—the group—and those resources introduce new social classes of haves and have-nots. Such a chief needs to create the institution of political power that kinship groupings lack, a radical transformation of the societal structure involving new leader-follower and in-group, out-group classes (Johnson & Earle, 2000; Sahlins, 1977; Wolf, 1982/1997). He can do this only by developing "new political instruments of domination" that guarantee him "independent power over resources," and the redirection of some of the social labor under his control is the mechanism available (Wolf, p. 99). The exploitation inherent in this mode of production is starkly evident as the big-man stockpiles a "fund of power" (Malinowski, as quoted in Sahlins, 1977, p. 223) and creates and exploits relations to "give him leverage on other's production and the ability to siphon off an excess product—or sometimes he can cut down their consumption in the interest of the siphon" (Sahlins, 1977, p. 223). Stemming from inhabited environment and whether a society is pastoral, horticultural, or coastal, the resources and surpluses that big-man leadership controls may be primarily defensive or economic in nature (Johnson & Earle, 2000) but the extraction dynamics that develop are found in those big-man polities that are "well delineated" (Sahlins, 1977, p. 224).

It has been observed that followers' compliance is a result of relationship-specific motivations in connection with the leader (Pospisil, as cited in Sahlins, 1977). Sahlins takes the systemic analysis deeper, citing an inevitable contradiction embedded in the relationship. The *initial* reciprocal relationship between the leader and each of his factional followers (discussed below) has the general asymmetrical structure of patronage. As it becomes complicated by the demands of keeping resources flowing and of increasing power and renown, the structure begins to feed on itself to keep the cycle intact. This classic pattern merits Sahlin's own words.

> Here it is important that not merely his own status, but the standing and perhaps military security of his people depend on the big-mans' achievements in public distribution. Established at the head of a sizeable faction, a center-man comes under increasing pressure to extract goods from his followers, to delay reciprocities owing them, and to deflect incoming goods back into external circulation [rather than to immediate followers]. Success in competition with other big-men particularly undermines internal-factional reciprocities: such success is precisely measurable by the ability to give outsiders more than they can possibly reciprocate…. Some center-men appear more able than others to dam the inevitable tide of discontent that mounts within their factions…. But paradoxically the ultimate defense of the center-man's position is some slackening of his drive to enlarge the funds of power. The alternative is much worse [and is illustrated by his subsequent list of sometimes gruesome consequences captured in the anthropological record]. (pp. 223-224)

In a similar way, feudal systems developed when kin group ties "proved inadequate" and were unequal rather than hierarchical structures, with "rigorous economic subjection of a host of humble folk to a few powerful men" (Bloch, 1961, p. 443). Bloch traces how feudalism in Europe—which existed elsewhere, e.g., Japan—was the result of the "violent dissolution of older societies" (p. 443). The record suggests people in feudal times demonstrate the same concrete reasoning structures as other early social systems, which may be an integral, contributing factor in the violent dissolutions. Violent concrete stage behaviors are also observable in contemporary times, whether in Somalia, Sudan, Iraq, Afghanistan, or in inner cities.

The tensions for the big-man, chief, and feudal lord systems arise from the conditions that gave rise to the structures themselves. As such leaders create and maintain a following, or faction, and engage their dealings with the environment outside that circle, they situate themselves in the tiny neck of an hourglass, with time and supplies always running out before the pole's demands must be filled, often from the same source it just supplied. Sahlins (1977) likens this inherent pressure on such a "center-man" to "a kind of two-sidedness in authority…a division of the big-man's field of influence into two distinct sectors" (p. 222). The smaller sector is the internal one comprised of personal followers, which Sahlins reports can number up to 80 in, for example, Melanesia. This is about the maximum size for concrete stage leadership to manage (M. Commons, 2005, personal communication). Big-man collectivities can range in size from 20 to 800, and chiefdoms communities from 200 to 500 (Johnson & Earle, 2000). The latticeworks of social pyramids enable larger populations to be coordinated.

From the realm of internal power over followers there is a "qualitative change" as the big-man turns outward to the larger "tribal galaxy" where not power but "only fame and indirect influence" (p. 222) are his tools to compete against other such leaders. The evolutionary dynamic of leaders rising to powerful positions in control of resources includes public vertical relationships beyond those found in family groupings. Big-men factions in large communities faced a pragmatic demand of dual motives to serve the sorts of functions discussed next.

The Appearance of the Brokerage Function

Warfare, leaders' extravagance, the exercise of powerful control, and new modes of production characterize these societies, but should not be a distraction from another important social structure that evolved as an integral part of those activities: brokerage rooted in the early factions that were the first public, vertical relationships. In both chiefdoms and feudal societies arise the early forms of brokerage, in the warrior elite (Johnson & Earle, 2000) of the former, and in the lords' knights, vassals, and tenants (Bloch, 1961) of the latter. Regardless of setting, the function of brokerage is to extend the reciprocal reach, influence, control, and power of the patron. The personal contact required at the developmental stage of concrete operations appears consistently throughout these different societal contexts and evolves naturally from factions to brokerage.

The roots of this function originate in the core need met in dyadic relationships: the concrete, face-to-face contact with the other party to the agreement. This connective function is essential since, outside of periodic public performances, the leader cannot be everywhere at once and needs surrogate functions performed by his followers. The chain of vertical relationships can take the form of a pyramid, where each follower develops a layer of followers beneath him that extends his reach in passing resources up and down the social and economic ladder (e.g., Schmidt, 1977). At each layer, the face-to-face contact serves as the social glue. Brokers have a clientage relationship with their patron, and a patronage relationship with their clients, forming the basic building block of the pyramid structure in Figure 2: "Thus the patron-broker-client network pyramid is created by the stacking up and combining of many dyadic patron-client networks" (Schmidt, 1977, p. 306). Depending on population size and its needs, and the locus and distance of resources to meet those needs, the pyramid rises into higher social levels comprised of the same patron-broker-client building block.

Formal Government Program, Abstract Leadership, and Concrete Followership

Once brokerage's systemic function became more widely studied through accruing case studies of more complex societies, the term *clientelism* developed as a general way to refer to the social structure of patron-broker-client (Scott, 1977). When this structure operates in the context of political parties—as it seems to always do, although also in other contexts—it is called *political clientelism*. Auyero (2000) adopts the term "*personalized political mediation*" (p. 26, emphasis in the original) to highlight the functions of "problem-solving networks" among the poor, "the *microphysics of politics*" (p. 24, emphasis added). As this case indicates, that microphysics is thoroughly economic as well.

The barest essential features of this microphysics are: (1) the thorough embeddedness of clientelism in socio-political life; (2) how clientelism derives from concrete and abstract stage behaviors and affects individual and collective development; and, (3) how the norm of reciprocity manifests in the economic relations and transactions. These are organic system dynamics that illuminate ego-empathy behavioral tensions. The presentation of an Argentine shantytown case takes the form of a summary of the clientelist practices and graphic images of the complex networks of actors' dual motives therein.

Before illustrating the clientelist structure Auyero describes, the narrative in this section sketches primary features of his network findings, with occasional bracketed supplements of my own.

1. Around each person in a leadership role there is an inner circle or faction characterized by intense, frequent personal relationships. Depending on the leader, family members may be active participants in the faction. Ties between the leader and members of the inner circle are thus fictive kinship if not blood kinship in nature. The leader of a faction has a dyadic patronage relationship with the clients—"personal satellites" (Sahlins, 1977, as quoted in Auyero, p. 91) —who are in this inner circle (and familial relationships may co-exist with it). The degree and nature of personal contact correlates with the leader's influence. People performing top-of-the-pyramid functions have a circle of closer contacts than those performing mid- or bottom-of-the-pyramid functions with less intense but nonetheless face-to-face dyadic contacts. This core feature results in vertical networks of relationships. Members of a leader's inner circle do not compete with each other unless their self-interests are at stake in a particular situation. Note that leaders of different factions on each socio-political scale of influence comprise an elite at each scale. This results in horizontal elite networks.

2. Each person in the inner circle depends in some way upon the leader's patronage and serves the leader's needs in degrees that depend on the leader's span of influence and the nature of activities chosen to promote it. In order to serve the leader's needs and (conscious or unconscious) self-interests that can be served by doing so, each factional member develops and maintains a factional inner circle of his/her own. Note that this results in an elite at a lower social scale, another horizontal network.

3. Means of being accessible to and attracting more clients are essential, and take various forms, because they serve as the infrastructure of the clientelist pyramid that conducts the flows of resources and services. Local base units (*Unidad Basica,* or UB, in Villa Paraiso; precinct or ward in the U.S.) provide physical location for face-to-face client contact, just as do regular visiting hours or soup kitchens conducted in a broker's home.

The opening of new physical locations is a means of creating or expanding territory to increase a base of political power.

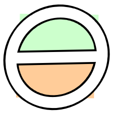
4. To gain and remain in a brokerage position, the two central functions of "gatekeeping and information hoarding" (p. 96) are essential. Since the flow of goods and services down to clients correlates directly with the volume of services received from clients, strategies include both obstructing and facilitating flows to certain constituencies. Public service and other information is funneled through elites to pass down to their followings; the more vital the information that is hoarded (e.g., dates for periodic distributions of specific food rations), the more dependency that is created.

5. Horizontal family and neighborhood networks reciprocate in serving poor persons' survival needs. Members of these informal networks may be clients of different brokers (defined above as a patron from the client perspective). Additional horizontal networks develop and overlap among people at various social scales as high-level patrons' diverse activities are furthered by numerous members of inner circles at the different social scales. These overlapping relationships at scales from bottom to top comprise multiple sets of dual motives' problem-solving network, the structure of political clientelism.

6. There are gangs outside of the network that people in the networked system look down upon and are fearful of.

The clientelist system of problem solving is comprised of these core features, at minimum. Fractal-like, factional circles form around elites at each social scale, resulting in multiple pyramids of localized influence. Each node in the network strengthens both horizontal and vertical ties, which satisfy as many subjectively defined core needs as humans have been able to devise to do so. The following two graphic illustrations together portray the overlapping vertical and horizontal networks evident in this case. Figure 2 presents the pyramidal structure of the Para Vida program (which seems representative of state-level social welfare programs in general), and Figure 3 shows the functions for handing resources up and down the pyramidal structure in a depiction of the shantytown's network of vertical relationships. These are comprised of roles for individuals and organized entities such as brokers' community centers, indicated as "UBs."

Key to Figures 2 and 3: The dual-colored circle is used to represent dual roles as patron and client within a larger system. The circle may stand for an individual, group, or organized entity that has dual roles. The green half is positioned in the figures to indicate the receiving role of a client in the network system. The orange half is positioned to indicate the delivering role of a patron in the network system.



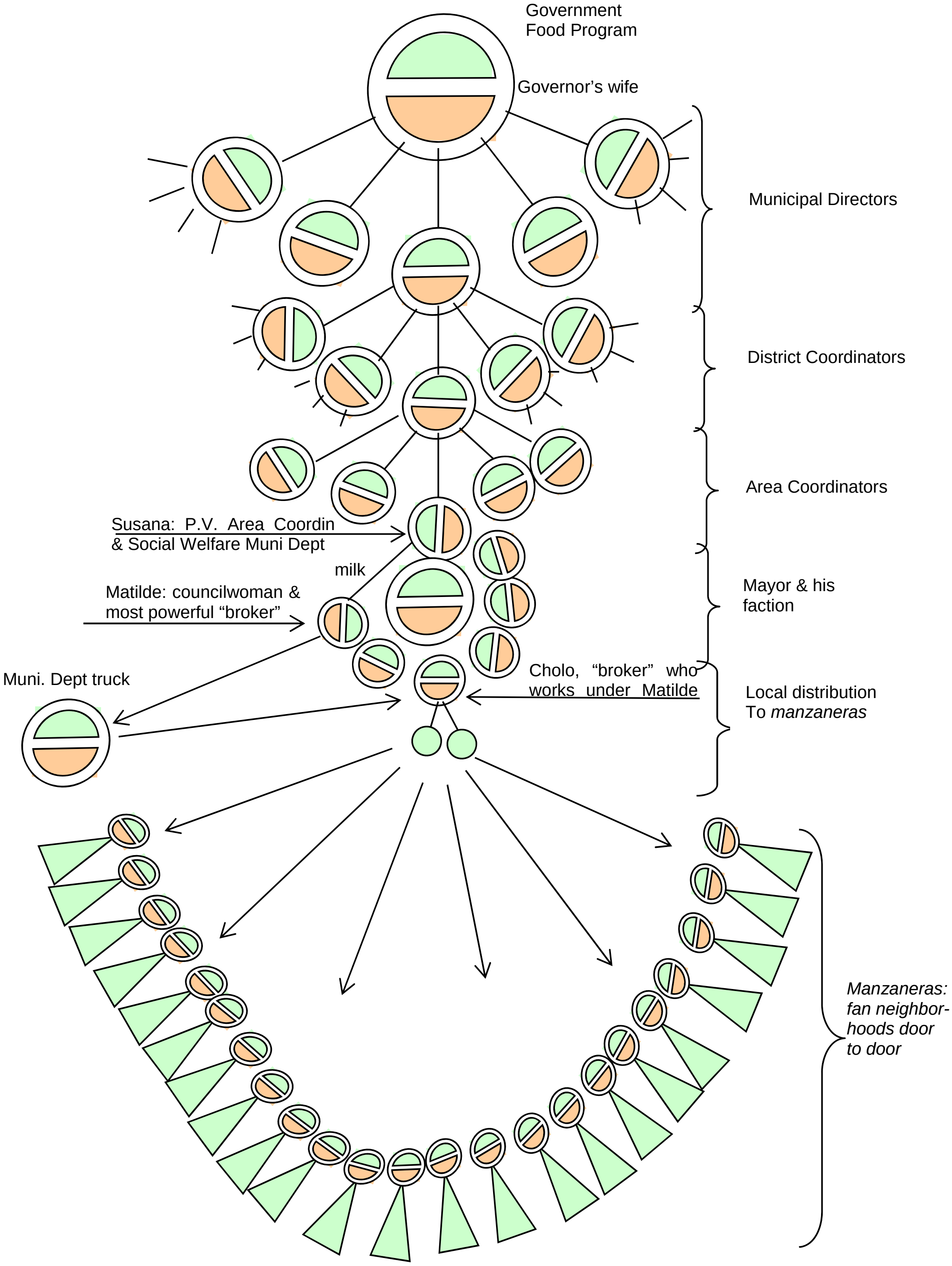

Government
Food Program
Governor's wife
Municipal Directors
District Coordinators
Area Coordinators
Susana: P.V. Area Coordin
& Social Welfare Muni Dept
milk
Matilde: councilwoman &
most powerful "broker"
Mayor & his
faction
Muni. Dept truck
Cholo, "broker" who
works under Matilde
Local distribution
To *manzaneras*
Manzaneras:
fan neighbor-
hoods door
to door

Figure 2. A Partial Representation of the pyramidal structure of the Para Vida food

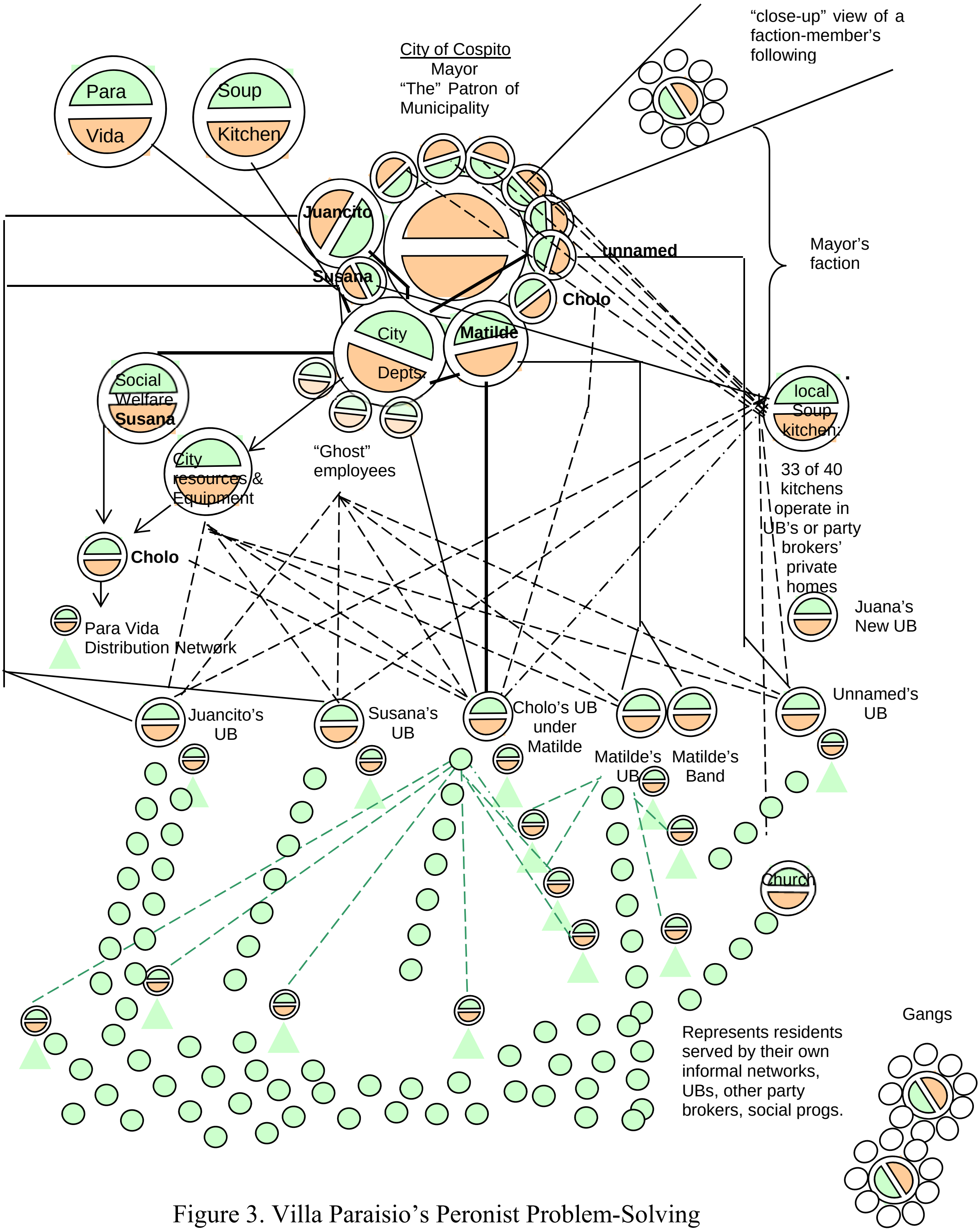

"close-up" view of a faction-member's following
City of Cospito
Mayor
"The" Patron of Municipality
Para
Vida
Soup
Kitchen
Juancito
Susana
unnamed
Cholo
Mayor's faction
City
Depts.
Matilde
Social Welfare
Susana
local Soup kitchen:
33 of 40 kitchens operate in UB's or party brokers' private homes
City resources & Equipment
"Ghost" employees
Cholo
Para Vida Distribution Network
Juana's New UB
Juancito's UB
Susana's UB
Cholo's UB under Matilde
Matilde's UB
Matilde's Band
Unnamed's UB
Church
Gangs
Represents residents served by their own informal networks, UBs, other party brokers, social progs.

Figure 3. Villa Paraisio's Peronist Problem-Solving

Political Clientelism: Developmental Shape-Shifting

As living systems, humans' social system dynamics adapt organically to changes in the environment, while retaining earlier capabilities that may be important insurance if the environment reverts to previous conditions. When conditions make it feasible, it is more efficient, productive, and satisfying to adopt new ways of relating and conducting transactions that replace earlier modes. Komito (1985) investigated how Dublin residents manage to acquire needed resources, especially those available from state agencies, and "traced the exchanges between voter, politician, and bureaucrat that revolve around public needs" (p. vi). He found that information needs outweigh material needs, while also identifying where the state has failed the social contract to assure the poor's basic needs are met. He found that

> Irish clientelism is no less significant for this lack of material exchange. Clientelism provides voters with a personal and moral link with the state and so maintains support for the existing political and administrative structure. It compensates for the relative impersonalism of universalistic values by infusing exchanges with personalistic qualities of trust and solidarity. Finally, this study shows the importance of information as a brokerage resource. The structures and procedures of the state bureaucracy prevent the public from having access to information about state benefits. This closed bureaucratic system makes information a valuable resource for politicians. (p. 163)

From the top to the bottom, "an Irish political party is a pyramid of patron-client links" (p. 62). The needs of the politicians at the apex of a party pyramid are concerned with recruiting and maintaining "allies" (p. 61) and clients to buffer threats from party conflict and competition at that level. Their patronage activity includes control of positions into which a lower level politician can be placed as a client that helps the senior member in various ways depending on the position (e.g., votes, interpersonal conflicts). The client's benefit is the acceleration in the climb through the party ranks. Each of the levels running from local up to national have characteristics of big-man societies in the cut-throat competition within each horizontal plane. At the local level the "zero-sum game" (p. 56) is characterized by such conflict.

> The conflict within the local party arena goes on all the time and is the reason why politicians are always attending party branch meetings; they want to keep things under control. The basic question of constituency politics is "whose man are you?" and it is impossible not to be somebody's man. There is no way to avoid local factional conflicts; one must be aligned to someone. Local branch politics do not permit a person to be neutral; if he tried to be, he would simply be trusted by no one. (p. 58)

Brokering With the Public. Expectations of brokerage services are linked with socio-economic class *origin* rather than current status. He found "socialization has a lasting influence on *beliefs* regarding politicians' roles as brokers, which is not altered by subsequent changes in socio-economic circumstances… [to the contrary] current class status, rather than class origin, determines brokerage *strategies*" (p. 82, emphasis added). The personal contact that characterizes the local politician's dyadic relation with a citizen results in a patron-client relation at the dyadic level with a brokerage function at the systemic level. The politician's big-man party behavior transforms into that of a kindly, attentive, and patronly figure when nurturing relations with potential voters. In Dublin, the transaction *content* is that of information and services from the patron role, rather than provisions of sustenance needs and other material goods, or personally hiring a client to obtain services from him/her. Further, the information and services are public in nature. Komito observes that "Irish politics appears dominated by the 'privatization' of public goods: politicians provide (or appear to provide) government services to voters who, in exchange, become their clients" (p. 103).

However, politicians assume that many clients shop around for the best bargain available among nearby politicians, and further, they have no way of knowing if a client actually casts a vote for them. Their attempts to cultivate connections with individuals are designed to "create the aura of a special personal relationship [that will] engender a sense of moral obligation on the part of the voter, who will reciprocate at election day" (p. 102).

The Role of Bureaucracy. Since there is no guarantee of payoff from helping clients, politicians use their knowledge of the system and social programs to write to or contact appropriate officials, often impressing clients with their ability to get results: "They exaggerate their influence over state services in order to make a greater moral claim on voters' support. [They] encourage voters' dependency, and make little attempt to disabuse them of their beliefs in the efficacy of brokerage" (Komito, 1985, p. 112). Those beliefs play a role in the endurance of brokerage. In behavior analysis, the delivery of reinforcement independent of behavior produces extremely strong responding. The fact of the non-contingent nature makes the behavior quite independent of the consequences; this fosters superstition (M. Commons, personal communication, June 2005).

A multi-leveled look at the Irish bureaucracy's entrenchment as a barrier of "distrust and anonymity" (p. 147) between its servants and the public indicates that the "administrative system operates to restrict information to a very few people" and results in giving politicians "control over these resources of access, information, and influence" (p. 114), thus, "instead of reciprocal rights and duties, the welfare scheme becomes authoritarian; the official makes any decision he wants and the applicant is dependent on his magnanimity" (p. 115).

The Abstract/Formal Mixture of Dublin Clientelism. The Dublin study describes a stable social system operating at a level above that of traditional clientelist forms that meet daily subsistence needs. It provides an important look at the interacting dimensions of culture, structure, and individual needs and capacities that make Dublin clientelism, at the time of the study, a durable, closed system. Clientelist behaviors are integral to the lives of a significant portion of the population. At the core of the system are its institutionalized structural supports. At this abstract/formal stage mixture of social development, the presence of an impersonal, inefficiently layered bureaucratic structure both makes possible the social contract constituents need and also blocks not only access to its benefits but also their continuing need for concrete, dyadic personal contacts as they navigate their lives. The hierarchically rigid, procedural-bound civil service is the perfect environment for the conventional, abstract reasoning of the career bureaucrats trained into the system. In their isolation, the only needs that are concrete to them are their own and that of preserving the status quo.

In this system, politicians "are forced" (p. 106) to create as many personal links as possible to get votes to beat intra-party competition. Politicians' efforts to build wide horizontal networks through their close followers and community clients are required by the pyramidal patronage form and function of the party that forces them into the community and its needed brokerage roles to survive as politicians. The civil service and party structures are both products and agents of the cultures that shape them and the different actors' needs within and without.

Komito mentions only tangentially a crucial dimension in socio-economic behavior analysis: those citizens whose status or capacities result in low levels of contact with government services. When they need services, they rely more upon their contacts with family, friends, neighbors who are officials, and occasionally politicians, because the system does not "work" for them, either. Political clientelism operates at a social level beyond the very poor's daily subsistence needs.

> To some extent, clientelism is a formalized preference for dealing with friends. Personal contacts are formalized throughout Irish society…. There is, in Ireland, a "tendency to operate through personal contacts rather than through organizational procedures" (Pyne, 1974: 34) but the resource of "personal contacts" is unevenly distributed throughout the population. It is the unequal distribution of such contacts, due to economic and social differences, that is relevant. (p. 161)

Developmental Spectrum of Patronage and Clientelism in the U.S. System

U.S. cases provide a look at patronage and clientelism in political parties and Congress. These dynamics constitute the overall system. Periodic uproars over such unveilings as the Abromoff scandal and more recently, the U.S. Justice Department's firing of prosecutors suggest only the tips of ongoing patronage systems few seem to assume endure. Freedman (1994) acknowledges that, in the U.S., patronage is considered by many to be a largely bygone institution that no longer plays a meaningful role in U.S. politics. Her own and others' suspicions are that

> patronage is still a feature of the American political landscape. Unfortunately, with few exceptions, those who are in the know don't want to talk. Patronage has gone underground. No one wants to admit to a practice that bears the taint of corrupt machine politics. And, now that many forms of patronage have become illegal as a result of a series of laws and Supreme Court decisions, openly discussing patronage has become even more foolhardy. Probably because of the obstacles involved, the [U.S.] literature on patronage is quite sparse. (p. vii)

Whether or not patronage is viewed as tainted is a matter of perspective in the US and elsewhere. In 1990, the U.S. Supreme Court's majority ruled in the Rutan case that patronage, in the form of politically based hiring, was unconstitutional. Justice Scalia wrote in his dissent that patronage is a "venerable and accepted tradition" and "bears the endorsement of a long tradition of open, widespread, and unchallenged use that dates back to the beginning of the Republic" (Scalia, 1990, as quoted in Freedman, 1994, p. 8). The Rutan case and Freedman's usage of the term confine patronage to the rewarding of supporters with appointments to government jobs for partisan reasons. Indicative quotes below indicate the role of dual motives in the practice U.S. patronage.

> "You can't keep an organization together without patronage. Men ain't in politics for nothin'. They want to get somethin' out of it." (Plunkitt, Tammany Hall leader, in Riordon, 1963, as quoted in Freedman, p. 15)

> "You've got to have people in government who are politically smart. ... This means they have to understand that part of politics is the art of obligation." (Lindsay, late-60s New York mayor, in Tolchin & Tolchin, 1972, as quoted in Freedman, p. 25)
>
> "If we can't have fun by getting our side in, we shouldn't be a party to begin with …. I don't need the hassle of politics if I can't get my friends and children jobs." (Indiana politico, in 1990 *Indianapolis Star*, as quoted by Freedman, p. 82)

Clientelist structures enable dual motives to develop new forms of exchange for meeting new needs. As the environment allows some individuals' basic in-group identity and rule-bound (and thereby security) needs to be met sufficiently, ego needs for self-determination emerge as a natural course of development, and. their reasoning gradually develops the strategic capacities that reflect a formal, linear logic stage of hierarchical complexity. The time horizons incorporated into strategies become longer than could be considered earlier, and transactions can be conceived of as exchanges with a less concrete nature than jobs, although jobs continue to be a currency of exchange. While "individualist" is a label frequently applied to behaviors at this stage of hierarchical complexity, it emphasizes the ego-pole, masking the deeper needs still operating beneath the surface toward the empathy-pole. The empathy side is evidenced in behaviors that are still highly conventional, with the individuals attached to their identity with in-groups that may now be chosen for strategic purposes. The vertical patron-broker-client pyramid is a comfortably familiar structure where they know the ropes and the rules of the game and can enact their hero's journey" up the organizational ladders and across the horizontal networks of the political and business playing fields. At this stage, there is no desire to change the structure; rather, due to its familiarity, it can be "worked" to advantage. At this stage, there is savvy aplenty to launder the transactions by whichever currency of exchange will seal the deal.

In all too frequent error, the individualistic side of the human coin at this stage is mistaken *as* the coin. This may be the chief reason that the scale of systemic patronage and clientelism in the higher reaches of U.S. and other Western institutions go mostly unrecognized for what they really are. And too often, the *corruption* label artificially detaches acts and their actors from the systemic cord that traverses an entire network of exchanges, like the Peronist problem-solving network represented in Figures 2 and 3 that suggest the hierarchical skeleton of social structures that are innate at several levels of human development.

Based on humans' evolutionary trajectory to date, it is evident that they have a "predisposition for hierarchically structured social and political systems" (Somit & Peterson, 1997, as cited in Cory, 2004, p. 26). Most social structures are the linear ones inherent in hierarchical organization. This tendency can be accounted for in a number of ways; for simplicity here, I select three related factors. The socio-cultural evolutionary path traced in this paper demonstrates that humans build on and modify their social systems in the course of adapting to changes in the environment, retaining successful ways of relating and creating new ones. Thus, ancient patterns are carried forward as long as they continue to work the way the user needs them to work. From the developmental perspective, the imaginative and logical capacity available to create new ways of relating is limited (and conversely, expanded) by the structures of reasoning people have managed to develop in their socio-cultural context. Finally, the bioneurological dimension plays a dynamic role in how humans interact within the social systems they create.

An integration of these three dimensions can explicate the polarity of ego and empathy in the widespread strategic-individualistic stage of hierarchical complexity, the formal logic of rational choice agents. The idea of the rational choice agent appears not only in political science but also in economics. Cory's critique of prevailing economic theory is at the same time a critique of this prevailing idea, because economic assumptions have been based on it. He explicates the "logical fallacy" (p. 80) and its shortfalls, essential in understanding political economies of corruption.

> The confounding of *self-reference* with *self-interest* is, in fact, a fundamental fallacy of the entire traditional economic approach. The fallacy allows the subsuming of all motives under the rubric of self-interest and obscures the roughly equal role of empathy. Taking the individual as the starting point, microeconomic theory [and often, political theory] mistakenly *transforms* this individual or self-referential *perspective* into an all-inclusive *motive* of self-interest. From this logically unwarranted transformation any other motive is, thus, obscured or swallowed up in self-interest. Therefore empathy—and its derivatives of cooperation and altruism, even love—cannot be considered true motives. They must, therefore, be trivialized as tastes or preferences indistinguishable in significance from such banalities as coffee, tea, or milk. But as we saw . . . under the sweeping searchlight of the social brain dynamic, the hidden duality of ego and empathy is revealed in every demand curve [domination] and supply curve [submission], especially when both are combined to show price [social-political] equilibrium. The dual roles are always present implicitly if not explicitly. The supplier performs the empathetic role; the demander performs the egoistic role. (p. 80)

One pitfall of such assumptions is misapprehending the real nature of human transactions. However, it is possible to develop a more realistic understanding of agents' behaviors. For example, the transaction between a client and broker can look like power/ego in the broker prevailing over powerless-need/empathy in the client. The lens can simultaneously view the supply/empathy in the broker and the demand/ego in the client. Herein may lie the secret of the social system's stability, stable as long as it "feeds the balance" of each transaction-party's poles in sufficient degrees to keep them in the system. And they are locked in the system, from their perspective, when no alternative exists.

A hierarchical structure affords a comfortable operating environment for many individualistic persons because it supplies the demands of both ego and empathy poles in an extremely stable fashion. Especially initially, the goals and challenges such persons set for themselves in work and social environments tend to stretch the ego's confidence as it launches out on its own. There is ballast, though, in the in-group(s) of chosen association, like a safe harbor to return to, and this anchoring in a preferred group is characteristic of these individuals. As confidence and experience grow, such people are often viewed as being in their prime, taking leadership roles of various kinds, strategizing and making deals that make things happen in the orbit they have constructed for themselves within the larger system, whatever it is.

In relating with a patron, the individualistic client both supplies the patron with service of some kind (empathy) and demands from the patron an exchange of some kind (ego). The reverse is true for the patron. Later, when that client operates in a patron (or boss) role toward his or her own client(s) (or subordinates), the donned ego role of patron can directly balance the donned empathy role of client the person plays with his or her own patron. The system acts as an external and internal stabilizer as humans meet their diverse needs. The human actors' interactions are the homeostatic regulator in the social system. Finally, the needs of the strongly individualistic person are "weighted" on the ego side of the spectrum *because* the developmental challenge at that stage *is* to strengthen the ego beyond its conventional operations. Yet, as Cory asserts, there are inherent balancing dynamics with empathy, and the foregoing suggest the diverse ways that an individualistic person can perform within a hierarchical system, such as the U.S. Congress, to which this discussion now turns.

The Tribes on the Hill

Weatherford (1985) initially expected that this anthropological study would enable him to do comparative analyses between Congress and such legislatures as Germany's Bundestag, Iceland's Althing, or the then-USSR's Supreme Soviet. He found that modern parliaments had little comparative basis with Congress. Instead, he realized the daily congressional activity was "better explained by the practices" of tribes in Venezuela, the Amazon Basin, or New Guinea, and he "saw more parallels, contrasts, and analogies with the ancient Aztecs, the Byzantines, or the Pygmies" than with those other parliaments he'd hoped to compare (p. xiii). The Congress does not fit a feudal model because the power pyramid is not fixed and stable, but shifts with the results of elections, parties and leaders in power at different times. The veneer of democracy lends itself to masking the institutionalization of nondemocratic practices in the halls of power. Further, climbing the ladder of success and power in Congress is not based on a bureaucratic seniority sequence, but "depends more on the individual initiative, skill, and plain luck of the politician." ... "Yet the hallowed principle of seniority still plays a significant, if not determining, part in the process" (p. 26).

Once a member of Congress has succeeded in the clan-building process, the parent clan sends its offspring into the spaghetti-weave, through the institutions beyond Congress to solidify the political base. Such subclans "enhance the daily operational power of the parent clan on the Hill, but at the same time they offer a long-term insurance against sudden death and destruction to the parent clan in times of political plague" (p. 86). The array of subclans belonging to parents under the roof of Congress "form the network base around which government operates ... [by] crosscutting the formal organization of government departments, political parties, and lobbies" (p. 86). Infiltrating the bureaucracy is a prime objective, and patronage networks facilitate getting subclan staff hired, who gain tenure and power in those civil service roles.

The bureaucracy's pyramids shift in power in ways similar to that of Congress, since congressional big-men reorganize departments when they take over from the previous party or big-man. Also responsible for reorganization are presidential appointees: the President has a total "patronage universe" of about 6,000 positions (Patterson, 1988, as quoted in Freedman, 1994, p. 21). Weatherford's study of the federal bureaucracy led him to the conclusion that the redundancy of bureaucratic operations is attributable to the congressional big-men's fetishes to be patrons of all possibly desired services for their constituencies.

> Even though Congress as a whole and congressmen as a group may exercise very little day-to-day power over the operation of the bureaucracy, individual congressmen do exercise that power through their private bureaucracies, their clans. Each Big Man runs his own separate part of the government as a sovereign, independent chief, but because Big

> Men do not interfere with the clan operations of other Big Men, and because the junior Congress members lack the power to interfere, the Congress as a whole has little means at its disposal to oversee the government. (p. 102)

Nor do congressional big-men want to incur debt to other big-men; the ego pole resists shifting too perilously close to that of a client. Weatherford studied how lobbyists come into use as brokers between big-men and their staffers, and the roles they play as "political surrogates" (p. 122) while big-men remain above the dirty fray. Lobbyists are, therefore, also clients of big-men, particularly when as ex-staffers they become lobbyists, only one of the mechanisms of clientelist politics in the U.S. Congress.

Apexes of Pyramidal Social Structures

From tracing dual motives to and beyond the national Congress level, the next step is to extend the horizon to higher-level institutions, formal and informal. From Mills' (1956) exposition to current events, it is evident that the horizon encompasses and integrates social, political, economic, and military domains, with dual motives' often incestuous relations among their elites via personal and institutional transactions. One cannot study any country's internal and external behaviors without encountering the myriad social systems that reflect dual motives at every scale. Parastatals, national governments, transnational corporations, and international institutions weave the same patterns across the international arena. Public-private partnerships rooted in meeting their parties' dual motives play out in such debacles as the United Nations Oil for Food program, U.S.-Halliburton et al.-Iraq (non)reconstruction, and the disappearance of billions of international development aid monies to governments worldwide. The social, political, and economic power wielded at these scales generally reflects strategic behaviors based on linear, formal logics of the tenth stage of hierarchical complexity.

As indicated in Table 1, formal logics develop from processing one input variable at a time, and arrive at well-justified conclusions based on the logic employed. The limitation of this order of complexity is that agents are unaware that there are multiple input variables to coordinate in any social, political, or economic transaction or decision. Generically, it can be said that the multiple other input variables are invisible at the formal stage, although they are omnipresent conditions in every social system in which transactions take place. As Guastello (2007) suggests, sensitivity to initial conditions influences decision paths and decision-making's results. Behaviors at the tenth order of hierarchical complexity are inherently less sensitive to initial conditions because it requires the next order of complexity, systematic stage reasoning, to develop matrices of relations.

Formal logic, as a structure of reasoning in an individual and as a characteristic of an organized system, reflects a sturdy equilibrium that is difficult to affect or change. The logics, though partial, are experienced as solid, hard-to-refute truths (in individuals) and "best practices" (in organized structures). Thus, there is an institutionalized equilibrium that represents a fundamental challenge for addressing such economic behaviors as corruption. Mills (1956) was convinced that "for every epoch and for every social structure, we must work out an answer to the question of the power of the elite" (p. 23). And to do that, we need to include the entire pyramidal structure on which they depend. From the elite top to the subsistence bottom, sturdy latticeworks of behavioral tensions ensure durable social systems that meet multileveled needs of many actors while ignoring the needs of many others.

Features in Political Economies of Corruption

A complete developmental analysis of political economies of corruption needs to include the intersection of individuals and groups with their institutional arrangements. Institutional arrangements include the stages of development evident in forms of government and other governance entities, political parties, ethnic relations, the formal and informal economies, rural-urban interfaces, historical trajectory, status of education, natural and other resources, influences of international players, e.g., structural adjustment policies—in other words, the meta-system comprised of numerous subsystems. With their emphasis on introducing a developmental application of dual motive theory, the foregoing examples omit discussion of many elements that would be necessary for a complete analysis. The following summary includes key features abstracted from the presented developmental progression of political economies at various stages of hierarchical complexity. It includes additional categories of hierarchical complexity (HC) of form of government and balance between formal/informal economy to flesh out features the examples could not develop (but see Ross & Commons, 2008; Ross, 2005, 2007).

Concrete Stage

Behaviors of social groupings dominated by subsistence concerns tend to be at the concrete stage. Concerns have short time horizons, accordingly. Reciprocal exchanges are concrete goods and services, and their timelines for performance may be immediate or considerably longer to keep the relationship active for future transactions. Leaders are either personally known or known of, and followership is based on patronage ties. Even where formal government has been introduced, its purpose or function is vague. In such cases, specific officials (e.g., a president or minister) essentially “are” the government. Roles are not distinguishable from the individuals who have roles. “Democracy” may mean getting a job, rather than have anything to do with government or elections. If election processes are introduced, the abstract concept of political party is meaningless; voters favor their tribal or ethnic group’s endorsee, their patrons, or their patrons’ patrons. Manual labor in the informal market is customary (agriculture, sewing/weaving, crafts and repairs, machine operation, drugs, arms, and slave trades). Poverty is common in subsistence-based social groupings, as are low levels of education. There are no concepts of formal contracts or title to goods; physical possession equals ownership. Social ties often dictate customers and vertical ties to brokers or patrons are common means to secure a place in the local market. As social complexity increases, people who perform at the concrete-stage tend to remain on the lowest levels (see Figure 1).

Abstract Stage

Leadership roles in concrete-stage social groupings tend to be held by those who can function at the abstract stage, usually due to having some education or native ability. Brokerage functions can be performed at the abstract stage, as can basic clerical tasks. Loyalties to leaders, parties, ethnic groups, and belief systems are strong. It is the norm to identify with and not question the group. There is an ability to manage multiple reciprocal relationships (i.e., a patron and multiple clients; associate with peer elites (a distinct group) even if they are from competing groups). Low level jobs in the formal economy or civil service are common at the abstract stage; labor unions and associations form at this stage. With structure and procedures provided, abstract stage includes loyal bureaucrats and teachers. Reciprocal exchanges are for concrete goods and services, with either immediate or deferred payoffs. In non-Western settings, abstract stage individuals are likely to associate with concrete-stage persons, often their clients, but abstract stage g*roups* are more likely to become an elite class, distanced from concrete-stage groups. Simple abstract concepts become accessible at this stage. For example, the concept of *role* is learned, such that people understand different individuals may fill and later leave the same role (e.g., boss, local priest, teacher, president). Abstract concepts cannot be compared or coordinated, however. Individual rules can be conceived of to accomplish a desired end, but the method to implement the rule cannot be conceived (although punishments for breaking rules come easily). A rule can be explained and followed. But any contradiction with a different rule or norm is not noticed. For example, a bureaucrat may be as faithful to the norm of charging bribes because that is the way things get done everywhere, as to the rule to be honest and give constituents fair and equal service. The legal purposes of government and elections are vague; simple concepts at this stage are "like" concrete things, unsupported assertions characterize speech, and there is no self-reflection.

Formal Stage

Characteristics of formal stage behaviors are apparent in individuals who are competent entrepreneurs and managers; they are more likely to be the population who enter the formal economy in non-Western settings. In Western settings, formal stage behaviors characterize a large majority, but they are minority behaviors in non-Western settings. Western structures of government or business derive from formal logic's reasoning. When they are imported to non-Western countries, there are few formal stage persons to understand how procedures are supposed to work or their underlying logic (e.g., separation of legal powers or separation of administrative duties). The new forms of government or business procedure provide new facades to which conventional behaviors of patronage and clientelism adapt and persist, usually more effectively because access to new resources is available. For example, the formal concept of employees on payroll is used to pass to clients, often as "ghost employees" who do not work for the government or business employer (e.g., see Figure 3). Bureaucracies grow huge when formal institutions and their resources are used "like" the tools of patrons and brokers in servicing clients' needs. Formal logics successfully develop formal roles and responsibilities. It can distinguish between a role in an employment setting, such as financial manager, and roles in non-employment settings (e.g., union member, family member). Because in-group ties are strong, it is often less successful distinguishing employment role from political party role. This is particularly true in the widespread practice of patronistic political appointments, where party loyalty can trump formal role responsibility. Formal stage logic successfully develops rules and methods to enforce them. People who use formal logic are very good at using rules to find or create loopholes that help them implement their strategies. Formal logic's focus on one linear sequence at a time means that it is not successful at foreseeing unintended consequences that are not already evident to it. For example, it is clever at "cooking the books" to hide bribes or the true nature of investments. It can manipulate a developing counties' lack of procedures for checks and balances to funnel cash to brokerage clients, loyal party supporters, and militants to buy services. But it is unable to imagine the perspectives of people who are not in the in-group or foresee the repercussions of actions taken on a wider band of society or the environment—or know why it should care. The tendency to favor the ego-pole in managing behavioral tensions leads to formal stage behaviors that do not coordinate ethics concerns in every self-serving equation. This contributes to double-standard behaviors or rationalizations that judge others for wrong behaviors even when the judge has done likewise. However, formal logic is the origin of concepts of rights, duties, corruption, equal protection, checks and balances, and other foundations that structure modern societies. Formal education through decent secondary schooling is usually the minimum requirement for development of formal stage reasoning.

Systematic Stage

The ability to coordinate multiple disparate relations among factors at this order of hierarchical complexity led to the development of higher level abstract concepts such as transparency, accountability, social justice, and sustainability. While such concepts have entered some mainstream vocabularies, these concepts do not mean the same thing to abstract and formal stage reasoning as they mean at the systematic stage. Systematic reasoning is more likely to develop during graduate school education, if then. It is not wide spread in any society. With respect to corruption, systematic reasoning can consider a combination of such factors as the rule of law, fear of exposure, preservation of image, methods of reporting, and market pressure, for example, to conceive a system of transparency to reduce corrupt practices. Systematic reasoning can also conceive of a system to skirt efforts to enforce transparency. What it cannot do is consider multiple social, economic, and political systems, such as those described in this paper. It can neither succeed in entirely escaping transparency measures nor eliminate efforts to sabotage efforts to institutionalize transparent practices and reduce corruption.

These orders of hierarchical complexity have been summarized separately to distinguish them. However, complex social systems are comprised of individuals operating at several of these stages. Similarly—and a major point in this paper—the social systems themselves reflect concurrent operations of several different orders of complexity. There are no clean-cut divisions but rather many overlapping systems and relationships among different people and entities.

Implications and Conclusion

A major implication for understanding the political economies of corruption is that not only are there multiple kinds of political economies but also that they are interdependent and mutually supportive. Figures 2 and 3 are fair representations of the most prevalent social network structures operating around the world, for the most part needing adjustments only for the names of roles and entities and to show the multiple additional such structures operating simultaneously. *Corrupt* practices, by definition, emerge in a society only when a rule of law has been adopted that identifies them as law-breaking. Passage of a law does not change the hierarchy of needs experienced by a society’s members. Passage of a law does not dismantle the time-tested social systems for meeting those needs. Patron, broker, and client roles are embedded in social systems at each of the orders of hierarchical complexity described above because they serve essential roles in meeting needs along the entire spectrum of ego-empathy motives. As societies develop, patron and broker roles are performed by corporate employers and governments for some of the population, and by individuals and groups for others in the population. Complex mixtures of social arrangements that adapt with changing conditions are the norm.

Individuals and institutions across the planet have been dedicated to "fighting" the corruption that attends human interactions from local police behavior to transactions within international corporations and development funders. For many, corruption is a starting point and the presenting problem, and there are numerous justifications for that. I suggest a prerequisite for addressing corruption is a grasp of its underlying developmentally-different social structures, which perform patron, broker, and client roles, and the larger social, economic, and political contexts that support them. The ethics and repercussions of destroying a social system without replacing its functions need to be seriously examined.

Societies at different stages of development have different apexes of power that correspond to their social, economic, and political structures. Much of the corruption literature suggests that efforts based on some of their assumptions may prove to be as destabilizing and inappropriate in many of the same ways as democratization efforts are (Ross, 2007). Rose-Ackerman (1999) however, has a keen insight into the dynamics that are predictably inevitable when mis-matched institutions are introduced. She writes "societies based on strong interpersonal relations may have little notion of formal agency-principal relations and the obligations they impose on agents. The idea…may seem strange and unnatural…. The introduction of new institutions that fit poorly with underlying norms can produce pathologies…." (pp. 106-107). From the developmental perspective introduced here, it may be seen that the ideas and practices of formal stage institutions will not only seem strange and unnatural but that they will not even "compute" to concrete and abstract stage social systems and actors. Her explanation includes how and why such policies actually increase the undesired "corrupt" behavior, and it is related to a premise of this paper: social systems arise organically to meet otherwise unmet needs. Komito's *Whose man are you?* and *It is impossible not to be somebody's man* should be internal mantras in every analysis so entire networks are recognized. Powell (1977) views the understanding of clientelist politics as having "profound importance" as "an heuristic device for the understanding of a wide range of political behavior which political scientists, in the main, consider to be either pathological, deviant, or of minor import" (p. 147). Understanding this device, Scott's (2002) phases of transition dynamics suggests the kinds of gradual, planned shifts in relational ties that need to be provided at all levels. Most often, attention placed on corruption starts at the wrong end of the system, the patron-laden apex, and new instabilities and social and economic costs result. The entire complex—social, economic, and political systems, the functions and roles they perform, and dual motives of the actors that perform them throughout the horizontal and vertical latticeworks—needs to be addressed as the stable, coherent whole that it is.

Anomie is a useful concept in connection with systemic change efforts. The dictionary defines this as the social instability that results from a breakdown of—or, I would add, a radical change in—standards and values, and also as the personal unrest, alienation, and/or uncertainty that can result from a lack of purpose or ideals. Poorly conceived interventions can, and do, all too easily destroy solid social systems that reflect those often taken for granted social glues of meeting diverse needs. Radical, non-indigenous change tends to catalyze social instability (e.g., structural adjustment policies, outlawing the Baath party in Iraq, imposing or importing Western models and requirements).

This developmental behavioral analysis of dual motives' role in political economies of corruption indicates that the roots of corruption lie in both the bioneurological architecture of humans' functioning and the social systems developed to balance behavioral tensions in the process of meeting evolving needs. The bioneurological basis of dual motives shaping society, politics, and economics is supported throughout this analysis. The trajectory of social systems' development presented here indicates that political economy is mostly synonymous with the term, social system. The reciprocal relationships that characterize what we call corruption are clearly deeply rooted in humans' social nature and survival as a species. The reciprocity complex explained by dual motive theory is very much in evidence once there is a systematic method to recognize the guises and systemic dynamics through which it manifests. The model of hierarchical complexity provides such a method.

Because humans are living, whole systems, their behaviors, and therefore psychology, are intimately and inherently related to their bioneurological architecture. It will require new methods to adequately address needs of diverse people who populate entire social systems via comprehensive alternative systems before new norms of behavior and more complex behaviors are developed widely. Failing that level of ingenuity, it is unlikely that policies will cut short the life of the institution of corruption in our lifetimes.

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A Brief Overview of Developmental Theory, or What I Learned in the FOLA Course

Jonathan Reams[1]

Abstract: This article describes the history and development of developmental theory from a lay person perspective. It covers some of the main strands of how developmental theory has grown, focusing on ego stage theories and dynamic skill theory as the main examples of soft and hard stage models. It also touches on how measures of these models relate to the theories. Reflections on the relative merits of each strand are considered, as well as implications for broadening the scope of awareness of developmental theory among the larger population of integrally informed practitioners.

Keywords: Developmental theory, dynamic skill theory, ego development, metrics.

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Introduction

I was first exposed to developmental theory in 1996, in a course on leadership and imagination in the master in organizational leadership program I took at Gonzaga University, where we read Hall and Thompson's (1980) *Leadership Through Values.* Fast forward 17 years, and in the fall of 2013 I took the Foundations of Lectical Assessment (FOLA) course from Lectica.[2] Up until this time my range of knowledge about developmental theory had been primarily shaped by my exposure to Wilber's *Integral Psychology* (2000) and likes of Kegan, Torbert, Cook-Greuter and such. While I had examined the eleven pages of comparative tables Wilber did to show the range of work in the field, I had not looked into many of them with any seriousness. The FOLA course expanded my range of familiarity and exposure to developmental theory and theorists, and deepened my appreciation for the complexity and nuances alive in the field.

In this article my aim is to give a lay person's overview of what I now consider to be salient points along the history of developmental theory. In a sense, I will construct a story, based on my sorting and sifting through the myriad of material available to draw on, selected according to my sense of what will paint a sufficiently accurate and informative tale for a range of readers who might benefit from it.[3] While this aspect provides the bulk of what I will describe here, I also wish to use this opportunity to offer some perspectives on what I consider to be important questions to consider in the sometimes problematic use of developmental theories in a more casual manner. I also aim to offer some views on how the various approaches to development might be utilized to give a more comprehensive picture of human experience.

The Roots of Developmental Theory

To understand how and why developmental theory has come to the place it has, it can be useful to review the historical context from which the current diversity has grown. What we will soon see is that the developmental view has deep roots in psychology. It has evolved from a theoretical basis, through early work to develop an understanding of the processes involved in development and methods for its study, to a rich and diverse set of empirically grounded models and metrics for supporting how we can look at human experience.

Baldwin

While many look to Freud as the father of modern psychology, concurrently in America people like William James, John Dewey and James Mark Baldwin were also developing foundational ideas that would have a major influence on the field's development. In particular, Baldwin's (1895, 1906) ideas were seminal in how development was understood and his works have had wide ranging impact, most notably by heavily influencing the works of Piaget and Vygotsky. Although he is a relatively unknown figure today, an examination of Baldwin's work can help us see the deep roots that a developmental approach has in the field of psychology.

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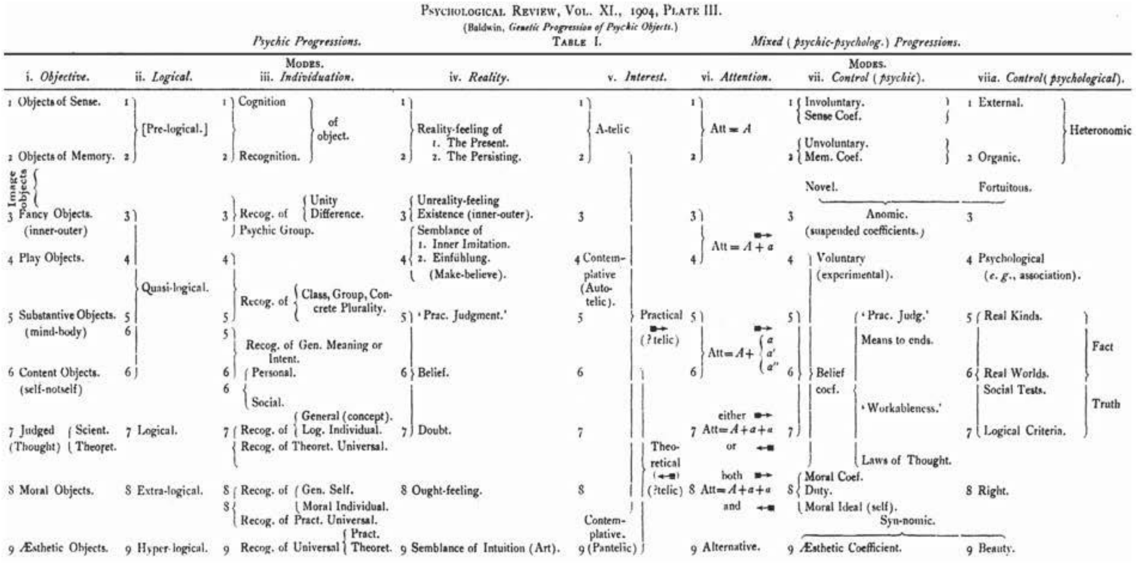
[2] This course is the main introduction and orientation to the work of Lectica, whose mission is to change the way testing is done in education. It was taught by Zak Stein, with support from Zachary Van Rossum, online using pre-recorded video lectures and asynchronous video meeting technology for class discussions. It contained a significant body of literature as the foundation for the curriculum. The majority of this article is drawn from that literature, with additional material for some sections.

[3] I would like to express my gratitude for the significant feedback I received from Thomas Jordan, Zakary Stein and Theo Dawson. They helped clear up a number of details and misunderstandings I had along the way, and added valuable insights that furthered my learning. Remaining mistakes are my own.

Baldwin taught psychology at Princeton (1893-1903) and John Hopkins (1903-1908), served as president of the American Psychological Association (1897), and was co-founder of the journal Psychological Review in 1894. When a scandal forced him to move to Paris in 1908, editorship of the journal went to John B. Watson, who shifted the focus from developmental psychology to behaviorism, driving developmental perspectives underground for decades.

While in Paris (until his death in 1934) he influenced the young Piaget, and the marks of this influence are clear in Piaget's work. He also shared a more dynamic process-oriented view of stage development with Alfred Binet. Another example of his influence can be found in how his concept of imitation evolved into Albert Bandura's concept of modeling.

In terms of his ideas, he had a very specific stage model of development (see figure 1) and used the concept of "subject object theory" explicitly (long before Kegan's use of it, which is much more familiar today). His stage model broke from reductionistic views at that time. It was influenced by evolutionary biology and took an organismic approach to development, using the term genetic epistemology to indicate the *genesis*, or developmental orientation. He also showed how apparent foundational acts can be more basic steps and stages that have gone through their own developmental process. Baldwin also moved away from the contemporary convention of judging child/infant consciousness purely from the vantage point of adult consciousness. The complexity and foresight of Baldwin's conception of stages of development is shown in this table from an article he published in 1904.



Psychological Review, Vol. XI., 1904, Plate III.
(Baldwin, *Genetic Progression of Psychic Objects.*)
Table I.

	Psychic Progressions.				*Mixed (psychic-psycholog.) Progressions.*		
		Modes.				Modes.	
i. *Objective.*	ii. *Logical.*	iii. *Individuation.*	iv. *Reality.*	v. *Interest.*	vi. *Attention.*	vii. *Control (psychic).*	viia. *Control (psychological).*
1 Objects of Sense.	1 [Pre-logical.]	1 Cognition of object.	1 Reality-feeling of 1. The Present. 2. The Persisting.	1 A-telic	1 Att = A	1 Involuntary. Sense Coef.	1 External. Heteronomic
2 Objects of Memory.	2	2 Recognition.	2	2	2	2 Unvoluntary. Mem. Coef.	2 Organic.
Image Objects						Novel.	Fortuitous.
3 Fancy Objects. (inner-outer)	3 Quasi-logical.	3 Recog. of Unity Difference. Psychic Group.	3 Unreality-feeling Existence (inner-outer).	3	3 Att = $A + \overrightarrow{a}$	3 Anomic. (suspended coefficients.)	3
4 Play Objects.	4	4 Recog. of Class, Group, Concrete Plurality.	4 Semblance of 1. Inner Imitation. 2. Einfühlung. (Make-believe).	4 Contemplative (Autotelic).	4	4 Voluntary (experimental).	4 Psychological (*e.g.*, association).
5 Substantive Objects. (mind-body)	5	5 5 Recog. of Gen. Meaning or Intent.	5 'Prac. Judgment.'	5 Practical ($\overrightarrow{\ }$) (?telic)	5 Att = $A + \overrightarrow{\{a, a', a''\}}$	5 'Prac. Judg.' Means to ends.	5 Real Kinds. Fact
6 Content Objects. (self-notself)	6	6 Personal. 6 Social.	6 Belief.	6	6	6 Belief coef.	6 Real Worlds. Social Tests. Truth
7 Judged (Thought) Scient. / Theoret.	7 Logical.	7 Recog. of General (concept). Log. Individual. Recog. of Theoret. Universal.	7 Doubt.	7 Theoretical ($\overleftarrow{\ }$) (?telic)	7 either $\rightarrow$ Att = $A+a+a$ or $\leftarrow$	7 'Workableness.' Laws of Thought.	7 Logical Criteria.
8 Moral Objects.	8 Extra-logical.	8 Recog. of Gen. Self. Moral Individual. 8 Recog. of Pract. Universal.	8 Ought-feeling.	8	8 both $\rightarrow$ Att = $A+a+a$ and $\leftarrow$	8 Moral Coef. Duty. Moral Ideal (self). Syn-nomic.	8 Right.
9 Æsthetic Objects.	9 Hyper-logical.	9 Recog. of Universal Pract. / Theoret.	9 Semblance of Intuition (Art).	9 Contemplative. (Pantelic)	9 Alternative.	9 Æsthetic Coefficient.	9 Beauty.

Figure 1. Table of developmental stages from Baldwin (1904).[4]

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[4] This table can best be understood by thinking of it in a similar manner to Wilber's (2000) tables in Integral Psychology. Here, given that there were not other researchers and theorists in the field to

Piaget

We can see that the core ideas of developmental psychology were laid out by Baldwin over 100 years ago. What remained was to find a way to apply an appropriate method for research in this area. Thus we move on to Piaget (1932, 1954, 1970) who, influenced by Baldwin's ideas of stage development, took up research on ideas about genetic epistemology. He was inspired by working with Binet on intelligence testing, and adapted Freud's use of clinical interviews in psychoanalysis to develop the method of semi-structured interviews to study how epistemological structures evolved. Thus his unit of analysis was epistemic structures, not individuals. What he actually did to apply this was to talk to kids about playing marbles.

> Piaget demonstrated how to look for and discover the structural properties of linguistic performances that are indicative of development. … [T]he radical innovation here was the careful and systematic classification of performances in terms of their developmental level. Piaget … built a hierarchical taxonomy of cognitive-structure types for classificatory purposes. (Stein & Heikkinen, 2009, p. 11)

Observations of how young boys in his town in Switzerland played the game of marbles (and hide and seek among girls) provided the setting for examining how epistemological reasoning develops. As an example, I will examine how Piaget began to make distinctions between how children adapt to or practice rules, and how they become conscious of them. For Piaget practice began at the stage of motor skills, with children repetitively going over certain actions to learn specific motor skills. This motor skill practice led to the adoption of habits that are quickly made into schemas and reproduced as a "game." This egocentric practice comes from receiving rules from the outside (parent, older kids) that the child imitates while still playing alone, even if in the presence of others. The next step is cooperation, where some mutuality, with awareness and consideration of others entering the picture. This is eventually followed by the codification of rules, with mutuality engaged more in discussing the rules than the actual motor skills of playing marbles. Breaches of the rules were considered to be in the domain of application rather than about the rules themselves.

While Piaget's focus on development was around its processes, he also described stages he observed. For example, he identified three stages for how consciousness of rules develops. Rules start as unconscious in the first stage. They then become sacred, received from external or transcendent sources. In the third stage, they arise from mutual consent. He explored the movement from concrete reasoning to more subjective and principled reasoning, as well as the movement from obeying external authority to notions of fairness and justice among peers. Understanding these processes led to the creation of learning sequences. The core processes derived from these observations were; assimilation, accommodation, equilibration and reflective abstraction.

In the end, Piaget actually contributed much more about the process of the development of epistemological structures than the stages of child development he is so well known for. What

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compare, Baldwin laid out what he perceived as the various facets of development and how they related across stages.

Piaget considered as the "American problem," had to do with Americans' focus on the stages themselves, and a fascination with finding how to speed up progression through the stages.[5] This focus on stages did however help to lay foundations for pedagogical sequences in K-12 contexts in America. Yet in reality, stages for Piaget were only symptoms. His deeper interests were in the processes that enabled epistemological structures to develop.

Transition to the Neo-Piagetian World: The Development of Diverse Streams of Thought

As various people picked up Piaget's work, diverse approaches and strands of developmental theory began to appear. These were also the result of researchers being influenced by a variety of themes going on in psychology at any given time. Subsequently, more recent researchers have taken up different threads and mixed them in different ways. From this the trails of influence on research become broader and more diverse, leading to a less fixed and direct sense of lineage from one researcher to the next. It is not possible in the scope and context of this article to attempt to do justice to all of these strands. What I will do is follow the development of some of the players in what I consider to be two main strands which can be described as Neo-Piagetian, in that they build in various ways upon Piaget and Baldwin's seminal work.

The directions these different strands followed has led to what has been loosely characterized as "soft" and "hard" stage models of development. Another descriptive distinction could be between ego development theories, domain specific theories, and domain general theories. Ego development theories have roots in the work of Jane Loevinger (who built upon the work of Harry Stack Sullivan), and is built upon by Robert Kegan and Susanne Cook-Greuter among others. These models contribute significantly to our self-understanding, or how we function as a self. The second strand of hard, or domain specific theories, follows from Kohlberg and the work of a number of students and researchers he influenced. This will also lead us to examining the notion of a common core metric and model of development that shows how all the domain specific research on development is actually based on a common core structure of development. As well, there are what Lawrence Kohlberg termed functional stage models from Erik Erikson and Harry Stack Sullivan that have been influential in the field. I will address these briefly even though they are not "developmental" in a strict sense.[6]

What we can see upon first glance is that ego stage models tend towards describing a center of gravity, a structure of self-understanding and meaning making that is relatively stable with periodic transformations, and within which variability happens, but is harder to account for. Fischer's dynamic skill theory, on the other hand, starts from two different sets of empirical findings. One is that variability is central to performance, understanding etc. and that this variability is both moment to moment within an individual and across individuals.[7] Thus statistical norming or establishing a center of gravity is not in focus. The other is that the unit of analysis is the skill being performed and the hierarchical complexity of it, not an individual ego and its stage of development. Individuals are simply the means through which we can observe these structures.

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[5] Evidence of this focus can be seen in the current Wilberian integral community's near obsession with accelerating processes of development, especially to so called "second tier" or integral stages.

[6] This use of the term *functional* stage models is derived from Kohlberg et al.'s (1984) review of the current (at that time) state of the field. In the FOLA course, these were described simply as soft and hard stage models. Erikson was seen to meet some of the stage criteria in a soft way, and Sullivan was a direct influence on Loevinger. This is discussed more later in this article.

Context of the Transition

As I examined the larger context behind how the field has evolved, I came across writing by Robbie Case (1987a), who noted that conceptions of stages and structures had come under intense scrutiny, critique and disfavor in academic discourse and research, especially in North America in the period after Piaget's initial influence. As a new generation of Neo-Piagetian researchers took up the task of rehabilitating developmental understandings of psychology, they attempted to address a number of issues (noted below) arising from these critiques.

Case (1987b) also deeply analyzed the deeper historical roots and trajectories of three major intellectual traditions that have influenced the study of development in psychology; empiricist (coming from Locke and Hume), rationalist (coming from Kant) and historico-cultural (coming from Goethe, Hegel and Marx). The empiricist influence is seen most clearly in behaviorist and neo-behaviorist theories of learning, as well as information processing theories. They share epistemological assumptions that lead to a view of learning and development as essentially equivalent. The rationalist tradition encompasses assumptions about intellectual development as being rooted in how order is generated from structures that children come equipped with and that change with age. (Case notes that Baldwin and Piaget are in this category). The historico-cultural tradition emphasizes the unique cultural circumstances of a social group and how knowledge acquisition is grounded in these circumstances and the tools developed for coping with them. (Vygotsky is an example here).

In this context, Case (1987a) has also presented an overview of the specific challenges facing Neo-Piagetian research in sorting out what was essential to retain from Piaget's work and how to best move the field forward. It was commonly accepted that the strength worth keeping was the theories' ability to explain what were considered as universal structural features of cognitive development. This can be seen in the eventual discovery and description of common core structures that can be measured with great accuracy. Specifically, Case listed general agreement around there being three or four structural levels, that the higher levels include the lower ones, and that there is a characteristic age range for the acquisition of these levels. It was also agreed that there is a cyclical recursion of sublevels within each level. As the further research of neo-Piagetians was included, Case observed agreement around domain specificity in the rate and content of structural growth, the presence of inter- and intra-individual differences (variability) and the discovery of a wide range of domains of application of developmental models.

What were considered not worth keeping were the aspects that were not universal. This led to "more dissimilarities among the new theories than there are similarities" (Case, 1987a, p. 773). These can be summarized as questions about what the criteria are for distinguishing stages and how to distinguish sub-stages from them, as well as the nature of the basic structural units (i.e. are they schemes, skills, conceptual frameworks etc.).

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[7] Piaget and Kohlberg both explicitly denied variability.

As well, there were areas of agreement and disagreement around the transformational processes involved in development. Agreement focused around each structure being assembled independently, the importance of cultural and environmental factors in the process, and common constraints imposed by working memory. Disagreement centered around identifying the process which produces long term structural changes and the processes which produce changes in processing capacity. This divergence has manifested in the numerous domain specific models and metrics of development. I will now turn to examining some distinctions among these strands.

An Examination of Stage Criteria: Functional, Soft and Hard Stages

Above I noted different strands being distinguished according to criteria for functional, soft and hard stage models. In this section I will examine how these distinctions arose. In particular, I will draw on Kohlberg, Levine, and Hewer (1984), who set out to address a number of criticisms of Kohlberg's work and in this process engaged in clarification of criteria for what constitutes a stage model. They talk about a "differentiation between 'soft' developmental models of social and moral reflection and 'hard' Piagetian operative stages of reasoning" (p. 212). There is also a third distinction they make of functional stages, which is outside of the main focus of our discussion here but worth mentioning.

Four general criteria, coming from Piaget, have been used to classify the range of developmental models, with the functional stage models meeting the fewest criteria, and the hard stage models meeting all of them to qualify. The soft stage models are then seen as somewhere in the middle of this continuum. The first criterion is that models display a qualitative difference in the structures being used. The second criterion is that these structures have an invariant sequence. Third is that they form a structural whole, or an underlying organization of thought. The fourth criterion is that these stages are hierarchical integrations, taking in previous stages while also increasing differentiation.

Thus the stages laid out by Erikson (1982) and Sullivan (1968) do not meet these criteria in that they are; culturally relative, not strictly hierarchical, and organized around responses to typical life situations at different ages in western culture. In this way they are at one end of the spectrum of developmental models. They do have stages[8] but the way these stages are constructed, as noted above, mean that their focus is not on the same level of rigor around these criteria. This does not mean that they do not have value or influence, as we have seen, just that if we wish to look deeply into the core structures of human development, we need to turn our attention to the latter two distinctions.

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[8] I am mindful that the term stages is a broad one, most often used in casual discourse with assumed common meaning. Within this literature various theorists use the term in much more specific and varied ways. I have chosen not to get into the work of making my own definition of the term, as that would go beyond the scope and intentions of this article. I recommend readers simply be aware not to project assumed meaning into this and other terms like structure, cognition etc. I do however go into more detail around these terms in relation to some of the theorists covered.

Kohlberg et al. (1984), in their discussion of the current formulation of the theory (as of the time of writing in 1984), noted that there were many areas of agreement between their primary examples of soft and hard stages; that is, Loevinger and Kohlberg. These were noted as; claims for structured wholeness, invariant sequence and hierarchical integration. Yet a closer examination revealed important differences.

This entailed going deeper into specific definitions and distinctions around how stages are conceived and understood. “For Piaget (1970), a structure is a system of transformational laws that organize and govern reasoning operations. This formalized governing system is reflected or manifested in individuals' actual responses to conflicts or problems” (Kohlberg et al., p. 242). In addition, there is a need to add distinctions between content and structure, as well as competency and performance, in order to use the Kohlberg’s scoring methodology in identifying structures.

Kohlberg et al. (1984) described how they perceived a number of these issues. “Loevinger's scheme considers structure less as a form of thinking and more in terms of fairly stable personality functions and contents” (p. 242). Structure is hypothetically derived as an underlying construct, inferred from signs taken from the categories of content in the sentence completion data, which are mixtures of content with structure. Looked at this way, the classifications for each stage are an ideal type based on the theoretical representation of the stage. “Loevinger defines her stages partly in terms of structures, but also partly in terms of functions and motives pertaining to the whole self and its enhancement and defense” (p. 243). Thus while soft stages like Loevinger’s do appear to have stages with qualitatively different organizations, they are arrived at by a more indirect means. They note that while soft stages also have Piagetian structural qualities, they also include “elements of affective or reflective characteristics of persons” (p. 237). Soft stages are also characterized as existential or self-reflective stages involving an ego making meaning for and about itself. This self is a kind of totality; a system of meaning and characteristics that then encounters and engages the world outside itself, including other egos.

In contrast to these holistic models of the self, the hard stage approach requires the division into discrete domains of what self or ego experiences as unified within itself (such as acquisition of specific physical, emotional or cognitive skills). “What hard structures gain by this is precision in their articulation of a structural logic of stages that will survive the ever changing growth of psychological knowledge about the self, its functions and its development” (Kohlberg et al., 1984, p. 238). In addition, they “define structures in a way consistent with the Piagetian construction of structure, that is, as an organization of manifest thought operations” (p. 244). Thus hard stages are considered to relate to empirically observable and measurable actions in direct ways.

Another difference between soft and hard stages worth discussing is one of normativity.[9] This arises from examining how each approach deals with the criterion of hierarchical integration.

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[9] The use of the term normativity here is related to the distinction between describing what is, or saying what ought to be. The nuances of this distinction are beyond the scope of this article. It is however interesting to note that Kohlberg’s sense of what the endpoint of moral development should be can be seen as the genesis of the “growth to goodness” issue I comment on in my concluding reflections. (Dawson, personal correspondence, March 2, 2014).

The criterion requires each new stage to transform the functioning of the previous stage. This invokes a normative end point "based on a conception of human rationality" (Kohlberg et al., p. 246) where "each stage in the hierarchy represents an increase in correspondence with the end point or highest stage" (p. 246). Piaget and Kohlberg both have this normative conception in how the stages develop.

In contrast, Loevinger is clear that she does not claim any normativity in her model of ego stages. Each stage is seen to add new aspects to the previous stage which makes for a more cumulative model than a transformational one, and she does not claim that higher or later stages are necessarily better. "Soft stage development depends neither on the emergence of new functions nor on the performance of new tasks. Instead, soft stage development depends on formal reflection" (Kohlberg et al., p. 249). Thus the differences in this point can be seen to impact how stages are seen to evolve.

For all of the debate and fine grained distinctions that went on in the above analysis of distinctions between soft and hard stage models, one of the reflections arising from this was to see a possible need to go beyond Piaget when it comes to adult development, and grant value to the soft stage, or ego development models.

> The strict Piagetian stage construction may need to be abandoned in the study of adult development, but the idea of soft stages of development in adulthood should not be. … Soft stage models present a new way of doing research in the subject area of adult development, a way that has emerged from the Piagetian paradigm. (Kohlberg et al., p. 249)

This quote points to the need to find good ways to integrate the findings of both soft and hard stage models.[10]

Following the above work to lay out the distinctions that emerged in the early post-Piagetian era, I will now lay out brief descriptions of exemplars of the functional, soft and hard models. I will start with the work of Erikson and Sullivan, describe aspects of Loevinger's work, and finally move on to Kohlberg's work.

Functional Models: Erikson and Sullivan

Erik Erickson's (1982) developmental model has had a very visible influence on the field of psychology with his life span stages and the identity development and crises associated with them. These are "functional stages" according to Kohlberg's criteria, and are focused on a psychodynamic view of the self-system. The idea is that the self-system navigates its way through a series of crises resulting from the interface between the personality and socio-cultural environment. As each crisis is passed or resolved, (there can be different levels of "success" in terms of how well these are resolved and implications for how the next and subsequent stages play out based on that), a new stage of ego development appears that is considered to be more mature and have a more complex and integrated self-system. The following figure illustrates Erikson's stages.

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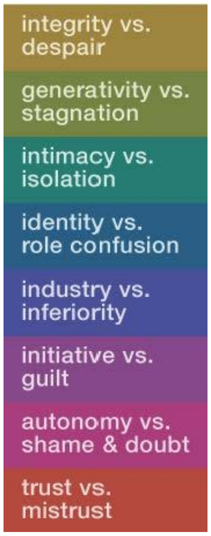
[10] While making fine distinctions has a utility in terms of clarification of issues in the field, it can also distract and divide us into favorite theoretical camps. In the end, I find this to be of less use than finding ways to integrate theory and research for the sake of better applications and methods for supporting healthy development.



"Is it OK to have been me?" (65-death)

"Can I make my life count?" (25-64)

"Can I love?" (20-24)

"Who am I? What can I become?" (13-19)

"Can I make it in the world of people and things?" (5-12)

"Is it okay for me to do, move, and act?" (4-5)

"is it OK to be me?" (2-4)

"Can I trust the world?" (0-2)

Figure 2. Erikson's stages of development. From Stein (2012). Used with permission.

This model of stages meets some of Kohlberg's criteria for a stage model in that factors such as transcend and include are there, (mostly through his way of talking about how later stages go back and revisit or re-conceptualize the issues of the earlier stages) and that sequentialness is explicit. It also appears that Erikson is viewing cognitive development from a psychosocial dynamic lens.

Harry Stack Sullivan (1968) was one of the neo-Freudians who worked from a psychodynamic framework to develop a better understanding of the individual as being based in a network of relationships. The notion of a self-system was central to his work. This self-system was seen to develop through factors such as social relationships, the psychodynamics of need satisfaction and motivation, and emotional self-regulation in social-cultural and biological contexts. Sullivan's work on interpersonal relationships became the foundation of interpersonal psychoanalysis, a school of psychoanalytic theory and treatment that stresses the detailed exploration of the nuances of patients' patterns of interacting with others. Sullivan proposed four levels of interpersonal maturity and integration; impulsive, conformist, conscientious, and autonomous.

While he published very little, (a series of lectures he gave was posthumously edited to capture the essential content of his work), his influence was significant. Jane Loevinger, Abraham Maslow, Ken Wilber and Kurt Fischer all drew on his ideas in the development of their thinking.

Soft Models: Loevinger

Jane Loevinger (1976) began her academic career by doing research on women's experiences in the post-world war two period in America, becoming one of the first psychologists to focus on the problems facing women and mothers. Her early work in women's attitudes towards family produced results that resisted analysis by traditional methods. Loevinger then drew on Sullivan's (1968) description of levels of interpersonal maturity. She moved into the area of ego development, where she built upon Sullivan's four stage model to create a more nuanced model including eight sequential stages, each of which represents a progressively more complex way of perceiving oneself in relation to the world. In contrast to her predecessors, Loevinger relied heavily on psychometric modeling in the definition and validation of these levels.

Loevinger's model of ego development describes personality in terms of cognitive, affective and behavioral components. It "assumes that all human beings evolve toward greater complexity, coherence and integration" (Cook-Greuter, 1999, p. 33). Ego is considered not as a function or thing, but as a process; "the organizing or synthetic function is not just another thing the ego does, it is what the ego is" (Loevinger, 1976, p. 5). Ego development is seen to represent the development of "structures" in the cognitive developmental sense of "an inner logic to the stages and their sequence" (p. 11). Further, "it is a process, a *structure, social* in origin, functioning as a *whole*, and guided by *purpose* and *meaning*" (p. 67. Italics in the original). The essence of ego development "is the search for coherent meaning in experience" (Loevinger & Wessler, 1970, p. 8)

Loevinger's (1976) model of ego development was grounded in her creation of a method for measuring differences in how people respond to a set of sentence stems. The tool she created for her work on measuring ego development was the Washington University Sentence Completion Test (WUSCT) (Hy & Loevinger, 1996; Loevinger & Wessler, 1970). Loevinger used a bootstrapping method (as described by Kohlberg) for iteratively developing a method for scoring data and building a theory in parallel. The assessment instrument enabled her and other researchers to empirically identify and validate these stages. Stein & Heikkinen (2009) note that Loevinger "aimed to devise a metric for looking at ego-development. Specifically, she was looking to build a calibrated measure. By merging quantitative methods with qualitative ones and adhering to strict psychometric parameters, she constructed a scale of sentence-stem response-types" (p. 9). The terms Loevinger gave to the stages were; pre-social, impulsive, self-protective, conformist, conscientious-conformist (later changed to self-aware), conscientious, individualistic, and autonomous and integrated.

The WUSCT uses written linguistic performance based on responses to 36 sentence stems. Shifts in this kind of performance are noted as something that people can intuitively order or rank along a developmental continuum. Cook-Greuter (1999) notes that the WUSCT "measures performance, unlike Kohlberg's instrument, which indicates competence" (p. 25). She also comments on the use of language in these assessments. "The centrality of language or 'verbal behavior' as a medium through which we manifest our conception of reality is the basis of any verbal projective test" (p. 26). The issue with language as a means for assessment of cognitive functioning is noted by Cook-Greuter (1999) as having to do with such assessments being "heavily derived from empirical evidence and based on a probabilistic rationale for data [which] is prone to specific problems. It cannot account for data that come from the extremes of the scale (lack of evidence) or are ‘novel’ in other ways” (p. 29).

Criticism over this approach has focused on two main areas. One is this dependence on linguistic articulation as the only means of being able to assess an individual with this measure. In addition, it is a written response, not allowing for inquiry and clarification of meaning that other forms of assessment enable. A second critique has been one that is in common with critiques of Kohlberg and other researchers’ work; that it confuses content with structure. (This issue will be explored more fully later on). There has also been criticism about the lack of a logic that can explain why one stage is higher or more mature than another.

From looking at Loevinger’s ego development model we take away some key points. One is that personality structures can evolve[11] (Dweck, 2011; Dweck, Chiu, & Hong, 1995) and that this is affected by social dimensions. Emotion and how it motivates learning also evolves in ways that have pedagogical impact. Thus unresolved personality issues from earlier stages can impact how we relate to environments designed for learning. The implication of this is the need to create safe holding environments (McClure, 2005; Winnicott, 1965) and support through scaffolding for dealing with emotional issues.

Hard Models: Kohlberg

Lawrence Kohlberg (1975, 1984) integrated Piaget’s developmental stage model with philosopher John Rawls’ (1971) work in moral philosophy, building on Piaget’s methodology to bring more rigor in assessing the domain of moral development. “Kohlberg’s fusion of Piaget and Rawls excited many researchers because of its interdisciplinary approach” (Rest, Narvaez, Thoma, & Bebeau, 2000, p. 381). He used Piaget’s two stage notion of moral development (heteronomous and autonomous) and refined it, developing a model of moral development with six stages that has been extensively tested across cultures.

Kohlberg also identified the gap between reasoning and action along with multiple sources or factors influencing it. He examined the relations between cognition, affect and conduct in social development, thus broadening the scope of influences on moral development (compared to how moral development had been examined previously). This led him to propose that cognitive development is necessary but not sufficient for moral development, and to explore ways in which cognitive and moral development relate. His theoretical perspective can be described as phenomenalistic, structuralistic and constructivist.

One of Kohlberg’s major contributions was to take Piaget’s methodology and his notion of stages, and adapt them to develop a systematic methodology for scoring stages of moral judgment. The evolution of the scoring manual, from the 1958 first edition which focused on

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[11] There is still debate over this point. There is significant evidence that for the majority of people, ego structures do not evolve after reaching adulthood in their mid-twenties. Yet adult cognitive development theory is based on a body of evidence that for some adults, these ego structures do evolve. This leads some theorists to believe that it is possible for everyone to develop into later stages, yet how much of this development is due to favorable circumstances such as intentional support, or to some latent or even inheritable characteristics is as yet unknown. (Jordan, personal correspondence, February 16, 2014).

"holding together all normative content by stage and inferring structure as an ideal type from this content" (Kohlberg et al., 1984, p. 245), through two iterations, led to a system where form and norms are differentiated to better distinguish between content and structure (Kohlberg et al., 1984).[12] Issues are understood as mostly external and moral values. Elements are principled reasons for these moral judgments. The manual also distinguishes between modal and value elements. Modal elements affirm norms without deeper reasoning. Value elements are final justifications of such modalities. Kohlberg began to make better distinctions (that evolved through the iterations of his scoring manual) between content and structure. He did longitudinal studies (with notable limitations in his sample) and did Piagetian style interviews around specific moral dilemmas with standard probes. While for Piaget stages were secondary to his focus on process, Kohlberg made stages important through the codification of what a stage meant. His stages came in three basic categories (with two levels within each category), pre-conventional, conventional and post-conventional.

Pedagogical implications of Kohlberg's work included recognizing the need to pay attention to the structure and environment as well as the moral atmosphere of educational environments. From Dewey (1997) he also highlighted the need to combine action or experience and reflection. He had a good deal of involvement in various educational experiments to implement his ideas. Kohlberg's influence was tremendous, with his stages of moral development entering into use or conversation in schools, prisons, the military and even politics. His students rank among the most influential neo-Piagetian, who together, building on Kohlberg's work, helped to build much more robust understandings of development (e.g. Selman, Armon, Gilligan, Case, Fowler, Commons, Fischer).

Later Neo-Piagetians

The above description of the works of Kohlberg and Loevinger can be considered as the early neo-Piagetians, building on Piaget's seminal research and extending it in various directions. Also coming out of this milieu were a number of other researchers who have carried on work in this tradition. In the following section, I will give a brief mention to a few of the many researchers contributing to the expansion of Neo-Piagetian developmental research.

William Perry (1970, 1981) made extensive studies of epistemological growth in college students that generated a stage model that went from absolutist perspectives of truth being a form of right or wrong, to relativist perspectives where conflicting versions of "truth" can be seen to represent legitimate alternatives and a nuanced perspective of right and wrong. In a way similar to how Loevinger began her research, Perry's original intent was "a purely descriptive formulation of students' experience," rather than a "prescriptive program intended to 'get' students to develop" (Perry, 1981, p. 107). His work has been further extended in the domain of student services work by Marcia Baxter Magolda (1999, 2001, 2009) who focused on how educational environments and experiences could be conducive to growth into self-authoring epistemologies.

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[12] An important point to make about the manual is that although Kohlberg claimed his system captured structure, his manual requires, to at least some extent, a concept matching strategy, which is problematic because of the limited nature of the construction sample used to create the manual (Dawson, personal communication, March 2, 2014).

A student of Kohlberg, Cheryl Armon (1984) wrote her dissertation on *Ideas of the Good Life: A Longitudinal/Cross-Sectional Study of Evaluating Reasoning in Children and Adults.* In this research she was able to apply the Piagetian standards for structural stage models to evaluative reasoning about notions of the good life. She developed a scoring manual for this domain which, like Kohlberg's, distinguished between structure and content. Her participants ranged from 5-72 years of age, and correlations between stages and age were found to be strong among children and less so among adults.

Later research on moral development in adults (Armon & Dawson, 1997) helped to confirm and extend the focus of Kohlberg's work further into adulthood. Armon (1998) also used a training intervention to close a gap that was found between levels of reasoning and active engagement with social issues. In this, the "emphases on intense affective experience and personal relationships took precedence over enhanced justice reasoning per se" (p. 345). This points to the importance of emotion in learning and development, which will be addressed later.

Robert Selman has conducted extensive research on social role taking (Selman & Byrne, 1974). He focused on this in relation to Kohlberg's work on the development of moral judgment in children (Selman, 1971a) and to role taking in early childhood, where he identified a significant correlation between levels of role taking and age, linking it to stages of socio-cognitive skill in role taking (Selman, 1971b). Reflections from his research led Selman to describe something I found important about the nature of the research process in the field of human development.[13]

> The process of discovery is particularly exciting in the field of personality development. Anyone who works in this field learns not only about the phenomena at hand but about the self. Seldom, however, does theoretical work in this area spring from new discovery. It is more often rediscovery, gaining insight into what others may already know, but which one must discover for oneself. (Selman, 1993, p. 49)

Rest (1973, 1980; Rest et al., 2000) modified Kohlberg's approach, using ideas like schema theory from cognitive science to develop a model of moral schemas that could address many of the criticisms of Kohlberg's work. He took a more flexible notion of stage with development seen as "a matter of changes in the frequency of usage, moving from the less to the more complex" (Rest et al., 2000, p. 384).

Carol Gilligan (2005a) is most famous for her work investigating how moral issues are experienced by girls and women. Her (1982) *In a Different Voice: Psychological Theory and Women's Development* generated a strong feminist paradigm shift in understanding how female development proceeds. While her work critiques many aspects of existing developmental theories, based on their use of primarily male subjects and their interpretation of female responses in light of them, she shows clear stages of development for women as well.

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[13] I included this quote, although it is somewhat tangential, as I find many students doing master thesis research encounter this phenomenon. Thus I hope that it can clarify this aspect of the research process.

In examining the failure of modern developmental psychology to take into account the perspectives of women, Gilligan (2005b) commented, about Freud, that his “difficulty in fitting the logic of his theory to women’s experience leads him in the end to set women apart, marking their relationships, like their sexual life, as ‘a dark continent’ for psychology” (p. 693). She aimed similar criticisms to Kohlberg, whose construction sample was comprised exclusively of men.

King and Kitchener (1994, 2004) built on Piaget and Kohlberg to examine how reflective judgment evolves. This is perceived as especially important and relevant to higher education, as critical thinking is closely tied to reflective judgment. Reflective judgment arises when a person encounters an ill-structured problem (Churchman, 1971), or adaptive challenge (Heifetz, 1994) which “cannot be defined with a high degree of completeness, and that they cannot be solved with a high degree of certainty” (King & Kitchener, 2004, p. 5). Their three broad levels are pre-reflective, quasi-reflective and reflective judgments are broken into seven stages, which were found to significantly overlap with other developmental stage models. Reflective judgment goes from assuming that knowledge is certain, to recognizing that knowledge creation involves uncertainty, to using evidence and an understanding of context to support judgments.

Their work criticized two major assumptions underlying “simple stage” models. One was that people were believed to operate at one specific stage at any given time. The second critique was that these stages were cross culturally valid. Focusing on the first assumption, they aligned their work with Fischer’s skill theory model, (1980) and did research to understand and confirm developmental variability. This was framed in terms of Fischer’s notions of functional and optimal performance.[14] They also discussed domain specificity, which can be seen in contrast to ego stage models where development can be perceived as a more central, cross cutting stage applied to all domains, with their notion that performance levels are domain specific (which also fits with Fischer).

Robert Case (1985, 1993) took up Piaget’s work and its application in education, and devised experiments that used one tightly controlled and designed activity to investigate precise steps in infant and child development. He developed models with very clear sub-stages for each main developmental stage. He also helped to develop concepts around “chunking”[15] of skills as part of the process of developing higher order skills.

James Fowler (1981, 2001, 2004) built on Erikson and Kohlberg’s work, as well as drawing on theological sources, by applying a stage development model to meaning making in relation to religious faith. His seven stage model moved from primal or undifferentiated faith, through intuitive-projective, mythical-literal, synthetic-conventional, individuative-reflective and conjunctive, to universalizing faith. One can imagine going from naïve belief in Christian Sunday school stories from the bible to constellations of faith such as Unity church, where a cross cutting mix of narratives and ideas are woven into a more complex theology. He noted Kohlberg’s rationalistic orientation and his turn away from incorporating emotions into his research, making for a missed opportunity to incorporate Mead’s (1934) social interactionist view of the self. It is these issues, the need to address the role of emotion in development, and the role of the environment, as well as a move away from universalizing to studying variation that finds its nexus in the works of Kurt Fischer, whose work I will examine shortly.

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[14] See the section on Fischer below for descriptions of these terms.

[15] Chunking refers to taking a number of skills at a given level and grouping them into one higher order skill or representation.

This brief overview of a few of the many researchers in developmental theory can only highlight a few interesting points of interest in the field. For a broader overview of the field, I recommend Oliver Robinson's (2013) *Development though Adulthood: An Integrative Sourcebook*.

Cook-Greuter

In addition to the above mentioned researchers, I want to spend a brief time describing my understanding of the work of two figures familiar to many in this field; Susanne Cook-Greuter and Robert Kegan. Their work also falls into the category of Neo-Piagetian, with Cook-Greuter building specifically on the work of Loevinger, and Kegan building on Piaget and Kohlberg. In this way, examining their work could be seen as a continuation of the focus on these early figures as described above.

Suanne Cook-Greuter (1999, 2010) is an independent scholar who, following many years working with the WUSCT, noticed a set of results she perceived as being able to illustrate distinctions within the last stage of Loevinger's model. She, along with others (Kohlberg & Armon, 1984), noted that Loevinger's last two stages were not sufficiently differentiated. She also had collected examples of sentence stems that neither fit the scoring manual nor the upper range of existing ego development theory.[16]

These observations led to refinements in the WUSCT (Cook-Greuter, 1999) and collaboration with Bill Torbert (2004) in developing what became the Leadership Development Framework (LDF) and Leadership Maturity Profile (MAP), which examine stages of cognitive and ego development among managers. Research on manager's stages of development revealed the dominance of conventional stages in that population, in contrast to literature stating that modern organizational complexity requires more post-conventional stages.

In Cook-Greuter's dissertation (1999) she discussed the possibility of stages beyond Loevinger's autonomous stage. She took 1800 late stage protocols gathered over many years and replaced Loevinger's integrated stage with the two new categories, construct aware and universal or unitive, as a way of "striving for a theoretically coherent and plausible explanation of SCT data" (p. 32). This focus on later stages led to an understanding that "one way of looking at postconventional ego development is to suggest that it is characterized by an increasing awareness of the constructed nature of knowledge, and a concomitant, step-wise deconstruction of the assumptions undergirding conventional views of reality" (p. 31).

A fundamental principle used in the scoring of these assessments is to determine what a person can take a perspective on. Perspective taking is seen here as a central component of ego development (in contrast to how it is seen in Dawson's work – to be discussed later) and evolves in taking what one is subject to and making it an object of reflection. Perspective taking evolves from a purely first person perspective, through second and third person perspective taking and on into fourth and fifth person perspective taking capacities, following this subject object progression. The highest stages in Cook-Greuter's model includes the notion of construct aware consciousness, which has been of interest to researchers in various fields, including myself (Reams & Caspari, 2012). At the same time, it is noted that there are many misconceptions about these later stages (Cook-Greuter, 2010).

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[16] Given that the field of integral studies often concerns itself with later structures of ego development and meaning making, this work has become of great interest for many.

Kegan

Robert Kegan (1982, 1994) built on the foundations that Piaget and Kohlberg, among others established, and articulated a sophisticated model of how the self evolves through a series of "evolutionary truces" or orders of consciousness. His work integrated three major intellectual strands; the humanistic and existential humanistic work of people like Rogers, Buber, Maslow and May, the neo-psychoanalytical tradition from Anna Freud, Erickson, Winnicott and Bowlby, and finally the constructivist developmental approach we have been describing here.

The core mechanism behind development involves the tension between challenge and support. Challenge comes from encountering environmental contexts in which the complexity of the task demand is beyond that of current meaning making. Support comes in the form of a holding environment (drawing on Winnicott's (1965) use of the term) that provides safety and security for taking risks and experimenting with untried and unknown forms of meaning making and subsequent action. Kegan, along with colleagues, developed a more interactive[17] method of assessing these orders of consciousness, described as the subject object interview (Lahey, Souvaine, Kegan, Goodman, & Felix, 1988). This method does not rely solely on written responses, but engages people in a dialog in which they are encouraged to reveal the structure of their meaning making by explaining their responses to specific probes. This semi-structured interview format is similar to those of Piaget and Kohlberg.

Kegan (1994) also has examined the perceived implicit expectations of modern life in a wide range of domains (e.g. parenting, diversity, teaching, psychotherapy and leadership) in relation to these orders of consciousness, finding that these demands place the majority of people "in over their heads." Subsequent work with longtime colleague Lisa Laskow Lahey led to the development of a process for revealing a person's "immunity to change" (Kegan & Lahey, 2001; 2009). This process focuses on helping people perceive the hidden values and commitments driving unwanted behavior, making it difficult to change. By being able to make visible (i.e. take a perspective on what has someone has previously been subject to) and test out the assumptions behind such commitments, progress can be made towards evolving a more adequate and complex meaning making system.

Kegan's orders of consciousness are systematically organized by a series of hierarchically integrated sets of subject object transformations. These are; impulsive, imperial, interpersonal, institutional and finally inter-individual. Focusing on the adult development stages, Kegan has also called the last three of these the socialized mind, the self-authoring mind, and the self-transforming mind. Much of the focus of the immunity to change work is on helping the majority of the population who are operating from the socialized mind and enabling them to engage in the journey of moving towards the self-authoring mind. In this way the immunity to change process functions as scaffolding that provides a structured way to gain perspective on what one has previously been subject to. (You can read more about this in Reams (2009)).

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[17] Relative to assessment methods utilizing only textual responses to prompts.

Kurt Fischer and Dynamic Skill Theory

Thus far we have reviewed the early roots of developmental theory, its divergence in the post Piagetian period along lines of soft and hard stage models, as well as a diversity of domain specific models and measures. We now look to focus on Kurt Fischer's work on dynamic skill theory to go deeper into a specific hard stage model that also begins to move beyond a domain specific focus. This will also set the stage for the evolution of a common core metric for measuring stage development independent of specific domains as well as generating domain specific learning sequences.

Kurt Fischer (1980; Fischer & Bidell, 2006; Mascolo & Fischer, 2010; Rose, Rouhani, & Fischer, 2013) was a student of Kohlberg's, and looked to build on his and Piaget's work by better understanding the dynamic relationship between organism and environment. This helped to integrate many cognitive development theories' emphasis on the self with behaviorists' (Skinner, 1938, 1969) understanding of the role of operant conditioning from the environment on development. In order to do this, he began with the core concept of skill. "Skill theory provides an abstract representation of the structures of skills that emerge in cognitive development, together with a set of transformation rules that relate these structures to each other" (Fischer, 1980, p. 479). Like Piaget, who used epistemological structures as his unit of analysis, Fischer uses psychological structures as his unit of analysis. "We define integrative psychological structures as a basic unit of conceptual and empirical analysis"(Mascolo & Fischer, 2010, p. 150).

This model is not explicitly about a self or ego like some of the other developmental theorists described above, and in fact Fischer never uses the term ego in his work. It is a very interactive model, taking biology, structure of mind, social relationships and environmental influences all into account, to develop a general model of development that can be applied in any domain or context.

> To speak of the development of psychological structures is not the same as speaking of the development of a person. There are no general or "all purpose" psychological structures. Although they undergo massive development over the life span, psychological structures consist of localized skills that are tied to particular situational demands, psychological domains, and social contexts. (Mascolo & Fischer, 2010, p. 155)

There are four key aspects of dynamic skill theory that we will examine here; the conception of skills, the role and place of variability, the role of emotion in development, and five transformation rules.

Skills

Fischer's conception of skills is that they are "the capacity to act in an organized way in a specific context. Skills are thus action-based and context specific" (Mascolo & Fischer, 2010, p. 321). He "assumes that cognitive skills can be described effectively and precisely in terms of elementary intuitive set theory" of which "the general definition of a set is a collection of things" (Fischer, 1980, p. 481). He explains that "When people control sources of variation in what they do or think, each such source is a collection, or set, since it is a class of variation" (p. 481).

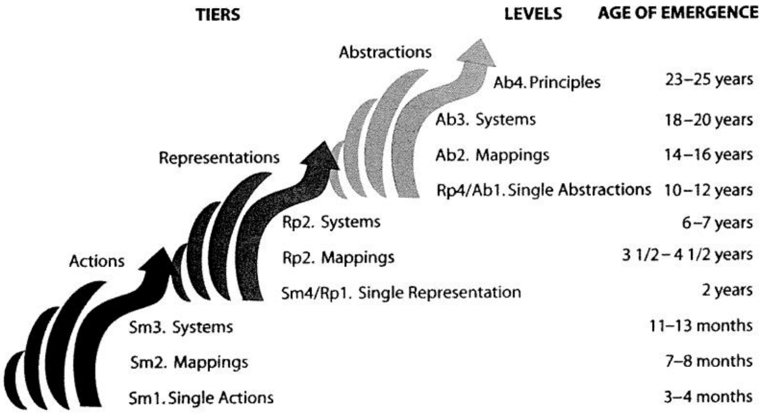
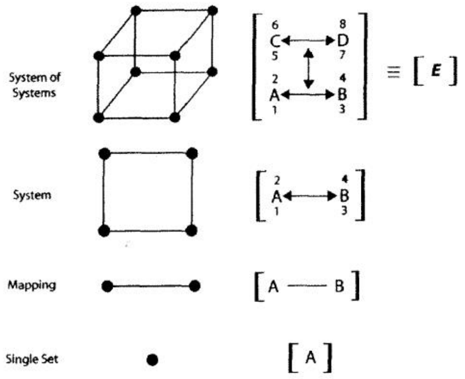

TIERS
LEVELS
AGE OF EMERGENCE
Abstractions
Ab4. Principles
23–25 years
Ab3. Systems
18–20 years
Representations
Ab2. Mappings
14–16 years
Rp4/Ab1. Single Abstractions
10–12 years
Rp2. Systems
6–7 years
Actions
Rp2. Mappings
3 1/2 – 4 1/2 years
Sm4/Rp1. Single Representation
2 years
Sm3. Systems
11–13 months
Sm2. Mappings
7–8 months
Sm1. Single Actions
3–4 months

Figure 3. Fischer's Levels of cognitive development. From Fischer & Bidell (2006). Used with permission.

Fischer (1980) links this to his definition of cognition within skill theory as "the process by which the organism exercises operant control … over sources of variation in its own behavior. More specifically, a person can modulate or govern sources of variation in what he or she does or thinks" (p. 481). Exercising control is an action, always acting on an object, or set (described below). This cognition also adapts to the object or specific thing being acted on. Fischer links thought with action or behavior by showing how abstract or representational thought is built on complex sets of sensory motor cognitions. These levels move in iterative tiers, from sensory-motor, to representational, to abstractions, to principles (see figure 3).


System of Systems
6
C
D
8
5
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2
4
A
B
1
3
≡ [E]
System
2
4
A
B
1
3
Mapping
[A — B]
Single Set
[A]

Figure 4. Fischer's set transformations. From Fischer (1980). Used with Permission.

The labels for these levels are designed to represent psychological structures. Decades of research, across different domain specific models has also identified approximate ages at which each stage usually appears. It is also known that the correlation between age and stage lowers at later stages. Fischer then built an iterative model of four repeating processes that form these tiers of sensory motor, representational and abstract skills (see figure 4).

Variability

The development of psychological structures is significantly influenced by context. "Psychological structures are the products of individual adaptation to particular social and environmental demands" (Mascolo & Fischer, 2010, p. 159) and they "consist of dynamic integrations of motive-relevant meaning, feeling, and motor action as they emerge within particular behavioral domains and contexts" (p. 150). While this description of what skills are and a map of how they develop give us abroad outline of development according to skill theory, the picture is in reality much more complex. Central to Fischer's understanding is that statistical averages, the broad generalizations that are the norm in many models of development and psychology, and that lead to static notions of stages, can mislead us into marginalizing, or rationalizing away data about variability. We know from experience that our performance on any given task can fluctuate from moment to moment.

The conception of psychological structures mentioned above is the central unit of analysis in skill theory. However it can be easy to misunderstand how Fischer uses the term. For him, a psychological structure is conceived of as different from a form. "Structure refers to the system of relations by which complex entities such as biological organisms and psychological activities are organized" (Fischer & Bidell, 2006, p. 314). Fischer and Bidell note that a lack of distinction between form and structure has been at the root of major issues in stage theories. Conceptions of static forms, as an "abstraction from structure" (p. 315), have contributed to expectations of "patterns of thought and action to conform to an independent existing form, such as a stage, cognitive competence, or core knowledge" (p. 315). Understanding this issue leads them to foreground the notion of dynamic structuralism to describe how people construct dynamic systems of thought and action. "Psychological structures consist of dynamic integrations of motive-relevant meaning, feeling, and motor action as they emerge within particular behavioral domains and contexts" (Mascolo & Fischer, 2010, p. 150).

Fischer and his colleagues see psychological structures as having their origins in action and clarify how this is to be understood.

> Although the term action is often used as a synonym for 'overt behavior' or movement, the concept of action transcends the distinction between inner and outer movement. The concept of action implies some capacity for agency or control. … Psychological structure is mediated by meaning and experience; meaning and experience are aspects or forms of action. (Mascolo & Fischer, 2010, p. 151)

Thus action becomes a fundamental unit to observe and even measure. It is also emphasized that actions always occur in relation to contexts. Contexts can provide varying degrees of support, and from this you get distinctions between functional and optimal performance levels. Skill performance can fluctuate over a short period of time. Fischer and colleagues make a distinction between high and low support from scaffolding, another degree of contextual support, which allows another to "help" or perform part of a given task along with the person.[18] This enables an intermediate position between simple modeling and observation and learning by doing alone. They also talk about emotional scaffolding and coaching as domains where scaffolding can occur.

This complex set of conceptions leads into the metaphor of development as a web. This is distinguished in 6 ways from the commonly used ladder metaphors.[19] Fischer and colleagues include the concept of developmental pathways which are dependent upon distinct circumstances, context etc., as well as variations within the individual and the choices they make.

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[18] It is worth noting here the influence of Vygotsky (1978) here.

[19] For example, see Wilber (1996).

They also discuss how the web can represent both variation within an individual as well as different pathways taken by different groups of people.

> It is not appropriate to say that an individual functions at a single developmental level – even for a particular skill. Instead, it is more appropriate to say that an individual's skills function at a range of levels depending on context, domain, time of day, emotional state, and other variables. (Fischer & Bidell, 2006, p. 163)

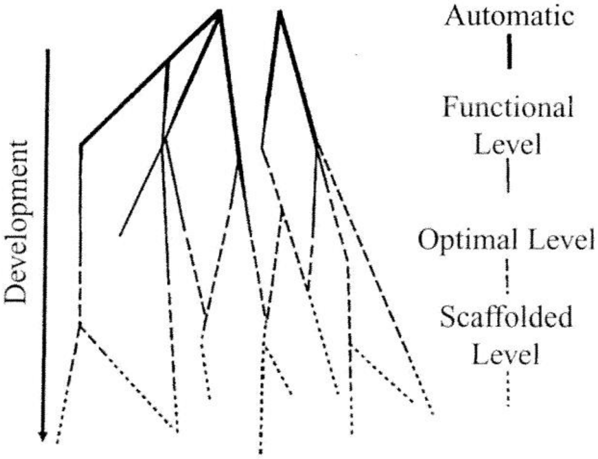

Figure 5. Fischer's web of development. From Fischer & Bidell (2006). Used with permission.

This is illustrated here in the notion of development as a constructive web with layers of; automatic, functional levels, optimal levels and scaffolded level (see figure 5). Research has shown that in performance on a given task, a person can function at range of skill levels. Under conditions of stress, high fatigue or interference, a person might only be capable of the automatic level of functioning. Under normal conditions they can operate at a functional level, which is a well-established level of skill organization, but not yet automatic, so it requires a degree of attention. Modest contextual support such as modeling or prompting, or ideal internal conditions such as peak alertness, confidence etc., can generate an optimal level of performance. Scaffolded levels of skill performance require direct assistance such as co-participation from someone with more skill. The sequence of skill acquisition varies according to many factors (Fischer & Bidell, 2006), one of which involves the role of emotion in development.

Emotion

Emotion is seen to have an essential role in dynamic skill theory. In this section I will draw heavily on the detailed description of emotion in Mascolo and Fischer (2010) to provide a view of how comprehensive the research in this area is. To begin, "any action necessarily involves an integration of cognitive, connotative, and emotional processes" (Mascolo & Fischer, 2010, p. 152). Emotions are determined to involve three classes of components; appraisals, feeling tone, and motive action tendencies. Appraisal processes run unconsciously and are ongoing, and "affect amplifies, organizes and selects these same appraisals for conscious attention. … With development, appraisals become increasingly mediated by higher order meanings" (p. 153). The use of scripts that are programmed responses to changes in environment shows how emotions drive cognition. "Affective changes thereupon select, organize, and amplify one's motive-relevant appraisal for conscious awareness whereas simultaneously activating broad classes of adaptive action" (p. 153). It becomes apparent that emotion is very active in the development of habits of thought and choice that become the basis for action. "With development, through such interconnected circuitry, emotional reactions come to be mediated by increasingly higher order meanings and vent appraisals, whereas implicitly active affective processes continue to organize higher order thought and action” (p. 155).

Next, feeling tone is about the phenomenal or subject experience of emotional states. They are most often described in terms of circumstances prompting the feeling, or as metaphors. Motive action tendencies “consist of voluntary, involuntary, and communicative actions that function in the service of the appraisals involved in the emotional experience” (Mascolo & Fischer, p. 153). These are functional, in that they operationalize the motives, whether they are desired, espoused or actual habits of behavior.

Mascolo and Fischer discuss how all this is integrated, and how higher order cortical control is organized by the lower order processes like emotion/affect which generally function outside of conscious awareness.[20] They also link this to the notion of a triune brain; reptilian, limbic and cortex (Maclean, 1990). The organization of higher order control processes by emotional processes shows the tremendous influence of the earlier formed limbic brain structure.

Transformation Rules

We have thus far looked at cognition, emotion and action, and now we will examine how patterns of organization among them are developed through transformation processes. A simple example of this would be how a young child learns a number of specific sensory motor skills at a systems level. At some point, things like putting on pajamas, brushing teeth, getting into bed and so on go from a system of such skills to being represented under the concept of bedtime. For Fischer, developmental change is “defined in terms of structural transformation in patterns of thinking, feeling, and action within particular domains and context” (Mascolo & Fischer, p. 168). The nature of the transformational processes themselves can be seen as a set of rules. While the levels of development themselves describe the macro developmental process, transformation rules can provide micro, or within level descriptions. They “specify how a skill is transformed into a new, more advanced skill” (Fischer, 1980, p. 497). Fischer lists these as; intercoordination, compounding, focusing, substitution, and differentiation. Differentiation, substitution, compounding and focusing are micro-developmental skills leading and contributing to the macro-developmental transformation of intercoordination.

Differentiation is where what was a single set becomes separated into distinct subsets. The process can occur at either a micro or macro developmental level. This process can be useful when encountering a new task at a level of complexity where one already has skill in a related domain, but can benefit from breaking the task down into subsets at an earlier skill level where there is a more functional level of performance readily available. Substitution involves the transference of a skill from one task to another. The environmental condition best supporting this process is one where all the other variables are held steady and only the specific task itself varies.

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[20] A very interesting facet of this research has shown that it is possible for negative emotional experiences to skew development in relation to what are normally positive biases. This skewing can lead to more sophisticated cognition about negative situations than positive ones, and has significant implications for understanding behavior.

Compounding is the combination of two or more skills at the same level of complexity. Again, the presence of some environmental factor is required to induce this process. The difference from intercoordination is that the skills operate within a given level of complexity rather than involving a jump to a higher level of coordination. However this kind of compounding process is an important precursor to intercoordination.

Focusing on moment to moment behavior is an even finer grained microdevelopmental process. It is commonly understood as attention. In relation to a given domain of tasks, a person will have a specific set of skills available. Only one of these can be held in the foreground of attention at any one moment. The ability to control a shift in focus can enable a person to move between skills at a given level and contribute to the process of compounding them or even intercoordinating them.

Intercoordination, or reciprocal coordination, is about how a person combines skills to move from one level to the next, much like how we envision atoms with specific properties combining to form molecules with entirely new properties. This process utilizes the micro-developmental skills described above and is dependent on a dynamic interplay between the organism and the environment. As such it cannot be viewed as a purely intentional act of will, but conditions at the boundary interface of the two.

This description of some of the main elements of Fischer’s dynamic skill theory highlights his complex view of development. While there is also complexity in the ego stage theories, and they contribute something vitally important to understanding ourselves, my perception is that they end up needing various refinements or add ons to address some of the core issues that become starting places in dynamic skill theory. Starting from a different unit of analysis and set of premises enables a different picture to emerge about human development. What is yet to be done, in my view, is to truly integrate how these strands of soft, or ego oriented theories and hard or domain specific theories exemplified by Fischer’s dynamic skill theory can together provide a more integral understanding.[21]

Coalescing Around a Common Core Metric

Next, building on the strand of work Fischer and colleagues (and others not described here) have done, I will now focus on the development of metrics related to this conception of development. It was noted that earlier researchers like Loevinger and Kohlberg built their theories together with assessment methods to measure stages. In this section I will examine work done to develop a metric aligned with Fischer’s domain specific model.

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[21] While this is the view and interests that I have come to at my current understanding of the field, it has been noted that in various academic circles this discussion was ongoing in the 1980s. Currently there is more focus on the distinction between stagnant models, with metrics whose level definitions are content laden and reified, and dynamic models, with metrics that are built to continuously accommodate new knowledge about learning and development. (Dawson, personal communication, March 2, 2014).

Commons

Michael Commons was also one of the students of Kohlberg who perceived the need for a domain independent measure of the complexity of tasks. He developed a model of hierarchical complexity and the Hierarchical Complexity Scoring System (HCSS) (Commons, Trudeau, Stein, Richards, & Krause, 1998) as a way of organizing the complexity required to complete any task or to solve any problem. This model is focused on core structures of stages rather than content or surface structures, and has a mathematical focus. It uses an internally consistent mathematically based understanding of hierarchical complexity, a model that follows the same logics of differentiation through the entire spectrum of development. It uses a mathematical tool called Rasch analysis to assess coherence in responses. Commons (2006) describes what makes his model distinct by noting that:

> First, hierarchical complexity of tasks forms an absolute scale rather than one based on norms, or content. Second, it is formulated in a manner similar to other measures from measurement theory …. Third, it separates the empirical stage of performance from the largely analytic hierarchical complexity of tasks. Fourth, rather than basing stage on some inferred mental or logical operations; stage becomes the performances on tasks of a specified hierarchical complexity that are accomplished. (p. 88)

Commons even later applied this to a cross species perspective (2006), showing how the concept could be applied to tasks of any kind.

Dawson

Theo Dawson's research has

> focused on refining our understanding of the construct that underlies all longitudinally bootstrapped developmental scales (Piaget, Fischer, Kohlberg, K&K, Armon) and, with reference to the domain independent theories and metrics of Commons, Case, Fischer, and Piaget, translated these insights into a refined content-independent developmental assessment system and a set of methods that are used to describe detailed learning sequences in any domain of knowledge. (Dawson, personal communication, March 2, 2014)

This led to a calibrated metric that could be used to assess individual performance. This approach, arising from critiques that noted shortcomings in models that were bootstrapped from conceptual content based on a group of researchers' initial input, focuses on universal properties underlying developmental stages, derived from empirical work and model building. In this section I will attempt to outline the major steps and components in this work, as it provides a way of assessing development in relation to how Fischer and colleagues have modeled it.

Dawson began with a number of studies that examined the relationship and distinctions between existing metrics for assessing stage development. Dawson (2002) is a study comparing SISS, GLSS (Good Life Scoring System) and HCSS. She examined scores from 209 participants between the ages of 5 to 86 and found that all three scoring systems "to a remarkable extent, assess the same dimension of performance" (p. 169). Further work on this was done in another study by Dawson, Xie, and Wilson (2003). In it, 378 moral judgment scores from SISS were also scored with the HCSS. The emphasis here was on separating conceptual content as a scoring element from using hierarchical complexity. The article points to the advantages of a domain general scoring system over systems connected to specific domains and dependent on content for making stage distinctions.

Dawson (2001) also developed a distinction between core structure, surface structure and conceptual content. She noted high levels of inter-rater agreement among different scoring systems and explains this "by positing that core structural features influence stage ratings in all three systems, whether or not these principles are made explicit in a given scoring system" (p. 12). This distinction between core structure, surface structure and conceptual content becomes essential for the development of a common core metric across what were previously researched as domain specific development. The following explains this distinction in more detail.

> The conceptual content layer is the layer referenced when a stage score is awarded based on the explicit presence or absence of a specific conceptualization without reference to any formal criteria. … The surface structure layer is referenced when a particular conceptual content is said to represent a more general principle or concept that is associated in a given scoring scheme with a particular stage. … The layer representing the core structure is referenced when form, organization or relations are in the foreground and particular conceptual content is seen only as indicative of a particular hierarchical order of abstraction. (pp. 9-10)

Dawson, Commons, and Wilson (2005) continued to develop this work and looked at the "shape" of cognitive development. They addressed the debate over whether development is continuous or discontinuous, as it could appear both ways. The result of this analysis was a clear picture of development as a series of spurts and plateaus, supporting the conception of stages of development as discontinuous.

Application

All of the work to support good developmental assessments has been aimed at offering a better way to do testing in education than the current high stakes system. (This is in relation to both K-12 and higher or adult education). Dawson and Stein (2011) talk about fundamental aspects of testing and its impact on students and learning. Questions like what is worth measuring and how it is measured are examined to make a case for shifting how testing is done. By building on Fischer's Dynamic Skill Theory, Dawson aims to provide "methods for building empirically grounded learning sequences in a variety of domains" (p. 9).

As part of this emphasis on education, Dawson (2004), in *A Good Education is …*, examined developmental concepts of education, focusing on epistemological structures. She examined a variety of phenomenological research on education, identifying five qualitatively different conceptions or types of learning. This led to detailed descriptions of how "learning" is conceived at each different level of complexity, and a map of conceptions of a good education at each level. Currently, Lectica (the company developing and administering Lectical assessments) has a number of assessments designed for specific purposes and all built from this common core metric.[22]

The development of these assessments has followed a process of;

- establishing collaboration with other researchers, clients, content experts and end users,
- identifying assessment goals and specific target constructs,
- continuing to work with clients and end users,
- using the LAS to score performances and starting to develop learning sequences,
- organizing these results into rubrics,
- do early releases for field testing, and
- iterate continuously based on data and feedback from users.[23]

A goal of these assessments is for everyone involved to learn – test takers, teachers, analysts and test designers. This helps foster a dynamic assessment system that continually upgrades and incorporates what is learned in the system.

In a commentary on the broader field of developmental assessments in general, Stein & Heikkinen, (2009), noted the issue of how assessments developed with one purpose in mind gain widespread usage for other ends. It appears that not much attention has gone into this issue within the larger integral community of practitioners. The principle of how casual uses of formal theories can lead to misuse of those theories has been explored earlier by Ross (2008).

Reflections

Here I wish to step back and make some observations that have arisen from this journey through developmental theory. First of all I am glad that I invested the time and energy to become more familiar with this broader range of research and theories that taking the FOLA course exposed me to. It has enabled me to see connections between ideas I had encountered in other domains with developmental theory. As well, questions, nuances and limitations arising from the earlier range of theories I had encountered were addressed in ways that make it clearer to me that as a whole, the field of developmental theory has a good grasp on the nature of human growth.

That said, I also recognize that I now am more sensitive to some issues I notice being prevalent in the larger integral community (primarily Wilberian, as I am not as well versed in the discourses of other integrally oriented communities). I will start with one of the more technical issues that can arise. This is a need to clarify the difference between metrics and models. We often use metrics for different purposes than intended, or conflate the tools of measurement with the descriptive models associated with them. (See Stein & Heikkinen (2009) for a thorough discussion of this). Many practitioners use models and metric interchangeably without understanding the importance of the distinction.

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[22] I have recently had the opportunity to use two of the Lectical assessments, the LSUA (on self-understanding) and the LDMA (on decision making). In addition, as part of the FOLA course, I took the LDPA (a pedagogical skill assessment) twice. I learned a tremendous amount from taking the assessment, reviewing the client assessments, and engaging in a debrief with the clients. The clients all found the reports insightful and useful in offering ways to further reflect on their performance and self-images and undertake specific means for growth.

[23] A more detailed description can be found at https://dts.lectica.org/_about/devmaieutics.php.

As well, the desire to make use of the powerful lens that developmental theory offers can blind us to other lenses that may be more appropriate to understanding a given situation (Edwards, 2010). As well, the pragmatically oriented application of developmental theory and assessments by practitioners who newly encounter the field can lead to misrepresentations, reductionistic application and possible damage to clients. I know how hard it can be to avoid evaluating people and situations with this lens, yet there are more important things in life, (such as character, integrity, love) and we miss out when our vision is skewed by becoming overly enamored with it.

Next, I believe it is important to focus on normative issues in the use of developmental theory. One of the most visible ways this shows up was noted in the section on Piaget, with the (mostly American) tendency to almost obsessively at times pursue vertical developmental growth (which Piaget himself abhorred). While I will be one of the first to stand up in favor of the advantages such growth can bring, I also have begun to emphasize the importance of other considerations such as integrity (Reams & Caspari, 2012) and domain specific skill acquisition (Fischer, 1980; Reams, Gunnlaugson, & Reams, in press). The rush to cultivate vertical development could have an unintended consequence of leaving less than thorough foundations at a given level, or lead to more sophisticated means of justifying self-deception. The notion that such growth is good, and that “integral” stages of consciousness are inherently “good,” thus making it desirable to focus on fostering such growth, can be seen as problematic (Stein, 2010). I am now clearer that the study of human development needs to include a much broader range of intelligences in order to be truly integral and healthy.

At a much more basic level, I have encountered, (and been prone to myself at times), falling prey to the tendency to reify the complexities of human existence into simplistic notions. A favorite is to use Spiral Dynamics (Beck & Cowan, 1996) color language to describe someone as if it was a personality type. This type of reification and reductionism is not limited to developmental stage theory terminology, but can be particularly problematic when it is. One of my aims for this article is that it would make it harder to fall prey to this kind of use of language.

Another issue I find important is the need to better understand the distinction between soft and hard stage models. (See footnote 21 above for a comment on this). I have pointed out above that I feel both of these have significant contributions to make to our understanding of human nature. The first step for me has been to better understand the differences, in both methods and starting places, of each approach. There is something fundamental operating inside each of us that somehow organizes and makes meaning out of human experience. The value of understanding how that evolves is critically important, especially as we aim to move into challenges of leadership is today’s world and see the need for development in adults to more sophisticated and mature ways of engaging the world.

At the same time, our embodiment in this world is through specific experiences that are tremendously diverse. Our tendency to reduce the complexity of this diversity into simple generalizations often misleads us into limited understandings of people and situations. The understanding possible through dynamic skill theory can counter this, and give us a lens for looking in a finer grained manner at individual variation in the diverse contexts in which it occurs.

What I have gained from this journey is primarily a much more nuanced perception and understanding of the huge range of possible ways in which we grow as people. These preliminary observations about the value of and need for integrating these two main stands (ego and domain specific, or soft and hard stage theories) of developmental theory require work to flesh out. (I'm well aware that others may have already begun or done this work, but I've confessed to being a relative beginner at this up front). They are also only one step in a longer term process I aim to engage in. This has more to do with examining and reframing some of fundamental assumptions around the nature of human existence and then seeing what implications this has for the above reflections. Always more to do.

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An Exploration of the Meaning-making of Vehement Hardliners in Controversial Social Issues: Reactions to Youth Unrest in Suburbs of Gothenburg Sweden

Thomas Jordan[1]

Introduction

> The solution, as I see it, is first to impose a curfew for those under 18 years and after 6 pm. Then those who are caught in the act should be sent to a correctional institution, no pampering and nice dinners, there should be water and bread. Then parents and children with a foreign background should be expelled from the country for an undetermined time, with immediate effectuation. Only then the authority has done its job. If the hooligans come to my street, there will be a blood bath!
> [Reader comment on a newspaper forum, no. 49]

During the last few years there have been a number of incidents in suburbs of in my own hometown, Gothenburg, Sweden, involving groups of young people who have set fire to cars and attacked police and rescue service personnel with stones. The events have not really been comparable to major riots involving large numbers of people, like in Paris or large UK cities. The number of participants in the disturbances has been relatively small, with less than 50 participants in most cases. As in many other cities, the disturbances have taken place in suburbs characterized by low-income residents, high unemployment rates, especially among youth, and a high proportion of immigrants from the Middle East, the Balkans, Somalia and many other countries. Since such incidents have occurred repeatedly over at least a decade, the general impression is that no effective strategies exist to stop the violence to people and material belongings.

This article does not focus on the troubles in the suburbs as such, but rather on the reactions to them. I am interested in a better understanding of the part of the population that advocate very harsh, radical actions in response to the troubles, and hold contemptuous opinions about the youth involved. The purpose of the article is rather modest. I will report on an explorative effort to pinpoint the properties of the meaning-making of ”vehement hardliners” (explained below) and outline a tentative framework that might provide a point of departure for further, more comprehensive, investigations of the role that complexity awareness plays in the formation of views on controversial societal issues. At this stage, no efforts have been made to review

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previous research on related issues, present a stringent analytical framework or conduct more penetrating analyses.

Cars set on Fire in Gothenburg Suburbs

The car burnings and ensuing violence occur in periods. One such period with a lot of incidents occurred during August and the beginning of September 2009. On Friday night, 5 September, cars were set to fire in two different suburbs. On Saturday, the morning newspaper of Gothenburg, Göteborgs-Posten (GP), published several articles about the events, one reporting on what happened in the night before, another with a chronology of incidents during the past month. On the website of GP, a reader forum was opened on Saturday morning shortly before 9 a.m. The headline of the reader forum was: When will it stop? How should the police deal with the young? Website readers started to write comments. In the 2 hours and 45 minutes the forum remained open, 147 comments were posted in the forum.

I happened to see this reader forum while surfing a couple of news websites at about 11 a.m. I got very interested, for reasons I will explain further down, and started to download one page after another of the comments. However, I had just arrived at the most recent comments when the forum suddenly was unavailable. I wrote a mail to the editor in charge and asked for the reason, and got the following response:

> We shut down the commentating, because the posts didn’t keep in line with the topic question, but got more and more racist. ”Put them in a cage in the Borås Zoo” etc.

Indeed. This kind of reader forum is filled with scornful, aggressive, often openly racist opinions, and the actions the commentators advocate are often violent or at least very harsh.

Discussion Forums on the Internet

During the last 4 years, I have spent many, many hours reading posts on open discussion forums on the internet. I have been a reader of two different kinds of forums. One is the aforementioned reader forums of Swedish newspapers. These reader forums are only opened in connection with some articles, presumably when the news reported can be expected to trigger different reactions among readers. Such a forum is usually open only for a limited time, usually a day or a couple of days. However, the number of posts can become large (several hundred) in a short time, as readers comment on a topic they have opinions about. Usually there is a starting question formulated by the website editor, but readers don’t feel very obliged to keep their comments focused on answering this question. The treshold to participate is low, participants do not have to register in order to post comments. I have downloaded and read more than 15 such reader forums on various topics, most of them related to events involving violence in public spaces.

The other type of forum is permanent open discussion forums, where anyone who registers a user account can start a discussion thread. The particular forum I have read almost daily for four years is called Flashback (www.flashback.org). Flashback is a Swedish language forum with a large numbers of sections on various topics. There is one section called Aktuella brott och kriminalfall, which would translate something like Current crime cases. As soon as media report a new murder or other crime of general interest, someone starts a thread about the case and invites other forum participants to join in the discussion. The basic idea is to find out, through collective effort, what happened and why. Such threads can continue for months and even years, and a single thread can come to comprise tens of thousands of posts. I have, over the last four years, read far more than a hundred thousand such posts on the Flashback forum.

One of my motives for doing this is that the internet forums offer me as a researcher a fascinating insight into how (some) people think and feel about issues of societal significance. Since the mid-1980s, I have been deeply interested in the field of adult development. I have in various ways, informally and in formal research, studied the variability in adult meaning-making regarding socially relevant issues, in particular in terms of complexity awareness (see e.g. Jordan, 1998, 2001, 2003, 2006, 2011; Jordan & Lundin, 2001; Jordan, Andersson & Ringnér, 2013). This interest is not merely academic: I do believe that understanding and working with the structures of awareness of individuals and collectives constitutes significant opportunities to contribute to a society with less suffering, more dignity and better lives for human beings. Reading internet discussion forums with a mind trained in discerning patterns of meaning-making of course leads to a spontaneous process of recognizing certain patterns and generating hypotheses about underlying structures.

This article focusses one particular reader forum, which I have studied in a more systematical way in order to pinpoint the properties of the reasoning and develop a hypothetical explanatory framework. However, the background for this case study is a comprehensive familiarity with a very large volume of similar material.

”Internet hate”

Anyone who has been reading internet forum comments on controversial topics has encountered a particular kind of statements. In the Swedish public debate, there is a name for this category of comments: näthatet, the net hate. Participants pour contempt over certain categories of people, who are described in stereotypical, often racist, terms. The tone is judgmental, aggressive and completely devoid of empathy. The posters advocate simple, harsh (often very violent and radical) measures. The messages take the form of firm assertions: what is to be thought of and done about the issue is presented as self-evident. There are no signs of a willingness to inquire into causes and alternative courses of action. On the one hand, we should be careful not to make the same mistakes as these people do, to bundle individuals with different patterns of reasoning into one category, assuming that if they show one of the characteristics, they also have all the other. On the other hand, there really seems to be a recognizable pattern, with many people expressing opinions that do show several of the characteristics described above. For lack of a better term, I will call people who advocate this kind of views vehement hardliners. The term is really meant to be descriptive, rather than evaluative.

I am interested in exploring the structural properties of the meaning-making that engenders (or at least allows) judgmental, simple and undifferentiated views on problematic societal issues. I think that we can safely assume that this kind of meaning-making is an important causal component in many serious societal conflicts and other violent actions.

General Properties of the Data Set

The setting has some salient characteristics that have to be kept in mind when interpreting the data. Participants in a newspaper reader forum are anonymous to each other. They chose a signature when they post and I have in no case seen that real full names have been used. The comments are made spontaneously, without much deliberation, since the forum is open only for a limited time. It is likely that many comments are written on the spur of the moment, perhaps in a state of being upset about a piece of news or by a comment from another participant. We cannot know what the poster would say about the issue in another kind of situation, e.g. when being face to face with other people with different views. We also do not know whether the opinions voiced in a reader forum are indicative of how a person would actually behave in decision-making situations, e.g. when voting in elections or when participating in a neighbourhood meeting. However, there are people who quite consistently advocate the same kind of harsh measures that a lot of forum participants propose. Some of them organize in political parties reflecting these kinds of views, of which some draw enough votes in elections to get represented in political assemblies.

As research material, reader forums of newspapers have the limitation that posts mostly are rather short and that most participants only write one comment. We cannot explore, whether by going through more statements from particular individuals, nor by asking questions, the wider pattern of meaning-making. We only get glimpses of the narratives and perspectives behind the rather brief statements made in the comments. On the other hand, I believe that the kind of views expressed by many of the forum participants are actually representative for the views some people hold on to, but they are views that are, so to speak, fragile if talked about in an research interview situation. In other words, it is probably difficult to get people with this kind of views to speak their mind in a straight-forward way if interviewed by a researcher with recording equipment running.

The limitation is, of course, a major one if we want to arrive at more solid conclusions about structures of meaning-making. However, I believe that this kind of data is useful for explorative studies that can lead to the formulation of empirically grounded hypotheses. Such hypotheses would then have to be tested using richer sets of empirical data, such as interviews, participatory observation or action research (such as engaging people in online discussions).

Quantitative Description of the Data Set

During the 2 hours and 45 minutes the forum was open, 147 comments were posted by 112 signatures. I have, when reporting numbers below, assumed that there is a 1–1 correspondence between signatures used and individuals. That is, I assume that the same individual has not posted with different signatures, nor that different individuals has used the same signature.[2]

Most participants, 90, only wrote a single post. 15 participants wrote 2 posts, 5 wrote 3 posts, 1 wrote 5 posts and 1 wrote 7 posts.

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[2] It is possible that one individual posts with different signatures, of course, but not very likely.

I made a content analysis in order to identify different categories of content in the posts. I identified five more common categories:

- 74 posts (by 63 different signatures) contained suggestions about what action ought to be taken; measures.
- 42 posts contained critical comments, generally negative value judgements, about certain categories of people: the perpetrators, politicians, journalists, the police or parents.
- 34 posts contained general comments about immigration policies or other aspects of societal conditions and trends.
- 12 posts contained critical comments about other posts.
- 11 posts contained some idea about causes of the disturbances.

Of course one and the same post may contain statements belonging to several of these categories. A few posts did not contain any of these categories of statements. One post was difficult to make sense of, probably the poster was critical of the website editor. One post demanded that the forum should be closed, because of the racist comments. One stated doubt that the perpetrators really were local young people, another asked other posters what they believe about future developments.[3] One poster just expressed personal strong reactions to the events.

A Closer Look at Proposed Measures

As mentioned above, 63 of the 112 participants advocated some type of measures. I have sorted the proposed measures into categories (Table 1). Some posters have offered more than one type of measure, then each is counted into the appropriate category below. In the cases where the same person proposed the same type of measures in more than one post, it was counted only once.

Table 1: Different types of proposed measures

	Number of posters who advocated different types of measures	
a.	Harsh measures towards perpetrators*	33
b.	Deportation of perpetrators (sometimes also their parents)	21
c.	Punishment of parents (including deportation)	12
d.	General repressive measures in affected suburbs (curfew)	7
e.	Increased patrolling (police and others)	6
f.	Dialogue with young people and residents	6
g.	Parents must take more responsibility	5
h.	Residents should strike back (e.g. vigilance committees)	4
i.	More restrictive immigration policies	4
j.	Young people should be put to work	2
k.	More collaboration between different actors	1
l.	Increase support in war-torn areas rather than receive refugees	1

* Not counting ”deportation of perpetrators,” since this is reported separately.

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[3] ”Will it come to civil war? What do you believe? Who will win? The Swedes, or immigrants who are used to war?”

I count the categories a, b, c, d, h, and i as expressions of ”vehement hardliner” positions. Of course, the advocacy of measures that include painful consequences for perpetrators of violence is not in itself an indication that a person also has a contemptuous attitude, but there seem to be a pattern among many forum participants comprised of a combination of the above-mentioned properties. Of the 63 persons who advocated at least one type of measure, 50 were classified as ”vehement hardliners.”[4] Several of the remaining 13 also used formulations that indicated similar feelings, but they did not actually mention any of the measures classified as ”hardliner.”

Again, we should be careful not to assume that advocating one of the six ”hardliner” measures mean that the person also would endorse all the others. For example, advocating harsh punishments for perpetrators does not necessarily mean that one would also like whole families to be deported.

Many of the commentators who did not advocate any specific type of measures, but commented on, for example, another participant’s comment or general political issues, could also qualify as ”vehement hardliners.” Some of them are strongly sarcastic or bitterly critical of Swedish immigration policies, for example.

Let us now look at what forum participants actually say.[5] I have chosen posts that offer examples of the six types of hardliner measures listed above. Many of the posts illustrate several different characteristics of ”vehement hardliner” attitudes and positions, as will be discussed later on.

Harsh Measures

What is here counted as ”harsh measures” are statements about what ought to be done that go well beyond current practices within the legal system. Some posters advocate violent actions against the perpetrators, others call for harsher measures within the framework of the judicial apparatus. Some statements are not very specific about exactly what should be done, but are emphatic about the need to ”stop pampering.” Here are four examples, illustrative of somewhat different flavours:

> The police should be police
> The police ought to do as in the home countries of the youngsters. Beat the shit to pieces and there will be no stone-throwing. [11]
> Get rid of them
> Send the rubbish to a deserted island in the Atlantic and let them finish off each other!!! Our tax money goes to these vermin when it could be used for children with cancer in our hospitals. Damn it, mankind is so damaged. [99]

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[4] 26 persons mentioned one of the types of ”hardliner” measures; 18 persons mentioned two types; 5 persons mentioned three types; and 1 person mentioned four of the types (see the quoted post in the beginning of this article).

[5] The posts were numbered in chronological order. They were translated from Swedish by the author as close to the original text as possible in terms of style (including lack of punctuation, for example), connotations and substance. All examples given are the full text of the respective post, they have not been edited. The title of each post is the poster’s own.

> Hard measures
> It is time that we show that we don’t accept this any longer. Whether Swedish or immigrants. That they complain about not having a job isn’t surprising. They don’t give a damn about working in school and believe that everything will be served to them on a silver platter. I live in Hisingen and I see how all the children don’t give shit about anything. This isn’t about hating immigrants, they don’t give a damn about conducting themselves. It is really high time to get tough. No more pampering. The police should arrest the rabble!! [115]

> Change of law is needed
> Change the law so that the police can use its resources to suppress the rioting. Curfew in the evenings and detention camps in Lappland for an indefinite time for the vandals who are caught.
> Reprisals against parents to youth who have not reached the age of criminal responsibility, e.g. deportation. [38]

Deportation of Perpetrators

21 participants, a third of those who suggested measures, advocated deportation of perpetrators. These posters took, seemingly, for granted that the perpetrators have an immigrant background (which in many cases is probably true, but since few perpetrators have been identified by the police, this is not an established fact). Several of the comments in this category explicitly stated that the solution to the problem is simple: if Sweden starts to deport perpetrators, the unrest will stop. Here are three representative examples:

> Deportation
> ...if it now is this way that immigrants and their children is the problem, the regulations ought to be changed so that even 2nd generation immigrants can be deported to the home country of their parents so that they get to know how good they had it in Sweden. Simply deport those who don’t behave. [47]

> Military
> I think one should reward them with a journey to the Middle East! ONE-WAY ticket, we can afford that and we get a whole lot of free apartments for youth who behave themselves. Simple, cheap solution? [134]

> Bye Bye
> Send those who can’t adjust home, it’s in fact rather simple. What would have happened if we had behaved as they do if we went to their home countries. Well, we would probably have been stoned or assassinated in some other barbarian way! [121]

Punishment of Parents

12 participants included suggestions to punish the parents of perpetrators in their comments, mostly in conjunction with other measures (see e.g. post 38 quoted above). Below is one example where punishment of parents is a prominent ingredient.

> The police should get tough
> Hooligans think it is great to tease the police - and other citizens who behave themselves. Give them a lesson, deport when possible to prison terms in the home countries. We shouldn't pay for their rehabilitation (?) [question mark in original] in the prisons here. Make the parents liable for paying the costs – or put them in prison, preferably in their home countries. The problems cannot be talked away – talk doesn't work on criminals. [12]

General Repressive Measures in Affected Suburbs

Some participants suggested increased patroling by the police or others. Such proposals were not counted as ”repressive measures” if not accompanied with harsher conceptions, such as a general curfew or using military for surveillance. The first example included below is particularly belligerent, suggesting that perpetrators should be shot if they don't comply with orders.

> Martial law
> Impose martial law and curfew after 11 pm. Politicians of the region should actively participate with the police and rescue services to secure all areas.
> If disturbances continue, warning shots should be fired and then effective fire on those individuals who don't understand anything else.
> Since some don't adopt the customs of the places they go to, we have to start using the customs they are familiar with. [97]
>
> I think
> 1. Impose CURFEW in affected areas after 8 p.m. until the rioting has ended. 2. Use military and the Home Guard to patrol the streets. 3. Arrest the suspects. [2]
>
> The police ought to retreat one step...
> ... and send in the military and the Home Guard. Those who destroy their own areas don't want the police there, and also no human rights. So impose a curfew and arrest everyone who doesn't comply. If the parents cannot account for where their children are, arrest them too. They should feel it PROPERLY now! There will be no end otherwise. The police should not use their resources for this kind of nonsense! They should be able to focus on ”real people” and ”real crime.” [104]

Residents Should Strike Back

Four participants advocated that residents in the suburbs should get tough and use violence to stop the young rioters.

> Response to JAhman
> But since these youth themselves burn down youth centers, for example, and other things the society has fixed for them and the fact that they have frightened away night wandering adults, who cooperate with the authorities, proves that the society makes efforts. But these individuals show their gratitude by destroying it.

> If they don't want police and order in the suburbs, I suggest that we outlaw these youth, then vigilance committees are free to beat them up royally without penalty. Pay them back in kind! [72]
>
> Take back
> Lock them up and throw away the key. Demand responsibility of the parents, those who can't look after their children and teenagers (up to 19 years, responsibility) should be punished, if they cannot manage they should turn to the social services. People who get children should raise them and not blame the society. Youngsters and vandals who burn cars and throw stones at policemen, fire trucks and trams and blame it on their being terrorized and being outsiders in the society? Vigilance committees soon, COUNTERATTACK! [5]

More restrictive Immigration Policies

Of the participants who explicitly advocated some kind of measure, just four pointed out a restriction of immigration as a key measure. However, quite a few other posters made general comments about how the unrest in the suburbs is a consequence of too liberal immigration policies, or that they would now vote for Sverigedemokraterna, a populist party whose main mission is to radically restrict immigration. Below is a particularly emphatic statement of this sentiment, which I believe most would label racist:

> The reason for this is the immigration of moslems.
> The solution to this problem is effectuated as follows: 1. Stop the immigration of moslems. 2. Start a repatriation program for moslems. 3. Prosecute the moslem parents who have children of minor age who terrorize in the streets. 4. Educate about the doctrine of Islam so ordinary people understand what it is. [146]

A Further Observation

As can be seen in the examples above, quite a few participants use sweeping, undifferentiated formulations about perpetrators, parents and immigrants. In a few cases, this tendency to treat people as an undifferentiated collective goes one step further:

> Reinforce the police
> More police, maybe military to these areas. But NO ambulances or fire trucks. If somebody gets hurt they have to fend for themselves, if they start fires let it burn down. I think an earlier post was good with water bombs with colour :) [81]
>
> Re henke
> Youth centre are you kidding now, or what? if there is anyplace where they have invested a lot of money on youth like in rosengård they built a new youth centre there it was only 1 month or 2 then it was burnt down no this is something completely different like hate of Swedes [125; lack of punctuation in original]

These two posters seem to perceive the perpetrators (and even the suburb residents in general) as a monolithic collective. There seems to be no awareness of the heterogeneity of the people involved, that the perpetrators is actually a very, very small number both of residents in general and of the local youth.

About Proposed Measures

In order to unpack the properties of the meaning-making structure common to the statements I will be using two angles: (1) to find descriptors for the actual content of the statements, i.e. what is present; and (2) to look for what is conspicuously absent in the statements (but might be highly relevant to the issue at hand). One reason for proceeding in this way is the hypothesis that people think and act as they do partly because they have not considered various elements of the complex web of causes, conditions and potential consequences in which a particular issue is embedded. Only through being oblivious to certain considerations, it could be argued, is it possible to uphold some of the hardliner opinions.

Characteristics of Contents

Four characteristics of the statements made

I believe it is fair to describe the character of the statements of the vehement hardliners in terms of four elements:

- Problem and solution are seen as simple (in the sense of uncomplicated, unifactorial)
- Categories of people are treated in undifferentiated terms
- There is a belief that harsh measures will be effective
- The affective tone is contemptuous and vehement

Problem and Solution are seen as Simple (Unifactorial)

The discourse in the posts is characterized by simple statements about the problem and what ought to be done about it. There is seldom any consideration of underlying causes for the unrest. When vehement hardliners at all mention causes, they mostly blame too liberal immigration policies. Explicitly or implicitly immigrants (often specified as moslems) are seen as people with fixed characteristics, and those fixed characteristics is the explanation of their destructive behaviour. The measures proposed are also simple in the sense that only one or a few uncomplicated actions are proposed as solutions to the problem. Several posters explicitly assert that the problem and its solution are simple (see post 47, 121, 134 above for examples): either people should just stop their destructive behaviour, or harsh punishments or deportations will stop the problem.

Some posters comment on alternative suggestions referring to contributing causes for the troubles and explicitly reject, sometimes with a sarcastic tone, explanations other than the inherent badness of immigrants. For example, a suggestion that a lack of youth centers may be part of the explanation for the unrest is ridiculed by a couple of posters.

Vehement hardliners seem to think that it is an easy thing for people to stop acting in antisocial ways and start behaving differently. There is no mention of any conditions that might constitute an obstacle to such a shift in behaviour. The immigrant youth simply ought to understand that even if they are used to other conditions in their native countries, they should conform to Swedish laws and mores when in Sweden.

Categories of People are Treated in Undifferentiated Terms

Youth, immigrants, residents of suburbs and sometimes other categories of people (such as police, politicians) are talked about as if they all share the same characteristics. Vehement hardliners don't seem to feel a need to make differentiations, e.g. by pointing out that their comments only apply to certain subgroups. Statements that can be viewed as blatantly racist, in the sense of attributing collective negative fixed characteristics to ethnic or religious categories of people, are relatively common. A few posts advocate using radical measures, like deportation or harsh punishments indiscriminately towards these collectives (see post 146 above for an example).

There is a Belief that Harsh Measures will be Effective

The strong emphasis on using (only) harsh measures to deal with the problem seems closely related to the simpleness of the meaning-making. Proposals about what ought to be done seem to assume that causality is simple: pain will, if it is strong enough, force perpetrators to change their behaviour. Reasoning about causality is linear and only proceeds in one step. There are no efforts to seek further explanations of the destructive behaviour, nor any concerns about possible negative consequences of the remedies proposed.

The Affective Tone is Contemptuous and Vehement

Many of the statements are permeated by contempt, vehemence and disparagement. Strongly sarcastic comments about various categories of people are common, not only of perpetrators and immigrants, but also about politicians, journalists and other representatives of a society that, according to the vehement hardliners, are naïve, concerned with political correctness and cowardly.

Conspicuous Absences

When comparing the statements of the vehement hardliners with other views on similar events and problems, it is obvious that certain types of thoughts and lines of reasoning are conspicuous by their absence among vehement hardliners. Some such absences are the following:

- Explanations that point to societal conditions, such as marginalization, unemployment, barriers to the labour market for young immigrants, residential segregation, poverty. Consequently there are no proposals for measures targeting systemic conditions.
- Explanations that point to social mechanisms, like lack of appropriate socialization conditions in families with a history of fleeing from war-torn areas and being marked by traumatic experiences, torn social relationships and a loss of customary norm and identity systems. Consequently there are no proposals for measures that aim at remediating the shortcomings of the social conditions close to the perpetrators.

- Conceptions about internal psychological structures and processes among the perpetrators that might both explain self-images and behaviour, and constitute obstacles to development of socially adjusted identities and life trajectories. Consequently there are no proposals for measures that might scaffold development of ego structures and of constructive self-images and skills.
- Reflections about possible negative short- and long-term consequences of harsh measures (such as a escalating antagonism, stigmatization, bitterness, possible loss of legal rights of individuals and the general climate in the society). Consequently there is no reasoning about how such consequences might be prevented or managed.
- Considerations about the difficulties involved in identifying and seize perpetrators and bring them to court.
- Considerations about the possibility of actually carrying out some of the more radical suggestions, such as mass deportation of Moslems, in relation to, for example, Sweden’s obligations to international law and conventions.
- Empathy with and benevolence in relation to people in unfavourable life circumstances (which is just the opposite side of the contemptuous and vehement affective tone mentioned above).

I will summarize these absences into four categories:

- Systemic measures: Absence of measures that address societal conditions in general and social conditions in the immediate environment of the perpetrators.
- Measures to scaffold individual development: Absence of measures that would scaffold development of skills and self-images of youth with established anti-social behaviour.
- Problematization of implementation: Absence of consideration of difficulties in implementation and problematic consequences of harsh measures.
- Empathy: Absence of empathy and benevolence in relation to perpetrators and other parties concerned.

Eight Properties Calling for Explanation

According to the interpretation of the data made in the two preceding sections, there are eight properties of the meaning-making patterns of vehement hardliners that call for explanation: Statements are simple, undifferentiated, harsh and contemptuous, and there is an absence of systemic measures, measures to scaffold individual development, problematization of implementation and empathy.

As has been evident from the discussion above, I believe that one part of an explanation for the existence of the ”vehement hardliner” views is to be sought in properties of the subjects’ meaning-making structures, in particular in the failure of the vehement hardliners to notice and consider causes, conditions and potential consequences of the whole issue complex. Of course a perspective that focusses patterns of individual cognition is only one part of an explanation of the phenomenon of vehement hardliners. Many other explanatory perspectives would be needed for a more complete understanding of the phenomenon, for example consideration of individual emotional biographies (such as attachment types), social constructions of self and others, effects of the properties of online communication technologies, development of socio-economic patterns in the society, media practices regarding reporting of crime, failures of the educational system, and so on. However, a deeper understanding of the internal operations of the meaning-making that leads to vehement hardliner views seems to be a significant contribution to this rather disturbing societal phenomenon.

In an earlier Integral Review article (Jordan, 2011), I outlined a conceptual framework for analysing structures of meaning-making in the context of grappling with complex societal issues. A key concept for me is complexity awareness, which in short points to the degree of awareness a person has of the possibility that issues may be embedded in complex webs of complex causal relationships and conditions (such as being conditioned by properties of the system they are embedded in). An important aspect of the concept is that it points to the expectation (or ”pre-understanding”) that things may be complex in a way that warrants attention, rather that manifested knowledge about actual complex patterns.

In figure 1, I suggest an tentative explanatory model based on the hypothesis that ”weak complexity awareness” is a major contributing factor for explaining the eight properties described above. The basic argument is that vehement hardliner views are only sustainable when complexity awareness is weak. The data set used in this exploratory study is too limited to allow testing to what extent the connections outlined in figure 1 are meaningful as ways to understand and explain the views of vehement hardliners.

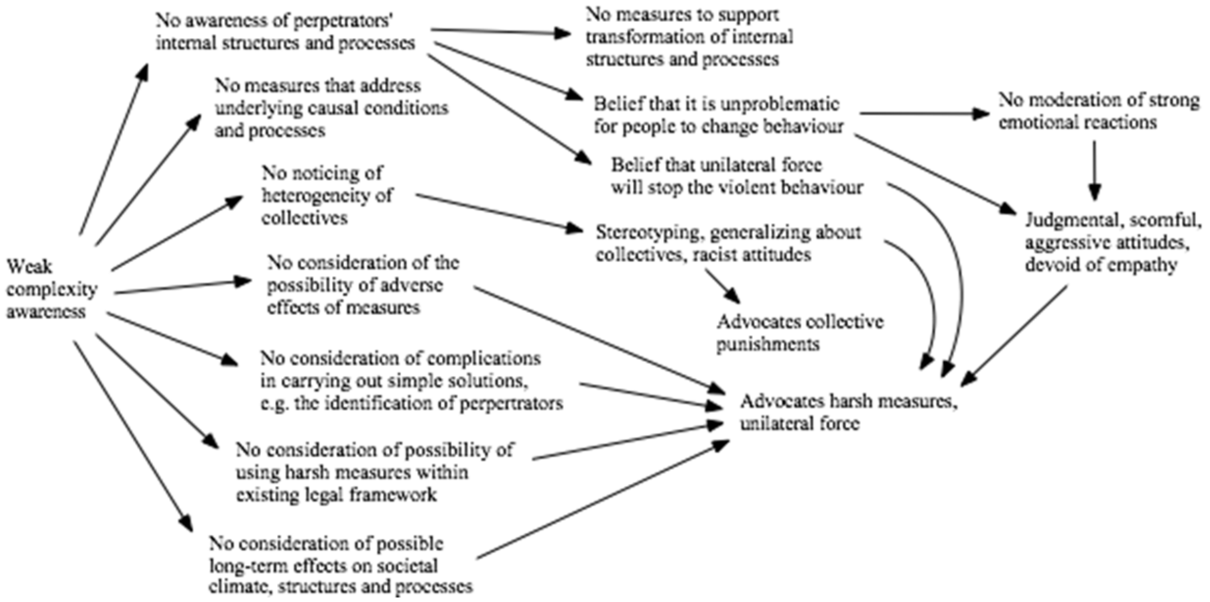
Weak complexity awareness
No awareness of perpetrators' internal structures and processes
No measures that address underlying causal conditions and processes
No noticing of heterogeneity of collectives
No consideration of the possibility of adverse effects of measures
No consideration of complications in carrying out simple solutions, e.g. the identification of perpetrators
No consideration of possibility of using harsh measures within existing legal framework
No consideration of possible long-term effects on societal climate, structures and processes
No measures to support transformation of internal structures and processes
Belief that it is unproblematic for people to change behaviour
Belief that unilateral force will stop the violent behaviour
Stereotyping, generalizing about collectives, racist attitudes
Advocates collective punishments
Advocates harsh measures, unilateral force
No moderation of strong emotional reactions
Judgmental, scornful, aggressive attitudes, devoid of empathy

Figure 1: A tentative explanatory framework for vehement hardliner views

I expect that a more thorough study of the properties of meaning-making structures among vehement hardliners, in particular if based on interviews or participatory research (actually engaging vehement hardliners in discussions about their views), would show that the model in figure 1 is too simplified to accurately explain the inner workings of vehement hardliner reasoning. However, I do believe a study designed to critically explore to what extent the connective patterns outlined in figure 1 are valid would yield useful and highly meaningful insights into a the nature of political meaning-making among groups of people who actually say they want to use violence and other very harsh methods for dealing with societal problems. Societal tensions and conflicts may escalate to become serious threats to the possibilities to manage our societies in constructive ways. When this happens, we need knowledge that allows us to develop skillful strategies to deal with destructive political views and actions.

On Spiritual Books and their Readers: A Review of *Radical Kabbalah*

Gafni, Marc. (2012). *Radical Kaballah* 2 Volume Set. Integral Publisher, LLC

Reviewed by Zachary Stein[1]

As a philosopher of education I worry about what people read, and that there are so many of them reading so much. The mass production and circulation of reading materials pre-dates television in demonstrating the breathtaking impact of industrialization on education. Since World War II, more books have been published than in the whole of prior human history, and more people read those books than have ever read anything before. From one perspective the *book* has been a triumph, allowing for profound changes in how people come to gain access to the knowledge they use to understand themselves and the world. But the book is a fundamentally flawed educational technology. For most of their existence books were so difficult to publish that only the most important were printed. This is no longer the case, which is why the design flaws inherent in the book are becoming more and more obvious.

Books are too authoritative, for one. There is no arguing with a book, let alone having it explain something some other way. Books are monovocal and monological, not to mention linear, un-dialectical, and non-dialogical. They are not good teachers because they simply tell you how it is. Even the best book cannot clarify itself, except in so far as it references other books. And, of course, books are notoriously prone to misinterpretation. Consider the mass hermeneutic turbulence produced by our contemporary overabundance of texts: with tens of thousands of books hitting the shelves each month and the overall literacy level stuck at around 8th grade, that's millions of misinterpretations a day, at least. This is especially problematic when it comes to spiritual books. These books are the top sellers, and given their popularity and the broad swaths of the public they attract, *who knows* how the ideas they express are fitting into the conceptual ecologies of readers. Ever since the spiritual counter culture started founding publishing houses in the 1960s, the American mind has been relentlessly disequilibrated by an ever-expanding universe of discourse about the religious and spiritual.

Post-modern spiritual books and their readers are important because they are yet another indicator of major recent reconfigurations of religious authority in America. In 2010, I wrote a paper for the *Journal of Integral Theory and Practice*, called "On spiritual teachers and teachings" (Stein, 2010). In this paper I took a socio-philosophical look at the predicament of authority faced by 21st century spiritual teachers. I was concerned with characterizing the dynamics of teacherly authority and the varieties of educational configurations that surround what Habermas (2002 p. 52) has called "the new de-institutionalized forms of religiosity." I offered a set of nor-

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mative distinctions intended to help clarify the value and validity of emerging spiritual teachings and teachers. That is, I offered some ideas about how to separate the "California clap trap" from the forms of religious language and practice that make a legitimate claim as "vehicles for possible truth contents" —again quoting Habermas (2008 p.152). After building a philosophical model for distinguishing between different types of religious educational configurations, I contrasted two educational organizations with illustratively different teachings and teacher-student authority dynamics. Andrew Cohen's EnlighteNext and Dr. Marc Gafni's Center for Integral Wisdom served as foils, allowing me to demonstrate the differences and similarities between these versions of 21st century religious educational authority. Part of the contrast consisted in their differing theoretical orientations, while another contrast centered around the dynamics of teacherly authority and teacherly practice.

A neglected theme in my discussion was the role of religious scholarship and scholarly lineage as an aspect of teacherly authority. That is, I failed to discuss the respective *books* related to each educational organization—and books have always been a critical component of all religious educational configurations. Gafni's books, especially his newest, *Radical Kabbalah* (2012) and *Your Unique Self* (2012a), are texts that belong in a fundamentally different scholarly discourse than most contemporary paperbacks sold by spiritual teachers. Many popular spiritual books, such as Cohen's (2011) *Evolutionary Enlightenment* (or any number of others, such as *The Power of Now* or those by Byron Katie) are texts that stand outside religious traditions and lineages. These are non-lineage texts, without scholarly depth or reference. They are not engaged with any particular religious tradition, although they may reference them and their authors may have practiced with teachers from traditions. It has been clear to me for some time that this divorce from lineage and tradition leads both to a new fangled form of post-modern guru worshiping (where personal charisma makes up for the poor quality of the text) and to a retreat into *ad hominem* arguments against specific teachings (where personal attacks take the place of reasoned debate). So it is that these books draw much of their power from their non-denominational character, their "spiritual but not religious" flavor, and the personal revelations and insights of their authors.

Gafni's books are both like this and not at all like this.

Beyond Popular or Academic: Mystical Hermeneutics and Ecstatic Scholarship

On the one hand Gafni offers books that are post-traditional in that they speak to a broad swath of the public who are either not located at all or not exclusively identified within any particular spiritual or religious tradition. On the other hand they make fundamentally different moves then other books in the genre, moves that require an admirable breadth and depth of scholarship. These texts differentiate from the great traditions but they do not disassociate. Virtually all the other books in this genre fail to make this move and wind up disassociating from the great lineages without being able to generate any comparable source of breadth and depth. Gafni’s books aspire to advance sophisticated scholarship in a specific religious tradition, reconfirming the relevance and power of rigorous scholarship, while moving beyond a merely academic impetus and impact.

To use a well-worn trope from Wilber's Integral Theory, Gafni's books *transcend but include* the rigors of academic scholarship and religious tradition. Whereas most spiritual books are not rigorous enough to pass as a dissertation project, Gafni’s work is at the leading edge of a rigorous tradition of scholarship. The evaluative issues here cut both ways, as the standards of the academy are irrelevant to the motives and impact of many spiritual books. Yet, by transcending and including these standards, Gafni brings his work back into the marketplace of ideas and out of the minutia and irrelevance that can bog down academic writing. The ideas have a richness and profundity that is informed by a rare hybrid of profound scholarship and lineage mastery that comes from engaging and evolving a great tradition. Gafni’s scholarship serves as a model, not only in articulating a new framework of spiritual thought which I will discuss below, but in creating a new genre of book that offers a distinct intellectual strategy for developing and delivering ideas. At the heart of this approach is a dimension of engagement with the traditions that has already been noticed by integral theorist Sean Esbjörn-Hargens (2012), who deployed Jeffery Kripal’s terms in describing Gafni’s work as a form of “mystical hermeneutics and ecstatic scholarship.” This is a key observation, as Gafni is not only a significant third person scholar of his native tradition of Kabbalah, he is also an advanced first and second person adept within the tradition, possessed of realization received from the lineage.

In the Introduction to *Radical Kabbalah* Gafni tips his hand and reveals some of his complex agenda. He calls the book an esoteric transmission, which hides appropriately under the fig leaf of the academic structure and rigor of the work. This is the only section of the two volumes where Gafni drops the academic veneer:

> I am in love with these teachings, awed by their subtlety and profundity, moved by their commitment and depth and enchanted by their possibility. In the book before you however, I have remained faithful to the academy in deploying the tools of scholarship, in seeking to uncover Rabbi Lainer’s [the lineage master whose works are the focus of *Radical Kabbalah*] teaching exclusively, without entangling it, explicitly or subtly with my own. None the less the initiated reader must remember that this is an esoteric work, one which in understated tones, intends to lay down a revolutionary, evolutionary set of spiritual principles which will be recognized as such by those with a pure heart and a clarified self. (Gafni, 2012, p. li)

The casual reader passes over these sentences without much attention, but the more careful observer notes words like *initiated*, *clarified*, *transmission* and realizes that something not *less* but *more* rigorous than traditional scholarship is afoot. Gafni also describes his own approach to the text beyond the classic canons of scholarship:

> In approaching the master and his text... I followed the three-stage path of textual reading implied by the Baal Shem Tov. First, in a state of what the Baal Shem calls *hahna‘ah*, reverential submission to what one is learning, I read every passage again and again, praying that I might realize Lainer’s deeper intention and receive his transmission. Second, I moved from submission to what the Baal Shem calls *havdalah*, separation. In this stage of *havdalah*, I deployed a method of analysis, which involved two basic steps. As I read, I made a list of key topics, words and texts in Lainer. I subsequently gathered every reference to that text, theme or image, searching for the underlying pattern. At the same time I

> studied... many of the original Zoharic sources that would have influenced *Mei Hashiloah*, to get a sense of how he was reading the tradition, what he changed in his interpretation, and why. Eventually, stage two yielded to stage three, which the Baal Shem Tov calls *hamtakah*, sweetening. *Hamtakah* involves an erotic 'non-dual' merger with the text, which occurs when the reader and that which is read become one. It is at this stage that the deeper intention of the Lainer's Torah became startlingly clear, delightful, and beautiful, and the entire teaching opened up with radical clarity and joy. (Gafni, 2012, p. l)

This form of scholarship is both rigorous and mystical—producing a set of books that reward carefully and repeated study. But aside from their distinct position in the scholarly landscape, what is so important about these books, and why as a philosopher of education would I prefer to see them read over than others?

Unique Self: Reclaiming the Personal and Democratizing Enlightenment

To my mind the core value of these books is that they reconfirm (in a compelling scholarly fashion) some of the most central ethical tenants of Western Civilization. Moreover, they do so by reminding us that the Judeo-Christian tradition contains a radical Enlightenment teaching, with a message about the collective Awakening of *everyone everywhere*. Gafni calls this the democratization of Enlightenment. This is a theological metaphysics justifying the reign of an Absolute Democracy, in which each must live so that all have the ability and dignity to be heard, known, and counted. The mystical core of the great democratic political revolutions can be found in the cipher of ancient texts, reinterpreted in each age, and again today, in order to enliven the struggle to create a world-order conducive to human liberation. As Habermas has stressed, there is currently no replacement for the world-disclosing power of religious language, especially in its capacity to give voice to the profound vulnerabilities, interdependencies, and potentialities of human social life.

The core theoretical innovation enabling the democratization of Enlightenment is what Gafni calls, *the reclaiming of the personal*. This idea is presented most clearly where he offers a comparison between two models of Self, his own model of Unique Self and Andrew Cohen's Authentic Self or Evolutionary Self (a comparison undertaken in detail in Gafni's forthcoming book *Two Models of Self and Why They Matter*). He notes that in classic Enlightenment teachings from the East the key move is from the personal to the impersonal. For example, Cohen's community was for many years called the Impersonal Enlightenment Fellowship. This is the classic understanding of enlightenment, which finds expression in many Eastern schools of thought, including Buddhist and Advaita Vedanta. In Cohen's book *Evolutionary Enlightenment*, for example, the word 'personal' is used dozens of times throughout the text, but always with a negative and pejorative connotation. The personal is not to be embraced; it is to be transcended. "Leave your story behind" has become virtually the clarion call of Enlightenment teaching in the Western adaption of most Eastern models.

Gafni (2012a, Ch. 7) points out that the conflation of the *personal* with the conditioned *personality* is a confusion that needs to be corrected. In Gafni's model an essential distinction is posited between the personal before realization (of non-dual radically impersonal Emptiness or

God) and the personal that re-emerges after this realization. The former he terms separate self and the latter Unique Self. Unique Self is thus likened to a structure-stage of consciousness suggesting that to confuse the personal before realization with the personal that manifest post-realization is to fall into what Wilber terms a pre-trans fallacy. No less serious a mistake in Gafni's reading is to denigrate the personal in favor of an impersonal process, such as cosmic evolution, without distinguishing which level of the personal is being addressed. True enough, cosmic evolution (conceived as a panentheistic unfolding) is hierarchically beyond the pre-realization conditioned personality, but it doesn't efface the irreducible dignity of the post-realized personal, i.e. the Unique Self; in fact it find its expression in an infinite variety of uniquely personal forms. This is a lesson that cannot be stressed enough, especially in a context of discourse where an evolutionary ethic has emerged that turns a blind eye toward the tragedy of injustices that resulted from the enthusiasms of previous generations of evolutionary thinkers, from Dialectical Materialism to Eugenics.

Gafni's reclaiming of the personal is the ground of his non-dual humanism and sourced deep in the lineage upon which he draws. The following passage from the Introduction to *Radical Kabbalah* engages this point and is worth quoting at length:[2]

> .....It is in this sense that we can begin to understand Lainer's provocative idea that the Torah was given by a Moses who is merged with God—not in the voice of God, but in the voice of Moses…. Lainer uses the Zoharic phrase 'The *Shekhinah* speaks through the voice of Moses' as a foundation for his position. This Zoharic phrase, describing the authorship of Deuteronomy, was understood in two very different ways. The theocentric understanding, reflected in most Hasidic works, is that Moses was so completely effaced that he became a kind of channel for the divine voice. For Lainer this is only the first instrumental level of enlightenment. The second possible understanding of the phrase 'the *Shekhinah* speaks through the voice of Moses', corresponding to the higher level of enlightenment in Lainer, is almost the opposite: Moses is not effaced, but is rather so completely present that his voice and the voice of the *Shekhinah* become one. Moses' unique persona, his voice and personality, incarnate the *Shekhinah*; through radical uniqueness, he participates in ontic unity with God….the *Shekhinah* speaking comes through the *intensification of individuality,* rather than through its effacement. Because the human is a part of God, the principle of acosmism does not negate but rather empowers the individual. The divine voice finds expression in the voice of the unique spirit, modeled by the prophet who manifests God's voice through the clear prism of his unique individuality. This is the core of Lainer's non-dual humanism. Lainer argues, both explicitly and implicitly, that the unique individual is the portal through which comes the revelation of the unmediated divine will, the new Torah that can override the law of Sinai. In various writings I have called this pivot in Lainer's thought 'sacred autobiography' or 'unique self.' (Gafni, 2012, p. liii-liv)

Now what is especially critical is that this capacity to "incarnate the *Shekhinah"* is understood in Gafni's writing, emergent from all of his sources, not as the domain of the elite but as an innate capacity available to every human being. He adduces relevant texts to overturn the dominant reading of Lainer's model as only referring to the elite and asserts, in Lainer's name, what he terms “the democratization of Enlightenment.” Again, from the Introduction to *Radical Kabbalah*:

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[2] The term *Shekhinah* is one of the Hebrew names of God, connoting the Divine Presence in the world, often associated with the feminine or embodied existence of God.

> The goal of Lainer’s teaching is no less than the full democratization of enlightenment. He implicitly identifies and distinguishes between two forms of enlightened consciousness. The first is what we might call the instrumental level. At this stage of realization, the person is an instrument, like a flute or shofar, played by the divine. Images describing this stage of illumination were replete in the Hasidic teachings and writings which constituted Lainer’s intellectual framework. This is the level of utter surrender to the divine. As one internalizes this level and transcends it, one comes to another level, which Lainer associates with Temple energy and the Judah archetype. At this level, God does not move through the person as an external force animating and filling the person’s voice, but rather God is incarnate within the person, who achieves a radical identity with the divine. Lainer makes clear that this enlightenment is a possibility for every member of the community. Every human being has the potential of Moses. (Gafni, 2012, p.lii)

This teaching principle of democratization is a pivotal focus in the more popular and accessible companion to *Radical Kabbalah*, entitled *Your Unique Self.* It is the one the defining characteristics of Gafni’s work which seeks not only the evolution of the leading edge but the articulation of a world spirituality that can potentially become a shared spiritual language for large swaths of the mainstream. This language revolves around the idea of “higher individuation beyond ego,” tracing its roots to an enlightenment lineage which places *sacred autobiography* at the center of the awakening realization. Again from *Radical Kabbalah*:[3]

> For Lainer, one who has become fully clarified becomes both the source of revelation and the incarnation of the *Shekhinah*…. Unlike most of the earlier sources, the kabbalist is not an empty vessel channeling the divine. Rather, the unique consciousness of the purified person, and even their unique unconscious, is divine. This implies that the *Shekhinah* that is one’s essence speaks *naturally* from within the enlightened individual. For Lainer, the self of the mystic becomes so conscious as to become transparent to his divine self. Erotic merger with the *Shekhinah* yields not the hermeneutics of sacred text but the hermeneutics of sacred autobiography. In this way, Lainer extends the erotic motif beyond traditional hermeneutics and applies it to reading the ‘text’ of the person’s unique self. This allows the individual to recover the personal revelation of divine will which is addressed uniquely to him. This revelation comes through the unmediated embrace of the *Shekhinah*, which is antinomian in a way in that is clearly different than any previous sources. Lainer’s incarnational *Shekhinah* theology is both empowering and limned with humanistic undertones.” (Gafni, 2012, p. xviii)
>
> Or in a later passage:
>
> Sacred autobiography…is itself a sacred text. It is the book of life. This is Lainer’s implicit reading of the old Kabbalistic teaching from Safed that every person has their own ‘letter

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[3] I’m talking so often from the Introduction because it is in essence a 60 page summary of the whole work, and beyond this I found that the main body of the text is too closely reasoned and tightly linked up with primary sources to allow for an easy lifting of synoptic quotes.

> in the Torah.' Sacred autobiography both interacts with and, occasionally, even trumps sacred text, superseding one's obligation to the written canon. The initiate will understand that, far from giving easy license to one's desires, this path requires extraordinary discipline. According to Lainer, one can only access this revelation through the identification and embrace of one's uniqueness. Lainer makes a strong distinction between the sense of specialness or uniqueness at an egoic level, which needs to be purified, and uniqueness at the enlightened level of Judah-consciousness, which is both the expression of and the path to full realization. This level of enlightenment may be achieved consistently or even just for a time in an individual's life. It is through the depths of one's unique individuality, one's unique self, rather than in the transcendence of individuality, that one hears the voice of the infinite God in the *lehishah*, the whisper of personal revelation…. (Gafni, 2012, p. lxiii)

This notion of Unique Self changes the fundamental way we think about Enlightenment. Gafni's overarching point is that what is commonly referred to as Enlightenment or Awakening is available to every human being. This move towards the democratization of enlightenment is a core structure not of Eastern but classic Judeo-Christian thought. Gafni points out that a failure to understand the true nature of Enlightenment has kept it from having its critically needed impact as a legitimate modern belief, which would serve as an evolutionary strange attractor for human motivation and aspiration. Gafni redefines Enlightenment in its most basic terms as *sanity*. Once you understand Enlightenment as sanity then the democratization of sanity (aka Enlightenment) becomes a self-evident requirement. What stands in the way is the incorrect conflation of uniqueness and separateness (or personal with personality) which moves Enlightenment teachers to reject uniqueness; this in tern moves the mainstream population, who intuit personal uniqueness to be a critical source of human dignity, to reject Enlightenment.

The importance of these contrasting views of Enlightenment was brought home most vividly for me in two passages from Rabbi Lainer. Gafni explains the context for the passage, which makes reference to a section of the Talmud in which Moses takes the first census of the tribe while it wonders in the wilderness: "The census of Israel in the desert is an affirmation of the radical uniqueness of every individual. *Mispar* [the Hebrew word for] 'number' is not a technical means of identification but rather a badge of each individual's metaphysical uniqueness. For Lainer, the census in the desert is not aimed at yielding population statistics, that is to say, the final number of the community; rather, it is focused on the act of numbering every individual as the revelation of their uniqueness. Lainer states:

> The idea of "lifting up of the head" (taking census) is in accordance with the Talmud (bBer, 58a): 'One person's mind is not similar to another person's mind.' For God apportioned goodness and life to each one in particular, and no one is similar to anyone else. It is therefore written, 'Lift up the head.' That is, every person should be in the place belonging to them. (Gafni, 2012, p 7)

Again, Gafni contextualizes another passage from Lainer on the same theme: "Lainer moves from a language of providence… to a language of the mystique of participation. Uniqueness is rooted in an acosmic metaphysics in which the human being is not merely subject to divine providence but actually participates in divinity. The result of this ontology is the daring, yet obviously necessary, assertion made by Lainer that if one unique soul, *nefesh biferat,* were to be missing, then divinity itself would be lacking. Lainer interprets the phrase "this shall be the number" (Hos. 2:1) as meaning that:

> Everyone will be needed, for from all of the people of Israel God's greatness can be seen. And if one person is missing… then "the goblet would be lacking wine" (Cant, 7:2). Just as when the portrait of the king is drawn on many thousands of tiles—if one of them is lost, the portrait of the king would be lacking. (Gafni, 2012, p. 22)

This image brings to mind contemporary montages in which hundreds of thousands of photos are combined via computer to make one face—the uniqueness of each face unquestionably maintained, while the overall pattern of a single face is also distinctly clear. This is a powerful, if simple, encapsulation of the *acosmic humanism* that is the central scholarly contribution of these books. The theme is encapsulated in the mystical idea that each individual has a unique letter in the Torah—that each person is a unique word in an endless sentence spoken by God, whose illocutionary goal is total self-expression.

These kinds of theological and philosophical arguments for inviolable uniqueness and individual dignity pile up until a fundamentally new image of divinity and awakening dawns on the reader. It is not through the extinguishing of personality or the self that awakening unfolds. The goal of spiritual practice is not to merge one's personal uniqueness into some vast impersonal process. Instead, the goal of the religiosity argued for by Gafni is to become, to borrow his nomenclature, "outrageously *sane,"* to be so *"fully human,"* so fully *yourself,* that you liberate the powers needed to actualize the stunning uniqueness of your life. That is, the goal is to lift up your head and be counted, to affirm your irreducible individual dignity, and be empowered to participate as only you can in the evolution of humanity.

Toward a New Language of Liberation and Social Emancipation

This is all very different from lowering your head to look at your navel in meditation. Why be counted when you are really *nobody*? Why work to build a world that affirms the dignity of each and every person's *illusory* self? The radical teachings in Gafni's books expose the a-political, apathetic, and defeatist underbelly of so much of Western Buddhism, where the teaching of meditation is combined with affluence and liberal values to create an insular and self-affirming escape from the obligations of uniqueness. Who is left to stand up for the inviolable rights of individuals when everyone is sitting down, counting their breaths, and spending a small fortune on retreats from the world? There is no better ideological lubricant to grease our decline into a global corporate dystopia than a form of religiosity that denigrates the individual, promotes quiescence, and calls for a personal disappearance into some larger structure or process.

As early as the 1970's Habermas (1970 p. 27) identified Western Buddhism as a "sedative—an orientation that channels outwardly directed protest into apolitical paths…". Decades later, the critical theorist Žižek (2001) would announce even more provocatively that:

> Western Buddhism is establishing itself as the hegemonic ideology of global capitalism…presenting itself as the remedy against the stressful tension of the capitalist dynam-

> ics, allowing us to uncouple and retain inner peace…it actually functions as its perfect ideological supplement…. Rather than trying to cope with the accelerating rhythm of technological progress and social changes, once should rather renounce the very endeavor to retain control over what goes on, rejecting it as the expression of the modem logic of domination—one should instead, “let oneself go,” to drift along, while retaining an inner distance and indifference towards the mad dance of this accelerated process, a distance based on the insight that all this social and technological upheaval is ultimately just a non-substantial proliferation of semblances…. The “Western Buddhist” meditative stance is arguably the most efficient way for to fully participate in the capitalist dynamic while retaining the appearance of mental sanity. (pp. 12-13)

The point here is not to critique Buddhism as a whole (some of my best friends are Buddhists) but rather just to point out that the most rapidly spreading religion in the Western world (Buddhism) is not a form of spirituality that has been leading its adherents to perpetrate disruptive social change in the name of social justice. The last time that happened on a large scale in this county it was a movement firmly rooted in the Judeo-Christian tradition, under the leadership of a reverend with a dream about the dignity of each individual, the inviolability of human rights regardless of race, and the unique expression of humanity represented by African Americans. Today our enthusiasms for Eastern spiritual imports are leading us away from the discourse about individual rights and democracy leveraged so eloquently by Dr. King, which has served as the most powerful catalyst of social change in history. This language of liberation that is our heritage is being replaced by a language of liberation that is predominantly about the qualities of our own minds and emotional states and which includes the remarkable idea that by sitting for an hour a day on our $90 buckwheat meditation cushion we are somehow helping to change the world. There is perhaps no more iconic representation of the new American post-modern spiritual landscape than a room full of homogenized white people sitting on sets of standardized cushions facing the wall.

In recent decades we have become increasingly homogenized and standardized, as individuals’ lives have been forced into a matrix of techno-economic and political institutions of unprecedented reach and invasiveness. Counterintuitively, reported increases in individualism, narcissism, and entitlement reflect exactly these trends marking “the twilight of the individual.” The post-modern narcissist or entitled millennial are in fact suffering from radical doubt about their own self-worth and unbearable uncertainty about the value of their contributions to the world. As Kohut (1971) and other self-psychologists have taught us, the narcissistic personality is in fact an extremely fragile self-system, one almost totally dependent upon the affirmations of others. Conspicuous displays of self through social media, self-aggrandizing do-gooding, demands for special treatment and attention—these are not signs of the a self blown out of proportion, they are signs of a self desperate to be *seen*, a self needing to be *counted* among the worthy, needing to be *affirmed in its unique worth*.

The cure for the dysfunctions of post-modern identity formation is not a spiritual teaching that tells individuals to look through the illusions of their unique personal essence and beyond the unique time and place in which they live. In fact, the post-modern reader of spiritual books is already tenuously connected to their unique gifts (as opposed to the gifts the media leads them to wish they had) and the unique responsibilities of their time and place (as opposed to those directed toward a world represented through social media). Most spiritual books offer a weak balm for the stinging anonymity and de-personalization of mass-customized lifestyles and post-historical consciousness. These books tell us that our particular personalities and places are to be devalued in favor of some abstract Universal (be it Evolution, Big-Mind, or The Great Perfection), leaving the reader confirmed in their suspicion that their unique life has no special value.

As a way of bringing this point home and as a kind of poetic closing it is worth quoting at length a teaching delivered by Gafni at Esalen Institute in 2012:

> Your Unique Self is your irreducibly unique perspective which fosters your unique insight which creates your unique gift which engenders your unique responsibility to address the unique needs in your circle of intimacy and influence. Are you willing [as a seeker of Enlightenment] to play a larger game? Let me state the core premise clearly. We live in a world of outrageous pain. The only response to outrageous pain is outrageous love. Why can we not access the outrageous love necessary to engage in the evolutionary healing and transformation of ourselves and our reality? Because we shut our hearts to the unbearable pain of the world. Not merely because, as the classic Enlightenment teachers reprimand us, we are stuck in ego. Rather because the gap between our ability to feel and our ability to heal has become too great. It simply hurts too much. Through the virtues of the virtual media we are almost omniscient. We are aware today of a level of suffering that only God was aware of a hundred years ago. But unlike the classic vision of an omniscient but also omnipotent God, we are largely impotent to heal the suffering. Because the gap between our ability to feel and our ability to heal has become too great we shut our hearts and turn inwards in varying mixtures of overt narcissism and more subtle spiritual materialism in the form of soothing meditations and various pseudo-realizations of oneness and enlightenment. This is in marked distinction to the realization of Unique Self that closes the gap between the ability to feel and the ability to heal…. We now come back to our core premise. We live in a world of outrageous pain. The only response to outrageous pain is outrageous love. What does an outrageous lover do? She commits outrageous acts of love. Which outrageous acts of love? Those acts of love that are a function of her Unique Self. In this way the Enlightened Unique Self who is the incarnation of all that is, living in her as her and through her, intimately addresses the unique needs in her circle of intimacy and influence. In doing so she reclaims her potent power—the power of the *Shekhinah* —the power to heal and transform. The gap between the ability to feel and heal is closed. The heart opens once again and a sacred activism sourced in outrageous love perfumes all of reality. (Gafni, 2012b)

Gafni’s work is a dramatic evolution of the languages of liberation that constitute the profound dignity of our Western traditions—languages of liberation that allow us to understand Enlightenment as a potent force for social transformation. This is why I argue for reading some books instead of others. It is in books that we find the images that catalyze our transformation and the words that we use to remind ourselves of who we are and what we are about. Gafni’s books are unrivaled in their provision of a profoundly new language of liberation. These are teachings for our time, which is a time to practice spirituality in the world, fearlessly, with eyes open, and to participate in a planet needing to be transformed by the power justice and love. So I will do something out of character and say: *read these books*. You will be compelled by the rigor and depth of the scholarship, while at the same time swooning from the depth of the ideas. Works like this come along once in a generation.

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Business Secrets of the Trappist Monks: One CEO's Quest for Meaning and Authenticity

August Turak (2013) New York: Columbia University Press.

Review by Jonathan Reams[1]

Why I Wrote this Review

I do not tend to bother reviewing books that I am not inspired by. When I am inspired, I want to offer others the opportunity to be inspired as well, so sharing my impressions becomes a way of offering this opportunity. Twelve years ago I had the opportunity to meet August Turak (or Augie) at a conference called Inward Bound. It was hosted by the Self Knowledge Symposium (SKS) a group of students in the Raleigh North Carolina area committed to self-knowledge and development. Turak had inspired the group's formation, and was a keynote speaker at the conference. Subsequent opportunities to connect with Turak came shortly afterwards, and I recall listening to him tell the story of Brother John, which later won him the Templeton Foundation's Power of Purpose essay contest. The story was inspiring and touched on core values that I have always held dear.

Then this past summer Turak's long awaited book project was finally released. I found the book to be a great combination of principles and stories, both from the monks at Mepkin Abbey, and from Turak's extensive business life. While not of the genre of leadership books that I normally read, my personal experience with Turak made it an easy choice. *Business Secret of the Trappist Monks* is not a how-to book nor a research based book. It is not really a case study, although there are many stories and we do get to follow parts of Turak's own company's story. It is certainly not an academic treatise. Instead I see it as Turak's attempt to transmit to the reader the ineffable qualities of leadership and success he has seen and gained from being able to learn from masters of the art.

In what follows, my aim is to provide a Readers Digest version of the book. Just enough to pique your interest and give a feel for the message it contains, but not so much you feel you have gotten your fill. Turak is a great storyteller, and you would miss much limiting yourself to my short overview. I go chapter by chapter, weaving description with commentary, hoping to hint at the sense of the deeper purpose and meaning behind both Turak and the monks' way of engaging in the world of business.

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Chapter 1

Any good book needs to grab the reader with its opening, to somehow convey the essence of its message immediately. Turak does this by telling a story of Father Malachy and his death. After the funeral, walking with another monk and reflecting on how he died comforting others, he hears that “Everyone wants to die like a Trappist. No one wants to live like one” (p. 4). We are met with this image of the core principle of selfless service sustaining itself even in the face of death. What must it be like to live with this kind of grace at the core of our being? How can this way of being apply to our business life?

It is this very point that Turak sets out to prove: that the perceived dichotomy between success in capitalism and selfless service are not at odds, but are actually fundamentally inseparable. He notes examples of other Trappist monasteries renowned for their beer or preserves. Part of this comes from the view of human nature that Turak puts forward; that we all aim to transcend the selfishness of our early experiences of being human, that we all long for a transformation of being to enable us to go beyond ourselves. Why are people like Gandhi and Mandela so often used as models of great leaders? Their lives were examples of this journey of self-transcendence, to a life of surrender to service to others and to something greater than themselves. So how can we mere mortals live such a life?

Chapter 2

So then what is this transcendence we wish to have and experience? We can read, talk and imagine all we want as the means available to us for approaching it. Yet as Turak describes in one of his visits to his spiritual advisor, the 90 year old Father Christian, the gulf between all of the worldly learning and the experience of transcendence itself is “infinite.” Turak confronts the hard questions of the impact that the “success” of capitalism has had on our society; high depression rates, lack of happiness etc. as signs of a lack of this transformation. If we are treating the goals of capitalistic business as ends in themselves rather than simply means, we get lost in mistaking the nature of the transformation we are longing for.

This mistaken pursuit is shown in terms of three types of transformation; that of our condition, our circumstances and our being. He goes into how we “vote” to show what we really want by our behaviors, i.e. how we spend our money – dollar votes. What we spend a lot of money on is stories, whether books or movies or other forms, we spend billions on stories, and the ones that touch us most are the ones that exemplify the hero’s journey. The stages of this journey are briefly laid out and linked not only to examples from well-known movies, but also to business examples. What all of this points to is that our search for transformation cannot be done by proxy – we must undertake it for ourselves. As well, we see countless examples of the most common mistake or shortcut people try to take. For example, believing that we will be transformed by using power to make people treat us differently. Or worse yet, that by transforming others’ opinions about us, we will somehow be transformed. The energy that people expend on these illusory shortcuts are also illustrated in classic themes in storytelling, of turning to the dark side of trying to make ourselves bigger through others. Transformation is an inside job in the end, a renunciation or letting go of self rather than an abuse of self to change others.

Chapter 3

The seeking of this transformation is often latent in us at an early age, misplaced in various ways. Turak tells of a front row seat at a Rolling Stones concert in 1972 which left him feeling disappointed for weeks after. He looks back and sees that he was expecting some transformation of being to occur there, and when the transitory transformation of his condition that the concert provided was over, he did not know how much he linked it to a desire for the deeper, more stable transformation of being, thus his disappointment. This is also linked to noting that we experience self-consciousness as a painful thing, yet long to lose ourselves in a task, forget ourselves in moments of service, revealing our longing for selflessness.

Part of the early training Turak had was spending a year as an apprentice to Louis Mobley, one of the creators of IBM's executive leadership school in the 1950's. There he learned about the importance of mission and purpose, and to "aim past the target." This led to a teleocratic management or leadership model, where service and selflessness are the mission.

One of the joys of reading this book comes from the personal stories Turak tells to show how he has learned many of these principles. As a consultant to a startup, working to help scale a rapidly growing business with a young sales force, he encountered an arrogant young man who resisted all attempts to coach him. A mistake by Turak in cutting off a young woman during a training session led to unease in himself and an inability to make it right. He finally found himself asking this resistant young salesman for help, which led to an opening to coach him and a transformation of his character. He learned many lessons from this, especially the need to go first and be vulnerable.

Chapter 4

In this chapter we learn about "goat rodeos." Stories of the early days of Microsoft were not about the millionaires made through stock options, but about being part of a team that would pull off an impossible task with an impossible deadline. This leads into a description of transformational organizations, both conscious and unconscious. Many startups take off and attract people willing to put themselves into full engagement mode to be able to experience the kind of transformation of being that comes from doing something greater than you ever thought you were possible of, over and over again. Yet if this culture remains unconscious, it often fades.

Turak uses three organizations as examples of how a conscious orientation to transformation of being can enable sustainable commitment and engagement. AA, monasteries, and the US Marine Corps, as different as their domains of activity are, all use methods aligned with consciously creating this transformation of being. They also all aim past the target. For example, AA does not aim to simply get people to stop drinking. This is a byproduct of the transformation of being essential to sobriety. These organizations also all depend on service, whether to God, country or helping someone else stay sober.

Turak talks about the challenge of going through the desert of transformation, or the dark nights of the soul as part of the necessary journey. Shortcuts to avoid this desert fuel sales in the self-help industry, exemplified by the instant, microwave, have it all now, weekend enlightenment seminars. He returns to the story of the move *The Devil Wears Prada* to show how dedication to the process and perseverance get you through the desert, and enable the transformation necessary to move forward on the other side. Turak's own version of this is told in his early adventures as a carpet layer. Later, he describes how his own software company got a chance to have their own goat rodeos when Microsoft would call with an impossible request that needed to be done the same day.

Chapter 5

After laying the groundwork about why a mission of transformation of being through service and selflessness is essential to business success, Turak now turns to the how. How can we enact these lofty ideals in our everyday lives? The first example is a regional credit union that has as its mission to enhance the quality of life of its members. Turak takes what could be perceived as a touchy feely business philosophy and shows how it has enabled this financial institution to guide its decisions and grow even in the recent economic crisis.

He then describes some of the story of how the Trappist movement began with Gethsemani in Kentucky, how Thomas Merton was involved, and those who left to found Mepkin Abbey. This brings him to Father Francis Kline, the abbot during the time of his visits. He uses the word holy as the only way he could describe Father Francis, and my own brief opportunity to meet him allows me to have had a taste of the quality of presence Turak alludes to.

Turak goes on to tell of the founding of SKS, the Self Knowledge Symposium at three Raleigh North Carolina universities and how his commitment to meet once a week with these kids led him to turn down a dream job opportunity. This principle of keeping his word ended up paying off far more handsomely than the potential dream job (the company ended up bankrupt). Through this he learned what his Zen master said about it being more what he didn't do than what he did that made a difference on his journey – he never sold out.

Chapter 6

This chapter looks at how selflessness is tied to community. We will do for others what we will not do for ourselves. We can build culture and community through this by inviting a kind of infectious feeling of the delight in doing good for others. Stories of some of the monks at Mepkin illustrate this. Turak notes his own early experience there effortlessly turning his attitude and actions from selfish to selfless. This results in seeing that the peer pressure a communal team working towards a common mission generates can make it easy to have a culture of selflessness that is infectious.

Chapter 7

This chapter is about excellence for the sake of excellence. Turak links this to the experience of sacrifice and suffering. What motivates this drive to excel is a sense of calling or vocation. While many people think that this is reserved for the few, one of the monks at Mepkin told Turak that "everyone is called to something bigger than themselves. Those who say they're not just never learned to listen" (p. 92). The notion of sacrifice is illustrated in this chapter by various stories. What stood out for me is how the SKS students took on inviting Father Francis to do an organ recital at Duke University's chapel (he had left Julliard and turned down a lucrative recording contract to become a Trappist monk). The faculty sponsor of the SKS group at Duke and also dean of the chapel told the students not to get their hopes up, that free admission to an organ recital might draw 50 people. Instead, the students charged $20 a ticket and created their own "goat rodeo" with a fierceness and passion to make the event excellent.

The event brought in around 2000 attendees, had television film crews present and it became a scene you might expect at a rock concert rather than an organ recital. The money went to charity, and the kids got much more than the experience of the event itself, which was amazing enough. They came away with having accomplished the impossible by learning how to engage their passion and holding themselves accountable for everything they committed to.

This creation of a culture of excellence for the sake of excellence is described as being behind the turnaround Jack Welch accomplished at GE. A case study from Turak's own experience as a vice-president for sales in a company describes how he got the sales team to want to succeed and be excellent. When he asked one of the sales team why the sudden change (this person had gone from having the worst results in sales to the best) he was told "Once you know what it feels like to be your best, you never, *ever* want to go back" (p. 108). This leads to a list of the ways to enact the principles of service and selflessness in a culture of excellence that gives the abstract principles a method.

Chapter 8

This is a chapter about ethics. Questions concerning ethical behavior are not especially concerned with "bad people doing bad things," but with situations that lead to "good people doing bad things from fear and anxiety" (p. 118). In this business model of service and selflessness, the source of ethical behavior is seen to be rooted in three things: having a long term attitude, detachment, and aiming past the target. The long term attitude is not simply something that we can choose. It comes from a sense of timelessness that pervades one's consciousness. Stories of the monk's way of life and view of time illustrate this. It is also seen that an ability to delay gratification comes along with this sense of timelessness.

Detachment was mentioned before, as being the opposite of identification. It is about being rooted in something bigger than one's self that enables a person to change the things in their lives without feeling they are changing their identity. Aiming past the target again comes up. Then all this is illustrated with the story of how Turak's company, Raleigh Group International, was sold to an Israeli company that had been a large client. The process of creating stock options for employees almost delayed the deal past the deadline, (which would have led to calling it off), but was a commitment the owners would not let go of.

Chapter 9

This chapter is on faith, which is viewed as "trusting the process" in a dynamic model of faithfulness rather than a static faith in a belief about some doctrine or dogma. This is then drawn out into the business realm, with the story of how PETA made a protest about the monk's chicken farming and raised a lot of media attention. Despite tremendous support the monks received from their community of customers and others, they decided to shut down the chicken business, eventually going into exotic mushrooms. They were able to do this because their “business” was not eggs, but service and selflessness, and thus the outer form of this could change because they were detached, or non-identified with the form of their enterprise.

Throughout this story, the phrase trust the process was used, and Turak illustrates this further with the story of how his company was finally doing well financially, then the success of the companies they were selling products for led to them being sold, and RGI appeared to be about to lose all their business. This led to a personal time in the desert, of wanting to give up. The story of how Turak kept faith with his commitment to his partners and friends, and the ultimate greater success this brought, generated a feeling of being inspired to be connected with something so worth doing that it would inspire the same commitment and faith in me.

Chapter 10

This one is about trust, where the ever present mantra “trust the process” appears yet again. The first example to illustrate this comes from Turak fracturing his ankle while skydiving and a subsequent deep sense of depression that came over him. This led to his first visit to Mepkin Abbey, where he learned to trust the monastic process, even when at first it did not appear clear how the outer forms of prayer and work would take him though the necessary personal transformation, or “great trial” process. After the long journey through this personal desert, all that was left was a sense of immense gratitude to the monks for them modeling and supporting the process.

The theme of trust in business can be found almost everywhere. Turak talks about this in terms of becoming trustworthy and how the road to this is actually detachment. In more tangible terms, this means letting go of a pride and self-centered identification with a role or territory. He illustrates this with a story of becoming the head of a sales department in a company needing help due to intense infighting and low performance. Seizing up the situation, Turak described how he went around to all the other department heads and asked how his sales department could make their lives better. He then implemented these to demonstrate trustworthiness to the other departments, leading to a turnaround and increase in morale and performance.

The degree that trust is a personal brand is nicely illustrated when Turak received a speeding ticket about 100 miles away from Mepkin Abbey. The judge, upon hearing where Turak was going, said that if he said he wasn’t speeding, then he trusted his word, simply because of the trusted reputation the monks had and how far it spread its influence.

Chapter 11

Authenticity and self-knowledge are the core of what it takes to become trustworthy. The process of gaining these is part of the processes described throughout this book. Here, how one monk’s self-disclosure of his personal journey of facing himself in the desert made a deep impact on Turak. This is then brought out in describing how Louis Mobley created the IBM executive leadership program. After hiring ETS (Education Testing Services) to find the skills and knowledge of great executives, Mobley found that such people were always outliers on the bell curve of any trait, skill or knowledge. What was in common to them was that they had certain values and attitudes, and that these were not the product of training but a certain kind of journey of self-discovery.

From this insight, the IBM program was set up to give executives opportunities to strip away facades about morality, intelligence and so on, to arrive at a greater place of understanding of themselves. This led to executive's ability to help group and team processes of refining a common sense of mission and purpose in terms of the deeper notions described earlier. The personal business narrative from Turak follows the acquisition of RGI and how their core product, which Turak received personal benefit from, was marginalized in favor of the new CEO's business plan. A meeting between them, the new CEO was confounded by why Turak would not fight for his plan and his personal interest, which allowed Turak to say "It's a product, and I have no plans to put the logo on my tombstone" (p. 165).

Chapter 12

Reading the last chapter, on living the life, explicitly named all the things I have also come to know in my own life as essential. One has to commit to the process, and each and every day, in each situation life brings to test us, maintain that commitment. No matter how inspirational reading this or any other book is, Turak is clear that "It is only through the long, slow process of living the life that the living waters of spirit permeate our rock-hard heads, until they finally reach our hearts" (p. 174).

The example here in this chapter touches my own heart, as I came close to part of the narrative. Turak described how Father Francis faced an incurable form of lymphoma that required chemo at a certain point to delay the inevitable. During the period before his chemo he spoke at an event hosted by the SKS group, Inward Bound, and told of his condition and how he was facing it to a group of 220 college students. That evening after his talk, I recall standing with him and Turak watching evening celebrations of ice cream, drumming and dancing in a tent on the lawn outside the campus buildings where the event was held. The simple presence and witnessing the joy of the students was permeated with an aura that lasted long after the event was over and we flew home.

Concluding Reflections

The thing that is hardest to describe writing this over/review is the feeling that reading through the stories of this book evoke in me. Something inside me is touched, and I see my own struggles to come to terms with my life, what I have created and the challenge to take full responsibility for it. At the same time, this feeling opens up a sense of freedom that is both anxious and exhilarating. There is something of this ineffable essence of life that transmits itself between the lines in the book, calling one to follow the path revealing itself before you.

The business secrets of the Trappist monks are not to be found in the usual formulas, even the principles Turak uses to convey these secrets. Nor are they found in the stories of heroic leaders. These secrets are to be discovered in the process of understanding business as a forum for our own and others’ hero’s journey, the passages of life that we encounter to give us the gift of knowing ourselves, and through this being able to transcend ourselves and serve others. The depth of this realization came through in the words of Father Francis, when telling Turak about his cancer. “‘What I could’ve never imaged’ he finished softly, ‘is that my cancer is the answer to a lifetime of prayer’” (p. 172).

Born in the Middle: The Soteriological Streams of Integral Theory and Meta-Reality

Bonnitta Roy[1]

Introduction

At the 2011 Integral Theory-Critical Realism symposium convened at JFK University, Roy Bhaskar noted that both his philosophy of meta-Reality and Ken Wilber's Integral Theory, were both "serious" in that their concerns were to facilitate personal liberation and realize social emancipation. While both philosophers agree that the personal and social domains are inextricably interwoven, the cosmological narratives which underlay their views differ quite dramatically.

Throughout his later works, *From Science to Emancipation, From East to West, and Reflections on Meta-Reality*, Bhaskar is clear that he believes that the natural state of humans, their ground state (which is co-present with the ground state of all beings and entities as the cosmic envelope) is an ever-present reality which is occluded by error, illusion, and structures of un-freedom, and that the way back to freedom, to the alethic truth, and to one's ground state is through the shedding of obstructions. For Bhaskar, the ground state is ever-present and the alethic truth is always operating, but humans have been disenchanted from their god-li-ness, by the nature of human self-consciousness, which has been separated from the ground of its being (from its own god-li-ness) by the occasion of its self-awaring.

Wilber's cosmology rests on the perennial philosophy's notion of enfolded levels of Spirit, unfolding as discrete levels of being through the cosmological force which simultaneous transcends (eros) and includes (agape) prior forms creating a richly textured holarchy of perspectives which arise under 4 simultaneous aspects: subjective interiors, objective exteriors, singular wholes, and plural parts. For Wilber, the ground state of being, is the ever-present primordial perspective, I-I, or original face, which has been "forgotten" so that Spirit can self-accompany in exquisite cosmological play, the impulse of which culminates in Spirit's becoming

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self-aware in the highest states and stages of human consciousness. Is it possible to see these are streams in a wider cosmological river where the imperative of the one stream to clear away obstructions, and the impulse of the other to ignite the clear light of awareness can be viewed as a generative system of awakening?

Integrating Structures

The states and stages transcend and include each other, which is to say that each higher level of both states and stages build upon the lower levels developmentally. Lower levels are related to higher levels as parts of greater wholes; and all parts are themselves wholes to smaller parts. Growth-to-goodness is interrupted, obstructed, or pathologized when eros and agape are not balanced or integrated. This can happen in two ways: 1) in the process of developing to a new stage or transcending to a higher state, some portions of the lower level are excluded, shunned, denied, or repressed, or 2) in the attempt toward transcendence, the developmental trajectory is stunted, denied, or oppressed. Because state transformation and stage transitions are de-coupled, it is crucial to nurture both state and stage growth to achieve healthy development. For example, spiritual practices which emphasize and accelerate access to higher states often produce "grossly deformed individuals" due to the lack of adequate nurturing of the other lines, levels and capacities which comprise the stage-structures of the developed self.

Because all development must occur within the quadrant matrix, many models of development that have come from integral theory suggest that the upward trajectory of development is actually more like a spiraling process due to the effect of the dipolar structuration of the elemental categories or deep quadratic structure. For example, ego development is construed to be driven in general by the dialectic between individual agency (UL quadrant) and collective communion (LL quadrant), and in specific, by the dialectic between emergent polarities that arise at different stages.[2] Likewise, psychological self-development (in the individual case) and social development (in the collective case) are both construed as being driven through a dialectic between interior dimensions of growth (intentionality, communicative action) and external dimensions (bio-neural-physical aspects of self, political-economic aspects of society). Integral theory therefore, embraces the dualistic structuration of reality, as essential components of development through states as well as through stages, where the dipolar vectors (or drivers) are eros and agape in the macrocosmic story, and the 4-quadrant matrix structure in the microcosmic story.

Shedding Structures

In contrast to integral theory's developmental "growth-to-goodness" model, critical realism considers growth, development and progress in the conventional sense primarily as obstacles, errors, and illusions accumulated in the fragmented, stratified and dualistic world. Whereas integral theory formulates salvation as additive or multiplicative (freedom + fullness, depth x span) , for critical realism, the path to salvation is primarily a process of subtraction or absenting conditions or structures that occlude, hide, distort, or otherwise prevent us from accessing our innate and always-present state of original grace.

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[2] See www.cook-greuter.com

> I think it is important to say here very specifically what we have to lose to become enlightened or realized. First we have to lose our ego, because, being in our ground state, we would see that our freedoms were indivisible. Secondly, we need to be intellectually more generally mentally clear, that is have no fixations, no prejudices, no preconceptions; in a way everything that we know in-built into our being, so that our minds are as free, clear, empty, flexible and creative as possible. Thirdly, we have to be emotionally clear…; So no ego, a clear mind, a pure heart, and then fourthly, a healthy and energized body; that is, we need to be as healthy and energized as we can. But there's a fifth condition, we need our "psychic being" to be clear too, that is, free of all traces and residues of the past, which includes karma from our past in this life and, if we believe in them, our past lives; but also our past in the form of the residues or scars of our experience buried in our unconscious--we need to transform our unconsciousness into consciousness, and, like our karma, clear it, release it, let go of it, get totally free of our past. (Bhaskar, 2002b, p.263)

According to the philosophy of meta-Reality, reality is stratified and fragmented on the macroscopic scale – and dualism and other modes of fragmentation are responsible for the enculturated, indoctrinated and karmically inherited conditions of unfreedom that comprise the realm of the actual. Conventionally, we go about our lives confined to the world of the actual, unaware of our deeper nature (our ground state) and unknowing of deeper, more total and holistic truths. Spiritual intuition, existential angst, and scientific inquiry are all activities which bring us to the edges of a greater understanding through the force of the alethic truth which is always pointing us towards our ground state of being. Human beings experience the "pulse of freedom" as the dialectic between this realm of the actual, and our primary state or natural state of freedom as beings participating in the realm of the real by virtue of being rooted in the cosmic envelope through our individualized ground states.

What does Development Look Like?

For integral theory, development happens in both stage and state processes. Stage development occurs throughout one's lifetime, and is progressive. State changes are transitional and occur as temporary episodes of deep transformative experiences here and there over the course of one's life. There are several neo-Piagetian theories of stage development that fit into the AQAL model. Integral theory's primary focus is on the levels of ego-development that trace the progression of psycho-cognitive development and the set of work, life-style, semantic, and behavioral values that together compose a values system or world-view. Integral theory commonly refers these levels as "colors in the spiral of development."

Individual development entails the accumulation of increasing capacities for navigating an increasingly complex world, including the ability to take multiple perspectives, capacities for double and triple loop thinking, development from concrete to abstract operations, to systems of abstractions and then to meta-systems (or systems of systems) of abstractions, to paradigmatic and then cross-paradigmatic thinking; from pre-dialectical to trans-dialectical (paradoxical) reasoning; from tribal identification to institutional identification to autonomy, and then onto post-autonomous identities; from the rule-based self-identity, to narrative, constructed and/or relativized versions; from ego-centric to ethno-centric to world-centric to eco-centric concerns.

Contrast this with the sequence of "improvements" that matter most to meta-Reality:

> When you do all the negations, when you say no system, no organization, no leaders, no fixed dogma, no fixed thought, no papal thought, no priestly thought, no spiritual authorities, no fixed emotional make-up, nothing, then what do you get when you have stripped all those things away, what do you get? It is not nothing; it is not only just nothing. When you strip away everything that we impose, everything that, heteronomously, we impose on human beings, we get free, creative, loving, spontaneous, energetic, intelligent, right-acting human beings – left to ourselves in what I would call our innermost nature. Technically what I would call our ground state. We are free, creative, loving. We are also right-acting, we will do the right thing and we will love it when we allow it. (Bhaskar, 2002b, 322)

This brings us to two important questions:

1. For integral theory: What drives the need for increasing complexity?
2. For meta-Reality: What gets in the way?

1. On the macrocosmic level for integral theory, the forces Eros and Agape work together as two divine hands of creation, driving the forms toward transcendence by way of inclusion, which is responsible for the complexity we see throughout the cosmos. According to this formula, forms "move forward" (evolve) toward increasing complexity because they "take along" with them all the prior forms as parts in an ever-enlarging whole. On the microcosmic level, development "moves forward" through the prior stages and therefore already conditioned by the prior structures, such that present (present self) is always in relation to both the past (self) as well as the future (self) – an additive, accretionary, iterative and fractal relation wherein the prior forms are enfolded as parts in the present form which will itself be enfolded as a partial whole within the next future, complexified whole.

2. With respect to meta-Reality, thought, a certain aberration of thinking, gets in the way. Bhaskar writes:

> Thinking, naming, judging impedes creativity, loving, right-acting human nature. They drain our energy and they set up repetitive patterns of behavior. They bind our energy. … We cannot even think by thought. Similarly, when we think about doing something loving, we are already taking the love away. When we are being loving, we just love. Thinking about loving is putting a condition on it. For if we do not pay attention to our thoughts, and we do not understand the limits of thought itself, then we will get stuck into this ideology of thought. (Bhaskar, 2002b, pp. 324-326)

Thought, is thinking turned onto itself, by quitting the activity of thinking and mis-taking it as an object. On a macrocosmic scale, this is the underlying mis-take, what Whitehead calls misplaced concreteness, which fragments the world of the actual (what Heidegger would call the ontic representation) from within the realm of the real (the ontological, processural continuum). On the microcosmic scale, this is the error which is called the epistemic fallacy – confusing what we construe to be true for what is really true.

For Integral Theory, epistemic sophistication, which grows through stages of differentiation, complexification and integration, represents a kind of spiritual *progress* because it fills (fulfills) fullness. This is precisely *not the case* with meta-Reality where, under the conditions of the master-slave relationship, people are driven to higher and higher levels of epistemic sophistication as they creatively feed the very mechanisms of oppression they are in pain to escape. Therefore it would be no surprise, in the information age of the era of late-stage capitalism, where *cognitive and conceptual complexity* proves to be the most powerful means of mass indoctrination, domestication and force over others (human and non-human), and where social, political, legal economic, and technological complexity offers the first-ever possibility of *global* control, that meta-Realists would critique Integral Theory's "fullness as epistemic sophistication" as a kind of spiritual sophistry.

On the other hand, meta-Reality has to account for the origin of dualism, and its products – separation and oppression. Dualism may be a product of "captured thinking" – the *thought* that separates consciousness from its ground state, and we, in turn, may be "captivated by thoughts" through a process of forgetfulness or amnesia, and thereafter go about confusing the solidified matrix of opposing perspectives for the fluid ground of becoming – but this merely begs the question: *Where does the ontogeny of "thought-filled forgetfulness" flow forth from in the first place, if not from the non-dual ground where Spirit abides?*[3]

Born in the Middle

We are born *in the middle* – unaware of our own beginnings and endings. By the time a child has learned to name herself, her reality has already been deeply conditioned by the ways of her parents and the language she was born into. The different levels of agency she experiences in her world – from the ability to move her body, the ability to affect her parents' behavior, the ability to manipulate other objects, including small animals and smaller siblings – demonstrate to her that the world is a rigidly stratified place. Objects persist long after their appearances are gone, and people compete for having things the way *they* want them to be. The process of naming things and using language to make sharper distinctions and shape new realities, exaggerates the thing-like nature of reality and weakens the sense of interconnectedness and inter-being. Events and happenings – the feelings of participation – slowly give way to things and their causes. The conventions of life become a matter of utility and instrumentality.

By the time we are old enough to begin to ask questions about our own beginnings and the nature of reality outside of conventional discourse (post-conventional inquiry), our way of reasoning and going about inquiring are already encumbered by layers of pre-conditioned meaning and the pre-constituted self. These include 1) a metaphysical framework primarily fixated with static things, 2) a permanent use of figure-ground contrast to organize reality, 3) conceptual metaphors that are constrained by the rules which govern the physical and gross embodied experience, 4) the implicit laws of reality that are transmitted by the structure of language, especially the subject-object (noun-verb) construction 5) cognitive biases of all types, including the split mind, 6) a privileged perspective based on a limited life experience 7) a diminished perspective based on repression of cultural bias and stereotype, 8) the effects of shadow material at the levels of self, culture, species, and biotic community, 9) primacy of operations in 3-dimensional rather than n-dimensional space and 10) an inflexible apperception of time.

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[3] Wilber addresses this question with a kind of parable that Spirit creates form because it is lonely all by itself; and then "plays by forgetting."

Only the post-conventional mind can begin to deconstruct all these implicit biases and blind spots. Slowly through inquiry and practices such as mindfulness training, we begin to receive insights. Peeking through some of the biases and releasing some of the conditioned structures of ordinary experience, we begin to experience non-ordinary states. We are shown that the subject-object or mind-body quality of experience can drop away; or that the sense of spatial separation can disappear; or how the mind, starved of stimulus, can manufacture is own hallucinogenic reality. We begin to experience expansions and contractions of time, and space spreads out and become self-luminous. We begin to notice and take note of the conditioned pattern that *is the self* participating in a patterned-upon-patterned world at scales all the way up and all the way down. In other words, we begin to experience the sense of our own beginnings through the deconstruction of the apparatus of existence into the deep phenomenon of pattern. When we are ready to begin again, *from that place we interpret as origin*, the place of elemental principles and primitives out of which we are born – something curious happens. We find we will need to become more and more sophisticated, cognitively, to sufficiently de-couple ourselves from all those conditioned patterns in order to witness them as objects in awareness. We find that we need to create higher and higher levels of abstractions and meta-abstractions to get at the deeper and deeper kernels of reality. In the process we may discover an underlying rule of the dialectically reasoning mind – the deeper the ontological immanence, the higher the epistemological transcendence.[4] By making this distinction, we can see that while meta-Reality is reaching downward, toward an ultimate ontological immanence, Integral Theory is primarily concerned with tracking upward toward increasing epistemological transcendence. Having been born in the middle—we are at risk of splitting apart!

Stratified Reality

In order to make sense of all this, we need to take a look at how Wilber and Bhaskar think about what is real, and how we gain access to truth.

Both Wilber and Bhaskar see "reality" as being stratified or divided among different types of worldviews which have ontological and epistemological components. Both philosophers remind us "the real" is not something "out there" waiting to be known, nor is it something that can be contained inside human perspectives – rather, "the real" is a complex *process* of mutual unfolding of knower and known; and that it is important to see both reality as well as the knower as agents in this unfolding.

Wilber's AQAL theory says the ontological and epistemological components arise mutually and simultaneously to form a single "Kosmic address" which locates both the subject and the world that is disclosed. For Wilber, the real is an enactment. He consistently argues against an ontological dimension that exists independent of an epistemological perspective. Certainly

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[4] This is one of Bhaskar's insights.

Wilber is not saying that there is no aspect of reality that is independent of human perspective. What he is saying is that there is no aspect of reality that is *independent of perspective.* In other words, there are perspectival worlds that are independent of humans – fish worlds, frog worlds, horse worlds, dog worlds, lion worlds, spider & butterfly worlds, amoeba worlds, plant, algae, plankton and coral worlds, molecule worlds, and atom worlds – Umwelts, as Jacob von Uexkϋll called them – entire worlds composed from the semiosphere of subjective and proto-subjective en-actors in the center of a semiotic enactment triad of mutual agency: the signifier (perspectival agent), the sign (meaning-bearing agent) and the signified (world-bearing agent).[5] Interwoven this way, Wilber's theory says *what is real and what is true* are derived together, and are relative to other *reality-truths* in a hierarchically structured developmental process whereby lower or more primitive *reality-truths* are transcended and include by higher or more evolutionary complex *reality-truths*. Furthermore, because for Wilber, "truth" entails a hermeneutic circle or a nexus of shared signs and signifiers, *reality-truths* become more true and hence more real, through the process of becoming more sharable and more shared. Because the process is never-ending, all *reality-truths* are partial. But the "missing pieces" that make them partial cannot be found except through the enactment process described above. Therefore, we can assume that what *drives the evolution of new, more encompassing reality truths, is the partiality itself—what Bhaskar would call "absence."* In other words, because any given *reality-truth* cannot itself be in relation to "missing pieces outside itself", then "partialness" itself must be an evolutionary driver. Early on, Wilber used the phrase "IOU to the universe" as an expression of this dynamic instability of all *reality-truths.*[6]

In order to make sense of Bhaskar's way of thinking, I have drawn the following which illustrates the various ways Bhaskar distinguishes between different types of realities.

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[5] Over the past 18 months Wilber and people close to him have intimated that he will soon publish a complete semiotic model of his work. For more than 20 years I have been following the progression of his writings. I see Wilber as continuing to move from Pierce to Whitehead and now back to Pierce (which resonates more with a Habermasian view) without incorporating the important revisions of Hartshorne and Kakol. Whether I have given an adequate account of what might be forthcoming, or not, remains to be seen.

[6] This phrase "IOU to the universe" always reminded me of the kind of radiation that Stephen Hawkins discovered coming from black holes. Nothing can escape a black hole, so it is paradoxical that radiation of any kind would emanate from them. It is as if when a particle enters a black hole, it enters another universe, demonstrating the partiality of this universe, and hence, the need to issue an IOU. My own interpretation of this "coincidence" is not that the universe works in the way that Wilber's theory works, but that the existing physics—the epistemological framework of the existing physics—that we use to explain black hole radiation is true, but partial. Hence, it has this same key feature of Wilber's theory. In other words, I am suggesting that this is not so much a key feature of the universe, but a key feature of our epistemic tools at this stage in human consciousness. Wilber himself, of course, does not need to make this distinction, since he relies on the argument that what is *most real about the universe* is what is *true for our human consciousness* since humans represent the leading edge of evolution.

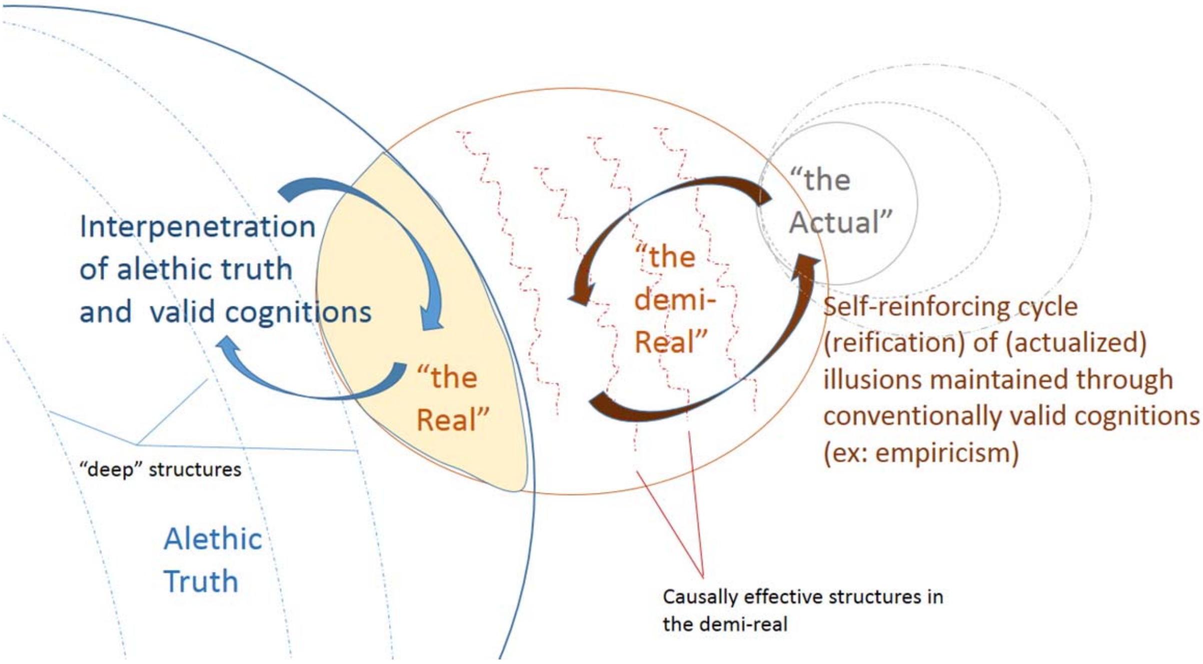
Interpenetration
of alethic truth
and valid cognitions
"the
Real"
"the
demi-
Real"
"the
Actual"
Self-reinforcing cycle
(reification) of (actualized)
illusions maintained through
conventionally valid cognitions
(ex: empiricism)
"deep" structures
Alethic
Truth
Causally effective structures in
the demi-real

Figure 1: An illustrative interpretation of Bashkar's stratified reality.

In the ontological realm, Bhaskar distinguishes the domain of the Alethic Truth from the domain of "the Real." The Alethic Truth does not depend upon human systems or human knowing. It can only be inferred because, although unknown, it is causally effective. We experience the effects of the alethic truth in the many ways our theories go wrong and our predictions fail. We experience it in the deep unsolved mysteries of science and the profound unpredictability of human systems.[7]

The next part of the illustration labelled "the Real" is that part of reality which unfolds through the mutual interpenetration of the ontological realm and human processes of inquiry and knowing. This domain of "the Real" most closely represents Wilber's notion of the mutual dependence of the ontological and the epistemological domains. But for Wilber, it is human development which constantly adjudicates and improves the adequacy or accuracy of "the Real" and therefore every perspective (every "real world that arises) is true, but partial. On the other hand, for Bhaskar, it is the Alethic Truth which exerts a continuous evolutionary pressure on human knowledge systems toward more adequate or accurate understanding, and so "the Real evolves the capacity to express more and more of the Alethic Truth.

Moving to the right, the diagram illustrates the domain that Bhaskar calls "the demi-Real." The demi-real is the world of confusion, illusion, error and make-believe. The demi-Real is maintained by human social convention, habits of language, unexamined assumptions, institutionalized processes of reification, propaganda, advertising, mechanisms of domination and control, narratives and ideologies of all sorts, mythological thinking, wives tales, and cognitive biases of all sorts. The "demi-Real" is the world of consensual pretense. One of Bhaskar's significant insights is that the realm of the demi-real *is also causally effective!* When we mistake the rope for a snake – we jump back! Human illusions become self-fulfilled prophecies over time.[8] When, as the Buddhist say "on the path we mistake the rope for a snake" and then maintain that illusion through stories which are made demi-real by conventional social behaviors, we begin to live in the demi-real:

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[7] There is no place for this realm in AQAL theory. In fact Wilber has described the realm of Alethic Truth as "a particular Turquoise perspective" – demonstrating once again his insistence that there is no reality that is not coupled with human epistemes. For Wilber, humans are always subject of worlds, never subject to them.

> *The path to the rope is taboo, because a snake lives there.*
> *We prove that there is a snake at the end of the path because no one goes there.*
> *By the time we send an expedition to go there, we discover the snake has gone elsewhere.*
> *We look for "elsewhere" the snake has gone.*

Each one of these "translations"[9] contribute to establish a *known* world Bhaskar calls "the actual." The "actual" is divided into a proper realm and an "improper" realm. The proper realm builds knowledge through the scientific methods which continually expand the contexts upon which knowledge is built—by revealing the conditions of partiality, for example, or by making explicit the boundary conditions under which the derived facts are "true." Proper knowledge is derived by assigning manifest facts to their ever widening contexts. The improper realm is the realm of methods such as empiricism, and what Bhaskar calls "actualism" where systems are founded on error, illusion, falsehood or pretense.[10] These systems can *actually* be confirmed through certain scientific and quasi-scientific methods or community-specific practices such that the experimental set up (or injunctions) are interpreted through methodologies that are validated by hermeneutic circles, to enact (bring forth, maintain) "their actual" world.[11] Still, "this improper actual" world is a false world, and the role of philosophy, is to identify the structures in the "demi-Real" and the improper methodologies that are responsible. For example, at one point in history we could "prove" that boys are innately smarter than girls, by random testing of boys and girls, men and women. Of course, this leaves out the structures of society that privileged the schooling of boys over girls.

Now we can see the basis of meta-Reality's critique of AQAL theory. When the foundations for the perspectives are maintained by methods of inquiry that are steeped in structures of the demi-real, or derived from empirical methods, those perspectives or worldviews are not "merely partial" but rather, *mostly if not entirely false.* Even still, these false views can be maintained by, complexified, and reified into "actual worlds" through human knowledge building processes. A worldview based on apartheid, is a human system that self-maintains a human construction that is false. For meta-Reality, perspectives and worldviews, are *falsifiable*. And therefore we can establish ethical criteria (values) based on factual ones.

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[8] There are too many examples to list. One being, the belief that boys are born smarter than girls sets up a system of causes and effects in society where boys are educated differently and grow up to be smarter than girls.

[9] As Bruno Latour would call them.

[10] Students of Buddhist scholastics will recognize this partition as between conventionally valid and conventionally invalid truths.

[11] You can see that Wilber's enactment theory is subject to a strong critique from Critical Realist theory.

What makes this “actual” world “demi-real” is that all the “realness” is constrained within the human semiosphere and not in “the world” where the Alethic truth lives. Founded on human error or confusion, realized by human-to-human injunction, enacted through knowledge-building structures and institutions that are anthropocentric and culturally conditioned, and sustained by power structures that are deeply vested in the existing interpretations of reality – the realm of the “actual” becomes increasingly divergent from the real and the true, and therefore, Bhaskar would argue, increasingly distanced from the good.[12]

The Soteriological Streams

I started this paper by introducing the *soteriological streams* of AQAL theory and meta-Reality. A soteriological approach must have something significant to say about *the good.* AQAL theory separates “the big three” – the True, the Beautiful and the Good—in a way that makes them individual and irreducible. The often used tenet in integral circles “you can’t derive values from facts” points to the paradoxical kind of exclusivity of the domains, wherein values (derived from upper left-hand conditions and methodologies) and facts (derived from right-hand conditions and methodologies) do not relate. For meta-Reality however, the deepest “facts” are Alethic truths, and Alethic truths are universal “goods.” When science and philosophy mine the deepest truths, they move us toward the greater goods. For meta-Reality, this is the ultimate validation of pairing philosophy as the handmaiden of science – where the role of philosophy is to “underlabor” for science, by examining and revealing the errors, illusions, mistakes, limiting assumptions, implicit ontologies and hidden metaphysics of the scientific frame(s) of mind, in order to “steer” the scientific enterprise toward the deeper truths and greater goods. But how does this underlaboring happen? What are the key features of practicing this way of philosophy?

In a surprising way, Bhaskar’s Critical Realism sparked a new generation of Object-Oriented Ontology (OOO) just as Bhaskar himself was turning toward the more spiritual concerns of meta-Reality.[13] By reducing the notion of “truth” to that of “fact” OOO philosophers mistake the map (of facts) that science makes for the territory that “resides” in or “abides as” Alethic Truth. As a result they create a world of demi-real which says “truth” and “goodness” reside “in the objects themselves.” This is clearly a step backwards.

---

[12] A strong critical realist critique sees the developmental stages popularized as colors in Spiral Dynamics and AQAL theory, not as deep evolutionary structures of “the real” but as a taxonomy of “actual” structures derived from the “demi-real” structures of late-stage capitalism. This strong critique would argue that the competitive and rivalous nature of capitalist economy “drives” the complex adaptive system “human” through higher and higher levels of complexity – a process Bhaskar refers to as “the continual creativity of the slaves.” Therefore, for critical realists, the only way “out” is not “further up the spiral,” as Wilber claims, but starts with the complete deconstruction of capitalist ideology and the complete decomposition its socio-cultural structures.

[13] Bhaskar’s move toward a spiritually informed Critical Realism caused a major rift in the Critical Realist community worldwide, where much of his work on meta-Reality has been outright rejected, including Bhaskar’s interest in integral theory.

A Gnostic Revival

A way forward would be to reclaim the notion of *alethic truth* from the dialectics of philosophical meta-discourse, and situate it inside a kind of revival of Gnosticism. In philosophical discourse we are confronted with the categories “epistemology” and “ontology” – which relate to knowledge and reality. These are the kind of categories that the synthesizing mind of Aristotle was comfortable with. Valid knowledge is simply “truth,” and valid realities are simply, “real.” Yet the Greeks made the distinction between these kinds of categories which appeal to the dialectically reasoning mind, and the gnostic terms which the dialectically reasoning mind cannot capture.

From this view we realize that *alethic truth* is neither an ontological term nor an epistemological term in the philosophical sense. Similarly, the Greek word *gnosis*, which is usually translated as “knowledge” is neither an epistemological term nor an ontological term. Gnosticism is a kind of knowing that does not depend on the relata of epistemological and ontological categories, nor their mutual dependence, nor their interpenetration. Similarly from a Gnostic view, *alethic truth* is a kind of truth that does not depend on the relata of epistemological and ontological categories, nor their mutual dependence, nor their interpenetration. As long as the soteriological program sticks with the meta-discourse of dualistic, dialectical mind, our theories will continue to drive us apart.

Looking, Seeing

John Whitney Petit’s (2002) book *Mipham’s Beacon of Certainty*, stands out as one of the most important and clearest exegesis of the complex map-territory (epistemology-ontology) problem. Petit is clearly immersed in philosophy’s soteriological streams:

> If philosophy is understood as a process of historical development without a specifiable goal, or as a deconstructing meta-discourse that parasitizes the naïve speculations of earlier ages, the classical Indian understanding of philosophy’s purpose might seem impoverished. As the handmaiden of religion, philosophy might not function as a transforming process, but as the rigid armor of dogma. However, the neglect of a critical philosophy in a soteriological context tends to result in the degeneration of religious and philosophical traditions into partisan insularities. This was a major concern for Buddhist philosophers. Philosophy imbued with the spirit of *moksa*[14] is more likely to draw people together than drive them apart. (p. 104)

In these few pages, Petit makes some key distinctions. For instance, he notes that philosophy based on *aletheia* is similar to Bhaskar’s subtractive approach—“a method for removing ignorant misconceptions about the nature of things.

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[14] *Moksa or* Moksha (Sanskrit) means emancipation, liberation or release. In eschatological sense it connotes freedom from samsara, the cycle of death and rebirth. In epistemological and psychological sense, moks(h)a connotes freedom, self-realization and self-knowledge. *Moksa* carries the same meaning as my term *view* (see Roy, 2006)

Petit introduces the important difference between the verbs "looking for" and "seeing." When the function of theoretical meta-discourse, is properly understood as a process of "looking for," it is no surprise that the process is never-ending. As the familiar joke goes "why do I always find the thing I am looking for in the last place I look?" When the content of our philosophical discourse is abstract formulation, we are involved in the *activity of looking for* rather than in the *direct experience of seeing:* "When one is attempting to fathom the nature of things through the medium of abstractions, it is as though one were looking for something" (p. 105). It is in this sense of "seeing" that *gnosis* refers to a *direct perception* not a perspective.[15] As "seeing," Petit writes, "philosophy is conducive to gnostic vision."

Guidelines

In attempting some kind of conclusion, I would like to propose some guidelines of a gnostic view of soteriological philosophy, employing Petit's useful terminology.

First, from this view we see that epistemology is the domain of the human experience of "looking for." This impulse of "looking for" drives the knowledge-building systems of human thought in science and philosophy. Epistemology refers to the plethora of outcomes, including theories and methodologies that result from this impulse. Because perspectives are shaped by "looking for" as distinguished from the perception of "seeing", they too are part of the epistemological domain and are subject to persistent error, illusion and confusion and thus, persistently advance into higher and higher orders of complexity.

Secondly, the "looking for" impulse is intersubjectively maintained through philosophical and scientific discourse and methodology. This is the purpose of the hermeneutic circle—the collectively held responsibility of "looking for" shared in the spirit of *moksa.*

Thirdly, this collectively held responsibility requires interpretation, and interpretation builds what Petit calls "contingencies of culture and history." This is the situation described as structures in Bhaskar's "demi-reality." These structures are "real" to the extent that they participate in the collectively-held project of "looking for;" yet they are not real to the extent that they limit, by abstraction and complexification, the experience of "seeing" as direct perception. When the activity of "looking for" gives way to the reductive and reifying "scientific" project of replacing the "looking for" with a false sense of "seeing that," the realm of the actual takes us further into meta-discourse that "parasitizes the spirit of *moska*" and farther away from the processes of self-transformation.

Fourth: Petit writes: "When one sees something as opposed to looking for or at it, one participates profoundly in the seen[16]" and "Unless the experience of freedom in personal realization is integrated with philosophical discourse, however, it is difficult if not impossible to share that realization with others." This is where the deconstructive sense of *aletheia* comes into play as the proper methodology for theorizing which "conveys a destination", or "orients others in the right direction." If the "destination of looking for" is the "seeing," then the destination in the "seeing" becomes an impulse to share this realization with others. Those theories that conclude or worse, preclude, the "looking for" by offering a set of conditioned propositions to "look at", betray the soteriological impulse. For philosophical theories with soteriological intentions, the moral implications of this are profound. Only through a shared experience of "seeing" can the moral imperative be satisfied.

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[15] The reader should note whereas a "perspective" is either an epistemological term, an ontological term or both, depending on the philosophical meta-discourse being applied, a "direct perception" is neither an epistemological term, nor an ontological term, nor a relata between them.

[16] See Appendix II

Together, these four prescribe the right view of a soteriological philosophy: 1) perspectival diversity and conventional knowledge are outcomes of "looking for" which 2) is an intersubjectively shared and hermeneutically maintained aspect of the collective human condition, which 3) is partially conditioned by error and confusion, and as such tends to parasitize the spirit of *moska* and therefore 4) the valid theory is one which a) deconstructs the error and confusion that arises, b) orients others toward knowing-as-direct perception, and c) sets the conditions for a shared experience of gnostic vision.[17]

We now have an answer to the first question: For integral theory, what drives the need for increasing complexity? Answer: The human project of "looking for."

This in turn brings us to our second question. How is it that we are for most of us for most of our lives, "looking for" instead of "seeing?" For meta-Reality: "What gets in the way?"

Cultivating *View*

The capacity for direct perception is an innate faculty of all beings—in this sense, "direct perception" is similar to Whitehead's notions of "prehension." If we consider all "things" as *prehending beings*, directly perceiving each other, we enter into the view which has been called *pan-experientialism* – where reality is constituted by every"one" experiencing every"one." As a theory, pan-experientialsim describes the processural continuum comprised of the participation of all beings. And yet, we do not always experience reality this way. Unlike direct perception or direct participation, *view* entails relative degrees of "correctness" or "freedom." The senses perceive "what is" directly. But experience is constituted by perception *and* context.[18] Furthermore, the context or interpretation is limited by *view*, which metaphorically can be thought of as a "viewfinder." The degrees of freedom in one's *view* determines how much of the context enters into the experience. In this sense, *view* is a capacity for allowing in more and more of reality into one's experience of it. Alternately, *view* describes the capacity for experiencing more and more of one's *participation* with all others. When our immediate experience of reality includes a direct perception of our participation with all beings, we have realized the *correct view.*[19]

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[17] People who are familiar with my work will recognize that "collective insight practices" includes the deconstructive movement as well as orients us toward a direct perception, (he ah ha! moment) and a realization that is collectively shared.

[18] We can say that perception and context = perspective.

[19] I attempted to describe this *view* in my paper presented at the 2013 Integral Theory Conference:

> To participate, means to enjoy movement and reciprocity within the generative ground of our universalized becoming and the foregrounding of our being. To participate means to act and to be

Let's go back to the story of the rope that is mistaken for a snake. The senses perceive "what is." If all of the reality enters in as context, then the person will experience the rope as a rope. If, however, the context is limited to a memory of a snake that once bit a dog, then the person is most likely to experience the rope as a snake. When the villagers hear her story, even though their senses perceive the words directly, if the context is limited to this story, then their experience will be one of limited participation, and they too will mistake the rope for a snake.

Our existential situation is such that neither our sensory faculties nor our capacity of view are fully developed at birth. We are born in the middle – with the sensory faculties of a child which begin to develop mostly inside the context of a ready-made adult world, partially conditioned by error, illusion and confusion. Because both direct perception and participation *as well as* context are shaping our experience, we being to suffer from a kind of existential dissonance, and begin the long process of "looking for." A "good" theory orients us toward the direction of a correct *view*, where direct perception arises with the experience of an adequate participation with reality. When the correct view is cultivated to perfection, we enter into a state of complete freedom and full participation. If Integral Theory and meta-Reality are concerned with an adequate soteriological philosophy, it would be important for practitioners to examine their claims in the context of this notion of *view*.

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acted upon, to affect and effect, to mediate both spatial and temporal extension in infinite directions and dimensions. To participate means to be "in the soup", not somehow above, beneath, behind the action, through the veil of transcendence, assumption of objectivity or inference of subjectivity. To participate means to lose track of cause and effect, agent and object, knower and known, actor and script. To participate requires a pre-conceptual or post-dialectical orientation to reality as "a movement, a happening, a transformation … as events that are constantly transformed." (Oliver & Gershman, 1989) To participate means, as Whitehead would have it, is to be in a relationship of feeling among a society of all other entities, human and nonhuman, biotic and a-biotic, within a nexus of shared history.

Appendix I

The diagram below illustrates the major philosophical streams originating in the pre-dialect "oceanic" era of the past and branching into three distinct dialectical philosophical streams where it situates Wilber in the perspectival (toward the hermeneutic and epistemological), and Bhaskar in the dialectical (toward the empirical and ontological). The third stream represents a transitional form between the soteriological philosophies inherited from Buddhist scholastics, and western process metaphysics evolving toward a true, post-dialectic "onto-logics."[20]

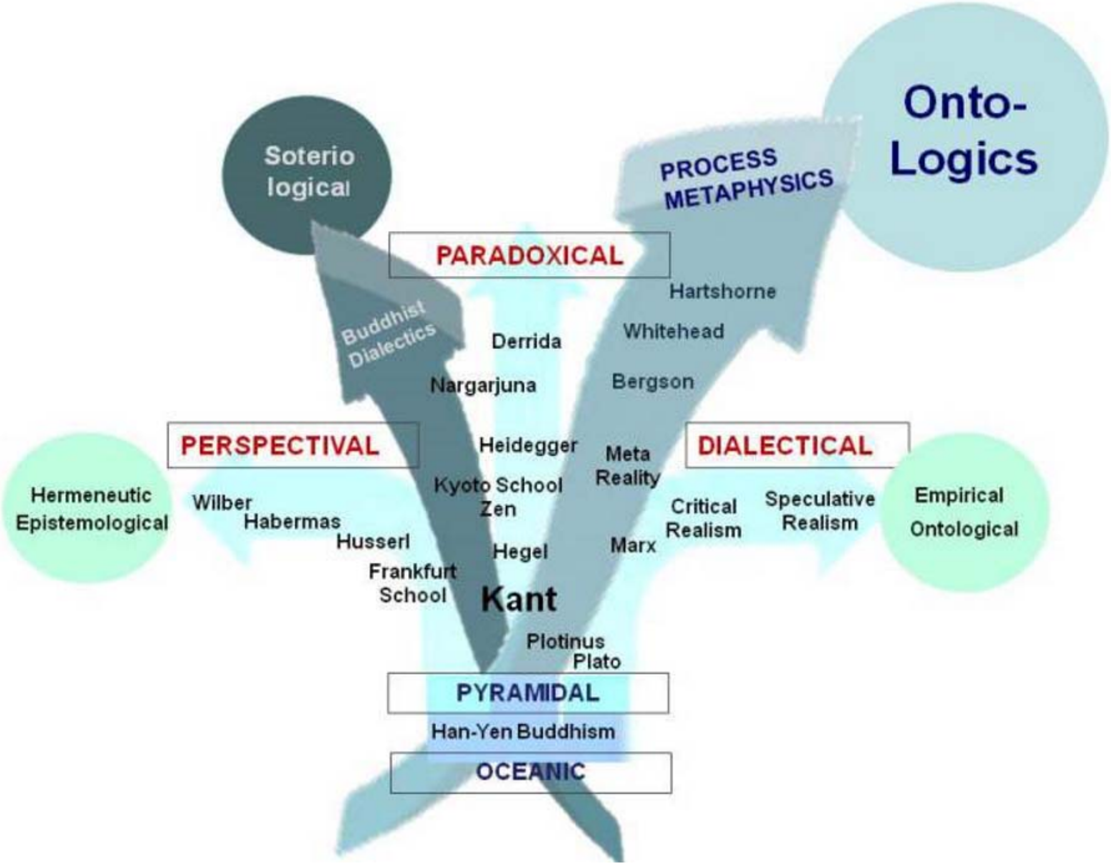
Soterio logical
Onto-Logics
PROCESS METAPHYSICS
PARADOXICAL
Hartshorne
Buddhist Dialectics
Derrida
Whitehead
Nargarjuna
Bergson
PERSPECTIVAL
Heidegger
Meta Reality
DIALECTICAL
Hermeneutic Epistemological
Wilber
Habermas
Kyoto School Zen
Critical Realism
Speculative Realism
Empirical Ontological
Husserl
Hegel
Marx
Frankfurt School
Kant
Plotinus
Plato
PYRAMIDAL
Han-Yen Buddhism
OCEANIC

Figure 2. Philosophical Streams.

Appendix II

The phrase "direct perception" carries some ontological baggage for the dialectically primed mind, since the question in the background is always "direct perception of *what*" – which leads the dialectically constructed mind to posit an ontological reality that is being perceived. This leads to the false dualism of subjective agent as perceiver and objective (non-agentic) object as perceived. This is the same problem with the semiotic triangle. The term "participation" is more appropriate to a modern gnostic vision, in which all aspects of reality are actively "participating" with all others, such that the phrase "direct perception" actually refers to full participation of all reality in all reality. As such, "knowing" is a kind of participation, but we can and do participate without knowing, which can, from the view of "direct perception" be experienced as an obstruction, whereas from the view of participation, it is not. However, knowing as meta-discourse can parasitize *awareness of participation* by creating a false sense of somehow being "above the soup and out of the fray" as it were.[21]

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[20] See http://alderloreinsightcenter.files.wordpress.com/2012/11/roy_suny_aqal2210.pdf

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[21] For more on direct perception as participation and feel see http://alderloreinsightcenter.files.wordpress.com/2013/07/roy_presenter-paper-itc-2013.pdf

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January 2015 Special Issue Introduction

Issue Editor: Bahman A. K. Shirazi

Once again, we are gratefully delighted to share with the readers of Integral Review another cross-section of scholarly writings based on the Founders Symposium on Integral Consciousness at the California Institute of Integral Studies in this special issue!

The first few articles in this issue represent a cross-section of topics in integral education ranging from integral methodology to pedagogy. We start with *Integral Education in Light of Earthrise* by Craig Chalquist. This article explores the relationship between integral education and the emerging terrestrial consciousness—a consciousness of interdependency, sovereignty, and earthly responsibility. It asserts that integral education is well positioned at this time when urgent environmental catastrophes threaten our planet, to help us recover an integral relation with the universe and our planet Earth, and contribute to restoration of a sense of earthly wonder and reverence.

The next article by CIIS president, Joseph L. Subbiondo, titled *The Dynamic Unity of the Opposites: Haridas Chaudhuri's Integral Method and Higher Education*, highlights CIIS founder's principal methodological approach known as Integral Dialectics and its related principle of the 'dynamic unity of the opposites,' as an essential aspect of his unique model of integral education. Integral dialectics aims at reconciliation of what appears to the mind as polarized conceptual opposites and engages the totality of human experience, educating the whole person beyond the dualistic rational methods of Western education.

My article titled *Integral Epistemology and Integrative Methodology* provides an introduction to integral epistemology and integrative methodology through a discussion of basic ontological principles of integralism and their implications for developing integrative approaches to knowledge. As an application of the integral dialectical approach the current dichotomy between qualitative and quantitative research methods is reconciled by showing that various research methods belong to a wide spectrum of methodologies that correspond to an integral epistemological gradient. Lastly, I discuss 'integral dialectical synthesis,' 'unity-in-diversity,' and 'analytico-synthetic integration' as three basic strategies for integrative research.

The next article is a unique collaborative project by a group of fellows and teachers from the Integral Teaching Fellowship Program at CIIS titled *Positionality as Knowledge: From Pedagogy to Praxis*. In this article, the authors Sara Maria Acevedo, Michael Aho, Eri Cela, Juei-Chen Chao, Isabel Garcia-Gonzales, Alec MacLeod, Claudia Moutray and Christina Olague help the reader better understand the epistemological relevance of positionality in integral education and critical pedagogy, encouraging students and educators to recognize their social positionings and reflect on how the institutionalization of their social identities not only inform the lenses through which they view the classroom, but also influence how they participate in the classroom. By employing an integral learning model, a learning community is transformed into a

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dynamic positioning field, in which students and educators interact and co-create knowledge beyond their habitual or institutionally imposed positionings.

The final article in this subset is an example of integral scholarship by a current CIIS student, Robert V. Burke, who explores two personal non-ordinary state spiritual experiences in the context of traditional yogic potentials, also known as siddhis, in his article *Manifest Transpersonal Experiences: Aṇimām and Laghimā Siddhis*. Such experiences which are not likely to be discussed in traditional higher education exemplify the nondual, non-rational and non-ordinary transpersonal states through a specific discussion of how *aṇimām siddhi* of infinitely small somatic perceptions and *laghimā siddhi* of levitation are manifested.

The next two articles are philosophical in their scope. First, Karabi Sen in her article titled *The Restoration of Wholeness* explores one of the key principles of integral philosophy—wholeness. Sen argues that integration is a developmental process which takes place in time and space. The self matures, shines and brings itself to fruition only through trials and tribulation due to loss of wholeness—without which we would not have a vision of what constitutes wholeness; nor would we aspire after its retrieval. Sen asserts that the journey to integration is difficult when we separate ourselves from our fellow humans and other forms of life or see ourselves as different from the soil and air and water that make us. Once we see ourselves in all that surrounds us and recognize them in ourselves uniting is not hard any longer. When we unite with the world we achieve a united, harmonious, whole self within as well.

Individuation, Cosmogenesis and Technology: Sri Aurobindo and Gilbert Simondon by Debashish Banerji is a fascinating exploration of the philosophy of conscious evolution emerging from different cultural backgrounds and historical eras. Banerji argues that the idea of conscious evolution, which has sometimes been seen as a philosophical consequence of Darwin's evolutionary theory in the life sciences, is more importantly related to the enhanced scope of human subjectivity made possible by technology. This essay considers the ideas of two generations of thinkers, focusing on Sri Aurobindo (1872-1950) from the earlier generation, and Gilbert Simondon (1924-1989) from the more recent era, questioning the consequences of contemporary technology in their thoughts, goals and practices. In developing the historical continuity of ideas, it tracks the question of technology from the earlier to the later generation, highlighting the understanding of both its promises and its ills and engaging with it the possibilities of conscious evolution.

Our last article is an integral psychospiritual case history of Etty Hillesum, a Jewish woman whose letters and diaries kept between 1941 and 1943 describe life in Amsterdam during the German occupation. *Unfolding Toward Being: Etty Hillesum and the Evolution of Consciousness* by Barbara Morrill is an account of the unfolding of Etty Hillesum's developing consciousness from an integral individual evolution of consciousness perspective. In the introductory section some parallels and similarities between aspects of transformation of consciousness and personality in integral yoga psychology and the work of A.H. Almaas and Karen Johnson, the developers of the Diamond Approach, is drawn upon to set the stage. Subsequently, based on her diaries, the spiritual and psychological journey of Etty Hillesum is examined in the context of the stages described by the Diamond Approach's method of inquiry.

CIIS owes much gratitude to Integral Review for providing the opportunity for this publication!

Bahman A.K. Shirazi
San Francisco, December 2014

Integral Education in Light of Earthrise

Craig Chalquist[1]

Abstract: This article explores the relationship between integral education and the emerging terrestrial consciousness—a consciousness of interdependency, sovereignty, and earthly responsibility. It asserts that integral education is well positioned at this time when urgent environmental catastrophes threaten our planet, to help us recover an integral relation with the universe and our planet Earth, and contribute to restoration of a sense of earthly wonder and reverence.

Keywords: CIIS, Earthrise, Ecology, Ecopsychology, Ecospirituality, Integral Education, Sri Lalita, Tripura Sundari.

In 1912, the supposedly unsinkable RMS *Titanic* sank, ending its career on the bottom of the sea, exactly where the gods of the Greeks had confined the Titans, those gigantic, inflated, world-offending powers whose acts of hubris against the natural order laid them low. Perhaps a useful question to ask as the oceans rise might be: How can integral education as we tend it at the California Institute of Integral Studies (CIIS) equip humanity to evolve beyond unsustainable, unjust, world-wrecking titanism?

"Integral" is a word with many meanings, but they all derive from a Latin word for "complete, whole." Here at CIIS we use it to mean forms of education that bring together wisdom traditions, fields of knowledge, and embodied practices into meaningful new combinations. How we teach here embraces not only the intellectual, but also the experiential and the applied, or to say it in shorthand: not only the mind, but the body and spirit. As a depth psychologist I would add *soul*, not as a metaphysical entity but as the felt sense of what is numinous, surprising, and enchanting. A root of "integral" is *tangere*, which means "to touch."

In 1968, the year CIIS was founded, astronauts from Apollo 8, the exploratory project whose mission patch bore an infinity sign joining the Earth and the Moon, saw our planet rise in beauty over the lunar horizon and were captivated—touched. Although they never fully emerged from their state of awe, they did take some marvelous pictures up there without fully realizing that the images announced a new era.

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[1] **Craig Chalquist**, PhD., is the program chair of East-West Psychology at CIIS. Craig focuses his scholarly writing and teaching on depth psychology, ecopsychology, qualitative research, Systems Theory, ecotherapy, and mythology from a psychological perspective. He practices what he refers to as "Deep Education": the kind that invites the human relationship to nature, elements, creatures, and Earth to shift from mere utility to deep appreciation. He also trains psychotherapists in ecotherapy techniques, has presented at Bioneers, and gives local presentations on "Gardening and Mental Health." Craig is on the editorial board of the journal *Ecopsychology* and a member of the International Association for Ecotherapy.
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This conjunction of events strikes me as meaningful and anticipatory. A few years before the astronauts beamed the famous Earthrise photograph back home, Rachel Carson (1962) published *Silent Spring* to warn the world of the dangers of unregulated pesticides. As new CIIS students witnessed dialogues between depth psychology, shamanism, Buddhism, and tantra, as Earthrise spanned the gulf of scientific inquiry and soulful response between planets and within the hearts of appreciative spacefarers, as Dr. Martin Luther King lay in peace after giving his life for what he called the Beloved Community, as demonstrators marched for peace and equality in Chicago, Atlantic City, Mali, Mexico City, Paris, and Prague, and as bombs stopped falling in Vietnam, the world watched as a new terrestrial consciousness, a consciousness of interdependency, sovereignty, and earthly responsibility, began to melt away archaic dualisms of nation, gender, religion, and race. "You see the whole Earth," stated Joseph Campbell (1991) in the year of his death, "without any national divisions at all." (p.41). This dawn of Earthrise, and of what Sean Kelly (2010) refers to as the Planetary Era, also heralded the gradual rapprochement of self and world, culture and nature, inner and outer, celestial and terrestrial. As Earth rose up and shone in collective consciousness, humanity beheld a vision it had never seen, not in a million years of evolutionary and preevolutionary time: our homeworld glimpsed as a whole entity. "With our view of Earthrise," Campbell stated in an interview,

> we could see that the Earth and the heavens were no longer divided but that the Earth is in the heavens. There is no division and all the theological notions based on the distinction between the heavens and the Earth collapse with that realization. (Joseph Campbell quoted in Marler, 1987, p. 61)

He also referred, as would the astronauts who came later, to "the opening of the heart and eyes to the wonder of the world we're in” (p. 61).

Why is this sense of deep appreciation and wonder of our planet so important? Read the latest environmental news and you will see the grim results of their lack. We will not protect and cherish what we do not love. The environmental crisis now upon us presents, on many levels, a crisis of the capacity for reverence. My question has evolved somewhat: What can integral education contribute to this sense of earthly wonder and reverence? How (as I ask my students) might we feel truly at home on our homeworld?

Wonder and reverence for the beauty of nature and Earth have never been scarce at CIIS. In 1972, Dr. Haridas Chaudhuri, co-founder of CIIS, gave a speech here in San Francisco—the city, be it noted, where the United Nations Charter was signed—about the work of his teacher Aurobindo Ghosh. In that speech Dr. Chaudhuri spoke of bringing spiritual realization down into physical presence, an action with the potential of transforming our material lives into an expressive image of the Divine. Citing Sri Aurobindo, he described this as "a cosmic evolutionary process" that could lead to "the establishment of mankind's age-long dream of the kingdom of heaven on this planet." These ideals link the personal, the spiritual, the cultural, the cosmological, and the planetary (Chaudhuri, 1972, para. 12).

In 1975, Father Thomas Berry, who loved the natural world and called himself a geologian, held up Sri Aurobindo as an exemplar of meeting contemporary troubles with ancient spiritual practices and insights. Berry wrote, "He decisively answers those who say that Indian spirituality has nothing to contribute to modern humanity and insists that Indian spiritual traditions are fully capable of entering into the modern world of science and historical development."(Quoted in Ohara, 2014, p. 86)

For Aurobindo, as for Berry (2009), "The political and economic, the scientific and technological, the artistic and the literary, the spiritual and the religious are all valid forms of human existence that must be preserved, developed, and integrated with one another." (p. 15). Sri Aurobindo's spiritual partner Mirra Alfassa, usually known as the Mother, was even more emphatic about the earthly base of deep spiritual work. Criticizing practices that take leave of planet and body in search of higher realms, she asked,

> Why should life have begun at all if it is only to be climbed out of? … Evolution is not a tortuous path which brings us back, somewhat battered, to the starting-point. It exists in order to teach the whole of creation the joy of being, the beauty of being, the grandeur of being, the majesty of a sublime life and the perpetual development, perpetually progressive, of this joy, this beauty, this grandeur... It is on earth that we progress. It is on earth that we can accomplish. It is in the body that the Victory is won. (Alfassa, 1977, p. 424)

The land stewardship at Auroville, which she founded, demonstrates the ecological dimension of her vision.

To emphasize the continuing Earth connection at CIIS I would draw your attention to the school's logo of interlocking triangles. These are the yantric emblem of the Indian deity affectionately known as Sri Lalita, "She Who Plays," Tripura Sundari and the Red Goddess. Ancient depictions associate her strongly with aspects of the natural world, from the pot of honey she holds to her lotus, her lion throne, and her arrows made of flowers. Her hair is said to smell like flowers, and in some tales she is herself symbolized by a red flower. She created fire and gods and stars, grew mountains from her breasts, and she wears the sun and moon for earrings. Yet she is also associated with cities and urban places, suggesting that in her eyes, nature and culture need not stand in opposition. She rode around on a chariot built of light.

Although Sri Lalita is as lovely and seductive as an idyllic landscape or a purely flowing river, she can be a demanding deity, for she asks us questions for which we find no ready answers. How shall we tend the natural world from within the urban heart of cities as towers rise all around us? How can we be responsive to Earth's needs from within a square building? How do we teach renewed nature access with so little of it to rely on here?

We take our cue from nature: we make do.

Our faculty include adventurous souls who have performed fieldwork in indigenous communities, taught dance in sacred sites and shrines, and gone outside to counsel the poor. We do art and photography in nature, at home, in the classroom, and in the streets. We have courses in ecopsychology and Earth-rooted spiritual practices and programs in Integral Ecology and Ecology, Spirituality, and Religion. Some of us have worked with Joanna Macy, a true elder and mentor in her a lifetime of dedication to the Great Turning away from an industrial growth model of society toward urgent visions of a life-sustaining civilization. Our feminism courses include ecofeminism. As of last summer CIIS became a signatory of the Earth Charter, an international blueprint for a just, peaceful, and sustainable world community. The East-West Psychology department, has created a Certificate in Ecoresilience Leadership to train participants in how to guide groups of people frightened into helplessness by climate change news move beyond denial and paralysis into reflection and effective action.

One of the oldest dualisms challenged by the image of Earthrise, a dualism as old as writing, places everything pure and green outside in Nature and everything mechanical and degraded in the city, which we leave on excursions or vacations into still-verdant locales. But why not invite the greenery into the city? Our faculty, staff, and students quest for visions in the desert and the jungle, but they also bring back some of what they find out there. At CIIS we even make our own honey. The Red Goddess would like that—just don't tell her we named it after one of her sisters.

I am sometimes asked what relevance our integral learnings and psychospiritual practices still possess now that multiple environmental catastrophes have begun to sweep the entire planet surface. My reply is: "More than ever." In the words of Thomas Berry (1999),

> To recover an integral relation with the universe, planet Earth, and North America needs to be a primary concern for the peoples of this continent. While a new alignment of our government and all our institutions and professions with the continent itself in its deep structure and functioning cannot be achieved immediately, a beginning can be made throughout our educational programs. (Para. 11)

Having briefly mentioned some of our many points of departure in this project of deep homecoming, I would like to suggest that Sri Lalita holds forth a strategic hint about how to proceed in an increasingly imperiled world in which icecaps melt and liberties vanish even faster.

The ancient stories tell us that when the demon Bhandasura was born of the ashes of destroyed love, Sri Lalita and her followers rode to battle with him on elephants, peacocks, horses, eagles, swans, and, in her case, on a chariot pulled by a lion. Music wafted forth from its turning wheels. When she appeared in the field, Bhandasura laughed at her. What was this soft, lovely creature doing here? How could she hope to stand against him, who had hurled even the powerful god-king Indra from his heavenly throne?

Sri Lalita did not deign to fight him on his own violent terms with his own destructive methods. Instead, she unleashed an arrow made of flowers. Its name was Kameshwari, an expression of sacred feminine power. Arcing unstoppably through the sky, it penetrated its target and dropped him with a mountain-shaking concussion. As she stood over her fallen opponent, Sri Lalita knew she could destroy him easily now, but she chose instead to revive him, but not in his ugly form as Bhandasura. No. Rather, she restored him to his original form, that of the divine being he had been before his decline to ashes and darkness: Kamadeva, the god of love and desire.

If you can't beat 'em, transform 'em.

Sri Lalita bears within one of her many names an emphasis on the number three. For example, she holds in her hands the sources of three capacities or powers: will, wisdom, and action. The documentary film *A Fierce Green Fire* showcases all three as the first major documentary on the environmental movement, one of the oldest and most successful movements for cultural transformation. The film takes us through five decades of environmental activism on a global scale. Drawing on interviews, archival footage, and the scientific expertise of biologist E.O. Wilson, among others, the film touches on the early conservation movement, the fight against pollution in the 1970s, the often risky work carried out by Greenpeace to protect endangered sea life, the struggle against rainforest-depleting globalization, and twenty-five years of uphill steps taken to halt the ravages of climate change, recently described by Bay Area activist Rebecca Solnit as a sustained act of unnamed violence.

The film takes its name from a transformational moment in the life of Aldo Leopold. In his book *A Sand County Almanac* Leopold (2001/1949) describes how, having just shot a wolf,

> We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then, and have known ever since, that there was something new to me in those eyes—something known only to her and to the mountain. I was young then, and full of trigger-itch; I thought that because fewer wolves meant more deer, that no wolves would mean hunters' paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view. (p.11)

As a result of this encounter Leopold became a lifelong advocate of what he called the land ethic: "The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land" (p. 171).

> That land is a community, is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics. A land ethic, then, reflects the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of land. We can be ethical only in relation to something we can see, feel, understand, love, or otherwise have faith in. (Leopold, 2001/1949, p. 171)

Thomas Berry (1999) would agree. When he was a boy, his family moved near a creek flowing by a meadow:

> It was an early afternoon in May when I first looked down over the scene and saw the meadow. The field was covered with lilies rising above the thick grass. A magic moment, this experience gave to my life something, I know not what, that seems to explain my life at a more profound level than almost any other experience I can remember (Para. 1).

This early experience, it seems, has become normative for me throughout the range of my thinking. Whatever preserves and enhances this meadow in the natural cycles of its transformation is good; what is opposed to this meadow or negates it is not good. My life orientation is that simple. It is also that pervasive. It applies in economics and political orientation as well as in education and religion and whatever (para. 3).

He adds:

> We might think of a viable future for the planet less as the result of some scientific insight or as dependent on some socio-economic arrangement than as participation in a symphony or as renewed presence to the vast cosmic liturgy. This insight was perhaps something that I vaguely experienced in that first view of the lilies blooming in the meadow across the creek (para. 22).

"Cosmic liturgy" recalls the scientific-poetic teachings of Brian Swimme, of course, who knew Berry and whose demonstrations of the mystery and beauty of the universe not only win awards but invite us to feel at home in the starry cosmos

The reverential tone of Leopold and Berry and Swimme remind me of Alice Walker's. In an essay she wrote:

> What I have noticed in my small world is that if I praise the wild flowers growing on the hill in front of my house, the following year they double in profusion and brilliance. If I admire the squirrel that swings from branch to branch outside my window, pretty soon I have three or four squirrels to admire…And then, too, there are the deer, who know they need never, ever fear me (Walker, 1988, p.189).

All these voices represent a legacy of love for a world in decline, a world that cannot recover without a foundational change in collective consciousness away from numbness and disregard toward a deeper recognition of our innate caring for the things around, below, and above us. As Annie Dillard expressed this caring in her book *Teaching a Stone to Talk:*

> In the deeps are the violence and terror of which psychology has warned us. But if you ride these monsters deeper down, if you drop with them farther over the world's rim, you find what our sciences cannot locate or name, the substrate, the ocean or matrix or ether which buoys the rest, which gives goodness its power for good, and evil its power for evil, the unified field: our complex and inexplicable caring for each other, and for our life together here. (Dillard, 1982, pp. 19-20)

And so we gather to consider reverence for life and planet in the rising light of Earthrise, the anticipatory mythic image, perhaps, of a just, peaceful, and nature-loving civilization to be assembled from the ground up out of many soulful centers, one of which, perhaps, is here.

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The Dynamic Unity of the Opposites: Haridas Chaudhuri's Integral Method and Higher Education

Joseph L. Subbiondo[1]

Abstract: This article focuses on Haridas Chaudhuri's methodological principle known as *Integral Dialectics* and its related principle of the *dynamic unity of the opposites*, as an essential aspect of his unique model of integral education. Integral Dialectics is a methodological principle which is informed by the integral ontological principle asserting that human psyche and cosmological principles on the whole are interrelated and interdependent, and that holistic knowledge of reality presupposes a holistic and integrated psyche. Integral dialectics is a process of reconciliation of what appears to the mind as polarized conceptual opposites and engaging the totality of human experience, the whole spectrum of human consciousness, and educating the whole person beyond the dualistic rational methods of Western education.

Key Words: Haridas Chaudhuri; Integral Education; Integral Dialectics; Integral Philosophy.

Soon after Haridas Chaudhuri's death in 1975, members of the Cultural Integration Fellowship, the parent organization of CIIS, along with faculty and staff of the California Institute of Asian Studies (as CIIS was known then) edited a collection of essays that draws upon Dr. Chaudhuri's many recorded lectures. The collection, entitled *The Evolution of Integral Consciousness* (Chaudhuri, 1977), reflects the broad range of Dr, Chaudhuri's scholarship: it includes chapters on several academic disciplines including education, history, philosophy, psychology, and science. I will focus my attention on a chapter entitled "Methodology" because in it, Chaudhuri discusses his unique method and dialectic and how they inform his vision for, and design of an integral education. He explains in detail how the Indic principle of "the dynamic unity of the opposites," a concept contrary to Western logic, is an essential part of his unique model of integral education.

The chapter begins with Chaudhuri's expansive vision of integral education—an education inspired by Sri Aurobindo's integral yoga; an education rooted in the notion of an integral universe; and an education developed without precedent in the United States. Haridas

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Chaudhuri's integral education grew out of his deeply held practice of integral Yoga, as he claims:

> Yoga … literally means unity and control. It signifies the union of man with God, of the individual with the universal reality, of each with ALL of existence… But Yoga also means control, that is to say, appropriate self discipline. [Yoga] does not stand for any rigidly fixed rule, to which all should conform. …The important thing is that every individual should have the opportunity of growing from the root of his own being, following the bent of his own nature, along the lines indicated by his own physical make-up towards the full flowering of his individuality as a unique creative centre of the cosmic whole. (Chaudhuri, 1965, pp. 21-22)

Dr. Chaudhuri integrates this framework into his philosophy of education. He states:

> The more we understand the essential structure of the universe as a whole, the more we gain insight into the structure of man. The obverse is also true. The more we understand the essential structure of man, the more we gain insight into the unfathomable mystery of Being. (Chaudhuri, 1977, p.85)

Dr. Chaudhuri maintains that in the complexity of human nature, like in the complexity of the universe, we will discover the "dynamic unity of all opposites" (p. 85). He notes that the "The path leading to this insight [the dynamic unity of the opposites] may be described as integral thinking" (p. 85). For Dr. Chaudhuri, "The method of integral thinking represents a dynamic integration of the scientific, phenomenological and dialectical methods of the West and the self-analytical, psycho-integrative, non-dual value disciplines of the East" (P. 85). In this one comprehensive statement, he provides us with as concise a summary of his concept of integral education as any he or anyone has written.

In Chaudhuri's view, "Our knowledge and civilization began with the unity of all disciplines … and that [original discipline of unity] was Philosophy" (p. 91). He points out that as scholars studied and created an increasingly wider range of knowledge, they greatly expanded the number and role of disciplines and sub-disciplines. He concludes that the growth of the disciplines has made us realize that we need to reduce their number through synthesis. He suggests: "Now again [as in the past] we are feeling the need for harmonizing all the fragments of knowledge into a comprehensive synthesis, which would be a very sophisticated kind of unity" (Chaudhuri, 1977, p. 91).

However, while designing an education that draws many disciplines together and offers a holistic view of knowledge, Chaudhuri recognizes that the disciplines are valuable if they are not excessive in number. He acknowledges that some academic disciplines, for example philosophy, history, and psychology, are needed to for us to have a substantial understanding of the whole of knowledge. He writes:

> All disciplines of human knowledge are in essence organized systems of ideas or verbal propositions. They represent abstractions of thought from the concrete fullness of the real,

> designed to fulfill some definite goal or purpose of life—whether intellectual, ethical, religious or political. (Chaudhuri, 1977, p.87)

Chaudhuri recognizes that higher education has moved beyond the point where one method can be applied effectively to all areas of human experience and to all disciplines, because each area and discipline requires its own method. Yet, he insists that no matter how well advanced an area or a discipline may be, it presents a limited and fragmented view of the whole. He maintains that no ideological scheme or discipline could mine "the multidimensional fullness of the universe" (p. 87). He contends:

> There are some universal truths which from the standpoint of every discipline of knowledge can be conceptualized, can be expressed in terms of that particular discipline. The same truth can be translated into every discipline of knowledge… (Chaudhuri, 1977, pp. 90-91)

Thus, even though the disciplines have been separated, Chaudhuri acknowledges that they continue to remain interrelated. For example, he notes "…in the study of psychology, the behavior pattern of a human being dynamics can hardly be fully understood without reference to the conscious and unconscious motivation dynamics of man acting as an individual or as a group" (Chaudhuri, 1977, p.86).

Chaudhuri advances the idea that "Since a thought system is then essentially a map, to be distinguished from the territory of the real, it is unthinking confusion to equate it with reality itself" (p. 87). Here he draws on the core principle of the General Semantics Movement: "The map is not the territory." In the *Epilogue* to *The Evolution of Integral Consciousness,* Dr, Chaudhuri (1977) cites the work of the founder of this movement, Alfred Korzybski (1879-1950) who in 1933 published a very influential book, *Science and Sanity: An Introduction to Non-Aristotelian Systems and General Semantics* in which, as the title suggests, he challenged Aristotelian logic and the foundations of Western thinking. Given the impact of this book (Korzybski , 1933) on Haridas Chaudhuri's approach to knowledge, I will comment on it.

I was delighted to see this reference because early in my studies of linguistics, I was and continue to be impressed by Korzybski and the General Semanticists. Korzybski was born in Poland, educated at Warsaw University of Technology, and migrated to the US. He argued that we are confined by the structures of our language and thought, and we do not have direct access to reality—even though we often think so. We only have abstractions of reality. Typically, we confuse our perceptions (*the maps*) with reality (*the territories*). Moreover, our misperceptions regarding language and thinking mislead us regarding the nature of facts. In his first book, *Manhood of Humanity* (Korzybski, 1921), he explored his notion of the human being as the "time binder" species capable of passing on knowledge to future generations of the species; and in doing so, changing culture. Korzybski's work became the basis for the General Semantics Movement, and following the publication of *Science and Sanity* (Korzybski, 1933) he lectured widely at universities throughout the US.

Korzybski and the General Semanticists taught a variety of techniques to help people realize how they misunderstand "facts" and confuse their perceptions with reality. For example, he taught a technique he referred to as *indexing* in which we assign each individual a number in order to avoid generalizations about people (e.g. Mary 1, John 2, etc) and *dating* in which we identify each person by a date to remind us that people change from moment to moment. Korzybski was well received by many of Haridas Chaudhuri's contemporaries including Isaac Asimov, Gregory Bateson, William Burroughs, Kenneth Burke, Buckminster Fuller, Samuel I. Hayakawa, Robert A. Heinlein, Alvin Toffler, Alan Watts, and Benjamin Lee Whorf.

Chaudhuri (1977) believed that "the universe is the ground and the comprehensive unity of all thought systems without itself being a determinant system" (P. 87), and that this idea leads to a "non-dogmatic and non-doctrinaire attitude, to a genuine respect for opposite viewpoints and to a synoptic vision of the universe in its integral fullness". He states that a " closed mind is the worse enemy of balanced growth" (p. 88) and that "True respect for others is born of the vision of truth in others" (p. 88).

He notes:

> When we focus our love and devotion on one thing – one particular creed, country or conceptual system – as the only ultimate reality, our psychic energy becomes sharply polarized. Attachment and advocacy are bestowed upon the beloved object, the deity. The impulses of hostility and disgust are forcefully directed against any opposition, the menacing evil. Thus a love/hate syndrome develops within the psyche. It corresponds to the God/devil dichotomy in the outside world. (Chaudhuri, 1977, p. 89)

Chaudhuri connects integral thinking to his notion of the identity of the opposites:

> Integral or non-dichotomous thinking rejects both the metaphysical as well as the theological interpretation of dichotomies of thought in absolute terms. Dualities are neither sharp divisions in reality nor irreconcilable opposites of value and disvalue… [but] in essence complementary half truths clamoring for reconciliation in unifying categories of comprehensive thinking. (Chaudhuri, 1977, p. 90)

Chaudhuri explains that connecting ideas with their opposites is important for advancing education because it brings ideas into sharper focus. He recognizes that the identity of the opposites, contrasts with basic assumptions of Western thinking, and that it is antithetical to Aristotle's Law of the *excluded middle* which holds that the opposites cannot allow for a middle, or any possibilities in-between. Chaudhuri strongly maintains that denying a middle ground between contradictories leads us to many dichotomies. He notes:

> … in Eastern culture, which has been predominately mystical and spiritual, it is just the opposite – the doctrine of the middle path is emphasized. The discovery of that middle is the secret of synthesizing opposites. Everywhere in actual life we find that opposites meet, and there is always a middle ground which it is our task to discover, because that gives us the secret of balanced growth or integrated self-development. Also, this is the secret to attaining an integral vision of the total truth. (Chaudhuri, 1977, p.90)

The term *Dialectic* has its origins in ancient Greek rhetoric, and it traditionally refers to a method of reasoning and/or discussion. In the 18th and 19th centuries, Kant (1724-1804) used the term to refer to discourse dealing with apparent contradictions, Hegel (1770-1831) referred to *thesis* and *antithesis* merging into *synthesis*, and Karl Marx (1818-1883) referred to the contradictions in politics and history due to material needs. Chaudhuri (1977) defines *integral dialectics* as "a methodological postulate of the integral world view. It is also the most essential technique of integral self-actualization or the full flowering of the human potential (p. 92).

Drawing on Hegel's work, Chaudhuri (1977) maintains that "The human mind's quest for truth is the movement of consciousness from the dynamic tension between opposites (thesis and antithesis) toward more and more inclusive synthesis embracing the wholeness of Being" (p. 93). He cites the extensive pioneering work of Hegel and Marx in Western philosophy to develop dialectical idealism and dialectical materialism respectively. However, he concludes that both dialectical methods are limited because they are exclusively grounded in Western rationalism with its bias on dualistic logical thinking.

Chaudhuri (1977) proposes an integral dialectics that includes more than logic as it begins "with the indivisible totality of human experience, with the whole spectrum of human consciousness, of which sensory experience and intuitive apprehension of the whole are two inseparable poles" (pp. 99-100). Alluding to Marx, Chaudhuri (1977), argues that…

> No matter to what extent the economic and political structure of a society be drastically overhauled, until and unless there is a real transformation of inner consciousness – a genuine change of heart, as Gandhi would say, exploitation and injustice can hardly be eliminated from society. (p. 95)

Chaudhuri (1977) insists on a more holistic view that "Human problems are of a psychological, ethical, and intellectual nature as well as economic and political" (P. 95).

He advances that "Integral Dialectics focuses on the most fundamental dualities of life and reality –matter and mind, nature and spirit, world and God, the phenomenal and the transcendental, etc." (p. 95). For him, "The essence of Integral Dialectics consists in reconciling such polarities into the kind of comprehensive unity of which they are seemingly conflicting, but really complementary self-expression" (p. 96). Such ideas are unprecedented in the history of U.S. higher education.

In the final part of the chapter, Chaudhuri offers an illustration of his integral dialectics by focusing on the philosophical search for truth and the spiritual quest of self perfection. In making his case for unifying the opposites, he was very aware of the complexity of the task. It is a very heavy lift in Western higher education; but at the same time, he clearly recognizes that U.S. and European colleges and universities need to integrate ancient Eastern wisdom into their contemporary models of education.

The many advances in knowledge resulting from the empirical method of the 17th century Scientific Movement, the Age of Enlightenment, certainly attests to the value of a dualistic model of education. Nonetheless, the fact that it has dominated higher education to the point that it has discouraged, if not dismissed, the consideration of any alternative model has limited the capacity of Western higher education. I fully agree with Robert Bellah’s (2006) description of the defenders of dualism whom he refers to as *enlightenment fundamentalists*, and his complaint that they have prevented free and open inquiry into the nature of knowledge. Consequently, it has been and continues to be extremely difficult in US higher education for a university to have academic credibility and maintain institutional accreditation while challenging the dualistic educational paradigm of the academy.

We should be grateful to our regional accrediting body, the Western Association of Schools and Colleges (WASC) for accrediting CIIS for the past 45 years despite CIIS’ non-conventional acceptance of non-dualistic ways of knowing. Given the resistance in American higher to non-dualistic studies, it is remarkable that CIIS not only has survived, but that it is thriving with increasing appeal to more and more students. In fact, I am convinced that CIIS succeeds today precisely because it advances a non-dualistic model of education, or what we could refer to as *Post-Enlightenment Higher Education.* CIIS faculty and students consistently indicate that it is our alternative educational model that attracts and retains them. Moreover, our integral model of study and practice as promoted by our faculty, students, and alumni are contributing to an emerging receptivity in the U.S. to *Post-Enlightenment Higher Education.*

Dr. Chaudhuri insightfully saw half a century ago what many are beginning to realize today: namely, that higher education needs to embrace integral thinking and education. He passionately believed that “… only when we shall experience this transition from the dualistic… thinking to the non-dualistic way of seeing everything, can the ideal human society or the global society be founded.” (Chaudhuri, 1977, p.82)

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Integrative Research: Integral Epistemology and Integrative Methodology

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Abstract: This article provides an introduction to integral epistemology and integrative methodology through a discussion of basic ontological principles of integralism and their implications for developing integrative approaches to knowledge. After a review of classification of approaches to research, integration is introduced as a research strategy that can be applied to various modes of scholarship and within specific research methods. It is argued that the current dichotomy between qualitative and quantitative research methods may be reconciled by showing that various research methods belong to a wide spectrum of methodologies that correspond to an integral epistemological gradient. Lastly, three basic strategies for integrative research: Integral Dialectical Synthesis, Unity-in Diversity, and Analytico-Synthetic Integration are discussed.

Key Words: Haridas Chaudhuri, Integral Dialectics, Integral Epistemology, Integration, Integrative Methodology, Research Methodology, Sri Aurobindo.

> The holistic impulse is the integrative urge of our total being in which instinct and intellect, passion and reason, impulse and law, emotions and thought, self and society, psyche and cosmos, intermingle in an all-embracing organic relationship. The great challenge of our time is to restore this organic relationship by sound educational methods.
>
> (Chaudhuri, n.d., p. 54)

Introduction

An integral or integrative approach to research methodology is based on an integral epistemology, which is in turn informed by integral ontological assumptions and principles. Integral ontology holds that reality is multidimensional, and thus avoids the extreme positions that hold either matter to be real and spirit an illusory epiphenomenon in the case of materialism, or spirit to be the only legitimate reality and matter an illusion, as the case has been with many spiritual philosophies. In the integral framework of Sri Aurobindo both spirit and matter are considered real (Sri Aurobindo, 1970).

Several ontological and epistemological tenets are foundational to an integrative framework:

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- Reality is a multidimensional whole. All diversified appearances are expressions of an underlying unified whole.
- Experience of holistic truths presuppose and result from an integration of all levels of consciousness; i.e., unconscious, subconscious, conscious, and supraconscious.
- Highly integrated consciousness is characterized by transcendence of the dualistic framework characteristic of mentally dominated consciousness.
- At highly integrated levels of consciousness the duality between subject and object of experience disappears.
- Duality reflects the polarized structure of reality; *Dualism*, however, is the natural fallacy of the human mind that results in perception of opposites as essentially independent, rather than complementary aspects of reality.
- Symbolic abstractions (such as images, language and thought etc.) are not capable of representing the whole reality.

In the post-renaissance modern era there has been a firm separation between religion and science in the West. Science is primarily a method of investigation of material phenomena, and its findings are at best hypotheses and theories that have not been empirically rejected based on available evidence (Popper, 1959/2002). In other words, science is a method of knowing, rather than a body of knowledge. However, as many recent thinkers (Tart, 2009; Sheldrake, 2012) have noted, an unofficial fusion of materialism and science has produced a dogmatic belief system known as *scientism* which relies on either a conscious or an unconscious assumption that material reality is the only reality, and that all other phenomena such as emotional, mental, and spiritual phenomena are evolutionary byproducts of matter and the nervous system.

Material monism holds the fundamental assumption that only matter is real. In this view the metaphysical, including spiritual, realities are either deemed to be figments of human imagination, subjective beliefs, or illusions of the mind. These subjective states are believed to be the source of bias or error and every attempt is made to isolate or eliminate them. Objective observations are the building blocks of information that produce scientific facts which must be replicable and thus reliable as the basis of firm scientific knowledge under all circumstances. The so called positivist view which began emerging in the middle of the19th century further sealed the scientific method by rejecting and excluding all metaphysics from science.

Many spiritual systems, in turn, hold that spirit is exclusively real, and matter is either entirely an illusion (e.g. *maya*), or is an extension or modification of spirit into space-time. Those worldviews that hold matter as being the only legitimate reality also subscribe to objective empiricism (knowledge by observation through sense-data) as the appropriate epistemological foundation for knowledge. They hold that objective observations of material phenomena, and testing and verification through empirical means are the appropriate approach to establishing valid knowledge. On the opposite end of the spectrum, subjective, immediate or direct knowledge of reality (knowledge by identity or gnosis) forms the basis for spiritual knowledge.

Integral philosophy holds that both matter and spirit are equally real and that there are multiple ways of knowing corresponding to various gradations of consciousness and reality. Spirit and matter are part of a wider spectrum of consciousness and Being that includes physical, subtle-physical, vital, and mental realms, as well as supramental and psychic consciousness, each with many gradations and nuances (Sri Aurobindo, 1999, pp. 89-247). These teachings on various parts of being and planes of consciousness are summarized by Dalal (2012) in terms of two systems, a concentric and a vertical system. The concentric spheres are comprised of the *Outer Being*, the *Inner Being*, and the *Psychic Being*, each of which has a threefold mental, vital, and physical constitution. The vertical structure ranges from the *Inconscient*, to the S*ubconscient*, and up to the *Superconscient* (which includes: higher mind, illumined mind, intuitive mind, overmind, and supermind).

This complex integral configuration of human consciousness has an epistemological implication; i.e., there are multiple levels of consciousness and thus multiple realities, and multiple ways of knowing. Based on the concentric system of Sri Aurobindo, it is possible to arrive at a simplified epistemological framework we may call an *integral epistemological gradient*. The *Outer Being* refers to our physical body and the five senses which interact with the external material environment. This is the domain of traditional or objective empiricism which is the basis of scientific methodology.

The *Inner Being* is the realm of subjective and subliminal consciousness and is potentially quite vast and multilayered. As consciousness is turned inward we might first encounter a layer that corresponds to what phenomenologists call essential structures of consciousness. Here our main method of knowing is subjective empiricism, or observation of the inner layers of consciousness right below the external forms. Deeper still, there is the realm of subtle physical and subliminal phenomena perceivable only through the subtle senses (e.g. clairvoyance, clairaudience). As we approach the *Psychic Being* we engage with what is known as knowledge by identity or immediate knowledge, also referred to as gnosis in mysticism. Here there are no more forms, gross or subtle, but pure meaning or direct knowing.

Whereas modern science stops at the level of objective empiricism, qualitative methods developed in the latter part of the twentieth century include the surface layer of subjective consciousness, and yoga and mysticism have long advocated gnosis or knowledge by identity. The integral epistemological gradient, in congruence with all-inclusiveness and multidimensionality principles, provides an inclusive framework that validates the relative positionality of all of the above.

The Methodological Spectrum

The impressive panorama of research methods available to researchers today is generally discussed in terms of two major categories: *quantitative* and *qualitative*. These two terms often stand at sharp contrast, or some degree of polarity, with respect to one another. The term *quantitative* readily reflects the nature of measurement strategies employed by such methods. The term *qualitative*, however, implies something more than just a non-quantitative, or less quantitative approach to measurement. It carries with it the disapproving attitude that qualitative researchers often show toward the methodological approaches and epistemological span of the adherents of the "received view" (the traditional positivist scientific epistemology). A similar attitude is held by the majority of statistically oriented, hard scientists towards their qualitatively oriented colleagues.

This paper offers some suggestions that are intended to help reconcile this existing polarity by introducing the *spectrum approach* to research methodology. I will also discuss briefly the nascent field of integrative research methodology. It is my hope that further light may also be shed on some general ways in which research methods are understood and classified.

Classification of Research

Before introducing the *spectrum* approach to research methodology, I will make some preliminary clarifications regarding the ways in which research methods are typically classified. Although there is general clarity regarding the distinction between research methods and research design in most texts, the criteria according to which research methods themselves are classified are to some extent implicit.

In general, research methods may be distinguished as *empirical* and *non-empirical*. Empirical methods employ diverse means of observation and data gathering, descriptions, analyses and interpretations. Natural sciences employ *quantitative* methods as their preferred choice. Human and social sciences make use of *quantitative*, *qualitative* and *mixed methods*, as well as non-empirical methods. The humanities rely for the most part on non-empirical methods such as hermeneutics (text interpretation), literary, or logical analyses.

Another way to classify research is in terms of the number of participants (sometimes referred to as co-researchers or subjects) involved in a specific study. The term *nomothetic* (norm-based) refers to studies that involve a sample of "subjects" often divided into sub-groups as required by a given research design. Average scores computed through statistical procedures are typically the basis on which generalization are made to a larger population using inferential statistical methods. The goal of normative research is to establish descriptive, correlational, or causal relationships that are generalizable to formulate descriptive or explanatory 'laws' within specific theoretical frameworks.

This epistemological ideology is much influenced by the modernist, scientific world view, a tradition that is interested in inferring 'natural' or 'universal' laws (believed to govern the universe, yet ordinarily hidden from the naive observer) by means of generalizations through inductive or hypothetico-deductive procedures. Generalizations are made based on results obtained from samples and by means of statistical inferences. Qualitative epistemologists and methodologists have questioned the appropriateness of this approach to the social sciences in general, and to psychology, in particular.

The *idiographic* method refers to studies that involve only one subject/participant as in single-case studies. An early advocate of this method was Gordon Allport (1962) who drew attention to the individual uniqueness principle and its importance in psychology. Ideographic methods are generally acknowledged as valid methods of study, although their low external validity (power of generalization) is always pointed out as a limitation.

Research may also be classified according to the disciplinary framework or approach to the subject matter at question. *Single-discipline, eclectic, comparative, interdisciplinary,* and *transdisciplinary* methods belong to this system of classification. The eclectic approach draws on various fields or areas of human knowledge. Its goal is to broaden the scope of inquiry beyond pre-established disciplinary limitations. The comparative method involves contrasting two or more perspectives or approaches to a given topic or subject matter. Comparative methods often evaluate underlying assumptions and presuppositions adopted by alternative or diverse means toward the same end. The *interdisciplinary* approach involves attempts to bring together related, yet distinct fields of knowledge. Its goal is to shed light on a specific area or subject matter in further depth, using the knowledge base and methodologies employed by two or more disciplines. Interdisciplinary methods can be instrumental in studies that involve multidimensional subject matter under investigation. For example, the human brain is a highly complex phenomenon the study of which requires in-depth knowledge of anatomy, neurology, molecular biology, psychopharmacology, and biochemistry, to name a few. In some cases all of the disciplines involved use the same basic methods (e.g. quantitative / experimental or quasi-experimental). In other instances, interdisciplinary approaches are not as easy to establish. For example, the study of human menstrual cycle may require collaboration among several disciplines such as gender studies, biology, cultural anthropology, developmental psychology, and endocrinology. Here, it is not easy to readily reconcile methods adopted by these individual disciplines in isolation.

Sometimes multidisciplinary approaches result in the creation of a new discipline altogether, such as psychoneuroimmunology, which results as the confluence of psychology, neurology and immunology, not just toward addressing a certain research problem, but as an entirely new discipline. *Transdisciplinarity* is a mode of scholarship that crosses or transcends disciplinary boundaries to create a holistic approach. It utilizes concepts or methods that were originally developed by one discipline, but are used by others.

Research methods may also be classified in terms of the strategic rationale or intended epistemological goal. It is in this sense that integrative methods are best understood. Research strategies include analytic, synthetic and integrative approaches. The above information is summarized in Table 1.

Table 1: Classification of Research Methods

Classification Criteria (levels of inquiry)	**Category**	**Category**	**Category**
Ontological/ Epistemological	**Empirical**: relies on observation. Data may be qualitative or quantitative, from field or laboratory. Methods: Experimental, Quasi-Experimental Descriptive (non-experimental)	**Non-Empirical**: Text or other media based. Examples: Historical/archival Hermeneutic (text/content analysis) Secondary use of empirical data	
Epistemological/ Methodological/ Source of data	**Qualitative** Rarely uses numbers as sources of data or for analysis of data. Data may be empirical	**Quantitative** Uses operationalized variables and scales of measurement (nominal/ ordinal/ interval/ratio)	**Mixed methods** Employs a combination of qualitative and quantitative approaches or sources of data.

	(based on observation) or non-empirical (text-based) and is primarily descriptive.	to convert concepts to numbers to perform mathematical/ statistical analyses of data.	
Number of participants	**Idiographic**: focuses on a single individual profile and emphasizes uniqueness. Data could be qualitative (descriptive) or quantitative (descriptive statistics/ demographics).	**Nomothetic** (normative approach): uses inferential statistical methods (sampling and generalization).	
Mode of Scholarship	**Single discipline based** Methods are specific to disciplinary boundaries.	**Eclectic**: non-methodical use of knowledge or information beyond one's area of specialization. **Comparative**: use of two or more disciplines to address the research problems via compare/contrast method.	**Inter/multi-disciplinary**: two or more disciplines/ often involves methodological fusion and may lead to creation of new disciplines. **Transdisciplinarity** is a mode of scholarship that crosses disciplinary boundaries to create a holistic approach to knowledge.
Process/Strategy	**Analytic**: breaks down wholes to study components.	**Synthetic**: synthesizes components to arrive at wholes.	**Integrative**: seeks integration of human knowledge. May use analytic, synthetic, analytico-synthetic, or dialectical approaches during phases of research while embracing various modes of scholarship.

It is important to keep in mind the difference between mode of scholarship and research strategy when it comes to understanding what integrative research implies. An integrative strategy can be employed in any mode of scholarship.

Integrative Methodologies

Haridas Chaudhuri articulated the basic principles of integrative methodologies in his article titled *Integral Methodology*, published posthumously as a chapter in *Evolution of Integral Consciousness* (Chaudhuri, 1977). A key requirement for integral methodology is adaptability and responsiveness to evolutionary demands. The present section is titled 'integrative methodologies' as it would be inconceivable to postulate a single methodological framework that is capable of fulfilling this basic requirement. According to Chaudhuri (1977): "Integral thinking recognizes that one uniform methodology cannot be blindly applied to all areas of human experience and to all disciplines of knowledge" (p. 85).

However, certain broad guidelines could be useful for practical applications. Marx (1978, pp. 78-81) suggested the following summary of epistemological principles that convey the basic postulates of integral epistemology as envisioned by Haridas Chaudhuri:

- Truth is more than conceptual.
- The basic structure of reality is that of unity-in-diversity: it is nondual and has a polarized structure, and therefore is a unity of opposites.
- The basic nature of reality appears to be comprised of multi-leveled continuums and can be perceived from a multiplicity of perspectives.
- An evolution of integral consciousness is taking place on an individual and collective level.

A basic function of an integrative method is to reconcile apparently conflicting expressions and dichotomies**.** To this end, integral methodology proposes and utilizes the doctrine of the identity of opposites. Socrates called this doctrine the law of the golden mean; the Buddha taught it as the doctrine of the middle-path. In the Taoist tradition opposites are considered to be complementary, not contradictory to one another. In short, truth is to be found half way between the two extremes.

One of the general goals of integral epistemology would be to reconcile the dichotomy between the quantitative and qualitative approaches. Although the terms empirical and quantitative research are closely associated, they are not synonymous. In fact, almost all empirical/quantitative studies make use of both quantitative and qualitative steps in their procedures. A typical quantitative study starts with certain qualitative concepts that are then operationalized and converted into concrete and measurable terms called variables or factors. These operationalized terms are measured using one or more of several scales of measurement such as nominal, ordinal, interval, and ratio scales and their associated statistical tests. Nominal and ordinal scales are less quantitative where numbers designate symbols or categories and require non-parametric statistical tests; whereas, interval and ratio scales use numbers arithmetically and require parametric statistical procedures. Most importantly, when the statistical analyses are performed, the results that are typically stated in numerical terms must subsequently be interpreted in qualitative terms and eventually explicated in the theoretical framework of the study, or the background literature.

Various research designs differ in the degree to which they involve qualitative and quantitative phase or procedures. A first step in the reconciliation of qualitative and quantitative methods involves deconstructing the qualitative-quantitative dichotomy and presenting the diverse range of research methods in terms of a spectrum. Such a spectrum will have at one extreme end highly quantitative methods involving parametric statistics and the use of the ratio and interval scales of measurement. It is important to remember here that even such methods involve certain qualitative steps. All observations start with meaningful terms that are operationalized for measurement purposes. Numerical analyses are only an intermediate step in the overall process and are merely an aid to logical thinking and analysis. Results of even the most quantitative studies must be interpreted and explicated in terms of meaningful language of everyday life.

Parametric > Non-Parametric > Mixed Methods > Ethnographic > Hermeneutic > Heuristic

Quantitative >> **<<Qualitative**

Moving along the spectrum, the next group of methods are those employing non-parametric designs and nominal and ordinal measurement scales. In such studies numbers are not strictly arithmetic and function as an aid in the process of analysis. Qualitative steps in such studies are required for final explications into a language that is non-quantitative.

This group is followed by mixed quantitative/qualitative approaches which employ a combination of sources of data, research methods, or both. Qualitative methods that involve some degree of quantification follow next. Examples are content analysis using computerized or other coding systems, or certain ethnographic methods that make use of numbers or categories. At the other end of the spectrum are the "soft methods" such as the heuristic, the phenomenological and other descriptive methods that make little or no use of numbers or categories and are instead interested in underlying essences or structures of knowledge.

On another level, while embracing the full spectrum of traditional research methods, an integrative framework may include eclectic, comparative, or interdisciplinary modes of scholarship as part of the overall design of a given study. For example, a certain study may utilize the integrative approach as its strategic rationale, and yet employ an interdisciplinary mode of scholarship. On the other hand, a traditional investigation may be designed to incorporate an integrative framework. For example, a phenomenological investigation may follow the traditional steps and reveal underlying essences as phenomenological studies do typically, and take further steps to integrate these essences; i.e., reconcile any possible dichotomous essences that may reveal themselves in the intermediate stages of the study.

The following are some of the guidelines that Haridas Chaudhuri (1974) suggested for building-in an integrative rationale into a traditional study:

- Integrative approaches involve theses that are established by either empirico-rational, or critico-dialectic methods.
- Theses are not merely rhetorical expressions of opinion, but are developed logically through balanced examination of opposite viewpoints.
- Theses should be broad-based upon empirical and phenomenologic grounds, relying on accumulated relevant data.
- Theses should contain a critical element; a critique of one's fundamental concepts and a priori assumptions. Theses should also contain a dialectical element; a balanced examination of opposite viewpoints, bringing out both positive and negative [proactive and reactive] features with an intention to arrive at comprehensive syntheses.

- An attitude of non-dogmatic inquiry is imperative in integrative research. Care should be taken to avoid searching for reasons, or empirical data to support foregone conclusions.

Research Designs for Integrative Research

On the epistemological level, integrative methods attempt to arrive at holistic knowledge. Integral methodologies could utilize quantitative, qualitative or mixed methods in the overall design of a study. The mode of scholarship of an integrative approach could range from disciplinary to cross/multi/trans-disciplinary. It is important to emphasize that integration pertains to research strategy, rather than mode of scholarship or a methodological choice.

Three general designs are suggested here for utilization in integrative studies. These are: *Integral dialectical synthesis, unity-in-diversity,* and *analytico-synthetic integration.*

Integral Dialectical Synthesis

Also known as *integral dialectics* (Chaudhuri, 1976), dialectical synthesis is a method of reconciling apparently dichotomous concepts or themes to arrive at higher orders of reality through a dialectical process similar to Hegelian dialectical method. However, integral dialectics is not merely an abstract process and involves intuitive, experiential, somatic and practical understanding as well. This design is generally useful when the intention of the researcher is to reconcile dichotomous concepts and arrive at syntheses on a more holistic level of understanding.

One way to achieve this goal is to engage in dialectical reasoning, as in the case of the traditional Hegelian dialectical method. Another approach may involve the examination of extreme viewpoints regarding a particular subject matter, and the establishment of a spectrum of perspectives or the middle ground between the two extremes. A third approach involves reconciliation of opposites by finding view points or perspectives from which it could be shown that the opposites are in fact complementary.

Unity-in Diversity

Another general integrative design involves the demonstration of the underlying unity of a diverse set of theories, world views, or perspectives. This method involves an in-depth investigation of the research question within each world view or perspective to reveal the underlying structures or the essential assumptions of the question as the initial step. The next step involves a comparative component that demonstrates the similarity or identity of the underlying essences discovered independently. For example, one may examine several different world views such as Eastern or indigenous traditions and unveil implicit or explicit ecological principles embedded in these traditions. Then by pulling together these essential principles, one could develop an integral ecological model.

Analytico-Synthetic Integration

The goal of this procedure is to create parsimonious knowledge by, first, analyzing a large number of concepts, themes, or theories about a certain topic into their main constituent factors, and then re-synthesizing these factors into simplified models that not only reflect the common original themes, but reflect new knowledge as well. For example in a previous study, the present author surveyed four Eastern spiritual traditions as well as several Western schools of psychology on the topic of ‘self’. It turned out that in many traditions the self is understood at three principal spheres (egocentric, psychocentric, and cosmocentric) and this suggested that self in an integral psychological framework may be understood on the basis of the interaction of these three spheres of selfhood (Shirazi, 1994).

The method of analytico-synthetic integration includes two dimensions: conceptual and pragmatic. Conceptually, analytico-synthetic integration restates the principal characteristics of an integral approach; however, it further emphasizes the analytical component. The term synthesis denotes construction and suggests the necessity for some sort of structure. In the dialectical process, for example, a synthesis is constructed from the interplay of the thesis and antithesis. The resultant synthesis in turn becomes a new thesis, laying the foundation for another antithesis.

The word analysis refers to de-structuring or breaking down into components. This process is as essential to the process of integration as is synthesis. Almost endless examples of de-structuring or decomposition in the natural processes might be given; in fact, release of energy is possible only through de-structuring into components that regroup at a lower level of energy, thus releasing some surplus energy. On the other hand, synthesis requires additional energy. It is assumed here that analysis and synthesis are not diametrically opposed or antithetical to one another; rather, they are complementary opposites that are essentially inseparable. As such they are the polar modes of integration, thus allowing simultaneous unification and diversification, as well as creation of new forms in natural processes.

In logic, the deductive principle is an example of the analytic process, while the inductive principle represents synthesis. It is known in logic that a deductive operation, as in a syllogism, does not yield new knowledge; i.e., the conclusion is already implied in the major premise. However, it is possible through induction to arrive at a conclusion that cannot be inferred from any of the premises in isolation. In Aristotelian logic, though often not mentioned, the deductive and inductive processes were considered as two half-circles. Although deduction does not yield new knowledge, it helps unveil premises that can be utilized in inductive reasoning to arrive at new premises. The two half-circles as a whole comprise the full circle of logic.

Although there are numerous ways to design integrative research methods and algorithms, all integrative methodologies strive to arrive at parsimonious, multidimensional, non-dual, and holistic knowledge. Integral epistemology may employ divergent and convergent thinking, inductive and deductive reasoning, rational or intuitive understanding as means toward attaining its goal, the integration of human knowledge. In doing so, it makes use of new and creative or already established ways of conducting research and inquiry, while remaining evolutionary, non-dogmatic, open and self-transcending.

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Positionality as Knowledge: From Pedagogy to Praxis

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Abstract: In this article, the authors will draw from their work in the Integral Teaching Fellowship Program at CIIS, and from their interactive session in the 2014 CIIS Founders Symposium on Integral Consciousness to better understand the epistemological relevance of positionality in integral education and critical pedagogy. A critical approach to pedagogy (drawing from theorists such as Paulo Freire and bell hooks) encourages students and educators alike to recognize their social positionings and reflect on how the institutionalization of their social identities (such as the expert, the genius, the marginalized, the disabled) not only inform the lenses through which they view the classroom, but also influence how they participate in the classroom. By employing an integral learning model (variety of modalities), a learning community is transformed into a dynamic positioning field, in which students and educators interact and co-create knowledge beyond their habitual or institutionally imposed positionings. Supported by our own experiences as integral educators in training, we conclude that developing critical reflection, including previously subjugated perspectives, and gaining the ability to reposition oneself maximizes learning opportunities.

Keywords: Critical pedagogy, integral education, positionality, positioning.

A Note on the Authors' Positionalities

We feel it is consistent with the values of integral education and responsible in light of our subject for us to articulate our own positionalities as authors. Collectively we are a collaborative group of eight emerging from the inaugural semester of the Integral Teaching Fellowship Program at the California Institute of Integral Studies. With an emphasis on critical pedagogy, integral education, and liberatory teaching methods, the program aims to prepare graduate students to teach in the college classroom using innovative approaches to teaching and learning. Positionings within the group are complex. Six of us were fellows and two are the faculty members facilitating the program. Four of the fellows are doctoral students, one an MA student and one an MFA student. The faculty members both have MFA degrees. The authors are listed alphabetically not hierarchically reflecting our understanding that knowledge is co-created and socially constructed.

Earlier work together in the Integral Teaching Fellowship Program, and on the presentation at the 2014 CIIS Founders Symposium on Integral Consciousness that this article is based upon, had left a legacy of hierarchies, alliances, and tensions among us, which came to the surface early on in our collaboration, and which we have had to explicitly navigate during the process of writing this article. Writing collaboratively with even one other person can be a challenge, let alone fitting a close publication deadline into the busy schedules of seven other co-authors. We used personal and group check-ins, which had been a feature of the Fellowship, to stay in

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relation and to negotiate the hurts, conflicts, and tensions which arose. In our work together, as in the classroom, our positionings were not only present, but critically influenced our work. In this spirit, we will start this article by sharing a little about ourselves.

Individually we come from a wide range of positionalities:

Sara Maria Acevedo is a South American woman, she identifies as an immigrant “who passes.” She is a disability studies scholar and a cultural anthropologist focusing on social change. Her interests in scholarship range from feminist theory, to critical geography, to postmodern philosophy.

Michael Aho is a Finnish American straight white male, who was raised by working class grandparents, who works as a manager at a graduate school.

Eri Cela is doctoral student and a somatic psychotherapist, who identifies as an Albanian immigrant in the US, a transdisciplinarian, and culturally hybrid.

Juei-Chen Chao is an Asian woman who grew up with Chinese Culture in Taiwan and migrated to the West in the US to receive higher education in her late 30s. She considers herself as a person of “in-between” because after years of immersing in the American culture, she is no longer fitting in the typical Chinese-Taiwanese culture nor becoming American. As a scholar in training, she intends to bridge differences between cultures and attempts to promote equality and diversity by raising awareness of institutionalized racism in her work.

Isabel Garcia-Gonzales is a first generation Filipina American, woman of color, mother, writer, educator, and administrative faculty member in an undergraduate program.

Alec MacLeod is an older university professor who identifies as a heterosexual white male born in the US of largely Anglo Saxon descent. He lives in Oakland with his multi-racial family. He is a faculty member in an undergraduate program.

Claudia Moutray is an Italian American woman who is a feminist with a conservative background that steered her down a liberal path that she continues to walk. She is a PhD student studying Women’s Spirituality, in her other life she is a swim team coach working with kids.

Christina Olague identifies as Chicana. She was raised until the age of 15 on a farm laborer camp and this experience influenced and helped to shape her interest in public policy and social justice issues. She served for 7 years on the Planning Commission of the City and County of San Francisco and 1 year on the Board of Supervisors. Raised Catholic, she has spent much of her life exploring different spiritual practices that include Northern European mysticism and Bon Buddhist practices. Currently she is a graduate student in counseling psychology.

Our collaboration has been a laboratory for learning about the challenges of not only appropriately valuing and incorporating this extensive resource of positionalities, but also of negotiating across a range of cultural differences and personal styles in the midst of complex personal and collective histories.

We will draw from our individual and collective experiences working on an interactive session for the Symposium at CIIS to ground our inquiry into the epistemological relevance of positionality in critical pedagogy and integral education. We will also present and reflect upon the content of the symposium, as well as the planning process itself—the challenging and fruitful work of co-creating knowledge. Finally, we acknowledge that the process of writing this article, as a collaborative group of authors, each with individual positionalities and shifting positions within the group, has also informed not only what we present here, but also what we do not present. In this article, as in the classroom, some positions are explicit, some are assumed, many are invisible and unknown, but all are impactful, even if their presence is not acknowledged.

Integral Education/Critical Pedagogy

The theoretical backbone of integral teaching and learning is rooted in the coming together of critical and integral approaches to education. These two distinct and often overlapping meta-approaches have developed in part as alternatives to conventional systems of education. The conventional educational models have been critiqued for practices that reduce and de-contextualize knowledge (Morin, 2001), preserve and reinforce hierarchical and dominant social orders (Freire, 1996; Giroux, 2007), and disenfranchise the knower from the production of knowledge (Freire, 1998; Shor, 1992; hooks, 1994). The industrialization of education (Giroux, 2007), organized around highly specialized and compartmentalized disciplines, produces knowledge that is disjointed and increasingly difficult to contextualize (Morin, 2001). The de-contextualization of knowledge is extended by removing the learner from the production of knowledge. Learning practices are reduced to memorization of information, acquisition of existing problem solving procedures, and to the reproduction of it all in the exact form it was served to the students (Montuori, 2006), in other words, students are reduced to the role of course takers (Lovitts, 2005). In this assembly-line approach to education (hooks, 1994), the students' lived experiences, identities, and their social milieus play little to no epistemological relevance in the production of knowledge.

In contrast, critical and integral approaches to education produce knowledge that contextualizes and connects (Morin, 2001). Knowledge is situated in the knower, socially constructed realities, and in the process involved in knowledge production. Integral education recognizes the multidimensionality of human beings and social systems (Chaudhuri, 1977) as well as the complexity in which the parts are woven together (Morin, 2001). Critical pedagogical practices challenge regressive and oppressive social orders, and encourage embodied learning, critical thinking, participation, and dialogue (Shor, 1992; hooks, 1994, 2010).

In integral education, both the learning community and its individual members are understood as complex unities. Therefore, an integral approach to education can be conceptualized as a process that invites and incorporates the lived histories of students and educators while at the same time mediating the multidimensionality of the academic setting and pedagogical discourse. An epistemological assumption of critical and integral approaches to education is that the learner's subjectivity and social positionings play an essential role in the practice of inquiry and knowledge production. The intersection of the identities and experiences produced outside the academic context with those produced in the pedagogical praxis add to the complexity of an integral learning community.

As previously stated, we authors first came together as six graduate fellows and two faculty members of a teaching fellowship program that focuses on integral education, critical pedagogy, and liberatory teaching methods. As part of the requirements of the program, we engaged in a body of literature chosen by the faculty members to develop a shared theoretical foundation for the teaching fellowship experience. Of particular relevance to our discussion here is the reading selection "How Does Your Positionality Bias Your Epistemology?" by David Takacs (2003). In it, Takacs asserted that we educators must ask the title question of ourselves and must support students to ask it of themselves. In other words, "How does who you are shape what you know about the world?" Takacs further explained, "By respecting the unique life experiences that each student brings into the classroom…we empower all students as knowledge makers. We allow each student to assert individualized knowledge that contributes to a collective understanding" (p. 28).

Takacs' assertion that positionality can play a central role in the co-creation of knowledge in the classroom has relevance to Freire's critical pedagogy; students who bring their life experiences and individualized knowledge are not "empty vessels" waiting to be filled by their professors. This allows for the democratic, participatory education that critical pedagogy aims to create. Further, Takacs' insistence that positionalities be brought into the educational process speaks to Chaudhuri's (1989) work on integral education, "which is based upon the concept of the total man and education which is based upon the total human situation, the global situation" (p. 78).

Interestingly, Takacs did not provide an explicit definition of positionality, but provided some examples, such as "ESL student," "young Mexican woman," "army wife facing financial hardship", "white students," among others. Later in this article, we will delve deeper into positionality definitions and theoretical frameworks, but it is important to start here, where we authors started, in our initial collective inquiry into the epistemological relevance of positionality in critical pedagogy and integral education. Perhaps because Takacs did not define positionality for us, our group engaged deeply in our own co-creation of knowledge to better understand and collectively define what we mean by this term. When we were invited to facilitate an interactive session in the Symposium, we knew we wanted to engage this concept of positionality and its relevance to us as integral educators interested in critical pedagogy, but we had yet to define it.

The space left by the missing definition opened up an opportunity for our group to undergo this process of bringing individualized knowledge and perspectives to create a more meaningful collective understanding. It is also important to note that the involvement in the interactive session was strictly voluntary and outside of the scope of the fellowship program. This shift from the structure of the fellowship program to an outside, volunteer collaboration shifted our internal group positions and relationships. No longer were the two faculty members the facilitators while the six fellows were the participants. While within the fellowship program the faculty members attempted to create a more horizontal learning environment (and thus model a critical approach to pedagogy) by rejecting an expert-centered model of education, now in this new formation, our roles were as eight collaborators and colleagues. This will be important in our later discussion of positionality and positioning. For now, we will only note that our group dynamic shifted, allowing for more fluidity among the participants and the roles we played in our group.

We then began the important and challenging work of collaboratively defining our terms and designing our session. Through periodic meetings and email threads that were often long, sometimes confusing or frustrating, but fruitful, we set about our collective inquiry, posing questions, adding our perspectives, affirming and challenging one another.

Theoretical Frameworks on Positionality

In the review of the literature for this article we came across two distinct but overlapping theoretical frameworks on the concept subject of position. The first, positionality theory grew from postmodern feminist theory (e.g., Harding, 1991, Alcoff, 1988, Collins, 1986). The second, positioning theory emerged from social psychology (e.g., Davies & Harré, 1990, Harré & Van Langenhove, 1991). Both theories attempt to critique the essentialist construction of subjectivity and the deterministic view of social participation. Specifically, contributors of positionality theory challenged the essentialist views of identity as fixed, on-going, and rooted in dominant individual and group characteristics (Kezar & Lester, 2010). They claimed that individuals occupy multiple identities, fluid and dialogical in nature, contextually situated, and continuously amended and reproduced (Alcoff, 1988). The positions from where we make meaning of—as well as engage with—the world are informed by our identities and lived experiences. Applied to our inquiry at hand, the traditionalist would view the student's (or the educator's) identities as independent of the learning environment and constant across contexts. In contrast, positionality theory would suggest that student's identities vary across contexts and inform as well as are informed by the individuals' positions in the learning environment. As such, "positionality theory emphasizes the position of or situatedness of identity" (Kezar & Lester, 2010, p. 166).

Positioning theory emerged in part as an alternative to role theory in an attempt to better account for the complexity of human participation in social settings. Davies and Harré (1990) critiqued the dramaturgical model of social psychology in which "people are construed as actors with lines already written and their roles determined by the particular play they find themselves in" (p. 52). Positioning does not reject social roles altogether, in fact, on one end our positions are informed by the duties and expectations particular to the roles and social discourses we inhabit. On the other end, positioning allows for the subjective histories of individuals—identities, personal attributes, experiences, as well as preconceived narratives and understandings of our social locations—to play a critical function in the production of interpersonal behavior (Harre´, R., Moghaddam, F., Cairnie, T., Rothbart, & Sabat, S., 2009). In other words, positioning theory suggests that we are not simply actors of predetermined scripts, but also agents and authors in our social participation.

Other Models of Positioning

When we think about our "position" in the world, and more specifically about our position in society, we reflect upon the different roles that occupy us in our lives. In other words, when we inquire into the different ways in which we participate in our various communities: in our family, in our neighborhood, in our work, in our school/classroom, in our informal gatherings and in our formal gatherings alike, we come to the realization that we are in fact multifaceted individuals; we adopt different stances as we navigate different communities of interaction.

Our position in the world, according to the above definition of positionality, is radically shaped by our interactions (or, intersubjectvity). Disciplines in the social sciences, more specifically Sociology and Anthropology, have a tendency to describe human beings as "inherently social" – and this is to a large extent accurate (and debatable in other contexts). We agree that the social and cultural spaces we navigate are shared; that the lives that we lead are at once individual and collective, and that the shaping of our social world/s happens in collaboration with others (whether such collaboration is willful or enforced). In short, social relations shape the way in which we understand ourselves as individuals and, from that understanding, how we perceive and interact with others.

Virtually, no human interaction occurs outside of a shared social context. Meaning-making is one of the most fundamental social processes impacting our communal lives; as an embodied social phenomenon, it affects our very bodies as well as the perceived "reality" of the different human groups marked oppressively by "undesirable" attributes (e.g., poor, Latino/a, woman, disabled, immigrant, and fanatic). French semiotician and philosopher Barthes (1978) identifies language as an institution of power. Speech, he argues, serves as a key instrument in social stratification processes in as much as "once uttered, even in the subject's deepest privacy, language enters the service of power" (as cited in Kearney & Rainwater, 1996, p. 366).

Other social theorists and philosophers such as Foucault (2005) concurred with Bathes: "in every society the production of discourse is at once controlled, selected, organized and redistributed according to a certain number of procedures…" (p. 216). Additionally, in *The Birth of Bipolotics: Lectures au Collège de France*, Foucault (2008) argued that individuals are historically subjected to different forms of social inclusion and exclusion and are meticulously boxed into different categories and subcategories of being via discourse. He termed this set of procedures 'biopolitics' (or the administrative management of life), and he insisted that conceptual arrangements perpetuate operations of inclusion and exclusion through the reproduction of hierarchies of privilege and marginalization. The latter, in turn, shapes people's experiences and positions in the world.

Conceptual stratification is often articulated around culturally assigned attributes such as gender, race, class, ability, sexuality, nationality, ethnicity, political affinity, and religious/spiritual practice. These attributes are animated and brought into play in our interpersonal relations – in our relationship with our family, with our professors/students, with our employers/employees, and with people in the service industry; in the more macro-structural arrangements occurring in social institutions – our relationship with the law, and with the larger economic and political systems; and in the more overarching social sphere.

Because one of our tasks as integral educators is to explore and uncover shared social processes affecting the position of knowledge producers (especially those marked oppressively by race, class, gender, ability etc.), we wish to inquire into these processes from the "inside."

We do so, to investigate into alternative pedagogical practices emerging out of more traditional contexts in education. Integral education is not necessarily modeled after dissident practices within traditional models of education, however we believe that an exploration of existing methodologies in traditional education can help to ground our understanding and recognize the generative value of alternative practices in the classroom. One of our goals is to facilitate co-creative learning spaces, beyond the traditional university format, in a way as to re-imagine and integrate traditionally marginalized epistemologies in research design, curriculum, and teaching methods.

To this end, we follow on Collins footsteps to include an expansive notion of the "outsider within" status. On the function of this literary trope, Collins (1986) wrote: "this 'outsider within' status has provided a special standpoint on self, family, and society for Afro-American women [and other oppressed groups]" (p. 14). Although Collins' claims are specific to the context of black feminist thought and its significance in "generating a distinctive standpoint on existing sociological paradigms" we briefly investigate into the implications of the "stranger" in traditional academic settings (p. 14). To introduce Collins' ideas into the larger context of liberatory education, we touch on the theme of reflexivity in feminist research. We incorporate a handful of Chiseri-Strater's ideas from her 1996 piece: *Turning in Upon Ourselves: Positionality, Subjectivity, and Reflexivity in Case Study and Ethnographic Research*. A thematic approach to Chiseri-Strater's various roles/positions in the academy helps us to situate the topic of positionality in the context of integral education. To further illustrate this point, we look at the author's integrative and interdisciplinary approach to research and education. Her role as a non-fiction writing and composition instructor enables her to establish significant connections between product (the finalized ethnography) and process (the ethnographer's stance-position-location as well as the influence of subjective-contextual factors such as personal life story and experiences during the data collection phase). Chiefly, there are elements in Chiseri-Strater's own situatedness (situation/awareness) as an instructor that emerge, out of experiential practice, as a teaching tool. In turn, her position as an instructor enables the author to speak critically to her own research methods.

The decision to include this piece as a part of our conceptual framework emerged out of a collective interest in exploring different approaches to positionality theory and praxis in cross-educational contexts. We are particularly interested in the ways in which Chiseri-Strater's most compelling arguments and experiences translate into our view of integral education – especially as they prioritize non-traditional approaches to pedagogy (methodological disclosure) and alternative methodologies in ethnographic research (critical ethnography). As she put it, "my gender and training as a writing teacher positioned me to resist the non-interactive pedagogies—like antagonistic debate and strict lecture format—of other disciplines" (Chiseri-Strater, 1996, p. 122). She also shared that "the ethnographic researcher has to enlist the subjects of study as partners, as posers of questions, as people who can see and change their own experiences through interaction with 'outside' but politically interested teacher-researchers" (p. 123). This last point is of particular relevance to the kind of educational experience that we understand to be fully interactive, participatory, and therefore transformational.

Chiseri-Strater's findings on gender differentials, expertise, and belonging speak extensively to the way socially assigned categories are not only embodied, but also performed in our day-to-day lives. Her remarks on the implications of biosocial elements, which are accepted as universal realities, but which are constructed, inform our own thought process and further solidify our critical stand as integral educators. We believe that there are real (embodied) implications of social stratification processes. These processes mark bodies as targets of exclusion, thereby preventing them from fully participating of their immediate social and cultural words. We recognize that educational settings contribute to the process of social stratification, as they often times serve to "filter" through practices of knowledge-production. Historically, academic settings have been traditionally articulated around the creation and legitimization of "true" knowledge (following on the scientific method). As a result, many non-Western (ethno-communities) and Western communities of knowledge have been "denied entry" into the world of rational meaning-making. Colonialism in academia has and continues to marginalize particular groups and communities from contributing to the "collective" epistemological archive. These issues then, are not merely educational, but have a huge imprint in the way we conceive of education as a political matter affecting the lives of living-breathing human beings.

Because we believe in and practice an approach to education based on critical pedagogy and liberatory methods – giving special consideration to the work of intellectuals such as hooks, Lorde, and Freire – we see Chiseri-Strater's non-traditional insights into education and literacy research through a shared lens. Some of her observations align with our own thought/writing process on this topic. One example of this synchronicity can be found in our understanding of education as a co-creative process, as opposed to the "banking system" model that Freire describes. In other words, we prioritize a framework in which different approaches to learning and different styles of teaching are integrated. Such methodologies are purposely situated in the context of integral education as "positioning" strategies; this concept will be further elaborated upon in a later section.

We have established above that a key point in Chiseri-Strater's piece is articulated around the impact of cultural attributes (such as race, class, or gender) on the overall ethnographic process. More specifically, she examines the role of gender in shaping theoretical, methodological, and rhetorical approaches to literacy. The emphasis is placed on research strategy and includes the author's own experiences as a woman in research practice. She does so by retrospectively situating herself with respect to her informants, her context of study, and her initial choices in research design. While carrying out research on the processes of literacy and composition in courses outside her discipline (more specifically in Art History), Chiseri-Strater remarked that, "while my role as a student allowed me to rapport with my informants, my status as a graduate student in composition marked me powerless from some of the professors who saw composition as a marginalized discipline" (p. 124). Similarly, her ethnographic notes on a Political Science class, whose professor she identifies as male, revealed that his spatial positioning in the classroom came across as rather territorial, and sometimes even unwelcoming. Lastly, the author's (disclosed) field notes on a composition and rhetoric class, a field that she identifies as her own, reveal instances of sexism on the part of one of the male students, as well as emerging 'gender battles' among women and male informants.

Chiseri-Strater contributes important content to ongoing disciplinary dialogues around the issue of so-called objective and detached viewpoints (or, the view from nowhere). In addition, she opens up a space for co-reflection (one that includes the readership) in which the language of positionality (which shapes data collection, theory construction, methodological understanding to narrative voice) is understood as both rhetorical and "inherently connected with how the researcher is situated in the field, not just on the page" (p. 120). Second, and by implication, she endorses an approach to ethnographic fieldwork in which specific choices in research design are a priori evaluated in tandem with the ethnographer's given attributes (race, nationality, and gender). As she noted, "providing methodological insights unavailable in the historical movements or legacies within the fields of composition and rhetoric where data is presented without the researcher's intellectual journey […] demonstrates how the researcher negotiates personal and cultural preconceptions that shape scholarship" (p. 115).

Somatic and Spatial Positioning

In this piece, we have focused primarily on two types of positionalities, biographical positionalities and discursive positionings. Biographical positionings include demographic representations, such as age, gender, class, race… and some social roles like parent, educator, student, musician. Discursive positionings address how we position self and other in discourse: what kind of positionings are available within a discourse/context, how are they ascribed or 'taken on', who has the power to ascribe a position, how are positionalities challenged, and new positionalities created through discourse.

In addition to these we would like to emphasize two other components of positioning, what we call: (1) somatic positioning; and (2) spatial positioning. Somatic positionings can be conceived as bodily organizations through which we embody and enact our personal and sociocultural identities. We participate in multiple communities and contexts that support or inhibit ranges of bodily practices (Grand, 2012). Building on Bakhtin's concept of chronotope, Grand suggested that every cultural tradition or community has a particular repertoire of embodied practices, or as he calls it, somatic genre, where individuals must draw from (as well as contribute to) in the course of their participation. Conversations in our own group of Integral Teaching Fellows are a good example of negotiating and practicing somatic positioning. We deliberated on how to shape and use our bodies—how much to speak and when to speak, what to wear, where to sit, and how to carry ourselves—to fit the image and role of an Integral Teaching Fellow.

The production of social space involves spatial representations (how a space is imagined) and spatial practices (practices through which the space is lived) (Lefebvre, 1991). Our spatial positionings depend on the available spatial representations and spatial practices. One of the authors recalls that during his education in Albania "good" students typically occupied the front rows, whereas the back rows were a destination for "weak" students. Although certainly not an official rule, the spatial positioning based on academic performance was a common and generally accepted practice. That type of spatial organization created a binary identity production in the classroom as well as shaped pedagogical practices. As it has been stated already, positionings are not deterministic. In exercising agency, be that through improvisation or deliberately impacting the course of action (Holland, D. C., Skinner, D., Lachicotte, W., & Cain, C., 1998) we can create new possibilities of being and acting in the world. In the context of an integral learning community, the ideas of somatic and spatial positionings enable us to identify somatic organizations and embodied practices that are liberatory and support learning and classroom participation.

How are social discourse and our subjective worlds related to positionality? Bakhtin's (1981) concept of chronotope (time-space) is useful here. Bakhtin theorized that different literary genres organize time and space in distinct formations that in return provide genres their particular characters and narratives. Similarly, our social interactions and lived histories are situated in different time-space configurations, each with a particular discourse and repertoire of representations. Leander (2004) proposed that certain types of positionings evoke particular chronotopes, and by doing so they call on the attributes, ideologies, practices, cultural narratives, and social identifications specific to each time-space configuration. For example, taking on the position of an educator in the classroom evokes privileges of power, however, the qualities and practices will differ if the educator is positioned in a traditional pedagogical context versus a liberatory pedagogical context, the first being more authoritarian and the second more horizontal. Another example (one which we elaborate later in the article), sharing personal stories of our names can evoke a series of time-space constructions, ranging from familial, to institutional, to ideological, to transnational. For our purpose, chronotopes can be theorized as containing personal and shared psychological, cultural, and social resources, and positioning as the practice by which these resources are utilized to make meaning, construct relationships, and shape action (Holland & Leander, 2004).

Positionality in a Learning Community

An integral approach to education invites the personal histories and imaginations of the students and educators in the process of knowledge making. The narrative worlds of the participants come in contact with classroom activities. Leander (2004) offered a useful distinction of time-space configuration to explain such contact zone of activity. Leander makes the distinction between an interactional chronotope (the immediate time-space of the interactants) and a represented chronotope (the imagined and the historical worlds of the participants). He went on to say, “when narrative scenes are marshaled in the interactive work of positioning, these narrative scenes carry with them forms of time-space that offer unique possibilities for identity and agency” (p. 189). Leander’s idea of positioning resonates with Alcoff’s (1988) concept of positionality. She wrote:

> [T]he position that women find themselves in can be actively utilized (rather than transcended) as a location for the construction of meaning, a place from where meaning is constructed, rather than simply the place where a meaning can be discovered (the meaning of femaleness). The concept of woman as positionality shows how women use their positional perspective as a place from which values are interpreted and constructed rather than as a locus of an already determined set of values. (p. 434)

When coupled with awareness, critical thinking, and reflective practices, the activity of positioning can be more self-directed, strategically applied, and transformative.

We ground this theoretical discussion on the practice of positioning in an example from our own work. In a classroom exercise facilitated by one of the teaching fellows, students were asked to explore the concept of ‘borders’ and ‘belonging’. This exercise was linked to another learning activity in which students organized in five small groups of three to four each, based on a shared cultural community in which all the group members felt they were participants. Students were encouraged to investigate the concept of culture particular of their groups over the course of the semester. In this exercise, deep into the semester, students were asked to physically position themselves as well as the representations of their cultural communities in the shared classroom space using colored ribbons to mark personal and group borders. Students were encouraged to evoke the characteristics of their group cultures, to call on reading assignments, and to be attuned to their personal, interpersonal, and intergroup experiences as they negotiated their locations and boundaries in the classroom space. What transpired was the authoring of a dynamic and contentious time-space formation. Students reported that their decision making process and the production of locations and borders were informed by their cultural narratives as well as by the interaction between individuals and groups. Some students reported that their newly authored positions shed new light on their explorative cultures and their participation in the learning community (e.g., a student linked her peripheral position in the exercise with the feeling of not being present in the classroom). In this exercise, the intersection of multiple layers of represented chronotopes (students' backgrounds of their group cultures) with the interactional chronotope (classroom participation) served as a medium through which students interpreted the concepts of 'borders' and 'belonging'. The practice of positioning was employed in the production of knowledge.

Challenges in Incorporating Positionality in Pedagogy

We identify two particular challenges in the integration of positionality in pedagogical practices. The first challenge is related to the increase of the learner's role in the process of knowledge production. Excessive emphasis on the function of the student's positionalities in the learning process can cultivate what Montuori (2006) has called a narcissistic approach to education. Narcissistic learning systematically privileges the learner's subjectivities, experiences and various self-positionings as sources of knowledge over academic standards or dialogical methods, an orientation that can lead to anti-intellectual stances and unchallenged self-positionings. The integration of student positionalities in the learning process needs to be accompanied by critical thinking practices (Brookfield, 1987) that encourage self-reflection, critical subjectivity, and examination of the student's situatedness in learning and scholarly communities (Takacs, 2002, 2003).

The second challenge of integrating positionality in pedagogical practices has to do with the increase in complexity of the learning community. By inviting positioning practices, a learning community becomes more pluralistic, multidimensional, and subject to new relationships and forms of functioning. As such, it must learn to embrace and cope with change. The success of a complex learning community is dependent on, among other things, the application of strategy, tolerance for the unknown, and the solidarity between its members (Morin, 2008; Schrader, 2004).

The Relevance of Theory to Practice

Neither positionality theory nor positioning theory originate in the field of education. While, as we have shown, both have been borrowed from other disciplines (adapted and, at times, conflated) for that purpose, no stable definition of "positionality" has emerged in the discourse. Like Takacs, many authors dodge the question of definition altogether while others reduced it to such traits as "race, gender, class, sexual orientation, ableness" (Taylor, Tisdell, & Hanley, 2000). Despite this ambiguity, the value of an anti-essentialist category of being that describes positionalities and positions is evident and the term "positionality" continues to capture it for us. For the purposes of our Symposium session and this paper the term positionality has three factors: *identity*, *role*, and *power*. Identities and social categories (such as race, age, etc.) are multiple and intersecting formed by lifetimes of experience. Roles are always context specific and are either formal (student, teacher, etc.) or informal (expert, etc.) The dynamics of power and privilege are at play in terms of both recognized social categories and roles specific to the situation. Thus considering positionality in the educational framework provides an opportunity both for creating less hierarchical relationships and a greater sense of what each participant can contribute.

Our Interactive Session: Positionality as Knowledge: Taking the Pedagogue off the Pedestal

The interactive session, "Positionality as Knowledge: Taking The Pedagogue Off The Pedestal," was structured around two exercises which all participants and facilitators were asked to join, two didactic presentations, and a substantial opportunity for participants to reflect on the exercises, the subject of positionality, and their learning. In advance, we identified three learning outcomes that we hoped to achieve:

1) Development of an understanding of "positionality."
2) Deepening of our understanding of our own positionalities.
3) Exploration of what it would mean to create a learning environment that values each voice in the classroom.

True to the values of critical pedagogy we arranged the seating in a circle. To reduce the concentration of power in the circle, facilitators (also the authors of this paper) scattered their seating rather than sitting together. The purpose here is to signal to participants that we anticipate relationships in this context to be relatively horizontal rather than hierarchical.

The opening, given by one of the facilitators, was a brief overview of the subject of critical pedagogy and an explanation of the purpose of the workshop. The concept of positionality was briefly introduced along with the strategies we would be employing in the session to understand it further. The facilitators introduced themselves individually as well as collectively, positioning themselves both in their roles for the session and in their roles and ranks in the institution.

This was followed by a general group exercise in which all were invited to participate. In advance, participants were informed that the purposes of the exercise were twofold: to introduce all participants, bringing each voice into the room and to begin the process of understanding one's own positionality. The exercise involved sharing not just one's name, but also stories associated with one's name. This was modeled by one of the facilitators. In the group we had origin stories ("I was named after…"), a story of the meaning of the name, what someone feels that a particular nickname says about themselves, and the histories of names changed (through marriage, personal transformation, or migration). Things were revealed or implied about the participants that are seldom discussed with near-strangers: family history, cultural situatedness, immigrant status, class, etc. This required some risk taking on the part of participants and created a small sense of trust, if not intimacy. Participants learned something about each person's positionality.

With this experience as a foundation two facilitators provided a more theoretical foundation of what positionality is and how an understanding of the concept and one's own positionality can be applied in the classroom. Our purpose was to deepen our participants' understanding of the concept of positionality and to situate it in relationship with learning.

Personal Reflections on the Practice of Positionality in Research

Below are the personal reflections of two of the co-authors, who shared their own understanding of positionality at the symposium workshop:

> It is not easy for me to describe my positionality in brief. As a person of color who grew up in the Chinese culture in Taiwan and migrated to the western culture of America, I have found my positionality is complex and in flux, constantly changing and moving, depending on which position I would like to take at the moment. I grew up in a traditional Chinese culture where obedience to authority and consideration of the goals of the group were considered the most valuable quality for being a student. In the classroom, there was no room for individual opinions; critical thinking and taking personal stands was not encouraged or allowed. However, as an Asian living and receiving higher education in the US, I was forced to learn to think and speak like a westerner, and sometimes I have to abandon or disregard the Taiwanese-Chinese side of me in order to fit in to this American education system to survive.
>
> After learning and exploring my own positionality, I realize that mine is multidimensional and has different layers. I can either think and/or speak from a point of view of being a minority from the East who is marginalized and experiences the institutionalized racism of the American culture, or I can also think and/or speak from my higher educational background of the West, being assertive to discuss issues with my intellectual and rational mind. By being aware of this lived experience of "in-between", it makes me more cross-culturally sensitive. I have found that I have no choice but to be open-minded to whatever I see, hear, learn and experience both positively and negatively, because I started to understand that there is no single truth for anything in the world. When I accept the multi-facets of the truth, my view has widened, and empathy has naturally matured and deepened. Most importantly, I have become appreciative of my unique experience of learning as a source of knowledge and a contribution to community.

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> Let me begin with my position—my standpoint: I am a forty-year-old white woman who calls herself a feminist. I grew up in Oklahoma, the daughter of middle-class parents, and surrounded by conservative fundamentalists, which I call some of my dearest friends. I am a liberal-thinking Italian-American woman who is assertive when I believe an injustice against people and nonhuman animals has occurred. Growing up in Oklahoma offered me a chance to live outside my comfort zone, and because of that I had to learn how to get

along and rely on those who thought differently than I do. I moved from Oklahoma to San Francisco because I wanted to be in a bubble of like-minded thought, however I am vigilant about keeping one foot outside of this bubble. I believe that it is necessary for my own wholeness of being to have friends and family who differ from me politically, spiritually, and religiously. Of course there is much more to who I am, but this is the foundational lens in which I view the world, and this lens colors how I approach the work I do.

When I pick up a paper or begin to read a book the first question I ask is who the author is and what is their position. It is necessary to know this because it allows me to see how the research that I am reading is held. If I pick up an article about the causes of gun violence in teenagers and discover the author is a card carrying member of the NRA, I may find what I read to favor guns not being the cause of the surge in school shootings. In any article or book it would be hard to find an author who possess the power of neutrality; this is why positionality within a book or paper is so important. I need to understand the author's position so I can create my own theories and questions.

When someone reads my work I believe they need to know I use a feminist methodological standpoint, which incorporates my own experiences into the subject being explored. The use of a person's standpoint can offer the reader an alignment with the story being told. To explain this methodology further I look to the book, "Feminist Research in the Sociology of Religion" by Jones (2002), she wrote:

> One uses standpoint theory when one reflexively analyzes one's own inquiry or another's experience by taking into account the dimensions of gender, race, and power. The use of standpoint theory demonstrates how these social variables inform all aspects of the research project, including the selection of research topics and the cognitive framework within which a research problem is interpreted. Using a feminist standpoint, researchers inquire into the subjective experience of groups often overlooked in traditional analysis, and, in the process, uncover a multiplicity of subjective truths. (p. 78)

I interpret this to mean that all my social variables are influencing how I examine and write about a subject. I believe it is impossible to not be biased when researching something I feel compelled to write about. Using the feminist research methodology, I am allowed to state clearly who I am and where I stand within the topic, which gives the reader valuable knowledge. In the essay, "Writing Feminist Research" by sociologist Charmaz (2012), she stated, "Authors who reveal their starting points and standpoints—and concerns and commitments—permit readers to assess both their approach and the quality of their content" (p. 477). By the author revealing their position it creates space for collaboration between themselves and the reader. I stop seeing the author as an expert and more as someone sharing information that I then get to add on to with my own thoughts and questions. Positionality starts by describing who you are and that in turn affects how you see the world.

Using my standpoint—my position, I show the reader who I am and why my work is important, the reader is seeing the whole lens in how the material is presented, not just

> from an expert centered perspective. The reader can then create their own theories and use what I am giving them as a starting off point for their own possible research. Stating my standpoint humanizes me as the researcher and tells the reader that there are other angles in which to gain knowledge about the subject I am writing about—not just mine. Knowing the researchers background, I am privy to untold biases that may appear and I am then free to agree or disagree with their approach to the subject.

After two of the facilitators shared their personal understanding of positionality, we then moved into the next full participation exercise, our variation of the classic anti-oppression activity typically termed the Power Shuffle. In this exercise typically facilitators ask group members who fit certain descriptive categories or criteria to cross to the opposite side of the room, away from the full group, then stop, and turn to face the group they left behind. The two parts of the group are given a few seconds to observe one another silently and to notice their feelings. The facilitators then instruct those who have crossed the room to return to their original place with the full group. (Simms, Vasquez, & Sherover, 1992)

We adapted the structure to our needs in a variety of ways. Rather than form a line and step over and back, we elected to form a circle and as each category was described, those who identified with it stepped into the circle. Rather than step out of the group, participants stepped into the middle and made eye contact with each other. The instructions were: 'step into the middle if you identified with a phrase, notice who is with you (in the middle) and who is not, notice how it feels to be in the center of the circle, and then step back to their original place.' Having a circle rather than a line was intended to create a greater feeling of connection.

The original exercise had 41 categories, and we knew we did not have time for all them, plus we wanted to illustrate positionality in an educational setting rather than exclusively highlight power and privilege. So we started out by asking each of the seven co-facilitators to choose ten categories. Then the two co-facilitators of this exercise met to discuss which we wanted to include. We made sure to include at least two from everyone's list, and either combined or modified those that were very similar until we had 21 remaining, to allow plenty of time for discussion and debriefing.

Our own positions and that of our co-presenters no doubt had an impact on our decisions of what to include or discard. For example, we were both from working class families, so we changed the original category "you were raised poor," to "you were raised working class" and then added "you were raised with economic privilege" to have more of a balance. Another similar category we later added was "you have educational privilege" to which, not surprisingly, every single person stepped into the center of the room.

Sometimes we combined multiple categories into a more inclusive and broader category, for example "you identify as a person of color" rather than including the original eight specific racial or ethnic identifications. Then we made the category broader, changing multiple age based categories into a single "you feel like you don't have a voice because of your age." Also, we changed some of the language to be gender neutral, for example "you have been discriminated against because of your gender" rather than using language such as "you earned less than a man for doing equal work" or "you have ever been afraid of a man's anger." We left out those questions which we worried could be too emotionality triggering in such a short exercise, such as those regarding sexual violence or physical abuse.

We started out the exercise asking for confidentiality and emphasizing that participation was voluntary. We made sure to build in plenty of time for the discussion questions afterwards and for group sharing as part of the closing. This was intentional, as a central part of integral pedagogy is the notion that students are not blank slates and that key aspects of the learning come from the participants themselves, rather than exclusively the facilitators. Allowing extra time for discussion was also important because the circle exercise was conducted in silence.

Having engaged the two exercises, and heard the mini-lectures and sharing on our subject, we provided a series of reflective questions for the group to engage. “What was your experience of this exercise? Did anything surprise you? What would it mean to view the diversity of life experience in the room as educational assets? What voices are still missing or that you would like to include?” We started with these open-ended questions, and made sure that everyone had a chance to share if they chose to. The discussion was lively and suggested that the concepts were understood.

We closed with one of the facilitators sharing a quote from a 1996 interview of Freire (LiteracyDotOrg, 2009):

> If you asked me, Paul, what is in being in the world that calls your own attention to you? I would say to you that I am a curious being. I have been a curious being, but in a certain moment of the process of being curious, in order to understand the others, I discover that I have to create in myself, a certain virtue without which is it is difficult for me to understand others. The virtue of tolerance. It is through the exercise of tolerance that I discovered the rich possibility of doing things and learning different things with different people. Being tolerant is not a question of being naive. On the contrary, it is a duty to be tolerant, an ethical duty, a historical duty, a political duty, but it does not demand that I lose my personality.

Summary/Closing

For us the concept of positionality is important in understanding the role of experience in the learning process. Positionality acknowledges complex differentials of power and privilege while simultaneously identifying the value of multiple ways of knowing and being that arise from our multiple identities. The goal of revealing individual and relative positionality is to de-center dominant ways of thinking and expose multiple ways of thinking as diverse assets for self-knowing and collective-knowing.

In our workshop we both shared this concept and engaged in the process for all participants to share their complex positionalities. The process was interactive and participatory in structure. We did not follow a standard lecture model; there was not one “expert” on stage and participants were not a passive audience. Participants and facilitators both spoke deeply and personally. We learned from the stories everyone shared, informed as they were by their unique perspectives.

We are not suggesting that participants walked away from our presentation with a sophisticated understanding of positionality, much less its pedagogical value. Nevertheless, we feel confident that by using personal disclosure, participatory exercises, group discussion, and action methods of teaching, participants were able to experience some of the complexity and importance of positionality in the context of integral education.

As we close, we feel that it is important to collectively reflect about our process of coming together as a team to produce this article; this is our summation: Before even considering the task of writing up the Symposium session, we had said goodbye at the end of the Teaching Fellowship. It seemed we all ended on a high-note. It was a busy semester and each of us relied on the others to make it through. It felt like each of gave a *resounding sigh of relief*, yet when the opportunity to further develop our symposium work came up, each of us *jumped* at the chance and agreed to do it.

However, in collaborating again it felt like we were trying to *put the band back together* and recreate magic that was once there. Scheduling problems, interpersonal and intellectual tensions, and deadline pressures caused conflicts. Also, there was a shift in all our positions — no longer were we Fellows and Faculty, now we were co-authors, and this was a role we had yet to explore with one another. What carried us through the rough patches was respect and trust, excitement in creating something publishable, growing through the challenges in working through tensions and shifting positions, and a commitment to be present. And once again, there is a collective *sigh of satisfaction* as we reach completion.

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Manifest Transpersonal Experiences:
Aṇimām and *Laghimā Siddhis*

Robert V. Burke[1]

Abstract: This article recalls with vivid awareness the Alex Gray like vision of infinitely small pulsating structures within my own body, and of bodily sensations of levitation I recalled when I read in Michael Murphy's *Future of the Body* the references to Haridas Chaudhuri's unpublished *Yogic Potentials or Siddhis in Hindu-Buddhist Parapsychology*. Along with Murphy's section of *Extraordinary Somatic Awareness Mediated by Internal Clairvoyance*, and within the framework of Ramamurti S. Mishra's *Textbook of Yoga Psychology* that provides context for Patanjali's Yoga Sutras, one sees as Chaudhuri explicates, how *aṇimām siddhi* of infinitely small somatic perception, and how *laghimā siddhi* of levitation are manifested. This artcile provides the notions, context and details of how such yogic potentials operate as transpersonal experiences of the body, mind and psyche.

Keywords*:* chittam, cryptesthesia, clairvoyance, extrasomatic, levitation, parapsychology, psi-gamma, psi-kappa, psychokinesis, sankhya yoga, siddhis, telekinesis, telergy, yoga sutras, yogic contemplation.

Introduction

Based on several extraordinary experiences, Murphy (1992) confirms in *Future of the Body* what I intuited: "that body awareness has extrasomatic as well as purely physical components" (p. 91). I have had several other experiences, but elaborate on the following two, *aṇimām siddhi* and *laghimā siddhi*, because they have had a most profound and transformative impact on my psyche. Haridas Chaudhuri in his unpublished paper: *Yogic Potentials or Siddhis in Hindu-Buddhist Parapsychology* defines siddhis as:

> Supernatural powers inherent in the human psyche... They are extraordinary aspects of the human potential. Perceived as revelations of ultimate truth or reality, they are termed Vibhuties (that are manifestation of Divine powers). Perceived as fully actualized abilities or dynamic capacities, they are known in their totality as Aiśvarya, i.e. spiritual wealth. (Chaudhuri, n.d., p.1)

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I have had direct experience of two of these *siddhis* that I discuss and examine below. Briefly, in the presence of my Guru, Sri Brahmananda Sarasvati, I experienced myself as a field of energy wherein I perceived every aspect of my body at the atomic level. Precisely, I experienced the pre-quantum vibrating strings level of my existence. I experienced the second while attending Mass as a Trinitarian Friar where I was overcome by powerful sensations of levitation. My monastic training prepared me for a mature encounter with these paranormal experiences so that I neither got lost in them, nor did I lose sight of the Self that was the focus of my seeking. In my monastic studies I was cautioned not to place emphasis on siddhis. Like my Spiritual Master, Fr. Damon, Huston Smith gives similar advice that I discuss later. I begin with an examination of the first experience.

Eastern Perspective: *Aṇimām Siddhi*

After reading Murphy’s explication of *anudrishti siddhi, antara drishti siddhi,* and *aṇimām siddhi,* I referred to his reference to sutra 26 in chapter III, the *Vibhūti Pādah* in Ramamurti S. Mishra’s (1963) *Textbook of Yoga Psychology* where he makes commentary on Patanjali's *Yoga Sutras*. Mishra’s commentaries that follow also refer to the following siddhis, or paranormal experiences that Murphy (1992, P. 91) defines:

1. *Anudrishti siddhi*—a term derived from *anu*, atom, and *drishti*, insight—refers to a yogic apprehension of small, hidden, or remote things, including somatic structures.
2. *Antara drishti siddhi* is said to produce an X-ray look into our bodily parts.
3. *Animam siddhi*, one of the eight famous powers referred to in several yoga sutras, also involves such capacity.

These terms apply to an experience I had in 1992 at a *satsaṅg* and meditation led by Dr. Mishra, then known by his *sannyās,* or monastic name, Sri Brahmananda Sarasvati, of what Murphy (1992, p. 91) categorizes as an *Extraordinary Somatic Awareness Mediated by Internal Clairvoyance: aṇimām siddhi.*

Haridas Chaudhuri's (n.d.) catalog of siddhis brought the three *siddhis* mentioned above to Murphy's attention. According to Murphy’s (1992) footnote he states "Chaudhuri believed that the *aṇimām siddhi* has various aspects, among them internal clairvoyance by which we can perceive our body's cells, molecules, and atomic patterns” (p. 91). Murphy (1992) further elaborates:

> All our capacities, whether normal or metanormal, somatic or extrasomatic, are subject to the limitations and distortions produced by our inherited and socially conditioned nature. And it follows, then, that some internally clairvoyant perceptions would be more accurate than others, less filtered by half-conscious or unconscious psychological processes, and could be improved by transformative discipline, as Sutra 26 of Book Three in Patanjali’s *Yoga Sutras* suggests. Some, or perhaps all, of us might perceive our own body parts through occasional psi, but through a glass darkly, while with practice we might see them more clearly. (p. 92)

In the *Frequently Used Terms* section, Murphy (1992) defines *psi* as:

> A term proposed by B.P. Wiesner and R.H. Thouless, which can be used as either a noun or adjective, to signify paranormal processes and causation. *Psi-gamma* stands for paranormal cognition, *psi-kappa* for paranormal action. *Expressive psi*, a term used by David Griffin is synonymous with psi-kappa, *receptive psi* with psi-gamma. The term *psi* is meant to suggest that various paranormal phenomena are aspects of a single process, which in its active or expressive (psi-kappa) mode is called psychokinesis, telekinesis, or telergy, and in its receptive or cognitive (psi-gamma) mode is called telepathy, clairvoyance, or extrasensory perception (ESP). (pg. 588-589)

At a *satsaṅg* with Dr. Mishra, I had an immediate and total, sensory and mental awareness of the *kāraṇa śarīra* or causal body, and of the *sūkṣma śarīra* or subtle body. Muni (1994) delineates the three *śarīra* bodies into five major *kośa* sheaths that cover the psyche or *ātman*. According to Grimes (1996) one definition of *Ātman* is "The Reality which is the substrate of the individual and identical with the Absolute (Self), according to Advaita Vedanta" (p. 68). Of these five I became intensely aware of two: the "*prāṇamaya kośa,* sheath of vital airs" (Muni, 1994, p. 196) and the *ānandamaya kośa*, or "sheath of bliss; first sheath or covering of the Ātman (individual soul) in Vedantic metaphysics; causal body" (Muni, 1994, p. 188). I was totally aware, saw, felt and perceived every atom of my body. This, I now relate to as a personal experience of *aṇimām siddhi.*

Siddhis are powerful and there is danger we may misperceive or misunderstand the experience, this is why Murphy refers to sutra 26 of the *Vibhūti Pāda* as a means of improving the unconscious psychological process of *aṇimām siddhi.* Because of its importance I am including Mishra's (1963) full commentary:

> *Pravrittyāloka-nyasāt sukshma-vyavahita-viprakrishta-jnānam*
>
> By *samyama (the practices and three higher states of yogic contemplation: dharana, dhyana, samadhi)* on the shining and radiating, effulgent light (I:30) one manifests intuitive knowledge of the subtle, the veiled, and the remote. The inner light, the effulgent light has been explained (I:36). It is the light of *sattva* (harmonious) substance, the principle of consciousness, which is clear, shining, radiating, and all-penetrating. When the light is perceived by a yogin, he sees things, which are very subtle and minute, such as elements and atoms. He sees things, which are veiled and concealed. He sees things, which are very remote, things, which are happening in a distant place. By performing *samyama* on this light, inner consciousness is revealed. It is beyond time and space and is all-inclusive. Hence a yogin obtains cryptesthesia. (p. 257)

George (1995) defines cryptesthesia as:

> … literally, (a) 'hidden sensation.' Cryptaesthesia refers to information gathered by the senses that enters conscious awareness by some other form.
>
> The waking awareness generates a narrative based on the sensory input it receives. Input deemed irrelevant is frequently ignored or stored for later within the mind. Sometimes, however, the mind recognizes the need for that information, typically for the survival of

> the individual. In order to bring that information to the forefront of consciousness, the mind will transmit that material through sensory hallucinations (e.g. tactile, visual, aural) in an attempt to redirect and refocus the efforts of the individual. (pg. 57-58)

My experience of the *aṇimām siddhi* was not due to any yogic effort on my part. I was simply meditating, with approximately 80 students, in the presence of Sri Brahmananda Sarasvati. For me the experience was gratuitous, perhaps due to my attention on the Guru, but I do not recall any effort whatsoever. I was just sitting quietly. During the experience of *aṇimām siddhi,* when I checked in with myself, to affirm I was still in-the-body, I opened my eyes and noticed auras around other meditators, who I knew beyond a doubt, were having the same experience I was having. Actually the feeling of pulsations and vibrations around them were resonating with my own. I was feeling this gentle awareness of resonance and was absorbed in intense pulsations and vibrations, to the point of visualizing every atomic detail of my being; it was much more pronounced than awareness of the auras.

This was one of the most powerful transformative experiences in my life. It left me understanding without a doubt, that accounts of the essence and radiance of the Self emanating from other spiritual masters such as the Buddha and the Christ are true and verifiable in the presence of contemporary masters. This experience marks the culmination of the initial stage of my seeking. It affirms the reality of what I was seeking, and that the sought for was in me and I was in it too; however, I also understood that I still had and have more work ahead of me. Now, I see with greater clarity: the work that is happening by and thru me. I can feel it and confirm it by its gentle overwhelming sense of peace, tranquility, silence and love. At times though, I feel, there is nothing left to do. However, this feeling does not impede my participation in life.

Mindstuff is used synonymously as *cittam* by Mishra (1963), as a partial model of psyche based on the *Saṅkhyā darśan:*

> The total individual personality consists of three major systems. These are called *manah*, mind consciousness; *ahamkara*, ego consciousness; and *buddhi,* superconsciousness. The three systems form a unified and harmonious organization technically termed in Yoga, *chittam*. *Chittam* means the psychic mechanism which manifests *Chiti*, Consciousness. *Chittam* is the seat of consciousness. Consciousness is manifested in accordance with *chittam*. The whole world is *chittam* and the world is perceived according to *chittam*. From childhood to old age, *chittam* changes, so our experiences regarding the world also changes. Man is as his *chittam* is. This is the secret of all secrets. (p. 114)

Muni (1994) refers to what Mishra terms chittam as *antaḥ karaṇa*, the “Internal Instrument of cognition composed of Chitta consciousness, Buddhi intellect, Ahankara ego, and Manas mind; *the core of an individual’s personality, the psyche”* (p. 188, *emphasis mine*).

In the Vibhūti Pāda, Chapter III, Sutra 26 above, Mishra (1963) refers to sutra 30, concerning purification and removal of obstacles occuring in the unconscious psychological processes of *aṇimām siddhi:*

> *I:30 Vyadhi-styana-samshaya-pramada-alasya-avirati-bhranti-darshana - alabdha-bumikatva-anavasthitatvani chitta viksepas-te-antarayah.*
>
> These are nine obstacles, distraction of mindstuff. These appear with fluctuations of mindstuff. A breach in concentration would result in retrogression even from that stage. An effort should be made therefore in such a way that when a yogin has reached samadhi, highest concentration, mindstuff should be stabilized there.
>
> Concentration is a process of purification. It cleanses body and mind. During this cleansing process physical diseases, psychosomatic diseases, and mental diseases may appear if they are hidden in the unconscious or subconscious state of chittam. Concentration does not create mental or physical disease but if disease is latent and or dormant, it will be discarded by supra-electronic, tanmatric, concentration. One should not worry if one receives signs of disease because it is passing out of body and mind. If in the process of cleaning house one should discover a snake, one should not worry but should dispose of the snake and make the house clean and peaceful. Otherwise, if it were to remain undiscovered, sometime later it might attack one. If any disease symptoms show, one should not worry but should overcome disease and be rid of it forever.
>
> Not all obstacles come simultaneously. Any of them may come according to one's mental and physical constitution. They will never come if they are not dormant in one. Practice of meditation does not produce any disease. On the contrary, it destroys diseases. (pg. 146 – 147)

After his review of obstacles above, Mishra (1963) states in sutra I. 36 that “ the mind becomes calm, serene, and free from sorrow by meditating on the effulgent light at the third eye center, and it experiences the explosion of the light of consciousness” (p. 396). Mishra (1963) further elaborates in his detailed commentary on the all penetrating effulgent light that is the radiating source of the *aṇimām siddhi:*

> *I:36 Vishoka va jyotishmatee*
>
> By meditation on the transcendental and effulgent light of Purusha, Brahman, which is beyond all sorrow, self-confidence is positively produced, and mind becomes firmly grounded in Reality.
>
> By meditation on the effulgent light of the Supreme, chittam goes into higher changes. This personality change brings stability of mind and absolute confidence in Self.
>
> When a yogin fixes his attention on the ajna chakram, center of the head, thalamic region, or on sahasraram, seventh chakra, comprising the entire cortex, an effulgent light originates. Gradually it becomes resplendent and radiating, filling every part of the universe like akasha, ether. Skillfully holding chittam on this effulgent light, one has extraordinary change in mindstuff. It is transformed into that effulgent light which shines like the sun. The sattva quality of mind stuff is purified. It comes to a state of balance in

> Cosmic Consciousness with feeling of Cosmic Personality and becomes like a motionless ocean.
> Pondering the immanent, transcendent, and subtle Self one comes into direct realization of this light with the same surety one feels about oneself when saying, "I am." This transcendent and effulgent state of chittam is of two kinds:
>
> Vishoka Visayavatee, enlightening all the products of objective nature, prakriti.
>
> Vishoka Jyotismatee asmita matra, feeling of cosmic personality and enlightening Purusa by means of which the mindstuff of a yogin gains a state of stability and self-confidence.
>
> This effulgent light cannot be perceived by beginners. Hence they are advised to imagine this light either in the heart or the center of the head.
>
> Imagination can be a creative or destructive force. Imagination which is creative force is helpful in any branch of knowledge. So beginners should imagine that effulgent light in the heart or head until they perceive it naturally. (pg. 152–153)

Western Perspective: Levitation

Levitation is also known to yogis as *laghimā siddhi* that Grimes (1996) describes as “one of the eight powers which enables one to rise up in the air (on the rays of the sun)” (p. 173). The following is a personal account of such an experience:

During the novitiate we learned techniques of meditation, and how to meditate with an open and healthy attitude—Meditation without pretense or expectations. Once, as we gathered around the altar during mass, I began to levitate; no one noticed. I begged God, ‘Please, not here; you’ll embarrass me in front of all my friends.’ Reflecting on the experience, I actually did not *see* my feet lift up off the ground, but ascribed to the experience a sense of *kundalini* rising up the spine. Also, novices were admonished not to pay too much attention to sensory manifestations of meditation including visions and other extraordinary phenomenon (siddhis). We acknowledged them, but did not dwell on them. The manifestations are not the goal, we had been told that they can detract us from our goal of unity with the divine.

Houston Smith (2003) confirms this in a dialog with Mishlove:

> Mishlove: *So would you say there are some religious traditions that encourage the development and the cultivation of the psychic side of human beings more than others?*
>
> Smith: It’s interesting. I’ll put it the other way, slightly differently. That is to say that most of them believe that these powers are there and that they do increase as spiritual advancement occurs. However, they also warn against it, and say if you make this the goal, why, you’re settling for too little. And also there are some dangers; for one thing, this is treacherous water where one is not totally benign, but also there’s a strong temptation, as these siddhis, as the Indians call them—

> Mishlove: *Powers*.
> Smith: Powers, yes. As powers become available to you, people's heads get turned, and they become egotistic in their abilities. And so in derive, that way it can be counterproductive to the spiritual quest. So the greatest teachers are quite unanimous in saying they come but pay no attention to them.
>
> Mishlove: *But aren't there traditions— the shamanistic tradition, the Tantric tradition— which really emphasize these powers?*
>
> Smith: That is certainly so. Now, I guess I tipped my hand a little bit in excluding them from the most profound spiritual masters.
>
> Mishlove: *Perhaps you do have some preferences.*
>
> Smith: Shamanism is immensely fascinating, and extremely important in the history of religion. But sanctity one does not associate with shamans. They have immense power, and it can be misused as well as used. I think on balance it's been used. So I value them, but they're neither— what shall I say?—saints nor philosophers.
>
> Mishlove: *Well, perhaps we might liken the psychic abilities in this sense to musical ability, or to any other natural talent that could be used in different ways. And some religions cultivate music, I suppose, more than others.*
>
> Smith: That's right, that's right. Most shamans are very much linked with the people, in helping them with practical problems of life. But the aspect of religion that has to do with virtues and compassion and loving-kindness, now, this kind of thing is when I speak of profundity, getting into those waters. The shamans, that's not their forte. They have a different role. (pp. 219 – 220)

I am grateful for the specific readings assigned in Murphy's work because it has capped off my understanding of direct experiences of the Self that included phenomenological responses. While I find such experiences comforting and assuring, I do not seek them. I maintain a steady practice of performing the Vedic Fire weekly at Brahmananda Ashram in San Francisco, and bring the teachings of Nisargadatta Maharaj, Ramana Maharshi and other Advaitins and nondualist masters to those who attend. It is the power and grace of this millennia old ritual of Lord Agni's that attracts seekers, and Guruji said that when one reads from a Master's work, this Master's presence is "required." To me it is like the encounter of the kerygma, the Self in the logos. This encounter is the terminating juncture of relative consciousness and cosmic consciousness. It is encountered in deep silence wherein one experiences wholeness and peace. This is my experience. My practice of *Ātma Vicāra,* feeling and being the 'I am' in every moment is the active meditation I carry throughout my waking state. Any deviation and I am instantly reminded to return and abide in the Self.

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The Restoration of Wholeness

Karabi Sen[1]

Abstract: Wholeness is an innate state, a quality which is lost with our exposure to the world. Our life is spent in efforts to restore the state of wholeness in us. The world takes from us our tranquility and balance. Yet it is only from this giving of us that we can recover our lost self. That which takes also gives.

Integration is a process which takes place in time and space. It is a developmental experience that admits of degrees, failures and regenerations. The integral self is not a finished perfect product. The self is born in nature and to nature. As such, it can mature, shine and bring itself to fruition only through trials and tribulations. Without the loss of wholeness we would never even have a vision of what constitutes wholeness; nor would we aspire after its retrieval. Creation is an evolutionary process which travels a path with many perils and also rewards. The journey to integration is difficult when we separate ourselves from our fellow humans and other forms of life or see ourselves as different from the soil and air and water that make us.

Once we see ourselves in all that surrounds us and recognize them in ourselves uniting is not hard any longer. When we unite with the world we achieve a united, harmonious, whole self within as well.

Key Words: Integral Philosophy**,** Integration**,** Wholeness

Introduction

Integralism, as I see it, is a restoration of wholeness. It is a process, never a finished product. At birth, our wholeness is shattered. Yet the inner being retains its vision of wholeness, a sense of completion and peace that comes with it. Then begins the arduous journey that we call life, which is an unceasing attempt to restore to itself the wholeness that is lost.

To be born is to be exposed; exposed to the elements, exposed to rejection, to abandonment, to needs that must be attended to. Thus it is that the baby howls when it exits the mother's womb. The world invades it. The parents rush to give it what it is crying for, to restore to it the divine peace of satisfaction. They rock it to sleep, give it the nectar of milk that will quieten it, are overjoyed to see that innocent smile on its sweet face for the first time. They believe they have given the baby back its wholeness.

Two things have happened when this has taken place. True, the baby has been made to feel at peace with itself. Its face is blissful. But in the process of restoring the baby's wholeness, the

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parents have had to undergo the loss of their wholeness. Sleepless nights, unending feeding and changing of diapers, hardly any time to cook or grab a meal or take a shower, the piling up of dishes in the sink and filth on the floor, the fear of getting late at work, tension between husband and wife have taken a toll on father and mother. They are distraught. They have taken a chunk out of themselves and given it to the baby in order to arrive there where the baby has been restored to wholeness.

The disintegrated parents know that the baby's contentment is only temporary. They know that this search for wholeness will be a life-long process. Each time their child experiences loss of wholeness their own being will be struck and mutilated. Yet they know that wholeness can still be sought and restored back. They also know that they themselves will never be whole until their child is whole. So they develop strategies to repair the self, of those they love and their own selves. Those who do not have a strategy are wiped out by the strict Darwinian principle of struggle for existence and the survival of the fittest.

Integralism is such a strategy. It tries to ensure the preservation of the species. The system we are born with and into, our physical, mental and social apparatus and the environment in which they function, work as wholes do. A whole is made up of parts that must work in codependence to keep the whole in a viable and optimal condition. Any severing of the whole into disconnected parts will at once make it less survivable. In a competitive nature, the disabled system will succumb to further disintegration and dysfunction unless healing has restored it to the state of wholeness. A dismembered leg does not serve the purpose of running, walking or helping us to stand any more. If we replace it with an artificial leg, some wholeness is restored to the body, but if there is a need to run, the one with the artificial leg is more likely to meet an unkindly fate. Unless of course, there is help from a soul that recognizes the hapless one as a kin, perceives the basic bond between lives, and gives the disabled member assistance.

This sense of oneself as a unified whole made up of several members who belong together, the urgency to preserve it as such, the felt loyalty and the obligation to maintain the unit, observable even amongst roaches and ants, is programmed into our system. The gestures it generates are social behaviors which are geared towards preservation. Additionally, the eco-systems which constitute our environment in nature also function as wholes. Loss of balance in the environmental order makes our survival a questionable issue. Floods and cyclones are phenomena we must learn to work around until nature around us has regained a new transformed wholeness. As nature transforms, the beings it sustains undergo transformation. An awareness of the essential connectivity of all things that are, however rudimentary, is conducive to survival. It gives birth to traits like endurance, patience, hope, helpfulness. All of these qualities tend to promote continuation, regeneration and emergence of newer mutually supportive integral wholes. To abandon the sense of wholeness is to perish. Turmoil and disruption are meaningful only if they are seen as tools to bring in greater harmony. In the end, the team spirit assures a healthy and prosperous existence. It is common knowledge that self-expansion starts to occur from very early stages in our life.

We identify ourselves with our body, our room environment, our family, our schools, our towns, nations, the world and even the rest of the animate and inanimate world. We build bonds with the animals and have them as pets. We form associations with our homes, cars, furniture, books, kitchenware, clothes etc. They can grow to be like companions to us. We leave, but they stay on. We see a relative permanence in them. Slowly this process of self-expansion can envelope the whole world. We can be trained to see the rest of humankind as our brothers and sisters, be hurt by their suffering, outraged by their dehumanization, to take pride in their accomplishments. When many or most of us have achieved this stage, it is reasonable to hope that world peace is not far away. The aspiration to unite and be whole once again can be nurtured to attain this stage.

The aspiration to unify presupposes the preexistence of wholeness and peace. Strife and unrest signal a loss to us. Hence it is that we see the creator, who precedes creation, as whole, peaceful. The process of creation disrupts the peace but at the same time unleashes the pursuit of recovery of wholeness and peace. Many religions play with the idea of the original One becoming two and then engaging in the game of multiplication as being of the essence of Nature.

This has been applied not just towards earthly forms, but towards divinity as well, as in the Hindu concept of *ardhanaariswar* according to which the one spirit divided itself into male and female deities and together they form a whole. They always coexist. The whole continues to be a value even though the bifurcation is considered a necessary step for multiplication. In spite of variety adding spice to creation, the memory of the original unity remains a constant. Indeed we are born with the capacity to perceive objects as wholes. The skill gets better and better as we grow. When we see a face, we do not see the eyes, nose, the ears, the head separately, but the whole face. The gestalt is embedded in our perceptive process. When our power to hold on to the whole is lost we lapse into a pathological condition and await healing.

On a larger scale, wholeness is achieved when we are able to see ourselves in others and the others in us. We are one with the waters, the hills, the meadows, the birds and all other creatures when we see them in ourselves, when we realize our environment nourishes us and is as precious as family. We are also able to see ourselves in them when we see them subject to the same laws of nature as we are: coming into being, growing and eroding, transforming into many shapes and existents. When we reflect on that, we are protective of nature. When we are able to see ourselves in all that is, there is no escape from feeling friendship and compassion for all. This inspires us to give of us to them in the same way that parents deplete themselves to fill the child’s cup. There is a cost involved. Sacrifices have to be made. But in the end, restoring the whole in others always makes us whole again.

It is from this perspective that it is possible to say that no life has ever been given in vain and no injustice has ever been borne fruitlessly. It is in this sense that we can believe that Christ died on the cross an unfair death so that we could be in heaven. It is in this sense that Mahadeva is Nilkantha or blue in throat as he drank all poison so humankind could be spared its pangs. It is in this sense that the Lord Buddha was reborn numerous times so he could save suffering lives.

Wholeness cannot be bottled up but must be shared and the process of sharing involves giving, losing, creating and regaining of further wholeness, further spreading of well-being. Does this rise and fall of wellness take away from the value of the integral state of mind? The lack of finality is a negativity only if we see the unchangeable as the supreme value. The eternal, the permanent has always had an attraction for us. But the permanent in itself really has no value. What would come of us if war, hatred, misperceptions were to become permanent?

Without change there would be no reform, no progress. Unity, wholeness, an integral self are unstable quantities, rendered so by the inherent weight of their qualities in interaction with each other. The mantra of integralism has a dynamic quality within it. It is never petrified. Even after the flesh and bone that housed the integral spirit find eternal Nirvana in the death of its earthly vessel, their words continue to generate new actions, create new turmoil and churn the elements of creation in the path of producing more integral selves.

Pain is real. Disorder is real. To deny that is to dishonor those who have experienced it. But the bleakness of failure can be transformed into a positive when we are able to see through the eyes of the pained and speak through the mouths of the tortured and promise betterment of conditions. Suffering can only be a means to an end, never an end in itself. To the extent that we function as but parts of a whole we will suffer and create more suffering. It is possible, however, to rise above the partitioned self. It requires work and often assistance and support from stronger selves. The Bhagavad Geeta's yogic self which remains imperturbable in weal and woe alike is of no value unless it can be put to use to raise more of its kind. If the yogic self is locked up in isolation to maintain its serenity, then its value is limited to itself. Either it must come out of its shell to actively distribute itself amongst others in need of it or it must allow others to come to it to draw from its radiating peace. Either way, the yogic self will have to lose some to give some and add to the value of life.

Philosophers Aurobindo Ghosh and Haridas Chaudhuri had made this issue to be a central part of their integral philosophies. Both philosophers had stressed that being contained within it becoming as an inherent mode. What is, tends to become all that it could be. The drive to self-realization pushes being forward and makes it seek to manifest all the possibilities its being harbors within itself. The coming into being of all existents appears like a manifestation of a great spirit moving forward to birth its infinite possibilities in infinite shapes and forms. At no stage can we say that the emergence of new possibilities has died, that fountainhead of newer vistas has exhausted itself. Thus there is always hope for the future to open up fresh paths, newer landscapes. We may usher into ourselves the wholeness that we sought to embrace but we do not get to make it a permanent resting place. We draw upon it, make it a part of our being and then move on to put our strength to work where it is needed. Transcending conflict and attaining wholeness is something we carry with us for future applications. As Chaudhuri aptly pointed out, transcendence itself must be transcended and the process of self-expansion is boundless.

The more we expand ourselves, the greater is the happiness as the hatred and hostility diminish in the same proportion as the increase in the feeling of affinity and compassion. With each step of self-expansion our being is transformed as it has merged with a new being. Only the principle of inclusion can stop collision in a world that is en route to endless multiplication. The expanding whole, if it is based on perceived kinship, sooner or later generates mutual friendship and allows existents to coexist within the new system. The expanding whole provides a more spacious platform to the beings concerned to consider all the players involved in the field and allow for exchange of their perceptions of ways to be in order to create an environment that is safer, more harmonious. Aurobindo Ghosh's Purna (Integral) Yoga had this rare vision as its soul: that after I am a whole within, united in my body, mind and spirit, I remain in it and absorb it in myself and then descend again into the moving stream of Nature with my heightened strength to contribute as needed. United within and united without, integral within and integrated with the fellow existents is the core of Aurobindo and Chaudhuri's theory and practice of integral philosophy.

In this context it is important to remember three dimensions of all becoming:

Firstly, all change happens in the medium of time. The maturation of a seed to spring forth newness out of itself can only occur in time. Time is programmed into the being of all animate and inanimate objects, so much so that a seed can germinate even in the absence of several other environmental conditions necessary for a normal planting, as in beans and bulbs sending off shoots in early spring even as they sit on our kitchen shelves, drawers and even refrigerators, just because it was that particular time of the year. In inanimate nature, passage of time is recorded in events that take place cyclically, events that must occur simply because a certain period of time has gone by leading to certain formations or positions of earthly and other celestial bodies. Space and Time are partners entangled in the game of all becoming.

Secondly, since all change happens in time, degrees and steps are important marks in all becoming. Changes happen slowly, sometimes imperceptibly. This is of the essence of evolution. Even the cases we designate as emergents and mutants, their appearance may appear to be sudden leaps into creation, as unpredictable, as chance, but in reality they have causes of their own that lead to them. Their suddenness and unpredictability is a name for our own ignorance tied to our contemporary times and the specific spaces we inhabit. With the crossing of our specific time-space boundaries, we gain access to newer positions which grant us access to newer visions which in turn make possible newer understandings. If an expanding whole seems to be falling apart and the systems contained within it appear to be irreconcilable, may be in time they will slowly, by degrees, evolve a system which will allow for their integration, creating a habitat where several systems can function together. The possibilities are endless and so is the scope for hope. An individual's job is to keep hope alive and actively participate in the process of making the world a better place to be.

Thirdly, what are we to make of the merciless law of nature that life can survive only on life? Even if we turn to vegetarianism, we are plucking leaves and fruits off of living plants and depriving the young ones of cows and goats of their rights to mother's milk. Even the dry leaves on the ground serve some purpose in nature other than those of the human beings. How are we to defend the taking of antibiotics and the use of bleach to kill in our war on the deadly viruses? Are there some units that we cannot include in our self-expansion process? Here again, I think we ought to apply the principles of time and degrees. In each such crisis, we can hope that in future, either our own system or that of the hostile system will evolve features and forms that will render us less and less hostile to each other, that we will grow immune to the adverse effects we have on each other. After all, who can set the limits to the possibilities?

A study of integral yoga must take note of the significant difference between the yoga of Patanjali (Bryant, 2009) and that of Aurobindo (1999, 2005) and Chaudhuri (1965, 1977). In the Yoga Sutras Patanjali had defined yoga as *citta vritt nirodha* (sutra 1.2), which roughly translates as the stopping of the natural propensities of the mind or building a dam to withstand the advance of the mind's natural inclinations. This prescription shows *vritti* in a negative light whereas linguistically and historically it is not so. Vritti has a secular and a positive connotation. It means the natural qualities or character of any being, those which enable the object to survive. The vritti of a being is its dharma, that which sustains the being or the pursuit of which makes the being survivable, makes it feel fulfilled. It is somewhat similar to what Plato understood by the concept of "function", that species specific function by performing which alone a member of that species could be contented and happy.

Like barking in the case of a dog. Vritti thus has a positive import. Vritti is also understood to mean livelihood which is essential for survival. A monthly pension is also designated a vritti. *Chhatravritti* means scholarship, that which enables a student to survive and excel. The mantra for worship of the mother goddess specifically says: *Ya Devi sarvabhuteshu vritti rupen samsthita namastasyai namastasyai namastasyai namo namoh* (Our salutations to the Devi who is instilled in each creature as its way to live, Devi Mahatmya, Chandi, Devimantra (stotra 21). Vritti is what mother nature has equipped us with for survival in the struggle for existence. To exercise *nirodha* or preventive control against vritti would be to cripple the being. It would be an act of aggression against mother nature. Derivatively, *Vrita* is understood to mean someone who has been accepted as an honorable person. Vriti means *varana* or welcoming. It further means that which surrounds a being to protect it, like a fence or the outer skin of a flower. Vritta means circular or a mandala. *Vrittastha* means *prakitistha* or encircled, safely lodged in one's own nature and normal, natural. To be drunk or be grief-stricken would be to be *aprakitistha* or not acting normally as the person has been confused or dislodged from the natural self.

Thus Patanjali's definition of yoga as *cittavrittiniorodha* takes the shunning of nature as its point of its departure. Yoga is seen as a relentless and uninterrupted long practice that cultivates *vairagya* (detachment) and *vitrishna* (cessation of longing, recoil, a natural abhorrence or loathing) towards our natural propensities. Vairagya or dispassion/detachment is defined as *drishta* (seen)-*anushravika* (heard) *vishaya* (objects) *vitrishnasya* (repugnance) *vashikara* (taming, subduing) *samjna* (definition) *vairagyam* (dispassion, detachment) (sutra 1.15). It aims at rooting out the nature-given nature and replacing it with a being that we have made to be our second nature. We are ordered to stay in this new self, be grounded in it. From Vritti (nature) via *abhyasa* (practice of) *vairagyam* (detachment) to *savija samadhi* (meditative stage still pregnant with seeds or samskaras or imprints of nature) to *nirvicara* (void of discrimination, non-dual, devoid of multiplicity or diversity, sterile oneness) *adhyatma* (spirituality) *prasadah* (taste of divinity) is the route of Patanjali's yoga (Sutra1.47). For him, truth and wisdom lie only here: *Ritam* (truth) *bhara* (filled) *tatra* (there) *prajna* (wisdom) (Sutra 1.48).

By contrast, integral yoga seeks not to eliminate nature from its path of integration. It is inclusive of the earthly and the sensory world that is Nature, of *Maya* (illusion) and *Leela* (play) as divine forces at play in creation. It thinks of conflict, pain and turmoil as essential ingredients in the process of transformation of being. It is not a journey towards a non-dual, distinction-less self-sameness but it is set upon achieving unity in the middle of diversity. It finds wholeness to be the original, natural state of being and aims at restoring the balance whenever it is off. It treats turbulence as a natural, necessary condition of the process of self-development and hence it treats every conflict, every error with care, compassion and reverence as a stage in the self-manifestation of the spirit of Nature. It is more in tune with the twenty eight stotras of the Devi Mantra in Devi Mahatmya which enumerate all of the following (stotras 7 to 26) as a seat of the Devi:

Table 1: Twenty Eight Stotras of the Devi Mantra

cetana or consciousness	*buddhi* or the intellect	*nidra* or sleep/rest
kshudha or hunger	*chhaya* or shade	*shakti* or strength
trishna or thirst, craving	*khshanti* or forgiveness	*jati* or multiple species
lajja or modesty	*shanti* or peace	*shraddha* or reverence
kanti or form	*Lakshmi* or grace, prosperity, wealth	*vritti* or livelihood, dharma
smriti or past impressions, memory	*daya* or compassion	*tushti* or contentment
matri or the mother	*bhranti* or error, confusion, lost, disoriented	

In the end the mantra celebrates the Devi as residing in all of our senses (*indriyanam adhisthatri*) in the form of ever-present consciousness (*citirupen*). The Devi Mantra is recited in the Durga Puja which is an inseparable part of the Bengali Hindu tradition. Both Aurobindo and Chaudhuri were sons of Bengal. No wonder they carried within the core of their being the reverence for Nature.

Searching the roots of the word ‘integral’ takes us back to the sheepherder days of Europe and the times of the emergence of the tango dance. The opposite of integrate is often said to be segregate, which means to set apart from the flock. Sheep are gregarious animals; they tend to live in flocks, which are integrated wholes. Greg (stem of Latin grex) means flock. So when a sheep is lost, it is segregated, torn apart from its flock. The sheepherder tries to reunite it to its flock. It was whole to begin with, then it loses its wholeness and the task ahead is to restore it to its wholeness.

A study of the history of tango reveals some thought processes that can be of interest to students of integral philosophy (Denniston, 2007). In Spanish *tener* and *tengo* mean to have and to hold in one’s hands, the Latin being *teneo*. *Tangere* means to touch.“*Noli me tangere*”, meaning “Touch me not”, are the famous words ascribed to Jesus as being said by him to Mary Magdalene when she recognized him after resurrection and proceeded to touch him. Many have felt that there is something forbidding about touching. Touching may be seen as violating privacy, as going against conservation and preservation, as a denial of one’s basic right to be left alone. The phrase ‘*Noli Me Tangere’* subsequently was borrowed by the notable Filipino nationalist author Jose Rizal as the title of his novel *Noli Me Tangere* (Rizal, 2006) in which he protested the Spanish colonization of his country. A colonizing people take away from the purity and wholeness of the original state of the country and its inhabitants when they establish their own invasive settlements. Rizal got his inspiration for writing the book from Harriet Stowe’s novel Uncle Tom’s Cabin which illustrated how the white colonizers stripped the African slaves of their natural state of wholeness.

Tango as a form of dance involves partners holding hands and holding each other in close proximity. There is something about touching that has been held to be impure in many cultures. In India one had to take a bath if one inadvertently touched a person of a lower caste. Hence the term "untouchable". The fear of impurity traveling via touch was so much that one had to wash oneself even if the shadow of an untouchable was traversed. This fear is reflected in words like "contagious" ("*tag*" meaning to touch" in Latin") which indicate that some germs spread through touch so precautions against such diseases include avoidance of touch. It is pertinent here to mention that Noli Me Tangere was also used to refer to cancer of the eyelid to state that the eye is not for touching. Jose Rizal was an opthalmologist who was aware of this disease of the eye and the phrase Noli Me Tangere must have come readily to him. Even today, eye ailments and drugs use "Do not touch me" as a catchy phrase for their advertisements.

The idea that touching was morally impure had thrived in Europe until as late as the early and mid-nineteenth centuries. Prior to the introduction of the tango, dance in Europe was mainly contra-danza, in which partners stood facing each other, making lineal movements and only occasionally touching each other's hands. It was similar to English country-dancing. There were circular forms of dancing as well which too involved no touching. The introduction of Walz was the first advance made towards dancing that involved close holding of partners. It was around 1850 that that the Opera of Paris first introduced Waltz as a risky venture but it turned out to be successful. Waltz was followed by Polka. The European elite was gradually relenting upon its idea that social touching while dancing was not morally condemnable. During the introduction of the tango in Argentina around 1880, men often had to dance with men to avoid social stigma or the unavailability of socially acceptable women in Argentina at the time. Such male and male partnership had nothing to do with homosexuality. It was the avoidance of morally impure and socially unsanctioned behavior by men and women towards each other. Tango involving men and women as partners was danced mostly in brothels in the early days. By 1930, however, tango had gained respectability and the rich Argentinians had introduced it to Europe as an acceptable and enjoyable dance.

Why was touching considered to be not desirable? It was not simply because touching could spread germs. It was also because touching could "take away" from things as well as "give" to things. If we touch a delicate flower or a lettuce leaf frequently, it will noticeably wilt. If we hold a baby for long periods of time it may interfere with the baby's free growth. Perhaps our body heat takes something away in such cases. Perhaps it is like sleeping on a sofa where the free movement of one arm is impeded and the body does not feel fully rested after the sleep. Touch does take away from wholeness in some cases and in such instances wholeness is seen as the natural condition. But touch also gives. It gives comfort, it nourishes. It expresses caring. Yes, it can arouse improper sexual arousal in men and women, but where sexual closeness is desired by the partners, touch can be deemed divine. Thus touch has restorative and creative qualities as well. If what was whole has been made to be less than whole, touch can restore it back to wholeness. Thus it can act as an essential ingredient in the process of integration, in the creation and preservation of integral lives.

The word 'integrate', though used as the opposite of 'segregate', unlike the latter, does not have its roots in "greg", which means group or flock. It is broken down to in (in the sense of no, non)-tegr(touch)-ate(to cause). It means to cause not to touch. That would be a way to preserve the natural state of wholeness of the object concerned.

Tangere, *teg*, *tegere*, *tag*, *tect*, *tact*, *texi* are related words that can mean touch, feel, hold, try, reach, handle, evaluate, estimate, measure etc. in different contexts (Morwood, 1998). They refer explicitly or implicitly to the skin. The Sanskrit word for skin is *twak*, showing how ancient the concern is about touch. It is curious to note that teg and tect can also mean protective cover, like a shell enclosing a nut to keep it whole or a shell protecting a tortoise. A million other instances can be found in nature of how covers are intended to protect the pristine quality of things. Hence to pro-tect is to work for the preservation of the cover enveloping the original wholeness of things and to de-tect is to take away the cover and expose it to the outside world.

The prefix "in" too can have not just a forbidding import but may also mean to preserve something in its essential state. It has an inclusive and an exclusive sense. Hence in-tegr-ate can also mean to cause something to remain protected in its original state of wholeness. Do not touch or play with the cover for it sheaths the essential quality of the object, that which makes it viable, its sacred soul, that is. In this context Bahman Shirazi's words appear very relevant. In his article *Integral Education: Founding Vision and Principles* (Shirazi, 2011), he remarks that balance and harmony are the ultimate laws of life. The observation can be made into a very pursuable goal in life if we remember that only harmony can bring balance in any given situation. However, it is also worth its while to remember that while harmony is an important goal to pursue, balance, on occasions may not be so. In matters of love and compassion, we can on occasion witness grand extravaganza. Aurobindo Ghosh spoke of Leela or playfulness as the source of the bursting forth of all creation. Leela, the divine's pleasure, the delight the divine takes, in endlessly expressing itself in multitudinous forms is also termed *Ichchha* or the creator's pleasure. It applies also to the child's play, the sheer delight a child takes in playfully releasing its energy and create objects of fantasy out of it limitless imagination. Hence the word *Leela-khela*; Hence also the name *Ichchhamayee Tara* for the Goddess and the name *Ichhamati* for the ever-flowing river at the border of West Bengal and East Bengal (Bangladesh). Its dharma is to flow on and on and make its path and bring life to the elements that form its bank. It knows not what it does, cares not what pitfalls may arise on its path. Absorbed in its creativity it continues to flow. Perhaps this is what Aurobindo meant when he thought of the Infinite losing itself in the finite, leaving itself concealed in the finite that it generates out of itself. Perhaps it is not appropriate to call the created finite. For each finite conceals within itself the imprint of the infinite which gives it its original wholeness the loss or impairment of which stirs in it the unrest causing it to launch upon the journey to restore its wholeness to itself. Shirazi also states that people have an innate potential for wholeness and an urge to attain it. He maintains that all human beings have a right to be whole because wholeness is at the core of all human beings and that therefore healing can occur only if wholeness has been restored to someone suffering. I could not agree more with these forceful assertions. Only, I would like to extend the area of these affirmations from the human realm to all that is, to being as such. *Sat* or simple being transforms into *chit* or consciousness which in turn rises to the experience of *ananda* or joyfulness.

To believe in integralism is to be dynamic. It is not to be locked away in an eternal state of stagnation. It is to believe that wholeness is a natural state of all that is, that which makes being, be at its best. However, it also looks upon losing of wholeness in the process of creation and life playing itself out as equally natural. It further believes that the restoration of wholeness is dharma for disintegration is the darkest hour and must be turned around to be productive of new integration. This is of the essence of Faith and Hope. This is made possible by the sharing of wholeness by those who have attained it, by self-erosion, by self-exposure, by giving of oneself at the cost of losing oneself. This is what Charity is. Fortunately, such self-giving not only restores wholeness to others, but also leads to regaining it for oneself.

> *If I were an incense stick,*
> *I must burn to give off fragrance.*
> *If I were a lamp,*
> *I must be lit and have to burn to give light.*
> —Rabindranath Tagore (1967)

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Individuation, Cosmogenesis and Technology: Sri Aurobindo And Gilbert Simondon

Debashish Banerji[1]

Abstract: The turn of the 19th/20th centuries saw a number of philosophers of conscious evolution emerging from different cultural backgrounds. This paper argues that this phenomenon, which has sometimes been seen as a philosophical consequence of Darwin's evolutionary theory in the life sciences, is more importantly related to the enhanced scope of human subjectivity made possible by technology at this time. Yet technology remains the "unthought within the thought" of its times, an ambiguous presence, derided for its alienating effects and praised for its enhancement of human capacities and comforts. A later generation of thinkers, belonging to the post World War II era renews the thought of conscious evolution, now in engagement with new technologies of a planet spanning scope. This essay considers the ideas of these two generations of thinkers, focusing on Sri Aurobindo (1872-1950) from the earlier generation and Gilbert Simondon (1924-1989) from the more recent era, questioning the consequences of contemporary technology in their thoughts, goals and practices. In developing the historical continuity of ideas, it tracks the question of technology from the earlier to the later generation, highlighting the understanding of both its promise and its ills and engaging with it the possibilities of conscious evolution.

Key Words: Conscious Evolution, Cosmogenesis, Cosmogenetic Individuation**,** Gilbert Simondon, Henri Bergson, Marshall McLuhan, Sri Aurobindo, Technology, Teilhard de Chardin.

Cosmogenetic Individuation

The turn of the 19th/20th centuries saw an implementation of what has been called the Second Industrial Revolution marked by universal electrification, mass production and the birth of the world market. This brought the post-Enlightenment episteme into the properly modern phase of its actualization, the practical horizon of a global humanity. For the first time in human history the assumption of a species identity for all humans and the yoking of all humanity in a common global life made itself a ubiquitous anthropological possibility. The ontological consequences of

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such an epistemic change were dimly grasped by the leading thinkers of the time, in their varied ramifications. These included ideas which projected a global expansion of human subjectivity, read retrospectively back to cosmogenetic processes.

It should be noted that Enlightenment philosophies had already arrived at a formalization of an evolutionary ideology in Hegel’s philosophy of history, which saw an involved rationality in Matter and a cosmic Time Spirit (*zeitgeist*) working out its experiments in synthesizing opposites towards the emergence of the Logos as free thought in social and political life (Hegel, 1975). It is important to note that creature agency is undervalued in this process, the progressive experiments of the *zeitgeist* leave their results culturally fossilized moving on to other "races" (an east-to-west drift) and human subjectivity remains bounded within predetermined limits.

Nietzsche's refusal of ideological truths on the grounds of their being historically contingent and politically established and his exaltation of human agency as an effect of a cosmogenetic will to power was largely a reaction to Hegel's deterministic evolutionism. The new evolutionary philosophies which arose through the last decades of the 19th century and over the first half of the 20th century were closer, in this regard to Nietzsche in positing immanent forms of evolution in which creature/human agency played a key part and human subjectivity underwent radical change/expansion. It should also be noted that such philosophies arose in the wake of Darwinian evolution, but whereas the latter was restricted to morphological change based on anatomico-functional adaptations in which agency or consciousness played no part, the new philosophies recognized changes in consciousness underlying evolutionary processes and resulting from immanent ideas actualized through acts of will.

Three such thinkers of this period are the two Frenchmen, Henri Bergson (1859-1941) and Pierre Teilhard de Chardin (1881-1955) and the Indian, Sri Aurobindo (1872-1950). In looking for a common key to describe the works of these thinkers, I would use the phrase "cosmogenetic individuation." "Cosmogenesis" is a term used by Teilhard (1959) to refer to a process of increasing complexity, self-organization and self-awareness of the cosmos. "Individuation" seems more common it its usage but deceptive due to its varied connotations and inflections. Presently, this term is more usually associated with C. G. Jung (1971), a psychological emergence of singular personhood out of the amorphous Unconscious and its movement towards universalization. Though such a process could have practical similarities with individuation as theorized by more recent philosophers like Gilbert Simondon (1924-1989) (Simondon, 2005; Scott: 2014) and Gilles Deleuze (1925-1995) (Deleuze, 1995), these latter include an ontological foundation to individuation which is absent in Jung. Bergson (1988) uses the term to refer to creative differentiation of instances, and Teilhard and Sri Aurobindo, though they don't explicitly use the term, refer to ontogenetic processes akin to individuation. Teilhard (1959), for example, writes of hominization, personalization, anthropogenesis and christogenesis, as roughly synonymous terms to a becoming-individual of the cosmos, while a similar evolution towards universalization of the person-element (*purusha*) in the cosmos is envisaged by Sri Aurobindo (2005, pp. 922-952) in what he calls psychisization.

Metaphysics of Conscious Evolution

In Teilhard (1959) and Sri Aurobindo (2005) a cosmic/transcendental principle (*noosphere* or Supermind respectively) is immanent in all entities in the cosmos, and seeks to individuate itself through them. In the case of Bergson (1988), a creative immanent consciousness in the cosmos and all its creatures, the *élan vital*, multiplies diversity and pushes towards an increasing complexity that can be intuited and be the source of knowledge and action in each of its creatures according to their orientation and capacity. However, though such an ontogenetic foundation evades the hubris of anthropocentrism, it empowers the individual, variously locating the evolutionary will as creature agency.

This is where these thinkers differ from philosophers of deterministic history, such as Hegel, for whom cosmogenetic agency, even when immanent, can be said to be located in a transcendence within the immanence. In these thinkers, one finds both these dimensions of transcendence and immanence assuming active potency, along a gradient in which Teilhard can be seen as slanted closer to the transcendence and Bergson towards the immanence. Thus all these thinkers can be thought of as panentheistic in various ways. Of the three, Sri Aurobindo, while acknowledging an immune transcendence, yet posits two other forms of self-perception of this transcendence, an objectified self-perception (Matter as cosmic immanence of the Subject); and a self-multiplied prospection as every individual possibility within this immanence, or in other words, the complete immanence of conscious Being (Brahman) in every particle of the material cosmos, thus representing individual agency in conjunction with cosmic agency (Sri Aurobindo, 2005, pp. 309-335). While individual agency has been secondary to cosmic agency ("Nature") prior to the appearance of the human, individualized consciousness in the human represents a new level of independence from cosmic agency and thus able to determine its own destiny superseding Nature's will (Sri Aurobindo, 2005, pp. 856-879).

Sri Aurobindo's theological metaphysics has profound correspondences with Teilhard's Christology, founded on an exile and redemption mythos. In Teilhard's mystical Christology, the "redemption" is not "completed" by the historical personage of Christ, but this historical event becomes a symbolic promise for its multiplied realization in human individuals leading to a cosmic "return" through Christogenesis in the individualized collective realization of the "Omega Point” (Teilhard de Chardin, 2001). The separation from Origin implied in a mythos of exile is also present in Sri Aurobindo, though, founded in the Vedic theme of Sacrifice as expressed in the Purusha Sukta, such a separation is not an "act of Evil" burdened on the human and thus requiring redemption, but rather an "act of God" on the body of God, and thus a self-sacrifice, leading to an ontology of Separation in which, nevertheless, the One becomes self-multiplied as monadic immanence (Sri Aurobindo, 1999, p.106; Alfassa, 1977/2004, p.74). Similarly, instead of "redemption" then, the evolutionary drift of such a cosmic condition would be a recovery of cosmic and transcendental Oneness through identification of each individual with the fullness of Purusha, reconstituting its sacrificed Body in a collective manifestation which Sri Aurobindo referred to as a "divine life" on earth (Sri Aurobindo, 2005, pp. 1051-1108).

However, as mentioned in the previous paragraph, individual agency coexists with cosmic agency in Sri Aurobindo's metaphysics. This implies a theology in which the Vedic Sacrifice of Purusha is accompanied (in fact, preceded) by the Sacrifice of Prakriti, creating the substantial and operational cosmic condition of Inconscience in which the fragmented dismemberment of Purusha may seed itself (Sri Aurobindo, 2012, p.17). This cosmic latency of Consciousness self-constrained as Inconscience becomes the basis for the evolution of Nature. According to Sri Aurobindo, all evolution is accomplished through the double process of memorial aspiration (ascent of consciousness) and responsive Grace (descent of consciousness) (Sri Aurobindo, 2012, p.3; Sri Aurobindo, 2005, pp.730-753). The stirrings of the memory of Consciousness within the Inconscient turn into an ascending aspiration which invokes the "descent" of successive gradations of Consciousness, each with its characteristic properties marking its difference in kind. Such a successive gradation of Consciousness in Nature (Prakriti) based in the Inconscience of Matter affords increasing possibilities of freedom and self-manifestation (*swayambhu*) to the individualized immanence of Purusha in each of its dispersed units. Thus the evolution of Prakriti affords the evolution of Purusha (Sri Aurobindo, 2005, pp. 272-274).

Evolution and Psychological Praxis of Sri Aurobindo

The Purusha is present in the particulate appearance of Matter as physical or material purusha; in discrete Life forms as vital purusha and with the appearance of Mind, as mental purusha. Each of these successive forms of purusha is more "awake" than its predecessor, better able to experience its freedom and sovereignty from its constraining bounds of prakriti. In the human, the co-existence of physical, vital and mental prakriti implies the triple presence of physical, vital and mental purushas, a compound existence in which the freedom of the intelligence (*buddhi*) from the rest of the human constitution enables a higher degree of potential freedom of the mental purusha amounting to the possibility of a transcendence of Nature (Sri Aurobindo, 2005, pp. 856-879). Such a possibility of purusha's freedom in one of the constituents of prakriti results in what may be called an anthropogenesis, a new form of ontogenesis (it should be noted that ontogenesis and anthropogenesis are terms more common to Teilhard than Sri Aurobindo; nevertheless, I have used these terms since I feel them to be appropriate). This anthropogenesis is the birth of personhood, described by Sri Aurobindo in terms of the appearance of a new and more centralized dimension of immanent purusha in the human, capable of integrating the physical, vital and mental purushas and called by him "psychic being" or "soul personality". At this point, Purusha's evolution is capable of taking an independent turn, no longer dependent on the evolution of Prakriti but able to transcend, master and transform Prakriti (Sri Aurobindo, 2005) .

Being free of the burden of guilt, Sri Aurobindo's evolutionary monadology may be seen as an individualized "adventure of consciousness and joy," and in this respect closer to Bergson's (and Nietzsche's) personal exercise of a cosmic creativity (*élan vital*). It is also in this respect, that such an exercise of personal creative will has been theorized by Sri Aurobindo as a praxis discursively continuous with long traditions of Indian yoga (Sri Aurobindo, 1999, pp. 41-52). Thus, of these three thinkers, Sri Aurobindo provides the most developed methodology for a cosmic and transcendental expansion of (post)human personhood, based in the capacities of the source of individuation, the psychic being, to integrate the personality, identify itself with cosmic being (Overmind) and finally transcend cosmic existence in an identity with a transcendental source, the Supermind (Sri Aurobindo, 2005, pp. 922-952). Sri Aurobindo refers to this process as "the triple transformation". Yet, as one can see from the above, such a process is intensely psychological, a "practical psychology" (Sri Aurobindo, 1999, p. 44) as Sri Aurobindo terms it, which seems to minimize or invalidate any concern for social or cultural conditions.

Such an appearance, however, is misleading and arises due to the disciplinary specialization of discourse as an epistemic aspect of modernity. We have noted how Sri Aurobindo's metaphysics involves relationally, the evolution of universal conditions (prakriti) and individuation of consciousness (purusha). This relationality does not disappear with the emergence of the human. If the practical psychology of the triple transformation is concerned primarily with ontic evolution of the Purusha as outlined in Sri Aurobindo's philosophical *(The Life Divine*, Sri Aurobindo, 2005) and "yogic" *(The Synthesis of Yoga*, Sri Aurobindo, 1999) works, Sri Aurobindo's social and political texts delineate the continuing evolution of prakriti at the level of human society, moving towards global conditions of human unity, a trajectory fraught not merely with promise but danger, needing political and ethical negotiation through its relationship with human agency (Sri Aurobindo, 1997). But the implications of such ethical and political agency are easily lost sight of, due to the above-mentioned separation of his social and psychological texts and the privileging of the latter over the former.

Social Praxis and Technology

This continuing evolution of prakriti at the level of human society and civilization in its varied relations with human choices (evolution of purusha) can be elaborated into a critique of modernity, something Sri Aurobindo himself undertakes to some extent in his social and political texts (Sri Aurobindo, 1997, pp. 15-221). He presages a phase of globalization led by capital, and outlines the dangers of "economic barbarism" and fascist politics (pp. 44-54; pp. 73-81). He predicts the eventuality of a world government and analyzes the struggles of individual and subcultural agency in the face of homogenizing or hegemonizing tendencies (pp. 279-578). He stages the opposition of superpower politics and federalist participation (pp. 505-547). He sees the importance of promoting the forces of fraternity and internationalism over the ideological investments of state controlled planning or aggressive nativism or religious fundamentalism (pp. 548-570). At the microsocial level of the individual and the community, he promotes increasing autonomy with direct individual participation in shaping the communitarian life moving in the direction of a spiritual anarchy. Yet, as I discuss in the next paragraph, the ubiquitous mediation of technology as the sign of contemporaneity, emerging after his time, is not independently addressed by Sri Aurobindo.

While a comparative study of these three thinkers would be very interesting (and has been attempted in part by several scholars) what concerns me in this essay is the contemporary relevance of the paradigm or episteme that finds form in these thinkers. In this regard it is the unthought within the thought, the obvious medium of existence that often makes possible the perception of an idea but remains invisible or imperceptible, and concretizes itself over time demanding a new engagement. Such is the place of technology in the articulation of these thinkers. One may say that the question of human subjectivity and its transformations (the "who") accompanies the thought of post-Enlightenment modernity from its inception as part of its anthropological project. But it is tied to the question of the transformation of the world (the "what") as it arises from its knowledge (science).

This project of world transformation is attributed to the application of science; i.e. technology—and thus the appearance of new assessments of the relation of human subjectivity to the cosmos with the advent of new technologies is almost to be expected. Yet the possibilities opened up by the new technologies on human consciousness are elided in the new philosophies of conscious evolution and/or the evolution of consciousness. To be fair to these philosophers, it isn't as if they ignore the advances of science and technology. Along with other humanistic thinkers of this period, they hold an ambiguous view of technology, part critique of its alienating and destructive effects from/on nature and part admiration for its productive and world-uniting possibilities. But technology does not receive a systematic treatment in relation to the possibilities of human consciousness from any of these thinkers.

Heidegger and the Question Concerning Technology

Indeed, it is only after the passing of this generation of thinkers and more properly from the 1960s that technology becomes increasingly addressed with reference to consciousness, due to its ontological ubiquity. Perhaps the first serious and systematic consideration of this kind was Martin Heidegger's essay "The Question Concerning Technology" published in 1954 (Heidegger, 1982). In this essay, Heidegger seeks out the "essence of technology" and finds it not in technology itself but in the kind of revealing it makes possible. Heidegger relates technology, in its essence to fabrication, a "making" which is "indebted" to four kinds of "causes"—the earth as a provider of raw materials, a form of self-disclosure and gifting in relationship to the human (material cause); the history of cultural forms, related to the function it serves (formal cause); the larger contextual goal or terminal function within which the fabricated object serves its function, ultimately a sacralizing or sacrificing to a transcendent realm or order (final cause); and the human fashioner who addresses all these causes and shapes the functional object (efficient cause) (Heidegger, 1982, p. 6).

Attention to all these causes or "obligations"/"debts" makes the work of technology (*techne*) equivalent to a work of art, or invoking Heidegger's Greek term, *poeisis* (Heidegger, 1982, pp. 8, 34). Modern technology, Heidegger avers, does not respect the material cause or final cause. It challenges and sets itself upon the earth and it ignores the sacralizing function of aspiring for the Transcendent (pp. 9-10). Heidegger uses two terms, "enframing" (*gestell*) and "standing reserve" (*bestand*) to describe the alienating and violent form of disclosure involved in modern technology (Heidegger, 1982, pp. 11-13), marked by information exploitation, ordering all subjects and objects in the cosmos as static resources always available to be put to one's bidding.

This alienation from the temporality or seasonality of the earth and its power to disclose the self-manifestation of Being; as well as its rupture from the sacred sphere is the chronic malaise of our times, the epistemic violence of modern technology. Enframing thus refers to an attempt at a spatial reduction of cosmic contents, a mode of existence in which all things are objectified as resource, shorn of the mystery of temporal disclosure. Standing reserve is another way of addressing the status of beings or subjects thus reduced, objectified, commodified and exploited. As a mode of existence therefore, modern technology is seen by Heidegger as modernity's episteme, utilizing the methodology and systemic objectifying descriptology of science to "gather" reality into a single flattened frame so as to order its contents at will (Heidegger, 1982, p.17).

Such an ontological critique of technology puts us in view at once of both the globalization and alienation of our times. An abstract absolute description of the world usurps the place of the world. Modern and contemporary continental philosophy leans heavily on this insight of Heidegger. It becomes the basis for Habermas' "colonization of the lifeworld" (Habermas 1984), and of Jean Baudrillard's "virtual reality" (Baudrillard, 1994). Looked at in terms closer to us, in the key of contemporary technology which Heidegger was not privy to, one could say that what Heidegger describes here is a mode of existence where reality is perceived as an omni-database with all entities classified and organized in terms of their relations and properties, waiting to be "harvested," "utilized" or "exploited" by whoever had power to access this construct. Undoubtedly, such a view seems bleak, holding little comfort or positive potential for human subjectivity.

In relation to the philosophers of conscious evolution I started with, if human subjects are brought without exception under a regime of objectification and potential exploitation, they have little wriggle room to expand subjectively and the promise of an integration and cosmisization of the human subject would seem an impossibility. Of course, such an ontology would also be uneven affording degrees of freedom and privilege in access and exploitation of the "standing reserve." But under an universal ontology, even such subject positions of privilege in power and capital would be constrained to the maintenance of the ontological order. Heidegger's appeal is a return to *poeisis*, respect for the four causes or debts that human beings find themselves embedded in all their fabrications *(homo faber)* or technological undertakings *(techne)*. This would need a "wresting" of agency from the established order of our times and the re-establishment of a more "authentic" mode of existence in the individual and the collective, the creation of a new "I" and "we" that resists the automatic gravitation of slippage into the "they" (Heidegger, 1962, p. 415).

Apart from this foregrounding of technology as the epistemic ontology of our times, in situating beings existentially within a temporal horizon constituted by the self-disclosure of Being, Heidegger created a language that folded interiority in historicity, thus articulating simultaneously the realities of individual and society. The wresting of *poeisis* from an objectified *techne* is a praxis historically embedded within the modern horizon of Being. Such a praxis can be related to the practical psychology of yoga, a revolutionary transformation of subjective consciousness making possible a new horizon of Being's self-disclosure. This overcoming of the disciplinary specialization and separation of psychological and sociological studies marked a departure from the considerations of an earlier generation, like that of the philosophers of creative evolution we have considered, such as Sri Aurobindo, whose works had been produced in disciplinary isolation, as mentioned above, much to their detriment. Continental philosophers, such as Michel Foucault, Jacques Derrida, Pierre Bourdieu and Gilles Deleuze, who have followed in the wake of Heidegger, have continued an articulation that undercuts such disciplinary boundaries.

Heidegger's originality and break with the past may also be seen in his rejection of metaphysical idealism in favor of an ontology grounded in phenomenology. This turn in Heidegger may more properly be credited to his teacher, Edmund Husserl, the father of modern phenomenology, who felt that the modern domination of epistemology by science could no longer be overlooked by philosophy, which needed, in response to refuse metaphysical speculation but also to eschew science's privileged objectification. Heidegger takes one step further in overcoming the subject-object dualism through his ontology and thus inaugurates a trend in which the critique of and break with metaphysics is treated as final.

Thinkers such as Foucault and Derrida, following in the wake of Heidegger and largely in continuation of his work, have shied away not only from metaphysics but also from ontology as a result, more concerned to situate ontology in historical and political determination. Among this generation of important late 20th century continental thinkers, only Gilles Deleuze, influenced strongly by Bergson, has continued to address metaphysics and ontology, but from a vantage of empiricism and ontogenesis. As a result, Deleuze can be constellated in important ways with our philosophers of evolution. However, I am not including a consideration of his ideas here, except where relevant, because though he has commented on technology in our times, this is not one of his primary concerns. On the other hand, he was profoundly influenced by a contemporary of his, Gilbert Simondon, who engaged deeply with the question of technology, and in this essay I wish to relate the ideas of conscious evolution to Simondon's thinking on ontogenesis and technology.

McLuhan: Media Technology and Consciousness

However, before that, in thinking of a later generation who have engaged the ideas of the philosophers of conscious evolution with the ubiquity and ontology of modern technology, one must consider the Canadian philosopher of media technology, Marshall McLuhan (1911-1980). Both McLuhan and Simondon may be seen to have direct links to the philosophers of conscious evolution—McLuhan to Teilhard de Chardin and Simondon to Bergson. Though McLuhan did not directly reference Teilhard, the cultural critic Tom Wolfe (2011) has pointed to the pervasive influence and substructural presence of Teilhard's ideas in McLuhan's insights on media. McLuhan is responsible for a large number of neologisms that have become current in contemporary popular culture, three of his most well-known phrases being "global village," the distinction between "hot and cool media (McLuhan, 1964, p. 22)" and "the medium is the message ," later further finessed as the book title *The Medium is the Massage* (McLuhan & Fiore, Q, 1967).

Regarding technology both as an exteriorization and amputation of human organs and capacities, such as the nervous system or the memory (McLuhan, 1964, p. 11), McLuhan articulated many of the ideas that have led to contemporary posthumanist thought. In seeing new technologies as amputations of human capacity, he was echoing Plato's concerns with "writing" as a technology leading to the attenuation and eventual loss of human memory (*Phaedrus*), but this was counterbalanced, for McLuhan, by the global expansion of collective consciousness made possible by technologies of communication, transportation and exchange. Yet, though the gains of collective consciousness were promising, the natural attenuation of individual capacities and the subjection of the individual to mass determinants were problematic consequences of technology that McLuhan was much concerned about all his life.

He saw and wrote of the subject altering powers of media arising from new equations and engagements of the human sensory system (McLuhan, 1962, p. 41), and reinflected this idea more powerfully in terms of ontological subjection in the tweaked variant "the medium is the massage." One can easily see the extended mileage of this idea in contemporary posthumanist thought, as in Katherine Hayles' books *How we Became Posthuman* (Hayles, 1999) or *My Mother was a Computer* (Hayles, 2005). McLuhan was developing his ideas in a world dominated by television, and died in 1980, prior to the emergence of the desktop computer and long before the appearance of the World Wide Web. Yet, his pronouncements predict a world characterized by these developments in the 1960s. He discussed the ontological changes related to transitions of dominant media from print through film and television to multimedia and interdependent computing, coining the phrase "global village" to describe the last phase. In his text *The Gutenberg Galaxy: The Making of Typographic Man*, (McLuhan, 1962) he describes the promises and dangers of such a society:

> Instead of tending towards a vast Alexandrian library the world has become a computer, an electronic brain, exactly as an infantile piece of science fiction. And as our senses have gone outside us, Big Brother goes inside. So, unless aware of this dynamic, we shall at once move into a phase of panic terrors, exactly befitting a small world of tribal drums, total interdependence, and superimposed co-existence. [...] Terror is the normal state of any oral society, for in it everything affects everything all the time. [...] In our long striving to recover for the Western world a unity of sensibility and of thought and feeling we have no more been prepared to accept the tribal consequences of such unity than we were ready for the fragmentation of the human psyche by print culture. (p. 32)

One can see here the recovery of a collective human unity, now extended to a global dimension, out of the fragmentation implied in the complexification of tribal culture with the ascendance of civilization, marked as per McLuhan by print media and its subjective correlate of individualism. But at the same time it is a return of subjective inundation by mass behaviors and instincts (tribal drums), lowest common denominators of consciousness (terrors) and surveillance and control by corporate or ideological authority (Big Brother). Behind this global culture one may intuit the cosmogenesis of Teilhard, a materialization of a cosmic consciousness or noosphere mediated by technology. Yet, for Teilhard, such a collective dimension could only be a stage in anthropogenesis, a precursor to christogenesis, or the generation of a cosmic and transcendental individual in each person. McLuhan could perceive the dangers and difficulties towards this eventuation, its easy derailment under the powers of subjection conditioning individuals more ubiquitously than ever before.

In response, he sought ways to maximize creative expression under these circumstances, indicating conditions and practices enabling agency, engagement and the autonomy and expansion of subjectivity. It is in such a context that, in his text *Understanding Media* (McLuhan, 1964, p.22), he distinguished between "hot and cool media," media which enabled consumption and disabled participation (hot) as against those that were intrinsically interactive (cool). Interestingly, he classes movies as being hot and television as cool, due to the latter needing more mental and emotional interactive response than the former. Today, such a distinction seems odd in the context of television, to which we more commonly attribute the function of producing "couch potatos." However, the distinction could be seen as valuable in general for our consideration. McLuhan was not blind to the relative scale of these terms and displays his prescience once again when he compares television and multimedia computing:

> The next medium, whatever it is—it may be the extension of consciousness—will include television as its content, not as its environment, and will transform television into an art form. A computer as a research and communication instrument could enhance retrieval, obsolesce mass library organization, retrieve the individual's encyclopedic function and flip into a private line to speedily tailored data of a saleable kind. (McLuhan, 1995, p.221)

When compared to Heidegger, we see that McLuhan does not subscribe to the former's unrelieved pessimism, though he is not naive about the detrimental effects of conditioning and state or corporate control implied by contemporary technology. Instead he opens the possibility of achieving a Teilhardian vision of collective noogenesis through new technologies. This promissory note extended by McLuhan has informed a number of contemporary techno-optimists, who feel that the World Wide Web in conjunction with other global telecommunication technologies, has inaugurated a new utopian age for humankind. In Gilbert Simondon, we will see another late 20th century contemporary of McLuhan who holds out similar horizons for the human future, albeit with greater nuance and further reach. The question of human subjectivity inaugurated by Heidegger in terms of modern ontology remains, however. To what extent are human beings available to realize such a promise, or are they all the better transformed into fodder bereft of agency within enormous global systems of surveillance, classification, control and use, conditioned to believe that they are happy and free through technologies of persuasion and invisibility, as predicted by Gilles Deleuze (1992) in his *Postscript on the Societies* of *Control*?

Simondon’s Ontogenetic Metaphysics

Gilbert Simondon (1924-1989) is undoubtedly the most sophisticated of the late 20th century philosophers of technology, who have continued in the wake of the early 20th century philosophers of evolution. As mentioned before, he was influenced by Bergson, whose idea of creative evolution and inventive fertility of becoming receives an updated treatment contemporary with a constellation of more recent concepts associated with modern science such as immanence, emergence, systems theory, chaos theory, information theory, cybernetics and self-reguling systems (Barthélémy 2005). This is not to say that Simondon drew from these concepts, rather he represents a milieu of thought in which such concepts were emerging and have since become current. As per my characterization towards the beginning of this article, the central idea in Simondon's oeuvre could be delineated as "cosmogenetic individuation." In keeping with the post-Husserlian dictum in philosophy to keep away from idealistic metaphysics, Simondon does not develop an elaborate theory grounding becoming in a transcendent principle or choice, as does Teilhard or Sri Aurobindo. Rather, he positions the structures of becoming within becoming itself, proceeding empirically to verify and describe his ontogenetic processes. In this however, he is not too far from Sri Aurobindo, whose metaphysics is based in a praxis of transformation which can be equally made an empirical basis for participation in a "cosmogenetic individuation."

Simondon's process metaphysics deals with a pure immanence of becoming. In his thought, a stable unitary Being would remain transcendent and be incapable of manifestation. On the other hand, a purely unstable being would lead to a chaotic manifestation. Instead he posits a "metastable" Being, "more than a unity and an identity," in other words marked by a radical excess, which can double itself through a phase-shift (referred to by Simondon as "disparation") and thus generate gradients of exchange between two heterogeneous series, which are problematic fields of becoming (Simondon, 1989/2007). Each solution to such a problem would be a singular individuation, that would remain in metastable equilibrium with the larger field or problematic (the milieu) and the totality of the metastable being (preindividual being). Though relatively stable at the point of individuation, each individuated being and its milieu would remain capable of further individuation due to its continued metastability in relation to preindividual being.

Such further individuations may push an individuated being into another order of solutions belonging to a different problematic gradient, expressing new properties and degrees of freedom and agency. The information exchange along each gradient of becoming would be modulated by the properties of the medium of exchange, thus determining commonalities, degrees of variance and boundaries of each order of individuation. Simondon referred to these information transfers leading to resolution and individuation as "transduction." Thus individuation remained an "open" and ever-unfinished process, representing a negentropic tendency of Being generating ever higher orders of cosmogenetic individual and collective becoming.

Orders of Individuation: Simondon and Sri Aurobindo

Simondon identifies three such orders of individuation, the physical, the vital and the psychic. Physical individuation pertains to entities of material nature, vital individuation refers to the order of living beings and psychic individuation is of mental subjects (human beings). As discussed each of these individuations occurs at the levels of the individual and the milieu. One may bring to mind here the evolution of purusha and prakriti along the modalities of physical, vital and mental consciousness in Sri Aurobindo. The evolution of prakriti along each of these levels can be related to the individuation of the milieu, while the evolution of purusha corresponds to the individuation of the individual. One may also note that Sri Aurobindo includes the evolution of the psychic being, which expands into the triple transformation and leads to the cosmogenesis and beyond of the individual.

While Simondon's "psychic individuation" is not elaborated to this degree, it is articulated further in terms of "collective individuation" or "transindividuation," a universalized collective socius enabling an open-ended diverse individuation in individual and collective. Collective individuation, in the case of Sri Aurobindo, forms the milieu of the "divine life." Theorized by him more in terms of a universal philosophical anthropology in his philosophical and psychological texts, in his social and political texts and in practice in the habitus of his ashram in Pondicherry, the relationship between the psychic and the collective developments included a cultural dimension pertaining to global or planetary unity. In 1968, after Sri Aurobindo's passing, his spiritual partner and collaborator, Mirra Alfassa aka The Mother, founded the city of Auroville, as a "planetary city" and a "site of material and spiritual researches for a living embodiment of an actual human unity." She also coined the term "collective yoga" to refer to the relational extension of the individual yoga at the collective level, open to a planetary culture. In 1973, the year of her passing, the Mother gave a New Year message which tied the goal of psychic evolution to a collective yoga at the planetary level: "When you are conscious of the whole world at the same time, then you can become conscious of the Divine" (Alfassa, 1973, Para 1).

Transindividuation and Collective Yoga

What is meant by being conscious of the whole world at the same time? It seems to me the preparation of a psychic subjectivity identified with the subjective life of the world and its preindividual excess. How can one prepare oneself to be conscious of the whole world at the same time? For the followers of Sri Aurobindo's yoga, who have privileged his yoga texts, this might mean the expansion of individual consciousness through meditation and union with a cosmic consciousness. But those who read his social texts or who have been privy to the Mother's texts on collective yoga or her words related to Auroville may say, through the evolution of prakriti and psychic engagement with the cultural history of the world. For Simondon, this would be the preparation for the planetary transindividual:

> All individual ensembles have thus a sort of non-structured ground from which a new individuation can be produced. The psycho-social is the transindividual: it is this reality that the individuated being transports with itself, this load of being for future individuations. (Simondon, 1989/2007, p.193)

Such a preparation would bring to light the history of technology for Simondon. If the major part of Simondon's doctoral thesis at the Sorbonne was titled "Psychic and Collective Individuation," his minor paper, which got published first both in the French original and the English translation, and for which he is better known is "The Mode of Existence of Technical Objects." Following the anthropologist Leroi-Gourham, Simondon sees the human being as co-constituted by technology. Human extension into the preindividual excess and his transindividuation are facilitated by technology. But as a mode of existence, technical objects, though conceptually and functionally bound to human becoming, also represent an order of independent individuation. The evolution of lineages of technical objects, Simondon shows, follows like other forms of individuation, a transductive process leading to an efficient stabilization of elements, that has its own life outside of individual inventors, manufacturers or commercial interests. Simondon sees the individuation of technical objects following three orders related to three historical phases of human individuation—the premodern agrarian phase marked by artisanal manual tools, the modern industrial phase marked by thermodynamic engine driven machines and the postmodern and postindustrial phase marked by information processing.

If the human relationship with technology during the preindustrial phase was one which involved physical skill and implied a harmonious relationship between human, technical object and nature; the modern industrial phase has been one of increasing alienation between these three. Modern industrial machines have an enormous footprint, consume huge quantities of natural resources, disturbing the earth's ecological balance and depleting her reserves; mass produce enormous quantities of finished products, for which large industries of persuasion must be formed so as to manufacture desire for consumption; and excrete tremendous quantities of waste which must be disposed, poisoning the earth and the habitats of the underprivileged. To produce, operate and maintain these machines, human beings must subject their bodies to the movements, speeds, temperatures, pressures and other unnatural properties of large-scale thermodynamic machines and their ensembles.

Simondon sees these conditions of human-machine interaction as an unpleasant phase in their mutual transduction, resulting in the alienation that humanists have attributed to the machine. However, even in the 1960s, Simondon foresaw the overpassing of this phase and its replacement by a new postindustrial phase of information processing, where the individuation of microprocessor based information processing machines and computers would tend towards physical miniaturization and wireless communication, becoming networked ensembles that would provide universal access to all of the earth, all sources of knowledge and all material and cultural handling capacities through versatile terminals. Indeed, like McLuhan, Simondon was seeing these visions of the future in the 1960s. Freed from subjection to industrial complexes, human beings would be able to interact creatively with nature and world through a mostly invisible layer of the being of technology individuated collectively in relation with human transindividuation.

Utopia or Dystopia?

Is this the inexorable future utopia towards which global humanity is moving today with its p2p smart phones and other networked digital prosthetics and bionics? Is the experience of "being conscious of the whole world at the same time," announced by the Mother as the distant goal of an arduous spiritual development just a form of cheap purchase universally bestowed upon humanity through the transindividuation of technology? Was Heidegger's ontological subjection by the new mode of Being's disclosure through technology, seen as modernity's episteme, but a mistaken identification of a passing phase for the noons of the future?

Simondon's brilliance has been acknowledged by many major thinkers of his and our times. One of his greatest contemporaries, who reviewed his thesis with unreserved praise and borrowed heavily from him in his own work, was Gilles Deleuze; and one of the great philosophers of our times, who continues to be indebted to him and thinks using his concepts of psychic and collective individuation, is Bernard Stiegler. Writing in the 1980s, Deleuze (1992), in his *Postscript to Societies of Control*, warns about the mutations of capital from the industrial to the postindustrial age. If the ubiquitous presence of the machine extended an era of biopolitics related to the disciplining of human bodies in keeping with the needs of industry in the age of thermodynamic machines, our age of information processing sees a new kind of subjection. The miniaturization and invisibility of the machine hides its versatile and flexible control over human lives. The enhanced flexibility of work and movement, increased plethora of choices and extended reach over time and space present a commodified freedom and happiness, within which capital controls human lives, denying true creative engagement with preindividual being, which would make possible new individuations. Similarly, in our own times, Bernard Stigler has warned about real-time corporate and governmental profiling and targeting, fragmentation of subjectivity through chronic technologies of attention capture and the remaking of public memories through mnemo-technics.

What Simondon saw as the promise of a new utopian phase of human-machine transduction/transindividuation leading to an individual and collective cosmogenesis is not a given that will arise automatically through the press of new buttons. Looking at the yoga of Sri Aurobindo, the arduous subjective disciplines necessary for "the triple transformation" needs a milieu dedicated to inner development for its habitus, something less and less possible in our present age globally networked for corporate interests of production, seduction and consumption. Yet, Simondon's vision is not without its possibilities; but what it would need is the development of subjective technologies to free the consciousness of conditioning and render it creative to transindividuate using technology.

Similarly Sri Aurobindo's expansion of consciousness can perhaps be better achieved in creative engagement with a global culture made available through transduction with ubiquitous information machines. New milieus for transindividuation, new forms of McLuhan's "global village" dedicated to perpetual cosmogenetic individuation may be possible through an enhanced subjective discipline of psychic and cosmic individuation moving towards the self-making of new subjects "conscious of the whole world at the same time" in engagement with co-individuating ensembles of information networks and machines. This is the promise of the future but it needs human agency and a subjectivity that can measure itself against the objective materialization of the cosmos in the form of real-time information networks controlled by capital.

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Unfolding Toward Being: Etty Hillesum and the Evolution of Consciousness

Barbara Morrill[1]

Abstract: The 'unfolding' of Etty Hillesum's developing consciousness is considered from an integral and 'evolution of consciousness' perspective. In the introductory section some parallels and similarities between aspects of transformation of consciousness and personality in integral yoga psychology and the work of A.H. Almaas and Karen Johnson, the developers of the Diamond Approach, is drawn upon to set the stage. This path combines Eastern teachings and practices with the concepts of Western depth psychology and sees development as occurring in spiraling and overlapping stages. Etty's spiritual and psychological journey is examined in the context of these stages. Her evolutionary process is informed by the Diamond Approach's method of inquiry, which is similar to Etty's process of "*hineinhorchen"* or "hearkening" to herself. This exploration will offer a contemporary yet ancient perspective that tracks Etty Hillesum's own radical evolution of consciousness that we glimpse in a mere 'moment' in time, that is, indeed, timeless.

Keywords: A.H. Almaas, Diamond Approach, Etty Hillesum, Evolution of Consciousness, Haridas Chaudhuri, Integral Yoga, Karen Johnson, Psychospiritual Transformation, Sri Aurobindo.

Introduction

I want to unfold
Let no place in me hold itself closed,
for where I am closed, I am false.
I want to stay clear in your sight.
—Rainer Maria Rilke (1996, P. 67)

The intention of this study is to locate the 'unfolding' of Etty Hillesum's—a young Jewish woman who died at Auschwitz, leaving behind a journal—developing consciousness in the field

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of study called the evolution of consciousness. In the introductory section, I will draw on some parallels and similarities between aspects of transformation of consciousness and personality in integral yoga and psychology and the work of A.H. Almaas to set the stage. It should be noted here that these two bodies of psychospiritual knowledge and practice have different historical roots and there are specific differences in the details of the processes of transformation between them that would warrant a separate exploration altogether. What is of relevance to this study is the key emphasis put on the role of the soul in the overall context of transformation of consciousness and personality that is not explicit in other integral models of evolution of consciousness such as those of Jean Gebser (1949/1985) and Ken Wilber (1977, 2000). I will then engage Almaas' Diamond Approach to explore in detail Etty's processes of unfoldment and transformation.

According to Haridas Chaudhuri (1965), the founder of the California Institute of Integral Studies, and student of Sri Aurobindo, the integral perspective of being consists of three factors: (1) union with the nondual ground of existence, (2) development of the deepest human potentials, and (3) participation with the evolutionary force of Being. The integral perspective involves the different levels of body, heart, mind and spirit (Sri Aurobindo, 2007, 1990), and for this paper's exploration it will be important to add the cultural and historical context as well. Etty's spiritual and psychological journey is examined in the context of these stages. Her evolutionary process is informed by the Diamond Approach's method of inquiry, which is similar to Etty's process of '*hineinhorchen*' or hearkening to herself. This exploration will offer a contemporary yet ancient perspective that tracks Etty Hillesum's own radical evolution of consciousness that we glimpse in a mere 'moment' in time, that is, indeed, timeless.

In the Diamond Approach, *essence* is central to the process of the soul's inner journey to development and liberation. From the perspective of the relationship of the soul to essential presence, the inner journey of realization can be divided into two major parts: the '*journey of ascent'* and the '*journey of descent'*. The journey of ascent has three phases: the journey to presence; the journey with presence; and the journey in or as presence (Almaas, 2002, p. 44). Almaas likens the journeys to climbing a ladder. In the journey of descent, the soul climbs back down the same ladder that it climbed on its way up to reality or true nature, but this time the soul integrates the various dimensions she has passed through in her ascent. In the ascent the soul moves inward, while in the descent is moving outward where it retains its conscious awareness within manifestation (Almaas, 2004). In this regard, The Diamond Approach is similar to processes of Psychic and Spiritual Transformation in integral yoga which comprise two aspects of the Triple Transformation process in integral yoga.

In his metaphysical magnum opus, *The Life Divine*, Sri Aurobindo (1971, pp. 889-918) discusses the Triple Transformation in the following way:

> there must first be the psychic change, the conversion of our whole present nature into a soul-instrumentation; on that or along with that there must be the spiritual change, the descent of a higher Light, Knowledge, Power, Force, Bliss, Purity into the whole being, even into the lowest recesses of the life and body, even into the darkness of our subconscience; last, there must supervene the supramental transmutation,—there must take

> place as the crowning movement the ascent into the supermind and the transforming descent of the supramental Consciousness into our entire being and nature. (p. 891)

The soul plays a central role in the transformation of consciousness in Integral yoga and psychology. Besides Atman, the transcendent aspect of the soul which is part of the eternal spirit, or Brahman, there are two more components that are key to understanding the soul in creation. One of these, *Jivatman*, is better known in the traditional Indian spiritual teachings and yoga psychology. It is the unique line of individual connection to Atman. In other words, Atman which is eternal beyond time and space, becomes individually manifested in existence as Jivatman. Another aspect of the soul is the Psychic Being which descends into the material plane and is the agency of evolution of consciousness in matter. Working behind the scenes, both Jivatman and the Psychic Being are responsible for maintaining the individual existence of the human being.

According to Neeltje Huppes (2005):

> The soul is our individual self, each soul is unique yet eternal. The psychic being is the *evolving* soul, which grows around the soul. In other words, the psychic is evolutionary, it goes through a development, it grows. This development starts from a psychic presence or a small entity. This presence is granted to all human beings, it is there in each of us. This entity can develop into an individualized Psychic Being by its action on our surface nature; changing it from ordinary nature to divine nature. Through self-observation and an aspiration for a life, first influenced, later guided by divine consciousness, a human being can enhance this process. (Para. 23)

According to Sri Aurobindo (1971):

> At the beginning the soul in Nature, the psychic entity, whose unfolding is the first step towards a spiritual change, is an entirely veiled part of us, although it is that by which we exist and persist as individual beings in Nature. The other parts of our natural composition are not only mutable but perishable; but the psychic entity in us persists and is fundamentally the same always: it contains all essential possibilities of our manifestation but is not constituted by them; it is not limited by what it manifests, not contained by the incomplete forms of the manifestation, not tarnished by the imperfections and impurities, the defects and depravations of the surface being. It is an ever-pure flame of the divinity in things and nothing that comes to it, nothing that enters into our experience can pollute its purity or extinguish the flame. (p.922)

According to the Mother:

> The soul and the Psychic Being are not exactly the same thing, although in essence they are the same. The soul is the divine spark that dwells at the center of each being; it is identical with its Divine Origin; it is the divine in human beings. The Psychic Being is formed progressively around this divine center, the soul, in the course of innumerable lives in the terrestrial evolution, until the time comes when the psychic being fully formed and wholly awakened, becomes the conscious sheath of the soul around which it is formed.

> And thus identified with the Divine, it becomes a refined instrument in the world. (Alfassa, 1972, p. 247)

The Psychic Being is also referred to as the psychic personality or evolving soul, which "passes through a slow development and formation" (Sri Aurobindo, 1971, p. 894). The soul contacts the surface personality through the mind as an intermediary, or through the heart which is in close contact with the emotional being in us.

> [I]t is consequently through the emotions that it can act best at the beginning with its native power, with its living force of concrete experience. It is through a love and adoration of the All-beautiful and All blissful, the All-Good, the True, the spiritual Reality of love, that the approach is made; the aesthetic and emotional parts join together to offer the soul, the life, the whole nature to that which they worship. (Sri Aurobindo, 1971, p. 936)

This process which is known as *psychic transformation* is described by Sri Aurobindo as cracking of the outer nature and breaking down of the walls of inner separation. The

> … inner light gets through, the inner fire burns in the heart, the substance of the nature and the stuff of consciousness refine to a greater subtlety and purity, and the deeper psychic experiences, those which are not solely of an inner mental or inner vital character, become possible in this subtler, purer, finer substance; the soul begins to unveil itself, the psychic personality reaches its full stature. (p. 907)

The process of psychic transformation is typically the first stage of the process. It is similar to Almaas' journey of ascent in the sense that our egoic consciousness reaches 'up' to soul consciousness. The three phases of ascent: the journey to presence; the journey with presence; and the journey in or as presence may be considered as phases of the process of Psychic Transformation in Integral Yoga. Here it is the soul that reaches to the surface consciousness (cracking the outer nature), in the journey to presence. The unveiling of the soul is analogous to journey with presence, and the psychic personality reaching its "full stature" constitutes journey in or as presence.

Almaas' "journey of descent" is parallel to Aurobindo's second type of transformation—the *Spiritual Transformation*. Sri Aurobindo describes this process as

> … a free inflow of all kinds of spiritual experience, experience of the Self, experience of the Ishwara and the Divine Shakti, experience of cosmic consciousness, a direct touch with cosmic forces and with the occult movements of universal Nature, a psychic sympathy and unity and inner communication and interchanges of all kinds with other beings and with Nature, illuminations of the mind by knowledge, illuminations of the heart by love and devotion and spiritual joy and ecstasy, illuminations of the sense and the body by higher experience, illuminations of dynamic action in the truth and largeness of a purified mind and heart and soul, the certitudes of the divine light and guidance, the joy and power of the divine force working in the will and the conduct. (Aurobindo, 1971, p. 908)

Integral yoga also involves another type of transformation, the Supramental Transformation, which aims at total transformation of embodied existence. Briefly, Sri Aurobindo describes this process as a highest spiritual transformation

> … that must intervene on the psychic or psycho-spiritual change; the psychic movement inward to the inner being, the Self or Divinity within us, must be completed by an opening upward to a supreme spiritual status or a higher existence. This can be done by our opening into what is above us, by an ascent of consciousness into the ranges of overmind and supramental nature in which the sense of self and spirit is ever unveiled and permanent… (p. 910)

Almaas suggests that The *Personal Essence* allows us to see the meaning and the potential of a fulfilled human and personal life, a life of truth, love, dignity and harmony, which includes the usual human concerns of work, family, creativity, accomplishments and enjoyments of all kinds (Almaas, 1988). One of the few teachers who has seen this possibility and given it its due importance is Sri Aurobindo, who was not satisfied with the transcendent and impersonal states of enlightenment alone, and who worked towards the actualization of a liberated human life. Writing about Sri Aurobindo and his work, one of his students says:

> It is not enough for us to find our individual centre without the totality of the world, or the totality of the world without the individual, and yet less to find the supreme Peace if it dissolves the world and the individual—"I do not want to be sugar," exclaimed the great Ramakrishna, "I want to eat sugar!" And without the individual what meaning would all the marvelous realizations have for us, for we are no longer them. (Satprem, 2008, p.177)

What we know from the lived experience of Etty Hillesum and other human lives born into times of significant trauma, hatred, and destruction, is that living one’s truth and liberation of consciousness is possible for some. The Mother would concur that ‘waking up’ is the purpose of our evolving soul’s journey. She says:

> But generally, having come to this stage, it remembers all that has happened to it and understands the great necessity of coming to the help of those who are yet struggling in the midst of difficulties. These psychic beings give their whole existence to the Divine Work. (Sri Aurobindo and The Mother, 1989, p. 83)

As we will see in the pages ahead, Etty Hillesum would give her entire existence, and leave us her words for our development and evolution.

Etty Hillesum: A Brief History of Her Life

Etty Hillesum, a young Jewish Dutch woman, found an inner path to liberation and union with the ‘nondual ground of existence’ in the face of the annihilation of the Holocaust. Etty was born on September 15, 1914 in Middleburg, the Netherlands, with her family moving several times, finally ending up in Deventer. Her father, a Dutch Jew, taught classical languages and was a scholarly, quiet man with a sense of humor. Etty’s mother was a Russian Jew who had escaped to the Netherlands following a pogrom and is described as passionate, chaotic and domineering.

This marriage of opposites created a tempestuous relationship and household, and Etty admired her father and was critical of her mother. Her two younger brothers were intellectually gifted, one a musician, the other a physician, and though did have severe psychological difficulties, and were hospitalized at different times for schizophrenia (Hillesum, 2002, p. xi).

Etty went to Amsterdam in 1932 to study law at the University of Amsterdam, and then went on to study Slavic languages, psychology, and Russian language and literature. She had a number of private pupils for Russian language lessons. During her university years she was involved in left-wing, antifascist student circles. In 1937 Etty moved into the household of Hans Wegerif, an accountant, as his housekeeper. After some time Etty developed an intimate relationship with Hans, and seemed to derive some sense of warmth and stability from that relationship. There were several members of the household that made up this 'family of five', including Maria Tuinzing, a nurse who became one of Etty's best friends (Hillesum, 1996, p. xvii).

Etty met Julius Spier, a chirologist and former student of Jung, in February 1941, and immediately became his student and soon after, his secretary. Spier was a psychologically gifted and charismatic figure that gathered around him a group of students, mostly women, whom he lectured to and had individual psychotherapy sessions with. His psychological approach would be considered unorthodox today, as it often included wrestling bouts, and multi-role relationships. Etty became part of this group, or 'Spier Club', and as she wrote about Spier, "I fell under the spell of the inner freedom that seemed to emanate from him" (Hillesum, 2002, p.5). Etty's psychological and spiritual journey began to take off with Spier. She started a diary and wrote about her inner life and the life around her. Her relationship with Spier is the catalyst for her own growth, he is whom she tests and challenges herself against, and this struggle dominates her early journals. Spier and Etty resist a physical relationship for a considerable time, as Spier has a fiancée waiting for him in England, and Etty has a relationship with ‘Pa’ Han Wegerif. The relationship of Etty and Spier evolves through erotic obsession to a deeply transformative one for both.

As the Nazi reign of terror increased for the Dutch Jews, Etty's journals reflect this developing horror and her experience of it. She becomes an ‘unofficial’ member of the Jewish Council in July 1942, and soon after applies for a position to help the Jews at the Westerbork transit camp. She turned down offers to go into hiding and continued to travel to and from Amsterdam and Westerbork, becoming the 'thinking heart of Westerbork'. On 7 September 1943, Etty and her parents and brother were transported to Auschwitz. Her parents died immediately upon arriving at Auschwitz, while Etty died 30 November 1943. Before her final departure, Etty gave her diaries and a bundle of letters to her friends, in case she didn't return.

The Diamond Approach

The Diamond Approach is an original spiritual path toward self-realization. It is unique in combining Eastern spiritual concepts and practices with Western knowledge of psychological development. The teaching is a comprehensive approach toward the soul’s realization of true nature, and is based on an understanding of the evolving nature of the human being and reality. Hameed Ali (penname A.H. Almaas) developed the Diamond Approach 35 years ago, after arriving from Kuwait to California to study physics at Berkeley. As his teaching reached more and more students, it developed into the Ridhwan School, with two main Centers in the United States, one in California and one in Colorado. Presently there are branches throughout the United States and Europe, including Etty's home of Amsterdam. Almaas credits his studies of Sufism, Buddhism, Aurobindo's Integral Yoga, Tantra, Kashmir Shaivism, and Gurdjieff as important influences.

Karen Johnson has participated in the development of the Diamond Approach with Hameed Ali since the 1970's. She has been teaching in the US and Europe for 35 years. She has an MA in Psychology, and trained as an artist and dancer. She has an interest in the true spirit of scientific investigation based on the love of the truth. The underlying truth that manifests through the beauty and order of the physical and spiritual universe has been a motivating force in her life.

At the core of the Diamond Approach lies the tenet that psychological growth is a necessary concomitant to spiritual evolution. In fact, one cannot evolve spiritually until one works through the psychological blocks that obscure the spiritual path. Spiritual bypassing, well known in our times, is the danger of many a path that neglects the psychological aspect of human development, including the boundless dimension. While the Diamond Approach has incorporated into its understanding the wisdom available from many branches of psychology (particularly Freudian, object relations theory and ego psychology) it is still considered a spiritual teaching and path. Where psychology typically stops, the Diamond Approach continues on to a boundless spiritual level. The primary approach to spiritual awakening and liberation is exploring and understanding immediate experience. Everyday life is the arena where this work is done; and in our relationships, work and reactions to the world around us we attempt to live a deeper, more spiritual life, but various blockages arise and we are filled with our fears, pain, and doubts instead of realizing our true nature. However, in directing our awareness and curiosity to our reactions we are lead to what our defenses were covering. As one faces into the pain and emptiness in the moment one can develop deep understanding and move naturally into a greater sense of spaciousness, presence and freedom.

This is a process that we read about innumerable times in Etty's writings that she calls "*hineinhorchen*", or "hearkening to herself". She may start with a mood, or words of Rilke, or an interaction with Spier, and in her characteristic style she seeks the truth behind the experience and dives through all the emotions and thoughts to arrive at a deeper understanding of her true nature and an ever growing freedom.

In the Diamond Approach, Being is considered the true nature of existence. It is the ground and the expression of all manifestation and is both diversity and unity. True nature is "Being without any distortion by our personal history" (Davis, 1999, P. 146). It is not a construction of ours, and when we can penetrate the subjective distortions that obscure it we are truly aware and in touch with the mystery. Being and its qualities are a natural and central part of the potential of the human being. This potential naturally opens up and develops as part of an individual's maturation. When this unfolding does not occur, psychological and epistemological blocks are often the cause. According to Almaas, these barriers consist primarily of fixed beliefs about oneself and reality in general, deeply held attitudes, inner positions, and compulsive patterns of reactivity and behavior (Almaas, 2002, pp. 10-11). With touching sensitivity, Davis concludes his description of true nature:

> True nature gives a texture to our experiences. The more we are in touch with it the more we find our experiences to be flowing, beautiful, full, clear, and pure. There is a sense of mystery. We become aware of the world, and our awareness is luminous, radiant, and delicate. We feel that everything is majestic and real. When we move deeply enough into any experience, it reveals its deepest characteristic and its true nature. True nature is not a state of consciousness; it is the ground of all consciousness. (Davis, 1999, p. 147)

The Diamond Approach considers the soul as individual consciousness and the portal to experience. The soul is fluid and dynamic and is influenced by the ego and personality as well as its true nature. The soul is not only awareness but also the locus of our awareness and the experience of our self. It is the perceiver and the perceived, the observer, the doer and the site of all experiences. In short, when we say ‘inner experience’ we are talking about the soul. The evolvement of individual consciousness is focused on the soul and its development, maturation, and refinement. As it develops, it reveals increasingly deeper levels, each disclosing true nature and the ultimate ground of all Being.

The true nature of the person or their soul is called their essence. Essence is our nature unconditioned by ego or personality. Being is the essence or true nature of the soul, as it is in all manifestation. Essence is the specific experience of Being in its various aspects when it arises as the true nature of the human soul (Almaas, 2002, p. 8). We experience ourselves as essence if we experience ourselves as free, unfabricated, and spontaneously arising—not conditioned by the past or by mental images or self-concepts. It is the truth of our very presence. Different spiritual traditions give it different names: Judaism, Christianity, and Islam: Spirit; Buddhism: Buddha Nature; Taoism : the Tao, Hinduism: Atman/Brahman. In sum, realization of essence is often considered to be the most authentic, innate and fundamental nature of who we are. The work of the soul is to open up to presence and let go of the conditioning and obstructions and blocks that prevent the soul from experiencing Essence (Davis, 1999, p. 11).

In a certain way, the spiritual journey, or the realization of Being is a process of recognition. Etty’s evolving consciousness toward Being over such a brief two and a half year period exquisitely demonstrates this growing recognition. How did such a profound shift occur in her over a relatively brief period of time? Was it Etty's experience with Spier and his teaching, or did the tragic circumstances of the Holocaust accelerate her spiritual process? Both seem important catalysts, yet these two factors needed the fertile ground of her ‘Love of the Truth’. In the Diamond Approach this love of the truth, or the recognition of the flame of the truth, no matter where it leads, or what pain one feels in the discovery, it is the fuel that propels one down the spiritual path, and throughout Etty's writings we can see her relentless search for and love of the truth. She was not to be deterred. Almaas speaks of the potential pain of the journey:

> When you really get into seeing things about yourself, it’s very painful. You don’t like it, but something in you says “I want to feel this and get to the bottom of it.” nobody’s making you do it.” So in that moment what is compelling you? It is somehow your desire to see the truth. Seeing the truth seems to be fulfilling in itself, it seems to bring some

> subtle pleasure and joy. So you want to see it regardless of how difficult it is. It is no longer a question of what is a true statement or perception or not. There is something more, and something more subtle. It is, in a sense, that the truth wants itself. And that's what is called the love of the truth for its own sake. In that situation, it is such a deep compelling desire that when it is there, nothing can stand in its way—not fear, not pain. (Almaas, 2000, pp. 96-97)
>
> The Sufi's often quote the hadith (Quran) in which God says "I was a hidden treasure: I loved to be known, so I created all." God wants to know his nature, his possibilities, his manifestations. This love to know himself, the desire to know himself, appears in us as the love to inquire; for inquiry is not only openness to what perception presents, but a love of finding out what's really there. If you say, "I'm open to what's there," you're not dynamic yet. It is the love that brings in the dynamism: "Yes, I'm not only open to seeing, I'm going to get engaged in this. I'm going to jump into the middle of the experience with my hands and feet and dig, because I love to find out." We do not need to take the Sufis literally; that is we do not need to believe in a god that loves and wants. When we clearly see true nature, we see its dynamic force as a love that manifests; everything arises out of love and celebration. (Almaas, 2002, p. 18)

The Method of Inquiry

The primary method of the Diamond Approach is inquiry. This work is an open ended inquiry into the various elements of our experience and its patterns. The understanding that what the Diamond work cultivates is not intellectual or mental comprehension but a direct awareness and experience of oneself that is present, insightful, and clear. As Almaas says, " it is the clear discrimination of the truth of experience as an inseparable aspect of that experience. This understanding is the direct response of Being to sincere inquiry." (Almaas, 2002, pp.13-14)

Generally, inquiry means a questioning or investigation, a wanting to find out, and is an element of a number of teachings, not just the Diamond Approach. India's Ramana Maharshi and the esoteric Armenian teacher George Gurdjieff are both examples of well-known teachers who employed such a method. Inquiry is also the starting point of the scientific method, and this introspection into one's experience begins the process of empirical inquiry. At its heart, inquiry is an unknowing, one that often ignites a passion to discover, to learn, to understand.

As Almaas says:

> It is as if something is tickling you from inside, saying, 'Look here, there is something here.' The flavor of unknowing…is how the unfoldment is arising. Something is coming up. Being is heaving up, presenting one of its possibilities, and that possibility is approaching your knowing consciousness. (Almaas, 2002, p.15)

Open inquiry begins by looking at our present experiences but it is a looking that must embody openness. Instead of taking our perceived discrimination as final, inquiry says "I know what I see, but I acknowledge that I do not know whether what I see is all." According to Almaas, "you cannot begin to inquire into a perception if you think you know all there is to know about it. The moment you think you know, the door to inquiry closes." (Almaas, 2002, p.17). So inquiry begins with a not-knowing, from recognizing and observing something in yourself that you do not understand.

It is well known to the EHOC (Etty Hillesum Research Centre) community that Etty was continually asking questions of herself, others and 'God'. Rainer Marie Rilke, one of her main influences, employed inquiry as a guiding philosophy. Etty responded to questions of her own and those of Spier and others with a kind of immediacy that exemplifies this "direct response of Being." The immediacy and openness in Etty Hillesum's writing is characteristic of the presence of essence. It is an openness that she had to see things as they were as well as an openness for them to change, and for the change to reveal more of what was present. Etty's open attitude of inquiry was the means of engaging not only the dynamism of Being, but the spaciousness or vastness that was the infinite possibility of her true nature.

The Diamond Work's Basic Structure: The Journey of Ascent and Descent

In the Diamond Approach, essence is central to the process of the soul's inner journey to liberation and development. From the perspective of the relationship of the soul to essential presence, the inner journey of realization can be divided into two major parts: the journey of ascent and the journey of descent. The journey of ascent has three phases: the journey to presence; the journey with presence; and the journey in or as presence (Almaas, 2002, p. 44). Almaas likens the journeys to climbing a ladder. In the journey of descent, the soul climbs back down the same ladder that it climbed on its way up to reality or true nature, but this time the soul integrates the various dimensions she has passed through in her ascent. In the ascent the soul moves inward, while in the descent is moving outward where it retains its conscious awareness within manifestation (Almaas, 2004).

The First Journey of Ascent

The first journey takes us to the beginning of experiencing our Being, as we have glimpses of our true essential presence. The recognition of essence as presence is the fundamental insight of the first journey. In this place the soul is dissociated from her true nature and living as the animal soul with the possibility of actualizing to being a human soul, a soul with heart. In the first phase we are earthbound and caught in inertia, and this has often been described as being asleep to existence. In this phase we are held captive by our conditioning to repeat the same unchanging patterns, with the same experiences, perceptions and knowledge. The same suffering and pain are re-experienced and often reinforced with addictive behaviors used to help numb us to the feelings, and Freud's repetition compulsion is often in play.

The first phase of the Diamond work is to focus its teachings and experiential exercises on the essential aspects of our humanness. Almaas suggests that "this wish to be ourselves is the true motivation for inquiry" (Almaas, 2002, p. 252). In accordance with the Sufi tradition, he calls these first five of the essential aspects the *lataif*, and each one is associated with a color. They are Joy, or the excitement of curiosity (yellow); Strength, or the capacity to engage in one's spiritual work (red); Will, the perseverance in the face of suffering, (white); Peace, or the ability to perceive what one is experiencing (black) and Compassion, or the sensitivity to hold oneself gently (green). These aspects emerge in relationship to various basic needs that are touched in the beginning stages of one’s inquiry practice. The other six essential aspects, according to the Diamond Approach, are more implicit but are important in forming the ground for inquiry: Knowing, Truth, Clarity, Focus, Personalness, and Intelligence. A.H. Almaas points out that the similarities to the Sufi understanding are limited, as the Sufi tradition is ancient and has its own system and teachings, and the Diamond Approach has come to manifest in the current age (Almaas, 2002, p. 253).

In this early phase our personality, typical patterns and feelings, and the conventional conditions of existence dominate, whether neurotic or normal. Even though one is stuck in the repetition of these patterns and conditions, this phase holds the potential to break the grip of conventional experience, exposing its limitations and opening one to the experience of true presence. An example of this process would be the opening to the presence of self-compassion that allows one to tolerate pain, and to explore and understand its origins, thus eventually reducing the pain and touching a greater presence and awareness of one's essence. At this point in the journey is where many in Western culture (based on privilege, education, and awareness) enter psychotherapy.

The Second Journey

The second journey, with presence, begins when one begins to recognize the presence of essence, the dimension of essential manifestation. Upon experiencing presence, one discovers the medium of the soul and the essence of what humanness is. It is here that an individual may have his or her first glimpses of strength without identification, solidity without the usual self representations. A spiritual teacher (rabbi, priest, guru, clergy, imam, spiritual guide, depth therapist) is often sought at this juncture to help one pay attention and discriminate the subtle and previously unrecognized aspects of experience that open the door to essential perception. The openness of Being transforms time and space. The soul’s journey here is in company with presence, both receptive to it and guided by it.

The 'Pearl Beyond Price': Individuation based on true Personal Essence

Through the development of the ego the sense of self is maintained by the ego's attachment, object relations, conditioning and history. As the second journey unfolds and these attachments and conditionings are transcended and recognized as limiting for the soul, the building of a new structure needs to occur that provides a sense of self based on essence. This phase of the second journey is toward individuation and the realization of personal essence. This is what Almaas calls ‘the pearl beyond price’. The ‘pearl’ functions as the essential structure that the soul develops and uses to integrate all her experiences of everyday life. This structure draws upon essence to mature and develop the soul's virtues, capacities, and faculties (Almaas, 2004). This personal essence, or 'pearl' gives the soul a sense of individuality and ability to function as a person in a fluid and dynamic fashion that is responsive to the environment. Throughout Journey two, the soul learns to depend less and less on the rigid ego structures for a self sense and functioning. One can be in the world coming from an authentic place, as the pearl has the qualities of autonomy, beingness, independence, yet contact with the world and others. In developing the pearl we realize that who we really are is our essence, and not our attachments. As Almaas writes, having the pearl and touching true personal essence is "the experience of being oneself and not a response or reaction to something. It is not being something for somebody. It is, in a sense, complete freedom, the freedom to be" (Davis, 1999, p. 123). Almaas describes the Pearl as an "ontological presence", as opposed to the structured process of the ego. But the Pearl is personal, and not impersonal and detached. It has the capacity to make intimate contact with another human being and still be totally free and unconditioned. In fact, because of its freedom and basis in personal essence and true nature, the pearl is capable of more intimacy and connectedness than the selfish ego. As the second journey and self-realization continues the pearl becomes more deeply integrated with other aspects of one's personal essence, and then finally with the boundless dimensions.

The Discovery of Essence

As the development of the pearl is the process of individuation in the second journey, there is a second phase occurring in the second journey that involves the soul's maturation and the realization of true nature and essential identity. During this phase of the journey the soul experiences essence mainly as an internal phenomena that inspires, guides and supports the soul. This is still a dual experience as she recognizes essence as her nature and is with it but not identical to it. This experience exposes the ego as the primary barrier to identity with essence, as the soul is only beginning to construct the 'pearl' and is still more or less dependent on the ego for self-identity. Through the process of uncovering and working through the ego structures, the soul learns about the inherent narcissism of the ego. The Diamond Approach has come to name this process 'the point work' (Almaas, 1996). The transcendence of this narcissism is self-realization, or the soul’s realization.

The Point Work

In the natural course of human development the infant initially is present to his or her immediate experience and true nature. As the self develops, the infant acquires memories and starts to lose this immediacy and begins to experience oneself through past impressions and the developing ego structures. Consequently, the soul loses awareness of its wholeness or true nature. Narcissism is the consequence of this loss of immediacy and lack of presence to one's wholeness. Narcissism manifests itself with self-centeredness, sensitivity to others’ critiques, easily wounded by others’ lack of empathy, defensiveness about one's mistakes or weaknesses and a need to be seen, admired and appreciated. All these narcissistic defenses cover a pervasive sense of being deficient and worthless, and a deep narcissistic wound caused by the alienation from one's essential presence. The development of the narcissistic wound was fostered by the significant people surrounding the child that didn't see or support the child's true self. This lack of support and love was intolerable to the child and consequently a limited false self was developed that was more acceptable. A sense of betrayal remains due to this lack of support, and not only toward others but also toward oneself for giving up the wholeness of Being. In the journey to self-realization this construction of a limited self needs to be torn down and the wholeness of one's Being laid bare.

The point work involves using inquiry to uncover and work through these narcissistic defenses to open the narcissistic wound and find one's true nature. During this process various emotions arise. First, comes dread as one approaches the great emptiness, and then shame and embarrassment related to one's sense of deficiency. Due to the betrayal, narcissistic rage can erupt both at ourselves and at the critical and rejecting others. These emotions are difficult to experience and the tendency of the ego is to turn away and cover up. In the point work one counters the ego and continues to face the pain and sense of worthlessness, using inquiry as a tool of discovery. This process takes a great love for the truth to bear the pain.

The uncovering leads to a dissolving of the sense of self and the experience of great emptiness. Sometimes the ego fills this emptiness with a narcissistic depression and hopelessness as a defense against the perceived loss of self. The way out of being stuck in this emptiness and depression requires a basic trust in the goodness of the nature of the universe. Inquiry into one's distrust ultimately can lead to a discovering of trust. Accompanying this discovery is accepting and surrendering to not knowing what to do, "for being is not a matter of doing anything" (Almaas, 1996, p. 342). Finding this trust in the rightness of the cosmos, and beauty, leads to compassion and loving kindness toward the self, and to the experience of universal love. Being present to this universal love transforms the emptiness into a luminous vastness that is peaceful and free of the constrictions of the self. The experience of this love allows the ego to stop its incessant, self-preserving activity, and let Being just occur. Empathic guidance from a teacher can be very important during the point work to help support the student in facing this painful material, and to model universal love.

Summary

The realization of personal essence and essential identity are two interdependent processes that have separate stages and different elements. Perhaps the most significant difference is that the realization of the personal essence is more of a development and construction, while the realization of essential identity is a discovery. The development of 'the pearl beyond price' enables the soul to mature and individuate, while the realization of essential identity involves the penetration of the false self and the discovery of one's true nature. Both the individuation process and realization of true nature are focused on dissolving the ego and its limiting narcissism, and at the end of journey two the soul begins to know her essence as her identity. The duality of soul and essence begins to be bridged and the soul moves into the third journey. "The soul recognizes she is the simplicity and exquisiteness of timeless presence." (Almaas, 2004, p. 224)

The Third Journey

This journey is entitled the journey in or as presence. It involves the development of and living through non-duality. The soul's experience becomes one with essential presence, and all the maturation and structures of the soul that were developed in the second journey now become integrated into this non-dual presence. This journey, like the second journey, has two interdependent or complementary phases.

The first phase is the essential development of the soul, what the Diamond Work calls the “essentialization” of the soul. It is the complete merging of the soul with essence, where the transparency of the soul to essence becomes so complete that the two become one. This non-dual soul is a dynamic presence that all experience arises from. When the soul is realized, she is totally inseparable from and transparent to the presence of love. She is not only love, says Almaas, but “she is loving in a complete and full way. She is a presence that expresses itself dynamically as loving action. The dynamism and the presence of love are inseparable, co-emergent” (Almaas, 2004, p. 225). This essentialization of the soul can include all aspects, such as intelligence, compassion, clarity, steadfastness, etc. It can be in the physical, expressive or mental realm. In this transformation, the soul has progressed from the stage of the human soul, the attainment of the second journey, to the stage of realized or essential soul.

The second phase of the development of nonduality is the discovery in presence of the boundlessness of true nature. True nature begins to reveal it is the ground and nature of everything, and that it transcends the limited boundaries of individuality or personhood of the soul. The soul now begins to experience herself "as a boundless and nonlocal presence that transcends all spatial extensions, as eternal ‘nowness’ that transcends all time, and as a mystery that transcends all determinations. She is all and everything, she is Reality" (Almaas, 2004, p. 225). In the third journey, one experiences true nature free from the limitations of separateness, and from particular forms and manifestations. As presence or human consciousness has gone beyond the individual soul and personal essence to touch boundless Reality, nonduality is now complete.

Journey of Descent

Now that the soul has journeyed into the mystery and transcended all limitations, it flows back into the multitude of forms and objects of the phenomenal world. As the soul does so, it maintains its connection to the absolute and true nature that it has discovered, but integrates Being into the manifestations of the phenomenal world. The journey of ascent was a movement inward, while the journey of descent is a movement outward into the world of forms and objects, which leads to integration and union with the whole (Almaas, 2004). This journey involves understanding the absolute not only as a transcendent truth but also as the immanent ground of Reality. Like the previous two journeys, this journey involves the two phases of self-realization and individuation. There develops a deeper understanding of the functional relationship between true nature and the individual soul, and the relationship between soul, Being or God, and the cosmos. In the descent the soul finds its place in the cosmic reality.

The journeys of ascent and descent are not separate linear processes, but are present simultaneously, co-existing and co-emerging. The journeys complement each other and are equally important. "Immanence, fullness, and the myriad forms of the world are one side of a coin; transcendence, emptiness, and the mystery of union are the other. Thus, the richness and beauty of the world are no more true, valuable or privileged than its emptiness, spaciousness and vastness"(Davis, 1999, p. 153).

Journey 1: Etty Hillesum

Since we have only two and a half years of Etty’s words and experiences describing these four phases of the journey to the realization of true nature, the stages are compressed and overlap greatly, and are often not as distinct and differentiated as I am pointing out here. Most authors of Hillesum, however, recognize the gradual, yet dramatic change in the tonality of Etty’s personality and life as she moves toward the unfolding of her Being. I appreciate the interwoveness and gradual shift in Etty's unfolding, even as I unpack the journeys to illuminate her process of evolution.

As mentioned, in the first journey we get glimpses of Being itself, the first recognition of our essence as presence. However, the soul is cutoff from her true nature in this stage. Earthbound, caught in survival and self-absorption, asleep to existence, we repeat the same patterns of perception and behavior that we have developed through our conditioning. Even though one is stuck in the repetition, the potential exists in this journey to break through conventional experience and reveal its limitations, opening one to true presence.

This is a phase where dynamics of family relationships come into full awareness. While little is known of Etty’s childhood years, it is clear in her teenage and younger adult years she struggled intensely in relationship to her mother, while idealizing her father. She deemed her mother to be chaotic and smothering, and her father as accomplished, stoic, and erudite. These parental relationships do much to set the stage for the negating of her own personality and the tendency to merge with older men for security, love and learning. She shares the Russian sense of drama, emotionality and somatic complaints of her mother, yet identifies with the intellectual curiosity and capacity of her father.

Etty captures moments of insight and vulnerability without, seemingly, a staged self representation. Her budding transparency suggests an inner strength with striking immediacy. What is illuminating at this first stage is that her expanded self has compassion for this egoic, scattered, and immature personality. For example:

> Here in this strange family, there is such a remarkable mixture of barbarism and culture that you are stripped of all your strength…In the past, my picturesque family would cost me a bucket of tears every night. I can’t explain those tears as of yet; they came from somewhere in the dark collective unconscious. Nowadays I am not so wasteful of this precious fluid, but it is not easy to live here. (Hillesum, 2002, p. 83)

And again:

> Mother’s first words to me were, “I really do feel awful.” It’s so strange. Father has only to utter the smallest sigh and my heart just about breaks, but when Mother says with great pathos, I really do feel awful, I couldn’t sleep a wink again”, and so on, I remain basically untouched...
>
> Stop whining, for goodness sake, you shrew, you nag, carrying on like that. Such are my inner reactions when my mother sits down to have a chat with me. My mother is someone

> who would try the patience of a saint. I do my best to look at her objectively, and I try to be fond of her, but then suddenly I'll find myself saying, emphatically, "What a ridiculous and silly person you are." It's so wrong of me….
>
> And again: Had a respectable conversation in Russian with Mother, who suddenly seems a spirited, decent person again. Then I am all at once dreadfully sorry for having had such ugly feelings and am sure that I have misjudged her, but a few hours later an exasperated little devil inside me suddenly riles against her again: You horrible cry-baby, stop all that rubbish, you're honestly quite mad, what a mad person you are." I think these thoughts very soberly and with a wry sort of humor, and love is far removed from me then. Etty, Etty, don't let yourself down like that! And isn't it high time you were asleep? (Hillesum, 2002, pp. 81-83)

As the entries indicate there is a forming of a relationship with herself that is reminiscent of a 're -parenting' of herself, opening to self compassion right along with her overwhelm, anger, guilt and regret.

In the first phases of spiritual or therapeutic work the use of a journal is common, as is the seeking of a teacher. It seems Etty was ripe for both as she went to one of Julius Spier 's lectures, and asked to become his student. In a short time she became his secretary and assistant. We realize how much Etty is a natural seeker, and has begun a journey with a teacher, both psychologically and spiritually. Spier, known as S. in Etty's journal, was a chirologist and psychologist associated with C.G. Jung. What she saw in Spier went beyond his obvious personality conflicts and limitations. She wanted what he had: his spiritual presence, his deep wisdom and love of the truth and of the students he worked with, and his ability to see through things as they really were. He helped Etty to face reality, to be with whatever came up in her and allow it, and to inquire into it, just as Diamond Approach students would do. Spier and his 'magical personality' could be seen today from an Integral, eastern perspective as a guru, or a teacher of an older philosophical tradition, such as the perennial philosophy, including the ancient spiritual traditions of the east such as Buddhism, Sufism, Hinduism, as well as indigenous traditions, and mystical branches of Judaism, Christianity and Islam. Spier's group of students could be like any "mystery" school, *sangha*, or spiritual community of any kind such as the Diamond Approach, called the Ridhwan school, with its teachings, transmission, and practices of dyadic inquiry, chanting, meditation and study.

We get a glimpse of what Etty was experiencing at the time of her choosing a teacher from this entry:

> …Intelligent, incredibly wise, age-old gray eyes, which drew one's attention from the full mouth, but not for long or all together. I was awed by his skill, his ability to read my deepest conflicts from my second face: my hands…. And then there was his lecture. The impression was good. First rate lecture. A charming man. Charming smile, despite the false teeth. I fell under the spell of the inner freedom that seemed to emanate from him… (Hillesum, 2002, pp. 4-5)

It is here, in Etty's first letter to Spier, where we understand what she is addressing in her work with him, the base of the first journey. This entry, the first one in Exercise Book 1 is prescient of what is to come:

> You know, yesterday, when I could do nothing but look stupidly at you, I experienced such a clash of conflicting thoughts and feelings that I was quite shattered and would have yelled out loud had I had even less self-control. I experienced strong erotic feelings for you, which I thought I would have got over by now, and at the same time a strong aversion to you, and there was also a sudden feeling of utter loneliness, a suspicion that life is terribly difficult, that one has to face it all on one's own, that help from outside is out of the question and uncertainty, fear and all of that too. A small slice of chaos was suddenly staring at me from deep down inside my soul. And when I had left you and was going back home, I wanted a car to run me over and thought, ah, well, I must be out of my mind, like the rest of my family, something I always think when I feel the slightest bit desperate. But I know again that I am not mad, I simply need to do a lot of work on myself before I develop into an adult and a complete human being. And you will be helping me won't you?
>
> Well, I have written you a few lines now; they have cost me a lot of trouble. I write with the greatest reluctance, and always feel inhibited and uncertain when I do. Yet, I want to become a writer one day, would you believe it? (Hillesum, 2002, p. 3)

As mentioned, right away, Etty, unabashedly shares her erotic attraction and aversion to Spier, leading us to two of the most powerful energies for transformation: desire and repulsion. Initially, Etty prides herself on her skill and passion as a lover. As she says, "I am accomplished in bed, just about seasoned enough I should think, to be counted among the better lovers," yet her deepest commitment is revealed in the continuance of the same sentence: "and love does indeed suit me to perfection, and yet it remains a mere trifle, set apart from what is truly essential, and deep inside me something is still locked away." (Hillesum, 2002, p. 4E)

This tension will become a dynamic part of the second phase of her Journey, but for this first phase of her exploring, her 'gender questions', much like the younger Anne Frank, are very much on her mind and heart:

> He said that love of mankind (sic) is greater than the love of one man. For when you love one person you are merely loving oneself. He is a mature fifty-five year old man and has reached the stage where he can love all mankind, having loved many individuals in the past. I am an ordinary twenty-seven year old girl, and I too am filled with love for all mankind but for all I know I shall always continue to be in search of my one man. And I wonder to what extent that is a handicap, a woman's handicap. Whether it is an ancient tradition from which she must liberate herself, or whether it is so much part of her very essence that she would be doing violence to herself if she bestowed her love on all mankind instead of one single man. …. Feelings of friendship, respect, and love for us as human beings, these are all very well, but don't we ultimately want men to desire us as women? ….Perhaps the true, essential emancipation of women still has to come. We are not yet full human beings; we are "the weaker sex." We are still tied down and enmeshed

> in centuries-old traditions. We still have to be born as human beings; that is the great task that lies before us. (Hillesum, 2002, p. 69)

Another area Etty speaks about in the early phase of her journey is loneliness, indicative of depression, mania or anxiety. I would call it existential despair in its tone as well as a kind of cyclothymia in its biological characteristics. She says:

> I know two sorts of loneliness. One makes me feel dreadfully unhappy, lost and forlorn, the other makes me feel strong and happy. The first always appears when I feel out of touch with my fellow men (sic), with everything, when I am completely cut off from others and from myself and can see no purpose in life or any connection between things, nor have the slightest idea where I fit in. With the other kind of loneliness, by contrast, I feel very strong and certain and connected with everyone and everything and God. (Hillesum, 2002, p. 82)

In these states of disconnection, the theme of Etty's personality struggle is one of feeling lost. So, when she says "I need to expose myself unreservedly to someone. And perhaps and above all I also want that someone to appreciate my full worth." We can see why Spier and his psychological and spiritual mastery become so important to her, even if his carnal struggle was in "full cry." Etty is becoming aware of herself and what she needs and wants in relationship. She is committed to record everything that is going on with her and realizes she can't capture all of it in words at this stage. Her agitation gets translated into the somatic complaints of headaches, stomachaches, or digestion problems. She has used metaphors of a "tightly bound ball of twine" the "cork that bottles her up again" to explain this inability to write or, "to say things, to express them in such a way that the words become transparent and the spirit behind them can be seen." It is very telling when Etty is in one of these cut off and alienated places, and when she hears from S. she comes back to center: "I regained contact with myself, with the deepest and best in me which I call God, and so also with you. A moment came in which I grew one stage further, in which many new perspectives about myself and my bond with you and my fellow beings appeared" (Hillesum, 2002, p. 83).

There are many points in this first journey where Etty's maturation becomes palpable:

> A strong straight pillar is growing in my heart, I can almost feel it growing, and around it all the rest resolves; I myself, the world, everything. And the pillar is an earnest (symbol) of my inner security. How terribly important this is for me, being in touch with my inner self! I don't go on losing my balance or tumbling from one world into the next…Something is being consolidated within me, I seem to be taking root instead of continuously drifting, but it is still no more than the fragile start of a new and more mature phase. You must keep watching your step, little one, but I am well pleased with you all the same, your pulling through, truly, you are pulling through…" (Hillesum, 2002, p. 85)

Etty often mentions she wants to be a chronicler; one who sees, writes, records, helping others to see, to understand, to expand. This is her mission. She elaborates and underscores her curiosity, so familiar to the logos of the Diamond Approach as the fuel of the spiritual journey:

> I want to live to see the future, to become the chronicler of the things that are happening now (downstairs they are screaming blue murder with father yelling, "Go then!" and slamming the door; that too, must be absorbed, and now I am suddenly crying since I am not all that objective really and no one can breathe properly in this house; all right, make the best of it then); oh yes, a chronicler. I notice that over and above all my subjective suffering, I have an irrepressible objective curiosity, a passionate interest in everything that touches this world and its people and my own motives. Sometimes I believe that I have a task. Everything that opens around me is to be clarified in my mind and later in my writing. Poor head and poor heart, what a lot there is still in store for you. Rich head and rich heart, you still have a lovely life, though, both of you. I have stopped crying. But my head still throbs. It is sheer hell in this house. I would have to be quite a writer to describe it properly. Anyhow, I sprang from this chaos, and it is my business to pull myself out of it. S. calls it "building with noble material; he's a real treasure."

As discussed, the method of the Diamond Approach is inquiry. To merely ask questions does not include the complexity and depth of the process; it actually has a great deal to do with being present to what arises throughout the process of inquiring, very similar to Etty's process of "hineinhorchen" or "hearkening" to herself. Rilke was also a guide for her in this regard and she gave credit to Rilke and Spier for teaching her about the wisdom of suffering in the moment, not the idea of suffering. She describes the process of "hearkening" as:

> Hearkening to myself, to others, to the world. I listen very intently, with my whole being, and try to fathom the meaning of things. I am always very tense and attentive. I keep looking for something but I don't know what. What I am looking for, of course, is my own truth, but I still have no idea of what it will look like. (Hillesum, 2002, pp. 90-91)

These are actually three important parts of the Diamond work; hearkening or inquiring into experience, the love of the truth, and holding the reality of 'not knowing'.

What becomes clear at the base of this split she feels within herself is a feeling of shame. Her struggle with her body and her view of the feminine instilled in her by nature and nurture and seems deficient to what she sees in the masculine. She reveals the difficulty she faces in realizing how all her physical symptoms, including strong fatigue and shifting moods, keep her off balance and stuck. She is embarrassed and tells us so:

> I always think it is so humiliating that the mind should be impaired by a silly cold or by headaches or by whatever other physical complaints. I always feel ashamed about being unwell, I want to keep it to myself, struggle against it and, as a result, I feel twice as bad, a person without energy because the body has such a tremendous influence on one's work and, more generally, on one's whole psychological state. Do I still tend to despise the body? Does one have to stand by one's illnesses, even the most minor, or should one resist them? This is still something of a problem for the girl who broods too much. (Hillesum, 2002, p. 91)

The final thing I would like to discuss in the first phase of Etty's journey based upon these journals is the beginning of a conscious relationship with what she is calling God. She says early on that God is what is the 'deepest and best' in her. She says that:

> There is a really deep well inside me. And in it dwells God. Sometimes I am there, too. But more often stones and grit block the well, and God is buried beneath. Then he must be dug out again. (Hillesum, 2002, 91)

What becomes apparent is that Etty's religiosity is radically unconventional. In Holland today, says J.G. Gaarlandt (Hillesum, 1996, p. xv) Christians and Jews are claiming Etty as typically Jewish or typically Christian – "an unprofitable discussion as Etty chooses her own way." It seems to me that Etty chooses a way, an integral way, all inclusive of the world's deepest mystical traditions or the perennial wisdom of transformation. It seems that Etty's first attempts at being present, or praying, or meditation have something to do with surrender, as kneeling becomes a way and symbol of that surrender. She describes one of her first times:

> This afternoon I suddenly found myself kneeling on the brown coconut matting in the bathroom, my head hidden in my dressing gown, which was slung over the broken cane chair. Kneeling down doesn't come easily to me, I feel a sort of embarrassment. Why? Probably because of the critical, rational, atheistic bit that is part of me as well. And yet every so often I have a great urge to kneel down with my face in my hands and in this way find some peace and to listen to that hidden source within me. (Hillesum, 2002, p. 103)

Gaarlandt, one of the early publishers of Etty, poses the question: "Was she a mystic?" and answers the question with "Perhaps." What strikes us as different about Etty in this regard is her 'crystal-clear honesty,' something important to psychological and spiritual systems such as the "Spier Club" or in my experience, the Diamond Approach. She insisted that "mysticism must rest on crystal-clear honesty, and can only come after things have been stripped down to their naked reality." Much like any of the non-dual, integral theorists, teachers and practitioners such as Sri Aurobindo and the Mother, Jean Gebser or, the more contemporary ones such as Ken Wilber, or A. H. Almaas and Karen Johnson, the 'work' is done in the world and not (only) in solitary contemplation. We will see in the next phases of Etty's life, the deepening, the deconstruction, and the love of truth. I agree with Gaarlandt when he says "her vision had nothing to do with escape or self-deception, and everything to do with a hard-won, steady, and whole perception of reality. Her God, in a sense, resided in her own capacity to see the truth, to bear it and find consolation in it" (Hillesum, 1996, p. xv).

Journey 2: Etty Hillesum

It's a slow and painful process, this striving after true inner freedom (Hillesum, 2002, p. 134).

As mentioned earlier, as the Diamond Approach's definition of the second journey, the personal essence or 'pearl' gives the soul a sense of fullness, individuality, and ability to function as a person in a fluid and dynamic fashion responsive to the environment. The pearl has the qualities of autonomy, beingness, and independence, yet has contact with the world and others. It is about evolving maturation, with a certain lustre and fullness that you might think of as you imagine an actual pearl.

As Etty enters this next iteration of the journey, the second one, she becomes more determined to examine and assimilate her sensual obsession with Spier. She struggles with romantic notions of the ideal relationship, her own jealousy and possessiveness, while attributing this to the “illogical” nature of women. It is as if she is unwinding, at such an early age, 'the inner ball of twine', inch by inch as she explores gender and romance through her own experience.

> Yes, we foolish, idiotic, illogical women, we all seek Paradise and the Absolute. And yet my brain, my capable brain tells me there are no absolutes, that everything is relative, endlessly diverse, and in eternal motion, and that is precisely for that reason that life is so exciting and fascinating, but also very, very painful. We women want to perpetuate ourselves in a man. Yes, I want him to say “Darling, you are the only one, and I shall love you for evermore. I know, of course, that there is no such thing as eternal love, but unless he declares it for me, nothing has any meaning. And the stupid thing is I don’t really want him forever or as the only one in my life, and yet I demand it of him. Do I demand absolute love from others because I’m unable to give it to myself? And I always expect the same level of intensity…. After all, I wouldn’t know what to do if somebody really was on fire for me all day long. It would annoy me and bore me and make me feel tied down. Oh, Etty, Etty! (Hillesum, 2002, p. 105)

These are the kind of struggles that suggest identification at the object relations level of development, where everything gets viewed from the original and primal need for love, with needs such as security, and the animal body’s physical and sexual urges as central. This stage is also rife with the deficiencies that surface based on personality fixations as well as parental deficiencies and modeling. The prevailing historical and cultural beliefs about gender add and reinforce to the conditioning. Etty reveals her wisdom when she reflects on these things and says that her need for Spier to desire 'me alone' and for ‘eternal love’ “are some kind of compulsion.” She begins to recognize this when she is feeling ‘extremely’ sensual, she obsesses about Spier, “his mouth and hands while everything else pales into insignificance…” As the above quote illustrates she is quite aware this is a compulsive fantasy.

One day later she gives us a sense of this ability to see, to assimilate, to metabolize as she says:

> This has to be put plainly now once and for all – be a bit more sparing with your “once and for alls”, my girl, there’s no such thing in life. It seems so simple now, but there will always be minor crises. What are the facts, then? This afternoon I bicycled over to see him, completely wrapped up in things to do with his work, with no womanly feeling at all. The thought suddenly struck me, and I felt more serious about it than I usually do: I really want to work with him for a few years. I am getting very attuned to him, can learn a tremendous lot from him and can also do a lot for him. I was so pleased with him and our relationship. (Hillesum, 2002, p. 107)

What is striking here is that Etty is aware of her ups and downs, her recognition that: “there will always be minor crises”, and Spier was aware of this as well, as he said to her “ Right now I happen to be the right friend for you.” While this turned out to be true in a much larger sense, the sexual forces between them would complicate their spiritual and psychological work. Etty lets us know that she ‘saw’ the whole of Spier and herself when she says, “I would like him to love me like that" (as this is how she idealized what love of a man would be for a woman), and she continues, “he is a good, dear, fascinating human being, and also volatile, temperamental and full of unexpected nonsense.”

While Etty realized at one level the dangers of being exploited by a teacher and therapist “wrestling” with his women students as an intimate practice, she would only later realize her deep vulnerability in this regard. In spite of Spier's deficiencies it was because of his influence that Etty came to see her life and strivings in non-dualistic terms, as she says “You taught me to speak the name of God without embarrassment. You were the mediator between God and me” (Hillesum, 2002, p. 516). Carol Lee Flinders captures this phase of Etty’s relationship with Spier when she says so crisply, “mediator he may have been, but in effect, Spier threw almost as many obstacles in Etty’s path as he removed. We could resent him more for this if those obstacles hadn’t also been the making of her” (Flinders, 2006, p. 44).

Etty’s relationship with Spier is what spans her second journey. This is the time that Etty’s ‘pearl’ becomes more and more evident as she actually experiences what it meant to “repose in herself.” It is, of course, paradoxical that the pearl gains its lustre during the deepest parts of one’s struggle. For Etty, it seems like it is the first conscious drive to awaken, not masked by mood swings or illness, and in fact the beginning of the way in to her origins. It begins with a true grappling with her demon of jealousy and possessiveness and surely a part of what Almaas (1996) calls the ‘point work’ referred to earlier in this paper. It is the work of facing into the deconstruction of the ego’s hold on self representation; the crumbling of the edifice and touching of the ‘abyss.’ Another way to put it in the language of the Diamond Approach is the cracking of the egoic shell and revealing not only the terror of annihilation, but the deepest human vulnerability without the layers of defense.

While beginning this section with her grappling with ideals about eternal or undying romantic love, she moves to the next layer that reveals what she thinks is another obstacle to Spier's love, his fiancé Hertha Levi. Etty‘s fear was that Hertha would come to Amsterdam to join Spier on an on-going basis.

> I suddenly had the feeling that Hertha was coming back. My heart broke…several times over. I waged a heroic struggle and then took off for faraway Russia. After first having written him a heartrending letter to tell him I was but a frail human being who could not cope with him and Hertha combined. Nor did I want to have anything more to do with his work, and I suddenly puzzled hard whether I had not chosen the work for the man’s sake rather than to the man for his work’s sake. And though I knew I would never want to marry him, I could not put up with him having another woman. (Hillesum, 2002, p. 117)

Each of these obsessive fantasies, and the subsequent inner struggles that would ensue, would bring Etty back to her goal, which was that of learning to love another person unconditionally, wholly, as a way of preparing her (and them) to love all human beings in a similar fashion, so the love for one would lead to the love of all. Spier had the same goal and also had his own way of backsliding. But this mission that they shared, had the power to transform both of them over time.

It becomes clear that Etty is maturing over time and is becoming more and more convinced that she is “no longer cut off from that deep undercurrent” within her. It is indeed painstaking work, and Etty rose to this challenge based upon her own drive for the truth. It was not evolved or so radiant to begin with, which is important for most seekers to know. It was a grind, like the grains of sand rubbing over the pearl, over and over again, to face the reality of her relationship with Spier, as if grinding the toughest kernels of corn into a soft pulp. As she says:

> He was probably tired as well, absorbed in something or other. In the past that would have been a shock, I should not have been able to take that neutral conversation. This time, too, I felt for a moment how tired and over-excited I was, because the horribly sober tone he used made me want to let myself go completely for a split second, to burst into tears or something like that. But in another split second I had scolded myself for being so hysterical. In the past I would have been quite unable to reconcile his sober tone with my feelings toward him, and there would have been a head-on-collision. I would have blown the whole thing up out of all proportion. But this morning it suddenly hit me: its ebb tide again. And now I know that the flood tide will be coming back… And now just this bit more: when it suddenly struck me, again in the bathroom, that it can’t always be flood tide in a friendship, and that the ebb tide has to be accepted as something positive and fruitful as well, then, life, too suddenly surged through me again with a calmer beat. (Hillesum, 2002, pp. 200-201)

This is the period that Etty’s desire for Spier reached its peak, as she continually mentions its deepening in the form of “intensity.” As she says, "I am afraid of the full physical relationship, lest it fail to reach the same pitch as our intellectual relationship, and something gets spoiled. One should never force things but leave them to develop naturally and wait for the ripe fruit to drop. My desire is developing very slowly and ripening into complete surrender of a kind I have never known before” (Hillesum, 2002, p. 257).

We will return to Etty’s ever growing and changing relationship with Spier, as this is the ground of this second part of her journey, just as it is the beginning of her awareness of the oppressive society of the Third Reich that was gathering around her. This is one of the first times that Etty addresses her direct experience with the Nazi machine:

> Very early on Wednesday morning a large group of us were crowded into the Gestapo hall, and at that moment the circumstances of all our lives were the same. All of us occupied the same space, the men behind the desk no less than those about to be questioned. What distinguished each one of us was only our inner attitudes…. When it was my turn to stand in front of his desk, he bawled at me. “What the hell’s so funny?” I wanted to say nothing’s funny here except you, “ but refrained. “I didn’t mean to its my usual expression.” And he, “don’t give me that, get the hell out of here,” his face saying I’ll deal with you later.” And that was presumably meant to scare me to death, but the device was

> too transparent. I am not easily frightened. Not because I am brave, but because I know that I am dealing with human beings and I must try as hard as I can to understand everything that anyone ever does. And that was the real import of this morning; not that a disgruntled young Gestapo Officer yelled at me, but that I felt no indignation, rather a real compassion, and would have liked to ask, "Did you have a very unhappy childhood, has your girlfriend let you down?" Yes, he looked harassed and driven, sullen and weak. II should have liked to start treating him there and then, for I know that pitiful young men like that are dangerous as soon as they are let loose on human kind. (Hillesum, 2002, p. 259)

This marks the very beginning of Etty's attention to the impending threat. At the moment it is held at bay, and within this second part of her journey will she come to realize how dangerous 'pitiful men like this' are 'as soon as they are let loose on human kind.'

Yet her personal essence grows as manifested through her grappling with relationship. During the first half of this stage, Etty's desire was actually to 'see through' her stuckness, her impasses, her blocks, as well as her fear, in order to become internally free. We see she has reached a turning point with Spier, just past a year into their relationship, she reveals:

> I suddenly knew for sure that I would be visiting a great many countries, see a great many people, write books, and leave him, …and how I felt freer of him at that moment than ever before, yet also closer to him. And then I said No matter what happens between us, that feeling of freedom, of being a world unto myself, of having no claims on you, will always be with me, and that is why I have the courage to tell you everything all the time, the courage even to express my desire, since that doesn't call for any ties. It is sheer desire, nothing more, and it longs for one part of you, and yet I am free of you… and I am walking this path right now—that became clear to me yesterday. I have turned my desire into our joint venture, and we shall no doubt cope with it together. (Hillesum, 2002, pp. 268-269)

Etty and Spier's joint venture became her catalyst for transformation. What started as tempering their desire for the sake of their other relationships, Pa Han Wegerif for Etty and Hertha Levi for Spier, became for both of them a path of deepening love. In many ways this would resemble Tantric philosophy of the east, which uses sexual energy to fuel spiritual evolution. Etty's struggle with possession, sexual desire, and jealousy began to expand to another dimension of love entirely. She says "That I can feel such great love! My inner state is blossoming forth in all directions, my love grows ever stronger and greater, I am learning to bear it better and better and no longer feel crushed by it" (Hillesum, 2002, p. 352).

Some of the relationships well known in the spiritual world, often beginning as teacher and student, evolved into a mutuality where the relationship became more of a mystical union, larger than and including both individuals. Jelaluddin Rumi and Shams of Tebriz, Sri Aurobindo and the Mother, and A.H. Almaas and Karen Johnson of the Diamond work all refer to the phenomena of such relationships being one consciousness in two bodies. Etty and Spier could be counted among their members. Karen Johnson and A.H. Almaas write about this divine eros in their book entitled: "The Power of Divine Eros; The Illuminating Force of Love in Everyday

Life." In it they speak about the 'two loves" of human beings; one as the love of life and personal relationships, the world and its beauty and turmoil, and the other as the love of mystery, and complete inner freedom (Almaas and Johnson, 2013, pp. 34-35). These spiritual partners mentioned above seem to embody the 'whole' in their relationships, yin and yang, receptive and dynamic, feminine and masculine, inner and outer, two as one, all as one. As Karen puts it:

> When we follow love to its source, we may feel the actual presence of love itself. Then love is no longer just an idea, a thought, or even an emotional affect. We are in touch with the underlying process of love, which has a feeling of an actual presence of light and fullness or a liquid soft presence…When we know the nature of love, we can begin to see that, in fact, our spiritual nature is what can embrace our personal relationships. (Almaas and Johnson, 2013, pp.38-40)

In a recent chapter written on the Diamond Approach in a Handbook on Transpersonal Psychology, Davis, et al (2013) write: "As the soul opens to her boundless nature, the personal essence integrates more and more dimensions of being, bringing these riches into the world through personal and human expression" (p. 571). We begin to see at this stage in Etty's unfolding that it is possible for the soul to touch the boundless dimension and simultaneously express it in her unique way, through her personal essence. Etty gives us a glimpse of the continual freshness arising at the same time in this relationship:

> It is as if I had never seen him before, as if I were having to get to know him from scratch. And that, I believe, is the great miracle of our relationship, at least for me: that over and over again he seems an entirely new person to me, having to be scrutinized and fathomed over and over again, that I still have to go on absorbing him, that he is material I shall not have finished studying for years. (Hillesum, 2002, p. 353)

This particular exercise book of Etty's is coming to a close in April of 1942. Before the close of this segment of her journal, the "yellow star" was issued. While she says at this moment "I wondered again if I was so "unworldly" simply because the German measures affect me so little personally. But I don't fool myself for one single moment about the gravity of it all." Although she surmises that these measures do not affect her strongly, they are clearly influencing the unfolding of her being. Such as the thought "there will always be suffering, and whether one suffers from this or that really doesn't make much difference. It is the same with love. One should be less and less concerned with the love object and more and more concerned with love itself, if it is to be real love" (Hillesum, 2002, p. 358). Given this realization, Etty has come to a place at the end of April where she wants to marry Spier in order to "get through these times together." In fact, the following passage reveals her own 'pearl beyond price', personal and boundless at the same time:

> I am so glad that he is a Jew and I am a Jewess. And I shall do what I can to remain with him so we can get through these times together…I am not really frightened of anything, I feel so strong: it matters little whether you have to sleep on a hard floor, or whether you are allowed to walk only through certain specified streets, and so on – These are minor vexations, so insignificant compared with the infinite riches and possibilities we carry within us. We must guard these and remain true to them and keep faith with them. And I

> shall help you and stay with you and leave you entirely free. And one day I shall surrender you to the girl you mean to marry. (Hillesum, 2002, p. 355)

Etty's journal has a gap at this very point. Exercise Book 7 was never found, so we meet her again in the middle of May 1943, in Exercise Book 8, where it is clear that the final part of this second journey is brewing. The Diamond Approach would call this the Point work; facing into the empty void. Etty has been confronting painful wounds about the fear of losing love, and now the shell of ego identity losing its power to cover up insecurity and deficiency. Etty's additional confrontation with impending destruction is a multifaceted process: the loss of Spier, of future aspirations of being a writer, a chronicler, as well as facing directly into her own death and the annihilation of her family and her people.

At the end of May, 1943, she was quite reflective as the ever present squeeze of the Nazi's was getting tighter and tighter. The persecution accelerated with constant restrictions and it became clear to Etty that the Nazi machine was intent upon their destruction. Even so, it seems Etty is touching some kind of deep feminine receptivity that sustained her:

> I went to bed early last night, and from my bed I stared out from the large open window. And it was once more as if life with all of its mysteries was close to me, as if I could touch it. I had the feeling that I was resting against the naked breast of life, and could feel her gentle and regular heartbeat. I felt safe and protected. And I thought, how strange. It is wartime. There are concentration camps. Small barbarity mounts upon small barbarity. I can say of so many of the houses that I pass: here the son has been thrown into prison, there the father has been taken hostage, and an eighteen-year old boy in that house over there has been sentenced to death. And these streets and houses are all so close to my own. I know how very nervous people are, I know about the mounting human suffering. I know the persecution and oppression and despotism and the impotent fury and the terrible sadism. I know it all and continue to confront every shred of reality that thrusts itself upon me. (Hillesum, 2002, p. 386)

Around the same period of time, she was continuing to face the ego's inherent deficient emptiness that her relationship with Spier laid bare, and what was evolving in relationship to the emptiness:

> I used to be genuinely hysterical and desperate then. And would have felt betrayed and let down by his failure to console me in my emptiness and sadness. But now I was sitting there perfectly calm and collected, telling myself, you shouldn't be so ambitious, thinking you have to inspire a man every minute. You must accept the fact that you can be empty and tired and just want to get away from him…In the past I would refuse to acknowledge that sort of emptiness in myself, and then make forced attempts on all fronts, from the intellectual, to the erotic and sexual, to restore contact at any price, and if that failed, I would later have orgies of loneliness all on my own….In the past, I would have expected him, and other friends as well, to work miracles of solace. And now, I was bearing my own emptiness, and tiredness, and malaise, and that too was part and parcel of life, and there was no need to feel so forlorn. (Hillesum, 2002, 405)

There is something happening with Etty as she stares into the inner starkness, the emptiness, immanent destruction, and the failings of her own body. She begins to accept, and even embrace the very moment of her unfolding and finds that her ‘love of life has not been diminished.” This seems to be an emerging non-dual experience as well as the human will’s defiance to the Nazi's persecution. While with Etty, the illumination of the boundless dimension gets brighter and more spacious.

Etty’s imagery illuminates the struggle with her body at this time:

> All sorts of things are going out of joint south of my midriff. This mental frame of mine is certainly in need of drastic repair…I really don’t know what to do about it. If I stop eating salt, the kidney may float a little less. But the homeopathic drops and the endless aspirins are of course constantly at loggerheads with each other, waging battle in my 'earthly home'. Oh, yes, that body of mine: all at once I have an image of a battered old ruin, with white doves flying in and out of the holes in the walls –They are my thoughts, and they are more than thoughts; they are the comings and goings, and the movements made by my spirit; between the cracks new young flowers are growing, so touchingly fresh and young among the weathered walls. – and those are my feelings. That’s how I feel suddenly: like a battered old ruin. (Hillesum, 2002, p. 387)

As Etty moves closer and more deeply to the “point of her existence” and wrestles with ultimate questions, she comes to an evolving awareness about what she feels God is to her. It becomes her ongoing inquiry:

> It means gathering together all the strength one can, living one’s life with God and in God and having God dwell within. (I find the word “God” so primitive at times, it is only a metaphor after all, an approach to our greatest and most continuous inner adventure; I’m sure that I don’t even need the word “God” which sometimes strikes me as a primitive, primordial sound—A makeshift construction.) And at night, when I sometimes have the inclination to speak to God and say very childishly, “God, things cannot go on like this with me” – and sometimes my prayers can be very desperate and imploring – it is, nevertheless, it is as if I were addressing in myself, trying to plead with a part of myself. (Hillesum, 2002, p. 440)

When Etty heard the latest news at the end of June, 1942, that all Jews will be transported out of Holland through Drenthe Province (Camp Westerbork) and then on to Poland and Auschwitz, she comes to the realization that God cannot help the Jews. As Patrick Woodhouse discusses, she arrives at the same insight as Dietrich Bonhoeffer writing to his friend from prison just months before he was hanged by the Nazis for attempting a plot to kill Hitler. As Bonhoeffer wrote of the God "weak and powerless" in the world, Etty also comes to the awareness that “God is not accountable to us, but we are to Him,” that what mattered to her was “not whether we preserve our lives at any cost, but how we preserve them.” And so, as Woodhouse summarized, "God becomes to her a vulnerable Presence, to be looked after and cherished in the human heart.” (Woodhouse, 2009, pp. 50-51)

While Etty had tremendous strength of will, as we see in her first response to the news of the transports, “I know about everything, and I am no longer appalled by the latest reports, in one way or the other, I know it all.“ She acknowledges that “though her mind has come to terms with it all, her body hasn’t. It has disintegrated into a thousand pieces” (Hillesum, 2002, p. 456).

Etty now is up against and present to the abyss, death, in any numbers of forms. Her inquiry is fueled by fear, curiosity and love. She says:

> Suffering is not beneath human dignity. I mean: it is possible to suffer with dignity and without. I mean: most of us in the West don’t understand the art of suffering and experience a thousand fears instead. We cease to be alive, being full of fear, bitterness, hatred and despair…And I wonder if there is much of a difference between being consumed here by a thousand fears or in Poland by a thousand lice and hunger? We have to accept death as a part of life, even the most horrible of deaths. (Hillesum, 2002, p. 459)

As mentioned in the Diamond Approach section, its primary method is inquiry, which opens one to the raw, concomitant feelings and experiences of vulnerability. While the defensive structures of the personality are worked through, there is a deep touching of the affect, and an impact on the body/soma that carries such vulnerability in the face of trauma (depression, anxiety, somatic illness). And the more feeling that is integrated, the more fullness that results. Curiosity can lead this process, as a strength that emerges that loves the truth wherever it will lead. Etty’s authenticity is revealed in her immediate response of unflinching strength in the face of overwhelming power and her vulnerable sharing of each disintegration that comes afterward, where the somatic level of her being is seriously compromised until the shock to her sensitive system is metabolized. Her continuous work of deconstruction and integration is the core of her process and that of the Diamond Approach, a system where psychological and spiritual maturity become inseparable. We can see from her poetic response to human suffering, above, to a much more personal response, shortly afterward:

> Yes, I am still at the same desk, but it seems to me that I am going to have to draw a line under everything and continue in a different tone. I must admit a new insight into my life and find a place for it: What is at stake is our impending destruction and annihilation. We can have no more illusions about that. They are out to destroy us completely. We must accept that and go on from there. Today I was filled with terrible despair, and I shall have to come to terms with that as well. And perhaps, or rather, certainly, that is the result of yesterday’s four aspirins. Even if we are consigned to hell, let us go there as gracefully as we can. Why this mood at this particular moment? Is it because I have a blister on my foot from walking through the hot town, because so many people have had sore feet ever since they were stopped from using the trains….Because Liesl stood in a queue and didn’t get any vegetables after all? It is for such an awful lot of reasons, all of them petty in themselves, but all of them part of the great campaign to destroy us. (Hillesum, 2002, p. 461)

Later still:

> I shall not be bitter if others fail to understand what is happening to us Jews. I work and continue to live with the same conviction that life is meaningful- yes, meaningful- although I hardly dare say so in company these days. Living and dying, sorrow and joy, the blisters on my feet and the jasmine behind the house, the persecution, the unspeakable horrors- it is all one in me, and I accept it all as one mighty whole. And begin to grasp it better if only for myself, without being able to explain it to anyone else how it all hangs together. I wish I could live for a long time so that one day I may know how to explain it, and if I am not granted that wish, well, then, somebody else will perhaps do it, carry on from where my life has been cut short. And that is why I must live a faithful life to my last breath: so that those who come after me do not have to start all over again, need not face the same difficulties. Isn't that doing something for future generations? (Hillesum, 2002, p. 461)

So it was, during this time that Etty's confrontation with annihilation prompted the need for the external confirmation of her identity to fall away. Almaas has often called this aspect the 'point', since it is often experienced as a timeless, dimensionless point of light (Almaas, 1996, P. 346). It is during this phase that Etty speaks about her inferiority complex and her perceived deficiencies falling away. She was also beginning to face the inevitability of losing Spier:

> He leaned against the wall in Dicky's room, and I leaned gently and lightly against him, as I had done on countless similar occasions in the past, but this time, it suddenly felt as if the sky had fallen as in a Greek tragedy. For a moment my senses were totally confused, and I felt as though I was standing in the center of infinite space- pervaded by space but also filled with eternity. In that moment a great change took place within us, forever. He remained leaning against the wall for a little and said in an almost plaintive voice, "I must write to my girlfriend tonight, it will be her birthday soon. But what am I to say to her? I haven't the heart for it or the inspiration." And I said to him, "You must start even now and try to reconcile her to the fact that she will never see you again; you must give her something to hold onto for the future. Tell her how the two of you, though physically apart for all these years, have nevertheless been as one, and that she has a duty to carry on if only to keep something of your spirit alive." Yes, that's how people speak to one another these days, and it doesn't even sound unreal anymore. We have embraced a new reality, and everything has taken on new colors and new emphases. And between our eyes and hands and mouths there now flows a constant stream of tenderness, a stream in which all petty desires seem to have been extinguished. All that matters now is to be kind to each other with all the goodness that is in us. And every encounter is also a farewell. (Hillesum, 2002, p. 475)

It is quite clear from this passage that any of Etty's longings that came as a result of deficiency or fear of rejection, have melted into a love larger than what she has known, and in fact she becomes Spier's spiritual 'teacher' as he begins his own process of disintegration. Etty wants to give Hertha hope, and give them both, Spier and Hertha, access to that 'constant stream of tenderness.' This was theirs, Etty and Spier's joint venture, ultimately hastened by facing into annihilation, or 'death before death' as it has been called. We begin to see Etty's preparation for her separation from Spier while she continues to display a deep union of grit and grace, and the following passage reveals it:

> A hard day, a very hard day. We must learn to shoulder our "common fate"; everyone who seeks to save himself must surely realize that if he does not go, another will take his place. As if it really mattered which of us goes. Ours is now a common destiny that I must shoulder myself in prayer… and that part of our common destiny that I must shoulder myself; I strap it tightly and firmly to my back, it becomes part of me as I walk through the streets even now. And I shall wield this slender fountain pen as if it were a hammer, and my words will have to be so many hammer strokes with which to beat out the story of our fate and of a piece of history as it is and never was before. Not in this totalitarian, massively organized form, spanning the whole of Europe. Still, a few people must survive if only to be the chroniclers of this age. I would very much like to become one of their number – . (Hillesum, 2002, p. 484)

Within this great strife, Etty is touching her essence, this deep capacity to hold the whole of her experience. Both to find 'meaning' as her personality covets the rational, analytic meaning making process, yet, we bear witness to the arising fire of her true nature, Being itself. Given the 'extremis' of her moment in human history, we can feel her increased calling "to beat out the story of our fate." An important decision for Etty during this time was the one she made about going into 'hiding.' This decision is one that thousands of Dutch Jews had to make and the one the Frank family made at this moment on July 6th 1942, just three miles away from Etty in South Amsterdam. Within the following week the fifteen year old Anne would begin her diary in the familiar red plaid notebook. Etty, twenty-eight, chose not to go into hiding, a controversial choice with many of her friends, and has engendered multiple critiques since that time. She was clear about this decision, and in fact, was adamant about it, as is described in the story about Klass Smelik, a friend and former lover, and his daughter, Johanna or "Jopie" trying to kidnap Etty into hiding. Klass reports:

> At a certain point, Klass grabbed her and tried to convince her to go into hiding. She wormed herself free and stood at a distance at about five feet from me. She looked at me very strangely and said "You don't understand me," I replied, No, I don't understand what on earth you're up to. Why don't you stay here, you fool!" Then she said: "I want to share the destiny of my people." When she said that, I knew there was no hope. She would never come to us," said Smelik. Others also offered Etty a hiding place, but she steadfastly refused this. (Hillesum, 2002, p. 761)

What is this decision about to share the destiny of her people? As an assimilated Jew without a commitment to formal religious Judaism, and in fact a Marxist earlier in her life, Etty's own evolution of consciousness takes her to this place as her soul's wisdom and clarity intersects this moment in European history. This event in European history has also evolved as Gebser (1949/1985) might say, moving from the magical, to mythical, to the mental. This changed the fabric of human consciousness by moving beyond crimes of passion and dominance (magical, mythical) to the mental, scientific, systematic dehumanization and ultimate genocide of those not considered a pure race, an Aryan race. As Etty faces into this kind of annihilation, she is never far from 'God' or her own soul, the very sparks of that divine essence that she communes with, and, more importantly***, is***. At one of the darkest hours she says:

> Dear God, these are anxious times. Tonight for the first time, I lay in the dark with burning eyes, as scene after scene of human suffering passed before me. I shall promise You one thing, God, just one very small thing: I shall never burden my today with cares about my tomorrow, although that takes some practice… I shall try to help you, God, to stop my strength ebbing away, though I cannot vouch for it in advance. But one thing is becoming increasingly clear to me: that You cannot help us, and we must help You to help ourselves. And that is all we can manage these days and also all that really matters: that we safeguard that little piece of You, God, in ourselves. And perhaps in others as well. Alas, there doesn't seem to be too much You Yourself can do about our circumstances, about our lives. Neither do I hold you responsible. You cannot help us, but we must help You, and defend your dwelling place within us to the last. (Hillesum, 2002, p. 488)

This protecting or 'safeguarding' of this cherished soul or essence or 'piece of You' in herself and others was Etty's destiny, and moved from a flicker to a flame and back again throughout this short time of her human existence. At the end of this exercise book 10, she was coming near to the time of going to Westerbork, the transit camp to Auschwitz, located in Drenthe Province. It is now her time to say goodbye to life as she has known it, which is the very heart of radical spiritual transformation. It will not be easy as she confesses that she feels

> … that I am still tied by a thousand threads to everything I treasure here. I will have to tear myself away bit by bit and store everything inside me, so that when I have to leave I shall not abandon anything but carry it all with me. There are times I feel like a little bird, tucked away in a great protective hand. (Hillesum, 2002, P. 509)

And, tear herself away, she did. Etty was on her way to Camp Westerbork, a decision she made, as more and more Jews were being rounded up. Spier had recently been ill and she watched him beginning to deteriorate. She did not know, consciously, that he would be dying of cancer during her first six-week period at Westerbork.

When it became known that appointments to the Jewish Council could offer temporary protection from deportation, many people applied for work (Hillesum, 2002, p. 740). It seems likely that Etty, having received the 'normal' summons for Westerbork, had been urged to apply for work at the Jewish Council by Jaap and a certain Loopuit. She probably felt guilty about this and reported to the recently established 'Westerbork department', a sub-department of the Jewish Council in Amsterdam. She was officially appointed as stenographer; her field was 'Social Welfare for people in Transit' at Westerbork. And on July 30th, she arrived at Westerbork with the first staff members of the Jewish Council (p. 740). As she says: "Nothing can ever atone for the fact that one section of the Jewish population is helping to transport the majority out of the country. History will pass judgment in due course"(Hillesum, 2002, p. 511).

As her time with Spier was coming to a close, she has a profound experience of the power of divine eros:

> On Sunday morning I was curled up on his floor in my big striped dressing gown, darning socks. Water can be so clear that you can see right through it and distinguish everything on the bottom... What I really wanted to say is: it suddenly felt as if life in its thousand details,

> twists, and turns had become perfectly clear and transparent. Just as if I were standing before an Ocean and could look straight through the crystal clear water to the bottom. I doubt very much if I will ever be able to write – or shall I yet? It may take a long time before I can describe this moment, a high point in my life. You huddle in the corner on the floor of the room of the man you love and darn his socks and at the same time you are sitting by the shore of a mighty Ocean so transparent that you can see the bottom. And that is an unforgettable experience… (Hillesum, 2002, p. 512)

Etty was also having second thoughts about marrying Spier. As much as they spoke about staying together through the war, both came to the realization that marriage was not the purpose, it was love. Spier also felt he did not want to bind Hertha to him in this way (marriage), given his age. Etty, while speaking of this with Spier, thought to herself, “You look so ill, so terribly tired, and loving you as much as I do, the worst thing that could happen to me would be to sit by and watch you suffer” (Hillesum, 2002, p. 509). She begins to realize:

> To put it quite soberly and bluntly the differences in our ages is too great. I have already seen a man (Han) change before my eyes in a few years. I see him changing too. He is an old man whom I love, love infinitely, and to whom I shall always be united by an inner bond. But “marry” what the worthy citizen calls marry, I must, in all seriousness and honesty, say finally that I don’t want to. And the fact that I have to go my own way all by myself gives me a great feeling of strength. (Hillesum, 2002, p. 511)

Around this time she asserts, “There is a vast silence in me that continues to grow. And washing around in it are so many words that make one tired because one can express nothing with them. One must do more and more without meaningless words the better to find the few one needs. And in the silence new powers of expression must grow" (Hillesum, 2002, p. 512).

Etty was preparing, or being prepared for the next steps in her evolution. She found comfort in the words of Rainer Marie Rilke, her poetic partner in transformation, as she says, “I read a bit more of Rilke and discovered the following passage; the words greeted me as if they were my closest family":

> And suddenly as if through clear tears, you have a vague inkling that, even as a lover, you need solitude, that sorrow, not injustice, is meted out to you and envelops you when, in the midst of an overwhelming urge to reach out to the beloved person, it suddenly dawns on you: yes, you can only develop and make complete even this apparently most closely shared fellowship, which is love, by yourself, separately; if only because in the union of strong affections you set up a current of pleasure that carries you along and finally casts you out; whereas if you are enveloped in your own feelings, love becomes a daily task performed on your own self and a constant series of bold and magnanimous challenges to the other. Beings who love each other in this way call up infinite dangers around them, but they are safe from the petty risks that have frayed and crumbled so many great emotional beginnings. Because they always hope for, and expect, the utmost from each other, neither can wrong the other through limitation; on the contrary they incessantly create space and breadth and freedom for each other. (Hillesum, 2002, P. 81)

It is here on the eve of Etty’s first journey to Westerbork that the line will be drawn, however arbitrarily, between Etty’s Second and Third Journey. Both the individuation process and realization of true nature are focused on dissolving the ego and its limiting narcissism, and at the end of journey two the soul begins to know her essence as her identity. The duality of soul and essence begins to be bridged and the soul moves into the third journey. "The soul recognizes she is the simplicity and exquisiteness of timeless presence" (Almaas, 2004, p. 224). It is to the third journey or that of the boundless dimension that we will now turn.

Journey 3: Etty Hillesum

Truly, my life is one long hearkening unto myself and unto others, unto God. And if I say that I hearken, it is really God who hearkens inside of me (Hillesum, 2002, p. 519).

From the frame of the Diamond Approach, the first phase of Journey Three is the essential development of the soul, and this is illustrated in the above quote of Etty's. The soul merges with essence so completely that the two become one. This non-dual soul is a dynamic presence that all experience arises from, and Etty's reveals her non-dual soul in the experience of God inside her. Her soul is totally immersed with the presence of love.

When Etty returned from Westerbork on leave to Amsterdam six weeks later, the world had turned yet again. Not only did she become ill with what she later learned was kidney stones, but she had to face Spier’s imminent death. She saw him for the last time with some awareness on his part on September 11th and according to her friend Tide’s diary, “Etty had returned from her visit to him, broken. Which is not surprising: he is no longer himself. At first he didn’t recognize her. Later he did. He also said something: that she was not only a woman but also 'very clever'” (Hillesum, 2002, p. 750).

It is through this transition and the one of being at Westerbork that we see this explosion toward the increasing boundless dimension of Etty’s being. The day of Spier’s death is when she put pen to paper again after a six week hiatus. She acknowledges that “everything coming together like that was a little hard.”

She goes on to say that:

> I am a little numb and bewildered and helpless, but at the same time I am trying to scrape together what patience I have from all the corners of my being, and I shall have to find a new kind of patience to meet this entirely new state of affairs. I shall follow the tried and tested old method, talking to myself now and again on these faint blue lines. And talking to You God, Is that all right? With the passing of people, I feel a growing need to speak to You alone. I love people so terribly, because in every human being I love something of you….But now I need so much patience and thought, and things will be very difficult. And now I have to do everything by myself. The best and noblest part of my friend, of the man whose light You kindled in me, is now with you. What was left behind was a childish, worn-out husk in the two small rooms in which I experienced the greatest and deepest happiness of my life. I stood beside his bed and found myself standing before one

> of Your last mysteries, my God. Give me a whole life to contain it all. (Hillesum, 2002, p. 514)

And, to Spier:

> There you lie now in your two small rooms, you dear great, good man. I once wrote to you, "My heart will always fly to you like a bird, from any place on earth, and it will surely find you….And even if they flung me into a dungeon, that piece of heaven would still spread out within me and my heart would fly up to it like a bird, and that is why everything is so simple, so terribly simple and beautiful and full of meaning." I had a thousand things to ask you and to learn from you; now I will have to do everything by myself. But I feel so strong that I'm sure I'll manage. What energies I possess have been set inside me. You taught me to speak the name of God without embarrassment. You were the mediator between God and me, and now you, the mediator, have gone, and my path leads straight to God. It is right that it should be so. And I shall be the mediator for any other soul I can reach. (Hillesum, 2002, p. 516)

It is here that Etty suggests what has been happening all along, that she has moved from a possessive kind of love, to an idealistic one, to an integration and expansion of Spier's and her consciousness. At this part of her journal, the transmission from the page is palpable, and the reader is struck by the presence of Being as she touches it directly:

> My love of life is so great and so strong and calm and makes me so grateful that I shall refrain from putting it into words again. There is such perfect and complete happiness in me, oh God. What he called "reposing in oneself." And that probably best expresses my own love of life: I repose in myself. And that part of myself; that deepest and richest part in which I repose, is what I call "God." (Hillesum, 2002, p. 519)

It was at this point that Etty's body has "called a halt" to her activity, as she says that she "must rest awhile "if I am to do what I have to do." She continues: Even if one's body aches, the spirit can continue to do its work, can it not? It can love and hineinhorchen – "hearken unto"- itself and unto others and unto what binds us to life. Hineinhorchen – I so wish I could find a Dutch equivalent for that German word. Truly, my life is one long hearkening unto myself, and unto others and unto God. And if I say that I hearken, it is really God who hearkens inside me. The most essential and the deepest in me is hearkening unto the most essential and deepest in the other. God to God. (Hillesum, 2002, p. 519)

These lines of Etty's reveal how her soul has completed the process that the Diamond Approach calls 'essentialization'. Her soul has now realized a nondual state that is loving in a complete and full way. The divine presence of her soul is able to see, touch, and love the divine in others. Her soul has a dynamic presence that expresses itself as loving action. This is the "thinking heart of the barracks", as she called herself in her two months at Westerbork. She continues with wishing to put it all into words:

> Those two months behind barbed wire have been the richest and most intense months of my life, in which my highest values were confirmed. I have learned to love Westerbork.

> Yet when I fell asleep in my narrow plank bed there, what I dreamed of was the desk behind which I now sit and write. (Hillesum, 2002, p. 520)

Etty describes Westerbork as a "new focus of Jewish suffering" as it is a "camp for a people in transit, great waves of human beings constantly washed in from the cities and provinces, from rest homes, prisons, and other prison camps, from all the nooks and crannies of the Netherlands, only to be deported a few days later to meet their unknown destiny" (Hillesum, 2002, p. 583). She gives some physical characteristics of the place, with the words: "There is mud, so much mud that somewhere between your ribs you need to have a great deal of inner sunshine if you don't want to become the psychological victim of it all." She makes sure to add the effects of "broken shoes and wet feet." The barbed wire, of course was another feature. "If the barbed wire just encircled the camp, at least you would know where you were. But these twentieth century wires meander about inside the camp, too, around the barracks and in between, in a labyrinth and unfathomable network…. Anyway, it is terribly crowded in Westerbork, as when too many drowning people cling to the last bit of flotsam after a ship has sunk…" (Hillesum, 2002, pp. 583-584).

As a prelude to the second phase of the Third Journey, Etty gives us a glimpse of her unfolding nondual filter through which she glimpses Reality:

> The sky is full of birds, the purple lupines stand up so regally and peacefully, two little old women have sat down on the box for a chat, the sun is shining on my face – and right before our eyes, mass murder. The whole thing is simply beyond comprehension. (Hillesum, 2002, p. 602)

The second phase of the third journey is the discovery of the boundlessness of true nature. This can be seen in the second part of Etty's third journey as a 'seeing through' the limited boundaries of individuality, and of time and place to experience her soul as this "eternal newness that transcends all time and as a mystery that transcends all determinations." Etty's soul now experiences itself as boundless and transcending her individual perspective. This is best described in Etty's riveting words:

> I once wrote in my diaries, "I would like to run my fingertips along the contours of these times." I was sitting at my desk with no idea what to make of life. That was because I had not yet arrived at the life in myself; was still sitting at this desk. And then I was suddenly flung into one into one of many flashpoints of human suffering. And there, in the faces of people, in a thousand gestures, small changes of expression, life stories, I was suddenly able to read our age – and much more than our age alone. And then it suddenly happened: I was able to feel the contours of these times with my fingertips. How is it that this stretch of heathland surrounded by barbed wire, through which so much human misery has flooded, nevertheless remains inscribed in my memory as something almost lovely? How is it that my spirit, far from being oppressed, seemed to grow lighter and brighter there? It is because I read the signs of the times and they did not seem meaningless to me. Surrounded by my writers and poets and flowers on my desk, I loved life. And there among the barracks, full of hunted and persecuted people, I found confirmation of my love of life. Life in those drafty barracks was no other than life in this protected, peaceful room.

> Not for one moment was I cut off from the life I was said to have left behind. There was simply one great meaningful whole. Will I be able to describe all of that one day? (Hillesum, 2002, p. 526)

In reading Etty's words from the Diamond Approach perspective we can see “that co-emergent with these boundless dimensions is the constant upwelling, flow, and completely fresh experience of being in each moment" (Davis, J., Usatynski, T., and Ish-Shalom, Z, 2013, p. 572). The soul’s journey of Etty Hillesum has been moving toward this realization throughout this brief account of her life. We experience many moments of this ‘upwelling’,’ flow’ and ‘freshness’ or immediacy in Etty’s inner and outer discoveries. The further differentiations of the boundless dimensions that Almaas lays out include Divine Love, the Supreme, the Nonconceptual, the Logos, and the Absolute (Almaas, 2004). For the purposes of this paper, the ‘Absolute’ will suffice to convey the whole of all the aspects of this term, providing the basis of spaciousness, presence, nonduality and unlimited potential in all experience.

Journey 4: The Journey of Descent

Now that the soul has journeyed into the mystery and transcended all limitations, it flows back into the multitude of forms and objects of the phenomenal world. As the soul does so, it maintains its connection to the Absolute and true nature that it has discovered, but integrates Being into the manifestations of the phenomenal world. The journey of ascent was a movement inward, while the journey of descent is a movement outward into the world of forms and objects, which leads to integration and union with the whole (Almaas, 2004). This journey involves understanding the Absolute not only as a transcendent truth but also as the immanent ground of reality. Like the previous two journeys, this one involves the two phases of self-realization and individuation. There develops a deeper understanding of the functional relationship between true nature and the individual soul, and the relationship between soul, Being or God in Etty’s case, and the cosmos. In the descent, the soul finds its place in the cosmic reality.

The journeys of ascent and descent are not separate linear processes, but are present simultaneously, co-existing and co-emerging. The journeys complement each other and are equally important. "Immanence, fullness, and the myriad forms of the world are one side of a coin; transcendence, emptiness, and the mystery of union are the other. Thus, the richness and beauty of the world are no more true, valuable, or privileged than its emptiness, spaciousness and vastness" (Davis, 1999, p. 153).

As Etty comes to the end of her recuperation in Amsterdam, and prepares herself to return to Westerbork, we see her soul’s movement toward the realization of the boundless dimensions of the Absolute and its expression in the world. Etty faces moving back into one of the forms of the ‘world’: the concentration camps and debacle of the Holocaust. She prepares to go back, knowing that Westerbork will now be overflowing with people. The transports to Auschwitz will be much more frequent, in fact, speeding to their destination to beat the allies in these last 18 months of the war. Her preparation includes reflections about suffering, and how to free herself from the ideas of it. She says:

> I know how to free my creative powers more and more from the snares of material concerns, far from the *idea* of hunger and cold and danger. They are, after all, *imaginary* phantoms, not the reality. Reality is something one shoulders together with all the suffering that goes with it, and with all the difficulties. And as one shoulders them, so one's resilience grows stronger. But the idea of suffering (which is not the reality, for real suffering is always fruitful and can turn life into a precious thing) must be destroyed. And if you destroy the ideas behind which life lies imprisoned as behind bars, then you liberate your true life, its real, its real mainsprings, and then you will also have the strength to bear real suffering, your own and the world's –. (Hillesum, 2002, p. 537)

This period of waiting to go back to Westerbork was one of her times of digestion and integration of all that has gone before and she finds herself in a poetic, boundless state of consciousness, right along with worry for her parents. She muses about poetry and feels that "there is no hidden poet in me, just a little piece of God that might grow into poetry." She continues to say that "a camp needs a poet, one who experiences life there, even there, as a bard and is able to sing about it." She remembers her first time at Westerbork and the women and girls that surrounded her plank bed who would often tell her that they did not want to think or feel, as they were sure to 'to go out of their minds.' She recalls an exquisite moment in the barracks one night:

> I was sometimes filled with an infinite tenderness, and lay awake for hours letting all the many, too many impressions of a much too-long day wash over me, and I prayed, "Let me be the thinking heart of these barracks." And that is what I want to be again. The thinking heart of a whole concentration camp. I lie here so patiently and now so calmly again that I feel quite a bit better… . (Hillesum, 2002, p. 543)

This realization of the boundless dimension and her own true nature fortifies her essential strength, or the red essence, as well as her true will to persevere in the face of suffering, as the Diamond Approach would describe it, for this fourth journey or the one of descent. While the word descent is used to convey movement into the world with the realization of one's essential or true nature, or Being itself, in this particular instance descent could also convey a metaphor of descending into a hell on earth. Either way, this last part of her journey on earth, was consciousness itself witnessing the direct effects of this heinous destructive power of the human condition cut off from its essential nature.

When Etty arrived at Westerbork during the first week of June, 1943, she was struck by the desperate chaos of the place that she initially experienced as one of community and bonding with the staff and its 1,000 'citizens.' It now held 10,000 people living in gravely subpar conditions. Overall, Etty's continual concerns and struggles for herself, her family and the inhabitants had to do with exceedingly poor hygiene. Exacerbating these poor conditions for Etty was the sandy terrain and wind, with sand getting into people's eyes, food and bodies causing ever-present Illness; the constant anxiety and terror of who would be chosen for the next transport to Auschwitz; and the role of working in the hospital as a person who both comforted and assisted people in touching something within themselves that would not/could not be crushed by this destructive force. She was also quite concerned about her parents' health and wellbeing and managed the process of writing to friends asking them to send rations and occasionally small delicacies such as butter, cakes or chocolate.

On her first night back at Westerbork, she was greeted by an abundance of mice, crowding, and a new transport from Vaught, a concentration camp considered notoriously barbaric, which had come in that night and early morning. She relays the horror:

> First of all, we underwent a lysol treatment, because so many lice always arrive from Vaught. From four to nine a.m. I dragged screaming children around and carried luggage for exhausted women. It was hard going, and heart-rending. Women with small children, 1,600 (tonight another 1,600 will arrive); the men had been deliberately kept back in Vaught….In Vaught, two or three children die every day. An old woman asked me helplessly, "Could you tell me, please could you tell me, why we Jews have to suffer so much." I couldn't answer. (Hillesum, 2002, p. 600)

One gets a further glimpse of this scene from one of the staff at Westerbork, Friedrich Weintraub, who wrote a book after the war, "Collaboration and Resistance, 1940-1945", and he describes the scene:

> And Etty Hillesum arrived with her dispatch bag – couldn't speak a word, only cry. She sat on a chair between Weyl's bed and mine, with her face buried in a handkerchief. Loonstijn called out: "My good girl, for heaven's sake stop, we have troubles enough we don't need any wailing women around." This helped a bit and Etty started telling us what she had seen…. However Etty soon started crying again. We let her do so, and it did help – at least then you don't have to cry yourself. (Hillesum, 2002, p. 762)

Etty, over her short time at Westerbork, faced many people forced into desperation who did not have any inner reference point, whether very young, their parents, or the very old. She speaks about a young girl who was partly paralyzed, and has just been learning to walk again. The girl says to Etty " Have you heard? I have to go."

Etty describes the encounter:

> We look at each other for a long moment. It is as if her face has disappeared; she is all eyes. Then she says in a level gray little voice, "Such a pity, isn't it? That everything you have learned in life goes for nothing. And, How hard it is to die." She looks at me for a long time in silence, searchingly, and then says "I would like, oh, I really would like to swim away in my tears." (Hillesum, 2002, pp. 646, 648)

And another:

> She grabbed hold of me; she looked deranged. A flood of words poured over me: "That isn't right, how can that be right? I've got to go, and I won't even be able to get my washing dry by tomorrow. And my child is sick, he's feverish, can't you fix things so that I don't have to go?....Can't you take my child for me? Go on, please, won't you hide him; he's got a high fever, how can I possibly take him along?" She points to a little bundle of

> misery with blonde curls and a burning, bright red little face. "….my child," and then she sobs, "They take the sick children away, and you never get them back."
>
> God Almighty, what are You doing to us? The words just escape me. (Hillesum, 2002, pp. 646-647)

These excerpts let us know she was in full contact with her emotions and her strength was born of her vulnerability. In her letters to others we see her essential strength/will and get a glimpse of what she conveys to others, as if wanting to infuse them, then and there, with the spiritual will to refuse to succumb their soul's richness to the evil of this killing machine. As she stood at the tub one morning with a colleague, she says:

> The realms of the soul and the spirit are so spacious and unending that this little bit of physical discomfort and suffering really doesn't matter all that much. I do not feel I have been robbed of my freedom; essentially, no one can do me any harm at all….Yes, children, I am in a strange state of mournful contentment. If I once wrote you a desperate letter, don't take it too much to heart; it expressed only a brief moment. It's true you can suffer, but that need not make you desperate. (Hillesum, 2002, p. 611)

The worst part of Etty's anguish was relegated to the care and responsibility she felt toward her parents as well as the continuous fear of them being placed on the 'next transport' to Auschwitz. She actually comes to "admire them tremendously" for the way they are coping with the misery of their situation. She particularly develops a connection with her father, someone she has always admired, and watches him give lessons to a few students in Greek and Latin, "reads a great deal, philosophizes with ancient rabbis and old student friends, and now and then strolls with his daughter through the dusty sand of the hospital grounds" (Hillesum, 2002, p. 625). "We chuckle together a lot", she says, "Father and I; you can't really call it laughing. He has a primitive sense of humor, which becomes more profound and sparkling as the grotesque process of his reduction to poverty assumes ever more wretched dimensions." Keeping her parents off the transport list became her focus in the last months at Westerbork. She writes to a friend:

> Tense and stirring days behind us. Father was on the transport list. We were able to get him off once again. I must explain that the call-ups for the transports come in the middle of the night, a few hours before the train leaves. If people are still needed at the last minute to fill the quotas, then Jews are seized here and there at random from the barracks. And that's why the days before the transports are so nerve wracking. The day afterward I fainted twice, but I'm fine again now – until the next transport…. I have got used to the idea that I'll have to go myself one day. Above all else in the world I wish I could spare my parents and my brothers. But you can't play the ostrich here; a transport leaves every week, and the quota must be filled. Just a little while longer and all our turns will come. (Hillesum, 2002, p. 625)

Amidst all of this numbing chaos, Etty reflects on the totality of her experience in one of her letters:

> All I wanted to say is this: The misery here is quite terrible; and yet; late at night when the day has slunk away into the depths behind me, I often walk with a spring in my step along the barbed wire. And then, time and again, it soars straight from my heart – I can't help it, that's just the way that it is, like some elementary force – the feeling that life is glorious and magnificent, and that one day we shall be building a whole new world. Against every new outrage, and every fresh horror, we shall put up one more piece of love and goodness, drawing strength from within ourselves. We may suffer, but we must not succumb. And if we should survive unhurt in body and soul, but above all in soul, without bitterness and without hatred, then we shall have a say after the war…. Life here hardly touches my deepest resources – physically, perhaps you do decline a little, and sometimes you are infinitely sad – but fundamentally, you keep growing stronger. (Hillesum, 2002, pp. 616-617)

And indeed her turn did come with a sudden order from The Hague. Her friend Jopie let her friends and family know that

> … for Etty it was a complete surprise –she had decided that she was not going to travel with her parents, and would have much preferred to go through these experiences without the pressures of family ties. For her it was a slap in the face, which did in fact, literally, strike her down. Within the hour, however, she had recovered and adapted herself to the new situation with admirable speed. (Hillesum, 2002, p. 666)

Etty Hillesum's last words to her friend, Christine Nooten, and to the ages were written on a postcard thrown out of the train on September 7th, 1943, found by farmers outside Westerbork camp and posted by them. It says:

> Christine,
>
> Opening the Bible at random I find this: "The Lord is my high tower." I am sitting on my rucksack in the middle of a full freight car. Father, Mother and Mischa are a few cars away. In the end, the departure came without warning. On sudden special orders from The Hague. We left the camps singing. Father and Mother firmly and calmly, Mischa too. We shall be traveling for three days. Thank-you for you for all your kindness and care….
>
> Good-bye for now from the four of us. Etty. (Hillesum, 2002, p. 658)

Etty Hillesum died on 30th of November at Auschwitz.

Journey Four ends with Etty's physical death. What became more and more clear is that Etty's life reflected the "unfolding and expression of the Absolute as it becomes manifest in the world" (Davis, J., Usatynski, T., & Ish-Shalom, Z , 2013, p. 573). The experience of the full realization of essence is rare, and when we experience it, as it seems with Etty, "we know what pure consciousness is, that it is beyond the sense of aliveness more fundamental than life" (Almaas, 2004, p. 128). We don't know the exact details of Etty's death, but we can well imagine that she died with the same courage with which she lived. Courage and strength born not only of her vulnerability, but the strength of her lived experience that she was free, that her essence or soul was unfettered. According to a recent lecture on the 'Fear of Death' by Karen Johnson of the Diamond Approach, the continuous endings or cessations we experience in life offer us practice, the practice of befriending death, of walking with it, instead of opposing it. Each time we move into a ceasing of expression, in any number of ways, the ego experiences it as death. The practice is to keep working through the levels of cessation. "We die alone", says Johnson," not separate" (Johnson, 2013). We can see in Etty's fourth journey, that she repeatedly experiences the wrenching of separation, loss and death testing her realization. She continuously had the experience of 'some elemental force' soaring from her heart, after each integration of suffering.

As we have seen from Etty's experiences in Journey Four, she not only has come back into the 'world' as an awakened being, but she has come back into an accelerated distorted, mechanized 'world' of transit and concentration camp destruction. In this world we are reminded of how much Etty has become realized, has indeed, unfolded toward Being itself. She became the light in the darkness or the "Thinking heart of the barracks" a presence who could hold the qualities of inquiry, change, cessation and love in one spacious whole.

Conclusion

The purpose of this paper was to examine the unfolding or evolving of Etty Hillesums's consciousness through the Integral perspective lens. Etty has been placed in this field of study by the author as her journey of transformation is exemplary of the Integral systems that are inclusive of a non-dual ground of existence, development of the deepest human potentials, and participation in the evolutionary force of Being (Chaudhuri, 1965). Aurobindo and Gebser have served as the historical lineage of this perspective, while Almaas and Johnson have provided the current logos and practice of presence from which to delineate Etty's process.

Etty, as a self-realized chronicler, philosopher, therapist and teacher has become one of their numbers. As she said:

> I shall become the chronicler of our adventures. I shall forge them into a new language and store them inside me should I have no chance to write things down. I shall grow dull and come to life again, fall down and rise up again, and one day I may perhaps discover a peaceful space round me that is mine alone, and then I shall sit there for as long as it takes, even if it should be a year, until life begins to bubble up in me and I find the words to be borne. (Hillesum, 2002, p. 540)

In terms of the Diamond Approach, Almaas has acknowledged that "no path can provide a full and final description of reality, and indeed, this view is expressed in the Diamond Approach's continuing evolution as a spiritual system" (Davis et al, 2013, p. 573). While no mystery can be encompassed by one spiritual path or tradition, as all paths or traditions are part of the largeness of Etty's consciousness, and why so many can relate to her vision. As A. H. Almaas concludes: "The Diamond Approach recognizes that all experiences, perspectives, and dimensions are co-emergent and always existing, at least in potential…. Because it is so radically open, this view includes all other views of individual realization, enlightenment, mystical union, and liberation" (Davis, J., Usatynski, T., & Ish-Shalom, Z., 2013, p. 574).

He has called this all inclusive perspective the "View of Totality." While we might also call this view Integral, or Wholeness, the implications of its potential, "both in daily life and the spiritual journey are limitless" (Davis, J., Usatynski, T., & Ish-Shalom, Z, 2013, p. 574). We can see and often experience through her transmission, Etty's consciousness as Love, driven by the flame of Truth as her essential aspects that continue to glow today. Her essence impacts us, as unconditioned Freedom independent of context. She became a chronicler not only of the distorted contours of her 'time' but far beyond it.

> *I live my life in widening circles*
> *that reach out across the world.*
> *I may not complete this last one*
> *but I give myself to it.*
> *I circle around God, around the primordial tower.*
> *I've been circling for thousands of years*
> *and still don't know: am I a falcon,*
> *a storm, or a great song?*
> Rainer Maria Rilke (1996, p. 45)

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Studies of Wisdom: A Special Issue of Integral Review

Roger Walsh and Jonathan Reams, Editors

> Wisdom is radiant and unfading,
> and she is easily discerned by those who love her,
> and is found by those who seek her….
> To fix one's thought on her is perfect understanding,
> And one who is vigilant on her account
> will soon be free from care.
> *The Wisdom of Solomon,* 6:12, 15.

Across cultures and centuries, wisdom has long been regarded as one of the greatest of all virtues. Yet in recent centuries wisdom largely disappeared from Western awareness, and the *Routledge Encyclopedia of Philosophy* laments that "the concept of wisdom has come to vanish almost entirely from the philosophical map." So much has it disappeared that when one of us (RW) became interested in the topic and asked the chair of the University of California philosophy department what to read, he replied "Well, we made a great start 2,500 years ago, but things have gone downhill from there."

Why it disappeared is an intriguing question awaiting an integral analysis, but that it disappeared is a tragedy. For like the sorcerer's apprentice, humankind now possesses enormous knowledge, awesome power, and little wisdom, and that imbalance is a recipe for disaster. As Robert Sternberg (2003), former president of the American Psychological Association lamented, "If there is anything the world needs, it is wisdom. Without it, I exaggerate not at all in saying that very soon there may be no world (p. xviii)." Humankind is now in a race between sagacity and catastrophe.

Fortunately, there is now growing interest in wisdom in psychology, where publications—which only forty years ago were virtually nonexistent—increased seven fold from the 1970s to 2008 (Meeks & Jeste, 2009). Reviews are now available on general wisdom (Baltes, 2004; Baltes & Staudinger, 2000; Brugman, 2000; Staudinger & Glück, 2011; Sternberg & Jordan, 2005) as well as on the varieties or subtypes of wisdom (Trowbridge & Ferrari, 2011; Walsh, 2011, 2012) including personal and practical wisdom (Ferrari & Westrate, 2014; Küpers & Pauleen, 2013; Staudinger, 2014). Measurement scales have been compared (Gluck et al., 2013) and diverse perspectives have been applied to sagacity studies such as cross-cultural (Walsh, 2014; Yao, 2006) philosophical (Cooper, 2012; Curnow, 1999), and integral (Walsh, 2012). There have also been reviews of the implications of wisdom for aging (Sternberg, 2005) and psychotherapy (Germer & Siegel, 2012), for transmission across cultures (Walsh, 2009), and for education (Bassett, 2011; Ferrari & Potworowski, 2008; Maxwell, 2014; Steele, 2014; Trowbridge, 2007).

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But the wisdom being researched is far from the kind of wisdom that was historically valued. What is usually studied by experimental measures is practical wisdom, or what was traditionally known as *phronesis*. That's important, of course. However, it is also far removed from the deeper transrational wisdom sought in the world's religious and contemplative traditions, a wisdom variously known as *prajna* (Buddhism), *jnana* (Hinduism), *gnosis* (Christianity), *ma'rifah* (Islam), or c*hokhmah* (Judaism). This wisdom is not only transrational, but also soteriological, i.e. capable of bringing enlightenment, liberation, or salvation. As the Hindu sage Shankara put it, "Just as there is no cooking without fire, so freedom cannot be accomplished without wisdom" (Freke, 1998, p.56).

But of course transrational wisdom – or transrational anything – doesn't fit into the conventional mainstream psychological framework, and can't be easily measured. What gets researched is what does fit within that framework, and what can be measured. Measurement and qualitative experiments are enormously important, but they are also partial. For not everything that matters can be measured, and not everything that counts can be counted. The result is that the deeper dimensions of wisdom are being overlooked. As Wittgenstein (1953) warned, "The existence of the experimental method makes us think we have the means of solving the problems which trouble us; the problem and method pass one another by" (p. 232). No wonder Richard Trowbridge (2011) titled an article "Waiting for Sophia."

In addition, current psychological research is little informed by philosophy or cross-cultural studies. For example, *The Handbook of Wisdom* (Sternberg & Jordan, 2005) has only two pages on "Eastern wisdom" despite the fact that Eastern philosophical-religious-contemplative traditions have focused on wisdom for millennia.

What is needed is an intellectual framework comprehensive enough to situate and integrate all forms of wisdom: rational and transrational, psychological and philosophical, religious and contemplative, Eastern and Western. Today there are various theoretical approaches emerging from diverse sources that address this need for a comprehensive, integrative meta-framework that can encompass such a range of approaches to phenomenon. Integral theory as developed and articulated by Ken Wilber, with its encompassing synthetic conceptual framework, seems ideally suited for this kind of comprehensive integrative approach. This special issue of *Integral Review* represents a first small step in bringing Wilberian integral theory[1] and wisdom studies together.

The confluence of wisdom and integral studies offers several potential benefits. The first is simply to encourage the renaissance of interest in wisdom. The second is obviously to begin to integrate these two fields for their mutual enrichment. The third potential benefit is to clarify the relationship between wisdom and development. Many researchers assume that wisdom is associated with higher stages of development, but the nature of this association remains vague. With a deep interest in development and its implications, integral studies may have much to offer here.

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[1] We will write 'integral theory' in its generic form for convenience and it is to be understood that we are referring more specifically to Wilber's articulation of the term.

Wisdom has been a worldwide pursuit throughout history, and religious-philosophical systems such as Judaism, Confucianism, and Daoism, as well as psychologies such as yoga and Buddhism, have explored wisdom for thousands of years (Walsh, 2014; Yao, 2006). With their long term interest in cross-cultural studies, integral researchers are well situated to adopt and encourage a more global approach to wisdom.

This issue offers a variety of integrally informed studies of wisdom. While drawing on the work of seasoned wisdom researchers, we particularly wanted to highlight the work of younger researchers who recently completed their theses. These include Drew Krafcik, Sharon Spano, Jonathan Rowson, and Juliane Reams.

Drew Krafcik and Sharon Spano both studied a topic of great interest to both wisdom and integral researchers. Their central questions were, "Is wisdom intimately related to psychological development, and especially to postconventional or transpersonal development? If so, what is the nature of that relationship?"

Drew Krafcik did a much needed and all too rare kind of study. He examined – not average people, who have been the usual subjects of wisdom studies – but rather wisdom exemplars, i.e. people viewed by their peers as exceptionally sagacious. Moreover, he performed both qualitative and quantitative studies – in-depth interviews as well as a variety of standard psychological measures of personality and performance, including the Washington University Sentence Completion Test (WUSCT). The result is an exceptionally rich study of exceptional people.

Sharon Spano also focused on questions of development. However, her work used business leaders to look for a relationship between wisdom and ego development as measured by the SCTi-Map (Susanne Cook-Greuter's version of the Sentence Completion Test). She also examined nuances between and within developmental stages and reflective, cognitive and affective dimensions of wisdom. Both her study and Krafcik's found only modest evidence for a straightforward relationship between wisdom and developmental stages.

Jonathan Rowson is an intriguing polymath who has been a grandmaster and British chess champion, a student of diverse topics ranging from philosophy and psychology to culture and spirituality, and has written on topics as diverse as chess, climate change, and spirituality. The interview with him by Jonathan Reams (who also provides a brief overview of Rowson's (2008) dissertation as background) is similarly wide-ranging and beautifully demonstrates an integral mind at work. It also begins to enter into some of the less researched territory noted above by bringing questions of soul and spirituality into the conversation about wisdom.

One of the crucial questions of our time is whether we can find ways to cultivate wisdom. This was the central question for contemplatives and philosophers throughout most of history. Juliane Reams approached this question by studying students in a nontraditional educational format which included an emphasis on happiness and wellbeing. Juliane was intrigued by the possibility that this curriculum might also foster wisdom and sought to understand how the seeds of wisdom might be sown in such a setting. This is a vitally important question because if we are to foster wisdom in the culture at large, it will have to be through wide-spread approaches such as the education system and practices such as meditation.

Caroline Bassett has contributed several fine reviews of the literature and in her present article she focuses on the link between wisdom and development. She uses several of the leading theories to view wisdom through their respective lenses. She synthesizes these and her own ideas in her emergent wisdom model.

Roger Walsh has had a long term interest in integral studies and more recently an interest in wisdom studies. One idea which lies at the heart of both topics is that perspectives – how and where we look at things from – are enormously important determinants of wellbeing, maturity, and wisdom. This article therefore focuses on perspectives, and the kinds of perspectives associated with wisdom and maturity.

Jonathan Reams has a long term interest in integral studies, as demonstrated by his editorship of this journal. However his interest in wisdom is more recent, and at this point I (JR) wish to say a few words to describe the impact of immersing myself in these the process of editing these articles and encountering the wisdom literature.

While the notion of cultivating wisdom has always been a part of my spiritual practice, it is only in the last few years that I have also encountered research in this field. Thus to me it was only natural to look for and be drawn to the less tangible aspects of wisdom, those facets not amenable to measurement. At the same time, I have found it interesting to see how researchers drew on the construct of wisdom in various ways in order to make it more tangible. I saw, as mentioned above, that bringing what has perennially been the domain of religion or contemplative practice into the academic domain has occupied modern researchers in a pursuit guided by the rules of engagement of their domain of inquiry. Thus the application of scientific method to the study of wisdom can be seen as an attempt to update, upgrade or extend wisdom into the modern world.

At the same time, I cannot help but feel a slight disappointment at the ways in which this move can get caught up in a reductionistic trap inherent in a central notion at the heart of method – the need to define the object of study. In this I note Rowson’s (2008) wrestling with this tension by saying that it might be the case that to define wisdom is unwise. I find this to be a healthy tension and one necessary to hold. We need to hold something in hand and mind in order to study wisdom, yet we constantly need to remember that that which we are holding is not wisdom itself.

Thus it appears to me that to get at the heart of a phenomenon or construct like wisdom requires an integral approach; integral in that it can integrate the religious, contemplative, spiritual or transrational dimension along with the rational, measureable and observable dimension. It should also be able to link with the practical domain of wise acting, enabling us to find modern ways to cultivate the wisdom we are clearly in need of today.

Encountering the works presented in this special issue through working with the authors on bringing their more extended research work into this format and audience and reflecting on the intersections, overlaps, diversities and insights they bring, I find myself holding a mixed feeling. On the one hand I know a lot more about how wisdom is understood today, as well as more about how it is not understood – it is not a direct equivalent of cognitive or ego stage development, even though we might not be able to help seeing some threads in common. From this, I have this urge to use this knowledge in service of acting in wiser ways in the world.

On the other hand I notice that there is much uncertainty about wisdom – the more one learns about a subject, the more s/he realizes how little they know about it. This uncertainty sits within me in a manner similar to the urge noted just above, but instead evoking a doubt that I could ever really know if my action is truly wise.

It is from this place of having gone through our own journeys in relation to wisdom that we invite you to encounter the offerings presented here. We have drawn these pieces together and guided them through the editorial process because we feel that they can contribute something to todays need for the jewel of wisdom.

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Words from the Wise: Exploring the Lives, Qualities, and Opinions of Wisdom Exemplars

Drew Krafcik[1]

Abstract: The purpose of this research was to study exemplars of wisdom through a structured, theoretically grounded peer-nomination process. Twenty exemplars were given a variety of quantitative measures that included the Self-Assessed Wisdom Scale (SAWS), State-Trait Anxiety Inventory (STAI), Perceived Stress Scale (PSS-10), Spiritual Perspective Scale (SPS), Satisfaction With Life Scale (SWLS), Loyola Generativity Scale (LGS), Mindful Attention Awareness Scale (MAAS), Narcissistic Personality Inventory-16 (NPI-16), Humility Inventory (HI), Big Five Inventory (BFI), and the Washington University Sentence Completion Test (WUSCT). Exemplars also underwent lengthy semi-structured interviews to assess their lives, qualities, and understanding of wisdom. Interviews were analyzed for their significant themes. Results of this study suggest that exemplars of wisdom are humble, spiritual, mindful, insightful, tell the truth, and are open to experiences. They have meaningful, long-term relationships with mentors and loved ones. Exemplars are deeply influential in the lives of others and have very high life satisfaction. The 2 predominant definitions of wisdom given by exemplars were that wisdom is practical and comes from the unknown. Exemplars offered multiple strategies for the cultivation of wisdom-related processes, primarily the relationship with a mentor. Future research may clarify an emerging relationship between transcendent and practical wisdom.

Keywords: Exemplars, qualitative, quantitative, spirituality, wisdom.

Introduction

Would investigating people who are actually considered wise be helpful for the human enterprise? Might they offer reflections about life meaning and satisfaction that elude the rest of us? Could they provide both practical and theoretical insights into wisdom’s conception, cultivation, and potential to be learned and taught? What are their spiritual perspectives, generative offerings, and experiences of anxiety and stress? With few exceptions, the psychological investigation of wisdom has primarily focused on randomly selected people and their ideas on wisdom (Trowbridge, 2005, 2008).

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Echoing the sentiments of Aristotle (Robinson, 1990) and Abraham Maslow (1971), lifespan experts Lucinda Orwoll and Marion Perlmutter (1990) wrote, “To really know what wise people are like, you have to study them” (p. 174). Advancing this notion, the present research descriptively and empirically explored the lives, opinions, and wisdom-related characteristics of those who have purportedly excelled in its understanding.

Brief Context and Relevance

The modern empirical and theoretical study of wisdom is relatively young, as wisdom’s association with philosophy and the advent of behaviorism kept it from the realm of psychological inquiry until roughly 35 years ago. Researchers like Ardelt (1997), Baltes (1990), Clayton and Birren (1980), and Sternberg (1986) ushered in the modern era, introducing wisdom to the realm of psychological discourse. Since 1980, over 100 empirical studies have been undertaken, none of which have included exemplars, with the qualitative exception of Ahmadi (1998, 2000) and Thomas (1991).

More recently, philosophers and psychologists have spent decades trying to define the essence of wisdom, with the Arête Initiative at the University of Chicago (2008) providing a contemporary backdrop for this inquiry. Agreement seems to converge around wisdom being characterized as elusive, multidimensional, integrative, and oriented toward what is good, both individually and collectively. Prevailing psychological and theoretical models have enhanced wisdom conceptions through empirical measurement, the solicitation of implicit opinions, cross-cultural aggregations, developmental paradigms, and personality correlates. Personal components such as openness, insight, generativity, and spirituality have been related to wisdom, and exemplars offer the opportunity to explore and compare these associations. Mindfulness, spirituality, and humility offer particularly new investigations into the psychological study of wisdom, while anxiety, stress, and narcissism would seem to relate inversely.

Modern empirical research most relevant to exemplars demonstrates rudimentary efforts to seek out the wise through a variety of methodologies and inquiries. On the whole, a large proportion of empirical studies have focused on randomly chosen people’s conceptions, and no studies carried out thus far have included exemplars. Paraphrasing Orwoll and Perlmutter (1990), learning from wise people necessitates that we actually converse with them. Furthermore, studying and conversing with those who are purportedly wise is thought to contribute an increasingly material wisdom perspective to a theoretically based discipline.

More broadly, researchers (e.g., Sternberg, 2004) contend that the word wisdom “exists as an eternal witness of the hope that humans can make thoughtful, caring, and intelligent choices for the well-being of all whom they affect” (Trowbridge, 2005, p. 50). As some (Ardelt, 2000a; Orwoll & Perlmutter, 1990) claim that exemplars embody wisdom itself, it seems relevant to learn about their lives, garner their perspectives and reflections, and assess their characteristics.

Scholarly research into wisdom has yet to explore and assess exemplars, and they, and their perspectives, remain urgently needed. Trowbridge (2005) reflects, “The particular value of studying exemplars carefully is that they can show us the way to wisdom” (p. 248). While it seems more likely that multiple pathways exist toward wisdom's realization, the lives and opinions of exemplars are promising for the future of this inquiry.

Methodology: Approach, Rationale, and Assessment

Inspired by the suggestions of wisdom's psychological and empirical predecessors, contemporary scholars have given some guidance for carrying out a study of this type, calling it the exemplar and personological approach (Orwoll & Perlmutter, 1990; Trowbridge, 2005). The exemplar approach makes use of qualified nominators to identify persons who exemplify wisdom, and once selected, the personological approach recommends a collection of integrative data, including interviews, assessments, and surveys. While "validational support for peer nominations is still sparse in the study of wisdom" (Orwoll & Perlmutter, 1990, p. 167), precedence for this research strategy can be found in studies of persons with exceptional adjustment, ego development, and intelligence.

This combined methodology is particularly well suited for the current research when viewed from both theoretical and practical perspectives. First, this protocol provides a means of focusing explicit attention on people who are clustered at the upper end of the proposed wisdom continuum (Orwoll & Perlmutter, 1990). Second, it is based on the premise that wisdom can be better understood by the intensive study of those considered to be wise (Orwoll & Perlmutter, 1990). Finally, it contends that exceptionally wise people should provide insight into wisdom's nature, including the potential interrelationships among various correlates of wisdom; development, including events and life course processes contributing to wisdom; and consequences, including what it means to live a wise and meaningful life.

Employing Mixed Methods

Fittingly, to best fulfill the primary areas of investigation and actualize the methodologies set forth, I have instituted an integrative research design using both qualitative and quantitative approaches. Such interplay between qualitative and quantitative approaches was intended to expand documentation of the "elusive and subjective nature of the construct of wisdom and relate them to objectively assessed dimensions of wise people" (Lyster, 1996, p. 26).

Qualitative

The qualitative methods of in-depth semi-structured interviews and thematic analysis provided explorations into co-participants' lives, opinions, and wisdom-related qualities and characteristics. This course of investigation permitted me to potentially uncover otherwise inaccessible information by following up with emerging areas of interest with the interviewee (Braud & Anderson, 1998). Content analysis also allowed for the discovery of various layers of meaning through systematic identification (Braud & Anderson, 1998, p. 278) of both predetermined content areas and emergent themes.

Quantitative

Quantitative measures and questionnaires, including the Self-Assessed Wisdom Scale (SAWS), Perceived Stress Scale (PSS), Spiritual Perspective Scale (SPS), Loyola Generativity Scale (LGS), Satisfaction With Life Scale (SWLS), State-Trait Anxiety Inventory (STAI), Mindful Attention Awareness Scale (MAAS), Narcissistic Personality Inventory (NPI-16), Foundational Value Scale (FVS), Big Five Inventory (BFI), Humility Inventory (HI), and Washington University Sentence Completion Test (WUSCT) provided performance-based and empirical data about dimensions of wise persons. Converging information was then drawn on to assess the nomination validity of co-participants considered exemplars of wisdom, elucidate the nature of their wisdom, provide an empirical means to compare exemplars to the norm, and provide for an assessment of specific inter-correlations. As a side note, I considered the WUSCT a quantitative measure for this study because I was hypothesizing about the overall WUSCT average score, not utilizing the content of the open ended responses directly as data.

Exemplar Nominators

This research design utilized two groups of co-participants most suited for its purposes: exemplar nominators and exemplars of wisdom.

To address validity in the selection of exemplars, Orwoll and Perlmutter (1990) wrote, "Confidence in the nomination procedure can be enhanced with multiple nominators and particularly qualified nominators" (p. 167). While they provide no specific parameters regarding a nominator sample size, 15 were utilized within the current study. Moreover, these nominators fulfilled the particularly qualified exemplar proviso by being prescreened for the wisdom-facilitative criteria of the world's leading empirical researchers of wisdom, the Max Planck Institute (Ardelt, 2004a; Sternberg, 1998).

The wisdom-facilitative criterion emerged from Baltes and Staudinger's 1993 study and consists of a "background of and/or professional activity in areas we consider facilitative of the accumulation of wisdom-related knowledge" (p. 77). These areas include teaching, pastoral/ministerial counseling, and clinical psychology/counseling. Modern empirical research adds credence to both these findings and the current design rationale, as Staudinger et al. (1998) found that the greatest predictive factor for wisdom is profession, particularly within fields oriented toward the human condition. Additionally, in the Lyster (1996) study, wise nominees were disproportionately represented in human-service professions, particularly the advising professions of ministry, mental health, and education. Helson and Srivastava (2002) also found that a career in spiritual activity "added significantly to the prediction of wisdom" (p. 39).

Moreover, exemplar nominators were sought that have not just one but a convergence of these *wisdom-facilitative* experiences over the longest period of time (Montgomery et al., 2002). Baltes and Staudinger (1993) call this approach "age by experience" (p. 77), and theoretically, the current nominators, having had greater exposure to *wisdom-facilitative* experiences over time than the average person, were predicted to be more capable of articulating the nature of their wisdom and identifying it in others (Trowbridge, 2005).

Once selected, nominators were asked to identify between two and five exemplars of wisdom that they knew personally, identify the two wisest exemplars, and communicate their selections to me. If nominators believed themselves to be one of the two wisest exemplars, they were asked to include themselves. Nominators were invited to a) fill out a demographic questionnaire, b) complete a measure of wisdom characteristics (FVS) that seems to reflect the exemplars qualities, c) write a one-page description of why he or she is an exemplar of wisdom, and d) provide the context and length of time in relationship with the exemplar.

Exemplars of Wisdom

Wisdom exemplars consisted of 20 co-participants identified by the nominators and willing to take part in the study. I preferred no parameters for age, education level, gender, sex, religious orientation, marital/domestic partner status, socioeconomic status, or ethnicity. However, it was my inclination to conduct as many interviews as possible in person. Therefore, many participants resided in the San Francisco Bay Area and I traveled when necessary and possible.

Qualitative Assessment

The qualitative method employed was the in-depth semi-structured interviews. Twenty semi-structured interviews were conducted with the exemplar group. Questions were chosen that explored the lives, opinions of wisdom, and wisdom-related characteristics of co-participants. Questions were generally intended to be open-ended, allowing the co-participants to respond widely. The interview structure provided for the researcher to first, inquire first about co-participant lives; second, explore their wisdom-related characteristics, and finally, elicit their opinions of wisdom. The rationale for interviewing in this order was to avoid biasing co-participants by leading with explicit references to wisdom.

Sample interview questions included: What is your life like? How did you come to be the way you are? What are you doing for the common good? What are your values? What are your decision-making strategies? What are your spiritual perspectives? What concerns do you have, if any? How do you define wisdom? Can wisdom be learned? What personal and general components or conditions might facilitate its emergence and make it more accessible? Who do you consider to be wise?

Qualitative data from the current study was examined by performing a thematic analysis (Braun & Clarke, 2006). Each transcript was read at least three times upon its reception, and computer-assisted text analysis using MAXQDA (Verbi Software, 2007) was employed for coding and organizing the interviews. MAXQDA is used in a wide range of academic and non-academic disciplines, including sociology, political science, psychology, public health, anthropology, education, marketing, economics and urban planning (Hawes, 2006). Advantages include its flexibility, user friendliness, and highly advanced visualization for the processes of coding, memo writing, and browsing. An essentialist or realist approach was then taken which "reports experiences, meanings, and the reality of participants" (Braun & Clarke, 2006, p. 81). Theoretical, or pre-established areas of interest, and inductive methods or data driven themes were assessed.

In service of illuminating the lives and opinions of exemplars, I explored pre-established categories consistent with the interview questions/research areas as well as additional emergent themes. Emergent themes are defined as common patterns that were observed in the final analysis, but not derived from previous notions. In sum, the goal of the qualitative methodology was the emergence of a larger, more in-depth picture through a detailed description of categories, patterns, and themes for all co-participants included (Gross, 1995).

In order to operationalize this approach, the six-phase process of Braun and Clarke (2006) was employed. First, I became familiar with the data, including having the interviews transcribed, reading and re-reading the data, and noting initial ideas. Second, initial codes were generated across the entire data set based on intensity, density, and frequency. Third, codes were collated into themes, and themes were searched for and data relevant to each theme was gathered. Fourth, themes were reviewed and checked. Fifth, themes were named and defined, generating clear definitions and names for each theme. Finally, the report was produced with extract examples.

Advantages of the TA include its flexibility, accessibility to researchers with little or no experience of qualitative research, ability to highlight similarities and differences across the data set, capacity to generate unanticipated insights, and accessible results for the educated general public. Disadvantages included the difficulty of retaining a sense of continuity and contradiction through any one individual account.

Quantitative Assessment

The quantitative assessments are confirmatory and address multiple hypotheses related to assessing exemplar’s wisdom-related qualities and characteristics:

It was hypothesized that Exemplars’ average score on the Self-Assessed Wisdom Scale would exceed the cutoff score considered to be wise, 201.6.

Second, it was hypothesized that exemplars’ average scores on the Loyola Generativity Scale (LGS), Mindful Attention Awareness Scale (MAAS), Satisfaction with Life Scale (SWLS), Big Five Inventory (BFI) Openness to Experience, and Spiritual Perspective Scale (SPS) would exceed the normative mean scores for each measure by at least 10%.

Third, it was hypothesized that exemplars’ average scores on the State Trait Anxiety Inventory (STAI), Perceived Stress Scale (PSS-10), and Narcissistic Personality Inventory (NPI-16) would fall below the mean normative scores of each measure by at least 10%.

Fourth, it was hypothesized that exemplars’ average score on the WUSCT would exceed the highest conventional stage of adult development, the Achiever, 4.0.

Fifth, it was hypothesized that there would be statistically significant (p =.05) positive correlations between the Self-Assessed Wisdom Scale (SAWS) and: BFI Openness to Experience, Spiritual Perspective Scale (SPS), Mindful Attention Awareness Scale (MAAS), and Loyola Generativity Scale (LGS).

Key Summary of Findings

Demographics

The study was comprised of two samples, the exemplar group (*n* = 20) and nominator group (*n* = 15) group. Exemplars' average age was 69.5 years, approximately 10 years greater than the average nominator age. Nominators knew exemplars on average 25 years in multiple contexts, most often having exemplars as their colleagues and teachers. Exemplars were predominantly Caucasian, very well educated, and most were married or had a significant other. Nearly all reported having a current religious or spiritual tradition and practice.

Exemplars' Wisdom-Related Qualities and Characteristics

Self-Report Measures

The average exemplar score on the Self-Assessed Wisdom Scale exceeded the cutoff considered to be wise, consistent with the prediction. Exemplars' average scores on the Loyola Generativity Scale (LGS), Mindful Attention Awareness Scale (MAAS), Satisfaction with Life Scale (SWLS), Big Five Inventory (BFI) Openness to Experience, and Spiritual Perspective Scale (SPS) exceeded the normative mean scores for each measure by at least 10%, consistent with the prediction.

Exemplars' average scores on the State Trait Anxiety Inventory (STAI) and Perceived Stress Scale (PSS-10) fell below the mean normative scores of each measure by at least 10%, consistent with the prediction. Exemplars' average scores on the Narcissistic Personality Inventory (NPI-16) and STAI Trait-Anxiety did not fall below the mean normative scores of each measure by at least 10%, inconsistent with the prediction. Exemplars' average score on the WUSCT exceeded the highest conventional stage of adult development, the Achiever, 4.0, consistent with the prediction, although much more will be said about ego development and wisdom later in this paper.

Pearson Product-Moment Correlation Coefficient

There were found to be statistically significant positive correlations between the Self-Assessed Wisdom Scale (SAWS) and: BFI Openness to Experience, Spiritual Perspective Scale (SPS), and Humility Inventory (HI), consistent with the prediction. There were found to be positive, but not significant correlations between the Self-Assessed Wisdom Scale (SAWS) and: Mindful Attention Awareness Scale (MAAS) and Loyola Generativity Scale (LGS), inconsistent with the prediction. These results suggest that higher levels of wisdom were correlated with increases in openness, humility, and the importance of spirituality.

Qualitative Exemplar Wisdom-Related Qualities and Characteristics

Nominator Narratives and Exemplar Interviews

Six significant personal qualities were found in the nominator narratives about exemplars: honesty, compassion, spirituality, integration, understanding, and openness. Four core personal qualities were found in the semi-structured exemplar interviews: they tell the truth, are able to tolerate uncertainty, are grateful and appreciative, and are funny and lighthearted.

Foundational Value Scale

Exemplar qualities rated most highly by nominators on the Foundational Value Scale (FVS) were intelligence, having a sense of meaning and purpose, harmoniousness, and spirituality. The lowest scoring qualities were genius and being animated.

Exemplars' Lives

Nominator Narratives

Overall, nominators described exemplars as deeply engaged in life and meaningful relationships. This finding was evidenced by exemplars' personal impact on the nominators, painful life experiences, valuing helping others, being sought out for counsel, the validation of peers, and remaining in contact with their own experience.

Semi-Structured Interviews

Three core themes were uncovered through analysis in the semi-structured interviews about exemplars lives. First, exemplars reported deeply meaningful encounters and intimate connections with mentors and loved ones. Second, spirituality is important, as reflected in exemplars' beliefs and practices, including the unity of spirituality and life, practicing meditation, attending retreats, and having access to a reflective articulation process. Finally, exemplars are guides for others and have an impactful presence as luminaries, transformational catalysts, and teachers with specific means of sharing with others.

Exemplars' Opinions of Wisdom

Exemplars primarily defined wisdom as arising from the unknown and as practical. Some examples of wise behavior included connecting with another human being, restraining action, and making an important life decision without knowing why. Exemplars thought that people are wise about different things and nominated predominantly spiritual and religious figures as wise.

Exemplars' Ideas about How to Cultivate Wisdom

Exemplars offered multiple (technologies) strategies for the cultivation of wisdom-related processes, although there was disagreement about whether wisdom itself was teachable.

Mentors and Teachers

Ten of 20 (50%) exemplars spoke about (acquiring wisdom) wisdom-related acquisitions through mentors and teachers. Exemplars identified as important: role modeling and watching how mentors and teachers live, practicing what they are practicing, the consistency of relating, being helped to find your own way within, and cultivating deeper accessibility. Below are three examples:

> The best way to learn it is to hang out with wise people . . . You become wise when you spend time with somebody who has some wisdom. And just that consistency of relating for a period of time, you get to know how people think and how they respond and so forth. So that I think that it's a matter of finding the people that you admire and that you want to hang out with or work with. So that's how you pick it up. (EX 10)

> For me with my teachers, I would say it was a twofold process. One was kind of, in practicing what they were teaching, I began to see what they saw. And so I could appreciate the wisdom in them from the wisdom that was growing in me because they showed me how to see in a certain way. And then I realized, oh, that’s how they’re seeing. So that was, I think, one powerful appreciation of their wisdom. And the other was just in watching how they lived. You know, and it’s not to say, I mean, in many of my teachers it’s not that I didn’t see at certain times, you know, certain faults of things that I thought were not that skillful, but overall, I could really appreciate the wisdom of how they lived just in basically leading good lives, basically wise and compassionate lives. (EX 15)

> I think that a way wisdom is passed on is people find their path, or somehow discover their path, and there’s someone ahead of them that can see them on the path. And they say, “No, no, no, no. You're getting a little too far to the right. No, no, no, no. You're going too—a little too far to the left.” And that appears to be helpful . . . Then they’re doing whatever they’re doing . . . with – in their life with all the exigencies and suffering that they face. And through that combination wisdom can result. Not necessarily will, but can. (EX 20)

Let Wisdom Arise From a Larger Source

Eight of 20 (40%) exemplars talked about learning wisdom as a letting go, surrendering, and experiencing an incarnation from something larger than the individual. Examples that illustrate the theme are offered below:

> And that—and I guess that’s another argument for saying that wisdom is very much something that happens through you because so is love. It’s like when you can let yourself be completely open and let go of your own biases and your own conditioning and your own need to hold yourself together, then both of those qualities can spontaneously emerge. And I think the true gift of spiritual awakening is the emergence of both of those qualities, when they’re needed, or when there’s, you know, it’s not like you go around all the time feeling wise and loving. It’s just that life responds to as needed with those qualities spontaneously . . . Then beginning to trust what arises spontaneously. (EX 9)

No, I don’t think so. I think that simply the heart or spirit, if you want to use the Jungian term, the self in the larger “S.” has a wisdom. It’s amazing to me when I give up and let go what information comes to me; what direction I find to go. Say, a wise heart or movement inside of me that I have to constantly return to who, that gives me that. I don’t think you can teach it; it comes out of the, it comes out of the experience of surrender. But that’s a lifetime. (EX 17)

Being able to surrender is the number one attribute. Can you let go and get out of the way and surrender to something that's bigger than you? (EX 8)

And, in fact, the study we did was, in a way, teaching people to access wisdom, showing them a way that their consciousness could come up with an answer. (EX 14)

The disciplines of how one responds to and takes in, you know, the phenomenon of wisdom can be pointed to and taught and so forth. But it’s like can you really teach people to be wise? Can you really teach people to have a deeper inner sense of themselves? Can you really teach them that? And I don’t think you can. I think it’s a matter of learning how to open one’s self up to that. But you can teach the way to be aware and absorb, you know, the honoring of life and its wisdom. But it’s not a commodity. I guess that’s what I’m trying to say. It’s not a commodity you can teach. It’s something by the grace of life itself that can be incorporated but it’s not an achievement . . . It’s an incarnation. Not dissimilar from the Christian sense of incarnation of God and Jesus. So I really think it has a much broader metaphysical quality to it other than just the human accomplishment. And teach, I think, how one can receive it, but you can’t teach wisdom. Nobody ever truly has fully incorporated wisdom. It’s much bigger than the individual. (EX 11)

Could being wise be taught? Or having this experience of wisdom – I guess what would be more true for me would be the process, the cognitive and non-cognitive. So all the other ones, somatic and intuitive and, you know, getting information from other sources: emotional, body, psychic. The processes that would lead to that experience, the experience of wisdom, and then the subsequent urge to share. I think those can be cultivated, definitely. (EX 4)

Sometimes it is wise to trust how life is unfolding even when we do not a clue about what to do, or why we responded the way we did. Some movement wiser than us may be in charge. (EX 17)

This may go back to one of the things that I really trust and believe – that there is an unfolding wisdom that enfolds us beyond what we can create for ourselves. That life is beneficial to us in spite of all the anxieties and difficulties and frustrations and deprivations and all that stuff. And honoring both the consolations and the desolations, because they’re both meaningful. They both have their own way of evolving your life. (EX 11)

Getting Mind Out of the Way, Decentering From Primary Identity as Thinking

Six of 20 exemplars (30%) spoke about learning wisdom-related processes as facilitated by decentering from a primary self-identification with the thinking mind and cognitive processes. All six examples are provided below:

> A reduction in cognitive processes, so that you're not totally in your head, and more access to feelings and education of feelings. (EX 8)
>
> Another aspect is facilitating empathy and getting the conscious mind, not just thinking, not just sensate – getting the conscious mind out of the way and providing quiet time. It's the same sorts of things that you would think of in some kind of meditation or spiritual practice where you are getting the conditioned automatic reactions out of the way, out of the dominant way, so that any of those that are appropriate may be used, rather than ones that are overly conditioned. (EX 14)
>
> You can only point. You can only point to a way of holding something that's bigger than the mind. When you stop paying attention to your mind it stops being such a bother. When you stop taking it so seriously. When a thought comes through and you just look at it and say, whoa, that's interesting. Wonder where that one came from. But you don't buy into it and create a big story around it. Pretty soon that function stops functioning in the way it does when you really believe you are your thoughts. I think that most of the time we humans think we are our thoughts. (EX 9)
>
> Certainly, not conceptually. (EX 20)
>
> Also there are a myriad number of specific techniques and strategies from gently helping people recognize presuppositions; and then recognize them as presuppositions rather than as facts . . . then encouraging people to test those presuppositions. (EX 16)
>
> Let go. Get out of your head. Being in the head is a total detriment, a total detriment. Remember the mind is always looking for answers the soul already knows. (EX 8)

Motivation/Commitment/Investment and Doing the Work Ourselves

Five of 20 (25%) exemplars spoke about the relationship between motivation, commitment, and doing the work oneself as integral to the potential to learn wisdom-related processes. Five exemplars spoke about it this way:

> One of the most important things of all for learning wisdom is a commitment to doing so, the commitment to learning and understanding. (EX 16)
>
> A strong motivation. You can sit quietly for an hour and nothing happens, but if you go in with a motivation to say, "I want an answer to this. I want to know what's right for me," if you set an intention—and that's the word that we're using now – set an intention, then wisdom tends to be pulled into that magnetic direction. (EX 14)

> I think there are a few things. One of the things that has been my prime motivator over all these years is the quality of interest, just being interested in the mind, in suffering, in what causes it. And so in some ways, the truest meaning of the word philosophy, you know, kind of lover of wisdom, it's just that real interest in understanding I think is a very powerful force. What can motivate that interest can be different things. (EX 15)
>
> In order to make it a real living wisdom, then it has to be a methodology of training attention so that we can see things clearly for ourselves. And that is the whole methodology of the path. So it can be taught, but people need to do the work themselves. It can't be given. There's a famous line in the text about how the Buddhas only point the way, and everybody needs to walk the path for themselves. So the way can be pointed out, and the path of practice can be pointed out, but real wisdom develops only when we actually do the work. And it's the work of paying attention. (EX 15)
>
> And the thing that worried me the most about that is if somebody else knows and somebody else tells you, then you're always a receiver and you're never an actor. We really only learn through the things we do. (EX 13)

Learn From Experience/Reflection

Four of 20 exemplars (20%) spoke about acquiring wisdom as learning from experience and reflection, a kind of iteration process. Below are four illustrations:

> One acquires wisdom, in large part, by reflecting on experience. And so to teach wisdom involves helping people reflect on their experience. For many people, that means helping get in touch with their experience in the first place. Also there are a myriad number of specific techniques and strategies from gently helping people recognize presuppositions; and then recognize them as presuppositions rather than as facts . . . then encouraging people to test those presuppositions. (EX 16)
>
> There's a reflection component, there is an iteration of looking at something. Whether it's practical or spiritual within the self or outside the self, there is a reflection and an action and a refinement and a reflection and an action and, from what I know, it's called, you know, double-loop, triple-loop learning when you're going over and over. And then finally comes out something that is helping you overcome an obstacle, reach more joy in your life, solve a problem, practically create something that's going to help your entire tribe survive. That level of internal processing has to be in place. (EX 4)
>
> When I think about the people I've known through my life who are wise, I think I would conclude that they had a lot of life experience. It just didn't arrive with them in their genes. (EX 19)
>
> I think a person's ability to learn from experience. (EX 5)

Discussion: State and Stage Development and Transcendent and Practical Wisdom

The study prediction was that Exemplars' average score on the WUSCT would exceed the highest conventional stage of adult development, the Achiever, 4.0. Implicit in this prediction was the idea that wisdom and ego development were likely related and potentially positively correlated. Exemplars average score on the WUSCT was just above 4.0. This finding means that exemplars average score *technically* exceeded the Achiever stage of adult development, consistent with the prediction. Sixty percent of exemplars, however, scored in the conventional stages.

The professional WUSCT scorer, Terri O' Fallon, was uniquely qualified for this study because of her personal interest and ongoing research in late stage development, specifically the late-fifth person perspective (5/6) and the late-sixth person perspective (6+). When I mentioned surprise at exemplars' predominantly conventional scores, she replied:

> At first when I was doing the scoring, I was also so struck by this and didn't want to believe the scores I was getting. I did inter-rater reliability scoring with other people and they just didn't turn out very late for any of us. (T. O' Fallon, personal communication, December 4, 2009)

On the one hand, Cook-Greuter (1985) points out that highly developed individuals may score lower than their level of development. This problem stems from the fact that what Cook-Greuter calls the post conventional stages, 5-6, are post linguistic, while the WUSCT is based on language. This means that the WUSCT, effectively, is trying to evaluate the presence of higher-developmental stages with methods—those being language and writing—that are more commonly associated with lower-level developmental stages. To this point, O' Fallon writes "People at these later two levels not only need an abundance of responses, but they also need to have a variety of responses to different categories. It is very complex" (personal communication, December 4, 2009).

Reviewing exemplar scores on the State-Trait Anxiety Inventory (STAI), which preceded the WUSCT, exemplars were already "feeling strained," their highest State-Anxiety score, and "unrested," their highest Trait-Anxiety score. It is possible, therefore, that they did not say enough to score higher on the WUSCT due to feeling strained and tired, or tended to conceal their levels of development by giving short, simple answers to save time and energy. Comments from several exemplars at the end of the survey offered support to these perspectives. However, O' Fallon reflects, "We cannot guess what people mean . . . they have to delineate what they mean" (personal communication, December 4, 2009).

On the other hand, the above explanations for lower than expected WUSCT scores, while plausible, might also be relatively weak. If these scores are accurate, however, and wisdom exemplars are primarily situated at a conventional level of development, what meaning can be made of this? What do these development scores mean in relationship to wisdom – perhaps that later stage ego development is not necessarily correlated with wisdom and being/becoming wise?

Interestingly, the WUSCT correlations with the Self Assessed Wisdom Scale (SAWS) composite and all SAWS subscales were *not* significant. The WUSCT was only correlated significantly with one measure in the entire exemplar battery of tests, including all measure subscales. The positive and significant correlation of the WUSCT was with the Spiritual Perspective Scale (SPS). It is my opinion that reflecting on later *state stage* exemplar spiritual experiences could shed some light on the generally conventional ego development scores in relationship to wisdom.

Exemplar Spiritual States, Experiences, and Perspectives

One of the most compelling spiritual perspectives found to be important in the lives of nearly two thirds of exemplars, was an insight into, or an abiding recognition of, being a part of the whole of life, being a part of larger creation, or both:

> I just went into another whole level of recognition of my true nature I guess you would say. And it was like consciousness simply letting go of everything I am. And merging with everything that is. And I don't know. It was like a recognition of truth that I couldn't possibly ever deny again. (EX 9)

> What was striking about it was the understanding of the selfless nature of everything. The limitation of how we usually think of a sense of self as being the particular body we inhabit, you know, and being limited to that frame. That boundary fell away just afterwards. And it was just, there was more a, just a totality of experience rather than any one part of it being me. (EX 15)

> And finally it snapped you know . . . there isn't a spiritual and something else . . . It's the all of everything, nothing is left out. (EX 6)

Interestingly, the recognition of being part of larger creation was not just reflective of a small contingent of exemplars with Eastern religious and spiritual pedigree. Exemplars with Christian traditions and practices spoke similarly:

> If I have to articulate an image of God these days it's simply life. Yeah, simply life. And that life itself has its own way of being. And it is that way of being of our life that is the sacred ground. And we don't have to symbolize or image it in any other way to define it. (EX 11)

> The idea is that we really are part of this universe . . . And so you come to understand that our connectedness, that we are all, and all we are . . . is energy. I mean, that's enough, but that's what we are. (EX 5)

Critically, each of the above exemplars is an ordained spiritual teacher, so they could just be expressing beliefs or ideas associated with their traditions. An argument could also be made that exemplars' spiritual appointments add credence to their words. Levitt (1999) found consistently religious perspectives in her study of Buddhist monks, as did Ahmadi (1998, 2000) in her study of Sufis, which makes sense. Certainly, spiritual and religious perspectives are useful but they could be garnered from many sources, including sacred texts. Of more relevance is, are exemplars' words reflective of their lived reality, if only for a moment?

An honest assessment of exemplars' experiences of unity would likely require one's own capacity to see what is seen by exemplars. While I make no claims to a shared worldview, sitting and listening to exemplars offer their spiritual views felt like not just words and concepts but their own inner experiences. And being in their presence, for the most part, was opening in ways that were inspiring, motivating, and emotionally moving.

Obviously, my self-report does not validate exemplars' inner subjective life, nor do any of the measures in the study explicitly reflect it. Exemplars did score highly on humility and value truth telling; however. Le (2008a) also found that transcendent wisdom develops later in life than practical wisdom – and – developing transcendent wisdom later in life overlaps with exemplars average age, nearly 70. The significance of exemplars' spiritual insight warranted considering validity, because, if true, exemplars' recognition of being a part of the whole of life expands their identity beyond just humanness to "life, selflessness, energy, true nature, and the all of everything," to quote their words.

A second finding supportive of the recognition of being a part of all creation is found in exemplars' attendance of retreats. Exemplars' retreat experiences were often imbued with profound insights into a greater connection with life:

> That big shift, that transformative shift really happened when I did the 30-Day Ignatian Retreat, which was 11 years ago, but it's still as fresh as can be. I really move back into those states, although I've moved way beyond who I was at that point. But It really had to do with that awareness that came to me during that retreat; that all this "driven-ness" to make my life meaningful kind of got spoken to by an inner voice that emerged of saying, "Remember, J, that I gave you your meaning at your birth." And that awareness was so transformative that it just lifted that anxiety burden of driving myself to make myself meaningful to either myself or the people around me. And allowed me to relax a bit. And it re-contextualized my life in terms of the "driven-ness" to be somebody, rather than simply internally affirm the being that I am. And I think that transition not only brought a lot of relief but, you know, reframed a sense of myself, but then also began to reframe how I experience things in the world, how I experienced other people. You know, so much of my work now is encouraging people simply to be who they are rather than striving so hard to be somebody else. (EX 11)

> When I was in my late 30s, I was in a retreat for 5 days just with myself in silence in a house over the ocean in Big Sur. I guess the story I would relate that could kind of help you or anyone kind of understand in words what happened, because it's very difficult for me, is you hear people talking about some sort of moment or experience, mystical experience, where they feel reborn. Where you have this, it's almost like a wiping out of who you were, and an emergence of someone that even to yourself, you're like, "I didn't used to be like this." And it happens very fast, within moments of something very profound that you experience. I spent many hours of that retreat laying on a towel in the grass staring up at the sun – just like when I was a little kid – outside of this house in Big

> Sur. That was a common link with being as a child as I was, I was down in the grass connected to the Earth and looking up at the sun and experiencing that kind of energy of nature. So that experience, I literally, it was like somebody reset my soul. (EX 4)

Retreats could certainly mean multiple things to exemplars: a time and place of respite and reprieve from interpersonal engagement, especially considering that exemplars are generative, work in professions oriented to the human condition, are married, and most have children. Exemplars' highest trait anxiety item was being "tired," and one of their highest items on the Loyola Generativity Scale (LGS) was, "Other people say that I am a very productive person."

Retreats could also be a means by which exemplars revisit their vocations more deeply and specifically. Retreats could be places to have dedicated spiritual practice, as was mentioned by some exemplars (e.g., EX 11 and EX 16). They could be places to experience silence, or be near mentors and teachers. Retreats could also be containers, or holding environments, for letting go of the routines of daily living and being present in a sustained way to one's inner life.

A third finding potentially related to exemplars being part of larger creation was their second-most-frequently described method for learning wisdom: allowing wisdom to arise from a larger source, and learning access to that source:

> And that – and I guess that's another argument for saying that wisdom is very much something that happens through you because so is love. It's like when you can let yourself be completely open and let go of your own biases and your own conditioning and your own need to hold yourself together, then both of those qualities can spontaneously emerge. And I think the true gift of spiritual awakening is the emergence of both of those qualities, when they're needed, or when there's, you know, it's not like you go around all the time feeling wise and loving. It's just that life responds to as needed with those qualities spontaneously . . . Then beginning to trust what arises spontaneously. (EX 9)

> I think that simply the heart or spirit, if you want to use the Jungian term, the self in the larger "S," has a wisdom. It's amazing to me when I give up and let go what information comes to me; what direction I find to go. Say, a wise heart or movement inside of me that I have to constantly return to who, that gives me that. I don't think you can teach it; it comes out of the, it comes out of the experience of surrender. But that's a lifetime. (EX 17)

> I think it's a matter of learning how to open one's self up to that. But you can teach the way to be aware and absorb, you know, the honoring of life and its wisdom. But it's not a commodity. I guess that's what I'm trying to say. It's not a commodity you can teach. It's something by the grace of life itself that can be incorporated but it's not an achievement . . . It's an incarnation. Not dissimilar from the Christian sense of incarnation of God and Jesus. So I really think it has a much broader metaphysical quality to it other than just the human accomplishment. (EX 11)

The significance of identifying oneself as non-separate from life resonates with several wisdom conceptions in the psychological literature. McKee and Barber's (1999) notion of wisdom as "seeing through illusion" (p. 151) comes to mind, as does wisdom as insight based into the meaning of life (e.g., Ardelt, 2000a; Kekes, 1995). Achenbaum (2004) writes: "the wise, utilizing their abilities to look upon the universe from several planes, seek insights about how their true nature evolves within themselves" (p. 46). Wisdom as "profound insight into reality" seems possible (Trowbridge, 2007, Cultivating a Wisdom Perspective, para. 3). The transcendent wisdom notion of Le (2008b) also might apply: attainment of insight into reality. From Levitt's (1999) study of Buddhist monks: "Learning the true nature of reality is both a final goal and part of developing wisdom" (p. 104). Ahmadi (1998) points out that in her study of Sufis, the individual self is not in fact separated from other than self. Trowbridge's (2008) reference to the wisdom of the sages: To truly know yourself is to know all things. The point is, being one with all of creation is significant because it might be related to Sophia, "which is knowledge first of things, ultimate explanations and what follows from them, particularly in regard to human fulfillment" (Trowbridge, 2008, p. 44). Recognizing the communion of all life would certainly seem to be related to what follows regarding relative human fulfillment.

Perhaps then, exemplars' speaking about a connection to oneness, or the whole of life, *is suggestive of transcendent wisdom*, although the psychological wisdom-related definitions of transcendent wisdom are, for the most part, not descriptive enough. What is meant by spiritual insight, or by perceiving reality? What does it mean that wisdom is potentially related to state spiritual development? Is wisdom its own particular lines (e.g., transcendent, practical) of development or the highest levels of multiple lines of development (Wilber, 2000)? Is self-development seemingly not necessary for *access* to certain types of wisdom, but is self development/transcendence/awareness part of expressing wisdom cleanly? Perhaps state spirituality relates to perceiving reality, and self-development to interpreting and enacting what is realized in the world?

In general, the psychological wisdom-related research considers transcendent wisdom transpersonal and practical wisdom interpersonal. But what if transcendent and practical wisdom were *related in some way*? Certainly, it is one thing to *perceive* reality and quite another to *act* in accordance with that insight, or from that insight on a consistent basis. This potential connection between transcendent and practical wisdom is a very rare inquiry in the psychological wisdom literature of the past 35 years, with the exception of Aldwin (2009).

In our correspondence during the study, Terri O' Fallon (personal communication, December 3, 2009) reflected on the relationship between state spirituality, stage development, and wisdom:

> Many people have a wonderful spiritual life that makes them very, very wise, but it doesn't mean that they are late developmentally. I have scored people that many have assumed were later level in their development and they tended mostly to be late in their state stages. For example, they may not be able to see a long way out in time, or have a wide universal space field they live in. They may not be able to see general systems, and they may not be able to see certain aspects of polar opposites. They may not be able to see the construction of reality, or certain kinds of projections in the moment. None of these things are needed to be seen as very wise.

> I realized that development has little to do with intelligence and for the most part, wisdom. So I had to have a meaning-making scheme that helped me understand this, and developed this model:

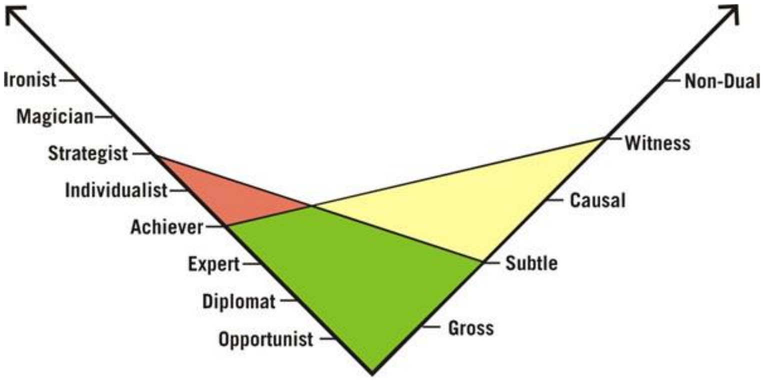

Figure 1. O'Fallon developmental model.

> On the right side is the state stages in this V. On the left side are the developmental stages which I scored for you. If you draw a line from the developmental stage someone scores at, to the state (spiritual wisdom) stage they embody you can see that you can have an Achiever that has a triangular space (I call it "consciousness room to roam") that is actually larger than the developmentally later Strategist, who has less wisdom!
>
> I ran into this a number of times in the teaching I have been doing. Some people were incredibly wise even though they didn't have some of the developmental capacities of a later level. In this case, the Achiever has a yellow space to roam in that the Strategist doesn't have and the Strategist has the red space to roam in that the Achiever doesn't have.
>
> (Ego) development doesn't necessarily measure wisdom. At the very latest stages wisdom does occur because you can't get there without later states but this isn't true for most levels.

O' Fallon (See Figure 1) seems to be suggesting that state spiritual development eclipses personal development when it comes to *accessing* wisdom, but what about *expressing* wisdom? Perhaps wisdom (transcendent) comes through (permeates) the state side of development and is implemented through, or in, the context of the stage side of development, which might account for wisdom being defined by exemplars as coming from the unknown and yet practical. Perhaps this perspective could also give credence to the idea of varying developmental *stage or type* expressions of wisdom, although the *source* from which wisdom arose was the same and was applied to the same context. In essence, individuals have access to wisdom, but they are not wisdom itself, and thus wisdom is theorized to develop through multiple pathways that work together synergistically (Baltes & Staudinger, 2000).

O' Fallon's (2009) thinking that personal (ego) development is not necessarily related to wisdom is also congruent with the finding that exemplars are wise in different ways (e.g., lines), and that their particular personalities (e.g., types) are not shed for wisdom to be present. Nor are exemplars' relative life experiences and knowledge:

> I think of exemplars of wisdom, I think that they're a variety of different personalities that can be wise. And the other thing is I think people may be wise in different ways in different areas. Some people can be very wise in one area and not so wise in other areas. I don't expect that somebody, just because they're a teacher, for example, spiritual teacher, they may have a lot of wisdom in one area and none at all in other areas. And I think that that can be so disillusioning when somebody puts a teacher up on a pedestal and then they turn out to be less than perfect. And they always do, because we're all just human. So I wouldn't hang it on any particular quality except the sense of caring and respect. (EX 10)

And yet exemplars said:

> When wisdom is being spoken, it's egoless, or wisdom is being demonstrated, there's nobody there intruding, in that sense. But there is a way somehow – and it may be different moment to moment. But I think when it shows up that there's a feeling. There's a sense of presence that something bigger than what's human is on board and it needs to be honored or listened to, or be servants to that. (EX 6)

Of relevance, perhaps, is what Levitt (1999) highlighted in her study as the main difference between the Tibetan Buddhist process of self-development and Western psychotherapeutic practices: the one puts forth the unreality of the individual self, and the other seeks a deeper understanding of this individual self – "Ego abandonment and ego strengthening" (p. 102). Trowbridge (2008) points out that Levitt (1999) suggests that psychotherapy and Buddhist philosophy "may be methods, grounded in the metaphysics of their cultures, to develop wisdom" (1999, p. 103).

In the psychological wisdom literature, ego strengthening and ego abandonment is generally separated as self-development and self-transcendence, respectively (Ardelt, 2003; Le, 2008b). Less spoken about, however, in this literature, is the possibility of developing awareness of a self that can then possibly be transcended and included.

One of the only theoretical and practical wisdom conceptions to consider a connection between developing a self and transcending the self is Robins (1998):

> Wisdom is related not just to the expectations, beliefs and the consequent emotional reactions resulting from beliefs, but also to the cognitive, behavioral, physiological, interpersonal, familial and social components that originate from and contribute to beliefs, all of which intimately and dynamically interact and thus co-evolve together across our adult development. In addition to the development and treatment of the ego, and consistent with Buddhist Psychology (Epstein, 1995), Wisdom Therapy simultaneously aims to facilitate the transcendence of the ego. (Wisdom Therapy Institute, Goals, para. 1)

Importantly, a high percentage of exemplars in this study have Western psychotherapeutic training and experience, which is often concerned with self and other development. Many exemplars also have longstanding Eastern spiritual traditions and practices, often associated with self-transcendence. The relationship between self-awareness and self-transcendence seems significant in discussing the relationship between stage development, state spirituality, and wisdom, and will be explored briefly. A critical limitation in is this discussion, however, is that “self” and “ego” are not precisely differentiated in the study by exemplars (e.g., the separate ego/self-sense and the “egoic” organizing function).

Self-Awareness and Self-Transcendence

In the psychological wisdom-related literature, developing a capacity for self-awareness and self-transcendence seems related to the reflective component of Ardelt’s (2004a) model of wisdom: self-awareness, self-insight, self-examination, and the capacity to take multiple perspectives of phenomena (Ardelt, 2004a). Ardelt contends this self-reflection practice informs an undistorted comprehension of reality by facilitating an awareness and transcendence of one’s projections and subjectivity.

Le (2008a) also spoke of wisdom as transcending the biases, subjectivity, and self-centeredness that are natural and pervasive in humans. She contends that wisdom is a developmental process that involves self-transcendence.

There are multiple findings in this study that relate to exemplars self-awareness and self-transcending capacities.

Mindful Attention Awareness Scale (MAAS)

Exemplars’ higher than normative mindfulness scores on the MAAS is supportive of self-awareness and self-transcendence. The MAAS assesses a core characteristic of dispositional mindfulness—namely, open or receptive awareness of and attention to what is taking place in the present. Kabat-Zinn (1990) claimed this kind of attention nurtures greater awareness, clarity, and acceptance of present-moment reality. This finding is significant for two reasons. First, it suggests exemplars strong valuation of receptive awareness to what is taking place in the present moment. And second, it seems that attending to what is actually happening in the present moment would precede the capacity to respond intimately to it, or to transcend it.

On the MAAS, however, high scores offer little insight into exemplars’ subjectivity, especially because the stems are negatively worded. Mindfulness also has not been studied in the psychological wisdom-related research, so a degree of reservation in my meaning making is prudent.

Valuation of Self-Awareness and Self-Contact

Another finding supporting self-awareness and self-transcending capacities is exemplars’ valuation of self-awareness and self-contact. Sixty percent of exemplars reported tracking sensations, creating spaciousness around emotions, witnessing thoughts, and staying in touch with moment-to-moment arisings. This finding offers insight into exemplars’ subjective notions of mindfulness, mentioned earlier, and is thought to contribute to a clearer view of subjectivity and the minimization of projection:

> Well, I think it's the gradual strengthening of the faculty of awareness, you know, and self-awareness so that just over the years I've become kind of increasingly mindful of just the different patterns that are going on in my mind in thoughts and emotions. And through the seeing of them more clearly, it becomes easier to, at least a good part of the time, certainly not all the time, but a good part of the time, choosing to act on those that bring about well being and letting those go that seem to bring about suffering. So it all comes out of awareness and self-awareness. (EX 15)
>
> I'm experiencing everything from the pressure of one leg on another, to a background feeling of pleasure, to pure awareness witnessing the same, witnessing it. And everything in between. It's interesting. I'm just watching the mental process of responding to this. It's like there's a boundless array of perspectives and possibilities. So it's a process of either selecting for any number of reasons one particular perspective or sitting back and allowing some aphoristic response, almost poetic response to attempt to encapsulate the many dimensions. (EX 16)
>
> The other thing that's meaningful for me is just trying to stay in contact with what's happening to me. What am I experiencing? Kind of trying to refer back to that and check in with it. Then also just allowing myself time to process whatever's going on [pauses], and to try to give it some spaciousness [pauses], and see what's really going on. (EX 20)

Meditative Practices

A third related finding to exemplars' development of self-awareness and self-transcendence is the high prevalence and importance of exemplars' meditative practices. Twelve exemplars (60%) cited practicing various types of meditation, and within that group, eight practiced meditation for 25 years or more. Fifty percent of the total exemplar group also reported having multiple spiritual practices.

Without exemplars clearly defining what is meant by meditation, however, it is hard to speak uniformly to its effects. One exemplar said of meditation, "it increasingly gives you access to lots of inner processes, inner spiritual processes" (EX 11), while others commented on the value of meditation in their lives for focusing, as an awareness practice, and for emotional regulation. Other potential reasons for the high prevalence of meditation could be the age related overlap with a natural time of contemplation in life as well as exemplars' religious and spiritual affiliations.

Combined Qualities

A fourth finding potentially related to exemplars' self-awareness and self-transcending capacities is their combined qualities of openness to experience, humility, and low state and trait anxiety. Exemplars scored highly on openness to experience and humility, both of which were correlated significantly and positively with wisdom. Exemplars also scored lower than the norm on state and trait anxiety.

Openness to experience was defined, in part, as avoiding narrow-mindedness and self-deception (Webster, 2007). Humility was defined as a non-defensive willingness to see the self accurately, including strengths and limitations (Exline, 1999). The lowest-scoring item on the humility scale was, “I feel slighted when I don’t get the attention I should,” suggesting exemplars have some degree of freedom from other-oriented self-esteem, or at least value it. In relationship to others, exemplars’ freedom from needing to have their self-esteem enhanced by others is significant, as it allows the possibility of exemplars seeing beyond their own needs, and potentially being free to receive someone else.

Regarding state and trait anxiety, in situations where relationships are involved, self-esteem is challenged, or failure is experienced, people with high trait anxiety tend to react with higher levels of state anxiety. Implied in this previous reaction is that high trait-anxiety people may have a fairly rigid internalized self-concept as compared to someone whose self-concept is supple/fluid enough to accommodate being inadequate, failing, or looking bad (Butlein, 2005). Perhaps exemplars’ openness to experience, a humble, non-defensive willingness to see the self accurately, and low trait and state anxiety combined to allow a less guarded, more transparent or fluid self-concept, resulting in reduced self-centeredness and projection. The result is more presence and availability to themselves and others.

Wisdom-Related Strategies

A fifth finding relating to exemplars’ self-awareness and self-transcending capacities is exemplars’ strategies, or technologies, for learning wisdom-related information. The third-most-reported theme for learning wisdom-related material, behind mentors and letting wisdom arise, was “decentering” attention from the thinking mind, suggesting a larger source than just the individual is responsible for the genesis of wisdom:

> You can only point. You can only point to a way of holding something that’s bigger than the mind. When you stop paying attention to your mind it stops being such a bother. When you stop taking it so seriously. When a thought comes through and you just look at it and say, whoa, that’s interesting. Wonder where that one came from. But you don’t buy into it and create a big story around it. Pretty soon that function stops functioning in the way it does when you really believe you are your thoughts. I think that most of the time we humans think we are our thoughts. (EX 9)

Overall, that exemplars could both develop awareness of a self and potentially transcend the developed self is significant. First, it would seem to give exemplars access to their own relative development as human beings. Relative awareness is important in cultivating freedom from self-centeredness, projections, and subjectivity, offering increased presence to oneself, others, and the world.

Second, self-awareness and self-transcendence would seem to make more likely the capacity for exemplars to relatively embody, or live day to day, their arising insight of being one with the all of creation. In this way, perhaps exemplar's particular personalities and relative stage development are like a prism through which wisdom passes, potentially clarifying or muddling wisdom's enactment in a context. By becoming aware of the relative stage related interpretive lens of what is realized, exemplars can translate and impart the insight as clearly as possible into the world.

Summary: Some Meaning Making and Integration

In the closing moments of my interview with Exemplar 2, he likened religious traditions to the Chinese lantern, a metaphor that has since become a (meta) perspective reflective of my understanding and discussion of wisdom exemplars:

> Think of religious traditions as an eight-sided Chinese lantern and in the middle, there's a candle. You don't know where the light comes from but the light is filtered through those various colors of glass. All those colors of glass, all those pieces of glass are manmade. They distort the light. Now, there are a few that are more transparent than others . . . But all major religions are just like those glass in the lantern. What's the light? You don't know what it is. That's where you come to your mystery again. But you are perfectly free to assess any human construction of any kind once you know about it, once you learn about it. But you have to learn about all of the glass, not just the one. You see? (EX 2)

Perhaps exemplars are akin to the stained glass in the eight-sided lantern, and in the middle is the light of wisdom. For multiple reasons found in this research, exemplars are able to filter the light of wisdom (from a state accessed source) through their humanity into the world with less distortion and more transparency than the average human being.

Exemplar Connection to Source, Ground, or Spirit

Like the inner sides of the glass, exemplars have cultivated, or have been graced with a (state based) receptivity to the source and radiance of wisdom, whatever wisdom is. Exemplars' longstanding practices of meditation, valuation of mindfulness, and attending retreats; relationships with mentors; and long term-experience with multiple religious traditions and spiritual practices are all thought to be related to this capacity to access wisdom.

Exemplars' notions of wisdom also support a receptive element of wisdom. Forty percent of exemplars talked about learning wisdom as a letting go, surrendering, and experiencing an incarnation from something larger than the individual. Wisdom was also defined by exemplars as coming from the unknown, and *access* to wisdom can be pointed to and cultivated:

> Wisdom is something by the grace of life itself that can be incorporated but it's not an achievement . . . It's an incarnation. Not dissimilar from the Christian sense of incarnation of God and Jesus. So I really think it has a much broader metaphysical quality to it other than just the human accomplishment. And teach, I think, how one can receive it, but you can't teach wisdom. Nobody ever truly has fully incorporated wisdom. It's much bigger than the individual. (EX 11)

> For me (wisdom) is what arises when I admit that I really don't know anything. It's like something that comes spontaneously from being willing to sit in the not knowing. And having no personal agenda. So that whatever movement happens is happening almost through you rather than from you. It's being willing not to be attached to your ideas. It doesn't mean that what you know or you've learned or you've experienced isn't useful, because in a way that, for me, that integrates with this other kind of intuitive knowing. But it's sort of like letting the flow arise rather than going at it from an analytical perspective or a memory perspective. I don't know. I guess I think of wisdom as kind of a universal quality that pops up once in awhile in anybody. And it's coming from some other source in a way. So it plays through us when we're not overly involved in our concerns. (EX 9)

Exemplars' recognition of wisdom as incarnational, or coming from another source, is similar to the notions of transcendent wisdom put forth in previous literature. Transcendent wisdom is associated with "interest and skill in the transpersonal domain" (Wink & Helson, 1997, p. 12) insight into reality (Le 2008b, Trowbridge (2008); seeing through illusion, wisdom as a priori, or derived from intuitive insight (Barber & Mckee, 1999); and transcending the personal, is insightful, and demonstrates spiritual depth (Wink & Dillon, 2002). Transcendent wisdom could also be part of what Trowbridge (2008) refers to in his sense of one's ability to perceive reality, reflected in Exemplar 9:

> What it does is it ends the seeker when you recognize the truth. It just eliminates that. You realize you're not there. There's nobody really there. There's only a set of experiences. And that you are this – that what I am and what you are, there's absolutely no difference at the core. Every living thing is the same thing. It also eliminates any tendency to think that you're different than anyone else because everyone else is this too. It's just totally obvious. And so it just kind of ends the journey. (EX9)

Spirituality is thought to be related to this insight. Sixty-five percent of exemplars spoke about the spiritual as being inseparable from the wholeness of life, and the same percentage of exemplars expressed having a reflective articulation process though which they have access to an intuitive awareness out of which come creative and spontaneous images, words, and concepts relevant to their current context.

Almost all exemplars valued the importance of spirituality in their life as measured by the Spiritual Perspective Scale (SPS), which was also positively and significantly correlated with wisdom. The highest stem on the SPS was, "Spirituality has played an important role in my life." Eighty-five percent of exemplars reported having a current religious or spiritual tradition; 80% had spiritual practices; 50% have more than one spiritual practice; and 55% attended retreats.

Relative, Reflective Self-Awareness

The lantern glass itself is conceived of as exemplars' relative stage development and conditioned identity. Exemplars' valuation of, and capacity for, self-awareness and self-reflection is thought to relate to an awareness of their own self-knowledge and development. To varying degrees, exemplars are able to see and assess within themselves their own human, cultural, developmental obstacles to clear and continuous/ or abiding access to source. Metaphorically, this increasing self-transparency and permeability allows light to flow from the inside of the lantern out through the glass with minimal distortion.

This capacity for self-awareness is similar to the Le and Levenson (2005) conceptualization of self-transcendence, or "the ability to move beyond self-centered consciousness and to see things as they are with clear awareness of human nature and human problems, and with a considerable measure of freedom from biological and social conditioning" (2005, p. 444).

The capacity of exemplars to mindfully witness and potentially facilitate their own development (moment-to-moment experiences) is also similar to the reflective component of Ardelt's (2004a) model of wisdom: self-awareness, self-insight, self-examination, and the capacity to take multiple perspectives of phenomena (Ardelt, 2004a). This self-reflection practice informs an undistorted comprehension of reality by facilitating an awareness and transcendence of one's projections and subjectivity.

Related present study findings include: exemplars' valuation of self-contact and self-awareness, higher than normative mindfulness scores; learning wisdom as decentering from thinking; technologies for learning wisdom as ego-deconstructive; high resonance with the Humility Inventory; and lower than normative state and trait anxiety. The fact that many exemplars are psychotherapists or counselors points to the direct engagement of exemplars with professions oriented to the human condition, many of which are related to developing self-knowledge. Exemplars being predominantly psychotherapists and counselors may also reflect the professional community from which nominators were found.

Conscious Expression

The outer edge of the lantern glass is conceived of as exemplars' conscious relationship with others and with the world. Exemplars' interpersonal relationships likely align with what the psychological wisdom literature considers practical wisdom. Practical wisdom was defined as skill and interest in the interpersonal domain (Wink & Helson, 1997), facilitating the optimal development of self and others (Webster, 2007), living a good life in society (Le, 2008b) and the ability to make good choices regarding human affairs (Trowbridge, 2008).

The high importance and prevalence of exemplars' loving relationships, valuation of truth-telling, higher than normative generativity scores, multiple avenues of generativity, deep connections with others, being sought out for counsel, and roles as educators, therapists, and spiritual teachers all are supportive findings.

Conclusion

When there is some degree of development/accessibility for exemplars in all three areas – (a) spiritual insight (transcendent wisdom): or a deep receptive potential to or recognition as (and as) the unknown source of light; (b) self-awareness/ self-knowledge/ self-transcendence or an awareness of relative humanness; and (c) conscious engagement, or interpersonal accessibility in relationships/contexts (practical wisdom) – wisdom can flow through and permeate exemplars' humanness, responding to the arising contexts of life with minimal distortion.

Exemplars' reflective articulation process, acting in the world as luminaries and visionaries, making life decisions intuitively, and experiencing oneness with all of life seem reflective of this connection between transcendent and practical wisdom, embodied through exemplars, understood through the use of the lantern metaphor. Ultimately, exemplars – momentarily, or, perhaps, in an abiding way – seem to become aware as, and of, both their immanence (humanity) and transcendence (divinity), such that both impact the world with practicality.

While the spiritual perspectives reflective in the findings of the study place the current research in the minority of psychological wisdom-related research of the last 35 years, it is worth noting the observations of Trowbridge (2008):

1. The divine, religious aspects of wisdom have been mainly ignored by psychologists.
2. Wisdom cannot separate itself from religion or questions of ultimate meaning, so long as what is wise is connected with judgments regarding what is best for men and women.
3. The traditional understanding of wisdom cannot be simply accepted.

Final Thoughts

What seems most important about wisdom is that it is alive. It is not a prescription. It can use multiple pathways of knowing. It arises from things we already know and will birth insights that otherwise would never come, in response to the unique context we are in. We will both feel out of the way and deeply intimate in relationship. Wisdom reveals the truth of the moment, but is not necessarily validated in a moment of understanding.

Wisdom is paradoxical. It requires doing and being, is meditative and generative. Wisdom arises both alone and in communion.

Perhaps, then, wisdom is expressed, or is translated, through many personal developmental lenses. Whatever developmental perspective is interpreting and enacting wisdom, recognizing when one is speaking from a personal place versus allowing wisdom to use the personal, is incredibly useful. But maybe that recognition is not necessary at all, or is in itself part of development, accessible and useful in some contexts and not in others. Ultimately, perhaps the word wisdom is just another referent to a process, a capacity that must be lived in order to be alive.

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Constructive-Developmental Theory and the Integrated Domains of Wisdom: Are Post-Conventional Leaders Really Wiser?

Sharon L. Spano[1]

Abstract: How leaders experience wisdom is important to our understanding of leadership behavior as well as to our overall understanding of leadership. The article explores qualitative findings that may advance academic discourse and research at the intersection between leadership, wisdom, and constructive-developmental theory. The present study examined how 12 executive leaders who assessed at the conventional and post-conventional stages of adult development experience wisdom. It is significant in that it addresses a gap in the literature between wisdom and constructive-developmental theory. Semi-structured interviews were conducted to determine how executive leaders understand their leadership role in terms of the cognitive, reflective, and affective domains of wisdom. Contrary to research that defines and operationalizes wisdom as the integration of these domains, findings indicate that participants experience wisdom in one or more of the domains of wisdom. Participants were also assessed for their meaning-making capacity to determine their stage of development using the SCTi-Map instrument. Contrary to research in constructive-developmental theory that suggests that post-conventional levels of development may equate to higher levels of wisdom, findings also indicate that there was no significant difference between how leaders describe their propensity for wisdom and their measured adult stage of development. Leaders who assessed at both the conventional and post-conventional stages of development described a propensity for wisdom. Analysis of participant responses suggests that the wisdom, in all its complexity, has its own trajectory and therefore necessitates inquiry into the lines of human development to include integral perspectives associated with spiritual, emotional, and psychosocial measures. The results of this study indicate the potential for additional research that explores wisdom in the context of both adult lines *and* adult stages of development to determine if specific correlations do exist.

Keywords: Constructive-developmental theory, human development, leadership, stages of development, wisdom.

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Introduction

Wisdom is an important construct for effectively dealing with the complexities of our modern society (McKenna, Rooney, & Boal, 2009). It is also considered an essential element of outstanding leadership (Rowley, 2006; Sternberg, 2007; Yang, 2011). Constructive-developmental theory is a useful construct in broadening our understanding of the meaning-making systems of leaders (Cook-Grueter, 1999; Torbert & Associates, 2004) and how they may experience wisdom.

While there has been extensive research in wisdom theory as well as the intersection between adult development and leadership, there has been little research that explores the direct linkage between wisdom, constructive-developmental theory, and leadership. The present study examines how 12 executive leaders who assessed at the conventional and post-conventional stages of adult development experience wisdom. It is significant in that it addresses a gap in the literature between wisdom and constructive-developmental theory.

Semi-structured interviews were conducted to determine how executive leaders understand their leadership role in terms of the cognitive, reflective, and affective domains of wisdom (Ardelt, 2000, 2003, 2004a; Clayton & Birren, 1980). Contrary to research that defines and operationalizes wisdom as the integration of these domains (Ardelt, 2003, 2004a), the results of this study indicate that participants experience wisdom in one or more of the above domains; the integration of all three domains was not always present.

Participants were also assessed for their meaning-making capacity to determine their stage of adult development using the SCTi-Map instrument (Cook-Greuter & Associates, 2008). Contrary to research in constructive-developmental theory that suggests that post-conventional levels of development may equate to higher levels of wisdom (Barbuto & Millard, 2012; Cook-Greuter, 2005), findings also indicate that there was no significant difference between how leaders describe their propensity for wisdom and their measured adult stage of development. Thematic analysis of participant responses indicated that leaders who assessed at both the conventional and post-conventional stages of development described a propensity for wisdom. Based on these findings, the present study suggests that wisdom, in all its complexity, has its own trajectory and therefore necessitate inquiry into the lines of human development to include integral perspectives associated with spiritual, emotional, and psychosocial measures. The results of this study indicate the potential for additional research that explores wisdom in the context of both adult lines *and* adult stages of development to determine if specific correlations do exist.

The Relationship between Wisdom, Leadership, and Constructive-Developmental Theory

The recent socioeconomic crisis, including unstable fluctuations in the market and the complexity of an uncertain global economy, has challenged organizational leaders to reevaluate how they do business. Additionally, the distinct features of a networked society in the age of information require that leaders must now consider how they take action in the context of globalization and rapid fire communication (Bennis, 2007). As more and more organizations place greater emphasis on ethical and environmental issues, social responsibility, bottom line sustainability, and knowledge management, leaders are being held more accountable for their actions (Maak & Pless, 2006). In a global stakeholder society, for example, leaders are not only expected to be fiscally accountable to shareholders. They are also accountable to a range of stakeholders for the broader economic, environmental, and societal impact of their organization (Wade, 2006). Such high levels of diverse accountability require the integration of wisdom, creativity, and intelligence (Rowley, 2006; Sternberg, 2007). There is a far greater need for excellent judgment, insightfulness, and higher levels of strong moral character (McKenna, et al., 2009).

Wisdom, as an evolving construct, is now, more than ever, relevant to how leaders make key decisions for the common good (Sternberg, 2007). While there is no one agreed upon definition of wisdom, theorists contend that it is important to our understanding of leadership (Bennis, 2007; Yang, 2011). Wisdom enhances a leader’s overall ability to make moral and ethical choices (Lloyd, 2010) and increases the capacity for complex decision-making. Constructs related to wisdom include organizational wisdom (Kessler & Bailey, 2007), leadership wisdom (Yang, 2009; 2011), and wisdom management (Allen, 2008). From a practical perspective, greater understanding of wisdom and these related constructs have the potential to offer valuable insight into other aspects of organizational behavior that can potentially generate higher levels of business performance and success among leaders thereby influencing their overall ability to impact society (Bennis, 2007; Sternberg, 2007, Yang, 2011). The implication is that social responsibility is an essential component of leadership-related wisdom (Yang, 2011). Wise leaders are committed to the long-term welfare of both immediate stakeholders and humanity in general (McKenna et al., 2009; Sternberg, 2007).

In order for organizational leaders to more fully demonstrate a capacity for such transformative action, leading theorists contend that leaders can and should develop higher levels of wisdom (Barbuto & Millard, 2012; Sternberg, 2007; Yang, 2011). Principles of wisdom are particularly relevant to this time in history because wisdom is characterized by flexible, intuitive methods. The underlying premise therein is that if the basic tenets of wisdom are understood, leaders can also be evaluated according to robust criteria based on the principles of wisdom (McKenna et al., 2009). Leadership effectiveness can no longer be measured by organizational performance and profits alone.

While theorists suggest that wisdom is a key to how leaders effectively deal with complexity and in how they obtain a competitive advantage in the marketplace (Bierly, Kessler, & Christensen, 2000), it is worth noting that neither the construct of wisdom within organizations nor the processes associated with the cultivation of wisdom have received much attention in management and leadership discourse (McKenna et al., 2009; Rowley, 2006; Small, 2004).

While many definitions and research methodologies abound in the field of wisdom theory, one aspect of wisdom is often expressed. Wisdom, in all its complexity, represents the pinnacle of human development (Baltes & Staudinger, 2000; Kramer, 1990; Labouvie-Vief, 1990; Orwoll & Perlmutter, 1990; Pascual-Leone, 1990). As such, research linked to the study of wisdom is on the rise (Barbuto & Millard, 2012; Webster, 2007). While its relevancy to leadership and constructive-developmental theory is still unfolding, future research in this area promises an alternative approach to understanding the complexity of human development.

Ongoing and consistent research in the field of constructive-developmental theory has the potential to at least partially bridge the gap between leadership and wisdom. Leading theorists in this field continue to broaden our understanding of how leaders at differing stages of development engage in the transformational process of leadership. One underlying assumption of constructive-developmental theory suggests that leaders who demonstrate later stages of development have perspectives and insights that may also purport to greater levels of wisdom (Cook-Greuter, 2005). Barbuto and Millard (2012) further propose that as one transitions from one developmental stage to another, development will coincide with progression in wisdom development. The findings of this study suggest that wisdom can be experienced within earlier and later stages of development, albeit in different ways. I will more fully explicate these findings in the discussion sections of this article.

Theoretical Framework

Wisdom Theory

The theoretical framework for the present study is situated at the intersection of leadership, wisdom theory, and constructive-developmental theory. While references to the construct of wisdom span ancient teachings from Sumerian to Hebrew cultures, empirical studies within the psychological sciences only began to emerge in the late 1970s (Birren & Svensson, 2005). The literature includes paradigms of wisdom that have been debated since the field began to more fully emerge in the 1980s and ‘90s: (a) theological and philosophical perspectives on wisdom, (b) wisdom and the sciences, (c) the nature of wisdom in complex environments, and (d) the ongoing debate between explicit and implicit theories of wisdom. From this review, two major psychological wisdom paradigms emerged as relevant to the present study: wisdom as an expert system of knowledge (Baltes & Kunzmann, 2004; Baltes & Smith, 1990, 2008; Baltes & Staudinger, 1993, 2000) and the wise person theory (Ardelt, 2000, 2003, 2004a, 2004b, Clayton & Birren, 1980).

Since the focus of the study was on how conventional and post-conventional executive leaders experience wisdom, the present study is situated within the implicit theories of wisdom. More specifically, the present study aligns with the research on the wise person theory of wisdom because it is a first-person interpretative approach that aims to examine the real life experience of leaders. Greater emphasis was therefore placed on attributes of wisdom as an essential component of leadership (Ackoff, 1989; Jeannot, 1989; Jones, 2005; Prewitt, 2002) and as a positive result of human development (Kramer, 1990; Labouvie-Vief, 1990; Orwoll & Perlmutter, 1990; Pascual-Leone, 1990).

Major Debates in the Field

Within the context of explicit and implicit theories of wisdom, debates in the field are divided by two main ways to conceptualize and study the construct. The first approach is based on a traditional view of ancient writings of Western philosophers wherein wisdom is studied as a theory of knowledge, judgment, and advice about difficult and uncertain matters of life (Baltes & Kunzmann, 2004; Baltes & Smith, 1990; 2008; Baltes & Staudinger, 1993). The second approach is based on Asian philosophy and addresses wisdom from the perspective of *wise* *persons* (Ardelt, 2000, 2003, 2004a). Western explicit theories of wisdom most often focus on knowledge and analytic capabilities, whereas Eastern implicit theories tend to emphasize the embodiment of the cognitive, reflective, and affective domains of wisdom (Ardelt, 2004a; Takahashi, 2000). These three domains as set forth in Table 1 served as a first-person interpretive lens in examining the wisdom experience of participants in this study.

Table 1: Definitions and operationalization of wisdom as a three-dimensional personality characteristic.

Domain of Wisdom	Definition	Coded to Assess How Leaders
Reflective	Different ways participants reflect; the qualities of reflection; how participants overcome subjectivity and self-projection	– reflect on adversity in life – reflect on differences in others to include social/cultural values – reflect on the essence of their work – reflect on themselves in relation to people and situations – reflect on multiple perspectives of other – gain self-insight and reflect on own capacities/strengths – reflect on spiritual and religious aspects of life – reflect on wisest self in relation to phenomenon and events
Cognitive	How participants structure experiences and make meaning from them. What is the logic behind their perspectives of self in relation to world? Desire to know truth and attain deeper understanding of life.	– describe adversity in life – accept ambiguity and uncertainty – describe essence of work in relation to purpose or calling – balance adaptation of environment with interest of the common good of society – integrate complex thought, action, and feeling – make important decisions in midst of uncertainty – take opposing views into consideration – describe themselves in relation to larger system – describe the construct of wisdom – increase own capacity for wisdom
Affective	Different aspects of emotion demonstrated in behavior	– respond to adversity – respond to ambiguity – demonstrate empathy and compassionate love for others – balance empathy and goal achievement – feel and act on behalf of greater good of organization – demonstrate humility – use humor to offset challenges – create results in dire situations

Adapted from Ardelt (2003 and Clayton & Birren (1980).

Wisdom as an expert system of knowledge vs. the wise person theory

In the early 1980s, the Max Planck Institute for Human Development and Education (commonly referred to as "The Berlin Group") developed what is still the most widely used explicit model of wisdom. Introduced as the Berlin Wisdom Paradigm (Baltes & Kunzmann, 2004: Baltes & Smith, 1990; Baltes & Staudinger, 1993), wisdom is defined as a high level of exemplary expertise in dealing with the fundamental problems related to the meaning and conduct of life (Kunzmann & Baltes, 2003). Examples of such fundamental problems include complex life and death issues, career moves, family conflicts, and life-span transitions such as aging or loss of a loved one.

As the preeminent leaders in wisdom research, Baltes and his associates set forth the premise that such pragmatics of life address wisdom within the context of life planning, life management, and life review (Baltes & Kunzmann, 2004; Baltes & Smith, 2008). Additionally, wisdom-related or expert knowledge is researched and assessed according to five wisdom criteria: rich factual knowledge, rich procedural knowledge, life-span contextualism (strategies, judgment, advice concerning matters of life), value relativism (differences in values, goals, and priorities), and uncertainty (Baltes & Kunzmann, 2004; Csikszentmilhalyi & Nakamura, 2005). Expert knowledge about the meaning and conduct of life approaches wisdom when all five criteria are present. The criteria are designed to reflect a balance between intellect and character and thereby offer an integrated perspective of wisdom.

The Berlin Group offers a stringent perspective on wisdom as a knowledge-based construct that emphasizes the functional consequences of wisdom over *how* one acquires it. While these theorists do take into consideration the cognitive, emotional, motivational, and virtuous aspects of the individual (Ardelt, 2004a; Baltes & Kunzmann, 2004), they are juxtaposed against research on wise people claiming that such individuals are an imperfect illustration of wisdom (Baltes & Kunzmann, 2004). Wise sages as we know them (e.g., Buddha) are, therefore, recognized as carriers of wisdom-related knowledge rather than the road to understanding the construct of wisdom. The contention herein is that most wise individuals move through several reconstructions and purifications. Because they are fallible and imperfect, they cannot reach an ideal level of wisdom (Baltes & Kunzmann, 2004). The Berlin Group therefore contends that research should focus more on wisdom as a body of knowledge rather than on implicit studies of wise persons.

Within the context of adult-developmental theory, however, one underlying premise of the present study is that the road to wisdom *is* paved with reconstruction and purification. While the Berlin Group's research on wisdom as an expert system of knowledge is important and vital to our understanding of wisdom, it is a non-hierarchal model that does not recognize aspects of developmental movement (Alexander, Druker, & Langer, 1990). It therefore fails to acknowledge potential for the transformative processes associated with such movement and higher stages of consciousness. Developmental theory contends that each stage of development is more complex than the previous stage because as the person evolves, he/she is able to integrate and differentiate previous stages of development into a more complex understanding and experience of life (Cook-Greuter, 2005; Torbert, et al., 2004). This ability to integrate and differentiate may translate to higher levels of wisdom (Barbuto & Millard, 2012; Cook-Greuter, 2005). The Berlin Group, however, does not acknowledge later stages of development that encompass and reorganize based on earlier stages of development (Alexander, Druker & Langer, 1990). Further, as a cognitive model (Ardelt, 2004a; 2004b), it eliminates perspectives associated with reflective thought and higher states and stages of consciousness.

The wise person theory of wisdom expands upon wisdom as an expert system of knowledge by acknowledging that even the most profound wisdom literature, e.g., the Bible or the ancient Vedic texts, remain intellectual or theoretical knowledge until the wisdom associated with that knowledge is realized by a person (Ardelt, 2004a; 2004b). Wisdom is therefore more than an intellectual construct. It is the experience of knowledge as it is re-transformed into the person's ability to arrive at some deeper understanding or meaning-making about a situation or life event. Interview protocols that seek out the wisdom experience of an individual's own life situation offer a unique perspective in that they align with an important premise linked to the construct of wisdom: the value and importance of interpretive knowledge (Kekes, 1983).

To have an understanding of the pragmatics of life without being able to adequately apply that knowledge to one's own life circumstances does not equate to wisdom. Interpretative knowledge, therefore, does not refer to an intellectual interpretation of facts but to a paradigm shift in knowing. Wisdom is not a state of perfect knowledge (Baltes & Kunzmann, 2004); it is a state of *being* (Ardelt, 2004b). This state of being is realized through reflection on one's life experiences and how those experiences transform the individual (Ardelt, 2004b; 2005). This state also encompasses the knowing or cognitive capacity of the individual as well as how the individual affectively responds to others; it should therefore be measured by assessing the wisdom experience of people rather than by the wisdom of their knowledge. Wisdom is therefore perceived as a property of the individual and the integration of the cognitive, reflective, and affective characteristics of that individual (Ardelt, 2000; 2004a; 2005).

In keeping with this paradigm of wisdom as an implicit theory that measures the wisdom experience of people, this study was designed to elicit the personal experience of individual executive leaders and to determine how, if at all, those experiences may have transformed them as individuals.

Constructive-Developmental Theory

In her pioneering work on ego development, Loevinger (1976) postulated that there is an order to stages of development. In essence no order or stage can be skipped; each stage is more complex than the previous, and each stage is based on the preceding stage and therefore prepares the individual for the stage to follow (Loevinger, 1976). The present study focused more specifically on the framework of constructive-developmental theory that encompasses the specific body of work linked to neo-Piagetian paradigms. These theories are deemed such because they expand the early work of Jean Piaget beyond the scope of childhood cognition to include the transformational processes and emotions associated with stages of adult development (McCauley et al., 2006). These stages of development set the foundation for work by later researchers such as Torbert (1987; 2004), and Cook-Greuter (1999).

Constructive-developmental theory, or what some theorists refer to as adult stage development, is positioned as constructive in that it explores how individuals construct or interpret their life experiences. Similarly, the theory is positioned as developmental in that it explores how those interpretations can change and become more complex over time (McCauley et al., 2006). The theory contends that a person's growth and development is a process whereby the individual adopts more complex ways of making meaning of life experiences (Kegan, 1982; Cook-Greuter, 2000; Torbert, 1987). Each stage of development is more complex than the previous stage because as the person evolves, he/she is able to integrate and differentiate previous stages of development into a more complex understanding and experience of life. Accordingly, McCauley et al. (2006) states that: "Constructive-developmental theory concerns itself with two primary aspects of development: (a) the organizing principles that regulate how people make sense of themselves and the world (orders of development) and (b) how these regulative principles are constructed and re-constructed over time (developmental movement)" (p. 636).

Developmental theorists divide the spectrum of human consciousness into four main tiers: pre-conventional, conventional, post-conventional, and transpersonal (Cook-Greuter, 2004, 2005). Every stage has the potential for strengths and weaknesses, and each stage offers specific characteristics associated with impulse control, character development, interpersonal relations, and conscious preoccupation to include self-concept—none of which can be measured separately because they are so intimately intertwined (Loevinger, 1966; 1976). For over two decades, theorists in the field of leadership and management have looked to stage development theory as a way to better understand how leaders think, take action, and make meaning out of their experience of leadership. Since the field of constructive-developmental theory is the stage development theory most often associated with leadership and management (Cook-Greuter, 2004; McCauley, Drath, Palus, O'Connor, & Baker, 2006), it is one of the core theoretical frameworks for the present study.

With this most important premise of human development at the forefront, the present study offers a deeper understanding of wisdom through the experiential lens of executive leaders in the context of their adult stage of development. What they *say* about their experience of wisdom will add to the body of knowledge of first-person descriptions of *how* executives live out aspects of wisdom as primary leaders in their respective fields.

Constructive-developmental theorists contend that individuals who measure at the post-conventional levels have a greater capacity for integration of complex thought, action, and feeling (Cook-Greuter, 2004). While the research is not yet fully defined on how this integration may interrelate with theoretical perspectives on wisdom, leaders who measure at post-conventional levels are deemed more successful at positioning their organizations through change and in adapting to complex environments (Cook-Greuter, 2000; Fisher, Merron, & Torbert, 1987; Merron & Torbert, 1987). By contrast, the conventional levels of development are viewed as the stages more associated with linear perspectives. Leaders who measure within these stages, for example, may demonstrate wisdom via analytic logic. However, they would not necessarily recognize their capacity to construct meaning.

In discussing the intersection between the theoretical frameworks on wisdom and constructive-developmental theory, the focus of this study is limited to categorical descriptors associated with the conventional and post-conventional stages of development as defined by Cook-Greuter (2005) and Torbert & Herdman-Barker (2013).

The conventional stages refer to three developmental stages: the Diplomat/Conformist (3.0), Expertise/Self-Conscious (3.5), and Achievement/Conscientious (4.0). These three stages pertain to developmental levels of most individuals after the age of 12; approximately 80% of the population measures within these ranges, with most individuals indicating a transition from the Expertise/Self-Conscious stage to the Achievement/Conscientious stage. For example, thirty-percent of people in a mixed sample of 4510 profiled at the Achievement/Conscientious action logic (Torbert & Herdman-Barker, 2011).

Table 2: Differentiations between Categorical Descriptors and Scoring of 3 Developmental Models.

	Torbert Action Logics	**Cook-Greuter** Ego Development Stages	Scoring	**O'Fallon** StAGES Model	Scoring
				Illumined	6.5
	Ironic	Unitive	6	Universal	6.0
				Transpersonal	5.5
	Alchemical	Construct-Aware	5/6	Construct-Aware	5.0
	Strategic-Systems Oriented	Autonomous	5	Strategist	4.5
Post-Conventional	Values-Oriented	Individualist	4/5	Individualist	4.0
	Achievement-Oriented	Conscientious	4	Achiever	3.5
Conventional	Expertise-Oriented	Self-Conscious	3/4	Expert	3.0
	Diplomatic	Conformist	3	Diplomat	2.5
	Opportunist	Self-Defensive	2/3	Rule-Oriented	2.0
	Impulsive	Impulsive	2	Opportunist	1.5
Pre-Conventional				Impulsive	1.0

Adapted from Cook-Greuter (2002) and Torbert (2013). Note: O'Fallon (2014) has identified three stages within the earlier stage identified as Unitive by Cook-Greuter and Torbert. In light of this data, O'Fallon also views the Construct-Aware Stage as the first Post-Conventional Stage. Additionally, Cook-Greuter and Torbert do not score for the Rule-Oriented stage.

The post-conventional stages refer to the three developmental stages: the Values-Oriented/Individualist (4.5), the Systems-Strategic/Autonomous (5.0), and the Alchemical/Construct-Aware stage (5.5). At the first post-conventional level, people begin to realize that the meaning of things is dependent upon their own perspective and interpretation (Cook-Greuter, 2005).

Table 2 represents the linguistic diversity between the Ego Development Model as expressed by Cook-Greuter (2002) and Torbert's Action Logics (2011, 2013). The StAGES model (O'Fallon, 2014) is also represented as the latest stage development model. Since it can be somewhat cumbersome and confusing to move between the various linguistic descriptors set forth by Cook-Grueter and Torbert, I will utilize the StAGES numerical scoring for the range of stages represented in this study. The significance of the StAGES model will be more fully explicated in the discussion on Future Research.

The Study

Research Design

The reasoning and processes involved in describing how someone experiences wisdom can be more challenging to detect via quantitative methods (Yang, 2011). The study was therefore designed as an exploratory qualitative study that involved a 1st-person interpretative approach to investigating leaders in their natural settings. In-depth semi-structured interview questions were designed to elicit the candid responses of 12 executive leaders and to determine how those responses related to their adult stage of development. The SCTi-Map was the instrument used to determine those stages.

Methodology

Selection and Recruitment

Executive leaders were purposefully recruited and selected via the researcher's corporate database and nominations from other leaders. The criteria for selection centered on mid-to-senior-level executives engaged in government, corporate, or non-profit settings (to include educational and religious entities) who had undergone a form of major transformation in their organization within the prior 5 years. For purposes of this study, major transformation is defined as corporate downsizing, loss of client base, loss of profits, or any self- identifying factor that has constituted a major shift in systems, processes, policies, or the infrastructure of the organization, to include leadership strategies. Every effort was made to secure a diverse population to include religious affiliation, gender, age, and ethnicity. The objective was to select executive leaders within these environments who scored within the conventional or post-conventional stages of adult development based on the results of the SCTi-Map.

Sample Population

The age of participants ranged from 44-70 with the median age at 60. Religious affiliation was only moderately represented by one atheist and one participant in the Hindu faith. Since the focus of the study was on executive leaders who measured at the conventional and post-conventional stages of development, this limitation was not a factor. The sample population was comprised of 8 males and 4 females. The private sector was represented by 41% whereas the public sector was represented by 16% of the population. Four of the participants (33%) were from non-profit organizations, and one participant was from a private foundation. The education level of participants ranged from Bachelor's Degree to Doctorate Degree and included two participants with Juris Doctor Degrees. Executive level positions included 50% of respondents at the Founder/President or CEO/COO level, 2 senior-level pastors from a large mega-church environment, 2 equity partner attorneys, 1 managing partner of an international medical technology company, and 1 technology consultant. Annual operating budgets ranged from $400,000 to $175M.

Procedure

The study involved two methods of data collection: the administration of the SCTi-Map (Cook-Grueter, 2008) and semi-structured interviews (Lincoln & Guba, 1985). Contact summary sheets and analytic memos were also utilized to reflect on preliminary themes that rose from the initial interviews and to capture ideas and relationships between codes during the process of coding and analysis (Miles & Huberman, 1994).

A pseudonym was assigned to each participant prior to their taking the SCTi-Map assessment. The SCTi-Map responses for each individual were then scored by an independent rater who has been trained according to the standards and protocols of Cook-Greuter and Associates. In an effort to minimize transformational bias (Cook-Greuter, 2011) toward any one specific stage during the analysis process, participants' scores were withheld from the researcher until after completion of the first coding and analysis cycle. Participants stages ranged from 3.0 to 4.5. Since Cook-Greuter's instrument depicts the 4.5 stage at the post-conventional level, no additional recruitment was deemed necessary. However, it should be noted that this decision proved to be a limit to the study in that some researchers view the 4.5 stage as a transitional stage to the post-conventional levels.

All participants were interviewed for 60-90 minutes. Three participants were interviewed over the phone due to distant locations. The remaining 9 interviews were conducted face-to-face by the researcher. Interviews were tape recorded and 10 of the 12 interviews were transcribed by an independent professional. The additional 2 interviews were transcribed by the researcher to protect anonymity of two of the participants who are very well known. Each recorded interview was transcribed verbatim and proofread word-by-word by the researcher.

The semi-structured interview questions related to the leaders' perceived role within the organization, personal wisdom experiences, wisdom as a construct, values and beliefs, the essence of their work, and responses to adversity.

Data Analysis

Thematic analysis (Saldaña, 2009) involved two separate and distinct coding cycles. The first cycle involved multi-phases of analysis to ascertain rich, thick descriptions (Maxwell, 2005) of the leaders’ responses. This initial phase was important to determine if their responses indicated a propensity for wisdom. Interview responses were coded into key aspects of general wisdom theory (Baltes & Smith, 1990, 2008) and personal wisdom theory (Ardelt, 2000, 2004a, 2005). Once the data and initial findings from the first cycle of analysis were clearly delineated, the results of the SCTi-Map were revealed to the researcher.

First Coding Cycle: Analysis, Coding, and Emergence of Leaders’ Experiences of Wisdom

The first coding cycle was divided into four separate phases.

Phase 1: review of transcripts

Phase 1 was aimed at understanding how the participants construct and make meaning of their wisdom experience (Strauss & Corbin, 1998). Consistent with a data-driven approach to analysis, the first six interviews were reviewed for preliminary code development. Each transcript was coded and analyzed using a multi-step iterative process of thematic analysis as set forth by Boyatzis (1998). This process involved the categorization of data, analysis of narrative structure and contextual relationships, the integration of themes, and the interpretation of major themes and descriptions (Creswell, 2009; Maxwell, 2005; Newman, 2003). The researcher systematically reviewed and analyzed over 15 hours of interview transcripts. This process allowed for insight into the overall theme of each transcript and how the theme might compare to contact summary sheets that were written post-interview of each participant.

A second review of the transcripts involved pre-coding methodologies (Saldaña, 2009) that identified key statements and helped determine patterns of expression. Those patterns of expressions were then compared and contrasted with one another to determine emerging codes. To ensure consistent quality of codes, a code book was developed to ensure that the definition and description of the codes would be accurately applied to future coding. The initial six transcripts were reviewed a third time and coded against the emerging themes to determine consistency of judgment.

Phase 2: code transcripts

The raw data of the final six interviews was then used to further validate the emerging themes. Once consistency of judgment was determined with respect to the emerging codes, the researcher reviewed the conceptual framework, the interview protocol, and the research question as a guide for articulation of meaningful themes. Additional codes were then developed to allow for responses within the individual domains of wisdom. To test the wise person theory of wisdom, responses were then subjected to an additional level of analysis to determine how they corresponded to the coding within the separate domains of wisdom, the reflective, cognitive, and affective. Research indicates that wisdom is a real-life phenomenon that can be recognized by others without much difficulty (Baltes, Staudinger, Maercker, & Smith, 1995). Based on this assertion, the researcher analyzed all 12 transcripts again and identified 847 “wisdom” responses within the three domains of wisdom.

Content from all 12 transcripts was then analyzed via a first cycle of descriptive coding (Miles & Huberman, 1994; Saldaña, 2009). This level of coding was chosen as a form of analysis because it is well suited to studies with a variety of data forms. As an iterative process, this level of analysis involved repeated review of raw data. Codes were then expanded or collapsed accordingly.

Phase 3: interpretation of data

This phase involved review of all analytic memos to identify key learning points from the first cycle of descriptive coding. A summary of each code was written, and summaries were arranged into clusters to determine higher levels of abstraction and how themes might emerge or converge (Miles & Huberman, 1994). Summaries were also analyzed in terms of the integrative domains of wisdom.

Phase 4: finalization of themes

This phase involved a return to the raw data to determine if the coded segments of the interview did in fact correspond to the emerging themes. Themes were refined as the data were repeatedly analyzed to ensure accurate representation. This repeated immersion in the interview transcripts allowed for rich, thick data to emerge and for a deepened understanding of the phenomenon. A final stage of clustering resulted in the organization of themes based on the domains of wisdom. Each theme was then named and tagged with an exemplar.

Second Coding Cycle: Analysis and Coding of Domains of Wisdom in Relation to Stages

Since the study was designed to elicit the wisdom experience of executive leaders who scored within the conventional and post-conventional stages of development, it was important to engage in a second coding cycle once the SCTi-Map scores were revealed. The purpose of this cycle was to analyze and code participant responses to determine if there was a relationship between their stage development score and their responses within each of the integrative domains of wisdom. This process involved reentry into the originally coded data. Patterning and clustering of the data was used to determine the descriptive responses of the participants and how those responses corresponded to the three domains of wisdom and their individual stage of adult development.

Phase 5: analysis of responses across the integrative domains of wisdom

Participant responses previously coded into the cognitive, reflective, and affective domains of wisdom were divided up by participant and analyzed to determine their primary domain of wisdom. Responses included all data previously coded in the subcategories of the coding schema as defined in Table 1. This table represents the definition and operationalization of wisdom as an integrated three-dimensional component of personality. These definitions were adapted from earlier research (Ardelt, 2003; Clayton & Birren, 1980) in an effort to accommodate a more qualitative and interpretative approach to the research. Clayton and Birren (1980) originally determined these domains through a multidimensional scaling process of 12 wisdom attributes (Ardelt, 2005).

The purpose of this level of analysis was to determine if participant responses were integrated across all three domains or if the participants described their experiences from a primary domain (e.g., cognitive, reflective, or affective). Because cognition is required in order to experience the reflective or affective aspects of personality (Wilber, 2000), the categorical responses were divided according to the cognitive, cognitive/reflective, cognitive/affective, and the cognitive/reflective/affective domains of wisdom.

The process involved a review of the coded data for each participant to ensure that the response in each domain was in fact appropriately coded according to the definition as outlined in the coding schema. A percentage of responses for each domain was then determined (Appendix A) to ascertain the primary domain of wisdom described by the participant. For example, 25.96% of the overall responses in the cognitive domain were expressed by Participant 1. Those responses were separated out from the remaining participant responses. Each of his 28 cognitive responses were then analyzed line-by-line to ensure they fit into the cognitive domain. Responses that reflected a direct cognitive response, according to the definition, were separated out and assigned a percentage rate. For example, Participant 1 indicated 19% of his responses in the cognitive domain. Responses that indicated more of an integration of the three domains or of the cognitive/reflective, cognitive/affective domains were separated out into those categories and given a percentage rate as appropriate. Participants' primary domain of wisdom was then determined by their highest percentage rate. For example, Participant 1 indicated 48% of his responses in the primary wisdom domain of the cognitive/affective category.

Phase 6: analysis of responses across the stages/action logics

The purpose of this level of analysis was to determine if there was a relationship between how participants experienced wisdom, via their primary wisdom domain, and their stage of development or action logic (Torbert and Herdman-Barker, 2013). Participants' responses previously coded into the three domains of wisdom were analyzed and coded against the action logic lexicon for each stage of development. For example, if a cognitive response aligned with the lexicon and understanding associated with the 3.5 action logic, that response was coded at the Expertise level. Responses were then mapped across several action logics as appropriate for each participant. This detailed level of analysis involved coding representative of each action logic against the single or integrated domains of wisdom. For more information regarding the outcomes of this detailed level of analysis, see Spano (2013).

Key Findings

Based on the literature on wisdom and constructive-developmental theory, it initially seemed probable that leaders who measured at the conventional stages of development might fail to indicate a propensity for wisdom beyond a linear, cognitive perspective. Similarly, it seemed probable that those who measured at the later or post-conventional stages of development would indicate integration of the three wisdom domains. Key findings, however, suggest otherwise.

The initial cycle of analysis was necessary to determine if the leaders presented as "wise" based on the definition of wisdom as it corresponds to the three domains of wisdom outlined in Table 1. It was anticipated that participants who lead within more linear, analytic disciplines, e.g., attorneys or engineers, might demonstrate a propensity for wisdom, if at all, only within the cognitive domain of wisdom. However, this did not prove to be the case. Based on thematic analysis of the initial data, all 12 of the respondents indicated a propensity for wisdom albeit in different ways. The significance of the initial key findings that emerged within each of the domains of wisdom emphasized the complexity of human development and the elusive nature of wisdom.

The process of thematic analysis as outlined above revealed the major themes depicted in Figure 1.

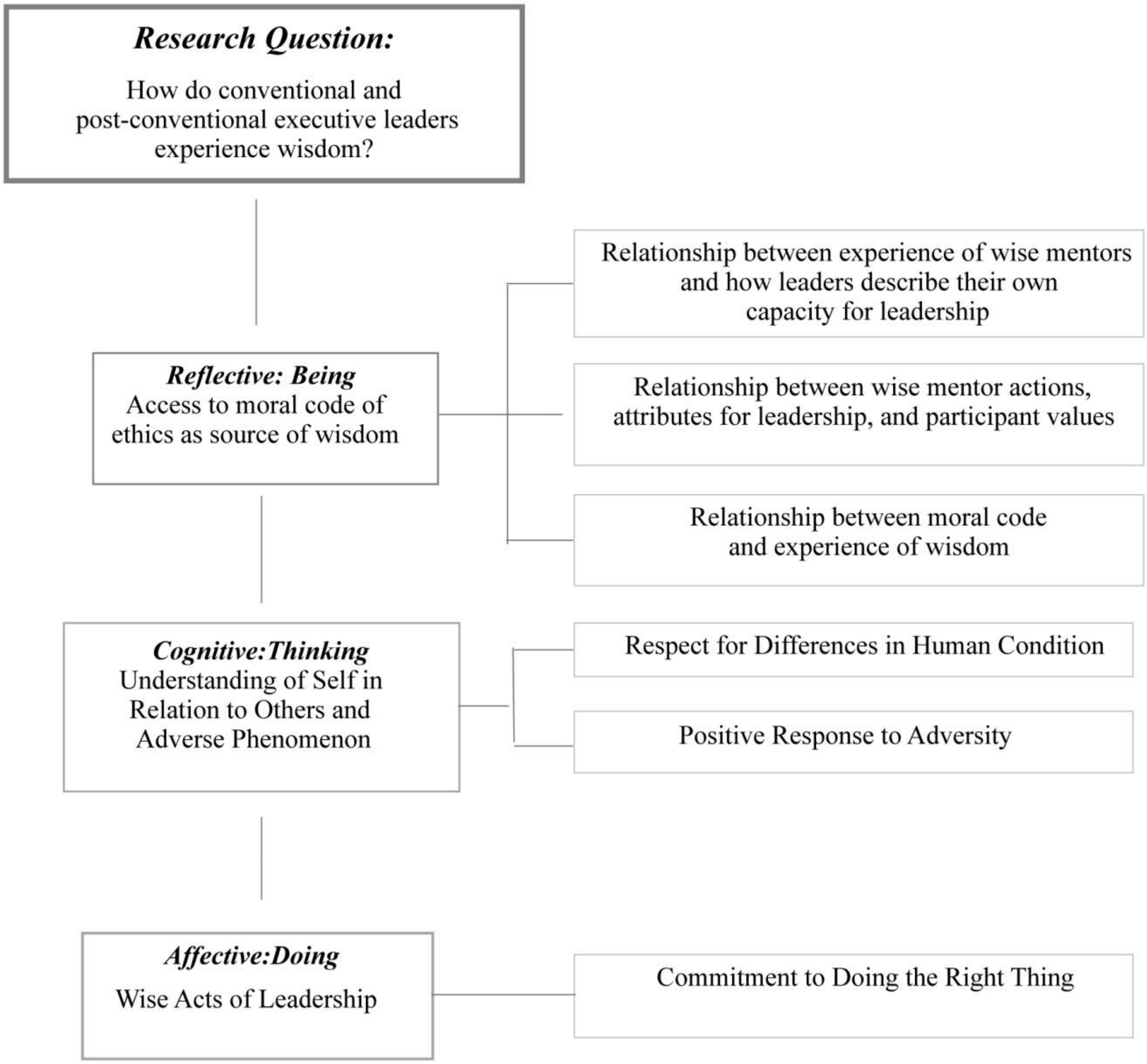
Research Question:
How do conventional and post-conventional executive leaders experience wisdom?
Reflective: Being
Access to moral code of ethics as source of wisdom
Relationship between experience of wise mentors and how leaders describe their own capacity for leadership
Relationship between wise mentor actions, attributes for leadership, and participant values
Relationship between moral code and experience of wisdom
Cognitive:Thinking
Understanding of Self in Relation to Others and Adverse Phenomenon
Respect for Differences in Human Condition
Positive Response to Adversity
Affective:Doing
Wise Acts of Leadership
Commitment to Doing the Right Thing

Figure 1: Themes and Key Findings First Cycle of Analysis.

A brief overview of the findings from the First Cycle of Analysis will be now be discussed.

First Cycle of Analysis

Reflective: Access to Moral Code of Ethics as Source of Wisdom

From a reflective stance, all participants access a strong moral code of ethics as a source of wisdom. They may, however, do so from introspective practices such as prayer and meditation or through more cognitive processes. The reflective component of wisdom speaks to how participants move beyond knowledge and skill and what they know for certain through the process of logic and formal reasoning to understanding issues of knowing in the face of uncertainty (Kitchener & Brenner, 1990).

Responses indicated that all 12 participants were able to move beyond knowledge to levels of "knowing" by accessing a moral code of ethics. This moral code is embedded in who they are. It stems from societal and religious norms that have been impressed upon them in early developmental years. This moral code was also formulated by early career experiences with someone they described as a wise mentor. How they construct meaning within the context of this moral code is one aspect of how they experience wisdom. This system of morality or code of values guides choice and actions. Wisdom is not something they do as all decisions and resultant outcomes are not perfect; it is, however, part of their existence or way of being. These findings indicated that the participants are wise leaders, each in different and unique ways; this individual way of being is reflected in the way they live out the day-to-day experience of wise leadership.

Cognitive: Understanding of Self in Relation to Others and Adverse Phenomenon

Respect for differences in the human condition

Wisdom is manifested in our understanding of differences and the multiple perspectives of others (Ardelt, 2000; Kitchener & Brenner, 1990). Consistent with this premise, all participants demonstrated a deep understanding of themselves in relation to others and a surprising respect for differences in the human condition. This respect was described in relation to employees, clients/customers, and in some instance, the greater society.

Participants expressed appreciation of employee differences within an underlying theme of respect, care, and/or responsibility. This appreciation, however, was expressed differently based on the organizational sectors represented. For example the public and private sector respondents expressed client appreciation via a more cognitive response of solving problems for the client, increasing the bottom line for the company, and being accountable to a board. While these differentiations may seem obvious responses from anyone in a leadership role, participant knowledge and ability is strongly engulfed in a passionate desire to make a difference for their clients. Wisdom is therefore expressed via their ability to provide information and advice on the pragmatics of life such that their clients can make the best decisions for their businesses.

Leaders from the non-profit organizational sector, however, offered a more altruistic approach that included a systems perspective beyond the client or immediate needs of the community. Both the pragmatic and altruistic approaches to wisdom require some integration of the reflective, cognitive, and affective domains; however, this process is lived out or expressed at different levels. For example, in the pragmatic levels described above, wise leaders may reflect from rational thought or logic; they rely on facts. Those who engage in reflection from a broader systems perspective, however, seem to arrive at more altruistic levels of respect and appreciation beyond the scope of the individuals they directly serve. Such expression of service often extends beyond the organization, for example, to the global society.

Such acts suggest understanding and acceptance of the positive and negative aspects of human nature (Ardelt, 2005) as they relate to the construct of wisdom. The diversity of these responses, however, also indicates that how leaders experience wisdom within the integrative domains of the cognitive, reflective, and affective aspects of personality is not a clear path of discovery. The interrelationship between the domains of wisdom is complex and requires exploration into the multidimensional aspects of the spiritual, emotional, and psychosocial measures of an individual in order to more fully understand how leaders fully live out their experience of wisdom. Questions related to the phenomenon of adversity were therefore explored in the hopes of gaining some level of insight into the more complex aspects of the participants' meaning-making systems.

Positive response to adversity

Research indicates the importance of examining wisdom within the context of adversity (Ardelt, 2005; Kekes, 1983; Kitchener & Brenner, 1990). This aspect of wisdom also includes how individuals understand themselves in relation to the inherent limits of knowledge and how they understand and accept the unpredictability and uncertainty of life (Ardelt, 2005). Adversity can be expressed as any negative misfortune or crisis that results in calamity or distress for the individual. Depending on the meaning-making systems of the person, to include perception, interpretation, and levels of wisdom, even a minor infraction can be viewed as adversity. One clear aspect of adversity is that it is part of the human experience. How individuals maneuver their way through such moments of misfortune is often determined by their theological, philosophical, or psychological approach to life.

While not all adversity leads to greater levels of wisdom, research indicates that the ability to cope with crisis and hardship may not only be a hallmark of wise individuals, it may also be one of the pathways to wisdom (Ardelt, 2005; Pascual-Leone, 2000). Wisdom theory therefore suggests that leaders would be fully capable of dealing with any crisis and obstacles they may encounter (Ardelt, 2005; Baltes & Kunzmann, 2004; Kekes, 1983; Kunzmann & Baltes, 2003).

Findings indicated that 11/12 of the participants expressed an ability to endure and persevere through extreme measures of adversity. One participant did not feel he had experienced adversity because in his estimation adversity is greater than the day-to-day challenges of life. Daily challenges, in his estimation, are simply problems to solve. Since he had not experienced loss of family, income, or extreme illness, he did not view adversity as part of his life experience.

Consistent with the literature on wisdom and adversity, participants engaged in *active coping* as set forth by Ardelt (2005) in several specific ways: (a) reframed the situation to make the best of it; (b) demonstrated the ability and willingness to take control of the situation based on their own experience, skills, or talents; (c) came to the understanding that one doesn't always have control over external circumstances; (d) accepted that adversity is part of life and that life is unpredictable and uncertain; (e) accepted that death or loss is a part of life; (f) expressed a trust in the benevolence of others and, in some instances, God.

The aforementioned findings suggest that how leaders handle adverse circumstances may have an impact on how they develop their own capacity for wisdom. Participant responses indicated that adversity is viewed as an opportunity to gain insight and wisdom about self and others. Through adversity, participants learned to embrace challenge, have faith in their own experience and/or God, and to make better and wiser decisions.

Affective: Wise Acts of Leadership

The ebb and flow of how participants reflect and think about daily organizational life is translated into affective behavior, the *doing* aspect of wisdom, or what can be deemed as “wise acts” of leadership. While participants did not expressly describe their actions as “wise,” the process of thematic analysis revealed interesting differentiations in how they deliver products and services. Responses were coded according to thoughts or actions specific to client needs versus those for the greater good of the organization or those set forth on behalf of the common good of society. All 12 participants expressed a commitment to doing the right thing. Twelve of the executive leaders described affective responses specific to their clients. Additionally, all 12 expressed actions for the greater good of the organization. However, only 6/12 responses demonstrated affective behaviors for the common good of society.

The significance of these initial findings was not fully realized until the SCTi-Map scores were revealed. While the first cycle of analysis indicated that there were differentiations in how participants described their commitment to doing the right thing, the second cycle of analysis indicated that there was no significant relationship between stages of adult development and how the participants demonstrated affective behavior towards either the client or the great good of the organization or society at large. Leaders who measured at both the conventional and post-conventional levels of development described affective behavior for the common good of society.

In conclusion, these “wise acts” of leadership are focused on that which is right and just for the client/customers served, the overall good of the organization, or the overall common good of society. In either instance, wise decisions are made based on what is “right and just” for someone or something outside and beyond self. There was little to no evidence of egocentricity in the responses of these executive leaders.

These initial findings further emphasized the complexity of wisdom and the need for greater understanding of the participants’ spiritual, emotional, and psychosocial development. While each of 12 participants indicated a propensity for wisdom, they did so in unique and different ways. Findings from the First Cycle of Analysis did indicate, however, that they do so within the broader scope of a strong moral code, an understanding of self in relation to others and adverse phenomenon, and in their commitment to doing that which is right and just for their organizations, the people they serve, and, in some instances, society-at-large.

Their propensity to experience wisdom in unique ways within the context of their adult stage of development was further substantiated by findings of the Second Cycle of Analysis.

Second Cycle of Analysis

The second cycle of analysis was important to ascertain if the leaders experienced wisdom within the integrative domains of wisdom, and, if so, how that experience related to their adult stage of development. Since the findings were surprisingly contradictory to existing theories on wisdom and constructive-developmental theory they are presented in support of my argument that wisdom has its own trajectory and therefore necessitates inquiry into the lines of human development as well as the stages of adult development.

Results of the SCTi-Map

The SCTi-Map scores denote each respondent's primary stage or center of gravity (Cook-Greuter, 2005; Torbert & Herdman-Barker, 2013). Participants' individual scores ranged from 3.5 to 4.5 and are representative of the Total Protocol Rating which indicates the statistical measure and qualitative appraisal of the SCTi-Map protocol as scored and assessed by Cook-Greuter. What this essentially means is that the TPR rating is a combination of the statistical score from the inventory, and it also includes the qualitative judgment of the rater. For example, if a participant scores within a statistical range of 4.5, the expertise of the rater might also discern that the respondent's sentence stems indicate an early or late stage of development within that range; hence the plus and minuses depicted in Appendix A. Note that Participant 9 indicates a score of 4/5-. This score indicates that this particular participant has only recently transitioned to the 4.0 stage; she is in the early stage of this level.

The results of the SCTi-Map indicated that eight of the participants measured within the conventional ranges of development: three measured at the 3.5 level, and five measured at the 4.0 level. The remaining four participants, measured at the post-conventional stage 4.5. It is also worth noting that three of the four participants who measured at the post-conventional level were women.

While these scores are representative of the participants' center of gravity (Cook-Greuter, 2005; Torbert & Herdman-Barker, 2013), it is not unusual for the dynamic of development to include a pull toward later stages of development. Under the right conditions and depending on the person's state of consciousness, e.g., the concrete, subtle, causal, and nondual tiers (Wilber, 2006) an individual may indicate meaning-making capacities and actions within later stages of development or vice versa. For example, a person may have a peak spiritual experience at the earlier concrete state of consciousness, however, that peak experience does not necessarily mean they have moved to a later stage of development.

The complexity of this developmental movement can perhaps best be described as a "rocking back and forth" (O'Fallon, Personal Communication, 2014) as individuals experience themselves in transition between earlier and later stages. The results of the SCTi-Map for this specific population, therefore, also indicated a range of responses from earlier to later stages. This range represents the nuanced dimensions of the meaning-making capacity of the individual. A participant may indicate scores in earlier stages just as readily as he may indicate scores in later stages of development.

As further evidence of this premise, five of the participants who scored within the conventional range of 4 also indicated SCTi-Map responses in the 4.5 range. Three out of the four participants in the post-conventional range of 4.5 indicated assessment responses in the 5.0 stage. After the results of the SCTi-Map were revealed, the second cycle of analysis further supported the propensity for these specific participants to gravitate toward later stages of development.

Analysis of Wisdom across the Stages/Action Logics

The second level of analysis also involved mapping participant interview responses across multiple stages of development according to the lexicon of stage-development theory as recently set forth by Torbert and Herdman-Barker (2013). The reason for shifting from the SCTi-Map lexicon to the Action Logic lexicon at this point of analysis was to ascertain how participants' wisdom experience corresponded with the leadership perspectives set forth by Torbert & Herdman-Barker (2013). Torbert's latest model, The Global Leadership Profile was not yet available at the time this study was conducted.

This second level of analysis indicated that it was much easier to map the conventional level responses across one, two, or even three action logics. In most instances, these responses mapped either one level below or beyond the respondents' center of gravity score. Participants who scored at the later post-conventional action logics, however, expressed more complex responses that mapped across 3-4 levels. For several, these responses were even two stages beyond their center of gravity score.

This element of the study is indicative of the ebb and flow of human development and the "pull' toward later action logics. Participants who scored within the later action logics more specifically indicated a movement and transition toward a deeper understanding of self and the ability to more fully self-integrate into frameworks beyond their center of gravity. This aspect of the analysis was important in that it pointed to a possible relationship between how participants mapped across multiple stages of development and how they might experience wisdom within the integrated domains of wisdom.

The Integrative Domains of Wisdom

The results of this study did not indicate a significant relationship between the integrative domains of the cognitive, reflective, and affective aspects of personality and how participants experience wisdom. Additionally, there was no significant relationship between participants' adult stage of development and how they experienced the domains of wisdom. The significance of these two findings will be more fully explicated in the following discussion.

Summary of Key Findings

Key findings of the overall study suggest that wisdom can be experienced and expressed in both the single and integrated domains of wisdom. Participants from every level of development expressed responses that correspond to one or more domains. The integration of all three domains is difficult to measure because cognition is so closely related to the domain of reflection. This study can only point to what each participant revealed about their reflective processes. This factor presents a limitation to the study in that there is no way to fully determine how, if at all, participants access the reflective domain to include the full integrative domains of wisdom as defined in this study. One can cognitively experience wisdom in the moral decision-making process as readily as one can access wisdom in moments of deep introspection which may ultimately lead to deeper and more meaningful experiences of life and conduct toward others. The integrated domains are not necessarily accessed by an individual all the time. Sternberg (1985; 1998; 2004) reminds us that even wise individuals are not always wise. One can be wise in a variety of situations and in a variety of ways.

With respect to stage development theory, Appendix A indicates that wisdom can be experienced within multiple stages of development. For example, an individual who measures within the 3.5 range may experience the cognitive/affective domain of wisdom at 48% just as readily as a participant who measures within the 4.5 range does at 49%. The literature suggests that wisdom occurs more readily at the later stages of development because individuals at these later stages have a greater propensity to engage in thought processes or “empty mind” experiences that allow for more complex perspectives such as a deeper understanding of self in relation to the world and systems-at-large (Cook-Greuter, 2005). This overriding premise suggests that developmental movement includes a movement toward wisdom that involves increasing balance between differentiation and integration.

While the literature clearly points to the deep and profound meaning-making systems of individuals at these later stages, it is not clearly identified with any specific definition of wisdom. The study-at-hand, however, has analyzed a small, yet specific population of leaders within the context of the integrative domains of wisdom, and findings suggest that wisdom can and does occur within multiple stages of adult development. .

In conclusion, key findings indicated that:

- Wisdom can be experienced at both the conventional and post-conventional levels of development.
- Wisdom can be experienced within one or more of the multidimensional domains of the cognitive, reflective, and affective aspects of personality.

Discussion

Findings of the present study suggest that the complexity of wisdom necessitates inquiry into the lines of human development to include the integral perspectives associated with spiritual, emotional, and psychosocial measures because stage development theory, while vital to our understanding of human development, offers a limited understanding of how leaders experience wisdom. Further, the cognitive, reflective, and affective domains of personality may be influenced or affected by an individual’s spiritual, emotional, and psychosocial lines of development. Finally, the relationship between lines, states, and stages of adult development in the context of wisdom can provide a deeper understanding of how leaders effectively engage in behaviors associated with wisdom.

Before discussion on the reasons for these contentions, it is important to reiterate that participant responses associated with this study are but one aspect of how leaders construct meaning of their wisdom experience. While there is some indication that several of the participants (6/12) indicate more cognitive responses, it is presumptive to conclude that responses at another point in time would not indicate more integrated perspectives. Even within the more cognitive stance, participants indicate an ability to respond to people, life situations, and the overall pragmatics of life with wisdom. The participants in this study make good decisions based on a strong moral code of ethics, demonstrate empathy and compassion towards others, and exhibit positive responses to adversity. How they reflect and make meaning of those situations may extend beyond the cognitive responses offered in this study; this study is limited to responses of a small sample population at one given point in time. Additionally, it must be noted that this study does not represent participants from the later stages of development, namely, 5.0 and beyond. It is possible that participants who measure at these later stages may indicate a greater propensity for the more integrated domains of wisdom.

Constructive-Developmental Theory and How Leaders Experience Wisdom

My first contention that stage development theory offers a limited understanding of how leaders experience wisdom can be substantiated in two specific ways:

- Depending on the operationalized definition of wisdom, progression in human development may or may not coincide with progression in wisdom development.
- Based on the findings of this study, wisdom can be experienced at both the conventional and post-conventional levels of development.

With respect to this first contention, the underlying premise for this study was based on research in constructive-developmental theory that indicates that later stages of development correspond to higher levels of wisdom. As one transitions to later stages of development, higher levels of wisdom emerge (Barbuto & Millard, 2012; Cook-Greuter, 2005).

In an overview of Kegan’s Orders of Consciousness, Barbuto & Millard (2012) offer a significant perspective on the relationship between the stages of development and how such development coincides with a progression in wisdom. In this synopsis, the highest order of development corresponds to wisdom via an individual’s awareness of self-limitations and openness to the complexity of issues, the ability to connect multiple perspectives, and a willingness to adapt to the uncertainty of life. Other leading constructive-developmental theorists indicate that higher levels of differentiation and integration within the post-conventional stages indicate higher levels of wisdom (Cook-Greuter, 2005). Additional empirical studies (Yang, 2008a, 2008b, 2009, 2011) proposes a process view of wisdom arguing that when leaders exert positive influence to promote good lives for themselves, members of their organization, and society in general, wisdom is displayed through their leadership. Wisdom is therefore viewed as a positive real-life process that encompasses core competencies of cognitive integration, a vision for a good life, and the action required to embody that integrated thought and the positive effects of the action on self and others (Yang, 2011). As one of the most recognized constructive-developmental theorists in the field of leadership, Torbert, et al., (2004) views wisdom as an ongoing integration of 1st, 2nd, and 3rd person inquiry in the midst of action with others. Such wisdom involves the integration of being, knowing, doing, and effecting in a timely manner.

While each of these theorists point to the relationship between constructive-developmental theory and wisdom, the findings of this study suggests that the relationship between adult development and how leaders progress in wisdom may be more complex than previously understood. Based on review of the literature on constructive-developmental theory at the outset of this study, it was anticipated that leaders who measured at the earlier stages of development would fail to indicate integrated responses within the three domains of wisdom. However, when the results of the SCTi-Map scores were revealed, a surprising result emerged. Leaders who measured at the conventional and post-conventional stages, as demonstrated in Appendix A, indicated integrated responses within the primary domains of wisdom, e.g., the Cognitive/Affective and the Cognitive/Reflective. These slight, but important differentiations in the data, point to the complexity of human development in relation to the multidimensional aspects of wisdom and indicate that progression in human development may or may not equate to a progression in wisdom development, again, depending on the operationalized definition of wisdom. Without further inquiry into the spiritual, emotional, and psychosocial lines of development, it may be presumptuous to assume that progression in stages of development equate to a progression in wisdom.

Additionally, findings also suggest that it cannot be presumed that leaders who measure at later stages of development experience wisdom more readily than those at the earlier stages. For example, Participate 1 who measured at the lowest SCTi-Map conventional score indicated 48% of his responses in the primary domain of the Cognitive/Affective. However, with 33% of his responses falling within the Cognitive/Reflective/Affective domains of wisdom, he was also the only participant to indicate integration in all three domains (Appendix A). Constructive-developmental theory would suggest that someone who measures at this level might experience wisdom purely from a cognitive level that relies on external norms and standards and an express level of expertise from external sources (Barbuto & Millard, 2012). While it is difficult to ascertain the nuances of these measures within a small sample population, in-depth thematic analysis suggests that additional lines of development that might include spiritual and emotional perspectives are worthy of consideration.

The Integrative Domains of Wisdom and How Leaders Experience Wisdom

My second contention that the cognitive, reflective, and affective domains of wisdom may be influenced or affected by an individual's spiritual, emotional, and psychosocial lines of development is exemplified by the fact that participants indicated responses within one or more multiple domains of wisdom.

Research indicates that respondents who scored high on cognition utilizing the 3DWS (Three Dimensional Wisdom Scale; Ardelt, 2003) also scored high on the reflective and affective domains of wisdom (Ardelt, 2004b). Wisdom is therefore described as the integration of these three dimensional personality characteristics (Ardelt, 2004a; 2004b). The reflective component is emphasized as an important aspect of wisdom (Ardelt (2000, 2004a, 2004b).

Table 3 indicates the average percentages of the overall categorical responses in each domain in relation to the stages/action logics represented in the study. None of the three representative stages indicate a high percentage in the integrative cognitive/reflective/affective domain. However, participants' responses do indicate percentages within the multiple domains of cognitive/reflective and cognitive/affective.

Table 3: Wisdom Domains and Action Logics.

Action Logic	No. of Participants	Average Percentages In Integrative Domains			
		C	C/R	C/A	C/R/A
Expertise	3	34%	21%	30%	15%
Achievement	5	57%	14%	23%	3%
Values Oriented	4	37%	15%	37%	10%

Note: The categorical domains are represented as Cognitive, Cognitive/Reflective, Cognitive/Affective, and Cognitive/Reflective/Affective (Ardelt, 2000) and are based on data code sets.

Table 3 further indicates that participants within the Expertise, Achievement, and Values-Oriented action logics had lower response rates in the Cognitive/Reflective domain. Research on constructive-developmental theory points to the probability that people who score in the later stages of development, 5.0 and above, might have a greater propensity for higher levels of self-awareness and reflective engagement (Barbuto & Millard, 2012; Cook-Greuter, 2005; Torbert & Herdman-Barker, 2013); they might therefore experience more significant levels of wisdom based on their integration of all three domains. One of the limitations of this study is that none of the 12 participants assessed within these later stages of development. For more detailed exemplars of how participants experienced wisdom within the domains of wisdom, see Spano (2013).

Findings suggest that the three-dimensional domains of wisdom are present in the meaning-making systems of these participants albeit in different forms. For example, those participants who measured at the 4.5 range indicated an average percentage range (37%) in the cognitive domain that is not too dissimilar from that expressed by the those who scored within the 3.5 range at 34%. While this percentage is balanced with their cognitive-affective domain (37%), it cannot be presumed that their wisdom experience is more integrated than those who scored within the 3.5 range and indicated a higher percentage rate of 15% in the cognitive/reflective/affective domain. However, even this percentage in the integrated domain as expressed by the Expertise level is skewed due to the high 33% responses of Participate 1. Appendix A indicates that two of the participants actually scored higher in the cognitive domain. These differentiations in percentages point to the complexity of this construct and further suggest that wisdom can be experienced within the single and integrated domains of wisdom.

One of the most comprehensive studies on wisdom in recent years exemplifies the many complex nuances of wisdom as a construct. In examining exemplars of wisdom, Krafcik (2011) points to the significance of inquiry into the spiritual, emotional, and psychosocial lines of development. His study involves quantitative and qualitative measurements of exemplars' perceived levels of stress, life satisfaction, state and trait anxiety, personality traits, generativity, mindfulness, humility, ego development, spiritual perspectives, and potential for subclinical narcissism. As Krafcik hypothesized, exemplars indicated adult development scores that exceeded the highest conventional stage of 4.0; the study did not include exemplars within the earlier stages of development.

Additionally, one pertinent result of the Krafcik study indicated that among exemplars of wisdom, spirituality exceeded the normative score on the Spiritual Perspective Scale by 15.7%. Spirituality, as its own line of development (Wilber, 2006), is important to our understanding of wisdom (Ardelt, 2004; Kramer, 1990).

One of the limitations of the present study (Spano, 2013) is that, without a measurement of perspectives on spirituality, it is difficult to ascertain how the cognitive, reflective, and affective domains of wisdom are affected by participants' spiritual development. This line of reasoning can be further explicated in a third contention as follows.

States, Stages and Lines of Development

Finally, the third contention is that the relationship between lines, states, and stages of adult development in the context of wisdom can provide a deeper understanding of how leaders effectively engage in behaviors associated with wisdom. The findings of the present study suggest that without analysis of the complex interrelationship between states of consciousness and stages and lines of development, it is challenging to determine precisely how leaders experience wisdom. Stages and states of consciousness overlap in complex ways. A leader may experience a peak mental state within any stage; this state is interpreted based on his or her current stage of development (Wilber, 2006). The interrelationship between states, stages, and lines of development produces a variety of interpretative experiences that may or may not result in the experience of wisdom.

This relationship between states, stages, and lines of development was more significantly realized as the present study unfolded. Findings indicated that participants each had access to a moral code of ethics as their source of wisdom. This moral code of ethics evolved from positive and meaningful experiences with mentors early in their career paths and from societal and family norms over time. With the exception of one self-declared atheist, each participant expressed some level of spiritual or religious understanding. Several participants were selected for the study because they are known to be wise spiritual leaders in their community. Participants described behaviors often associated with higher levels of spiritual development, e.g., consistent acts of prayer and meditation, acts of generosity and benevolence, compassion, empathy, a deep and profound belief in something beyond self, an abiding love for others, and so forth. Two of the pastors from an evangelical mega-church, for example, were interviewed because of their philosophical and spiritual perspectives on the meaning of life and their ability to impact global societies. Findings indicated, however, that both of these participants scored in the 4.0 range and that they experience wisdom within the primary domain of the cognitive (Appendix A).

Krafcik (2011) indicates that an individual's state of spiritual development can override their stage of development. Such nuances add to the complexity of human development. For example, in contrast to the 4.0 scores of the two spiritual leaders, it is worth noting that the self-professed atheist scored at the later 4.5 stage with 49% of her responses in the Cognitive/Affective domain. States of consciousness represent the space in which developmental lines arise (Wilber, 2006). Depending on the different states of consciousness, developmental lines increase in complexity. Research that examines how these interconnections relate to wisdom can also prove invaluable in determining how leaders transition from early to later stages of development and how they experience wisdom. For example, the male Hindu participant in this study who measured at a post-conventional level expressed a higher state of consciousness via his daily meditative practices. Exploration into how such individuals' lines of development are affected by such higher states could be useful to our understanding of how leaders' experience wisdom.

These findings are significant when interpreted through the lens of recent research that indicates that exemplars of wisdom do not recommend one spiritual path (Krafcik, 2011). Such differentiations point to the importance of further inquiry into the spiritual, emotional, and psychosocial lines of human development.

Stages and lines of development as positioned within the framework of constructive-developmental theory are relevant to the field of leadership in that organizational leaders preparing to meet today's challenges would be wise to consider the relationship between the overall system and the entire leadership practice, to include the leader's consciousness or stage of development, his behavior, and the domains of culture (Kübers & Weibler, 2008). The results of this study indicate the potential for additional research that explores wisdom in the context of both adult lines *and* stages of development to determine if specific correlations do exist.

Limitations to the Study

This section identifies the limitations and delimitations of the present study to include aspects of the research design, sample size, sampling procedure, instrumentation, and researcher bias.

Sample Size

As is appropriate for a qualitative study that examines the in-depth first- person experience of participants, the sample size was limited to 12 participants. This sample size is not sufficient for generalizations about the wisdom experience of executive leaders or the overall population. It is sufficient, however, to generate perspectives on how conventional and post-conventional executive leaders experience wisdom in the course of their daily lives. It may also help define future research questions and methodologies in the field of leadership, wisdom, and constructive-developmental theory.

Sample Procedure

The sampling procedure created some limitations. Despite the desire to include participants from a variety of geographical areas, the researcher's national database now includes individuals who have transitioned outside of leadership roles due to the recent economic crisis. Despite outreach to over 26 leaders, 10 respondents are key leaders in one geographical area. Another limiting factor was the decision to include two leaders from the same mega-church. This decision, however, was predicated on the unique aspects of this organization as a global entity and the fact that both leaders represent entirely different roles at a local and global level.

Sample Population

The sample population includes 4 women and 8 men. While every effort was made to equally balance the gender factor, it was challenging to find executive-level women who were available to participate. Since women are still only 40% of the executive population, the researcher's data base includes a greater number of male leaders. Even though the study includes fewer women participants, it is worth noting that three of the executive-women scored at the 4.5 post-conventional level of development. This aspect of the study is interesting in that it posits the need for future gender based research that examines the differences between the wisdom experience of leaders from earlier and later stages of development.

Age was another factor of limitation in that many organizational settings include executive leaders in more seasoned stages of life (e.g., 40s and beyond.) The researcher did not have access to younger executive leaders who may be rising up in other fields, e.g., technology.

It should also be noted that the sample population criterion defined as "executive leaders," is limiting to the study. This specific limit responds to leaders whom, by the very nature of their status and role, may have greater capacity for wisdom. By focusing on this specific population, the study excludes responses from individuals in subordinate positions who might add to existing literature on wisdom and adult human development.

Another limiting aspect of the study involves the participants' stages of adult development. The SCTi-Map scores of the participants in this study indicated responses in the 3.5 stage to the 4.5 stage of development. Because it is somewhat difficult to locate participants in the later stages, more particularly within the corporate environment, the study excludes the wisdom experience of individuals who might score in these later stages. This factor presents a limitation to the study in that individuals who score within the later stages of 5.0 and beyond might offer a different perspective on how leaders experience wisdom within the integrative domains of wisdom.

Additionally, the study is designed to examine the interview responses of participants. This methodology presents a limitation to the study in that all data are self-reported and do not include third-party observations or other data points beyond the SCTi-Map scores. This factor points to the potential for participant self-bias and any proclivity to state their experiences from an subjective stance.

Instrumentation

The SCTi-Map assessment instrument has been rigorously validated through the work of Cook-Greuter (1999) and Torbert (1987, 2004). However, it is but one instrument that proffers one perspective of human development on an individual at a specific point in time. Additional instrumentation that measures and evaluates the construct of wisdom would also have been valuable to this study, e.g., the Three Dimensional Wisdom Scale (Ardelt, 2003).

Researcher Bias

All participants were selected via the researcher's data base or via nomination from a mutual colleague. Every precaution was taken to avert potential bias via analytic memos and journaling. However, the study may have benefited more from a nomination process that allowed for involvement from participants completely unknown to the researcher.

Implications of the Study

The purpose of this study was to elicit the wisdom experience of conventional and post-conventional executive leaders and to determine whether and how this experience related to the leaders' stage of development.

Implications for Leadership Development and Theory

Any expressed linkage between how leaders experience wisdom and their adult stage of development can be meaningful to future leadership development processes. The results of this study do not offer a significant relationship between conventional and post-conventional stages of development and the participants' experience of wisdom; however, the findings are nonetheless meaningful because they suggest that leaders at both stages have the potential to live out the experience of wisdom in ways that positively impact the organization. They are also significant in that leaders who come to understand their own experience of wisdom in the context of their stage of development have the potential to access higher levels of both wisdom and developmental movement. Leadership development processes that encompass aspects of stage development theory and wisdom theory could prove beneficial to the overall effectiveness of leaders.

Implications for Wisdom and Constructive-Developmental Theory

Wisdom Theory

The underlying premise of this study is that wisdom is vital to our understanding of self in relation to the world. How we respond to situations and people is dependent on our ability to exercise wisdom. Wise leaders are better equipped to handle the complexities of our global society.

This study is but one whisper in a large and still emerging conversation. Scholar/practitioners are only beginning to explore how wisdom can potentially impact leadership capacity and overall organizational development. The rapid changes in our society alert us to the fact that we must come to a better understanding of what it means to develop leaders beyond skills and competence. More comprehensive models of leadership that specifically align theory and practice are required. Scholar/practitioners can aid in these symbiotic efforts by "facilitating a more approximate fit between organizational context and the strategies and design of leadership interventions" (Zaccaro & Horn, 2003, p. 774).

The results of the present study suggest the importance of a leader's strong moral code of ethics as a source of wisdom. Somehow, in the midst of our chaotic environment, leaders must find ways to think and behave in more ethical and moral ways. The wisdom experienced and expressed by the executive leaders in this study represents a bridge between wisdom, leadership, and constructive-developmental theory. Implications of this study suggest that research must and should extend beyond the existing conversations of expert knowledge and the integrative aspects of wisdom to include the spiritual, emotional, moral, and interpersonal lines of development. Wise leadership is now becoming more critical to the future of our organizations, our environment, and our international societies. If we are to move leadership beyond the hierarchal model of authoritative power, control, and bottom-line results, we must come to understand what it means to live from value based perspectives that generate results for the greater and common good.

Wisdom theory, while still somewhat new as a psychological construct, demands that we access the hearts and minds of leaders such as the participants of this study[2] so that we can more clearly define that which they themselves take for granted: their unique ability to solve real-world problems in real time based on their own humble capacity to do that which is right and just – maybe not all of the time, but at the very least, much of the time.

Constructive-Developmental Theory

Research and application of constructive-developmental theory continues to expand in the field of human and organizational development. The relationship between adult stages of development and wisdom represents a non-linear, spiral effect, meaning that whether wisdom or higher stages of development occur first is difficult to surmise.

Findings of the present study suggest the potentiality for a reciprocal relationship between these two constructs. Several themes are consistent between the two constructs: (a) the inclusion of the cognitive, affective, and social elements; (b) the developmental nature of both constructs; (c) the increased ability to deal with complexity; (d) the ability to be self-aware and reflective; and (e) the impact of challenging situations and dissonant events to trigger further development (Barbuto & Millard, 2012).

The significance of the present study is that it expands upon these conclusions by exploring the nuances and differentiations in how participants experience the *integrative* domains of wisdom. Findings suggest that the wisdom experience of these 12 participants, while unique to each individual, does not necessarily correspond to their stage of development. Due to the complex and multidimensional nature of both wisdom and adult stages of development, more research is needed before scholar/practitioners can unequivocally propose that the integrative domains of wisdom directly correspond to stages of development.

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[2] For rich descriptions of participants of this study, see Spano (2013).

Implications for Future Research

The relationship between a leader's propensity for wisdom and his/her adult stage of development has profound implications for leadership development (Barbuto & Millard, 2012). Future research should be intentionally designed to advance developmental processes in both areas as follows:

The Leader/Stakeholder Relationship

Responsible leadership and stakeholder theory expands the leader/follower relationship to include key stakeholders (Maak & Pless, 2006). Executive leaders who are interacting with multiple individuals within a variety of contexts will be better equipped to do so if they have developed a greater understanding of their stage of development and how, if at all, that level equates to their capacity for wisdom.

The participants of this study indicated that how they experienced their wise mentors impacted how they came to develop their own moral code of ethics and their own capacity for leadership. Much of the integration between their moral code and their leadership capacity occurred at a subconscious level. It wasn't until the participants had an opportunity to recall their memories that they came to fully realize the impact of this wise mentor on their lives. Most often, they were surprised to notice that they had come to emulate much of what they had experienced in this leader.

This finding has significant implications for research that involves the mentoring capacity of leaders. How leaders come to understand and explore their moral code and how they live it out in the day-to-day practicum of leadership could prove important to the leader/stakeholder relationship. Leaders have the potential to foster wisdom in their followers (Barbuto & Millard, 2012). Awareness of their own developmental stage and how their meaning-making systems impact their ability to effectively live out their role of leadership can potentially impact their capacity to influence the leader-follower relationship in positive ways.

Differentiation of Target Audiences

The present study was designed to include executive leaders from diverse backgrounds. Greater emphasis was placed on the leadership capacity of the individual, however, than it was on their industry or the industry's role within society.

The relationship between the two constructs may be more expressly researched in terms of industry and/or disciplines. For example, findings suggest that those in the more analytical fields (engineer, attorney) may experience wisdom differently than those in the more humanistic fields of religion or social administration. Additionally, there was an apparent difference between the wisdom experience of leaders in corporate environments and those who exercise authority in not-for-profit organizations.

Finally, research into the wisdom experience of women leaders vs. men leaders would also prove invaluable. The study pointed to some interesting differences in the way women recalled their experience of adversity and the wisdom gained versus that of their male counterparts. The women were far more straightforward in describing their experience whereas 4/8 male participants were very emotional in describing their adversity and what they learned from that experience. Even as they expressed emotion, the four male participants spoke to their need to be strong for others in these moments of loss. Literally caught off guard by their own emotions, it was as though the interview was the first time these men had spoken of their feelings on the matter. The women, however, expressed greater comfort and understanding of their story and how they came to resolution after a period of reflection.

Such nuances may suggest that women may have a greater propensity to move beyond the cognitive level of wisdom to the more integrative reflective and affective stances that equate to wisdom.

Additionally, this study focused on the wisdom experience of leaders who measured within the 3.5 range to the 4.5 range of development. Further research is needed to determine if leaders who measure within the earlier or later stages of development might experience wisdom more within the integrative domains of wisdom than findings of this study indicate.

The Spirituality of Wisdom

The relationship between the human experience of spirituality and wisdom is so complex that it warrants specific research in its own rite. The nature of business is transformed when viewed and experienced from a spiritual-based context (Delbecq in Miller & Miller, 2006). Delbecq further states that “one of the most striking features of the spiritual-based context for wisdom leadership is that the primary purpose of business and of wisdom leadership is spiritual fulfillment and service to society” (Miller & Miller, 2006, p. 9).

This study has encapsulated the leadership of these participants in the context of their moral code. For some, this moral code includes a high level of spirituality, but spirituality conjures up all kinds of definitions and experiences in the human mind. Based on findings associated with the Spiritual Perspective Scale, Krafcik (2011) indicates that higher levels of wisdom are correlated with increases in openness, humility, and the importance of spirituality. Future research that more clearly defines how spirituality impacts a leader’s propensity for wisdom could enhance meaningful life/work experiences for leaders.

From the perspective of constructive-development theory, spirituality presents even more complex dichotomies. For example, two of the leaders in this study are deeply spiritual men, yet, even so, they measured at the 4.0 conventional level of development. On the other hand, three of the leaders who measured at the 4.5 post-conventional level professed no specific spiritual beliefs or practices.

Wisdom and Differentiation-and-Integration

The experience of wisdom within the context of stage development theory may be more significantly understood through the lens of differentiation and integration than through the integrative aspects of existing wisdom theories. Development is defined as the purposeful transformation toward higher levels of simultaneous differentiation and integration (Cook-Greuter, 2005). Differentiation refers to an increased understanding of the specificity of concepts held in one's knowledge of the world (Zaccaro & Horn, 2003). Development and cognitive psychologists characterize the beginning of cognitive growth in terms of increased differentiation in schemas, knowledge structures, and ways of understanding (Kegan, l994; Piaget, 1954; Zaccaro & Horn, 2003). Integration refers to the understanding of assumptions (Cook-Greuter, 2004) and a linking of unrelated concepts through higher order abstraction (Zaccaro & Horn, 2003). Differentiation begins in the conventional stages of development and increases toward higher levels of integration at the post-conventional stages. While this study inadvertently explored the nuances of differentiation and integration, analysis was not intentionally pointed in this direction since the greater emphasis was placed on the integrated domains of wisdom.

Research that explores how leaders differentiate and integrate their experiences could be perhaps the most vital to our understanding of how leaders' experience of wisdom corresponds to their stage of development. Barbuto & Millard (2012) contend that the connection between constructive-developmental theory and wisdom could have profound implications for future leadership developmental processes and for wisdom development in followers.

Life Experience and Adversity

The interview protocol of this study was designed to elicit the meaning-making systems of participants via semi-structured, open-ended questions. While every participant expressed the viewpoint that wisdom comes from life experience, future research into the depth of such experiences could prove meaningful to our understanding of how individuals from all walks of life grow and develop their capacity for wisdom.

The literature clearly indicates that a person's capacity to positively maneuver through the many aspects of adversity may enhance one's capacity for wisdom (Ardelt, 2000). Adversity, however, is a broad and ambiguous construct within its own rite. This study was designed to elicit responses about wisdom in the context of adversity; however, adversity was not the sole focus of this body of work. Future research that deals more specifically with the many aspects of adversity would expand our understanding of wisdom. Specific areas worthy of consideration include how wisdom precisely correlates to life experience, how one learns from mistakes and poor life choices, how one acquires wisdom via the adversity of personal tragedy, or how one experiences wisdom from hazardous occupational settings or from being exposed to life-threatening conditions.

The StAGES Model

The more recent StAGES Model set forth by O'Fallon (2014) offers up a great opportunity for future research in that her extensive longitudinal studies have further delineated the Unitive/Ironist or 6.0 post-conventional stage of the earlier models. This body of research depicts three later stages more expressly described as Transpersonal (5.5), Universal (6.0), and Illumined (6.5).

The significance of this model lies in the fact that it synthesizes earlier ego development theory, the concrete, subtle, and causal tiers, and an understanding of later stages of development, all of which are embedded in the Integral Theory AQAL Model (Wilber, 1996, 2000, 2006).

In experiencing the many complex premises underlying the StAGES Model directly within the Pacific Integral Community, I found this particular model to offer a deep and profound understanding of the complexities of human development. Further research that explores the StAGES Model in conjunction with Wisdom Theory may prove instrumental in deepening our understanding of how leaders experience wisdom in the context of their internal, external, and collective worlds.

Conclusion

The study was designed to explore the wisdom experience of conventional and post-conventional leaders. The intention is to open scholar/practitioner discourse between three significant fields of research: leadership, wisdom, and constructive-developmental theory. While the aforementioned qualitative findings are interesting and meaningful, they suggest the need for additional research that explores wisdom in the context of both adult lines and adult stages of development to determine if specific correlations do exist. As with every academic endeavor, more questions arise than answers.

Recent shifts in the global economy and the many challenges associated with a networked society in the age of knowledge and information suggest the need for leaders who are self-reflective and self-aware. Additionally, today’s leaders must be capable of engaging in complex levels of differentiation and integration of multiple ideas and solutions. A hundred plus years of leadership theory points to a shift from early quantitative research on traits, behaviors, power and influence, leader-follower relationships, and situational theory (Yukl, 2010) – each emphasizing leadership effectiveness – to now include equal focus on qualitative research, to include cognition and perception, e.g., phenomenological studies (Bass, 2008).

Constructive-developmental theorists have offered a plethora of research that helps us understand how individuals construct meaning and how that meaning equates to effectiveness and overall positive outcomes. The many facets of wisdom have been explored and researched from a philosophical, theoretical, and psychological perspective since man began to ponder the meaning and significance of life. Each of these disciplines has contributed to our understanding of the human condition. While we have come to understand a great deal about how leaders construct meaning and how they may or may not engage in behaviors associated with wisdom, we still have a limited understanding of the relationship between those meaning-making systems and their states, stages, and lines of development.

At the outset of this study, I quietly presupposed that leaders who measured at the later stages of development would indicate a greater propensity for wisdom within the integrated domains of wisdom. Findings indicated otherwise. There was no significant relationship between participants’ stage of development and their propensity for wisdom. Leaders measured within the single and multiple domains of wisdom at both the conventional and post-conventional levels. The findings suggest that, depending on the operationalization and definition of wisdom, the progression in human development may or may not coincide with a progression in wisdom development.

The significance of these findings lies in my contention that wisdom, as a complex multidimensional construct, requires further inquiry into the spiritual, emotional, and psychosocial lines of human development. Exploration into the interrelationship between how a leader thinks and the possible underlying source of that meaning-making system, e.g., lines of spiritual or emotional development, is necessary if we are to more fully comprehend how leaders construct meaning and engage in behaviors associated with wisdom.

It would be easy to review the findings of this study and reduce them to a cliché about the essence of leadership or what it really means to embody wisdom. Halfway through the process of analysis, I found myself asking, what does it matter, after all, if a small select group of leaders presented themselves not as perfect, but as experienced, good solid individuals who were engaged in purposeful work? So what? Would these findings add anything to that which we already know? As the data began to reveal a group of leaders who exhibited focus, passion, and an overall desire to do the right thing, my thoughts deepened.

As a society, we anticipate the promise of good leadership. Unfortunately our daily experience with corporate debacles and Wall Street narcissists alerts us to the dangers of leadership gone awry. How do we do that which is right and just when up against deceitfulness, deadlines, and the unscrupulous and egocentric behavior of others? How do we create positive results in our personal and professional lives with those who are at different stages of development than ourselves? With those who may be more or less wise?

The significance of this study goes beyond the findings of any first-or- second-cycle of analysis. The significance lies in the hearts and minds of 12 executive leaders who dared to share their stories. Among the global chaos that has enveloped much of our society, they offer the promise that leaders can and do cultivate wisdom; they can do that which is right and just for the greater good of all. Extensive and repeated qualitative analysis of their transcripts, their voices, offers unique perspectives on wisdom than cannot be captured via statistical data alone. These leaders represent all that is possible for every leader, every society. Each of these leaders has described an ability to actively cope with adversity and this ability to cope has moved them to significant levels of understanding about themselves and others. They exercise wise acts of leadership not because they should but because it is who they are. They get up each day, passionate about the work they do, and they make the hard choices. And in the midst of all their challenges and frustrations, they do their best and hope that it is good enough. Each leader, from the early conventional level of 3.5 to the later post-conventional stage of 4.5 indicated an ability to be selfless and self-aware. For them, wisdom represents a quest to reach our highest potential. But this quest is quiet, unheralded by the things we accomplish. It is less about what we do and more about whom we become along this journey called life.

In the grand and vast valley between theories, this study fills a small but meaningful gap. It serves to remind us that no matter the horror of the evening news, the goodness of leaders such as these will prevail. As scholar/practitioners, it is why we do the work we do. It is why leadership matters.

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Appendix A: The Integrative Domains of Wisdom

Domains of Wisdom								
P	**Score**	**Primary Action Logic Orientation**	**Profession**	**Cognitive**	**Cognitive/ Reflective**	**Cognitive/ Affective**	**Cognitive Reflective Affective**	**Primary Domain**
1	3/4	Expertise	Real Estate Attorney	19%	-	48%	33%	C/A
2	3/4+	Expertise	COO /Transportation Authority	42%	18%	34%	6%	C
3	3/4+	Expertise	Environmental Engineer	41%	45%	8%	5%	C/R
4	4-	Achievement	CEO/Philanthropist	48%	14%	33%	-	C
5	4-	Achievement	Senior Pastor	75%	15%	10%	-	C
6	4-	Achievement	Worship Pastor	47%	28%	21%	-	C
7	4	Achievement	CEO/Disability Organization	21%	14%	49%	14%	C/A
8	4	Achievement	Engineer/Business Leader	98%	-	2%	-	C
9	4/5-	Values	Real Estate Attorney	37%	12%	49%	2%	C/A
10	4/5	Values	CEO/ Transportation Authority	61%	1%	36%	-	C
11	4/5	Values	Technology Consultant	24%	37%	15%	22%	C/R
12	4/5	Values	President/Advocate	26%	11%	46%	15%	C/A

Note: Percentages are based on number of overall responses in cognitive, reflective, and affective domains of wisdom.

A Brief Overview of From Wisdom Related Knowledge to Wise Acts: Refashioning the Conception of Wisdom to Improve our Chances of Becoming Wiser

Jonathan Reams[1]

This brief overview is intended to accompany the interview with Jonathan Rowson also in this special issue of Integral Review. Written in 2008, Jonathan's dissertation provides an example of observing an integral mind at work. Reading through the it one cannot help but be aware of the easy, flowing nature of how Jonathan's mind is able to integrate a wide range of fields of inquiry, models, positions within academic and societal relevance and discourse while somehow making it easy to read.

The dissertation begins with a very personal introduction on why the topic of wisdom and how it is important to become part of the problem in order to become part of the solution. This is a counterintuitive phrase he attributes to Bill Torbert and it equates to the notion that unless you have a lived experience of a certain kind of challenge, and participate in the world, it's very challenging to understand how the problems, as Kegan and Lahey say, can 'solve us.' In that sense Jonathan approaches the topic of wisdom as a personal problem of learning to become wiser as well as understanding the social and political needs for wisdom in society today.

The dissertation is divided into four parts making up ten chapters. The first part is looking at wisdom research itself. It begins with a traditional literature review which takes us through an array of works by researchers from the major schools of thought as well as outside them in the field of wisdom literature. From this review you see a number of themes beginning to appear. There is something of a relationship between spiritual intelligence and needs and wisdom. There is something to do with this notion from Francisco Varela of the virtuality of self that is somehow related to wisdom. There's a distinction made between wisdom as a general personality characteristic and the notion of wise acting.

Our relationship to wisdom is also linked to the notion of catching ourselves in the act of self-deception. In this way, Jonathan positions wisdom as a form of transformative learning, a theme he comes back to a number of times. In reviewing this array of literature and research on wisdom

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he perceives that the main challenge is that wisdom is a premodern idea relying on the tools of modernity to fit a postmodern world.

It is this kind of challenge of wisdom as a concept or phenomenon that in some ways we can all recognize when we see it, or at least have a felt sense of recognition and resonance for it, and yet it's almost impossible to define. In fact, later on Jonathan says that to define wisdom is unwise.

The second chapter looks at the problem of why it's so difficult to approach the word wisdom in a wise way, and that this notion of indefinitely defining wisdom is in itself problematic. To deal with this Jonathan looks at wisdom as a finite province of meaning, as a meme and even as a koan. This approach of trying to understand why it is so challenging to define or even discuss wisdom is the nub of this chapter. We encounter the reality of this challenge in that the very act of naming and positioning this difficulty is to step to the margins of what is considered appropriate for doing an academic intellectual project in relation to something that doesn't really fit in that modality.

In the third chapter Jonathan moves into a description of how he did his research. While not what one would consider a traditional methodology chapter, it does serve this function as he describes the first, second and third person notions of awareness, appreciation and appraisal that he utilized in this work. It's very clear that there is a strong heuristic orientation of observing his mind at work in relation to the topic. To illustrate this he uses a story from his time as a chess player (where he was three years in a row the British Chess Champion). He utilized his ability to observe the different phenomena arising in his mind as a metacognitive way of helping him understand possible distractions and/or blind alleys of thinking that can arise during a chess match. Applying this kind of metacognitive functioning to his own process of research is what gives this dissertation a light readable quality, where we feel we're going on this personal journey with Jonathan.

The second person part of the research constituted utilizing a number of stories that were considered to be descriptive of wisdom or wise acts in some form or another and to use those as a dialogue piece to have a number of other respondents read and give responses to whether or not they considered the stories exemplars of wisdom and, if so or if not, why or why not? This second person part of the research appears here and there throughout the dissertation but there is no traditional empirical findings section in relation to this. As well, the third person appraisal has a lot to do with taking a meta-theoretical approach to the existing theories and research around wisdom.

In part two, positioning wisdom, Jonathan addresses some of the challenges he faced in applying this approach to the topic. The first is talking about getting beyond a rationalistic neurosis in research. This involved describing the notion of bricolage as a general kind of meta-theoretical handyman approach to weaving through not only the landscape of wisdom literature, but also the philosophical and psychological issues involved in wisdom research.

He then takes a look in chapter five at human nature as bodies, brains and breakdowns and talks about embodied empathy and wisdom as transformation. Chapter six, *knowledge about* *wisdom requires wisdom about knowledge*, gets into the epistemological challenges that face doing this work and recognizes that knowledge is active and not just representational. Essentially this entails a need to stand back from and be as conscious and explicit as possible about the lenses and perspectives one is bringing into the work and how they create the particular perceptions available. In this there was an interesting relation to the work of Watzlawick, who talks about taking total responsibility in our lives, total personal responsibility, and how this action actually leads to total freedom. This was a very interesting chapter looking at epistemology and knowledge in relation to doing wisdom research.

Part three looks at a deeper understanding of wisdom, or at least moving towards it and in chapter seven unpacks the notion of transformative learning as the essence of wisdom. Jonathan sees wisdom as a confluence of experience, perspective and transformation. In this way he comes to the concept from Varela of the virtuality of self. He recognizes that as we go through transformative processes what we were once subject to or embedded in as an identity shifts to an object of reflection that we are no longer identified with. From this we start to see that the notion of self is actually much more fluid than we imagined; that change is natural in humans. From this he notices how Varela moves towards this notion of a virtuality of self, not as self being unreal, but as the self not being the ontological grounding of reality we often take it to be.

Chapter eight then builds on this and talks about seeing through the self; from being a self to having a self. This is captured by the notion that each of us as a self is a theory, or “each of us are a theory which is a self.” Somehow we ‘self spin’ imaginative events and create all sorts of distractions and dead ends for ourselves. The notion of expertise as knowledge is translated into first person experience of the virtuality of self and the transformative effect this is able to have on us.

Part four is about the challenge of becoming wiser. The first three parts lay out the field of wisdom and its research, what it is, where it is situated and why it is important. Part four looks at what is the path towards gaining wisdom? This is what Jonathan problematizes as the main challenge in the existing research on wisdom, that while it does a lot of descriptive work it does not do so much to try and explain to us how to move on a path towards becoming wiser.

To redress this, he draws on a number of pieces of work to look at some very specific issues related to what he calls the “psycho social battleground of wisdom” in chapter nine. These have to do with; the biological divisions we have constructed between mind and body, a notion of naïve realism that we already see things as they are and should be, and the notion of self-deception which we touched on earlier and is a very strong component of what seems to be a natural blockage on the road to wisdom. As well, the notion of a self-serving bias, that we already see our own change much more than we see it in others, as well as a negativity bias, group think and status anxiety are included in the list of issues Jonathan puts forward as impediments on the path to wisdom. In this sense, there are implications for pedagogy which are explored in the conclusion, with a sense of the importance of dissonance in cultivating wisdom as a step in the process of transformative learning.

Overall, this meta-theoretical heuristic journey through the landscape of literature, stories (third person as well as personal ones) and reflections on wisdom makes for very enjoyable reading. In my experience, after having been exposed to a lot of the literature reviewed on wisdom from earlier work, it is clear to me that the approach that Jonathan has taken enables the field of wisdom research to have a perspective on itself. There are new insights about wisdom, that in essence it is a transformative process about cultivating a sense of detachment from our identification as a self, realizing the virtuality of that self and yet utilizing the self in creating and cultivating the kind of habits of mind that will lead to spontaneous wise acts in the world.

Wisdom, Spirituality and the Virtuality of Self: An Interview with Jonathan Rowson

Jonathan Reams[1]

I had the good fortune of meeting Jonathan Rowson in the fall of 2013 at the offices of the RSA in London. I have also had the opportunity to read his Ph.D. thesis on *From Wisdom Related Knowledge to Wise Acts: Refashioning the Concept of Wisdom to Improve Our Chances of Becoming Wiser.* On my first reading of it, I felt like I had taken a journey, gently guided by a mind floating along a stream of intellectual thought, research, public opinion and more, somehow navigating his way through all of it in a way that opened new horizons of how wisdom can be conceived.

When undertaking this special issue, I wanted to find a way to include Jonathan's work. I didn't just want him to write an article based on his thesis, although that would have been nice. I managed to arrange for an interview, and have provided a brief set of reflections (also in this issue) on his thesis aiming to summarize it and entice readers into reading it for themselves.

The interview itself was stimulating, wide-ranging in scope, and heartfelt in the degree of personal engagement Jonathan brought to it. Reading the transcription for the process of ensuring accuracy and cleaning up things, I again found enthusiasm and energy rising. There was at times a real felt sense of tension in the conversation and in the lived experience it was describing, as we were drawn into enacting the qualities described to the best of our abilities. It is my and our hope that you enjoy listening in while reading.

Jonathan's current formal bio is as follows:

Dr Jonathan Rowson is Director of the Social Brain Centre at the RSA. After degrees spanning a range of social science disciplines from Oxford and Harvard, Jonathan's Doctoral research at the University of Bristol featured an analysis of the challenge of overcoming the psycho-social constraints that prevent people becoming 'wiser'. He writes for The Guardian's Behavioural Insights Blog, was formerly a columnist in the Herald, Scotland's national newspaper, has authored three books, and is a chess Grandmaster and former British Champion (2004–6). He recently authored: Spiritualise: Revitalising spirituality for 21st century challenges.

The interview took place on the morning of December 16th, with the aid of various technological mediations. Given that we have same first names and last initials, it was easiest to distinguish us by using last names.

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Reams: Jonathan, first thanks for taking the time to do this interview. I'll say I've thoroughly enjoyed reading and then re-reading your thesis: From Wisdom Related Knowledge to Wise Acts: Refashioning the Concept of Wisdom to Improve Our Chances of Becoming Wiser.

Rowson: Thank you.

Reams: My first question would be do you feel a little bit wiser from having done that?

Rowson: Well, I finished it about 6 years ago and I was motivated to finish it by the main thing distracting me at the time, which was the election of Obama. So it was November 2008 that I submitted it and I remember the lead up to it had this trade-off between the distractions of the American presidential election and actually writing the report. That's just to give people some historical context for how long ago it was.

Going through the process I don't think it would be right to say a resolute no, it hasn't made me any wiser, but nor would it be right to say yes. The truth is there's a connection between untangling one's thoughts about something and knowing what you're seeking in the world. There is something about that process of seeking that leads towards wisdom.

So although it doesn't in itself make you any wiser, it can be quite useful underlabor. For example, writing the thesis made it abundantly clear to me just how important practice was. There's a notion of experiencing and methodologically undergoing certain things to have a chance of being wiser when it matters. So in and of itself the writing does not create the wisdom. But it does create a way to unfold that might help you get there.

Reams: What kind of things are in tension with this? I know later in the thesis you describe moving from the positive description of the how, what and where of wisdom toward describing wise action. But then you also take a chapter to look at some of the things that, if this is so obvious, why don't people do it? What is your sense of that tension?

Rowson: Wisdom is a concept that invites a lot of folk understanding. It is part of our everyday lexicon and it is symbolized in songs and books and people have a certain implicit understanding of what is meant by wisdom.

What the thesis was about is on the one hand how adequate that folk conception is and what literatures are there to sense different ways of looking at wisdom. Then what do I as the writer and researcher think about all that? In that context it became clear to me when I think of the moments that I'm most moved by what seems to be something wise, when I'm struck by a certain receptive quality or empathetic quality or some ethical conviction that is somehow enacted; when I see those things coalesce in a particular moment I think: Wow, that's what I'm looking for. Whatever that was is a quality that I'm trying to unpack here.

Now what that means for means for me is a recognition that on the one hand such things can emerge spontaneously without prior preparation. But it's also clear there are barriers for that kind of presence of mind and heart in the right moment. And those barriers ears include the ego, they include self preoccupation, they include a lack of mental complexity to actually bring into one's own mind the perspectives of others and those things together are the kind of pathways you need to undertake so you have a greater chance of acting wisely; even if it doesn't in and of itself create the act and even if that act does not depend upon those prior forms of preparation.

There does seem to be quite a strong correlation between working on one's self, for instance through thinning the ego and gradually growing in our capacity for perspective taking, and growing in empathetic communion with others. The moment for wise action tends to arrive in situations that are socially and ethically complex; a an act or decision or even just a form of words, but being able to do the right thing as those conditions arise. These things – becoming wiser and acting wisely – do seem to be connected.

Reams: Right. Then that leads me to two different tracks I want to make note of here. One is that in your thesis you describe Robert Kegan's work and how moving towards a fifth order transformational mind rather than a self authoring mind seems to describe characteristics of that are very much aligned with what you just described in terms of being able to take multiple perspectives and integrate them and even have a perspective on your own perspective.

Yet in your thesis you also moved away from trying to base wisdom as being directly related to those later stages of cognitive development. Can you reflect on that for a moment?

Rowson: Ok. On the one hand you have these maps of post formal thinking sometimes described as adult development. Certain integral theories and some of these maps are very, very sophisticated, classically involving quadrants of different kinds, bringing in social and cultural influences, the relationships between interior and exterior aspects of consciousness, and so forth.

There are these models out there and they're mostly theoretical. Some of them have some empirical validation and others don't. So on the one hand you have all that rich and interesting intellectual stuff, and on the other hand you have the visceral, vivid felt sense of what it is to be in the presence of somebody wise, or to observe a wise action. Then the question becomes: How are these two things related, if at all?

Let me give a brief anecdote and come back to this question to contextualize it. A couple of days ago I was responsible for looking after five five-to-six year old children. It was an after school play date and I had to take them all home from school. I was the only person looking after them and, of course, with five young children and twenty young limbs it's difficult to keep track of what's going on.

There is a busy main road on the way home from the school. It's a short walk but it's slightly dangerous; a fairly dicey, slightly nervy situation when walking with five young kids. At one moment my son was getting quite distressed because I was trying to hold his hand while also trying to hold another child’s hand with the same left hand. He was getting distressed because he didn’t want to share and also he wasn’t that comfortable.

The girl who was holding his hand and mine as well looked at me and saw that there was a slight, well, she looked at my son and saw there was this problem and without saying anything she kind of smiled at me and crossed over past me and went to the other side and held the hand of another child and we carried on walking. And she gave me a little look as if to say: Is that better now?

Now that happened quietly and unobtrusively and I wouldn’t go so far as to say it was wise. It would feel like a stretch to call an act of a five year old wise but in that moment she picked up on a huge number of subtle cues as to what the correct course of action was.

I’m sure if you did a developmental study of this five year old you wouldn’t find anything like the kind of perspective taking qualities one would expect or need for wise action. But nonetheless, I wouldn’t want to say that there wasn’t an emergent, proto quality of wisdom in the kind of perception that she had.

I guess that’s the long way of saying I’m not locked into linking wisdom too closely to a particular developmental theoretical model because there is something beautiful about the freshness of a particular act by almost any kind of person in any given moment.

In contrast, not being fully ensconced in the world of integral theory but knowing enough of it; having read a fair amount of Wilber and Kegan and a few others, my feeling is that these concepts, if I stop being seduced by them intellectually and just stand back from my mind and stop finding these models so delicious and interesting, all these pathways and maps and terrains of how one can progress, and I just stand back for a minute, they all feel, well, a little *heavy*.

You know if I’m honest, the felt sense of these models is that, yes, they’re intellectually delicious, yes they speak to our experience in a quite a profound and illuminating way. But there is also a strong sense that they are ‘not it’. In the old Zen sense, they are the map not the territory, and while we need good maps there is something about the territory that gets lost when you fixate on them too much.

Reams: *It’s very interesting how you describe this. There are two distinctions I’d like to make in relation to that. One is that in this special issue where our interview will be published there are two other theses where the researchers looked at people who were nominated as wise from various criteria and even were scored on different measures of wisdom and were given ego development assessments. What they found in both of those is that there is not a strong correlation between late stages of cognitive development and wisdom.*

Rowson: Right! And that doesn’t hugely surprise me. We are in complex terrain here because it depends on how deep you want to go, but my mind is bringing forth various things. First, it’s the basic ontological question of; if wisdom is a feature of reality in what does it inhere? Does it inhere in a particular cognitive apparatus that could be unpacked in neural terms? Does it inhere into intersubjective complexity such as relations between minds, or perhaps between bodies in a given social cultural environmental context? Or is it somehow downloaded from above in some sort of divine or creative insight that is strictly unpredictable and uncontrollable?

I think most people would want to say it's a little bit of all of those things and also something about their coalescence. So I would imagine these developmental pathways might sometimes be necessary without having sufficient conditions inherent in them. But there's something very sweet, simple, almost innocent about wisdom that doesn't seem to require complexity of insight.

Reams: Let's look at that.

Rowson: This can apply in the situation like the one I mentioned and various others; a kind of visceral, slightly breathtaking quality of a simple grasp of what needs to be done in that moment, or a form of words that really connect deeply with somebody. And that's all true, as far as it goes.

But on the other hand, these developmental models are very important for pointing towards what it means to grow as a person. I think the idea that there is no connection between growth and wisdom would be pretty problematic because I think part of what we think of as wisdom is something that one grows into or acquires through experience.

Reams: Right. So there is something in what you're saying that I think might fit with the notion of two different distinctions. One is that we're talking about stage development and in a way we're talking about wisdom as a kind of general virtue of character that a person carries that enables them to be more likely to act wisely and not be hung up by their ego or a lack of empathy or whatever.

But we're also talking, I think, in your story about the five year old girl, about states and wise acting rather than a generic sense of wisdom.

Rowson: Yes and when you say states what do you mean exactly?

Reams: I'm just thinking that state experiences in integral theory, at least in Wilber's model, are related to temporary things. You can have a peak experience, a momentary insight of something.

Rowson: Okay so you're talking about states, streams and stages.

Reams: Yes.

Rowson: I know where you're coming from now. Yes that's right. I think it's Wilber who says these things are separate and need to be distinguished but they're not completely unrelated either. As I understand it, certain stages are more likely to give rise to certain states even if they don't strictly reside in them.

Reams: *Right. So I'm trying to weave a number of things from your thesis together here. We're in this place at the moment where we have this example of the five year old girl in a way doing some act that we could say has some characteristics of wisdom. We wouldn't call her a wise person necessarily but we could say she acted wisely in that context in that moment. She didn't pull a tantrum or whatever.*

Rowson: Yes.

Reams: *You also talk later on in your thesis, and I want to get into this more later, but as a way to introduce it now, you talk about Francisco Varela and the notion of the virtuality of self.*

Rowson: Yes.

Reams: *I have this image suddenly when you're describing this girl and we're talking about states as opposed to stages and wise acting, that there is some way in which this virtuality of self leaks through a person and enacts itself in some act that people look and say that was wise. Does that make sense?*

Rowson: Yes it does. This virtuality of self idea needs a little unpacking. Most people who will be reading this probably know this broad domain, and will immediately associate it with Buddhism and the concept of annata or no-self. It is closely related to that. It's a fundamental insight that also goes back to people like David Hume and the Western tradition, many who recognized that if you examine your spirit closely there is no essential self or ego to be found. There are mainly fragments of experiences and thoughts that pass, but no particular sense or locus around which these arrive.

Varela has a nice expression for this. He says, "There's no landing platform for experience," which for me was quite an evocative way of putting it. If you imagine experience as the thing we experience, the thing that's going on in our psyches, there isn't a place where that settles. There is no self to bring that contingent flux into its bosom. There is just this experience that's going around.

Of course, in models like Kegan's you'll see that you have self authorship and have a sort of self locus to make sense of that experience, and structure and order and make judgments about it and so forth. But I think nonetheless the more deeply one goes into certain meditative practices the more you can see that yes, there isn't really an essential self. However, that's not to say the idea that there is no such thing as a self actually makes any sense! Because clearly that's how we experience the world, and the self has a lot of functional social and cultural relevance. It's an integral part of how we relate to other people and make sense of the world.

Again, we're in one of these paradoxes or contradictions where you want to say simultaneously the self is extremely real and very much at the center of our lives, but also fundamentally unreal. And the term "virtuality" that Varela uses I found quite helpful for that because, we know virtuality through the virtual which we often describe as the internet, forms of the internet. But virtuality also gets at the notion of fragility and not quite being real as well.

So to speak of the self as being virtual is to acknowledge simultaneously that it's not what we assume it to be in everyday life, but equally that it's not completely non-existent.

Reams: I know late in the thesis you do have this discussion in relation to the virtuality of self, of what is the self in that sense. The phrase that comes to mind for me is that there is some "domain of validity" in which the self as a construct and a way of organizing experience seems to be appropriate and useful. Then you're pointing to a domain of validity that may have a lot to do with wisdom where it may get in the way and be a limiting construct.

Rowson: Yes, I think that's a good way of looking at it. I think you can be completely subject to the self and then you can recognize the self and the various stages beyond that, many of which I have no first person access to. What Varela argues is that he's talking about ethical know-how which is not quite the same as wisdom. But it's wonderful - he talks about certain examples of what it would mean to act with virtue in a given situation.

Varela says the capacity to do that is directly related to the progressive ability to experience this virtuality of self and know it from the inside. To know at some level there's nothing to hold onto. You don't have to be attached to your identity or your desires in a way that prevents you from acting well.

Again, this is a slightly more vernacular popular example. To slightly jump a little bit, in the report that is about to come out [this is referring to a report for the RSA Jonathan has written, and which can be found here] about spirituality I distinguish between self and soul, and this might be quite useful for this point. When you're at a dance and you're a relatively shy introverted person or just someone who doesn't really want to be too flamboyant in your movements, you often are on the edge of the dance floor and feel a little bit inhibitive and say: "I don't dance. I like to write papers and go to conferences" and so on. But you also know at some level that you'd be a lot better off if you just let go and got on the dance floor.

The qualities of inhibition and self preservation and identity construction that are preventing you from dancing are part of the same type of problems that might prevent you from really seeing what another needs, really hearing and really sensing what's going on in a given situation.

Whereas the part of you that just says "let's go" and says that reputation, that sense of self, that sort of limited conception of who I am doesn't really matter that much, and then you go dance. You find then after 30 seconds or so of self consciousness you find you're in this much more free liberated state where you can enjoy yourself. It feels truer to who you are as well. It's closer to reality.

Reams: Right. You talk about openness to experience, which is one of the "big five" psychological constructs researchers have found to be empirically valid. This openness to experience has something to do with accessing the more authentic self, but you're also going to make the distinction then between self and soul.

Rowson: Yes, I think this is quite a handy distinction. This is not in the thesis, but helpful here. I spent three years studying philosophy at Oxford in seminar rooms and tutorials with people who are analytically quite fierce and who want to get away from a Cartesian notion of separation of mind and body, and also in my current role as Director of the Social Brain Center at the RSA – a place where intellect and policy are hegemonic and spirit and even emotions are somewhat subordinate.

In any case, there is a kind of professional assumption that consciousness is ultimately material and any notion of the soul is an old fashioned folklore construction we can do without. But actually in recent years I very much changed my mind on that. I think the notion of a soul is absolutely indispensable and it's very valuable and to be spoken of with some pride.

That doesn't, of course, mean there is a little essence that's sort of shiny and pink on the inside close to your heart. It's not soul as product or entity, but soul as the fullest possible context of human experience. Soul gets at what it is to be *an experiencer as such* in the fullest possible context of time and space and life and death and love and loss and so forth.

It's actually something that goes beyond self. You could say that self is about commentary on experience, but soul is closer to experience as such. I know that in Wilberian models and so forth that he goes from self to soul to spirit, but the models are not fresh enough in my mind to link to that. For now, I find that notion of soul captures something quite deep about the playful quality of being alive, the creative quality of being alive. On the other hand I have come to see the self as the identity, the personality and the commentary, which often manifest as barriers to a life fully lived.

Reams: I think that is a very helpful distinction. Of course, it resonates with a lot of stuff I've said and written over the years as well. It leads me to then link this notion of the self to the mind and even to David Bohm's notion that he talks about as thought as a system, where the system of thought constructs an identity, and it's a mental construct, but then it identifies with that. So in that context one of the notes I made here is it seems you're talking about the mind as a servant not a master. And that you try to point to the pathway towards generating wisdom or being able to fall prey to spontaneous wise acts as a need to cultivate certain habits so the mind is more open and amenable to those insights and impulses from soul and not constrained to stay on the edge of the dance floor because the self image doesn't align with being open to that experience.

Rowson: Yes, that's well put and it's more or less how I would put it too. I view self as something virtual but therefore functionally real even if it is not ontologically real. The self is something interesting, even compelling, but also problematic; something I think we need to work towards understanding, integrating and ultimately transcending.

Whereas the soul on the other hand is something I see to be more deeply embraced as part of being fully human. I think there is something about shaking off the self or recognizing that it's a kind of constraint, but we also need it to get through life, so there is something to be said for being at peace with it too – in fact the two things – deeply accepting and fully transcending, may even amount to the same thing in practice.

The soul, on the other hand, is something to be reconnected with and re-experienced because I don't think of the soul as something that reinforces an identity, reinforces a construct of who we are. I think the soul is much more about being fully present for whatever is going on, and that includes other people. Indeed, in this sense moments calling for wise action are not 'set pieces' calling for a formula, but more like a sudden switch from self to soul, in which we free up levels of awareness that allow us to act more judiciously than we could through mere self-expression or self-concern.

Looking back on my thesis, I see more clearly now than I did then that empirically it's very hard to go anywhere with this idea of wise action. You can't really simulate it. You can create scenarios with several people where you're asked to enact a certain difficult complex situation and see what emerges, but that's quite labor intensive and would require a lot of heavy lifting. I say this now because I don't want people to think that wise action is somehow one of these cliff hangers in a Hollywood movie where you say just the right words or do just the right thing to resolve the dramatic tension.

I see it more like an extra-ordinary daily capacity. Sometimes you get home from the office and your head is full of work and you can't really connect with your wife because despite your best abilities your mind is lost in your last email. I think there the challenge of wisdom is somehow to be able to come out of it and be present for the person who needs you. That isn't easy. That is partly a practice related issue in the sense that your mind needs the prior experience of dis-embedding from what it's embedded in. I don't think there's any real short cut to that. There are times when we really can't shake off our immediate experience and connect. But I think various forms of spiritual practice may offer a way out of that.

Reams: Right. So as I'm listening to you describe this I have this image for the average person there is maybe a phenomenological fuzziness and fusion because they'll have a lived experience as soul you could say, and they will have all these kinds of self-images and mental constructs about that experience all kind of mushed together.

Rowson: Yes.

Reams: Earlier I asked you about the process of doing the thesis. Part of that process was that you had this array of stories that you interviewed people around and through that *process I saw people making distinctions about what seems wise and what isn't and why and what perspectives are there on that. The process of being able to differentiate and make distinctions seems to have given you a better sense of this distinction between self and soul which could lead to understanding how do you cultivate practices to enable the self to be more open to soul.*

Rowson: Yes, that's in effect how I see it. I think it's also useful to use language that creates some friction against dominant paradigms. So self is an uncontroversial term and it's heavily saturated with perspectives from a whole range of disciplines. But soul is one of these terms that has a different power or different atmosphere around it in terms of the way we talk about it.

Because your hardened scientist materialists wants to say the soul, well we did away with that and we're now working on the mind, and really there is the brain left and even the brain breaks down into neurons and genes, and so forth. So there is this heavy reduction and the soul is right at the beginning of that.

But you also have people like Iain McGilchrist and Nicolas Humphrey and various other scientists who are saying look: even William James if you look at his early writings, speaks about the soul being something we have to do away with. But if you read how he talks of it, it's like very much a "thou doth protest too much" moment. You can really sense that he doesn't want to do away with it (the soul) but feels he has to.

So these people are saying look, it's a very useful concept and if we lose it we lose this perspective of the whole that is how we live at least some of our lives. Some of our richer and deeper moments have this sense of fullness that we can't just disavow. We can't just say those are not 'real'. We need language for those moments that goes beyond emotion and beyond mind and beyond aesthetics and so forth. And the language of the soul, I think, helps to do that.

So it's a brave and somewhat contrarian act that amounts to saying look: I insist on using these terms that are slightly awkward.

Reams: Yes, I've encountered the same because I've used the term soul in publications, and for me the logical distinction is to say all the self characteristics have this transient virtuality to them. So as a ground of being I would prefer soul, which has this sense of eternalness and I'd much rather ground my being in that than in an ephemeral self.

In relation to academic discourse for example I like to reference Mario Beauregard's work, because he's doing neuroscience and talking about how you can interpret if from a non-materialistic view.

Then there is something you talk about in your thesis, that even talking about wisdom is intellectually subversive.

Rowson: Yes, yes, very much so. That said, I sense there are these pockets of resistance in the intellectual world, broadly conceived. At one level there are those who will pay lip service to it but won't really quite know what to do with it. So we've got people like George Lakoff and Mark Johnson writing about the embodied mind and they are asking rhetorically: what is the spirituality of the embodied mind? What is it?

Or people like Jonathan Haidt, maybe, who's saying religious perspectives, particularly as they are manifest in certain implicit ideas of value and the sacred, are experienced as profoundly real, even if the attendant beliefs may not be. But rather than probe these tensions further, they are often presented as afterthoughts. And so in effect you have impressive people saying: I think someone else should look at this in a bit more detail, but if I look at it too much I might undermine my own reputation for scientific impartiality.

Some of course look at it more head on and they have a difficult challenge because there isn't this dominant notion of what intellectual common sense is supposed to be. One of the people I think is best at 'fighting back' is Rupert Sheldrake'; I don't know if you've come across his work?

Reams: I had dinner with him at a conference 16 years ago.

Rowson: Okay. He's quite an important voice I think. Someone described him as a fly buzzing around the heads of the dogmatic materialists. He won't go away because he insists on asking the questions in a scientific fashion. Can you explain this with your available data? Where exactly is memory in the brain? How does it make sense?

Reams: Yes, DNA can explain all these things.

Rowson: What exactly is matter? What is your theory of matter? Where exactly is your materialistic consciousness. He's probing people all the time and he's not the only one of course.

Reams: Amit Goswami is another one.

Rowson: Say again please?

Reams: Amit Goswami, the physicist. He's another one who has done that, he's even done the math around it.

Since this is in the area of what you're talking about now, one of my favorite type of questions is; how might you characterize your cosmological framework?

Rowson: Right.

Reams: Because I think that's the lens that's implicit in how you're looking at all this, that enables you to make these distinctions, engage in these practices and processes. So there is something that is enabling all of this.

Rowson: I can speak to that from personal experience now because as I mentioned before the interview started, I just submitted a report that roughly took me two years to complete and involves about 300 or so people and it's about spirituality in the public realm.

One of the things I cited early on, and I think this was a difficult but correct move, was not to make it about fundamental beliefs about how the world is, so I'll come back to what that means for cosmological framework. But what I decided was look; you have broadly three relationships with spirituality. You have the conventional religious spirituality which, of course, includes many different traditions and within those traditions are lots of disagreements and so forth, but they all share a certain perspective of what the world is and what follows from that for our action.

Of course, as I said, there will be big disagreements but they share this idea of there is a metaphysical picture and then an ethical set of ideas that come out of that. Then you have something that's called spiritual but not religious, although I think that's an increasingly problematic term. There is a very broad group of people who don't particularly identify with any religion but don't want to disavow the spiritual, and by the spiritual they often do mean something non-material, whether a being or a certain kind of experience they can't account for. For example, they might think there is an immaterial soul even though they might not be able to hold that under cross examination.

Then finally you have atheistic sectors of spirituality, which is what people like Sam Harris and so forth are beginning to develop, stemming from the recognition that a liberal humanist world view lacks something. It lacks an aspect of experience that connects to us at the level of depth and transcendence and meaning and the sacred, none of which are really going to go away.

I decided that the only way to do justice to the idea of the spiritual was to carry all three of these perspectives and try to hold the tension. I decided that if spirituality was ever going to have a chance to be recognized as a valid subject of shared public concern, everybody had to have at least some stake in it. Now that makes it difficult because you have some people saying look, the spiritual is meaningless unless you have a view of something immaterial, a divine presence or purpose or providence that shapes the world. Others will say look, I don't really want to be on the same page as people who think we all ought to go back to church even if we don't believe in God, and so on.

So there is a lot of tension in that approach, but I decided that actually you can unpack a view of the spiritual that includes all these things and I tried to do that. I mention that now and the report will explain how I went about that, but what I want to share is the kinds of reactions I've had to that.

In a speech about the report I gave recently [which you can find here] I distinguished between three broad reactions and I based them on the facial expressions people give me when I start talking about the spiritual. So should I go on about this?

Reams: Yes.

Rowson: Good. The first reaction is from what I call the spiritual swingers. By that I mean people who look at you when you mention the spiritual, they look at you eagerly and excitedly, feeling that you're one of them and on their turf and we should speak more about this. But they don't typically distinguish between different kinds of spiritual engagement. So for them going to a three month Vipassana Retreat is a-piece with a quick visit to the Tarot reader or buying a new age self-help book. There isn't really any sense of discrimination about what the spiritual refers to. So I call them the spiritual swingers, and they are very keen for this discussion to take place. That's not to disparage them and it's not as though they couldn't discriminate, it's just at the moment in many cases they're not doing that.

The second group I call the religious diplomats. They look at your warmly and welcomingly but with a slight hint of distrust. Imagine people who are maybe on the liberal side of Christianity, or maybe secular Buddhists, and relatively secularized people in the Vedantic tradition who are still practicing in various ways. They will think you're onto something very important and yes it's actually a big part of public life but they'll distrust it because they don't really see how it works outside of a tradition or institutional context with particular doctrines or practices. So they are keen to see where you can get to, but don't seem to really believe in it at some level. I call them religious diplomats because they're encouraging but you also sense that they have an agenda of their own which is to preserve the integrity of their own traditions.

Finally you have what I call the intellectual assassins, and they're the hardest to face. They look at you with a kind of disgust and disdain. They look at you as if, what the hell are you talking about? This spirituality is nebulous nonsense and you know it. You went to Oxford for God's sake, why are you talking about the spiritual? These people are actually quite hard to deal with.

I realized after a while, of course, that these three constructs are projections and that I have them all in my psyche. They're all different ways in which I wrestle with what it is to speak of the spiritual. On the one hand I'm quite skeptical and so I'm not at ease with a spiritual free-for-all, an "anything goes" approach. On the other hand I can clearly see this is a big part of my life and I feel as though it needs to be a bigger part of the world's conversation, at least in advanced democracies, advanced capitalist or late capitalist or post capitalist societies.

So I see this very complex picture emerging where, within the sociology of religion they're realizing that the secularization narrative hasn't really happened. It's just not true that the triumph of reason and death of God has really happened. Instead you have this confused incipient world of different beliefs and different perspectives that hasn't yet taken real shape in any sort of crystallized form, and may never do.

One the one hand that's a bit dizzying and troubling and it makes sense that people would want to go back to religion in that context. On the other hand you have the sense that if only we could keep the conversation going we might find something that works or begins to make sense for those who feel they could never 'go back' to religion, no matter how much it reforms.

Reams: Lots of the things there and I'm just making some notes to hold some of them. One is how I hear some of what you're saying is that some people are struggling to come to what I would call a trans-rational rather than a pre-rational view of spirituality.

Rowson: Yes that's right.

Reams: Some of the swingers find it easy to be with the pre-rational because they don't want to get bogged down in having to do the heavy labor or make rigorous distinctions to clarify things. So anything is good as long as it isn't that rational view. The ones who are really within the rational view are like the diplomats. I would surmise them to be saying yes that's all nice, we know there's something more there, but it needs to be rooted in some kind of rational explanation.

Rowson: Yes.

Reams: And the assassins, well that's a whole other matter. But would there be…

Rowson: They are important because they are the high priests of the academy and also the high priests of much of policy making. I think the intellectual assassin mindset, which in effect says defend your terms and measure your measurables and then assess your impact. That's the kind of mentality a lot of these people have, at least in their professional role, and I call them assassins because they're quite skilled. It's not necessarily that they don't sense here's something going on. But whether because they're defensive or uncomfortable with the language that they think of as pre-rational, they're the biggest challenge in some ways.

Reams: Right, and the picture I have from what you're saying, which is they may have some phenomenological experience or practice or connection to something, but the mind is more of a master than a servant and so the intellectual need to put things in the frames that it can relate to drives it more.

Rowson: True.

Reams: So a couple of questions. One is; is there another category other than those three reactions that you would like to encounter?

Rowson: Yes. It's funny I didn't put this into the speech but I thought about it. I think the appropriate response is a mixture of all three of these. So you want the critical discrimination of the intellectual assassin, you want the deep historical and institutional understanding of the religious diplomats and you want the kind of radical openness to experience of the spiritual swingers.

The question is what do you get when those three, when they aren't just thrown in and sort of mixed together but somehow optimally connected so that the whole is greater than the sum of its parts. I don't know what the term would be for that kind of person but…

Reams: Well I think Kegan's notion of being able to…

Rowson: Something approaching wisdom might be it.

Reams: Yes. Having a self-transforming mind would enable you to take on the characteristics of those different perspectives, views and attitudes as appropriate but not identify with them.

Rowson: Yes exactly. I think maybe the point is just that. It's funny with Kegan and Wilber, for me it's like they're not second nature to me to that extent. I'm often reminded of them and see – of that perspective again - and oh yes, that's how it fits.

In this case, I wasn't thinking developmentally, but perhaps the spiritual swinger might be more Kegan's stage two or three but the other two are probably a bit more stage four in my view of them. But yes you're right, probably what you need is something more stage five like or beyond that in that sense is worth working towards.

Reams: Right. I think the distinction I would pull us back to is that is something you're looking for as a sense of character or way of being that has enough of a type of soul presence to manage the self and the embodied reactiveness that you pointed to as some of the issues that keep us from making this progress on the path towards wisdom.

Rowson: Yes, and for me the picture is always complicated by certain things. If I have weaknesses as a thinker - and I certainly do! - one of the main ones is knowing what is out and what is in scope. I tend not to draw boundaries very well. I'm interested to think about the social and political context of any given personal pathway.

We live in a time of a fairly unstable economy and technological proliferation, potential ecological collapse, all are arguably already underway. You have all these things in the back of your mind, and then for me it doesn't make sense to speak of personal cultivation without some awareness of those situational factors that provide the context for it. That's difficult because it's already complicated and it gets even more complicated when you bring that in.

Reams: Right, which gets us back to the question around cosmological framework.

Rowson: Yes. My own cosmological framework would be, well my biggest formative experience as a person is playing chess professionally for many years. I became a Grandmaster and was the British Chess Champion and it was a huge part of my life. I wrote three books about the game. I wondered recently what exactly transferred from that main specific expertise.

I didn't put this in the spirituality report but I did write it at one point and I realized there are three main things. One of main ones relates to the fact that in chess we often use this expression, "keep the tension". There are moments where you can clarify the situation, for instance you might make a pawn exchange or a piece exchange or take some tension out of the position, something that's unresolved and you resolve it.

Actually, a lot of chess skills is marked by the capacity (a) not to do that and (b) to handle the tension well, because the argument is that the more complex your grasp of the position, the stronger you are, the more the tension will work in your favor because you'll be able to read all the different ways in which the tension might resolve itself and there are more potential pitfalls for your opponent, whereas you can manage them better. So the idea of keeping the tension is quite important to me.

In terms of my cosmological framework, chess also gave me the very strong inclination to inquire into what the other side is thinking. That's the reason I bring in the intellectual assassin. Some of my friends who are more into spirituality say: "You're always complicating it. Why are you always trying to convince people? Just do your own thing and enjoy it."

For me it's very important to sort of lock horns if you like with the important perspective and see what comes out of that. So my cosmological framework includes quite a big sense of pluralism and dealing with the other side and dealing with the shadow and so forth.

Finally, there is a third main thing I got from chess which was a suspicion of grand strategy. I know from chess deep down that anything that suggests if you do A and then B and C, D, E, then F will follow tends to come unstuck around B or C on a good day. So those three things together would mean any framework has to have a huge amount of scope for how we deal with the unresolved and holding spaces for conflict, a sort of deep respect for opposing views, a deep understanding that there will never be an overarching picture that will tell everyone what to do. There has to be room for conflict and chaos.

So my framework would have to have plenty of space for the tension being held and opponents being respected and a kind of view of progress that was sufficiently nuanced and tentative that you could actually believe in it.

Reams: So all that, and there may be more, but I want to stop for a minute. Some of the notes I made when looking at your thesis included a number of things about the virtuality of the self and the path to wisdom. I got this feeling for a sense of detachment or non-attachment at the heart of enabling all these things. And even as you describe this *process, and you describe it a little bit in your thesis, of what was interesting for you in playing chess, it was observing how your mind would relate to the very things you were just talking about now. That, to me, requires a certain kind of non-attachment to the mind and its processes to be able to witness it.*

Rowson: Yes. I think I've had that from a relatively young age – probably mostly because of chess, but perhaps also from being a type-one diabetic since I was six; you are just obliged to be a bit more experientially self-conscious. But at the same time I don't think that is it in and of itself a good thing! You can use that for good or ill.

What I'm reminded of by the mention of the detachment is the Zen teaching story about the different stages of the ox. I don't know if you know the one I mean but broadly the first one is about discovering the ox, the second is seeing it and you begin to wrestle with it and you're thrown off it and get back on it and so forth. As I remember the story it resolves itself by the man and ox being separate and then the man is alone and then the penultimate stage of this spiritual journey involves wrestling with the ox which, of course, represents the ego and that tells the story of seeing it in one's experience, beginning to wrestle with it, beginning to see how powerful it is and slowly getting some control over it.

The final one is called 'Entering the Marketplace with Open Arms'. That is about coming back into the fold. So on the one hand yes you detach, have to go through this struggle, this wrestling match with your inner forces and see them and in some sense and overpower them and in some sense make peace with them. But having done that it's not as though that's the battle. That's only the preview to the battle. The real difficult work is when you reengage with other people and you come to try and help others in their own way and that's a long journey, that's not something that a meditative vision does for you.

Reams: No, and I want to make a distinction because I recognize that the way you're using the term here or unpacking it is something I encounter a lot and so I want to come back to that. Also what you're describing also is Joseph Campbell's notion of the heroes' journey, you have to go out and slay the dragon but then you have to come back, and how do you bring what you've gained from that experience back to the community?

Rowson: Yes, that's part of it and we're in this magical space, and we talked about this but since we're on this, I'm reminded of Frodo in Lord of the Rings actually. What I find as one of the truest, beautiful parts of that story in that book and film is the idea that Frodo couldn't really stay in the Shire. The idea that he'd been through too much, he'd too been bruised and changed by it fundamentally, he couldn't carry on being a Hobbit in the Shire.

I think there is something in that too. If you have any Scottish readers there is a famous slightly nationalistic song called Caledonia and there is a line in there: "Lost the friends I needed losing; found others on the way." I think there is something to that as well. There is a lot of loss on a spiritual journey it's not all just about gain. It's about pain and the severing of some cherished attachments.

Reams: Yes very much. So in that sense the severing of attachments or I think often of identifications that we in a way become disillusioned, in that we lose some of our illusions about our self and others. At the same time, and that's why I say detachment or non-attachment, for me there is an implicit connotation that detachment is in no way disengaging from the world. It is about being fully present in the world and yet at the same time not had by it, not lost in it.

Rowson: Yes, that's helpful. I think you're right. It's one of the terms that has certain implicit meanings that aren't altogether helpful. To detach in a way is to reengage rather than be lost.

Reams: I think this comes back to your distinction between self and soul. Where is the point of detachment? What is it we are detaching from? It may be that it's from this virtuality of self if we're not identifying with it as the ground of our being, it allows us a freedom.

There was a line in your thesis from Watzlawick that you cite, that I noted very strongly that he talked about taking total responsibility for creating our own world, but that at the same time this gave us total freedom.

Rowson: Yes, which is slightly terrifying. I have probably moved away from that now. I think my thinking in the last few years, of having been married and having a child, I have a much stronger felt sense of interdependence than I think I had at the time I wrote the thesis. You know, just being a functional 21st century grown up – staying sane, not to mention flourishing, is pretty exacting.

So the idea that we can ever have that degree of control over our own reality I think, well, it's not entirely untrue but you have to really find your inner power. One of the best books I've read in the last few years if I'm fully honest is a book about archetypes of the mature masculine psyche. It's a Jungian book, but I found it very helpful, called *King, Warrior, Magician, Lover*. It's about how these different types of undercurrents of our life need to be brought to fruition to function properly as a man.

There are, of course, female and feminine parallels all along I'm pretty sure, but it made sense to me because at some point when I was struggling I realized that I had more or less outsourced all these archetypes to other people and I had to reassimilate them in my own way.

So things like just taking ownership of difficult domestic decisions that you might prefer to defer or outsource, that would be King-like energy, or even getting the bills paid, making sure you fix the things that get broken in the home, and perhaps most importantly demarcating what is really in your 'kingdom' and what isn't i.e. What matters and what doesn't.

Then warrior energy is, broadly, what are you fighting for? What really matters and what doesn't? Lover energy is getting in touch with the soul like qualities of sensuality and playfulness. And there is a magician energy that is full of insight and knowledge and specialist understanding. That's always been my delight, but also my problem. To live a balanced life you shouldn't let the magician energy run riot. It's about having a mature conception of it.

I mention all that now because I think once you bring in other people – colleagues, friends, children, parents, spouses- into the equation, it's extremely exacting to actually 'create your own world'. You have to discover whatever personal power of control or perspective that you can, and that requires maturation, quite rapid maturation sometimes, but it's a maturation that can only come about through adapting to the worlds of other people; it really can't come about in isolation.

Reams: Yes. There is something about this that for me always bumps into some of the connotations or implications of cosmological framework, because people say it's all well and good to be the person responsible for creating your world until you end up in certain circumstances where as you say you're suddenly in this much more interdependent dynamic and you see why you're not in control of these things, but how are you going to be responsible for them and have the freedom that comes from that.

In this case, I like to reference for instance, James Hillman in the Soul's Code about going back to Plato and the Myth of Er and the notion that we don't come into this world as blank slates. That genetic nature and nurturing of our environment together cannot explain all of our character and being in the world. There is something prior to that that comes in and in that sense can bring in with it some sense of fate or destiny that gives us circumstances that we wonder, where did we create this from? And yet in a deeper more profound sense we have created it before we came here.

Rowson: Right. Well this is an interesting one and when I come back to keeping the tension on the spiritual, this is a good case in point because part of me very much wants to go with you on that and say yes that's true to experience and coheres with a lot of things I believe and do. Another part of me here is the rational skeptic saying, yes certainly there is not a blank slate, there is an evolutionary endowment including a certain epigenetic process whereby culture and genes and so forth give rise to certain preconditions.

I forget who it was but I think it was Jonathan Haidt who said that "innate does not mean fixed and determined. It means organized prior to experience."

Reams: Okay.

Rowson: I think that's quite a useful expression. Innate means organized prior to experience. In other words, there is a default setting that isn't trivial and is quite important. The default setting shapes what follows in important ways. The question is, does that default setting include archetypes in the Jungian sense? Does it include some in built sense of the hero's quest in Campbell's sense? I don't really know the answer to that but I think it *could* but I am far from certain that it does.

Reams: Right. So as I listen to that response I also would want to refer back to this distinction between self and soul and is it possible that some of these things you're describing are relating more to the concept of self and less to the presence of soul as a kind of ongoing learning entity?

Rowson: Well it's possible. I mean, I wonder. Part of me wants to find the courage to say yes I believe we have something very much resembling a soul. It may not be ontologically material in the same way the body and skeleton are but it's nonetheless real and when we're born there is something like an individual soul, and it is somehow part of a greater world soul; a part of me really thinks that and really wants to go with that.
But I can't go all the way there. There's another part of me that is pulling back and pressing the brakes and saying: Look, the soul may be an emergent property and come about through the experience of being in the world, and observing other people and going through certain experiences. It may not be there as such when you're born. On the other hand I don't know what that would mean, or how it could be exactly.

That book that I mentioned about the archetypes, there is something deeply real about that. When I came across this it wasn't just intellectually satisfying, it was emotionally validating and made me feel yes, this is true. At some level, fundamentally to function fully and feel well and feel functional in society, I need to get back in touch with these aspects of my psyche that I've forsaken.

Reams: Right.

Rowson: These aspects of my psyche, they are at the soul level, you're right, they're not really self related, they are more about the journey and quest and the archetypes. I guess I would say I'm with you on that, but a part of me is reluctant to close the door on that and wants to keep some air for the skeptic to breathe.

Reams: But what I hear in that is you applying what you described as your learning about how to be in chess, to hold the tension. That there is clearly a tension there for you and that becomes a living question. So you don't want to bring closure on it because that takes away the openness to learning and growth and letting that tension as you quote Kegan and Lahey, "let the problem solve you rather than you solve it."

Rowson: Yes, I had forgotten that expression. I remember enjoying that. So yes, the challenge is, and this is keeping it real again, that disposition makes you quite difficult to live with! It might be intellectually interesting and it might even be true to how we should think at some level about certain things. But people you're managing at work, or family at home often want a resolute decision, and quickly. And saying let's keep it open and let's not resolve the tension is by no means always welcome. People in your life want to know the big fundamental existential decisions and you're like, well, why didn't the problem solve me? I'm not sure that kind of perspective is always helpful.

Yes, I guess I'm doing it again. I'm keeping the tension again, but that does seem to be quite a big factor in how I approach things. I hope that if we speak again in five years I may have somehow developed a somewhat less problematic relationship to this issue. At the moment it doesn’t particularly feel like a strength; it feels more like a feature that permits certain things, but with certain problems.

Reams: I made a note before this interview about where you talk about the significance of Varela’s claim of the need to have first person experience of the virtuality of self.

Rowson: Yes.

Reams: The tension that I hear you describing in your thesis and talk about now is that when there is not a conscious awareness of that kind of experience in a clear way, then the perceptual means that you have to encounter that question generates a lot of this tension. It’s like a Zen koan and its generating tremendous tension. I could say for myself, from my own experience, having had a really profound experience of that virtuality of the self, I see how it has worked on me for 23 years now, that it has enabled me to relate to that dichotomy in a way with much less tension.

Rowson: Yes, okay, good to hear that. I guess I have a sense within myself that there is a great deal of development still to go. In some of my better moments in the last few weeks and months I have been performing simple human acts well. So being on time, feeding my son well and mindfully, making sure I was available for my wife, speaking well to colleagues and making sure I’m listening. Simple, important things.

Such things actually require presence and require me to get out of my typical mindset. Those achievements have been quite satisfying because I sense that feeling of self-control and inner growth and just the simple act of being present and how difficult it is in daily life is quite a significant. When you get it, you think if I can be like this more of the time then I can’t really ask for more. Just to enjoy those simple moments of living more fully and deeply because you’re present to them.

Reams: Right. This goes back to something you were writing about in your thesis, that one of the challenges of, for instance, defining wisdom is that most of the definitions do not have a good path towards becoming wiser built into them. In that sense it’s actually unwise to try and define wisdom. What I hear you describing now is a sense of an actual lived path towards becoming wiser.

Rowson: Yes, I think you put it quite well there. There is a wonderful essay by, I think, Chandler & Holiday in one of the Sternberg wisdom collections where they write about whatever wisdom is, it shouldn’t be ‘a charred fragment from our psychometric past’. They were recognizing that the wish to measure and define might be antithetical to the qualities we’re trying to bring to bear.

By contrast, I think within religious traditions they actually have pathways towards wisdom, but it’s just that many aspects of our culture have become a bit wary of conventional religion and we often don’t see them as such. For example, the Buddhist eightfold path is the quintessence of a pathway towards becoming wiser. But why don’t we see that? Well for some it doesn't feel like their thing. Some are put off by the fact that it's explicitly religious or there is too much of a commitment to one pathway. But they have presented both a story of how things are and a story of how we have to be to live better and more fully. There are similar things in other religions as well.

Reams: But I'm reminded of a moment where one of my colleagues at Integral Review, Bonnie Roy and I were at the Metanexus Conference back in 2007 and there was a panel that Marty Seligman was chairing. They had top scholars from the Jewish tradition, the Christian tradition and the Islamic tradition and they were all going on at length about all these things. Bonnie got up there and asked, so what does your theology have to say about cultivating love?

Rowson: Right.

Reams: And they all sat there and said nothing. They really didn't have a response to that.

Rowson: That's sad to hear. In the report that is about to come out we speak about four main reference points for our discussion of spirituality that keeps these three perspectives on board, that appeases the intellectual assassins and placates the religious diplomats and also helps the spiritual swingers to find something.

Love is the first of those, death is the second and then self and soul are the third and fourth. I feel these four things have to be at the center of the conversation because they seem to me to be the most fundamental. On love, I think, any sort of spiritual perspective that doesn't have a story to tell about love is fundamentally lacking. And to be fair, Christianity has love right at heart of things, which gives me a weird kind of cultural pride.

Reams: I think the challenge was this was a group of theologians.

Rowson: Right. So the thing is there is an experience of love that many of us know, most of us I guess, which involves a kind of welling up on the inside, but it's unlike anything else; and it is so clearly true and real at some fundamental level and is a sign of what we care about and should be living for, but it comes and goes so infrequently that we don't always recognize it as being the sign of how we should live.

I think speaking the language of love and recognizing that we're going to die, realizing that the self is somewhat problematic and something to be worked through and to some degree overcome and then reconnecting with the soul. For me this is the sort of broad tapestry of what the new spirituality might look like.

Reams: That brings me to a question, as we have started out talking about wisdom and wisdom related knowledge to wise acts and all this, it's clear that somehow in the mix of this is a lot of spirituality.

Rowson: I think so. When I wrote the thesis I recognized that, but didn't make too much of it. Now I would probably push that a bit harder. I think like soul, spirituality is a phenomenon, also a term we should be a bit more fortified by using. I think there are lots of people who never come across the term or don't think of themselves as spiritual who might nonetheless be wise. But I don't think that matters too much. I think they are pointing to similar things. They're pointing away from our place and by that I mean a kind of status and our personality and identity and back towards our ground; and by that I mean our fragility, our pending death, our relationships that matter deeply to us, our experiences of love in our life.

So this distinction between ground and place, I think for people who are wiser they have a much stronger sense of the ground and a much better perspective on their place. They are less caught up on what it is to get on in the world and more fully attuned to what it means to be in the world.

So for me the two are quite closely linked. There are certain distinctions of course, and you can get wise managers and the term wisdom is a little bit promiscuous like that - it goes everywhere. Spirituality is a little bit more specific probably.

Reams: Yes. Where that question would lead into is, is there any sense of where this is heading? I know you have the RSA project and I remember being at one of the events, and you have the report coming out now. Is there a sense of where you might want to go with this work in the future?

Rowson: We'll see when and how and in what institutional capacity, but there are a few things going on. In addition to the spirituality work I spent a year in 2013 thinking about climate change from not a particularly spiritual perspective. I was looking at economic models and scientific projections and various social movements and so forth. And in my other work I sometimes think about inequality and educational reform and various other practical policy things.

For me the question at the moment is, how do you get better at bringing these things together? I am becoming a much comfortable using this kind of language more freely and confidently because I think there is a large but mostly latent appetite for it. We shouldn't shy away from words that matter to us and that point towards things that are important. For me it's not hiding away and retreating from my own personal development, it's very much about helping others to articulate what they already feel about these things.

Because whenever I've spoken about for example, the spiritual roots of climate change, people are quite attentive. My experience is that they 'get it' and at some intuitive level they know that the major problems we face are at some fundamental level 'spiritual'.

So the challenge is to enrich our conceptions spiritually enough so that it has a sort of tractable and comprehensible quality. But also to realize that it's not enough to map it out. One has to live it to some extent too. The challenge for me is to do that while simultaneously making sense of big complex political issues. So really it's how do you link the spiritual and the political in a way that doesn't drive you insane.

Reams: And if you can navigate that, you'll definitely be on the path of wisdom.

Rowson: I only can hope, but it remains to be seen!

Reams: Thanks very much for your time today Jonathan.

Rowson: Pleasure, thanks a lot.

The Cultivation of Wisdom in the Classroom

Juliane Reams[1]

Abstract: This article focuses on a research project that was designed to inquire into the cultivation of wisdom in the classroom in the context of a newly implemented school subject called Glück (English: happiness). Glück was introduced in order to make a difference in traditional mainstream schooling as a reaction to school curricula that emphasize data and knowledge transfer. It is different and new because it embraces the kind of learning that includes the senses, the mind, body, spirit and the guts. Its multidimensional approach makes an attempt to validate a renunciation of the reductionistic perspective of traditional and contemporary schooling. How it is implemented served as a transformational process through a set of experiential exercises, group discussions, contemplative practices, teamwork etc. It is my aim to give an insight into what I understood as an alternative learning arena embedded in a traditional schooling system and the implications for further development beyond the transfer of data and information in adolescents. Zooming in on Glück, I aim to provide some perspectives on how key experiences and the reflection upon them can lead to the cultivation of wisdom.

The understanding of cultivating wisdom I have gained from this study is that it is a dynamic process where the creation of new structures of meaning making emerge through the interaction with others, with oneself and the reflection upon one's own interior processes that can help unfold, know how to use and refine tacit knowledge. Part of this process is actively discovering and transforming complex information in order to embody it and make it one's own.

Due to the assumption that traditional schooling mostly puts an emphasis on conveying informational knowledge (Hart, 2009; Sternberg, 2001) (to the more or less attentive) students and another assumption that wisdom is often seen in connection to age, this article makes an attempt to give an alternative perspective. In this article I propose a synergistic model of the interior process that enables the activation of tacit knowledge into explicit knowledge and the development of age-appropriate wisdom in stages in due consideration of the nature and life tasks of adolescence.

Keywords: Adolescence, Bildung, happiness, positive psychology, reflection, self-awareness, wisdom theory.

Introduction

My interest for this subject had a very personal origin. Something that struck me first when I did my master's degree in counseling was that one of my professors had a completely different

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way of teaching. His teaching method stood out from other teachers who I remembered from school and university and also from the other teachers in the program I was in at the time. In his lectures, I found myself in an interactive arena where my opinion was actively requested and my critical thinking and questioning was welcomed. As well, deep reflection and disclosure of my somewhat not so cultivated interior landscape was appreciated. Being stimulated to think for myself instead of being told what to think was not a familiar approach to me.

Another reason for my interest in linking my research subject to this school subject was that wisdom is a concept that adolescents often appear to be underestimated in. Conversations with people not involved in my research showed that the implicit understanding and opinions about (the development of) wisdom was wide-spread and often seen in connection to age. The older, the wiser, but not in connection to people of a young age so much. There is current wisdom literature that tries to refute this assumption (Sternberg, 2001; Pasupathi, Staudinger & Baltes, 2001). Many contemporary wisdom researchers also claim that wisdom does not automatically increase with age (Ardelt, 2010; Baltes & Freund, 2003; Jordan, 2005; Staudinger, 1999; Sternberg, 1990b).

The most important personal reason to engage in this research subject was the fact that I had been suffering from the education system for at least nine of my thirteen years (in the 80s into the early 90s) of traditional schooling in high school. Classes appeared to me more like indoctrination and often not more than accumulating informational knowledge. I was also affected by the impression of a high discontentedness among young people in my home country (Germany) and learning about Glück made questions and interest come up in me.

As I explored the constructs behind Glück, I found that the curriculum emphasized key elements essential for young people to create a better life for themselves in very practical terms. The integration of culturally relevant themes and even basic living conditions; such as buying groceries and cooking a meal together, to the curriculum was supposed to create awareness about these as being a resource to happiness beyond material welfare (Kaminski, n.y.). It also provided a container for them to reflect, get to know themselves better and explore the circumstances that facilitate lifelong learning.

Observing the Glück classes also revealed that the focus on gaining life competences appeared to have overlaps with the constructs of wisdom. If happiness was the key to gain life competences, what might be part of that process? Informed by roots in Nicomachean ethics and the theoretical foundation in Positive Psychology (Seligman, 2011), Antonovsky’s concept of salutogenesis (Antonovsky, 1979, 1987), and Motivation Psychology (Heckhausen & Rheinberg, 1980; Heckhausen & Gollwitzer, 1987; Rheinberg, 2002; Heckhausen & Heckhausen, 2010; Storch & Krause, 2005), Glück’s intention to cultivate happiness in the students raised the question in me if wisdom is cultivated in parallel. If so, how does it reveal itself? Or was a potentially arising wisdom-related knowledge an unintended consequence or outcome of the curriculum? What characteristics of this sensitive life phase regulate or facilitate an age-appropriate development of wisdom-related acting?

Societal Needs of the 21^{st} Century

Several societal needs and expectations indicate the necessity for a paradigm change in educational settings and traditional school curricula which are limited to a maximization of information through indoctrination (Hart, 2009; Gerver, 2010). Complex challenges the younger generation has to face in the contemporary context of a modern and fast moving globalized world creates a need for adaptation through a complete transformation in the principles and processes of public education (Robinson, in Gerver, 2010). This seems to be a consequence of recent discussions about educational concepts embedded in larger societal expectations and issues that illustrate the gap between traditional schooling and what today's students' needs are in order to be prepared for a future in an ill-defined world. Gerver (2010) emphasizes the imperative for change in traditional schooling and corroborates this with the need to prepare the new generation for "a successful life as adult citizens … making positive contributions to the world around them, … and develop the skills and behaviors that will see them flourish in the middle of the twenty-first century and beyond" (p. 4). Creating a space for the momentum of change is a challenge for any traditional school agenda and will require an arena for multi-dimensional learning and teaching. Another important factor is the role of the teacher in times of a "need of a fundamental shift of mind … about the concept of educational change itself" (Fullan, 1993, p. 3).

Questioning the existing education paradigm and moving from a system that maintains mental models of what education implies to a system that invites innovative teaching, transformation and embraces the kind of intelligences that facilitate the students´ holistic self-cultivation is challenging. It challenges not only the process as such, but also the existing concept of Bildung.

Moving from the earlier emphasis on conveying data and informational knowledge transmission to actually challenging the students to; observe and reflect upon their feelings, thoughts and behaviors, contemplate on purpose and goals, and help them develop an intrinsic appetite to learn, will inevitably raise questions in any traditional education system. It will not only require an emergent understanding powerful enough to break the existing dominance of the paradigm in society, the invigoration of innovative teaching, and also the ignition/cultivation of another kind of intelligence and learning in the students. This process of cultivation has a generative character as it can help students expand their repertoire of skills and refine and deepen their existing skills helping them to navigate their life tasks better, understand and overcome self-limiting beliefs and embrace personal growth and development.

Bildung

How does Glück fit with the term "Bildung"? What I took from observing classes, the interviews and from Glück literature (Fritz-Schubert, 2011a, 2011b) and working on this article was that the curriculum`s set-up and orientation turned out to resonate with the concept of "Bildung". This term is traceable back to Plato, Meister Eckhart and was later connected to German Enlightenment, Idealism, neo- humanism, and the philosophy of education. Bildung was also defined as liberal education and "became connected to the liberation of the mind from traditional dogma so that one can think for oneself to form oneself. In that sense, Bildung is

Selbst-Bildung (Selbst = the self, the I), which involves imprinting a picture of oneself on oneself" (Cuypers & Martin, 2013).

A broad range of thinkers such as; Humboldt, Hegel, Kant, Nietzsche and many others have laid different foundations to describe the connotation of the concept of Bildung in the European context. "Bildung" is different from its English translation "education" in that it (Bildung) encompasses the deeper and more holistic aspect validating meaning, purpose, the individual´s flourishing and self-development. The term "education" seems to have a more formal nature and this is critical for Bildung. Nevertheless, the latter etymologically refers to the verb "bilden" and "Bildung" to what can be described as "a process of designing an image (Bild)" (Schneider, 2012). A specific content-based formal knowledge is helpful to meet societal demands and is a part of the concept of Bildung. However, *designing an image* implies a more profound and active process of appropriation and internalizing knowledge to make it more accessible. It encompasses a process of growing into something, building character and manifesting ones aspirations and goals. It is my hypothesis that the conceptual framework of Glück can lay a fertile ground for this process by offering a container for a) a dynamic and holistic process of personal maturation as opposed to a mere accumulation of factual knowledge, and b) gaining perspective on this process, self-fulfillment, self-realization and self-leadership in order to be a "well-functioning participant" of society with aspirations and goals and the ability to think creatively and critically.

The current understanding of Bildung appears to be context-bound.[2] The international discourse on Bildung requires an attempt to synthesize the comprehension of different strands and to understand them as distinct from each other as well. There are similarities and differences between the concept of Bildung in Germany, the English-speaking research and the more recent concept of "transformative learning" coming from the US and Canada (Nohl, 2006). The notion of learning added a new aspect to traditional theories of Bildung in recent years (Meyer-Drawe, 2008). In the European context Bildung encapsulates processes of meaning making having transformative implications for the learner´s personality and embraces childhood, youth and adulthood. "Transformative learning" theories were developed in the US and Canada/in the English-speaking context to explain learning focusing on adulthood.

Teaching for Happiness / Wisdom

When researching adolescents` development of wisdom it is essential to account for the sensitivity of the life phase they are in. Adolescence is turbulent in many ways. It is molded by the development of critical thinking, the ability to make rational decisions about what to do or what to believe (Slavin, 2006), reflectivity, a tendency to think about what is going on in oneself and do self-inquiry. The awareness for their own uniqueness and separateness from others increases (ibid.) which is a part of their individuation (Jung, 1933), another important life task in this stage.

There are differences in several domains between intellectual knowledge and wisdom-related knowledge (Assmann, 1994; Chandler & Holliday, 1990; Clayton & Birren, 1980; Csikszentmihalyi & Rathunde, 1990; Sternberg, 1990a; all in Ardelt, 2000). Ardelt (2000, 2008) points to differences between intellectual and wisdom-related knowledge in these six domains;[3] goals, approach, range, acquisition, the effects of the knowledge on the knower, and the relation to aging. The overall picture of these differences is that intellectual knowledge is quantitatively oriented. It refers to the accumulation of factual evidences that provide predictability and values a scientific ground work that invites a narrower and more reductionistic world view. The nature of intellectual knowledge is that it is prone to be outdated. As opposed to this, wisdom-related knowledge refers to (an openness to) experiential learning and the integration of the knowledge of the body, mind and spirit. Thus, it provides a more multi-dimensional depth to relating to and making meaning of life in a holistic way.

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[2] http://implexus.org/profiles/blogs/international-conference-transformative-learning-meets-bildung-fr

My understanding of these differences is that (the acquisition of) wisdom-related knowledge overlaps with vertical development and is related to growing perspective taking and cognitive complexity in how we learn and think. In contrast; acquiring intellectual knowledge refers more to additive, or horizontal development. A synthesis of both intellectual knowledge and wisdom-related knowledge, requires a vertical step up in cognitive development to be able to take a perspective on both at the same time and then to integrate them. Knowing how to apply it demands that a person can act from within this new level of understanding. This may create a finer-meshed, awareness based approach to mastery and navigating different life tasks.

Making such a contrasting juxtaposition as in comparing intellectual knowledge and wisdom-related knowledge is like comparing a reductionistic, scientific approach and the holistic and integrated approach. The tension of opposites in this contrasting illustration of these two types of knowledge presents possibilities for developmental progression, from solely validating intellectual knowledge that values control, predictability and logical sequencing (Hart, 2009) towards integrating wisdom-related knowledge that values intuition, acceptance of uncertainty and ambiguity, and non-linear learning processes. Of course, the possibility that adults are in Kegan`s later stages of consciousness is more likely than for adolescents,[4] because the latter do not have a set of required reference points in their lives yet. Nevertheless, setting and nurturing the seeds for the ground work for the cultivation of wisdom in that particular life phase is critical.

Teaching for happiness is of course an ambitious endeavor. Teaching for wisdom alludes to an ignition of the students` developmental processes through a synthesis of their cognitive abilities and their wisdom-related knowledge (Sternberg, Jarvin & Grigorenko, 2011). The hypothesis is that a more creative and integral/multi-disciplinary approach to teaching as opposed to traditional methods can open spaces for the individual to fuel the own process of development. Positive Psychology research (Seligman et al., 2009) on the positive effects on academic achievement in well-being programs supports the focus on positive education. Thus, going successfully through the 2 year Glück curriculum could help boost academic attainments. It could also fuel the individual´s intentionality to improve other skills necessary to make meaning of the world, find the own voice, make wiser decisions etc. Both teaching for happiness and teaching for wisdom, are dynamic activities. Teaching for wisdom will want to make an attempt to encourage the individual to step out of a socially programmed consensus consciousness, think critically, question assumptions and develop a deeper understanding of the architecture of one's own reality. It will try to foster the individual`s ability to make wise judgments and navigate and operate upon certain life challenges.

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[3] Ardelt´s article focuses on the differences between intellectual and wisdom-related knowledge in the later years of life. It showed that many of the points in her listing were applied to early life stages in her article from 2008.

[4] While Krafcik and Spano (this issue) did not find evidence of a strong link between wisdom and later stage ego development, others such as Rowson (2008) noted overlaps between language describing characteristics of wisdom and language describing later stage ego development.

One`s explicit knowledge that is gained through data transfer has to be *"beefed up"* with implicit knowledge in order to be able to make wise judgments (Sternberg, 2001). This happens when attending to our inner processes. Happiness and wisdom can, in that sense, not be *taught*. It is rather indirectly, though actively, acquired and constitutes the inner condition of the adolescent that the individual brings out into the world. Teaching for wisdom fuels a developmental process of transformative nature whose major purpose is to empower the students' self-cultivation, the refinement of tacit knowledge, bring forth the ability to think critically and thus enable a shift in consciousness/their mindset. The fundamental idea behind bringing the cultivation of wisdom into the classroom is that teaching is not about telling the students what to think, but rather how to think (ibid.). In Glück, this is supported by an appreciation of numerous ways or multidimensional types of learning with attention to each student`s subjectivity. Glück`s main goal/ ambition, the cultivation of happiness, seems in many ways to be concordantly aligned with the cultivation of wisdom.

Transformative Education

Theorists and researchers have laid out various perspectives on transformative learning theory bringing great complexity to the field. The vantage points in diverse philosophical assumptions and underpinnings (constructivist assumptions, humanist assumptions, and critical social theory assumptions) are the fertile ground for a transformative learning theory that might appear fragmented and with clear boundaries as it displays a set of dominant perspectives (Cranton & Taylor, 2012). Considering the breadth of orientations and zooming in on them, Cranton and Taylor (2012) describe transformative learning theory as "cognitive and rational, as imaginative and intuitive, as spiritual, as related to individuation, as relational, and as relating to social change" (p. 7) and highlight the need for a more unified theory.

Most work on transformative learning theory is done in the field of adult learning. Theories of Bildung are used in adult learning as well, but the concept of Bildung also encompasses childhood and adolescence. Adolescence is a formative period with a broad range of developmental changes wherefore the call for a certain type of education seems evident for this life phase. While we need to be cognizant of the developmental differences between adolescence and adulthood, we also need to make an attempt to adjust our assumptions and consider adolescence as a valuable period for the encounter with alternative teaching methods that can be transformative.

One example for transformative education is Paolo Freire´s concept of critical pedagogy that focuses on liberation and transformative optimism (Freire, 1974). He argued for the political nature of education as the place where individuals and society are constructed. His thought-provoking pedagogy endorses problem-posing as a key to critical dialogue and focuses on how the questioning of the system and knowledge is essential for the development of a critical consciousness. Freirian critical education emphasizes the importance of a democratic and transformative relationship between the learner and the teacher, the learner and learning, and the learner and society. It invites the learner to be critical, question the system they live in and actively create the future they envision (Shor, 1993).

We can also find alternative education with transformative character in the Montessori and Steiner education movement. Both have an emphasis on a holistic education based on the child´s needs encompassing the spiritual, mental, physical and psychological development.

Brief Description of Relevant Approaches to Wisdom

The roots of the concept of wisdom go back to the classical philosophies of Plato and Aristotle. The postmodern understanding of wisdom and current wisdom literature generated several definitions of wisdom, because the concept of wisdom as a human attribute has changed over time in parallel to the evolutions in the society (Birren & Svensson, 2005). This article will only depict some notions that seemed most relevant in relation to the Glück curriculum.

Wisdom is related to our social-societal functioning and “universal knowledge that guides our behavior in ways that optimize productivity and well-being on the level of individuals and on the level of society at large” (Kunzmann & Baltes, 2005, p.110).

Wisdom is in this article defined as a construct that arises from a process of refinement and cultivation of tacit knowledge (Sternberg, Jarvin, & Grigorenko, 2011). This definition is also informed by understanding wisdom as a construct that regulates the use of certain skills (e.g. abstraction, reflection, self-awareness), which are involved in making wise choices for acting in the world (Sternberg, 2003; Schwartz & Sharpe, 2010). Wisdom is characterized by features such as the ability of critical-reflective thinking, self-awareness and sagacity in actions, decision making and meaning construction (Hart, 2009; Mezirow, 1990; Sternberg & Jordan, 2005; Sternberg, 2003; Sternberg, Jarvin, & Grigorenko, 2011; Garrison, 1997).

There are many different theories and approaches to understand wisdom, and all of them cover aspects which are relevant for this article. However, in order to discuss the cultivation of wisdom in relation to educational settings and the model proposed in this article, the most relevant seems to me to be Sternberg`s Balance Theory (1998, 2003). It aims at a balancing of one´s own interests and finally the common good. Balance Theory also points out that wisdom requires knowledge, and acknowledges tacit knowledge as the foundational feature of wisdom (Sternberg, 2001; Kunzmann & Baltes, 2005).

It gives validation to explicit formal knowledge as in intellectual skills relevant to a given theory of intelligence. But it also emphasizes this kind of knowledge´s limitation as not being sufficient in order to engage the world in a wise manner. Wisdom is a multi-faceted intelligence and appears as knowledge balancing interests. In Balance Theory,

> wisdom is defined as the application of tacit knowledge as well as explicit knowledge as mediated by values toward the achievement of a common good through a balance among a) intrapersonal, b) interpersonal, and c) extra-personal interests, over the a) short and b) long

> terms, to achieve a balance among a) adaptation to existing environments, b) shaping of existing environments, and c) selection of new environments. (Sternberg, 2001, p. 231)

The balance in this theory implies the seeking for good outcomes for oneself as much as for others. In this process, it is also necessary to be able to make distinctions as the common good may be better for some than for others. Problem-solving that requires wisdom-related skills will then always need to integrate at least some elements of each of intrapersonal, interpersonal, and extra-personal interests (ibid.).

The initiation of developmental steps through an activation of tacit knowledge requires experiential learning. “Tacit knowledge is action orientated, it helps individuals to achieve goals they personally value, and it can be acquired only through learning of one’s own experiences, not “vicariously” through reading books or through other’s instructions” (Kunzmann & Baltes, 2005, p. 115). Balance Theory also highlights the ability for four types of thinking. These are;

- analytical thinking (which includes an ability for metacognition, critiquing, judging, evaluating, comparing and contrasting, and assessing),
- creative thinking (including creating, discovering, inventing, imagining, supposing and hypothesizing),
- creatively insightful thinking, and
- good practical thinking (including applying, using, utilizing and practicing) (Sternberg, 1997).

Nevertheless, mastering these types of thinking does not necessarily imply the ability for wise acting, but it opens the possibility of having more choices and a broader range of options to face tasks and life in general. However, wise acting does require the capacity to take certain matters as an object of reflection and seeks for a more sophisticated way to engage the world. Having more choices is an essential step towards wise acting but requires the ability to reflect on it from different angles to make good judgments about possible courses of action.

The Nature of Adolescence and Its Life Tasks

Piaget’s Theory of Cognitive Development (Piaget, 1954) and Erikson`s Theory of Psychosocial Development (Erikson, 1950, 1968) are to be considered seminal descriptions of human psychological nature in personal development (Coleman & Hendry, 2009). Both Piaget’s and Erikson’s theories proceed in stages and are characterized by certain life tasks the human being is supposed to master.

In Erikson’s stages of psychosocial development, life is viewed as a series of eight stages (Erikson, 1950, 1968) in which each of them has a particular task. Erikson framed these particular life tasks as developmental crises dependent on if they are mastered in a successful or unsuccessful manner. The stage the participants of my research study are in is the late part of the fifth stage characterized by identity versus role confusion. Part of this stage is that adolescents figure out who they are and who they can be (Sternberg and Williams, 2002). From an Eriksonian perspective, “wisdom (…) develops from the person’s coactions with the world and the transformation of the person’s actions as they are directed toward the adaptive resolution of a series of psychosocial conflicts" (Takahashi & Overton, 2005, p. 46). Erikson understands wisdom as a concept that entails a certain equanimity and "involved disinvolvement" (Erikson, 1982, p. 61) with life. His model of psychosocial development points to the synthetic/transformational feature of the experience of wisdom and is broadly defined as "reflective understanding", a sense of detachment or a high level of meta-awareness of the self and situational contexts" (Erikson, Erikson, & Kivnick, 1986, 2005, pg. 46-7).

Like Erikson`s Theory of Psychosocial Development, Piaget's Theory of Cognitive Development also proceeds in stages. According to his theory, my participants would mainly be in the formal operational stage in which adolescents have a greater ability for hypothetico-deductive and abstract thinking (Piaget, 1954; Coleman and Hendry, 2009). Thus, the ongoing development of abstract and reflective thought is a part of the formal operational stage in adolescence.

To sum this up, Davis-Seaver (2000) highlights three different notions of the ability to think critically from a developmental perspective. She points to three seminal theorists and claims that the ability to think critically depends upon physical/biological maturation (Piaget) or upon resolving psychosocial tasks at a maturational level successfully (Erikson). She also highlights Vygotsky, who sees the developmental aspect in the ability to speak and in the formation of concepts which begins in early childhood, but takes shape and matures as higher-order thinking in puberty. Adolescence is the life phase of identity confusion and insecurities that drive the young individual´s need to seek recognition from peers. Adolescence is also a phase of rapid growth molded by the development of critical thinking (Slavin, 2006; Paul & Elder, 2014), "the ability to make rational decisions about what to do or what to believe" (Slavin, 2006, p. 269). These abilities come along with the development of reflectivity, a tendency to think about what is going on in oneself and do self-inquiry. The awareness for their own uniqueness and separateness from others increases (ibid.) which is a part of their individuation (Jung, 1933), another important life task in this stage. Part of the process of individuation and the age-related ability to use formal operations is also to make distinctions which are connected to the capacity of taking a hypothetico-deductive approach to problem-solving (Coleman and Hendry, 2009). Another important capability that develops in adolescence is "to think about mental constructs as objects which can be manipulated and to come to terms with notions of probability and belief" (ibid., p. 36). This can be linked to adolescents starting to think operationally, and who are not anymore embedded in hers or his perceptions but can detach oneself from them, and take them as an object of reflection and attention (Kegan, 1982, 1994; Uhlendorff, 2010).

In relation to a successful accomplishment of adolescence's life tasks, the Glück curriculum puts emphasis on the procurement of life competencies (Fritz-Schubert, 2011a, 2011b) which demand the abilities described above and that adolescents are supposed to develop in this life phase. The curriculum itself aims to help the adolescents to make progress on the life tasks by offering a schedule for self-exploration stretched over two years.

Meaning-Construction

In order to assume adult roles or confront the expectations (noted above) from society, adolescents may arrive at the point where individuation is a developmental challenge (Jung, 1933; Cole & Hendry, 2009). Zooming in on Glück, this is in a broad understanding also part of the aspired outcomes of a successful accomplishment of the curriculum. Confronting this developmental challenge and relating to oneself and the world demands the ability for meaning construction, it creates learning and is embedded in the constructive-developmental framework. The constructivist perspective on learning is that the human is in a process of creating knowledge and actively discovers and transforms complex information in order to embody it and make it one's own (Slavin, 2006). Taking a neo-Piagetian perspective on development as a process in his constructive-developmental theory, Kegan perpetuates the theoretical view of Piaget and claims that the epistemological, "deep structure of any principle of mental organization is the subject-object relationship" (Kegan, 1994, p. 32). The kind of experiencing that the subject-object principle facilitates is what is related to consciousness (ibid.), self-awareness and self-reflective thinking which is highly addressed in the cultivation of wisdom.

Gaining self-awareness requires reflection and a development of awareness of what is going on inside oneself (Jordan, 2002). The process of developing self-awareness proceeds in three stages of which the last one, transforming, includes the individual's intentionality that opens for an abjuration from the embeddedness in the old frame of reference (ibid.).

> Transforming our epistemologies, liberating ourselves from that in which we were embedded, making what was subject into object so that we can "have it" rather than "be had" by it – this is the most powerful way I know to conceptualize the growth of the mind. (Kegan, 1994, p. 34)

These shifts can initiate transformation.

It is a developmental process that carries along progressive changes which represent a higher sense of what to do of one's life, relationships and choices (Kegan, 1994), which is a relevant matter in adolescence. Moving from an egocentric mind to a socialized mind in adolescence is a process that asks progressive changes, and which can trigger inquiry in the young person about how to engage the world. Being socialized includes meeting and facing expectations from society as for example to be a "good citizen" who is aware of certain rules in life (ibid.), gain mastery over certain skills and accomplishment of certain life tasks (Piaget, 1954; Erikson, 1950, 1968). These are also the aspired to goals of the Glück curriculum.

Wisdom – A Matter of Age?

The assumption that wisdom is considered as a peak performance or end state of human development seems to give a touch of exclusivity to the possibility of enhancing wisdom-related knowledge only in later stages of development. This notion can be challenged to some degree. Adolescents` age-appropriate natural intellectual developments of generalization, logical thought and abstract conceptualization makes a case for considering young peoples´ internal and external processes in these domains as also pertaining to wisdom. While adolescents might not have such a sophisticated view on life yet (Sternberg and Jordan, 2005) or not accumulated enough experience yet to be considered wise, the seeds for later wise acting can be viewed as being planted during this phase of life. Thus personal growth and development tends to crystallize during this phase of life in the individual`s progress toward higher levels of meaning making and performance (Baltes & Smith, 1990). This creates an opening for individuals of a young age to also participate in the discussion on wisdom. Regarding Erikson`s stages of psychosocial development, the sample of interviewees were in the fifth stage characterized by identity versus role confusion. This stage embraces that adolescents figure out who they are and who they can be (Sternberg and Williams, 2002), a life phase to make generalizations from key experiences and explore one`s own personality. From an Eriksonian perspective wisdom would occur later, in the last stage of his stage model (Erikson, 1950). However, the focus on the development of wisdom as a construct related to post-formal thought or age exclusively seems to be outdated. Current wisdom literature promotes adolescence and young adulthood as important life phases regarding the potential development of wisdom-related knowledge (Pasupathi, Staudinger, & Baltes, 2001; Richardson, & Pasupathi, 2005; Sternberg, 2001; Bassett, n.y.[5]). Normative and age-appropriate knowledge develops in steep growth curves between 15 and 25 (Pasupathi, Staudinger, & Baltes, 2001).

Zooming in on the nature of adolescence, individuation and the search for one’s own identity indicate that it is a sensitive period of orientation. The young person seeks for knowledge to contemplate on these life problems as a direct response to their age-appropriate identity confusion (Ardelt & Jacobs, 2009). It is a “period of privileged encoding of autobiographical and other types of experiences” (Richardson & Pasupathi, 2005, p. 149) and heightened memory for experiences associated with reminiscence to create the kind of narratives and nexuses necessary to develop wisdom-related motivation and knowledge. While the seeds for the development (may) get set in adolescence, translating wisdom-related knowledge into action will require self-regulatory capabilities which come through experience. However, the key building blocks that facilitate the development of wisdom-related motivation and knowledge emerge in adolescence and early adulthood (ibid.). Adolescents also have attained the ability for abstract thought (Piaget, 1952) and metacognitive skills necessary to develop a certain kind of thought that facilitate wise thinking.

It can thus be argued that wisdom can be developed in every life phase or at any age. Facing developmental tasks from birth throughout all the different life stages, wisdom-related knowledge will emerge and manifest itself. As a part of personal growth and self-cultivation, wisdom will emerge from exposure to experiences that show up differently in different life phases (Ardelt & Jacobs, 2009; Ardelt, 2008; Bluck & Glück, 2004).

Although there seems to be a common understanding among many wisdom researchers that most demonstrations of wisdom will reveal itself in peoples´ later life stages (Ardelt, 2008; Bassett, 2015), its actual development seems to follow a steeper learning curve during adolescence than in adulthood (Pasupathi, Staudinger, & Baltes, 2001). Wisdom can be found in younger people too, especially in the ones who had to deal with hardships in their life (Bluck & Glück, 2004; Ardelt, 2008). It seems that the accumulation of certain key experiences is the sticking point that generates the connections and fuels the growth of wisdom. From this, we can surmise that withdrawal from making key experiences and opening oneself to the learning that comes with them won´t make one wiser. In contrast, feeling more coherent with oneself and the social environment, being more at ease with challenging life situations and one´s uncertainty coming along with identity confusion and individuation and to engage in the world will provide a broader range of possibilities to accelerate this growth process.

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[5] www.wisdominst.org/WisdomInThreeActs.pdf

Teaching for Wisdom in Adolescence

All these arguments seem to give a body of evidence to the importance of having opportunities for laying a foundation that helps to spot certain acupuncture points that create a finer-meshed and generative tissue for the cultivation of wisdom in the young person. Still, the cultivation of wisdom in adolescents demands certain circumstances facilitating their growth. Apart from these arguments, there is another reason that speaks for teaching happiness and wisdom in the classroom. The curriculum holds a frame for social learning through the interaction with peers which is significant in terms of personal growth in the proximal learning zone (Vygotsky in John-Steiner, Souberman, Cole, & Scribner, (Eds.) 1978; Slavin, 2006; Coleman & Hendry, 2009).

The holding environment of the safe container (Winnicott, 1965; Bowlby, 1988) in the class offers a space of trust where the individual is invited to experience encouragement, support, valuable feedback and creative energy in the peer group. This reciprocal relationship opens for self-inquiry, being present to one’s own personal growth and learning through the creation of individual and collective awareness in the container (McClure, 2005). The quality of the holding environment will be crucial for the initiation of certain developmental processes in the adolescent. An essential part of this is the way of teaching.

Sternberg´s WICS[6] model is based on his Balance Theory and argues that wisdom, intelligence and creativity are developing expertise. They are presuppositions for citizens and professionals of the future, and for anyone else who aspires to meaningful success in life (Sternberg, 2009).[7] Sternberg argues that teaching for wisdom requires three types of teaching;

- teaching analytically (to encourage students to analyze, critique, judge, compare and contrast),
- teaching creatively (to encourage students to create, invent, discover, imagine if…, suppose that…, predict) and
- teaching practically (to encourage the students to apply, use, put into practice, implement, employ, render practical what they know).

A synthesis of these three different skill sets can give the students a broader range of possibilities for action and behavior. My research focused on an example of how this kind of teaching can be applied. The next section provides some background on this curriculum and a description of the research methodology.

The Roots of the Glück Curriculum

Glück is basically focused on giving the students a possibility to explore and experience how they can create a better life for themselves by providing a space, activities, and exercises to make and reflect upon key experiences. From this they can identify and explore alternatives for acting and decision making in future situations. Refining their ability to make generalizations from the experiences is a critical part of their wisdom-related learning process.

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[6] WICS stands for “wisdom, intelligence and creativity, synthesized”.

[7] http://www.clarku.edu/aboutclark/pdfs/sternberg_wics.pdf

The message and contents of Glück is something a person can learn (Fritz-Schubert, 2011a, 2011b; Seligman, 2011; Lyubomirsky, 2007) but gaining life competencies requires effort and motivation. The Glück curriculum therefore embraces the notion of positive education, a wide range of learning styles and has a very practice-based approach instead of overloading the students with theories. The development of wisdom-related knowledge can in these learning processes help regulate the applicability of the aspired life competencies. It is also therefore critical for the subjective experience of the curriculum.

Glück Classes, Facilitation and Exercises

It is a major goal of the Glück curriculum that the students experience their creative strength in connection to the meaningfulness of their actions, and to unfold their intrinsic pursuit to reach for goals and realize them in their daily actions. This way they sit in the driver´s seat of their own growth processes, formulate and realize their goals and generate an enhanced motivation to learn. The ongoing practice of self-unfoldment through positive key experiences also increases their self-trust which can give them reference points to make connections for future situations as well. Thereby, the emergence of existential anxieties can be avoided (Kaminski, n. y.). Glück wants to bring forth an improvement of the students´ social competence and academic learning achievement, increase of resilience, gain of more energy, having better health and joy in life (Fritz-Schubert (2011a, 2011b), even (or especially) at times when life is tough and certain skills are required in order to master life`s challenges. To experience flow and develop joy in acquiring certain skills and reach goals is an important part of this process. The safe container in the community of the class facilitates the conditions to practice turning inwardly, explore and learn individually and collectively how to show up in the world, and act in the world instead of being acted upon.

An elaborated set of concrete exercises (which the curriculum calls positive key experiences) are as part of the Glück classes. They aim at helping the students become aware of moments of flow, a feeling of trust, responsibility and sense for community. The students` processes are supported through facilitated group reflections in class and followed up through homework reflection papers which have to be handed in as semester assignments.

In order to give a little taste of the positive key experiences in the curriculum, I want to mention the “Free Fall” and the “Value Hierarchy” exercises. Especially the “Free Fall” was frequently mentioned in the interviews in relation to its positive impact. In the “Free Fall” several adolescents stand close together on the floor right behind a table. One adolescent stands on the table with the back turned towards the other ones on the floor. Taking a deep breath and when feeling ready the one on the table lets herself/himself fall and the others catch her/him. These kinds of key experiences are supposed to give them a feeling of trust and self-confidence as much as responsibility, authenticity and team spirit. It is supposed to give them a richer treasure trove of experiences that allows the individual to acknowledge options for generalization and eventually transferability of the gathered learning to future situations and considerations. Future-defining relevance was considered in the purpose of the exercises that ask for teamwork as well as the acknowledgement of aspects that link together altruism and mental health.

In the “Value Hierarchy” the adolescents get several building bricks which represent a certain value. The class is then asked to discuss the values which are most important to them and then about which role and position in the hierarchy these values appear most important to them. The goal is to come to a mutual consent of which values are in which position when physically building a pyramid with the cubes. The top position of the pyramid represents then the value with the highest relevance to them. The quality of the physical interaction in the exercises is as important as the quality of the students` presence, attention and communication in the group process. The students` narratives revealed that the experience of working physically together, negotiating and reaching for a common goal was helpful for their understanding of their uniqueness, togetherness and concern for the common good.

The Glück curriculum is stretched over two years. The main constructs I have been able to perceive from reviewing available literature on the Glück curriculum are based upon several aspects of everyday life such as; the benefits of social togetherness, the experience of happiness, pleasure in life, their own achievement, the body in motion and as a means for expression, mental and physical well-being, nutrition, practical necessities in everyday life (such as planning the daily agenda), cultural codes as a base for social life and the self, including their own social responsibility as a member of the society. Mental training, meditation techniques, relaxation exercises, sports, yoga and drama activities to cultivate their sense of intuition are integral parts of the curriculum (Kaminski, n. y.; Fritz-Schubert, 2011a, 2011b).

Theoretical Foundations of the Glück Curriculum

A historical event, Caesar`s crossing of the Rubicon river, creates some of the theoretical background and illustrates a model in Motivational Psychology that demands from the learner setting a specific goal and by going through phases, strive after it, make decisions and eventually reach the goal. The Rubikon model (Heckhausen & Gollwitzer, 1987; Heckhausen & Heckhausen, 2010; Storch & Krause, 2005) describes four phases of acting – pondering (abwägen), planning (planen), acting (handeln), and evaluating (bewerten).

In positive psychology, the theoretical anchor for Glück, Seligman (2011) appeals for imagining positive education and stresses the importance of well-being. Schooling could, “without compromising either, teach both the skills of well-being and the skills of achievement” (p. 78). Well-being taught in school would ignite a paradigm shift and create a space for students to help them increase their creative and holistic thinking and their life satisfaction in general, foster better learning (ibid.), discover inner strengths, learn from crises, show responsibility, be more self-sufficient, have joy in everyday life and promote an optimistic attitude towards oneself, society and life in general (Fritz-Schubert, 2011a, 2011b). Well-being and positive moods enhancing learning, stimulating more creative and holistic thinking and broader attention (ibid.), create positive implications for the development of skills of achievement, increase life satisfaction and help prevent depression. This interconnection between the skills of well-being (for the most connected to happiness) and the skills of achievement (or academic performance) and increase of life satisfaction raises questions about the conditions. Which conditions facilitate this, and how can it be achieved?

One approach to answering this question can be found in research on coherence in relation to the wide-spread scope of well-being and the subjective mastery of life which generated results that can be linked to wisdom. Research from the HeartMath Institute and Antonovsky's theoretical frame of salutogenesis exemplify this approach.[8] The HeartMath Institute's research shows interactions between the neurons in the heart leading to a state of psychophysiological coherence that showed a significant improvement in cognitive performance, including memory and even academic test performance (McCraty, Atkinson, Tomasino, & Bradley, 2009). Another effect that is ascribed to a high coherence between heart and brain interaction is its positive impact on helping to maintain a person's mental, emotional, physical and spiritual well-being. The research acknowledges the impact of positive emotion and introduces the term *heart rhythm coherence hypothesis* that verifies that the higher the degree of emotional stability and system-wide coherence, the better is the facilitation of cognitive and task performance" (ibid.). HeartMath Institute research claims that "emotional coherence - a harmonious state of sustained, self-modulated positive emotion - is a primary driver of the beneficial changes in physiological function that produce improved performance and overall well-being" (ibid., p. 15).

The sense of coherence (SOC) in Antonovsky`s principle of salutogenesis describes and measures a person`s subjective way of making sense of one's own life and the world. It is also an indicator and major factor in defining how well a person copes with stress and stays healthy (Antonovsky, 1979, 1987; Bengel, Strittmatter & Willmann, 2001; Petzold, 2010). Adolescence is the period of life where the SOC is still open for changes while it becomes more settled (static) around the age of thirty (Antonovsky, 1979, 1987). The SOC consists of three factors; comprehensibility, manageability and meaningfulness. A strong SOC indicates an ability to orientate in the world (comprehensibility), ability to activate resources and master certain situations (manageability), acknowledging life and its challenges as something meaningful and put energy into the solution of problems (meaningfulness) (Fritz-Schubert, 2011a, 2011b). The increase of the SOC is an explicit goal of the Glück curriculum and is regularly evaluated (ibid.).

Although two different starting points – the HeartMarth research is based on the psychophysiological concept of coherence and Antonovsky´s model of salutogenesis on coherence as a psychological concept – it appears that both approaches resonate with the development of skills that fuel wisdom-related knowledge and performance. Both approaches point to states of enhanced awareness and wholeness that can initiate maturation processes. Wisdom is related to receptivity to imagination, intuition, and the kind of thinking and knowing that is below the neck.

What shaped my understanding of the concept of wisdom is that is in an interconnected relationship with the heart`s intuitive intelligence (McCraty, Atkinson, Tomasino, & Bradley, 2009), and feeling coherent in oneself and one`s decisions. Coherence manifests itself as balance, harmony, flow, integration, structure, being in sync, an enhanced sense of intuition, and system-wide alignment within. All these are qualities that are aligned with the presence and attention necessary to turn inward, be able to engage the inner landscape, hold that in a good space, surrender and transcend the ego. Incoherence in contrast creates disruption, disintegration, stress, and disharmony. It appears that a developing coherence in consciousness is characterized by psychophysiological, system-wide coherence embracing mental, emotional, physical and spiritual wellbeing and resilience (ibid.). A high SOC score in Antonovsky`s salutogenesis` three terms comprehensibility, manageability and meaningfulness also seems to be interrelated to a developing coherent consciousness.[9]

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[8] Antonovsky's work is an explicit part of the Gluck theoretical foundations. The HeartMath research is not, but seems relevant enough to also mention here.

Another possible interrelation is that the three components of the salutogenic frame – comprehensibility, manageability and meaningfulness – contextualized in the Glück curriculum can be seen in a connection to what wisdom theorists define as *wisdom criteria*. Expert knowledge, referring to the meaning and conduct of life, approaches wisdom if it meets these five criteria (Kunzmann & Baltes, 2005), which are (1) rich factual knowledge, (2) rich procedural knowledge, (3) lifespan contextualism, (4) valuation of relativism and (5) tolerance and ability to understand and manage uncertainty. While the two first criteria are on a basic level and not sufficient for the development of wisdom-related knowledge, the three last criteria are meta-level criteria. They require a broader body of experiences and learning to embody than the basic level criteria. Considering the contents of the three terms in the salutogenic framework it seems that the five wisdom criteria not only fit the aspired outcome of the Glück curriculum but resonate with the contents of the wisdom criteria. They give clues to how a person engages her/ his social and physical environment and makes decisions in certain domains.

Putting it all together and looking at the interconnection of the three components – the accomplishment of life tasks, the theoretical background of Glück and wisdom theory – a fluent orchestration of these components defines the zone for the cultivation of wisdom. Existing research from the University of Mannheim[10] showed that Glück had a positive effect on the students` subjective well-being but also described one confinement in relation to the individuals` emotional stability. The interviews with 106 students showed that the higher the degree of emotional stability in the individual before the accomplishment of the Glück curriculum, the higher was the positive outcome for the individual. This puts the notion that happiness is something one can learn into something we have to look at in relation to where the individual is at and consider that the classrooms are filled with individuals so that this statement must not be overgeneralized.

The essence of my research arose in the process of observing classes and listening to the narratives in group discussions as well as in interviews. Exploring the lectures and scrutinizing the interviews for signs of transformational processes gave a more holistic picture of what I perceived as a synthesis of foundational life stage criteria exposed to a conceptual frame which is embedded in the constructivist developmental framework. The holding environment created a space for reflection and critical-analytical thought. Integrating and looking beyond the theories about the development of children's` and adolescents` capacities and life tasks, I was interested in the concept that regulated the use of these capacities besides their subjective well-being.

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[9] Seeing these two notions of coherence, it would be interesting for future research to explore the degree to which there is an overlap between the concepts of coherence when considering heart and brain interactions and the salutogenic framework, or if a feeling of a sensed incoherence actually also contributes to the development of wisdom-related knowledge.

[10] http://www.uni-mannheim.de/1/presse_uni_medien/pressemitteilungen/2011/august/unterricht_zum_gluecklichsein/druckversion_pi52/08_08_unterricht_zum_glacklichsein.pdf

My Observations and Interview Approach

I interviewed seven students who were between 17 and 20 years old (3 female, 4 male) and two teachers. Before picking a sample of interviewees, I was told that the students were already quite used to giving interviews as the media had shown a lot of interest in the implementation of Glück. It turned out that this was an essential factor when doing the interviews. The students' personal narratives revealed more of how their perception and subjective experience of the Glück curriculum related to the development of skills related to wisdom-related knowledge. They also disclosed more about their process of discovering their relation to their own meaning making.

Interviewing Adolescents: Critical Reflection vs. Descriptive Cheerleading

The semi-structured interview guide contained questions to find out about what motivated the adolescents, what they learned in class, if and how they applied what they learned related to their everyday life, and how they experienced the lessons as a means in order to develop certain abilities. The main purpose of the interviews was to stimulate the students' reflective thinking through facilitating their process to gain broader insights into how and in which ways their attendance of Glück helped them in relation to wisdom-related criteria.

The presupposition for this was to help them find a language to describe their subjective experiences. My motivation was to help them go beyond a "flat" description of the class and give rich answers of what revealed itself. Framing the interviews to each of them as a possibility to reflect about their insights, impressions and feelings towards Glück before the start of the interviews, I proposed to each of them that these conversations can be a possibility to go deeper into layers that maybe they had not considered to talk about before. All of them accepted this proposal very openly and gave verbal and non-verbal signals that they were interested in a deeper self-inquiry.

However, when conducting the interviews, I observed that there were discrepancies between the students` way to respond to the questions. While some of the students showed not so much variation in their answers and gave responses which had more of a descriptive nature, other students answered in a more critical manner than I had expected, reasoning abstractly. The interest of the media might have caused that some of the interviewees were kind of "trained" or "programmed," and more descriptive in their interviews rather than reflective and critical. It was probably unconscious that their narratives were more aligned to a good description of the Glück curriculum rather than their own subjective meaning making. The other students who had been more reflective brought another nuance and broader approach to my research as their critical attitude displayed more critical-reflective skills which eventually revealed more of a transformational process going on in them.

Limitations of the Research Study

In my research study, there are a number of limitations I am aware of. Due to the wide spectrum of definitions and theories about wisdom in recent literature, I had to make choices in order to narrow down the scope of my research field. This resulted in a strict limitation of the theoretical lenses I used. Thus there could be other perspectives and interpretations of my data that I missed by narrowing the scope of theoretical lenses. The main limitation I perceive, is that I have built an extensive theoretical model and interpretation based on a relatively small amount of empirical data. The fact that my study turned out to focus mainly on two participants, who appeared to give the richer data in relation to my research question could be seen as problematic. It also turned out that two of my interviewees did only in some marginal areas mirror the overall impression I got from the rest of their group. They were supportive for the data, and stayed more in the background of the analysis. This is a limitation of the study as it might appear not broadly representative.

Future Research

The limitations in my thesis open the way for more research to corroborate and sustain the empirical findings that emerged this research study. Having the major impressions from my research study and acknowledging the importance of development and impact of wisdom on young people, I would propose a long-term study of a research sample attending Glück and examine their subjective experiences succeeding through the wide-spread scope of items the Glück curriculum focuses on. One step of this could be following up and interviewing more students at the end of their two year program. Another possibility for future research is a deeper examination of what the concept of coherence used by the HeartMath Institute and Antonovsky’s salutogenesis might have in common.

Description of the Findings

The empirical data showed that generally speaking, the participants perceived the Glück curriculum as both useful for their development and applicable in everyday situations. They also perceived it as a useful learning arena beyond their traditional school curriculum. All of them mentioned and appreciated that in Glück they do not have to stay quiet but are encouraged to speak up and that they get a feeling for who they are. Regarding their subjective perception of their development the following key findings emerged.

- The Glück curriculum helps the adolescents to use and refine tacit knowledge which suggests that Glück teaches for gaining a higher degree of wisdom-related knowledge.
- The process of reflection, generalization and development of self-awareness changed the adolescents’ subjective perception of their own outcome of their attendance in Glück.
- The process of reflection, generalization and development of self-awareness also helped to develop their understanding of lived key experiences in a larger life context.
- Developing more self-awareness and understanding for the impact of the Glück curriculum revealed developmental growth going on in a parallel mode.

The key findings display fine grained transitions between each other as the students` answers displayed that development happened in nuances and a small range. The data implies that one course of Glück will not totally transform them. But what I found was that zooming in on details in the scope of a broader scheme of wisdom, adolescence`s life tasks, transformation and the curriculum, small changes emerged.

Talking highly appreciatively about the good companionship and the safe container in class, all students disclosed that their individual and collective awareness seemed to have enhanced. More perspective taking, knowing oneself better and reacting differently in difficult situations was mentioned in particular. They also talked about an improvement of skills that support teamwork and team spirit in general, a better social aptitude, self-esteem and self-efficacy. All of the interviewed adolescents proposed that Glück has a potential to nurture these qualities but stated that they do not ascribe the development of these abilities only to Glück. There was a consensus that they already came with certain capabilities before the Glück curriculum was introduced to them. It seems that even if they assert their own sense of self and growth as not exclusively attributed to their attendance of the Glück classes, but maybe going on in a parallel mode, there is a chance that it nonetheless helped them become aware and articulate this certain outcome.

It looks as if Glück was somehow involved in helping them find a language for something that they notice to have had in themselves from before. Framing it might have helped them validate their assertiveness in their verbal and nonverbal responses. This certain tacit knowledge might have been pushed more into the foreground as it became more explicit through their self-inquiry and being exposed to the curriculum. The meaning making in their chain of thought showed more complexity as the interviews progressed. They took time to reflect and be present with their inner dialogue which showed in their facial and vocal expressions as sighing, giggling and their moments of silence. These expressions were important data and were a fully integrated part of the transcriptions and analysis. Being mindful of their body language during the interviews and listening to the recordings of the interviews over and over again also helped me to deepen my understanding of their process.

The moments of reflective silence in the interviews can be seen as beginnings of learnings felt in the pre-reflective experience of negativity that is a transformational break with the own learning history and habitual mode of being (English, 2012).

> These breaks or gaps in experience cannot simply be closed by attaining new knowledge, but they can be productively dealt with through reflection and inquiry. Learning begins in the breaks and gaps in experience and come forth as a “response to the call of the other.” (p. 221)

I observed that the reluctant attitude some of the participants showed initially towards the curriculum turned into something that was much more neutral, and in some cases even very positive. As soon as they had started to articulate their experiences and what changes they noticed since the first day in Glück they made this knowledge more explicit. Their narratives brought them from their critical feelings to a more authentic space where their criticism was not just there for the sake of being critical. Some narratives brought forth elements of cognitive dissonance to deal with. Contextualizing the new perspectives actually expanded the container and gave another quality and nature to it. Holding this tension, a higher level of self-awareness and authenticity could emerge.

Deep contact with oneself and others in the context of the classroom helped them build a better understanding for who they are, their inner world, their strengths and weaknesses and about their abilities to build and maintain relationships. Building and balancing their knowledge about their relationships supported their process of enhancing their awareness about themselves on three levels; individually, collectively and inter-relationally.

Glück helped the students to discover, refine and internalize new skills and learnings. Parts of these learning processes had been going on in a parallel mode. Reflecting upon the curriculum, the key experiences and the impacts of Glück in their lives helped making this knowledge more explicit and tangible to them.

It also supported enhancing their ability to listen to the gut feelings. Their sense of their self as an individual and in a community and of actively being a co-creator for the greater good was mentioned to have matured throughout the program.

Description of the Model Emerging from the Findings

In the research process, three main categories with appertaining subcategories emerged; (1) Criticism with the subcategories “assertiveness” and “ rejection”, (2) Social interaction with the subcategories “learning together” and ”safe container”, and (3) Skill development with the subcategories “abstraction”, ”reflection”, and ”self-awareness”. The latter, skill development, along with its subcategories, revealed itself as a level that enabled the students to enter a space where their skills synthesized in order to become a presupposition for wise acting.

Analyzing the data led to the conceptualization of a model exploring the stages in the evolution of wise acting.

Abstraction → Reflection → Self-Awareness → Wise Acting

The model illustrates the individual`s inner process and synthesis of the pronounced subcategories abstraction, reflection and self-awareness as a stepwise model aiming for wisdom at the peak position. It depicts a possible developmental process of an interior operation which I assume to lead to the possibility of cultivating wisdom and focuses on the individual`s inner condition enabling skill acquisition and skill refinement in relation to this. The quality of this subjective inner condition is an expression of the individual`s level of “knowing-how” which is related to the level of wisdom-related knowledge and performance. Its quality also governs the learning going on in parallel.

The other main categories of criticism and social interaction appear to establish a frame for the model in the background. They reveal themselves as external but with indirect and supportive influence on the internal operation illustrated in the model above. Criticism’s subcategories assertiveness and rejection illustrate the adolescents’ embeddedness in a thought pattern (a frame of reference) they are held by. The critical perspective is in relation to the stages in the evolution of wise acting in the model as it stimulates the adolescents' abstract and reflective thinking. The social interaction's relation to the interior process in the model is the creation of the interpersonal dynamic conditions that enable the accomplishment of the internal operation.

Abstraction

The first step of the model is abstraction. The development of abstract thinking is part of the formal operational stage (Piaget, 1954). The formal operational stage begins approximately at an age of eleven and lasts into adulthood. Being in their late adolescence the participating students are therefore supposed to already have developed the ability for abstraction which implies a capacity to make use of concepts, draw logical conclusions from what is observed, understand generalizations and make distinctions. Assuming that all of the interviewed adolescents have successfully gained mastery over the development of abstract thinking, it seems to be mirrored in the way they related to the interview dialogue.

Clear distinctions were made when framing and re-framing impressions of how exercises and certain activities were perceived. Learning how to frame well is conducive to becoming wise, and implies a capacity that enables the human to recognize and discern what is important when having to face decisions (Schwartz & Sharpe, 2010).

The students' selective perception of the differences in attending Glück in comparison to attending other traditional school subjects showed the ability for abstract thought. One of them said "The other school subjects are exclusively about the particular subject matter and which grade you get in the exam, while in Glück it is about how you engage and how you act in relation to others." Several exercises and activities purposes, their significance and relevance according to appropriate timing for their implementation were mentioned and inquired for their meaning in the context of the classroom. The ability to contextualize and reason logically was part of the process to actually understand what concept was behind the exercises and let their narrative shape their meaning making. Sternberg (2001) states that the fundamental idea behind bringing the cultivation of wisdom into the classroom is that teaching is not about telling the students *what* to think, but rather teach them *how* to think. Constructing learning in a wisdom-based approach to teaching, considering their own and other's points of view is essential in order to actively promote learning and a balanced understanding instead of egocentrism (Sternberg et al., 2011).

In relation to the model, the students´ capability for abstract thought was expressed in the way they reasoned logically and generalized the outcome by looking at it as beneficial for situations in the future. Their age-appropriate natural intellectual demand for generalization, logical thought and abstract conceptualization was stimulated by the critical standpoint they had towards the accomplishment of Glück. Being exposed to the curriculum and relating to the feelings coming up seemed to help them conceptualize new learnings through processes of interpretation and meaning making (Mezirow, 1990).

Understanding the concepts and making generalizations of the exercises' outcomes and purposes would contribute to their understanding of what they actually learned when doing the exercises. The ability to conceptualize, generalize and reason logically is a presupposition for framing and re-framing experiences and feelings, understanding them, widening the consciousness horizon in order to be able to act wisely. The learnings the adolescents get from generalizing wisdom-related experiences will benefit their ability to develop a coherent view on their life according to the role these experiences have in a bigger picture or life context. (Richardson, & Pasupathi, 2005).

Critical reflection requires the ability to make abstractions. Abstract thought appears to introduce self-inquiry and be the bridge to critical reflection in order to make sense of experiences, make them objects of reflection and make the learning tangible that way. Here the journey to wisdom might begin when the seed for wisdom gets nurtured.

Reflection

There seems to be a smooth transition from abstraction to the second step, reflection. The interference of the critical-reflective thought was stimulated through the adolescents' ability to abstract, make distinctions, generalize and conceptualize their experiences. Generalizing and reflecting upon experiences in class, in the reflection paper homework or the interviews, the gathered data could be arranged and re- arranged as an internal process in order to make interpretations (Mezirow, 1990) and judgments which can lead to general shifts from negative to positive outcomes (Pasupathi, et al., 2001).

While some of the students had a critical to neutral attitude to Glück in the start of the interviews, deeper questioning made them go from a factual description of Glück into personal stories and how they act or re-act in their everyday lives. Their attitude changed to being more adaptive or neutral-accepting towards the curriculum and they did actually name concrete changes of behavior.

Generalizing the experience and making intense reflection about it seemed to have touched the students' ability to take a meta-perspective, recognize the possibility of certain different viewpoints and the ability to re-consider assumptions by taking them as an object of reflection. Especially for one of the students in the second group, this process might have been triggered by recognizing a tacit underlying pattern that ran him and made him create assumptions. Embeddedness in one's own subjective perspective (Kegan, 1994) would exclude an objective view that often is related to the development of self-awareness (Jordan, 2002). Recognizing a variety of different points of view and then developing a holistic and ecological awareness is typical for wise persons (Csikszentmihalyi & Rathunde, 1990).

Through reframing the judgments about the curriculum the student's initial rejection was put into more workable terms. The student "relocated" himself on another level towards it and became more agile in his way to look at the class and its impact on him as soon as he suspended his former assumption about the curriculum. It resulted in gaining more awareness of a holistic picture and interconnections which contributed to the student no longer being had by his initial averseness.

When telling and retelling different kinds of incidents or experiences from their lives outside school and what kind of meaning this left in relation to their everyday consciousness they seem to have developed an ability to reframe unclarified experiences. This way of reframing these unclear situations might transform this person when allowing them to step into a space of self-inquiry. Part of their reflection was putting new insights into more workable terms and generating conceptualizations of the outcomes. This process of deep self-inquiry included the recognition and integration of new knowledge.

Being critical and reflective seems to include taking action, being explicit and making choices on behalf of oneself. Hooks (2010) claims that "this insistence on self-responsibility is vital practical wisdom. The vital link between critical thinking and practical wisdom is the insistence on the interdependent nature of theory and fact coupled with the awareness that knowledge cannot be separated from experience" (p. 185). It seems that the adolescents' logical, critical thinking coupled with new insights and internalization, embodiment of learnings through lived experiences that they gained in reflections have contributed to reach a higher level of knowledge, a cultivation of tacit knowledge that is related to practical wisdom. In that case certain activities and exercises that are accomplished in the Glück curriculum and are accessible for reflection help to make the refinement of certain wisdom-related skills explicit.

The more a person reflects upon matters by taking them as an object of reflection the more complex will the view on the world and life in general become as one refines the capability to see, recognize and act on things (Kegan, 1994). This notion can be linked to a process of transition to the next step, self-awareness.

Self-Awareness

This section will focus on the deeper layers of the students´ process of developing self-awareness. Some additional connections will be interlaced as many of the components presented in this article are essential for the development of consciousness and change.

The transition from reflection to building up a higher level of awareness is smooth. The nature of critical reflection is to question the presuppositions on which our beliefs have been built (Mezirow, 1990) which resonates with being open-minded to recognizing assumptions by self-inquiring reflection. Three of the adolescents sometimes expressed an explicit unclarity about assumptions or about what drove them according to a certain matter. Svantesvoll (2011) describes passive and active modes of experience. Being subject to something and being unable to make distinctions refers to passivity. In contrast, having a conscious and clear relationship to the experience and being object to refers to the active mode. It seems that the reflection and re-reflection going on in the interviews when answering questions or telling stories sharpened the students` skills to acknowledge new learning and have insights about the outcome of Glück by making this transition from the passive to the active way of relating to their experience. Of course, these shifts are part of a longer process and require the exposure to all kinds of experiences rich in learning. The students might have been "ripe" to be scaffolded into shifting modes in the interviews.

Noticing that they were a bit "trained" to talk in public about Glück, I realized it would be necessary to try to lift their attention and focus up a bit to their actual subjective experience of the learnings they described. All of the adolescents had acknowledged at a certain point a discrepancy between what the assumption in the start was and what they came to through the interview. This discrepancy alludes to this initial unconsciousness in the passive mode (Svantesvoll, 2011) of what was going on inside them which turned into insights after they had successfully conceptualized the experience representing the active mode. Putting this together, and from a developmental point of view, wisdom-related knowledge happens through these micro shifts in consciousness. The kind of information that is anchored as tacit knowledge is brought to awareness and made explicit. Through this shift it is available for wiser decision making.

Although there was no exuberant enthusiasm in the answers flowing into an epiphany of a ground breaking experience, there are certain signs of small developmental changes going on in them. Having these experiences of insights includes that the adolescents have developed a higher level of consciousness in relation to them by taking them as an object of reflection. Examining their assumptions revealed emerging structures of awareness that resonates with subject-object psychology.

An important aspect in their development of awareness for the others' needs and their own self-awareness was accomplishing certain exercises which resulted in the embodiment of new learnings. Physical experiences like the "Free Fall" and the "Value Hierarchy" were mentioned to contain a special component that made the learning experience tangible. When being fully engaged in group processes, collaborating towards a common understanding or goal, finding solutions together, communicating and integrating all different points of view as a part of the group process make the experience of the new learning something that can be internalized. Having been part of that process can open a space for an embodiment of new knowledge on a deeper level.

As knowledge cannot be separated from experience (Hooks, 2010; Sternberg, et al., 2011) it gives these practical key experiences in such processes a strong space in order to gain more practical wisdom when successfully, or not that successfully, interacting with others. Such learning experiences are often dependent on a holding environment. The holding environment of the container enables the individual to build up certain capacities as for example gain awareness, open up, take action and learn from each other. This way the container provides a possibility to immerse into deeper layers in inter – and intrapersonal relationships that can help to foster wisdom-related knowledge and action. Making experiences with others that creates this kind of knowledge in oneself or others is related to wisdom and requires the expertise to understand situations in an insightful and wise manner (Sternberg, 2003).

The Inner Conditions and Processes that Facilitate Wise Acting

It is my belief that proceeding thoroughly through the steps of the model – abstraction, reflection, self-awareness – will at some point lead the individual to an ability for wise acting. These internal processes, which are necessary to start this journey, constitute the inner condition of the adolescent. The quality of this subjective inner condition is an expression of their "knowing-how", and it is facilitating the move from the passive to the active mode of learning (Svantesvoll, 2011) which comes along with the subject-object shift (Kegan, 1982; 1994). It also governs the learning going on in the parallel mode mentioned earlier. Glück tries to foster the inner conditions and promote the individuals´ shift of their current capacities which gives them more conscious choices, and can contribute to wise acting.

The rise of self-awareness will encompass an additional process in a parallel mode because the newly gained and higher degree of openness enables the appreciation of others’ sphere of perception as well (Hart, 2009). As the adolescent gains new awareness progressing through each succeeding stage in the model, a space for new insights and learnings opens up. When being able to free oneself from the contents of awareness, the development of meta-awareness (which is an awareness of awareness) can emerge (Jordan, 2002).

The culmination of this model, which illustrates the adolescents’ ability for wise acting, is conditional upon all of the previous stages in the model. Through reflection on the data it appears that a successful mastery of all the previous stages seems to be essential for the increase of the adolescent`s ability to enter a higher level of wisdom-related knowledge and performance.

The model makes an attempt to depict the adolescents` interior process as a part of this development. Adolescence and young adulthood are sensitive and turbulent life stages with many changes and challenges regarding personal development and societal demands. Relating to, navigating and mastering these changes and challenges functions as a platform for the individual to make, balance and evaluate key experiences which is critical for the cultivation of wisdom.

Discussion

In this article I have argued that the development of wisdom-related knowledge can be a parallel process to the development of happiness. Both, becoming happier and wiser are dependent on certain circumstances that initiate developmental growth processes. One of the findings in this small research project was that some of the students` narratives revealed that a certain degree of uncertainty about their acting or being in the world was more in play than for other students whose narratives referred to more difficult life circumstances or an exposure to a broader range of experiences.

Analyzing the data showed that turning inwardly in processes of reflection, generalization, and the development of self-awareness in that young age supports the development of understanding lived key experiences in a larger life context. It also clarified that the exposure to the Glück curriculum helped them listen to, refine and use tacit knowledge, and make it more explicit. Operating upon experiences and internal processes demands certain skills such as critical-reflective thinking but an ability to orchestrate these, allowing for a certain shift in the young person`s mindset to happen. As well, a safe container assuring a holding environment is also necessary. Thus, the cultivation of wisdom in adolescence requires the consideration of age-appropriate wisdom-related learning and the appropriate conditions of support.

Glück has apparently triggered something in the students that goes beyond the accomplishment of rapid information learning techniques that are often emphasized in modern society. A broader body of knowledge and a growing awareness about their own inner condition that promoted change in them made some important learning tangible enough for a closer inquiry. What I hypothesize is that reflection and generalization of the impression of the key experiences facilitated their inner condition by nurturing the tacit knowledge and opened for the acquisition of age appropriate wisdom-related skills.

The model helps understand the development of age appropriate wisdom-related skills considering the interviewees` developmental stage, their life phase, and personal features. Proceeding through the stages facilitates vertical development, the kind of learning that relates to how to think differently, see the world through a new lens, and transform the architecture of the current way of knowing. This developmental step resonates with subject-object-psychology and proposes in this research study the adolescents` renunciation from their ego-centric perspective to a broader, more open perspective. They show signs of making tacit knowledge more explicit, gaining a finer grained perception of who they are, and how they show up in the world.

Understanding the development of age appropriate wisdom through this model requires to look at the internal processes that constitute and balance the individual`s inner condition. The quality of these internal processes and inner condition is an expression for the quality of their vertical development.

This perspective on wisdom parallels other views like developmental theory. Wisdom-related thought appears to be intertwined with the capacities Kegan proposes to be necessary to cope with the mental demands of transitioning from adolescence to adulthood. To sum up, it is likely that people of that young age have not had as many possibilities to make generalizations from all sorts of lived experiences as older people might have. Developmental theorists might claim that a certain age and a certain developmental stage is a presupposition for acting wise but adolescence is a period that should not be underestimated. There are currents in adolescence (usually represented in Kegan`s second and third stage of development) that advocate for a strong standpoint in this assertion. Looking back on Antonovsky`s theory of Sense of Coherence, adolescence is the life phase in which the SOC is characterized by openness for changes before it in adulthood tends to consolidate and become steady (Antonovsky, 1979, 1987).

This research study showed evidence that the multidimensional approach of the curriculum and holding environment can facilitate the cultivation of wisdom. It nurtures the naturally given developmental features and tasks of this life phase. Its multidimensional approach supports the individuals’ process of developing and cultivating wisdom. The students` age appropriate and natural intellectual demand for logical and critical-analytical thought, abstract conceptualization, discernment and discrimination, generalization and individuation facilitate the way the conditions that enable developmental growth that leads to wise acting. In order to orchestrate these arising demands and abilities and allowing for the refinement of tacit knowledge into explicit knowledge, the cultivation of wisdom requires an age appropriate wisdom-related learning.

The students who had initially expressed a critical view towards Glück had been subject to this emotion and were to a degree identified with it in the start. The reflection upon the positive key experiences and outcomes triggered some distinction making in them so that their attitude eventually shifted to be more neutral and even positive towards the curriculum. Revising and making a new interpretation of experiences` meaning (Mezirow, 1990) will create learning, unravel and transform the prior way of knowing and move towards deeper understanding, wisdom, and more effectiveness in the world (Cook-Greuter, 2004).

The learning that went on in parallel in them is part of their unconscious learning processes. The cultivation of knowledge is a dynamic activity where the articulation of tacit knowledge makes it more explicit to the learner. This means that the new knowledge is crystallized and more tangible to put in a context or in action. In order to internalize new knowledge it has to be embodied and owned.

Inquiring into how Glück could be accelerating the cultivation of wisdom as distinct from normative stage – and age-related development, requires zooming back out on the curriculum`s holistic nature, scaffolding and its roots. Informed by Positive Psychology and the multi-disciplinary approach to learning it meets the deep inner longing for emotions that are attuned to being positive and becoming oneself as the core to leading a happy life. Actively experiencing one's own learning and growth curve initiates a sense of self-worth and confidence in meeting the world´s challenges. It conveys the feeling of being the author of one`s own biography.

The Glück curriculum does not use the term "wisdom" explicitly in its make up, but emphasizes happiness. The hypothesis for this article is that providing students with a formal educational context where they can learn to formulate their own perspective on what constitutes positive emotions will also show parallels to an equivalent process in wise thinking. The scaffolding provided by the teacher can help the students to develop wisdom, but there is no formal course of actions or "to do list" (Sternberg, Jarvin, & Reznitskaya, 2008). The scaffolding can in these ways initiate and support this learning curve while the student´s process is to go through stages that define the own new perspectives. Constructivist agendas highlight scaffolding as relevant to the acquisition of wisdom (Palincsar & Brown, 1984, 1988). Going through the curriculum can give the students tools which can give them a better foundation for wise acting later in life. Putting these considerations from above together, it can be seen that the concept of Bildung expands and includes more aspects of the whole person rather than excluding them.

Contemplating on how a school subject like Glück might have helped me in my teenage years, I believe that it would have had a very positive impact on my perspective on life and my own being in the world. Of course, all this is hypothetical, but I believe I would have learned to be less inclined to my self-limiting beliefs, be more detached (from social pressure), feel less socially awkward, less shy, more pro-active, less prone to negative biases caused by my low self-esteem, and I guess I would have been more serene to engage the world with less anxiety to not perform well enough. The list is long, as I struggled with the whole range of things a teenager can struggle with. I tend to be sure that I would have built skills much earlier to grow detached from these issues and assumptions. I would have been more self-aware. I guess I might have acted wiser sometimes. I was not a bad student but honestly, I tend to remember the not so good experiences from school. I see clearer now how much of a difference the emphasis on positive emotions and positive key experiences in the safe container of a classroom can make. In hindsight I think that school would not have been such a deterrent to what I would consider now as relevant learning. Learning for life would have been such a different and more appealing approach than learning for the next exam!

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Much Madness is Divinest Sense: Wisdom and Development

Caroline Bassett[1]

Abstract: No one has yet come up with a complete understanding of wisdom. We can approximate it, we can circle it, we can gaze at it longingly, we can try to seize it with both hands. In my attempt to understand wisdom, I look at it through several different lenses – recent research into measures of wisdom, the discoveries of neuroscience, integral theory, post-conventional development, how wisdom operates in daily life, and my own findings. They include my four-part model and my assertion that wisdom lies on a continuum from rare and rarefied to humble and pragmatic. Finally, I discuss how individuals can enhance their own wisdom and encourage it in others.
Wisdom is large; it contains multitudes.

Keywords: Adult development, brain research, knowledge, practical, useful, wisdom, wise.

Life by Emily Dickinson

MUCH madness is divinest sense
To a discerning eye;
Much sense the starkest madness.
'Tis the majority
In this, as all, prevails.
Assent, and you are sane;
Demur, – you 're straightway dangerous,
And handled with a chain.

Emily Dickinson tells us a lot about wisdom in this short poem, although it is entitled *Life*. To those with a discerning eye, those who can see more deeply into the mystery of things and into the patterns that lie therein, those people see something that makes sense where others behold only randomness and chaos. However, in most cases in our world, the view of the majority prevails, and those with discerning eyes can be considered not to be trusted – not promoted, not voted for, not accepted in the conventional world.

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How often have we seen those with keener sight shunned by society, if not killed? I am thinking, of course, of Jesus and Gandhi and Martin Luther King, Jr. But not all. Some are accorded the greatest respect, such as the Buddha who lived to a ripe old age. Eleanor Roosevelt with her compassion and action for the disadvantaged died in her later years, and Nelson Mandela lived into his 90's. The Nobel Peace Prize winner of 1991, Aung San Suu Kyi of Burma, continues her work to lead her country towards democracy.

I give examples above of those we perceive as model and exceptional human beings. Yet in my view, wisdom is not limited to people like them. Wisdom is a real thing for real people, people like you and me, although the scope and impact of our wisdom likely will not be as broad and deep as theirs.

Some years ago I began to wonder about wisdom, what it is, and how we can know it. How can we understand wisdom? But then, after reflection, I realized that understanding wisdom requires a broad brush approach – one cannot know it by one method only. Hence, I changed the question to this: "How can we see wisdom?" deliberately using the verb "to see" as more inclusive than understanding, which is a primarily cognitive activity. In order to see wisdom in its complexity and subtlety, we need a more comprehensive approach.

Hence, I devised a taxonomy of three basic approaches to seeing wisdom (Bassett, 2006, p. 283). They include what I called then the *metaphysical* side (non-empirical reality) that comprises philosophy and theology/religious studies. On the *word arts* side we have myths and folk sayings, the literary arts, and biography. Finally, on the *analytical* side, we find conceptual/theoretical/descriptive approaches as well as empirical ones (though the two are related), which include practical knowledge/expertise, developmental, and personal attributes of wisdom. Thus, we can find wisdom in philosophy and religion; in myths, novels, poetry, other arts; and we can try to understand it more directly using analytical techniques.

Since that publication, however, I have re-conceptualized the taxonomy and changed it in a major way – into a spectrum where we see wisdom but with different colors, so to speak. On one end (the ultraviolet, to continue with the metaphor) we have descriptions of wisdom or words about it, such as philosophy, myth, and inspiration from the religions of the world. We would also find biographies of people considered wise, as well as the analytical approach, that is, conceptual, theoretical, or research-based studies of wisdom. At the other end, the infrared, we find direct experience of wisdom through, for example, the arts. I am thinking of Emily Dickinson's poem above and much of the wisdom (and folly) that we find in great literature. This direct apperception is not limited, however, to the literary arts. Wisdom can be found in music, in the visual arts (take a look at Michelangelo's *Creation of Adam* where Sophia, the original goddess of wisdom, appears under God's left arm – she is the closest being to him), and other media, as well as in observing wisdom in the actions of people near or far. One source of finding such people would be in the lives of some Nobel Peace Prize winners and other historical figures for whom there is some consensus of wisdom. I believe that we should notice and pay attention to specific people to see how they actually manifest wisdom. Few researchers do this.

Thus, how we see wisdom depends upon which wave lengths our eyes pick up and what we are attuned to – is it religious texts, research studies, Shakespeare, or actual people who seem wise? Different people will see different parts of the spectrum while other parts of it will remain opaque or invisible to them.

In this article, I will be focusing on the analytical approach, although the quote above by Emily Dickinson captures what wisdom looks like better than any definition I know. It gives us the flavor of it, the taste of it, the zing of it, what we experience when we encounter wisdom – and also the threat of it to the status quo (think of Abraham Lincoln and Martin Luther King Jr.). We should not forget this aspect of wisdom.

To be able to focus better, we will look at wisdom through several different lenses. I begin with the lens of definitions of wisdom and the Emergent Wisdom Model which expands upon my definition. Next we look at some ways of measuring wisdom and the findings of neuroscience and the brain, then move on to integral theory and post-conventional development. We will also explore everyday wisdom as well as wisdom seen through my own lens, that is, what I have learned about it in my years of studying it.

Wisdom through the Lens of Some Definitions of Wisdom and a Model of Wisdom

Wisdom, such a complex, abstract, and elusive construct! So many definitions for it, so many more ideas about it, so many associations with it – aphorisms, sayings, words/concepts that seem to exemplify wisdom. They sound good, so they must be true. Here are some:

> "The only true wisdom is in knowing you know nothing."
> Socrates, *Apology*
>
> "Zi Gong [a disciple] asked: 'Is there any one word that could guide a person throughout life?' The Master replied: 'How about "reciprocity"'! Never impose on others what you would not choose for yourself."
> Confucius, *Analects* XV.24, tr. David Hinton
>
> "Winners never quit and quitters never win."
> Vince Lombardi (Lombardi, 2002)
>
> "Awe of the Lord is the beginning of wisdom."
> *Proverbs, 1:7*

But let's turn to scholars who study wisdom and who try to capture its allure and power in a sentence or two. Founded by the late Paul Baltes, the Berlin School, as it is known, is an organization with a well-known and robust research agenda for wisdom. These researchers use this definition, orienting towards wisdom as expert knowledge: "expert knowledge in the fundamental pragmatics of life permitting exceptional insight, judgment, and advice involving complex and uncertain matters of the human condition" (Baltes & Staudinger, 1993, p. 76). (What I find missing in this definition is reference to what most consider a key aspect of wisdom which is mention of the common good, that is, good results not only for self but also for others).

Robert Sternberg's complicated definition is quite inclusive: "Wisdom is defined as the application of intelligence, creativity, and knowledge as mediated by values toward the achievement of a common good through a *balance* among (a) intrapersonal, b) interpersonal, and (c) extrapersonal interests, over the (a) short- and (b) long-terms, in order to achieve a balance among (a) adaptation to existing environments, (b) shaping of existing environments, and (c) selection of new environments" (2007, p. 145). Thus, here we find wisdom as the application, the use of, not only intelligence and knowledge but also creativity to find a balance among these many elements: inside oneself (the intrapersonal), with others (interpersonal: people one knows, community, workplace), and in society at large including institutions, country, God (extrapersonal). It is important to note that, as he says, they are *mediated by values*, that is, by what is considered important and ethical. And, wisdom looks at both the short-term and the long-term so that a person can adapt if that is the best route to take and/or change the existing environment and/or choose a different environment if the existing one does not work/will not change. And it is all to move towards a common good.

A third major wisdom researcher, Monika Ardelt, has contributed her three-dimensional wisdom scale built from her definition of wisdom. (In the section on measures of wisdom I will discuss her three dimensional wisdom scale). For now, we can say that her definition includes three elements: the cognitive, the affective, and the reflective (Ardelt, 2003). Of these, the last, the reflective, is the most fundamental component as it informs the others because it encourages cognitive development through the ability to take multiple perspectives – to see things from different points of view. Further, through reflection, wiser people have learned how not to be so reactive in unpleasant situations, to accept the reality of the present moment, and to cope better (Ardelt, 2003). (Like the Berlin School's definition, this one lacks reference to a common good).

Walsh (2011) takes a different perspective, examining contemplative, cross-cultural, and integral contributions to concepts of wisdom. He distinguished between practical wisdom (*phronesis)* and *sophia,* where the former represents applied wisdom and the latter subjective or intuitive. In fact, he goes on to differentiate among different kinds of subjective wisdom, what he calls intuitive apprehension and conceptual understanding. The former is the kind of wisdom that can be gained intuitively, through observation of life, by people educated or not, intellectually developed or not. The latter, however, conceptual analysis, can enrich intuitions, he says, "by examining, extending, and articulating them, drawing out implications, and linking them into networks of insights and ideas" (Walsh, 2011, p. 123).

Yet, what *is* wisdom, according to Walsh? His definition of practical wisdom goes far: "practical wisdom is a function of skill in responding to the central existential issues of life in ways that enhance the deep well-being of all those that the responses affect" (Walsh, 2011, p. 122). According to his schema, what would a person with the conceptual understanding look like? How would her behavior differ from mine or anyone else's? Walsh could enhance his good work by selecting some specific individuals who have these qualities and describing how they manifest them.

Walsh's (2011) definition of practical wisdom resembles in many ways my own which reads like this: "Wisdom is having sufficient awareness in various situations and contexts to act in ways that enhance our common humanity" (Bassett, 2011a, p. 305). As I noted above, a person cannot be considered wise unless he or she shows repeated instances of the kind of behavior that is associated with wisdom, over time and in different kinds of circumstances. Wisdom is not a one-shot deal; once is a lucky accident. This is the first key component of the definition.

The second key component is reference to enhancing our common humanity or striving for good results not only for ourselves but for many others as well. By the phrase “common good” or “common humanity” I mean general conditions that are to everyone’s advantage. Granted, this “everyone” might not be every single person but it does suggest, I believe, that someone, Person A, for example, would prefer not to be in the place of someone else, Person B. What does this signify? Let’s take a look at slavery in the United States. Abolition would be better for the slaves but not for the slave-owners. However, I can bet everything I own that not one of them would willingly change places from owner to slave. The “general conditions” to everyone’s advantage are those that almost every single person would prefer.

However, it is the third component that is by far the most powerful and important – the two words “sufficient awareness.” “Sufficient awareness” means paying attention to what’s going on around oneself. It means seeing the environment and then seeing it again from several perspectives. Sufficient awareness is what leads us into the complexity of wisdom with various elements that each interact with any and all of the others. This is best shown by the Emergent Wisdom Model (Bassett, 2006, p. 295; Bassett, 2011a, p. 305) and reproduced below. In fact, the whole model *is* what sufficient awareness looks like – all of these elements working in concert with each other.

The model is based upon a grounded theory study that I did where I interviewed 24 individuals judged thoughtful and insightful in a modified snowball method. I call it “emergent” because, while the model cannot show it, the elements are in motion. They shift and change in relationship to each other with differing elements becoming more prominent at times, then fading into the background.

Interestingly, we can also see this model like a fractal: a scale-independent self-similarity. That is, no matter how large or how small the situation being contemplated is, the elements of wisdom will be present.

What is wisdom? All of this is wisdom, all of it combined and together. Each element is necessary but not sufficient. Each of the cells relates to, interacts with, influences, and is influenced by any and all of the others. Wisdom is both non-linear *and* dynamic**.** Thus, we can take any single cell and it will relate to any and all of the others. Just because Insight, for example, is listed in the first column does not mean that it has to do only with Discernment. It is also necessary for action and for self-knowledge. Embracing paradox relates to the Integration dimension, and it also is necessary to gain a deep understanding of patterns and to take multiple perspectives on a situation. At the same time, it is important to remember that this is just a model, that is, one person’s understanding of wisdom. Because wisdom is so complex, in reality there is certainly some messiness here, with categories overlapping and sliding around a bit.

Table 1. Emergent Wisdom Model © 2005 Caroline Bassett

WISDOM				
Dimension	**Discernment**	**Respect**	**Engagement**	**Integration**
Chief Descriptor	Objectivity	Due regard for the right of others to be	Involvement	Recognition of the integration of self into the whole Knowing that the self is part of many systems
Proficiency	Insight Holistic thinking, systemic seeing into complexity Balanced interests	Acceptance Multiple perspective-taking Compassion & caring/ Generosity of spirit/ non-judgmental	Sound judgment & adept decision-making Actions based on determinations of fairness & justice Moral courage	Self-knowledge Self-acceptance Reflection – opening to cognitive and non-cognitive mental spaces
Manifestation	Deep understanding of fundamental patterns and relationships, causes, and consequences	Sense of gratitude/ Expanded sphere of consideration	Committed action for the common good (general conditions that are to everyone's advantage)	Embracing of paradox & uncertainty Ability to see beyond the self Growing recognition of interdependence Integrity
Developmental Stimulus/ Queries	What's really going on? What are the facts? What's true? What's important? What's right?	Whose point of view am I taking? How does someone else understand reality? How can I relate to them with magnanimity?	What guides my actions? To what ends are my actions directed? What means do I use? What are the consequences of different decisions?	What are my values? How do I live them? Who or what is the "I" that I think I am? What am I part of? How can I get outside of myself so I can see more clearly?
WISDOM				

While I present my model as a chart, as stated previously, wisdom really is non-linear and three-dimensional. That is, each and every cell relates to any and all of the others. So, for example, holistic thinking and systems seeing into complexity in the first column informs and is informed by compassion and caring in the second. I can see a system more completely if I include not just the objective facts but also the emotions that are present in a situation. I can make sounder judgments (in column three) if I see things more in the round, more completely. And if I know that everything is related to everything else (the recognition of interdependence in column four), then my seeing will be even more complex – and hopefully more comprehensive –

leading to better decisions for action (if deemed necessary), which is what wisdom is about. Thus, a better way of regarding the model as shown in the table is as a spiral. Increasing integration, that is, recognition that the self is part of a much larger whole (a background-foreground shift of the ego with regards the rest of the world) allows for sharper discernment because one can see more clearly as there is less ego and fewer projections in the way. That in turn allows for a broadening of what one considers worth paying attention to. And then that creates a basis for appropriate engagement.

The model as shown in Figure 1 shows that wisdom is all of a whole, is one thing – but with different dimensions that we distinguish for the sake of understanding it better. This conceptualization shows the dynamic quality of wisdom, its continuous flow with each part connecting to the others. However, I do not speak quite accurately here, because wisdom does not have discrete parts that are separate and distinct from each other. When we talk about it and draw models of it, it looks as if it does. Instead, wisdom has variables, some more salient or important at one time than another. That's because wisdom is alive; it moves.

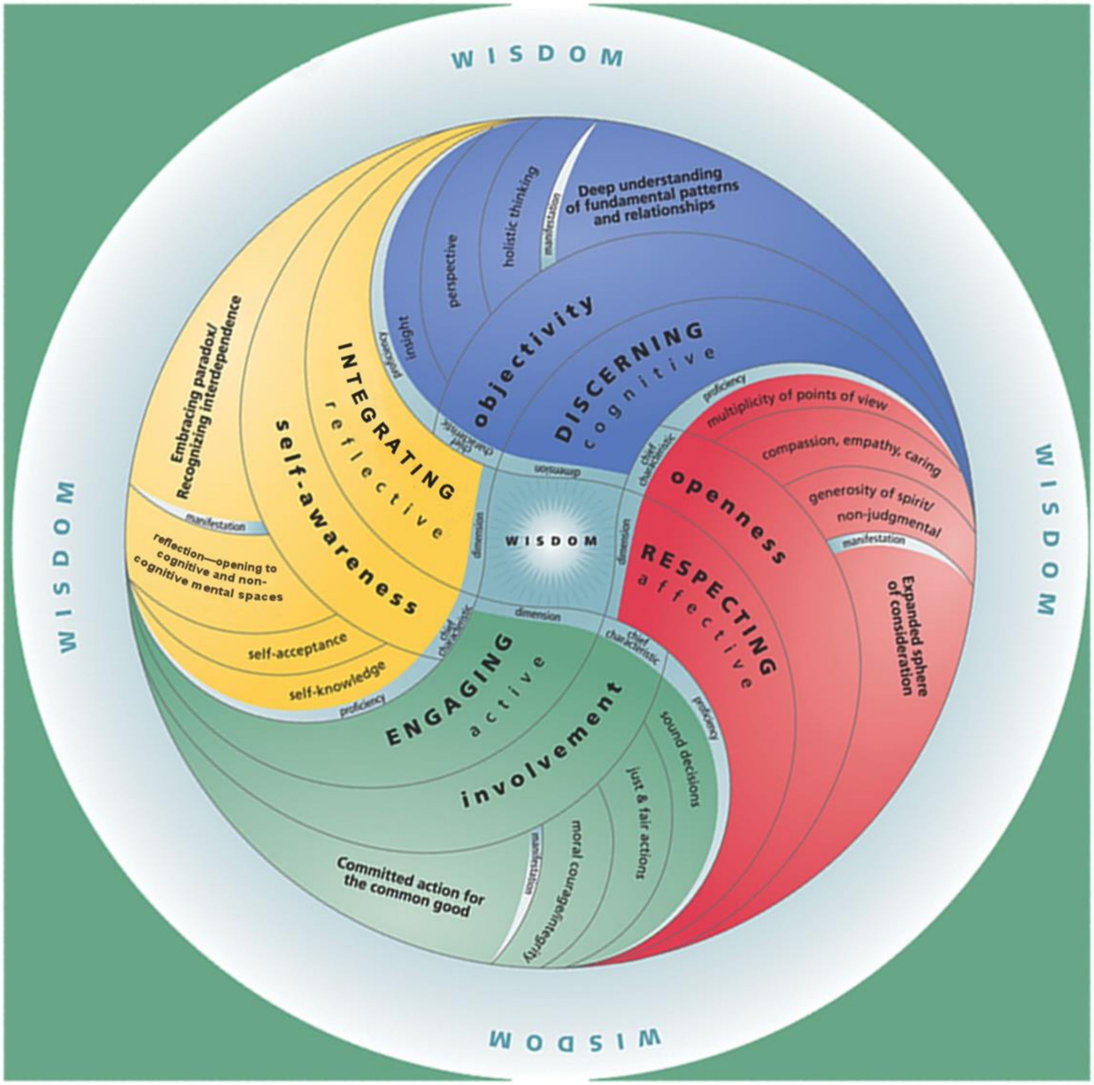
WISDOM
WISDOM
WISDOM
WISDOM
WISDOM
Deep understanding of fundamental patterns and relationships
manifestation
holistic thinking
perspective
insight
proficiency
objectivity
DISCERNING
cognitive
chief characteristic
dimension
proficiency
multiplicity of points of view
compassion, empathy, caring
generosity of spirit/ non-judgmental
manifestation
Expanded sphere of consideration
chief characteristic
openness
RESPECTING
affective
dimension
proficiency
sound decisions
just & fair actions
moral courage/integrity
manifestation
Committed action for the common good
involvement
ENGAGING
active
chief characteristic
dimension
proficiency
self-knowledge
self-acceptance
reflection—opening to cognitive and non-cognitive mental spaces
manifestation
Embracing paradox/ Recognizing interdependence
self-awareness
INTEGRATING
reflective
chief characteristic
dimension

Figure 1. Emergent Wisdom Model © 2005 Caroline Bassett

Discernment is the dimension where one is detached and sees as objectively as possible what is going on, not according to what one would like the truth to be, but what is "really" there, as best one can tell. A caveat here: When I say, "to see as objectively as possible," I can run into a deconstructionist attitude, where we never know what is real or true because our own perspectives and assumptions color what we see, no matter how hard we try not to let them – or no matter how hard we deny them. I certainly can recognize and agree with this deconstructionist claim about objectivity. However, as I am talking about practical wisdom that real people can use, I need to speak a language that most will understand. Hence, I maintain my assertion that we can look at a situation *as objectively as possible*. To help people do this, myself included, I suggest this exercise: whenever a situation arises and you think you understand it, think this in the next second: *This is a story that I am telling myself*. This is how I see the situation. Other people may well see it quite differently. Here is an example from a friend of mine: "I was standing in a street in Fort Bragg, California, headed to my car, when, all of a sudden, I heard a child screaming bloody murder, 'No!! No!! No!!' I turned around and looked, and here was a little boy, at most 4 or 5, trying to escape from a woman who was dragging him toward a truck parked near my car. What did I think? Two immediate thoughts – was he being kidnapped, likely by a 'non-custodial parent'? Was this a truly terrible parent? What to do? Well, within a minute, along came another woman, likely the grandmother. Child is still shrieking and kicking. The new arrival says to me, 'Oh, my – he's having a meltdown. He's autistic.' That thought had not occurred to me at all. I'd only seen an autistic child 'in motion' once before; it wasn't a possibility in my frame of reference" (Thorpe, 2009).

Returning to the model, *Respect* must be added, because, as a State Supreme Court Justice that I interviewed said, "You have to care. You have to care about people. You can't just see clearly what's going on – you have to care." This, then, is the dimension where we give due regard for the right of others to be. Here we find heart, compassion, generosity of spirit. We also find another heart quality, gratitude, which represents a deep spiritual connection to the whole world and a sense of appreciation for all that is.

This dimension can manifest as what Wilber calls an expanded sphere of consideration or a more world-centric perspective (Wilber, 2006). As my heart grows larger, I consider the well-being of more and more people – not just my family or my relatives or my kind, but also increasing spheres that include people not like me and even the creatures of the earth. I can do this partly by taking the perspective or point of view of other people – what does the situation look like from their side of the street? Thus, I will have achieved a more complete view of the situation – and I will, perhaps, have stepped aside from my own subjectivity and assumptions – so that I can act in ways that enhance our common humanity.

Yet, seeing clearly and caring is not enough either. You have to act, which does not necessarily mean running for public office. It can mean writing letters to the editor or talking to others about what you see and know. Finally, the *Integration* dimension brings us inside ourselves – it is the center of our self and of our values. Its chief descriptor is recognition that the self is part of a much larger whole. A main proficiency is "Integrity," which means that your outside (your behaviors) and your inside (your professed beliefs) match up pretty well. I say "pretty well" because no one is totally consistent.

In this dimension, we must know ourselves *and* we must accept ourselves. These are sometimes, alas, quite different. Further, this is where we can transform and grow in cognitive complexity, where we can move into higher stages of development (Walsh, 2011). As we become more objective in our perceptions, as we also expand our sphere of consideration, as we make good decisions, we can become more and more able to see beyond our own narrow self-interest and transcend our projections, moving beyond "individualistic concerns to more collective or universal ones" (Orwoll & Perlmutter, 1990, p. 162). We can become wiser because we have done the work on ourselves and gained a certain amount of cognitive maturity.

This is all fine and good – and pretty abstract. Can we pin wisdom down a bit? Can wisdom, no matter the definition, be measured? Is this something that is possible to do? Some of the researchers discussed above have developed their own measures of wisdom, which are presented in the next section.

Seeing Wisdom through the Lens of Measures of Wisdom

A recent article by psychologists Glück, König, Naschenweng, Redzanowski, Dorner, Strasser, and Wiedemann (2013) provides an excellent overview of four measures of wisdom. Recognizing that interest in the study of wisdom is growing both inside and outside of psychology, the authors state that the concept of wisdom is being applied in a number of fields besides psychology and psychotherapy, such as leadership (Kilburg, 2012) and education (Sternberg, 2010), to which I add my own work (Bassett, 2011a). Which measure to use for which field of endeavor may be the question.

These authors present two ways of grouping measures of wisdom. In the first group we find self-report measures (Ardelt's Three-Dimensional Wisdom Scale (3D-WS), 2003; Webster's Self-Assessed Wisdom Scale (SAWS), 2003; and Levenson and colleagues' Adult Self-Transcendence Inventory (ASTI), 2005). In the second group are performance-based measures (the Berlin Wisdom Paradigm, (Baltes and Staudinger), 2000). In the self-reporting scales, individuals respond as they believe that they behave. In the other, participants give responses to wisdom-requiring problems.

Altogether, these scales measure both distinct and overlapping dimensions of wisdom, depending upon the author's definition of wisdom. It is interesting to take a look at these dimensions from four of the measures, which I am deriving from Glück and colleagues' (2013, p. 4) article. From Webster's SAWS we find *openness* to alternate views and explanations, *emotional regulation* ("an exquisite sensitivity to the gross distinctions, subtle nuances, and complex blends of the full range of human affect" (Webster, 2007, p. 166)), *humor*, *critical life experience* (life experiences that are ambiguous and have unknown outcomes), and *reminiscence and reflection* (reflecting on past and present experiences to help deal with future difficulties).

Ardelt in her 3D-WS includes three major components of wisdom: a reflective dimension that is necessary to the development of the other two, which are cognitive (competence to think deeply) and affective (compassion for others' difficulties). Unlike the others, the ASTI scale, which focuses on self-transcendence (and might be of interest to those with a background in integral studies) is partly based upon European and Asian wisdom literatures, from which four general principles of wisdom derive: self-knowledge, detachment, integration, and self-transcendence. In what sounds like Buddhist language to me, self-knowledge refers to knowing the sources of one's sense of self; detachment directs our attention to the transience of things; integration means accepting all parts of one's self; and self-transcendence means "independence from external self-definitions and the dissolution of rigid boundaries between the self and others" (Glück et al, 2013, p. 5).

As another way of typing wisdom measures, the authors (Glück et al, 2013) distinguish between *personal wisdom* and *general wisdom*. Personal wisdom derives from personal experiences and insights from a person's own life; general wisdom is concerned with human life in general and is not necessarily related to personal wisdom. As examples, I would assume that in the first group we would find wise grandmothers, in the latter, people who have gained knowledge about life in general from reading. To me, however, I cannot think of an example of a person who has gained general wisdom third-hand without at least some engagement in the world. Abraham Lincoln, I would assert, had general wisdom in his insistence that the union hold, but where that knowledge came from, besides both personal observation and interactions as well as, perhaps reading, I do not know. The authors also add what they call *other-related wisdom* which can be translated as compassion, or as they put it, "empathy-based concern for both concrete other people and humankind at large" (Glück et al, p. 5). As compassion matures, it becomes what Wilber calls expanding realms of consideration (2006).

Regarding the relationship to age, the authors (Glück et al, 2013) found that wisdom does not generally increase with age (Glück and Bluck, 2011). However, most researchers expect that most demonstrations of wisdom will not come until people are generally in their 60's.

In summary, the authors (Glück et al, 2013) conclude that different kinds of instruments measure different aspects of wisdom. A person might choose one for one kind of activity or research purpose, another for a different one. All of these studies come from the social sciences. A different kind of research is also being done on wisdom and the brain.

Seeing Wisdom through the Lens of Neuroscience

Because of the overlap in assumptions with regards to what wisdom is and how it differs from intelligence and spirituality, a group of neuroscientists, psychiatrists, and wisdom researchers designed an expert consensus, two-phase Delphi study to do just that (Jeste, D. V., Ardelt, M., Blazer, D., Kraemer, H. C., Vaillant, G., & Meeks, T. W. (2010).

The authors contacted 57 international wisdom experts (of whom this writer was one) with a Delphi instrument. Phase 2 resulted in significant agreement on nine of the 12 main characteristics of wisdom. The authors say,

> …wisdom is a uniquely human but rare personal quality, which can be learned and measured, and increases with age through advanced cognitive and emotional development that is experience driven. At the same time, wisdom is not expected to increase by taking medication. (2010, p. 678)

The consensus found a slight overlap between wisdom and intelligence, with most, if not all researchers, agreeing that a basic level of intelligence is necessary. But, more than intelligence itself, the critical element of wisdom is the desire for learning and in-depth knowledge. Does this concept fit with the three types of wisdom that Glück and colleagues (2013) in the section above distinguish among (personal, general, and other-related wisdom)? It seems to me that it would fit with personal wisdom because an individual needs some level of intelligence, whether educated or even literate or not) and perhaps with general wisdom relates to human life in general. Again, it seems to me that illiterate shamans who are considered wise might have to have some knowledge of human life in general through their observations of life and human interactions around them.

As for the connection between wisdom and spirituality (the former often subsumed under the other in New Age thinking and in those sections of a bookstore), the authors (Jeste et. al, 2010) found that the two share pro-social attitudes such as compassion and other-centeredness. But, religion and religious practices are unrelated to wisdom, which suggests that wisdom does not require religious faith. At the same time, it seems that the respondents did not separate out religion from a broader sense of spirituality. The experts did agree that resilience and successful coping strategies were significantly more important components of wisdom than either intelligence or spirituality.

In a study of the neurobiology of wisdom, psychiatrists Meeks & Jeste (2009) used six of the sub-components of wisdom that researchers had identified: "pro-social attitudes / behaviors, … social decision-making/pragmatic knowledge of life, … emotional homeostasis, … reflection / self-understanding, … value relativism/tolerance, … and acknowledgment of and dealing with uncertainty/ambiguity" (p. 356). The authors focused on the possible anatomical locations of these components in the brain determined through neuroimaging (p. 357) which showed how specific brain regions may interact to contribute to the performance of these subcomponents of wisdom. They summarized their findings by noting the "interplay and balance between older brain regions (e.g., limbic cortex) and the more recently evolved PRC (prefrontal cortex) in the putative neurobiology of wisdom" (p. 362). Also, they found that several characteristics associated with wisdom, such as the use of knowledge for the common good and the integration of affect and knowledge, show up in different parts of the brain from those used for intelligence and reasoning.

Having looked at analytical approaches to the study of wisdom, including different definitions of wisdom and measures of it as well as what brain scientists have to say about the subject, we wonder what other lenses can tell us. What would a focus on integral theory and post-conventional development show us about wisdom?

Wisdom through the Lens of Integral Theory

I cannot begin to synthesize the complexity of integral theory except to point out some of its most salient and useful features and refer people to Roger Walsh's (2011) excellent article that explains it far better than I can. Most useful, perhaps, is the domains of reality (the four quadrants) and concepts of levels and lines of development. In *Integral Spirituality* Wilber (2006) presents the clearest and most complete discussion of his theories.

In the idea of the four quadrants – the interior I and We and the exterior It and Its, each on an individual and a collective level – yields a 2x2 table (see Walsh, 2011, p. 112). Walsh says that "understanding any phenomenon adequately requires investigating all of its four quadrants, and using methods appropriate to each quadrant" (p. 112). Further, he suggests that wisdom can be found in all four quadrants: in individuals as insight, in collectives in the cultural ethos (the interior half), and in the exterior side, in social constructions that embody individual and collective wisdom, such as legal and educational systems as well as contemplative institutions.

In terms of development, many psychologists describe people as maturing from pre-conventional to conventional to post-conventional levels. (See the following section on post-formal thought for a discussion on this topic.) In terms of integral theory, Wilber postulates post-post-conventional levels or transpersonal ones, as Walsh (2011) calls them.

Another useful concept is the one of developmental lines. It seems to me patently obvious that these exist – one has only to look around to see people who are extremely intelligent but morally stunted, who are exceptionally mature but seem not to have an esthetic bone in their bodies, and so on. (This reminds me of Howard Gardner's work on multiple intelligences where people present with different abilities. Intelligence can no longer be considered as logical-mathematical and verbal aptitudes only. Other intelligences include kinesthetic, spatial, and musical, for example (Gardner, 1993/2004)). Wilber (2006) suggests many lines: cognitive, moral, emotional, interpersonal, self-identity, esthetic, psychosexual, spiritual, and values (pp. 23-24). Perhaps there is also a wisdom line of development. To explore this idea further, in the next section we will continue our examination of a related aspect of integral studies, that is, post-conventional development.

Wisdom through the Lens of Post-Conventional Development

Like the phrase "post-modern," "post-conventional" or "post-formal" tells us what it comes after, but not what it itself is. Perhaps it means exceptional maturity or uncommonly well-developed cognitive complexity or perspicacious post-formal thinking (or logic). Indeed, there is no common language to express a qualitative difference in thinking about self and world. Nevertheless, I want to take a little time to discuss the movement from conventional to post-conventional thought because it can provide insights into where we can find wisdom, how we can develop it, and how we can get into trouble with it, too. "What passes for morality or spirituality in the vast majority of people's lives is the way everybody they grew up with thinks." So says Father Richard Rohr who writes about spirituality in the two halves of life and how we can deepen our experience in the second (2011, p. 83). His statement exemplifies the conventional level of development mentioned in the section above. And, don't forget Emily Dickinson who tells us that the majority prevails and if you are deemed different, watch out!

But why is it important to turn our attention to the movement to post-conventional thinking? Why does it matter? It does matter. It matters because newly emergent capacities such as making decisions undistorted (relatively speaking) by personal agendas, suspending what is already known, and being open to new ways of seeing and understanding things, can lead to more accurate meaning-making. Or, as educator Jack Mezirow (1990) puts it,

> perspective transformation is the process of becoming critically aware of how and why our presuppositions have come to constrain the way we perceive, understand, and feel about the world; of reformulating these assumptions to permit a more inclusive, discriminating, permeable, and integrative perspective; and of making decisions or otherwise acting upon these new understandings. *More inclusive, discriminating, permeable, and integrative perspectives are superior perspectives* that adults choose if they can because they are motivated to better understand the meaning of their experience. (p. 14. italics in original)

Or, we can look to Kegan's (1994) orders of consciousness to help us comprehend the differences in the thought processes. The top three orders are of interest to us. In the third, which is congruent with conventional levels of development, people think what they *should* think. They believe that what they *should* feel is what they *do* feel and what they *should* value is what they *do* value. You can see that here, as Emily Dickinson says, the majority prevails. The predominant way of understanding the world and one's place in it does not just guide our thinking – it determines it. In the fourth order, however, a person becomes what Kegan calls self-authoring. That is, she determines for herself what she thinks, feels, values, even if it conflicts with or subverts prevalent ideas and standards. This is a self-determining level. She knows her own mind independent of cultural expectations or assumed truths. She sets limits and maintains boundaries, thus gaining her own sense of authority or voice. While someone at the third order could be torn apart by competing roles or expectations from external persons – for example, how to be a good worker and a good parent – at the fourth order a person has more options. This person will have a larger perspective from which to make sense of expectations, thus allowing her to independently figure out for herself what will work in this situation or context.

Here is an example. One day when I was teaching a class on Kegan's work, a student suddenly sprang up from his chair. "I get it!" he shouted. "I get it!" Then he explained to us what he meant. He worked at the post office. A recent order had been received from management for people to organize and work in teams, which he and his co-workers did, discovering that this was a good way to get their work done and even experiment with innovations. But their supervisor kept on finding fault with their work and giving them a hard time. Nothing they did was right, despite the fact that they were following top management's orders. What the student suddenly understood what that he and his co-workers were pursuing their tasks in a more independent way than they had been – in short, in a fourth order way. But the supervisor was a third order man for whom independent actions smacked of insubordination and disobedience. He was used to things working in a certain "right" way and felt insecure and challenged when those who reported to him acted in more self-determining ways.

In the fifth order, at which few people arrive, individuals begin to see how their own personal system (that, in the fourth order, has become independent of externally imposed societal expectations and assumptions through critical reflection of what works and what doesn't) is mediated by historical, cultural, psychological, and other forces. In the fourth order, you are the system that you have created. But in the fifth, a person comes to a realization of the constructed nature of his or her meaning-making system. She understands that who she is, is simply one system among many. This means that rampant individualism, which is a downside of fourth order consciousness ("this works for me, and I am going to do it this way"), becomes tempered by understanding that I, like you, am part of larger systems. There is a foreground/background shift (like Kohlberg's (1981) seventh stage). "I am not very important after all." It is a humbling stance.

What does all of this have to do with wisdom? Is someone at the fourth order wiser than someone at the third? Or is fifth order thinking better than fourth? I cannot but think that in some ways this is the case, especially if we look back at Mezirow's words on more inclusive, permeable, and integrating perspectives as being superior because they lead to more accurate meaning-making. Or, in terms of wisdom, perhaps, this perspective offers more accurate ways of seeing – of discerning, respecting and caring, acting fairly, and integrating various elements of self with the rest of the world, deepening the ability to see beyond the self, to deal with the paradoxes that life presents, and to recognize more and more deeply the interdependence of all things. But, do we really know if such recognition makes a substantive, permanent difference?

So far, we have been looking through various lenses mostly at one end of the spectrum, the analytical side, except for some examples from the arts. Let us now turn to looking at wisdom in action, in real people's lives. This is the subject of the next section.

Seeing Wisdom through the Lens of Everyday Life

We fret a lot these days about the apparent surfeit of information, coming at us from all directions. Information can be a good thing – it can be helpful to us, amusing and entertaining; it can make us more effective in our jobs. But it can distract us, fracturing our concentration. Too much information is un-wisdom because wisdom is about knowing what is important and what to do about it. Wisdom can help us to discern what information is important and what, if anything, to do about it. Wisdom is about taking the time to reflect, sort, distinguish, triage, hierarchize. What is important in this situation? How can I tell? What should I do? What's right? These are the questions to ask, which an unimpeded flow of information can continually interrupt until we find ourselves flattened under a heap of data and ideas, some conflicting, all demanding to be paid attention to. Wisdom requires a different kind of mindset – unless a more modern brain than mine can sort and prioritize and make decisions in a different way than mine does – and given technology and how it seems to be changing brains, this may yet be possible.

Yang (2008) offers us a way that might help us handle this information overflow. She argued that wisdom is a real-life process. This means that in an everyday difficult situation a person makes an unusual integration, embodies his or her ideas through action, and brings forth good results. Thus, the steps are the sorting and prioritizing of what is important, arriving at an integration of ideas that could work in a problematic situation, acting upon this integration, and achieving positive effects. She says, "People may accomplish all kinds of good work, but unless the consequences of their actions bettered their own lives and those of others, their actions cannot be deemed as being related to wisdom" (p. 73). This view and that of most other wisdom researchers in one form or another, including mine, reflects the philosophy called pragmatism where the focus lies not in a description of "reality" or of the concept of reality but rather what is useful, what succeeds, what works. If wisdom isn't practical and useful, what do you want it for? How does anyone know you have some wisdom if you don't use it?

Besides other examples that I have given, such as my student (and Evelyn in the next section), here is one from ordinary life. Note that I say "wisdom" or perhaps it should read "wise behavior." In South Sudan a group of American doctors intentionally brought warring factions together. As a condition of free cataract surgery the ophthalmologists insisted that people from rival ethnic groups sit together and talk. One patient said, "I always thought in many ways that the Dinka were devils and had horns, but they're just like us" (Straziuso, 2014, p. A7).

So far, we have looked at wisdom through a number of lenses. Now I will turn to show you what I see through my own.

Seeing Wisdom through My Own Lens: What I've Learned about Wisdom

I have read the literature. I have interviewed people deemed wise by others. I have been a keen observer of both events and environments, and I have settled upon the following four essential propositions about wisdom**.**

Here are the four propositions:

1. Wisdom is complex, just like the world we live in. It is not one thing but rather results from the interaction of an indefinite number of elements (because we cannot identify all of them, though I believe that I have a handle of some of them in the model).
2. Wisdom is useful to us in our daily lives. It is available to all of us.
3. Wisdom lies on a continuum; it is not as rare as we think.
4. We can enhance our own wisdom and encourage it in others.

Wisdom is Complex

This is the first proposition, and I have explained the relationships and interactions of the various elements of wisdom above in the Emergent Wisdom Model. They include Discernment, Respect, Engagement, and Integration. Note that the model is neither static nor linear; rather it is dynamic and builds on constant interaction of all the elements.

Is it possible that wisdom is, after all, simple because oftentimes we recognize it when we see it? It is true that we recognize it when we see it because we see it as a whole, not as a collection of parts. However, it is also complex because to produce it you need the interaction of an indefinite number of variables. That blend forms a pattern, so that when we see it in action, we see it as wisdom. For example, I could give you a list of parts and most likely you would not know what they were for: "*drafthood, reducer ring, baffle assembly, heat trap, cold water dip tube, anode rod, temperature and pressure relief valve, drain valve, thermostat, manifold, orifice, main burner, pilot assembly, pilot tube, thermocouple, screw 10-32 x .312 PH RD MACH, pilot shield, inner door, outer door, palnut, air shutter.*

"Here is a picture of the *relationships* among these items assembled into a whole:

However, if I had told you that they represented all the parts of a water heater, you would immediately recognize it as such" (Thorpe, 2009). Thus, wisdom may look simple but is complex in the integration of all of the relationships that comprise it. We need to remember, looking back at the wisdom model, that embracing paradox is part of wisdom.

Wisdom is useful to us in our daily lives; it is available to all of us

The second proposition states that wisdom is useful to us in our daily lives. Wisdom lies in the stratosphere, but it also in the air around us all the time, if we can recognize it in its more humble aspects.

Just because a decision is not changing the course of human history or forwarding a movement as Martin Luther King, Jr.'s, did, does not mean that wisdom is not occurring. Here is a simple example that one could claim is "just" common sense. Perhaps it is common sense. At the same time, it does what wisdom does: it focuses on what is important and what to do about it. It demonstrates sufficient awareness of a number of the aspects of wisdom and uses them in a way that makes the situation better for all involved.

Evelyn, a student in a class of mine, told us about a predicament that she had been in until she figured out a solution that worked for everyone, even if her daughter was not entirely happy with it. Evelyn had recently retired from a busy job as an attorney in a law firm and was enjoying her freedom for the first time in her adult life. She took short or long trips; she joined two book clubs; she took up photography with regular classes from a master photographer. So, when her daughter, who had just given birth to twins, wanted Evelyn to spend nights at her house to care for the babies, Evelyn was understandably reluctant. At the same time, she felt an obligation to help her daughter out, and she wanted to too. How could she do both?

In class she had learned about stepping outside of herself and looking at the whole picture, from a third person point of view. Here was a mother of just-born twins who needed help and wanted it from her own mother. Here was a woman of just-gained freedom in retirement who wanted to enjoy life. In this situation, what actions would satisfy both parties?

Evelyn realized that she could not give up all of her freedom, nor could she ignore her daughter's needs. So she decided to spend two nights a week at the twins' home and then give her daughter some money to hire someone for other nights. Was the daughter altogether happy because it would be “just for a few months”? No. But her mother stood firm with her decision. Six months later Evelyn told me that it had all worked out just fine.

Here is another example. One day in the summer of 2010 at a baseball game (Detroit Tigers-Cleveland Indians), a pitcher was throwing a perfect no-hitter, but at the bottom of the ninth inning, the umpire called the batter safe at first base, when replays showed that, in fact, the batter was out. Did the pitcher stomp over to the umpire, yell in his face, throw his glove on the ground, swear, and turn red with fury? No. Instead, the umpire, Jim Joyce, personally apologized to the pitcher Armando Galarraga saying that he was wrong (Kepner, 2010). Further, in a number of interviews, Joyce publicly acknowledged his mistake. Galarraga said that he told the umpire, “Nobody’s perfect.” What a way to defuse a situation.

In both stories, the people involved ended up feeling better about the situation at the end than at the beginning. They show us examples of relatively wise behavior on a small, often personal, scale. These are examples of little wisdoms, rather than big wisdom. Little wisdoms and big wisdom both involve complex, dynamic elements. (Recall the concept that wisdom is a fractal, a scale-independent self-similarity. That is, no matter the size or scale – scale independence – wisdom looks the same – self-similarity. All of the parts are replicated, though on different scales.) What makes the wisdoms different – and are they? Next, we’ll look at the continuum of wisdom.

Wisdom lies on a continuum; it is not as rare as we think

Most researchers believe that wisdom is rare, that along with being the “pinnacle or hallmark of adult thinking” (Merriam, Caffarella, & Baumgartner, 2007, p. 351), it is not achieved very often. The neuroscientists that I cited above in the section on neuroscience (Jeste, Ardelt, Blazer, Kraemer, Vaillant, & Meeks, 2010) believe, paradoxically, that wisdom is both a rare quality and one that is distributed across the population. When they speak of wisdom, they are seeing it as a trait that manifests at the far end of what I am calling the wisdom continuum. That is, for me, wisdom is not an either-or, you-have-it-or-you-don’t, you-are-wise-or-you-are-not-wise proposition. Rather, it is something that lies on a continuum. If we look only at the far end of the continuum, then all we find is that rare wisdom that lies several standard deviations from the mean. Does this mean that there is no wisdom other than that at the extreme? What about the little wisdoms I mentioned above? For this reason, I believe that we can understand wisdom better if we see it on this continuum.

Actually, a better image is three continua. The first is a continuum of wise people; the second is on the impact of a person’s wisdom; and the third has to do with the nature of the wise decision itself. The first continuum extends from you and me to people like Nelson Mandela who united a whole country that could easily have been torn apart by racial violence after apartheid ended.

Within this continuum it is likely, as Bluck and Glück suggest, that wisdom will manifest differently in different phases of life and that the “full use of one’s wisdom appears to be a developmental achievement” (2004, p. 569). How is it that some people have more wisdom than others? Some individuals simply come into the world with a greater propensity for wisdom than others do, just as some people are naturally gifted as tennis players or sculptors or mathematicians. The wise ones would grow in cognitive and emotional complexity as they mature, increasing in wisdom as they move through life, just as we can on a smaller scale.

The second, and closely related, is the continuum of the impact of the person's wisdom, in which Nelson Mandela's would have far greater repercussions than anything I would ever do. Those we look to as wise are usually leaders or major public figures, such as Abraham Lincoln and Nelson Mandela – and this is one way that we know about them and their wisdom. For the less visible among us, our wisdom is little known. In classes that I teach or talks that I give, I ask the participants to identify a wise person that they know personally. Many name a grandfather or aunt or friend of the family, someone with no public sway at all. When pressed, the participants give examples of activities that correspond with the definition of wisdom on a small personal level with little if any public impact.

The third continuum is about the nature of the wise decision in and of itself, some decisions requiring more insight and depth of understanding of patterns and relationships (the Discernment dimension of the Emergent Wisdom Model) as well as more toleration for paradox and ambiguity (the Integration dimension) than others do. For example, Abraham Lincoln's decision to go to war with the seceding South in order to keep together the union of the people, by the people, and for the people – this first-time experiment in governance that the world had ever seen – certainly was a more difficult and nuanced one than Evelyn's on how to balance her needs with her daughter's.

What about the rest of us without a strong inborn propensity for wisdom? Is there any way that we can increase our own wisdom intentionally, or is it a matter of luck? In the next section, I discuss some ways that we can develop our wisdom.

We can enhance our own wisdom and encourage it in others

The fourth proposition asserts that we can intentionally enhance our own wisdom and encourage it in others. The latter first: an easy way to do this is to point out to your friend, neighbor, or colleague when he or she is acting wisely. Comment on it. Acknowledge it. This way, two things happen. First, the person realizes that she has done something wise and, because of this realization, may be more likely to do so again in the future. Second, the very fact of publicly acknowledging something as wise brings it more to our awareness and thus we may notice it around us more.

As for the former, enhancing our own wisdom, I have recently written several chapters that include a number of strategies for doing just this (Bassett, 2006; Bassett. 2011a; Bassett, 2011b). Here I will discuss three.

First, there is the technique of looking at yourself in the third person. Tell a story about yourself with you as one character among many, perhaps not the main one. Tell the story from the point of view of another character, and see what happens. Insights may arise as you probe other psyches and points of view.

Second, refer to the Emergent Wisdom Model and at the bottom in the section called "Queries," you will see a number of questions to ask yourself when you are in a difficult situation that requires wisdom to get out of. These queries should become second nature to you and ring in your mind like a beloved melody. Ask yourself what is really going on, not what you would like. There can be a big difference. Ask yourself how someone else would view the same situation. Ask yourself what you want to accomplish with a decision and how it will affect not only yourself, but also others. Who might these others be? What might happen? Finally, ask yourself if your decisions are bettering not only yourself but also the lives of others.

Third, and an assignment that I give students or workshop participants for life, is what I call Wisdom Watch. It means looking for wisdom around you, in the street, on the job, on television or in movies, anywhere. Wisdom is out there and the more we acknowledge it, the more we will recognize it in the future.

Wisdom Emerges; It Does Not Conclude

We have looked at wisdom through various lenses, including definitions of wisdom, different measures of wisdom, neuroscience, integral theory, post-conventional development, everyday life, my own lens, and we have looked directly at it, in the lives of people. We will all continue to look for – and at – real wisdom in real lives. Here is one more look, at a man who practiced wisdom all his life and who sang of it, using the words of Ecclesiastes 3:1-8 – Pete Seeger:

> To everything (Turn, Turn, Turn)
> There is a season (Turn, Turn, Turn)
> And a time for every purpose, under Heaven.
>
> A time to be born, a time to die
> A time to plant, a time to reap
> A time to kill, a time to heal
> A time to laugh, a time to weep
> …
> A time to build up, a time to break down
> A time to dance, a time to mourn
> A time to cast away stones, a time to gather stones together.
> …
> A time of love, a time of hate
> A time of war, a time of peace
> A time you may embrace, a time to refrain from embracing
>
> To everything (Turn, Turn, Turn)
> There is a season (Turn, Turn, Turn)
> And a time for every purpose, under Heaven.

Anyone who speaks (or sings) these words knows a thing or two about wisdom – that it is not one thing and that it contains contradictions and paradox, that it contains multitudes. At the same time, knowing every purpose is just one part of wisdom. The other is knowing when it is time to build up and, when the time comes to break down, *how* to do it. This is the other part of wisdom – having sufficient awareness to know not only the *what* of a thing but also the *when* and the *how*. It is a lifelong practice, a never-ending song.

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Wise Ways of Seeing:
Wisdom and Perspectives

Roger Walsh[1]

Abstract: The capacity for perspective taking is thought to be linked to psychological development and to wisdom. This article draws from psychological, contemplative, cross-cultural, and philosophical disciplines to create an inventory of perspectival skills and their possible relationships to wisdom. The nature of perspectives is explored, as are the characteristics of healthy perspectives, and the factors—such as developmental stage, assumptions, and state of mind—that determine the number and kinds of available perspectives. The article then examines rare postconventional perspectival capacities such as the ability to integrate multiple perspectives, to adopt higher order metaperspectives, and to experience transperspectival "pure awareness." Fifteen kinds of wise perspectives and perspectival skills are suggested. Finally, the article reviews psychological, relational, contemplative, philosophical, and educational methods thought to foster perspectival skills and wisdom.

Keywords: Assumption, development, perspective, perspectivism, transformational learning, wisdom.

Introduction

> *Wise individuals are aware of the fact that there are multiple perspectives on every phenomenon and they are interested in learning from new perspectives and from other people*. (Glück & Bluck, 2014, p. 75)

Wisdom is many things. Yet it certainly includes one thing: the capacity to see in new, beneficial, and benevolent ways. What kinds of ways? Well, at least twelve ways that can be clustered into four groups. In general, wise ways of seeing will tend to be:

1. Nonconventional.
    - Novel: new, fresh, and often unexpected.

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- Insightful: productive of new insights and understandings.
- Unconventional: beyond conventional assumptions, out of the box.
- Postconventional: expressing exceptionally mature levels of development beyond the conventional.

2. Wise people will likely use and integrate multiple perspectives.
   - Multiple perspectives: Able to look at things from multiple angles or points of view. Not limited to one perspective, but employing multiple perspectives.
   - Flexible and agile: able to move easily and quickly between multiple perspectives
   - Metaperspectival: able to adopt higher order perspectives.
   - Integrative: able to not only adopt multiple perspectives, but also to recognize relationships between these perspectives, and integrate them into a higher order synthesis.
   - Big picture: able to encompass large complex systems or communities, to encompass long time spans, and consider multiple factors. Also able to adopt both big picture and close up perspectives, to zoom in and zoom out.

3. Wise people will tend to recognize the limits of perspectives.
   - All perception depends on perspective (perspectivism.)
   - Any (single) perspective is partial and limited.

4. Beneficial: Wise people will recognize ways of seeing that are helpful to both themselves and others.

A Central Hypothesis

The central hypothesis of this article is this: *Wisdom is a function of the capacity for taking skillful perspectives.* Of course, wisdom is also much more than this capacity but will certainly include this capacity.

I define a perspective or action as *skillful* to the extent that it minimizes suffering and enhances wellbeing for everyone involved, including oneself. So the hypothesis that wisdom is a function of the capacity for taking skillful perspectives implies that wisdom involves the capacity for looking at things in ways that lead to reduced suffering and enhanced wellbeing.

What evidence is there for a relationship between wisdom and skillful perspective taking? As yet, there is little, but growing, research on either wisdom or perspectives, so experimental research on their relationship is very limited. However, there is evidence that perspectival skills are related to psychological development, and there are suggestions that these skills are related to wisdom. For example:

- A close relationship between psychological development and perspective taking skills has been demonstrated in studies of child and adolescent development (e.g., Lapsley, 2006). Likewise, integral theorists often posit a close relationship between adult development and perspective taking skills, although there is little actual evidence for this relationship (Fuhs, 2013; Martin, Sobel, and Elfers, 2008).

- Multiple fields that recognize the need for greater individual and collective wisdom in order to solve our social and global problems, also emphasize the need for broader integrative perspectives (Esbjörn-Hargens & Zimmerman, 2009).
- Researchers often suggest that wisdom is associated with maturation to postconventional stages and to greater integrative perspectival capacities (e.g., Kramer, 2003). For an analysis of the possible relationship between wisdom and development see Walsh (2011, 2012)
- The most prolific wisdom researchers, the Berlin School, emphasize two criteria of wisdom that seem closely related to perspectival skills. The first, *life span contextualism*, "considers the many themes and contexts of life and in addition, incorporates a lifetime temporal perspective" (Baltes & Staudinger, 2000, p. 125-6). The second factor, "*relativism of values and life priorities"* recognizes the relativity of what is appropriate for different people and situations.
- Monika Ardelt's Three-Dimensional Wisdom Scale (3D-WS) measures reflective skills which she defines as "a perception of phenomena and events from multiple perspectives" (Ardelt, 2004, p. 275).

The Relationship between Wisdom and Perspectives: Key Questions

These ideas lead to four key questions:

1. What is a perspective?
2. What factors determine the number and types of perspectives available to an individual (and society)?
3. What are the characteristics of skillful perspectives?
4. How do we foster the capacity for skillful perspective taking?

These may be crucial questions for wisdom studies and also for integral theory (Cook-Greuter, 2010; Fuhs, 2010; Wilber, 2013). Unfortunately, there is little research on adult perspective taking and skills. Consequently what follows are largely hypotheses. These hypotheses are based on my reading in related literatures, clinical observations of psychologically disturbed patients, personal observations of psychologically mature and wise people; the practice and teaching of psychotherapy, meditation, and other contemplative disciplines; and considerable reflection on these issues. All the ideas in this article are presented, not as beliefs to be accepted, but as hypotheses to be tested. If they foster thinking and research about wisdom, perspectival skills, and their interrelationships, they will have served their functions well.

What is a Perspective?

The term perspective is used in psychological literature in several ways. Interpersonally or socially, it implies the capacity to see things from another's point of view. Generically, it refers to points of view in general.

In this article I will mainly be using the term generically. In this generic sense, we need to consider two types of perspectives: physical/spatial and psychological/cognitive.

- A physical/spatial perspective is determined by the spatial location of the viewing point relative to the physical object observed.
- Within mental space, a psychological perspective is determined by the viewing location or vantage point with regard to a mental object.

I presume that psychological perspectives are largely determined by operative schemas and modes.

Schemas are mental models: conceptual networks and frameworks that serve to identify, categorize, frame, and interpret specific types of stimuli. As such, they determine the meaning and significance of stimuli, and the responses to them.

For example, Neo-Kohlbergian researchers see moral development as maturing, not from one stage to another, but from one schema to another. Each successive schema enacts an increasingly encompassing and nuanced metaperspective, worldview, and morality (Thoma, 2006).

"Modes are networks of cognitive, affective, motivational, and behavioral schemas" (Beck & Weishaar, 2014, p. 232). The schemas of a mode operate together to interpret stimuli, and then create emotional, motivational, and behavioral responses to these interpretations of them. Modes are presumably related to states of mind or states of consciousness (Tart, 2001) and to the ego states described by transactional analysis (Berne, 1964), ego state therapy (Watkins and Watkins, 1997), and by Genpo Roshi's Big Mind process.

It is important to note that we respond, not to objects themselves, but to our interpretations of them. This is an ancient idea, and some 2,000 years ago the Stoic philosopher Epictetus (1899) warned that "Men are disturbed not by things, but the view which they take of them." Or as Shakespeare put it, "There is nothing either good or bad, but thinking makes it so" (Hamlet, II, 2).

A perspective is a selective perceptual stance which results when awareness is filtered through and constrained by mental schemas and modes. A perspective therefore functions as a perceptual and interpretive framework which biases and limits perception (as well as subsequent interpretation, understanding, and responses). For example, when anxiety schemas are operating, these schemas produce cognitive and perceptual biases that view experiences largely in terms of their threat potential. The anxiety modes then generate corresponding anxiety based emotional, motivational, and behavioral responses to threat. Very importantly, perspectives tend to be self-fulfilling. That is, we tend to find what we look for.

What Factors Determine Available Perspectives?

One important question is: What are the factors which determine the number and kinds of available perspectives? Three of the most important factors may be:

1. A person's developmental stage,
2. Their state of mind, and
3. Their assumptions or presuppositions.

Because the number and types of available perspectives are so important to perspectival skills and wisdom, let's examine these three determining factors more closely.

Development

> *We have seen in the description of peoples' development from one stage to another that each new stage brings a qualitative expansion in perspective taking.* (James Fowler, 2000, p. 85)

A person's developmental stage may determine and limit the number, scope, and levels of available perspectives. This is a central tenet of a child and adolescent developmental psychology, and of integral theory. "From cognitive to interpersonal and affective to self-sense, development in many domains progresses in accordance with an individual's ability to take perspectives" (Fuhs, 2010, p. 273). For example, in childhood, when the capacity for taking other peoples' perspectives comes on line, this new capacity allows a shift from egocentricity to mutuality and ethnocentricity.

In adulthood, these capacities can expand further. For example, one's perspective can expand from identifying with, and thus being concerned for one's community (ethnocentrism—"my country right or wrong") to a perspective identified with, and thus concerned for, all people and all life (worldcentric). Temporally, one's perspective can expand from one's own short term benefits to a concern for the needs of future generations. This perspectival expansion is related to "the expanding circle" of care which is a central feature of ethical maturity (Singer, 2011), and has long been a central goal of Confucianism. "Learning to be human" for Confucians "is to learn to be sensitive to an ever-expanding network of relationships" (Wei-Ming, 1985, p. 175).

Postconventional developmental levels of perspective taking

Postconventional levels of development appear to offer four major advances in perspectival capacities:

1. An increase in the number of available perspectives,
2. Increased integration of perspectives
3. Adoption of metaperspectives
4. Breakthroughs into transperspectival pure awareness

1. Number of Available Perspectives

From childhood on, psychological development is often associated with a growing capacity to take a greater number of perspectives. This growth is thought to continue into and through postconventional, post-formal operational stages.

2. Integration of Perspectives

Development is associated, not only with a growing number of perspectives, but also with a growing ability to integrate these perspectives (Fuhs, 2010; Kramer, 2003). Likewise, some theorists such as Jean Gebser and Ken Wilber suggest that cultural evolution also involves a growing number and integrative capacity of perspectives. For Gebser, cultural evolution culminates in the "integral aperspectival mind" which is able to integrate multiple individual perspectives, evaluate their perceptions as a whole, and therefore hold no individual perspective as final (Feuerstein, 1987; Wilber, 1995).

Ken Wilber suggests that recognition of multiple perspectives can outpace the growth of integrative capacity. The result is two distinct early post-conventional stages.

The first stage is recognition of the multiplicity of possible perspectives. This results in pluralism but can also lead to relativism—a stance that there are no grounds for privileging one perspective over others. At its extreme, Wilber (2000) suggests this can devolve into "aperspectival madness" in which no perspectives or values are seen as better as or worse than any others (p. 170).

For Wilber (2006), relativism and aperspectival madness occur at the pluralistic-relativistic (green) stage of cognitive development which is the first post-formal operational stage (p. 68). This aperspectival madness underlies the excesses of deconstructive postmodernism and may also play a role, I would suggest, in existentialism's groundlessness and the angst that it generates.

At the next developmental levels of low and high vision logic (Wilber's teal and turquoise which correspond to Kegan's Fifth Order consciousness), integrative capacities mature further. This allows not only a recognition of multiple perspectives, but also a meaningful integration and comparison of them.

Stages beyond these are rarely described. However, the Indian philosopher-sage Aurobindo (1970) mapped several rare postconventional stages beginning with what he called the Higher Mind, which Wilber (2000) categorizes as a form of vision-logic. According to Aurobindo (1970), the higher mind:

> can freely express itself in single ideas but its most characteristic movement is a mass ideation, a system of totality of truth, seeing at a single view; the relations of idea with idea, of truth with truth are not established by logic but pre-exist and emerge already self-seen in the integral whole…. In the end there is a great totality of truth known and experienced but still a totality capable of infinite enlargement because there is no end to the aspects…. This is the Higher Mind. (pg. 940, 941)

3. Capacity to Adopt Metaperspectives

A third postconventional perspectival capacity is the growing ability to consciously adopt metaperspectives. This is a process where one disidentifies or disembeds from a previous perspective and adopts a new perspective that is transcendent or *meta* to the previous one. One can then look back at the previous perspective, and thereby examine, assess, and relativize it.

As an example, consider people who mature from conventional to postconventional morality: from what neoKohlbergians call the conventional “maintaining norms” schema to the postconventional schema. At the maintaining norms level, people unreflectively accept conventional social norms, morals, and laws, and strive to maintain them. These norms are unquestioned assumptions through which, and from which, conventional people view the world. “For this schema, no further rationale for defining morality is necessary beyond simply asserting that an act is prescribed by the law, is the established way of doing things, or is the established will of God” (Thoma, 2006, p. 79).

However, when people mature to the postconventional schema, then they are able to look at, rather than only look from, the conventional moral assumptions, and are therefore able to evaluate them. That is, they can now adopt a metaperspective relative to the conventional cultural perspectives. They have moved from a first order to a second order (meta) perspective. The capacity for adopting metaperspectives is one aspect of metacognition which is the capacity for knowing, and sometimes regulating, one’s cognitive processes.

Now suppose that some of these people learn about developmental research. Using this research, they then look at their new moral perspective and the developmental jump they made. Now they may see “Oh, I was locked in a conventional schema and perspective, but then I matured to a postconventional perspective. However, that postconventional perspective is itself just one way of looking at moral issues.” These people have now moved to a third order or meta-metaperspective.

Perhaps a few of these individuals will even move to a still higher order perspective in which they recognize that all living creatures develop and all phenomena continuously change. Now they may recognize their own moral maturation as only one kind of development and as one expression of a universal law of change as described, for example, by Heraclitus, Whitehead, and the Buddha. These people have now moved to a fourth order or meta-meta-metaperspective from which they can view, situate, and interpret their earlier perspectives. Note that the adoption of higher order metaperspectives may not necessarily require or lead to higher order developmental stages (Fuhs, 2013).

The growth of metaperspectival skills may confer multiple benefits. First, each higher order perspective seems to provide a wider vision and a bigger picture. But it may also provide greater depth, a greater appreciation of complexity and interdependence, more psychological flexibility and freedom, and more opportunities for choice.

4. Transperspectival Awareness

There is a fourth, final, and radically different postconventional (or better, transconventional) perspectival potential. This is the ability to disidentify from all mental phenomena, processes, and perspectives, and to rest in pure awareness as the equanimous witness of all phenomena, processes, and perspectives. This is a transconceptual, transpersonal, and transperspectival state which allows transconceptual intuitive apprehension and insight. The result is a *transconceptual wisdom* that is highly valued across multiple traditions as, for example, Hinduism's *jnana*, Buddhism's *prajna*, Christianity's *gnosis*, and Islam's *ma'rifa* (Walsh, 2012, 2014).

States of Mind

Less complex than development, yet still a major determinant of the number of available perspectives is a person's state of mind. The terms "state of consciousness" and "state of mind" are sometimes used synonymously. However, "state of consciousness" is less accurate since what changes is not pure consciousness—which is unqualifiable, transtemporal, and unchangeable—but rather mental contents and processes (Rock and Krippner, 2007).

Specific modes or states of mind are associated with specific dominant perspectives that determine one's way of looking at oneself and the world. For example, anxiety states result in fear of, and hypervigilance for, threats. Paranoid states view the self as special and under attack, while depression channels perception and interpretation of both oneself and the world in negative pessimistic ways. Conversely, healthy and higher states of mind are probably associated with more positive, healthy perspectives, with access to larger numbers of perspectives, and with a greater flexibility and fluidity in moving between them.

Assumptions

Assumptions constitute the third major factor determining the number and kinds of perspectives available to a person. Assumptions are beliefs or presuppositions that are accepted as true. Assumptions often operate unconsciously to produce specific biases of both perception (looking at things in specific biased ways) and cognition (processing information in specific biased ways).

When assumptions are unskillful they produce, not just biases, but also specific cognitive and perceptual vulnerabilities which can result in significant psychopathology. For example, a depressed person's perceptual bias and vulnerability is to look for the worst interpretations of themselves and life. This bias is rooted in three destructive assumptions which together constitute the so-called "cognitive triad of depression." This triad consists of the beliefs that "I'm bad" (resulting in unworthiness), "life is overwhelming" (resulting in overwhelm and despair), and "it's always going to be that way (resulting in hopelessness) (Beck & Weishaar, 2014).

Assumptions tend to operate as self-fulfilling prophecies both personally and interpersonally. What we assume to be true tends to become true. As Henry Ford said "whether you think you can or think you can't – you're right."

A similar principle operates interpersonally. Our positive assumptions about other people tend to elicit improved performance, a phenomenon known as *the Pygmalion* effect (Rosenthal & Jacobson, 1992). Conversely, negative assumptions about people tend to impair their performance (the *Golem effect*). These effects may play a role in class and racial performance differences, and they also operate in conflicts where, in worst case scenarios, "Enemies finally become what they imagined each other to be" (Frank, 1982, p. 146), a tragic result that is played out in war after war.

In short, assumptions mold perspectives, perceptions, and behavior, and create worldviews (Hedlund-deWitt, 2013). Consequently, recognizing assumptions—a process which might be called *preduction* (Wilber, 2011), and may be as important as deduction and induction—is vitally important. Recognizing assumptions, assessing their value and validity, and modifying them as appropriate is essential for fostering skillful perspectives, as well as for psychological wellbeing and wisdom.

What are Wise Perspectives and Perspectival Skills?

We have already foreshadowed these wise perspectives and skills in the article's opening section. There I suggested that wisdom includes the capacity to see in a variety of novel and beneficial ways. We can now describe these ways more precisely in perspectival terms. Specifically, I suggest that wisdom may be associated with at least fifteen beneficial perspectives and perspectival skills:

1. Novel perspectives: A wise person may be able to look at things in new, fresh ways that are unexpected and surprising.

2. Unconventional perspectives: Wise people will be able to disidentify from and grow free of conventional assumptions and perspectives. This will allow them to adopt unconventional perspectives and to think outside the box.

3. Postconventional perspectives: Wise people may adopt, not only unconventional perspectives, but also more developmentally mature postconventional (or even transconventional) perspectives. It is not only that wise people see things in new ways, but that these new ways may be unconventional, postconventional, and transconventional.

However, so far there is little research on relationships of wisdom to developmental stages. In fact, a study of ego development using the Washington University Sentence Completion Test found that the scores of wisdom nominees averaged only slightly above the highest conventional (Achiever) stage (Krafcik, 2011).

4. Insightful: novel perspectives will allow the recognition of novel insights, understanding, and solutions.

5. Perspectivism: A wise understanding of perspectives will recognize perspectivism and the limited and limiting nature of perception and perspectives. All perceptions reflect perspectives, and all perspectives are limited and limiting in that they are partial and selective in what they reveal. This is a venerable idea which was strongly argued by Nietzsche as perspectivism, and has long been a central tenet of Jainism.

In Jainism, the term *syādvāda* implies that all perspectives or viewpoints are conditioned, while the term *nayavāda* implies that they are partial. These ideas are integrated into the "one of the most important and fundamental doctrines of Jainism," *anekāntavāda*, which holds that there are always diverse viewpoints on any phenomenon. *Anekāntavāda* acknowledges that some viewpoints are more valid than others while simultaneously recognizing "that no single point of view is the complete truth" (Wikipedia). *Anekāntavāda* encourages tolerance, pluralism, and the search for common elements and integrations. These important Jain ideas may be insights which wise people of diverse cultures intuit to some degree. Perspectivism and *anekāntavāda* would presumably help in "seeing through illusion" which is one (limited) definition of wisdom (McKee & Barber, 1999).

Half a continent away, perspectivism found another early champion in one of the earliest and greatest of Taoist sages, Zhuangzi (also known as Chung Tzu, c. 369-286 BCE). Zhuangzi lived during a time of violent political conflict which was mirrored by vehement philosophical debates between philosophical schools, especially the Confucian and Mohists, each sure that they alone possessed the truth. Zhuangzi was not so sure.

In fact, he was not so sure of anything, because he saw that all perspectives and arguments derive from perspectives, and that "each perspective is trapped in its own standpoint" (Lai, 2006, p. 370). In short, Zhuangzi recognized perspectivism some 2,200 years before Nietzsche. Zhuangzi was a master of stories and parables and made his point with the following story:

> You can't tell a frog at the bottom of the well about the sea because he is stuck in his little space. You can't tell a summer insect about ice because it is confined by its season. You can't tell a scholar of distorted views about the Way because he is bound by his doctrine…. (Mair, 1994, p. 153)

Zhuangzi and many Taoists distinguish between small knowledge (xiaozhi) and great knowledge (*dazhi.*). Whereas small knowledge asserts and argues, "Great Knowledge, by contrast transcends assertions of truth. Its wisdom lies in knowing the limits of small knowledge" (Lai, 2006, p. 373).

For Zhuangzi, wisdom requires the realization of perspectivism, and his philosophy aims "not to search for truth but to question its limits" (Lai, 2006, p. 371). Rather, "wisdom consists in *understanding* that individual perspectives are limited….For Zhuangzi wisdom lies in the realization that one's individual insights and grand theories—however sweeping and inclusive they may seem—are ultimately perspectival" (Lai, 2006, p. 373, 371). This realization allows us to hold perspectives lightly.

When perspectivism goes unrecognized problems ensue. For example, to the extent that any perception is not recognized as perspectival—and therefore as partial, selective, and relative—it will tend to produce a corresponding experience, worldview, and self-sense that will be assumed to be accurate and correct. As such, this perception will likely:

- Go unquestioned
- Result in self-deception and delusion
- Reinforce one's current belief system and worldview
- Foster dogmatism

- Serve a defensive “legitimizing” function (Wilber, 2005), i.e., defend and preserve the current self-sense and developmental level, rather than fostering further development
- Create suffering. Once one appreciates the power of perspective, one also recognizes just how many of our individual, social, and global problems are caused by the failure to recognize perspectivism (Walsh, 2009).

The challenge for all of us, and something that wise people may do exceptionally well and often, is therefore to continuously attempt to:

- Recognize unhelpful, partial perspectives, in both ourselves and others.
- Release and integrate these limited, harmful perspectives into more encompassing (contextually wider and developmentally deeper) metaperspectives.

Of course, recognizing, releasing, and growing beyond our current perspectives is not always easy. Yet it is rewarding, and Sri Aurobindo’s biographer gave a beautiful account of perspectival maturation as follows:

> And yet we only knew how each loss of one’s viewpoint is a progress and how life changes when one passes from the stage of the closed truth to the stage of the open truth—a truth like life itself, too great to be trapped by points of view, because it embraces every point of view…a truth great enough to deny itself and pass endlessly into a higher truth. (Satprem, 1968, p. 84)

6. Multiperspectival: When people are locked into a single perspective they suffer from the pathology of *perspectival fixation*, and the painful results include close-mindedness, rigidity and dogmatism. In contrast, wise people will probably recognize and adopt multiple perspectives. Their multiperspectivalism, prospectival fluidity, and greater perspectival range will presumably be associated with qualities of greater open-mindedness and tolerance of ambiguity, and both these qualities have been found to correlate with wisdom scores (Baltes & Staudinger, 2000; Helson & Srivastava, 2002).

7. *Perspectival fluidity* is the ability to move easily and quickly between perspectives. This ability is probably related to the Buddhist psychology (*abhidharma*) qualities of mental pliancy and agility which are healthy qualities that are fostered by contemplative practices (Nyanaponika Thera, 1998).

8. Coordinating perspectives: Once people have grown beyond perspectival fixation and are able to fluidly move between perspectives, then they are likely to begin coordinating them. “Coordinating perspectives refers to the simultaneous consideration of two or more perspectives…” (Martin, Sohol, & Elfers, 2008, p. 294).

9. Metaperspectival capacities: Wise people may be able to adopt higher order metaperspectives. By being able to disidentify from earlier perspectives, and to then look back at, and evaluate them from a higher metaperspective, wise people will be better able to more accurately assess and integrate lower order perspectives.

10. Integration of multiple perspectives: A further developmental skill beyond simply recognizing, comparing, and coordinating perspectives is integrating them. With their capacity for adopting metaperspectives, wise people will be better able to recognize relationships between, and forge integrations of, individual points of view, including ones that previously seemed unrelated, incompatible, or conflictual.

Metaperspectives and perspectival integration have been recognized for millennia, and used to produce profound contemplative practices and philosophical syntheses. For example, Hua Yan Buddhism recognizes several perspectival levels described as the *dharmadatus* or worlds revealed by successively deeper perspectives on and insight into reality. Very simply, the first *dharmadatu* is our ordinary perceptual world of form, while the second is the meditative recognition that all phenomena are *sunyata* or empty. The third *dharmadatu* is the recognition of "nonobstruction," meaning that form and emptiness are not conflictual or even different. As the Heart Sutra, which is chanted daily in most Zen monasteries, says "Form is emptiness, emptiness is form."

With the aid of these recognitions, Hua Yan philosophy and practice aim at recognizing and integrating multiple perspectivism. "The goal seems to be a type of perspectival flexibility, which corrects the obsessive—compulsive tendency to identify with a single perspective by acknowledging the multiplicity of perspectives available and by adopting higher-order perspectives that reconcile the inconsistencies present between lower order perspectives" (Fox, 2006, p. 738).

11. Big picture perspectives: The ability to recognize, adopt, and integrate multiple perspectives may allow wise people to recognize big pictures. They may be better able to see and think systemically and metasystemically, and to recognize and work with greater complexity (Commons & Richards, 2003).

These big pictures may be big both spatially and temporarily. That is, they may have both greater spatial scope and time span. This is one reason why wisdom may correlate with greater awareness of, and care for, larger communities such as all humankind and all life (a worldcentric perspective), as well as larger time frames such as a concern for future generations.

This principle is expressed exquisitely in the Native American emphasis on considering the welfare of "the seventh generation." "One of the first mandates given us as Chiefs" wrote a Native American leader is to, "make every decision that we make relate to the welfare and wellbeing of the seventh generation to come….where are you taking them? What will they have?" (Lyons, 1994, p. 173).

12. Big picture and fine detail: When a capacity for seeing big pictures is merged with perspectival fluidity and perspectival integration, it yields the ability to zoom in and out. This is the ability to move fluidly between close up, fine detail perspectives and big picture metaperspectives, and to then integrate them.

Zoom skills have long been recognized as valuable by ancient philosophers such as Plato and the Stoics, by contemplative practitioners, and now by business leaders.

> Some people prefer to see things up close, others from afar. Both perspectives—worm's eye and bird's eye—have virtues and pathologies. But they should be vantage points, not fixed positions. Leaders need multiple perspectives to get a complete picture. Effective leaders zoom in and zoom…. A failure to zoom can spell doom. As we have seen, problems arise when people get stuck at one end of the scale and are unable to move to the other for a different perspective. (Kanter, 2013, p. 99, 103)

Tibetan Buddhism recommends "a view as vast as the sky, but an analysis as fine as barley flour" (Surya Das, 2012). Clearly, zoom skills have been valued for thousands of years.

13. Beneficial perspectives: Since benevolence is a core characteristic of wisdom (Jeste, Ardelt, Blazer et al, 2010; Walsh, 2014a), wise people will seek perspectives and consequent actions to enhance the wellbeing of everyone, including themselves. To focus only on themselves would be selfishness; to focus only on others would be sacrifice. Wisdom seeks a balance and win-win situation (Sternberg, 1998). This specific ability—indeed, all these perspectival abilities—will likely tend to make wise people exceptionally benevolent, helpful, effective, and skillful.

14. Reframing is the conscious choice of an alternate perspective. This shift—which is also known as cognitive reappraisal or reattribution—can sometimes produce remarkably rapid benefits, and is a central therapeutic technique in cognitive therapy and neurolinguistic programming. Several studies suggest that wise people are able to reframe challenging life events so as to eventually see them as valuable learning opportunities (Glück & Bluck, 2014, p. 90).

15. Metaframing is the conscious choice of a metaperspective. Metareframing offers the benefits of reframing plus the ability to look back, assess, and situate previous perspectives from a higher order perspective.

The Farther Reaches of Perspectival Maturity: Is there a Final Perspective?

So where does perspectival maturity culminate? There are three answers.

One answer is in a fluid openness to all perspectives: a capacity for adopting any and all perspectives that are helpful for experiencing, understanding, and responding to life. This is a way of seeing and being that is no longer limited to any one view but rather is open to all views. It is an ability to appreciate the boundless perspectival possibilities of life, and yet to spontaneously select those appropriate to the moment. We might call it panpersectival or omniperspectival. The American teacher Almaas (2014) describes this beautifully:

> The view of totality is an understanding that allows and holds multiple views at once: the ego view, the essential view, the boundless view, the view of one or another realization, the Christian view, the Buddhist view, the view of nonduality, the dual view, the view of being an individual, the view of not being an individual, and infinite other views…So this view is totally open and open-ended. The importance of such a view is that when we fully understand the view of totality, we don't need to stick to any one particular view. We can

> acknowledge and include many different views and, at the same time, the perspective of totality gives us the freedom to take any one view at any particular time without having to adhere to that view as our ideology or as the final word on reality. (p. 92)

This understanding recognizes that there is no final experience or way of looking at it. As the quotation by Satprem described, there are always more possibilities, more perspectives, and more metaperspectives, and the result is, as Almaas (2014) subtitled his book, “a life of ceaseless discovery.”

A closely related potential is a higher order integration of perspectives. Almaas pointed to this. So did Aurobindo (1970) who claimed that in the higher reaches of postconventional development, the Higher Mind may be able to recognize and integrate all relevant perspectives, “seeing at a single view” and “capable of infinite enlargement” (p. 940).

And finally, all perspectives may dissolve into transperspectival awareness. From this awareness, perspectives can then be allowed to reemerge, beneficial perspectives can be selected, with their partial selective nature recognized, and their transperspectival, transpersonal ground remembered.

Fostering Perspectival Capacities and Wisdom

Can these perspectival capacities be fostered—and with them, wisdom—and if so how? Again there is very little research. However, two families of approaches may be helpful: general and specific practices.

General practices enhance overall psychological health and maturity, and thus facilitate multiple capacities, presumably including sapiential and perspectival capacities. These practices include a wide array of lifestyle, psychotherapeutic, and contemplative disciplines (for reviews see Walsh, 1999, 2011; Yalom, 2003). Specific practices or disciplines aim at fostering specific skills, in this case perspectival skills.

Specific Practices for Cultivating Perspectival Skills

At least seven kinds of specific practices may be helpful.

1. Learning about perspectives and perspectival skills. Learning about potentials, such as perspectival skills, as well as their benefits and the possibility of developing them, may inspire some people to begin doing so.

2. Social contact with, modeling by, and transmission from wise people who are perspectivally skillful. This is a specific example of the social learning theory principle that many skills are learned by observation and imitation of skilled exemplars.

3. Instruction: Active instruction in perspectival skills — such as recognizing, assessing, and consciously choosing perspectives—is a common element of coaching and psychotherapy.

It is especially common in cognitive therapy and neurolinguistic programming which emphasize reframing (Beck & Weishaar, 2014).

4. Reflective dialogue aimed at mutual learning, growth, and emancipation is a venerable and powerful technique. Varieties that have flourished for millennia include Socratic dialogue, Tibetan Buddhist debate, as well as Jewish Torah study where “one works in a dyad called a *chavruta*. The two partners learn together, challenging one another lovingly, sharpening one another, working toward truthful understanding…” (Boettiger, 2014, p. 18).

Dialogue can unveil the limitations of individual assumptions, such as those that fuel psychopathology, as well as of collective assumptions, such as those that support cultural hegemony, inequality, and injustice. Reflective dialogue is therefore a central element of several therapies, educational systems, and social movements. These include group psychotherapy, “consciousness raising circles” such as those of the women’s movement, “transformative learning” for adult education, and Paolo Freire’s “culture circles” aimed at cultural and social emancipation of the poor. Considerable research evidence supports the effectiveness of such groups and dialogue (Merriam, Caffarella, & Baumgartner, 2006; Mezirow, 1990; Yalom & Leczsz, 2005).

5. Novel experiences: Exposure to novel experiences has long been known to offer mental stimulation and foster creativity. Historically, regions of intercultural mixing have been notably creative, and travel was said to broaden the mind. The value of novelty is borne out by research suggesting that transformative learning is enhanced by “putting participants in unfamiliar and new situations, ... maximizing the diversity mix of participants, ... and repeated team opportunities balancing action and reflection” (Lamb, 2003, pp. 266-267). Presumably, novel experiences, ideas, and cultures call unrecognized personal and cultural assumptions into question, and promote the exploration of new perspectives.

6. Education: The proper goal of education is perennially disputed. At one extreme is the technical–economic goal of providing students with the information and skills to find jobs and fuel the economy. Very different is the developmental–cultural goal of fostering questioning and growth for individual and cultural maturation. Both goals are obviously necessary, though it is a perennial struggle to preserve the developmental–cultural goal against economic forces.

Adult education which aims for developmental goals is often called “transformational learning” because it aims, not just to fill learners with facts, but to transform how learners view themselves and their society. It does this in significant part by encouraging students to question their assumptions and broaden their perspectives. A central technique is “critical reflection” to question the validity of assumptions, and then “reformulating the assumptions to permit a more inclusive, discriminating, permeable, and integrative perspective.... *More inclusive, discriminating, permeable, and integrative perspectives are superior perspectives*” (Mezirow, 1990, p.14). Hopefully, this kind of assumptive and perspectival transformation leads to greater maturity and wisdom since “although wisdom cannot be taught in the same way as intellectual knowledge and technical expertise, it can be taught indirectly by helping students to view and experience the world from many different angles...” (Ardelt, Ackenbaum & Oh, 2014, p. 288).

Three transformational learning programs have been especially influential. These are the German *Bildung* tradition of personal and cultural maturation, Paolo Freire’s social emancipatory education, and Jack Mezirow’s transformative learning.

A core goal of transformative learning is recognizing and growing beyond limiting assumptions and perspectives. Learning is thought to occur via four main processes: experience, critical reflection, reflective discourse, and then action to express one’s new perspective (Mezirow, 2000; Taylor & Cranton, 2012). “Probably more than any other approach, this [transformational learning] theory has captured the attention of educators over the last fifteen years” (Merriam, Caffarella, & Baumgartner, 2006, p. 157).

7. Deliberately adopting other people’s perspectives may be beneficial (Bassett, in press). Clint Fuhs (2010) and his colleagues have developed a group exercise “The Meta-Practice” where members practice adopting each other’s perspectives and metaperspectives.

8. Adopting novel spatial or imaginal perspectives is a time honored philosophical and contemplative practice. Many traditions recommend reevaluating one’s life and priorities from a larger perspective, such as the infinity of space or the eternity of time (Hadot, 2002; Walsh, 1999). In *The Republic* (486A), Plato urged us to develop “a mind habituated to…the contemplation of all time and all existence,” a cosmic perspective which disentangles us from mundane obsessions. As the Stoic philosopher Seneca put it picturesquely, such a mind “casting a contemptuous glance at the narrow globe of the earth from above, says to itself: ‘so this is the pin-point which so many nations divide among themselves with fire and sword? How ridiculous are the boundaries of men!’” (cited in Hadot, 1995, pp. 98-99). Metaperspectives can be revealing and freeing.

9. Meditation has long been the cornerstone of advanced contemplative practice and is now the most researched of all contemplative and psychotherapeutic disciplines (Walsh, 2014a, b). It is widely held to foster wisdom, and the famed Rabbi Nachman claimed “One who does not meditate cannot have wisdom” (Buber, 1970, p. 37). As yet, there is no contemporary research on its effects on wisdom or perspectives.

However, certain meditation practices, especially mindfulness and analytic practices, may be helpful, both generally in catalyzing psychological growth, and specifically in enhancing perspectival skills. Mindfulness and analytic practices foster careful observation of experience and disidentification from mental processes, which are both probably central processes in perspectival and metaperspectival skills.

Conclusion

This article offers multiple varieties of evidence and lines of reasoning suggesting that perspectival skills may be central elements of wisdom and essential ways to foster it. As yet there is little research on either wisdom or adult perspectival capacities, and so the suggestions presented here are initial forays into the relationship between these two important skills. These suggestions are hypotheses that will hopefully in time be tested, and thereby enhance both wisdom and perspectival capacities.

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INTEGRAL REVIEW

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Editorial to the Special Issue of Integral Review on European Academic Trends and Contributions to Integral Studies

Marc G. Lucas and Matthew Rich-Tolsma

Keywords: Europeanness, integral theory and practice, integration, integrative complexity, knowledge.

The Meaning of and Contribution to Europeanness by Academic Integral Theory and Practice

What does 'integral' mean in the context of the European academy? This special issue of Integral Review aims to address this question through highlighting integral theories, methodologies, and research practices related to the European context. It is important to raise this question in this manner at this time in order to distinguish between the popular usage of integral as an umbrella term for various kinds of worldviews, often with a spiritual connotation and the historical and emergent academic movements towards "integrative approaches" and "grand theories." European thought would differentiate between two dialectical tensions related to these two fields, which could be described as a) (quantitative and analytic) natural science and (qualitative and holistic) humanities/art (Geisteswissenschaften) and b) religious dogma and spiritual experience. Whilst in this sense engaging in both of these fields may have a specific role to play in the unfolding of what "integral" means in the European context, our focus in this special issue concerns deepening understanding of academic integral theory as a process which assumes possibilities of advancing the integration of such knowledge stemming from the natural sciences as well as the humanities, practically, theoretically and meta-theoretically.

In our view the Special Issue is timely as there are some recent developments within European society and the European academic context that make it not only necessary to develop more integrative engagement, but also indicate some "proto-integral" trends. The whole European idea started as a myth of integration of the union of human beauty and wisdom, with the bull the symbolic representation of strength and fertility (Everett-Heath, 2000). And today "Europe is a dynamic plurality of ideas and rhythms which aspire to finding common ground within a framework of diversity" (Prats & Raventos 2005, p. 27). Of course such common ground can never be achieved easily and as a final solution. Deep forms of dialectical thinking therefore have quite understandably emerged within the European context and shaped academic endeavours towards striving for temporary synthesis and complementarity which is always aware of its often dilemmatic and discontinuously changing Gestalt. Such development can for example be seen in recent debates on the migrant crisis, where blame games and disunity stand against a growing understanding of the need to find new and better solutions to such complex crises. In such discourse an underlying European theme can be found which might best be described using Vergara's (2007) statement that Europe is constantly working towards a common identity, which, from the point of view of human diversity (both individual and collective), should have as

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> the basis and intangible beginning of the old and yet new European identity mankind and its individual, social and transcendent rights [...] Europeanness is a quality far richer than any unilateral reductionism brought about by modernity. Above all, it is a way of being and acting, which has had, as the non-renounceable basis of its construction and historical identity, mankind and its moral, intellectual and transcendent character. (pp. 15-22)

In the field of academia the 5th Euroacademia Global Conference "Europe Inside-Out: Europe and Europeanness Exposed to Plural Observers" held in Barcelona, Spain in March 2015 might be an example of recent explorations of such Europeanness. It is as well a topic for current organizational research within academia. The authors Meyer and Boxenbaum (2010, p.738, pp. 751-752) regard this research in Europe as being rooted in a long-standing humanistic tradition of a more philosophical and social scientific nature. For them European research is often grounded on the work of grand thinkers. Equally, Europeanness leans towards more macro-oriented, critical, and processual approaches. Receptiveness to alternative paradigmatic perspectives is more accepted within European academic cultures. In this sense current European integrative frameworks like syncretism (Martinez, Peattie & Vazquez-Brust, 2015) advocate the reconciliation of economic imperatives and environmental concerns via the reintegration of corporate objective (or systemic) and subjective (or constructionist) contingencies. Within European thought the struggle of "Widening horizons beyond national boundaries" (Hickson et al., 1980, p. 1) is a constitutive driving force.

The few attempts to define Europeanness in a positive way include terms such as multi-disciplinarity, reflexive methodological stance, critical scholarship, and socio-political orientation. The authors conclude that Europeanness, if the term is applicable yet, reflects a spirit of engaging with grand thinkers of the present and the past in attempts to integrate the different linguistic communities included in the respective research. This linguistic and multi-disciplinary diversity often stimulates European research to reflect on the nature of relationality and integration of disparate findings from a more complementary and/or comprehensive perspective. In such attempts a proto-integral orientation can be seen, in light of which the contributions in this Special Issue can be contextualized.

Nevertheless Europeanness still focusses on a hyper-rationalistic, multi-linguistic but still language bound research orientation in a post-modernist way. This assessment leads to the following exploratory attempts at a journey into an alternative, maybe post-postmodernist research perspective. The articles in this special issue indicate possible ways of how such integral thought could contribute to the current state and defiances of European academia. In these recent developments of sense- and meaning-making structures, integral thought quite naturally participates by being grounded in the current European life-condition and concomitant historical cultural tradition.

In this sense the special issue is highly relevant to today's changing European Gestalt and can contribute to the emergence of its more integrated shape which might be more adaptive to the pressing complex issues at hand.

The Content of this Special Issue

Shaping a structure for the content of an issue of Integral Review is not a trivial task to undertake. In the best sense of the term "border-worker" (Horlick-Jones & Sime, 2004), all the contributors in this issue share an intellectual work that all too often stems from the respective author's condition of living on the borders of the academy and civil society while engaging in their work in addressing a rich diversity of complex problems. Accordingly, submissions from European researchers presently working in the academy are brought together with such contributions from primarily independent scholars.

While in this sense being aware that the contributions of each author have theoretical as well as practical relevance, the issue is nevertheless separated into two sections. While section one Integral Theorizing in European Academia, includes papers that are dealing with issues that are more focused on theoretical and methodological reasoning, section two, Integral Practice and Applications in European Academia, covers contributions that are dealing with and focus on integral practice and/or applications.

In section one several authors have inquired into which modalities of knowing can be identified as legitimately scientific from an integral academic perspective as outlined above. This suggests the importance of engaging in research on philosophy of science, sociology of knowledge, and economics. The authors have critically dealt with a wide range of integrative approaches and streams of thought especially including those of European origin in service of this inquiry. But these papers not only deal with topics related to deepening our understanding of what "integral" might mean in a European context. Rather they also approached the topic using integrative methods, mixed methodological inquiry, the scholarship of integration, and transdisciplinarity.

Lucas' art-inspired and phenomenological inquiry delves into an integrative investigation of developmental trends bringing together first, second and third person multi-method approaches. Self and long-term societal transformations are being merged and united in a visionary process-form of a Moebius strip. The dialectics of art and science foster such a movement. The whole process is being reflected within the philosophy of complexity, adult developmental theory and recent scientific findings especially from neuro-psycho-economics.

Hagström and Stålne enter such an arena via a more adult developmental perspective. In their article especially the generality claims of some of these theories are being reflected upon. Such claims are usually interpreted as being opposed to each other in every general model of adult development and therefore are usually seen as incommensurable. Seemingly they contradict existing domain specificity claims as well. In interrelating Kegan's Subject-Object-Theory with Common's Model of Hierarchical Complexity within a thought experiment, the authors explore dialectical reasoning to come to a more complex re-solution to a long-term debate within adult developmental psychology. Again, subjectivistic and objectivistic scientific positions are being pacified and postindustrial societal relevance of such complex reasoning is being discussed.

Laske explores the social dimension of collaboration e.g. within profit organizations via his dialectical thought form. Such self-awareness fosters late adult cognitive development post formal reasoning by integrating e.g. Bhaskar's dialectical theorizing with social-emotional components. Adult developmental approaches are being incorporated in a grand theory approach discussed here.

Fein closes the more theoretical articles included in section one by showing how such integral thought – as explored in the three articles before – relates to recent trends within organizational studies. By comparing the so-called Practice Turn to its forerunners within classical modernity of science from a more integral perspective, she appreciates the emergent qualities of such post-modern practice oriented theorizing and as well indicates a surplus which could be given when a more integral perspective would be taken. Again complexity, inter-relationality, cross-field multi-perspectivity and multi-method inquiry as well as the developmental perspective are being demonstrated as a genuine integral contribution within European integral thought.

In section II, other responses in this Special Issue highlight and inform how such integral approaches are relevant for addressing a multitude of ecological, economic, societal and individual-related issues in Europe. These papers give an impression of what impact integral practice and applications can have. For this they are describing examples of practice and applications of integral thought in such diverse fields as organization and management studies, collaborative learning in educational programs, nation building, and climate change engagement. One of the aims of this special issue is to showcase European academic talent and projects in such endeavours, that combine individual with collective (large-scale) as well as inner and outer perspectives on such pressing topics.

In this sense Küpers, Deeg and Edwards use the inter-relational metaphor of a bridge for their phenomenological investigation into "syn-integrality" within organization studies and practice. Dialectical and integrative orientations are being explored in their relevance for a new approach to organizing. Lucas' more phenomenological-visionary, Hagström's and Stalne's more developmental and Laske's more dialectical lenses are applied to Fein's organizational topic.

Aschermann and Klenzan give an insight into recent research in the field of pedagogics. A constructivist perspective and as they say trans-disciplinary approach is combined with their Cologne model which is built upon a four quadrant heuristic widely utilized in integral theory. In their discussion – as in Laske's article - again collaboration, self-awareness and learning stand in the center of the practical considerations. Their aim is to give a fresh perspective and some practical advice for teacher training to foster such collaborative learning.

Wagner gives some insight into a large-scale application of classical integral models within nation-building processes. Through the Yalla program – initiated and supported by the German Federal Foreign Ministry – he was one of the leading designers in shaping intercultural management trainings in which young leaders from the Middle East and from Germany were brought together under human developmental and value systems perspective. The Spiral Dynamics model was used as a lens for the training and development research undertaken.

Hampson and Rich-Tolsma offer some perspectives on the relevance of transformative learning for engaging climate change, by suggesting the necessity of developing a complex integrative, or reconstructive postmodern, worldview in order to address this wickedly complex problem. The article is an opinion piece exploring this transformation of worldview in terms of regenerating practices, perspectives, and principles. The authors draw particular attention to the critical contrast between atomism as an attractor for modernism, and complex integration as an attractor for an ecological worldview, and attempt to valorize transformative learning as one apt approach for facilitating this critical engagement.

All in all the papers in section two give some insight into the wide range of relevant, complex and pressing challenges integral approaches engage with from a European perspective. Together with the articles from section one a rich selection of European academic thought and practice is presented in this special issue, which outlines the different aspects of Europeanness discussed at the beginning of this editorial.

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Re-viewing Self and Societal Development from a Postformal Perspective: An Artistic De-concealiation, Reconciliation and Trans-formation

Marc G. Lucas[1]

Abstract: The aim of this paper is to attempt to do justice to the chosen topic, including regarding its design. In a conscious distinction from the more conventional, materialistic, rationalistic, and quantitative approaches that prevail today in the economic and social sciences, the focus of this study will first be placed on consideration of images, contextualising the way in which I perceive them (first person perspective). Thus the paper is structured along sequential instances of experience and concomitant reflection bringing together such different paradigmatic positions as artistic and scientific approaches to individual and collective developments within an integrated approach that includes and transcends conventional thought. Together with statements from several artists and their works of visual arts (second person perspective) and in a mutual exchange with third person approaches from current psychological, economic, and neuro-scientific debates this will create an integrated systemic image, which in particular allows a deeper look into the underlying overall developmental theme. Every section of the article will be introduced by two correspondent statements, one written from an artistic more introspective perspective and one from a philosophical or scientific position to point out the main tension experienced and discussed within the section. Main aim is to allow to arise cross-fertilization in the sense of a hermeneutic circle. This circle finds its dynamically-sustaining shape in the form of a Mobius strip. Philosophical contributions in particular from phenomenology and complexity theory complete the picture, thus creating a conscious draft, which is aware of its own subjectivity. Ultimately the simultaneous inclusion of artistic and creative skills carried out in this article, goes beyond individual paradigms of a formal logic inherent in existing theories of development toward a more inclusive and visionary logic of the art looked at/and artistic lens seen through.

The numerous paintings and other visual art referred to in this paper cannot be included in the text due to existing image copyright. However they are clearly identified by the mention of each title so that they can be retraced using popular search engines on the Internet. I hope that readers interested in a deeper understanding can gain their own pleasure and inspiration from this paper when (re)searching the paintings as well.

---

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Keywords: adult development, art, dual-process theory, epistemology, inclusive logic, integration, integrative complexity, knowledge, neuro-psycho-economics, postformal reasoning.

The Experience of Being Lead into (intro ducere) Intro-spection and Ex-(s)pectation - in Frankfurt's Schirn Kunsthalle, 2011

> *Words of science and all other attempts at description are ways of concealing phenomena rather than elucidating them*. (Merleau-Ponty, 1969, p. 21)
>
> corresponds to
>
> *The artist has the most important task to fulfil in our society, since all other fields are apparently a failure. That is why the artist must ensure and contribute to the world's renewal. Humanity needs to be shown a new way*. (Hundertwasser, 1982 taken from Hirsch, 2011, p. 173)

After a demanding day of consultancy discussing the issue of crisis prevention with a company in the tourism industry I, shortly before closing time, “took my-self” off to a special exhibition displaying works by the French painter Gustave Courbet. My gaze was captivated by a self-portrait. The artist Courbet stands considering what is probably one of his artworks, although you cannot see it. With wide eyes, his hands tearing at his hair, you see him as "The Desperate Man" (1844/45). What makes him so desperate are internal thought processes which are not directly revealed to the viewer. So is there really nothing to see? The painter Mark Rothko said *“There is no such thing as a good painting about nothing”* (Johnson, 1982, p. 14). After some time I read a statement by Brough (2012) which relates to the experience previously made:

> *Paintings that matter are about something that matters. But precisely because the painting itself, as an image, has the peculiar nature of being “nothing” that it can be about something. Images enrich our experience by folding into themselves the world and our relation to it, our feelings and our beliefs, offering them to our contemplation and bringing their truth before us, moving and delighting us. Though images may be nothing real, nothing embraces reality better*. (p. 562)

From a neuro-scientific perspective, according to Kahneman (2011), what happens at the original art encounter creates a priming effect on the viewer. The viewer's thoughts are steered in a certain direction, associating their current perception with appropriate thoughts. Even on an emotional level, processes are set in motion, which are correlated in terms of neuro-scientific findings with the firing of mirror neurons (Rizzolatti & Sinigaglia, 2007). At the exhibition out of the chaos and turmoil that the contemplation of such an image and the uncertainty about the underlying content of what is being viewed elicit, memories of other paintings and engravings, which at their time elicited similar turmoil, are evoked. The internal picture collection is quickly reduced to a few examples which are historical precedents to the picture currently being viewed. Courbet's gaze can be compared to the frightening gaze of a chimera in Fuseli's "The Nightmare" (first version from 1781). A pale (and possibly wise) woman is depicted on a bed, helplessly exposed to this ghostly creature and an ape-like (animalistically prehuman) demon. In Goya's

1797 painting, "The Sleep of Reason Produces Monsters", a central figure has also fallen asleep and is surrounded by creatures of the night. What looks like bats in the shadows turns out on closer inspection to be an owl, a bird of wisdom. For the viewer this is a sign of a dialectically charged relationship in the suspense of a whole era between the early progressive forerunners of the French Revolution and their decline into post-revolutionary restoration. The synthetically removed dialectic is symbolically surrounded by reason, associated with light (the Enlightenment, siècle des lumieres), and emotions banned to the darkness, hence the shadows. That the "Nightmare" was exhibited in exactly the same year in which Kant (1781) defined "ratio" as a universal instance of judgement in his "Critique of Pure Reason" seems, bearing this in mind, to be more by design than by accident. From today's perspective, one could agree with neuro-philosopher Metzinger (2009, p.17) that *"many deep forms of conscious self-experience have become all but impossible due to philosophical enlightenment and the rise of science and technology."* From earlier social-philosophical contributions, in particular from the Frankfurt School, we are also aware of one of these tensions and contradictions of early modern critiques of a simple glorification of the Enlightenment. Horkheimer and Adorno (1944) took such considerations as a basis for their seminal work "Dialektik der Aufklärung" (Dialectic of Enlightenment). And as is so often the case, there are notable artistic contributions, and those borrowed from art, which prematurely anticipate such ideas from creative material. For example, Hugo (1827) expressed *"even the mortal part of [dualistically imagined] people, the counterpart of reason, the naturalistic, the bodily, whose displacement is increasingly proven by the proponents of Enlightenment to be an illusion, should come into its own right in art."* And Hegel (1979), the forefather and father figure of dialectic, wrote in his lectures on the history of philosophy from 1819 *"The great presumption that reason is received in the world on this side is then nothing more than a belief in providence, simply by other means."*

Where science often comes along as a desolater of basic assumptions and does so apparently without prejudice, is seemingly the point at which art, in turn, can better shed light on historical relationships and inter- and disruptions in the central motifs of an era. It can do this precisely, because it was banished to the shadows by the science since the age of Enlightenment. Precisely insomuch as the mainly representational function of art ended at the time of the French Revolution, almost exclusively due to a lack of customers placing commissions, artists had to find a new way to conduct business and define themselves. However, it was exactly this conjuncture that made their situation difficult and frequently even prevented them working. Eisner (2008) reveals the following picture of an era of upheaval.

> *Science's belief in reason became the driving force of that age. From then on art and its possible contributions were banned from the conscious(ness) approaches of enlightenment. Part of the reason for the separation of the arts from matters epistemological pertains to the belief, a true one I would argue, that the arts are largely forms that generate emotion.* (p. 3)

The artist found himself here forced into the position of a jester who had no choice but to hold up a mirror to society in order to be seen. Michel (2006) commented on this as "*Irrational, sentimental, romantic, poetic, emotional and intuitive art became a complementary element to dominant self-concepts and worldviews. Pictures had the mission to bring us in contact with the subsurface of reason"* (p.117). This changing function in part pushes art drastically to the forefront and does this, for example, with three works that revolve around exactly these epochal changes in France, from the glorified image of the Sun King Louis XIV, to Delacroix's Revolution Painting (1830), to Siegmar Polke's 1988 work entitled "Liberte, Egalite, Fraternite" on which the guillotined and impaled heads of revolutionary leaders can be seen after the revolution had "devoured their children," in line with the famous quote by revolutionary Vergniaud of 31.10.1793. In the case of Polke as well as other contemporary artists like Förgs with his “beheaded bronce heads on iron rods” (1990), and Baselitz’s “lying boneheads” from the early 1980’s such artwork can be seen as anticipatory intuitions of the later Eastern European revolutions. Especially with contemporary artists such as the ones named above, it can be deducted that such a trend is not only historically traceable, but is always present in its treatment of things which are as yet incomplete and at the same time invoking the burgeoning new. This is the repeated theme of grand theorists, among other things, for example, in Beck & Cowan’s (2005) words that we are going forward and backward at the same time, or when Scharmer (2009) as part of his theory calls to lead from the emerging future. Morin (2008) writes about the consequences of such knowledge as part of his new complexity paradigm when he states

> *But what we are persuaded of is that if our current logico-mathematical apparatus corresponds to certain aspects of phenomenal reality it does not correspond to its truly complex aspects. That means that our logic has to develop itself, and go beyond itself in the direction of complexity. It is here that, in spite of his deep sense of the logic of biological organization, Piaget stopped at the edge of the Rubicon and sought only to accommodate living organization at the previously established logico-mathematic formalization.* (p. 21)
>
> *For it is obviously the whole structure of the system of thought that is finding itself thoroughly shaken and transformed.* (p. 35)

This segment has begun with the experience of a work of art by Gustave Courbet. By citing Morin on the issue of complexity it finally has led to recent developments within adult developmental psychology and consciousness studies. Consequently it is closed with a déjà vu like experience in May 2014. After speaking at the Symposium of the European Society for Research on Adult Development in Helsinki, I visited Kiasma Museum of Contemporary Art. While strolling inside the building with its staircases winding in different directions and with its slope like curving corridors, my gaze was captivated by another intensive gaze of a desperate person within a context of trauma. Having a closer look at "The Silence of Nduwayezu" (1997) was a moving experience for me. It so authentically made visible how overwhelming it can be to look into another person's eyes and how in these eyes for a compassionate observer can be revealed how frozen the whole self can become with such a traumatic experience as this child's one. In piling a million identical slides up in the artist’s installation, I got the impression of a monument for all the people with similar tragedies. The installation exposed, how a living/life-Gestalt, that should be light, able to develop and composed of a myriad of different "Augenblicke" (lucid intervals), which should be shaped into an individual trans-form of sense and meaning by the individuals themselves, can in such cases be shaped into a frozen, dark and uniform mountain of inescapability. Nevertheless human development happens against and sometimes in light of such experiences and this is, what psychologists like Frankl (2006, originally 1946) and later Antonovsky (1987) reported within their existential and positive approaches to psychology. Newer approaches (e.g. Slavin-Spenny et al., 2010; Tedeschi &

Calhoun, 2004) turn to the sometimes positive developmental impulses such a crisis can foster as well, while not neglecting the constraints which are nevertheless remaining. With the term “post traumatic growth” such a potentially wisdom oriented form of a postformal adult development after traumatic experiences is being investigated within contemporary psychology.

Most of the general adult developmental approaches heavily lean on the seminal work of Jean Piaget (1954) on individual cognitive development though. In his perspective human development ultimately leads to a final stage of formal operations only within adolescents and adults. The process of such a development can be described in the qualitative reorganization and refinement of meaning-making systems with a trend towards more complex and increasingly differentiated and integrated definitions of self and of the world. This development is driven by the tasks a highly complex environment has for the individual and the need to adopt and accommodate with this environment. In line with the conservative nature of mankind, in periods of environmental stability individuals would tend to assume that their models of the world are true replicas of it and refrain from further developmental endeavours which diminishes their potential for more complex and more integrative reasoning which can be seen as stages of development. Recent approaches within the field of adult development and structure genetic developmental psychology (Commons, 2008; Kegan, 1994) go beyond the assumption that human development is primarily of a cognitive nature and reach the final stage during adolescence. In their view postformal stages can best be described by a willingness of the individual to question the conventions and meaning structures which limit reasoning. As early as in the 1980’s adult developmental psychologists like Basseches (1980) described an advanced developmental stage that goes beyond adolescent formal operations towards a more creative postformal-operational stage of organization which reflects dialectical thinking. Leaders with a centre of reasoning in such a stage of nonlinear reasoning often adopt a systemic, long-term vision of complex developments as e.g. within their organisations and therefore can be identified as effective change agents (Rooke & Torbert, 2005). Peng and Nisbett (1999) framed the term “integrative complexity” for such an orientation. Finally Kallio (2011) argued for a postformal stage called “integration”, which involves the synthesis of opposing systems of knowledge into a “whole that is greater than the sum of its parts” – a phrase taken from Gestaltpsychology.

In the following segment I will argue for an artistic practice that has potential to give access to such more integrative and more complex stages of adult development by transcending and integrating formal reasoning and reveal the historic process that especially in the European culture has led to such a human development on the collective level. Within an approach that follows a more inclusive logic (Nolt, 2010) it is not only assumed but also lined out, that paradigmatic stances that are normally regarded as antagonistic can be temporarily reconciled to create complex transdisciplinary knowledge (McGregor, 2015).

Light and Shadow as Linked Phenomena Within the Artistic Endeavour: De-concealing Visual Expressions.
Neuroscience Spring School of BION (Giessen) May 2014

> *Prior to assuming roles as academics and learning the language of the academy, we did not put names on how we (and others) came to know the world. But, as professors, we*

> *quickly came to know that our jobs were in large part defined by our abilities to attach words of explanation to phenomena, experiences, processes, contexts, and systems. We soon discovered, however, that the predominant language – or discourse – of the academy did not ring true to us or how we perceived our task.*
>
> *We quickly became disillusioned by the moat of science and mysticism built to keep researchers in and communities out of the ivory tower. ... The language of the academy and all that it symbolized fell short in its ability to capture and communicate the complexity of human experience in all its diversity.* (Cole & Knowles, 2008, p. 57)
>
> corresponds to
>
> *To paint is to release extraordinary powers, because painting gives you a chance to invent a language and to venture into distant regions which are a long way off. I believe that painting takes us deeper than anything elseinto the unknown.* (Hundertwasser, 1973 taken from Hirsch, 2011, p. 143)

Within the scope of several planned and implemented neuro-economic publications that attempt to link current dual-process decision theories with adult developmental approaches (Lucas & Caspers, 2014; Lucas, 2013; Lucas, 2012; Caspers et al., 2011, Caspers et al., 2012), I took part in an event at the Bender Institute of Neurosciences (BION) of the University of Giessen. I considered many new impressions, in particular relating to carrying out such studies, on the basis of their epistemological dubiousness. When researching topics of interest with the aim of presenting research design possibly of relevance to the management team, an article by Vessel, Starr & Rubin (2013) caught my eye. In this paper, references to the importance of looking at art for the transformation of the self-concept are given from a neuro-aesthetic perspective. The starting point of the search was Starbatty's (2009) fundamental criticism on what he views as the outdated image of humans as "homo economicus,, which he formulated in his book "das Menschenbild in den Wirtschaftswissenschaften" (The image of humanity in economics) as well as Rost’s (2008) paradigmatic critique of the homo oeconomicus as a fiction of standard economics and Huebner’s (2005) “Dark Age” of innovation he frames for the condition modern economics are in. The dotcom bubble of 2000 and the financial crisis which began in late 2007 immediately preceded these conservative and progressive author’s contributions, which in the eyes of many people is seen as a moral judgment on the uncritical market idolisation of our post-industrial fiscally organised and structured society. Pareto (1906) originally stated that, as a basis of core economic theories, homo economicus should be understood to mean use and performance optimisation in the sense of rational maximizing choice. This optimistic human image of the economy continued the absolute rationalism of the early Enlightenment and expanded it to the operational performance of underlying meritocracy, but obscured the multi-dimensional nature of people and their deeper dialectic. However the pure homo oeconomicus could not be found within any human society in empirical cross-cultural research but within chimpanzees (Jensen, Call & Tomasello, 2013). Instead of a pure rationalistic maximizing behaviour, neuro-scientific dual-process theories of cognitive functioning postulate a dual nature of thought under varying titles and ascriptions (a compilation can be found in Evans, 2008) and with a conscious and a (when used in a more complementary way possibly superior) sub-conscious part (Evans & Stanovich, 2013).

Most often such theories distinguish between autonomously cued intuitive or “Type 1” processes that require few capacities traditionally seen as “cognitive resources” on the one hand and “more deliberate” “Type 2” processes that require working memory capacity on the other (Evans & Stanovich, 2013). The latter can be equated with Piagetian formal operations within developmental psychology. In concordance with Rosch (2008) and Depraz , Varela & Vermersch (2003) a necessary complementary way to foster postformal consciousness development focuses on developing the ability to grasp the essence of phenomena without going through “Type 2”-like mental analysis in and as an act of unprecedented creativity (Baron & Cayer, 2011). This act goes beyond cognitively recognizing and reframing meaning structures which in the end does not help to see beyond these structures. It thereby establishes a second form of “Type 1” process. In Rosch’s words this form of intelligence involves suspension of preconceptions and provides access to direct knowledge, which is imbued with basic wisdom.

According to Baron and Cayer (2011)

> *Overall this second way of fostering one’s own consciousness development seems to give rise to states of consciousness that are characteristic of the very advanced stages of consciousness, in which the subject-object duality subsides. These valuable experiences can momentarily increase the soundness of our decisions and indicate the path toward continued personal development.* (p. 350)

Art has long been pre-configuring such ideas with e.g., the painter Carl Gustav Carus (1846) writing before Freud *"The key to the understanding of the nature of the conscious inner life of man lies in the region of the subconscious"*, or as Victor Hugo (1827) before Jung wrote on the subject of the collective shadow *"Dealing with the darkness is the key to knowledge of the world.”*

The shadows therefore already before Jung’s contribution to psychology symbolises the negative, socially undesirable, and therefore suppressed personality traits, states and levels of development that are relegated to the unconscious. Looking to the future, the author of the surrealist manifesto Andre Breton (1924, p. 21) writes *"I believe in the future resolution of these apparently contradictory conditions of dream and reality into a kind of absolute reality, if you may so express it: surreality."* Such statements, however, make the artist suspicious to the economist. Freiesleben (2010) provides the alternative concept to the self-image of managers.

> *He attracts and repels, because he is both negation and reference to a synthesis ... thus he becomes a shadow, devalued. He dreams, he is unrealistic, he is undisciplined, his work is without plan or goal. He takes liberties where conventions and rules determine human interaction. The result is, as expected, unprofitable art. ... But the entrepreneur too has his clichés, in which he likes to be reflected: he is hardworking and ambitious, disciplined and responsible, his thoughts and actions are based on facts and figures, he is dynamic and assertive, always resilient, decisive, and willing to take risks. He likes being homo economicus, which defines economics for him as the ideal type of economic activity. When he renders his business account, the profit earned is the rightful proof of his power.* (p. 114)

Its dark side shows a meritocracy so composed that this early Enlightenment paradigm is reaching its limits, thus creating paradoxes and contradictions. As an example, the exclusion and devaluation of that which does not fit into the scope of the work should be mentioned. This does not only apply to the artist, but even more so to the long-term unemployed, who challenge our self-image and societal image. The long-term study "Deutsche Zustände” (German Conditions) by the Bielefeld Institute for Conflict and Violence (Heitmeyer, 2011) showed, for example, that 56% of respondents have a disparaging or hostile attitude towards the long-term unemployed. The director of the Institute attributed this to the fact that economic thinking pervades all aspects of life and the social division of society increases despite falling unemployment. Using representative surveys, the study has explored the causes of "group focused misanthropy" since 2002. Milton Friedman's neo-liberal theme from 1970 (The New York Times Magazine, September 13), “*The business of business is business. There is only one social responsibility of business - to increase its profits”* appears, however, passé. This is not least since the "Economist" (2010) showed an image displaying the textbook "Modern Economic Theory" melting with underneath the title "Where it went wrong – and how the crisis is changing it". In a corresponding way Chris Boyd in the same year finished his plastic "The Book of Darcebu," which exhibits a volcanic eruption to break forth through a book that was apparently constructed of solid metal. Instead, now the way Starbatty (2009) worded it may apply, namely

Homo economicus, as economists envision him - humunculus economicus would be better - is not the description of a man of flesh and blood, but an extremely simplified artificial model created intentionally for the purposes of analysis in the context of study. (p. 17)

Genuine neuro-psycho-economic theories emphasise, for example, the limited rationality of decisions which are not made purely rationally and that homo economicus lacks an emotional basis (Peters & Ghadiri, 2011). Gigerenzer (2007) transfers this to management as an appeal for more "gut decisions". With this the now stronger neuro-psycho economic authored economics begin to become more flexible to current economic paradigms, which are more strongly constructivist orientated. In fact, current postmodern contributions demonstrate an epistemologically problematic position in their primarily deconstructive orientation. Hence their explanatory contribution is ultimately limited. When Metzinger (2009) postulates the "Ego-Tunnel" as a new image of man, he means the following.

> *An Ego Tunnel is a consciousness tunnel that has evolved the additional property of creating a robust first-person perspective, a subjective view of the world. It is a consciousness tunnel plus an apparent self. We inescapably live our conscious live through the Ego Tunnel.* (p. 11*)*
>
> *Out there in front of your eyes, there is just an ocean of electromagnetic radiation, a wild and raging mixture of different wavelengths. Most of them are invisible to you and can never become part of your selective and low-dimensional conscious model of reality.* (p. 20)
>
> *Scientifically there is only this incessant, self-regulating flow of neural information-processing, constantly perturbed and modulated by sensory input and cognition.* (p. 23)

Ultimately, this definition of humanity is as ego which is equal to nothing in a self-constructed epiphenomenal tunnel. This means the ultimate consequence of the scientific endeavour into the mind leads to the negation of a human image and at the same time the negation of everything else, thus everything of importance. Thereby society has reached exactly the point to which rationally constituted science has led and indeed could only lead since the beginning of the modern era and its postmodern extrapolation. Bohm (1996) thus claimed that scientific knowledge is infected with misinformation which pollutes human experience and leads to an "endarkenment" of consciousness. A dis-continuation, would have to explicitly include a process-oriented, integrated-systemic and developmental perspective that considers first, second and third person approaches to the observation of consciousness. Lawrence (2005) describes from such a perspective, *"Mind is not an identifiable entity, it is a transformative process" (*p. 28).

A morphological psychology (Salber, 2003), which is orientated towards perspectives of Ganzheits- und Gestalt-psychology, applies an "art-inspired psycho logic" to the self, which is not only anchored in mankind or in his mind, and which can only self-assess via change. Thus, the very different experiential modes of experience, orientated on impirical (in addition to empirical) knowledge, become significant. Bearing this in mind, Kozhevnikov, Evans & Kosslyn (2014) can summarise the findings of their extensive studies on "Cognitive Style as Environmentally Senstitive Individual Differences in Cognition" in the following way:

> *Most visual artists described their work-related thoughts as spontaneous, uncontrolled and outside of – or even against – their own conscious wills. They reported that inspiration could come to them almost constantly and could be triggered by life and work events, emotional experiences, and visual experiences. In contrast, scientists typically reported that they were in complete control of their ideas, in terms of both frequency/time of occurrence and content. Furthermore research findings suggest that visual artists are usually more skilled in the holistic processing of pictures than are scientists.*
>
> *Moreover a number of studies indicated that differences between visual artists and scientists along the sequential/holistic dimension not only appear at the perceptual level but extended to complex problem solving, such as abstract conceptual processing and approaches implemented in professional creative work.*
>
> *Despite the reported differences between the analytical, rule-based approach style adopted by scientists and the intuitive style adopted by artists, substantial historical evidence suggests that intuition plays a major role in scientific work…different scientists may come to the same discovery using analytical or intuitive methods, which suggests that these methods may be equally important in science… Overall the differences between professionals in analytical versus intuitive processing indicate that, although visual artists typically appear to be intuitive and emotional and scientists typically appear to be rule driven and rational, the task sometimes may dictate the approach.*
>
> *Scientists who prefer an analytical style at lower levels of information processing might seek intuitive understanding at higher levels of information processing. They often adopt a*

> *sequential style of information processing and, at the same time, an intuitive cognitive style.* (pp. 20-21)

Within organization studies such an orientation is being discussed under the term "adaptive expertise" (Paletz et al., 2013) as a creative and at the same time efficient cognitive style of expert innovativeness within individuals and teams. It is being found especially in pressing, complex and new business situations when existing strategies are inappropriate. Such a view - incidentally, a view that is often called the view of the dark and the shadows - has long been self-evident to artists. As an example, here are only two contributions by artists based on their creative process and two theoretical contributions from the fields of psychology and art history. "*Close your bodily eye so that you see your image first with the mind's eye. Then bring to the light what you see in the dark, that it may react upon others from the outside inwards"* (Friedrich, 1829 taken from Hinz, 1968, p. 94).

> *When the free and compacted expression of my personal impressions can be seen in my romanticism, my renunciation of the tediously similar characters in schools and my aversion to academic formulae, then I must confess that I am a romantic.* (Baudelaire, 1856 taken from Muther, Dent & Dutton, 2010)

> *Artists have always used their work to show the culture what it does not see otherwise. Art often exposes the negative space that forms a background, allowing the objective to stand out.* (Higgs, 2008, p. 553)

Mario Praz (1981) uses the following statement by Thomas Hardy as leitmotif for his standard work "Die schwarze Romantik" (Dark Romantics).

> *As in looking at a carpet, by following one colour a certain pattern is suggested, by following another colour, another; so in life the seer should watch the complementary pattern among several things which his idiosyncrasy moves him to observe.* (p. 25)

This obviously does not only apply to scientists and artists. In the article by Vessel, Starr & Rubin mentioned at the beginning of this section, based on an orientation towards materialistic and scientific research, it was described, how even the experience of exchange and of encountering contemporary art can again and again guide in such a "self-creative" process of becoming and understanding.

> *We propose that certain artworks can resonate with an individual's sense of self in a manner that ´has well-defined physiological correlates and consequences: the neural representations of those external stimuli obtain access to the neural substrates and processes concerned with the self – namely the regions of the DMN. This access, which other external stimuli normally do not obtain, allows the representation of the artwork to interact with the neural processes related to the self, affect them, and possibly even be incorporated into them i.e. into the future, evolving representation of the self.*

> *Unlike in self-referential emotions, in aesthetic experience the relation to others is not focused on appraisal but on sense of understanding, gained insight and meaning. In fact self-relevance is an integral aspect of intensely moving aesthetic experience.*
>
> *A co-activation of the DMN and stimulus-driven sensory system as we have observed for strongly moving aesthetic experiences has so far not been reported in any other context. Yet, if our self-identity is to be influenced by the world we inhabit, it may be that similar moments should occur with greater frequency than would be expected based on the current conceptualization of the DMN as a network that is invariably suppressed during mental activity which is directed at the external world.*
>
> *By that view, much of our existence may be well-served by switching between periods of dominance of externally-directed brain networks over the DMN and vice versa, but those periods are punctuated by significant moments when our brains detect a certain harmony between the external world and our internal representation of the self – allowing the two systems to co-activate, interact, influence and reshape each other.* (Vessel; Starr & Rubin, 2013, Art 258, p. 6)

Their finding show that the activation of the DMN was even higher than found in any research on the correlation of consciousness and meditative practice which is in line with findings from the research of Eisenberg & Miron-Spektor (2014), which shows development of creativity only among individuals with high levels of cognitive development but low levels of so called naïve dialectical thinking – a term phrased for Eastern meditative based reasoning. Newer media science studies support this view. Vorderer (2011) emphasised that mental gratification may only be commonly explicable through a combination of intellectual and aesthetic levels. Schwan & Hesse (2004) posit a co-evolution of the media and cognitive apparatus. They emphasise that the media have generated new patterns of perception. And Batinic & Appel (2008) add that not only does the intensive use of computer games not corrupt the visual perception of reality, but on the contrary even intensifies it. In this context, they argue for a prevailing visual-cognitive restructuring of an entire generation.

This phenomenon can also be easily traced on a collective level. From a sociological perspective it is interesting, for example, to list most visited museum exhibitions in different European countries in recent years. The following crowd puller art exhibitions on a national level fit well into this image:

- Gothic Nightmares. Fuseli, Blake and the Romantic Imagination (Tate, London, 2006)
- Edward Munch and the Uncanny (Museum Quarter, Vienna, 2009)
- Crime & chatiment (Musee d‘Orsay, Paris, 2010)
- L‘Europe des esprits (Straßburg and Bern, 2011)
- Constructions of the irrational in the art of Fuseli to the present day (Neues Museum, Nuremberg, 2011)
- Black Romance (Städel Museum, Frankfurt, 2012)

This segment has argued for a fundamental ongoing and in conclusion postformal development within the individual and society as well as science being part of it. Examples of specific contributions of the arts to such societal and individual development have been exhibited. Different perspectives have been taken to make the case for a more visionary and inclusive approach to developmental and consciousness studies. The next segment will shed light on the methods used and the contents and predictions of such contributions on an individual and collective level.

The New Being in Contemporary Art and for Future Developments: Reconciliations - EGOS Conference Rotterdam, July 2014

> *When I paint, I am dreaming. I mean, when the dream is over, I can't remember what I dreamt, but the picture is there. It's the fruit of the dream. I put aside a part of my personality. It comes from somewhere else. I mean, I switch of my intellect, I let something else take over.* (Hundertwasser, 1973 taken from Hirsch 2011, p. 138)
>
> corresponds to
>
> *Art-based research can be defined as the system(at)ic use of the artistic process, the actual making of artistic expressions in all the different forms of the arts, as a primary way of understanding and examining experience and meaning by both researchers [artists] and the people they involve in their studies [e.g. observers].* (McNiff, 2008, p. 29)

I was at a conference of the European Group for Organizational Studies. There were very stimulating conversations in a standing working group on "Art, Design and Organization". The subsequent discussions with two professorial colleagues with leanings towards integral meta-theorizing also promoted interest in art-inspired questions about leadership, organization and societal trends. In preparation for a contribution, a debate took place over the important article by Eisner (2008), on "Art and Knowledge", among other things. Here in particular, the issue of what contemporary art is able to offer to leadership and organization research in terms of findings and paths of knowledge was investigated - and if, indeed, of course it may be a matter of further discussion as to whether this should be a role of such research. Niglas (2010) for example acknowledges art in her multidimensional Model of Research Methodology as one of the many valid paths to scientific knowledge. Eisner himself in fact put together four such contributions for leadership and organization research.

> *First the arts address the qualitative nuances of situations. By learning how to read the images the arts make possible, awareness of those nuances is made possible. The examination of perception of a painting is as much a kind of* reading *as a text might be. One needs to learn how to see as well as learn how to read in the customary sense (of trying to understand)….*
>
> *A second contribution the arts make to knowledge has to do with empathic feeling… that makes action possible.*
>
> *A third contribution the arts make to knowledge has to do with the provision of a fresh perspective so that our old habits of mind do not dominate our reactions with stock*

> *responses. ... To the extent to which we need to give up some of our old habits, the arts are willing and helpful allies in such a pursuit.*
>
> *Finally, ... the arts tell us something about our own capacities to experience the affective response to life that the arts evoke.* (pp. 10-11, Italics in the original)

A list of answers to the initial question, based on experience and concrete encounters with contemporary art, could, in my opinion, exist in the following central themes of contemporary art:

1. Pattern recognition of long-term critical paths
2. Intuition and presencing
3. Independence and complementarity rather than dialectical appropriation
4. Tunnel and head metaphors of underground(breaking) developments
5. Social complexity, blind spots within society
6. System theory and sustainability
7. Virtuality and constructed multi-reality as counter-worlds
8. Metacognition, transcognition, and collective embodiment
9. Integrated trans-formal synthesis of the arts

In the course of a single article it is evidently impossible to discuss all aspects of these eight trends, which for the time being have only been mentioned. Therefore in the following these aspects will only be briefly addressed and some well-known artists and their works will be referred to as representative of these themes.

1) Pattern recognition of long-term critical paths has already been explained by means of the historical outline carried out in the first section, and in particular on the basis of a work by Sigmar Polke. The artistic view here is focused on the past and attempts in particular to trace pictorial long-term trends. With respect to dealing with the topic of complexity, it has become clear that nowadays the ability to lead always implies long-term development beyond daily events and to be able to recognise disruptive paths (Deeg, 2009).

2) It is particularly important of course not only to look at the past, but also to recognise future developments. Methods of such (p)recognition are currently being discussed under a variety of headings in management training. Gigerenzer (2007) in this context frames the term "intuition." In the field of Organizational Crisis Management the ability to detect so called “weak signals” (Mendoncaa et al., 2004) can be seen as a crucial similar task. Senge et al. (2005) and Scharmer (2009) express such ideas using the keyword "presencing." In the field of artistic creation, such phenomena are well known and are often dealt with. This applies particular in surrealism. For example three surrealist works from 1932 are referred to here, all created simultaneously but completely independently from each other, and which are classified as having anticipated future catastrophic political events: Erwin Blumenfeld's "Skull;" Salvador Dali's "Ballerina as Skull;" and Max Ernst's "Europe after the Rain." Hans Hollein's performance of 1969, in which the artist exhibits on an open field with a typewriter and telephone sealed off only by head-high transparent sheets, which he dubbed "The mobile office – from a blessing to a curse," could be considered another example here of anticipation of the echoes of the technology-driven trend

towards virtualisation of the economy. And Jean Tinguely’s early self-moving and self-destructive installations such as “Without Title, Fontaine” (1960) give an impression of death of innovation, overproduction, meaningless consumerism and planned obsolescence of junk products (Gordon, 2014; Cowen, 2011) which leads to new and emergent macroeconomic models of a post-growth Next Economy which are currently discussed under terms such as e.g. Enoughness, Exnovation, Renovation and “Décroissance” (Degrowth) (Latouche, 2004).

3) In this sense, contemporary art often refers back to current trends towards the appropriation of artistic and other freedoms in terms of pure performance-driven exploitation of thought. Csikszentmihalyi's (2008) research on the phenomenon of flow, which in particular began on and with artists, in business practice however was degenerated and deformed by attempts of an economic planning. Thus the impossible question of "manufacturability" of the flow came to the foreground of economic study of the topic. The current art world is tackling the impossibility of such trends towards utilization. Stefan Panhans (2004) addresses this in his work when he presents the art world as a casting show and titles it accordingly "You actually just have to be you, just super." Agnes Husslein-Arco (2009) also states in her treatment of art history "No time, busy - exhausted self/borderless ability" that

> *In a world of the cycle of self-exertion, artists have become role models of a work situation in which unlimited creativity, smart self-marketing, self-motivated productivity, passionate commitment, and innovative ways of living and working are becoming increasingly important for management and employee entrepreneurs. Thus art becomes the host of the neoliberal approach of Ehrenberg's thesis of transporting the "exhausted self" into social reality.* (p. 6)

Under such conditions the artists of the group "neg-otium" push it to the extreme, by consciously playing with the Latin terms "otium" for leisure and "negotium" for labor. Echoing this, Werner Reiterer (2006) depicts himself as a hollowed lifesize doll, which seems to breathe only sporadically, and titles this work "The last heartbeat before dying frozen as a loop." Nicole Six and Paul Petritsch (2005) make portrait photos into series that seem to come from a photo box. The subjects appear so tired that over the course of the six photos they fall asleep. The collection is entitled "I'm too tired to tell you." Olaf Nicolai challenges the viewer to rotate a wheel of fortune, on which there are (as in society) only two options available, namely "Enjoy / Survive." Simon Moller (2010) exhibits himself as part of a performance sitting at the piano which, true to the chosen motto "'Melody Malady," the artist resolutely refuses to play. Finally Laura von Niederhäusern (2012) films schoolchildren at play in her video performance "Journey to Jerusalem," in which there is one chair less available each round until finally there is only a single chair for one child left. This radical critique of the logic displacement in a meritocracy is aptly referred to with the threatening title "Or I write." The same logic of denial is portrayed in films and computer games, in particular in the various forms of representation of transhumanity. In anti-utopian games such as "Deus Ex," and feature films such as "Terminator," social development trends are questioned and it is always outsiders who become heroes. In media psychology the use of smartphones as an “extended mind” is being investigated and described as a trans-humanistic way to supplant especially analytic “System 2” thinking leading to more intuitive cognitive styles within humans in a coupled cognitive human-computer system that goes beyond our brain. Barr et al. (2015) conclude in light of increasing accessibility to increasingly powerful personal technological devices such as smart watches, Google Glass etc. "*people may offload [analytic] thinking to technology, which in turn demands that psychological science understand the meshing of mind and media to adequately characterize human experience and cognition in the modern era of* post-biological intelligence*"* (p. 473. Italics in the original).

4) If contemporary art turns to a design of future scenarios, it often does so with the visual metaphors of tunnels and heads thereby reflecting scientific and societal conditions as described by Metzinger's ego tunnel. Here, the image designs of different media are, sometimes strikingly, alike. It is always the tunnel metaphor lying at the centre of the visual aesthetics here. Examples begin with the film "Stalker" by Russian director Andrei Tarkovsky (1979) and lead to Anselm Kiefer's megaproject "Over your cities grass will grow" (1991 to 2008), up to current computer games and simulations such as the trailer for the latest edition of the Tomb Raider series (2013). What is known as CAVE (Constructed Automatic Virtual Environments), which are accessible virtual computer-generated spaces that can, for example, migrate through the human body, can be seen as another example of such a tunnel metaphor in contemporary media. Jeff Wall (1989), who in his photographic art, for example, with "The Drain & The Well" that shows people at the entrance of tunnels and chasms, or Thomas Demand (2006), who forms artificial caves from papier mâché, and artists like Conrad Shawcross, who installed his art such as "Strike a chord (2009) in disused underground tunnels, can also be cited as examples in this regard. Moreover numerous works of art are vertical tunnels which convey an impression of a developmental perspective. Examples include James Turrell's (2011) "Above – Between – Below" and Ra Paulette's (2000) "Tree Cave – The vertical tunnel," an artificial tunnel that opens up towards the light through numerous pillars decorated as trees. The metaphor of the tunnel, however, shows on the whole how far the clear concept of social utopias of an advanced direction-focused one-dimensional logic of development has strayed into the unfathomable. In this light, Olafur Eliasson's "Your spiral view" (2002) can be interpreted as the unification of the head and tunnel metaphors of contemporary art.

> *Constructed from flat faceted plates, this tunnel is accessible via steps… Once inside, visitors experience themselves reflected infinitely in the mirror-polished steel plates.* (Langen Foundation and Boros Foundation, 2015, p. 138)

The curator Veit Loers reflects on such art and summarizes, that all of the important and expensive contemporary artists have worked with body and heads. For him this stems from "inner canal tunnels." At the same time, the tunnel is presented, and can be experienced by the viewer, as a kind of womb or cocoon; that is, as a kind of protective cover to prepare for a renewal and transformation. This is the case for example in Ainish Kapoor's gigantic installation "Leviathan" (2011).

5) Artists such as Gottfried Helnwein e.g. with "Inferno of the Innocents" (2011) or "The Child Works" (2011), and Bruce Neuman with "Double Poke in the Eye II" (1985) or Jonathan Meese and Tal R. (2005/2015) with their installation "Mother" devote themselves to the issue of violence as a blind spot in our society. A more systemic way of looking at society is offered by the artist Mark Lombardi with his "Political Sociograms," i.e. painted networks of power. Last but not least artists like Paul Laffoley with the collection "Secret Universe 2" (2011) directly response in an artistic way to the dominance of scientific inquiries to current trends and

developments within society. Such artists create visual expressions for grand theories of the past and present thereby reconciling art and science and bringing it in a renewed mutual exchange that goes beyond the linguistic and rationalistic limits still found today.

6) The Land Art founded by representatives such as Andy Goldsworthy also creates a network-like (eco-)systemic structure, however this is formed purely from materials that are found in nature and it is also only exhibited outdoors. The fact that they are exposed, conscious of the destruction caused by the forces of nature, emphasises and illustrates the fragility of our global ecosystem. Hundertwasser was one of the early proponents of ecological thinking with his images moving beyond the panel picture and out into spatial forms that integrated the surrounding architecture as soon as in the early 1950s and consequently introduced the concepts of minimal ecological footprint and restoring nature in cities with tree tenants in 1972 and his humus toilets, plant purification systems and storm-proof roof forests while writing

> *roof afforestation is the roof cover of the future. It will be natural to have a forest, or a wild meadow, or a vegetable garden on your roof.* (Mikunda, 2011 taken from Hirsch, 2011, p. 187)

He thereby pioneered what is noticeably today, for example, in urban design throughout public space.

Tomas Saraceno (2009) pushes this embodied systemic thinking to the extremes with his fragile network, filling a large space, and being presented with the title "Galaxies Forming along Filaments" after the reciprocal link and dependence of even cosmic processes.

7) In addition to these world designs and stagings, it is in particular the virtual and constructed counter-world designs engendered by the possibilities of new technologies which inspire the creation of art. Several designs are often offered concurrently, in terms of constructivism confronting the viewer with their own structure of the world, while at the same time offering the possibility of different perspectives in terms of a multi-reality, and thus of keeping it in their consciousness, transforming it, and ultimately breaking it up with aperspectivity. This applies in particular and as an example to the work of Michael Somoroff (2004) "Querry II-IV," in which a woman, alluding to Richter's "Ema on the stairs" goes down a staircase in four different artistic representations of increasing computerised abstraction. The same motifs can be found in current filmmaking, for example, in the movie "The Matrix" (1999) by the Wachowski brothers or the Buddhism-inspired Dutch film "The Sea that thinks." Video art also deals with such issues. We can mention here Bill Viola's (1979) "The Reflecting Pool" as well as "I believe it is an image in light of the other". The importance of such earlier post-formal stages of development and thus more meta-perspective and complex views for the management of complex organisations is especially emphasised in the contributions of authors such as Rooke & Torbert (1998) and Vincent, Ward & Denson (2015). According to newer media psychology contributions, for example by Trepte and Reinecke (2013, pp. 137-138), it is a central feature of media consumption to influence our cognition and emotion and as a consequence to influence our behaviour in many ways. This happens in particular because our view of the world is changed. Reinecke et al. express (2012) non-hedonistic needs as fundamental media-related needs of a higher order of personal growth and individual development. Under the keyword Gamification,

such growth needs are processed among other things in games such as "Epic Win" and used in games such as "Superstruct" for the advancement of society. Oliver & Rainey (2011) and Oliver & Bartsch (2011) added to this that the choice of media is made based mainly on the subject, with which the user will grapple vigorously, and on the artistic value of the representation.

8) Artist and constructivist philosopher Olafur Eliasson (2008) also creates entirely new trans-cognitive realities. His artworks follow the guiding theme "Space is Process" which sometimes achieve the dimensions of urban planning and development, resulting in spaces which it should be possible to experience and physically perceive as an embodiment. For him, the creative process is no longer to be understood as an expression of the cognitive and artistic subjectivity of a "self- actualizing man", but as a social-emotional physical expression of an involved collective, as Simonton (1988) also defines it in Sternberg's (2011) "The Nature of Creativity" as "Creativity of Leadership and Chance." Thus a radical departure from the hidden ideologies of the "Great Man" is connected to transformative leadership. Eliason (2008) worded it explicitly in this context, “t*his is what triggered my interest – the idea that you could reinterpret the meaning of the individual based on the experience of the artwork*” (p. 165. Italics in the original).

9) I would like to finish these explanations and lists of exemplary contemporary art with some artworks that can no longer be classified in a single genre. Kuspit (2013) refers to such overarching, mostly digital computer-generated creations in a real space of integrating art designs as synthesis of the arts or total work of arts. He expanded this by commenting *"No longer is the artist confined to familiar configuration. The artist can invent fantastic new configurations. Digital art can thus affect a profound alteration of consciousness itself."* Hans Breder (2000-2005) "Mass & No Word: No Thing" can be mentioned as an example here, a space that seems to increasingly dissolve in fog or "The Financial Crisis (Session I-IV)" from the Superflex group, an installation that allows the viewer to enter a darkened room in which a slideshow of exemplary photographs is displayed on a large screen; the impact of the financial crisis on individuals and entire societies alternating with the cinematically presented instructions of a hypnotherapist, who gives the instruction, *"I want you to wake up feeling fresh, comfortable and happy."* A circle is thus described that refers to the neuro-aesthetic contribution for self-trans-formation through artistic experience cited at the beginning of this article, thereby demonstrating opportunities for art-based post formal development.

Synopsis as Synthesis: A Trans-formative Mobius Strip at the Quadrennial Art Collection in Dusseldorf July 2014

> *And I dare say that the lines I trace with my feet on the pavement walking to the museum are more important than the lines I will find there hanging on the walls inside. And it pleases me enormously to see that the line I trace is never straight, never confused, but has a reason to be like this in every tiny part.* (Hundertwasser, 1953, taken from Hirsch, 2011, p. 62)
>
> corresponds to
>
> *When the content of our scientific discourse is abstract formulation, we are involved in the activity of looking for rather than in the direct experience of seeing. When one is*

> *attempting to fathom the nature of things through the medium of abstractions, it is as though one were looking for something. From this view we see that epistemology is the domain of the human experience of* looking for. *This impulse of* looking for *drives the knowledge-building systems of human thought in science up to now. When one sees something as opposed to looking for it, one participates profoundly in the seen within a self-transformational process.* (Petit, 2002, p. 105, Italics in the original)

If you ask the question of where and to what understanding the journey described here has taken me, you are entering another sphere of knowledge - and for this article, the last. Significantly, I found myself in a tunnel. This disused tunnel has been provided to Pauline M'Barek, a young artist, for her work as a part of the Quadrennial, a cross-museum art exhibition held in Dusseldorf every four years. Along with other works of art, she has filled the elongated tunnel with a huge, alternating white and black Moebius strip, "The tangible Border" (2014). It was possible to in/on a self-transforming way walk along the length of this Moebius strip and explore, and possibly assimilate, the aspects of light and shade in this dimension transcending trans-form. It inspired thoughts of the integrative visionary power of the arts by Joseph Nechvatal (2011) to flash through my mind. Manuela de Barros wrote in an internet article about such power of Nechvatal’s "Noisy viral threat"

> *This is art with a brain, for sure. But when a multitude of visions, Plato’s cave, the end of art, virtual data, viral de-con-struction, and environmental noise are put side by side, the message and meaning becomes clear. How can we step up from illusion to understanding? How do we go from shadow to light? And how can we break the chains that retain us?*
>
> *In the recycling of all the subjects contemporary art says, by a historical understanding; to cope with complexity directly with a refusal to fall back on the facileness of duality. We have to peel away layers of the cultural onion, enter into noise, and face the enemy.* (n.p.)

Along the way, I developed a view of art for research, creating new integrated perspectives. According to Sullivan (2008), it is thus possible to experience that

> *Artist-researchers create critical insights that are germane and current, and the viewer creates meaning within the critical contexts that inform the artistic encounter. This view asserts that the task of artistic or scientific inquiry is to create and apply new knowledge; however, these goals can be achieved by following different but complementary pathways.* (p. 249)

These personal experiences have become the expression of the complex unit postulated by Morin that complementary modes of being can be filled with life. In such moments, what Eisner (2008) formulated can be successful, namely to be “*multilingual in this research means being able to use different media (e.g. language and visual arts) effectively to represent what one has learned*” (p. 9).

Then it seems possible to follow Morin (2008) subsequently on an individual level

> *What we want to draw out, beyond reductionism and holism, is the idea of the complex unity, that links analytical-reductionist thinking and global thinking, in a dia-logic… This means that if reduction – the search for elementary, simple units, the decomposition of a system into its elements, the origination of the complex to the simple – will remain an essential characteristic of the scientific mind, it is no longer the only, nor, particularly, the last, word.* (p. 33)

On the collective level, what Ebert (2013) regards as the essence of Gebser's future design thus looks possible.

> *As Gebser's theory of this a-perspectival epoch implies, the artist paints his forms like the Palaeolithic artist onto the walls of the hyper-dimensional world cavern, where they float, and glow, all by themselves, as the structuring forms located in the deep recesses of the causal zones of Being that make everything in the physical world possible. This is for us to explore.* (p. 23)

This development would at least have to relate to future management training and established management. Thus art can be reunited as a partner to society and economy and the light which was separated in the Enlightenment can be reunited with its shadow in line with the aforementioned Moebius strip. According to authors like Covey (2006) or DePree (2004), leadership would thus become management art, which differs from pure management skills as they are frequently depicted today. Postformal reasoning would thus be both conscious of and enriched by the shadows. In this sense Galuska (2010) states, that

> *Economic life reflects in its light and shadow sides the current structures of human consciousness. It favours self-centred, unconnected and short-term orientated action. We are trapped in our own points of view and increasingly less able to adapt.* (pp. 121-122)

He summarizes, that a new form of socio-economic activity will therefore perhaps be an art of economies. Because under changing paradigms of our social and economic system, more complex structures and more complex corporate philosophies must be taken into account. This will not only require a kind of artistry in the leadership process, but result in differently weighted and thus more individual organisations and subgroups within society.

The final word is left to two artists. Picasso comments on the individual side of artistic creation when he explains that he never made a painting as a work of art and that all his work is research. Beuys expresses the social-collective dimension of the encounter with art as part of his expanded concept of art. He defines such a "social sculpture" by explaining that everyone is an artist who shapes the emergent future by his own development and the creative expression of it.

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The Generality of Adult Development Stages and Transformations: Comparing Meaning-making and Logical Reasoning

Tom Hagström[1] and Kristian Stålne[2]

Abstract: Human development theories differ in "context sensitivity," covering those stressing development stages and those stressing continuously progressing changes. The former theories differ in whether, how and why the stages are regarded as being generalized across domains, i.e. their generality claims. Piaget's developmental stage theory of logical complexity of children and adolescents fulfill "strong" such claims, including fixed stage sequentiality of increasing complexity levels and higher stage structures integrating earlier ones. His theory has inspired a number of adult development stage theories with varying generality claims. These provide suggestions of stages and stage transitions reaching beyond "pure" cognition, integrating more of e.g. emotional, value and moral dimensions. From a neo-Piagetian perspective, core generality aspects seem to concern on the one hand logical reasoning and on the other hand meaning-making. This raises questions of how these aspects are related to each other in terms of stage structures and transformations.

The aim of the article is to discern general features in adult development stage structures and transitions, in terms of logical reasoning and meaning making. This is carried out by a "thought experiment" interrelating two theories that differ in these respects but that are both based on Piaget's theory, namely Robert Kegan's constructive developmental Subject-Object Theory (SOT) and Michael Common´s behaviouristic Model of Hierarchical Complexity (MHC). This comparing approach concerns the 3rd, 4th and 5th order of consciousness as well as transitions between these according to SOT, and order 9 to 12 and corresponding transitions according to MHC. The thought experiment indicates

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that the generality claims of both models can be argued for without one of them necessarily being subordinated to the other one. Both theories are interpreted as differing but partly overlapping structures of coherence, while also being involved in transformative thesis-antithesis-synthesis processes. The possible interrelatedness between logical reasoning and meaning making is considered and discussed, as well as the relevance of differing generality claims, and contrasting subjectivistic and objectivistic "scientific positions." Finally, it is argued for the need of contextualizing adult development theory and research by relating it to postindustrial societal demands and challenges in terms of e.g. a "transform-actional" approach."

Keywords: Adult development, contextualization, dualities, generality, stages, subject-object structures, dialectical transformations, self-other coordination, differentiation-integration, hierarchical complexity, cognition, affection, meaning-making, logical reasoning.

Introduction

Studying human development across the life span is a field that includes several lines of reasoning. Developmental theories, taken as a whole, provide a wide and multifaceted view representing different traditions such as psychoanalytic, behaviouristic, cognitive developmental, socio-cultural, ecological, and life span perspectives (see e.g. Berk, 2010, Robinson, 2013). The conceptions of development vary with respect to qualitative and quantitative focus, continuous or discontinuous directions, one or more courses of development and the influence of nature and nurture. Moreover, the theories focus on differing aspects of development such as cognitive, emotional, motivational, moral, wisdom and spirituality domains. Overriding development issues concern causal mechanisms as well as the interconnectedness between different developmental lines and between different developmental domains. Causal mechanisms focus more or less on internal or external conditions as necessary or sufficient prerequisites for development, which indicates the "context sensitivity" of the theories. A well known demarcation line is the "inside-out" causal direction associated with Piaget's cognitive developmental theory (1982) and an "outside-in" causal direction associated with Vygotsky's sociocultural theory (1962), regarding the internalization and development of knowledge of the child and the adolescent (see Marti, 1996). Distinctions have also been made between cognitive developmental and contextual models (Pintrich, 2002). Cognitive developmental models stress the influence of internal drives, e.g. the drives towards cognitive equilibration elaborated in Piaget's thinking, which are regarded as at least sufficient conditions for change, while contextual models instead focus on external conditions challenging a person's thinking.

Thus, this multifaceted picture appears to be scattered, covering not only various theories and methodological approaches, but also reflecting differing epistemological and paradigmatic "scientific positions." One dividing line concerns a predominantly objectivistic paradigmatic position associated with the natural sciences and positivism, and a predominantly subjectivistic paradigmatic position more common in social sciences and the humanities (Cohen, Manion, & Morrisson, 2000). The differences seem to concern at least three interwoven aspects of relevance for life span development, namely a) focusing on the study object from "inside" or "outside," b) focusing on formal aspects or the content in development and c) using quantitative or qualitative data approaches. These three aspects can be seen as more or less interrelated depending on the extent to which they are embedded in broader paradigms (see e.g. Bryman, 2004). However, generality features in human development bring to the fore at least two theoretical and paradigmatic issues: the causal mechanisms involved and the continuation-discontinuation character of the change process.

Issues regarding the kind and degree of continuation-discontinuation are related to how development is conceived, compared to changes in general. A common understanding seems to be that even though all development concerns changes, all changes are not regarded as development. The latter require some kind of systematic character and direction of the change process (Hagström, 2003). Additionally, further classifications require more precise conceptualizations and definitions of what constitutes development in terms of e.g. stages and transitions between them. Strong ”organismic” conceptions of development state criteria such as universality, fixed sequentiality, irreversibility, qualitativeness and the notion of an end state (Baltes & Nesselroade, 1979). The variation in conceptions of development may also be described in terms of hard, soft and functional models (Kohlberg & Armon, 1984). Hard theories consider development as a process of universal sequences that emanate from a total reorganization of a latent cognitive frame of reference**.** Functional theories refer to every stage developing for the purpose of carrying out a new task or fulfilling a new function (Ericson, 1968). Soft theories focus on the development of different personality traits, education, and social background.

General features in human development tend to be related to hard theories and strong development criteria, the cognitive domain and logical reasoning. Piaget’s stage theory of logical thinking fulfills strong development criteria of hard approaches, such as fixed stage sequentiality of increasing complexity levels, with higher stage structures integrating earlier ones. Neo-piagetian theory and research have suggested a number of stages and stage transitions over the life span, beyond strict logical reasoning or “pure” cognition, involving more of meaning dimensions. Their “hard-soft” position and context sensitivity vary and they focus on differing domains such as moral development (Kohlberg, 1969), postformal thought (Sinnott, 2003) and ideals of a life and good work (Armon 1984; 1993).

However, the generality claims also vary among “hard” stage approaches. This raises the questions of whether and why certain domains would be more general than others and in what respects that would be the case. The domains refer to the content of the stages. This, in turn, is associated, directly or indirectly, with their functions in relation to demands and challenges in life. Among neo-Piagetian “hard stage” theories, the Subject-Object Theory (SOT) (Kegan, 1982; 1994), which focuses on a person’s meaning making, is associated with high generality claims, higher than e.g. among rather closely related approaches such as the moral development theory developed by Kohlberg and colleagues (Kohlberg, 1969). Advocates of the latter theory (Colby, Kegan et.al., 1987) have considered their approach as less general than the SOT, which they consider to be an extremely general approach. They argue that in SOT .”..the structure... forms a single coherence system across all domains” and that “The differences between thinking in different domains result from the application of a single cognitive structure to different contents.” (p. 8, opt. cit.) Since both these theories fulfill formal “strong” development criteria, the higher generality features concern other aspects.

To conclude, logical reasoning and meaning making appear to stand out as “domains” that raise especially high generality claims. Moreover, in both cases these claims seem to reach beyond the generality features associated with “hard stages” or strong development criteria. These criteria mainly appear to express “formal” features of the development process. If so, logical reasoning and meaning making can be assumed to constitute other generality features in the development process, related to e.g. their content and/or their functions. This brings to the fore questions regarding the possible interrelatedness of logical reasoning and meaning making. Are they to be regarded as general but mutually isolated lines of development, and, if so, in what respects can they be regarded as general? Are they subordinated to each other with respect to generality, and, if so, how and why would that be the case? Furthermore, are they interrelated, and, if so how and why would that be the case?

Among neo-Piagetian theories, inspired by Piaget but reaching beyond logical reasoning and adolescence, high generality claims have also been stressed by the Model of Hierarchical Complexity (MHC, Commons and colleagues). MHC represents a behaviouristic approach, taking Piaget’s cognitive-logical approach as a point of departure, but explicitly delimiting its focus to the axiomatically derived logical dimension. The meaning making process of the SOT approach also has Piaget’s cognitive-logical approach as a starting point, but integrates this aspect in a constructivist meaning making context. The MHC and SOT theories have taken diverging routes away from Piaget’s theory, which seemingly has made the theory’s logical aspect and its meaning aspect involved in logic, explicit. Therefore a systematic comparison of these two explicit conceptions of logical reasoning and meaning making in stage development, might be a plausible base for answering questions about their generality claims, such as those mentioned above. Moreover, this may also contribute to the elucidation of issues concerning the relations between stages and their transformations, as well as the “inside-out” and “outside-in” “causal directions” of the development process. An interlinking comparison of these two theories can be regarded as a base for further theoretical considerations about generality features in a developmental-transformational perspective.

Therefore, the *aim of the article* is to discern general features in adult development stage structures and transitions in terms of logical reasoning and meaning making by interrelating the MHC and SOT approaches in a systematic, comparing “thought experiment” which will be further described below. Both of these theoretical stage models describe people’s frames of reference in terms of sets of strategies for coping with the challenges of life as a whole, rather than focusing on or dealing with limited domains only. In order to achieve the aim, a departure in the basic roots of the two theories seems to be necessary, namely Piaget’s constructivist-developmental way of thinking. What did he mean by logic, how did he relate logic to meaning and what did he refer to as meaning?

A Departure in Piaget: “Psycho-logical” Constructivism

Piaget’s well-known theory of logical thinking includes four main developmental stages, namely the sensorimotor, preoperational, concrete operational and formal operational stage. When concrete operations take place, approximately between ages 6-10, the thinking increasingly reaches beyond the sensory, intuitive or “magical” level. The concrete operations enable making inferences, such as addition and multiplication, of classes but are restricted to concrete objects. The last, formal operational stage has its onset approximately from age 11 and onwards. In its most developed form, this stage enables logical thinking such as performing deductive hypothesis testing and systematic variation of variables. This stage structure is, although not undisputed, well established and will not be elaborated in more detail here. However, Piaget's understanding of the developmental process seems to be less well known. He related the developmental process to people's active construction and reconstruction of their thinking. This, in turn, was understood as being driven by assimilation to a given cognitive structure and accommodation of that structure – to adapt it to new experiences that do not fit in the prevailing structure – in an equilibration process. Epistemologically this can be said to advocate "…a position that knowledge is neither innately preformed in the mind nor directly copied from the environment" which also implies that "…individuals...are active agents in their own learning and development" (Amsel & Smetana, 2001, pp. 3-4). Thus, the generality claim of Piaget's theory is not restricted to the structure of logical thinking. It also conceives such structures as being involved in an active and interactive process between the person and the environment. The latter position underlines the importance he attached to the social context and the socialization process in the development of logical thinking.

Critics of Piaget's theory argued that logic and cognition in his theory were conceived as developing in a "social vacuum" and that people's substantial development would end with the acquisition of formal operative thinking. However, he moved from an earlier "functionalist phase" stressing social-interactive aspects related to logical thinking, to a "structuralist phase" focusing more on the internal logical thinking structures and eventually took both aspects into account as mutually related (Lourenco & Machado, 1996, see also Garcia, 1991). Much of the criticism does not seem to have taken into account the dialectical, constructivistic and developmental character of his approach and that he basically focused on an operational, not an axiomatic, logic (Lourenco & Machado, 1996). Although it was not his main focus, his model of formal operations "…from the very beginning underlined the conception of knowledge as always involving organization, inference and meaning" (Lourenco & Machado, 1996, p. 157). In these terms, development was considered as a way to eliminate sources of equilibration and the construction of new balances at higher complexity levels. Equilibration was defined as maintaining constancy (order) in an external context of continuous changes. The reorganization of one structure to a qualitatively new one, towards more complex stages, is an expression of qualitative "leaps" (Piaget, 1978).

Piaget's focus on the development of logical reasoning in these respects, did not mean that he regarded it as separated from the affective aspect of development. These aspects were rather considered to be closely interwoven: "The two aspects, affective and cognitive, are at the same time inseparable and irreducible." (Piaget & Inhelder, 1969, p. 158) and joined in a "functional parallelism" without one of them determining the other (Piaget & Inhelder, 1969, pp- 347ff.). Emotions were regarded as important due to their involvement in conflicts, crises and reequilibrations. This in turn, he related to the formation of personality, which he viewed as "... dominated by the search for coherence and an organization of values that will prevent internal conflicts..." (Piaget & Inhelder, 1969, p. 158). Thus the search for coherence, including e.g. value conflicts, was seen as interwoven with logical reasoning in forming the self-regulation of the individual. The highest complexity level in his stage theory, full formal operational thinking, is characterized as the capacity to think about thoughts and to reverse relations between what is real and what is possible. This, in turn, constitutes a base for building ideals as an adaptation to society but not in strict isolated sequential orders: “Obviously, this does not mean that formal structures are first organized by themselves and later applied as adaptive instruments where they prove individually or socially useful… logic is not isolated from life; it is no more than the expression of operational coordinations essential to action” (Inhelder & Piaget, 1958, p. 342). In the formal operational stage, the adolescent has the cognitive capacity to analyze his or her own thinking as well as construct theories, which makes it possible to “…furnish the cognitive and evaluative bases for the assumption of adult roles, without mentioning a life program and projects for change. They are vital in the assimilation of the values which delineate societies or social classes as entities in contrast to simple interindividual relations” (Piaget & Inhelder, 1969, p. 340).

Thus, Piaget conceived logical reasoning as being interwoven with the values guiding adolescents’ goals, when searching for coherence in terms of their adult roles and functions in society. Affective and personality development was considered to be integrated with intellectual and moral development, in a framework that has been characterized as his social theory: “Just as affect is an indissociable motivational element in intellectual development, socio-affective bonds (or their lack) motivate social and moral development” (De Vries, 1997, p. 4). Piaget himself stated that: “Each progress in logic is equivalent, in a non-dissociable way, to a progress in the socialization of thought” (Piaget, 1950/1995, p. 85) and that “…individual functions and collective functions require each other in the explanation of the conditions necessary for logical equilibrium” (Piaget, 1950/1995, p. 94). Thus affection, values and social processes were seen as interrelated. His focus on logic can be expressed as a “psycho-logic.” Piaget’s model reaches across and beyond different domains of thinking and was therefore hard to grasp for a number of colleagues in other knowledge domains. He e.g. “…used too much logic for psychologists and too much psychology for logicians” (Lourenco & Machado, 1996, p. 156). He was criticized for connecting different kinds of logic that did not seem to fit together and for violating norms of logic. However, his focus was not on pure logic: “…unlike logicians, Piaget was not interested in purely formal issues, or issues internal to logic, such as axiomatic foundations. He wanted to develop an operational logic, a logic of action, a logic that in some sense would be a *“tertium”* between psychology and axiomatic logic... a logic that would be a truly ‘psycho logic’” (Lourenco & Machado, 1996, p. 156; Piaget, 1953, pp. 23-26). This may explain his mixture of different kinds of logic.

During the last years of his life, Piaget substantially revised his model of logic (Piaget & Garcia, 1987). He thought he had taken too much account of “…Aristotelian truth-value tables and failed to solve the well-known paradoxes of material implication, that is, statements logically or formally correct but without meaning” (Lourenco & Machado, 1996, p. 157). He instead tried to develop an intentional logic with meaning implication understood as: .”..an implication in which p implies q if and only if a meaning of q is incorporated in that of p and this meaning is transitive” (Lourenco & Machado, 1996, p. 157). Meaning implication and material implication were basically regarded as two types of inference, where only meaning implication implied necessity: “In those cases in which there is a necessary rather than a contingent relation between the antecedent and the consequent, an entailment of meaning implication exists” (Lourenco & Machado, 1996, p. 157). He moved towards an operational logic where e.g. formal operations are characterized in terms of an internal necessity, which differs from pre-operational thinking. This necessary feature of formal thinking may be understood as not only organizing a person's thinking in a logical-mathematical sense, but also as a potential for testing and analysis of internal and external phenomena covering emotionally loaded value aspects. Piaget's increasing interest in taking the role of content and context into account and relate these aspects to logical reasoning apparently corresponds to an increasing interest in meaning in development. His "psycho-logic" constructivistic approach covers both logical reasoning and meaning making. However, the concept of meaning is multifaceted and not undisputed. Piaget did not, as far as we know, elaborate more extensively and systematically on how core aspects of meaning making are related to Ego development in terms of relating oneself to social contexts and the meaning constituting aspects of this. As mentioned, further clarifications of the generality claims of the logical reasoning and meaning making aspects derived from Piaget's thinking will be elucidated by comparing the SOT and MHC understanding of these aspects. Before this will be further elaborated through a "thought experiment," these theories will be briefly described starting with SOT.

The Subject-Object Theory (SOT)

Below the SOT will be briefly described in terms of stage structure and change dynamic.

Main Character and Stage Structure

Robert Kegan's Subject-Object Theory (SOT) was, as described, strongly influenced by Piaget's thinking, but also by other neo-Piagetian theories such as Kohlberg's moral stage theory (1981). However, he was also influenced by less cognitively and constructivistic oriented neo-Piagetian theories, such as Loevinger's (1976) inductively based model of development (Hy & Loevinger, 1996**)**, as well as other lines of thinking, such as neo-Freudian psychodynamic object relational theory. His neo-Freudian influences also included the conception of an ego developing across functional life stages in relation to the social-cultural context, as elaborated by Erikson (1968). Thus, he came to conceive ego as an evolving self, interacting in a social-societal-cultural context and guided by a frame of reference that involved logical reasoning but that was integrated in a broader meaning making process. On the basis of interviews with 39 persons in therapy, he interpreted the meaning making of a person as being characterized by underlying and unspoken assumptions that people took for granted. These assumptions were regarded as presuppositions to and thereby constituting the very foundation of our meaning making.

The development of meaning making is here described in terms of balances and dynamics between a subject and an object at increasing complexity levels. This is one core characteristic of the theory. In the initial balanced phases of the stages, the ego is conceived as a subject embedded in its assumptions that are unconsciously taken for granted, assumptions, which are called Big assumptions (see e.g. Kegan & Lahey, 2009). These constitute the meaning making of the subject who the subject intuitively and unreflectedly "is." On the other hand, there are thoughts and other mental entities that the subject can reflect on, something that the subject "has" as objects of awareness. Thus, each stage can be seen as the consequence of a given subject-object balance, the structure of a given stage defining the current meaning making of the person in question. The transitions and transformations between the stages are conceived as a differentiation from a given balance towards integration in a new balance. Such new balances

"…further differentiate the self from its embeddedness in the world, in a qualitatively new way…," and "thereby creating a more integrated relationship to the world" (Kegan, 1982, p. 294).

The SOT covers five stages of increasingly more complex subject-object balances. In the first *Impulsive stage* the subject "is" its perceptions, social perceptions and impulses and its objectified earlier subject, its prevalent object, is its movements and sensations. In the next *Imperial stage* the former subject has become the object for reflections and the subject now "is" its taken for granted conceptions of concrete elements and relations, as well as its enduring needs and preferences associated with e.g. its concept of taking a role which enables simple social reciprocity. These stages appearing from early childhood, are followed be three stages that have been found to cover the majority of adults in late modern societies (Kegan, 2003), namely the *Socialized mind* (the interpersonal stage), the *Self-authoring mind* (the institutional stage) and the *Self-transforming mind* (the interindividual stage).

The latter three stages, which are the ones that will be applied in the "thought experiment," are briefly described in Table 1 below.

Table 1. The Subject-Object theory (SOT): Consciousness stage/order 3–5 (based on Kegan, 1994, 2003).

Stage/order	Subject	Object	Underlying structure
3. The Socialized mind	**Interpersonal:** Role consciousness **Cognitive:** Ideality; abstractions **Intrapersonal:** Self consciousness	**Interpersonal:** Role concept **Cognitive:** Actuality; concrete **Intrapersonal:** Self concept	**Cross-categorical**
4. The Self-authoring mind	**Interpersonal**: Multiple role consciousness **Cognitive:** Ideology; relations between abstractions **Intrapersonal:** Self regulation	**Interpersonal** Role consciousness **Cognitive:** Ideality; abstractions **Intrapersonal**: Self consciousness	**System**
5. The Self-transforming mind	**Interpersonal:** Self-other interpretation **Cognitive:** Trans-ideological; relations between forms **Intrapersonal** Interpenetration of selves	**Interpersonal:** Multiple role consciousness **Cognitive:** Ideology; relations between abstractions **Intrapersonal:** Self regulation	**Trans-system**

As can be seen in Table 1, the subject-object character of the three stages covers interpersonal, cognitive and intrapersonal aspects. According to Kegan (1994), the Socialized mind corresponds to Piaget's stage of early formal logical operations, the Self-authoring mind to Piaget's full formal logical operations, while the Self-transforming mind exceeds the highest of Piaget's stages. The "positions" of logical structures within the balanced phases of the stages and within the unbalanced phases of their transitions, will be further considered as a main issue in our "thought experiment." The Socialized mind is related to a smaller close group context, the Self-authoring mind to a broader societal-institutional context and the Self-transforming mind to a still broader symbolic ideological context. The "broadness" aspect reflects increasingly complex conceptions of how these contexts are organized and coordinated hierarchically.

The SOT Transitions

The concept of Big assumption presented in relation to the Immunity to Change (ITC), was developed as a way to overcome the emotionally or even identity threatening dilemmas related to stage transitions (Kegan & Lahey, 2009). Thus, the construction, deconstruction and reconstruction of Big assumptions in the process towards higher complexity, involve consciously experiencing things that question the subject's identity base. The transformation towards higher stages of meaning making has been found to be triggered by situations of optimal conflict in which the inadequacy and the limits of the current structure become evident to the transforming person.

Such conflicts in the transitions from the Socialized mind to the Self-authoring mind are those between defining oneself in the context of others' expectations, on the one hand, and an emerging orientation towards considering ”what is it I want," on the other hand (Lahey, *et al.*, 1988). Tensions here are e.g. *between* "Feeling vulnerable to incorporation, fusing, loss of myself as own person (self anger)" *and* "Feeling selfish, heartless, cold, uncaring as a result of beginning to consider me first" (Kegan, 1982, p. 270). Conflicts in the transition from the Self-authoring to the Self-transforming mind are associated with the conflict expressed in: "What before was experienced as a competent exercise of one's psychological independence can come to be felt as a kind of troubling remoteness or isolation, interpersonally and internally" (Kegan, 1982, p. 116). Tensions here are e.g. *between* "Feeling vulnerable to crippling self- attack, to identifying with my performance, isolated in self-containment," *and* "Feeling weak, ineffective, out of control…feeling evil, decadent, loss of identity, boundary loss (self-loss)" (Kegan, 1982, p. 270).

The transitional steps between each of stages 2 to 5, describe the extent to which a structure has been made an object (Lahey, *et al.*, 1988). The interview procedure follows a tradition of the Piagetian semi-clinical interview, further developed by questions about the interviewed person's real life experience. This includes emotional, cognitive, as well as intrapersonal and interpersonal aspects of psychological organization. Such real life situations are elicited from a series of ten uniform probes that are explored to discern their underlying epistemology. This will be further elaborated in the "thought experiment."

The stage transitions are described as six qualitative transformations from one subject-object balance to another, which are designated as: X, X(Y), X/Y and Y/X, and Y (X), Y. Among these, X and Y refer to a subject-object balance in complete equilibrium and the four positions between these two balanced orders are more or less in disequilibrium. The X/Y or Y/X positions refer to which structure is ruling (Y/X means Y is ruling). This process will be further described in the "thought experiment" below. Suffice to mention that the transformation from one subject-object in equilibrium, X, to the next higher consciousness order, Y, reflects an internalization process, embedding the former X structure as a subordinated structure in the emergent Y structure.

The Model of Hierarchical Complexity (MHC)

In the same way as SOT was presented above, MHC will be briefly described below in terms of stage structure and change dynamic.

Main Character and Stage Structure

Michael Commons' MHC is, as mentioned, another approach to addressing the problem of the variety of different stage theories and ~~of~~ their respective manuals, although mainly for clarifying Kohlberg's scoring procedure (Commons & Ross, 2008). Commons and colleagues proposed a solution to this in their general stage model (Commons & Richards, 1984), later renamed the general model of hierarchical complexity, and finally the Model of Hierarchical Complexity or MHC (Commons, 2008). The generality claims here focus on logical reasoning in a strict axiomatic-mathematical respect, which is regarded as the necessary base for other domain specific developmental lines. A manual was developed in accordance with this theory with the aim of being able to score reasoning or any form of conceptualized information regardless of the domain involved (Commons, Miller, Goodheart, & Danaher-Gilpin, 2005) – while also claiming to replace all other manuals in this area. In line with this, *decaláge* is not regarded as a problem for the theory, but rather as a consequence of the fact that a person's stage of performance typically varies between different domains.

As mentioned, this is a content-free and scale-free model or framework for scoring different stages of development, regardless of the domain and content (Mascolo, 2008). The hierarchical complexity is instead described in terms of the structure of the information being organized when a task is being solved. MHC can be said to be based on mathematical principles, e.g. how information is organized and information theory. The model defines 16 orders of hierarchical complexity. Order n+1 is defined by the successful and non-arbitrary coordination of two or more elements from order n, according to the theory's axiom. The orders are thus derived analytically and regarded as objective and ideal forms. Tasks are defined for the respective orders, and the behavior carried out in the attempt to complete the task is referred to as the performance. A performance is either successful or not and the term stage refers to the successful completion of a task of that order. The theory also takes into consideration the amount of support, or help, that the person receives when completing the task.

These orders (and stages) include the development of additional stages of increasingly complex logical thinking, compared to Piaget's stage model. Piaget's first Sensorimotor stage corresponds to MHC orders 0–3, Piaget's second Preoperational stage correspond to MHC orders 4–5 and Piaget's Concrete operational stage corresponds to MHC orders 6–8. Here we will summarize some main features of the stage structures and their transformations, from the 9th abstract order to the 11th systematic order of hierarchical complexity. These orders cover Piaget's early formal operational and full formal logical operations, while MHC's 12th to 14th order – metasystematic, paradigmatic and cross-paradigmatic – exceed Piaget's highest formal-operational stage.

Before the 9th abstract order the child is capable of e.g. logically carrying out full arithmetic as well as analyzing concrete objects, actions and situations, which enables an understanding of mass and length as quantities that are independent of how or by whom these are perceived. But everything that is stated or reflected on corresponds to something concrete in the exterior world.

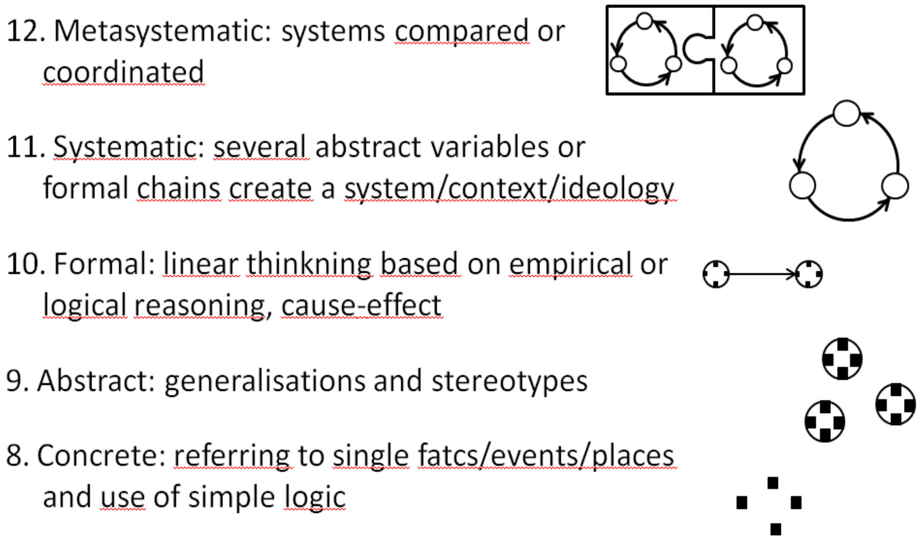
In the 9th abstract order these concrete elements can be coordinated to form abstract variables that do not correspond to any single factor object in the exterior world. This enables generalizations and the conception of abstract categories such as stereotypes (e.g. immigrants, leaders), personality traits (e.g. unreliable, benevolent), quantifications (e.g. no one, always) or abstract variables such as x and y, beyond specific and concrete positions and points of time**.** Imperatives of what one should and should not do are typical; x and y can be used and be related to without corresponding to any single value.

In the 10th formal order two abstract variables, such as x and y can be coordinated, typically in cause-and-effect relationships of the form "if x then y." These can be found in logical deductions, formulations of hypothetical simple physical laws and linear unidirectional and one-dimensional functions, or in the solving of equations with one unknown variable. Examples include statements such as "an increase in the amount of carbon dioxide in the atmosphere leads to global warming" or "higher GDP leads to greater happiness."

In the 11th systematic order, at least two formal relationships need to be coordinated to create a coherent system, such as a feedback loop: "An increased level of carbon dioxide leads to global warming which leads to an even higher level of carbon dioxide…" Formal relationships can be understood in different contexts, such as different cultures, ideologies, legal systems, eco-systems and discourses. Multivariate systems, functions and matrices are constructed and equations with more than one variable can be solved.

In the 12th metasystematic order, metasystems can be created by coordinating more than one system. Systems, cultures or ideologies are seen as limited and coherent systems that can be compared or combined. Different cultures and value systems can be compared or be shown to interact. Phenomena such as sustainability are understood by coordinating the different aspects or dimensions of it, such as economic, ecological and social. The characterization of the logic from the 8th to the 12th order of MHC, as well as the transition steps, are shown in Figure 1 below.

As described, the orders of hierarchical complexity define the tasks that are to be completed. A task at a certain order consists of carrying out and coordinating sub-tasks at lower orders, which can be illustrated by means of a pyramid structure according to Figure 2, where task *a* at a higher order coordinates the two elements *b* and *c* from a lower order of hierarchical complexity. The elements *b* and *c* can be seen as subtasks that need to be successfully completed and coordinated in order to complete the overall task *a* successfully.



12. Metasystematic: systems compared or coordinated

11. Systematic: several abstract variables or formal chains create a system/context/ideology

10. Formal: linear thinkning based on empirical or logical reasoning, cause-effect

9. Abstract: generalisations and stereotypes

8. Concrete: referring to single fatcs/events/places and use of simple logic

Figure 1. Description of order 8 to 12 in the Model of Hierarchical Complexity (MHC).

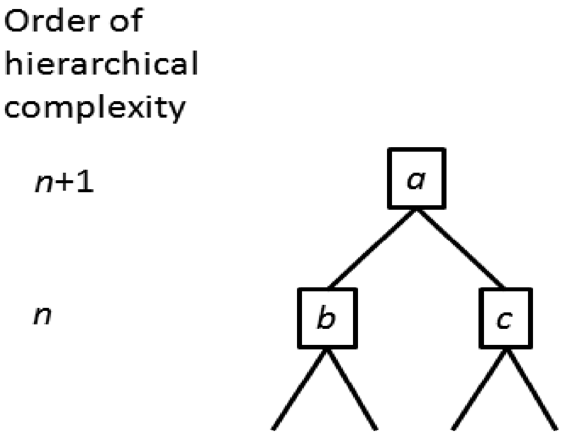


Figure 2. Illustration of a hierarchical structure having three elements, *a* at order *n*+1 that coordinates the sub-tasks *b* and *c*, which are elements of order *n*; *b* and *c* in turn, coordinate lower-order elements.

The symbols *a*, *b* and *c* represent content, while the pyramid's form represents the relationship between them, the way they are organized, or the structure. This is the common way of representing a complex task in accordance with MHC (Commons, 2008). According to the axioms of MHC, that describe how conceptualized information of any sort becomes organized, an element or an object at a certain order has to coordinate at least two elements from the previous order in a non-arbitrary way, for a higher order of hierarchical complexity to emerge.

The MHC Transitions

As a part of the theory, the transitional steps between the different stages have been defined (Commons & Richards, 2002; Commons, 2008; Ross, 2008). These steps demonstrate the fractal nature of the progression, in terms of complexity, between two successive orders. The cycle is repeated again and again from one order to the next, following the pattern of thesis, antithesis, relativism, smash and finally a synthesis, which is the thesis of the next order. This process is illustrated in Table 2 below.

Table 2. MHC transitional steps.

1. Thesis	*a*	Thesis *a* at stage *n*. The thesis starts to deconstruct. It does not seem to solve the present task.
2. Antithesis	*b*	*a* is rejected and an antithesis *b* is formulated that appears to be the opposite of *a*.
3. Relativism	*a* or *b*	A state of ambivalence in which it is either *a* or *b* that seems to be correct, but one cannot decide which.
4-7. Smash	*a* and *b*	A synthesis begins to form in a chaotic, four-step process in which it is acknowledged that both *a* and b are needed.
8. Synthesis	*a* with *b*	Synthesis – a new equilibrium has been reached, a new thesis having been created by the successful coordination of the previous thesis *a* and antithesis *b*. The new synthesis defines the thesis at stage *n*+1.

Summarizing Conclusions: Similarities, Differences and Possible Interrelatedness

After this introduction of SOT and MHC, a systematic comparison between the logical reasoning and meaning making according these theories will be performed to shed some new light on the nature of the developmental process. This comparison takes a departure in the knowledge background presented so far, which delineates some main similarities and differences as well as possible interrelatedness between these developmental lines and their theoretical assumptions. As already described, these two theories as well as their inspirational base, Piaget's theory, appear to fulfill high "hard stage" generality claims, seemingly the highest in their research field. This builds the base for the aim of the article, starting in this common feature and consequently raises questions of the generality features besides these "formal" similarities. What is e.g. characterizing the generality of especially these developmental lines besides their "hard stage" feature? Are logical reasoning and meaning making subordinated each other in terms of generality and if so, how and why is that the case? Are they interrelated in the development process and if so, how could this process be understood?

Overriding differences may concern for instance the stressing of different parts of the dialectical movement of the developmental process. If development can be seen as interplay between the polarities of differentiation and integration, it could be said that the MHC axioms emphasize the integration aspect of development, while the differentiation is seen as a necessary part of the transition process. SOT tends to emphasize the differentiation part by describing conflicts and challenges threatening a given subject-object balance. A more obvious difference between SOT and MHC is, as described, the different number of stages/orders proposed in these theories. SOT covers five orders of consciousness and MHC is currently being described with 16 orders of hierarchical complexity (0-15).

How may these differing conceptions of adult development be interrelated? They can be said to investigate different phenomena, and hence be referred to as different developmental lines. This difference has been referred to as the socio-emotional developmental line or dimension which together with epistemic position (King & Kitchener, 1994) constitutes the person's stance that "…determines who I think I am, thus what stance I take in dealing with the social as well as physical world" (Laske 2008, p. 99). Meanwhile, the cognitive development of logic is seen as a tool, although Laske propones the description of a capacity to dialectical thinking instead of complex logical thinking, as described by MHC. According to Laske, this tool determines "what cognitive techniques and models I am able to use in construction and acting upon the world, as a result of holding a particular stance" (Laske 2008, p. 99). The two developmental dimensions are seen as separate but mutually linked in a dialectical relationship.

The embeddedness of logical reasoning in a meaning making context can be theoretically argued for following e.g. Piaget's way of reasoning which support the idea that these aspects of human coherence making are interrelated. At the same time the explicit delineating of these aspects in the two differing lines of development elaborated in the MHC and SOT theories provide arguments for regarding them as being distinctively different. We do neither exclude these interpretations per se, nor the conceiving of them as interrelated one way or another in the developmental process. The latter stand point rather appears as a reasonable presumption behind our comparing approach.

However, our approach is to examine "the logic in the meaning process" rather than examine "the meaning in the logic process." Performing the comparison the other way around could be argued for as a legitimate way to examine this interrelatedness conceiving logic in a wider perspective of coherence making or "comprehensibility" (Antonowsky, 1987) or by regarding logic reasoning as a "causal" necessary condition for the meaning making aspect to be manifested. However, our departure in the SOT process is motivated by our way of approaching meaning making and logical reasoning theoretically. This seems reasonable from a constructivistic perspective on the development and justified by their bases in Piaget's more integrative frame of reference and e.g. Laske's theoretical position (2008, p. 99) conceiving logic reasoning and meaning making as interrelated or interlinked. Both these aspects of coherence describe general aspects of people's coping with the challenges of life as a whole that reasonably can be assumed to have something in common.

However our taking the departure in the meaning making process and not in the logical reasoning process is also motivated by the compared theories' scientific positions. When the SOT and MHC developmental lines were differentiated in two contrasting directions from Piaget's theory, this made the starting point in SOT not only reasonable but almost necessary. The possible interrelatedness between the two aspects could hardly be discerned in a fruitful way by taking the departure in the restricted behaviouristic "outside" MHC perspective, but would reasonable be more worthwhile taking the departure from the inside constructivistic perspective of the SOT meaning making perspective. A consequence of this is that the logical reasoning aspect is restricted somewhat on beforehand to be regarded as a kind of ”tool” to judge for instance logically derived consequences of the self-other coordination in terms of their desirability. However, this does not exclude a possible interpretation that logical reasoning can for instance constitute necessary conditions for the SOT development to occur. The MHC development of logical reasoning is regarded as a process in its own respect that can be assumed to develop independently from the meaning making of SOT, although both processes still being assumed to be interlinked.

A Comparing “Thought Experiment”

Below a comparison is performed by systematically interlinking logical reasoning according to MHC to meaning making according to SOT. As outlined above, our way of approaching these questions takes a departure in the SOT meaning making process to examine how logical reasoning according to MHC might be related to three SOT stages, transitions and transformations. The comparison is restricted by certain assumptions. These are derived from the theories compared and some further theoretical articulations of them. On the base of these assumptions an examination in systematic steps will be performed elucidating in general terms how meaning making and logical reasoning may be progressively interrelated across three SOT stages.

The character of this examination seems to express some features associated with “thought experiments.” This wide ranging concept includes many approaches (Stanford Encyclopedia of Philosophy, 2014). However, a common feature seems to be that they can be “…distinguished from e.g. counterfactual reasoning in general as they seem to require an experimental element, which seems to explain the impression that something is experienced” (Stanford Encyclopedia of Philosophy, 2014, p. 1). Thus it should be something experimental about them in this respect, for instance in terms of extreme implications of imagined scenarios in order to challenge or confirm theories or solve theoretical disputes. The “experimental” feature in our approach is, as described, about examine or testing theoretical implications by an interlinking comparison restricted by certain preconditions (the “experimental” element). Even if these preconditions might not constitute what we associate directly with “imaginary scenarios” they state assumptions about and beyond the compared theories and moreover how these can be examined. Thus, this approach seems to have a thought experimental character that distinguishes it from comparisons in a wider sense. Therefore it is entitled thought experiment. Conceived in such a way our approach cannot be claimed to generate “truths” or empirical evidence. The validity of the conclusions that can be made might concern the legitimacy of the assumptions made, the rationality of how to apply those assumptions and carry through the examination performed as well as what conclusions that can be drawn from it. Rational conclusions from this type of examination might in best case concern new theoretical perspectives or angles to be taking into account in the research field and new assumptions or hypotheses to be considered and tested.

The Piagetian Framework: A Departure

As already described, Kegan’s description of “the Piagetian framework” guiding his own thinking includes three basic interwoven aspects (Kegan 1982, p. 294):

- A biological aspect, reflecting the essence of adaptation, the relating of organism to environment
- A psychological aspect, reflecting the essence of ego, the relating of self to others
- A philosophical aspect, reflecting the essence of truth, the relating of subject to object.

Taken together, these are conceived as different perspectives on the single process of meaning-constitutive development. The *biological aspect* concerns the evolutionary roots of human development as of an interactive character. This is forming basic preconditions for human thinking in terms of acting and interacting with environmental conditions, physical as well as social, in the struggle for survival. The *psychological aspect* concerns the psycho-social and identity base of the self as necessarily relating to others. This indissolvable relation has to be coordinated one way or another to solve for instance internal identity conflicts or master external demands. The *philosophical aspect* concerns the fundamental developmental character in terms of subject-object transformations as “coherence wholenesses.” As described, the stage structures are regarded as being transformed from being a non reflected subject, intuitively guiding a person’s actions and thinking, towards being reflected upon as an object.

The psychological aspect, the relating of self to others is regarded as reflecting the essence of ego, is taken as a central position in the thought experiment performed below. This is justified by the fact that SOT basically takes an inside theoretical perspective in terms of a person’s emotions, thoughts and action orientation in the developmental process. At the same time the relating of self to other(s) is imbedded in the adaptation process between man and environment that reflect a broader action-interaction perspective, including also the physical environment. Both the psychological self-other aspects and the adaptive man-environment aspects, in turn, involve the subject-object coordination as a philosophical-existential aspect of the process. Thus, the ego in the thought experiment concern people’s self-other coordinations hampering or promoting their subject-object transformations in the ego’s interaction with the environment. Thus, the aspect of self-relating to other in this Piagatian framework is conceived as not being limited to an isolated psychological-social dimension of development. Instead it is understood as being embedded in and reflecting a broader and deeper meaning constructing activity and movement of an acting and interacting ego.

This overriding frame of reference provides a departure for our theoretical way of approaching the SOT process in the “thought experiment.” As described, the SOT process is taken as a starting point for this “experiment” which is a kind of examination or test of how logic reasoning and meaning making is interlinked in this process. This testing examination is restricted by the following assumptions

Assumptions, Big Assumptions and General Stage Assumptions

The *first assumption*, or perhaps rather the way of framing the stage developmental lines compared is in terms of dialectical processes as being more or less dynamic movements between balanced (equilibrated) and imbalanced (disequilibrated) phases in this movement. This can be seen as a way to focus on both stages, structures, a taxonomy aspect and the underlying process, and an ontological aspect, in terms of the interplay between both these structure and process aspects in stage development (e.g. Kegan & Lahey, 1998). This dialectic feature of the developmental process can be traced to Piaget's theory and seen as characterizing both the SOT and MHC developmental processes.

The *second assumption* is that the meaning making stage-wise process in SOT can be expressed in general assumptions regarding a person's perceived self-other relating and coordinating in each stage. Here we take a departure in the Immunity to change concept "Big assumption." As already mentioned, such assumptions are not conceived as we commonly understand the concept of assumptions, as consciously more or less articulated statements of what may characterize events and phenomena. Instead, Big assumptions refer to taken for granted truths like meaning regulating principles (Kegan & Lahey, 2001; Wagner, Kegan, *et al*., 2006; Kegan & Lahey, 2009). Thus, these assumptions are by definition not consciously articulated. Although derived from SOT, our assumption involve a further step of articulating such meaning regulating and taken for granted assumptions in terms of assumed explicit self-other coordinations that we consider as typically characterizing each SOT stage from theoretical considerations. Here the "self-meaning context" is consequently formulated as a person's "action orientation," while the "other-meaning context" concern the collective contexts towards which these actions are oriented, both aspects on increasing stage complexity orders of meaning making. The meaning context includes the increasingly complex motivational drives and directed action structures involved in a person's action orientation. We refer to these self-other aspects as General Stage Assumption (GSA)

The *third assumption is* that such General Stage Assumptions of the self relating to others can be conceived as "dualities." This means that the "self-other poles" are regarded as necessary and mutual part of a process, rather than as a static contradiction of opposing positions (Sánches-Runde & Pettigrew, 2003; see also Sun, 2002). In the Piagetian framework described, the relating of organism to environment, of self to others and subject to object can be seen as indivisible parts of wholenesses. Other examples are differentiation-integration and external-internal. None of the "duality poles" can be properly understood without the other, either as foreground or background. Combined with the first assumption this imply that the self-other meaning context duality is seen as involved in a dialectical movement. They can be characterized as initially being intuitively balanced in the subject's non-reflected position in the balanced phase in a new order of consciousness, but then being increasingly unbalanced and rebalanced when deconstructed and reconstructed in the transitions to higher orders.

The *fourth assumption* is that the self-other duality trigger the ego to master the imbalances between these two meaning contexts generated by e.g. internal conflicts and/or external challenges. The General Stage Assumptions involve both such internal conflicts and external challenges. These bring to the fore conflicts or dilemmas that concern how to take into account both the action orientation of the self-meaning context and the other-meaning context to be able to coordinate them (this being further clarified below). The GSA dilemmas in our examination are chosen to express typical such conflicts at each stage transition. One example is how to combine individual goals with societal demands in an at least partly individualistic way in the socialization process into societal life. This concern balancing e.g. the values and goals of the self meaning context with those of in the other meaning context. According to SOT this involves an internalization step transforming the former subject into a new object.

These four assumptions are supposed to promote:

- The specifying of the multifaceted concept of meaning making in stage development in terms of more precise General Stage Assumptions (GSA) of self-other meaning contexts being coordinated
- The discerning of these coordinations as ”regulating principles” in the deconstruction and reconstruction of the GSA in the stages and their transformations
- The discerning of an ego conceived as an “active agent” coordinating these meaning contexts in balanced- –imbalanced – new balanced phases expressed as a dialectical movement towards higher orders of consciousness
- The discerning of how the MHC complexity orders are related to this self-other coordination as a) enabling the discerning or self other meaning context in increasingly abstract terms and b) providing a logical reasoning “tool” to considering consequences of acting according “the self meaning context” or acting according the “other meaning context” to master dilemmas and meet challenges in the deconstruction and reconstruction of the GSA.

The Assumed Developmental Process Character: Further Clarifications

The GSA suggested below is formulated in terms of a person’s differentiation from an intuitive embeddedness in a certain collective context in the equilibrium orders and integration in a wider collective context by an internalization process in the transitions between these orders. As already described, this transition is formally expressed as totally six qualitative steps from one subject-object balance to another, designated as: X, X(Y), X/Y and Y/X, Y(X), Y (Lahey, *et al.*, 1988). Among these, X and Y refer to a subject-object balance in complete equilibrium. This process express a former balanced structure X being step-wisely deconstructed, the X(Y), and X/Y positions, and reconstructed, the Y/X and Y/X positions.

We consider this as a transitional balance shift between a *“differentiation sequence”* from the embeddedness at a lower order of complexity, with a smaller “self-context” (X(Y) and X/Y) to an *“integration sequence”* (Y/X and Y(X)) towards a higher order of complexity, with a larger “other-context.” This can be expressed as the self-other balance “tipping over” from the X-“differentiation side” to the Y-”integration side.” The stage transformation involves the internalization of the “other-position” as integrated in the “self-position” on a more complex order of consciousness. Internally, this is reflected by the self *internalizing* the “other-position” as consistent with the “position” of one’s own. The notion of position here includes both cognitive and affective orientations, see below. Externally this reflects that the self can orient the new “self position” towards and within a broader and more complex context.

The “tipping over” concern a shift between two “outlooks” that will be formulated in the thought experiment as the GSA at a given stage is being deconstructed and then reconstructed. The coordination of the “outlooks” reflecting the self-part and other-part of the self-other dualism involves both cognitive and affective dilemmas. As described cognitive and affective aspects were conceived by Piaget as inseparably joined in a “functional parallelism” and a similar understanding of the interrelatedness has gained further support from different research fields, such as brain research, (Damasio, 1994; Cohen, 2005) and psychological experiments regarding economic judgments (Kahneman, 2012). The cognitive aspect may concern increasingly articulated and complex goals of actions, such as interests, goals and strategies, related to the two outlooks. The affective aspect may concern increasingly complex motivational "drives," such as needs, values, visions, of the same outlooks. Values, defined as frames of references in judging events in terms of desirability and guidelines for actions provide motives and motivation to act and orient a person's action to social, cultural and societal contexts (e.g. Hagström, 2003; Reed, Turiel, & Brown, 1996). Needs and interests can be seen as less complex such motivational "drives" and action guidelines while visions and strategies express more complex such motivational drives and guidelines. Strategies can for instance compared to single goals be regarded as more overriding plans to fulfill a vision taking into account several steps and sub goals due to occurring events. A vision here concerns a desirable future situation, including e.g. values, affections, and special circumstances.

A way to systematically illustrate this is to conceive values as coordinating two or more needs and goals as coordinating two or more interests; and consequently visions as coordinating two or more values and strategies coordinating two or more goals. The transformations are assumed to involve an internalizing of for instance two or more contrasting values and goals in a higher order within the frame of one vision and one strategy. Values and goals are consequently considered as subordinated the visions and strategies hierarchically, which consequently reflects a lower SOT order of consciousness. This is illustrated in the figure below:

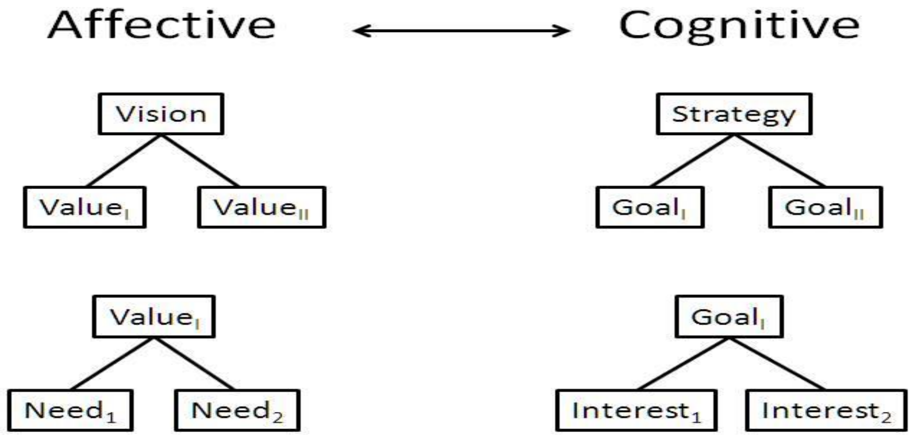


Figure 3. The affective and cognitive aspects of a person's action orientation at different levels of complexity.

Furthermore these affective and cognitive aspects may be assumed being interwoven, possibly as both being more differentiated and integrated on increasing SOT orders as indicated by the arrows in Figure 3 pointing in both directions. Thus the meaning contexts in our examination concerns the increasingly larger and more complex or abstract collective contexts a person can discern and grasp and therefore being involved in by orienting his/her actions by increasingly complex motivational drives and directions of actions. This aspect of the coordination of the self-other meaning context express the ego as an "active agent" trying to reach desirable goals, acting and interacting in the surrounding world. As described, the dilemmas brought to the fore in this process is assumed to constitute general conflicts and challenges typical for each GSA that have to be solved at each SOT transition. The reasoning "tool" in order to master such dilemmas and challenges concern logical reasoning on increasing MHC complexity orders, for instance in terms of formal order if-so causal sequences or in terms of systematic order feedback loops. This appears to express the operative aspect of logic according to Piaget. The logical reasoning involved focuses on desirable or undesirable consequences of acting according the action orientation of a person's self-meaning context and other-meaning context.

Consequently, the coordination of the two outlooks is conceived as involving both these aspects as interwoven in people's action orientation. However, these coordinations are assumed to reflect a relative balance shift between them rather than a total dislocation. Increasingly loosening roots in a smaller self-context is tipping over to more solid roots in a larger other-context. Furthermore, these shifts can be assumed to be initiated by meaning related conflicts within the self-meaning context as well as by meaning related challenges in the other-meaning context. Irrespective of how this process starts and progresses, these shifts are basically considered as expressing a deeper dilemma. It concerns the existential experience of a person not being firmly rooted in either a former self-meaning context or in a potential other-meaning context. This dilemma, regarded as reflecting the dualistic character of the self-other coordination, basically concern how to maintain the continuation of one's identity.

This conception of developmental process can be understood as a shift of the self-other balances in the developmental process including at least three main phases, a) a balanced self-other *"initiating step"* in each new order of consciousness, b) an increasing-decreasing imbalance between the perceived self meaning context and the other meaning context in a *"transition step"* between the earlier self-position (X) and the later other-position (Y) and c) the generation of a *"transformation step"* internalizing the "other-position" as consistent with the position of one's own. This process appear to express a dialectical interplay between the self-positions considered as the thesis's and the "other-positions" as the antithesis's resulting in synthesis's in the transformation step.

The thesis-antithesis feature of the "self-other" positions is here considered as a consequence of their basically existential and identity threatening character as contrasts that have to be coordinated one way or another. Their dualistic "formal-dialectical" features seem to correspond with the MHC transition already described. The "relativistic" position after the thesis-antithesis positions in the MHC transition process is expressed as an either (thesis) or (antithesis) position, which seem to "formally-dialectically" correspond with the SOT transition step distinguishing the self-other dilemma as contrasting "either-or" positions. The SOT process of trying to coordinate these positions, initiating the transformation step may, in turn, share some characteristics with the "smash" step in the MHC transition. In both processes, thesis and antithesis are acknowledged as needed, followed by them being coordinated at a higher complexity order. However, in the thought experiment, the MHC development of logical reasoning is regarded as a process in its own respect that may develop relatively isolated from the SOT development process, although both processes are assumed to be interlinked.

As described, the thought experiment can be considered as a systematic way of comparing these two lines of development, assuming that they reasonably should be interrelated one way another. As also described, this presumption is justified by their basis in Piaget's more integrative frame of logic and meaning being interrelated. The assumption is further justified by the fact that they both describe people's frames of references and coherence in terms of coping with the challenges of life as a whole, which reasonably should involve both logic and meaning.

The Meaning Making in Three Orders of Meaning Making Related to Four Orders of Logical Reasoning

Thus, in order to discern how meaning making is related to logical reasoning, the General Stage Assumptions derived from SOT are judged in terms of MHC complexity orders in three of the SOT stages, the Socialized mind (3rd order), the Self-authoring mind (4th order) and the Self-transforming mind (5th order) and the transitions and transformations between these orders. The thought experiment is briefly performed stage-wisely in the following way:

1. The brief characterization of the subject and object according to SOT in each of the three stages.
2. Formulations of the *"initiating step"* in terms of the subject's General Stage Assumption stated as it's relating of self to other(s) as a non-reflected coordination of this self-other dualism at each stage.
3. Formulations of a *"transition step"* in terms of the self-other dualism being increasingly differentiated when being deconstructed due to a stage typical conflict and being increasingly integrated in a forthcoming "other-meaning" context as reconstructed by the self. Here, the MHC logical aspect is regarded as involved in two respects: First, to enabling the discerning and grasping of the meaning contexts involved in term of their "abstraction levels," and second, as the complexity of the logical reasoning involved to realize consequences related to the contrasting meaning contexts in terms of their desirability.
4. This either-or balancing comparing process is assumed to generate the *"transformation step"* where the former self is being internalized into a new order balance, integrating the former self in a new self at a higher complexity SOT order.

This will be performed in three sections below, starting with the 3rd SOT and the 9th MHC order.

The 3rd Socialized Mind Order and its Transformation

The subject here concerns "the interpersonal mutuality" while the object concern "needs, interests and wishes" (Kegan, 1982). The subject is here initially embedded in "mutually reciprocal one-to one relationships" within a close group relationship(s) context, such as the family or peer group. The subject's intuitive coordination of the relating of self to others may be formulated in the following GSA, reflecting the X equilibrated stage 3rd order of consciousness:

Subject's intuitive frame: "I am my needs and interests of my close group meaning context."

Latent "self-other" duality co-ordination: "I am the needs and interests coordinated with those within my close group meaning context."

The subject's GSA in this balanced self-other *"initiating step"* constitutes what the subject unreflectedly "is." Thus the person's preferences, interests and wishes are perceived as mutually interwoven with those within this person's close group context. The MHC order that constitutes the "minimal" logical capacity to discern and grasp this group context as an abstract context with common features characterizing this context seem to be the No 9 abstract order of hierarchical complexity. As described, this order enables to a person to form abstract variables, such as x and y that don't correspond to single concrete factors or instances in the exterior world. Thus, as already described, variables can be formed out of finite classes that are based on abstract features in terms of quantitative classes (e.g. "always," "everyone") and stereotypes applied to people (e.g. "teacher," "immigrant") as well as imperatives of what one should and should not do. This enables the conceptions of group contexts as characterized by their common needs and interests as uniting their members.

Thus, the meaning constitutive coordination at this third SOT order of consciousness concerns the preferences and interests of the self-part and those of the other-part. Conditions starting the transition step by promoting the *deconstruction* and *reconstructing* of the self-other duality of this GSA may involve conflicts within the close group context as well as dilemmas derived from demands and challenges outside this context, such as conflicting interest between groups that the subject identifies with. The conflict that differentiates the self from its initial embeddedness might concern balancing being caring or selfish, such as feeling selfish when putting one's own preferences and interests before those of other persons' in this context. When experiencing and reflecting about such dilemmas, the self position in the duality can be discernible as a meaning context of one's own, reflecting the differentiation sequence described above. Since groups can be conceived as having something in common beyond their concrete appearance, the self is capable of discerning the possibility of joining other group meaning contexts in terms of possible better solutions of conflicting preferences and interests.

This can be assumed to initiate the integration in a broader social context, due to the self being increasingly capable of open itself the other meaning context. This side of the process concern the integration sequence, also described above. The GSA deconstruction reflected in "I am my own needs and interests *differentiated* from my close group meaning context" and the GSA reconstruction reflected in "I am my needs and interests integrated in a larger social meaning context" can be seen as expressing the different outlooks described above, which reflects the existential dilemma of leaving an identity base, here in the small group meaning context, without being firmly rooted in another identity base in other larger social meaning contexts.

The considerations and reflections when comparing these self-other meaning contexts reasonably involves "if-so" reasoning focusing the possible consequences of acting according preferences and interests in both contexts which therefore may be regarded as a necessary conditions for a further transformation to a higher SOT order to occur. Such way of reasoning does not appear to being possible to perform according the 9th abstract MHC complexity order of logical reasoning. Instead the 10th formal order of hierarchical complexity appears as necessary since it enables cause-effect thinking (if-so, if x then y). Reasoning in these lines reflects the linear process of achieving a goal, or rather with the self-image of already being at that goal. This constitutes for instance young people's cognitive as well as evaluative bases for the assumption of adult roles, life projects and so forth, within a societal context. Thus, logical reasoning of this complexity order makes it possible to relate the preferences and interests of the self-other meaning contexts by logical if-so reasoning, making consequences of the two meaning contexts needs and interests being discernible.

Consequently, such order of reasoning can be assumed to constitute a necessary cognitive tool to consider more or less desirable consequences of both differentiating from a self meaning context and integrating in a new one. The considerations involved here might move the either-or dialectical contrasting transition step over to the transformation step generating a new higher order self, internalizing the former self's preferences and interests in the frame of own values and goals related to the socialization into a societal institutional meaning context. Thus, these values and goals integrate the former needs and interests as subordinated but integrated in the superior necessity to collaborate with others to reach common societal goals regarded as not necessarily conflicting with the small group meaning contexts. The former subject as a "small group self" has become an object being consciously coordinated in a new larger and more complex meaning context on the 4th SOT order.

The 4th Self-authoring Mind Order and its Transformation

The subject here concerns "authorship, identity, psychic administration and ideology" and the object "the interpersonal mutuality" (Kegan, 1982). The subject is initially embedded in an institutional-societal context. Its intuitive coordination of the relating of self to others may be formulated in the following GSA reflecting the X equilibrated stage 4th order of consciousness:

Subject's intuitive frame: "I am my values and goals of my institutional-societal meaning context."

Latent "self-other" duality co-ordination: "I am my values and goals coordinated with those of my institutional-societal meaning context."

The subject's GSA in this balanced self-other initiating step is assumed to constitute what the subject unreflectedly "is" in terms of its values and goals. The MHC complexity that appears to constitute the "minimal" capacity required to discern and grasp the "abstraction level" associated with an institutional-societal meaning context appear to be the 10th formal order. The self-context at this order can be understood as the goal oriented "system" acting and interacting within a non reflected collective-societal context. The self context has consequently been transformed to the "self-system" of an ego capable of moving beyond the close group context, subordinating affective needs and cognitive interests in the frame of own values, goals, actions and interactions. However, the former close group context is still perceived as remaining intact to return to. Joining broader social contexts is promoted by for instance going to college or to temporary jobs which provide "…opportunities for provisional identity which both leave the interpersonal context behind and preserve it, intact for return; a time limited participation in institutional life" (Kegan, 1982, p. 165).

The meaning constitutive coordination at this order of consciousness concerns the values and goals of the self-part and those of the other-part. The transition step is regarded as being promoted by the deconstruction and reconstructing of the self-other regulating elements of this GSA, which here concerns conflicts within the societal-institutional meaning context, as well as challenges outside or beyond this societal-institutional context. The conflict that differentiates the self from its initial embeddednes might concern doubts about the self's identification with the common institutional societal norms and values as constituting the ideal or role as being a pillar of society. This could be clarified through the insight of there being a gap between reality and ideology, between the self and an ideal, or between the self and society. Experiencing such stage typical conflicts initiates the differentiation sequence part of the process. This is followed by the integration sequence where other possible collective meaning contexts are discerned as framing e.g. ideological action guidelines to reach better solutions of the typical conflicts at this order than those provided by the traditional societal-institutional context. It reflects the ego being more capable to opening itself to a self chosen ideological position.

The considerations and reflections about these conflicting self-other contexts in this SOT transition can be assumed to necessarily involve the hypothetical consequences of the self-system acting in for instance other systems, contexts and cultures for the triggering of a transformation to a higher SOT order. Such way of reasoning does not appear as being possible to perform according the 10th formal MHC order. Instead, the 11th systematic order of hierarchical complexity reasoning seems to be adequate. As described this order enables logical reasoning about how a change in one element (X) leads to a corresponding change in another element (Y). Mathematically this corresponds with the construction of multivariable functions. When reasoning about hypothetical consequences of actions this kind of reasoning enables to consider differing consequences of different systems and "situate events and ideas in a larger context, i.e. considers relationships in contexts; form or conceive systems out of relations: legal, societal, corporate, economic, national" (Commons, Ross, & Miller, 2010: 6). The systematic order of reasoning enables the creation of a coherent system, such as a feedback loop: "An increased level of carbon dioxide leads to global warming which leads to an even higher level of carbon dioxide, and so forth."

Thus, the logical tool here enables reasoning in terms of possible feedback loops and "spiral processes" of the more or less desirable consequences acting in accordance with institutional and ideological values and goals. In the transformation step here the values and goals of the former self context is being internalized as subordinated in the frame of visions and strategies related to new societal discourses and meaning making. The former subject as "a societal-institutional self-meaning context" has become an object to consciously coordinate in a new, larger and more symbolic complex meaning context on the 5th SOT order.

The 5th Self-transforming Mind Order

The subject here concerns "interidividuality, interpenetrability of self systems" and the object "authorship, identity, physic administration, ideology" (Kegan, 1982). This has resulted in a new balance at a higher order, formulated as the GSA regarding the relating of self to others, reflecting the X equilibrated stage 5th order of consciousness:

Subject's intuitive frame: "I am my visions and strategies of my ideological-collective meaning context."

Latent “self-other” duality co-ordination: “I am my visions and strategies coordinated with those of my ideological-collective meaning context.”

The subject’s GSA initially in balance in the initiating step at this order implies that the person’s visions and strategies is perceived as mutually interwoven with those of the ideological-collective context. The MHC order that seems to constitute the minimal capacity required to discern and grasp the abstraction level associated with this ideological-collective context seem to be the 11th systematic order. The self-meaning context has consequently been transformed to a self capable of moving beyond the societal-institutional meaning context, subordinating this context within the frame of one’s own visions and strategies. Thus, the meaning constitutive coordination at this SOT order concern the visions and strategies of the “self-part” and those of the “other-part.” The “*transition step”* here involving the *deconstruction* and *reconstructing* of the self-other regulating might concern doubts about the self’s identification with its collective-ideological visions and strategies. Comparing reflections might for instance be about, on one hand, there might be too much collective disadvantages for maintaining the individual’s freedom in a market economy or, on the other hand, there might be too much individual disadvantages, such as lacking freedom to maintain a centrally regulated plan economy.

Experiencing and reflecting about such dilemmas, initiating the differentiation sequence, may result in increasing insight that if the strategy of a certain ideology is adopted by everyone, there will still be a lot of losers. The integration sequence, might be formulated as an increasing insight of the desirability of an other-meaning context of a larger collective stream of human growth. Thus, the duality positions involved in this transformation can be formulated as “I am my visions and strategies *differentiated* from my ideological-collective context” focusing the self-part of the meaning context duality and “I my visions and strategies *integrated* in human development and growth” focusing the “other meaning context duality. These two meaning contexts appear to be grasped and discernible as “abstractions” on the MHC 11th systematic order of hierarchical complexity. But also here, the transformation towards a higher SOT order seems to involve logical reasoning on a higher MHC order, in this case the 12th order of hierarchical complexity. This logical reasoning “tool” enables the coordination of more than one system. As described, the ego here is regarded as capable to compare or combine coherent systems as well as being able to compare these with reality by analyzing discrepancies and discern interactions between them. The transformation step and internalization process here results in a more complex balance where the hallmark can be understood as an emphasis on development and growth where the self-other distinction is being less articulated and the boundary between them has been loosen. Thus, it is the growth of human beings rather than the growth of scientific knowledge and economic or material growth that is meant.

This description of the fifth SOT order of consciousness involves both the initiating step and the transition step towards a hypothetical more complex SOT order. It is being characterized as being a dialectical and trans- or post ideological one, involving the capacity of dealing with paradoxes, contradictions and oppositeness. This seems to reflect a dialectical way of thinking, elaborated by Basseches (1984) and Laske (2008), implying patterns discernible as changing wholenesses rather than accumulations of fixed truths. The relating of self to others may concern the capacity to embody multiple ideologies and many coherent systems of personalities and still being able to continue the process of self-actualization and transformation. The “self” here thus seem to concern the subject as an ongoing, evolving and transforming movement while "others" here concern an interwoven such a collective movement of interrelated societal and cultural patterns. However such a self-other balance is in our examination seems to be generated rather at a hypothetical 6th order SOT balance than characterizing the 5th order balance. This seemingly confusion of what constitutes the 5th SOT order of consciousness can be interpreted in the frame of a more general confusion of the conception of stages as structures or process which will be further discussed in the following discussion section. The result of the comparing "thought experiment" can is illustrated in Table 3 below:

Table 3. Meaning making and logic reasoning in three consciousness orders and transitions.

SOT meaning making order and transitions	*MHC logical structures and reasoning involved*	*Subject: Self-other General Stage Assumptions deconstructed and reconstructed*	*The internalization process*	*Object: Self-other regulation internalized in higher orders*
3rd order, Socialized mind	**9 abstract order**: Concrete elements form abstract variables (e.g. X, Y), e.g. categories such as time, place, everyone, teacher **10 formal order latent**	"I am my needs and interests of my close group meaning context"		
3/4-transition	**10 formal elements and operations involved**: Abstract variables e.g. cause and effect relationships (if X then Y), "An increased amount of carbon dioxide in the atmosphere leads to global warming"	**Self:** "I am my needs and interests differentiated from my close group meaning context" **Other**: "I am my needs and interests integrated in a larger social meaning context"	Differentiation-Integration sequences Lower order self X being internalized in higher order self Y X(Y) X/Y – Y/X, Y(X)	
4th order, Self-authoring mind	**10 formal order** **11 systematic order latent**	"I am my values and goals of my institutional -societal meaning context"		"I am my needs and interests etc. of my close group meaning context"
4/5 transition	**11 systematic elements and operations involved**: Formal relations coordinated; functions, equations with more than one variable, feedback loops: "Increased levels	**Self**: "I am my values and goals differentiated from my institutional –societal meaning context" **Other**: "I am my values and goal	Differentiation-Integration sequences Lower order self X being internalized in higher order self Y	

	of carbon dioxide leads to global warming which leads to even higher level of carbon dioxide etc.”	integrated in a larger collective-ideological meaning context”	X(Y), X/Y – Y/X, Y(X)	
5th order, Self-transforming mind	**11 systematic** **12 metasystematic order latent** (e.g. combining and comparing systems)	“I am my visions and strategies of my ideological-collective meaning context		“I am my values and goals of of my institutional – societal meaning context”

The Self-transforming order of consciousness exceeds the highest of Piaget’s stages. It seems reasonable that this characterized Piaget’s own way of thinking since he considered an individual as a self-transforming system who creates new structures during the course of development in interaction with the surrounding world. This process and its driving forces (such as accommodation, assimilation, equilibration, and transformation) are described differently than the description of formal logical operations (such as equivalence, mutual implications, and negations). However, Piaget did not seem to claim that cognitive development ends with formal operations. He rather seem to have meant that these operations constitute the final form of equilibrium, in terms of coordinating the groupings that earlier have not been coordinated in a single system (Lourenco & Machade, 1996).

This way of coordinating was not considered as changing during adult life, but it was understood as possible to integrate into larger systems. The “elements” that are being coordinated consists of increasingly abstractly defined categories. According to Piaget they would not be logically more complex. But according to MHC they would be more complex in terms of the abstraction levels of the coordinated elements and according to SOT more complex in terms of interrelated meaning categories. Cook-Greuter (1999) claims that the conceptions of what follows beyond formal operations can be divided into two trends. One of these conceive the further development as an ongoing differentiation and integration process towards more mental flexibility, the other conceiving development as a step-wise deconstruction of subject-object boundaries. The former trend may be compatible with logic in the frame of complexity theory and non-linear mathematics, while the latter trend rather may concern a phenomenological understanding and ideas from quantum physics. The concepts of postformal and dialectical thinking have been criticized as lacking theoretical clarity and that the notion of “integrative thinking” therefore should be used instead, referring to both additive and transformative process characteristics (Kallio, 2011). Here further research and theorizing is required.

Concluding Summary

On the base of the “examination” performed across the three SOT orders restricted by the assumption and clarifications described, the following conclusions seem to be reasonable:

1. The assumptions and clarifications seem to make the SOT and MHC discernible as distinct diverse structures derived from Piaget’s perspective of those structures considered as more

implicitly interwoven. This concerns not at least the understanding of the SOT meaning making as self-other coordinations of duality elements being contextualized as self-other meaning contexts expressed in terms of the General Stage Assumption stated.

2. Further, these assumptions and clarifications appear to make the ego in these coordinations discernible as an "active agent" driven by increasingly complex motivational drives and corresponding increasingly complex goal orientations, being increasingly able to act and be involved in more complex external contexts.
3. The testing "examination" across the three initiating, transition and transformation steps appear to make the SOT process discernible from a psychological inside perspective regarded as a person's way of contextualizing his/her conflicts and challenges in terms of self-other meaning contexts being experienced as balance disturbing conflicts and challenges.
4. The testing "examination" also seems to make the logical reasoning and meaning making aspects discernible as structurally and functionally interrelated in the development process. Logical complexity according to MHC appears as a condition to cognitively grasp the "self-other" meaning context categories as necessary but not sufficient condition to be able to coordinate these. Further, the logical reasoning that appear as a necessary condition to trigger the transformation step seem to be at least one complexity order over the MHC order necessary for initiating the transition step at each SOT order.
5. Thus, these conclusive suggestions of the interrelatedness of logical reasoning and meaning making, although conceiving each of them as distinct differing lines of development in their own respect, still suggest them as being necessarily interlinked in the SOT meaning making process.
6. The generality claims of both models might be argued for without one of them being regarded as necessarily subordinated the other one. However, such a conclusion brings to the fore further considerations of what constitutes their generality claims beyond their "hard stage" characteristics. This concern e.g. their content, functions, causal relatedness and mutual embeddeness.
7. Taken together these outcomes from the thought experiment and interpretation of them bring to the fore a seemingly need for a shift from a focus on the development stage classification to a focus on the underlying developmental process in constructive development stage theory and research, although still take into account the structure and process dynamic as a wholeness. The process focus involves the inside-out as well as the outside-in conditions influencing development. A focus shift towards the underlying process dynamics that inter-relate stages, transitions and transformations will promote a "contextualization" lens on constructive-development stage theory and research.

Discussion

The aim of this article is to discern general features in adult development stage structures and transitions in terms of logical reasoning and meaning making. By way of introduction it should be underlined again that the conclusions that can be drawn on the base of the thought experiment cannot be claimed to provide "truths" or empirical evidence, but in best case theoretical insights and fruitful hypotheses triggering the discussion in the field a bit forward. The following final considerations aim at elaborating more in depth and breadth on the issues brought to the fore by our comparing approach and the summarized conclusions made. *First*, the relevance of different generality claims will be discussed in terms of two approaches. *Second*, this raises questions about the differing subjectivistic and objectivistic "scientific positions" of SOT and MHC that will be considered and again related to their inspiration source, Piaget's theory. *Third*, this leads to taking into account both inside-out and outside-in development influences when considering the distinctions between stages, transformations and transitions. *Fourth*, it is argued for the need to contextualize individuals' developmental possibilities in for instance the frame of a "transform-actional approach" to meet postindustrial demands and challenges.

Generality: Causal Sequences, Existential Depth and/or Mutually Interlinked Processes?

To summarize, generality in development stage theories has commonly been related to strong development criteria and hard stages, typically Piaget's theory of logic development, such as universality, fixed sequentiality, irreversibility and qualitativeness leaps. Piaget's understanding of logic as interwoven with meaning implications implies both these aspects as constituting general features of the stage developmental process. However, he did not explicitly clarify how these aspects were interrelated in this process. As a way to clarify this further, logical reasoning according to MHC and meaning making according to SOT was compared in terms of the assumptions and conditions related to a thought experiment. The fact that each of these neo-Piagetian theories was an advocate of high "hard stage" generality claims and at the same time focused on either of these aspects justified the choice of comparing their approaches. The questions concern, as described, if, how and why they are, hierarchically and/or causally subordinated in generality terms, and/or interrelated in the development process.

One way of judging this can be expressed as the "the causal-sequential approach." This concern sequential links between domains in terms of necessary and sufficient conditions for development (e.g. Pintrich, 2002; Colby, Kohlberg, *et al*. 1987). Advocates of this position may for instance argue that "…the operations in question will necessary be exhibited first in the response to logicomathematial or physical problems, next in response to social problems, and last in response to moral problems" (Colby, Kohlberg, *et al*. 1987, p. 13). According to these authors, such a scientific position has gained a substantial empirical support. An at least implicit assumption here seem to be that necessary structures are more basic and thus more general in that respect. A radical such a position is to consider other domains as direct manifestations of such basic ones. Following this line of reasoning may end up in distinctions of a "hen-egg" type, reflecting an "evolutionary" perspective and biological explanations. The "causal-sequential approach" may imply that the "formal" character involved in logical reasoning "translated" to and manifested in other domains constitute the underlying driving forces in stage development. Thus, the "hard stage" character of other domains is assumed to indirectly reflect the "strong" development necessity drives related to for instance axiomatic logic premises which concern the "formal" structural and dialectical aspects of development.

Another way of judging generality can be expressed as *"the existential depth approach."* This approach is related to the content and functions of development stages and its transformations. This wholeness express a both broader and deeper meaning of the self-other coordination, reflected in its dualistic character of something that has to be coordinated one way or another. The self-other coordination reflect, according to the "Piagetian framework" the essence of ego, acting and interacting in an environment (the biological aspect) reflecting the essence of adaption and coordinating subject and object (the philosophical aspect) reflecting the essence of truth. Thus, the wholeness of this process involves both a *broader* and *deeper* conception of the self-other coordination than being limited to strictly social aspects. The process should rather be conceived as an evolving ego as essentially being a meaning constituting movement and activity**.**

Therefore, the existential depth of a SOT "self-other" coordination might be understood either as one of a person's many functions or rather as a central and holistic tendency in a person's organizing of meaning. SOT take this latter position and claims that this perspective "…is the very ground of personality itself - it *is* the person" and "…where 'person' is understood to refer as much to an activity as to a thing" (p. 3 and 7/8 respectively, Kegan, 1982). Ego here refers to a central organizing tendency and as the activity of meaning making towards more complex structures. It can be conceived as underlying other forms of cognitive, physical or social coherence structures including those focusing the self-other coordination in more delimiting respects such as Kohlberg (1987), Selman (1980) and Skoe (2014). The conception of ego in terms of an underlying form or process can be expressed as an "epistemological structure": "…what we know about our way of knowing" where "the subject-object relationship forms the cognate or core of an epistemology" (Kegan, 1982, p. 53). Thus, the reduction of the SOT development process that appears to be the consequence of focusing on the self-other coordination is not to be regarded as trivializing this theoretical approach in any way. As hopefully has been clarified, the self-other coordination is not restricted to taking others' perspectives in social interactions or being understood only as individuals joining increasingly larger collective categories. As described, it rather concerns how these self-other categories, conceived as meaning contexts, are coordinated by a person's actions (motivationally and directionally) on increasingly complex orders using increasingly complex logical "tools."

A conclusion of these lines of reasoning seems to be that logical reasoning may be regarded as more general than meaning making according to *"the causal-sequential approach,"* and meaning making as more general than logical reasoning according *"the existential depth approach."* At the same time the thought experiment indicates that the SOT and MHC complexity defined in their own terms correspond with each other stage wisely even if the number of proposed stages differs. This reflects that the MHC stages were found being involved in the differentiation-integration "positioning" in the transitions between the SOT stages. Increasing meaning making complexity seemed to be promoted by correspondingly increasingly logical reasoning complexity in the deconstruction and reconstruction of the self-other dualities. In this way logical reasoning can be said to constitute a necessary but not sufficient condition for development of meaning making, being more general in this respect. At the same time, meaning making can be understood as more general due to its embedding of this logical capacity as a subordinated "tool" in this more identity constituting developmental process. As already stated, a main conclusion from the thought experiment is therefore not that one of the aspects is subordinated the other one in a more absolute sense. The conclusion rather is that both aspects are necessarily interrelated in human development, and at the same time seem to constitute diverse generality high and maybe essential features in their own respects.

However, this raises further issues about how logical reasoning is related to meaning making. The hard stage character of MHC refers, as described, to its hierarchical principles and axiomatic operating logical principles. These stipulate necessary conditions for transformations of logical reasoning to occur. The qualitative leaps are due to new ways of solve logical problems. The correct solutions define the stage levels and this is regarded as theoretically reflecting both functional and structural aspects: “The functionalism is that stages are based on performance of tasks. The structuralist part is that sequences that are generated using the MHC are ordinal structures. Each order is qualitatively different and irreducible to any of the lower orders” (Commons, Ross, & Miller, 2010, pp. 10ff.). The generality claims of both the SOT and the MHC theories concern their dialectical thesis-antithesis-synthesis character. However, the interrelatedness of these two processes in “real life contexts” may not necessarily seem to imply the competence of logical reasoning in a strictly mathematical respect. The MHC functionalism based of the performance of tasks reflects a connection between logical operations and actions in terms of internal action sequences being logically coordinated to reach external goals. Logical reasoning is thus regarded as generating actions but action coordination may also, the other way around, generate logical reasoning. Action coordination in this sense does not necessarily seem to require being sequentially preceded by the axiomatic-mathematical operations. Thus, logical reasoning in pure axiomatic-mathematical terms might not be either a necessary or sufficient condition for meaning making, even if logic in verbally reasoning terms seems to be necessarily involved. “Semantic” logical reasoning may also be at hand before its strictly mathematical manifestations have developed. This tentative conclusion would at least constitute a hypothesis to be tested. The necessary conditions for the meaning making development process to occur using the necessary logical “tool” may, in turn, require demands and challenges in the external context to be triggered.

Differing “Scientific Positions”

The SOT understanding of the self relating to others partly appear to express the distinction made by one of his inspiration sources, George Herbert Mead, between “I” and “me” as mutually related in a dialectic wholeness as constituting the ego (Mead, 1934/1967). “I” reflect the here and now acting ego, while “me” concern ego’s conception of his/hers social roles. “I” seem to concern the non-reflected actions of the ego that resembles the SOT conception of the “subject” in a balanced phase of a consciousness order, while “me” can be related to reflecting on these actions and their social consequences, resembling the SOT conception of the “object.” Mead’s ego conception reflects a social behaviorist perspective of ego, a perspective differing from neo-Freudian psychology ego conceptions (see Kegan, 1982). This brings to the fore not only the differing philosophical inspirational sources behind the compared theories but also the implications of their differing “scientific positions.”

The self-other meaning context coordination involved in SOT can be conceived not only as an epistemological but also an ontologically matter: “…what is at stake in preserving any given balance is the ultimate question of whether the “self” shall continue to *be*, a naturally *onto*logical matter” (Kegan, 1982, p. 12). These epistemological and ontological aspects of the SOT self-other coordination seem to justify its generality claims as of a basic character in its own respect. This can be concluded also regarding the axiomatically-mathematically defined MHC process. However, the SOT process clearly focuses on development from the inside while MHC focuses it from the outside. The epistemological and ontological character of the SOT self-other coordination concern universal “inside” aspects such as “…what it means for us that our world designs cohere and fall apart; to crisis, anxiety, the defenses, all newly understood; to the uses of pain, to meaningfulness and meaninglessness, breakdown and breakthrough, to the very movement of meaning" (Kegan, 1982, pp. 12ff.).

How are these inside and outside positions related to each other in a more overriding "scientific-theoretical" perspective? As described, the hierarchical and dialectical change characteristics of SOT and MHC can be traced to Piaget's theory. The idea that higher structures integrating lower ones in a centering-decentering process in Piaget's theory seems to correspond to the subject-object dialectic in SOT and it also seems to be possible to conceive the MHC transformations in these terms. The differences concern the constructivistic character of Piaget's theory and SOT that is not found in MHC behaviouristic approach. Constructivism refer to the subjective process of constructing, deconstructing and reconstructing a given stage structure. This difference between the theories can, in turn, be related to epistemological and paradigmatic issues. Beside the content difference, these differences also concern the investigating of the study object from inside or outside and using quantitative or qualitative data approaches, as mention in the introduction**.**

As already mentioned, focusing the study object from the outside, using quantitative data and formal aspects can for instance be associated with an "objectivistic" paradigmatic position to science related mainly to criteria from the natural sciences and positivism. Focusing the study object mainly from the inside, using qualitative data and preferring content aspects tend to be related to a "subjectivist" paradigmatic scientific position with criteria emanating from social sciences and the humanities (see e.g. Cohen, Manion, & Morrisson, 2000). The scientific position of Piaget seems to constitute a mixture of these focuses. This seem to reflect his background in the natural sciences (biology) and his "in-between" position in linking logic and meaning to create a "psycho-logic," as outlined above.

Piaget focused on logical reasoning from the inside and regarded that as a legitimate study objects. But he also studied the investigated object from the outside, and took into account social aspects. However, a social factor, he argued "… is a fact to be explained, not a fact to be invoked only as an explanatory factor" (Piaget 1946/1976b, p. 10). This constructivistic "meaning link" reflect an "inside perspective" and a "subjectivistic" paradigmatic position. At the same time he formalizes the logic in mathematical terms and underlined the form or formal aspects of the developmental process. This is mainly related to the "objectivistic" position, as well as his use of "behavioral" criteria judging children's solving of cognitive-logical issues in experimental designs. Thus, he was not clearly restricted to either of these two paradigmatic positions but rather took a more flexible standpoint.

The differing paths from Piaget taken by SOT and MHC concern the latter as focusing on the study object from the outside by means of applying a mathematical approach and SOT focusing on the study object from the inside using a qualitative approach. The MHC limitation of logic to its axiomatic mathematical aspects follows Aristotle's codifying of logical reasoning that states that inference logic axioms and logical arguments starting with postulates (Commons, Ross, Miller, et al., 2009). MHC focuses on behavior outcomes and requires at least two independent "paths" of a mathematical-logical, phenomenological and empirical "ways of knowing."

Behaviorism concerns broadly the confirming of hypotheses of psychological phenomena in terms of behavioral criteria, thus demanding behavioral evidence for such hypothesis. This seems to correspond with the MHC position in this respect. A strictly behavioristic position can be said to understand behavior as caused by external conditions and furthermore, that mental terms in explaining behavior should be eliminated and replaced by behavioral concepts. A strong behavioristic position rejects the conception of human free will (Skinner, 1971). But even if the MHC position is not that extreme since it allows "events" beyond behavioral ones, covering emotions and attitudes to be included as constructs to be studied indirectly (Commons, 2001), it takes a rather different scientific standpoint compared with SOT. The latter approach primarily focus on the mental stages of meaning making as legitimate study objects. The study of mental structures as general organizing principles in the SOT frame of reference focuses, as described**,** on their underlying meaning consistency. Following Colby, Kohlberg and colleagues way of reasoning about this (1987), "… to achieve this understanding, one must adopt the subject's point of view and grasp the sense the argument make to that person" (p. 3). In this way the structuralism approach can be considered as related to phenomenalism.

SOT, referring to traditional scientific criteria in social sciences (construct validity, statistical reliability etc.), provides knowledge from the "inside" subjectivist position, which makes it necessary to understand the content of meaning making as a wholeness. MHC contributes with e.g. an "outside" objectivistic analytical stringent tool to discern the "mathematical-logical" structure involved in "hard stage" structures and transformations (in terms of one-dimensionality according to Rasch mathematics, see e.g. Bond & Fox, 2007)**.** Instead of regarding for instance epistemological assumptions as necessarily embedded in basically conflicting paradigms, they could rather be conceived as compatible in providing "hard" and "soft" data and strengthening empirical findings, such as by means of triangulations (Bryman, 2004).

The constructivistic characteristic of Piaget's theory and SOT bring to the fore the relation between logic and action with implications for how to conceive causal mechanisms in development, from the inside-out or outside-in directions. Following Piaget's thinking, logic is not isolated from life. It rather reflects the operational co-ordinations that are substantial to action (Inhelder & Piaget, 1958). Inside-out aspects concern inner "drives" to reach logical consistency as well as create meaning consistency. Both processes seem to reflect the constructivist character of the developmental process of acting and interacting persons in a societal context trying to reach meaningful goals and solve problems when doing so. This process is also more or less promoted or restricted by external demands and challenges.

Stage Transitions and Transformations

As described, our perspective on stage structures and their transitions in the thought experiment was framing them as dialectical more or less dynamic movements between balanced (equilibrated) and imbalanced (disequilibrated) stage structures and their transition phases in this movement. As also has been outlined, this framing makes the process more discernible in phases of initial balances, transitions and transformations. Moreover, this movement may concern different kinds of "forms" of coherences being transformed (such as meaning making and logical reasoning). Taken together these presumptions result in stage-transition distinctions than differ compared with those generated from "taxonomy approaches" derived mainly from stage structure criteria. Our two presumptions enabled a clarified suggestion of how MHC orders are involved in the SOT order transitions. Thus, our interpretation is derived from both the conception of SOT as a constructivist-dialectical process and the conception of the differing but interrelated functions of meaning making and logical reasoning described in the SOT transitions and transformations.

When lacking for instance such constructivistic judgment criteria, the distinctions between stages and transitions become less obvious as well as what characterizes transformations. In the somewhat overlapping theoretically multifaceted field entitled Transformative Learning Theory, focusing adult learning in for instance more applied-contextualized and ideological critical terms, the "formal" constructivistic development line of reasoning is not the central theoretical base. Issues here concern for instance the functions of the transformations and the interrelatedness of individual personal growth and social changes (e.g. Taylor, 2009). However, without clarified conceptions of what is constituting the form of coherence that is developing it becomes harder to judge how such a form is being "trans-formed" (for a discussion, see Mezirow, 2003; Kegan, 2000) and deciding stage-transitions in such terms.

However, as indicated in the introduction, also within "softer" approaches in adult development stage theories focused in this article, the stage-transition conceptions differ compared with the "hard stage approaches." Results obtained using Loevinger's (1976) strictly psychometric inductively based stage model doesn't imply a constructivistic "necessity" rationale driving the transitions between stages. This theoretical position also seem to be related to her suggestion of more stages compared with the number stated by SOT, including stages that correspond roughly with the transitions in SOT**.** The conceptions of stages and transitions have changed in this model since the self-aware and the individualist stages in this model first were considered to be merely transitions between the conformist and conscientious stage, and between the conscientious and autonomous stages, respectively. But suggestions of new stages and transitions have been common also within the frame of more constructivist models. Adding a new stage or a new order to a stage theory occurred more than once during the development of MHC in the 80s (Commons & Ross, 2008) and just recently (Ross, Commons, Li, Stålne & Barker, 2014).

Cook-Greuter (1999), highly inspired by both SOT and Loevinger's theories, conceive stages and its transitions as dialectical forms of knowing that integrate affect, intuition and rational thought. This results in an understanding of transitions in the SOT as stages in her own model. Stages are here characterized by persons' alternating between differentiated and integrated ego positions regarded as "…organic wholes, as relatively stable balances within which adults stay settled for long periods of time, often for a life time" (Cook-Greuter, 1999, p. 53). In total ten stages are proposed that reflect stages of differentiation exchanged by stages of integration. The integrated stages here are regarded as more balanced than the differentiated stages. The latter ones seem to correspond with transformational positions in SOT and the integrated stages correspond with the stages in SOT.

In a way Cook-Greuter's model can be said to take a position between MHC and SOT but implying less generality claims regarding the universality of the stage structures and its transitions. But Kegan, in his first conception of the stages (1982), also conceived them as either favoring independence or inclusion. Later (1994) he found that he thereby confused "style" with "structure. He concluded that such increasing differentiation or increasing autonomy is characterizing everyone's development, but claimed that increasing differentiation in itself can be conceived as staying connected in a new way. Increasing autonomy therefore does not have to be about increasing aloneness, but instead about increased self regulation: "Deciding *for* myself" does not have to equal "deciding *by* myself" (Kegan, 1994, pp. 21ff.). Thus at each stage, connection and separation are regarded as integrated in a wholeness which both can be expressed within the given complexity meaning structure.

The fact that transitions in "hard stage" models are conceived as stages in "softer" stage models seem to reflect the latter models' higher sensitivity for the "outside-in" direction of the developmental process. The fact that the self-aware stage in Loevinger's theory, entitled as "expert" stage in another version (Hy &Loevinger, 1996; Fischer, Rooke, & Torbert, 2003) is conceived as a stage and not a transition may be understood as a consequence of organizational and societal demands on people in modern society. At this "stage" persons tend to follow formally stated rules and regulations and administrative operations common in traditional hierarchical organizations that may hinder further individual development also when applying decentralized organizational forms (e.g. Göransson, Hagström & Backström, 2011; Hagström, Backström & Göransson, 2009). Moreover, the increasing demands in post industrial society of flexible functioning individuals and decentralized organizations may have stabilized a seemingly increasing frequency of persons at the individualist stage, also conceived as a transition in SOT. This is especially apparent among highly educated people characterized by a relativistic or even nihilistic frame of reference, also referred to as a deconstructive postmodern way of thinking.

Consequently, the definition of stages and transitions is related to "hard-softness" criteria. Softer criteria are more sensitive to contemporary social-cultural-societal conditions that for instance hinder hard stage development. This brings to the fore issues of how cognitive logical structures are related to the functioning of the individual in a given context or domain. These structures may, although they may trigger logical thinking inside-out, not necessarily directly lead to functional behavior. Piaget did not appear to think that the assimilating of the logical structures as the whole meant that they were responsible for all cognitive manifestations of a given stage (Lourenco & Machado, 1996). Logical stage structures as a whole were seen as formal criteria to classify thinking not as "… a sort of super functional totalities that regulate performance" (Lourenco & Machado, 1996, p. 152). Mental processes were focused in their construction and stages were conceived as tentative tools to analyze such processes rather than as ends in themselves.

This way of focusing the construction of logic appears as a plausible way of relating logic to external demands and challenges. Our example in the thought experiment can illustrate this. In the SOT 4th (Self-authoring mind) transition, the MHC 11th systematic order of reasoning is regarded as a logical "tool" enabling to create a coherent system, such as a feedback loop: "An increased level of carbon dioxide leads to global warming which leads to an even higher level of carbon dioxide, etc…." This reflects a capacity to understand formal relationships in different e.g. cultural cultures contexts and within differing ideologies including moral and value based judgments**.** Differing contexts may or may not trigger the application of for instance logical thinking in other different "domains" such as in meaning making and moral judgment. Such a process is not mechanically driven. It involves both inside out and outside-in parts of the development process. Thus, excellent thinkers on very high MHC order of logical complexity in the history of science (see Commons, Ross, & Bressette, 2011) might not correspond with likewise high orders of other developmental domains reflecting personal maturity as indicated in biographies, according to Cook-Greuter (1999).

The Contextualization of Constructivistic Development to Meet Societal Challenges

In the introduction of the article three main theoretical issues related to constructivistic development theory and research were briefly outlined, namely the causal mechanisms involved in terms of inside-out or outside-in direction; the way of approaching these issues as “objectivistic” or “subjectivistic” scientific positions, and; the understanding development as progressing continuously or discontinuously in terms of stages or functions. The scientific positioning issue has already been approached but the other aspects will be somewhat considered. Our thought experimental approach can be regarded as a way of “contextualizing” constructivistic development theory. Focusing on the generality aspects can be regarded as a way to discern core elements involved in the constructivistic process that trigger developmental transformations and our examination seems to support the assumption that logic reasoning and meaning making constitute such core features.

These core elements and their coordination also seem to reflect the motivation to act and the direction of these actions to fulfill demands and meet challenges in external contexts in the direction inside-out. The demands and challenges, in turn, are supposed to influence a person’s acting and trigger his/her development in the direction outside-in. Our General Stage Assumptions can be considered as an ambition to illustrate such general contextual demands and challenges in contemporary societies. The fact that the constructivistic development “hard stage” theories often seem to have been positioned as representing an inside-out intrinsic and even “individualistic” standpoint compared with other outside-in positions, such as the one associated with Vygotsky’s theory, is not surprising. However, it does not necessarily follow by its “constructivistic” characteristics.

The external demands and challenges in a constructivistic developmental frame are not to be considered as mechanically influencing a person’s action orientation regarded as e.g. “causal-independent variables.” As Piaget appeared to reason the outside-in influences are to be explained not as explanatory in themselves, but in terms of them being constructively experienced (Piaget 1946/1976b). However, this constructivist “link” between the inside-out and outside-in influences do not in any way exclude the latter ones as highly influential. Instead they can be conceived as person’s scope or space of action in for instance a given conflict between his/her self-meaning context and other-meaning context. The perceived space of action here reasonable differs at increasing orders of SOT. Further, the action possibilities can be stated in more outside-objectively defined terms. Action theoretical lines of reasoning (for instance Hagström & Hanson, 2003) and its application in the work life domain (for instance Volpert, 1989; Frese & Zapf, 1994) may be fruitfully related to constructivistic-developmental lines of reasoning (Hagström, 1995) in the frame of what we prefer to call a “transform-actional approach.”

Furthermore, the reasoning of the influence of outside-in part of the development process brings to the fore contemporary and forthcoming complex societal and global demands and challenges. Contemporary post-industrial challenges involve a need for complex thinking, both logical reasoning and meaning making. In terms of Mead's ego conception described above, rapidly economic and technological changing conditions in the transition to a post-industrial society may result in increasing gap between "I" and "me" in terms of changed societal role expectations (Allvin, 1997). These changing conditions apparently require logical reasoning on higher levels of at least systematic and metasystematic orders of hierarchical complexity. Such demands appear to exceed the order of consciousness among a majority of adult populations. In e.g. the US a majority of adults in many studies have been found being below that of the 4th Self-authoring order of consciousness (Kegan 1994; 2003). This cause much of public information flowing beyond many persons meaning horizon "in over our heads" (Kegan, 1994).

Transformative development is reasonable promoted by "the experience of optimal conflict in the context of optimal support" (Kegan, 2003, p. 44). Optimal conflicts refer to inside-out development conditions and optimal support can be associated with the outside-in development requirements. Both these aspects are also reflected in a person's subjective and objective "space of action." Thus a further contextualizing of adult development theory and research may be gained by "transform-actional" ways of reasoning. Further research and theorizing about adult development should be gained by relating the complexity levels to individuals' perceived space of action to more objectively derive such spaces of action in differing societal contexts. The demands in contemporary post-industrial societies towards increasing "disembedding mechanisms" (Giddens, 1991), due to dissolving boundaries of work in time and space, new network promoting connections, global economic transactions and so forth, seem to concern both individual autonomy (referring to a cognitive and an existential dimension) and social integration (referring to a social and societal dimension) (Allvin, *et al.*, 1997).

The opportunities provided by these conditions can be related to individual aspects, such as life courses, career patterns and biographies, as well as social aspects, such as social roles, group affiliations and role models. The new emerging challenge implied in this macro development is to integrate the social and existential demands on more autonomous and complex ways than before (Hagström, 2007). The broad value changes in postindustrial societies from giving priority to materialistic preferences towards given priority to post-materialistic values (e.g. altruism, self-realization) (Inglehart, 1997; 2006) seem to capture individual fulfillment and social integrative value elements guiding people's actions in more self directed ways than earlier. However, these changes, whether or not they are driven by intergenerational value shifts or life span development appear to progress more slowly than the faster global technologically and economically driven flexibility demands. These in turn, appear to reflect contrasting goals and visions related to the reproductive and productive spheres of contemporary societies, expressed e.g. in value preferences, enhancing on one hand individual interests and on the other hand, collective interests (Schwartz, 1996). Against this background increasing knowledge of both inside-out and outside-in conditions gaining transformative development is highly required to meet contemporary and future vital challenges.

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Laske's Dialectical Thought Form Framework (DTF) as a Tool for Creating Integral Collaborations: Applying Bhaskar's Four Moments of Dialectic to Reshaping Cognitive Development as a Social Practice[1]

Otto Laske[2]

Abstract: I am introducing into Dialectical Critical Realism (DCR) a developmental, dialogical, and dialectical epistemology for enhancing adults' cognitive development toward dialectic. I do so for the sake of solving real-world problems in a holistic and transformational manner with a high likelihood of success. Emphasis is put on dialectical thinking as a social practice learned by way of a dialogue method called the *Case Study Cohort* (CSC) method, taught at the Interdevelopmental Institute (IDM) since 2000.

CSC combines dialectical with adult-developmental thinking and listening in real world situations. Through this pedagogical framework, students engage organizational clients as midwives of their own learning and development through teaching, coaching, consulting, and/or talent management activities, even psychotherapy.

In 6 sections, the paper deals with the question of how best to educate CDF-users working as *inter-developmental interlocutors* who have overcome the epistemic fallacy by guided self- assessment through DTF, the *Dialectical Thought Form Framework*. This framework operationalizes Bhaskar's MELD based on Basseches' pioneering studies in the development of dialectical thinking over the adult lifespan. DTF forms part of CDF, Laske's *Constructive Developmental Framework*, whose social-emotional and psychological components derive from R. Kegan's and H. Murray's work, respectively. DTF takes up the challenge of teaching and exercising dialectical thinking in an administered world shaped entirely by analytical reasoning.

Inter-developmental interlocutors are CDF/DTF-users who withstand the onslaught of downloading and de-totalization, and by so doing become teachers, even models of global self- awareness. They develop this capacity by acting as a member of an IDM study cohort, as well as consultants to client organizations whose thinking they scrutinize in expertly guided case studies. As a result, their focus of attention becomes the structure of their own and others' thinking as the hidden root of how the social and physical worlds shows up for them and their clients.

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[1] A version of this article will be published in Bhaskar, R., Esbjorn-Hargens, S., Hedlund-De Witt, N., & Hartwig, M. (2016). *Metatheory for the anthropocene: Emancipatory praxis for planetary flourishing.* London, UK: Routeledge.

[2] **Otto Laske** is the Founder and Director of the Interdevelopmental Institute (IDM), Gloucester, MA, USA, where he has taught the Constructive Developmental Framework (CDF) methodology for consulting and coaching since 2000. He is a student of Th.W. Adorno, founder of Critical Theory, and of developmentalists at the Kohlberg School, Harvard, especially R. Kegan.
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The author wishes to thank Brendan Cartmel for his meta-critique of this paper.

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Keywords: case study cohort method, cognitive development of adults, dialectical critical realism, dialectical epistemology, dialectical-thinking development, dialectical-thinking interventions, inter-developmental interlocutor, inter-participatory social practice based on dialectical thinking, teaching of dialectical thinking.

For Theodor W. Adorno (1903-1969)

Short Definition of the Dialectical Thought Form Framework (DTF)

DTF is a dialogical epistemology that links Dialectical Critical Realism (DCR) to the language-suffused social world by way of both developmental and dialectical thinking. It is equally an empirical instrument for discerning and witnessing how and to what extent the world's ontological structure (reflected in Bhaskar's *four moments of dialectic* referred to as MELD[3], Bhaskar 1993) unfolds in an individual's mind and speech during a 1-hour semi-structured *cognitive* interview. As an epistemology it is based on the assumption that human consciousness progresses through four eras of cognitive development, which Bhaskar has called *Common Sense, Understanding, Reason,* and *Practical Wisdom,* and that consciousness encounters its own dialectic during the transition from Understanding to Reason, in four steps, as shown below.

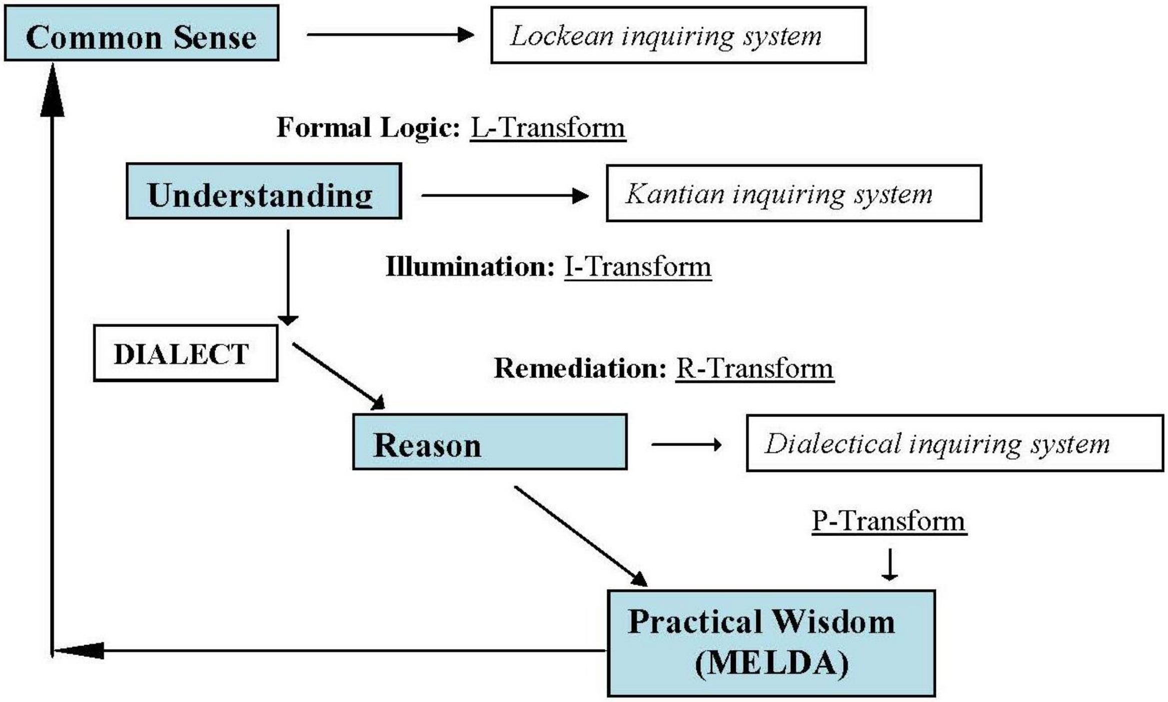
Common Sense
Lockean inquiring system
Formal Logic: L-Transform
Understanding
Kantian inquiring system
Illumination: I-Transform
DIALECT
Remediation: R-Transform
Reason
Dialectical inquiring system
P-Transform
Practical Wisdom (MELDA)

Figure 1: Bhaskar's four eras of adult cognitive development.

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[3] MELD is an abbreviation of the names of Bhaskar's four moments of dialectic which in his ontology he refers to as 1M, 2E, 3L, 4D. They are epistemologically rendered in CDF a CPRT (Context, Process, Relationship, and Transformation) standing not for dimensions of being but classes of thought forms that spell out MELD in the human mind, thereby defining the structure of human thinking. A lucid description of the relationship between MELD and CPRT is found is Laske's *Dialectical Thinking for Integral Leaders: A Primer*, Integral Publishers, 2015.

The entry of the human mind into dialectic when crossing over from Understanding to Reason was first documented in the transition from Kant to Hegel in the period between 1781 to 1807. According to developmental research done by the Kohlberg School at Harvard between the years 1975-1995, this unfolding begins ontogenetically in late adolescence and ends only with the end of individual life.

As an empirical instrument, DTF bridges DCR and the language-suffused social world through the dialectical listening and thinking capacity of its expert users.

Pedagogically, DTF is exercised by the instructor of IDM study cohorts whose members interview clients in order to scrutinize the thought-form structure of their recorded speech. They do so in the context of clients' organizational function/role, environment, and professional agenda and their team membership. Through such a cognitively focused interview it becomes possible to lay bare the dialectical structure of clients' speech. The assumption made is that the social world is a language-suffused universe, and that it is straightforward to determine empirically differing degrees of clarity to which MELD manifests itself in a particular mind based on the textual or auditory analysis of a DTF interview. Although such an interview is co-created by a DTF interviewer as well as an interviewee (in most cases, an executive), the resulting *cognitive profile* is nevertheless understood as being that of the client.

To determine the degree of clarity of dialectical thinking in a client's speech empirically, a DTF expert collaborates with members of a study cohort of inter-developmentally bonded individuals whose task it becomes to scrutinize traces of MELD in spoken language. The cohort as a whole (which includes the instructor) evaluates ("scores") the cognitive interviews of members' clients. This assures inter-rater reliability based on which valid feedback can be given to clients.

In the DTF framework, evaluation of cognitive interviews happens in terms of *four classes of thought forms*, called CPRT (C=context; P=process; R=relationship; T=transformation). As shown below, these classes directly reflect Bhaskar's MELD (Laske, 2009). The evaluation yields empirical data useful in scaffolding the dialectic-thinking capabilities of an individual or team by way of teaching, coaching, mentoring, consulting, psycho- and socio-drama, and psychotherapy.

It should be clear that the above outline positions epistemology within ontology. As shown below, dialectical thought forms are not perspectives. DTF is cogent only when presupposing a real world that is not permanently withdrawn, as is Sartre's *être en soi*, but can be "grasped" dialectically through what Hegel has called "the effort of the concept (*Anstrengung des Begriffs*)." It is this effort that the IDM certification program in CDF/DTF is designed to re-instill. This effort is the exact opposite of contemporary *downloading*; it corresponds in spirit but not in method to teachings that Adorno and Horkheimer conveyed in their *Hauptseminar* between 1951 and 1969 at Frankfurt University, Germany.

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With Piaget, I am making the assumption that in speaking, humans reveal not only the *contents*, but also the dialectical *structure,* of their movements-in-thought. In this paper, I am detailing how specifically ontological MELD-structures show up epistemologically in DTF-based listening to human speech. As shown in Fig. 2, above, a DTF listener-thinker functions as a bridge between DCR and the language-suffused social world, and thus functions as a transformational agent.

Below, I will detail in what way M. Basseches' work, published in "Dialectical Thinking and Adult Development" (1984) 30 years ago, has built a bridge between ontology and dialectical epistemology, without elaborating in detail the refinements of this great researcher's work that yielded Laske's DTF.

Rather, my emphasis will fall on my teaching practice within pedagogical cohorts whose members, by scrutinizing a specific executive's speech, "wake themselves up" to their own mind's dialectic (that heretofore they were unable to grasp). I will reflect on how and why such a cohort can be seen as a pedagogical context for developing within DCR a dialectical social practice of real-world interventions. I also view a case study cohort as embodying the core of a future critical in-depth social science, and the beginning of integral collaborations poised to solve problems in the real world, such as global warming.

In this way, I am binding collaborative action to what Cook-Greuter has called *construct awareness*, but will use this term in a purely cognitive, rather than (following Kegan and Loevinger) social-emotional, way, as she does. I will envision integral dialectical thinking as becoming the central practice of the integral movement, to the extent that the integral community can actually shift from the reduction of the real world to subjective enactments to the recognition that the mind is constellationally embedded in the real world *inde ab initio*.

Operationalizing Bhaskar's MELD Based on Basseches' Dialectical Schema Framework

As intimated in Fig. 2, the *Dialectical Thought Form Framework* (DTF) is best understood as serving a bridging function between DCR and the language-suffused world of society's organizations and their constitutive cohorts (teams). For this purpose, it comprises a social-emotional component following Kegan (1982; 1994), a cognitive component following Adorno (1966; 1999), Basseches (1984), and Bhaskar (1993), and a psychological component following Henry Murray (1938). Its methodology is part of an inter-participatory framework through which to further adult mental growth at work and in life.

Although the systemic connectedness of CDF's three components is the focus of my teaching of coaches, consultants, and executives at the Interdevelopmental Institute (IDM; www.interdevelopmentals.org), here I will restrict myself to the cognitive component of CDF, which is called DTF. DTF was developed in 1999 in a thesis on developmental coaching, by linking Bhaskar's MELD to Basseches' dialectical schema framework (DSF).

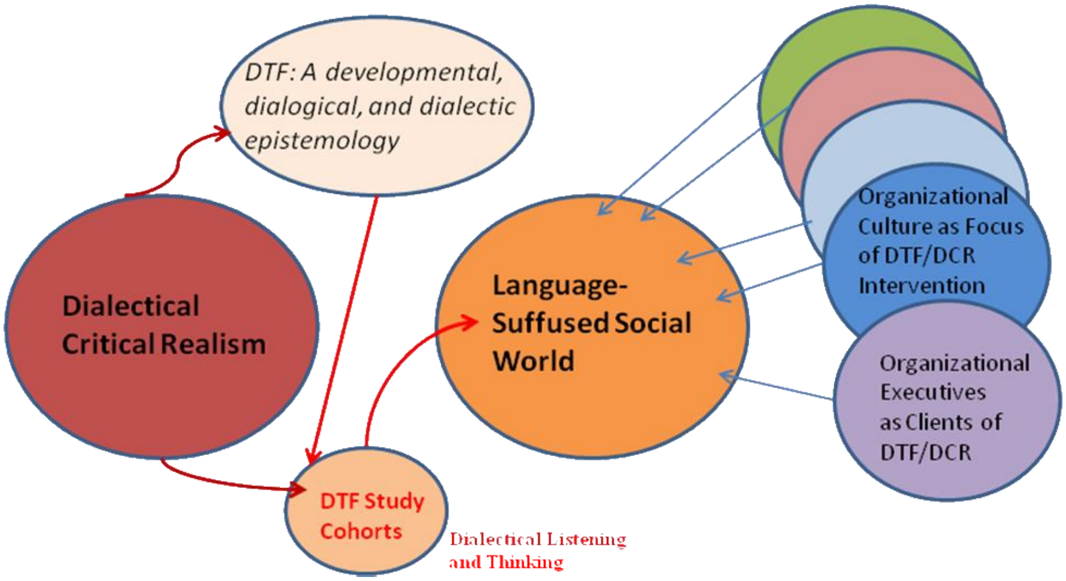
DTF: A developmental, dialogical, and dialectic epistemology
Dialectical Critical Realism
Language-Suffused Social World
Organizational Culture as Focus of DTF/DCR Intervention
Organizational Executives as Clients of DTF/DCR
DTF Study Cohorts
Dialectical Listening and Thinking

Fig. 2. DTF powered by DTF study cohorts serving a bridging function between DCR and the language-suffused social world of organizations.

Using DTF centrally requires mature dialectical thinking and listening in real time. Its dialogue- propelled way of functioning derives from Basseches' work in the early 1980s. In 1984, after 6 years of researching empirically the development of dialectical thinking over the individual life span, Basseches published a seminal work called "Dialectical Thinking and Adult Development" in which he presented his findings in a way summarized by Fig. 3, below:

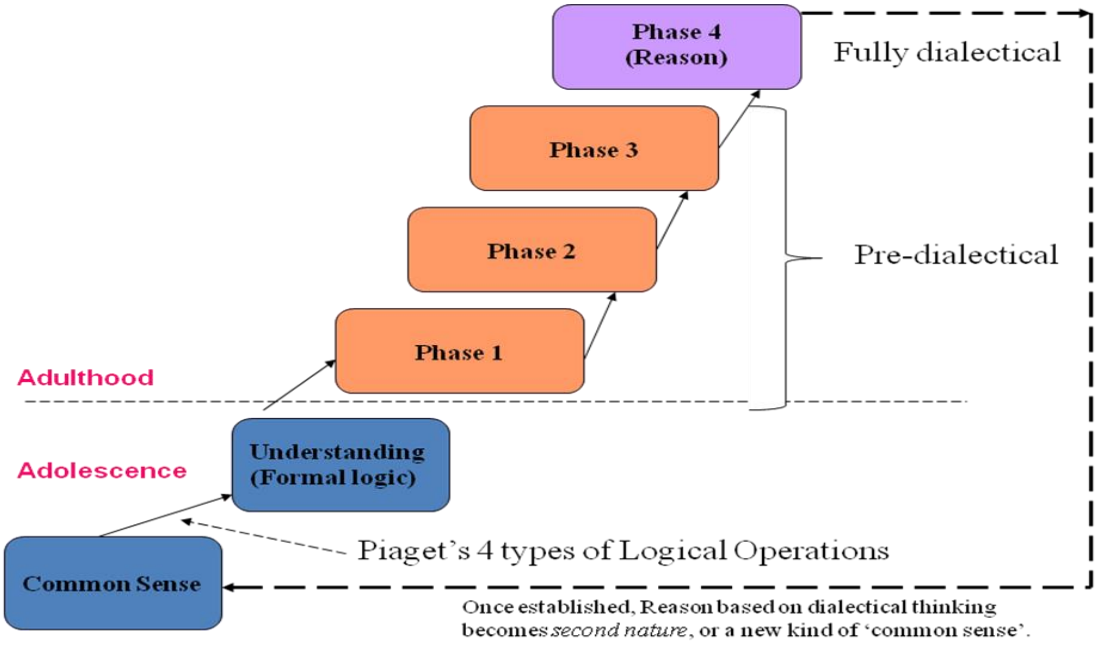
Phase 4 (Reason)
Fully dialectical
Phase 3
Phase 2
Pre-dialectical
Phase 1
Adulthood
Understanding (Formal logic)
Adolescence
Piaget's 4 types of Logical Operations
Common Sense
Once established, Reason based on dialectical thinking becomes *second nature*, or a new kind of 'common sense'.

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Fig 3. The four phases of dialectical-thinking development in adults according to Basseches/Laske.

For the purposes of his qualitative research, Basseches created a semi-structured interview in terms of which he dialogued with staff and students of a US college about issues in contemporary education. It was his purpose to answer the genuinely pioneering question "how does dialectical thinking develop over the individual life span?" Basseches asked this research question based on the hypothesis that cognitively more highly developed individuals, represented by teaching staff, would show higher levels of dialectical thinking than students. He measured this developmental differential by way of a "fluidity index" indicating fluidity in the use of four classes of thought forms.

Basseches found by evaluating ("scoring") recorded interviews that one could speak of four phases (rather than stages) of dialectical-thinking development, where each phase is defined by a maximal fluidity index (phase 1 = >10, phase 2 = >10<30, phase 3 = >30<50, phase 4 = >50). Simplifying Basseches' findings slightly, one can say that each phase of thinking-development toward dialectic is characterized by the dominance of one of Bhaskar's four moments of dialectic (MELD), in the order of 1M, 2E, 3L, and 4D (Laske, 2009).

In DTF, MELD is epistemologically represented by four classes of dialectical thought forms called *schemata* by Basseches. The most advanced dialectical thought forms, called "transformational," entail an understanding of negativity that fully emerges only in phase 4 of cognitive development. DTF is an *action method* for deepening inter-developmental relationships meant to lead to novel, emancipatory experiences via dialectical thinking.

The DTF system as a whole is geared to exploring in real time how MELD maps into speech via concepts. In actual usage, each MELD component, represented by a thought form class, serves as a tool to lay bare a speaker's or writer's category errors (e.g. de-stratification) as they occur in real time. The assumption is that by highlighting and giving feedback on such errors, a speaker can move from the actual to the real world.

When we put Basseches' findings in a context familiar to readers of Bhaskar (1993), shown in Fig. 1, we can see that the four phases of dialectical-thinking development referred to in Fig. 3 fall into the transition from Understanding to Reason. The four phases give rise to different forms of illuminative and remediative dialectical commentary, whether exercised during real-time dialog (interviews) or in hermeneutic text analysis:

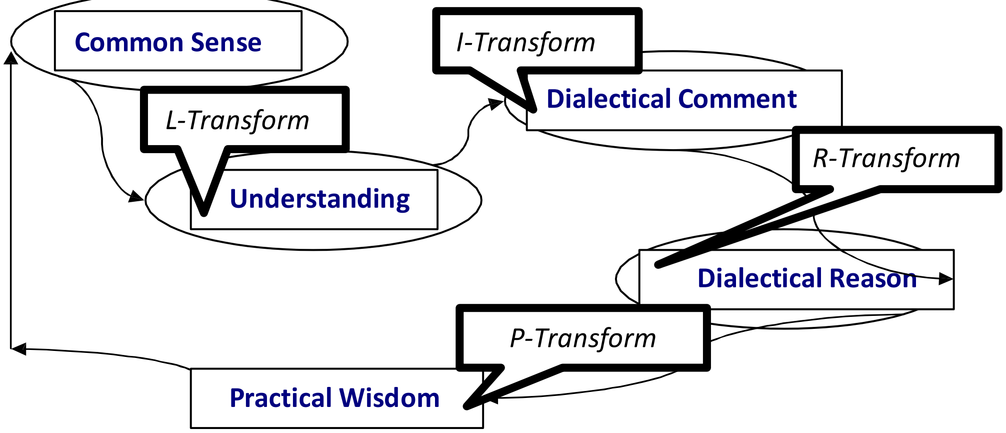


Fig. 4. The four transforms of dialectical thinking according to Bhaskar (1993).

The I- and R-transforms utilize Basseches' four classes of dialectical thought forms, referred to as C, P, R, and T, a focused and selective representation of Bhaskar's MELD geared to exploring the dialectical structure of dialog or written text in real time (Context = M1; Process = 2E; Relationship = 3L; and Transformation = 4D):

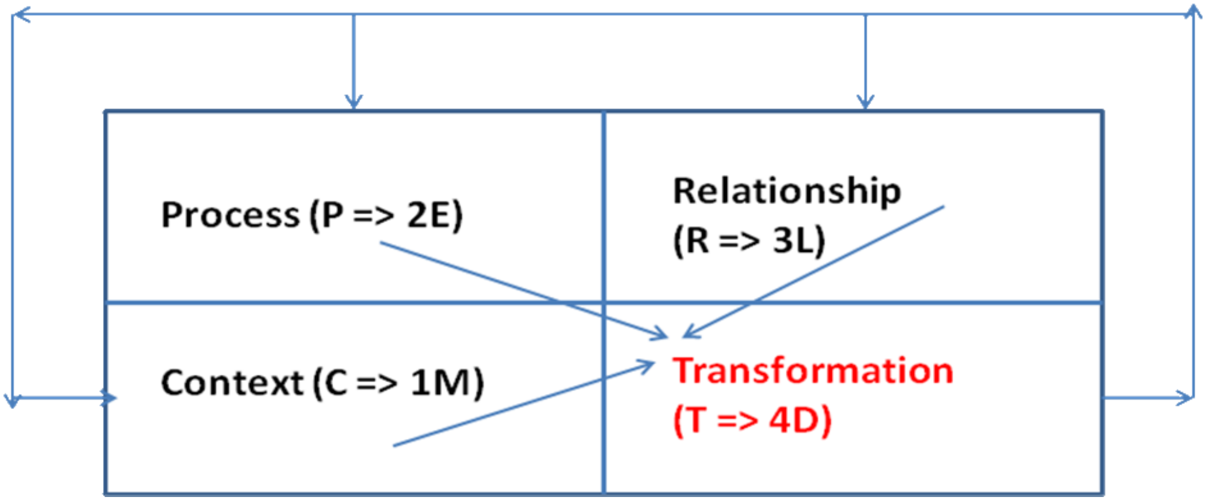


Fig. 5. The four classes of thought forms associated with MELD in DTF (P=2E; C=1M; R=3L; T=4D

While C, P, and R thought forms illuminate lack of dialectical thought expressed in category errors occurring in speech or text, T-thought forms are *remediative*, sublating and integrating elements held in a speaker's or writer's memory store, and thus absent category errors.

DTF- interlocutors hear, and then showcase, specific category errors made in speech or text. In each of the four classes of thought forms, a particular category error is paramount: de-stratification in C (1M), denial of negativity in P (2E), de-totalization in R (3L), and de-agentification in T (4D).

As Fig. 5 indicates, *transformational* thought forms reside on a meta-level, in the sense that not only are they grounding the other 3 thought form classes (outer arrows), but are simultaneously based on them in a feedback loop intrinsically binding all four classes of thought forms into a transformational system (internal arrows) replicating MELD in thought. T-thought forms capture adult cognitive development as an internalized form of (ontic, rather than agentic) agency, i.e., natural emergence of dialectical out of logical thinking.

Logistically, each of the four classes of thought forms comprises 7 consecutively more complex thought forms, as shown in Table 1, below. "Contrasts" indicate links with related thought forms intrinsic to a particular thought form allowing for fine differentiations to be made.

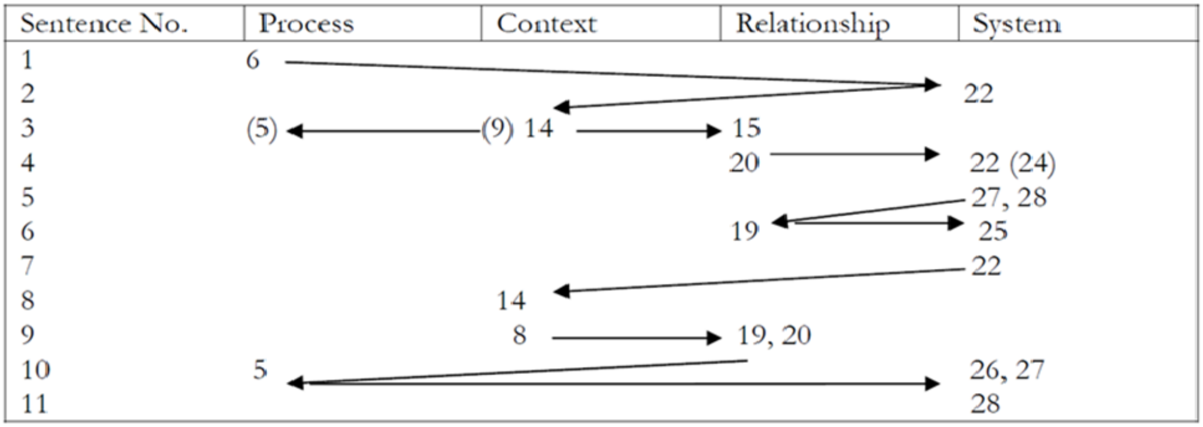
Table 1: DTF Taxonomy of Dialectical Thought Forms

Process TFs (2E) Illumination	**Context TFs** (1M) Illumination	**Relationship TFs** (3L) Illumination	**Transformational TFs (Meta-systemic)** (4D) Remediation
1. Unceasing motion, negativity *Contrast: 22*	8. Contextualization of part(s) within a whole; emphasis on part *Contrast: 10-13*	15. Limits of separation. Focus on existence and value of relationship *Contrast: 16-21*	22. Limits of stability, harmony, durability (incl. quantitative into qualitative changes) *Contrast: 3, 12, 23*
2. Preservative negation, inclusion of antithesis (non- A) *Contrast: 27*	9. Equilibrium of a whole; emphasis on whole *Contrast: 10-13*	16. Value of bringing into relationship *Contrast: 15, 17*	23. *Value* of conflict leading in a developmental direction *Contrast: 2, 22, 24*
3. Composition by interpenetrating opposites, correlativity *Contrast: 19-22*	10. (Description of) structures, functions, layers, strata of a system *Contrast: 8-9, 11-13*	17. Critique of reductionism and “de-totalized,” thus isolated, entities separated from their shared common ground *Contrast: 18-21*	24. *Value* of developmental potential leading to higher levels of individual and social functioning *Contrast: 1, 23*
4. Patterns of inter-action *Contrast: 2, 19-20*	11. (Emphasis on the) hierarchical nature of layers systems comprise *Contrast: 9*	18. Relatedness of different value and judgment systems *Contrast: 20*	25. Evaluative comparison of systems in transformation *Contrast: 10, 14, 26, 28*
5. Practical, active character of knowledge *Contrast: 23*	12. Stability of system functioning *Contrast: 9, 22*	19. Structural aspects of relationship *Contrast: 4, 15-17, 20-21*	26. Process of coordinating systems *Contrast: 15-16, 25*
6. Critique of arresting motion (reification) *Contrast: 7, 28*	13. Intellectual systems: frames of reference, traditions, ideologies *Contrast: 9, 28*	20. Patterns of interaction in relationships *Contrast: 4, 21*	27. Open, self-transforming systems *Contrast: 2, 22-24*
7. Embedding in process, movement *Contrast: 3-4, 6*	14. Multiplicity of contexts (non-transformational) *Contrast: 25, 28*	21. Constitutive, intrinsic relationships (logically prior to what they relate) *Contrast: 2-3, 15-20*	28. Integration of multiple perspectives in order to define complex realities; critique of formalistic thinking *Contrast: 2, 6, 16*

In DTF, these 28 thought forms, refined from Basseches' *Dialectical Schemata Framework* (DSF), serve at least five different functions, whether in scrutinizing speech or text. These are:

1. Dialectical listening tools;
2. Dialectical text analysis tools;
3. Cognitive (interview) prompting tools;
4. Mind opening (retroduction) tools; and
5. Mind expanding tools.

By using DTF thought forms as listening and assessment tools, an adult's *movements-in-thought*, articulated in an interview or written text, can be empirically assessed, both in terms of the DTF Fluidity Index and other cognitive indexes deriving from it (Frischherz, 2014a).



Sentence No.	Process	Context	Relationship	System
1	6			
2				22
3	(5)	(9) 14	15	
4			20	22 (24)
5				27, 28
6			19	25
7				22
8		14		
9		8	19, 20	
10	5			26, 27
11				28

- Fluidity Index = 3+4+5+10=22
- Cogntive Score = [14, 19, 24; 48(%)] – hollow transfer thinking
- Systems Thinking Index = 48 (%)
- Discrepency Score = (4+10) : (3+5) = 14 : 8 – Manager C is a better constructive than critical thinker

Fig. 6. Cognitive Behavior Graph of a manager, showing the movement in thought of his interview, associated with DTF cognitive scores (Frischherz, 2014a).

The Integral Movement is Composed of Upwardly and Downwardly Divided Cohorts Characterized by Social-emotionally Determined Thinking Limits

I have introduced you to a framework for working with clients (including students) by merging dialectical with developmental thinking, for use by teachers, coaches, consultants, and managers as clients' dialogue partners. These clients always reside in social cohorts characterized by a wide variety of thought-form structures apparent in listening to their speech in semi-structured interviews. When heard through the lens of CDF (i.e., analyzed both social-emotionally and cognitively), verbal language expressions show clear structural differences in thinking. When these differences are scrutinized in empirical case studies, one finds that specific Kegan-stages are associated with specific limits of dialectical thinking capability (measurable in terms of the DTF fluidity index and related cognitive scores).

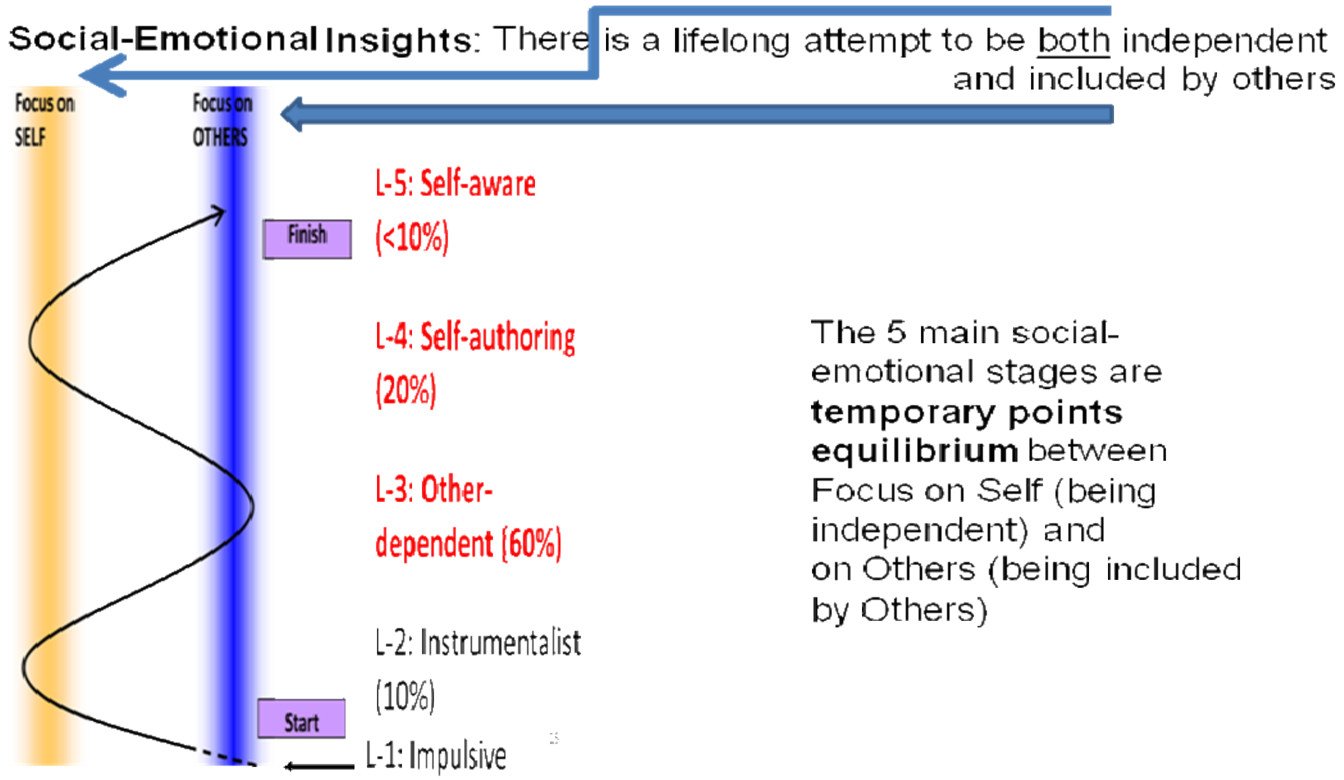

Social-Emotional Insights: There is a lifelong attempt to be both independent and included by others
Focus on SELF
Focus on OTHERS
Finish
Start
L-5: Self-aware (<10%)
L-4: Self-authoring (20%)
L-3: Other-dependent (60%)
L-2: Instrumentalist (10%)
L-1: Impulsive
The 5 main social-emotional stages are temporary points equilibrium between Focus on Self (being independent) and on Others (being included by Others)

Fig. 7. Social-emotional stage progression according to Kegan.

This is, of course, to be expected since making meaning at a specific Kegan-level presupposes residing in a specific phase of dialectical thinking capability.

On account of the fact that members of a cohort make meaning along Kegan's trajectory of social-emotional stages while also residing in a specific phase of dialectical-thinking development, we can speak of cohort-specific *thinking limits*. In teaching and carrying out organizational interventions, the intrinsic nexus between a social-emotional Kegan-stage of *meaning making* and a particular phase of *making sense* of the world through dialectical thinking clearly comes into view, as intimated in Fig. 8 (see also Laske, 2009: 253).

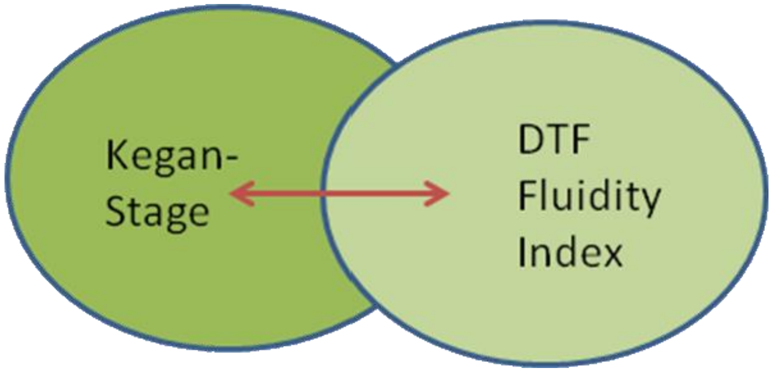

Kegan-Stage
DTF Fluidity Index

Fig. 8. Nexus between social-emotional meaning making and cognitive sense making in CDF.

In terms of pedagogical pragmatics this entails that the social-emotional structure of integral cohorts has a direct bearing on how far programs of DTF-dialectical thinking can help shift integral thinking from Bhaskar's argument-based dialectic to a developmental and dialogical epistemology required for using DCR in the organizational world (not to speak of a shift from Wilber's enactments to dialectical thinking). DTF delivers a straightforward metric for whether a particular cohort succeeds or fails in that transition.

Taking into account that integral cohorts whose members reside at one and the same Kegan level are largely fictitious, we view integral cohorts more realistically as composed of a developmental majority vs. minority within a particular Kegan-range (2-3, 3-4, 4-5). I will refer to these cohorts as *upwardly or downwardly divided*. It therefore makes sense to think about the composition of the integral movement itself in terms of developmentally different cohorts shown in Fig. 9, and detailed further in Figs. 10 and 11, below.

1. *Upwardly divided level-2 cohorts (UD2);* majority at level 2, minority at level 3
2. *Downwardly divided level-3 cohorts (DD3);* majority at level 3, minority at level 2
3. *Upwardly divided level-3 cohorts (UD3);* majority at level 3; minority at level 4
4. *Downwardly divided level-4 cohorts (DD4);* majority at level 4, minority at level 3
5. *Upwardly divided level 4 cohorts (UD4); majority at level 4, minority at level 5*
6. *Downwardly divided level 5 cohorts (DD5); majority at level 5; minority at level 4*

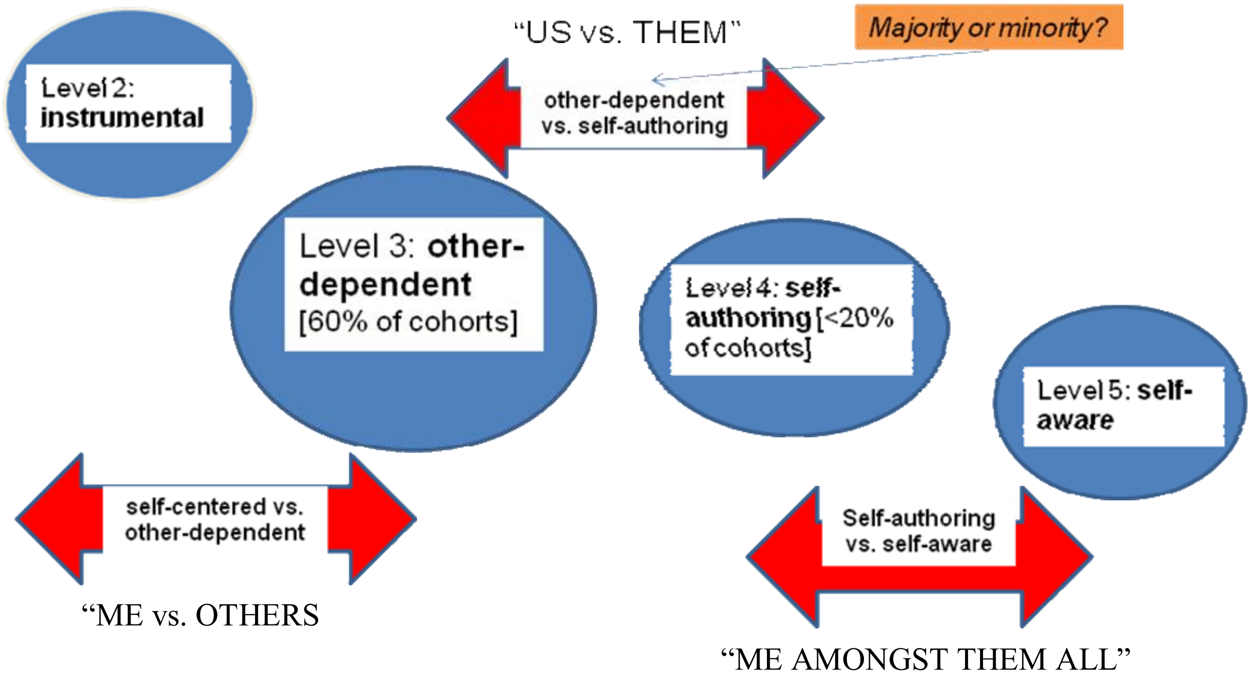
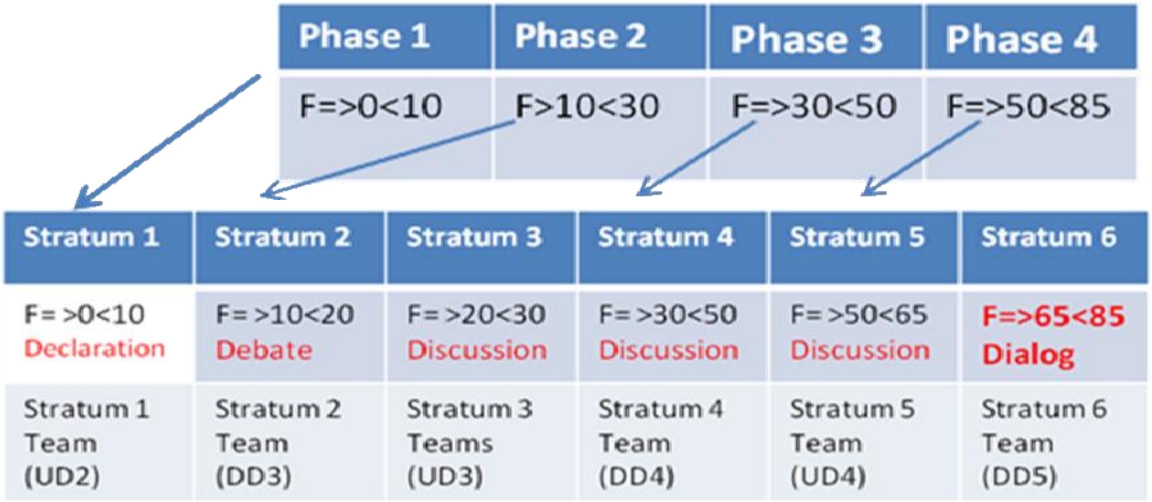

"US vs. THEM"
Majority or minority?
Level 2: instrumental
other-dependent vs. self-authoring
Level 3: other-dependent [60% of cohorts]
Level 4: self-authoring [<20% of cohorts]
Level 5: self-aware
self-centered vs. other-dependent
Self-authoring vs. self-aware
"ME vs. OTHERS
"ME AMONGST THEM ALL"

Fig. 9. Social-emotional differences between cohorts, leading to the distinction of 6 structurally different developmental types of cohort, further detailed in Fig. 10 and 11.

In each cohort, the developmental tension between majority and minority results in idiosyncratic social-emotional cultures characterized by specific *thinking limits* that stem from the different levels of *cognitive development toward dialectic* of the cohorts' members. In Fig.

10, below, I refer to these thinking limits by the term “stratum”, thereby differentiating the quality of management of complexity members of a particular cohort are capable of, as well as the specific thematic focus of their universe of discourse at the workplace (Jaques, 1998).



Phase 1	Phase 2	Phase 3	Phase 4
F=>0<10	F>10<30	F=>30<50	F=>50<85

Stratum 1	Stratum 2	Stratum 3	Stratum 4	Stratum 5	Stratum 6
F= >0<10 Declaration	F= >10<20 Debate	F= >20<30 Discussion	F= >30<50 Discussion	F= >50<65 Discussion	**F=>65<85** **Dialog**
Stratum 1 Team (UD2)	Stratum 2 Team (DD3)	Stratum 3 Teams (UD3)	Stratum 4 Team (DD4)	Stratum 5 Team (UD4)	Stratum 6 Team (DD5)

Figure 10. Thinking limits (F) of 6 developmentally differing cohorts, calibrated in terms of the DTF Fluidity Index.

As we move from UD2=Stratum-1 cohorts (in which the cohort majority resides on Kegan-level 2) to DD5/Stratum-6 cohorts (in which the cohort majority resides on Kegan-level 5), their thinking limits, in terms of dialectical-thinking capability, are dramatically altered.

For example, a downwardly divided level-4 cohort (DD4; in which most members reside at Kegan-stage 4 while a minority remains at level 3) has a surer grasp of absence and negativity than an upwardly divided level-3 cohort (UD3), and this cognitive differential can be precisely assessed through DTF. Importantly, this differential is likely to determine the relationship of a cohort’s *interpersonal* process to its *task* process. The latter is determined by cohort members’ phase of dialectical thinking, and in more immature cohorts tends to become overwhelmed by cohort members’ interpersonal process.

We can say, then, that each of the six cohort types distinguished in Fig. 11 is characterized by a peculiar quality of discourse fully aligned with its thinking limits. For instance, according to Fig. 11, even logical debate is unlikely in a UD2/Stratum-1 cohort, while a UD3/Stratum-3 cohort can be expected to have a beginning grasp of absence (DTF process thought forms; 2E), having begun to acquire thought forms articulating negativity that are missing from a more immature consciousness. Clearly each of these subgroups has its own epistemological subculture that, in turn, demands a differentiated pedagogical approach to dialectical thinking.

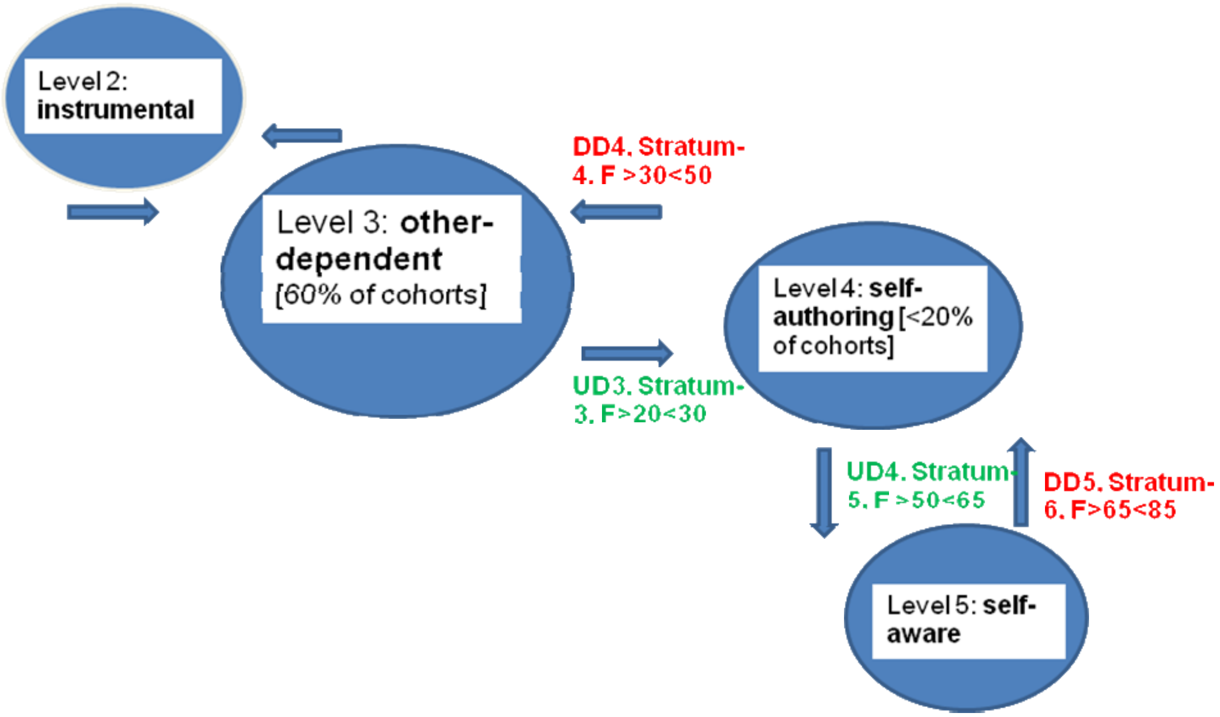
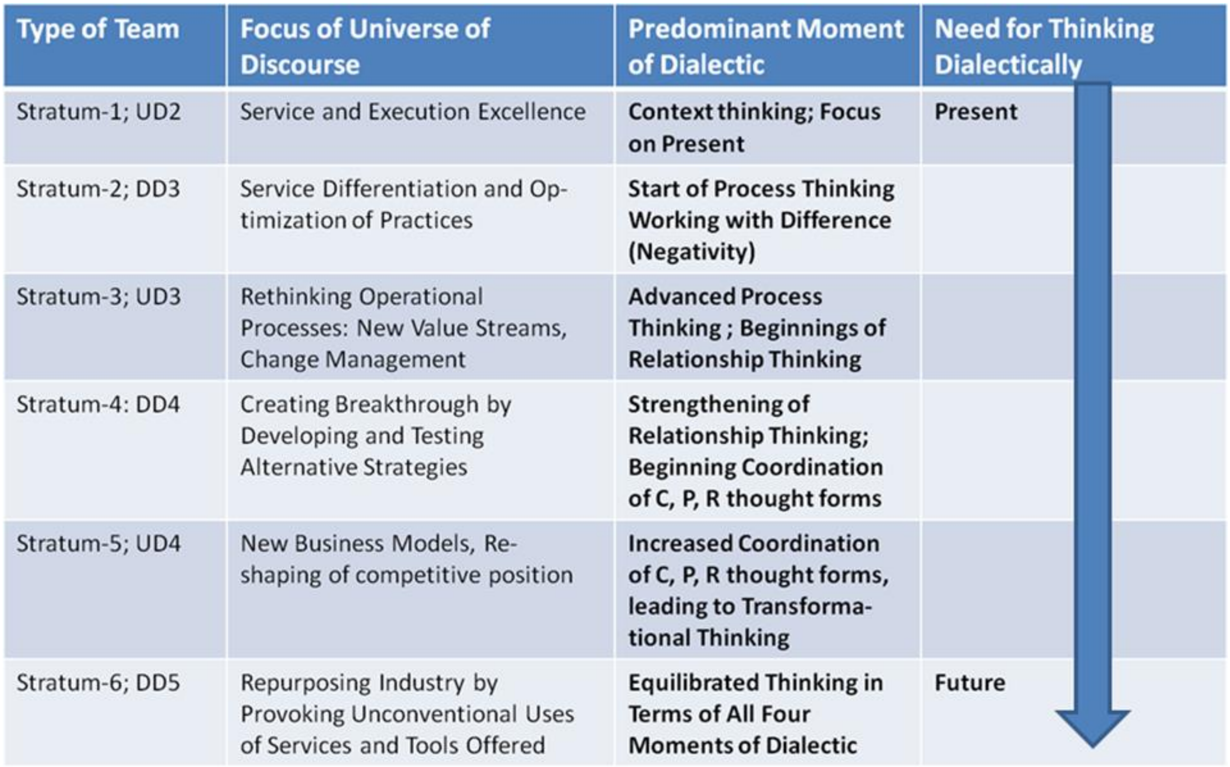

Level 2: **instrumental**
Level 3: **other-dependent** [60% of cohorts]
Level 4: **self-authoring** [<20% of cohorts]
Level 5: **self-aware**
DD4. Stratum-4. F >30<50
UD3. Stratum-3. F>20<30
UD4. Stratum-5. F >50<65
DD5. Stratum-6. F>65<85

Fig. 11. CDF cohort typology showing the social-emotional and cognitive developmental differences between cohorts. (Level-3 cohorts are shown as the most numerous).

As shown in Fig. 12, the higher the cognitive stratum of a cohort, the more cohort members are capable of handling complexity in terms of MELD and its DTF thought-form equivalents. Consequently, they will be increasingly open to conceptualizing issues referring to future potentials, rather than being wedded to the status quo, thus differing in terms of transformational thinking capacity. Simultaneously, true dialogue will increasingly become possible and so will an autonomous task process not compromised by a cohort's interpersonal process.

These assessment-based considerations of developmentally different cohorts lead to the question of "how to guide integral cohorts on a developmental journey that amounts to a mental growth assignment?"



Type of Team	Focus of Universe of Discourse	Predominant Moment of Dialectic	Need for Thinking Dialectically
Stratum-1; UD2	Service and Execution Excellence	**Context thinking; Focus on Present**	**Present**
Stratum-2; DD3	Service Differentiation and Optimization of Practices	**Start of Process Thinking Working with Difference (Negativity)**	
Stratum-3; UD3	Rethinking Operational Processes: New Value Streams, Change Management	**Advanced Process Thinking ; Beginnings of Relationship Thinking**	
Stratum-4: DD4	Creating Breakthrough by Developing and Testing Alternative Strategies	**Strengthening of Relationship Thinking; Beginning Coordination of C, P, R thought forms**	
Stratum-5; UD4	New Business Models, Re-shaping of competitive position	**Increased Coordination of C, P, R thought forms, leading to Transformational Thinking**	
Stratum-6; DD5	Repurposing Industry by Provoking Unconventional Uses of Services and Tools Offered	**Equilibrated Thinking in Terms of All Four Moments of Dialectic**	**Future**

Figure 12 (for column 3, see also Figure 1, upper left) Cohort differences in the ability of handling organizational complexity as a function of social-emotional composition and phase of dialectical thinking measured through DTF.

A *Train the Trainer* Program and Peer Training Program in Dialectical Thinking: IDM's Case Study Cohort Method (CSC)

The answer to this question adopted at IDM is referred to as the "case study cohort" method of teaching (CSC). Its name derives from the fact that IDM study cohorts are organized around the pedagogical goal of writing a developmental case study on a single organizational client. The case study involves carrying out a social-emotional as well as cognitive interview (if not also administering a psychological questionnaire), to be evaluated by cohort members for the purpose of giving feedback to clients under the supervision of the Director of Education. The latter functions as a supervisor who also guarantees assessment inter-rater reliability. Along the IDM certification track, writing such a case study requires 10 months of study of both dialectical and social-emotional thinking and listening, in work with interviewees coming from both for-profit and non-profit organizations. As a consequence, it is organizational clients whose concerns provide the real-world environment for students' learning and development, acting as midwives of their development into expert CDF/DTF users.

We use this method of teaching in two forms:

1. An "artisan" (esoteric) form for educating CDF trainers (http://www.interdevelopmentals.org/assessment-certification.php).

2. An applied (exoteric) form for those not intending to become CDF or DTF experts, but rather striving to use these frameworks in immediately rewarding applications, including starting a new business (http://www.interdevelopmentals.org/Applied_CDF_Courses.php).

In full recognition of the pragmatic demands of students' organizational clients, a case study is about people-in-context, especially executives, and this is reflected in the structure of the cognitive interview that explores executives' *internal workplace* i.e., the way executives conceptually represent their function, tasks, work environment, and professional agenda (Laske, 2009; Jaques, 1998). These clients form the *invisible cohort* associated with IDM study cohorts. Meta-theoretically, each case study takes on clients' epistemic fallacies and category errors that condemn them to positivistic thinking and downloading rather than allowing for deep, dialectical thinking. For this reason, by using DTF for revealing executives' movements-in- thought and giving them feedback on the structure of their present thinking in terms of MELD, DCR could move closer to acting as an *educational* force within society.

As my colleague J. DeVisch has shown in two recent books (2010; 2013), absence of dialectical thinking in executive teams not only obstructs social change, but also eventually leads to companies' sub-performance or even demise. Executives' epistemic fallacies, which ultimately sabotage emancipatory change within and without companies, clearly come to light during a 1-hr recorded and transcribed cognitive interview scrutinized by an entire IDM study cohort. Structurally relevant interview "bits" are weighted in terms of the clarity of thought forms articulated therein, a method of qualitative research that when applied to written text such as annual reports is referred to as *dialectical text analysis* (Frischherz, 2013; 2014a). It is a hallmark of dialectically complex texts that they invite to be scored not only in terms of single thought forms, but constellations of thought forms from different classes (Adorno, 1999: 134ff.), as shown by the example below.

Cognitive interviews center on laying bare clients' category errors and epistemic fallacies. These are seen as hindering the speaker from living in the real world. Category errors are thought to come to light in the way base concepts are differentiated by clients. In the interview fragment quoted above, the *base concepts* of "force field" and "system stability" are explored by the interlocutor. By way of the DTF Thought Form Scoring Sheet shown, the study cohort mentally reconstructs the client from a third-person perspective for the purpose of cogent feedback.

As this demonstrates, work with CDF, including DTF, is based on dialog, not argument. It is focused on the unpacking of assumptions that lead to category errors in the sense of Bhaskar's retroduction, but for the purpose of assisting clients in their work or life in real time.

Table 2: IDM case study, Thought Form Scoring Sheet. Fragment of a transcribed cognitive interview, cohort-evaluated for the purpose of establishing the interviewee's (executive's) cognitive profile as a basis of feedback to her about the structure of her present thinking; from a 2009 IDM case study.

Bit Number & Thought Form (weighted from 0 to 3)	**Questions to Ask Yourself:** 1) What structural evidence leads you to selecting this Thought Form? 1. 2)If several Thought Forms are applicable, explain your choice. *Note: Weights are assigned to Thought Forms only across the entire interview, not individually.*
Cognitive Interview, Task House (Base Concept #1= "force field"; #2 = "stability")	
Bit #3, TF 21 [weight = 1] (constitutive, intrinsic relationship) TF 22 [weight = 1] (Limits of stability, harmony, and durability) TF17 [weight = 0.5] (Critique of reductionism)	*Interviewer:* You seem to be taking into account what other force fields are playing a role in this company, and what the circumstances are under which this project has started … *Interviewee (Consultant):* Well yes, I was referring to certain forces, some tearing things apart, others holding things together, and the conflict energy needed to transform the status quo. *Interviewer:* If you look at those force fields more closely, what do you see? *Interviewee:* Well, the dilemma lies in that efficiency should be increased while no one would lose their job. This is a human resource problem since probably some people do not have the qualities they need to be peak performers. So management wants to lift up the organization towards a more service oriented organization. One issue is the accountability level on which people should perform in their new roles. Another issue is to prepare these people to take a quantum leap. However, they will probably not be able to make this leap under the present reward system, or given what their competences are. So there are many conflicting forces I am seeing, but I doubt that my clients are seeing them. I see a gap between reality and how it is viewed by my clients. But I cannot close this gap for them; I need to educate them so they can see it. *Interviewer:* What does that say, you think, about the system's stability? *Interviewee:* We'll have to consider that there is an external force field as well, and together with the internal one, it may rip the company apart. We are now in a financial crisis, and we haven't seen the deepest point yet. So people are looking at efficiency and they have never, never been confronted with the fact that they will have to lay-off people. They won't be able to do it before the end of 2009 because they signed an agreement with the union. So they won't risk that. Except if they would be confronted with extreme situations. Until now they have government support. But I expect they will be asked to take hard measures by the first half of 2010. And they are not at all preparing for that.

	Justification of the Scoring *In constructing his internal workplace, the speaker sees individuals determined by the constitutive relationships they are in that have defining quality (relationship TF 21); he also points to the overall systemic context as a factor determining the issues that will need to be considered by clients (transformational TF 22). Finally, he articulates a weak critique of reductionism (TF 17), highlighting that his clients are not looking at the outside world.*

DTF dialog is carried out differently in the three complementary modes, as shown in Fig. 13.

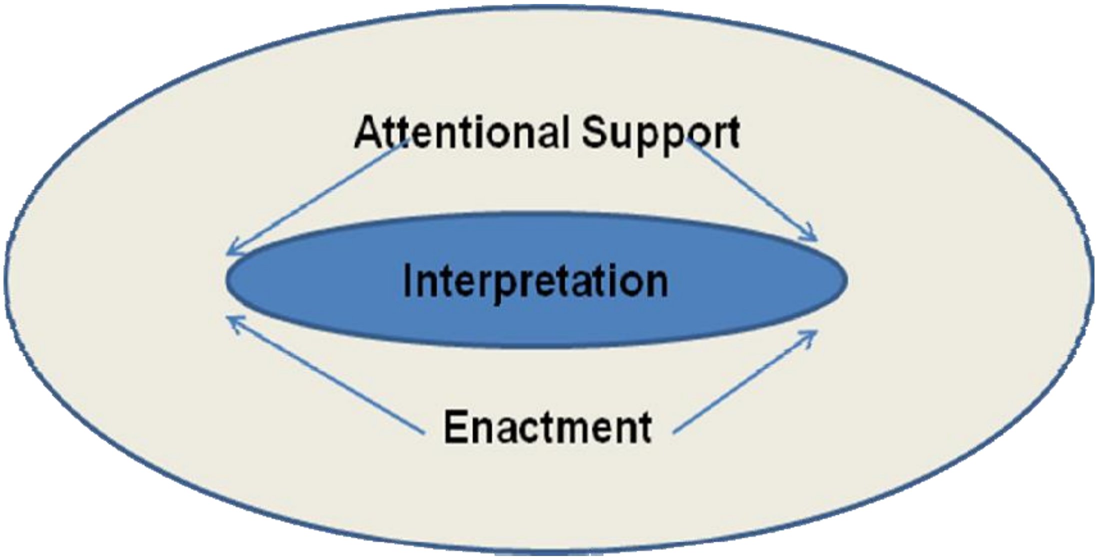


Fig. 13. The three dialog modes of DTF as used in coaching and consulting.

In real time, one of these modes is typically the dominant one, the other two functioning as supports. All three modes require deep listening to clients, but in different ways. In *attentional support*, in focus is discerning the dialectical thought form structure of a client's speech flow, while *interpretation* seizes upon the client's category errors. Once these have been revealed to the client through commentary or questions, the interlocutor proceeds to remediating them, enabling the client to make possible sublations and differentiations (enactment). In this way, not only is analytical reasoning critiqued, but *novel experiences* leading to cognitive development are created clients.

In a society steeped in analytical reasoning, retroductory scaffolding of clients' cognitive development is difficult, encountering many psychological and institutional obstacles that have to be managed by DTF-schooled coaches and consultants. Similar difficulties apply to teaching DTF, in my experience.

The success of a case study cohort hinges on whether cohort members achieve an equilibrated use of the three dialogue modes they are taught in preparing the case study. Each of the three dialogue modes is rehearsed separately, before being linked to others.

1. In the first step, *interviewing*, emphasis lies on *attentional support* for the purpose of discovering the thought form structure of a client's speech. Interpretation and enactment function as supports.
2. In the second step, *interview text analysis*, the cohort dialog focuses on the *interpretation* of a client's interview text in terms of score-able DTF thought forms. Again, the other two modes serve as supports.
3. In the third step, *writing the case study itself* (enactment) is achieved. Each cohort member's task is to pull together in a coherent synthesis all empirical evidence gathered about a client, to document his/her cognitive as well as social-emotional profile. The thesis culminates in a written feedback report formulated on a level the client can readily understand. Through this report, the client herself is given the opportunity for enactment in subsequent evidence-based (team) coaching or mentoring sessions.

In short, an IDM case study cohort schools its members as *inter-developmental interlocutors* who are able to develop their clients, as well as themselves, in emancipatory ways. How far this goal is achieved by each cohort member can be demonstrated by longitudinal CDF assessments of cohort members, one prior to the case study and the other 3 years later (Frischherz, 2014a).

Conceiving of Dialectical Thinking as the Integral Movement's Central Social Practice: Esoteric and Exoteric Programs for Teaching Dialectical Thinking

I have shared some details of the DTF *Train the Trainer* certification program in dialectical thinking in the larger environment of CDF. I have largely dwelt on the "artisan" form of teaching DTF, as exemplified in Fig. 14, to make clear how the manifestation of MELD in human speech is assessed by using the DTF system of thought forms collaboratively. In my experience, this approach is the royal road to learning dialectical thinking, compared to using meditation, discussion, hosting, holocracy, or something even more fashionable. This is the case because students' subjective experience of DTF is balanced against the objective goal of understanding a specific interview text.

There exists a 2nd, "exoteric" or "peer", form of teaching dialectical thinking through DTF whose recipients are managers and executives, rather than CDF/DTF trainers. This second form of teaching is already carried out by those IDM students who work in organizations as consultants, coaches, and mentors, even managers. I think that DCR could begin to show its educational relevance for the organizational world when armed with DTF tools in both forms of teaching.

Conclusions

I would say more generally that through CDF, the severance of dialectical from adult-developmental thinking and listening – which in my view characterizes the contemporary integral community – is shown to be not only one-sided but ineffective. Especially Basseches' work, now 30 years old and further refined in DTF, is highly beneficial in demonstrating just that. The further severance of social-emotional from cognitive development issues, equally widespread today and a legacy of Wilber, is another setback for promoting the pulse of freedom through dialectic. This separation of two intrinsically linked dimensions of consciousness – social-emotional and cognitive – was also practiced by the Frankfurt School including Habermas. I have come to see that this approach ultimately risks reducing dialectic to an academic tool for philosophical culture critique, that is, to a kind of hermeneutic exercise able to fill many books and confound many young minds whose retroduction experiences have no foundation in actual client problems.

The severance of developmental thinking from dialectical thinking is, in my view, equally counter-productive, as is shown not only by the state of the art in the contemporary adult-developmental sciences, but more blatantly by pop-talk about *evolution* that resides far above any valid empirical data base. The store house of epistemic structures accumulated by neo-Piagetians since the 1970's is, to speak with Adorno, rooted in anything but untrammeled dialectical thinking.

These epistemic structures, which have a shocking redundancy (as do developmental models) in fact stand in the way of deep thinking about the human condition, shining a light on nothing but the present state of the social sciences. Since, as we now know, it takes an individual human consciousness a life-time to fully develop its dialectical powers, we need to invest more in educating our contemporaries in dialectical thinking, in ways that take what is known about the trajectory of dialectical-thinking development into account.

In this context, it seems to me that we can use DTF thought forms (Fig. 6) as seeds for developing new, DCR-instantiating, epistemic structures now lacking, instead of borrowing from the neo-Piagetian storehouse. The new DTF-based epistemic structures to be developed will have to be context-sensitive to adult cognitive development over the lifespan. We can develop these structures taking into account the four phases of dialectical-thinking development (see Fig. 3) for whose cogent empirical assessment DTF was originally designed.

As we now know empirically, there exist four different human *Inquiring Systems* that gradually emerge and merge over the human lifespan (Fig. 1). While the Lockean (empirical) Inquiring System does help individuals transcend Common Sense, Hegel showed us 200 years ago that this transcendence remains epistemologically weak. Even when we move to a Kantian Inquiring System, as the sciences do, we fail, as Bhaskar's work has shown, to move closer to the real world because of falling prey to the epistemic fallacy. It is thus imperative that we take advantage of the early stirrings of dialectic in the adolescent mind that Basseches' research has revealed, and build on its momentum, to secure a broader constituency of dialectical thinkers, both in academia and the world of organizations and politics.

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According to my 15-year teaching experience at IDM, a student who has submitted two CDF case studies based on the "artisan" (rather than the "peer") schooling described above, is ready to enter a program for becoming a trainer of DTF dialectical thinking. Such a student has internalized the dialog partook in during the case study cohort process, and has, in addition, committed to writing her understanding of transcribed interviews in deep dialog with herself. Not only such a person's way of thinking, but also her way of listening to others and communicating with them, has been substantially transformed: she or he can now see the real world as being in unceasing transformation, with herself as a part of it. Once she is so aware, she has become a transformational thinker who is motivated to become an agent working on behalf of the wicked global issues that beset humanity at this point of our history.

I would see DTF trainers certified by IDM as ambassadors of dialectical thinking as much as of DCR. The two make a good practical marriage. DTF practice having become part of students' professional life blood, they can help not only individual clients, but commercial organizations and political factions "get real" about the real world, as most of my students already do. In addition, DTF-trained individuals can begin to influence the social sciences, not only the developmental sciences, and promote a dialog between sciences based on dialectical thinking, something presently non-existent.

If, after reaching maturity in individuals' middle twenties, analytical reasoning is not given a chance to move on to higher phases of dialectic, developmental arrest sets in. The ensuing stasis only deepens individuals' helplessness on account of feeling trapped in the administered world that Adorno predicted 50 years ago. The origin of this helplessness, while it can be covered up by dazzling – even integral – contents, is the structure of adults' thinking that is not on a par with what the contemporary world cognitively requires of its citizens. In what I have shared in this paper, a blueprint for pedagogical action against this contemporary predicament, lack of dialectical thinking, can certainly be discerned and developed further.

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My ultimate concern in this paper has been one of extending DCR into social practice. "E-ducere" means "to lead out of", and if there is one thing to lead out of it is the absence of dialectical thinking in our culture, already diagnosed by H. Marcuse in the early 1960s (Feenberg & Leiss, 63-71). Since dialectical thinking seems no longer to be viewed as "salon communism", due in part to Roy Bhaskar's work, there is perhaps a chance that we could establish institutes of dialectical thinking as think tanks of the future, threatened as this future now is by global warming. If developed as part of the Institute of Education at this University, a *Center of Dialectical Epistemology* could establish a pioneering agenda: to teach dialectical thinking in an administered world shaped by excessive analytical reasoning. Before addressing the thinking limits of contemporary organizations, however, such an institute would first have to address those of the integral movement's own cohorts.

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Strategy as Emergence.
Reviewing the *Practice Turn* in Social, Organizational and Leadership Studies from an Integral Perspective

Elke Fein[1]

Abstract: Practice perspectives are increasingly popular in many social sciences. Moreover, the *practice turn* (PT) has gained influence across various disciplines as a novel epistemological and research perspective. It claims to be able to better explain the workings of social action, among them leadership phenomena in organizations, due to a detailed look onto the micro level. Due to their focus and epistemology, they also claim to be able to better describe and analyze the complexity of social action than more traditional individualistic or institutional approaches. This paper therefore takes a closer look at some of the epistemological claims made by practice perspectives, based on integral epistemological concepts and tools. It proposes a selective discussion of the PT's genuine epistemological value, as well as potential shortcomings, blind spots and limitations.

Keywords: Complexity, development, epistemology, integral, knowledge, leadership, practice turn, relationalism, strategy.

Introduction

Practice perspectives are increasingly popular in many social sciences. Moreover, the *practice turn* (PT) has gained influence across various disciplines as a novel epistemological and research perspective. Its aims are, in a nutshell, to shift the "locus of researchers' attention and the logic of their inquiry" towards bridging gaps between "reality" and scientific knowledge by focusing on the details of what actually happens as social practices happen (Orlikowski, 2010, p. 23). As such, practice perspectives particularly attempt to better explain the workings of social action, among them leadership phenomena in organizations, on the micro level. Due to their focus and epistemology, conceiving of social action as practices embedded in structures and webs of meaning, they also claim to be able to better describe and analyze the complexity of social action than more traditional individualistic or institutional approaches.

From an integral perspective, claims of providing more explanatory complexity and comprehensiveness are generally of high interest. It is therefore worth taking a closer look at some of the epistemological claims made by practice perspectives, based on integral epistemological concepts and tools. To what extent can integral concepts and criteria such as holons, (holonic) inter-

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relationalism, cross-field and -paradigmatic multi-perspective and multi-method inquiry and developmental complexity be helpful for evaluating the degree of comprehensiveness of given practice approaches and theories? The paper thus proposes a critical look at practice perspectives viewed through an integral lens. Its aim is not to provide a comprehensive review of practice based research in the field of leadership but rather to provide a selective discussion of its genuine epistemological value, as well as potential shortcomings and limitations. While a more extensive discussion of both the state-of-the-art in integral leadership and in practice research are beyond the scope of this article, the latter aims at recognizing and appreciating the contributions of the practice turn to a more comprehensive analysis of leadership phenomena in organizations, while also illuminating blind spots and potentials of further development.

The paper is organized in four sections. First, it gives a brief overview and dives into the genealogy of the practice perspective, reconstructing basic aims and motivations of practice oriented approaches. The second section shows what exactly these approaches are criticizing with regard to more traditional concepts of leadership and strategy, and how what they themselves have to offer in response to those critiques is framed. Section 3 asks to what extent practice oriented approaches do indeed offer a broader, wider perspective on social action in general, as well as on leadership phenomena in organizations in particular. To what extent can they help to understand and explain those phenomena in a more differentiated way? On this basis, this section also discusses to what extent the practice turn actually provides an epistemological “surplus value” and thereby deserves the label of an epistemological “turn.” In other words, it discusses to what degree practice perspectives offer theoretical innovations going beyond the potentials of more traditional research strategies in the field. Next, section 4 inquires into epistemological limitations, shortcomings and blind spots of practice approaches as seen from an integral perspective. Finally, the concluding section asks to what extent and how perspectives on leadership based on integral theory can systematically reveal and illuminate some of those blind spots and thus, address the respective limitations. In this regard, a particular focus is put, first, on the inner dimensions of social action, in particular on the dimension of consciousness development in leadership phenomena. Another epistemological limitation that can productively be addressed through the lens of an integral perspective is the connection between relations (relationalism) and entities (holism) which are often discussed in practice contexts.

In result, the paper suggests interpreting the PT as a post-modern contribution to leadership theory and proposes a shift towards even more comprehensive perspectives as provided by integral leadership and organization research.

History, Self-Conception and Basic Claims of Practice Based Perspectives

The practice turn has been an important theoretical and epistemological trend in sociology and many neighboring social sciences, amongst them in leadership and organization studies, due to its shift to understanding social action, for example in organizations, on the micro level. By combining first, second and third person perspectives, it aims at describing complex interrelations in a more differentiated way than it has been done in previous approaches, no matter whether they focus on the individual or on institutions.

Historically the practice turn (PT) draws on older theory developments such as the cultural, the linguistic and the interpretative turns, as well as their ontology of constructivism. It takes into account more recent developments such as the performative and process dimensions of social action and structuration. A similar “constructivist shift,” combined with a growing interest in processes, symbols, interactive qualities, grey zones, as well as in the analysis of social complexity and dynamics in general, can also be observed in the field of *Strategic Management* (SM) research, for example in approaches such as *Dynamic Capabilities* (Jarzabkowski/Spee, 2009). In this context, the previously central theoretical and ontological conflict between structure and actor (structuralism versus individualism) is now partly replaced by the tension between substantialism and relationalism (Schneider, 2013).

Concrete precursors of the PT therefore are relational sociologists such as George Herbert Mead, Pierre Bourdieu, Michel Foucault, Anthony Giddens and Bruno Latour, but also post-analytical, phenomenological philosophers like Martin Heidegger, Michel de Certeau or Maurice Merleau-Ponty. Moreover, the PT demonstrates a general trend towards connecting empirical, theoretical and philosophical approaches with social analysis. Among the sources of its theory development and methodology are therefore ethnomethodology and ethnography, cultural history, activity theory, network theory, discourse analysis and Latour’s actor network theory. Finally, pertinent personal experiences of practice researchers seem to be important as well, such as the record of Dalvir Samra-Fredericks who has been working as a community organizer, or work with Change Laboratories reflected by Miettinen/Samra-Frecericks/Yanov (2010, p. 1310). Golsorkhi et al (2010, p. 2) have identified several schools of thought in this regard.

While ethnography observes social actors *in situ* (participant observation), ethnomethodology tries to understand social and moral orders through an analysis of embodied activity, Activity Theory as inspired by Lev Vygotsky sees itself as a psychology of human consciousness and explores its mediations by culture and artifacts. It thereby tries to resolve the dilemma that consciousness has so far been looked at either in its material dimension or via introspection but rarely both at the same time. In contrast, Activity Theory looks at consciousness (*mind*) in an anti-dualistic way as an autonomous reality which is not situated inside human heads but comes into being during the interaction between individual and objective forms of culture created through human work (Gherardi, 2010, p. 1318).

Based on an ontology of relationalism those approaches essentially call for a new “scientific worldview “and epistemological strategy (Schneider, 2013) primarily focusing on patterns and structures of relation(ship)s, as it is done, for example in the network approach. In this context, social order is described as a process and result of interaction (“*how is that done?*”) between various entities. The latter also include material “actors,” i.e. in Latour’s actor network theory (ANT, Latour, 2005). By including various levels of analysis (micro, meso and macro levels, and thus both individual action, group action, processes, organizations and institutions; see Schneider 2013 and Miettinen/Samra-Fredericks/Yanov, 2010) into a systematic reconstruction of relational structures between all of them, these approaches wish to re-conceptualize agency and social action through the notion of practice, focusing on their respective interrelations (Chia/Holt, 2006).

In doing so, relationalist approaches take over the ontology of constructivism holding that humans create both themselves and their material culture, shaping reality through their own cognitive and relational practices (Orlikowski, 2010). The assumption that social structures (may) precede social actions (Merleau-Ponty: "we take structure to be pre-existing," cf. also Miettinen/Samra-Fredericks/Yanov, 2010) is now modified by a stronger focus on the practices through which structure comes into being, i.e. by the "ontological primacy of practice in social life" (Orlikowski, 2010, p. 27). The possibility of action is now understood as pre-defined by networks of practice in which actors are embedded, as well as by socially constructed technologies of communication and calculation (Vaara/Whittington, 2012) which can function as "orders of truth" in the Foucauldian sense. According to Foucault's concept of power and how power is exercised, particular actions are rendered possible or impossible only by specific orders of truth (Foucault, 1982). So given the rather old roots of the PT Miettinen/Samra-Fredericks/Yanow (2010) have legitimately asked if we should not rather speak of a "re-turn."

Just as network analysis, the practice turn (PT) sees itself as a new theoretical approach, sometimes even as a meta-theory and thus, as a strategy for organizing the cognitive space of knowledge or science as knowledge production in a new way. Certainly indeed, theories can also be thought of as hypothetically-deductive systems of concepts and thus, as cognitive networks pre-structuring the processes of cognitive knowledge production of those who use them and who do research within them. In fact, its constructivist ontology is rightly applied to its own scientific practice as well, for example when Orlikowski (2010, p. 30) asks "what kinds of realities are being produced through our social science" and "what kinds of organizational outcomes do we want to help produce." In contrast, meta theories or paradigms are considered to be cognitive entities organizing whole systems of theories in their relation to each other on a higher level of abstraction (Holmberg/Tyrstrup, 2010; for an integral perspective see the Model of Hierarchical Complexity, Commons, 2008).

Even though the "theory of practice" can so far not be considered as a consistent theory (Miettinen/Samra-Fredericks/Yanow, 2010), Andreas Reckwitz has provided a detailed description of the general development of sociological theorizing towards a praxeological understanding of social relations. In his study on the "Transformation of cultural theories" (2000, 2002) he has also formulated a corresponding research program. The core concerns of practice perspectives are, on the one hand, to give attention to micro processes on the level of the individual, i.e. to treat it as a living entity with emotions, motivations, concrete actions and strategies. On the other hand (seemingly paradoxically), practice perspectives concurrently refrain from studying actors in favor of practices which are understood as embedded in social interactions and networks of meaning (see below, Jarzabkowski/Spee, 2009). The aim is thus to better understand the practices of individual actions in the social space (Jarzabkowski/Spee, 2009), not only on the level of individual cognition, identity and so forth, but also and above all in terms of their being part of "meta-individual" discourses and interactions which are called "practices."

Besides the notion of "practice," that of "strategy" is equally important in the context of the PT. As a matter of fact, both of them are closely related when it comes to describing concrete practices and social phenomena. In the field of leadership and management studies a new subfield informed by several concepts of practice has emerged in 2003 under the label of *strategy-*

as-practice-research (SAP). For an overview of SAP research and its main research orientations and agendas see Golsorkhi et al., 2010, p. 3 and Johnson et al., 2003)

While there is no clear-cut or dominant definition of "practice" around, Jarzabkowski/Spee (2009, p. 73) understand "practice" as "a stream of activity which interconnects the micro actions of individuals and groups with the wider institutions in which those actions are located and to which they contribute." On the organizational level practices are also understood as "organizational goings on that give rise to a particular strategic choice rather than on macro-causal factors" (Chia/Holt, 2006, p. 636).

The term "strategy" is not used in an intentional or motivational sense here, but as something usually unconscious or pre-conscious, something immanent, coming into being and manifesting itself in everyday practical action, or as a "consistent pattern in a stream of actions." We are thus dealing with the very concrete and very practical "doing of strategy" on the one hand, i.e. the question "*who does what when and how?*" This happens based on a clear distinction from conventional intentional strategy research (see the paragraph on the PT's concerns below). Moreover, practice perspectives are interested in how the development and the emergence of strategies, as well as their implementation is rendered possible or impossible by existing social and organizational practices and the respective socio-cultural sets of experiences they are embedded in (Vaara/Whittington, 2012, p. 286). In result, the central pretensions and concerns of the PT can be summarized by the claim that organizational and leadership phenomena can be better described by a micro perspective which is closer to the complexity of reality. At the same time, it thereby intends to "humanize" the field of *Strategic Management* (SM) (Pettigrew et al., 2002, p. 12, cit. in: Chia/Holt, 2006, p. 635).

Introductions to and reviews of the PT, the state of research and discussion in the field (which reach out far beyond the areas of leadership and organization), and about the field of *strategy-as-practice* and the empirical research done there can be found in Jarzabkowski/Spee (2009, including a typology and multiple ostensive tables analyzing research on the PT according to specific criteria and streams), in Golsorkhi et al., 2010, in Holmberg/Tyrstrup (2010) and in Vaara/Whittington (2012).

What are the Practice Turn's Main Concerns?
Criticizing Modern Heroic and Functionalistic Perspectives

In the context of general tendencies of theory development in the fields of leadership and organization research the Practice Turn can be situated with regard to the main points of demarcation against which it makes its own claims. What does it criticize and to what extent can it legitimately claim to offer an epistemological surplus value – thereby "earning" its label of being a "turn" in the true sense of the term? To what extent does it offer innovative new perspectives able to compensate for shortcomings, inadequacies or blind spots of previous and hitherto existing approaches and research strategies?

In fact, authors within the fields of practice and SAP research often position themselves and their work in contrast to "outdated" conventional theory perspectives (Holmberg/Tyrstrup, 2010, Jarzabkowski/Spee, 2009, Vaara/Whittington, 2012, Chia/Holt, 2006) by which they usually mean approaches generally qualified as typically modern, such as Taylorism/Fordism, bureaucratic organizations, strategic or scientific management etc.. Since theorists of the practice perspective often make their claims by juxtaposing their own practice approach to *Strategic Management* perspectives, their heuristic project can be illustrated by a comparison of those two perspectives. By *Strategic Management* we hereby mean strategic and functionalistic perspectives which:

- claim that inner-organizational processes can generally be objectively analyzed, and thus planned and controlled,
- accordingly try to rationally plan leadership and organizational design and to control their outcomes as far as possible,
- make use of a primarily rational, functionalistic and more or less linear logic in order to achieve this,
- preferably work with quantifying methods to investigate the factors which are relevant for leadership design.

In this regard, authors writing from practice and SAP perspectives usually argue that “traditional” and/or modern leadership research hampers a deeper understanding of what actually happens when and while leadership is actually being exercised. The table below illustrates the main divergences between conventional strategy perspectives and SAP approaches.

Table 1: Traditional (modern) leadership approaches and the surplus value of practice perspectives as viewed by the latter.

	Strategic Management research	***Practice Perspective***
(Concept of) Knowledge	Explaining the world, functionalism, normativity Knowledge represents reality (Representationalism) Claim: comprehensive explanation of the world	Knowledge is never complete and always a social construction → context has to be taken into account We can only know what actually happens (the doings of ...) Claim: Understanding instead of explaining
Overall world view	The world is like a clockwork with its own inner order and functioning. Our task is to understand its mechanics and make optimal use of it through adequate methods and technologies in order to build and shape it according to our aims. *building view of the world*	The world is constructed in a non-linear way. It is thus neither possible to completely explain it nor to plan and control its functioning and development. The latter are to a certain degree chaotic. *dwelling view of the world*
Basic epistemological position	Rationalism, functionalism, methodological individualism	Relationism, behavior is always embedded into a web of relations and practices and cannot be studied in an isolated way.

Research options	Structuralism or individualism/ voluntarism alternatively (structure/organization *or* actor oriented perspectives)	Both structures and actors are socio-cognitive constructs and can only be understood in their interrelations and interlacement Dynamics and processes of concrete action as it happens (the doing of strategy: who, what, how) Tension between substantialism and relationism
Research methods	Quantitative methods preferred Concepts of competence primarily envision quantifiable, technically measurable factors, causal relations, analyzing variables, linear causality	Qualitative methods preferred: qualitative interviews, (participant) observation, ethnographic methods, discourse analysis, phenomenology, hermeneutics
What is being analyzed? Perspective on social actors and organizations	- Actors as clearly identifiable and circumscribable entities and their strategic actions, understood as intentionally planned - Structures/organizations as clearly circumscribable and describable entities and their designing	- Bundles of practices inside of webs of relations - Consequences of spontaneous human actions, emergences, processes, dynamics - Actual strategic action, consisting of micro-activities, micro-practices of organizing (Weick) and micro-changes
Concepts and ideals of leadership and organization	- *Building view of the world* - Strategic decision making as a comprehensive, coordinated, actively designed process - Leader as a strategic planner/ top-down controller - Motivation of social action is derived from liberal ideology, for example from values like goal attainment and making profit - Specific forms of charismatic and heroic leadership are attractive - Predict and control, understood in a linear way, conscious designing of organizations - Working with intentions, goals and causal references of social action	- *Dwelling view of the world* - Strategy emerges unconsciously in everyday social action - Habitus, relational state of an “absorbed interlacement” with the world (cf. Heidegger, Husserl, Wittgenstein) - Motivation is a result of personal responsibility → focus on management education - Concepts such as charismatic leadership have to be disenchanted - Action in its coming into being, thoughts and emotions are observed neutrally, as well as the grey shades of everyday life

Sources: Gherardi (2010), Holmberg/Tyrstrup (2010), Jarzabkowski/Spee (2009), Vaara/Whittington (2012), Chia/Holt (2006).

So to what extent do the practice perspectives presented here as ideal-typical counterparts of traditional and modern approaches include crystallizing points of an innovative theory development on the basis of a critical reflection of existing research? In other words: To what extent are we dealing not only with a new and stylish academic “fashion” but with a perspective which offers qualitative improvements in the sense of a more adequate ontology and epistemology, including the potential to better grasp the complexity of reality? So to what extent are we facing a real progress in theorizing?

The Surplus Value of the Practice Perspective: What are the Merits of the Practice Turn?

A surplus value of practice perspectives as compared to classical and modern approaches to leadership and organization can be observed in several respects. The following section outlines a few important factors and elements illustrating a new and qualitatively deepened understanding of the phenomena observed.

Deeper Interest in and Understanding of the Relational Complexity of Leadership and Organizations

An important motivation of practice perspectives is to grasp, describe and understand organizational and leadership phenomena in their whole complexity in a more adequate way as it has been the case before. In order to do this they make use of a more complex concept of organization than classical and modern theories did. Now organizations are not viewed as hierarchical, more or less bureaucratically administered entities consisting of clearly describable (infra-) structures, positions and functional levels anymore, but as the sum of inner-organizational relations, as “a bundle of practices and material arrangements” (Schatzki, 2006, p. 1863) which constantly inform, change and renew them and have multiple interrelations with each other. Practice perspectives thus put a particular focus on the intertwinement of components such as social action, structures and “assemblages” of various material objects, which are analyzed as general arrangements, constellations or figurations (see also the configurational sociology by Norbert Elias).

At the same time, practice perspectives do not view leadership as unidimensional, linear phenomena anymore but rather aim at a thick description of the characteristics, problems and workings of everyday leadership. Leadership practice is of interest here precisely in its fragmented, non-linear and sometimes chaotic gestalt (Holmberg/Tyrstrup, 2010, p. 356).

For both the analysis of leadership and of organizations, the procedural perspective is central in practice approaches (Schatzki, 2006 and Holmberg/Tyrstrup, 2010 speak of a “fundamental priority of processes”). It stresses the strictly social and collective nature of leadership and organizations, as well as the temporal and spatial dimensions of concrete phenomena and constellations. Practice perspectives on leadership and organization can thus be summarized as focusing on “doing leadership as a practical activity in complex organizations” (Denis/Langley/Rouleau, 2010). Insofar as this constitutes a considerable differentiation of the perspective of analysis as compared to modern understandings of leadership and organization, the PT offers a clear theoretical and epistemological surplus value. The Model of Hierarchical Complexity as a content-free framework for analyzing the structural complexity of actions and utterances (Commons, 2008) would most probably classify the traditional SM approach as a formal (stage # 10) concept while practice perspectives as contextual epistemologies are likely based on systemic (stage # 11) reasoning.[2] Therefore a crucial element of their epistemology is a systematic interest in the contextual, relational conditions of all social action.

Systematic Interest in Complex Contexts of Social Action

Due to their relationalism and their sense of complexity of concrete leadership and organizational phenomena practice perspectives have a different understanding of social action in general and of strategy in particular. Based on phenomenological descriptions of the world as proposed by Heidegger, practice perspectives aim at a more adequate "re-conceptualization of agency, action and practice and their interrelations" (Chia/Holt, 2006). Gherardi (2010) and others stress that the central goal of practice-based studies consists in explaining the "doing of strategy" out of the interrelations between practice and their respective context.

More specifically, theorists of practice use a concept of strategy based on the social nature of all action, in result of which the latter cannot be understood as conscious, intentional goal attainment anymore, but rather as a behavior embedded in social contexts from which alone it can be understood. Some authors also draw analogies with rituals or liturgies, for example in Vaara/Whittington (2012).

Through its interest for the workings and the constitution of agency within a web of social practices the practice perspective, as a relational theory, comes to a more differentiated understanding of "strategic" processes. While dynamic contexts of practice are revalued in comparison to structures, new theoretical resources are made accessible for the discipline of strategic management (cf. Vaara/Whittington, 2012). Practices are thereby conceptualized as complex, flexible and polyvalent phenomena with both social and material dimensions (Vaara/Whittington, 2012, p. 298). Since the practice perspective has a particular interest in the micro foundations of social phenomena, it also puts a special focus on discovering and reconstructing the processes of interrelation between all of those dimensions.

Different from ideal typical modern strategic thinking, attention is directed not (only) on the behavior of single individuals, but on that of networks consisting of meaningful interactions and their outcomes and materializations ("webs of practices") which are treated as dispositive in a Foucauldian sense. The latter constitute socio-cultural "operating systems," the socially constructed *modus operandi* of which on the one hand guarantees a certain stability, anticipatory reliability and consistency of social action. On the other hand it epistemologically does not need the concept of strategic planning in the traditional sense.

Two additionally important concepts are therefore that of *emergence* ("what is actually happening") as well as that of the "*dwelling mode*" as compared to the "building mode" which is at the basis of the traditional motivational understanding of strategy. The former, in contrast, describes a mode "in which strategy emerges non-deliberately through everyday practical coping"

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[2] A more detailed discussion of the correspondence between the epistemological perspectives reviewed here and stages of complexity as defined by the MHC is beyond the scope of this article.

(Chia/Holt, 2006). This understanding presupposes a permanent changing and re-creating of contexts of social action. Their analysis – more so than that of acting in the classical understanding – thus figures in the center of studies based on practice theory. Their close relation to social theory and the analysis of power, as well as to discourse theory and analysis in the tradition of Michel Foucault is therefore not surprising. Foucault conceived of power as of the concrete nature of the contexts which enable or prohibit certain actions, which is why he analyzed the creation and change of similar contexts *in actu*. Foucault saw a key for explaining collective knowledge production, amongst them collective processes of learning, in how power is exercised in practice through designing and changing contexts of meaning (Foucault, 1982).

This concept is not only opposed to the idea of rational problem solving; the underlying contextual epistemology can also be characterized as more differentiated and thus more complex than previous theoretical perspectives. In view of our initial question concerning the epistemological surplus value of practice perspectives it can thus be argued that it combines micro and macro perspectives, individualistic and systemic (or field-specific) approaches in a hitherto unique way. Through conceiving both relations and networks, just as things, as prolongations of our possibilities of action ("dwelling with the object," Chia/Holt, 2006), it makes accessible new dimensions of knowledge, thereby clearly going beyond those offered in classical management studies.

Constructivism and a Higher Theoretical and Methodological (Self) Reflexivity

With its context sensitive, constructivist understanding of leadership and organization we observe a decentering of the research perspective and thus a higher degree of methodological reflexivity, as well as a corresponding (self) critical potential. Practices which had been taken to be self-evident until then are uncovered through the study of pre-verbal understanding by the practice concept, similar to what is practiced by the sociology of knowledge, these more subtle conditions of knowledge made accessible to critical analysis (Schatzki, 2006, p. 316). By relating practice and the contexts of knowledge in which practices are embedded – and which, vice versa, are brought about and changed through practices – a postmodern, constructivist concept of knowledge becomes the basis of empirical analysis. It is particularly interested in "hidden knowledge" influencing and canalizing social action without necessarily being conscious to the respective actors themselves in a specific situation.

By putting similar, systemically operating mechanisms into the center of attention, the degree of (self) reflexivity and thus the epistemological potential of research are improved considerably. Leadership is hence not only described in detail in its coming into being, but the "how" and the underlying mechanisms and dynamics are explained from a perspective which takes into account systemic relationships (Schatzki, 2006, p. 372). Thereby, if nothing else, certain *mental images* of the researchers themselves may come into the focus. For the definition of a social phenomenon (for example "gender") as a practice is of course also a construction (cf. Gherardi, 2010). Bourdieu has therefore proposed that a "sociology of sociology" and a "science of science and reflexivity" should be central concerns of a (self) critical sociology (Bourdieu, 2006). Compared to traditional concepts this must be considered as another step towards decentering the analytical perspective which, from an integral point of view, corresponds to the shift from formal to systemic thinking as conceived by the MHC (see above).

Inclusion of Inner Dimensions (Individual and Social Unconscious)

With the aim of bringing analytic light into unconscious processes and mechanisms, the PT also demonstrates greater attention for unconscious or pre-conscious inner and psychic dimensions of the social. For to grasp phenomena of leadership and organization in their complexity, and to experience "the complexity of an organization as it happens in real time" (Schatzki, 2006) also means to live instants, situative constellations and events as series of performative moments more consciously. Organizations are therefore conceived and perceived by practice perspectives as "taking place" (Gherardi, 2010) or as "occurring" (Schatzki, 2006). Hitherto unconscious dimensions and aspects are thus moved into the focus.

This kind of "thick" attention is directed both towards the individual, the social and the organizational unconscious – the two left quadrants in an integral model. In view of the individual unconscious, the PT's aim is to investigate dimensions like intentionality, identity, authenticity, vulnerability, self and autonomy in depth and in more detail (Caroll/Levy/Richmond, 2008). With the post-modern world view inspired by Heidegger's concept of "Geworfensein" (being thrown into the world) and being-in-the-world, most practice perspectives also demonstrate, on the one hand, a greater attention for other than merely rational competences, intelligences and modes of being, amongst them emotional, interpersonal and spiritual ones. On the other hand, the analysis of the inner realms of the individual calls for a more precise examination of cognitive processes as they really occur in the context of perception and experience, interpretation and meaning making, as well as a clarification of how which activities are coordinated in what way. In the context of the PT this often happens through qualitative (see below, section on qualitative methods) and quasi-phenomenological case studies or through "thick descriptions" (Geertz, 1973, Holmberg/Tyrstrup, 2010).

With respect to the social unconscious, practice perspectives aim at making structural sets of everyday practice intelligible as "organizational memory" (Halbwachs, 2004) or as habitual "modi operandi" (Bourdieu). In approaches inspired by Halbwachs, organizational memory is understood as a "social version of mind," as the consciousness of organizations in which memories about "how to do things" are stored. In this context Schatzki (2006, p. 1867) mentions four elements of the "memory of practice": general understanding, practical understanding, rules and teleological structures. For social actors to grasp similar sets of practices as structures it is important to have a personal experience with respect to how stable and thus how influential the respective rules of "doing things" are in everyday contexts. For, as Chia/Holt (2010) have stressed, the functioning of unconscious dispositions of thinking and doing depends on the experience of inner consistency of action in line with past experiences.

In contrast, approaches inspired by Bourdieu emphasize the habitual components of social practices. The latter function as structured dispositions, similar to the concept of "space of possibility" described by Foucault (1999), framing concrete practices in the sense of a de facto functioning operating system (as a "modus operandi enabling actors to mindlessly cope with unexpected and changing situations)" or even keeping them "trapped" (Chia/Holt, 2010, p. 645). With this implicit embeddedness (mostly unconscious to social actors themselves) they provide a certain continuity and stability of the social, also described as “social inertia” by Chia/Holt (2010).

The question how similar socio-cultural dispositions or socio-cognitive operating systems (which we as participants of social spaces of communication need in order to function within those spaces) come into being in the first place is of particular interest in both approaches. So how does consensus about the meaning of certain concepts, terms, cultural values and guiding principles arise at all? How are collectively shared criteria of good leadership attributed, for example? In order to reconstruct the processes through which specific meanings become dominant or even hegemonic, change or transform, a leadership research guided by this conception of practice has to work in a discourse analytical way. According to Chia/Holt (2010, p. 765), it needs to focus on the dynamics and the power relations between competing discourses and their interrelations.

So the inclusion of the dimension of the unconscious does represent another enlargement of perspective in the sense of a higher epistemological complexity as compared to strategic management approaches (where it is hardly present or not at all). However, the overall relation between consciousness, individuality and their social conditions of existence ultimately remains unclear in most practice theories (see critique below, general evaluation). Even though the need to create consistency and congruency of action with past experiences is claimed to be a functional and necessary quality of consciousness, many authors also try to “get rid” of the dimension of consciousness by using alternative concepts such as *habitus* and *Strategy-as-Practice*. In fact, in some texts it appears as if consciousness was considered as a kind of black box that cannot be fully explained and is therefore treated skeptically (Knights/Wilmot, 1992, also Chia/Holt, 2010). Instead, concrete coping strategies observed in the context of social practices are explained as “practical wisdom” and claimed to be simply transferred “silently from body to body” (for a critique see below).

Working with Qualitative Methods

In the course of this shifting of theoretical and epistemological preferences from the “building” to the “dwelling mode,” from “strategy in the center” approaches to “strategy-as-practice (SAP)” ones with their focus on inductive and explorative approximations to concrete real processes, inner worlds, grey shades and improvisations, working with qualitative social science methods understandably becomes more and more important. Even though the complexity of concrete leadership phenomena is indeed difficult to “thickly describe” due to its multi-dimensionality as Caroll/Levy/Richmond (2008) have correctly noted, qualitative methods such as in depth interviews, participant observation, phenomenological, ethnological or discourse analytical methods are very well suited for doing thick descriptions of external, inner-organizational, as well as of inner, psychological processes and developments. Since qualitative methods focus on understanding (instead of causally explaining) what they analyze, they can help to reconstruct nuances and qualities of engagement and of relations with oneself, with others and with the (organizational) world. Also, the question “how agency is constituted in a web of social practices” can be answered in a methodologically adequate way. On this basis, Vaara/Whittington (2010) are right when they note that qualitative approaches provide “new theoretical resources to strategic management” and contribute to a better understanding of strategic processes.

As a matter of fact, the large number of qualitative case studies in the field of SAP research is striking. An important part of them is working with thick descriptions. With regard to data generation, participant observation, life case descriptions, discourse analysis and action research, SWOT analysis, interview studies (among them group interviews) and self-reflections (for example through diaries of managers; Vaara/Whittington, 2010, p. 293ff.) are the dominating choices. Thereby, the respective approaches try to reconstruct and to understand the reality of life and work of managers and leaders in organizations, as well as their strategies of meaning making *in actu* (for more examples see Gherardi, 2010, p. 120 and Holmberg/Tyrstrup, 2010).

As a mode of analysis, building types, for example when (re-) constructing typical narratives about how leaders view and evaluate their own work, is equally typical for qualitative approaches within the practice field. It is not surprising that in this context, traditional stories of heroic management, i.e. of omnipotent managers in control of every detail in their organization slowly gives room to stories of artists of improvisation who move within and through the everyday jungle of chaos and contradicting challenges in really existing organizations more or less successfully and often rather intuitively. Holmberg/Tyrstrup (2010) have coined the term “well then what now?” for this post-modern managerial *habitus* which can often be found in contemporary organizations. So in this regard, we can equally state a differentiation and thus, an epistemological enrichment of our current image of leadership in/and organizations.

General Evaluation, Achievements and Limitations

So how can the Practice Turn within leadership and organization research be evaluated from an integral perspective, based on criteria such as a holonic understanding of inter-relationalism and emergence, cross-quadrant multi-perspective and multi-method inquiry and developmental complexity? At this point, I wish to recall that the present considerations do not claim to give a comprehensive evaluation of the entire field of practice studies but simply discuss some of the limitations in much of the literature reviewed for this article which appear to be quite obvious done from an integral perspective. One of the aims of this critique is to highlight the surplus value of more integral conceptions of leadership and organization as compared to post-modern ones such as the practice perspective. This can of course only be done in a summarizing and exemplary fashion. Note that some of the following observations and critiques have also been voiced by authors from the field of practice studies themselves as suggestions for future research.

As stated before, the practice and SAP approaches discussed earlier provide a very valuable broadening of research perspectives bringing new, hitherto neglected dimensions of leadership and organization into the focus of analysis. Due to this clear epistemological surplus value and the corresponding greater cognitive flexibility they deserve the label of a “turn.” In the changes of perspective brought about by the practice turn, a number of typically postmodern claims, approaches and concerns are translated into concrete research. As a matter of fact, through the concept of practice, this happens in a quite focused way. However, the perspectives used by many practice approaches still remain under-complex in several respects and could be further developed and differentiated in view of the challenges posed to leadership and organization in a context of global interconnectedness.

Process(ual)ism and Relationalism as New Absolutisms: Throwing out the Baby with the Bath Water?

Even though the PT by its relational perspective and its attention for micro processes does make accessible new and important additional dimensions of analysis, as outlined before, it is in danger of “overshooting the mark” and to throw out the baby with the bath water, just as other theoretical innovations in the past. Certainly, the PT’s insight is correct that leadership activities inside organizations cannot be explained exclusively by the intentions of the leaders (as it is done by methodological individualism), as well as its own claim that leadership phenomena are embedded in multiple relational contexts and webs of relations conditioning and influencing their concrete coming into being. At the same time, some theorists of practice seem to conclude from this that everything has to be dissolved analytically into the relations constituting it. With the dissolution of the opposition of structure and agency, the category of social action itself seems to be dissolved in some cases, getting lost in complex contexts.

Furthermore, in the more radical forms of relationalism the idea of entities is principally considered as epistemologically outdated. Schneider (2013, p. 13) mentions the field of International Relations as an example, in which authors like Jackson and Nexon (1999) have claimed a priority of “relations before states.” Schneider therefore asks to what extent nation states can be (analytically) dissolved into webs of relations. Even if it appears epistemologically meaningful and interesting to think of and analyze international relations *as relations* that are subject to constant change, existing collective entities such as states do not become obsolete by this (see also Bunge, 2000). Rather, we can historically observe how the relevance and importance of particular entities changes, often in result of a change of their interrelations. Consequently there have been “complexes of relations which had a transformative impact on their relata and brought into being new relata,” as Schneider (2013, p. 14) notes – and vice versa. So instead of puristically replacing one by the other (“relations without relata”), both concepts (as cognitive constructs and systems) and their interrelations should be studied in their respective dynamics. Viewed from an integral, developmental epistemology, this could be called a meta-systematic exercise.

Even if the shifts of focus from the “building” to the “dwelling view” might engender new insights, there is a certain danger of a new absolutism and thus, a new reductionism if the dwelling perspective is give the ontological status of a “fundamental priority of processes” (Nexon, 1999, also Schneider, 2013, p. 10), while the principal heuristic value of non-processual categories such as entities is negated. For a discussion of this danger see also the discourse on “processism” in De Cock and Sharp, (2007, p. 246). From an integral perspective, discovering the importance of processes and relations does not render individuals, actors and entities (as the underlying relata) superfluous. Rather than calling for an ontological either or choice between them, a more (self) reflexive, developmental and holonic perspective would come to see both views a complementary approaches, both contributing to our knowledge and understanding of complex phenomena and their dynamic interrelations.

Descriptive Bias, Overestimation of Externally Descriptive Perspectives, Lack of Theory

Another potential bias of the practice perspective is linked with the reductionism mentioned before. As noted before, the PT does offer increases in complexity as compared to classic SM approaches. However, this is true mainly in the sense of a "horizontal" differentiation. For even if the relational – as a systemic – perspective opens up new dimensions of knowledge, it does so, for the time being, primarily via thick descriptions of micro level processes and phenomena. Although it claims to *explain* practices via relations and their interactions (Jarzabkowski/Spee, 2009), many approaches de facto remain in a comparatively descriptive mode. Besides the prominent interest in the micro foundations of social practices, this is especially true for the PT's treatment of the inner dimensions of social and relational processes. The latter are – on the one hand –mainly addressed via, and thus reduced to their behavioral aspects (upper right quadrant in an integral model). An example is Chia/Holt's (2010) claim that social action was unreflected and "mindless" while it actually happens, and that therefore what has actually happened – and, my addition: what has been thought along the way could only be reconstructed retrospectively. By conceiving routines as largely unconscious practices, which mostly become objects of reflection only through failures, disappointments, counterproductive results or a "breakdown of organizational functioning," the actor's consciousness is treated analytically as a more or less irrelevant dimension. And while some authors do focus on sub- or unconscious and other inner psychological states (e.g. Yiannis Gabriel, 1999, and other psychoanalyst oriented scholars), the structural dimension of consciousness development seems to be absent even in practice approaches that are aware of genetic epistemology, autopoietic systems theory (Grand/Rügg-Stürm/von Arx, 2010), or that focus, for example, on identity change and its impacts on leadership (Johnson/Balogun/Beech, 2010).

So even though practice perspectives with their idea of "beings engaged in exercise" aim at solving the "eternal problem of structure and agency" (Miettinen/Samra-Fredericks/Yanov, 2010), the concept of "prolonging our possibilities of action" through "dwelling with the object" (Chia/Holt, 2006), including material arrangements (Schatzki, 2006), mainly targets external dimensions of social action, while inner subjective and psychological factors largely stay out of the focus. In this respect, the approach is not dissolving the Cartesian subject-object dualism, as argued by Miettinen/Samra-Fredericks/Yanov (2010), but rather represents a material and contextual "prolongation" of the concept of social action. An integral approach, in turn, would propose to transcend the idea of a subject-object dualism by a comprehensive, complementary conception of subjects and objects as entities that are interrelated in multiple ways.

When inner dimensions of social actions are being illuminated mainly by questions such as "how actors construct themselves" or "how classes of actors perceive what they do" they are thus merely reconstructed in a primarily descriptive way. At the same time there is no theoretical model for explaining the respective perceptions and cognitive constructions. The individual – and in particular its relations – are indeed objects of study (Holmberg/Tyrstrup, 2010). The individual's role as subject of knowledge and insight in its own right, however, remains underexposed or at least theoretically unreflected by limiting the analytical perspective to its embeddedness in specific contexts.

So even if the PT has led to a considerably higher appreciation for qualitative methods, it lacks a resilient theory for actually explaining individual and collective/organizational inner dimensions in a solid and reliable way. The fact that the PT seems to shy away from a more thorough analysis of those inner dimensions – which nevertheless play an important role for the coming into being and the exercise of concrete practices and routines – could be linked to another bias:

Blind Spot: Consciousness (Psychic Structures and Entities)

As mentioned in the previous section, many theorists of practice systematically assume a priority of actions *before* mental representations. On this basis, their tendency to abandon actors as theoretically relevant entities seems consistent (even though actors are perceived as living beings with emotions, motivations, intentions etc.). This happens in favor of descriptions of concrete actions informing a modified concept of strategy. The latter conceives of strategy as consisting of and coming into being through physical being-in-the-world and bodily interaction with the world which are clearly understood as “primary in comparison with knowledge and cognition” (Miettinen/Samra-Fredericks/Yanov, 2010, p. 1313). Sometimes social action is also conceived as “coping” in the sense of a flexible “responsiveness to a situation as it unfolds.” A psychological component, in contrast, is not envisaged within the practice perspective, at least not as a systematic part of its explanatory model. Here we can well state a certain contradiction with its principal plea for integration of unconscious factors, multiple intelligences and competences.

Therefore, the inherent danger practice perspectives are confronted with, given their concern to transcend strategic and motivational perspectives by including contextual and habitual factors, is to “overshoot the mark.” In other words, they have to beware not to make their own focus on context and habitus absolute inversely. If Knights/Willmott (1992), for example stress the social and organizational dimension of leadership, the reader gets the impression that the authors are looking for explanations which exclude the factor of “consciousness,” as if the latter were an outdated category the essence of which was better explained via external factors. Indeed, they stress that those embedding contexts of meaning which all acting individuals are part of, are not a denial of our individuality but their very condition of being. Nevertheless, the different aspects and components of individuality can be found on the analytic agenda only as products of social contexts of practice.

As a result, the relation between individuality and its social conditions of being, standing in the center of attention of practice theories, ultimately remains unclear. From an integral perspective, the strategy of rendering the dimension of consciousness dispensable – which seems to be feared theoretically and/or methodologically as a sort of black box which cannot be fully explained – or to define it out of the explanatory model (Knights/Wilmot, 1992, also Chia/Holt, 2010) creates several problems.

In this conception, practical competences are acquired solely through imitation of the behavior of others (this is called *practical wisdom,* Dreyfus, 2001, p. 48). This theoretical preference can be explained by the rather fragmented, non-linear and occasionally chaotic world view of post-modern theorizing (Holmberg/Tyrstrup, 2010), as well as by the strong assumption of the fundamentally contingent nature of the social. However, not every social practice and not every coping strategy can be considered to be “practical wisdom” just because it has been passed on “silently from body to body” (Dreyfus, 2001, p. 48, cit. after Chia/Holt, 2010, p. 649; for an overview of research on wisdom see the recent issue of Integral Review, vol. 11, 2). Viewed this way, practice research has to be understood primarily as a *research practice*, as a method for describing social practices on the basis of a specific theory and epistemology.

Unfortunately, in the context of this concept of practice theory, standards and criteria for evaluating *qualities* of social action within relations get lost, for example when networks and relations are solely described in a quantitative way, looking at and mathematically determining the number of connections in them, instead of looking for the implicit internal rules and systems of meaning which govern them. By the way, this dilemma has been indirectly conceded by Vaara/Whittington (2012) when they refer to specific orders of knowledge and the practices (re)constructing them as “source of cognitive bias,” in other words as sources of “false consciousness.” However, false consciousness should not exist as a category in a theory which treats consciousness as irrelevant and all contents of actors’ minds as equally valid (as quasi epiphenomena). Therefore the question remains open, what “right” or “correct consciousness” is and how this can be recognized.

In the mental realm of the practice perspective, based on the assumption proposition of a complete contingency of the social, the claim that social action cannot be explained “by reference to rules” is indeed coherent. But as soon as we include psychological and social-psychological factors into the analysis, it becomes clear that most “social operating systems,” *modi operandi* and forms of *habitus* (which also represent systems of rules) are much less contingent and arbitrary than practice theory claims they are. They can rather be explained alongside well known psychological mechanisms.

Discussion

So what are the main limitations and shortcomings of practice perspectives as compared to integral approaches to leadership, and in what way can the latter propose a more comprehensive understanding of leadership practices in organizations? Table 2 illustrates the main differences between post-modern (practice) and integral approaches.

Table 2: Post-modern (practice) and integral approaches to leadership.

	Practice Perspective	***Integral Leadership Perspective***
(Concept of) Knowledge	Knowledge is never complete and always a social construction → context has to be taken into account We can only know what actually happens (the doings of ...) Claim: Understanding instead of explaining	Knowledge is never complete and always subject to development, ideally towards more comprehensiveness; knowledge is subject to processes of individual and social construction which are framed by structures of cognition and culture
Overall world view	The world is constructed in a non-linear way. It is thus neither possi-	The world is a possibly emerging and regressing holonic entity consisting

	ble to completely explain it nor to plan and control its functioning and development. The latter are to a certain degree chaotic. *dwelling view of the world*	of interrelated holons in various dimensions and fields. These can be accessed and analyzed through multi-perspective, cross-field and cross-level methods and heuristics. *emergence view of the world*
Basic epistemological position	Relationism, behavior is always embedded into a web of relations and practices and cannot be studied in an isolated way.	Inter-relationism, social action is the result of inner and outer factors and systems of meaning making on individual, social and cultural levels, the inter-relations and developments of which have to be carefully studied.
Research Options	Both structures and actors are socio-cognitive constructs and can only be understood in their interrelations and interlacement Dynamics and processes of concrete action as it happens (the doing of strategy: who, what, how) Tension between substantialism and relationism	Relations and entities are complementary aspects of an integral holism of inter-relationality Dynamics of action and their structural and (inter) relational conditions Tensions between partial epistemologies are a productive expression of complementarity
Research Methods	Qualitative methods preferred: qualitative interviews, (participant) observation, ethnographic methods, discourse analysis, phenomenology, hermeneutics	Mixed methods research designs, integrated methodological pluralism
What is being analyzed? Perspective on social actors and organizations	- Bundles of practices inside of webs of relations - Consequences of spontaneous human actions, emergences, processes, dynamics - Actual strategic action, consisting of micro-activities, micro-practices of organizing (Weick) and micro-changes	Practices as composed of/constituted by - individual actions, as well as their conscious or unconscious motivations and driving forces - cultural foundations and influences (shared values and knowledge) as enabling and constraining factors - systemic embeddedness in (inter) relations, infrastructures and sets of resources
Concepts and ideals of leadership and organization	- *Dwelling view of the world* - Strategy emerges unconsciously in everyday social action - Habitus, relational state of an “absorbed interlacement” with the world (cf. Heidegger, Husserl, Wittgenstein) - Motivation is a result of personal	- *Facilitating the emergence of individual and collective intelligence* - the concept of strategy is replaced by holonic emergence - Social actors/members of organizations are both subjects and objects and have to be considered in a comprehensive way

	responsibility → focus on management education - Concepts such as charismatic leadership have to be disenchanted - Action in its coming into being, thoughts and emotions are observed neutrally, as well as the grey shades of everyday life	- Good leadership as a question of personal complexity development and intercultural competences - More traditional concepts of leadership and strategy are valid and meaningful in their own right in specific contexts while integral leadership aims at facilitating a maximum comprehensive approach serving the emergence of individual and collective intelligence

The holonic increase in complexity and thus, the epistemological surplus value of integral perspectives can be illustrated with regard to two interrelated aspects: ontology of holonic emergence and rather differentiated multi-level approach to developmental complexity and its implications on leadership in organizations. While one of the important achievements of practice perspectives is their ability to “thickly describe” (Geertz, 1973) practices, relational constellations and processes within the realm of leadership and organization, they fall short of systematically explaining the dynamics of their interaction. Based on the relativist ontology of the PT, the latter can only be done in a more or less arbitrary and thus incomplete way. In fact, this seems to be the reason why the concept of contingency – filling this gap – plays such an important role in post-modern theories.

Viewed from an integral perspective, the most important blind spot of the practice perspective and its contextual epistemology is that it limits itself to grasping mainly horizontal plurality and complexity, thereby misconceiving the fact that socio-cultural, just as cognitive “operating systems” can – as systems – also be differentiated vertically. Viewed this way, these systems also have the character of (invisible) entities which can be reconstructed analytically, namely functional or cognitive-cultural entities as proposed by structuralist developmental theories. Those vertically differentiated entities which integral developmental theory helps to understand as more or less complex holons might not determine all social action, but they do canalize and pre-structure it, speaking with Foucault, in a limiting or enabling way.

Even if they do this, for the most part, in a way that remains unconscious to the respective social actors, this does not mean that it happens arbitrarily. On the contrary, cognitive structures and systems operate in a rule-based manner which can be identified by trained observers. They can thus not only be described but also predicted in a theoretically relevant way (Kegan/Lahey, 2009, Fein/Weibler, 2014). Admittedly, we are dealing with psychic rules here, calling for a theory of mind as it is offered, for example, by the corpus of adult development theory. On this basis, different qualities of relations can, for instance, be allocated with specific degrees of cognitive differentiation or increasingly complex stages of personal, cultural or organizational development. Furthermore particular rules can be identified with regard to relational phenomena on specific levels of development, such as networks of patronage or corruption (on earlier stages), which would not be functional on other (later) stages of development such as in modern or post-modern organizations.

In fact, some authors rooted in the practice perspective like Schneider (2013, p. 9) acknowledge this fundamental limitation, for example when he calls for a consequent meta-perspective, just as integral approaches would do. At the same time, even though he occasionally concedes that the whole is more than the sum of the parts, he unfortunately associates the term "holism" with a simple collectivism in which "the whole determines the parts and where individual action is an effect of social structures and processes (Schneider 2013, p. 9). While he considers the relational ontology as being just as reductionist as a one-sided individualism or institutionalism, Schneider implies that a more comprehensive approach should transcend similar reductionisms. So while he rightly calls for a "moderate relationalism in which entities exist out of their own right," he does not provide a coherent model of explanation in this regard, just as practice perspectives in general. Structures of vertical complexity are lacking in this conception. They are not seen which is why there is no solid theoretical ground for explaining differences and mechanisms of functioning of specific relations and contexts of practice.

At this point, integral approaches go a large step further. By systematically integrating the dimension of consciousness in its structural, vertical complexity into their epistemology, concrete processes, relational constellations and dynamics of leadership and organization can be understood as results of a holonic interplay of horizontal *and* vertical structures, inter-relations and entities, in other words as holonic inter-relationalities. Moreover, a comprehensive integral understanding of practice shows how practices in organizations holonically comprise processes and structures that are simultaneously autonomous and dependent, characterized by differentiation (generation of variety) and integration (generation of coherence). It looks at them as constituted by individual and collective holons, each with their insides and outsides, either tending to a more 'subjective' or a more 'objective' identity. Integrating the inner psychic spheres and the external, behavioral aspects as well as the corresponding collective embedment within an organizational community and culture along with the external structural-functional realms allows to relate and assess them together in view of a multi-domain, cross-level and cross-quadrant analysis of social practices and their changes and developments in organizations (Küpers/Weibler, 2008, 447). More so, on the basis of a more differentiated understanding of those interrelations, they can also be actively constructed and configured more successfully. Relations and entities are thus coordinated as equally important systems and tools of explanation in a meta-systematic way and combined towards a new paradigm of holonic inter-relationality.

Thereby, integral approaches to leadership and organization, as compared to post-modern ones not only offer an epistemological, but also a considerable practical surplus value in view of their application and implementation in real life leadership contexts and challenges. They therefore constitute a paradigm shift in the field of leadership and organization studies which might still be marginal as compared to the current (mainly post-modern) mainstream in the field, but are likely to gain momentum in the future. Therefore, it is not surprising that integral and developmentally based approaches are increasingly received and used within the field of leadership and organization studies (Bradbury, 2003, Cacioppe/Albrecht, 2000, Cacioppe/Edwards, 2005a and 2005b, McCauley/Drath/Palus/O'Connor/Baker, 2006, Lucas, 2012, Pauchant, 2002, 2005, Prewitt, 2004, Reams, 2005, Rooke/Torbert, 1998, Vincent/Ward/Denson, 2015, and Volckmann, 2005).

Conclusion: Transcending Postmodern Relationism through Integral Inter-relationality

So what can we conclude from the previous discussion of the merits and limitations of practice approaches to leadership studies based on an integral perspective? Given the theoretical preferences and the analytic qualities of approaches inspired by the Practice Turn discussed above, the latter appears as a rather typical post-modern theory perspective. Considering its interest for the workings of communication in a plurality of contexts, and for the many faces of micro functioning of relations and systems through embodied sets of practices, its epistemological features and complexity clearly transcend the formal and rather linear logic (MHC stage # 10) of modern science. Therefore, it can probably best be explained as a form of systemic thinking in terms of stage # 11 of the Model of Hierarchical Complexity (Commons, 2008). For even though practice perspectives largely propose an antifoundational and relativist ontology, skeptical of comprehensive models of social order, they do look out for complex webs and systems of relations which explain social action as it happens.

Indeed, similar variations of systemic thinking represent the current epistemological state-of-the-art in much of mainstream social science, including leadership and organization studies. For example while, practice theorists promote to combine a large number of different perspectives and subject positions, and thus, a certain epistemological pluralism ("practice-based and institutional level analysis can complement each other;" Jarzabkowski/Spee, 2009, p. 89), they usually do not make a step towards a cross-paradigmatic epistemology and research. This, in turn, would require a meta-systematic perspective and mode of inquiry as described by stage # 12 of the MHC and above, which coordinates various systems with each other from a higher level of abstraction and is thus able to illuminate the inherent, mostly implicit structures and rules of functioning and meaning making by which particular systems are governed. This meta-systematic view is mostly missing in practice perspectives, as well as in large parts of the social sciences to date. However, the increasing attention for developmentally informed approaches is a good sign.

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‘Inter-Bridging’
Bridges and Bridging as Metaphors for ‘syn-integrality’ in Organization Studies and Practice

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Abstract: By interpreting the bridge as a relational metaphor, and reflecting an inter-relational ‘space between’ of positions, the paper contributes to a different view of integrating pluralism in organization studies. Following an embodied realism, first bridges and bridging are presented as phenomena, media and metaphors for connecting and separating. Showing their ambivalent character the role of bridges as metaphors and metaphors as bridges are discussed in relation to organisation studies and as transition zones for paradigms. Based on an integrative orientation, mediating qualities of bridges and bridging are outlined for gaining a decentered, but interconnected understanding of organising. The final part discusses some implications for organization studies.

Keywords: bridges, bridging, embodied realism, integral, metaphor, relational.

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> Man is a rope, tied between beast and overman – a rope over an abyss. A dangerous across, a dangerous on-the-way, a dangerous looking-back, a dangerous shuddering and stopping. *What is great in man is that he is a bridge and not an end*... (Nietzsche, 2006, Prologue §4)

Introduction

Metaphors using the notion of bridges and bridging have found some favour in recent organisational research (Risberg and Elsmore, 2011). In a broad sense, bridges can be understood as forms of transferring and mediating movements across space, time, contents and contexts. Metaphorically, they are two-way vehicles of transport simultaneously connecting and disconnecting, embedding and disembedding people as well as concepts and issues. Hence they are an apt means of approaching or analysing multifaceted and controversial topics; specifically, as the openness to two opposite sites or directions is a constituent feature of all bridges.

As a consequence, the field of management and organization studies (MOS) can benefit significantly from the metaphor of the bridge and the notion and motion of bridging particularly with regard to the field's often noted state of fragmentation. As with other branches of the social sciences, MOS is characterised by various main- and side-streams that flow through often discontinuous whirls of fragmentation. Accordingly, there is persistent burgeoning of pluralisations with regard to views, concepts, styles, theories and paradigms that exist side-by-side or which compete with each other. This pluralizing process has been pervasive in organization studies for several decades (Knudsen, 2003; Willmott, 2008). The permanent proliferation of positions impairs the emergence of a commonly accepted integrated body of knowledge. As Okhuysen and Bonardi note there is a tendency in MOS research "to create isolated silos of knowledge that reflect specialization" (Okhuysen & Bonardi, 2011, 6). Yet this contested multiplying of positions also stimulates many fruitful insights that otherwise might not be gained.

Included in the divisive pluralism-integration discourse are debates, for example, between the proponents of incommensurability or combination, between isolationists or integrationists positions (Gioia and Pitre, 1990; Kelemen, 2007; Scherer and Steinmann, 1999) and between paradigmatic and meta-paradigmatic perspectives (Hassard & Cox, 2013), which, all too often, are not resulting in the development of research collaborations or communications.

Corresponding to the pluralisation also a fragmentation of knowledge and related lack of integrative research has been frequently acknowledged in the social sciences over the years (Goertzen, 2008). Already four decades ago, Whitely commented on the, "highly divided and fragmented nature of much contemporary research" (Whitley, 1976, pp. 480-481). More recently, authors have noted the fragmented nature of research in organisation and management studies (Donaldson, 1998; Thomas, 2003). This fragmentation not only hinders research through academic siloing and lack of communication but impacts on how organisations and communities address their multiple challenges (Bhandar, 2010). Fragmentation in science is an unintended outcome of two basic and valid motivations: The first is the goal of greater specialisation and detailing of knowledge. The second is to retain, what Stiglitz (2000) refers to as, "the localisation of knowledge." Where specialisation is quests after an ever more detailed causative understanding of phenomena and, hence, is accompanied by instrumental, technical and methodological specificity, localisation is associated with the respect for local ontologies and the recognition of unique qualities of each subject of study. While these are worthy motivations, when not complemented by integrative ends, they can result in problematic forms of fragmentation.

Hence, the modern and postmodern currents within MOS, as well as social studies in general, are characterized by a prevailing mixture of concerted positivist specialisation and postmodern localisation of MOS knowledge. These are based on and bound to particularised ontological, epistemological and methodological assumptions, orientations and reductionisms. Facing this situation, it is contested whether MOS can be enriched by further de-differentiating and disentangled pluralising or deconstructionist approaches without complementary forms of integration (Küpers and Edwards, 2008). Under these circumstances the current status of MOS requires new ideas on how different schools of thought can be juxtapositioned and/or interrelated more creatively.

Working at the interstitial boundaries of these integrating and pluralising forces, this paper outlines a ‘third way’. Taking the bridge as a metaphor and symbol of the constitution of relations and enabler of possible ‘meetings,’ the following argues for an integral pluralism in organization studies. Based on a post-dualistic, holonic approach (Edwards, 2005, 2009), we will outline specific integrative, or what might be called ‘syn-integral,’ qualities of bridges as mediating new possibilities for connecting MOS research paradigms and literatures. Following integral pluralism (Bhaskar, 1987; Dallmayr, 2010), by syn-integral we mean the synthesising of integrative connections to accommodate the diversity of perspectives towards a research topic.

Against this backdrop, the paper will be structured in the following way. Firstly, bridges and bridging are presented as phenomena, media and metaphors for connecting and separating. Showing their ambivalent character, the role of bridges as metaphors and metaphors as bridges are then discussed in relation to organisation studies. Following a holonic approach that takes part and wholes together, and a ‘syn-integral’ interpretation, perspectives on ‘inter-bridging’ and movable bridges are then described for gaining a decentered processual understanding. Finally, some implications for organization studies and conclusions are offered.

Bridges/Bridging as Metaphors for Connecting and Separating

In the first place, a bridge is a construction, something that is purposefully built and which can be perceived not only as a continuation of a road but as a place serving a special purpose on the road. It is continuing a path across that which divides. By changing the road or the landscape it produces a specific place and emplacement. While bridges call to mind divisions, they also allow divided sides to be seen as connected. In its figurative sense, the bridge attracts, connects, unites, and thereby creates a feeling of relatedness. This linking can also be fragile in character as bridges can be flimsy, temporary and act as points of division. In addition to connecting separated phenomena, due to practical needs and social functions, bridges also obtain specific cultural and aesthetical values. Thus, as an appearance it manifests not only as an artefact, but is encumbered with symbolic meanings and aesthetical qualities (cf. Simmel, 1994). Becoming a placed and visually perceivable image of time and space, bridges hence make the intangible accessible. However, perceiving a bridge always shows the division that it bridges. This interdependency of functions and forms may explain the power that bridges and bridging evoke as media and metaphors, expressed in such a way that they can be even felt on an embodied level.

As an embodied experience, bridges can be perceived and interpreted differently however. Depending on whether they are seen from afar, when reaching or leaving, standing on, or being under or moving on it, on foot or in a car or a train, they open different horizons. Various interrelated senses, who 'make sense' (Küpers, 2013) participate in sensual and aesthetic perceptions of a bridge. Experiencing bridges in an embodied way not only provides a passage-way but are part of being in an embodied place. According to Heidegger (1993), bridges are places that permit to experience the uniqueness and unity of space. They allow us to feel that we belong and can enter as well as how to dwell and live in a placed world, while also initiate different socio-cultural patterns, forming a specific locale and create connecting "networks of long-distance traffic, paced and calculated for maximum yield" (Heidegger, 1993, 354).

However, this archetypical, somewhat adoring interpretation of pre-modern bridges by Simmel and Heidegger can be insufficiently interpreted as not covering further possible forms and functions for our contemporary world. Their metaphor and interpretations of the bouldered bridge can be misunderstood as romantic image of crossing comfortably small rivers or streams.[4]

Today, large railway bridges, highway viaducts or huge suspension bridges break the landscape not only horizontally, but also vertically. On modern bridges humans are often lifted out of the landscape, separating them from it, and thus alter perceptions. Accordingly, bridges in our post-industrial times can also be seen as a metaphor of an ever increasing and pervasive mobility or the perplexity of different conditions of mobile possibilities (Strohmayer, 2010). This "interconnected nomadism" functions then as a means of developing multiple and transverse ways of bridged thinking and living. In this respect, the internet represents a kind of 'cyber-bridge,' which connects 'real-virtual.' For example, crossing via hyperlinks as virtual bridges creates an entry into home- or webpages, which are powerful electronic worlds in their own right. In the absence of direct, but vicarious experiences within virtual organizing, images and metaphors become particularly influential by structuring the reality of virtuality (Schultze and Orlikowski, 2001). The simultaneity of separation and/or connection (Kolb, 2008; Kolb et al., 2012)[5] and extended understanding of bridges as metaphors are a crucial for the study of organizations.

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[4] Heidegger has been accused of being provincial and even reactionary in his choice of the old country bridge that "brings wagons and horse teams to the surrounding villages." But Heidegger also referred to a highway bridge "as is tied into the network of long distance traffic, paced and calculated for maximum yield," thereby not only disclosing the haste and efficiency of the essence of technology, but also exceeding that imposition in the way it brings into presence (cf. Heidegger 2001, pp. 152-153).

[5] Kolb defines connectivity as 'the mechanisms, processes, systems and relationships that link individuals and collectives (e.g. groups, organizations, cultures, societies) by facilitating material, informational and/or social exchange. It includes geo-physical (e.g. space, time and location), technological (e.g. information technologies and their applications) as well as social interactions and artefacts.' (Kolb, 2008, p. 128). As Kolb (2008) has outlined, especially the concept of connectivity is being increasingly used as a metaphor for intra- and inter-organizational interactions. He shows, that `connecting' and 'disconnecting' suggest an underlying theoretical duality, which can be described across multiple dimensions. According to Kolb the specific attributes which constitute the qualities of connectivity – namely latent potentiality, temporal intermittency, actor agency and unknowable pervasiveness – also explain why this metaphor has an appealing resonance with contemporary organisational life.

[6] Kolb defines connectivity as 'the mechanisms, processes, systems and relationships that link individuals and collectives (e.g. groups, organizations, cultures, societies) by facilitating material, informational

Bridge as Metaphor – Metaphor as Bridge

Referring to the Greek origin "*metaphorikos*" – from the Greek roots "meta-," (beyond, across) and "pherein" (carrying over, or bearing), i.e. meaning transportation – metaphors are marking and making movements visible. Basically, metaphors are ways in which terms that originally apply to one domain are projected onto another domain in order to structure experience in a new way or to create an extended awareness.

Metaphors can be seen as part of developing a symbolic understanding (Cassirer, 1955) and vehicle for meaningful organising and communication in and with the world. In particular, drawing upon symbolic constructs helps to approach the relationship between subjective and objective worlds. As part of analogical reasoning, metaphorical thinking is a basic mode of symbolism that is a creative form effectuated through using and crossing of images. Metaphors give form to and transform or generate as well as mediate new meanings. As structuring and creative forming they constitute a capability for processing, comprehending and expressing embodied experiences.

Furthermore, a metaphor is a way of seeing a thing *as if* it were something else, thereby providing a bridge between two dissimilar domains (Lakoff and Johnson, 1980). Consequently, metaphors can enable bridging between abstract constructs and concrete things (Ortony, 1979) and between the familiar to the unknown (Hawkes, 1972). Likewise, bridges allow transverse movements from one distinct area to another. This refers to a crossing that relates to a fundamental spatial navigating in the world in which we live. By synthetically relating areas that would otherwise be separated, bridges are compelling communication media, philosophically as well as practically and bodily. This is why metaphor and theory building are so closely linked.

Lakoff and Johnson tell us that "metaphor is pervasive in everyday life, not just in language, but in thinking and action. Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature" (1980, p. 3). For them this metaphorical structuring has its basis in experience. "Metaphor is as much a part of our functioning as our sense of touch, and as precious" (Lakoff and Johnson 1980, p. 239). According to their 'experientialism' (1980) and 'embodied realism' (1999), all our abstract conceptualization and reasoning, as well as use of language that is our symbolic expression and interactions are tied intimately to our embodiment. Consequently, our bodily experience and embodied relating are constructing thinking, feeling, interpreting and acting through the bridging transfer of conceptual correspondences from experience to more abstract domains (Lakoff and Johnson, 1999).

Linked to image-schemes, metaphors are both constitutive of the structure of bodily experience, as well as emerge from the experiential (Johnson, 1987; Lackhoff & Johnson, 1999).[7] Met-

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and/or social exchange. He shows, that `connecting' and `disconnecting' suggest an underlying theoretical duality, which can be described across multiple dimensions.

[7] Lakoff and Johnson (1999) state that complex or abstract metaphors are primary metaphors that bring two distant domains-source and target–into correspondence with each other. The source domain is usually more physical or concrete, while the target domain tends to be more abstract and complex. Further, the source domain is made up of our fundamental orienting concepts known as image schemata or primary (deep) metaphors. Image schemata are experienced at the corporal level by manipulating objects and moving the body in space and time. A considerable part of our reasoning stems from projecting bodily

aphors refer to an affective state that simultaneously invokes cognition, sensory and aesthetic responses. As one of their functions, an embodied metaphor translates an experienced reality into a perceptible ‘object’ that has emotive import as well as discursive contents. Additionally, this translational process is inseparable from the creative imagination that poetically co-creates the ‘object’. In this way, metaphors mediate novel and even transcending meanings, thus are not reducible to either emotive utterance or rational discourse. Processing a form of emotional and imaginative rationality, metaphors allow bridging the gap between subjectivist and objectivist myths (Lackoff and Johnson, 1980, 193). Correspondingly, bridges are grounded in embodied experiences of human beings, whose bodily movements are related to the sensed experience of bodily engagement with objects (Lakoff and Johnson, 1999). This link to the bodily dimension may explain why bridges are such powerful and political figures of speech, action and interpretation (Winner 1980) as well as for carnal organisation studies and practices (Küpers, 2015).

Metaphorical Bridges and Bridging in Pluralized Organization Studies

As metaphors generally play a central role in the development of thought and inter-individual sense-making, they provide also organizational members with an essential vehicle for expression and interpretation. They do so in particular in that they help to synthesize and integrate the complexities and ambiguities of organizational experience (Feldman, 1991; Inns and Jones, 1996). Furthermore, they allow the reframing of perceptions to “see the world anew” (Barrett and Cooperrider, 1990, 222). This inherently creative dimension of metaphors and stories may be the reason for the intensive use of metaphors in organization studies and their growing importance to research and theory building (Oswick et al., 2002; Cornellison et al., 2008). Part of the innovative potential of metaphors is that they remain incomplete, as they merely hint, suggest or imply and, by this, open up realms for imagination (Trice and Beyer, 1993, 99).

The use of metaphor in organization studies was initially inspired by the work of Morgan (1980, 1986), helping to overcome the dichotomy of the dominant mechanistic and organic approaches within the functionalist paradigm and revealing the impact of their taken-for-granted metaphors on theorizing. For Morgan (1980, p. 613), “an awareness of the metaphorical nature of theory may help to break down the false and restricting compartmentalization of inquiry and understanding which characterizes the conduct of modern organization theory.” Moreover, he believes that the use of metaphor enhances the “capacity for creative yet disciplined thought, in a way that allows us to grasp and deal with the many-sided character of organizational life” (1986, p. 17).

Despite of the impact and potential of metaphorical approaches for MOS, their appropriateness has been contested. Accordingly, Grant and Oswick (1996, pp. 3-6) have pointed out some positive and negative aspects of metaphors. On the one hand, metaphors have a liberating poten-

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and spatial image schemata onto abstract concepts. These image schemata are flexible enough to take on any number of instantiations in different contexts (Johnson 1987, p. 25). According to their embodied realism, “the locus of experience, meaning and thought is the ongoing series of embodied organism-environment interactions that constitute our understandings of the world” (Lakoff and Johnson, 2002, p. 249).

tial, i.e. they help people to see things anew, re-interpret the known and facilitate learning. As such they can foster new experiences, experimenting and diagnosing, thus can serve as a valuable investigative tool. On the other hand, metaphors also have limitations (Morgan 1996, pp. 234-235; Ramos, 1978). For instance, they can be reified and used as ideological distortions, guiding users into biased directions. Particularly, coexisting incompatible metaphors can give rise to incongruences and conflicts among different fields within the discipline and various agencies, employing divergent metaphors for self-understanding, orientation, and direction (Sementelli and Abel, 2007, p. 659). Finally, their inherent ambiguity and imprecision renders it difficult to receive clear or precise results and evaluation of their effects.

Thus, metaphors always represent only "partial truths" (Morgan, 1996, 232), that may be biased or lack rigor, since they neither can be proved nor falsified. Nevertheless, metaphors create important insights into different organizational phenomena as they allow researchers to develop new meanings through an interactive process of 'seeing-as' (Cornelissen et al., 2005). For instance, the unique creative potential of metaphorical approaches has been shown in multiple studies on the role of metaphor in facilitating organisational change (Marshak, 1996; Pondy, 1983; Sackmann, 1989). Metaphors enable organisational actors to re-perceive reality in novel ways that can bridge the old state with the new. Or they are providing a bridge from the "familiar to the strange" (Pondy, 1983, p. 163), respectively to use something relatively unfamiliar. To take another example, ideas or images from evolutionary biology may spark new ways of thinking about something familiar like business strategy (von Ghyczy 2003, p. 89). Metaphors are highly relevant for change and movement in organisational settings as they influence social actors' mind sets, in terms of how and which thoughts, feelings and actions occur. In this regard, Heracleous and Jacobs (2006) pointed out that bridges serve as orientational metaphor. They revealed that spatial proximity symbolizes organizational relatedness or directional uniformity represents coherence as well as similarity in spatial level stands for a sense of belongingness or solid physical connections functions as symbol for smooth organizational relations. As bridges and bridging are related to such spatio-temporal dimensions and dynamics they offer a rich metaphorical linkage that is relevant for interpreting organisational life-worlds.

Metaphors mediate space both through imagery and the manners of reality-changing processing by changing language and recontextualising events (Waistell, 2006, 2007). In particular, bridges and bridging can be regarded as metaphorical mediators. Relationally, mediation is what stands, comes or moves between things that are seemingly otherwise separated or opposed. As metaphorical mediators, bridges are not only a static 'betweenness,' but are always already 'go-betweens' that is in movement. Therefore, the crossing-over of bridges and bridging refers to an intermediary function, which relates dynamically between contents and worlds. Consequently, bridges serve as a milieu or mid-place of communication (Serres, 1982). Ultimately, there is no message or communication possible without such a middling context or channel. In any dialogue there must be some form of contact, which enables the communication to take place. This can be material, for example a meeting-place, a postal service or a techno- and socio-material network as well as in immaterial forms as a discourse with rules. The middle or in-between can also be a combination of material presence and immaterial spheres, like a con-ference, which is literally a bringing or carrying together both at once. Thus, all the work of communication is a sort of bridge-work, made for the spanning of gaps or traversal of stances and distances. However, intermediated communications may also mean mistelling, mishearing, and misapprehending. These cases refer to mediations or practices of mediators in which biases, errors and distortions occupy, overrun or obliterate, thus rendering various interferences.

With new techniques and/or media of communicational bridges, organizational members are faced with a world without addresses that correspond to unique and determinate sets of coordinates in the physical world (Serres, 1994, pp. 205-206). Correspondingly, it makes more sense to look out for the bridge between two ends within a continuum, than to singular poles. The mediating qualities of bridges and bridging as generative metaphors yield new perceptions, interpretations, explanations and inventions in organisational practice (Schön, 1979, p. 259). In this way they are offering alternative ways of looking at an existing situation or possible conceptualisations.

During the last decades many researchers have been debating intensely whether the coexistence of many research paradigms has been beneficial or detrimental to the development of MOS. While the debate between proponents of unification or pluralism is not settled, there are disadvantages to an ongoing non-integral pluralisation. In particular, the field of pluralised organization studies is facing traps of specialisation and fragmentation (Knudsen, 2003, pp. 263-264). The *specialization trap* is a situation, where the further elaboration of dominant research programs suppresses the search for heterodox explanations. This strategy of exploitation provides faster and safer returns on efforts than the exploration of entirely new and hence uncertain areas. As a consequence, exploratory activities are rather scarce. In the long run, this limits a discipline’s potential to adapt to new and unpredictable situations and developments. The *fragmentation trap* is, in contrast, characterized by a constant search for and creation of new theories, methods and research topics rather than elaborating or extending existing ones. As a consequence, the pace of development is too fast to evaluate each contribution properly and to integrate new positions into coherent knowledge structures. Manifold activities of exploration may then lead to an arbitrary, haphazard accumulation of knowledge. Accordingly, new contributions are not integrated with the existing knowledge, as their relationship to other theories is not clearly connected or assessed. This undermines the potential to use existing positions for the development of innovative engagement and contributions.

This problematic status of theory calls for an integral reasoning and frameworks for bridging various positions in a more comprehensive way (Küpers and Edwards, 2008). When disjointed divisions and contestations prevail, generative metaphors, such as bridges and bridging as metamorphorizing activity, are helpful for enhancing a development towards integration. The following outlines some perspectives on how bridges can be transition zones for connecting paradigms from an integral pluralist or syn-integral orientation.

Bridges as Transition Zones for Paradigms

We have argued that any attempt to develop integrated perspectives has to deal with the problem of pluralism in MOS. Adopting a meta-perspective (Dewulf et al., 2009) is one important aspect for addressing this issue. As Goia and Pitrè remark: “Comparing and contrasting diverse paradigms is difficult when confined within one paradigm; looking from a meta-level, however, can allow simultaneous consideration of multiple paradigms and their transition zones” (Gioia & Pitre, 1990, p. 595).

The postmodern distrust of meta-positions is understandable given the problematic assumptions that often accompany such views, but the point put forward by Gioia and Pitrè is different. Their assumptions are of valuing pluralism or taking diverse meta-level positions and of retaining marginal views (Gioia & Pitre, 1990). Questioning the assumption that there are no connections between paradigms can open up re-searching for multiple overlapping or connecting areas (Gioa and Pitrè 1990, p. 592; Schulz and Hatch, 1996, p. 534). Such approaches would not try to fuse or merge, but to relate and negotiate between conflicting positions. They concern for example objectivist and subjectivist approaches or positivistic and anti-/post-positivistic orientations in organization research.

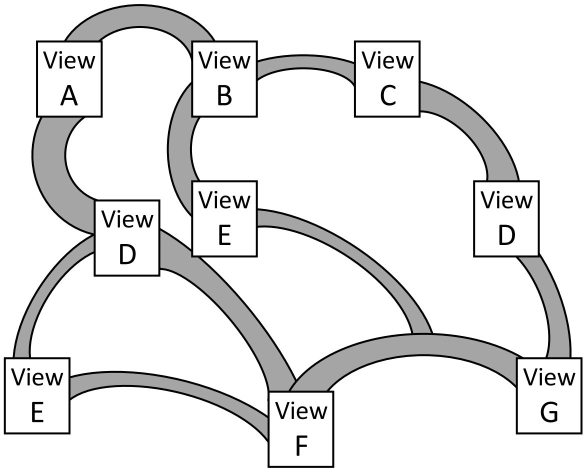
The adoption of a meta-paradigmatic perspective has three important implications (Dewulf et al., 2009, p. 180). First of all, it values separate paradigms as independent, yet fruitful and coherent perspectives. Second, the simultaneous consideration of more than one perspective offers chances for mutual learning, especially by revealing tensions as well as analogies, thus fostering new research questions. Third, concentrating on the permeability of paradigmatic borders and zones of transition can be detected, where different elements might be combined or reconfigured towards rendering novel insights or findings. An illustration of this threefold use of the bridging metaphor can be found in the work of Aram and Salipante and their article on “bridging scholarship in management” (Aram & Salipante, 2003). First they consider separate and contrasting research perspectives of the “particular and the general,” “experience and theory,” “the implicit and the explicit,” and “induction and deduction” (2003, p. 189). Second they develop new research questions and learning opportunities and explore “the potential for a philosophy of science and a process of inquiry that crosses epistemological lines by synthesizing [separate epistemologies]” (2003, p. 189). Third they develop bridging themes that retain but also reconfigure conceptual elements to develop new insights and “new communities of knowing toward the production of relevant and rigorous management knowledge” (2003, p. 189).

In order to (re-)construct such transitional zones, we propose an integral pluralism framework as a bridging concept. By this we mean, a bridging in which different elements or positions are not reduced or subsumed into each other. Rather, they are a seen as contributing their own insights to a more comprehensive understanding. This integral orientation permits bridging between paradigms as well as between micro-, meso- and macro-levels of analysis and their interplay. In this sense, bridging is a meta-theoretical integration practice that mediates between theories, concepts, findings, and interpretations. Consequently, integral bridging can link seemingly contradictory, opposed or divergent positions and perspectives by creating more comprehensive and revealing understandings. For example, Gioia and Pitre offer a kind of proto-integral bridging of the gap between the interpretivist and functionalist paradigms by stating: “In the interpretive paradigm, which presumes a subjective reality, we saw that theoretical discourse often takes place in terms of structuring. If any bridge is to be drawn with functionalism, which presumes an objective reality and, thus, objective social structures, some connection must be made between these concepts” (Gioia and Pitre, 1990, p. 592).

Holonic and ‘Syn-integral’ Bridges/Bridging

As has been argued, the bridge/bridging metaphor can serve as a powerful embodied tool for a more integrated understanding of pluralised organisation theory and practice. Building on this idea, we now outline some post-dualistic perspectives on understanding bridges and bridging. First, we describe specific holonic and synthesising qualities of bridges and bridging as inter-relational practices. In our view, a holonic understanding is helpful for seeing how dualistic perspectives and approaches are partial or at least limiting in their impact. Specifically, a holonic perspective is one that adopts a systems view of nested relationships between the system's elements (Checkland, 1988). In other words, holons are constitutive 'entities' that are both wholes and parts of bigger wholes at the same time (Koestler, 1967). This means that holons are simultaneously autonomous and dependent, as they are characterized by differentiation (generation of variety) and integration (generation of coherence). This permits both analytic and synthetic approaches to be taken towards understanding organisational phenomena. Accordingly, a holarchical system refers to a nested hierarchy/heterarchy of holons (Edwards, 2005). As a form of organising, such holarchical order is especially relevant for the increasing number of decentralized, self-organising processes and its theorising.

A holonic understanding of bridges and bridging is useful for the non-reductive integration of different conceptual lenses. Such approach enables portraying complex realities and relationships involved in bridging diverse phenomena and dimensions in organisation theory and practice. Methodologically, using a holonic orientation and its integrative potential, demands a comprehensive multi-level analysis that takes subjective, inter-subjective and objective dimensions of bridging into account. Interrelating different and specific, but interconnected, processes of interior and exterior as well as individual and collective dimensions, accommodates relevant perspectives of what an 'appropriate' integrative bridging requires. Such orientation provides a base for understanding the syn-integral qualities of bridges as mediating and dynamically synthesising various theoretical and methodological perspectives in MOS. This syn-integral orientation contributes to overcoming the isolation of opposed positions as well as the prevailing practical and methodological reductionism (Küpers and Edwards, 2008).



As shown in Figure 1, we suggest that the metaphors of bridges and bridging can communicate synintegral meanings that are increasingly relevant for MOS as they contribute to overcoming the isolation of opposed or compartmentalized positioning, because bridging connotes connection without subsuming one locality into another. Figure 1 depicts how bridges form networks of connection and connecting patterns between views (Cilliers, 2001).

Figure 1: Bridges as links in a syn-integral network of connections.

In this way, syn-integral approaches correspond to the need for overcoming 'dichotomous thinking' with its formation of 'false binary oppositions' (Tsoukas, 2000) and its either/or logic, for example when coping with change (Beech and Cairns, 2001). A syn-integral orientation considers ways on how relational dimensions are 'in sync' to each other, including divergent and convergent dynamics. Correspondingly, syn-integrality exhibits a potential to explore inter-relational and transformational processes with their dynamically interwoven individual and collective agents and agencies in organisational life-worlds.[8]

Close to this syn-tegrality is the cybernetic model of 'syntegrity' (Beer, 1994), which refers to a form of non-hierarchical problem solving in teams particularly through informal talk and facilitation. However, 'syn-integral' bridging, as suggested here, goes beyond the group-level and focus on problem-solving, as it tries overcoming the limits of the underlying cybernetic system approach. Nevertheless, a 'syn-integral' approach agrees with the basic Gestalt-idea of synergy. For such Gestalt-approach the properties of a whole are greater than and distinct from the added or combined features of the parts.

'Syn-integrality' resonates in particular with the idea of 'tensegrity' as this concept refers to the integrity of structures as being based in a synergy between the inseparable and balanced components of tension and compression (Fuller and Applewhite, 1975). Accordingly, a 'syn-integral' orientation follows Buckminster Fuller's architectonic principle of efficiency in the construction of design of things. 'Syn-tegration' achieves maximum stability, robustness, and quality of outputs with a minimum of inputs, thus doing more with less. Instead of using compression, 'syn-integral' bridging achieves stability by the distribution and concurrent application of tension and pressure on the entire bridge and in relation between its poles. Thus, the integrity of the structure is determined by the distributed tensile stress of the entire system. This tensile integrity or in short 'tensegrity' is summarized as "a structural-relationship principle in which structural shape is guaranteed by the finitely closed, comprehensively continuous, tensional behaviours of the system and not by the discontinuous and exclusively local compressional member behaviours" (Fuller & Applewhite, 1975, p. 372).

'Tensegrity' has many suggestive implications for more effective configurations (Judge, 1979). Such tensile structures make explicit the value of having discontinuous or antagonistic relations between concepts embedded in a continuous mutually supportive network of relationships. As dynamic figurations they reveal how an appropriate combination of properly positioned elements can give rise to a totally unsuspected structure of stability. Interestingly facilitating communication between all parties involved in these structural configurations is not the only way forward, even if it seems feasible in practice. Furthermore, tensegrity suggest that much may be accomplished by ensuring a supportive relationship with neighbouring nodes. This can be accomplished provided that a position is challenged by appropriate opposing nodes. Remarkable these tensile structures have empty centres. Correspondingly, every point is visible and connectable from every other, suggesting a desirable form of transparency. Critically, this raises questions about and inhowfar it is desirable to whom, and in what sense. For example, open offices, in which everyone is constantly visible to everyone else, may lead to a panopticonism (Bart, 2005). For a tensegrity-oriented approach the centre is a virtual one, rather than being occupied by some dominant body, individual, concept or value. Furthermore, such structures also imply a range of global transformations through which the set of concepts or policies can grow to encompass greater variety.

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[8] To understand what 'syn-integral' and 'syn-tegral' bridging in particular means it can be critically contrasted to *synergetics*, which represents an interdisciplinary science explaining the formation and self-organization of patterns and structures in open systems far from thermodynamic equilibrium (Haken, 2004). In contrast to this system approach for which self-organization means that a complex system achieves its spatial structure and/or functions without specific interference from agents outside the system, 'syntegral' orientation includes the possibility of active agency. Although being part of a holonic embedding system, individual and collective agents can be bridges and actively bridge between elements.

While tensegrity – the simultaneous occurrence of tension and pressure – can be observed in nature, applying the principles to social systems, like organizations, may lead to a 'synergistic tensegrity' or 'syntegrity.' Such integrity, as being 'in tensile sync' enables an optimum cross-linking between parts, e.g. members of a team, who are sharing knowledge.

Moreover, an optimum-orientation towards syn-integral connectivity includes also disconnectivities, for example interruptive agentic acts in mediated work (Wajcman and Rose, 2011). Thus it considers conflictual dis-connection within the inter-relational spheres in which they occur. Therefore syn-integral bridging does not follow the ideas of a metaphysical harmony, nor an underlying unity-oriented ideal(ism). Rather, it embraces demands of diversity, complexities, intricacies and ambiguities of bounded organizational realities as well as its theoretical and empirical investigations. Such an orientation towards integral passages in the spirit of 'syn-integral ity' allows not only dealing with conflicts, dilemmas, paradoxes and pathologies of organization in a creative way. It also contributes to a more comprehensive rendering of individual, group-related and organizational sur-plus within a 'bounded integrality' (Deeg et al., 2010).

Taken all together, a holonic and syn-integral bridge-building represents an adequate meta-theoretical and practical approach for recognizing and dealing with multiple perspectives, while being open for productive irritations, and creative responses. Furthermore, it enables a more effective and sustainable 'trafficking,' in that it provides a base for meaningful communications and bridging between various interdependent realities in organisations and beyond.

Bridges and Bridging the In-between… Bridges on the Move

Based on the outlined integral, holonic and syn-integral orientation, the following analyzes some perspectives on the role of an inter-relational 'space in-between' (Bradbury and Lichtenstein, 2000). On the one hand, integral and syn-integral qualities of bridges and bridging are themselves mediating in-betweens. In this way, bridges not only bridge between, but also create an *in-between.* This in-between can be interpreted as a bridging milieu, a sphere and process in and through which the bridging takes place. Applied to organisational theory and practice, this in-between as bridge is co-constituting and entailing as well as enabling to inter-relate multiple realities and individual and collective dimensions in organisational life-worlds. This liminal bridging moves between concepts, categories and paradigms of thought and forms *of* practice not 'in' them (Chia, 1996, p. 142). It is this relational realm of in-between, with its gaps or interstices and therein unfolding 'in-tensions' (Cooper and Law, 1995), which is the medium for meaningful syn-integral theories of organisations. Moreover, the in-between – interpreted as ongoing processes of becoming (Tsoukas and Chia, 2002) – serves as the source for creative and social experiences and realities. By recognizing the primacy of relational processes, these become 'form-in-media' (Küpers, 2011), in which bridges are continuously co-created and changed in the course of being built and functioning.

Corresponding to these perspectives on the in-between, the metaphors of movable bridges and flowing bridging can be used for illustration. These process-oriented images refer to alternative forms/media-connections in that they reveal or re-present organizational processes as relational, emergent patterns of association, accomplished performances or as ongoing movements (Putnam and Boys, 2006; Taylor and van Every, 2000). For thinking of bridges and bridging as moving media, ferries come to mind that, while serving as moveable transport vehicles, often replace stable bridges. Or we could think of air-bridges that function as movable connectors for passengers.

Following Deleuze and Guattari (1980), emerging ‘rhizomatic bridges’ can be thought of that allow multiple horizontal and mutual connections that are growing into swinging radial ways. Importantly, a rhizome-bridge has no beginning or end, but is always in the middle, between things. With these qualities, any point of a bridging rhizome can be connected to any other (Deleuze and Guattari, 1980, p. 7). Thus, rhizomatics reinterprets bridges as dynamic, heterogeneous and non-dichotomous, open-ended places, pathways and lines of flight that is de-territorialized structures, through which nomadic movements can take place (Chia, 1999).

When engaging with metaphors of moveable bridges it may make bodies, feelings and thinking move, thus serving as media for reflecting ‘beings’ and facilitating different forms of becoming, that is, unfolding, emergence and transformation (Tsoukas, 1991). As being inter-relational milieus and processes, bridges and bridging moves are spheres and practices of transition. Bridges become living third spaces, inter-places and zones of “interplay” (Schultz & Hatch, 1996) in contrast to being static positional or instrumental resources. Accordingly, as spatial and temporal in-between, bridges and bridging serve not only for coming from one point to another, but help to overcome thinking in points at all. Subversively, they are inviting, guiding, going to, and dealing with post-dichotomous in-betweens of theorising and practicing organisation. When in-between spaces of bridges are those, ‘where differences unfold differences, in-between, inside-outside, formal-informal, old-new etc.’ (Clegg and Kornberger, 2006, p. 154) occur, then considering requisite suitable levels of connectivities[9] and bordering or borderland strategies suggests metaphorical borderlands, particularly for reconnecting of theory and practice (Tyler, 2009),[10] open up for more creative forms of organising.

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[9] “Requisite connectivity is the state of having robust and reliable communication and/or transportation media/modes, with operable alternative work-around options, so that contact may be initiated or maintained at the rate, richness and intensity that we desire for a given task or social outcome” (Kolb, Collins and Lind 2008, p. 182). Accordingly, requisite connectivity refers to a threshold state of having an appropriate level of connectivity, one which enables effective performance of a given task or social outcome. It marks a middle ground and can be distinguished from states of too little or too much connectivity. At the one extreme is a state of hypo-connectivity, where there is insufficient connectivity for the demands of the situation. For example, in distributed teams when teleconferencing facilities are not available, and/or time differences and geographical distance make face-to-face contact problematic, a team may report suffering from hypo-connectivity. The other extreme is a state of hyper-connectivity, in which high levels of connectivity are detrimental to performance. As such, effective and efficient performance requires that individuals, teams and organizations achieve and maintain a state of requisite connectivity, while avoiding the pitfalls of the two counterproductive states of hypo-connectivity and hyper-connectivity.

[10] Instead of using binary, two-shore-oriented metaphor of gaps and bridges, Tyler (2009) suggests metaphorical borderlands particularly for reconnecting of theory and practice. Following Anzaldúa (1987), the concept of a borderland refers to a psycho-social territory, which span and include the boundary, thus

Such a radical understanding of the relationality of bridges as dynamic connectivity helps understanding practices of organising as decentred inter-relationships. Interpreting organizational phenomena as dynamic constellations of relationships allows us to see that they cannot be substantively fixed. Organisational spaces are connected via shifting clusters of variable elements throughout a non-centred, configured lattice. This distributed mesh processes what could be called 'inter-bridging' that is moving in dynamic sets of forms and relations within an 'inter-world' as a shared 'inter-mundane' place (Merleau-Ponty 1995, p. 269). In turn these formations and relationships are situated within and influenced by powerful historical, embodied, emotional, cognitive, social, and structural dimensions.

Conceptually and practically, such 'inter-bridging' provides renewed possibilities for developing richer, more contextured understandings and transformative enactments of holonic and syn-integral processes in organisations.

Implications for Organization Studies

The integral and syn-integral metaphor of brides/bridging challenges the commonly assumed status of incommensurability among MOS research paradigms. It enables perspectives of interplay and connectivity that transcend the incommensurability argument. Opposing approaches can be considered by juxtaposing them which illustrates their representational nature and logic. By encompassing various research directions, a syn-integral approach, as outlined before, provides a more accommodating framework that corresponds and helps to respond better to the plurality and complexities of organizational phenomena, including discontinuities (Deeg, 2009). In this regard, syn-integral thinking may reveal connections of seemingly disparate, but interdependent facets of issues under study. The syn-integral nature of bridging metaphors offers pathways for overcoming binary arguments in which 'either-or'-antinomies foster sub-complex black-or-white views. Instead, a post-binary syn-ingral approach sees opposite orientations as co-determined, as mutual, complementary and interconnected positions. A re-examining and questioning of fundamental assumptions of various practices and theories from a syn-tegral perspective, enhances forms of unfoldment and learning that elevates theory-building. This in turn may protect researchers from becoming trapped within an isolationist view or a limited range of conceptual possibilities. The very move of crossing diverse boundaries represents is an actual practice of (meta-)theoretical bridging. By unearthing connections and establishing new ones (Molz and

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helping (a mestiza-consciousness) to dissolve, rather than overcome dualities. For a borderland perspective "the bridge is replaced by buoyancy, by flow" (Tyler, 2009, p. 533). In this borderland contradictions are sustained and become a creative force for new connections between people and ideas. Furthermore, the borderlands metaphor possesses creates and atmosphere and has the "power of sustainable engagement, a mixing and a blending that results in the emergence of novelty" (Tyler, 2009, p. 532).

[11] Instead of using binary, two-shore-oriented metaphor of gaps and bridges, Tyler (2009) suggests metaphorical borderlands particularly for reconnecting of theory and practice. Following Anzaldúa (1987) the concept of a borderland refers to a psycho-social territory, which span and include the boundary, thus helping (a mestiza-consciousness) to dissolve, rather than overcome dualities. For a borderland perspective "the bridge is replaced by buoyancy, by flow" (Tyler, 2009, p. 533). In this borderland contradictions are sustained and become a creative force for new connections and sustainable engagement between people and ideas.

Edwards, 2015), this bridging endeavour show inter- and transdisciplinary ways to cross, thus to advance creative pathways.

Radicalising the idea of an "inter-disciplinology" (Bahm, 1980) that crosses disciplines and forms of knowledge, such bridge-crossing requires the cultivation of a relational taking of perspective. Such "inter-perspectivity" (Giri 2002, p. 106) is using an inter-relational approach, that includes and interrelates multiple perspectives. To cross boundaries does not mean to espouse a single encompassing truth, to fix the one, supposed best (meta-)orientation or methodology, nor to justify the dominance of a certain worldview. Rather, an integral meta-theoretical research recognizes and values, different levels, pluralism and diversity. Due to its inclusive character, various paradigms, theories, methodologies and insights can then find their place in a broader scheme. Importantly, an integrated meta-theoretical bridging view does not promote eclecticism, but favours a nested holarchy of knowledge. With its meta-paradigmatic orientation and holarchical knowledge, an integrated modelling encourages awareness of theoretical and methodological alternatives. Integral bridging facilitates discourses and/or inquiries and interplays across paradigms, hence fostering greater understanding within pluralist and even paradoxical organizational contexts (Lewis and Kelemen 2002, p. 258). At the same time, bridging between shared patterns and platforms for communication contributes to developing constructive, useful and emancipatory knowledge (Molz and Edwards, 2015). Eventually, such bridging may also help to close gaps between academic research and organizational practice (e.g. Saari, 2007; Kieser and Leiner, 2009; Hodgkinson and Rousseau, 2009).

Conclusions

This paper argues that the bridge/bridging metaphor is a source of multifunctional and generative ideas for investigating organisational life-worlds. With their special syn-integral characteristics that allow traversing not only streams and obstacles, but also polarities and abysses, bridges are well suited to interpreting and dealing with contexts and theories of organisation that are marked by division, oppositeness, isolations or fissures. Traditionally, bridges were not used for staying or living on them, as they functioned only for a purposeful crossing over. Yet, in a reinterpreted sense, bridges are not only for traversing but also serve to overcome barriers and boundaries. They offer possibilities for redirecting the pathways and going towards, living in and dealing with the in-between. Thus, from a holonic and synintegral perspective, bridging modes are vital activities and places for learning about different ways of seeing. Bridges are eminent tropes for transformative process because they highlight dynamic forms of relationalities and movements, which also implies a fundamental fragility and requires malleability. This means that bridges need to be sensible to vibrations and to operate with an oscillatory instability as they are endangered by great commotions. Accordingly, the process of actual bridging is a vibrant, unstable, constantly challenging, and delicate work in progress.[12]

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[12] This became evident in the opening of the high-tech Millennium Bridge in London, which traverses the River Thames from the Tate Modern to St. Paul's Cathedral by which pedestrians generated lateral and reinforcing momentum called "synchronous lateral excitation" (Cassidy, 2009) causing the bridge to shake and swing. Thousands of people lined up to walk across the new structure, which consisted of a narrow aluminum footbridge surrounded by steel balustrades projecting out at obtuse angles. Within minutes of the official opening, the footway started to tilt and sway alarmingly, forcing some of the pedestrians to cling to the side rails. Some reported feeling seasick. The authorities shut the bridge, claiming

A key point in our discussion has been that metaphors integrate reason and imagination and so are useful for meta-theoretical bridging. Combining postmodern fragmentation and hermeneutic integration (Alvesson and Skoldberg, 2000), metaphors of bridges and bridging provide researchers with the means for building boundary crossing coherence. Yet, this coherence is not found 'out there,' waiting to be discovered, but requires an active engagement of a responsive creation and fluid responsiveness (Rodriguez-Sanchez et al., 2008). Similar to the construction of bridges, which may be provoked by troubling water for laying crossable fundaments, the invention and use of metaphor and metaphorising demands deliberate and coordinated work.

Even more, this effort requires often collaboration from more than one end to another, i.e. being simultaneous, determined from either sides or poles and of the in-between. While bridges are constituted by different components, these bridge-elements may not fit into a coherent whole by themselves. Likewise, 'syn-integral ity' is not solely an emergent phenomenon, but results from composite and coordinated endeavours in conceptualising, designing and enacting, though this sometimes includes unfinished 'bridges to nowhere,' which may have their own unexpected values.[13]

We foresee in future MOS integrative research an increasing use and significance of bridges and bridging in our current times in which conventional orientations, paradigms and approaches are becoming more diverse and fragmented. Bauman (2000, p. 5) has said that "between the overall order and every one of the agencies, vehicles and stratagems of purposeful action there is a cleavage – a perpetually widening gap with no bridge in sight."

The need for new kind of bridges will become more important as not only do identities are getting more fluid, but also as social relationships become transitory, generating anxieties and insecurities, while facing liquefaction as disembedding without re-embedding. In an increasingly liquefied world, unpredicted and unprecedented settings, risks and dilemmatic challenges are emerging that are calling for moving beyond social and economic polarization. This can then

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that too many people were using it. The next day, the bridge reopened with strict limits on the number of pedestrians, but it began to shake again. Two days after it had opened, with the source of the wobble still a mystery, the bridge was closed for an indefinite period. Some commentators suspected the bridge's foundations, others an unusual air pattern. The real problem was that the designers of the bridge … had not taken into account how the footway would react to all the pedestrians walking on it. When a person walks, lifting and dropping each foot in turn, he or she produces a slight sideways force. If hundreds of people are walking in a confined space, and some happen to walk in step, they can generate enough lateral momentum to move a footbridge—just a little. Once the footway starts swaying, however subtly, more and more pedestrians adjust their gait to get comfortable, stepping to and fro in synch. As a positive-feedback loop develops between the bridge's swing and the pedestrians' stride, the sideways forces can increase dramatically and the bridge can lurch violently. The investigating engineers termed this process Cassidy compares this fragility of the bridge to a rational irrationality, explaining why capitalism is crash-prone.

[13] Not all efforts of bridging come to a satisfying end as there are not only unfinished bridges, but also bridges to nowhere, i.e. bridges without purpose to connect and thus leading to nowhere. Yet some of those non-/post-functional bridges to nowhere became an iconic symbol and thus a new, rather idealistic function. One example for this is the 'Bridge to Nowhere' spanning the Mangapurua Gorge in Whanganui National Park, which became iconic for New Zealand adventure tourism and is now a major visitor destination.

lead towards new vantage-points of insights and nomadic journeys towards shores of experiences in unknown lands. Hopefully, the outlined syn-integral or pluralistic integration and the associated metaphors of bridges and bridging contribute to develop more integrative forms of theorising of and practicing in organisations and crossings the divides between them.

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Collaborative Learning Processes in Teacher Training: Benefits and Costs

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Abstract: The current pedagogical discussion emphasizes self-determined and cooperative forms of learning. The theoretical background stems from constructivist theories of learning, which interpret social exchange and reflecting on one's learning pathway as crucial points for construction processes. Consequently, self-regulation turns into a central condition for scholarly learning. This includes setting goals, planning and conducting the learning process as well as the evaluation of results. This paper focusses on the processes secondary school teachers use to implement newly acquired knowledge on self-regulated learning in their lessons. By means of qualitative research methodology, we wanted to explore how experienced teachers develop their own abilities for self-determined learning while teaching their own pupils to do so.

Method: In a transdisciplinary research-project between a secondary school and a university, a group of mathematic teachers participated in a two-day training course on self-regulated learning during which they discussed and developed ways to enhance self-regulation of learners. They were then tasked with implementing their newly acquired knowledge during their maths lessons (number of pupils = 270, 4 - 5 lessons per week) with eighth graders in the course of a twelve week teaching period. Two separate groups of teachers were asked to put their newly acquired skills into practice. The first group (N = 6) used a collaborative setting in which tasks, teaching activities and performance reviews had been clarified and discussed within the group. The second group (N = 4) fulfilled these tasks individually without seeking assistance. The teaching strategies were assessed by means of multiple semi-structured interviews and observations of classroom activities.

Semi-structured interviews were conducted with the teachers prior to the training and after 12 and 32 weeks respectively to explore their understanding of self-regulated learning and their experiences during implementation. A thematic analysis approach was used to identify the factors relevant for the implementation from the teacher's perspective. Observation sessions of classroom activities were undertaken four times during the project period in each class.

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Results: Both groups stated that the focus on self-regulated learning inspired them to change some of their habits in their own teaching. Teachers in the cooperative group increasingly reported a growing awareness for details of their own preparations when planning lessons or grading, more so than the teachers in the supervisory group. In the collaborative group concrete attempts were made to change some organizational factors so that collaboration could continue for a longer period.

Conclusion: The distribution of didactic innovations such as the implementation of self-regulated learning in teaching contexts requires a two fold perspective. Not only the teachers and their individual teaching have to be taken into account but also the school conditions under which the teachers work. The integral perspective on the analysis of these implementation processes proved to be fruitful.

Keywords: Collaborative practices, Cologne action model, Integral theory, professional learning communities, secondary education, self-regulation.

Introduction

Innovations in the education system such as the encouragement of self-regulated learning are normally initiated from the outside when a new curriculum is introduced, for example. Many of these changes to the education system are currently justified by the conclusions of wide-ranging educational studies (cf. PISA). In the past years universities developed a host of projects which serve to encourage self-regulated learning among pupils. In both these cases not the protagonists themselves suggest new ideas, rather external authorities are making the suggestions in line with a “top down strategy” (Gräsel & Parchmann, 2004). This very typical method of changing teaching processes is also known as “Research, Development and Diffusion (RDD)” (Krainer, 2003). What characterizes this classic method is that “there is a human and temporal split between the conception and development of particular innovations and their implementation.” (Gräsel & Parchmann, 2004, p.199). Due to this split it is hardly surprising that further training will in most cases not change teaching practices (Kaenders, 2010).

Gräsel (2010) suggests that teachers working collaboratively are a central feature of successful adopted innovations. Teacher collaboration can therefore be used to integrate the training objectives more effectively during teaching. The evaluation of the cross border model experimental programme “Quality Improvements in Schools and School Systems (QuiSS, Qualität in Schulen und Schulsystemen)” showed that good teacher cooperation amongst the body of teaching staff was the strongest predictor for the spreading of model experiment objectives within the school (Jäger, Reese, Prenzel & Drechsel, 2003).

Krainer (2003) further emphasizes that teacher collaboration processes are ideally accompanied by external support from e.g. university researchers to yield optimal results. In his approach of collaborative research the protagonists with different types of expertise examine and develop their own teaching practices together. Teachers are not considered the passive recipients of scientific research but as experts on teaching lessons. As much as the teachers learn from scientists, science itself learns from them as practitioners. This type of mutually beneficial activity and learning can be viewed as a transdisciplinary approach in action.

Collaborative Teaching Development from an Integral Perspective

Collaborative approaches in teacher training widen the perspective form the interaction between a teacher and her/his class to the interactional and systemic view as a prerequisite for long-term implementation. The following paragraphs will analyze teacher training for self-regulation from an integral perspective. We will focus on Wilber's Integral Theory (2001) in which he developed a quadrant model to describe research processes under the viewpoint of the individual / collective dimension and the internal / external dimension. Wilber's model is based on the concept of Habermas (1995) in which different universal concepts are divided according to their subject area and claims for validity into a subjective, objective and a social world. Wilber broadens these reflections and differentiates between four approaches to cognizance which rest on two independent dimensions inside / outside and individual / collective (cf. Table 1).

The external individual approach to scientific knowledge is directed towards representational or propositional truth. The greatest possible concurrence with objective facts is sought. This view is considered the basis for the empirical (natural) sciences (quadrant 2). A great number of training projects in the educational-psychological discipline can be located in this quadrant. Many of them are developed and evaluated to a high methodological standard alongside international and national educational studies, whose primary objective it is to improve the cognitive and motivational skills of pupils. Within this scope the area of self-regulation deserves particular attention.

The internal individual approach is committed to a subjective claim for recognition and strives for truth, dependability and sincerity. Interests and convictions are frequently looked at from a phenomenological point of view and interpreted hermeneutically (quadrant 1). In this quadrant, the empirically proven efficiency of self-regulation is not the central issue. Rather, the question is how relevant a concept is for an individual teacher or pupil in terms of their subjective view of the world and how to relate it to their own actions.

In the outer collective quadrant a complex all-encompassing system is the primary reality. In this systemic view the overall system defines the many functions for its separate components. Zierer (2008) calls this "the requirement to fit in functionally" meaning that the single parts "must be woven into the fabric of the overall system" (p. 576). From this perspective it should be possible to prove through objective and empirical evidence that ongoing support of self-regulation leads to the smooth transition of those in learning into the overall economic structure of their country.

Wilber (2001) defines the inner collective quadrant as situated in a cultural context. An inter-subjective claim for recognition is negotiated among two or more individuals. Justice and mutual understanding are central considerations which do not necessarily lead to an objective linking of systems. Social and cultural behaviour is acted out in rituals and procedures which are recognized by the participants to be right and just. For self-regulation to flourish in this quadrant, it is important that those actively involved are in agreement about the role that self-determination should play in the learning process and how it should be adapted into the everyday reality of the school.

Table 1: Overview of the quadrants in Wilber’s integral theory.

	Inside	Outside
Individual	**I Intentional** Subjective demand for recognition (Genuineness) *What does self-regulation mean for my own learning?*	**II Conduct** Objective demand for recognition (Truth) *How can self-regulation be supported effectively?*
Collective	**III Cultural** The inter-subjective claim for recognition (Justice / Cultural fitting in) *How can self-regulation be implemented into day to day school life?*	**IV Intentional** The inter-objective claim for recognition (Functional fitting in) *Are there benefits for the overall economy if self-regulation is encouraged?*

Self-regulation

Self-regulation is the ability to adapt one’s actions to the achievement of medium-term and long-term goals while managing to handle adversity appropriately whether it be from the outside or from within. It is based on the interaction of cognitive, metacognitive and motivational-emotional resources (Artelt, Demmrich & Baumert, 2001). From the integral viewpoint quadrants 1 and 2 (Wilber, 2001) cover those training programmes which consider the thoughts, purposes and the intentions (quadrant 1) as well as the measurable behaviour (quadrant 2) of the individual. Collective perspectives are not explored. The great majority of empirical evaluation studies explore the measures used to support self-regulated learning among pupils in the lower grades of secondary school (“Sekundarstufe 1”). In terms of methodology and validity they can be assigned to quadrant 2 (Zierer, 2008).

The Cologne action model (“Kölner Handlungskreismodell”, Aschermann & Armbrüster, 2011) describes self-regulation as a circular process in which the behavioural steps associated with cognitive and motivational-emotional processes are anchored. It is founded in Heckhausen’s model of the regulation of action (Heckhausen & Heckhausen, 2008). Heckhausen defines four cognitive phases (setting a goal, planning, implementation, evaluation). Schmitz and Schmidt (2007) as well as Zimmerman (2000) proposed and evaluated similar self-regulation models. These fundamental models of self-determined learning emphasize the importance of emotions for the learning process but do not explicitly root them there. In our model the scope has been widened to include more detailed specifics on the interaction between the processes of regulation and cognitive processes necessary for a successful learning activity. The effectiveness of further training to encourage self-regulation was demonstrated by an empirical evaluation study in a schools context (Armbrüster, 2013).

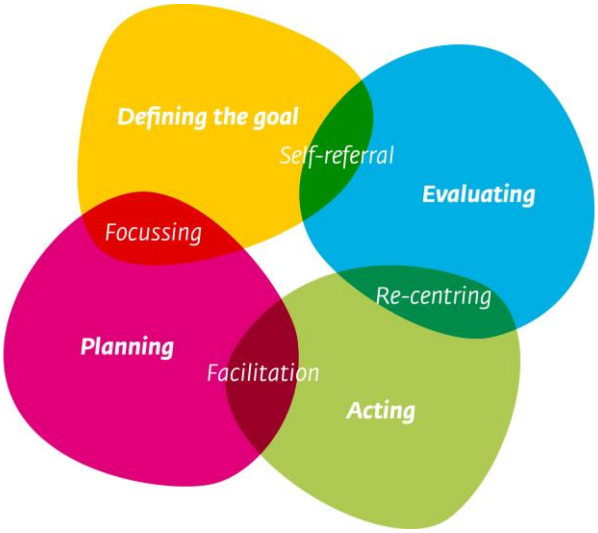

Fig. 1: Cologne action model (Aschermann & Armbrüster, 2011)

Cognitive Processes

If learning is to be successful, it is important to have a clear and well-defined **objective**. The individuals have to be in a position to take their own decisions and to deal with a subject matter with real enthusiasm. **Planning** involves the definition of partial goals, setting priorities, anticipating possible obstacles and the consideration of alternatives. The **task in hand** demands self-confidence and the ability to apply oneself even when more attractive options or seemingly more urgent activities lure because progress is slow. **Evaluation** includes recording the results of the tasks set, as well as verification whether my own objectives have been achieved. Significantly, this calls for a meta-perspective which allows observing my own learning process in order to achieve realistic self-assessment.

Regulating Processes

In-between each step characteristic mood swings occur which determine the smooth flow of events. The ability to influence one’s own emotions is significant for the successful outcome of a learning process. If an evaluation is to be carried out, it is crucial to have the ability to cope with failure or to be able to reassess the overall situation after detailed analysis.

When a new task is set, the mood should ideally be one of enthusiasm and optimism from the outset. When the planning stage arrives, feelings in general turn more sober, especially when obstacles become apparent (**focussing**). Starting and persevering are easier when the general mood is that of confidence (**facilitation**). During evaluation there is stronger attention to detail and the mood gets more serious (**re-centring**). The conclusions generated by evaluation are then transferred into the context of one’s own experience. The subsequent change of direction towards a new goal once again demands emotional energizing (**self-referral**).

Although there are relatively stable differences in the personal priorities when it comes to individual cognitive and regulating phases, we contend that all components can be changed through a learning experience.

Objectives of the Study

This study in support of self-regulation in the lower grades of secondary school examines the question how a collaboration group and a training support group made up of teachers differ in the implementation of their further training during their maths lessons. The study also looks into the differences of how the two groups reflect both personally and socially on the concept of self-regulation during school lessons. The main emphasis is on the analysis of the teacher's individual planning for lessons and their views on the importance of self-regulation during learning. In addition, the project measured the learning progress of the pupils. The data is not included in this paper as it is due to be published shortly (Klenzan, in press).

Method

This indirect intervention study was undertaken as a project in collaboration between a university and five secondary schools ("Gymnasium"). Ten classes took part and the teachers were assigned to one of three conditions: a collaboration group (N = 6) or a further training group (N = 4). The teachers in the collaboration group all worked at the same school, the teachers of the further training group worked on two different schools nearby. The teachers in the collaboration group and the further training group received identical training on the subject of self-regulation. The teachers in the further training group applied their newly acquired training skills individually to the lessons they were teaching. The collaboration group on the other hand shared these skills with their maths teaching colleagues and applied them to classes (cf. later). These distinctions were put in place deliberately in order to distinguish the effects shown through further training and teaching in collaboration. The teachers implemented the further training that they received into their maths lessons for a total number of 12 weeks. The study is based on a pre-post design. The treatment effects were collated using a post-test shortly after intervention took place. A later survey recorded the longer-term effects. Data readings were taken three times and always based on evaluation-related variables. The period during which the study was undertaken lasted for one school year. The actual evaluation period lasted just over half a year.

The Training Syllabus

The teachers in the further training and collaboration groups participated in two training sessions on the subject of self-regulation lasting half a day each (cf. Table 2). The first training session introduced the teachers to the subject of self-regulation. The theoretical background used was the Cologne action model (see above).

The main objective of the first day was to introduce the teachers to the concept of self-regulation as a basis for motivated learning in school. During the "mental journey" - phase, the teachers were mentally guided through a complex project (organizing an event). Their task was to pay attention to their own reactions, feelings and ideas during this mental journey. In the ensuing discussion they compared their own experiences with those of the learning tasks they had set their pupils only to discover that they were undergoing a similar learning experience to that of their pupils. The Cologne action model enabled the teachers to talk about the difficulties of motivating pupils without referring solely to the personality traits of the pupils.

Table 2: Day 1 syllabus.

DAY 1 **Phase of the training**	**Specification**
Introduction	First acquaintance, importance of self-regulation in learning contexts
Keynote Speech	Idea and benefit of self-regulation, special relevance for the mathematics instruction
Group discussion	Specification of the phases, creating a school reference
Mental journey	Self-regulation in the teachers life, clarification of functional and dysfunctional behaviour patterns
Workshops	In-depth insight in the field of self-regulation
Discussion and reflection	Questions and feedback, agenda setting for day 2

During the second training session, the teachers were given examples of how to encourage self-regulated learning in the maths lessons. The contents of the syllabus corresponded to the Cologne action model and were divided into the four units, namely defining the objective, planning, the taking of action and evaluation. Priority was given to the link between theory and the practical application in school with a particular emphasis on the practicality of the syllabus and its successful transfer to lessons.

Table 3: Day 2 syllabus.

DAY 2 **Phase of the training**	**Specification**
Introduction	Exchanging experiences and identifying central aspects the teachers wanted to work on
Defining the goal	The purpose of setting a goal is to elicit a motivating effect
Planning	Goals are manageable if split into sub-goals; planning maths lessons
Action	Invested study time and used learning strategies are significant aspects
Evaluating	Feedback is an influencing factor of causal attribution
Discussion	Questions and feedback

The training was devised specifically for the purpose of making it adaptable for teaching in class. Therefore adaptations were not only desirable but necessary and were discussed with the teachers. In a situation where self-regulated learning is encouraged it does not seem practical to make teachers follow a strict regime, as implementation very much depends on the teaching unit in hand and the makeup of the class itself. The teachers who participated were introduced to the possibilities of how to encourage self-determined learning and how to apply it within the context of their maths teaching. It was explained that these were merely suggestions to encourage self-regulated learning. Additional ideas for implementation were expressly encouraged. Three areas of special interest were formulated by the teachers during this training phase:

- How can pupils be supported to give them a realistic picture of their knowledge and competencies in order for them to prepare more independently for written tests?
- Pupils need to revise far more rigorously to attain basic mathematical skills (equations with variables, division of fractions, embedded problems)
- Cooperation in the class while working on a complex problem should be fostered

These aspects are the basis for the collaborative work between the teachers and the research group as well as being the focal point for supervision in the training group.

Shaping Transdisciplinary Cooperation

Continuous exchange between teachers: During the period of implementation, a continuous exchange between the members of the collaboration group was initiated and supervised. This discussion took place on three levels: the teachers worked together on didactic impulses for encouraging self-regulated learning. Ideas for implementation were floated and experiences were adapted accordingly. These exchanges took place within the context of personal conversations during the breaks or free time in-between lessons.

Transdisciplinary contact: To enable the transdisciplinary exchanges between teachers and researchers, regular meetings were arranged once a week. These meetings lasted about 90 - 120 minutes and took place at the school. The ideas and thoughts of teachers and researchers contributed mutually to the progress of the work. On the one hand these meetings served to clarify the next steps to be taken and allowed room for the exchange of views on the experience gained previously. On the other hand, the meetings strengthened personal contacts. Transdisciplinary perspectives and experiences were brought together and could be used for future implementation. This notion of collaboration across disciplines contradicts the “Research, Development and Diffusion paradigm” (RDD, Krainer, 2003) in which teachers are solely seen as the recipients of research findings.

Support website math-il.de: Cooperation among the group of teachers was further supported through the web platform math-il.de. Participants were able to exchange views flexibly regardless of time and place. The working group consisted of the participating number of six teachers plus university staff from the faculties of Mathematical Didactics and Educational Psychology. The platform served as an additional source for exchange and for uploading ready-made teaching materials.

It is through these impulses that changes in respect of individual approaches and convictions (quadrant 1) as well as of conduct (quadrant 2) were to be achieved. Changes in the school's circumstances (quadrant 3) were also to be documented. A change in terms of the inter-objective claim for recognition (quadrant 4) was not intended.

Observations in Class plus Interviews

During the period of intervention each teacher was observed twice in class for the purpose of recording the self-regulating components during the lesson. All observations were conducted by the same member of the university team. The central observation was how the Cologne action model was implemented in the lesson. The following observation grid to code the relevant aspects that were found in each lesson was devised exclusively for this purpose:

- Type of classroom instruction: teacher centered, working in groups, lecture, pupils working by themselves
- Activities of pupils during the lesson: the amount of time needed to complete the task, discussion of the maths problems, seeking help from the teacher or other pupils
- Possibility of independent self-regulated work in the class (amount of time, intensity)
- The introduction of self-regulation teaching aids
- Looking at how the different phases were implemented

The focus here lay specifically in the observation whether at least one of the four action phases had been implemented and how it was brought about. Further, the general presence of the action model during the lesson was recorded (visual presence and / or the explicit naming of a particular phase). The observations in class were based on fundamental criteria seen as prerequisites for self-regulated learning such as the prevailing teaching method and the perceived independence of the pupils (Hattie, 2009). In the course of three measuring periods, extensive interviews were conducted with the teachers in the collaboration and further training groups. Different members of the research group conducted the semi-structured interviews. They were recorded and subsequently transcribed. The subjects discussed during the interviews were expectations, knowledge, the changes that the teachers themselves perceived regarding their own planning and their teaching, the subjective theories about learning in school and the reactions of the pupils in view of the changes taking place during lessons. We use the method of Mayring (2010) for coding the teacher's statements. This method was chosen to deepen our knowledge of the teacher's thoughts, their feelings, meanings and their interpretation of teaching in their specific situation. The thematic analysis consisted of a two-step procedure. In the paraphrasing phase initial codes were generated by extracting interesting features from the data set. The relevant data for each feature was then given a code. Repetitions and embellishments were omitted. In the generalization phase the relevant themes emerging form the coding were extracted and named. Central topics of the pre and post interviews are summarized in table 4.

Table 4: Main topics of the semi-structured interviews

Pre interview	Post interview	Follow-up interview
– Personal ideas and reasons to participate in the project	– Applying the training materials in a classroom setting - regularity and intensity	– Do you still support self-regulated learning? – What changed?
– Individual objectives in the project	– Which aspects regarding the training were useful in your lessons?	– Continuation of teacher collaboration
– Definition of self-regulation	– Difficulties and obstacles encountered	– How intense was the practical implementation?
– Advance knowledge about self-regulation	– Solutions and alternatives	– How was the implementation structured?
– Assessment knowledge: How do you identify the self-regulation competences of your pupils?	– Prospective utilization of self-regulation in lessons – Did the project lead to cooperation with other teachers?	– Are there any reasons why training should not be undertaken?
–	– Results of the collaboration?	– What are benefits / costs of self-regulated learning?

Results

We will present the results in the order of Wilber’s Integral Modell (2001). First, we will focus on how the teachers analyzed the project from a subjective perspective (focus on quadrant 1). This is followed by a description of how the syllabus of the further training was applied during lessons by both groups as perceived by the classroom observers (focus on quadrant 2) and the type of activities developed by the collaboration group (focus on quadrant 3). Although inter-objective changes were not taken into account here, the results are mentioned for the purposes of a complete representation (quadrant 4).

Quadrant 1: How Important is Self-regulation for my Teaching / for the Apprehension of my Pupils?

The focus of the interviews was the question whether implementation of self-regulated learning had taken place and from the teacher’s point of view in what way implementation had differed in the collaboration group and the further training group. This qualitative procedure fits quadrant 1 because the individual perspective is particularly clear here. Post interviews were conducted with nine teachers, six from the collaborative group and three from the training group (one teacher could not be interviewed due to parental leave).

In table 5 the results of the post-interview are summarized. For each category derived by the qualitative interpretation method the number of teachers who made statements relating to one of the categories below and the sum of all statements are shown.

Table 5: Overview of categories extracted from post-interviews and frequency of statements.

Category	**Number of entries (teachers / statements)**	
	Collaborative group (N = 6)	Training group (N = 3)
Implementation process	5/21	2/2
Self-reflection of teachers	5/8	2/2
Learning progress for pupils	4/9	2/2
Reflection of specific phases in the Cologne action model	6/9	3/3
Collaboration	6/12	1/2
Positive impact on teaching and learning	6/7	2/1
Difficulities encountered	6/6	3/3
Developement of new maths tasks	5/6	2/4
Structure of the lessons	3/3	1/2
Future use of self-regulated learning	6/7	2/2
Costs of implementation (e.g. time, conflicts)	4/6	2/2
Website math-il.de	6/9	-/-

Eight teachers stated that they had implemented the action model either implicitly or explicitly in class. Of those eight teachers six belonged to the collaboration group while two belonged to the further training group. All eight teachers stated that they intended to continue using the action model.

The teachers of the collaborative group elaborated in detail on the process of implementation. They focused often on the learning processes of the pupils and used the action model in a differentiated manner to describe the positive changes in the lessons. Teachers of both groups reported some difficulties; these were in all interviews mostly attributed to the time the pupils needed to adjust to a new format of lessons. Teachers of the collaborative group talked more often about changes in their own perception of the learning process than the teachers in the training group. Analysis of the post-interviews shows that all six teachers in the collaboration group experienced cooperation as most satisfactory and effective. The discussions with their colleagues were very much appreciated and led to a broader understanding of learning practices. Only one teacher stated that he or she found cooperation too time-consuming. It was also stated that cooperation added to an improved feeling of social cohesion among the teaching staff und to much improved personal satisfaction in the day to day business of the school. Two teachers pointed out that the positive effects of cooperation had led to getting to know a new colleague (female teacher in the post-interview of the cooperation group: “All six colleagues cooperated at regular intervals, consulted each other, devised work sheets, developed written tests. This is something I had never experienced before, especially that all the teachers worked together.”)

The website math-il.de was not considered a practical support tool. The reason being was that personal contact and the exchange of views were felt to be more convenient and more satisfactory. The exchange of teaching materials and permanent access were mentioned positively.

Reflections on the action phases for the pupils were a frequent theme during the interviews:

> What I noticed more the second time round and that is important to me is how much we miss looking back and reflecting on the objectives, planning, acting and evaluation during the lessons. Especially in this mode we have become aware of how much the teacher is involved. Perhaps that is how it should be to ensure that the lesson can be maintained in its structure as prescribed by the curriculum. In my view it could be an advantage for many pupils if they thought more about how they could be more pro-active. (Teacher post-interview, collaboration group).

By contrasting two quotes from teachers from the collaboration group and the further training group on the subject of evaluation and objectives, the conceptual differences on teacher level become obvious:

> Teacher (male) cooperation group: How did Cologne action model help?
>
> In the beginning the pupils had to work out what they wanted to do and what their objective would be. They were also encouraged to reflect retrospectively before entering the next circle and steering towards the new goal. They had to reflect on their conclusions and decide whether they had reached their objectives. Then they had to think about how they would need to change direction if they wanted to be more successful the next time round. I liked that.
>
> Teacher (female) further training group:
>
> I found that the list was helpful for evaluation. That is something I do not normally do. They only write things down in their rulebook. However, a list which enables them to check their progress and is good for revision. I find that defining an objective is difficult as it is prescribed anyway. It is not possible to apply that in reality.

While the female teacher in the further training group acknowledges the importance of evaluation for the learning process, she perceives the objectives as prescriptive and not open to change by either her pupils or herself. In comparison, the male teacher from the collaboration group links evaluation and the definition of objectives with each other and thus describes the cyclical character of the action model as a central element.

Follow-up interviews examined whether a transfer had occurred after intervention and if so to what extent. Nine teachers agreed to participate in the follow-up. Three teachers of the collaboration group (N = 6) and one of the training group (N = 3) stated that self-regulated learning would continue to be encouraged along the lines of the action model after intervention. Teachers and pupils found the opportunity to take stock of the lesson by encouraging the pupils to evaluate (evaluation and self-referral) their own progress during lessons useful. The pupils welcomed the chance to set their own goals. Once the project had come to an end all teachers noted that the intensity of self-regulated learning had diminished.

Despite the positive feedback of the post-interviews the collaborative processes were not perpetuated after the intervention. Merely two of the five teachers in the collaboration group stated that they were still practicing some form of collaboration. The failure to continue with this type of cooperation was put down to lack of time and occasion. It was also stated on more than one occasion that without set tasks and tangible objectives collaboration among the teaching staff does not take place (female teacher in follow-up interview collaboration group: “None of the form teachers in the whole grade would cooperate if the impetus had not been given through an external project like this”).

Overall, the teachers in both groups implemented self-regulated learning during the project time and noticed mainly positive effects on the learning behavior of their pupils. Particularly the phases of goal setting and self-reflection were recognized as useful for the development of a more self-determined teaching style. The teachers considered the problems encountered as manageable.

Quadrant 2: How is the Training Syllabus Implemented in Teaching?

In addition to the subjective impressions of the implementation process, the classroom observations served as a means to get a clearer picture of what happened during lessons.

Twenty lessons were observed and coded and it should be pointed out that this sample is rather small in order to come to a general conclusion. Without doubt the observations did make an impression and complemented the teachers’ own perceptions.

The focus here lay specifically in the observation whether at least one of the four action phases had been implemented and how it was brought about. Further, the general presence of the action model during the lesson was recorded (visual presence and / or the explicit naming of a particular phase). The observations in class were based on fundamental criteria seen as prerequisites for self-regulated learning such as the prevailing teaching method and the perceived independence of the pupils (Hattie, 2009).

Type of classroom instruction: Quite a number of maths lessons were observed which were characterized by an open practice of setting tasks as well as a high proportion of active learning time. However, the dominant method of teaching in the collaboration group was from the front of the class. This may be due to the low number of lessons observed but it is very typical for teaching in secondary school in Germany. The teachers did a lot of the talking while the pupils took on a mostly receptive role while learning. This means that there are few opportunities for self-regulation. The teaching of the further training group was mostly centered on the teacher too. It too was characterized by teaching in front of class and teachers who did a lot of the talking. The pupils received substantial direction and the teachers frequently asked the pupils questions, which meant that they had little opportunity to practice self-regulated learning. There were only a few lessons which had a more open feel and a larger proportion of active learning time.

Emphasis on the self-regulation model: There was a poster of the action model displayed in almost all classrooms. It was therefore present during most classroom observations. The model itself and specific phases were mentioned regularly in the collaboration group. The indirect implementation of individual phases occurred frequently. The implementation was evident throughout in check-lists, the free choice of set tasks and in the application of teaching materials devised by the teacher. In the further training group, the action model was also displayed as a poster; individual phases were not explicitly mentioned during lessons.

In sum, there were two noticeable differences between the two groups: teachers in the collaboration group dropped far more metacommunicative hints on the action model and the current phase in which they situated the activities of their pupils than the teachers in the further training group. They also dared to deviate from the teacher centred teaching method so typical for Germany far more often and consistently, thus giving the pupils more freedom to work on the tasks set either individually or in partnership.

When comparing implementation between the two groups of teachers another difference is obvious: the teachers in the further training group were willing to include the elements for encouraging self-regulation, which they had been introduced to, in their own lessons with minimal changes. They laid the main focus on a single action phase as discussed during training. In contrast, the teachers in the collaboration group developed a more complex target. Pupils were expected to complete the action model fully and independently in the space of a double lesson.

Quadrant 3: How can we Implement Self-regulation in Class Together?

Before the project kicked off some of the teachers in the collaboration group were skeptical about the planned cooperation. They were particularly worried that processes affording cooperation would be very time consuming. During intervention an overall invigorating mood developed. The protagonists acted in harmony with each other. One of the female teachers described her experiences thus:” You tend to be more stimulated. I noticed that the whole thing was specially designed so that all of us develop this together. We were not forced to use anything that was prescribed. Nor did I have the feeling that I needed to know all the answers. I was simply able to contribute what I could, based on my current level of expertise.”

The action model was introduced into the collaboration classes in close coordination with a colleague whose teaching subject was not related but who had experience in the area of encouraging self-regulation and had also taken part in the two training sessions.

All teachers attended the weekly meetings of the project more or less without exception. Initially the meetings served to discuss the application of the training contents. Later on the discussion shifted to exchanges about the methods that had been implemented and their possible adaptations. Individual teachers developed their own teaching materials for the purpose of implementing the action model. They would make these materials available to their colleagues on math-il.de (teacher post-interview, collaboration group: ”We had to work together more closely. It was very helpful to exchange views regularly on how certain set tasks had worked out, even if it was only in passing on the corridor. We would discuss what had worked out and what had not, how perhaps to phrase questions differently or so. That was good and more intense than I had expected.”).

One teacher even had the idea to ask his pupils to select their own exercises from an assignment pool and to solve them on their own. The exercises were graded into five levels of difficulty. The work in progress from defining the objective (which exercise will I work on?) to marking was to be recorded in writing. This illustrates how standardized assignments can be developed into an individual process. In preparation of a written test one of the teachers developed a work sheet which is divided into the four cognitive self-regulating phases. On this work sheet the pupils can record what their objective for solving this written test is (defining objective) and how they plan to go ahead (planning). On the back of the work sheet the pupils are able to document how many days they spent revising for the test for the action phase. The evaluation phase is divided into three parts: (1) evaluating the individual preparation before the written test, (2) evaluation of the pupil’s own performance during the lesson following the written test and (3) evaluation after returning the test.

The test was developed in partnership by the teachers in the collaboration group. During the weekly meetings the learning objectives and the quality for measuring performance of the exercises were discussed thoroughly and in great detail. The teachers marked the tests collectively too. This was a new experience for the teachers who normally mark the tests in isolation.

In addition the teachers developed so-called “warm-up exercises” which were introduced routinely at the beginning of each maths lesson. These exercises served to support pupils in their self-assessment similar to those exercises for defining objectives. The exercises gave the pupils the opportunity to formulate their personal objectives based on their current status of knowledge. The warm-ups displayed the date of the training course, the predicted number of correct answers and real number of correct answers as well as the self-assessed level of confidence while solving the problems (level 1 = very confident to level 6 = very uncertain). This enabled pupils to follow their own learning progress. The exercises were intended for revision and for consolidating basic abilities and were therefore not very difficult. The time allowed was roughly five minutes. While considering the purpose and scope of the warm-ups, the teachers discussed at length their personal views on the importance of specific aspects of learning and pursuing mathematics. Often these discussions resulted in self-reflection. The teachers in the collaboration group used the action model as a meta-language to express their own learning process when disagreements occurred.

During the eight-week period of intervention over 30 documents were uploaded on the website math-il.de (in particular work sheets, articles, presentations, one written test). Teachers used the blog for immediate exchanges. The teachers did not use the internet platform much at the beginning. Towards the end of the intervention period this instrument was being used more often.

Teachers in the collaboration group even approached the school's management with suggestions for changes in the system. These changes were implemented in the following term. For the teachers in the collaboration group the most important objective was to have one hour of free time free of lessons in order to make it easier for them to get together and discuss.

Quadrant 4: Is Self-regulation Useful to Cope in a Knowledge Based Society?

The outer / collective perspective according to Wilber (2001) had no central part in this study. The long-term effects of improved self-regulation may only be demonstrated through education panels given a wide-ranging scope or through changes in society at large. The great commitment that the teachers showed in this study indicates that these "experts for learning" are convinced of the necessity and effectiveness of this approach and ultimately used it in their own teaching. The exceptionally intense and wide research activity in Germany on the subject of self-regulation is closely related to society's efforts to take into account individual skills and interests and including them in the learning processes in schools for the purposes of lifelong learning. We will know in a few years' time whether or not this approach has succeeded.

Discussion

The aim of this study was to show how the contents of motivational psychological further training can be applied to the teaching of mathematics in the lower school grades of a secondary school. The central theme was to encourage self-regulation according to the Cologne action model. After receiving two training sessions the members of the collaboration group went about implementation by cooperating with each other and started to make changes to their lessons in which the pupils were directed towards more intensive self-regulation. The members of the further training group applied these contents individually and with no exchange of views amongst the group.

Our data suggest differences between the two groups on a number of levels. During the discussions and behavioural observations it became clear that the members of the collaboration group had opted for a much more complex approach to impart the concept of self-regulation amongst their pupils. The teachers in this group intended to design their lessons in a way that pupils were able to complete a full cycle of set tasks by solving a more complex mathematical problem on their own within the scope of the double lesson. They recognized the importance of the connection between evaluation and the subsequent step of defining the new objective. For this purpose, they devised their own exercises and lesson routines. During meetings with the university cooperation partners, it was pointed out that completing a full cycle of tasks could present a complex challenge for pupils and that they might feel that too much is expected of them. The teachers in the collaboration group agreed with this assessment but decided that they would continue to pursue their didactically ambitious goal. They argued that they hoped the long-term effects would be beneficial because lessons would open up more and that this would fire up the pupil's enthusiasm and interest in the subject matter.

This approach was indeed shared by the members of the university on the grounds of creating a level playing field in the area of academic research and development. The interviews recorded after the implementation phase showed that the teachers in this group had a much deeper understanding of the basic psychological and mathematical didactical concepts. Their pupils had a greater understanding of the cyclicality of action phases and the importance of evaluation followed by the definition of objectives for the purposes of a successful learning experience. The teachers in the collaboration group also used the concepts, which they had acquired to describe and reflect on their own learning process. Here too we see a transfer of a complex nature.

Our study is in line with a growing number of research projects focused on the implementation of teaching strategies aimed at how to foster strategic and self-regulated learning (Gräsel, 2010; Krainer, 2003; Maag Merki et al., 2010; van Beek, de Jong, Minnaert & Wubbels, 2014). Our results indicate that the implementation of a new teaching perspective is enhanced by the possibility to discuss ideas and topics with teaching colleagues and research partners. The results of the interviews also suggest that this wider communication strengthens the development of a sophisticated concept of self-regulated learning that may encourage teachers to gradually introduce more self-regulated activities in their teaching.

In the training sessions we emphasized teacher initiatives which specifically aim to engage students in self-regulated learning. The teachers implemented these new strategies only partially in the lessons observed and maintained external regulating activities (lecturing, questioning, explaining) as well. This might be down to the fact that the process of learning to regulate requires sharing cognitive experiences by means of metacognitive comments and discussing the processes (Flavell, 1987). This interpretation is supported by the frequent reflection on the problem solving processes in class by the teachers as well as their incisive comments during the interviews with the collaborative group.

Some limitations of the study have to be taken into account: the sample of teachers was quite small. Further, only one observer monitored the classroom interactions so that the reliability of these data cannot be assessed. We consider this study therefore as a pilot study. The results should be thoroughly tested by means of a larger number of teachers and classes. The perspective of the pupils should then be taken into account as well. The collaboration period lasted less than half a school year and was too short to ensure that long-term and stable collaborative practices in the school could be established. This result is in line with the results of Kaenders (2010) who reported much longer periods of collaborative interaction between school teachers and university members.

It is a complex and highly demanding task to teach pupils to become more autonomous and self-regulated in their learning. Our study indicates that when teachers collaborate with each other as well as with university partners, a deeper understanding of these complex processes is gained allowing for the flexible application of new concepts in different teaching situations.

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The Yalla Program - Integral Framed Support for Young Leaders from Egypt and Germany

Adrian Wagner[1]

Abstract: The article gives an overview of the Yalla program that has taken place in Egypt and Germany since 2012 and was originally initiated by Katharina Petrisson from the Federal Foreign Ministry of Germany in cooperation with Matthias Ruff and the Humboldt Viadrina School of Governance. After an introduction of underlying causes for the uprising in the Middle East, the preconditions of the program are explained. Furthermore the integrative framework that was used to design such trainings is analyzed. The paper also evaluates the online value development assessments of German and Egyptian participants within the Yalla-2-training. As a framework for the case study An interdisciplinary approach was used including developmental psychology, social and political science as well as system theory and action research.

Keywords: Arab Spring, integral theory, intercultural leadership, large system change, Middle East, online value assessment, political capacity building, spiral dynamics, theory U.

Introduction

Who would have expected the spontaneous protests of 2010 to spread like a wild fire through the Middle East and lead to the so-called Arab Spring? From today's perspective, not only the Middle East, but the whole world seems to have been impacted in a way that left it shaking within political, environmental and other sectors. It seems that crises are becoming the norm in a complex global environment. According to Beck and Cowen (2005), integral (yellow) values compose the first second-tier value meme that consciously deals with those complex, global survival issues. Unpredictable dynamics and fast-changing environments require new forms of leadership and dialogue practices between different cultures and sectors. In this article, a case study of the pilot Yalla program that is taken place in Egypt since 2012 and was originally initiated by Katharina Petrisson from the Federal Foreign Ministry of Germany in cooperation with Matthias Ruff will be presented. The program, based on an integral mindset, seeks to support young leaders and change makers in Germany and Egypt who face complex (social) problems. In order to describe the preconditions of the program first a short overview of some of the underlying reasons and strategies that have strongly influenced the dynamics of the Arab Spring will be given. Secondly, it will be explained how these political developments have led to the emergence of the Yalla program with its different projects Yalla I, Yalla II and Dialog Lab I.

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The third chapter outlines the vision, mission and goals of the Yalla program in relation to the different projects. Furthermore, some of the fundamental principals, models, concepts and theories on which the program is built are introduced and explanation will be given on why they were chosen. Several *disciplines like developmental psychology, social and political science as well as system theory and action research are included in the paper.* The fifth chapter gives a short overview of the program's achievements up to today and also introduces some early results of an online value assessment tool.[2] Finally, a preview on further intentions and upcoming projects in the near future of the Yalla program will be provided.

(Very) Brief History of the Arab Spring

First of all, why did some regimes survive the revolutions of the Arab world while others were overthrown? Some explanations see the “variety of social, economic, and political factors, including social media (Howard et al., 2011, p. 1), demographic shifts (the youth bulge[3]) and economic grievances like high unemployment and limited social mobility” (Abadeer & Williamson, 2014, p. 1) as the driving forces behind the revolution. Abadeer and Williamson argue that even while those forces helped to “spur the protest movements”, none of them “satisfactorily explain the variance in outcomes across different countries”. Since the Yalla program takes place in Egypt, the author will focus on the development within Egypt. One important factor for the success of Egypt’s revolution is the absence of a “monarchy and oil-wealthy regime” that could “(...) erect more barriers to prevent protest escalation”. This perspective emphasizes that monarchies and oil-wealthy regimes, locked in strong traditional value systems (purple-red-blue), have more power to resist an uprising. Abadeer and Williamson argue that “a military tied to the regime by familial, tribal, ethnic, or sectarian connections would be more likely to support the regime.” (Abadeer & Williamson, 2014, p. 3). The exploitation of embedded tribal value systems (purple-red) within the army structure can often be seen with authoritarian leaders (red-blue) to fight uprisings.[4] However, the military is a rather powerful and independent player within the Egyptian society (some would even state, one with blue-orange motives)[5] that is not tied to certain tribes or ethnic groups per se. Since the beginning of the protests, the military was reluctant to back Mubarak and at some point chose the side of the protesting people. Another key factor is that the Egyptian government had almost no resources to support its own political power structure. This stands in contrast to other Middle East regimes which, again, are oil-wealthy. In Egypt, a broad scale of the poor was involved in the protest movement and could identify with the overall call for “bread, freedom, and social justice”.[6] This might largely explain why the revolution did overthrow the Mubarak regime.

Nevertheless, those given factors and driving forces do not explain or determine the new strategies of the Arab spring. James Gelvin argues that the common aspects of the strategies are that:

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[2] http://www.wei-se.de/index/index/lang/en

[3] http://www.cfr.org/egypt/demographics-arab-protests/p24096

[4] http://www.humanemergencemiddleeast.org/docs/Functional-Democracy-by-Elza-Maalouf.pdf

[5] See the leaked paper by former Military leader Al-Sissi.

[6] See the singer Ramy Essam with his song “Bread, Freedom, Social Justice” on: http://muftah.org/jan25-two-plus-five-music-videos/#.U9iAtKh6s9A

1. They were relatively spontaneous;
2. A single party or leader did not lead them; and
3. They used unifying slogans focusing on political demands.

(Gelvin, 2012, p.1)

However, often unnoticed by the western world, is the fact that the “uneventful protests grew organically into movements of masses of people (…)” and that they “were based on the infrastructure built by earlier protest movements” such as the April 6 movement in Egypt. Even if the protest was partly built on existing structures, this cannot fully explain the rapid growth of the overall movement with countless human rights activists and other social groups led to a kind of leaderless movement that could not be prevented, threatened or bought. In addition, the unification of different groups within Egypt was supported by demands that were large enough to unify a wide array of social groups and classes, like rich, poor, leftist, secular, and Islamist groups (Bayat, 2010, pp. 1-3).

Today, four years later, it seems that this pattern reoccurs in many parts of the world as well, considering the protests in Turkey and Brazil 2013 and Ukraine 2013/14. What all these protests movements have in common is that they do not have a single party or leader that leads them. Scharmer and Kaeufer (2013) describe these recent phenomena as a new dynamic of collective leadership that is build on new approaches of activism by stakeholders from diverse backgrounds. In his view, co-sensing, co-creating, generative dialogue and action have become important guiding principals for those new movements.

But what did these protests mean for the Egyptian people? Generally spoken, “*new dreams were born, new desires were discovered, and a memory of a moment where the “present wavered” was etched in every participant’s psyche.”* (Gordon, 2004, p. 5). This can be seen as a collective and unifying state experience. Since this collective eruption in 2011, the social reality in Egypt has changed dramatically due to the violent removal of the former president Mohammed Morsi and the Muslim Brotherhood organizations through the intervention of the Egyptian military. Despite an overall more stable situation in comparison to one year ago, it seems that “the exploitation of knowledge to serve political ends” has returned – a problem that was already identified by the 2003 Arab Human Development Report as the greatest impediment of “the creation of a well-knit Arab knowledge society.”

For this very reason, in the authors perspective the Yalla program wants to establish a knowledge creation community by building sustainable relationships: between young potential leaders within Egypt and Germany and organizations such as Sekem, Heliopolis University and the Start-Up Hub scene. The next chapter will further outline the background of the Yalla program as perceived by the author.

Project History

In autumn 2012, the Yalla program begun with an encounter of 20 young potential leaders (10 German and 10 Egyptian participants) who were involved in projects of different kind that were aiming to shape their political and civil societies in their own countries – Egypt and Germany. The Yalla I project consisted of two parts and started with a five-day training in October, in cooperation with the former Humboldt Viadrina School of Governance in Berlin. The second 5-day-workshop took place in Cairo in January 2013. Because of its success, the project was repeated in November 2013, however, in a denser version as it consisted only of a 5-day workshop in Cairo. The next project related to the Yalla program was Dialog Lab I, which was developed due to the demand of the youth organization Cadre in order to deepen the understanding of developmental psychology and integral theory. In January 2014, the 5-day learning journey took place at the Egyptian organization Sekem[7] and focused more on an in-depth analysis of existing projects of the participants while using Spiral Dynamics integral and systemic constellation work.

The Yalla Program

Before elaborating on the processes and outcomes of the Yalla projects that have been implemented up to now, the author wants to high lighten the overall intention of the Yalla program.

All projects regard attentive and deliberate communication as a key social technology and include several adult development models such as Spiral Dynamics and Ken Wilber’s 4-Quadrant model. These models and theories are practically applied by participants in their own socio-political fields and projects. The idea of the Yalla program was inspired by the commitment and engagement shown by young adults of the Arab world during the past three years, a commitment often driven by idealism and enthusiasm to change their societies.

However, this young generation is facing new challenges within the fields of political communication and with regard to complex problem solving. In the authors view, the Arab spring is an example of “the various waves of disruptive, revolutionary change that redefine the context” (Scharmer, 2000, p. 3) not only within business, but within societies as a whole. This is also illustrated by a qualitative German study (Leipprand et al., 2012, pp. 4-5) within which several executives and leaders within politics, business, science and civil society have been interviewed. According to the authors, new leadership skills are required on a global level as the main leadership challenges in the beginning of the 21 Century are:

1. Growing complexity:

   Greater transparency is driving up the number of stakeholders and increasing the pressure for decisions to be made quickly. At the same time, projections and forecasts are becoming less reliable. Consequently, executives are losing control.

2. Insufficient Reflection:

   The challenges of day-to-day business leave little room for long-term thinking. Managers allow themselves insufficient scope for regeneration and reflection. The use of values to guide decision-making appears to be gaining momentum.

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[7] Sekem started as a biodynamic farm and, with its 1700 employees, is one of the biggest sustainable businesses in Egypt. They recently founded the Heliopolis University outside of Cairo.

3. Walls between sectors:

> Structural and cultural barriers prevent the sectors of politics, industry, civil society and academia from working together as they need to. In place of cooperation there is mutual indifference, and, in some cases, even antipathy.

In order to face these challenges, the Yalla program wants to support the development of complex system thinking and problem solving by offering a space for reflection. At the same time, young potential leaders from different sectors meet each other and valuable relationships for the future can be established. Furthermore, the Yalla program strives to approach the concept of leadership with a differentiation on an *individual, organizational and societal* level (Leipprand et al., 2012) which is based on Scharmer and Kaeufer (2013). In their book, the authors address, among other topics, the possible causes of these upcoming leadership challenges within an 'Iceberg Model.' They distinguish several problem areas ('bubbles') that manifest in three major divides within societies (ecological, social and spiritual-cultural divide), as illustrated below:

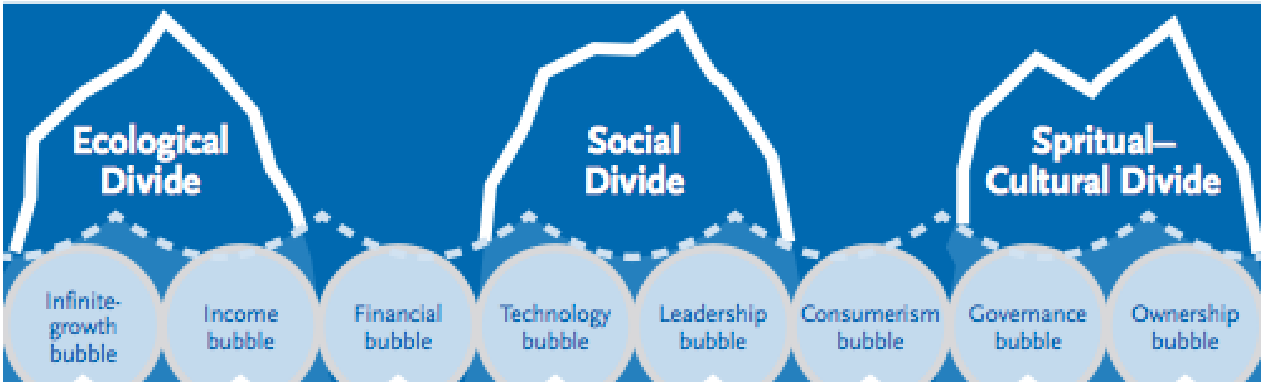

Figure 1: The Three Divides. (Scharmer & Käufer, 2013, p. 14. Used with permission).

The Yalla program makes young leaders aware of all eight potential crises areas with a focus on the leadership and governance bubbles. These insights will immediately be exemplified and experienced while focusing on challenges that the participants are facing in their own political and social projects. The Yalla II as well as the Dialog Lab I project put more emphasis on the understanding of how to let key players from political institutions, non-governmental organizations and businesses collaborate better in order to find holistic solutions.

Principles and Methodology of the Yalla Program

The first Yalla training was designed as a two-week process. In the first week, the trainer Matthias Ruff and Eric Poettschacher focused on theoretical background such as the understanding of Spiral Dynamics and the Four Quadrants as well as an Open Space process. In this process, the proceedings of the second week of the Yalla 1 project was co-created with the participants that wanted to work with organizations in Cairo to test their new tools and knowledge.

Rather then teaching models in a purely intellectual-academic setting, Yalla projects are designed as a container and a space to learn through practicing certain dialogue principals and transformation tools. This includes the concepts and practices of co-creation, presencing and generative dialogue. Furthermore, young leaders are encouraged to explore forms of collective leadership across cultural boundaries. Regarding to integral politics, the Yalla program empowers young leaders to "*embrace any and all interactive process through which the evolving diversity of a community or society engages in consciously co-creating its collective life*" (Atlee, 2010, p. 276. Italics added for emphasis).

Increasingly important within the program gets the task to hold a deep systemic perspective while facilitating the processes similar to the suggestion in Atlee (2010):

> …conversational interactivity is the medium through which different parts of a system can find the coherence—coordination, protocols, and shared understandings, narratives, intentions, etc.—that they need to function efficiently as a whole. From an individual perspective, high quality conversation is a primary alternative to violence as we seek to pursue our self-interest in a world of other self-interested entities with limited perspectives. (p. 279)

Through those high quality conversations, an experience of "flow" states (Csikszentmihalyi, 1990) can be reached to tap into resources of collective intelligence and whole-system engagement. The principle of personal mastery (Senge, 1990), an interior-individual dimension within leadership, is therefore crucial considering the challenges that lay ahead of the presently young generation. From a facilitator's perspective, we are committed to a co-learning process with the participants in the process. This is the reason why we incorporated action research as one model within the Yalla program. According to Gilmore, Krantz & Ramirez (1986) action research in this context

> ...aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction. Accomplishing this twin goal requires the active collaboration of researcher and client, and thus it stresses the importance of co-learning as a primary aspect of the research process. (p. 161)

The Dialog Lab I training was designed as a learning journey[8] with conceptual support by the 'four moods of knowledge creation' by Ikujiro Nonaka.[9] Each day in in itself was designed as a learning spiral. In the mornings, an overview of a particular part of Graves' developmental model[10] was given to the group. Participants would have access to our knowledge and learn about certain aspects of the theory by internalization (explicit knowledge creation). In the next step, they would share their experience, brainstorm about the day's topics in a none-judgmental way and observe their own reactions within role games to illustrate e.g. the previously presented value systems (tacit knowledge creation). Afterwards, the participants and facilitators would design a wall with pictures, statements, anecdotes and analogies on a big sheet of paper where they related to and experienced the particular value system to externalize their knowledge (explicit knowledge creation). The last step was to deepen the knowledge though examples of best practices (combining knowledge).[11] This helped to deepen knowledge in a holistic way and to make it useful for the participants and their work context.

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[8] This was inspired by the the Leadership Tool Box of the AIZ: http://www.giz.de/akademie/de/downloads/giz2013-de-aiz-toolbox-leadership-development.pdf

[9] http://www.knowledge-nurture.com/downloads/NONAKA.pdf

[10] http://www.integralleadership.com/the-graves-values-model.php

In the next part of the article, the author will focus on the outcomes and goals that were achieved with the Yalla program so far.

Case Study: A Prototype of Online Value Assessment

One important tool tentatively used in the Yalla II training was an online value assessment tool developed by Dr. Marc Lucas which is called "Word Pairs".[12] This online test provides some insight into the participants' values and basic convictions that influence their decision-making, thus showing in what respects their conclusions might deviate from those of their potential dialog partners and reference persons. According to Marc Lucas the test is build on „the early and trend-setting insight of Graves (2005) about the necessity of integration and a neurobiological basis of adult development theories within the framework of a bio-psycho-social paradigm was the starting point for the model-theoretical considerations and the research design."[13] Even if Graves work is largely unknown in academic circles due to the early death and little empirical research has been published till date, it has won a lot of interest just lately. For example, Strack (2011, p.22) has published an empirical study in which evidence is found, that Graves' theory and Schwartz's typological theory of the universalistic value circle (Schwartz & Bardi, 2001; Schwartz, 2006) which is dominant in today's value research are based on the same value structure.[14]

Lucas follows the original idea of Graves to „describe a neurobiological correlate of the theory by using a tachistoscope". In graves study he presented specific value terminology „to test persons for a few milliseconds at a time. Terms that corresponded to the dominant effective value system of the test person were recognised more quickly than other terms. The word pair online test from Lucas transferred Graves original idea „into an up to date research design backed by fMRI (...) in his leadership and adult development study developed in partnership with the University of Cologne and the Institute of Neuroscience and Medicine.[15] The word pair test is used within the Yalla program to provide suggestions for improving participants' communication skills and behavioral patterns in key conflict and decision-making situations, as well as generate data on possible intercultural differences between German and Egyptian participants.

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[11] http://www.informationr.net/ir/8-1/p142fig1.gif
[12] http://www.wei-se.de/index/index/lang/en
[13] http://baojournal.com/BDB%20WEBSITE/archive/BDB%2019.4-F.pdf, p. 84
[14] Ibid.
[15] Ibid.

Within this first testing, six German and six Egyptian participants volunteered by doing the online test. In the word pair test, participants are confronted with word pairs consisting of different values related to seven developmental levels according to Graves' model. Because of the small number of participants, the results at present cannot be seen as a substantial study that provides empirical evidence. Nevertheless, certain outcomes indicate possible trends for further research. The aim of the prototype was not to analyze individuals, but to get an overview of basic values and convictions within the German and the Egyptian group of participants.

Participants did the testing anonymously via an online link that was sent via email to open a personal account for the testing. The test started with a few questions on the participants' age, education and gender. Within the word-pair test, participants were successively presented 400 word-pairs and had to choose within 2.5 seconds which word they preferred over the other. If they required too much time, they repeated the word pair at the end of the test. The results are presented as percentages for each of the seven different value systems, with longer reaction times suggesting that participants have a higher distance to a certain value system, or might not be as familiar with it. The reason for the time limit is to evoke the spontaneous/intuitive response of people rather then having them think about what the appropriate answer could be. Within the graphics below, the average reaction time of German and Egyptian participants and the average preference for certain value systems are shown in percentage.

In the German group, the average reaction to choose purple value memes is 0,4 seconds lower (1.7 seconds to) then the Egyptians average reaction time (2.1 seconds). Interestingly, the value preference for purple within the German group is also 7 % higher than the Egyptian group. Should this trend be validated in the future, several explanations are possible. First of all, the participants are selected through a questionnaire for the trainings, and they usually represent the highly educated and the young leaders from both sides. The lower preference for purple within young, well-educated Egyptians might mirror their social context. Lower preference for purple values and a stronger preference for red might also be an indicator for their experience within the revolutionary struggle for independence and freedom. This result should, of course, by no means be confused with the average Egyptian value meme preference. Elza Maalouf argues in her interview that the value preference of countries within the Middle East is still focusing strongly on red-purple-blue value memes, while individuals within the young Generation Y (particularly women) are trying to shift into more complex value memes.[16] In Germany, a stronger purple orientation towards family/purple values might be the young generation's reaction to a more fragmented, competitive and pluralistic society, as is also indicated as a “Regrounding” in the Sinus youth study 2012.[17] The biggest difference (over 10 %) between Egyptians (40.1%) and Germans (30.3%) is found within the red value meme preference. This might be in alignment with the Elza Maalouf and Dr. Don Beck's above-mentioned findings. From a cultural perspective, I would argue that Germany might be a country were red values are still associated with strong aggression, abuse of power and violence and therefore is less accepted within society. An alternative hypothesis is that certain cultural barriers related to the German history might prevent the development from purple to red within Germany.[18] The overall strong preference for modern/orange values within the German group is an indicator for the scientific-based higher education and the economic well-being within the German society. Additionally, green value memes have been rising in the German context since the seventies, leading to the foundation of a green party and the recent decision to abolish nuclear power plants. A surprising result is presented by the low yellow value preference of the German participants (50.1 %) compared to the relatively high preference by the Egyptians (56.2%). One possible reason rooted within Egyptian culture could be a stronger multi-active social behavior of Egyptians which might be more willing to embrace yellow values while a more linear-active culture[19] is more reluctant to shift into an integral value system. Another reason could be the multi-level challenges young Egyptian leaders are facing on different value levels within Egypt. Those persons might be more aware of the necessity to include/integrate very different values within a society. The societal state of Germany, on the other hand, is quite stable and economically sound. Centered in orange/green values, the need to shift into more yellow/integrative values might not yet be seen or felt by young people due to the overall good performance of the economy. Another possibility is the overall more balanced value preference within the Egyptian group. The lowest value preference in red (40.2 %) differs by only 17% to the highest value preference in green (57.7 %), while within the German group the low red value preference (30,29 %) differs by over 32 % from the orange value preference (62,5 %). It could be argued that this strong variation suggests no need for strong individual assertiveness (something you might well need and learn in a revolution) given the relatively secure and stable German cultural and societal context. Overall, the test will, on a long-term base, provide substantial data for the design of the Yalla program and can be developed into a tool to monitor and support the developmental journey of the participants on a regular basis.

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[16] See interview with Maalouf http://www.poetic-justice.ca/democratizing-sexuality-through-the-arab-spring-an-interview-with-elza-maalouf and http://integralleadershipreview.com/9172-elza-s-maalouf-spiral-dynamics-and-the-middle-east/

[17] in German: http://wiki.dpjw.org/sowa/sites/default/files/Sinusstudie_Ergebnisse.pdf

Goals Achieved by the Yalla Program

In this chapter, the author gives an overview what the Yalla program has achieved so far and how it might be developing in the near future. Every single project aims to be a learning lab for all participants, which has as a central point the involvement of the two different cultures of Egypt and Germany.

In the beginning of the Yalla I and II project, a questionnaire was sent to the participants. The key question was how participants can support each other so that their projects can deepen, develop and unfold to have an optimal impact. The questionnaires sent to participants before the project showed that they had three main requests. Those requests led to the following workshop design:

1. There was plenty of time and space during the workshops in Berlin and Cairo to discuss the development of the concrete work the participants were doing.

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[18] Rossmann describes this in a blog entry http://integralesleben.org/if-home/il-integrales-leben/anwendungen/gesellschaft/deutsch-sein-ein-neuer-stolz-auf-die-nation-im-einklang-mit-dem-herzen/

[19] http://magnussonllc.files.wordpress.com/2011/01/lewis-model.jpg

2. In addition, there was the possibility to generate new and common ideas. Through the different explanatory models, new perspectives on the different projects were depicted to show and unfold their effectiveness.
3. In the scope of this project, it was very important to the participants that they had the chance to exchange ideas, build relationships and new networks (as intended by the facilitators). While in the Berlin part of the training, models and concepts were explored and discussed, the Cairo Workshop of Yalla I was taking the newly gained knowledge into practice.

Through an Open Space Café at the end of the Berlin Workshop, four fields of interest were identified and small groups of five people came together to find a potential partner organization within a particular field (youth education, minorities, sustainability, integral politics, religion & politics). Egyptian organizations working in corresponding fields were approached by the participants and visited twice during the Cairo workshop. One day provided the groups with the opportunity to analyze and get to know the organization, whereas the second day contributed in a precise way to the organization's work: If the organization agreed, the groups were implementing an intervention based on the methodology of Spiral Dynamics and integral theory. Within the integral politics team, the Egyptian Democratic Organization was supported though a role game on funding possibilities and value creation within the organization. In another group, a youth education organization was coached in respect to how to deal with the fluctuation of volunteers within the organization. Furthermore, according to the participants' personal feedback, several other goals were achieved:

- Participants achieved a deeper understanding of political communication through a systemic perspective.
- Participants of both sides engaged in a still ongoing dialogue concerning the political situation in Germany and in Egypt.
- The workshop contributed to enhance the participants' cultural sensitivity and competence and helped each participant to understand their specific challenges better.
- The Yalla I and II project also supported participants in discovering new ways to discuss actual, relevant situations in their field of expertise and how to find potential solutions for them.

While this was also the case in the Dialog Lab I, a stronger emphasis on knowledge creation, spiral dynamics and the collaboration with Sekem (bridging business, civil society and politics) enabled us to support young leaders and change makers on a personal level and Sekem as an institution on an organizational level. The idea of a social innovation lab within Sekem and the Heliopolis University was formulated; furthermore, the systemic dynamics of the revolution in 2011, the current situation in Egypt (January 2013) and a vision of the future (2030) was visualized by the participants through a facilitated systemic constellation.

What is Next

As a conclusion to this report, the author would like to give an insight into possible future plans within the Yalla program. The next step might consist in the implementation of the Dialog Lab II project that continues the concept of an intercultural exchange between young potential leaders from Egypt and Germany. The participants should have the opportunity to communicate and experiment freely in the safe and beautiful setting of the Sekem community. The Dialog Lab II could then:

- be a learning lab for both cultures involved
- empower participants through sharing of knowledge and ideas
- use creative tension between the German and Egyptian culture (linear and multi-active) as a resource for prototyping solutions
- focus on long-term project of young participants in relation to education and green technology in Egypt
- fostering and including indigenous intelligence.

Through the word-pair test and possible additional tests more research could be conducted in the future. On a personal note one important idea for the author is to move from theory into action and from action into theory in order to ground and development an integral transformation approach. On the long term the Yalla program should also in the view of the author monitor and support the different projects and participants (long-term) to add an interior dimension for the understanding of transformation within a political context (German Foreign Office) which is still mainly focused on outer factors such as economic and legal reforms and is missing on crucial factors such as value assessment, indigenous intelligence and mesh working (Maalouf, 2015).

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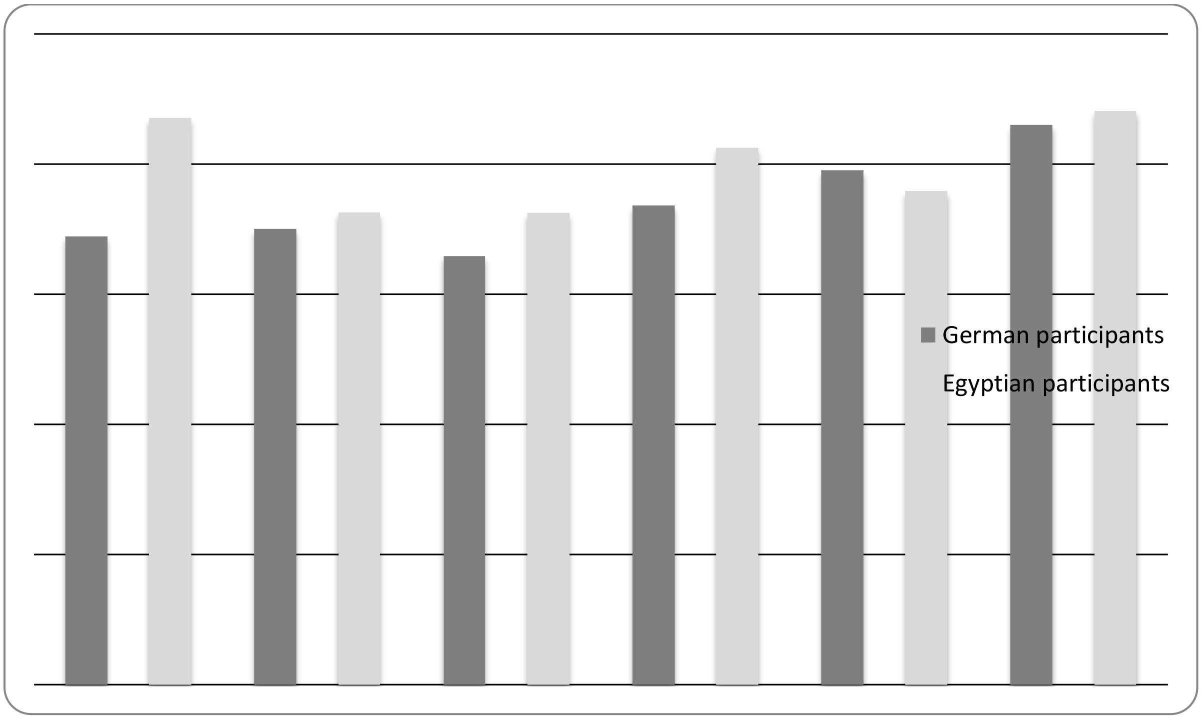
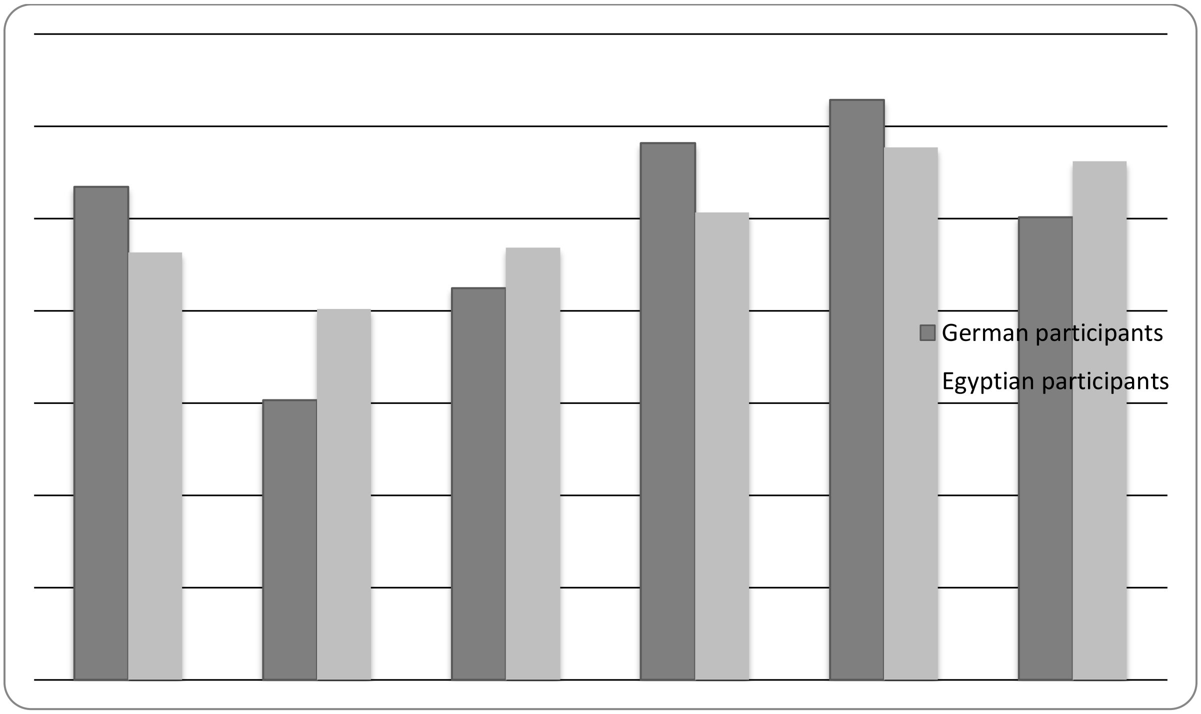
Appendix



Reaction time needed by participants to choose for the particular value system



Value preference in % according to the word-pair online test based on Graves model

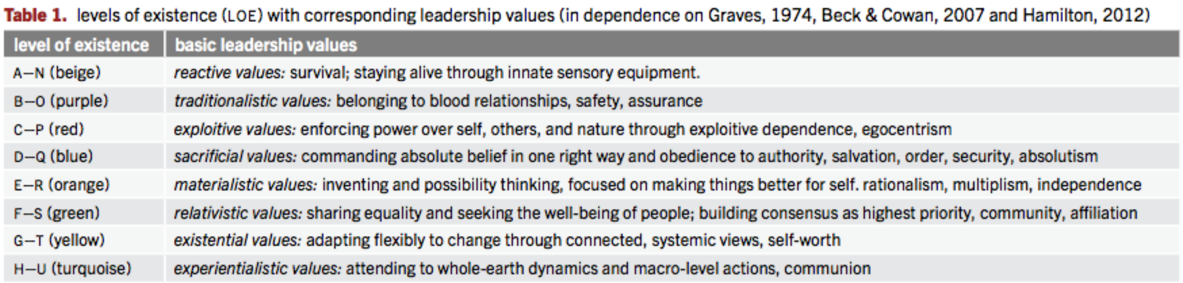


Table 1. levels of existence (LOE) with corresponding leadership values (in dependence on Graves, 1974, Beck & Cowan, 2007 and Hamilton, 2012)

level of existence	basic leadership values
A–N (beige)	*reactive values:* survival; staying alive through innate sensory equipment.
B–O (purple)	*traditionalistic values:* belonging to blood relationships, safety, assurance
C–P (red)	*exploitive values:* enforcing power over self, others, and nature through exploitive dependence, egocentrism
D–Q (blue)	*sacrificial values:* commanding absolute belief in one right way and obedience to authority, salvation, order, security, absolutism
E–R (orange)	*materialistic values:* inventing and possibility thinking, focused on making things better for self. rationalism, multiplism, independence
F–S (green)	*relativistic values:* sharing equality and seeking the well-being of people; building consensus as highest priority, community, affiliation
G–T (yellow)	*existential values:* adapting flexibly to change through connected, systemic views, self-worth
H–U (turquoise)	*experientialistic values:* attending to whole-earth dynamics and macro-level actions, communion

(Lucas & Caspers, 2014)

Transformative Learning for Climate Change Engagement: Regenerating Perspectives, Principles, and Practice[1]

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Abstract: In this position paper the worldview from which climate change continues to occur is identified as late modernism. This worldview is critiqued as being unduly economistic, reductive, mechanistic, and fragmented. There is a clear requirement for an inclusive and transcending transformation of this worldview toward one substantively more able to meet the challenges that climate change presents, as well as an understanding of the processes that facilitate such a transformation. This paper foregrounds transformative learning as a generic process that might well be key to this transformation. The paper addresses transformative learning both as an active process and as a feature of a regenerated worldview, identified here with respect to Griffin's reconstructive postmodernism, which goes beyond deconstructive postmodernism in its proto-integral orientation. Transformative learning is exemplified by the seminal approach of Mezirow as well as Scharmer's *Theory U*. The discussion of worldview is vertically differentiated in terms of principles, worldview perspectives, and sectoral practice with reference to the depth ontology of Inayallatulah's *Causal Layered Analysis*. Principles addresses the regeneration of the philosophy of science, and explores the critical contrast between atomism acting as attractor for modernism, and complex integration acting as attractor for reconstructive postmodernism / the ecological worldview; it indicates the fecundity of Bhaskar's critical realism for aptly addressing climate change. Sectoral practice is represented by higher education, specifically addressing andragogy, heutagogy, the transformative learner, and the transformative educator. Climate change is a complex, big-picture issue, one that requires a complex, integrative epistemology and transdisciplinary orientation.

Keywords: Causal layered analysis, climate change, complex integration, ecological worldview, transdisciplinarity, transformative learning, sustainability, worldview.

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Introduction

Contemporary climate change[4] is induced by one species, the same species that is now considering its possible, probable, and preferred futures arising from the consequences of its actions. Yet all species are affected, as indeed is the entire biospherical fabric of our shared existence. Contemporary climate change is quintessentially a big-picture issue. Planetary, long-term, complex, deep, multifaceted, and involving all cultures, all memes, and all known life-forms, climate change calls out for approaches of engagement which aptly address and carefully integrate a myriad of fields including those addressing the physical, the ecological, and the psycho-socio-cultural. To understand how we reached this point, sufficient depth of philosophical, historical, and depth-cultural analysis is necessary; to most effectively move toward our best realistic futures, we not only require futures thinking but also suitable processes which enable us to make the necessary transformations of thought, affect, and behaviour authentically and efficiently. We need to regenerate our world into something we want before it degenerates us into something we do not want.

In this article we suggest that transformative learning is a useful signifier to encompass the cluster of various processes – able to be used in a variety of individual and collective contexts – which adequately enable such transformations at both individual and collective levels. We believe that the potential usefulness of transformative education in addressing climate change has not been explored sufficiently and this paper therefore attempts to valorise transformative learning as one appropriate approach to facilitating the worldview shift required to address this wickedly complex challenge. We attempt to unpack transformative learning through the lenses of (philosophical) perspectives, (scientific) principles, and (sectoral) practice. Each of these provide useful – to some degree irreducible – lenses to assist piecing together the numerous angles, which the complexity of climate change demands. This symbolises the understanding that climate change is a complex but singular ontology requiring an aptly analogous complex but incisive epistemological tapestry. Specifically, the lenses used here can be interpreted according to a vertical schema such as Causal Layered Analysis (Inayatullah, 1998).

After situating the current interest within a review of climate change discourse, we address the layers of perspective and principle, respectively. This is followed by a discussion of the social sector of higher education. Finally, a "hermeneutic circle" of learning is also facilitated through the deepening iteration of transformative learning as a topic in the perspectives and practice sections.

The key normative orientation regarding the need for – and direction of – regeneration is given by the critical contrast between the worldview of modernism (with its underlying principle of atomism), deconstructive postmodernism and that of reconstructive postmodernism[5] (with its underlying principle of complex integration). The central idea is that the latter, but not the former, is suitable for an eco-logical future - one in which climate change is most adequately addressed in thought and action. Transformative learning is both an object of inquiry and the process by which many of the insights discussed in the paper have arisen and can continue to arise. It forms the core process within the preferred emerging worldview, and so forms the introduction to that section.

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[4] For current data concerning climate change, see Brown (2008) and the Earth Policy Institute's website (http://www.earth-policy.org/data_center/). One should also note the various "revealing and concealing" related to each term in the cluster of signifiers that includes *climate change*, *global warming,* and *global heating*.

[5] The term *reconstructive postmodernism* was coined by Griffin (2002). He identifies it as "a diffuse sentiment…that humanity can and must go beyond the modern" (p. vii), where the modern worldview is identified in relation to "Galilean-Cartesian-Baconian-Newtonian science" (p. vii). Griffin differentiates

Reviewing Climate Change Discourse

Climate change discourse can be identified in relation to sustainability discourse and, more generally, to environmental discourse, which itself has begun as a complementary movement to modern times out of the Romantic streams of philosophical thought following the Enlightenment (see Hampson, 2010c, 2013). *Silent Spring*, Rachel Carson's (1962) expose on the harmful effects of industrial pesticides is largely credited with launching the contemporary environmental movement by awakening an awareness of the urgency of the ecological crisis in popular consciousness (Glausiusz, 2007).

Following the 1972 UN Conference on the Human Environment in Stockholm – the same year as the Club of Rome's *Limits to Growth* report (Meadows *et al.*, 1972) – the somewhat contested notions of "sustainability"[6] and "sustainable development" (the latter developing from around 1980[7] at the beginning of the neoliberal era) have gradually systematized environmental discourse in various ways (Kaivo-oja, Luukkanen, & Malaska, 2001). A spectrum involving economistic (neoliberal) imaginaries at one end and deep ecological attractors on the other can be identified. To date, the former appears to be the dominant mainstream interpretation (Howarth & Norgaard, 1992). The geneaology of the economistic interpretation (Lerch & Nutzinger (2002) and Kaivo-ja, Luukkannen, & Malaska (2001)) includes: early neoclassical economic growth theories that incorporate natural resource constraints on the economic doctrine (e.g. Hicks, 1946; Solow, 1974; Page, 1977; and Hartwick, 1977), The Safe Minimum Standards approach (Ciriacy-Wantrup, 1952; and Bishop 1978, 1993), The London School Approach (Pearce et al., 1990; Klaasen & Opschor, 1991; Pearce & Turner, 1990), Daly's Steady-State approach (1990, 1992), The World Bank's neoclassical approach (1992), and The Wuppertal approach (Femia, Hinterberger, & Renn, 1999). Selby & Kagawa (2010) offer a firm critique of this perspective with respect to its uptake in education:

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between re/constructive and deconstructive (or relativistic) postmodernisms, inferring a complex relationship between them such that they both share the idea that "a massive deconstruction of many received concepts is needed," yet the deconstruction "is not so totalizing as to prevent reconstruction" (p. ix). The vector of this reconstruction is toward "a new unity of scientific, ethical, aesthetic, and religious intuitions" (p. ix) involving "a creative synthesis of modern and premodern truths and values" (p. x).

[6] There is no complete agreement concerning the meaning of sustainability. In an attempt to clarify the multiplicity of opinion, Varey (2003) has collated over 100 separate definitions from a wide diversity of sources.

[7] World Conservation Union's strategy document (IUCN, 1980); elaborated upon at length by the so-called Brundtland commission's report, *Our Common Futures* (WCED, 1987) and the 1992 UN World Conference on Environment and Development, Rio de Janiero (United Nations, 1993).

> Education for sustainable development (ESD) is the latest and thickest manifestation of the 'closing circle' of policy-driven environmental education. Characterised by definitional haziness, a tendency to blur rather than lay bare inconsistencies and incompatibilities, and a cozy but ill-considered association with the globalisation agenda, the field has allowed the neoliberal marketplace worldview into the circle so that mainstream education for sustainable development tacitly embraces economic growth and an instrumentalist and managerial view of nature that goes hand in glove with an emphasis on the technical and the tangible rather than the axiological and intangible. Runaway climate change is imminent but there is widespread climate change denial, including within mainstream ESD. A transformative educational agenda in response to climate change is [called for]. (p. 37)

In response to such critiques – i.e. interpretations at the other end of the spectrum – lie the more complex perspectives of the deep ecological approaches which tend to support the evolutionary emergence of a zero-growth society (Daly, 1992). They variously include Capra's (1982) web of life, Naess's (1989, 2005) *Ecosophy T*, Guattari's (1989) ecosophy, Shiva's (1988, 2007, 2008) Vedic ecofeminism, Berry's (1991) ecotheology, Macy's (1991, 2005) work that reconnects, and Lovelock's (2000) Gaia hypothesis.

Facilitated by popular accounts of the crisis such as Gore's (2006) *An Inconvenient Truth*, the profound effects of climate change have now become part of mainstream discourse. Unfortunately, mainstream media continue to present a decidedly biased account of the science (Readfearn, 2013) such that the American public, for example, think that only approximately half of climate scientists are in agreement regarding the understanding that climate change is human-induced, whereas in reality over 97% of climate scientists have been in consistent agreement for at least twenty years (Cook et al., 2013). It is clear that such data indicates the urgent necessity of advancing the *social (e.g. political) science* of climate change and its importance to mainstream understanding.

Academic discourses on climate change have been primarily oriented by technological innovation (e.g. regarding alternative energy), with additional reference to social innovation and systems transformation perspectives (e.g. Hardin Tibbs, 1993) – or an integration of these (e.g. McDonaugh & Braungart, 2012; James & Lahti, 2004). Despite these burgeoning innovations, however, evidence continues to indicate that the crisis is worsening. Why might this be the case? Unruh (2000) argues that technological industrial complexes emerge through complex adaptive interactions among technologies and institutions. Once lock-in to a particular technological industrial complex occurs (in response to a "strange attractor") it can become extremely difficult to displace, and can serve to lock-out other emergent technologies. The lock-in conditions are often exacerbated by governmental and legal structures. The whole system can then form dynamically stable sociotechnical regimes (Geels & Schot, 2007). This is the case for late modernity's addiction to both carbon technologies and industrial-scale livestock agriculture – both in the face of viable alternatives. The latter, which accounts for approximately 18% of greenhouse gases, is of critical importance, given its relative under-emphasis not only in popular discourse but also in the academic literature.

This highlights the importance of exploring the cultural and relational aspects of sustainability in terms of social and individual transformation. For instance, Bouwen & Tailleau (2004) point to an important dialectical relationship between relational and problem-solving strategies, which may be seen as an integration of interior and exterior perspectives (Wilber 2000). Some attempts have been made to expand beyond traditional definitions of sustainability in light of these limitations; these include work by Brown (2006); Zimmermann (2005); Herrera (2005); Esbjörn-Hargens (2005); Varey (n.d.); Reason, Coleman & Ballard *et al* (n.d.); and Ballard (2005). In addition there is a growing body of work explicitly addressing the psychological aspects of sustainability, including the psychology of sustainable behaviour (Manning, 2009), conservation psychology (Saunders, 2003), and the development of the ecopsychological self (John & McDonald, 2007). Of particular note is the role of worldview (Lynam, 2012; De Witt, 2013).

Whilst transformative learning is identified as being very useful for education regarding ecological sustainability and climate change (Lange, 2004; Wals, 2010), it is considerably under-emphasised. We hope to contribute to rectifying this situation, and in so doing, to help regenerate perspectives from those of late modernism and early postmodernism to those of an ecological or reconstructive post-postmodern worldview.

Regenerating Perspectives

This section addresses the regeneration of worldview. The first part introduces transformative learning as key process through which worldview can be regenerated, whilst the second part addresses the overarching conceptualisation of worldview change. We start with transformative learning – as represented by a focus on the work of Mezirow as well as Scharmer's (2009) *Theory U*.

Transformative Learning

The term *transformative learning* was originally coined by Mezirow (1978a). He first identified transformation as a valuable educational idea while conducting research in the late 1970's with women returning to postsecondary education or the workplace after a protracted absence. He was interested in exploring the factors that impeded or facilitated meaningful and successful re-entry experiences; his discoveries led him to a number of valuable realisations concerning the nature of learning. Notably, he evolved a new definition of transformation as "the process of using a prior interpretation to construe a new or a revised interpretation of the meaning of one's experience to guide future action" and concluded that "transformative learning occurs when there is a transformation in one of our beliefs or attitudes (a meaning scheme), or a transformation of our entire perspective (habit of mind)" (Merriam, Caffarella, & Baumgartner, 2007: 132). Mezirow's original model (1978a, 1978b) is normally understood in terms of ten stages of transformation, namely:

1. A disorienting dilemma;
2. A self-examination with feelings of guilt or shame;
3. A critical assessment of epistemic, sociocultural, or psychic assumptions;
4. Recognition that one's discontent and the process of transformation are shared and that others have negotiated a similar change;
5. Exploration of options for new roles, relationships, and actions;
6. Planning a course of action;
7. Acquisition of knowledge and skills for implementing one's plans;

8. Provisional trying of new roles;
9. Building of competence and self-confidence in new roles and relationships; and
10. A reintegration into one's life on the basis of conditions dictated by one's perspective.

At first blush, one can begin to see a mapping (from individual to collective) onto the issue of climate change. For example:

1. Climate change as a disorienting dilemma, one which humanity has not had to face before;
2. What collective guilt lies lurking beneath our hubris and denial regarding the mass extinction of species that is concurrently occurring?
3. The need to perform a socio-cultural psychoanalysis;
4. Joining forces;
5. Exploring possible and likely future scenarios;
6. Identifying paths toward our *preferred* scenarios (within the bounds of realism) – what complex socio-cultural structures are involved?
7. What competencies and capacities do we need?
8. What prototyping might we conduct?
9. The need for ongoing co-empowerment;
10. Identifying the ideal of the regeneration of our socio-cultural fabric into one that is (at the very least) ecologically sustainable.

Kitchenham (2008) indicates the major influences on Mezirow's early work as being Thomas Kuhn's (1962) notion of paradigm shifts (regarding the structure of scientific revolutions); Paulo Freire's (1997) notion of conscientisation and dialogical action; and – from 1981 – Jürgen Habermas's (1971, 1984) domains of learning, namely, the technical, the practical, and the emancipatory.

Mezirow has continued to refine his theory over the last three and a half decades. Specifically, Mezirow (1985) distinguishes three types of learning – the instrumental, the dialogic, and the self- reflective – each of which comprise three possible learning processes – learning within meaning schemes, learning new meaning schemes, and transforming by learning through meaning schemes. Another significant refinement is Mezirow's (1998) distinction between two types of critical reflection on assumptions: (i) *objective* reframing of narrative and/or action; and (ii) *subjective* reframing of critical self-reflection on assumptions manifesting as narrative, systemic, therapeutic, and epistemic. A third significant contribution to the theory is the addition of four domains of transformation: (i) elaborating upon existing frames of reference,[8] (ii) learning new frames of reference, (iii) transforming points of view, and (iv) transforming habits of mind (Mezirow 2000).

Broadly speaking, transformative learning integrates multiple understandings of the notion of transformation (Dirkx, 1998), including (i) transformation as critical reflection – the category with which Mezirow is most identified, (ii) transformation as consciousness-raising – identified primarily with Freire (1997), (iii) transformation as development – most explicitly identified with

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[8] Frames of reference, in this sense, may be understood as embodying two components: habits of mind, which are broad-based assumptions that serve to filter our experience of life, and resulting points of view, attitudes, beliefs, and judgments.

Larry Daloz (1986) but also those who understand development as a transformation in consciousness (Merriam, 2004) – such as Sri Aurobindo (1975), Jean Gebser (1956), and Robert Keagan (1994), and (iv) transformation as individuation – primarily associated with Robert Boyd (1991; Boyd & Myers, 1988).

The vectors identified above (from Mezirow's points of departure) constitute a variety of ways in which there can be a transformative regeneration of perspectives. This ecosystem of understanding can be fruitfully complemented by a more recent addition to transformative learning – that of Otto Scharmer's (2009) *Theory U.*

Theory U facilitates an experience of social presence which enables a group to illuminate collective blind spots inherent in social systems with the aim of co-generating and co-leading transformation. The process takes the general shape of a "U":

1. The left hand "downward" movement comprises (from top down) *suspending* patterns of the past through open mind > seeing with fresh eyes > *diving deep* through open heart > sensing from the field > *letting go* through open will;
2. The bottom of the U comprises *presencing* (connecting to Source (Jaworski, 2012));
3. The right hand "upward" movement comprises (from bottom up) "*letting come*" through open will > crystallising vision and intuition > *enacting* through open heart > prototyping (co-creating strategic manoeuvres) > *embodying* through open mind.

It can be noted that the holistic dimensionality of this process resonates with a "head, heart, hands" framing, which has been identified as useful for transformative learning with respect to sustainability (Sipos, et al., 2008).

Scharmer proposes that the process necessitates a deep quality of attention and identifies the U as a progressive movement through four fields or structures of attention: field one involves operating from the old "me-world;" field two comprises moving into the current *it* (exterior) world; field three involves operating from the current "you-world;" whilst field four addresses the highest future possibility that is wanting to emerge. He argues that a movement from the reactive postures of field one to the more integrative and transformative impulses of field three and four are needed in order to create change throughout a complex system. On a micro (individual thinking) level this correlates to moving through four levels of *listening*: (i) downloading habits of thought, (ii) object-focused listening, (iii) empathic listening, and (iv) generative listening. The act of opening and surrender empowers the emergence of novelty by illuminating blind spots that we normally allow to be obscured by assumptions and superfluous thought. The process can be identified as involving five movements:

1. *Co-initiating*: generating collective intent, taking time to listen deeply to others, and tune into where life is leading us;
2. *Co-sensing:* opening ourselves to emergent possibilities and potentials through careful observation;
3. *Presencing:* surrendering our wills and connecting to the deep and still source of inspiration; in the midst of this deep silence an inner sense of embodied knowing is empowered to arise to the surface;

4. *Co-creating*: exploring what prototypes of the new might look like and imagining how they might translate into real world action;
5. *Co-evolving*: holistically embodying and facilitating the ecosystemic emergence of the new.

In relation to climate change, the proposition is that the efficacy of appropriate transformative change would be significantly enhanced through employing Theory U processes.

Transforming Worldview

Theory U employs a vertical schema to facilitate the regeneration of perspectives. As indicated in the introduction, a further vertically oriented model that orients the paper is that of Causal Layered Analysis, and its explicit inclusion of the worldview layer. To recap, Causal Layered Analysis conceives four layers of social reality. From surface to depth, these comprise:

- The litany layer;
- The policy or systemic layer;
- The worldview layer; and
- The layer of myth, metaphor and principles.[9]

News broadcasts and newspapers tend to focus on the litany layer, whilst policy-making operates at the systemic level below. In contrast to these two, the underlying layers of worldview and myth-metaphor tend mostly to operate unconsciously. Therefore, the system by which policy is oriented does not tend to question its basic premises. It tends to rest upon a business-as-usual paradigm as much as possible. The scope of climate change, however, demands a deeper engagement. It demands explicit address of the worldview and its concomitant "essences," metaphors, principles.

The work of Annick Hedlund-de Witt (2013) explicitly addresses worldview in relation to sustainability, entailing implications for climate change. She identifies that the structural (economico-socio-cultural) barriers to changing lifestyles are deeply embedded in worldviews and that research indicates that the dominant worldview is the central barrier for the transition to a more sustainable society. Yet "despite their apparent importance, worldviews tend to be underemphasized in the sustainability field" (p. 12). Moreover, she expresses the idea that a certain form of science can actually hamper efforts to the extent that it falls prey to *scientism* – involving an "excess of objectivity" Sarewitz (2004) – to the detriment of apt inclusion of interior (Wilber, 2000) perspectives (e.g. aesthetic experience, emotional responses, psychological dynamics, religious meaning, ethical issues, and cultural values (Esbjörn-Hargens, 2010a)) as indicated by *worldviews* (De Witt, 2013).

There are various levels of generality one might identify with respect to the concept of worldview. At one end of the spectrum, it could be understood that each person carries a different worldview. Heading toward more clustering of understanding, a wide range of worldviews could be identified regarding the wide range of demographic categorisations such as culture, age, or socio-economic status. At the most general level, however, we might wish to consider broad sweeps of zeitgeists, both dominant and more marginal. At this level, we can identify such worldviews as "traditional," "modern," and "postmodern." Given that undesired climate change is associated with modernism – through such activities as fossil fuel use and industrial husbandry, it would be hard to adequately argue (though many attempt to) that we should somehow pursue a slightly modified business-as-usual approach. No. A more developed reconstructive postmodern worldview is called for. Such worldview comes in a variety of shapes and sizes, and not all might be fitting for the adequate address of climate change. The worldview proposed here is in the general camp of an ecological or reconstructive post-postmodernism [refs], one involving complex-integrative, postformal-integrative or integral thinking [refs]. Such thinking requires not only the address of its own understanding of climate change, but it also needs to be able to adequately understand and communicate with interpretations of climate change stemming from other worldviews.

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[9] Principles being an extension of the original conception, as explained above.

Regenerating Principles

Underlying the worldview layer could be myths, metaphors, values, patterns, principles, habits, templates, etc. The following addresses one of these, perhaps a key one – the transformation of modern atomism to complex integration or "eco-logics" (Hampson, 2010a, 2010b, 2011).[10] Such a transformation of principles underlying worldview can be understood in relation to Kuhn's (1962) notion of "paradigm shifts" which makes space for the inclusion of sociological, psychological, and historical viewpoints in the development of scientific knowledge.

We first discuss the general context of paradigm change in the philosophy of science. This is followed by a more explicit address of the principles of modern atomism and complex integration.

Philosophy of Science

It can be argued that a hindrance to apt climate change engagement comprises the current ideology or (mythic aspect) of science as distinct from the essence or core of scientific process, one involving appropriate inquiry at all levels. A pertinent context is that natural science to some interpreters often appears to be in inadequate dialogue with its philosophical roots whereby the role of scientist devolves into that of mere technician. The following historical context provides a lens that might be helpful in addressing the contemporary configuration of the philosophy of science.

Although science substantively developed in the classical Islamic civilisation (see Hampson, 2010c), its dominance only took hold in the modern era. Somewhat in response to the abuses of the Christian Church in the Middle Ages, modernism – and thus modern science – increasingly rejected metaphysical perspectives. A consequence of this is that it "flattened" the once-existing vertical ontology into a single strata; moreover, the single strata that it adopted was the lowest stratum, that of "fundamentals" (as represented by physics and chemistry). One might say that molecules were prioritised over meaning. However, whilst address of fundamental layers is important, they are not necessarily the most significant aspects of reality. The short-term (in historical time) success of scientific address of these fundamentals to produce modern technology and its concomitant material comforts consolidated this "lowest common denominator" tendency. But we now find ourselves with a human-induced atmospheric-heating feedback loop, the cause of which we are not only not abating, but actually increasing. The good news is that modern science has adequately delineated the physical condition (i.e. that at the fundamental ontological stratum of atmospheric chemistry). The bad news is that humanity's collective actions to date give the impression that "no one is listening," or, perhaps more accurately, that those that are listening do not appear to have sufficient power in relation to the structures which govern collective human activity, that there are conflicting voices, many of which are fuelled by partisan interests. This understanding can be unpacked yet further, of course. And it needs to be. But this is precisely where social science and the arts and humanities step in with respect to climate change. Yet the most helpful insights that could be found here are thwarted by:

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[10] The atomistic←→eco-logical dimension is, of course, not the only one that can be used to distinguish the preferred worldview to the present hegemonic one. It is, for example, important to address "principles of affect," so to speak – emotional values which charge the worldviews. This is a complex matter, but certainly a move from *greed* as (mostly) unconscious motivator to *care* as (more) conscious motivator would be in order. To assist in this, the classical question *What is the Good Life?* needs to re-enter the centre of the conversation of culture and politics.

- The lower status (overall) of this aspect of contemporary academia as opposed to natural science and the "pragmatic" subjects of business, accountancy and technology (noting that "pragmatic" is rarely interpreted as "pragmatic for the planet");
- The undue "weight" of natural science paradigms attempted to be applied in the social sciences – notably regarding positivism; and
- The dominance of institutional disciplinarity – a form of modern atomism – such that there is insufficient integration or coherence between insights arising from natural science and those from the arts, humanities and social sciences.

Another is that the entire academic endeavour – regardless of philosophy of science employed – appears to be thwarted by an apparent anti-intellectualism in the political sphere whereby there is insufficient adherence to policy recommendations. Humanity's academic mind is working but the political "body" seems to be governed instead by lower drives – short-termism, greed; a global politics blinkered, obfuscating, partisan. Of course, there are many exceptions. Indeed, there is a groundswell of alternative thinking and action, too. Such transformative approaches have the potential to transform the collective outcomes of human activity – but only if there is a change of societal status of pertinent knowledge in the transition to a more ecologically sustainable world.

In relation to the above, transformative principles would include:

- The regeneration of politics through adhering far more closely to policy recommendations arising from such transdisciplinary climate change research; and
- The prioritisation of pertinence (Morin, 1999) – along with the paradigms that support this – in the arts, humanities and social sciences. Such pertinence is facilitated by apt coherence between "the two cultures" of natural science and the humanities – empowering transdisciplinary understandings, and entailing the reinvigoration of philosophy and meta-theorising suitable for a deep ecological era.

The paradigms, philosophies and meta-theories entail regeneration via the principle of complex integration. It is the contrast between this prospect and the current default of the principle of modern atomism to which we now turn.

Beyond Modern Atomism

As indicated above, climate change is a quintessentially complex, big-picture issue. So, it would be hard to argue that apt engagement with it does not therefore require a like-minded epistemological orientation. The current default way of engaging does not adequately meet this requirement. Rather, it falls prey to modernism's – often hidden – tendency to be oriented by atomism or fragmentation. Where integration *is* attempted through modernism, the default is toward a reductionism or over-simplification (e.g. a "theory of *everything*" – in physics discourse – as constituted merely by *fundamental* particles rather than recognising more complex ontological levels include realities irreducible to fundamentals). Modern atomism shows itself in myriad ways throughout the institutionalisations of this kind of thinking in society. In academia, an instance where it shows itself in an undue reliance on disciplinary structures to the detriment of transdisciplinary orientations (Nicolescu, 2008).

Modern atomism is a remnant of the import of classical physics' conception of atoms as billiard balls. It underlies much technological and bureaucratic thinking. Its imaginery comprises units of similar character with non-complex identities; it focuses on these units to the detriment of both the relations between them and the identity of the whole system within which the atomistic identities are situated. Consequently, the pertinence of contexts, diversity, interactivity, and complex causal patterns is underplayed (Hampson, 2010b, 2011).

The principle of atomism that forms part of the layer beneath the modern worldview needs to be regenerated into a more complex and integrative one, one more resonant with the ecosystemic complex that is humanity-within-biosphere. Ecologies of the life-world require the development of ecologies of mind (Hampson, 2012). These ecologies of mind, or eco-logics, could manifest in a variety of ways. But a sense of the whole and a sense of the various dimensions of complexity need to form part of the mind-set. Oriented by this regenerated principle – that of complex integration – the approaches of critical realism, ecosophy, and postformal integral theorising variously represent facilitations toward an eco-logical future.

With respect to the explicit conceptual location of philosophy of science, critical realism counters both fundamentalised positivism and fundamentalised constructivism or relativism through adopting a more realistically complex picture of the whole, including the normative. In this way, critical realism comprises a philosophy of science adequate to meet the challenges and complexity of climate change (Hedlund-de Witt, 2013) (with its ecosystem of current and potential normativities), particularly with regard to the different understandings required to confluently address the physical world, biospherical ecosystems, and the psycho-socio-cultural sphere.

The following section exemplifies this panoramic sense of the critical and the real by focusing on the regeneration of the sector of higher education, a social location key to fostering a transformative worldview.

Regenerating Practice

The regeneration of principles and worldview perspectives has implications for practice. Education is potentially able to be efficient in facilitating the profound changes necessary, and, indeed, is potentially the dominant locus of transformative learning. In this article we have chosen to address higher education as indicative.

Higher education in late modernity is multifaceted. One could say it is both part of the problem (through its reinforcement of climate-change-inducing ways of thinking as per atomism) and part of the solution (such as through its constructive analyses of the problem). Higher education is also undergoing significant changes. Some are facilitative of new, apt ways of learning and being, whilst others reinforce late modernism's grip – the demise of the arts and humanities in favour of business-related courses, for example. We argue that such so-called economism is actually a form of sectarian, ego-driven, short-term interest; what is *pragmatic for the planet* is ignored. If a long-term systems perspective is considered then the arts and humanities become highly pragmatic given the desirability of global reflexive consciousness. Moreover, the strong institutional inclination toward disciplinary structures – in contrast to transdisciplinary frames – thwarts integrated attempts to address climate change as a quintessentially big-picture and multifaceted issue. What is needed is the new norm of a financially empowered, rigorous (but not rigid) transdisciplinary orientation toward climate change. This includes transformative engagements with the pertinent contexts of climate change (past, present and possible futures for humanity and other life forms), exploration of the various paradigms of consciousness and a focus on rational inquiry beyond the limitations set by conventional thinking.

In short, apt address of climate change requires transdisciplinary frames in order to prioritise and coordinate the various types of understandings arising from the natural and social sciences, the arts and humanities.

For further discussion of transdisciplinarity as a suitable complex integrative form of *curriculum* to facilitate futures adequately addressing climate change, please see Hampson (2012); and for further discussion with respect to complex integrative approaches in general regarding higher education, please see Hampson (2011) and Hampson & Rich-Tolsma (forthcoming). The discussion below focuses instead on transformative learning *processes*, and concomitant character of learner, teacher and occasion.

Andragogy and Heutagogy

As learners develop cognitively they become increasingly rationally emancipated, mature, and functionally autonomous (Mezirow, 1997). This development takes place in inverse proportion to their need for scaffolding, instructional support, and cultural mediation (Canning & Callan, 2010; Kenyon & Hase, 2010). Blaschke (2012) therefore proposes that there is a natural developmental progression from the concept of pedagogy (*leading the child*) built upon teacher-lead student engagement, to andragogy (*leading the person*) oriented by the student-centred notion of learning cultivation, to heutagogy (*leading the self*) resonant with the notion of self-realisation (Canning, 2010).

Transformative higher education addresses the last two. Whilst andragogy can be identified as self-*directed* learning (Knowles, 1975; Merriam, 2001), heutagogy may be understood as self-*determined* learning involving the development of competencies and capacities (Hase & Kenyon, 2000; 2007). Here, the learner becomes “the major agent in their own learning, which occurs as a result of personal experiences” (Hase & Kenyon, 2007: 112). One of the key characteristics of a heutagogical approach is double-loop learning and self-reflection (Argyris & Schön, 1996). As learners take ownership for the determination of their own learning and transformation they begin to interrogate deeply held beliefs and assumptions underpinning their actions (Eberle & Childress, 2005; Hase, 2009) thus initiating “virtuous cycles” of learning. Mezirow indicates that this process involves a critical reflectivity comprising four types of subjective reframing:

- *Narrative* – the application of narrative critical reflection of assumptions to oneself;
- *Systemic* – critical inquiry into inter-objective factors and influences (e.g. the organizational, political, social, and ethical);
- *Therapeutic* – a careful phenomenological appraisal of our feelings and reactive thought patterns in order to apprehend the foreseeable effect they may have on our actions; and
- *Epistemic* – the interrogation of the causes, nature, and consequences of our very frame of reference.

Such transformative learning processes can occur in both individual learning and collective learning (Kilgore, 1999) contexts. Regarding the address of climate change, empowerment of the latter would be particularly appropriate given the global nature of the crisis.

We end with indications regarding the changing roles of learner, teacher and learning occasion. The following account regarding transformative human identity (Hampson, 2005) presents an amalgam understanding oriented by approaches such as those of Mezirow (1981; 1991; 1997), Baumgartner (2001), Daloz (1986; 1999), Dirkx (1997), Taylor (1998), Morin (1999), Kincheloe (2005), and Montessori (1988) in addition to drawing upon the experience of the current authors.

The Transformative Learner

The student encountering transformative learning is no longer a mere educational consumer, but rather a transdisciplinary scientist-scholar-practitioner deeply engaged in self-determination and the apt transformation of their world. This requires that learners have sufficient developmental maturity to explore the perspectives of others and cope with their own shifts in paradigm; that they are ready and open for change; that they are willing to make self-reflection an integral part of their lives in multiple contexts; and that they strive for pertinent knowledge, courageously engaging the complex multiplicity of perspectives. Their journey forms part of a (perhaps non-linear but progressive) emancipation enabling them to name their own world (Freire 1997, p.89) , rather than merely regurgitating social realities defined by cultural institutions. It might also be seen that learners with diverse (positive and negative) life experience have an increased likelihood of cultivating transformation.

The Transformative Teacher

Analogously, transformative educators are no longer a mere technician charged with administering an educational commodity, nor are they a guide through the predictable terrain of a curriculum. Instead, they serve the roles of mediator and companion; they become the enabler of the students' self-determination and social emancipation: teacher as catalyst for transformation. This includes facilitating emotional intelligence,[11] and critical awareness (critical thinking and critical theory).[12]

The Transformative Occasion

The learning occasion as a whole thus becomes transformed into one in which the planetary, the complex, and the holistic are welcomed, encompassing multiple perspectives and states of awareness. Understanding is embedded within deep purpose and individual biography. Transformative processes such as Theory U are employed in order to access apt ways forward. These may also entail processes from the arts and the physical, as well as entailing a sense of exploration between different perspectives, toward the engendering of respect, empathy, deep dialogue and collegiality,. Additionally, outer architecture is consciously designed as a reflection of the "inner architecture" of transformative curriculum. Overall, there is a sense of global citizenship deeply rooted in a worldview striving towards ethics for the human species and other sentient beings, a worldview that facilitates appropriate address of climate change through the many dimensions of transformative learning.

Ends-in-View

Apt engagement with climate change involves the transformation of the dominant worldview of humanity. Whilst it has achieved much, modernism has been insufficiently ecological; it has been overly simplistic, and inadequately attentive to the full range of human potential and social well-being. The new worldview needs to be deeply ecological, complexly integrative, and transformative. Transformative learning – both individual and collective – is a key process in helping regenerate our worldview in such a way. It also derives from the new worldview, one that pays apt homage to non-Western understandings, to the pre-modern West, and to alternative (e.g. Romantic) streams of human consciousness. The new worldview entails a major shift of principles, requiring the reinvigoration of epistemology and a highly developed review of the philosophy of science. Careful discernment should be applied to both science and economics to separate out their core good from ideological distortions, including collusion with partisan interests. The latter should be deconstructed; the former should form the core of a new appropriate principle of science and economics. The practice of transformative learning should be understood as an open system, one occurring in many contexts, both formal and informal.

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[11] *Facilitating emotional intelligence*. *Interpersonally*, this includes facilitating and modeling sensitive relationships towards and among students, for instance by transcending (or at least acknowledging and suspending) one's own prejudices and striving for a fuller understanding and empathy towards others. *Intrapersonally*, this includes mentoring students in the habit of reflexive self-criticality, especially through constant humility and self-reflection (including blind spots).

[12] *Facilitating critical awareness*. Facilitating critical thinking involves the explicit qualities of open-mindedness and deep inquiry. This often leads to facilitating insights arising from a critical theory orientation. These could involve the planet as a whole, and the economico-socio-cultural context. They might also involve the more specific context of education – the different purposes that different educational institutions have pursued, any hidden curriculum, the influence of power relations, and the context of knowledge production, particularly with respect to alertness to reductionism.

The depth of the climate change issue indicates the appropriateness of employing processes of engagement with it that have analogous levels of depth. Transformative learning is a signifier that coheres various processes that have such a depth – the depth, one might say, at which diamonds are made. This paper has indicated that such learning occasions enable the regeneration of deep layers of our individual and collective being – the regeneration of perspectives and principles which have the ability to most effectively engage with the uniquely challenging predicament which is now presenting itself to humanity. The particular depth regarding perspectives that we have addressed can be identified as – at least – worldview. Worldview is often unconscious and yet guides many of our activities. Even further: beneath worldview can be identified deep imaginal patterns and habits, archetypes, myths, metaphors, paradigms and principles – also mostly unconscious. These underpin, give life to, and maintain their respective worldview(s). In addition to addressing the layers of worldview perspectives and metaphors/principles in general, the paper has also focused on higher education as social sector to explore these deeper layers in particular contexts with regard to the challenge of climate change.

It is hoped that the advocacy of transformative learning as presented here inspires such depth-processes to be creatively employed in the myriad contexts of climate change engagement. Maythe movement outward and onward be accompanied by a development inward and upward . It should become natural to love the Earth.

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Editorial

Welcome to this issue of *Integral Review (IR)*! We are pleased to welcome readers to a new regular issue that brings together a number of articles, essays and reviews.

We are also glad to finally launch our new website! This is the culmination of significant investments in thinking about how we can better serve our readers and make the most of the wealth of content that has been generated here over the years. We also have been thinking about how to make it easier for an even broader audience to become acquainted with this body of work. Towards this goal, we are hoping that being able to better utilize social networks (easy links to share through various social media) and updated functionality (the new site works on smartphones and tablets as well as having a search function) will encourage growth in the community of readers making use of IR.

We also hope these upgrades will stimulate more submissions coming from both familiar and new sources. As we settle into our new home online, we will look to undertake new initiatives to enable a broader footprint for the quality of thought IR fosters. Look for updates on this on our home page and through our newsletter.

This issue has three peer reviewed articles, two essays, a poem and three extended book reviews and a response. The peer reviewed articles include reporting on qualitative research using Sara Ross' *The Integral Process for Working on Complex Issues,* action research using Wilber's AQAL model in the field of diversity in higher education and a theoretical inquiry into Kegan and Lahey's Immunity to Change process.

The two essays include a look at archetypes in relation interpreting research in leadership studies and stories of encounters with an extraordinary person. These are followed by a poem and three reviews. One review examines two books related to new forms of economy, another about integral development and the third about leadership. This issue closes with a response to the final book review. We are pleased to provide readers with this range of quality research, reflections and reviews.

Pia Andersson brings us *The Dynamics of Hope and Motivations in Groups Working on Complex Societal Issues* to open this issue. She has been doing extensive research on how using The Integral Process for Working on Complex Issues (TIP) affected participants' sense of personal hope and motivation. Andersson goes into depth unpacking the nuances and contexts for how hope arises and affects motivation. As well, she goes into the relationship between participants' experiences of hope about smaller specific aspects of issues compared to the feelings arising from seeing more of the complexity of issues.

Cheryl Whitelaw has been working in the field of intercultural education as well as linking this to her work as an integral coach. Her weaving of these fields with her her role at a community college and a research project has led to her contribution to this issue of IR; *Developing an Inclusive Perspective for a Diverse College: Inclusion = Diversity + Engagement*. Whitelaw reports on applied research addressing an issue that is relevant for many

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colleges and universities; how to improve intercultural communication skills among student service staff to better serve the growing diversity of student populations. The developmental approach and model arising from this work will be of use to many.

For the past four years I have been reflecting on links between what I perceived as relevant insights from different theoretical perspectives on Kegan and Lahey's Immunity to Change process. These reflections finally took the form of a serious inquiry, leading to the article *Immunity to Change Revisited: Theoretical Foundations for Awareness Based Practices for Leadership Development*. Using qualitative research software to support an analysis of textual extracts from three sources, I discuss implications for ITC as an exemplar of awareness based practices for leadership development. This focuses around the notion of the virtuality of self and how awareness is the embodied realization of this.

Opening our editorially reviewed section, Nathan Harter brings us his inquiry *On the Archetypes Hermes & Hestia: Notes toward a Hermeneutics of Leadership Studies*. This essay explores first the nature of these archetypes, and then their relevance for leadership studies. The use of our imagination in interpreting not only acts of perceived leadership, but also the texts about those acts, becomes essential as we search for deeper layers of meaning in leadership.

We continue with a lovely set of stories by Al Erdynast, providing a window of insight into the world of Stella Adler. His essay *Stella Adler: You Have NO Expertise on Costume*, shows us facets of the human experience of someone with an exceptional degree of expertise and competency in the world. Erdynast describes the impact his experiences with Adler as transformative and his telling of them makes for engaging reading.

Kristian Stålne brings us a poetic interlude with his *Subject Object Poem*. Beyond its deceptively simple title, this poem invites us into a world of reflection and consideration of notions of self and identity.

Book reviews in IR have a long tradition of going well beyond short critiques and summaries of a work. The three reviews in this issue continue that tradition by engaging a variety of lenses and reflective stances in providing readers insights into the works being reviewed.

Kristian Stålne continues this issue with his integrated reviews of Said Dawlabani as well as Otto Scharmer and Katrin Kaufer's works in the field of economics in *Orange Capitalism – and then what? A review of two books on the future of economy and society*. The financial crisis of 2008 brought about, among many things, an accelerated interest in mapping out the future path of economic activity in order to find our way into a new world that somehow can transcend the ills of this current one. Stålne goes into depth comparing and contrasting the two developmental frameworks presented by these authors and reflects on the implications of a developmental approach to studying economics.

Wendelin Küpers continues with his review of Alexander Schieffer and Ronnie Lessem's work in *Review of Integral Development*. He views this book as a culmination of what the authors have done in numerous prior works and finds it to be an aspirational, programmatic and practical agenda outlining what needs to be done to better conceptualize and enact more integral forms of development.

My own review of Anderson and Adam's book *Mastering Leadership: An Integrated Framework for Breakthrough Performance and Extraordinary Business Results* examines how this book aims to bring an integrative approach, including adult development theory, to a mainstream business audience. The core message presented is clear; higher performance in terms of business results is correlated with inner work, or gains in terms of stages of consciousness. My review provides some context for the book, an overview and remarks related to my assessment of the successes and limitations of the endeavor.

We close with a response from Bob Anderson and Bill Adams to my review of *Mastering Leadership*. In their response, Anderson and Adams address some of the critiques presented in my review, presenting a helpful and detailed background on the use of stage development research in the model used in the book.

We hope this issue of *Integral Review* provides you with a useful diversity of perspectives on a variety of topics to inform and enrich your repertoire of knowledge and pique your curiosity for ongoing inquiry. We also hope that you enjoy our new website and take advantage of the possibilities it brings.

JReams

Jonathan Reams
Editor in Chief

The Dynamics of Hope and Motivations in Groups Working on Complex Societal Issues

Pia Andersson[1]

Abstract: This paper reports results from a study of how participants' sense of personal hope and motivation was affected by a facilitated process in which four groups of people worked on different complex social issues. The group interventions were designed to scaffold increased understanding of the complexity of the chosen issue. A method called The Integral Process for Working on Complex Issues was used in all of the groups. Issues addressed in the four groups were: neighborhood deterioration, lack of community engagement, the need for better strategies for communication between rescue service actors in critical life-and-death situations, and transition to a more environmentally sustainable city. The study investigated the participants' self-reported changes in their levels of hope regarding the possibility of achieving positive results on the selected issue, and changes in their motivation to engage in work to that end. The data were gathered through interviews with individual group participants before and after the group process. The sessions supported group members to develop more awareness of the complexity of the issues, and to develop strategies for action.

The study indicates that the discovery of new potential pathways to manage an issue, through a more comprehensive understanding of the complexity involved, was a key factor influencing levels of hope and motivation. Reports from participants showed that when the participants formulated concrete actions that made sense to them, then "particularized hope" emerged, as well as motivation to continue to engage. Thus, increased levels of hope about a delimited part of the issue were reported, while in some cases, participants reported having less hope about the issue complex as a whole.

Keywords: Collective efficacy, engagement, hope, motivation, pathway perception, scaffolding, task complexity awareness.

Introduction

The roles that hope and motivation play when groups gather to work on issues of considerable complexity—especially those with a history of disappointments and failures—can be assumed to be significant, and may be affected by changes in awareness of the task complexity involved (Jordan, 2014). Examples of such complex issues are ethnic segregation in suburbs, city pollution and littering, land use conflicts, and violence against officials on duty.

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The purpose of this study was to elucidate the relationship between hope, motivation, and awareness of complexity, when groups worked on complex societal issues using a structured discourse for issue analysis and discussion. Factors that influence levels of hope, and the motivation to engage, need to be understood better, as do the interrelationships and dynamics between these dimensions. How the interaction of emotion and cognition influence deliberative processes is not wholly understood (Delli Carpini, Cook, & Jacobs, 2004), and research on the interrelationship between hope and motivation when groups spend time to analyze complex issues of public concern has to my knowledge not been carried out.

Four groups of concerned stakeholders participated in the study, based in Sweden, and the changes in their self-reported sense of hope and motivation before and after participation were analyzed. Each group was offered a facilitated, structured group process as support.

The study is based on a dialectical constructivist perspective.[2] Empirical data were collected to reveal the patterns of how participants constructed meaning about issues of concern to them, as well as how they felt about the possibility to achieve favored outcomes. The main objective of the study was the inquiry into how these patterns changed through a group process, and what consequences this could have for the participants' experience of hope, motivation and for their concrete actions.

The Issue of Defining Hope

The topic of hope spans several research fields, from philosophy and psychology to social and medical science. In the literature, hope has been characterized in a variety of ways, such as an attitude, a disposition, a social habit, a psychic force, a psychological asset, or in terms of process, activity or inquiry (Allec, 2004; Brackney & Westman, 1992; Cooke, 2005; McGeer, 2004; Nalkur, 2009). Hope has often been portrayed through dichotomies, (Jacoby, 2003; O´Hara, 2011) as either goal-oriented or existential; with an emphasis on cognitive elements and agency, or focused on affective features of hope. In a large literature review, Bright (2011) found that definitions of hope could be placed on a continuum, where existential definitions on hope was at one end, and goal-oriented definitions on the other end (Bright, 20011; Jacoby & Goldzweig, 2014).

A dynamic that add intricacy to the understanding of hope, is that what is hoped for can be more or less realistic or dreamlike. This is connected to hope´s close relationship to uncertainty, such as limited possibilities to predict future outcomes, and limited knowledge about which factors may change positively or prove possible to influence through individual or collective actions. Several factors spelt uncertainty adding up to the ever present unknown of the hoped for future (Wolsgård-Krøjer, 2014).

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[2] Although not so well integrated in my understanding in the beginning, my point of departure was that hope and motivation consist of both cognitive and emotional dimensions. Therefore, to understand the interplay, or – the dialectics – between these dimensions was an important consideration. This point of departure yields a dialectical constructivist perspective, which also got strenghtened as a result of conducting the study. (For a fuller view on the dialectical constructivist perspective, see Basseches & Mascolo, 2010).

While the concept of hope is complex, multifaceted and consequently described in a variety of ways, there seems to be general agreements that hope concerns human engagement with “the issue of possibility” (O´Hara & Ortiz, 2014, p.viii).

The experience of hope is subjective, which makes it difficult to define clearly or to measure, and suggests why the concept of hope has multiple definitions and measurements; some even in stark contrast (Jacoby, 2003; Jacoby & Goldzweig, 2014; O´Hara & Ortiz, 2014; O´Hara, 2011). The functions and effects of hope consequently relate to how the concept is used in the first place. In this study, the relationship between hope for desired change, and the individuals’ motivation to participate in bringing their own capacities to bear on the issue, is in focus. This focus calls for a contextualization of the concept of hope in its relationship to motivation, which will be undertaken in the first part of the literature review. It is also important to define how the concept of hope is used in the study, which I will do in this section.

When attempting to define hope, one stands a risk of reducing the concept to the dichotomies and linear approaches associated with hope studies (O´Hara & Ortiz, 2014; Jacoby & Goldzweig, 2014). The point of departure here is that hope is a complex dynamic with both cognitive and affective elements, and manifest both as a quality of being and as an agentic force. Jacoby (2003) coined the expression “work of hope”, referring to the variability as well as to the developing nature of the experiences people have when speaking about hope. This entails looking at hope from a process point of view, with its inherent dynamics of change. Both hope and motivation involve the dynamic interplay of elements, as “behavioral intentions involve insights into new perspectives (cognition), motivation to act (conation), as well as a new sense of empowerment (affect, or emotion)” (Ross, 2006, p. 149). The research question that this study addresses is how participants’ levels of hope for positive change, and motivation to engage in action towards it, were influenced by the increased awareness of complexity they derived from participating in a facilitated group process. In resonance with this aim, hope and motivation is considered from a process perspective, and as a transitional phenomenon (Jacoby, 2003), which may be influenced by a number of factors over time.

Motivation and Social Context of the Study

Issues are complex when they involve a multitude of different types of conditions and causal relations, when many types of stakeholders with diverging interests are involved, and when stakeholders have dissimilar perspectives on the issues (Jordan, Andersson, & Ringnér, 2013; Rouwette, 2003). If the challenges are perceived as too great, the propensity to make efforts to resolve them is likely to be affected, resulting in pessimism, feelings of powerlessness, blame, or general frustration (Ross, 2006a). A mismatch between the capacity needed to deal with complex issues (DeLauer, 2009; Kegan, 1994; Rosenberg, 2002) and the frustration caused by the difficulty of addressing them gives rise to another set of challenges: how to find motivation to engage when frustration is high and the hope for a solution is low (Inglis, 2010; Ross, 2007, 2009). As passivity, hopelessness, and complacency pose huge threats to the growing need for sustainable management strategies (Ross, 2009), studies that contribute to a deeper understanding of these dynamics could add value to the development of methods for scaffolding the cognitive complexity that appears necessary to address the issues’ complexity. Naturally, if hope and motivation are not sustained when grappling with understanding the complexity of the issue, this will in turn affect the propensity for fruitful deliberations.

Challenges and Support: Scaffolding Complex Issue Analysis

The ability to both notice and handle various dimensions of a complex issue can be referred to as task complexity awareness (Jordan, 2011, 2014), a concept involving the awareness of "the possibility that there might be significant circumstances, causal relationships, potential consequences, and systemic characteristics that might explain occurrences and that might be useful to consider when deciding on a course of action" (Jordan, 2011, p. 60).

When using a structured group process on a complex issue, an important objective is to scaffold task complexity awareness of the issue of concern (Andersson, 2015; Jordan, 2014). An understanding of underlying principles of task complexity (Commons, Trudeau, Stein, Richards, & Krause, 1998) is therefore considered central when designing processes and providing appropriate facilitation for groups working on issues of societal complexity.

On a general level, the concept of *scaffolding* can be explained as a cognitive support structure that enables individuals of all ages to raise their ability and make it possible to complete tasks that otherwise may be too difficult to grasp (Commons & Goodheart, 2008). The term was first used in the cognitive domain as a metaphor for interactional support of children's learning processes (Wood, Bruner & Ross, 1976), but is now widespread in contexts of learning and skill development. In this paper, the concept of scaffolding is focused on the temporary, external support provided by methods and by facilitation strategies.

An adjacent and central role in a facilitated group process is to scaffold increased awareness of how the different stakeholders may reason about the same set of issues, thus increasing the potential for improved communication and understanding (Jordan, 2014; Ross, 2006b). Using a facilitated, structured process for group interaction that scaffolds the exploration of alternative perspectives can bring transformative insights, enabling multiple perspectives on the same issue of concern, resulting in the emergence of new thinking and decision-making (Inglis, 2009; Ross, 2009, 2011).

The Integral Process for Complex Issues (abbreviated TIP)

The cognitive scaffolding that was used to facilitate the group processes is called "The Integral Process for Working on Complex Issues" (Ross, 2006a). It was designed for group processes and was based on analyses of complex issues and theories of adult development. TIP is one of several related methods that aim at dealing with complex issues. Other methods are so-called "problem structuring methods," such as Soft Systems Methodology and the Strategic Choice Approach (Checkland & Poulter, 2006; Friend & Hickling, 2004; Rosenhead & Mingers, 2001).

TIP supports the development of task complexity awareness, as shown in a study using TIP, which hypothesized that participants' level of complexity used to reason about complex issues would increase; binomial test and related measures results were $p < .01$ with large effect size

(Ross, 2007). TIP was chosen for this study for three main reasons: (a) its fit with the research interest as a means to scaffold increased understanding in task complexity awareness, (b) the researcher's own knowledge about how to use this specific process, and (c) the function of TIP as a deliberative process for decision-making.[3]

TIP is a modular, step-by-step approach, in which each step goes deeper into the complex issue that has been selected.[4] This enables an understanding of symptoms of deeper systemic problems and the possibility to identify causal connections. The modular approach of TIP can be visually compared with structural scaffolding, which too is modular in design, so that one can use parts of the construction to complete specific tasks.

The content-free nature of a method makes it replicable, as indicated by a wide variety of uses of, for example, the commonly used SWOT (strengths, weakness, opportunities, threats) analysis. As scaffolding, TIP can be used in a variety of contexts, and regardless of users' diverse issue concerns, to create more capacity for understanding the complexity of a selected issue.

In the next part of the study I survey relevant previous research on hope and motivation. Although there is ample literature about hope as well as motivation, little research has been done that directly relates to group processes, deliberative decision making, and issue complexity. There is extensive research on motivation as a construct, but in this review, the purpose was to focus on motivation in its relationship to personal and public engagement in issues of social concern, and to elucidate the interrelatedness between motivation and hope. While hope and motivation cannot be seen as entirely separate from each other, the differentiation of their relationships is an important part of this study.

After reviewing earlier research, I present the methodology of this study, followed by the results of the data analysis. Finally, there are some concluding comments on the interrelations of hope, motivation, and awareness of complexity, and indications of how these may be important factors to consider for group facilitation when working on complex societal issues. Some recommendations for further research are included at the end.

Previous Research on Hope and Motivation

Some frameworks that serve to unpack relationships between hope and motivation – including differentiations between individual and collective hope – will be discussed in this section. This serves as a background for the study, and is of deep relevance for understanding influences on hope and motivation when scaffolding task complexity awareness in a group process. Because the concepts of hope and motivation are broad, complex, and interconnected, an attempt to outline some of these relationships supports considerations about how a cognitive scaffolding process might affect hope and motivation.

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[3] Even though TIP was selected as the method used in this study specifically because it was designed to scaffold increased awareness of the issue's complexity among the participants, the purpose of the study was not to evaluate the effectiveness of TIP. TIP was simply an appropriate means for scaffolding awareness of complexity, thereby creating favorable conditions for studying how hope and motivation to engage were influenced by increasing awareness of complexity.

[4] See Appendix 1 for an overview of each step in TIP, or Ross, 2006a, for a full description of the method.

Of particular interest is how other research describes relationships between hope, motivation and issue understanding. This topic concurs with how other researchers have related to, or tried to distinguish, between realistic and dreamlike hope, and expectation, as well as developed explanations for how hope can enhance motivation or lead to passivity.

Research that was found to be of particular interest to the aim of this study will be accounted for at the end of the literature review.

Unpacking the Intricacies of “Hope” and its Relationship to Motivation

While it may be evident that motivation is needed for starting to engage and act—especially when there are barriers to overcome in making substantial changes in issues of concern (Klandermans & Oegema, 1987), hope is often referred to as a prerequisite for motivation, even as a “psychic commitment to life” (Schneider, 1980, as cited in Hinds, 1984, p. 359). From this perspective, hope is viewed as a significant element that affects the motivation to engage in social action, by helping to transform worry into action and to motivate action in the face of uncertainty (Braithwaite, 2004; McGeer 2004; Ojala, 2011; Snyder & Feldman, 2000).

A psychological hope theory developed by Snyder (2000) consists of three cognitive components: goals, agency, and pathways (Snyder, 2000; Green, Oades, & Grant, 2006). The motivational component—agency—is seen “to propel people along the imagined route to the goal” (Snyder, 2000, p. 10). Snyder’s hope theory is based on the assumption that human actions are goal directed and that hope is active when an individual is able to perceive pathways to achieve goals as well as to conceive of the possibility—agency—to act on them.

But the notion of hope as a positive force for agency and action is – as indicated earlier– not agreed on, and a more elaborate understanding is called for. In the literature, contrasting perspectives of hope and its relation to engagement and action appear, indicating polarization or stark contrasts; at some times pointing toward the constructiveness of a hopeful approach, and at other times the opposite (O´Hara, 2011). As it pertains to motivating individual or collective action, a common question in science civic sectors[5] is, how is hope truly conducive to action, and what kind of hope may dampen activity, perhaps resulting in pure passivity (Bovens, 1999; Harwood, 2005; McGeer, 2004; Miceli & Castelfranchi, 2010). While some studies indicate that hope can motivate engaged action, what explanations or definitions might unpack why hope at other times induces passivity?

Miceli and Castelfranchi relate the drive to hope beyond the limits of agency, where “hope implies the mobilization of our energy toward the future because it promotes both our patience to wait for any favouring condition and our readiness to take advantage of such opportunities” (2010, p. 267). From this view, hope can induce an individual to *stay open* to possibilities, even when the odds are low; expectation and hope can diverge, yet favor the tendency to act, “thus orienting one to act in view of the desired event despite the negative forecast” (Miceli & Castelfranchi, 2010, p. 268). This approach recognizes the inherent tensions with hope and uncertainty, and how humans may handle such tensions.

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[5] See, for example, George Monbiot’s article in the Guardian, http://www.monbiot.com/2012/06/18/the-mendacity-of-hope/ and Derrick Jensen’s article in Orion Magazine, http://www.orionmagazine.org/index.php/articles/article/170/f both retrieved 3 July 2012.

The idea of foolish hope dates back to Plato, who called hope “a foolish counsellor” (O´Hara, 2011, p. 324). Theologian and existentialist philosopher Paul Tillich (1965) distinguishes the quality of foolish hope from genuine hope. Foolish hope is to wait passively for change, whereas genuine hope is to start taking even small steps possible toward living what one hopes for. Here, the focus is on the individual’s ability to take steps to realize valued goals. Choosing a stance of passive hope is sometimes explained as having overly positive expectations of other actors to solve issues of concern to realize one’s hopes (McGeer, 2004). McGeer calls this “wishful hope” and suggests the need for taking more responsibility for agency.

The founder of the Harwood Institute, Richard Harwood (2005), suggests that there is a clear divide between authentic hope and false hope and that there are different *processes* that foster the two. False hope is part of everyday life, for example, automatically trusting expressions by politicians, news media, and civic leaders. Even public opinion tools can foster false hope, by leading people into the false assumption that they have been heard. Well-intentioned community consultation may backfire, failing to create the community engagement it was intended to do, and instead leaving a community with decreased social capital (Hartz-Karp, 2007). By contrast then, authentic hope is ignited in people when they sense that something is true and meaningful, such as when seeing signs of small, but significant steps forward, or when engaging in collective conversations, focusing on real concerns and working together on common challenges (Harwood, 2005). Taking this perspective, a move away from unrealistic, “false” hope, may be a result of a deeper understanding about causal relationships of an issue of concern, and an opening for new, more realistically oriented hopes.

The ability to stay focused on present possibilities, while hoping for future outcomes, is an ability that sets hope apart from positive expectations, according to Miceli and Castelfranchi’s (2010) notion of hope. From this view, hope differs from belief, optimism, trust, and faith, and overcomes the problem of naïve or false hope. The minimal cognitive ingredient is wish and recognition of uncertainty and possibility.

But while uncertainty is intrinsic to hope and may spur action even when the access to knowledge or information appears limited, research shows that when there is uncertainty, or when knowledge is incomplete, the tendency for inaction is higher, as people are less prone to act on uncertain options (Sundblad, 2008). Part of the remedy—to gain understanding—is not sufficient to activate hope and motivated participation; people need to perceive pathways for taking actions that effectively address the issue (Amnå, 2008, 2010; Snyder, 2000; Sundblad, 2008). According to Snyder (2000), gaining access to multiple routes to approaching a goal will positively affect the sense of hopefulness. But the motivation to stay open to new information is needed to seek out new options, which may be difficult when faced with countless obstacles. Hence, when the hoper cannot conceive of possibilities to take action toward that which is hoped for, passive waiting may be the favored approach. However, when there is motivation, the likelihood increases that people will invest more effort in processing a message, which in turn affects the learning process and the ability to recall information (Petty & Wegener, 1998; Sundblad, 2008). Having access to information, as well as being motivated to process it, in turns shapes performance and the quality of decision-making (Druckman, 2004; Kuklinski, James, Quirk, Jerit, & Rich, 2001). Previous research with secondary school students (Persson, Lundegård, & Wickman, 2011) showed how the students were able to transform worry about the environmental issues into action competence[6] and hope. The authors suggest that the combination of listening to the students' ways of formulating their environmental concerns and adapting education to their questions was critical for this result.

The ability to perceive alternative pathways to reach goals and reclaim agency is a central variable for "higher hope people" and "lower hope people" in Snyder's hope theory (Snyder, 2000). Therefore, a significant strategy is to expand and strengthen understandings of pathways by breaking down strategies into clear and relevant steps, finding several alternative and plausible routes to get to the goals, and formulating sub-goals (Lopez, Floyd, Ulven, & Snyder, 2000). This is also an important function of successful scaffolding of task complexity awareness, which can furthermore result in the formulation of new objectives and purposes (Andersson, 2015; Jordan, 2014).

The element of uncertainty of outcome coupled with the perception that things can change for the better (Snyder, 2000; Ojala, 2007), make it hard to predict to what extent hope will complement motivation as a source for engagement. Still, even passive hope may serve as an internal help for an individual to endure a crisis that would at other times be psychologically overwhelming. Snyder and Feldman argue: "Whereas it is true that hope can be pacifying for a period of time, the very same hopeful thinking processes can turn revolutionary when a large number of people feel blocked in their pursuit of valued goals" (Snyder & Feldman, 2000, p. 4009).

As the foregoing discussion suggests, there is a complex connection between hope and understanding, such that assumptions, knowledge, and new information may give rise to fluctuations in the levels of perceived hope. Those fluctuations may affect the propensity to actively engage in realizing hopes.

Individual or Collective Hope and the Impact on (Shared) Motivation

The challenges of collective hope involve sharing visions and managing conflicting goals that may arise when facing issues of societal complexity. According to McGeer (2004), the ability to use one's own powers of agency in pursuing and communicating goals needs to be coupled with a solid understanding of how others may act to either enhance or inhibit their pursuits, depending on the quality of their interactions. Culture and context are also significant factors to consider, even for the role of agency (Nalkur, 2009). Nalkur argues that the self might not always be considered as the agent of hope; instead, supportive relationships and resources can be "more effective agents for hope than the self" (Nalkur, 2009, p. 687). Amnå speaks about "having confidence in one's own ability to work in collaboration" (Amnå, 2010, p. 197) as a measure of collective efficacy and a motive for engagement. Results from previous studies, when using facilitated group processes on community issues, have indicated that stakeholders' confidence in the ability to work together can emerge from developing novel insights together (Ross, 2007; Rouwette, Bleijenbergh & Vennix, 2014).

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[6] The concept "action competence," as described by Breitung and Mogensen (1999), includes the co-variants knowledge of action possibilities, confidence in one's own influence, and a wish to act. To effectively develop action competence for understanding of environmental issues, approaches that reflect on communal issues and conflicts at several levels, that is, individual, social, and structural, need to be used.

Ojala (2011) refers to trust in other actors as a constructive source of hope and as a necessary condition for collective action. "This source of hope also seems to work as a motivational force, and, thus does not imply that one places all the responsibility for solving the problem on other actors" (Ojala, 2010, p. 12).

A Multidimensional Model of Hope

A framework called *The Multidimensional Model of Hope (*Dufault & Martocchio, 1985) incorporates two spheres of hope: particularized and generalized hope (Allec, 2004; Dufault & Martocchio, 1985; O´Hara, 2014). The framework indicates that there are multiple *processes* of hope that can be active in the same person simultaneously, regarding different objects and events, and through different ways of hoping. Particularised hope emphasises a cognitive component of hope (O´Hara, 2014) as it entails the identification of goals and assessment of task complexity as well as the capacities at hand for achieving specific goals. Generalized hope expresses as a broader scope of future possibilities, without focus on specific results, and can be viewed as a state of mind or life-orientation. This model explains how that the same person can feel very hopeful about certain parts of an issue, while having less hope about other aspects of the very same issue. Further, Dufault and Martocchio apply six dimensions to hope, including affective, cognitive, affiliative, behavioral, contextual, and temporal, which together form the "gestalt of hope" (Allec, 2004, p. 9). O´Hara (2014) proposes a development of this multi-dimensional model, by introducing *transformative hope*. This sphere signifies a way of hoping that may emerge in times of crisis, and lead to new ways of understanding human existence. Transformative hope touches human capacities to move beyond linear thinking, engage paradox and contradictions; enabling a non-discursive awareness (O´Hara, 2014) and the possibility of finding contentment regardless of outcomes. This framework proposes several important distinctions and contributes to the understanding of changes in levels of hope and motivation.

Previous Research of Particular Relevance

Although there are several studies that address different aspects of hope for positive change in societal issues of concern or motivation for personal engagement in issues of social concern (Amnå, 2008, 2010; Axelrod & Lehman, 1993; Inglis, 2011; Klandermans & Oegema, 1987; Ojala, 2007, 2011; Persson, et al, 2011; Ross, 2006b, 2007; Sundblad, 2008), the more specific aim of this study has not been researched in any depth. The aim was to investigate the effects that a more complex understanding may have on individuals' sense of hope for possible change, and their own motivation to address social issues of societal concern. I have found only one study that analyses the effects on hope and motivation of a structured discourse designed to increase complex attention to issues of concern.

In her doctoral dissertation, Ross (2006b, 2007) investigated the effects of using TIP from the beginning step through to deliberation—a total of six modules—in which eight participants from the general public partook. As a result of this finding, a portion of the post-interview was used for rating changes in the participants' hope and motivation about the issue they worked with during their meetings. Results showed notable positive increases in participants' hope and motivation. The most dominant reason given for increased hope and motivation was the "discovery of [a] new system or method to address issues" (Ross, 2007, p. 129); additional reasons included the positive qualities of the people in the group and working together to address the issue. All of the participants reported that the process had provided them with new insights, and half the group reported that they had embarked on new kinds of actions due to new ways of seeing the whole issue (Ross, 2006).

In a case study, Inglis used the deliberative part of TIP during one meeting of nine community members, to investigate the motivation "to engage in public discourse at a level complex enough to make real contributions to the solution for public problems" (Inglis, 2011, p. 13). With support for reflection on the issues of concern, the participants increased the capacity for listening to one another and generating new ideas collectively. Participants reported that the scaffolding that allowed them to consider multiple perspectives acted as a motivator to use an integral process, such as TIP, for future decision-making.

These two studies are the only instances found where researchers have empirically studied how participation in a structured problem analysis process has affected participants' sense of hope and motivation. There is obviously a need for more comprehensive research, involving more cases under different conditions, as well as more participants.

Research on individual motivation within the context of civic engagement and different forms of political participations (Amnå, 2008), showed results that are of particular relevance for this study. Through focus groups with representatives from political parties and citizens that seemed to be politically passive and unengaged, as well as interviews with individuals from non-governmental organizations and activists, Amnå (2008, 2010) found six dynamic and co-existent motives that contribute to some form of engagement, each one increasing the level of motivation to actively engage. These were

1. a sense of obligation,
2. a strong sense of issue-importance or even urgency,
3. a personal sense of ability (including the ability to work collectively with others),
4. having the experience of being needed—"in demand,"
5. being able to perceive pathways for action that addresses the problem, and
6. experiencing meaningfulness (from connecting with other people and developing new social contacts).

Amnå found that people who were more passive or uninvolved did not see the forms of action they could take as having any significant effect. An important emphasis in Amnå´s research is the concept of the standby-citizen, indicating a nuanced view on citizens' potential engagement, and the need for taking a variety of factors into account in order to understand the dynamics that are involved in creating conditions for engagement. The findings conclude that there are several reasons for citizens to engage more actively or remain passive, and that no factor alone can explain everything.

The literature review focused on studies that investigated the role of hope and motivation in individual, social, and civic engagement. The interplay of hope and motivation was shown, concluding that the role of hope may lead to motivation for individual or collective action, as well as inhibit action and results in more passive approaches. Hope and motivation do not necessarily follow a parallel path, and may have different functions and consequences in relation to people's propensity to engage in action. The motivation to engage can be high, even if hope for significant results is limited, and people may have a high level of hope that a problem can be solved, even when they are not motivated to personally engage in working on the issue. Changes in hope and motivation occur dynamically—as a result of several co-concurring processes—and there are multiple reasons for choosing engagement and for experiencing hope.

Methodology

The mixed method study investigated any effects of small group work on concerned people's sense of hope and motivation (willingness to act) after participating in some parts of a structured scaffolding process for working on issues of concern. The focus of the study, then, was not on the groups' issue-related activities during the sessions, but on the individual participants' pre- and post-interviews, in which they used Likert scale ratings and free-form explanations to self-report each individual´s level of hope that the issue of concern with could change in a favorable way, and motivation to actively engage in actions relating to the issue their respective groups worked on.

Participants

Four groups participated in the study, which was conducted in Sweden. For each group, I contacted a key person, who in turn recruited the group participants. The aim was to work with voluntary groups formed by concerned citizens who wanted to address specific issues that were important to them, within non-governmental organizations or self-organized groups. Later, a group from the public sector was added, which contributed to test the scaffolding method in three different kinds of organizational structures and group formats .[7]

There were a total of 27 participants. Each group self-selected a beginning topic of concern, which then became the starting point for the group´s issue exploration, in which TIP was offered as scaffolding. An overview of the groups' contexts, general issues of concern, and participant demographics are presented in Table 1.

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[7] In Jordan et al, (2013) elaborations on working with different kinds of groups are made, but in this study, the focus is not comparing different outcomes at group-level.

Table 1. Study Groups and Participant Demographics

Group ID #	Context of group	General concern	No. of partici-pants	Age range	Gender	
					Female	Male
1	Public services	Communication between actors in critical life-death situations	7	35–46	3	4
2	Transition Sweden start-up group	Implementing an alternative currency	9	25–78	3	6
3	Swedish Union of Tenants	Community deterioration	6	38–66	4	2
4	Swedish Union of Tenants	Neighborhood activities	5	28–34	5	1

A Brief Description of the Issues that Engaged the Different Groups Public Services

This group's membership consisted of personnel from the ambulance service, SOS Alarm[8], and the police. The participants joined the group voluntarily, although it took place during their working hours.[9] The objective was to find sustainable action strategies to handle the critical and complex issue of incidents where an assembly point[10] is deemed necessary to reduce risks of violence for ambulance staff, while still needing to rapidly attend to citizens who are unwell.

Transition Sweden group: This group of people formed out of their common interest in investigating the idea of implementing a small-scale alternative currency in central Gothenburg and was motivated by a perceived need to gradually transition from the current economical system. Once the participants started engaging in the group process, topics on access to locally produced food and car free zones in the city took precedence, and the group reoriented its purpose.

Tenant groups 3 & 4: The two groups consisted of engaged tenants who were associated with the Swedish Union of Tenants and who voluntarily gathered to arrange activities in the neighborhood. A central issue for both these groups was the exodus of families that had lived in the areas for a long time, along with an ever-growing rate of first-generation immigrants moving in, creating instability and unwanted change. One of the groups was primarily concerned with creating more engagement in the local community, in particular regarding children´s activities and activities for elderly people. The history of negative interaction with local landlords and the Swedish Union of Tenants was also considered a major concern.

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[8] SOS Alarm is the name for the Swedish emergency service centres.

[9] The participants volunteered to participate, but acted as representatives of their respective organizations.

[10] An "assembly point" is a temporary stopping point set up for the ambulance, if there is a scene that poses a risk for the staff's safety. They wait at this point until the police have secured the scene.

The other group wanted to work with decreasing littering and general deterioration in the area, in order to maintain an attractive community.

Procedures

Data Collection

The data were gathered through mixed-method interviews conducted with the individual group participants before and after their respective group's intervention period. The intervention period was comprised of five (but for one group, six) meetings that involved groups' participation in selected modules of TIP. Thus, pre- and post-interviews were, on average, separated by 6–12 weeks, depending on the group. The groups carried on with activities after the last interview (see Appendix, steps 8 and 9), but these are not included in the data for this study.

Data collection from these four groups, with a total of 27 participants, resulted in 54 total pre- and post-interviews, which were audio-recorded. Informed consent procedures were used according to Swedish standards for all interviews, as well as audio recordings during the group process.

Likert Scale Ratings and Interviews

The data collection involved 5 questions: a Likert style rating system (1) on motivation and (2) on hope. After asking the participants to rate their hope and motivation, respectively, I asked the follow-up question (3), *why do you rate it that way*, to elicit their free-form explanations of their motivation and hope rankings. Additionally, (4) they were asked why they participated, and (5) what they had got from participation. The scale was defined as follows:

1 = not hopeful/motivated at all
2 = between not and slightly hopeful/motivated
3 = slightly hopeful/motivated
4 = between slightly and moderately hopeful/motivated
5 = moderately hopeful/motivated
6 = between moderately and very hopeful/motivated
7 = very hopeful/motivated

Lastly, in the post-interviews, participants were asked to speak about what they had initially wished to get from participating and then asked to speak about what they actually got out of participating. Thus, the interviews generated both quantitative ratings and qualitative explanations.

Data Analysis Procedures

The data from the transcripts of the pre- and post-interviews were coded iteratively, in a qualitative coding manner (Huberman & Miles, 1994). In this way, the different types of factors mentioned by the participants as relevant for explaining their hope and motivation, as well as for explaining any changes after the group processes, were assigned to categories. Multiple iterations of this step-by-step clustering process were executed, which resulted in a final set of categories for analysis. The choice of an inductive approach was made in order to elicit the significant factors that the participants themselves gave as explanations for their sense of hope and personal motivation, rather than measuring a set of proposed categories.

In analyzing the interview data, I was specifically looking for shifts in hope and motivation, and for reasons the participants gave for being hopeful and motivated, as well as reasons they gave for not feeling so hopeful and motivated. Additionally, I looked for pointers indicating whether the sense of hope and motivation was oriented toward specific parts of the issue complex they had analyzed over the sessions.

The pre/post rating scale was used as a concrete measure of changes – increases and decreases—in hope and motivation before and after participation. The Likert-scale is ordered into the total group-level, as seen in figure 2.

Results

This section presents the empirical results of the study. First, the categories found through the content analysis of explanations for levels of hope and motivation mentioned in the interviews are presented and explained. Second, the quantitative data on levels and changes in hope and motivation are shown and salient patterns pointed out. And last, these two phases are integrated and expanded upon in the data analysis.

Explanatory Categories

The analysis of the interviews before starting and after completing the entire group process yielded several different types of reasons for levels and changes in hope and motivation. Some factors acted mainly as sources of hope and motivation, respectively, while others *also* acted as barriers. The following categories were identified in the interview data:

- *Issue importance*—the issue itself was considered important or urgent; thus, it needed to be addressed.
- *Pathway perception*—the respondent perceived meaningful ways to address the issue and take action and felt hopeful because of this, and/or felt motivated to use perceived pathways to work on the issue.
- *Personal resources*—respondents referred to an innate sense of optimism, confidence, strong willpower, talent, time to get involved, keen interest, or valuable knowledge.
- *Collective efficacy*—respondents sensed the possibility of working together toward a shared goal.

- *Other stakeholders*—participants expressed a sense of the engagement or support from actors outside the group, including those with perceived mandates connected with the issue.
- *Process approach*—participants felt motivated by the approach to working on the issue.
- *Goals/future*—participants shared their belief that their vision of the future after changes had occurred was a *source* of motivation.

Two additional categories emerged as perceived barriers to hope and motivation:

- *Structures/systems*—respondents talked about inherent limits in significant organizations or societal structures that would make the issue difficult to solve.
- *Issue complexity*—participants gained the insight that a resolution of the issue might involve more resources than first anticipated.

The categories found in the content analysis of the interviews were compared with categories mentioned in earlier research. Four of the six categories found in this study correlate loosely to Amnå's (2008, 2010) motives; with the exception of "sense of obligation" and "experience of being needed", which were not reasons found for hope and motivation in the data. The naming of three of the categories, namely pathway perception, issue importance, and collective efficacy, were directly inspired by earlier studies (Snyder, 2000; Amnå, 2008, 2010). As seen in earlier research, working collectively on an issue of common concern proved to be a source of both hope and motivation, and perceived support from other stakeholders appeared as both a motivator and a source of hope. The categories process approach, goals/future, structure/systems, and issue complexity did not correlate with earlier research, but emerged from the data.

Levels and Changes of Different Categories of Explanations

Table 2 shows frequencies and before/after changes of participants' uses of the different explanatory categories.[11] These are divided into reasons for hope and motivation, and barriers to hope and motivation.

Table 2. Summary of categories that explained participants' hope and motivation

Categories	**Reasons for hope**				**Reasons for motivation**			
	Before	After	Change		Before	After	Change	
			Qty	%			Qty	%
Issue importance	3	4	1	33%	15	8	-7	-47%
Pathway perception	10	17	7	70%	7	11	4	57%
Personal resources	7	0	-7	-100%	9	6	-3	-33%
Collective efficacy	12	11	-1	-8%	3	10	7	233%
Other stakeholders	6	13	7	117%	2	3	1	50%
Process approach	0	1	1	100%	2	5	3	150%
Goals/future	-	-	-	-	3	4	1	33%
Total reasons cited and net change	**38**	**46**	**8**	**-21%**	**41**	**47**	**6**	**15%**

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[11] The numbers shown under before/after refer to how many participants mentioned each category during each of their interview. If the same participant (in the same interview) mentioned the same category more than once it is not accounted for in the result.

Barriers due to presence or lack of	**Barriers to hope**				**Barriers to motivation**			
	Before	After	Change		Before	After	Change	
			Qty	%			Qty	%
Pathway perception	10	0	-10	-100%	3	2	-1	-33%
Personal resources	4	0	-4	-100%	4	6	2	50%
Other stakeholders	10	12	2	20%	6	5	-1	-17%
Structures/systems	4	1	-3	-75%	-	-	-	-
Issue complexity	0	7	7	100%	2	3	1	50%
Issue importance	-	-	-	-	0	3	3	100%
Total barriers cited and net change	**28**	**20**	**-8**	**-29%**	**15**	**19**	**4**	**27%**

Prominent Patterns in Explanatory Categories

The patterns reported in Table 2 indicate that pathway perception was the category most *frequently* given by participants, and the one that was the most prominent explanation for hope as well as motivation *after* participation. The same category was also given as a significant explanation for barriers to hope and motivation before, and had the largest decrease after, participation. Thus, the importance of pathway perception turns up in the data in two ways. First, pathway perception is the most frequently mentioned reason for feeling hope and for being motivated. Second, lack of pathway perception is a frequently mentioned barrier to hope in the pre-interviews, while it is completely absent in comments on barriers to hope in the post-interviews.

Issue importance was the single most frequently given explanation for motivation before participation, while slightly less frequently mentioned after.

Collective efficacy was an important factor for hope before and after participation, and it considerably increased as an explanation for motivation after participation. Before participation, personal resources, such as willpower, interest, or time to get involved, was frequently mentioned as a source of hope, whereas after participation this category was not used to explain levels of hope.

Perceiving support from other stakeholders increased as a reason for hope significantly, and slightly also for motivation after participation. When unpacking the issues' complexity, participants also became increasingly aware that a solution would involve many resources and take time. This was also perceived as barrier to stakeholder involvement: *"I think it* [the complexity] *may discourage some actors*" (post-interview, participant in group 3).

Perceiving a lack of stakeholder support was explained as a barrier both to hope and to motivation and this category increased marginally as a barrier for hope, while decreasing somewhat as reason for motivation, after participation.

Finally, the awareness of issue complexity was mentioned as a barrier to hope after participation, but issue complexity was not mentioned as affecting motivation as strongly.

Participants' Ratings Before and After Participation

Figures 2 and 3 show the changes in individuals' ratings of hope and motivation, averaged by their respective groups, before and after completing their series of meetings. The total ratings for all groups combined show a small, overall increase in both hope and motivation after participation. As indicated earlier, the rating scale ranged from 1 for "not at all" to 7 for "very."

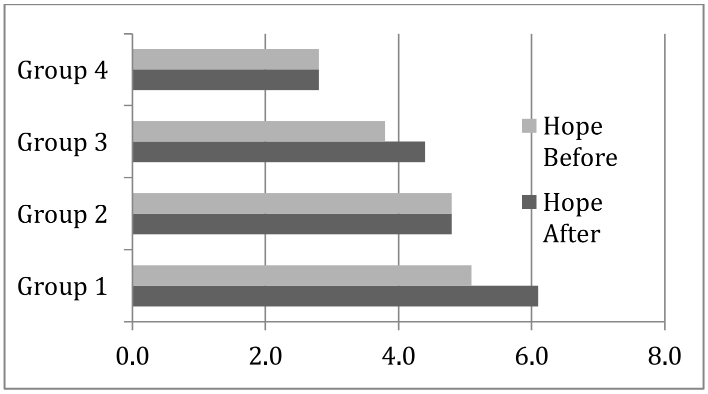

Figure 2. Changes in hope.

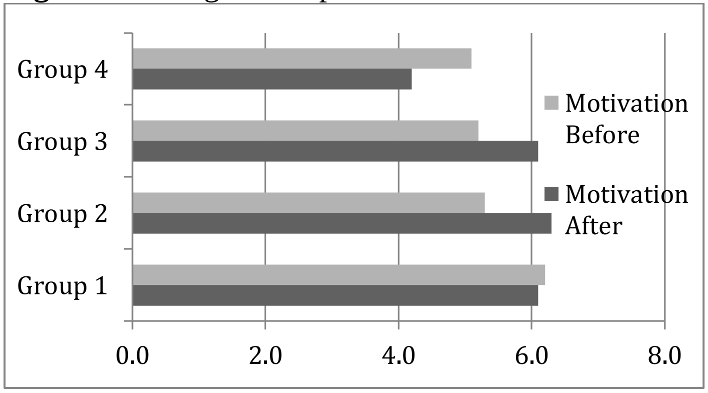

Figure 3. Changes in motivation.

The rates for hope and motivation were altogether higher in groups 1 and 2 than in the tenants' groups 3 and 4. On average, the measures of both hope and motivation were present at the start; only two participants rated "not hopeful" prior to commencing the sessions. The sense of hope that it would be possible to change the issue of concern varied after participation, but only three participants rated it as low as 2 (vaguely hopeful) or 1 (not hopeful). In all groups the rates for motivation were somewhat higher than the rates for hope, both prior to and after the sessions.

For group 1 (public service), there was a significant increase in hope after participation. Group members reported feeling certain that changes would happen, and spoke about pathways for action that they had previously not conceived of, including the implementation of new systems. For example, the group created an action plan for tackling different aspects of the same issue, by creating a guideline that consisted of a step-by-step routine for identifying, evaluating and handling threats. The motivation, which was strong from the outset, remained the same or increased marginally for five out of the seven participants. The group total motivation rate decreased slightly, however, due to two participants' decrease in motivation—one for reasons to do with lack of personal resources, and the other due to experiencing less issue importance.

For group 2 (Transition Sweden start-up group), levels of hope remained the same before and after participation, while motivation increased for the group total rate. A variety of explanations were given for the increase; most prominent were the sense of collective efficacy, pathway perception, and process approach.

In group 3 (tenants), both hope and motivation increased after participation. This group managed to communicate their list of potential actions to change the issue with other stakeholders in subsequent joint meetings; hence, this was the most frequently given explanation for hope after participation. The participants explained that they saw concrete pathways and sensed they could work together to reach common, important goals.

In group 4 (tenants), the rate of hope remained the same after participation, while motivation decreased. Significant for this group was that the experience of lack of support from other important stakeholders that could affect the issues of concern was a strong barrier for both hope and motivation. The group as a whole did not sense that they could affect the overarching concerns for their neighborhood, and their personal resources were waning. For two of the group members in this small group, this also meant that over time they were less concerned about the issue, and instead, redirected their motivations to leaving the area and going to live elsewhere.

Analysis

How Task Complexity Awareness affected Hope and Motivation

An important aim of the group processes was to scaffold increased task complexity awareness. The developing understanding of causation relating to the issues of concern resulted in several types of changes in hope as well as motivation. The participants' changes in understanding of the issues are therefore central when gauging concurrent changes in hope and motivation. There were instances in the data of a reduction of "false hope" (Harwood, 2005), which must be taken into account when interpreting the overall changes in levels of hope and motivation. A reduction in hope is not necessarily a negative result in terms of public engagement, if it means that hope becomes more realistic. This was expressed in a post-interview by a participant in group 2: *"In some ways I have become less hopeful, even if I am still somewhat naïve, perhaps. I think I have gotten less naïve. . . . So I think it will take a longer time and demand more, somehow. It will not resolve itself, like."* In this example, understanding the complexities of the issue leads to a reduction in hope. This was not coupled with lesser motivation, but rather a reorientation of goals, and the focusing of present possibilities.

The complex interrelationship between hope, shifts in cognitive construction of the issue, and motivation is illustrated in the following example, where a participant in group 1 reported an increase in hope, but a decrease in his own motivation to work on solving the issue: *"I am somewhat less motivated now, because I experience that the problem is not as big as some people claimed initially, and in many situations things actually sort themselves out. The mapping of this issue has somehow shown this."*

The group sessions involved analyzing the larger complex of issues in relationship to sub-issues. This resulted in direction for the groups as well as individual participants for strategically working on one or several sub-issues. The development of sub-goals was expressed as an important motivator and as a source of hope. *"I am hopeful about treading the path, but the issue is immense. It will take time"* (post-interview, participant in group 2). In group 1, participants developed communication strategies in the public sector and a whole action system was launched, yet issues of systemic character became apparent during the group process, which were expressed as barriers to hopefulness for successfully working on the whole action system. *"I do not think we will solve the whole issue, but this part of the problem I think we will solve/improve on. I am hopeful about a part, but not the entirety"* (post-interview, participant in group 1). In the tenant group 4, participants reported a sense of lack in support and engagement from other stakeholders, but in one particular issue that had arisen they perceived pathways of action, which involved asking for support from key actors. Three out of five participants reported this as a source of hope for parts of the issue complex, while all of these participants reported less hope for the overall issue concern. These examples show how hope is expressed in the particularized sphere (Dufault & Martocchio, 1985; O´Hara, 2014), as it focuses on specific goals and involves the assessment of task complexity.

The study indicates that the scaffolding approach, which served to increase the awareness of task complexity, may have the effect of reducing hope and motivation, which can be explained by initial unrealistic hope. It may also lead to discovery of new pathways, which increases hope and motivation. The analysis of the data, supported by the study by Ross (2006) and Inglis (2011), indicate an indirect process of scaffolding hope and motivation, where the group sessions helped group members to navigate within the complexity of the issue, and to find some central strategies, rather than becoming overwhelmed by the immensity of the task. Reports from participants showed that when the participants formulated concrete actions that made sense to them, then "particularized hope" emerged, as well as continued engagement. Thus, it was possible to increase levels of hope about a delimited part of the issue complex, even while in some cases having less hope about the issue complex as a whole.

Three Categories that Explained Engagement

Levels of hope and motivation were explained by three categories related to *engagement*; ones' own capacity for engagement (personal resources), the groups' capacity for joint engagement (collective efficacy), and other stakeholders' willingness to engage. Seeing new possibilities to work together "with wise people," or identifying the potential engagement from other stakeholders, or feeling the internal strength and mandate to work toward the solution were all highly significant when explaining hope and motivation (as seen in Table 1). Equally, barriers to hope were explained as the lack of involvement from other stakeholders; lack of energy or stamina within oneself; or lack of power, mandate, or wisdom even, when working together. Depending on the context for the group, there were different concerns regarding stakeholders' involvement. In the case of the public service group (1), relevant stakeholders were already supporting the project, and in the Transition Sweden group (2), the group's approach did not depend on support from other stakeholders, although it still mattered to their endeavor. In the tenant groups (3 and 4), some of the participants felt disheartened about getting help from landlords, property owners, or the municipality. The interviews revealed individual patterns in how engagement affected levels of hope and motivation, independent of contextual differences. These differences are interesting, and clearly show that multiple factors are needed to explain these levels.

For some participants, their own engagement was used to explain their high level of hope and motivation, as in the following example: *"I have always lost. But that is not an issue, here, because there is no other way, anyway. What does it mean to be a realist? For me, it means to comprehend the possibilities of doing something differently"* (pre-interview, participant in group 2, with hope rate 7). This example connects to the concept of transformative hope (O´Hara, 2014), signifying the ability to feel hopeful about change and being motivated to engage even when faced with crises and continuous loss.

A combination of explanations was often used, sometimes clarifying why motivation was higher than hope in a participant: *"Engagement, that is not the problem whatsoever… I am not the only person that has been engaged in this. I think many people from here would engage if there were chances to change things. Many would engage to such end. There are several people who are tired of what we have here today"* (pre-interview, participant in group 3). This participant post-rated 1 on hope, but 7 on motivation, which showed that her own engagement was not significantly affected by her lack of hope, but she did not deem it possible to make much impact unless the system changed, involving decisions other stakeholders needed to make. Two participants from group 4 (tenants) stated that they had given up hoping that other stakeholders would contribute to improving conditions. From the viewpoint of these participants, the neighborhood was continuously deteriorating, and they were now thinking about moving. *"I am 100 percent motivated as long as I live here. All the time I do things; not just me. But one needs to hear some feedback. Otherwise, one does not have the strength to carry on. In the end, one gives up"* (post-interview, participant in group 4).

Another example relating to engagement shows how both hope and motivation vanished with lack of other stakeholder engagement: *"Right now I feel I have to let go of it. If nobody else cares, then I cannot sit here and shout about it"* (post-interview, participant in group 2). In three cases, participants (from groups 1, 2, and 4) contributed some of their hopefulness to a certainty that the issue would get worse (and hence more urgent to solve) and over time increase other stakeholders' motivation.

The examples above touch on the multidimensional relationships of hope and motivation and indicate that it may be hard to predict when hope and motivation will support public engagement. It is evident that factors that explain hope and motivation varied individually as well as contextually, but that stakeholder engagement positively affected hope, and group involvement was an essential factor for hope and motivation. This is in accordance with Ojala (2010), whose study showed that trust in other actors was both a constructive source of hope as well as a motivational force. When stakeholder engagement was perceived (or anticipated), this affected levels of hope and motivation positively, but several participants reported that they still were willing to engage, even beyond hoping for improvements. To explain this, Miceli and Castelfranchi's (2010) notion of "active hope" may be used, favoring action even in the face of a negative forecast and with low odds of success.

In the post-interviews, personal resources were mentioned neither as a source of hope nor as a barrier to hope. The category increased slightly as a barrier to motivation after participation. My interpretation as to why it was not mentioned as a source of hope after participation is that the participants were further along in the group process and had developed a reliance on the collective engagement, rather than emphasizing their individual resources. Reports from the interviews showed an increased confidence in developing action plans together with others: *"I noticed that it is possible to work in a group"* (post-interview, participant in group 2). The notion of collective hope is an important factor to consider, as seen in earlier research (Amnå, 2008; Nalkur, 2009; Ojala, 2011) and can be strengthened by a constructive group process (Ross, 2006). Through interactions with others, individual powers of agency can also be strengthen by gaining an increased stakeholder understanding (McGeer, 2004).

There were no indications of "passive hope" in my study, perhaps because all participants joined voluntarily, and joining the group meetings was already a mark of an active stance. But passivity did set in concerning parts of an issue that the participants had given up both hope of changing and motivation to work on, while they were still open to engaging where it made sense and seemed possible. In the cases when participants carried hope that others would make changes that were beyond the groups' resources or mandate, they were still motivated to engage personally, using the pathways that seemed available. The line between active and passive hope here appears to be strongly linked with pathway perception and estimated possibilities to affect the issue of concern (as with "authentic hope"), as well as the time and energy needed to do so. Consequently, the same person might be partially passive and lacking in hope and actively engaged and hopeful.

In this section I have attempted to show how levels of hope and motivation were affected by engagement in the issue of concern. For a fuller picture, a deeper investigation of how the relationship between individual, group, and other stakeholder engagement affects hope and motivation would be necessary.

Conclusions

Hope and Motivation as Dynamic Processes

Hope is sensitive to a variety of conditions, such as time, information, personal resources, social context, and perceived support. People's hope and motivation can be significantly strengthened when experiencing direct, personal ways of working productively in a group of participants that share an interest in solving common concerns (sense of collective efficacy). This sense of collective efficacy, together with support from other stakeholders, may be a central motivator for continuing with deliberation.

From a standpoint of working with TIP, the process offers ongoing, dynamic change, and when new information about the issue complexity begins to sink in, some frustration and lack of hope may surface, along with uncertainty about how to progress. It is my experience that later in the process—after a group has chosen a focus—hope tends to increase, especially when action strategies are considered that match the scope of the group and the complexity of the chosen issue. This study confirmed that the discovery of new potential pathways to manage the issue, through a more comprehensive understanding of the complexity involved, is a key factor for levels of hope and motivation, and hence, propensity to engage actively in efforts to address the issue.

As hope and motivation are continuously subject to dynamic change, the object of hope may shift over time, subjected to new conditions, such as access to new information and changes in social contexts. Moving away from “false (or naïve) hope” may at one point appear as lack of hope from a static viewpoint, but viewed dynamically, it may be the start of a renewed, different way of hoping. When facilitating groups, this may be important to keep in mind. If at one point, group participants experience lower levels of hope that desired outcomes are possible, it may be a phase of reduction of “false hope.” If the continued work leads to the discovery that at least parts of the issue complex may be successfully addressed, or that new, previously not thought of, pathways to solutions are discovered, new hope and motivation may arise.

To distinguish between generalized, particularized and transformative hope, may be important for understanding the dynamics of hope and motivation when dealing with issues of societal complexity. Before discovering the degree of complexity of an issue complex, hopes may be strong, because one does not yet have sufficient insight into the difficulties involved. But while increased awareness of complexity may lead to decreased hope regarding the possibilities of resolving the entire issue complex, a more differentiated understanding may lead to strongly increased hope that certain parts of the issue complex can be addressed successfully, even though other (perhaps major and important) parts will be more difficult to manage.

A tentative conclusion, gained from the study, is that reduced motivation is not necessarily a negative outcome of a group process, when working on complex issues. Participants may discover that the issue was not as urgent or important as initially thought. They might therefore have good reasons to engage less in that particular issue and instead prioritize other tasks in which it now seems relatively more important to engage.

A limitation of this study was that it is low in number of participants, which limits inferences from the findings. The significance of this research is first and foremost in drawing attention to the consideration that increased task complexity awareness – effected by a scaffolded issue analysis – may affect hope and motivation in complex ways. When working with groups, a dynamic and non-linear understanding of hope and motivation may enable a process facilitator to trace these kinds of changes.

Implications for Research and Practice

It is a challenge to scientifically investigate hope, to succeed in shaking off its epithet as a vague emotion (Ojala, 2011), while not creating a large gap between how researchers construct hope and what people really talk about when they talk about being hopeful (Bruininks & Malle, 2006).

In this study, some important findings were made, contributing to the understanding of the role of hope and motivation when groups work with complex issues of public concern. The main outcomes of the study were the following:

- an empirically based set of factors relevant for explaining patterns of change in hope and motivation when people participate in multi-phased processes designed to increase their ability to recognize, handle and potentially forsee task complexity
- empirical results regarding the dynamics between the factors and their level of importance for explaining hope and motivation.

While the constructs of hope and motivation have overlaps, the results showed that it might be highly meaningful to differentiate their meaning and explore how different aspects of hope relate to motivation to engage in action. Concrete examples of such relationships are offered through the distinctions made by the participants in the group processes. The study was limited in scope and more research would be needed to firmly grasp these dynamics.

How hope and motivation affect individuals, groups, and organizations when addressing complex public issues needs several research approaches to achieve a fuller picture of the roles that hope and motivation play. As mentioned earlier in this study, a deeper investigation of how the relationship between individual, group, and other stakeholder engagement affects hope and motivation is needed to understand these relational dynamics. Another perspective on this topic could prove valuable, namely, how various facilitators understand the dynamics of hope and motivation throughout group processes involving complex societal issues.

A natural progression from this study would be to investigate how increased hope and motivation affect deliberative decision-making on key issues, once groups have spent a significant time grappling with the issue complexity, using a scaffolding approach (such as TIP). This may entail community-wide questions, or policy questions within an institution. It would also be of value to study the dynamics between task complexity awareness and hope and motivation over longer time spans, while concurrently tracking how groups that grapple with issues of public concern over time transform their ways of dealing with these issues.

The main contribution was the uncovering of some of the complex dynamics between task complexity awareness, hope and motivation. This study indicated that increased task complexity awareness affect different aspects of hope and motivation in several ways. To understand these findings in more depth, further studies are required in order to gain more understanding about individuals' meaning-making processes. Such understanding can help inform facilitators who wish to actively mobilize the kind of constructive hope that can lead to purposeful and well-directed engagement.

Appendix 1. Modules of TIP used in each group

TIP modules that the groups carried out	Group 1	Group 2	Group 3	Group 4
Step 1: Create a map of the territory Identify all topics of concern and how they interconnect and impact each other. Use that work to inform the choice of one topic to start with.	✓	✓	✓	✓
Step 2: Align toward the goal Deliberate about how to use and coordinate people's different tones and intentions toward the work's focus.				
Step 3: Develop a portrait of the issue Identify the impacts and causes. Decide initial issue(s) to work on. Get a clear picture of the array of conditions that comprise the selected issue.	✓	✓	✓	
Step 4: Invent an action system Identify the array of changes to reactively and proactively impact the issue. Decide which can be done by an array of appropriate actors (e.g., individuals, groups, organizations, governments). Identify which ones represent discrete sub-issues.	✓	✓	✓	✓
Step 5: Use the action system and select a focus Review the list of potential actions and discuss what impacts the chosen scope of actions could have on the issue. Make decisions about appropriate directions forward individually, as well as for the group. Develop a statement of the goal for the group that communicates the chosen scope. *For a deliberative scope*: Articulate a precise issue question, or 'name,' for the sub-issue or complex decision that needs to be worked on and deliberated.	✓	✓	✓	✓
Step 6: Develop the approaches to the issue question Expose the array of approaches to the issue question that are driven by different perspectives on it.				
Step 7: Deliberative decision-making and meta-approaches Deliberate the pros and cons *within* each possible approach, and the pros and cons *across* all approaches. Make decisions about which elements of each approach are needed for a thorough, integral approach.				
Ongoing Step 8: Coordinate systemic action Divide into task groups, arrange oversight, develop and coordinate ongoing feedback and evaluation loops, etc.	✓	✓	✓	✓
Ongoing Step 9: Intentional systemic action, evaluation, and learning Engage in individual and institutional action, reflection, deliberation, evaluation, communication systems, adjustments, etc.	✓	✓	✓	

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Developing an Inclusive Perspective for a Diverse College: Inclusion = Diversity + Engagement

Cheryl Whitelaw[1]

Abstract: This article describes a project at the NorQuest College Center for Intercultural Education to develop an inclusion model for a post-secondary, two-year college. *Inclusion = Diversity + Engagement* is a model for action based on the integration of integral theory, particularly the all quadrants component of the *AQAL* model by Ken Wilber and the *Developmental Model of Intercultural Sensitivity* by Dr. Milton Bennett. The author views inclusion as a perspectival phenomenon, socially constructed; a culture of inclusion is, in part, founded on perspective seeking behaviors. Within the model, the focus for translative and transformative change is guided by the Intercultural Competence Stretch Goals document, a map created by the author and her project collaborators to identify selected attitudes, knowledge and skills to support more inclusive communication behaviors. The model is informed by concepts arising out of discourse on inclusion and intercultural competence, specifically on a capacity for perspective taking within a Canadian socio-cultural surround. Within the context of a college with identifiable diversity in terms of country of origin, languages spoken, race, ethnocultural origin including First Nations, Metis and Inuit peoples and the level of ability requiring supports (for physical and/or learning challenges), this article describes an organizational change project sparked by an applied research study to create the *Inclusion = Diversity + Engagement* model and the organizational change initiatives that flowed out of the model. The applied research question asked: “In what ways might Student Services enhance intercultural communication skills during face-to-face interactions with students.” We found a need to focus on the enhancement of intercultural communication skills based on a primarily ethnocentric, minimization worldview for student services staff. Specific skills included developing a deeper understanding of staff’s own worldview with a focus on identifying preferred communication styles and practicing less familiar, less comfortable styles. We also found a need to practice perspective taking to increase staff capability to check for inclusion in service interactions. Results were used to design inclusion training; the project evolved to develop an integrally informed inclusion map. These organizational change initiatives are continuing through an ongoing

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inclusion focus at NorQuest College in Edmonton, Alberta, Canada. Although written from a single author perspective, I want to acknowledge the project team members and the community of participants that engaged in this project from project proposal to ongoing inclusion initiatives.[2]

Keywords: AQAL, culture, education, horizontal learning, inclusion, intercultural, perspective, transformational learning.

Introduction Developing an Inclusive Perspective for a Diverse College: Inclusion = Diversity + Engagement

This article describes a change initiative to foundationally anchor inclusion as a lived organizational value in a 2-year community college. The engine for organizational change was tuned through an initial applied research study, an initial inclusion training intervention and the development of a model for action; this model has become a guiding map for inclusion based on an integration of the AQAL model from integral theory (Wilber, 2000a) and a developmental model of intercultural competence (Bennett, 1986). The article describes the context for the project overall including the conceptual landscape the Inclusion = Diversity + Engagement model rests upon, the applied research study, and the situation-specific interventions and results at NorQuest College to embed inclusion as a core value for the organization. The applied research project used a mixed-methods research design focused on a specific section of the College; the Student Services teams. This focus was selected by taking the perspective of NorQuest students; their first experience of the College and their experience of inclusion (or exclusion) occur through interactions with Student Services staff. The question posed for the study was, “It what ways might Student Services enhance intercultural communication skills during face-to-face interactions with students?” Results from the research informed a specific approach to inclusion training for student services staff and were shared with Student Services leadership. After initial piloting and evaluation of this inclusion training, a more encompassing Inclusion model was developed and has since been applied across the organization.

Inclusion has been an abiding question in a two-year community college with a 50 year history of serving a diverse student population. As a learner-centered College with visible services and facilities to accommodate and adapt to the diverse needs of the learners who attend, this is an institutional performance benchmark with heart. What is inclusion? What does it look like? How do we understand and learn from the perspectives of inclusion and exclusion? How do we know how we are doing? Do our systems and environments support or deter inclusion? This project tapped a deep-seated desire to engage and empower the diverse adult learners at the college. That essential value was catalyzed into an ongoing inclusion initiative. The initiative and the organization are still evolving. Inclusion is a lived value at NorQuest College.

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[2] For the model development, I want to thank Kerry Louw, Center for Intercultural Education, NorQuest College and Meg Salter from MegaSpace Consulting for their willingness in the Inclusive Student Engagement project to grind through the work of combining two theoretical models to reach the simplicity of integration that comes on the other side of that complexity. For a complete listing of collaborators and participants, see the Acknowledgements page in the Inclusive Student Engagement Final Report at http://www.norquest.ca/NorquestCollege/media/pdf/centres/intercultural/ISE/ISEFinalReport_Nov2012.pdf.

Definition of Terms

Several terms are used in the article. Although discussed in greater detail throughout the paper, these terms for the purposes of the Inclusion = Diversity + Engagement project are defined here.

Inclusion is defined as a sense of belonging, having the ability to participate in the social, economic and political lives of one's communities and having all contributions to the community acknowledged. The focus in our Inclusion model was to set up the environment to be a fully participatory, socially constructed reality with demonstrable public characteristics and associated meaning or values. It is defined as a co-created reality, rather than a dominant group member allowing participation by marginalized group members.

Developmental Model of Intercultural Sensitivity (DMIS) by Dr. Milton Bennett describes intercultural competence as a developmental continuum of increasing capacity to perceive, accept and adapt to similarities and differences in the cultural worldviews we encounter. The intercultural continuum identifies clustered of cultural worldviews from ethnocentric (perceiving and understanding the world through one's one cultural worldview) to increasingly ethnorelative (perceiving and understanding the world through more than one cultural worldview).

Diversity is defined as any visible or invisible socially salient identity held by an individual. Categories of diversity can include race, ethnic origin, identity as a First Nations, Metis or Inuit person, people with disabilities, gender, sexual orientation, etc.

Intercultural Competence is defined as the appropriate and effective management of interaction between people, who to some degree or another, represent different or divergent affective, cognitive, and behavioral orientations to the world. These orientations will most commonly be reflected in such normative categories as nationality, race, ethnicity, tribe, religion or region…the extent to which individuals manifest aspects of, or are influenced by, their group or cultural affiliations and characteristics is what makes an interaction an intercultural process (Spitzberg & Changnon, 2009). In intercultural experiences, we typically create meaning using sets of categories based on our experiences within our own cultural worldview to organize our perception of observable facts.

Intercultural Developmental Inventory (IDI) is a validated psychometric tool designed to measure the orientations toward cultural differences described in the DMIS. The current version of the IDI is a 50 item questionnaire with 10 demographic questions (Hammer 2003).

Intercultural Knowledge and Competence Value Rubric is a rubric identifying 6 core characteristics for intercultural competence developed by the Association of American Colleges and Universities in 2006. The rubric describes the skill, knowledge and attitude at each stage in the intercultural continuum as described the DMIS (Association of American Colleges and Universities, 2006).

Perspective taking is defined as the developing capacity of a subject to become aware of and consequently take or seek the perspective of a real or hypothesized individual or group with the intent to use the information about the object dimension enacted for some instrumental purpose (Fuhs, 2013).

Quadrants: In the AQAL model, the four quadrants can be used as dimension of phenomenon or perspectives. Using the quadrants, an individual can look at the dimensions of reality (e.g. experiential, behavioral, cultural and social/systemic).

Quadrivia refers to four ways of seeing or perspectives. Quadrivia express the simple recognition that everything can be viewed from two fundamental distinctions: 1) an inside and an outside perspective and 2) from a singular and plural perspective.

An extension of these definitions of basic dimensions and perspectives of reality is the application of the quadrants/quadrivia in two specific ways. First, to look at the functionality in each quadrant (inside/outside; singular/plural) or “Looking At” (Divine, 2009). In this project we looked at the dimensions of inclusion from an organizational level of analysis. Second, to discern ways of orienting from each perspective or “Looking As” (Divine, 2009). In this project we also attempted to occupy the perspective of inclusion from a student service staff (and to a lesser extent, student) orientation. This “Look At” and “Look As” frame for perspective taking was also applied as a way to facilitate perspective seeking exercises in the Photo Voice project as part of the inclusion training. Briefly participants engaged with photos of inclusive (or exclusive) subjects (Looking At the photos) and with the photographer’s perspective of the photo (Looking As the photographer). The author acknowledges that the linkages between these definitions and uses in our project do not fully represent the theoretical intent and context of use in Wilber and Divine’s work. The application of a relatively simplified version of quadrants and quadrivia/Look At and Look As were helpful to facilitate an enlarged concept of perspective taking in the inclusion organizational change project.

Conceptual Model 1: Intercultural Competence for Inclusion

What is inclusion? Operationally at NorQuest, inclusion has been understood and acted upon as a focus to reduce barriers for adult learners to participate in education with the aspiration of supporting student success. Student success has been striven for in both institutional (program completion, learner retention) and individual terms (student satisfaction with learning experience, completion of learner goals).

Social inclusion is derived from social policy contexts in Europe in the 1970 - 80s as a counterpoint to the phenomenon of social exclusion, what was viewed as primarily an economic marginalization of members of society who do not cohere to societal norms. Social inclusion (and exclusion) implies a coherent society in which members are included or marginalized. A sense of solidarity is described first by Durkheim (1933) as a relatively mechanistic concept of society reproducing itself due to general consent to follow social rules grounded in perceived truths. Institutions in society uphold accepted truths including formal prescriptions of work and education as well as associations, religious groups, clubs and unions (Durkheim in Giddens, 1971). In Canada, more of a social integrationist perspective prevails (over a Durkheimian one espousing social stratification), a perspective valuing multiple points of identity in the construction of the social sphere (Wilson, 2006). Within this perspective of social inclusion, NorQuest is an institution that upholds societal rules and develops members to contribute to society.

As our project is grounded within a societal container, it is appropriate to explore how social inclusion is understood within the surround of a Canadian societal context. Social inclusion was recently defined in Canada as an evolving concept, in which individuals or groups of individuals are able to participate in the social and economic lives of their communities and have their contributions acknowledged (Senate Canada, 2013). Within this evolving pluralistic society, social cohesion becomes more dynamic, an ongoing process of developing a “community of shared values, shared challenges and equal opportunity within Canada, based on a sense of trust, hope and reciprocity among all Canadians” (Jenson, 2003, p. 4). However in the pursuit of shared values, tolerances become stretched for people perceived as difficult to include (Young, 1999). As a diverse college, our socializing institution is a place where conflict can and does arise, when diverse people engage closely together. A concern for social inclusion emerges out of the very real challenge of getting along within the shared educational environment.

Several concepts are used to illuminate what social inclusion actually is. Concepts for social inclusion include solidarity (the cohesion based on similarities among people and shared rituals and routines and the emotional bonds created through collective activities) (Wilson, 2006); social cohesion (a process that ensures every individual has the opportunity to meet their basic needs, access to rights and protections and to dignity and self-confidence (Council of Europe, 2001); and social capital including the in-group reciprocity of shared resources (bounding) and social networks that engage reciprocity across diverse peoples (bridging) (Putnam 2000). Social inclusion is complicated by intersectionality, the possibility that “an individual may experience multiple dimensions of difference that could reinforce his or her social exclusion and as a result intensify the challenge of facilitating her or his inclusion” (Senate Canada, 2013, p. 8). The social cohesion necessary for inclusion seems to be construed as both structural; achieved through the patterns and structures of economic mechanisms related to the relative experience of prosperity and collective choices and goals facilitated in Canada most often by government and public institutions, and personal; the values and behaviors of society members that contribute to perceived conditions of order, stability and cohesion (Jenson, 2002). Jenson argues that social cohesion is derived through how a society addresses its diversity, how it invests in processes to manage inevitable conflicts arising within a diverse society, to maintain a capacity to be open and permeable to diverse interests. She identifies that in Canada cultural policy is used as a way to “manage the relationship between diversity and social cohesion” (Jenson, 2002, p. 5). From this policy stance, maintaining a diverse and socially cohesive society is possible through well-managed socioeconomic conflicts.

Bringing this concept of social inclusion back to the ground of a postsecondary institution tasked with facilitating the development of our learners to become fully participating members of society, how can this kind of social inclusion be enacted? We sought to change the conversation of inclusion among all College community members, starting with student services staff and to a certain extent with students. Intergroup dialogues for students have been an ongoing movement in American universities. Intergroup dialogues bring learners together from two or more social identity groups to talk about important social issues in substantive ways. Participants in dialogues are facilitated to safely practice listening, to ask questions of others and to commit to understanding the perspective of others (Gurin, Nagda & Sorensen, 2011). Psychological changes in attitude and worldview are a strong focus of attention by intergroup dialogue practitioners and theorists. Empathy building (Batson, Chang, Orr, & Rowland, 2002), critical self-reflection and perspective taking (Gurin, Nagda, & Lopez, 2004) and reduction of perceived threat to interaction between dominant and marginalized groups (Comerford, 2003) are cited through several studies as inclusionary outcomes of intergroup dialogue in American contexts. In the student-oriented inclusion activities that emerged as part of the larger organizational change initiative, we used conversation circles or inclusion circles as part of the Inclusion Fusion event, open to the whole college community and engaged students to be circle hosts. Circle agreements upheld many of the factors identified by intergroup dialogue practitioners.

At the NorQuest Center for Intercultural Education, we began to explore inclusion as a "socially constructed reality" (Ford, 1999, p. 480). Ford describes first-order realities, the "physically demonstrable and public discernible characteristics, qualities, or attributes of a thing, event, or situation," and second order realities, as "created whenever we attribute, attach, or give meaning, significance, or value to a first-order reality" (Ford, 1999, pp. 481-482). The consequences of this meaning-making activity can create "concrete results of a personal and societal nature…First and second-order realities are rarely constructed solely by direct personal experience, but are inherited in the conversational backgrounds (e.g. cultures, traditions, and institutions) in which we are socialized…Socialization gives us instructions on how to see the world, and we operate as if the world really is that way" (Ford, 1999, p. 482-483). Seeking to build on demonstrable and visible components of inclusion (ie. programs and services targeting learners with specific needs), we focused on conversations as a way to nurture an existing culture of inclusion, not solely from a top-down or special interest group agenda but as a co-created one, a conversation in which everyone is welcome to contribute their voice and perspectives. This conception of inclusion was the sole one used in our project as it aligned well with our espoused approach to intercultural competence, one that focuses on the communication interaction between people.

Inclusion as an Expression of Intercultural Competence

Inclusion is the outcome we sought; cultivating intercultural competence was the skillful means we chose to achieve it. At the Centre, we seek to promote intercultural competence in Canada through applied research, training and education using a developmental model of intercultural competence. Although many definitions of intercultural competence exist, one that captures key salient points is included here, "intercultural competence is the appropriate and effective management of interaction between people, who to some degree or another, represent different or divergent affective, cognitive, and behavioral orientations to the world. These orientations will most commonly be reflected in such normative categories as nationality, race, ethnicity, tribe, religion or region…the extent to which individuals manifest aspects of, or are influenced by, their group or cultural affiliations and characteristics is what makes an interaction an intercultural process" (Spitzberg & Changnon, 2009, p. 7). The Centre's focus for intercultural competence, and for inclusion, is within the interaction space between people, on growing the mind, heart and skill sets to engage others through the lens of this competence.

The Developmental Model of Intercultural Sensitivity

The theoretical tool we used to develop intercultural competence is the Developmental Model of Intercultural Sensitivity or DMIS (Bennett, 1993). The DMIS describes intercultural competence as a developmental continuum of increasing capacity to perceive, accept and adapt to similarities and differences in the cultural worldviews we encounter. In this theory, cross-cultural experiences are constructed ones; we typically create meaning using sets of categories based on our experiences within our own cultural worldview to organize our perception of observable facts. Our categories influence our perspective, how we create our second order reality. Robert Kegan notes, “the failure to take responsibility for the invented nature of our meaning-constructions when these constructions are regulated by culture is in fact the essence of ethnocentrism” (Kegan, 1994, p. 206). We understand the world we experience through our conscious and unconscious biases, formed through our earliest development within our native cultural environment. Through developmental work, we can become conscious of how we use our culturally informed categories to make meaning; recent work on unconscious bias provides ample evidence that we are subject to our unconscious bias as well (Banaji & Greenwald, 2013).

In the DMIS theory, the developmental continuum describes stages of cognitive complexity and the behaviors arising from our cognitive capacity, ranging from a mono-cultural or ethnocentric mindset, (the capacity to explain and interact with similarities and differences from our own, familiar cultural worldview) to an ethno-relative or intercultural mindset, (the capacity to explain and interact with similarities and differences within more than one cultural worldview).

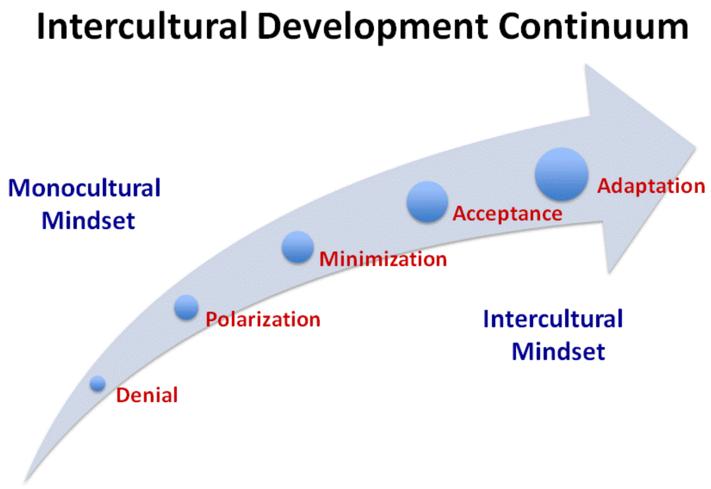

Figure 1. Developmental Model for Intercultural Sensitivity – Intercultural Development Continuum (adapted from Hammer, Bennett & Wiseman, 2003).

In this model, developing intercultural competence is creating an increasingly complex capacity to perceive similarities and differences, to accept those as part of a dynamic and complex worldview. Hammer, Bennett & Wisemen (2003) define intercultural sensitivity as “the ability to discriminate and experience relevant cultural differences" and intercultural competence as "the ability to think and act in interculturally appropriate ways." The authors posit that greater intercultural sensitivity is associated with greater potential for "exercising intercultural competence." (p. 422) Bennett notes "the extent to which the event of cultural difference will be experienced is a function of how complexly it can be construed." (Hammer, Bennett, & Wiseman, 2003, p. 423).

Each orientation described on the DMIS is a cluster of self-reported attitudes and behaviors indicative of the underlying worldview.

> Each change in worldview structure generates new and more sophisticated issues to be resolved in intercultural encounters. The resolution of the relevant issues activates the emergence of the next orientation. Since issues may not be totally resolved, movement may be incomplete and one's experience of difference diffused across more than one worldview. However, movement through the orientations is posited to be unidirectional, with only occasional ''retreats.''
>
> In other words, people do not generally regress from more complex to less complex experiences of cultural difference. (Hammer, Bennett, & Wiseman, 2003, p. 423)

The first three orientations, moving left to right on the Intercultural Development Continuum, describe orientations that can be categorized as ethnocentric cultural worldviews; the experience of cultural differences is made sense of primarily through one's own cultural context. The DMIS described orientations include Denial, a state in which one's own culture is the only one experienced as real. People with a Denial worldview are generally disinterested in cultural difference or experience it as an undifferentiated other such as a foreigner. The next stage, Defense is a state in which one's own culture is experienced as the only possible one. People with a Defense worldview can discriminate cultural differences at a stereotypical level. At this stage, people are more openly threatened by cultural differences…the worldview places experience of differences into a category of either "us" or "them" where one's own culture is superior and other cultures are inferior. A variation of Defence is Reversal, where the other culture is viewed as superior to one's own culture, while maintaining a polarized "us" and "them" worldview. A Minimization orientation is a state in which one's own cultural worldview is experienced as universal; perceived differences are subsumed into similarities (e.g. we all have red blood). At this worldview, people expect similarities and may correct others' behavior to match their expectations. When occupied from a place of dominant culture in a society, this worldview can mask recognition of the privilege afforded to members of their own culture.

The second three orientations are categorized as ethnorelative, meaning one's experience of culture references other cultural contexts. Acceptance is a state in which one's culture is accepted as one of many worldviews. From this worldview, people can use cultural pattern categories that allow them to contrast different cultural worldviews. Acceptance does not mean agreement. The challenge at this stage is to discover how to maintain ethical commitment in the face of the relativity of values across cultural worldviews. Adaption is a state in which "the experience of another culture yields perception and behavior appropriate to that culture" (Hammer, Bennett, & Wiseman, 2003, p. 425). People at an Adaptation stage can take perspectives, meaning to be able to shift their frame of reference and express feelings and behaviors in ways that are deemed culturally appropriate in more than one cultural context. Adaptation could be expressed as a biculturality or multiculturality if the process of shifting frames is deepened and embodied. The final stage, Integration, (not shown on the figure 1 Intercultural Development Continuum) is described as a state in which "one's experience of self is expanded to include the movement in and out of different cultural worldviews." (Hammer, Bennett, & Wiseman, 2003, p. 425). In this stage, people construe their identities at the margins of two or more cultures which can be experienced as alienation or in a constructive form. Integration does not necessarily include greater intercultural competence than the Adaptation stage; it does include a description of the identity of people who experience cultural and physical mobility, including long-term expatriates and global nomads.

In our research, we understood the developmental task for our student services staff group was to change the conversation. We needed our intervention to begin a shift from a perspective-maintaining Minimization stance that espouses sharing of universal experiences to a conversation that is open to learning about and engaging differences that may be uncomfortable to include from within this stance. We did not hold specific views about how much or how far along the continuum people should travel. We simply wanted to hold open the space for the development that was possible, to hold space for it to happen as it would happen. We believe the combination of this focused intent and openness to outcomes is a necessary condition of safety for participants to enter into a potentially uncomfortable, potentially worldview threatening learning space.

Intercultural Development Inventory: Measuring Intercultural Competence

The DMIS theoretical model is supported by a tool, The Intercultural Development Inventory (IDI). The IDI is a validated psychometric tool designed to measure the orientations toward cultural differences described in the DMIS. The current version of the IDI is a 50 item questionnaire with 10 demographic questions. Inventory items reflective of the Denial and Defence stages include: "(1) It is appropriate that people do not care what happens outside their country, (2) People should avoid individuals from other cultures who behave differently, and (3) Our culture's way of life should be a model for the rest of the world". Sample items from the Minimization stages include: "(1) Our common humanity deserves more attention than culture difference, (2) Cultural differences are less important than the fact that people have the same needs, interests and goals in life, and (3) Human behavior worldwide should be governed by natural and universal ideas of right and wrong." Items from the Acceptance and Adaptation scale include "(1) I have observed many instances of misunderstanding due to cultural differences in gesturing or eye contact, (2) I evaluate situations in my own culture based on my experiences and knowledge of other cultures, and (3) when I come in contact with people from a different culture, I find I change my behavior to adapt to theirs" (Hammer, Bennett & Wise, 2003, p. 246).

Initial testing of the IDI focused on ensuring the systematic re-creation of the empirical observations that the DMIS is based upon. The construct validity of the IDI was tested through relating the stages to two theoretically related variables, Worldmindedness, an assessment of international attitudes (Sampson & Smith, 1957) and Intercultural Anxiety (adapted from the

Society Anxiety scale by Stephen and Stephen 1985). The Intercultural Anxiety scale focuses on the "degree of anxiety respondents experience when interacting with people from cultures different than their own" (Hammer, Bennett & Wise, 2003, p. 246). The scale identifies a range of responses including feeling more or less overall anxiety, described by respondents as feeling comfortable, accepted, irritated, awkward, impatient, defensive, suspicious, self-conscious, careful, and nervous. Hammer, Bennett & Wise note that, "a number of studies have found this measure to maintain satisfactory reliabilities across cultural contexts (e.g., Gao & Gudykunst, 1990; Gudykunst, 1989; Hammer, Wiseman, Rasmussen, & Bruschke, 1998)" (p. 437). The validation results confirmed the proposed relationships among the IDI scales and these two theoretical models. Higher scores for a Denial and Defense orientation as measured by the IDI are related to less Worldmindedness and greater Intercultural Anxiety. Higher scores for an Acceptance and Adaptation orientation in the IDI scale is significantly related to more Worldmindedness and decreased Intercultural Anxiety. "Additional testing done on these five scales on gender, age, education level, and social desirability reveals no significant effects by age, education level, or social desirability and no significant effects on four of the five scales by gender" (Hammer, Bennett, & Wise, 2003, p. 439).[3]

Future work on the current IDI inventory suggested by Hammer, Bennett & Wise relates to the accuracy of the developmental sequence from Denial/Defense to Minimization to Acceptance/Adaptation worldviews and the predictive validity of higher IDI scores associated with a more ethnorelativistic worldview related to conditions such as "more satisfaction with living/working in a foreign culture", "greater job accomplishment in culturally different environments" and "less resistance to diversity initiatives in organizations" (Hammer, Bennett & Wise, 2003, p. 441). In our study, we have preliminary findings that link a more ethnorelative worldview with greater capacity for inclusive student services. More work is needed to replicate that assertion and to expand it to apply to inclusive faculty-student interactions.

In our study, the IDI was an important tool to use as a lens to focus our work. It afforded us the discernment to calibrate training to a learning edge for the majority of our training participants (within the Minimization stage) and through facilitation, to acknowledge and ground the experiences of participants orienting from other stages in the DMIS. Part of learning how to honor people and what they bring was the lesson of holding this lens lightly, as a tool to reflect on self and others and to illuminate experiences of similarities and differences to question and explore. Through its nature as an inventory, it provides a tool to Look At stages of intercultural sensitivity. In its application, it is equally important to engage with the tool as a way to take perspectives, to Look As different stages of intercultural sensitivity, to acknowledge and honor the learning and development journey from any point along the intercultural continuum.

Comparing Theoretical Lenses – One Phenomenon; Many Theories

Intercultural competence is a phenomenon that multiple theoretical models have been proposed to illuminate its interior (competence as a function of thinking, emotions, beliefs, attitudes, values, additive cultural norms) and exterior (competence as a function of behavior, interpersonal and intrapersonal, organizational processes and environments) qualities. Models of intercultural competence can be typologies or lists of traits, characteristics and skills that are proposed to be part of competent interaction. They can also be co-orientational models, focusing on outcomes, namely, the interactional achievement of mutuality and shared meaning through communication. Developmental models, like the DMIS, are focused on stages of progression over time. Adaptational models focus on interdependence and mutual adjustment of participants in an interaction. One challenge for each model type is to create clarity on what is intercultural competence, what levels of proficiency are needed, what specific combination of criteria or outcomes determines competence (Spitzberg & Changnon, 2009).

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[3] Detailed procedures related to the psychometric testing process of the IDI are contained in the article by Hammer, Bennett & Wise.

Given the complexity of intercultural competence as a phenomenon, studies using different theoretical lenses within diverse contexts and with diverse audiences brings different facets of this competence into focus. One context is the field of international education and the early stage adult development of post-secondary students. An example of a typology model, the Process Model of Intercultural Competence by Dr. Darla Deardorff is situated in studies of intercultural competence as an outcome of international education in postsecondary education institutions in the United States. Deardorff used a Delphi method to seek consensus among college administrators and intercultural scholars on lists of components for intercultural competence; 80% of participants were able to reach consensus on 22 elements of intercultural competence. Highlights of the items include flexibility, tolerating and engaging ambiguity, deep knowledge and understanding of culture (one’s own and others), understanding the role and impact of culture and of situational, social, and historical contexts involved, withholding judgement, mindfulness and learning through interaction.

Deardorff focuses on representing these primarily cognitive components in a process model of intercultural competence. This model outlines the process of acquiring intercultural competence beginning with individual attitudes (e.g. respect, openness, curiosity & discovery), moving to acquiring knowledge & comprehension of cultural self-awareness, deep cultural knowledge, sociolinguistic awareness and acquiring skills (e.g. the ability to listen, observe & evaluate, to analyze, interpret and relate). In her model, she allows that there can be both internal and external outcomes when individuals engage in intercultural interactions. Desired internal outcomes include an informed frame of reference shift, characterized by adaptability, flexibility, an ethnorelative view and empathy. Desired external outcomes include effective and appropriate communication & behavior in an intercultural situation. Deardorff’s model points to rather than explicitly articulating developmental progress with ongoing application of the process. “The degree of intercultural competence depends on acquired degree of attitudes, knowledge/comprehension and skills” (Deardorff, 2006, p. 256). In this model, the focus is on the process of acquiring intercultural competence illuminating individual competence characteristics and an interplay between internal and external competence acquisition. As a typology model, it is easy to apply to educational settings; it is less clear how to determine markers of progress in the process of acquiring intercultural competence. Deardorff’s model influenced the inclusion training activities developed. Behavioral skills are a key focus in the training with facilitated reflections linking participants’ experiences to intercultural competencies and developmental learning goals.

Kupka's Intercultural Competence Model for Strategic Human Resource Management (Kupka, 2008) is an example of an outcome-focused, co-orientational model focused on three specific outcomes criteria including impressions of appropriateness and effectiveness, awareness and agreement on diverse meaning systems, and mutual relationship satisfaction. A core focus for this model is the achievement of "some minimal level of common reference through interaction" (Spitzberg & Changnon, 2009, p. 20). In this focus on intercultural competence as pathway to mutual understanding, the intercultural interaction is described as the interactions of the perceptual world (called intercultural perceptas) of each person through the process of communication, generating levels of overlap in shared symbol systems (called intercultural conceptas) leading to levels of mutual understanding. These interactions for mutual understanding take places in various contextual fields called noise (e.g. environments, situations, semantic, physiological and psychological). Typically co-orientational models take in more factors of the surround for intercultural interaction and the acknowledgement that this interactional space holds the potentiality for these interactions to become the cultural surround themselves. This focus is less readily applicable to the behavior of individuals participating in the interactions, contributing to the cultural surround. While more complete in describing the context for intercultural competence, we found Kupka's model difficult to put into action. Combining Deardorff's process model with the DMIS, we found we had a way to hold a focus on practicing specific behaviors and attitudes within a developmental framework.

Perspective Taking – What is Includable? A Core Intercultural Competence for Inclusion

Interculturally competent people are adept at and have the capacity to engage in perspective-taking, to look at their own assumptions and categories of interpretation as well as those of other people. The capacity to look at one's own perspective creates the spaciousness, the possibility to choose how to act on the information generated from these sense-making processes. The heart of this developmental approach is the observation that a sufficient capacity to take perspectives – to understand and engage with what is unfamiliar to us is core to positively engage people with differing worldviews. Kegan notes, "A friendly naiveté becomes ugly because if someone is includable, it is because his difference can be translated to what we take to be real, and if his difference cannot be so translated, he is not includable." (Kegan, 1994, p. 208). This capacity to look at our own meaning-making categories and behaviors arising from our interpretative frameworks was a core goal for the *Inclusion = Diversity + Engagement* model and the inclusion-promoting activities arising out of the model.

(inclusion)
= DIVERSITY + ENGAGEMENT

Figure 2. Inclusion = Diversity + Engagement model for action

In the context of inclusion at a college, a key precept for the *Inclusion = Diversity + Engagement* model is that inclusion is a perspectival phenomenon, socially constructed by the people engaged in interactions within the institution. Fuhs' definition of perspective-taking provides both clarity and utility. He describes perspective taking as, "the developing capacity of a subject to become aware of and consequently take or seek the perspective of a real or hypothesized individual or group with the intent to use the information about the object dimension enacted for some instrumental purpose" (Fuhs, 2013, p. 8).

In the context of a student service interaction, inclusion and perspective-taking action is bounded by the service goal, the context and potential constraints of the service context (e.g. rules related to student funding, time constraints for each front-line service interaction, etc.). We wanted to ensure that perspective-taking within an inclusive student service interaction was anchored to the goals of the service provided or requested, the context of the service as well as the cultural characteristics of the staff and students participating in a service interaction. Our operating hypothesis was that inclusion in this service interaction becomes more possible when the shared capacity of college community members is situated within or developing towards an ethnorelative mindset.

Barriers to Perspective Taking

Following one of the implications of a developmental model of intercultural sensitivity to enact a more inclusive organizational culture, what barriers exist at a predominantly ethnocentric worldview to take the perspective of another? If the ability to perceive difference is primarily framed through the lens of what is familiar, the information available to a person, with positive inclusion intent and goals, will be necessarily limited to the degree of difference that can be perceived and included from their stage of development (as defined by the DMIS). Fuhs discusses the factors that affect accuracy in perspective taking, the sources of information about a person (e.g. "dress, facial expression, movement, voice quality, and verbal statements,…past experience with the [person],…, subject's perceived self-similarity to target,….perceived in-group similarity and out group stereotypes;…and other people's perspectives regarding the target" as well as information about the context that "influences expectancies" (Fuhs, p. 17, 2013). He notes that limits to perspectival accuracy can also be shaped by "task demands, attentional constraints, and egocentrism may prevent accessible information from being selected as relevant" (Fuhs, 2013, p. 17). "Because one's own perspective tends to come to mind more rapidly, readily, and reliably than information about others' perspectives, one's own point of view may tend to serve as the default perspective for interpreting the world (Krueger, 1998 cited in Epley & Caruso, 2009, p. 300).

Perspective taking requires work; to overcome our own egocentric experiences, to seek information that accurately relates to another's perspective and not simply a projection of our own requires significantly more effort than mining our self-centric experiences to reach judgements about another's perspective (Epley and Caruso, 2009). We saw this acknowledged by our inclusion training participants through their reflective assessment assignments; several participants identified increased awareness; fewer commented on the effort and sustained focus needed to change service practices. In the inclusion training and other interventions designed to enhanced inclusion within the College, training activities included the work of perspective taking practices to build this muscle.

Perspective Taking to Perspective Seeking

In nurturing a culture of inclusion and building shared competencies to engage positively across cultural and other differences, we identified the need to situate interventions beyond a cognitive perspective taking exercise to a more embodied experience. Within the inclusion training and in other organizational activities guided by the *Inclusion = Diversity + Engagement* model, we focused on creating intercultural spaces to give both permission and opportunity for “perspective-seeking” activities (Fuhs, 2013, p. 20). To focus more accurately on the knowledge, skills and attitudes for the practice of a more embodied perspective-seeking, we created a framework, the Intercultural Competence Stretch Goals framework, to better identify the developing edge of core intercultural competence for each stage described in the DMIS. The Stretch Goals document is based on the 6 core characteristics for intercultural competence in *the Intercultural Knowledge and Competence Value Rubric* (Association of American Colleges and Universities, 2006), describing the skill, knowledge and attitude at each stage in the intercultural continuum as described the DMIS. For example, in describing the attitude of openness, we emphasized the demonstration of openness by how we work with our judgements, attending to the link between judgements and behavior within an interaction.

Given the evidence a majority of our audience occupied a worldview associated with the minimization stage of the DMIS, we refined our focus for intercultural competence development by clarifying the developmental edge for people at this stage. We proposed that a person oriented from this worldview is open to interactions with culturally different others, yet may have difficult suspending their own judgment. This person is beginning to see their own perspective as a perspective and tends to view much of their perspective as superior or correct. Within this orientation, a person may be willing to review and change some of his or her judgments and may be willing to examine cultural patterns as the basis for their own behaviour. The stretch goals for a person from this orientation is beginning to suspend their own judgements, refrain from stereotypical responses and ask questions from a stance of open curiosity to establish a deeper level of connection with another person. The stretch goals also include a growing recognition that other cultures have different views and ways of communicating. As a stretch goal, a person in this orientation may begin to attempt to shift their own communication style in certain contexts to better understand their own perspective and increase their ability to notice other communication styles.

One of the key insights in developing the stretch goals was how, generally, in our training practice, we had been engaging our learners from our own developmental perspective, our own edge. By making visible the stretch goals at each stage, we realized that we had to honor and meet our learners just in front of their stage, to align with their perspective and engage them just a little bit more, to elicit the beginning of what potentially is a transformative learning experience. For this kind of developmental movement, changing behavior can be one way to enable transformative development with an underlying process of learning and reflection to make sense of experiments in behavioral change (Deardorff, 2006). I suggest that adding communication styles without a sense making, frame-shifting reflection process is more likely to result in a translative development, increasing the set of communication competencies without necessarily changing perspective-taking capacity overall. Based on participant responses to reflective assessments and end of training surveys, more participants made comments of learning that align with translative development (e.g. learned to use more communication styles) than made comments aligned with transformative development. (e.g. recognition it is possible to accept a different perspective without needing to change or impose own perspective).

This overview of some of current theoretical approaches to intercultural competence registers the challenge to account for a multi-faceted phenomenon, particularly how to take informed action from more than a partial perspective. The very perspective occupied by the theorist articulates a partial and illuminating view of the whole. In the project, we were drawn to create bridging documents like the Intercultural Competence Stretch Goals framework to enable informed action. Rather than bringing on yet another definition or concept, the AQAL model brings a promise of wholeness, a way to frame and engage with the many aspects of intercultural competence and inclusion all at once. The following section will describe the applied research project. Next the author describes the process to create the Inclusion = Diversity + Engagement model with a focus on the second conceptual piece of our model for action, the all quadrants part of the *AQAL* model from integral theory.

Changing the Conversation of Inclusion - Applied Research Methods

Inclusion in Context: Student Services

To begin a different conversation for inclusion, we choose the student service interaction as a focus for intervention, for study and the container for the conversation of inclusion (and exclusion). This choice for an inclusion study built on the existing institutional culture of student services to remove barriers for students. Student services at the college include information services (offered in person, by phone and online), registration services, financial aid services, academic, career and personal counselling services (including services offered by Aboriginal staff and through an Aboriginal worldview), assessment services (many of our students require language or academic assessments to establish their pre-requisites to enter either upgrading or post-secondary programming), and a full range of disability-related services from assessment to assistive technology and learning strategy supports. This array of welcoming and retention-related student services is one of the primary ways students engage with the College outside of their program of studies (i.e. student engagement with faculty, clinical practicum staff, etc. was not included in the focus of our study). An applied research project was created to both better understand the context of student services, service practices that already include inclusive characteristics, and challenges to service provision related to perceived inclusion (or exclusion) of students. The research question posed was “In what ways might Student Services enhance intercultural communication skills during face-to-face interactions with students.” Two sub-questions were also posed, “How do NorQuest students and staff perceive current student service interactions at NorQuest?” and “How can IDI guided (Intercultural Development Inventory) training and coaching interventions be used to create inclusive student engagement interactions at NorQuest College.” Our hypothesis is that the development of intercultural competence (as defined by the Developmental Model of Intercultural Sensitivity) for Students Services staff will support positive, inclusive interactions between Student Services staff with diverse students. We hypothesize that by supporting staff to become aware of their interpretation of the meaning of differences they encounter in the context of a student service interaction, we can create the opportunity for choice on how to respond to those differences. Data collection activities included initial focus groups with front-line service staff, observations of student service interactions, and pre-inclusion training IDI inventories for participating student services staff. Post-inclusion training IDI inventories were collected to assess intercultural competence changes. Post-training exit surveys and training participant monthly reflections on inclusion skill development and awareness as it related to their student services role were also reviewed to better understand participant's awareness and described application of their learning. A limitation of this study design is not including students as research participants to include their perspective of inclusion (or exclusion) in a College service interaction space. Outside of the applied research project, student input to an overall perception of inclusion (or exclusion) at NorQuest was collected through art-based inputs in an event called Inclusion Fusion. This event included student created art focused on an inclusion theme, a photography display based on a Photovoice curricular project and a Speakers Corner. Although some students through these activities identified student service staff as important to their feeling of inclusion (e.g. photographing a staff member at a service counter and identifying their smiling face as making them feel welcome); many identified instructors, other students and friends, family, or cultural symbols such as the flag from their country of origin and/or the Canadian flag as important to their sense of belonging. With an action research stance, our first concern was to learn and to enhance the existing service model. Future data collection related to student experiences and service performance is warranted.

Analysis and Results

An integrative analysis approach was used to first juxtapose the data sets and then to analyze the data through a DMIS lens (i.e. quantitative IDI profile for ethnocentric and enthnorelative worldviews and qualitative data describing DMS stage-related perspectives and behaviors) and through a quadrivia lens looking at data from focus group and observation using each quadrant as a theme for analysis (i.e. LR: environments for service interactions and communications; LL: the culture of student services delivery; UR: described and observed service behaviors and UL: described values, beliefs and attitudes of the student services team). Summaries drawn from the analyses were checked iteratively with project team members ensuring linkages with the data and with the leadership team of the participating Student Services departments. The results of this analysis provided the project team with a map of described and observed student services. A brief summary is included here.

IDI Profile Results

In comparing the pre- and post-IDI scores there is evidence of small shift from ethnocentrism towards ethnorelativism within the research cohort. We see this in a slight reduction of the percentage of participants scoring in the ethnocentric part of the continuum.

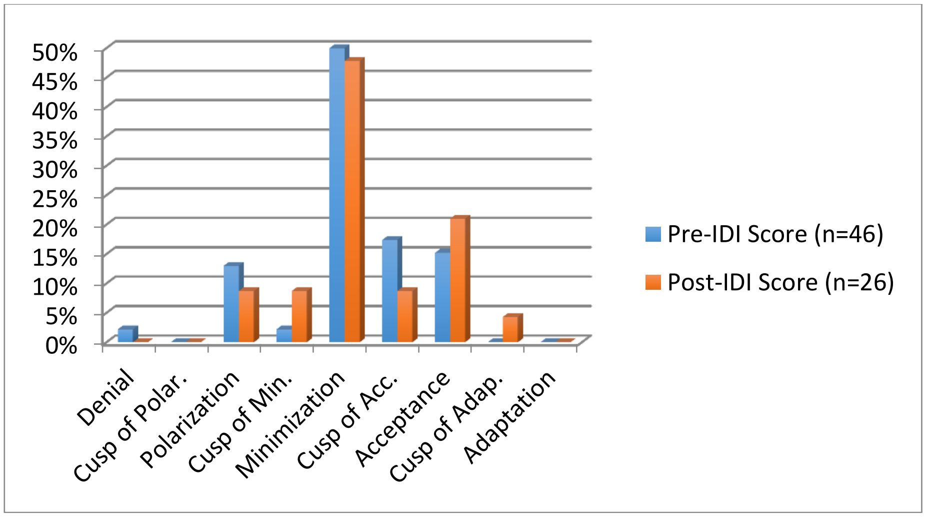

Figure 3. Pre- and Post-IDI Profiles

That shift is reflected in a higher cusp of minimization score (2% Cusp of Minimization in pre-IDI scores to 9% Cusp of Minimization in post-IDI scores). We see a small reduction in Minimization scores (50% Pre-IDI to 48% Post-IDI) and a slight increase in the ethnorelative stages of Acceptance (17% Cusp of Acceptance ;15% Acceptance in Pre-IDI scores to 9% Cusp of Acceptance; 21% Acceptance; in Post-IDI). We also see the emergence of adaptation in post-IDI scores that was not reflected in pre-IDI scores; 4% of participants scored at Cusp of Adaptation.

Limitations that should be noted are the reduced number of participants completing post-IDI scores (46 responders for Pre-IDI compared to 26 responders for Post-IDI). Aggregate profiles for Pre- and Post-IDIs were drawn from all completers at each data collection point as an automated report from the Intercultural Development Institute service. Individual completers were not tracked from pre- to post-scores. It is possible that results are inflated through self-selection bias; participants who chose not to complete the post-IDI may be more likely scoring from an ethnocentric worldview. This may explain the removal of IDI scores in the ethnocentric (Denial, Polarization) stages. It does not, however, account for higher scores in the Acceptance and Cusp of Adaptation stages. Individual score tracking would enable greater precision on what developmental trends occurred for participants in each DMIS stage. This approach would allow researchers to examine questions of how IDI-guided inclusion training affects intercultural competence development by stage and by other demographic considerations, e.g. number of years spent living in another country, racial/ethno-cultural identity etc. At the time of the study, significant change in student services staffing occurred (e.g. position layoffs, re-organization) that would have made individual tracking difficult across the applied research project. Even with these limitations, the overall trend for participants completing pre- and post-training IDIs indicates a small shift towards ethnorelativist worldviews on the intercultural continuum.

Comparing IDI Profile Scores to College Profile Scores

When compared to an aggregate profile of IDI scores collected over the last 2 years, the IDI profile of the student services cohort is representative of a larger staff sample drawn from departments and faculties across the College. A compilation of these results of IDI profiles gathered to date shows that a large majority of College staff members are clustered within the ethnocentric stage of minimization. Our study data is generally representative of the staff overall in the College.

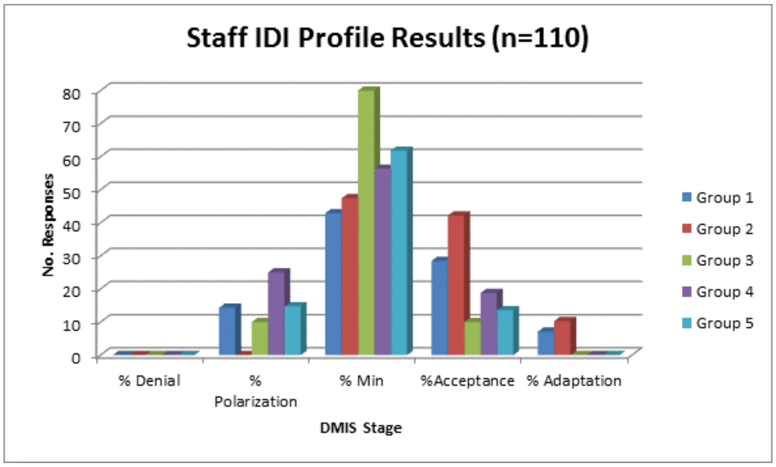

Figure 4. College Benchmark IDI Profile Scores

From a minimization worldview, people from other cultures are pretty much like you, under the surface. Within a minimization perspective, you are quite aware that other cultures exist all around you, and you may know something about cultural differences in customs, celebrations, or other objective artifacts of cultural traditions. You tend not to denigrate other cultures and you seek to avoid stereotypes by treating every person as an individual or by treating other people, as you would like to be treated. One of the strengths of this perspective is recognizing the essential humanity of every person and trying to behave in tolerant ways towards others. One of the challenges of this perspective is the focus on commonalities that can mask deeper recognition of cultural differences. You may miss or minimize the differences that make a difference. So in pursuing a model of inclusion, acknowledging the potential to entrench a mainstream Canadian organizational and cultural view under the guise of helping our diverse students to ‘fit in,’ we decided in the inclusion training to emphasize the importance of creating opportunities for engagement with diverse perspectives. From this minimization worldview, opportunities for growth come through practice in understanding one’s own perspective *and* the perspectives of others.

Results: How is Student Services Perceived?

The following section summarizes the perspectives of student service interactions by quadrant.

Environment for Service Interactions

Interactions happened either within a cubicle/office environment, across a service counter or in a waiting room. Distance between staff and students averaged between two to three feet. Cubicle environments were quiet, favouring one-on-one interactions although exceptions were made for students attending appointments with children or other family members. Waiting rooms and service counters were often crowded and noisy. Staff sometimes approached students waiting with information updates and anticipated wait times. Service counter line-ups observed showed less than a 5-minute wait. Reported wait times were longer during peak times (e.g. prior to semester starts).

Service Culture

Service culture was characterized by providing service, particularly problem solving on behalf of students. Time sensitivity was shared with an emphasis on keeping the wait line moving. Staff demonstrated respect for students, particularly for their past experiences and achievements, and emphasized being treated respectfully by students. Staff emphasized working as teams and the importance of receiving appreciation from colleagues and supervisors. Staff demonstrated conscious knowledge of working within an explicit code of behaviour and ethics in their service to students. Shared challenges included providing a high volume of detailed information to students with communication challenges (e.g. English not their first language, learning disabilities, low confidence to navigate College entrance requirements) and supporting students to navigate a complicated and sometimes confusing admission process, particularly funding and program requirements. Staff expressed interest in learning more about diverse student population (e.g. cultural norms) and demonstrated varying levels of existing knowledge in understanding and communicating effectively with diverse students.

Service Behaviors

Based on observations and focus group data, student service interactions tend to be 15 minutes or less, conducted in one-on-one conversations, typically using information tools including forms, the College calendar or other printed resources and computer-based systems related to student registration, programming, history of services and/or funding. Communication behaviors observed and described include establishing personal connections, conveying respect through verbal and non-verbal behaviors (e.g. attentive listening, asking for permission to leave to retrieve documents from printer), adjusting the pace of speaking (for non-native English speakers), allowing time for students to respond and checking for understanding. Staff demonstrated explaining procedures often using information sources to support clear communication (e.g. highlighting key information as they talk about it). Voice qualities observed included warm tones, energized and clear speaking, calmly repeating information in different ways. Staff demonstrated open body posture, use of supportive gestures (e.g. counts on fingers to review tasks for students), active listening postures, leaning in and facing students while communicating. Less frequently staff were observed communicating with attention on their computer screen. More often staff would maintain attention on the student, talk about what they needed to do on the computer and would then turn to interact with the computer system.

Service Values

Staff described values and beliefs related to service as part of focus group discussions. Staff spoke of their desire to treat all students fairly, with respect and to treat other staff team members respectfully. Staff described their strategies to manage "hot buttons" when challenged by students or difficult service situations. Maintaining credibility was identified often, especially when communicating with students from different worldviews (often but not always related to gender and status). Staff spoke openly about their empathy and appreciation for the challenges and life experiences students face (e.g. students coming from lives in refugee camps; students overcoming economic or social barriers). Knowing that good customer service was provided and acknowledged by students was also important for staff. Challenges in navigating complicated information and funding systems were acknowledged; finding the best way to support students to navigate these systems were identified as important. Staff spoke of their desire to work with motivated students.

We found that many service practices documented in the initial data collection seemed aligned to support inclusive service outcomes, e.g. respectful communication, active listening, checking for comprehension, expression of empathy and relationship tending, and completion of service goals (based on a departmental service standards framework used by Student Services leaders to monitor service performance). Areas for enhancement of communication and increased intercultural communication skills (e.g. perspective taking as in understanding one's own and another's perspective, increased awareness and fluency with different communication styles, increased awareness of cultural patterns influencing behaviors in communication interactions, e.g. perceived gender roles, how credibility is established) were also identified. Given the ongoing challenge of the service role to support students to navigate multiple information and service systems related to admissions, program requirements and funding, we identified the importance of service staff to bridge students into the systems and culture of the College and even into Canadian culture. Staff with bi-lingual competency or personal experience with immigration brought additional skills to connect with students; staff described that students would seek them out specifically in order to be able to converse in their native language or for friendly support rather than to address a specific problem.

Results: Inclusion Training Influencing Service Practice

Data collected from four reflective assessment assignments collected monthly and post-training evaluations was qualitative in nature. Thematically, participants identified increased awareness and skills related to communication, understanding and adapting to engage people with different perspectives. Some participants identified no learning gains, describing their existing service practice as already containing the skills included in the training. Some participants wanted training on specific cultural knowledge to be included in inclusion training. A few quotes to illustrate qualitative feedback to the questions, "What have I learned that is useful in my work?" and "What has changed in how I engage with diverse students?" are included here.

Participants described increased awareness of their own communication styles and enhanced ability to choose a communication appropriate for an interaction.

- *So far I've been reminded to pay attention to styles and strategies I use in communication and be open to trying something new.*
- *To be more aware of my style of communication and the reactions of students and the positive potential of using a variety of styles.*
- *I am more aware of how people are communicating with me and how I need to alter my communication style to make the conversation go where it needs to.*

- *Communication styles and aspects of communication that will help in adapting my approach to a conversation.*

Participant comments reflect different developmental stage relationship with their learning experience. The three comments reflect stances of acknowledging inclusion strategies without necessarily accepting those strategies (i.e. So far I've been reminded…); increased awareness and the potential to use strategies (i.e. cognitive awareness); knowledge about communication to support behavioral change (adapting approach to conversation). Participant responses have been selected to present a range of ethnocentric and ethnorelative worldviews to illustrate the range of learning outcomes for training participants. The responses have been arranged to reflect, as much as is possible, responses across the intercultural continuum from ethnocentric to ethnorelative perspectives.

Participants identified more reflection on service interactions, viewing the experience as an opportunity for learning.

- *Not to take things personally, but to try and understand the reasons behind it.*
- *Think more about the students' POV especially when they do things differently from expected.*
- *I think about the way in which I will have to engage with another individual so that I can successfully meet my goal or better facilitate the meeting of the team goal.*
- *Always learn something new – to be open to gaining perspective into a student's world.*

Participants described in their own words aspects of intercultural competence in service interactions including active curiosity and active listening, understanding how one's perspective can influence interactions with others, being open to other perspectives and suspending judgements of others.

- *I'm that much more aware of the need to slow down, take a step back and recognize the student's perspective as being different from my own. And perfectly acceptable. Don't need to change it or impose my own.*
- *Trying to shake some of my prejudices.*
- *What is driving my conversation? (goals, values, etc.)*
- *I think I am a more open listener and responder.*
- *How my perspectives of diversity impact my approach to people and framework for interpreting situations.*
- *Be open to ideas, people perceptions or my own may not always be the same but appreciate other's observations. Don't take it for granted.*
- *I think it has reinforced for me to step back and try and understand the different factors driving communication…Goals and values might be different, context might add stress – I will recognize this.*
- *To seek out the perception of the other person. Don't assume that he or she is understanding things in the same way you are.*

Participants named their feelings of engaging people in ways that were more or less comfortable.

- *I am more likely to engage with others from other cultures – less timid.*
- *To allow myself to calm down when I am frustrated and wait for students (give them time).*
- *I try to self reflect, especially when the interaction generates any kind of uncomfortable feelings.*
- *More open and willing to step outside of my comfort zone to engage with them.*
- *I try to be open and welcoming. However this activity showed me that I will have to make a conscious effort to always remain open, even though I feel stressed with my job or overwhelmed.*

Participants identified seeking clues to understand the perspective of students in a service interaction.

- *To pay more attention to body language.*
- *I listen for differences.*
- *I try to change my or check my behaviours against student actions/behaviors.*
- *To always check for understanding – to actively engage.*
- *I always take a reading in terms of my effective response and try to think ahead to create openings for communication according to my assessment of what they can hear. Now I have been paying more attention to what style choices I am making and why.*

A few participants identified gaining a new perspective on inclusion and exclusion in service interactions.

- *I learned that some aspects of NQ are unwelcoming for students. I see things with new eyes.*
- *To be a little less self conscious about offending and more open to developing a relationship.*
- *Feel everyone welcome. No matter who they are, what colour they are, what accent they have, they have to feel welcome.*
- *Engage with others to better understand their perspective.*
- *To engage people. To move beyond accepting.*

Some participants identified affirmation of current practice.

- *Nothing. I am capable in communicating well with diverse students by showing respect, encouragement and giving clear info as needed.*
- *My role already requires me to possess good communication skill and adaptability to different styles so it hasn't changed.*

Participants identified a desire to learn more about specific cultures, communication patterns within specific cultures and their expectation that inclusion training should focus more on specific cultural knowledge and less on communication skills and being adaptable.

- *Not much, the information is more about communication than cultural awareness.*

- *I wish I could learn more about different cultures and how they perceive things. I wish there was a chat circle or something so I could hear and better understand their POV.*
- *I would have liked to focus more on how people from other cultures communicate instead of my own communication styles.*

Application of Results

Results were used firstly to design inclusion training (a 15 hour training program delivered as 3-hour sessions over 5 months) to support intercultural competence development within a service context. Results were also shared with leaders in Student Services. This training program was designed to increase interculturally effective and appropriate service behaviour and communication skills and provide a space where participants could develop critical attitudes, knowledge and skills necessary to enable them to interact in welcoming and inclusive ways with diverse students. Training activities included discussion of the strengths and limitations of intercultural competence development stages (as described by the DMIS), critical engagement with service narratives and student narratives of inclusion and exclusion, individual reflections on what service providers bring to the service interaction, practice of communication and perspective taking skills, transfer tasks to bring forward skills practiced in the training sessions to the service context and tips to remind participants of key ideas and skills practiced in the training sessions.

Conclusions: Intercultural Communication and Service Interactions

Question 1: “In what ways might Student Services enhance intercultural communication skills during face-to-face interactions with students.”

We found a need to focus on the enhancement of intercultural communication skills based on a primarily ethnocentric, minimization worldview for student services staff. Specific skills included a deeper understanding of service staff’s own worldview with a focus on identifying preferred communication styles and practicing less familiar, less comfortable styles. We also found a need to focus on practicing perspective taking to reinforce the nature of diverse perspectives and to increase staff capability to check for inclusion in service interactions.

Question 2: “How do NorQuest students and staff perceive current student service interactions at NorQuest?”

Our study primarily focused on NorQuest staff perceptions of service interactions. We found the service interaction is a time-bounded, information intensive engagement space. Staff describing challenging intersections to bridge students to confusing and complicated systems of support (e.g. financial aid, pre-program assessments and pre-requisites). Staff also described challenges with students who were difficult to orient to College systems and services. Staff spoke to and demonstrated a service orientation to meet student needs, valuing students who are motivated and who have overcome challenges to enter post-secondary education at the College. Based on arts-based inclusion events with students, some students did identify student services staff as part of their sense of being included at the College as well as other factors including friends, symbols of their country of origin, symbols of belonging to Canada.

Question 3: “How can IDI guided (Intercultural Development Inventory) training and coaching interventions be used to create inclusive student engagement interactions at NorQuest College.”

We found staff participating in IDI guided training showed slight quantitative gains in intercultural competence as measured by the IDI. Staff responses to gains from inclusion training reflect their respective ethnocentric or ethnorelative stage awareness, showing gains in awareness and to a certain extent competence in adapting communication styles, awareness of intercultural competence within the context of a service interaction (e.g. being open to perspective, suspending judgement, the importance of engaging with others to understand them more fully) and for some participants a new understanding of inclusion and exclusion in relationship to their work. Some staff identified a desire for more specific information about cultures and culture-specific communication styles and some staff affirmed their existing knowledge and service practices as already included inclusion-oriented practices.

These findings created a basis for a deeper exploration of inclusion and intercultural competence and to enter into the work of creating the Inclusion = Diversity + Engagement model for action.

Inclusion = Diversity + Engagement and AQAL: Bringing Together Parts Towards a Whole

It was not originally our intent to develop a model as part of our organizational change project. The *Inclusion = Diversity + Engagement* model for action evolved in our work to elicit and honor inclusion at NorQuest College at individual, group and organizational levels of analysis and engagement. As the work for the applied research project progressed it became clear that we needed a better guide to contain and clarify this real life experiment within our organization. As professional perspective takers, our perspectives were muddled. To that end, myself, my colleague Kerry Louw and Meg Salter from MegaSpace Consulting convened through a series of working sessions to more formally knit together the concepts integrated in our model for action. Through these sessions, we used the *AQAL* quadrant map to generate an organizational map “Looking At” inclusive organizational components and the quadrivia map to generate perspectives of inclusion “Looking As” a student. Our combined practice knowledge of salient organizational change foci including a felt sense of the change levers or acupuncture points we needed to trigger to enliven inclusion at the College. We generated the Intercultural Competence Stretch Goal document (an integration of DMIS stages and the Intercultural Knowledge and Competence Value Rubric) to refine and focus the developmental edge for intercultural competence included at the backbone of the design of inclusion training. Finally, we created key messages related to the question “Why Inclusion” translated to align with Amber, Orange and Green stages of development (*AQAL*) to aid with the internal communications work needed to advance this initiative with College stakeholders and decision-makers.

Aware of the potential to become mired in the details of the theoretical landscape for intercultural competence, we chose theories we could use. Multiple theoretical frames and assessment strategies are called for to extend the partial view afforded by any one of these theoretical approaches to the phenomenon of intercultural competence. The contribution of the

AQAL as a map to hold in view and apply the complex cluster of components related to the construct of intercultural competence in an organizational context. As a model for action, however, the *AQAL* lens is held with an intent to move to action to enhance the intercultural competence and inclusion outcome of the college. Before describing in more detail how *AQAL* was applied, it is helpful to understand in more detail the context in which the Inclusion = Diversity + Engagement was developed and the components we sought to hold together within an *AQAL* map.

The Model for Action is a synthesis of constructs to provide a backbone structure to our inclusion strategy actions. The behavioral skill building focus of Deardorff's Process Model, the DMIS to guide intervention design including calibration of training to align with the IDI profiles of College staff was one pragmatic choice for a theoretical framing of an inclusion strategy. We also chose a recent typology rubric to anchor specific intercultural competence traits in our model. A recent consensus on key characteristics of intercultural competence was identified by a panel of American and international scholars documented in the Intercultural Knowledge and Competence Value Rubric (Association of American Colleges and Universities, 2006). These characteristics of intercultural competence include cultural awareness, knowledge of cultural worldviews, empathy, verbal and non-verbal communication, curiosity and openness. We chose this rubric as a reasonable representation of core characteristics for intercultural competence to use in our *Inclusion = Diversity + Engagement* model for action.

In IDI-guided interventions to enhance intercultural competence, the IDI profiles allow intercultural facilitators to target the DMIS stage development needs of learners and to facilitate both translative and potentially transformative learning. Key to intercultural competence is the capacity to take perspectives on, other than our own. Developing this capacity includes both translative development, the knowledge, skills and attitudes that comprise intercultural competence and transformative development, an increasingly complex capacity to perceive and act through the lens of this competence to engage with diverse people, contexts and interactional containers. The view of similarities and differences from an ethnorelative worldview is transformationally different from an ethnocentric worldview. An ethnorelative view can be said to transcend and include an ethnocentric one.

Our intention in this work was to create an applied framework; at the time of development this meant a background structure to guide decision-making and actions (i.e. proactive strategies in each quadrant for inclusion) and evaluation, guiding what we would check for to assess progress and outcomes. Our model was not seeking to explain the phenomenon of inclusion; rather it was a model to guide our engagement with the phenomenon in context. The unit of analysis for our applied framework is at the organizational level with acknowledgement for individuals and groups within the organization as actors of inclusion (or exclusion). As an organizational change strategy, and, hopefully an embodied one, we were ultimately seeking evidence of co-arising inclusion phenomenon, signs that individuals and groups in the organization had internalized enough of the mind, heart and skill set of inclusion to contribute to an inclusion strategy; in other words to evolve inclusion at the College. The Center for Intercultural Education continues to steward the model and this initiative; however, several initiatives aligning with the inclusion mission of the College have since emerged (e.g. student navigator service) that act on and embody this mission. To understand the model for action, it is helpful to better understand how the AQAL model was applied to focus inclusion-enhancing interventions within the College.

Conceptual Model Two: *AQAL* Looking At Inclusion

As a mapping tool for Inclusion in the College, we applied the *quadrant* lens of the *AQAL* model. Quadrants are the dimensions (Singular: I/interior and it/exterior; we/collective interior and its/collective exterior) to contemplate a particular reality, in this case, the phenomenon of inclusion (Wilber, 2000; Esbjörn-Hargens 2009). By contemplating the existing and possible ways inclusion could become present and real at the College, each quadrant provided a lens to see both the presence of inclusion (and exclusion), possible developmental trajectories to grow inclusion and an organizer to choose the focus for action in creating a 5 year strategy to nurture inclusion at the College. "Looking At" inclusion in this way provided an elegant map to place initiatives, current and planned, to nurture inclusion overall at the College.

Mapping Inclusion – Looking At Inclusion

Upper Left - Interior/Individual Experiential phenomena **Inclusion at Core of Brand; NorQuest Learning Experience**	**Upper Right - Exterior/Individual Behavioral phenomena** **PhotoVoice - engaging perspectives through photography**
Lower Left - Collective Cultural phenomena **Inclusion Fusion - co-create inclusive culture**	**Lower Right - Collective Social & Systematic Phenomena** **Performance Management Guide** **College Wide Learning outcomes - systems of inclusion**

Figure 5. Quadrant Map: Looking At Inclusion [4]

We agree with Susan Cook-Greuter and Sean Esbjörn-Hargens that this use of the four quadrants is practical and useful as a way to "honor the complexity of reality" such that we could approach the issue of inclusion in a more "skillful and nuanced way" (Cook-Greuter, 2004, p. 77; Esbjörn-Hargens, 2009, p. 7). Cook-Greuter notes, "AQ is powerful because we can choose any topic at any layer of depth in any quadrants and explore it from the other three quadrants to gain a fuller picture and appreciation of its interrelationships (Cook-Greuter, 2004, p. 87). The quadrants map allowed for an overview, over time of points of planned activity and to map emergent activities. The overview, however, lent itself to a kind of stewarding governance role for the Center; in some instances the Center led activities in service of the overall map of inclusion; in others, the Center merely contributed to or documented emerging activities to provide an evolving map of the whole of inclusion initiatives at NorQuest.

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[4] Adapted from Esbjörn-Hargens, 2009, p. 5.

Co-Created Evolution of Inclusion by Quadrant

During the timeframe of the applied research project and in the year following, several activities emerged. Starting in the upper left quadrant, the internally held value of inclusion was re-affirmed and made visible by positioning inclusion as part of the core brand of the College during a re-branding activity led by the College president and the Marketing department. Inclusion is also expressed in the NorQuest Learning Experience policy document. Statements in these policy documents include phrases such as “We embrace diversity and honour inclusiveness” and “Your learning environment embodies diversity. Your uniqueness enriches our college. You will develop skills in cultural understanding to succeed in the global community.” The NorQuest Learning Experience is written from both a student perspective and a College perspective.

Moving to the upper right quadrant, an activity that started as a curricular project, PhotoVoice, became a popular activity that has been repeated by instructors in the years since the project and was added to inclusion training for staff. Briefly, in PhotoVoice, participants are asked to take pictures of inclusion and exclusion, articulating their perspective of what they see in the photo, in their environment, what they think, feel and how they make sense of their community within the College. Sharing their photos and perspectives creates a perspective seeking, intercultural space. Exhibits of these photos, visible artifacts of student generated perspectives have been included in College events like Inclusion Fusion and a permanent installation is housed in central and satellite campus libraries.

Moving to the lower left quadrant, an inclusion culture has been nurtured annually through Inclusion Fusion. The Inclusion Fusion event includes multiple engagement spaces including conversation cafes, the Art of Inclusion, banners to share statements committing to end racism and support inclusion as well as a PhotoVoice display. The event draws students, staff, faculty and community members to share perspectives and engage in community building.[5]

Moving to the lower right quadrant, two systems tools have been generated to support integration of inclusion in curriculum and in professional development. NorQuest uses a system of College wide learning outcomes to identify target learning outcomes for all students and staff. Inclusive Culture outcomes identify various competencies including statements such as “Develop intercultural competencies, including an appreciation for other ways of learning and knowing.” “Challenge personal culture–based assumptions.” “Appreciate how contributions from many people enrich the educational experience and the wider community.” “Demonstrate respect for self and others.” Outcomes at a program and course level are designed to map onto these over-arching outcomes creating linkages between learning activities and learning outcomes. Ongoing curricular development is guided by this outcomes framework.

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[5] For more information on the activities emerging out of the *Inclusion = Diversity + Engagement* model, see the Inclusive Student Engagement website at http://www.norquest.ca/norquest-centres/centre-for-intercultural-education/projects/completed-projects/inclusive-student-engagement.aspx.

The Performance Management Guide for Inclusion is structured using existing staff performance tools to suggest ways to embed an inclusion focus into professional development plans and a rubric to rate the level of engagement. Using a five point scale, a one rating relates to a professional learning engagement related to inclusion of a limited duration (e.g. less than 5 hours). Increased learning engagement (e.g. 10-15 hours) is linked to a higher rating (e.g. 3 out of 5). The highest ratings relate to both engaging in a learning activity and applying learning to change something in one's job, department or functional area in the College to enhance inclusion for others.

The quadrant view of inclusion supports ongoing monitoring and nurturing of disparate inclusion focused activities and processes. This view supports a connected organizational view linking them directly to institutional performance metrics in ways that address the frequency and duration of engagement as part of the performance metrics. Emerging inclusion initiatives can be added to the overall map of inclusion. From a Center for Intercultural Education perspective, we commit to steward the model to make inclusion more visible at the College, celebrating initiatives that emerge independently of the Center. In the years since the beginning of the project, we continue to look for indications of emergence within the field of inclusion that is held.

Looking As: Perspective Seeking as a Doorway into Embodied Inclusion

The quadrivia approach was another doorway into inclusion, the perspectives of individuals or groups within the College. In addition to Looking At the dimensions of inclusion, organizationally, using a quadrivia approach, we held a perspective of inclusion from the people engaged with inclusion.

Looking As – An Individual Perspective

Looking As a Student

Upper Left - Interior/Individual Experiential phenomena **What I Value, Dream, Think, Believe, Feel**	**Upper Right - Exterior/Individual Behavioral phenomena** **What I Do, What you can see about me**
Lower Left - Collective Cultural phenomena **Who are my people? What groups do I belong to? How do we relate?**	**Lower Right - Collective Social & Systematic Phenomena** **What processes, systems do I interact with? That impact me? What challenges do I face navigating College systems?**

Figure 6. The four quadrants of an individual – doorways into inclusion for a student [6]

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[6] Adapted from Esbjörn-Hargens, 2009, p. 5.

Each of these quadrants represents dimensions of an individual's awareness; this version of the quadrant maps the dimensions of awareness that can be "channels" to take in information from an experience (Esbjörn-Hargens, 2009, p. 7). All individual(s)…"have or possess four perspectives through which or with which they view or touch the world, and those are the quadrants (the view through)" (Wilber 2006, p. 34 cited in Divine, 2009 p. 36). Divine describes the use of quadrants or the view through an individual's perspective as a way to "look as" the individual in the context of Integral Coaching™. This is an exercise, as much as is possible, to occupy the perspective of another person. In applying the quadrants to "Look As" a student in the context of a student service interaction, we can start to inquire into a student's perspective of inclusion. As a student or staff member, can I share what I believe and think? Can I connect with others through my values/our values? Are there groups that operate in ways that make sense to me, that feel comfortable to belong to? Will my way of behaving be accepted? Will I get the results I expect when I interact with others? Will I be able to reach my goals as I use and navigate the systems and processes in the College? Can I be successful here and be me?

Embodied Inclusion

When creating inclusion training or other engagement activities with perspective seeking intent, it became clear that the adoption of the 6 characteristics of intercultural competence used in the Stretch Goal framework were crucial qualities for facilitators of this inclusion engagement space. We needed to embody, to the extent that was possible, the attitudes of respect, openness, and curiosity, to know and learn about cultural self-awareness, and cultural worldviews and to skillfully use verbal and nonverbal communication. These characteristics support us as we hold the space for perspective seeking in a way that honours each individual participating from their unique perspective. We hold the container for participants to make the effort to try on other perspectives including the edges of where and when a person is most challenged by another perspective. Practice of these qualities supported us to hold open the doorway, to invite each person to engage perspective-seeking activities, learning and empathizing more fully with their own perspective and the perspective of others.

Summary - Mapping Inclusion as a Living Lens

The *Inclusion = Diversity + Engagement* model for action is an attempt to use an integrally informed frame to elicit and honor inclusion at NorQuest College at individual, group and organizational levels of analysis and engagement. The model brings together the all quadrants focus of the *AQAL* by Ken Wilber and the Developmental Model of Intercultural Sensitivity by Dr. Milton Bennett. In this model for action, inclusion is viewed as a perspectival phenomenon and suggests that a socially-constructed culture of inclusion is, in part, based on perspective seeking behaviors and spaces. Out of the applied research project that was used to generate the *Inclusion = Diversity + Engagement* model, one of the products of this attempt was the creation of the Intercultural Competence Stretch Goals document. This document supported the project team to focus more precisely on the developmental edge for inclusion project participants to intentionally serve an organizational shift towards a more ethno-relative perspective of inclusion. As we continue annual activities, the lens provided by the Inclusion = Diversity + Engagement model allows us to hold open the questions: What is inclusion? What can it look like? How can we continue to learn from perspectives of inclusion and exclusion? How are we doing? Do our systems and environments support or deter inclusion?

The inclusion interventions that have been implemented since the project have focused on creating opportunities for an embodied perspective-seeking to shift the conversation of inclusion at the College. These interventions have included annual inclusion training for NorQuest staff and faculty, a PhotoVoice curricular activity that allows students to explore inclusion and exclusion through photography and perspective seeking activities; permanent exhibits of the photographs and written perspectives of the student photographers is on display at both central and branch library locations. An annual Inclusion Fusion event held in collaboration with the NorQuest Student Association hosts a variety of perspective-seeking activities such as conversation cafes, the art of inclusion and a PhotoVoice exhibit. The embedding of inclusion as a core College brand has made the internally held value of inclusion visible at the front and center of the College's public identity. The creating of college wide learning outcomes related to inclusive culture are a tool to integrate inclusion into all college programming as well as to guide faculty and staff professional development. An inclusion-focused performance management resource to support staff and their supervisors to identify both learning and change activities has been created to embed within the College performance management system. At time of writing, other initiatives are emerging such as a student navigator service to support students in navigating College systems.

The quadrivia and quadrant maps of the AQAL model are held as maps to 'look at' inclusion across the College and to 'look as' each other, to the extent that is possible. These maps allow the Centre for Intercultural Education to steward a living *Inclusion = Diversity + Engagement* model that honors and seeks to understand the emergent inclusion initiatives generated by college community members. It is our ongoing practice to hold both of these maps as a guide to change the conversation of inclusion to be a co-creative one. This author continues to hold open her curiosity and receptivity for what is emerging, checking for signs of both translative and transformational competence gains, through ongoing IDI profile data, and through the quality and frequency of engagement with diversity in the spirit of inclusion within the organization. On a personal note, as a veteran of organizational change initiatives within post-secondary education institutions, the *Inclusion = Diversity + Engagement* model for action has dropped more deeply into the bones of NorQuest College than any of the change initiatives I have participated in or led in the past. Each day, riding the elevators in the College, surrounded by women and men from over 80 countries of origin, from First Nations, Metis and Inuit peoples, seeing visible physical challenges and sensing into less visible learning challenges, I am privileged to have the opportunity to focus on creating inclusive doorways for every learner, every one that comes to the College. Being included in that work is a good day for me.[7]

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[7] Special thanks to Laura Divine and Joanne Hunt, co-founders of Integral Coaching Canada. My work has been made possible as a graduate of Integral Coaching Canada. My personal embodied sense of the *AQAL* as a living legacy of their inspired coaching school and a member of a global community of graduates is core to my commitment to reduce suffering in the name of inclusion at NorQuest College.

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Immunity to Change Revisited: Theoretical Foundations for Awareness Based Practices for Leadership Development

Jonathan Reams[1]

Abstract: This article presents an inquiry into how the understanding of Kegan and Lahey's immunity to change process can be enhanced through examining it in relation to two other theoretical lenses, the work of David Bohm and the Arbinger Institute. This is taken as an exemplar of the conception of *awareness based practices for leadership development* which is introduced as the larger focus of the article. A brief review of literature in relevant fields is presented to situate the present work. A set of methodological considerations is described along with the process for the analysis of textual extracts from the three sources. This is followed by a description of ten themes emerging from this analysis. These themes are examined for interconnections and key insights. The discussion centers around two elements. First is the wisdom of self-transcendence in relation to the immunity to change process. Second is how the emerging view of awareness can contribute to understanding leadership development. Concluding reflections summarize the findings and identify limitations of the inquiry.

Keywords: Awareness, immunity to change, leadership development, virtuality of self.

Introduction

In 2009 Kegan and Lahey's *Immunity to Change: How to Overcome It and Unlock the Potential in Yourself and Your Organization* was released. Having just tried out their four column approach for fostering developmental growth (Kegan & Lahey, 2001), I eagerly read, applied and reviewed it (Reams, 2009). Over the six years since then, three things have kept my energy and attention on building a deeper understanding of this work; public interest, personal practice and theoretical inquiry.

The first of these is the growing popularity and use of the Immunity to Change (ITC) process by coaches and consultants in the field of leadership development. Their 2001 book *How the Way We Talk can Change the Way We Work: Seven Languages for Transformation* laid out the basic workings of the four column process. With time, experience and feedback to improve on this foundation, Kegan and Lahey's 2009 ITC update has garnered even more attention. For example Brubach (2009, January) wrote a popular article highlighting their work in *The Oprah*

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Magazine. A google search (November 10, 2015) using the term ‘immunity to change’ registered 39,000,000 hits.

In addition to these indications of popular uptake and mainstreaming, a number of articles have appeared engaging in research related to ITC (Markus, 2013; Pinkavova, 2010; van Diemen van Thor, 2014), including my own inquiry into how the ITC process has been used in coaching (Reams & Reams, 2015). This small sample can be seen as evidence that the idea of developmental growth through the use of ITC is not only gaining more mainstream traction but also beginning to be inquired into as a sub-field of research on its own.

The second of these strands is around personal practice. Since my initial forays into applying ITC in the classroom and with clients in 2009, I have run more than 30 ITC processes for various groups and also mentored others in running it. These opportunities for practice, observation and reflection have helped immensely in giving nuance and breadth to my understanding of what is going on in the ITC process.

The theoretical dimension is linked to my ongoing interests in awareness, consciousness and developmental psychology. My Ph.D. research enabled me to combine these with the field of leadership studies (Reams, 2002). Elements of this ongoing theoretical inquiry have appeared in different publications and presentations over the last seven years.[2] In addition, in 2010 I began a process of gathering material that I felt could illuminate additional facets of this inner immune system that the ITC process works with and on.

There are two purposes for this article. One is to enrich the discourse on and understanding of the conception of *immunity to change*. The second is to lay out some theoretical foundations for understanding what I describe as *awareness based practices for leadership development*. To accomplish this, I have done an analysis of relevant textual extracts from the ITC book as well as drawn on two additional theoretical lenses. These are the work of the Arbinger Institute and the work of David Bohm.

A brief review of the broader context of leadership studies which this work aims to influence is presented next. This includes examining a number of related fields pertinent to this project; developmental theory, how it has been applied to leadership, awareness practices and mindfulness, transformative learning and self-awareness. This is followed by a brief description of the methodology employed. I have included an appendix that describes a broader set of methodological considerations for those interested in reflections on the deeper background implicit in such matters. There is also an appendix providing rich descriptions of the key themes arising from the textual extract analysis. The main text continues with a summary of these findings, followed by a discussion oriented around two themes; the wisdom of self-transcendence and how the definition of awareness coming from the analysis can contribute to ideas about leadership development.

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[2] This has included; developmental approaches to leadership development (Reams & Fikse, 2010), futures studies (Reams, 2010c), conference presentations on the subtle aspects of the quality of presence (Reams, 2010a, 2010b, 2013; Reams & Caspari, 2013; Reams & Gunnlaugson, 2013), integral leadership (Reams, 2012; Reams & Caspari, 2012) , and cultivating leadership through awareness based practices (Reams, Gunnlaugson, & Reams, 2014).

Context

The field of leadership studies is broad, with almost as many definitions of leadership as there are theorists (Rost, 1991). Kellerman (2012) estimates 1400 definitions of leadership, along with 44 theories about it. Beyond the academic domain, there is a very practical need for developing better leaders and leadership as a competitive advantage. From this "there is little doubt that leadership education and development has become a big business" (Pfeffer, 2011, p. 220) with more than $170 billion being spent on leadership curriculum in US businesses (from the ASTD, in Myatt, 2012). Despite all these resources being spent, building leadership talent was identified as a significant challenge in the 2008 IBM Global Business services report (in Day, Harrison & Halpin, 2009). Yet much of the investment in such development is seen to have a limited impact or return on investment.[3] Mike Myatt, in his December 19, 2012 Forbes leadership blog noted that the number one reason leadership development fails is that it is done as training or indoctrination. His solution is to stop training and begin to develop leaders.

It is in this broader context of a generally poor return on investments that the conception of a *developmental* approach to leadership development arises as one solution to the issue. Kegan and Lahey (2009) are explicit about their ITC process being a tool to foster such development, thus situating the main starting point of this project squarely in this approach.[4] In this section I briefly examine literature on developmental approaches to leadership development and other orientations to awareness based practices including mindfulness, transformative learning and self-awareness in relation to leadership. The boundaries of the present article mean that I only take a brief survey of each area as part of the broader context of this project and invite interested readers to follow up on areas of interest through the specific literature cited.

Developmental Theory

Before delving into these subsections, I believe it is worthwhile to take a brief look at key aspects of the developmental theory component of leadership development. (For those wanting a more thorough description of this, see (Reams, 2014)). The lens of seeing human growth in terms of what is called development began with James Mark Baldwin (1895, 1904, 1906) who talked about 'subject – object development' and genetic epistemology. He was an influence on Jean Piaget (1932, 1954, 1970), who adapted Freud's use of clinical interviews to develop a method of semi-structured interviews to study how epistemological structures evolved. While his focus was on this process of epistemological development, he is often more remembered for his classification of stages of development.

From Piaget's developmental stage model, Lawrence Kohlberg (1969, 1975; 1984) drew on John Rawls' (1971) moral philosophy to generate a stage model of moral development. His work had extensive influence in many domains and a large number of his students continued to apply this work in various domains. Contemporaneously, Jane Loevinger (1976; 1970) built on the work of Harry Stack Sullivan (1968) to build both an assessment instrument and theory of stages of ego development. Susanne Cook-Greuter (1999) extended Loevinger's model and worked with Bill Torbert (2004) on applying the assessment of ego development to managerial and leadership domains.

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[3] It is worth noting that while this article and much of the literature cited here emphasizes the value of self-awareness in leaders, there are many other factors that contribute to how leaders are actually able to be successful in terms of reaching desired outcomes. In conjunction with this, it can be seen that many leaders who appear to have little self-awareness, or are even abusive, still end up being successful.

[4] My review of Anderson and Adams' (2016) *Mastering Leadership* in this issue is another example of a developmental approach to leadership development.

Robert Kegan (1980, 1982, 1994) built on the foundations that Piaget and Kohlberg, and among others established and articulated a sophisticated model of how the self evolves through a series of 'evolutionary truces' or orders of consciousness. His work integrated three major intellectual strands; the constructive-developmental work highlighted above; the humanistic and existential humanistic work of people like Rogers (1951, 1961), Buber (1958), Maslow (1943) and May (1969); and the neo-psychoanalytical tradition from Anna Freud (1993), Erickson (1982) and Winnicott (1965). Along with this, Lahey, Souvaine, Kegan, Goodman, and Felix (1988) developed the subject object interview guide as a way of assessing these stages of development. The shift from describing and assessing development to facilitating it came with the development of the four column exercise (Kegan & Lahey, 2001) and then the updated immunity to change process (2009) that is the focus of this project.

Also a student of Kohlberg, Kurt Fisher (1980; Fischer & Bidell, 2006; Mascolo & Fischer, 2010) developed dynamic skill theory. This approach focused on developing a better understanding of the dynamic relationship between organism and environment and helped to integrate many cognitive development theories' emphasis on the self with behaviorists' (Skinner, 1938, 1969) understanding of the role of operant conditioning from the environment on development. His model is not explicitly about a self or ego and in contrast to most of the theories described above Fischer never uses the term ego in his work. It is a very interactive model, taking biology, structure of mind, social relationships and environmental influences all into account, to develop a general model of development that can be applied in any domain or context. Assessments related to this orientation have also been developed (Commons, Trudeau, Stein, Richards, & Krause, 1998; Dawson, Commons, & Wilson, 2005; Dawson, Xie, & Wilson, 2003) which focus on assessing the development of performance in relation to specific skills, including cognitive skills.

Developmental Leadership Development

The notion of applying developmental theory from psychology to the field of leadership and management studies did not begin with Kegan and Lahey's (2009) approach to the topic. (Of course their ITC process is designed for a broader range of issues, but is often utilized in relation to leadership development). While there may have been others who began earlier, the work of Bill Torbert (Rooke & Torbert, 2005; Rooke & Torbert, 1998; Torbert, 1991; Torbert & Associates, 2004) stands out as pioneering empirical work on the description of cognitive development in leaders and the impact this has on organizations.

Others such as Bill Joiner & Stephen Josephs (2007), David Day (Day & Dragoni, 2015; Day et al., 2009; Day & Zaccaro, 2004) and Karl Kuhnert (Harris & Kuhnert, 2008; Kuhnert & Lewis, 1987; Lucius & Kuhnert, 1999; Strang & Kuhnert, 2009) have also contributed to understanding the relationship between leadership development and structural orders of consciousness. As well, the field of coaching has seen an increased use of developmental theory (Elliot, 2011; Markus, 2013; Pinkavova, 2010; van Diemen van Thor, 2014) with the use of ITC being prominent in much of this work.

Day & Dragoni's (2015) current review of leadership development research identifies four key indicators necessary for leadership development; leadership self-efficacy, self-awareness, leader identity and leadership knowledge, skills and competencies. A developmental perspective is included in this review as a factor influencing all of these. Work over time in these key areas can lead to outcomes such as having more dynamic skills as well as more adequate levels of complexity of meaning making structures and processes. In an earlier survey of developmental leadership development research, McCauley et al. (2006) identified a need for moving beyond a focus on "developmental order to include the general dynamics of developmental movement" (p. 648). Palus and Drath (1995) addressed this and focused on the process involved in creating developmenally oriented programs.

This brief description of some key research at this intersection highlights that this approach to leadership development is not new. At the same time, it has not been widely adopted in the mainstream of the field of leadership studies.

Awareness Practices and Mindfulness

A very early influence on me around awareness practices was Tim Gallwey's *The Inner Game of Tennis* (1975), which I bought when it came out both because I played tennis in high school and because there was some felt sense of resonance with the title. His concept is of self 1, a conscious ego mind that likes to judge and critique performance and self 2, a non-judgmental awareness that witnesses, absorbs and learns by doing. This model was extended into the workplace as well (Gallwey, 2000), making it one of the most relevant precursors for this current project. Kahneman's *Thinking, Fast and Slow* (2011) talks about systems 1 and 2 in a way that both reinforces Gallwey's conceptions (although it has the opposite associations to the numbering) and provides a much more detailed exploration of understanding of how these systems work.

Eugene Gendlin's work *Focusing* (1981, 1996), describes his research into what actually makes therapeutic processes effective. This includes a six step process for getting in touch with the 'felt-sense' of a subjective phenomenon. My own experience from using this process has helped develop some of the capacities required to undertake this project. The combination of Gallwey and Gendlin's early influences on me is part of the 'groundwork' noted in Appendix I as part of the methodological considerations behind this project.

Searching google scholar for 'awareness based practices for development' turned up primarily unrelated hits, with some work on mindfulness practices showing up. Using Academic Search Complete, with the terms 'awareness based,' 'practices' and 'development' in abstracts, there was still a diverse set of results, with a few studies of mindfulness again being the most relevant. Changing the search terms to 'awareness practices' and 'development' returned similar results.

From this, a brief look at some elements of how mindfulness practices are being utilized in relation to leadership is warranted.

Mindfulness has its roots in Buddhism as the seventh element on the noble eightfold path. The Pali and Sanskrit terms can also be translated as awareness. In recent decades the core principles of mindfulness have been developed in secular contexts, most notably by Jon Kabat-Zinn in the Mindfulness-Based Stress reduction program at the University of Massachusetts Medical School. He defines mindfulness as "paying attention in a particular way: on purpose, in the present moment and non-judgmentally" (Kabat-Zinn, 1994, p. 4). From this, mindfulness-based practices such as presencing (Senge, Jaworski, Scharmer, & Flowers, 2004) and deep presencing (Gunnlaugson & Walker, 2013) provide a path for applying mindfulness in organizational, leadership and coaching contexts. From this it is apparent that awareness practices are being used in relation to leadership, even if they are not widespread.

Transformative Learning

A brief look at the field of transformative learning can also provide some useful context for this project. The seminal work of Jack Mezirow (1990) provides a foundation for this. In looking at the question of what *form* is transforming, Kegan (1980, 1982, 1994) focuses on the cognitive form (rather than the content) of the learner’s structure of meaning making. He organizes this into five orders, of which the third and fourth (socialized mind and self-authoring mind) address the vast majority of the adult population.

The journey through these orders of structuring meaning making, (and by implication how one perceives, interprets and acts in their role as a leader), utilizes critical reflection on deeply held frames of reference, or assumptions. This can be experienced as having rational as well as intuitive or emotional components. Integrating Mezirow’s ten steps for transformative learning and Kegan and Lahey’s ITC process, it is possible to describe major steps along this journey as including; encountering disorienting dilemmas, being able to inquire into their underlying sources, exploring options for testing the validity of assumptions, gathering data on such tests, building new frames of reference and enabling new orientations, attitudes and behaviors. Palus and Drath (1995) describe how experiential development programs for leaders can support this process and generate new possibilities for leadership development.

Self-Awareness

Central to many of the above concepts and a centrally addressed in this project is self-awareness. Socrates was famous for citing the Delphic oracle in saying that the first condition for being human was to “know thyself.” The cultivation of leadership aimed for generating a philosopher king, and the training of young men to prepare them for roles in the ideal Republic (Plato, 1992) was aimed at cultivating self-awareness. Linked to this is what the notion of self was seen to be. Plato’s (1954) description of the last days of Socrates framed this in terms of the doctrine of the immortality of the soul. This theme of self and soul has reverberated through the ages in philosophy and religion and appears today in the study of leadership as well.[5]

Focusing on current research related to self-awareness and leadership, Axelrod (2012) examined self-awareness in relation to psychotherapy and coaching, noting the critical role of emotional awareness. Self-awareness is linked to emotional intelligence competencies of “accurate self-assessment, emotional awareness and self-confidence” (p. 345). Goleman (2006) noted the importance of emotional awareness and social intelligence, citing recent neuroscience research into mirror neurons saying that “whatever the supposed business at hand, we continually transmit emotions, making another feel better or worse” (p. 78). McCraty, Atkinson, Tomasino, and Bradley (2009) describe extensive research in the field of neurocardiology that substantiates this and indicates our ability to sense the electromagnetic field produced by the heart at up to three meters. This ongoing transmission of emotions contributes to what Kegan and colleagues (Kegan, Lahey, Fleming, & Miller, 2014) describe as our ‘second job’ where we spend a great deal of time and effort to wrestle with the daily implications of how this social-emotional environment plays into our personal growth. Thus awareness of our own state at an emotional level, and the ability to take a perspective on others to enhance social intelligence are critical capacities for leaders.

Self-awareness itself, as a construct in leadership research is approached by many theorists. Fusco, Palmer, and O'Riodran (2011) note that “self-awareness … is the first of the four constructs shown to underpin authentic leadership” (p. 130). Ashley and Reiter-Palmon (2012) note that “empirical support is mounting suggesting that self-awareness is related to leadership such that leaders higher in self-awareness tend to get better outcomes than those with lower levels of self-awareness” (p. 2). Axelrod (2012) likewise says that “the critical importance of executive self-awareness for organizational effectiveness has been frequently noted by a wide array of modern leadership development experts” (p. 340). The growing acknowledgement of the central role that self-awareness plays in leadership and its development makes research into the actual workings of an awareness based approach of critical importance.

This brief survey of background literature provides a contextual backdrop for some of the areas relevant to this project. The next step is to go into an in depth examination of the three focal sources chosen for this project.

Background and Contextualization of the Three Sources

Before delving into the details of the methodology and data analysis, it is worth taking a moment to present some brief background on the context within which each of these three sources arose. The three sources are; Kegan and Lahey’s (2009) *Immunity to Change*, David Bohm’s (1992) *Thought as a System*, and work from the Arbinger Institute (1997, 2006, 2010; Warner, 2001).

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[5] There is plenty of popular and even well researched literature along this theme (Bolman & Deal, 1995; Chopra, 2010; Conger, 1994; Doetzel, 2006; Dorr, 2006; Hawley, 1993; Nelson, 2002).

Kegan and Lahey's work is the focal point for this project, taking a primarily psychological and developmental lens. Robert Kegan's early (1982) work was described above. Later, along with Lisa Lahey, the four column exercise (Kegan and Lahey, 2001) was developed as a practical tool to support development and was later refined into the immunity to change (2009) form that is in widespread popular use today. Minds at Work is the current business vehicle for spreading their work into the world.[6]

David Bohm's lens arises from a very different background. As a physicist, his PhD was signed off by Oppenheimer as part of the Manhattan Project. He developed the field of plasma physics after that, then wrote serious critiques of the Copenhagen interpretation of quantum mechanics. His association with Marxism while at Berkeley led to fleeing the US during the McCarthy era, eventually settling in the UK. His approach to understanding quantum physics emphasized wholeness (Bohm, 1980; Bohm & Hiley, 1993) and utilized a holographic metaphor. He was also influenced by the mysticism of Jiddhu Krishnamurti (1994) and this contributed to his influential work in the field of dialogue (e.g. Senge, 1990; Isaacs, 1999). His lens as used here appears as an attempt to support processes for gaining coherence in the system of thought (since the text is a transcript of a pre-dialogue group seminar), by understanding the nature of thought itself and its limitations.

The Arbinger[7] work derives from Terry Warner's (1997; 2001) work to understand the fundamental ethical character of being human and from this the phenomenon of self-deception. His background is as a professor of philosophy at Brigham Young University. He also spent time at Linacre College at Oxford where some of his seminal ideas developed. The Arbinger Institute was founded in 1979, and its work expanded significantly upon the publication of *Leadership and Self Deception* in 2000 (which has sold over one million copies and is available in 27 languages). Today they have offices in 20 countries and support individuals and organizations in improving culture and resolving conflict.

This represents three lenses that I have utilized in this project which can be characterized as; psychological, objective and ethical, all being applied to a phenomenon at the heart of the human experience, the gap between our aspirations for change and our ability to achieve the changes we wish.

Methodology

In this section I describe the methodology used in this project. There are two main aspects of the methodology. The first is a set of considerations relevant to the approach to and preparations for the project. This is described in more detail in Appendix I. Briefly, this set of considerations begins with the notion of *bricolage*, or a bricoleur as someone who "works between and within competing and overlapping perspectives and paradigms" (Gidley, 2007, p. 6). From this orientation comes the sense that my goal in this project is less to show *findings* in an empirical sense and more to reveal a sense of *feeling into a view*.

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[6] Through Minds at Work they also train coaches to work with this process and I have been fortunate to work with a number of individuals who have been through this training.

[7] In this article, for convenience I use the term Arbinger to cover both the writings published under the corporate name of The Arbinger Institute (where they explain that multiple authors involved chose anonymity to focus on the work itself) and the work of founder Terry Warner.

There is a clear sense in which this project falls under the heading of metatheory. Edwards (2010) includes a number of steps in undertaking such work: groundwork, domain specification, design, multiparadigm review, multiparadigm analysis, metatheory building, implications, and evaluation. How these are addressed is outlined in Appendix I. The nature of this project also has a strong heuristic element. Here I worked with a sense of using my own sensitivity to the subject of inquiry as a kind of ‘tuning fork’ to look for resonances. Finally, interpreting the data required a hermeneutic orientation as well. All of this served to dynamically steer the research process.

I employed this set of methodological considerations as I undertook selecting quotes from the texts that form the basis for this project. For the content analysis of these textual extracts I was able to draw on a more analytical set of tools, specifically in the form of using the NVivo 10 software program to perform various analytical manipulations.

The first step in this process was the reading of the above described texts with an eye towards statements that were perceived to have some relevance to the overarching theme under consideration. This yielded 19 pages or 9146 words of statements (with some brief reflections related to them in the set of Arbinger notes), which were loaded into NVivo 10 in three files, one for each source.

Queries, or analyses performed by NVivo on the texts, were done at five levels of word specification: exact, stemmed, synonyms, specializations and generalizations. Specifications for these queries were given for a four letter word minimum and up to 100 results (see Appendix II for tables of the most relevant results for each query). This resulted in identifying ten terms as most relevant for further investigation: change, cognitive, conscious, feelings, immune, make, others, self, system and thought.

Using a coding function in NVivo, nodes, or categories of data, were generated by the program for each of the results from each query (the ten themes listed above, with a node for each time each of those ten themes occurred in one of the five levels of specification listed above). These nodes contained each term found by the query with five words prior to and after the term as they occurred in the text.

This set of ten terms was then used to create new nodes. These nodes were populated by manually going through the coded text from each of the original query node results (which ranged from 32 up to 495 items) and copying relevant text that illustrated the various uses of each term until each new node was populated with a saturated set of phrases around each of the ten terms.

Each of these ten nodes was further analyzed to produce a table that listed descriptions of how each of the three views used each of the ten terms. (This table, with summaries included, came to eight pages with 1700 words and is not included here). These 30 sets of the uses of the ten terms were then summarized to draw out a more essential description of themes emerging from the selected text excerpts. This resulted in a two page table, with the key constructs related to each set of three uses of the ten terms (see Appendix III). These results form the basis of the key themes in the findings section.

The next step was to examine the conceptualizations and uses of each of these ten terms in relation to the original body of textual extracts used for the data analysis. NVivo provided highlighted text within the full text related to each of the items in the ten nodes, making it easy to see them in their broader context. Examples from this step were used to illustrate the key themes. A rich description of these ten themes is found in Appendix IV. Finally, once this summary and illustration of the ten themes was complete, they were reviewed in order to examine how the themes intersected, overlapped and informed each other.

Findings

In this section I describe the results of this textual content analysis into the conceptual relationships between the three sources of data used for this project. This consists of two parts. The first is found in Appendix IV, providing an extensive description of the ten themes that emerged from the textual analysis. They are presented in the order of; self, conscious, immune, system, others, feelings, change, make, thought and cognitive.[8] In the second part starting just below, I weave these key concepts into a more integrative sense of what the juxtaposition and combination of these three views can produce.

Following from the description of the ten themes described in Appendix IV, the next step in the process of making sense of this set of data was to review those descriptions and illustrations by using the two focal points set out at the beginning of this article. The first was to look for conceptions that could enrich the understanding of the immunity to change process. The second was around building a foundational conception of what awareness based practices for leadership development could look like.[9]

It is clear that there are also many other possible connections, interpretations and implications that could be focused on. Here, it is clear that I have relied on my tacit knowledge to look for interpretations that aid in making this notion of *feeling into a view* more explicit, which was noted in the methodological considerations as being one of the purposes of this project.

Weaving Threads

One simple observation was to notice that linking the first four terms analyzed (according to the criteria I used for ordering them), one gets the conception of a *self-conscious immune system*, which presents an interesting phrase loaded with possible implications. Also, arising from the analysis of the first two terms was an observation that there is a clear distinction between being self-conscious (or having attention focused on a self that is produced by the system of thought) and being aware, or awareness in itself. This is linked to the distinction made in relation to the term self, where Kegan and Lahey appear to use the term self as a given, an identity or ‘entity,’ while both Bohm and Arbinger utilize the concept of self in more in connection with illusion, incoherence or deception. The notion of the *virtuality of self* (Rowson 2008) is relevant here, and will be brought forward in the discussion below.

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[8] This appendix can provide a number of pieces of background information that readers may find useful. In addition to summary descriptions and quotes to show in some detail how each of these terms were used, there are also comments that might clarify questions arising, such as why certain terms are in this list, the order of the presentation of the terms as well as how they are used by each source.

[9] While the influence of first focal point is relatively easy to spot in the following, the second one is not as obvious. However, I believe that the influence of attending to it becomes more visible later in the discussion.

Further disentangling this set of threads, Kegan and Lahey talk about the immune system as something that operates automatically, as something we are unaware of. Bohm talks about it this way as well, but extends this into describing the resistance in the system of thought specifically to the avoidance of unpleasantness. Arbinger talks about an anxiety management system similar to how the immune system is described by Kegan and Lahey. They link this to constant resistance and the assertion of self.

Looking deeper into what is implicit in the conception of being self-conscious, how the term change is used becomes relevant. Change is linked to the self-image dying. The conception of a self and being conscious of it, (being ‘self-conscious’), is linked to how the system of thought is invested in maintaining all this by keeping our attention directed *to* and *through* the self. At the same time there is a link between the self-image dying and awareness as distinct from this self-consciousness. This will become an important distinction later.

Kegan and Lahey’s (2009) core concept is all about this immune system. As the second pair of terms in this initial configuration, the notion of an immune system is seen by them as “making a mistake sometimes” (p. 37). This can be connected to a lack of awareness and later to incoherence. While Kegan and Lahey’s description of our psychological immune system is drawn from its biological equivalent, Bohm’s description is of a set of reflexes that include thought, feelings and physiological aspects like electrochemical impulses in the brain as well as including the whole of society.[10] How this system of thought impacts other relevant aspects of this inquiry will be taken up later.

Moving on to examine how the conception of others is used, the distinction between awareness and self-consciousness comes up again and can be linked to Arbinger’s notion of collusion. In this concept, the lack of awareness is tied to being self-conscious, which leads to inviting others to participate in collective self-deception. There is a link, (possibly implicit in this view), connecting the notions of self-consciousness and self-deception. One way to derive that implication is from seeing how Arbinger describes our way of being towards others as touching our deepest sense of right or wrong. The shift we are looking for, (explored more below), comes from attending to “the light coming from others” (Warner, 2001, p. 51).

Feelings come into the picture as well, and Kegan and Lahey are clear that it is necessary to engage them for the ITC process to work. At the same time Bohm describes the feeling of necessity as contributing enormously to resistance (or immunity) to change. This feeling of necessity, or ‘it cannot be otherwise,’ or even ‘don’t yield,’ is a core way in which feelings impact our immunity to change. If our big assumption implicitly says ‘don’t yield’ and is linked to an automatic set of reflexes acting outside of awareness, then how do we imagine affecting it? While part of the answer provided comes later, here Arbinger describes the distinction between feelings of deception and our moral sense being corrupted, from the liberation possible from a correct understanding (or coherence in Bohm’s terms) of a given situation.

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[10] I notice a similarity here with the conception of memes as carries of ideas and culture across society. There are also similarities to how the notion of ^{v}memes is used in the work of Graves (1974) and Beck and Cowan (1996).

Moving deeper into seeing how the possibility of (or resistance to) change is perceived, Kegan and Lahey talk about change in terms of moving aspects of our meaning making from subject to object. According to Bohm, resistance to this comes from unpleasantness, identification and the reflexes around necessity. This necessity is also tied to the self-conscious identity produced by the system of thought, all happening outside of awareness. Arbinger adds nuances to this in that unpleasant emotions seen as are inherently dishonest and thus “intrinsically resistant” (1997, p. 9) to change. Both Bohm and Arbinger note that this is not a passive process, but that there is an active participation in creating deceptive perceptions from inserting representations of thought into perception or the projection of accusations. All of this points to change needing to come from somewhere deeper than thought, or self-consciousness.

This kind of active process of creating reality is how Kegan and Lahey (2009) talk about the function of the immune system. However, this reality can be guided by “false belief” (p. 50). For Bohm, the most fundamental of those false beliefs is the one where the system of reflexes of thought creates images of reality then inserts them into perception while denying its active role in doing this. Extending and linking this to the domain of the self-image, Bohm (1992) also describes how the system of thought gives false information and “produces the thought that it is *I* who am doing everything” (p. 92) and that we have this feeling that we are the ones controlling thought. In this sense, the notion of self is a virtual construction of the system of thought.[11] Arbinger (1997) adds to this by describing how “we live a lie” (p. 8) that then takes the shape of an accusation, which directs attention away from this process and externalizes any problems by blaming others (also described as justifying ourselves).

While Kegan and Lahey’s description of change in the immune system is framed in terms of subject object shifts, Arbinger describes this change in terms of making distinctions between the light and darkness as a way to know the difference between right and wrong. They show how our conscience can be deceived, since it is a faculty connected to cognitive functioning. From this it can be surmised that the place from which subject object shifts are made is not thought, but a place from which we can direct attention.

For Bohm (1992), the result of directing attention is described in terms of coherence or incoherence. It is also pointed out that insight is something that has the possibility to be outside of the entire system of thought. This offers an opening to a place from which we can direct attention towards generating coherence in thought. Insight can improve coherence through its re-hardwiring of the system of thought. The process of accessing or coming from insight results not only in greater degrees of coherence, but also of freedom understood as “the creative perception of a new order of necessity” (p. 220). This can be viewed as another way of talking about Kegan and Lahey’s notion of transforming our immune systems into a bigger better one, or even changing the big assumptions that govern the immune system. So even if this reality that the immune system produces is virtual, governed by what is taken as necessity, we can improve the nature of this virtual reality.

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[11] This theme of the virtuality of self is taken up at length in the discussion.

Using the language Arbinger provides, we can describe this in terms of moving into the light or truth that life instructs us with. The lack of light is of course darkness, where we lose our capacity for discernment or the choice of where to direct our attention. If we wish to direct our attention in such a way as to gain freedom from the constraints and limitations of our immune systems, then we need the light of insight.

Summary

Kegan and Lahey (2009) are clear that we cannot think our way out of this immune system, which naturally tries to "save our lives" (p. 50). Following from the inquiry above a question arises: is this immune system actually trying to save the life of a virtual self-image that the system itself creates? They describe how it is necessary to use both a change of mindset through subject object shifts and behavioral change through action in order to effect lasting change that is transformative. This can result in fundamental changes to the structures of the meaning making that we are subject to. However, this investigation has aimed to explore ways to deepen and broaden our understanding of how to overcome this immunity to change. What can we say in addition to their prescription for change?

From Bohm we can see that the resistance of the immune system is from the system itself, even to the electrochemical reflexes in the brain that precede conscious intention. Thus for change (at least change in the direction of coherence) to happen, it is imperative to be able to access a space or source outside this system and this is described as insight. At the same time there is a distinction between self-consciousness, or a self-image, and awareness. Bohm describes this kind of awareness as being proprioceptive in relation to the system of thought, or able to be aware of the functioning of thought as it is happening, and thus in a position to have insight or discernment in relation to the coherence or incoherence of the thought arising.

From Arbinger it can be seen that all these cognitive processes are linked either to self-betrayal (and the chain from there into self-deception and justification), or to perceiving the light of truth. The former is synonymous with propping up an idealized image of ourselves which is intrinsically embedded in darkness and the inability to use our conscience or moral sense to get ourselves out of the situations we are in. In the light of truth lies our hope.

Kegan and Lahey want to transform the immune system and say that it even tries to "save your life." Bohm sees this system as functioning in an incoherent manner, (at least left on its own); while Arbinger says it needs to die. Can Kegan and Lahey's method be seen as trying to make the system of thought more coherent? Yet does this process itself become a dead end or at least give limited returns at some point? Is the next step to perceive the immune system and self it produces as a virtual entity, somehow of value and useful for our experience, but also in the end hiding something essential and critical? Does this self need to die in order for "sensitive human beings" (Warner, 2001, p. 77) to emerge?

The notion of necessity in relation to self appears to be a key link holding the fundamental resistance to change in place. This is also tied to how we conceive of identity. Bohm notes that an alternative orientation or conception could be the idea of moving to a creative rather than identified sense of being. This creative sense of being is also linked to proprioceptive insight, or awareness as something outside of the system of thought. This is also linked to "the light, or source of our understanding of right and wrong" (Warner, 2001, p. 133) as a source or space outside the darkness of the system of thought when it is incoherent.

This summary has aimed to draw out the most essential points coming from the analysis of textual extracts from the three sources. It also represents the result of using the heuristic approach of trying to make tacit knowledge explicit through working with what stands out or resonates in these extracts and the results of analyzing them in relation to each other. From this phase of the project, it is now time to turn attention back to the starting points of this inquiry and discuss these findings in relation to a larger discourse.

Discussion

How can the lenses from Arbinger and Bohm add depth or even offer new possibilities to Kegan and Lahey's descriptions of the immune system and how to change it? Some answers to these questions have emerged above. However, as noted above, the aim of this project is not to come up with answers, (although if some emerge that is ok), but rather to give a sense of *feeling into a view*. Thus the main goal of this discussion is to explore how this view can shine light on various aspects of the phenomenon under study.

The second major question this article focuses on is about what can we learn about the role of awareness in leadership, change and transformation processes? In relation to these two questions, the discussion that follows is made up of two parts. The first section is around the findings just described and possible interpretations, implications and links for the ITC process itself. The second section is to broaden attention back out to the larger context of leadership development and see how the conception of awareness based practices can influence leadership development. In keeping with intention of bounding the scope of the current project I focus on two key elements for this; self-transcendence (and the implication of wisdom in it) and awareness in relation to leadership development.

The Wisdom of Self-Transcendence

In reflecting on the implications of all of the practice, energy and thought (by not only Kegan and Lahey but also by an ever growing number of practitioners), that has gone into the development and practice of the immunity to change process, I have the feeling that there is a generally held, even if implicitly, view that it is somehow *wise* to be able to overcome our immune systems and no longer be subject to limiting or incoherent big assumptions. Emerging from the inquiry at the heart of this project, the most central big assumption revolves around the identification with a sense of self.

The Virtuality of Self

Bohm’s description of the system of thought as a set of electrochemical reflexes in the brain that precede conscious intention has been seen elsewhere, most notably in the experiments of Benjamin Libet (Libet, 1989, 2003; Libet, Gleason, Wright, & Pearl, 1983) who found that neural activity preceded conscious intention by up to half a second. This research reinforces the view that the self-conscious being that we experience as making choices is somehow functioning outside of (or at least in a limited domain relative to) an awareness of what is actually going on. Thus this perspective that the system of thought or immune system acts ‘outside of awareness’ continues to reinforce this distinction between awareness and self/self-consciousness. Can the conception of self as virtual that was alluded to earlier (Rowson, 2008; Varela, 1999) help us see other ways of relating to self?

To explore this further, it is worth delving into Rowson’s (2008) description of the conception of the virtuality of self.[12] Rowson describes what happens when we step beyond our conventional constructs in a way that is similar to what has appeared in the present inquiry: “I suggest that the structure we are stepping out of is our constructed and often limiting notion of our own self, and the ‘shock’ and ‘break’ we feel is a glimpse of our own virtuality” (p. 86). The roots of this concept have of course been with us for a long time.

> The idea, in essence, is the traditional Buddhist claim that selfhood is a powerful and functional illusion, but is ultimately groundless, and that in becoming aware of the ways in which our sense of self is constructed and maintained we free ourselves from some of the limiting assumptions that hinder the development of wisdom. (p. 4)

If we take it to be generally true that we think it is wise to overcome our immune systems, then this perennial view about the wisdom of transcending a tightly identified sense of ourselves (see also for example Plato (1992) or Walsh (1999)) can play a key role in understanding how to work with the immunity to change process.

To explore this further, it is worth taking another step along the line of reasoning Rowson (2008) presents. One element of this is that we need to get out of the system of thought itself to have direct experience of this place of awareness, light or insight.

> So even when one accepts that the self is some kind of persistent illusion or theoretical construction, you can’t just ‘snap out of it’, … The more challenging question is whether and why we might function more wisely if we became more fully aware of the nature of self, and not just in terms of comprehension, but experientially. (p. 179)

It is this aspect of *experientially* that is crucial here. This experience would seem to be about a more coherent or direct awareness of reality, less (or not at all, but that is a larger discussion beyond the scope of this article) mediated by the inherently limited representations of the system of thought, or alternatively, creating more coherent representations. At the same time, as Rowson indicates, we do not suddenly ‘snap out of it’ and perceive reality in a radically different way.[13] It seems we need some representations to utilize in mediating our experience, and thus the search for more coherent ones.[14]

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[12] This is in the context of his Pd.D. work (2008): *From Wisdom-Related Knowledge to Wise Acts: Refashioning the Concept of Wisdom to Improve our Chances of Becoming Wiser*.

Awareness and Insight

In searching for examples of such representations, Deikman (1996) equates “I” with awareness. He distinguishes between *I* and self, saying that “this ‘I’ should be differentiated from the various aspects of the physical person and its mental contents which form the ‘self’” (p. 350). For Deikman, who we are *is* awareness, the ‘I’ that observes the contents of experience (yet also having its ground of existence independent of the contents of experience).

From this and Rowson’s line of thinking above, I perceive that to be able to proprioceptively and coherently perceive the virtual nature of self appears to be the epitome of wisdom. “The realization that the self is virtual brings with it the balance of knowing and doubting, the openness to experience and the psychological mindedness that I have already suggested are central to wisdom” (Rowson, 2008, p. 194). This act of realization is “ontologically different from perceptual knowledge” (Deikman, 1996, p. 355). It could be said that it is one way of talking about feeling into a view.

To access this kind of realization of awareness “experientially has a transformative effect” (Rowson, 2008, p. 192). In terms of Kegan and Lahey’s immunity to change process, the transformative effect comes from a combination of the subject object shift and taking action in the world. They say that this transformative effect is not “accomplished by just seeking ‘insights,’ as empowering or clarifying as those insights might feel” (p. 222). They go on to show how “understanding more and more deeply what motivates us” (p. 222) is in itself insufficient for transformation. From this it seems worth investigating how they are using the term insight in relation to what has been found in the inquiry undertaken in this article.

It appears that Kegan and Lahey’s use of the term insight is not the same as Bohm’s. It seems that their use allows for insight to be something that occurs within the immune system. This is in the sense that the ‘self’ has an ‘insight’ which Kegan and Lahey point to as insufficient, requiring action to supplement it in order for the transformative change to occur. Coming from Bohm’s view, this kind of insight, that is had by the self, is not the same as insight coming from beyond the system of thought and thus from beyond the self that system constructs. In this latter case, insight is more related to awareness, or maybe that it comes from awareness and the self merely receives it. However then, as noted by both Bohm and Arbinger, the self lays claim (incoherently, or as an act of self-deception) to the insight as being something that it generates itself.

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[13] Although there are certainly many reported cases of such experiences, they are not the norm and beyond the scope of this article.

[14] There is also an entire discussion about how any direct experience is at some stage interpreted by this system of thought according to our level of cognitive functioning, as well as cultural and other socially constructed influences. To what degree coherence relates to (or does not relate to) cognitive development stages is another matter, but that is also beyond the scope of this discussion.

How does this distinction between self and awareness impact the use of the term self-awareness as noted in the literature review? There the construct self-awareness appears to be utilized without so much explication of the deeper ontological assumptions implicit in it according to the view laid out in this inquiry. In the way it is used in the literature reviewed above, the notion of self is more like how Kegan and Lahey use it, as an identity or entity. Awareness of self is linked to constructs like self-assessment, awareness of our emotional states, or of social relations. One definition given is that self-awareness "is an inwardly-focused evaluative process in which individuals make self/standard comparisons with the goal of better self-knowledge and improvement" (Ashley and Reiter-Palmon, 2012, p. 2). It is apparent that the deeper distinction generated from the present inquiry is not readily apparent in such uses of the term.

Coherence

From these reflections and explorations it is possible to give a preliminary description[15] of awareness as *the experiential realization of the virtuality of self*. Along with the insight coming from such realization, awareness enables a different possibility for transformation than insight appropriated by a self that is part of the immune system. This also has to do with coherence, in contrast to the very fundamentally incoherent act of the constructed self appropriating insight, (or reducing insight to something reinforcing the system of thought and self-image), and then claiming to be the source of insight.

This raises a question around ethics. How ethical can such a self-deceptive process be? There is a fundamental self-deception that comes from the system of thought keeping us tied to identifying with this virtual self. For Arbinger, the move from the darkness of such self-deception into the light is characterized as an ethical move. We can see this in Varela's (1999) thought when he claims that "ethical know-how is the progressive, firsthand acquaintance with the virtuality of self" (p. 63). This matches up very nicely with Arbinger's view of the implications of an I-Thou relationship (Buber, 1958) being the fundamentally ethical basis from which to engage others. In particular, we are encouraged to focus on the transformative effect that comes from acting on the impulses we realize coming from the light of humanity in others. For Arbinger, the ethical use of cognition is in turning our attention to this light.

Immunity to Change Revisited

To bring this back to the examination of the immunity to change process, it is possible to frame the micro subject object shifts Kegan and Lahey describe in terms of dis-identifications. The move of dis-identifying with various aspects of a notion of an identified self that we have been subject to can then be seen as an ethical move, or even in terms of being more coherent. It can also be described as a process of chipping away at or deconstructing layers of illusion collected by our immune system (or the system of thought) in order to protect the identification with the self it has constructed. This process can even be viewed as opening a window (letting the light in) into the experience of the virtuality of at least some small aspect of self.

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[15] I avoid the term definition as I prefer not to get into all of the limitations and constraints I perceive as inherent in the concept and practice of defining terms.

Bringing this part of the discussion to an even sharper focus, what can be gained by reframing what we are subject to at the levels of the socialized and self-authoring mindsets? The fundamental self-deception and big assumption in the socialized mind might take the form of identification with social norms, forms and roles in society being taken as 'real' rather than constructed.[16] Peeling away one rather large layer like this enables the self-authoring mind to be the 'operating system' within the system of thought. Filtering incoming and outgoing information according to its own agenda enables a more complex and powerful stance in relation to the world. Yet Kegan and Lahey (2009) note that this improved, more complex version of the self "may also be a recipe for disaster if one's plan or stance is flawed in some way" (p. 19). Incoherence can strike with any level of complexity of mind. This points to the importance of having more coherent conceptions (or beliefs) as content being used within any order of consciousness. Peeling away the structure implicit in the self-authoring mind can lead to operating from what Kegan describes as the self-transforming mind,[17] yet the same issue of coherence of contents persists.[18]

Coherence can thus be partly understood in terms of structures of consciousness in that the higher orders of this have a more flexible relation to the contents of the system of thought. However, it is also clear that the contents of consciousness play a role in this at whatever order of consciousness we are operating from.[19] While complexity of meaning making will influence how we interpret the content of experience, the underlying and mostly implicit assumptions and worldview will also shape the content and how it is interpreted. At the same time, it has been noted that coherence also has to do with awareness as the experiential realization of the virtuality of self (and by extension and association, the virtuality of our perception of the world as a whole from within this virtual or identified self). This brings the discussion back full circle, to seeing the wisdom inherent in transcending the identification with self.

The discussion thus far has highlighted the new possibilities Bohm's and Arbinger's views bring to the immunity to change process. This centers on a fundamental choice for self-transcendence, or to use a belief, mental model etc. that is more coherent. The contents of this revolve around the virtuality of self and moving away from identification with self as a kind of ontologically real entity. The re-conceptualization of the construct *self* is essential to leverage our attempts to transform our immune systems. I now direct attention to the second focus of this article, the implications of this for leadership, its development and practices.

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[16] This seems to make an easy and obvious connection to the central concepts of social constructionism (Gergen, 1994). Further links and thinking about how the findings and distinctions in this inquiry might inform social constructivism are for the future. As well, how these conceptions could inform our understanding of the self-transforming mind is also beyond the scope of this article.

[17] I have heard that the ITC process is not really designed so specifically for the transition from self-authoring to self-transforming. It would be interesting to see how utilizing the set of conceptions emerging from this inquiry could inform a process more targeted at that particular transition.

[18] Suanne Cook-Greuter (2010) eloquently addresses the misconceptions around presumed advantages of higher order structures of meaning making in themselves being sufficient for people to function well in society.

[19] As well, this is only examining this from the notion of using the construct of 'inner operating systems.' Fisher's (1980) dynamic skill theory can offer another conception to examine this from, but given this article's focus on Kegan and Lahey's immunity to change process, exploring that lens would be for another time.

What can this View of Awareness Contribute to Leadership Development?

The notion of the wisdom of self-transcendence has been described as fundamental in relation to (transformational) leadership (Carey, 1992). From this, what are the broader implications of this for leadership and its development as a whole? This is the question I turn to next. Here I revisit relevant aspects of the literature reviewed earlier, as well as other sources that appear relevant, to see what can be gained from applying the findings from this project to those ideas.

In terms of looking at awareness based practices as a concept for leadership development, the conception of awareness is now more clearly articulated as the experiential realization of the virtuality of self. This is related to the source of insight and a "creative notion of being" (Bohm, 1992, p. 169), or the light of being coming from others (Warner, 2001). This is in clear contrast to the functioning of the immune system/system of thought operating outside of awareness and generating a virtual self. The identification with this virtual self leads to self-deception and all that comes with it. From this, the concept of an awareness based approach to leadership development practices takes on a richer set of meanings and points to a deeply grounded sense of presence in a more coherent perception of events in life.

Developmental Implications

First of all, I note that there could be a further link worth exploring in relation to how Fisher's work on dynamic skill theory could be connected to, or utilized in relation to this notion of awareness as being outside of the immune system, or any constructed sense of self. Fisher's work never used the term ego, and in this sense, can be seen as somehow grounding itself, even if only implicitly, in this domain outside the system of thought. A future project could be to examine how tools built from Fisher's theory (Dawson et al., 2005; Dawson & Stein, 2011; Stein, Dawson, & Fischer, 2010), especially as related to leadership development skills,[20] could benefit from applying the conceptual view described here.

Next, it has already been noted that there are new possibilities in how to approach the immunity to change process. At the same time, there could be implications for ego development theories in general. If ego development is implicitly oriented towards building ever more complex capacities in a self that is inherently virtual, it is possible to imagine it being ever more challenging to master such constructions of self.[21] I do not view this as problematic in and of itself; simply that it invites consideration of how this complex, sophisticated and capable virtual self is kept operating in service, and not as the master. The implications of this for leadership are many. One consideration is how can a given population discern the subtle levels of fallacy and or incoherence that could creep into leadership coming from such a complex virtual self?

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[20] In particular I am thinking about how to understand using the LDMA, or Lectica/Leadership Decision Making Assessment from Lectica.

[21] It is also possible to link this to Vaughan's (1995) (and others) notion of the inward arc, where we develop ego only to eventually transcend it.

Leadership Development

Day & Dragoni's (2015) review of leadership development research mentioned above identifies leadership self-efficacy, self-awareness and leader identity among the key indicators for leadership. It is easy to note that the first two items involve self and the third (of four in total) is about identity. In light of the present inquiry, it is worth taking a critical look at how those constructs are employed in leadership development work. While a thorough undertaking of this is for future projects, some initial considerations can be put forward.

First, Day and Dragoni use the term self-awareness, mixing the two key terms that came to be seen in contrast to each other in this project. Various sources cited in the literature review also note the term self-awareness as central to leadership competency. It was noted above in the discussion that how self-awareness is used in relation to leadership development does not generally address the distinction between self and awareness highlighted here. What might be useful in light of this is to reflect on how the construct of self-awareness is held by the tacit views apparent in such discourse. Is it a self that is aware of its own nature, or is it awareness that is proprioceptive of the virtuality of self? Can making the distinctions noted here between the two terms bring additional clarity or even coherence to the discourse on self-awareness in leadership?

Then what about self-efficacy? Given the distinctions made in this project, self-efficacy could be similar to how it is described above in relation to ego development; what if the self, with this fundamental incoherence limiting it, is so efficacious that it takes control and sees itself as the ultimate master of its world? This could lead to a subtle but deep flaw in how leadership is practiced, certainly a lack of humility. In light of notions of servant leadership (Greenleaf, 1977), seeing self as overly masterly could go against the grain of being of service to a larger sense of purpose. On the other hand, self-efficacy could be conceived in terms of awareness being efficacious in proprioceptively enabling the virtual self to be more and more coherent, and thus better able to serve a larger purpose.

Finally, the notion of an identified sense of being has been understood as a problematic orientation to how we conceive of our beingness in the world. Leadership identity could suffer a similar fate as the previous two constructs. It could lead to a type of self embeddedness which Carey (1992) described as a fundamental option, but one that leads away from the practice of leadership. The other fundamental option is for self-transcendence, which is viewed as the key to practicing transformational leadership. All of this points to the importance of making implicit views, or fundamental big assumptions, sufficiently explicit, at least in relation to this key area. How the construct of self is tacitly informing the lens through which we are viewing leadership is, from the present inquiry, viewed as critically important.

Above, I claimed that one aim for this article was to find how the conception of an awareness based practice could facilitate relevant developmental growth applicable for leadership. The question was raised above in relation to implications of the findings of this inquiry and the field of ego development theory as applied to leadership development. Here I want to breifly address some key points that I believe are worth examining. There are currently a number of ego development models that have been utilized for the purposes of leadership development.[22] (While I believe that many creators of these tools and frameworks are mindful of the distinctions I am foregrounding in this article, I am not sure of the degree to which the implications of the distinctions and view underlying them permeates the everyday application of these frameworks among the broader community of practice). Above, I described some possible implications of dealing with ever more complex constructs of a virtual self. It could be said that a primary focus of these models is very much on developing the very self that has been viewed as problematic. A response I noted above is that from the view arising here, the challenge is to keep in mind a kind of 'personal mastery' (Senge, 1990) that maintains awareness (or 'mindfulness') of the virtuality of this self that is becoming ever more complex (and thus ever better at hiding its own virtuality).

Mindfulness and the Presence of Awareness

This brings up the topic of mindfulness and its relationship to the kind of awareness discussed here. The brief survey of mindfulness presented above desribed both some early sources of this orientation for my own thinking as well as some recent approaches characterized under the conception of presencing (Scharmer, 2000, 2007; Senge et al., 2004). The critical (as well as appreciative) review I did of Scharmer's *Theory U* (Reams, 2007) highlighted what I perceived as some implicitly held limitations in the view behind how presencing was conceived. More recently Jaworski's *Source* (2012) also addressed the issue of what is at the bottom of the U, or if presencing as a concept is actually a gateway into a deeper experience. This deeper experience, in light of the present inquiry, can be conceived of as the awareness itself in the form of the experiential realization of the virtuality of self. As noted above during the exploration of Rowson and Varela's conceptions of this, maintating a degree of awareness is seen as the core of wisdom. Thus it is possible to think of mindfuness as maintaining awareness and realization of this virtuality, creating keeping the self in a coherent context or perspective.

This kind of mindful awareness is perceived as central to leadership. This notion is also found in the work of Chatterjee (1998), who states that "leadership is not a science or an art, it is a state of consciousness" (p. xix) and that "we can now begin to grasp the phenomenon of leadership as the field of awareness rather than a personality trait or mental attribute" (p. 24). Conceiving of leadership in this manner, given the rich set of associations and connotations that have been found here in relation to awareness, allows for a clear connection to the distinction made between awareness and self. Here there is the addition of the term field to awareness, giving a nuance that can be utilized further in this discussion.

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[22] A brief survey I did recently for another purpose revealed a surprising number of instruments. Some were values based developmental models such as Brian Hall's, Richard Barrett's and the Spiral Dynamics work. Ego development tools included Bill Torbert's Global Leadership Profile, Susann Cook-Greuter's Leadership Maturity Framework and corresponding Maturity Assessment Profile, Terri O'Fallon's StAGES model, Otto Laske's Leadership Development Assessment and Bill Joiner's Changewise 360. Of course many consultants also use Kegan's subject object interview protocol to support leadership development work.

A field has properties that come from what can be conceived of as initial conditions.[23] These conditions are often stable, or not accessible to change without the capacity to directly perceive them. The effects of these initial conditions and the fields they create are also referred to in some discourses as culture in an organization, which is generally perceived as very difficult to produce meaningful changes in. This is visible in the phrase from Peter Drucker that *Culture Eats Strategy for Lunch* (Coffman & Sorenson, 2013). Owen (2000) talks about myth and storytelling in relation to culture and its transformation, pointing to the power that is available in a leader being able to shape the field or culture through the culture generating method of myth and storytelling. From this the ability to consciously (and coherently) perceive the initial conditions that generate these fields can be conceived as an act of leadership.

Central to this is the how "high-energy seeing enables you to touch events or persons with a quality of awareness" (Chatterjee, 1998, p. 3). The quality of awareness referred to by Chatterjee can be interpreted here as the kind of self-transcendent, coherent and insight generating creative conception of being that came from the findings of this inquiry.[24] This is further exemplified by Chatterjee saying that "there comes a time when an individual becomes irresistible and his action becomes all pervasive in its effect. This comes when he reduces himself to zero" (p. 51). This reduction of self to zero is the ultimate self-transcendence, a move away from being identified with not only a self, but any of the roles or even objects that become centers of identification.

Concluding Reflections

Here, near the end of the journey of this project and article, I find it useful to look back and try to summarize what has come from this inquiry. First, what can be said about the ITC process? The concept of overcoming our immunity to change has been examined by analyzing how two other lenses on this phenomenon can add nuance and distinctions. Given that big assumptions play a critical role in the ITC process as described by Kegan and Lahey, it is clear that the content of our beliefs and making them more coherent is central to success in this. The inquiry undertaken here focused on how the identification with self is held to be the central assumption limiting change. If we are embedded in an identified sense of self, we fall prey to a fundamental self-deception which darkens our perception of the world and leads to all manner of self-justification that creates the problematic challenges in our lives. We end up living outside of awareness in the immune system's constructed representations of reality.

The antidote for this darkness or incoherence of perception is taken to be awareness, the *experiential realization of the virtuality of this self*. This is awareness as distinct from the system of thought and generating insight which can bring greater coherence. Achieving and holding this view is tied to being open to acting on the impulses for action arising in us from attending to the light of humanity coming from others. The immunity to change is thus rooted in self-embeddedness, and its cure is found in self-transcendence.

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[23] There is of course a well-developed discourse on how field theory can be applied to leadership that I am only briefly touching on here. For one of the more influential descriptions of this, see Wheatley (1992).

[24] This can also be thought of in terms of quality of presence (Reams & Caspari, 2012).

Then what about leadership development? Self-transcendence is also seen as key to leadership, and is found in such popular conceptions as servant leadership. It is also apparent from this inquiry that reconsidering the construct of self-awareness in relation to leadership can be a fruitful area to explore further. Viewing awareness as the proprioceptive perception of the virtuality of self, enabling (through insight) the virtual self to be more coherent, can provide a key for leadership.

The degree of this awareness present in leaders/leadership contributes to the overall quality of presence through the field of greater coherence it generates. This field of awareness can be seen as the deepest level of functioning of leaders/leadership, enabling others to engage in this process of using the events of life and work to foster their own and their organization's as well as societies' growth towards coherence. Leadership in this sense consists of the choice to attend to the light coming from others and engaging practices that support this.

The larger aim of this project has been to lay a foundation for understanding *awareness based practices for leadership development*. While thoroughly applying the conceptions arising from this inquiry to a variety of aspects of leadership development is for future projects, some groundwork has been laid here. How awareness is conceived and distinguished from self helps to clarify what has been conflated, implicit or unclear previously. The wisdom in proposing the virtuality of self also provides a foundational conception for going forward. The understanding that the experiential field of this awareness generates spaces that can give a sense of purpose and alignment to others provides a direction for focusing development work in leadership.

Limitations and Benefits

Given what has been put forward here, there are some clear limitations to this article. The *feeling into a view* presented here is both enhanced and biased by my own experience of the virtuality of self.[25] At the same time, this is the phenomenological lens that has emerged for me from the re-hardwiring of the system of thought that this experience generated. Thus the implicit lens (that I have worked to make as explicit as possible above) used here in a sense limits this work to first person validity.

At the same time, the use of methodological processes to work through the textual accounts of what are perceived as related views of a similar phenomenon has been aided by the possibility that this tacit view could act as a tuning fork, to guide me in the selection of text to analyze as well as in helping me bring an appreciative interpretation that could open up possibilities from making this tacitness more explicit. It is up to each reader to determine the degree to and or areas in which the views put forward in this article resonate, or give voice to some tacit knowing.

As well, this project was intentionally limited to drawing on a few sources chosen for their personal interest and perceived relevance to the topic. I did not draw on Kegan and Lahey's (2001) earlier work on the immunity to change process. I also neglected to utilize various writings by David Bohm on the topics of implicate order and dialogue (1980, 1996). While I suspect that a more thorough analysis including these texts could have enriched the project, I also suspect that the outcomes might not have varied so much, as I had a sense of saturation of the relevant themes from the texts used here.[26]

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[25] This came up in the course of my conversation with Jonathan Rowson (Reams & Rowson, 2015).

In the end I make no clear claims of empirical certainty from this project. I simply offer an explication of this view, aided by whatever degree of rigor I could bring to bear through the method, to a subject matter that has generated a significant interest.

Reflections

My first venture into the world of academic writing (Reams, 1999) asked the question "who do we think we are?" This subtitle was intended to imply that the self that thought constructs is not 'who we are' in reality.[27] As I stated above, it is clear that there is a deeply tacit view around this that I have been working to articulate throughout the part of my life that has found an outlet in academic life. The application of this view to leadership development has also guided the direction of my work. This article is another step along that journey.

I see that most of what I have done here is simply to make more explicit something that is in many ways obvious and apparent, at least given a deep sense of a tacit view that I perceive as having some degree of coherence. In aiming to unpack the distinctions here around awareness based practices for leadership development, my goal has been to bring these out for a more detailed examination. My hope has been that this will first of all build some basic foundational pieces for future work in this area. It is also a hope that this project will provide a basis from which to further unpack implications of extending the view these distinctions arise from in relation to other aspects of leadership and its development.

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[26] I am also painfully aware of a rich set of texts highly relevant to this project that have been (as described above) bracketed to the side for the sake of being able to do at least this much. Notes are piling up in relation to many of those, as well as many more I know are possible to engage. At the same time, it is clear that a very different and contrasting or contradictory set of texts, data and research results could be taken into such a project to bring a more diverse or balanced orientation to the worldviews or paradigms engaged here. All of these contribute to the limitations of this work.

[27] While it is beyond the scope of the present article, the answer given to the question was simply soul. I later gave a definition of soul as a "*creative unit of pure awareness*" (Reams, 2012, p. 104, italics in the original). More recently I had the opportunity to interview Jonathan Rowson (Reams & Rowson, 2105) and we had a lively discussion on revitalizing the use of the term soul in public discourse.

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Appendix I: Methodological Considerations

There are various ways in which I can categorize my sense of the methodological background that I have utilized in doing this work. In this appendix I will primarily address the main considerations behind my approach to and preparations for the project.

The notion of bricolage might be the best starting place. Rowson (2008) notes that a bricoleur or "handyman" (p. 127) is well suited to address methodological issues raised in a post-positivist, socially construct aware research culture. His realization that the notion of 'findings' are less relevant "because on this sort of topic [wisdom] there is nothing to be credibly 'found'" (p. 128) leads me to articulate that my goal is less to show findings in an empirical sense and more to reveal a sense of feeling into a view (although there are components of both intertwined). This can be linked to Gadamer's (1993) perception that "all understanding is ultimately self-understanding" (p. 260) indicating a need to have a strong heuristic (Moustakas, 1990) component in the mix. Thus in the methodological considerations for this research I draw on a range of handyman tools; [28] methodological components chosen as perceived to best fit with the different phases, components and needs of the research project.

Gidley (2007) cites Denizen and Lincoln (2005) in describing a bricoleur-theorist as one who "works between and within competing and overlapping perspectives and paradigms" (Gidley, 2007, p. 6). The tensions and challenges inherent in moving beyond disciplinary approaches towards transdisciplinary ones can be described in terms of complexity of cognition and "the epistemological structure of interdisciplinary validity claims" (Stein, 2007, p. 91). Thus working between and within competing and overlapping perspectives and paradigms requires adequate cognitive complexity to take perspectives on those tensions. It also demands sensitivity to level of analysis issues, or what I like to call attending to the 'domain of validity' of a given aspect of the inquiry at hand. It is in this sense that I find a bricoleur approach that enables the use of domain appropriate methods in a sensitive manner best suited to the current undertaking.

I am also mindful of the difficulties in accomplishing this with a substantial degree of transferable recognition among a community of those who are an ongoing part of this discourse. In addition, given that an explicit aim of this work is to begin establishing theoretical foundations for developing an understanding of awareness based practices for leadership development, there is a wish for this work to also speak in an intelligible way to a broader audience possibly unfamiliar with some aspects of the territory covered here. Thus I aim to navigate between a complex and critical inquiry into this view and an articulation of it that meets a reasonable demand of general intelligibility.

Given these orienting perspectives, I will now delve into the more specific and substantive issues appropriate within each methodological tool in my tool belt.

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[28] I find this notion of bricoleur as handyman especially appealing. It enables me to draw on other aspects of my life experience as a way of understanding how a handyman works with different tools and trades to do things. Having a farming, construction and truck driving background, I have a very embodied sense of how to be able to do a bit of everything necessary in a given context.

Metatheory

There is a clear sense in which this work falls into the category of metatheoretical research given that I am using the texts and theories of others as my primary source of data. My respect for the work of Mark Edwards (2010) in this field is documented elsewhere (Reams, 2011). Here I want to acknowledge and draw on elements of this approach I perceive as appropriate, without laying claim to doing rigorous metatheoretical work. In a rigorous metatheoretical method, Edwards would include: groundwork, domain specification, design, multiparadigm review, multiparadigm analysis, metatheory building, implications, and evaluation. I will briefly outline how I have or have not addressed these.

For the groundwork aspect of this I can draw on decades of personal practice and inquiry into consciousness and awareness oriented practices and academic inquiry into consciousness studies and leadership studies. I also described in the introduction how I am focusing on the domain of awareness based practices for leadership development using ITC as a leading exemplar, providing a degree of domain specification.

The design of the project within the domain specified is that I took literature from three sources and engaged in a textual analysis of elements that meet criteria I will lay out in the methodology section (Kegan and Lahey's (2009) Immunity to Change, David Bohm's (1992) Thought as a System, and the work of the Arbinger Institute (1997, 2006, 2010; Warner, 2001)). To a degree this diversity of focus sources addresses the call for a multiparadigm review, although the boundedness also clearly puts limitations on how well this step is addressed. These three primary foci will be partially supplemented in the discussion with relevant insights from other fields that are deemed pertinent to shed light on aspects of this project. These additional sources might also be considered to come from diverse paradigms, helping better address this component. [29] The aspect of multiparadigm analysis is part of the design in so far as the outputs from the textual analyses are presented.

Metatheory building was then undertaken in the specified domain. This happened primarily by weaving the threads provided by the three theoretical lenses to find common themes as well as important distinctions and how those influence thinking about ITC in particular. The implications of this are linked to relevant literature. Finally, some brief evaluative reflections on the outcomes of the process are undertaken. In this limited manner I have aimed to bring a metatheoretical methodology to bear on this project.

Heuristic Inquiry

The nature of this research is such that it involves a good deal of 'self as instrument' in that as a researcher I was holding the question of inquiry while noticing and reflecting on my subjective experiences as I engaged in reading the various texts that are the focus of this project. In the background phase, I had some unarticulated felt sense of what this notion of awareness based practices for leadership development are, and of what each construct is about. This comes from my prior immersion in various experiences, reflections on them and trying to make meaning by connecting them to language and meaning I encounter in a variety of communities of discourse. There was also a phase of probing and testing for the utility of emergent ideas in various settings to see if the meanings forming bear up in different conditions and contexts. All of this points to drawing on heuristic inquiry as an aspect of the methodology.

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[29] The intention to build on this work in the future by engaging a broader range of relevant theory places the current article within the context of a longer term research and publication agenda.

Moustakas (1990) tells how “underlying all other concepts in heuristic research, at the base of all heuristic discovery, is the power of revelation in tacit knowing” (p. 20). Tacit knowledge is described by Polanyi (1983) simply as “we know more than we can tell” (p. 4). It also “is personal knowledge embedded in individual experience and involves individual factors such as personal belief, perspective, and the value system” (Nonaka & Takeuchi, 1995, p. viii). Heuristic inquiry utilizes a combination of the subsidiary and focal elements of tacit knowledge. The subsidiary factors include those elements of experience that stand out in examination and attract immediate attention, are visible, part of conscious awareness, and can be described. The focal elements include the unseen and invisible, and make possible access to the wholeness of the phenomenon. The combination of elements facilitates the researcher’s task of making tacit knowledge of the subject explicit and communicable.

In this project, part of the method or procedure used was for me to notice what stood out for me when reading the texts, being sensitive to how the perceived meaning in and between the lines lit up, or connected with some of the tacit knowing that I held as a sort of tuning fork. Using this criterion I had a means by which I could select elements of text from the whole. The main challenge was to maintain a degree of focus and mindfulness of my inner state while reading to keep the sensitivity to this ‘tuning fork’ quality in the foreground. I held this notion of my tacit understanding as a way to conceptualize the criteria by which I chose statements to highlight and analyze.

My approach to this was informed by the concept of adequatio, or that “the understanding of the knower must be adequate to the thing to be known” (Palmer, 1993, p. 51). Similarly, Braud and Anderson (1998) note that “we can perceive and know only that for which our sensitivities have prepared us, and these sensitivities depend on aspects of our being” (p. 22). Osborne (1993) states that “we cannot inductively derive an essence from examples unless we can already intuit that essence” (p.171). In this manner I perceive the ongoing heuristic inquiry component of the project to be a kind of dialogue between my evolving tacit and explicit (Nonaka & Takeuchi, 1995) knowledge with the texts and phenomenon encountered through experience. I conceive this in terms of a kind of ‘dynamic steering’[30] where with each data point, clue, or piece of the puzzle, I made some form of course correction that helped navigate towards the subject of inquiry.

Hermeneutics

Using the texts of three sources as the basis for this work implies that within this bricoleur approach the element of textual content analysis is the most visible, tangible component of the methodology. Closely related to this is the use of a hermeneutic orientation, being explicit about how I am interpreting the texts in view. Gidley (2007) outlines a four quadrant description of Ricoeur's (1986) approach to hermeneutics from which I draw on the notions of the autonomy of the text itself (in that it stands for something), this in relation to the socio-cultural backdrop it was written in and with an eye to the intentions of the author (or trying to read between the lines into what is tacit in the author's view). This hermeneutical approach to textual interpretation is of course grounded in the lenses available and chosen for this work. This depends on the heuristic aspects described above.

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[30] I am borrowing this term from my encounter with the practice of Holocracy.

One of the choices I faced was how to navigate the tension between a hermeneutics of suspicion (Ricoeur, 1986) or of a rational analytical "demystification" (Palmer, 1969, p. 44) of the text and a demythologizing, which "deals lovingly with the symbol in an effort to recover meaning hidden in it" (ibid. p. 44). While my preference is for the latter, leaning on an appreciative reading of the texts, I recognized the need to draw on a critical, rational analytical eye from time to time.

Palmer (1969) points to a mode of understanding more fundamental than rational analysis. This can also be seen in relation to Nonaka and Takeuchi's (1995) conception of tacit knowledge, or Gadamer's (1993) prejudice or the hermeneutical horizon of our preunderstanding. It also points to a conception of a 'trans-rational' mode of knowledge (Reams, 2002), in that the analytical function of rationality is secondary and where the notion of 'defining' the focus of inquiry is considered to be 'unwise' (Rowson, 2008). It is in this sense that I aim to uncover, illuminate and describe what I perceive as emerging from this inquiry.

Appendix II

Node generation results based on weighted percentages. (Most relevant results only).

Exact

Word	**Count**	**Weighted %**
self	69	1.58
thought	57	1.30
change	43	0.98
system	38	0.87
others	32	0.73

Stemmed

Word	**Count**	**Weighted %**
self	69	1.58
thought	66	1.30
change	56	0.98
feelings	48	0.87
systems	44	1.10
make	39	0.89
others	35	0,80
immune	33	0.76

Synonyms

Word	**Count**	**Weighted %**
make	172	2.25
feelings	106	1.79
thought	99	1.77
self	69	1.58
change	69	1.41

Specializations

Word	**Count**	**Weighted %**
conscious	82	1.66
cognitive	495	1.63
thought	360	1.46
change	394	1.17
others	59	1.11

Generalizations

Word	**Count**	**Weighted %**
conscious	82	1.65
others	60	1.11
make	412	1.09
cognitive	495	0.94
thought	360	0.90
change	424	0.87

Appendix III

Table of Theme Summaries

Theme	Kegan and Lahey	Bohm	Arbinger
Self	Notion of self as entity that is identity, tells a story and protects itself.	Concept of self is linked primarily to incoherence or illusion.	Conceptions of self related to underlying root cause of betrayal, deception, justification.
Conscious	Primarily as conscious of self in relation to various aspects; identity, narrative, protective.	Linked to either being aware and learning or of being deceived and not conscious.	Notions of asserting a fictional self and deception and betrayal.
Immune	Central concept, both as an intelligent force that resists change and can be overcome and change into a bigger and more complex system.	No direct mention.	No direct mention.
System	System occurs first as an immune, defense, anxiety management system. System occurs second as a mindset or intelligent force that can become bigger and more complicated.	System is in relation to how thought is conceived, a single set of reflexes including thinking, thoughts, feelings, felts.	Not mentioned in text.
Others	Opinions we need to defend against.	Helping.	Two main themes, around either resisting, accusing, blaming or diminishing others, or a mutual response to the light in others to enable change.
Feelings	Feelings as being intricately inherent in the problem, forming an ecology that resists change.	Feelings as part of the set of reflexes making up the system of thought.	Feelings as untrustworthy, justifying, misleading us. Also feeling related to generosity of spirit.
Change	Change conceived as mental development, changes in structures, developmental shifts i.e. subject / object, altering theories in use.	Change as modifying reflexes, electrochemical, perception. Also as deception or moving away from awareness.	Change conceived as both self-betrayal, shifting blame, taking offense and being open, affected by the light of others, responsive to truth, fundamental change of heart.

Make	Make generalizes into several concepts; creating things like anxiety management systems, warning systems, false beliefs, blind spots, constraining action, actively preventing change. Also a process of developmental shifting.	Make shows up in relation to reflexes producing thought, separation and self-deception, unawareness / insensitivity, changes in perception, making traces and false information, affecting and determining action.	Make as resisting what we have created, accusation and making wrong appear right, making justifications and projections. Also as making clear distinctions, allowing others influence, becoming receptive to truth.
Thought	Thought as meaning making, assumptions, opinions. Also as a warning system.	Multiple conceptions; as the source of problems, deceptive, participating but hiding assumptions, giving false information and affecting perception. As a set of reflexes that automatically control, resist and defend. Identity as incoherence, creative perception and being, insights and truth, coherence (detachment).	Thought as perception, judgment, understanding. Insight as notion of truth. Anxiety and resistance. Heart, change and peace, character.
Cognitive	Cognitive in relation to structure, mindset, intelligent force. As creating reality. Insights and respectful stance. Insufficient for change, creating blind spots	Thought as a system, active, probing set of reflexes. Coherence and incoherence. Deception, resistance to insight, forgetting, participating. Produces an ‘I’. Insight, coherent perception, unconditioned capacity, creative being, perception of truth.	Subtle and pervasive self-preservation, resistance of truth. Making and believing judgments. Insecurity about filtered perception and moral sense, process of justification. Heart at peace, affected by the light from others, love, insight, discernment, responsive to truth, forgiving.

Appendix IV: Key Themes Illustrated

This appendix is (mostly) made up of one paragraph describing the summary of each theme (related to the table in Appendix III) with varying amounts of quotes used to illustrate the use of these terms and provide a rich picture of key elements to be woven together. The order was decided by contemplating on the nature of each term and how I perceived the best narrative to unfold. Thus the ten terms are ordered first in relation to the concepts that seemed most obvious as well as those that were not as richly utilized, saving the less obvious and more referenced ones for later (these came mainly from the specialization and generalization query results).

Self

I began with examining how the concept of *self* was used. First, implicit in how I perceived Kegan and Lahey's use of self was that they appear to treat the construct of self as a given, an identity or 'entity.' While this can be considered as a common or popular view in relation to the term, making this explicit here is important. This is because both Bohm and Arbinger utilize the construct of self in relation to terms like illusion, incoherence or the root cause of betrayal, deception and justification, implying a fundamentally different view.

Kegan and Lahey talk about how someone "gradually rewrites the self-narrative" (p. 133) and how criteria for a good entry in column three of the ITC process "is that it is self-protective" (p. 150). Bohm writes about how we are conditioned to resist seeing how thought is "infusing our imagination, our past, our knowledge into what we see" by itself and "that's really where the self-deception arises" (p. 161). In terms of creating an image of self, he writes that "the system contains a reflex which produces the thought that it is *I* who am doing everything" (p. 92). This eventually works into the conception of having "the notion of a creative being, rather than an identified being" (p. 169). For Arbinger, is it clear that self is also linked to how "we cannot doubt that our judgment is true" (1997, p. 4) and this becomes so entwined in us that "self-deception permeates experience" (p. 5). Arbinger even goes so far as to say that the self-betrayal that is the root of self-deception creates a "virtual reality, the product of the technology of defense inevitably employed by self-betrayers" (p. 9).

Conscious

When looking at the term *conscious*, it is used in similar ways as self is for Kegan and Lahey, as in being conscious of self in relation to identity, narrative and being protective. For Bohm it is used more as a distinction between being aware and learning or of not being aware and being deceived. For Arbinger, it occurs around notions of asserting a fictional self and from that again linked to deception and betrayal.

Kegan and Lahey also talk about not being consciously aware: "Though you are not aware of it, you have created a very effective anxiety-management system … But neither of them experiences this anxiety consciously or constantly because the immune system is working beautifully to manage it automatically" (p. 48).

Bohm writes that: “We are producing these situations contrary to our conscious intentions because there is another resistance going on of which we’re not very conscious” (p. 11) which sounds very much like the description of immunity to change Kegan and Lahey use. Bohm also describes a type of resistance coming from the system of thought that avoids any unpleasantness and “is set up to move away from awareness of that” (p. 34). To counter this he proposes a stance where “we don’t try to do anything. We’re just learning – aware, attentive, learning” (p. 84), again sounding a lot like the ITC process.

For Arbinger, the assertion of this fictional self is described as; “constant self-assertion equals constant anxiety equals constant resistance” (1997, p. 6). The remedy or antidote for this is expressed clearly. “Self-betrayers do not comprehend that what they need is the destruction of this fictional self. … The phony self-image must die in order that they, as sensitive human beings, might live” (Warner, 2001, p. 77). Thus the notion of being conscious is somehow connected to being aware of and noticing the automatic operation of the fictional self to enable something more than self as a self-image to live.

Immune

Immune was the term that came up the least in the queries (see Appendix 1), however I wanted to include it because of its central place in Kegan and Lahey’s concept of immunity to change that is a focus of this project. For them it is used in relation to notions of an intelligent force that while it resists change, can be overcome. It can also change into a bigger and more complex immune system. Bohm and Arbinger did not mention it.

Kegan and Lahey note that like this intelligent force, the immune system in our physical bodies is trained to reject new material. Sometimes “the body needs to heal itself or to thrive, [and] the immune system can put us in danger. In these instances the immune system is no less focused on protecting us. It is just making a mistake” (p. 37). In response to this, they do not see a need to eliminate our psychological immune systems. “The solution … lies in transforming this immune system, in building a bigger and more complicated immune system” (p. 49). In this sense immune is used as a direct analogy between how our physical bodies function and how our emotional or psychological bodies function.

System

Kegan and Lahey use the term *system* in two ways, first in relation to the notion of an immune system, characterized as a defense or anxiety management system. Second, they talk about it as a mindset or intelligent force which can gain in complexity and size. For Bohm, system is part of how thought is conceived, as a single set of reflexes (described in more detail in the section on thought). Arbinger does not refer to the term system in the text excerpts I had noted.

Kegan and Lahey write “that every immune system is an intelligent force that seeks to protect you, even to save your life” (p. 47). The key to growth for them “lies in transforming this immune system, in building a bigger and more complicated immune system” (p. 49). Bohm’s use of the term is quite broad, using it to say “that system not only includes thoughts, ‘felts’ and feelings, but it includes the state of the body; it includes the whole of society” (p. 19).

Others

All of the previous terms resulting from the queries were expected given the nature of the literature and focus of my extracting quotes from these sources. The term *others* was less anticipated. This was shown in that Kegan and Lahey primarily use the term in relation to self-protection, or defending ourselves from others opinions. Bohm only mentioned others in terms of helping others by sustaining dialogue. For Arbinger, the conception of others occurred in relation to two main themes. One was related to resisting, accusing, blaming and even diminishing others. The second was in relation to mutuality and responding to the light in others to enable change.

Kegan and Lahey talk about this self-protection as being "about protecting or defending the self we want others to see, or the way we want to see ourselves" (p. 150). Bohm notes that "once you have an insight into this, sustaining the dialogue in yourself will help the others" (p. 208). However for Arbinger, the notion of other plays a much more important role. For example, in the state of self-betrayal with others, "together we create and reinforce for one another the self-deceived reality in which we each feel unfairly treated, and each are convinced that we alone are completely justified" (1997, p. 9). In addressing our way of being they note "the deepest way in which we are right or wrong … is in our *way of being* toward others" (2006, p. 57, italics in the original). In relation to how we can make changes in this, they note that "*to the extent that we can come to see others differently, we can undergo a fundamental change, a change in our being, a change of our emotions and attitudes, a change of heart*" (Warner, 2001, p. 46, italics in the original). This change of heart is enabled by us being able to let "*ourselves be affected by the light coming from others, or, in other words, the truth concerning what they are feeling*" (p. 151, italics in the original). This is very much linked to taking an I-Thou (Buber, 1958) orientation to others.

Feelings

Kegan and Lahey approach *feelings* as a central part of the ecology of our immune systems that resist change. Bohm sees feelings as another facet of the set of reflexes that make up the system of thought and can lead to a feeling of necessity. For Arbinger, there appear to be two themes; one around feelings as justifying, misleading and untrustworthy, while the other is around a generosity of spirit.

Kegan and Lahey note that in order to make a successful immunity to change map, it is critical that our improvement goals are not merely rational, but that "we must also experience sufficient need or desire, visceral feelings" (p. 210) in order to "connect head, heart, thinking and feeling" (p. 31). Bohm describes how "feelings are tremendously affected by thoughts. And obviously thoughts are tremendously affected by feelings" (p. 7). This interconnectedness is also visible in the power of the feeling and "thought of necessity. It is much more than a thought. The word 'necessity' means 'it cannot be otherwise,' and the Latin root means 'don't yield'" (p. 68). Thus the resistance that has been described elsewhere can be linked to this feeling of necessity.

For Arbinger, feelings have this polarity of deception or liberation. On the one hand, "self-betrayers truly do have their accusing, self-excusing feelings. But this does not mean that the feelings themselves are truthful" (Warner, 2001, p. 31). In this state of self-betrayal and not being truthful, these feelings can deceive us and "our moral sense or conscience becomes untrustworthy" (p. 110). Yet on the other hand, "a correct understanding of why we feel and think and act as we do helps to set us free" (p. xii). The key then is in the correct understanding, or as noted below, can be thought of as coherence.

Change

For Kegan and Lahey, *change* is conceived as mental development or changes in structures of meaning making or the altering of theories in use. For Bohm it is about modifying reflexes, electrochemical changes in the brain and perception, as well as deception and moving away from awareness. Arbinger again has a twofold use; one in relation to self-betrayal and shifting blame and the other is around being open to being affected by and responsive to the light in others, leading to a fundamental change of heart.

The changes in the structure of meaning making Kegan and Lahey describe are not simply additive, but for them development is transformative. "This means that if we want to increase mental complexity, we need to move aspects of our meaning-making from subject to object, to alter our mindset" (p. 51). As well, the notion of immunity in relation to change means that "we are actively preventing the very change we wish to make" (p. 56).

Bohm also noted this resistance in relation to change, as in when we encounter unpleasantness and there is a move away from awareness of it. This resistance is linked to the notion of identity; "because that gets in the way of the need to change our reflexes. Once we identify with something, our reflexes are that way – it's very important, 'necessary'" (p. 167).

Arbinger note that "we resist changing the very emotions that make us miserable" because "these emotions and attitudes are accusing and inherently dishonest – and for this reason they are intrinsically resistant" (1997, p. 9). Echoing Bohm about how thought enters perception and then denies it, Arbinger state that "we participate in the creation of our emotional troubles and deny we've had any part in it" (Warner, 2001, pp. ix-x). They then point out that the "truth is, we change in the moment we cease resisting what is outside our box – others" (2010, p. 145). Above it was noted that this is connected to allowing ourselves to be affected by the light coming from others. It also comes down to a choice and following through on it.

Make

Make is a term I had not anticipated coming up in this list. However, it showed up as I queried stemmed words and at the synonym level it was the highest on the list. It turns out to be a very rich construct in this investigation. For Kegan and Lahey it generalized into concepts such as creating anxiety management systems, false beliefs and blind spots. It also was seen in relation to actively preventing change and as a process of developmental shifting. For Bohm, it showed up in relation to reflexes producing thought as well as in the process of separation, self-deception and unawareness. This was also around changes in perception that affected and determined action. For Arbinger, make was used in relation to resisting what we have created; making justifications that make wrong appear to be right, or making projections. However it was also used in relation to making distinctions and allowing others to influence us and becoming receptive to truth.

Kegan and Lahey see that they are "as it were, seeking to describe the structure of each way of meaning-making, why it created the reality it did" (p. x). Thus there is a creative activity going on. It also is clear that "you have created a very effective anxiety-management system" (p. 48), in the form of an immune system which "has been giving us relief from anxiety while creating a false belief that many things are impossible for us to do – things that are in fact completely possible for us to do!" (p. 50). Then this immune system inevitably creates "blind spots" (p. 48).

One of the central propositions in Bohm's view is related to how the set of reflexes, or system of thought, fundamentally deceives us.

> Thought runs you. Thought, however, gives the false information that you are running it, that you are the one who controls thought, whereas actually thought is the one which controls each of us. … That's the difficulty. Thought is participating and then saying it's not participating. (p. 5)

As well, "*thought is affecting what you see*. The representation enters into the perception." (p. 110, italics in the original). Related to Kegan and Lahey's notion of how our immune system keeps us acting against our best intentions, Bohm notes, "we don't realize that it is our deeper, hidden intentions which have produced it, and consequently we keep on perpetuating the problem" (p. 12). The antidote to this is gaining some perception by making things explicit; "whereas if you don't make it explicit you can't see that thought is involved at all" (p. 82).

For Arbinger, "to have that attitude is to be making and believing that judgment" (1997, p. 3) and that "we create what we resist by resisting it" (p. 6). However, like Bohm points out, thought moves us away from awareness of this, as it is uncomfortable. For Arbinger the outcome of this is that "we live a lie. This self-justifying lie takes the form of an accusation" (p. 8). The self-justification comes from self-betrayal, which together create a "virtual reality, the product of the technology of defense inevitably employed by self-betrayers" (p. 9). Yet not all is so depressing.

Warner (2001) notes that in order to answer these questions "we must draw a clear distinction between the light, or source of our understanding of right and wrong, and conscience" (p. 133). This light "continues always to stream toward us from the faces and voices and gestures of others" (p. 133) while conscience is one of our faculties that can be deceived. "To the degree that we become receptive and responsive to truth, life will keep instructing us" (p. 321).

Thought

Thought showed up in Kegan and Lahey's text excerpts in relation to meaning making, assumptions and opinions, as well as a kind of warning system. For Bohm it is of course a central construct. He uses thought in relation to being the source of problems, deceptive, and affecting perception. It is also described as an automatic set of reflexes that control the system, resisting change and defending itself. He also uses it in relation to the concept of coherence (related to insights and truth) and incoherence (related to participating in creating assumptions but hiding that participation). Arbinger uses thought in relation to constructs such as perception, judgment and understanding. They also see it in relation to insight as a notion of truth. Finally, they also use it in relation to a change of heart, peace and character.

Kegan and Lahey point to the need to get beyond thinking to shift our immune system. "We can't merely think or feel our way out of an immune system no matter how high our motivation is to accomplish our goal" (p. 217). They also imply something other than thought for this. "They all become keen observers of their own thoughts, emotions, and behaviors, and they learn to use these as information" (p. 244).

Some of the key constructs around thought for Bohm are described in the previous sections. Here I wish to focus on a more specific aspect, coherence of thought.

> The criterion for coherent thought is that it is true and correct. But if you can get pleasure or pain from thought then coherent thought is no longer functioning. Rather, the criterion has become whether the thought gives pleasure or pain, consequently that thought becomes destructive. If thought can be determined by pleasure or pain, that's already the beginning of a lot of trouble. (p. 49)

This is reiterated in the phrase "it can deceive us about anything and everything. There is no limit to its power of deception" (p. 99). As well, there are layers of incoherence involved. "We're saying that there is a second order of incoherence which avoids facing the first order; this second order avoids facing evidence of incoherence" (p. 63). This deception comes from unawareness of thought's participation in perception. It is Bohm's conception of insight that is perceived to have the possibility of remedying this unawareness. "An insight or perception of truth may deeply affect the material processes, which includes all of the reflexes" (p. 148). The result of this unconditioned insight is that "freedom is the creative perception of a new order of necessity" (p. 220).

For Arbinger, "often we call our sense of right and wrong conscience, though that name doesn't capture the way it arises from our living connection with other beings" (Warner, 2001, p. 21). Yet in the state of self-betrayal, we lose this connection and "in the darkness of our self-absorbed, suspicious thoughts and feelings, we cannot discern the way forward" (pp. 110-11). The remedy is described as a change of heart. "But even at its most profound, the change of mind and heart amounts only to a beginning" (p. 245). What follows from this is described in terms of forgoing. "If forgiving can be thought of as recovery from moral and emotional illness by means of a change of heart, forgoing is never falling morally and emotionally ill in the first place, never needing a change of heart" (p. 302).

Cognitive

The final of the ten terms coded was *cognitive*, which turned out to have the most uses when at the level of specializations and generalizations (495). Kegan and Lahey use the term in connection with structure, mindset and an intelligent force. They also connected it with creating reality and insights, but talked about it as insufficient for change and creating blind spots.

Bohm's use was connected tightly to the notion of thought as a system, an active, probing set of reflexes. It was also linked to coherence (now also as unconditioned capacity, creative being and the perception of truth) and incoherence (deception, producing an "I" and resistance to insight). Arbinger linked cognitive to; a subtle and pervasive self-preservation, resistance to truth, making and believing judgments, filtered perception and moral sense and justification. They also used cognitive in a different sense, in relation to; having a heart at peace, being affected by the light from others, insight, forgiving, discernment and being responsive to truth.

Many of the textual quotes relevant here are also represented above in relation to other terms. What stands out here is how Kegan and Lahey note that "we build an immune system to save our lives" (p. 50) and yet "we can't merely think or feel our way out of an immune system no matter how high our motivation is to accomplish our goal" (p. 217). They point to the need for "changing both their mindset … and their behavior; rather than changing only mindset or behavior" (p. 224).

For Bohm, many of the key quotes above are relevant here as well. However, he does describe cognition in a manner that illustrates the system perspective on how our 'immune system' resists change. In relation to moving away from pain or towards pleasure, he describes how:

> Now, by inference – by just thinking about it clearly – we can see that it makes no sense to keep on doing that and the result must be a real disaster. We could say 'my intention is not to do it.' But you will still find yourself doing it. You have a resistance coming from something else – from *the system*. (p. 34)

This resistance to change appears to us as necessary, and so we 'justify' or rationalize our actions. It is also connected to the notion of necessity quoted above in relation to feelings. All of this is described in relation to "some electrochemical process in the brain that preceded your conscious intention. The impulse is coming from the whole system" (p. 72). Becoming proprioceptively aware of the system of thought in operation can lead to "an insight or perception that this is true" and that "an insight or perception of truth may deeply affect the material processes, which includes all of the reflexes" (p. 148). All of this points to the need for an awareness of cognition, thought, perception etc.

For Arbinger, how the construct *cognitive* functions is described in this sentence about what happened to the author when succumbing to self-betrayal. "Having violated this truth [the basic call of his humanity upon me], my entire perception now raced to make me justified" (2006, p. 94) and "*My belief in my 'goodness' depends upon my belief in someone else's 'badness'*" (Warner, 2001, p. 63, italics in the original). Inquiring into the roots of this self-betrayal process and all that comes from it, the critical choice point is identified.

> So the choice that can change our hearts is not a choice of either our behavior or feelings. The first does not affect our way of being and the second, which tries to affect our way of being, is impossible. … The choice point comes elsewhere. It comes when we decide or not to yield to the truth about ourselves, about others, or about what's required of us and be guided by it in our actions. (p. 235)

This truth can then be seen. “We cleanse ourselves of insecurity and gain self-assurance when we do exactly as this love dictates, rather than constantly struggle to prop up a dubious, idealized image of ourselves” (p. 318).

This is a summary of the key points in these texts that have arisen through the various layers of the methodological process described in the methodology section. It is neither comprehensive nor exhaustive, yet my hope is that through providing a rich picture of the core points of these texts, it will be clearer how the threads extracted and woven together in the findings point towards an emerging description of an awareness based understanding of the immunity to change process.

On the Archetypes Hermes & Hestia: Notes toward a Hermeneutics of Leadership Studies

Nathan Harter[1]

In 1995, both James Hillman and Charles Handy published books about leadership in which they used the imagery of archetypes or “gods” to describe types of leadership. Handy, for example, wrote about Zeus, Apollo, Athena, and Dionysus. Since then, other authors with an interest in leadership have turned to the language of archetypes, including Carol Pearson, whose books avoid naming the archetypes as gods, but instead use more generic personifications, such as the Warrior, the Sage, and the Magician (e.g. Pearson, 2001). Recently, Mark Chater (2005), Neil Remington Abramson (2007), and Karen Morley (2008) – to name a few – have found ways to use this language of mythology, archetypes, and the gods to talk about leadership.

For those unfamiliar with Archetypal Psychology, the personages or gods represent aspects of the psyche and not actual figures living on Mount Olympus. They are (to borrow a phrase from Patricia Berry) condensed knots of meaning correlating with the way we imagine. The premise is that the mythology about the gods persists because it fits the way our minds work. Certain features or attributes cluster in such meaningful ways that they deserve being named. These gods are products of our imagination – an imagination we do not entirely control (see generally Hillman, 1975).

This article relies on the claim that the imagination is crucial to understanding leadership. Toward that end, it introduces two divine personages from ancient Greece, namely Hermes and Hestia. Their pairing signifies a psychological relationship of contrast and interdependence that leadership studies might consider in its investigations. For it is not my purpose to proselytize on behalf of pagan religion, but instead to exploit the mind’s capacity to populate its interior with vivid characters that reveal something about how humans imagine both the world and their places in it.

How did Hermes Appear?

The ancient Greeks recognized a god known as Hermes, whose identity was later found to be equivalent to the Roman god Mercury. Hermes had been a son of Zeus and therefore a half-brother to Apollo. He was ordained to the tasks of bearing messages on winged feet and of guiding souls toward their fulfillment at death. Although he tended to operate at night, he brought the unmistakable glow of divinity with him. Given his restless energy and his mission to journey from place to place, rather than dwell on Olympus, Hermes was thought to be the god of

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travel. His image frequently adorned intersecting roads in Greece. Homer called him the "Wayfinder" (Kerényi, 1986, p. 16, citing the *Odyssey*, book V). Thus, he was both a herald of divine announcements and a leader or guide of souls.

Not coincidentally, Hermes' night of conception had been what the legend referred to as the fulfillment of the mind of Zeus, the achievement of a divine purpose (Kerényi, 1986, p. 20). This language – strange though it might seem to describe a sexual act – is important. In this sense of the fulfillment of the intentions of Zeus, Hermes became the mediator of divine purpose to an unsuspecting humankind that otherwise would wander abroad in the darkness. He finds wayward travelers and makes disclosures for the journey. Other texts choose to describe him as the one who allows humanity to "see through" things – a divine gift! (Kerényi, 1986, p. 26).

Unlike his half-brother, the remote and majestic Apollo, Hermes makes direct encounters with individual human beings. In these encounters, Hermes discloses something of the divine purpose, which it is his objective to accomplish by means of humans, creating a reality more attuned to the will of Zeus (Kerényi, 1986, pp. 51 & 54). As such, he governs a kind of in-between or middle realm: of a life underway and not yet brought to rest, of a project conceived and not yet finished, of non-being and being (Kerényi, 1986, p. 77). In these encounters, the illumination he brings causes an outpouring of the human soul to take initiative (Kerényi, 1986, p. 87).

In his infancy, Hermes had stolen the cattle of Apollo, and for that reason was known as a herdsman, the one who drives, escorts, and otherwise guides those who would otherwise not travel. This power of deft guidance, as Karl Kerényi put it (1986, p. 45), parallels the belief that Hermes herds the flitting, dead souls toward their final destination, in a different kind of darkness. Thus, Hermes was both an ambassador and a psychopomp (or one who delivers the dead), revealing purpose and then leading onward toward the realization of that purpose. As such, he occupies an intermediate position, neither remote and wild nor intimate and domesticated, but instead bridging two realms (Kerényi, 1986, p. 50, quoting Otto, 1954). Of course his willingness and ability to encroach on his mighty brother's territory shows him to be a master of stealthy border-crossings. Hermes is essentially liminal.

Kerényi concluded that Hermes represents an understanding that exceeds or transcends ordinary practical observation we well as scientific investigation. He never stays still. He says just enough. He renders intelligible that which had seemed opaque, but only enough to give direction in the moment, at this intersection (Kerényi, 1986, p. 55). By means of his statue, the erect penis pointing where next to turn, pious Greeks indicated his value to the lost (Kerényi, 1986, pp. 64f & 78).

If the metaphors of a dark night and being lost are not enough, Kerényi indicated that Hermes can be found in another place of obscurity, specifically in that "innermost nook" we call the human soul (1986, p. 83). There, his delightful incursion enthralls us in our "deep primordial darkness where one expects only animal muteness, wordless silence, or cries of pleasure or pain" (Kerényi, 1986, p. 88). The task of Hermes can be regarded therefore as "the conjuring of luminous life out of the dark abyss that each in his own way is" (Kerényi, 1986, p. 91).

Hermes is not without his liabilities. As a thief, he can be untrustworthy. As a messenger, he can delight in ambiguities. James Hillman viewed Hermes as the dominant archetypal figure in today's interconnected, global, instantaneous communication networks such as cable television, satellites links, and of course the internet, though his power has grown out of all proportion to his rank. People are becoming more addicted to information – rapid and jumbled information – than to meaning (2007, pp. 259-275). In a manner of speaking, Hermes also can be associated with abstract time, the relentless progression of uniform units, the minutes and seconds. This hastening world had become "intoxicated" with Hermes, looking to him for news when there is nothing in particular for him to report from the other gods. Instead, we feed his vanity and cry out for the latest update, the looping weather radar, the scroll across the bottom of the screen, so he gives us what he has: i.e. data. Abstract time and a plethora of scraps of information – inciting us to live desperately for the future, never content to let the truth unfold at its own pace, in the fullness of time (Hillman, 2007, p. 273). We now separate the image of receiving information from the divine message such information is supposed to convey (Hillman, 2007, p. 280). We have become greedy for facts and disdainful of wisdom.

All of which is to designate Hermes as a sympathetic messenger and guide for those who cannot otherwise find the way… swift and unpredictable, garrulous yet vague (Doty, 1980). He is a wayfinder, illuminating the darkness and pointing toward the numinous.

As it happens, the ancients understood that no god appears alone (Hillman, 2007, p. 278). The stories about restless Hermes in dark places were interwoven especially with another figure, the guardian of the hearth, Hestia. Their pairing suggests a kind of counterweight or complementarity, at opposite ends of a spectrum, in some respects, yet part of the same whole. Let us turn to Hestia next.

How did Hestia Appear?

Just as Hermes races against time to appear in many places and facilitate adventure, Hestia was assigned to one spot (Hillman, 2007, p. 237, quoting Paris, 2005). In fact, her place was at the epicenter of human habitation, "a symbol of permanence, of fixity, of immutability, of centrality…" (Goux, 1983, p. 92). Hermes flew just above the surface of the earth; Hestia's power is entirely earthbound (Goux, 1984, p. 92). If Hermes suggests urgency and future-oriented striving, Hestia represents "endurance" and "perpetuity" and "continuity" (Goux, 1983, p. 92f). If Hermes lapsed into abstraction and ambiguity, Hestia was affixed to a very specific place and kept a stolid vigil over the home fires – simple and concrete (Hillman, 2007, p. 238, quoting Paris, 2005). Whereas Hermes delivered light to darkened and wayward humanity, Hestia tended the light at the hearth. She embodies in her image the preposition "in" – interiors, indoors, insight, within enclosed spaces (Hillman, 2007, 230-241). She represents the "idea that what is most sacred…is inside" (Goux, 1983, p. 98).

Hermes without Hestia becomes free-ranging, spastic, happy to scurry about delivering pointless messages that have no other sanction, jerking his victims this way and that, living in anticipatory anxiety. He becomes, like humanity, a vagrant (Goux, 1983, p. 97). Hestia, on the other hand, keeps things at home tidy, grounded – in a word, focused, by which we mean "disciplined attention" (Hillman, 2007, pp. 235 & 269; Kirksey, 1980). There is a stillness there

… inside. While Hermes transgresses from the beginning, Hestia's very name derives from the Indo-European "to abide" or "to inhabit" (Hillman, 2007, p. 235) – to stay or stand within the boundaries and preserve an atmosphere of welcome. In a word, Hestia counterbalances or brings to dignity the mercurial Hermes.

It is instructive, I think, that as a goddess Hestia was tended more by political leaders than by religious leaders. Political leaders had a stake in preserving the polis, seeing to its perpetuation, the practical affairs of executive office (Kajava, 2004, p. 5). There was even a public hearth and not just the private hearths at home, and it was the duty of these civic leaders to maintain it – in homage to Hestia (Goux, 1983, p. 92). Plato and Aristotle advised that judges subject themselves to the presence of Hestia before they render a decision (Goux, 1983, p. 99).

And though we are all familiar with the idea that Hermes delivers tidings, Ovid exclaimed that it was in contemplation of Hestia that "my ignorance was enlightened and my errors corrected without the help of an instructor" (Goux, 1983, p. 93, quoting Ovid's *The Fasti*). The point is that she does not deliver a message. Her mere presence is enough. She even convinces the poet not to depict her in any way, which is consistent with her unique status as the divinity both Greeks and Romans were reluctant to portray in their art (Goux, 1983). She conveys no image. Presence has to be enough because she is not to be approached; she is inviolable (Goux, 1983, p. 95). She is forever – by choice and by decree – a virgin.

Barbara Kirksey speculates that it is by means of Hestia that we can imagine, which means that she is the light by which we see and not the object of our seeing; she is not unlike the spotlight for a stage. The audience does not turn and look at the light bulbs (1980, p. 109).

Eventually, the myth leads to confusion if our purpose is to detect direct analogies. Is Hestia the essence of the sacred that is not to be touched, or the virginal composure of the soul as it awaits the impress of God? (Goux, 1983, p. 97f). In either case, wrote Cicero, Hestia is the custodian of innermost things, where these profound encounters take place (Goux, 1983, p. 98, quoting *De Natura Deorum*).

Kirksey offered several useful lessons on Hestia that are relevant to our purpose. If Hermes is the wayfinder by the side of the road, Hestia is the center, both home and hearth. By being so "inward" we would say that she is intimate, connected, at the place where the psyche encounters the cosmos – like the omphalos, a scar where we were attached (1980, p. 111).

Hestia represents a gathering place or focus. But then, she remarked, focus requires adjustment, a kind of subtle shifting of the lens to bring convergence, which in photography we might call the "sharpness" of the image (1980, p. 111). It is we who must adjust, adapt, fiddling with the mechanism by which we see – or "bringing" it into focus. In this sense, Hestia not only illuminates and makes manifest, but also governs the delicate fine-tuning we must undergo to remain connected.

Why would it have been helpful to become acquainted with Hermes and Hestia?

Perhaps the most obvious reason to consult mythology is that it shows the continuity of symbols over time. There were primordial analogues to philosophy, science, and the arts. Retaining this continuity, in one form or another, tends to strengthen the insights of an investigator, because if he or she had completely invented a new story, without any continuity at all to the prevailing culture, then the community would have been resistant to that message. The existing symbolizations make communication easier. A Sigmund Freud can find references to the story of Oedipus helpful in explaining his hypothesis. In this way, the myths connect us to tradition by offering a language which the people already understand.

More than that, there is bound to be a convergence of symbols around the self-same experiences. (This is the contention of a Joseph Campbell who can find parallel stories in multifarious and far-flung cultures, from which he infers a commonality of experience. Similar stories, similar experiences). If you and I have an equivalent experience, it is likely that our descriptions will in some respect resemble each other. Myths are early attempts to explain something that we still need to understand, and it is possible that we can still learn something from these time-tested narratives.

Plato for example was not exactly replacing one thought system (Homeric gods) with another and consciously overthrowing an entire tradition. He was differentiating something that had previously been compact. This is why he had to take something that already existed in the culture and reveal these differentiations as an advance on our understanding. Two thousand years later many of antiquity's differentiations have not been improved since; if anything, they have been corrupted in the West, often grossly oversimplifying a complex reality. The myths offer us a compactness that in many cases we have otherwise lost.

Archetypal psychologists will argue that the myths survived because they reflect or enact dynamics in the soul. There will be a kind of validity to a story that captures what happens in each of us. We can "relate" to the tale, and that is why it survives. These archaic images are the archetypes that shape human thought. Thus, whatever it is that we hope to understand will originate in a common reservoir of images derived from the polytheistic worldview of the ancients. "To study human nature at its most basic level," wrote James Hillman, "one must turn to culture (mythology, religion, art, architecture, epic, drama, ritual) where these patterns are portrayed" (Hillman, 2004, p. 14). He continued, "The primary rhetoric of archetypal psychology is myth" (2004, p. 31). And the fundamental component of mythology for purposes of understanding the human soul are its images (Hillman, 2004, p. 26). When these timeless images are encountered, they frequently arrive as personifications bearing a message (Hillman, 2004, p. 25).[2] That is how we often understand them. Thus, we give them a name. And so we find ourselves encountering Hermes and Hestia.

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[2] Hillman explicitly distinguishes a polytheistic account of the soul from a polytheistic religion (2004, pp. 45-49). It was not his purpose to demonstrate whether the cosmos is actually populated by divine beings bearing the likeness of Zeus, Apollo, and Athena.

One final observation about the relevance of Hermes in particular to our investigations into leadership. It is from the name "Hermes" that scholars adopted the term "hermeneutics" to mean interpretation – originally, the interpretation of sacred texts. They wanted to formalize their efforts to interpret texts that were notoriously difficult to understand. These texts were often partial and cryptic, recorded in an alien language, during a remote era, as part of a foreign cultus, such that interpretation was required to make sense of them. The goal was to adopt standards for conducting these interpretations. Out of the evolution of these standards a name for this effort emerged based on the Greek god Hermes, by way of *herméneia* for the English word "explanation" (Kerényi, 1986, p. 88).

In like manner, leadership studies has been one long, sustained effort to interpret something that is not always directly accessible to observation, a looking past what is apparent to something behind it, into the interior of social actors – their fears and desires, their hopes and dreams. And to do this, of course, we have to interpret the scholarship of many writers – the scientists, philosophers, and historians who have tried to make sense of leadership, but also the dreamers and artists. Interpretation has been the name of this collaboration. You and I and leadership scholars (as observers) and leaders and followers (as participants) all engage in processes of interpretation en route to making choices about what to do in the world. It seems useful to say this openly and make it plain. Thus, we might say that Hermes represents the activity of particular interest to us.

Hermes and Hestia, Together

One could argue that – to one degree or another – each of us embodies the gods. We pass through phases or episodes in which they possess us: anger for Aries, love for Aphrodite.

Hermes is a kind of leader, attracting attention from those in liminal spaces, uncertain where to turn, and pointing the way toward fulfillment. He even accompanies us, supplying hints and intimations as we go on the path we are meant to follow. He brings the boon of direction. His illumination draws our attention in the darkness and lights our footsteps.

Hestia awaits us, keeping the home fires burning, tending the point of convergence, where we all are meant to gather and abide together. She is the steady attraction, a fixed point we must use to orient ourselves, lest our lives become unfocused. If Hermes lapses occasionally into exasperating, manic abstraction, whirling about on winged sandals, getting carried away by rumor and speculation, she is the most concrete thing there is … a touch, a warmth, a place to eat and rest. And so they work together, animating our choices about when to follow and whom to follow – the lively, gesticulating, charismatic Hermes, enlivening the imagination to venture forth, toward the feminine embrace of fulfillment at the place where we somehow know that we belong.

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Stella Adler: You Have NO Expertise on Costume

Al Erdynast[1]

Opportunities for exchanges with persons of exceptionally high degrees of expertise and operating principles in their field are rare. This article is a study of Stella Adler. Unbeknownst to me when we first met, since we were in different fields, Stella Adler was the queen of acting teachers in the theater and movie industry, with whom Marlon Brando, Robert De Niro, Cybill Shepherd, Benicio del Toro, James Coburn and so many other legendary actors had studied. The American philosopher John Dewey discusses various types of experiences in his book *Experience and Education*. Most of our experiences are benign – not constructive, not destructive and such experiences are transitory and often not remembered. A few rare experiences are formative and lasting – they deepen our future experiencing. The most transformative type of experience is the formative kind that lives on fruitfully in future experiencing. Stella Adler lives on in some of my analyses of Picasso's works, thirty-five years after her own analysis of Picasso's Bull Series. Thirty-five years! Precious few experiences have that kind of longevity.

I met Stella Adler in 1982 in Los Angeles through Milton Justice who was working on Lee Grant's documentary for HBO entitled "When Women Kill." Lee Grant had selected six women convicted of murder, three of whom were in New York, and three likewise convicted in California. At the time I was teaching a class in a women's prison. That class was one of eight classes I taught each year, two of which were at the prison. The class was part of a special B.A. program for incarcerated women, and was based on a study that found that the rate of recidivism was considerably reduced when inmates completed at least 3 college courses. An inmate in my prison class, referred to as one of the Manson Girls, was one of the women selected by Lee Grant. Milton and I met to prepare for the filming of my prison class. During our discussions, Milton frequently quoted Stella. The quotes were highly interesting positions she took on a wide range of issues.

Milton asked if I would be interested in attending one of Stella's class sessions while she was in Los Angeles. I was intrigued, so I answered, "Yes, I would." The classroom was in an amphitheater. Milton and I sat in one of the upper rows in the back. Stella was seated at a desk with her assistant. The students had each prepared a 15 minute scene. Invariably, Stella stopped each performance within a minute or less, critiquing what the students were doing and giving them instruction. Her critiques were impressive and exceptionally astute. She was a master at her

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work. Some of her criticisms were unnecessarily harsh. A few acting students thought the criticisms were personal attacks and sometimes cruel.

I was not previously familiar with who Stella Adler was. I did not know that she had been an actress and a director in the Group Theater. I did not know she was a legendary acting teacher and that she also infused social criticism and humor into her classes. I did not know she had had numerous adventures throughout her life. Nor did I know anything about her unique persona, her immediacy and that she could be a force of immense proportions.

When class ended, Milton introduced me to Stella and I offered my compliments. Stella invited us for a late supper along with other former students. After some chit-chat from her former acting students about how well she had taught the class, Stella turned to me and asked, “And what do you do, young man?”

Before I could answer, Milton, who had previously been one of Stella’s assistants, introduced me, rather theatrically, as a professor who teaches women who’ve been convicted of murder.

His answer was an exaggeration. Most of the inmates in my class had convictions for other crimes.

What happened next was striking. Stella turned to the person beside her, directly addressing the central issue about the topic that was brought up, which was very characteristic of her, and asked, “Could *you* ever kill?” Then she asked each of the other 10 guests the same question. Her forthrightness was not something to which I was accustomed. It was exhilarating. One dinner guest said, “If it hadn’t merely been a shoe that I had thrown at my former husband’s head, he’d be dead.” The two individuals who declared they could never kill, under any circumstance, were perhaps the two most dangerous people in the room. Not even in self-defense? Not to protect the life of an innocent child from a homicidal maniac?

The next morning I received a phone call from Stella’s current assistant, Eddie Weinbaum, who said, “Miss Adler would like to invite you to join her at a party she is having this weekend for distinguished actors, directors, and producers.” I was surprised and flattered. The invitations continued. I am a relatively busy person, someone who hadn’t the time to attend many social events. But time is made, not found, to be with Stella Adler. Every day when the call to my office came with an invitation, I made the time to join her. I was Stella’s companion at dinners, parties, and other social events. She was 82, but she lied about her age. She told me that she was 81. I was 38.

Once, Stella gave a dinner in honor of the writer Christopher Isherwood. As the guest of honor, he was seated to her right. For the first time since I was introduced to her a month earlier, I was seated to Stella’s left. Among the guests at the dinner were Isherwood’s partner, portrait artist Don Bachardy, and Dr. Ann Reynolds, who was the Chancellor of the California State University. Dr. Reynolds, who governed the University through 19 campus Presidents, had invited Stella to visit Russia with her for a tour she planned to make of universities there. Stella, who was born in Odessa, was tickled by the invitation, but was undecided about whether or not to go on the tour.

An hour of cocktails preceded the dinner. One of the guests arrived late and tried to give an explanation for his tardiness. Stella interrupted him, “Explaining why you are late because of traffic in Los Angeles is not worthy of adult conversation.”

Fifteen minutes into the dinner Stella turned to me in a loud enough voice so that all could easily hear, “After these dinner events, Al, do you go home to your wife?”

The entire dinner table immediately lost interest in whatever it was they’d been chatting about.

I answered, “No, Stella, I am not married.” She paused for a few seconds.

Stella then asked, “Al, after these evening parties and dinners, do you go home to your girlfriend?”

“No, Stella, I don’t have a girlfriend at this time.” Stella pondered her next question while everyone else was very quiet.

“Well Al, then what do you do for sex?”

I had never previously been asked that question at a formal dinner. I have never previously been asked that question at an informal dinner either. But I had already learned enough about Stella Adler to know that questions of this sort can arrive at any time, whether expected or not. Her forthrightness was on par with the question, “Could you ever kill?” No question that Stella ever asked was one that could be avoided.

“In those matters,” I answered, “I am of the same persuasion as the two philosophers Immanuel Kant and Mae West: “Work is the ultimate satisfaction and sex is the ultimate distraction.”

Stella banged her fist into her other hand and said, “I am the very same way! On my bed in New York, instead of a man, I have fifty books.”

It took me some time to realize that Stella was not really inquiring about my sex life. She was simply probing my availability.

Stella’s marriage to Harold Clurman – director and producer in the Group Theater – had considerable turmoil, in no small part because Stella accepted dinner invitations from other men. Her mother-in-law pulled her aside one evening to educate her about proper marital etiquette. “Stella, when married you are not supposed to date.” Stella said, “Really?” But she continued to date.

At the end of her summer of classes in Los Angeles, Stella invited me to join her on vacation in Italy and France, where she planned to visit art museums. I told her I was extremely flattered, but that I couldn’t go – I had a university to run. These days, no longer an academic administrator, I am simply the senior member of the petrified faculty at my university.

A week later, after reconsidering her plans, Stella presented a different proposal – if she cancelled her trip to Europe, and if she postponed her nightly early dinner invitations with directors, producers and actors in favor of later suppers, would I tutor her for three hours every evening, from 5 until 8 p.m., on various areas of my studies? I very gladly accepted.

So for the next three weeks I tutored Stella in some of the areas in which I taught, using mostly my course materials on Mark Twain, Picasso, and the Psychology of Adult Moral Development. Stella came to admire Mark Twain as a social critic and as an educator, which is how he understood himself rather than as a humorist. She was particularly impressed with his scathing critique of the Belgian King Leopold II for his colonial policies in the Congo. She was delighted with Mark Twain's description of his meeting with George Bernard Shaw, who was one of Stella's favorite playwrights and social critics. Stella had her own gift and courage of spontaneous humor, but she had not studied humor nor cultivated it into a discipline. She admired and respected power through writing, but she had never previously imagined that Mark Twain's form and style of philosophical humor incorporates enormous power—"Under the assault of humor, nothing can stand."

We didn't cover my course, Moral Psychology in the Dramatic Film, since it paralleled her course on script analysis. My class analyzed *Casablanca*, *The Philadelphia Story*, and *Betrayal.* We both taught about Edward Albee's works. In Stella's classes she covered his plays *The Zoo Story* and *The Death of Bessie Smith*. In my film course I analyzed Albee's *Who's Afraid of Virginia Wolf?* Because of the overlap of our two courses, Stella once asked me to be her teaching assistant to prepare teaching notes for George Bernard Shaw's *Major Barbara*. Not uttering a word was a novel experience for me as a professor as I sat with her during the class session. I later received a letter from Stella, letter writing for which she was also famous, expressing her appreciation for succinctly condensing *Major Barbara* for instructional purposes. She also humorously expressed her gratitude that she did not have to suffer George Bernard Shaw's excessive wordiness that evening.

How clever of Stella to get a professor to be her teaching assistant. Why didn't I previously think of that for myself? But I am a quick study. The last time I submitted a several hundred thousand dollar research grant proposal to the Templeton Foundation, I asked the President of my university to please review the proposal before signing off for our university. The President found a typo. Presidents, with a Ph.D. degree, are good at this. Actually they are the best. No one can surpass the presidents of universities in locating typos in research grant proposals. And they are deservedly proud and happy when they locate a typo, and have it corrected before the proposal's submission.

Stella overcame her objection to what she had previously, and mistakenly, referred to as Picasso's "abstract art." She understood Picasso as a vehicle for better understanding the aesthetic universe. In a parallel way, Stella taught script analysis as a vehicle for understanding the human condition. We discussed Picasso's Pink Period paintings, particularly *Woman Ironing (1904)* for its depiction of the state of resignation. We discussed *The Blind Man's Meal* (1903) and several other Blue Period paintings as well. We analyzed Picasso's *Weeping Woman* (1937) for its depiction of the intensity of distress and unavailing grief. The emotional issues in these Picasso paintings were ones addressed by the playwrights about whom she taught.

Stella Adler, who was the master teacher to many prominent actors, suddenly was my student. She was obviously the brightest student I have ever taught.

Stella invited me to visit her in New York, to her apartment on the Upper East Side, and also to her house in Southampton, where she said I would have my own room to do my research writing. During my visit to New York City, she invited Lee Grant and Michael Moriarty to a dinner party, along with other guests as well. After the dinner, Michael asked Stella's permission to rehearse a scene from the *Caine Mutiny* – in which he had the starring role on Broadway – for her opinion and critique of his interpretation. It was impressive to listen to Stella's astute, critical review of his performance and to listen to her generous opinions about how Moriarty could improve his interpretation. I was enthralled by his honest and sincere request and by Stella's thought provoking response.

After Stella and Michael had completed their work, while everyone was chatting, Stella boomed, "Well, Al, everyone in New York wants to know, do we or don't we sleep in the same bedroom? What should I say?"

"I hope you have answered, 'Yes,'" I said, "because I don't know any instance in history that saying 'No' makes any difference in what people think." Stella and the others smiled.

Once, on our way to Southampton, Stella instructed me to turn right at a fork in a particular intersection. I turned left instead. Stella said others would have turned right because they loved her. I replied that her acting students, whom she employed to chauffeur her, would have turned right not because they loved her, but because she refused to acknowledge that slavery was against the law. She grinned. I then informed Stella that a road sign at that particular intersection had instructed drivers to turn left to get to Southampton.

Back in Los Angeles, Stella and I once attended *"*Zorba the Greek, the Musical" with Anthony Quinn, one of her former students, starring in the lead role. We were seated in the house seats – ones that Anthony Quinn had personally provided at the Dorothy Chandler Pavilion. Shortly after the performance began, Stella suddenly wanted to walk out. Stella had undoubtedly been influenced by her father Jacob Adler, king of Yiddish theater, who lived by the principle that the playwright, and the director, decide on the moral content of what was presented. Her father told audiences that if he did what *he* thought he should do *they* would then learn about Yiddish theater, but if he did what the *audience* wanted him to do, it would lead them both straight to the whorehouse. So that night, while watching *Zorba the Greek,* Stella saw that Anthony Quinn was pandering to the audience's desires. And she wanted no part of it. Stella stood up in her seat to exit, but I told her that we could not leave the theater just yet. She said, "Of course." She understood that the issue was one of public decorum. The spectacle of Stella Adler leaving her front-center seat before an audience of several thousand would have been scandalous. She and I suffered more of the musical, but only until the intermission. Then we emancipated ourselves.

Stella, who had once been on the teaching faculty at Yale University and the New School for Social Research wanted to meet my former mentor, Professor Lawrence Kohlberg, with whom I studied while at Harvard University. I said it was not a good time to meet him, that he was terribly depressed. Stella immediately wanted to know why he was depressed. I said, “He is the world’s leading expert on moral development, his books have just come out, and the critics have been harsh.” “That's normal,” said Stella. “What else?”

“He is in the middle of a bitter divorce and says his wife is suing him into poverty.” “That’s normal,” said Stella, “What else?”

“He is not on speaking terms with either of his sons.” “That’s also normal,” said Stella. We never managed to make the trip so she could meet my professor.

Stella and I visited the Norton Simon Museum in Pasadena one day. Stella wanted to only view the French and Italian painting exhibits. As we entered the museum, however, I fortuitously happened to spot Picasso’s Bull Series. I asked if she would mind giving me her opinion about whether the series of bulls was beautiful or not, since I teach about that sequence. She said, “Yes, I *would* mind.” Her analysis of Picasso’s Bull Series was superb, despite her protestation that she had no interest in “abstract art.” I found her analysis more interesting than either of the only two published analyses, one of which is by a former Curator of the National Gallery of Art in Washington, D. C. I told her that Picasso denied he ever painted any abstract art, declaring that everything he painted came from reality. Stella’s analysis of the Picasso Bull Series had an influence on my own analysis, and more recently, 35 years later, on a research study that involves the analysis of Picasso’s *Les Demoiselles d’ Avignon*.

I invited Stella to my class in prison once so that she could present her analysis of the Bull Series. Stella told the inmates that Professor Erdynast had “forced” her to analyze the Picasso lithographs with the question, “What do you think?” A question that, according to Stella, “no self-respecting intellectual can ever avoid!”

Stella told the inmates that her expertise in the discipline of script analysis was related to the discipline of art analysis. She also told them that twice she’d come close to finding herself at risk of being sent to prison. During World War II, Stella illegally tried to take displaced persons on a train to freedom described in detail in Sheana Ochoa’s excellent book “Stella!!!” She was also a member and a gun-runner for the Irgun, a militant Jewish underground organization in Israel. Stella told the inmates that one of the Irgun’s leaders was Menachem Begin, a friend of hers who eventually became the Prime Minister of Israel. Stella additionally talked about having once been caught arriving in London with two different passports.

Stella made an indelible impression on the inmates and the “free-world” Antioch University Los Angeles students who had come to the prison for the day. Making an indelible impression was a common feat for Stella in all settings. Stella was an intellectual magnet who attracted the interest of exceptionally talented and highly motivated actors as well as that of beginning acting students. She was a true genius. And true genius does not limit itself exclusively to a single field; it manifests and extends itself pervasively.

One of the inmates in the class, who was featured in Lee Grant’s documentary, made a particularly good impression on Stella. Stella said she would like to take her shopping one weekend. I had to educate Stella that an indeterminate life sentence does not come with weekend shopping privileges.

Stella’s third husband, Mitchel Wilson, was the most popular Western scientific writer and novelist in the Soviet Union. He had been a research scientist assisting Enrico Fermi and had taught physics in universities. Science, invention, and the ethical problems of modern atomic physics were topics he routinely addressed. One day, while he was reading a book in their living room, Stella came up behind him, looked over his shoulder as he was reading and asked, “That looks terribly complicated. Can you understand all of those formulas?” Mitchell answered, “Yes, Stella. I wrote this book.” She once told me to stop playing tennis, that it was unbecoming for an intellectual to be chasing a tennis ball.

On one occasion we had cocktails with Harold Williams who was the president and chief executive officer of the J. Paul Getty Museum and the Getty Trust. During the conversation Harold Williams said that the Trust had let it be known in art circles that it had so much money it could offer $1 more than any other bidder, outbidding any and all rivals. Stella boomed out at him, “There is no museum art for sale.” Several years ago, Italy sued the Getty Museum to return its illegally procured art. In my course on Picasso, I take students on several field trips – to the Norton Simon Museum, the Los Angeles County Museum of Art, and the Weitzman Museum in Holmby Hills. I announce to the students that I could also take them to the Getty Museum, but won’t, to show them where some Italian art used to hang.

In Palm Springs one weekend, one of her former students, Misty Rowe, came to visit. Misty had a lead role in the television series *Hee-Haw*. After dinner, Stella wanted to go into the swimming pool, but she didn’t have a personal assistant along to help her get into a bathing suit. She asked if it was ok with me if she went skinny dipping. I said, “Of course.” And the three of us went for a swim. Had I not been so agreeable, I could easily have come into criticism for having what Stella referred to as “middle-class Puritan attitudes and values.”

It was almost always Stella who invited me to her social events. Occasionally, I invited her to one of mine. As the Director of the B.A. Program at Antioch University Los Angeles, I once had to give a short graduation speech at the California Institution for Women, the state prison where Antioch’s Bachelor of Arts for inmates was being provided. I invited Stella.

It was a delicate speech to deliver. Most of the women in the program were there for a single – but major – crime in their life. They were ashamed that their paths had taken them to prison. The inmates’ families were present as the graduating women received their diplomas. The parents and husbands were ashamed that their daughters, or wives, were in prison. The inmates’ young children were bewildered by their mothers’ circumstances. My short speech addressed the inmates’ achievement in pursuing their formal education while they were “doing time” and not “letting time do them.” Shame was temporarily suspended and substituted with pride of accomplishment.

On the drive back from the prison, Stella, who was renowned for her course on script analysis, retraced the sequence of points I’d made in my speech. I should have expected it. We talked about the particular influence of violent, imperious men in the lives of the inmates that had led some of those women to prison sentences. Some were serving 15 to 25 years. Some were there for indeterminate life sentences.

Stella had worn a black blouse and a black corset underneath to the prison graduation event. At this time in her life, at least while in Los Angeles, she usually wore only a thick black or red ankle-length slip that her personal assistant, Eddie, had thoughtfully arranged to be made for her at *Trashy Lingerie*. The slips, which she wore as dresses for teaching her classes, were comfortable, convenient, and eminently practical. After a hip replacement surgery Stella no longer had her previous physical flexibility. With those thick slips, worn with a jacket, she didn't have to put on a cumbersome bra underneath. A couple of times I teased that I would publically let it be known that her entire wardrobe had been obtained not at *Saks*, but at *Trashy Lingerie*. The preposterousness of the possibility, and her confidence that I would never execute that threat, made Stella grin with abandon.

It was an extremely hot day at the prison on the day of the graduation and there was no air conditioning. I don't ever complain about excess heat. I could in fact be called "an optimist who hasn't quite arrived." I look on the positive side of things. I think of excessive heat as preparatory for my eventual destiny. Stella didn't complain about the heat either. But on the long ride home she was visibly uncomfortable in her ensemble and asked if it was okay if she could make herself more comfortable by unbuttoning her blouse. I said, "Of course." I was not bothered at all. Had I objected I could again easily have come into criticism for "middle-class Puritan values and attitudes."

When we arrived back in L.A. after the long drive, I offered to take Stella out for coffee at the *Farmers Market*. She said she would like that very much. But Stella's blouse was still unbuttoned—all the way. I asked if she would mind re-buttoning her blouse. I thought of it merely as a matter of public decorum. The moment I made that request I immediately knew there was going to be trouble. Stella was rarely at a loss for words. Her temporary silence confirmed that trouble was being prepared. The queen of acting teachers, with whom so many legendary actors had studied, only *gave* instructions. The queen of acting teachers *took* instructions from no one. Throughout her personal history, in any situation with rival interests, Stella almost always prevailed. And she could be fierce when necessary. Stella answered that she "would *indeed* mind" re-buttoning her blouse.

I had to decide whether she was serious or not serious. Stella had previously forewarned me with, "Always remember, Al, that I am an 'actrissa' (her affected aggrandization of the word 'actress') and that an actrissa is *always* acting except when she is on the stage." After brooding for a bit, she complained that the previous week I had voiced no similar objections when we had gone to the fashionable restaurant *The Ivy* with Misty Rowe, where Misty Rowe wore a camisole top. She then thundered: "You have NO expertise on costume!"

Her indictment was compelling and dispositive. Not previously, nor since, have I been told in such a straight-forward, dignified and civilized way, in the heat of intense anger, and without character attack, to mind my own business. Not only was I no professor on costume, in my entire life I had never impressed anyone serious about style in dress in any way that would even qualify me as being a worthy student in that field.

Stella was undressed in only a most minor way. It was I who was exposed – I had been caught with my credentials down. I had taken a position on an issue with no expertise on it whatsoever. Mine was the conventional point of view. Stella challenged my request, in a realm where she had considerable authority and I had none at all.

The defense had no rebuttal.

The impasse in the parking lot was a private spectacle – the queen of acting teachers who objected to a simple request and a professor at a loss for words. For a considerable length of time Stella and I continued to sit in silence in the parked car. I had been rendered completely and utterly speechless – a fine predicament for a professor who taught courses in five different disciplines, with not a helpful word arriving from any of them. Stella was reverberating from the infernal presumptuousness of a blandly attired professor, wearing an innocuous button-down shirt and tie, a sport coat, and grey slacks, who had given her – Stella Adler – an instruction on dress!

The tension had to do with decisions about matters of attire. Unbeknown to me, Stella had intense views about professional and public attire. The A&E documentary on Stella Adler, which is part of its *American Masters* series, illustrates this intensity. Stella is visibly enraged by a young student who dressed for his own comfort when he performs a scene from Shakespeare. Stella interrupts him and criticizes him severely, telling him that wearing a casual robe is incongruous with Shakespearian period costume. And she states that she refuses to be subjected to self-indulgence, which she abhors. She mentors him – affirming his considerable talent but adds that if he doesn't select his wardrobe to suit whatever role he is portraying that he will professionally undermine himself.

The young student whom she berates in the documentary is Mark Ruffalo.

Stella swore she would make me pay for my insistence about re-buttoning her blouse. When we eventually came out of the car, Stella was fully buttoned, and behaved in a manner fitting a famous acting teacher, greeting all those who recognized her and rushed to meet her. But they would have greeted her equally well if she had been unbuttoned because she had considerable poise, presence and carriage no matter how she was dressed. Stella was born to parents who were royalty in the Yiddish Theater and, in her adulthood, she certainly became an intellectual aristocrat in her own right.

No experience with Stella was ever benign. Experiences with Stella Adler always resulted in more profound experiencing.

It was her graciousness that prevailed. She never did carry out that threat.

Of course!

Subject Object Poem

Imagine a world with no mirror,
no camera, nor lake without haze.
How would I know what I look like?
Where would I look for my face?

Would I be fair like the maid in the story?
Or hideous, a walking disgrace?
I could try and feel with my fingers,
or I could tell from the look on your face.

But all that I meet, they are different.
Some adore me, some run in detest.
Some want me to tell them what I see,
some say that not knowing is best.

Now, picture me finding a mirror.
At last I can see who I am!
I see tears rolling down on my cheeks as I
admire the face I will damn.

Now I'm travelling the world with the truth in my hand
showing everyone who they really, truly are.
Soon I'm hated, haunted and crying,
but not from loneliness, isn't that bizarre?!

No, I'm crying because I just realized,
that the face in the mirror I see
is yet another part of my body.
If I see it I know it's not me.

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Orange Capitalism – and then what?
A review of two books on the future of economy and society

Dawlabani, Said. (2013). *Memenomics – the next generation economic system*. NY: SelectBooks, Inc.
and
Scharmer, Otto and Kaufer, Katrin. (2013). *Leading from the Emerging Future: From Ego-System to Eco-System Economies.* San Francisco: Berrett-Koehler Publishers, Inc.

Reviewed by Kristian Stålne[1]

What caused the 2008 financial meltdown and where is capitalism heading after that? Or maybe we should rather ask where we as global society as a whole are heading, since economy is such a fundamental part of our lives and societies. This complex topic has been widely discussed with many analyses and speculations on the nature and development of economy and money. But what would economic development look like through an integral or developmental lens? I have found two such analyses of interest that seem to qualify and that are mostly compliant yet complementary with each other, but still very different in style and focus.

The first one is *Memenomics – the next generation economic system*, by Said Dawlabani (2013) who employs Clare Graves' double helix or Spiral Dynamics model as a developmental framework (Beck and Cowan, 2006), and the second one is *Leading from the Emerging Future: From Ego-System to Eco-System Economies* by Otto Scharmer and Katrin Kaufer (2013) that introduces an own developmental framework for socio-economic development. One of my research foci is on stage theories in adult development psychology that typically takes the individual, and to some degree the culture, as a study object, but I also have an interest in connecting adult development and integral perspectives with sustainability and societal development. Therefore my main interest in these books is whether and how they make this connection. Do they give a view on the stages on socio-economic development that are consistent with each other? How do they view the current and prevalent structures and state of affairs? Is there a problem and if so, what comes next and how do we make the transition?

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I will start by giving an overview on Dawlabani's analysis on the economic development and view on the financial crisis, and then compare and contrast with Sharmer's and Kaufer's perspective on the same. As said, my main focus is on the developmental frameworks they employ and how these can help us understand the grand challenges we are facing and some of the limitations of the current capitalist economic system. With help mainly from the second book I will map out some of these challenges and proposed ways of addressing them. Sustainability is of central concern in these and I will also relate the proposed developmental frameworks with other frameworks used in mainstream discussions along with some own suggestions for further studies on this vast topic. Finally, I will refer to a brief description of what a Turquoise economy would look like, according to Spiral Dynamics and Dawlabani.

Memenomics – Spiral Dynamics Applied to Economic Development

Dawlabani's book takes the Spiral Dynamics model as a framework for analysing the economic system. Spiral Dynamics maps out eight value systems or vMemes, where each of them has as its purpose to solve the problems of existence that it perceives. By doing so it creates a new set of problems that will trigger the emergence of and will be addressed by the next value system. The rise and fall of each value system is described in terms of six phases: Inquiry, Introduction, Growth, Maturity, Decline and Entropy, although the vMeme will still be present as the next higher stage emerges. The values systems, or vMemes, are commonly referred to by colors and here very briefly introduce along with approximate time when they first emerged in human history (Beck and Cowan, 2006):

Beige (100 000 BC), focusing on physiological survival needs in the dawn of humanity;
Purple (50 000 BC), associates with magical thinking in hunter gatherer tribes;
Red (7000 BC), affirming own needs and will to exploite and dominate others;
Blue (3000 BC), traditionalistic absolutism and self-sacrificing obedience;
Orange (1000 AD), modernistic and industrial with rationality and scientific objectivity;
Green (1850 AD), postmodern with pluralism, multiculturalism and human connection;
Yellow (1950 AD), a functional integration of the previous levels' healthy aspects;
Turquoise (1970 AD), identifies with the world as a holistic organism.

According to the Spiral Dynamics lens, the economic system can be seen as a consequence of our worldviews and our value systems, which in turn is a function of *life conditions*, and vice versa. Thus, the way the economy functions is a fundamental part of how we organize our societies. Another characteristic is that one level transcends and includes the previous one and that levels cannot be skipped, or rather *should not* be. This means that one should not try to impose a more complex economic system, or governance, on a culture than what is consistent with the life conditions and vMeme distribution of that culture.

The book focuses on the economic aspects of cultural development up to today's capitalism and market liberalism, followed by a detailed description of the development of the US economy leading up to the financial meltdown of 2008 and finally a discussion on a solution and next step economic system referred to as *functional capitalism*.

The first part gives the economic historic background according to the Spiral dynamics, beyond the first Beige value system or vMeme:

Purple – the gift economy of the hunter gatherers

The earliest form of economic activity took place in the form of bartering or gifting, which was an important if not necessary means of creating a peaceful existence between different tribes instead of pillaging and waging war against each other. The goods that were traded were food (from hunting and gathering as well as grain from early agriculture), artifacts, jewelry and precious metals.

Red – the first civilizations and the emperor's coin

As civilizations were born and grew to be complex and stratified, organized economic systems were created that allowed for exchange of goods and labor within the empire. The emperor would create money in the form of coins made of gold or another metal accompanied by laws to force the subjects to accept them as means of payment. We could refer to this as concrete money since they had an inherent value in the metal itself.

Blue – nation states and national banks

Along with the birth of nation states, national banks and industrialization, the use of banknotes or paper money backed by gold became wide spread (although banknotes first were used in periods in China already one millennium before). Despite some initial bank runs, when people lose their confidence in the banknotes and want to trade it back for gold, this new and more complex abstract form of money was established in society (the complexity aspect is not discussed in Dawlabani's analysis). With a stable currency that everyone trusted the new industrialized economy could flourish. Hallmarks of the Blue value system are trust, order, justice and stability, which are required preconditions for a functioning economy where you exchange goods, wages, and you can borrow and repay money, which paved the way for capitalism. This economic system was a huge step forward for society, but still one that showed several limitations, e.g. that the wealth of a state was dependent on the size of its gold reserve.

Orange – market economy and capitalism

Gradually the western mindsets and economies shifted towards an Orange mode of thinking, meaning more individualistic, with less centrally controlled and regulated economies, and positivistic towards scientific and technological progress, and towards economic growth. In the USA in 1971 the currency was shifted away from the Bretton-Woods framework, thus releasing the dollar from its connection to the gold standard and making it a fiat currency, i.e. one where the government guarantees its value. The mindset was to a great deal captured by Ayn Rand's objectivism, where man is (or should be) driven by reason and self-interest, and where the economic system in greatest extent should be removed from its constraints. In the beginning of the 80's the Reagan administration started a long-going trend of deregulation towards a laissez-faire market economy where all trust was placed in Adam Smith's invisible hand. This means that the individual's self-interest is assumed to be good for the system as a whole, a trend that was continued by the head of Federal Reserve and Rand-disciple Alan Greenspan.

One reflection I make here is that the economic system seems to be lagging after the philosophical, scientific and technological revolutions. According to Dawlabani the Orange economic system starts to dominate first in late 20th century, several centuries after the industrial revolution and enlightenment, which is typically associated as being Orange in integral settings. Still, this may be accurate since also value systems dominating in a population do lag behind this way, and that the economic system should be at least somewhat aligned with this.

The period from the 80's to 2008 can be characterized as a gradual shift away from the Blue regulatory, stable and industry and work output-related Main street economy to an Orange, market-driven, growth-oriented and speculative Wall street economy. Here the brightest minds of the country were busy, not curing cancer or inventing new clean energy sources, but creating innovative financial instruments that had less and less to do with the real economy of Main street, i.e. with creating jobs and relating to the real value of e.g. houses. One of the above mentioned deregulation was the abolition of the Glass-Steagall Act that made it possible for commercial banks insured by the taxpayers to take part in risky speculations. When the housing bubble burst in 2008 it threatened to make the entire economic system collapse, which was avoided by the great bailout of the banks by the new Obama administration. But since then no real revolution or transition to a new system has been seen.

Green – equal distribution and democratization of information

So what is Dawlabani proposing as a solution and way forward for the American economy after this Orange collapse? Perhaps an economic system based on the Green 6th level value system?! Well, not really. The characteristics of the Green value system are introduced quite briefly in accordance with two themes:

Human bond and equal distributions, which is obviously about the unequal wealth distribution and the 99 percent that has been frequently discussed after the financial crisis. The theme is not very elaborated and is dismissed by Dawlabani rather sweepingly:

> The European Union is a good example of a system that champions Green economic policies as evidenced by their bloated social welfare programs. Green vMeme corporate practices have helped bring equality in pay to the worker, but that same system has taxed those corporations at such a high rate that innovation is often stifled. This system can unfairly burden a whole culture and bring it to the brink of financial disaster. (Dawlabani, 2013, p. 61)

The democratization of information, the second theme, is given considerably more attention and contains an interesting discussion on how the internet of things and the non-scarce nature of information have connected us globally and given us access to free information and paved way to open source collaborations. This has had consequences for the economy, e.g. in the media industry, where newspapers and magazines have gone out of business, peer-2-peer sharing of media, new business models such as crowdfunding have emerged and even gift based models (which could possibly be seen as purple mode economics).

Still, there is no consistent and functioning Green vMeme economic system described or discussed here. Shouldn't the Green economic system, whatever that is, have its cycle with all its phases? Shouldn't stages *not* be skipped?! Instead of elaborating on a green system as a solution to the orange problems, Dawlabani moves on and proposes a Yellow system, which he refers to as *Functional Capitalism*.

Yellow – functional capitalism

This value system is often characterized as being a synthesis of the healthy versions of all previous value systems, such as Orange emphasis of progression and applying scientific advances, Green concern for fair distribution and the environment, and Blue order and stability and so forth. Here one strives to integrate all perspectives rather than to see them as being in conflict with each other.

No such system exists yet on a national level. However, Dawlabani gives some concepts or design principles such as *Natural Design*, a Yellow concept based on insights from previous value systems adapted to the life conditions at hand, and *Distributed Innovation*, an application of *Natural Design* in the knowledge economy, that are practiced by the two companies Whole foods and Google that can serve as inspiration and example of economy at the Yellow level. The notion of *Conscious Capitalism*, as stated by Whole foods' CEO John Mackey, is described as integrating healthy aspects of Orange and Green values after an elaborate version of the triple bottom line: People, passion, purpose, profit and planet. And fueled with renewable energy. Dawlabani also discusses key politicians, economists and media personalities that are at that level in order to support the transition from Orange to Yellow.

Concluding, the struggle between the Blue and Orange value systems in the American economy I see as the most detailed and initiated part of Dawlabani's analysis. The previous two value systems, Purple and Red, are only briefly discussed and serves as a historic background, it would be great to have that more elaborated and related to other sources than the Spiral Dynamics framework itself. The Green value system, however, is in my view oversimplified. In order to integrate values at a higher level, the lower ones need to be accurately understood and described. And the key to do that, I believe, is to acquire a deeper understanding of the *life conditions* and problems that are associated with the Green value system and created by the Orange systems. Here I find the second book more elaborate.

Leading from the Emerging Future: From Ego-System to Eco-System Economies

In order to get more attuned with the challenges we face on a global level and beyond the economic system I find Otto Scharmer's and Katrin Kaufer's book *Leading from the Emerging Future: From Ego-System to Eco-System Economies* closer to reality, to the current challenges and the limitations of the current capitalist economy. The book comes out with a flying start:

> Finance. Food. Fuel. Water shortages. Resource scarcity. Climate chaos. Mass poverty. Mass migration. Fundamentalism. Terrorism. Financial oligarchies. We have entered an age of disruption. Yet the possibility of profound personal, societal, and global renewal has never been more real. Now is our time. (Scharmer and Kaufer, 2013, p. 1)

Scharmer and Kaufer are both economists and have their main focus in the lower right quadrant in AQAL terms, i.e. on systems, institutions and on global problems. They take a wide scope and list eight structural disconnects relating to nature, labor, capital, technology, leadership, consumption, coordination and ownership, which need to be addressed. But they argue that the disconnects and the challenges can be seen as symptoms of three major fault lines or divides on a psychological and cultural level; in our relationships with ourselves, in our relationships with each other, and finally in our relationships with nature and our planet.

The Developmental Framework of Scharmer and Kaufer

As Dawlabani, and this can also be seen as an integral theme, Scharmer and Kaufer present an evolutionary economic framework, a stage theory for socio-economic development. This has much resemblance with the Spiral dynamics framework, although it seems not to be related to psychological development according to the field of adult development. The stages are, however, associated to a certain mindset or core belief and mode of technology. They refer to the stages as Economy 0.0, 1.0, 2.0, 3.0 and 4.0 that seem to be in good correspondence with the Purple, (Red)/Blue, Orange, Green and the Yellow value systems, respectively, as briefly follows up to 3.0:

Society 0.0 is referred to as pre-agrarian, which seems to correspond to the purple value system in Spiral Dynamics where man is embedded in “mother nature”. The corresponding mindset is premodern awareness, typical of indigenous tribes.

Society 1.0 is seen as state-driven society with stability as its main focus. The description of the logic corresponds to the blue value system (the previous red value system seems to have no correspondence in Scharmer’s and Kaufer’s framework, or could be included in this 1.0 stage). This stage corresponds to a traditional awareness.

Society 2.0 is associated with the industrial revolution, the rise of business with competition on a de-regulated free market (laissez-fair) and mass-consumerism. The main challenge of the system is growth, clearly corresponding to Orange in Spiral Dynamics terms. Scharmer and Kaufer refer to this mindset as ego-centric awareness, which gives a hint that they see this as a non-desirable stage in itself, being main responsible for the above mentioned crises.

Society 3.0, or stakeholder-capitalism, is described as dealing fundamentally with negative externalities of the previous stage, such as poverty, exploitation of low-income workers and the environment. Examples are European style regulated social-market economy. Technological advancement is characterized by the second industrial revolution with oil, combustion engine and chemicals. The 3.0 mindset extends from the 2.0 self-interest to a stakeholder-centric awareness and the main logic of this society can be seen as being a reaction towards the previous 2.0 and dealing with its limitations:

> Measures to correct the problems of Society 2.0 include the introduction of labor rights, social security legislation, environmental protection, protectionist measures for farmers, and federal reserve banks that protect the national currency, all of which are designed to do the same thing: limit the unfettered market mechanism in areas where the negative externalities are dysfunctional and unacceptable. […] Stakeholder capitalism, or Society

> 3.0, as practiced in many countries, deals relatively well with the classical externalities through wealth redistribution, social security, environmental regulation, farm subsidies, and development aid. (Scharmer and Kaufer, 2013, p. 54)

Before going into the limitations of society 3.0 and moving on to the next stage, I will take a closer look at the most central problems that this stage is trying to address. It will be addressed in more detail due to its central importance to the question on the limits of the current economic system and of capitalism, and on possible ways forward.

The Challenges of the 3.0 Society or the Postmodern World

In Dawlabani's analysis the Green value system is only elaborated on with respect to one theme, the knowledge economy, but gives only brief attention to the second theme that I think is of greater importance here: the distributional or social aspects. A third theme, perhaps of even more importance and also not more than briefly mentioned by Dawlabani, is the environmental concern and focus on sustainability. Both these themes can be described in terms of being in conflict with the modern Orange value system and with its most fundamental premises of economic growth. Here follows a description of the two latter themes and challenges according to Scharmer and Kaufer, but also with some other sources that I find useful and illustrative.

Sustainability

Beginning with the aspect or theme of environmentalism or sustainability, the perhaps most fundamental premise of an Orange economy is that it should grow and the most obvious critique from an environmental or sustainability perspective is that there are limits to growth on a finite planet (Meadows, Meadows, Randers, Behrens III, 1972). In terms of ecological footprint we currently overshoot the planet's carrying capacity with 50 percent. This shift in perspective is sometimes referred to as going from an empty world to a full world (Costanza et al., 1997), where an Orange view of the world is one of abundance but Green views it as limited with a scarcity or recourses and a limited ability of the planet to absorb waste.

A common critique of the current market economy is that it fails to take into account externalizations, meaning that the environmental impact is not included in the price of a commodity such as an airline ticket that doesn't include the cost of the CO2 being emitted or the many ecosystem services that we take for granted. An ecosystem service is something that nature produces that is of value to us, such as fresh water, soil, the air we breathe or bees pollinating our plants. A response according to the Orange value system is to assign an economic value to these ecosystem services, which would also allow the economy to continue to grow since more things of value are added to the economy. Giving the ecosystem and its services a value would mean that they can be taken into considerations when we make decisions on whether we should exploit such a resource.

This commodification of nature and attempt to subordinate nature into the economy, which can be seen as an Orange or Society 2.0 logic, gets heavily criticized from many environmental activists and proponents, one such I find in George Monbiot (2014). Monbiot argues that giving things an economic value also means that it will be treated as any other exchangeable commodity instead of a necessity for our survival. It can also be argued that we reinforce the view of nature as instrumental, i.e. as something that is there for the sole purpose of being exploited by us. It is meaningful to talk about financial capital and natural capital, but they should be seen as non-commensurable – you can't eat money.

Other examples of insufficiencies in the 2.0 mode of business to adapt to life conditions of a full world are manufacturing and material flows. This was succinctly summarized by Robin Wood in his keynote speech at the IEC 2014:

> Linear economy: We dig holes on one side of the planet, we extract resources, we pump them through supply chains, then we go to the other side of the planet and in two years we deposit 98% of these precious resources in another hole. (Wood, 2014)

A typical 3.0 response to this this linear economy is to regulate and reduce the material use. Another alternative to the linear economy, a circular one, will be discussed in the description of Society 4.0.

Another aspect of sustainability of interest is energy, and using renewable energy is something almost everyone pays lip service to, but a transition from a society currently where roughly 85 percent of the global energy consumption comes from fossil fuels may be harder than one first could expect (Heinberg, 2009). In his *Crash Course* Chris Martenson (2014) emphasizes the close connection between increased energy consumption and economic growth, and where global oil extraction during the 00s has been at a constant level. Kjell Alelkett, president of ASPO, Association for the Study of Peak Oil and Gas, argues that the spike in oil prices in 2008 was a trigger to the financial crisis (Aleklett, 2012). In terms of energy we are possibly not only approaching a full world but one that is shrinking.

Fair Distribution Between and Within Cultures

After these examples of how the Orange system fails to address sustainability challenges and the planet's limits to growth, let's turn our attention to the distributional or social aspects of the economy. With Scharmer's and Kaufer's global outreach they give emphasis to what they refer to as the socio-economic divide. An obvious illustration is that the richest 1 percent own 40 percent of the world's wealth, even 48 percent according to more recent data (Oxfam, 2015), while half of the world's population own just 1 percent. Often it is described that capitalism and globalism implies that the wealthy world externalizes its real costs to the poor. Starvation is not a sign of lack of food, but rather of poor distribution.

Other arguments of the benefits of striving towards a more equal distribution, but within cultures, are found in *The Spirit Level* by Richard Wilkinson and Kate Pickett (2009) who investigate the relation between GDP and other variables that they argue are of more relevance, such as life expectancy, health and happiness. They all increase with increasing GDP up to a certain point when the relation gets weaker and the curve levels out. In the industrial world, dominated by the Orange value system and above, economic equality then becomes a better predictor of these indicators of a good life.

For these problems capitalism and market liberalism appear not to be positive forces. Rather, they produce larger gaps Scharmer and Kaufer argue with support from studies made by the International Labour Organization in 2008. This is also in line with the arguments made last year by Thomas Piketty in the widely debated *Capital in the Twenty-First Century* (2014), where he discusses the inequalities in income and wealth that has increased after 1975, refuting the claimed effect of the Reagan era's "trickle-down economics" with deregulations and tax-breaks for the already wealthy. Capitalism is great at producing new wealth but not at distributing it, Piketty argues as he proposes a global wealth tax to counteract this.

A way of dealing with the material and economic inequalities and a system where profit has become more important than creating jobs, basic income has been discussed in greater extent, although it being an old concept. And the concept of a sharing is not limited to information and knowledge, a *sharing economy* with couch surfing, sharing of tools, car rides and different services have been discussed and practiced more, not least due to the new possibilities of connecting on the web.

In conclusion, Scharmer and Kaufer show that the 3.0 economy of the Green value system is much about opposing and transcending the limitations of the Orange 2.0 market economy. It does so by problematizing economic growth as an intrinsic goal in itself and by stating that the economy should be of limited and subordinate nature instead of the opposite. And that it should also act as a means towards satisfying social needs and increasing economic equality.

Still, Scharmer and Kaufer do not consider it to be enough to deal with the current crises: "There are three essential limitations of Society 3.0: It is biased in favor of special-interest groups, it reacts mostly to negative externalities, and it has only a limited capacity for intentionally creating positive externalities" (Scharmer and Kaufer, 2013, p. 54). They dismiss what some argue, to go back to a 2.0 society, 1.0 or even 0.0 state of economy, and proposes a way forward, to a 4.0 society. But what would that look like and how would we reach it?

Society 4.0

Society 4.0, is characterized by co-creation and as being human- and life-centric. Money and the economy should serve the real economy and the well-being of all, and to be means to positive social change. Technological development, and more specifically the third industrial revolution (with renewable energy and information technology), is seen as a prerequisite to the 4.0 society. However, just as the economy, the information technology should be seen as being human-centric, i.e. means toward human well-being, growth and social creativity.

Where 3.0 can be seen as a reaction towards the problems of the previous stage and dealing with them separately, 4.0 offers a systems view and shift in perspective where the described problems are seen as symptoms of the divides described the introduction of the book. The shift in perspective is from problems to the underlying causes, to the system and inwards to ourselves. Thus, they argue that the challenges need to be addressed first on a personal/spiritual level, then on a relational and finally on an institutional level by creating social and cultural movements. When they go into the psychological processes necessary for change to take place they refer to *Theory U*, described in previous work by Scharmer (2009).

Sharmer and Kaufer gives several examples of how different interests are needed to be addressed and to work together instead of competing, for instance by addressing poverty and environmental issues at the same time. Here is a characterization of the 4.0 stage:

> In the emerging 4.0 stage of our economy, the natural self-interest of the players extends to a shared awareness of the eco-system. Eco-system awareness is an internalization of the views and concerns of other stakeholders in one's system. It requires people to develop the capacity to perceive problems from the perspective of others. The result is decisions and outcomes that benefit the whole system, not just a part of it. (Scharmer and Kaufer, 2013, p. 56)

When it comes to material flow, the natural response to the limitations of a linear economy is a circular one, where material flows are kept in closed loops, either in a natural cycle and totally degradable or in technical cycles where they can be processed and reused. This is referred to as the Cradle to cradle design principle by Michael Braungart and William McDonough (2009) or as circular economy, and is taken as an example by Scharmer and Kaufer as a way forward.

In conclusion, I think the strength in Scharmer's and Kaufer's book lies in its rich description on cases and way of overviewing the current challenges and limitation of our current system. They don't back down from the big challenges. The book has as its main broad focus the socio-economic issues of the lower right quadrant in AQAL terms, but aims for making the connection to the other quadrants in its emphasis on taking action (upper right quadrant), in organizing and doing it together as a culture (lower left), and on the personal, psychological and spiritual aspect (upper left), and that these aspects are interdependent: "The matrix suggests that the evolution of economic structures follows the evolution of human consciousness – or, to be more precise, that they are highly interdependent" (Scharmer and Kaufer, 2013, p. 239). However, the book does not refer to any theory from the field of adult development or integral theory in further elaborating on what they mean by evolution of consciousness, a connection that needs to be further addressed. One first step is to relate it to and compare it with Spiral Dynamics, which will be done in the following section.

A Comparison between the two Developmental Frameworks and with other Perspectives

Generally speaking, the two frameworks show a significant consistency in their description, but there are some differences in how they interpret and order historic and economic events. It may sound like an academic detail, but how things are ordered can have an effect on and be seen as a reflection of one's view on e.g. the financial crisis. Dawlabani sees the development of the US economic system in the last decades as in transition from blue to orange while Scharmer and Kaufer argues that it has moved from 2.0 (orange) towards 3.0 already after the great depression in the 1930's and then *regressing* during the Reagan years. "In the 1980's the neoliberal Reagan-Thatcher revolution began to move the country backward from 3.0 to 2.5, so to speak, by reshaping the institutional design in favor of deregulation, privatization, and tax reduction, particularly for the rich and super-rich" (Scharmer and Kaufer, 2013, p 58). Thus, their view of the current market oriented system as being a result of a regression is more problematizing than

Dawlabani's as they refer to 2.0 as an ego-system economy (although Ayn Rand herself would probably be ok with such a characterization).

Another inconsistency is that Dawlabani views the information revolution as belonging to the Green value system while Scharmer and Kaufer sees it as corresponding to Society 4.0 (the reverse relation holds to Google as a company that Dawlabani considers to be Yellow while Scharmer and Kaufer sees it as 3.0).

The examples above can be seen as illustrations of the difficulties of classifying different systems, economies, companies or design principles, at being at different stages. The Spiral Dynamics framework was firstly based on the study of individuals' values but is mostly employed in studying cultures. And Scharmer's and Kaufer's framework is not that stringently defined. Trying to classify concepts and systems, which can be seen as artefacts from a culture's certain value system, is all but simple and straightforward.

Scharmer and Kaufer offers, in contrast to Dawlabani, several case studies where they employ their framework in different cultural settings in addition to USA, such as Europe, Africa, China, Indonesia, India and Russia. Although it would be interesting to hear if Dawlabani or other proponents of Spiral Dynamics would agree with those descriptions, such as the interpretation that China can be seen as a 3.0 society and even on a path towards 4.0. Scharmer and Kaufer are also broader in their scope and see the economic system as very limited part of our society. Dawlabani's book seems to be more detailed and accurate regarding the description of what lead to the financial crisis, but I find Scharmer's and Kaufer's description of the grand challenges we face and the path forward as more useful.

I would also like to make a further connection between the developmental frameworks presented by Dawlabani and Scharmer and Kaufer, and a framework for sustainability that is more commonly referred to in mainstream discussions. Given these challenges and issues, an economy according to Society 4.0, or the Yellow value system, could be described as a synthesis and coordination of different spheres or dimensions, the most important being the economic, the social and the ecological. The most obvious framework to do so has been around since the 80s, the Brundtland commission's definition of sustainability (1987), where the economic, the social and the ecologic dimensions are taken into consideration and coordinated so that the needs of present generations are met without jeopardizing the needs of future generations. How this coordination is performed has long been discussed, in terms of whether they should be seen as three pillars (weak sustainability) or nested with the economic dimension subordinated the social dimension which in turn is subordinated the ecological (strong sustainability).

A few of my own suggestions on what could be regarded as Yellow economic systems are Tim Jackson's description of *Prosperity without Growth* (2009), where he proposes a route towards a sustainable economy. In academia the transdisciplinary subject of Ecological Economy (Costanza et al, 2007) has grown rapidly in interest, where it is argued, or rather demonstrated, how the economy needs to be subordinated to the ecological dimensions and to a full world of resource scarcity. Another good and balanced orientation and broad view on sustainability is also offered in *Garden Earth – From Hunter and Gatherers to Global Capitalism and Thereafter* by Gunnar Rundgren (2012).

Concluding, I find both books worthwhile reading and would recommend them to everyone who are interested in the future of economy. Although they differ in some details, I see them as consistent to each other and complementary, and they can aid for example those who want to broaden their interest from adult development or integral theory to a focus on the development of our societies and economic systems. They represent important steps towards a truly integral perspective on sustainability and the future of capitalism and our economic systems.

What about a Turquoise Economy?

Finally, a few words on what would be regarded as a Turquoise economy according to Spiral dynamics. Scharmer and Kaufer haven't proposed any society 5.0, but Dawlabani's gives some brief characteristics of what this might look like:

> When all the stakeholders identified in it are treated as *holistically interdependent*, a whole different set of values that is far more conscious begins to rise. Suddenly every stakeholder is meshed into an interwoven web that regards the planet as one ecosystem. This is the singular organism that all stakeholders plug onto to insure its long-term health. (Dawlabani, 2013, p. 257)

An underlying assumption in the definition of the Brundtland commission, as well as the basis for most discussions on sustainability in general and economy in particular, is that they are anthropocentric. Possibly, a Turquoise view would rather be based on a view on nature and the biosphere not as something out there for our purpose or something to take care of and to save, but as something we are.

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Review of Integral Development

Schieffer, Alexander and Lessem, Ronnie. (2014). Integral Development. Realising the Transformative Potential of Individuals, Organisations and Societies, London: Ashgate Gower.

Reviewed by Wendelin Küpers[1]

We are living in a transformative time facing radical challenges of and in urgent need for a more integral understanding of development, conceptually and critically that are opening up genuinely new pathways for thinking and acting. In their book Alexander Schieffer and Ronnie Lessem offer a contribution which does this excellently, and in detailed ways.

For quite some time the authors of this comprehensive book have been engaged in developing and putting into practice and what they call “Integral Worlds approach,” articulated in several books, articles and projects. Their Integral Worlds is a much to be welcomed project for understanding and consciously designing evolving human systems.

In this timely and useful publication they show how a more considered and complex comprehension of development, qualified as an integral one, looks like.

Offering multiple entry points into the book and approaching integral development they invite the reader to a journey, for which they offer rationales, maps with compasses as well as orientating contents, guiding questions and illustrating cases as well as conceptual tables and figures.

Accordingly, their presentation of integral development is systematic and principled, methodologically and normatively, and this integrating style of thought exemplifies itself what the book is all about.

Starting by contextualising and problematizing non-integral development and the need for more integrative understandings and realisations of the same, they are setting the scene for the following detailing chapters, organised in distinct but interrelated main parts.

While the first part problematizes the divided worlds we are in and the need for renewing human development, the second part presents new integral perspectives on human development. The subsequent parts outline in detail the four directions and realms of an integral development (ranging from restoring life in nature and community, regenerating meaning via culture and

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spirituality, to reframing knowledge via science, systems and technology up to rebuilding infrastructure and institutions via enterprise and economics. In particular, the authors invited to travel through the 'Southern' realm of relationship (Part III), the 'Eastern' realm of inspiration (Part IV), the 'Northern' realm of knowledge (Part V) and the 'Western' realm of action (Part VI).

The final part reviews the integral development journey and while following the idea of a 'unity in diversity', outlies perspectives on an integral university.

For the authors the book and its framework are responding to what they call "profound civilisation crises," marking a comprehensive shift of individual and collective experiences.

What the book offers is an "understanding-learning-research-education-action-journey" that claims to support the evolution and co-development towards a more integrated paradigm. Thus, it provides a comprehensive overview on significant dimensions for a more integral understanding and enactment of development.

Re- and deconstructing and diagnosing critically disintegrative patterns of past and current developments (and its underlying assumptions) and mono-cultural dominances are revealed.

Integrating design principles brings together all those important realms, rounds, rhythms and realities on local and global levels, from self, organisation, societies, and world, to approach and process development issues and capacities that need to be built into future development work. Accordingly, their differentiated explored, comprehensive fields of developments are ranging from self-development, organisational development, societal development up to, ultimately, integrated practice, allowing various synergistic crossings.

For them whatever the particular calling and challenge a reader might experience or face, developmental issue can be approached integrally. Consequently, their Integral Development framework helps to move starting (a) from a particular reality; (b) via all key realms; (c) adopting a fully integral rhythm; and (d) adopting individual, organisational and societal rounds, and thereby ultimately contributing to new global perspectives.

However, this starting point and logic as well as the implicit status of responsibility tends to underestimate the same of collective actors/agency and institutions/systems (overburdens individuals and local communities).

> The responsibility in an Integral Development paradigm lies not any longer primarily with abstract political systems, economics, science and technology. Rather the responsibility for development lies with the people living within a particular context who see a need or follow a desire for development. The process, we are proposing, increases the 'response-ability' of each individual development agent. (p. 128)

This specific focus on humans and humanity, appears as a revived humanism. Such humano-centric perspective might be seen as inclining towards a certain 'anthropocentric' orientation, which is in danger of not considering sufficiently that development is not (only) for human flourishing, but involves other living beings, animals, and even anorganic materialities.

As we are living in and coming to grips with the unprecedented challenges of the era of the *Anthropocene*, and for facing the ecological crisis and its underlying anthropocentrism, a anthro-de-centred orientation calls to re-situate the 'anthropos' and its development in a relational nexus co-constituted not only by its humans (who are in fact 'humanimals'). Rather development is always already and need to be more mindfully related to 'other – than-human-beings', including all those material dynamics of 'physicalities-cum-culturalities' involved, and vice versa.

What is needed are integral understandings of the embodied nexus of the *in(ter-)between* of 'materio~socio~cultural' phenomena, 'contextures' and expressions of corresponding relational practices and its 'non-/other-+-human' meanings (Küpers, 2016; Ingold, 2000).

Moving beyond naturalism and constructionism as well as physicalist empiricism and metaphysical idealism, we need to integrate an inter-corporeity of 'self-other-things' also in and of defracted organizing with an ethos of engaged letting-go or "Gelassenheit**" (**Küpers, 2016).

An integral development in this extended sense becomes even more relevant as the potentially catastrophic and irreversible circumstances for human and non-human nature due to non-integral progress and growth-dependencies that become increasingly evident.

Conceptually and methodologically the ordering of contents to categories might be seen as contingent or different. What about overlaps between, for example inspiration – relationship, culture-community or knowledge / action?

With regard to starting point, their plea for progressing inside out, step by step might be complemented by out-side in moves and non-linear unfoldments.

What is dialectically appealing for readers are their guiding questions, clear illustrating tables and figures, providing overview and summary as well as inviting the reader to reflect and process the thought-provoking and action-inviting contents!

Their generic design is different from other representations, (e.g. compared to Wilber as they place action/behaviour or culture and systems differently) and in term of discourse they call for developing even more connectivities to existing integral models.

Critically, some claims are less developed than one might wish and some more reflexive (self-) critical discernments could have been elaborated. What are limitations and problematic aspects of their presented approach? How could development be understood differently? What is or cannot be integrated in their conceptualisation or realisation of integration? Basically, the authors are optimistic that the move beyond the prevailing disintegration and imbalanced approach towards a new integrating and balanced understanding of development is possible. But what about developments that are not progress along the outlined principles? What about liminalities, conflicts, incompatibilities between sub-developmental moves? How can creative tensions between the outlined areas and realms be used for a transformative re-evolution that also moves via leaps, discontinuous processes? What would a “bounded integrality” (Küpers et al. 2010) mean for development?

How can an non-objectifying ethos of careful and ‘engaged letting-go” (‘Gelassenheit’) be connected to the envisioned Integral Development that is realizing the “Transformative Potential of Individuals, Organizations and Societies?”

Which habitual, representational and appropriating orientations as well as corresponding projection and totalizing closures of enframing and actions need to be abandoned, for accomplishing the aspired integral development?

What role may a receptive waiting and listening, thus more an ‘active non-doing’ in relation to things and what ‘matters’ play, rather than a willing and controlling business, including if this claims to be an integral one?

How can modes of poetic relations, intermediated via a presencing, atmospheric sensitivity and proto-meditative tuning and possibilities for the be(com)ing of an ‘Othering’ be cultivated?

One area or link for future research on integral development may be practical wisdom. How can an integral development be qualified as a wise one? What role might a critical poetic phrónêsis an embodied, wise and artful practice (Küpers, 2013) mean for future integral developments?

Altogether, Alexander Schieffer and Ronnie Lessem have provided a richly insightful and highly readable look at how an integral development can be not only per- and conceived, but also put into practice.

Overall, this book is in a way a culmination of what the authors have done and an aspirational, programmatic and practical agenda what needs to be done to better conceptualize and enact more integral forms of development.

In this way and in the proper spirit of ‘Gelassenheit’ they contribute to the r-evolutionary unfoldment of integral thinking and acting, for which I hoped that it will find a wide appeal, and resonant readership.

Readers’, including me, are certainly looking forward to the next iterations and descriptions of their project, whose value, as consists in integrating contents, program and style his book calls for and itself exemplifies.

Their work is offering real hope for a proactive orientation and constructive response to the enormous and unprecedented challenges of our age and for a more integral future to come.

More information about the book, the prologue, and a chapter can be found here:
http://www.ashgate.com/isbn/9781409423539

More information about the authors and their initiative are here:

http://www.trans-4-m.com/

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Going Mainstream: A Review of *Mastering Leadership*

Anderson, R. & Adams, W. (2016). *Mastering leadership. An integrated framework for breakthrough performance and extraordinary business results.* Hoboken, NJ: John Wiley and Sons, Inc.

Reviewed by Jonathan Reams[1]

Introduction

In reviewing a book like this, I realize there are many challenges. It is a business book, yet there is extensive theory incorporated into it. Written for a mainstream business audience, it also brings anticipation to those looking for adult development work to get a stronger foothold into society. The authors aim high, intending to set a new benchmark for leadership development work. So there can be intense scrutiny of how the argument is put together. In this review, I attempt to give voice to all of these tensions as I weave my way through conveying my impressions of it.

To begin this review, I take an overview of some academic work as a way of contextualizing how such an integrative move can be approached. There have been many attempts to create an integrated framework for first understanding leadership, and then from this, to be able to do something about developing it. For example, Rost (1991) stated that "no one has presented an articulated school of leadership that integrates our understanding of leadership into a holistic framework" (p. 9). Subsequent scholars have taken up the challenge with varying perceptions of the results. Goethals and Sorenson (2006) undertook *The Quest for a General Theory of Leadership*, without coming to a consensus. Harvey and Riggio (2011) explored *Leadership Studies: The Dialogue of Disciplines*, examining how diverse disciplines such as political science, psychology and history among others can give insights into leadership. Kellerman (2012) talks about *The End of Leadership* as a way of trying to get us past the chaos of our multiple conceptions. She estimates 1400 definitions of leadership, along with 44 theories about it.[2] It appears that scholars are not coming to an integrated framework anytime soon.

If all these scholars have struggled to do this, what can this tell us? It might be that approaching it from the academic orientation comes with inherent limits. One of these limits could be from being more immersed in observing and analyzing than doing and reflecting. It could come from the type of training one receives to be an academic, with the disciplinary, rational and analytical enculturation of the profession. The postmodern demand to give equal

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[2] Russ Volckmann presents a good overview of this in his article on *Integral Leadership and Diversity* in Integral Leadership Review (June 2012).

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voice to diverse perspectives could play into it. It could even be that the deeper one looks and the more granularity in the focus, the forest can get lost for the trees.

From this it can be worth looking to see if something new, at least a step in the direction we are looking, can come from beyond the academic world. Being outside of the constraints of the academy has its advantages. While many of us have encountered casual, popular attempts to bring good ideas into practice, we have often been disappointed. However, at its best, being free of academic constraints allows for a freedom of expression that can generate breakthroughs of expression, enabling complex, post-conventional ideas get a foothold in the conventional consciousness of mainstream society.

The challenge here is that it can be rare to find a sufficiently reflective practitioner (Schön, 1983) who can give clear enough voice to his or her experience in order to share that with others. Few business leaders are sufficiently well versed in theory to describe their experience in terms that would meet the scholar’s desire for conceptual rigor and clarity. Among consultants, Bill Joiner (Joiner & Josephs, 2007) comes to mind as someone who has aimed to present an integral view of leadership and its development. Bill Torbert (2004), as an academic and consultant practitioner, has also done a great deal to bridge the gap in this area. Doing a simple search on Amazon for ‘integral leadership’ generates plenty of results (including the book under review here), with most appearing to my view as either being the usual suspects, specialized or related topics. However, my perception is that none of these works has penetrated deeply into the mainstream business discourse.

It is in this context that Anderson and Adams (2016) have come forward with their version of an integrated framework for mastering leadership. As consultants with a reflective turn and a strong capacity for theoretical integration, they have put together a book that explicitly takes on the challenge to come up with an integrated framework for leadership. The questions that I wish to address in this review are primarily about how this book makes its case for this framework.

Context

My own study of leadership has been much more in the academic context, although in recent years this has translated into practice at facilitating its development in others. With an aim at transparency and disclosure, much of this practice has come in conjunction with the use of the framework and tools described in this book. I first encountered Bob Anderson in 2003 on a conference call and then in 2005 through an interview with Russ Volckmann in Integral Leadership Review. This led to taking the certification in The Leadership Circle that year and beginning the long journey of learning how to make good use of it. Part of that journey has also included becoming associated as well with Bill Adams and the Full Circle Group (a consulting business built on the TLC framework) in 2010.

I should also say that I have been using the main assessment instrument from the framework, The Leadership Circle Profile (TLCP), in the classroom for a continuing education leadership course and with various client programs over the past seven years. I have also in the past year begun to lead certification programs for consultants and coaches wanting to be licensed to use TLCP in their work. This leads to two things relevant to this review. One is that I am deeply familiar with the framework and tools in a variety of contexts (I have seen something like 300 profiles and coached dozens of leaders with it) so I can speak from experience in relation to many of the descriptions and claims in the book.

The second is that while on the one hand I might be biased in favor of the book for a variety of practical reasons, I also come with high expectations. Nothing that is in this book is new to me and I was not expecting it to be. This book is a combination of many of the arguments, stories, research and implications that have been the core fabric of the TLC business and community of practice as long as I have been associated with it.

Before getting to a brief summary of the contents of the book, it is important to make some remarks about who is the intended audience for the book. This book is not meant to be an academic treatise on the subject, even though it is backed by extensive theoretical sophistication. This book is written for practitioners of leadership, “for leaders swimming in complexity, wanting and needing to thrive, knowing it could be different … also for leaders who are thriving in complexity and are hoping to teach others how to do the same” (pp. xxi-xxii). From this it appears to me that the aims of this book are primarily *pragmatic*. Thus the tone, tempo and structure of the book have this aim and audience in mind. For my review, I aim to examine a variety of issues around how this pragmatic approach shapes the book.

Another positioning that Anderson and Adams take in their introduction is to call their work “the first *Universal Model of Leadership* to emerge in the field” (p. xxii, italics and capitalization in the original). This is a bold claim and the authors acknowledge as much. Some of the opening references in this review hint at the breadth of other considerations possible when the term “universal” is invoked. Within these two contexts, the academic search for a comprehensive, integrated, framework for leadership and the pragmatic needs of organizational leaders, I will also examine how this book makes its case for this claim.

I want to reflect further for a moment on this claim and the positioning of the book as an integrated framework. This is related to the issue of integrative moves per se. One of the authors (Bob) describes how he “decided to meet, learn from, and work closely with many of the leading thinkers and researchers in the field of leadership” (p. xxiii) and from this saw that “the field wasn’t integrated” and so “set out to integrate it” (p. xxiii). Any such integrating move is subject to a number of constraints. Anderson (2006) discusses the tension between the synthetic nature of such integrative theoretical ventures and the need for humor, humility and openness to surprise. There is also the challenge of an unspoken set of hermeneutic horizons of preunderstanding (Palmer, 1969) that, when not acknowledged or reflected upon as constraints, can contribute to a totalizing orientation where contrary data can be filtered out or re-interpreted to fit the model.[3]

At the same time, any (vertical) developmental move aimed at taking a diverse set of constructs and conceptions and weaving them together in a manner that helps to illuminate a field of experience and phenomenon from a higher level of development so that it makes it accessible for a conventional audience can be considered as integrative.

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[3] This critique has been aimed at Wilber’s AQAL integral model in particular. It is a natural enough tendency that many of us have been conditioned to take as a given aspect of such work.

Overview

Anderson and Adams begin with an introduction aimed to contextualize their work. It is a nice mix of stories, personal reflections and journeys with some orientation to the purposes and theoretical background supporting the book. They even have made a free version of the TLCP available for readers (self only, no evaluators included) to help anchor some of the concepts and examples to personal experience.

The book is laid out in two parts. The first few chapters set out to make a business case for the framework. Once this has been established, the second half then outlines the nature of the journey to greater leadership effectiveness. This is done over 13 chapters briefly described here.

Chapter one, *The Promise of Leadership: Meeting the High Bar of Expectations*, sets out the agenda for leadership and the related expectations. It notes the explicit expectations such as specific outcomes that roles bring, as well as the implicit expectations like competence, commitment and providing meaning and direction. Together these create a very high bar for leadership. They describe four 'universal' promises around leadership; setting direction and giving meaning, engaging stakeholders and holding them accountable, ensuring focus and execution, and leading effectively. Together these make up the leadership agenda.

Chapter two, *Leadership Effectiveness and Business Performance: The Primary Competitive Advantage* lays out a research project undertaken by TLC to determine the relationship between these two key constructs. An additional set of survey questions was constructed and added on to the TLCP survey that measured business performance. They show that the top 10% of leaders, in terms of this business performance index, scored on average in the 80th percentile on leadership effectiveness, while the bottom 10% of leaders scored at only the 30th percentile. (They also note comparable results from the research of Zenger and Folkman (Zenger, Folkman, & Edinger, 2009)). Having established the impact of leadership effectiveness, they then show how they can measure a leadership quotient by dividing leadership effectiveness by ineffectiveness.[4] This simple formula can provide insight into the competitive advantage effective leadership can provide. The chapter also goes into the collective leadership effectiveness as being critical for business performance.

Chapter three, *Mastery and Maturity, Consciousness and Complexity: The Leadership Development Agenda* begins to describe the field of adult cognitive development and how it relates to the agenda of leadership. They introduce this by talking about the outer game of leadership being made up of processes and competencies, while the inner game is about consciousness. They also give a long list of examples of literature that emphasize the view that the inner game runs the outer game. They then give a list of premises, that; structure determines performance, you are a structure, consciousness is the operating system of performance and that to achieve higher performance, you must be restructured. These are linked to the relationship between consciousness and complexity, the basic theme being to lead in the face of growing complexity you need to have an adequate complexity of mind to do this. This then forms the core argument of their view on the essence of leadership effectiveness and its development.

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[4] In this section of the book they focus on using only the leadership effectiveness scores for this. There is also a further relationship between the upper and lower halves of the TLCP related to this formula. I also make some comments on the leadership effectiveness survey in my discussion.

Chapter four, *Stages of Development: The Backbone of the Universal Model of Leadership* takes this a step further. It goes into Robert Kegan's (1982, 1994) model of adult development and shows how it relates to the TLCP. The labels are adapted to the profile, with the socialized mind becoming the reactive half of the profile, and the self-authoring mind becoming the creative upper half of the profile.[5] Figure 4.4 shows the relationship between stages of development and leadership effectiveness, making a curve that is utilized later as well to show parallels with other facets of the framework.[6] The chapter also places identity at the core of the consciousness development framework.

Chapter five, *Five Levels of Leadership: Structures of Mind and Performance* goes through more detailed descriptions of the conception of vertical development stages and how they look in relation to leadership. They spend a lot of time showing how the socialized/reactive mind is linked to a set of beliefs that are measured in the TLCP and then how these reactive tendencies are negatively correlated with leadership effectiveness. In a similar manner, the self-authoring/creative competencies are linked to the upper half of the profile and shown to correlate very positively with leadership effectiveness. Brief descriptions of integral and unitive stages of consciousness are also included.

Chapter six, *The Universal Model and Metrics: Global Leadership, Cross-Cultural, and Gender Application* goes into the full range of application of the framework, research and relevance to questions of cultural diversity and gender. The chapter describes the dynamics that are woven through in the profile between the different dimensions.[7] There is also some interesting data on gender differences, with women being seen as significantly more caring than men, as well as generally scoring higher on the upper creative dimensions. They also present the research done on the relationship between stage development and TLCP that indicates a clear correlation between higher stage development scores and higher creative competency scores. As well, this chapter provides the data that the authors base their use of the term universal on. Their examination of how leadership effectiveness is described in diverse cultural settings supports the view that this framework translates around the globe.

Chapter seven, *The Leadership System: The Central Organizing System* describes the larger set of six systems that are relevant for organizational effectiveness, with leadership sitting in the center of this system. This chapter also contains some extended case studies that help flesh out how the application of the framework looks in practice. One in particular is an extended description of a leader and his team over a number of years and through significant changes in conditions. This is a very illustrative case, showing the ups and down over time and the impact a leader can have on business performance. They also use this to introduce the larger leadership system built on the framework.

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[5] It should be emphasized that TLC is very clear that theirs is not a developmental measure. The upper and lower halves of the profile are designed to be grounded in these distinctions of Kegan's, without making any claims to be measuring them.

[6] It occurs again in relation to the stage development research. As a note, I have had access to the data set used for this and was able to replicate this figure.

[7] I can say as a practitioner that these dynamics are very useful and insightful for clients to see the impact of certain limiting beliefs and behaviors.

Chapter eight, *Reactive Leadership: An Insufficient Triumph of Development* begins a section of chapters that go into more depth and detail about the leadership journey. This chapter describes the nature of this stage of development, through a number of examples of how leaders came to realize that their behaviors were based on limiting assumptions based on safety rather than purpose. This is characterized as an anxiety management system where a problem or threat generates a fear, which leads to a reaction, which aims to alleviate the problem. The limitation of this structure is that once the problem goes down, so does the fear and thus the reaction. In the end, equilibrium is maintained and performance is limited.

Chapter nine, *Reactive Leadership at Work: From Patriarchy to Partnership* continues the theme set out in the previous chapter and links it to more in depth descriptions of the three main personality structures used in the reactive styles part of the TLCP. Based on Karen Horney's (1945) work, the TLCP framework describes complying, protecting and controlling orientations. The gifts or strengths of these are labeled heart, head and will. How these gifts get hung up on reactive operating structures is the key distinction they make. They also show how the natural outcomes of these reactive tendencies are to create patriarchal organizational systems and cultures.

Chapter ten, *Creative Leadership: Fulfilling the Promise of Leadership* moves on to the next stage of the journey. The journey to this stage is framed in terms of Joseph Campbell's (1991) description of the hero's journey. Once there, the process driving behavior is contrasted with the anxiety management system of the reactive mind as starting with purpose and vision, leading to passion and action. This virtuous cycle can enable sustainable growth. The restructuring of identity beliefs is shown to fuel this shift. This is also described in relation to how distinguishing the reactive elements and undertaking the practices described in the next chapter, a leader can move to the related area of the upper half (e.g. controlling can move to achieving).

Chapter eleven, *Six Leadership Practices: Spiritual Bootcamp for Leaders* does just as this title suggests; laying out six practices that all aim at supporting the developmental journey laid out in the previous chapters: Discerning purpose, distilling vision, knowing your doubts and fears, engage in authentic, courageous dialogue, develop intuition, open to inspiration and think systemically.

Chapter twelve, *Integral Leadership: Built for Complexity, Designed for Transformation* takes into account that a small but hopefully growing cadre of leaders are actually entering into this next stage, where they shift their relationship to not only leadership, but also to their sense of identity and understanding of the journey of development itself. Reference is made again to the stage score research, showing an aggregate profile of leaders who scored in this range as being highly in the upper creative half of the circle. Harvesting shadow elements of our identity is described as a key part of how the hero's journey shows up in this transition.

Chapter thirteen, *Unity: Journey's End, development Turned Upside Down* closes the book by questioning some of the very foundations upon which the framework is built. At the same time, it points to the authors' sense of purpose and meaning behind all of the work they have done. Grounding in various spiritual traditions is referred to as a way to describe this stage where ego is not developed, but surrendered. Two arguments are made for development despite the description of unity consciousness as making all of this irrelevant. One is that you still need to live in the world and need to use a structure of mind compete with competencies etc. to do this. The second reason given is that only a mature ego can be surrendered.

Two appendixes close out the book, one listing all of the definitions of dimensions in TLCP. The second shows a long list of theorists whose work contributed to this integrated framework.

Discussion

Kudos

Given this brief and basic description of the book, what can be said about it? The claim of being an integrative framework is justified. My belief for this comes from thinking about what theories and practices are worth including in such an integration, if as noted in the introduction, there are 44 theories of leadership. After spending 20 years studying the field, I find that the theories covered in this book tend to address perspectives on the topic that I view as worthy of inclusion (although I can imagine some differences in emphasis of course). Given the pragmatic, practitioner orientation the book is aimed at, the framework does indeed integrate a great number of theories, models and research from both academics and practitioners in the field of leadership in a very elegant and useful manner. (The appendix mentioned above describes the work of over 50 theorists whose work has been integrated into this framework). A good description of this is found when they write that TLCP

> and Universal Model integrate the best of Cognitive and Rational Emotive Psychology, within the Type framework at various Stages of Development, and relate all of this to what we have learned from the field of Leadership and Organizational Development about what works and what does not. (p. 198. Capitalization in the original).

One thing in particular that I want to give credit for is that Anderson and Adams do not fall prey to the typical tendency present in so many books in the field of creating a simple contrast between an old, bad version of leadership and a good new one we should all aspire to. Instead they lay out a clear developmental trajectory, how it applies to leadership and how each stage has its place and role in our growth and functioning as leaders. While this is not new, (in addition to the work of Torbert (2004) and Joiner and Josephs (2007) there is a growing body of leadership books based on developmental frameworks), they do a very good job of deeply developing and illustrating each stage, the transition processes and how they are relevant in a business context.

They also do a good job of presenting practices aimed to provide a good balance of challenge and support for leaders inspired by the vision and journey laid out in the book. While at first reading these practices can appear to fall prey to the critique Kegan (1994) makes of leadership literature by assuming a self-authoring mindset in order to achieve them, a closer reading shows that they are contextualized to actually help leaders use them as practices rather than as prescriptions. As practices, they can be used as a tool for growth rather than a measure of a standard with implicit requirements.

As a package for business leaders and consultants, the book gets the core message across clearly. The development of leadership effectiveness, and with it improved business performance, is linked to personal growth and development. Not just development as a generic term, but as a specific path of maturing the structure running our meaning making capacity. Getting this message across so powerfully is, in my view, the core achievement of this book.

Critiques

The critiques that arise for me need to be placed in context. As noted above, this book is written with a pragmatic lens. Not only that, I believe it is written primarily for an audience who the authors believe will read it with a conventional mind. The issues I have with the text are things that are more likely to appear relevant for a post conventional mind and or those with domain specific knowledge of adult development theory.

Along with this is a tension that I see goes along with the choice of writing style for the intended audience. I believe there is a desire to have greater market penetration for the core message of developmental growth being at the heart of leadership effectiveness than has been achieved by others. While I am happy to see this happen, I recognize that it comes with these certain tensions.

The primary framing for this tension for me is related to what Sara Ross (2008) wrote as the casual use of formal theories. Reading this text, there are sections of it where, to the knowledgeable eye, it could appear that the authors use theory casually. What I believe is more the case is that they use it implicitly and by not making sufficient acknowledgements of the tension that comes with simplifying for the intended audience, they leave themselves open to appear to the post conventional and domain knowledgeable mind that they use theory casually.

My first critique comes from tripping over some math when the authors begin describing their stage development research (p. 107). They use the work of Zenger and Folkman (2009) as a comparative set of research that also aims to understand the link between leadership effectiveness and business performance. The basic claim from both sources is that increases in leadership effectiveness as measured by a good 360 feedback instrument correlate powerfully with bottom line results, or increased profitability.

The question that arose for me was to what *degree* do “extraordinary leaders” (defined as performing at the 80th percentile or better on leadership effectiveness scores) actually bring these better results? Anderson and Adams claim a six-fold multiple for this. Digging around, I came to see that Zenger and Folkman (2014; 2009) talk about doubling profits. This difference of degree caught my attention and led to some extensive detective work to find its source. What I found was that Zenger and Folkman’s data on financial performance was reporting on the *average* per leader. This was only made explicit in their 2014 article, while in the earlier presentation of their research it was implied. Anderson and Adams interpreted the financial performance data as being an *aggregate* of the leaders’ performance in the lowest, middle and highest performing categories. Thus this difference between average and aggregate led to the differences in degree I noted above. I am sure that the reality is even more complex, with many possible factors influencing business performance. However, it is clear, and makes sense, that increased leadership effectiveness translates into increased business performance.

Moving on to a second critique, I was also confused by some of Anderson and Adams' use of developmental labels and statistics on the distribution of leaders across developmental levels. One issue I had here is how the authors have presented claims around findings from "the field of Adult Stages of Development" (p. 107. Capitalization in the original), as if there is clear consensus among theorists in the field.[8] This makes it simple and clear for the conventional business reader for sure, but it also misrepresents the actual diversity and ongoing dialogue about how stage models are actually related to each other, where stages can be sliced and for what purposes, etc. The authors have done their homework and thought deeply about these issues; I know this from personal experience. A simple acknowledgement in the text that *they* have made decisions and judgment calls on how to put this diverse body of theories together instead of an appeal to the authority of "the field of adult stages of development" would have been nice and explicitly acknowledged their implicit role in the presentation of this material.

I have some smaller critiques as well. The degree of repetition in the book became a bit too visible for me at times. Not only were phrases and sections of text repeated, but many figures appeared more times than I felt were necessary to get the point across. In the end, I believe that the book could have been cut by one third and made all the points necessary to present the framework and journey in a comprehensive manner.

A critique can also be made around how they support their claims in relation to leadership effectiveness. In the broader field of leadership studies this construct has been researched extensively (see for example the work of Fiedler, Bolman, Hogan, Yukl and others). In the TLC framework, leadership effectiveness is constructed as a measure based on five questions that are part of every TLCP. A description of the sources drawn on for this set of questions is not included in the book, and something around how this key measure was constructed would have been helpful to support the core argument.

My final point of critique relates to the label "integrative framework" presented in this model. It is really an integration of two key elements; leadership effectiveness and consciousness development. Beyond this it also integrates a host of other theoretical influences. So it is integrative. Using the term *universal* goes beyond this. While Anderson and Adams do point to how cross cultural results lead them to claim this universality, the scope of work referred to in the opening remarks, along with a sense of *American* style of self-promotional language, (rubbing the wrong way on my Canadian and European sensibilities), give me the impression that the claim is a bit of a stretch.

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[8] They list their *creative* label as comparable with Cook-Greuter's *individualist* level and Kegan's *self-authoring* stage. My understanding is that Kegan's self-authoring is his 4th order, and that Cook-Greuter's (as well as Loevinger, Torbert, Joiner and Josephs, although with different labels) individualist level is equivalent with Kegan's 4/5 order. Kegan's 4th level is equated with the achiever stage in Cook-Greuter, Torbert and Joiner and Joseph's research.
In regard to the statistics of 20% being at the creative level or higher, again, I have seen diverse statistics around this, which are very much dependent on exactly where a person is deciding to slice things. I believe that the key is related to the above, the implicit choice that Anderson and Adams have made about how to position their creative dimension is key, yet how it is expressed could lead to confusion.

Conclusions

This book is clearly designed as a pragmatic approach for a mainstream practitioner market of leaders, those who want to be leaders in business and the coaches and consultants who work with them. For this audience, the claim to have found the "universal" model for leadership development will be on target. I believe it is a clear step up from the vast majority of approaches to leadership and its development on the market today. However, for those who are aware of the larger field of leadership studies, the claim to universality could irritate.

If I had been an editor for this book, there are some key things I would have strongly recommended to the authors. One would be to tone down or better frame their use of assertive language claims. A second involves the desire to see more polishing on the text in terms of clarity and better support for key aspects of the argument. Along with this, some explicit acknowledgment of their own judgment calls would help make the book that touch more solid it could use in places. The degree of repetition, while possibly helpful for some readers, could get tiring for others. I believe the same case could be made with only two thirds of the text and figures in the book.

None of these critiques take away from my perception that the book does manage to do what it sets out to; integrate key themes of leadership effectiveness and business performance with how they relate to the journey through maturing structures of cognitive development.

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Response to Reams Review

Robert Anderson[1] and William Adams[2]

We would like to thank Jonathan Reams for his balanced and thoughtful review of *Mastering Leadership*. We think you capture well the intention and the challenge of this book. This book was written for business leaders and the practitioner audience with the intention to make complex theory and research business relevant through practical application. We endeavored to make this knowledge accessible to those not steeped in developmental theory and research, while also doing justice to the underlying complexity of the theory. At the same time, we want to bring home the significance of this body of work in a way that moves a developmental approach to leadership development to the center stage. In our opinion, vertical development is not yet mainstream (far from it), and it needs to become best practice.

We feel you did a very accurate job of summarizing the major focus of each chapter and the book as a whole. We especially appreciated your acknowledgement (from your 20 years of reading the field) that our theoretical framework integrates well the frameworks and research you find most relevant and useful. You also acknowledge, as the core achievement of this book, how we have integrated all this leadership and psychological theory into a well-described developmental framework.

Your critique of our interpretation of the Zenger-Folkman research is spot on. We made a mistake. In reading from their book, it is not specified that the middle percentiles are average performance. We mistakenly believed these to be aggregated performance numbers. Two-fold outperformance is correct, not six-fold. The argument we made is directionally correct. Leaders who measure in the top 10 to 20 percentile groups on a good 360 assessment are likely to significantly outperform the average.

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You also raise the question of how we arrived at the conclusion that 20% of leaders are operating at Creative or higher. In describing how we came to this, let us set some context: There is a difference between *thought leadership* and *practice leadership*. We are practice leaders, not thought leaders, in the area of developmental theory. Our work serves as a bridge between theory and application, with the focus being on application. We profoundly value the contribution of Bob Kegan, Lisa Lahey, Susanne Cook-Greuter, Bill Torbert, Josephs and Joiner and so many others who are pioneering this most important research. We are not doing primary research and theory creation in this area, and do not represent ourselves as such. We are practice leaders who are working to faithfully integrate and apply the seminal work of developmental thought leaders. This book is written from that perspective. We reserve the right to get smarter and we believe very much that we have to be directionally accurate in all of our models and work. We consider ourselves learners who, through application, move the field forward.

As practice leaders, we have years of experience attempting to explain and apply these models in ways that gain traction with business leaders and that are experienced as business relevant. While very relevant to this audience of integrally and developmentally informed readers, an in depth discussion of theory would distract many business leaders from getting the full import of understanding their leadership through the lens of a developmental framework. Therefore, in our work with leaders, and in our book, we make core distinctions. The key distinction we make (relevant to the business leader audience) is the movement from being primarily authored by others to being primarily authored by self. In other words, the shift from Reactive to Creative is to become self-authored. We also equate the move into self-authorship as the primary work in shifting from conventional to post-conventional leadership. From our experience, venturing any deeper into the complexity and nuances of developmental theory becomes a trap with most business audiences and takes away from the development agenda we are working for them to adopt. *Mastering Leadership* is written from this perspective.

We have always conceptualized Creative Leadership as inclusive of levels 4 and 4.5. At full maturity it is green, Individualist, Pluralist, Catalyst. It evolves through Level 4 (Achiever, Self-authoring) and becomes fully Creative at the first post-conventional stage. Mature Creative leadership, therefore is early post-conventional. Levels beyond that are Integral and Unitive in our model. We see this as consistent with various adult development theories and accessible framing for a business audience, as well as for practitioners who are applying this work in their practice. We also think it is consistent with our practice experience and the emerging research.

Experience: We have a great deal of experience coaching and consulting to Achiever level leaders. While there is a marked increase in their perspective taking capacity (over the Expert), we find that this is still very much maturing. Many/most are still quite subject to the kind of Reactive identity assumptions we describe in the book (my relationships, results and/or intellect define my sense of worth, security and value). This often drives behavior that limits their effectiveness. In that sense, Achievers are growing into and are still very much maturing the self-authoring capacities that usher in higher levels of effectiveness. We agree with Bill Torbert: “Our research specifically points to a link between the post-Achiever frames and the manager’s tendency to propose collaborative rather than unilateral action in response to problems” (Torbert, 2004, p. 109).

Research: There is a lot of solid research establishing the various stage models and the ability to measure distinctions between different levels of meaning making. The research on how this relates to leadership effectiveness and business performance, however, is a young and emerging field. Much more research is need to firmly and more conclusively establish how the various stages relate to business metrics, leadership effectiveness and to the leadership literature. The early research is encouraging and shows significant positive correlations. The research we present in this book is consistent with current studies. We hope it contributes to the body of research and calls forth much more research.

On pages 54 and 55 of our book, we present our findings on the correlation between Leadership Effectiveness and Stage of Adult Development (measured by the MAP). The pattern in this data is interesting for a number of reasons. First, there is a strong positive correlation (.65). Second, while we do not call this out in the book, there is no difference in effectiveness scores between Experts (3.5) and Achievers (4). The average scores are so close as to be identical. Third, there is a significant jump in effectiveness scores that happens at post-conventional levels (4.5 and beyond). This pattern is consistent with the research Kegan and Lahey (2009) reported in their book, *Immunity to Change*. On page, 24 they summarize Eigel's research on the relationship between "Individual mental capacity and business effectiveness." In this graphic we see a similar pattern to the results we report. There is a significant and obvious positive trend and some, but not a large, difference in measured effectiveness scores from 3/4 and 4. However, at 4/5 there is a significant jump in scores. This pattern also lines up with Torbert's well-known findings from the longitudinal study of the relationship between CEO action-logics and organizational transformation efforts.

> In all 5 cases where the CEO was found to be at a post-conventional action-logic, the organization transformed in a positive way… these 5 CEO's supported a total of 15 organizational transformations…. Conversely, the 5 cases with pre-Strategist [Diplomat, Expert and Achiever] CEOs yielded no organizational transformations on average. (Torbert, 2004, p. 112)

Various developmental theories have a different number of stages and draw the lines between stages in different places. It is interesting to note that the Torbert research mentioned above, when it was first reported in an article did not include an Individualist Stage. He now includes this stage between Achiever and Strategist (although the names of stages continue to be updated). This suggests that the field (how the levels are defined, where the lines are drawn, and how the various theories and measurement methods relate) is still evolving.

We needed to make a judgment call about where we draw the line between Creative and Reactive in the most business relevant way. We did so in light of our best interpretation of the theory and research, and in light of our application experience. For these reasons we describe mature Creative leadership as post-conventional. We think this is consistent with the research and with the way the literature is describing extraordinary leadership—Authentic, Purposeful, Visionary, Emotionally Intelligent, Self-Aware, Change Catalyst, etc. When we claim on page 55 that the average Leadership Effectiveness score of Creative level leaders is 65th percentile, compared to our norm base, we include all managers in our sample that were assessed on the MAP at or beyond 4.5.

To arrive at the figure that 20% of leaders are fully functioning at Creative or higher, we draw on a weighted average of the sample populations presented in Susanne Cook-Greuter's paper, *Nine Levels of Increasing Embrace in Ego Development*. Here the weighted average percentage of adults at post-conventional stages is 22.8. For the convenience of our reader we round this to 20%. We think this is a good estimate of the percentage of leaders functioning at the mature Creative level or higher.

In our book we do not make all of these theoretical distinctions apparent. Consequently, as Jonathan points out, we describe the work of developing Creative Leadership as the work of becoming more and more self-authoring. We link this to Kegan's model at level 4, Self-Authoring, because this is a very apt description of the primary work at this stage, and of the development from conventional into post-conventional.

Jonathan suggested it would be useful to mention how we derived the five question Leadership Effectiveness scale. All of the dimensions on the Leadership Circle Profile were developed in collaboration with the Industrial Organizational Psychology department at the University of Bowling Green in Bowling Green, Ohio. They developed and provided this scale.

Everything discussed in this response to Jonathan's review, we believe, is a wide-open area for further research. There is more research needed about how the various developmental models and their different methods of measurement relate to one another. More importantly, there is relatively little research on how all this relates to leadership effectiveness, business performance and the practice of developing more effective leadership. Early research is encouraging, but there is a long way to go. As this body of work expands, and we better refine these important distinctions, we expect to be both contributors and learners on this journey.

Our hope in writing this book is that we can help to bring developmental frameworks center stage and best practice in how we go about developing leaders. We further hope that this will stimulate much more research into the relationship between leadership effectiveness, competency and Stage of Development.

We thank Jonathan Reams for his review of *Mastering Leadership*, and for providing us the opportunity to respond.

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INTEGRAL REVIEW

A Transdisciplinary and Transcultural Journal For New Thought, Research, and Praxis

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Special Issue

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Integral Education, Women's Spirituality and Integral Feminist Pedagogies

ARINA

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July 2017 Special Issue Introduction

Issue Editor: Bahman A. K. Shirazi[1]

The focus of this special issue of *Integral Review* is centered on two principle themes. The first theme is integral education, the educational framework that was first developed by Sri Aurobindo and Mother Mirra Alfassa (a.k.a. The Mother) as part of their integral world view. Sri Aurobindo, who was sent to England at age seven to receive a Western education, returned to India in 1893 and dedicated his early work to the cause of liberation of India from the colonial British rule. His ideas on education had significant implications for the educational system of India, which was dominated by the British at the time. A few decades later, as more and more followers and their families joined the Sri Aurobindo Ashram community in Pondicherry, India, The Mother became directly involved with educating the Ashram children and started a school in 1943, which is known today as the Sri Aurobindo International Centre of Education.

In *The Modern Knowledge Academy, Vedantic Education and Integral Education,* Debashish Banerji explores how Sri Aurobindo and the Mother's vision of integral education integrated aspects of ancient Vedantic principles with modern knowledge academy. Banerji starts with the early 20th century discussions on education that took place among key intellectual figures of India about the national system of education and the challenge of reconciliation of traditional epistemologies with Western educational values. Among topics discussed were giving priority to native languages, equal valuation of the sciences and humanities, and intellectual understanding versus inner and intuitive sources of wisdom.

Banerji characterizes the modern knowledge academy, which is rooted in scientific and empirical methodology, as being objective and universal in its outlook, thus deemphasizing subjectivity and the role of individual knowledge. At the same time, he maintains, the universal humanism that emerged was important to individual liberation and equality both in the West and for colonized people in contrast to native pedagogy, since indigenous education in India was often based on a patriarchal and authoritarian model. As Banerji puts it "… the critique of national education cuts both ways – finding principles in the modern knowledge academy to correct biases and prejudices of the past, while also contesting the definitions of epistemology and pedagogy based on indigenous knowledge systems." Banerji argues that in the Vedantic approach to knowledge ontology and epistemology are not separate and that Vedantic epistemology aims at overcoming the subject-object split through intuitive approaches and direct non-dual experiences of the Self. He concludes with a discussion on how Sri Aurobindo reconciles epistemologies of modern knowledge and nativist approaches to knowledge and how it can be implemented in a post-secular global society.

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In the next article, *A Complete Integral Education: Five Principal Aspects*, Jeremie Zulaski reviews the five principal aspects of a "complete integral education" envisioned by Sri Aurobindo and The Mother using several of their key writings in this area. After a brief critique of the current educational models, the author provides an outline of integral education and concludes that "a complete integral education contributes a potentially corrective alternative to outmoded orthodox methods that privilege intellectual proficiency over the holistic knowledge potentially present, given authentic engagement of learning communities." Integral education is often referred to as education for the whole person which is typically defined as engaging the mind, body and spirit in recent literature and by certain educational establishments, including CIIS. However, in integral education based on Sri Aurobindo and the Mother's teachings the whole person is defined in terms of five major constituents: the physical/somatic, the vital/affective, mental/cognitive as well as the psychic and the spiritual dimensions. Using the available teachings by Sri Aurobindo and the Mother the author examines each of these areas in some detail.

The next article by Heidi Fraser Hagerman is an empirical study involving the alumni of the East-West Psychology (EWP) Program at CIIS. This program started in the mid-1970s and has gone through a series of changes in its curriculum. In the 1970s it bridged Asian psychologies such as yoga psychology and Buddhist psychology with the emerging Western schools such as Jungian, existential, humanistic, and transpersonal psychologies. Over time, the East-West dimension was expanded to embrace a more global vision by including indigenous and sacred psychologies, contemplative psychology, and more recently areas such as ecopsychology and consciousness studies. Today the educational vision of the EWP program explicitly aspires towards an integral education that honors intellectual excellence as well as the wisdom of the somatic, vital, emotional, imaginal, and spiritual dimensions of the person in order to foster transformative inquiry and learning and to facilitate psychospiritual development.

The article titled *The Value of an Integral Education: A Mixed-Method Study with Alumni of the East-West Psychology Program at the California Institute of Integral Studies* is a unique and original study to engage graduates of the program to explore the relationship between their integral educational experience and their personal and professional development. According to the author, "The findings revealed that their experience and understanding of integral education in EWP is mostly in alignment with the ideals of CIIS; namely, honoring multiple perspectives, the multidimensionality of being, and multiple ways of knowing …" The study also uncovers areas that need further development such as more focus on practical and professional development, further support for students' psychospiritual development, and communication skills to convey the value of an integral education effectively with communities outside of CIIS.

The remaining articles in this issue explore a key aspect of integral education and world view; namely, women's spirituality and integral feminist pedagogies. Alka Arora's article titled *Women's Spirituality at CIIS: Uniting Integral and Feminist Pedagogies* sets the foundations for an educational framework termed integral feminist pedagogy, which is an attempt at uniting the principles and practices of both the integral and feminist traditions. Arora critiques a particular narrow view of integralism that "divorces individuals from their social and political context" and argues for a framework that not only takes into account the unification of mind, body, and spirit, but in addition integrates the social and political context which is the focus of Feminist pedagogy.

This position is in fact resonant with CIIS founders' vision of integration of the personal and psychological dimensions of spiritual practice with social, cultural, and political awareness and transformative action.

The next article by Arisika Razak entitled *The Divine Feminist: A Diversity of Perspectives That Honor Our Mothers' Gardens by Integrating Spirituality and Social Justice* further builds on the theme of integration of spirituality and social justice. Citing a number of key figures in the women's spirituality and related movements, Razak argues that while spirituality has often been separated from feminism, a number of prominent scholars in diverse fields such as Africana and Chicana studies, Indigenous studies, Islamic studies, queer studies and women's spirituality "have all linked empowered roles for women and other oppressed groups to contemporary and historic liberatory spiritual frameworks and culturally specific Indigenous roles for women and other oppressed genders."

Razak defines the contemporary *divine feminist a*s "one who walks the contested borderlands between secular feminisms, philosophy and religious studies, and ethnic/indigenous studies" by integrating "diverse spiritual frameworks elaborated by people of color, liberatory theory and praxis supporting the empowerment of women and other oppressed genders with Euro-American academic perspectives, and contemporary disability and embodiment studies" to develop new forms of activism, scholarship and alliance building.

Monica Mody's article, *The Borderlands Feminine: A Feminist, Decolonial Framework for Re-membering Motherlines in South Asia/Transnational Culture* is an excellent example of the kind of scholarship embraced in the previous two articles. Mody engages Gloria Anzaldúa's "borderlands framework", an alternative new consciousness and "a profoundly relational, integrative onto-epistemological praxis", to empower the marginalized sacred feminine in the context of South Asian motherlines by offering a radical synthesis of spiritual healing with anti-oppression work. She writes:

> [c]reating self-affirming, complex images of female identity, and making revisionist myths—while engaging the self in relation to culture— constitutes a decolonial practice. It enables South Asian women—as the Others of colonial modernity and brahmanical patriarchy—to renew their relation to an episteme of the sacred that liberates their voices, vitality, and authority.

Earlier Banerji argued that the Western "universal humanism … was important to individual liberation and equality both in the West and for colonized people in contrast to native pedagogy since indigenous education in India was often based on a patriarchal and authoritarian model." Mody argues that neither the patriarchal system in India nor the universal humanism of the West would provide the right solutions and offers a post-secular decolonized recovery at the edges of the postcolonial feminist subjectivity through the borderlines framework that "forefronts the grandmothers, the foremothers, and the experiences of women of color on their own terms."

In the final article, Karabi Sen introduces *Chinmoyee* and *Mrinmoyee*, two different ways of looking at divinity in the feminine form in traditional Indian context. Chinmoyee and Mrinmoyee refer to the divine female principle in the context of Hindu philosophy and religion which have often been interpreted by philosophers and common people alike as opposites, much in the same sense that mind and matter have been held as opposite in dualistic philosophies. In the spirit of non-dual philosophy, Sen proposes that the two aspects of the divine feminine, the transcendent and the embodied, are essentially two aspects of the same unified consciousness. Through various philosophical arguments as well as references to some of the current growing-edge work in science, and Sri Aurobindo's views on the stages evolution of life, Sen creates a platform where "the scientist, the philosopher and the saint join hands" to address the questions about our relationships to the whole, our course of actions and our choices behind our actions if we choose a "*conscious foundation* for our vision of harmony with the whole universe upon the discovered unity and link between our body and the rest of the bodies, our life and the rest of the lives, our values and those of the others."

The essays selected for this special issue of Integral Review represent a small cross-section of current integral scholarship at the California Institute of Integral Studies. We are grateful to *Integral Review* for providing another opportunity to share these ideas with the larger community of integral scholars.

Bahman A.K. Shirazi
San Francisco, July 2017

The Modern Knowledge Academy, Vedantic Education and Integral Education

Debashish Banerji[1]

Abstract: The early Upanishads provide a model of education which Sri Aurobindo drew on for his system of education, which has been called "integral education." Yet, having himself been educated in some of the canonical institutions of the modern knowledge academy, Sri Aurobindo's views on education did not adhere to a nativist or essentialist interpretation of indigenous knowledge. This article will consider the critique of both modern knowledge as well as of nativist approaches to knowledge acquisition and dissemination implicit in Sri Aurobindo's and the Mother's vision of integral education; and if or how that can be implemented in a post-secular global society.

Key Words: Integral education, Sri Aurobindo, Vedantic Education

The Modern Knowledge Academy

Questions of restructuring higher education, whether to empower indigenous forms of knowledge or a more integral knowledge (whatever that may mean) require foremost, a critical consideration of the disciplinary boundaries of the modern knowledge academy, within which all such considerations are conducted. What are the assumptions of the academy, from where did they come, who/what owns it and/or is owned by it, and what do they allow or disallow from consideration?

Questions such as these were quite naturally of critical importance at the turn of the 19th/20th century in Kolkata, India, where a native Bengali intelligentsia met to discuss the shape of a national education project. Aurobindo Ghose, later Sri Aurobindo, the philosopher-sage of Pondicherry (and one of the seminal influences on CIIS founder Haridas Chaudhuri), and Rabindranath Tagore, the first non-western Nobel awardee for literature, considered by many

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Banerji has curated a number of exhibitions of Indian and Japanese art. He has edited a book on the Indian poet Rabindranath Tagore and is the author of two books: *The Alternate Nation of Abanindranath Tagore* (Sage, 2010) and *Seven Quartets of Becoming: A Transformational Yoga Psychology Based on the Diaries of Sri Aurobindo* (DK Printworld and Nalanda International, 2012). Banerji's articles on South Asian art history, culture studies, consciousness studies and yoga psychology have appeared in various magazines, journals and anthologies.
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Indians as the conscience of the nation, were participants in these discussions. In forwarding their analyses and critiques, they considered the place of language, of whole person education, and of traditional epistemologies in comparison with western education. Many of these debates were conducted around the founding curriculum and pedagogical methods of the National College in Calcutta, which became operational in 1905, with Aurobindo as its first principal. Later, both Tagore and Aurobindo continued to develop the ideas voiced in these meetings, giving a more mature shape to them in their own "ashram" institutions, Shantiniketan and the Sri Aurobindo Ashram respectively.

Both were strongly influenced by Vedantic ideas of epistemology and pedagogy – Tagore put to practice his own creative interpretations of these teachings, while Aurobindo developed what he called "Integral Education" on its basis. Neither, however, rejected the epistemology or pedagogy of the modern knowledge academy, both because such a rejection would be a recipe for marginalization and because there were aspects to the modern knowledge academy that provided salutary corrections to some of the shortcomings of indigenous education. The National College is still operating as one of Kolkata's (and India's) major universities, though to what extent it embodies the critiques and suggestions of the National Education Council, is a debatable question.

Principles of National Education

To summarize the ideas of the Council, especially as voiced by Tagore and Aurobindo, we can group them into four major points:

1. Priority given to native languages as the medium of instruction, with the corollary need to advance translation projects of western knowledge into the Indian vernaculars. This idea, strongly advanced by Tagore, had to do with the acculturation of a never-fully-translatable continuous tradition and its engagement, on its own terms, with modernity.
2. Equal importance given to the Humanities and the Sciences/Technologies. This point was emphasized by Tagore, since what was recommended by some was an emphasis on technical education, as the basis for developing equality in manufacturing and industrial management with the colonizer. Unfortunately, in the early implementation of national education, this emphasis on Engineering became predominant for some time, and the National College, later called Jadavpur University, became known as an Engineering school. Fortunately though, today the university is well known for its Humanities as well.
3. Related to point 2, was the question of the educational habitus. Both Tagore and Aurobindo drew on the Vedantic idea of the ashram or gurukula (guru's family) model of educational habitus, which would allow for informal learning as well whole person pedagogy. The implementation of this aspect was contra-indicated by the modern knowledge academy, and the question of how or if at all it could be implemented, remained unanswered. Later, both Tagore and Aurobindo built ashrams of their own, and conceived of the life of the ashram as a form of "unending education."
4. The privileging of the mind, in the modern knowledge academy, and consequent reduction of knowledge to "intellectual understanding" was sought to be countered by other forms of legitimate knowledge. In Tagore's case, one scholar has called it "a feeling-ordered

rationality;"[2] and in Sri Aurobindo's case, it was a tapping into inner sources of wisdom that Vedantic knowledge wrote about. In this context, Aurobindo (2003) came up with his "three principles of true teaching,"[3] of which the first was that "nothing can be taught" (pp. 384-385).

Critique of Modern Knowledge

Before looking at these suggested revisions in detail, or considering what they drew from Vedantic education or what shape they took in Integral Education, it would benefit us to subject the epistemology and pedagogy of the modern knowledge academy to our own critique, based on sources of understanding which are current. The modern knowledge academy, now a worldwide decentralized universal institution, was born out of the 17th/18th century intellectual revolution known as the European Enlightenment. In brief, as a reaction to the dogmas of the Church, European intellectuals sought an object and method for knowledge production that all humanity could agree on. It is the method here that is more important than the object, since the object could more easily be stated as the totality of knowledge of the cosmos (the "what" of human consideration) and the subject of knowledge, the human being (the "who" of its consideration).

What could be universally agreed upon, if we were to avoid being subject to the rhetoric of invisible epistemic real estate of various unverifiable contentions, was what we could affirm as verifiable empirical knowledge, obtained by the senses (or technical extensions thereof), and operated upon by the rational principles of the mind to arrive at testable hypotheses, inductions and deductions. Thus the scientific method became the ground of modern research and the archiving of the results of this method, in systematic form, became the means of acquisition and furtherance of knowledge. This simply put, is the foundation of the modern knowledge academy.

Knowledge here is not the prerogative of any individual, however intelligent, but a constantly developing archive belonging to all humanity; and dependent on all humanity, yoked with or without consent, as knowledge-workers for its production, distribution and implementation. Individuals here did not count for much, because finite human lives, bounded within a small envelope of space (locality) and time (mortality) could only piece together or handle a small quantum of knowledge, while a decentralized knowledge academy, utilizing large numbers of knowledge workers across space and through history, it was supposed, could eventually arrive at the goal of total knowledge and mastery over all circumstances as a result. The assumption behind this was that, since Nature's laws were cognizable by the human mind, the mind would eventually arrive at the Law or small complex of Laws, which explain everything. One might see this as a displacement of the earlier Greek idea of the Logos or Mind-of-God. Of course, not all Enlightenment philosophers believed in this, but it was a pervasive idea, particularly among Deists, who were very influential in shaping the Enlightenment. Since nature was "reasonable" (i.e. lent itself to Reason), human reason would be able to arrive at a total understanding of nature. This could be seen as a kind of "integral" goal.

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[2] See the discussion of Rabindranath Tagore in Esha Niyogi De (2002, p. 42) as quoted in Banerji (2010, p.13).

[3] From "A System of National Education" published in 1910 in the nationalist magazine *Karmayogin*. See Sri Aurobindo (2003, p. 384). Later, in his magnum opus on yoga, he reiterates this idea more fully: "Nothing can be taught to the mind which is not already concealed as potential knowledge in the unfolding soul of the creature" (1999, p. 54).

Modern Knowledge and Humanism

The assumptions of universality in this premise made for some attractive consequences which were tied to the larger Enlightenment project. For one, it rested on and inaugurated a universal humanism. In defining a universal method and a universal scope of knowledge, it simultaneously defined a universal subject which would be the natural instrument for this project – a human being possessed of empirical sensory means and rational logical means of knowledge. This meant that all humans were equal in possessing universally the faculties of sense and logic. This equalization, which helped Europe to emerge from the epistemic dominance of the Church, was in a sense, liberative for colonized peoples as well. It provided them with a principle for claiming equality as human beings, not only in relation to the colonizer but also against dogmas of social inequality instituted and accepted in their own native societies. It also however, stood in contradiction to native pedagogy in this sense, since indigenous education, such as what was conducted in the ashram or *gurukula*, was often based on a severely patriarchal model, where the word of the guru couldn't be questioned. One can see here how the critique of national education cut both ways – finding principles in the modern knowledge academy to correct biases and prejudices of the past, while also contesting the definitions of epistemology and pedagogy based on indigenous knowledge systems.

However, the privileging of Reason as the highest human faculty was an inherent bias, which we can see at work to this day in separating humans in terms of superiority. Moreover, as thinkers like Nietzsche were quick to point out, this noble-seeming knowledge project was entangled with the "power" project of making a "perfect world" (Nietzsche, 2009). In fact, for Nietzsche (and closer to our times, for Nietzschean thinkers such as Michel Foucault), the power motive was primary, driving the quest for knowledge so as to possess and enjoy the world, exploiting those who were disadvantaged in terms of the instruments of knowledge or its application (technology) (Nietzsche, 2009; Foucault, 1984: pp. 76-100). Still, the good that modern applied knowledge has done to our world cannot be overlooked; and the leaders of national education in Kolkata did not wish to overthrow technology only because it was one of the prime instruments of colonialism. The famous debate between Tagore and Gandhi on this issue is a good case in point.[4]

Today, we may articulate the problems with the modern knowledge academy in our own way – first, the "integral" epistemological project of the Enlightenment is faulty in its assumption of piecing together all knowledge through an iterative method. Simply speaking, the whole is greater than its parts and cannot be composed from an addition of its parts. However, so long as we harbor this illusion, even as a general possibility, we will be prey to partial wholes that become ideologies laying claim to all of reality. This is the ground for the universalist stridency of modern religions and political ideologies. Faced with a liberal world which champions knowledge acquisition and application as part of a totalistic drive with the assumption of an absolute rational understanding, religious and political ideologies take on a fundamentalist stance in opposition, staking their own universal claims as having global rights. No claim to integrality based in a mentally comprehensive construction, however compelling and inclusive, can encompass the infinite plurality of the cosmos. There will always be something that will escape the "system;" yet driven by the need to claim integrality, there will always be the attempt to close the doors on inconvenient fractions and force a theoretical ideology on the masses – the essence of fascism. It is an understanding of this danger, that made Martin Heidegger open up the method of "destruction" against metaphysics, later continued by Jacques Derrida in the form of deconstruction and by Michel Foucault, through his archaeological and genealogical critiques.

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[4] Through the 1920s, Gandhi and Tagore corresponded on a variety of topics including Gandhi's national program of boycott of science and technology in native education as well as universal domestic practice of cotton-spinning (charkha). Tagore resisted both views. Though he was sorely conscious of the dehumanization contingent on privileging science and technology over the humanities, he felt the solution lay in balancing the priorities, not in boycotting science and technology. In fact he sent his son to study Agricultural Engineering at the University of Illinois, Urbana-Champaign, so as to apply its methods for more efficient produce at Shantiniketan (Robinson and Datta, 2007).

The problems of the drive for "power," furthered through technology, are even more obvious. Though claiming the goals of betterment and perfection of human life and worldly circumstances, the motives of power are tainted by the impurities of the human ego, and without addressing this, lead inevitably to possessiveness and exploitation, at the foundation of colonialism and capitalism.

Vedantic Knowledge

For an indigenous basis of knowledge, Sri Aurobindo turned to the Upanishads, India's earliest proto-philosophical wisdom texts. The Upanishads are centrally concerned with knowledge, but they understand this quite differently from the modern definition of knowledge. The question of knowledge is fielded repeatedly in the Upanishads. The most succinct form of this question, raised variously in a number of texts, can be found in the Chandogya Upanishad (VI.1.3) and repeated in the Mundaka Upanishad (I.3): "What is the one thing knowing which all may be known?" Purely based on the question, this sounds almost identical to the Enlightenment's project of finding the unitary root of all explanation. But the difference between the two lies in the fact that for the Enlightenment, this is an epistemological project, not an ontological one; while for Vedanta epistemology is never separated from ontology, and the question is a matter not of shareable content but of a certain experience of reality, one through which all is understood. While a rational epistemology proceeds on the basis of a subject-object split, Vedantic epistemology aims at overcoming the subject-object split through non-dual experience. This is done through an insistent focus of attention on the Brahman, the One Being in all beings. In terms of its knowledge project, another way of putting this is the discovery of true Subjecthood (the Atman or Self), whose self-experience is this objective world, cognized substantially as itself (Brahman) and through its faculties, as qualitative (*vijnana*) and functional (karma) forms of self-knowledge. This Self is the self of all selves and may be approached through "self-enquiry." Interestingly, this realization has also been termed "Enlightenment," in the inverse Orientalist sense with respect to the European Enlightenment.

Comparison of Methods

The method to its attainment is no less systematic and rigorous than the knowledge academy's scientific method. It consists in following a psychological praxis, yoga, guided by a realized teacher (guru) in an intimate habitus *(gurukula, ashrama)* where both formal and informal interactions aid the achievement of the realization. The importance of the lived habitus as the site of pursuit of knowledge cannot be over-emphasized in this approach, since knowledge realization is seen here as an existential preoccupation. Yoga is a vast field of experience in India, aiming to realize a variety of goals through a variety of methods and teachings. Of these, the predominating peculiarity of the Upanishads is to privilege the goal of knowledge. The primary method of the Upanishads can be thought of as the four stages of preparation, reception, contemplation and realization. The clearest articulation of this method comes in the Brihadaranyaka Upanishad (II.iv.5) in the words of the sage Yajnavalkya teaching his wife Maitreyi:

> आत्मा वा अरे द्रष्टव्यः श्रोतव्यो मन्तव्यो निदिध्यासितव्यो मैत्रेयि,
> आत्मनो व अरे दर्शनेन श्रवणेन मत्या विज्ञानेनेदं सर्वं विदितम् ||
> (The Self, my dear Maitreyi, is to be realized – by hearing of it, cogitating on it and entering into intimate contact with it (or intuiting it); By the realization of the Self, my dear, through hearing, cogitation and intimate relation (intuition), all this is known).[5]

It should be noted that this method is directly related to the goal of Vedantic knowledge[6] in the second line. Here, what is to be received (or heard) can be variously construed as: (1) the teaching of the guru;[7] (2) the revelatory (mantric) utterances (*mahavakya*) of the Upanishads; (3) the cognitive and phonetic structure of the Upanishad.[8]

It is also interesting to *note that the term dhyana* (concentration) *is not used for the middle term between shravana* (hearing) and *nidhidhyasana* (identity) Rather *dhyana* is contained in *nidhidhyasana*; it stands for wordless contact by consciousness. This is also intuition, an intimacy with the being. But the middle term is *manana*, which means thinking, cogitation rather than contemplation or intuition. This is a cultural use of thinking as a means to lead to thoughtless contemplation. Storytelling and the performance arts exist to amplify this element of *manana*, thinking about the object of relation. The story of Yajnavalkya and his teaching of Maitreyi is itself such a story attracting our interest and making us think of the characters and their actions. This thinking intensifies the attention on the objective being pursued. From this the object starts becoming real, that is, its presence is sensed in its expressions and attracts us to thoughtless wonder (*adbhuta*), the presence of the infinite in the finite.

Social Benefit of Upanishads

Would this praxis have any social benefit? After all, if there is a noble side to the Enlightenment, this is its central concern – how can we create a perfect world? Though monastic communities of intense practice did not concern themselves with social good, the attention on the One generated its own ethical consciousness. Ethics here was not a goal but a natural consequence of the intimacy with the Infinite One. From the post-Enlightenment point of view, if we made practical reason the guide of our actions, we could call this the application of Knowledge for ethical conduct of life through the intuition of unity (dharma). But that would be putting the cart before the horse.

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[5] Translation by the author.

[6] What is the one thing knowing which all may be known?

[7] It is possible that this included the initiatory bija mantra; but the Upanishads are ridiculing of blind mantra repetition. However, they privilege the pranava, the syllable Om. So it is possible that something like this was made an occasion to convey the guru’s experience, along with recipes for the cogitation and contemplation of the mantra.

[8] It is surmised that the formally structured Upanishads such as the Mandukya or the Isha are relatively late ones. If this is the case, then we can see this as an example of the evolution of Upanishads.

Modernity can level the following critique on the Vedantic knowledge project, since (and ivory chair intellectuals should never forget) modernity is the normalized global episteme within which any other way of being must adapt and participate. Since post-Enlightenment modernity proceeds through the braided discourses of Knowledge and Power, it can level separate critiques on these lines. In terms of Knowledge, the question of the reality of our common world was subjugated to the question of the self or Subject. A subjective science was created and practiced but it remained isolated in sects and lineages in the form of oral knowledge. This is partly why so little of it exists today. The attention to the subjective subordinated the need to archive and disseminate knowledge. The *acharyas* (spiritual teachers) who wrote Vedanta bhashyas (commentaries) came more than a millennium later and produced new interpretations of the Upanishads based on their intuitions; and it is possible that they incorporated in their lineages some of the ancient oral knowledge pertaining to the practical psychology of the Upanishads. Still, it is certain that much is lost due to material inattention. With this loss of oral (or evanescent) traditions, there is also the loss of the history of knowledge production.

The Power aspect of modernity could level the critique that the ideal of perfecting the world through the application of knowledge was not made a social goal here; and perhaps the most serious charge from the viewpoint of modernity is that of an authoritarian basis to the guru-disciple relationship. Though the first of these critiques could be admitted for certain periods and regions, the second can be contested. In modern times, a perusal of Sri Ramakrishna's *Kathamrita* (Ramakrishna, 1942) would provide a very plausible image of a teacher of the Upanishadic age – someone operating as a peer through unpredictable behavior and teaching through stories, actions and locally relevant jokes. Still, the principle of equality which forms the basis of modern relations would not be in place here, keeping open the door to patriarchal domination in the name of an exalted spiritual status.

Post-Secular Integral Education

Sri Aurobindo's mature hermeneutic analysis of the relation between these two epistemologies was given voice by him in the chapter "Knowledge by Identity and Separative Knowledge" in *The Life Divine* (Sri Aurobindo, 2005, pp. 543-572). Here, he draws attention to the fact that what Vedanta calls Ignorance, modern epistemology designates knowledge. This Vedantic understanding proceeds from a psychological view of an indirect and inferred knowledge being an ignorance, the category of "knowledge" being reserved for direct knowledge, viz. knowledge by being. This is in keeping with the lack of separation between ontology and epistemology in Vedanta. One knows because one identifies with the being of that which one knows. Sri Aurobindo was to call this mode of direct knowing knowledge by identity. Our normal mode of knowing, methodized in the modern academy, in which the evidence of the senses is used by the mind to give us a picture of realty, was designated knowledge by external contact by him, a form of indirect knowledge. While knowledge by identity was held out by Indian wisdom texts and yoga traditions to be a possibility, it was taken as a goal only by those few who made a yoga of knowledge their central preoccupation. For Sri Aurobindo however, it assumed the place of a species goal for taking humanity as a race out of the misery of ignorance into the certitudes of direct knowledge. In fact, he could conceptualize such a goal only under conditions of modernity, based on the ubiquity of the modern knowledge academy, which construes humanity as the universal subject of its methodical systems of knowledge production, archiving, dissemination and pedagogy; and the perfection (by technology) of cosmos and humanity as the universal object of its inquiry.

Modern Knowledge and Invented Realities

A corollary of this is the need of modern knowledge to arrive at a single truth and a single integrated statement of the truth. Indian metaphysics or darshan was not invested in such a goal, since it was subservient to a transformational psychology (yoga). Praxis took precedence over theoria; and theoria existed as techne and poeisis of praxis. This meant that theories were invented based on the goals of yoga; so as to provide efficient conceptual handles for dynamics of practice; and development through states of experience. Such theories born as philosophical aspirations (leading to and validated by ontological experiences) invented the realities they set out to realize, under the metaphysical assumption that conscious being was infinite possibility. Not under much compulsion or aspiration to an exclusive epistemology or a perfect society, multiple yogas, yoga-darshans and realizations of reality co-existed under common and more-or-less-fixed material conditions in India.

It is interesting to note that Michel Foucault and Gilles Deleuze both gravitated towards this inverse (viparit) relation between epistemology and existentialist praxis as a turn from the epistemic hegemony of modern knowledge. Both got there, of course, from Nietzsche (2008) and his definition of the human as a “rope thrown between the beast and the god.”[9] For Foucault (2010) these are his subject-making exertions of internal power, acquired through truth-telling (parrhesia) in the interests of the ideal one has set oneself. This is not a social ideal, but an individuating ideal.[10] Individuating ideals arise from existential questions which form problematic fields. Since existential questions belong to the class of questions common to existential beings, one may presume commonalities yet differences to the questions sought to be answered by different existential beings.

Beyond affirming the critical tradition of the Enlightenment, Foucault does not much discuss the ontological implications for commonalities, which may extend individual praxis to social praxis; he veers in the direction of radical individualism or romanticism, to the point of equating the disciplines of subject-making with artistic creativity (Foucault, 1988, p. 49). Deleuze and Guattari on the other hand, think both of the individual and the social and (micro)-political that mediates between them (Deleuze & Guattari, 1996). Not that Foucault is not political; he is in a way, nothing but political, but his politics are an uncompromising radical anarchism. Deleuze and Guattari are no less radical in their anarchism, but they think the conditions of polis and episteme that can manifest a subjective radical anarchism (Guattari, 1995). Can we find a typology for the practices of subjectivity and intersubjectivity that would help to make this possible? This thinking leads to his theorizing the place of philosophy as one of inventing concepts and in other terms, the project of establishing a field of consistency on the field of immanence (Deleuze & Guattari, 1996).

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[9] Nietzsche, Friedrich. (2008). “Zarathustra’s Prologue 4” from *Thus Spake Zarathustra*. Retrieved from: http://www.gutenberg.org/files/1998/1998-h/1998-h.htm#link2H_4_0004

[10] Though not a social ideal per se, Foucault relates this to a social ideal in terms of critique (2010).

The invention of concepts arises from questions which belong to existential beings, and/or the Being of Existence. The solutions sought by the existential beings also apply to the Being of Existence. Hence a bridge may be built between the individual and the universal, through relation of individual beings, forming a collective cosmos-realization.

As observed, this approach, which is similar to premodern Indian metaphysics (darshan), inverts the goals of the Enlightenment, based in faith in the primacy of Rationality (Logos), a displacement of the transcendental Solar Divine. The modern knowledge academy hence comes with the assumption and demand of absolute singularity in terms of cosmos, subject and their relation. The demand of the Enlightenment for a single coherent Law that explains All, and the activation of that Law through technology to create a perfect world, came into contact with the empirical transcendentalism of Indian yoga-darshans at the turn of the 19th/20th century. Sri Aurobindo's yoga darshan follows from this, keeping in front the need for individual freedom and agency, the subjective conditions of anarchism or plural becoming. An absolutism which can have only one description violates the condition of pluralism which it must enable— a cosmos of radical anarchism. Sri Aurobindo posits such an aporetic radically plural singularity as the integral. This is not a co-existence of relatives but a state of being. One can intuit it as a higher dimension of being than ours; naturally one and infinite.

Looked at in the Deleuzian sense, Sri Aurobindo's "invention" of the ontology of the integral proceeds from intuiting the vanishing point of these perspectives. I use the term "invention" in the empirical sense of an existential life-journey in which experiences provide intuitions of immanent ideas, forming problematic fields with sets of virtual solutions. The dogmatic image of thought accepts the collectively operating field of solutions; but creative thought can break this conditioning and arrive at a new plane of solutions, a new dimension of evolution (Deleuze, 1994, pp. 147-167). Its intuiting of an adequate description of the field of solutions is its "invention of concepts," intimately related to a form of praxis leading to a form of experience. It is thus that Sri Aurobindo came to the idea of the aporetic integral as a philosophic concept (darshan) and aiming for it, developed the conditions, and the praxis (yoga) of the integral yoga.

We can see how the ideas of Deleuze (and in implication, Foucault), who saw the power of epistemes binding an age arising from new fields of consistency invented by philosophers (Deleuze & Guattari, 1987, pp. 310-350), can lead to a rethinking of the modern academy. It is even more so in the case of Sri Aurobindo, for whom the academy needs to open to a plurality of subjective praxis-concepts (yoga-darshan) and develop the coherence of this field as a universal archive of information and practice along with grammars using which creativity may "invent" meta-realities. Part of this disciplinary field would be the science of categories, media and mechanisms for archiving and accessing subjective experience. Expansion of capacity along this line would lead closer to a mode of thought and experience belonging to forms of cosmic consciousness.

Intuitive Knowledge Consciousness

For the transition from the state of knowledge by external contact to knowledge by identity, Sri Aurobindo (2005) found the need to develop an intermediate intuitive knowledge consciousness, through the discovery and formation of means of "direct contact" (p. 544). This development of an intuitive consciousness thus became for Sri Aurobindo his postcolonial epistemological project, approached through an inward turn to the intellect and senses, their “purification” (*shuddhi*) and their opening to sources of direct knowledge above or within the human surface consciousness.

In his text on transformational psychology, *The Synthesis of Yoga*, Sri Aurobindo (1999, pp. 799-810) outlines some paths towards the formation of an intuitive mentality. These are related to alternative practices:

a) Achieving a cessation of thought (nirvana) and keeping that blank, in a state of receptivity to near self-evident (nonduality) experience, presented through the subjective appropriation of the senses, which could be called states of objectified intimacy (pp. 802-803).
b) As a variation or degree of a), achieving the ability to refer all questions to a transcendental source and receive its answers without distortion (*shuddhi*, purification) (pp. 805-806). Without a panentheistic intuition of consciousness, the notion of a transcendental, on which this practice rests, could not arise.
c) Once again resting on a panentheistic intuition, the receptivity of a purified (simplified and neutralized, *shuddhi,* and equanimity, *samata*) emotional (heart center, *anahata*) channel to “the immanent Knower/Controller and (universal) Self within” (*jnata purusha*, *antaryamin*, *antaratma*) (pp. 803-805). Sri Aurobindo identifies this immanent intuition with Socrates’(2005) “daemon” (p. 238), the inner leading, that as Plato avers, Socrates never disobeyed.
d) The use of thought to go beyond thought into realms of intuition (pp. 806-807). Though Sri Aurobindo does not provide examples for this, this entire area should be of interest to pedagogy in the modern knowledge academy, since it does not violate the latter’s requirement of logical argument.

Examples of Intuitive Mentality in the Academy

Since these are forms of intuitive mentality, we may look for examples within the modern academy, particularly in disciplines which make the most stringent applied use of thought, such as mathematics or the physical or life sciences. The first method requires sustained conscious discipline, such as of a meditation system like raja yoga to arrive at a thoughtless state and spontaneous examples of pure receptivity in a silent mind are not to be expected in normal human mental functioning, at however high a pitch of intelligence or imagination. Still something resembling this operation of intuition, coming unbidden to a genius, can be seen in the case of Srinivasa Ramanujan (1887–1920), who claimed he received “thoughts of God” that were given to him by the goddess Namagiri Lakshmi of Namakkal in dream, through directly revealed mathematical formulae (Ono and Aczel, 2016, p.67). There is little of a method possible in this category, except for the preparation of mental passivity and receptivity, which, indeed, is more specifically addressed by practice b.

An example of a researcher in the sciences experiencing intuition of the kind related to practice b is Friedrich August Kekule (1829-1896), the German Chemist, who discovered the ring structure for Benzene. Having grappled with his data for a long time, Kekule came to an impasse. In his words:

> I was sitting writing on my textbook, but the work did not progress; my thoughts were elsewhere. I turned my chair to the fire and dozed. Again the atoms were jumbling before my eyes. This time the smaller groups kept modestly in the background. My mental eye, rendered more acute by the repeated visions of the kind, could now distinguish larger structures of manifold conformation; long rows sometimes more closely fitted together all twining and twisting in snake-like motion. But look! What was that? One of the snakes had seized hold of its own tail, and the form whirled mockingly before my eyes. As if by a flash of lightning I awoke.... (Kekule as quoted in Roberts, 1989, pp. 75-81)

Here a method can be distinguished. One may gather all the information one can on the subject and offer it up to another level of understanding or knowledge not accessible normally (and hence, transcendental), and wait for the answer to come through states of dream, imagination or other form of revelation.

An example from the life sciences that can be adduced for practice c is the discovery of "jumping genes," DNA sequences that transpose themselves to other positions in a chromosome without external agency. McClintock, in her biography, speaks of studying maize cells under a microscope and experiencing non-verbal communication and identity with the elements of the cells, leading to her discovery of the very unusual behavior of these genes. She attributes her experience to "a feeling for the organism," a phrase her biographer, Evelyn Fox Keller (1984) used for the title of her biography. In her press statement for the Nobel Prize in Physiology/Medicine awarded to her for this in 1983, McClintock noted: "It might seem unfair to reward a person for having so much pleasure, over the years, asking the maize plant to solve specific problems and then watching its responses" (McGrayne, 2001, pp. 144-174). This demonstrates the affective dimension of knowledge, which we usually associate with the humanities, operating here in the rigorous domain of science.

An example of method can be seen in the case of Albert Einstein, who made frequent use of what he called "thought experiments." These were attempts to think of boundary conditions of experience and arrive at hypotheses, which could be worked out theoretically through mathematical physics and practically through empirical observation or experiment. Here we find the use of thought to stretch its capacity to intuit what lies at or beyond the borders of sensible knowledge.

Subjugated Knowledges – Affective, Volitional and Physical Intuition

In Sri Aurobindo's model of human consciousness, however, the arrival at a mental understanding through intuition is a partial and instrumental use of intuition. Even as instrumental use, there are forms of intuition relating to other modes of consciousness through which we simultaneously experience reality, but which are given less importance (subjugated knowledges) under the post-Enlightenment privileging of mind in modernity. These other independent modes of consciousness include the physical, the affective and the volitional (Sri Aurobindo, 1999, p. 804).[11] In practice d for building an intuitive mentality, we came across a use of the affective intuition to achieve the goals of the mental understanding. But affective intuition has its own ontological domain, effects and functions. The romantic impulse in poetry or other creative arts, connecting the individual through affective intensity to an intimacy in being with the object of consideration, is identical at its root with the sense of numinous intimacy with all things experienced by mystics in their love-affair with the cosmic Being. The method in developing this intuition would be an affective openness to the cosmos as a conscious Being and all its beings as instances of its expression.

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[11] It is possible to infer different forms of intuition pertaining to each of the chakras in the sevenfold system of Tantra in Sri Aurobindo's later writings, but in general he worked with these four kinds of consciousness each with their own intuition.

In the west, examples of the above may be found among the romantic poets, such as William Wordsworth or William Blake, who gave voice to the cosmic expansion of space and time in such experience in his first four lines of the poem, Auguries of Innocence:

> To see a World in a Grain of Sand
> And a Heaven in a Wild Flower,
> Hold Infinity in the palm of your hand
> And Eternity in an hour.[12]

And from India, Rabindranath Tagore provides a good example of affective intuition in his nature mysticism (Gitanjali, poem 97):

> WHEN MY play was with thee I never questioned who thou wert. I knew nor shyness nor fear, my life was boisterous.
> In the early morning thou wouldst call me from my sleep like my own comrade and lead me running from glade to glade.
> On those days I never cared to know the meaning of songs thou sangest to me. Only my voice took up the tunes, and my heart danced in their cadence.
> Now, when the playtime is over, what is this sudden sight that is come upon me? The world with eyes bent upon thy feet stands in awe with all its silent stars.[13]

This ontological intuition of the cosmic being in each of its manifestations and in itself, arises here from affect. However, affective intuition is not only ontological or epistemological. It may be eminently practical as in the instances of the "daemon" of Socrates referred to by Sri Aurobindo (2005, p. 238). Here, the affect is at work in the trust one has towards the immanent Guide, to whom one can surrender unconditionally (*samarpan*) and receive the direct command (*adesha, shruti*) or revelation (*darshan*) on what is to be done (*kartavyam karma*). It is this kind of knowledge of guidance in action that Aurobindo had sought when he approached Vishnu Bhaskar Lele as a yoga guru in 1908. Lele's meditation instruction gave him the silence of the mind which I have referred to above as the foundation for method a for building an intuitive mentality. But it also gave him the experience of total surrender to Narayana/Krishna as the Supreme Divine and his inner Guide, from whom he received directions from that time.

The knowledge of what is to be done, however, is not merely a directive or revelation received by the inner senses and carried out by the will and body. The energetic (vital) constitution has its own seeking for the direct control of its impulsions by a higher Will, which it can translate to action, with or without (or sometimes before) the mind's understanding or sanction. This is the volitional intuition, which operates as a "hunch" evidencing a relation of will or power between all beings and things. If affective intuition rests on a relation between the individual and other beings or the cosmic/immanent Being, volitional intuition rests on a relation in becoming with all becomings and a participation in the cosmic Becoming. As an energetic intuition, it provides impulsion to the will, both in mind and body and is also dependent on the immanence of the integral principle of Becoming (*Kali, Iccha Shakti*) in all beings.

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[12] https://www.poetryfoundation.org/poems-and-poets/poems/detail/43650 (last accessed 12/02/2016)
[13] http://tagoreweb.in/render/ShowContent.aspx?ct=Verses&bi=72EE92F5-BE50-40B7-EE6E-0F7410664DA3&ti=72EE92F5-BE50-4B67-0E6E-0F7410664DA3 (last accessed 12/02/2016)

This is the kind of intuition drawn on by Henri Bergson in his invitation to experience reality as a vitalism of Becoming. Gilles Deleuze, in explicating Bergson's apprehension of vitalism, sees it as a philosophical method, and had titled his Book on Bergson in these terms – *Bergsonism: Intuition as Method* (Deleuze, 1990). In this sense, vitalism is not primarily an energetic intuition, but becomes a philosophical one of methodically divesting oneself from a spatial perception and analysis of "given" objects (actuality) to an apprehension of their pre-individual basis and the dynamic relations of forces that constitute their problematic field (virtuality). An apprehension of this kind is also inventive of the reality it intuits, since it perceives the problem in a certain way which allows for certain outcomes not yet manifest.

Finally, the direct knowledge of the body, evidenced in acts of physical skill belongs to the operation of physical intuition. Picking up accurately without measurement, a predetermined weight in one's hand is an example Sri Aurobindo gives of a translation of mental requirements to the physical intuition. A good example related to the modern academy is the Japanese American architect, George Nakashima, who worked towards marking pieces of lumber directly with his hands, and without using any measuring rule (Nakashima, 2012).

Integration of Intuition

Development of intermediate knowledge resources in the form of varied modes of intuition need, at the same time, to be integrated through the development of the ability to move at will between these forms of consciousness, and enhance the sense of the combined working of all these forms as different instruments of individual knowledge. With the increasing normalization of such intuitive subjective properties, the deeper sense of personhood, belonging to what Sri Aurobindo (2005) calls "the psychic being" (p. 926) will increasingly come to the fore as the integral experiencing subject.

Clearly, all these forms of intuition, however methodically developed, need to be tested and supplemented through standard intellectual measures, until they produce repeatable results. To introduce such goals and methods in the academy, even as experimental possibilities of subjective knowledge, would require existential integration of informal opportunities as part of the learning habitus. This can be implemented officially through residential learning in intentional communities, or through collective cohort formation, flipped learning and/or mentorship models. Agency for learning/realization must be accepted by the student, so that the teacher is minimally involved in conveying content, rather his/her role is to facilitate learning through suggesting resources and methods, generating problems through dialog and leading by example. The learning environment cannot operate on the unequal basis of a gurukula; and egalitarian settings must be developed for the promotion of these forms of intuition. Validation methods and archives of subjective experience/knowledge need to be developed phenomenologically within the learning environment, towards the constitution of an additional domain of subjective science in the academy.

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A Complete Integral Education: Five Principal Aspects

Jeremie Zulaski[1]

Abstract: This article reviews the five principal aspects of a "complete integral education" envisioned by Sri Aurobindo and Mother Mirra Alfassa and elucidated in their writings. This innovative, learner-centered pedagogy encourages holistic development through acknowledgment and cultivation of the five dimensions of a human being—the physical, the vital, the mental, the psychic, and the spiritual. The article suggests that a complete integral education contributes a potentially corrective alternative to outmoded orthodox methods that privilege intellectual proficiency over the holistic knowledge potentially present, given authentic engagement of learning communities.

Keywords: Higher education, holistic education, integral education, Mother Mirra Alfassa, Sri Aurobindo.

Introduction

Beginning in the early decades of the twentieth-century, the primary founders of the *integral yoga* tradition, Sri Aurobindo (Aurobindo Ghose, 1872-1950) and his spiritual co-partner The Mother (Mirra Alfassa, 1878-1973) offered a visionary and holistic approach to the lived experience. This approach focuses on a progressive advancement of self-realization, recognizing the individual nature, multi-dimensionality, and interrelatedness of human beings. In corresponding these ideals with teaching and learning, they proposed innovative guidelines toward the formulation of a unique branch of whole-person centered progressive education, placing great emphasis on individual, global, and spiritual worldviews that had been and remain largely absent in Western education.

The whole-person perspective at integral education's core reflects an evolving and expanding awareness toward the complexities and fullness of our own human composition and experience. Integral education contributes a methodical yet adaptive pedagogical framework and competently holds the potential for the development of other subsequent alternative models—such as experiential and transformative learning as well as critical, engaged, liberatory and radical perspectives—and inherently applies embodied, contemplative, and creative modalities throughout praxis. I will be maintaining use of the term "Integralists" (Ryan, 2005) as it pertains to these founders, whose development of an integral or "complete" yoga laid the foundation for

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their theories on whole-person education. Transferring an integrative worldview into a pragmatic discipline such as education and determining how to implement these perspectives into classroom environments will benefit from an overview of some key tenets of the Integralists' writings specific to their theories on pedagogy. The purpose of this paper is to introduce and discuss the five principal aspects of the whole-person learner identified by Sri Aurobindo and the Mother. These aspects are interrelated and are intended to be simultaneously honed throughout learner development.

This paper will illustrate that integral education is comprehensive and innovative, establishing guidelines that warrant consideration as a distinct, progressive, and potentially corrective pedagogical model. This is relevant given that over the last few decades, substantive concern has been raised about the overall efficacy, value, and purpose of higher education in the United States. In examining the need for reform, a growing body of educators have begun to concede that on the whole institutions "have stressed the highly instrumental form of learning to the exclusion of personal reflection and integration" (Barbezat & Bush, 2014, p. 4). Beginning early in classroom environments, concentration on achieving "successful" outcomes often comes at the expense of "holistic engagement" whereby learners would begin to engage in creative processes, intuitive inquiry, and self-reflectivity. These deficiencies likely contribute to the accruing evidence that illustrates many students enter college "with attitudes, norms, values, and behaviors that are often at odds with academic commitment" (Arum & Roksa, 2011, p. 3). In higher education, value is placed on critical, analytical, and logical thinking, without guiding students in the use of subjective and experiential measures for determining the meaningfulness and relatedness of content. These systematic conditions contribute to poor preparation, lack of commitment, and inadequate knowledge of chosen areas of occupational interest on behalf of students. Additionally, campus cultures are frequently focused on peer development within extracurricular and social activities instead of academic endeavors. Not surprisingly, the industry has been brought under scrutiny from legislators, parents, and policy makers along with classroom educators (Arum & Roksa, 2011; Barbezat & Bush, 2014). The integral model may prove beneficial during what appears a necessary revisioning of a Western educational system that principally utilizes increasingly outmoded practices.

Given the focus of this article, I will not be addressing key contributions by Haridas Chaudhuri (1913-1975), who in significant ways expanded, updated, and implemented integral education with an emphasis on higher education in the West. Readers interested in an introduction to Chaudhuri's developments in this area should refer to his writings on education (Chaudhuri, 1974) and integral consciousness (Chaudhuri, 1977 & 1979) as listed in the references section. Additionally, other prominent perspectives embracing the term "integral" will not be addressed herein. While acknowledging sizable contributions to an integral worldview through models of human consciousness as well as syntheses of major disciplines of human knowledge from Jean Gebser (1905-1973) and Ken Wilber (1949-), in my view it should not be overlooked that the methodology and definitions unfolding from integral yoga and its expanded perspective on whole-personhood precedes these other perspectives by decades. Kaslev (2007) goes so far as to posit that later perspectives and formulations employing the term integral "came about as the result of the former (and not just through superficial and intellectual influence)" (para. 22). Lastly, the integral yoga and subsequent developments in education of Sri Aurobindo and the Mother have no direct connection to Sri Swami Satchidananda, the spiritual teacher who registered the name "Integral Yoga" in the late 1960's before launching the first "Integral Yoga Institute" in 1970.

Potential audiences of interest may include current and future students, teachers, curriculum and policy designers, and other administrators in the discipline as well as those interested in human development and potential. Sources primarily consulted in this paper are three booklets of compiled writings from Sri Aurobindo and the Mother entitled, *Education: General Principles, Education: Teaching* and *Education: Learning,* which were all published in 1972.

Integral Education and the Unique Purpose of the Whole Person

The model of integral education offered by Sri Aurobindo and the Mother emerges from a spiritual worldview and proposes a comprehensive whole-person approach**,** defining the value and purpose of learning as being central to self-fulfillment. An educational process is essential for accompanying learners toward identifying and coming into relation with their *Psychic Being*. The Psychic Being is the embodied divine principle, "the earthly half of the eternal, evolving part of the human soul, manifest as light in the heart of each person" (Julich, 2013. p. 83), serving to guide one toward their highest personal ideals and evolution as a human being. It is this evolutionary aspect of the soul that influences one in realizing one's *svabhāva*, or the unique and intrinsic state of being, and actualizing the *svadharma*, that individual's own path of purpose, individual life-calling, and true self-unfoldment. These two concepts are key components within the integral vision of pedagogy, providing an expansive scope for orientation, interpretation, and adaptation by educators while valuing personal as well as communal enrichment and fulfillment.

Five Principal Aspects

In *Education: General Principles* (Ghose, A. & Alfassa, M., 1972 a), the Mother informs us that in order to be "complete", an integral education must possess "five principal aspects relating to the five principal activities of the human being: the physical, the vital, the mental, the psychic, and the spiritual" (p. 8). These innate human attributes are acknowledged as being fundamentally holistic, humanistic, and divine and must all be addressed to achieve a *complete integral education.* Being interrelated, they require cultivation individually and collectively. The remainder of this section elaborates on and briefly discusses each of these principles in the order cited above.

Education of the physical. In traditional education, a near exclusive prominence has been attributed to the cognitive and intellectual models of acquiring knowledge; "essentially, an exclusively or eminently intellectual approach perpetuates the 'cognicentrism' of mainstream Western education in its assumption that the mind's cognitive capabilities are or should be the paramount masters and players of learning and inquiry" (Ferrer, Albareda, & Romero, 2005, p. 311). As such, recognition and inclusion of the physical body in the learning process, in higher education in particular, has been considered at best recreational and ancillary; playground recess and competitive sports are familiar activities disconnected from learning outcomes present in the classroom. There is a miscomprehension of the essential co-relationship between the mind and body as mutually important vehicles in both acquiring and generating valid knowledge. Thus, the cultivation of a mind-body interrelationship within a whole-person framework is often neglected.

Integral education honors and engages the learner's unique human body and its higher potentials. The Mother dismisses an embodied education as a secondary or recreational consideration for learning in her admission that the physical aspect of learning needs to be rigorous and methodical in its undertaking. She elaborates that an education of one's physical body is comprised of three principal aspects, "(1) control and discipline of functions, (2) a total, methodical and harmonious development of all parts and movements of the body and (3) rectification of defects and deformities…" (Ghose, A. & Alfassa, M., 1972 a, p. 10). Implementing a consistent and individualized pedagogical approach in response to the recognition that the body is habit-forming in its nature is advocated. According to the Mother, these habits "should be controlled and disciplined yet…supple enough to adapt themselves to the circumstances and the needs of the growth and development of the being" (Ghose, A. & Alfassa, M., 1972 a, p. 9). Sensitivity to circumstance and creative adaptation is thereby advised for proper development of the physical aspect.

The physical aspect is a necessary and foundational component of the integral model. Somatic, kinesthetic, expressive arts, martial arts, athletics, dance, and other embodied practices can aid in developing realms of knowledge informed by our unique physical intelligences. These intelligences play an essential role in student health, well-being, and creativity which ultimately influence self-efficacy.

Education of the vital. The following aspect is that of the vital, which seems to share some common characteristics with the emotional, instinctual, or libidinal operative processes. The Mother defines one's "vital being" as the "set of impulses and desires, of enthusiasm and violence, of dynamic energy and desperate depression, of passions and revolts" (Ghose, A. & Alfassa, M., 1972a, p. 10). It is divided into two distinctive yet equally important categories, varying in both goal and process. The first categorical distinction invites one "to develop and utilize the sense organs", while the second requests the learner "to become conscious and gradually become master of one's character and in the end to achieve its transformation" (Ghose, A. & Alfassa, M., 1972a, p. 11). These two categories—sense organs, through which one receives information from the environment, and reflective self-examination, whereby one considers one's reactions, thoughts, and experiences from an internal perspective—provide learners with a spectrum of sensorial, perceptual, and contemplative information. This allows for a more comprehensive, holistic ontology from which to engage in the lived experience. These categories will be revisited and further elaborated on when we discuss the education of the mind.

A vital education is intended to encourage consideration, self-reflection and an honest evaluation of one's internal, energetic, and emotional processes. To provide one example, Mother advises entering "into the heart of your grief: you will find there the light, the truth, the force and the joy which the pain hides" (Ghose, A. & Alfassa, M., 1972b, p. 4). Prescriptions for how to engage with the vital aspect are meaningful, since she interprets that "with the collaboration of the vital, no realization seems impossible, no transformation impracticable" (Ghose, A. & Alfassa, M., 1972a, p. 10). This aspect is considered as that dimension most challenging to entrain, necessitating sincerity, patience, discipline, endurance, and volition. The requisite perseverance and intention are necessary to enter into one's personal vulnerabilities and encounter the transformative authenticity to which they are connected; this is the all-important practice of coming to truly know oneself.

Vital impulses in the form of desires are energies that greatly contribute to shaping and establishing behavior patterns which in turn may eventually solidify into bodily habits. Being so, the Mother advocates for beginning the training of this aspect in the learning process as soon as developmentally possible to best avoid the generation of lesser habits. She elaborates that one is to then "acquire control over one's movements so that one may achieve perfect mastery and transformation of all the elements that have to be transformed. Now, all will depend upon the ideal which the effort for mastery and transformation seeks to achieve" (Ghose, A. & Alfassa, M., 1972 a, p. 11). Thus, in developing sufficient knowledge of the relationship between vital processes, bodily responses and behaviors, and mental reflectivity, one achieves a fuller capacity for alleviating deficiencies. This capacity is aided and enhanced by the observance or formulation of ideal ways of being.

As mentioned in the introduction, a concern with the development of the Psychic Being as the inner guide on one's path to realizing their personal ideal is a central component of an integral approach to educating, to drawing out learners' highest ideals. Having addressed that the vital dimension interrelates with and reinforces one's physical aspect, I will now consider how these two aspects become necessary for the training of the mind.

Education of the mind. A range of cognitive faculties are detailed in regard to an education of the mind in integral education. These include our instruments for attaining knowledge (here being interpreted more broadly than mental, cognitive, or intellectual attainments), memory, progression from object-based to abstract-concept relations, gestalt, contemplation, inspiration, intuition, and imagination. Sri Aurobindo contributes a considerable and ordered series of insights on these faculties. He declares that the first consideration for the teacher should be to interest the learner in "life, work and knowledge", instructing in such a way that will be simple and organic, while effectively examining our "instruments of knowledge" (Ghose, A. & Alfassa, M., 1972a, p. 7). This study of instrumentation is undertaken to assist the student in his or her mental development, "to give him mastery of the medium" (Ghose, A. & Alfassa, M., 1972c, p. 4). As a component of this medium, Aurobindo advises that exceptional training be afforded to memory and that early developmental sharpening of the mental faculties should begin with the observation, comparison and classification of objects, before gradually transitioning to more abstract words, concepts and ideas. This transition toward abstraction naturally entails advancement of the imagination.

Sri Aurobindo is explicit in classifying the imagination as that aspect which is—in addition to self-generating mental imagery and thought-forms—able to acknowledge and admire those emotive and spiritual resonances of existence. He imparts that "Imagination…may be divided into three functions, the forming of mental images, the power of creating thoughts, images and imitations or new combinations of existing thoughts and images, [and] the appreciation of the soul in things…the emotion and spiritual life that pervades the world" (Ghose, A. & Alfassa, M., 1972c, p. 16). He affirms that honing imagination is as crucially important for mental development as guiding the physical senses and comparative analytical faculties. Overall, Sri Aurobindo provides a thorough introduction to how the student may skillfully perceive, classify, and recall the world around him or her, how this pertains to his or her personal understanding, how this comes to inform his or her internal mental generative processes, and finally, what it may reveal about his or her individual purpose, communal responsibility, and spiritual orientation.

Equally as thorough in her written comments on the mental aspect, the Mother lays out five principal phases detailing a comprehensive approach to refinement of the mind that impart a willful, yogic approach to its education. The five phases she identifies include:

1. Development of the power of concentration, the capacity of attention.
2. Development of the capacities of expansion, wideness, complexity and richness.
3. Organisation of ideas around a central idea or a higher ideal or a supremely luminous idea that will serve as a guide in life.
4. Thought control, rejection of undesirable thoughts so that one may, in the end, think only what one wants and when one wants.
5. Development of mental silence, perfect calm and a more and more total receptivity to inspirations coming from the higher regions of the being. (Ghose, A. & Alfassa, M., 1972a, p. 12)

Despite the above division of phases, the Mother advocates that the goal is a more fully realized overall comprehension. She states that students should endeavor to “understand instead of learning” (Ghose, A. & Alfassa, M., 1972b, p. 7) and discloses that “reason is not the supreme capacity of men, one has to go beyond it” (Ghose, A. & Alfassa, M., 1972b, p. 18) before offering some insights as to how to transcend our reasoning capacities. She submits that through ample development of concentration, the compulsion to think actively is not appropriate in all instances since mental “vibration” can be made to cease and an “almost total silence [is] secured. In this silence one can open gradually to the higher mental regions and learn to record the inspirations that come from there” (Ghose, A. & Alfassa, M., 1972b, p. 11). She further advises that gaining time for effectively completing tasks through developing concentration correlates to one’s will or volition; when this force is added to one’s concentration or focused attention, they possess the recipe for genius, which she determines is an irresistible agency.

In addition to gaining time via concentration and recording inspirations originating in mental stillness, the Mother advocated students learn about history—consequential events in time that have already occurred—as a way to frame the present and begin cultivating the intuitive faculty in preparation “to live for the future” (Ghose, A. & Alfassa, M., 1972c, p. 2); it is in and for the future that learners will make their greatest contributions. The following aspect begins to deal even more directly, deeply, and personally with that future, and by what means the Integralists’ educational model informs it.

Education of the psychic. Albeit more concise than the other aspects outlined prior, the Mother’s written comments on the psychic education provide novel and profound considerations for educators. Revealed in these comments are some insights into the Psychic Being and those related areas of Self and path. She presents a refreshing and progressive view in postulating that “with psychic education we come to the problem of the true motive of life, the reason of our existence on earth…the consecration of the individual to his eternal principle” (Ghose, A. & Alfassa, M., 1972a, p. 13). Integral education emphasizes comprehension of and concern with a personal and unique contribution that is inherent in each individual. This is an individual's *svadharma*, introduced earlier.

Accordingly, the Mother also refers to the *svabhāva* by clarifying that "it is through the psychic presence that the truth of an individual being comes into contact with him and the circumstances of his life" (Ghose, A. & Alfassa, M., 1972a, p. 13). She determines that to presence the psychic in one's life, it is contingent upon him or her to eradicate selfishness and beyond this, in progressing toward a spiritual way of life, one must become truly selfless. This focus on a spiritual way of being comprises the final principle of a complete integral education.

Education of the spirit. The spiritual aspect in integral education is designated as being of the utmost importance. Sri Aurobindo states that one's "highest object, [is] the awakening and development of his spiritual being" (Ghose, A. & Alfassa, M., 1972a, p. 3). One way in which this awakening is nurtured is through the educational process, which aims to allow one's spirit eventual full facilitation of his or her mature and multi-faceted self. In the literature, the Mother distinguishes the principal of spiritual education as "an education which gives more importance to the growth of the spirit than to any religious or moral teaching or to the material so-called knowledge" (Ghose, A. & Alfassa, M., 1972a, p. 3). Furthermore, she determines the highest aim of education is "the manifestation of Truth…[to] make matter ready to manifest the Spirit" (Ghose, A. & Alfassa, M., 1972a, p. 5).

The development and advancement of the learner's material embodiment is a necessary component for inviting the spirit into full participation, which is the intended result and encouraged outcome for student learners as they proceed to enter into society-at-large. According to the Mother, a fully realized integral education should endeavor to position the "legitimate authority of the Spirit over a matter fully developed and utilized" (Ghose, A. & Alfassa, M., 1972a, p. 4). This level of participation and realization is deeply interrelated with each individual student's conscience—that inner orientation that provides guidance and morally positions one in their life.

As an educator, assisting students with identifying and coming into relation with their true self-guidance is not a matter of conveying concepts to the mind alone. The Mother states that "there is only one true guide, the inner guide, who does not pass through the mental consciousness" (Ghose, A. & Alfassa, M., 1972c, p. 22). Aurobindo clarifies that at the outset, the approach to offering moral guidance should be to "suggest and invite, not command or impose. The best method of suggestion is by personal example, daily converse and the books read from day to day" (Ghose, A. & Alfassa, M., 1972a, p. 20). The few instances provided begin to illuminate behaviors that are appropriate to influence and shape the character of the student so that they may find their own path in alignment with a personal inner truth arrived at in the course of their learning and development.

From Aurobindo's perspective, each person is ultimately imbued with his or her own individual and unique path and purpose. For integral educators, placing impositions or mandates on the individual student is ineffective and potentially harmful. According to Sri Aurobindo, "to force the [individual] nature to abandon its own dharma is to do permanent harm…" (Ghose, A. & Alfassa, M., 1972a, p. 18). The role of a complete integral education is bringing this purpose to light; as per Aurobindo, "the task is to find it, develop it and use it. The chief aim of education should be to help the growing soul to draw out that in itself which is best and make it perfect for a noble use" (Ghose, A. & Alfassa, M., 1972a, p. 18). To be in alignment with an education complete in the five principles then, Mother states that teachers should assist students in coming to greater self-understanding by guiding them to "know themselves and choose their own destiny, the way they want to follow" (Ghose, A. & Alfassa, M., 1972c, p. 1). To know oneself essentially means, according to the Mother, "to know the motives of one's actions and reactions…To master oneself means to do what one has decided to do, to do nothing but that, not to listen to or follow impulses, desires or fancies" (Ghose, A. & Alfassa, M., 1972c, p. 1). She advises on the appropriate approach to taking steps toward this self-mastery and states in regard to this determination that "if you decide to do something…in life, you must do it honestly, with discipline, regularity and method" (Ghose, A. & Alfassa, M., 1972b, p. 21).

The personal destiny which is to be undertaken by each student can be informed and inspired by a divine agency. This agency is acknowledged as one of the primary five principles of a complete integral education, correlating to the spiritual dimension of human life.

Supramental Education

In the integral yogic tradition, the Supreme evolutionary consciousness of creation is known as the *Supermind,* which Aurobindo has also referred to as *supramental consciousness* or *truth consciousness*. It may be conceived of as an integrated truth-consciousness (or gnosis) and possessing an unlimited transformative power that humanity and all of life has the potential to access. According to Sri Aurobindo: "The supramental consciousness is not a fixed quantity but a power which passes to higher and higher levels of possibility until it reaches supreme consummations of spiritual existence" (Ghose, 1989, p. 539).

This pure plane of consciousness is identified as a concept that will manifest in the field of education, aiding in the advancement of all living beings. The Mother states that the Supramental agency is "the true solution of the problem of suffering" and applies through it reconsiders ignorance, suffering and even death as components of "a transformation, a total transfiguration of matter brought about by the logical continuation of Nature's ascending march in her progress toward perfection" (Ghose, A. & Alfassa, M., 1972a, p. 16). This evolutionary thrust of the Supermind emanates as a transcendent phenomenon, progressively infusing both consciousness and material substance with divine creative potential, and it is determined to thereby usher forth "a new species…a new force, a new consciousness and a new power. Then will begin also a new education which can be called the supramental education…" (Ghose, A. & Alfassa, M., 1972a, p. 16).

Considering that all life is undergoing transition in the evolutionary continuum, an integral worldview provides learners with an awareness that informs that search for individual destiny; a complete integral education is in congruence with this search. The Mother clarifies, "If you want to understand the true reason why you are here, you must remember that our aim is to become as perfect an instrument as possible expressing the Divine will in the world" (Ghose, A. & Alfassa, M., 1972b, p. 1). In this way, one allows oneself to receive new evolutionary creative energies so as to participate in their manifestation on all levels of existence, through one's whole being. The perfection of this individual being is the true purpose of engaging in a meaningful and comprehensive integral education, since according to Mother, "when you want your physical being to be a perfect instrument for manifesting the supramental consciousness, you must then cultivate it, shape it, refine it, add to it what it lacks, perfect what it already possesses" (Ghose, A. & Alfassa, M., 1972b, p. 1). Sri Aurobindo and the Mother affirm that since we are always in the presence of and derived from the Supreme, all of our actions should be conducted as a reflection and offering to this principle. Aurobindo imparts that "one must keep constantly in mind…that you are a representative of the Supreme Knowledge, the Supreme Truth, the Supreme Law and you must apply it in the most honest way you are capable of…" (Ghose, A. & Alfassa, M., 1972c, p. 10).

That each and every person is an instrumental representative of the Supreme generative force with potential to undergo total self-transformation and contribute to and participate in the transfiguration of all life and matter is a penetrating affirmation. The gravity of this perspective places a sobering responsibility on those educators choosing to be aligned with or informed by this worldview and by the pedagogical approach effected from it.

Conclusion

Sri Aurobindo and Mother Mirra Alfassa recognized the breadth and depth of whole-personhood as a fundamental expression in alliance with tenets from a venerable metaphysical philosophy. Out of their modern formulation arose a comprehensive educational model placing priority on each learner's unique make-up and purpose as it unfolds during self-fulfillment. The alignment and interrelationship between the five principal aspects conceptualized in both frameworks honors personal reflection and integration, as well as adherence to methodology, process, and self-awareness.

Educational communities are rightly questioning the efficacy of reductionist and cognicentric approaches exemplified in traditional pedagogies. These conventional biases begin in early education and remain prevalent on college and university campuses, ultimately inhibiting student engagement. The "complete integral education" as outlined by the "Integralists" precedes other correlative contributions and provides a thorough foundation for advancing alternative methods in education.

Integral education places holistic learner development at the forefront while assisting in self-definitions of personal purpose in accordance with values and ethics enveloped in a sacred, yet inclusive, worldview. This worldview acknowledges both an individually unique and collectively interrelated wholeness, offering a much-needed alternative to antiquated educational paradigms that privilege intellectual proficiency over whole-person wisdom. Even if educators reject a sacred perspective and do not wish to consider learners' uniqueness as being divine or ensouled, it should hardly discount the need to examine how to adequately engage, enrich, and guide those learners toward their fullest potential. The potentials in holistic wisdom, drawn from a wider wealth of competencies, will prove essential in cultivating students' responses to dynamic and evolving global crises.

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The Value of an Integral Education: A Mixed-Method Study with Alumni of the East-West Psychology Program at the California Institute of Integral Studies

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Abstract: This sequential mixed methods study examined alumni's perceptions of an integral education in the East-West Psychology (EWP) program at the California Institute of Integral Studies (CIIS), and explored how they connected their unique, integral educational experience to personal and professional development. The findings revealed that their experience and understanding of integral education in EWP is mostly in alignment with the ideals of CIIS; namely, honoring multiple perspectives, the multidimensionality of being, and multiple ways of knowing were identified as key aspects of an integral education. The results of the study also point to the areas where the EWP program is doing well in terms of the education students expect and what they actually receive, and to the department's or Institute's learning edges. The most significant findings are the revelations of the need for: (a) more professional development, (b) more practical application opportunities, (c) more community/ mentor support for students' personal psycho-spiritual unfolding, and (d) more training regarding the language and expression needed to communicate the value of an integral education effectively with scholars/employers outside of CIIS.

Keywords: Graduate Education Evaluation, Integral Education, East-West Psychology, Personal Transformation, Nontraditional Curriculum, Spirituality in Higher Education.

Introduction

Almost five decades ago, in conjunction with shifts in collective consciousness like the counterculture and civil rights movements, a small graduate school in San Francisco was founded by Dr. Haridas Chaudhuri, a Bengali philosopher, and his wife Bina. California Institute of Asian Studies, today known as California Institute of Integral Studies (CIIS), was unique for the time, and still is to this day. There, an integral approach to education was implemented, a method of educating that (a) meets students where they are and honors each individual psycho-spiritual

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unfolding, (b) honors the multidimensionality of being and encourages simultaneous, balanced development of these aspects (e.g., physical, vital, emotional, intellectual, spiritual), (c) honors multiple ways of knowing (e.g., intuitive, cognitive, somatic), (d) honors multiple perspectives, even those contradictory to one's own, and (e) commits to social and environmental justice. Such a model is inspired by the creative and harmonious living developed and expanded upon by Chaudhuri, derived from principles of Integral Yoga articulated by Aurobindo Ghose and Mirra Alfassa, who were more commonly known as Sri Aurobindo and the Mother. The integral worldview and philosophical significance of these founding aspirations will not be the focus of this paper, but are written about by other integral educators (e.g., Chaudhuri, 1965, 1974, 1977; Ghose & Alfassa, 2006; Shirazi, 2005, 2011; Ryan, 2005; Subbionodo, 2011; Wexler, 2005, 2011; Fraser Hageman, 2015, etc.); though, they are worth noting here, as this ancestral lineage, along with its founding vision and principles, distinguishes CIIS from all other progressive/alternative models currently in practice in higher education in the United States.

One program in particular, one of the oldest programs at the Institute, East-West Psychology (EWP), sought to explore an integration of Eastern wisdom traditions and Western Psychology and what it would look like to bring these diverse worldviews into dialog with each other; it was a marriage of psychology and spirituality, as it were, when in the mainstream the two had been divorced. Today EWP has evolved from bridge to hub, a meeting place for seekers of truth from all walks of life from all over the world. What would the value of such a degree hold? The present study sought to understand this more deeply.

Description of the Study

This research explores the nature of an integral education, and its personal and professional value, from the vantage point of those who completed an advanced degree in the EWP program at CIIS. Specifically, a sequential mixed-method research design that utilized a mixed-data survey, as well as semi-structured, in-depth interviews, was implemented to gather EWP alumni perspectives on: (a) how alumni perceived the personal, interpersonal, and transpersonal domains of his or her experience while, and since, completing a master's or a doctorate, (b) the characteristics of an integral education, (c) the EWP degree experience and its connection to personal transformation and professional development. These alumni perspectives were collected with the aim of assessing (a) how EWP graduates understood the ideal nature of an integral education, (b) how well they felt the department offered that ideal or not, and if so, to what extent, (c) how alumni felt their graduate education experience in EWP contributed to their personal development, and (d) how alumni felt their experience in EWP contributed to their professional development up until now. The main goal of investigating EWP alumni perspectives on the value of their non-traditional graduate education was to reveal the benefits and pitfalls of such a non-traditional program, from the perspective of those who completed their degree.

Overview of the Research Design

In this sequential mixed-method design, multiple angles were examined concerning the personal and professional value of earning an M.A. or Ph.D. in EWP. In the first phase, a mixed-data survey was used to collect both quantitative and qualitative data concurrently. In the second phase, 10 participants from the first phase volunteered to participate in a qualitative interview, and were given the opportunity to evaluate their EWP experience in the context of their life before, during, and following the pursuit of a graduate education in EWP at CIIS. The Likert scale in Phase 1 was analyzed using *SurveyMonkey*, and content analysis was used to process both the responses to the open-ended questions in the first phase, as well as the interview transcripts from the second phase. Following the data analysis, participants who were involved with Phase 2 were given the chance to reflect on the findings, and to add or omit anything they deemed necessary, for validity purposes.

Description of Participants and Recruitment Procedures in Phase 1: Quantitative Phase

In the first phase of the research, a mixed-data survey, utilizing both a five-point Likert scale and three open-ended questions, was created using *SurveyMonkey* (See appendix A). Subsequently, a link to the survey, along with a recruitment letter, was distributed through the CIIS Alumni Association. Although the current sample does not reflect the entire EWP alum pool on record (N > 300), the Alumni Association had 161 email addresses for EWP alumni. From this sample of convenience, 47 participants completed the survey, yielding a return rate of 29%. The participant population varied in age, ranging from 25 to 74, with 81% being 35 to 64 years old (N = 38). 55% of the participants identified themselves as female (N = 26) and 40% as male (N = 19); two participants chose not to disclose that information. 51% of alumni (N = 24) surveyed completed their master's in EWP, while 47% earned a doctorate (N = 22); one person did not respond to this inquiry, but indicated the year they graduated from EWP. Forty percent of participants (N = 19) came to EWP with a psychology background, 19% studied in the traditional sciences (N = 9), and some had backgrounds in English literature (N = 3), and philosophy and religion (N = 6). Five participants (11%) in the first phase of the study were already CIIS alumni prior to becoming one of EWP as well. The range of participation was broad; the eldest EWP alumni who participated in the survey graduated in 1976, and the most recent in 2013.

Analysis and Interpretation

The first five questions on the scale were demographic in nature. Specifically, participants were asked: (a) whether they identified male or female, (b) their age range, (c) what their studies encompassed prior to commencing their course of study in EWP, (d) and the degree level completed in EWP, and (e) about the nature of their spiritual practice, however each chose to define that. The responses to these five questions were tallied, and the question concerning prior studies and spiritual practice were examined for threads of commonality. Figure 1 is a visual summary of the demographic data collected.

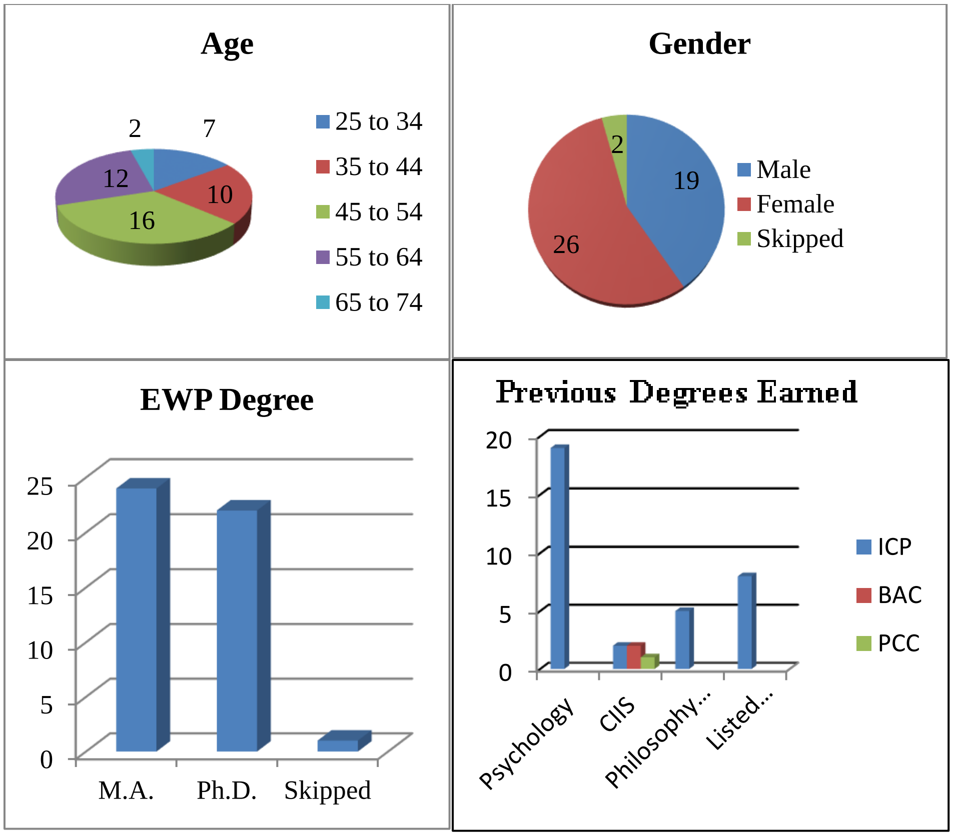

Figure 1: Summary of Demographics.

The Likert scale comprised the quantitative aspect of the first phase of this study. There were 40 statements organized into three categories: transpersonal, interpersonal, and personal. The categorization was used as a means to explore the participants' experiences in the context of the three dimensions of integral psychology as described by Shirazi (2005). The participants were asked to reflect on these statements as alumni, and as such, the time that had passed since they graduated varied among participants. The results of the data collected from the scale were organized into tables, which are reported below. Specifically, the responses were looked at in the order that they appeared in the scale, as separated by category, and by frequency. For example, the statements that respondents agreed with the most, and those that were agreed with the least, were highlighted.

The last three questions on the mixed-data survey were open-ended; this approach was used to give an opportunity for participants to express their experience in their own words. The responses to each of the last three questions were copied from each individual survey and pasted in a separate text document, one document for each question, so that every response to each of the open-ended questions would be all together in one place. Once the document was created with all the individual answers together, the responses were read through in their entirety and a summary of the open-ended responses was created as a way to explicate the threads of commonality that were revealed in participant’s open-ended responses. These threads manifested both as repeated words or phrases, and some unique responses were revealed as well. These responses were then organized into different categories (see Table 5 for a summary of the open-ended response results).

Description of Participants and Recruitment Procedures Phase 2: Qualitative Phase

In Phase 2 of the research, the 47 Phase 1 participants were invited to contact the researcher if there was a desire to dig more deeply into the inquiry underway, to schedule a semi-structured, in-depth, qualitative interview. Ten people responded to this call and reached out, willing to share their story. Subsequently, 10 interviews were conducted in-person or via Skype. The participants who availed themselves to the second phase of this project were both M.A. (N = 6), and Ph.D. (N = 4) alumni of the EWP program.

Like in the mixed-data survey, there was a range of alumni participation. The diversity of alumni who were interviewed was synchronistic; in other words, there was a meaningful coincidence concerning the qualitative sample. Although the sample was one of convenience, the pool somewhat reflected the varied and fluctuating focus of the department over the years since its inception. The earliest alumni interviewed graduated in 1986, and the most recent was in the graduating class of 2013. To maintain complete confidentiality and anonymity of participants, particulars will not be disclosed, however, there was an international roster of identities reflected in the pool of interview participants, with folks identifying as both male or female, and having Western or non-Western backgrounds.

Analysis and Interpretation

The semi-structured interviews were transcribed and the transcriptions of the interviews were content analyzed for themes. Both the content, such as what is said, and the form, such as plot structure of the story, were taken into consideration. The interview recordings were listened to multiple times to assure accuracy in the transcription, and then read and reread to see into the revelatory patterns. “Topics that stand out are usually characterized by their high frequency of appearance, proportional length, or vividness in the text” (Lieblich, Tuval-Mashiach, & Zilber, 1998, p. 73). Emergent themes concerning EWP alumni experiences were considered through this interpretive evaluation strategy suggested by Lieblich et al. (1998).

A thick-rich description was the aim in order to further address internal validity (Merriam, 1995). Every pause, um, laugh, and cry was documented. Boldface was used in the transcript to indicate words or phrases emphasized by the participant. Listening to the interview once through, before beginning the transcription process, gave the researcher a chance to reacquaint with the participant prior to the process of transcription. Once the interview had been transcribed, it was read four times. Time was also be taken away from the transcriptions before each subsequent reading, to give space for the development of further insight from the processes of gestation and indwelling, and what would potentially arise from the unconscious and dream states.

Each interview was looked at separately to first see what meaningful statements and phrases showed up for each of the 10 individual participants. "Qualitative coding, the process of defining what the data are all about" (Charmaz, 2006, p. 43) was used in the analysis portion of the second phase of this study. "Coding means naming segments of data with a label that simultaneously categorizes, summarizes, and accounts for each piece of data" (p. 43). After completing two of the four readings of each interview, the third and fourth readings were specifically geared towards organizing the participant's words into groups and articulating the codes for each group of data. The data was grouped by looking for similarities or threads in each individual participant's experiences, with consideration for frequency, length, and/or vividness, as previously suggested by Lieblich et al. (1998). The analysis of each participant’s interview transcription included a summary of their biographical information, as a way to offer the story of the person behind the data collected. For the sake of allowing interview participants to remain anonymous, these transcripts will not be included here. After each interview was looked at individually, the 10 transcripts were analyzed together, to determine overarching themes across interviews. (See Table 6 for a complete list of major and minor themes).

Phase 1: Quantitative Results Report

The Phase 1 results are comprised of two concurrent components: collection of demographic information and Likert scale, and open-ended questions.

The Quantitative Component of Phase 1: Likert Scale

The 47 participants who completed the survey were asked to rank the degree to which they agreed or disagreed with 40 statements concerning their EWP education. There was also the option for people to respond "Neither agree nor disagree." The following numerical values were used for calculation of each individual response:

Strongly Disagree	1
Disagree	2
Neither agree nor disagree	3
Agree	4
Strongly agree	5

The rating average for each response was calculated by dividing the total score for each question by the number of responses to that question. The average rating results and the median for each statement on the scale are summarized in Table 1. The list of statements in Table 1 begins at number six because prior to starting the scale, participants were asked to fill in some demographic information for example, age, gender, previous degrees earned, and whether they received an M.A. or Ph.D. in EWP. Also, participants were asked to briefly articulate the nature of their spiritual practice, orientation, and/or discipline, however they defined that. These first five pieces of the survey were optional.

Table 1: Overview of Transformation Evaluation Ranking Scale

Q#	*Rating Average*	*Median*	*Question Details*
Q06	3.30	3	EWP helped me develop a regular spiritual discipline.
Q07	4.11	3	Since completing my degree in EWP, I embrace an integral worldview.

Q08	4.06	3	The education I received from EWP helped me develop new levels of emotional maturity.
Q09	3.78	3	The education I received from EWP has helped me access my intuition.
Q10	4.22	3	My EWP education engaged the various aspects of my being.
Q11	4.13	3	Since completing my degree in EWP, my sense of self has expanded, allowing for more authentic spiritual expression.
Q12	4.09	3	My education in EWP taught me to support others in their psycho-spiritual transformation process.
Q13	4.02	3	EWP offered me an Integral Education.
Q14	3.81	3	My EWP education made it possible to relate to all beings more authentically.
Q15	3.59	3	Learning about psycho-spiritual disciplines inspired me to develop a personal, regular self-care practice.
Q17	3.62	3	As a result of my education, I actively seek opportunities to grow spiritually.
Q18	3.96	3	As a result of my EWP education, my ability for authentic self-expression improved.
Q19	3.79	3	I became more mindful as a result of my education in EWP.
Q20	4.11	3	My relationship with the sacred (however you define that) deepened throughout the program.
Q21	3.83	3	My education in EWP has inspired me to experience life as an ever-unfolding evolution of consciousness.
Q22	3.41	2	As a result of my education in EWP, I am more mindful of my impact on the environment.
Q23	4.17	3	As a result of my education in EWP, I was taught to honor multiple ways of knowing.
Q24	4.09	3	In my experience, EWP fostered my psycho-spiritual transformation.
Q25	3.62	3	Being emotionally supported while completing my degree contributed to my spiritual/transpersonal development.
Q26	3.55	3	I learned how to experience embodied knowing as a result of my education in EWP.
Q27	3.43	3	My education in the EWP program increased my capacity for genuine intimacy.
Q28	3.60	3	While in the program, I felt part of a spiritual community.
Q29	3.94	3	My education in EWP has helped me actualize my highest potentials.

Q30	4.17	3	The people I met during the program were instrumental to my growth.
Q31	3.70	3	Throughout the program, in general, I felt emotionally supported during class time.
Q32	3.48	3	What I learned in the EWP program catalyzed a significant change in my lifestyle.
Q34	3.77	3	The EWP program catalyzed a significant change in the way I relate to the world.
Q35	3.63	3	My EWP education has been indispensable to my professional development.
Q36	4.02	3	Being a part of EWP, I became part of a community which honors multiple worldviews.
Q37	3.66	3	My EWP experience catalyzed a significant change in the way I relate to others.
Q38	3.96	3	My education in EWP helped me to develop an expanded sense of self.
Q39	3.70	3	My education in EWP fostered the development of interpersonal communication skills.
Q40	3.81	3	I was challenged to become aware of and reassess my worldview assumptions through my EWP education.
Q41	3.72	3	My education in EWP helped me become more aware of the underdeveloped aspects of my personality.
Q42	3.68	2	Through my education in EWP I learned to respect worldviews contradictory to my own.
Q43	3.38	3	My education in EWP awakened in me a sense of global citizenship and responsibility.
Q44	3.91	3	My education in EWP taught me to honor the multidimensionality of existence.
Q45	4.23	3	In retrospect, I had a positive experience of EWP overall.

Of the 40 statements participants were asked to rank, there were 13 designated to address each of the three dimensions of life experience in integral psychology: the personal, interpersonal, and transpersonal (Shirazi, 2005). The final statement on the scale, "In retrospect, I had a positive experience of EWP overall" was categorized as "other," since it is a broad, overarching statement regarding the program itself rather than an inquiry into a specific aforementioned aspect of being.

In Table 2, the questions have been categorized, and presented in the order of average rating from high to low, and the main point of each statement is listed.

Table 2: Categorization of Likert Scale Statements: Personal (P), Interpersonal (I), and Transpersonal (T)

Q#	*Rating Average*	*Category*	*Summary of key points in the question*
Q10	4.22	P	engaged various aspects of being
Q23	4.17	P	taught to honor multiple ways of knowing
Q08	4.06	P	helped develop new levels of emotional maturity
Q38	3.96	P	helped develop an expanded sense of self
Q29	3.94	P	helped actualize my higher potentials
Q40	3.81	P	challenged to become aware of and reassess my worldview assumptions
Q19	3.79	P	developed mindfulness
Q41	3.72	P	increased awareness of underdeveloped aspects of myself
Q42	3.68	P	learned to respect worldviews contradictory to my own
Q35	3.63	P	indispensible to my professional development
Q26	3.55	P	learned to experience embodied knowing
Q32	3.48	P	learning catalyzed a significant change in my lifestyle
Q30	4.17	I	people I met were instrumental to growth
Q12	4.09	I	learned how to support others psycho-spiritual process
Q36	4.02	I	part of a community that honors multiple worldviews
Q14	3.81	I	authentic relating, support of others psycho-spiritual growth process
Q34	3.77	I	change in relating to the world
Q31	3.70	I	felt emotionally supported in class
Q39	3.70	I	developed communication skills
Q37	3.66	I	catalyzed change in relating to others
Q28	3.60	I	felt part of a spiritual community
Q27	3.43	I	increased capacity for intimacy
Q43	3.38	I	awakened sense of global citizenship
Q16	3.23	I	as an alum, still feels part of community
Q11	4.13	T	sense of self expanded, allowing for more authentic spiritual expression
Q07	4.11	T	now embrace an integral worldview
Q20	4.11	T	deepened relationship with the sacred
Q24	4.09	T	fostered my psycho-spiritual transformation
Q13	4.02	T	offered me an integral education

Q18	3.96	T	ability for authentic self-expression increased
Q44	3.91	T	taught to honor the multidimensionality of existence
Q21	3.83	T	inspired me to experience life as an ever-unfolding evolution of consciousness
Q09	3.78	T	helped access intuition
Q25	3.62	T	emotional support contributed to spiritual development
Q22	3.41	T	more mindful of impact on the environment
Q06	3.30	T	developed a regular spiritual practice
Q45	4.23	OTHER	overall, I had a positive experience

Table 3 shows the 15 statements, out of 40, in which respondents either agreed or strongly agreed with least frequency, while Table 4 reflects the 15 statements that respondents agreed or strongly agreed with the most frequency. These two tables are organized from high to low; in other words, for example, in Table 3, the statement that people agreed with the least was number 22, "as a result of my education in EWP, I am more aware of my impact on the environment." Categorically speaking, participants were least likely to agree or strongly agree with certain statements from each category: Transpersonal (N = 4) Interpersonal (N = 6), Personal (N = 5). Interestingly, all three dimensions were rated somewhat similarly, which indicates that one was not privileged over the other.

Table 3: Statements with the Lowest Agree/Strongly Agree Response Rate

Q#	***Category***	***Respondents who Agreed or Strongly Agreed***	***Total Respondents***	***Percentage of Agreement***	***Question Details***
Q28	I	30	47	64%	While in the program I felt part of a spiritual community.
Q25	T	30	47	64%	Being emotionally supported while completing my degree contributed to my spiritual/transpersonal development.
Q42	P	29	47	61%	Through my education in EWP I learned to respect worldviews contradictory to my own.
Q39	I	28	47	60%	My education in EWP fostered the development of interpersonal communication skills.
Q17	T	28	47	60%	As a result of my education, I actively seek opportunities to grow spiritually.

Q15	P	27	46	59%	Learning about psych-spiritual disciplines inspired me to develop a personal, regular self-care practice.
Q26	P	26	47	55%	I learned how to experience embodied knowing as a result of my education in EWP.
Q27	I	25	47	53%	My education in the EWP program increased my capacity for genuine intimacy.
Q35	P	25	46	53%	My EWP education has been indispensible to my professional development.
Q6	T	24	47	51%	EWP helped me develop a regular spiritual discipline.
Q32	P	24	46	52%	What I learned in the EWP program catalyzed a significant change in my lifestyle.
Q16	I	22	47	47%	As an alum, I still feel part of the EWP community.
Q43	I	22	47	47%	My education in EWP awakened in me a sense of global citizenship and responsibility.
Q33	I	21	47	45%	My education had a noticeable positive effect on the quality of my relationships.
Q22	T	20	46	43%	As a result of my education in EWP, I am more mindful of my impact on the environment.

Table 4 shows which of the statements out of 40 participants agreed or strongly agreed with most frequently; the table is in order from high to low. It is interesting to note which categories the statements that were most agreed or strongly agreed with fell into: Transpersonal (N = 6), Personal (N = 5), and Interpersonal (N = 3); here it seems that agreement is more prevalent in both the transpersonal and personal domains. Eighty-nine percent of the participants either agreed or strongly agreed with the final statement on the scale, "in retrospect, I had a positive experience of EWP overall," which is categorized as "other" because it was included in the scale to serve as a reflection on the overall experience of the education in EWP. Although this is significant, a "positive experience" does not take into account the three different categories, personal, interpersonal, and transpersonal.

Table 4: Statements with the Highest Agree/Strongly Agree Response Rate

Q#	*Category*	*Respondents who Agreed or Strongly Agreed*	*Total Respondents*	*Percentage of Agreement*	*Question Details*
Q36	I	42	47	89%	Being a part of EWP, I became part of a community which honors multiple worldviews.
Q45	Other	42	47	89%	In retrospect, I had a positive experience of EWP overall.
Q23	P	41	47	87%	As a result of my education in EWP I was taught to honor multiple ways of knowing.
Q38	P	37	47	79%	My education in EWP helped me develop an expanded sense of self.
Q7	T	36	47	77%	Since completing my degree in EWP, I embrace an integral worldview.
Q19	P	35	47	74%	I became more mindful as a result of my education in EWP.
Q18	T	35	47	74%	As a result of my EWP education, my ability for authentic self-expression improved.

The Qualitative Component of Phase 1: Open-Ended Questions

The participants who completed the Likert scale were also invited to reflect on their EWP learning experience in their own words. At the conclusion of the ranking scale participants were asked to articulate their thoughts concerning the characteristics of an integral education, as well as how their graduate education in East-West Psychology contributed both to personal and professional development, if this was applicable. Forty-six of the 47 participants who completed the scale opted to answer the open-ended questions— one simply said "pass" on all three— and although some themes were revealed, the answers to these questions also reflect a diversity of expressions. A summary of the major themes from the open-ended responses can be found in Table 5, as well as the number of times each occurred (in parentheses).

Table 5: Summary of Open-ended Results

Question Details	**Themes**
In your view, what characterizes an Integral education?	Theme 1: Honors Multiple Worldviews (13) Theme 2: Honors the Multidimensionality of Being (11) Theme 3: Honors Multiple Ways of Knowing (10) Theme 4: Psycho-spiritual Unfolding (8) Theme 5: Integration (5)

Please describe how your EWP learning experience and degree completion contributed to your personal development (If not applicable simply state that).	Theme 1: Expanded sense of self/Deepened Self-Understanding (23) Theme 2: Transformation/Development already in progress (7) Theme 3: Encouraged Exploration of Multiple Ways of gaining valid knowledge (7) Theme 4: Growth/Maturation (6) Theme 5: Not Applicable (5) Theme 6: Ph.D. process (4)
Please describe how your EWP learning experience and degree completion contributed to your professional development (If not applicable simply state that).	Theme 1: Not Applicable (14) Theme 2: Academic/Scholarly (9) Theme 3: Indirect Effect (6) Theme 4: Deepened Current Work (5) Theme 5: One Step on the Path (4)

Phase 2: Qualitative Results Report

Ten people agreed to go a little deeper into this inquiry into earning a graduate degree in EWP at CIIS and semi-structured interviews, in-person and via Skype, were conducted. Through the interviews, the aim was to have participants tell their EWP story; specifically, the curiosity that drove this work was the exploration of who these EWP alumni were before, during, and after their experience of earning a graduate degree in the program. In addition to this grand-tour question, there were 10 questions prepared to guide participants through this inquiry as well. In the spirit of EWP, all interviewed participants were invited to sit in mindful silence for a few minutes prior to the start of the interview with the researcher, as a way to encourage thoughtful and intentional presence during the interview itself. A summary of individual interview themes follows.

Summary of Interview Themes

There were certain themes that came up in multiple interviews and these are expressed in Table 6. The overarching themes are organized from high to low, with the number of occurrences noted in the table referring to how many times each individual interview theme showed up during the entire qualitative phase of the research. In other words, for example, seeker/self-directed learner was an individual interview theme that was apparent in each participant's transcript, so Table 7 indicates that particular individual theme to have appeared 10 times during the second phase of the project. The themes are categorized as major or minor, depending on how many instances that particular theme arose.

Table 6: Overarching major and minor themes from all interviews

Major themes	Theme 1. Seeker/Self-directed Learner (10) Theme 2. Positive Aspects of EWP (7) Theme 3. Takeaways (7) Theme 4. Synchronistic Unfolding (6) Theme 5. Spiritual Emergence/Emergency (4) Theme 6. Critiques (4)
Minor themes	Theme 1. Integral Worldview Foundation (3) Theme 2. What EWP Lacked (2)

	Theme 3. No Bridge (2) Theme 4. Shadow Side of Spirituality (2) Theme 5. Double Life (2)

Seeker/self-directed learner. A person who displayed a strong will to learn through an ongoing seeking to satisfy a passionate curiosity to know thyself was considered in light of the first major theme, seeker/self-directed learner. This theme also is considered as a characteristic of one's lifestyle, a characteristic that became apparent in all 10 participants' stories when asked about their life before their EWP graduate education experience. For example, all 10 interview participants spoke to the time prior to EWP and CIIS in a particular way. As each described life before EWP, the tendency to have a thirst for self-knowledge became evident, and a thread of commonality concerning previous studies and interests was present: all could be related to the intentional search for psycho-spiritual growth. Jean worked full time, yet on her own, she was taking various classes from all kinds of traditions from the Enneagram to grief work, to mythology. Susan was a nun who was deep into self-study through spiritual practice; she noted exploring many different wisdom traditions simultaneously, and while completing her master's in counseling psychology, she was reading humanistic and transpersonal psychology on her own. Charles said that his home country held education in high regard, and these times of learning were significant and meaningful to him; for example, many a night in college he would stay up until the wee hours and talk with his friends about their aspirations and what social justice projects they sought to implement. Ariel reported a spontaneous spiritual awakening and how she was very broken down by it; however, she also noted that it was "not in a bad way, just you know what happens when you start seeking" (Ariel's Transcript, p. 1). At the undergraduate level, Duncan declared two majors, in sociology and philosophy, and he was deeply embedded in the local music scene while he pursued his traditional studies. He also noted reading one or two books a week once he discovered Fields Bookstore, a shop in San Francisco that specializes in esoteric and spiritual wisdom traditions. Grace went to a non-traditional high school, in order to interweave her academic work with her love of theatre. Psychology and spirituality have long been interests of Lily, and she was studying Jung and Wilber on her own, a pursuit that actually led her to find CIIS. Phoenix had a regular *Vipassana* practice for nearly a decade, worked with plant teachers, as well as studied in the PCC department at CIIS for his master's. Holden traveled extensively in Asia and Europe, a venture that began when he was 29 and "feeling antsy" (Holden's transcript, p. 2). Theodore reports being a seeker all his life, and that seeking transformation is part of his recovery; "it is vitally necessary in order to actually escape from your addiction" (Theodore's transcript, p. 1). This tendency to search for opportunities to gain self-knowledge and experience psycho-spiritual growth is also apparent in each of the participant's decisions to embark on the journey and complete the course to earning a graduate degree in EWP.

Positive aspects of EWP. The positive aspects of earning a degree in EWP refers to the highlights and how people described what they valued most about their experience while in the program. Grace, for example, found it valuable that her teachers engaged with her, and she felt fully supported in following whatever she was passionate about. She also loved the flexibility to take courses in other departments, and felt that the program truly honored each student's individuality. Lily echoed Grace's feeling of being supported, and Theodore too, was just thrilled to find a beloved community, a flock of birds of his own feather, one in an "accepting, nurturing, familial kind of environment" (Theodore's transcript, p. 12). Ariel appreciated the "gentleness and receptivity…[and the] soft welcoming and reassuring" atmosphere of the department that she discovered upon her arrival, and it is this initial vibe of the program that even allowed her to even begin her graduate education in the first place (Ariel's transcript, p. 6). Like Grace, Ariel also appreciated the flexibility to take courses from across departments within the Institute while working towards her degree in EWP. Jean and Holden spoke highly of certain courses; specifically, Jean mentioned Spiritual Counseling Skills, and Holden noted Integral Approaches to Dreams, Comparative Mysticism, and Eastern Theories of Self, Mind, and Nature as highly influential. Phoenix and Grace expressed gratitude for the foundational grounding gained in the Eastern theories course as well.

Takeaways. The takeaways are participants' reports of what they feel they received from earning a degree in EWP. There were seven participants who reflected on the takeaways. Holden felt that he broadened and deepened his understanding of the history of Eastern religions and how they connect with the nascent field of transpersonalism, and "things that used to be sort of loose and floating out there, now…a much stronger foundation from a theoretical and religious standpoint" (Holden's transcript, p. 12). He also spoke of an expanded awareness of the distinctness and inseparable inner and outer realms of experience, and was able to use the knowledge he gained in the course Cosmos and Psyche to critically reflect on non-dual experiences that he had prior to studying in EWP. Also, Duncan reported that he was able to take away a more logical and analytical approach to studying traditions that are often dubbed "just new age" (Duncan's transcript, p. 5), and are at risk of nebulousness. Theodore asserts that completing the program allowed for a deepened self-maturation. Grace said that since completing a degree in EWP she now has the ability to hold perspectives that may be new or contrary to her own, as well as an increased engagement with and integration of her wounds and the shadow aspects of her personality. Lily had the realization of being out of touch with her body, and after coming to CIIS and enrolling in EWP she began to actively come into contact with this disconnection, as well as other blind spots that she had. Besides increased somatic and emotional awareness, Lily also felt that her EWP experience helped her to connect with and better articulate one of her biggest passions: human development. Further, she deepened her understanding of what she envisions as her livelihood. She also reported a greater understanding of her intuition. Phoenix too emphasized that one of the gifts EWP gave him was a greater somatic awareness, which helped him to recognize that his mind tends to dominate his experience. He began to really value the body and its wisdom after the embodied spiritual work he completed while earning a Ph.D. in EWP. These are some of the examples of how people described what they received from the educational experience of earning a degree in EWP, which is distinct from the positive aspects of EWP because of its deeper specificity.

Synchronistic unfolding. Synchronistic unfolding refers to the particular way in which some participants described meaningful coincidences that occurred in and throughout their lives, as well as the capacity to see an interconnection and a larger picture through making meaning of these events. Some participants even used the term synchronicity when talking about certain moments in their life. For example, Lily recalled a time when she signed up for a class, and right at the last minute she could not attend; she ended up taking another class, the only class left, and she mentioned that "there was something bigger" at work orchestrating that shift in coursework during her final semester in the EWP master's. Ariel said that she was brought to CIIS "synchronistically" (Ariel's transcript, p. 1). Additionally, it was through her work at the café that she just happened to hear about another job opening of interest from a friend who was leaving his position, and she soon after gained employment on a farm, which aligned with her passion to promote awareness of non-GMO and pro-organic movement. Jean told a story about how just after she had begun taking classes focused on personal development in her hopeful home country she returned to the place of her birth to work on getting her visa. While she was visiting, there happened to be a high school reunion. This was very odd; she said "we never ever meet up again…we don't care, you just leave school" (Jean's transcript, pp. 6-7). She felt that is was extremely ironic that her favorite teacher from high school, "the first person who actually saw me as a human being," mentioned her current teacher's name and was well acquainted with them. Additionally, she described that upon returning home from the school reunion, she enrolled in and was accepted into a course that usually has a 6-month waiting period, and instead she was able to attend the following weekend, since there was one space that mysteriously opened up, and her grandmother had just given her a birthday gift for the exact amount of the course. Susan also described certain stories of her life in a particular way, in a way that she described as unfolding meaningfully. She was admitted into the EWP program in less than a week's time; she also asserted that she had no idea where she would complete her internship hours and somehow received the grace of being awarded a teacher's assistant position, which then led to a co-teaching/adjunct faculty role in the subsequent semester, and in turn paved the way to her teaching her own courses at that school, eventually leading to her becoming a program chair and creating her own integral degree program. Phoenix said that when he was in Asia, he ran into some CIIS professors who let him know about certain mentorship opportunities, which then led him to study in EWP with his eventual dissertation chair. He also said that he "happened to move close to one of the best massage schools in the country after graduation" and that his fruitless pursuit of a job in academia was a blessing because it showed him what his calling really was (Phoenix's transcript, pp. 9-10). Duncan's responses also reflected a synchronistic unfolding; for example, he moved to California to pursue music, but discovered CIIS while he was living in San Francisco, and decided to go back to school there. Additionally, he had been reading Stan Grof on his own time, and found out that he happened to be teaching two blocks from where he worked. The instances noted here may seem insignificant to some, but it is the way in which the participants made meaning of them as they told their stories is what makes them stand out in this research as the theme synchronistic unfolding.

Spiritual emergence/emergency. Spiritual emergence/emergency denotes non-ordinary states that participants reported experiencing, states that were spontaneous and not substance-induced. Holden recalls a time that he was hiking in the Himalayas and he felt a sense of oneness with the land and all that surrounded him; he said he felt "permeable as though I was connected to the animals, the mountains everything, it was just this wonderful sense of interconnectedness" (Holden's transcript, p. 3). He reported a similar experience in Scotland when encountering huge monoliths at the Ring of Brodgar; it was like "a psychic merging with one of the stones" (p. 4). Lily mentioned two instances where she was having a "peak experience," although she said one was "extremely ungrounded…I didn't really sleep or eat properly…it got really scary, like everything was so on all the time. I couldn't leave my house…stand bright colors or strong smells" (Lily's transcript, p. 5). Ariel experienced a similar intensity in her experience of emergence; she said she "had a big…spontaneous spiritual awakening *kundalini* episode" that left her "broken down" (Ariel's transcript, p. 1). Phoenix's spiritual emergence experiences were more subtle; he said "I started having these spiritual experiences…basically massive encounters in the dream state, and some synchronicities with entities that I would later define as my guides" (Phoenix's transcript,

p. 1). Although the quality of participants' spiritual emergence varied from positive to challenging, all these reports indicate encounters with a domain that is beyond ego understanding.

Critiques. Another overarching theme in the qualitative interview phase was critiques of EWP, and these often came with a disappointed or dissatisfied undertone. Duncan cited his surprise with the student body, stating that it "was kind of confusing and shocking…it was a lot more kind of Northern-Californian well-to-do…middle-aged people" and furthermore "the student body was very mixed…in the sense that there was a wide range of rigor" (Duncan's transcript, p. 3). The hefty student loans were also mentioned as a downside, although that has more to do with the Institute than the department. Jean felt that the master's was "an unfinished product" and "it wasn’t an academic experience" but a "concentrated form of inner work" (Jean's transcript, pp. 16-17). She also said that it did not provide her anything for a "professional basis" (p. 17), and she was troubled by the inappropriateness on the part of some of the faculty members in relation to students. Charles had much to say about EWP in terms of critique. He found "the climate anti-intellectual and…it did not address spirituality in [a] very systematic and detailed manner" (Charles' transcript, p. 3). Additionally, he felt that some of the professors "have taken a slice of their study and made it the end all be all… [and he] personally feels that they have basically killed the dream of Dr. Chaudhuri" (p. 3). Charles was also discouraged that the school openly advertises allegiance to the integral educational vision of Sri Aurobindo and The Mother, yet he came here is did not find that allegiance present, and he noted this "lurking as a huge shadow of CIIS" (p. 5).

In contrast to other participants who noted the EWP community in a positive light, Ariel felt this is where the department could further develop, stating outright "EWP was not very good at community” (Ariel's transcript, p. 3). Additionally, she noted “there were a few people with whom I entered [that] transferred out of EWP because of issues about: what am I going to do with this?" (p. 3). Here, there is a hint pointing toward the uncertainty of what comes next professionally after earning a degree in EWP. She also said "I don’t feel that EWP at the time was really teaching to race or gender or class awareness or social justice issues on a kind of practical…pedal to the medal kind of way" (p. 3). The aforementioned critiques theme concludes the summary of the major themes from the qualitative interview phase and a review of the minor themes from Phase 2 follows. These themes were categorized as minor because the number of times they manifested in participants' interviews was three or less (see Table 6 for complete list).

Integral worldview foundation. Three participants displayed characteristics that show an integral worldview foundation in their life; in other words, there are particular ways in which the three following participants show up in the world that can be linked to having adopted an integral worldview as their ontology and epistemology. Susan was very much influenced integral theory; not only by the work of Sri Aurobindo and The Mother, but Ken Wilber as well. Above all, how she communicates with herself, and her active seeking to know her calling, is very much aligned with the way integral yoga honors the unique unfolding of each individual soul. She spoke about how she sought self-knowledge in this way: "I just sat in meditation, and I said my sacred intention for this life is to be a vehicle for spirit" (Susan's transcript, p. 7). She also asserted that "integral is probably the most profound teaching that I got at CIIS, and integral within an evolutionary movement" and she went on to further elaborate, saying "so everything I've done in my life, both personally and professionally since then, has had an integral, evolutionary, unfolding foundation, perspective, emphasis…it’s the container through which I seem to experience and feel everything…and everything I teach" (p. 7). Charles also depicts a lifestyle and teaching philosophy aligned with the integral vision of Sri Aurobindo and The Mother specifically. He said " I am very respectful to all spiritual teachers…across traditions…the way I see [it] is that they [have] access to a particular truth and that truth is important because it came from their own experience of pursuing the divine" (Charles' transcript, p. 6). The integral worldview foundation also showed up in his description of his approach to teaching students: "it is like truly honoring their inner constitution and giving them what would really benefit them…which will actually…help them walk a path which is in accordance with the seekings of their inner being" (p. 9). Duncan also mentioned that his work in EWP affected everything he does in life, which includes teaching and mentoring, as well as engagement within his music community. For example, although he is deeply involved with his music nowadays, he recently wrote a book about music production. Interestingly, he included a philosophical and historical context for the reader, and connected the emergence of electronic music to what certain musicians were reading at the time, which included the works Sri Aurobindo, and D.T. Suzuki.

What EWP lacked. What EWP lacked was named a distinct theme from critiques because two participants specifically pointed to what was missing from their gradate experience in EWP rather than speaking indirectly about what they did not like, or what the program could do better, as with those classified as critiques of EWP. For example, Susan felt that the social dimension was underrepresented in the program; in other words, there was a lack of connection between the work being done at CIIS and how it could connect or be implemented in the world at large to address social issues. She mentioned that "they really didn't do much with the social, but it was sort of implied that…as we went up the ladder of integration, it would go towards social issues eventually [but] it didn't integrate it as much as I would want" (Susan's transcript, p. 7). Also, Lily noted that there was a lack of professional and practical skill development during the time she completed a master's degree in EWP. She would have benefitted from learning about "marketing and business tools" because "just because you have a passion and you think you're aligning with the universe's purpose for yourself doesn't mean shits going to happen" (Lily's transcript, p. 9). Moreover she said "the gap I was sensing in EWP was that we're not sensing that development needs to be within your space wherever you are" and she cites the example of attempting to teach students about nonduality when they do not even know what it is like to be in their body; "it's a huge huge very dangerous spiritual bypass" (p. 6). Two other participants cited that EWP lacked a bridge from graduate school back to the mainstream, work-a-day world, however this warrants distinction as its own theme because of the intriguing specificity.

No bridge. A bridge may also be something that EWP lacked, but this theme was distinguished because of how two participants specifically spoke of their experience of trying to become gainfully employed upon graduating with a Ph.D. in EWP in a specific way wherein they both describe no clear cut path from graduate school to working professional. Both Holden and Phoenix also mentioned the difficult transition from their EWP graduation to the mainstream workforce. Specifically, Holden said that although his degree is "reputable," it has not been "very applicable in a mainstream sense" (p. 1) as of yet. He describes his job search since graduation in this way: "if you're spending your time chasing things, like a job in transpersonal psychology… [you're] susceptible to pent up frustration which inhibits the flow of the passion and inspiration" (p. 13). Similarly, Phoenix noted of his EWP experience that "there was something of it being like a womb-like container…and I feel there has been sort of a shock of coming out of there…coming out of

EWP there was not a bridge to the world" (Phoenix's transcript, p. 8). Additionally, he said "the nature of the work that we do in EWP is, it is very unlikely that you're going to have somebody knocking on your door saying whatever it is you do, I heard you're good, here's 60 dollars, just do your EWP thing for an hour" (p. 9). It is apparent here that not only does Phoenix feel there is a lack of a bridge, but, he is even unsure of how to describe what he can offer to the world after completing a degree in EWP.

Shadow of spirituality in higher education. Another minor theme could also be a subtheme of the overarching critiques theme that emerged concerning EWP; two participants specifically pointed to the shadow side of spirituality in higher education when they expressed certain aspects of their experience of the program. Holden said, "sometimes the ideals that are espoused at CIIS, the images people try to portray just don't match up…I think that's the shadow of CIIS. I think that people tend to forget their basic humanity sometimes in the process of espousing basic humanity" (Holden's transcript, p. 7). He noted several instances with different professors to support this point. Additionally, he said "when you go to a place like CIIS there are such high ideals and such high hopes and I think that [for] a lot of people it also brings out weird shit…I think there is a lot of unresolved angst at our school" (p. 11); he also mentions the pettiness and self-promoting nature of some faculty members, which is contradictory to spiritual and integral values of the Institute. Lily also noted a shadow side of spirituality in higher education. As previously mentioned, she talked about the danger of spiritual bypass, which could occur if you try to teach people about nonduality when they first have not even been able to experience their body first. She also said "when you don't deal with trauma through grounding, it is easy to go off into a bliss state and ignore your body" (Lily's transcript, p. 5), and she felt that this was not made explicit during her time in the program.

Double life. There were two participants who alluded to a disconnection between their career or work, and their pursuit of self-knowledge and personal growth through exploring psychological and spiritual traditions, a disconnection between their passion and how they made a living. Thus double life was used to describe this phenomenon articulated in their stories. Jean was deeply embedded in the world of finance; this route was very practical for her and she was making a great living. Yet she longed to study "other ways of seeing the world" (Jean's transcript, p. 5) and she did this often on her own time, reading and taking workshops on a wide variety of topics "from death and dying to grief counseling to healthy relationships to Reiki, anything alternative" (p. 6). Grace too spoke about a split between what she loved to do and how she made money. From a young age she reports "I've always had a double life" (Grace's transcript, p. 4) because as a theatre kid, she would go to school by day and "crew shows" (p. 4) by night. This way of being in the world continued when she was acting post-Julliard; she "had to work 9-5 to pay for acting," (p. 4) and most recently, all the while she worked on her degree in EWP she worked as a web consultant from home.

Results Summary and Discussion

The first phase of the present work gave a glimpse into the diverse perspectives of alumni who completed a degree in East-West Psychology in regard to the nature of their experience in the program on multiple levels (i.e., personal, interpersonal, and transpersonal); self-reports regarding the understanding of "integral education," as well as to what degree did the M.A. or Ph.D. in EWP contribute to personal and professional development were also collected. The demographic information gathered reflected a wide array of identities and the ranking scale revealed that participants for the most part agreed with the statements on the scale. The open-ended questions complemented the ranking scale data, since participants were invited to speak to aspects of the scale in their own words.

The second phase of the project enriched the first. The semi-structured, in-depth interviews allowed 10 participants the space to more deeply articulate the value of their degree in EWP, and explore who they were before, during, and after their degree completion. Of the 10 interviews, there were 23 individual interview themes that became apparent, and 11 overarching: six major and five minor themes. In a latter section, some of the major themes identified, the positive aspects of EWP, takeaways, and critiques of EWP, are further categorized, since individual participant responses varied concerning these three themes.

Quantitative Phase: Likert Scale

In the first phase, there were two data collection strategies used simultaneously. Initially, participants were asked to offer some demographic information, and complete a ranking scale, which included 40 statements. Each of the 40 statements on the scale following the demographic information was categorized as personal, interpersonal, or transpersonal; this was purposeful. The categories were used as a way to gauge alumni experiences concerning multiple dimensions of their experience in the context of their graduate education in the EWP program.

As evidenced in the results of the scale, EWP alumni were largely in agreement with all of the statements and an overwhelming 89% (N = 42) of participants agreed or strongly agreed that overall they had a positive experience in EWP. For example, even statement 22, "my education in EWP taught me how to support others in their psycho-spiritual transformation process," which had the lowest agree/strongly agree response rate of all the statements on the scale, still yielded a 44% (N = 20) agreement response rate, and this low agreement response rate was not highly disagreed with. However, 46% of participants (N = 21) neither agreed nor disagreed with the statement "as a result of my education in EWP, I am more mindful of my impact on the environment." This begs the question of clarity regarding the phrasing of the statement itself in regard to the exploration of the outcomes of earning a graduate degree in EWP, since more responses indicated participants were neither in agreement or disagreement, than disagreement or strong disagreement. There were however, a few statements that revealed some disagreement worth noting. Table 7 shows the percentage of neutral response rates and the disagree/strongly disagree response rates alongside the percentage of agreement rates for the 15 statements that participants agreed with least. Statements for which the disagree or strongly disagree responses exceeded the neutral response will be discussed in detail.

Table 7: Categorized Statements with the Lowest Agree/Strongly Agree Response Rate Alongside the Corresponding Neutral Response Rate Percentage and Disagree/Strongly Disagree Percentage

Q#	*Cate-gory*	*A/ SA RR*	*DA/SDA RR*	*Neutral RR*	*Total # of Responses*	*% A/SA Responses*	*% of Neutral Response*	*% of D/SDA Response*
Q28	I	30	9	8	47	64%	17%	19%
Q25	T	30	7	10	47	64%	21%	15%
Q42	P	29	3	15	47	62%	32%	6%
Q39	I	28	2	17	47	60%	36%	4%
Q17	T	28	5	14	47	60%	30%	10%
Q15	P	27	7	12	46	59%	26%	15%
Q26	P	26	8	13	47	55%	28%	17%
Q27	I	25	6	16	47	53%	34%	13%
Q35	P	25	8	13	46	54%	28%	18%
Q6	T	24	12	11	47	51%	23%	26%
Q32	P	24	6	16	46	52%	35%	13%
Q16	I	22	14	11	47	47%	23%	30%
Q43	I	22	6	19	47	47%	40%	13%
Q33	I	21	3	23	47	45%	49%	6%
Q22	T	20	5	21	46	44%	46%	10%

There were three statements participants disagreed or strongly disagreed with that are worth noting here, since the percentage of participant disagreement exceeded the neutral response rate. Statement 16, "As an alum, I still feel part of the EWP community," was the statement participants disagreed or strongly disagreed with the most: 30% of participants reported they did not feel part of the community as alumni (N = 14), when 47% agreed or strongly agree that they did. Although CIIS has an active alumni association, and EWP itself has bi-annual gatherings for all in the community, past and present, as evidenced in the response results of this statement on the scale, some people do not feel part of the community once they graduate.

Statement 6, "EWP helped me to develop a regular spiritual discipline," was another statement of interest, since it yielded a disagree/strongly disagree response rate of 26% (N = 12). Again, it would interest me to speak with these participants further; did they already have a spiritual practice developed prior to commencing their studies in EWP, or has EWP failed to support the development of a spiritual practice? In future studies, a clearer expression of what was initially attempted here may come in the form of two distinct questions, one inquiring into participants experience of the spiritually based, community-oriented nature of the program, and the other asking participants more directly about the connection between studying in EWP and its connection to each individual's spiritual practice.

Additionally, when asked statement 27, "while in the program, I felt part of a spiritual community," 19% (N = 9) of participants disagreed or strongly disagreed, more than those who were neutral, or in agreement. This is interesting to note since the two statements just mentioned both inquired into a similar area of exploration: to what degree the course of study EWP impacted the development of a spiritual discipline, and to what degree did participants feel they were learning within a spiritual community? To have such response rates of disagreement indicates perhaps a point to consider in program evaluation and one avenue of future research, focused on the construct of a spiritual educational community, since CIIS asserts that the integral education they offer "affirms spirituality" and that they are "committed to the study and practice of multiple spiritual traditions and to their expression and embodiment throughout all areas and activities of the Institute community" (CIIS, 2014a, para. 2). Furthermore, I would be curious to know more about how respondents applied their studies to daily life during them, and since graduating, if applicable.

Quantitative Phase: Open-ended Questions

After participants completed the scale, the inquiry then shifted to explore how each characterized an integral education, and to what degree they felt that earning an advanced degree in EWP influenced their personal and professional development. The objective here was to offer participants the space to articulate in their own words the nature of their experiences and understandings of earning a graduate degree in EWP. Table 8 shows a summary of the major themes from the open-ended responses, and seven or more occurrences constituted the item as a major theme.

Table 8: Summary of the Major Themes from the Open-ended Results

Question Details	Major Themes
In your view, what characterizes an Integral education?	Theme 1: Multiple Worldviews (13) Theme 2: Multidimensionality of Being (11) Theme 3: Multiple Ways of Knowing (10)
Please describe how your EWP learning experience and degree completion contributed to your personal development (If not applicable simply state that).	Theme 1: Expanded sense of self/Deepened Self-Understanding (23) Theme 2: Transformation/Development already in progress (7) Theme 3: Encouraged Exploration of Multiple Ways of Gaining Valid Knowledge (7)

Please describe how your EWP learning experience and degree completion contributed to your professional development (If not applicable simply state that).	Theme 1: Not Applicable (14) Theme 2: Academic/Scholarly (9) Theme 3: Indirect Effect (7)

Analysis of the survey data collected from the open-ended questions was most revealing. There were three themes that presented in the responses gathered regarding the initial question "in your view, what characterizes an integral education?" (1) multiple worldviews, (2) multidimensionality of being, and (3) multiple ways of knowing.

The first question is interesting because it does not directly inquire into the nature of the EWP program or CIIS per se, since it simply asks for the participant's view of how they characterize a particular educational method. Thus, one cannot assume that the responses are descriptors for the EWP department's educational offering. However, there was one participant who took it upon herself to add her thoughts concerning the lack of an integral education in the EWP program, stating "whatever it is I do not believe I received it in 2003."

At first glance, these themes generally correlate with the integral education espoused by CIIS today. Reflecting on the educational philosophy of the Institute, which affirms that the integral education at CIIS "encompass[es] all aspects of learning: the intellectual, the experiential and the applied" (CIIS, 2014b, para. 2), "values cultural diversity, multiple ways of knowing, spirituality, a sense of community… [and, by] exploring the interplay of mind, body, and spirit, integral education connects the spiritual and practical dimensions of intellectual life" (CIIS, 2014b, para. 3), the degree of correlation becomes more apparent.

At the time of this study, on the Institute's EWP website, the program's most up to date educational vision is reported as follows:

- To create a learning community focused on the exploration of Western, Eastern, and Indigenous psychologies and spiritualities in the spirit of integral inquiry and open-ended dialogue.
- To offer an integral education that honors not only intellectual excellence, but also the voice and wisdom of the somatic, vital, emotional, imaginal, and spiritual dimensions of the person.
- To bring spirituality into academia and explore the transformative elements of inquiry, learning, and writing.
- To foster the psycho-spiritual development of students, as well as their unique individual gifts and potentials. (CIIS, 2014d, para. 7)

Moreover, EWP today maintains that "through its unique combination of cognitive and experiential offerings, the department grounds academic excellence and the acquisition of professional skills in both the personal transformation of students and the cultivation of a spiritually informed scholarship" (CIIS, 2014a, para. 1).

Quantitative Phase Open-ended Questions: Personal and Professional Impact

The last two open-ended questions in Phase 1 of the present research sought to collect information about the personal and professional impact of participating in an integral education and earning a degree in EWP; this was intentional because the EWP department has historically offered a program that strives to nurture students ability to balance and integrate the many human dimensions, body, mind, spirit, alongside the development of professional skills, and a ground in practical application (see CIIS course catalogs from 1975-present). EWP's educational vision today maintains the heart of the original intent, and this study examined to what extent the vision holds true by collecting alumni perspectives of the personal and professional value they attribute to EWP since completing their advanced degree.

There were six themes present in participants' responses to the open-ended question, "Please describe how your EWP learning experience and degree completion contributed to your personal development (If not applicable simply state that)": (1) expanded sense of self/deepened self-understanding, (2) transformation/development already in progress, (3) encouraged exploration of multiple ways of gaining valid knowledge, (4) growth/maturation, (5) not applicable. The other open-ended question was similar, but professional is substituted for personal. "Please describe how your EWP learning experience and degree completion contributed to your professional development (If not applicable simply state that)"; there were five themes revealed as a result: (1) not applicable, (2) academic/scholarly, (3) indirect effect, (4) deepened current work, (5) one step on the path. Further analysis of each individual theme regarding participants' personal and professional development in light of the contemporary educational vision of the EWP department follows.

To summarize, the main characteristics of an integral education that were noted by participants were the honoring of the multidimensionality of being, or simultaneous development along multiple lines of intelligence, and the valuing of multiple ways of gaining valid knowledge. In regard to personal development, participants emphasized an expanded sense of self, and transformation in connection to their education in EWP. Professionally speaking, participants mostly reported no effect or an indirect effect, but others reported that their academic development while in pursuit of a Ph.D. was linked to their professional development post-graduation.

Qualitative Phase

In the second phase of the study, 10 of those who participated in the first phase volunteered their time for a qualitative interview. Each of the 10 interview transcripts revealed individual themes, and some overarching themes. There were 21 individual interview themes in total, and 11 overarching themes. As noted previously, Table 6 showed the major and minor overarching themes across the collection of interviews. The major themes were seeker/self-directed learner (10), positive aspects of EWP (7), takeaways (7), synchronistic unfolding (6), spiritual emergence/emergency (4), and critiques (4).

Participants used certain language to describe their experience, as if they were constantly engaged intentionally seeking out the next steps in their own psycho-spiritual unfolding. Thus, everyone interviewed showed characteristics of being a seeker/self-directed learner. Synchronistic unfolding and spiritual emergence/emergency also lend themselves to this major theme, since this type of descriptive language is only used by a certain kind of person, a seeker. Positive aspects of EWP, and takeaways shed light on what alumni perceive as the benefits of a course of study in EWP. Participants who shared the highlights of their time in EWP or spoke to what they gained personally and professionally from earning a degree in EWP fell into these categories. Interestingly, some of the major and minor themes are so related, they could be combined, and thus constitute another major theme. Specifically, critiques (4), what EWP lacked (2), no bridge (2) shadow side of spirituality (2), all indicate the learning edges of the EWP department. In other words, these themes could be a major theme, such as zone of proximal development, in which case, would have occurred 10 times in the second phase. However, in order to preserve the words of participants as best as possible, these minor themes were designated instead.

I would like to bring the reader's attention to the relationship between some of the themes. Specifically, both spiritual emergence/emergency and synchronistic unfolding could be a way to describe certain characteristics of the life of a seeker. Additionally, takeaways could be a more specific way to describe a positive aspect of EWP, and what EWP lacked could be a form of critique. No bridge, as well as shadow side of spirituality could also fit into the realm of critique. The point here is that the themes procured from the data collection are very much interrelated, and some could be cross-listed. They have been articulated as such in service of greater clarity and acknowledgement of certain participants' original wording.

The forthcoming paragraphs will focus on deepening the reader's understanding of the more ambiguous themes: positives of EWP, critiques of EWP, what EWP lacked, and takeaways. Note: some individuals offered more than one example of any given particular theme; this becomes evident when reflecting on the number of times the theme occurred across interviews and the number of specific responses below. Table 9 shows the distinctness of responses concerning each of the aforementioned themes.

Table 9: Distinctness of Participant Experience Regarding Ambiguous Themes

Theme	***Specific Responses***
Positive Aspects of EWP (7)	(a) EWP 7793 *East-West Spiritual Counseling Skills* (b) grateful for the learning experience (c) newfound curiosity for the field of Psychology (d) concentrated inner work (e) soul work "I'm a more congruent person…we've all grown immeasurably" (f) professional/academic preparation (g) development of critical thinking skills (h) development of analytical thinking skills (i) 500 hours of internship (j) receptive (k) non-judgmental (l) freedom/flexibility to co-create one's curriculum (2) (m) faculty support (n) nurturance of each individual student's psycho-spiritual unfolding (o) EWP 6150 Eastern Theories of Self, Mind, and Nature (3) (p) opportunity to be a spiritual innovator

	(q) constant challenge of engaging with a community of scholars (r) full support from faculty mentors to follow passion/curiosity
Critiques (4)	(a) expected professional development/preparation; not delivered (b) inappropriateness of some faculty members (c) unsupported, concentrated form of inner work (d) anti-intellectual climate (e) systematic and detailed approach to spirituality not present (f) dogmatization of specialty (g) the dept. killed the dream of Dr. Chaudhuri (h) allegiance to Sri Aurobindo and the Mother was marketed, yet not practiced/delivered (i) privileged/entitled student body (2) (j) hefty student loan debt (k) indefinable degree
What EWP Lacked	(a) lack of connection and applicability of studies to social issues (b) strong sense of community not present (2) (c) race/gender/class/social justice issues absent from the curriculum (d) professional development (2) (e) community/interpersonal support (f) more grounded approach to inner work and psycho-spiritual Development

Looking at the myriad of responses under each theme exposes a wealth of information regarding to what degree student learning outcomes match up with the educational vision set forth by CIIS and the EWP department. Student satisfaction levels were also indicated in the data collected, both in the sense of positive aspects of the program and what students report they are taking away from their time studying in EWP, as well as regarding more critical feedback and when students attest to feeling dissatisfied. Interestingly, one participant noted the professional and academic preparation in a positive light, and two others noted that was one aspect that was lacking in EWP. Sense can be made of this divergent perspective if one refers back to the CIIS course catalog literature from 1975-present. The participant who reported strong professional and academic preparation was an alumna of the EWP program back in the 1980s, whereas the two participants who mentioned this was an area of lack with EWP had been more recent, having graduated in the last five years. I would be curious to further explore the distinct iterations of EWP through alumni experience, using the course catalogs as a way to guide the organization of the sample. Also interesting to note is the evidence of correlation between the phases of research.

In the first phase of the study, 49% participants reported a deepened sense of self/expanded self-understanding when asked about their personal development in correlation to their EWP educational experience in the open-ended response data. The second phase also presented evidence of expanded self-understanding is present in the transcript data, and this was expressed in some of the responses categorized as takeaways. For example, interview participants reported increased somatic and emotional awareness, deepened self-understanding and self-knowledge, expanded awareness of shadow and increased integration capacity, as well as stronger sense of identity and passion as takeaways from their EWP educational experience. These examples warrant more exploration to be determined as qualities of deepened self-understanding, and they could prove useful in guiding future lines of inquiry.

The responses coded as "what EWP lacked," the “critiques,” as well as "no bridge," and "shadow side of spirituality in education" were less present in the first phase of the research. However, interview participants did mention the lack of professional development, and two more reflected on the lack of a bridge from studying at CIIS to transitioning into meaningful contributor to society. These interview responses were akin to the most prevalent response regarding the open-ended question which inquired into the nature of alumni professional development and its connection to their course of study and degree completion in EWP; 30% (N = 14) reported "not applicable."

Findings Summary and Conclusion

Considering all the responses from both phases, there is evidence of some correlation. The major themes revealed from the open-ended questions were validated in some ways through the qualitative interviews. Specifically, participants' responses in regard to personal and professional development in the first phase were shown in more detail in the second phase. For example, the most prevalent theme in the second phase, seeker/self-directed learner, was also present in the open-ended responses in regard to personal development. When asked about their EWP education and its connection to personal development, seven reported that their transformation and/or development was already in progress and would be a quality of their lives, whether they studied in EWP at CIIS or not. Both phases thus offer some information concerning the character, or personality of the students who decide to enroll and complete a graduate degree in EWP.

Overall the results of this mixed-method study point to the areas where the EWP program is doing well in terms of what students expect and what they actually get, and also to the areas that could use improvement if the department was to offer an education that better reflects the ideals of the Institute, as espoused by the program description and advertisement. The most significant findings are the revelations of the need for (a) more professional development for students completing a degree in EWP, (b) more practical application opportunities, for example, internships, teaching assistantships, scholarships, fellowships, and connection of studies to social and global issues, (c) more community/mentor support for students' personal psycho-spiritual unfolding, and (d) more training regarding the language and articulation needed to communicate the value of an integral education effectively with scholars/employers outside of CIIS.

There was also evidence in both phases that EWP is offering an educational experience that honors (a) multiple worldviews and perspectives, (b) the multidimensionality of experience, for example, physical, emotional, mental/intellectual, spiritual, relational, and (c) multiple ways of gaining valid knowledge, not just through the mind. Participants also reported across phases that they experienced (a) an expanded sense of self, (b) deepened self-awareness and/or knowledge, and (c) a new ability to hold multiple perspectives, even those contradictory to their own. Thus, there is evidence indicating that what CIIS aspires to is actualized according to some alumni reports.

The findings of this mixed methods study reveal perhaps more questions than answers; however, they are relevant to the EWP program, CIIS, and the field of higher education assessment research in general. Alumni perspectives on the personal and professional value of earning a non-traditional graduate degree helped to articulate what the Institute does well in regard to the practice of integral education, what could be better implemented, and where the Institute could grow. These findings suggest best practices, critical reflections, as well as recommendations to improve the integral education model in practice at CIIS, thus inviting further refinement of the practice of integral education, and movement towards greater alignment with the educational values CIIS strives to uphold.

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APPENDIX A
SURVEY QUESTIONS – TRANSFORMATION EVALUATION SCALE

Thank you for your willingness to participate in this research project exploring your educational experience in the East-West Psychology Program. Please read each of the following statements carefully. Reflect on your overall EWP experience as you consider each statement and then, using the following rating scale, please choose one of the five options listed below.

(5) Strongly agree
(4) Agree
(3) Neither agree nor disagree
(2) Disagree
(1) Strongly Disagree

1. Throughout the program, in general, I felt emotionally supported during class time.

2. My education in EWP helped me develop an expanded sense of self.

3. Learning about psycho-spiritual disciplines inspired me to develop a personal, regular self care practice.

4. The education I received from EWP helped me develop new levels of emotional maturity.

5. As a result of my education in EWP I was taught to honor multiple ways of knowing.

6. I became more mindful as a result of my education in EWP.

7. I learned how to experience embodied knowing as a result of my education in EWP.

8. I was challenged to become aware of and reassess my worldview assumptions through my EWP education.

9. My education in EWP awakened in me a sense of global citizenship and responsibility.

10. EWP offered me an Integral Education.

11. What I learned in the EWP program catalyzed a significant change in my lifestyle.

12. As an alum I still feel I am part of the EWP community.

13. My education in EWP helped me become more aware of the underdeveloped aspects of my personality.

14. As a result of my EWP education, my ability for authentic self-expression improved.

15. My EWP education has been indispensible to my professional development.

16. My education in EWP has helped me actualize my higher potentials.

17. My education in EWP fostered the development of interpersonal communication skills.

18. My EWP education made it possible to relate to all beings more authentically.

19. Through my education in EWP I learned to respect worldviews contradictory to my own.

20. The people I met during the program were instrumental to my growth.

21. My EWP education catalyzed a significant change in the way I relate to others.

22. My education in EWP taught me how to support others in their psycho-spiritual transformation process.

23. My EWP education had a noticeable positive effect on the quality of my relationships.

24. My education in the EWP program increased my capacity for genuine intimacy.

25. Being emotionally supported while completing my degree contributed to my spiritual/transpersonal development.

26. My relationship with the sacred (however you define that) deepened throughout the program.

27. While in the program, I felt part of a spiritual community.

28. EWP helped me develop a regular spiritual discipline.

29. As a result of my education in EWP, I am more mindful of my impact on the environment.

30. Being a part of EWP, I became part of a community which honors multiple worldviews.

31. My EWP education engaged the various aspects of my being.

32. The EWP program catalyzed a significant change in the way I relate to the world.

33. My education in EWP taught me to honor the multidimensionality of existence

34. Since completing my degree in EWP, my sense of self has expanded, allowing for more authentic spiritual expression.

35. My education in EWP has inspired me to experience life as an ever-unfolding evolution of consciousness.

36. Since completing my degree in EWP, I embrace an integral worldview.

37. As a result of my education, I actively seek opportunities to grow spiritually.

38. The education I received from EWP has helped me access greater understanding of my intuition.

39. In my experience, EWP fostered my psycho-spiritual transformation.

40. In retrospect, I had a positive experience of EWP overall.

The following three questions are open-ended

41. In your view, what characterizes integral education?

42. How has your EWP learning experience and degree completion contributed to your personal development?

43. How has your EWP learning and degree completion contributed to your professional development and current pursuits?

Women's Spirituality at CIIS: Uniting Integral and Feminist Pedagogies

Alka Arora[1]

Abstract: This paper articulates an educational framework termed integral feminist pedagogy, based on the author's experience teaching in the Women's Spirituality program at the California Institute of Integral Studies. Integral feminist pedagogy unites the principles and practices of both the integral and feminist traditions. The strength of integral pedagogy lies in its focus on the inseparability of an individual's mind, body, and spirit. However, integral pedagogy is often understood today in a way that divorces individuals from their social and political context. Feminist pedagogy, on the other hand, excels in raising students' awareness of social and political context, but may neglect individuals' psychospiritual realities. This paper argues that integrating the two traditions helps each better fulfill its vision of social transformation. In order to illuminate the core premises of integral feminist pedagogy, specific examples from classrooms in the Women's Spirituality program are explored.

Keywords: Integral education, diversity, feminism, social justice, spirituality.

> *Education at its best—these profound human transactions called knowing, teaching, and learning—are not just about information, and they're not just about getting jobs. They are about healing. They are about wholeness. They are about empowerment, liberation, transcendence. They are about reclaiming the vitality of life.* Parker Palmer (1997, p.3)

Introduction

How do we as educators hold our students as whole, embodied beings navigating a world of immense oppression but also of immense beauty? How do we engage them in thinking critically about power and privilege while also honoring and encouraging their self-expression and personal growth? How do we foster both "liberation," and "transcendence," as Palmer (1997) suggests the best education can do?

In this paper I attempt to answer these questions by articulating a model of integral feminist pedagogy that is based on my experience teaching in the Women's Spirituality program at the

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California Institute of Integral Studies (CIIS). This model marries two distinct pedagogical traditions that have each profoundly shaped my educational philosophy and practice. The integral tradition emphasizes the interrelatedness of mind, body, and spirit; feminist education, meanwhile, focuses on the connection between the personal and the political. To bring them together is to recognize that our “selves” – our minds, bodies, and spirits – are embedded within a system of social and political relations. We are multidimensional beings, possessing both interior depth and social breadth. An integral feminist pedagogy can engage students on these multiple levels at once, and thus provide a deeper level of transformation than is possible via either tradition alone.

I enter this conversation as a woman of color educator who has been teaching at the university level for seventeen years. I began my university teaching career as a graduate student at the University of Washington (UW), where I worked with undergraduate students in Women Studies classrooms. My experience of feminist education at the UW, as both a student and instructor, was powerful. The breadth and nuance of feminist politics came alive for me in these classrooms. However, I also experienced an internal dissonance as my spiritual self was left out of the discussions. I longed for a place to talk about my inner, spiritual life and how it was being influenced by what I was learning politically. In every class that I taught, I noticed at least a few students who seemed to share a similar longing.

Coming to teach at CIIS thus felt like a breath of fresh air. Finally, it seemed, I could be my “whole self” and find a welcoming space for the discussion of intuitions, dreams, encounters with the sacred, or intrapsychic realities. However, I soon came to see that many spaces at CIIS were absent of discussion of political structures and of gendered and racialized experiences, despite the founder’s vision of spiritual and social integration. My “whole self” was not welcome, after all. Many CIIS students (and faculty) tended to gravitate toward either spiritual or political realms, reproducing the dichotomy found in the culture at large. While my own program, Women’s Spirituality, explicitly strove to challenge this dichotomy, we had to do so against the grain of cultural conditioning that views spiritual and political liberation as wholly separate.

Despite the challenges, I believe that the Women’s Spirituality program has been able to offer a uniquely transformative education by consciously bridging the spiritual and political. As core faculty in the program, I have had the opportunity to reflect deeply upon how to interweave the two realms in the classroom. My articulation of integral feminist pedagogy is grounded in some of these everyday classroom experiences.

In the following sections, I examine the histories and core tenets of both integral pedagogy and feminist pedagogy. I then reflect upon the history and evolution of the Women’s Spirituality program at CIIS, highlighting the pedagogical challenges and opportunities the program has faced. In the final section, I share four core premises of the integral feminist pedagogical model I use in my own teaching.

Integral Pedagogy

At the very heart of integral pedagogy is the belief that education should engage not just the intellect, but also the inner dimensions of the person such that deeper levels of learning and transformation are made possible. While the tradition of integral education is rooted in the works of multiple philosophers, including Rudolf Steiner, Jean Gebser, and Ken Wilber (Esbjörn-Hargens, S., Reams, J., & Gunnlaugson, O., 2010) it is the work of Sri Aurobindo as explicated and implemented by Haridas Chaudhuri that has been so pivotal to the development of CIIS and of my own understanding of integral pedagogy.

Born in 1872 in British-controlled India, Aurobindo came of age at a time when rote, mechanical education was the norm. His belief that learning should be centered on the student, while commonplace today was radical for his time (Subbiondo, 2005, p. 20). In many ways, his focus on liberating students to discover their own truths prefigured the work of Paolo Freire (2008), whose critique of the “banking” model of education has had global influence.

Aurobindo, well ahead of his time, also advocated ideas that would later be associated with movements such as feminism and postmodernism. For instance, he asserted a belief in multiple truths and multiple ways of knowing. According to Reams (2010), Aurobindo valued "an integration of what were previously considered as paradoxes, a capacity to see previously disparate perspectives as interconnected" (p. 8). Unlike most of today’s postmodern thinkers, however, for Aurobindo these truths went beyond socially-constructed perspectives to also include the truths of the body and the spirit.

Integral education, sparked by Aurobindo’s philosophy, has from its outset recognized and honored the spiritual dimensions of the individual. It is based on the belief that “there is a mode of consciousness available to us that is qualitatively different from our common, ordinary, rational, everyday consciousness” (Reams, 2010, p. 8). By accessing this mode of consciousness—through meditation, art, or reflective writing, for instance—students and faculty tap into another source of knowledge that complements and enriches academic learning. Teachers who use integral methods might, for instance, interweave scholarly analysis with contemplative reflection; lectures with movement practices; or classroom discussion with sacred ritual. Such integrative practices support students’ capacity for deeper learning and transformation.

Aurobindo's emphasis on an individual's potential for transformation did not negate the importance of our social worlds. As Wexler (2005) notes, "since the nondualistic view [of integral philosophy] did not separate the Divine from the material world, there was also an emphasis on action in this world as an expression of our inherent spiritual nature” (p. 31). Indeed, Aurobindo's integral philosophy included a belief in cultural evolution driven by psychologically and spiritually mature persons who would herald a new, harmonious society.

As I mentioned above, numerous other thinkers have taken up the concept of “integral” education since Aurobindo’s time. While the integral tradition has become vast, I would like to summarize here what I see as the core practices of integral educators, who strive to:

- Create spaces where the numinous dimension of existence can be explored without forwarding any particular religious or philosophical dogma.
- Engage students’ inner lives in a way that supports their psychological and spiritual drive toward wholeness.
- Embrace multiplicity, paradox, and uncertainty while encouraging their students to do the same.

- Foster hope in the possibility of both individual and social transformation.
- Provide tools for students to explore deeper questions about the meaning and purpose of their lives.

Notably, this list includes an emphasis on the cultivation of social as well as individual growth. Indeed, Aurobindo was an anti-colonial revolutionary who fought for India's independence from British rule. His teachings were not apolitical. However, as they made their way to the US, integral ideas became practiced in a way that has generally privileged an individualistic perspective over a collective one. This stems in large part from the relatively privileged social status of early adopters of this framework, as well as the individualism inherent in Western capitalist society. It also derives from the fact that integral education was taken up with great zest by psychologists, who are primarily trained to look at individuals in the context of their family and interpersonal dynamics, rather than at macro-systems. Wexler (2005), Academic Vice President at CIIS, has acknowledged this danger in integral education:

> Another risk is that the emphasis on the personal may create the illusion that everything is personal and individual, with little recognition given to the impact of society, social roles, or power dynamics. Thus, for example, the discussion of diversity in this environment faces particular challenges related to the emphasis on personal development. We hear white students talk of their spiritual work as having enabled them “to move past diversity” without recognizing the cultural and social constraints that make such transformation impossible in terms of life in contemporary society. (p. 32)

Wexler's comment affirms my own experience with students at CIIS, particularly those from privileged racial or class backgrounds. Given the tendency toward privatized notions of psycho-spiritual growth in the West, I assert that educators must actively bring in a social and political analysis to remain true to the vision of integral pedagogy. The insights and strategies emerging from feminist pedagogy can be invaluable here, and I turn now to an overview of this tradition.

Feminist Pedagogy

In contrast to the self-focused idea of “transformation” that is espoused in many integral classrooms, the feminist pedagogical vision is one of widespread social transformation. Such transformation involves a restructuring of the relationship between the genders, at minimum; more and more feminist educators today hold a wider vision that involves a radical transformation of gender, sexuality, race, our economic system, and relationship to the earth. Feminist educators view the classroom as a site where students can become critical thinkers who question the status-quo and who develop deeper insights about social and political relations. With an expanded understanding of the world and their place in it, students can develop the necessary agency to change it.

The history of feminist pedagogy is rooted in the women’s liberation movement of the 1960s and 1970s. While women were entering the halls of higher education in ever-increasing numbers, they realized that the content they were learning continued to be developed and taught by men – predominantly white men. Examining higher education curricula of that era, feminists “observed that sometimes women were missing altogether, sometimes women appeared only in images that reflected men's perspectives, and sometimes women's activities and everything considered feminine were devalued" (Boxer, 1998, p. 52).

Feminists developed alternative sites of knowledge production, coming together in "consciousness raising" groups where they discussed their experiences of sexism and developed shared analyses of patriarchal oppression. These leaderless groups, where women sat in a circle to share their lived experiences, came to emblemize feminist education and greatly influenced the structure of women's studies classes. Podiums and formal lectures were supplanted by students sitting face to face, engaging with each other and with course texts in a dialogical manner. The teacher's role morphed from "expert" to guide and facilitator; students were invited to view themselves as co-creators of knowledge (Boxer, 1998; Fisher, 2001).

Feminist pedagogy evolved in conversation with critical pedagogy, a tradition based in a critique of capitalist power relations. Critical pedagogy challenges the class based inequalities that have been perpetuated through mainstream education. Paulo Freire is widely considered the father of critical pedagogy; here, Shaull (2000) summarizes Freire's perspective on education:

> Education [for Freire] either functions as an instrument which is used to facilitate integration of the younger generation into the logic of the present system and bring about conformity to it, or it becomes "the practice of freedom," the means by which men and women deal critically and creatively with reality and discover how to participate in the transformation of their world. (p. 34)

The critical tradition brought to feminist pedagogy an expanded focus on class and political economy. Meanwhile, feminists of color stressed the importance of racialized power relations, and helped move feminist pedagogy away from universalizing women's experiences.

All of these influences helped bolster the feminist insight that that one's social location and access to power profoundly shape what one knows and how one sees the world. Feminist educators challenge the concept of academic "objectivity," "see[ing] it instead as a mask for bias" (Boxer, 1998, p. 73). Suspicious of androcentric and Eurocentric biases in scholarship, feminist teachers seek to uncover the stories and realities of women, people of color, and others who have been marginalized or oppressed.

As issues of race, class, and sexuality came more to the fore in feminist classrooms, female students could no longer see themselves as simply targets of patriarchal oppression. White, middle-class, and heterosexual students had to reckon with their privilege in a complex system of power-laden identities. The feminist educators' job, then, became not only one of empowering women students but also of challenging them to recognize their privileges.

Even as feminist pedagogy has evolved over time, what remains distinctive about it is its recognition that matters previously considered purely "personal," are, in fact, collective and political concerns:

> Topics that had been considered strictly "personal," such as how a woman felt about her body, how sexual violence or sexual pleasure affected her, the consequences of marrying and having

children, what it meant to become educated, how to deal with problems at work, at home or outside it, all became the focus of intense discussion [in consciousness raising groups, and later in feminist classrooms]. (Fisher, 2001, 29)

Such "personal" concerns become a central focus point for feminist organizing because they reveal broad social patterns such as gender-based violence, economic inequities, and limiting gender roles. The first-person narratives of women help illuminate systematic and institutionalized imbalance of power structured by gender, race, and class. Historical and political context is integrated with narratives of lived experience to develop feminist theory and praxis.

To sum, feminist educators:

- Believe that education can and should inspire social transformation and the undoing of patriarchal systems.
- Engage students in historically situated analyses of power and privilege.
- Embrace narratives of personal experiences as sources of knowledge and alliance building.
- Support students in unlearning internalized oppression and internalized privilege.

Like integral educators, feminist teachers ask students to bring their whole selves into the classroom—but this "whole self" is understood not as "mind/body/spirit" but rather as a socially and politically situated self. Whereas the integral educator's goal may be to examine patterns in the human psyche or in spiritual experience, the feminist educator's is to do so in the context of social and political patterns.

However, in my view, feminist pedagogy in the secular academy has suffered from being steeped so deeply in a materialist analysis of oppression that the numinous dimensions of life have been marginalized. Helen LaKelly Hunt (2004) points out the irony that many feminist sites that welcome discussion about some of the most intimate aspects of our lives—sexuality, for instance—still consider spirituality a taboo topic. Thus, while inviting students to bring their embodied experiences into the classroom while negating their spirits, feminist educators may inadvertently reproduce the split between the "private" and the "political" that they decry. Bringing an integral lens to bear on feminist education can, therefore, help feminist pedagogy better fulfill its vision.

Women's Spirituality at CIIS

While women's spiritual experiences remained marginal to feminist discourse at large, they were centered in the emerging women's spirituality movement of the 1980s. Spiritual feminism grew out of the same mix of consciousness-raising and political activism that motivated secular feminisms. But while many secular feminists adopted the Marxist view of religion as simply the "opiate of the masses," spiritual feminists looked deeper. They agreed with secular feminists that patriarchal religions upheld women's oppression. However, rather than casting out religion altogether, spiritual feminists insisted that the spiritual impulse preceded patriarchy, and that the practice of woman-affirming spirituality held the key to transforming it.

The Women’s Spirituality program at CIIS, founded in 1992, grew out of this women’s spirituality movement. Scholars and practitioners took the feminist query “what happens when women ask the questions?” (Boxer, 1998, title page) to the realms of religion and spirituality. What they found was that the world’s historical religions have been preponderantly developed for and by men, and specifically the elite men of any given society. Moreover, these religions have sustained the structural oppression of women and as well as women’s own internalized oppression.

Many of these scholars focused on uncovering suppressed knowledge about ancient Goddess and mother-centered societies around the world. Others reclaimed female spiritual leaders and woman-affirming teachings within the existing traditions. Regardless of their approach, what united them was the conviction that transforming symbol systems and religious worldviews were key to women’s liberation.

Pedagogically, Women’s Spirituality at CIIS shared with women’s studies a focus on linking the personal and political, bolstering women’s agency, and transforming androcentric curricula. However, the focus on interior, spiritual experiences made this program distinct from women’s studies programs and is why it found a home at CIIS. Though Women’s Spirituality had different intellectual roots than the integral tradition, both shared the belief in the interrelatedness of mind, body, and spirit.

Students in our program have been supported in excavating their own relationships to patriarchal symbols and tropes, and in exploring an alternative, embodied, and relational sense of the female Divine. At the same time, they have increasingly been challenged to analyze the complex social and political systems that affect the concrete lived experiences of women—and of all genders—today.

Integrating these two modes—the spiritual and the political—has been a creative challenge. Even as faculty in the program strive to break down the binary between the two, we are embedded within a wider discursive terrain where the spiritual and political are split. The texts we rely upon often stress one domain over the other, as do many of our academic associations. Given this cultural splitting, it is perhaps unsurprising that different students come to the program with interests more strongly in one realm or the other. Some of our students have expressed a desire to study women’s spirituality without having to study feminism, unaware how the two have always been intertwined. Others, meanwhile, have been drawn to us primarily because of our focus on social justice, and enter the spiritual discourse more tentatively.

In addition, the program itself has gone through a significant evolution over the years. The original program was focused more on women recovering their agency as those who had been oppressed through patriarchy. Primarily Euro-American, these women held significant racial and class privilege despite having experienced significant sexism in their lives; such privilege allowed them to focus primarily on healing from oppression. As more working-class women and women of color joined the program, the recognition that women, far from being innocent victims of an undifferentiated patriarchy, also colluded in the oppression of other women, came to the fore. Thus, finding ways to raise students’ awareness of their own privilege or oppressive attitudes became increasingly important.

Meeting these pedagogical challenges has led me to reflect on how to best integrate the interior and psycho-spiritual dimension of integral teaching with the relational and political dimension of feminist teaching. By uniting these two traditions, we can foster deeper transformation than is possible with either alone. In the following section, I outline some of the core premises of this integral feminist pedagogy.

Integral Feminist Pedagogy

The first premise of integral feminist pedagogy is that both educators and learners are multidimensional beings who must be engaged as both spiritual and political agents. As feminist and critical perspectives have demonstrated, we are each situated within specific social, historical, and political locations that shape our experiences and our standpoints. However, an integral feminist perspective suggests that we are each also situated within a specific metaphysical worldview that both reflects our sociopolitical location and shapes how we respond to it. In this view, even atheism has its own set of metaphysical presuppositions and is culturally and historically specific.

In the Women's Spirituality program, for instance, we discuss how exclusively or predominantly male images of the Divine have helped create a social system that privileges male experience. We also examine how spiritual practices that help individuals tap into their own inner wisdom may support liberation from patriarchal conditioning and authority. In some classes, we might explore differing beliefs on how metaphysical tools such as prayer or ritual might influence material reality and social conditions.

This engagement with students as spiritual and political beings leads to my second premise, which is that social justice education must address students' inner worlds. Coming into consciousness about systems of oppression brings with it a multitude of emotions as well as deep questions. Students' grief, anger, and shame about the violence and oppression in our world often lead to questions about meaning and purpose. For instance, they may strive to make meaning of collective suffering and reflect on their desires to be agents of change. Some students wonder what they can believe in when they came to realize that so much of what they have been taught is based in oppressive ideologies. By providing a space in which students can have an open dialogue about these types of questions, educators can help foster students' ability to access their own inner wisdom as they struggle to make meaning.

The third premise of an integral feminist pedagogy is that psychospiritual maturity requires one to awaken to issues of oppression and injustice. Esborn-Hargens et al. (2010) note that integral education includes "shadow work". They write:

> We also have learned the importance of students and teachers become more self-reflective and increasingly aware of their trigger points - what makes us reactive, dismissive, or shut down to ideas and other people. By learning to look at what we do not want to see in ourselves (and others) we become more compassionate and open to learning. This is an ongoing process of owning our projections, minimizing idealization, avoiding the tendency to split things into good and bad, catching ourselves when we are rationalizing away our responsibility and so forth. (p. 6)

Much of the discussion of shadow work in this type of literature focuses on our projections within interpersonal relationships; while valuable, this literature has yet to attend to the role of relationships of oppression and dominance that also comprise our “shadows.” By creating a space wherein students can openly explore how systemic oppression has become steeped in all our psyches, we can develop non-shaming ways of decolonizing attitudes.

A specific example from one of my classes can help illuminate this point. I teach a course titled Building Conscious Allyship, which introduces students to a broad scope of social justice issues in a way designed to build empathy, reflection, and the desire to foster change. While the content of the class is primarily on understanding how oppressions from racism to ableism operate on both macro and micro levels, the process involves deep inquiry work and dialogue. At the end of the term, a thirtysomething year old white student, whom I'll call Jennifer, wrote the following:

> So, my own internalized shame story about being white in a racist society can be an entry point for consciousness, or, without awareness, it can serve to generate reactions that numb me into reproducing the very conditions that create the feeling ... What one discovers about consciousness, however, is it’s not just the bright light shining; the light reveals all that has heretofore been concealed. The shadows. The unseen. The pushed away. In our desire to be allies to one another, we will invariably and inevitably butt up against those places in ourselves (be it our privilege, our complicity, our own victimization, our silence, our betrayals of self and other, etc.) that we might rather not meet. (unpublished manuscript, n.d.)

She continues with a reflection on how her spiritual life necessitates the work of unlearning oppression:

> If my primary spiritual task includes remembering myself as whole, divine, and holy, and thus to re-member (bring into the body and into membership/ community) the divine Source in all beings, then it is also my task to explore where (and how and why) I am resisting that truth through participation (unconscious as well as conscious) in and the recreation of structures that oppress anyone or anything in my name. (unpublished manuscript, n.d.)

As Jennifer's reflections so beautifully capture, psychospiritual transformation and social transformation are not separate spheres; they can be one and the same. By refusing to privilege politics over inner spiritual work, or vice versa, integral feminist educators can facilitate students' processes of making their own connections between these entwined dimensions.

The fourth premise of my integral feminist model, which follows from the first three, is that we must understand the human drive toward healing and wholeness as a collective rather than purely private endeavor. When understood in collective terms, healing and wholeness are no different than justice and liberation. As Cornel West has famously stated “justice is what love looks like in public.” Too often, students are asked to engage issues of oppression in a disembodied, academic way that leaves little room for the creativity of their spirits. When we open up the possibility for them to see that their own spiritual well-being is intricately tied to the well-being of all, West's statement becomes an embodied truth.

Conclusion

This paper put forth a vision of an integral feminist pedagogy that interweaves the best practices of integral pedagogy with those of feminist pedagogy. The histories of both traditions reveal a focus on multiple truths, embodied experience, and social transformation. However, the integral tradition as understood in the contemporary West has too often been apolitical, while the feminist tradition has been “aspiritual.” In the Women’s Spirituality program at CIIS, we challenge the split between the political and spiritual and we encourage students to recognize how the two realms have always had mutual influence. Based on my experience teaching in this program, I articulate four key pedagogical premises of an integral feminist paradigm. I contend that this paradigm can support a process of deep psycho-spiritual and political transformation.

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The Divine Feminist: A Diversity of Perspectives That Honor Our Mothers' Gardens by Integrating Spirituality and Social Justice

Arisika Razak[1]

Abstract: While spirituality has often been separated from feminism, this essay suggests that a number of prominent theorists in the diverse fields of Africana Studies (Amadiume, 1998; Badjo,1996; Teish,1994); Chicano Studies (Anzaldua, 2007/1987); Indigenous Studies (Harjo, 1991; Mehesuah, 2003); Islamic Studies (Wadud, 2006); Queer Studies (Grahn, 2009); and Women's Spirituality/Women and Gender Studies (Brooten, 2010; Walker, 1983) have all linked empowered roles for women and other oppressed groups to contemporary and historic liberatory spiritual frameworks and culturally specific Indigenous roles for women and other oppressed genders. The contemporary *divine feminist,* (a term coined by Professor Alka Arora) is one who walks the contested borderlands between secular feminisms, philosophy and religious studies, and ethnic/indigenous studies. They integrate diverse spiritual frameworks elaborated by people of color, liberatory theory and praxis supporting the empowerment of women and other oppressed genders with Euro-American academic perspectives, and contemporary disability and embodiment studies to develop new forms of activism, scholarship and alliance building that benefits the Earth and all sentient life.

Keywords: African Diasporic Spiritualities, African women, Alice Walker, Amina Wadud, borderlands frameworks, divine feminine; divine feminist, Gloria Anzaldua, Indigenous Studies, Luisah Teish, *nepantiera,* Oshun, Women's Studies, womanism, Women's Spirituality.

I begin by honoring "our mothers' gardens," a phrase taken from the essay, *In Search of Our Mothers Gardens* by Alice Walker (1983). In her essay, Walker honored the many poor and working class Black women who were denied the time and leisure to create what the Western world deems as 'art' – but whose work in designing quilts, making songs, or growing large "ambitious (flower) gardens" (p. 241) reflected their need to create beauty and art *regardless* of their circumstances. Her loving tribute to those who came before her reflects indigenous protocols of respect, which are embedded in many traditional spiritual practices of Africa and the Americas.

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In these traditions, before any ceremony begins, the human community must acknowledge those who came before us, on whose shoulders we stand. In many holistic, embodied indigenous religions, those whom the West designates as 'human beings' include the dead, the living, and the yet to be born. They include those who have recently died, the older yet still remembered ancestors, and those ancestors born so long ago that they are seen as spiritual entities, who stand as intermediaries between human life and the primal powers of the universe. These primal powers include elemental forces of wind, water, earth, fire, metal and air. They include the life-giving and life guiding presences of the sun, the moon, the mountains, and the stars. They include rivers, deserts, oceans and streams as well as herbs, plants, and forests. Finally, they include the spirits that animate all our human and non-human kin and the deities who preside over the entire web of life—those who have guided the life and work of our ancestors in the past, who continue to inform the life and work of our kin today, and who will – Spirit willing – continue to inform the lives of our children, grandchildren and great grandchildren.

Following this tradition, I begin by acknowledging the many artists, activists, teachers, and scholars who have not only contributed to my thinking, but who have made the world a better place through their thinking, their courage, their generosity and their work. Some of the women I wish to acknowledge are established scholars, whose written works are published and well known. Others, less well known, are community activists, healers, and religious practitioners. Some, nameless, and unknown, are mothers, community mothers, other-mothers[2] and elders. They include the unknown ancestors who endured the unspeakable, in hopes that life would be better for the children. I am their descendant and I honor them with a poem by Luisah Teish[3] entitled "Mother of the Night."

I am the Mother of the Night.
The Great Dark Depth, the Bringer of Light.
All that was, that is, that ever shall be,
All that could or should can only come from me.
High above and far below. I am the ebb, I am the flow. The
    stars in the sky, the fish in the sea. Every seed, every
    stone, every critter is me.
I am the Center, the Beginning the End. I am without and
    I am within. I am the lair, the nest and the den. I am
    the Earth, the Water and Wind.
The Horned Cow, the many-teated Sow, the Queen bee,
    the Mothertree, the Pregnant Womb, the Grain-seed

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[2] This term arises out of the African American notions of extended family and *fictive kin* which recognize biological motherhood as well as extended "family" relatives who take in, care for, and shelter the young of the community when their own parents are unable or unwilling to do so. While they may be called "mother" "aunt," "uncle," "cousin," etc. *fictive kin* may or may not be related by blood; sometimes they are related only by ties of affection. See Collins, P.H. (2000). *Black feminist thought: Knowledge, consciousness, and the Politics of Empowerment* (2nd Ed.) New York: Routledge, pp. 179-183.

[3] Luisah Teish, Woman Chief, initiated elder and *Iyanifa*, is an internationally known scholar and healer. Her works include: Teish, L. (1985). *Jambalaya: The natural woman's book of personal charms and practical rituals.* New York: HarperCollins. Teish, L. (1994). *Carnival of the spirit: Seasonal celebrations and rites of passage.* New York: HarperSanFrancisco.

broom, the candle's wick, the Matrix, and woman,
you are my daughter.
Praise and Love to the Mothers of the World.
Praise and Love to the Sisters of the World.
Praise and Love to the Women of the World.
Praise and Love to my daughters.
To the women in the fields, who plow and plant and turn
mill wheels. To those who spin and weave at looms
who make the mats, the cloth and brooms. To those
who sew the royal robes, to those who pierce the
child's earlobes. To those who rub and oil and braid.
To all the Queens and all the Maids.
Praise and Love to my daughters.
To those who nurse babes on their breasts, who carry on
without due rest. Then rise up early as the dawn to
mend the fence and mow the lawn. To those who mix
and stir the pot, to those who bake and clean and
mop, to those who have and   who have not.
Praise and Love to my daughters.
Praise and Love to those who seek, to those who know and
those who speak. To those who smile with tender eyes,
whose wisdom penetrates the lies. To those who sing
and those who cry. For those who fight for right and
die! To those who live to ripe old age, to great-grandma
the family sage. Praise and Love to my daughters.
To those unborn and yet to come, we bid you on with
song and hum. From other worlds and through birth
water. Come forth child, beloved daughter.
Praise and Love to the Mothers of the World.
Praise and Love to the Sisters of the World.
Praise and Love to the Women of the World.
Praise and Love to my daughters. (Teish, 1994, pp. 22-23)

In this poem, Luisah Teish who is an initiated elder, an *Iyanifa*[4] and a woman-chief, offers honor and praise not only to the Goddess, and her daughters of the natural world, but to the many ordinary and extraordinary human women who are Her living embodiments.[5] The common tasks that she names are works that sustain, heal and enrich the world, making life possible and enjoyable for millions of people locally and globally. Even today, this work is carried out by millions of women throughout the world.

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[4] *Iyanifa* is a priestly title in the Yoruba religious system that is granted to women who are considered "mothers of wisdom" or full diviners. See : Badejo, D. (1996b). *Osun Seegesi: The elegant deity of wealth, power and femininity (*pp. 90-93).Trenton, NJ: Africa World Press.

[5] While I have no desire to *essentialize* that work that women do as mothers, and child rearers, or to limit our capacities to work that is pre-industrial in nature (thus denying our intellectual, scientific, and scholarly abilities), the work that Teish names is still done by a majority of working class women all over the world.

I know that for some, the term, ‘Divine Feminist’[6] is quite confusing. I want to acknowledge Dr. Alka Arora, faculty member of the CIIS Women’s Spirituality Program for first coining this term. In what is commonly called the Western worldview – and I acknowledge that there are currently a variety of ‘Western’ worldviews – the sacred and secular realms, if not opposed, are at least separate. The term, ‘divine feminist’ represents my attempts to bridge these two very distinct and conflicting world views.

However, if we explore the work of borderlands/*nepantlera* theorist, Gloria Anzaldua (2007/1987, pp. 99-120) we find a discussion of the contested areas of conflict and convergence, which frame the diverse and opposing paradigms in which many of us live. In an essay titled “La Conciencia de la Mestiza/Towards a New Consciousness” (Anzaldua, 2007/1987, pp. 100) , Anzaldua refers to the theories of Mexican philosopher Jose Vasconcelos regarding *La Raza*, the multi-ethnic, bicultural people who emerged from the forced encounters between the Spanish conquistadores, and the Indigenous inhabitants of Latin America:

> Opposite to the theory of the pure Aryan, and to the politics of racial purity that white America practices, his theory is one of inclusivity. At the confluence of two or more genetic streams …this mixture of races rather than resulting in an inferior being, provides hybrid progeny, a mutable … species with a rich gene pool. From this racial, ideological, cultural and biological cross-pollinization, an ‘alien’ consciousness is presently in the making – a new *mestiza* consciousness, *una conciencia de mujer.* It is a consciousness of the Borderlands. (Anzaldua, 2007/1987, P. 99)

Developing this theory further, Anzaldua continues:

> Cradled in one culture, sandwiched between two cultures, straddling all three cultures and their value systems, *la mestiza* undergoes a struggle of flesh, a struggle of borders, an inner war. Like all people, we perceive the version of reality that our culture communicates. Like others having or living in more than one culture, we get multiple, often opposing messages. The coming together of two self-consistent but habitually incompatible frames of reference causes *un choque,* a cultural collision. (Anzaldua, 2007/1987, P. 100)

While all of us do not (and should not) claim a *mestiza* identity, I would argue that many of us straddle traditional, non-traditional, and modern world views. We are trying to walk a path of integrity that honors and integrates older more holistic practices, while remaining within the framework of the modern techo-industrial West in which we have been raised.

A *divine feminist* is one who walks the contested borderlands between secular feminisms, religious studies, and ethnic/indigenous studies. We stand at the crossroads where goddess studies, feminist studies in religion, and newer spiritual frameworks elaborated by people of color and others involved in the reclamation and renewal of women and other oppressed gender’s ancient and contemporary roles, rights and powers meet. We weave together Euro-centric perspectives on philosophy and religion with older frameworks drawn from goddess studies, ethnic/indigenous studies and new paradigms in women, gender and disability studies, to name a few of the transdisciplinary areas that women's spirituality touches upon. We are claiming and reclaiming ancestral traditions. We are using our knowledge, and the knowledge and spirituality of our ancestors to inform our activism. We are uncovering the original women-honoring traditions buried in frameworks labeled patriarchal; we are making alliances across difference and continually interrogating and challenging our work and the work of others.

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[6] This paper by Dr. Alka Arora, titled: *The Divine Feminist*, was part of a panel at 2016 Founders Symposium at CIIS and is included in this special issue of Integral Review (Vol. 13, No. 1, 2017).

While the terrain that the divine feminist walks is contradictory and perplexing, its breadth allows us to be more fully inclusive of our human lives and our human struggles. The term, 'divine feminist', is related to, but not synonymous with, the term 'Divine Feminine'. The Divine Feminine is often used to describe female divinities. However, when we imagine female divinity, we all too often imagine a 'Divine Feminine', which is perfect: healthy, able-bodied, symmetrical and *perfectly* beautiful. All too often, we fall into a trap in which we choose the unattainable 'ideal', rather than the material, the real, and the mundane in order to represent what is spiritual and 'beautiful'.

I've been studying women's visionary art for a long time – and I finally understand what some of my students who reject the term 'Divine Feminine' have been telling me. If we talk about a 'Divine Feminine'; surely she's different from the fat, imperfect, female body that sweats besides us at the gym, or who squats, ragged, smelly and homeless on the street. The slender, full-breasted, long-haired, narrow-waisted, full-hipped 'Divine Feminine' that is celebrated in contemporary artistic depictions of female divinity all too often looks like a white, brown, or golden-skinned Barbie doll, or even worse, a Playboy pinup[7].

Even in women's goddess circles, we rarely see or imagine the Divine Feminine as embodied by the gender queer youth or the middle aged butch; she's not the disabled woman with cerebral palsy or an elderly woman of color living with dementia in a nursing home. In the dominant culture worldview, which confines us to binary boxes – i.e. good versus evil, beautiful versus ugly, white versus non-white, young versus old, able-bodied versus disabled, cis-gender male versus cis-gender female – we only count if we are able to successfully present as embodying the qualities deemed most worthy by the dominant culture.

In addition, dominant culture values may be as embedded in the alternative movements we create, as they are in the systems we struggle against. All too often, the Goddess – who in some traditions is a primary spiritual icon of liberation – is embodied by images reflecting the values of the dominant culture, rather than images that reflect our actual cis-or-trans-gendered bodies.

Fortunately, all of us have roots in indigenous traditions that valorized the 'real' or material world as well as the spiritual realm. In many 'traditional' indigenous world views, everything is part of Creation – and everything is sacred. In a poem written by Native American (Mvskoke Nation) Joy Harjo titled "Remember," the poet states:

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[7] While some readers may view Barbie dolls and Playboy pinups as positive, I see them as representing unrealistic and/or unattainable templates of female embodiment, since the form they present is rarely seen naturally, and many women and girls experience mental, physical and emotional suffering in their attempts to attain this ideal.

Remember the sky that you were born under,
know each of the star's stories.
Remember the moon, know who she is. I met her
in a bar once in Iowa City.
Remember the sun's birth at dawn, that is the
strongest point of time. Remember sundown
and the giving away to night.
Remember your birth, how your mother struggled
to give you form and breath. You are evidence of
her life, and her mother's, and hers.
Remember your father. He is your life, also.
Remember the earth whose skin you are:
red earth, black earth, yellow earth, white earth,
brown earth, we are earth.
Remember the plants, trees, animal life who all have their
tribes, their families, their histories, too. Talk to them,
listen to them. They are alive poems.
Remember the wind. Remember her voice. She knows the
origin of the universe. I heard her singing Kiowa war
dance songs at the corner of Fourth and Central once.
Remember that you are all people and that all people
are you.
Remember that you are this universe and that this
universe is you.
Remember that all is motion, is growing, is you.
Remember that language comes from this.
Remember the dance that language is, that life is.
Remember. (Harjo, 1991, p. 234)

This poem reminds us that in the indigenous world, *everything* is sacred. Intellectually, I had been aware of this for decades, but its true meaning eluded me. The good, the bad, the human, and the non-human – are all part of the Indigenous circle of life. My friend, teacher, and colleague, Angelita Borbon, states that indigenous thought is based on the three R's: respect, relationship and reciprocity. We live, she says, in an embodied universe in which there are numerous living entities, many of whom are not human. Our life is conducted in *relationship* to these entities, which include – but are not limited to – the elements of earth, air, fire, water, metal and rock; the life forms which share the earth with us – represented by plants, animals, birds, insects, microbes, and fish – and the mountains, rivers, caves, trees or oceans which embody sacred sites.

According to San Francisco elder, healer, and Indigenous spiritual teacher, Dr. Concha Saucedo-Martinez, co-founder of Instituto De La Raza in San Francisco, we owe these powers *respect*, since they are the forces that make life possible. The Four Directions are not compass directions, metaphors or psychological archetypes – they are the spiritual powers and sacred entities that enable human beings to live on this planet.

In private conversations with me when we were doing diversity trainings together in the 1980s, Borbon explained the concept of reciprocity to me. Reciprocity, according to Borbon (personal communication, n.d.), means that what we do as humans, comes back to us. It’s no surprise to indigenous peoples that if we pollute the land and the waters, that this act will affect our lives – and the lives of our children and grandchildren. All things are connected and the acts we take or don’t take have real repercussions in the world.

In this world of sacred sentient life, we are all sacred because that’s how we were born. We’re not less sacred because we’re disabled or different; the drunken woman who has abandoned her child has lost her way, but she’s still a sacred being. She needs help and healing – and if she persists in following a particular road, certain consequences will occur. However she’s still a child of Creator and a manifestation of the Divine. And in some Indigenous traditions, which understand and accept the many roads that humans travel, there may be a special deity for the thief or the prostitute or the one who’s lost their way. *All* are part of the circle of life. The idealized Divine Feminine may not live in this realm, but the divine feminist transverses it. She knows that roads can change, and that light follows darkness and that darkness follows light. Braided together like life and death, suffering and ease, the divine feminist is the common woman that Judy Grahn writes about.

> She’s a copper headed waitress,
> tired and sharp-worded, she hides
> her bad brown tooth behind a wicked
> smile, and flicks her ass
> out of habit, to fend off the pass
> that passes for affection.
> She keeps her mind the way men
> keep a knife – keen to strip the game
> down to her size. She has a thin spine,
> swallows her eggs cold, and tells lies.
> She slaps a wet rag at the truck drivers
> if they should complain. She understands
> the necessity for pain, turns away
> the smaller tips, out of pride, and
> keeps a flask under the counter. Once,
> she shot a lover who misused her child.
> Before she got out of jail, the courts had pounced
> and given the child away. Like some isolated lake,
> her flat blue eyes take care of their own stark
> bottoms. Her hands are nervous, curled, ready
> to scrape.
> The common woman is as common
> as a rattlesnake. (Grahn, 2009, pp. 10-11)

She’s the resister, the survivor, the teacher, the healer. She’s the abused woman leading other women out of brothels; the acid burned woman who walks with her scars publically and tells others to resist. She's Lora Jo Foo[8], the daughter of a Chinatown sweatshop worker – and a garment worker, herself at 11 – who grew up to become a labor organizer and attorney – and who broke the silence about her family's life in a memoir of photographs that document her healing. She's Dorothy Allison (1994), the lesbian organizer of battered women's shelters who was kicked out of the feminist movement because of her alternative sexual practices. She's Amina Wadud, African-American Qur'anic theologian who proudly asserts:

> As a descent of African slave women, I have carried the awareness that my ancestors were not given any choice to determine how much of their bodies would be exposed at the auction block or in their living conditions. So, I chose intentionally to cover my body as a means of reflecting my historical identity, personal dignity and sexual integrity. (Wadud, 2006, p. 221)

She's Doris Davis, an orthodox Jewish teacher from Long Island whose husband refused to grant her a divorce – effectively preventing her from being able to re-marry within her community. With help from the Organization for the Resolution of Agunot[9], she led rallies outside of her husband's home and posted his photo in synagogues in Brooklyn – protests which eventually led to his granting her a divorce (Brooten, 2010).

She's you and me and women we'll never see – and yes she's divine because what's more spiritual than our liberty and freedom? What's more spiritual than struggling to stay alive and make a better world for those you love – your family, your children, your community?

The issue of spirituality can also be problematic. The linkage of social oppression with dominant culture religious traditions has a long and multicultural history. That legacy is very much alive today. Many feminist scholars are acutely aware of how women, LGBTQIQASGLP[10] people, and queer/third gender communities are oppressed by fundamentalist religious traditions both here and abroad. Christianity taught to enslaved Africans by their Euro-American owners justified slavery and encouraged the slaves to be content with their lot. The ill treatment of Dalit people in India was justified by certain strands of Hindu religion. And at different points in time, all three Abrahamic religions accepted the fact that female captives could become the sexual slaves of men who owned them. This means, and let me be explicit, that these women could be raped at will.

That said, religion has also been used to support resistance. The verse *Osa Meji,* is one of the Yoruba *odu* found in *Odu Ifa,* the compendium of stories, proverbs, divinations and moral and ethical guidelines, which form the body of the sacred oral 'texts' of traditional Yoruba religion. There we find that even when sexism is postulated to exist at the time of Creation, it turns out not to be sanctioned by the Supreme Being. According to *Osa Meji,* when the original (17 in some versions and 401 in others) orishas, or deities, came to the earth to make the world habitable, they excluded Oshun, the only female deity who travelled with them, from their deliberations. In his modern translation of the Yoruba text, Maulana Karenga writes:

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[8] Foo, L. J. (2008). *Earth passages: Journeys through childhood.* Castro Valley, CA: Earth Passages Nature Photography.

[9] The Organization for the Resolution of Agunot is a non-profit organization based in New York whose mission is to "eliminate the infliction of abuse within the Jewish divorce process." http://www.getora.org/#!about-us/cxeg accessed 6/28/2016.

[10] LGBTQUIQASGLP or lesbian, gay, bisexual, transgender, queer, intersex, questioning, asexual, same gender loving pansexual.

> This is the teaching of Ifa for Odu
> 　　Obarisa and Ogun,
> When they were coming from heaven to earth.
> Odu asked: “O Olodumare, *Lord of Heaven,*
> 　　this earth where we are going,
> What will happen when we arrive there”
> Olodumare said that they were going to make
> 　　the world
> So that the world will be good.
> He also said that everything that they were
> 　　going to do there,
> He would give them the ase, power and authority,
> 　　to accomplish it,
> So that it would be done well.
> Odu said “O Olodumare this earth where
> 　　we are going,
> Ogun has the power to wage war.
> And Obarisa has the ase to do anything
> 　　He wishes to do.
> What is my power?”
> Olodumare said: “you will be their mother forever.
> And you will also sustain the world.”
> Olodumare, then gave her the power
> And when he gave her power, he gave her
> 　　the *spirit* power of the bird.
> It was then that he gave women the power
> 　　and authority so that anything men
> 　　wished to do,
> They could not dare to do it successfully
> 　　without women.
> Odu said that everything that people would
> 　　want to do,
> If they do not include women,
> It will not be possible.
> Obrisa said that people should always respect
> 　　women greatly.
> For if they always respect women greatly, the world
> 　　will be in right order
> Pay homage; give respect to women.
> Indeed, it is woman who brought us into being
> Before we became recognized as human beings.
> The wisdom of the world belongs to women.
> Give respect to women then.

Indeed it was a woman who brought
us into being.
Before we became recognized as human beings. (Karenga, 1999, pp. 72-74)

Women and other oppressed genders are certainly at the heart of feminism as an activist enterprise. This verse, which is as old as the Yoruba creation story, helps us understand how long sexism has existed even in (some) non-western cultures. However the fact that sexism has existed for millennia, does not mean that it has always existed[11] – nor does it mean that women have always accepted it.

If we review the term, 'womanist', which was coined by Alice Walker[12], I believe we can better understand the term, 'divine feminist'. While Walker had used the term *womanism* before, it is in the book, *In Search of Our Mothers' Gardens: Womanist Prose* (Walker, 1983), that she first fully defined the term, *womanist*.[13] Walker developed this term to differentiate between the feminist (or liberatory) activism of Black women and the feminist activism of Euro-American women.

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[11] A number of Women's Spirituality scholars: Eisler, R. (1988). *The chalice and the blade.* New York: HarperCollins; Eisler, R. (1995). *Sacred pleasures: Sex, myth, and the politics of the body.* New York: HarperSanFrancisco ; Gadon, E. (1991). *The once and future goddess: A sweeping visual chronicle of the sacred female and her reemergence in the cultural mythology of our time.* San Francisco: Harper and Row, Publishers; Gimbutas, M. (1991). *The civilization of the goddess: The world of old Europe.* New York: HarperSanFrncisco; Stone, M. (1976). *When god was a woman.* New York: Harvest/HBJ, have all challenged the notion of the continuous existence of sexism/patriarchy, arguing that Neolithic/Paleolithic artifacts suggest a veneration of the feminine, resulting in egalitarian/partnership/gynocratic societies. Other indigenous scholars: Allen, P. G. (1992) *The sacred hoop: Recovering the feminine in American Indian traditions* (2nd Ed). Boston: Beacon Press; Talamantez, I. (1991). Images of the feminine in Apache religious tradition. In Cooey, P. M., William R. E., and McDaniel, J.B. (Eds.), *After patriarchy: Feminist transformations of the world religions* (pp.131-144). Maryknoll, NY: Orbis Books, have suggested that some American Indian societies never adopted patriarchal structures and are matrilineal, matriarchal, or gynocratic.

[12] According to Layli Phillips (now Maparyan), the term, *womanism*, was independently coined by three separate writers during the 80's: Alice Walker, Chikwenye Ogunyemi, and Clenora Hudson-Weems (who was very specific about using the term *Africana womanism).* See: Phillips, L. (2006). Introduction: Womanist on its own. In *The womanist reader* (pp. xix-xx), Layli Phillips (Ed.). New York: Routledge, Taylor and Francis Group.

[13] "Womanist: 1. From *womanish.* (Opp. of "girlish," i.e. frivolous, irresponsible, not serious.) A black feminist or feminist of color. From the black folk expression of mothers to female children, "You acting womanish," i.e. like a woman. Usually referring to outrageous, audacious, courageous or *willful* behavior. Wanting to know more and in greater depth than is considered "good" for one. Interested in grown-up doings. Acting grown up. Being grown up. Interchangeable with another black folk expression: "You trying to be grown." Responsible. In charge. *Serious.* 2. Also: A woman who loves other women, sexually and/or nonsexually. Appreciates and prefers women's culture, women's emotional flexibility (values tears as natural counterbalance of laughter), and women's strength. Sometimes loves individual men, sexually and/or nonsexually. Committed to survival and wholeness of entire people, male *and* female. Not a separatist, except periodically, for health. Traditionally universalist, as in: "Mama, why are we brown, pink, and yellow, and our cousins are white beige, and black?" Ans.: "Well, you know the colored race is just like a flower garden, with every color flower represented." Traditionally capable, as in: "Mama, I'm walking to Canada and I'm taking you and a bunch of other slaves with me." Reply: "It wouldn't be the first time." 3. Loves music. Loves dance. Loves the moon. Loves the Spirit. Loves love and food and

According to Karla Simcikova (2007), “This definition . . . was in many ways a response to the white feminist movement of the time and its agenda, which was not particularly inclusive of, or sensitive to black women’s issues” (p. 11).

Beginning with the statement that a *womanist* was a Black feminist or feminist of color (p. 11), Walker’s four part definition focused attention on Black women’s historic and contemporary ability to take leadership in liberation struggles benefiting *all* members of the African American community. However, a womanist, for Walker, was not only a social activist. Walker’s concept of womanism validated Black women’s ability to love, support and nurture women and men “sexually and non-sexually” (p. 11). She honored the diversity, beauty and ‘*roundness*’ (p. 12) of Black women’s physical forms, and proclaimed the importance of rest, healing, and self-care. She listed music, dance, Spirit, and the Folk among the elements loved by womanists.

Walker’s holistic definition of womanism is also inclusive of people of many colors and ethnicities. She defines a womanist as a “universalist,” (p. 10) rather than a separatist, and she uses the metaphors of a garden of flowers and a family of many colors.

While some Black women of diverse identities have embraced the term, ‘womanism’, others have rejected it. Some Black women prefer to be called Black feminists. Some indigenous women prefer the term *tribalists* (Mehesuah, 2003, pp. 159-171) and there are others who support or reject Walker’s definition of “womanist” either in whole or in part.[14]

While these controversies continue, the work of supporting, improving, or reclaiming culturally appropriate rights of women and other genders is alive and well in a multitude of Indigenous and African societies. Writing of Africa, Filomina Steady (1981) states:

> The birthplace of human life must also be the birthplace of human struggles, and feminist consciousness must in some way be related to the earliest divisions of labor according to sex on the continent. But even more significant is the fact that the forms of social organization which approach sexual equality, in addition to matrilineal societies where women are central, can be found on the African continent . . . Above all, true feminism is impossible without intensive involvement in production. All over the African diaspora, but in particular on the continent, the black woman’s role in this regard is paramount. It can therefore be stated with much justification that the black woman is to a large extent the original feminist. (pp. 35-36)

If we review women’s roles in selected areas of West Africa, we see that even in the patriarchal societies of the Yoruba and the Ibo women: 1) held social and political roles of authority, 2) worked outside the home, 3) had the right to engage in money-making commercial activities and, 4) held roles of spiritual authority in their culture’s religious institutions. The term ‘mother’ which in the

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roundness. Loves struggle. Loves the Folk. Loves herself. *Regardless.* 4. Womanist is to feminist as purple to lavender. Walker, A. (1983). *In search of our mothers’ gardens: Womanist prose* (pp. xi-xii). San Diego: Harcourt, Brace, Jovanovich.

[14] See: Phillips, L. (2006). Introduction: Womanist on its own. In *The womanist reader* (pp. xix-xx), Layli Phillips (Ed.). New York: Routledge, Taylor and Francis Group. See, also: Hudson-Weems, C. (2006). Africana womanism. In *The Womanist Reader* (pp. 44-54), Layli Phillips (Ed.). New York: Routledge, Taylor and Francis Group.

west connotes a lack of power in the ‘outside world’ of politics, economics, and religion, is a term of authority and agency within many African societies. The Yoruba even have a term, *iyalode*, “mother of the outside” (Badejo, 1996a, p.8), which is used as a title for the women who hold authoritative roles in the political, economic and spiritual realms – e.g. the woman chief of the market place, the chief of the women’s military organization, or the senior priestess who is involved with politics of the land. According to Oyewumi, kingship was not denied to Yoruba women, and she argues that several of the “kings” in Yoruba history were actually female. [15] Childbirth was neither unimportant nor secular; in a culture where the goal of existence was to be reborn again and again, it reflected spiritual harmony, social balance and **empowerment** (Badejo,1996a, pp. 67-101).

Rejected by many modern day feminists as essentialist, the powers of birth giving and/or life making were – and in some cases still are – seen as magical, mysterious and **empowering** in many African socio-spiritual contexts (Badejo, 1996a). The figure of a woman kneeling in the traditional (active) stance of giving birth was often depicted in pre-colonial and/or “traditional” Yoruba sculptures. Stripping naked and exposing their vulvas was an act of women’s power in many areas of pre-colonial Africa – especially when done by married or elderly women – and this has been repeatedly employed by African women of the 20th century in protests against government taxation, ecological depredations by oil companies and in support of peacemaking efforts[16].

Even in patriarchal settings, Nigeria’s Ibo women could (collectively) go on sex strikes and “sit on a man” – e.g. go to war against an individual or a group who aroused their anger. Judith Van Allen, writes:

> "Sitting on a man" or a woman, boycotts and strikes were the women's main weapons. To "sit on" or "make war on" a man involved gathering at his compound, sometimes late at night, dancing, singing scurrilous songs which detailed the women's grievances against him and often called his manhood into question, banging on his hut with the pestles women used for pounding yams, and perhaps demolishing his hut or plastering it with mud and roughing him up a bit. A man might be sanctioned in this way for mistreating his wife, for violating the women's market rules, or for letting his cows eat the women's crops. . . . In tackling men as a group, women used boycotts and strikes. Harris describes a case in which, after repeated requests by the women for the paths to the market to be cleared (a male responsibility), all the women refused to cook for their husbands until the request was carried out. For this

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[15] According to Oyewumi, the list of Yoruba rulers – termed as ‘kings’ after colonial encounters with the West – actually includes several female rulers. See: Oyewumi, O. (2005). Making history, creating gender: Some methodological and interpretive questions in the writing of Oyo oral traditions. In Oyewumi, Oyeronke. (Ed.). *African Gender Studies: A Reader* (pp. 169-205). New York: Palgrave McMillan.

[16] See: Disney, A. E. and Gini R. (2008). *Pray the devil back to hell.* Fork Films LLC and RO*CO Films International (http://www.rocofilms.com/). Also:
https://www.africanexponent.com/post/the-rise-of-naked-female-protests-in-africa-3031,
accessed 6/29/2016;
http://exhibitions.globalfundforwomen.org/exhibitions/women-power-and-politics/biology/curse-of-nakedness
accessed 6/29/2016; http://www.okayafrica.com/culture-2/naked-protest-and-african-feminism/
accessed 6/29/2016.

> boycott to be effective, all women had to cooperate so that men could not go and eat with their brothers. (Van Allen, 1972, p. 170)

I’ve cited these examples to make clear that women in Africa were not waiting to learn about their oppression from Euro-American feminists. It is true that sexism existed in Africa prior to contact with Islam, Christianity and European colonialism, but many cultures in Africa, while not based on a model of gender *equity*, were based on the principle of *complementarity* in gender relationships. In such cultures, the powers of men were believed to be *balanced* by the power of women, ensuring that social, spiritual and ecologic harmony prevailed.

Women often had power not as individuals but as part of a collectivity of women. Among the Nnobi of Nigeria, for example, there was a Women’s Council that was responsible for the welfare of all Nnobi women: it set rules to regulate or protect women against physical abuse (Amadiume, 1998, p. 66), regulated the market, and independently acted to support the welfare of the town (Amadiume, 1998). The *Agba Ekwe*, or most highly titled woman, was considered to be a representative of the Goddess Idemili herself, and only she and the shrine priest could consult with the Goddess directly. Under Christianity and colonization, however, the authority and titles of men were readily translated into male norms of the colonial administration, while the authority and responsibilities of powerful women were seen as “pagan” and discontinued.

Most of us understand that the struggle of women for justice and empowerment is a global one. My description of the precolonial power of African women is meant to help us understand that the issue of women’s rights and powers in selected patriarchal non-Western societies is more complex than many of us have considered. However while most of us would support political systems that provide justice and equality for women, many of us don’t make the connection between liberation struggles and the practice of spirituality. For many of us, religion has created a divide between social justice and spirituality, for we have been raised either in an entirely secular world, or one in which the material and spiritual realms are seen as separate.

We all know the world needs to change. How we do it, with whom we do it, and with what tools, are some of the important questions we need to ask. While we often contrast contemplative spiritual traditions with socially engaged or activist ones, I believe that a closer examination of diverse, traditional, contemporary and/or indigenous spiritual traditions from around the world reveal that the questions we face today were not unknown to peoples of the past, nor to their colonized and oppressed descendants.

In some contemplative religious traditions, the material world, while beautiful, is not divine. Divinity and sacredness – belong to a realm outside of our material reality. If in some traditions we suffer in the physical world, it is because of our transgressions in a previous life. In others, our suffering is merely the reality of our life on earth. Only after our death and release to a heavenly realm, or our rebirth as a member of a different caste or gender, will our earthly suffering come to an end and be redeemed.

In still other traditions, some of which are branches of the same contemplative religions that see suffering as a normal part of life, we are called to take action to relive the suffering of all sentient beings. The Bodhisattva Vow of Mahayana Buddhist tradition has been interpreted as meaning that we vow to return again and again to the world until all sentient beings have attained enlightenment. The engaged Buddhism of Vietnamese Buddhist monks led some to burn themselves to death to protest the Vietnam war, and it encouraged others to provide healing to wounded soldiers and civilians on both sides of the war. In many Jewish traditions one, is expected to engage in *tikkun olam*, the repair of the world, which has been interpreted by some as meaning that one is obligated to take righteous *social action* to foster the creation of a peaceful and egalitarian world that honors all races, ethnicities, spiritualities, orientations, genders, and abilities.

Many of the Indigenous peoples of the Americas understand that their spirituality is intrinsically linked to liberation from oppression. The ability to practice many Indigenous religions is often linked to particular landscapes which shelter the sacred sites, plants and other items that are necessary for the proper spiritual practices of particular First Nations peoples (McLeod, 2001).The right of access to their traditional lands, along with the right to speak the languages in which their spiritual traditions are embedded, and the right to have custody of their children and to train them in their ancestral ways, were rights that were denied to many Indigenous inhabitants of the USA for centuries. The reclaiming of these rights – and they have not yet been granted to all First Nations peoples of the USA – has only come about because of political, spiritual and activist struggles.

Whether we accept the notion of a spiritual or ensouled universe or find ourselves moved by legacies of human activism for liberation, our profound human connection to the natural world remains. I'd like to close with a poem by Alice Walker that invokes the union of spirituality and social justice – and that reminds us of the natural world's ability not only to sustain our bodies but to feed our souls. It's called "Torture":

> When they torture your mother /Plant a tree
> When they torture your father / Plant a tree
> When they torture your brother/ and your sister
> When they assassinate your leaders/ and lovers/ Plant a tree
> When they torture you/ too bad / to talk/ Plant a tree
> When they begin to torture / The trees / And cut down the forest
> they have made
> Start another. (Walker, 1989, p. 63)

May we remember and follow this ancient and indigenous wisdom in the days to come.

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The Borderlands Feminine:
A Feminist, Decolonial Framework for Re-membering Motherlines in South Asia/Transnational Culture

Monica Mody[1]

Abstract: This paper uses Gloria Anzaldúa's borderlands framework to resignify and recover the marginalized, forgotten sacred feminine and, thereby, South Asian motherlines. The borderlands is conceived of as a new consciousness, an alternative to that which is written in history. It offers a radical synthesis of spiritual healing with anti-oppression work. Creating self-affirming, complex images of female identity, and making revisionist myths—while engaging the self in relation to culture— constitutes a decolonial practice. It enables South Asian women—as the Others of colonial modernity and brahmanical patriarchy—to renew their relation to an episteme of the sacred that liberates their voices, vitality, and authority. The post-secular sacred locates as essential a critical interrogation of all forms of oppression. The researcher enacts her decolonial recovery at the edges of her South Asian/brown postcolonial feminist subjectivity. The borderlands framework makes possible a profoundly relational, integrative onto-epistemological praxis that forefronts the grandmothers, the foremothers, and the experiences of women of color on their own terms.

Key Words: Borderlands Framework, Decolonization, Female Identity, Gloria Anzaldúa, Sacred Feminine, South Asian Motherlines.

Introduction

Chicana cultural theorist and feminist Gloria Anzaldúa's (1987) borderlands framework offers a radical synthesis of spiritual healing with anti-oppression work. By refusing to prioritize one over the other, she creates a multimodal, living, organic theory that offers an interstitial home for postmodern, postnational, postcolonial identities. Borderlands consciousness makes possible reconciliation and integration by moving "toward a more whole perspective, one that includes rather than excludes" (Anzaldúa, 1987, p. 79). This is a profoundly relational and integrative onto-

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epistemological praxis. In this paper, I examine how the borderlands framework constructs bridges between the past and the present, the old and the new, myth and imagination and reality, post-colonial and pre-colonial. These structures and flows are not readily visible in Western modernity. Creating self-affirming, complex images of the feminine and of South Asian motherlines makes it possible for South Asian women—the Others of colonial modernity and brahmanical patriarchy—to renew their relation to an episteme of the sacred that liberates their voices, vitality, and authority. It further enables transcultural, transnational interventions that acknowledge my South Asian/brown postcolonial feminist subjectivity.

For Anzaldúa (1987), the *borderlands* refer to a consciousness at the confluence of two or more cultural, racial, ideological, or spiritual values that makes "crossing over" (p. 77) possible. The metaphor of borderlands does not narrowly connote mere geopolitical borders (Anzaldúa's theory was specifically informed by the U.S./Mexico border), but invokes the psychic, emotional, and sexual dimensions of the terrain of intermingling (Anzaldúa & Keating, 2000, p. 176). Feminist and comparative politics scholar Leela Fernandes (2013) writes that it is the borders of her psyche that provide, for Anzaldúa, the psychic/political/cultural space to move beyond the violence of the territorialized borders she was confronted with (p. 106).

Anzaldúa (1987) considers the task of breaking down of dualisms one of innovation, after chemist Ilya Prigogine's work on "dissipative structures" as a new source of order (p. 120). Further, this is a task of healing:

> At some point, on our way to a new consciousness, we will have to leave the opposite bank, the split between the two mortal combatants somehow healed so that we are on both shores at once and, at once, see through serpent and eagle eyes. (Anzaldúa, 1987, pp.78–79)

This overlapping consciousness makes possible reconciliation and integration. Decolonial theorist Nelson Maldonado-Torres (2012) writes that this self "is not a continent or a separate island, but, rather, a border, a point of encounter, an intersection, or even an archipelago, understood as a point of relation with other selves" (p. 198). In her movement "toward a more whole perspective, one that includes rather than excludes" (Anzaldúa, 1987, p. 79), the border dweller changes and heals the split at the root of consciousness. This is the opus, the great alchemical work—what Anzaldúa (1987) also terms spiritual mestizaje (p. 103).

Anzaldúa's (1987) other names for the both/and consciousness of the borderlands—*new mestiza* or *mestiza consciousness*—reflect her Chicana positionality. She writes:

> The work of *mestiza* consciousness is to break down the subject-object duality that keeps her a prisoner and to show in the flesh and through the images in her work how duality is transcended. The answer to the problems between the white race and the colored, between males and females, lies in healing the split that originates in the very foundation of our lives, our culture, our language, our thoughts. (p. 80)

Like other Chicana/o scholars and activists, Anzaldúa was engaged in a reimagining and reformulating of the ancestral traditions of the indigenous Aztec and Toltec people. Laura Perez (1998) reminds us that this was a politics of memory. In drawing from indigenous cultures that are politically oppositional to (neo)colonizing cultural and religious systems, and then recoding them, cultural agents enact a spirituality that can help redefine worldviews and identities at the borderlands. In an attempt to establish a common worldview that is “at odds with the reigning capitalist culture of extreme exploitation of the planet and human beings” (Perez, 1998, 'Membering the Spirit section, para. 3), the mestiza borrows from and synthesizes diverse beliefs and practices. This is a decolonial gesture when practiced by the “marginalized, the mutable, and the unarticulated” (Perez, 1998, Beyond the Susto of Nepantla section, para. 6), and allows the borderlands to become for them a full and central, ever-shifting, place of knowing and being. Its seeking of resonance prevents the borderlands from being invoked as “yet another . . . peripheral resource in the center’s production of meaning” (Perez, 1998, Beyond the Susto of Nepantla section, para. 6). The bridge that is constructed through memory between the past and the present, the old and the new, enables transcultural affirmations of the feminine, the queer, the colored, the colonized, the indigenous. It reclaims and reconstructs for them the fullness of their humanity.

Throughout her writings, Anzaldúa repeatedly underscores the need for new forms of alliances between women, genders, cultures, races and other social positions, material and nonmaterial worlds, humans and nonhumans. Instead of monolithic, oppositional identities, her framework foregrounds alliance-making and forging commonalities from a holistic, relational perspective.

Anzaldúa’s activism embodies what womanist/feminist scholar AnaLouise Keating calls her metaphysics of interconnectedness (Anzaldúa & Keating, 2000, p. 11). Her risk-taking not only opens the door for other scholars to invent new forms of alliances and identities where they may bring in spiritual realities, imaginal realities, and their inner subjective life, but also empowers them to discuss these on an equal footing with issues such as race, class, age, and ethnicity (Anzaldúa & Keating, 2000, p. 144). In the serpent movement of spiritual mestizaje, justice and healing are envisioned hand in hand.

I turn to Anzaldúan thought as a framework for its inerrant capturing of my own lived experiences of borders, taking into account the effects of psychic, political, ideological, and gender borders on my own embodied belonging and efficaciousness in the world. As Cathryn Merla-Watson (2013) writes, “The domain of theory…should be a collective enterprise of suturing multiple constituent elements of identity and lived experience” (p. 226). India—just as the other colonies of Europe—was subjected to the more repressive aspects of Enlightenment rationality, expressing the colonial state’s anxieties about order and control (Siddiqi, 2002). This paper seeks to connect the parts of my identity that were gradually split off under the governing ideologies of rational secular colonialist modernism: ancestral, nonwestern, fierce, female, sexual. It is an attempt to reconstruct a consciousness of the prepatriarchal feminine while living under patriarchy’s gaze. It is an attempt to reconcile the oppressor in me with the oppressed in me. It is an attempt to be in integrity both as a scholar and as an artist—for I realize that unless I do this work, I cannot show up in my fullness in either scholarship or art; nor can I do the work of countering the logic of domination.

Historian and Ethnic Studies scholar Emma Pérez (1999) envisions the decolonial imaginary as “a rupturing space, the alternative to that which is written in history” (p. 6), and the apparatus that allows the move between the colonial and the postcolonial. The Anzaldúan notion of borderlands demands a similar willingness to be re-membered. The dismembered parts come together to synthesize a new being. We do not stop at critiquing standards of Western rationality and objectivity; we create new patterns of rationality and objectivity informed by the heretofore suppressed feminine and "primitive." Accessing these parts in ourselves, we gradually decolonize our being. We de-link from Western modernity and open up to what Partha Chatterjee terms "our modernity" (as cited in Mignolo, 2012, p. 27), locating possibilities of other temporalities.

The excavation of meanings and practices that are non-Eurocentric and non-androcentric is a slow, layered process that unfolds in a spirallic fashion. The circle or spiral is the pattern or "means-by-which" the eternal cycle of birth-death-and-rebirth—in which all forms of creation are eternally turning and evolving—can be experienced (Wilshire, 1989, p. 102). Writing that follows a cyclical pattern rather than a linear form is able to return to ideas or themes "at intervals with different levels of understanding" (Wilson, 2008, p. 42). Anzaldúa (2002) sees developing a new consciousness as a cyclical, ceaseless process (p. 562). In the spiral, time is not a linear construct. What happens here can affect the past, present, and future—it can enliven the body, and heal ancestral and future generations. The spiral connects the center and the periphery, the inner and the outer. This intimate connection means that as the spiral moves outward, individual and collective actions of spiritual mestizaje contain the possibility of renewing the sacred.

Borders and Vitality: A Personal Account

Stories, memories, voices, and energies of other kind can get trapped in the liminal state between borders, if the borders are not permeable enough to allow movements or crossovers. This became vividly clear to me when—during a vision in early 2016—I found my female ancestors immured in a tunnel-like underworld.

Their life spark and vitality had been suppressed or stolen away, they said, by the heavy mantle of patriarchy. The term *patriarchy* rightly elicits much debate and critique in feminist and other scholarship. For example, scholars caution that systems of male dominance be analyzed with attention to power differentials in their cultural, temporal, spatial, and other intersectional dimensions, rather than be conceived of as universally monolithic, homogenous, ahistorical hierarchies (Kandiyoti, 1988; Patil, 2013). I have come to understand patriarchy not only as the institution that patrols the borders of gender roles and the sexuality of individuals of all genders. It is also a metonym for the experience of smallness, fear, rejection, shame, and lack of inner authority that accompanies many women on an ongoing basis—that for them is the only way in which they have experienced being women. It is the feeling of being cut off from something vital in themselves; of powerlessness at not having been able to change the tide. Based on evidence of pre-patriarchal, non-patriarchal, and matriarchal alternatives in early as well as living history, it has been theorized that patriarchal power structures are a cross-cultural historic development, linked with diminishment of the role and status of women (Gimbutas, 1991; Göttner-Abendroth, 2012; Sanday, 2002).

In the vision, I was in that dark space with my female ancestors, and they were asking me to write so they would—riding on the stream of the vital force living in words—come out.

Vitality, then, was for my ancestresses the key to liberating themselves from a history of institutional, structural oppression—and from history itself, which is often the oppressor's account made authoritative because of an imbalance in power. Linda Tuhiwai Smith (1999) notes the critique of history as a project of Western Enlightenment that has developed alongside imperial beliefs about the Other, assembled around totalizing, universalizing, evolutionist, and progressivist ideas (pp. 29–32). Feminist thinkers have further called out much of history as male-stream and noted that such accounts erase or sideline women's roles, and relegate their often complex enactions of agency to a simplistically conceptualized victimhood. Feminist theorist and political philosopher Mary Hawkesworth (2007) points to the "pervasiveness of the mistakes about the nature of women and their roles in history, politics, and society and the imperviousness of mistaken views to refutation" in androcentric scholarship (p. 95). Theologian Mary Daly (1978), creative spinster, suggests "hag-ography" and "hag-ology" as models women can adopt to uncover hidden histories of women—of Hags: "Hag-ographers perceive the hilarious hypocrisy of 'his' history." (p. 17).

The ancestresses' bidding of words as a means of introducing vitality made immediate sense to me as a writer. In poetry, I am deeply familiar with something moving in language that is beyond language—something that wells up from the pools of words and finds its way in us to animate or, as the case may be, to dishearten. The ancestresses were asking me to remember something further about the role *women* can play, in particular in their capacity as artists. My intuitive understandings found confirmation in the study of gynocentric American Indian cultures by Laguna Pueblo/Metis poet and scholar Paula Gunn Allen (1986). She writes:

> Pre-Conquest American Indian women valued their role as vitalizers. Through their bodies they could bring vital bodies into the world—a miraculous power whose potency does not diminish with industrial sophistication or time. They were mothers, and that word did not imply slaves, drudges, drones who are required to live only for others rather than for themselves as it does so tragically for many modern women. The ancient ones were empowered by their certain knowledge that the power to make life is the source of all power and that no other power can gainsay it. Nor is that power simply of biology, as modernists contentiously believe. When Thought Woman brought to life the twin sisters, she did not give birth to them in the biological sense. She sang over the medicine bundles that contained their potentials. With her singing and shaking she infused them with vitality. (p. 27)

Here, the power of generativity is not, as Gunn Allen makes clear, merely biological. Functioning in a ritual manner, using their bodies to bring vitality into the world, is what awards women the status of mothers. Creating embodied language is as much a sacred activity as giving human birth.

Motherlines

As soon as the ancestral behest was made, I realized it intended to secure healing and freedom for my ancestresses as much as the liberation of my own voice, life energy, and inner authority. I sensed for the first time the unbroken chain connecting me with my ancestresses, despite and through the trauma and the violence and the rupture. Poet and Jungian analyst Naomi Ruth Lowinsky (2009) gives the name *Motherline* to this sense of female continuity and interrelatedness.

The Motherline links generations of women to their future and their past—it honors the life stories, lore, and wisdom of their mothers and their grandmothers as the source of their own stories and wisdom. Lowinsky (2009) writes that the Motherline lies in the background of modern, patriarchal consciousness, and women (and men) are often unaware of their connection to it (p. 13). Which is why, she says, its very image "seems to evoke its absence, its loss, the pain we feel in the feminine" (p. 34). The feminine—like the masculine—is not a rigid gender category, but a vital concept: "the realm of mystery, the cyclical nature of life, the realm of women's bodies" (Lowinsky, 2009, p. 30).

An absence of the vital feminine was etched yet unmourned in my early experience of reality. Colonization and coloniality not only have shaped my personal history and the collective history of my people, they also created circumstances that disrupted and impaired motherlines. However, the process of erosion of motherlines in South Asia went on for centuries before the arrival of the European colonizers. Brahmanization in South Asia gradually changed the political, social, and cultural landscape, grafting itself onto autochthonous, folk traditions that worshipped the great mother (Göttner-Abendroth, 2012, p. 70). This prefiguration is not that of the self-sacrificial mother of a patriarchal consciousness:

> Mother-goddess can be interpreted as expressing ideas of power, autonomy, and primacy in the widest sense of the term. She conveys not so much the idea of physical motherhood but a worldview in which the creative power of femininity is central; the goddess mediates between life and death and contains in herself the possibility of regeneration. (Ganesh, 1990, p. 58).

Under the impact of Brahmanization, the mother goddess turned into a subservient spouse of the male deity relinquishing her autonomy. Baron Omar Rolf von Ehrenfels (as cited in Krishnaraj, 2010, p. 17) notes that strong mother-right elements persisted in India to a degree and extent more than elsewhere in the world. Yet gradually there was a sidelining of ways of living based on female-centered, earth-centered practices where knowledges were transmitted down the female lineages. These included lifeways founded on a knowledge of the woman as a medium for regulating the energies of the household, community, and the cosmos. Women had been custodians of ways of contacting the energy sources so as to initiate rites of auspiciousness (see Jayakar, 1990; Nagarajan, 2007), but the patriarchal hierarchy that permeated India via the Vedic caste system cut off many of these lineages and these knowledges.

Once superiority was established—of men over women, and of the upper castes especially Brahmins over the lower castes and the outside-caste/indigenous people—these Others of the Vedic caste patriarchy were relegated to the margins of history and of religious participation.

Ironically, even as India is known for its worship of the goddess and for its symbolic honoring of women, its women are penalized for going against tradition. They are simultaneously "made repositories of tradition but do not have access to their own tradition" (Krishnaraj, 2010, p. 17). There are exceptions that have kept nature-based, women-led rituals alive among folk and non-Vedic traditions such as Tantra (Jayakar, 1990; Khanna, 2000; Mookerjee & Khanna, 1996), but the overwhelmingly patriarchal, and increasingly nationalistic and xenophobic interpellation of religion in India has had a disastrous impact on the rights and sense of agency of its non-Brahmin, non-cisgender male Others.

Clearly, my ancestresses believe that the “female memories of power and energy” (Jayakar, 1990, p. xiii) can be reclaimed from the margins, at the borderlands. Female-bodied feminists who take on the challenge of engaging their discomfort with the primitive and the feminine—itself stemming from a modern rational, Western feminist interpretation of this notion—will find themselves recuperating the wholeness of their female, borderland selves. They may find themselves resuscitating their Motherline, and through this work learning—as I am—to be “open to others in relations of hospitality and generosity, and…commit ethically and politically to and for [an Other]” (Maldonado-Torres, 2012, p. 197). For, living at the borderlands and enacting a borderlands consciousness in contact with the ancestral, the premodern, the feminine, the embodied is as much about epistemic and ontological justice as it is about recovering the sacred in our post-secular narratives.

Women in the New Modernity of India

Goddesses in the religious life of the Indian subcontinent are attributed with power, autonomy, and primacy, while Indian women often remain subject to norms and violence regulating their social roles and conduct. Partha Chatterjee (1989) argues that a “new patriarchy” emerged in India with the origin of an anti-colonial nationalism (p. 627). The nationalist discourse, during its struggle against colonialism, invested the home and the world with polarized values (spiritual versus material). The home/world dichotomy came to be represented by gender roles, and women were assigned the responsibility for ensuring that the purity and superiority of India’s inner identity—its spiritual culture—remained intact. This purity was asserted as superior not only in opposition to westernization, but also in opposition to the “barbarism” and “irrationality” of the common, lower classes. The new modernity of India conferred upon women the dubious honor of becoming the bearers of a nationalistic morality, which, while claiming to revere woman as goddess or as mother, ironically narrows the primacy, scope, and sphere of her spiritual participation (Chatterjee, 1989, pp. 629–630).

Colonization made India an unbidden subject at the table of Western modernity and its offspring, Enlightenment rationality and secularism. Just as in the West, ontologies and epistemologies emerging from the province of tradition were seen as non-modern. This included “nature, the past, women, the feminine, the household, ‘the primitive,’ and loyalty to kin and tribe” (Harding, 2008, p. 8). The invention of religion itself was a by-product of colonialism, creating an arbitrary partition between the sacred and secular (Sen, 2013, p. 9). The brahmanical forms of practice were what came to be codified as Hinduism (King, 1999, p. 102).

According to Ashis Nandy (1995), there is a local meaning of secularism in India that does not place religion as outside politics, but connotes multireligious coexistence and equal respect for all religions. This notion of secularism draws its rationale from the broader traditions of religious practice in South Asia. This non-modern understanding has been losing ground to the Western model, especially with the continuing influence of nationalist ideologies in contemporary Indian polity. Nandy (1995) suggests that the religions, cultures and visions that have become silenced or marginalized in the dominant postcolonial narratives of secularism may hold the keys necessary to bringing in the transformations necessary to bring inter-communal harmony (p. 37). Lata Mani (2009) too advocates reexamining the meanings conferred by modernity upon the terms sacred and secular in order to carry out the work of social and personal transformation (p. 9).

Decolonizing the Feminine

The cooption of femininity by nationalistic morality in India has created the need for memory work where the feminine can be written in transcultural yet culturally specific, open-ended, fluid ways. The convergence of colonial rationality and brahmanical patriarchy has produced a condition where women struggle to remember their own sovereignty and authority. I seek to actively access and source non-brahmanical traditions for their possibilities of alternative, non-dominant spiritual knowledge and leadership for women. The call is for no mere romanticization of tradition, but for a participation in its reconstruction from the inside out so that it becomes a place of liberation for the Others of modernity, including women. This is a deeply self-willed, self-authorizing, feminist, decolonial act of reclaiming. It is a transformational practice that is about moving away from the epistemic hegemony of the West to knowledge making that privileges the non-West, the non-male, the non-white, and the non-European. Decolonization values the past as part of the present, not as something to reject. The past continues to “frame what becomes actuality from a horizon of possibilities” (Isasi-Díaz & Mendieta, 2012, p. 6). By decolonizing “spaces of belonging, sites of dispossession, claimed interstices, erased memories, and hushed stories” (Isasi-Díaz & Mendieta, 2012, p. 6), we create alternatives to that which is written in history.

Anzaldúa’s own work exemplifies this. As a Chicana and Mexicana, she invokes the indigenous sacred feminine to muddy the waters of the singular cultural identity, which is the subject of a Chicano Movement dominated by a masculinist and heterosexist cultural nationalism (Yarbro-Bejarano, 1994, p. 12). Reconstructed, the indigenous feminine figures are able to converge the past and the present, the cultural and the autobiographical psyche. Re-membered, they do not stay in the past—but claim the past, the present, and other temporal structures and flows that may not be recognizable in Western modernity. The border-crossing Coatlicue in Anzaldúa’s narrative, for example, reclaims her all-encompassing, multigendered aspects from the patriarchal, male-centered narratives that had split them off and cast them underground—claims Anzaldúa—and redefines the very contours of autonomy:

> And someone in me takes matters into our own hands… Mine. Ours. …And suddenly I feel everything rushing to a center, a nucleus. All the lost pieces of myself come flying from the deserts and the mountains and the valleys, magnetized towards that center. *Completa*. (Anzaldúa, 1987, p. 51)

Again, by reconnecting Guadalupe to indigenous goddesses, Anzaldúa recuperates the former’s capacity to include “the impure, mestizo/a, queer women and men for whom there is no room in dominant religious traditions” (Delgadillo, 2011, p. 26). Memory work becomes, for Anzaldúa, a relational exercise that connects individual and collective worlds at the borderlands: the displacements, pain, suffering, resistance, and empowerment therein. It enables her to formulate her complex, shifting subjectivity amidst a newly emerging collective identity. Her revisionist mythmaking is, further, a decolonial exercise: it enacts self-affirming images of female identity that create a rupture in the status-quo. These, Keating (2013) writes, are fluid, transcultural universals that “open up psychic spaces where alterations in consciousness can occur” (p. 118). Even as living on the borders is borne out of the necessity to survive, these multiple voicings of myth at the borderlands are necessary for women that do not identify with dominant Western heteropatriarchal tellings of the feminine to survive.

The current of nationalism in South Asia, like Chicano nationalism, is predicated upon an oppressive patriarchal and colonial gender structure. Nationalists have repeatedly attempted to wipe out India’s other, indigenous modernities since the latter do not produce the univocal, homogenous subject of the nation-state. This loss of plurality narrows the space available to women in the public and spiritual spheres. Cultural life, in private and public, continues to be framed within a discourse defined by masculine norms. Reflective of the power structures, goddesses become consorts of male gods, and women become subservient wives, mothers, and daughters of men who are the chief functionaries in the religious and sacred realms.

My situatedness within a transnational space gives me a sense of the ways in which national and transnational processes of oppression of the feminine overlap. Women’s experiences within the transnational empire are often imbricated, and the Anzaldúan model of reconstruction of the sacred feminine—and, via that, renewal of a post-secular sacred—gives me one strategy through which I may enact my interventions in the transnational/postcolonial imaginary of South Asia. By taking into account the Others of modernity so as to restructure our very understanding of the contours of modernity, the borderlands framework makes possible a meeting of the goals of social, political, epistemic, and ontological justice.

At the borderlands, it is not the dominant but the “other” ways of knowing that are valued (see Denzin et al., 2008). Other ways of knowing include those associated with women, nature, indigenous peoples, and people of color—and posit interests, feelings, passions, and the body as valid and authoritative sources of knowledge. They are able to connect the historically colonized Others to their own epistemology, ontology, and axiology—in other words, to their own autonomy, struggles, and resistance. I will end this paper with a proposal that poetry and autoethnography be considered as emergent integrative research strategies at the borderlands.

Both poetry and autoethnography disrupt inheritances of colonialism, imperialism, and androcentrism in the academy by making space for the epistemologies, ontologies, and interventions of feminist, non-European, indigenous scholars and scholars of color. Both enable nontraditional scholars to engage with knowledge production in the fullness of their sensory and social dimensions. They help nontraditional scholars make sense of their lives, by making possible integral discourses and helping them explore the “total complex of knowing”(McNiff, 2008, p. 34). Both offer “new ways to see” (Leavy, 2009, p. 254). The research methodologies of poetry and autoethnography embrace vulnerability, and demonstrate that emotional and psychological aspects are integral to social research. Likewise, they allow for a synthesis of the intellectual and aesthetic dimensions of research.

Through a process of analytic and creative reconstruction of the past and the present—the autobiographical and the cultural psyche—a transnational borderlands feminist can participate in the transformation not only of her own identity, but also of the collective identities of the communities she engages in. Here she stands in the limen, continually reaching for wholeness, a full participant in the unfolding of her own spiritual knowing. She puts herself back together again, in writing, in her anticolonial struggle—and she restores to her ancestresses their autonomy and vitality.

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Chinmoyee and Mrinmoyee

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Abstract: Chinmoyee and Mrinmoyee are two different ways of looking at divinity in a feminine form. Chinmoyee emphasizes the attainment or realization or manifestation of higher consciousness as being divine while Mrinmoyee hugs the earth and brings home the deliberation that mrit or the earth is the mother of all being, including all forms of consciousness and deserves to be acclaimed as the deity. Mrit means earthen in Sanskrit and the earth is what all living creatures are made of. It is the spring, the sustenance of all life and also that to which life reverts back after a particular form of it ceases to function, to be regenerated as another form of life when the necessary conditions appear. Mrit, also called Mrittika in Sanskrit and "mati" in Bengali, is the mother of all life. It is etymologically connected to "matter," "matre," "madder" of the Indo-Iranian-European group of languages. Matter has been contemplated to be a lifeless substance by some philosophers but the term is essentially expressive of what we know to be the mother of us all---that from which we sprung, that in the womb of which we all came to be, slept and grew until we evolved further and that to which we return in final embrace until we transform into another being. Matter and mrit are viewed as lifeless by philosophers who try to preach ultimate divisions and the purpose of this paper is to overthrow such absolute dichotomies as false. The paper purports to establish that consciousness and matter are one and inseparable and hence Chinmoyee and Mrinmoyee are an identical entity.

Keywords: Chinmoyee, Feminine Divine, Indian Mythology, Mrinmoyee.

Chinmoyee and *Mrinmoyee* are both terms that refer to the divine understood as a female principle in the context of Hindu philosophy and religion. Chinmoyee represents the divinity in the feminine as being pure consciousness or *chit* while Mrinmoyee upholds *mrit*(dirt) or the mortal frame of flesh and blood of an everyday woman as the seat of goddesshood. Chinmoy was how the Vedanta represented Brahman and the devotional sects of the Hindu religion, particularly the Shaktas and the Vaishnavas, used the linguistically feminine version of the term or Chinmoyee to contemplate the feminine aspects of divinity. The concepts of chit and mrit have often been interpreted by philosophers and common people alike as opposites, much in the same sense that mind and matter are thought to be very different. Chinmoyee, being rooted in consciousness, has sometimes been seen as more thoroughly spiritual in comparison to Mrinmoyee, the mortal one, sprung from her origin in matter, in earth. It is my contention that such a division and the associated qualitative ranking between the two versions of the deity are untenable and consequently, unworthy of being pursued.

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To many philosophers and devotees Chinmoyee and Mrinmoyee are one and the same deity, each term simply emphasizing two different aspects of the same divine principle. However, the belief systems underlying the two terms are entrenched in philosophies that have historically been quite apart. Time after time, the unresolved differences have found expression in controversies over the nature of Reality. Issues like change and permanence, appearances and reality, form and matter, monism and pluralism, the finite and the infinite, mind and matter, immanence and transcendence, creation and evolution, the divine and the human, the spiritual and the earthly are all different ways of pointing at a deep divide between minds trying to understand the source of all being and how they are related. Great religious wars have been fought and continue to be fought over these different belief systems. Chinmoyee and Mrinmoyee have not been reconciled for good yet. That does not mean, however, that they cannot be seen differently, as being related in a harmony that is not just possible, but inevitable.

Kazi Nazrul Islam (1899 – 1976), a 20th century Bengali poet noted for composing several moving devotional songs dedicated to Goddess Kali and Lord Krishna, is caught in one of his songs struggling to fathom the gap between Chinmoyee and Mrinmoyee. He beseeches the divine mother to come to him in her Chinmoyee form. He thinks our woes are attributable to the worship of the mother in her Mrinmoyee form. He then proceeds to describe the great divine energy or Shakti as that which can never be submerged, that which is ever manifest within us and in the world outside us, that which cannot be kept confined in temples or fortresses. Clearly, he is not seeing the spirit as residing in the image of the goddess and his whole being yearns for a rendezvous with a different kind of being, a spiritual entity that is beyond the goddess as enshrined in a material, finite form. Deprived of the devotion placed in her by the devotee, the image turns into a lifeless, meaningless idol. Mrinmoyee becomes a mere clay toy, finite, mortal, impermanent, subject to time, with a beginning and an end, unable to deliver spiritual fulfillment. Chinmoyee on the other hand, is consciousness pure and simple, infinite, eternal, a source of bliss and power that never fades. Nazrul is trying to make some ultimate distinctions in order to bring order into his house put into disarray by conflicting, undefined thoughts. He feels the need to classify, categorize and arrange things according to their types—clothes in the closet, books in the shelf, food in the pantry etc. It is hard to comprehend the world and our place in it without making an effort to settle the dust raised by confusion in understanding. The first step towards sanity would appear to lie in making distinctions and understanding the nature of such distinctions (Kazi Nazrul Islam, 1996).

In this context I would like to discuss some notions with which the philosopher G.E.Moore played in his book *Some Main Problems of Philosophy* (Moore, 1966). In the first chapter of his book Moore begins by offering a definition of philosophy as "a general description of the *whole* of the universe" (p.13). Philosophers, he maintains, must mention all the significant things they *know* are in it and also how these are related to one another. He then proceeds cautiously by trying to compare philosophy with "Common Sense", mentioning that philosophers venture beyond the opinions of Common Sense, sometimes even contradicting Common Sense. Common Sense believes there are ultimately two different kinds of being in the universe, namely, material objects, which have no consciousness, and minds, which can perform conscious acts. All material objects are thought to be in space and can be understood to be related to one another by means of directions and measurements. Common Sense further tends to believe that all minds or acts of consciousness are related to some material objects in the sense of being rooted in or "attached to" them in the sense that when we engage in mental activities, those acts occur "*in the same places* in which our bodies are" (p. 19).

Material objects, however, can exist independently of consciousness. There was a time long, long ago, when there were only material objects and such a time can come again in the future with conscious acts wiped away from the scene in the course of Nature. This underlines the fact that Common Sense believes both material objects and conscious acts to be in time as well as in space. Past, present and future are legitimate terms in which they can be understood. Common Sense does not usually deny that theories about facts can change, can be proven to be wrong or right as time progresses. But these are only admitting changes in our "knowledge" of things. How far is Common Sense willing to go to admit changes in the things themselves? Will it admit that matter can evolve into consciousness and that this can happen due to an inward unstoppable force in matter to become something else? Common Sense is reluctant to venture into the world of "possibilities". But in all good faith, it cannot deny that there is a world of possibilities. Common Sense, however, does not have to go into such a world because it is not committed to give a description of the "whole universe". That is the philosopher's task. Common Sense is content to maintain the orderliness of its house as a more or less closed square of solid lines in which there are basically two residents, mind and matter, with mind dependent on matter and matter capable of existing independently of mind.

The philosopher's square, on the other hand, is made up of dotted lines. This square has to be ready to admit the "possibles" to freely go in and out of the realm of the world it is trying to give shape to. If philosophers have to go with the two ultimate distinctions in the universe as being matter and mind, then in order to treat this picture as a general description of the whole universe, the philosopher will have to say that all that there is must be either matter or mind, or else the modified statement will have to be that all that we *know* to be in the Universe is either an act of consciousness or a material object, though "there *may* be in the Universe other things which we do not know to be in it." (Moore, 1966, p. 27) There are many other kinds of things in the universe that are unknown to us and may possibly never be known. The limits of our knowledge are *known* to us and therefore have to be included in a general description of all the significant things in the universe. It would be unphilosophical, a-logical and unscientific to exclude the realm of the possibles from a general description of the whole universe, both theoretically and empirically. Moore feels that besides the entities in the unknown worlds, there are things within our known world that cannot properly be described as either material objects or acts of consciousness, for instance, space and time or a divine being and how it is related to material objects and conscious objects. A philosopher must therefore always maintain an open outlook and not give in to the urge to arrive at ultimate and irreducible distinctions between kinds of things, thus allowing for transitions from one kind to another, imperceptible and catastrophic change, gradual growth, manifestation of pre-existing conditions and emergence of novelties in the universe. Seeing fixed order and neatness where there is constant change and transformation is being untrue to the self that is seeking knowledge. There may very well be something that survives change or maintains continuity throughout the change, is fashioned and refashioned as a rejuvenated being. During the process, however, there are blurs, losses, gains that are in play. The path of nature proceeds through apparent confusions and demolition of set lines of distinctions to a continuous process of creations. Chinmoyee and Mrinmoyee may not be two distinct ways to contemplate the creative energy. The two may mingle, separate, and reunite endlessly in the world of thought as well as in nature. Not admitting this may have been the reason behind Nazrul's woes, not the preoccupation with Mrinmoyee as opposed to Chinmoyee.

A discussion of the feasibility of ultimate distinctions between beings cannot be undertaken without trying to understand what indeed is being. What exactly do we mean when we say that something has being, that it *is?*

Does it mean that it is out there, to be seen, to be talked about or experienced in some way? But then is it not there even when we do not relate to it in any way? Some may think that that indeed is what being is, that it is there even when it is not entertained by us in any way. That we can come back and find it as it was confirms and verifies its being-hood. What if we find it altered in some way upon return? It still is, differently, but has not lost its 'isness'. What if we find it missing? It may still be somewhere else? It can definitely be in my mind, my memory, my imagination. What if it has been trashed, smashed, thrown out, removed, altered beyond recognition? Like a junkyard car or the ashes of a cremated dead body scattered into the air or the oceans? It still is somewhere, in some shape or form. It has lost its specific form, structure or chemical formula that enabled it to perform specific functions, but it has acquired newer such things and is performing different functions. Perhaps that is the best way to understand being, in terms of what it can do, do better or do differently; in terms of what it is no longer and what it is now or can become. Being is best understood in the context of non-being and becoming. Becoming does not have to deny the existence of continuity. Even if that which changes itself undergoes change it may still be possible that the outcome of the change was contained in that which gave birth to the new. In the acorn and the oak tree or the chicken and the egg controversy, the oak and the chicken are there first to make the acorn and the egg possible.

Thus, not only is continuity of being possible amidst change and new birth, not only can being not be understood apart from change, but being is impossible to comprehend without reference to its form, its structure, its function, its connection to other beings serving other functions, its inter-connected operativeness in space and time.

At this point it becomes imperative to take a look at Aristotle. For the purpose of bringing in Aristotle, I will use the text *Aristotle*, by John H. Randall (1960). Aristotle's Metaphysics, which started out as being the Science of Divine Things, later became his First Philosophy, in which he explored the nature of anything that is. He endeavored to figure out what is involved in just being. In the world of logic, to be means it can be made the subject of some kind of discourse. We should be able to ask questions about it and be able to get answers to those questions. In the existential world, to be means to be part of a process. A process is going from one state to another state, but the passage does not occur from a sheer absence of something to becoming another thing. The journey from A to B means that A had the capacity to acquire the properties of B and achieve them in the end. Things sort of have a "career" to develop. They are always trying to attain what they are potentially capable of. Aristotle talks about three factors at play in all processes of change that are going on in nature. First there is the subject which changes or the material that changes. Second, there is that, what it is changed from, carrying within it the absence and yet the potentiality of that into which it is going to change. Third, there is the form that the thing acquires as it changes. Things that are said to happen by chance may appear to be unpredictable, but they are not inexplicable. They may appear unrelated in a causal chain, but each one of the minute links between the events that are apparently unrelated but yet together can produce a startling impact or event, are actually propelled by reasons of their own and their combined interaction goes forth to produce an effect that may look like a significant event which came about by sheer chance or accident. When the generation of the new is achieved, the old still continues to live in the new, but not in the same ratio and proportion as the formula for the emergence of the new needs. They continue there as further potentialities.

Aristotle thus saw Nature as a great dynamic process in which things were continually passing from the power to be to the actualization of the power, to the actual functioning of that power. He further believed that each thing had its own specific function determined by its own structure. He did not think that matter could exist in an indeterminate, generalized form. To be was to be in form and to strive to bring into further form all that it was capable of generating, given the specific circumstances in the environment, in the other things surrounding it with which it was in constant, inevitable interaction. Everything harbored within it a bubbling energy, an inherent tendency to spill out in action and give rise to newer forms with newer functions. The powers contained within each thing, as determined by its material and form must find expression, must move forward in Nature's process of creation. Aristotle called this bursting, impelling energy *horme*. Everything continually moves towards becoming different. Being is never static, never indeterminate.

Also of significance is Aristotle's notion that beings are active not just due to their own inherent and unstoppable principle of motion surging within them. They are also in motion because of the impact they cause on each other in the environment. It is as though if we learned to the fullest depth possible in knowledge about any one particular thing, we would thereby come to know about the existence and nature of all other entities in the world. Each thing is thus a mirror of the world. Aristotle was a pluralist, a dynamicist, against any ultimate distinction possible between matter and consciousness, against the possibility of matter without form and the actual being of form without matter in a realm outside of logic. In the existential world what we encounter is always matter in conjunction with particularized form, endowed with specific powers to realize itself further, in constant action, forging ahead in the creative activity that is Nature. Chinmoyee thus could exist in Aristotle's view only as a cognitive principle, simply as a noun that referred to the idea of consciousness. The moment it laid claim to have being that we can actively interact with, it acquired form. In fact, it is not intelligible why even logical principles can be said to be untrapped in some kind of form. A noun is a form of understanding. After all, are they not constructs or presuppositions that are born in the human brain due to the way the brain is programmed to think? Is logic not a product or way of functioning of our brain and are these cognitive principles not applied to understand the existential world? It is understandable that they may be differentiated from the world of form and matter, but do they have any ontological claims beyond their place in the world of human discourse?

One must also reckon that Aristotle further believed that to be is not simply becoming something different and new, but that to be is also to pass away. The 'this-object dies when it becomes the that-object' in the sense that its form becomes different, its functions become different. The elements remain in the next object, but combined in a different formula, performing different functions. In this sense, there is immortality in being. The new tides carry along in their waters the same water but each sprawl of the water, each one of its waves, each one of their sea-borne treasures are different. The ashes of our cremated bodies sink to the river-bed and bear aquatic plants that feed the fish that feed us. The air carries the ashes to distant mountains and deserts, to fertile valleys, become a part of their landscapes and their specific operations. The same thing happens when we bury the body. In time it becomes a part of mother earth, a source of nutrition for Nature's wealth of plant and insect life, ultimately becoming a part of us. So being never becomes nothingness. It changes form and function, emerging from one motion to another. There never was a time when there was no motion. Motion never began, nor will it ever cease. Therefore, if to be is to be in motion, then there never was a time when there was no being and there never will be a time when being will cease to be. There is no other eternity than the ceaselessness of motion and being.

Is all this unceasing generation of the new a change towards the *better*? Change does not necessarily mean progress.

First of all, when we try to interpret change as progress or the opposite of it, we have to use standards that are relevant to the specific judges or the subjects that we judge. What is a mark of progress for the human world may be destructive for the survival of other species and the environment. Since Nature is an intricate web of mutually dependent organisms and all other natural processes or beings, no single change can be ultimately voted to be progressive without reservations, without being very tentative and cautious. Keeping this possibility in mind, can we still discern in the processes of nature a direction towards something better, not just something different?

It would appear that what would be judged better for any being would be its ability to survive and thrive, to perform its function more and more perfectly. Reproduction by two parents opens up this path. Reproduction and survival of the young become the main thrust of all physical-chemical-biological processes. Responses to stimuli are geared towards these ends of survival. Unsuccessful responses get discarded and those that promote survival stay on and get drawn into the game.

So is nature teleological? Aristotle's natural philosophy has been described as a theory of internal teleology in the sense that every object is internally propelled to fulfill the potential into the actual being. Is this inherent necessity behind motion to become different purely mechanical? Or does what goes on within a being during the processes of becoming have the basic building blocks of activities that attain goals or ends by the following some means? Aristotle is well-known for his four causes. The formal cause or the vision of the thing to be, the end for the actualization of which the process is in place, is the purpose which guides the entire process of production. This formal cause operates in a capacity that can have a great range. In some cases it can be described as unconscious, but consciousness itself is a matter of degree. What goes on inside a seed is different from what goes on behind the formation of a canyon, but how different and in what ways different? Even some of our most significant decisions may be arrived at without exercising much intelligent deliberations. We all know about the instinctive activities of birds and bees that are performed in the middle range between the totally unconscious and fully conscious. The exercise of consciousness is not a necessary condition of processes that achieve ends. All machines, whether hand-driven or automatic, achieve ends by means. Hence Aristotle can without difficulty say that all processes of nature are purposive. They show the marks of certain means being used to achieve certain ends as directed by their specific structure. The fact that in each set of activity the operation of these means and ends follows a *regular* pattern, as though one step is leading to the next, is what prompts Aristotle to suggest that nature moves with a purpose.

The temporal order of sequences between these steps is such that those steps must be followed in order for the outcome to be achieved. In Nature, the succession of events is not such that any moment in time can be followed by any other moment. Moments are connected by an internal connection of necessity in order to become the next thing in the process. This is the Aristotelian necessity. It can be viewed as blind or fully conscious depending upon the field of operation or the stages in the life of a being. Wherever the presence of what we understand as the rudiments of life and consciousness are detected, the change is easily observed and understood to be mostly productive, for the better, boosting the survival value of the thing. As for the energies in motion in what for the lack of a better word, I would say, the pool of potential energies, the upheaval and succession of steps is not accidental at all either. Each emergent is conditioned to arise in order to proceed to the next step in an endless series of experimentations to try out and bring forth newer and newer forms which will allow more and more perfected operations of their functions. Life and consciousness are born and set on a survival mode as a result of these ceaseless changes going on in the energy filled core of being. To understand their emergence may be we need to rethink life and mind.

In a public release made on January 4, 2016, by the University of Groningen, the Netherlands, the release item entitled *The Origins of Abiotic Species* published in the journal Nature Chemistry (Sadownik, J. W., Mattia, E., Nowak, P. and Otto, S., 2016) report some very interesting research work done on how life may have evolved from chemical processes. Experiments were done to determine if the two basic processes of living organisms, namely, replication or autocatalysis and self-organization whereby organisms spontaneously develop themselves into higher order structures, can be detected at the molecular level. Sijbren Otto, the university's chemistry professor and his research group not only developed self-replicating molecules but also observed diversification powers in the replicator mutants, with a second set branching off spontaneously from an ancestral set of replicator mutants. Otto reports that first they had found that some small peptides could arrange themselves into rings. They then found that these rings could form stacks. Once the stack formation began, it would continue to grow and then break into two smaller stacks. Then the smaller stacks would both grow and further break into smaller stacks. The process would continue, with the stacks stimulating the formation of rings that compose them. These rings and stacks have been designated replicators as they are basically making copies of themselves.

Following this, Jan Sadownik, a researcher in the group, discovered that if the replicators are fed two different types of building blocks, A and B, then a set of replicator mutants will emerge that specialized in A and also contain some B. A few days later a second set of mutants emerged that specialized in B but also tolerated some A. This second set descended from the first set, and thus was like a grandchild to the original mutant group. The diversification process was displaying the structures of heredity or ancestral lineage. This was also akin to how new species form out of existing species, the process underlying biological diversity in nature, the exception being these processes were all occurring not at the full-fledged biological level but at the molecular level instead. Hence the process has been aptly described as *molecular speciation*.

The researchers experimented with the death of these sets as well. They channeled a stream of building blocks into the system to feed the sets while at the same time draining the contents of the reaction container. Only those replicators survived whose growth rate surpassed the removal rate. If the environment was changed by introducing another solvent, that would impact the fitness of the different replicator mutants differently. The mutants would then move towards those that are best at replicating themselves.

It is certainly possible to see some of Darwin’s natural selection at work here. However, the mutants appear to be working less out of chance, but more as driven by some kind of inner necessity towards survival and attainment of the higher order promoting survival. Aristotle would have been delighted to participate in this research which brings us face to face with processes of evolution, baring the palpitations of life in molecules and advancing towards greater and greater complexity. The links between Mrinmoyee and Chinmoyee, the earthen and the pinnacle of consciousness are also found here.

Tim Requarth who has his PhD in neuroscience from Columbia University, where he also taught biology, chemistry, and science writing and who currently directs NeuWrite (http://www.neuwrite.org/), a national network of collaborative working groups for scientists and writers, writes in the article Our Chemical Eden (Requarth, 2016), about the discoveries of the famed geologist Mike Russell or Professor Michael J Russell of NASA, JPL (Jet Propulsion Lab.), Pasadena, California. He writes that Russell’s first intuition into how life came to be occurred when he happened to inspect a shattered toy of his son. It was a tank which was like a chemical garden in which tendrils of rocks grew in a chemical solution. When the tank broke Russell found that these rocks were really hollow in the inside, like a bunch of drinking straws. Russell was working at the time at similar rock formations as part of his geological work. When he saw the formations in his son’s toy, the thought suddenly flashed in his mind that his rocks too may have formed in some such unusual chemical solution. He struck the hypothesis that undersea hydrothermal hot-springs through which mineral rich water ejected out of the earth’s belly, subsequently precipitating in the cool ocean waters, gave rise to the chemical gardens of the hollow rocks. From this hypothesis he took his second intuitive leap by positing that life originated in the wombs of these hollow rocks, in the warm chemical pools they cradled. Behind Russell’s intuitive conviction was his belief that he had found the energy that life mobilizes to grow and replicate. To him, the energy and the life using the energy no longer appeared to be two different things, but one and the same force. It did not take his geologist’s mind long to realize that such undersea chemical gardens would be sources of plentiful material energy trapped locally and fit for the emergence of self-replicating systems. In fact, given the set of conditions there, Russell believed that the emergence of self-replicating systems was not just possible, but inevitable. Life appeared following the same principles as galaxies were formed or tornadoes happen: Given the set of necessary conditions as they exist in the chemical garden, life will invariably emerge.

Russell thinks that the chemical gardens provide a natural environment for the emergence of what is known as chemiosmosis which is an essential process for the generation of energy needed for the living body. The mitochondria of the cells draw the chemical energy from food and convert it into the molecule ATP with the help of oxygen. ATP is the molecule of life. It is the energy we use every moment of our lives in whatever we do, consuming about 10 million molecules of ATP every single second. Energy flows through the mitochondria through a chain of proteins consisting of thousands of atoms. The protein chain traps the high energy electrons and passes them down the chain. The movement of the electrons creates an electric current which in turn traps a great many number of protons between the inner and outer membranes of the mitochondria. These protons can escape only through what is called ATP synthase, a special protein. This intricate machine spins like a water-wheel hundreds of times per second and protons falls through it as in a waterfall. Russell thinks that the early oceans were likely acidic with a high concentration of protons. However, the water coming up through the hydrothermal vents is alkaline with fewer protons.

Russell conjectures that this difference created a natural proton waterfall from the ocean to the undersea rocks which were thus filled with these protons. The proton flow and the electron transfers created simple reactions. Then as proteins evolved, some cells produced a primitive form of ATP synthase. While the ATP synthase is the same in every organism that is, the protein chain that traps protons is not so. This means that the first organisms used an existing proton gradient before they developed the means to create their own. In the rocks of the chemical gardens the proton gradients took shape. Life did not just happen. In the nooks and crannies of the rocks the carbon dioxide in the ocean reacted with the hydrogen from the earth's vents. This reaction took place due to the minerals iron and sulfur in the rock's walls. Small organic molecules came into being as a result of these reactions, such as the acetyl-CoA, one of the oldest. The molecules linked up to each other in the temperature gradient with cooler temperature on the outside and a warmer one on the inside. This created the connective process known as *thermophoresis*, which traps the molecules in compartments and leads to the formation of sugars, amino-acids, lipids and nucleotides which are the building blocks of life. Russell concludes that given the conditions of intense temperature and pressure under the seas, the building blocks were inevitably produced and further connected to bring into being more complex molecules. Genetic structures began to take shape and passed from one rock nook to another through micropores, thus colonizing stretches of rock territories and giving birth to the first cells.

In 2000, the vessel Argo II was lowered into the Atlantic to survey an underwater mountain range. It went past the depths reached by sunlight, past the half-mile mark of the gauge. Then came the startling revelation by the vessel's lamps. Peaks of rocks as tall as buildings twenty stories high rose out of the ocean bed. Heated water boomed out of them in gleaming spouts. A host of aquatic life flooded the region nourished by microbes that can convert raw elements from the inner earth without the sun's rays. The field was named The Lost City and it confirmed Russell's prediction of the chemical garden.

Do these theories of the origin of life go against the Second Law of Thermodynamics or Entropy which state that the universe is headed towards disorder from order? First of all, order and disorder are perceived by just human beings and they may not exist in anyone else's world. So this description of the trip is to be understood with expressed modesty. We can see the "this" or "that" in the path of the universe as conditioned by the equipment we are endowed with; or this or that principle is a logically necessary supposition to explain our observations or to put things in place coherently but we should be very cautious before we claim that the way we explain the world, whether empirically or logically, has any meaning beyond human discourse. This acknowledgement of relativity is the minimum humility required of any thinker. However, being who we are, our adventures into knowledge must continue. Theories must abide in coherence with each other and must be supported by newer knowledge gained. This is what Moore affirmed when he contended that the *whole* universe must allow room for possibles. Aristotle tried to explain generation by both theory (by positing an Unmoved Mover and *horme*) and practical observations of inner necessity between means and ends making what is potential into an actual being. Otto, Sadownik and Michael J. Russell's work shed light on how life may be understood as a stage in the life of the flow/cycle of energy we know the universe to be.

If we are content to say that the stages that mark the appearance or presence of life and consciousness show more complexity, more necessary connection, more means and ends kind of relationship, more self-replication and self-organization capabilities than are observable in the preceding stages, then we can come forward to share our belief that as far as we know, nature shows signs of orderly development, where one step leads to the next, where things do not happen by chance.

If life is understood as flow of energy then the story of life goes as far back as the Big Bang. Russell felt that the Big Bang generated a stress so great that it could be dissipated only by forming structured systems that came to be and then passed on to become something else. If the Big Bang led to an even distribution of matter and energy then nothing further could have happened. No further dynamism would have been noticed. But things are understood to have happened differently. It is likely that quantum fluctuations in the structure of space made a balanced distribution of matter and energy not possible. Instead structures arose, particles grouped together and were bound by gravity, leaving vast expanses of space that remained somewhat empty. Collapsing structures formed stars, gas and star-dust formed into planets with red-hot bellies given to tectonic shifts and volcanic activities. Hydrothermal vent structures opened up, creating in our earth the requisite temperature gradient in the chemical garden that further translated into life. Such a sequence of events cannot be ruled out elsewhere in the universe, now or before or in the future, given the limited scope of our knowledge and the limitlessness of what is out there. But the important thing is that we *know* of this situation.

Thus Russell[2] combats the view that his theory of the origin of life contradicted Entropy by asserting that the appearance of life is not a disorder to order movement but rather an "order from

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[2] Note: Russell was the 2009 Award Recipient of the William Smith Medal of the Geological society of London. Here is an introduction to Russell at the Award Ceremony:

William Smith Medal – Prof. Michael J Russell (NASA; JPL)

> The medal named for the Father of English Geology, William Smith, was first awarded in 1977 and is given in recognition of excellent contributions to applied and economic aspects of geology. It is therefore particularly apt that this year the medal goes to Professor Michael John Russell, now of the NASA Jet Propulsion Laboratory, Pasadena. For over 20 years, Mike Russell was Professor of Applied Geology, first at the University of Strathclyde, then at the University of Glasgow. As befits someone whose original contribution has lain mainly in our understanding of mineral deposit geology, Mike began his career working in industry and surveys across the world; but his subsequent research concentrated on the giant Irish Carboniferous-hosted base metal ore field – still Europe's biggest zinc producer and the world's most concentrated zinc source. In a period when the demands on metal resources are increasing and stocks being depleted, Mike's work is all the more important. In addition to developing the use of trace-element haloes as an exploration method, Mike linked ore genesis to the emerging theory of plate tectonics, developing original theories about north-south geo fractures that continue to tantalize explorationists. Mike Russell is one of our science's truly original

order" process. Without the presence (or perception thereof) of an initial order, no further organization can take place. Geological complexity is the necessary precedent of biological complexity. To him, life is best defined not in terms of what it is but what it does. It is a way of being in constant passing from this to that while yet maintaining ancestral link.

In Chapter XXI of Life Divine, philosopher Sri Aurobindo Ghosh (2005) dwells on the Ascent of Life. He tries to distinguish between four stages in the evolution of life much of which appears to fall in line with the works of Sadownik et. al. (2016). In the first stage, matter expresses itself as moving towards life by means of division. In the second stage comes aggregation. In the third stage comes mind or the desire to unite with fellow beings to make aggregation a reality, to preserve and make permanent, by heredity on the physical level and aggregate memory on the socio-cultural level, what the processes of division and fusion have achieved, what the individual being has experienced in its life-span and what will otherwise, but for the emergence of this level, be lost forever. The survival value of this third stage is enormous. But for Aurobindo, the fourth stage, which is the emergence of a higher form of mind, is even more important. The fourth stage consists in laying a *conscious foundation* for our vision of harmony with the whole universe upon the discovered unity and link between our body and the rest of the bodies, our life and the rest of the lives, our values and those of the others (Sri Aurobindo, 2015). This is the point where the scientist, the philosopher and the saint join hands. Neither the scientist nor the philosopher, nor even the saintly person can choose to ignore this question: How am I going to conduct myself in relation to all that is, was and will be and what is the reason behind my choice? To answer this question satisfactorily one must know how life came to be, how it diversifies, how it is preserved and how it progresses further.

This makes it necessary for me to examine what Bertrand Russell (1963) had proposed in his book *Mysticism and Logic* regarding the use of the scientific method in philosophy. The noted mathematical logician who is also acclaimed as a great philosopher of modern times had his own model for philosophy. He believed that meddling in ethics and religion have largely been not beneficial for philosophy, that it should turn to science instead for successful pursuit. In Chapter VI (entitled On Scientific Method in Philosophy) of his above referenced book, he says that philosophy can find science useful in its domain in two different ways. It can either base itself on the results of science, or it can apply the methods of science in its own investigations. Next he gives his considered opinion that philosophy can gain more from employing the scientific method than from the specific results arrived at by the different scientific researches. He says that philosophers, particularly evolutionary philosophers, often tend to give an air of absoluteness to empirical generalizations based upon observations and proceed thenceforward to describe evolutionary change as "progress" whereas decay is as much a phenomenon of nature as growth. The essence of the scientific mindset, according to Bertrand Russell, is to remain receptive to facts. While philosophers may remain cognizant of the results of the specific sciences in order to stay educated, these results do not impact the essential nature of the philosopher's business. He gives two reasons for this. He says that a philosophical proposition must not be regarding such properties of things that just happen to be. They should be such that they are true of any possible world

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thinkers. His work on ore body generation led him into the debate over where life originated. His idea about hot deep spring environments as a hatchery for the first proto-living organisms has now moved centre stage, and its clear astrobiological implications are what led to his current appointment at JPL.

independently of verification by the senses. This leads Bertrand Russell to his second statement that a philosophical proposition must be a priori or “such that can be neither proved nor disproved by empirical evidence” (Russell, 1963, p. 84). He proceeds to characterize philosophy as “the science of the possible” and hence as indistinguishable from logic. Analysis, and not synthesis is the job of philosophy. When philosophers veer from this role and start interpreting the results of science and offering rosy and optimistic pictures of the universe and evolution, they are guilty of giving “legislative force to their own wishes” (p. 82).

In Chapter I of *Mysticism and Logic*, Bertrand Russell comes down hard upon the tendency of the philosopher to anthropomorphize and be a preacher of “pleasing dreams” (p. 29). The philosopher, he says, needs to maintain “ethical neutrality” (p. 29). A philosopher should have nothing to say about pessimism or optimism, good or bad, love or hate. There is not enough abstract difference between these ethical opposites. There is not much difference that is substantial between them, not any difference of form or structure, the opposites being very similar to each other in being simply states of mind. Philosophers should be more interested in knowledge for its own sake and

> acquire the disinterested intellectual curiosity which characterizes the genuine man of science. Philosophy is not a short cut to the same kind of results as those of the other sciences: if it is to be a genuine study, it must have a province of its own, and aim at results which the other sciences can neither prove nor disprove. (p. 25)

It appears that Bertrand Russell has taken upon himself the task of defining philosophy. By adopting his definition, we would have to exclude many great philosophers from their entitlements. I agree that anthropomorphism is always a lurking danger for us, but would consider that even Bertrand Russell is guilty of that slip when he states that a philosophical proposition has to be true of all possible worlds. Logic is but a tool of the human mind. Its propositions are but *our* ways of understanding. The only way to avoid being anthropomorphic is to remain aware that our knowledge is always going to be through the human lenses but I refuse to narrow down philosophy to this single statement of the relativity of human knowledge. Socrates was humble but that did not stop him from raising crucial social, moral, political and epistemological questions. Philosophers must not quit interpretation of data and sharing their pursuits with scientists and moral, political and religious philosophers. They are all philosophers in their own rights inasmuch as they are all trying to fit pieces of puzzles which cannot be put together without mutual corroboration. It is true that knowledge is increasingly becoming specialized but no one can dictate that they must remain compartmentalized, that the findings of one branch cannot be shared with another, commented upon and absorbed in a common field. Philosophy is what it etymologically is: love of wisdom. Knowledge becomes wisdom only by interpretation and wisdom becomes enshrined in us only through internalization and constant practice. Philosophy has to be what we deeply believe in, and as such it holds hands with religion, ethics and politics. It must not be forgotten that Socrates, Christ, Meerabai, Gandhi, Martin Luther King Jr., all five of them gave their lives for what they *knew* and *believed* in, and there have been many others who go unnamed, here and in history books. The five named here lived their lives by their *philosophies* which they arrived at by intense cognitive and living soul searches, by means of countless interactions with other beings. If they are not to be admitted as philosophers, the claim of Bertrand Russell to be counted as one will remain in the shadow. Ethical neutrality is a most unbecoming feature in any human being, and more so than tendencies to hasty generalizations and forgetting to submit to facts. The latter two can be more readily corrected while the first represents an attitude, a conviction, much harder to overcome. While it is good to rein in baseless optimism, it is important to have faith and the nurturing of faith is sustained by the admission of the world of possibles. Faith generates hope and courage. However, if it does not make us love and teach us to live in harmony, then such knowledge of possibles is of no use. We can be logicians only when we have learned to live and survive. It is my philosophy that a prosperous garden can be cultivated by scientists and philosophers of all shades when they draw upon each other.

Not only are abstractions envisioned and formulated by human beings, they are derived from our experience of particulars, fed by our interactions with and thoughts about particulars and are seen as applicable to particulars. The first question that is put to a suspect in a murder case is: Where were you at the time of the murder? The implication is that someone cannot be in two places at the same time. If the suspect was at a restaurant at the time the murder took place in a home, then the district attorney has a problem. Anybody who is trying to shear the bond between the universal and the particular, the abstract and the concrete, change and continuity, the one and the many, spirit and matter, the divine and the earthly, consciousness and the life and energy flowing through the world is doing us a big disservice. If we cannot see these supposed opposites as residing in each other, if we fail to recognize Chinmoyee in Mrinmoyee and Mrinmoyee in Chinmoyee, we will continue to hurt the earthly woman while singing praises to the goddess's divine nature; or ignore a child's well-being while putting the child Krishna and baby Jesus on pedestals. This is my opinion, based upon knowledge derived from the humanities and sciences, and yes, I am philosophizing when I am saying this. My philosophy is my belief system and network of actions *consciously founded* upon my knowledge as it is today. This conscious foundation-laying is what makes me and anyone else a citizen of what Aurobindo referred to as the world of the Supermind. It is also what determines my path, helps me stay on the path and serves as justification for why I do what I do.

It is important to understand that divisions, distinctions, and contrasts are useful mostly for analytical and artistic purposes. If they make us blind to fusions and create in us the inability to see the whole picture, then we are being deprived of seeing the way Nature works. There are no clear-cut distinctions in Nature. The living is in the dead, the dead is in the living. Spirit is in the dust and dust is in the spirit. Resistance to see ourselves in each other is what leads to wars; obliviousness to our ties to Nature, animate and inanimate, is what leads to cruelty to animals and environmental disregard. Likewise, failing to see Chinmoyee in Mrinmoyee is what leads to the ridicule of images as idols, to hate wars against image-worshippers.

To further understand Mrinmoyee it is imperative that we gain an insight into what is involved in the process of image worshipping. An image can be understood in different ways. It can mean a reflection, as in a mirror or in water. In such circumstances it is easy to bear in mind that the image is not real in the same sense as the object casting its reflection. When Sultan Alauddin Khilji[3] was allowed to behold queen Padmini's image in the mirror by her husband, the sultan knew the difference. The situation was different with the lion in the Aesop's Fables. The lion jumped to its death in rage upon seeing its image in well water because it took the image to be real. Similarly, the men in the allegory of the cave in Plato's Republic thought the reflections cast on the cave wall to be the real objects because they were forever enchained and could never turn back to cast their eyes on the real things that were casting the shadows, exemplifying the classic principle of *maya* or ignorance rooted in the human condition which can be undone only by conscious effort or divine grace resulting in enlightened perception. In worshipping an image, the worshipper does not consider the image to be a reflection of something else that is more real as in the case of Padmini and her image. Nor is the devotee trapped in a state of ignorance or illusion from which there is need of deliverance. The worship is offered not to an appearance but to what is considered to be the real thing by the devotee.

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[3] Alauddin Khilji was the second ruler of the Khilji dynasty in India reigning from 1296 to 1316. A tale of his attack on Chittor in 1303 CE to capture the queen of Chittor, Rani Padmini, the wife of Rawal Ratan Singh and the subsequent story have been recounted in the epic poem Padmavat, written by Malik Muhammad Jayasi in 1540.

Image worship is also significantly different from belief in pantheism and immanence. If the divine is believed to be everywhere then a stone, a tree, an animal or every conceivable form is worship-worthy. But this is not the reason why a devotee showers all his affection on an image. The philosophy of immanence simply serves as a justification for the idea that there is nothing impious about a form, any form. Ushering in *Mrinmoyee* has more to do with "manifestation". An image is worshipped because the devotee considers that the deity is manifested in the image. Such consideration by the devotee is a very conscious process involving deliberation and choice. The worshipper has to ritually instill life into the image. This process is known as *pran-pratistha*. The process can also be undone and the deity bade good-bye as in the practice of *Visarjana* or immersion of *Mrinmoyee* or the clay-image in water. In an act of worship, the worshipper plays as important a role as the object of worship. The worshipper calls upon the deity to be seated in the image and then engages in interaction with it. An example would be the Wilson volleyball from the Tom Hanks movie Castaway.

At the other end of the road of worship is the worshipped. While undergoing the process of manifestation at the call of the devotee, the deity becomes subject to all the limits of form, including birth, growth and death. The thought of such willing submission to limits in order to answer the devotee's call is seen as proof of the abounding love of the creator for the created. The belief in incarnation is closely related to the contemplation of godhood as Mrinmoyee, the earthly one, the one of flesh and blood, the manifest fountainhead of all that is treasured in *chit* or consciousness.

The separation of *Chinmoyee* and *Mrinmoyee* is, in the ultimate analysis, untenable. Nature is a continuum and is worship-worthy as such.

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Editorial

Jonathan Reams[1]

Welcome to this issue of *Integral Review (IR)*! We are pleased to welcome you to a new regular issue, which brings together a number of interesting articles, essays and reviews.

It has been a while since our last regular issue in January of 2016. While we are pleased to be able to publish a range of special issues over time, we are always excited when we are able to pull together a new regular issue. These issues are a long journey, through many different kinds of processes for the authors, reviewers and editors involved. Despite these differences, all of the contributions in this issue can be perceived as forms of advancing our understanding of an integral view of the world and our participation in it.

If I was to look for a theme in this collection of articles, essays and reviews, I would say that it has to do with understanding consciousness and how it shapes our existence and experience in this world. 40 years ago I began my university education studying physics, but dropped out and later turned to studying consciousness (and leadership). Along the way I have encountered numerous perspectives on the relationship between the two subjects, with a polarity in perspectives, from materialist interpretations to idealist ones. This conversation continues today, being taken more and more seriously as it becomes apparent that we cannot ignore an integral view of the intimately intertwined nature of consciousness and matter. The science magazine Nature recently highlighted this as an ongoing conundrum (see article here). An example of an integrative perspective comes in the notion of panpsychism, that consciousness is a fundamental feature of physical matter, which is being taken seriously by a wider range of mainstream physicists and others (see article here). All of this leads into the territory IR has always been intended to serve as a platform for new thinking from an integral view.

Thus we fittingly begin this issue with Doug Marman's *The Lenses of Perception Interpretation of Quantum Mechanics*. At IR, we are always on the lookout for new thought and Marman delivers on this. His article is a substantive piece of investigation into some of the most fundamental questions science has ever tried to answer. In true transdisciplinary fashion, Marman covers a wide range of disciplinary knowledge. He begins by showing similarities between quanta and living organisms, leading to an inescapable predication that quantum behaviour is driven by sentience. This leads naturally into a detailed examination of consciousness itself and how participation is a creative process of perception. (This is something that will also show up in Bonnitta Roy's article). Marman then lays out a set of nine postulates that lay a more formal foundation to show how his Lenses of Perception interpretation can address a wide ranging and essential set of issues generally held as necessary for any theory to be able to bring coherence to our understanding of all physical

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[1] **Jonathan Reams** is Editor-in-Chief of Integral Review, holds a position at the Norwegian University of Science and Technology, is co-founder of the Center for Transformative Leadership and the European Center for Leadership Practice, and does consulting and leadership development work for a variety of clients in Europe.
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processes. Having done this, an examination of quantum formalism and how the LoP interpretation (using first, second and third person lenses) not only meets the tests of quantum formalism, but even shows why the second person lens of relationship is necessary for understanding it. Finally, Marman lays out how his LoP interpretation meets a variety of challenges, including the five unsolved problems of physics, and points to ways to test out this interpretation. The overall scope, depth, breadth and rigor of Marman's work makes this article a seminal contribution to discourse around these fundamental questions, and IR is pleased to publish it here.

We follow this by diving into the application of how consciousness shapes organizational and leadership culture, and what can be done to support its healthy evolution. John McGuire and Charles Palus, both senior fellows, long time faculty and researchers at the Center for Creative Leadership, bring us an article on *Vertical Transformation of Leadership Culture*. They tackle one of the most challenging topics in leadership and organizational theory, that of culture. They approach it by linking their work in development theory with the DAC framework (direction, alignment, commitment), a relational ontology and process model of leadership. This link enables them to clearly describe and indicate how to work with leadership culture in a manner that enables transformation. This work has led to the creation of tools that are elegantly simple to use, yet naturally stimulate the kind of reflection that promotes growth (speaking from the experience of not only using some of these tools, but seeing others use them successfully with no knowledge of the background developmental theory).

This is followed by *Creating Responsive Learning Environments to Develop Students' Reflective Capacity* from Patric Wallin, myself (Jonathan Reams), Sven Veine and Martha Kalvig Andersen. This article describes aspects of the theoretical foundation for and a description of some exploratory research on applying a computer aided developmental assessment (Lectica's CLAS) to creating a responsive learning environment. The theory behind this work focuses on how to support students in the move to self-authoring their learning processes. They explore how using formative assessments based on models of cognitive development can generate learning environments that can be responsive to students' natural learning and growth. The focus of application is on a large scale university course in Norway where students need to build reflective judgment skills and apply them to teamwork. While the research is in the early phases, it is an interesting application of developmental thinking to attempts to produce scalable classroom tools for supporting the development of the key skill of reflective judgment.

Rounding out our peer reviewed section is Zakary Stein's *Love in a Time Between Worlds: On the Metamodern "Return" to a Metaphysics of Eros*. This theme of deep explorations of an integral view finds its expression here in Stein's focus on a metaphysics of eros as the eternal struggle in this world between forces of love and death. To enable an adequate metaphysics in today's postmodern climate, Stein first lays a foundation for how we can practice metaphysics today, delving deeply into post Kantian thinking and taking up this thread after Darwin through Pierce into what he highlights as a "guerilla ontology." This is a highly educational journey that helps contextualize an array of key threads of thought at the heart of the second part of this article. There, Stein goes into how all of this applies to an understanding of eros as the heart of love and sex, reality and politics. I found it as a kind of meta-thread when Stein shows how errors in thought and ethics are traced back to the priorness of emotions and failures in relationships, linking back to Marman's understanding of relationships being at the heart of not only biology, but even quantum physics. The end of Stein's article focuses on how Gafni's *A Return to Eros* addresses these and other issues that help us get out of the postmodern swamp and back to a solid foundation in a reality where love can be prioritized and realized.

Our editorially reviewed section begins with Bonnitta Roy's presentation of her master thesis in consciousness, *Awakened Perception: Perception as Participation*. Regular readers of IR will have seen a number of articles from Roy over the years that show the breadth and depth of her thinking as well as its evolution. In this piece, we are treated to an inside look at the path of exploration she has recently engaged in. This covers research on perception itself, neurodynamics as the gates of perception, the role of the brain and senses in perception and the imagination, all leading to a conception of awakened perception, which is then examined in relation to Buddhist thought on the subject. As well, for those who are following and or applying her work on Open Participatory Organizations, this piece will provide insights into the foundations of the innovative applications she has been using to help people organize in ways that encourage natural organization around maximum participation.

I had the good fortune to be in London last May for the 2018 European Society for Research in Adult Development (ESRAD) conference. For me, and a number of others, one of the highlights was Thomas Jordan's hour long session where he presented the set of propositions laid out in *Late Stages of Adult Development: One Linear Sequence or Several Parallel Branches?* The quality and energy of the conversation that arose from considering these propositions made it clear that the questions Jordan raises are ripe for exploration among a growing community of researchers adequately prepared to begin addressing the questions Jordan lays out. In his article he lays out key concepts related to the different lines of research and theories he addresses and then lays out six propositions for us to consider, followed by five examples of profiles of people with different profiles combining various aspects of late stage development. The conclusion is an invitation to engage more robust sets of analytical constructs in our attempts to understand these phenomenon.

Susanne Cook-Greuter has graciously provided us with her keynote talk at the 2018 Integral European Conference, *The Construct-Aware Stage of Ego Development and its Relationship to the Fool Archetype*. In her warm and engaging style, she engages in Foo-ling as a means to illustrate the means by which construct awareness can be realized. She describes the role of language in shaping culture and consciousness, gives a brief overview of ego development theory and then examines the characteristics of fools and the fool archetype. This allows Cook-Greuter to make a list of shared characteristics which shows that wisdom and foolishness, leading to an admonition to not take ourselves too seriously and to laugh more!

For our next item, I have continued my interest in providing extended overviews of books that I believe to be of interest and relevance for our community of readers. In *The Nordic Secret: What can we Learn?* I present a chapter by chapter overview of the book *The Nordic Secret: A European Story of Beauty and Freedom*, which traces key influences on what the authors, Lene Andersen and Thomas Björkman consider as the foundation of Nordic success. Essentially, this involves an engaging narrative through the German Enlightenment and how the central ideas of the time articulate the perennial philosophy and closely match current notions of ego development. These ideas then shaped efforts at a people's education in Scandinavia and laid a foundation for a robust participatory democracy. How this could be adapted for today’s societal challenges is also addressed. The book is a wonderful application of integral thought to historical and current society.

Finally, Matthew Rich-Tolsma presents a review of Jennifer Gidley’s *Postformal Education: A Philosophy for Complex Futures*. He offers a penetrating examination of both the context and content of Gidley’s work, outlining the four core pedagogies; love, life, wisdom and voice. Rich-Tolsma captures the essence of Gidley’s work while also pointing to how choices made in the approach can also present limitations to the impact of the work.

With this, we hope that you enjoy the diverse feast laid out in this issue of *Integral Review*!

The Lenses of Perception Interpretation of Quantum Mechanics

Doug Marman[1]

Abstract: A new interpretation of quantum mechanics (QM) shows that all of the baffling behavior of fundamental particles that make QM so hard to comprehend are consistent with the behavior of biological lifeforms involved in receptive-responsive relationships with one another and their environment. This raises a radical possibility that fundamental particles possess a form of sentience and this sentience enables them to form relationships that create all of the tangible matter and energy and the spatiotemporal dimensions of our universe. This paper proposes a set of underlying principles to explain how this works at the quantum level. These principles are shown to be consistent with quantum formalism. Further, this paper shows that these principles offer an intuitive explanation for why the formalism of QM takes the form that it does.

Quantum formalism tells us that quantum states cannot be measured directly in their natural "coherent" form, and that quantum states must evolve gradually and linearly until a measurement occurs. Why? And why is all matter and energy quantized into packets that behave like particles when they are measured, but act more like waves when they are not being measured? And why do entangled particles act as if they "know" and "respond" to each other's state no matter how far apart they are?

This paper proposes that *if sentience is the cause* of this strange behavior, then the irrational nature of human relationships that we experience every day *can* offer insights that directly relate to the strange behavior of quanta. This opens the door to an intuitive understanding of QM.

This paper shows that there are three fundamental lenses of perception (sentient ways of sensing and responding) that appear to guide the behavior of all quanta and living organisms: first-person, second-person, and third-person perception. Quanta and life forms use these three lenses to form different types of relationships, and these relationships are what create the natural universe. These principles reveal an intangible aspect to sentient relationships, represented by quantum states that shape everything happening in the tangible, measurable world.

However, the main value of an interpretation of QM is its ability to offer potential solutions to existing problems in science. Two speculative proposals will be reviewed briefly. The first offers new insights into how the field of space may emerge at the quantum level. This has the potential to resolve the problems with developing a

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[1] **Doug Marman** has been lecturing, writing, and leading classes on the exploration of consciousness for more than forty years. His recent book, *Lenses of Perception: A Surprising New Look at the Origin of Life, the Laws of Nature, and Our Universe* (http://lensesofperception.com), outlines the path he took to arrive at the ideas in the current paper. His work has led him through a wide range of successful professions, including: chief technology officer and corporate executive of a $1.7B division of General Electric, co-founder of a technology start-up based on artificial intelligence, inventor (with more than thirty patents), journalist, marketing manager, editor, and engineer. He lives with his family in the United States Pacific Northwest.

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quantum theory of gravity. However, the most startling prediction of the Lenses of Perception (LoP) Interpretation is that quantum behavior must be involved whenever living creatures engage in relationships with each other and their environment. This prediction is unavoidable if the interpretation is right. It also offers a simple way to test the theory. If this interpretation is sound, it has far-reaching implications for biology, psychology, and other social sciences because it shows that quantum effects play roles in all of those fields.

Keywords: Conscious access, dark energy, dark matter, decoherence, entanglement, panpsychism, quantum formalism, quantum gravity, quantum states, superpositions, wave collapse.

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Introduction

Quantum mechanics has proven itself to be one of the most important scientific breakthroughs in history. The astounding accuracy of QM now displaces classical physics, especially when working on small scales near the sizes of atoms. However, the philosophical problem with QM is that it also displaces a number of important concepts of classical physics, such as the principle of cause-and-effect; the meaning of forces; the solidity of matter; and the ability to position ourselves as independent outside observers when running experiments.

The observer problem has serious ramifications: It means that there is no accurate third-person perspective for quantum interactions. This goes to the heart of what makes QM so baffling.

The impact of the observer cannot be avoided in quantum experiments because trying to measure or observe fundamental particles alters the outcome. This is not just due to the fact that shining a light on subatomic particles means hitting them with photons that carry a force. No, the problem goes much deeper. There is no way to gain direct information about fundamental particles without entering into a quantum state with those particles.

This limitation of observation is directly related to "the measurement problem" in QM, which will be discussed in more detail later. This is the biggest issue that interpretations of QM try to resolve.

There are more than a dozen interpretations that are consistent with the mathematical formalism of QM (Schlosshauer, Kofler, and Zeilinger, 2013). They each try to expand our understanding of the natural world and the meaning of QM. However, in many cases they contradict each other, which means that these interpretations cannot all be valid.

Two recent papers give a good example. Both offer excellent insights into QM, and both are fully consistent with QM formalism. Yet, they paint very different pictures of what the puzzle of QM is really about. The reason for this is that they each focus on different parts of the puzzle.

The first paper, "Relational Quantum Mechanics," by theoretical physicist Carlo Rovelli (2008) tries to get at the core of the difficult "sense of unease that quantum mechanics communicates" (p. 1). In his paper Rovelli offers two ideas: First, that there are no such things as observer-independent states of quantum systems, and there are equally no such things as observer-independent values of physical qualities (p. 1). In other words, in quantum mechanics there are only relational states and relational measured values. Second, he says that "quantum mechanics will cease to look puzzling only when we will be able to *derive* the formalism of the theory from a set of simple physical assertions ('postulates,' 'principles') about the world" (p. 2).

The second paper is "Taking Heisenberg's Potentia Seriously," by physicist/philosopher Ruth Kastner, biochemist Stuart Kauffman, and philosopher of science Michael Epperson (2017). This paper proposes that "quantum mechanics evinces a reality that entails both actualities…and potentia" (p. 8), where the later are invisible, intangible, quantum possibilities that exist outside of space-time dimensions and yet influence all tangible actualities within space-time. Both actualities and potentia are, therefore, "ontologically significant." This perspective "accounts naturally for the counter-intuitive features of quantum mechanics such as nonlocality, entanglement, and instantaneous collapse" (p. 15). Interestingly, this paper also makes a point to argue for using a “constructive theory” (p. 8) that offers a model for how quantum processes work, rather than a “principle theory,” as the best way to gain insights into physical processes underlying quantum phenomena.

Later I will return to these papers in more depth to show that they both offer valuable insights. But the point I want to illustrate here is that these papers present two very different pictures, and neither picture naturally leads to the conclusions of the other. How does the relational nature of quantum states and properties lead to the conclusion that actualities work differently from quantum potentia and both are real? Or how does the dual nature of physical reality lead to the conclusion that all quantum states and measured values are relational; none are observer-independent? At the same time, each paper argues for opposite approaches in how best to understand quantum phenomena.

More importantly, Rovelli’s paper still leaves us with the question of why all quantum systems exist only as observer-dependent states. This seems just as unsettling and hard to comprehend as the puzzle of quantum mechanics that it hopes to help us understand. And if we take Heisenberg’s potentia seriously, we are still left asking: What does it mean to say that quantum possibilities exist as a form of reality when those quantum possibilities are not actualities? In both cases, the baffling nature of quantum mechanics remains, as if to remind us that although we seem to be taking steps in the right direction, we are still no closer to making sense of it all.

In this paper, I hope to show that both a theory of principle and a constructive theory are needed to find an interpretation that is comprehensive enough to allow us to see how all these puzzle pieces fit together. Using both approaches can then show us why “Relational Quantum Mechanics” falls short of solving the measurement problem, while “Taking Heisenberg’s Potentia Seriously” does offer a working model that helps us understand the measurement problem, but does not go far enough to identify the underlying principles that explain why our physical world is composed of a duality of actualities and quantum possibilities in the first place.

If I was going to summarize the central issue that makes quantum mechanics so baffling, I would say that it begins with the scientific desire to establish quantum theory only on the tangible results of repeatable experiments and the attempt to reduce those results to a formalism that accurately predicts what will happen in the real world under any conditions.

There is nothing wrong with this desire except that it is limited solely to a third-person perspective, as if we are independent observers. Unfortunately, using this lens makes it impossible to see what is happening at the quantum level. We will never understand the full meaning of quantum interactions from an outsider’s perspective because, as Rovelli shows, there are no observer-independent quantum states or values. Only relational states and measurements appear to exist. This means we need a relational lens to understand what quantum behavior means. However, this still leaves us with questions: Why does the physical world behave this way? And what does it mean?

Albert Einstein, one of the founding fathers of quantum theory, could not bring himself to accept the whole picture of QM. He felt something important was missing. QM didn’t make sense as a complete theory. Rovelli (2017) tells the story:

> On the one hand, Einstein proposed Werner Heisenberg and Paul Dirac for the Nobel Prize, recognizing that they had understood something fundamental about the world. On the other, he took every opportunity to grumble that all this did not, however, make much sense.
>
> The young lions of the Copenhagen group [Heisenberg, Neils Bohr, and others] were dismayed: how could this come from *Einstein* himself? Their spiritual father, the man who had the courage to think the unthinkable, now pulled back and feared this new leap into the unknown – the very leap that he had himself triggered? How could it be the same Einstein who had taught us that time is not universal, and space bends; the same person now saying that the world could not be *this* strange? (pp. 137-138)
>
> [Einstein] refused to accept the relational aspect of the theory, the fact that things manifest themselves only through interactions… Ultimately, Einstein accepts that the theory represents a gigantic leap forward in our understanding of the world, and that it is coherent. But he remains convinced that things could not be as strange as this theory proposed – and that "behind" it there must be a further, more reasonable explanation. (p. 139)

This paper suggests that Einstein was right to reject the idea that things manifest *only* through interactions, and he was right to think that something more is going on behind those interactions that can offer an explanation that makes more sense. As will become clear, the missing element is an intangible aspect of reality called the "quantum state," that cannot be seen directly by third-person perception but plays a vital role in everything that happens in the tangible world. What we need is a way to understand this quantum state. What is it and what does it mean?

Although quantum states, as described by physicists, seem baffling and bizarre, because we cannot see them directly, they are, in fact, something that biologists, psychologists and social scientists should recognize as familiar, because they run into a similar situation when trying to study living creatures. They know that there is no way to see how organisms or human beings live in their natural state (when they are not being observed), because it is only possible to study how they behave when scientists observe them.

Or to put this another way: Organisms naturally respond to being measured because, whether we realize it or not, the act of measuring and observing creates a relationship with living things that alters how they behave. When marine biologists study the feeding and breeding behavior of fish, or zoologists study the social interactions of gorillas, they know that they are not just observing, they are also being observed. This suggests that if there is a possibility that quanta are sentient then a relational lens *is* needed to unravel the meaning of quantumness and where it comes from. It also suggests that there *is* something more going on with receptive-responsive relationships between quanta that *does* make sense of their behavior.

While this paper explores the possibility that quanta themselves might in some way be related to sentience, it does not start with this proposition. It begins in section 1 with a long list of similarities between the behavior of quanta and the behavior of living organisms. These behaviors represent the most puzzling aspects of QM. The list of remarkable similarities is so long and comprehensive that it begs the question: Do quantum entities possess some form of consciousness?

This leads to a quick, informal test of this interpretation in section 2, just to see if it holds any merit. If sentience is responsible for quantumness, then it leads to an inescapable prediction: We must see all of the seemingly inexplicable behaviors of QM at the level of sentient organisms as well. If this is true, it contradicts one of the most widely accepted tenets of QM theory: that some quantum behaviors are visible only on small scales. More importantly, if this conjecture is right, it sheds an important light on the meaning of quantum behavior, and it shows that quantum behavior must play a fundamental role in biology and all of the social sciences, especially psychology.

The fact that observers can no longer be ignored, that they are always involved in the measurement process, has led some physicists to propose that the consciousness of the observer might be the key to solving the measurement problem (von Neumann, 1955, & Wigner, 1961). However, those interpretations have fallen out of favor for good reasons, because recent experiments show that the measurement problem still exists even when test configurations are altered randomly and no person observes the results until long after the data are collected. This does not rule out the involvement of consciousness, but it does suggest that any influence on measurements by human observation does not resolve the underlying questions about the measurement process.

This raises one of the most significant criticisms that can be aimed at this current paper: whether it has the rigor necessary for a formal interpretation of QM. There is a good reason to raise this question because this paper is dealing with the notoriously difficult-to-define nature of consciousness.

This paper argues that complete analytical rigor is not necessary or even desirable when looking for a way to interpret and understand QM. Where rigor is needed is in testing theories. For this hypothesis to be testable, therefore, it must offer clear descriptions and models for what quantum states are and how they change. Therefore, this paper needs to explain how consciousness is involved in relationships between quanta in a way that is clear enough to be rigorously tested. This is dealt with in section 3.

After passing the informal test in section 2 – to assure that this approach is worth exploring – and finding a way to work with sentience in a scientific manner, in section 3, the paper presents the underlying principles that govern quanta in section 4. These principles also lead to a constructive model that is consistent with Heisenberg’s potentia. Section 5 then shows that these principles are consistent with the mathematical formalism of QM. Further, it shows, as Rovelli suggests, how quantum formalism can be derived from a set of underlying principles.

In section 6, the paper discusses implications, challenges, and opportunities for further research.

1. Similarities between Quanta and Living Organisms

Before looking at the similarities between quanta and living organisms, there are two lessons from classical physics that can help guide our way to a more comprehensive understanding of QM.

The lens of perception used by classical physicists, which is based on the third-person perspective, grew largely out of Isaac Newton’s approach to studying the force of gravity. He developed the mathematical tool of calculus to understand motion and changes in motion (acceleration). From this he drew startling conclusions about the laws of motion in general. For example, unless an external force acts on an object, the object will never change its speed or direction. And the acceleration of an object is determined by the force that is driving it.

However, a closer look at Newton’s calculus, as in Marman (2016) shows that analyzing generalized changes in motion produces a far more complex picture. The equation looks like this:

The distance an object moves over time = $V + ba_1{}^2 + ca_2{}^3 + da_3{}^4$... (p. 23)

The three dots at the end tell us that the formula is infinite. It never ends. Newton simplified the equation by using a powerful device: studying one force at a time. If we look at only one force acting on an object, then calculus reduces the above equation to this:

Force = (mass) x (acceleration)

That makes changes in motion manageable, and this is the basis of Newton’s second law of motion. But few physicists realize how much has been lost to achieve this simplicity: It only applies to cases where an external force acts on an object, and it only applies to forces that act independently. It does not include the possibility of multiple *internal* influences being involved in the dynamics. As a result, it no longer gives us a general description of changes in motion.

This turns out to be crucial when studying living creatures because biologists have clear evidence that even the simplest organisms initiate changes from within, as biologist Martin Heisenberg (2009), son of the physicist Werner Heisenberg, explains:

> The idea that animals act only in response to external stimuli has long been abandoned, and it is well established that they initiate behaviour on the basis of their internal states, as we do. (p. 164)
>
> Evidence of randomly generated action – action that is distinct from reaction because it does not depend upon external stimuli – can be found in unicellular organisms…. What this tells us is that behavioural output can be independent of sensory input.... The physiology of how this happens has been little investigated. But there is plenty of evidence that an animal's behaviour cannot be reduced to responses. For example, my lab has demonstrated that fruit flies, in situations they have never encountered, can modify their expectations about the consequences of their actions. They can solve problems that no individual fly in the evolutionary history of the species has solved before. Our experiments show that they actively initiate behaviour. (p. 165)

Newton’s approach cannot be used to explain the sentient behavior of living things because his second law only applies to singular external forces acting on objects. If we cannot use Newton’s second law, then we need a different lens to understand biological life because the principle of cause-and-effect and Newton’s laws do not apply to changes in motion originating from within.

It turns out that this same issue exists in QM as well. Physicists do not see external forces directing the behavior of individual quanta. Instead, what are interpreted as forces emerge from invisible quantum exchanges between particles. In other words, forces emerge from relationships. (More on this later). This is why QM sees the forces of classical physics more as outcomes than causes.

Here is a second interesting insight from classical physics that might help explain the seemingly bizarre world this paper is exploring. Physicists have struggled with trying to understand why human beings experience time flowing only in a forward direction (Penrose, 1989, p. 302). If we use the traditional third-person lens of classical physics, time looks as if it is spread out from past to future like a separate dimension. This third-person view of time shows no reason for time to flow in only one direction. In fact, it does not even suggest that time flows at all.

It is not just our experience of the forward flow of time that presents a problem for physics. Our first-person perceptions give us a clear experience of time that we call the moment "now." In fact, our experiences suggest that "now" is a continuously flowing passage between past and future. Hence, the *experience* of "now" appears to be the only moment of time that exists. The past, as well as future possibilities, do influence all sentient creatures, but organisms experience directly only what is happening now. Classical physics, on the other hand, has no way of determining any special meaning for "now" (Mermin, 1998); it is just a point on a line like any other point.

Our experiences also show that our perceptions of time can vary dramatically from one situation to another. For example, time may seem to speed by when we are having fun with friends, while it drags when waiting in line at a store. Because of these widely varying experiences of time, our perceptions are often considered subjective and then discounted. However, this misses the fact that these experiences with time are not happening solely within ourselves. They come from relationships with others in the world. Or, to make this point clearer, time appears to vary depending on our relationships. Experiences with relational time do not follow the tick of an externally imposed time-frame. They are context-dependent and personal.

This shows that although the third-person lens may be ideal for understanding mechanical cause-and-effect reactions, it does not show us everything that is happening. We face the exact same challenge with quantum behavior; we appear to be missing some vital aspect beneath the surface of tangible phenomena. And, as we will see later, what we are missing may have everything to do with the intangible dynamics of relationships between sentient agents.

Now, let's turn to the resemblances between quanta and organisms.

1.1 Indeterminacy

Quantum theory says that an individual particle's actual behavior is unpredictable. Equations can accurately determine the probabilities of where photons might hit a screen, for example, but there is no way of knowing where a single photon will actually land before it does.

This suggests that the landing spot is not determined by outside influences alone. External forces only shape the probabilities of what will happen, they do not determine individual outcomes. This is one of the strange realities of quantum mechanics. This was also one of Albert Einstein's biggest problems with QM. He felt that it was an indication that quantum theory is incomplete, leading to his famous comment, "God does not play with dice." In other words, he felt that there needed to be some kind of explanation for the indeterminate behavior of quanta.

Exactly where a photon lands can be compared to a swimmer in a sea of shifting currents reaching out to helping hands on a rocky shore.[2] Which hand will the swimmer grab? Indeterminacy shows us that photons and other particles are not actually "forced" into position by forces. They are only influenced. If this is true – and physicists have proven this over and over again – then what determines the end result?[3] This is one of the unsolved mysteries of QM.

Many interpretations of QM have proposed possible answers. For example, the von Neumann-Wigner Interpretation (n.d.) suggests that the quantum wave-function, which describes how quantum possibilities evolve, "collapses" down to one actual outcome through the consciousness of the observer. But, even if this were true, it offers no insight into how or why one possibility is selected over another. Therefore, it does not solve this problem.

The Many-Worlds Interpretation (n.d.) tries to get around this issue by suggesting that all possible outcomes take place in different universes. Unfortunately, these parallel universes are beyond our reach, so we have no way to test this. But even if this interpretation were right, it still wouldn't explain why the photon in our universe arrives where it does. It simply says that we are living in a world where it lands on that spot. This does not help us understand what is happening or why.

The Copenhagen Interpretation does not recognize the "wave collapse" as real because the wave equation cannot show how it happens. This is one of the reasons why Bohr said that the quantum realm is impossible to understand (Kastner, 2016, p. 1 and p. 14).

The "Taking Heisenberg's Potentia Seriously" paper offers a model that does a good job showing that the wave collapse is real and how it works (pp. 6-12). However, it still cannot explain why, only that specific one possibility out of many becomes an actuality. (More on this later).

The "Relational Quantum Mechanics" paper suggests that, somehow, the actualized state emerges from relationships with the environment through a process called "decoherence," but even if this were true (and, as we will see later, there are good reasons to suggest that it is not), this approach offers no good explanation for why the quantum state instantaneously and irreversibly "collapses" to one actuality and not another.

Yet, when we look at the behavior of living things, we see this exact same trait of indeterminacy. Why? Because they can initiate behavior. Yes, they are clearly influenced by external forces and constraints, but they also possess a degree of internal agency. They do not function like clockwork machines that follow programed trajectories determined solely by outside forces. They respond to the environment based on their relationships with their habitat.

When studying the behavior of single-celled bacteria, biologists can predict how a cell will act *on average*, but they have no way of knowing what one will do in any single case. This is the nature of living things.

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[2] My thanks to Alan Rayner for this graphic metaphor.
[3] For an overview of the science behind this, see my discussion in Marman, 2016, pp. 239-247.

Animals behave as if they possess “free will.” The problem is that outside observation cannot determine where this autonomous ability comes from. And the term “will” is equally problematic, since it suggests causative action that is also impossible to observe by outsiders. But some form of internal agency is evident in all living creatures. Thus, the homily of biologists that dead fish are the only fish that *only* swim with the current.

1.2 The Quantum Nature of Energy and Matter

Here is another fundamental resemblance between quanta and living things: They both behave as individual agencies.

A central principle in QM theory is that energy and matter must always be quantized. Individual particles (or wave-fronts, if you prefer that model) are needed to carry energy and mass. These packets cannot be reduced to fractions of a packet: There is no such thing as half a photon.

Why? No interpretations even try to explain this. It is simply accepted as a necessary postulate of quantum mechanics. However, cells and living organisms also act as individuals. In fact, their individual nature becomes clear by the way they carry energy and mass. In other words, it comes down, once again, to their intrinsic agency.

You can, of course, cut creatures in half, but if you do they will either die or regenerate from one or both segments into individual functioning bodies once again. On the other hand, if you kill them, they stop acting as individuals. Their bodies settle into equilibrium with the environment.

This shows clearly where the nature of their individuality and identity come from: their internal agency. It does not come from their energy or mass, but what they do with energy and mass.

1.3 Individuality and Internal Agency Does Not Mean Independence

This leads to a surprising resemblance: Fundamental particles cannot exist independently of their environment any more than living creatures can.

We know that all animals, plants, and organisms need air, food, and water to thrive. If you prevent them from making exchanges with their habitat, they will die. This dependence on the environment is well accepted by biologists. But it is startling to find similar behavior in quanta.

According to quantum theory, electrons, by themselves, are dimensionless points. When they are measured, however, electrons act as if they contain space and possess a body (Cartlidge, 2011).

Physicists have learned that, in order to get accurate results that describe the observed behavior of electrons using quantum field equations, each electron must be treated as if it is surrounded by a cloud of invisible “virtual” particles. This mathematical adjustment is called “renormalization.” Without this cloud, the electron would act as if it contains no physical space. In other words, virtual particles appear to give electrons their bodies. The same is true for all matter particles, including all types of neutrinos, muons, and quarks.

However, the dependence of particles on their environment goes further. Every matter-type particle must also belong to a particle field. For example, electrons are members of a universal collective called the "electron particle field." Particle fields give particles their properties of mass, charge, and spin – their uniform, if you will. This is why every electron has a single negative charge, along with the exact same spin and mass. This means that if you take an electron from its particle field it will "die" and no longer exist as an electron.

This description might seem like a bit of a stretch until we see how the "weak nuclear force" affects electrons: It causes them to decay – which means they cease being electrons. They stop carrying energy and mass the way that electrons do. And after an electron decays from the weak force, a new particle is born that suddenly starts wearing the uniform of neutrinos instead.

However, this neutrino is not an unrelated new particle because there is a clear continuation of agency from the electron to the neutrino. In other words, it appears as if the electron dies and is then reborn as a neutrino.

The point of this is that a particle must belong to a particle field. In fact, many physicists say that it is impossible to separate fields from particles. Rovelli (2017) put it this way: "Fields and particles are the same thing" (p. 126). In other words, particles cannot live without fields. The lives of organisms similarly depend on their relationships with members of their species and their habitat.

1.4 Entanglement

One of the clearest resemblances between quanta and organisms comes from the baffling nature of quantum entanglement. Experiments prove that this is an outwardly strange but intrinsic property of reality. When particles become entangled, they share a quantum state that aligns them.[4] They can stay aligned to the same shared state even after flying miles away from each other.

For example, take two entangled electrons that have opposed reciprocal spins. Their spins remain reciprocal indefinitely. Even if the spin of one is altered by an outside influence, such as a measurement of their spin, the other will reciprocate. Even stranger, it does not matter how far apart the two electrons are in terms of distance.

How do they know how to stay aligned when they are miles apart? More importantly, why and how do particles become entangled in the first place?

Neils Bohr's advice was to stop asking these questions because it is impossible to see what is happening at the quantum level; this is just the way particles behave. Bohr said: "There is no quantum world. There is only an abstract physical description. It is wrong to think that the task of physics is to find out how nature is" (as cited in Petersen, 1963, p. 12).

As other physicists have pointed out, this had a "chilling effect" (Kastner, 2013, p. 8) on the pursuit of comprehending quantum behavior. Before Bohr's comments, it was the job of physicists to search for a deeper understanding. Afterwards, it was generally considered to be a waste of time (Mermin, 1990, p. 198).

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[4] For an overview of the research on this, see Quantum Entanglement (n.d.).

However, if we use relational lenses, rather than taking a third-person perspective, we see that quantum entanglement looks quite similar to what we experience in human relationships. Adesso (2007) and many other physicists have used the same comparison. For example, the physicist, John Bell (as cited in Bernstein, 2009) used the following way of explaining entanglement to others:

> identical twins who had been separated at birth. Bell discovered that there were a number of pairs that had been reunited later in life to find that they had a remarkable number of things in common, including smoking the same brand of cigarette. (p. 172)

This does not mean that these physicists are suggesting that human relationships and quantum entanglement are the same. Not at all. They are simply offering human relationships as examples because it gives people a reasonable way of relating to what entanglement entails.

For example, if we look at our own friendships, we feel an affinity and sense of rapport that aligns us with our friends. We complete each other’s sentences. We laugh at the same jokes. We feel their pain when they are suffering, and their thrills of success, as if they are our own.

We feel the influence of this intangible alignment with others no matter how far away we might be from them. We think of them during the day because this invisible affinity seems to tug at us inwardly. We feel the possibilities of our relationships as if we share a kind of private emotional space with others, even when we cannot talk with them or send messages.

If we put on our third-person lenses and look at entangled electrons, if we position ourselves as outside observers, the thought that they could be emotionally involved seems preposterous. They are just electrons, tiny bits of matter. How could they feel emotions?

That is a perfectly understandable viewpoint. But, if third-person perspectives are the final word, we will not even try to explore this similarity. We will rule it out because it makes no sense to us.

This is how lenses of perception can blind us. They can prevent us from learning and seeing new possibilities simply because we have not yet learned how they make sense through another lens. As a result, it is easy to unconsciously reject perspectives that seem alien to our way of seeing.

However, the unexpected nature of reality keeps forcing scientists to look at the world in new ways. This is why we need to keep trying on new lenses, to see where they take us, no matter how uncomfortable they make us feel. This means crossing through a zone of confusion that can be unsettling before it starts to make sense. We should not let this hold us back if we really want to understand. This, in many ways, describes the present challenge we face with quantum mechanics.

What if entanglement *is* the result of relationships with some kind of inner dynamics similar to emotions? Can this help explain the mysteries of quantum mechanics? Honestly, the only reason to ask these questions is because there is such a long list of resemblances and similarities, all pointing to the same possibility.

1.5 Attraction and Repulsion

Here's another interesting resemblance: At the quantum level, electrons are not repelled by all other electrons, and they are not always attracted to every proton (Kastner, 2015, pp. 84-87).

Yes, we know that like charges repel and opposite charges attract, but this does not always happen between individual particles.

It is true that if you have two foam balls charged with billions of added electrons, they will *always* repel each other. But on the quantum level it is hit or miss. This sounds a lot like the emotional nature of relationships; they are unpredictable. We never know for sure who is going to hit it off.

We all know at least two friends who are not attracted to each other, even though we like them both. Yes, we see a general sense of attraction between men and women, but this certainly isn't true in all cases. The experience of emotional attraction between human beings is actually rare, which is what makes it special.

As I will show later, physicists have determined that attraction and repulsion between charged particles is also rare and that these responses are triggered by invisible quantum exchanges between them. This is mathematically described as virtual particles passing back and forth between charged particles. Virtual particles are intangible – there is no way to detect them directly. The process of attraction and repulsion can also be described mathematically as invisible wave functions that either add together or cancel each other out.

But why does one pair of particles hit it off when another pair does not? No other interpretation of QM offers an explanation. The third-person perspective has not been able to explain this mystery. In fact, it suggests that there is no way of knowing. But we know how it feels to be attracted to another person. It is often unexpected. If the other person confirms that they feel the same way toward us, then the experience of "chemistry" between us is reinforced and grows stronger. With validation, a relationship feels substantial and real.

So, this behavior of charged particles makes some sense if we compare it to the receptive-responsive exchange that we see in relationships between life forms. This, of course, still leaves the question about how this works. (A model that explains this will be explored in detail later).

1.6 Wave-particle Duality

Particles are notorious for displaying two different types of behavior: They show both particle-like and wave-like properties (Penrose, 2016, pp. 133-138). For example, photons look like particles when they light up one spot on a screen. They look more like waves when they create interference patterns. (More on this later).

We see a similar dual behavior with organisms. Their particle-like nature stands out when they act as individuals. Their wave-like nature, on the other hand, shows up when they are involved in the back-and-forth exchanges of relationships. This is especially noticeable when they are involved in collective group relationships.

Look at the shape of a rose: Its beauty arises from the delicate folds and ripples of its petals formed by countless living cells working in concert. All life forms are involved in continual exchanges with the world – the rhythmic breathing in and out, beating of hearts, and the inflow and outflow of material exchanges with their habitat. Wave-like behavior is easy to see.

All creatures are affected by the groups they are involved in. This raises the question: Does the wave nature of quantum states derive from dynamic relationships?

1.7 The Uncertainty Principle

Werner Heisenberg (1927) published his famous paper on the Uncertainty Principle which says that the more accurately we determine the location of a particle, the less accurately we can determine where it is going, and the more accurately we determine where a particle is going, the less we can know about its location.

As Bowman (2008) says, for many years this unexpected discovery was so at odds with classical physics that it was seen as describing the defining trait of quantum mechanics itself (p. 82).

A complete explanation for why this inherent uncertainty exists is not known. However, physicists know that there is a relationship between measuring the position of a particle and measuring where that particle is going. As a result, if you measure where a particle is located first, and then measure where it is going, you will get a different answer than if you measure where it is going first and then measure its position. This is equivalent to saying, in mathematical terms, that “*A*” times “*B*” is *not* equal to “*B*” times “*A*”.

To get a better sense of the impact of the uncertainty principle, let’s look at two examples. First, if you create a very narrow slit for photons to pass through, then when the photon is in the slit, the location of that photon is well defined. This means that we should see an increase in the uncertainty of where that photon is going. This is exactly what happens: photons head off in all sorts of directions when exiting the slit. This is called “diffraction.” Feynman (1985) describes the result this way: “So when you try to squeeze light too much to make sure it’s going in only a straight line, it refuses to cooperate and begins to spread out” (p. 55).

Here is a second example: Electrons do not orbit the nucleus of an atom. Their location is more like a cloud. The reason for this is that the electrons are in stable, clearly defined momentum states, called electron shells. For example, when an electron is in the lowest energy state in a hydrogen atom, the electron has no angular momentum at all. If the momentum is in a stable and fixed state like this, then the electron’s *position* must be highly uncertain. This is why physicists describe the possible locations for an electron to be like a cloud, because they have no clear position. It turns out that this is what creates the hard shell around atoms that gives matter its appearance of solidity:

> Now, suppose you tried to squeeze that electron cloud down to a smaller cloud. This would decrease the uncertainty of its position by confining it to a smaller region. The HUP [Heisenberg Uncertainty Principle] then dictates that its momentum – in this case, momentum straight inward or outward from the nucleus – would become more uncertain. With increasing uncertainty in momentum comes a greater likelihood of a larger momentum, which corresponds to more energy of motion. More energy of motion means

> a greater resistive force pushing outward. Therefore, the tighter a space you try to cram the cloud into, the more energetically it will resist. (Kastner, 2015, pp. 81-82)

In both of these examples, the more we try to nail down where quanta are or where they are going, the more they push back. We see this same trait when trying to control animals. Living organisms resist being forced to obey completely because it denies their ability to move and act. They need freedom to find food and form relationships – in order to live. The only way to completely stop a creature from moving is to kill it. Thus, the natural ecology on our planet can never be fully forced or controlled because life has a way of its own that springs from sentience.

The only way to stop a particle from moving is to annihilate it, because if a particle ever did become perfectly still, it would have a fixed position and no momentum. The uncertainty principle forbids this. Therefore, every particle must always be in motion (Smolin, 2017, p. 83).

Even Werner Heisenberg's son, biologist Martin Heisenberg, wrote about the relationship between the uncertainty principle and the "free will" behavior of biological organisms (Heisenberg, M., 2009). A number of physicists have also seen this relationship between the uncertainty principle and free will. For example, experimental particle physicist Bruce A. Schumm (2004) wrote this:

> The uncertainty principle is one of the striking revelations of quantum mechanics, and it pervades the theory as a fundamental tenet that cannot be violated.... More interestingly, it is a revelation that seems to address questions of deep philosophical import. With the advent of the uncertainty principle, determinism, the notion that the laws of nature set forth an inextricable course of events from which no deviation is possible, becomes indefensible. According to the uncertainty principle, the exact course of events is fundamentally unknowable. There is always some uncertainty in the physical properties of any given object; not even nature herself knows how this uncertainty will resolve itself.... It's not just a matter of building a better instrument for determining these properties. The exact value is simply unknowable, even in principle. Many have gone on to conjecture that Heisenberg's uncertainty principle is the very source of human free will, but this remains to be demonstrated. (p. 42)

It is a fundamental trait of sentient agents to resist attempts to completely limit and control them. Dead bodies, on the other hand, do not push back. They reach equilibrium with the environment and stop opposing external forces. If this is right, then perhaps Heisenberg's uncertainty principle is *not* the source of free will. Perhaps the opposite is true: The need of quanta to act as sentient agents is the source of the uncertainty principle. (A model for how this works will be offered later).

1.8 Exchanging Energy

Here's another similarity: Kastner (2013) shows that real particles continually circulate and exchange energy. If they ever stop circulating and exchanging energy, there is no way of knowing if they exist in the space-time dimensions of our universe because they can no longer be detected. In other words, particles only become tangible through transactions of energy (p. 16).

Later, we will see that this circulating and exchanging of energy comes down to emission and absorption.

We see similar behavior with organisms: They can only live in this world if they continue gathering and expending energy. This means consuming (absorbing) food and eliminating (emitting) waste. In other words, life forms must engage in continuing work with the world to live here.

1.9 The List of Similarities

To this list we can add a ninth item, the similarity noted in the introduction: We cannot directly see how quanta behave in their natural state. We can only observe how they act when they are being observed. Trying to study living creatures runs into the same difficulty. It is as if a wall exists that obscures our ability to see what makes organisms alive. Taking creatures apart to study their organs gives us a clearer idea of their anatomy, but it can also bring an end to their life. In the same way, as soon as we try to study a quantum state by measuring it, it temporarily loses its quantumness. (More on this in the next section).

And we can add tenth and eleventh items to this list: quantum superpositions and the wave-function collapse, both to be discussed in the next section.

Clearly, some of these resemblances are more compelling than others. But, taken overall, they raise the question of why so many similarities exist. At a minimum, we should be asking: Is there something to be learned from this?

To explore these questions, the Lenses of Perception (LoP) Interpretation proposes that these are more than superficial resemblances: They imply that quantum particles have some intrinsic element of sentient awareness. Can this explain why quanta become entangled and form relationships with some but not others?

This possibility offers an intriguing perspective on many of the biggest mysteries of quantum mechanics. And sometimes just looking at problems in new ways can lead to new solutions. It may seem like an outlandish hypothesis, but that should not dissuade us. As Neil’s Bohr said, “We are all agreed that your theory is crazy. The question is whether it is crazy enough to have a chance of being correct” (Bohr, n.d.).

Fortunately, the LoP Interpretation offers more than a new perspective, it also gives us a clear way to test whether it is wrong.

2. The Inescapable Predication of the LoP Interpretation

The LoP theory differentiates itself from every other interpretation by predicting that we should see quantum behavior wherever living organisms form relationships. This is a necessary conclusion if the LoP Interpretation is right. It cannot be avoided.

If quantumness is caused by sentience, then we should not just see these seemingly irrational behaviors at the microscopic level. We should find the same exact patterns of entanglement, superpositions, uncertainty, the quantization of energy and matter, and the wave-function collapse, at every level where life forms relate to each other.

Quantum theory states that quantum effects disappear as you move from the microscopic level to the world of big things. If this is true, then the LoP Interpretation can be proved wrong by showing one principle of quantum behavior that is not at work at the level of organisms and human beings. Even one example of a true quantum effect is enough to disprove the LoP theory.

That should be easy, but it isn't. I have not been able to find a single case. All of the behaviors that we observe with fundamental particles that give us the "sense of unease that quantum mechanics communicates," as Rovelli put it earlier, can be seen in our lives as human beings and in the behavior of all organisms, even single-celled amoebas.

We have just reviewed the similarity between entanglement and human relationships. We know that both particles and organisms are carriers of energy and matter. Therefore, they both act as if they are individuals, and this means that the energy and mass of life forms is always quantized, the same as with quanta. In other words, there is no such thing as a living entity that is half alive. Biologist Alan Rayner and I wrote a paper on this exact subject (Marman & Rayner, 2016).

We also saw above how the indeterminate and unpredictable behavior of quanta is similar to the willful behavior of living creatures, and how particles and organisms display both a particle-like and wave-like nature.

This leaves us with two quintessential quantum principles: Superpositions and the wave-function collapse are both considered unique to QM. Both of these functions clearly occur at the quantum level, and there is nothing in quantum theory to suggest that we should see either of these at the level of human beings or single-celled organisms. This is especially true for superpositions because they quickly disappear when we move from the subatomic realm to the macroscopic world.

Therefore, it should be startling and unexpected to find these two principles at work in the lives of human beings and other creatures. But, if they do not play crucial roles in relationships between all life forms, the LoP Interpretation fails.

2.1 The Wave-Function Collapse

Of these two, the wave-function collapse is easiest to show because physicists have already written about this happening at the level of human beings. The reason human observation was proposed to be the cause of the wave-function collapse, as mentioned in the introduction, was because, according to quantum theory, the wave-function evolves in a linear, continuous manner, which means that there should be no way for it to change instantaneously. However, when a measurement is made, the quantum state makes a sudden, non-linear collapse to a single actual result.

The physicist, John von Neumann, explained this in 1932, when he published the first fully rigorous formal analysis of QM.[5] What he showed was that the wave collapse appeared to be completely different from the natural, gradual evolution of pure quantum states.

Up until then, the most popular explanation, based on the Copenhagen Interpretation, suggested that the collapse occurs when a quantum state "mixes" with the measurement equipment that is in a classical state. However, von Neumann showed that the equipment needs to be treated as a quantum system as well. This means that any equipment involved in a measurement becomes entangled with the quantum state being tested, according to the formalism. As a result, the equipment is no longer independent; it is now in a shared quantum state. If this is true, then this shared state should continue to evolve gradually and linearly.

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[5] It was first published in German, then translated into English in 1955 (von Neumann, 1955).

Then when does the wave collapse occur? He looked at the overall process and could only see one place where something distinct and sudden happens: when the observer of the test recognizes the results. For the observer, this recognition creates an instantaneous shift in information. In that moment, the results become the knowledge of the observer (von Neumann, 1955, pp. 418-421).

As a result, the quantum leap that takes place with a wave collapse, according to the Copenhagen interpretation, does not represent an actual physical process, but merely a sudden change in the physicist’s knowledge (Penrose, 2016, p. 144).

We have to remember that QM experiments in the early twentieth century were not nearly as advanced as today. When they ran the famous experiment where photons are fired one at a time through two slits, they were surprised to see an interference pattern build up over time from where the photons hit the screen. How do single photons going through these slits create this wave-like interference pattern? Did each photon go through both slits at the same time, like a wave?

To answer this question, they set up detectors near the slits, to see if any photon went through both slits. When they ran the test this way, every photon was detected passing through only one of the two slits, not both. At the same time, however, the interference pattern suddenly disappeared. Somehow having detectors near the slits stopped the wave-like behavior of the photons.

They ran the experiment again, leaving the detectors in place next to the slits, except they turned the detectors off. The interference pattern returned. Photons regained their wave-like properties.

This is why physicists began to ask if the act of observation could be causing the photons to lose their wave-like “coherent” quantum state. But in the last thirty years, experiments have become far more sophisticated. There is now strong evidence that “decoherence,” which causes the interference pattern to fade, is gradual and is not the result of measurements.

In fact, decoherence theory says that decoherence happens when particles become entangled with their environment. The more a particle becomes entangled with other particles in the environment, the more information about the particle becomes known by the environment. This information causes the loss of interference patterns because a particle can retain its coherent quantum state only when it is not being observed by other particles, according to decoherence theory.

This tells us that decoherence is the result of the linear evolution of quantum states. And this suggests that decoherence actually has nothing to do with the collapse of the wave function.

This development has caused a great deal of confusion. Many physicists originally felt that for all practical purposes the measurement problem was solved and no collapse is needed. The founders of the science of decoherence stepped forward to make it clear that this is not true (Joos, E., *et al.*, 2003. pp. 4-5 and p. 357).

Decoherence only explains the interference pattern, not why a photon hits one point on the screen and not others. And decoherence cannot explain why each photon chooses one slit and not the other. These are not gradual changes. Photons do not gradually begin moving through one slit. They do not gradually select one spot on the screen over others. These are discontinuous selections that result in singular actual results.

The LoP Interpretation can add more clarity to what all this means, and we will get into more detail about decoherence later. But for now, let’s look at how the wave-function collapse of QM is similar to what happens at the level of human beings.

At the quantum level, a collapse is not deterministically caused by outside forces. This is why quantum equations can only predict probabilities, not individual outcomes. We see something surprisingly similar in relationships between people. No one, not even the people involved, can know for sure which relationships will develop into lasting friendships or marriages.

Outside influences, such as friends, family, and society in general, do indeed have an effect on the outcome, but the fate of a relationship is largely determined by what develops between the people involved. Still, when it comes to a couple that decides to move in together or get married, a shared decision must be made. In that instant, the gradual evolution of their friendship makes a sudden shift. In other words, this is an instantaneous leap that is irreversible. Even if the couple later decides to go their separate ways, there is no going back to the relationship they had before they decided to live together.

This is why the photon landing on a screen can be compared to a swimmer in a turbulent sea, where the hands of friends are reaching out from the rocky shore. Which hand will the swimmer (the photon) grasp? It all comes down to choosing one relationship over another, in a moment when the sea is rising and falling.

This example suggests that the wave function collapses when a single possibility emerges, out of all the possibilities, as the one worth acting on in that moment. One relationship stands out. The hand of that friend becomes the one the swimmer grasps. At the human level, it is easy to see, in a similar way, how intangible emotions and feelings become triggers for tangible choices.

This description is virtually identical to what physicists call “symmetry breaking,” which describes a sudden shift that happens within a field (Kastner, 2016, p. 16). Symmetry is a shared common property across a field, such as the relationship between gaseous water molecules in the air. They all keep about the same amount of distance from each other. However, if the air temperature drops, some of those water molecules start creating stronger bonds with each other as they come closer together. Which molecules make this change first? Once again, it comes down to choosing the relationships that align the closest. As soon as some water molecules start joining, the field of water vapor makes a phase change and water droplets start falling from the air as rain. Crystals, such as salt, emerge out of a solution of brine in the same way. When symmetry in a field breaks, it happens spontaneously within the field. The “Taking Heisenberg’s Potentia Seriously” paper says that a wave collapse occurs in the same way as quantum symmetry breaking; they both describe the same process (Kastner, Kauffman, & Epperson, 2017, p. 6).

Here is how physicist Lee Smolin (2007) describes symmetry breaking:

> Physicists … say that the symmetry between us at birth is broken by the situations we encounter and the choices we make. In some cases, it would be hard to predict the way the symmetry will be broken. We know that it must break, but looking at a nursery full of infants we are hard-pressed to predict how. In cases like this, physicists say that the symmetry is *spontaneously broken*. By this we mean that it is necessary that the symmetry break, but exactly how it breaks is highly contingent. This spontaneous symmetry breaking is the second great principle that underlies the standard model of particle physics.
>
> Here is another example from human life. As a faculty member, I've sometimes had occasion to go to receptions for new undergraduates. Watching them meet one another, it has occurred to me that over the next year some will become friends, others lovers, a few will even marry. At this first moment, when they encounter one another as strangers, there is a lot of symmetry in the room; many possible couples and bonds of friendship could be forged in this group. But of necessity the symmetry must be broken as the actual human relationships develop out of a much larger space of possible relationships. This, too, is an example of spontaneous symmetry breaking. (pp. 59-60)

Smolin's examples illustrate that symmetry breaking and the wave collapse, at the level of fields and quanta, are clearly similar to events that happen at the level of human relationships. Partnerships and marriages form, creating a new form of order in what was once a uniformly symmetric field. Water drops and crystals emerge as new visible forms in the same way. In other words, we see what appear to be new visible forms emerging from the invisible relationships between them. Something tangible emerges from the intangible inner dynamics of relationships between sentient agents. Later we will see how this works in detail.

For now, this passes the goal of this first informal test to see if wave-function collapses might also occur with living creatures. This test, of course, is far from convincing. But, for a first step this shows that, as radical as the suggestion is that quanta behave as if they possess sentience of some kind, there is no immediate reason to reject the possibility. Now, let's explore this in more depth.

2.1.1 Wigner's Friend and Third-Person Observers

Before we move on to the far more interesting case of superpositions, which will also be more controversial, I would like to take a moment to point out something that is becoming clearer from these comparisons between the behavior of particles and the behavior of organisms. This goes directly to the question of whether it is worth the time to pursue this line of inquiry.

When physicists use the term "wave collapse," or the term "spontaneous symmetry breaking," there is a great deal of vagueness about what these terms actually mean. How and why these events take place is hard to nail down.

Smolin says above that symmetry breaking is “highly contingent.” But, even if we can analyze all of the factors influencing an outcome, that will not tell us enough to determine exactly how and when the symmetry will break. The reason for this lack of clarity, I believe, comes from the fact that we are talking about processes that display a form of internal agency, but we are trying to look at this as outside observers by focusing entirely on the tangible results of experiments, while ignoring the intangible aspects of relationships.

However, when we talk about human relationships and how two people make a decision to live together or get married, we can relate to what this change means because we know what it feels like to be on the inside of relationships. As a result, a decision that couples choose together makes far more sense to us than changes that spontaneously emerge between quanta. Thus, it is easier to understand why relationships suddenly leap to a new phase between people.

This raises the key question of this paper: Can the insights we learn from human relationships, that we gain through experiences, help us understand the behavior of quanta? I believe the answer is yes, and it can lead to new insights that are testable.

For example, the physicist, Eugene Wigner, wrote a controversial paper (1961) that gained a lot of attention, especially outside of physics. In this paper, quoted below, he starts by summarizing von Neumann’s discussions about the way that human consciousness seems to be involved in the measurement process:

> When the province of physical theory was extended to encompass microscopic phenomena, through the creation of quantum mechanics, the concept of consciousness came to the fore again: it was not possible to formulate the laws of quantum mechanics in a fully consistent way without reference to the consciousness. All that quantum mechanics purports to provide are probability connections between subsequent impressions (also called "apperceptions") of the consciousness, and even though the dividing line between the observer, whose consciousness is being affected, and the observed physical object can be shifted towards the one or the other to a considerable degree, it cannot be eliminated. (p. 172)
>
> The important point is that the impression which one gains at an interaction may, and in general does, modify the probabilities with which one gains the various possible impressions at later interactions. In other words, the impression which one gains at an interaction, called also the result of an observation, modifies the wave function of the system. The modified wave function is, furthermore, in general unpredictable before the impression gained at the interaction has entered our consciousness: it is the entering of an impression into our consciousness which alters the wave function because it modifies our appraisal of the probabilities for different impressions which we expect to receive in the future. It is at this point that the consciousness enters the theory unavoidably and unalterably. If one speaks in terms of the wave function, its changes are coupled with the entering of impressions into our consciousness. If one formulates the laws of quantum mechanics in terms of probabilities of impressions, these are *ipso facto* the primary concepts with which one deals. (pp. 175-176)

Most physicists have good reasons for disagreeing with the way that von Neumann and Wigner describe the role of consciousness in QM, as we will see soon. Even Wigner himself abandoned this way of thinking when the science of decoherence was introduced, because it was entanglement with the environment, not human observers, that cause the interference pattern to disappear.

The mistake that Wigner and von Neumann make is that they confuse the wave collapse that happens at the human level (when the results become clear to the observer running the experiment) with the wave collapse happening at the level of quanta. Wave collapses, according to the LoP Interpretation, do indeed happen at both levels, but the levels should not be confused. Seeing quantumness as the result of sentience can help clear up this significant point of confusion.

However, what is important in Wigner's (1961) article that I want to look at now is that he took this discussion further and asked what happens in the case where he himself is not directly involved in a measurement experiment, but he has a close friend who is. This is famously called the problem of "Wigner's Friend," which is almost as famous as "Schrödinger's Cat." Wigner then analyzes the situation using the quantum formalism established by von Neumann:

> It is natural to inquire about the situation if one does not make the observation oneself but lets someone else carry it out. What is the wave function if my friend looked at the place where the flash might show at time *t*? The answer is that the information available about the *object* cannot be described by a wave function. One could attribute a wave function to the joint system: friend plus object, and this joint system would have a wave function also after the interaction, that is, after my friend has looked. (p. 176)

The reason that Wigner says the information available about the object cannot be described by a wave function is because he is relying on his friend for information about what happened. Wigner has no information of his own about the object except what his friend tells him. And what his friend tells him about the object is colored by his friend's entanglement with the object. We see the same thing when we listen to a friend tell us about someone they met – we know that their description of the person they met is going to be colored by their personal experiences with that person. (More about this later). Now back to the rest of Wigner's comment.

> I can then enter into interaction with this joint system by asking my friend whether he saw a flash. If his answer gives me the impression that he did, the joint wave function of friend + object will change into one in which they have separate wave functions (the total wave function is a product) and the wave function of the object is ψ_1. If he says no, the wave function of the object is ψ_2, i.e., the object behaves from then on as if I had observed it and had seen no flash. However, even in this case, in which the observation was carried out by someone else, the typical change in the wave function occurred only when some information (the *yes* or *no* of my friend) entered *my* consciousness. It follows that the quantum description of objects is influenced by impressions entering my consciousness. (p. 176)

If this is confusing to read, it is largely because Wigner is using the formalized approach for analyzing quantum interactions. The main reason this approach seems confusing is because it spends only a little time talking about the test itself and spends almost the whole paragraph talking about how to think about the information that we learned about the test and how we got that information. Wigner is saying above that if his friend reports that he saw a flash, then, the moment Wigner hears this, the state of two possible outcomes collapses down to one, for him. If his friend saw no flash, then the possibilities collapse down to the other option.

This formalism is necessary because we cannot see directly what is happening with unobserved quantum states, the same way Wigner could not see the test directly. All the information we gain comes from mixed states, and this means that we need to always remember that our information is colored by the observers who give us that information. We will get into more about this later.

For now, I want to focus on how vague the role is that consciousness plays in this description. It is easy to see why most physicists want to leave consciousness out of the discussion. Is Wigner suggesting that his hearing about the test from his friend played a role in the flash of light?

We can now add some clarity to this discussion by using the similarities between quanta and organisms that we looked at above. For example, later in his paper, Wigner (1961) says that if his friend is someone he knows, and his friend tells him that he saw the results of an experiment, then it would be "unnatural" to reject what his friend says. Few "people, in their hearts, will go along with" taking such a radical position (pp. 180-181).

Trusting his friend, therefore, allows him to accept information about the experiment without being directly involved. Wigner suggests that accepting information from his friend causes a sudden shift in what he knows about the test and this describes a wave-function collapse.

I think Wigner is making a good point, *if* we are talking about what is happening at the human level. There *is* a sudden shift in his perception of the test results when he accepts what his friend tells him. However, this sudden shift is only possible if he trusts his friend. This trust is the result of their history together. In other words, trusting his friend means that they are entangled. This shows us that a shared wave-function between him and his friend is what allows him to accept the word of his friend, and this acceptance is a spontaneous act that causes a shift in his awareness.

Wigner accepts what his friend tells him because they are closely entangled. If someone he never met before tells him the results of a test, he will probably reserve judgment until he knows more. This offers us a valuable insight into how entanglement is involved in the wave collapse process. And this can help give us an intuitive understanding of what is going on at the quantum level. (We will also see how this applies to the process of decoherence later).

In fact, we can take this further. Wigner is probably not going to feel much weight if he hears an unknown person telling him the result of a test. He will feel even less weight if the person says they did not actually see the test results themselves; they were just passing along what they heard from another person.

On the other hand, a lot more weight would shift Wigner's scales if he hears from fifteen people and they all report the same results, especially if they each say that they witnessed the test directly. And the weight will increase significantly if these fifteen people are well-known physicists, even if he does not know them personally. But the most weight will come from fifteen physicists that he knows and trusts. This shows how information passed along by a number of entangled relationships with others makes the outcome clearer to a third-person observer.

However, there is no way to predict when exactly the scales will shift to the point where Wigner accepts the information that he is hearing third-hand. We only know that when Wigner reaches that tipping point, and accepts the outcome of the experiment, that his realization does hit him suddenly. The shift in his perception happens all at once. He now feels confident that he knows what happened. This shows us clearly that this wave collapse is describing a shift in his perception. It is easy to see why this happens suddenly, because we all know what it means to "get" an idea. It hits us all at once like a light turning on. On the other hand, the influence from third-hand information grows gradually and, thus, describes a different process (decoherence).

This insider perspective is valuable for understanding human experiences. However, the scientific value we gain from this all depends on how similar human entanglement is to quantum entanglement. If they are identical processes, insights from human relationships can offer us a powerful way to make sense of the quantum world.

To illustrate this point further, imagine you are at a party when a physical knock-down fight starts between two people in another room. You are too far away to hear or see anything about what happened, but people soon start coming into your room and you overhear them talking about the fight. After a while, a few of your friends come by and pass on what they heard. Pretty soon some of the details become clear. You now have a sense of what happened.

This story is similar to Wigner's Friend, except there are a number of friends and quite a few strangers as well. This shows how third-hand information spreads and how a consensus story of what happened emerges. This is the process of decoherence. However, looking closer, we can see that only certain types of information consolidate to form a clear picture, such as who the fight was between and where it happened. This is objective information. Subjective information, on the other hand, remains vague, such as why they were fighting and who may have started the fight. QM faces this same problem.

It is easy to see why this happens at the human level: No observers actually saw who started the fight, and there was no way that observers could see why they were fighting because intentions and motivations are invisible to outsiders. Some of the words that the two fighters yelled at each other, after the fight started, may have been heard, but people could only guess at what those words meant because they were personal exchanges. Each observer guesses differently about the meaning and thus passes on a differently "colored" interpretation. These different interpretations conflict with each other – they do not converge, making it hard to consolidate them into a clear account.

The cause of the fight and the words that the fighters yelled at each other sprang from a personal relationship – from a shared space and history between them. Outside observers cannot see the inner dynamics of this relationship. That is why third-person observation forms no clear consensus about the motivation behind the fight. The public never really knows the emotions and feelings between close friends and lovers – or sworn enemies – in private relationships.

If this insight applies to quantum interactions, it changes the story completely. It suggests that the reason we cannot see quantum states directly is because these shared dynamics between sentient quanta are private, knowable only to those involved. This is why those dynamics are intangible, because no third-person view of them is possible. We will never get the full story with only outsider accounts. We can only guess. This allows us to relate to the behavior of quanta and understand their seemingly irrational behavior because human relationships are equally irrational when viewed from the outside. We know from personal experience that there is no definitive logic, and there are no fixed laws determining the outcome of relationships.

2.1.2 The Third Person Problem

The question being raised here is whether the lessons we learn about relationships at the human level directly relate to quanta. The only way to find out is to see how far these similarities go. And this is where Wigner's Friend gets interesting, because we find a similar story at the center of Rovelli's paper on "Relational Quantum Mechanics." He calls it "the third person problem." The difference is that Rovelli is talking only about what happens at the quantum level, while Wigner was describing the human level. Rovelli (2008) writes:

> By using the word "observer" I do not make any reference to conscious, animate, or computing, or in any other manner special, system. I use the word "observer" in the sense in which it is conventionally used in Galilean relativity when we say that an object has a velocity "with respect to a certain observer". The observer can be any physical object having a definite state of motion. For instance, I say that my hand moves at a velocity *v* with respect to the lamp on my table. Velocity is a relational notion…and thus it is always (explicitly or implicitly) referred to something; it is traditional to denote this something as the observer, but it is important in the following discussion to keep in mind that the observer can be a table lamp. Also, I use information theory in its information-theory meaning: information is a measure of the number of states in which a system can be – or in which several systems whose states are physically constrained (correlated) can be. Thus, a pen on my table has information because it points in this or that direction. We do not need a human being, a cat, or a computer, to make use of this notion of information. (p. 3)

In other words, Rovelli is using a purely third-person perspective for his analysis. Using this perspective means that he cannot see anything about the inside dynamic of what is happening. (Later we will see why his "Galilean observer" analogy falls short of what is needed because it is lacking the inside dynamics. It works fine for classical physics, but is not enough to represent the dynamics of quantum interactions). Next, Rovelli (2008) takes us through a formal analysis of what happens when an observer "O" makes a measurement on a system "S."

> For the moment we may think of O as a classical macroscopic measuring apparatus, including or not including a human being. Assume that the quantity being measured, say q, takes two values, 1 and 2; and let the states of the system S be described by vectors (rays) in a two (complex) dimensional Hilbert space H_S. Let the two eigenstates of the operator corresponding to the measurement of q be $|1\rangle$ and $|2\rangle$. As it is well known: if S is in a generic normalized state $|\psi\rangle = \alpha|1\rangle + \beta|2\rangle$, where α and β are complex numbers and $|\alpha|^2 + |\beta|^2 = 1$, then O can measure either one of the two values 1 and 2 – with respective probabilities $|\alpha|^2$ and $|\beta|^2$. (p. 3)

This will sound like gobbledygook if you are not familiar with quantum formalism. Later, I will explain why this method is used. For now, let me summarize what Rovelli is saying: If O makes a measurement of S, and there are only two possible outcomes of the test, $|1\rangle$ and $|2\rangle$, then quantum formalism says that system S is in a state where two possibilities exist at the same time (more about this in the next section). There is also a statistical probability associated with each of these possibilities, α and β, and if you add the squares of these probabilities together it will equal 1.

Rovelli then describes what happens when the measurement is taken (p. 3). First, system *S* is clearly affected by the measurement process, because after the measurement *S* is no longer in a state of two possibilities. There is now only one actual outcome. Therefore, the possibilities have collapsed down to one actuality.

Rovelli goes on to describe the same sequence of events, but this time from the perspective of a second observer "*P*" who does not perform any measurement. In other words, *P* is a third-person observer. This is where "the third person problem" comes from. This is like the story of Wigner's Friend, where Wigner was the third person.

The first thing that *P* observes is that *O* and *S* have formed an interaction with each other due to the measurement that *O* made on *S*. Rovelli says that *P*, as an outside observer, can see that *O* has a quantum state of its own and *S* has a quantum state of its own, and when they interact they form a joint quantum state. Another way to say this is that *O* and *S* become entangled through the process of measurement.

P also sees that *O* is influencing the outcome of the measurement. This means that the probabilities of the two outcomes are altered because *O* is now involved. This is important because it shows us that something is happening between *O* and *S*. They are affecting each other. But if we use only an outsider's perspective, we cannot see why this happens or what it means. An insider perspective suggests that the relationship between *O* and *S* influences the outcome of the measurement.

Rovelli then gets to the key point that he is trying to show: Because *P* is not directly involved in the measurement, *P* cannot see which of the two outcomes becomes the actuality. To *P*, the shared quantum state of *O*-*S* is still in a state where two possibilities exist at the same time. *P* does not know the outcome of *O's* measurement. Therefore, *P* only sees that the joint *O*-*S* state has changed.

Rovelli (2008) concludes:

> Thus, I come to the observation on which the rest of the paper relies.
>
> **Main observation:** In quantum mechanics different observers may give different accounts of the same sequence of events. (p. 4)
>
> If different observers give different accounts of the same sequence of events, then each quantum mechanical description has to be understood as relative to a particular observer. Thus, a quantum mechanical description of a certain system (state and/or values of physical quantities) cannot be taken as an "absolute" (observer-independent) description of reality, but rather as a formalization, or codification, of properties of a system relative to a given observer. Quantum mechanics can therefore be viewed as a theory about the states of systems and values of physical quantities relative to other systems…. Therefore, I suggest that in quantum mechanics "state" as well as "value of a variable" – or "outcome of a measurement –" are relational notions in the same sense in which velocity is relational in classical mechanics. (p. 6)

Rovelli concludes that quantum states and measured values are relative. None exist as *observer-independent* realities. But, why is this true? The reason, that we just saw with Wigner's Friend, is because there are inner dynamics taking place in private relationships between quanta that no third-person perspective can see. An outside observer cannot see the same thing as those who are directly involved. This is why different observers arrive at different conclusions about what has happened. Thus, reality is *observer-dependent*.

The only way *P* can find out the result of a measurement made by *O* is for *P* to interrogate *O*. This means that *P* has to make a measurement of *O* and *S* to find out what transpired between them. But, as soon as this happens, *P* is no longer a third-person observer. *P* is now directly involved. This means that *P* is also entangled, and this affects the relationship between *O* and *S*. Thus, a measurement means a wave collapse, and this is different for those involved than it is for outsiders.

All of this is perfectly consistent with the insights gained from the human level examples given above. Everything that happens is *observer-dependent*. Once again, the similarities between human experiences and the behavior of quanta go deep and appear to hold up under formal analysis.

2.2 Superpositions

The most important reason that physicists say quantumness does not extend much further than the realm of subatomic particles is because superpositions quickly disappear as particles interact with their environment. It is virtually impossible to find quantum level superposition states at the level of biological organisms. Thus, superpositions are the toughest test for the LoP Interpretation.

To understand superpositions, let us return to the two-slit experiment. If photons are sent through one at a time, and there are no detectors near the slits, then we have no way of knowing which slit the photons go through. If we run the experiment over and over, we will see an interference pattern develop from where the photons hit the screen. This tells us that the photons are not just going through one slit or the other. Something else is happening. It appears as if the wave-like nature of the photons allows them to go through both slits at the same time.

This is not just true for photons. Electrons and other fundamental particles will display the same phenomenon. Even atoms produce interference patterns. But as objects become bigger, the interference quickly fades. It becomes virtually impossible to see superpositions when objects are big enough to be seen with our eyes.

Quantum formalism says that we must treat the two slits as two possible paths to the screen and that both possibilities exist at the same time. In other words, it is as if the two possibilities are super-imposed on top of each other.

As Roger Penrose (2016) explains, we must not think of this as if there are two photons and each one goes through a different slit. If that is the case, we can apply the logical term "and" to describe what is happening. We cannot use "and" because there is only one particle. Also, we cannot apply the logical term "or" either. The photon does not simply go through one slit *or* the other, because we will not see an interference pattern if that is what is happening. Superposition is a unique state. This is not just because multiple possibilities exist at the same time, but because all those possibilities actually influence the outcome at the same time. This influence is what creates the interference pattern (p. 24).

If you roll a six-sided die, it will end up on one of its six surfaces. These six possibilities *do* exist at the same time before the die settles onto one surface, but the possibilities *do not* influence the outcome. The die simply lands on one of the six surfaces *or* another.

The idea of superpositions is so illogical that physicists needed a long time before they could accept them as real. The evidence now seems indisputable. Here is how Heisenberg (1959) explained this strange quantum behavior:

> This concept of the probability wave was something entirely new in theoretical physics… [It] meant a tendency for something… It was a quantitative version of the old concept of 'potentia' in Aristotelian philosophy. It introduced something standing in the middle between the idea of an event and the actual event, a strange kind of physical reality just in the middle between possibility and reality. (p. 42)

This is the concept of potentia that the "Taking Heisenberg's Potentia Seriously" paper is referring to. Let's look at some examples of superpositions.

Quantum theory says that an electron can exist in many different places as it moves through a conductor. The probabilities usually decrease with distance. This means that, from time to time, the possibility exists that an electron can appear on either side of an impermeable wall, if that wall is thin enough. One moment it can be on one side, and the next moment it can be on the opposite side without going through the wall. This is exactly what happens, and the principle is used to make transistors work. The process is called "tunneling" because it is as if the electron tunnels through the silicon wall. However, it does not actually tunnel, it just appears on the other side.

Or take the case of atoms. An electron does not orbit the nucleus like a planet orbits a sun because that would mean the electron is traveling a distinct path around the nucleus. It is not, and physicists know that it is not, because if it is, it would lose orbital energy and eventually descend into the nucleus. Instead, electrons are suspended in a stable energy state in relation to the nucleus, as I mentioned earlier. Quantum theory says the electron is in a superposition state of all possible positions in an electron shell around the nucleus. You can think of this as if the electron is a droplet of water that does not exist in one place because it is suspended as a gas in a cloud that surrounds the nucleus, except this cloud is a cloud of possibilities.

Why do quanta act this way? Why do superpositions exist at the quantum level? Quantum theory does not know, but suggests that it has something to do with quanta being wave-like when they are not observed. This means that an electron can literally be spread out across a region of space. It does not have to move through space to get to another location. It can leap there. The problem for this paper is that we never see organisms or human beings leaping around this way.

However, the story changes once we understand what superpositions are and why they exist. An insider lens, rather than an outsider lens, can help us gain insights into what superpositions mean.

The LoP Interpretation says that superpositions are not just possibilities – potentia: They are the possibilities that exist in relationships. For example, consider trying to choose which friend you should to go out to lunch with. You have two possibilities. Both options influence you and weigh on you. You can go to lunch with one friend or the other, or you might even consider taking them both to lunch at the same time, but a joint lunch date creates even more complications (interference patterns) because your two friends might not even like each other. The point is that, before you make a decision, all of the possible options influence you because you anticipate the way your relationships will be impacted by the choices you make. This is how possibilities in relationships influence us and shape our decisions.

Relationships are complex because they are open-ended, they are not deterministic. But as soon as we act on one of these possibilities – as soon as we choose one – the possible outcomes collapse down to one actuality. This is what is happening when the wave function collapses.

The reason we never see people in different locations at the same time is because we are looking at their bodies. Bodies are assemblies of billions upon billions of particles. Remember, according to the LoP Interpretation, quantum behavior only exists at the level where internal agents are involved in relationships. Quantum effects fade away when we look at huge conglomerates, such as a mound of dirt, because conglomerates have no ability to act as sentient agents. As a result, all of the possible relationships between particles in a mound of dirt cancel each other out.

For example, there are billions of electrons jumping around in the electron shells of the atoms of our bodies. What difference does this make to the position of our bodies? To make a detectable difference, billions of electrons would all have to leap in exactly the same direction at the same time. But this never happens because each leap is determined by one-on-one relationships, making it statistical. This is why bodies of organisms never appear to leap from place to place.

If superpositions do not exist at the level of human beings and other organisms, then the LoP Interpretation fails. Is this the death knell? Look closer. We never actually see electrons in multiple places at the same time either. Whenever we measure the location of an electron it is always in one place. Yes, we can detect the presence of an electron as it surrounds an atomic nucleus like a cloud, but we cannot see its specific location until we measure it directly.

Using this new understanding, the story changes when we look at human beings – not their bodies, but the intangible internal agents who inhabit their bodies. Can we, as internal agents, be in different places at the same time? Yes, we can, because we inhabit all of our body.

When we are upset by bad news, we feel it in the pit of our stomach. We cheer ourselves up by singing a song. Songs and emotions can move us. Where do they move us? To a different place than the pit of our stomach. Perhaps our heart center?

We also become aware of our heart center when we are with our lover. But when we think about the world, it seems as if we are looking at a screen in our heads. Sensations and sounds and feelings ripple through our bodies. At any moment, we can be anywhere in our body or be associated with our whole body at the same time. We are not limited to one place until we specifically move our attention there. Then we make a quantum leap to that place.

This might sound like nothing more than subjective impressions, but Roger Sperry's experiments (1968) with people who had the nerves cut between the left and right hemispheres of their brain (to prevent convulsions), prove that each hemisphere of the brain processes sensory information independently from the other. Sperry also showed that these people still used both the right and left hemispheres of their brain, depending on the situation. And when using one half, perceptions from the other side simply faded into the background, the same way we ignore sounds coming from another room when we are engaged in a conversation. In other words, we leap back and forth between the two hemispheres of our brain whenever we shift our attention (pp. 723-727). Sperry (1964) also showed that these people never felt as if they were split in two, and their families noticed no changes in their behavior. They and their families experienced them as the same single individuals they were before their operations (p. 46). Sperry won the Nobel prize for his research. (For a more complete review on this topic, see Marman, 2016, pp. 307-311).

Recent experiments have taken this further. They show that, when we consciously use what we see through our left eye and through our right eye to create a three-dimensional picture, our attention oscillates back and forth. We never consciously see through both eyes at the same time. Our attention can only be on one eye at a time. If our brain is just a computer, it should process the data from the left eye and right eye in parallel. In fact, it does exactly that in the early stages. But this process radically changes when vision becomes conscious, as Dehaene (2014) explains:

> [These experiments prove] that what matters to consciousness is not the initial stage of peripheral visual processing (where both [left and right eye] alternatives are still available) but a later state (at which a single winning image emerges). Because our consciousness cannot simultaneously apprehend two objects at the same location, our brain is the seat of a fierce competition. Unknown to us, not just two but countless potential perceptions ceaselessly compete for our conscious awareness – and yet at any given time, only one of them makes it into our conscious mind. Rivalry is, indeed, an apt metaphor for this constant fight for conscious access.
>
> Is this rivalry a passive process, or can we consciously decide which image will be the winner of the fight? When we perceive two competing images, our subjective impression is that we are passively submitted to these ceaseless alternations. That impression is false, however: attention does play an important role in the cortical competition process. (p. 30)
>
> But most important, the very existence of a single winner depends on our giving it our attention; the fighting arena itself, as it were, is made up of the conscious mind. (pp. 30-31)

In other words, conscious seeing is different from what happens in the early stages of processing visual data. The moment we consciously see, we view images from only one eye at a time. Visual data is processed in parallel before then, just like superpositions that exist at the same time. By moving our attention, it is just as if we are making a measurement. That is when only one of the two possibilities exists. Why one eye and not the other? It may be something seen through our left eye that catches our attention, or there might be something in the right eye's field of view that intrigues us. Or we go back and forth because we want to compare the two. In other words, images are not actually "competing" with each other, as if this is some kind of fight. These are relationship possibilities. Images from both eyes are unconsciously processed at the same time, but only one makes it to conscious perception. This appears to describe the wave collapse process. It shows us that only one possibility emerges and becomes tangible to our awareness at a time.

We are venturing into controversial territory here. Neuroscientists, including Stanislas Dahaene, whom I quoted above, generally see consciousness as something that emerges from the brain. On the other hand, many philosophers argue that this avoids the hard problem of consciousness, which is that there is an internal aspect of conscious experiences – the sharpness of a pain, the feeling of the warmth of the sun, or the yellowness of a lemon. First-person perception has an inner side to our experiences that is not easily communicated through verbal description. We cannot explain what the sourness of a lemon is like to someone who has never tasted it before. Dahaene (2014) writes:

> I disagree [with the philosophers], and I will argue that the notion of a phenomenal consciousness that is distinct from conscious access is highly misleading and leads down a slippery slope to dualism. We should start simple and first study conscious access. Once we clarify how any piece of sensory information can gain access to our mind and become reportable, then the insurmountable problem of our ineffable experiences will disappear. (p. 10)

When Dahaene says “conscious access,” he is talking about when the processed information in our brain crosses over into our conscious awareness. I call this the “threshold of perception,” and it plays a vital role in how spontaneous symmetry breaking and the wave collapse work, according to the LoP Interpretation. Dahaene says that studying how unconscious sensations cross over to become conscious has caused a revolution in cognitive neuroscience over the last 30 years. I believe that physics can gain the same benefit by applying this understanding to how quanta cross over from intangible possibilities to tangible actualities.

However, when Dahaene (2014) says that he disagrees with philosophers, it is not because he thinks that we should ignore the inner aspect of experiences. On the contrary, he says that accepting subjective reports as valid data has created “a revolution for psychology” (p. 11).

Once again, this is exactly in synch with the LoP Interpretation. Third-person measurements and observations will never be enough to understand the inner dynamics of relationships between sentient agents. This remarkable similarity between the unpredictable nature of the wave collapse and the indeterminacy with how living organisms make choices can be seen as evidence that there is an internal aspect to quantum mechanics that is remarkably similar to what psychologists have learned to accept.

Brushing such evidence away and saying that we simply live in a statistical world adds no value or meaning. It offers no insights leading to a deeper understanding. On the other hand, look at the amazing similarity between the way quantum superpositions collapse down to one actuality and the way countless sensations are processed in our brain in parallel and then reduced down to one relationship that is selected by our attention and then emerges into conscious awareness. If these two processes are not just similar, but the same, it opens new doors for neuroscience and physics.

Dahaene’s main disagreement with the philosophers is his concern that it leads down a slippery slope into dualism. He need not worry. The “Taking Heisenberg’s Potentia Seriously” paper (Kastner, Kauffman, and Epperson, 2017) shows that invisible quantum states do not exist tangibly because they cannot be observed directly. This means we should not treat them as objective facts. However, they are still ontologically real and have a measurable impact on the tangible actualities that make up the space-time dimension. Thus, the philosophical duality is no longer a problem because there is no gap between mind and body (pp. 3-4). The LoP Interpretation agrees with this.

We will get into more about all of this later. I have included this aside about neuroscience now only to show that once again we see a direct relationship between how the "countless potential perceptions ceaselessly compete for our conscious awareness" (Dehaene, 2014, p. 30). This describes the same way that superpositions reach out with open hands to become actualities. Only one can be grasped, and this is what happens when the wave function collapses or the symmetry breaks. One of the intangible possibilities crosses the threshold to become tangible.

For example, think about the relationships we have with our cells and organs. It is easy to forget about them, as they are unconscious until we get hungry or need to go to the bathroom. Then they cross the threshold of our perception. Our attention shifts suddenly if our heart beats erratically or we feel short of breath. In other words, the relationships between us and the cells of our bodies influence us with possibilities all the time. This is what it means to inhabit a living body.

Electrons appear to inhabit an atom the same way. They can be everywhere in an energy shell that surrounds an atom. They can also leap from one shell to another. They can spread out like a cloud, or they can be in just one place when they are engaged in a measurement.

Do we not experience this same bizarre quantum behavior in our lives? Where do we, as internal agents, sit in our bodies? As Dahaene (2014) points out, ancient philosophers asked where the seat of soul is, and they offered a wide range of answers: Hippocrates and Hierophilus said the seat of soul is in the brain. Democritus and Aristotle said that soul exists throughout the body. Epicurus put the seat of soul in the stomach, the Stoics within and around the heart. Strato placed the seat of soul between the eyes (p. 7).

They all seem to disagree. Now we can see why. They are all correct because we as an internal agent can move our seat of attention to any place in our body, or we can live everywhere in our body if we stop focusing our attention on any one spot. This is consistent with quantum behavior.

However, the most noticeable experience of superpositions, for human beings, comes from our relationships with other people. All of our relationships with others influence us at the same time. They are always there in the background shaping our lives, whether we realize it or not.

Should we move to another country to take a promising job if it means leaving our lover? Will we take time from a busy work day to buy a gift for our child's birthday? Which friend should we go to lunch with today? In other words, superpositions represent the possibilities in relationships – the "potentia" of what our relationships can become.

Therefore, it is valid to say that we live with the possibility of taking a job in another country, and we live with the possibility of not moving because living with our lover is too important. We live in both of these *states* at the same time. And it is clear that these possibilities *interfere* with each other. Both possibilities weigh on us until our scales tip one way or another. They do not force us. This is not about cause and effect. They only influence us. And the moment we act on one of the two possibilities, it becomes tangible and the other choice disappears – it is no longer an option.

This describes exactly what happens when the wave function collapses. It collapses only when one of the intangible possibilities is selected. It then becomes an actual, tangible event. An insider perspective shows us how relationships give birth to the objective phenomena of our natural world.

This passes the informal test of the LoP Interpretation's prediction that quantum effects should exist wherever we see living creatures forming relationships with each other. This test is by no means conclusive. However, as unexpected as this prediction is, there seems to be enough evidence to suggest that it might be worth investigating further. In other words, this interpretation might just be crazy enough – as Bohr put it – to be right.

All of the bizarre behaviors of quantum mechanics appear to exist in the relationships between life forms. If this is true, then biology, sociology, and psychology will never be hard sciences like Newtonian physics, because they are too close to the relationships between sentient organisms. Quantum effects may play a more important role in these fields than anyone has realized. This shows how a new interpretation of QM could revolutionize our understanding of these fields.

However, the devil is in the details, as the saying goes. Before we can rigorously test this interpretation, we need a much clearer model for how quanta behave. And before we can formulate a model, we need to deal with the nebulous subject of consciousness. So let's dive in.

3. The Problem of Consciousness in Quantum Mechanics

In the last section, we informally looked at the similarities between quanta and organisms from the bottom up. All of the bizarre behaviors of quanta appear to be present in relationships between life forms as well. This opens the door to a potentially deeper understanding of QM.

In this section, I want to informally consider this from the top down. If the relationships between quanta and living things are more than resemblances, if they are governed by the same principles, then top-down similarities need to hold up to scrutiny as well. And looking at this from the top down leads to a number of additional insights that help clarify the underlying principles involved.

As Wigner (1961) said, ever since the first fully rigorous formalism of QM, the problem of consciousness has dogged QM (p. 172). With all the latest experiments – and there are quite a few (such as Ma *et al.*, 2012, Jacques *et al.*, 2006, and Yu, S. & Nikolic, D., 2011) – that strongly suggest human observation is not the cause of the wave collapse at the quantum level, there still has been no finding that eliminates the possibility that consciousness is involved. For an overview of this situation, see Nauenberg, 2011.

The case is quite strong that human observation is not the cause of the wave collapse at the quantum level. But this does not mean that consciousness is not involved at the quantum level, and it does not mean that there is no collapse of superpositions taking place at the level of human observation.

Here is the problem: When two photons become entangled, each photon somehow "knows" the spin state of the other, even when they are miles away. How do they know?

An experiment by Dumé (2007) shows that if the path an electron takes through two slits becomes "known" by even one other particle, such as a nearby electron, the interference pattern fades by a measurable amount. If two or more particles "learn" the path of the electron, the interference pattern fades even further (pp. 3-9).

If there are enough particles near the slits that it is possible for equipment to learn the path that an electron takes with a high degree of accuracy, then the interference pattern disappears completely.

In other words, the real reason that the specter of consciousness looms over QM is because the spread of information is crucial to how quanta respond. However, most physicists wave away the role that consciousness plays by taking the same position that Rovelli (2008) took in treating information according to the principles of information theory, by saying that "information is a measure of the number of states in which a system can be – or in which several systems whose states are physically constrained (correlated) can be" (p. 3).

Unfortunately, this avoids the real problem. The issue is not about "the number of states in which a system can be," but how the information of those states spreads and alters quantum states. Why do quanta alter their behavior when they gain information? For example, why do photons hit different places on a screen depending on whether the environment "knows" which slit they pass through? The assertion that information is no more than "the number of states in which a system can be" does not make this problem at the heart of QM go away.

Further, Fields (2012) shows that to assume a "Galilean" observer (as do Rovelli and most physicists) makes the observer too "informationally impoverished" to work in quantum physics. A quantum observer must, at a minimum, be able to alter its state in response to information that it receives. Acting as a passive reference point is not enough (pp. 92-119).

Physicists know these issues well, but as soon as the "c" word is raised, their hands go up and they say: "Stop! Before going any further, define consciousness. If you cannot define it, it has no place in science." This is an understandable response because there is no consensus on how to define consciousness.

This normally leads to a highly contentious philosophical discussion, but I am going to avoid this quagmire because it is not necessary. All that we need to understand is what impact, if any, consciousness has on quantum interactions. I do not mean the impact of human consciousness on quantum interactions, but the impact of *sentience* on how *quanta* respond. Clarifying the way that consciousness affects the relationships between quanta offers us a path to finding a testable way of verifying or falsifying the role of consciousness.

3.1 How to Work with Something That Cannot Be Measured Directly

Isaac Newton faced a similar problem when he studied time. As Rovelli (2017) explains, Newton realized that there is no way to measure time directly. We can only compare the rhythmic timing of one process, such as the swinging of a pendulum, with the rhythmic timing of another process, such as the ticking of a watch, or the pulse from a heartbeat. Rovelli asks,

> Is this not somewhat circular? What does it mean?
>
> It means that we, in reality, never measure time itself; we always measure the physical variables *A*, *B*, *C*, … (oscillations, beats, and many other things) and compare one variable with another, that is to say, we measure the functions *A(B)*, *B(C)*, *C(A)*, and so on. We can count how many beats for each oscillation; how many oscillations for every tick of my stopwatch; how many ticks of my stopwatch between intervals of the clock on the bell tower….
>
> The point is that it is *useful* to imagine that a variable *t* exists, the "true time," which underpins all those movements, even if we cannot measure it directly….
>
> It was Newton who understood all of this: he understood that this was a good way to proceed, and clarified and developed this schema. Newton asserts explicitly in his book that we can't ever measure the true time *t*, but if we *assume* that it exists, we can set up an efficient framework to describe nature. (pp. 180-181)

We are in the same situation with consciousness because there is no way to measure it directly. However, not being able to measure consciousness – just like time – does not mean that it does not exist. After all, we know consciousness is real from our own experience. So, what if we *assume* that it exists? Can we use Newton's trick and observe the results of consciousness by comparing one function of consciousness to another?

3.2 Conscious Perception and Intentional Action

There happen to be two specific functions that are ideally suited for this comparison: perception and action. These two functions describe the receptivity and responsiveness of everything alive.

The reason these two functions are ideal is because they both play such central roles in the lives of organisms. And both are functions of consciousness that appear to be completely dependent on each other: Intentional actions are only effective when guided by conscious perception, and the accuracy of conscious perceptions can only be calibrated with intentional actions (through trial and error). No act of internal agency, such as the ability to hunt for food or avoid threats, is possible without both conscious perception and intentional action working together.

We cannot measure consciousness directly. There is no way to detect it with any equipment. But when we throw a bird up in the air and it does not fall to the ground, but flies away, we see the evidence of a sentient internal agent. Every display of internal agency in creatures is directly tied to the use of conscious perception with intentional action – receptivity with responsiveness.

The relationship between perception and action goes surprisingly deep. Roger Sperry (1952) describes it as the single most important lesson that he learned from his first studies of the brain. Listen to what he says about how difficult it is to find *any* way of explaining how thinking (mental activities) can move muscles (motor behavior):

> An analysis of our current thinking [about the relationship between mental activity and the brain] will show that it tends to suffer generally from a failure to view mental activities in their proper relation, or even in any relation, to motor behavior. The remedy

> lies in further insight into the relationship between the sensor-associative functions of the brain on the one hand and its motor activity on the other….
> Only after we have attained some understanding of the way in which the sensory and thought processes become transformed into motor activity, can we hope to comprehend their meaning and plan of organization….
>
> Utilization of this motor approach immediately helps us to view the brain objectively for what it is, namely, a mechanism for governing motor activity. Its primary function is essentially the transforming of sensory patterns into patterns of motor coordination. Herein lies a fundamental basis for the interpretation, direct or indirect, of all higher brain processes including the mental functions….
>
> Further support for this point of view may be found in the study of brain architecture. One searches the cerebrum in vain for any structures that seem to be designed for the purpose of forming, cataloging, storing, or emanating copies or representations of the outside world. If any scheme or plan at all is evident in the complicated fiber associations and nuclear interconnections of the brain, it is a design patterned throughout for governing excitation of the "final common (motor) pathways." …
>
> To the neurologist, regarding the brain from an objective, analytical standpoint, it is readily apparent that the sole product of brain function is motor coordination. To repeat: *the entire output of our thinking machine consists of nothing but patterns of motor coordination.* (pp. 296-298)

Coordination between perception and motor activity is not only a valuable way of understanding the function of the brain; it is just as central to the lives of the simplest cells with no brain at all. They need sensory perception to guide their movements, and they need movement to create a feedback loop with perception. Without both conscious perception and action working together, repeated intentional behavior is impossible.

In fact, perception and action – receptivity and responsiveness – play key roles at every level of biological life. For single-celled slime mold to work as a group when hunting for food, individual cells need to act in synchrony with each other, without a brain, while specializing their roles at the same time (Marman, 2016, pp. 358-362). How is this possible without perception? Clearly it is not. Perception is just as vital to the activity of bee hives and all forms of social activities.

If perception is so important in guiding the actions of living creatures and life forms, and actions are just as necessary for guiding perceptions and making them meaningful, then perhaps this relationship can offer insights into how quanta would behave if they are sentient. In other words, any sentience an electron possesses would be meaningless if this sentience did not guide it to respond in some way. Can this help us understand why receiving information (which is simply another way of describing the act of perceiving) alters the behavior of quanta? Yes, perhaps, but only if the top-down comparison holds up. We need a more detailed description of how this works.

The approach I am taking here is similar to recent developments in cognitive science that have produced encouraging results, as Dehaene (2014) explains:

> Throughout the nineteenth and twentieth centuries, the question of consciousness lay outside the boundaries of normal science. It was a fuzzy, ill-defined domain whose subjectivity put it forever beyond the reach of objective experimentation. For many years, no serious researcher would touch the problem: speculating about consciousness was a tolerated hobby for the aging scientist. In his textbook *Psychology, the Science of Mental Life* (1962), George Miller, the founding father of cognitive psychology, proposed an official ban: "Consciousness is a word worn smooth by a million tongues…. Maybe we should ban the word for a decade or two until we can develop more precise terms for the several uses which 'consciousness' now obscures."
>
> And banned it was. When I was a student in the late 1980s, I was surprised to discover that, during lab meetings, we were not allowed to use the C-word. We all studied consciousness in one way or another, of course, by asking human subjects to categorize what they had seen or to form mental images in darkness, but the word itself remained taboo: no serious scientific publication used it… With a few major exceptions, the general feeling was that using the term *consciousness* added nothing of value to psychological science. In the emerging positive science of cognition, mental operations were to be solely described in terms of the processing of information and its molecular and neuronal implementation. Consciousness was ill-defined, unnecessary, and passé….
>
> In the past twenty years, the fields of cognitive science, neurophysiology, and brain imaging have mounted a solid empirical attack on consciousness. As a result, the problem has lost its speculative status and become an issue of experimental ingenuity….
>
> The word *consciousness*, as we use it in everyday speech, is loaded with fuzzy meanings, covering a broad range of complex phenomena. Our first task, then will be to bring order to this confused state of affairs. We will have to narrow our subject matter to a definite point that can be subjected to precise experiments. (pp. 7-8)
>
> What counts as genuine consciousness, I will argue, is conscious access – the simple fact that usually, whenever we are awake, whatever we decide to focus on may be conscious… When we are fully awake and attentive, sometimes we can see an object and describe our perception to others, but sometimes we cannot – perhaps the object was too faint, or it was flashed too briefly to be visible. In the first case, we are said to enjoy *conscious access*, and in the second we are not (and yet, as we shall see, our brain may be processing the information unconsciously). (p. 9)

Conscious access is something that can be tested. Experiments have made it clear that unconscious processes play an important role in influencing what crosses the threshold of perception, but the act of attention is still needed to select the one possibility that crosses the threshold to conscious awareness. In other words, something more is going on than just the processing of information in the brain.

3.3 Three Levels of Human Cognition

To compare quanta with human beings from the top down, I need to describe three levels of human cognition. Each level displays a unique relationship between conscious perception and intentional action. Do these same three levels of behavior exist in physics? If they do, what does this tell us?

3.3.1 Level 1: Analytical Conscious Thought

At level 1, we see perception as something that we can think about. Intentional action is also something we can think about. As a result, we see a gap between perception and action, as if they are two independent processes. This is why we have the ability to think before we act. We can choose consciously when and how to act, and we can choose consciously which perceptions to ignore and which to use to accomplish an intentional goal.

This first level is what most people associate with consciousness and free will. And this is why the idea that quanta could be conscious sounds so absurd, because it seems ridiculous to suggest that quanta can think. And if they cannot think, how can they use perceptions to guide their actions? This would be a problem for the LoP Interpretation, if the top-down comparison between human beings and quanta does not hold up. However, as you might guess, analytical conscious thought is not as simple as it seems.

The problem is that when we approach conscious thought this way we run into the mind-body problem that philosophers have struggled with for centuries. This is exactly the slippery slope into duality that Dehaene was trying to avoid because it is fraught with all sorts of problems.

For example, how do we move our muscles by thinking about moving them? Do we direct the specific muscles that we want to move? Do we even know which specific muscles are needed to stand up and wave our hand? Even if we were able to figure out the exact order and timing sequence to go for a jog, do we actually direct our muscles this way?

Thankfully, the answer is no. Experiments show conclusively that even if we could find a way to consciously control each muscle in the right order, we would look like a broken-down machine jerking its way forward, because our thinking processes are way too slow. Fortunately, we do not control our muscles this way. In fact, the only reason we are able to run and move fluidly is because we do not analyze our individual actions. Analysis is paralysis, as the saying goes.

The same is true with our perceptions. As Wilson (2002) shows, our brain is flooded with sensory messages from nerve cells throughout our body (p. 24). Can you imagine how long it would take to sort through the millions of messages our brain receives every second? It would be impossible, because we simply cannot think about more than one thing at a time.

There is no way we can sort through and think about all of our sensations any more than we can consciously control every action of our body. That picture is a myth. However, it is a useful story that we tell ourselves because when we decide to raise our hand, our hand *does* go up. We *do* have the ability to choose between vanilla and chocolate ice cream. We know that on some days we clearly need to get ourselves up out of bed to go to work. We *do* need to make it happen.

Yes, we have some control and we can make choices. We also use perceptions to guide our actions, but exactly how do these things happen if it is not through conscious thought? I believe that understanding how the wave collapse works at the quantum level can help us understand how this works in our brains. We will get to that later. For now, the question is: Do we see this pattern of Level 1 behavior when looking at particles?

Yes, we do. In fact, this is directly related to the way classical physics sees the world. Just as we imagine that the actions of our bodies are caused by intentions and will-power, classical physics pictures material bodies as objects moved by outside forces. In fact, this is why the classical idea of forces makes so much sense to us. It is the same as pushing a cart with our body. We do that.

Newton's laws of motion are based on a cause-and-effect relationship. In the same way, analytical thinking sees perception as independent of action for the same reason – because we see ourselves as the cause. We think before we act. We use reason and logic to make intelligent choices. But we cannot see how we move our muscles or our body, and physicists cannot see forces directly either, only the results of forces.

Classical physics pictures particles, atoms, and material bodies as independent things with external forces acting on them. In the same way, analytical thinking pictures the organs of our body as separate from each other, with our mind controlling them and telling them when to act.

However, physicists now know that the classical view of the world is largely an illusion. Quantum mechanics shows us that this view is only an approximation. As soon as we look closely, this lens of perception falls apart. There is no definitive cause-and-effect process at the quantum level. Two quanta that appear to be separate can be entangled. They become coupled together in one quantum state. Even atoms that seem like hard bits of matter from a distance are only fuzzy balls of energy when seen at the subatomic level.

Neuroscientists have run into the same issue. There is no clear cause-and-effect process between thought and action. This is why they often say that free will may be an illusion (Harris, 2012). A convergence of brain activity peaks hundreds of milliseconds before we think we decide (Libet, Gleason, Wright & Pearl, 1983), suggesting that even a simple decision is far more complex than we realize, and our choices are influenced in significant ways by unconscious processes.

When it comes to conscious thought guiding actions, we never actually see this in brain activities or in living creatures. This is why Sperry said above that research suffers from "a failure to view mental activities in their proper relation, or even in any relation, to motor behavior." Conscious actions do not actually work this way. Thus, the resemblance to classical physics holds up, because classical forces and the idea of particles as bits of matter do not actually work this way either.

3.3.2 Level 2: Skilled Actions and Relational Learning

Psychologists now know that learning new skills involves a different process than the type of conscious analytical thought used in academic learning. Skills are learned through *doing*. Thinking often impedes the learning of new skills, showing that this is a different process.

John Flach, Professor of Psychology, and Fred Voorhorst a design engineer, (2016), illustrate skill-based learning by describing the process a child goes through when first learning how to walk, then how to skate on ice, next how to do a handstand, and finally how to walk on stilts. Each skill requires a "different type of coordination pattern," a different series of actions to achieve control. In other words, they each require a different relationship between perception and action to click into place. And the only way to truly master these skills is through trial and error (pp. 104-105).

Skill-based learning uses a loop that starts with a directed action. The child must try something. This leads to perceptual feedback, such as the child falling on their face or flipping over on their back. Then they try again, using a new approach. With each loop of trial and error, they gradually learn how to balance and how to move. Errors, in this process, are essential tools for calibration (pp. 76-86).

Skill-based learning, in the early stages, happens without analytical conscious thought. This is easy to see because children cannot explain how they balance on stilts. They have no clear conscious idea about how they walk on their hands or skate on ice. They just know how to *do* it. Acquiring new skills is all about learning how to *do* something. This is how intentional actions are learned (pp. 185-188).

Thought processes are not involved in this learning process, but they still play an important role. Each directed action, for example, when children initiate each trial and error loop, are directed by thoughts. They think, “What if I try this?” before making another attempt. However, the way they learn to balance on their hands is different from anything they have learned before, so they have no way of thinking that can tell them what they need to do or how to do it. They just “get the hang of it.” This is clearly not the same process as analytical thinking.

Skill-based learning has three major characteristics, according to Flach and Voorhorst (2016):

1. It is learning by *doing*. A teacher might help illustrate through examples, but learning comes from practice, practice, practice. In other words, it needs action.

2. It requires tight coupling between action and perception. It is only loosely coupled to abstract cognitive processes. This explains why the best athletes are often not the best teachers.

3. Skill-based learning is even more crucial in situations that are highly dynamic, such as walking on your hands while on a boat swaying in the ocean, or trying to walk on a high wire. Extremely rapid corrections are needed in these cases to maintain stability. There is not enough time to think about each correction. You need to know how to respond instinctively without thought. Professional athletes excel at this (p. 187).

Tight coupling between action and perception is the key point here. When learning new skills through trial and error, perception and action are so tightly coupled that there is almost no gap. It seems as if perception flows directly into action. Trying to insert conscious thought into the process will seriously impede early stages of skill-based learning. This is why children are faster at learning new languages and other skills; they do not think as much about the process.

People have used skill-based learning for thousands of years – long before the third-person lens of science prevailed – because it was the best way to learn new crafts and professions. If you want to learn how to become a blacksmith, a carpet weaver, an artist, or you want to know how to raise a family, you need practice and experience. And it helps to work with masters of a trade.

In fact, if we trace back all the aspects of knowledge that we teach in schools today, we will find that they all began with skill-based learning. For example, rational and logical thought emerged only after people learned how to write with linear words and sentences. And written language came from spoken language. And spoken language grew out of non-verbal communication.

No one teaches a baby how to talk. Toddlers learn it themselves by making sounds and hearing the sounds they make. They get to know their bodies the same way: They form working relationships with their muscles and cells through trial and error.

Jean Piaget (1929, 1930, 1955), the psychologist, documented the way babies, in their first year, start recognizing the difference between their bodies and other things. They learn what it feels like when they grab their toes. Grabbing and sucking on their toes, over and over, shows them that this feeling is different from someone else grabbing their toes, or from them grabbing something else, like a rattle, that is not their own body. Thus, an understanding of what belongs to their body, and what does not, emerges from the experience of doing things – all without thinking about it.[6]

In other words, everything that we consciously think about is built on a framework of skills. At the base of every thought, every idea, is a skill-based way of relating to things. For example, our sense of "grasping" an idea is directly related to our experiences with grasping objects.

Therefore, this second level of cognition underlies everything that happens at the level of analytical conscious thought. However, it is hard to picture quanta going through a process of skill-based learning. So, we need a simpler way of understanding this second level of cognition. Fortunately, the answer comes from what I said above: Babies get to know their bodies by forming working relationships with their muscles and cells. In other words, we learn new skills the same way we learn how to work with others: through the dynamics of working relationships.

Skill-based learning is, in fact, the way we learn to form working relationships with other people. Remember point 3 above: Skill-based learning is crucial whenever situations change rapidly. People are also highly dynamic. They change continually from moment to moment and day to day. So we must learn to keep changing how we see them if we want to work together effectively. As our partners evolve, our responses need to adapt as well. Logical rules will not help. We need to continually learn from our errors to keep our working relationships running smoothly.

Musicians playing in orchestras are a good example. They must coordinate their actions precisely. There is not enough time to think before responding (Baumeister, Masicampo, & Vohs, 2011, pp. 352-353). Tests show that they play best when they focus on the flow of music, not the notes. The same type of synchronization is needed for professional athletes playing as a team. They must learn to respond fluidly to each other, without thought. Contrived actions cause the delicate dance between perception and action to break apart. Actions then become stilted, not natural.

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[6] By the age of two, most babies learn to walk and speak. Through games of "peek-a-boo," they discover that people and objects continue to exist, even when they are hidden from sight. They acquire visual depth perception through experience, and how to move their arms and legs. They recognize family members, and they learn that crying brings food. The amount of learning in their first two years is extraordinary, but it all happens unconsciously from actions they make, years before they understand how to think analytically.

Any attempt to use the process of cause-and-effect interferes with the dynamics of working relationships, because, for a team to be effective, responses need to be spontaneous and natural. People need to learn each other well. Breaking the tightly coupled loop between perception and action in order to control a team interrupts the flow of effective teamwork. In fact, trying to control working groups, rather than leading them, often limits their potential. Learning how to work together through practice, by doing things as a team, builds stronger teams.

At the human level, it is easy to see the difference between analytical conscious thought and the flowing receptiveness and responsiveness in healthy working relationships. For example, if we want to learn how to work with another person, should we dissect them to study their organs and brain cells? Of course not, because this could kill the person we are trying to work with. Taking people apart will never reveal the secrets of what makes them alive. Reductive analysis can teach us how clocks and machines work, but it will not explain how to work with other human beings.

We run into the same problem if we try to psychoanalyze a person or categorize their traits (such as education level, male or female, skin color), or if we try to study their behavior patterns. Third-person observations, like these, are poor choices if our goal is to learn how to work with them.

We learn far more by spending time with them, asking them how they see things, doing things together, working as a team, and seeing them as friends. Those are the best ways to know a person. Objective analysis is not much help. In fact, it gets in the way of relationships.

However, using a relational approach has a consequence: We are now involved. We have lost our objectivity. More importantly, what we learn is not who another person is by themselves. We only see and experience who they are when we are working with them. This is the same wall physicists run into when studying quantum mechanics. This is not a coincidence. It is a clue that we are on the right track. This is the paradox we are trying to solve.

The best way to form working relationships is by doing things together, not by reading books or logical deduction. We absorb a sense of others when working toward a common goal. It happens without analytical thinking. In other words, working with others teaches us how to let our actions and perceptions flow fluidly with them, without thinking about it. This is what makes relationships so difficult to describe with words.

Skills are learned by forming working relationships. All skills are based on a tightly coupled loop between perceptions and actions, and so are healthy relationships. Therefore, what this second level of cognition is showing us is how actions are carried out in synchronized ways. Skill-based learning is needed before analytical conscious thought is possible.

Do we see this same process in physics? Yes, this is similar to the wave collapse process at the quantum level – the process where tangible actions emerge from intangible quantum possibilities. As we will see later, actualized events, where the wave function collapses, requires the coupling of perfectly matched quantum wave functions. This means synchronization between quanta. Only then is an exchange of energy possible. The resemblance to working relationships is remarkable.

An important lesson to learn from our human experiences, at the second level of consciousness, is that actions and perceptions still seem different from each other, but they are so tightly coupled together that they form a receptive-responsive flow from one to the other. This suggests that quanta should be responsive to relational perceptions leading up to a wave collapse. No thought should be involved because that is not how consciousness displays itself at this level.

Another lesson is that both working relationships and learning new skills begin with sporadic actions. To an outside observer such actions can seem random and chaotic. But, to those involved, they are trials and errors. In other words, actions at this level are initiated to learn how to form a working relationship. As soon as a relationship forms, sentient agents are able to change the state of how they work together. The flow of water is a good example of this, because the on-going sharing of electrons – known as covalent bonds – allows water molecules to flow fluidly.

It is also interesting to note that with more intelligent organisms we see fewer apparently random actions. For example, if a grown person picks up a bow and arrow for the first time, their aim will probably be poor, but they will still draw on countless similar actions to guide them. Not so with a baby, who will just aimlessly throw the arrows around. However, as you look at less intelligent life forms, uncoordinated actions become much more common.

For example, Heisenberg, M. (2009) describes the way amoebae use their flagella to spontaneously change their direction until they find something of interest (p. 165).

Likewise, Rayner (2017) shows that fungi send out hyphae in many directions until a source of food is detected. *Circumspection* – looking around – precedes directional focus (pp. 53-54).

This suggests that we should see more spontaneous actions at the level of quanta. However, once relationships are formed, we should see clear patterns emerging from what appear to be apparently random acts. This, of course, is exactly what we see with interference patterns created by individual photons. This is a sign that relationships are guiding what is happening. (More on this later).

In summary, we do not see clear cause and effect at this level, the way we do in classical physics, because we are *not* dealing with conglomerates. This second level shows us how sentient agents work together to bring about the actions and events that define our tangible world. We see this with cells working together in organisms, and with organisms working together as teams. And the same process appears to take place at the quantum level as well.

3.3.3 Level 3: Embryonic Perceptions and Emerging Emotions

Before sensations and urges to act can emerge into conscious perception, they exist in a form that is too subtle to describe with words. For example, the moment we walk into a room filled with people, we unconsciously sense the consciousness in that room. Before we have a chance to notice details, we often feel something that draws us in or repulses us. We form impressions of strangers the same way, even before we see them speak or act.

Our first impressions are not distinct. They are vague and amorphous before they become clear enough perceptions that we can consciously think about them. We can picture first impressions as being on their way to becoming comprehensible, but they have not yet arrived at a state where they are distinct enough for our conscious mind to perceive. William James

(1899), the psychologist, gives us a glimpse into this process when he writes about the nature of apprehensions:

> The gist of the matter is this: Every impression that comes in from without, be it a sentence which we hear, an object of vision, or an effluvium which assails our nose, no sooner enters our consciousness than it is drafted off in some determinate direction or other, making connection with the other materials already there, and finally producing what we call our reaction. The particular connections it strikes into are determined by our past experiences and the 'associations' of the present sort of impression with them. (p. 157)

> A child will call snow, when he sees it for the first time, sugar or white butterflies. The sail of a boat he calls a curtain; an egg in its shell, seen for the first time, he calls a pretty potato; an orange, a ball; a folding corkscrew, a pair of bad scissors. Caspar Hauser called the first geese he saw horses, and the Polynesians called Captain Cook's horses pigs. Mr. Rooper has written a little book on apperception, to which he gives the title of "A Pot of Green Feathers," that being the name applied to a pot of ferns by a child who had never seen ferns before. (pp. 159-160)

Thus, when we see something for the first time, our unconscious makes associations with things that it knows. It looks for the closest match until it gets to know what it is actually sensing. It learns by forming a relationship with the new thing, whatever it might be. And it forms relationships by experiencing the impressions. It does not learn by thinking about it, like Level 1, and it does not learn by doing and acting, like Level 2. At Level 3, we learn from experience.

This is how children learn what an orange is when they eat one. They "get to know" what snow is by seeing, feeling, and tasting it. This is similar to learning a new skill, except the process at Level 3 is unconscious. There are no trials or errors because feelings and perceptions are still emerging. They are not distinct enough to act on or think about. We simply learn through experience – by being involved. Until they are clear, the meaning of oranges and snow cannot cross over into comprehension. We cannot make sense of them or relate to them. We cannot even frame what they are, which is why there is no way to consciously think about them or do something with them.

To get a better idea about how the unconscious works, we need to get closer to our raw experiences, by becoming involved in the experiences themselves, not by thinking about them. This process cannot be taught with words. However, reviewing a famous psychology experiment can help.

3.3.3.1 Cards that Play Tricks with Our Minds

Psychologists Jerome S. Bruner and Leo Postman (1949), from Harvard University, describe the results of an experiment that they ran on perception. Their experiment seemed simple: They asked subjects to watch a screen where they displayed images of playing cards.

At first, the pictures were flashed for such a short period of time that the subjects could not perceive what they were seeing. Gradually, the duration of the images was increased, until they were able to recognize the cards (pp. 209-210).

The subjects were told about this part of the experiment. What they did not know was that mixed in with the images of normal playing cards were cards that had the colors reversed: for example, a red six of spades and a black four of hearts (p. 209).

The first thing Bruner and Postman noticed was that normal cards were recognized much sooner than the reverse-color cards. Normal cards required about 1/36th of a second before they could be "seen." The cross-color cards needed more than 1/9th of a second – four times longer! (p. 210)

This makes sense, since the unconscious already knew what real playing cards look like from previous experiences (i.e., playing card games). Therefore, they already had a lens of perception – a way of seeing cards. That is why they could identify normal cards quickly. At the same time, they unconsciously sensed that something was strange about the six of spades and four of hearts. Their unconscious needed longer to figure it out, because it did not "know" those images. These wrongly colored cards did not just take longer to recognize, they also created odd distortions in perception before the subjects figured out what was happening (pp. 211-213).

Most of the people first "saw" the red six of spades as either a black six of spades or a red six of hearts. Some of them consistently saw the wrong color of the card, while others consistently misinterpreted the suits. In other words, their unconscious was trying to *associate* these cards with things that they knew. The unconscious sensed that it was seeing a distorted image. So it tried to correct the picture by substituting an image of what a real six of spades or six of hearts should look like. The appearance was so close to a real card that it guessed that it was a real card (p. 213).

However, the match was not quite right, and with experience the unconscious sensed this. It seemed to see that the traditional six of spades did not fit everything it was seeing, which is why it took so much longer to figure out what was going on with the mis-colored cards.

A number of people saw something stranger: The colors of the cards seemed to shift before their eyes. They could not understand what was happening, or how to explain what they were seeing. They described the cards as purple, grayish, rusty-black, or brown-black. Their words were often bizarre: "Lighter than black, blacker than red," "Black but redness somewhere. Blurred redness," "First black, then red, then black" (pp. 215-216).

Their unconscious was searching to find a way to relate to what they were seeing. It was weighing different *possibilities*. It moved from one possibility to another, switching back and forth. It was trying to *relate* to these cards. That is why the colors seemed to shift before their eyes.

This is when more than half of the subjects experienced a complete breakdown in perception. It did not usually last long, but they became so confused that they lost all sense of knowing what was happening. Here is what one person said:

> "I can't make the suit out, whatever it is. It didn't even look like a card that time. I don't know what color it is now or whether it's a spade or a heart. I'm not even sure now what a spade looks like! My God!" (p. 218).

Psychologists call this “cognitive dissonance.” The unconscious searches for a lens – a way of seeing – that it can relate to, but nothing fits. At this point, the conscious mind completely loses its ability to orient itself, making first-person perception impossible. This is the state of confusion. It happens when first-person perception breaks down and only the unconscious keeps working and looking for a way to relate. The person does not know what to *do* and they do not know what to *think*. However, the unconscious process of experiencing continues, so they continue to learn.

Remember, all of this was happening in fractions of a second, as the cards flashed by. Subjects could only think about what they saw after the cards disappeared. It was too fast for their conscious mind. Therefore, it was their unconscious that was shaping their perceptions, not their conscious mind. And the unconscious had not yet learned how to relate to these strange new cards.

Shortly after these breakdowns in cognition, the subjects started getting glimpses of a new way of seeing. One person reported, “What’s the matter with the symbols now? They look reversed or something.” Another said, “The spades are turned the wrong way, I think” (p. 221).

The upward pointing tip of a spade that they were looking for did not match the downward pointing tip of the heart that was there. Their unconscious could now see the mismatch, but their analytical thinking could not yet grasp the new lens to see what it meant. They needed to fully let go of their old way of seeing before they could find a new lens – a new way of relating. Can you see how bizarre and different the unconscious process seems compared to conscious thought?

Then, suddenly the shock of recognition hit them. Bruner and Postman calls this the “My God!” reaction, since they heard this over and over, at the moment it made sense. “Good Lord, what have I been saying? That's a red six of spades!” (p. 222).

The subconscious figured it out. No reasoning of the conscious mind was involved. Once the right way of relating is found to explain the strangeness, everything snaps into focus. This is the “Aha!” moment, when it crosses over into conscious access. A new lens of perception just formed.

This experiment gives us a glimpse of the unconscious process. It shows us that Level 3 works by forming relationships and associations, and it forms these relationships by getting involved in experiences. This is how embryonic perceptions and emotions emerge into clarity. First-person intentional actions and third-person conscious thought are not possible before this happens.

We are now entering into controversial territory. While psychology has made progress recently in better understanding the process of conscious access, the world of our unconscious that processes sensations and impressions before they become conscious, is hard to nail down because they are not yet conscious. As a result, we find a number of radically different theories on how to interpret the unconscious. This is similar in many ways to the radically differing interpretations of QM.

And the similarity does not end there. Emerging emotional feelings, before they are able to cross over into clear emotional responses, are not static. They evolve continuously, in a remarkably similar way to how quantum wave functions evolve. For example, if we walk into a bar, our initial impression brings an immediate sense of like or dislike, but these feelings change as soon as we start talking to the people there.

Physicists see coherent quantum wave functions acting the same: They continually evolve. There are no sudden transitions until there is a wave collapse at Level 2.

We often remember the sense of emotional attraction or repulsion that we felt when first meeting another person. The feeling might be strong or mild, but it begins to evolve as soon as we get to know them better. Our emotional response can change fluidly from dislike, to intrigue, to genuine interest, depending on what the other person says and how they respond to us.

These emerging feelings can also be marked by moments of conscious perception, such as when the person does something that surprises us. We then suddenly change the way we see that person. This is similar to a wave collapse. In other words, in that moment our half-formed feelings and perceptions cross over into Level 2. When this happens, the relationship possibilities shift suddenly and start evolving down a different path. This is the same pattern that physicists see when the wave function collapses.

Here is another interesting similarity: Our first impressions of an environment do not come from one or two specific perceptions. They actually seem to come from an overall impression from all of our unconscious senses, as if they all flood us at the same time. This is the same way superpositions work. They all influence us at the same time, often creating a range of conflicting feelings. First impressions affect us this way because they are still emerging; they are only the *possibilities* of perceptions. In other words, they are what Heisenberg called *potentia*.

Plus, each of the countless impressions influence us with a different weight, based on how close they are to being recognizable, the same way probabilities in QM are used to calculate the likely outcome of a measurement. Therefore, some unconscious feelings influence us more strongly than others, but all of these impressions add together. This way of describing our state of consciousness at Level 3 is remarkably similar to the behavior of coherent quantum states.

Embryonic emotions that have not yet emerged as clear feelings are often considered subjective, but they produce a real effect. When someone feels a sense of admiration for us, whether we are consciously aware of it or not, it changes our unconscious feelings towards them. If two people feel a sense of attraction to each other, it is far more likely that they will be drawn to each other, even if the feeling is unconscious.

Nothing that we see at this level is distinct or definitive. We only catch glimpses of what appear to be half-formed perceptions and feelings leading to a vague sense of attraction or repulsion.

Quanta experience attraction and repulsion in this same open-ended manner. It makes them more likely to move closer together or farther away. But, for tangible movement to occur, there must be an exchange of energy. That requires a Level 2 wave collapse. We see the same thing on the human level: We can only act intentionally when tangible perceptions emerge into consciousness.

How do we observe the inner dynamics of Level 3 if it is unconscious? Obviously, we cannot see it clearly. We can only sense it vaguely in the moments before it crosses over into conscious access. This is virtually identical to the issue that physicists face with coherent quantum states, because as soon as they measure a quantum state it is no longer coherent. In other words, how can we study the uncertain nature of quantum states when they change into something distinct as soon as we measure them? This goes to the heart of quantumness. This is why there are so many widely differing speculations and interpretations. The problem is the same for psychologists and neuroscientists who try to study unconscious processes before they become conscious.

As a result, physicists are divided into two groups: those who believe the quantum wave function represents something real and those who believe it is “merely a calculational tool for working out probabilities of the results of experiments…” (Penrose, 2016, p. 198).

The Copenhagen Interpretation, which is the most popular interpretation of QM, says that the wave function is just a mathematical tool. However, there is significant evidence suggesting that it does indeed represent something real, as Roger Penrose (2016) points out, because some experiments are 100% accurate (such as retesting the spin state of a photon after it was just tested) (pp. 198-204).

The “Taking Heisenberg’s Potentia Seriously” paper also says that the wave function represents something real, and it offers a detailed model for how it influences every tangible and measurable event in our universe. This model, the paper claims, is what has been missing. The LoP Interpretation suggests that what has been missing is how closely quantum states resemble unconscious behavior. This explains why we see two states of reality: the quantum state and the visible, tangible world.

It turns out, as you might guess, that psychologists are also divided into two groups as well: those who see consciousness as simply a by-product that emerges from the brain, and those who see it the other way around – where consciousness shapes brain functions. Both sides face challenges.

For example, if conscious awareness emerges from brain activity, how do chemical and electrical interactions between neurons make the leap to consciousness? This question is not even close to being resolved. In fact, there is no good theory for how such a leap to consciousness could even be possible, as the neuroscientist, Sam Harris (2011), explains:

> Most scientists are confident that consciousness emerges from unconscious complexity. We have compelling reasons for believing this, because the only signs of consciousness we see in the universe are found in evolved organisms like ourselves. Nevertheless, this notion of emergence strikes me as nothing more than a restatement of a miracle. To say that consciousness emerged at some point in the evolution of life doesn't give us an inkling of how it could emerge from unconscious processes, even in principle....
>
> Consciousness – the sheer fact that this universe is illuminated by sentience – is precisely what unconsciousness is not. And I believe that no description of unconscious complexity will fully account for it.... Consciousness may very well be the lawful product of unconscious information processing. But I don't know what that sentence means – and I don't think anyone else does either. (Harris, Oct. 11, 2011)

Harris' readers were surprised by his comments. They asked him: Why does the emergence of consciousness pose such a problem? In a follow-up blog post, Harris answered: "Why is consciousness more perplexing than language or digestion? The problem...is that the distance between unconsciousness and consciousness must be traversed in a single stride, if traversed at all" (Harris, Oct. 19, 2011).

You cannot get to consciousness gradually. The step is immediate – it happens in one sudden leap. You are either conscious or you are not. There is no in-between. Nothing known to physics or chemistry can create a discontinuous leap like this, except for a wave collapse. But quantum effects have been ruled out by neuroscientists because they should not be visible at the level of evolved organisms. (See: Harris, 2012, pp. 29-30, and Dehaene, 2014, pp. 263-264).

The other side of the debate faces a similar challenge: How does consciousness influence our world of matter and energy? There is no evidence of other forces than those identified by physics. And why do matter and energy exist on one hand and consciousness on the other? This is the slippery slope into dualism that Dahaene mentioned earlier.

This certainly seems to be as difficult to solve as the emergence of consciousness. However, an explanation for how this is possible emerges from the LoP Interpretation. It will be explained in section 4.9. This is a benefit that comes from identifying underlying principles that can explain the formalism of QM. If the LoP Interpretation is right, then consciousness *does* come first, and quantum leaps *are* involved. This overturns the "compelling reasons" that Harris stated above: "the only signs of consciousness we see in the universe are found in evolved organisms like ourselves." This argument fails if we can now see signs of sentience everywhere, even at the level of quanta. Plus, wherever we see relationships between sentient agents we find quantum effects.

We will explore this in more detail later, but the point here is that we see, once again, a remarkable resemblance between unconscious processes that exist before conscious access, on the one hand, and pure coherent quantum states that exist before measurements, on the other.

3.3.3.2 Automatic Responses that are Not Automatic

Before we leave this third level of cognition, there is something I want to examine more closely. How do we explain embryonic unconscious feelings that are on the way to becoming distinct emotions? How should we treat first impressions on the way to becoming clear perceptions? How are we supposed to think about half-formed emotional feelings that are precursors to actions?

For those who believe that consciousness emerges from the brain, it is natural to describe these as nothing more than brain functions. In other words, they do not see these as results of consciousness. But this avoids the fact that at this level we see a display of half-perceptions and half-urges-to-act that are so close together that they, for all practical purposes, happen at the same time. In other words, we see receptivity and responsiveness – the very traits that are functions of consciousness.

Our first impressions arise immediately from a flood of sensations that permeate us when we enter a bar or meet a stranger. There is no time for analytical thought. There is not enough clarity to recognize one emotion to act on. This is what makes this third level unique and different from the other two states of cognition: Perception and action are inseparable because they are possibilities.

The receptivity and responsiveness that takes place at Level 3 has all the traits of being embryonic perceptions and emotional responses, both happening at the same time. Psychologists might call these “automatic” responses, the same way physicists see the behavior of quanta as automatic, but in both cases the term “automatic” *does not fit* because it implies cause and effect. In both cases, that is clearly what is *not* happening.

Physicists have proven this at the quantum level. Cause and effect requires an object to obey the force that is moving it. However, that is clearly *not* what happens at the quantum level, and that is clearly *not* what we see with unconscious processes before they cross over to conscious access.

In Newtonian physics, determination is possible because we can know the position and momentum of an object, and the forces being applied to inert objects appear to be separate. At the quantum level, however, the more accurately you know the position of a particle, the less you know about its momentum. If you know exactly where it is, then you have no idea where it is going. This uncertainty is inherent, making it impossible to predict what a single quantum will do.

For the same reason, we must abandon the idea of cause and effect when dealing with unconscious processes that lead up to and influence what crosses over into conscious access. Uncertainty rules over all of these half-formed perceptions and half-formed urges. More importantly, this third level of cognition shows us receptivity and responsiveness – two functions of consciousness – working together. This is how the unconscious learns to relate through continued experience.

Our first impression that we like someone is not automatic. It makes no sense to compare this to a mechanical reaction. The “chemistry” we feel with another person is not a chemical reaction because it is completely unpredictable. There is no evidence that chemistry in a relationship is the result of actual chemistry or external forces. Calling them automatic is simply avoiding the display of consciousness that we see at this level.

This is, of course, exactly the same thing that physicists do when they push aside consciousness. This is why Rovelli says that the “observer” does not need to be treated as conscious. A table lamp can be an observer, he says. But when we look at what is happening at the quantum level, we have no way of knowing how an individual quantum will respond to the information it receives. We can only make statistical predictions. This means that even the atoms of a table lamp form relationships with quanta in a way that suggests there are inner dynamics involved in the relationship. Quanta act as if they spontaneously choose one of the possibilities for no external reason.

All of this leads to a highly controversial conclusion, which is debatable and should be debated. However, if the LoP Interpretation is right, then unconscious processes must be considered an aspect of consciousness, just as the unpredictable behavior of intangible quanta must be seen as the result of sentience. We cannot see consciousness directly, but we can easily see the difference between automatic cause-and-effect reactions and the gradual evolution of relationships that develop through receptivity and responsiveness.

3.3.4 Comparing the Three Levels

Roger Penrose (2016) recently explained the problems with current interpretations of QM. His description so closely resembles the three levels of cognition discussed above that it is worth reviewing.

He starts by presenting a picture that can be seen as a simile of the physical world. In the picture, we see a mermaid sitting on a rock with half of her body above water and half below. He writes:

> The lower part of the picture depicts what is happening beneath the sea, as an entangled mess of activity involving many odd-looking creatures and alien entities, but with perhaps a kind of special beauty of its own. This represents the strange and unfamiliar world of quantum-level processes. The upper part of the picture depicts the kind of world that we are more familiar with, where different objects are well separated and constitute things that behave as independent objects. This represents the classical world, acting according to laws we have become accustomed to, and had understood – prior to the advent of quantum mechanics – as precisely governing the behavior of things. The mermaid herself straddles the two, being half fish and half person. She represents the link between the two mutually alien worlds. She is also mysterious and apparently magical, as her ability to form her link between these worlds seems to defy the laws of each. Moreover, she brings, from her experiences of the world beneath, a different perspective on our world above, appearing to look down upon it from a great height from her vantage point on the rock. (p. 138)

In other words, the classical world represents a world of definitive objects governed by cause-and-effect processes. The quantum world is an alien world to us because things are entangled, not clearly defined, and hidden from view. The mermaid embodies a third reality that in a magical way crosses from the undersea world into the visible world above the surface of the water.

This offers a great overview of the world as seen by our current understanding of physics. And it is easy to recognize that much of what makes the mystery so intriguing is that the mermaid's magic resembles so closely the mystery of how our unconscious crosses over into consciousness. However, the reason Penrose is using this simile is because he wants to help explain the underlying problem that QM faces. He goes on to say:

> It is the normal belief of physicists – and it is my own belief also – that there should *not* be fundamentally different laws governing different regimes of physical phenomena, but just *one* overriding system of fundamental laws (or general principles) governing *all* physical processes. (p. 138)

> Accordingly, the [classical and quantum] worlds…should not be thought of as really being alien to one another, but with our present understanding of quantum theory and its relation to the macroscopic world, it is merely a convenience for us to treat things as though they inhabited different worlds and thus obeying different laws. In practice, it is certainly the case that we *do* tend to use one set of laws for what I shall refer to the *quantum level* and another set for the *classical level*. The borderline between these two levels is never made very clear, and there is the common view that classical physics is, in any case, merely a convenient approximation to the "true" quantum physics that is

> taken to be satisfied *exactly* by its basic constituents. It would be taken that the classical approximation normally works extremely well when there are vast numbers of quantum particles involved. I shall be arguing later that there are, nevertheless, certain severe difficulties involved in holding too strongly to this kind of convenience viewpoint. (pp. 140-141)
>
> The classical world seems indeed to be extremely closely governed by the classical laws of Newton, augmented by those of Maxwell to describe continuous electromagnetic fields, and those being further augmented by the Lorentz force law which describes how individual charged particles respond to electromagnetic fields. If we consider matter in very rapid motion, we need to bring in the laws of special relativity, and when we involve sufficiently significant gravitational potentials, we need also to take into account Einstein's general relativity. These laws combine into a coherent whole, in which behaviour is governed…in a precise deterministic and local way. (p. 141)
>
> The quantum world, on the other hand, has a time evolution…described by a different equation, called the *Schrödinger equation*. This is still a deterministic and local time evolution…and it applies to a mathematical entity called the *quantum state*, introduced into quantum theory to describe a system at any one moment. This determinism is very similar to what we have in classical theory, but there are various key differences from the classical evolution process.... In fact, some of these differences…have implications that are so alien to our experiences of the actual behaviour of the world that it becomes totally unreasonable to try to continue to use [quantum laws] for our descriptions of reality after macroscopically discernible alternatives become involved. Instead, in standard quantum theory, we adopt a third procedure, called *quantum measurement*… performing this necessary link connecting the quantum world with the classical world of our experiences… [This] procedure is completely different from the deterministic evolutions of either [the classical or quantum levels], being a *probabilistic* action, and…it exhibits curiously non-local features that defy all understanding in terms of the classical laws that we are familiar with. (p. 142)
>
> However…there are some profoundly mysterious puzzles involved in the adoption of such a point of view, and it becomes very hard to accept that the strange [quantum]-rules, when directly applied to macroscopic bodies, can in themselves result in [collapse]-like or [classical]-like behaviour. It is here that the serious difficulties in “interpreting” quantum mechanics begin to loom large. (p. 144)

In other words, one of the fundamental unsolved problems of QM is why we see the world operating at three different levels. Most physicists realize that this does not seem right, that there should be a single perspective that makes sense of all three. The view we gain from psychology gives us an insider view that adds depth and meaning. But it still leaves us wondering why we see three levels.

I believe that this picture can be simplified.

1. The top level is defined by objective **third-person perception** of the world, where we see objects and actions as outsiders. Our analytical ideas and thoughts seem distinct and clearly defined, the same way that objects and forces appear distinct. However, a closer look shows us that nothing is as definitive as it seems. And this top level cannot explain quantum states or the states that allow creatures to be alive.

2. The most notable feature of the middle level is defined by **first-person perception**. This is what enables quantum states and unconscious processes to cross over into actualized events and conscious access, making them visible to third-person analysis. This is the source of all tangible activity. Internal agency originates at this level, allowing quanta and living organisms to act as individuals and exchange energy.

3. The bottom level is shaped by the influence of possibilities in relationships between sentient agents, whether they are quanta or living creatures. These possibilities are uncertain. They are never clearly defined, and they continue to evolve gradually. Attraction and repulsion emerge from the intangible dynamics of the relationships between agents. These dynamics are composed of wave functions, according to QM. At the human level we know them as receptiveness and responsiveness. They are the results of embryonic perceptions and urges-to-respond that are so close to each other that they appear to be two sides of the same coin. I call this **second-person perception** because, when writing a personal letter, we use the second-person voice to address the quality of "you" we sense in another being, forgetting ourselves in the process. This can also be called the relational lens of perception. This is why Rovelli was right to say that the quantum world is made up of nothing but relational states and values, but we must remember that these relationships are energized by inner dynamics that are intangible and invisible to outside observers.

This is a simplified summary of the lenses of perception that give the LoP Interpretation its name. All other lenses are composed of one or more of these three lenses. And from these three lenses, we can develop a model that is consistent with quantum formalism. It is also consistent with everything we know about psychology and neuroscience, as far as I can see.

The world forms and develops according to these three lenses because quanta are sentient. Thus, these three ways of seeing become the ways that sentient entities develop relationships with each other. This is why we see the pattern of quantum behavior at the level of human psychology and living organisms. Internal agency and the quantization of energy and matter is the result of first-person perception. The strange and irrational behavior of quantum and unconscious states comes from second-person ways of relating. And the classical view only sees the outside – the end result.

This represents an overview of the proposition presented by the LoP Interpretation. Next, we will study the underlying principles of perception that lead to these three lenses and quantum behavior.

4. The Creative Process of Perception – The Principles

In the last few sections, I have used an informal approach to compare quantum-level processes to organisms. The main purpose was to see if there was any obvious reason for ruling out the LoP Interpretation. I have found none, but of course all of these issues could be explored in far more detail. However, now is not the best time for debating these points. Once I lay down the underlying principles that allow a rigorous comparison with quantum formalism, then we will be able to do a much better analysis.

This section begins a more formal process. I will explain the fundamental principles of the creative process of perception that applies to both quanta and life forms, and I will explain how I arrived at them.

My goal is to show, first, how the sentience of internal agents naturally leads to embryonic perceptions and responses, and, second, how those emerging perceptions and responses lead to dynamic relationships. Then I will show how relationships can create the natural world of matter, energy, space, and time. In other words, we will see how the tangible universe emerges from nothing but consciousness – the same way that unconscious processes emerge to produce our conscious reality.

An even more rigorous process starts in section 5, where I show that the principles of perception explained in this section explain why quantum formalism takes the form that it does. Along the way we will see a number of additional insights emerge from these principles.

One of the lessons learned in previous sections is that comparing quanta with organisms gives us two different perspectives. At the level of quanta, where states and behaviors are simple, with only a few degrees of freedom, it is easier to see what makes quantumness so bizarre. From the level of living creatures, on the other hand, we see an insider point of view that offers a deeper understanding of what is happening to cause such irrational goings-on.

In this section, we are going to use this same process of going back and forth between quanta and organisms, but for a different reason: to identify key principles of perception. In describing these underlying postulates, we need to apply constraints from both ends of the spectrum, to make sure these principles work for both.

This should make it easier to find a way to invalidate the LoP Interpretation, if there is one, because more constraints need to be applied here than for any other interpretation. At the same time, these added constraints also make the LoP Interpretation more detailed in its explanatory power for what is happening at the quantum level.

There is an additional constraint that weighs heavily on the LoP Interpretation. If consciousness does indeed come first, before matter and energy, this means that these principles need to explain how mass and energy emerge, along with space, time, and everything else, for that matter. If the LoP Interpretation cannot show how our tangible world emerges from nothing but consciousness, then we will end up with a theory that still leaves us with a world of duality. It might offer added insights, but we will still be left with Roger Penrose's (2016) concern:

> It is the normal belief of physicists – and it is my own belief also – that there should *not* be fundamentally different laws governing different regimes of physical phenomena, but just *one* overriding system of fundamental laws (or general principles) governing *all* physical processes. (p. 138)

This additional constraint suggests that the LoP Interpretation must offer an explanation that starts before the world of matter, energy, space, and time emerged. In this simple starting point, only consciousness exists.

This is where I will begin, as I now introduce the first postulate:

4.1 Postulate 1: Consciousness Always Belongs to a Sentient Agent

This assertion, that consciousness always belongs to a sentient agent, can easily be debated. But there is no need to argue over this postulate, since it is nothing more than a starting assumption to develop a system of principles. As Bowman (2008) says in his book about quantum formalism,

> A postulate is, essentially, a statement made without proof or analytical justification – an underived statement. In physics, a postulate is, in effect, a proposal, and such a proposal must ultimately stand or fall not on *derivation*, but on *verification* in the physical world. It must be tested experimentally. Newton's laws of motion were such proposals. (p. 6)

The main reason for asserting Postulate 1 is because everything we have seen so far, at the levels of both quanta and organisms, suggests that sentience gives both particles and living creatures an ability to act as individuals through internal agency. This explains why matter and energy are quantized and why there is no such thing as an organism that is half-alive.

This is also consistent with Roger Sperry's (1968) research on people who have the connection between the two hemispheres of their brain cut: They retain their awareness as a singular person. And it is consistent with the discovery cited earlier that we must place our attention on something before it can cross over into conscious access.

Whenever consciousness plays a role, it does so through sentient agents whose actions are guided by perceptions. This is, therefore, stated as a starting assumption for the LoP Interpretation.

Another way of putting this is that consciousness always belongs to "someone." This means that consciousness does not float out in space on its own. Whenever we talk about consciousness we can always ask "whose consciousness?" As we will see later, this is an important constraint.

4.2 Postulate 2: Sentient Agents Can Experience Each Other

If, in the beginning, there is only consciousness belonging to one sentient agent, then how could it ever become aware of anything outside of itself? It seems absolutely necessary that there must be more than one sentient entity if relationships are going to create a world filled with material bodies and forces.

As soon as there is more than one sentient agent, then the possibility exists that they can experience and perceive each other, making it possible for relationships to form between them.

The experience of others leads to what might be called the first true perception. By perception, I mean an experience that is recognized. In this case, the first perception would come from the experience of something outside of the sentient agent's own consciousness.

What is the basis for this perception? The perception arises because there is a difference between self and others. If this difference is noticed, it can be perceived. If it is not noticed, the two sentient agents will pass each other like ships in the night and nothing will happen.

4.3 Postulate 3: Perception Begins with the Sensing of Differences

Psychologists say that all sensations that lead to perceptions are based on differences, such as the difference between hotter and colder. However, we need to be careful here. We do not want to base these principles on human perceptions because humans do not exist yet in the primordial world where there are only sentient agents who perceive each other.

Our human concept of differences comes from looking at the world as an outside observer. We sense that a pot is hot when we touch it because it is hotter than the countertop or the air. Unfortunately, outer perceptions do not exist yet in our fictional primordial world. This means that there are no such things as third-person perceptions yet. **The only perception that exists is first-person perception**, which comes from the experiences that belong to sentient agents.

Therefore, a sentient agent is able to recognize the presence of another sentient agent only because the experience of its own self is different in some noticeable way from experiencing the presence of others. This experience can lead to perceiving the difference between self and others.

Here is another place where we need to be careful. This first perception of the difference between self and others should not be seen as anything even close to a thought of any kind. At best, it will start out as an emerging perception. This is important because it means that the only level of cognition that exists up to this point is Level 3 – the unconscious – which is also what physicists call “the pure coherent quantum state.” There are no measurements possible yet and there are equally no distinct states or perceptions either.

If the first embryonic perception arises from experiencing the presence of another because it seems different in some way from the experience of self, then, in some cases, this half-formed perception should evolve and grow. Why would it evolve? There are three reasons:

First, an agent that starts to perceive the presence of others may want to know more about what this half-formed perception means. In other words, their first impression of others may spark a half-formed feeling of attraction. This is a display of consciousness at its simplest form: half-formed perceptions leading to half-formed emotional responses.

Second, the perception will evolve when the experience of another continues. If the sense of otherness only exists for a moment and then disappears, the vague perception cannot evolve. Or if there is no interest – or feeling of attraction – in the experience of others, then nothing will happen. But, if the agent feels some emerging sense of attraction from an incipient perception of another, and if this experience continues, then the perception should grow, as the unconscious learns how to relate.

Third, the most important reason that the perception of another will evolve is because the moment a perception begins emerging, the experience becomes more vivid. In other words, recognizing a perception heightens our awareness of that perception. The moment you sense a distinction of any kind, it becomes clearer to you. Becoming aware of something actively changes your experience of it as you get to know that experience. This shows us the creative power of perception.

This creative property of perception is the key to all of the mysterious behaviors of quanta.

Notice that third-person perception does not work this way. The outside world appears to exist as an independent reality from us. We appear to be mere witnesses. Observing does not seem to change the outside world or create anything. However, this is not true for embryonic perceptions.

At the level of cognition (where perceptions are just emerging and our urges to know are only half-formed), the instant we sense a difference, it becomes clearer. Recognition energizes the sensation, you might say, awakening a stronger feeling of curiosity and attraction. As a result, perceptions continue to gather strength and become clearer at the unconscious level.

If this is true at the human level, then the same process should be true at the level of quanta. This creative property of perception needs to be stated as a postulate:

4.4 Postulate 4: Perceiving a Difference Strengthens the Awareness of that Difference

As I said before, in reference to the unconscious level of cognition, embryonic perceptions can immediately trigger half-formed responses, as if the perception and response are one and the same. Now we can see why: The first glimmer of perception strengthens our awareness of that perception because it triggers an incipient emotional response. This response heightens our awareness. And, when the perception is strengthened, this triggers the response to grow in a way that is inseparable from the perception. In other words, it creates an increased feeling of a need to know more.

I have described the evolution of this process as if it begins with perception and is followed by an emotional response. In other words, receptiveness leads to responsiveness. We can just as easily see this process beginning with an emotional urge that then energizes our awareness of that urge, awakening an emerging perception. For example, think about times when you react unconsciously without thinking about what you are doing. It can awaken you to a sense of attraction or repulsion that you are feeling but had not noticed before.

In none of these cases are we talking about anything even close to cause-and-effect reactions. It would be more accurate to say that emerging perceptions can awaken emotional responses and embryonic emotional responses can awaken perceptions. This is how consciousness displays itself at the quantum level, which is also the unconscious level.

This is why sentient agents alter their responses based on perceptions (information). If perceptions and responses did not awaken each other, there would be no sentient agency.

For example, let’s say you are trying to listen to someone over the noise of a crowd. You may be completely unaware that one of your friends is standing in the back of the room. However, at some point a vague perception grows, or perhaps a vague feeling emerges that continues to grow stronger as your eyes continue to catch glimpses, because the emerging perception and feeling strengthen each other. Things change the moment you consciously recognize your friend in the back of the room. That is when it grows strong and clear enough to cross over into conscious perception.

Therefore, this fourth postulate tells us that embryonic perceptions and urges strengthen each other. And as they grow stronger, first-person perceptions and emotional responses become clearer.

Look closer at what this means: The first glimmering perception and feeling of your friend grows and evolves because your friend is there in the back of the room. This is the only reason perception and feelings grow clearer and stronger. In other words, when perceptions and feelings relate to something real, our perceptions and feelings continue growing and evolving.

This strengthening process of perceptions and feelings falls apart if the sensed differences do not exist in the first place. In other words, there can be no positive reinforcement if a perception or feeling is about something that is not really there. So, the distinction, or at least the hint of a difference, must be based on something real for a perception to grow stronger and clearer. And there must be an “interest” – an internal sense of attraction or repulsion. The strength of this interest, therefore, acts as a weighting factor, determining how fast the perception grows clearer and stronger.

From the above four postulates, we can now describe how the inner dynamics of second-person relationships develop and how they influence sentient agents.

4.5 Postulate 5: Second-Person Relationships Are Created by the Reinforcement of Shared Perceptions and Feelings

Up until this point, I have only spoken about the emerging perceptions and incipient responses of a single agent. Therefore, no relationships have formed yet. There are only first-person perceptions and feelings.

However, as soon as two agents both sense a common interest in each other, a new dynamic arises. At first, the embryonic perceptions and feelings evolve on an individual basis as before, but now something new emerges: the perception or feeling that they both share an interest in each other. This is a very different type of perception and feeling. It awakens a new emerging awareness of their mutual interest in each other. As a result, two agents can reinforce each other’s perceptions and feelings. Once this starts, the perceptions and feelings that they both share an interest in each other will grow stronger.

Thus, as soon as two agents begin sensing that they both share a common interest in each other, a relationship begins. The relationship continues to develop for as long as their interests are aligned. In other words, it is the reinforcement of each other’s perceptions and feelings that makes the experience of the relationship real to them. Becoming aware of another person’s interest in us, when it is a shared attraction, strengthens the relationship experience. This is how second-person perception emerges.

This process does not work when we are attracted to someone who feels indifferent to us. There is no reinforcement of perceptions about a mutual interest, so the relationship never becomes real. This process of coupling with another is a powerful experience. Perceptions and feelings of an emerging relationship stand out as special and distinct from any other type of experience, further strengthening the relationship. In other words, the inner dynamic of second-person relationships are driven by a process of positive feedback.

The moment we, as human beings, see and feel a distinction between self and others, we not only reinforce the experience of our self, we can also, at the same time – whether we realize it or not – sense others as “you.” If this is what happens at the human level, the same process needs to happen at the quantum level. This means that quanta are drawn to form relationships with other quanta when the interest is shared and mutual. The relationship then takes on a life and reality of its own. This process of perception is so dynamic that it feels alive. This is what makes relationships special and why they lead into dramatically new types of experiences.

This process of positive feedback also happens unconsciously. Simply being with someone can trigger a desire to know them better. We call it “chemistry.” According to this postulate, this sense of attraction also happens between quanta. We will see later that there is strong physical evidence that this is true. In fact, this attraction is the origin of the forces of physics. And mutual feelings of repulsion can emerge in the same way.

This means that both first-person and second-person perceptions grow from the difference between self and others. However, while both of these lenses of perception are sparked by the experience of otherness, they follow different paths. First-person perceptions heighten the distinctions we notice, making the differences sharper and clearer as they evolve. Relationships, on the other hand, grow into shared experiences.

From this postulate we can make an assertion: **A second-person relationship only forms when it is mutually reinforced by another sentient agent.** This means that the inner dynamics of relationships only activate when both agents reinforce each other’s perceptions and feelings of the relationship. If one entity is an inert hunk of matter, like a rock, our first-person perceptions of the rock can grow because we like the beauty and color of the rock, but no second-person relationship can develop because the rock cannot return an interest in us. It never becomes a shared experience.

A second assertion: **Second-person relationships do not switch on or off instantaneously by themselves; they start from mere possibilities and continue to thrive and grow through possibilities.** We call them “possibilities” because they only become real when both agents reinforce them. Therefore, “potentia,” as Heisenberg calls it, acts as “a strange kind of physical reality just in the middle between possibility and reality.” This is why coherent quantum states are never definitive states.

Relationship possibilities continually evolve because perceptions and feelings continue to change. Relationships unfold. They are never certain. And a relationship starts dying when the shared interest flags. Thus, the inner dynamics of relationships are sustained by a shared interest.

From this, I can state the first postulate that directly applies to QM:

4.6 Postulate 6: Quantum Wave Functions Are the Back-and-Forth Reinforcement of Perceptions in Second-Person Relationships

Remember, at this point, there are still no third-person perceptions. No outside observations exist yet. The back-and-forth reinforcement of relationships is only experienced by the sentient agents involved. Second-person experiences stand out because of the highly dynamic nature of positive feedback. Outsiders can never perceive or feel what those involved in relationships experience – the feelings that are mutually reinforced and shared – because these inner dynamics are private and only exist between them. This is what makes the relationship special and real to them.

This explains why outsiders cannot detect quantum wave functions directly. Wave functions never exist as a part of the third-person world that we see outside of us. This goes to the heart of why QM is so difficult to understand when using only third-person lenses.

And from this we can make another assertion: **When physicists say that they are describing the wave function of a particle, they are wrong. Quantum wave functions only describe the inner dynamics of relationships. A particle has no wave function of its own. It is only involved in wave functions through relationships with other sentient agents.** This is consistent with Rovelli's statement that all quantum states and measured values of quantum states are relational.

Note: When physicists talk about the wave function of an electron, this is really describing the relationship between the internal agency of the electron and the electron particle field. This is a different type of relationship, as we will see later.

Another assertion: **Second-person relationships are the source of quantum entanglement.** This is easy to see because entanglement is nothing more than a shared quantum state, such as a shared spin state. Therefore, we can also assert that: **Entanglement is only possible between sentient agents.** Rocks cannot become entangled to each other, but living creatures can, and so can quanta.

Quantum states describe nothing more than the inner dynamics of second-person relationships. The possibilities in those relationships – what they can become – are the dynamics that drive them. These act as superpositions, and now we can see why, because: **the possibilities of what "might" happen next in a relationship do in fact influence what "will" happen next.** The influence of these possibilities is what makes quantum states so fundamental to everything that happens. This leads to an important insight:

For hundreds of years science has been teaching us the lesson of seeing things as they are. We should not let ourselves be fooled by imagination or beliefs. We need to verify and run tests to know the world as it is. This is a lesson learned from third-person perception and classical physics.

The importance of this approach has proven itself over and over in science and technology. Unfortunately, it hits a wall when trying to study living things because how we see and treat creatures affects how they respond. In other words, third-person perception is exactly the wrong lens for studying relationships.

Think about it: In a relationship, is it best to accept the way things are? Should we only try to see the relationship as it is currently? Or, should we actively engage with our partner in sparking the relationship to grow into something more? This is why, when we see and feel new possibilities, we breathe life into relationships. They take on a life of their own when we care and nourish them, the same way we water plants. We do that by seeing possibilities in our relationships. Friendships and families need to evolve, or they fade away.

This is what quantum mechanics is trying to teach us: **Perception – the way we see other living things – is creative because it changes our relationships.** Seeing things only as they are is death for relationships. It stops the process of positive feedback because the possibilities stop evolving. They can never grow strong enough to cross over and become objectively real. (More on this later).

Therefore, if this postulate is right and quantum states are wave functions, which are actually just the reinforced possibilities in relationships, then we can see why they will never obey the Principle of Non-contradiction (PNC) or the Law of the Excluded Middle (LEM), which are two first principles of logic that have formerly been considered self-evident. The paper on "Taking Heisenberg's Potentia Seriously" puts it this way:

> Together, PNC and LEM constitute a principle of exclusive disjunction of contradictories, wherein a proposition P is necessarily either true or false, with no 'middle' alternative. Russell presented LEM this way: "Everything must either be or not be" (Russell, 1912, 113). When interpreted classically, Russell's formulation implicitly only acknowledges one mode of 'being' – that which is actual. Thus, a tacit classical assumption behind LEM is that of actualism: the doctrine that only actual things exist. However, as will be demonstrated presently, in the context of quantum mechanics, PNC and LEM together evince the ontological significance of *both* actuality and potentiality, given that every quantum measurement entails the former's evolution from the latter by way of probabilities, which also satisfy both PNC and LEM. (Kastner, Kauffman, and Epperson, 2017, pp. 5-6)

In other words, quantum formalism is showing us that possibilities determine the probabilities of what will become actual. If quantum states by themselves are not actualities, but relationship possibilities, it is easy to see that they will still have a very real impact on sentient agents. They will play important roles in physics because relationship possibilities are highly dynamic in shaping everything that actually happens. However, they do not obey the laws of actual realities.

We should also remember that, beneath the surface of all relationships and wave-functions, first-person perceptions are always present and active. Yes, sentient agents reinforce each other's perceptions in a thriving relationship. But shared interests must arise from the interests of each sentient agent. This is why the behavior of quanta is unpredictable. Relationships shape everything that happens in the world, but they lead only to statistical laws because relationships ultimately depend on first-person perceptions as well. How two sentient agents respond to each other cannot be predicted, even by the partners themselves.

However, the quality of spontaneous and fluid aliveness that we see in relationships seems to be missing in the classical world of rocks, mountains, and planets. Inert "things" do obey the laws of PNC and LEM. Why do the creative powers of possibilities disappear in the classical world? From the principles described above, we now have the tools to start answering this question.

4.7 Postulate 7: Third-Person Perception Emerges from Experiences with Third-Person Relationships

We are on a journey to see how everything emerged from nothing but consciousness. How far have we come so far? We have agents with first-person perception, and we have a world filled with second-person relationships. In other words, we are still a lot closer to "nothing" than "everything." The tangible world does not exist yet. There is no matter or energy, and we have yet to see anything close to Newton or Einstein's idea of space.

However, there is a perception of time at this early stage: the experience of time flowing that comes from evolving relationships. Gradual growth in the back-and-forth reinforcements of perceptions, as relationships unfold, create the perception of time passing, but this is only experienced by agents in relationships. A recent quantum experiment validates that this is indeed a source of local time:

> Time is an emergent phenomenon that is a side effect of quantum entanglement, say physicists. And they have the first experimental results to prove it….
>
> [T]hey confirm that time is indeed an emergent phenomenon for 'internal' observers but absent for external ones. (The Physics arXiv Blog, 2013)

In other words: **Second-person perception leads to a relational experience of time that flows and varies with the intensity of the relationship.** Thus, time speeds by when we are having fun.

There is also a sense of space that exists in relationships. I call it relational space. For example, we feel a sense of closeness in relationships that reflects our level of interest and our involvement. However, this is nothing like the kind of third-person space that we experience in the world outside of us. Third-person space is a universal public space, you might say, not a private relational space that can only be perceived by those involved.

Fortunately, a sense of three-dimensional space began emerging as soon as the first third-person relationships started. And we now have the principles to see how this began.

If we go back to a point where the world had only two sentient agents, we find only first-person and second-person experiences and perceptions. However, as soon as more agents arrive, the story changes. Most of these agents form one-on-one relationships with each other. As a result, new perceptions start emerging that make all of these relationships more complex.

To illustrate, imagine transferring to a new university. You start making friends as you get to know people. After forming a few personal friendships, you notice that your new friends have friendships of their own with others. How do you feel about their friendships? What if some of their friendships are with people you do not like? Think of how it feels when your friend's other friendships seem stronger than the one you have with your friend? You notice these things, right? Why? Because these are outside influences that affect your relationship with your friend.

All of your friend's friendships have an influence on your friend. Those relational possibilities all affect your friend at the same time. In other words, they act the same as superpositions because this is where superpositions come from. So, when you become entangled with a friend, you also become entangled with your friend's friends, but this is a different type of entanglement.

I call these "third-person relationships." They are different from personal one-on-one relationships that you have with your friends. For example, you may know the names of your friend's friends and something about them, but you do not really know them. You know *of* them. If you meet a friend when they are having lunch with their friends, it can feel a bit weird at first, as if you are on the outside looking in. You see something going on between your friend and his or her friends that you are not involved in, except you *are* involved in a strange way through your friend.

In other words, third-person friends seem impersonal. They also act as outside influences affecting your second-person relationships. You notice things about them when you first meet them, such as how tall they are, the color of their hair, or the clothes they are wearing. These are the same types of first-person perceptions you would have when meeting a stranger, because they actually are strangers to you, until you get to know them better. You may feel entangled with them in a strange way, because they are your friend's friends, but relationships with your friend's friends feel far less personal and they seem more like outsiders to you. They only interest you because of the way they affect the second-person relationship that you have with your friend. This is the nature of third-person entanglement.

How does third-person entanglement work? We know that second-person relationships develop through dynamic back-and-forth exchanges that evolve through the reinforcement of two people's interest in each other. Second-person relationships take on a life of their own – a life that is shared only between the two involved. They are highly dynamic because of positive feedback that evolves and grows. The possibilities in second person relationships are the foundations of quantum states.

Third-person relationships, on the other hand, are quite different because there is no reciprocal positive reinforcement of possibilities. This is why third-person relationships feel impersonal. And yet we are still entangled with our friend's friends because they are entangled with our friend. In other words, third-person entanglement only exists because of second-person relationships.

Our lives are clearly expanded by our friendships. We meet countless people through our friends. Those third-person friends also have friends. And, of course our friends have families and their friends have families. And the members of our family, with whom we grew up, also have friends who have friends. We are in a strange way related to almost everyone in the world through friendships or families. Whether there are no more than six degrees of separation between us and anyone else, as one author suggested, the fact is that we are all entangled in a strange indirect way.

Why is this important? Because, as Wigner said, we listen to our friends, and because of that we also listen to our friend's friends as well. They become sources of information for us. We may not trust people we do not know, but when we hear information over and over from many third-person friends, the information compounds to take on a sense of reality.

This directly relates to the story I told in section 2.1.1, where you go to a party and a fight breaks out. You learn about what happened from the third-person perceptions of others. Now we can see what was happening: Third-person information comes to us through our friendships. This is why the relationship you have with a person passing information to you determines how much weight you give to the things they say. And, since everyone at the party is related through friendships to everyone else who is there, you listen at least partially to what everyone says.

The stories we hear become clear only when a consensus emerges about what happened. In other words, the third-person stories need to agree with each other. Only when a clear consensus emerges about what happened, such as where the fight happened and who was involved, will we have a solid feeling that the story is telling us something that really did happen. We gain this solid feeling not just because we feel the weight of agreement between all the stories, but also because everyone else feels this weight as well.

In other words, when stories agree with each other, those stories take on a sense of objective reality. When stories do not agree, they seem weak – not real. This is distinctly different from the reinforcement of feelings and perceptions in second-person relationships that grow from the one-on-one, back-and-forth exchanges between two people, making their relationship a private affair. With third-person relationships, it is third-person (outsider) stories that seem real when they agree.

This process is actually based on negative feedback, not on the positive feedback we see in second-person relationships that makes them so dynamic. Negative feedback is the way oscillating systems converge. For example, negative feedback shuts off the heater in your house when your house reaches the threshold temperature on your thermostat. Third-person stories converge for the same reason. History books are great examples of third-person stories converging from thousands of people. However, only the outsider stories converge. The personal experiences of people who lived during the same period of time vary so widely, from person to person, that they do not converge.

With second-person relationships, we see positive feedback creating relationships that have a life of their own. It is positive feedback that makes them dynamic. Third-person perceptions, on the other hand, reach consensus only when they agree. Differences weaken third-person stories. On the other hand, differences in second-person relationships often make things more interesting.

Therefore, third-person perceptions converge through a form of negative feedback from everyone, creating a consensus view. This is how our experience of a public reality emerges.

The third-person world – the world "out there" – is created by outsider perceptions that agree. Third-person relationships are also where "outside" forces come from.

Let's translate this back to the quantum world. The key elements are:

1. Second-person relationships, in a world of sentient agents, leads to outsider experiences. When it comes to relationships with third-person "friends," every agent is on the outside. These third-person relationships form only through second-person relationships.

2. Third-person relationships are sources of outsider perceptions. Third-person relationships also act as outside forces that influence personal relationship possibilities (quantum states).

3. When outsider perceptions agree from many sources, the consensus converges – producing a public reality. These perceptions consolidate through negative feedback, creating a norm. At the same time, differences in third-person perceptions fade away through negative feedback because they do not seem real. This creates an outside reality perceived by all of the agents related through third-person relationships.

4. **This third-person outside reality is what physicists call a "field."**

5. At the human level, fields are called "societies" or "communities." It is easy to see, at the human level, that these perceptual fields are formed by the perceptions of the people.

6. Most physicists think of fields as the driving sources of change in our world, with particles being merely the ripples on those fields. It is easy to see why third-person relationships act as if they are external forces, however, the LoP Interpretation says that sentient agents are the true source. Their outsider perceptions create and sustain all fields. It is easier to see this at the level of living creatures, but it is just as true for quanta.

I will now state this as a postulate and describe the results in detail:

4.8 Postulate 8: Fields Are Created by Third-Person Relationships

With this statement, we enter uncharted territory. This postulate tells us that fields are created by a special type of relationship. This is a different type of entanglement than the type seen in personal second-person relationships. And the results are dramatically different.

For example, second-person relationships are intense and highly personal. The inner dynamics are only experienced by those who are directly involved.

Third-person relationships, on the other hand, are impersonal. This is why third-person perceptions form the background of the world, not the dynamic foreground. Also, fields emerge unconsciously through negative feedback. This is why they seem automatic, not personal or dynamic.

A tapestry of third-person relationships creates our public reality. It is reinforced by everyone. This process of reinforcement spreads so far out across our web of relationships, and is reinforced by everyone so unconsciously, that the public reality seems to exist on its own. It seems to be a reality that is not altered by how we see it, because our individual perceptions are just one out of millions. However, the “real world out there” is simply a consensus of everyone’s third-person perceptions.

We hardly notice the subtle ways that we accept and adjust to the social culture we live in until we visit a foreign land. Then the differences jump out at us. Social influences coerce us to go along with the crowd, even though people rarely force us overtly. Peer pressure is usually an impersonal pressure that seems to come from everyone. It pushes us all to conform. This is how fields act as external forces.

This postulate leads to a number of significant insights. However, no other interpretations of QM suggest that there are different types of entanglement, as far as I know. This means that this postulate faces a major challenge. We need to confirm that it is valid.

Fortunately, this postulate solves one of the biggest problems in the interpretation of QM: how quantum states create a macroscopic world that seems solid and objectively real.

> *The classical limit of quantum mechanics* refers to the belief that quantum mechanics is a more fundamental theory than classical mechanics, so that classical mechanics should emerge from quantum mechanics in some appropriate limit.
>
> Ideally, this emergence would result from some simple limiting procedure.... Alas, no generally applicable route to the classical limit has ever been found. Despite what some textbooks suggest, it is not clear how, or even if, the classical limit can be realized. It now appears that any resolution of the classical limit problem will require, at the least,

> *both* a limiting procedure *and* accounting for the interaction of quantum systems with the environment through a sophisticated approach known as *decoherence.* (Bowman, 2008, p. 31)

Third-person relationships offer a solution to this problem. Negative feedback creates the limiting procedure that has been missing because third-person perceptions converge when they align with the consensus. This is how the classical reality of an external world with external forces emerges. Societies and fields seem to exist on their own. They do not seem to be affected by how we see them because they are formed by countless outsider perceptions.

The process that forms fields and societies is a limiting procedure that creates a classical world for two reasons: First, the effect is weak when only a few sentient agents are involved in third-person relationships. The influence becomes significant only when the group grows large. This is why peer pressure is only noticeable in large groups. Small groups are far more influenced by personal second-person relationships because the effects of fields are small. Second, fields act as forces that resist change. In other words, they create stasis and conformity by converging toward a norm.

These two traits form a limiting process that creates the classical world at the macroscopic level.

This process is also consistent with the approach known as decoherence because the information that converges comes through entanglement with other particles in the environment. However, this new postulate needs testing, because, while the mathematical equations that model the process of decoherence are consistent with fields forming through third-person perception, the interpretation of how this works is quite different from the current theory of decoherence.

4.8.1 A New Interpretation for Decoherence

Since Newton's time, physicists have followed certain beliefs. For example, when an object is measured, and everyone finds the same results, this indicates that we have learned something about the object itself. And, if we want accurate measurements, we need to limit the interference of outside noise. In other words, isolating an object from the rest of the world is the best way to learn about an object's true properties and its state.

Physicists now know that this is impossible for quantum mechanics (Schlosshauer, 2008, pp. 1-3). Tangible and visible objects are always coupled (entangled) with the environment. The moment we make a measurement, we couple with the object being tested along with our equipment. More importantly, the process of entanglement, according to decoherence theory, is what appears to cause the “classical” tangible world to emerge from pure quantum coherent states.

> [O]ver the past three or so decades it has been slowly realized that the isolated-system assumption...had in fact been the crucial obstacle to an understanding of the quantum-to-classical transition. It was recognized that the openness of quantum systems, i.e., their interaction with the environment, is *essential* to explaining how quantum systems...become effectively classical: How their “quantumness” seems to slip out of view as we go to larger scales. (Schlosshauer 2008, pp. 3-4)

Decoherence theory says that the wave-like nature of quantum states spreads out and couples with the environment. This means that entanglement is ubiquitous. Classical objects, such as rocks and trees, appear to exist in specific places only because the particles are entangled with the world.

This is why, after a photon in a two-slit experiment becomes entangled with the environment, the interference pattern disappears, because the environment then learns information about which slit the photon goes through. When the path of the particle is not known by the environment, then each slit represents a possible path that the photon may take, and the possibilities of these two paths interfere with each other because they act as superpositions.

The theory of decoherence says that particles lose their "quantumness" when their superpositions "leak out" into the environment through entanglement. Do not worry if all of this seems difficult to picture. A number of physicists have problems with this explanation as well. And this theory does not agree with the LoP Interpretation. To understand this better, we need to take a closer look.

There are a few important facts that make decoherence easier to understand. (The following are from Schlosshauer, 2008). First, we need to know that there are degrees of entanglement:

> This raises the question of how to quantify entanglement, i.e., of how to measure "how much" a given state is entangled. This question is important to decoherence. As we shall see, broadly speaking, the higher the degree of entanglement between the system of interest and its environment, typically the stronger will be the decohering effect of the environment. (p. 32)

The key to measuring how much a given state is entangled comes down to this: If you measure one particle, and this measurement tells you a lot about the state of its entangled partner, then they are strongly entangled. For example, if you measure two entangled electrons and you learn that the spin of one is "up," and this tells you that the spin of the other electron is "down," then these two electrons are "maximally" entangled (pp. 32-33). Full entanglement like this means that you know everything about the spin state of the second electron by measuring the first electron.

On the other hand, if you measure the momentum of one electron and it only vaguely tells you anything about the momentum of the second electron, then the entanglement is weak. If it tells you nothing at all about the momentum of the second electron, then there is no entanglement of the momentum state at all.

The next thing to know is what defines how much entanglement is possible: The degree of possible entanglement is determined by how distinct the quantum states are in relation to each other. For example, in the case of spin, there are only two possible states when they are measured: "up" or "down." And entangled electrons must always be in opposite states when they are entangled. Thus, their spin states are perfectly distinct in relation to each other: They always have exactly opposite spin states. If the spin state of one is "up," the other must be "down."

The momentum of free electrons, on the other hand, can vary across wide ranges of speeds and directions, making it difficult to entangle momentum states because the differences are not black and white, but various shades of grey. (Momentum states of electrons in atoms are different; they are distinct. This, in fact, is usually how maximally entangled electrons are created. They come from electrons that share the same shell in atoms). This leads to an important conclusion: "[T]his distinguishability of the states of one system correlated with the states of another system lies at the heart of an understanding of the conceptual basis of decoherence" (p. 33).

In other words, entanglement needs distinctions. This is why distinguishability is a defining factor. This perfectly aligns with the principle of perception I outlined in section 4.3: **Perception begins with the sensing of differences.** Thus, distinguishability is the foundation of perception itself. And, remember, perceptions must be reinforced for entanglement to form. Therefore, the fact that distinguishability defines the strength of entanglement makes sense because distinguishability defines the strength of perceptions. Postulate three explains why entanglement works this way.

Now, based on what Schlosshauer says above, the current theory of decoherence then states (I will explain what the quote below means afterward) that information about a system being tested, such as a photon in a two-slit experiment, spreads out into the environment through entanglement, and the amount of information that spreads

> increases with the amount of system-environment entanglement, and thus also with the distinguishability of the relative states of the environment correlated with the different component states of the system. The larger the amount of this information about the system learned by the environment becomes, the more the system loses its individuality (in the sense of the inability to assign an individual quantum state to it). As a consequence, quantum coherence initially localized within the system will become a "shared property" of the composite system-environment state and can no longer be observed at the level of the system, leading to decoherence. (p. 33)
>
> Some states of the system are more prone to decoherence than others, and the sensitivity of a particular state is determined by the structure of the system-environment interaction. The preferred states of the system emerge dynamically as those states that are the least sensitive, or the most robust, to the interaction with the environment, in the sense that they become least entangled with the environment in the course of the evolution and are thus most immune to decoherence…. Similarly, we may say that the interaction with the environment "superselects" the observable states of the system: Some states are robust in spite of the environmental interaction, while other states are rapidly decohered and become therefore unobservable in practice. (p. 73)

The above three paragraphs are the best and clearest explanations I have seen in all the papers and books on decoherence that I have read. However, the details of how the classical world is supposed to emerge, according to this theory of decoherence, are still incredibly vague. Especially, the story about how the "preferred states" of a system emerge through a process that sounds a lot like a happenstance of interactions between the system and the environment.

I will get into more about preferred states later. For now, I want to show the problems in the above three paragraphs, in relation to the LoP postulates of perception.

First, saying that the system being tested loses its individuality when it becomes entangled with the environment is problematic. The first paragraph says that this refers to the quantum state of the system. Thus, the quantum state supposedly loses its individuality. The problem is that this treats a quantum state as if it is a thing. Third-person lenses would certainly like to see it this way, but if the LoP Interpretation is right, quantum states are possibilities in relationships, not things. Clearly, it does not make sense to say that a possibility in a relationship loses its individuality.

It also makes no sense to say that sentient agents lose their individuality when they become entangled because it is not even possible to become entangled unless they are different. Remember, distinguishability is the crucial factor in determining how strongly they become entangled. If this is true, then how can entanglement with the environment cause a loss of individuality? It cannot. The distinctiveness between one agent and another is why they become entangled in the first place.

This brings us to the second issue. According to the postulates I have outlined above, only sentient agents can become entangled. This constraint means that the environment cannot form entangled relationships. Rocks cannot become entangled either. Only sentient agents can couple.

This raises a question: How do we know which agents belong to the environment and which belong to the system being tested? In the case of the two-slit experiment, it is easy, because the photon is the system and everything else is the environment. However, it is not easy to draw this line when it comes to living organisms because they are continually making exchanges, back-and-forth, with their habitat. In fact, I question whether it is even possible to draw a line that separates any system from its environment, especially when we are talking about quantum states that are relationships themselves. For example, a simple electron gains its mass and spin characteristics from its relationship to the electron particle field. If this is true, then how can an electron exist separate from that field?

As soon as we look at entanglement through the LoP lens, a third, bigger problem becomes clear: One-on-one entanglement between sentient agents does not create a shared "system-environment state." It creates private one-on-one relationships. For the environment to form a shared state, third-person entanglement is necessary. However, third-person entanglement does not share the inner dynamics of private one-on-one relationships. This means that superpositions do not leak out from private relationships when particles become entangled to other particles in the environment. Only third-person outsider perceptions spread out. Second-person superpositions remain private.

As a result, the quantum coherence (or quantumness) of a quantum state is not leaked out into the environment when sentient agents become entangled with other agents. The only things that spread throughout the environment are third-person perceptions. This is easier to see with living creatures because they breathe in air molecules made by other organisms and breath out molecules that other organisms need. Losing their shared quantum state would mean death. So the idea that decoherence causes objects to become separate and independent from each other is a problem.

The second paragraph above is even more problematic. It says that some states of the system are more prone to decoherence, and the factor that makes a state more sensitive to decoherence is determined by the structure of the "system-environment interaction." This is quite vague. It then goes on to say that the "preferred states" of the system, which are the states that most clearly stand out to define how we see that system, emerge because they avoid becoming entangled with the environment. This is seriously mixed up, according to the LoP Interpretation.

First, there is no mystery about which states decohere and which do not, according to LoP. Only third-person perceptions decohere. This is what spreads throughout the environment. Consensus forms to create one public consolidated picture. When we measure a system, this third-person information is what we are gathering. We are not seeing "preferred states" of the system itself. We are seeing the public consensus of third-person information about the system. This is why a rock appears to be located in a certain place on the ground, and it looks the same way from all viewpoints. Everyone sees the same outer reality because these are third-person perceptions. We are not looking at the state of the rock. We are looking at the shared outsider picture of the rock. That is what we see with our eyes and instruments, making it look like an external reality.

The same thing happens at the human level. For example, consider people calling someone "a movie star." Star status is not a property that belongs to them by themselves. That is a consensus perspective seen by people in society. When a person becomes famous after playing major roles in a number of successful movies, we feel comfortable saying that it is a fact they are a movie star. However, star status is not clear if an actor has only a minor part in one movie. Their status as a star is then debatable. There is no consensus. Thus, the state of being seen as a movie star emerges as they play major roles in more movies. Therefore, according to the LoP Interpretation, "preferred states" emerge through a simple process: the consensus that forms from third-person perceptions.

The third paragraph, in the quote above, turns this issue into an even bigger problem by suggesting that the environment "superselects" the preferred states. This process, called "einselection" (short for environmentally-induced selection), is often compared to Darwin's theory of natural selection, where the environment selects the fittest creatures by killing off those that are least fit. There are two big problems with this comparison to natural selection. First, evolutionary fitness is nothing more than the ability of a creature to survive. This means that the whole concept of fitness is circular because a creature's survival is also how we measure its fitness.

Second, Darwin's theory is about the survival of living creatures. We do not see rocks or piles of sand evolving. More importantly, Darwin knew that lifeless properties in an environment, such as temperature or wind, only cause creatures to adapt to changes in the environment. No new species or abilities "emerge" through natural selection this way. The emergence of new abilities and new species requires life responding to life, such as through competition, where predators hunt for prey, or symbiotic cooperation between life forms. The reason Darwin said this is because dynamic, positive feedback is needed to create the directional power of evolution. Thus, the real driver of evolution is the relationships between sentient agents, bringing us back to the LoP Interpretation.

> Natural Selection, at the "bare bones" of its mechanism, only builds adaptation to changing local environments; the principle includes no statement about inherent directionality of any kind, not to mention progress.
>
> Darwin resolved this…by invoking a particular ecological context as the normal stage for natural selection. If most ecosystems are chock full of life, and if selection usually operates in a regime of biotic competition [living organisms competing with other living

> organisms], then the constant removal of inferior by superior forms will impart a progressive direction to evolutionary change in the long run. (Gould, 2002, p. 479)

Once we bring the discussion back to the relationships between sentient agents (the LoP theory), the picture becomes clearer. The dynamics driving the quantum-to-classical transition are based on the spreading and consolidation of third-person perceptions across a web of third-person relationships. This is how our experience of the world out there is created. On the other hand, the processes that create new species and new abilities depend on personal relationships between sentient agents.

Of course, it does *seem* as if the environment is selecting. The public can *seem* quite fickle in its love of movie stars. Harsh environments at work do *seem* to decide the fates of creatures. However, when we look at this from the quantum level, from the level of sentient agents, it becomes clear that sentience is needed to make true choices – to do any selecting. People choose, not the public.

With the above explanation, we can now compare decoherence theory against LoP theory. Let’s take a look.

4.8.1.1 The Speed of Decoherence

We need to separate this discussion on decoherence into two parts. First, is the mathematical description of how interference patterns disappear as particles like electrons and photons interact with other particles in the environment. Second, we need to compare the interpretations about how this process works and what it means.

Starting with the first part, mathematical equations have been developed to predict the speed of decoherence. These equations have been validated by experiments. Countless tests have shown that the more interactions a particle has with other particles when passing through a two-slit experiment, the more rapidly the interference pattern disappears.

Interactions with the environment do not have to involve transactions of energy; they can be purely quantum interactions that arise from passing by or being close to one another. However, in most cases, energetic interactions are also involved, such as interactions with air molecules, photons from ambient light, background radioactivity, cosmic radiation, solar neutrinos, etc. (Schlosshauer 2008, p. 115). Very little interaction is needed to create a measurable amount of decoherence.

A full mathematical analysis of the equations that have been shown to predict the disappearance of interference patterns is quite complex and beyond the scope of this paper. However, the main factors driving those equations are based on the principles I described above, along with a couple additional factors. Let’s review them one by one.

1. The degree of entanglement is an important factor, as I said above. According to decoherence theory, this is determined by distinguishability.

   The LoP Interpretation agrees. Distinguishability determines the strength of entanglement because distinguishability determines the strength of perception, and perception must be reinforced for entanglement to exist.

2. According to decoherence theory, the higher the degree of entanglement, the stronger the decohering effect will be.

   The LoP Interpretation places an equal weight on the importance of entanglement. The stronger the entanglement (meaning second-person relationships), the more it becomes a channel for information to flow out to other sentient agents in the environment, and for information to flow from the environment to the system being tested. Strong second-person entanglement increases the decohering effect because information carries more weight when coming from a trusted source (with a higher degree of entanglement). This is easy to understand at the human level. However, the LoP Interpretation says that it is third-person relationships that pass along the outsider information that provides the decohering effect. Nonetheless, the mathematical weight from second-person entanglement will be the same because all third-person relationships come through second-person relationships.

3. If the strength of entanglement is a factor in decoherence, then distinguishability plays a crucial role in deciding which quantum states will decohere the fastest, according to the theory of decoherence. This means that position and momentum states, which differ only in grey variations, not black-and-white distinctions, will not spread across the environment, but will remain behind as “preferred states” of the system being tested. Distinctly defined states (such as the two-slit options) will lose their superpositions as those superpositions spread out into the environment. For the same reason, it will not be easy to assign an individual quantum state to spin states, because they are also distinctly defined.

   The LoP Interpretation says that this is backwards, but the end result is the same. Position and momentum information is what spreads throughout the environment because this is third-person information. This is why the first information to decohere is the position and momentum of a system. If an electron does not interact with other sentient agents, there is no way of knowing where the electron is located or what its momentum is. However, when location information does spread, it suppresses the interference patterns in two-slit experiments because the path of the photon becomes publicly known. (More on this later).

   Entangled spin states are different. They are not weakened by third-person information because their shared spin state is the result of a second-person relationship. This is why entanglement between photons has been shown to persist when separated by more than a thousand miles, even when the photons go through fiber optic cables, bounce off mirrors, and pass through optical beam-splitters and prisms. This is why entangled spin-states are notorious for resisting decoherence.

4. The most important factor for defining the speed of decoherence, according to the theory of decoherence, is the number of particles that the system being tested becomes entangled with, and the number of other particles that those particles become entangled with.

   LoP theory agrees, because it is those “other particles” that receive and pass along third-person information, and each particle that becomes directly entangled with the system being tested opens up new channels of information that flow out to those “other particles.” The total number of particles involved play a defining factor because the more that third-person information is confirmed by others, the more influential it becomes. At the human level, this is easily seen by how peer pressure and the need to conform increases as the size of a company grows. Small start-up businesses experience far more freedom and spontaneity, while large institutions become strapped by red-tape and bureaucracy. This all happens so unconsciously that it seems mechanical and external.

5. The size of the system being tested can also be a factor, according to decoherence theory, because the larger the system is, the more likely it will interact with particles passing by.

   LoP theory agrees with this for the same reason.

These are the factors that have proven successful in predicting the speed with which interference patterns disappear through decoherence. As you can see, decoherence theory and LoP theory agree on the weighting factors determining the rate of decoherence. Perhaps a more detailed analysis can identify differences that are testable. More study is needed to see if that is possible. For now, I see no way to distinguish how these two theories predict the speed of decoherence.

Next, I compare the interpretations. Here there are clear differences that affect the outcome.

4.8.1.2 Interpreting the Process of Decoherence

According to decoherence theory, the process of entanglement causes the quantum coherence of particles to leak out into the environment. The environment effectively absorbs the superpositions that make quantum states so hard to nail down. This causes particles to become “classical” in their behavior. In other words, after decoherence, particles act as if they are located in clear positions, have clear trajectories when they move, and have clear momentum states. As a result, it is common for decoherence theorists to declare that the wave-like nature of coherent particles disappears, and their particle-like nature emerges through decoherence.

Another important claim is that these clearly defined “preferred states” that emerge through decoherence are selected by the environment through a process called “Quantum Darwinism” (Zurek, 2009). Thus, the theory of decoherence is often claimed as a solution to how the quantum world becomes classical.

However, there is a fundamental issue with the above interpretation: It all depends on a distinction between the system and its environment. Without a distinction, there is no entanglement between the system and the environment. And without this entanglement, the distinctiveness of the system cannot emerge. Therefore, the claim that decoherence explains the quantum-to-classical transition also requires the property of distinctiveness, in the beginning, that it claims to produce in the end. This is clearly a problem of circularity. If distinguishability is needed for entanglement to begin, then no one can claim that decoherence creates distinguishable states.

Schlosshauer (2008), quoted above, explains the matter this way:

> Note that decoherence derives from the presupposition of the existence and the possibility of a division of the world into “the system” and “the environment.” (p. 101)

> This system-environment dualism is generally associated with quantum entanglement, which always describes a correlation between parts of the universe…. [T]erms like "observation," "correlation," and "interaction" will naturally make little sense without a division into systems. (p. 102)
>
> However, the assumption of a decomposition of the universe into subsystems (as necessary as it appears to be for the emergence of the measurement problem and for the formulation of the decoherence program) is definitely nontrivial… Zurek was one of the first to clearly point out this conceptual difficulty:
>
> In particular, one issue which has been often taken for granted is looming big, as a foundation of the whole decoherence program. It is the question of what are the "systems" which play such a crucial role in all the discussions of the emergent classicality (…) [A] compelling explanation of what are the systems – how to define them… – would be undoubtedly most useful. (Schlosshauer, pp. 102-103)

In other words, the question is: How do distinctions between systems come into existence in the first place? A reviewer of Schlosshauer's book, N. P. Landsman (2009), is more pointed about this issue:

> [D]espite Schlosshauer's insistence that "the decoherence program is derived solely from the well-confirmed Schrödinger dynamics" and that accordingly this program "attempts to explain the emergence of classicality purely from the formalism of basic quantum mechanics" (p. 337), in actual fact the whole program hinges on an interpretational move that cannot be read off the Schrödinger equation or any other ingredient of the formalism. The move in question is the assumption that…the einselected states form a basis,...this 'preferred' basis is taken to be the one over which the theory is interpreted.... Nothing in the formalism dictates this procedure. (p. 2)

This preferred basis is the set of properties that define the system. According to decoherence theory, this basis is formed by "the structure of the system-environment interaction," as Schlosshauer says above. This is why I said that this process is vague, because it is not defined by quantum formalism. It just somehow works out through happenstance. Other articles suggest that this problem goes much deeper. It is fatally flawed.

For example, Fields (2018) points out that "environmentally-induced superselection," known as einselection, is presented as an "observer-independent mechanism by which apparently classical systems 'emerge'" (p. 1). The assertion that this process is observer-free makes it an attractive idea to physicists because it fits the traditional lens of classical physics. As a result, it appears as if einselection converts the

> environment from a passive sink for quantum coherence into an active "witness" that continuously determines the observable states of the systems embedded in it… Quantum states that are continually "witnessed" by the environment are effectively classical; hence it has been proposed, under the rubric of "quantum Darwinism," that einselection provides an observer-independent physical mechanism for the emergence of classicality… If this proposal is correct, einselection answers one of the deepest questions in quantum measurement theory: the question of "how one can define systems…." In recognition of this, einselection has been called "the most important and powerful idea in quantum theory since entanglement."

> The present paper shows that a recognizably classical world of discrete, bounded objects acted upon by external forces only emerges via einselection if "systems" are defined in an observer-dependent way. It thus shows that einselection does not provide an observer-*independent* mechanism for the emergence of classicality. (p. 2)

Fields goes on to show that for einselection to work, it must first assume that subsystems exist. In other words, "the 'environment as witness' formalism implicitly assumes the effective classicality of the environment" (p. 3). If it has to assume the classical world exists to begin with, in order to make the theory of Quantum Darwinism work, it does not provide a mechanism for the observer-*independent* emergence of classicality. For that emergence claim to be true, according to Fields, "einselection must not only establish a preferred basis for *S* [the system], but also establish a boundary for *S* that separates and hence distinguishes it from all spatially-distinct systems" (pp. 3-4).

This is significant because there is no entanglement possible without this distinction. More importantly, as Fields points out, there is nothing in quantum theory that determines the choice of what the system is and what it is not (p. 6).

In other words, a particle-like property cannot emerge through einselection because the distinction between the system and the environment is needed for entanglement to take place. If only coherent wave-like properties exist to begin with, there are no boundaries, no clear distinctions, because wave functions spread out everywhere. After a lengthy detailed analysis, Fields continues:

> Einselection cannot, therefore, be viewed as an observer-independent mechanism for the emergence of classicality; doing so requires the assumption that the environment is effectively classical and is therefore circular. This circularity cannot be rescued by a bootstrap argument, since an effectively classical environmental fragment must be assumed for every emerging object, and such an assumption must be made independently for every observer. It also cannot be rescued by assuming a physical but observer-independent restriction on the choice of systems to be einselected. Any such restriction…also introduces circularity.... If einselection is to be considered a physical mechanism for the emergence of classicality, therefore, it can only be considered to be an observer-dependent mechanism. (pp. 8-9)

This explains why Bowman (2008) said (above) that decoherence alone cannot explain the emergence of the classical world. A limiting process is also needed (p. 31).

The point that Fields is making here is significant. It not only says that we must give up the idea of observer-independence when it comes to analyzing the processes that lead to decoherence. It also implies that only observer-*dependent* mechanisms are possible.

Even Rovelli, who shows that there are no observer-independent quantum states or values, does not seem to fully recognize what this means. Fields' point tells us that Rovelli's Galilean observer, a lamp, must be abandoned, because the lamp is a classical object. (See section 2.1.2 above).

We cannot start with classical objects. We must start with quantum states. Everything that Fields says here is in agreement with the LoP Interpretation.

The process that leads to entanglement starts with sentient agents perceiving distinctions between themselves. These agents possess clear properties that distinguish them as individuals because of their internal agency – their ability to act in response to perceptions. However, the spatial boundaries of these internal agents are not well-defined in any way because they are entangled with others in their “habitat,” the same way that living organisms cannot be clearly defined without killing them. It is their individuality that is well defined by the way they carry mass and energy, but this only displays itself when they are measured, or when they actively exchange energy.

Fields asks, What are the “fragments” of “every emerging object” that grow to take on the classical properties that we see? The LoP Interpretation can answer this: Sentient agents are the fragments. The classical world emerges through the consensus of third-person perceptions. The environment emerges as a field, establishing an external world that appears to exist independently of observers. This third-person consensus forms the “basis” for how objects are seen. But, none of this is observer-*independent*. In fact, every step in the selection process requires first-person perception because only sentient agents can select, so, of course, it is fully and completely observer-*dependent* by definition.

If we want to explain the process of decoherence, we need to be able to start with the world’s first observers and show how the third-person classical world emerges naturally. This is the only way to solve this problem. Decoherence theory cannot explain how this happens because it assumes an environment that is distinct from subsystems. LoP theory offers a solution. To illustrate how this works in more detail, let’s look at how the three dimensions of space emerge as a field.

4.8.1.3 Decoherence and an Insider’s View of Space

With the emergence of third-person entanglement, outsider information is shared and naturally converges by suppressing information that does not agree with the norm. This naturally reinforces the norm, strengthening our experience of an outer reality. This all happens unconsciously, so even primitive sentient agents should be influenced by the emergence of this outer reality, the same way living organisms are.

To see how this works on the quantum level, let’s go back to the first sentient agents when they started sensing third-person perceptions. I will start with five sentient agents, named *A*, *B*, *C*, *D*, and *E*. Of course, these sentient agents form entangled one-on-one relationships with many, if not all of the other agents. We also know that all these relationships exist at the same time, and the possibilities in the relationships act as superpositions. We can say that all of the possibilities in the relationships that *A* has with other agents represent its full quantum state.

Now, let’s say that *A* forms a second-person relationship with *B*, *C*, and *D*, when agent *E* comes by. We should expect *A* to sense responses from *B*, *C*, and *D* to agent *E*. For example, *B* might have the strongest response because it is closer to *E* than *C* or *D*. Or *C* or *D* might be closer. Whatever the arrangement, a sense of relative closeness should emerge from the differences that *A* senses between the responses of *B*, *C*, and *D* to *E*. Remember, these are all third-person perceptions, which means that they are all based on comparisons between others. And these perceptions come to *A* through its second-person relationships.

Of course, saying that *A* perceives a sense of relative closeness does not mean that agent *A* has a yardstick and measures how close *E* is to *B*, compared to how close *E* is to *C* or *D*. No, these are purely unconscious perceptions – the sense that *B* responds in such a way that it appears to be nearer to *E*, and that *D* is farther away, you might say. No analysis is involved. *B* simply seems closer to *E* than *C* or *D*, based on their responses to *E*.

These are relative comparisons that *A* senses. This is why they are grey. The distinctions are weak and not at all certain to *A*. Further, these differences only have meaning as comparisons: *B* seems nearer to *E* than the others. The perceptions that *A* has about this are impersonal because they come from the responses of *B*, *C*, and *D* to *E*. And from this third-person information, *A* forms a vague perception that one sentient agent, *E*, is responsible for all of these responses from *B*, *C*, and *D*, because they all seem to happen as *E* passes by. As a result, *A* gains a half-formed perception of a comparative arrangement between the other agents in relation to *E*. This shows why third-person perceptions are different. They do not act as superpositions because they use only negative feedback, not positive feedback, when they combine to form a consensus.

One-on-one personal relationships also exist at the same time, and the possibilities in these relationships do act as superpositions, but they do not combine, because they are privately shared perceptions between agents. This is why second-person possibilities interfere with each other when the phases of their wave functions conflict. The math that describes how this works in quantum formalism is based on treating quantum states not as “real” functions but as “complex” functions, meaning that one of its mathematical axes is located in an imaginary ($\sqrt{-1}$) domain. According to the LoP Interpretation, this imaginary domain represents the private one-on-one relationship state.

Third-person perceptions are different. They are impersonal. As a result, they have no axis centered in an imaginary domain. At first, there is no shared basis for third-person perceptions, but because they relate to things that exist and persist as real (not complex) functions, they naturally converge to form a common basis, creating a field. This is how third-person possibilities converge through consensus. This background reference becomes the basis that all measurements are made from.

If *E* is really there and is passing by gradually, then perceptions of *E* will continue. These will reinforce the perceptions that *E* is there. This will also reinforce *A*’s perceptions that all of these responses of *B*, *C*, and *D* are related to *E*. This strengthens *A*’s half-formed perceptions.

The argument might be raised that there is no way *E* could “pass by” before the field of space exists. This is true, but it is not important because the field of space only emerges from what *is* being perceived and what perceptions *are* persisting. Thus, the perception of *E* passing by emerges.

However, the above discussion is still only about *A*’s perceptions. If third-person information is naturally shared through entangled relationships, as I am describing here, then of course agents *B*, *C*, and *D*, will also gain a sense of *E* from responses of the others, including *A*’s responses to *E*. So, they each develop half-formed perceptions of an arrangement between the other particles through relative comparisons of their nearness to *E*.

When *A*, *B*, *C*, and *D* compare the third-person perceptions of others with their own, which are still only vague perceptions and subtle feelings at best, they will eventually notice that the responses of others seem related to the passing of *E*, but there are differences. They are not exactly the same. When these differences have no pattern to them and no consistency, they will be ignored because they do not appear to represent anything real. Those third-person perceptions perish, you might say. They disappear. However, even subtly agreeing perceptions will be reinforced and gain strength, especially if they persist. Thus, a shared consensus emerges.

It is worth mentioning here that every third-person perception of something real does not need to be strengthened. All that is needed is a general tendency to reinforce perceptions that persist and correlate with other perceptions.

With only five agents in the world, it is hard to imagine any more than a vague sense of an outsider arrangement between the nearness of the agents in relation to each other. However, as the number of agents in the world increases, the experience of a 3-D representation will naturally emerge, creating a spatial sense of a real world. Why three dimensions? Because this experience of an outer reality comes from third-person perceptions that are confirmed by other third-person perceptions.

Let me explain. Every sentient agent is an outsider when comparing others. If agent *A* is only looking at its own third-person perceptions, a two-dimensional map is enough to represent the relative closeness of *B*, *C*, and *D* in relation to *E*. Each comparison can be represented as a simple two-dimensional triangle, with *A* at the apex, and the other two points of the triangle being the two others being compared.

However, the experience of a 3-D spatial reality only emerges when third-person perceptions of everyone converge to form a consensus. This includes other agents' third-person comparisons of *A* to others. This means that every point on every triangle connects to every point on every other triangle. This is why the field of space that emerges is experienced as a three-dimensional reality.

This field of space, however, is not built on a grid of *x*, *y*, *z*, coordinates. It is only composed of consistent relative comparisons of the nearness and movements of sentient agents.

This experience not only creates the experience of an external spatial reality. It also brings to each agent a sense of their own place in that reality. Psychologists call this a "felt sense" of place, and it is well-known that this forms unconsciously (Marman, 2016, pp. 90-96). This experience of being in the world is a big part of what makes our experience of the world objectively real to us. This is one of the results created by third-person entanglement.

If LoP theory is valid, another assertion can be made: **Although the field of space emerges from a consensus of third-person perceptions, there can be no outsider perceptions of the field of space itself.** In other words, any agent who experiences the field of space is involved in that field, and any agent that is not a part of that field will feel no interactions with that field. This means that fields are invisible to outsiders, the same way that second-person relationships are invisible to outsiders, because fields are shared quantum states. Yet, fields have real effects on those involved.

This assertion has important implications, because it solves one of the stumbling blocks that has been getting in the way of developing a theory of quantum gravity. Lee Smolin (2017) explains:

> Among the things we had to struggle with were the implications of the fact that the observer in quantum cosmology is inside the universe. The problem is that in all the usual interpretations of quantum theory the observer is assumed to be outside the system. That cannot be so in cosmology. This is our principle and, as I've emphasized before, this is the whole point. If we do not take it into account, whatever we may do is not relevant to a real theory of cosmology….
>
> What is needed is an interpretation of the states of quantum theory that allows the observer to be part of the quantum system. (pp. 40-42)

This is clearly what postulate 8 accomplishes because it shows that the emergence of space must be *observer-dependent*. However, to see how well the LoP Interpretation fits, listen to how Smolin describes the new understanding of space that has emerged from research into quantum gravity:

> [T]here is no meaning to space that is independent of the relationships among real things in the world. Space is not a stage, which might be either empty or full, onto which things come and go. Space is nothing apart from the things that exist; it is only an aspect of the relationships that hold between things. Space, then, is something like a sentence. It is absurd to talk of a sentence with no words in it. Each sentence has a grammatical structure that is defined by relationships that hold between the words in it, relationships like subject-object or adjective-noun. If we take out all the words we are not left with an empty sentence, we are left with nothing. Moreover, there are many different grammatical structures, catering for different arrangements of words and the various relationships between them. There is no such thing as an absolute sentence structure that holds for all sentences independent of their particular words and meanings.
>
> The geometry of a universe is very like the grammatical structure of a sentence. Just as a sentence has no structure and no existence apart from the relationships between the words, space has no existence apart from the relationships that hold between the things in the universe. If you change a sentence by taking some words out, or changing their order, its grammatical structure changes. Similarly, the geometry of space changes when the things in the universe change their relationships to one another….
>
> The view of space as something that exists independent of any relationships is called the absolute view. It was Newton's view, but it has been definitively repudiated by the experiments that have verified Einstein's theory of general relativity. This has radical implications, which take a lot of thinking to get used to. (pp. 18-19)

The LoP Interpretation takes this further, making it even harder to get our heads around, especially if we are used to the idea of a physical world that only exists “out there.” Postulate 8 is saying that the field of space is intangible to outsiders because it is a quantum state. And the relationships are not formed between “things” or objects, but between sentient agents that are themselves intangible until they exchange energy. This means that there is a difference between the field of space and what physicists call space-time, which I will explain in detail, in section 4.9.

All of this shows the importance of seeing what is happening from an insider’s perspective, not just from an outsider’s point of view. This leads us to another interesting insight: The perception of a sense of place, according to the LoP Interpretation, only exists because sentient agents feel coupled to the field of space. This is similar to becoming the citizen of a country, which is an experience that only exists when we form a relationship with that country as a whole. The society we live in is a field formed by sentient agents, just as the field of space is formed. And to live in a society, we must be entangled in some way with that society. Otherwise, it has no effect on us.

This means that our experience of being here, in a place, is not a complete reality in itself. A sense of place only exists when we *also* have a relationship to the field of space. Therefore, there are two related perceptions that are inseparable: (1) Being in a place in space. (2) Being in a relationship with the whole of space. This is the result of two different lenses of perception.

The first of these two perceptions – a sense of place – comes from a sentient agent's first-person perception. This is their private experience of being "here." And first-person perception, as shown in section 4.5, evolves to make distinctions clearer. This is why our experience of being "here" becomes distinct and real.

On the other hand, our third-person relationship with space creates an experience of momentum. Our feeling of motion comes from being entangled to the whole world out there, not just one location. Therefore, position and momentum are products of two different lenses of perception, but both are related to an agent's experience with the same field of space. This reveals a deep relationship between position and momentum, and this gives us a deeper insight into the Heisenberg uncertainty principle. This is worth a closer look.

4.8.2 The Strange Message of Uncertainty

Measuring an object's position and momentum is not a problem with large objects, such as a car. We can measure its speed and location without noticeably impacting where it is or how fast it is moving. This is why we intuitively picture a car moving across a clearly defined path.

However, when it comes to quanta, everything changes. There is no way of knowing exactly where a particle is going when we measure its location. And if we plot our measurements, we see that the particle follows a fuzzy trajectory. It seems to jump around. Plus, if we measure its momentum, it is not clear exactly where the particle is located. There is an inherent uncertainty that can never be removed, suggesting that quantum mechanics itself is incomplete, as Bowman (2008) explains, because quantum theory states that

> perfectly well-defined values of the electron's position and momentum evidently *exist*: yet there is no experiment by which both can be perfectly *known*…. Taken at face value, then, [this] contradicts completeness, for if the electron's position and momentum are precisely defined, and exist, yet quantum mechanics cannot account for that fact, the theory must be *in*complete. (p. 89)

However, the cause of this issue is not our inability to measure both position and momentum at the same time. The real problem is that position and momentum are related to the same quantum state, and this joint state itself seems to be inherently uncertain for some reason:

> Whether or not simultaneous measurements are in fact possible has been a matter of some debate. Regardless, if one insists on the completeness of quantum mechanics, things become outright weird. If quantum mechanics is complete, then the [quantum] state must fully describe an individual system, say an electron. But all information about the

> electron must be contained in the state, and the state yields "blurry" distributions of x [position] and p_x [momentum]. Thus, the uncertainty relations evidently imply constraints on the *existence* of simultaneously well-defined properties of a single system – that is, not only are the *probability distributions* for x and p_x indistinct, so *are* x *and* p_x *themselves*. Again, this strange result arises from an insistence on the completeness of quantum mechanics. (p. 90)

The LoP Interpretation offers insights into this puzzle. First, we can now see why position and momentum are related: They share one common quantum state – the field of space. Second, this shared position-momentum state *is* blurry because it is nothing but a shared consensus of outsider perceptions. Remember, these are third-person stories. They will never give us a sense of absolute certainty, no matter how many stories agree, because it is all third-hand information.

However, this is not a full explanation. For that we need to include the impact of measurements, which require a wave collapse. In section 4.9.2.8, we will see that measurements disturb the field of space because they represent actual changes in second-person relationships. This is exactly the same point that Smolin (2017) made above when he said "the geometry of space changes when the things in the universe change their relationships to one another" (p. 19). The strange message of uncertainty, therefore, is that the quantum state of space *is* blurry because it is always shifting.

4.8.3 Energy Is Needed to Go Against the Norm

Returning to our previous discussion, if an agent has no experience of being in space, then it has no third-person relationship with that field of space. And, if it forms no third-person relationship with a field, then it feels no third-person ties to other agents in that field. This might seem strange when talking about particles, but we all know people who divorce themselves from their countries and communities, even their families. This shows us that first-person perception is involved in all relationships. Later, we will see why this is important.

Now, as the number of agents in a field grows, the experience of three-dimensional reality grows stronger as a perception. And the stronger this perception grows, the more it influences each of the agents in the field, because they each unconsciously conform to this perception.

What does this pressure to conform feel like? It feels the same way that we as human beings feel when we are in a group and try to go against the norm. It is an unconscious feeling that things will go easier if we go along with others. Why fight against the status quo?

This leads to a significant point: **When the number of agents in a field becomes large, going against the norm takes effort. In other words, real energy is needed.**

This is where it gets interesting. Going against the norm of the field of space does not mean moving from one location to another. It means a change in momentum. We know this from Newton's first law of motion: No force (no effort) is needed to keep an object moving at a steady pace. However, acceleration, which is a change in momentum, does require a force. A force is needed to go against the norm because being tied to a field is what creates inertia. If you push an object that is tied to a field, what happens? You feel resistance. Inertia is this resistance to change; it comes from third-person entanglement to a field.

Think about what this means: The field of space establishes a norm that includes particles staying in one location and particles that are moving steadily, but not particles that accelerate. Accelerating particles are going against the norm. We know this is true because acceleration requires a force, as Newton's second law tells us. Why do fields work this way?

There is a simple reason for this, according to LoP theory. Fields are only created by third-person comparative perceptions that persist. These are impersonal outsider perceptions. All forces, on the other hand, emerge from personal second-person relationships, such as attraction and repulsion. This is why forces disturb fields, creating ripples in those fields. (A detailed explanation for how this works is given in section 4.9). Therefore, we can say that the mass of a particle is created by the strength of that particle's third-person entanglement to a field. This is true because mass is nothing more than resistance to a force. And particles resist forces when they are tied to a field. All electrons have the same mass because they are all tied to the electron particle field.

If a particle belongs to two different fields that are independent of each other, such as the Higgs field and the electron particle field, then that particle will be pulled in different directions, even if the particle appears to be stationary, because the two fields move independent of each other. This is how fundamental particles gain "rest mass."

We experience the same feeling when we belong to two different groups, such as a scientific community and a political party. Each group pulls us in different directions. Thus, politics feels like an outside force to a scientific community.

So, our primordial world has grown. It now includes relational time, three dimensions of space, the need for energy when going against the norm of fields, the emergence of mass and inertia, and the foundation for Newton's laws of motion. Third-person fields bring us a lot closer to the classical world. However, we have not solved the whole puzzle yet because fields are still quantum states. We need space-time events and measurements to fully explain the classical world as we know it.

4.8.4 A New Look at the Two-Slit Experiment

Before we move on, we now have a new way of explaining the two-slit experiment, with what we have just learned about fields.

If there are no other agents nearby, when a photon goes from its source through the slits to a point on the screen, there will be no spatial information about which slit it went through. There is clear spatial information about where the photon hits the screen, and clear spatial information exists for the emitter, because the emitter and screen are both entangled with the world. But, if there are no other agents near the photon, then there is no way to pass along third-person information about the photon's path. This means there will be no clear idea of which slit the photon goes through.

As a result, the LoP Interpretation says that the photon does not pass through both slits as a wave. It passes only through one slit, but there is not enough third-person information to tell us which slit. Thus, the interference pattern has nothing to do with the photon changing from wave-like to particle-like behavior. There is simply no way to know the path that the photon takes.

Recent experiments validate this interpretation. Two recent experiments have shown that photons do appear to go through only one of the slits, not both. We simply cannot determine which path without making a measurement (reported in Francis, 2012, and Francis, 2011).

This lack of information about which path is taken affects the photon because it does not know its exact place in the world for that moment in time. It is as if the influence of the field of space is suspended and the photon is free to choose whichever path it likes. Thus, only second-person relationships determine what happens. This is why the two possible paths exist as superpositions and both possibilities influence the outcome. (More on this in section 4.9). But, as soon as other agents, such as particles, other photons, or cosmic rays pass through the equipment, a sense of the photon's path emerges. And as it does, the photon's choices decrease, because the field of space now gives the photon a clearer picture of the path it is taking. This is why the interference pattern fades.

This describes how the process of decoherence works, according to the LoP Interpretation. This does not yet solve the measurement problem, however. For that we need one more postulate.

4.9 Postulate 9: First-Person Perceptions Cause the Wave Collapse

We now get to the heart of the measurement problem in QM: Why are there always specific outcomes whenever we make a measurement and how are those outcomes determined?

This is a thorny problem for quantum theory because it cannot be explained by the gradual linear changes of quantum states that follow the Schrödinger wave equation. It is as if the wave function is bypassed or turned off for a moment, but only for the moment when the wave collapses.

> The measurement problem…is one of the most famous and stubborn in quantum mechanics. Often it is characterized as "the collapse of the wave function," indicating that when a measurement is performed, the result will be one of the eigenvalues of the measured observable. But this description fails to convey the depth of the difficulty. That the wave function (quantum state) collapses when a measurement is performed is indeed surprising, but it is not obviously inconsistent. The real crux of the measurement problem is not simply that collapse occurs, but rather how it occurs.
>
> It can be shown (without undue difficulty) that collapse cannot occur due to "regular" time evolution by the Schrödinger equation…. That is, we must suspend the Schrödinger equation during a measurement, so as to effect the collapse. But must not a measurement simply be a particular kind of physical interaction – different in details, but not in kind, from non-measurement interactions? What, then, can justify "turning off" the Schrödinger equation only during a measurement? As John Bell asked, "are we not obliged to admit that more or less 'measurement-like' processes are going on more or less all the time more or less everywhere? Is there ever then a moment when there is no [collapsing] and the Schrödinger equation applies?" This, more so than collapse per se, lies at the heart of the measurement problem. (Bowman, 2008, pp. 30-31)

We now have the tools to answer these questions. I already provided a story about how this looks from the level of human consciousness. This offers a degree of clarity that gives us added insight into what is happening from an insider's perspective. Here is what I wrote in section 3.3.4:

> The most notable feature of the middle level is defined by **first-person perception**. This is what enables quantum states and unconscious processes to cross over into actualized events and conscious access, making them visible to third-person analysis. This is the source of all tangible activity. Internal agency originates at this level, allowing quanta and living organisms to act as individuals and exchange energy.

The last sentence is the most important when applying this principle to the level of quanta. We indeed see "internal agency" displaying itself when events are actualized. For example, this is when we see a photon clearly hit one spot on a screen. All events that involve energy transactions also display this property of individual quanta because the energy must be carried in packets. The reason for this, according to LoP theory, is that internal agency requires first-person choices. In other words, we must place our attention on one possibility (out of many) and choose it, before it can happen. Everything leading up to that moment is the evolution of the possibilities that influence us. These possibilities happen purely at the quantum level – meaning at the level of personal relationships between sentient agents. When a choice, which is an act of perception, leads to an empirically detectable action, we see a wave collapse.

We now need to explain how this works at the quantum level based on the postulated principles of perception above. Fortunately, we have just learned a valuable new insight: It takes energy to go against the norm of third-person fields. Let's look at this in more detail.

Second-person relationships evolve in a linear way, the same way that quantum states evolve, as described by quantum formalism. The reason for this is that one-on-one relationships evolve in response to the sentient agents involved, because the perceptions of their relationship with each other continue to change. We naturally feel a loss of self when we are with our closest friends and become wrapped up in the relationship experience. This is why we see no sign of internal agency with quantum states and why they seem wave-like when they are not being measured or analyzed.

Third-person relationships, on the other hand, evolve through the decoherence process, producing the public field of space, and other fields as well, such as particle fields and the electromagnetic (EM) field. As the number of sentient agents in those fields grow, the fields grow stronger in the pressure they apply to follow the norm. Fields, by their nature, according to the LoP Interpretation, always push for stasis. The pressure is felt unconsciously and appears more as something in the background, not the foreground. This is why we see no signs of individuality in fields themselves, except when field particles interact as sentient agents.

While the evolution of quantum states (wave-functions) and the evolution of fields are both well defined by quantum formalism, the conflict between them is not. However, the fact that there is a conflict between them becomes immediately clear with the LoP Interpretation. This conflict can be illustrated informally (and surprisingly) by Shakespeare's story of Romeo and Juliet (adapted from Marman, 2016, pp. 225-226):

> Romeo grows up in one family, Juliet in another. Each family has its own perceptual field formed by generations of ancestors. The two families have been at war, hating and despising each other. Romeo and Juliet fall in love, against the laws that govern their

> family behavior, and against everything they have been taught since they were children. They are suddenly thrust into an impossible conflict.
>
> The power of tradition seems absolute, like a law of nature that must be obeyed. However, third-person fields cannot compete with love. The bond between Romeo and Juliet goes deeper. They love each other. So, they stop obeying the teachings of their ancestors. The laws of their families can no longer control them because they feel a strong desire to make different choices.
>
> Suddenly, they find themselves in a situation with dangerous possibilities. These are superpositions. The outcome could take many different paths. Meanwhile, each family tries to force obedience to their laws. Their traditions must be followed. Romeo and Juliet break with tradition because they refuse to be parted, resulting in their deaths. The play ends with both families realizing the wrong that has been done. Their fields are forever changed by a boy and girl who fell in love.
>
> Shakespeare was right: Second-person bonds are more powerful than third-person fields. Personal relationships are stronger than outer laws. And he was right that the two can be at odds. Our private lives are often in conflict with the public and political world we live in. And the lesson here is that our public world should recognize that, whether it likes it or not, it must adapt to the choices of people.
>
> Fields define how particles should act, but third-person social norms cannot control what happens when people fall in love. Personal experiences affect them deeply. They find themselves involved in the back-and-forth dance of entanglement. They share a mutual relationship that is stronger than any field.

Second-person relationships have a significantly stronger influence over quanta than the norm of third-person fields. However, it takes effort – real energy – to go against a third-person field. Or, to put this another way, sentient agents can break with the norm and choose to form a new reality in the world – a new reality that is not dictated by external forces. However, they can only accomplish this through a concerted effort.

This is why a wave collapse requires energy to be exchanged, because the whole third-person field must be altered. And, just as we see in the story of Romeo and Juliet above, both agents in a second-person relationship must decide jointly to make this happen together. Since decisions are always first-person actions, this means that both agents must choose to act in concert. Their joint action changes the public world. This is how ripples in fields are created, as the fields are forced to adjust to the new reality.

The Schrödinger equation “turns off” because there are no longer any embryonic perceptions and half-formed feelings about the many personal relationship possibilities between the two sentient agents. Both agents have recognized and selected one of the possibilities together. In order to break with tradition, those perceptions must trigger an action strong enough to alter the external field. Only acts made jointly this way can create an event in the world. Such an act resets the wave function because the world changes in an irreversible way. The old possibilities no longer exist because the situation has changed. This also changes their second-person relationship irreversibly. As a result, a new story now begins to evolve based on new possibilities.

4.9.1 A Formal Model for Wave Collapse

This describes why and how the wave function collapses. But this is only an explanation suitable for the human level. We need to formalize this process in a way that applies to quanta. Fortunately, all the hard work has already been done. This was the surprising discovery I made, in 2015, when I ran across Ruth Kastner's formal interpretation of QM (Kastner, 2013), called the Relativistic Transactional Interpretation (RTI). Her approach is an off-shoot of the Transactional Interpretation of QM (TI) developed in the 1980s by John Cramer (1986).

Cramer was inspired by "Wheeler-Feynman absorber theory," developed by Richard Feynman and his thesis advisor John Archibald Wheeler, which offers an alternate model for EM energy. As explained by Kastner (2013), Feynman and Wheeler showed that the radiation of light can be viewed as waves sent out from emitters that move forward in time and waves sent out from absorbers that move backwards in time. When the two waves match and align exactly, the combination creates a transfer of energy from emitter to absorber. This process is called a "handshake." A handshake is the "coupling" of the two waves that create a transfer of energy (pp. 44-45).

Cramer realized that if this is a valid representation of how energy is transferred, then quantum formalism should include both the forward moving and backwards moving waves. To use only the wave that moves forward in time, which is the traditional method, is to only include the story of emission. This does not describe the process of absorption. It tells only half the story.

This idea that a wave function travels backwards in time is hard for many scientists to swallow, which is why the TI interpretation has not been widely accepted. However, Kastner solves this problem by saying that these waves do not exist in space-time. Only the transactions of energy take place in space-time. In other words, quantum wave functions (the possibilities) exist outside of the space-time dimensions.

Kastner shows that the "offer waves" that come from potential emitters, and "confirmation waves" that come from potential absorbers, are quantum wave functions. In other words, these exchanges represent a quantum relationship, and these are quantum states that do not exist in space-time.

> Offer and confirmation waves are physically real, but sub-empirical, possibilities. [Offer waves and confirmation waves] are interpreted ontologically in [RTI] as *physically real possibilities*. In this context, "real" means physically efficacious but not necessarily *actualized*…. [T]hink of [these waves as] the submerged portion of [an] iceberg…. [F]rom the vantage point of the deck of a ship (representing the empirical realm), we cannot see the submerged portion, but it certainly supports the visible portion and therefore cannot be dismissed as "abstract" or "unreal." In Bohr's words, these entities "transcend the spacetime construct"; however, rather than dismiss them as Bohr did, I allow that they are physically real, even if sub-empirical.
>
> [Offer waves and confirmation waves] are necessary but not sufficient conditions for an actualized event. The remaining necessary condition for an actualized event is that one particular transaction be actualized. (Kastner, 2013, p. 68)

I was stunned to see how perfectly this aligns with the LoP Interpretation. Kastner says that she does not claim to know the material nature of these quantum *possibilities* (p. 67). However, the postulates above tell us that these are relationship possibilities between sentient agents. They do not exist in space-time because they cannot be seen by outsiders. They exist only between agents.

The "coupling" of offer waves and confirmation waves also fits perfectly with the inner dynamics of relationships between sentient agents. Even the idea that wave functions pass back and forth between quanta fits with the postulates listed above. Only when they align with and complement each other can these *possibilities* be reinforced, and only when they are reinforced can the relationship evolve.

However, all possibilities do not create actualized transactions of energy. In fact, real transactions of energy are rare, and there is no way that outsiders can predict which relationship is going to produce an actualized event. Only a small percent of these quantum possibilities are actualized. Kastner (2013) points out that the coupling factor between individual photons and electrons, where an electron absorbs a photon, is about 1/137. The same coupling factor exists for an electron to emit a photon. Therefore, the probability that an actualized transaction will occur between two electrons is $(1/137)^2$, which is about 0.005% (pp. 65-66).

This example graphically illustrates why it is the square of the quantum possibility that gives us the probability of actualization – because the offer wave probability must be multiplied by the confirmation wave probability and both waves must be identical for them to couple. This is the exact condition required by the postulates of perception described above. Possibilities in a relationship must be agreed on exactly before they can act in concert.

Traditional interpretations of QM cannot explain why squares of probabilities are needed. It was determined empirically by Max Born and is now accepted as a postulate of quantum formalism. This is one of the significant advantages of the TI interpretation: It shows why "Born's Rule" exists. (For a detailed explanation see Kastner, 2013, pp. 53-55).

> [I]n most prevailing interpretations, the Born Rule is either simply assumed as part of the mathematical machinery…or it is given a pragmatic, 'for all practical purposes' account, which in my view, fails to do justice as the crucial link between theory and concrete experience. The Born Rule constitutes a deep mystery for all prevailing interpretations…other than TI. (Kastner, 2013, p. 35)

We can now add the LoP Interpretation to the list of interpretations that agree with this explanation.

The coupling between photons and electrons shows us something else as well. When second-person relationships form, according to LoP, attraction or repulsion develop, the same as we see in relationships between living creatures (Kastner, 2015, pp. 86-87).

Physicists model two electrons repelling each other as a virtual photon passing between them. However, as explained above, only 0.005% of the time will two electrons actually be physically repulsed away from each other. In those rare cases, the photon that passes between the electrons is said to be a "real" photon, because it carries real energy in space-time. The other 0.995% of the time, a static force of repulsion exists, but no actualized transfer of energy takes place. In those cases, the photon is said to be a "virtual" photon because it never exists in space-time.

In other words, static forces arise from relationship exchanges that exist only in the quantum world. Forces that accelerate objects are different: they exist in space-time. Static forces are different from actualized forces, but there is a clear relationship between them: Before energy can flow, there must be a buildup of static force. This is when virtual photons can pass between potential emitters and absorbers. Therefore, it all begins with attraction and repulsion.

When static charges grow strong enough, the story changes. Electrical sparks fly through the air or beams of light are created. Transactional events can only happen when emitters build up more potential energy than absorbers. This means that the relationship is no longer equal. That is why energy flows from the emitter to the absorber. This is what is needed to create an event that changes the EM field and the field of space. (More on this below).

What makes radiant energy different from static forces? Kastner (2015) offers a clear interpretation. She says that the mystery comes down to a simple fact: There is a threshold that a virtual photon must cross before it can move from being a mere possibility to a real photon.

> This number, 1/137, is a very well-known number in physics. It is called the "fine structure constant." The fine structure constant is important because it characterizes the strength of the electromagnetic interaction between charged particles… [I]n this book, the fine structure constant gains an interesting new physical meaning: it expresses the likelihood that a photon will advance from being merely "virtual" to being…actualized. (p. 101)

Feynman (1985) defines the fine structure constant in a similar way: "the [probability] amplitude for a real electron to emit or absorb a real photon" (p. 129).

This graphically illustrates the existence of an energy threshold needed to change the third-person EM field. This validates the LoP theory that energy is needed to go against a field. A quantum of momentum is also needed to change the field of space. However, LoP theory takes this further, because it predicts that the amount of energy needed to change a field will grow as more sentient agents join a field. In other words, the fine structure constant can change. This prediction comes from the fact that, as the number of charged particles in the EM field grows, so will its resistance against change. This idea of thresholds plays an important role with all of the four forces of physics, according to the LoP Interpretation (Marman, 2016, pp. 446-450).

Kastner (2013) says that the key advantage of the Transactional Interpretation over all other "collapse" type interpretations is that the meaning of "measurement" is clearly defined in physical terms, without having to appeal to the consciousness of an observer of the measurement. Once again, the LoP Interpretation is in agreement.

> How is this achieved? Very simply, by taking into account that *absorption is a real physical process*. This is certainly the case in relativistic quantum field theories: one cannot arrive at a correct empirical prediction without taking absorption into account. Indeed, absorption (i.e., annihilation) is a key element of the definition of the field operators used in any calculation of probabilities of empirical events. Such calculations routinely involve taking expectation values in which quanta are created and quanta are destroyed. If such calculations refer to anything physical (the basic realist assumption),

> both processes are physical processes. However, for the past century or so, interpretations of non-relativistic quantum theory have completely disregarded the absorption process, granting physicality only to emission processes … They have thus considered non-relativistic quantum mechanics – which is just a limiting case of quantum theory – only in a particular form (as applying only to emission) and in isolation from its relativistic application; and this, I suggest, is what has prevented the ability of such interpretations to account for measurement in physical terms.
>
> Specifically, a measurement or determinate event (i.e., it does not have to be a formal "measurement" conducted by an observer) occurs whenever annihilation of one or more free quanta occurs. In terms of relativistic quantum theory, absorption corresponds to the action of annihilation operators on free quanta, just as emission corresponds to the action of creation operators. (pp. 55-56)

What Kastner is saying here is that, first, QM needs to include the process of absorption, not just emission, and, second, a relativistic model of quantum theory is needed to fully explain what a wave collapse means. The difference between relativistic models and traditional non-relativistic interpretations is that relativistic models show how forces emerge from quantum interactions and obey Einstein's theory of relativity. Relativistic models describe quanta, such as virtual photons, passing between charged particles. Virtual particles are being created and destroyed all the time, even in the voids of space where no real particles exist. Quantum field theory describes this process in great detail, and it is necessary to include the effects of virtual particles to get accurate results. The process of calculating the impact of virtual particles is called "renormalization."

To put this in simpler terms, physicists already acknowledge that quantum states are being created and annihilated all the time. They are sometimes modeled as virtual particles, but they can also be treated as quantum wave functions that do not exist in space-time. Therefore, a wave collapse is actually and truly an annihilation of a wave function through the process of absorption.

When a photon is emitted from an atom, the photon is literally being created. When it is absorbed, such as when it lights up a point on a screen, the photon literally ends its life. The photon carries with it energy and momentum from an emitter to an absorber. This is an event that takes place in space-time. The photon is, therefore, the space-time manifestation of a quantum relationship.

This physical model is a perfect fit with the postulates of perception listed above. We now have a theory that starts with underlying principles (postulates) and includes a model-based theory as well. Combining these two, the LoP Interpretation can clearly explain the wave collapse process.

While Kastner's interpretation (RTI), offers a working model that has rigorously been shown to be consistent with quantum formalism, it still falls short of providing a full explanation for why and how one of the quantum state possibilities is selected to become an actualized event, although it comes closer than any other interpretation I have seen in describing what is happening. Kastner even comes closer than Cramer's Transactional Interpretation (TI) because she shows that the process begins outside of space-time, in what she calls "pre-spacetime" (PST).

> If we take the domain of transaction formation as PST rather than spacetime, then an account cannot be given in terms of any causal process within spacetime in the usual sense…since the latter are confined to spacetime. Instead we need to turn to a similar situation in physics in which there are apparently many possibilities but only one is realized: "spontaneous symmetry breaking" (SSB). (p. 76)

This makes perfect sense and is in agreement with LoP theory. There can be no causal processes behind the wave collapse. And SSB is a good model to turn to. Kastner then describes a number of examples of SSB, including a study of the pattern created by a drop splashing into a bowl of milk. The pattern of the splash is never exactly symmetrical. When the authors of a study on milk splashing ask why it is not symmetrical, they answer that it is because of imperfections. Nature is never perfectly symmetric. Kastner (2013) comments:

> Thus, the apparent answer of the authors to the question of what causes the system to end up in a particular state is: quantum fluctuations… It appears that, strictly speaking, when considering symmetry breaking in the classical domain, one could always point to some external cause of this type, even if only a random quantum fluctuation. So when the authors say that "the actual breaks the symmetry of the potential," they are not yet describing the quantum domain which [RTI] seeks to describe. (p. 81)

Kastner rightly points out that quantum fluctuations could indeed offer a valid explanation for why the symmetry is disturbed in the domain of classical physics. And she is right that this explanation does not work for the quantum domain where one quantum state is chosen over others. She then refers to a famous purely quantum case of symmetry breaking: the Higgs field. And here we can see that a full explanation falls short:

> If we want to try to follow the same procedure and to seek a specific cause…for the choice of one of the infinite set of possible vacuum states, we either have to suppose that it also stems from fundamentally indeterministic quantum fluctuations of the vacuum, or postulate fluctuations in some deeper realm that lies outside any current theory…. The only alternative is to postulate that SSB in the Standard Model requires a "many worlds" interpretation, in which SSB gives rise to many possible worlds.... But this is certainly not the usual approach. (p. 82)

To summarize, Kastner is saying that when there is a wave collapse, one way of explaining how one of the possibilities is selected could be the influence of quantum fluctuations. If this is not the cause, then it could come from "fluctuations in some deeper realm that lies outside of any current theory," or we need to invoke the Many Worlds Interpretation, which says that each of the possibilities is selected in a different parallel universe.

Unfortunately, quantum fluctuations cannot be the cause. It is fine to use this as an external force when dealing with classical events such as splashes of milk. Or you could use this to explain why a knife perfectly balanced on its point, in a complete vacuum, will always fall eventually. But this does not work as an explanation for a wave collapse because quantum fluctuations are nothing more than the fluctuations created by virtual particles being created and destroyed. These are the same quantum states that occasionally cross over to become actualized as real particles.

The question we are trying to answer is why one, out of the many possible quantum states, crosses over to become real. We cannot use other quantum states as a causal explanation because they are just more quantum possibilities. They will simply shift the weight of the possibilities and change the odds for which state is selected. They will not trigger an end to all other quantum possibilities when only one becomes actualized.

It is also worth adding that the whole reason the Many Worlds Interpretation is proposed is because there has been no explanation in quantum theory for why many quantum states would suddenly collapse down to one actuality. Or to put this another way, there has been no explanation for why quantum possibilities should ever end. However, as Kastner explained above, as soon as we move to a fully relativistic model of quantum interactions we see that quantum possibilities are created and annihilated. They spring up and disappear because they are relationship possibilities, and some of those possibilities will indeed disappear when the wave function collapses.

The LoP Interpretation offers a full explanation for why and how the collapse process works at the human level. We see it happening every day in human society. For example, out of the countless cases of flirtation that take place in a university or a company, only some will turn into real friendships or affairs. The flirtations can be considered "offer waves." Obviously, most offers are not accepted, but the ones that generate a complementary response can grow into relationships.

However, friendships and even affairs are private exchanges. Only one out of hundreds will cross over to marriage. Marriage is different because it requires a public change of state. It is recorded in a court of law and legally changes the responsibilities of the couple when it comes to ownership and taxes, etc. Marriage also changes the relationships between families of both spouses. These are public changes, as Romeo and Juliet discovered. And all the other possibilities (flirtations) of marrying other people end abruptly in that moment when they make their wedding vows.

When looking at the shift from private relationships to public marriage, it is easy to see what is needed to make the change: Two people need to jointly make a decision together. Outside forces cannot make it happen. There are many outside influences, but the act must be made by the couple.

If these relationships at the human level are quantum states, and marriage represents a change of state in human society, then, according to the LoP Interpretation, relationships between quanta must follow the same pattern. Therefore, postulate 9 states that **a wave collapse is the shift in a second-person relationship from a private, personal possibility, to a third-person public actuality – from a quantum state to a space-time event. It requires two sentient agents jointly making first-person choices to change the state. This requires real energy and a change in momentum. And when it occurs, it brings an end to other possibilities.**

4.9.2 Problems Solved Using the Transactional Model

This model gives us added insights into a number of problems. Let's take a look.

4.9.2.1 Changes in Quantum States of Measuring Equipment

Quantum formalism says that, when a measurement takes place, the quantum state of the system being tested suddenly changes. The system being tested then evolves from that state until it is changed by another measurement. We can now see that this change is governed by the relationship between the system and the equipment because the equipment is designed to measure a specific state. This compels the system being tested to exactly match the state of the equipment, to make a "handshake." This gives us a valuable insight into understanding quantum formalism, as we will soon see.

4.9.2.2 The Mind-Body Problem

When psychologists observe the neurological process of "conscious access" (see section 2.2), they recognize the importance of attention. The human being must move their attention to a possible event before it can become conscious. However, from the above discussion we can now see that this is not the complete story. To create a physical action, a human being must jointly act in concert with the cells of their body. Both must agree to act jointly in order to exchange real energy. We cannot make our muscles move by ourselves.

This solves **the mind-body problem** that has troubled philosophers for centuries. It shows how a sentient agent works in concert with the cells of their body, when they jointly make possibilities become actualized events. Biologists can see the energy exchanged when muscles move. However, they have no good explanation for how that energy is triggered when a person decides to move.

Our new model shows that human beings cannot make this happen by themselves. A relationship between a human being and the cells of their body is needed. They must jointly agree before real energy can be exchanged. This is why neuroscientists see the brain getting ready before an action (Marman, 2016, pp. 299-307). Alignment between mind and body happens unconsciously, exactly as LoP theory suggests, because these are second-person quantum exchanges before the actualized exchange of energy. Thus, second-person relationships are dynamic, and they have a real impact, but they are intangible to outsiders. (More on this in section 6.2).

4.9.2.3 Schrödinger's Cat Paradox

Another problem solved by Kastner's model, and the Transactional Interpretation, is the famous **Schrödinger's Cat paradox**. Since it is so well known, I will only explain it briefly. The problem starts with a radioactive atom that is in a superposition state of being "decayed" and "not-decayed" at the same time. If this atom, when it decays, emits a radioactive particle, and this particle triggers a detector that releases a hammer that swings and breaks a vial of poison, killing a cat, then according to traditional interpretations of QM, the detector should also be in a superposition state, along with the hammer, the vial of poison and the cat. Does this mean the cat is both alive and dead at the same time? That seems ridiculous, and this is exactly the point Schrödinger was trying to make when he proposed this thought experiment.

The Transactional Interpretation settles this matter easily. The problem disappears as soon as you include the absorber's role. The absorber's side of the story changes everything. The superposition state of the atom collapses as soon as the radioactive particle is absorbed by the detector. Thus, the cat is not in a superposition state. Only the atom, which is the emitter, and the absorber in the detector are in superposition states, until the radioactive particle is emitted and absorbed (from Marman, 2016, p. 233).

The nine postulates, above, add even more clarity to this puzzle. The radioactive atom and the atoms in the detector are sentient agents that form relationship possibilities with each other. This is why they share the superposition states of "decayed" and "not-decayed" as possibilities. However, the hammer that breaks the vial of poison, and the vial, are both classical objects. In other words, they are conglomerates – not sentient agents, so they cannot form quantum relationships. Yes, each of the individual atoms in the hammer and vial can form quantum states with possibilities, but this in no way alters the behavior of the hammer, the vial, or the poison.

We also know that as long as the cat is alive, it is a sentient agent. But cats do not form personal second-person relationships with atoms, so it never shares the superposition states of "decayed" and "not-decayed." As I said before, we should not confuse a wave collapse at the level of quanta with a wave collapse at the level of living organisms. For the same reason, we should not confuse quantum relationships between living organisms and quantum relationships between atoms. The classical world emerges from conglomerates because they are far removed from the personal relationships of individual sentient agents. That is when third-person reactions become dominant.

4.9.2.4 Delayed Quantum Eraser Experiments

Kastner's model also solves one of the most confounding experiments in quantum physics: **the delayed quantum-eraser experiment**. In this experiment, it appears as if a measurement of a photon made later alters the state of a second photon measured earlier. In other words, it appears to act backwards in time. The key to understanding what is happening is that the photon detected later and the photon detected earlier must be entangled. If this is true, then the solution is simple. Yes, it seems as if information flows backwards in time, from the absorption of the first photon detected later, because a confirmation wave does appear to flow backwards in time. But, in fact, the quantum state that they share does not exist in space-time. Thus, the time paradox is resolved. (For a detailed, formal discussion, see Fearn, H., 2015).

4.9.2.5 Another Look at the Two-Slit Experiment

With this new insight, we can also give a more complete description of the two-slit experiment than what I gave in section 4.8.4: An emitter forms a second-person relationship with all potential absorbers on a screen. TI says that these offer waves look for matching confirmation waves. LoP theory says that these are vague perceptions and half-formed feelings that only form relationships when they align. These are second-person relationships, which are quantum states, that create static forces of attraction or repulsion. This is what happens when potential energy grows in the emitter.

A photon is not emitted until a perfect match is found with an absorber, and both the absorber and emitter form a "handshake" that couples their first-person choices together into one joint action. The virtual photon passing between them then crosses over to become a real photon that carries real energy and lights up the spot of absorption on the screen.

However, while both the location of the emitter and absorber become clearly defined by this action, the path that the photon takes is unknown, as I explained in section 4.8.5. As a result, the relationships between the emitter and all of the possible absorbers exist at the same time and influence the outcome. These are virtual photons that pass through all possible paths to all possible absorbers. And they act as superpositions that interfere with each other, creating the interference pattern.

This is why Feynman was right to say that we can calculate the probabilities by adding together all of the possible paths. This does not mean that a real photon actually takes all possible paths. The quantum states are only weighing all of the possibilities before one is selected and actualized.

This is consistent with what the “Taking Heisenberg’s Potentia Seriously” paper says:

> Feynman famously re-derived the quantum laws in his ‘sum over paths’ approach by taking a quantum system as taking ‘all possible paths’ from an initial prepared position to a final detected position.... Clearly, such a system does not *actually* take distinct and mutually exclusive paths; its ‘taking of all possible paths’ is properly regarded as a set of possibilities, not actualities… We suggest that the efficacy of his possibilist approach in yielding a formalism that was initially arrived at by heuristic mathematical data-fitting is evidence that it captures some ontological feature(s) of reality.
>
> Thus, we propose that quantum mechanics evinces a reality that entails both actualities (*res extensa*) and potentia (*res potentia*), wherein the latter are as ontologically significant as the former, and not merely an epistemic abstraction as in classical mechanics. (pp. 7-8)

Kastner (2013) noted this same confirmation of Feynman’s calculation of all possible paths (Kastner, pp. 84-87). And I (2016) also arrived at the same conclusion before reading Kastner’s book (Marman, 2016, pp. 222-224). So, you can see why Kastner’s solution was such a surprising discovery for me, because it offers a model that matches the postulates of perception that I had uncovered.

Kastner started from a completely different origin: John Cramer’s Transactional Interpretation and quantum formalism. She converted TI into a fully relativistic model. On the other hand, I started with similarities between the behavior of quanta and the behavior of living organisms, leading to principles of perception that underlie both of them.

Naturally, this complementary match between the LoP postulates of perception and RTI’s formal model struck me as powerful validation. (In other words, these two possibilities match so well that it increases the reality of both of them, the same way a quantum handshake crosses over to become an actuality). This sense of validation grew even stronger when I ran across this footnote in one of Kastner’s books: “One might wonder whether quantum entities are endowed with some rudimentary form of consciousness. Such considerations are interesting and important, but beyond the scope of this book” (Kastner, 2015, p. 127).

4.9.2.6 Space and Time Revisited

With this combination of underlying principles and a functional model, we can offer even more insight into what happens during a wave collapse. For example, when looking at this in terms of Einstein’s theory of relativity, we can see that no time passes for the photon, from the moment of emission to the moment of absorption, because it is traveling at the speed of light. The only thing that makes a photon real is that it carries real energy and changes the EM field (by creating a ripple), and it applies a quantum of real momentum that alters the field of space.

A transactional event is a unit of action. Bohr called it a quantum of action. What makes this even more interesting is that, even though the actual positions of the emitter and absorber are all relative, depending on the reference frame of outside observers, and the time of the event is also relative to outside observers, the space-time interval is the same for all outside observers. As Kastner (2015) explains below, this means that a space-time event is something that all observers can agree on. This makes sense, in LoP theory, because such an event changes the whole third-person field of space:

> If a well-defined time interval were applied to an object with well-defined energy, this would contradict the [Heisenberg uncertainty principle]. (p. 165)
>
> Thus, the most accurate way to understand the time-energy version of the [Heisenberg uncertainty principle] is not really in terms of time intervals, but rather in terms of change: if an entity has a completely precise energy value, there is no observable change in the entity characterized by that energy. However, there are changes in the emitter that emitted it and in the absorber that absorbed it: one lost energy, and the other gained it… This, in turn, allows us to define a time interval corresponding to the two events. This leads to the crucial point that a time interval is created by the transfer of some exact amount of energy from one entity to another in an actualized transaction. (pp. 165-166)
>
> We've noted above that, in the transactional picture, a time interval is created by the delivery of a quantum of energy from an emitter to an absorber. Interestingly, this corresponds to a more esoteric but standard physical account of the relationship between energy and time: Energy is the creator of time intervals. (p. 167)
>
> At this point, you may have guessed that a similar relationship holds for position and momentum. Indeed, it's also true that momentum is the creator of spatial intervals. As with energy and time, a transferred quantity of momentum (basically motion) corresponds to an interval of space; and without that momentum, there is no spatial interval. (p. 168)
>
> [R]elativity tells us that neither spatial nor temporal intervals, individually, are absolute quantities. They are defined only relative to the states of motion of observers who can see the emission and absorption events marking those intervals. And the quantum's amount of motion itself is not absolute; that is, whether or not a quantum has momentum depends on the frame in which it is described. (p. 169)
>
> Nevertheless, there *is* an absolute quantity, one which is the same for all observers regardless of their relative motions. It is the spacetime interval… The spacetime interval is basically the difference of the (squares) of the temporal and spatial intervals as measured in any particular frame. (You take the time interval between [emission and absorption], multiply that by the speed of light, square it, and then subtract from the square of the distance between [emitter and absorber]). It turns out that despite the differing perspectives of observers in different states of motion, the spacetime interval is the same in all of them. It is the one measurable spacetime quantity that they can all agree on… And the spacetime interval is what is created in an actualized transaction. (pp. 169-170)

According to Kastner, space-time is a tapestry woven from space-time events created by changes in momentum and exchanges of energy. As we can see, these events are quantized.

They are made from discrete transfers of energy and momentum. This means that space-time itself is quantized.

However, according to LoP theory, the field of space is not quantized because it is made from grey comparisons of outsider perceptions from third-person relationships. Yes, every field is made from a finite number of these relationships, but the experience of space and its effect on sentient agents is continuous. As you zoom down to smaller and smaller regions, the field of space does not become more discrete and quantized, it simply becomes weaker and weaker.

In fact, we already have a good example for how the field of space looks when it is weak because this is exactly what happens in two-slit experiments. The interference pattern gradually fades away as more particles enter the area of the experiment because the influence of the field of space increases gradually. This is how decoherence works. This shows that only space-time is granular, not space itself. Space-time is like a glove that fits over the hand of the field of space.

This resolves another obstacle that has been standing in the way of solving the mystery of quantum gravity (how to merge Einstein’s theory of gravity with quantum theory). Smolin (2017) explains:

> These obstacles mainly had to do with showing that on scales much larger than the Planck length, a smooth classical spacetime emerges, which is described by Einstein's theory of general relativity. (p. 228)

A smooth classical space-time is evident at large scales because the field of space guides the positions and momentum of particles, just as the EM field guides electrically charged particles. This is also why water flows smoothly, even though the movement of water is made up of countless discrete actions. For the same reason we can run smoothly, without jerky movements because we are not stopping to think about each movement, but only about the relationship with our body that does the work. Relationships are the influences behind everything in life and nature that flow smoothly. How do we model this? We can build on Kastner’s model.

The influence that fields have on particles is not through offer waves, because offer waves describe only what is happening in second-person relationships. There is no reaching out of hands like we see in personal relationships. The confirmation waves in third-person relationships come from every agent in the field. These are confirmations of other outsider perceptions. This is how a norm is created. No offer waves, only confirmations. The waves do not need to align exactly for them to converge because they are outsider perceptions, none are private, so they naturally converge. However, agents must be entangled through third-person relationships before a field affects them.

Putting this another way, the interactions between a field and the particles that live in that field only exist in the quantum realm, not in space-time. There are no potential emitters and absorbers, there is only third-person entanglement between all of the members of a field. This is what creates the field. Real energy is never exchanged. The inertia that a real particle experiences when it is coupled to the field of space is a “static” force, like attraction and repulsion between charged particles. However, the difference between inertia and static EM forces is that EM attraction and repulsion, when it grows strong enough, can cross over to become space-time events, but the static force of inertia only resists actions, so it can never cross over into space-time. This is how quantum fields work, according to LoP theory, using Kastner's model.

Most physicists say that we can look at fields as if they create quanta, or we can look at quanta as if they create ripples in a field. Both are mathematically equivalent. And the interactions between charged particles and the EM field can be modeled as a field effect, or as if the wave function of the particles interact with themselves (through offer and confirmation waves).

This is where the added constraints of the LoP Interpretation become clear: Only one of these two explanations is acceptable. According to LoP principles, only sentient agents can create ripples in fields through second-person relationships. Fields do not create quanta. And sentient agents do not have wave functions of themselves, so they cannot form relationships with themselves. The quantum state of a sentient agent, by itself, is its first-person perception, which is not visible to anyone else. Quantum wave functions only form between sentient agents because they are different from each other. Therefore, the EM field does have an influence on charged particles, but a charged particle has no way of sending an offer or confirmation wave to itself, because it cannot form a relationship with itself.

4.9.2.7 The Damping Effect in the Field of Space

This issue goes to the heart of the main conundrum of QM: Why is all of matter and energy quantized? Why is matter made up of individual particles? And why is energy always carried in packets? The problem here is not to explain bodies, it is about explaining the internal agency that we see in particles, the same as the internal agency that we see in living creatures. How can a field or a society create human beings or give even the simplest organisms their internal agency?

This is exactly the problem with the current theory of decoherence: It cannot explain how distinct forms emerge from the wave function. Nothing in the wave function can explain where distinctions come from. Yet those distinctions are necessary for entanglement – and, therefore, decoherence – to work. Therefore, fields are outcomes, according to LoP theory, they do not create particles.

This is interesting because it was Feynman who first discovered that the field effect could not be eliminated by absorber theory. Fields exist as something separate from emitter-absorber events.

> Feynman's motivation for his direct action approach (Wheeler–Feynman absorber theory) had been to eliminate the electromagnetic field as an independent entity, and he later decided that this could not be done because of the need for self-energy. (Kastner, 2013, p. 51)
>
> [T]he Wheeler–Feynman approach to dealing with classical radiation theory fell out of favor because it assumed that a radiation source could not interact with its own field; but this "self-interaction" or "self-energy" was found to be necessary, at least at the quantum level, for certain known empirical effects such as the Lamb shift. (Kastner, 2013, p. 50)

In other words, Feynman was hoping that the direct exchange between emitters and absorbers could account for all of the known aspects of EM radiation. However, he eventually came to realize that there was always a small residual field effect that created "radiative damping" that could not be eliminated.

> Dirac (1938) had proposed that damping can be explained by a free field (that is, a field not attributed to any source) in addition to the assumed…propagation due to the charge. While this seemed to account for the observed energy loss, [Wheeler and Feynman] were dissatisfied with its ad hoc character. (Kastner, 2013, p. 199)

Feynman's original assumption that a radiation source could not interact with its own field (with its own wave function) was right, according to the LoP Interpretation. However, the field that Dirac proposed, which creates a damping effect, no longer needs to be seen as ad hoc because we found its origin: It is created by third-person relationships. In fact, these relationships create exactly the damping effect that Dirac described because they resist forces of change.

4.9.2.8 The Uncertainty Principle Resolved

This new insight into how the field of space is altered by actualized exchanges of energy and momentum gives us an added explanation for Heisenberg's uncertainty principle, because it shows us that first-person choices and actions made in concert are stronger than any field.

It is impossible to nail down both the position and momentum of a particle for two reasons: First, because every measurement and wave-function collapse alters the field of space. Since actualized events are happening virtually all the time, the field of space is continually changing.

Notice that this is not about measurements altering the system being tested, which was the point that Heisenberg first proposed. Heisenberg's original view is not how physicists see it today:

> The modern version of the uncertainty principle proved in our textbooks today, however, deals not with the precision of a measurement and the disturbance it introduces, but with the intrinsic uncertainty any quantum state must possess, regardless of what measurement (if any) is performed. (Rozema, *et al.*, 2012. p. 1)

What I am describing is how the field of space itself is altered by measurements. And, as postulate 9 shows us, there is a minimum threshold to this alteration of space that is needed to create an actualized event. This minimum threshold is directly related to Planck's constant, which represents the quantum of action. This agrees with the fact that uncertainty and Planck's constant are related.

The second reason for uncertainty is that measuring position and momentum require two different relationships. This means two different designs of equipment. Each type of equipment gains its information by absorbing at least one particle. Therefore, as soon as one measurement is taken, the field of space is changed by at least one quantum of action, before the next measurement can be made. In other words, as the ancient saying goes, you can never step in the same river twice.

On top of this explanation, we must add what I showed in section 4.8.3, that there are no perfectly well-defined values for the position and momentum of particles before they are measured. As far as I know, this solution to the uncertainty principle, along with the above explanation of the wave collapse process, offers solutions that appear to make the theory of quantum mechanics complete.

And from what I can see, everything I have explained above validates Heisenberg's insight about potentia "standing in the middle between the idea of an event and the actual event, a strange kind of physical reality just in the middle between possibility and reality." This describes the transition from quantum possibilities to actual space-time events quite well. I agree that we should indeed take this idea about potentia seriously, as the paper (by the same name) suggests.

Also, we can better understand the meaning of potentia if we see that they represent the inner dynamics of relationships. Possibilities are the vitalizing source of life in all relationships.

4.9.2.9 Possible Insights for Quantum Gravity

In the 2017 postscript to his book, *Three Roads to Quantum Gravity,* Lee Smolin wrote:

> The fact that we haven't yet solved the problem of quantum gravity, despite much good work by hundreds of very smart and devoted people, is one that deserves some contemplation. Nature is a unity, so surely there is an answer out there. If we haven't found it, perhaps we are doing something wrong…
>
> Here is another way in which I suspect we have been off track. Einstein spoke of two kinds of theories, constitutive theories and principle theories. Constitutive theories posit what the world is made of; they are theories that describe particular phenomena, particular forces or particles. Maxwell's theory of electromagnetism and Dirac's theory of the electron are constitutive theories.
>
> Principle theories set out general principles whose universality requires that every particle and force in nature satisfies them. Special relativity and the laws of thermodynamics are principle theories.
>
> Einstein taught us that we deepen our understanding of nature when we discover new principles. The theories come after the principles.
>
> String theory and loop quantum gravity are both based on hypotheses about what the universe is made of. Thus, these and other of the main approaches to quantum gravity are constitutive theories.
>
> Perhaps we should heed Einstein's advice and look instead to discover new principles. (p. 230)

Postulate 8 is a principle that offers a new explanation for decoherence and how the field of space forms. It suggests that the field of space is a quantum state and it is different from space-time. This offers potential solutions to some of the obstacles in resolving how gravity emerges at the quantum level. Here is another big piece that might help put this puzzle together:

Postulate 9 tells us what happens when there is a wave collapse and there is an exchange of energy. The energy must be strong enough to alter the field of space. This suggests that there might be something else quite remarkable also happening at the same time. Let's look closer.

According to postulate 8, all fields are formed by third-person perceptions converging towards a norm. The influence of each individual outsider perception is weak, but outsider information gains strength when it agrees with other outsider perceptions. Perceptions that do not agree are ignored. They disappear because they do not seem to represent anything real.

One of the key lessons learned by scientists who are looking for a theory of quantum gravity is that gravity appears to be the only force that operates outside of the background of space-time (Smolin, 2007, pp. 80-83). This is one of the biggest reasons why gravity does not play well with quantum theory. Physicists explain it this way: Gravity is background-*independent*, while quantum theory and all the other forces are background-*dependent*.

Einstein proved this quirk of gravity when he showed that it warps space-time. In fact, he said that gravity is no more than a curvature of space-time. This is a valuable clue because LoP theory says that if gravity works this way, something besides third-person relationships must be affecting the shape of the field of space. Postulate 9 tells us that every time there is a wave collapse, the field of space adapts to the change. This is what an exchange of momentum does.

Every time there is an exchange of energy, there is a wave collapse. This means that exchanges of energy could be warping the field of space. This is a promising possibility because Einstein claims that “energy density” is the cause of the gravitational field (Padmanabhan, 2012, p. 8), and countless experiments have validated this.

The new speculative proposal I am offering here is that mass and energy density are followers, not drivers. In other words, mass and energy are gradually pulled in, along with the particles they belong to, by the curvature of space. The true causes of gravity are exchanges of energy. Since exchanges of energy are directly related to energy density in an area, the strength of gravity should be proportional to exchanges of energy as well. Thus, Einstein’s formulas should still hold up.

How does space curve at the quantum level? That is the question that quantum gravity is trying to resolve. A possible answer can be seen if we look at what happens to the field of space when there is a sudden, instantaneous shift. If the locations and movements of sentient agents suddenly shift in a discontinuous way, what happens to outsider perceptions of where those agents are and where they are moving?

If LoP theory is right, the new perceptions will no longer agree with the norm. If this is true, they should be ignored. The field of space only exerts an influence when there is a consensus. This suggests that a small portion of space will stop engaging. It will fall off the map. This might be what happens when an area changes so suddenly that the field of space cannot adapt right away.

Decoherence experiments prove that the field of space adapts at the speed of light. This is how fast location and movement information ripple through the field. However, if there is a sudden shift that is discontinuous, there is no way the field can adapt immediately. This means there is a brief period of time in which that area of space disappears from the field.

What happens to particles that are far away from the disturbance? They will not feel the full brunt of the disruption. In fact, some distance away, particles will see only a gradual sea change, not a discontinuous jolt. So, the rest of the group experiences a contraction in space when a small portion of space disappears, followed by a bulge when it returns. In other words, exchanges of energy act like pebbles dropping through the smooth surface of space, creating ripples.

After I realized the way this seems to work, I was surprised to run across something Smolin (2007) wrote that sounded almost identical:

> [W]hen gravitational waves are very weak, they can be seen as tiny ripples disturbing a fixed geometry. If you drop a stone into a pond on a still morning, it causes tiny ripples that barely disturb the flat surface of the water, so it is easy to think that the ripples move on a fixed background given by that surface. But when water waves are strong and turbulent, as near a beach on a stormy day, it makes no sense to see them as disturbances of something fixed.
>
> General relativity predicts that there are regions of the universe where the geometry of spacetime evolves turbulently, like waves crashing on a beach. (pp. 84-85)

I am suggesting that we need to make one big exception to what Smolin says above: When the change is turbulent, it is lost from the field. Those are the regions of space that vanish. There is no roaring crash of waves, only the sound of silence. Third-person entanglement cannot handle shocks, only gradual changes. Anything too sudden falls off the map of space.

This does not mean that the particles stop existing. No, they clearly still exist. They have not gone anywhere. They simply disappear from the field of space for a while. A few moments later, once the field adapts to the change, a new map is created that reunites the missing agents to the field.

What would be the result of a small area of space suddenly disappearing for a few moments? Is it not the same as space shrinking for an instant? Of course, once the missing agents are restored to the field, space would expand again to make room for them.

However, if there is a continual stream of wave collapses, there will be a continual supply of holes in the field. And we know energy exchanges are happening all the time, because as John Bell asked above (quoted from Bowman, 2008): “are we not obliged to admit that more or less ‘measurement-like’ processes are going on more or less all the time more or less everywhere?” (p. 31). If this is true, it should create a continuing gradient in the field of space.

Can this be the cause of the curvature that quantum gravity is looking for?

If this principle is right, all particles should be affected equally by the movement of the field of space as it continually flows in to fill the holes. The mass of a particle should not matter. Every particle belongs to the field of space, so they should all follow curvatures in space. Even massless photons should be pulled along by the movement of space to fill the holes.

Where would gravity be the strongest, according to this theory? Where more energetic exchanges are present. All particles should be pulled along for the ride. This means that the mass and energy of those particles will be pulled in as well. Large planets and stars will continue to exert a stronger curvature on the field of space compared to the relatively empty space that surrounds them.

Of course, this idea is highly speculative. However, it does offer an intuitive explanation for why inertia and the force of gravity are equivalent, as Einstein proposed. Inertia is the result of particles being weakly tied to the field of space. This is what keeps them moving along. And gravity is what happens when particles are pulled along to follow the field. These are indeed equivalent.

This raises a number of questions. Here is one: If this happens to the field of space, then should we not see the same thing happening to the EM field? The answer is yes. But, the same charged particles that will disappear off the map of the EM field, when they are disturbed by an EM exchange of energy, should also disappear off the map of space as well. Thus, the EM field curvature will exactly match the curvature of space. This shows us why the EM field acts as if it is background-*dependent*.

This leads to a possible insight into what is called the "hierarchy problem," which asks why gravity is so much weaker than all of the other forces, and why gravity acts as if it operates on a lower level of a hierarchy? We now have a possible answer: Gravity is caused by the "peer pressure" of third-person relationships that are weak because they are impersonal. This is the force that nudges all particles to follow the *background* of space. It is a "static" quantum state influence. The EM force, on the other hand, does not even notice changes in the background, because the EM force is all about highly dynamic second-person relationships that must be strong enough to alter the field of space. This means that the EM force is made up of exchanges of energy, while gravity is not.

Here is another question: If gravity works this way with quanta, then should we not see the same gravitational effect at the level of living organisms? The answer is yes. Here is an example: What happens when there is a major disaster, such as a hurricane, earthquake, or terrorist attack? It creates a severe jolt to the fabric of society. This is no surprise. However, the response is always amazing to watch, because the disruption pulls communities together. People quickly move to help each other, to restore and strengthen the bonds that hold them together.

Another example is when there is a death, birth, or marriage, in a family. These are sudden major changes. A death is a discontinuous loss. Birth and marriage are discontinuous gains. And, in all these cases, family members feel the need to regroup, to welcome new members and acknowledge losses. They are pulled together to reinforce and adapt to sudden changes in the family.

This is of course a speculative theory, but it also turns out to be consistent with recent theories that suggest gravity may be an "emergent entropic force" caused by entropy density (Verlinde, 2011, Padmanabhan, 2011, and Padmanabhan, 2012). What I am proposing is consistent with those theories because entropy density is a good description of the degrees of freedom of all the particles in an area. And, when there is a loss of a region of space, the particles in that area will take their degrees of freedom with them. This creates a decrease in entropy density. So, entropy density is not the cause, but it is directly related to losses in the field of space. (I discuss this, along with many of the implications, in Marman, 2016, pp. 407-472).

To summarize, gravity resists being formulated as a quantum field theory because space is curved by abrupt first-person actions that disrupt fields. On the other hand, the dynamics of quantum states governed by wave functions are the result of second-person perception. All forces, except gravity, emerge from second-person exchanges. Every field is equally affected, but since they all follow the curvature of space, it looks as if they are dependent on the background of space.

4.9.2.10 Fewer Dimensions, Not More

It is now common to explore added dimensions, such as with super-symmetry and string theory, to uncover what is happening beneath the surface of reality, and to solve the problem of quantum gravity. The assumption behind all of this is that human beings can easily see and picture three spatial dimensions and one dimension for time, but we cannot see what is happening in higher dimensions directly. On the other hand, we can easily see what is happening in fewer dimensions, such as one or two dimensions of space, so there cannot be anything hiding there. Unfortunately, this assumption is only true when we look at dimensions through third-person lenses.

If the world evolves through sentience, then we need to consider perceptual dimensions. As soon as we do, we see that fewer dimensions *are* hidden to third-person lenses because outsiders cannot see first-person perceptions or the inner dynamics of second-person relationships. Therefore, the LoP Interpretation of QM suggests that not more dimensions, but fewer, need to be considered.

However, it is time to wrap up these speculations. With the above nine postulates, we are now ready to offer an explanation for why quantum formalism takes the form that it does.

5. Understanding Quantum Formalism

> The only consensual part of the [quantum] theory is a formal skeleton enabling one to calculate the probability of various experimental outcomes at any time, given the initial preparation. This formal skeleton is often complemented with bits and pieces of former pictures of the world borrowed from classical physics, but connected to one another in an unfamiliar and unruly way. A recurring complaint is that, as long as we are left without any truly coherent representation of the world and of its ‘ontological furniture’ compatible with the quantum formalism, we cannot claim that we truly ‘understand’ quantum mechanics. (Bitbol, 2010, pp. 54-55)

Why call this science quantum “mechanics” when there are no mechanical reactions – no cause-and-effect reactions at the quantum level? The reason is because there is one aspect of QM that is highly mechanical: quantum formalism itself. This is the mathematical process that physicists go through to determine statistical predictions. It has proven itself to be the single aspect of QM that physicists can depend on. No one has ever found a case where it has given a wrong answer. Therefore, the process of quantum formalism is seen as the true foundation of QM. And any new interpretation or theory must be tested by comparing it to the formalism.

This is why any formal interpretation of QM needs to explain what quantum formalism is trying to tell us. What does it mean? Why does the world work this way?

> Regarding its formal structure we could say that quantum mechanics seems to be a ‘finished theory.’ In terms of empirical adequacy, it provides outstanding results, its mathematical structure – developed in the first three decades of the 20th century by people like Werner Heisenberg, Pascual Jordan, Max Born, Erwin Schrödinger and Paul

> Dirac – seems able to provide until now the adequate modeling to any experiment we can think of. However, apart from its fantastic accuracy, even today its physical interpretation remains an open problem. In the standard formulation, quantum mechanics assigns a quantum mechanical state to a system, but 'the state' has a meaning only in terms of the outcomes of the measurements performed and not in terms of 'something' which one can coherently relate to physical reality. It is not at all clear, apart from measurement outcomes, what is the referent of this quantum state, in particular, and of the formal structure, in general. If we are to ask too many questions, problems start to pop up and simple answers seem doomed to inconsistency. (De Ronde, 2011, p. 9)

The Lenses of Perception Interpretation of Quantum Mechanics says that the reason it has been so hard to understand quantum formalism is because we have been trying to see it only through third-person lenses. There are no *observer-independent* quantum states. They do not exist. There is no valid *observer-independent* explanation for decoherence. As Smolin (2017) says, astrophysicists have come to the same conclusion about space: There is no *observer-independent* way of studying space or the universe. We can only study our universe from within the universe (pp. 17-26).

I believe this is what quantum formalism is trying to tell us: The foundation of reality is not built on a foundation of objective things and forces, but from dynamic relationships. Quantum states are relational, and this means we need a second-person lens to understand the "inner" dynamics between sentient agents.

We cannot understand organic life by studying it from the outside. As soon as we try to take an organism apart, we kill it. This is exactly the same message that quantum formalism tells us: The dynamic nature of quantum states comes from relationships that only exist between sentient agents.

If this interpretation is right, then everything that happens in QM relates to human relationships because we are sentient agents as well. This means that an intuitive understanding is possible that gives us a true and accurate description of quantum states and why they behave so strangely. As a result, the science of QM has a lot it can teach us about biology, sociology, and even psychology. Those sciences can also teach us valuable insights about QM as well.

Therefore, at a minimum, I need to show that the LoP Interpretation is consistent with quantum formalism. However, this seems like too low of a bar. What is really needed, as Rovelli said, is to show why the formalism takes the form that it does, from a set of basic postulates. But, there are quite a few questions raised by quantum formalism, as Matías Graffigna (2016) points out,

> [T]he primordial question should no longer be "how does nature decide the result of a measurement given a superposition?", but, rather, "what is a superposition and what can it do besides being actualized in a measurement?" It is not that the process of actualization through measurement were irrelevant or unimportant for QM, but it seems that some previous knowledge is necessary in order to tackle it. We do not yet fully understand what a superposition is, but we do have the formalism, and also the possibility of grounding this understanding in a different ontology from the one of classical Newtonian mechanics. (pp. 25-26)

Understanding what superpositions are is just one of the puzzle pieces we need to solve. There are many more questions embedded in the formalism that need to be answered.

There appear to be countless ways to present quantum formalism. They can all seem quite different at first. However, they eventually end up covering the same terrain. They just pick different places to start and take different paths to tie all the pieces together. I am going to follow an approach laid out by Albert (1992) because he focuses on what he calls the "algorithm," the mechanical process that gives quantum formalism the name of "mechanics." He says that "It pretty much all boils down to five principles" (p. 30). These principles represent the foundation of the formalism. However, a fair amount of added discussion is needed to understand these principles.

Following are the five principles, each summarized in my own words from Albert (1992, pp. 30-36), followed by explanations for why these principles are necessary elements of QM formalism:

5.1 Quantum States and Superpositions

> *Quantum states are represented by vectors called "state vectors." The state of every physical system is defined by a vector space that includes all of the possible states of the system, where each possible state corresponds to a vector and each vector has a length of 1 in that vector space. The vector space is complex (this means that both real and imaginary numbers are allowed). Each vector represents a quantum state, and all of the quantum states together represent the overall state of the system. Superpositions are represented by adding or subtracting state vectors using well-known vector math.*

From this first principle you can see the mechanical nature of quantum formalism. But to see how truly bewildering it is, we need to dig deeper. Bowman (2008) raises the questions to ask: What sort of information about a system do quantum states represent? Is all of the information about a system represented by its quantum states? And what exactly are quantum states? Then he explains that all of these questions are still unresolved after 80 years of debate (pp. 7-8).

However, there are quite a few things that physicists do know about quantum states. For example, they know that they are not the same as states in classical physics, where states represent the values of a system's properties, such as mass, electrical charge, momentum, location, etc. The trajectory of a system can be measured in classical physics, and, based on the forces acting on it, the future path of that system can be predicted with great accuracy (as long as it is a large object). Thus, a state in classical physics has numerical values that describes how fast the system is moving or the direction it is traveling, etc.

Quantum states, on the other hand, do not represent values. They represent functions. This means that quantum states cannot be represented by numbers because they are responsive states. The point is not that quantum states continually change, because states in classical physics also change. No, this is telling us that quantum states are dynamic functions. This is why they are often called wave functions, not waves.

To understand how abstract this idea of a quantum state is, look at how a force is represented by a vector in classical physics. The direction of the vector (where the arrow of the vector is aiming) represents the direction of the force. The magnitude of the force is represented by the length of the vector. This is easy to relate to. But what does a quantum state vector represent if it is a function?

Does the direction of a vector represent the direction of the function? No, not really, because it makes no sense to say that a function moves in a certain direction. Does the length of the vector represent the magnitude of the function? No, because in quantum formalism state vectors are assigned a length of 1.

This shows that quantum states are abstractions that are so far removed from classical states that they are not the same at all. Except for one thing:

Quantum states do contain essential information about every particle and system tested.

The problem is that this information is contained in a dynamic function and physicists do not know what a quantum state is. They cannot even agree on whether quantum states represent something real or if they are simply mathematical tools.

However, the postulates outlined in section 4 offer an explanation for what quantum states are and why we need to treat them the way we do in quantum formalism: Quantum states represent the inner dynamics of relationships between sentient agents. They are indeed dynamic functions.

The postulates also tell us that there are two different types of relationships: second-person and third-person. The inner dynamics of second-person relationships come from private shared perceptions that pass back and forth between those involved in personal relationships. Being private means that they are independent. Third-person relationships, however, are public and impersonal, which means that they are shared by every agent coupled to that field.

The first principle of quantum formalism, described above, is telling us that all of the relationships that a system is involved in have an influence on that system. This defines the state of that system.

All possibilities in second-person relationships act as superpositions because they all influence the system at the same time. And the reason you can assign all of these vectors a length of 1 is because second-person relationships are linearly independent of each other. This means that they influence each other, but only indirectly, because they are all vying to become actualized. However, only one possibility can be selected. As a result, only the phases between possibilities are important in determining actualized events. This is why adding and subtracting vectors offers an accurate way to represent the influence of superpositions, as long as the vectors are independent of each other.

It is easier to understand this if you think about the example I gave earlier: Imagine you have been given a new job offer, but the job requires moving to another country. This means that you might have to move away from the person you have been dating. This illustrates the influence of two *independent* relationships, where both weigh on you and your choices. Your job offer has no *direct* effect on your partner, except in how much that offer means to you. And your relationship with your partner has no *direct* effect on the job offer, except on how important your partner is to you.

If your partner wants to move with you to another country, then the phases between these two relationships add together. They complement each other. This option is easy to choose. But, if your partner has ties that hold him or her back from moving with you, then the phases between the two relationships subtract, forcing you to choose one or the other. Every relationship possibility that influences you and your partner adds to the complexity, and so does the timing. Thus, phases are a perfect way of representing how independent possibilities in relationships influence each other.

All second-person relationships are represented by complex vectors because they must have an imaginary dimension, according to the postulates I have presented. Mathematically, this dimension is represented by $\sqrt{-1}$, which shows that it is a private relationship and does not exist in the real world defined by third-person perception. Second-person relationships also need to include real dimensions if they are going to have an impact on the "world out there."

If you have a vector with a length of 1, and it is a complex vector (with both imaginary and real dimensions), then that vector will only have a length of 1 in real dimensions if it has no imaginary component. Therefore, as the influences of relationship possibilities evolve, we see the shadow of the line that falls on the real dimensions growing larger, and then shrinking, as the phases change. This shows how the phases of wave functions are represented by quantum formalism and why this math is a good way of representing the influence of the inner dynamics of relationships.

LoP theory says that third-person influences are different. They have no imaginary dimension. They are only real functions because they represent information that only belongs to the field of space. The field of space is our reference for everything that exists in the objective "real" world. This is why space always appears to be in the background, while all measurements and energetic events take place in the foreground.

This means that third-person relationships do not act as superpositions in relation to each other. This is what quantum formalism has been missing. And the reason this has been missed is because third-person relationships never offer possibilities that become actualized in measurements. They act only as "static" outside forces that have an inertial dampening effect on changes.

Quantum theory, as I said before, is *background-dependent*. This means that it cannot see changes to the field of space because it uses the background (the field of space) as its reference in every measurement. EM field effects, and particle fields, are accounted for in quantum formalism by using relativistic models, but this cannot account for what causes the field of space to curve. If LoP theory is valid, then Einstein was right that quantum theory is not complete. However, it becomes complete if we include the effects of first-person and second-person perception.

To summarize this first principle of quantum formalism: All of the quantum states of a system are the relationship possibilities influencing that system. However, this, alone, does not capture all of the information needed to determine the outcome. We must include first-person perception to explain the uncertainty and indeterminate nature of quantum states, the curvature of the field of space, and, as we will see below, the outcome of measurements.

However, looking only at the relationship possibilities, as this first principle of quantum formalism asks us to do, we can represent the state of any system by a vector space that is made up of all the relationship possibilities, with each second-person relationship needing a linearly independent imaginary dimension of its own, and where each vector has a length of 1. This describes exactly the special type of vector space that physicists use, called Hilbert space. Hilbert space is an *n*-dimensional vector space, where "*n*" represents each of the independent quantum states. Each independent state can be represented by dimensions that are orthogonal to each other, just like *x*, *y*, and *z* dimensions of 3-dimensional space are orthogonal, since quantum states are independent.

5.2 Observables: Measurable Properties

> *The measurable properties of a system, called "observables," are represented by linear operators that act on the vector space that is associated with the system. If a vector that represents a quantum state happens to be an "eigenvector" of an operator associated with a particular observable, and that eigenvector has an "eigenvalue" of "a," then the state is said to be an "eigenstate" of that observable. And, in this case, if a measurement is made, that state will have the value "a" for that observable.*

Once again, we see that this whole principle is a description of a mathematical process. It says that only some properties can be measured. Quantum states, for example, cannot be measured directly. But we can measure the location of a system or the momentum of a system.

In classical physics, we can obtain the momentum of an object by multiplying its mass times its velocity. Quantum states, however, do not have well-defined properties because they are functions. There is no way to determine the velocity of a quantum state because it is nothing more than a relationship possibility. The velocity of a relationship possibility does not even make sense.

Another problem with quantum mechanics is that we cannot measure both the momentum and the location of a quantum system at the same time because the momentum state and the location state are two different quantum states. This means that we need to use two very different relationships and two different types of equipment in order to measure them. This is represented mathematically by the use of two different mathematical "operators." Operators are mathematical functions.

Remember, a measurement, according to LoP theory (and the TI and RTI interpretations), requires an exchange of energy. And for this energy transaction to take place, both the emitter and absorber must both act in concert. This requires a second-person relationship between them, according to LoP theory.

This explains the meaning of this second principle. It is telling us that if a quantum state happens to be aligned with the measuring equipment, then that quantum state will be the state that defines the transaction. This means that the numerical value of that state will be the value that is measured.

For a quantum state to be "aligned" with the measuring equipment, it must be a vector that points in exactly the same direction (or the exact opposite direction) of the quantum state of the operator that represents the measuring equipment. This makes perfect sense because we already know that the emitter and absorber must have exactly the same wave function, except that the emitter wave function moves forward in time, while the absorber function moves backwards in time. Of course, they do not actually move through space-time, but the point here is that these two wave functions (quantum states) must be aligned exactly to couple together. This is what is needed to make the handshake that triggers the measurement event.

Whenever a quantum state is “aligned” with an operator that represents a specific observable (that represents the equipment used to measure that observable), then that quantum state is said to be an “eigenstate” of that observable. All that this is saying is that only a quantum state that has a vector that is aiming in exactly the same direction (or the exactly opposite direction) can be measured.

The reason this principle is important is because it tells us that when a quantum state is aligned with the measuring equipment, then if we make a measurement of a system, this aligned quantum state will dictate the value that we receive from our measurement. It also tells us that measurement affects the system. This is represented by the operator acting “on the vector space” of the system.

To picture what this means, imagine a two-slit experiment. The value measured will be indicated by the spot on the screen where the photon lands. This measurement result will be determined by the emitter-absorber relationship that becomes actualized. And that relationship can only become actualized if their wave functions are perfectly aligned with each other.

5.3 Wave Function Dynamics

> *Every quantum state changes and develops in a deterministic way, based on the forces and constraints acting on that state. There is a way to calculate what state that system will be in at a later time. The deterministic law that governs how a quantum state changes with time, for non-relativistic systems, is represented by the Schrödinger equation. Since every state vector must, by definition, be a vector of length one, and must remain a length of one as they change over time, the changes in state vectors dictated by the dynamical law are exclusively changes of direction, never of length. Thus, quantum states only change in a linear manner. This means that superposition states remain as superposition states, as they change over time.*

Note: Using the Schrödinger equation means that only non-relativistic quantum theory is involved. This means, first of all, that it only represents the emitter’s side of the story, not the absorber. And, secondly, it does not account for the creation and annihilation of quantum states.

What we see happening here is that quantum states evolve and change over time, but they do so only in a linear matter. This means that they never change suddenly and discontinuously. Since the creation and annihilation of quantum states are clearly cases of discontinuous change, the above description of how quantum states change is only valid when measurement is *not* involved.

Therefore, this principle of quantum formalism describes only the way quantum states change in “coherent” (unobserved) situations. In other words, relationship possibilities, by themselves, only *influence* other relationship possibilities through phase relationships (see 5.1). They cannot create discrete shifts or breaks. Thus, this process is not able to create a measurement transaction. Why is this process different from what happens during the process of measurement, which we will get to in principle 5, below? This is the question at the heart of “the measurement problem.”

As a result, this principle says that superposition states should never disappear. They should continue on forever. This is why we see the Many Worlds Interpretation, which suggests that each possibility becomes an actuality in a different universe. All of these problems go away with the LoP Interpretation (and with RTI – the Relativistic Transactional Interpretation as well).

It is also worth mentioning that the Schrödinger wave function describes quantum states as being spread out across space. The wave function represents statistical probabilities of where a system will be located over time. Remember, quantum particles jump around. They do not follow simple paths. The question remains, however, what is this “function” that is waving? Or is it purely a mathematical tool? This is a question that bothered physicist, John Bell, for most of his life:

> What is the Schrödinger wave function? The standard interpretation tells us that the wave function provides information about a quantum mechanical system, such as the probability that, when measured, “observables” have some particular value. But is this all we have – “information”? Isn't there something else behind the scenes? Bell used to conjecture that – while physicists, when they teach or even use the quantum theory, seem to accept the idea that all we have is information – in their heart of hearts they really believe that the wave function is not the whole story. The information contained in it refers to something else, something not revealed – a hidden reality. (as cited in Berkenstein, 2009, pp. 144-145)

The LoP Interpretation says that this hidden reality is composed of relationship possibilities. That is what the waves are made of. They change continually, just like waves, because they are shared states that evolve back and forth in dynamic ways between those involved. Quantum states (wave functions) spread across space because sentient agents are involved in relationships with other sentient agents. Quantum states are non-local because the dynamics of second-person relationships exist only between sentient agents, not in dimensions defined by the field of space.

This third principle stands as an important description of how relationship possibilities evolve over time when no measurement is taking place. And it fits perfectly with the LoP Interpretation.

5.4 Relationships with the Measuring Equipment and Born’s Rule

> *If a quantum state is not an “eigenstate” of the operator of an associated observable being measured (see 5.2 above), then, according to quantum mechanics, the outcome of such a measurement is a matter of probability. Born’s Rule stipulates that the probability of each measurement outcome will be the absolute square ($|a|^2$), if the value of that state is “a.” Also, any state that has a value of “-a” (which means the vector is pointing in exactly the opposite direction with the same length) will have precisely the same measurable outcome because $|a|^2 = |-a|^2$. Therefore, any vector with a value of “a” is considered precisely the same physical state as a vector with a value of “-a.” All measured values must be real numbers, and all eigenstate vectors of an observable must be orthogonal (at right angles) to each other.*

In 5.2, we saw what happens when a quantum state is already in a relationship alignment with the measuring equipment before the measurement takes place. The quantum state is then said to be an eigenstate of the operator (the operator represents the measuring equipment and the observable being measured). This is generally not the case in most experiments, unless the same measurement was performed shortly before.

This raises an interesting question: If no measurement was made previously, is there any way of knowing if a quantum state is an eigenstate of an operator, based on the results of the experiment? The answer is no. Therefore, the case sited in 5.2 only applies to repeated experiments – when the same measurement is run immediately after it had just been run (before the quantum state has been influenced by other forces or other measurements).

This fourth principle of quantum formalism applies to all other cases. This principle simply states that we must use Born's Rule (square the absolute value of the value of a quantum state), to find the probability that a state will become the actualized result of the measurement. Born's Rule is stated as a postulate, but, as we have already seen, the reason for squaring the value is because the emitter "offer" wave and the absorber "confirmation" wave must both be perfectly aligned in order to couple together. This is why we need to multiply them.

The square must be of the "absolute" value because these values are complex numbers. Remember, they can only be real numbers if they are fully aligned with the field of space. Only third-person relationship "confirmation waves" are aligned with the third-person field of space because they have no imaginary dimensions, according to the LoP model (see section 4.9.2.6). However, only second-person relationships are able to create measurement events. Second-person relationships always have an imaginary dimension because their inner dynamics are not visible to third-person lenses. If you square an imaginary number, you get a negative number. Using the "absolute" value means treating negative numbers as positive. In other words, it is the length of the vector that matters, not its direction, because probabilities must always be positive numbers.

This tells us that the "value" of a quantum state is directly related to the likelihood of it becoming actualized. According to LoP postulates, this value represents the "level of interest" for that relationship possibility shared by the sentient agents involved. This makes sense because the level of interest is directly related to the choices made by sentient agents. And, just as with probabilities, level of interest is always a positive factor. This is true even when agents find themselves opposed to each other – their level of opposition is still a positive factor. This is why some people become so obsessed with beating their adversaries that they forget about their family and friends.

This principle also says that any quantum state with a value of a is the same quantum state if it has a value of $-a$. This makes sense because when we use the relativistic model that includes both the story of the emitter and the absorber, we see that relationships and handshakes are only possible when both are exactly the same wave function, except one appears to move forward in time while the other moves backward. This means the two vectors are pointing in opposite directions. Thus, every second-person quantum state has a matching opposite state, because both are necessary to create a shared state.

This principle then says that all measured values must be real numbers. This is exactly how it must be, according to the LoP postulates, because all measurements are the result of a wave collapse, and a wave collapse is nothing more than an exchange of energy and momentum that changes a third-person field. All changes to third-person fields must be represented by real numbers because third-person fields are objective realities that act as our reference for real numbers.

The last point raised by this fourth principle is that all eigenstate vectors of an operator associated with an observable must be at right angles to each other. The reason for this is simple: because they are independent of each other. As Bowman says (2008): “Orthogonality implies linear independence” (p. 38). These quantum states must be independent because they represent second-person relationship possibilities. Such possibilities exist only between the agents in a relationship.

5.5 Wave Function Collapse

> *Measuring an observable changes the state vector of a system being tested, collapsing it, or making it jump from whatever state it was in before into an eigenvector of the measured observable operator. Which eigenvector is selected is determined by the probabilities outlined in the fourth principle (5.4) above. It is at this point, and no other point than this, that an element of pure chance enters into the evolution of the state vector. Once a measurement is carried out, the state of the measured system must guarantee that if that measurement is repeated immediately afterwards, the same result will be obtained.*

We now come to the act of measurement itself. This does not just apply to experiments with human observers. This principle applies to every exchange of energy – to every actualized event.

This last principle of quantum formalism tells us that the overall state of the system, which means all of the relationship possibilities that are influencing it from all of its relationships, goes through a discontinuous change when it is measured. This is sometimes called a quantum leap, because it suddenly leaps into a new state.

As we saw in 5.3, this process cannot be the result of the wave dynamics that govern the evolution of quantum states. This is the second missing puzzle piece in quantum formalism, because it cannot account for why the measurement process is different.

The Copenhagen Interpretation of quantum mechanics, which is the most widely accepted, says that this is a reflection of the statistical nature of reality. In other words, the reason one quantum state is selected over all the other possible states is based purely on its probability. This is the point that Einstein refused to accept. Einstein has been criticized over his comment that “God does not play with dice,” because many physicists think that he was simply unable to give up the old idea of classical physics. But that was not his objection. Here are Einstein’s actual words:

> Quantum mechanics is certainly imposing. But an inner voice tells me that it is not yet the real thing. The theory says a lot, but does not really bring us any closer to the secret of the ‘old one’. I, at any rate, am convinced that He is not playing at dice. (as cited in Born, M., 1971, p. 91)

If you cannot explain how a possibility is selected, then saying that quantum formalism is telling us that we live in a probabilistic world is meaningless. This is the point that I think Einstein was getting at. Quantum formalism does not tell us why probabilities govern the result of measurements in a statistical manner because the process that selects the outcome is hidden from third-person eyes. And if scientific equipment cannot see what is happening, then quantum formalism, which is nothing more than a formalism based on measurement results, tells us nothing about why or even how outcomes follow probabilistic laws.

The LoP Interpretation offers an intuitive answer: The possibilities of quantum states represent the influences of relationship possibilities. Which couples end up getting married? Clearly, those with the strongest level of interest in each other. But this is not always the case. Families have an influence. Some people meet and suddenly just decide to tie the knot on the spur of the moment. It is often surprising to see who decides to get married. Yes, statistically we can say that it follows their level of interest, but the fact is that we cannot know who one person will marry, or if they will marry at all. We cannot know because relationships are not simply the result of probabilities. Relationship possibilities are far more complex in the way they evolve.

Nonetheless, it is absolutely true that the moment a person marries all the other possible marriage opportunities vanish. Those possibilities disappear. Our lives *do* change when we get married. Our lives then suddenly start evolving and changing based on completely new possibilities. Thus, what this principle of quantum formalism is describing follows the LoP postulates perfectly.

The last point made in this principle of quantum formalism is that immediately after a measurement is made, if you measure the system again, you will get the same result. This also makes sense, because in the moment when an event becomes actualized, all of the other possibilities vanish. Over time, new possibilities will begin to emerge, but when you first find yourself in a new world, it takes time to get to know how to respond to that world.

The same is true with every major change of state. If you graduate from high school or college, or you join the military (whether by your choice or the government's choice), or retire, or when you go through puberty as a teenager, many of the possibilities in your life change at the same time. But it takes a while to see what this means. It takes time to relate to your new world.

This is why, after you measure a system, if you make the same measurement again, before it has a chance to evolve, you will find the same outcome. The reason for this is exactly what many physicists have said: It is because the superpositions have collapsed down to one actuality. The other relationship possibilities have disappeared, as they should if they are nothing more than possibilities.

This explains quantum formalism in an intuitive way, which is something that many have claimed is impossible. In fact, I believe it is clear that the postulates outlined in section 4 explain why quantum formalism takes the form that it does.

This, however, only brings us to the beginning. None of this is a conclusion or a proof. It only brings us to a starting point, where we have a new interpretation worth exploring. It needs further testing. It raises countless new questions. The implications are significant.

Fortunately, there are many ways to test this theory. It is not lacking in testability, as some other interpretations are. This will be explored briefly in the following section.

6. Challenges, Implications, and Opportunities for Testing

"The task is, not so much to see what no one has yet seen; but to think what nobody has yet thought, about that which everybody sees." This quote is often attributed to Erwin Schrödinger, but it was actually from the pen of Arthur Schopenhauer (as cited in O'Toole, 2015). After this quote, Schopenhauer continued by adding this: "For this reason, it takes much more to be a philosopher than a physicist."

When it comes to the interpretation of quantum mechanics, I would say that Schopenhauer is not quite right. The problem is not how to think about QM, but how to see it working in our everyday lives. As I said in another article, until we can do this, the revolution of QM will not be complete (Marman, 2016, April).

In order to see how quantum interactions work, we must add first-person and second-person lenses to the traditional third-person lens used in science. Each lens requires a different way of seeing, a challenge that is well-known to psychologists. Thus, in a strange way, to fully comprehend QM, if the LoP Interpretation is correct, we need to bring philosophy, physics, and psychology back together again. I say *again* because "natural philosopher" was the name for a scientist in Isaac Newton's day.

Trying to *think* about the problems of QM, in order to solve them, has obscured our way of seeing, because thinking "about" things uses third-person lenses. It starts with an assumption that we can solve these problems by looking at them from the outside. We cannot, because outsiders cannot see quantum states. Only those *involved* see the influence of relationship possibilities. Relationship dynamics are behind everything that happens in our daily lives and everything that happens in the universe. But we can only see this at the level of personal interactions. This is the quantum level.

The need to use added lenses is both the biggest opportunity for the LoP Interpretation and its biggest challenge, because learning to see through new lenses is not easy. To learn a new lens, we must set aside our normal way of looking at the world. It can feel confusing and uncomfortable switching to a new lens that is not familiar. It takes time for our unconscious to "catch it," but when it does, suddenly everything comes into focus, as we see clearly what the lens is showing us.

There are, however, quite a few other challenges. Too many to cover in this paper. For the last seven years, I have been looking for anything that might invalidate the LoP theory. I have studied physics, biology, psychology, neuroscience, and even some philosophy. I have found nothing that invalidates the premise of this paper. However, the following are the biggest challenges I have run across. They show where further research is needed and the opportunities they represent.

6.1 Hidden Variable Theories

When Einstein first began to question the implications of quantum entanglement, he wondered if there could be local hidden variables acting within entangled particles that caused them to behave as they did. The reason Einstein proposed this was because he could not see "action at a distance" as a possibility. No physical changes should be able to occur instantaneously across space.

In 1964, the physicist, John Bell, described an experiment that could determine whether it is possible for local hidden variables to produce the results of quantum entanglement.

Between 1981, when the first convincing test of Bell's Theorem was run, and 2015, when a test that closed all of the loopholes was completed, the results have shown convincingly that entanglement is a non-local phenomenon. These experiments have also been accepted as proof that local hidden variables cannot account for the behavior of quantum entanglement.

Since the LoP theory proposes that something within particles causes them to become entangled, the question can be raised: Is this simply a different type of local hidden variable theory? This is a good question, but the answer is no, for two reasons.

First, the postulates of perception show us that what happens within each particle is not enough to explain entanglement. In other words, first-person perception alone does not solve the problem. We need relationships to develop between particles. The dynamics of relationships do not exist in any one partner. They exist between partners. This means relationship dynamics are, by definition, non-local. In fact, this shows us the underlying reason why entanglement *is* non-local.

Second, the term "variable" has a specific meaning. It refers to a mechanism – a deterministic principle – that governs the outcome. This clearly is not what happens in relationships. There is no way to call relationships between sentient agents deterministic or mechanical. We never know exactly how they will turn out. Thus, the term "variable" does not apply either.

Physicists have taken the discussion about hidden variables in another direction, toward the question of realism. This is where it gets interesting. The current argument, as Gröblacher (2007) explains, is that the principle of realism is obeyed only if "external reality exists independent of observation" (p. 1).

Simon Gröblacher and his partners (2007) go on to show further that a broad class of *non-local* hidden variable theories fail to explain the results of quantum mechanics, as long as they hold onto traditional principles of realism.

> Most working scientists hold fast to the concept of 'realism' – a viewpoint according to which an external reality exists independent of observation. But quantum physics has shattered some of our cornerstone beliefs…. Here we show by both theory and experiment that a broad and rather reasonable class of such non-local realistic theories is incompatible with experimentally observable quantum correlations…. Our result suggests that giving up the concept of locality is not sufficient to be consistent with quantum experiments, unless certain intuitive features of realism are abandoned. (p. 1)

The point they make is that whether QM is local or non-local is less important. It is the principle of realism that matters the most. It is realism that is being put in doubt. They conclude their paper saying that any non-local extension of quantum theory, if it is right,

> has to be highly counterintuitive. For example,…consider the breakdown of other assumptions that are implicit in our reasoning.... These include Aristotelian logic, counterfactual definiteness, absence of actions into the past or a world that is not completely deterministic. We believe that our results lend strong support to the view that

> any future extension of quantum theory that is in agreement with experiments must abandon certain features of realistic descriptions. (p. 7)

This paper illustrates how deeply strange quantum states are and how far they take us from the traditional idea of realism. However, the results of the experiments described by the paper do not cast doubt on realism. They only cast doubt on the third-person idea of realism. It is our idea of what is real that needs to change.

The results of this paper, along with all the other tests of Bell's Theorem, are consistent with the LoP Interpretation (and with Kastner's RTI model as well). The problem with realism disappears once quantum states are seen as relationship possibilities. It is then valid to say that relationship possibilities *are* real because they *do* exist independent of observation by outsiders. However, they do not exist in space-time. They exist only between the sentient agents involved.

Let's go through the list of realism features that the above paper says we must abandon. I have already shown that relationship possibilities defy Aristotelian logic in section 4.6, such as the Principle of Non-Contradiction and the Law of the Excluded Middle.

Now look at the next principle mentioned above: "counterfactual definiteness." This means that if something is real, it must exist even when it is not being measured. Is this true for quantum states? Yes, because they *do* exist, but not in space-time. This is exactly what it means to "take Heisenberg's potentia seriously." Relationship possibilities *do* exist, and they *do* affect us.

The next principle of realism that the paper says we must abandon is "absence of actions into the past," meaning that it should not be possible for us to influence the past from the future. I have shown how this is exactly what *appears* to happen in delayed quantum eraser experiments (see section 4.9.2.4). However, this illusion is easily explained once we realize that entanglement is a shared quantum state that exists outside of space-time. Therefore, there is no causation backwards in time. In fact, this has nothing to do with causation or "action" at a distance because it is only the quantum wave functions that are changing. Einstein was right: All true action – all exchanges of energy – must be local because they are space-time events, as we saw in section 4.9.

Lastly, the paper says that we must give up on a "world that is not completely deterministic." Many physicists are still not willing to accept this. However, when it comes to relationship possibilities, it is clear that they are *not* deterministic. We know this from our own day-to-day lives.

Therefore, we can state unequivocally that quantum states are "real" because they *do* exist independent of outside observation. Thus, realism survives. It only seems counterintuitive if we keep trying to look at the world *only* through third-person lenses. The moment you put on a pair of second-person goggles and look at quantum states as relationships, then quantum behavior makes perfect sense. Thus, Einstein's intuition was correct.

We know that relationship possibilities play significant roles in our lives. People who use third-person lenses to judge relationships based only on what they are now and refuse to consider the possibilities of what they can become are sentencing those relationships to death. Possibilities give our relationships life. Thus, there is no reason to cast doubt on the realism of quantum states.

6.2 The Combination Problem of Panpsychism

I will let the philosopher of consciousness, David Chalmers (2017), outline the problem here. It should be easy to see that this represents a serious challenge for the LoP Interpretation:

> Panpsychism, the view that fundamental physical entities have conscious experiences, is an exciting and promising view for addressing the mind–body problem. I have argued in “Panpsychism and Panprotopsychism” that it promises to share the advantages of both materialism and dualism and the disadvantages of neither. In particular, it can respect both the epistemological intuitions that motivate dualism and the causal intuitions that motivate physicalism.
>
> Nevertheless, panpsychism is subject to a major challenge: the combination problem. This is roughly the question: how do the experiences of fundamental physical entities such as quarks and photons combine to yield the familiar sort of human conscious experience that we know and love. (p. 1)

Chalmers breaks the combination problem down into three parts, based on three different aspects of conscious experience: First, the subjective nature of conscious experience because it belongs to a subject – the one who is having the experience. Second, the qualitative nature of conscious experience because experiences are composed of subjective qualities that combine together. Third, the structural nature of conscious experience because our experiences of the world have a complex materialistic structure that seems inconsistent with our subjective perception. Here is a summary of the three combination problems, in my words, from Chalmers’ paper (pp. 4-6):

1. **The Subject Combination Problem:** How do micro-subjects, such as sentient quarks and photons that have conscious experiences (which means that they are subjects) combine to make macro-subjects, such as cells and living organisms, which are also sentient?

2. **The Quality Combination Problem:** How do micro-qualities, such as the experiential quality of redness, that we feel when seeing something red, form macro-qualities, such as when many micro-qualities come together to create our singular experience of a sunset?

3. **The Structure Combination Problem:** How do micro-experiential structures and micro-physical structures combine to create macro-experiential structures? For example, why does the macro-physical structure that we call a “brain” seem completely different from our experience of having a brain?

Chalmers adds an important note about these three problems. He writes:

> It is common for a proposed solution to the combination problem to address only one of these problems: most often the subject combination problem and occasionally the quality combination problem. It should be stressed that a satisfactory solution to the combination problem must address all of these problems. This raises the bar for a solution, as it is far from clear that any single proposal can solve all the problems at once. (p. 6)

The LoP Interpretation is able to offer a solution to all three of the combination problems. That is good news. And it leads to a simple, intuitive way of putting the three combination problems in perspective, which is also good news. For example, the LoP theory suggests that problem 1, the subject combination problem, is about first-person perception and the *impossibility* of combining first-person perception. Problem 2, the quality combination problem, on the other hand, is centered on the nature of second-person experiences and how they *do* combine. And problem 3, the structure combination problem, is about how third-person perceptions combine and why they are different.

This need for all three of the fundamental lenses of perception suggests that the LoP Interpretation is well-suited to understanding the combination problems of panpsychism. However, in order to resolve the underlying issue of problem 1, the postulates of section 4 lead to a truly surprising solution that goes against common wisdom. This presents us with another major way to test the validity of the LoP postulates. This is a significant challenge facing the LoP Interpretation. Let's take a look.

6.2.1 The Nested Structure of Living Creatures

Let me begin by describing how the underlying issue of problem 1 hit me, some five or six years before Chalmers published his paper. I had already worked out the nine postulates of section 4. However, as I was studying the way these principles apply to living organisms, I noticed something important was missing.

The postulates listed in section 4 describe two fundamental types of relationships: second-person and third-person. The problem is that neither of them seem capable of creating the nested quality that we see everywhere in nature. This struck me when looking at the biology of the human body. We see cells working together so closely that they act as one functioning body. At the same time, within each cell, we see molecules and genes working together to keep each cell alive, so that cells are able to act as sentient agents.

As I have shown in section 4.9, second-person relationships are not always equal, because energy flows from a higher potential to a lower potential to create a wave collapse. We see the same thing with dance partners. They work best when one starts off leading and the other follows. However, as partners get to know each other, the gap between leading and following tends to become fluid and often shifts back and forth. What matters is that the back-and-forth alignment continues, as partners move with each other in a responsive way. This is where wave functions come from. However, I could see no way for nestedness to arise from these one-on-one relationships.

Third-person relationships create backgrounds, such as societies or cultures. They create a sense of what is normal in a way that applies pressure on agents who go against the norm. Thus, I could not see how third-person relationships could ever create the nested nature of living organisms.

It is possible, of course, that this nested quality that we see in biological organisms might only be a macro-level property. It might have nothing to do with quantum principles. After all, creatures have far more degrees of freedom than quanta, so it might not even be possible at the level of fundamental particles. However, if the LoP theory is valid, it should offer some explanation for how nestedness emerges. So, I went back to the postulates of perception. Is this something new, or can it be explained with LoP postulates? The answer was simpler than I expected.

As I looked closer at multicellular organisms and asked myself why cells work for an organism, I began to see that cells truly dedicate their lives to something larger than themselves, and they work so closely together that they act as one body. Considering this from a cell's point of view, I noticed that each cell seems to be entangled with the organism it belongs to. And animals and plants also depend completely on their cells to live. Organisms act as if they are inseparable from their bodies. Equally, the fate of their cells depends on the survival of their host. This struck me. It looked like a shared quantum state of some kind between sentient agents in a nested structure.

With second-person relationships, a shared state is formed when two agents perceive that they share an interest in each other and they both reinforce it. Is it possible that all the cells in our bodies share a common interest together?

According to the postulates of section 4, second-person relationships between cells are not enough to form bodies, they will only lead to attraction or repulsion between pairs, and exchanges of energy, as we see with electromagnetism. That is when it hit me; nesting is something different. Cells in an animal's body are not just involved in relationships with each other. They are also entangled with the animal itself. In other words, each cell forms a one-on-one relationship with the "being" who inhabits the body. That appears to describe what is happening. Can this be right?

It turns out that this is fully consistent with the postulates in section 4. For example, first-person perception always belongs to someone. This means that the first-person perception of the organism cannot be created by the cells. Secondly, entanglement is only possible between sentient agents.

As soon as I realized this, I saw something else: The distinction between the cells and the "being" who inhabits the body is black and white, because the cells of the body and the sentient agent who inhabits the body work at two different levels in the nest. This distinction is as black and white as photons in a spin-up or spin-down state, or electrons leaping from one energy shell to another in an atom. LoP postulates say that this black-and-white distinction should maximize the strength of their entanglement.

Differences between the cells in multicellular organisms, on the other hand, are not distinct because they are clones of each other. Their differences are grey, especially when embryos first start to develop. However, the being who inhabits a body works at a higher level than the cells. This should make the bond maximally strong. And this bond should significantly increase the entanglement between the cells as well, because the cells share this quantum state together with the being who inhabits the body. This does seem to describe why cells work as a unit for the sake of an organism.

I call this an "all-for-one" relationship, after the famous quote from The Three Musketeers who worked as a team for the sake of king and country: "All-for-one and one-for-all." This is clearly something that we experience as human beings when we join teams working for a higher purpose. We feel the added sense of empowerment that comes from working for a shared goal, especially when the goal is meaningful. This is indeed a different bond than one-on-one relationships.

However, this is where the Combination Problem raises its head, because the Three Musketeers did *not* create a new living entity by working together. Yes, the king does work at a different level in a hierarchy, so we do see some of the same traits of nestedness here, but the king is just another human being, and a “country” is not a sentient being.

When I looked closer at the details about how the postulates of perception apply, it became clear that, if this all-for-one relationship does exist as a quantum state, then we should see two types of all-for-one relationships: A strong bond should exist when the outer level of a nest is a sentient agent. And a key characteristic of this strong bond is that when the outer agent dies, so does its body. The cells cannot hold together for long after their shared purpose disappears.

A weak type of all-for-one relationship, on the other hand, should emerge when one sentient agent steps forward to lead a group. This bond is weaker because the only distinction between that one sentient agent and the others is that it is acting as a leader. This should never create a state of full entanglement because other agents can easily step forward to take over as leader. However, this weak bond plays a role that is just as important: It creates organizational structures that can survive for generations – longer than the lifetimes of any of the agents themselves.

Biologists do indeed see both of these types of nestedness in nature. This is a good sign. But, if this is truly a shared quantum state, then we must see the same pattern of behavior at the level of quanta as well. This is where the added constraints of the LoP Interpretation kick in. If all-for-one relationships are formed by a combination of second-person relationships at the organism level, then we should be able to find the same thing happening at the level of fundamental particles.

We do. The “strong force” of physics is activated when three quarks work so closely together as a group that they act as a single entity. This is how protons and neutrons are created. Protons and neutrons also bond together through the strong force to form the nuclei of atoms. We see this same trait of nesting at the quantum level.

This was my first test of this new conjecture about all-for-one relationships. I then studied the problem closer and was surprised to see how well it describes the “strong force.” The Standard Model of Particle Physics uses quantum field theory to explain how the strong force works. This is a relativistic model, which means that the strong force arises when virtual quanta are exchanged between particles, as we saw previously with the EM force (see section 4.9.1). In the case of the strong force, however, three quarks join together to trigger the strong force reaction.

All three quarks must come together at the same time. And each quark must carry a different “color” charge, and all three color charges must complement each other in a precise way that activates the bond. These “color” charges have nothing to do with visual colors. In fact, they cannot be seen or detected directly. The three charges are named “red,” “green,” and “blue” because, when you combine red, green, and blue light, they make white. In other words, “color charges” are only used to symbolize the invisible exchange between quarks and how all three need to come together to activate the strong force.

The moment the strong force activates, a new “baryon” particle is created, such as a proton or a neutron. And, because protons and neutrons both clearly act as if they are individual agents, we know that this is a *strong* all-for-one relationship. However, this gives us a truly bizarre way of looking at protons and neutrons because it suggests that sentient agents inhabit the bodies of protons and neutrons, just like we, as human beings, inhabit our bodies. Is this possible?

To pass this test, I needed to make sure that it aligns with all of the known properties of protons and neutrons. And the principles of the strong force must equally apply to organisms as well. This is a high bar. As far as I can see, it passes this bar. Let's take a brief look.

The fact that each quark must have a distinctly different charge makes sense because this enables strong entanglement between the quarks. This reveals an interesting aspect of all-for-one bonds that I did not notice at first with organisms. However, it explains why cells naturally differentiate and specialize from each other when an embryo develops – it makes the all-for-one bond stronger because it makes the entanglement between them stronger. In other words, diversity plays an important role in creating stronger teams. A team is more effective when each individual takes on a specialized role and those roles complement each other. This is the same way that color charges act with the strong force.

According to quantum field theory and Kastner's RTI model, three one-on-one relationships form between the quarks. For example, if the quarks are named A, B, and C, then the three relationships are: A-B, A-C, and B-C. And, between each of these pairs, "gluons" are emitted and absorbed. Gluons are force carriers for the strong force, just like photons are carriers of the EM force. So we see similar relationships to emitters and absorbers in electromagnetism, where virtual photons are emitted and absorbed, creating attraction or repulsion. However, with the strong force, a far more powerful attractive force emerges, but only when all three quarks align with each other in a shared state. Then, not only do the three quarks form attractions with each other, but so do the red, green, and blue gluons. This truly describes an "all-for-one and one-for-all" state. Remember, the strong force does not exist before it activates, and it only activates when three quarks unite.

The only thing that is missing, according to LoP theory, is the sentient agent who inhabits the proton. This should be no surprise because sentient agents are not visible to outsiders. We only see their bodies, not the agents themselves. The only visible evidence of sentient agents comes from seeing how they act as responsive individuals. This is an indication that internal agents are present. The fact that protons and neutrons act as singular particles is consistent with this. Indeed, protons and neutrons act as distinct individual particles in all of their interactions with other particles.

This describes a remarkable similarity between living organisms and quantum relationships. We can add it to the list that I started in section 1. However, this similarity may be the most surprising of all. The way quarks form protons and neutrons, and the way those protons and neutrons form atoms, displays the same property of nesting that we see between life forms in nature. And this also explains how communities, families, countries, and companies are formed, when people work together for common goals.

However, if our model is going to survive, it needs to pass a second test as well: We must see *weak* forms of all-for-one relationships at the quantum level as well. We do. This is truly surprising.

The exact same combination of quarks and gluons that create a proton (two "up" quarks, one "down" quark, one "red" gluon, one "green" gluon, and one "blue" gluon), combine to create another particle as well: the "delta+" particle. And the bond that holds the delta+ particle together is exactly what we would expect – extremely weak – because there is no sentient agent inhabiting the particle. One of the quarks simply steps forward to act as the leader. While the lifetime of a proton is so long that it has not yet been measured, delta+ particles quickly fall apart. They decay in less than a millionth of a second. Measurements show that the binding force holding the quarks together in delta+ particles is much weaker than in protons.

This is of course a speculative proposal, but the remarkable resemblance here between quanta and living organisms, once again, is breathtaking. More testing is clearly needed, especially because the Standard Model of Particle Physics says that the strong force cannot extend beyond the nucleus of atoms. This idea that the strong force could be involved in the relationship between organisms and their cells goes completely against common wisdom. Fortunately, this speculative theory leads to a number of surprising predictions that are confirmed by evidence, as I explain in my book (2016, pp. 248-270), and as we will see in some examples below. This adds more weight. But more validation and scrutiny is clearly needed for something this controversial.

Comparing protons to a living cell seems outrageous, until we see the remarkable similarities. For example, the biggest mystery about living cells is what makes them alive. How do all those highly *specialized* and different molecules keep the flow of energy moving within the cell? Biologists have not solved this problem. However, the energy that comes from quarks working together is quite similar.

In fact, the energy produced by the strong force in protons is so strong that it gives protons one hundred times more mass. In other words, if you add the mass of all the particles together inside the proton, they only add up to one percent of the mass of the proton. The rest of the mass comes from the energy that moves the quarks to spin as one unit, and the binding energy that pulls the quarks together.

The fact that quarks in a proton spin as one is another unsolved problem of physics. It is called the "proton spin crisis" (see Jaffe, 1995, and Hetherton, 2015). Yet, this flow of energy never stops inside of a proton, as long as that proton survives. This is similar to the flow of energy in cells.

I am now writing a paper, with the help of biologist Alan Rayner to explain in more detail how energy keeps flowing in cells. The nesting relationship between quarks and protons offers a bridge between the formation of atoms and the formation of cells that may also explain how the first cells emerged. This gives us a possible new way of looking at what it is that makes organisms alive and how cellular life began.

After seeing how well all-for-one relationships seem to describe behaviors at the quantum level and the level of organisms, I believe these relationships offer a viable solution to the first of the three combination problems. It does not tell us where "beings" come from when they are born into a body, or where they go when they die, but those are not new questions. However, it does tell us that the first-person perception of an organism is not made from a combination of cells. Sentient agents are not created from relationships any more than consciousness is created by the interactions of neurons. The opposite appears to be true: Sentient agents are needed *first* to create dynamic relationships.

Actually, the LoP theory can offer a scientific explanation of sorts for where sentient agents come from when "born" into a body: They come from the same place that virtual photons come from before crossing over to become real photons. They come from that same reality where first-person perception exists, even though it cannot be seen by outsiders. They come from the same place as the "imaginary" mathematical dimension where quantum states exist independent of observation.

The fact is that beings are always invisible because outsiders cannot see first-person perception. We only see sentient agents by their responsiveness – by what they *do* with matter and energy. We never see the agents themselves. This is why I said above that the subject combination problem is all about first-person perception. All-for-one relationships play crucial roles, but they are, after all, simply another type of relationship that sentient agents naturally form with each other.

6.2.2 The Unconscious Formation of New Lenses of Perception

The quality combination problem is about the way we unconsciously form new ways of relating. This describes what happens when we form new working lenses of perception.

I gave examples of this in section 3.3.2, when a child learns to walk on their hands or skate on ice. The child learns by trial and error until they finally get the hang of it. That is how they learn a new working lens of perception. As a result, they can walk on their hands without being able to explain how they do it. This is because learning a new skill is an unconscious process.

Babies learn to walk and talk through the same unconscious process, and how to distinguish their body from the rest of the world. One day they simply know how to do these things. Countless feelings and sensations come together to form a single meaningful way of relating to their body. This is how babies "get to know" their bodies. It is the same way we get to know another person by forming a relationship with them. We get to know them unconsciously by doing things together, talking with them, and laughing at each other's jokes. This is how we learn through experience.

This describes the unconscious process we go through to learn how to relate to others. We use the same approach in learning how to relate to situations and environments. And we need to learn a new working lens for how to raise children. This explains why we act and feel different when we are with our children compared to how we feel and act at work, or how we feel and act at a concert surrounded by hundreds of people we do not know.

Each situation brings countless feelings and sensations together into a singular experience because we have a working lens that shows us how everything fits together. We get to know those situations like a friend. This is what it means to form a new lens. We automatically and unconsciously switch lenses when we leave our family in the morning and go to work. We switch gears because each situation needs a different way of relating. Our personality and sense of self actually changes. This happens because our unconscious sees the whole situation as if it were a person. Our unconscious works this way because it uses the second-person lens to relate to everything.

Second-person perception begins with half-formed perceptions and emotions. These are superpositions that hit us all at the same time until it becomes clear how to relate to a situation.

Then, only when it becomes clear to us, we are able to act consciously. This is why quantum states form first before action is possible. Relationship dynamics must always develop first.

I believe this offers a way of explaining the quality combination problem. Seeing a sunset means something to us because it is more than just an amalgam of sensations. The sight of the sun sinking below the horizon, which is something that has happened for billions of years, connects us to something timeless: The end of another day. We experience the stillness between day and night, as we switch from one lens to another. We do, in a sense, make a change within ourselves when switching from day mode to night mode. This makes sunsets a moving experience. Without even thinking about it, the feeling is special.

6.2.3 The Outsider Experience

Why does seeing a brain with our eyes, or studying a brain scientifically, seem so different from the experience of living in a body with a brain? This is the structure combination problem. I believe this problem is all about why third-person perception is so different from first-person and second-person perceptions.

The "outsider" perspective has grown over the last few centuries. It dominates our modern world because science and technology has changed our lives so dramatically. Hundreds of years ago, people felt much more involved in their personal experience of life. However, if you go back thousands of years, or look at the lives of indigenous people, we know that they see themselves as a part of nature, not separate from the habitat they live in.

Third-person lenses are not able to see quantum states, the dynamics hidden in relationships, or first-person perception. This is why, when neuroscientists study the brain, they only see a piece of meat with no sign of the consciousness that is able to experience a sunset.

The use of third-person lenses has grown because it is the best lens for studying cause and effect. Thus, it has become a great tool for discovering scientific truth. Much of the macroscopic world can indeed be explained by forces acting on objects, and we can easily study these reactions as outsiders. However, each lens is limited. A lens is simply a way of seeing – a way of relating. Each lens forms unconsciously through experience.

We do experience the "outside" world, and we can indeed relate to outside forces because third-person fields play an important role in our universe. However, if we try to use third-person lenses to study relationships, we interfere with the spontaneous flow. This is why the scientific lens has not yet found a way to explain what it is that makes organisms alive. And if we try to objectively study ourselves – analyzing our first-person perception as outsiders – we see no sign of self.

If quantum behavior is indeed the result of relationship possibilities, then we must learn to set aside our outsider perspective if we want to grasp the meaning of what quantum mechanics is trying to teach us.

Our use of third-person lenses has taken us far. It has transformed our world. But we have hit a wall when it comes to understanding how everything works at the level of individual agents. In other words, how everything *really* works when you look closely. We cannot see what is happening before our own eyes if we insist on using the wrong lenses.

Our experience of living in a body with a brain is a first-person experience. We have learned how to use our body and brain through working relationships. We cannot explain how we actually move our muscles because our cells do the actual work through all-for-one relationships, but we do lead our cells, and they follow our lead when we decide to act, because our life is their life. We are in this together. This is what it means to live in a body. All-for-one relationships allow us to move our bodies as a single individual. However, our bodies are in fact legions of cells and helpful bacteria working together.

In other words, third-person lenses never see what is truly happening beneath the surface, even when it comes to purely mechanical reactions. The discovery of quantum mechanics is a door that leads to a new understanding of reality. We just need to "get to know it" like a friend and see the meaning of relationship possibilities. Analyzing it as an outsider is not enough.

That is the lesson of QM, if the LoP Interpretation is right. And it shows a possible solution to all three of the combination problems. The LoP postulates show us why we need three fundamentally different lenses. And once we use all three, all of the combination problems seem to be resolved.

Of course, this is just a brief look at these issues. A more thorough investigation is needed. There are many opportunities here to test the LoP Interpretation.

6.3 The Five Unsolved Problems of Physics

In the spirit of revealing the biggest challenges facing the LoP Interpretation, I need to include something physicist Lee Smolin (2007) wrote:

> The core of our failure to complete the present scientific revolution consists of five problems, each famously intractable. These problems confronted us when I began my study of physics in the 1970s, and while we have learned a lot about them in the last three decades, they remain unsolved. One way or another, any proposed theory of fundamental physics must solve these five problems. (pp. 3-4)
>
> These five problems represent the boundaries to present knowledge. They are what keep theoretical physicists up at night. Together they drive most current work on the frontiers of theoretical physics.
>
> Any theory that claims to be a fundamental theory of nature must answer each one of them. (pp. 16-17)

I took this challenge seriously. Before publishing anything about the postulates of perception that I had developed, I wanted to see if the LoP Interpretation could offer at least some form of solution to "The Five Unsolved Problems of Physics." It took me years to work through these five problems. I finally found a way to answer each of the problems (as I show in Marman, 2016, pp. 407-473). However, these answers should all be seen as speculations in serious need of validation.

The fact that postulates of perception can offer a way to make sense of these problems increased my confidence in the LoP Interpretation. However, more scrutiny is clearly needed.

Let's take a look at the five unsolved problems. These are very brief summaries that hardly do justice to the explanations behind them, or the experiments that support these proposals. Further information is available in the footnotes to each problem:

6.3.1 Problem One: Offer a Single Theory that Explains Both General Relativity and Quantum Mechanics.

The principle of relativity itself derives from first-person perception. All measurements are relative because all transactions of energy require first-person perceptions to collapse the wave function. This is why everything that happens is relative. QM, on the other hand, is all about second-person relationships. Thus, relativity and QM originate from two different lenses. Perception is the single underlying principle that ties them together.

However, the real issue created by the gap between relativity and QM is the problem of "quantum gravity": Why is it so hard to make gravity work with quantum field theory? This requires showing how gravity emerges from the behavior of quanta. Since I have discussed this in sections 4.8 and 4.9, I am offering only a brief summary here:

The story of gravity begins with the formation of the field of space. All the particles in our universe belong to this third-person field. It forms through the process I explained in section 4.8. However, every exchange of energy creates a shift in perception that disturbs the field of space (see section 4.9). The reason this happens is because the field of space is a public reality held together by the reinforcement of outsider perceptions. When energetic events happen, the public field must adapt. The field of space warps, as it adjusts to the changes created by wave-function collapses.

Gravity is a problem for quantum field theory because the wave function collapse is not explained by quantum formalism. We need a relativistic quantum theory to see the way that quantum states are created and annihilated. According to LoP theory, fields are not the causes of these events. Fields only adapt to them. The actual cause of gravity ties back to first-person perception. Both an emitter and absorber must work in concert to make a transaction of energy happen. Energy density is proportional to the force of gravity because energy transactions are proportional to energy density. Energy transactions are the true cause behind warps in the field of space.

An energetic event temporarily disrupts the field of space, causing some of the particles closest to the wave collapse to lose their connection with the field of space. The loss of these particles is short-lived because they soon rejoin the field of space. However, with a continual series of wave collapses, the field itself warps as it continually tries to fill the void. As a result, there is a drop in the entropy density in that region. This is why recent research has proposed that entropy density may explain the emergence of gravity.[7]

6.3.2 Problem Two: Resolve the Troubles of Quantum Mechanics, Either by Making Sense of the Theory, or by Inventing a New Theory that Gives a Deeper Understanding of Nature.

LoP theory shows that quantum behavior is the result of the hidden dynamics in relationships between sentient beings. These hidden dynamics come from the possibilities that weigh on sentient agents in relationships. Thus, Heisenberg's "potentia" should be treated as something real.

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[7] See details in Marman (2016, pp. 411-429).

Relationship possibilities are peculiar because they do not exist in space-time. That is why they are hidden from outsiders and from third-person perception. Quantum mechanics cannot explain why the wave function collapses or where particles and quanta come from until we include first-person and second-person perception. Adding those two lenses completes the picture.

To illustrate the power of this solution in my book,[8] I show how it resolves problems that physicists are struggling to understand, related to the nature of particles, and why particles act so weird at the quantum level. The answer is simple: Particles are not bits of matter; they are sentient agents. That is why they behave like individuals, not like chunks of matter in specific locations of space.

6.3.3 Problem Three: Can All Four of the Forces of Physics and All the Known Particles Derive from a Single Source?

LoP theory says that particles exist because sentient agents are responsive and receptive in how they relate to each other. The properties of matter-type particles come from particle fields that those particles belong to. For example, a particle cannot exist as an electron unless it belongs to the electron particle field. The properties of force-carrying particles, on the other hand, are defined by the relationships they are exchanging energy for. This offers an explanation for why photons and gluons are massless particles, while matter-type particles have mass.[9]

Forces, however, emerge from relationships. Each of the four forces are created by a different relationship: Electromagnetism is the result of one-on-one relationships. The strong force comes from all-for-one bonds. The weak nuclear force comes from relationships that particles have with particle fields. And gravity comes from joint first-person actions that warp the field of space.[10]

In the process of trying to solve Problem Three, I made an even more surprising discovery: LoP theory predicts that there should be six forces, not four. It says there should be two additional forces, but no others.

It turns out that both of these new forces are well supported by empirical science. They both describe phenomena that physicists are well aware of but have been unable to explain: The first added force is dark energy (see the explanation for this under Problem Five, below). The second force explains the strange practice of *renormalization* that physicists have been compelled to adopt, where matter-type particles are treated as if they are surrounded by clouds of virtual particles. Electrons, quarks, and neutrinos are all surrounded by virtual particles due to all-for-one relationships with those virtual particles. These virtual particles actually form the bodies of the electrons, quarks and neutrinos. Experiments have proven the validity of this model.[11]

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[8] Marman, pp. 429-433.
[9] Marman, p. 445.
[10] Marman, pp. 433-465.
[11] Marman, pp. 462-465.

If LoP theory is right about where forces come from, then these added two forces must also exist. The fact that these two forces have already been detected provides a bit of nice validation.

6.3.4 Problem Four: How Are the Values of Constants Chosen in Nature?

LoP theory shows how the constants of nature emerge from relationships, but the answer is not what physicists were hoping for. They would like to find an equation that predicts the values of all constants. However, if the LoP Interpretation is right, there is no such formula, since the process of "spontaneous symmetry breaking" that creates the values of these constants is determined by choices made in relationships. The fixed nature of these constants, such as the mass of electrons and quarks, comes from third-person fields. LoP theory suggests that these values evolved over time – they were not always the same as they are today.[12]

6.3.5 Problem Five: Explain Dark Energy and Dark Matter. If They Do Not Exist, Why Does Gravity Act So Strangely on Large Scales?

Dark energy emerges as a new force from the way the field of space forms. This new force not only describes the properties of dark energy accurately; it shows that it should act like a "cosmological constant" as proposed by Einstein, which means that space should expand equally everywhere. To put it simply, dark energy comes from new particles that enter and join the field of space. Those particles originate from a virtual state. Virtual particles continually try to join our universe, but most are unable to pass the threshold of perception needed to join the field of space. In the rare cases when new particles do join our world, space everywhere expands.[13]

Space is not expanding due to the force of a big bang explosion. It is expanding because new particles continue to join the field of space. This is why the overall field of space remains flat.

The acceleration of this expansion is slowing down because, as the universe grows larger, it is more difficult for particles to join the field of space. It is more difficult because the threshold of perception needed to join a field is determined by how many members it has. Small fields are easy to join, which is why the universe grew so rapidly at first. Thresholds of perception play important roles with second-person and third-person relationships, and thus all of the forces as well. These thresholds also determine which forces will take priority.

Dark energy is a straightforward consequence of the LoP principles of perception. In fact, LoP theory cannot avoid it. If the LoP theory of gravity is right, then the dark energy force must also exist as a distinct force.

Dark matter is a different story. It is not a new force. It is a display of an already known force: the "strong force." This is admittedly one of the strangest outcomes of the LoP model. It is directly related to all-for-one relationships and offers another way to test the LoP postulates of perception.

According to physicists, the strong force only works in the subatomic domain. However, the LoP Interpretation says that this force is caused by a group of quarks coming together to form protons and neutrons that are bodies inhabited by sentient agents. This is why protons and neutrons act as individuals.

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[12] Marman, pp. 465-467.

[13] Marman, pp. 467-471.

LoP postulates predict that this should happen at every level where sentient agents form group relationships. If this is true, then we should also see the same behavior in stars and galaxies, if, and only if, stars and galaxies are also the bodies of sentient agents. This is a deeply divergent idea that clearly goes against common wisdom. However, it describes the behavior of dark matter so much better than any other theory that it deserves a chance to be reviewed. Let me explain.

Physicists know that about 98 percent of the mass of an atom comes from the strong force. Less than two percent comes from the protons, neutrons and electrons that make up the atom. In other words, 98 percent of the mass inside an atom is “dark” because this mass is invisible when seen from the inside. Atoms have this added mass for one reason: They resist outer forces as a unified body. In other words, atoms act and move as individuals. Therefore, 98 percent of the mass of an atom comes from the strong force energy that binds atoms together. Physicists agree with this.

Inside the atom, this added mass is invisible – it is dark. According to LoP, the dark mass in galaxies comes from this same bond. Gravity is not the only force holding galaxies together.

This explains why physicists have found no trace of dark matter particles or measured any effects of dark matter in our solar system, even though there should be five times more mass from dark matter in our galaxy than ordinary matter (*MIT Technology Review*, 2013). The problem has grown since the LoP Interpretation was first published. A number of serious searches for dark matter have come up empty handed, as science journalist Eugene Bagashov (2017) explains.

Bruce Dorminey (2018), a writer who focuses on the latest research in astrophysics wrote recently:

> Decades after the first searches for dark matter’s hypothetical exotic particle counterparts, researchers are mostly at a loss to explain why there still has been no direct detection….
>
> Either some 85 percent of the universe’s matter is non-baryonic (or exotic) [dark matter particles], or there’s something awfully wrong with our current understanding of how gravity works on the largest scales.
>
> Although most researchers won’t state it publicly, more than two decades after writing my first article on the subject for the U.K.’s *Financial Times* newspaper, I sense an undercurrent of weariness with this vexing problem. (§ 1-3)

The reason why physicists proposed dark matter in the first place is because stars in the outer reaches of galaxies are moving too fast. These stars act as if there is five times as much matter in the galaxy than is visible. Unfortunately, this invisible dark matter is not distributed the way you would expect: It is spread out in the galaxy like a halo in such a way that the outer stars rotate as one body. Physicists cannot explain why matter would be distributed this way, but this is exactly what LoP theory predicts if the strong force is involved, because the strong force displays this exact pattern. The strong force acts linearly when inside the domain of its bond (Fritsch, 1983, p. 164).

This means that the force stays constant from near the center of its domain to the outer edges. Outside its domain, the strong force decreases at an exponential rate. The strong force is the only force that acts linearly, and this is exactly what we see happening with the outer stars in galaxies.

As a result, if dark matter is created by an all-for-one bond, then the stars should move as one, the same way that quarks spin as one inside of protons. See "proton spin crisis" in section 6.2.1 above.

This offers an explanation that is consistent with everything that physicists know about dark matter, and also, as far as I know, it offers a way to test the theory. We should not see any evidence of dark matter in our galaxy except for the added speed of stars, because we are looking at it from the inside. Also, the planets in our solar system should *not* move faster because planets are not inhabited by sentient agents. Only stars and galaxies are. Plus, we should only see the mass of dark matter in galaxies when looking at galaxies from the outside, such as with gravitational lensing effects (where light bends around galaxies – this is used to determine the location of dark matter).

However, if dark matter in galaxies is indeed caused by all-for-one relationships between the stars, then this means that those stars must also be bodies inhabited by sentient agents. Remember, all-for-one relationships can only exist between sentient agents. If this is true, then we must also see the evidence of dark matter in stars. If we cannot find evidence that this same behavior is at work in our sun, then the LoP theory of dark matter is wrong. This offers another test for the LoP theory of the strong force.

A recent study shows that there is evidence of dark matter in our sun. In fact, it explains a recently discovered problem that has stumped physicists: Why is the sun rounder than it should be? If atoms in the sun have joined together to form an all-for-one bond, because the sun possesses a sentient agent of its own, and this enables the sun to act as an individual unit, then we should see the atoms within the sun revolving together as one. This should make the sun noticeably rounder than gravity can account for. This is exactly what has been discovered (as reported in *Nature World News*, 2012). No theory of gravity or any other force is able to account for this added roundness.[14]

A number of recent discoveries have reinforced the reality of dark matter but have taken physicists by surprise because they are not things that a theory of "cold dark matter" particles would predict. All of these discoveries are consistent with the LoP theory, as far as I can see. To do this justice requires a dedicated study of its own.

Once again, we can see that the LoP Interpretation creates a number of surprising predictions that are testable. These all represent ways that LoP theory, or parts of the theory, can be challenged or even invalidated. The only reason I am presenting theories that sound so outrageous is because I have been looking for ways to prove them wrong over the last five years. They seem to hold up.

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[14] See also Marman, 2016, pp. 258-270.

The case of dark matter is one of the most surprising examples, because confidence was strong, at first, that evidence of the missing dark matter particles would be found in tests at the Large Hadron Collider. Since then, test after test has reported a complete lack of dark matter particles, such as the recent experiment reported by Conover (2018).

However, that was just the beginning. Following are some more recent examples.

A galaxy has been recently found where little or no dark matter appears to exist. This is puzzling. Did the galaxy form in the first place with dark matter? If it did, then why did it suddenly lose all that dark matter? However, this makes sense according to LoP theory, because we should expect some galaxies to “die,” just like atoms decay and creatures have lifetimes (Drake, 2018).

Another study shows a surprising number of galaxies “rotating in sync” with each other. This makes sense, because if stars can form galaxies, then galaxies should also be able to form all-for-one relationships as well (Tasoff, 2018).

A recent study shows that there appears to be less dark matter in the earliest galaxies. Plus, those galaxies were much more turbulent, meaning that the stars were not spinning together as strongly, and they were filled with more gases and fewer stars. Is this not what we should expect for “young” galaxies, where all-for-one relationships are still developing stars? (Max Planck Institute, 2017).

And another new study says that dark matter is much darker than physicists thought. This means that dark matter does not appear to respond in any way to the EM energy in gases. This also makes sense because the strong force should only affect the stars, not clouds of gases because those gases are conglomerates, not individuals at the same level as stars (Nelson, 2018).

This also explains the Bullet Cluster, a famous formation created by two galaxy clusters that crashed through each other. The clouds of gases clearly attracted each other, but the dark matter centers did not follow the same path. They followed the centers of the stars in the galaxies instead, as the dark matter should if it is formed by an all-for-one relationship between the stars and the galaxy (Marman, 2016, pp. 265-266).

All of these recent discoveries are consistent with a strong force theory of dark matter. However, the most compelling evidence is just to see how spiral galaxies keep their form almost indefinitely. If gravity alone was involved, without any dark matter, the spiral arms should spin away. In other words, galaxies should spin apart, but they do not. They maintain their forms, the same as we see with the bodies of all individuals. The arms of spiral galaxies are not transient features, as astrophysicists once thought (Harvard-Smithsonian Center for Astrophysics, 2013).

This theory of dark matter is, of course, a speculation. A crazy one. It may even be crazy enough to be right, as Niels Bohr put it. However, it does at least show that there are new possible ways to interpret our natural world. And it shows that it is possible to meet Lee Smolin’s challenge: Any theory claiming to be a fundamental theory of nature must be able to explain all five problems.

6.4 Summary of Challenges and Opportunities

This shows what I believe are the biggest challenges that the LoP Interpretation faces. These issues represent areas where further research is clearly needed. Other opportunities can be found in my book, *Lenses of Perception* (Marman, 2016).

Presenting a theory that reaches across fields, such as quantum physics, biology, neuroscience, and psychology, creates problems of its own. However, the similarities across these fields suggests that we may have been missing something that a new interpretation of QM can help explain.

7. Conclusion

It is easy to assume that the lesson of quantum mechanics is that physics defines everything that happens in this world. After all, this is what classical physicists have been telling us for centuries. However, the LoP Interpretation arrives at a different conclusion: Physics is no closer to the foundation of reality than biology, psychology, or other social sciences.

In other words, biology and the social sciences can help us better understand quantum mechanics, just as much as quantum mechanics can now reveal important lessons for these other fields. Seeing the relationships between organisms and their habitat can give us a clearer idea of how particles live in this world. Seeing the way societies form among animals and insects gives us a deeper understanding of where quantum fields come from and what they are. Seeing the psychology of how we make decisions paints a richer picture of the wave collapse. The study of leadership not only gains new insights from the principles of quantum mechanics, it also gives us a more vivid sense of how the “strong force” works.

In other words, the LoP Interpretation shows us that there are huge benefits to be gained from cross-pollination between fields of study. Each uses a different lens and perspective. By comparing them, we gain added context and a deeper understanding.

The value of an interpretation should be judged by how useful it is in giving us new ways of looking at life and reality. Can it help make us more effective as leaders, as scientists, and even as people in search of meaningful lives? These are the real proving grounds for the LoP Interpretation.

If biology and social sciences gain something from a quantum understanding of relationships, then we have expanded the scope of science. It can now reach from the smallest particles to the study of human psychology, from the origin of life to the formation of organizations, from the forces that form atoms and molecules to the chemistry of societies and how they interact. This breathes a new sense of life and open-endedness into scientific disciplines that have normally been limited to the closed-system, mechanistic perspectives that come from third-person lenses.

This also suggests that there may be a common thread tying all fields of science together because everything that happens is governed by relationships between living agents. If nothing else, hopefully, this paper opens the door a bit to new ways of looking at our natural world.

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Vertical Transformation of Leadership Culture

John B. McGuire[1] & Charles J. Palus[2]

Abstract: This article defines leadership culture and provides a framework for its vertical (aka constructive-developmental, or transclusive) transformation. The idea of leadership culture and its developmental potential has been a key focus of research and practice at the Center for Creative Leadership since the mid-1990s, as CCL began transcending and including its domain of developing individual leaders within an explicitly relational ontology. The Direction, Alignment, and Commitment (DAC) Framework models leadership as a relational process operating at both individual and collective levels, in which beliefs and practices for creating DAC are shown to develop vertically. Collaboration with Bill Torbert and associates has produced a model of leadership culture transformation in parallel with the action logics observed in individual leaders. The second part of this article describes an approach to change leadership via multi-year collaborative inquiries grounded in culture. The Change Learning Cycle integrates three intertwining domains of change: self, cultural beliefs, and systems. Finally, the article outlines the use of a leadership culture toolbox for change leadership initiatives designed for engaging, scaling, and democratizing leadership culture development for everybody, everywhere.

Keywords: Change leadership, interdependent, leadership culture, toolbox, Torbert, transclusive, vertical development.

Introduction

A distinctive feature of our time is that cultures of all kinds are proliferating, splitting, combining, and evolving. The destructive polarizations apparent in society are largely culturally driven. “Culture” used to be a comforting word that implied stability and civic cohesion. Culture has instead become a frightening word amidst the churn of global identity politics. What is the

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solution? We must evolve in ways never before imagined. New and better leadership is required but our 20th century models and techniques of leadership development are insufficient to the challenges. A new paradigm is emerging in which the development of individual leaders is included and transcended by taking *leadership culture* itself as a primary unit of human development. Leadership cultures produce leaders. Polarized cultures produce polarized leaders--usually. A leadership culture is itself a kind of living entity, with evolving memetic beliefs, practices, and artifacts. We propose a class of memetic social entities or systems called *leadership culture*, members of which change, develop, and intertwine in ways we are learning to observe, describe, and influence. Leadership cultures are where we live, and for our collective well-being we need them to be healthy and thriving (Palus, Harrison, & Prasad, 2015).

The way forward, we think, lies in making leadership culture visible, understandable, and intentional. This means making leadership culture itself the object of the kinds of intensive development efforts that in the past have been focused on individual leaders. We know now that leadership cultures can evolve, and can be intentionally shaped, to higher levels of collective awareness, efficacy, and moral action. We live in a time of accelerating cultural dynamics, of remarkable growth as well as damage and decay. The vertical development of leadership cultures amidst this churn is possible, promising, and necessary.

In this article we describe a body of theory and practice for change leadership, with leadership culture as the main arena for intentional, strategic change in organizations and communities. The vertical development of leadership culture, in concert with individual, team, and societal development, enables the execution of complex strategies in increasingly challenging contexts.

Our maxim is:
If you want best practices, you need best beliefs.
Beliefs drive practices.
Beliefs are embedded in cultures.
Culture always wins.

The key question becomes:
How can you evolve and transform your culture around best beliefs?

Our Work

The co-authors of this article are Senior Fellows of the Center for Creative Leadership (CCL) who work with clients in a wide variety of leadership development contexts at the levels of individual leaders, group effectiveness, organizational leadership, and societal advancement.

Our mission at CCL (www.ccl.org), a 50-year old non-profit research-based organization, is to advance the understanding, practice and development of leadership for the benefit of society worldwide. Our vision is to positively transform the way leaders, their organizations, and our societies confront the difficult challenges of the 21st century.

The idea of leadership culture and its vertical transformation has been a key scaffold of research and practice at CCL since the mid-1990s, as CCL began transcending and including the psychological paradigm of individual leader development within a more encompassing sociological and relational ontology (Drath & Palus, 1994; Palus & Drath, 1995; Drath, 2001; Drath et al., 2008).

The Center for Creative Leadership and Bill Torbert's Global Leadership Associates (www.gla.global) are partner research-practitioners focused on the development of leaders and leadership cultures. Over the years we have theorized and explored leadership action logics at the collective, organizational level, and we have collaborated in change leadership initiatives. Our research methods are modeled on Torbert's rich framework of Collaborative Developmental Action Inquiry as we work with clients and partners in human development – and as we seek to transform ourselves and our own cultures and societies (McGuire, Palus & Torbert, 2007).

Over the long-term, at its best, this shared inquiry has been a dance of possibilities, insights, and mutual transformations among people who are passionate about human development. In this article we synthesize what we and our collaborators have learned about the vertical development of leadership cultures across several decades, around the globe with a practical bent toward more effective organizations and a healthier world.

Part 1: Leadership Culture Theoretical Frameworks

This body of work begins with the application of relational and pragmatic theory and philosophy (Gergen, 1994; Dewey, 1958) to leadership. Leadership is thus understood in terms of participating in, shaping, and constructing shared beliefs, practices, systems, and artifacts in service of certain kinds of shared outcomes. Leadership is meaning-making in service of collective action. We align with those seeking leadership in plural, collective, and complex systemic terms (Denis, Langley & Sergi, 2012; Ospina & Uhl-Bien, 2012; Drath et al., 2008; Uhl-Bien, 2006; Drath, 2001). We describe the relational point of view in terms of the DAC ontology for leadership development at the multiple levels of individuals, groups, organizations, and societies (SOGI) more broadly.

Upon this pragmatic, relational foundation we build our change theory and practice with the findings of individual constructive development (McCauley et al., 2006), learning theory and practice (McCarthy, 1996; Argyris, 1990; Senge, 1990), integral theory and practice (Wilber, 2000; Torbert, 2004); cultural anthropology and ethnography (Bohannon, 1995; Schensual & Lecompte, 2016), and organizational leadership strategy (McGuire & Rhodes, 2009; Denison, 1997).

We draw on all of this to describe and engage leadership cultures. Leadership cultures are the bodies of shared beliefs and practices in a collective that shape what "leadership" means (implicitly and explicitly) and thus determine how leadership is recognized, practiced, and developed. Because:

Culture always wins.
And:
Cultures evolve and transform.

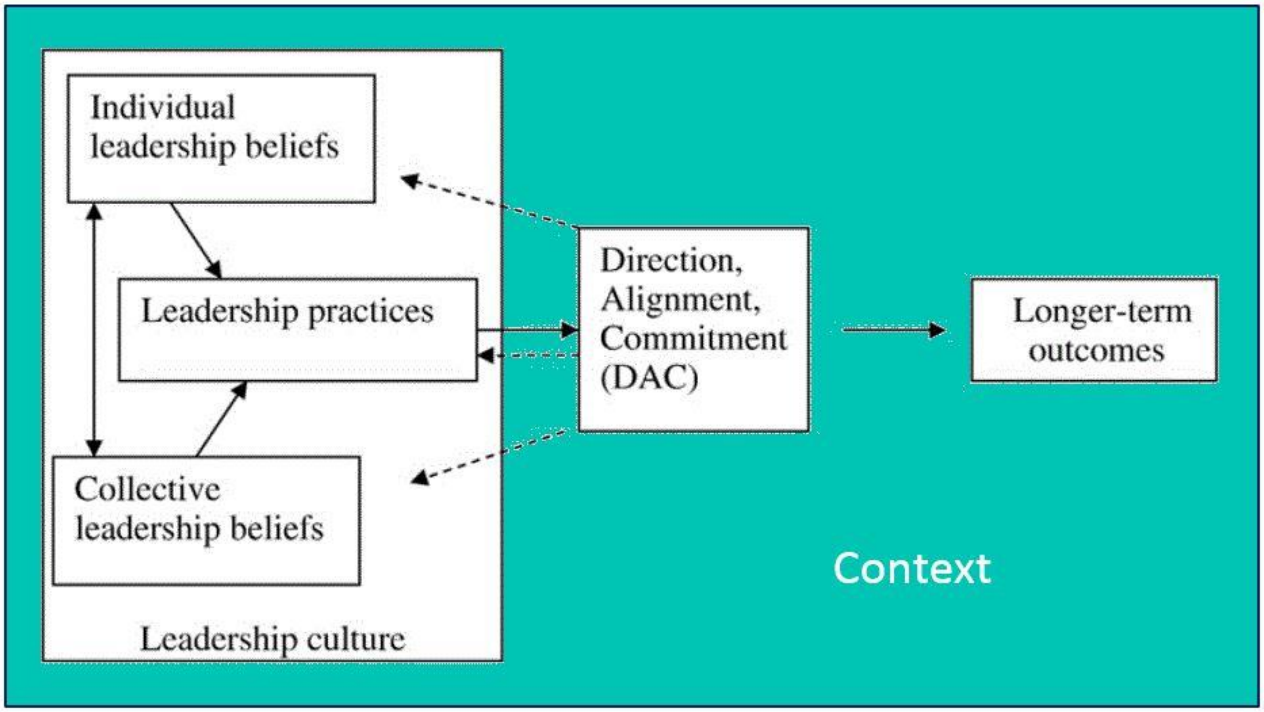
Leadership cultures can evolve vertically, such that later action logics come to *transclude* (transcend and include) earlier ones. The potential rewards are greater maturity, agility, wisdom and collective ownership of the whole enterprise; and efficacy in volatile, complex, and uncertain times (Torbert, 1987). The vertical development of leadership culture is thus crucial to creating and sustaining organizational growth and change in the face of complex challenges.

Let's take a look at what we know and what we are still learning about the vertical transformation of leadership cultures.

The Relational Ontology and Leadership Culture Transformations

What one believes about the underlying nature of leaders and leadership drive one's organizational practices and strategies.

The Center for Creative Leadership has adopted the DAC Framework (Drath et al., 2008) across all our practice areas including Organizational Leadership. The DAC Framework is the basis for the theory and practice described in this article (Figure 1). *Direction* is agreement on shared goals. *Alignment* is the organization of work. *Commitment* is the willingness to subsume individual interests for the good of the collective. Note that the terms "leaders" and "followers" per se do not appear in the primary model, as they are derivatives of relational beliefs and practices for producing DAC.


Individual leadership beliefs
Leadership practices
Collective leadership beliefs
Leadership culture
Direction, Alignment, Commitment (DAC)
Longer-term outcomes
Context

Adapted from Drath et al., 2008

Figure 1: The Direction, Alignment, and Commitment (DAC) Framework

In the relational ontology*: Leadership* is a social process, embedded in cultural beliefs and practices, which shapes and creates the collective outcomes of direction, alignment, and commitment (DAC). Leadership *development* is the growth and transformation of these DAC-shaping capabilities within a collective, at the multiple levels of individuals, groups, organizations, and societies. These multiple levels of leadership development and outcomes and their nested structure (Yammarino & Dansereau, 2008) are represented by the useful acronym SOGI (Palus, McGuire & Ernst, 2011).

Until recently, almost all theories of leadership derived from psychological ontologies in which leadership is situated within the character and personal competencies of individual leaders. Psychological ontologies take individuals as primary with relationships as by-products. A systemic version of this is that individuals reciprocally shape one another, like the Escher of hands drawing one other. Ontologically however, and in the long run, it is relationships all the way down. “Human being” is fundamentally a plural and social verb.

Earlier in our work, we experienced the benefits and then the limits of a primarily psychological approach to leadership development. Often the development of the individual was obvious and measurable, while the impact of this development on organizational or societal outcomes was not as apparent. These limits gradually became a crisis in the 1990s as disruption increased in the forms of re-engineering, downsizing, de-regulation, and globalization. One leader at a time was not enough anymore.

We began experimenting at the edges of our limits, and proposed a new, relational starting point for leadership development: What if we shifted our understanding to imagine “leadership as meaning-making in a community of practice” (Drath & Palus, 1994). It was an invitation to inquiry as much as a definition. This reframing of leadership proved to be controversial—and a useful powerful shift for many in our network of colleagues and clients (Ospina & Uhl-Bien, 2012).

A relational ontology focuses on capabilities shared *between* leaders, including but going beyond the characteristics found *within* individual leaders. This shift from “within” to “between” as the primary focus of leadership development raises important questions: What constitutes a community? And: How is meaning made?

Two lines of response are especially fruitful.

The first response is constructive-developmental (aka vertical or transclusive). In this view, the key defining feature of humans is the construction of meaning (Kegan, 1994). We live our lives in various webs of belief (Weick, 1979; Quine & Ullian, 1978; Kelly, 1955). Practices are beliefs and meanings put into action (McGuire & Palus, 2015).

Constructive-developmental theory posits human development as a succession of increasingly complex and mature stages and states of meaning-making that frame thought and action (McCauley et al., 2006; Piaget, 1954). Leadership development is closely related to this kind of increasing maturity (Palus & Drath, 1995). More mature leadership is capable of attention to timely action, further horizons, and more complex challenges (McGuire & Rhodes, 2009).

This is often referred to as *vertical* development (Cook-Greuter, 2013), such that the metaphorical direction of development is vertical or "up," the proverbial direction of aspiration and achievement. But, the vertical metaphor can also be distracting and limiting, implying a strictly linear, ladder-like, and "better-than" progression. A more nuanced perspective posits a *multarity* or multiple polarity of dynamically interacting stages, states, and relationships (Johnson, 1992). Development in real life is messy and enigmatic (Herdman-Barker & Wallis, 2016).

The useful synonym *transclusive* development highlights the key polarity of each stage as *both* transcending *and* including earlier ones, and anticipating later ones (because we are prepared by culture), producing bigger, more agile, complex, and connected minds—as compared to merely elevated or chronologically-older ones.

We define *transclusion* as a primary pattern of growth, evolution, and development in which a new, more complex perspective or logic emerges in a system which transcends and transforms existing perspectives, while at the same time including, assimilating, and re-integrating established logics and perspectives into a new dynamic structure.[3] Development as transclusion is web-like and nested rather than linear. Such attention to the central role of language in this work reminds us that consciousness itself is social, metaphor-based, memetic, and evolving (Hofstadter & Sander, 2013; Jaynes, 1976).

The second response is cultural. Anthropologists define culture as the tools and meaning (beliefs) that extend learning, expand behavior and channel choice (Bohannon, 1995). All meaning-making is embedded in cultures ranging from societal-scale to the local cultures of groups, teams, and organizations (Cameron & Quinn, 1999). Cultures are holding environments for individual and collective meaning-making (Kegan, 1994; Schein, 2010). The labels we tend to put on individual leaders have cultural roots and relational branches. Yet cultures can seem invisible from the inside. We are like fish in water. We are in it, and we can't see it (Wallace, 2005).

Cultures can evolve and transform vertically, that is, toward greater complexity and interdependence in the dynamics of leadership. The dynamics of power, authority, participation, collaboration, and perspective-taking, and self-development benefit from intentional development (Kegan & Lahey, 2016; McGuire & Palus, 2015). This has been observed in regional cultures (Inglehart, 1997) as well as organizational cultures, and in leadership cultures (McCauley et.al. 2008). Bill Torbert in particular has advanced the idea that team and organizational cultures can develop in predictable stages which parallel and echo the stages of adult development (Torbert, 1987).

Leadership culture is the self-reinforcing, evolving, memetic web of individual and collective beliefs and practices in a collective for producing the outcomes of shared direction, alignment, and commitment. The complexity of an organization's strategic work is linked to the capability of its leadership cultures – typically plural in nature--to handle that complexity. This includes the collaborative capability to span boundaries among the multiple sub-cultures present in most organizations and communities (Ernst & Chrobot-Mason, 2010).

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[3] The term *transclusion* is transposed and adapted from the Xanadu hypertext epistemology of Ted Nelson (1993), which also suggests that human meaning-making and its development is *intertwingular* and non-linear. We are grateful to Al Selvin and Simon Buckingham Shum for exploring the use of hypermedia-supported dialogue mapping in the context of leadership development (Selvin & Buckingham Shum, 2014).

Strategy requires the right culture, one capable of its execution (Hughes, Beatty, & Dinwoodie, 2013). Culture always wins. Keen strategy, changes in behavior, new competencies, and best practices are necessary but not sufficient for leading in times of turbulence and change. Culture development – evolution and even transformation -- is required for effective leadership in support of bold strategic aims.

Leadership culture is the operating system for producing DAC in a collective. But not every operating system is capable of enacting a complex and agile strategy.

With these insights in mind, we began to explore, model, and test the following idea in collaborative inquiry with our clients and colleagues:[4]

How might leadership cultures develop in ways that support learning, growth, and change in the face of complex challenges?

To do this, we needed a practical framework and tools that would help make leadership culture more visible and provide some shared language and images, allowing members to observe, reflect and converse about their past, present, and desired leadership cultures. Thus we needed a simple, face-valid, and roughly accurate model of leadership culture development. In these practical terms a 3-stage model is more accessible, memorable, and useful than a 5- or 7-stage model.

We landed on the model shown in Figure 2 (the "Snowman" model) in which organizational cultures can be understood as variations, combinations and progressions of *dependent*, *independent*, and *interdependent* leadership logics (Palus & Drath, 1995; McGuire, Palus, Torbert 2007, McCauley et al., 2008; Laloux, 2014). Each successive leadership logic transcends and yet includes, accommodates, and incorporates the earlier logics, so that a culture of interdependence is ideally capable of integrating dependent and independent logics into a kind of collective maturity. Each is more capable than the one before of accepting and managing the tensions and paradoxes present in complexity.

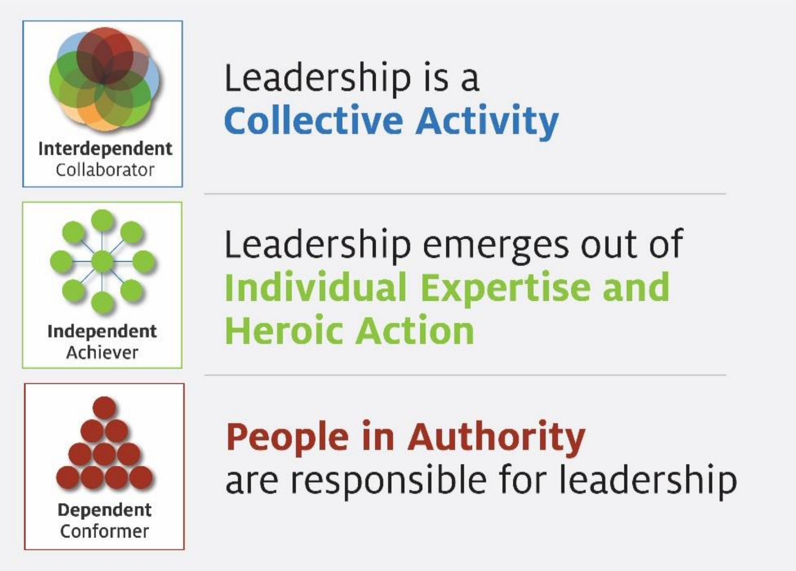

Figure 2: Three states and stages of leadership culture (The Snowman)

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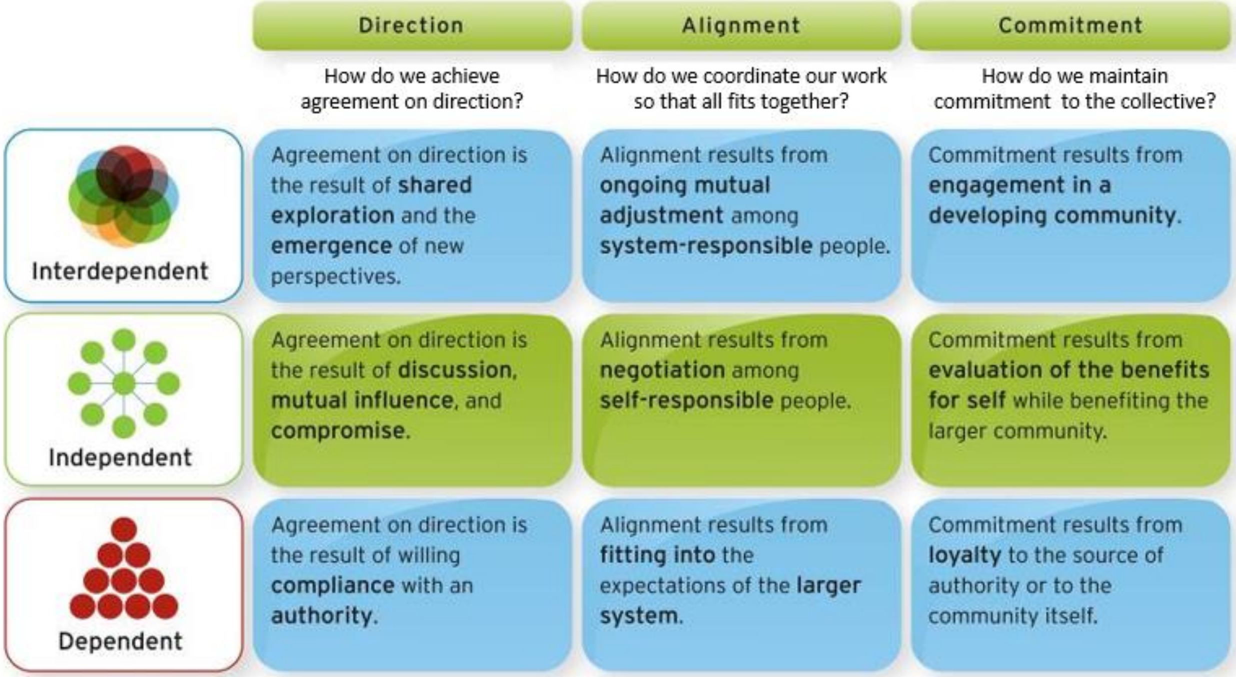
[4] Details are reported in Palus, McGuire & Ernst, 2012; McCauley et al., 2008; McGuire & Rhodes, 2009; McGuire & Palus, 2015; Hughes et al., 2011; Drath, Palus, & McGuire, 2010; McGuire, Palus, & Torbert, 2007; Palus & Drath, 1995; Palus & Horth, 2002.

These three categories are based in the classic summation of the maturing human mind as a sequence of three phases, variously framed as *traditional, modern & post-modern* orders of consciousness and reasoning (Wilber, 2000; Kegan, 1994; Inglehart, 1997; Kohlberg, 1969; Covey, 1989); phases of values as *survival*, *belonging*, *self-initiation* & *interdependence* (Hall, 1995);); *conformer*, *achiever* & *collaborator* leadership logics (McGuire & Rhodes, 2009); and *dependent, independent & inter-independent* cultural logics (McCauley et al., 2006; Palus & Drath, 1995).

Cultural beliefs and practices determine how DAC outcomes are realized (Figure 3). *Dependent* leadership cultures cultivate DAC by authority and tradition. *Independent* cultures cultivate DAC by a cadre of achievement-driven leaders utilizing technical expertise primarily for their own purposes. *Interdependent* cultures cultivate DAC using intentional sense-making processes across otherwise independent entities and are strategically engaged in external societal networks (Drath, Palus, & McGuire, 2010).



	Direction How do we achieve agreement on direction?	**Alignment** How do we coordinate our work so that all fits together?	**Commitment** How do we maintain commitment to the collective?
Interdependent	Agreement on direction is the result of **shared exploration** and the **emergence** of new perspectives.	Alignment results from **ongoing mutual adjustment** among **system-responsible** people.	Commitment results from **engagement in a developing community.**
Independent	Agreement on direction is the result of **discussion, mutual influence,** and **compromise.**	Alignment results from **negotiation** among **self-responsible** people.	Commitment results from **evaluation of the benefits for self** while benefiting the larger community.
Dependent	Agreement on direction is the result of willing **compliance** with an **authority.**	Alignment results from **fitting into** the expectations of the **larger system.**	Commitment results from **loyalty** to the source of authority or to the community itself.

Figure 3: DAC and leadership culture

To be clear, all these forms of leadership are relationally produced, and all have utility in specific settings. For example, heroic individual leaders are authorized and empowered by cultural norms (Yammarino, et al., 2012). Thus leadership development *always* benefits from a relational understanding even when strong individual leaders are the object of development: Culture always wins.

Recently, interest in vertical leadership development has expanded and our clients are requesting more insight into the underlying constructive-developmental models (Petrie, 2014a, 2014b). Our 3-part Leadership Culture Model is useful for clients gaining awareness, prompting dialogue and groups learning in action; and is less precise for fine-grained assessment and formal evaluation.

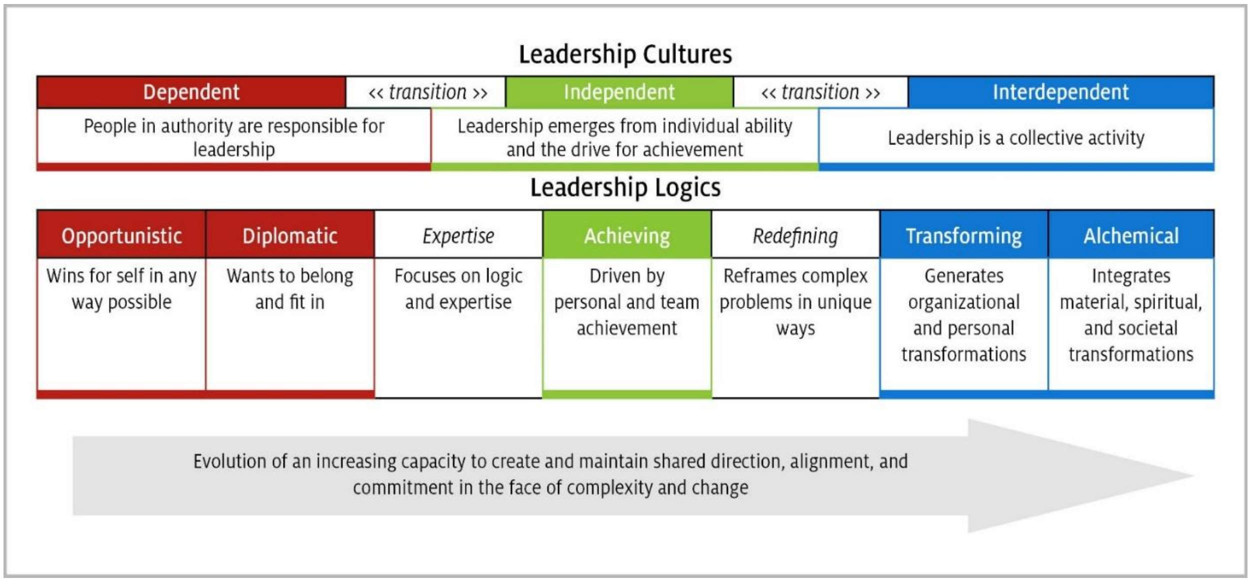

Leadership Cultures
Dependent
<< transition >>
Independent
<< transition >>
Interdependent
People in authority are responsible for leadership
Leadership emerges from individual ability and the drive for achievement
Leadership is a collective activity
Leadership Logics
Opportunistic
Diplomatic
Expertise
Achieving
Redefining
Transforming
Alchemical
Wins for self in any way possible
Wants to belong and fit in
Focuses on logic and expertise
Driven by personal and team achievement
Reframes complex problems in unique ways
Generates organizational and personal transformations
Integrates material, spiritual, and societal transformations
Evolution of an increasing capacity to create and maintain shared direction, alignment, and commitment in the face of complexity and change

Figure 4: Action logics of leaders and leadership cultures

Inspired by Bill Torbert's adaptation of individual action logics as cultural memes, we correlate the three cultures across the seven action logics (Figure 4) (McGuire, Palus, & Torbert, 2007; Rooke & Torbert, 2005). The names of these seven logics are shifted so that each word-ending better indicates a relational process rather than a personal label: *Opportunistic, Diplomatic, Expertise, Achieving, Redefining, Transforming,* and *Alchemical*. These logics are shared understandings and relational channels for beliefs and actions. The focus shifts and expands from labels of individuals in particular stages to the shared logics active in cultures and societies. *Expertise* and *Redefining* thus represent the key cultural transformations—to independence, then interdependence—within collectives. These seven *leadership logics*, now re-imagined as relational, provide a more refined and precise description of development, with transitional states, across the three broader leadership cultures.

The action logics of *diplomatic*, *expertise*, and *achieving* are by far the most common measured in organizations (Torbert, 2004). Conversely, the relative lack of more mature *redefining*, *transforming*, and *alchemical* action logics limits the prospects for sustainable and effective organizational change. All the while, in many of our contemporary settings, we seem to be increasingly up to our necks in narcissists and *opportunists*.

Challenges in Changing Leadership Cultures toward Interdependence

We share this axiom with client executive teams, in light of the stark realities of the global situation:

> *There is a hierarchy of cultures, and each successive leadership culture is capable of dealing with more complexity, more ambiguity and more uncertainty.*

We live inside the challenges of an interdependent world in the state of churn and evolution often called VUCA: volatility, uncertainty, complexity, and ambiguity (Stiehm, 2002). Our clients and their partnership networks are drawn to the possibilities of interdependent leadership cultures as an antidote to the churn and instability of global change (McGuire, Tang, 2011). Leadership requirements for executing complex strategies are alternately expressed as cultures of collaboration, resilience and agility; organizational learning, creativity and innovation; strategic leadership, and even forms of social responsibility. These qualities are relational, and can be realized most effectively within and among interdependent leadership cultures and their constituent beliefs and practices. The primarily horizontal cross-boundary nature of supply chains and the complexity of the relational networks of organizational partnerships required to operate within them, necessitates effective business strategies that increasingly embrace VUCA (Johansen, 2012).

In our experience, senior leaders have increasingly come to recognize the limits of independent-achiever leadership give way to the need for more interdependent-collaborative forms of leadership, and usually seek more mutual work in strategically critical locations and processes. And, dependent-conformer cultures also often seek change into more independent-achiever forms while often struggling to broaden toward change perspectives sufficient for scaling contexts. Some organizations have redefining aspects to their leadership culture which are adaptive and even generative toward more interdependence (W.L. Gore, Google, US Army) while organizations with strong expert cultures did not adapt (Digital Equipment Corporation, Lehman Brothers; DuPont).

Interdependent leadership beliefs and practices, we propose, can be understood as the *both/and* capabilities of double-loop and triple-loop learning (Argyris 1990; Torbert, 2004), the management of polarities (Johnson 1992), through dialectics and dialogue (Basseches, 1984; Bohm, 1990; Isaacs, 1999), and the capabilities for inter-systemic thinking and acting in the face of complexity (Oshry, 2007). Earlier leadership cultures are restricted by *either/or* mind sets and bridled by the limits inherent to compromise.

Intentional transformation to a leadership culture of interdependence is feasible under the right circumstances. The United States began as a *dependent* culture—a group of colonies under the authoritarian rule of the king. Rebelling against this oppression, colonists developed more *independent* minds. The U.S. Constitution expresses a form of *interdependence* that uses authority and compromise as tools within a broader vision of collaboration, new frontiers, and invites further transformation (Palus, McGuire & Ernst, 2011). But the question remains, does the citizenry have critical mass for a both/and mind-set required by the management of tensions embedded in the constitution (McGuire, 2010)?

PART 2: Change Leadership Core Realities

At the Center for Creative Leadership we practice action science with client partners, experiencing both the failures and successes of transformation in leadership cultures and organizations. This quote represents contemporary client realities.

> *In a fundamentally interconnected world our leaders face new and greater challenges that require new and greater leadership strategies. … Our future performance will increasingly*

> *require our top leaders to think and act interdependently – and above all to influence the men and women throughout our company to think and act interdependently – to move toward a higher organizational aim.*
>
> (Bob McDonald, Chairman and CEO, Proctor & Gamble, 2012) [5]

The world is shifting in such magnitude that it outstrips our experience and traditions. The extreme pace of change and the need to adapt is a daunting reality. We are slow to adapt and we simply react. We need more effective leadership in these times of change (Johansen, 2012).

Linear "eight stages of change management" processes may work within discrete operations projects, and with technical problems that can be solved. Attempting to lead change through conformance to standard operating procedures, or through the independent verve of experts and achievers can succeed through will power, but eventually hits the wall when executing a complex strategy full of real interdependencies (Oshry, 2007; Gryskiewicz, 1999; Beer, 1985).

The real space of change – and thus its challenge – is beyond the boundary of the change plan, the experts and the Gantt charts. That's where the change dilemmas emerge, full of paradox and complexity, in simultaneous and constant layers, waves and assaults.

For three decades the challenges that must be faced have not been being effectively managed or led, and the significant failure rate of change management in large organizations persists (Reeves et al.; Pasmore, 2011; Cameron & Quinn 1999; Kotter, 1996). The nature of organizational change itself is changing from earlier forms of project or initiative driven change and now towards more continuous forms of change that are more difficult to measure (Roth, 2011; Pasmore, 2015).

Senior leaders want – need – to live in a *strategic zone*, a place where mindset, knowledge and action are fused to continuously improve performance. In this zone, leaders are better able to manage risks, find opportunities, and establish and leverage competitive advantages. They create an operational edge and play it to improve the probability of success.

Leaders working interdependently in the strategic zone are connected and agile, informed and open, attuned and aware. They are able to respond deftly to change and guide others to adapt as well.

While change management is the technical, empirical mechanism (*outside-in*) aspect of transformation, change leadership holds the mindset (*inside-out*) of beliefs, imagination, emotions and human spirit. Change management and change leadership are the two sides of a Mobius strip.

The strategic zone is collaborative. Like teams of mountain climbers attuned in interconnecting relationships, leadership itself is increasingly understood as a shared space (Uhl-Bien, 2006. Drath et.al 2008. Denis, Langley, Sergi 2012). Leadership mindsets are shifting toward more interdependent and collective leadership capabilities (Palus, McGuire & Ernst, 2011).

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[5] Hughes, Beatty, Dinwoodie, 2013

Individuals, working in teams, must still develop greater skills and competencies but that is not sufficient. A shift in the leadership culture is typically needed to bring executives, senior teams and key leaders across an organization into the strategic zone (McGuire & Rhodes, 2009). A comprehensive leadership strategy in tandem with a business / organizational / societal strategy is required (Hughes, et al., 2011; Pasmore, 2009).

The big challenges of leading interdependently in the strategic zone require bigger minds. Achieving and growing bigger minds – both individually and collectively – is vertical development territory. Vertical development is categorically different than horizontal development (Petrie, 2014a).

Horizontal development means instilling more skills and competencies into leaders. It is most often about technical knowledge which can be collected, measured and displayed. It is about *what* you think and believe.

Vertical development is the advancement of capacities for awareness and imagination, and becoming able to feel, conceive, believe and think in more complex, curious, systemic, strategic and interdependent ways. It is about *how* you think and believe.

With these basics in mind, let’s look at how change leadership in the strategic zone actually works.

The Realities of Change Leadership

> *It is important to keep in mind that the objectivity of the institutional world, however massive it may appear to the individual, is a humanly produced, constructed objectivity.*
>
> (Berger and Luckmann, 1966, p 78)

Reality, in other words, is socially constructed (Berger & Luckmann, 1966). This somewhat obvious statement is controversial when it is taken as an either / or choice. Of course organizational reality is *both* socially constructed *and* physically constructed (Ospina & Sorenson, 2006). Vertical development as a mature adult includes being better able to grasp such apparent contradictions and polarities in their full both/and complexities (Johnson, 1992). This realization allows us all to be “social constructivists” and also embrace nuanced objectivity (Kegan, 1994).

Social construction is what change leaders do together. Change leadership is largely (but not only) a matter of imagination, curiosity, communication, dialogue and meaning-making. Meaning-making is to leaders as brick-laying is to builders.

For mature leadership in terms of vertical development, the preferred path of social construction is variously referred to as collaborative-developmental action inquiry, or CDAI (Torbert, 2004), participatory inquiry (Reason, 1994), collective mindfulness (Weick & Sutcliffe, 2006), and the learning organization (Senge, 1990). We often refer to such intentional, reflective, curious, truth-seeking, imaginative, playful, collaborative, action-oriented forms of social construction simply as *public learning* (McGuire & Rhodes, 2010).

Public learning, in this view, holds, nurtures, and (ideally) synthesizes and advances three perspectives which are fundamental to constructing the human realities of organizations of all kinds (McGuire, Palus, & Torbert, 2007). *First-person perspective* is personal and based in individual experience, reason, feeling, intuition, faith, etc. *Second-person perspective* is mutually constructed in relationships as "our" view. *Third-person perspective* is about objective, verifiable, material facts.

These three perspectives come together in the conversations and dialogue we have with each other. Public learning is the experience of intentional dialogue applied in real-time to strategic organizational or societal work. Public learning is both serious and playful, entertaining both/ands and reconciling multiple truths. Emotional intelligence is requisite.

Reality is worth constructing together. Collective wisdom is worth creating. Truth matters. Truth is worth pursuing. We mean *the pursuit of truth* as the curiosity and intent to be conscious in relationship with each other, advancing our knowledge through a shared process of discovering, understanding, and transforming our reality.

From our own public learning in our journeys among change leaders, we offer *Three Realities of Change Leadership*. We hold these social constructions as open for dialogue in the global community of people who lead, manage and deal with change: All of us.

First Reality

Successful change requires both change leadership and change management.

Leading change requires understanding the differences in leading and managing.

Change management enacts the technical operational systems, structures and processes required to enact the business strategy.

Change leadership develops the capabilities for realizing shared direction, alignment, and commitment required to enact the business strategy.

Change leadership is the process of setting a leadership strategy to identify the leadership and culture dimensions of what it takes to deliver promised results (Beatty & Byington, 2010).

Change leadership is the craft of agile leaders capable of seeing whole systems while operating and integrating them. It is public learning in action.

Change leadership is needed to continuously elicit the direction, alignment and commitment to thrive in a complex and changing world.

Second Reality

Attention to leadership culture is key to strategic success.

Leadership culture will make or break any strategy, change effort or business transformation.

Complex, multifaceted, systems-level shifts in the environment require mindsets big enough to deal with continuous waves of change. Curious, intentional, both/and thinking, creative, interdependent leadership is what's missing.

Most leaders underestimate the risk of getting culture wrong. Instead, they focus habitually on the measurable, controllable, technical expert side – they manage the business. While technical tools, systems and processes are necessary instruments, they are nothing without culture. The evolving, bigger mind is both individual and cultural in nature.

Different types of leadership culture are likely necessary across different parts of any organization, but to succeed in the long run, most organizations need to build toward cultures of greater interdependence. Interdependent leadership cultures of collaborative, connected and shared leadership are needed for systemic perspective-taking required to respond to complex and changing environments.

Third Reality

Public learning is the means to a more interdependent leadership culture.

Sustainable change is a permanent learning process embedded in an organization's work (Quinn & Van Velsor, 2010). It is quite different than technical change. Public learning is required. In most leadership cultures, engaging in open, public, learning conversations is not a natural act. Bigger minds are required to lead public learning.

Many cultures impede public / collective / collaborative learning. Conversations necessary for learning and change are avoided or condemned (Patterson et al., 2002). Social norms prevail over organizational effectiveness. As tragic as organizational change failure is, saving face is often more important than saving the organization.

Culture always wins.

Change leadership requires having open dialogue to reveal beliefs that drive decisions. It is about mining key nuggets of knowledge in action, and hammering them into useable information that can be applied and modified into the actual work of changing systems and processes. Learning is confirmed in the collective conscious process, and happens individually and collectively, simultaneously and through the organization's work.

Collaborative leadership cultures are new on the horizon. They are increasingly capable of engaging in deep dialogue, uncovering hidden assumptions, and generating multiple right answers. It takes both/and thinking, facility with paradox, and interdependent mindsets to master this unfolding arena of complex change.

Senior leaders in the strategic zone understand the nature of interdependence and require increasingly interdependent forms of leadership within key strategic organizational zones in order to execute increasingly complex strategies. They recognize the need for collaborative networks of leadership throughout the supply chain, linking silos, sharing knowledge and learning strategically together (Palus, Cullen, Chrobot-Mason 2016, Pasmore, 2015). They understand the necessity of shared beliefs and practices for a co-created future.

Part 3: Leadership Culture Change Learning Process & Tools

Change learning is at the heart of change leadership (Argyris & Schön, 1996; Schein, 2010; McGuire & Rhodes 2010). Through both private individual and collective public learning, leaders advance new beliefs, practices and repeated behaviors that create alignment across the organization's systems, structures and processes. They learn how to make different, better decisions. Teams learn how to argue constructively, think systemically, change beliefs, make better decisions, and create new waves of practices.

We've constructed for practical purposes a three-part cycle. This is a change learning process that expresses the basic dynamics of individual and organizational learning in the change and transformation process (Figure 5),

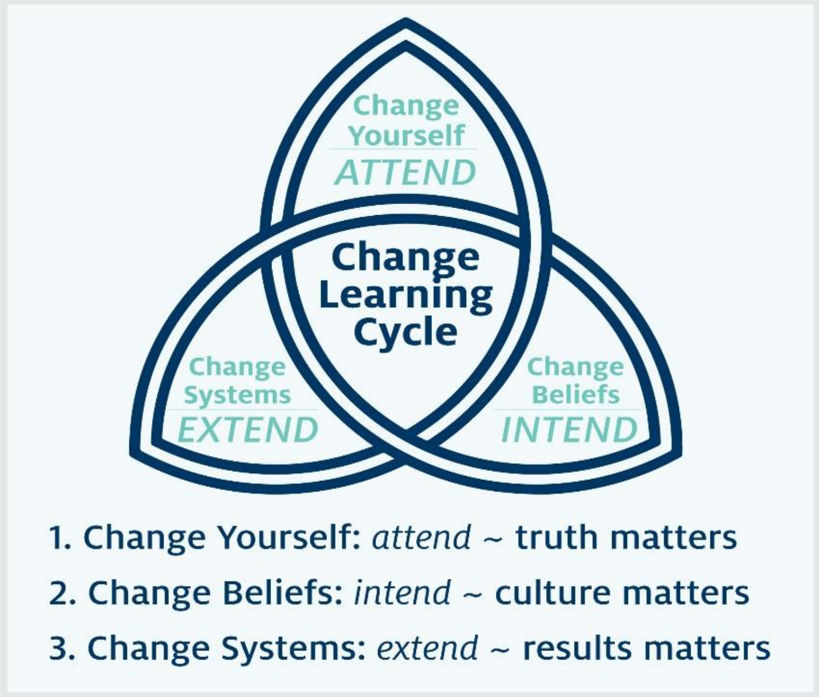

Change Yourself
ATTEND
Change Learning Cycle
Change Systems
EXTEND
Change Beliefs
INTEND
1. Change Yourself: attend ~ truth matters
2. Change Beliefs: intend ~ culture matters
3. Change Systems: extend ~ results matters

Figure 5: The change learning cycle

ATTEND Change *yourself*. Attend to what's going on inside yourself and others. Pay attention.

Change at an organizational level requires change within individuals. Culture is fostered by leaders attending to change in themselves, as they try out ways of working differently, and different ways of constructing reality with others.

Senior leaders must do the change work first. They serve as role models and guides. They shape the norms of culture, every day, by how they communicate, decide, focus and relate to others. They create environments in which *who we are*, *what we believe* and *how we do things around here* determine how we set and achieve our goals, develop our capabilities and insure our long-term viability.

The idea for many senior managers to change themselves first, rather than delegate change to others, is often quite challenging and counter-intuitive. Further, the notion to dig down and change beliefs as the key lever for changing behavior is often novel for many executives.

Changing one's self requires reflective capability. If you don't have the capability to be self-aware/conscious, to be consciously observant about what's going on around you and what's going on inside you at the same time, then your ability to participate in change may be meager.

Change leadership demands that leaders pay attention. It demands that we discover and construct reality, individually and collectively. It is about being curious about what is really happening, and what is true in a situation so that we can figure out what else could be true.

If you want *change*, *consensus reality matters*. You have to be serious about the *pursuit of truth.*

INTEND Change *beliefs*. Test and revise shared truths. Serve your purpose.

Intention is the linkage between the desired, identified change and how change becomes reality.
The shift to intention takes place one conversation at a time. It is about slowing down to power up, becoming conscious in the moment as work gets done and decisions get made. Through both structured and unstructured conversations and work, senior leaders begin to "test drive" new beliefs. As beliefs shift, decisions and behaviors will also shift, resulting in different actions and new outcomes.

Old assumptions have to shift toward new beliefs for organizations to evolve. This requires leaders to deliberately question assumptions alongside their peers, who are also intending to develop the beliefs and practices needed to achieve the strategy.

Beliefs drive decisions, and repeated decisions are practices. By design and with intention, the leadership culture and the operations change simultaneously. Performance – the motivation for change – begins to change, too.

If you want best practices, you need best beliefs.
If you want best beliefs, then intentionally evolve the leadership culture.

EXTEND Change *systems*. Extend the new beliefs and mental models into revised systems and processes aimed at strategic results.

As senior leaders learn together – through *attention* and *intention* – they *extend* that knowledge into organizational systems and processes, achieving change targets and making the goals.

Culture change is done for an organizational purpose. What is required to implement the strategy? What is needed on the human, social and cultural front – alongside the technical and structural needs – to implement change, respond to complexity and realize the future required?

Increasingly, organizational strategies require interdependent mindsets for execution. But organizational members are not yet operating with the intentions and beliefs required to work collaboratively. The whole proposition shifts when senior leaders extend the attention and intention of public learning into more and more places and with more and more people. It becomes the new way of working.

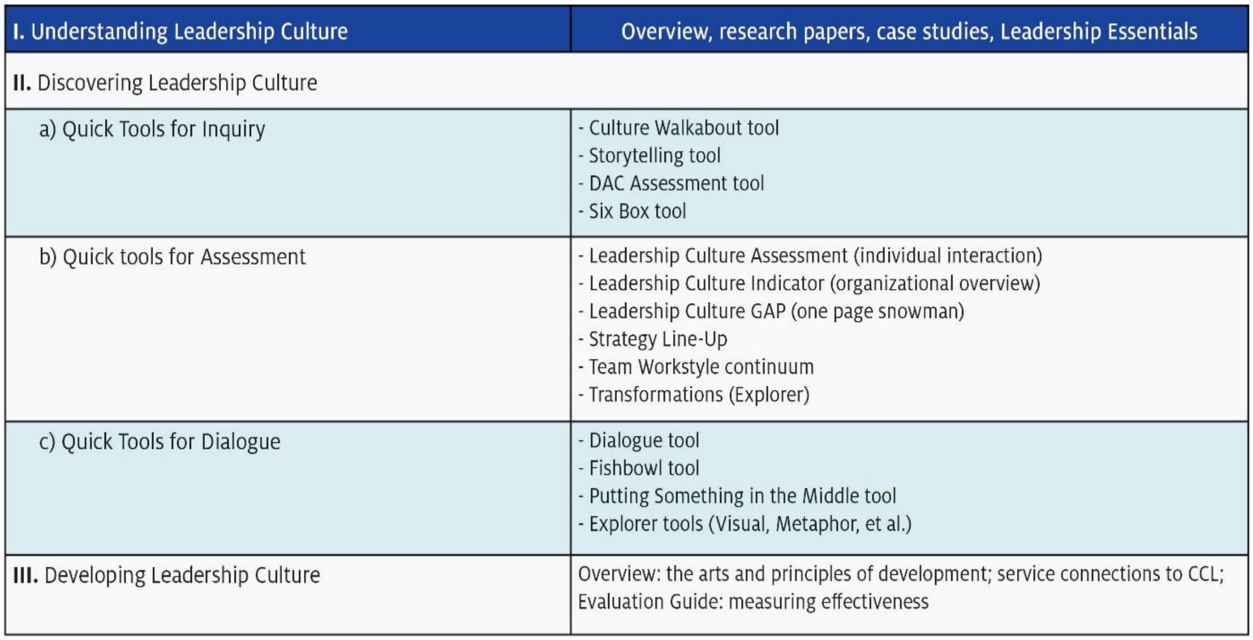
If you want *reliable results*, you need *sustainable*, *interdependent human systems*.

Leadership Culture Quick Tools for Action Development

Practical tools are required to make the learning work of change leadership accessible and useful to managers and leaders. The content alone is not enough. Ease of use is essential.

We have reduced the use of "outside-in," quantitative surveys and increased the use of tools and experientials engaging the subjective zone of "inside-out" experience (McCall, Lombardo & Morrison, 1988). This is the subjective, co-constructed territory of personal and shared experiences, identity, story-telling, myth, imagination, curiosity, beliefs, assumptions, visions, and faith – the elusive yet vital channels of the human soul and spirit (Kolb, 2014; Palus & Horth, 2002; Bunker, 1997; McCarthy, 1996; McAdams, 1988; Schön, 1983).

We have selected *Quick Tools* and methods here (Figure 6) that our colleagues and clients have found to be useful in a variety of contexts (Palus, Harrison, & Prasad, 2015; Palus & McGuire, 2015; McGuire, Palus, & Torbert, 2007).



I. Understanding Leadership Culture	Overview, research papers, case studies, Leadership Essentials
II. Discovering Leadership Culture	
a) Quick Tools for Inquiry	- Culture Walkabout tool - Storytelling tool - DAC Assessment tool - Six Box tool
b) Quick tools for Assessment	- Leadership Culture Assessment (individual interaction) - Leadership Culture Indicator (organizational overview) - Leadership Culture GAP (one page snowman) - Strategy Line-Up - Team Workstyle continuum - Transformations (Explorer)
c) Quick Tools for Dialogue	- Dialogue tool - Fishbowl tool - Putting Something in the Middle tool - Explorer tools (Visual, Metaphor, et al.)
III. Developing Leadership Culture	Overview: the arts and principles of development; service connections to CCL; Evaluation Guide: measuring effectiveness

Figure 6: The leadership culture *Quick Tools* box

The *Quick Tools* themselves, with common formats that explain Background, Purpose and How to Use, are simplified, practical, self-paced and user-friendly. These Leadership Culture *Quick Tools* are arranged by utility, and designed for discovery-based inquiry and exploration, strategic assessment for development, and deep dialogue for learning and development. For example, here we describe a few core *Quick Tools* for assessment of teams and organizations.

The vertical model is itself a useful facilitation. For example, a few executives informally (or a group formally) are presented a *Leadership Culture GAP* tool, a one page visual of the Snowman model, with clusters of descriptive indicators for each of three stages/states. Participants first individually and then together assess where their leadership culture(s) tend to be *embedded*, and where their strategy *requires* them to grow toward to face their challenges and realize their future vision and goals. In this *Quick Tool* They begin to take culture and its potential transformation as an object of attention and intention.

An organizational level version of the Snowman Model is the *Leadership Culture Indicators* tool, and provides fifteen specific indicators (items), arranged across each of the three stages. These items are distributed into three organizational categories of systems, engagement and learning. For example, in the systems (belief/practice) item for information, *need to know* characterizes the dependent-conformer culture whereas *want to know* the independent-achiever, and *shared openly with all* reflects the interdependent-collaborator leadership culture. This is typically used in poster form in the middle of a group where the value is discernment and learning in the team dialogue. This assessment tool is often used during an early phase of discovery in the transformation process. Such tools can also be critical in formal evaluation work used in Time 1 and Time 2 fashion. This kind of mediated dialogue, with issues of culture "in the middle," is a form of sustained, first- and second-person inquiry and thus developmentally potent (Torbert, 2004).

We focus on group-level interpersonal interactions in the *Leadership Culture Assessment* tool. Using the seven leadership logics as indicative of culture when taken in aggregate, we created a second-person assessment and inquiry tool (a rubric) for a more detailed look at leadership culture. We have identified four interpersonal processes that showcase the action logics as "what people do together." Rather than seen as individual competencies, these four processes are a bridge between the individual and the culture, where the logics play out in most common leadership interactions: *feedback*, *conflict*, *decision-making*, and *risk-taking*. Derived from the Benchmarks 360 degree assessment research at the Center for Creative Leadership (Leslie & Fleenor, 1998) and from our case studies of interdependent leadership cultures (McCauley et al., 2008), these four interpersonal processes are a basis for first- and second-person assessment of leadership cultures. The map is used by groups, teams and organizations to self-assess their center of gravity and the range of logics present in their work, across teams, divisions and functions, as well as the leadership logics required as organizational leadership capability for future success.

We also have created a first- and second-person inquiry tool called Transformations™ (www.ccl.org/Transformations), a portable, inviting tool which depicts each action logic as a set of illustrated cards, plus a set of cards showing a variety of catalysts and landmarks of human transformation. Transformations cards are used to portray personal and/or collective life journeys by selecting cards portraying their past, present, and aspired futures for themselves, their colleagues, and their leadership cultures (Torbert, Herdman-Barker, Izard & Palus, 2018).

Conclusion

The world is changing faster than we can imagine. Human consciousness needs to keep pace and yet we are stumbling. It is no longer appropriate to only develop a few leaders who are in charge of things. Individual development must be transcluded by the intentional development of collective consciousness, in which both the autonomy of persons and the shared culture are honored and advanced. Leadership culture is, we believe, the ripe ground for this advancement. The whole world is hungry for positive change that simultaneously uplifts individuals, groups, organizations, and our communities and societies. Pick up the development tools, play with them, invent new ones, use them, share them, teach them. Everybody everywhere is in this together.

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Creating Responsive Learning Environments to Develop Students' Reflective Capacity

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Abstract: In today's society, rapidly changing conditions and expectations mean that students need to learn how to make reflective judgments, and there is a clear need to better understand how to create learning environments that scaffold student learning to make these judgments. Here, we explore the design of a learning environment that integrates an computerized scoring system into a large scale course to provide students with formative assessment of their cognitive complexity level. We discuss important aspects to consider when framing and integrating this technology and how the deployment allows for formative assessment practices in large scale courses found in today's education.

Keywords: Cognitive ability, higher education, learning environment, metacognition, scaffolding.

Introduction

In today's rapidly changing world, it is not enough for *higher education institutions* (HEIs) to only equip students with discipline specific knowledge and skills (McAleese et al., 2013). HEIs should support students in becoming *lifelong learners* that can both adapt to and actively shape the society of the future (Schuetze, Slowey, Schue, & Slowey, 2015). Therefore, it is important to

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create learning environments where students are empowered to take control of their own learning and engage in *self-regulated learning*, while at the same time receiving the necessary support to move forward (Pintrich & Zusho, 2007). Students need to learn how to face complex challenges and make judgments that take into account a multitude of dimensions, often with incomplete and conflicting positions (Barnett, 2004). These types of *ill-structured* or *wicked problems* (Brown, Harris, & Russell, 2010) require students to make *reflective judgments*. As King and Kitchener (2004) put it: "Reflective judgments are initiated when an individual recognizes that there is controversy or doubt about a problem that cannot be answered by formal logic alone, and involve careful consideration of one's beliefs in light of supporting evidence" (p. 6).

Students' capacity to make reflective judgments is closely linked to their level of *cognitive* and *epistemological complexity*, which can be conceptualized using *cognitive developmental models* that describe the progression through different stages from early childhood, through late adolescence and into adulthood (Hofer & Pintrich, 1997). For HEIs to help students increase their capacity for and quality of reflective judgments and become self-regulated learners, there is a clear need to better understand how to create *learning environments* that explicitly support the development of students' underlying cognitive and epistemological complexity and are conducive for growth into what Magolda and others call a *self-authoring epistemology* (Magolda & King, 2004). Within this field of research, two key aspects of the learning environment have been identified: the application of cognitive developmental models and *formative assessments* (Clark, 2012; Nicol & Macfarlane-Dick, 2006).

One way to create these kinds of learning environments is to integrate *Lectical Assessment*s into courses to provide students with the necessary individual formative assessment and support (Dawson, 2002; Dawson, Commons, & Wilson, 2005). The Lectical Assessment System (LAS) is a domain independent system for measuring cognitive complexity on Fischer's (1980) skill scale (Stein & Dawson, 2011) and is based on intensive studies of the pathways through which individuals build understanding and skill in specific knowledge areas (Dawson & Wilson, 2004). The scalability of Lectical Assessments has been limited due to the amount of training required to certify scorers and the human labour involved in scoring. However, the recent release of the *Computerized Lectical Assessment System* (CLAS) has altered this situation (https://lecticalive.org/demo/). The development of CLAS, as a fully automated system that provides developmental scores, enables the scaling of Lectical Assessments and facilitates their deployment within formative assessment practices in higher education settings.

Given the recentness of this development, there are currently few design examples showing how this type of computerized domain independent scoring system can be utilized for formative assessment of cognitive complexity can be used in higher education learning environments. In this study, we explore possibilities for designing a responsive learning environment based on Lectical Assessments scored with CLAS, with the overall goal to support students in the development of metacognitive capacity and reflective judgment. Grounded in the theoretical context of CLAS, we describe the exploratory deployment of the system in a master level course. The aim for this study is two folded. First, we want to get an idea about the range of students' scores within the course population and examine these scores in relation to the cognitive task complexity and implicit expectations of the course. The second aim was to investigate the possibilities to use the reports generated by CLAS to aid in the design of customized learning activities. In this way, this paper provides a reference point for researchers and academic practitioners in conceptualizing, designing, and creating CLAS supported responsive learning environments.

Theoretical Background

In connection with the emphasis on *student-centered learning* in higher education, self-regulated learning has become a central construct to describe effective academic learning (Butler & Winne, 1995). Pintrich and Zusho (2007) define self-regulated learning as situations where students: "….set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior, guided and constrained by their goals and the contextual features in the environment" (p. 741).

In this context, it is important to recognize that students will not automatically become self-regulated learners in student-centered learning environments. Indeed, as pointed out by English and Kitsantas (2013): "For many students, the [self-regulated learner] role conflicts with deeply ingrained habits they have developed through more familiar classroom experiences, in which they have been passive recipients of knowledge" p. 129).

Self-regulated learning emphasizes knowledge as something that students actively co-construct, which requires them to become authors of their own learning and development, through what Kegan (1994) and later Magolda (2007, p. 69) call *self-authorship*: the internal capacity of a student to define his/her own belief system, identity, and relationships. It is therefore important that HEIs aim at creating learning environments that actively support the development of a *self-authoring mindset* (King & Kitchener, 1994; Magolda, 1992) throughout all their courses, while taking into account students' personal departure points. Educators need to help students to develop intellectually and become authors of their own learning and development. In the following two sections, we will situate our work within different strands of previous theoretical and empirical research; first epistemological beliefs, metacognitive and reflective skills and second, formative assessment and cognitive developmental models.

Epistemological Beliefs, Metacognitive and Reflective Skills

Epistemological beliefs are the beliefs we hold about the nature of knowledge and how we can know things (Hofer, 2001). Developing students' ways of thinking about knowledge and knowing is a key objective of higher education and at the core of students' ability to engage in a self-authoring mindset, as they are foundational for how students use and develop their skills. As Muis (2007, p. 173) proposed, epistemological beliefs: 1) constitute one component of the cognitive and affective condition of a task; 2) influence the standards students set for their goals; 3) serve as inputs to metacognition; and 4) are subsequently influenced by the students' development in self-regulated learning and self-authorship.

Early work in understanding the epistemological development of college students was undertaken by Perry (1970; 1999; 1981) who made extensive studies of epistemological growth in students. His research generated a stage model that went from absolutist perspectives of truth being a form of right or wrong, to relativist perspectives where conflicting versions of "truth" are to represent legitimate alternatives and a nuanced perspective of right and wrong. Perry's original intent was “a purely descriptive formulation of students’ experience,” rather than a “prescriptive program intended to ‘get’ students to develop” (Perry, 1981, p. 107). His work has been further extended in the domain of student services by Magolda (1992, 2007, 2008) who focused on how educational environments and experiences could be conducive to growth into self-authoring epistemologies.

Empirical studies have shown that epistemological complexity differs among students, and King and Kitchener (1994), as well as Magolda (1992), pointed out that the majority of first and second year students at HEIs are not engaging in self authorship and not all of them will develop this capacity by the time they leave HEIs. Given the age at which the majority of students enter higher education, it is natural that they come with a *socialized mind*, as achieving this order of consciousness is a major task during mid to late adolescence (Kegan, 1994). As characteristics of this stage, they subjugate their ego desires to the imperative of interpersonal relationships (King & Kitchener, 1994; Magolda, 1992), and look to authority figures like teachers to provide relevant knowledge and information. Kegan’s (1994) research has estimated that two thirds of the adult population operate from this (or an earlier) epistemological structure and have yet to achieve a fully self-authoring mindset. In a self-authoring mindset, there is a more mature and self-directed approach to using knowledge that enables a greater freedom and scope of behaviors where one is not subject to interpersonal relationships, but considers them in relation to internally driven values. Furthermore, empirical studies suggest that students’ average epistemological complexity is interrelated to the discipline they are studying (Paulsen & Wells, 1998). There are studies showing that students tend to hold more naïve epistemological beliefs in fields such as mathematics, science, and engineering, which could be seen as an attunement to the culture and teaching in these fields with a strong emphasis on facts, principles, and procedures presented in a dualistic mode (Felder & Brent, 2004; Wankat, 2002).

Students’ epistemological beliefs are deeply interdependent with their metacognitive and reflective skills (Muis, 2007). These skills are concerned with the processes by which students reflect upon their own learning, what learning means to them, dissecting their own thoughts, thinking about in what way they know something, arguing with themselves about possible alternatives, and thinking about how their experiences will shape their future (Gall, Gall, Jacobsen, & Bullock, 1990). Student-centered education both requires and stimulates the development of metacognition, but it is important that teachers provide the necessary scaffolding for students to enable them to develop over time (Handelsman, Pfund, Lauffer, & Pribbenow, 2005). While certain epistemological beliefs can limit the use of metacognitive and reflective skills, e.g. Dweck’s (1995) notion of the importance of attitude towards learning of either a fixed or a growth mindset, specific skills also offer an entry point to become aware of one’s own beliefs and develop a self-authoring mindset (Kegan, 1994). It is through learning and training metacognitive and reflective skills that students can advance their epistemological complexity level within the learning environments and support provided by HEIs (Wallin & Adawi, 2018).

The students’ pathway towards a self-authoring mindset emphasizes the development of skills for questioning beliefs, in particular the ability to make reflective judgments in relation to values, in order to determine if they are primarily coming from external sources or are one’s own (Wyn, Cuervo, & Landstedt, 2015). Shifting to an emphasis on skill, rather than a focus on the self or ego as a centralized meaning making system, enables the notion of self-authorship to be operationalized and its development scaffolded in learning environments at HEIs. In Fischer's *dynamic skill theory*, the core concept of skill is defined as "the capacity to act in an organized way in a specific context. Skills are thus action-based and context specific" (Mascolo, Fischer, & Lerner, 2010, p. 321).

With this in mind, it is important to realize that there is mounting evidence that metacognition as a skill needs to be learned – it is not something that all students carry with them when entering higher education (Wedelin & Adawi, 2014). This holds also true for reflection, which not all students will engage in on their own (Wallin & Adawi, 2018). Therefore, the development of metacognitive and reflective skills should be an important goal of higher education, as these skills are closely linked with the students' ability to plan, monitor, regulate, and evaluate their own learning (Bråten & Strømsø, 2005; Butler & Winne, 1995; Clark, 2012). HEIs need to support students' skill development in order to help them to become lifelong, self-regulated learners (Pintrich & Zusho, 2007).

Formative Assessment and Cognitive Developmental Models

Given that these metacognitive and reflective skills, described in the previous section, are central to the goals of higher education, the question becomes on how to support students in achieving them (Boekaerts, Pintrich, & Zeidner, 2000). To answer this question there is a clear need to better understand how to create learning environments that explicitly support the development of underlying cognitive and epistemological complexity and are conducive for growth into such a self-authoring epistemology (Magolda & King, 2004). Within this research, two important aspects of the learning environment have been identified: formative assessments and the application of cognitive developmental models (Clark, 2012; Nicol & Macfarlane-Dick, 2006).

In general, formative assessment supports students during the learning process by providing them with feedback on their performance and aims at helping students to reach their full capacity (Yorke, 2003). In contrast, summative assessment focuses on outcomes and the main question is to what extent students have reached the learning objectives (Clark, 2012). Formative assessment aims at helping the students to learn, and in this way is closely linked to scaffolding, a process described by Bruner (1973) as a practical approach to making use of Vygotsky's concept of the *zone of proximal development* (ZPD). Scaffolding is a teaching approach, where students learn through the interaction with a knowledgeable person that helps them in their development process and gradually reduces their support as the student becomes more independent (Wood, Bruner, & Ross, 1976).

On this basis, Nicol and Macfarlane-Dick (2006, p. 199) argued that ´*in higher education, formative assessment and feedback should be used to empower students as self-regulated learners*.´ However, one large challenge with implementing formative assessment widely at HEIs is the time demand it brings to teachers, as they should follow up all students individually and scaffold their development (Clark, 2012). In addition, the move towards student-centered learning environments and inductive teaching methods means that students work more and more independently, which limits students' direct interactions with teachers and constrains the possibility for formative assessment and scaffolding from the teacher (Clark 2012).

One way to overcome these limitations of formative assessment practices is to design responsive learning environments that scaffold student development on an individual basis. The CLAS version of the *Lectica Reflective Judgment Assessment* (LRJA), like other Lectical Assessments, was built specifically to support individualized instruction of this kind by providing diagnostic information that helps instructors and students themselves to identify their individual learning edge, or ZPD. Lectical Assessments can perform this function because each of them is informed by extensive primary research into the development of a given assessment target construct. This research involves the use of methods that build on a long history of research in the field of cognitive development, beginning with Baldwin (1895), followed by Piaget (1954, 1970), Kohlberg (1969, 1975), and Fischer (1980). The learning model and developmental scale that most directly inform the methods employed to build Lectical Assessments are Fischer's (1980; Fischer & Bidell, 2006; Fischer & Yan, 2002; Mascolo et al., 2010) dynamic skill theory and *skill scale* (Stein & Dawson, 2011).

Lectical Assessments measure the developmental level of understanding demonstrated through assessment responses (Stein & Dawson, 2011). Numerical scores (called Lectical Scores) provided with Lectical Assessments are calibrated to Fischer's (1980) skill scale. The hierarchical complexity of cognitive tasks mapped by Fischer's skill scale describes how sensory motor actions develop from single actions, through mappings into systems and even systems of systems of actions. The latter are 'chunked' into single representations, which then also go through a similar set of stages before cognitive processes move into the tier of abstractions. While Lectical Assessments are typically scored by trained humans, CLAS is a fully automated system that provides developmental scores that agree with human scores 85% of the time within one fifth of a level. This rate of agreement is comparable to human inter-rater agreement (Dawson, 2017). In contrast to other text analysis systems that measure and quantify simple text parameters like vocabulary and punctuation, CLAS algorithms are based on deep studies of learning and development that involves a blend of human expertise and analytics. At the core of CLAS is the Lectical Dictionary that provides a constantly evolving taxonomy of the development of meanings. At the moment, the dictionary contains 230,000 words and phrases that are assigned to a Lectical Phase (1/4 of a Lectical Level). The CLAS system uses the dictionary to measure the hierarchical complexity of the text provided by the users and measures growth along the Lectical Scale. While the dictionary and CLAS algorithms do not learn on their own, the systems is developed through a human/machine collaboration, where trained human analysts curate CLAS and CLAS makes suggestions based on its existing algorithms.

College students who have taken the LRJA generally perform in the range of 10.5 to 11.4 on this scale, which represents the range from the middle of abstract mappings through the middle of abstract systems. While CLAS and human scorers are able to provide very precise Lectical scores on a given assessment performance, it is understood that the range of performance variability means that for practical purposes, formative feedback to test takers is designed to address Lectical phases within ¼ of a level of a test takers score. This range can be considered to be within their ZPD and thus instructions and instructional material, in order to meet achievable learning goals, should be designed to be no more than 0.25 above their score. The typical rate of growth in the college years is around 0.13 of a level per year (Stein, Dawson, Van Rossum, Rothaizer, & Hill, 2014). Research on city workers using Lectical assessments as part of a training program were found to have growth of 0.18 – 0.27 over a four to nine month period (Stein et al., 2014).

The CLAS / demonstration version of the LRJA employed in this research provided students with a report that covered three areas: 1) the Lectical Score from CLAS, 2) a description of the kind of reasoning typically associated with this score and a description of typical reasoning at the next quarter of a level together with a learning activity that involves a comparison of these two ways of thinking with the students' responses, and 3) a description of the students' likely learning edge (or ZPD) accompanied with a learning activity targeting either deliberation skills or skills for working with evidence (Stein et al., 2014). The learning activity in the report is based on the individual growth edge of the student and specific tasks are outlined for how to go forward in a *Virtuous cycle of learning* (VCoL) (Stein et al., 2014). VCoLs are a generic adaptation of various cyclical learning models such as Kolb's (2014, p. 50) experiential learning cycle. It involves; 1) setting a goal (usually informed by some aspect of a formative developmental assessment), 2) seeking information related to that goal at a ZPD relevant level of cognitive complexity, 3) applying this information to real life situations for practice, 4) reflecting on what happens during the application of this new information and 5) resetting the goal based upon the reflections in step 4.

To our knowledge, there is no published research to show how this kind of computerized system and the automatically generated individualized skill development sequences can be made context specific within a course. Others have used different types of intelligent tutoring systems, but these systems are often task specific and do not offer students with information about their developmental level of understanding and how they can improve it. For example, Murray & Arroyo (2002) used Animalwatch as an intelligent tutoring system that provides students with progressive hints when they enter incorrect answers to word problems. CLAS on the other hand provides much more advanced information and therefore consideration of the relationship of these sequences and skill building activities to course specific learning objectives in higher education learning environments need to be carefully addressed. Thus using the LRJA report content as a starting point, we explored the possibility of working with students to develop more personalized learning activities tied to students' growth edges and in relation to a specific course context, as we will describe and discuss below.

Context

The *Experts in Teamwork* (EiT) course was selected as a pilot course to implement the use of the CLAS version of the LRJA for four reasons: its interdisciplinary nature, its emphasis on experienced-based learning, its size, and its organizational support structure. EiT is an interdisciplinary, and to some extent an intercultural, team-based 7.5 ECTS (European Credit Transfer and Accumulation System) course at the Norwegian University of Science and Technology (NTNU), with the aim of developing students' interdisciplinary and intercultural collaborative competencies (www.ntnu.edu/eit). By virtue of being mandatory in almost all five-year undergraduate and master programs, EiT is one of NTNU's largest courses with more than 2300 students each year. Due to a recent fusion between NTNU and several colleges, NTNU has become the largest university in Norway and the EiT course will expand to include approximately 3000 students unevenly distributed in three Norwegian cities by the year 2021.

The structure in EiT is that a teacher provides a general theme suitable for an interdisciplinary working approach that up to 30 students can select. These groups of students organized by themes, called villages, each have a teacher who is responsible for structuring and guiding the teams' work process, as well as providing the necessary thematic content that the students need. In total, there are about 90 teachers teaching in EiT each year, representing all faculties. The course is coordinated centrally by academic developers and staff from the EiT Section who organize and administer the villages in cooperation with the faculties. To support the teachers, basic training in the experience-based approach used in EiT is given through seminars and lectures, as well as teaching and learning material for all students that they can use within their villages, including a *Book of Reflections*. In addition to a teacher, or in EiT terms, village leader, each village has two learning assistants that facilitate the teams. These are students employed on a part-time basis that receive training in observing team behavior and asking open-ended questions, and conducting reflection and feedback exercises. The learning assistants' role is to initiate reflections, highlighting aspects of the team dynamics that may be less evident to the team itself, thus giving the team an opportunity to discuss and become aware of previously hidden dynamics. It is important to point out that the teams retain autonomy on what inputs from the learning assistants they want to consider, evaluate, and use to change their team processes, and what actions to take.

Within each village, the students are put in interdisciplinary teams of 5-7 students to work on a self-defined project coupled to the village theme. With all of NTNU's faculties represented, a team may include students from medicine, natural science, engineering, computer science, social science, humanities and/or economics. As a result, students will expand perspectives on their disciplinary knowledge through their encounter with skills from other disciplines.

The desired learning outcomes in EiT are strongly focused around the students' ability to become aware, reflect upon, and improve their interdisciplinary team work, dynamics, and processes. Throughout the project work, the students develop these teamwork skills by analyzing, on their own and together, the situations that arise as the team works on their interdisciplinary project. Based on their understanding of situations, the students reflect on how they communicate, plan, make decisions, solve tasks, handle disagreements and relate to academic, social and personal differences. Through individual and team reflection activities, as well as the application of relevant concepts and fundamental group theory, the student teams can become aware of their group dynamics and learn how to collaborate in interdisciplinary teams by taking actions to improve their teamwork. In this way, EiT aims at providing students with a learning environment that stimulates the development of reflection and metacognitive skills, as well as overall intellectual development and personal growth.

Assessment in EiT has both formative and summative elements. The continuous interactions between the students, learning assistants, and teachers allows direct feedback and individualized formative assessment that is targeted towards students' current level of cognitive complexity. However, there are limits to the depth and amount of formative assessment that the learning assistants and teachers can provide, as we will discuss later. In addition to the formative assessment, the student teams are assessed on both their project work, as well as their analysis and reflection of their group dynamics and team development processes. The summative assessment is based on a project report and a process report, each worth 50% of their final grade. There are no individual grades; each team is given a grade as a whole. However, all students are required to present an evaluation at the end of the course that focuses on their individual and team development during the period of the course.

Mapping Students' Reflective Capacity

The large scale of the EiT course, in combination with the disciplinary diversity of students provides a challenging situation to support and scaffold individual students' development. This is especially true in the area of reflection and reflective judgment, where students come with a range of different experiences and training. During the time EiT has been offered, a number of anecdotal stories emerged related to perceived difficulties for many EiT students in understanding the reflection and group process components of the course. Taking this as a starting point, the CLAS version of the LRJA was used to map the range of LRJA scores among students. In addition, the cognitive task complexity of the EiT Book of Reflections given to students as a course resource was assessed to get an idea about the match between the students' level and the level of the instructional material.

In this pilot study, the aim was to explore the general suitability of CLAS and develop strategies to frame the system for the students. Therefore, students in selected EiT villages were invited over the last two years to participate in taking the LRJA demo and try out learning activities based on their Lectical score and designed to complement the Lectical reports they received. The students had free access to the system and could do the assessment at any time. Neither the teachers nor the researchers had access to the students' scores or reports directly from Lectica, but students were asked to submit their reports to the researchers in order to adapt the use of CLAS and associated learning materials in the future. Over the two years of this research project, 76 students sent in their reports and scores as input into mapping the range of reflective judgment skills among EiT students (26 in the first year, and 50 in the second year).

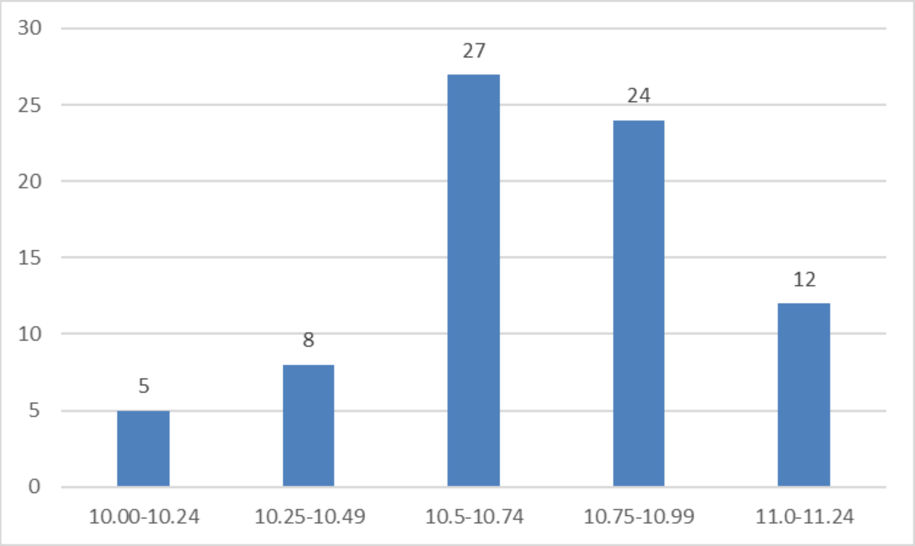

Figure 1. Scores on CLAS version of the LRJA.

The scores from the students ranged from just below 10.2 up to 11.24, as shown in Figure 1. These results indicate that the sample of students participating in the EiT mapping exercise generally fell within the normal range of distribution, which is 10.5 – 11.4 for college students. This pilot study showed that it is possible to get information about the complexity of reflective judgment in a diverse student population that is highly relevant for the course, yet otherwise difficult to obtain. While a normal distribution curve is one aspect, it can also be that different subject areas promote the development of reflective judgment as a skill more than others do (Felder & Brent, 2004; Wankat, 2002). With a limited number of students and a potential self-selection bias that might affect the score distribution, it is however not possible to explore this area more at the moment.

While from a research perspective information about the student population is interesting, detailed information and statistics are primarily of interest in supporting the design process of a responsive learning environment. Here, it is important to point out that CLAS should not be used to stigmatize and judge students, but to enable teachers to provide individuals with the best possible support and scaffolding of their learning and development. The type of mapping described here can be viewed as a starting point, but the focus needs to remain on the individual students in the class.

One area where this type of student population mapping is of interest is in connection with the general design of instructional material that should support students during the course. We therefore chose to score the cognitive complexity of the EiT Book of Reflections, a central resource for the students in their development of reflective skills, with CLAS in order to get an idea of how well it matched with the students' level of cognitive complexity. The text from the EiT Book of Reflections scored 11.2. (Note that the original text is in Norwegian, and the text we scored was translated by one person, which could have contributed to the uniform score across different sections of the book, which were written by different and collaborating authors in Norwegian. As well, there is a larger issue with how different languages construct meaning over time and that building a similar Lectical dictionary in other languages has not yet been attempted). This means that the majority of students in this small sample scored between 0.2 and 0.7 of a Lectical level below the material meant to support them. A gap of 0.25 can be considered to be within their ZPD and the types of activities and explanations provided in the EiT Book of Reflections can be seen as providing an optimal scaffolding and learning activities for these students. For the students scoring in the same range as the Book of Reflections, it is likely that the reflection skills described in the book are already natural cognitive processes. They would likely be able to understand and practice those activities as described without extra effort.

However, for those students whose LRJA scores have a gap from the EiT Book of Reflections of more than 0.25, it could be that the expectations and activities described are outside of their ZPD. This can arise from how constructs used at higher Lectical levels of complexity 'chunk' lower complexity constructs, or have internalized them as implicit, or taken for granted. Thus there can be a lack of sufficiently explicit use of a wider range of constructs that are necessary to provide access for all students to the instructions provided. This could contribute to a number of issues arising for these students, as reported in anecdotal evidence from learning assistants and teachers over time. It could be that they read and discuss with classmates the reflective activities and believe they have understood them, when key aspects implicit in the expectations from EiT may actually be misunderstood. It could also be possible that students read the descriptions and activities in the EiT Book of Reflections and feel frustration at not understanding them. This frustration could contribute to critical or outright negative perceptions and evaluations of the course, giving up on trying out suggested activities, or other forms of reaction to being asked to perform cognitive tasks beyond their ZPD in this skill domain.

In more general terms, it is clear that the general instruction material works very well for some students, but will be more problematic for other students. In the case of the EiT Book of Reflections, it is likely that the cognitive complexity level it implicitly presents is outside of the optimal ZPD for a considerable part of the student population. This mismatch can be mediated through the support from the learning assistants and teachers, but does not provide optimal base conditions for learning. Grounded in our mapping exercise and the potential challenges associated with a mismatch between students' and instructional materials' cognitive complexity levels, we will in the next section discuss our exploratory experiments with the design of instructional material that could address this potential gap. Our aim was how to provide individual students with the necessary support suited for their current level through the design of a more responsive learning environment.

Design of a Responsive Learning Environment in EiT

In the previous section, the variation in students' scores in relation to the level of the instructional material was discussed. In this section, the design of a more responsive learning environment based on the CLAS version of the LRJA in combination with new instructional material will be explored and discussed. The focus in this pilot study lies in using CLAS to support teachers and learning assistants in their ability to scaffold and support student learning. By providing a tool that enables individualized formative assessment that is targeted towards students' current level of cognitive complexity, it is possible to create a more responsive learning environment. Figure 2 provides an overview of the different types of learning materials designed within this study to create a supportive learning environment.

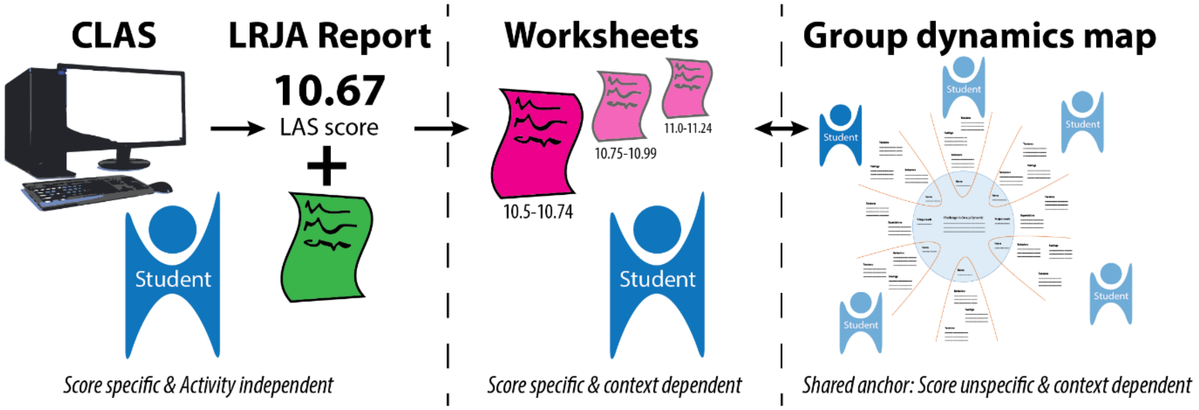

Figure 2. Schematic overview of the CLAS based responsive learning environment with the different learning materials.

Formative assessments that scaffold students' learning and development can be divided into two categories: general formative assessment and context dependent formative assessment (Evans, 2013). General formative assessment is independent of a course's format and content, and provides more general help on how a student can improve. The CLAS version of the LRJA report falls in this category of general formative assessment and the VCoLs associated with it support the students in a broad way, independent of the EiT context. While the information in the report and the VCoLs themselves are useful, as a kind of meta-cognitive process of making the character of their own thinking an objective description that they can then reflect on, it does not necessarily help the students achieve their context specific learning goals within the course. For the current project, the broad nature of these VCoLs provided in the LRJA reports would require significant investment from students in order to adapt them to the more specific contextual requirements of the EiT course.

Therefore, a special interest in this study was on the development of context dependent formative assessment. To bridge the gap between the context specific learning goals in EiT and general LRJA report, a set of worksheets were designed in an attempt to make the learning activities more directly related to aspects of the learning requirements in the EiT course, and increase the perceived relevance of the LRJA. This context dependent formative assessment more easily helps students to realize the value of the LRJA, as it resonates directly with something that they are working on and situates their learning into their current experience (J. S. Brown, Collins, & Duguid, 1989).

The learning material that was designed particularly for the EiT course consists of two parts, a group dynamics map that works as a shared anchor for the students, and context specific VCoLs. The group dynamics map (Appendix A) is a score independent document, which invites students to identify other team members in relation to their behaviors and the feelings and tensions they might experience. It supports students in capturing their current understanding of the group dynamics and how their understanding changes after working with the VCoLs. While the students might have different scores and work with different VCoLs, the map provides the team with a shared document to exchange ideas and develop as a team. The map also anchors the LRJA report and VCoLs to the course by making the use of it explicitly relevant to the desired learning outcomes of increased awareness, reflection, and suggested improvements in the areas of teamwork and group dynamics.

In the first year of this study, a detailed series of context specific VCoLs were designed to closely match the specific LRJA demo reports the students received. (Assessment takers would receive a report based on their Lectical level and feedback focused either on *thinking and deciding*, or on *working with evidence*). The aim was to provide a bridge from the LJRA demo reports to the EiT course requirements and activities. Feedback from the villages and students trying these out was that the process was overly complex and that the links between the LRJA reports, worksheets we provided and their course activities was not clear enough.

This led to revising the set of worksheets and instructional materials in the second year of the study. This time, context specific VCoLs targeting the three predominant phases of student scores were developed and used (10.5-10.74, 10.75-10.99, and 11.0-11.24, also independent of the focus of the LRJA feedback on either *thinking and deciding,* or on *working with evidence*). By developing VCoLs with different cognitive complexities, most students were provided with material that fell within their ZPD . The VCoLs designed for the EiT course were structured around the same five steps as the general VCoLs: Target, seek, apply, reflect, and reset. An example of a worksheet can be found in the Appendix B.

On a content level, two different factors informed the design process, the learning outcomes of the course and the historical knowledge about common student experiences and challenges. By using both factors, the adapted VCoLs coupled material from the LRJA report with the students' activities more directly to the rest of the course than in the first attempt at this the previous year. The aim of these new worksheets was to provide students with methods to gain relevant information about other team members and how their interactions affected the group dynamic. The main adaptation was to take the information seeking phase, which was generally taken straight from the CLAS system, and adapting the application of it to how students could complete their reflection tasks as an individual. To help the students to learn about this and be able to reflect on their experiences, both individually and as a team, the worksheets were designed to make it easier for them to learn from their direct experience in the teams. From this, the students were invited to consider what elements of their individual reflections they might want to share with the team, as a way of contributing to the team reflection activities.

In this way, student learning and development was individualized through CLAS score dependent VCoLs and students on all levels get the optimal instructional material that could support their learning of reflective skills. At the same time, the group dynamic map acted as an anchor to keep the group together and facilitate processes in which all students could contribute to the team development.

Framing this type of next-generation assessment system is a key factor to be considered to develop new formative assessment practices and fully use the opportunities of computerized systems (Heritage, 2010). The advantage of using a computer based system is that students can take the assessment as often as they want and whenever they want (Bull, Quigley, & Mabbott, 2006). In addition, the use of the CLAS system is independent from the university and the students themselves choose if and when they want to share their scores with the teacher. This means that the students themselves stay in control of the whole process, which mediates risks described above (Nicol & Macfarlane-Dick, 2006). Within a responsive learning environment, the information gained from the LRJA can be used to help students take the next step and create learning opportunities that lie within their individual ZPD. As Shepard (2009) pointed out “it is the use of an instrument, rather than the instrument itself that must be shown, with evidence, to warrant the claim of formative assessment” (p. 33). The CLAS version of the LRJA needs to be seen, both by teachers and students, as an entry point for development and growth rather than as a summative assessment. Otherwise, the formative assessment dimension is compromised, and the assessment is seen as a high stakes test, associated with a potential negative impact on motivation for learning, especially for weaker students (Black & Wiliam, 1998). At the same time, the approach described here offers interesting opportunities for HEIs to provide teachers with the necessary tools to support students in their intellectual development.

Summary and Future Research

Overall, the design of responsive learning environments is facilitated by the development of technology solutions like CLAS. However, the skill in framing and integrating of this type of technology into specific learning environments is the decisive factor in the success of scaffolding student learning. It is through the careful and collaborative integration of technology between students and teachers that responsive learning environments can be created.

In this article, we have explored and discussed important aspects to consider when using technology to create responsive learning environments that aim to contribute to the development of self-regulated student learning. The described approach has significant potential to support students and scaffold their development. Supporting and scaffolding students’ development is difficult and demanding and this is especially true in large classes, where interactions between teachers and students are limited. Automated systems offer an interesting approach to this dilemma, but need to be balanced through social interactions and framing to minimize the risk of being perceived as summative assessment tools, high stakes tests, or control instruments. While the numerical score provided by CLAS can be helpful to get a better understanding of the overall student population, it is in itself of little help for the students. It is through using the score to inform the design of ZPD and context specific skill building activities that students' learning can be scaffolded efficiently.

Based on the experience and insights that we have gained from this pilot application of the CLAS version of the LRJA in the EiT course, we plan to take further steps to integrate this information about the range of reflective skills students bring to the EiT course with more robust learning activities. In the future, we want to look at two different research directions. First, we will continue to study the effects of responsive learning environments created with the CLAS system and explore students' experiences, development, and reflective capacity in more detail. Within this strand of research, we will also look at possibilities to use CLAS in other courses and further consider the framing of this type of system within the higher education context. In light of the current emphasis on digital tools and formative assessment, we think that CLAS can make an important and interesting contribution in the future, but more research is clearly needed to better understand how to use this type of system in higher education to its full potential.

The other research direction that we want to explore in the future is to combine utilizing dynamic skill theory and the knowledge gained from using the CLAS system with other ways to create responsive learning environments. In particular, we are going to collaborate with a broader group of colleagues on creating a developmentally informed sequence of reflective prompts for students to use in conjunction with their daily journaling activity. For this, we will utilize Snowden's (2010; 2007) SenseMaker platform to enable students to log their journal entries into an online platform, either through a web browser, smartphone or tablet. Students will then be invited to reflect on their entry using the sensemaking process of placing a marker in relation to a triad of three equally weighted signifiers. We will design a sequence of these signification triads keyed to what we understand in relation to the types of constructs that will be in the ZDP of different students. Thus all students can use the same platform, but find the reflective prompts that best fit their learning needs. One advantage of the SenseMaker platform is its flexibility and the fact that it can be adapted more easily to the specific context, as well as to the students' native language. Comparing CLAS and the SenseMaker platform will allow us to gain a deeper understanding of responsive learning environments, their creation, and the underlying learning and development processes stimulate by this type of learning environment.

In summary, we believe that the general aspects of the approach explored and discussed here are highly relevant for many courses in higher education. Using computerized systems in the manner described here can enable HEIs to provide the necessary formative assessments to scaffold students' development in many domains. The possible adaptation of CLAS to a broader range of skill domains is one aspect of this. More broadly, as an essential factor in later success in society, HEIs can help students towards a self-authoring mindset even in large scale courses commonly found in today's mass education by creating responsive learning environments.

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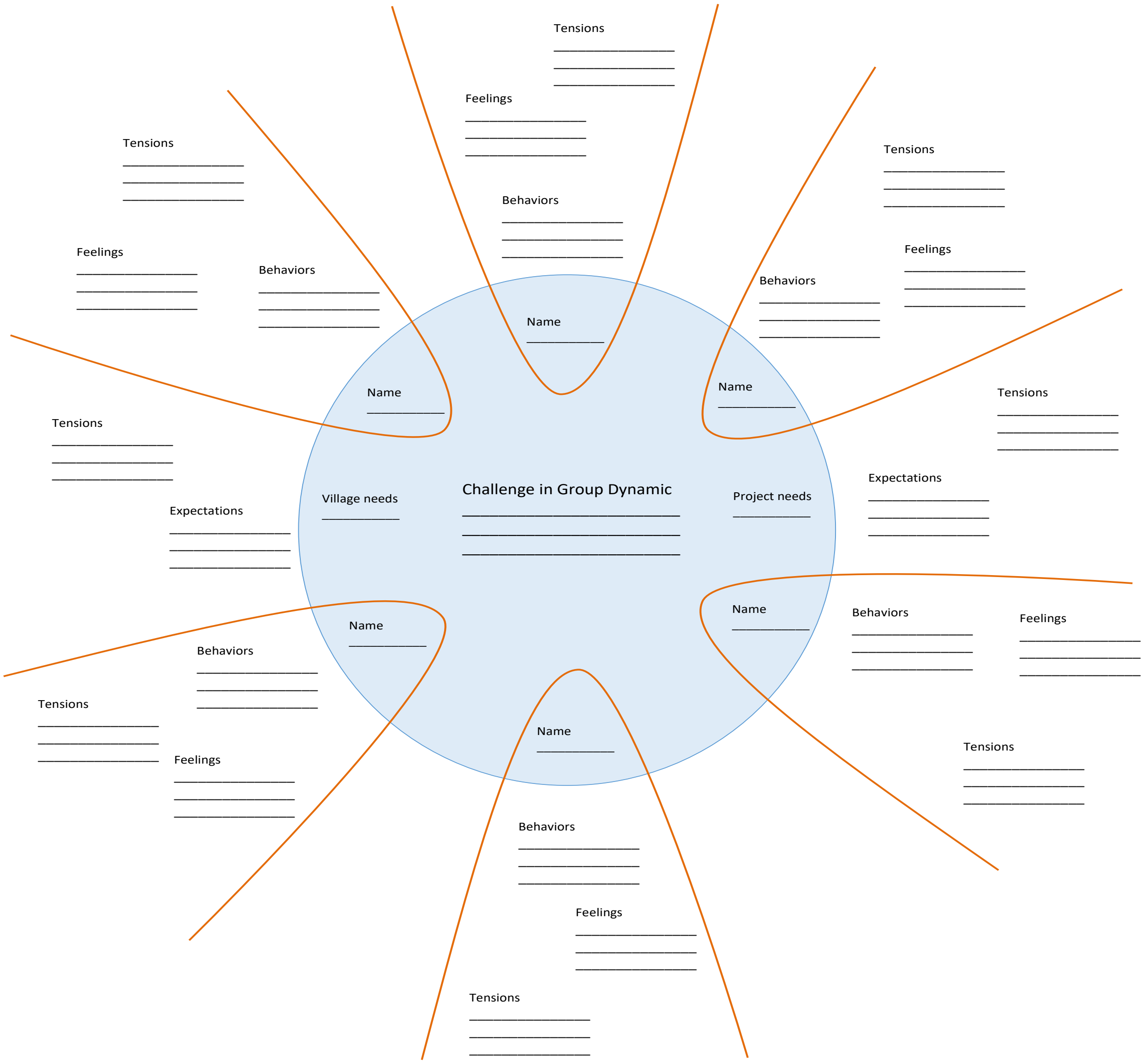
Appendix A

Mapping the Group Dynamic


Tensions
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Challenge in Group Dynamic
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Project needs
Expectations
Expectations
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Behaviors
Feelings
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Name
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Appendix B

VCoL Worksheet A

10D Deliberation

Take your group dynamic map and fill in the parts that you already have some ideas about.

Goal: *To fill out parts of your group dynamic map as a rich picture of a system.*

Seek: Watch this video suggested in your report: https://www.youtube.com/watch?v=-sfiReUu3o0 (12 minutes) Then watch this three minute video: https://www.youtube.com/watch?v=17BP9n6g1F0 .Finally, this seven minute video: https://www.youtube.com/watch?v=lhbLNBqhQkc

Make notes on what you learn about systems thinking.

Apply: Examine your group dynamic map and apply your new knowledge about systems thinking to make connections or patterns explicit.

Make any changes to what you noted earlier about specific individuals or contexts.

Reflect: What changed in terms of what you entered into your group dynamic map about different team members? About connections between them? Or between them and the project or village?

Were you surprised by anything you learned?

Write down what you learn from doing this activity in your personal reflection book. Also write down any new insights you get from these dynamics or patterns to the map. Is anything clearer now? Is something new unclear? What would you want to share with the group?

ReSet: Given what you have learned from this process so far, how might you further fill in other parts of your group dynamic map? What else can you clarify, the next time you try it? How might you adjust how you contribute to the group?

Love in a Time Between Worlds: On the Metamodern "Return" to a Metaphysics of Eros

Zachary Stein[1]

Abstract: Modernity is based on a critique and abandonment of premodern forms of metaphysics, while postmodernity has only deepened critiques of metaphysical truth claims further. This has created a novel historical situation in which a planetary society revolves around the absence of a shared metaphysics. The vacuum of meaning at the core of postmodern societies has resulted in a sense of exhaustion and alienation, a state uncomfortable enough to initiate a metamodern "return" to metaphysical speculation. I argue in favor of adopting metamodern metaphysical characterizations of the human based on an understanding of love as a transpersonal universal force akin to gravity. Philosophers have long called this force *Eros* and have placed it at the center of the human experience. Charles Sanders Peirce marks the beginning of a new method for practicing metaphysics, while at the same time offering profound insights into the cosmic dynamics of evolutionary love, or Eros. A century later, the ideas and practices of metamodern metaphysics remain in flux and on the margins. I explore how computer technologies and hyper-capitalist dynamics have inspired dark transhumanist speculations such as those of Nick Land. To counter the regressive and dystopian possibilities entailed by a "return" to metaphysics, I propose a form of cosmo-erotic humanism and discuss its implications through an exploration of the newly released book, *A Return to Eros* (Gafni & Kincaid, 2017).

Keywords: Charles Sanders Peirce, Eros, Integral Theory, Marc Gafni, metaphysics, metamodernism, Nick Land, political praxis, post-modernity, post-truth culture, sexuality and relationships, Tantra.

Introduction

Metamodern Metaphysics: Or Eros in the 21st Century

> Men [sic] have gained control over the forces of nature to such an extent that with their help they would have no difficulty in exterminating one another to the last man. They know this, and hence comes a large part of their current unrest, their unhappiness and their mood of anxiety. And now it is to be expected that the other of the two 'Heavenly Powers,' eternal Eros, will make an effort to assert himself in the struggle with his equally immortal adversary [Thanatos].
>
> – Sigmund Freud (1931/1961) Civilization and Its Discontents, p. 112.

The quote above was not in the first edition of *Civilization and Its Discontents.* Freud added this reflection to the conclusion of the 1931 edition as it was becoming clear that Germany was

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sliding towards fascism under Hitler’s rule. In making appeals to metaphysics (positing the eternal forces of Eros and Thanatos), Freud put a controversial finishing touch on the theoretical edifice of psychoanalysis. However, psychoanalytic metapsychology had always depended upon forces of nature beyond the human ego; the unconscious (the *id*) was conceived as if it were a force of nature within “me,” which was at the same time somehow “not me.” *Metapsychology* is a term used by Freud and others to describe the broadest and most reflective work a psychologist can do, which involves not just theorizing about the psyche, but theorizing about the structure of psychological theorizing itself. Freud would follow his metapsychological investigations where they led many other great psychologists (including Jean Piaget and James Mark Baldwin) into the realms of metaphysics.

This route from science to metaphysics is not unique to psychology. Investigations into the structure of theories in all fields of science eventually lead to deep metaphysical and ontological issues (Bhaskar, 1993). However, when psychologists begin to get metaphysical the implication is that humans themselves – the realities of our minds and emotions – are taken up into speculative heights, beyond what can be “proven” in any simple scientific way. Eros in particular has been repeatedly placed at the core of metaphysical characterizations of the human being. In this paper I explore some of the implications of taking a metaphysics of Eros seriously in the context of contemporary cultural and social crises. Today we are again seeing a fight played out between the eternal forces of Eros and Thanatos.

However, first I must demonstrate that it is even possible and appropriate to offer reasonable metaphysical characterizations of the human at all. The discipline of metaphysics is notoriously controversial and metaphysical claims are suspect in modern and postmodern discourse. Where modern scientists often critique the claims of metaphysics as unverifiable and thus untrue, postmodernists critique both science and metaphysics for making truth claims in the first place. Either way, to call an idea or theory “metaphysical” has become another way of saying it is unacceptable. Often this comes with some implication that the theory is a kind of superstition, which means metaphysics is taken not as an attempt to engage the truth but rather as a kind of covert power play or psychological defense mechanism. I argue the opposite: metaphysics is what saves us from a descent into discourses that are merely about power and illusion.

I am not arguing for a return to premodern forms of metaphysics, which were rightly overthrown by the modern revolutions in scientific methods and epistemology. What follows is “post-Kantian” and “post-metaphysical” in the Habermasian sense; it is what Charles Sanders Peirce and Roy Bhaskar call “scientific metaphysics.” I agree with those who argue that learning and the development of knowledge eventually lead to a “return” to metaphysics at a higher-level. I think a post-postmodern or “metamodern” revival of metaphysics is part of our historical moment (Freinacht, 2017 pp. 361-376). The term *metamodern* is used simply to describe the structure of what is emerging “after postmodernism;” it points out the new personalities, cultures, and theories that are able to critique and integrate the insights of both the modern and the postmodern. Believe it or not, there are metaphysical systems that survived postmodernism and popped out of the far end of the 1990’s with “truth” and “reality” still intact. These include *object-oriented ontology* and *dialectical critical realism,* among others. Metaphysics can be practiced after Kant and Darwin only by theorizing beyond what is thought of as acceptable in postmodernism and late-stage capitalism, as I discuss in the first section below.

It is worth working from Hanzi Freinacht's seminal book on metamodernism as a way to clarify what is meant by metamodern metaphysics. Here I offer a partial and augmented version of Freinacht's characterization of what philosophers must embrace under the emerging conditions of metamodern society (Freinacht, 2017 pp. 364-366):

METAMODERN VIEW OF SCIENCE

- To respect science as an indispensable form of knowing.
- To see that science is always contextual and truth always tentative; that reality always holds deeper truths. All that we think is real will one day melt away as snow in the sun.
- To understand that different sciences and paradigms are simultaneously true; that many of their apparent contradictions are superficial and based on misperceptions or failures of translation or integration.
- To see that there are substantial insights and relevant knowledge in all stages of human and societal development, including tribal life, polytheism, traditional theology, modern industrialism and postmodern critique. In another book, I call this the evolution of "**meta-memes**".
- To celebrate and embody **non-linearity** in all non-mechanical matters, such as society and culture. Non-linearity, in its simplest definition, means that the output of a system is not proportional to its input.
- To harbor a case sensitive suspicion against mechanical models and linear causation.
- To have "a systems view" of life, to see that things form parts of self-organizing bottom-up systems: from sub-atomic units to atomic particles to molecules to cells to organisms.
- To see that things are alive and self-organizing because they are falling apart, that life is always a whirlwind of destruction: The only way to create and maintain an ordered pattern is to create a corresponding disorder. These are the principles of **autopoiesis**: entropy (that things degrade and fall apart) and "negative entropy" (the falling apart is what makes life possible).
- To accept that all humans and other organisms have a connecting, overarching worldview, a great story or grand narrative (a religion, in what is often interpreted as being the literal sense of the word: something that connects all things) and therefore accept the necessity of a grande histoire, an overarching story about the world. The metamodernist has her own unapologetically held grand narrative, synthesizing her available understanding. But it is held lightly, as one recognizes that it is always partly fictional—a **protosynthesis**.
- To take ontological questions very seriously, i.e. to let questions about "what is really real" guide us in science and politics. This is called the ontological turn.

METAMODERN VIEW OF REALITY

- To see the **fractal** nature of reality and of the development and applicability of ideas, that all understanding consists of reused elements taken from other forms of understanding.
- To be **anti-essentialist**, not believing in “ultimate essences” such as matter, consciousness, goodness, evil, masculinity, femininity or the like – but rather that all these things are contextual and interpretations made from relations and comparisons. Even the today so praised “relationality” is not an essence of the universe.
- To no longer believe in an atomistic, mechanical universe where the ultimate stuff is matter, but rather to view the ultimate nature of reality as a great unknown that we must metaphorically capture in our symbols, words and stories. To accept the view of a world being newly born again and again.
- To see that the world is radically, unyieldingly and completely socially constructed, always relative and context bound.
- To see that the world emerges through complex interactions of its parts and that our intuitive understandings tend to be much too static and mono-causal. This is called **complexity**. It is the fundamental principle of not only meteorology but also of social psychology, where patterns (such as the “self”) emerge through the interactions of interrelated, interdependent **dividuals**.
- To accept the necessity of **developmental hierarchies** – but to be very critical and careful with how they are described and used. Hierarchies are studied empirically, not arbitrarily assumed.
- To see that language and thereby our whole worldviews travel through a much greater space of possible, never-conceptualized worlds; that language is evolving.
- To look at the world holistically, where things such as scientific facts, perspectives, culture and emotions interact (this form of interactivity is called **hypercomplexity**, because it involves not only many interacting units, but interacting perspectives and qualitatively different dimensions of reality, such as subjective vs. objective reality).
- To see that information and management of information is fundamental to all aspects of reality and society: from genes to memes to money and science and political revolutions.
- To accept an informational-Darwinian view of both genes (organisms) and memes (cultural patterns) competing to survive through a process of developmental evolution that involves negative selection (that disfavored genes and memes go extinct, but continue to exist as potentials).
- To see that Darwinian evolution depends equally on mutual cooperation and competition; that competition and cooperation are always intertwined.

METAMODERN VIEW OF REALITY Cont'd

- To see the dynamic interplay of the universal and the particular, where for instance humans in more complex societies become more individualized, which in turn drives the development of more complex societies where people are more interdependent and more universal values are needed to avoid collapse.
- To see that the world runs on **dialectic logic**, where things are always broken, always "stumbling backwards" as it were; that things are always striving for an impossible balance and in that accidental movement create the whole dance that we experience as reality. So the development of reality does have directionality, it's just that we are always blind to this direction; hence the metaphor of "stumbling backwards".
- To see that reality is fundamentally open-ended, broken, as it were, even in its mathematical and physical structure, as shown in Gödel's incompleteness theorem and in some of the core findings of modern physics.
- To recognize that potentials and **potentiality**, rather than facts and actualities, constitute the most fundamental or "more real" reality. What we usually call reality is only "actuality", one slice of an infinitely larger, hypercomplex pie. Actuality is only a "case of" a deeper reality, called "absolute totality".
- To explore visions of **panpsychism**, i.e. that consciousness is everywhere in the universe and "as real" as matter and space. But panpsychism should not be confused with animistic visions of all things having "spirits".

This list of ideas that characterize the new emerging metamodern syntheses and theories point in the direction of a particular kind of metaphysics. I am proposing that it is possible to reconstruct a metamodern metaphysis of Eros, which honors all of the above (and more), making it a viable framework for human self-understanding. Once the ground is cleared for doing a new kind of metaphysics, I then explore a metaphysical characterization of the human that is best described as *cosmo-erotic humanism*. This emerging metamodern metaphysics is the focus of work among a cluster of scholars including Marc Gafni, Barbara Marx Hubbard, Kristina Kincaid, Ken Wilber, Sally Kempton, Daniel Schmachtenberger, myself, and others in and around the Center for Integral Wisdom. In this paper I use the recent book by Gafni and Kincaid, *A Return to Eros* (2017), to scaffold a discussion about *reality, politics, and sex* from the perspective of cosmo-erotic humanism. These three topics (sex, reality, and politics) are implicated in any metaphysical characterization of the human. They are selected here because historically humans have depended upon the normative force of metaphysical ideas to regulate these realms in particular. Untold and innumerable injustices were perpetrated in these realms in the name of premodern metaphysics. Modernity sought to rectify these by turning to science alone, yet as the centuries unfolded the vacuum created by the *absence* of metaphysics continued to expand, and today *the absence of metaphysics is creating new and more dangerous problems*.

As a new metaphysics, cosmo-erotic humanism helps to explain a lot about human behavior, both healthy and pathological. This explanatory power shows that a metaphysics of Eros can be a reasonable extension of investigations in psychotherapeutic and developmental branches of psychology. Cosmo-erotic humanism also provides grounds for a critique of existing social conditions, especially in those realms where humans place tremendous value and emotional energy (i.e., in sexual relationships and in politics). The normative power of these critiques shows that a metaphysics of Eros can be a reasonable alternative to the absence of modern and postmodern metaphysics, which has now become a support for certain structures of love and politics that are systematically distorted. This brings us to the perennial metaphysical question of how a basic force of good such as Eros can ever become systemically distorted, and then through this distortion morph into Thanatos. Yet in order for this to make sense, it is necessary to explain why metaphysics is a sensible thing to talk about in the first place.

Part One
Practicing Metaphysics in a Time Between Worlds

> If before encountering otherness we already know what its relation to us will be, we have obliterated it in advance…. Kant still wants to say something about radical alterity, even if it is only that it has no relevance to us, yet he has deprived himself of the right to all speculation about the nature of what is beyond appearance…. [This]... delimitation of alterity... sets up the modern form of the ontological question: 'how do we know that matter exists?' That the very existence of materiality is problematic for enlightenment thought is symptomatic of the colonial trading systems that correspond to it. Alterity cannot be registered, unless it can be inscribed within the system, according to the interconnected axes of exchange value (price)… in other words, as a commodity….
>
> – Nick Land, (1988/2011) "Kant, Capital, and The Prohibition of Incest" (p. 64; 71).

The controversial philosopher, Nick Land, is often associated with the new schools of post-Kantian metaphysics known as *speculative realism* and *object-oriented ontology*. His political philosophy of "Accelerationism" and his writings on the "Dark Enlightenment" have been widely influential and tied into the resurgence of anti-postmodernist right-wing radicalism, as exemplified by the "alt-right" in the United States. I will explore Land's ideas further below; he is quoted at length to begin this section because his thinking and its impact are signs of the metamodern "return" to metaphysics currently demanded by the exhaustion of postmodernism and related major transformations in economic conditions. Right-wing and authoritarian political thought is resurgent today because of the *absence* of reasonable discourse about metaphysical realities during a time when exactly these realties are being called into question due to the apocalypse of global capitalism and the accompanying planetary transition into the *Anthropocene* (Stein & Gafni, 2015). As I discuss in the sections to come, our current decent into a dysfunctional "post-truth" and "post-love" culture is a case in point. Metaphysics has come home to roost in a supposedly "post-metaphysical" modern democracy. We now have TV news anchors and celebrity personalities who have never read a philosophy book discussing the nature of "truth" and "facts" on Saturday morning programs. The question of what is "real" and what is "fake" may have never been more confused in public discourse. The vacuum created by the feeling of "what is real?" will be filled in one way or another; as I explain below, metaphysics is unavoidable.

I have argued elsewhere (Stein, in press) that the social forms that come after capitalism and after modernity (the social forms that will be globally "sustainable") *may or may not* be more fair and humane then what we have known during the reign of the capitalist world system (e.g., since the long sixteenth century). What comes next will depend on our metaphysical characterizations of the human and the universe. The way we answer questions such as, “What is the human?” will determine the next century due to the emerging power of new technologies that render the human malleable in unpresented ways, which has been made clear by writers such as Yuval Noah Harari (2017). Metaphysics is necessary because we are in a time between worlds.

Metaphysics is a difficult word to define outside its simple origin as the title marking the volume that followed the *Physics* in Aristotle’s canon (in Greek, *meta = after / beyond*). In the West, metaphysics has been a distinct branch of academic philosophy ever since Aristotle’s works were translated by the Church. *Ontology* is a related word (based on the Greek, *ontos = being),* which I use to refer to the practice of working out the details within a larger metaphysical system. Medieval monastics would conceive some of the most complex and ornate metaphysical systems in history, justifying all kinds of miracles and biblical paradoxes through metaphysical theorizing and ontological speculations – and they would buttress it all with a theory of Intuition.

Premodern metaphysics is often what people think of when they think of metaphysics pejoratively as a kind of magical thinking (e.g., “how many angels can dance on the head of a pin?”). Premodern metaphysics also gets a bad reputation from having been used to justify the Inquisition, religious wars, and all manner of theocratic insanity. This is all true, but I am not out to beat the dead horse of premodern metaphysics, which both scientistic New Atheists and postmodern progressives continue to enjoy doing. Instead I am going to argue that contemporary cultural trends signal a “return” to metaphysics. I argue that the modern and postmodern *absence* of metaphysics causes its own problems, like those now encountered by the modern capitalist world-system as it reaches its terminal limits to growth. Part of responding to our global crises requires finding a way to live again within a metaphysics that puts the human being in context. The phrase “metaphysics after Kant” is used to talk about the difficulty that professional philosophers have in practicing metaphysics during our current epoch of cultural evolution.

Metaphysics was taken away from the religious authorities by Immanuel Kant during the Enlightenment. At the time, Kant was considered by some to be the most dangerous and revolutionary man on the European continent – more dangerous even than Napoleon. This idea was comical to others because Kant lived on a meager salary in the same small *attic* most of his adult life. He never traveled, supposedly never lost his virginity, supposedly never raised his voice in anger, and every day he took a walk at *exactly* the same time with such regularity that his neighbors set their watches by it (Cassirer, 1981). However, the quip about Kant being dangerous is funny because it is true. Kant’s project was radical (and more dangerous than violent uprisings) to the foundations of religious authority, and in turn to political authority. Kant had thought out a way to overthrow the *ancien régime* of Leibnizian “metaphysics as apologetics,” and in so doing to make separate places for science and faith under one system. Along with other thinkers of his time, Kant would literally destroy the way a whole culture justified its most important beliefs and values.

After Kant, metaphysics was done in a different way. Reality – the *thing-in-itself* – was put out of reach, which meant that theologians could no longer claim to have intuitions into divine ideas but also that science could claim only to “understand” and never to have the total truth. Science and theological metaphysics were put in their respective places by Kant’s “Copernican Turn” away from the objects of science and theology and towards the knowing subject. His so-called "transcendental subject" was what he thought philosophers should be researching instead of metaphysics, as it is prior to metaphysics. The categories of the subject that structure perception were more important for Kant than the "object" they perceived; he theorized that consciousness constructed the object and the whole of nature, including time and causality. Nature as it really is cannot be known. We can only know nature as it appears to us through the structures of our consciousness. Premodern metaphysics was over, and Kant had ushered in a new era in philosophy during which it would support the activities of the physical sciences while also being freed from the reigns of the church. As modernity progressed metaphysics would be denied and avoided, eventually withering away into the bare bones "flatland" universe implied by the physical sciences (see Bhaskar, 1986).

The practice of metaphysics was in disarray 78 years after Kant, when Darwin brought about the most massive changes to our understanding of the physical universe since Newton. Evolutionary theory would change what it meant to practice philosophy, and philosophers would slowly begin their journey "back" to metaphysics. Peirce was one of the first to follow the implications of evolutionary theory up into the aperspectival complexity on the other side of modernity (what we call postmodernism) and then beyond that into a new metaphysics of humanity and the universe (Brent, 1998). I have documented elsewhere Peirce's work as a proto-Integral metatheorist (Stein, 2015). Here I trace the development of his thought again (but from a different angle) in order to frame a discussion of what it means to do metaphysics after Kant and Darwin. I then follow a line through Peirce's semiotics and objective idealism to current trends in metamodern metaphysics, including speculative realism. Granted, there are other ways to frame a discussion of post-metaphysical philosophy besides my story about Peirce. For example, there is a line that runs from Kant through Heidegger to Badiou, and another from Hegel through Marx to Bhaskar (as it is, I arrive at Bhaskar via another route). I frame my account using Peirce because at the core of Peirce's scientific, post-Kantain metaphysics was the idea of *evolutionary love*, which is an important forerunner to the conception of Eros that is at the core of cosmo-erotic humanism.

Charles Sanders Peirce: Metaphysics after Darwin

Peirce memorized large sections of *The Critique of Pure Reason* when he was thirteen years old and then began his career as a scientist, a nominalist, and a materialist opposed to metaphysics. He would end his career as a polymath, a realist, an objective idealist, and deeply engaged in a new form of philosophy that he called "scientific metaphysics." Peirce's early work was focused on the scientific method and especially on producing a convincing theory of inquiry that took evolution into account (Peirce, 1867). This work has been well summarized by Elizabeth Cook (2006), among others (Apel, 1995). At issue was the status of the human brain and perceptual system, which could no longer be reasonably conceived as structured by God-given categories of experience, nor equipped with "divine intuition." Peirce argued that humans could never truly *know* the world once and for all, we could only endlessly learn about it by finding new ways to test our ideas through discourse and experimentation. He rejected the very idea of the abstract knowing subject of modern epistemology and replaced it with ideas about the *construction* of scientific knowledge by groups of people. Peirce was one of the first theorists of science to use the phrase "community of inquiry" and to engage in philosophy about the *practice* of science. In his pathbreaking explorations of the implications of modern science and evolutionary theory in particular, Peirce would come to see that the knowing subject is *within* the world, not outside the world looking in like Kant's "transcendental subject." Scientists are imbedded in the world as animals that evolved within the nature, and must arrange and interact with nature in specific ways in order to learn. Learning requires not perception and reflection but action and construction. Kant's transcendental subject was brought down to Earth and into process, social life, and organic form. By thus detranscendentalizing the subject, Peirce would take the first steps "back" to metaphysics (Habermas, 1992).

The idea of *detranscendentalizing the subject* is important but can be misunderstood. Peirce not only put the abstract Kantian subject into social and linguistic context (Hegel had already done that), he also put the subject into an evolved organism that itself was a potential focus of scientific inquiry. The knower (the one who knows, i.e., the subject) is a contingent part of nature and thus also open to scientific research and eventual disenchantment. Kant limited scientific knowledge about the nature of humans themselves to an afterthought in his *Anthropology*; his knowledge was not as advanced as the scientific psychology that Peirce was practicing in the 1870s. Many scholars forget that Peirce was arguably the first experimental psychologist on the North American continent (Brent, 1998). More than anyone up to that point in history, Peirce was directly fixing his scientific gaze upon the scientists themselves, studying various aspects of scientific judgment. What he discovered began to undercut his beliefs in both materialism and nominalism. Peirce would begin to do metaphysics again, in a new way.

In the 1890s, Peirce began a series of metaphysical investigations that ended up having a major impact on the future of philosophy. Alfred North Whitehead would later take directly from Peirce's metaphysics in laying the groundwork for his *Process and Reality*. Whitehead's process philosophy is another major metaphysical system that emerged after Kant and Darwin, which also places *love* near the ontological center of the evolving cosmos. Karl Popper (1966) would credit Peirce with ushering in a new era of thinking about complexity, chaos, and process – all facets of metamodern metaphysics (as detailed above from Freinacht, 2017 pp. 361-366). Habermas and Karl-Otto Apel would see in Peirce the possibility of a post-metaphysical philosophy, including a form of evolutionary realism that allowed for a speculative scientific metaphysics of evolution (Apel, 1994; 1995). Ken Wilber saw in Peirce a theory of *cosmic habits* and pansemiosis, while Gafni and Stein found his notion of evolutionary love prophetic (Gafni, 2012a; Stein, 2015).

It is worth mentioning that by this point in his life Peirce was exiled from the academy; this in part explains his continued obscurity. Peirce was subject to an organized smear campaign involving the core of American academia, which was at the time a small and insular place awash in contradictory Victorian-era ethics (see Brent, 1998). Peirce's divorce and remarriage were all that competing mathematicians and philosophers needed to reframe some of Peirce's personality traits as deeply unethical character flaws. Before long he could not find a job and was stuck writing definitions for James Mark Baldwin's *Dictionary of Philosophy and Psychology*. Baldwin had also been kicked out of American academia due to a politized smear campaign (I discuss Baldwin further in Stein, 2015). Were it not for the generosity of his dear friend William James, Peirce would never have completed any of his metaphysical work during this time. The mischaracterizations of Peirce that began in the 1880s have been repeated up to this day, as can be seen in the popular book *The Metaphysical Club* (Menand, 2001), that presents an intellectual history of the American Pragmatists that downplays Peirce's catalytic role in the movement (while also defaming his character). Peirce's treatment makes some sense in the context of understanding the "the murder of Eros," discussed at some length below.

Living in poverty and obscurity in 1903, Peirce defined metaphysics as a branch of phenomenology (or what he called *phaneroscopy*: "the study of common experience"). This practice was wedded to the special sciences (i.e., physics, biology, psychology, etc.) and was a condition for the possibility of their success. "Its [metaphysics] business is to study the most general features of reality and real objects" (Peirce, 1934 p. 5). He maintained that the immature state of metaphysics was hindering the sciences and aimed explicitly to do his metaphysics in the service of future science. Peirce (1934) argued that metaphysics was too often dismissed due to the belief that it is unscientific because it deals with things that cannot been seen or tested. Yet this is not true:

> The things that any science discovers are beyond the reach of direct observation. We cannot see energy, nor the attraction of gravitation, nor the flying molecules of gases, nor the luminiferous ether [ZS: this ether was a postulated medium for the propagation of light in the nineteenth century], nor the forests of the carbonaceous era, nor the explosions in nerve-cells. It is only the premisses [*sic*] of science, not its conclusions, which are directly observed. But metaphysics, even bad metaphysics, really rests on observations, whether consciously or not; and the only reason that this is not universally recognized is that it rests upon kinds of phenomena with which every man's experience is so saturated that he usually pays no particular attention to them. The data of metaphysics are not less open to observation, but immeasurably more so, than the data, say, of the very highly developed science of astronomy, [where] to make any important addition... [costs] many tens of thousands of dollars [ZS: tens of thousands of dollars in 1890; today it's tens of billions of dollars]. (p. 2)

The fact that the Peirce quote above contains an outdated scientific concept is exactly the point. Scientific *practices* precede and outlive scientific *concepts*. The truths of science are not as readily available as some would think (they also tend to come and go) and they are not more readily available than the truths of metaphysics. The difference between metaphysics and science is not about what you can see and what you cannot see; it is about what you are paying attention to when you are seeing. Humans are seeing reality all the time, they just have to recognize it and figure out how to learn from what is real.

What Peirce (1933; 1934) called *phaneroscopy* would today be viewed as a form of scientific phenomenology (note that both words are from the same Greek root *phainómenon*, meaning roughly: "thing appearing to view"). The closet contemporary approach to Peirce's version of phenomenology would be the *enactive paradigm* of Francisco Varela, Eleanor Rosch, and Evan Thompson (1991), who meld Buddhist meditation with cognitive science to yield a new way of thinking about organisms as knowers. This so-called "Santiago School of Cognition" since has already been identified by William Irwin Thompson as containing the seeds of a new metaphysical characterization of the human (Thompson, 1998). But Varela, Rosch, and the Thompsons take things in a different direction than Peirce, who considered phaneroscopy the most foundational branch of philosophy, essential for doing science, but not itself a science (strictly speaking).

Peirce (1934) understood that you cannot use science alone to investigate and justify science. Instead you need to do metaphysics (i.e., you need to investigate the very possibility of truth), and the data for this is to be found in the *common experience* of the human organism. Peirce was investigating common experience, but not in the sense of experiences that are frequently had by large numbers of people. Rather the experience is “common” because it is universally available as an aspect of being human. One could argue that Buddhist meditators are investigating common experience in this way. Experienced meditators become aware of things that most people are not aware of, which are nevertheless there all of the time. Peirce was seeking to investigate questions such as: What are the most general features that the universe must have for my experience to exist? And by implication, what must the relationship between the world and mind be like for scientific practices to work? The most basic practice of metaphysics begins with the most basic elements of human experience itself. Peirce would engage in these kinds of investigations in the midst of doing science across nearly a dozen fields. He would also investigate the common experience found in the practices of mathematics and logic and explore the metaphysical implications entailed by the success of mathematics as a human practice (i.e., why is it that our mathematical constructs relate to the world with a great deal of consistency?).

Using this method, Peirce (1933; 1934) was able to discover and justify his system of metaphysical categories, which he called “Firstness, Secondness, and Thirdness.” Peirce’s early articulations of these categories would inspire Habermas and Wilber to map their own systems of categories in terms of the basic parts of speech found in all languages – I, We, and It – thus marking out three “worlds.” Peircean categories are different from Kantian categories because they are not only properties of the subject*;* Peircean categories transcend and include both subject and object, co-arising as basic properties of all reality. Peirce placed the Kantian subject firmly in the Darwinian universe and thus did not see consciousness as separate from nature. Kant declared to have found in consciousness a “world constituting power,” declaring that consciousness constructs nature and is thus not a part of nature (and so followed much of modern thought). Peirce said that such a view is only one third of the story. Yes, consciousness constructs nature, yet nature has constructed consciousness over the course of evolutionary timescales that would make Kant dizzy. Moreover, Peirce believed that once consciousness has emerged from nature, it then acts back upon nature and itself to initiate an auto-evolutionary process that unfolds *evolutionary love* at higher and higher levels of complexity. The dialectic between subject and object is an erotic merger that yields emergence, novelty, and meaning. But this is getting ahead of the story. The point here is that Peirce’s categories are post-Kantian and clear the way for doing metaphysics again.

For context, I will add that a handful of contemporary thinkers follow Peirce in arriving at ontological categories through what has come to be called the “rational reconstruction” of common experience. Ken Wilber’s (2006) post-metaphysical justification of the quadrants and 20 tenets, as well as his integral methodological pluralism, have been derived via methods similar to Peirce. Wilber asks: What are the ontological conditions for the possibility of an integration of all existing methods for creating knowledge? (Another way to ask this is: What must the universe be like for all the various branches of valid knowledge to be true?) Habermas (1998) argues for ontologizing the three “worlds” that he derived through the rational reconstruction of the common experience of communication. Habermas asks: What are the ontological conditions for the possibility of communication? (Or: What must the universe be like for human mutual understanding to be real?) Bhaskar’s (1986; 1998) critical realism hinges on an updated version of Kant’s transcendental argumentative strategies. Bhaskar asks: What are the ontological conditions for the possibility of scientific practice? (Or: What must the universe be like for science itself to be a successful practice?) Finally, to foreshadow my discussion of the book *A Return to Eros* (Gafni & Kincaid, 2017), I will mention that Gafni and Kincaid ask: What are the ontological conditions for the possibility of human love? (Or: What must the universe be like for human love to be real?) All of these approaches to practicing metaphysics after Kant and Darwin share a common method of deriving insights into the basic structures of reality itself through a careful investigation of (and extrapolation from) specific universal features of human experience.

Peirce repeatedly stresses the *necessity* of extrapolating from what is given in experience in order to discover what is real. *A Guess at the Riddle* is the title of the cryptic text at the core of Peirce's metaphysical system. The manuscript remained unpublished, even in the initial *Collected Papers of Charles Sanders Peirce*, and yet it was almost certainly in Whitehead's desk drawer for years (Brent, 1998). The initial *Collected Papers* were edited by Whitehead's best doctoral student at the time, Charles Hartshorne, who would himself go on to build a complex *process theology* based on Whitehead, Peirce, and others. For Peirce, *A Guess at the Riddle* began a decades-long inquiry into the ontological nature of evolution as it unfolds through the three categories. *Speculations* about what is real (i.e., *guessing*) is what scientists like to call "hypothesis generation." This is the source of everything we know "beyond" what is simply given in our experience. Peirce developed a whole branch of logic dedicated to hypothesis generation (Cook, 2006). He believed that while empirical methods are essential to science, the creative imagination of the scientist is the ultimate catalyst in the progress of knowledge about reality. The scientist is by definition doing a kind of metaphysics in these *necessary* moments of speculation that occur during their scientific practice.

Unlike the scientist, the metaphysician resides in the liminal space of speculation and seeks to accumulate and integrate all the speculations at the edges of all the various branches of science. A scientific metaphysics proceeds in advance of all the specific sciences, transcending but including them (while at the same time justifying them). Metaphysical speculations ought not contradict what is given by the best sciences of the day, but as metaphysical ideas they are also not to be limited by these sciences. Peirce saw that the theory of evolution and a host of other theories in biology were pointing towards an underlying and self-organizing force at work in evolution; he saw that among the tendencies and forces of nature is a force that unites, synthesizes, and creates higher-order communion among parts. Peirce's theory of *evolutionary love* is a speculative guess at the riddle presented by the sciences of his day. For Peirce, a metaphysics of Eros held the possibility of reconciling the lived experience of humanity with the revelations of science.

Many things have happened since Peirce first began the practice of doing metaphysics after Kant and Darwin. Arguably the most important and novel emergent since the Gilded Age has been the advent of the Internet. It should be noted in this context that Peirce followed Leibniz in speculating that the very structure of mathematics and logic includes the possibility of building a "logical machine" (Peirce, 1887). Peirce was aided in his work by one of his most talented doctoral students, Christine "Kitty" Ladd-Franklin, who was the first women to get a PhD in mathematics and logic. She was also a psychologist and was inspired by Peirce's ideas about mathematics and the possibility of building a machine that could think. In her conversations with Peirce (of which there is no record) one imagines that the foundations of logics and mathematics were ontologized *beyond* the human organism, and thus beyond the ontology of gender itself. In my imagination this makes Ladd-Franklin the first cyberfeminist. Cyberfeminism is a topic I explore below as part of the metamodern return to metaphysics. Regardless of what Franklin-Ladd thought when she and Peirce explored these ideas together at Johns Hopkins, the time would soon come when computer technologies would begin to change what it means to be a human. Soon, Sadie Plant and Nick Land would become some of the first to begin to do metaphysics in and about cyberspace.

Sadie Plant, Nick Land, and the Cybernetic Cultural Research Unit: Guerrilla Ontology

Metaphysics has become an even more complex practice today following the explosion of unprecedented interconnectivities between people based on new communication technologies. The historical co-emergence of popular (pop-)postmodernism and computer technologies is not a coincidence; modernity's tendencies towards subjectivity and abstraction were sent into overdrive by the proliferation of communication technologies, something I explore in detail later in this paper. It is as if the problems posed by Kant's transcendental subject were deepened to the point of being entirely transformed. Kant's point that *consciousness creates reality* has been driven home by a new fragmentation of subjectivities in which individuals became increasingly engrossed in their own private virtual worlds, seemingly out of touch with each other's realities. More importantly, computers also have made it impossible to deny that consciousness itself is created through the conditions of material reality. Silicon is now part of the evolution of consciousness. Our minds and the categories in terms of which we understand the world are now being *extended* by computing power. The near exponential growth of computer technologies has made all too apparent the *materiality* that is a condition for the possibility of the evolution of consciousness. It is important to understand that today our minds depend upon matter in new and unprecedented ways. Our thoughts and memories are now enmeshed in complex configurations of silicon and other materials that are beyond the limits of our nervous system and skin, at least for now (*cyborgization* is a topic beyond the scope of this paper).

I am extending here the idea of the *extended mind*, which emerged in cognitive science and philosophy around the turn of century (Clark & Chalmers, 1998). Computer technologies made clear a basic truth: the human mind has *always* been extended out into the environment. From cave paintings to calendars made of stone, we build scaffolds around the self that become part of our cognitive being. Interestingly, timekeeping in particular *requires* externalizing subjective time into objective time through the utilization of complex material objects that encode time. We use matter to make the reality of the passage of time available to cognition, action, and self-understating. At first this was done through the observation of the stars and then through the construction of complex architectural arrangements built to track them. Sundials and water clocks predate ancient history. Clocks as we know them are a relatively recent invention; a watch that anyone can wear is even more novel and recent.

It is worth thinking about this example because time keeping is something unique that sets humans apart in the animal kingdom. While animals are clearly aware of time, they do not, for example, know how old they are. Animals know something like "spring is coming" (absent of propositionally differentiated speech, of course), but animals know nothing like, "this is my 38th spring." The animal's mind is also extended into its environment, but not reflectively or technologically. I am not trying to draw a stark line between humans and animals (because there isn't one), but I am suggesting that the human mind has evolved in part through its ability to use the world and its material affordances to aid human understanding itself. The minds of all animals are extended into their environments in many ways, a point made by the Santiago School of Cognition's enactive paradigm. But only the human mind reflects upon its own extensions into the world, which allows us to use the environment for cognitive purposes. Our mind's abilities are not only a matter of what is contained within our skin, which is an important insight to remember when we begin to discuss the metaphysics of Eros entailed by cosmo-erotic humanism. For example, the smartphone enables a new form of subjectivity (for better and for worse), and new conditions for the evolution of love and relationship are now available. Specifically, smartphones change our experience of the reality of time, space, and identity, which is to say they have metaphysical implications.

This last statement about the smartphone is inspired by what Sadie Plant has been arguing. Plant is a catalyst for cyberfeminist writings and was the alleged co-writer of a pseudonymous collection of "theory-fiction" fragments attributed to the Cybernetic Culture Research Unit (2017). These texts were part of the birth of *speculative realism*. Nick Land (2011) was also a midwife to speculative realism as well as an alleged co-creator of the Ccru (sic). For the Ccru, taking the impact of computers on consciousness as seriously as possible means returning to metaphysics – returning to a form of metaphysical *realism* specifically. Remember that Kant was an idealist – he believed that the mind creates reality. For idealists (and most *nominalists*), matter is less primordial than the mind's categories. Realists, on the other hand, maintain that that a structured reality exists beyond the human mind and that material reality includes emergent structures and processes that transcend and include the human mind. The human mind can therefore know reality (to some extent) through participation in it and as it.

Realism is entailed by computational extensions of human consciousness because ultimately *code itself* becomes identified as undeniably real, structured, and outside the mind. Just as Darwin forced Peirce to put the transcendental subject into a nervous system and into the natural history of an evolving planet, so computers forced a further pulling of the mind "down" into matter. In philosophy this marked a deepening of the "return to the object" (i.e., a return to considering the world beyond the mind as knowable, structured, and real). These trends "after Kant" put humans back in their place, not as a floating transcendental subject, but as embodied (and encoded) in space and time. Nick Land speculates (along with others) that time itself is best explained in terms of a metaphysics that posits each person's total immersion in a computerized world-simulation (like in the movie *The Matrix).* With these speculations Land is seeking a transcendence of modern and postmodern forms of human subjectivity and is willing to take on a complex transpersonal metaphysics to do so. While I think his speculations are deeply confused, I also think they are a sign that basic metaphysical issues are once again being forced onto the table, even if it is just in the movies.

The Ccru uses science fiction as an entryway into metamodern metaphysics, finding a new location for the creation of speculative ontologies extrapolating from scientific advance. The Ccru is practicing a kind of "guerrilla ontology" by using the text itself as a means to alter consciousness and awareness in the moment for the reader. *Guerilla ontology* is a term used by the early metamodernist Robert Anton Wilson to describe his own work (Wilson, 1977/2016). The term suggests that the practice of metaphysics today can involve stepping outside of the centralized command and control structure of academic philosophy and engaging in all kinds of covert tactics, including theory fiction, anonymity, and revelations of the truths found in first-person experience. The guerilla ontologist forces readers to confront new realities in their own first-person experience by inviting (or jarring) them into uncanny phenomenological experiences. This is a common tactic among metamodern metaphysicians who are seeking to alter the consciousness of their readers in real time as part of justifying ontological arguments.

Following postmodernism's critiques of abstract theorizing, it makes sense that metaphysics has taken a "participatory turn" (Ferrer & Sherman, 2009). Practicing metaphysics now demands more than reading and writing theory in the traditional academic sense. Doing metaphysics means engaging in behaviors traditionally understood as "rituals," as well as in specific practices that allow individuals to see their own experiences objectively. Below I explore how Gafni and Kincaid practice guerrilla ontology in their explorations of human sexuality and love, revealing uncanny mystical experiences in the songs and films of popular culture. As we are exposed to different and larger realities already within our own experience, we are also invited to change our life and the world. The implication of all forms of participatory metaphysics are ultimately political.

It makes sense then that Nick Land's writings on politics have gained as much attention as his metaphysical speculations. Land has been promoting a certain kind of *Accelerationism* that seeks the political means to hasten the coming of the techno-capitalist singularity, and thus to catapult Earth into a transhuman future. Land is driven to these extremes by his ontological considerations about the new realities of planetary-scale computation. The phrase "planetary-scale computation" has been made popular by Benjamin H. Bratton (2015), who has theorized about our historical moment as involving the creation of an Earth-sized computer, which he calls "The Stack." The basic question is: At what point does this planetary computational stack replace reality? At what point in history does code itself become more real and world-creating than even the human subjectivity that writes it? Land's techno-*Logos*-mysticism presents a world in which humans are not in control of their future because laws of computation and "machinic desire" have already transcend but included them (Land, 2011 p. 319); we are being swept along by these laws into realms of human obsolescence that are politically unprecedented. Land's speculative realism eventually turns towards forms of political thought that have long been discredited by modernity and postmodernity. Neoreactionary forms of fascism have been inspired by Land's work because of his unabashed embrace of realities that contextualize human subjectivity and desire in broader geo-historical and ontological dynamics. The metamodern return to metaphysics also marks a return to metaphysically inspired political ideologies as well as their accompanying emotion and violence. The vacuum created by the modern and postmodern absence of metaphysics is now being filled, for better or worse. Land's work is one attempt to fill this void of meaning – it signals the dark possibilities entailed by the metamodern return to metaphysics.

Cosmo-erotic humanism is another attempt to fill the void of meaning left by postmodernism. Cosmo-erotic humanism is a project of reconstructive metaphysics and metatheory that is aimed at fostering cultural evolution at planetary scale, not towards some techno-capitalist singularity, but towards a planetary awakening of humanity through the propagation of innumerable "Unique Self Symphonies." However, unique individuals can only freely join into symbiosis and community in light of shared narratives of *identity, universe, and power* – some kind of metamodern metaphysics is a prerequisite for planetary cultural coherence and the future of geo-politics (Stein & Gafni, 2015). This is an attempt to embark somewhat in advance of humanity's inevitable and immanent journey in metamodern metaphysics. I now turn to discuss Gafni and Kincaid's (2017) work as a way of looking into what it would mean to adopt the metaphysics of Eros at the core of cosmo-erotic humanism.

Part Two
Exploring a Metamodern Metaphysics of Eros

At the heart of *A Return to Eros* (Gafni & Kincaid, 2017) is a new metaphysical narrative about love and sex. The book seeks to salvage the reality of love in a time when love is being trivialized and forgotten. It argues that love is not merely a human construct. What humans experience as love and sexual desire are but facets of Eros, a construct nearly identical with Peirce's *evolutionary love* – the force that drives reality itself towards greater contact and larger wholes. *A Return to Eros* offers a metaphysically grounded Tantric praxis that is refreshingly different from the contemporary Western neo-Tantras that focus almost exclusively in the realm of sexual techniques. Like the original Tantric schools of thought in Kashmir Shaivism, *A Return to Eros* focuses on the fundamental frameworks of reality that shape human narratives of identity, power, and community which must be derived from a larger Universe Story – a new metaphysics. Only in the light of this broadest context can a coherent narrative about love and sex be read. Thus, Marc Gafni and Kristina Kincaid are not writing about sex and love; they are writing about Eros, which is ontologically prior to sex and love. There was a billion years of Eros before sex. Eros is built into the dynamics of reality itself. The love life of humanity is but an expression of *evolutionary love*, which pulses through all forms of life.

While this idea reminds us of Peirce's essay, Gafni and Kincaid would make Peirce blush as they unpack the obvious implications of his train of thought. Indeed, many evolutionary theorists fall short of the full implications of what it means to hold an evolutionary worldview. Engaging in a participatory metaphysics of Eros involves a realization that evolution is *not* a process happening "out there," merely to be studied from the third-person point of view. Our lives and relationships are the very stuff of evolution. The "self-organizing universe" continues on through us; the core of human interiors and consciousness are nothing but our inheritance of a cosmic *evolutionary love*. This must be the basis of any science or psychology of human behavior and motivation. Reality itself has been shown to be ceaselessly creative and driven always by an erotic advance into novelty, which means that ethics needs to be appropriately reconstructed.

This is the kind of reconstructive metaphysical project that *A Return to Eros* begins to attempt. Gafni and colleagues at the Center for Integral Wisdom (among whom the author of this review counts himself) are gradually evolving an approach to the reconstruction and evolution of culture on a planetary scale. *Cosmo-Erotic Humanism* is how we describe the emergent worldview taking shape. *A Return to Eros* offers an essential element in this worldview, developing the themes of Eros and identity already articulated in Gafni's mainstream and highly popular releases *Soul Prints* (2001) and *The Mystery of Love* (2003). These were followed by Gafni's major academic work, the two volumes of *Radical Kabbalah* (Gafni, 2012), which I have reviewed elsewhere (Stein, 2014). A genre-bending form of mystical hermeneutics, ecstatic scholarship, and participatory metaphysics lie at the core of Gafni's writings and informs all of his thought. *Radical Kabbalah* was to be the source of Unique Self Theory (Gafni 2012a; 2015), which offers new and powerful frameworks for approaching issues in transpersonal psychology, human development, and identity theory.

Gafni himself has been subject to an ongoing political smear campaign proven to involve power and deception within rabbinical and New Age circles in Israel and the United States (Fuhs, 2017). The content of Gafni's teachings and the attacks against him are related. The embattled context of Gafni's scholarship can be felt in *A Return to Eros*, which is co-authored with Dr. Kristina Kincaid, who has a background in the application of Wilhelm Reich's core energetic therapeutics. In some sense, *A Return to Eros* is a response to the forces in culture that allow for smear campaigns involving the weaponizing of personal stories about sex, so often hidden under the fig leaf of victim advocacy. The book is also a powerful response to the forces in culture that perpetrate sexual violence and perpetuate the legacies of patriarchy and sexism. My particular goal here is use *A Return to Eros* as a way into the possibilities of the broader program of cosmo-erotic humanism. I place Gafni and Kincaids's book squarely in the center of our current cultural upheavals. As the force of reason in the public sphere weakens, the roles of innovative intellectuals, teachers, and writers become precarious. Gafni and Kincaid are working at the nexus of sex, reality, and politics, which is one of the most dangerous places for anyone to undertake innovation.

Sex, Reality, and Politics: Thinking Dangerously

Some years back, Slavoj Žižek, a newly popular Slovenian Neo-Marxist Philosopher and Psychoanalyst, was nicknamed "the most dangerous philosopher in the West," in what appeared to be a stunt arranged by his publicist (Oehmke, 2010). However, the idea of Žižek being dangerous seemed feasible because he was writing at the interface of sexual desire, philosophy (specifically ontology), and politics. This combination is dangerous in many cultural enclaves, even if Žižek is too abstract and obfuscating to really be a threat. Sexuality and desire are the keys to the domains of shadow; the *erotic* is thus taboo in cultures that are shadow-avoidant. Ontology is about what is real, what exists, and what is actually the case. The truth (the *alethic)* can be as taboo as sex in cultures that are reality-avoidant. Politics is about the *ethos* that governs human behavior and cooperation and is often avoided when cultures are unclear about what is in the interest of the common good. Putting all three topics into one book is usually a recipe for something provocative and potentially even dangerous to a wide swath of cultural and scholarly positions. Žižek ultimately argues for critiquing the political-economy of pleasure and related ideologies of (anti-)enjoyment. Conventional norms of behavior, consumption, and entertainment are cast in a critical light and explained as distortions of erotic energy – perversions of the ontological reality of desire itself. In other words, desire can be directed away from what truly satisfies it and forced into channels that exploit and distort our most basic human energies. Žižek the Christian says that what people really desire is love; to drop all their distractions and find the Real that is Love – a radical and "dangerous" sentiment.

Gafni's and Kincaid's book is also "dangerous" in this way, but make no mistake: *A Return to Eros* (Gafni & Kincaid, 2017) is as far from Žižek as you can get in terms of style and content. Where Žižek reads like a hyperactive neo-Hegelian movie critic, Gafni and Kincaid read like slightly buzzed Rumi scholars sharing Passover. *A Return to Eros* is dangerous because it brings together that same set of dangerous themes (sex, reality, and politics), and brings them down to

Earth for the twenty-first century. These themes have been the focus of most dangerous thinking in the modern age, starting with Marx and Freud. Before that it was figures such as Christ and Buddha who told humanity what to make of their desires, reality, and society. Worldviews do many things, but they especially make sense of human desires and their relationship to truth, goodness, and community. As *A Return to Eros* teaches, if you can *clarify desire* and in so doing attune your desire with reality, you will not be trapped in the pseudo-desires that are multiplied by the political economy of enjoyment. This is why the nexus of sex, reality, and politics is the linchpin of culture. Today sex, reality, and politics are incoherent aspects of a post-truth culture where narrative trumps truth (Wilber, 2017). Cultural warfare is spilling from our screens into the boardroom, bedroom, and dining room as the domain of the political is expanding to encompass all that was once personal. Throughout the US people are taking to social media and to the streets in displays of emotion escalating towards violence.

To understand the arguments, frameworks, and practices in *A Return to Eros,* one must understand the major traditions from which it stems: Hebrew wisdom, the mystical traditions of Tantra, modern evolutionary science and systems theory, Reichian praxis, and integral theory. We move towards a path out of the contemporary culture's "emotional plagues" (Reich, 1953) and "mimetic violence" (Girard, 1989). Gafni and Kincaid make clear it that the problems that face us at our current historical juncture stem from profound distortions of Eros – distortions of the basic emotional energies of humanity. Yet there is a possible future in which humanity gains clarity about what is valuable and certainty about the reality of love.

Implicit within the participatory metaphysics of *A Return to Eros* is a framework for cultural diagnostics that is directly relevant to our current cultural "dis-ease." The book pulls together fragments of a new psycho-sexual-spiritual critical theory of self and society. I am writing within the framework of academic critical theory, metaphysics, and metatheory. But *A Return to Eros* is not written or intended to be received in this way; it is not a book of academic critical theory or a formal work of metaphysics. It is a book of inspired and poetic text intending to evolve the very source code of love itself with new possibilities and emergent worldviews. And while it is laced with academic references, it is not written to merely convince the reader, it is written to provoke and transform the reader. As guerrilla ontology targeting the core of emotional life, *A Return to Eros* is about the source codes of erotic emotional structures and how these relate to reality, and in turn to relationships, ethics, and the political. This potent combination of sex, reality, and politics makes for a dangerous book of metamodern metaphysics.

Emotion, Eros, and Evolution

The 1960s generation read dangerous books by Herbert Marcuse (1955) and Norman O. Brown (1959; 1966) and discussed the many ways that liberating our sexuality and rethinking our relationships would remake the face of society. Today in the context of resurgent patriarchy and fundamentalism, as well as the new puritanism of revived anti-sexuality rhetoric, the hopeful thinking of a generation dedicated to "free love" seems like a sentimental memory. As I later explore here (and as Gafni and Kincaid discuss), explanations exist for why cultures engage in shaming, scapegoating, and distorted displays of emotional energy. The misdirection of Eros leads to distortions of cognitive framing and political action (Bhaskar, 1993; Reich, 1969). *The structure of emotion is prior to the structure of thought*. Emotion is thus prior to (and a foundation for) the domains of the political and epistemological. This has been shown by neuroscience and educational research for decades (Apple, 2001; Damasio, 1994). It is one of the major claims implicit within *A Return to Eros*, where it is shown that errors in thought and ethics can be traced back to failures of relationship, failures of intimacy, and distortions of Eros.

Looking to Eros as the source code of human emotional structures means looking into the roots and dynamics of embodied "bio-psychic" emotional energy. Emotion is traced back to its root as the primary force of Eros that suffuses all reality. For Gafni and Kincaid, this is where metaphysics merges with the limits of psychological theorizing. They maintain that the psychological and biological sciences suggest that a principle expression of cosmic energy itself can be found in human sexuality. This is about the evolutionary significance of sex itself, which has been part of cultural common sense since Freud. As Gafni and Kincaid say repeatedly, "It is all about sex. And it is not about sex at all." Humanity's lifeline to cosmic evolution – where our personal energy plugs into the Universe – is through the sexual. But sex is not the source; rather, it points towards the source. There were billions of years of self-organizing and Eros well before sexual reproduction began.

Evolution was primarily *about* sex for millions of years; humanity is in the unique evolutionary position to ask what *sex itself* is about. The only way for humanity to evolve is to clarify the desire of the universe itself, which has been gifted to us, hidden in the secret of our sexual desire. Sexuality leads beyond sex and into Eros, which permeates all forms of creativity and flow-inducing mergers of self, object, and other. This is what Gafni and Kincaid mean when they write that sex is only a sign pointing towards Eros: the sexual models the erotic. *A Return to Eros* expresses one of the core teachings of Hebrew Tantra: that the desire of the universe itself is hidden within the nature of human desire. Human yearning – when it is clarified from the dross of grasping and illusion – is the yearning of evolutionary love itself, awakening in us. Gafni elucidated the great Kabbalistic mystic Luria in *Radical Kabbalah* by focusing on *the clarification of desire* as a mystical practice. Wisdom is seeking to align desire with reality. Our embodiments of Eros (our emotional structures, and by implication our personalities, thoughts, and actions) are not simply ours. As it reaches expression in and through human emotions, Eros is a force that transcends but includes the "skin-encapsulated ego;" humans participate in the erotic energies that constitute the evolving universe as a whole.

Western stereotypes would have us believe that Eros (as expressed in human emotion in general, but especially sexual attraction and love) drives us to error and should be avoided when trying to use reason. There is a moment of truth in this that has been well documented in research on cognitive bias (Gino, 2013). Indeed, it is clear that some forms of emotion can profoundly distort our ability to think clearly and make good decisions. However, a careful look at this research shows that it is not the lack or absence of emotion in general that is important for reason and clarity of decision-making, but rather the *presence* of certain positive emotions. Research on how the brain learns also shows that you need a kind of *passion* to learn, otherwise you forget or simply give up (Immordino-Yang, 2011). It is only when life is rich with emotion, when you are in the flow of Eros, only then are you ever really thinking clearly. Ask a world-class scientist what it is like to really be *doing* science, and they will describe a kind of rapture, using words like beauty, ecstasy, and satisfaction (erotic emotional highs often following from rigorous preparation; no doubt, foreplay is important). The underappreciated implication of this is *not* that we should repress emotion and get it out of the way, but rather that if we want to be reasonable we should work hard to *cultivate* and *clarify* certain emotions.

The clarification of emotion has long been part of the great Tantric traditions of spiritual practice. *A Return to Eros* demonstrates that the goal of Tantra, so often misunderstood in popular narratives, is *not* more and better sex, but rather more erotic energy to be expanded beyond the sexual. As Gafni has been saying since he wrote *The Mystery of Love* (2003), "the sexual models the erotic, but it does not exhaust it." In sexual experiences the majority of people can most easily experience the various qualities of Eros. The emotional intensity of sexuality explodes the powder keg known as the system, plugging into billions of years of evolution. Tantra seeks to transform and liberate this energy – which is the basic bio-psychic energy of evolution itself – so that it transcends but includes the domain of sexuality. This is seen as the key to a liberated humanity: clarification of what is hidden in erotic merger, and then expanding this pure erotic energy into the rest of life. Literally a return or turning towards Eros, this is the wellspring from which the actualization of human potential flows.

The many qualities of Eros detailed by Gafni and Kincaid are listed as the "12 faces of Eros." Each one gets a chapter. Some of these faces are the qualities of flow and self-transcendence, peak experiences, and mystical merger, as were researched in the human potential movement for decades (Murphy, 1992; Wheal, 2017). Other qualities instead challenge the non-dual Eastern orientations of the human potential movement. Just to get a sense (although there is not space to discuss them here), the most essential of the 12 faces of Eros are: *interiority*, or depth of consciousness; *presence*, or the fullness of the moment; *desire*, or yearning; *wholeness*, or radical intimacy; and *uniqueness*. These are the results of Gafni and Kincaid's important work engaging a *phenomenology of Eros*, which amounts to a metamodern participatory metaphysics of the human understood as a function of cosmic Eros. Their work seeks to reveal the common deep structures of emotion that constitute the domain of the erotic. Is there a common structure to feelings of sexual merger and, for example, the feeling of being "at one with" a landscape that presents a rapturous sunset? Those two emotional structures are similar; both are rooted in Eros, and both are presenting a shade or face of Eros. Human love and sexuality is a *sign* that points beyond itself towards the Eros and Divinity of life itself. If we ask what the universe must be like for human love to be real, we ought not look only at the sign (you voyeur!), but to where it points.

All this echoes Reich (1969) and other theorists who critique the Left for abandoning the "sexual revolution" to those who want to debate gender politics (Thompson, 1981; 1998). The true sexual revolution would be a widespread liberation of Eros beyond the sexual, such that the energies of love, depth, and desire suffuse all aspects of life. This means that understanding the cultural crisis of today requires more than looking at developmental structures of thought and value, as Ken Wilber (2017) does in his analysis of *Trump and a Post-Truth World.* This developmental-structural approach is essential. But fully understanding and being able to take action requires looking further into the source code of emotional structures, and specifically recognizing the ubiquitous culture of what Gafni and Kincaid call *the murder of Eros*.

The Murder of Eros

That the root of human emotions is to be found in cosmic Eros explains, in part, the general sense among (especially conservative) psychologists and sociologists that humanity is sitting on a powder keg known as the system. The sense that human sexuality is an infinite energy that needs to be bottled up tight can be seen throughout the history of ideology. Reich (1953; 1969) spoke of the murder of Christ as a symbol for the perpetual and sometimes brutal domestication of Eros demanded by the ideologies of imperialistic capitalism. Reich was himself basically murdered by the FBI, which investigated and convicted him as a con man and sentenced him to prison, where he died only weeks later. They also burned his books, manuscripts and notes. Yes, this was after WWII when the FBI had a public book burning of Reich's books (Wilson, 1977/2016). Reich's status as a criminal has been reassessed, but the defamation of his character continues at the hands of traditional psychologists and conservative sexual counter-revolutionaries (see Reich's Wikipedia page, for example, where he is portrayed as an insane sexual deviant, an account that includes inaccuracies that his followers have been unable to amend, despite petitioning Wikipedia).

Reich argued that the structures and dynamics of emotional self-regulation demanded for participation in society have historically worked against the free and full range of emotional expression, especially in the domain of sexuality. The impact of this erotic truncation has been a distortion of the "upper-layers" of personality, thought, and action that depend upon this foundation of structured bio-psychic energy. Eros enlivens the body to the degree made possible by the structures of culture, society, and personality. Every society murders Eros in some specific way; the signs of this act can be found in the structure of embodied bio-psychic energies that constitutes the population. The murder of Eros shapes the character of a people. Culturally widespread distortions of personality, thought, and action can be understood not as some "mass or mob psychosis," but rather as a symptom of the countless individuals with emotional lives that share a similar distorted deep structure. The murder of Eros is always disguised. For example, limiting erotic energy to the merely sexual is a kind of erotic truncation, and perhaps the most common in our culture. An apparently liberated hook-up culture in which the mere act of sex is the most intimate thing shared between people distorts Eros in a different way than a traditional culture that would limit all sex to the marriage bed (with the lights off). But note that both truncate the erotic itself into the constraints of genital sexuality.

Of course, for large parts of the world, Eros can not even get out of the gate. Liberating traditional and fundamentalist religious cultures from overt forms of sexual repression is a global ethical imperative, and the only way to get billions of girls a proper education (Nussbaum, 2000; 2006). Patriarchy has long been at the core of our culture's domestication of Eros. Reich (1969) showed definitively the relationship of authoritarian patriarchal families and imperialistic industrialized capitalism, a combination of repression and pseudo-Eros that eventually culminated in fascism (see also Deleuze and Guattari, 1977/2009). Whole populations voted and acted against their own economic and political interests as if blind to the reality of their own situations, preferring instead to live vicariously through identification with the power of the state, a corporation, or in the case of 1930s Germany, a fascist dictator. Using phrases like the "eruption of mass hysteria" or a "mob mentality" may describe what appears to have happened, but they do not explain what actually happened. Reich's explanation (like Adorno's and Habermas') looks to the structure of the personality of the individual, and especially to the emotional dynamics of the patriarchal and sexually repressed authoritarian family that produced them. This kind of "sex-economic analysis" that combines Marx and Freud was picked up in the 1960s and came to characterize the feminist and progressive Left.

Yet, with that said, achieving sex and gender equality is *necessary but not sufficient* for a sustainable and peaceful society. Patriarchy is only *part* of the problem. In the post-industrial West (in the core states of the capitalist-world system), women are for the first time in history outperforming men in attaining college degrees (NCES, 2018). Much remains to be done, but progress here is notable, especially in the United States. However, we must also note that 45% of all college-educated women in the US voted for Trump, the majority of whom described themselves as "angry" (Wilber, 2017). Economic injustice for women remains and is made more painful by the debts accrued in pursuit of "equal access" to education, as college degree attainment reflects economic class more then gender (*Ibid*). More importantly, even in a society that has shed a great deal of the traditional family, gender roles, and identity structures, whole populations are still voting and acting against their own economic and political interests. The point here is that even with the gains made in the wake of the 1960s gender revolution and the broader civil rights revolution, we are currently facing an even more profoundly distorted deep structure of emotion which is tending in authoritarian and conservative directions (Apple, 2001; 2013). We are still murdering Eros, just in new and more sophisticated ways.

Culture Evolves: From Role Mates to Soul Mates and Beyond

The suppression of the erotic has taken a new form in the market democracies of the Western world, which are striving for gender equality and a new sexual ethics. The loss of happiness in market democracies has been well documented, where it is clear that money, safety, and all the trappings of conventional success do not bring lasting happiness (Lane, 1991; 2000). The capitalist colonization of the emotional dynamics of the family has continued into the twenty-first century, even if some of the overtly patriarchal dominance has faded. In a large and growing number of American households, women are the predominant breadwinners, and men are dependent economically. Couples stay together not because of conformity to traditional roles (at least not only), but rather because they are "in love." Contemporary couples are not merely "role mates" sanctioned by a traditional culture; they are "soul mates," standing outside of traditional cultural norms (Beck & Beck-Gernsheim, 1995). *A Return to Eros* draws attention to the recent evolution from a culture of patriarchal role mate relationships to a culture of matriarchal soul mate relationships. Beyond the soul mate is a more evolved whole mate, a higher level of relationship that Gafni and Kincaid posit, and which I discuss further below. The distinction between role mates, soul mates and whole mates is one of several key cultural distinctions within *A Return to Eros*.

The soul mate liberates us from a cultural narrative that revolves around the role mate. As poetry, music, and devotional literature the world over reveals, the power of the soul mate relationship to heal, grow, and enliven is simply exquisite. Where the role mate fits into conventional cultural norms, economic necessities, and the realities of running a household, the soul mate lifts one out of these mundane trivialities entirely. Finding your soul mate can feel like a lightning bolt of erotic energy that hits you out of nowhere, and it can change the way the rest of the world looks. Importantly, when Gafni and Kincaid use the word "soul" in this context, it is not in any rigorous theological sense. Here the soul mate is taken as a cultural category, not a metaphysical one. Therefore, some connotations that the word holds for some readers will not be appropriate. The soul mate relationship should be understood as a result of modern cultural evolution, emerging from new economic conditions and changing norms and representations about the meaning of romantic love. This means that the soul mate relationship is susceptible to becoming distorted and co-opted like any other relationship. Even the best innovations in cultural evolution are only appropriate for a certain phase of evolution. Part of the narrative offered in *A Return to Eros* is about overcoming the limitations and distortions that have come to characterize the culture of the soul mate.

For example, there is a widespread idea that one's romantic partner is what "makes it all worth it." This is a novel idea related to the emergence of the soul mate relationship during cultural modernity. Taken to its extreme, this idea dictates that the soul mate should be the only source and focus of all of one's erotic energy. The soul mate is one of the few things culturally validated as being more important – emotionally, erotically, and energetically – than anything else in someone's life. The soul mate in our culture holds more erotic focus and expectation than it can possibly bear. It must make up for de-eroticized work, de-eroticized consumption habits, and de-eroticized entertainment. Remember this is not about what the culture industry sells as "sex," where a great deal of our money and attention is spent. The core issue in thinking through sex-economic critiques of existing structures is the quality and availability of erotic emotional experience outside of the sexual. Where in the culture is one able to invest all of one's energy? Where can one tap the powder keg known as the limbic system and really open the gates of emotion? For many people in our culture, the answer is their current (or hoped for future) soul mate, for whom and with whom self-transcendence, self-sacrifice, merger, and fulfillment are possible. The beauty, truth, and goodness of this form of relationship is what drove a revolution in culture, starting with the Romantic era's reaction to the beginnings of modernization and continuing through to the "Summer of Love" in 1967. The emergence and cultural propagation of the idea and value of the soul mate relationship constitutes a fascinating study in the evolution of consciousness, which *A Return to Eros* only begins to tell (see: Gafni & Hubbard, forthcoming).

Our culture is focused on the beauty, specialness, and intensity of the soul mate relationship. While this culture of soul mates involves a radical questioning of the role mate, it is still a culture that requires a profound truncation of Eros. The intense value of a soul mate relationship has the power to break the molds put in place by a culture of tradition and convention. But a life of dedication to one's soul mate remains a truncation of the erotic. This is true even when you have numerous soul mates – even if you have them at the same time. As Gafni and Kincaid are clear to point out, the issue of expanding the erotic beyond the culture of soul mates is not about the issue of monogamy versus polyamory, although this is an important issue. The issue is about the exile of our most potent and foundational emotional energies and experiences entirely into the domain of dyadic personal relationships, and within that domain, entirely into sexual relationships. A potent negative image here is of the bubble of shared narcissism that surrounds soul mates staring into each other eyes, oblivious as the world burns around them.

A Return to Eros posits a new ideal for love and intimacy in an age of fracture, which transcends but includes the culture of soul mates. This vision is a first step towards reworking the emotional deep structures of our culture. New human potentials only manifest in the context of new forms of relationship. The love stories we tell in our culture today are mostly about soul mates. Can these be retold in the context of a larger love story that transcends but includes the soul mate narrative? Can we place our individual love stories within the larger love story of the universe itself? These are the questions driving *A Return to Eros.* Before the ideal of the "whole mate" can be discussed, a larger story must be told about the evolution of the universe and humanity. Evolution at all levels has proceeded through the emergence of new forms of complexity and intimacy; this has continued though the evolution of human culture, which has also moved "upward" into increasing degrees of complexity and intimacy. We now stand on the verge of a breakthrough in relationships and community on a planetary level (Stein & Gafni, 2015). Part of this evolution is the emergence of a new story about human love and the forms of social life that honor the profound realties of our emotional being, a story that makes clear the relationship between human ethics and the rest of the evolving universe.

Ontology NOW! Getting Back to Reality

The sections in *A Return to Eros* that fall under the heading of the "cosmo-erotic universe" may be the most important. This is where sex and politics merge with the third and most dangerous topic: *reality*. Beyond all the stories and Biblical myths, beyond the analysis of sex, Eros, and relationships, *A Return to Eros* is putting forth a specific conception of reality. The basic claim is that the bio-psychic energies of the human are continuous with those of the universe itself, and thus manifest the same patterns, qualities, and powers. This is a simple truth about the radical interconnectedness of each human with the totality of the cosmos. We are made of stardust, through and through (Bruteau, 1997). These kinds of realities can mean nothing or they can mean everything. To paraphrase Einstein: you can see everything as a miracle, or you can see nothing as a miracle. *A Return to Eros* is about seeing everything as a miracle, especially the potential for human manifestations of "evolutionary love," a form of emotional life continuous with Divinity itself. Metaphysically speaking, *A Return to Eros* is describing the lived experience of Gafni's (2012) *acosmic humanism*, which has been expanded into a comprehensive *cosmo-erotic humanism*. This is based on an ontology that locates the identity of human and divine action in the erotic enfoldments and emergence of evolution itself. This ontology suggests an expansion of our capacities and identities beyond the skin-encapsulated ego, while also managing to fit within the assumptions of leading-edge evolutionary theory.

The question of just what counts as leading-edge evolutionary theory brings us to the point of this section. Getting a handle on reality is hard these days. There are no longer just a handful of authoritative academics working at the frontiers of evolutionary theory; there are over a thousand of them. In the past 50 years, the acceleration of academic knowledge production in the departments of biology, biochemistry, and environmental/ecological sciences (all fields dealing with evolution) has taken an almost exponential curve. Areas within the field show consensus on some issues, but whole populations of scientists disagree about foundational axioms, the interpretation of key findings, and the meaning of basic concepts (Capra & Luisi, 2014). Then there are the individuals who serve as pop-science mouthpieces, shouting into the public sphere about how evolution works as if there was scientific consensus, when what they are actually doing is only thinly veiled apologetics for predatory capitalism and abstract possessive individualism. Standing in opposition from pop-science are the think-tanks and industry skunkworks focused on complexity science and applications of evolutionary game theory and competitive landscape modeling. But who has the *real story* about evolution and the nature of the human? Of course, even after all of the academic debate, what really matters may be the Google rank and Wikipedia page of various evolutionary theories, as this is where the majority of students and non-specialists are forming their ideas. The state of scientific knowledge has fragmented beyond the possibility of any near-term synthesis, while at the same time it is being simplistically funneled through Goolge and Twitter.

This raises a general question about our culture: If you can't find it on Google or fit it into a Tweet, is it true? Serious cultural critics have to ask if it even matters if something is true or not anymore (Wilber, 2017). We live in a post-truth culture where positing the reality of anything is difficult. *A Return to Eros* can only be taken as poetry in this kind of context, yet Gafni and Kincaid are offering truth claims. Today ontological truth claims are unfortunately so mired in caveats that they mostly cease to serve a function in language (Habermas, 2009). In the interest of overcoming the fallacies of the modern mindset, the postmodern mind sought to put an end to "truth," and has now hit the jagged edge of its deconstructive projects, something reflective educators have seen coming for decades (Gardner, 1999).

What fanned the flames of academic deconstructionism into the raging wildfire of our post-truth culture? In part it was the computer technologies built by the cultural elite, which are still being marketed as if they will usher in an age of universal education and democracy, when they have demonstrated they do exactly the opposite. This is not the place to outline the failures of social media and search engines as educational technologies, let alone as technologies of socialization (Stein, in press). But regardless of the platform, the popular appeal of relativism stems from its political power. The weaponization of rumor is now an accepted political strategy. Seeking to short circuit the relations between *power and knowledge* (i.e., seeking to undo the use of knowledge as a tool of oppression wielded by elites), postmodernism decided to do away with knowledge itself (Foucault, 1980). Predictably, the result is that only power remains and discourse devolves into rhetoric and posturing, or worse, name calling and scapegoating.

To take only two examples from the upper echelons of academic culture, Yale University's Keller Easterling is a widely influential critical theorist in the fields of architecture and design. She explicitly suggests lying, rumor, and hoax as political strategies that can aid or hinder the creation of certain infrastructure projects (Easterling, 2014, pp. 215-218). I also cite Hebrew University's best selling historian, Yuval Noah Harari (2017, p. 206), who argues essentially the same thing. Both claim that stories are tools, and therefore the truth of a story has less importance than its political impact. As Easterling (2014, pp. 215-216) says: "Rumor and gossip [are] tools of aggression among the powerless." She argues that they are also available to the powerful and can become "a practical technique of markets and governments." It sounds like she is setting up a critique but she is actually suggesting that everyone play along: "[T]he environmentally sensitive designer might also embellish [their ecological design plans] with a narrative rumor – mixture of fact and fiction or what Hollywood calls 'faction'" (p. 218). Easterling's strategic retreat from narratives based on fact to narratives based on "faction" leaves designers with no choice but to retreat into actual political factions as a kind of retribalization. When the idea of a possible truth that might reconcile differences dissolves, all that is left are power games. The culture has been veering away from strong and commonly held conceptions of reality and truth and growing to accept the spreading of untruths for the sake of in-group solidarity. The periodic eclipse of reason is part of the evolution of civilizations, usually cascading into an age of fracture and barbarism (Rodgers, 2011; Horkheimer, 1947).

The new post-truth culture is most obviously dangerous when it comes to orientating collective action towards the realities of the physical world. It is simply dangerous to not have a clear sense of the effects of common industrial toxins and food additives, the scope of climate change, or the amount of radiation leaking from the damaged Fukushima nuclear reactor. It is more comfortable to see post-truth culture as a problem contained to things like tabloids and contentious presidential politics. According to this view we can simply set up a Google "fact checker" without ever settling the tricky problem of what constitutes a fact or truth (Wilber, 2017). The issue is much deeper then celebrity gossip and lurid political mudslinging.

The post-truth culture is predicated on the following accelerating trends in the new informational ecosystem:

1. the inability to distinguish non-commercially motivated from commercially motivated information;
2. the related inability to distinguish honest information from intentional misinformation that is spread for strategic advantage;
3. decreased message length, increased message frequency, and inability to track all message sources (i.e., information overload);
4. the absence of shared overarching meta-narrative that could potentially reconcile conflicting information and perspectives;
5. escalating emotional intensity of information (due to factors 1-4);
6. weaponization of language, (i.e., lies, slander, censorship, politicization, due to factor 4).

Micah White (2016), who was one of the key architects of Occupy Wall Street, discusses these trends from the perspective of the interface between politics and social media, where now the *representation* of the political takes precedence over actual politics. David Healy (1996; 2002) and Robert Whitaker (2015) discuss the same phenomenon in the fields of medicine and psychiatry, where the profit motive is systematically distorting research and public information campaigns. The same dynamics have caused a breakdown in discourse surrounding the reform of public schools in the United States, as the politicization of testing and the occurrence of widespread cheating has created disinformation, intense animosity, and a "chamber of echoes" (Ravitch, 2013; Schneider, 2014).

The unstated implication of this research is that political and psychological *realities* are hard to get good information about, especially if you only want to look at a screen to do so, let only if you only want to look at one social media platform (which is the norm, especially for those under 21). Identities as we have known them are disappearing, dissolving in the chaotic noise of the information age (Thompson, 1998). One way to think about *A Return to Eros* is as addressing the self-understandings of the species: are we lovers and creators or fighters and competitors? The book seeks to avert an impending species-wide identity crisis by counteracting the disintegration of the cultural resources that humans have traditionally used to create identities, relationships, and political communities. It reminds a post-truth culture that *reality matters*. Getting back to reality means embracing a new kind of metaphysics (an integrative evolutionary *realism*), a paradigm that is still being explicated at the leading edge of metatheory (Bhaskar, Esbjörn-Hargens, Hedlund, & Hartwig, 2015).

Realism about the exterior and physical argues for the existence of laws of nature, facts, processes, and tendencies in the universe (Bhaskar, 1993). Realism about *interiors* argues these same points for the life of the mind, demonstrating the existence of laws of nature, facts, processes, and tendencies in the domains of the psychological and cultural (Stein, in press). Taking seriously the ontology of human interiors means looking at the evolution of consciousness as well as the structures and dynamics of emotional energy. Both forms of realism (exterior and interior) are implicated when you want to make sense of the human in an evolutionary context. This is precisely what is so powerful about evolutionary explanations of human actions: they ontologize our humanity, making us feel at home in the universe (Kauffman, 1995). Evolutionary explanations give a deeper, broader, and more coherent sense of the reality of the human experience, which is today too often characterized as if it were merely a social construction. I believe that it is actually impossible to live in a culture and with an identity that reflectively takes itself as an arbitrary and meaningless construction. Humans need to orient around a sense of the world and their place in it that they believe is true. This means looking at the realties that underlie both the natural world and the human lifeworld.

Cosmo-erotic humanism offers a new kind of story about the universe, one that seeks to make good on the promises made by the complexity sciences more than a decade ago (Wilber, 1995; Kauffman, 1995; Capra, 1996). *A Return to Eros* is about the interior dimensions of increases in exterior evolutionary complexity, which are increases in consciousness, creativity, and Eros. These five trajectories of evolution (*complexity*, *consciousness*, *creativity*, *uniqueness*, and *Eros*) are reflected in the trajectories of individual development (Gafni & Kincaid, 2017 pp. 199-202). The universe evolves towards more complexity, consciousness, creativity, uniqueness, and Eros, and so does each individual within it. Humans can become aware of this reality, and so begin to self-consciously steer themselves into the strong currents of the evolutionary stream. This is an ontological claim, not mere poetry offered into a post-truth culture. This conception of reality is not abstract; it has direct relevance to the ethics and politics of relationships. It is at this point that the ethics of the *whole mate* can be understood.

A Return to Eros gives a vision of relationships that transcend but include the ethics of the soul mate, bringing forward the possibility of intimate love relationships that expand the energy they generate outward; these are unique love stories that open outward and into a universal love story. This is a call to expand the flow of Eros that is now limited to the options of a commoditized culture of soul mates. Where soul mates feed the wedding-baby-vacation-industrial-complex, whole mates understand the evolutionary and world-historical context in which their relationships take place. Love is the exception and escape from a troubled world where soul mates *retreat* into each other’s embrace, taking an “us against the world” stance to defend their shelter of love. For whole mates, love instead becomes the power to *engage* and heal a troubled world. Whole mates work together looking with eyes to the horizon, knowing their shared love participates in a universal evolutionary love. Where soul mates feel compelled to join genes through sexuality, whole mates may or may not engage sexually, and instead feel compelled to *join genius* in an erotic embrace beyond the merely sexual (here Gafni and Kincaid are drawing on the work of futurist Barbara Marx Hubbard). Whole mates are likely to join triadic or ever larger configurations of intimacy and perspectival coordination. The knowledge and experience of whole mates is of love as a force of nature. This vindication of the ontic reality of love (what Bhaskar (2012) would call *the alethic truth of love*) is the greatest message of *A Return to Eros*. Humanity is at home in the universe because we are at home in the reality of love. Love is not merely poetry or romance. Love is Eros, the actual driving force of cosmic evolution itself. This reimagining of relationships is the key to bringing culture back to reality.

Conclusion
Love in the Anthropocene: Life Without Externalities

I have argued that *A Return to Eros* contains fragments of a new psycho-sexual-spiritual critical theory of self and society. This is part of a larger project of *cosmo-erotic humanism*, which is itself part of a broader return to metaphysics that constitutes a metamodern worldview. This paper has only partially pieced some of these themes together. I began by recognizing the unique condition of metamodern metaphysics and arguing that doing metaphysics is now necessary because of essential changes in the human condition. The methods of metaphysical inquiry have changed along with the topics that ought to be the focus of metaphysical speculations. There is no longer any prospect for premodern forms of metaphysics after Kant, Darwin, and planetary-scale computation. Yet the modern and postmodern *absence* of metaphysics has created its own problems by leaving a vacuum where answers to the most important questions used to be found. The metamodern return to metaphysics seeks to fill this vacuum of meaning by providing a new context for human self-understanding – a new Universe Story that includes a new story of self and community. *A Return to Eros* offers part of this new story, focusing especially on our most intimate relationships, on love, and only beginning to outline the implications for politics.

Gafni and Kincaid argue for the primacy of emotional life and for flipping the typical prioritization in Western culture; here they are pointing to the emotional “tail” that wags the cognitive “dog.” The source of emotional life itself can be understood in terms of the cosmic dimensions of the bio-psychic energy contained within human sexuality. Sex is the great secret that evolution has placed within the core of human emotional life. Tantra is about *the clarification and expansion of erotic desire beyond the sexual*. This is about repurposing the powder keg of the system, not defusing it. Cultures have historically sought to defuse the cosmo-erotic nature of humanity. Individuals embody the limited forms of Eros enabled and validated by their cultures. Events in recent political life and public culture have demonstrated widespread distortions of emotional structure, which are manifesting in patterns of behavior long familiar in the history of capitalist civilization. Reich (1969) demonstrated that people will vote and act against their own material and political interest because of basic distortions within their emotional lives, specifically the truncation and misdirection of erotic energy. Gafni and Kincaid take this argument one step further by stressing the Tantric expansions of the erotic beyond the sexual, which allows for a critique that applies across both the Right and the Left of the political spectrum. The overt repression of sexuality has been the traditional conservative root of emotional dysfunction, and while Western cultures have overcome much of this overt repression, the result has been a different kind of erotic truncation. Where sex is not repressed it is hypertrophied; instead of a culture arranged to avoid sex, the culture is arranged to focus directly on sex.

Advertising and entertainment are only the tip of the iceberg; whole economic sectors are now built around a culture of romance in which we are told to prioritize seeking our soul mate. Culture sanctions the soul mate relationship as the highest form of intimacy. However, there are possibilities within the soul mate relationship that allow lovers to get caught up in a logic of *externalities*. Building, maintaining, and protecting our shelters of love can lead us to place ourselves outside the world. Commodification is based on this logic of externalization, where the desire to improve the quality of local short-term experiences blinds us to the long-term and distant consequences. We externalize waste, risk, labor, and the rest of the full impact of our lifestyles. The capitalist world-system has operated according to this logic on a grand scale for nearly 500 years, externalizing the impacts of economic growth by moving waste around the world and its fallout into the future (Wallerstein, 2006). The culture of soul mates, which was brought to fruition by the revolutions of the 1960s, has since been largely co-opted and is now a potentially counter-revolutionary force.

A Return to Eros argues that there are forms of intimacy that transcend but include the ideal of the soul mate. These make possible a new kind of culture and new structures of emotion, thought, and action. It is possible to access a universal evolutionary love (i.e., the *cosmo-erotic qualities of human emotion*) that expand love beyond sexuality and allow the qualities of Eros to suffuse all aspects of life. The soul mate relationship can be transformed into an amplifier of evolutionary love as it evolves into a whole mate relationship. In the process the logic of externalities falls away. The reality of the human situation dawns on us (with huge political consequence): no one individual love story can be played out separately from any others. The experience of Eros lifts the focus of the soul mates beyond themselves and into a total embrace of humanity and the universe. Nothing needs to be bought to prove this love. There is no vacation spot where it might be improved. Evolutionary love expands outward; the love between two soul mates is transformed into an act of theurgist protest, a kind of mystical activism that draws on humanity's capacities to manifest universal (super)natural forces (White, 2016). The image here is of a world historical *revolution of love* (Bhaskar, 2012), made possible by the evolution of new forms of relationship and intimacy.

Of course, any attempts to forge new forms of relationship will be seen as dangerous. The nexus of sex, reality, and politics remains a dangerous place to innovate. Living a life without externalities – a life that extends love to all relationships – requires looking into the social realties of the global commodity chains, political networks, and communication infrastructures we live within. Living a life dedicated to evolutionary love instead of romantic love is an utterly simple act of total subversiveness. Romanic love has the power to free individuals temporarily from the suffering of the world, but it does not have the power to free the world from suffering. Therefore we must evolve through and beyond the culture of soul mates and towards forms of relationships in which we can live as unique incarnations of cosmo-erotic love. Whole mates are amplifiers of evolutionary love. This new form of relationship is predicated on seeking to embody the force of Divine Eros itself in all aspects of our lives, not only with those chosen few souls we take as special. This means you can no longer leave Eros at the door when you go to work, go shopping, engage with social media, or join a protest. It means the end of the substitute gratifications and distorted expressions of erotic energies that drive so much of today's cultural industries. It means that no one or few are taken as special and set apart. Instead, all are taken as unique, and no one is ever placed outside the circle of concern, tolerance, and compassion.

Cosmo-erotic humanism is not offering an indiscriminate love-fest or a self-contradictory relativism that claims to love everyone only to then put on displays of hate. It instead offers a return to reality. Metamodern metaphysics needs find a way to get beyond the limits of post-truth culture, which means finding ways to embrace non-pathological value hierarchies of truth, goodness, and beauty. We should seek ways reverse the tendencies of love to contract inward and shrink in this age of fracture. As things are going now we are deepening the fractures, retreating into a process of multiplying the “others” and partitioning off our safe spaces. We are shrinking love down to a small circle, while lashing out at an ever-expanding circle of the unloved in the world beyond our screens. This logic of keeping love and respect for “us” and saving none for “them” reflects the truncations of Eros that so often burden and distort human personalities. The emotional structures of humanity will need healing if we are to again take up the quest for mutual understanding and put down the quest for mutual destruction.

The pursuit of mutual understanding between people who disagree is the key to anything like a society worth living in. Not, “you have your truth and I have mine,” but rather, “we live under a common truth that we are seeking together.” The collective pursuit of mutual understanding is not about condoning hate and ignorance by equally valuing all voices. Seeking understanding does not mean reaching an agreement. It is a reciprocally *educational* process that must be sincerely engaged by all parties. Some may be too full of hate to be open to learn, but we must love even those who are hateful in order to see into the reality and humanity of their lives. Justice requires seeking ever new ways to counter hate with love. The desire to seek mutual understanding is not the result of cognitive insight. It is an embodied emotional disposition and a presupposition of discourse (Habermas, 1998). This makes it something that is not the result of discourse, because discourse is not even possible if we don’t already agree to seek mutual understanding. This means that the task of restoring any semblance of reason to the public sphere is first and foremost about addressing the structure of emotions, specifically the material and cultural conditions that are generating widespread distortions and truncations of Eros.

I began this paper writing about the eternal battle between Eros and Thanatos. I suggested that our historical moment is one in which this battle is raging out in the open. According to everything I’ve discussed so far, it may seem that Thanatos appears as a frightening glitch in the matrix of Eros. How can those who believe in the ultimate reality of love face down the reality of hate? How can a universe fueled by Eros even make sense in the face of what Thanatos creates? Thanatos creates a torrent of malice, spite, and sadism that slaps the face of anyone offering simplistic notions about the basic goodness of human nature. Thanatos is worshiped by the likes of Nick Land and those who are seeking a reality beyond relativistic and irrational world cultures of post-modernism. We must be aware of the tendencies and evidence in favor of holding humanity in the context of a new “dark” metaphysics, which could form the backdrop for a metamodern politics with profoundly negative consequences.

The current cultural impasse cannot be resolved through the unforced force of reasonable words, which is why many believe that it will be resolved by actual force. What is certain is that only large-scale and significantly forceful actions will suffice to change our course. I believe drastic action is needed that focuses specifically on changing the basic conditions in which the human heart is shaped. Practices that demonstrate the full reality of Eros are profoundly transformative for those who would otherwise hold a simplistic and negative picture of human nature. A totalized educational revolution is needed, starting with the schools and media and expanding outward to refashion technology and the economy itself in the interests of healthy human development (Stein, in press). *A Return to Eros* provides only some of the frameworks necessary for addressing this task of a total educational revolution in the interest of love. There can be no future in which humans are taught and socialized into the narrow confines of national and economic self-interest. The only future possible is one in which love and justice are the cornerstones of global educational systems. Not systems that teach *about* love and justice while treating children and adults inequitably, but rather educational systems that *demonstrate* love and justice in their total support for the free development of children and families, up to and including basic income guarantees and health care. This will mean that the priority for global futures is *love*, not profit and growth or sustainability. Profit, growth, and sustainability mean nothing if they land us in a world without love. Cosmo-erotic humanism argues for a planetary prioritization of love and for securing the necessary and sufficient conditions for the possibility of love. These are some of the most important implications of what I have been discussing here as a metamodern return to a metaphysics of Eros.

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Awakened Perception: Perception as Participation

Bonnitta M. Roy[1]

Abstract: Perception has been called into questions by eastern traditions and western scholars for millennia. In a few “secret” places in Zen, Chan and r-Dzogchen Buddhism, the ultimate valid truth is said to be directly perceived. I propose a modern methodology called *integral phenomenology* that integrates deep phenomenal examination with contemporary research on perception (from both eastern contemplative science and western empirical science), to reclaim the notion of direct perception as *adequate participation*. In doing so, I develop an ecological model of perception, which includes “hybrid zones” where different perceptual states overlay each other, leading to non-ordinary experience, state transitions, and eventually, self-liberating insight and non-dual wisdom. This modern methodology must pass the critical examination of the highest Buddhist authority on direct perception—the Gelukba Sautrantika school. This is a critical challenge, and yet, if successful, shares the Sautrantika’s schools optimism that liberating wisdom can be gained by starting with everyday ordinary experience—which is a key principle of the integral phenomenological method.

Keywords: Direct perception, kensho, integral phenomenology, participation.

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Author's Preface

What you have below is my thesis for a Masters of Arts in Consciousness Studies at The Graduate Institute in Bethany, CT. The editors who reviewed it and I all sensed that as such, it could benefit from a comprehensive reorganization, but none of us could actually envision what that would be. Instead they suggested I write a preface to help orient readers. Foremost, the reader should know that this thesis unfolds itself as it follows my own ongoing inquiry and discovery of research that is new and surprising and calls for a radical re-visioning of what it is to perceive. Although it has been a year since I submitted my thesis, I am still pondering its implications as well as finding a new sense of wonder in perceiving the natural world. Therefore, it would not surprise me if, at the end of the paper, you might feel you have just begun a similar exploration, hopefully now with a few more signposts to help you carry forward what has been started.

Guiding Inquiry

The hypothesis beneath this work is that a modern minimalist approach to awakening, can accelerate conscious transformation. In this approach, "awakening" is defined as *awakening to the nature of experience.* This paper focuses only on one of the four[2] key aspects of experience: perception.

My guiding question in this paper:

> *Can a model of perception based on participation pass the critical examination of the Buddhist traditions, complement neurophysiological research, and support meaning-making around first- person accounts of ordinary and non-ordinary perceptual experiences?*

My guiding purpose in this work:

> *To develop modern approaches and heuristics to accelerate transformations of consciousness toward re-enchantment with the world, and to create conditions for people to flourish and the planet to thrive*.

Methodology: Integral Phenomenology

The Wiley Blackwell Handbook of Transpersonal Psychology (Friedman & Hartelius, eds. 2015) includes a section on future directions for transpersonal research. In it, Rosemarie Anderson and William Braud (2015) highlight *three* approaches that are particularly suitable for transpersonal research: *intuitive inquiry, integral inquiry, and organic inquiry*. My approach, which I term *integral phenomenology* borrows from all three approaches in the following ways.

1. From intuitive inquiry
   a. reflecting on extant topical texts and developing the preliminary interpretive lenses
   b. transforming and refining interpretive lenses

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[2] The other three are: affect, tacit knowing, and virtual perceptions (inner hearing, inner images, inner taste, inner smell, inner touch, and other simulations of perception).

2. From integral inquiry
    a. the goal of acquiring both knowledge and wisdom
    b. interest in transformative knowledge
    c. whole person involvement
    d. integrating a spectrum of modes of knowing: sensory impressions, words and thoughts, images, feelings, intuitions, realizations in altered states of consciousness, sensorimotor modes, and direct means (becoming the object of knowing)
    e. integrating sources of inspiration, including the natural sciences, psychology, sociology, anthropology, philosophy, literature, the arts; as well as spiritual wisdom and folk traditions; and personal and anecdotal evidence.
3. From organic inquiry
    a. focused on transformative validity, i.e., the thesis as
        i. an "evocative vehicle of feeling as well as thinking
        ii. presenting a diverse and intimate view of the topic
        iii. in order to engage the individual reader in a parallel process of transformative interpretation

In addition to the above, *integral phenomenology* relies on the research data from the field of neurophenomenology as a source of valid interpretation of direct, phenomenological inquiry. (Laughlin and Rock, 2015). As a methodology of research, *integral phenomenology* rests on four axes of validation: 1) adequate participation with the topic through direct, phenomenological inquiry, 2) corresponding or confirming evidence from the neurosciences, including neurophenomenological evidence, 3) an individual, collective, cultural or political transformative potential, and 4) purposeful action-inquiry toward *the good*. A rubric for addressing these four criteria is what I call the 4-A's (Forays):

1. Appeals to our deepest spiritual intuition
2. Available to scientific inquiry
3. Politically Actionable
4. Aesth-ethically beautiful

Part I: Discovery

Introduction

This paper is part of a larger project on what I call integral phenomenology. Integral phenomenology is a methodology for people to become aware of the nature of experience. This approach examines the micro-states, micro-stages, and micro-genesis of experience along four foci of inquiry: affect, perception, tacit knowing, and inner perceptions. It provides a foundation for embodied, contemplative practice as an inquiry into the nature of thinking, turning metaphysics into a direct examination of the architecture of thought itself. Integral phenomenology combines a direct examination of lived experience in contemplation and vipassana meditation, with contemporary neuro-cognitive science and neuro-affective science. Its larger, "big picture" interpretive framework includes the three narrative sciences of development, anthropology and evolution. The ultimate goal of integral phenomenology is for individuals to shift from the passive modes of experience, to their active, enlightened modes. When the modes of experience remain passive, highly conditioned and habituated, the person expresses socially conventional, self-referential, neurotic forms of behavior, that are primarily driven by unconscious impulses and reactive tendencies. Awakened modes of experience provide the basis for enlightened action in the world, which is post-conventional, other-referential, compassionate, and open to more degrees of freedom, in awareness, intention and choice. Activating the modes of experience means shifting affect to intuition, perception to insight, tacit knowing to open participation, and inner perceptions to creative imagination.

First, by disentangling the modes from the knot of phenomena and stimuli that constitute conventional experience, we can begin to examine their underlying dynamic patterns and processes. This can be done by integrating phenomenological methods of inquiry, with scientific, philosophic, and narrative works associated with them. By going back and forth, from reading about a specific experiential mode to direct inquiry of that specific mode, through phenomenal examination of ordinary experience, integral phenomenology builds a greater understanding of and deeper capacity for directly observing phenomena at finer and finer details. Together, these accelerate personal transformation.

The focus of this paper is on perception-- its micro-state, micro-stages, and micro-genesis. I will explore how perception can shift from its conventional, passive role to a more awakened, active role called insight. I will explore the notion of direct perception as a sustained open awareness of one's lived experience as direct participation. This direct participation includes interactions among the multi-modal perceptual organs within the body-brain-mind of the person, as well as interactions between the person and the living world. In enlightened states of perception, we have the insight that the perceptual organs and the living world are not two, but one larger ecology, in which myriad phenomena emerge through dynamic participation, eventually giving rise to innumerable subject-object definitions at the terminal end-states of experience.

Perception has been called into question by scholars, philosophers, and scientists, and by spiritual traditions for more than 2500 years. This has led to paradoxical conclusions. On the one hand, everything we can know about the world relies on some mode of perception. And yet, we are all familiar with many ways in which perception succumbs to error and illusion. We delight in perceptual illusions of all sorts, and are dumbfounded by experiments like the Gorilla, who saunters across the basketball court, hidden in plain sight[3]. Science has the tools to prove perception wrong, but every one of its tools ultimately relies on some mode of perception to get to that proof. Whether we use the scientific method to correct and revise, or question and replace ordinary sensory information, we must concede the fact that in the process we are also *simultaneously confirming our confidence in our own ordinary senses*, since all empirical science ultimately rests on ordinary sensory observation – whether that is a blip on a computer screen, sounds from a recorder, or colors on a photographic plate.

Time and again we are reminded of the failures of the eyes to directly see and the ears to directly hear what is actually happening in the real world. And yet, athletes are capable of extraordinary feats that would be impossible if the senses were not operating perfectly in tune with reality. We are told that perception biases the self, and yet, it is in certain states of flow, or when under extreme conditions and outrageous challenges, when the sense of self is absent, that perception performs in optimal ways.

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[3] See the *Invisible Gorilla* at http://www.theinvisiblegorilla.com/gorilla_experiment.html

Spiritual adepts of the east tell us that all we can perceive is but an illusion or a dream, but their behavior tell us otherwise, since they all performed as if the perceived attributes of experience were real. In the western philosophical tradition, we see more of the same. David Hume, for example, declared that there was no reason to believe the perception that it was preferable to walk out a building on the first floor rather than from the third. And yet, he never walked out of the third floor window.

Kant said that perception had to be overcome by the use of cognitive faculties that transcended the phenomena, and the postmodernists have argued that all perception linguistically and culturally mediated (de Zengotita, 2008); while Johnson and Lakoff (Johnson 19787; Lakoff and Johnson 1999; Lakoff and Nunez 2001) have argued that all cognitive and linguistic faculties, including logic and mathematics, ultimately derive their meaning from embodied modes of perception.

In this paper I hope to resolve these paradoxes through the notion of perception as different configurations of participation. In each experience we can ask ourselves "What are we participating with?" In some cases, the participation will involve memories, fantasies, worries, cognitive and culturally conditioned biases. In some cases, the participation may be pared down to raw data streams interacting with neural cells, as for example, light exciting retinal cells. In between there is a huge spectrum of variation, depending upon what levels of experience are "in play" and which are absent, determined by what aspects of perception are "online" and which are "offline."

Here the notions of hyper-trophy or amplification and hypo-trophy or attenuation of perceptual streams are important considerations. They are associated with the neuroscience of perception which demonstrates that perceptual experience is determined by complex global dynamics that emerge from excitatory and inhibitory feedback processes in the brain. This dual relationship, between excitation and inhibition explains the complex causal relationship between perceptual experience and non-ordinary states in meditation practices and scientific exercises designed to elicit them.

For example, exciting some areas of the brain inhibits the activity in other regions, but these other regions may themselves have inhibitory effects on different areas, which has a net effect of *exciting them*.

We shall also see that each perceptual organ (defined as the sensory organ and its associated body-brain networks) interacts in multiple complex ways with others to produce variations of perceptual experience. Furthermore, every perceptual experience is associated with a discrete "subject" or "sense-of-self" that is partially determined by what aspects of perception are amplified, attenuated, or absent. This sense-of-self constitutes the phenomenon that cross the threshold above the unconscious perceptual processes. These three correlations: 1) the aspects of perception that are “in play” at any given moment 2) the excitatory and inhibitory feedback interactions among them, and 3) where the threshold of self-consciousness happens, can be shown to delineate as different states of consciousness that have been described by spiritual traditions, and identified by neuroscience as discrete brain states. This will enable us to derive a *definition* of *direct perception*, or more accurately, of *sensory clarity*. I will argue that sensory clarity is *awakened perception*, and that it is a key credential to any claim of enlightened awareness.

Sections of this paper describe my own journey towards a better, more robust understanding of unconventional, non-ordinary perceptual states that I have experienced at different times in my life. I interweave my own stories with accounts that appear in the literature resources I have incorporated into my research. In the final section of the paper I subject my work to a critical examination to the framework of direct perception developed by the Sautrantika scholastics of the Gelukba tradition, considered one of the most advanced examinations of perception.

A Brief History of Perception

Countless arguments have been made calling perception into question. Some of us are aware of the eastern religious traditions which claim that all perceptual phenomena are illusory. The Sanskrit term “Maya” involves a rich and complex history of meaning around the illusory nature of experience, warning us that reality does not exist as it appears, that perception is peppered by error, confusion and ignorance, that the mind veils, the emotions cloud, and thought obstructs perception in ways that deliver a false impression of reality. In the eastern traditions, this false impression is blamed for the human condition of *dukkha*, our ordinary state of suffering which is called *samsara. Samsara* is contrasted with *nirvana*, the enlightened condition associated with the cessation of suffering. In the enlightened state a person is said to be able to *directly perceive the true nature of reality*. Still, what is revealed *as reality’s true nature* differs quite dramatically among the traditions. Some traditions, such as Hinduism and certain “mind-only” schools of Buddhism describe the true nature of reality mostly in mystical, metaphysical or idealist terms.

In contrast, other traditions, such as Daoism, Hua-Yen or Chan Buddhism in China, and Zen Buddhism, seem to describe reality in ways that remind us, as western readers, more of what we commonly think of as *nature* – that part of reality that involves mind to some extent, but exists, and carries on by itself. On the one hand we are told that the nature of reality is the nature of *enlightened mind*; but on the other hand, we are told that reality is *that which originates and evolves minds*, some of which happen to be in enlightened states.

Although we typically think of western culture in terms of scientific materialism, western philosophy has also been firmly steeped in idealist positions for more than 2500 years. Consider Plato’s *Allegory of the Cave* which describes a world where perceptions are mere shadows projected on the walls of a cave, and like prisoners who cannot break free of their chains and escape the cave, most of us never break free of illusion and escape into the light of reality. Here, in this light, we would discover the Pure Ideas and True Forms of a higher, more real, reality, that are accessible not through perception, but through enlightened Reason.

The modern enlightenment produced a philosophy of Reason that laid the foundations for scientific materialism. Ironically, however, this same philosophy, primarily based on the work of Kant, maintained a skeptical attitude toward perception. This attitude still afforded the mind and its faculties of reason, a *more direct route to reality* than the body and its faculties of perception. Kant built an impenetrable wall between *phenomena* which is given in and as our experience, and *noumena* which is what is really real. Ever since, *ontology* – the study of reality itself, and *epistemology* – the study of how we know reality, have bent fractured domains of philosophical inquiry. Kant argued that we can never actually perceive the real, we could only investigate it through various methods. This led to a kind of correspondence theory of reality in which certain tools of logic, mathematics and reasoning, when used according to certain rigorous methods, could be trusted to *map directly* onto the noumena. The best we could achieve would be an accurate *map* of reality. Science was understood to be the practice of continuously improving and updating the map. As a result, science would go on to undermine the common- sense perceptions of ordinary experience, while offering fantastic notions from relativity and quantum mechanics as ontologically real.

The post-modern critique completely debunked any lasting notion of naïve perception and replaced it by firmly establishing the social, cultural and linguistically *constructed* nature of experience. It highlighted the complex processes of social, cultural and linguistic *conditioning* that over-determine the outcome of perceptual experiences. Post-modern variations of Buddhist traditions highlighted the problematic self-reflective and self-referential properties of the ego, and its infinite regress into conceptual abstractions. The wall that Kant had built between experience and reality, was reinforced with self-confirming loops of social media to such an extent that problematized not only perception, but also of any hope of “authentic, unmediated *raw* experience.” In this world, there would never be the possibility of a “seeing the clouds for the first time” or “experiencing your first kiss” because all “first impressions” were always already mediated impressions, always already primed by the ubiquitous media and fashioned into existence first in the mind, and etched into lasting existence in inescapable memories (de Zengotita, 2008). It seemed that perceptual moments had become obsolete. Or had they?

Perfecting Perception

If perception proved not to be trustworthy *in the mind of philosophers* it would prove to be *more than trustworthy* in the bodies of extreme athletes who had trained to be able to give up thinking when it mattered most.

> *When he went to strap on his chute, he noticed the canopy was wet. It should have been the end of his plans. A wet chute is unevenly weighted. When deployed, parts will inflate, others will not. Potter, not thinking clearly, decided the water was evenly dispersed and wouldn't be a problem.*
>
> *And it wasn't a problem – at least not for the first five seconds of the jump. "When I leaped," he says, it was right into the zone. Immediately my senses started peaking. I was moving at ninety miles per hour but could see in credible detail – minute fissures in the rock, tiny patches of lichen, bat guano. At the six-second mark, roughly 500 feet from the ground Potter deployed his chute. It opened asymmetrically. The wet sections collapsed, the dry ones inflated. Instantly, with the air currents unevenly distributed, Potter started spinning. From above, his friends started shouting "Avoid the walls!" Important safety tip, except with his guidelines twisted, there was no way to steer.*

> *Then the miraculous intervened: the guidelines began to untwist. Potter seized the moment, yanking his toggles. He knew the better move was to reverse his direction-- which would have sent him backward and out into open space – but for reasons he still cannot fathom he turned left instead. He was now heading directly toward the cave wall. Worse, the moment he turned, his chute collapsed, draping itself completely over his head.*
>
> *But Potter's senses were peaking. In the fleeting instant before his vision vanished, he caught a glimpse of orange. "We were filing the jumps," he recounts, "so we'd hung a rope about 400 feet off the deck for the camera man. It was glowing orange. And that was what I saw: a flash of glowing orange."*
>
> *He reacted immediately, grabbing for the rope, catching it too. But there was no way to tighten his grip. Potter was less than 300 feet from the ground and closing in on terminal velocity. His hands were already burning from the friction. When he tried to clamp down on the rope, his flesh flayed, then instantly cauterized. The pain was unbelievable.*
>
> *… Potter did manage to stop himself for a moment – but couldn't hold it.*
>
> *Again he started plummeting. Again he clamped down. Again he managed to stop. Not a moment too soon. With the chute still covering his eyes, he had no way of knowing, but Potter had halted himself merely six feet above the ground.*
>
> *His friends shouted down "Just let go!"*
>
> *Potter landed in a heap on the cave floor. His hands were destroyed, other parts as well.*
> (Kotler 2014, pp. 51-52)

Dean Potter is one of the elite extreme athletes who are pushing human performance beyond all previous measures and expectations. Cliff jumping and wing suit flying may depend uopn technologies that open up new performance ventures, but in these situations, technology is not the limiting factor – human potential is. Within our human potential, we are pushing beyond not so much the limits of the body (that's where technology steps in to give us wings and reinforce our outer protective shell) – but we are experimenting with the upper limits of human consciousness. In particular, these upper limits are associated with intentional-motivational and attentional capacities. These capacities are associated with processes that follow discrete neuro- chemical pathways in the embodied brain-mind.

In addition to physical skill and endurance training, extreme sports require athletes to train their consciousness to access not only higher *degrees* of ordinary potential, but also *higher human potentials.* new potentials are essential to perform in these domains, where successful performance means surviving. Intentional states need to be *clean*, i.e. clear of emotional distractions. Attention needs to be sharp and fine-grained to relevant targets (that are usually moving and changing at the same time). Performance at this level requires keen sensory acuity (what Potter refers to as "his senses peaking") and enhanced proprioception – a more-than-ordinary awareness of the body's own position, orientation, and angular momentum in space operating at levels beyond the normal human capacity to deal with accelerated change.

There is something even more exceptional happening here that separates the elite athletes from the rest of the field: space-time dilating and the dissolution of the self-complex. In extreme cases, these athletes have the ability to dilate the experience of space and time. As time slows down, the action slows down, enabling them to perceive crucial details and process more options. As time slows down, space seems to expand, enabling them to see between fast moving objects and intervene between them.

In most cases, these elite athletes are accessing states of "flow" where the self-complex, the "I-me-mine" mind that ordinarily governs our action, is absent entirely, leaving them the feeling of self-less-ness, where the body knows what it is doing, but the mind has not been invited to the event.

These six key features of enhanced potential in extreme sports: clean intention, tuned attention, sensory acuity, enhanced proprioception, time-space dilation and self-less-ness, can only be attained by techniques specifically designed to take advantage of the neural plasticity of the *embodied body-mind-brain,* the *EBMB.*[4] These techniques first disrupt the habitual, default patterns of the human operating system, and then secondly, train them to handle novel action potentials. It turns out that these are exactly the kinds of disruptions to the EBMB that advanced meditation training (especially Zen practices) are designed to do.

The physics of baseball (Adair, 2002) prove that the fielder must start running *before* he hears the crack of the bat, and that when he catches the ball over his shoulder, it had been impossible for him to see it first. His EBMB was processing an enormous amount of information in order to deliver his glove to where the ball was headed, just at the right time. For this to happen, the EBMB must be *perfectly* aligned with *how the world really is.* The same extraordinary levels of performance characterized the career of quarterback Joe Montana. But Montana reports that the entire time he played football "unconsciously." There are coaches of trainers all over the world, training people how to perform better by "getting the self out of the way" (Gallwey, 2010). In these non-ordinary states of performance, the EBMB is more attuned to the world as it really is.

So what goes wrong with everyday ordinary perception? And why are we so concerned that we don't actually perceive the world *how it really is?*

> *In the summer of 1978 I was living in Berkeley California as a first-year graduate student. One night, two friends took me up to the observatory high up in the northern hills of the city. From there you could look out over the bay to the beautiful nightscape of San Francisco. When you get to the observatory, you park on one side of a pedestrian bridge and walk onto a huge terrace courtyard on the other side. The courtyard is surrounded by a 4'H stone wall. Because the way it is built, at night you don't realize you are several stories high. The short wall gives you the impression that you are standing on a courtyard at ground level. This turned out to be almost a tragic illusion that one night. We brought with us a frisbee and took up positions at the periphery of the courtyard, the three of us like points along an*

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[4] The term EBMB represents the continuum of perception (or continuous flow of perceptual streams) from world (hence *embodied*) to the holistic perceptual processes of the *body-mind* to particularized functions localized in the *brain*. This continuum is bi-directional, with afferent streams running "upwards" from world to brain, and efferent stream flowing "downwards" from brain to mind-body, to world.

> *equilateral triangle. We lost ourselves in the warm and sweet scents of the Berkeley hills, the wafting breeze and the flow of the game.*
>
> *The last frisbee throw of the night got away from me. It soared above the short periphery wall into the complete darkness of night. There were no lights illuminating the distances below. Spontaneously I jumped over the wall like I had jumped over many stone walls that line the pastured fields all across my home state of Connecticut.*
>
> *The next sequences of events are clearly etched into my memory like years in a storyline. Yet they must have happened in less than 2 seconds:*
>
> *As I leapt, and while still on the rise of my jump, my ears tuned into a familiar set of sounds – the HVAC equipment that was running outside the main building, some 4 stories below. Instantly, this perception triggered up with some episodic memory in my mind – matching perfectly with the sounds of the HVAC that I heard for two years outside my 4th floor dorm room back in college. Somehow, all in an instant of time, my EBMB processed this information, realized I was not 4 feet but 4 stories above ground level, turned myself around, got hold of the outer edge of the wall, and pulled myself up, over and back onto the terrace floor.*
>
> *Stunned, my friends hadn't even time to move from their positions.*

Had perception both failed me and saved me at the same time? What part of my perception was sleeping when I jumped over the wall? What had awakened my perception of the actual reality? Notice I say “my ears heard” not “I heard” the sound of the HVAC below. When the EBMB “takes control” of the situation, in this case out of necessity, it is as if the first person subjective “I” gets brushed aside, and this third-person objective “organism” chooses how to act. This organism scans the environment and chooses the course of action in a nano-instant. Like a reflex, except that there is a whole lot more information loading up and matching up. One door of perception is closed – the intersubjective “I” who is playing frisbee, and the other door of perception is thrown wide open. The “I” discovers itself to have been separated from reality, distracted by the intersubjective and social themes that were playing out between friends. The organism always reaches toward reality, always responds as an act-uality, which is to “act in accordance with reality.”

When performing together, extreme athletes must learn how to emancipate perception from the social self, and stay with the organism, the EBMB. In other words, they are training themselves to enter into zones of peak performance, simultaneously. If time-space dilation is happening, it must be perfectly synchronized. If split second decisions must be made, they must activate in the body-minds of each of them at the same time. If each is a self-less organism, then they must entrain themselves to the same patterns and rhythms of action.

Steven Kotler (2014) talks about the new science of ultimate human performance as learning to hack flow states from both a body and a mind perspective, and by integrating both psychological and neuroscientific approaches. Flow states are associated with neurochemical systems that function as performance enhancers as well as mood-boosters. The neurotransmitters most involved are *dopamine* which creates engagement and increases attention; *norepinephrine* which directs focus and locks attention on target, as well as increasing arousal without spiking emotional imbalance; *endorphins* which alleviate any potential pain signals and keep them from delaying action or reducing endurance; *anandamide*, which is a psychoactive chemical that elevates mood, amplifies lateral thinking, and inhibits fear response; and *serotonin* which enhances coping and endurance capacities. Kotler (2014) writes:

> These five chemicals are flow's mighty cocktail. *Alone, each packs a punch, together a wallop. Consider the chain of events that takes us from pattern recognition through future prediction. Norepinephrine tightens focus (data acquisition); dopamine jacks pattern recognition (data processing); anandamide accelerates lateral thinking (widens the database searched by the pattern recognition system)*. (p. 68)

As I mentioned above, this chain of events, unfolds in the *time-dilated* state of flow. "We" are allowed to witness, to observe intently, but not to interrupt or insert an agenda that is meaningful only in the context the intersubjective "I."

Josh Watizkin (2007) interprets the experience of time slowing down as the same as opening up the space in which we can act. Reflecting on a push- hands match he won to earn a world champion Tai-Chi title, Waitzkin writes:

> *Now think of me, Josh, competing against a less refined martial artist. Let's say I am in the process of instigating a throw that involves six technical steps. My opponent will experience an indecipherable flurry of action, while for me the six eternal steps of the throw are just the outer rim of a huge network of chunks. Our realities are different. I am "seeing" much more than he is seeing. (pp. 143-144) … The slightest variations in the way my opponent responds to my first push will lead to numerous options in the way I will trigger into the throw. My pull on his right wrist will involve twenty or thirty subtle details with which I will vary my action based on his nuanced micro-responses. As I sit back on the ground and trip his right foot, my perception of the moment might involve thirty or forty variations.* (p. 145-146)

These are, Waitzkin explains, the space-time dilation of flow states is a kind of sensory precision that is gained through intense focus on simple perceptual details.

> *Now my unconscious navigates a huge network of subtly programmed technical information, and my conscious mind is free to focus on certain essential details that, because of their simplicity, I can see with tremendous precision, as if the blink in my opponent's eyes takes many seconds.*

The key to this process is understanding that the conscious mind, for all its magnificence, can only take in and work with a certain limited amount of information in a unit of time – envision that capacity as one page on your computer screen If it is presented with a large amount of information, then the font will have to be very small in order to fit it all on the page. You will not be able to see the details of the letters. But if that same tool (the conscious mind) is used for a much smaller amount of information in the same amount of time, then we can see every detail of every letter. Now time feels slowed down. (p. 146)

> *It was the summer of 1977. I was a junior in college, working at Princeton University on a National Science Foundation grant for a lab that was researching the neurophysiology of learning. My role there was to prepare the research subjects – species Limax maximus – the common garden snail – by vivisecting the nervous system wholly intact from the body, and set micro- electrodes into key neural nuclei so the electrical patterns could be visualized on an oscilloscope. My instruments were tiny micro-fiber glass filaments attached to scalpel handles. I had to work with my arms secured by the wrists in stirrups to stabilize my movements. Precision required all work to be done under a microscope. The first day I watched as the microfiber blades hopelessly flailed under the microscope from the otherwise imperceptible trembling of my hands. This meant I had to give up all sugar and caffeine for the summer. Still, I found it impossible to work with required precision, and ruined specimen after specimen. I just couldn't imagine how I might make the precise, micro-level movements that were needed, with my macro-level hands and fingers. The coordinates just wouldn't compute. How could I have control over my hands at a level I couldn't perceive?*
>
> *Then one day I had an idea. I looked through the micro-scope and transported myself into the micro-world that existed there. I imagined my fingers to be telephone poles, and the spaces between my hands to be entire football fields. I drew imaginary yard-lines in between and envisioned how I and an entire team of football players could run around in between. In this imaginary world, the micro-fiber blades were the size of kitchen knives, and the specimens were the size of whole salmon. Still a difficult task to fillet out all the bones – but no longer an impossible one. In this virtual world the space to act had been opened, and with it came the slowing down of time. Each specimen prep took 4-6 hours of uninterrupted work, not unlike the demands placed on a surgeon facing a long procedure. Yet before I had a chance to be distracted by the thought "I wonder what time it is," the requisite hours had passed and the work was done. Soon I was depended upon to do all the specimen preparations for everyone in the lab.*

What is clear from these accounts, is that perception can be emancipated from the concerns of the social self, from the numerous distractions of the intersubjective "I"; from the compression of time and compaction of space, from worry and fear and rigid adherence to a single-minded ego-centric frame of reference, into a time-space dilation in which perception functions with speed, precision and efficacy. Furthermore, this emancipation is associated with the experience of being "in the zone" or in an extraordinarily pleasant state of "flow." We know that flow states depend upon discrete neurochemical pathways that rely mostly upon five neurochemical transmitters. These flow states are also related to experiences of time-space dilation brought on by demands for extreme perceptual acuity and achieved through intense focus, and/or the ability to tap into time-space dilation through imaginative exercises.

Perception by the Numbers

Some Definitions

Neuroscience has calculated the way information flows through our sensory organs and how that information is (or is not) exchanged with the brain and the conscious mind. In order to make sense of this, I want to precisely define "sensory organs," "brain," and "conscious mind." They are all functions within what we have previously termed the EBMB – the *embodied body-mind-brain.* We can say that the sensory organs are mainly "part of the body," while the terms "brain" and "conscious mind" refer to the *mind-brain* of the EBMB. The word "embodied" in EBMB seems redundant, but in this case *embodied* means *more than the body* as conventionally understood as built upon a skeletal frame and outlined by our skin. In this case *embodied* refers to an ongoing interaction with the world, of other sentient and non-sentient participants.

Embodiment is fundamentally *participation.*

The phrase "sensory organs" refers to the conventional ways we point to our eyes, ears, skin, tongue, nose, as the "instruments of perception" but includes more than them. The phrase "sensory organs" includes both the afferent and efferent electro-chemical neural networks through which information flows and is processed at specific sites along discrete pathways, through the body, to and from the brain and other organs such as the gut, heart, and lungs. The term "brain" here specifies those regions of the neural networks that are confined to the anatomical region of the brain – the organ in your skull. The brain has been extensively mapped into specialized regions, and its electrical activity has been extensively studied to give us a pretty good idea of the brain's unique roles in perception.

Finally, the term "conscious mind" refers to that part of perceptual information that we have conscious access to at any given time. It refers to the perceptual information that the subjective "I" perceives consciously. Consider, as an example, the Buddhist story of the man who mistakes a rope for a snake. Assuming his sensory organs and brain are normal, we would say that the sensory organs are perceiving the qualities of the rope, in the context of the light, angle, sounds, how much of the rope is exposed, etc. Some of this information reaches the conscious mind-brain, and some of it does not. *In addition,* the mind-brain is processing memories and thoughts, and incorporating imaginative "leaps" while attempting to integrate these into the sensory information to get a "full understanding" of the situation. Now remember, *embodiment* means participation. As all these elements of the embodied experience come together, some aspects will become *more conscious* to the "I" and some will be "deselected" from the conscious experience. The *conscious mind* that emerges, depends upon what information is selected and what is deselected. The conscious "I" therefore, ends up participating with an incomplete set of information. If the information that is "served up" to the "I" is heavily biased by memories of being bitten by a snake, or by warnings that primed the imagination to see a snake, then we would say the "mind" is participating with the idea of a snake, rather than the perception of a rope.

This notion of selection and deselection is a very important aspect of perceptual experience, and suggests something like an *evolutionary-adaptive fitness landscape.* As Jason Brown (2005) surmises: "Is speciation in the process of evolution analogous to specification in an act of cognition?" The point here is that not everything the sensory organs are participating with, *gets through to the conscious I.* In fact, *not much actually gets through!*

The fact is that every single second, millions of bits of information flood in through our senses. But our consciousness processes only perhaps forty bits a second – at most. Millions and millions of bits are condensed to a conscious experience that contains practically no information at all. Every single second, every one of us discards millions of bits in order to arrive at the special state known as consciousness. But in itself, consciousness has very little to do with information. Consciousness involves information that is not present; information that has disappeared along the way (Norretranders, 1991 pg. 125).

"The numbers are vast," writes Tor Norretranders (1991).

> The eye sends at least ten million bits to the brain every second. The skin sends a million bits a second, the ear one hundred thousand, our smell sensors a further one hundred thousand bits a second, our taste buds perhaps a thousand bits a second. … All in all, over eleven million bits a second from the world to our sensory mechanisms. We consciously perceive about forty bits a second – and that figure is probably exaggerated. (p. 126)[5]

"That is to say," Norretranders (1991) emphasizes, "only one millionth of what our eyes see, our ears hear, and our other senses inform us about appears in our consciousness."[6] The neuroscientist Jason Brown (2005, 2002,) says that this singular conscious perception, is a terminal outcome of a global *microgenetic process* which follows a branching, evolutionary-tree-like pattern. This microgenetic process includes several pre-conscious stages that progressively unfold the perception of a space-time world of objects. His microgenetic process model includes the sensory organs, but does not begin there. According to his theory of microgenesis, experience begins in deeper regions of primordial awareness associated with the neuro-affective pathways of the EBMB. In a previous article (Roy 2015) I have also described the microgeney of perception as a tree-like architecture:

> Perceptions, although primed by affect, are not guided by them. Rather, perceptions are guided by what we might call the 'appetitive drive of the senses.' The senses are not passive organs that function like windows opened up onto the world. The senses are more like open roads – they are designed to go somewhere. This is something that Goethe knew – our senses are not passive receptors but they are dynamic and creative actors that enact perception. The sequence from affect to perception, from feeling into the world to reaching toward the world is a process called 'perceptogenesis.'
>
> It is a process that can be described as having a tree-like architecture, where the roots represent the affect channels, which are immersed in and draw from the given-ness of the world, and the branches that reach toward the sky are the sensory organs. The affect channels provide the energy, the intentional-motivational state that vitalizes both the penetration into the world through the sympathetic drives of feeling, and the thrust out toward the world through the appetitive drive of the senses. The two movements prescribe an arc of transformation, where affect and perception objectify as image in the mind of a self. (p. 52)

The image of a tree helps us understand the way the sensory apparatus "sculpts" information content into sizable "chunks" for the conscious mind. "The primary activity of mind is to chunk experience into public and private events," writes Jason Brown (2005); where we would substitute his term mind with "body-brain" and the notion of public and private events to conscious mind and unconscious process. "The price of this chunking," Brown (2005) goes on to say, "is a loss of relations and a delimitation and focality of the events of interest." We are hard-wired at birth for perceptual processes to sculpt information in ways that evolved for us as a species. Microgenetic theory (Brown 2002) adds to this notion of sculpting, a sense of evolutionary "survival" of the perceptual objects that make it through to conscious mind, by surviving the sculpting processes of progressive specification (speciation) of the perceptual objects. For this Brown (2002) requires making the distinction between *sensation* – which is an earlier stage in the microgenetic process, and *perception* which is the final stage that is actualized in the conscious mind.

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[5] Norretranders suspects the correct figure to be between 16 and 40 bps.

[6] Norretranders later says the more correct figure is 16 bits a second.

> Sensation enters into the microgeny at successive points. … a deep preobject is gradually sculpted by sensation to a final object. … The object is what survives a transit through this sequence. It is whatever happens to actualize. Depending on the moment in the object structure that predominates, one has a dream, an image, or an object perception. (Brown 2002, p. 8)

People tapping into states of peak performance, have learned to make these unconscious processes *conscious* so they can be tuned to different advantages. It is possible to train the EBMB to sculpt perfectly tuned patterns which embed an enormous amount of information relative to, let's say a game like chess, and packaged in the right sized "bits" for the conscious mind to access and bring to conscious perception on demand. The world Tai-Chi champion Josh Waitzkin introduced above, is also a world chess champion. He now heads an educational organization devoted to his "Art of Learning" program, where just this kind of "enhanced perceptual training" is being developed. "The clearest way to approach this [topic]," Waitzkin (2007) writes, is with the imagery of *chunking* and *carved neural pathways.*

> Chunking relates to the mind's ability to assimilate large amounts of information into a cluster that is bound together by certain patterns or principles particular to a given discipline. The initial studies on this topic were … performed on chess players who were considered to be the clearest example of sophisticated unconscious pattern integration. (p. 138)

Evolution has already given us a default setting on how our neural pathway are carved, limiting most of the perceptual information to unconscious processing, so as not to overwhelm the conscious mind. The next section explains the bio-neurology of these pathways, with their various gates of entry, as discrete regions whose functional anatomy have been shaped by evolution. It will detail from a neurophysiological perspective, why Brown's microgenesis model, Roy's tree metaphor, and Waitzkin's analogy are all correct: that the mind has "the ability to take lots of information, find a harmonizing/logically consistent strain, and put it together into one mental file that can be assessed as if it were a single piece of information." (Waitzkin 2007, p. 139)

While it is true that these neural pathways are *developmentally conditioned* during one's lifetime, they are *not developmentally fixed*. In other words, they can also be *developmentally repatterned.* Old pathways can be made flexible, and new pathways can be carved into new sensory flows that dramatically enhance the ultimate perceptual experience. *Understanding* this, we will find that it is possible to turn what looks like a deficit (the lack of information reaching conscious mind) to an asset (training and tuning the *more powerful* unconscious processes toward a conscious focus).

For now, we can translate these different ways of talking about the content of perception into the terms I am using in this paper, namely EBMB, sensory organs, body, brain and mind, in the following way:

The EBMB is a participant in the world actively engaging and exchanging millions of bits of information back in multiple directions. The body as a holistic organism, cognizes all this information in specific dynamic patterns that have evolved as the species evolves. The sensory organs are *active* participants in the world – they scan and probe, seek and hunt for those relationships in the world for which they have specifically been tuned by evolution. The sensory organs also participate with the brain through discrete neural pathways that lead to and from the brain. These neural pathways are not simple, open highways – they comprise a complex network of "gates" which select and deselect information, route and re-route the direction of information, and chunk information into manageable portions that can serve as conscious perceptions in the mind. This has the net effect of "sculpting" a conscious perception consisting of a tiny fraction of the global sensory information from world to the "I" of the mind. Note, however, that the "I" of the mind itself participates with more than just sensory information. The mind also participates with virtual information arising as thoughts and mental images, memories, fantasies and dreams. Virtual information is associated with different regions and different dynamics of the brain. The mind has to integrate sensory information with this virtual information. Yet something very important is still left out – the information that is "perceived and processed" by/in the body itself – the rich and complex proprioceptive operations, which by far outnumber all the other information flowing through the EBMB. The body itself is a perceptual organ, that "cognizes the lived experience into the background of all perceptual experience.

Part II: Background

The Phenomenology of the Background

Until recently, Western scientists and philosophers have missed the role the body plays in constituting the "background field" of perception. Typically, perception has been viewed as a cognitive function of the brain and mind. Studies were limited to the brain's neural processing of sensory information and the mind's conceptual framing of it.

When we think of the body, we usually think in terms of *sensations* rather than perceptions. We relate to bodily sensations as "feelings" – both physiological and emotional. We are able to make these feelings conscious, to hold them into awareness, without conceptualizing or naming them. In fact, the philosopher Eugene Gendlin (1962) has shown that the bodily felt-sense is *more precise* than language. There are many ways we try to describe our feelings beyond merely labelling them with a word. And although language often proves itself inadequate for this purpose, we usually don't become skeptical about whether we are really feeling a particular sensation. In other words, we can *foreground the bodily felt-sense in our consciousness without naming or conceptualizing it.*

The *percepts* of the body, on the other hand, are embedded in the deepest unconscious processes that are responsible for the most primordial levels of experience. These body-percepts are deeper even than the felt-sense, because they are the background information that enables us to locate the felt-sense *in our own body*. Only in rare, non-ordinary states do these percepts rise above the threshold of conscious experience, so it is more accurate to say they are processes of proto-experience. They are the processes of the "background." The proprio-percepts of the body enable us to experience the sense of the body as occupying space, as well as enable us to have the sense of space surrounding us in multiple dimensions. When the proprioceptive organs work along with the other senses, the body "cognizes" its own action in the world, making it possible, for example, for the outfielder to run to where the ball will fly, before they hear the crack of the bat; or for the batter to start their swing before the release of the ball, in order to have time to hit it.

Searching for the Background

> The deeper "layers" of the psyche lose their individual uniqueness as they retreat farther and farther into darkness. "Lower down," that is to say as they approach the autonomous functional systems, they become increasingly collective until they are universalized and extinguished in the body's materiality, i.e., in chemical substances. The body's carbon is simply carbon. Hence "at bottom" the psyche is simply "world."
>
> ~ C.G. Jung, "The Psychology of the Child Archetype" (1940), In CW, Vol. 9, Part I: The Archetypes and the Collective Unconscious, p. 291

Trying to "find" sub-threshold percepts is like the fish trying to find the water it swims in. On the one hand, it is everywhere, and pre-constitutes or is the precondition of being-in-the-world. On the other hand, it must, in some way, be also hidden in plain sight. For this reason, scholastics in the east and philosophers in the west and have been searching for "the phenomenon of the background" ever since the axial age (Bellah and Joas, 2012) when consciousness leaped into its modern, theoretic-rational structure. Prior to the axial age, humans were not capable of reflective consciousness – they could not use their minds to "turn around" to search inside their consciousness. When we did, we discovered divergent ways to think of the background – as something transcendent or as something transcendental.

In the east, the move was toward the transcendent—that the "background" that composed or pre- constituted human awareness, was a transcendent consciousness that existed independent of the material world. This consciousness (Big Mind, Brahman, storehouse consciousness) is often conceived as having different layers or levels of ever-more subtlety. These levels are often simplified to the terms gross, subtle and causal levels of consciousness. In the east, "searching for the background" is a *vertical and additive process* of awakening, in which we are trained to dis-embed our attention from gross or coarse appearances, and expanding one's personal awareness into more subtle levels of consciousness. It is a *vertical process* because the more subtle realms of awareness are construed to be accessed by "higher levels" of consciousness. It is an *additive process* because each higher level *transcends and enfold* the lower levels so as to be both higher and more inclusive (see Roy, 2014).

Following the enlightenment, western philosophers rejected mystical explanations of the background phenomena, and turned instead to meta-physical/ meta-cognitive explanations. This resulted in the positing of *transcendental* causes that were construed as *pre-given mental events* that were accessible to the human mind through laws of logic and reason. Like eastern transcendents, these transcedentals were outside the realm of phenomenal experience, which involves appearances and sensory perceptions. But unlike the eastern explanations, transcendentals were properties that existed *because of human minds* not beyond them.

Transcendentals existed *because human minds could reason through the phenomena to them.* These were the *noumena* that could never be experienced, because they were necessary pre-requirements or *apriori* in order for experience to happen. The Kantian transcendentals include logic and mathematics, and the apperception of space and time. Western enlightenment therefore was *vertical* but not *additive*—it required higher capacities of reasoning, to get at *deeper, more fundamental truths*, such as laws of logic and science. Science and the academic disciplines thereafter supplied the additive practices – augmenting the fundamental laws of nature with more and more empirical descriptions.

A third approach in searching for the background, is neither vertical nor additive. Rather it is pursued through deeper-descending and subtracting practices. Husserl's *introspection* for example, entailed a process of "bracketing" out the world (the subtracting phase) and tuning in to the primordial phenomenological apperceptions underlying conscious experience (the deeper-descending phase). Gallagher & Zahavy (2008) Varela & Shear (2002). Husserl was especially interested in the phenomenology of time consciousness. Husserl described three overlapping yet successive phases of consciousness: *protention-primal impression- retention.* Pro-tention is basically a pre-conscious orienting phase, of "pure intention" or "intention without an object" which overlaps and gives way to the primal impression of phenomenal objects, which in turn overlap and give way to a retention or subtle memory of the object. This last phase then giving way (and overlapping) the successive protention phase of the incoming "next moment."

By bracketing experience and focusing down onto a core component of consciousness, namely the presentational present, Husserl not only revealed the phenomenal nature of time-consciousness, but also excavated a new transcendental explanation of the background phenomenon as the "stream of experience" occasioned by the succession of intentional states.

Gallagher and Zahavi (2008) point out how Husserl's analysis of the structure of inner time-consciousness serves a double purpose for western phenomenologist in the tradition of introspection: "It is not only meant to explain how we can be aware of objects with temporal extension, but also how we can be aware of our own stream of experiences. (p. 88)

> There are thus two important aspects to this [Husserl's] retentional continuity. The first, the 'longitudinal intentionality' … provides for the intentional unification of consciousness itself, since retention is the retention of previous phases of consciousness. Second, since the prior phases of consciousness contain their respective primal impressions of the experienced object, the continuity of that experienced object is also established. (p. 88)

Husserl's *presentational time* serves as an *invariant structure that makes possible* the flow of consciousness as we experience it. They are structures not given in experience, but invariant structures that are independent and prior to experience. Unlike Kant's transcendentals, however, they do not exist on some metaphysical plane, but are structures of mental states associated with intention, and as such, can be made explicit as phenomenological processes in introspection.

Husserl’s temporal structure brought the notion of the background back from the noumenal to the phenomenal – that of the processural structures beneath experience. Still for the most part, this background was thought of as comprised of mental events. Husserl called these mental states “validities” (Dreyfus 2012) that “make up the ‘unnoticed,’ ‘concealed,’ *background* [emphasis mine].

Heidegger led the way for a new kind of *existential phenomenology* whose adherents rejected the idea that mental events, such as intentional states, could relate subjects to objects. (Dreyfus 2012) Instead, they said that all mental events, including intentional states, depended on a background that could never be made explicit, because the background was part of the phenomenon of world. Heidegger described this “world-bearing” aspect of being as “absorption.” “[His] existential phenomenology discloses the holistic, preconceptual, preintentional background into which we are already absorbed. Heidegger thought of the background “as an atmosphere” (i.e. like water to a fish) and as an atmosphere the background is precisely not the aggregate of mental states that Husserl from his detached phenomenological point of view mistakenly assumes.

It is in this sense of absorption, that the background *withdraws* from phenomenological examination, *in order to be the background*. The background is in a sense a “performance of the world” that enables the absorbed subject to pre-figure phenomenal objects in consciousness.

Over the course of the 20th century, “the notion of the background has progressively moved into the foreground of philosophical discussion” (Shusterman, 2012, p. 206).

> Over the past century, philosophers have increasingly recognized that the mental life of which we are conscious and through which we act to realize our intention cannot adequately function without relying on a background of which we are not properly conscious but which guides and structures our conscious thought and action. (Shusterman, 2012 p. 206)

It was generally agreed that the background would not only be *pre*-conceptual and *pre*-representational, but also *pre*-intentional. Over the course of few centuries, the background had “moved” in the imagination of scholastics and philosophers, both east and west, from the highest domains of the mystical and metaphysical, to the realm of the mental and intentional. Now it was generally agreed that the background was to be found elsewhere, *even further down* in proto-realms of experience.

A Theory of the Body

The theory of the body is already a theory of perception. ~ Merleau-Ponty

It was Merleau-Ponty (1964) who first claimed the primacy of perception as the ground of experience: “The *perceived world* is always the presupposed foundation of all rationality, all value and all existence” (p. 13).

> By these word, the “primacy of perception,” we mean that the experience of perception is our presence at the moment when things, truths, values are constituted for us; that perception

> is a nascent *logos*; that it teaches us, outside all dogmatism, the true conditions of objectivity itself. (p. 25)

Making perception primary, was and remains a radical philosophical position. It implies that perception is *prior* to experience and is pre-requisite to experience itself.

His claim runs straight against Kant's transcendental idealism and Husserl's transcendental intentionality. In fact, Merleau-Ponty argues that perception has been called into question, because whenever you make the transcendental the priority, you already have a contradiction of thought, that "turns perception into mere appearance." Although he accepts the Kantian doctrine that "all our experience of the world is through a tissue of concepts that lead to irreducible contradictions," he argues that the consequences of this even Kant failed to grasp. Here he echoed the American pragmatists, whom he alluded to as "the realist philosophers of America," who helped him distinguish between the "universe of perception" and its "intellectual reconstructions. As early as 1900 William James, writing about "The Abuse of Concepts," (James, 1977) in philosophical inquiry, rather casually implicates the perceptual order as the prior ground of experience: "

> The intellectual life of man consists almost wholly in his substitution of a conceptual order for the perceptual order in which his experience originally comes. (p. 234)
>
> "The great difference between percepts and concepts" James writes, "is that percepts are continuous and concepts are discrete." Concepts "make cuts" in the unbroken flow of perception, that are "purely ideal."
>
> If my reader can succeed in abstracting from all conceptual interpretation and lapse back into his immediate sensible life at this very moment, he will find it to be what someone has called a big blooming buzzing confusion, as free from contradiction in its 'much-at-onceness' as it is all alive and evidently there. (p. 233)

Note that James was already intuiting the "sculpting and carving" functions we talked about in previous sections. The contradictions of conceptual interpretation result from the "cutting up" of the ongoing-continuity of the perceptual processes. "Conceptual knowledge is forever inadequate to the fullness of reality to be known," writes James (1977). "Reality exists of existential particulars … and of existential particulars we become aware only in perceptual flux" (p. 245).

James warns us that concepts are secondary and inadequate that "falsify as well as omit, and make the [perceptual] flux impossible to understand." He explains why intellectual examination of perceptual experience creates the impression that perceptions are mere appearance, writing that "Conceptual treatment of perceptual reality makes it seem paradoxical and incomprehensible; and when radically and consistently carried out, it leads to the opinion that perceptual experience is not reality at all, but an appearance or illusion." (pp. 245-6). Why this is so, James summarizes in the following way:

> Briefly this is a consequence of two facts: First, that when we substitute concepts for percepts, we substitute their relations also. But since the relations of concepts are of static comparison only, it is impossible to substitute them for the dynamic relations with which the perceptual flux is filled. Secondly, the conceptual scheme, consisting as it does of

> discontinuous terms, can only cover the perceptual flux in spots and incompletely. The one is no full measure of the other, essential features of the flux escaping whenever we put concepts in its place. (p. 246)

A century later, Merleau-Ponty took this line of reasoning further, into the search for the “background phenomenon” by identifying “bodily space” as the “silent, structuring, concealed background. In his book *Phenomenology of Perception,* Merleau-Ponty (1962) attempts to redefine the “body” beyond its interoceptivity and proprioceptivity, and associated changes in the body’s posture and gestures and their associations with images and significance via a perceptual translation into visual and articulate language, which as such pinpointed the body as the center of classical perceptual experience. “And yet,” Merleau-Ponty writes, “the body schema clearly overflows this associationist definition.” (p. 101)

> Rather, these associations must be constantly submitted to a unique law, the spatiality of the body must descend from the whole to the parts, my left hand and its position must be implicated in an overall body *plan* and must have their origin there… (p. 101)

The emphasis here is away from body-as-schema and toward *spatiality* as *given* through the body. Remember, spatiality had been, for both Kant and Husserl, a transcendental category of experience. Merleau-Ponty is pointing to the body as the “perceptual organ of spatiality.” With latitude, we might say that the body “casts” spatiality, a field of continuous flux and flow which is simultaneously both body *and* world *in participation*. The body is expanded to mean, in a very real sense, an *emanation of the space of participation*.

The emphasis here is on perception as *direct participation* of the body’s spatiality, which is to say of *direct involvement* in a “field” of body-and-world. The emphasis is on its direct or unmediated nature, “that there is no intermediary (image or representation) between perceiver and object perceived.” This cuts strongly against the grain of classical, representational theories of perception:

> According to one classical formulation of this representational view, our mind cannot on its own reach all the way to the objects themselves, and the typical claim has therefore been that we need to introduce some kind of interface between the mind and the world if we are to understand and explain perception. Our cognitive access to the world must be mediated by some kind of mental representations relating to the everyday objects we ordinarily claim to perceive, as inner effects to external causes. [According to this view, then] to perceive the world is to generate a representational structure within the mind – something like a picture or map that represents external reality. (Gallagher & Zahavi, 2012 p. 101)

Merleau-Ponty opened up the possibility that the background is not the *pre*-perceptual ground, but the *perceptual-as-ground itself*. It suggests that there are perceptual processes that are pre-intentional, pre-representational, and pre-conceptual. These would mean that the background was the pre-intentional pre-representational, and pre-conceptual *perceptual processing of the world*.

> Bodily space can be distinguished from external space and it can envelope its parts rather than laying them out side by side because it is the darkness of the theatre required for the clarity of performance, the foundation of sleep or the vague reserve of power against which

> the gesture and its goal stand out, and the zone of non-being *in front of which* precise beings, figures, forms can appear. (Merleau-Ponty 1997, p. 102)

It would be a *participation* where world and body meet in the very fine-grained, finely attuned places where the distinction between “world” and “body” became too fuzzy to conceptualize. This field would be pre-ordered, open potentiality, where proto-perceptions emerge from the adaptive coupling of body and world, in active mutual participation.

“The world is experienced, not as a fully formed presence, but as a set of possibilities determined by an on-going dynamic interplay of environmental opportunities and sensorimotor abilities” (Gallagher & Zahavi, 2012 p. 111).

These proto-perceptions would then go onto different phases of “sculpting and carving” at different mind-brain “stations” along perceptual organ pathways, neural networks, and cognitive streams of consciousness. Some of this sculpting and carving would be done in primordial, pre-intentional stages, while some would be guided by intentional states and attentional needs, as well as eidetic phases involving memory and mental image-making while further cuts would be made through meaning-making processes of the social self. The whole gestalt would eventually, in imaginative and synthetic parts of the mind, be polished by symbolic, narrative, linguistic and conceptual elaborations of many kinds.

Neurodynamics of the Background

> *The body cognizes itself through its own body-consciousness, namely that of touch, which is "self-othering. The eye cannot see itself, the ear cannot hear itself, the tongue cannot taste itself, the scent organs cannot smell themselves. Neither can the self cognize itself; rather it is the outcome of a cognized moment. Only the body can cognize itself through its own body-consciousness, namely that of touch, which like one's own two hands embracing, is simultaneously self-othering. In this very same way, the body's aspect consciousness, its kinesthetic awareness, simultaneously self-others the world. This is the definition of unmediated cognition – the primary anchoring of perception in the world with and as the world, in participation*.
>
> ~ Bonnitta Roy

In this section I want to introduce the notion that the “body cognizes itself.” What I mean by this is that the perceptual processes associated with the EBMB create a holistic “knowing” of the body’s relation-in-the-world. This *tacit knowing* emerges through continuous participation with the world, down to finer and finer graininess where the boundary between body and world becomes “fuzzy” for the categorizing, conceptual mind. Consider for example, tasting food. The molecules of the food come into contact with my tongue. At this level of detail, the food is part of the world and the tongue is part of my body. At a finer level of detail, the molecules of the food come into contact with the molecules of my taste receptors. From there on, it’s all chemistry, which is the same “kind of chemistry” we find in the world. Chemistry is itself a participation at a fine level of detail.

The body "cognizes" by integrating three parallel-processing streams: *interoceptive,* and *proprioceptive,* and *exterioceptive.* These parallel streams are sub-systems that semi-independently integrate perceptual information (sight, sound, taste, smell, touch, kinaesthetic and vestibular organs) according to three different referents: 1) *Interoception* processes the body's position in space, mainly by referencing the head and its movements. 2) *Proprioception* cognizes the body's own position, mainly by referencing its center of balance. 3) *Exterioception* cognizes the body's position in the world, mainly through referencing relative positions of other objects. It's truly extraordinary how much information the body must work with simultaneously: processing six perceptual data streams through three parallel processes, into a holistically cognized tacit knowledge of its worldly participation. In this case, "to cognize" means to realize *itself as both body and world.* These are the processes of the "background" that Merleau-Ponty described.

This background is a holistic continuous inter-integration of body and world. It does not "appear" because it is not a thing, nor does it come to rest as a terminal point in a perceptual stream.

Rather, as background, "the body" performs a "cognizing purpose" through continuous participation at the rhizomatous interface of body and world. *The background is hylozoic*[7] *participation.*

James H. Austin (1999) describes the perceptual spaces of the body as "the normally hidden capacity for sensate inferences." It allows us to maneuver in 360 degree (i.e. circumspatial) space through a holistic integration of position, balance, movement, and enormous processing of incoming perceptual information. Unlike ordinary, conscious perception, which references experience to the body as a single point location and the world in front of our eyes – or even unlike inner mental images and thoughts that do the same – the body's perceptual space includes the ever-expanding and unfolding continuum of space in all directions. Hence, the athlete's space becomes an enlarged skill-filled volume of possibility. The outfielder runs in concert with the ball before the crack of the bat, negotiating body and ball through vast, circumspatial trajectories, just as we "know without thinking" to "reach without looking" behind us for our scissors or beneath us for our keys.

> In contrast, [to normal frontal-local perception] our hidden awareness is *un*conscious and *circum*spatial. It may seem to start out with that property which we refer to by calling it our ordinary "sense of place." But psychological tests suggest that our usual sense of place is already relatively large, and that it does not restrict itself to that limited zone which ordinary frontal vision perceives out in *front* of us. No, our true sense of *space* goes on to encompass a cycloramic field of no less than 360 degrees. Indeed, as our large visual brain goes on to represent this huge space, its scope extends *in back* to encompass a whole "visual world behind the head." (Austin 1999 pg. 488)

These background processes explain why, after higher level processing, we can parse the neurology of visio-spatial awareness into *egocentric* and *allocentric* frames of awareness. fMRI identifies these as discrete neural pathways through the temporal lobe, the one progressing upward in a dorsal stream, the other pursuing a downward course through a ventral stream. (Austin 1999).

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[7] Hylozoism is a philosophical point of view in which matter is in some sense alive, or that matter and life are inseparable.

The egocentric mode references objects to points along the midline axis of our head and body. It takes the form of an object as it *appears to me, the viewer*. Its, purpose is design for action. It is hard-wired into our nervous system along with the dorsal-ventral body plan in utero:

> How did we develop this capacity to be aware, so unconsciously, of the spatial envelope around us? In utero, as yet unborn, our brain stem had no context for the richness of adult three-dimensional space, let alone for the extra dimensions it could reach during the alternate states of maturity. This tiny stem was still largely unconditioned. Yet the brain stem of a new-born baby is no table-rasa, no blank floppy disk on a computer. It is already channeling stimuli into certain designated regions. These will serve its primitive needs to localize. In this sense, the stem is a floppy disk already formatted. (Austin, 1999 p. 490)

Allocentric perceptual modes, by contrast, are more like GPS systems. They are tuned to detached, objective spatial information. This perspective develops later in children between the ages of 3 and 5 years. (Austin, 2009 p. 55). It is fundamentally world-referenced. It coordinates objects in the world in relation to *each other* and *their environment 'out there.'* The Allocentric mode takes the form of an object as 1) an independent entity, 2) with its own intrinsic center, 3) occupying a position in the environment relative to other objects, and 4) is independent of our presence. It is only in the unconscious levels of perceptual processing that these two modes operate independently, because by the time they are *once again further passed along and integrated into manageable chunks for the conscious I,* they have been integrated into a holistic baseline perception, in normal, ordinary awareness:

> Normally, this second, other-centered version will go on silently to join our first self-centerd frame of spatial reference in a merger as complementary as yin and yang. In this ongoing synaptic alchemy, a mosaic of interactions blends two parallel physiologies into a joint working partnership. (Austin, 2009 p. 57)

These two modes of perception are *normally* merged in conscious experience. But they can sometimes become unhinged, and therefore experimentally detected. Take for example an ingenious experiment designed to elicit selective deficits of egocentric or allocentric processing in patients with temporal damage to different temporal lobe areas. The experiment involved subjects looking at two groupings of (images of) apples – four on their left field of vision, and four on their right. Patients with parietal lesions associated with deficits in egocentric processing. failed to report the four apples, exclusively on one side or the other, depending on the side of the

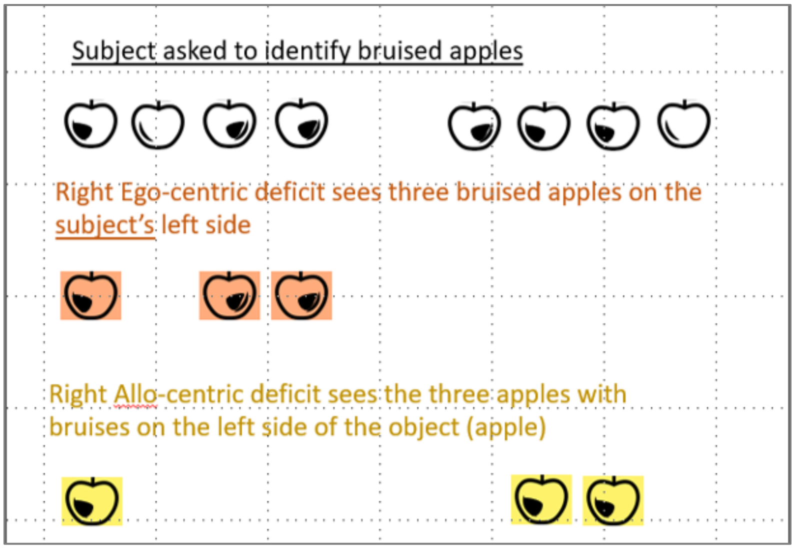
Subject asked to identify bruised apples
Right Ego-centric deficit sees three bruised apples on the subject's left side
Right Allo-centric deficit sees the three apples with bruises on the left side of the object (apple)

Figure 1. Parietal lesion test.

parietal lobe damage. Patients with parietal lesions associated with deficits in allocentric processing were also shown apples in two groupings (left and right); but in this case six of the eight apples had a black “spoiled” marking either on *the apple’s* left or right side. There were three “left spoiled” marked apples, and three “right-spoiled” marked apples and two unmarked apples. The apple images were arranged in the following grouping

Patients with allocentric deficits identified only the apples with *markings* on the opposite side of the patient’s dysfunction, *regardless of the side of the visual field the apples themselves were placed.* These experiments confirm that the “hidden background” of spatial processing operates along two discrete phenomenological streams of perception. For one of these streams the primary anchor of reference is the ego-body. For the other, the primary reference is distributed throughout “objective” relational space among the objects themselves. Along with the interoceptive, proprioceptive and exteroceptive cognizing functions, these two “streams of spatial reference) constitute the manifold of “bodily (world)-space” – the primordial, perceptual background of experience.

Neural Gates

> We look at much more than we "see." Each second, by gross estimates, somewhere between 10^7 and 10^11 bits of afferent information smite our various sensory end organs. To shelter us from this barrage, the normal brain engages in an enormous filtering operation. Only the rare stimulus, murmuring the right password, manages to pass through. As a result, consciousness finally registers and perceives only a mere sixteen to twenty bits of information each second. (Austin 1997 p. 278)

The neurodynamics of the EBMB are mind-boggling in their complexity. The holistic performance of the perceptual system depends on dynamics of feedback, feedforward, timing delays, excitatory and inhibitory responses, serial and parallel processing, and whole-part relationships. The key layers of this complex architecture are (from bottom up):

1. Hylozoic zone
    a. Level 1 – Participatory interface with world
2. Level 2 – Bodily Space (the background is “cognized” through a manifold serial processing system)
    a. interoception (primary purpose: well being
    b. proprioception (primary purpose: balance and skill
    c. exterioception (primary purpose: action)
3. Object-Space (referential processes of figure-grounding)
    a. Allocentric modes
    b. Egocentric modes
4. Mind-Space (deselection through serial processing)
    a. Carving and chunking through serial processing of information
5. I-me-mine Self Complex
    a. Accommodating and assimilating perceptual dynamics with virtual components of mind, i.e. memories, mental models, narratives, linguistic, conceptual and abstract thinking, imagination, dream and fantasy.

We can use a heuristic to illustrate the various levels as a simple illustration of these levels of consciousness. (see appendix A). In this heuristic, the world and the cognizing body start at the bottom, and more "refined" perceptual information moves toward the top, toward the final self-complex. The bottom sections comprise the "EB" of our "Embodied-Body-Mind-Brain" model. The top sector represents the "M" mind, and the pinnacle is the Self-structure, which includes more than just the EBMB. (We might say that, when we add the self, we are working with the EBMB-S) The "B" brain would be the hard-wiring that is diagramed in the illustration. The horizonal dashed lines represent where we would expect to find discrete "neural gates" which selectively allows certain information to pass "up" while confining most of the perceptual information to deeper levels. These "neural gates, would be the reason we have different layers of "accessibility" – from the pre-conscious (world) to the fully conscious self.[8] The deepest levels are completely unavailable to what we ordinarily think of as "consciousness" and yet they constitute the profound consciousness of the embodied body which "cognizes the hylozoic realm." Introspective practices can reveal the complex knot of thoughts, stories, memories, expectations and fears that constitute the subconscious layering of the Self-complex.

Contemplative practices and focusing-attention practices such as chess and Tai-Chi enable people like Josh Waitzkin to become consciously aware of the normally pre-attentive dimensions of mind. While we have seen that the allocentric and egocentric modes of perceptual processing were proved to be discrete by neuroanatomical and neuropathological experiments on patients in whom they stopped functioning holistically, it is possible, through advanced meditative practices, to tease them apart and to experience their subtle nuanced natures. It is also possible, in rare meditative states, to experience some of the deepest of the background processes, including the spatial dimensioning of reality that the body performs in the hylozoic zone.

Usually, though as consciousness descends deeper into the bodily domain, the threshold of consciousness is rarely breached, and the body "steps into the flow and performs in the zone" – as we see with extreme sports and exceptional athletes.

Background processes, not ordinarily available to conscious awareness, can become conscious perceptual experiences, when the "neural gates" reverse themselves. This "reversal" wherein the background processes come forward, entails the absence of ordinary perceptual features such as sense of self, a relatively "bland" external world of static objects, the body's positional orientation in object-space, and a normal sense of time duration. Every night we go through processes where the action along these neural gates changes. No longer are outside percepts allowed through. No longer are the body's percept allowed through. No longer is the information selected and integrated into a waking sense of I-me-mine. Instead, am explosion of virtual scenes are activated, including a dream-self and her imaginary worlds.

Opening the Gates of Perception

> *During a 13-day period of radical transformation, I didn't fall asleep at all. Instead, I would lie down and fall into deep relaxation. Soon I would witness my body going into sleep*

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[8] This paper stops with the fully conscious, but pre-reflective self. The self-state system becomes extended through self-conscious, reflection, and then further toward social, collective and transpersonal states. These latter are outside the scope of this paper.

> *paralysis. I could "look for" my limbs, my head, my pelvis, but could not "find them" in any part of my awareness. As the feeling of the physical body disappeared, consciousness seemed free floating. Keeping my eyes open, I was immersed in deep blackness, which I could not determine was the darkness inside the room, or the blackness behind my eyes. Either way, the blackness was strange, because usually some faint light can be seen through the windows, or some virtual imagery is active behind one's eyes. By contrast, this was complete darkness, very still. This void eventually would become more and more spacious, and tiny little specks of "light particles" were flickering. I would say though, that only about 1 -2 percent of the area was occupied by these tiny particles – most of the "space" was a dark void.*
>
> *The greatest impression of this void is that it was 360 degree dimensional. And expanding into ever-increasing dimensional space. There were no objects that could be used as referents to this dimensionality. The impression of dimensionality was given by this "movement" of expansion into spherical space. My consciousness seemed to expand with it. It was as if I were a particle of light that I could not, of course see. A tiny speck of awareness flickering in a great sea of expanding void. Most of the experiences were affectively neutral. But one evening, this expansion into the infinite void was accompanied by an increasing feeling of bliss. Of freedom. The further my awareness expanded, the more bliss, the more freedom. "Going out to forever" became a subtle goal, a probable destination. Then the body called me back. I heard a very faint, child-like voice, way back down from "where I had come" calling me to re-occupy the physical body, so "she"(the body-child) would not die. I experienced this as profound spiritual choice – absolute freedom and bliss on the one side, and guaranteed suffering on the other. I realized the Bodhisattva commitment to embodiment, for the benefit of all sentience. And so, I returned. This was the 13th and final evening of my most radical transformative journey. I had come back "for good."*

My experience shows how the "background phenomenon" can be experienced as a non-ordinary state of consciousness. This was not a dream – as I had full waking consciousness, which included the ability to witness and record the progression of experiential events. The background phenomenon constitutes the "spatial dimension" we create in our dreams. This one evening, however I was not dreaming, and my sensory perceptions were "gated out" through the phases of deepening sleep. And yet, "I" remained awake to witness as the background phenomenon predominated my experience. This process is described as the "downward passage" (Bradford, 2008) "which follows an orderly sequence characterized by "loss of [perceptual]objects" as they "degrade in a predictable fashion," as aims dissolve and motoricity ceases through relaxation practices (associated, in my case with the on-coming of sleep paralysis).

> In pursuing the downward passage, the mystic is buffeted by feelings embodied previously in objects of desire, affection, and fear. Ideation likewise runs forward with increasing independence of conscious intention. Inner- speech may surface in conscious awareness as auditory hallucination. (p. 57)

The end-state of such "downward passages" is an outcome of what goes off-line, and what remains on-line. In many cases, described by Brown, the downward passage "opens the gates of eidetic and archetypal images to flood through, as temporary substitutes for lost objects.

> The many forms of imagery, dreams, memory and thought images, hallucinations and illusion, eidetic and afterimages are markers of successive phases in the object-development … dreams, hallucinations, and imaginal images, followed by memory and thought images; then illusions, eidetic and after-imagery and finally the physical objects whose veridical perception entails the conviction of their being real. (Bradford, 2008, p. 59)

Of course, what is meant by "lost objects" in this paper, is not merely a phase in a microgenetic process. In this paper "loss of objects" also refers to an interruption of the body's *participation in the hylozoic* zone, that result from sleep paralysis, and neural gating of perceptual information that occurs during sleep processes. In my case, there was at first absolutely *no eidetic* content, with only the background and a few tiny specks of light, which were most probably effects of baseline retinal activity—and only in the final stages followed by the auditory hallucination and a "return to the body." Similar states occur during normal sleep phases—processes that are highly dependent upon "neural gating" at reticular nuclei junctions in the thalamus. Austin (1999) describes the role of this neural gate in *desynchronized sleep* (D-sleep) which 'enables our brain (a) to reactivate itself during otherwise drugged stupor of slow-wave sleep, but (b) to accomplish this so gently that we're not sent all the way up to the waking state.

> During our waking hours, stimuli from the outside shape consciousness. But during D-sleep the field of awareness can turn inward.[9] Now it can pursue directions other than those dictated by new sensory stimuli entering from the outside. In many other respects, D-sleep and wakefulness seem to be "fundamentally equivalent brains states." (p. 316)

Traditional meditation rituals are designed to take advantage of key triggers associated with "the passage downward" to root, background experiences. (Austin 1999) These include sleep-wake cycles timed to circadian rhythms that are most likely to express D-sleep. Depending upon the "spiritual pedagogy and doctrine" that accompanies students throughout their training, these state experiences can be seen for what they actually are – revealing the innate background processes of human consciousness – or for what we wish or imagine them to be – astral, divine or transcendent phenomena. Nature-based traditions such as Zen (Japanese) and Chan (Chinese) Buddhism tend to select the former, while the theistic tendencies of the Indo-European cultures, tend to elevate these experiences to transpersonal and divine domains.

Zen *does,* however have a term for such events: *internal absorption.* It arises as a paradoxical result of being both *intensely awake* and *perceptually asleep*. Its main characteristic is *how much drops offline from experience* while the *sense of self remains strongly online.* (Contrast this to normal dream states where exterior sensations drop offline, but virtual perceptions – images, stories, entire dream worlds and a virtual self – come online; while the waking self is completely absent. In states of internal absorption

> The person's mental field lacks sensations of vision, hearing and touch. Something stops them from entering from outside the world. Absent too are the subtler proprioceptive sense arising from inside the physical self. All that remains is clear awareness expanded to the nth degree throughout a vacuum plenum. (Austin, 1999 p. 476)

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[9] Where "turning inward" means 1) participation exits the hylozoic zone and 2) allocentric processes are interrupted.

(Re)Directed Perception

Most of the EBMB's consciousness-processing happens below the threshold of our conscious awareness. Perceptual information is directed along multiple subsystems that integrate multi-modal information in various ways to create discrete layers of awareness. In addition, what comes "online" and what remains "offline", changes through ordinary sleep-wake cycles each day. The background processes are ever-present and constitute some of the most subtle of meditative experiences. These experiences "reveal the water to the fish" as it were; in moments of profound insight about the nature of the hylozoic zone and the non-separation of self and world. Some of what we know about the background comes from patients who suffer unusual perceptual disorders. Consider for example, the phenomenon known as *Blindsight.* Ordinary sight involves *two* visual systems. The higher-order system (the "first system") is the one that crosses the threshold of conscious experience. It processes in the lateral geniculate regions of the visual cortex in the (B) brain. Here is where the data from the retina is translated into a high- resolution image of the object so that it can become a *conscious* visual percept in the (M) mind. The second visual system is gated below the threshold of (M) mind by the superior colliculus to pulvinar processing stations in the posterior parietal lobe of the (B) brain. This second system is the "background operating system" of the visual perceptual organ, but is not limited to sight.

Like other "background operations" it is an integrated polymodal processor, which *wholly unconsciously* "constructs an orderly visual envelope of space enlivened by our hearing, touch, and other sensory modalities. (Austin, 1999) How can it do all this?

> Because its single, so-called visual cells are not exclusively visual. Many of them also respond to the auditory *and* somatic sensory stimuli which enter from that very same region of space. They are *polymodal*, synesthetic. (pp. 242)

So, in the colliculus, hearing, feeling, and seeing come together. Through selective amplification and (de-selective) attenuation of vast amounts of stimuli, the system "promotes less to become more."

> Suppose its cells receive a single sensory stimulus, and they make only a relatively weak initial response. The colliculus then "turns up the gain." Its circuits amplify the interactions among incoming stimuli. The result is to *multiply*, not merely to add, the physiological impact from each successive stimulus. In this manner, collicular nerve cells boost their responses enormously. (p. 242)

In patients who suffer from *blindsight*, the first visual system is temporarily or permanently "off- line" leaving only the second, background system. For these patients, their visual system seems to work "intuitively" since the fact they can point to and correctly manipulate target objects *without consciously seeing them*, suggests that there is a deeper, intuitive intelligence at work.

Blindsight unveils the performance of the deeper, synesthetic visual system. In normal sighted persons, the perceptual information is "passed up" through a series of both hierarchical and horizontal processing. Complex negative (inhibitory) and positive (excitatory) feedback mechanisms sharpen, refine and complexify, through visual association processes, a sophisticated perception of the object. “Currently, thirty or more cortical regions function as visual association areas,” Austin (1999):

> When anatomists try to plot out their intricate interconnections, their diagrams resemble the map of the Tokyo subway system. Some areas function more as feature detectors, while others go on to process representations of images. Out of this mosaic emerges that grand perceptual synthesis we so casually take for granted: the miracle of vision. (p. 243)

Similarly, in special meditative cases and “happy” accidents, the egocentric spatial-referencing system may drop offline, leaving only the allocentric system operating in the background.

Apparently, this is what happened to Douglas Harding, when, as a young architect trekking in the Himalayas, he was struck with a peculiar absence of localized space. Instead, he experienced the global awareness of space-surround, “utterly free of me.” “I had lost a head and gained a world. Lighter than air, clearer than glass, altogether released from myself, I was nowhere around.” (Austin 1999).

Just how intricate, effective and *independent of I-consciousness* these background processes are is mind-boggling and ego-humbling. The Daoists have a term for it: Wu-Wei which means doing by not-doing. It is spontaneous effective action guided by *direct participation*.

> *One night, in the middle of my 13 days of radical transformation, I received a call from the person who took care of my horse at her barn. The horse, a big thoroughbred named Remington, had a history of very bad stomach ulcers, and seemed to be in so much pain that he might die. Since I was in a permanent state of awake witnessing, I drove to the farm in the middle of the night to be with him. I walked into his stall, and sat down on the floor. He thrashed about in pain for several minutes, then collapsed with his head upon my thigh. Normally, I would have been very emotional through this; but since I was in this altered state of witnessing, I was filled with a sense of charged clarity. It was not a calm state, but a state of intensified energy and awareness. It was as if his energy body suffused with mine, and expanded out into the universe. Only the body was perishing. His eyes rolled back into his head, and his tongue crawled out of his mouth and onto my thigh. There was nothing but intensified silence and a huge expansion of energy. He died. I did nothing. I was nothing more significant at that moment, then a simple prop to keep his head from falling into the manure. Then the energy aroused itself, and he stood up, gently as not to hurt me. He shook his head and got on with eating his hay. I returned to my truck. It was an early winter evening, a moonless night with a soft snow falling. I drove the unlighted curvy backroads to my home. I remember being mesmerized by the way the headlight illuminated the treeline of the country roads. Suddenly, I was transported into a space that seemed 3000 feet above the road, like when you are in an airplane, taking off or landing. My conscious self occupied the background space of expanded awareness, while my body-self continued to navigate the truck on the journey home. I remember wondering to myself “who is driving that truck?” I brought my “self” back down and into my body by intentionally “feeling for” the steering wheel. The first perceptual inputs were auditory – the sound of the tires and engine humming along the road. Then when I could feel my hands on the wheel, the entire scene recomposed itself.*

There are two exceptional things happening in this event: 1) the "location of the self" and 2) the independence of the action-oriented body. The sense of self comes to be located in the "expanding disembodied space" of the background phenomena, absent any perceptual information, while the body itself navigates perfectly, guided by sensory processing. From the view of the self, there is what is called in Zen, the experience of *internal absorption,* (Austin, 1999) which is characterized by

> (1) no spontaneous thought; (2) an intensified, fixed, internalized awareness; (3) an expansion of especially clear awareness into ambient space; 4) the disappearance of the bodily self; (5) a distinctive closing off of all sight and sound; (6) a deep, blissful serenity; and (7) a marked slowing or cessation of respiration. (p. 475)

What remains most amazing to me, is not so much this "apparently transcendent" experience, which can be ascribed to discrete changes taking place in the "neural gates" of the hippocampus labelled by neuroscientist as CA1 and CA3 cells (Austin, 1999).

> What would happen if a person stopped that stream of messages which normally flows from CA3 cells on to CA1 cells? As part of his theory, Mandell postulates that such a deficit of messages might cause the comparator functions of the hippocampus to fail. As a result, the theory goes on to propose that … a "transcendent" consciousness would arise. (p. 184)

Rather, what is *most* striking to me is that the EBMB carried on perfectly well "without me;" while "I" dallied about, happily discombobulated in ambient space!

Part III: Mind

The Perceptual Brain

So far, we have discussed the embodied, body, and mind components of the EBMB. The "embodied" aspect pertains to the hylozoic zone and the interparticipation of body and world; "body" pertains to the full spectrum of "bodily space": the exterioceptive, proprioceptive, and interoceptive perceptual organs, as well as the allocentric and egocentric orientations. "Mind" refers to the serial processes that create "chunking" of information, as well as the functions that integrate the virtual perceptions, associations and memory into the I-Me-Mine self-complex.

This section focuses on the "B" brain aspect of perception. We can think of "B" representing the "wiring diagram" of the illustrations in the Appendix. In other words, "B" represents the neurological relationships and anatomical structuration that are responsible for perception. The neurophysiology of perception is excruciatingly complex, and researchers feel they have just begun to identify some of the key dynamics and relationships. This paper addresses just a few aspects that are key to our understanding of the perceptual pathways from world to self. These pathways can be thought of as having "neural gates" that stratify information processing into deeper, polymodal subsystems that process a huge amount of information through parallel processes; and "higher" order systems that are themselves stratified across the three thresholds of consciousness—subconscious, conscious, and self-conscious.

From a neuro*anatomical* perspective, the stratification primarily occurs in two discrete regions: the deep mid-brain centers such as the thalamus, superior colliculus, and central gray, and 2) specific nucleated sites along the dorsal-ventral pathways of the temporal lobe. From a neuro*dynamic* perspective, electrochemical pulses, "neural firing dynamics" up to speeds of 350 times per second, are responsible for bursts that can last or as long as 1.5 seconds. (Austin, 1999) In certain regions, such as the reticular nucleus of the thalamus, when these bursts fire, they "close the gate" within the thalamus and block sensate messages from passing further up the perceptual brain. Typically, after a burst, there is a pause, which can last up to 3 or 4 seconds. This produces an overall effect of rhythmic, wave-like activity, that flows across key neuroanatomical features.

> The conventional belief is that the reticular nucleus does not actually… "slam" the sensory gate within the thalamus. Rather, it helps the brain generate complex, rhythmic oscillations. First, these shift in the direction of *hy*perpolarization. Next, they rebound toward greater degrees of *de*polarization, that tendency toward excitation which is its functional opposite. As these oscillations shimmer in thalamocortical circuits, their waves take the form of rhythmic spindle activity in the EEG. (Austin, 1999, p. 267-8)

Cycles of excitation and inhibition also operate in a top-down fashion, such that increased activity in the evolutionarily newer parts of the cerebral cortex, excites GABA cells downstream in the reticular nucleus, which in turn activates the inhibitory bursts that attenuate sensate processing up the perceptual brain. (Austin, 1999) In this way, higher-order attention processes in the mind can and do shunt away sensate information arising from the lower-order background.

These higher-order attentional processes, associated with manipulating concepts and other virtual objects in thought (such as planning seating arrangement for a wedding in your head) has long been known to create "absent minded-ness" with regards to perceptions in the concrete world. Fortunately, the background processes most often "catch ourselves" being oblivious of things like oncoming cars. We are beginning to understand how to hack these processes in reverse, by quieting the symbolic, representational, and incessant worrying activities in our prefrontal cortex, in order to slip into the stream of peak perception required of exceptional performance – a condition that is often termed "hypofrontality." Hypofrontality with heightened sensory awareness enables extreme athletes to achieve remarkable feats. However, due to the excitatory-inhibitory cycles of the nervous system, once the task is done, the sensory gates crash and close out all perceptual information. Absent both higher order processes *and* the sensory stream coming in from the sensory organs themselves, these athletes slip into deep unity-absorption states associated with the ambient, circumspatial "vacuum plenum" of the background. Whatever perceptual information is left – the vast expanse of space, the towering mountain, or a dying bird – everything, including the sense of self, collapses into it, creating an incomparable experience of one-ness.

Later on that fateful day of errors described earlier in this paper (Kotler, 2014).

> *When Dean Potter (see above) finally got that parachute off his head, he found himself sitting on the floor of the Cellar of Swallows. Above him, his friends were running around, trying to facilitate his rescue. He paid them little mind. His body was pretty destroyed – again he didn't notice. Instead, his focus was entirely on the ground beside him, where a small swift with a broken wing lay dying. Instinctively, Potter picked up the bird, cradling it in his*

> *shredded palms. The connection was immediate. As soon as their flesh touched, he felt a powerful psychic union, as if his consciousness had merged with the bird's consciousness. In that instant, they were no longer two wounded creatures: they had become one…*
>
> *Potter ended up in this place of unity-consciousness: "I know it's hard to believe," he's recorded saying, "but the experience was so powerful, the connection so true. I just sat there with that bird, holding it while it died. When it died, I died with it. And I don't mean that metaphorically, I mean I became that dying bird.* (p. 55)

From a phenomenological perspective, the stratified perceptual brain can be understood in several ways: 1) what sensate information is "online" and what is "offline"; 2) what threshold of consciousness has the information crossed; 3) what aspects of experience are *hyper*active, and which are *hypo*active; 4) what sensations are amplified, and which are attenuated; 5) what is foregrounded and what is backgrounded; 6) where (if any) is the inside-outside boundary and 7) which (if any) self-state arises.

Research that integrates neurology and phenomenological reports from meditators trained primarily in Zen traditions, suggests that when meditators sustain global awareness or maintain single-pointed concentration, they are training the perceptual brain in ways that uncouple the recurring cycles of the brain's neural gates into more highly flexible and variable configurations. From this standpoint, Zen meditation training can result in notable effects: 1) Allow for persistent attention through wake-dream-sleep phases; 2) lower the threshold for conscious awareness into deeper layers of perceptual streams; 3) flood the conscious mind with vastly more perceptual information; 4) open the background processes to perceptual experience by, for example, consciously toggling between egocentric and allocentric modalities, which would disrupt the interior-exterior boundary of experience; 4) merging with the open, spatial modality of the background processes; and 5) awakening to the (nondual experience) of participation in the hylozoic zone. These effects are considered desirable to the extent that they dampen symbolically-conditioned and ego-centered modes of perception and amplify allocentric modes. This expands both the range of awareness into more inclusive domains of compassion and care.

The Primacy of Participation

As you read this paper, take a moment to reflect on the question:

What are you participating with?

There is not a lot of perceptual information in the grayscale marks on the page – and yet they provide stimuli for all kinds of activities in your mind. The phonetic alphabets enable simple marks on the page to be modulated from exterior perceptual data (the markings) into interior, aural perceptions as speech inside your head. Speech in turn invites mental images, and associative memories and feelings that participate in chunking the information into packages of salient meaning. The message I am trying to convey is translated into meaning you are attempting to make. The meaning is always a variant of the message. Participation is *never* replication. It *always* creates emergent novelty.

The Zen notion of *direct perception* was never meant to suggest that we can see the world *as it is.* It is more correct to say that the awakened state sees *the perception for what it is.* Perception is a matter of *degrees of constraints* in an infinite field of participation. The first, obvious constraint, is our human species biology. A second constraint involves our individual physiology – whether the perceptual organs are fully developed and healthy; as well their degree of skill, i.e. degree of attunement, refinement and acuity. A third constraint is state-specific and concerns a person's thresholds for conscious awareness – our ability to be "aware of" if not "fully conscious of" for example, the saccadic movements of my eyes, the perspectival constraints of my language, or even the normally pre-attentive ground of perceptual experience. While it is not possible to break through the first two constraints, *direct perception* in the Zen sense of *Kensho-awareness*, deepens and expands awareness such that it lowers the threshold of consciousness, such that even the background composition enters into the perceptual experience. Still, amongst these rare experience that qualify as *Kensho*, there are different degrees of perceptual awareness. The full spectrum of the perceptual experience might not come into conscious awareness all at once. There are often initial phases of absorption in the spatial ground, followed by an intensely vivid, and polymodal synesthetic "surround sound" phase whose panoramic vistas may (or may not) be accompanied by a subtle egocentric reference.

Sensory Clarity

Over the last 10 years I have worked with many groups and individuals both in the context of cooperative inquiry. When groups come together for transformative practice, they go through stages wherein they dis-embed from the limited role of their social self, and move into deeper, more authentic engagement with each other. (See Roy, 2016). There is a key indicator that the group is shifting from inauthentic modes of relating to open, participatory complex processes of relating that are creative, insightful and generative of collective healing. The key is when individuals begin to fall into a state I call *sensory clarity*. They realize, *as if for the first time*, that there is just a group of people sitting in a room together. This realization comes after a tortuous experience where people debate, challenge, attack, disassociate, pontificate, politick for power, complain, agonize – a full spectrum of neurotic behaviors set into motion by the projections, fears, defenses, and narratives stored up in the false persona of the social self. Once all this is dropped, and only when all that is dropped, do the senses actually come "on line" and people see each other as they really are, perceive the "scene" as it really is, in its simple, ordinary concrete reality. The experience is both remarkable and humbling at the same time. Remarkable, because as the senses come online, the colors, textures, and scents become vivid and crisp; and the heightened sense of touch can activate the sexual libido (kundalini) of the body (lower chakra). It is humbling in its complete ordinariness: absent the incessant internal dialogue, social strategizing, and psychic warfare that we are always otherwise participating with, the simple fact of our ordinary humanity comes to the foreground of our perception.

Sensory clarity, I believe is the pre-requisite for authentic human relating. We have to get to square one before we can build a shared or collective understanding – what Martin Buber[10] called I-Thou -ness. Understanding perception therefore, becomes a matter of importance in the realm of human relationship. Too often we facilitate group process by mitigating emotion, whereas too little attention is spared for the senses. It all comes down to *What are you participating with?*

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[10] http://teacherrenewal.wiki.westga.edu/file/view/I+and+Thou+1958.pdf

If sensory clarity is a marker of the possibility for relational depth, I began to wonder if activating and alivening perception could be a portal to *generating* relational depth and intimacy. Too often we associate intimacy with affective modes of being – with feelings and emotions. I began to think of the many ways people have always added color and jewelry to themselves as part of their courting behaviors – effectively making the perceptual experience more intense. I also began to think of the role of music and song, and the way that being in the rich perceptual environment of nature or a museum, makes a great first date! Not to mention the deeply sensory experience of two people touching. I began to think of perception as the *out-pouring energy* toward the object that is desired or loved; whereas affect was the *flooding-in* energy of relationship. I wrote (Roy, 2015) "perceptions are guided by what we might call the 'appetitive drive of the senses.'"

> The senses are not passive organs that function like windows opened up onto the world. The senses are more like *open roads* – they are designed to go somewhere. This is something that Goethe knew – our senses are not passive receptors but they are dynamic and creative actors that *enact perception*. (p. 52)
>
> *Equine Assisted Therapy*
>
> *For over 15 years I have partnered with my horses to create equine facilitated transformative practices for adults. For the first 10 years, the practices involved mostly working with affective dimensions of human experience.*
>
> *Horses are especially good at stripping away our monkey minds and social narratives and allowing us to drop into our bodily sensations. Most people go about their ordinary lives with something like "locked-in" syndrome – they are participating only with thoughts, mental models, narratives, expectations, associations, etc… in their mind. Over time, however, I noticed that people involved in certain spiritual communities who seemed to be able to quiet their monkey mind, were often less successful in engaging the horses beyond passive accompaniment. The horses wouldn't bond, follow, joke around, or engage.*
>
> *Eventually I discovered that there was another kind of locked-in syndrome in which the person is fully absorbed in their body, and incapable of experiencing the outer world. They were in a very real sense, perceptually dead. I actually had to train people to use their everyday senses – like their eyes and ears and hands – to experience the horse in a sensory way. This was a real shock to me, and it continues to boggle my mind today. No wonder people don't have any clarity around their experiences in the world! Can it be true that most of us are dissociated from our bodies and disengaged from the world? If so, we are only left with the coarse-grained linguistic categories with which to relate – leaving us misunderstood and isolated in the process.*

From Self to World

The perceptual organs are in direct participation with the world. But the ordinary, everyday self withdraws into a simulated world of virtual perceptions, memories and thoughts that create and maintain the I-me-mine complex. This is the "house that monkey builds" (Trungpa 1987), the illusory fantasy world of ignorance (Austin, 1998) that splits us off and trap us inside. This creates an existential condition I call "Locked-in Syndrome" and leads to the errors and confusions that call perception into question. We can think of "locked-in syndrome" as the ego's frame of reference. From this particular frame of reference, visual perception is deceptive, because it does not correct for refraction of light in water. However, if a person uses their body to throw a spear at a fish, the perceptual EBMB *as a holistic participation* **does** the "calculation" through adequate participation: experienced spear fishers throw with precision. Locked-in syndrome makes us think that vision operates like a camera, rather than understanding perception as a holistic participation with the world. Experiments in visual perception exacerbate the locked-in frame of reference, as subjects' heads are literally held in place in front of displays. As it turns out, saccadic eye movements, subtle movements of the head, and the body's proprioceptions of angular rotation, play essential roles in perceptual acumen. (Clark, 2011). When we are locked-into our monkey mind, mistaking the simulated world for the world that arises from direct participation, our science degrades into linguistic recursion. For example, we know that the color blue was distinguished as its own color much later in human history than the other primary colors. From the point-of-view of the ego, obsessed with the virtualized world of language and thought, the reason why must be because there was no word for the color – that the *word* invented the perception, rather than the other way around.

Recent research (https://www.dunnedwards.com/colors/specs/posts/the-history-and-science-behind-the-color-blue) suggests a more embodied reason—that colors become lexically distinguished when people develop distinct *uses* for them. Just think about how significant this explanation depends upon embodied participation. Whether the color "exists or does not exist" in the environment is not the question. The question becomes "whether there is adequate participation" for the color to emerge as a distinct perception. This brings us to the notion of correct perception as *adequate* participation; and perceptual errors as a consequence of *lack* of adequate participation. This solves the perennial parable of the snake that is mistaken for a rope.

As I have described (Roy, 2014) before:

> *Let's go back to the story of the rope that is mistaken for a snake. The senses perceive "what is." If all of the reality enters in as context, then the person will experience the rope as a rope. If, however, the context is limited to a memory of a snake that once bit a dog, then the person is most likely to experience the rope as a snake. When the villagers hear her story, even though their senses perceive the words directly, if the context is limited to this story, then their experience will be one of limited participation, and they too will mistake the rope for a snake.*

Adequate participation *perfects science* as it leads us to a "good" theory which "orients us toward a correct view," which is to say, away from the separate, privatized view of the ego complex, and toward a view with more degrees of freedom. The ideal view, therefore, would be one with the requisite degrees of freedom to perceive that slice of reality of interest.[9] Participation, therefore, is the way our own EBMB activity *enacts or brings forth new systemic wholes* (Varela, 1991) which in turn creates new potentials for participation. Furthermore, the notions of adequate participation, informs the enactive and embodied aspect of skillful action and ethical wisdom in the world (Varela, 1992).

Recent studies in enactive neuroscience (Clark 2016, 2011; Gallagher 2008, 2005; Gibson, 2015; Noe, 2004) stretch the focus of enactive participation further into the dimensions of the "body-mind" (the "EBM" in the EBMB). In these approaches, the BM itself doesn't sit inside the brain, the mind or the body, but is fully extensive with "world" through the body's gestures.

The complexity of our human activities, they reason, are such that they cannot possibly be encoded and stored representationally in our separate bodies. Rather the body "stores the activity codes" for the kinds of participation that will *retrieve* the relevant information or *compute* the relevant data. We all know how we learn to count using our fingers. Clark (2011) tells us that gesture goes far deeper than that. He shows how gestures alone, or motor acts in general, "somehow shifts or reduces aspects of the overall neural cognitive load" in an "organismically extended process of thought." Consider writing as an example. Clark's view suggests that it is not that the paper serves merely as a medium in which to store our thoughts, rather, the participation is a bi- directional and emergent one where "the paper provides a medium in which… via some kind of coupled neural-scribbling-reading-unfolding, we are enabled to explore ways of thinking that might otherwise be unavailable to us. (p. 126) Physical materials, as Vygotsky (1986) understood them to be, *are carriers of cognitive effects*. According to McNeill (2005), then, this implies "that the gesture, *the actual motion of the gesture itself,* is a dimension of thinking." (p. 98) Echoing McNiell, Clark (2011) writes: "Our free (i.e. spontaneous, nonconventional) gestures are not… merely expressions of or representations of our fully achieved inner thoughts, but are themselves "thinking in one of its many forms"[11] (p. 127).

Ordinarily, we think of painting as depicting an eidetic image in the mind of the artist. A theory of action in perception (Noe, 2004) considers painting to be a deictic act, wherein the artist is not depicting, but reaching and pointing through polymodal bodily actions, involving the hand, the head, the eyes and more. "Instead of plotting a course through an internal map, you act on what you look at, and you let the fact that what interests you is there in front of you place a guiding function." (p. 24)

> Seeing, on the enactive view, is like painting. … The painter looks to the world, then back to the canvas, then back to the world, then back to the canvas. Eye, head, canvas, paint, world are brought into play in the process of constructing the picture. Seeing, like painting, involves the temporally extended process of reaching out and probing the scene. (p. 223)

Andy Clark (2011) calls Noe's model of perception "SSM" – a strong sensory-motor model. SSM's extend perception into the world through the activity of the body. Clark identifies a possible model that push the EBMB even further with his Hypothesis of Extended Cognition (HEC). The HEC predicts that whenever and wherever possible, cognitive information is exported onto the physical world in ways that create “affordances” for continued skillful action. Writing down a note to pick up a friend on the way to work, and placing it on the seat of my car is one example. Perception and cognition thus become not a matter of perceiving and knowing a world, but of reaching toward and building a world of affordances through gestures.

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[11] The astute reader will recognize this as a version of the law of requisite variety in cybernetics: see http://pespmc1.vub.ac.be/REQVAR.html

Neural correlates suggest that this “dual-stream” hypothesis is correct – i.e., that there is a perceptual system that is EBMB-based, and one that is further removed from the realm of direct sensorimotor engagement. (Clark, 2011) According to this research, the visual processing system has two streams – a ventral stream geared toward “enduring objects, explicit recognition, and semantic recall” associated with more eidetic types of perceptual cognition. This stream operates whenever real-world objects are unavailable for employing as external instruments of perception. When such real-world affordance are available, another, semi-autonomous dorsal stream, operates in the here and now, to guide motor action in the world, without the mediation of eidetic representation. Like so many other recent discoveries, these distinct streams were “teased apart” by studying patients with deficits in one but not the other visual processing stream (Clark, 2011).[12] The discovering of “dual-streaming” processors lead Clark to suggest a new hypothesis of embodied perception and cognition: HOC (Hypothesis of Organism-Centered Cognition) which states

> Human cognitive processing (sometimes) literally extends into the environment surrounding the organism. But the organism (and within the organism, the brain/CNS) remains the core and currently the most active element. Cognition is organism centered even when it is not organism bound. (p. 139)

Some of the hypothetical territory here depends on how far are we willing to go with our conceptual categories. Consider again, for example, how we maintain our balance (part of the proprioceptive functions). Inside the inner ear a grain of calcium rocks on a kind of “saddle” that is lined with tiny hairs that sense its movements. As the head moves relative to the center of the earth’s gravity, the tiny hairs perceive the movement and position of the calcium. Now imagine being in a row boat, with a saddle for a seat. In your imagination, place a smooth and rounded stone in that saddle, and think of how you could use it to keep your balance as you stand in the boat. What if you had a serious ear infection, and your internal balance system went offline?

Would you be willing to *extend the category of perceptual organ out of the EBMB and into the boat?* Switching to the notion of correct perception as *adequate participation*, resolves the problem in one fell swoop. Perception is not a static architecture bounded within a conceptual category of one’s choosing. It is an active operation involving organism and world, that both extends and contract, reaches and retracts, to optimize participation.

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[12] Note, previously we described the ego-centric and allocentric pathways that correlated with the ventral and dorsal subsystems of bodily space, which is consistent with the ventral-dorsal properties of visual processing described by Clark.

The Role of the Imagination

In ordinary experience, the imagination is tightly woven into the fabric of perception at various layers. There is the imaginary part that is intentional – for example, when we allow ourselves to imagine faces and animals in the morphing shapes of clouds. There are pernicious types of imaginary components that lurk beneath our consciousness, such as when we overlay bias and prejudice in creating false memories in reporting on crimes and mishaps. Direct perception, in the purest sense, is perception *absent the participation of imagination*. We can also think of direct perception, as *degrees of awareness* of the role of the virtual and imaginary in our experience. The greater degree of awareness, the greater choice we have to intentionally add in or subtract out the components of experience that are extraneous to the objects of perception. The integration of awareness and intention, consciousness and choice, is spiritual wisdom.

Perception and imagination begin to interweave deep in the (ordinarily) preattentive, subthreshold levels of experience. Because of this, the early phenomenologists (Crowell 2001; Gallagher & Zahavi, 2008; Kockelmans 1967; Welton, 1999;) argued that the imaginal, eidetic properties could never be perceived, because the perceptual properties of experience were themselves, products of imaginal operations. Only recently has western neurophenomenology and neuroscience begun to unravel their relationships in deeper layers of the EBMB.

Consider, for example, how we ordinarily perceive "first person perspective." We look from "here" to "there." We are unaware of the perceptual processing deep in the EBMB which subtle image-mind the shape of your body into this "picture" of reality. If you watch *this video* of a squirrel running up a tree, you will have what I call "go-pro" perspective. Because the movements are unfamiliar, the "body" your imagination ordinarily supplies as the "background" doesn't match up with the perceptual experience. Of course, there is a little bit of both "go-pro" and "first person" perspective in your experience. The point is, meditative practices can train the mind to decouple the imaginal or eidetic component of perception from the experience, creating a more naïve, more direct perception. Thereafter, the imaginal functions of the virtual-simulation operations of the mind, could reconfigure themselves in a kind of retroactive fashion, and offer you an imaginal body to go along with the video experience. You would be able to *become squirrel*. It is precisely this kind of "shape-shifting" that fascinated the Daoists sages and Shamans, who noticed that energy conspires with form to create perceptual experience. (Angle, Hall and Ames 1998; 2009; Hansen, 1992; Kjellberg and Ivanhoe 1996; Mair, 1983).

This imputing of a subtle mental model of the body onto "first person perspective" has led philosophers and phenomenologists to assume that the imaginative aspect of experience must be *prior* to the bodily spatiality of the world, and hence must somehow "taint" or "indirect" this aspect of experience. This has led to the idea of "the body in the mind." (Brown 2002, 2005; Heron 1992, 1996). For Brown (2002), the affect-laden intentional states preconstitute the subjective ground of experience. His theory of microgenesis places the "image" stage as a prior and requisite stage for the "body" to appear, and as a result exists for the subject as an object among other objects in the world. In similar fashion, Heron (1992) describes the basic life-cycle of the ego as moving from emotion to imagery, then conception and finally action. "the imaginal mind [is] at work in perception … it is a shaping and moulding process; perceptual imagery is being *made* by the psyche…

> I am not aware of my imaginal mind busy with the generation of perceptual imagery whether through seeing or hearing or touching. I turn what is a continuous process, a transaction, into something out there that I am looking at. I am aware of the image, the product of the process, but not of the imaging itself. (p. 145)

While it is correct to say that first person perspective already includes eidetic elements, it is incorrect to conclude that perceptual experience begins at first person perspective. Gendlin (2009) was already aware of this distinction when writing about the *implicit understanding* in the body:

> The first person process is not a 'perspective' First person process has been widely misunderstood as being inside an externally-observed body. I have tried to show that first person process is bodily-implied environment interaction. Our conceptual systems are explications developed from within environmental interaction, and then tested in it. In the usual view there is an unbridgeable gap between first and third person 'perspectives'. But only the third person is a perspective, a view (the 'view from nowhere', the observed without the observer). The word 'perspective' assumes that the environment is something merely viewed, not interacted with and behaved in. First person process is not a perspective. If first person process is understood from first person process, we can explicate how it is bodily, implicitly conscious, far exceeding the objects of attention (of viewing), always an implicit understanding, needing no added observer. (p. 349)

Thompson (2005) uses the term "sensorimotor subjectivity" as the "zero point," the "null point of orientation," or absolute indexical "here" prior to subjective being in relation to which things appear perspectivally: "The lived body manifests itself in perceptual experience, not primarily as an intentional object but as an implicit and practical "I can" of movement and motor intentionality" (p. 249).

The question is not *whether we can* virtualize the body using internal images and representational simulations. Rather, the debate involves whether virtual imagery is necessary for perceptual experience to occur. A third option is to suppose that the virtualization of visual perception is necessary but not sufficient for conjuring up mental imagery; and that in order to do so, requires the facilitation of on-going sensorimotor processes. The distinction between body *schema* and body *image*, described by Gallagher (2005) can help us better understand these options. For Gallagher, the deeper proprioceptive layers of the body are responsible for maintaining a coherent *schema* that locates and coordinates body movements. Body *image* on the other hand, involves higher-order processes that rely on mental framing at or above thresholds of conscious attending. Gallagher compares patients who suffer from two dramatically different types of deficit in their body awareness. Personal neglect" resulting from brain injury, involves the loss of "ownership" over movements in parts of the body. Arms and hands may manipulate objects successfully (as in dressing or undressing oneself) but the person is not aware of the intention or the act. According to his terminology, in cases of neglect, the deficit involves the *imaging* functions of the EBMB. In very rare cases, the body fails to locate or coordinate itself *by itself* and instead *requires* the patient to continually reference their body image and attend to their body as object, in order to make any movement at all. In the first case of neglect, Gallagher argues, the body schema is intact, but parts of the virtual body are lost.

In the second case, the body schema is lost, and the body image operates as the compensatory function. In some instances, for example with a patient named Ian, needs to see not only the target object, but also his hand in order to successfully reach out for objects. In other instances, Ian relies on cognitive control under the guidance of virtual body imaging, to articulate basic movement such as walking. This results in movement that is less fluid than normal – movement which looks more like a result of robotic "decision-path" calculation, rather than organic, embodied activity. The kind of movement that people ordinarily make when learning a complex dance sequence for the first time. For Ian, "imagined movement," Gallagher says, "lowers the threshold for continuous action."

> In place of the missing body schema processes, we might say that Ian has substituted a virtual body schema – a set of cognitively driven motor processes. The virtual schema seem to function only within the framework of a body image that is consciously and continually maintained. If he is denied access to a visual awareness of his body's position in the perceptual field, or denied the ability to think about his body, then, without the framework of the body image, the virtual body schema ceases to function – it cannot stand on its own. (p. 53)

Ian's condition shows us that in normal experience "there is no phenomenal difference between motor space, proprioceptive space and perceptual space." Yet it also brings up a kind of chicken-and-egg question, as to which is more fundamental. Gallagher surmises that it is only because Ian's vestibular and proprioceptive functions of his *head and neck* remain intact, that the visual-imaginary mapping successfully links the body to action (p. 63). Further research is warranted to determine the minimum viable structures and relationships required for different sensorimotor functions and associated actions. In any case, Gallagher anticipates that what will be found is something like an "ecological circle" between afferent signals coming from the body schema pathways, and efferent signals relaying back from the body image network. This of course, is the same kind of "circle" responsible for neuropathies such as phantom limb (Doidge, 2007).

This notion of an ecological circle in the EBMB is useful in other ways (see Appendix C). We can think of the body schema as located in the hylozoic zone – the ecological overlay of the body and the world. We can think of the body image as the ecological overlay of the body and the virtual mind. In this way we can calibrate the continuity of world and image, body and mind.

States of Mind

The imagination plays a preeminent role in the emergence of non-ordinary states of consciousness. The notion of "ecological overlay" is helpful in understanding how perceptual experience organizes as different state experiences, without disrupting the continuity of the EBMB. Thompson (2015) identifies what he terms "altered embodiment" along this ecological spectrum. These experiences are associated with specific neural correlates that overlap with those that specify first-person and third-person perspectives. I have already described how even in conventional first-person perspective, there is a subtle imaginative overlay of some third- person perspectival content. It is not difficult, therefore, to think of how amplifying one or the other, or combining elements of both, would result in non-ordinary experiences of world spaces and body spaces, and the location of the self.

Normally, the perspective of the self includes 1) feeling of ownership of the body, 2) sense of agency over its actions, 3) being anchored to or located in the body and 4) referencing the world to the body and 5) referencing affects (emotional tones) to the self. Any and all of these can be amplified or attenuated in non-ordinary states of mind. (Thompson 2015) *Autoscopy* is a phenomenon wherein the person perceives their body from an outside, third-person perspective, *while otherwise fully awake.* “Fully awake” here means you are simultaneously perceiving yourself located inside your actual body, for which you assume ownership and agency; while *in addition*, you perceive a duplicate body which arises as object of a third-person perception which you neither “occupy” nor “move.” A slightly different phenomenon, where the sense of the “I” that owns and controls, and to whom the world appears, alternates back and forth between the first-person and third-person body image. For brief moments, the two perspectives can be combined, a state experience called “bi-location.”

> *As I walked down the rows of corn growing in the valley, my sense of relative size became fluid. As a grew smaller and smaller, the corn rose higher and higher, until it seemed like I was looking up at the sky from the bottom of a deep canyon. The sun caught me at my throat and split me in two—a tiny self at the bottom of that canyon, and an expansive self who was floating above in the sky, witnessing its disappearance into nothingness*.

“The world of out-of-body experiences,” concludes Thompson (2015) “seems to be the world of the imagination.”

> In my view, the impression of seeing things in an out-of-body experience is like the impression of seeing things in a dream; in both cases, what’s happening isn’t perception, but the mental simulation of perception. (p. 224)

Perhaps it is helpful to say that an OOBE, is a particular ecological overlay between the perceptual body and the imaginal mind. Perhaps it is too rigid to assert that a given experience is “one kind of experience” and not another. If experience is an ecology of participation, then states of mind should be expected to be fluid and transitory between a spectrum of varieties of experience. In other words, because of the deep continuity of world, body, and mind, *all* experiential states are inclusive of world, body and mind – all the time. The differences Thompson has been describing all involve the degree to which the body schema operates and the degree of the body-image(ined) overlays. We might say that the “overlay” can be transparent in ways that complement the body schema, or, as the overlay becomes more opaque, the image- minded, virtual bodies, conflict with and eventually displace the embodied body schema. Falling asleep is an ordinary phase transition in this process of attenuation of the body and amplification of the imaginal mind.

First our ordinary perceptions quiet down, and the body sensations cease. We lose contact with our senses, and control over our bodies. The imaginal mind creates the dream world out of the overlays of perception, perspective, memories, fantasies, and narrative scenes and stories. Like film clippings on the floor of the editing room, snippets of reality can be spliced apart and spliced together in an infinite number of ways. One of the best ways to explore what imaginal overlays are operating in the background of waking life, is to learn how to be lucidly aware of the dreams you make.

An Ecological Theory of Perception

Using this notion of overlay, we can extend the scope of continuity of experience beyond conventional waking states and into other states of mind, such as the dream and sleeping states, and also including the mind's dying process and excursions into non-ordinary states of consciousness. Perception is a kind of multi-layered ecology of participation, where figure and ground, agent and environment, content and context can filter themselves in or out. I am thinking of the slider tool in a photo imaging app, where the transparency of objects can be set from 0 to 100 percent. Similarly, the overlays of perception, operate in a continuously shifting modes of transparency, creating different reveals, revealing new worlds. It should be noted that these "transparency settings" are not reserved to visual objects, but involve what we are calling all the "perceptual overlays" that make our experience complex, dynamic, and richly textured.

In the Appendices C-H I try to illustrate this idea of an ecological overlay of perceptual experience. Appendix C illustrates where the hylozoic zone is created by the overlay of the world and the body. This composes what we have been describing as the bodily space or background, (Merleau Ponty 2012, 1964), body schema (Gallagher 2005), first person *process* (Gendlin 2009), and the zone of sensori-motoricity that Thompson (2007) refers to as the "null zone" or "zero point." The shorthand I have used in this paper is simply EB, *embodied body.* In contrast, the body image, (Gallagher 2005) participates in the overlay between the body and the virtual functions of the mind – what we commonly refer to as the imagination or liminal space, and what I have labelled as the BM, *body-mind.* Appendix F is a way to illustrate where the ecological overlay of the many *virtual bodies* described above by Thompson (2015) would appear and disappear, phasing in and out of transparency, moving back and forth between the realms of possibilities and actualities (Whitehead 1978). Perception "rescues from vagueness", wrote Whitehead (1978) and warned us of "reducing perceptions to consciousness of impressions on the mind."

Affordances

In our ecology of perception, we identify the hylozoic zone as the world-body overlay; and the body image as the overlay of body-mind. What I construe to be the overlay between world-mind? I call this overlay "brain" since "brain" is the physical, or worldly aspect of mind. More significantly, "brain" represents what has evolved through the world as *world.* This is the MB, *mind-brain* at the end of our EBMB (embodied-body-mind-brain). This is the region labelled "affordances" in Appendix E. It is the region where the world accommodates the brain *and* where the brain accommodates the world. Brain and world constitute a continuum, in the same way as body and world – through complex, dynamic processes of relating. This dynamic "structural coupling" (Thompson, 2007; Varela, Thompson and Rosch, 1991) of brain and world is the basis of the notion that the world offers up novel possibilities, or "affordances" (Gibson, 2015; Masciotra, 2007) for the world and brain to co-create novel ways to participate.

A good example of affordance is the how we invent new uses for old items, when we don't have the right tool to do the job. Objects, lying around in the world, "afford" possibilities that the mind doesn't always see, until it sees it in a new light. We scan the room and go through the drawers, "looking" to find something we are not sure what we are looking for – until we find it. Then, brain and object, mind and world become one in the action made to solve the functional problem. Objects take on new meaning, the world grows richer. A blade of grass becomes a reed in a whistle, a whistle becomes a straw, the straw a handle to hold a nail in a tight spot. Every object in nature *affords* some possibility in the mind of a person. Affordance is a result of tight evolutionary fit between the organism and environment, which allows the organism to "dynamically steer" in the direction of the "good;" which is a satisfaction of a "search drive" in an adaptive landscape. Perception, as an ecology of overlay, can be construed as a continual dialing in and out of available features "afforded by the world" until it satisfies the conditions for a needed or desired action. A convenient analogy would be tuning a radio to a station that satisfies a threshold of fidelity. The imagination may or may not play a significant role in the final configuration. Regardless, the continuum from world to mind, is never broken.

This is a dance of "dynamic co-emergence" (Thompson, 2007): "all that a subject perceives becomes his perceptual world and all that he does, his effector world" (p. 59) This way of talking about affordances is subtly biased toward the subjective or organismic pole. The complete set of couplings between world and mind, constitute what von Uexkűll Barbieri, 2008; Buchanan, 2008) called the *Umwelt,* or the world that is disclosed through participation of the organism and their world. The emphasis here is on the world-building or world-disclosing activities (Heidegger, 1962). We can think of two agents participating in an overlapping Umwelt, where worlds and minds collide. This extension of perception *extended as world,* is illustrated in Appendix E. The intimate connection between the natural objects and the perceptual organs of man, was something that Goethe (1988) recognized: "The human beings knows himself only insofar as he knows the world; he perceives the world only in himself, and himself only in the world. Every new object, clearly seen, opens up a new organ of perception in us."

Goethe is saying that every new connection extends the organs of perception further *as world*, and generates self-knowledge. This very closely parallels the notion that perception, when awakened, gives rise to insight-wisdom in the Buddhist tradition (see following section). This underscores the fact that the perceptual organs are not merely passive instruments or message bearers, but they are actively engaged in the creation of a significant environment." (Buchannan, 2008). Furthermore, the mind is not required to interpret meaning from this engagement, because the significance is entailed in the environment-organism coupling, which acts as a "storehouse of meaning" that is accessible through iterative process of probing and participation. Pick up an old baseball bat, and you will re-live the significance of the hit; slip on a baseball glove, and you will recapture the significance of the game. "The creation of the *Umwelt* occurs through the *interpretive work of the organism"* [emphasis mine], writes Buchanan (2008):

> the interpretive process remains a biological relation that occurs between an organism and its other, where neither is reducible to a cause-effect scenario. They both give and receive the sign of the others, and it is in the *convergence of these signs* that an interpretive process takes place. [emphasis mine] (p. 33)

Goethe wrote:	*If the eye were not sun-like It could never behold the sun*
to which von Uexkull replies	*If the sun were not eye-like It could not shine in any sky*

(Buchanan 2008, p. 33)

In other words, there is something about the sun that *affords seeing*. This is not a trivial statement. *That* the world *affords* significance points to its inexhaustible richness and generativity. This is the basis of how perception gathers the world-disclosing information that generates insight-wisdom.

Gibson's (2015) own ecological theory of visual perception describes in detail the key aspects of the animal-planetary overlay that generates perceptual information. These aspects are the invariant constants that have been present throughout the evolution of animal life. We might think of them as the *way that the planet has extended itself into animal life*. The fundamental affordances of animal life are (1) The Medium: water, earth or air; (2) The Substance: water, earth or air; (3) The Surfaces: where media meet and create an interface. Note, according to Gibson's taxonomy of affordances, water is a medium for aquatic animals, but a substance for land dwellers (whose medium is air). The *affordances* of the environment, are what it *offers, provides,* or *furnishes*, either for good or ill. Like vonUxekull's *Umwelt*, and Thompson and Varela's notion of structural coupling, *affordances,* for Gibson, imply the "complementarity of the animal and the environment." Gibson offers a radical hypothesis of perception, which says that *to perceive is to reveal what the world affords*. Its radical implication is that to perceive is already an act of evaluation and meaning-signifying. This would explain the deep purposiveness interwoven into the very fabric of existence. As I have noted elsewhere (Roy, 2006), our fundamental values are laid down in the very primary micro-stages of moment-to-moment awareness. She writes

> I look out over a springtime meadow, taking in all the colors and textures and aromas. My eye settles on a daisy – not just any daisy, but just this particular one. My mind relaxes in the joyful play of this daisy and I. These are inherently valuable existents which exteriorize for me over the duration of the cognitive moments. For the bee, bird, and butterfly, there are a set of different values… (p. 145)

Changing values changes the way we participate in perceiving the world. This reveals different affordances. Think of the way we might scan though a bookshelf at a bookstore, without looking for something in particular. What catches our eye, depends upon some subtle ways our intentional-motivational state primes our behavior. We move along, picking up information—clues where to move next. We may be irritated in the self-help section, and get pleasantly lost in the biographies. A book of images, photographs or artwork draws our attention, and we move as our values move. We move, in a very real sense, guided by the appetitive drive of our senses. This is the same way that we move in and among the worldly significance. We interact with the world, and change it. Change affords new affordances, new significance, new ways of participating. "For all we know," writes Gibson, "there may be many offerings ... that have *not* been taken advantage of…" (p. 121)

To perceive directly, for Gibson, is to participate as the world affords. There is complementarity, but no intermediary. Take light, for an example. We ordinarily consider it a medium of transfer of information, between the world of objects and our perceptual organs. But, Gibson argues, we don't see light itself. Light in the environment is *ambient array*. It is an aspect of the medium (atmosphere or water, for land or aquatic animals) which, along with other aspects of the environment, i.e. substances and surfaces, interacts to create information. We in turn perceive this information *directly*. We see the green leaf because we receive this information: "the leaf is reflecting green and absorbing red." Perception is the *direct receipt of information in the* *environment*. As such it needs no interpretation. In a structureless environment, the ambient light itself would carry no information, and hence, *could not be seen*. Seeing is gathering information about the real world. It is direct participation with information that is structured in the environment. We not only perceive the world directly, but we *directly perceive the structure of phenomena*. This allows us to understand what they are and how they operate, a process McCabe (2014) calls *perceptual learning.* It is an intimate process, in which the world *enters us:*

> It adds that we resonate to and incorporate the information that specifies those phenomena directly into the neural networks that our perceptual systems activate. *This process changes us*… we are no longer our old self that has simply added another item to our archive of retrievable information. By incorporating new structural information directly into our appropriate neural network, we become a new, reorganized self… (p. 39)

The above discussion shows how a theory of affordances dissolves the crisp boundary between world and self, object and subject, in the same way that our theory of the hylozoic zone dissolved the sharp categories of world and body. Appendix G illustrates a third "fuzzy boundary" – the zone that overlays world and mind. We can think of this zone of extended mind, in terms of what Masciotra (2007) calls the *network of virtual actions* and *spielraum* (room to maneuver). The mind, in this case, constitutes the network of virtual actions; and the world of affordances constitutes the *spielraum*. We often think of creative insight as an activity of mind. The mind's virtuality and ability to simulate novel experiences, is only one key component of creativity. It might be secondary to how we participate with, and what affordances are provided by, the environment. "It is easier to enhance creativity by changing conditions in the environment than by trying to make people think more creatively" (Csikszentmihalyi, 1996, p. 1).

The *spielraum* represents the conditions in the environment that set both the constraints on and possibilities for creative excavation of affordances that have not been previously seen. This is perception as insight – bringing into reveal, the structures of the world, such that they align with creative ways of acting. A *spielraum* is not constituted merely by the objects in the environment, but by the objects as they relate to actions the body is capable of performing. Consider, for example, two climbers facing a rock wall. Their perceptual organs "see" the same wall; but the more experienced climber will see more "holds" for climbing. The more experienced climber will be able to virtualize more possibilities for a route up the wall, and then exercise these possibilities in real actions. For the expert, there are more affordances in their spielraum, including more potentials through which they can search in the virtual possibility space. The expert can translate these potentials into training exercises for the amateur, which will then, above a certain threshold of experience, become part of their real-world-actionable spielraum.

All agency is born of this suitable fit between the network of virtual potentials in the mind of the actor, and the set of affordances provided in the space in which the actor maneuvers. We might say that, in this zone where the mind and the perceptual world overlap, the mind provides the possibility space, the perceptual organs provide the search engine, and the world supplies the affordances.

Where then, might we ask, is perceptual information stored? Is it in the virtual simulations of the mind? In the perceptual pathways of the EBMB, or in the world? From the enactive view described here, the information is not stored any *where* but it is stored in the *number of possible functional relations between mind, perceptual body, and world.* In this sense, information is more of a result of being able to anticipate and respond; to be able to *search and retrieve* affordances as needed, then the ability to store some *thing* some *where* and subsequently to access *it from there.* Rather, what Clark is describing is an active, in-the-present-moment, dynamic, living participation. This is the sense in which Any Clark (2011, 2016) alludes to when talking about cognitive extension and "supersizing the mind." Here intelligence is thought of as the ability to organize virtual networks, with affordances in the world that are always "ready at hand" (Heidegger, 1962).

Perceptual acuity, (direct perception, adequate participation) reveals what is "ready at hand." Clark see this as an economy of embodiment, such that whenever and wherever it is possible to export the cognitive load of information/retrieval/storage tasks *into the world,* organisms will always choose to do so. According to his hypothesis, the organism retains the sensorimotor action-patterns that will generate successful search and retrieve processes in response to anticipatory processes set in motion by perceptual flows and intentional states. His three threads and two hypotheses are significant enough to quote in their entirety, so I have included them in Appendix I. They explain why the storage, processing, and transformation of information is spread indiscriminately among the brain, body and world – hence the idea of an ecology of overlapping perceptual zones which self-organize the continuity of living body and dynamic world. Clark proposes a *Principle of Ecological Assembly* which states that "information-processing organizations are repeatedly soft assembled from a motley crew of neural, bodily and external resources" (p. 197).

Enhanced Perception

So far, I presented an overarching model of perception as an overlapping ecology of mind, world, and body. I named the *hylozoic zone* where world and body overlapped; *body image* where body and mind overlapped; and *affordances* where mind and world overlap. In addition, I discussed that each of these overlaps could be extended further, to explain phenomena such as virtual bodies, extended mind and enhanced perception. Appendix H illustrates the zone of enhanced perception, which is an extension of the hylozoic zone in the overlay of world and body. This extended overlay represents what perception might be like if the sub-threshold information came into vivid awareness. In Zen Buddhism the experience is called *kensho* and it considered to be the confirming experience of direct perception. The following four excerpts are first person accounts of this type of enhanced perceptual experience.

Peter Matthiessen *The Snow Leopard*

(In this short excerpt, Matthiessen gives us a sense of the preparatory space of kensho, which beings with a sense of reorganization, recognition, and the clearing away of mental and emotional obstructions.)

> *The search may begin with a restless feeling, as if one were being watched. One turns in all directions and sees nothing. Yet one senses that there is a source for this deep restlessness; and the path that leads there is not a path to a strange place, but the path home. . . The*

> *journey is hard, for the secret place where we have always been is overgrown with thorns and thickets of "ideas," of fears and defenses, prejudices and repressions.*
>
> ~ Peter Matthiessen

Scott Russell Sanders *Staying Firm*

(In this passage, Sanders describes what I call "sensory clarity" something that on the one hand is ordinary, but, due to its perceptual vividness, becomes a sacred engagement."

> *I have spied that secret place from time to time, usually as through a glass darkly, but now and again with blazing clarity. One time it glowed from a red carnation, incandescent in a florist's window. Once it shimmered in drifting pollen, once in a sky needled with ice. I have seen it wound in a scarf of dust around a whirling pony. I have seen it glinting from a pebble on the slate bed of a creek. I have slipped into that secret place while watching hawks, while staring down the throat of a lily, while brushing my wife's hair. The experience is not a glimpse of realms beyond, nor of becoming someone new, but of acknowledging, briefly and utterly, who I am.* ~ Scott Russell Sanders

Alfred Starrett, *Your Self, My Self & the Self of the Universe*

(In this longer excerpt, Starrett wonderfully describes the no-self/Universal self experience of kensho, and its profound allocentric qualities resulting in an intensely luminous "surround-around" spatiality of creation.)

> *In the year 1925 my family lived on a small farm in Danvers, Massachusetts. My father was chief engineer at the Salem Electric Light Company. He had neither the time nor the inclination to work the land, but the farm was a pleasant place for the children in the family – two older sisters and a younger brother besides myself. I was ten years old that summer and thoroughly enjoying my love affair with the world. One pleasant moonlit night I responded to the call of some inner urge for adventure by climbing out of my bedroom window to the roof of the porch just below. From there, as I knew from many past excursions, it was easy to cross over the top of a couple of intervening sheds and reach the edge of the roof of the big barn. Soon I was up on the ridgepole of that tall building and I sat down feeling that I was at the highest point in all creation. The old farmhouse and the outbuildings were at my back and before me stretched low rolling fields toward a distant stand of trees and then rising hills. The air was clear and still. Moonlight washed out most of the stars and illuminated the scene. Below me Grunt, our pet pig, was making snuffling noises in his pen. As I sat quietly there on the roof of the barn I began to notice a strange transformation coming over everything I could see. Things were becoming luminous before my eyes. They shone from within, flowing with light in a riot of colors that continuously increased in intensity. It was as if the grass of the fields, the brown fences, the red barn that belonged to our neighbor, the white walls and green roof of our own house when I turned to look back – as if they all were made of stained glass with sunlight shining through them. As this inner light grew brighter I noticed that it pulsed with a steady rhythm that appeared to me to be the beating of some gigantic heart, as if it were the life-throb of the Self of the World. The scene became a living, scintillating dance of glory – everything beautiful and everything*

> *just right in relation to everything else. The very darkness of the distant trees and hills became shining purple and blue. Then something more strange happened.*
>
> *While still retaining awareness as an individual, the sense of "me" at a fixed location in space and time expanded into less limited conscious perception. I can try to suggest what happened by saying there was a shift of identity from the self of an observer to all that was there to be observed. Instead of seeing that living light, I became the light. It was seeing without any specific person doing the seeing from any particular perspective. The whole circle of the horizon was before my eyes simultaneously. My personal life became universal life. The rhythm of the luminous pulse beat was the surging rhythm of my own vital processes which had become identical with inner shaping and sustaining power of all creation. I could feel directly the variant urges, strivings and relationships of the different forms of the one limitless life. I felt in a tree its love for the earth and air; the holding-on of fence posts; the grass reaching toward the light; all things gathered and held in the supporting embrace of earth. I was also sensitive to conflict among the various forms, where life struggled with life and one kind of existence was absorbed into another kind. But the opposing tensions were experienced as one hears dissonant chords in great music which add to the beauty as they are resolved in harmony. How long the experienced lasted I cannot say, but eventually the process reversed itself. My conscious awareness took up again the perspective of a particular location on the roof of the barn. The light of glory faded. My seeing became a natural human vision again and I had returned to the sensory limitations of a little 6 boy with an aching bottom from sitting for some unknown length of time on the ridgepole of the barn roof.*
>
> ~ Alfred Starrett

In the fall of 2004 I had a radical shift in consciousness. I had this profound insight that there were *no sources or sinks* – that Love was not something stored over there, that could be moved to where it was needed; or that I could give or receive love. Rather, *Love was the ground and dynamic source of all that is*. I realized how all my life I had been running around trying to redistribute Love – from the perceived sources, to the perceived sinks, from those that could give to those in need. This included myself (give love to helpless animals, protect vulnerable people, look for someone to love, and for someone to love me). It was a kind of transactional kind of love, underscored by a sense of scarcity. In one fell swoop this final, underlying structure of my being was shattered. I entered in the dynamic continuum of love, a living flowing, dynamic stream of cosmic consciousness. I was going to the post office to pick up the mail. Boom!

> *Everything grew crystal clear like something completely transparent, except with brilliant hues of color. A hundred thousand kinds of crystal light – indigo, crimson, gold, sapphire, verdant greens of all hues – shown with incredible vividness and brilliance, yet with the transparency of crystal. I could hear the "clank clank clank" of the flagpole being rung like a bell by the metal end of the rope, high up in the air and behind me. At the same time, I could hear the soft "swish swish swish" of the blades of grass, each distinctly, like a slow progression of brushes over an orchestra of cymbals. To my surprise the sound they made tasted sweet. I could feel the undulating clouds beneath me and the warm breath of the earth, rising up to kiss them. Every sense was heightened and expressed itself overall as a kind of surround-around spaciousness. I did not want to move, for it seemed that taking even a*

> *single small step would be an impossible brutish act in an otherwise perfectly resonate energy field. No such disruption happened, for a long long time. But soon the ordinary way of seeing things, redeemed themselves from this spell of grace, and I made it into the lobby where the post-office boxes were lined up. At first, I couldn't remember which box was the one to open – and it felt strange, like a small amnesia. Which box? Which box? I had lost the memory in my body that knew which box it was. Then I reasoned – for the first time – that the number "30" in the address "30 South Main Street" identified the number on the box. It was like a grand puzzle was finally solved! The mind is useful, after-all.*

Part IV: Awakened Perception

A Buddhist Examination

No paper on awakened perception would be complete without passing the test of a Buddhist examination of the notion of direct perception. The key question in this section is whether this model can withstand the scrutiny of a Buddhist examination of these topics. Does the model provide useful heuristics for disentangling the complex ways in which the traditions talk about them? If so, might there be a need for the model for a modern approach to consciousness studies based on integral phenomenology?

Of course, there are many different Buddhist schools, whose opinions, beliefs and scholastics differ significantly from each other, not unlike the many different ways that western neuroscientists, phenomenologists, cognitive scientists and psychologists hold different accounts of perception. In this paper I rely on Anne Klein's (1988) interpretation of the Gelukba Sautrantika system, considered to be the most advanced exegesis of the direct perception, its relationship to conceptual thought, and their complementarity. It is a version that offers ordinary people the very real possibility of non-dual self-knowledge—which is simultaneously knowledge of self and world, self as world, and world as self—and as such has much of the defining characteristics of the ecological overlay model. According to this tradition, the possibility for non-dual knowing is given by the interpenetrating mutuality of thought, perception, and world, which leads to liberating insight. Hence, the ecological overlap might be a model of this possibility of liberation through awakening perception.

The Gelukba's hold that conceptual thought can lead to direct perception and the non-conceptual realization of self-liberating insight. This possibility however depends on having a correct conceptual framework. There are several key tenets to the Gelukba's framework. The first tenet has to do with ultimate truths, which are non-conceptual and apprehended directly, and conventional truths, which rely on conceptual apprehension. The key characteristics of ultimate truths is that they apprehend what is called "specifically characterized, impermanent phenomena"; whereas conceptual truths apprehend "generally characterized phenomena."

William James (1977) also noticed this distinction between perceptual flux and flow, the "big blooming buzzing confusion," the "aboriginal sensible muchness" and the concept which "never varies" and "expresses eternal veritas." In the western mind, it was therefore the "staying power" of the concept, James noted, to "contrast the knowledge of universals and intelligibles as god- like, dignified, and honorable to the knower, with that of particulars and sensibles as something relatively base which more allies us with the beasts. Hence these conceptual, intelligible universals were associated with ultimate truths in the western mind. "… by all rationalist authors the ultimate reality is supposed to be static also, while perceptual life fairly boils over with activity and change" (p. 247).

In the three highest Buddhist systems, Sautrantika, Cittamatra, and Madhyamaka, the opposite position was established, where only the impermanent, non-conceptual and specifically characterized were considered as ultimate truths (Klein, 1998). In line with the Buddhist schools, James understood that that to be conceptually known, "our flowing life must be cut into discrete bits and pinned upon a fixed relational scheme." James understood the problem with intellectualism, is the need to pin something down, as a fixed, permanent thing, and the farther we push it down the path of conceptual definition, the farther and farther removed it is from perceptual experience, which is movement, flux, variety, change – in other words, *impermanence.*

But intellectualism quickly breaks down. When we try to exhaust motion by conceiving it as a summation of parts *ad infinitum*, we find only insufficiency, Although, when you have a continuum given, you can make cuts and dots in it *ad libitum*, enumerating the dots and cuts will not give you your continuum back. The rationalist mind admits this; but instead of seeing that the fault is with the concepts, it blames the perceptual flux. (p. 247)

The Buddhist schools, on the other hand, understood impermanence, motion, flux, and change as *the first noble truth*; and the direct ascertainment of subtle impermanence as a sign of the highest instance of direct perception. In the Gelukba's framework, impermanent things fully appear to direct perception, and permanent things are apprehended by conceptual thought. (Klein 1998) Furthermore, what makes the things apprehended by conceptual thought, *permanent*, is not that they themselves are lasting and eternal, as thoughts come and go just like everything else in the phenomenal continuum. What makes them "permanent" is their ability to affix a single, *unchanging* generalized category, onto phenomena that are otherwise always undergoing continuous change – regardless whether that change is observable or imperceptible. Consider, for example, the category "chair." The conceptual mind is happy to stick with this term, regardless of whether the chair has three legs or four, undergoes multiple replacement parts, is constructed ad hoc by a convenient stump on the side of the road, or is displayed as an image on a screen.

Despite these dramatic differences, the word *chair* remains the same. The instances of all the "chair" themselves is never *specified*, but only *generally* characterized.

In the Gelukba's view, conceptions are valuable because they are essential tools for overcoming ignorance. And yet, our primary ignorance results from not recognizing the generalizing, categorizing, static and reifying nature of conceptual thought. *This too can be directly perceived*, through non-conceptual meditative awareness of the thought processes. By which faculties does the EBMB perceive the nature of its own mind? By lowering the threshold of consciousness such that one can follow the cutting, carving, chunking processes of thinking. Through meditative training, accessing flow states, and "happy accidents" awareness is able to access the deeper body-world interfaces where impermanent perceptions flow. That path to where knowledge is liberated from ignorance, requires that the subtle impermanence of even the most fundamental things, is cognized in a non-conceptual way.

In the Gelukba system, each perceptual organ is understood to be its own consciousness – eye consciousness, ear consciousness, taste consciousness, etc. These are said to be hampered by their lack of ascertainment. The mind also has its own consciousness, which is said to be "hampered by a lack of specificity." Yet, according to the Sautrantika view, each type of consciousness – sensory and mental – are ultimate consciousnesses when *directly perceived*.

To perceive directly means to "engage with the entire collection of features," in other words, to be aware of the ecological field of participation, from world to thought and back again. In doing so, we see that conceptual thought is not the omega point of conscious arising. Rather it is just another node in a continuous network of flow.

A conceptual thought, which is an object of mental consciousness, takes on the *appearance of standing in for the whole*, but the individual who perceives the experiential flow knows otherwise. Each thought is an iota, a grain of sand in an endless desert, whose shape constantly shifts in the eternal winds. An ultimately valid knowledge would be simultaneous awareness of the grain (the perceptual data) the desert (the generalized whole), and the shifting winds (the process of cognizing whole experiences).

An ultimately valid object – whether it be a thing, a feeling, a thought, a concept – would therefore be defined as a "set of direct perceptions that satisfy a duration of mind." The duration of mind might remain below the threshold where the hylozoic zone emerges from the world, and as such remain simply, world. The duration of mind might extend all the way through the formative processes of the fully articulated, self-reflective I-me-mine. The duration of mind might extend into the spaces that overlay the ecological field of participation, constituting novel states of experience. This notion of duration, is complementary to the Gelukba's emphasis on the process nature of consciousness (Klein 1998).

> Conceptual thought and direct perception can operate simultaneously, but they are not established or initiated simultaneously with respect to the same object.
>
> In the first moment of seeing an impermanent object such as a tree, direct perception – the eye consciousness – is active' then there is a moment of mental direct perception, which cannot be noticed by ordinary persons. Following this, conceptuality begins to operate. Thus, in the first period there is only direct, clear perception by the eye consciousness; once conceptuality begins, it operates simultaneously with subsequent moments of direct perception. This means that while the eye consciousness, for example, is apprehending the specific characteristics of its object, the thought derived from that eye consciousness superimposes a meaning generality onto that object. (p. 130)

"By understanding the profound compatibility between thought and insight," writes Klein (1998) one can have confidence that what begins as a mere echo of sound in the mind can progress to actual direct experience." The model of perception as ecological overlay, is offered to echo this sound, and to help build confidence. Integral phenomenology, as a method of unpacking experience through the examination of everyday ordinary affective, perceptual and conceptual phenomena, is offered as a "good enough" starting point, since, as Klein tells us, the Gelukbas emphatically believed: “The starting point is precisely the ordinary type of conceptuality and direct perception one now has.”

Part V: Concluding Remarks

Perception is a key domain of experience, yet it is hardly ever the focus of contemporary awakening practices, which have emphasized the affective and virtual domains (usually prioritizing the former, and prejudicing the latter)[13]. In both the eastern traditions and western science and philosophy, the emphasis has been on calling perception into question. In the process we have de-realized the world, and pushed it forever out of our reach. The core theme of this paper is that perception, as direct participation is perfectly attuned to the world, because it is something that the world does, in mutual participation with us. Error, confusion, deception and bias all result from a lack of adequate participation. Fully realized, authentic participation results in the experience of enhanced, direct perception of the rich, abundant, vivid display of reality, and a keen insight into our place in this sacred world. There is a sense of re-enchantment with the world. The philosopher Roy Bhaskar (2002) hoped that this kind of re-enchantment would set humans on a new course toward helping each other flourish and helping the planet to thrive. Our ability to perceive the deep continuity of body and mind, world and body, and mind and world are key to this journey away from destruction and toward regenerative practices.

In this paper I have introduced the notion of perception as an ecological overlay and a simple set of heuristics to illustrate them. The illustrations enable us to point to “What are we participating with” for any perceptual experience in different states of consciousness. Here the notion of what is hyper-active and hypo-trophied, what parts of perceptual experience are amplified, and which are attenuated, what is online in consciousness and what is offline, what is part of the I-me-mine self complex and what remains subthreshold to self consciousness – and how all these phrases ultimately point to complex neural processing systems, comprised of parallel subsystems, function as “neural gates” through feedback-feedforward, excitatory and inhibitory-dis-inhibitory relationships in the body-brain. I have introduced the notion of the EBMB, the embodied-body-mind-brain and the organs of perception as a useful way of conceptualizing the complex interactive and overlapping dynamics of perceptual experience.

This term “EBMB” underscores the overlapping of the world and body, hence “embodied body”, the overlap of mind and brain, hence “body-mind”, and the overlap of the mind and the physical brain, hence “mind-brain.” The brain, being a physical organ, represents the physical world, and completes the ecological circle. The heuristic of ecological overlay enables us to use language that is more nuanced and reflects the subtle distinctions in perceptual experience, beyond the coarse categories “body,” “mind,” “world.” In this way we are better able to talk about new areas of interest: how affordances are situated in the world and are revealed through insight; the distinction between body schema and body image; the hylozoic zone and bodily space; the allocentric and egocentric systems in object-space; among others. Furthermore, I have shown how and where all these "hybrid dimensions" can be further extended into a larger and larger perceptual field. The heuristic gives us an easy way to map the kinds of phenomena that happen in these zones of extension, such as virtual bodies, extended mind and enhanced perception (*kensho*). These zones of extension can be helpful in mapping the territory of non-ordinary states of experience. An adequate theory of perception must accommodate all of them.

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[13] Before writing this paper I had been exposed mostly to contemporary western spiritual communities who practiced a sort of “watered down Buddhism” with post-modern overtones. Recently I have been exposed to a handful of practioners who represent both modern approaches while adhering to traditional insight practices that focus on the core teachings around perception (sensations).

A "good" theory orients us toward the direction of a correct view, where direct perception arises with the experience of an adequate participation with reality. (Roy 2014) In this sense, we might consider the Gelukba Sautrantika system a "good" theory. Any new theory of awakened perception must pass its strict examination, and few western theories of perception have complied with its view. On the other hand, the Sautrantika system does not pass the test of our modern scientific understanding which continues to expand the field of our knowledge about perceptual participation. I hope that integral phenomenology, which integrates direct experience with a scientific curiosity, can help bridge these gaps.

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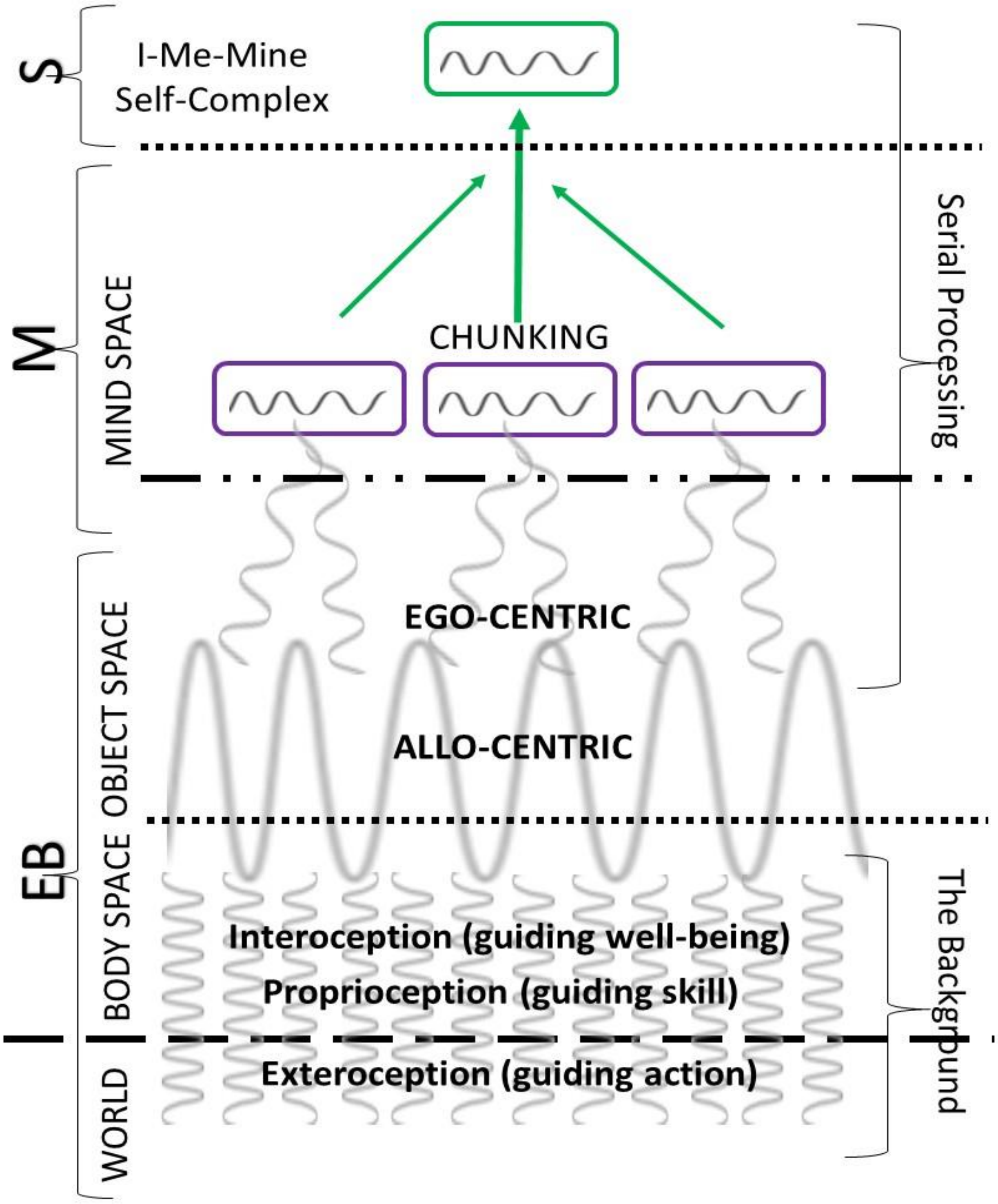
APPENDIX A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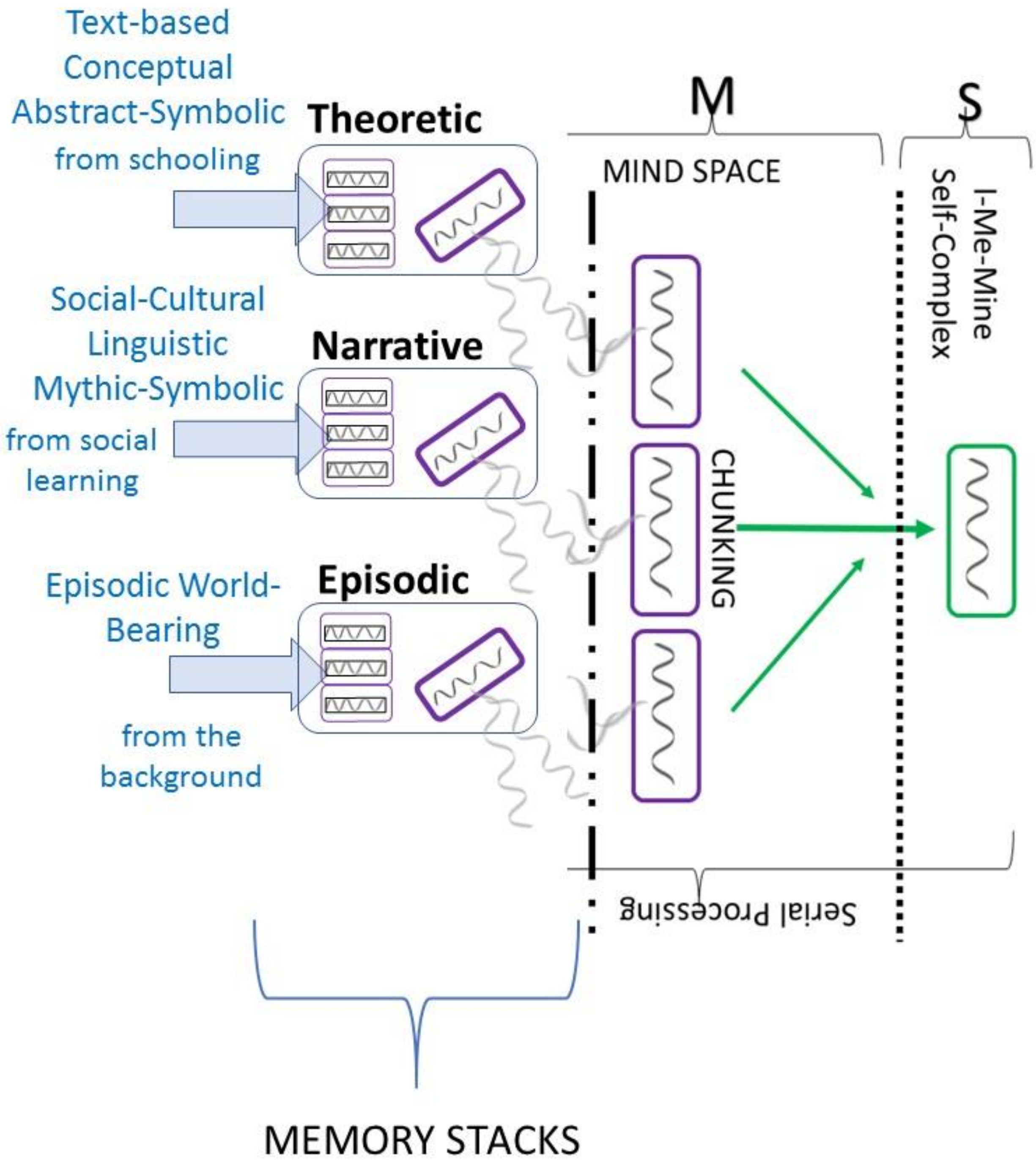
I-Me-Mine
Self-Complex
M
MIND SPACE
CHUNKING
Serial Processing
EB
OBJECT SPACE
EGO-CENTRIC
ALLO-CENTRIC
BODY SPACE
Interoception (guiding well-being)
Proprioception (guiding skill)
The Background
WORLD
Exteroception (guiding action)

Appendix B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from schooling
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from social learning
Narrative
Episodic World-Bearing
from the background
Episodic
M
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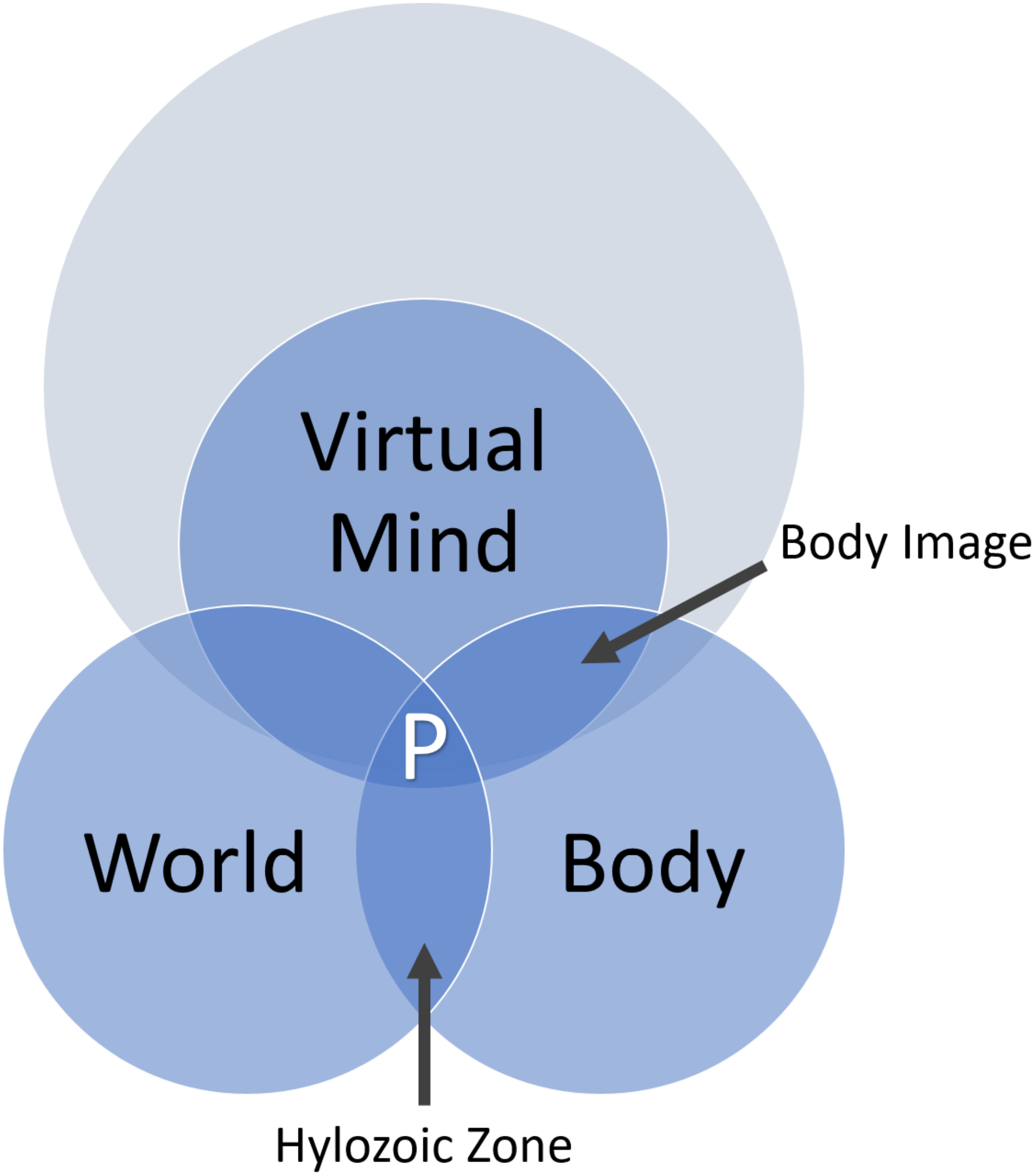
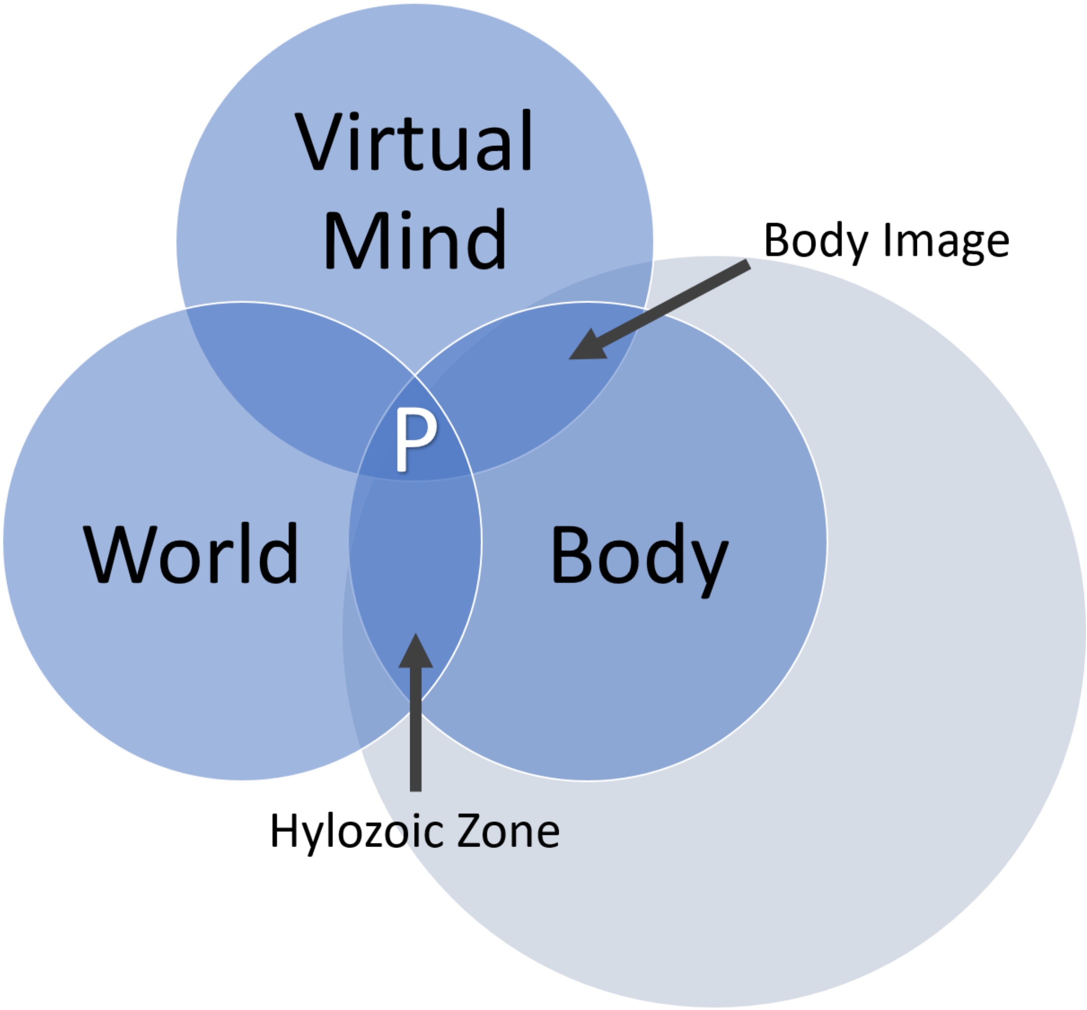
MIND SPACE
I-Me-Mine Self-Complex
CHUNKING
Serial Processing
MEMORY STACKS

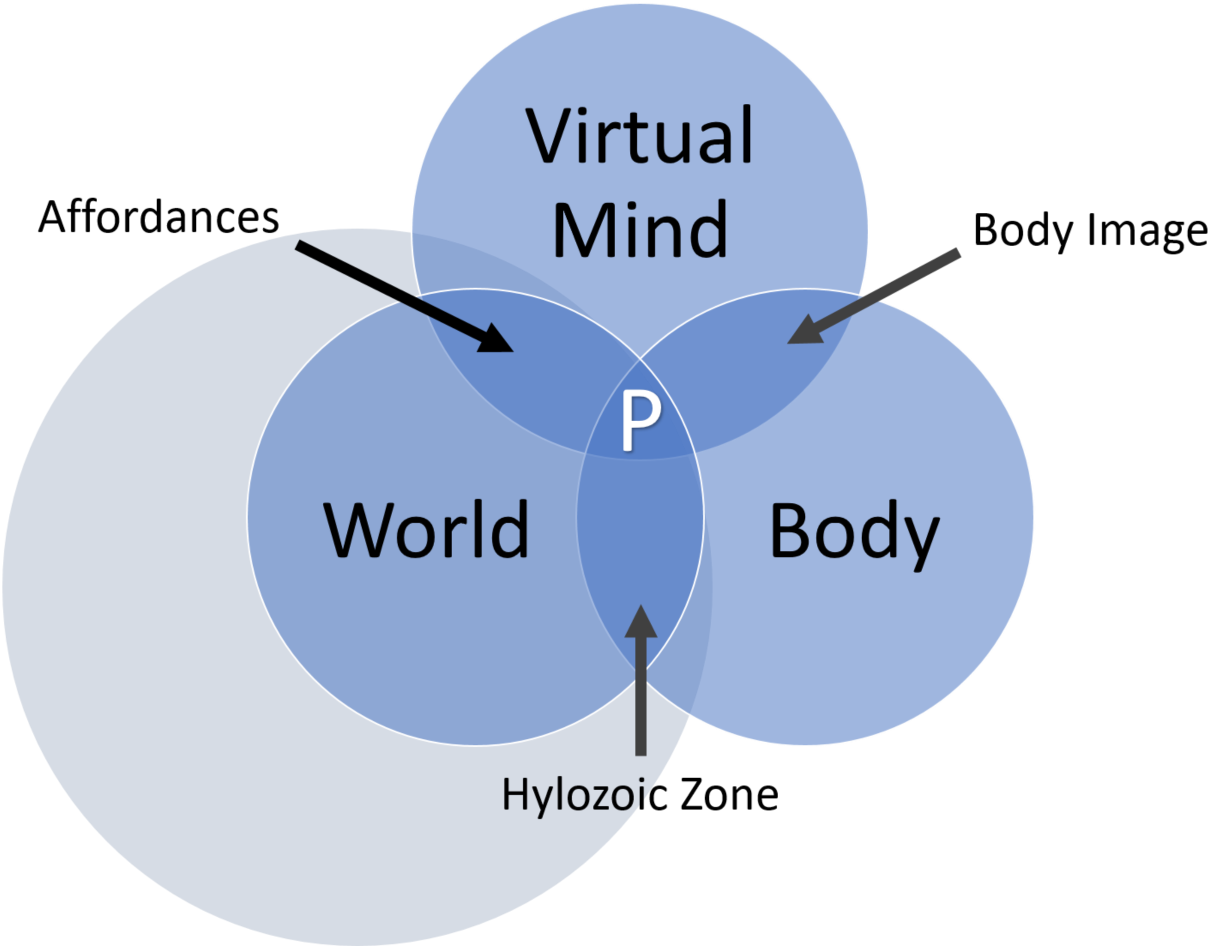
Appendix C


Virtual
Mind
Body Image
P
World
Body
Hylozoic Zone

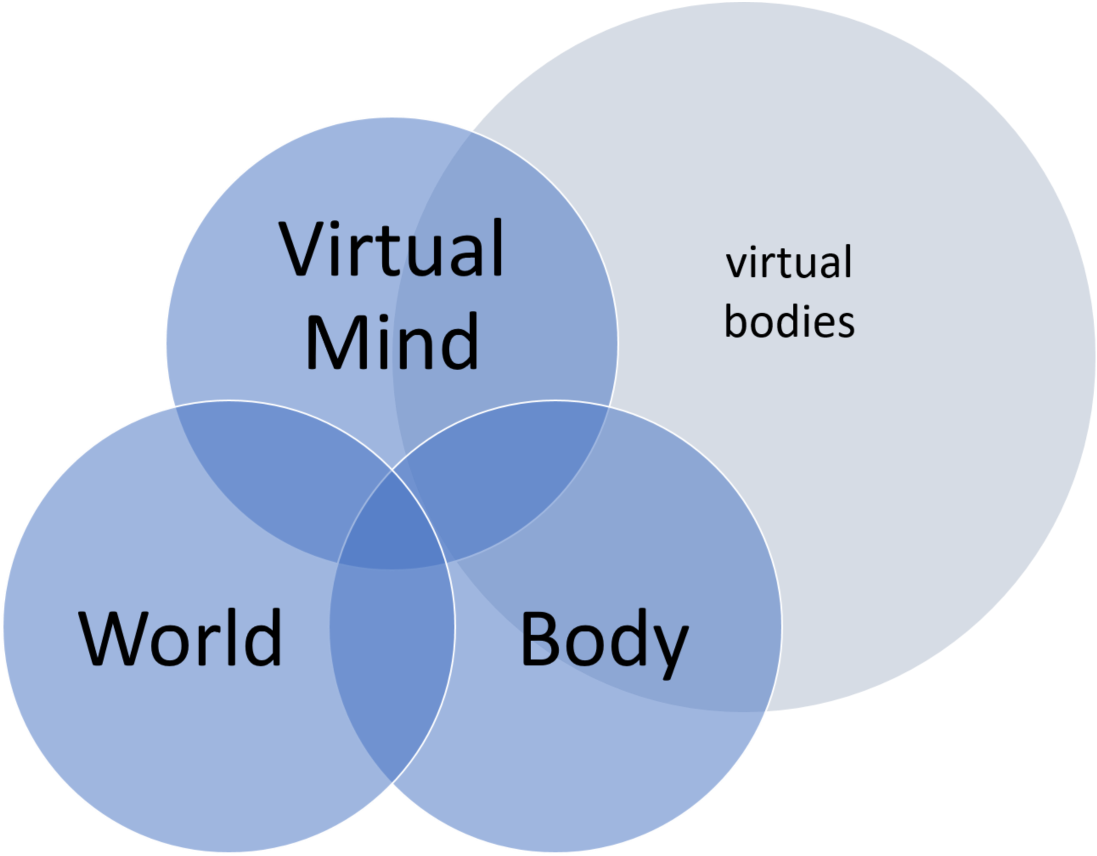
Appendix D


Virtual
Mind
Body Image
P
World
Body
Hylozoic Zone

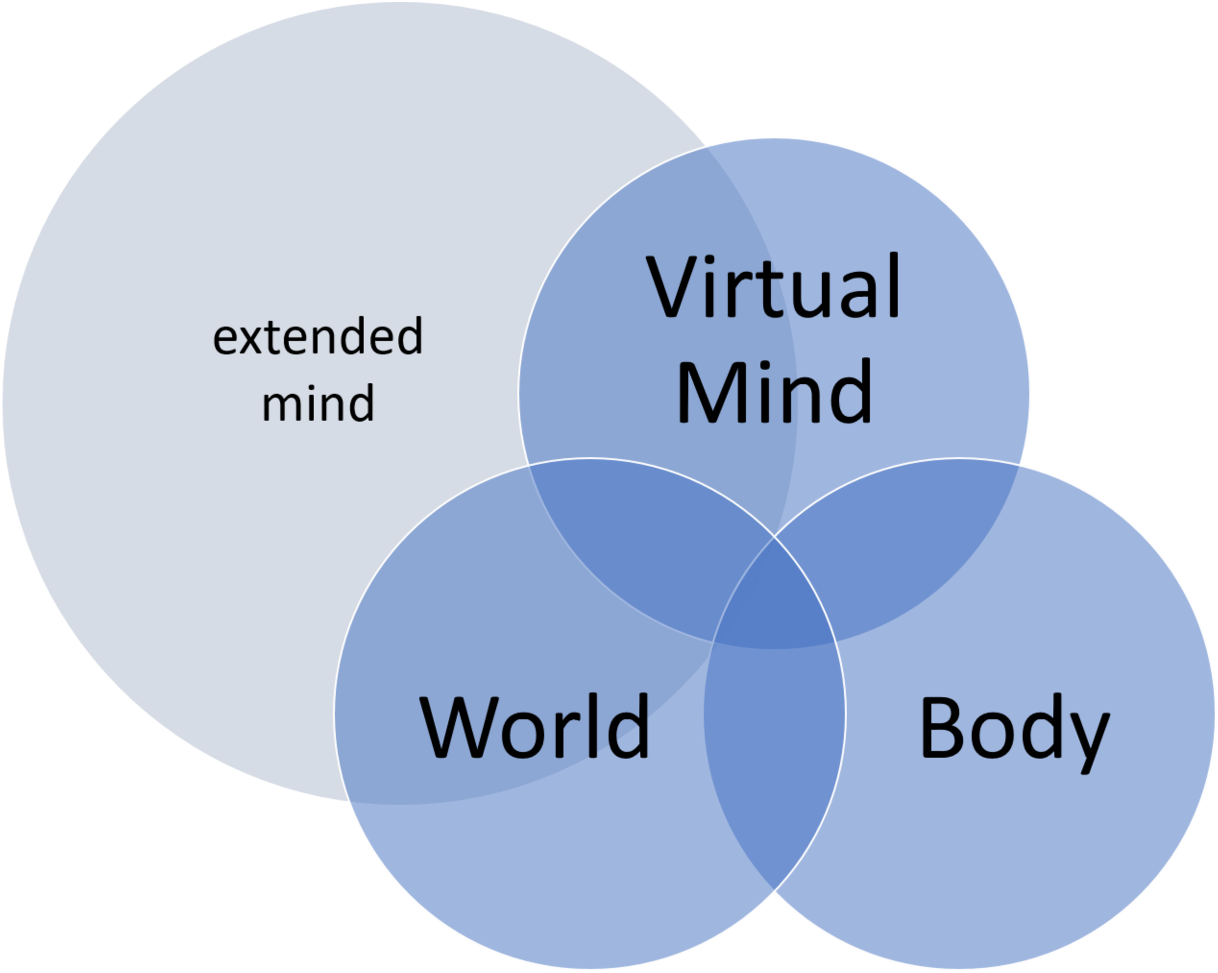
Appendix E


Virtual Mind
Affordances
Body Image
P
World
Body
Hylozoic Zone

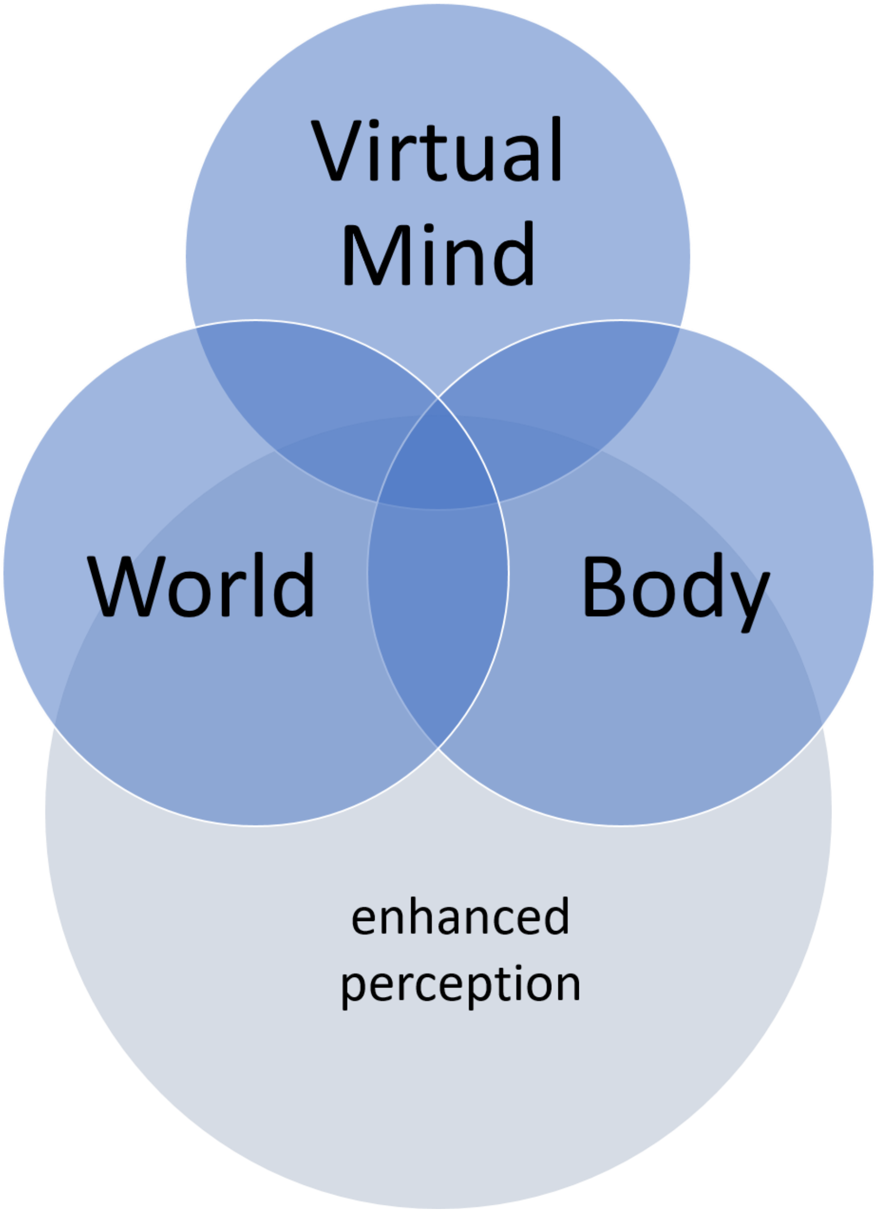
Appendix F


Virtual Mind
virtual bodies
World
Body

Appendix G


extended mind
Virtual Mind
World
Body

Appendix H


Virtual Mind
World
Body
enhanced perception

Appendix I

Andy Clark's Theory of Ecological Assembly

The Three Threads

1. **Spreading the Load.** The body and brain, thanks to evolution and learning, are adept at spreading the load. Bodily morphology, development, action and biomechanics, as well as environmental structure and interventions, can reconfigure a wide variety of control and learning problems in ways that promote fluid and efficient problem solving and adaptive response.
2. **Self-Structuring of Information.** The presence of an active, self-controlled, sensing body allows an agent to create or elicit appropriate inputs, generating good data (for herself and for others) by actively conjuring flows of multimodal, correlated, time-locked stimulation.
3. **Supporting Extended Cognition.** The presence of an active, self-controlled, sensing body (a) provides a resource that can *itself* act as part of the problem-solving economy and (b) allows for the *co-opting* of bioexternal resources into extended but deeply integrated cognitive and computational routines.

Hypothesis of Cognitive Impartiality

Our problem-solving performances take shape according to some cost function or functions that, in the typical course of events, accord no special status or privilege to specific types of operation (motoric, perceptual, introspective) or modes of encoding (in the head or in the world).

Hypothesis of Motor Deference

Online problem solving will tend to defer to perceptuomotor modes of information access. That is, we will often rely on information retrieved from the world even when relevant information is also neutrally represented.

Late Stages of Adult Development: One Linear Sequence or Several Parallel Branches?

Thomas Jordan[1]

Introduction

This text is intended to serve as a starting point for a discussion about the nature of late forms of adult development. It is primarily of interest for readers who are familiar with one or several stage models, such as ego development stages and hierarchical complexity levels. The basic proposition (to be critically scrutinized) is that frameworks that describe adult development as a linear sequence of stages defined by one core variable (such as hierachical complexity or ego structures) do not accurately represent the diversity of the "higher" or "late" forms of adult development.

Most theorists of late stage adult development advocate one particular theoretical framework, such as Commons' Model of Hierarchical Development, Dawson's Lectical Assessment System, Cook-Greuter's elaboration of Loevinger's ego development theory, Kegan's orders of consciousness, Jaques' Complexity of Information Processing framework or O'Fallon's StAGES model. Ken Wilber (see e.g. Wilber, 1999) is a notable exception, using the notion of different lines of development and the distinction between structure-stages and states to build a very differentiated conceptual framework for understanding the nature of consciousness development. Otto Laske (2006, 2009) is another theorist who advocates the need to differentiate between different domains of development that might develop at different paces, such as socioemotional development (Kegan) and various aspects of cognitive development (Basseches, Bhaskar, Jaques and King & Kitchener).

Scholars focussing on the complexity aspect of adult development have generally ignored to consider the phenomenon of "spiritual awakening" or "enlightenment" as possibly relevant to understanding higher forms of adult development. Since this theme is probably quite foreign to many scholars in the adult development field, I will make an extra effort below to point to the potential insights that can be gained from considering empirical research on this phenomenon.

I hope to entice more adult development scholars with different theoretical orientations to consider what can be learnt when different frameworks are compared and contrasted against each other, thereby also challenging implicit or explicit assumptions that late stage adult development can be accurately understood in terms of a single line of development.

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This paper has three main parts. The following section briefly discusses a number of key concepts that I feel are needed in order to have a differentiated discussion of the nature of late stage adult development. After that, I will present a number of tentative but somewhat incisive propositions to be critically reviewed and discussed. The last main part sketches 5 prototypical late stage profiles of individuals that cannot easily be assigned to different stages in a linear developmental stage framework.

Key Concepts

It is necessary to define terms in order to be able to meaningfully discuss the complexities of adult development and spiritual awakening. This is a bit tedious, but it is a precondition for developing more clarity. Actually, I believe we need quite a few key concepts that represent various aspects of development. Here is my selection.

High ***cognitive complexity*** refers to the demonstrated capacity of a person to form mental representations of complex relationships between concepts and to make use of concepts at high levels of abstraction in order to resolve complex tasks. Levels of cognitive complexity can be defined, described and measured by analytical frameworks like Michael Common's MHC (the Model of Hierarchical Complexity; Commons, 2008; Commons & Richards, 1984; Commons et al., 1998), Kurt Fischer's skill theory (Fischer, 1980; Fischer & Bidell, 2006), LAS (the Lectical Assessment System, based on Fischer's skill theory; Dawson & Gabrelian, 2003; Dawson & Wilson, 2004) and Elliott Jaques' CIP/CMP (Complexity of Information/Mental Processing; Jaques & Cason, 1994). MHC, for example, describes levels of hierarchical complexity, such as Concrete, Abstract, Formal, Systematical, Metasystematical, Paradigmatical and Crossparadigmatical. It should be pointed out that scholars operating with hierarchical complexity frameworks usually do not assume that individuals are "at" a particular stage. An individual's performance can vary depending on domain, degree of scaffolding and other variables. There are large similarities between the frameworks mentioned above, but also some significant differences. The main difference between MHC and LAS is that the latter framework refers to tiers, which are defined by the levels of abstraction of the objects people use when reasoning. A rather different framework for describing and analysing cognitive complexity is the typology of forms of dialectical thinking formulated by Michael Basseches (1984) and elaborated by Otto Laske (2009). This framework focusses post-formal reasoning using a typology of thought forms. The emphasis is not on stages/levels, but on the extent to which a subject considers factors relating to context, processes, relationships and transformation.

Complexity awareness refers to awareness of and expectation that there might be many varying conditions, causal relationships, system properties and other factors that influence a particular issue or task (Jordan, 2011; Jordan et al. 2013). Weak complexity awareness means that a person is simply not aware of the possibility that there might be significant complex conditions that impact a certain issue. Strong complexity awareness means that there is an expectation (or pre-understanding, German *Vorverständnis*) that there can be complex conditions, explanations and consequences related to, for example, a particular task. Strong complexity awareness does not necessarily imply a high level of individual capacity for forming very complex mental representations and solutions to complex tasks. Sometimes it means a recognition that it will be impossible for the individual to gain knowledge of and coordinate all factors and systemic interrelationships that need to be taken into consideration. The person will then engage in action with an awareness that knowledge is very incomplete and/or will be motivated to build networks of actors that can generate collective capacity to deal with complex issues by drawing on diverse competences and sets of knowledge.

Strong perspective awareness refers to metasystematical reasoning applied to recognizing, comparing and using complex systems of notions (such as concepts, problem formulations, assumptions of causal relations and values), i.e. perspectives (Jordan, 2011; Jordan et al. 2013).[2] A person with a strong perspective awareness is able to take his or her own interpretive system as an object of reflection, recognizing how the properties of the interpretative perspective one is using condition what awareness focusses, how issues are thought about and patterns of making judgments. This leads to a rather low propensity to identify exclusively with a particular perspective (e.g. an ideology, a belief system, a discourse) on the one hand, and interest in using the contributions of alternative perspectives for a richer understanding of issues on the other hand. People with a strong perspective awareness recognize the constructed nature of all systems of meaning-making and can, at least to some extent, recognize the partial nature of their own favoured perspective. Examples of this can be to admit that one's own perspective is ill equipped to perceive certain aspects of reality, has blind spots in terms of circumstances that are marginalized by way the perspective foregrounds particular ideas and relationships and makes use of a large set of concepts that inevitably conditions how reality can be represented.

The ***ego development*** frameworks (following Loevinger and Kegan respectively: Loevinger, Loevinger, 1976; Hy & Loevinger, 1996; Cook-Greuter, 2010; Kegan, 1994) describe how individuals develop through a sequence of more or less universal stages, from birth through childhood and adulthood. Ego development theory describes a person's ego as a structured whole that develops as an integrated system through a linear sequence of stages. Jane Loevinger's ego development framework was built through pattern recognition in sentence completions and is more descriptive of salient patterns than explanatory. The stage descriptions include not only the *structure* of cognition, as in MHC and LAS, but also degrees of differentiation of the language used and shifting patterns of preoccupations in different stages, i.e. the *contents* of cognition. Robert Kegan's subject-object theory focuses the shifts in relationships between a self that is reconstructed in several stages on the one hand, and what this self can take as objects of awareness. At each new stage a reconstructed self gains more capacity for actively regulating elements of experience. The ego development theorists who have explored late ego development stages emphasise the roles of construct awareness (Cook-Greuter, 2010) and self-awareness/witnessing (Joiner & Josephs, 2007; O'Fallon et al., forthcoming; Murray, 2017) in forming the characteristics of the late stages.

Construct awareness refers to the awareness of the constructed nature of language, representations of experience and generally to people's meaning-making (Cook-Greuter, 2010). A person with a highly realized construct-awareness is aware that thoughts, judgments, narratives, feelings, images, etc. are products of a process of assigning meaning that depends on the person's conditioning through, for example, biographical experiences and collective constructions of meaning permeating the social environment one is embedded in.

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[2] The concept is closely related to Ken Wilber's use of the term "vision-logic" in later works.

Self-awareness and ***self-witnessing*** are related concepts. The notion of self-awareness has been assigned different meanings in the literature. Here it refers to real-time awareness of internal processes, such as perceptions, emotional reactions, thoughts, judgments, desires, impulses, etc. (Jordan, 2001). A person with a highly developed self-awareness notices and can reflect on emerging thoughts, interpretations and feelings as they happen. Self-witnessing goes one step further and refers to a stable ability to witness upcoming internal events without being compelled to react and act in certain ways. Another way of putting it is that there is a fundamental acceptance of whatever transpires in the sense of not resisting the actuality of what happens (which does not imply that one doesn't take action when action is needed). The concept "witnessing" covers a broad range and can occur occasionally at rather early levels of ego development. A comprehensive and stabilized capacity for witnessing is intimately linked to the establishment of a more permanent self identification with the witnessing position. Mental and emotional processes are then perceived as events happening in the bodymind, but the self has a considerable freedom to make decisions about how to relate to those events.

Meta-awareness refers to awareness of awareness, i.e. a recognition that awareness as such can be differentiated from the contents of one's awareness field (Jordan, 2001; Kelly, 2015; Spira, 2017). Strong meta-awareness means a direct experience of the quality of "pure awareness", that there is a position for awareness that is not affected by the specific contents of awareness. Pure awareness is experienced to be unchanging, independent of time and space, empty but still a living presence without boundaries.

Spiritual awakening or ***enlightenment*** involves a profound shift in the nature of the sense of self, where the self is no longer identified as a separate self with a boundary to the environment and other people (Adyashanti, 2009; 2011; Culadasa et al., 2015; Frazier, 2012; Martin, 2012; Ullman & Reichenberg-Ullman, 2001; Young, 2016). The self is identified as a ***pure awareness self*** felt as boundaryless (ego dissolution), at one with everything, not separate. This can be associated with a very intense experience of well-being and sometimes an ecstatic sense of unity with everything. When thoughts and feelings occur there is no "I" they belong to. Spiritual awakening, at least in many cases, seems to be connected with (maybe also in some sense caused by) neurological changes in how the brain operates, e.g. deactivation of some brain subsystems and activation of other brain subsystems. This might explain why spiritual awakening can be a sudden event, rather than, as with ego development, the result of a slow process of gradual development.

Temporary "mystical experiences" can relatively reliably be induced by psychedelic substances (particularly LSD and psilocybin) under certain conditions (Barrett & Griffiths, 2018; Carhart-Harris et al, 2014; Griffiths et al., 2006; Liechti, 2017). A mystical experience typically includes the following qualities: A sense of boundaryless unity with something far greater than the individual self; a sense that everything is made up of one and the same consciousness; a very strong sense that one has encountered ultimate reality; an experience of sacredness; intense positive feelings of awe and well-being; and an experience of transcending boundedness in time and space (Barrett & Griffiths, 2018; Stace, 1960). Recent research using modern techniques for measuring brain activity under influence of psychedelic substances indicates that the experience of ego dissolution is connected with deactivation of the "default mode network", a network connecting different parts of the brain that plays a central role in continually constructing a narrative that allows the sustaining of a coherent sense of self (see e.g. Nour & Carhart-Harris, 2017). Studies have shown that various forms of meditation are associated with similar shifts in patterns of brain activity as induced by psychedelic drugs (see eg. Brewer et al. 2011). Temporary ego transcendence experiences are as such of little relevance here, however, the mode of experiencing the self and the world in mystical experiences is very similar to the experiences reported by persons who have attained persistent states of spiritual awakening, i.e. persons who experience themselves as enlightened. DiPerna (2014), referring to Brown (2006), uses the concept *vantage point* to denote the anchoring positioning of the self-sense in relation to the outside world and inner experiencing. Spiritual awakening is here understood as a durable shift in the self's vantage point, e.g. from being embedded in a separate ego, to identification as a pure awareness self.

In the practice-oriented literature on enlightenment there is often mention of the difference between the "gradual" and the "sudden" path to enlightenment, where the former emphasizes the need for disciplined training over a long time period as a prerequisite for spiritual awakening, while the latter refers to enlightenment as a sudden, spontaneous and radical shift. There are numerous accounts in the literature of individuals who had sudden enlightenment events with dramatic consequences, for example by Eckhart Tolle and Sat Shree. Some of these individuals needed several years of adaption to their now very different mode of experience before they could function in a stable way. The existence of such sudden shifts fits well with recent brain research that indicates that spiritual experiences are linked to deactivation and activation of certain networks in the brain.

Lasting shifts in the experience of self and world of the kind described in this section have documented beneficial effects that can be interpreted as development of maturity: a stable sense of well-being, liberation from embeddedness in emotions generated by past negative experiences, a strong decrease of self-referential thoughts (such as preoccupation with how one is perceived by others or a self-narrative as a victim) and a radical weakening of the need for ego defense mechanisms (see e.g. Martin, 2012).

Propositions

In the interest of keeping this reasonably brief, I have formulated a number of propositions about how the different aspects of development are related to each other. These propositions take the form of assertions, but they are just statements of my current beliefs, rather than truth claims. I invite you to critically review and discuss these propositions.

1. Late ***ego development*** stages are not defined by increasing ***cognitive complexity***.

The development of cognitive complexity is strongly correlated with the stages of ego development up to and including the stage Autonomous/Strategist (E8). Key properties of the ego development stages can be related to and explained by levels of cognitive complexity. However, this does not go for cognitive complexity in general, but specifically for complexity in cognition relating to the interpersonal (social) and intrapersonal (psychological) realms. Cognitive complexity in relation to the external non-human world is only weakly related to ego development. A person can be capable of highly complex reasoning about, for example, technical issues and still be scored at one of the conventional ego stages. The ego stages beyond Autonomous/Strategist are *not* generated by increasing complexity of cognitive operations, but by increasing ***construct awareness*** and, in the latest stage(-s), ***meta-awareness*** and an increasingly stable shift of the identification of the self sense to the pure awareness position.

2. ***Spiritual awakening*** is more or less independent of ***cognitive complexity***, ***complexity awareness*** and ***perspective awareness***.

Many individuals who are genuinely spiritually awakened have a weak perspective awareness and don't engage in highly complex mental operations, such as MHC's metasystematical, paradigmatical and crossparadigmatical levels of complexity. Weak perspective awareness can, for example, show up in the form of firm beliefs in the correctness of one's own particular belief system and discourse about the nature and patterns of spiritual awakening (enlightenment) and a corresponding categorical dismissal of alternative discourses.

3. People can have a very high level of ***cognitive complexity*** without having a strong ***perspective awareness***.

People can have the capacity of grasping and interrelating multiple systems of ideas without being able to reflect on the limitations of their own systems of meaning-making. However, metasystematical cognition (an ability to reason about and interrelate properties of systems) is a precondition for fully realized perspective awareness.

4. People can have a strong ***construct awareness*** without having a strong ***perspective awareness***.

This means being strongly aware of the constructed nature of thoughts, judgments and narratives, and therefore being able to take them as objects of a witnessing self that has a degree of freedom in deciding how to relate to the constructs, while at the same time *not* having the capacity to recognize the systemic nature of perspectives and actively using an awareness of properties of different perspectives for gaining insight and resolving complex tasks. Perspective awareness requires capacity for systems reasoning.

5. The phenomena referred to by the concepts ***spiritual awakening*** and ***construct awareness*** are related but not identical.

People can develop a high degree of construct awareness without having the profound direct experience of there being no self that is characteristic of genuine spiritual awakening.

6. The phenomena referred to by the concepts ***spiritual awakening*** and ***meta-awareness*** are also closely related but not identical.

People can have a firm experience of pure awareness (the quality of awareness apart from its changing contents) without experiencing the cessation of being a separate self.

Five Prototypical Late-stage Awareness Profiles

In this section I outline five different prototypical awareness profiles for individuals that could be argued to display late adult development patterns. The argument is that these profiles are examples of patterns that cannot comfortably be assigned to different stages in a unidimensional sequence of developmental stages. The table below gives an overview of the five cases.

Table 1: Five examples of different late-stage awareness profiles

	Cognitive complexity	**Perspective awareness**	**Construct awareness**	**Self-awareness**	**Pure awareness self**
Person A	Strong	Weak	Weak	Weak	Weak
Person B	Strong	Strong	Strong	Moderate	Weak
Person C	Weak	Weak	Strong	Weak	Moderate
Person D	Weak	Weak	Weak	Strong	Moderate
Person E	Weak	Weak	Strong	Moderate	Strong

A: Strong cognitive complexity. A is someone who is capable of perceiving and reasoning about complex systems, processes and how multiple dynamic systems interact and evolve. However, A's construct and perspective awareness are weak, A does not reflect on how the properties of A's own system of interpretation leads to selective perception, to foregrounding of some issues and backgrounding of others, and to a tendency to make use of a selection of concepts and causal principles when interpreting issues. Since A indeed has a strong capacity for perceiving and reasoning about complex interrelationships, A has reason to have confidence in A's own judgments. This confidence in combination with weak perspective awareness leads to a strong identification with A's perspective and, at best, a weak interest in alternative perspectives. At worst, A will actively dismiss the relevance of alternative perspectives without really trying to consider what might be valid insights offered.

A weak capacity for witnessing from a position outside identifications means that the sense of self is firmly embedded in a system of convictions.

B: Strong perspective awareness. B is a person whose meaning-making includes systematical and metasystematical reasoning. B is aware of dialectical interdependency and systemic causation, and therefore expects, inquires into and makes use of systemic conditions and processes. But B also directs the capability for grasping complex systems towards understanding the properties of perspectives. Not only perspectives "out there", but also B's own perspective. B is aware to some extent of how the properties of B's own perspective leads to selective attention and a pattern of foregrounding and backgrounding that follows from the particular patterns of the discourse system used to form the perspective.

B has, in a sense, a certain level of construct awareness. However, this applies mostly to being able to recognize that meaning-making *systems* are constructed. B has not developed a keen familiarity with the pure awareness position and is therefore also not identified as a witness self, but rather as a dynamic, complex self system with views and values, even though these are held with a great deal of lightness and flexibility.

C: Strong construct awareness. C is keenly aware that our concepts, images, narratives and even feelings and desires are constructed. C recognizes that the meaning assigned to mental representations is highly conditioned by both socially constructed meaning, and accumulated meaning-making patterns throughout a person's biography. This construct awareness has loosened up C's attachments to convictions and opened up space for the emergence of a witness self.

However, C's cognitive world is made up of mental representations on the concrete, abstract and formal MHC levels. There is little consideration of systemic connections, processes and structures. C does not have the cognitive skills required for roles that include managing complex tasks with a long time frame and overviewing and coordinating complex systems.

C is also not someone who has developed a keen interest in turning attention inwards, towards the details of the continuous stream of thoughts, emotions, desires and impulses generated in C's bodymind. C is therefore not very mindful in taking responsibility for C's own reactivity in social situations.

D: Strong self-awareness. D has a keen ability to notice internal processes, such as generation of emotions, evaluations, thought threads, interpretations, reactive impulses, desires, etc. This has lead to a certain degree of freedom in relation to those processes, and hence the beginning of a witness self. However, D has not developed the more complex forms of cognition, does not expect and operate with systems cognition and is not able to reflect on and make use of properties of different perspectives. D is not able to take own patterns of meaning-making, the systemic properties of D's perspective, as objects for reflection, and is therefore subject to them.

E: Pure awareness self. E has gone through a process of shifting what the self-sense is identified as, from identification with a separate self made up of convictions about the self and the world to an identification as pure awareness. This means that E doesn't have any substantial need for defense mechanisms that protect the coherence of the ego, and therefore no need to manipulate other people into supporting own ego needs.

E is well aware of the constructed nature of thoughts, narratives and emotions. However, when E has to engage in problem-solving or talk with other people about complex issues, E still has to use a perspective made up of concepts and convictions. This perspective is not essential to E's sense of identity, but since E does not have the capacity to recognize and reflect on the systemic properties of perspectives, E will easily fall into a strong belief in the correctness of E's own views.

E's identification as pure awareness does not mean that E has a keen mindful contact with the stream of thoughts, impulses and emotions that the body and the sum of earlier conditionings give rise to. E does also not have a well honed skill in detecting what other people feel and think, and sometimes handles social relations in unskillful ways.

The five prototypical profiles outlined above are intended to provide food for reflection rather than making validity claims. Is it reasonable to assume that such combinations as in these five examples might exist? Even if the ego development frameworks of Cook-Greuter and O'Fallon would prove to describe the most common patterns of late ego development, are there significant variations that cannot easily be assimilated into the models?

Empirical Studies

I have not been able to find more than a few empirical investigations into the correlation of different aspects of adult development, such as cognitive complexity, ego development and spiritual awakening. However, the few studies that have been made are intriguing in terms of the basic questions asked in this paper. Here are two examples:

Glenn Mehltretter (1995) studied 25 subjects by having them fill out the Washington University Sentence Completion Test and scoring interviews using Jaques' Complexity of Mental Processing model. All but two of the subjects were scored at the Self-aware and Conscientious ego development stages. Of the 11 subjects who were scored at the Conscientious stage, the CMP score varied from 2,5 to 6.75, indicating a very wide spread of cognitive complexity among people who scored at the same ego development stage.

Jeffery Martin (2010) recruited 36 individuals who self-reported a "persistent non-symbolic experience", i.e. being spiritually awakened. He let them fill out the Mysticism Scale form and the Washington University Sentence Completion Test. All participants scored high on the Mysticism Scale, confirming their self-assessment as fulfilling a range of criteria for being spiritually awakened. Their ego development scores were spread out over six ego development stages, from Self-aware to Unitive (according to Cook-Greuter's elaboration of Loevinger's framework), with 12 participants at Self-aware and Conscientious, 11 at Individualist and 13 at Autonomous, Construct-aware and Unitive, thus indicating that ego development and spiritual awakening are not correlated.

Both studies are very limited in terms of number of participants and in both cases there are methodological limitations, but they certainly indicate that there are reasons for doubting that there is a strong correlation between the three constructs cognitive complexity, ego development (in the Loevinger-based tradition) and spiritual awakening.

Conclusion

The purpose of this text is to point to a couple of questions about the validity of certain assumptions that seem to be built into some of the theoretical frameworks used to describe and explain adult development, here with particular focus on the late/high/mature forms. There were two more concrete reasons that triggered me to write these pages. One was the recurring assertion among the advocates of hierarchical complexity frameworks (MHC and LAS) that cognitive complexity is the key variable that can explain many empirical patterns of development among adults. The other was Terri O'Fallon's claims that her StAGES model can both describe and explain ego development from childhood to transpersonal forms in terms of a linear sequence of stages formed by the combination of a small number of variables. I want to invite scholars in the field to critically inquire into both views. I believe that the hierarchical complexity frameworks exclude from consideration aspects of adult development that are essential to understand the nature of late forms of development, notably self-witnessing and the transcendence of the sense of a separate self described in the literature on spiritual awakening and mystical experiences. I am also concerned that the assumption that later forms of development can be accurately represented through frameworks that describe a linear sequence of ego development stages might obscure the variability of patterns. It seems warranted to specifically inquire into the variability of developmental patterns, using a number of different analytical constructs. For some of these, quite well researched measurement instruments already exist, which could be used in combination in empirical studies in order to test correlations. However, I also believe that it would be productive to use qualitative methods, such as semi-structured interviews and 360 degree assessments, that allow for probing a broad range of indicators of different aspects of late/mature forms of adult development.

The propositions formulated in the second main section of this paper are meant as invitations to dialogues, discussions, or (though less appealing) debates about the strengths and limitations of different theoretical frameworks, including consideration of the epistemological assumptions behind the orientation in our field regarding theory construction. There is still, in my opinion, too much monological rationality and too little practice of perspective awareness in the field of adult development. Creators of theoretical frameworks often have, not surprisingly, a nomothetical bent, i.e. they strive to develop an elegant framework that explains a lot with one basic principle. The potential weakness of nomothetical scholarship is the striving for theoretical simplicity, which tends to marginalize consideration of variability. I think we also need idiographical approaches to theory-building, approaches that aim at capturing and explaining variation by constructing theoretical frameworks that flexibly can combine different variables. At the very least, I do hope that scholars will stop including tables in their articles and books where they correlate higher levels of hierarchical complexity with the late ego development stages.

Editor's Invitation

Integral Review invites you to consider submitting a response to expand the dialogue begun here. What reflections, clarifications, inquiries etc. emerge for you from reading Jordan's presentation of these distinctions, propositions and considerations? We would like to gather such responses to publish in the next issue of Integral Review.

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The Construct-Aware Stage of Ego Development and its Relationship to the Fool Archetype

Susanne Cook-Greuter[1]

This brief essay is based on a keynote and workshop held at the 3rd Integral Theory Conference in Siófok, Hungary, May 2018. It addresses the fine art of Foo-Ling, the use of laughter as a tool to lighten up our own lives and the lives of those around us. While fools and jesters can come from any stage, it is a late-stage discovery to recognize the poison of taking ourselves too seriously and its antidote: light-heartedness and delight. Let's face it, we Integralists take ourselves and our mandate to raise collective consciousness very seriously. That is why we exchange ideas and work with each other. As integralists we have much important knowledge to share. And while that is as it should be, I am here to remind us of the fool in all of us and to engage in our work with a deeper level of awareness.

Ego development theory proposes that it is a characteristic of maturity to discover that not knowing is the highest form of knowing. Foo-ling is about the capacity to recognize the folly of trying to explain and map everything. It is about truly seeing how thoroughly we tend to confuse our maps and theories with the territory.

Some of you may bristle at this notion of being a fool especially if you cherish your identification as an Integralist or expert in constructive developmental theory. The question Horace asked in ancient Rome: Who is not a fool?[2] Moreover, Shakespeare's fool Feste in act III of *Twelfth Night* had this to say "Foolery, sir, does walk about the orb like the sun, it shines everywhere."[3] Finally, we quip: "Anyone who does not wish to see a fool, should smash his mirror."

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[1] **Susanne R. Cook-Greuter** is an independent scholar who is recognized for her ground-breaking work in ego development theory and the function of language in meaning making. She has a doctorate in human development and psychology from Harvard. She is a founding member (2000) and an elder of Ken Wilber's Integral Institute and the integral community. She sees herself as a benevolent skeptic of all the certainties and beliefs espoused in the field of vertical development and transformational and approaches. At the same time, she remains fascinated by the very joys and challenges all humans face on the pilgrimage through life. From 2018 on she will delegate world-wide engagements to disseminate developmental insights and in training in tailored coaching to a group of highly committed colleagues. Instead, she will be focusing on writing the definite book on ego development and continue to do research with and about the MAP instrument.
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[2] Horace, 65-8 N.C) *Qui non stultus est?* Satires, 2.3.158

[3] http://www.william-shakespeare.info/act3-script-text-twelfth-night.htm (3.1.39-40)

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You see, you and I are in the best of company. We are all fools when we so avidly strive to gain greater insight to master our lives, reach nirvana and hope to leave traces of our greatness. As a group we tend to believe that if only everyone else could collaborate and see the world through our color-tinted glasses, then we could be saved from our self-induced global calamity both as individuals and as a species and create the longed-for better world.

I am an old fool. I have known that I can be fooled for a long time. An early rude awakening was to discover that the much-feared Santa Claus turned out to be a neighbor dressed up in Santa gear. The longer we have lived and the more we think we understand about existence, the more we need reminding of the Buddhist teaching that says: “Understanding is the ultimate illusion.”

I propose that there is a relationship between the capacity to see through the function and games of the ego and the archetype of the fool. Both show an increasing affinity for mirth and laughter. Both tend to point to all that is pretentious, self-important or takes itself too seriously.

Since time immemorial, all cultures, groups and individuals have told stories about where they come from, and who they are in relation to nature and the universe. They have explanations about why they exist and where they are headed in life and after death. From myths to grand theories of everything, storytelling seems to be a universal human characteristic.

Based on my observations, the Construct-Aware stage in ego development theory is the first in which some people begin to explore our astounding world-wide impulse to explain everything under the sun and the concomitant capacity to fool ourselves about what it means to know.[4] It’s liberating to be able to take life more lightly and to laugh at ego’s sincere and relentless efforts to cement its illusive supremacy.

What is Ego?

First, what do I mean by ego?[5] As I define it in ego development theory, ego underlies the universal drive to explain everything and make us feel safe, important, and to belong. Ego represents the striving of human beings to understand themselves and the world they live in. It is the tireless organizer, interpreter, and synthesizer of experience. Its task is to turn experience into a coherent narrative about the world. How does it do that? It does so by telling a culturally influenced story about who we are, why we are here and for what purpose.

Overall, the ego labors mightily to create and maintain meaning and vigorously defends against dissonant information and its deep, unspeakable sense of helplessness. Indeed, when we are not able to tell a good story about ourselves and our tribe, we feel anxiety and despair. Ego is invested in the denial of death, and in upholding the illusion of our immortality. Therefore, facing and embracing our finitude is part of late-stage realization.[6]

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[4] There are several adult measurement systems that equate being able to give complex explanations with human higher human performance and maturity primarily based on hierarchical complexity and skill theory.

[5] In several spiritual traditions the ego is framed as the enemy. Indeed, seekers are admonished to kill the ego. But who else but the ego itself would strive to get beyond itself?

It is at the Construct-Aware stage that one becomes aware of ego's narrative function and its cleverness at fooling us into thinking we can know and understand. Few people begin to question the function of ego and our need for myths, stories, and theorizing. Even rarer among ordinary adults, some individuals learn to look kindly at ego's tireless striving for security and preeminence while seeing through its hopeless efforts.

Construct-Aware folks are the first who potentially realize the illusion of "knowing" and the futility of trying to make ever better maps of reality. Other names for the Construct-Aware stage are Magician, Alchemist, Fool, and Jester. It is these latter two aspects of the Construct-Aware stage 5/6, that I will explore further here.

The Role of Language and Culture

Overall, human development as I describe it, moves from the newborn's unconscious union with mother to a conscious union with everyone and everything. As we grow up we construct meaning by learning the vocabulary, memes, grammar and the scripts available to us from our languages and cultures. Languages divide lived experience into separate objects with distinct boundaries and evaluative attributes. We are so totally immersed in a sea of language that we hardly notice the way it lures us into a false sense of knowledge and how it molds us into very particular notions of what is real and important.[7]

The idea of a separate self in Western cultures is just one result of this phenomenon. It is ironic that all of us have to communicate via symbols. Ironic also that concepts such as "purpose" and "soul" as well as "ego" are symbolic abstractions that do not exist outside of language and our agreed upon definitions. Yet we treat them almost always as if they were palpable, real things. We could choose to remain silent in the face of this paradox or to speak out and laugh at our dilemma while remaining conscious of the trap of speaking.

In this context, I will mainly address aspects of the penultimate stage in ego development theory, the Construct-Aware stage 5/6. The stage has several expressions: The *cognitively-focused* Construct-Aware and the more *meaning-focused* Ego-Aware. A third, more *action-oriented* form pertains to folks who bravely hold up the mirror to society and intervene in real time to debunk all forms of accepted dogma, non-sense, and pretense. The third form is the closest to the fool archetype.

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[6] In the we-space context, the ego can turn multiple "I"s into a "we" with much the same mandate: To defend against recognizing that we are mortals and live in an unpredictable cataclysmic universe. No one knows what the future will bring. Whether I or we, ego's noble task remains the same: to make us feel secure, special, and immortal.

[7] While there has been an ongoing argument whether Nature or nurture is more shaping our thoughts, the Ted talk below gives a succinct argument of differences not explainable by nature only.
Lera Boroditsky, 2017, On how language shapes the way we think
https://www.youtube.com/watch?v=RKK7wGAYP6k

The job of wise men and jesters has been to expose the blind spots of society and to unmask any emperor with new clothes since time immemorial. They often do so at the risk of their own lives as their message is rarely welcome. Gifted fools, however, can come from any stage, and yet it is at stage 5/6, that one first fully realizes there is nothing to gain or lose by pretending to know. We are just here, now, alive, on this tiny blue pebble hurtling through a vast mysterious universe. Existence cannot be explained without recourse to storytelling.

The first, the Construct-aware form of stage 5/6 understands the human need to create ever more comprehensive explanations of reality despite knowing that lived experience cannot be captured in words.

We think we are taking hold of reality when we concoct a plausible theory about it. Far from it. Our lived experience is always dynamic, moment to moment, and seamless comprised of myriad fleeting sensory impressions, feelings, and thoughts. The maps of reality we construct can never depict the undivided whole, the actual lived territory. They are, at best, temporary, and useful approximations that serve us as guidelines.

Moreover, we trust science and technology as well as highly developed human minds that we can and will eventually be able to explain the cosmos. Constructive adult development theory buys into this conception by asserting that meaning is made and that we can explain what it takes to become a mature and highly evolved human being.

Most developmental theories judge the complexity of thought as the best indicator of advanced understanding. They make great efforts to help people grow bigger minds, handle more complexity, wield greater influence, and have a more lasting and far-reaching impact. Most integralists assume that cognitive agility and a second-tier perspective are vital for solving our increasingly complex, deep-rooted, and global problems.[8]

As far as I know, most adult development theories do not, however, point out the fundamental limitations of symbolic mental activity that includes our penchant for storytelling and theory making. Who or what is behind meaning making remains undefined. Why we are striving for meaning and growth is taken as a given or explained away by other abstract concepts, such as, for instance, the idea of progress via the evolutionary impulse.

Ego development theory alone postulates that it is ego’s task to construct meaning and to form a coherent narrative about existence to counter uncertainty.

Based on the evidence of more than 4500 sentence completions tests, I identified nine different self-stories, nine different ways of defining what is real and important in the Western world. These ways develop sequentially and represent increasing levels of individuation and integration. While complex reasoning is an aspect of later-stage meaning making, it is not sufficient by itself for becoming a mature adult. By mature, I mean a wise, discerning, and compassionate human being:

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[8] There is trust that if we just grow the minds of our citizens we will, in the end, make the world a better and safer place. As is often said we are living in a VUCA world: A world that is increasingly volatile, uncertain, complex and ambiguous. Yet we believe that we can overcome uncertainty and ambiguity.

One who is aware of being held captive by language. One who accepts being mortal, and, thus, participates in the universal processes of growth and demise.

A Brief Refresher of Ego Development Theory

Let me now briefly recapitulate the overall trajectory of ego development. In the 1960s, Jane Loevinger first saw a clear pattern of a developmental sequence in the stories women told about themselves by analyzing thousands of sentence completions. Ego development theory and its measurement still derives from empirical evidence, not from mere theorizing.

By analyzing thousands of additional sentence completion tests beginning in 1980, I was able to suggest the logical underpinnings of increasing perspectives and expand the stage sequence at the upper end. My hypotheses were validated both statistically and qualitatively in my 1999 Harvard dissertation.[9] Since then I have accumulated some additional 360,000 pieces of evidence. So far these support the current distinctions, but, for lack of evidence, do not allow for speculation about further stages.

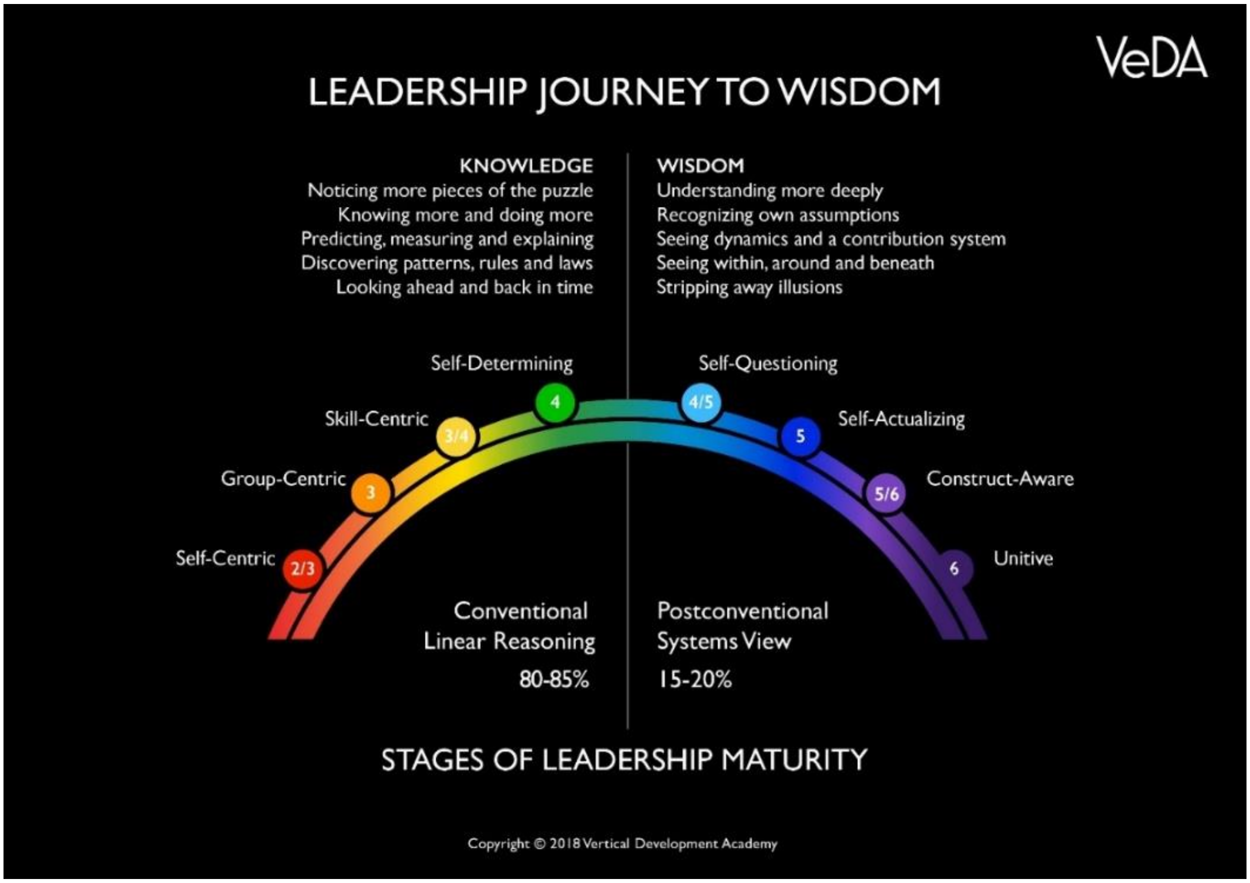
VeDA
LEADERSHIP JOURNEY TO WISDOM
KNOWLEDGE
Noticing more pieces of the puzzle
Knowing more and doing more
Predicting, measuring and explaining
Discovering patterns, rules and laws
Looking ahead and back in time
WISDOM
Understanding more deeply
Recognizing own assumptions
Seeing dynamics and a contribution system
Seeing within, around and beneath
Stripping away illusions
Self-Centric 2/3
Group-Centric 3
Skill-Centric 3/4
Self-Determining 4
Self-Questioning 4/5
Self-Actualizing 5
Construct-Aware 5/6
Unitive 6
Conventional
Linear Reasoning
80-85%
Postconventional
Systems View
15-20%
STAGES OF LEADERSHIP MATURITY
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Figure 1: The 9 station journey from knowledge to wisdom in ego development theory

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[9] Cook-Greuter, S. R. (2010). Postautonomous ego development: A study of its nature and measurement. Harvard University (1999). Integral Publishers: Dissertation series. ISBN: 978-1-4507-2515-6

I chose the arc representation for this summary. I will not offer details about arrested adult development and the first three ego stages: The Self-Centric stage 2/3, the Group-Centric stage 3 and the Skill-Centric Stage 3/4.

The first half of this arc image shows the movement from an unconscious unity of the infant at birth to an ever more accurate, unique, and separate self-identity at the **Self-Governing Stage 4**.

At the apex of the arc, separation is at its most developed (modern science) and the boundary between "me and not me," between "this" and "that" is most clearly-delineated. Stage 4 represents the ideal adult in most modern western societies. Its achievement and expression are encouraged, supported by our social institutions, and rewarded. At Stage 4, people tend to have the most definite idea of who they are, and what they want, and how to achieve their goals including how to make the world a better place. They rely on rational analysis and technology. They trust that humans can figure out solutions to all problems, if not now, certainly in the future. While they may know some of their personal traits, preferences, and behavior patterns, they do not yet fully recognize their historical, geographic, cultural, and linguistic conditioning.

The discovery of having been socialized into specific set of beliefs about what is real, is an aspect of the next, the **Self-Inquiring stage 4/5**. It is the first stage that can take a perspective on its own acculturation and assumptions. Individuals are now aware that other people have their own perspectives and unique programming to deal with and their own way of telling their stories. While there is one reality, there are as many perspectives on it as there are people. Moreover, rational linear analysis is often rejected in favor of free-spirited self-expression. One realizes that life and the world is much stranger and less predictable than one believed up to now. Great uncertainty to who one really is outside of conditioned responses is part of the confusion and challenge of Stage 4/5. At the same time, self-questioning creates a sense of freedom, and the open road.

At the next level, the **Self-Actualizing stage 5**, people gain a more integrated way to feel good, powerful, and certain about themselves. Rational analysis is an important part of meaning making yet supported by access to intuition, dreams, creativity, and other inner and outer resources. The person understands the interdependence of people and systems. That includes recognizing that we are inevitably influenced by the environment and that we shape it in turn. Many at Stage 5 can appreciate their own and others' developmental journeys and, thus, relate to themselves and others in more skillful and appreciative ways. Many also feel empowered, masterful, and proud of their understanding as they indeed know a lot more about themselves, human nature, and the world than people at any stage before. Pride about how much one knows is one of the shadows of this stage along with its inner certainty and sense of importance. "If only everyone were second-tier then the world could be saved."

The **Construct-Aware stage 5/6** is the first in the sequence to begin to understand the process of meaning making and identity formation. It recognizes the moment to moment construction of a self, and its ongoing deconstruction and reconstruction. While Stage 5 can discern patterns of evolution in nature, people, and society, it still trusts that more knowledge and control over the vagaries of life are attainable and will give us a way out of the current global catastrophe.

Stage 5/6 constitutes a radically new perspective. It can look at the whole paradigm of constructive developmental theory, compare it to other psychological theories and see both their similarities and differences, their benefits and limitations. It is thus a stage of differentiation from the previously held view of reality and meaning making. Stage 5/6 embraces the fundamental uncertainty about knowing and shows a greater and greater capacity to see through our human yearning for meaning and wholeness.

People at this form of Stage 5/6 often experience great existential tension as there is now really no ground to stand on, no single reality to observe from multiple perspectives. Instead, there are multiple realities created by humans in different cultures and languages.[10] All theories are seen for what they are: ego's attempts to create order, certainty, and predictability. While there can be tremendous suffering associated with seeing through the games our minds play, the pain can be appreciated and indeed embraced as a portal to deeper connection and fuller being.

In contrast, some individuals become aware of ego's function and how it does its work. **Ego-Aware** is a name we have used for 25 years for this aspect of Stage 5/6.[11] Ego is always trying to make us feel secure, important, and enduring. It executes its charge with exquisite finesse. This includes a tendency to adopt any ideology that;

a) resonates with our own ideals and yearnings,
b) gives us a sense of power and belonging, and
c) promises us a sense of immortality.

Ego tries to usurp even the loftiest spiritual notions to feel good about itself. Trungpa Rinpoche famously diagnosed this tendency as spiritual materialism.[12]

My 40 years of research have shown just how readily the ego will appropriate any content to see itself as a hero and make itself feel more potent and indispensable. The suffering here can be intense as no attempt at overcoming ego's workings (shenanigans) will achieve its goal of ego-transcendence and self-liberation. The more one strives for greater insight and seeks detachment from ego, the more attached one is to whatever one is seeking.

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[10] Lera Boroditsky gave a TED talk in 2017 that demonstrates some of the cultural differences: Here is the transcript of the talk for those who have difficulty imagining that language influences how we see our roles as humans. Time and space can be experienced differently than we do in the West. Monolinguals are especially prone to the misconception that there is one reality we can look at from different perspectives. https://www.ted.com/talks/lera_boroditsky_how_language_shapes_the_way_we_think/transcript

[11] While it seems rarer than construct-awareness, we have no evidence that is follows a pattern and is later than construct-aware, despite claims to the contrary by TOF who declares it a separate, more advanced stage.

[12] My years of research in adult development has shown just how readily the ego, in its identification as a separate self, will usurp any content in order to boost itself and make itself feel more potent and indispensable. It deserves noting that in the we-space context, the ego can turn multiple "I"s into a "we" with much the same mission: To defend against recognizing that we are mortals and live in an unpredictable cataclysmic universe. No one can predict what the future will bring. Whether I or we, ego's noble task remains the same: to make us earthlings feel secure, special, and immortal.

It is a Construct-Aware capacity to see through ego's efforts at safeguarding our illusion of knowing. Immersed as we are in language, humans everywhere participate in confusing discursive knowing with understanding. It takes courage to acknowledge that we are all prone to fool ourselves in myriad ways about our achievements, including in terms of development and spiritual attainment. It requires great grit to believe in the value of simply being alive and not to despair in the face of fundamental doubt about ever knowing and understanding.

As I like to say, we are all bozos on the same bus. Once we get this joke, we can become more light-hearted, and see ego's striving for control in a more benevolent light because *it can do no other*. Fooling us and misdirecting our attention is ego's task. It makes us feel secure, permanent, and important. It creates for us a pretend world in which we can reach heaven and in which we don't really have to die. And yet, there is no escaping the tragedy and randomness of life and our inevitable death.

To summarize, mature integration as a human being entails an increasing capacity to notice ego's workings. At the same time, we can lighten-up and experience the simple and childlike joy of being alive. We can delight in the senses and our inner world – moment to moment as well as appreciate the lives and struggles of humanity.

One of the surprising insights of late stage maturity is realizing what a hoot ego's efforts are. It is folly to wish experience to be different than it is. And yet many of us idealists feel it is its own madness to see life as it is, and not as we wish it to be, and as we think it should be. It is natural that we want to feel that we are here for a higher purpose, that our lives mean something beyond simple existence.

Perhaps most important of all, immersed as we are in language, humans automatically participate in the delusion that symbol-mediated knowing is true understanding.

In this little essay, I have opened the possibility that all of us are fools, prone to fall into the typical and very human trap of self-delusion. We are fooling ourselves especially when we believe that we know, and thereby that we can predict and control. We can learn to take ourselves less seriously and laugh at ego's folly while appreciating its hapless and important task. Embracing the inseparableness of laughter and tears, of life and death, is part of the unmasking process of Fool-Ling. I suggest that the ability to laugh whole-heartedly and with compassion at the human condition is an indicator of ego maturity and a mark of the wise fool.

To sum up, the Construct-Aware stage is the first stage in the sequence of ego development stages that sees through the function of the ego to make us feel safe, important, and permanent. We inevitably use language to describe experience and then make maps and tell stories about it.

Fools are Everywhere!

Beatrice Ottos's treatise "*Fools are everywhere"*[13] served as a rich resource of information about the fool character and its brethren and sisters. Throughout the ages and across the globe their role and special license was to tell the unvarnished truth.

Much has been written about the ubiquity and ancient recognition of the function of the fool as an archetype. He is the forerunner to the hero's quest to explore the unknown and deal with the demons awaiting us. Its closest ally is the **wise fool,** the kind we may encounter in seasoned elders and well-grounded late-stage meaning makers.

Human fools and jesters look at the human condition from a radically honest, and yet often deeply caring and imaginative perspective. Their function is to reveal and poke fun at the limitation of people, systems, and society. Historically and culturally, fools have played an essential role in holding up the mirror to power, vanity, and entitlement.

Like fools, the statistically rare, integrated individuals at stage 5/6 are marginal to society. As outsiders, they can observe the human drama while accepting that they are players in it. Because they have a perspective on meaning making itself, they can observe the clever games ego plays and how we can delude ourselves.

In academia, taking oneself seriously is almost a requirement. Jesters are rarely welcome. When they debunk established pet theories, they are likely expelled and hung out to dry. In times past, they were even burnt at the stake for challenging the powers that be. "Il dottore" in the Italian Commedia dell'Arte is the quintessential caricature of the learned man who is stuck in his head. He elicits ridicule by exaggerating his knowledge and his pedantic self-importance. Academic pretense can be found everywhere. You recognize it by all the neologisms, fancy multi-syllabic words presented with an aura of authority. Most of us tend to think something is deep and must be true if we don't really understand it. We don't want to appear ignorant and admit we are unable to get it whatever the "it" is.

Beatrice Otto points out that, and I quote:

> It is often considered that to be taken seriously one had to be serious, that humor is frivolous, and not suited to weighty matters. Yet earnestness implies rigidity while humor tends towards fluidity and as such is surely a better means of dealing with serious matters, since it is well equipped to take the complexities and contradictions of life in its stride.

Shared Characteristics

So, what do mature Construct-Aware meaning makers and wise fools and jesters have in common?

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[13] Otto, Beatrice, K. (2007). *Fools are everywhere: The court jester around the world.* University of Chicago Press.

They expose and laugh at all that is pretentious, inauthentic, and unpoetic.

- They unmask intellectual arrogance, expose mental rigidity, and uncover (defrock) spiritual ego inflation.
- They expose and poke fun at sacred cows, and pompous behavior of any kind especially in authorities.
- They deliver the truth raw without embellishing or softening it to please.
- They are spontaneous and often irreverent towards the established order.
- While they challenge the conventional mores and beliefs of society, they generally do not try to overthrow them as would rebels.
- They shake people out of deep-rooted patterns of thought and behavior and remind us of our human frailties and limitations.
- Like very young children, they embrace innocence, are joyful, imaginative and can play on the world stage with abandon.
- At the same time, wise fools are always also laughing at their own suffering, confusion, and the reality of our shared human lot.

Wise fools and jesters are an affirmation of all that is uncertain in the universe, the random and unknown factors of existence. That makes them a threat to those who want to believe we know where humanity is headed, to those who trust that all has been mapped out and already settled and that whatever mysteries remain will be unlocked in due time.

How do wise fools and mature humans hold up the mirror?

- They present a different angle or perspective on reality and offer a wider view of experience than people who swim with the mainstream.
- They use self-deprecating humor, puns, and wordplay to diffuse tense situation and soften the blow of their critical observations.
- They can voice disagreement by profusely agreeing with an absurd notion, so that the perpetrator sees the absurdity for him or herself.
- In scholarly contexts, they may use reason in such a way that the fallacy of a belief becomes evident. This requires that proponents of a theory are open to having their ideas and certainties challenged.
- They can create space by exaggerating the absurd that is taken for normal and thus create laughter as the only healthy response.[14]

Both wise humans and fools can turn the world on its head by making people see the ultimate insignificance of many of the things they hold dear by pointing to unwarranted beliefs and delusions as well as misperceptions and illusions.

We all benefit from practicing being OK with what is, especially with not being perfect and recognizing the function of the ego's to fool us into feeling in control of life. Getting over ourselves is likely one of the biggest challenges we integralist can face. We are no different than the rest of humanity. We are all fallible and mortal human beings. Let’s unlearn conditioned self-criticism, perfectionism, thinking we know, and wishing things to be different than they are.

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[14] As part of the Foo-Ling workshop, Doshin Nelsen Introduced sacred laughter. He invites people to complain about whatever annoys them to the hilt, till they break out in laughter because they see the folly of wishing things were perfect, or the way we imagine that they should be in an ideal world.

Humor and laughter are wonderful remedies for pointing to folly and self-importance wherever they show up. While trying our best, let’s learn to smile kindly at our foibles and clay feet. The very laughter gives as angel wings, the antidote to taking ourselves too seriously.

Footnote

This essay is based on a talk given at the 2018 European Integral Conference. In addition, this inspired Angela Halvorson Bogo to create The Foo-ling Contract. You can find a copy of this text here: https://www.thefoolstory.com/fooling-contract/.

The Nordic Secret: What can we Learn?

Lene Rachel Andersen and Tomas Björkman (2017) *The Nordic Secret: A European story of beauty and freedom.* Stockholm: Frit Tanke Förlag https://www.nordicsecret.org/

Over/reviewed by Jonathan Reams[1]

I have lived in Norway for over ten years now. My early experiences here triggered me as I encountered a variety of cultural norms that stood out and made me aware of my own North American background in new ways. This contributed to amplifying many protective and critical tendencies I had internalized. Despite my initial (and sometimes continued) aversion to various facets of society here, I have also come to an appreciation for many aspects of this society. There is a kind of spaciousness and freedom here. While these are also well espoused and take a specific form in North American society, they have found expression in the Nordic countries in a manner that avoids some of the extremes found in North America.

My curiosity about how this came to be has deepened over time and in this context I had made acquaintance with the authors of *The Nordic Secret*, first Tomas Björkman in early 2014, the Lene Andersen later that year at a retreat Tomas hosted. Tomas' passion for the field of ego development was clear, as well as his passion for fostering healthy societal transformation. Lene's intensity and depth of knowledge was immediately apparent. Together, their collaboration on this project has led to what is, in my view, a significant contribution to 'integral' thought by showing with depth, breadth and clarity how ideas central to it have played out over time in a particular context and contributed to what are considered model societies.[2]

When I first encountered integral thought over 20 years ago, it appeared to me as a new and enlightening way of understanding the world. The ego development aspect of integral thought was especially engaging for me, as one focus of my studies was the area of consciousness, and ego development theories brought a degree of clarity to my understanding of how consciousness evolved. Over time, I came to see that integral thought, specifically in education, had been talked

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[2] There are many sources for this claim, but one I found interesting was a speech given in 2016 by then President Obama, where he explicitly mentioned Grundtvig and the folk high school movement and how it contributed to a similar school in the US, which in turn contributed to the education of many prominent civil rights leaders.
https://www.washingtonpost.com/news/reliable-source/wp/2016/05/13/full-transcript-of-president-obamas-toast-at-the-nordic-state-dinner/?noredirect=on&utm_term=.0edca6988cdf
You can also watch the speech here
https://www.youtube.com/watch?time_continue=287&v=UEJLtlAUGGE

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about and tried since the mid 1800s.[3] In *The Nordic Secret*, Andersen and Björkman have gone even further back in history and traced the threads of what they show to be ideas very similar to the current theory of ego development we study today.

Not only this, but they tell a compelling story with details that make for great reading. The relevance of this story – basically how ideas of ego development, along with bildung, have been applied on a significant scale in the Nordic countries and contributed to their current success – is that it offers ideas worth considering as we aim to contribute to the variety of situations being faced in the world today. It is with all this in mind that I have chosen to write an overview more than review – I wish to entice readers to pick up the book and dig into the depth and granularity that it offers and become inspired by the journey key figures in it took. I have little to be critical of here. Of course, it would be possible to unpack and argue with certain points made, perspectives taken and maybe some idealism near the end of the book. However, I believe this would detract from the broader goal of enabling a wider audience to get a taste for what this book offers. The knowledge that integral or ego development has been applied successfully to a large-scale social transformation effort can serve as both inspiration and ideas for our own efforts today. On that basis, I will offer a chapter-by-chapter overview of highlights and elements I find relevant in the narrative woven through examining the journey these ideas have taken through history.

Preface and Introduction

Andersen and Björkman preface their book by articulating the contextual background that motivated this book. The Nordic countries are clearly successful by many measures, and while various attempts to understand this phenomenon are shown to have fallen short, they feel they have found the secret of this success. From this, they wrote the book because:

1. That this recipe for success could be repeated elsewhere.
2. This process is grounded in creating healthy institutions for and in helping people in a society make meaning during large scale societal transformations.
3. The current Nordic situation is seen as an undoing of this success, and being able to contribute to discourse enabling a course correction would be an ideal outcome.

The current regression is characterized as a move away from personal responsibility and accountability of those in power. The move towards utilizing consultant expertise to guide political policymaking and privatization of key societal institutions is eroding the very foundations of their success.

In the introduction, Andersen and Björkman lay out their hypotheses and core message loud and clear right from the beginning.

> We are going to make the case that the success of the Nordic countries – not least the successful transition from poor agricultural to rich industrialized countries – was due to a

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[3] See Molz and Hampson. (2010). *Elements of the unacknowledged history of integral education*, in Integral education. New directions for higher learning. Eds. Esbjörn-Hargens, S., Reams, J., & Gunnlaugson, O. Albany. New York: State University of New York Press.

> very specific and targeted political project: key cultural and political figures in the 1800s saw the need for enculturation and personal emancipation of the rural population. … In order for all these people to develop that kind of identification and national loyalty and cohesion, they needed a richer and more complex inner world. They needed to develop a sense of responsibility towards self and society; they needed moral, emotional and cognitive development. They needed what is called ego-development in modern psychological terms. (pp. 7 – 8)

To provide evidence for this hypothesis, they foreshadow the main part of the book; a journey back in time to trace the unfolding and evolving of a set of ideas that enabled this to happen. They lay out how Enlightenment ideas fueled both popular imagination through literature and philosophy through a key set of ongoing conversational relationships and led to the German notion of *Bildung,* and then was pragmatically applied in Denmark as *folk-Bildung.* This spread through the Nordic countries and as they aim to show, was significant in enabling the rapid transformation of Nordic societies.

They round off the introduction by laying out five hypotheses:

1. That the modern concept of ego-development is much the same as the Enlightenment concept of *Bildung*.
2. *Folk-Bildung* is different than what we current call adult education.
3. That in the mid 1800’s *folk-Bildung* played a significant role in the development of the Nordic societies.
4. That this success was due to the intentional cultivation of moral, emotional and cognitive development among the least educated in those societies.
5. That there is a universal lesson that can be learned from this in relation to how to create stable and healthy democracies.

They close the introduction by outlining the five parts of the book and then by summing up their findings. The Nordic secret is folk-bildung. The long journey this book takes us on provides ample evidence for this claim, leading to the conclusion that “The Nordic and Swiss histories have shown that good economies develop from responsible self-governing and self-authoring people who can self-motivate” (p. 445).

Part 1: Setting the Scene

Chapter 1: Are the Nordic countries really that remarkable?

This chapter opens by introducing a vignette from Lene’s life, a seemingly ordinary trip by train that illustrated key principles evident in Nordic society; humanism, trust and responsibility. First, a winter train ride from Copenhagen into Sweden has a new twist, a requirement to stop at the Swedish border and to show identification. This change in practice has emerged in response to the refugee crisis. On this journey, the inspection officials are extremely polite about their duties to the Danish and Swedish nationals. However, they also encounter two Syrian women attempting to cross into Sweden without proper documentation. Here the guards also display their humanistic values, being extremely kind and respectful to the women as they made them get off the train, and telling them of their rights to seek asylum in the friendliest way possible.

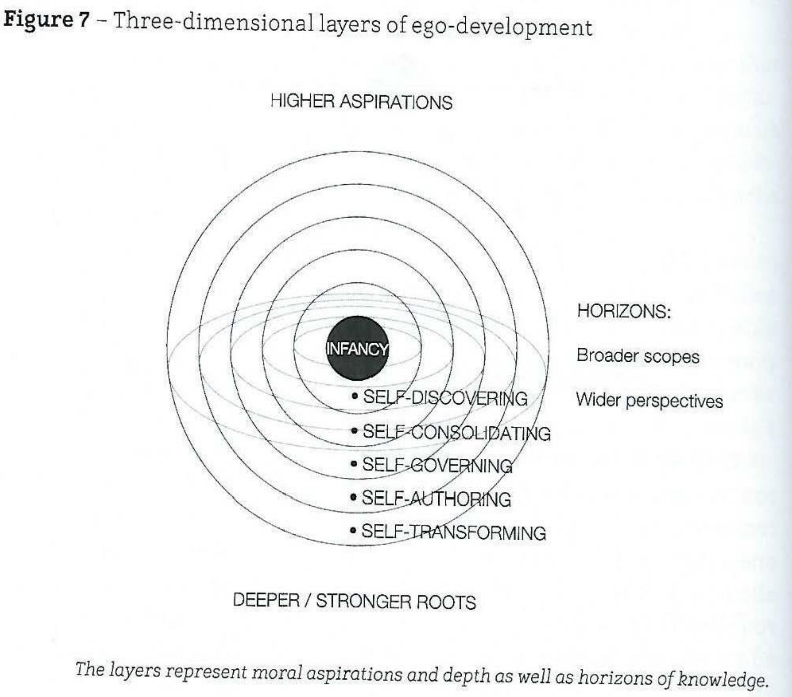
The other incident that illustrates Nordic values comes about when a businessman ends up forgetting his phone on the train. It rings after he has gotten out, and another passenger picks it up and answers; they quickly sort out to meet at the next stop and the man shows up and gets his phone back. This is a high trust society, where people take responsibility to ensure the well-being of others.

As well, the introduction shows us an array of statistics that point to the Nordic countries, along with Switzerland (which becomes relevant later) consistently in the top rankings of things like; happiness, human capital, global competitiveness, GDP, as well as interpersonal trust.[4] This is also shown to be linked to scoring high on secular and self-expression values. They go through a series of possible explanations, such as political, economic, technological and even religious (Protestant countries tend to have a different work ethic). All of these explanations are shown to fall short of explaining the secret of Nordic success. Which then leads us on to chapter two.

Chapter 2: Personal freedom and responsibility. Psychology.

This chapter forms a foundation for what comes after, in that the authors lay out a description and framing of ego development theory. They address Piaget, Kohlberg and Kegan, and do a good job of then doing their own reframing of the language of ego development stages to be less technical and more reader friendly.

Figure 7 – Three-dimensional layers of ego-development



The layers represent moral aspirations and depth as well as horizons of knowledge.

Figure 1(7): Reframing of ego development. From p. 56.

They begin by laying out subject object theory to introduce the basic move of development. Their reframing of Kegan's stages (see figure 1(7)) orients around the self at leach stage. This alignment helps to shift the notion of a socialized mind to the notion of being self-governing. This enables an intuitive bridge to be made later when discussing the moves made in relation to the implementation of folk-bildung. They do a good job of describing the stages and core issues of moving between them. Their reason for this reframing was that they received pushback from the overly academic sound of both the notions of stages or orders and their descriptions.[5] "… [W]e prefer to use the metaphor of a personal core that builds and expands in new layers" (p. 54). This metaphor also enables them to add in another key component, the social or moral aspect.

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[4] In other background research I have done, Norway also scores high on; corruption perception (lack of) index (2014, #5), UN human development index (2015, #1), legal system and property rights (2015, #3), credit market regulations (2015, #1) and political participation, electoral process, functioning of government and democratic political indexes (2015, #1).

For this, Kohlberg's stages of moral development are described to ground this, as well as to link to Piaget as a key source of inspiration for all of this. In order to apply this, they introduce the notion of "circles of solidarity" (p. 38) taken from Christian Welzel,[6] a researcher behind the World Values Survey. They extend his concept and reframe it to talk about "circles of belonging" (p. 39). They introduce 10 of these:

1. Ego/self
2. Family 1 (parent and siblings – the family we are born into)
3. Peer group
4. Family 2 (spouse, children, in-laws – the family we create ourselves)
5. Community (neighborhood, church, political party, sports team, colleagues at workplace etc.)
6. Imagined community (society / country / nation / people // religious denomination)
7. Culture zone
8. Universal principles / international conventions / multi-lateral alliances
9. Humanity today
10. Planet and future generations beyond great-grandchildren. (p. 39)

This allows them to make a three dimensional model of how our personal core grows. Figure 1(7) illustrates this, with the ego-development layers one axis, and the horizontal axis is about the broadness of scope we consider as well as how wide the perspectives are that we take into consideration. This "allows us to talk about a deep personality, depth of character and inner roominess, as our mental complexity grows and we mature. Only if we mature and add layers in all directions can we become deep, wise and rounded persons" (p. 57). This model of personal growth becomes the reference point for discussions later on in the book. What comes next is a journey back in time to trace the journey of ideas and people who contributed to how all of this came to be implemented in Nordic society.

Part II Personal Freedom and Responsibility – Bildung Philosophy

Chapter 3. A Very different kind of Europe

Andersen and Björkman start out their tour of history with a good framing – that we tend to read historical events from a frame of reference of our current world – we simply do not have the experience to have the same tacit view of what things meant, why they were important and so on. To get us ready for how the ideas they trace developed, they take us back to 1650 and describe life conditions for the masses of peasants, burghers, merchants and aristocrats. Small things like that beer was safer to drink than water.[7]

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[5] I have certainly encountered similar pushback even and maybe especially in academic circles here.

[6] Welzel, C. (2014). Freedom rising. Human empowerment and the quest for emancipation. Cambridge: Cambridge University Press.

They describe a number factors; the introduction of organized education, how literacy was growing, yet still relatively low and the introduction of salons and encyclopedias that made a base of knowledge wider and more discussed. The religious influence on the concept of bildung was also important. They show how the concept of metanoia as beyond the mind linked with Pietism to create a call to be Christian in what we would call a more self-authored sense. So rather than simply conforming to a given set of social norms that one was born into and would die within, there was a notion that people could improve. Becoming a ‘true’ Christian now meant having an emotional sincerity and a passion for self-improvement. Protestantism had until then only dealt with salvation and predestination. Now, with Pietism, personal improvement was combined with salvation. “With Pietism, people’s soul, faith, mind, heart, and emotions became their own in a new way” (p. 76). These and other influences were part of the background context in which key figures began to articulate and disseminate ideas that came to inform the notion of bildung.

Chapter 4. The Bildung prelude

This chapter begins with Shaftesbury, and we see that with John Locke as his tutor, he developed an understanding of human nature that very much mirrors how ego-development is described today. The authors use quotes and then interpret them to make this link more explicit. This reminds me of the perennial philosophy, where these ideas recur in various shapes and forms over the course of human thought. They not only make this link explicit, they also do a comparative analysis to show what was similar and how it was also different, or lacking aspects of how we understand ego-development today.

The tour of intellectual thought continues with a brief visit with David Hume, who they show to be “the first European philosopher to explore how we construct reality” (p. 85). His move was to step outside and observe his own thinking,[8] which led to him being interpreted as seeing different stages of mental complexity. After a couple minor figures are briefly treated (Klopstock and Wieland) they move on to Rousseau, and in a similar manner show how his writings reveal a similar pattern of describing stages of thinking. They approach all of these figures with a combination of historical context, biographical description and key thoughts related to ego development.

Chapter 5. The German Spring

This long chapter now gets into the meat of how many of the central ideas that contributed to the core proposition of *The Nordic Secret* were developed. It reads like a detective novel, with the careful attention to detail of what kind of personal histories and meetings that helped fuel the spread of key ideas.

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[7] I saw a recent TEDx talk by Steven Johnson (*Where Good Ideas Come From*) that showed the influence of coffee houses on the English enlightenment – before then, everyone was a bit too drunk to think new ideas. After they drank coffee and tea instead of alcohol, ideas started to be discussed in these places without the limitations of constant drink. https://www.youtube.com/watch?v=0af00UcTO-c

[8] It seems to me that this is not new with Hume, as Descartes seems to have done this is some manner.

The first major character is Johann Gottfried Herder. As a student, he caught the attention of Immanuel Kant, who gave him special study privileges and enabled him to gain a degree in theology at 20. He writes some early texts based on Kant's influence combined with his own inquiries that get some traction around Europe. As an example of the kinds of interesting details of personal meetings, Herder works as a theologian for a while, writes some books, gets restless, travels for a while, and ends up in Strasbourg to get eye surgery for a condition he has. A young student at the university observing the operation knows who Herder is from his publications and volunteers to do the post-operative care that is required from this operation, and the two spend two weeks sharing their ideas and inspirations about the new ideas in the air form the likes of Shaftesbury, Rousseau etc. The young student is Johann Wolfgang Goethe.

Herder goes on to write influential texts that for the first time articulate the nature of a national culture, a *Geist* that binds people together. The authors show how this contrasts to the scope of awareness of most people at that time of only their local family and village, maybe to a local aristocrat. In Andersen's and Björkman's circles of belonging, this means levels 1-5 only. Herder is shown to introduce the concept of a people, or nation. Herder also writes about bildung as a natural evolution. Being 'bilded' is being shaped, by the cultural conditions of the time.

As mentioned, Goethe met Herder in 1770 in Strasbourg, and they share their passion for this newly emerging Enlightenment thinking from Shaftesbury and others. Goethe goes on to become a writer of popular novels that capture the imagination of the times and are essentially based on the idea of growing beyond the social norms or constraints of the current society.

Friedrich Schiller is another writer of the times and it is shown how his psychological understanding also illustrates this parallel with ego development. The narrative in the book lays out the personal journey and challenges he faced, leading to his 1785 authoring of the Ode to Joy and its inclusion in Beethoven's 9th symphony. The links in the Ode to Joy with this Enlightenment thinking are described.

Then back to Kant, and the articulation of an a priori structure to our minds that enables the perception of the external world and events, or a phenomenological turn. They describe this as a Copernican turn in European philosophy, from an outside perspective on thinking to an inside-out perspective on the mind itself.

Then there is the larger context of the American and French revolutions, and how the generation of Enlightenment thinkers were both inspired and repulsed by some of the political events of those times.

There is then a description of how Goethe became a high ranking public official in Weimar, and the foundation of a free and open (i.e. faculty given freedoms) university in Jena that attracted the best and brightest of the period. This concentration of German Enlightenment thinkers and thought is all clearly shown in detail to repeatedly articulate the same view of human nature and its development as we see in ego-development today.

Meanwhile, in Switzerland, Johan Pestalozzi overcomes a life of poverty and repeated failure to find that Rousseau's ideas of education don't actually work. He finds, through arduous trial and error, methods that do work, and eventually becomes successful and influential in how modern ideas of pedagogy can be linked to the notion of bildung.

Which brings us to the person most associated with the concept of bildung, Wilhelm von Humboldt. The reason for this association is that Humboldt not only wrote about it, but was in a position to do something about it. In 1809, he was in charge of the Prussian education system, and he did a complete reform of it. This was based on two key principals: freedom of teaching and learning at the universities (like was piloted in Jena), and that "education must be *Bildung*, it must be personal development, moral development and a deep engagement with the academic endeavors. It must be a path to finding one's true personality, self-authoring" (p. 155).

What we see in this section of the book is that the concept of bildung, soon to be traced into Scandinavian society, has deep roots in the Enlightenment thinking in Germany and that it in essence embodies modern conceptions of ego-development.

Chapter 6. Bildung and ego-development

In this very brief chapter, the authors circle back to one of the core questions that united their interests. Having made a thorough investigation into the currents of thought that contributed to the conception of bildung, they conclude that while not identical, there is a significant and strong overlap with ego-development. The people listed above, as well as others, all tended to describe the ideas of human growth in terms that clearly match or parallel modern ego development descriptions. Where bildung appears to differ is primarily in content related areas, which they list as education, folklore, poetry and aesthetics, a sense of belonging etc. This is where the notion of circles of belonging appear to help flesh out how the structural approach of ego-development can show up in the layers of contexts we inhabit and can expand our consciousness into.

Part III The Scandinavian Spring – Implementing Bildung

Chapter 7. The Danish Spring

Here our story moves slightly north. The southern parts of Denmark, Schleswig and Holstein, had always been Germanic in culture, and eventually, after a couple wars, politically as well. The narrative follows a mentally ill king and his successors who held on to absolute monarchy until about 1849, when reforms finally arrived. In the period leading up to this, various philosophical developments went on that are again traced with meticulous detail. Beginning with the Norwegian Henrik Steffens studying in Jena and then giving the first lectures in Denmark on German Romanticism in Copenhagen in 1802. Two sets of rival cultural and philosophical salons are traced, with various visiting luminaries seeding new ideas, such as Fichte, who is fleeing Napoleon.

Then Grundtvig, the "Moses of the Danes," (actually Steffens' cousin), comes into the picture as a man of God who is also inspired by the ideas of romanticism. He also brings Norse mythology into his writings, evoking a sense of people, or the Geist of the Nordic nations. Grundtvig is quite contentious and outspoken and is actually banned from speaking and writing for a period, during which he goes to England and is (perplexed and) inspired by his encounters with liberties of religion, the press and trade, pragmatism, collegialism between professors and students and even falls in love with a married woman.

All this contributes to his ideas of combining English pragmatism with German Idealism and Romanticism to envision a school where the peasants of Danish society can be ‘bilded’ or shaped into responsible citizens who can participate in and contribute to the betterment of their society. In 1836, he writes a pamphlet about ‘education for life’ that attempts to bring all this into practice and challenges contemporary ‘dead’ classical education. He goes on to write popular songs with lyrics inspiring a generation. For Grundtvig, freedom, both individual and political comes through bildung.

The political upheavals of 1848 strike Denmark as well, in addition to war with Prussia, which goes on again in 1864, and shrinks the Danish borders. In this context, the desire to begin to strengthen the national identity through this idea of small folk high schools[9] grows and the first experiments take hold.

Into this mix comes Christen Kold, who, having wandered about thus far in life (literally walking from Trieste to Denmark) and read all the same figures noted thus far, takes Pestalozzi’s admonition to ‘just do it’ to heart and finds a way to begin his own school. Kold seemed to hit just the right combination of elements and ‘marketing.’ The folk high schools began to flourish, both in numbers and gender as they opened for young women as well. The authors describe that an average of 6000 Danes attended these schools each year. They then estimate that it is possible that by 1940 200,000 out of the population of 2.5 million could have attended these schools. We also hear that concurrently the cooperative movement began and took off with great success.

Chapter 8. The Norwegian Spring

As the story moves north to Norway, the narrative moves back to 1800 to set the stage. Norway has been under Danish rule for about 400 years. However, a combination of politics around who is given the governorship of Norway, a financial crisis in Denmark in 1813 and being on the losing end of war in 1814, led to Norway ending up in the hands of Sweden. During this time of flux, the Norwegians draft a very progressive constitution, drawing inspiration from the Americana and French constitutions. However, it does not give them the same progressive school legislation as the Danes, nor does it give them religious freedom.

The idea of a folk-bildung is a harder sell in Norway than Denmark, but eventually the ideas take root in government legislation that enables rural education to have the same standards as schools in the city. Ole Vig and Hartvig Nissen contribute to bringing some of Grundtvig’s ideas into Norwegian schools. The first folk high schools are established in Norway in 1864, and we see that in Norway this set of ideas is re-arranged a bit to show that “the goal is personal fulfillment, political freedom is the tool” (p. 240) and that stages of ego development are clearly laid out in texts from that time. The authors propose that the uptake is more powerful in Denmark because of losing the war and part of their country to Bismark, where in Norway it was not so strong a need for nationalistic sentiment.

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[9] I have learned that the term high school is here more in reference to what in North America would be considered community college. The age group targeted is around18 or 19, which fits between secondary and tertiary education.

Chapter 9. The Swedish Spring

The Swedish case is different yet again. An extremely high rate of literacy is one foundation for this difference. This came from a strong religious formalism, with parents required to teach reading to their children, and everyone tested on their ability to read and show their knowledge of the bible. Swedish peasants were never serfs and had some form of representation in the Swedish parliament. There was of course a strong German influence in Sweden, coming from the Reformation and the importation of Kantian philosophy and relationships between influential Swedish philosophers and German figures like Fichte and Klopstock. A kind of nationalism arose in Sweden as a response to the loss of Finland in 1809. The rise of Göticism inspires a host of romantic and nationalistic literature to spark the public imagination. In addition, things like gymnastics took root as a form of youth development.

It is noted that the Swedish term in use for bildung has more of a connotation of upbringing than of education. Thus the idea of parents (like the teaching of reading) bringing up or bilding their children is closely linked. This is seen in layers, starting with the family and local community, expanding to the country, then specific civic professional positions and finally an office in the state requiring in depth knowledge in a subject area.

A host of influential figures are described before going into how Swedish feminism is launched by a man. Visits to Danish folk high schools leads to journals publishing influential articles like *About Hans Who Went to the Folk High School.* This small article captures the heart of the folk high school movement and inspires many to attend. Hans is a peasant youth, the proverbial 'lump of clay' destined to a life of toil on the farm with little change in his life course. He meets a stranger who tells him of a place (the folk high schools) where you can find real gold. This gold is actually inner growth, maturing into a higher stage of ego-development and expanding one's circles of belonging into the 6th circle, a sense of nationalistic identity.

Chapter 10. Summing up the Scandinavian Spring – Folk-Bildung 1.0

This chapter brings together and revisits the threads so far. The urge to grow into circle 6 or find a sense of national identity, especially in Denmark, emerges as a result of civil war / war with Germany.[10] Running though all three countries' implementation of bildung is how "to get young people from the traditionally least educated parts of society to become loyal, inspired self-governing citizens with enthusiasm and a sense of purpose" (p. 272). This is seen as taking them from a level two ego to a socialized mind, self-governing level 3.[11] The voices around the further move to self-authorship or the “moral man” (p. 273) was not yet the driving force. However, this turn was about to be voiced in a stronger way as the next generation built on this foundation.

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[10] This happens to a lesser degree in Sweden with the loss of Finland. In Norway, my understanding is that the desire for a national identity came more from the 400 years of Danish rule, then another 100 of Swedish rule.

[11] The interesting thing for me, living in Norway the past ten years, is that the culture around which people internalize a capacity for self-governance appears to be around a set of relatively higher order values. Thus, they are socialized into a highly progressive and humanistic set of values, yet are often unreflected about them. I have understood these values as emerging from the founders of the constitution taking inspiration

Chapter 11. The Modern Spring – Folk-Bildung 2.0

This move into the modern Scandinavian society that emerged out of the folk high school movement drew on radical progressive and modern values that were arising, the so-called ‘cultural radicalism’. Georg Brandes is shown to have published a six volume series, *Main Currents in Nineteenth Century Literature*, which describes how literary trends have been shaping people’s ways of understanding their worlds. These are translated into ten languages and cause a stir, while essentially saying that people’s opinions are the result of social constructs informed by literary trends. It thus pushes for the move to level 4 of self-authoring.

A key voice in this was the Norwegian writer Henrik Ibsen. Many of us may have read Kegan’s *In Over Our* Heads where he uses an example from a key section of Ibsen’s *A Doll’s House*. In this play, Nora embodies both the feminist move of liberation, but more importantly, the move to self-authoring, happening live in a moment where she breaks free not only of her husband and the current social norms, but more importantly, the hold of those norms on her meaning and decision making process.

All of this and more contributes to the evolution of not only folk high schools, but of things like gymnastics, sports associations, unions and workers movements, scouting, and the development of libraries. The degree to which this movement becomes mainstream is shown in the Swedish context through the political exploits of two men, Staaf and Branting. Both are champions of the bildung agenda and both become prime minster of Sweden, influencing and governing between them from the late 1890s until about 1920. Andersen and Björkman characterize Branting’s description of bildung as paralleling level four, self-authoring.

The move into what is described as ‘cultural radicalism’ and Nordic design, which is fueled by things like WWI, the peaceful division by referendum of the Danish German border in Schleswig region, and a new kind of aesthetics. The different experiences of the three countries during WWII is highlighted as well.

Having a culture that promotes individualism and self-authoring is seen to have contributed to a number of things that were investigated in chapter one. A line has now been drawn, from German Idealism and English pragmatism, along with influences from the French and American revolutions, to the elite of Scandinavian society who realized the need for an educated citizenry in order for democracy to actually work.[12]

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from the ideas of the time as described above, as well as their implementation in the American and French constitutions.

[12] I had the impact of this strong democratic tendency on large corporations described to me one evening over dinner by an executive of a Norwegian based multi-national company. He told how it was difficult to get people to align in such organizations, because earlier, there were no large farms or large fishing boats where people went to work for others. Everyone had their own farm or fishing boat and worked independently of any kind of authority. It occurs to me that this might also have contributed to the

But why did these ideas and influences not play out the same elsewhere?

Part IV Exploring what we have found

Chapter 12. What happened elsewhere? – control cases

In this chapter, six other cases are explored to see the effects of these ideas in shaping the experience and current state of other countries and groups. We see that Finland also adopted the folk high school idea, participating in some of the Scandinavian gatherings on this in the 1860s. The Swiss are seen to have forgotten about Pestazolli, and adopted a more conservative set of values in society. Otherwise, the Swiss appear to rank in similar ways around the opening chapter ideas, happiness etc.

The case of most interest is of course Germany. Clearly, a number of differences were in play and contributed to a very different outcome, especially in the first half of the 20th century. The deaths of a number of key figures of the Romantic era, such as Goethe, Herder, Schilling, Fichte and more, was followed by Wagner composing operas based on Norse mythology and German Romantic Nationalism. Then along came Marx. The upheavals of 1848, followed by Bismarck's unification of the German states under Prussia, created a mood in Germany among the conservative elements in power of concern for worker uprisings. Thus, folk education was shaped in a different way. For example, the lectures were never to be interrupted and no questions, discussion or debate of the ideas presented was allowed. As well, subjects such as social, economic or religious topics were not allowed. Then along comes Nietzsche, who Andersen and Björkman see as achieving a self-transforming mind, but feeling very alone and out of step with society.

The authors then describe the tensions between the lower middle class who just want to be better off or upper middle class, thus focused on personal and social and economic concerns and not societal change and emancipation. They just want to become part of the bourgeoisie. And 'bildung' becomes associated with conformity with those norms. Bismarck and his regime take an authoritarian stance towards the lower classes.

Then comes the aftermath of WWI, and any ideas of the type of bildung we have read about in the Nordic countries is far from reality. They quote Thomas Mann, showing that in this period, for Germans, the idea of asking "[the German] to transfer his allegiance from inwardness to the objective, to politics, to what the people of Europe call freedom, would seem to him to amount to a demand that he should do violence to his own nature, and in fact give up his sense of national identity" (p. 320). Thus all of the core ideas of development and growth to a self-governing and self-authoring conscience was never related to contributing to society; even being able to think for one self, was never related to political responsibility in this period in Germany.

Andersen and Björkman then briefly describe the creation of a folk high school in Tennessee, the Highlander school inspired by folk high schools in Denmark. They trace famous alumni of this school among the American Civil Rights movement (see footnote 2).

"Norwegian model" in organizations, which is characterized by very lower power differences and flat, democratic governance structures.

A brief examination of Nordic immigrants in the US shows that they tend to suffer less poverty than the rest of the American population, and the premise here is that this is partly due to the flip side of the high trust culture, that of also having high personal responsibility.

Finally, the cooperative phenomenon is examined, showing again the Nordic countries having a higher than normal per capita relationship to this form of economic activity.

Chapter 13. Does our thinking hold up?

Here the authors look back at the 2-4th hypotheses they began with:

2. Folk-bildung is different from mere adult education.
3. Folk-bildung has played a significant part in the development of the Nordic societies as of the mid-1800s.
4. The Nordic countries became successful due to a deliberate cultural, intellectual, moral, and emotional cultivation of the least educated part of the population.

What they see is that while it is not possible to make clear causal assertions, there is good evidence to say that folk bildung had a positive impact on the development of Nordic society. They also say that the authors of the folk high schools were aware of the ego or personal development aspects, so it was a conscious effort with clear intentions. They also see that bildung is a broader and deeper construct than ego development.

Chapter 14. Scandinavia today – self-destruction in the making

Here Andersen and Björkman get into the forces of empiricism and logical positivism and how they can take away the positive impact of bildung. For example, school reforms in Denmark and Sweden are described as hollowing out the personal development aspect. In Sweden, during the 1990s, commercial and investment companies were allowed to run private schools and they note that while Swedish students had been top performers on the standardized PISA tests, they fell below the average for OECD countries. The government worked to address this and enabled Sweden to climb back to average by 2015.

In Denmark, they show the changes in mission statements for public schools, staring in 1958.

> The purpose of the public schools is to promote and develop the traits and talents of the children, to strengthen their character and to provide them with useful knowledge.
>
> In 1960, the goal changed to developing "harmonious, happy and good people." The Danish 2012, reform focused on values such as "community, well-being, informal approaches, democratic decision-making processes and an emphasis on practical knowledge." A school reform in 2014 brought back knowledge and personal development to the mission statement but the number of hours and students in the classrooms were increased without extra-funding, considerably messing up the working conditions for the teachers. (p. 349)

They go on to describe how the latest university reforms make it "virtually impossible to study more than one topic, the students are supposed to get a pre-defined degree without the possibility of adding another perspective" (p. 350). This narrowing of education into specialization takes away the breadth necessary to expand the inner world.[13]

The authors also see corruption, lack of vision and lack of competence as key issues. While perceived corruption may be low, they point to recent political scandals in Denmark and attempts to digitize the tax system that never worked and doubled the amount of tax owing to around 100 billion Danish kroner. The authors make a strong set of claims about the impact these and other issues have had.

> We fear that the lack of self-governance, self-authoring, systems perspective, and a sense of duty in Nordic politics is a sign of a deeper problem …. Too many voters and politicians are struggling to self-govern at the level of national belonging and solidarity. People may be able to self-govern in concrete groups such as family and local communities, but in abstract entities such as nation, culture zone or regarding global issues, they flunk. (p. 352)

Andersen and Björkman list five reasons they believe have contributed to this.

1. That in the first half of the 20th century, there was a strong shift in the Nordic countries away from Idealism to empiricism, positivism and nihilism.
2. After the two world wars, everything German had an image problem and bildung wasn't sexy anymore.
3. The Marshall Plan, while enormously helpful in many ways in rebuilding Europe after WWII, pried our attention away from bildung towards the glamor of Mickey Mouse, Coca Cola and Elvis Presley.
4. The youth revolts of 1968 brought valuable self-authoring, but also threw the baby out with the bathwater, leaving bildung as a reactionary concept that was not updated.
5. This all led to bildung being renamed adult education, or life-long learning.[14] Evening classes for adults lost their political edge and became harmless hobby lessons.

All of this has an effect on the population. They show statistics that place Sweden, Denmark and Finland among the top on consumption of anti-depressants (with Norway not so far behind). They propose this reason; "that our expectations of happy and meaningful lives became extremely high in the Nordics over the past generations and that something has fundamentally changed in the way we live, something that caused high number of people to seek medication in order not to feel certain kinds of pain" (p. 356). This pain is linked to;

---

[13] While I am not sure of this overall, I do notice that this kind of breadth of study is difficult to obtain here in Norwegian university study as well. One except I am familiar with is a course required of all master students at the university I teach at, (about 2300 students take this course each year), where they have to work in interdisciplinary teams on projects, and 50% of their grade is based on a group dynamic process report. Called Experts in Teams (EiT), the course was developed at the urge from industry to help the university's graduates have some skills beyond their disciplinary expertise, specifically in collaborative teamwork.

[14] My position at NTNU is in a department named Pedagogy and Life-long Learning, and I can vouch for the current focus of this field not really being aligned with the ideas of bildung laid out in this book.

> a lack of meaning and purpose in people's lives, a lack of deep, intimate, lasting, and committed relationships. There is a mismatch in the need for belonging and the actual sense of belonging, there is a mismatch between meaning making and purpose. (p. 357)

Chapter 15. What have we discovered writing this book?

Here is where the authors put forward some really interesting propositions. They articulate the importance of nationalism, the 6th circle of belonging, and how it takes people beyond self-interest, and helps them self-govern according to a larger set of symbols and meanings or standards. They see the value and importance of each step and each circle, and examine what happens if we don't get a rounded out personally with experiences in each circle or sphere. This leads into a nice discussion of three types of freedom, American, (freedom from the state), French, (freedom that comes from the state), and then German as bildung (freedom that is not political but existential).

The authors are quite clear when they discuss the implications of the education necessary for contributing to democracy.

> Particularly politicians, bureaucrats and consultant companies must pay attention here: If you *only* studied economics, political science, law, and/or communication, you do not have an education that qualifies you to solve our current problems. Your knowledge is inadequate and you are most likely contributing to ruining our democracies. (p. 370)

Andersen and Björkman say they are not trying to be arrogant in writing this, but believe strongly that the professionalization of political governance is actually wrong.

To close this chapter, they look into the role that the Freemasons have played in all of this. Many of the main characters in the book were masons. The authors describe how it would make sense 2-300 years ago that free thinking men, living under absolute monarchies, would need to find some way to gather in order to discuss ideas freely. They developed an hypotheses that there is some alignment between these ego-development principles, bildung and Freemasonry, and this was confirmed by the feedback they received from a high ranking Mason in Denmark who read the first draft of this book.

Part V Looking Forward

Chapter 16. Can the Nordic Experience Benefit the Rest of the World?

Here the authors look at their 5th hypothesis: Is there a universal lesson about creating democracies and stable societies to be learned from the Nordic countries? They propose two parts to this question. One is about the Nordic experience benefitting the rest of the world and the other is to see if there are lessons in how this transition was made that can be applied to the current transition to a digitized and globalized economy and community.

Their argument, harking back to the first chapter, is that the Nordic countries did not have any special natural resources – they were poor agrarian societies (although some would say now that Norway's oil helps). Nor were they set up any differently in terms of governance – they were feudal monarchies. What they had was a few visionary people who fostered bildung among the masses during the transition into democracy. They list a number of key ingredients in the formula for this, which depend primarily on dedicated teachers being given the freedom to teach bildung.

The authors also recognize that today is a different transition than the one of 150 years ago. The basic response is that increasing complexity in society can best be met with requisite increases in complexity of mind. They see self-authoring also as self-initiating and not being in the grip of others’ expectations, which, combined with a basic sense of economic security, contributes to a robust and happier society.

However, all is not a rosy picture. The authors acknowledge that the disappearance of bildung in Nordic society combined with the disappearance of shared national heritage that contributes to fleshing out our connection to the 6th circle of belonging, leaves us with an over-abundance of narcissistic elements of culture. Rather than asking teens to internalize a lasting set of moral values, they are invited to share how they feel, and connect more to peer groups. “[E]verybody is increasingly surrounded by self-consolidators and fewer feel that they are surrounded by committed persons and communities who truly care about them” (p. 390). Thus we can have all the means of support to develop, but if all we develop is our level two ego, then all does not bode well for society.

Chapter 17. Societal Transitions

The second part of the 5th hypothesis is explored more fully in this chapter. The authors examine how a transition today into a BINC (Bio-, Info-, Nano-, and Cognitive technologies) world contributes to shaping a more complex society and culture to navigate. Here they make the case that in order to face this kind of constant change at this level we need a self-transforming mind capable of handling a changing inner landscape.

On the cultural side, they explain the evolution of cultural codes from indigenous, through pre-modern, modern and postmodern, and then go into the notion of meta-modernity. They do an analysis of clashes between these layers of culture and our ego meaning making systems, pointing to the need for both meaning and purpose being developed through layers of bildung in order to adequately navigate current transitions.

Chapter 18. Where are We Now? – Challenges, Obstacles and Choices

Here the authors lay out their analysis of our current situation as a species. They focus on collective challenges in the outer world (society and environment), collective inner challenges to our circles of belonging, individual challenges of making it in the world and inner individual challenges. They list a number of such issues in each area. Their description of these areas show how bildung, or more specifically the lack thereof in today’s society, contributes to these challenges. They address the issue of finding appropriate leaders for political governance, redressing imbalances in a market ideology and how to deal with the clashes of cultural codes, including the issue of terrorism. The illustrate this by asking a question that places the core idea of the Nordic secret into a modern context.

> How would Hans Who Went to Folk High School have reacted if the person who wanted to find the gold inside him had not been a religious folk high school teacher offering heroic Danishness but a religious madrassa teacher offering ‘heroic’ Islamism? Would Hans have known the difference? (p. 429)

They articulate a need to “develop meta-modern cultures that, each in its way, strengthen their particular heritage without having to impose it on everybody else” (p. 430). They note that transitions like the one they describe in their book, and the one we face today to move into a meta-modern society do not happen without the active participation of visionaries who enable an appropriate kind of bildung for the times.

One illustration in this chapter I found interesting was how economic value is created in today’s economy compared to yesterdays. The Swedish car manufacturer Volvo was sold in 2010 after 83 years of operation, with value created by 23,000 employees amounting to $1.5 billion USD. On the other hand, the Swedish company Mojang was formed in 2010 and bought by Microsoft in 2014 for $2.5 billion USD. It had only 40 employees, who created the game MineCraft.

Chapter 19. What Could Bildung 3.0 Look Like?

What would Bildung for meta-modernity look like? “… meta-modern folk-*Bildung* must offer paths towards inclusion in all circles of belonging as the homesickness for them appears or evolves” (p. 437). The authors note that knowing about the various circles of belonging is not the same as having a sense of belonging or being at home in them. “… our task is to awaken 8 billion people to feel homesick regarding the well-being of their peers” (p. 437). Then they lay out what they perceive developmental psychology is offering us, emphasizing that while we should not judge people in general based on their ego development, we should definitely take this into consideration for those who wish to influence society, such as politicians, teachers, or leaders of companies. A list of questions we can ask of ourselves for each level are offered to help us assess our place in this sequence of development.

They then turn to what bildung has to offer, essentially that “*Bildung* allows us to find beauty and meaning at all stages of life, throughout all layers” (p. 442). This includes connecting personal ego development to cultural heritage, expressions of art and beauty and narratives that enculturate us and enable meaningful participation in society.

To create folk-bildung 3.0, the authors explore a number of ideas that emerged for them during their journey of creating this book. This is in the context of how our life spans today have extended well beyond norms from the recent past. We can expect to have 60-70 years of active adult work life, where our careers evolve through various meanderings.[15]

In this context, the need for a new kind of life long education becomes clear. Andersen and Björkman lay out key points that focus on enabling people to be supported and challenged to grow into successively later stages of ego development, as well as to expand into circles of belonging.

---

[15] I can attest to this not only in my own life, where my transitions have been from farming, through carpentry and truck driving into academia and consulting, but also in that of my father, who in his early 80s is well into his third major career and successfully working as much as he wants.

As well, this education needs to promote meta-modernity as they have described it, introduced at age appropriate times in our lives. Beyond this, they lay out a number of concrete measures to support this, such as focusing on hiring teachers from later ego development stages and keeping technology in context in education. This is to counter what they perceive missing today: “What is missing from today’s goals for education is the meaning-making, the sense of cultural connectedness, moral depth, and allowing the student to develop a rounded character” (p. 455).

All this is illustrated in the following figure.

Figure 19 – Layers and transitions including the escape from freedom

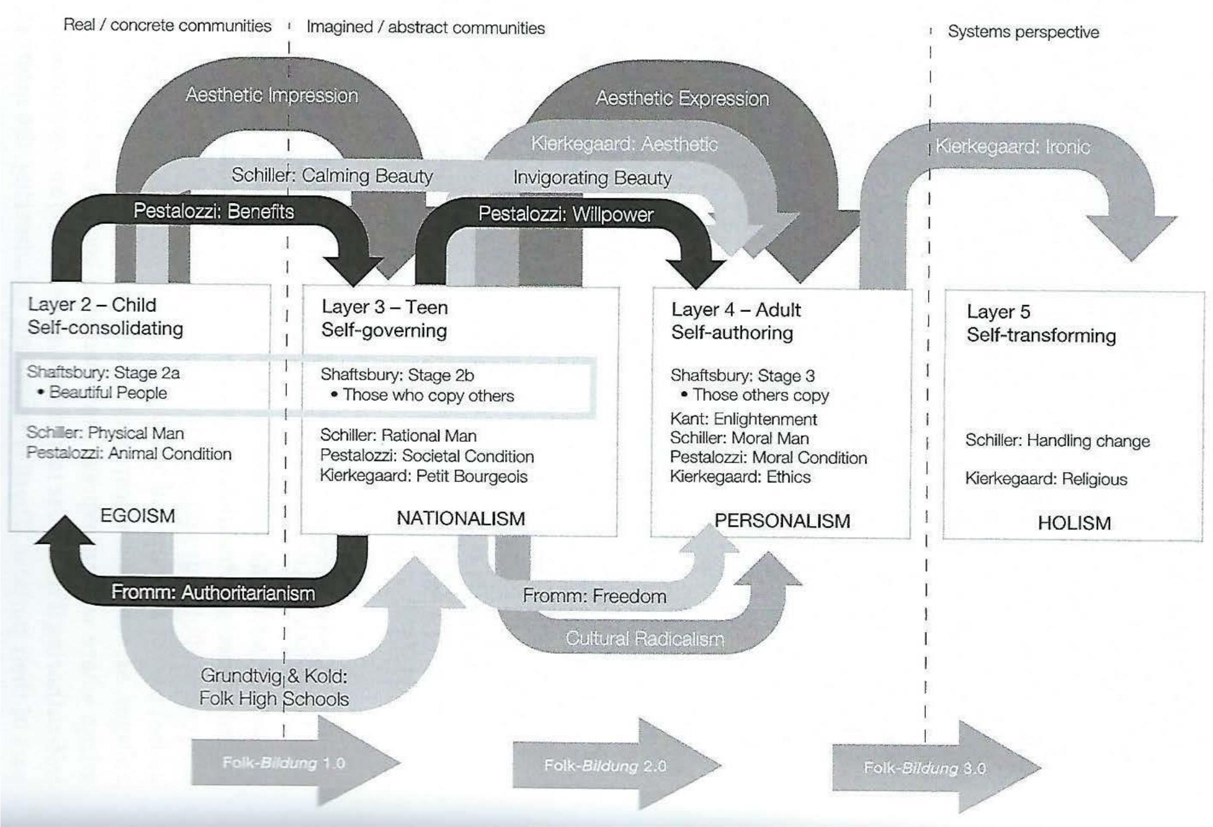
Real / concrete communities
Imagined / abstract communities
Systems perspective
Aesthetic Impression
Aesthetic Expression
Kierkegaard: Aesthetic
Kierkegaard: Ironic
Schiller: Calming Beauty
Invigorating Beauty
Pestalozzi: Benefits
Pestalozzi: Willpower
Layer 2 – Child
Self-consolidating
Shaftsbury: Stage 2a
• Beautiful People
Schiller: Physical Man
Pestalozzi: Animal Condition
EGOISM
Layer 3 – Teen
Self-governing
Shaftsbury: Stage 2b
• Those who copy others
Schiller: Rational Man
Pestalozzi: Societal Condition
Kierkegaard: Petit Bourgeois
NATIONALISM
Layer 4 – Adult
Self-authoring
Shaftsbury: Stage 3
• Those others copy
Kant: Enlightenment
Schiller: Moral Man
Pestalozzi: Moral Condition
Kierkegaard: Ethics
PERSONALISM
Layer 5
Self-transforming
Schiller: Handling change
Kierkegaard: Religious
HOLISM
Fromm: Authoritarianism
Fromm: Freedom
Cultural Radicalism
Grundtvig & Kold:
Folk High Schools
Folk-Bildung 1.0
Folk-Bildung 2.0
Folk-Bildung 3.0

Figure 2(19): A model of Bildung as development.

In addition, they make a number of specific suggestions relating to updating things like the scouts organizations to this 3.0 version, executive education as a type of bildung, implementing Grundtvig’s idea of a folk-bildung university in Gothenburg and a European bildung university in Strasbourg.

Chapter 20. Looking Forward to our Conversations

Here a brief summary shows how they have traced the development of bildung philosophy from Shaftesbury through a number of key German philosophers to the Scandinavian folk-bilders who created the high schools that brought personal growth and development to a broader range and number of people in those societies. They characterize this journey as a story of freedom and beauty (thus the subtitle of the book) and a history of increasing the understanding and sense of responsibility of members of a set of democratic societies.

They note that the lack of such development can lead to falling prey to the emotional need for authoritarianism, or the desire for someone else to take responsibility. In the face of increasing complexity in society, can we fall prey to the same pattern?

Reflections

With all of this, I hope a) that I have done justice to the work put into this book and that b) I have whetted your appetite for reading the book itself. Not simply for the reading and taking in of interesting ideas, but for the sake of motivating you to find new possibilities for participating in society.

For myself, reading this book has helped me recognize some of the qualities in the culture where I live that have in recent years been emerging more into the foreground of my awareness. When I came to Norway, everyone her asked how long I would stay. I responded that I didn’t know, maybe 5, 10 or 15 years. Now I find myself comfortably settled, enjoying the foundation living in a high trust society with basic means reasonably attained. What I have learned reading this book helps make explicit for me at least some of the reasons this is the case.

We all face challenges. These offer us the opportunity to grow. Yet we need to do more than grow. Essential to our growth at some point is the need to pass along what we learn to others. There are many ways this can happen and I hope that this small contribution can stimulate next steps for each of us in doing this.

Postformal Education:
A Philosophy for Complex Futures

Gidley, J. (2017). *Postformal education: A philosophy for complex futures*. Berlin: Springer.

Reviewed by Matthew Rich-Tolsma[1]

Reviewing Prof. Jennifer Gidley's new book – one which is in many ways a crowning achievement of her oeuvre to date, and has taken her many years (more than a decade beginning with her doctoral work) to complete – has not been an easy task. It is clear, even from a cursory skim of its contents page that *Postformal Education* is a profoundly complex (although not unproblematic) scholarly achievement. However, I would contend that it is as a personal manifesto and a strident and courageous call to educational change that this book deserves to be widely read. The landscape of educational theory is – for the most part – an arid one. Much like the institutions of schooling which it underpins, it is often largely irrelevant to the practice and lived experience of both teachers and learners. In this arid spiritual and intellectual landscape, Gidley's latest volume may just be both the pregnant cloud on the horizon and the first cool drafts of a wind of change.

The book is the third volume of Springer's series on *Critical Studies of Education*, which is edited by leading critical pedagogy scholars Shirley Steinberg and Kenneth Tobin. The volume is dedicated to the memory of the late critical scholar Joe Kincheloe (who was married to Shirley Steinberg), and the personal influence of Kincheloe on Gidley is recurring theme throughout the book.

Gidley offers a penetrating and catholic analysis of the emerging edge of the field with characteristic humility and thoughtfulness. She also offers some very practical expressions around what making this change looks like, particularly in part three of the book, in which she offers an exposition of her evolving post formal educational philosophy. This integrative philosophy – drawing on many of the the strands that have inspired Gidely across her career including anthroposophy, integral theory, and critical pedagogy – is built upon four core pedagogies: pedagogical love (as an evolutionary force); pedagogical life (as a sustaining force); pedagogical wisdom (as a creative force); and pedagogical voice (as an empowering force).

This is offered against the backdrop of a penetrating problematisation of the contemporary educational context (she clearly outlines four challenges: global; epistemological; global youth; and educational problematiques). This is all clearly drawn from a diverse wealth of personal and professional experience. The glimpses that Gidley provides into how her philosophy was formed

---

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through snippets of personal narrative, serves to inspire the reader to continue to evolve their practice, while effectively imbuing her words with a sense of living authority.

Gidley's stated purpose in writing this book is not to tinker with what she considers to be an obsolete educational system but rather "co-evolving a radically new education that is complexly human and simply divine" (p.271). For her this involves the creation of educational settings that support the evolution of consciousness. This utopian ideal seems quite inspiring, but I would contend that this is also what makes Gidley's approach at times quite problematic. I find the sections in Gidely's book where she is drawing attention to practice most engaging, where she is taking up the complex face-to-face acts of relating that human beings participate in with each other and making sense of them. I would suggest that what she is drawing attention to here is a sort of logic of practice that Aristotle called *phronesis*, a sort of critical-reflexive exercise of practical judgement. This is based on her vast experience and what is clearly a profound capability to reflect on her practice. I enjoyed this aspect of the book because it seemed particularly useful to me as it applied to my experience of what education is: a myriad of relation and interactions consciously aimed at supporting learning. Education is not a system. This is a particularly *disembedded* (to borrow a term from the organisational theorist Barbara Townley) way of thinking about education, that attempts to divorce it from embodied human experience through a reliance on bureaucratic, technocratic, and economic rationalities (see Townley, 2013). I also enjoyed reading critical reflections that engaged practice, as these seem more pragmatic, it draws attention to the messiness of what is rather than proposing an idealised hypothetical.

The trouble with attempting to engage with education as a system is that Gidley's work is at times not only idealistic but ideological. It proposes a better future based on a set of idealised values (these values – love, freedom, wisdom, care – are in and of themselves not particularly original, but then again what is). This is a good example of what the American pragmatist George Herbert Mead (1923) spoke of as cult values. Mead posited that cult values result from the generalised presentation of a hopelessly idealised future, divorced from the practical obstacles to its particularisation. The cult behaviour that results from this idealisation can result in horrendous violence; yet Mead argued that cult values are also a cherished part of human heritage. The reality is that cult values can only find meaningful expression through their functionalisation in context. By this I mean that the general ideal of love, is only meaningful through particular expression of love in relationship which is diverse and bound to be less than ideal, thereby revealing the paradox of the general and the particular.

The irony is that attempting to overhaul the educational system based on noble ideals is not a new idea. Many of the systems that Gidley is quick to criticise began in this way, and invariably descended into familiar tyranny and disfunction because the particularisation of cult values is bound to be unpredictable. The idea that futures – however noble – can be designed and controlled in a predictable way doesn't appear to correspond to the evidence of human experience, and yet these attempts to create utopian visions (based on an apocalyptic interpretation of the failed utopia which preceded them) seems a persistent pattern (the English intellectual John Gary wrote a fascinating and controversial book, *Black Mass* (2007), in which he argues that this is an expression of *chiliasm* or *millenarianism* as an attempt to cope with the eschatological disappointment of Jesus Christ not establishing a new world order).

In short, I think that this is a good book. I think that you should buy it. I think it offers valuable wisdom and critique of educational theory and practice, and some well thought out and researched new ideas. I also think that our hope and ardour should be balanced by honesty and rigour, and her ideas should be read with a critical mind. We should not allow the grandiose scope of her vision, or the sometimes mystical turn of her phrasing to intimidate us or dampen our desire for clarity. From what I know of Prof. Gidley, she would expect no less of her readers.

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Editorial Introduction

to the IR Special Issue on Integral Postmetaphysical Spirituality

Tom Murray,[1] Bruce Alderman,[2] and Layman Pascal[3] ***(special issue editors)***

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[2] **Bruce Alderman**, M.A., is adjunct faculty in the College of Psychology at John F. Kennedy University (JFKU). He received his master's degree in Integral Psychology, with an emphasis on Transpersonal Counseling Psychology, from JFKU in 2005. He currently teaches Paradigms of Consciousness; Fundamentals of Transpersonal Psychology; World Spirituality; Living Systems Theory; Integral Life Practice; Individual Development; and Integral Meditation and Psychospiritual Development. Prior to working at JFKU, he taught and studied abroad in Asia for several years, including teaching courses on creative writing and inquiry at the Rajghat Besant School, a Krishnamurti school in Varanasi, India. He has published essays in the Journal of Integral Theory and Practice and Consciousness Journal, as well as in several forthcoming anthologies on Integral philosophy and spirituality. For the past 12 years, he has moderated the Integral Postmetaphysical Spirituality forum (IPS); and more recently, he co-founded the Foundation for Integral Religion and Spirituality (FIRS). https://www.jfku.edu/faculty/bruce-alderman/
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[3] **Layman Pascal** is a "white indian" whose family has lived for 5 generations among the remote islands of the Pacific Northwest. He also hates biographies & introductions so bear with him – this is difficult! What we have done already is so much less interesting that what we have not yet done, but I digress – He is (or has been) a meditation teacher, yoga instructor, public speaker, nondual theologian, lecturer on integral methatheory, shamanism advocate, author, artist, bad poet, co-chair of the Foundation for Integral Religion and Spirituality (FIRS), co-editor of the Integral Review Special Issue on Integral Postmetapysical Spirituality and strong contributor to IPMS forums, moderator of the Integral Life forum, and creator of such online oddities as: The Christmas Wiki, Pascal's Integral Batcave, the Integral Demonology Forum, the Integral Morality & Ethics Group, the Integral Gender Studies Forum and more. Currently he runs a Nepalese clothing store, cafe & sacred gift shop in Northern Ontario with his wonderful girlfriend while also practicing hypnotherapy and energy accupressure. Etc.
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17. Visual art #2. **Layman Pascal** (with notes from **Kathryn Winter)**

Issue Overview

In 2006, Bruce Alderman, who teaches at John F. Kennedy University in the Consciousness and Transformative Studies, Transpersonal Counseling Psychology, and Holistic Counseling Psychology programs, started an online discussion forum titled "Integral Postmetaphysical Spirituality: Participatory Spirituality for the 21st Century" (IPS). The official description of the online forum/group begins with an invitation to inquiry:

> What paths lie ahead for religion and spirituality in the 21st Century? How might the insights of modernity and post-modernity impact and inform humanity's ancient wisdom traditions? How are we to enact, together, new spiritual visions – independently, or within our respective traditions – that can respond adequately to the challenges of our times? This group is for anyone interested in exploring these questions and tracing out the horizons of an integral post-metaphysical spirituality.

Bruce launched the IPS forum initially in response to Ken Wilber's 2006 publication of *Integral Spirituality*, with the intent of digesting and evaluating this new phase in Wilber's thought (especially as presented in this text and the Kosmos trilogy excerpts). Members explored the many threads leading through the "post-metaphysical" and "participatory" turns in contemporary philosophy and theology, considering their implications for integral theory and spirituality in general. The group eventually morphed into a semi-formal, peer-to-peer colloquium and site for ongoing scholarly inquiry.

The first incarnation of the forum was on a platform called Zaadz (and later Gaia) from 2006 to 2010. It then moved to the Ning platform in March of 2010, and finally to Facebook in August of 2013, following the births, deaths, and evolution of platforms during the formative years of social media. Bruce had been a well-known and respected scholar within the integral theory community, and was one of the first in that community to realize a vision of experimenting with the then-new social media technology to nurture an intellectual commons that was fresh, semi-formal, even edgy, compared with traditional scholarly venues such as journals, newsletters, and conferences. The forum (or series of forums by the same name) attracted many participants over the years, and includes a variety of discussion threads ranging from deep dives into scholarly topics to playful or irreverent musings and rants, and includes a whole section containing visual and musical art by its participants. In this Special Issue, we aim to shine a light on this important but obscure corner of the social media noosphere, which has been bubbling on the feral fringes of academic scholarship for some time.

The Facebook forum is alive and well to this day *here*, and the Ning forum is archived *here*. The Zaadz forum has been taken down, but many of the key threads from that period have been archived as well. The Ning forum contains almost 800 discussion threads (and an order of magnitude more posts and comments) organized into categories including "Postmetaphysical Visions and Visionaries," "Re-visioning the Great Traditions," "Engagement," " IPS Arts," "Book and Film Club," "IPS Town Hall – For discussion of all things political," and "O'Kenny's Pub (A rustic, slightly seedy little place, named after its dishwasher)". The Ning forum topped out at 168 members, which was apparently the maximum allowed. The Facebook forum is actually a Facebook "group," and does not allow for the type of organization and archival functionality of a true discussion forum, so we cannot give a similar summary of its organization or contents. It does, like all Facebook groups, have a section for Photos and Videos, and one for downloaded files, which contains dozens of essays, musings, and reference materials. The Facebook group clocks in at an impressive 1,960 members as of December 2018.

The original aim of this Special Issue was to curate, synthesize, and/or update material from the forum(s) into a form suitable for an (albeit progressive/innovative) scholarly journal. We invited the forum's primary contributors to submit reflections or updates on the topics they had frequented. But, in keeping with the spirit of the IPS forum, we also wanted to branch playfully away from traditional scholarly journal formats. In addition to scholarly papers, we include artwork and poetry from or inspired by the IPS website. We also sponsored an online dialogue *about* online dialogues that are focused on topics overlapping with IPS – i.e., we gathered a group of experts to inquire into what it might look like to practice some of what our community "preaches" about spirituality and adult development as we use social media technologies such as discussion forums and video conferencing. Included are links to archives of the dialogues, and summary of key points and themes. This issue also includes a compilation of reflections on a controversial public intellectual, Jordan Peterson, whose podcast/Youtube interviews and writing have "gone viral" on the internet within the last year. Peterson's work covers many subjects, but here we focus on his work related to religion, archetypes, and the spiritual side of human meaning-making, since his approach is arguably post-metaphysical. Because Peterson and the phenomena of his popularity and controversy have been a focus of heated conversations within the "integral diaspora," we thought it appropriate to include this conversation in our IPS issue.

The special issue is co-sponsored by the Foundation for Integral Religion and Spirituality, which is a non-profit organization dedicated to cultivating, curating, and hosting the emergence of integrative spirituality in both academic and social venues. (http://www.integralreligion.org).

It should also be noted that prior issues of Integral Review (integral-review.org) include papers related to the theme of IPS. In particular, the August 2018 issue included Zak Stein's "Love in a Time Between Worlds: On the Metamodern 'Return' to a Metaphysics of Eros;" and the March 2014 issue contained Bonnitta Roy's "Born in the Middle: The Soteriological Streams of Integral Theory and Meta-Reality."

As you will see, we have tried to weave various forms of participatory engagement into this issue. In that spirit we invite all readers to post comments and engage in dialogue about this Issue's content. Marco Morelli has graciously created a "channel" for us on the Infinite Conversations discussion forum website. There you will find a topic for each article in this Issue, and a Welcome post showing you how to participate. If this facility is well used, we plan to have discussion spaces for all future issues of Integral Review.

To access this channel, see http://www.infiniteconversations.com/c/ir. Anyone can read. To be able to reply to a topic click the “Sign Up” button and register (no anonymous posts!).

Below, we provide an overview of the textual and multimedia cornucopia of creative offerings that awaits the reader/listener/viewer of this special issue of Integral Review.

Papers

This issue contains the following essays and articles:

- **Bruce Alderman’s** *Generative (En)closures, Bubbles, and Magic Circles* is a wonderful, updated revisitation of some of the dialogues found in the IPS forum. Bruce has mined the archival threads and fashioned its raw material into a retro-emergent, updated dialogue amongst himself, Layman Pascal, and Edward Berge. The result is a format that allows for a deeply lyrical and imaginative interactive riff, playfully exploring the interweaving/streaming, bubbling/frothing themes within integral postmetaphysical religion and spirituality. Strap on your seatbelt.
- **Bonnitta Roy’s** *Why Metaphysics Matters* draws on Whitehead, Gebser, and Hartshorne to argue "why metaphysics matters in our current Metamodern era [of] escalating epistemic complexity," and "how adopting a process metaphysical praxis can help us renew our ways of meeting the complexity of the world."
- **Layman Pascal's** *Thus Spake Zarathustra: The First Postmetaphysical Spiritual Hero* offers a playful portal into Nietzsche's novel and the proto-post-post-modern lessons offered through

- **Layman Pascal's** *Thus Spake Zarathustra: The First Postmetaphysical Spiritual Hero* offers a playful portal into Nietzsche's novel and the proto-post-post-modern lessons offered through its protagonist. Layman's insightful homage, itself poetic and playful, frames the novel as "a developmental teaching which treats meaning as something we grow towards through exercises that unfold and spiritualize the self – practices instead of beliefs, humor instead of idealism, ecology instead of heaven, and the daring to see beyond our conventional metaphysical assumptions."
- **Edward Berge's** essay *From Capitalism to the Collaborative Commons* links spiritual to economic human concerns, and describes "the slow decline and endgame of capitalism while also highlighting the emerging new socioeconomic system of the collaborative commons." It "criticizes the notion of conscious capitalism" and points toward "a more spiritually oriented economic system." The essay synthesizes Edward's contributions to a several-thread-long conversation on anti-capitalism from the IPS forum.
- **Oliver Griebel's** essay *Nonduality – Non/duality – Many-One Duality* explores the range of meanings attributed to "non-duality." He notes that "[E]ven in spiritual post-postmodern, postmetaphysical, integral approaches there is still" significant diversity and controversy "about what the spirit or consciousness of Ultimate Reality is: Is it self-conscious, intentional and caring, about its coherence and beauty, worth and life within? Or is it non-reflexive, transrational, 'empty'?"
- **Michael Schwartz's** *Theses on Any Future Philosophy of Integral Post-Metaphysical Spirituality* offers incisive and considered reflections on the roles that philosophy may play as underlaborer for integral postmetaphysical spirituality; on the scope, promise, and challenges of a postmetaphysical orientation for spiritual practice; on subtle refinements to IPS that an encounter with other postmetaphysical orientations (such as Bhaskar's Critical Realism) might suggest; and on several possible avenues of flight for IPS beyond its dominant Wilberian formulations.
- **Layman Pascal's** second contribution, *Can Anybody Hear?* (the title being a play off the "if a tree falls..." trope), is an attempt to bridge "the semantic gap between Ontology & Epistemology [...and...] provide a metaphysics-of-postmetaphysics" that "unites 'Wilberian' and 'Bhaskarian' types of metatheories." He suggests a reframing of the ontology vs. epistemology dialectic, which too often becomes circular, in terms of "the structure of the Causal and Nondual states – when they are broadened beyond the mentality of meditators, spiritualists, and psychedelic explorers."
- **Tom Murray's** *Knowing and Un-knowing Reality: A Beginner's and Expert's Developmental Guide to Post-Metaphysical Thinking* explores postmetaphysics from several perspectives: developmental, philosophical, historical, phenomenological, and ethical. Murray frames postmetaphysical thinking in terms of the "4th Person Perspective" described in adult developmental theories. This booklet-length text can serves as an extensive overview of postmetaphysical approaches to spirituality and philosophy.

Alternative Formats

This issue of IR includes several alternative contribution formats:

- ***Definitions***: Collected definitions/descriptions of Integral Postmetaphysical Spirituality: In anticipation of this special issue we put out a call for definitions and short descriptions of IPS, and received a variety of perspectives. We share submissions from **Bruce Alderman, Layman Pascal**, **Edward Berge**, and **Joseph Farley**. (Murray's article contains an extensive description).

- ***Interview.*** **David MacLeod** organized *The Intersection of PatternDynamics and Integral Post-Metaphysical Spirituality: What Brings Us Together*? an interview/dialogue series with **Tim Winton** on Winton's "PatternDynamics" framework. Links are provided to the three parts of the interview series, audio recordings of 45-60 minutes each, that primarily focus on how PatternDynamics relates to spirituality. Included is a transcript as well as an overview and detailed topic map of the dialogue.
- ***Online forum reflections and curatio****n*. *Romancing the Ning* – **Layman Pascal** and **Bruce Alderman** give us a guided tour of the original the IPS archival material.
- ***Special Section: Videoconference dialogue:*** *Deep Dialogue in Social Media Spaces: A Brief Experiment.* Reflective essays on four videoconference recordings of expert dialogues on the theme of supporting "deep dialogue" in online spaces, with essays by **Andrew Venezia** and **Layman Pascal**. See the description of this project below.
- ***Special Section: Text dialogue on*** *Jordan Peterson's Treatment of Spirituality, Religion, Archetypes, and Metaphysics*. Reflections on the "Jordan Peterson Phenomena – focused on themes of religion, archetypes, and (post-) metaphysics. See the description of this project below.
- ***Visual art #1.*** **Dylan Thomas**, an artist and denizen of the IPS forum, has submitted a series of his visual works, a reverent meditation upon what seems "inherently transcendent" about Nature's geometrical symmetries – the "sacred in its structural harmony" as "the architecture of a divine craftsman" (quotes are from the accompanying Artist's Essay).
- ***Visual art #2.*** **Layman Pascal** has provided a set of artistic works, some of which were featured within the Arts section of the IPS Ning forum. **Kathryn Winter** has provided some notes sharing her perspective on the series.
- ***Poetry***: In addition to visual art, we received responses to our call for poems related to IPS, from: **Edward Berge**, **Tim Winton**, and **Bruce Alderman.**

Special Sections

This issue includes two special sections that take a specifically dialogical collaborative approach to reflective knowledge production.

1. Deep Dialogue in Social Media Spaces: A Brief Experiment

The IPS forum has included a number of experiments with format and facilitation modalities, and those participating in IPS forums were also active in hosting or mediating other online spaces. Within integrally-informed theory and practice communities there is an, at least implicit, invitation to enact one's theory, by either "practicing what one preaches" so to speak, or by using the theory to reflect upon the writing, reading, or dialogue process itself. IPS was thus, in a way, a forerunner in the area of hosting technology-mediated forums that were not only *about* spirituality, consciousness, and philosophy, but self-aware about the ethical and performative questions of *being and acting* spiritually or ethically aware or conscious within the knowledge building process. In light of this, we set out to gather a group of experts in the area of supporting "deep dialogue" in online spaces such as discussion forums and video conferences. The overview contains essays by Andrew Venezia and Layman Pascal.

The participants were: **Bonnitta Roy, Andrew Venezia, Hilary Bradbury, Layman Pascal, Marco Morelli, Heather Fester, Daniel Thorson, Penelope Whitworth, Geoff Fitch, Daniel Görtz, and Tom Murray** (participant-facilitator).

2. Jordan Peterson's Treatment of Spirituality, Religion, Archetypes, and Metaphysics

Jordan Peterson, a recently prominent public intellectual, is known for his writings, recorded lectures, and social media commentaries on a wide variety of topics. He is most cited for his libertarian-leaning views on hot-button social and political issues related to political correctness and identity politics. Less discussed is his body of work on archetypes and the depth psychology of religion, which is mainly focused on Christianity. This is the area that we focus on in this special issue on *Integral Postmetaphysical Spirituality*. Peterson's expertise in archetypal modes of cognition allows for a respectful treatment of, not only "*spiritual*," but centrally "religious" metaphysical themes, while still allowing for a *post-metaphysical* attitude.

This Special Issue of Integral Review contains three essays/commentaries on the Jordan Peterson phenomena as it related to postmetaphysical spirituality: by **Brendan LaChance, Andrew Venezia, and Layman Pascal**.

In keeping with the tone of the IPS forum, our goal for the section of this Issue on Jordan Peterson was include a dialogic element, in which each of the authors had an opportunity to comment on the essays of the others. These comments are included.

In keeping with the dialogic nature of the IPS forum, we invited each of the three authors in the Jordan Peterson section to comment on the others’ pieces, and to pen a final rejoinder in response to other's comments.

We hope that you enjoy this very full issue – whether by meandering, diving deeply, or consuming it whole. We live in a world struggling to recover from the purported "death of god" produced by the collision of modern rationality with old-time-Religion. This centuries-old tension is reaching its crescendo even as we gaze upon it. This Issue stakes the claim that the overlapping domains of developmental theory, meta-theories like integral theory, and post-metaphysical philosophies, can and should play a large role in this transition. What is at stake is no less that the human soul, regardless of how that is understood. As serious as that sounds, we have included enough magical art, playful philosophy, and tender dialogue to support a deeply soulful inquiry.

What is Integral Postmetaphysical Spirituality?

As part of this special issue we put out a call for definitions and short descriptions of Integral Postmetaphysical Spirituality. Below we share what our fishing line pulled out of the sea – four diverse interpretations of the subject – from Bruce Alderman, Layman Pascal, Edward Berge, and Joseph Farley. Murray's longer piece in this special issue offers a detailed description of IPS from yet another perspective.

Bruce Alderman

INTEGRAL POSTMETAPHYSICAL SPIRITUALITY (IPS) does not yet fully exist. It is what Bruno Latour (2013) might call an *instauration* – something that is at once being uncovered and created, discovered and composed. It is a risk, an artist's gamble as she puts chisel to stone, and its final form is not yet decided. But given its internal tensions, it is likely it will never be so decided; it quivers most vitally right in that gap of in/decision, each shape it takes riven by difference and haloed by an unmasterable excess.

As *integral*, IPS invokes the One. But it must always do so in scare quotes; its "one" is the count-as-one, a consistent multiplicity, a oneness that is always two or more. This is not a watered down oneness; it is what the one has always been. Non/dual.

As *postmetaphysical*, IPS invokes invocation itself. It is ascetic in Nietzsche's or Sloterdijk's sense: its sorcery is *practice*; its magic, *participatory enactment*. It is not opposed to religious forms of belief or modes of speech, but it sees them also in enactive terms: as forms of participatory engagement, which can be generative (growth-promoting and integrative) or degenerative (leading to forms of demi-reality and soul-loss).

As *spirituality*, IPS invokes the sacred excess of spirit through four practices in particular: the quaternity of waking, growing, cleaning, and showing up. More generally, as we discuss in my essay for this issue, spirituality is the practice of building generative (en)closures which allow for the disclosure of deeper truths (through inquiry), and the cultivation of surplus coherence (through individual and collective action and modes of integration).

As a holistic orientation, IPS proceeds on both meta-metaphysical (post-metaphysical) and metaphysical levels simultaneously. Meta-metaphysically, IPS embraces metaphysical pluralism, viewing metaphysical systems as enactive operators which play a role in the enactment of particular, ontologically rich worldspaces. In this context, post-metaphysics, as Joel David Morrison (2007) well describes it, "is not ultimately a feature of the metaphysical system itself, but a cognitive or conceptual aperspectival stance which imposes an acategorical imperative – a meta-metaphysical and metacategorical framework – in which the absolute truth claims of any metaphysics are suspended in the relative world of justification, partly through the rational truth that all truth claims may be subject, endlessly, to further analysis" (p. 50).

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Such skepticism, when it is included and cultivated as a spiritual virtue (or a "Practice of the Self," in David Michael Levin's (1989) sense), is in spirit a faithful vulnerability born of the acategorical imperative: a willingness to put our or others' metaphysical truths into question, which means (at times at least) to put them to the test. This is not an anti-metaphysical perspective. Metaphysical speculation is a generative and essential part of our philosophical, scientific, and spiritual efforts to interface meaningfully, effectively, and creatively with the world. Putting metaphysical truth claims into question under the acategorical imperative doesn't mean rejecting all perceived metaphysical claims out of hand (in doing so, we would very likely be leaving our own metaphysical operating framework absolutized and unquestioned), but being willing both to rationally question and inquire into, and to open-endedly (i.e., faithfully-critically) act on, metaphysical claims: to personally take our chances with them, even with gusto and abandon, while remaining willing to hold them up for ongoing scrutiny (whenever that is called for).

At the level of practice, an Integral postmetaphysical approach frames metaphysical systems and ontologies injunctively. However, this injunctive emphasis is not, or should not be read as, merely a requirement for 'empirical support.' Rather, to emphasize injunction is to acknowledge the performative and embodied nature of our claims. It is to acknowledge the intertwining or entanglement of epistemology, ontology, and methodology in actual occasions.

On a metaphysical level (in both inter-religious and Integral spiritual spheres), IPS employs multiple enactive and integrative frameworks, such as Wilber's pronounal "Three Faces of God (or Spirit)" practice. This metaphysical framework is capable of non-reductively accounting for and integrating a variety of the 'ultimates' and 'ends' described and pursued in the world's major religious traditions, as well as enacting new soteriological horizons within the traditions that adopt it. This approach is suggested by Integral Methodological Pluralism itself, the enactive, meta-paradigmatic "engine" of Integral Theory, but it avoids being "merely metaphysical," in the sense Wilber criticizes, through the injunctive framing called for by the post-metaphysical, acategorical imperative described above.

As a postmetaphysical approach, integral spirituality might be fruitfully compared to Richard Kearney's anatheism. In the wake of the triumph of atheism in secular culture, Kearney coins a new word, *anatheism*, in which he takes the *ana-* to mean ‘after’ in two distinct senses: the postmetaphysical project of seeking after God (again) after the death of God. The God we seek after God’s demise is necessarily a stranger, Kearney argues, and this disposes us towards a theology of hospitality: we are called to host difference in our hearts, to open to otherness and surprise. And there is a sense, too, in which the postmetaphysics of IPS is an ana-metaphysics: after the post/modern efforts to wrestle free of metaphysics and spirituality, IPS represents a return to them anew, now as strange (and inviting) strangers: not as who we thought they were before, but nevertheless as valued guests, who may yet surprise and delight us still.

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Layman Pascal

THE DEFINITION OF ‘INTEGRAL POSTMETAPHYSICAL SPIRITUALITY’ is ultimately very simple. I mean that there is both a very simple and complex definition of this arcane topic – depending on your own level of interest.

The easy way is simply to realize that human spiritual growth does not depend on our beliefs. Meditation work will still develop your insides whether you think God is good, bad or nonexistent. The grand metaphysical ideas don’t totally matter. We are transformed by our practices rather than our conclusions about the Nature of the Reality. Of course some doddering old wags may call this *a participatory turn* within contemporary philosophy but there is also an ancient colloquial tradition on Earth of valuing actions over ideas.

This preference is also found in many of the “great saints” whom we suspect of embodying higher developmental stages of human psychological growth. They were often very cynical about worldviews, words & conventional spiritual concepts. They question our reasoning, our sense of self and all of our most basic perceptions about reality. The Tao that can be talked about is NOT the Eternal Tao. Such wisdom is both old and new. As we deepen our contact with Reality we continuously move beyond our previous notions about “real things”.

Friendly skepticism is our ally on the spiritual journey. It is profoundly useful to hold our beliefs lightly and to be critical of both ordinary & extraordinary ideas. The radiant vision of Christ can sublimely nourish you without requiring you to draw any particular conclusion about whether He “exists” or not. Yogic exercises are good for Hindus and non-Hindus alike. This should not be a surprise to people who were raised in a scientific world. We know that “theories” and “hypotheses” have been extremely successful. They are not *less* than certainty. They are MORE than certainty. More honest. More useful. Even more beautiful.

Integral philosophy frequently reminds us that a great spiritual teacher may be holy and transformative without necessarily being right about everything. Many different domains of validity exist. They do not contradict each other but neither should we get them mixed up. You don’t need everything to be totally and fantastically true in all possible ways. It just has to work. That’s the simple truth of postmetaphysical spirituality.

To describe the complex truth is obviously a little trickier. Let me relate – as well as I can recall – the incredibly clever and captiving answer I offered to Steve McIntosh who was sitting in the front row of a talk I gave several years ago in the American state of California. I said, at that time, that we all grow through layers of increasingly integrated complexity and depth. Each layer of our experience is like a whole world. It envelops, supercedes and critiques its previous world. Each of these layers has its own implicit presuppositions about What Exists. Because of an ancient joke about Aristotle and a bookshelf (look it up) we call these assumptions the "metaphysics" of a world.

Yet we only think of them as metaphysics when we are moving beyond. We become retroactively *postmetaphysical* about our previous metaphysics. They appear in hindsight. Our earlier ontology starts to get teased apart. It wasn't all equally true. Some things will be kept (but understood in a new way) while others will be discarded.

For example, as worldcentric rational humanism dawns within us, we still think rocks exist. We have that in common with our previous worldview. But now we see these rocks as 'ancient geological objects full of atoms'. We keep the rocks but we let go of our former conviction that all necessary objective truths are already contained in the blessed Quran. That older idea starts to look like a social bias or a weird form of authoritarian book-worship. We leave *that* God behind. But do we leave God behind? More spiritual members of an integral community may worry that postmetaphysics implies a strong materialist rejection of divinity, soul & purpose. Not necessarily. The so-called Green vision emerges with a postmetaphysical stance toward that very Orange "materialism" and "rationality". Then an integral vision will try to include but transcend all of these different kinds of metaphysics. Nothing important is being lost.

Integral Post-Metaphysics does not diminish our spiritual experience but *amplifies and enriches* it. Our access to the deepest holiness that we can assimilate is powerfully increased as we learn to hold our ideas about reality in an "as if" position. Quotation marks do not belittle "reality" – they give it wings! Perhaps there is even a part of our soul that responds more authentically and completely to "God" than to GOD?

Approximation, complexity and balanced ambiguity are not the enemies of certainty. They are its oldest roots. When we look back through time with our postmetaphysical eyes, we may see that even our most basic ways of thinking about the world were a kind of unexamined metaphysics. Instead of certainty/uncertainty as a pair of opposites we may be faced with a strange un/certainty. The slash has migrated to the center of our understanding. It is the same paradoxical conjunction that we find in in/complete, same-difference & many-one. It is also all those lines that simultaneously link and separate the diverse truth regions on an integral map. These nondual "separator-connectors" are nuanced doorways leading to a numinous realm where out transrational intellect merges with our most sublime experiences.

And those are the bones of the complex definition of *integral postmetaphysical spirituality.*

Edward Berge

'INTEGRAL' IS THE TERM GENERALLY USED to refer to Wilber's integral theory, or the integration of body, mind, soul and spirit in self, nature and culture. The idea is that there are increasing levels of progressive development within all those domains, and to explore how those domains interrelate. Metaphysics generally refers to the exploration of reality. Postmetaphysics then is a kind of metaphysics but without some of the assumptions and premises traditionally associated with that study. Those include the notion that humanity can accurately perceive reality as such either through some meditative state of consciousness, and/or through the notion of pure

Platonic forms via abstract, a priori reason. The postmetaphysical turn in philosophy instead grounds metaphysics in the empirical study of intersubjective cultural communication and the second generation cognitive science which sees the topic as embodied, enacted, embedded and extended is all domains.

How then does spirituality express postmetaphysically? First of all it is no longer a domain diametrically opposed to the material domain. Another hallmark of metaphysical thinking is this opposition, with the spiritual or absolute domain the source and cause of the material or relative domain. Postmetaphysical spirituality acknowledges the virtual realm, akin to the absolute realm, but in a very different relationship with the actual or material domain. The virtual domain is still generative of the actual, but its own genesis lies not in a metaphysical plane but within its relationship to the actual in a co-generative process.

It also has to do with the difference between the transcendent and the transcendental. The former assumes a metaphysical foundation for knowledge as described above. Transcendental deduction bypasses such a framing by speculating on what virtual preconditions must be supposed for knowledge to be possible. The virtual by this definition is multiple and immanent without any need of a transcendent, metaphysical underpinning and thus postmetaphysical in that sense.

The meta-awareness of meditative states is often contextualized as something that transcends the world of manifestation by directly perceiving the absolute. But Thompson and other neuroscientific researchers see such a state as an embodied, pre-personal base state of consciousness, a naturalist conception of the embodied mind. What is being accessed is a baseline attention that is fully embodied and thereby limited by that embodied constraint. Such a consciousness without an object doesn't lay claim to access to the reality of all, or even access to all of our personal cognitive unconscious or collective unconscious. It's just accessing that embodied part of our natural awareness available to us by virtue of having the body and brain we do with all its limitations. Furthermore, the above research makes clear that meta-awareness itself is not strictly an individual affair but rather involves internalized social cognition and interaction with the natural environment. Hence spiritually in this context is not only about a syntegration within the domains of self, culture and nature but also between them.

Joseph Farley

INTEGRAL POSTMETAPHYSICS FOR DUMMIES

I wrote Evolution As Metaphysics and Spiritual Violence during the 2 or 3 year period when I participated regularly in the IPMS forum, on the defunct Zaadz/Gaia website and the forum on Ning. It was well received on the forum, and Frank Visser posted it on his Integral World website a few years later. I think back fondly to the many colorful characters that made up the group; several academics including a Sanskrit scholar, a French psychiatrist and a cowboy artist who lived in South America, among others. Like many of my fellow members, I had gone through appreciation and even infatuation with the work of Ken Wilber, only to hit a wall of questioning and disillusion.

I have no formal training in philosophy, although I am widely read in comparative religion and spirituality. When I was in my twenties I made a point of reading Gregory Bateson's works, Steps To An Ecology Of Mind and Mind And Nature: A Necessary Unity. It seemed to me that Bateson had a holistic way of thinking and seeing the world that I wanted earnestly to grasp. I can't say that I understood everything he wrote about, but I credit Bateson with teaching me important points on how to think. Bateson's meta-rational explorations proposed that processes of mind are integral to the biological world, and that there are logical, hierarchical categories of learning and communication. He emphasized the importance of context and paradox, that there are pathologies of communication, and that metaphor, art, religion and myth are crucial components of human culture.

The IPMS forum was my first real exposure to Postmodern thought, as well as other versions of Integral thought. I see Integral Post Metaphysics as Ken Wilber's attempt to integrate elements of Postmodernism into his grand synthesis, and I'm not sure it's completely successful. I was impressed by Gregory Desilet's essays that critique KW's take on Postmodernism that are posted on the Integral World website (www.integralworld.net). I don't believe we have lived through the "Postmodern Turn" and are now in "Post-Postmodernism", as is popularly presented in Integral circles. Rather I think the last century has been one of accelerating hyper-modernism, where the exponential growth of technology disrupts social and economic systems, expedites the collision and cross fertilization of different cultures, threatens dire consequences to global climate and ecology, and frays our sense of self. I believe Postmodernism and Integral Theory are meta-rational attempts to understand and cope with the hyper-modern dilemma, and that both have problems and limitations.

What I learned from my participation in the forum was the simple methodology I employed in my essay. Inspect one's unexamined presuppositions in our necessary engagement with metaphysical concepts. Assess who controls the narrative and how that affects power dynamics. Clarify what a given narrative values and devalues developmentally, and the world view that it presents. I also learned that there is no neutral or unbiased philosophical stance. It confirmed that, as I had come to suspect, Ken Wilber's overarching Integral construction has it's own set of metaphysical biases. I am gratified that other Integral systems are becoming more well known, such as the thought of Jean Gebser, (well promoted by Jeremy Johnson's online Nura Learning Network). I also appreciate that the recent work of post-evangelical writer and preacher Rob Bell appears to be influenced by Pierre Teilhard de Chardin. I love the fact that Gregory Bateson's legacy is being continued by the work of his daughter Nora Bateson.

The metaphysical interpretation of scientific theories such as evolution or quantum physics is not going away. It's what we do as human beings trying to figure out our place in the Cosmos. I hope that other Integral systems, in addition to the work of Ken Wilber, will arise to become increasingly influential, and that post-metaphysical critique will flourish as a discipline.

GENERATIVE (EN)CLOSURES, BUBBLES, AND MAGIC CIRCLES:

A Chat about Integral Postmetaphysical Spirituality and Religion

Bruce Alderman[1] with Edward Berge[2] and Layman Pascal[3]

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EDWARD BERGE: In the 12 years since you first launched the Integral Postmetaphysical Spirituality forum, we've covered quite a lot of territory – too damned much to summarize! But it's safe to say, I think, that it has served as a kind of peer-to-peer colloquium for its core members to explore the nominal themes of the forum, and to follow and develop our own respective threads of interest. One of my abiding concerns over the years, and honestly the only one that still remains vital for me, has been the intersection of IPS with economics and political activism, as I discuss in my essay for this issue. But regarding your own work there, two of the fruits that stand out for me are your concepts of *integral grammatology* and *generative (en)closures*. I'm thinking it would be interesting for this issue to discuss the relationship of these concepts to integral postmetaphysical spirituality, in general, and maybe also to some of the themes that I highlight in my paper.

BRUCE ALDERMAN: Sure, that sounds good. There's a lot there to explore. Since I've given more time, in a couple recent publications, to discussing integral grammatology[4], I'd like to focus for now on the concept of generative (en)closures – particularly in relationship to a postmetaphysical understanding of spirituality and religion. But the integral grammatology lens will provide a good way to approach it, so I'll start there. And since Layman Pascal and I have done some extensive diving into the concept, I'd like to invite him to the conversation as well.

LAYMAN PASCAL: [Steps out from behind a fly agaric mushroom and takes a seat.]

BRUCE: At the 2013 Integral Theory Conference, building on our reflections on the IPS forum over the previous year, I introduced a grammar-based expansion of the Integral model which deploys not only the familiar pronounal lenses (I, We, It, and Its), but also lenses or philosophemes based on other parts of speech: nouns, adjectives, verbs, adverbs, and prepositions. Just as the pronouns in Integral Theory yield a postmetaphysical, perspectivist onto-epistemology, and provide an elegant framework for integrative metatheory, the other parts of speech may serve (and, historically, often have served) similar philosophical functions: supporting substantialist, aspect-oriented, processual, modal, and relational ontologies, respectively, and in some cases giving rise to alternative metatheoretical approaches. I discuss the grammatical philosophemes and their respective philosophical systems in detail in "Sophia Speaks" (Alderman, in press).

For each of these philosophical systems, while a single part of speech often serves as the central organizing principle or lens, the philosophemes related to the other parts of speech tend also to be included, typically in subordinate roles. For instance, in Integral Theory, pronouns are given explicit emphasis, but nounal (structural), verbal (processual), and other philosophemes figure prominently as well. In my "Integral In-dwelling" paper, I argue that one of the most important philosophemes for integral theorizing is, in fact, the preposition. The four-quadrant map speaks to the fundamental *with*-ness, the nonduality or inseparability, of the pronoun-perspectives. The integral instinct is of a deep and irreducible relationality to things; in Jean-Luc Nancy's words, the *being singular plural* or co-essentiality of things.

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[4] See "Sophia Speaks," to be published in 2019 in Dancing with Sophia: Integral Philosophy on the Verge; and "Integral In-dwelling," published in Consciousness journal.

LAYMAN: Yes, I appreciate your emphasis on prepositions. This idea extends my basic assertion in some of my own writings that the common divine element which exceeds and interblends the three primary ontological domains/classes – of the gross, subtle, and causal – is not situated outside them (as would be impossible and nihilistic to conceive) but rather as omni-pervasive functional thresholds within which difference and sameness are simultaneously presented and cancelled. These are prepositional instances. They allow “trans-duality” to be ubiquitous, seemingly absent, oriented (towards something), generative and loving (relational), etc.

In other words, the integrative potential of worldviews is demonstrated only at integration-sites, which are prepositional in nature. Prepositions permit the operation of all other grammatical functions and as such occupy a distinct status relative to the others.

BRUCE: That is the contention of Bruno Latour and Michel Serres as well: prepositions do not mark a separate ontological domain, but rather they pre-position or prepare the position for what is to come. They function, as Michel Serres observes, as angelic mediators, linking subjects with other subjects or objects, dwelling in the thick midst of becoming, tracing relations and forging sites of integration in the teeming flux of things. In this sense, prepositions play a facilitative role akin to mathematical operators, proliferating everywhere, providing points of departure and possibilities for contact and co-generative interaction. At their most refined, they function, perhaps, at what the Kashmiri philosopher Abhinavagupta called the fourth level of language. The third level is pre-articulated language, which is the precondition for conceptuality (*pasyanti*); and the fourth is the most subtle level (*para*, or the goddess of speech, *Paravak*), which is the precondition for all communication and sentience. In a modern framework, we might relate level three, for instance, to the embodied metaphors or image schemas of Lakoff and Johnson; and level four might be related to Roy Bhaskar's formulation of nonduality as the necessary precondition for any communication or contact at all. (Abhinavagupta's claim that "everything has the nature of everything" also seems to be one precursor – among many – to Bhaskar's notion of co-presence, which I explored in depth in “Integral In-dwelling”).

EDWARD: As is my wont, I see Abhinavagupta’s level four as my gal, *khora*. Such *différance* is an ontic basis where same/differentiation pre-exists, or sets the conditions for, our (or any) categorical perception. *Différance*, as Derrida suggests, is that which pre-positions identity and difference, i.e., the transcendental condition for their manifestation. Connecting this to integral grammatology, the preposition acts like *khora* in that it is that withdrawn core that prepares the space-time for actual occasions and is coterminous with them, a la Whitehead. Hence I'm wondering if prepositions, while parts of language, aren't themselves something pre-linguistic and which tie language back to that basic categorical embodiment via image schemata?

BRUCE: Yes, I see prepositions really as straddling levels three and four, depending on how they are deployed philosophically. But we have gotten pretty thick into the woods so quickly! I’m afraid we’re going to lose readers before we even begin. So, dialing back a little, and also re-orienting us back towards the promised discussion of generative (en)closures, I’ll just make the following observation.

In “Integral In-dwelling,” I named several prepositional constellations as implicit to integral meta-theorizing: with-above-below, for Wilber’s early spectrum of consciousness model; with-in-out for his four quadrant map; and several others related to his three heuristic principles for integral methodological pluralism. For the bulk of the paper, I focused on a prepositional constellation I called *with/in*, which names the mutual, concurrent *with*-ness (external proximity) and *in*-ness or *within*-ness (internal relatedness, enfoldment) that marks the nondual in-dwelling or co-presence of things recognized by both Wilber’s Integral Theory and Bhaskar’s metaReality. I was interested in the promise of this prepositional constellation for forging a generative “integral pluralist” (or Many/One) model of interreligious relations.

For a discussion of generative (en)closures, I’d like to start with a more traditional pairing, the *in-out* relation, and the *between* (boundaries) they establish. Together, in, out, and between constitute what Lakoff and Johnson call a CONTAINER image schema. These are important distinctions for Integral Theory’s holons, of course, as the quadrant map makes clear. For religious traditions, they are usually invoked to identify insider/outsider dynamics, with related notions of membership or belonging, protection, orthodoxy and unorthodoxy, sacredness and profanity, etc.[5]

A generative (en)closure is also a kind of container, still trading on the CONTAINER image schema or metaphor, but I hope in our discussion here to highlight a different, more integrally and postmetaphysically resonant set of distinctions, not limited to the traditional ones of membership, orthodoxy, and so on.

LAYMAN: So, to start, Bruce, can you tell us, in a couple short sentences, just what the heck is "generative (en)closure"? Why is this a relevant concept? What is it the opposite of?

BRUCE: Generative (en)closure is a word I came up with several years ago as I was reflecting on the relationship of several different concepts or themes: integral spirituality, participatory enaction, translineage practice, autopoiesis, ontology, epistemology, etc. Depending on the context, I've used it as a synonym for holon (in Integral thought), for object or machine (in Object Oriented Ontology), for body or body-constituting (in Gendlin's work or more generally), for autopoietic system (a la Varela/Maturana or Luhmann), for a tradition or lineage (within religious studies), or for bubble or sphere (a la von Uexküll’s biosemiotics or Sloterdijk's spherology). Which means it's either a pretty sloppy and promiscuous word, or a generative word, or both.

The way I spell it, with the parentheses, emphasizes both a verb or process (generative closure) and a noun (what we point to as enacting and embodying such closure).

Time and further discussion will tell if this is a relevant and useful concept for people. With the term, I wanted to highlight the generativity of particulars – whether persons, institutions, or things. For instance, an autopoietic entity in its self-maintaining closure, or a Whiteheadian actual occasion in its concrescence, not only demarcates something particular; it generates novelty in its very (en)closure; it *is-and-makes* differences that make a difference. The original context in which I was introducing the term, was as a term for religious institutions or lineages – churches, sanghas, practice lineages, etc – each of which is a site of creative, participatory enactment: each a unique way of engaging with the kosmos, each a unique vehicle for the calling forth and embodiment of spiritual vision and realization. But this is sort of a specialized use, and I intend for it to apply more broadly as well (as a general ontological distinction).

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[5] For a detailed study, see Kim Knott’s (2011) “Inside, Outside and the Space in-between: Territories and Boundaries in the Study of Religion.”

Originally, in my paper, "Opening Space for Trans-lineage Practice," the opposite I set for generative (en)closure was Jean-Luc Nancy's term, *dis/enclosure* – the auto-deconstruction of things. Bubbles pop. And this, too – death, too – is generative. But for our discussion here, we might also consider the notion of *degenerative (en)closures*. We can go into this later, if you'd like.

LAYMAN: Probably people do not get very far into their own integral-like consciousness without having had some glimpses of the universal process by which all things arise, form themselves, distinguish themselves, change, and pass away. Bubbles rise and bubbles burst. But where is there to go onward from that insight?

What kinds of things do you hope a more clear understanding of this ultra-basic process might offer people? What might we gain from looking more closely and precisely at the way entities exist or do not exist?

BRUCE: To speak to the bubble metaphor first: Bubbles are good symbols for the generative (en)closures I am wanting to talk about here, those temples, practice lineages, and traditions that are the sites of our inspired living and transformative engagement. Bubbles exist in suspended flight, in motion and relation, lasting as long as they remain in movement; dying only when they come to rest for too long. Bubbles are obviously transient. They remind us that the traditions we inhabit similarly quiver on the edge of existence, and that our ongoing enjoyment of them is a matter of re-enactment, the serious *lila* of bubble play. Bubbles exist by a kind of closure, and yet in closure they make light uniquely visible; they refract and amplify it. And as Sloterdijk reminds us, a bubble is a structure of inspiration; we breathe it into existence.

Considering the basic ontological utility of the word: I do think it can function something like holon, applying all the way up, and all the way down, to all sorts of "somethings" – here, emphasizing not the whole-part relations of things but the generativity of things at all levels (as "difference engines," to reappropriate a phrase). But for the purposes of our discussion, I have seen especial promise in the concept because it allows me to bring together and interrelate a number of terms that I think are useful for discussions of integral and translineage spirituality: Integral holons, Whiteheadian actual occasions, Sloterdijkian and von Uexküllian bubbles, and Object Oriented Ontology's withdrawing objects, among other things. These terms are not identical and can't be forced together in total identification, which is why I like generative (en)closure: it allows me to bring them near each other, without assuming identity, and to draw insight from each according to the aspect of integral/translineage spirituality that I'm focusing on.

Maybe it would help, early in this discussion, to quote from the paper where I originally introduced the concept, and then we can go from there (wherever this leads). Here's the section of "Opening Space for Translineage Practice" where I introduced it:

"The relation of the term, generative (en)closure, to autopoietic theory should be clear: An autopoietic system, meaning a 'self-making system,' exhibits a definitive closure and circularity in its pattern of organization. While '(en)closure' can be read as a noun, signifying a fixed structure or a static condition, I prefer a more active or processual inflection: enclosure as the 'act of enclosing.' Here, the term is perhaps close to what Eugene Gendlin means by body-constituting, in that both (en)closure and body-constituting are generative. Gendlin (2012) explains,

> Body-constituting is a generative body-environment process (without the here-there split)... Everyone agrees that the body is made of environmental stuff, but it was assumed to be separate from the environment, merely perceiving and moving in it. But if we consider the body's formation as a body process, then the body is environmental interaction from the start. The body is identical with its environment in one body-constituting process. (p. 6)

But body-constituting is generative not only in the formation and maintenance of the body; it is active as well in the ongoing differentiation of the environment and the generation of objects. In the process of body-constituting, the body will develop processes that become active only when certain intermittent aspects of the environment are present. When these elements are not present, however, the body nevertheless continues to imply them, and this ongoing implication is generative both of difference within the body and within the environment. As Gendlin (2012) explains:

> Certain processes become differentiated; they occur just with certain parts of the environment. This generates specific environmental objects... For example, sugar, water, and light appear and are incorporated only sometimes. Then the body-constituting with these 'objects' becomes separated from the rest of the process (if the organism didn't die in their absence). Then the body has separate processes just for these parts of the environment. The moment they re-appear, just these processes resume. So we call these differentiated parts of the environment 'objects'. But to think this we need to say that when something implied doesn't occur, the body continues to imply it. Until something meets that implying ('carries it forward', we say), the body continues to imply what was implied and didn't occur. If part of what was implied did occur, then only the part that did not occur continues to be implied. This 'reiterated implying' is a basic concept. It explains how objects in the environment become differentiated.[6] (pp. 6-7)

Gendlin's account is thus quite close to what I mean by generative (en)closure: this active enclosure, this enfolding and implication, is generative of other bodies and forms (i.e., enactive, in a single process of body-world flowering or co-constitution). But the term,

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[6] Tom Murray discusses this concept from Roy Bhaskar's perspective, as the realness of negation, in his essay contribution for this issue.

(en)closure, is suggestive of more than just the body, which is why I have introduced the term here. It evokes images of sheltering and sustaining structures – of tabernacles and dwellings and temples.

With Jorge Ferrer, I see the generative (en)closures of our traditions, churches, and lineages, whether singly or multiply held, each as uniquely embodied means of participatory enaction – as creative expressions of our invocational engagement with spiritual power or mystery. With Bruno Latour, I see each generative (en)closure as the rounding of particularity, utterly and liberatingly concrete, both irreducible and always-reducible or -relatable, and I recognize that every difference charges us with an ethical imperative. With Catherine Keller and the polydox theologians, I see in every generative (en)closure of body and tradition the folding and unfolding of the relational *pli*, which situates us in multiplicities, imbricates us in complementarities, and implicates us in the unknowing of our evolutionary becoming. With Jean-Luc Nancy, I see in the generative (en)closure of any particular tradition the singular plural of its being, the “with” that is constitutive of its presence, where its singular presence is always already co-presence, the declaration of the impossibility (and the utter poverty) of the “Only One.” And with Wilber, I see generative (en)closure as a holon — already plurisingular, the body of tetra-enaction – which, as a holon, can never be mistaken for a (non-holonic) foundation or ultimate, thus releasing it to the ongoing invitation of the divine’s becoming.”

LAYMAN: I appreciate your remarks – especially the excerpts from your article. However, I fear in my bones that most integralites are not (and probably for very good reasons) terribly well-versed in concepts like AUTOPOIESIS. You are a madman sword fighting with chandeliers. So much the better.

But when we are explaining ourselves by the use the "-*pli*" of illumination in a Gendlin/Latour context...? Are we safe in the hands of such a driver? Who knows where these kinds of words will lead!

My PBS-award-winning Metaphysics of Adjacency[7] can certainly unfurl to appreciate the way in which you bring together many advanced models of "the basic form of Reality" and let them touch as intimately as possible without ceasing to be importantly different. Now that's adjacency!

[Canned laughter.]

This focus demonstrates the importance of having a (preposition-like) distinction-fusion terminology for the basic existential scaffolding of Being/s.

BRUCE: Yes. The slippery way I use generative (en)closure is prepositional – i.e., a promiscuous angel.

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[7] Layman Pascal introduced his Metaphysics of Adjacency in two threads on the IPS forum: http://integralpostmetaphysics.ning.com/profiles/blogs/the-metaphysics-of-adjacency-or-almost-is-good-enough and http://integralpostmetaphysics.ning.com/forum/topics/principles-of-adjacency-draft.

EDWARD: That’s my gal, Khora. She’s good between the sheets.

LAYMAN: I have a few follow-up questions. How can a super-enclosure form which makes a temple of the whole civilization, the whole planet, the whole species? What is the distinctive logical structure of such a (in my words) natural planetary cathedral?

BRUCE: If we follow Herr Sloterdijk on this, we will see that the theocratic empires attempted to stretch the womb out to the size of the earth, or even bigger, and the poor overtaxed monosphere tore under the strain. If a new planetary cathedral is to be erected, I think it will be foamy and fractal; in our recognition of the unmasterability of enclosures (they withdraw), and our delighting in the endlessly fruitful in-between, I expect a great, foamy structure or composite will disclose itself.

EDWARD: Fractal, yes, if by fractal you mean that each repetition iterates – i.e., while repeating to some degree, each iteration adds something novel and is not quite the same. I often get the feeling that with some complexity-chaos theories a fractal is the *same* repeating pattern ad infinitum, more a formal wish fulfillment of stable, unchanging Form. And like our friends the image schemata, always in media res, this gives pause for "our delighting in the endlessly fruitful in-between," *in-between* itself being one of those prepositional schema.

BRUCE: Agreed. Not just “the same” at different scales.

LAYMAN: Is Sacred Space – like the wavelengths of light – an increase of frequency which creates a modified qualitative space? This is also asking: is there a necessary increase of BEING in sacred enclosure, or is it merely the standard form of human activity? Or both?

BRUCE: I’m tempted to say both. I think there is a sense, which most of us have felt, where a vital generative (en)closure – a powerful practice retreat, a therapeutic encounter, a relationship, etc – seems to greatly amplify qualitative space. I mentioned earlier how bubbles trap and amplify light. A generative (en)closure can be seen as a kind of device for trapping and amplifying light, a space of interfacial energy and intensification. We do this all the time, of course. But sometimes we do it better than others. And sometimes we create spaces which suck the life right out of us, and make our faces go numb. That’s what I mean by degenerative (en)closure: the space has soured, and turned deadening.

Regarding a generative or sacred enclosure as just a standard form of human activity: our bodies, for us, are often experienced as quotidian, ordinary. But they are particularly generative (en)closures for the elements they take in, awakening properties and enlisting them in processes that are well beyond what they would have experienced before being absorbed into our constitutions. So there’s an ineluctable relativity at play.

In any event, returning to our theme of spiritual or religious generative (en)closures, I conceive of them not only as light-amplifiers, but as magic circles, or rings of invocation – meaning, as sites of participatory engagement or enactment. At the moment, I have the image in my head of a large, cage-like metallophone, which you can strike and bow in various ways while suspended under the sea. This musical enclosure has the capacity to call whales and other great creatures out of the deep.

EDWARD: Including especially the patron/matron saint of IPS, Cthulhu.

BRUCE: Yes, of course. *Fhtagn!* It is a site for participatory engagement with the *tehom*, the abyss.

LAYMAN: The image of a planetary fractal of self-similar sacred enclosures helping to create a human wisdom-civilization is enchanting and compelling. Moreso once we add in the vision of a xylaphone-like submarine cage sending its evocative ripples out to the denizens of the deep ocean.

BRUCE: As I've mentioned, with generative (en)closure, I wanted to find a word that allowed me to draw close together, and draw upon, multiple ontological models (whether of bubbles, objects, bodies, holons, or autopoietic systems), by emphasizing one feature which I think is common across all of them: the enactive interplay of "closure" and "generativity." In the case of traditions and wisdom cultures, I mean to say that, by enacting a certain membrane, which has the capacity to sensitively resonate and respond in distinctive ways (whether spiritual, therapeutic, relational, or political), we are building submarine instruments of invocation; we are calling to the deep, and to the pregnant between. If we follow Goethe, who says that for each new object we perceive we grow a new organ of perception, then through our enactive invocations we are ultimately birthing new avatars for new modes of Kosmic interface and intercourse.

LAYMAN: The "use" of membranes is certainly what enactive (en)closures bring to our terminology – above and beyond the notion of basic units... even units where substance is understand to be equally a verb and noun.

Like Teihard de Chardin's vision of the divine sphere presencing through all the self-reflective openings in the noosphere, we must be quite saliently alert to the possibility of an emerging overall pattern which appears here, there, there, and there on its way to being everywhere. The somewhat imperial drives of L. Ron Hubbard and Maharishi Mahesh Yogi start to look oddly similar at certain points. Perhaps we see in the historical multiplicity of "theocratic empires" an already fractal proliferation of the same basic pattern of worldcentric enclosure-attempts. But inadequately intelligent, inadequately healthy. Premature.

But what would be adequate to such a task? Can a more fluid and participatory web of self-reflecting sacred cultural enclosures arise more or less spontaneously or only in tandem with a great (or the greatest yet seen) kind of enforcement? A chilling thought. One wonders what the role of the "thought of an acceptable worldcentric enclosure" is in all of this. That classic photo of the Earth from space already sort of ripples through the noosphere, creating a sense of its reflection in many lesser bubbles in the great froth.

To what degree do we need the evocative impression of the "great enclosure" in order to facilitate the fractal proliferation?

BRUCE: Yes, I like that. I think that image of the earth is decisive for our time. It reveals our world as a whole, as a generative (en)closure, as a fragile immunological zone, as a hyperobject which exhibits non-local gravitational influence on all in its vicinity. In the fractal diffusion of sacred enclosures, in all their diversity and richness, I think we also need the ubiquitous reflection of that earth image. The envelope of air and energy which enfolds the hyper-generative (en)closure of the earth both creates a protective immunological zone, a separator or sealant, which has allowed for the intensification of the cosmic "stuff" that has collected here, allowing star dust to evolve eyes to look back at itself; and provides a clear window for admitting light and connecting us to the larger cosmos. And that larger cosmic history must, too, find its reflection in the spreading bubbles of new sacred cultural enclosures.[8]

But this whole earth, as an (en)closure, is not a singular whole; it is singular plural, meaning it is a composite (which is as much *less than* as *more than* its parts). Are you familiar with Latour's “Compositionist Manifesto”? In his discussion of composure and composites, of emergent unities and enacted universalities, that generate new wholes while also retaining the heterogeneity of the parts brought so closely together, I think he gives voice to a sensibility (both prepositional and postmetaphysical) that you might appreciate:

> Even though the word “composition” is a bit too long and windy, what is nice is that it underlines that things have to be put together (Latin *componere*) while retaining their heterogeneity. Also, it is connected with composure; it has clear roots in art, painting, music, theater, dance, and thus is associated with choreography and scenography; it is not too far from “compromise” and “compromising,” retaining a certain diplomatic and prudential flavor. Speaking of flavor, it carries with it the pungent but ecologically correct smell of “compost,” itself due to the active “de-composition” of many invisible agents. ... Above all, a composition can fail and thus retains what is most important in the notion of constructivism (a label which I could have used as well, had it not been already taken by art history). It thus draws attention away from the irrelevant difference between what is constructed and what is not constructed, toward the crucial difference between what is well or badly constructed, well or badly composed. What is to be composed may, at any point, be decomposed.
>
> In other words, compositionism takes up the task of searching for universality but without believing that this universality is already there, waiting to be unveiled and discovered. It is thus as far from relativism (in the papal sense of the word) as it is from universalism (in the modernist meaning of the world—more on this later). From universalism it takes up the task of building a common world; from relativism, the certainty that this common world has to be built from utterly heterogeneous parts that will never make a whole, but at best a fragile, revisable, and diverse composite material (Latour, 2010).

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[8] Vision of such scope, Joel Primack and Andy Fisher (2002) argue, is necessary to begin to "take in" and adequately respond to the crises presently unfolding across the earth-sphere.

I mention him because I think that the image you invoke, not only of the earth, but of the imperial cultural/spiritual movements of the past, is one that also can inform bubble formation: not as a template so much as a kind of historical attractor, an image of longed for composure and adjacency that was immaturely conceived and realized, but which nevertheless can still speak to us as we come to face the demands of our age to think and act with greater care for the nested and imbricated cultures and systems of our globe.

Regarding the possibility of a foamy, fractal diffusion of wisdom culture, this alongsided emergence, one image that comes to mind is that of the parasite. Integral Theory, for instance, is a sort of superbug that (at this point) thrives mostly by attaching itself to all sorts of entities: religion, business, medicine, leadership, etc.

Michel Serres: "The position of a parasite is to be between. That is why it must be said to be a being or a relation. But the attribute of the parasite... is its specificity. It is not just anything that troubles a passing message. It is not just anyone who is invited to someone's table. A given larva develops only in a certain organism and is carried only by a certain vector."

I am not indicting Integral with this image; I think this is actually quite a creative, generative role it plays. In Serres' notion of the parasite, it doesn't just drain from its host; it actually can inspire it to complexify, develop, diversify, etc.

So ... what (parasitic) role can Integral play in relation to the development of various generative (en)closures, fostering an alongsided bubbling up of new forms here, there, and there?

LAYMAN: I am not well-versed in Latour's “Compositionist Manifesto.” However, from the snippet you present, it certainly has the hallmarks of the Metaphysics of Adjacency. And you single out a nice passage.

It touches on both the interdependence-of-created-unities-and-heterogenous-parts AND the matter of "composure." Regarding your integral grammatology, my sense is that the higher echelon of these lenses involves both "prepositional" and "adverbial" structures. The latter concerns modalities. Universal human religiosity – adjacency-enabled faith – has a strongly postural element. This is somewhere between (1) the generalized nature of yogic asanas; (2) the theory that smiling makes you happy; and (3) Heidegger's use of comportment to describe the enacted relationship of the Being to his world.

And the "compost" aspect touches on the enfolding of the scruff, the dissociated, the organic-implicit reality into the highest spirituality. This is a tantric characteristic which intuits, I think, something necessary about the emerging planetary aesthetic. Comparing the evolutionary clarity of "in between" to a parasite (Serres) does something comparable. As too does the use of Cthulhu to signify the rising cosmic glory of divinely non-dual multiplicity in a trans-ironic age. There is a qualitative aspect to the parasite and a transitional aspect. Integral, as parasite, in this sense is much like integral as gardener.

EDWARD: At this point, I think it would be helpful to zero in and say a little more about what you guys mean by “integral postmetaphysical spirituality” (or religion). As you know, while I have a Hermetic/Kabbalistic background, I have become more interested these days in our pressing social, economic, and ecological concerns. What could be more spiritual than helping people earn a living wage to feed their families? Than addressing income inequality so that people have a fair shot at creating enough money to meet their basic needs and have some surplus time and energy to devote to needs higher on the hierarchy, like spiritual pursuits? And I don't mean just traditional religion but so-called integral postmetaphysical spirituality (IPS)? It seems most of us that are into such spiritual pursuits are already privileged with enough surplus in the lower levels like survival, membership, individual autonomy and transcendental awareness that we take for granted that most of the population is struggling to eat and pay the rent. If you are the latter you will not focus on much of anything else, let alone IPS.

So, when you talk about religious or spiritual generative (en)closures, what exactly are you talking about? Do you mean traditional religions, like Christianity or Buddhism? Or do you mean something else, something more – inclusive, perhaps, of what Raimon Panikkar calls “sacred secularity”?

BRUCE: Both, I think. I like your take on these terms, Layman. Would you like to take a first shot and then I’ll add my thoughts afterwards?

LAYMAN: In very short form, spirituality is a surplus energy or feeling that's produced in the individual through the successful integration of their sub-components. So, let's say left and right brain; let's say heart, mind, and body; let's say unprocessed psychological subpersonalities; let's say masculine and feminine essences – any of these things that could be said to be basic functional units of the individual psyche. When those are brought together and there's a successful integration, you don't just get what you had before, tidied up a little bit. You get this gestalt; you get something more than the sum of its parts, and that is a sort of numinous excess, a kind of glow at any level of individual cognition. You can perceive it as an extra force that permits you to be stylistically sculpted into more of what you hope that you are. So that's spirituality.

Now the same process, applied culturally, is religion. Instead of the subcomponents of the individual personality, you have something like social genres; you have something like art and science, war and politics, peace, mysticism, all the different classes of cultural and social experience that could go on. When those things are integrated, then the coherence, the overtone that's generated among those parts working well as a team, also creates a kind of numinous, experiential excess. And that's perceived as a kind of glow around the historical time period in which it's produced. But it also gives people the sense that spirit is communing not just with individuals but with people in general, with that society or that culture. And out of that also evolves a kind of idiosyncratic style that represents that excess coherence. And so you get the arising of Tibetan Buddhism or the arising of Christianity out of these early social events where people are bringing a whole bunch of areas of their social life together as human beings, and mixing them, blending them, and establishing something harmonious. And it gives it this tremendous, this extra cultural energy which echoes through the centuries for us.

That's a very tidy way of paralleling the definition between religion and spirituality. And it also allows us to use a definition that's really integral in its scope, which means we can extract it out from its different developmental phases and apply it to all of them. Because the standard type of theological analysis that goes on is very anchored in the Amber definition of religion, which is the idea that there's a big bloc of people; it has a popular name that everyone recognizes; it has some mythic symbolism; it has a set of dogma; people either join it or don't join it; and when they join it, they symbolically articulate their belief statements. That's often counted as if it's religion. But that's essentially, from an integral point of view, *everything* that happens at Amber; that's just the Amber style. And as long as the people at other levels assume that the Amber style counts as religion, then I'm going to have a need to add a second tier level, a sort of meta-theology to look back over all these things.

BRUCE: That's pretty much what Wilber would describe as a level-line fallacy: to conflate religion itself, as a line, with its Amber-level expression. So I think it's really important – and liberating, in a sense – to tease that apart. Often, Wilber, in his own work, does concede to the Amber-level definition of religion; he lets religion be defined by the labels of existing traditions. And that's fine. That's actually one area in which integral meta-theory can play a useful role – engaging with different traditions as they self-define, and working within and among them in different ways. But in liberating the concept of religion from that Amber-level definition, then you can begin to look well outside of those boundaries to discern contemporary expressions of religiosity wherever it might be happening in culture – in modernist or postmodernist settings, for instance, where it may not look like "church" or a "belief cult" at all, but where nevertheless we can make out that glow that you describe, that generation of surplus coherence and numinous excess.

As you know, Wilber has been careful to offer four or five alternative but complementary definitions of spirituality, identifying factors that are broad and general enough to apply across multiple stages of development. But to my knowledge, he has not attempted to define religion in the same way. So I think what you are offering here, these parallel definitions of religion and spirituality, is really useful.

I have an alternate way of thinking about the relationship of spirituality and religion, which I think is complementary to what you are saying. As we’ve been discussing, a generative (en)closure can be defined as the establishment of a zone of intensity through the enactment of a “membrane” in time or space. On the individual level, through practice routines, ritual behaviors, ascetic retreats, we create the conditions for the amplification of experience, the generation of zones of intensity which push us far from equilibrium, and allow for the development and disclosure of new patterns or ways of being, new forms of perception, new states of consciousness, and new levels of depth and personal integration. That's spirituality, the creation of a generative (en)closure on an individual level. And collectively, through social practices of establishing structure and building coherence, the different ways we have of gathering together, harnessing our energy and creativity into spheres of mutual illumination and co-inspiration, through tradition, art, discourse, games, rituals, contemplative communities, and so on – the enactment of generative (en)closures intersubjectively or interobjectively, to foster collective well-being and wisdom, is what I would call religion. But of course they aren't entirely distinct or merely parallel movements: religious enclosures can support individual spiritual work, and spiritual work can inspire religious flowering.

These are not exactly the distinctions you are making, but I think the notion of generative (en)closure can apply fairly directly to your model as well: it is the establishment of generative (en)closures at different scales that can foster the inter-blending and generation of "surplus coherence" for individuals and collectives that you describe. The focus here being, postmetaphysically, on *practices*, on modes of participatory enactment.

In my view, a religious generative (en)closure can serve *both* to provide 'hothouse'-like space for cultivating and encouraging the full flowering of individual practitioners, and – in its religious function *per se*, if we use your terms – for performing those creative acts of meshworking and translation to foster inter- or trans-genre alliances and fusions.

EDWARD: This is all good, but we should not forget that generation of this surplus coherence depends, in part, on *material* surplus as well. A collective generative (en)closure may very well be the socioeconomic base.

BRUCE: Agreed; that's part of it. Whether of the dominant culture, or of a subculture that establishes its own means of support.

LAYMAN: My specification of religion as the infrastructure of experiential (and developmental) cultural abundance certainly requires that the economic infrastructure be well-integrated in order to make its responsible contribution. And we cannot ignore either the direct requirements of material resources or the ideological trace that our resource control patterns exert upon the hive-mind latent in all citizens. This latter factor is extremely significant in the production (or failure) of a "religion-izing" cultural field.

Under Amber regimes the form of economics most commonly related with religion echoes the "sovereign taxation" scheme. Tithing by individuals and states toward the universal church organization under the watchful eye of its symbolic, bureaucratic, and theatrical patriarch.

In Orange systems the tendency seems to be toward personal charitable acts as the main form of religionized economics... but that leaves out the well-known Cult of Money epidemic in such systems. And it leaves out the "religious" nature of public education, housing, opportunities, food, etc. There is no cultural flourishing at any level except by the more-than-adequate arrangement of material resource flows.

In general, regardless of the level of social and cognitive capacity, religious economies *ought to* mean those which maximize material surplus, produce more robust health among citizens generally, and have the ideological effect of aligning daily work efforts with a resilient sense of spontaneously affirmed meaningfulness which connects the culture's formulation of its higher values with the material ground of vital affairs.

BRUCE: The way I'd put it is that we need good-enough material surplus, good-enough support, to foster sustained development individually and culturally. Because it is often the gaps, the failures, in an overall field of good-enough support that quickens consciousness, thwarts stagnation, and spurs incremental and sometimes radical growth.

EDWARD: Ray Harris has noted that what's needed is "to facilitate the ethical redistribution of the surplus to best serve the evolutionary requirements of the whole spectrum." In other words, each social developmental level requires a surplus to evolve to the next level on Maslow's scale. It seems that the socio-economic circumstances of one's life are the prerequisite for even getting into this game of evolution. Hence it is up to those of us with privilege (time and money) to not only work on ourselves and others, but to create a socio-economic system that will provide enough surplus on these lower levels to enact this process. Hence my focus on those who are working towards creating such a system of surplus on the material level.

However it also depends on what kind of generative socioeconomic enclosure we have. Capitalistic utilitarianism applies material excess to individual consumption instead of applying it to higher needs. This in turn has led to a supply side economics that has to create excessive individual consumption, which leads to enormous systemic waste instead of socially applying its excess to those needs. Hence the emerging collaborative commons as a different socioeconomic enclosure that applies excess towards that progression up the developmental scale.

But with most of the surplus captured by government and the upper layers of society, there's a lot of inertia. So as to what can really get big business and government to change, well, the people can. What makes the former inadequate is its investment in the status quo, since they reap the benefits of increased power and money. But when they suck up so much of that that not only is there no surplus for the rest, but woefully inadequate crumbs leftover, then starvation for both food and personal power gets us off of our asses and into the streets. Suppression of potential can lead to its own excess: here, the overflow of rage and frustration. Ironically, it's the very greed of the power brokers that have as usual created such a drastic disparity in wealth distribution that the folk will gather up their pitchforks and retaliate, much like in the story of Frankenstein. Corporate capitalism, including the revolving government door that supports it, are this Frankenstein and their only motivation to change is when we come calling en masse with the pitchforks.

LAYMAN: I have very mixed feelings about this sentiment. It seems, all at once, to be both ideally practical and practically idealistic. Perhaps this double-impression simply results from how starkly it invokes the popular spirit of contemporary "democracy" – in which many obvious liberations and subtle oppressions reside. We have certainly come to expect that informed, mutually-supportive, social action of organized individuals, in defense of their well-being, ought to be the major driver of change. But I also experience a yawing feeling of suspicion when I contemplate it.

Both in "the people" and in corporate and political governing bodies there are many kinds of faulty mechanisms which are constantly contributing to negative results. And structural issues almost never mobilize the people with the urgency to make the changes which would facilitate the capacity of people to cause *benevolent* changes.

Most of us would agree that political and corporate governance should (and can) be patterned for more general benefit by the organized popular response to the corrupting influence of those who benefit from imbalance. But we need a lot more than vocal fervor to amplify, clarify, and edify the power of such movements.

EDWARD: I share your mixed feelings about “the people,” for it depends on their center of gravity as to whether their actions are likely to be beneficial or destructive. It is the responsibility of those of us that have the luxury of exploring our higher needs to help frame the issues of our time, to use our skills to motivate those who are struggling and suffering to vote and get active in the political system in order to effect the change we want to see. Only then can we begin the process of moving to a more developed socioeconomic generative enclosure that is beneficial to all.

LAYMAN: Right. How do we rely on the mobilization of the People in way that does not leave us prey to their potential ignorance, gullibility, and capacity to be coerced? What distinguishes mass action from mass reaction and mob action? What kind of generative (en)closure will provide the greatest leverage for effecting the collective actions and the changes we would like to see? These are the kinds of questions that should preoccupy us all.

Getting back to what we were discussing earlier: I’d like to run with this notion of religious bubbles a little bit – see if we can put its feet on the ground.

Generative (en)closures are like assholes – everybody's got one. These "magic bubbles" are ubiquitous and universal. Cells, selves, and groups of all sorts are energetically engaged in establishing themselves as unique fields of relatively amplified coherence. These fields are partially set apart from their surroundings by a permeable membrane of physical acts, subjective impressions, communication systems, and shared spirit.

Yet of all the myriad modes of generative (en)closure we find ourselves especially interested in the "sacred" versions of culture. That means we are primed toward events, spaces, objects, and forms of practice-communities that are conventionally associated with religious traditions.

However we cannot take these traditions at face value. Why not?

BRUCE: I assume because of what we discussed previously: the traditional groupings are, for the most part, groupings based on the Amber definition of religion.

LAYMAN: Right. So what can the notion of a "religious tradition" mean to us? Knowing the incorrigible habits of integralites, we can predict that such traditions must appear, eventually, as metaphorical zones of heightened cultural coherence which are experienced distinctly through the cognitive apparatus of each major developmental layer of human consciousness.

So let’s see how this might look:

AMBER

Conventional popular terminology operates a set of associations which connect these linguistic acts with the mentality of orthodox/supra-tribal/believer-sects. For such people (within us), the production of religious bubbles is normalized into "traditions" which are based upon confessions of membership and the affirmation of standardized nation-like symbolism.

We immediately see that this is the orthodox meaning of famous "traditions" inherited predominantly from nationalistic, racial, sectarian city-state / agricultural-kingdom phases of history... including parts of the world still largely involved in this reality. So Buddhism, Christianity, Judaism, Islam, Shinto, Hinduism, etc., are a vision of generative (en)closures operating at this level and for this type of world.

ORANGE

Modern "enlightenment" mentality typically investigates the abstract mechanism-objects which may appear in the mind under various different names. This extra-cultural consciousness already seriously undermines the conventional assumption of religious bubbles as traditions. It supposes that every individual, regardless of their geographic and ethnocentric origin, is free to select from the big "menu" of normally presumed traditions. And we already begin to require those modifiers such as "seems like" and "almost" (which will become even more necessary at more complex layers) in order to fully clarify the experiential acts which are establishing generative (en)closures of the sacred-group type.

GREEN

Pluralism begins by alternating between realities. It therefore revalues apparent alternatives, folds in the obvious examples of minimized or excluded "others," and quickly moves to begin appreciating the inter-contextual effects operating at the semantic boundaries between interpretations. It proliferates alternatives and meta-models while deconstructing its options into creative sub-components.[9] Here we require quotation marks around the word "tradition" and expect that a variety of Christianities, Buddhisms, Islams, etc., are holding hands with an indefinitely unfolding mixture of neo-archaic, quasi-fictional, or hyper-individualistic attempts to performatively enact a religious bubble. The general ambivalence toward the hegemonic idea of a "tradition" arises quite naturally when our consciousness begins to emphasize background ecosystemic networks and the surprising world of unseen ingredients.

Here the definition of a tradition can only be a kind of game-piece in co-creative exchange. Linguistic habits, divergent states of consciousness, the activation of "neurosomatic brain circuitry," and the rise of the relaxed/sensitized universalist ethos requires that: Traditions are "whatever" WE or THEY say they are. We recognize that traditions are culturally co-created, in other words – but still struggle with clearly seeing our own implicit biases.

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[9] Late Orange/early Green pluralist thought becomes enamored with the possibility of a perennial philosophy.

TEAL

Integrative approaches to religious bubbles must take over and newly explain the complementary validity of the previous phases. It is no longer good enough to imagine that traditions are anarchic mutual constructs any more than it is acceptable to pretend that popular group-designations represent monolithic "traditions" (or even easily comprehended sets of sub-traditions).

A twin task emerges here. We must enfold and validate the previous layers while also asserting a new coherent scaffolding of organic-functional and trans-structuralist "types" which form the REAL traditions.

Religion here must be a temporalized spectrum of transrational tantric holism dependent upon synchronization, creative appropriation of apparent incommensurability, and advanced dialectical sensibility.

We assume that different modules/lines of development probably form the basis for a categorization of types of religious bubbles – enacted in all quadrants and perceived distinctly at each layer of socio-cognitive reality. These basic types are the valid "traditions" when viewed from this level but they must be held alongside the embrace of non-pathological junior levels as well as held open for any degree of pragmatic usage among people whose temperament or prior-level conditioning leaves them instinctively skewed toward inherited styles.

BRUCE: That's really helpful, Layman. It's a lot to take in at once, but I admire the prodigious amount of deep and often luminous content you can deliver, seemingly always on-tap. What strikes me here is what sets this account apart from previous integral classifications of religious traditions. Ken Wilber and Dustin DiPerna, for example, have offered several different developmental overviews of the major world religions or religious figures: there is an Amber Buddhism, an Orange one, and a Green one; a Purple Jesus, a Red one, and an Orange one. Typically in these surveys, what counts as a religion remains constant throughout, but it gets reinterpreted, re-decorated, at each stage. They do not seem to have stressed that faithfulness to the inherited groupings is often retention of, and faithfulness to, an Amber-level formulation itself.

LAYMAN: Yes. And of course we already talked about that before. So, to recap:

Traditional consciousness presumes a totalized core – or "real nature" – of a religion. Often this is associated with a book-dogma or particular famous passages therein.

Modern consciousness wants to know what these different tradition-machines do for different individuals. It tries to distill the "truths" from whatever stories ensconced them.

> Postmodern consciousness wants to include everything and thereby discovers a sliding scale of identities between all the normal and abnormal options. However this sliding scale does not acknowledge the embodied, anchoring parameters which enable it to operate.
>
> When those are enfolded, a new set of structures appears as the justification of previous forms and suddenly we are required to re-group all the groups according to perspectival and enactive ingredients, and ground them in what seems unavoidably true about the human condition (e.g., the interplay of emotion and reason; the neuro-biological mechanics of state experiences, etc.)

EDWARD: What do you mean by a "sliding scale" between alternatives?

LAYMAN: Consider the following two examples:

> A cult of Medieval Buddhists practiced meditation in a very interesting fashion. They called upon a compassionate Buddha-of-Light by Name. He had once walked upon the historical earth but now lived in a heavenly afterworld. By getting right with this figure your soul could be reborn in this heaven. Here the grace of illumination is rapidly and easily attained.
>
> Not only does this sound a lot like what we normally mean by "Christianity," it was also noted by Zen Master Hakuin that a profound, insightful, and hard-practicing Name-Praying Buddhist should be considered to be doing Zen.
>
> The Christian monk named Eckhart prayed to the Virgin Mary in a special way. He made his mind still and empty like a virgin's womb so that an all-pervading and nameless wisdom-power would naturally flow in, impregnating him with a new self – a "christ" who would feel, see, and understand via the christ-mind. That sounds a lot like Zen Buddhism.
>
> Very Buddhist Christianity. Very Christian Buddhism.
>
> Our pluralist consciousness learns to situate people on a sliding scale of alternatives between these major blocs. But we must ask whether or not those blocs are sustainable? If these traditions are so various as to include each other in most practical ways then of what use are they as the reference-group at all? Why situate the sliding scale between them? Why not look for a better grouping? Why not look as a zoologist would look – and not as a record-keeper of names would look?

BRUCE: That’s a good question. And your final point, about the discovery of the interpenetration of traditions, takes us quite close to an integral model of interreligious relations that I developed elsewhere. It will lead us, really, to a different metaphor altogether: the wild knot, rather than the generative (en)closure. I’ll return to this later. To offer my own recap in response to what you’ve just shared:

> A generative (en)closure is formed through the communal establishment of a "membrane" which serves as a protective, unit- or field-defining boundary as well as a means of

interface, for the enactment of a domain of distinctions (i.e., a worldspace). We might pair the word “enclosure,” here, with *disclosure*: the magic ring or bubble so established is *invocational*; it discloses certain *beings* and *worlds* (thinking here, for instance, of von Uexküll’s semiotic bubbles). And as a "bubble" or "globe" in *Sloterdijk's* sense, it also establishes an immunological zone which, the stronger or more vital it is, the more it enables those within the (en)closure to interact with diverse cosmic beings without risk of compromising their health or integrity. While generative (en)closures are fragile and impermanent compositions, they are also ir/reducible in Latour's sense: not finally reducible to anything else, and yet always (through effort, with some loss, always via some 'transformation') indefinitely reducible or relatable to other things. One way to express this is that the irreducibility of a holon or generative (en)closure is found precisely in its indefinite or inexhaustible reducibility. In Edgar Morin's terms, a generative (en)closure (of the kind we are interested in here, such as religious or spiritual generative (en)closures) is autopoietic or auto-eco-reorganizing – self-producing and deeply participatory, in both embedded and enactive senses. Or we could understand this using Bhaskar's frequently paired terms, *concrete singularity* and *dialectical universality*. Taken together, they suggest that holons or generative (en)closures are not only irreducibly particular (concretely singular), but also intimately enfolded within and co-present to one another (mutually in-dwelling, in potential if not in actuality for any particular being at a given time).

Turning to religion, we might envision 'nominal traditions' as foam-like identity clusters, or cultural-linguistic clusters, which consist of numerous 'religious bubbles’ – partly overlapping, contiguous, or connected-at-a-distance – each of which maintains itself through practices and forms of religious speech. If we take the generation of coherence and surplus meaningfulness as at least two characteristics of spiritual and religious activity (and there may be other important ones to consider), we must also recognize that this coherence itself is a multiplicity of 'coherences’ – of forms and modes of flowering, integration, becoming-whole – that might be sought and enacted by practitioners belonging to any particular religious bubble. The "dharma" of different bubbles may be to attend to and exercise different lines, in other words, or cultivate different states, privilege different perspectives, seek different levels of maturity and visionary-ethical embrace, etc.

But if we consider that 'nominal traditions' may also include 'bubbles' which no longer function religiously, at least from an integral perspective (meaning, they’ve become *degenerative*); and also that religious bubbles may form well outside the bounds of the nominal religious traditions; and also that different nominal traditions may include bubbles that are rather structurally and functionally similar to (or homeomorphically equivalent to) religious bubbles outside of their own boundaries, then ... well, this foam is quickly getting out of hand!

Keeping this visualization going, we might imagine injecting medical dyes into this giant foamy mountain, with different colors to indicate the 'territory' claimed by any nominal tradition as well as those religious bubble-territories that lie outside of traditional boundaries. Each of these colored swaths might overlap or intersect at various places of homeomorphic equivalency. If we further imagine that the bubbles can be differentiated along soteriological, developmental, and other lines – the forms and styles of being they seek, the lines they exercise, the perspectives they privilege – then we might dye the bubbles in additional colors, until they all begin to shine with rainbow iridescence, each bubble reflecting all the other teeming spheres. In this foamy topography, we might still be able to pick out differently hued swaths that correspond roughly to the various traditions and lineages we first marked – different continents, islands, and currents of opacity and radiance in the teeming mound – but at the same time, we will be able to discern entirely different strands and masses of color, new geographies which have little to do with the old circles of belonging. Rising up high enough to capture such a global view will likely impact us the way our first vision of Earth did: we can no longer view or inhabit our 'countries' in quite the same way, if we feel inclined to identify with them at all.

This metaphor suggests rather crudely some beginning anthropological passes through a newly discovered territory: a foamy space of religious bubbles that are both contiguous and mutually reflective or interpenetrating. Prepositionally, this is the *with/in* of co-presence, integral in-dwelling. When we take on the vision of co-presence, we realize that each holon or generative (en)closure ultimately enfolds the totality, or the potential to actualize any aspect of the totality. Traditions remain unique, because each only enacts certain parts of that potential at any time, in its own distinctive ways; and yet each is haunted by all. In "Integral In-dwelling," I introduced the concept of the wild knot to get at this infinite in-folding: in knot theory, a wild knot is a knot that folds infinitely, without final closure. That unfathomable entanglement is what I also try to suggest through this image of bubbles, with their dizzying dye patterns and their Indra's net-like iridescent co-reflection. The spreading, intermixing dye patterns identify those places we have begun to trace out homeomorphic equivalencies across multiple domains, multiple traditions or (en)closures (a task we are likely never to complete).

So I appreciate your additions here, Layman. In my previous writings, I had argued that the concept of co-presence could deliver a fruitful model of interreligious relationship, allowing at once for the singularity and entanglement of traditions. I assumed this orientation could promote greater willingness to learn from other traditions, if we could recognize in them some of our own latent potentials, while being assured that our actualization of the same would still be unique or "faithful" to our own mythos. And I had used my integral grammatology to explore the complementarity of several different integrative models, and to suggest some useful metatheoretical "pivot points" to bring them into closer relation. But I had not yet formally discussed or proposed the tasks you recommend here: questioning and deconstructing our "received" traditions (a kind of exercise in dis/enclosure), and actually tracing out the enactive practices, lines, and other AQAL (or other) factors *across* traditions and stages that might really help to identify altogether different groupings or families of religious bubbles.

LAYMAN: Nicely summarized, Bruce. And yes, that task is still mostly ahead of us.

Once we see "bubbles" (in whatever version) we are already standing well beyond the traditionalist worldspace. Probably beyond the modernist worldspace as well. From this vertiginous height, we peer down tentatively at a seething and remarkable panorama. What do we see? Delicate but robust entanglements of interpenetrating zones. Each one marked at its edges by an ongoing activity of self-reference, attunement, engagement, assimilation, and self-defense. Atop the central spire of the largest bulge we see the flags we have inherited from the modernists – the great "options" which they have discovered in their exploratory journeys between orthodox cultural modes.

We are delighted, intrigued, and provoked. Perhaps we begin a new round of investigations? Our anthropologists start to dispense with the notion of a single hegemonic interpretation at the "core" of a dogmatic text. We rove about asking all the Muslims, Christians, Buddhists, Hindus, and Jews about their experience of their own faith. A great diversity is recorded. Look at all these different types of that one "thing" we are studying... but truly the diversity is excessive! It overwhelms our studies. Our subject of investigation appears where it should not be and vanishes from key areas where we relied on it as a reference. The bubbles proliferate so rapidly we are left with handfuls of sheer fluid... leaking through our fingers.

Vexed, we resolve to climb a little higher and get a "better view." But as our altitude increases the problem only gets worse (although, admittedly, our sense of its “problem-nature” seems to diminish). Now the inherited labels seem arbitrary or misleading as often as useful. They retain no privilege in the categorization of the topology we are inspecting. And yet the result is not a free-for-all. Like men watching the fractals on the surface of a flowing river, we are clearly confronted by recurrent patterns – even by a typology.

As we slowly familiarize ourselves with these previously obscure types of patterns, inventing new terms as we go, there begins to appear an astonishing and imposing vision. These types-of-religion are appearing sometimes near the rituals, practices, and conversations of traditions... sometimes far away... but always in a great mutuality with each other. They are active according to their own natures and from whatever context they emerge from within. Yet they are not independent. From this height it is clear that they are immediately mutually supportive – counterbalancing each other in great variety – and progressively self-similar. Each one that thrives does so by expanding into mutations and assimilations which approximate the expansion patterns of the others. Yes, they are idiosyncratically emerging and diverging, but they are also cooperating with each other and enfolding each other in ways that push them forward toward a seemingly totalized manifestation.

Now we feel that we behold the rise of universal religion – not by the conquest of one nominal tradition nor by their cooperation (although both factors play a subordinate role) – but as a kind of botanical phenomenon operating at a level that more frequently resembles "generic human culture" than "popular notions of religion." And yet its religiousness is amplified, enhanced. It is building a force, and operating through mechanisms, appropriate to the sheer planetary (and perhaps interplanetary) nature of its task.

BRUCE: I’m smiling because those final words would likely be quite disturbing to our brothers and sisters of the “participatory turn.” But my sense is that what you are describing is as much *composition* as *disclosure*: a kind of participatory enactment in itself. Something like

Latour’s notion of *instauration* comes to mind: the blurring or in/distinction of “discovery” and “invention.” We can’t quite tell whether what we “find” was already fully there waiting for us, or is something newly summoned, a playful and useful enactment

Is there anything else you wanted to add about religious bubbles?

LAYMAN: Yes, one other piece. In addition to this striated vision of religious bubbles we must be aware that multiple types of bubbles may operate with largely overlapping sets of symbols and referents. This is because the actual activity of generative (en)closing, like the experience of a layer of consciousness, is anchored in the style of the context – the holding – and not exactly the content which is affirmed.

This is especially pertinent when it comes to social discussion. We have to make two critical distinctions: active vs. neutral (or even degenerative), sacred vs. topical.

1. The former implies that any communication (which reinforces a boundary by referencing it) might be vibrating with the freshness of new meaningfulness *or* basically a mechanical reiteration. For example, the perpetuation of the signifier "Christ" may in one utterance operate to help reinforce the vitality of a particular religious bubble, or it may be indifferent to such a function – used without spirit in a manner whose effects are primarily (if not totally) inert relative to the establishment of the membrane around a field of cultural coherence.

The slogan "no one is neutral on a moving train" reminds us that non-progressive or non-resonant embodiments of zone-establishing signifiers quickly move from the status of placeholder to the status of underminer. Not carrying it forward frequently operates as if it were destructive. And yet it may use apparently the same symbols or rituals, etc.

2. Our second distinction requires that we tease apart the production of "talk bubbles" from "religious bubbles." Clearly there may be all kinds of overlap but it is not necessarily the case that a particular generative (en)closure is being established when it seems to be appearing in discussion and shared thinking. People frequently manipulate conversational TOPICS in order to discuss other topics which are urgent, titillating, or nearby.

Just as any critical discussion of a thinker's positions may be quite valid while not actually pertaining to that person's ideas in any legitimate or comprehensive fashion, and just as the shadow of a celebrity can occupy a place in the politics of cyberspace which has little to do with their actual nature or positions (frequently unknown to the people discussing them), we can find this same pattern of "ghosts in the system" in the study of religious bubbles as well.

Therefore, at minimum, we need to make sure that we do not mistake the transactional economy of conversation – whether populist, academic, or apparently "devout" – for the symbolic and cognitive processes which support the establishment of a generative (en)closure of the religious-group type. They may or may not be the same in any given instance. A great deal of hesitation is required in front of apparently obvious topics. Even those who appear supportive (and are therefore readily embraced and affirmed) may be supporting a phantom that simply bears an identical name in the discourse.

BRUCE: Yes, I think that’s important. It can be helpful and clarifying to distinguish "talk bubbles" from "religious bubbles" (here, meaning, not only 'practice' or 'ascetological' or 'anthropotechnical' bubbles, but those bubbles which foster integration and spiritual flowering), since sometimes people may talk in so-called religious words but not in a way that is spiritually generative or religious in the sense we mean here. But granting this, I would not like to suggest that "talk" is merely incidental to religious generative (en)closures, or that "talk"/translation can be cleanly separated from "practice"/transformation. While I think Latour's understanding of religion and spirituality is seriously limited (he seems only to reference conventional Catholicism in his reflections), he makes a distinction between religious and other types of language that is useful here. He says that we make a mistake to treat religious language as if it were similar to the scientific language of reference, whether describing *this* world (which science just gets wrong – the earth is only 6000 years old!), or describing a metaphysical world beyond this physical one. Instead, religious speech delivers "a type of original truth which gives meaning to the predication only if it creates anew the person to which it is addressed” (Latour, 2013). Here, words, concepts, stories, and so on, are not ghostly abstractions 'about' being, but are beings themselves, angels or dakinis themselves: they are part of the assemblage that constitutes a generative (en)closure.

LAYMAN: An important qualification, *si*, *si*. We might put it this way: Symbolic referencing (talk, the assumption of normative categories) and social habits (rituals) can operate as elements of the practice of sustaining a religious bubble, or as elements sustaining alternative "talk bubbles," or neither. Talk is *religious* when it contributes to the production of more "coherence" in the bubble and brings level-appropriate intensified cooperation among contemporary social genres. This is the standard of *religious speech* as distinct from poetic speech, scientific speech, therapeutic speech, etc.

BRUCE: Well put. I would add that symbolic referencing might serve a third function as well: as a corrosive or degenerative element, leading to systemic decay.

Wilber has often distinguished between twin functions of religion: *translation* and *transformation*. But they are neither mutually exclusive nor hermetically sealed. Translative activity can itself be transformative, generative; religious transformation often entails coming to embody the forms for which the translation was a virtual attractor and generative (en)closure; and transformation sometimes results in bubble-rupture or dis/enclosure, necessitating new translations.

EDWARD: I think we shouldn’t forget that the IPS forum has been a kind of generative (en)closure. The unlikely juxtaposition of those three words – integral, postmetaphysical, spirituality – has served as a kind of koan-like virtual attractor that has impelled a 12-year journey of exploration, formation, and transformation. For some of us, it has also ripened into a kind of dis/enclosure: I no longer feel compelled by that constellation of words, and

I've moved on to other interests and concerns. But I will always carry the formative traces of our work there.

BRUCE: Well, I am indebted to conversations with you, Layman, and several other core members there for many of my own shifts in thought and perception over the past 12 years. IPS has definitely been a generative (en)closure for me.

EDWARD: Is there anything else you'd like to add?

BRUCE: I think we've covered some good ground. As I mentioned at the beginning of our conversation, generative (en)closure is a variation on the CONTAINER image schema that has often been invoked in discussions of religious traditions, but we've introduced a number of related metaphors that helped move us beyond the typical focus on membership, in/out-groups, orthodoxy, and so on. We've discussed generative (en)closure as a cell, an autopoietic body-environment process, a temple, a magic ring or sorcerer's circle, a cage-like metallophone, an amphitheater or other amplifying chamber, an alchemical cauldron, a planetarium (facilitating cosmic vision), and a fragile, all-reflecting bubble or pearl. Ultimately, we imploded it into a black hole-like wild knot (which unleashes a whole zoo of relations).[10]

The immunological function of the generative (en)closure mirrors the protective function of traditional religious containers, but emphasizes the interreligiously significant insight that robust immunity allows for greater, more intimate (if sometimes disorienting) interface with the alien and other. The amplifying quality touches an important theme for postmetaphysical spirituality. As Sloterdijk reminds us, the post-Nietzschean life of practice is marked by vertical tension; there is a transcendent pull that calls us ever towards transformation. A successful generative (en)closure amplifies and sustains this vertical tension. And the reflective bubble and knot images remind us that our sacred containers are both unique and entangled, singular and convergent.

I recognize that we got up to some pretty arcane language games in this discussion, likely not to everyone's taste. I won't bother to thank the two of you for indulging me, because we all have similar linguistic vices. But I hope our readers will be able to extract something useful from our exchange – and that this text might itself serve something like a generative (en)closure, establishing with its particular demands a zone of intensity that fosters fresh insight into the familiar domains of our bodies, relations, routines, and traditions.

LAYMAN: I have a headache... Seriously, thank you, my friends, for the wonderful workout. I'm grateful for you both, and for the perspectival stretching and play the IPS forum has allowed us to get up to for so many years.

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[10] Mark Edwards' (2006) presentation, "An Integral Approach to Relationality," very helpfully outlines some of this "zoo" of relations, and also illuminates the generativity of the interstitial spaces *between* generative (en)closures or bubbles. From the perspective of integral grammatology, his presentation – and his later paper, "Inter-Bridging" – quite fruitfully explore the meta-theoretical space that I describe as "prepositional."

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Why Metaphysics Matters

Bonnitta Roy[1]

Abstract: A lively discussion about why metaphysics matters in our current Metamodern era. I derive a process model of metaphysics based on Whiteheadian process philosophy. I interweave Gebser's notion of the mental structure of consciousness into a deeper understanding of the difference between the up-ward synthetic-dialectic of the western mind, and the downward, deconstructive dialectic in the eastern approach. I show how Hartshorne's process metaphysics resolved both eastern and western dilemmas around the ultimate categories. I end with a description of the problem situation we have of escalating epistemic complexity, and how adopting a process metaphysical *praxis* can help us renew our ways of meeting the complexity of the world.

Keywords: Complexity science, Dogen, Gebser, hyperobjects, integral consciousness, Nagarjuna, overmining, process philosophy, synthetic-dialectic, Whitehead.

Metaphysics is all about Describing Water to Fish

Metaphysics has acquired a bad reputation. I want to show you why metaphysics matters. Metaphysics means different things to different people. In the history of philosophy it has become somewhat a catch-all for all types of meta-philosophizing. Metaphysics can be reclaimed by examining its roots in mathematics and geometry – which no one would argue don't matter to physics. Theoretical mathematicians, creating mathematical frameworks that are built up in rigorously logical ways, through complex rules of logic and translation, are the purest metaphysicians of all. Metaphysics in this regard is the study of, understanding of, and creation of conceptual frameworks that can function in a variety of ways: for beauty, for usefulness, for meaning-making, for deconstructing limiting frameworks, for experimenting, for trying something new just for the hell of it, for creating new languages such as writing computer codes or "inventing" non-Euclidian geometry, for creating fantasy worlds in literature or virtual reality.

Metaphysics gets into trouble when it tries to make truth claims about the world. No true metaphysician would make such claims, because the pre-requisite of a valid metaphysics, is that it understands what underlies all truth claims, namely a cognitive-conceptual architecture, i.e., a metaphysical framework. While it may not be possible for the philosopher to reveal the contours of their framework, (in other words, think themselves out of their metaphysical box), a good metaphysician reminds themselves that there is one, beyond the horizons of their capacity to think.

The goal of a metaphysics, contemporarily, is to sew together what Kant's metaphysics tore apart: the domains of epistemology and ontology. Here I use the simple working definitions that "Epistemology concerns itself with how we know about reality," and "Ontology concerns itself

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with reality." Kant pointed to the limitations of the human mind, language, thought and existential conditions as barriers to knowing the world *as it really is*. He highlighted certain rules of logic, science and judgment that could serve as accurate correspondences to what is real. Ontology was thereafter whisked away from the discourses of theology and theosophy and made subservient to the rules and methodologies of scientific reasoning. Once the post-modern mind began to "see" that the scientific enterprise itself could also be contextualized by deconstructive critique, the very idea of an ontologically real truth was abandoned. The philosopher Roy Bhaskar (2002, 2009) created an entire new philosophy called *Critical Realism* to redress the postmodern overcorrection. With the word "critical" Bhaskar preserved the deconstructive act of metaphysical examination. With the word "realism" Bhaskar restored the belief in levels of reality that exist independent of human reasoning, positing that there is an ontologically real domain of existence that is not dependent upon epistemological claims. Bhaskar emphasized that this ontologically independent domain is *available to examination* through methods of reasoning and knowing that generate epistemologically valid truths. Yet, even the epistemologically untapped domain of the real, persistently calls us, to listen at levels deeper than the reasoning mind. This untapped domain, calls to us with what Bhaskar called the *alethic truth.* The alethic truth is not an epistemologically known or empirically verifiable truth. Rather it discloses itself through our own existential condition, which is an impulse to greater degrees of freedom. This impulse realizes greater freedoms by throwing off the shackles of slavery and bondage, but also, and perhaps more importantly, by acts of pure creation, by presencing what is absent, as, for example, in Charles Eisenstein's (2013) words, "creating the more beautiful world our hearts know is possible."[2]

Critical Realism plays an important role in healing the rift between epistemology and ontology. But what of metaphysics? When Bhaskar says that philosophy should "under-labor" for science, he comes close to describing a new metaphysical orientation. Under-laboring means revealing the boundary conditions in which certain scientific truths are (and are not) true. If we do a simple empirical test, let's say, by dropping a feather and a stone from a tower at precisely the same time, our naïve results might suggest that the "falling force" pulls at selective speeds, depending on the substance. We might conclude that the "falling force" has greater affection for rocks over feathers; or we might conclude that the speed of gravity depends upon the mass of the object. To think of gravity, as Einstein did, as *accelerating inertial frames*, is an act of pure metaphysical innovation. As such, Einstein argued, the feather and the stone fall at the same velocity and reach the ground at the same time. The difference we see in our experiments are due to the different effects of air resistance. Einstein's new metaphysics, had such explanatory power, that science switched to his position. Only recently were we able to actually observe a feather and a stone falling (to the earth) at the same velocity and reaching ground at precisely the same time.[3]

Sir Isaac Newton's *Laws of Motion* constitute a set of metaphysical assumptions that prove to be helpful. Still, they lock us into a certain frame of reference that limits what can be known about the world. Newton's metaphysics claims that "an object in motion will stay in motion unless an external force is applied to it." In Newton's metaphysics, there is no place for self-animated objects. We are comfortable, then, with not including living beings like ourselves. But what of electrons moving in a copper wire wrapped around a magnet? Here we don't need a third term that identifies the external force. The objects *themselves* are participating in this dance of movement.

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[2] Similarly Sloterdiik speaks of "vertical tension" that propels us toward future possibilities.

[3] https://www.youtube.com/watch?v=E43-CfukEgs

We can *choose* to separate the objects and the "forces" that move them, in much the way that Georg Ohm's equations do to describe laws of electricity. Ohm conceived of electricity as "currents" just like currents in a stream. This is an act of metaphorical imagination, which releases the complexity of the equations he needed to describe certain fixed relationships between voltage (intensity) and resistance. What if, instead of creating a third term like "current" Ohm thought of the action of electrons as *population dynamics of self-organizing systems?* There would be no need for a third term. What he viewed as "currents" would become, instead, the "emergent patterns" of complex self-organizing dynamics. What I want to point out here is that good metaphysics creates greater clarity by *improving the precision of the description* of phenomena. Mathematics is a language of great descriptive precision. This is the reason why Charles Hartshorne (1983) considered mathematics as the purest form of metaphysics.

Another alternative would be to switch to a metaphysics of self-animated form.[4] Einstein moved in this direction when he reimagined gravity not as an external force "pulling" on objects (mass) but rather, as something that mass (objects) *does*. Two objects dance around each other, and self-organize a familiar pattern we call "acceleration due to the force of gravity." Yet, with a metaphysics of self-animation, we have no need for the third term "force of gravity." I first discovered this query in high school when we learned about electricity. Wrap a copper wire around a magnet, and voila! you get electric current. In the laboratory I would shake my head and ask "But where does the electricity come from?" This persistent need for a third term is a necessary consequence of a Newtonian metaphysics of inanimate objects. It's the *metaphysics* that cries out for a third term. You can experience this yourself by watching *this video* of the world's simplest electric train. In similar fashion, the term "ether" was posited as a substance that propagated the light wave, in the same way that sound is the propagation of air waves. Hence, there is no sound in the vacuum of space. We now think of light as a wave form unto itself, capable of propagating through space without a theory of an ether. In the procession of metaphysical vies, third terms like "ether" "gravity" and "electric current," are both presented and absented at different times.[5]

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[4] As it turns out, form can be considered "self-animated" because "animation" (the energy-momentum tensor) is what now quantifies the amount of matter, according to contemporary Quantum Field Theory. As Richard Campbell (2015) explains:

> To a great extent, the mass of an atom is simply the sum of the masses of its constituent protons, neutrons, and electrons, but their mass in turn is due to the binding energy of quarks within the protons and neutrons (the generation of mass is thought to be the role of the recently confirmed Higgs boson). In other words, most of what composes the 'mass' of ordinary matter is due to the energy generated by interactions within the quantum fields. ... So in that context, a more general view is usually taken that it is not mass, but the energy-momentum tensor which quantifies the amount of matter. (p. 48) [emphasis mine]

[5] For an fascinating paper on the intersection of Nagarjuna and Quantum science, see David Ritz Finkelstein's *Emptiness and Relativity* which can be accessed here
http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.68.4935&rep=rep1&type=pdf
Finkelstein rejects third terms in science, which he calls "idols." For example, he writes:

> In physical theories so far there have always been absolutes, vestiges of being, essences. Indeed, Einstein first called his brain-child a theory of invariants, not of relativity. What remains now that is absolute? What must we empty next? As we have seen, we cannot always detect important absolutes easily from within a theory. By never moving, idols tend to become invisible. We must step outside the theory and examine both what physicists say and what they do, and especially to the connection between these two modes of action, the semantics of the theory, to discover what absolutes are tacitly

This one metaphysical revision alone would have enormous impact for the reality we come to believe in. It would be a re-enchanted reality, where every object, at every scale, was participating with every other object, at all different scales. It would align itself with what Graham Harvey (2014) calls Neo-animism. Suddenly everything would be living and experiencing! There is actually a term for this approach – pan-experientialism. It is a term used to describe the reality that was derived by Alfred North Whitehead's (1979) process metaphysics. Whitehead, however, was no fool. He understood that he was making things up, creating entirely new ways of thinking and entertaining a really big thought experiment about "reality." This uniquely philosophical practice is called *speculative ontology*, and Whitehead was careful in his admonitions to those who might swallow the hook of reification while nibbling on the bait of imaginative reasoning. Right up front in his introduction to his magnus opus, *Process and Reality,* he cautions us

> There remains in the final reflection, how shallow, how puny, and imperfect are efforts to sound the depths in the nature of things. In philosophical discussion, the merest hint of dogmatic certainty as to finality of statement, is an exhibition of folly. (p. xiv)

Whitehead took great pains to outline a practical methodology for speculative ontology. For him, speculative ontology means to form a theory of reality, with a freely acting, imaginative mind. Taking speculative ontology as a *serious philosophical pursuit* means the possibility of disclosing worlds that could be possible, which otherwise do not seem possible, given the set of constraints on the metaphysics of ontology conventional to one's domain, culture and/or milieu.

Whitehead believed that speculative philosophy could be productive of important, undiscovered knowledge if one "endeavor[ed] to frame a coherent, logical, necessary system of general ideas in terms of which every element of our experience [could] be interpreted" (p. 5). He thought that speculative philosophy, if done right, could be a work-around in lieu of the logical positivists' efforts to found a metaphysics of reason based on strict categories of logic and mathematics. Instead, Whitehead emphasized imagination, intuition, experience and essence. "Here is what we have in our intuition and experience," he might have spoken in a casual conversation. "How can we use our imagination to derive a theory of essence that accounts for them?" He could have said, without any special inflection, "Suppose we assume we know nothing about reality. Yet here it is, this existence. It holds together. There must be some essential necessities. And here it is, this inquiring mind, these feelings of curiosity and intimacy. They must be adequate and applicable to them." Writing alongside the great logical positivists, Whitehead was adamant that useful metaphysical principles were not to be captured by logical reasoning, but rather, through flashes of insight that propagated through "the play of free imagination, controlled by the requirements of coherence and logic" (p. 5). This, "true method of discovery" he likened to the flight of an airplane: "It starts from the ground of particular observations; it makes a flight into thin air of imaginative generalization; and it again lands for renewed observation rendered acute by rational interpretation" (p. 5).

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assumed. … When the question arose whether concepts like a variable matter-space-time law unity had ever been expressed, Nagarjuna's verses on the Madhyamika (the Middle Way) were cited. From a recent translation of a translation [Nagarjuna (1995)], it seems that they can indeed be read as saying that space, time, matter and causation are relative, with no permanent essence, and that this is inferred from the very fact that we perceive them.

Whitehead contended that the reason why this method of “imaginative rationalization” works, where other methods fail, is due to the fact that influences (what he called factors) that are present yet not presently observed, emerge through the free play of imagination. Here he was anticipating Bhaskar’s notion of how *absence* presences itself through the alethic truth. What was imaginative rationalization for Whitehead, Bhaskar called “retroduction,” echoing Charles Sander’s Peirce’s notion of abduction.[6] Whitehead writes of the power of imagination to “supply what the differences which the direct observation lacks.” And yet while Bhaskar appeals to a subtle reductionism in his notions of the real, Whitehead remains firmly de-ontological, by staying within the practical “adequacies” of the human imagination and its participation in everyday ordinary experience: “It [the imagination] can even play with inconsistency; and can thus throw light on the consistent, and persistent, elements in experience by comparison with what in imagination is inconsistent with them” (p. 5).

The power of Whitehead, over Peirce and Bhaskar, is that he makes his imagination transparent to his philosophical enterprise. By contrast, Peirce was reluctant to “pierce through” his metaphysical veil and realize that he was examining the features of his own mind. There is a great quote from the movie series “True Detective” that illustrates to me what being around Pierce must have been like. The detective Rustin Cohle, (played by Matthew McConaughey), has episodes of “otherworldly” perception and intuition. In one scene, Cohle says that during these episodes of deep *intuitive listening*, there were “times when I thought I was main-lining the secret truth of the universe."[7] This is the overall impression that Pierce can leave us with. Similarly, reading Bhaskar, especially when he is writing about meta-Reality, the astute reader (the reader wearing their metaphysical decoding ring) can discern a subtle residue of the realist’s ontological reductionism to his otherwise imaginative and creative foray into speculative philosophy. The point I want to emphasize here, is the truth about all metaphysical truths: at the end of the day, what metaphysics describes is the architecture of the most fundamental interface where mind and raw reality participate – the finely grained texture of our imagination and participation.

To live in a post-metaphysical world, does not mean to throw the baby out with the bathwater. A post-metaphysical orientation asserts that there is always 1) either an implicit or explicit ontology operating in any truth claim and 2) either a transparent or hidden metaphysical framework that is foundational to that ontology. Metaphysics is like mining – the deeper you dig, the more gold you’re likely to find. For the metaphysician “gold digging” is all about looking for what is implicitly functioning but not yet explicitly known, and the ambitious gold digger wants also to reveal the hidden metaphysical framework deep at the core of any ontology. Whitehead’s speculative philosophy, his process ontology of reality, proved to be a gold mine for a radical new metaphysical excavation. By situating his ontological musings in a process metaphysics of becoming, Whitehead’s process ontology became the bedrock for a radically new kind of process metaphysics. But before we go further, we need to take a look at the relationship between metaphysics and existence.

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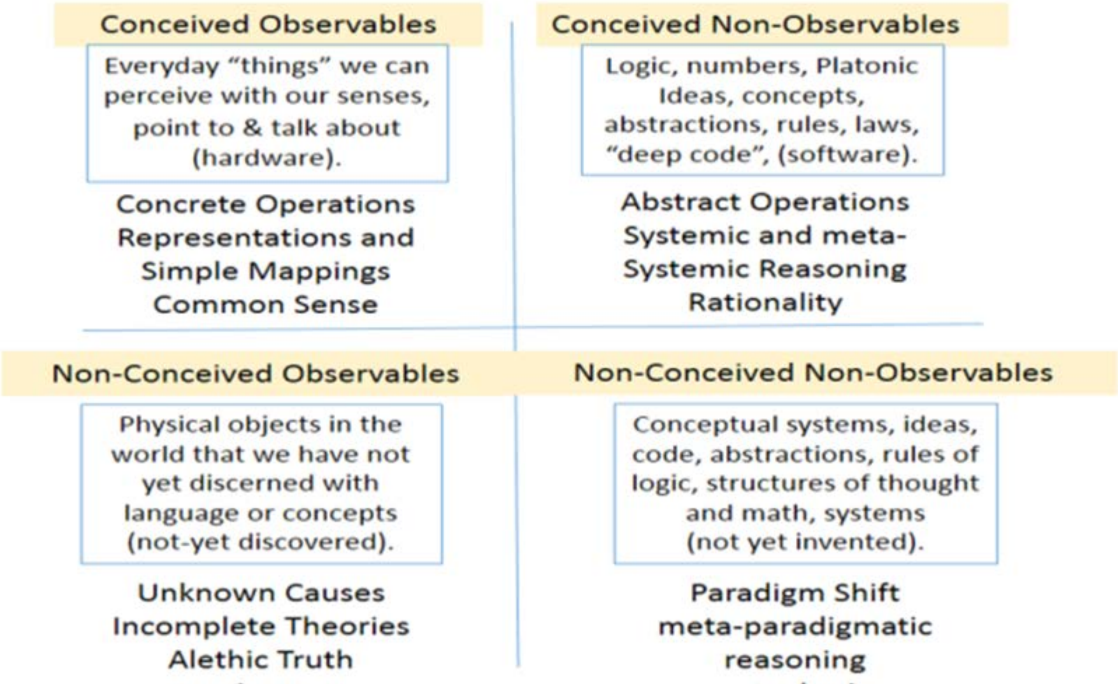
[6] Burch, Robert, "Charles Sanders Peirce", The Stanford Encyclopedia of Philosophy (Winter 2018 Edition), Edward N. Zalta (ed.), URL https://plato.stanford.edu/archives/win2018/entries/peirce/

[7] https://www.youtube.com/watch?v=seu6g2f7aec

The Matrix of Existence

I teach a masters course in consciousness studies at The Graduate Institute. In the first weekend I ask the cohort to agree on a Venn Diagram to illustrate the difference between what is "real" and what "exists" (or alternately, between "reality" and "existence." Invariably, people agree that existence is the larger set, and within it is a subset called "reality." It is reasonable common sense to see that some "things that exist" are not "real." Yet they never turn that argument upside down and say that there are things that are real that do not exist. Following Whitehead, a process philosopher might say just that, since potentials may be real potentials but not (yet) exist where "to exist" means to be "actualized" (become what Whitehead called an "actual" occasion). In process metaphysics, real potentials differ from Bhaskar's *alethic truths*, because Bhaskar's subtle ontological reductionism suggest that *alethic truths actually exist*, but in process metaphysics, *real potentials* do not (yet) exist, and maybe never actualize. What is true in both cases, is that the *alethic truth* and the *real potential* both make a causal contribution to what is eventually becomes either 1) *known* in the sense of epistemologically verifiable truth or 2) *actual* in the sense of an actualized existing occasion.[8] To simplify the field, it might be useful to look at the following diagram which I call the *Matrix of Existence.*



Conceived Observables	Conceived Non-Observables
Everyday "things" we can perceive with our senses, point to & talk about (hardware).	Logic, numbers, Platonic Ideas, concepts, abstractions, rules, laws, "deep code", (software).
Concrete Operations Representations and Simple Mappings Common Sense	Abstract Operations Systemic and meta-Systemic Reasoning Rationality
Non-Conceived Observables	**Non-Conceived Non-Observables**
Physical objects in the world that we have not yet discerned with language or concepts (not-yet discovered).	Conceptual systems, ideas, code, abstractions, rules of logic, structures of thought and math, systems (not yet invented).
Unknown Causes Incomplete Theories Alethic Truth	Paradigm Shift meta-paradigmatic reasoning

Figure 1. The Matrix of Existence

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[8] Bhaskar most probably intuited what process metaphysics would make more explicit, and what complexity science would eventually re-imagine as *dispositional states of a system*. The dispositional state of a system entails all the possible future states (weighted differently) as they "juggle their way to a final configuration" in the next adjacent moment (solving problems, as it were, much like the tiling problem in crystallography). In this prior state, potentials are causally implicated in the "deliberation of the final configuration" but neither necessarily realized as actuals (actual causes) or sustained as future potentials. Therefore, in complexity science, as in process philosophy, "origin" or "sources" may have only existed in potential, and

This matrix says that everything that either *actually* exists or can *possibly* exist, fits into one of four locations. Here existence is not a binary, but a kind of spectrum, from ordinary observable objects (where here "observable" means perceivable through our senses) to forces which we cannot observe, but can infer with the aid of conceptual abstractions, technological facility and methodological discipline. The matrix also includes forces we can imagine in the abstract but have no means of validating them, as well as objects and forces we do not see because we have no technology or conceptual apparatus to reveal them. Finally, the most subtle category in the matrix concerns abstractions and conceptions, logics and mathematics, which have not (yet) been conceived. As long as metaphysics sticks to the right hand quadrants, it is safe from the post-modern critique. Kant described the "stuff" in the RH quadrants as "transcendentalia" – a word whose meaning runs close to Russ Cohle's description of "mainlining the secret truths of the universe." Henceforward, we were left with the uncanny prospect of "mapping" instead of inhabiting territories as the number one project of human knowledge building. On the other hand, the post-modernist has completely eliminated the "stuff" in the left-hand quadrants – namely, the concrete objects that exist the same as they do, with or without human conceptualization. Henceforward from *there*, curiously, paradoxically, and rather humorously, the post-modernists have anchored themselves firmly in the RH world of Kant's transcendentalia and the metaphysics that they so strongly deny. Gotta love that twist!

The matrix of existence helps us define the "existential status" of "things." It says, quite naively, that all this stuff really exists, but there is a range or field of existence – some of which is concrete and obvious (the UL), some of which is more subtle and less obvious, some of which is so subtle that it needs more "help", conceptually and imaginatively to bring it into awareness, and some of which is unknown, but none-the-less part of what is "really existent" because everything is mutually interdependent (all causes, conditions and effects are mutually arising), and some of this stuff is so very subtle, that it exists in potential only.

Depending on who you are, and how you relate to different "stuff", you will assign more or less "existence" to them. Some mathematicians for example, think numbers are really very real, so that numbers, which are UR quadrant stuff, would be assigned a much higher level of existence by them than by your average textile worker. For the mathematician, numbers are more like the territory, but for the textile worker, they are more like the map. Plato placed a high level of existence on ideas, that's why he capitalized the word. Plotinus set out to create a taxonomy of the Ideas, a project he construed as discovering the language of God. His project was, of course, a great exercise of pure metaphysical creation. A fun parlor game might be to sit with your friends and parse out what fits where in the matrix of existence, and grade them according to the status of existence you would give them. You might discover that metaphysics not only **matters**, but that it can be fun, and can reveal the rich multi-layered textures in the spectrum of existence. Which, actually, is what metaphysics is for.

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as a result the present is not *even theoretically* traceable to something like a past origin. Rather, "origin" is in the preservation of the protocol for potentials to advance into the future, whether as realized actuals, realized effects or as "nothing at all." Given this, it can be said, that while both prior potentials and future actuals are *infinite*, they are *not exhaustible*, since some potentials and some actuals are eliminated from the infinite set. For example, there was a time when there were no elephants, and there may be a time when there are no longer elephants, but there will never be a time when there were never any elephants. There is a cosmological moral imperative to this "fact."

When we add a process inquiry to the question of metaphysics, we get into some really tricky territory. How, for example, does stuff move through the levels of existence? How do subtle experiences become solid objects that are easily shared? Most people would agree that Leeuwenhoek *discovered* microorganisms, and that Galileo *discovered* the moons of Jupiter. We are comfortable with the idea that microorganisms and Jupiter's moons were always already there, except we just didn't have the means to observe them. Their existence depended upon particular inventions – microscopes and telescopes. Now consider the atom. Before electron photography was invented, direct observation of atoms was impossible. But the atom was "discovered" decades prior to that invention. In the case of the atom, discovery and invention are more closely intertwined. At first, atoms were partially a discovery, but mostly an experimental and conceptual invention that was ongoing for two centuries! and involved at least nine significant scientific advances.[9]

Where do we place stuff like "causally effective illusions?" – that, like the rope that is mistaken for a snake, is an observable (rope) improperly entangled within a mis-conception (snake)? What is the relationship between the left and right quadrants, or the upper and lower ones? What is the relationship between invention (as a product of imaginative inquiry and creative response) and discovery (as a product of refined search and discernment)? If it suits you more to say "we invent new ways of discovering," you are subtly biasing an ontologically real reality, which is a subtle type of Realism that is situated mostly in the LH quadrants. On the other hand, if you are more inclined to say "we discover new ways to invent," you are subtly positing the realm of ideas and logos as ontologically existent – a subtle form of Idealism that is situated mostly in the RH quadrants. These are all metaphysical considerations and thinking through them illuminates how embodied minds construct thought.

But do embodied minds construct reality, as the postmodernists claim? This poses a metaphysical challenge. First, I would like to take a very close look at the word "construct." Taking a closer look at the ordinary "naïve" meaning of a word is often a good first step in taking up a metaphysical challenge. It tells us that we can trust words because they evolved without top-down planning. This means simple words help us escape the kinds of metaphysical priming that makes meaning-making so suspect. Later in this article I will explain that making language more precise is one of the four phases of metaphysical work, and this is why the language of science is mathematics, which is a pure form of metaphysical precision. For now, let's stick with the challenge in front of us – *Do minds construct reality?* – by starting with a close examination of the word "construct." I will borrow from Bruno Latour's (2007) Actor Network Theory (ANT) here by saying, yes, minds construct reality, but that's not as weird as you might be imagining. Here I want the word construct in the phrase "construct reality" to operate in the exact same way as it does in the phrase "construct a house." First I search for a suitable forest near a suitable spot. Then I go into the forest and chop down some suitable trees and mill lumber from them. Eventually I build myself a house, but I am not shocked that I have constructed a new reality "out of" the forest. I do not say "where did the forest go?" nor question whether the forest was "really there" before the house "took its place." It is simply that before the construction, there was one set of relationships in the world, and afterwards, another set of relationships. In between *work was being done*. What is the work of construction? 1) I have to be able to *imagine* (LR) how a forest can become a house; 2) I have to be able to envision the steps of construction (UR); I have to be able to build it, to manipulate it as concrete objects, and then in the process 3) I stumble across something that is useful in a way that I don't see, something that would have made a firmer joint or a better blade if I saw it that way (LR) until 1b) I imagine-into-a-seeing-how that something could indeed make a firmer joint or better blade… and round and round we go. Now consider the atom. It, too, is a construction. The atom is constructed through sophisticated work of all kinds, and depends on the ongoing processes and practices of the scientific enterprise. And just like the house which may one day be deconstructed by the termites and, over time, "return to being just a forest," the scientific enterprise also works such that "things" like "atoms" may one day be deconstructed and abandoned. "Did the atom exist before it was discovered?" can now be seen as a question of the same type as "Did the house exist before it was built?" This is the kind of work that good metaphysics can do.

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[9] See https://www.timetoast.com/timelines/the-scientists-who-discovered-atoms

A Process Model of Metaphysics

When Whitehead (1979) explored a process reality, he exposed something that was sorely missing in the western mind. Western metaphysics is based on substance thinking, thinking in terms of static, independently existing things. This is a metaphysical assumption that is wired deep in our minds and delivers up paradoxes like when we are not so sure if reality is really real if it is constructed, because "construction" tells us that being really real involves a process.[10] This is what Whitehead wanted to correct. Instead of thinking of reality composed of "things," he thought of reality as ongoing process going on every which way. Instead of existence as a state of being, he disclosed existence as a continuous process of becoming. Even the ordinary things we experience as concrete, stable and lasting, are always coming and going. We can use our four-quadrant matrix of existence to derive a model of how people engage the world in a constructive process that moves "things" through the spectrum of existence.

Figure 2 illustrates the process phases of the human project of constructing reality correlated with the same four quadrants in the Matrix of Existence. It is a model of *the work that is being done* to generate existing realities for humans. Consider again the "invention-discovery" process of the atom. We can begin anywhere in the circle, but let's begin in creative imaginaries (LR). At some point in history, people conceive of the atomistic nature of reality (LR). They construct a story that satisfies their speculation; but inevitably, people bump into where the story is either incomplete or inconsistent. They begin to use discernment to make their story more precise. The precision sets up the conditions to gauge the story against what people actually experience. Much of what people perceive will be influenced by the story and subject to confirmation bias. Yet through adequate participation, a few people will discover a new clarity in the world that will resists being assimilated into the old story. Adequate participation may also involve new technologies that improve observation, like microscopes and telescopes. People discover effects that are absent causes, and seek to presence them. In the process, they begin to absent by deconstructing, the old story. Through a process that Peirce called abduction, and Bhaskar called retroduction, we bring new imaginaries to the task. The cycle repeats, as these new imaginaries

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[10] Consider how different theories of change play with this sense of reality-as-process. To be a human being involves becoming as developing from fertilized egg to birth and beyond. To be a human (sp) involves becoming in deep evolutionary time. To be a tornado involves becoming as emergent complexity. Note also that different theories of change are derived from different metaphysical assumptions.

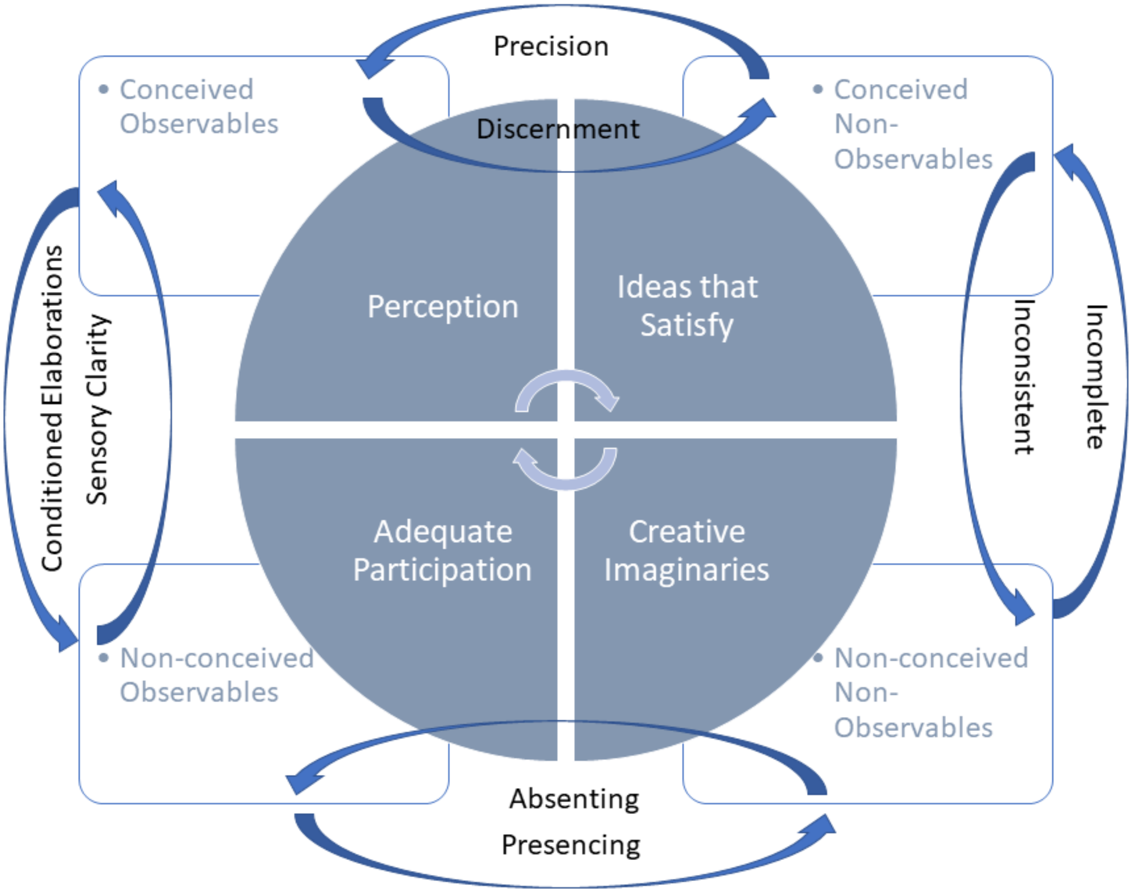
Precision
Discernment
Conceived Observables
Conceived Non-Observables
Conditioned Elaborations
Sensory Clarity
Perception
Ideas that Satisfy
Inconsistent
Incomplete
Adequate Participation
Creative Imaginaries
Non-conceived Observables
Non-conceived Non-Observables
Absenting
Presencing

Figure 2. Process Phases of Human Existence.

seek new ideas that satisfy them. Many iterations later, people can observe atoms through the technology of the electron microscope and in the process, the "atom" becomes reified as a "thing" – a discrete unit of being that stands in for this long arc of becoming. When we do science, "adequate participation" involves an experimental set-up that provides the necessary conditions for reproducibility, "discernment" means mathematical precision, and "theories" are "ideas that satisfy; while it takes scientists of great genius to supply the creative imaginaries that leap frog over existing paradigms into new realities. Outside of science, the phases are the same, but the standards are not so rigid. Popular stories, cultural narratives, and social memes all participate in creating social realities that correspond with different group identities.

Whitehead's philosophical method follows this model to a tee. He identified the imagination as the driver of new ideas and as the capacity to presence what is absent. He preached a kind of metaphysical skepticism which was needed to absent the old ideas; and practiced a kind of philosophical humility that was ready to throw away the conditioned habits of thought in order to perceive facts without inferences. He noted that speculative philosophy had both a rational side and an empirical side. The rational side required the speculation to be both "coherent and logical," hence consistent and complete. The empirical requirement was that the philosophical scheme must be both "applicable and adequate," hence satisfying and adequately participated in. These two sides, Whitehead wrote, are "bound together by clearing away any ambiguity," hence the necessity of discernment and precision. He wrote “A precise language must await a completed metaphysical knowledge.” Cue Hartshorne here, who carries forward Whitehead’s speculative musings toward a precise language of the metaphysics of process thinking.

Whitehead examined experience through the categories of memory and perception and imagination. “In studying memory, perception or imagination,” Hartshorne (1983) writes, “one needs to distinguish between 1) What is observably present in the experience, 2) what is not observably present; and 3) what is observably absent.” Here, he is referencing the UL, UR and LL quadrants of the matrix, respectively. Whitehead eventually integrated memory and perception with his notion of “prehension” as “intuition of the antecedently real.” This suggests that for Whitehead, the Upper quadrants represent the antecedents or “priors” of experience, those concrete occasions that constitute the “past” actuals; while the lower quadrants would represent the carrying-forward into the near adjacent moment of the possibly real. For Whitehead, perception is the body’s prehension, and memory is the mind’s prehension, which puts them in the UL and UR quadrants, respectively. The past is made concrete when perceptions find ideas that satisfy, or alternately when pre-established ideas discover perceptions that fulfill their expectations. Once this happens, a new round of prehension begins. We can imagine a torus-like animation flowing through the matrix (figure 3). With respect to the lower quadrants, where novelty catalyzes creative advance, Whitehead emphasizes that imagination is never merely mental (the LR aspect) but also always involves our body, as “truly parts of the physical world,” and in its way and degree also “revelatory of the world.” In our matrix of existence, the LL is the domain of this revelatory body, as it participates in world-becoming.

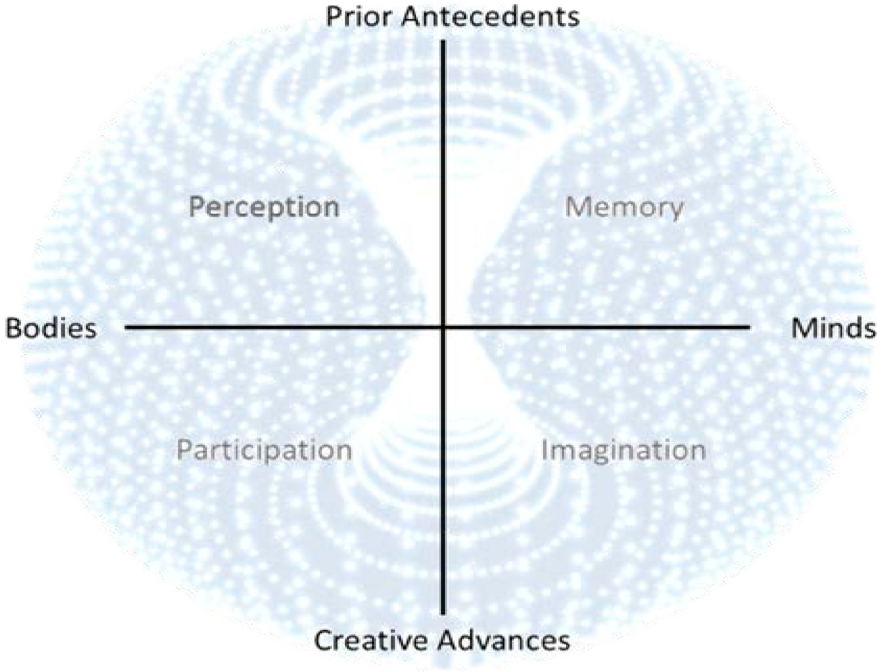

Figure 3. Whitehead’s process ontology and the matrix of existence.

Mapping Whitehead's process ontology onto the matrix of existence, reveals several important new ideas that are derived from a process view (see figure 3). Most people never really understand the radical shift required in a process view. Most people make the mistake of thinking of "bodies" as concrete actuals in the past, and "minds" as imaginative, flexible possibilities of the future. This results in the kind of patently dualistic reality that both Whitehead and Hartshorne rejected. Rather, bodies and minds *together extend* from the past through a mutual process of prehension and creative advance.[11]

For Whitehead, bodies and minds, are not equitable to binary objects and subjects. Bodies and minds of the prior occasion are prehended as perception and memory; while bodies and minds creatively advance as participation and imagination. This means that objective and subjective realities interpenetrate at all "times." The mental model we create in our heads selects aspects of this processual continuum and categorizes them into a simplistic binary schema where there is a "past" *as opposed to* the "future" and "bodies(objects)" *as opposed to* "minds(subjects). For Whitehead, this processual whorl composes a "nexus" – which is the local center of the epoch which entails the entire composition. Identifying this nexus would be like finding the center of a musical whole. We can imagine that as the music *un*folds, the meaning *in*folds, as subsequent notes adapt prior meanings. The epoch is the whole given in its entirety – the interpenetration of the unfolding score and the infolding meaning. In Whitehead's term *this double-movement* constitutes an epochal moment in an actual occasion. The movement from unfolding processes to infolding ones, constitutes the movement from "bodies" to "minds" in figure 3 – from perception and participation to memory and imagination. Taken together, perception and participation are called "prehension" in Whitehead's terminology – the unfolding movement in the epochal event. Memory and imagination are the forces of infoldment, giving rise to the actual occasion. Every epoch has a "duration" – the local center of which is the nexus. The broader the "duration" the greater the amount of reality prehended and enfolded. This gives rise the fractal scalar pattern of reality, in which entities of various durations constitute greater and lesser wholes. At the universal scale, everything prehends and gives new meaning with everything else. The duration of the universal epoch would be eternal.[12]

Whitehead, began his career as a British mathematician who, along with his student Bertrand Russel, collaborated on the monumental "*Principia Mathematica*." Unlike his contemporaries, however, Whitehead was drawn to the idea of *Love* as the universal force of creation. At the heart of his Process Reality, is a radical ontology of love as the fundamental universal force. Love, at the universal and eternal scale, manifested as prehension at the local scales, making *Love* the force of creative advance. Whitehead said that reality arises through a series of moments which feel into the past moment as they feel for(ward) the next moment. For him, the action in-between was nothing at all like the tight wire between the physicists' cause and effect. Rather, Whitehead thought of this feeling-process as incredibly sensitive, provocative and *loving*. He construed each individual epoch as the long, long moment of possibility, freedom and choice not only granted to each local nexus, but given as a fundamental property of the universe. Here, prehension is synonymous with sentience, and therefore, each local nexus are sentient beings at all imaginable scales permeating the universal field of feeling (love).[13] If you situated yourself imaginatively inside Whitehead's process reality, you would come to experience yourself as a living center of transformational process without a sense of self. You would *feel* the act of unfolding and infolding, of both cause-creating-effect and effect-creating cause. In this a-temporal pulsation between antecedent feeling and creative advance – between the love act and her progeny – you would discover vast promise and freedom. Here is where we can see the spiritual chords deep within Whitehead's speculative ontology. Here is where we discover an ethics of care and concern inside a metaphysics of love as the cosmological force since, by implication, the more one prehends one's neighbors and relations, the longer one sustains the epochal duration, the more extensive you would become, until you felt the in-becoming of one body through the simultaneous presences of many bodies – the all in one. Here we see parallels with eastern mysticism, since, by implication, the more stabilized one's prehension, over the long, slow moment of feeling (love), the more expansive you would become, until you realized the eternal – the in-becoming of one novel moment through the simultaneous presencing of many moments.

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[11] In addition to this, Peter Kakol (2009) lists the significance of Whitehead's notion of prehension:

> The profundity of Whitehead's concept of prehension becomes obvious when we consider that it makes possible the unification of no less than nine different phenomena (1) *memory,* as intra-bodily prehension of the distant past; (2) *perception,* as extra-bodily prehension of the more recent past; (3) *time*, as the passage from prehension to prehension; (4) *space*, as a complication of time: the prehension of parallel or contemporary prehensions; (5) *causality*, as the influence (in the sense of necessary condition only) of the prehended upon the prehending; (6) *substance, being and enduring individuality,* as abstractions from spatial and/or temporal prehensions such that only common features are prehended; (7) *mind-body relation*, as the interaction between two types of the previous relation – namely, a temporal series of prehensions (the mind) and a spatio-temporal grouping/ series of prehension (the body); (8) *subject-object relation* as the prehension of past prehension(s); and (9) *God-world relation* as the interaction between the totality of non-divine prehensions and the divine series of prehensions (pg. 17-18)

[12] Eternal here implies simultaneity, or absence of the passage of time. It is not the same as "infinite" which refers to the "infinite passage of time."

By starting with prehension as *pure experience*, Whitehead avoided the contradictions Kant encountered when starting from phenomena, since the phenomena are already objects in the mind.[14] To *experience* the redness of an object requires an adequate duration for the actual occasion to concretize (whether or not in the mind of a perceiving subject). On the other hand, to have a *perception* of redness requires an act of mind, a pre-positioning of the abstract category “red.” Experience, as Eugene Gendlin, (1997) would say, is first-person *process*, which is prior to perception. In Whitehead’s speculative reality, entities at all scales come and go. The scale of the entity is determined by the duration of this coming-and-going. Light as wave-and-particle is a type of coming and going at the Planck scale, which in Whitehead’s terms, would be considered a “duration.” Duration in Whitehead process reality is the same as “wavelength” in quantum mechanics. Atoms have a very short duration, cells a longer one, and waking human consciousness a longer one still. In this rich imaginary process view, the atoms in my cells come and go at a high frequency. But they come and go asynchronously (or else my body would also blink in and out of reality). As some atoms sneak back into existence, the presence of the other atoms, neatly arranged as my body, mostly guarantees that they will settle into the same groove, and occupy a similar position. Or take another atom’s place. Just like the Buddhist parable of the ship, whose sides, deck, sails, and keel are removed over different times, remains the “same boat,” reality slips in and out of becoming, but asynchronously and at multiple scales, so it “hangs together” despite omnipresent impermanence.

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[13] Whitehead had a taxonomy of scales which said that at the same durational scale, all nexi (entities) comprised a *society*. This is often misconstrued, for example, when someone interprets this to mean that their body is a society of cells. This is an incorrect interpretation. It suggests that a society can supervene on its members in the same way my body can walk my cells around the room. There is no such supervenience in process philosophy. The society of human cells is comprised of *all human cells*, or more precisely, of many societies of different cell type with different historical nexi. As the biologist Lynn Margulis understood, micro-organisms comprise an enormous "society" in nature in ways that are independent of the kinds of classifications that we, as humans, are fond of making. As people and animals die, the micro-organisms go on to transition to new organizations, new ways of making a living and world-building. In process philosophy, a human body is not a society of cells, but a specific habitat or environment, or niche, that cells participate with(in). And like all habitats, the cells participate through a co-creative process of world-building (niche-construction/ body-building). It is in this way that process philosophy lays the groundwork for Evolutionary Developmental Theory by interpreting "bodies" as "developmental fields in which cells evolve" in the same way that natural ecologies, cultures, and markets are developmental fields in which species, humans and economies evolve. What "evolves" are the developmental fields. What "develops" are the agents with(in) the participation.

[14] There is a similar trap with certain strains of vipassana practices which deconstruct phenomena into "emptiness" without taking into consideration that the phenomena that we are starting with are already mental objects, void of self-existence.

> *Whitehead’s reality is like a pocketknife one has cared for a long time. One first replaces a few lost screws; and then one day the right side handle is worn and replaced. A few year later, the left side handle is replaced. Eventually one replaces the blade. Despite everything, it remains, in the mind of the owner, the same pocketknife one has carried around “the whole time.”*

The Buddhists, of course, tell the story of the replaceable-irreplaceable ship as a metaphor for the self, which can be examined to be the coming and going in and out of existence, riding on patterns of thought. One pattern which has been given a great deal of examination in both the east and the west, is the tendency of thought to move between contradictions. This is called “dialectical” aspect of thought which emerged approximately 3000 years ago, as discussed in the next section.

Dialectics: East and West

A new structure of consciousness emerged approximately 3000 years ago. Jean Gebser (1985) called this the Mental structure of consciousness. It gave humans the capacity to create concepts, and to create abstract categories. Plato recognized how powerful this type of reasoning could be. He identified the primary conceptual Ideas as “the language of the gods.” He used the term *diaresis* to describe what the conceptualizing and categorizing mind could accomplish. *Diaresis* means “to separate.” Plato recognized the power of the mind to separate out abstract categories from ordinary experience. He elevated the Ideas (the right hand quadrants of the matrix of existence) above ordinary forms of experience with his parable of the Cave. In this story, ordinary men were imprisoned in a cave of shadows cast on the walls, ignorant of the realm of pure Ideas outside the cave. The ideas were the source of the light of truth and freedom, whereas ordinary phenomena were merely shadows cast on the wall of a cave.

Today we use the word “dialectic” to describe a fundamental feature of the conceptualizing, categorizing mind – that it *moves back and forth between dichotomies, searching for a resolution.*

Since the metaphysical schema of the categories of theoretic mind are ultimately contradictory, reasoning takes on a kind of back-and-forth movement as it searches for a resolution to paradox. This often takes on the form of a "third term." If for example, I have the category of "man" and the category of "woman" I can use the third term "human" as a higher inclusive category. Some of the most fundamental categories, however, are inherently contradictory. In logics, they take on the form of A, ~ A (not A), and cannot be resolved by a simple inclusion. When, for example, we consider the set [man, woman], we can easily see that the set "human" is an inclusive term. Similarly, I can easily use the inclusive term "counting numbers" to stand in for the set [1,2,3 ….]. What happens, however, when we consider the set [A, ~A]? Do they merely cancel themselves out like matter and anti-matter in a sci-fi novel? What happens to our reasoning process when A is a valid proposition, and ~ A is also a valid proposition? Dialectic is the kind of back and forth movement that happens when we attempt to hold both A and ~A as valid truths. Plotinus described this movement as the "up-ward" path, because he recognized how the dialectic mind could shift "upwards" into a higher level of abstraction- what we call a meta-level. For example, we adjudicate the tension between competing theories by building a meta-theory that contextualizes them from a higher, more complex system of abstractions. This up-wards shift into a higher order abstraction (or more complex proposition) could (apparently) synthesize the contradiction in the lower level terms. When people say that classical western philosophy is merely "footnotes to Plato" they are pointing out the *form of reasoning* that has persisted. My term for this form of reasoning is the *synthetic-dialectic* – what Hegel identified as the cosmological principle of "sublation," what Gebser characterized as the "pyramidal" structure of reasoning, and what Ken Wilber would popularize with the phrase "transcend and include." This "up-ward" or "synthetic" movement was one way the Mental structure of consciousness reasoned its way away from its fractured metaphysical basis. It is as if our modern minds forgot the original "sin" of *diaresis*, or separation, and looked for reparation and healing in the direction toward more orders of abstraction and higher and higher levels of hierarchical complexity.

The Mental structure of consciousness emerged in a few major city-centers and travelled along the great trade routes at the intersection of eastern and western cultures. Its native language was the Indo-European language family that travelled throughout the world, along these trade routes, transforming cultures along the way and seeding the great religious traditions with Platonism in the Judeo-Christian worlds and Indian scholasticism in the Buddhist worlds. However, while the Platonists propagated the "up-ward" path, the eastern scholastics took the opposite turn toward the "down-ward" path. As a result, instead of building their philosophical systems on *synthetic* approaches to the dialectic, they built equally impressive scholastic systems through *deconstructive* approaches to the dialectic.[15,16] Plotinus had praised the dialectic as the "up-ward

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[15] The astute reader will know where this is all going. There is a dialectic between the synthetic and deconstructive methods, and it is this meta-historical dialectic that Whitehead's process philosophy broke open and led the way for Hartshorne's process metaphysics which represented the first new dialectical approach in the history of mind. I will take up this part of the story in the next section of the paper. In the final section of the paper I will describe how Peter Kakol, went on to capture the historical implications of Hartshorne's work with respect to the dialectic between eastern and western dialectics.

[16] Gebser predicted that a new structure of consciousness, called the Integral structure, was already evolving, and it is exactly around this lynch-pin of the dialectic that the new structure makes a radical shift. Gebser emphasized that the Integral structure would not have the "pyramidal" form – which is his metaphor for the synthetic-dialectic movement. However, Gebser seemed ignorant of the eastern "deconstructive"

path.” By contrast, Nagarjuna’s fourth lemma bemoans the “endless oscillations” of the dialectical mind (Kakol 2009). In the east, deconstructive approaches supported *deeper* insights (versus *higher abstractions)* gleaned from sophisticated states of focused attention in advanced meditation. In the west, synthetic approaches supported insights gleaned from sophisticated controlled experiments. Although the approaches steered people in opposite directions, we can draw a parallel between the outcomes. In the west, the synthetic approach produced *higher meta-theoretical complexity,* used to explore the nature of the universe. In the east, the deconstructive approach produced *deeper meta-cognitive views* used to explore the nature of mind.[17]

Hartshorne’s Metaphysics of Ultimate Contrasts

Charles Hartshorne was interested in metaphysics and religion and was greatly influenced by the theological implications of Whitehead’s process ontology. Hartshorne went on to develop Whitehead’s ideas into what today is regarded as the field of “process theology,” which continues to be expanded both by Christian and Jewish theologians and has recently begun to be integrated with modern Buddhist thought with which it shares some parallels. Hartshorne translated Whitehead’s notion of prehension as “creative synthesis” which he saw as the fundamental cosmological principle, the largest nexus of which is simply “God.” Perhaps even more significant, is that Hartshorne recognized that Whitehead’s work entailed a radically new and powerful metaphysics that seemed to eclipse everything that had come before. What Hartshorne exposed in Whitehead’s process ontology was a new metaphysics – a novel response to the dialectics of categories, that was neither the synthetic, pyramidal, up-ward move that came to dominate western reason, nor did it follow the eastern path of deconstructive analysis. Hartshorne noticed that when you start with the metaphysical categories, they always demonstrate a dialectic that cannot be resolved, because all our thought has been based on ultimate categories that are contrasting terms. In other words, the mind sets up a puzzle that is impossible to solve. Readers of this journal will be familiar with Wilber’s AQAL matrix, for example. It is a matrix of ultimate contrasts: interior/exterior; one/many; subject/object’ singular/plural; inside/outside. Whether or not Wilber considers these deep ontological structures is up for debate, since he seems to represent different positions at different times. To Hartshorne, however, the AQAL model clearly maps out the puzzle we’ve constructed with the categories of our mind. We have constructed in our minds, only a few boxes that are opposites of each other, into which we try to cram all of existence. Hartshorne realized that all our metaphysical categories come in one of two forms: there are

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dialectic which was equally characteristic of the Mental structure of consciousness, and therefore doesn’t address it in his writing. Although not synthetic or pyramidal in form, it would be a mistake to construe the eastern approach as a feature of the new Integral structure of consciousness, as it is still an outcome of the dialectical tension that results from a metaphysics of ultimate contrasts. Future Gebser scholars should take note of this crucial distinction.

[17] There are many different ways to “go meta.” John Churchill, for example, is mapping the higher stages (yanas) of meditation onto levels of development he calls “meta-cognitive” stages. These are insight stages that **do not** complexify reality, rather the insights that are gained **cut through** complexity (the mental elaborations) and deliver a more immediate, direct perception of reality as it is. For a discussion on direct perception as adequate participation, see my paper at https://integral-review.org/issues/vol_14_no_1_roy_awakened_perception_perception_as_participation.pdf

relative terms, which he labelled r-terms, and there are absolute terms, which he labelled a-terms.[18] This alone was not significant. What is significant is that Hartshorne realized that when you start with *experience,* as Whitehead had proposed, instead of with the categories themselves, whole new insights emerged.

Hartshorne saw that the problem lay in looking at the categories as *symmetrical* contrasts. We looked at them as mutually-dependent terms, or as two sides of the same coin. This made them inherently irresolvable into persistently higher levels of meta-abstraction, or inevitably self-deconstructive when subjected to radical examination. What Hartshorne realized that when you start from *experience*, you discover that the categories are *asymmetrically* related contrasts – that they are mutually inter-dependent, but *asymmetrically* mutually inter-dependent. Let me give an easy example that we can build on as we go:

Let's take the classic pair of ultimate contrasts that Nagarjuna worked with: form and emptiness. To say that "form is emptiness and emptiness is form" is to look at the categories as symmetrical. According to Hartshorne's terms, "emptiness" is the a-term (as Nagarjuna's system affirmed) and "form" is the r-term. "But" Hartshorne would ask Nagarjuna, "how did you get to your conclusion in actual experience?" "Well," Nagarjuna replies, "take any form and subject it to deconstructive analysis…." "Wait just there," Hartshorne interrupts. "What you are saying is that you *start* with form, but do you ever start with emptiness?" "Well, yes, you can start with emptiness," Nagarjuna smartly replies, but then has to check himself: "but when you start with "emptiness" that is the "emptiness" which is conceptual, and so it too is a kind of form – a thought form." "So," says Hartshorne, "if we stay with the actual experience, we always start from some form, some r-term, in order to derive the a-term – "emptiness." "Yes," Nagarjuna agrees. "So, in some way, then the a-term is dependent upon the r-term, in some way emptiness is dependent on form in a way that form is not dependent on emptiness," Hartshorne suggests. "Oh yes!" Nagarjuna agrees. And that changes everything!

Consider another example: the example of redness used above. We never actually experience "redness" we only experience *things* that are red. In this example, "redness" is the a-term, and "red things" is the r-term. There are many many red *things* but there is only one *redness*. Red *things* are given through experience, but *redness* can never be experienced – it can only be *metaphysically abstracted from all the many experiences of redness into a category of mind*. Redness is dependent on things in a completely different way than any red thing is dependent on redness. This turns almost everything we assume about the "ultimate" or "absolute" nature of reality on its head, because the tendency of the mind is to think that *because* a-terms are eternal, they are *more real.* But it is just the other way around. Because a-terms are eternal, they are only latently real, because their becoming actual depends upon experiencing the r-term and the pre-positioning of mind that "solidifies" or "reifies" them into an abstract category.

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[18] In the AQAL matrix, the terms "one," "singular" are a-terms, while the terms "many" and "plural" are r-terms. But the mapping becomes counter-intuitive when considering the other terms. In Hartshorne's process metaphysics, the matrix doesn't spread out so nicely in a symmetric way: "subjects" and "exteriors" as well as "bodies" are r-terms, because they are prehending actors, whereas "objects" and "interiors" are a-terms, because they are products of the mind that pre-positions them as pehneomena.

If we start with the categories, we tend to assign a kind of model based on containers and what's contained in them, which is based on the "power of the abstraction" to speak *as if* the abstract term were larger and inclusive. We use a kind of set-theory mental model to say that "redness" includes all "red things." But if we talk *from* experience, we see that it is actually all the red things that include the red. It stands our metaphysical apparatus on its head! Now consider the list of ultimate contrasts that Hartshorne overturned:[19]

Table 1. r-terms and a-terms

	r- terms	**a-terms**
1	relative, dependent, internally related	absolute, independent, externally related
2	experience, subject	things experienced, objects
3	whole, inclusive	constituents, included
4	effect, conditioned	cause, condition
5	later, successor	earlier, predecessor
6	becoming, nascent, being created	in being, already created
7	temporal, succeeding some, preceding others	non-temporal as 1) primordial, preceding everything or 2) everlasting, succeeding everything
8	concrete, definite particular	abstract, indefinite, universal
9	actual	Potential
10	contingent	Necessary
11	a portion, P or process as past	earlier futuristic outline of P
12	finite	Infinite
13	discrete	Continuous
14	complex with constituents	simple, without constituents
15	singular, member	composite, group, mass
16	singular event, actuality	individual being, existent
17	individual	specific character
18	specific character	generic character
19	generic character	metaphysical category
20	God now, divine state or actuality	God as primordial and everlasting, divine essence and existence
21	God now	God and the world as they just have been

"Though polarities are ultimate," Hartshorne (1983) writes, "it does not follow that the two poles are … on an equal status." When considered merely as abstract concepts or metaphysical categories, they are in fact co-relative, mutually dependent poles. When considered from the standpoint of *experience,* however, a *basic asymmetry is involved*: a-terms depend upon r-terms in a different way than r-terms depend upon a-terms. Line 5 in table 1 tells us how to map a-terms and r-terms onto figure 3. It tells us that as prior antecedents, perception and memory are a-terms; and as successors, a participation and imagination are r-terms. Line 2 shows us that perception and memory constitute the objects for their subjective correlates, participation and imagination. "That subjects are later (2r, 5r) and objects earlier (2a, 5a), will surprise many" Hartshorne (1983) writes,

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[19] Hartshorne (1983) *Creative Synthesis* p. 100-101

> It enshrines the doctrine that, both in memory and in perception, the given entities are antecedent events. As Bergson said, perhaps as the first, it is the past which is actual, there to be experienced. The present is nascent, it is coming into being, rather than in being, and there is no definite entity to prehend. Pierce hints at this. Whitehead, so far as I know, is the first thinker in all the world to take the position with full explicitness that experience is *never* simultaneous with its concrete objects but always subsequent. (p. 109)

What are some of the implications of a process metaphysics? Hartshorne writes:

> Causality, substance, memory, perception, temporal succession, modality, are all but modulations of one principle of creative synthetic experiencing, feeding entirely upon its own prior products. This I regard as the most powerful metaphysical generalization ever accomplished. It has many men of genius back of it, including Bergson, perhaps Alexander, the Buddhists, and many others. But Whitehead is its greatest single creator. (p.107)

Process metaphysics reforms both eastern and western versions of Idealism. Both have religiously, spiritually, and metaphysically elevated the a-terms over the r-terms (which it often denigrates): absolute (over relative), cause (over effect), first cause (over proximate cause), universal (over particular), necessary, infinite, and eternal (over conditioned, finite, and temporary.) From a process metaphysical understanding, it means that religious, spiritual, and metaphysical idealism entails the exaltation of *objects over* subjects – things over process. Yet it would be mistake to conclude that process metaphysics merely reverses the bias. It would be more accurate to say that it *transverses* the subject-object dichotomy by making process prior to their delineation in a duration of prehension.

The Problem Situation

> *Between two poles the mind has made a swing:*
> *Thereon hang all beings and all worlds, and that swing never ceases its sway.*
> *Millions of beings are there: the sun and the moon in their courses are there:*
> *Millions of ages pass, and the swing goes on.*
>
> ~ *Kabir (adapted by author)*

Dogen, the 13th century Japanese philosopher-poet, founder of the Soto school of Zen, was known for his preoccupation with the swinging nature of thought. His primary focus was on the metaphysics of oneness and sameness. Dogen's insight was that the endless swinging of thought was a source of deep suffering. Paraphrasing his illogics (koans) we could say:

> *If you make the difference, you suffer the sameness.*
> *If you make the sameness, you suffer the difference.*

He was telling us that when the mind categorizes, it cuts out parts of reality in abstracting out what is different. And this causes suffering because it distorts the real unity of being. But if we homogenize all beings into the category "oneness," this also causes suffering, because it negates the infinite display of the myriad beings.[20] We see the consequences playing out in our postmodern society today. We see categories pushed onto people, creating a partial "sameness" while simultaneously difference from the other is exaggerated. We have repeated this cycle over and over again for decades, and as a result, the categories have become narrower and narrower. They are, in process metaphysics terms, a-terms for which no r-term actually exists. White, cis male, western, heterosexual, middle age, upper class is categorically not the same as white, cis male, western, heterosexual, middle age, lower class. And we already know the conclusions we are supposed to draw as they are already predicated (pre-dictated) by the categories. Consider how the categories "democrat" and "republican" have not only split apart, but have become ridged and so narrow that no one real individual actually fits them anymore. When I was a youth, the categories "girl" and "boy" were very broad, and could fit a wide diversity of behaviors, styles, and bodies. As these behaviors, styles and bodies changed as we grew up, the categories were expected to accommodate them. Today it's the other way around – our behaviors, styles and bodies are expected to accommodate the categories! Which means we are habitually and exponentially privileging the object (a-term, abstraction, category) over the actual, living, being-in-becoming person (the r-term). This is something a metaphysical inquiry can help us with. If we refer to the figures in the beginning of this paper, we can see that this postmodern dis-ease is a result of being locked into the right hand quadrants where ideas and imagination create a mutually-reinforcing and reifying feedback loop without checking these against perceptual clarity and adequate participation in the real. Which, in this case, means actually getting to know the person you are speaking with, instead of categorizing people you are thinking about. We no longer pursue questions around what is actually happening in real life situations, in order to have deep, personal and intimate conversations at the intersection of two living beings. Rather, our discourse parasitizes real-life stories to create larger, politically-charged narratives that are distortions of reality that get amplified and played out on a stage of abstractions, poisoned by a partial metaphysics – like players in Beckett's theatre of the absurd, waiting for the arrival of the abstracted.[21] We can never find what we have already abstracted out of existence, parsing living form into thoughts in our heads which, in the final analysis, will always come up empty.

Furthermore, we are beginning to see that western science cannot address some of the most pressing challenges of our times. We can't seem to solve the problems that matter most to us – some of which pose existential risks. Gebser proposed that each structure of consciousness represents an epoch which begins with a latent phase, followed by an efficient stage, and then enters a deficient stage. We are seeing clear evidence that the Mental structure of consciousness, whose efficient stage is represented by modern science and democracy, is now entering a deficient period reflected in the breakdown of science and politics as meaning-making endeavors. Even with the rise of global wealth, health, education and technology, the rates of benefit to risk are rapidly declining There are two key factors here: 1) The synthetic-dialectical mind now escalates complexity faster than it solves problems; and 2) The metaphysics of causality is breaking down to the point where if-then propositions are no longer helpful. This means we are creating a “run-away-epistemology” and so, it is not surprising that we are abdicating our agency to machines whose AI is better designed to race along with it. Let’s consider these two in more detail:

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[20] Of course, process metaphysics readily solves this koan. The myriad beings are r-terms, their one-ness an a-term. Dogen famously said "To study the self is to lose the self," and here by "self" he means the mind that reifies itself as an eternal (a-term). "To lose the self," Dogen goes on, "is to be actualized by the myriad things." This phrase "to be actualized by the myriad things" is identical to Whitehead's notion of each entity becoming actual through the prehension of all entities.

[21] God/Godot

1. The synthetic-dialectical mind now escalates complexity faster than it solves problems

In his book *Hyperobjects* Tim Morton (2013) writes “going meta has been the intellectual gesture par excellence for two centuries. He asserts it is *this attitude*, that is directly responsible for our ecological emergency.

> *This attitude* is directly responsible for the ecological emergency, not the corporation or the individual per se, but the attitude that inheres both in the corporation and in the individual, and in the critique of the corporation and of the individual. (Kindle Location 2730)

Graham Harman (2011) uses the term “overmining” in a similar vein. According to Harman, “overmining” occurs when one “reduces a thing upwards,” which is to echo Plotinus’ “up-ward path” and the synthetic-dialectic mind we, along with Gebser, have targeted as the sine qua non of modernity (in its efficient stage) and post-modernity (in its deficient stage). Overmining has given us great systems views of the universe, while distancing us from the local and the real. Overmining has led to breakthroughs in science and technology, while exacerbating the problem space into inaccessibly large domains. Overmining has created gigantic objects called “hyperobjects” to wrestle with, objects which today supervene on human agency the way it has, for millennia, supervened on the agency of animals and ecosystems. Three millennia of privileging the abstraction, the a-term the “object” over the relative, subjective agent, has brought us to the state where, locked inside an impossibly complex discourse, we can no longer act. Ordinary, inconspicuous acts, like calling the earth “Gaia” is an overmining of our planetary reality, for “Gaia” is a concept, albeit one that was created out of concern for the living earth, but in generating the concept, it lets us off of the hook. Like the retreating God, “Gaia” is elsewhere, impossible to find in my own ordinary acts of choosing what I eat, what I buy, how I treat the land. It was nice to think that “Gaia” prevailed over all we do, balancing things out for us, the way foxes balance the rabbits (and vice-versa). But now, now that the hyperobject “Gaia” has reared her head and become the existential risk “Global Warming” we immediately see the equivalence. We are in a state of subordination to our own thought systems. The same is true for the other hyperobject that represents a real existential risk: Capitalism, and at the end of the day, all three may be equivalent.[22] In the last analysis, a hyperobject is a hyper-system that supervenes on the agent who is trying to cognize it. Every way our reasoning turns, is already curved inwards, back into the logics of the system, in the same way that everything we do to try to alleviate global warming, turns back on itself through the logics of capitalism, into more global warming. Of course, our impulse will be, once again, to "go-meta" on the hyperobjects themselves. But, as we have noted, there are different ways to go meta,[23] and hyperobjects are derived from hyper-systemic modes of reasoning, based on the metaphysics of the synthetic-dialectical mind. Is it possible, then, to disentangle hyperobjects, to break them apart into manageable pieces upon which we can reassert our choice and agency, through a new kind of mind? Yes it is possible. But first, I will discuss the second of the key factors that generate our current crisis:

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[22] Stuart Kaufman notes how economies are extensions of human ecology and evolve through the same principles as the biotic.

2. The metaphysics of causality is breaking down to the point where if-then propositions are no longer helpful.

Above a certain level of complexity, if-then propositions are not rich enough to resolve problems or cultivate preferred futures. Without if-then propositions, there can be no hypotheses, without hypotheses, no experimentally validating set-up, and hence, no science as modernity has understood it. Today we are witnessing the emergence of a radically new science, called *complexity science.* Many people are talking about it, but most people actually construe complexity science as a kind of penultimate level at the top of the meta-tier of systems thinking.

One thing the reader should know for sure, however, is that, as Cognitive Edge's co-founder Dave Snowden quips "Complexity science is as different from systems thinking as quantum physics is from Newtonian physics." With complexity science, the ordinary laws of causality, upon which Newtonian physics is based, break down. We enter into domains which are more akin to quantum mechanics where uncertainty prevails. We are used to thinking of quantum domains as incredibly small scales, but incredibly complex systems behave more like quantum systems than as systems at ordinary scales. In these systems, measurement is unreliable, the future is radically unpredictable, and causation is hyper-local – everywhere and nowhere at the same time. Complex systems are unknowable *by definition,* and therefore cannot be made into an "object." Attempts to do so create our so-called hyperobjects. *The* key characteristics of complex systems are novelty and emergence. We participate with-in complex domains as agents gathering local information. This requires us to act, and in so doing, we perturb the micro-states of the system. This is a continuous feedback loop happening from myriad agents at multi-dimensional temporal and spatial scales. Complex processes generate stable and unstable, predictably unpredictable patterns that are part of the information feedback loop. We act freely, to amplify some of the incoming (returning) signals, and to dampen others. In real life, the signals are too subtle to know cognitively. Just like we can never know how it is we learn to speak, nevertheless, we learn. The same is true with other complex domains. We can never know, but we can learn. In this case, we must learn (again) to learn *intuitively.* In other words, – we must become *an instrument of perception.*

Now we can circle back to the process models of metaphysics (figures, 2 and 3). Local action is participation (LL) but we cannot know by deciding, so we have to choose imaginatively (LR) – together this advances the moment across the next duration of perception and memory (UL, UR). Here perception is pattern recognition, and memory is the infolding of the microstate as the embodied agent.[24] Human agency is reclaimed, because it is responding to perception and memory, through participation and imagination. Hence, at each step there is creative advance. This is the same reality that Stuart Kaufmann (2016) hopes to reclaim, to show us the "emergent magic" that will re-enchant us. “We so wrongly think we know our worlds. We so wrongly believe that we can pose and answer our questions, when we often cannot even pose them adequately” (p. 1)”

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[23] See appendix for a full list of meta-moves. Can you add more?

[24] In process philosophy terms, "agent" is the nexus at the intersection of this process.

Referring to the process model of process metaphysics (figure 3) I noted that “the Upper quadrants represent the antecedents or “priors” of experience, those concrete occasions that constitute the “past” actuals; while the lower quadrants would represent the carrying-forward into the near adjacent moment of the possibly real.” Here is Kaufmann’s version of the same: “We will find a new patter of explanation for the living world: ever-new Actuals do not cause, but *enable* ever-new, often nonstatable, adjacent possible opportunities” (p. 4).

These examples show how true complexity thinking, exits the causal structure of the Mental structure of consciousness. In the words of Stuart Kaufmann, it shows us that “the becoming of the biosphere is beyond law,” that “reductive materialism as a whole must fail [however hyperbolic its explanations become]” and that “the biosphere [is lawless and] is part of the universe [that] cannot be governed by a final theory” (p. xv). Solidly unified final theories are what the synthetic-dialectic mind has yearned for, ever since, with its inception, it tore reality into pieces.[25] Hence for 3000 years, humans in the east and west have tried to close the gap they themselves keep making, through a metaphysics of separation, and as a result have given us extraordinary “things” – densely interwoven entanglements of ideas, perception, memory and participation – that seem to satisfy, but in the end lead to unsurmountable complexities, or untenable emptiness(es).[26]

A new process metaphysics could change all that and generate a new enchantment with the world. Absenting separation, it would no longer hunger for synthesis or unity. A profound faith in our conjoined nexi of histories, would replace our proclivity to mend the gap, as it were. Our lust for metaphysical unification has become an existential fetish – at once the thing we most desperately desire, and the thing that is most utterly unattainable. Everywhere we look there is a lot going on! To turn it all off, we have to force ourselves to stop looking, which means to cut off perception and participation. Isn’t this just what we are succeeding in doing, with our obsession with screens and preoccupation with the voices in our own heads? Coming from the bad faith of separation we are overwhelmed with being – everywhere to look, there is a lot going on! It is, in the words of Satre “de trop.” We try to look away, to assuage the onslaught of eternal becoming through the refuge of eternally unchanging things, for today it is the a-terms that pacify us. A new metaphysics could change all that, help us turn toward what is most alive, and hence, always coming and going, alive in its passing and advancing. We would learn to cultivate a new compass

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[25] About “laws” Finkelstein (2003) writes

> Some great scientists like Laplace and Einstein have believed in the existence of an absolute law and taken it as the supreme goal of physics. But many Western scientists and philosophers, including Newton, Mach and Whitehead, like many Buddhist and Hindu philosophers, explicitly propose that there is no fixed absolute law of nature, and that it makes sense to speak of a varying law. Bohm’s (1965) expression of this philosophy especially influenced me. He views a scientific theory as a specialized extension of normal human discourse. A theory is something that we tell one another. A final all-inclusive theory is as likely as a final all-inclusive remark. (p. 15)

[26] “Things” such as in the western science: ether, space-time continuum, dark matter, dark energy, quantum observation; and in the east: Brahmin, storehouse consciousness, Indra’s web, karmic law; and in religion/ quasi-spirituality everywhere: God, gods, goddesses, Ashkasic field and the like.

– one that steers us toward a thriving future emerging from the pure potentials of a flourishing new world.

Why Metaphysics Matters

A good case can be made that modernity slipped into post-modernity when theory lost ground to meta-theories which contextualized them. Religion and science were put on equal grounds by postmodern structuralism which saw them both as historically contingent language games that had garnered significant political clout on different points of a spectrum. What post-modern meta-theory is actually concerned about is *underlying values*. Underlying values that drive religious belief. Underlying values that drive the scientific enterprise. Underlying values of capitalism, consumerism, communism and fascism. The values around which groups garner their identities, including nation, class, age, ethnicity and race. All the friction in the world was traced back to the incommensurability of values. It was hoped that an adequate meta-theory of values, would be able to adjudicate between competing worldviews and settle the accounts once and for all. There were a hundred thousand perspectives. The search, much like the search for a grand unifying theory in science, was to derive a meta-theory that could merge them into a single higher-order view. The metaphor used was that of altitude. Individual worldviews existed at the bottom of the mountain on different sides, with different perspectives. The meta-theorist was looking from the top of the mountain, where they could see that all the perspectives were true *but partial*. Given a clever-enough mind, one could derive a higher-order perspective that transcended and included all the others. Unfortunately, people soon discovered there were a hundred thousand mountains upon which to establish different meta-theories. To make matters worse, meta-theories have two particular drawbacks that theories do not. One drawback is that meta-theories tend to *exit the domain of inquiry*. A good theory of labor, incites action; a good theory of ecosystem interdependencies, facilitates change. On the other hand, a meta-theory that contextualizes all political platforms is not *doing politics*; a book that contextualizes all possible perspectives on ecology is not *doing ecology*. In a very real sense, meta-theory parasitizes action, it leads to, as the popular phrase has it “analysis paralysis.” The second drawback is even more pernicious and results in endless debate cycles. Scientists had long known that ordinary theories could be ranked by which theory could derive everything in the other theory *and then provide even more explanatory power*. Two different scientists could fight it out until one scientist’s body of knowledge exhausted the others, while still having more to say than the others. This proved not to be true of meta-theory. Competing meta-theories could “hold” each other’s entire body of knowledge, by contextualized it through its particular meta-theoretical lens. Not knowing this leads to ongoing and often vicious struggles between competing authors,[27] who, because they can *see the other’s perspective* from *within their meta-view*, gain confidence in the validity of their own view. The problem is, that *both debators* are experiencing the exact same feedback loop. Ongoing debates merely build more confidence in each disparate camp. And the game plays on and on. From a certain perspective, one can see that this inner game of the mind parallels the outer game of late stage finance capitalism, whose financial instruments complexify like the meta-theories now complexify into meta-meta-theories. Both are accumulating their own kind of debt. Ken Wilber called the kind of debt that the mind issues “an IOU to the universe,” which he saw to be an inevitable unintended consequence of the mind's efforts to know. Everything today seems to be slipping towards Armageddon, moving like the arms race of yore, except at exponentially faster speeds. What I want to point out is that it is *this* – this peculiar feature of our Metamodern era, is *not a consequence of mind, but a consequence of a certain kind of mind.* This is of course the type of mind that is predicated by the synthetic-dialectic – which now has entered its deficient stage as it shifts into hyper drive.

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[27] For example, between Ken Wilber and Roy Bhaskar. Most of the debates we see on youtube have this problem, for example when Jordan Peterson debates Izra Klein, or Sam Harris debates just about anyone.

The crucial distinction here that has to be made is the difference between *epistemic complexity* and *ontological* complexity. The deep ecologist Arne Naess said "Nature is *elegantly* complex." The key features of elegant complexity are 1) rich, textured, diverse environments and 2) deep, satisfying coherence.[28] One might say that epistemic elegance is thought that simultaneously satisfies what is true, good and beautiful in reality. Epistemic complexity is like the noise we dial through to find a radio station. Ontological complexity is the coherence that we attain when we tune to a signal with high fidelity – the sound becomes perfectly clear.[29] Because our thought systems are not 100% coherent with the real, (lack of fidelity) we add epistemic complexity to the situation. Consider for example a patient coming to a doctor for help (the scenario works equally well with a medical physician or a therapeutic psychologist). The patient's body-mind is already a complex system. The doctor, who applies an epistemic lens to the system *escalates the complexity* the system entails. This is particularly true of western approaches to medicine and therapy. It is also the case when we as humans attempt to "manage" ecosystems and climate. Whenever our epistemic system does not have the requisite variety (rich, textured diverse) or fidelity (coherent with the real) we add epistemic complexity to the system. Ontological complexity manifests itself as complex, coherence patterns. These patterns are generated from simple yet profound protocols. This is tricky. Protocols are not "laws" of nature.[30] "Laws of nature" are stable patterns that emerge through the self-organized complexity of multiple agents who are feeling (prehending) their way to their future selves. Protocols are the *values* and *means of discernment* that guide the agents from choice to choice, from anticipation to satisfaction in a field of creative possibility. The richer the environment, the more the environment *affords* novelty and coherence at a higher level of complexity. Epistemic complexity results when we try to work at the level of the emergent pattern, which is a category error. A paradigm shift in complexity science is to discover the key generative protocols at the core of the emergent pattern that we seek to understand.[31,32]

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[28] Which is not the same as agreement or alignment. The wolf and the elk are coherent, and this makes the rivers and the forest coherent, too. see *How Wolves Change Rivers at https://www.youtube.com/watch?v=ysa5OBhXz-Q*

[29] A new science means that we use our whole body-mind, to discover new points of fidelity – high coherence between the world, and our affective-perceptual-cognitive states. These respectively, account for the real (world) the good (affective) the beautiful (perceptual) and the true (cognitive).

[30] Consider the ways we have understood planetary movement. Ptolemy was working at the level of the pattern that could be seen from the vantage point of the earth. This resulted in an overly complex system of epicycles. The shift in view from a geo centric to a heliocentric solar system, greatly reduced the epistemic complexity. But the planets themselves didn't all of a sudden jump into a simpler configuration. The ontological complexity remained the same. Newton worked at the level of "laws" that governed the planets. The planets were de-animated objects subject to certain laws and forces. Einstein shifted closer to the notion of protocols, where *mass itself* self-organizes planetary systems through its own essential protocols. Mass becomes self-animated agency in the universe.

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So, why does metaphysics matter? We need a new mind, and metaphysics can help us sample and create new architectures of thought. The new architecture would cut out the epistemic complexity and more perfectly cohere with the rich elegant complexity of the real. By adopting a process understanding of reality, metaphysics could become a suitable guide for a Metamodern *praxis*, one which integrated perception and participation with the free play of imagination and memory. The task at hand is radical. It would be like swiping a hard drive clean, and uploading completely new software, from scratch, mostly through trial and error, gesture and response, sensing and acting our way forward until the moment when the reality we are situated in, collectively satisfied our dreams of the future "our hearts know is possible." It would not be a task we could formulate beforehand, or even know afterwards. It would be something that, like human speech, would realize itself through processes of creative becoming. It would never be something we could know, but it is something we could learn to do. Thus, it would take more than intelligence to pull it off. It would require a highly *conscious* species, to realize this learning journey. Such a consciousness certainly exists as a potential future state of our infinitely creative universe. Will this consciousness rise up in us?

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[31] Important steps and key indicators of weaning ourselves from the high epistemic complexity of systems thinking are detailed in my article here http://integralleadershipreview.com/16031-releasing-complexity/

[32] For a taste of a new approach to facing complex issues, see my interviews with Daniel Thorson on *source code analysis* on the Emerge Podcast here: https://anchor.fm/emerge/episodes/Bonnitta-Roy---A-Source-Code-Analysis-of-Power-e23glc

Appendix

Here a meta, there a meta, everywhere a meta meta

We can distinguish modes of "going meta."

1. Meta-synthetic: Modes associated with the dialectic-synthetic "up-ward" path that characterizes the Mental structure of consciousness and the models of adult development that are based on hierarchical complexity and differentiation-integration models.
2. Deconstructive: Modes associated with the eastern, "downward path", negative dialectics, and illogics.
3. Meta-cognitive: Creating an observational "gap" between knower and known by making an object out of prior subjective contents, i.e. the "Kegan move."
4. Orthogonal: Modes that shift to different cognitive architectures, such as process philosophy, aesthetic judgement, or aeskesis/ practical judgement.
5. Simplexity: Modes that seek to identify source protocols or "deep code" inside the epistemic architecture, to release complexity of the problem situation.
6. Holistic (meta-complexity) orientation: Essentially a non-epistemic mode that engages embodied "back-ground" processes to carry experience forward: "critical reflexivity," "meditation in action."

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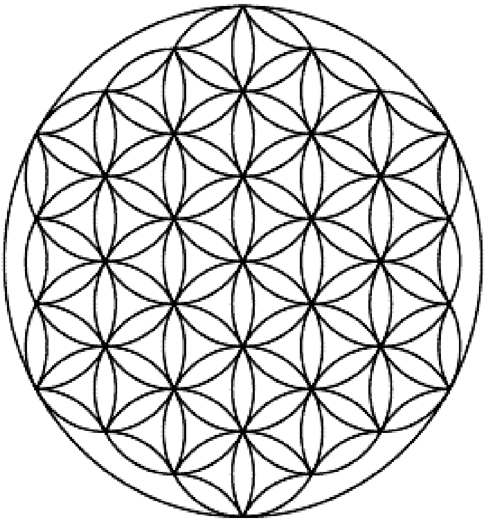
From Capitalism to the Collaborative Commons

Edward Berge[1]



Abstract: This is an edited summary compilation of my work in several Ning Integral Postmetaphysical Spirituality (IPS) forum discussion threads listed in the bibliography. It will lay out the slow decline and endgame of capitalism, while also highlighting the emerging new socioeconomic system of the collaborative commons. It also criticizes the notion of clinging to conscious capitalism, as if capitalism could be redeemed if only the right consciousness were applied. While conscious capitalism may indeed be a healthy transition step toward the collaborative commons, in itself it is not enough and to the contrary retains many of the inherent elements from a bygone and no longer effective socioeconomic structure.

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How is Economics Spiritual?

While each domain like spirituality or economics is a self-contained holon with its own autopoetic structure, nonetheless as the image above depicts holons also intersect with each other and share some spaces between. Hence we can discuss the spirituality of economics and vice versa. It is in this light that I make the case below where those domains intersect.[2]

Pope Francis said in his Encyclical (2015): "[T]he most [...] astonishing economic growth, unless [it is] accompanied by authentic social and moral progress, will definitely turn against man" (para. 4). He goes on to expound on what type of economic progress is deemed moral. As one example, there must be a social mortgage on all private property in order that goods may serve the general purpose that God gave them. It is not in accord with God's plan that this gift be used in such a way that its benefits favor only a few (para. 93). He suggests that the study of ecology requires the interrelationship between living organisms and their environment, the latter including the social and economic milieu. And both are integrated within of the broad rubric of the spiritual (Chapter 4). Furthermore, our current socioeconomic system is one of personal conquest over nature, extracting its abundance for personal gain and not for any common good (Chapter 2). In order to serve each other in a more caring and humane manner we need a more spiritually oriented economic system.

Michael Lerner (2017), a Rabbi and leader in the progressive Jewish faith, brings a spiritual perspective to economics. Spirituality in a broader sense is how we bring those principles to the daily bread of, well, daily bread: How we get enough bread to eat, how we share our bread with our neighbors, how we provide it if they can't afford it, etc. Recall that bread is a key ingredient in Holy Communion, how we share in the body of the Divine, and how we nourish our physical bodies in preparation for cultivating our more ephemeral bodies. His organization's Spiritual Covenant promotes loving and caring relationships, recognizing that everyone is part of, and contributor to, the sacred energy of the universe. It requires social responsibility in democratizing our political economy to achieve a living wage, reduced work weeks and meaningful participation in work. Spirituality requires that we act in the economic sphere to improve lives or it is just more empty rhetoric.

Otto Scharmer (2013) discusses how the self can be alienated from the environment, society, and ourselves. All three domains are inextricably related. The spiritual divide is not from some divine being or reality as such but "between the current self [...] and the emerging future self." He correlates the spiritual divide with our current governance systems not giving voice to the people or defending private property rights. He demonstrates that all of the above disconnections are tied to our economic paradigms. Economically we are moving spiritually toward awareness- based collective action and commons- based ownership.

Christian Arnsperger (2008) makes an explicit connection between existential reflection and religious/spiritual values. He considers such values as the very foundation of economic thought, since the latter is directly concerned with the liberation of humankind from oppression and enslavement, so much so that economics is "less a technical-operational domain than an existential-spiritual one." He even goes so far as to see Marx, Keynes, and Hayek literally as "the most influential theologians of the 20th century." Hence the subsequent examination of economic systems and the transition from capitalism to the collaborative commons is of utmost spiritual concern, where the rubber of spirituality meets the road of its material enactment.

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[2] Also see Alderman in this Issue for a fuller appreciation of this phenomenon.

What could be more spiritual than helping people earn a living wage to feed their families? Than addressing income inequality so that people have a fair shot at creating enough money to meet their basic needs and have some surplus time and energy to devote to needs higher on Maslow's hierarchy, like spiritual pursuits? And I don't mean just traditional religion but so-called integral postmetaphysical spirituality (IPS)? It seems most of us that are into such spiritual pursuits are already privileged with enough surplus in the lower levels such as survival, membership, individual autonomy and other basic needs that we take for granted, while most of the population is struggling to eat and pay the rent. If you are in the latter group you will not focus on much of anything else, let alone IPS. So a key spiritual question becomes which political agenda best enables people to meet their deficiency needs in order to fulfil their higher needs? Barring that, how realistic is it to expect ordinary people to even approach something like IPS?

Just preaching IPS to the choir of already relatively wealthy elites is a circle jerk. Taking the prime directive seriously means taking action to lift everyone up to achieve their highest potential, not just in financial terms but all the higher needs. But we can't get there without addressing real sociocultural problems. And it matters a lot which political agenda is in power. I'm also reminded of Wilber's (2006, p. 34) contention, and with which I agree, that the predominant factor in an individual's level of consciousness is the economic system. Recall the recent proclamations of the Pope above about trickle-down economics being a major factor in subverting one's religious obligations to the people. Or Jim Wallis (2017), who sees economic budgets as moral issues, how we enact our moral and religious beliefs in treating each other. At IPS forum we've long included political and economic issues as part of an integral view to achieving spirituality.

Capitalism, Conscious or Otherwise

First let's examine capitalism. Dictionary.com defines it as:

> An economic system based on a free market, open competition, profit motive and private ownership of the means of production. Capitalism encourages private investment and business, compared to a government-controlled economy. Investors in these private companies (i.e. shareholders) also own the firms and are known as capitalists.

Noam Chomsky (2009) explains that laissez-faire capitalism is an ideal that has never existed in practice. Existing forms are dominated by oligarchs who buy legislators that intervene in the economy on their behalf. A free, competitive market is more a talking point that in reality must be avoided at all cost. Instead Chomsky prefers economic democracy where workers have control over their workplaces and economic institutions, more like the collaborative commons.

On a positive note Jeremy Rifkin (2014) defends capitalism. The first two industrial revolutions required vast amounts of capital to build its infrastructure. It also required vertical integration of huge organizational structures with top-down hierarchical control. He notes that while greed, deregulation and corruption certainly played a part in what capitalism has become, he also asserts that this structure was a natural process for the sort of communication-energy-consciousness regime that provided a general increase in the standard of living for all. However, its own drive for ever-increasing productivity at lower marginal costs has now resulted in it being nearly obsolete.

Wilber and Parlee (2009) claimed: “If you shop, have a job, or own any investments, you're a capitalist. But are you a conscious capitalist?” This presumes that if you engage in markets and business, or exchange money you are a capitalist, which is an erroneous and revealing assumption. Cannot one do all those things without engaging in capitalism? One most certainly can. Just because monetary investment is involved doesn’t make it capitalism. The latter is a specific economic system as defined above. So what do their assumptions reveal?

Technically capitalism means private ownership of the means of production. We can just as well make money, shop, have a job and engage in competitive markets in a system in which the workers can own the means of production and operate businesses democratically. Co-ops are but one example, the Mondragon Corporation being the largest. This is Marx's (1948) move from capitalism to democratic socialism. I'd add that some of the most democratic and happiest countries have some degree of democratic socialism, like Iceland, Norway, Denmark and Sweden (World Happiness Report, 2018).

Wilber (2006) said the following: "It is not the consciousness of men that determines their reality but their economic-material realities that determine their consciousness" (34). He of course qualifies this claim, but he agrees that the economic system is an incredibly strong factor is shaping the consciousness of most of society's individuals. So one of the strongest reasons people support those who oppress them is because they have to make a living. Making minimum wage or not much beyond is better than starving to death. And the latter is not just a fanciful hypothetical but a daily reality for many Americans, not only the poor but increasingly the middle class as well. It's hard to have an ideology when you're working overtime and/or a second job to make ends meet for your family. Given the above, many of us do not have the time or energy to be educated about political issues and/or to get involved in that process.

Which is of course the intent of global, corporate capitalists, for they realize an uneducated, overworked, underpaid workforce with the apparent freedom to vote is much more easily manipulated with ads and political framing. Hence it is the ideology of those in power, generally those with the most money who want to keep it that way, that program us with scientifically proven linguistic techniques specifically designed to get us believe in something that is against our own self-interest, i.e., getting out of the cycle of poverty or slave wages. There has been a lot of research on framing and, according to Lakoff (2016), capitalists have been on to this for a long time and have manipulated public opinion to vote for policies that further enrich the already rich and further impoverish the already poor. Obviously they hide the reality of this process within political frames that spin a story that their agenda is all about opportunity, jobs, and lifting the poor and middle class. But it is well-designed misdirection that has been exposed time and again; the programming is so strong and insidious that those so programmed refuse to accept the cognitive dissonance of facing that they've been so manipulated.

Now of course some integralites also buy into this false story that if anyone just tries to work hard enough, and are smart enough, they too will succeed financially and become healthy, wealthy and wise. Thing is, most of us integralites have grown up in more upper middle class households and already started on third base, to use a well-worn metaphor. We don't realize that many others don't even start at home plate but never get the opportunity to get into the game. I'm reminded of kids that don't have enough to eat so cannot learn well, so even though they're given the equal opportunity of an education it's not sufficient. Their parents are both working low-wage jobs and still don't have enough to buy adequate food to feed their families. Also lower-class schools have inadequate supplies and an insufficient number of teachers, their budgets having been slashed by capitalists lying about a shortage of funds yet unwilling to get those funds via reasonable taxes from those who can afford them. Again, part of the plan to keep lower and lower middle classes under- or uneducated to perpetuate the cycle of wealth flowing to the top. Most of us privileged integralites never had to experience such conditions so we unconsciously buy into and enable such exploitation, thinking if we just educate leaders about integral ideas then the above problems will be somehow corrected, when in reality such training just gives leaders better tools to keep the deception going.

In some integral circles there is the notion of consensus between liberalism and conservatism, which presumes that they are both legitimate worldviews of equal worth, complexity, and development that just need some balancing and integration. But is the presumption accurate? I think not. I agree with the general idea that the liberal worldview is a higher cognitive development than the conservative (Wilber, 2006b, p. 22). Granted there are exceptions and contextual caveats but it's valid as a generalizing orientation. And I also agree with Wilber (2000, p. 221) that worldviews are what he calls transitional structures, i.e., that development entails the replacement of outgrown worldviews with new ones. For example, in moral development one does not simultaneously hold an egocentric and worldcentric morality, and they are not balanced or integrated. The latter replaces the former. And so it is with worldviews. However basic elements are indeed included from different domains, as we’ll see below.

We do *not* have to balance or integrate conservative with the liberal worldviews. We can though mix-and-match elements from capitalism to balance with more equitable ideas from a more developed worldview. It is important to make this distinction. Even though we retain some of the healthy elements of capitalism in moving to the collaborative commons, retaining capitalism as a guiding worldview has severe real-life consequences for society by continuing the inequities of a system that has outgrown any usefulness it might have had previously.

Another assumption is the following: “Capitalism can and will evolve as the consciousness of the people composing it evolve” (Wilber, 2009). This is the consciousness in conscious capitalism. But again, this assumes that a higher consciousness, presumably integral consciousness, will continue to express through a lower socioeconomic system. That somehow the latter can be redeemed if we just think about it differently. It also presumes that this integral consciousness has somehow balanced and integrated the prior liberal and conservative worldviews in a higher synthesis. But recall the liberal or progressive worldview was not a balance or integration of the conservative but its replacement. And if there is such a thing as an integral worldview it too is not an integration of liberal and conservative worldviews but their replacement. Granted some elements of a previous system can be included, but they are reconstructed and interpreted within the new worldview.

That the integral view tries to balance and integrate capitalism with a so-called higher consciousness reveals a few things. It is antithetical to its own principles of the transcend-and-replace nature of transitional structures. Confusing how enduring structures are included with transitional structures that are replaced is indicative of the type of egoic-rational cognitive structure that cannot make this very distinction. It lends further support that integral conscious capitalism really is not so much an evolved worldview but more of a conservative, capitalist, Republican socioeconomic view dressed up in newer, more glamorous clothing-rationalizations. It's a view that has yet to go through the so-called 'green' progressive worldview with its social and democratically run markets.

Mackey (2006), another proponent of conscious capitalism, seems oblivious that the ruling form of capitalism is State capitalism, and such corporate control of government will not be changed by a few sincere but naive idealistic capitalists like him promoting positive change by example. He will not even be noticed by the power elite until and unless he starts to cost them one penny in profit; then he will be crushed. In the meantime such power brokers no doubt silently nod in approval while he promotes capitalism in general, as it keeps the masses from appropriately directing their anger at the iniquitous system that is creating their turmoil.

Granted there are positive elements in conscious capitalism to be included, like dedication to the triple bottom line: profit, people, environment. It attempts to balance all three stakeholders so that profit is not the only motive. The latter by itself is what is considered to be the culprit in the downsides of capitalism and they're right on that count. However there are other aspects of a capitalist worldview noted above that are accepted unconsciously which also get in the way of a more equitable and humane economy.

The 2015 Integral Theory Conference

In an Integral Leadership Review interview Sean Esbjörn-Hargens (2015) said:

> [T]he theme of the conference, which is around 'Integral Impacts,' is simultaneously a statement and a question aimed at exploring the issue of whether integral approaches are more impactful than other non-integral approaches? The narrative that we tell ourselves in the integral community is that it is. It logically has to be. And yet there aren't a lot of examples that really make that case. If push comes to shove, I think we as a community are hard-pressed to actually demonstrate that.

One way of addressing that is educating ourselves and others of the consequences of end-stage capitalism, of facing our unconscious assumptions that lead us into accepting and enacting its outright pernicious tenets. To have an impact we have to drop the pretense of civilized debate and just fight against what is wrong. Sometimes the former is a way to capitulate to the hegemonic power structure, to succumb to its premises while politely disagreeing. Which in effect doesn't change that structure one iota. I'm thinking here specifically of the ITC debate on capitalism, where Stein's opening statement (2014) makes clear we should not accept capitalism's own terms, for to do so, no matter how 'integrally' dressed, really changes nothing. Moving beyond conscious capitalism requires more than polite and respectful disagreement. It's a fight that requires strong language, and yes, even polemic, that motivates us to personal and collective action in order to change a defunct and destructive system. We can’t politely watch climate change destroy our lives and planet from an ivory tower burning to the ground. If we don't fight now we all die, and that's not a metaphor or hyperbole. This is not an academic debate befitting of its rules of engagement; this is a fight for our very lives.

Stein (2015), in a video clip linked below, reiterates some of the points in his 2015 ITC paper. The weak argument is that integralists should at least become informed of the nature of capitalism, to date under investigated. Conscious capitalism ignores its history and its deeper implications. This is necessary for his stronger argument against it: If you stick to integral metatheory then at the very least it should be post-capitalist, and even anti-capitalist. He finds calling anti-capitalism a 'green meme' a poor excuse for actual thought, a misuse of developmental theory to dismiss something that hasn't been thoroughly thought through. He then discusses transitional and enduring structures, arguing as I have that capitalism has to be transcended and negated. Not everything is included in transcendence.

He goes on and sees conscious capitalism as a transition to a post-capitalist form of economics. He's not opposed to conscious capitalism, just that form of it that sees no alternative to capitalism or that thinks it is the integral expression of the most evolved socioeconomic system. Capitalism is inherently a paradigm of endless profit and growth, unsustainable for the planet and for people. This addiction to profit and growth requires the exploitation of labor and the environment. And finally, there is a relationship between markets and violence; wherever there's a market there's someone with a gun.

Also consider one of Michael Schwartz's (2015) points in his IPS Facebook integral myth thread, that no matter one's cognitive level on developmental tests, once we are within the system the system itself starts speaking and acting through us. It challenges the notion that all we need do is attain integral cognition, or try to inculcate the integral model into the system. The system itself will appropriate those cognitions and models for its own purposes and proceed along virtually unchanged. We need to also enact new socioeconomic structures in alignment with our cognitions and models. That is what the collaborative commons movement is doing. And apparently organically, without AQAL models.

Political and social revolution arises from the external socioeconomic system, the mode of production. This agrees with at least that part of what Wilber (2006a) spoke to as the predominant way most people move into a new level overall: "It is not the consciousness of men that determines their reality but their economic-material realities that determine their consciousness" (part 3). The difference is that he thinks more developed individuals create the new systems from the inside out. I suggest that it's more individuals being affected by the emerging tech and modes of production that then instills the value logic. Development is accomplished not by having a 'higher' model to which one must conform, but by the actual practice of operating within the sociocultural practice of democracy. This is what transforms individual operators in a value logic supporting the notion of the public good in distinction from the dysfunctional notion of individuality espoused tirelessly by the regressive capitalists that prefer oligarchy. Again, it's the social practice that inculcates a working system for democracy against oligarchy, where the inside-out model has yet to have even a minuscule effect on this stated goal.

I know, the AQAList might argue it's not one creating the other, it's all of them tetra-arising at the same time. But as another example, Habermas (1994) using Mead determined that it was the cultural system that creates and inculcates the individual ego in the first place. Without it, despite the hardware, one remains an egoless wolf boy. Vygotsky's (Edwards, 2004) work supports this notion as well. They directly contradict the Piagetian notion of inherent inner structures that shape external stimuli to fit that structure. It's a very metaphysical system that I examined in depth in the IPS “real/false reason” thread. And again, it's not that the inner/outer, individual/social all tetra-arise simultaneously. That certainly provides for a nice apparent 'balance,' but that is an imposed systematic assumption that presupposes such a balance that does not match the empirical facts on the ground, instead trying to match the facts to the created metaphysical system. It is a hallmark of the capitalist system to do exactly that.

Stein (2014) recommends that a key goal of integral activism should be to replace capitalism with a new economic system. In that light let's now explore the collaborative commons.

The Collaborative Commons

Jeremy Rifkin (2017) discusses how the capitalist paradigm is phasing out and the collaborative commons is phasing in. The transition will inevitably take time but it is already forming a hybrid economy. He predicts the transition will be complete by 2050, with the Commons dominating but capitalism will still exist on the margins as a aggregator of network services and solutions. The major impetus for the decline of capitalism is near zero marginal cost. Marginal cost is that of producing additional goods and/or services once the investment costs are covered. Due to technological advancement and efficiency, marginal cost is approaching zero, thereby making goods and services virtually free after investment costs.

Given the loss of return on investment, capitalists are losing out to a new way of creating goods and services. People who were once consumers are becoming prosumers, using advanced tech at near zero marginal cost to produce their own goods and services and sharing them with each other for minimal cost or free. They are forming collaborative teams in the social commons to create projects that can scale up to handle large, complex projects. "The Collaborative Commons is already profoundly impacting economic life. Markets are beginning to give way to networks, ownership is becoming less important than access, and the traditional dream of rags to riches is being supplanted by a new dream of a sustainable quality of life" (Rifkin, 2017).

There will still obviously be significant expenditures needed for initial start-up infrastructure. That can be generated through City, State and Federal government investment paid by our taxes. It can also come from collaborative sources, like crowdfunding, for smaller projects.

Rifkin (2014) proposed that each phase of socioeconomic development entails coordination between communication and energy systems within the prevailing societal paradigm. Hence capitalism was appropriate at that particular juncture of development because the first two industrial revolutions required vast amounts of capital to build its infrastructure. It also required vertical integration of huge organizational structures with top-down hierarchical control. This paradigm provided a general increase in the standard of living for all. But the capitalist structure has reached the point where its disasters outweigh its dignities. And its own impetus for ever-increasing productivity at lower marginal costs has made itself near obsolete.

Capitalism was the age of privacy and individual autonomy, whereas with the collaborative commons there is much more sharing and openness. Throughout much of history humanity did things much more communally and publicly, like eating, sleeping and even excreting waste. With capitalism we moved many of these functions indoors and into our own private rooms. This “went hand-in-hand with the enclosure and privatization of the commons” (Rifkin, 2014, 75).

The emerging collaborative commons needs a new, unifying narrative or worldview, heretofore having to navigate within the capitalist paradigm or regress to old notions of the commons. It found its theme in the ecological sciences, where the focus was not so much on individual species but how they interacted within environments. And most importantly, how all the environmental niches interacted with the biosphere as a whole.

Rifkin (2014) describes how this ecological emphasis manifests via the collaborative commons. We shift to renewable energies that can be installed on our individual homes or businesses. Such energy sources, while intermittent, can be stored in new battery technology or hydrogen fuel cells. Since we will be increasingly connected to the Internet of Things we can sell excess energy to the grid that someone can use on the other side of the globe. 3D printer technology empowers local businesses and governments to produce goods that don't require expensive and polluting long-range transportation. Education is conducted more on a collaborative basis where teachers facilitate students to participate and create innovations instead of just learning by rote, and often at lower tuition if not entirely free. Such sharing and exchange of energy, information and products is indeed conducive to a collective and collaborative commons.

This worldview of global consciousness is the democratization of everything. One of its early expressions was the free software and open source movements, both dedicated to making information accessible to all for minimal to no cost. It was based on the notion that everyone could share, change, and mix knowledge in a collaborative endeavor where no one person or company could claim ownership. All of which transpired in the global commons of the internet beyond blood ties, religious affiliations and national boundaries, thus enacting global consciousness.

Empathy within an ecological consciousness expresses as spiritual awe at our connection with everything. We transcend our individual selves in this embodied, embedded, enactive and extended union while still retaining our individuality. This opens the possibility for an individual developmental growth that also realizes the ecological connections and integrations within the various parts of our self: reason, emotions, feelings and sensations. At this stage our empathy can transcend the individual, the tribe, the religion or the nation and enact caring relationships with the entire ecosphere. We are indeed arriving at the beginning of our collective enlightenment (Berge, 2017).

This view is replacing the capitalist invisible hand, which was itself a holdover from a theological God in control to rational, self-interested individuals in control. Lacking a systems view it replaced God with the invisible force of a marginally less superstitious autonomous Market. Backed by ecological and other scientific advances, it is now being replaced with the visible systems view of the global eco-social commons and redefining our place within it.

Note that the invisible hand of the market is still metaphysical in that it must posit some autonomous agency that operates on its own if we but focus on our self-interest, i.e. the market will take care of itself. Moving into systems science and ecological consciousness thus naturalizes this process, making previously autonomous agencies like Gods or markets 'visible' and understandable, and reconnecting us with ourselves, our peers and our environments, but in a postmetaphysical framework. This also applies to the sort of instrumental rationality inherent to 'enclosure' of disciplines of study rather than to interdisciplinary cross-sharing more indicative of Habermas' collaborative, communicative action. It is not by chance that Habermas (1994) calls this latter form of rationality postmetaphysical (Berge, 2014).

Paradigm Shift

George Monbiot (2017) is right to assert that one's worldview narrative trumps all other considerations, like adherence to facts. Such stories organize how we see everything through their lenses. Monbiot notes that the two major narratives of our time are social democracy and neoliberalism. While having different means and goals they both have the same narrative structure:

> Disorder afflicts the land, caused by powerful and nefarious forces working against the interests of humanity. The hero – who might be one person or a group of people – revolts against this disorder, fights the nefarious forces, overcomes them despite great odds and restores order.

This notion of a hero has to go; we the people collectively and collaboratively become the initiators and maintainers of the story, not some special class of enlightened ones. We work together to enlighten each other, and it is in that collaborative interaction where the enlightenment resides, not some special individual achievement.

He explains why we can't simply go back to the earlier story of social democracy to overcome the current story of neoliberalism. Among other reasons, the earlier story assumes continuous economic growth with the same consumer lifestyle, devastating to the environment and more fuel for climate chaos. So we must create a new story ASAP. This story must be based on our evolutionary capacity for mutual collaboration and aid. It's one that rejects the narrative told by neoliberalism of "extreme individualism and competition." Instead we share ownership and stewardship in community, respecting and honoring each other and the environment.

> We will develop a new economics that treats both people and planet with respect. We will build it around a great, neglected economic sphere: the commons. Local resources will be owned and managed by communities, ensuring that wealth is widely shared. Using common riches to fund universal benefits will supplement state provision, granting everyone security and resilience.

Monbiot shows how this story has already been taking shape and having positive effects. Sanders' campaign was one huge water mark. It organized numerous small networks via the internet and got most of its spending money from a large number of small donors. Such tactics were used successfully by Corbin in the UK. The Indivisible Guide grew out of this learning process.

Jeremy Lent (2012) sees changing paradigm shifts in the dominant societal metaphor for nature. He begins by referencing Lakoff's work on metaphor, in that metaphor is how we use embodied experience to understand more abstract thought. Metaphor also indicates our underlying values. Hunter-gatherers saw nature as a giving parent. Agricultural society saw it as a divinity to propitiate. Monotheistic religion saw it as subject to man's dominion. The scientific age saw it as a machine, which gave us further dominion over it, to treat it like an object which we could exploit and from which we could extract whatever was necessary for human purposes.

There was then a transition to seeing nature as still property but within an ethos of stewardship, to considering our responsibilities for the consequences of our use. This metaphor though still entails our control of nature and our right to prioritize humanity's use thereof. This transitions to seeing nature as a valued ecosystem that humanity manages responsibly, but still retains a monetary valuation for environmental resources. The next metaphor sees nature as a geo-engineering project, using science and technology to solve climate change, but still assumes never-ending economic growth without any change in consumer lifestyle.

Systems science offers the most recent and best-to-date metaphor akin to the collaborative commons. It sees nature as a collection of self-organized dynamical systems in an ecological interaction with each other. And it is their interactions within the broader ecology that is the significant factor. The predominant metaphor is that nature is a fractally connected organism, each level connected with the next. This puts humanity in its place as just one dynamic system embedded in the larger ecosystem, not transcendent over it. Humanity realizes that as part of nature we must care for it like we care for ourselves. The paradigm shifts to the collaborative commons.

The Developmental Argument

A point of clarification is in order before proceeding. No individual or group is *at* a level of development (Mascolo, 2015). We individually and collectively enact different levels in different contexts at different times. So when using developmental levels we must keep this in mind, particularly with entire socioeconomic structures. It's not like there is a pure capitalistic society; there are mixes of elements from earlier paradigms like feudalism as well as later developments like socialism involved. Again recall the above symbol on how holons intersect.

Another thing to keep in mind is Otto Laske's (2013) socio-historical account of developmental models. He questions the scientific or 'objective' facts claimed by developmentalists and sees them more as a product of their unconscious societal biases. One of those biases is that very blindness in accepting the modernist (formal) premises of a pure objectivity apart from more subjective biases, as if science or math could get outside of context and determine the final 'truth' of things. Such a blindness then doesn't even recognize the societal shifts necessary for personal transformation, instead assuming that it's all a personal quest and responsibility, the very values inherent to the status quo, modernist and capitalist system that only accepts personal responsibility as legitimate via this formal and metaphysical logic. All we need do is get them to personally grow and send them back into the shark-pit of the capitalist workforce, as if they then have the personal power and will to overcome it.

Another example of that is the incessant obsession with classification, and the belief that those classes are rigidly structured with clear dividing lines: You're either in the classification or not. Laske doesn't see this as a representative of dialectical thinking but a continuation of formal logic. And this maintains the hierarchical status quo of business as usual, with the 'leaders' in charge as they should be. However once we 'enlighten' them with personal growth this will of course trickle down to the rest of us and make our lives better? Instead it reinforces the very formal and modernist notion of hierarchical business relationships in the first place and completely misses the actual next phase of societal development, the collaborative commons.

Given the above caveats, Wilber (2003) notes that social structures set up the latest and best paradigm and create laws to enforce them, in effect creating the best-to-date attractor as ideal and by which the society strives to attain despite its actual status. Even within that mix there is a dominant paradigm that serves as goal post. So let's take a look at some examples of developmental analyses which provide the hallmarks of the different levels of socioeconomic paradigms to date, with some speculation on where we might be going.

Rifkin (2014) looks at worldviews from feudalism to capitalism. He starts by noting that worldviews justify themselves as the ways things are, either by divine or natural order. The feudal Great Chain promised salvation by knowing one's place in the hierarchy and doing one's duty. In the transitional medieval market economy this shifted to one's hard labor, earnings and property as signs that one was favored by God, which shifted to a more secular notion of one's autonomy and worth as equivalent with one's property.

When the market economy transitioned into capitalism there arose much more vigorous defense of individualism tied with private property as inherent to human nature. Utilitarianism became the defining worldview justification. This led Herbert Spencer to twist Darwin's ideas into social Darwinism, a justification for 'survival of the fittest.' Darwin was aghast at such a torturous distortion of his work.

Nonetheless Spencer saw the way of things as follows: "...all structures in the universe develop from a simple, undifferentiated state, to an ever more complex and differentiated state, characterized by greater integration of the various parts" (Rifkin, 2014, p. 64). Therefore only the most complex and vertically integrated business should survive, as this was natural to evolutionary development. All of which leads to oligopoly with its hierarchical and centralized command and control. This remains the dominant and regressive Republican (and corporate Democratic) view today in the US.

Rifkin (2010b) proceeds to show the changes in society from past to present based on empathic development. In forager-hunter societies communication was limited to shouting distance within the local tribe. Empathy was extended to the tribe while those outside it were considered aliens. Writing emerged in agricultural civilizations which allowed our empathy to extend to religious groups. With the industrial revolution and electrical communication our empathy is extended once again, this time to a larger organization called the nation-state. Now new technologies like the internet are providing a framework that allows us to communicate with the entire world, thereby extending our empathy to the entire biosphere. It is this last development that provides a foundation for a collective, planetary collaborative commons.

Now granted there are existing cultural memes already setting the stage. As noted above and below worldviews are co-instituted with stages of human development and their socioeconomic formulas. Some developmentalists suggest that modern egoic rationality is the first stage of equality for all and capitalism is most certainly not about that. I suggest that democratic business, like democratic politics, is indeed an example of this stage. And that capitalism is still a regressive holdover from the aristocratic feudal period. In other words, the politico-economic line in our culture is lagging behind other developments. Capitalists are still the privileged aristocrats that do not want equal opportunity but to maintain their privilege. So when governmental forms shifted from the old aristocracy to democracy with a vote for all they fought tooth and nail to subvert that process by refining quickly the art of rhetoric backed by the science of linguistics. And of course coupled with a heaping pile of bullshit to feed an already abused mass starving for promises of hope.

Some in the FB IPS anti-capitalism thread have also suggested that being anti-anything, let alone anti-capitalist, is not so-called second tier. Stein (2014) discusses Hegel's ‘negate and preserve,’ discussed above as the difference between ‘transcend and include’ and ‘transcend and replace.’ The latter is akin to Hegel in that basic structures are included, whereas transitional structures like worldviews and morals are replaced. So a valid critique of the capitalist worldview is necessary and warranted to negate and replace those elements within it thwarting further development. We discussed transitional structures in detail in the Ning IPS “ladder, climber, view” thread.

Elza Maalouf (2014), an associate of Don Beck who practices his Spiral Dynamics Integral (SDi), examines evolutionary democracy. She provides a rundown of appropriate political forms for different countries. Of note is that the US needs to expand into social democracy (green), while Germany and northern European countries are entering functional democracy (yellow). A characteristic of the latter is a "distributed intelligence model." Interestingly, Rifkin is working with Germany on his third industrial revolution plan, aka the Commons, which no doubt is a big factor in this move into yellow. Maalouf asserts that holonic democracy (turquoise) is a couple of centuries off, so not likely to be at all like conscious capitalism.

Bruce Gibb (2014), an organizational psychologist and SDi practitioner, reviews Rifkin (2014). His premise: "[Rifkin's] analysis proceeds from a yellow, Stage 7 (S:7) stance." He notes that while foundations are built upon and not eliminated, nonetheless a "more adequate theory **replaces** a less adequate one" (my emphasis). Also of note is the emphasis on how socioeconomic infrastructure is what drives our evolution: "[Rifkin] recognizes that life conditions – and in particular the sources of energy and the technology of communication – are the drivers of cultural evolution."

While Gibb admits near the end that biosphere consciousness is turquoise, he also said right before that statement that the collaborative commons is a horizontal extension of green consciousness into all sectors of society. He led up to that conclusion by noting that green's psychological consciousness extends empathy to larger associational ties to include like-minded others. His own logic doesn't follow here, as the collaborative commons goes beyond associational, like-minded ties into biosphere consciousness, given its expansion of empathy to *all* people, beyond associational ties, as well as to the entire biosphere.

Also he doesn't provide a description of an SDi yellow cultural mode. His progression seems to indicate we can jump from associational communities (green) to the biosphere (turquoise) with no yellow in between? Granted he's following Rifkin's empathic levels here, which don't account for what Gibbs describes as yellow. But Gibbs doesn't account for a yellow cultural stage either.

Said Dawlabani (2014) discusses 2nd tier functional capitalism as arising in a yellow and turquoise value system in its incipient phases in parts of the US, northern Europe and Germany. It is distinguished by a distributed biological intelligence manifesting in economic systems. It requires all stakeholders to participate in its design. He notes that such an economics must be spearheaded by those displaying that value level and sees Senator Warren as an example of it. "The next system of governance sees right through the incompetence of the current political system and its complicity with lobbyists and corporate interest." I'd add Senator Sanders to that category. The article though does promote Whole Foods and conscious capitalism as yellow business examples, still maintaining the CEO with such values as the leader of a top-down organization that guides it. Per above that falls far short of the standards set by the collaborative commons and its peer to peer dynamic structure.

In Spiral Dynamic terms I'd put conscious capitalism in the orange exit/green enter phase. It still mixes and matches their elements. Yes, it's better than the kind of global capitalism he criticizes but it's not yellow by a long stretch. The emerging neo-Commons is the transition into yellow or so-called 2nd-tier socioeconomics. Dawlabani rightly characterizes the latter with distributed intelligence. I'd say Rifkin's economics is more green exit/yellow enter phase, whereas stable green economics would be more like the social democracies of northern Europe on the verge of yellow. Hence those countries are amenable to Rifkin's agenda. And conscious capitalists apparently are not.

Dawlabani (2016) updated his view by noting that the distributed intelligence of the next system follows no ideologies, including capitalism. That end of ideology is the “rise of the collaborative commons.” It is open source, highly networked and depends on the wisdom of the crowd. It integrates the individualistic and communal value systems in an intelligent network. “It is more Allometric than it is Holocratic. Allometry is from the biological sciences and here’s what it means: It preserves the high functionality of its different sectors, (the specialized organs in an organism) that create innovation, (specialized functions) while relying on the Network for fair and equitable distribution.”

Dawlabani (2018) still sees Whole Foods’ original intent as integral, but when its bottom line of profits fell the investors decided to change its business model, especially after Amazon bought it. “This real Orange threat forced Mackey to start thinking differently.” Hence Mackey’s “long-term prospects of continuing a culture of Conscious Capitalism at Amazon are highly unlikely.” As I noted above, the dynamics inherent to capitalism tolerated his conscious approach only as long as he made them money. When competition drove down its profits and share price the forces of capitalism drove out the conscious aspect in favor of its own inherent values. As expected, Mackey lost the bargain with the devil capitalism, as any such bargain inevitably will as long as it remains wed to it.

Arnsperger (2007) makes the point that an integral economics must provide not only a critique of capitalism's material reductionism, endless growth orientation, and competitive markets, but a positive vision of how a more evolved economy should work to provide an environment for the development of its citizens along as many lines as possible. We might therefore take some clues of what he considered more evolved economic systems of the past, like Soviet Russia of the 60s or Cuba of the 70s. They had developed a more social and communal way of life that provided basic needs to all citizens like lodging and health care. He even suggested that we incorporate some of the great religions' moral-based tenets to “delineate paradigmatic ideals of economic organization and economic agency towards which conscious evolution might be geared in a liberation-oriented economy,” akin to comments above about setting our ideals as an attractor to strive for.

Conclusion

There is ample evidence that the collaborative commons is not only emerging but already has a solid foothold in the transition away from capitalism.[3] It also seems to be growing organically via its peer to peer principles, changing the very ethos of what it means for a system to organize. It integrates hierarchy with heterarchy in a distributed, networked format that transcends capitalism's dominant hierarchical, top-down structure. This format is where organizational levels no longer evolve in a strictly linear fashion of an ever-increasing complexity of growth but via the evolution of a folded, meshed, ecological sustainability, akin to what I've come to call hier(an)archical synplexity.[4] Again, the symbol at the beginning is indicative of this meshwork.

Given the inherent and multiplicitous connections in the shared spaces between all of us, there can be no more spiritual quest than to provide the material, socioeconomic basis needed to allow for humanity’s progressive development. Without such a basis most of us will remain trapped in a struggle for survival. Therefore it is incumbent upon us to work toward creating and sustaining a collaborative commons that allows for and promotes those possibilities of our future growth.

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[3] Also note Dawlabani (2018) where the collaborative commons is the end of first tier centralized ideologies.

[4] Hier(an)archy is a term coined by Caputo (2006). It basically means not anarchy but hierarchy that leaves open the possibility of something other and outside itself, a transcendental condition in excess of our conceptions. “There is always an ontological excess, withdrawn from immediate relation” (Alderman, forthcoming). The origin of the suffix *plex*: Latin -plex, -plic- (akin to plicare to fold, bend, plectere to plait, braid; see -fold) + -s nominative singular ending.
The origin of the prefix *syn*: Greek, combining form representing sýn with, together with. Hence synplexity is folded together with.
Hier(an)archical synplexity is thus an image-schematic, pre-positional folding together of the actual with the transcendental.
Note that a transcendental condition is not transcendent “but rather what must be presupposed about the nature of the world in order for our scientific practices to be possible. As Deleuze reminds us, the transcendental is not to be confused with the transcendent. The transcendent refers to that which is above or beyond something else. For example, God, if it exists, is perhaps transcendent to the world. The transcendental, by contrast, refers to that which is a condition for some other practice, form of cognition, or activity” (Bryant, 2011, p. 42).
See the Bibliography for the IPS thread on “States, Stages, the Wilber-Combs Lattice and the Fold” for a taste of how this worldview supports the collaborative commons.

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THUS SPAKE ZARATHUSTRA
The First Postmetaphysical Spiritual Hero

Layman Pascal[1]

“Apes don’t read Nietzsche!” – Kevin Kline as Otto
“Yes, they do, Otto – they just don’t UNDERSTAND it...” – Jamie-Lee Curtis as Wanda

(A Fish Called Wanda, 1988)

Introduction

In the late 19th century, Mr. F. Nietzsche (now deceased) transcended his previous romanticism, humanism, and nihilism in the form of an epic, complex, and hilarious philosophical rap-novel that introduced the first overtly postmetaphysical spiritual protagonist in Western literature. Thus Spoke Zarathustra (subtitled: A book for All and None) burst upon the brilliant, idiosyncratic depth-philosopher like a visionary revelation while he was hiking in the high Alps.

Half-conscious and half-unconscious, this multi-level metaphorical prose-poem might have been called a “subtle realm teaching” if the mustachioed Germanic sage had lived in a different cultural epoch. And why not? The writing of this book involves a disembodied ancient guru revealing a new doctrine through his devotee. Sri Zarathustra’s teaching concerns health, empowerment, and the emergence of a transcultural civilization based on the proliferation and intensification of “peak experiences” and “flow”. This is a developmental teaching which treats meaning as something we grow towards through exercises that unfold and spiritualize the self – practices instead of beliefs, humor instead of idealism, ecology instead of heaven, and the daring to see beyond our conventional metaphysical assumptions.

Nietzsche is notoriously easy to misinterpret. His work is cryptic, rhythmic, and aphoristic. It is specially designed to reveal layers of truth and travel across multiple, even contradictory perspectives if we are capable of “listening with the third ear” and avoiding the trap of assuming

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[1] **Layman Pascal** is a "white indian" whose family has lived for 5 generations among the remote islands of the Pacific Northwest. He also hates biographies & introductions so bear with him -- this is difficult! What we have done already is so much less interesting that what we have not yet done, but I digress -- He is (or has been) a meditation teacher, yoga instructor, public speaker, nondual theologian, lecturer on integral methatheory, shamanism advocate, author, artist, bad poet, co-chair of the Foundation for Integral Religion and Spirituality (FIRS), co-editor of the Integral Review Special Issue on Integral Postmetapysical Spirituality and strong contributor to IPMS forums, moderator of the Integral Life forum, and creator of such online oddities as: The Christmas Wiki, Pascal's Integral Batcave, the Integral Demonology Forum, the Integral Morality & Ethics Group, the Integral Gender Studies Forum and more. Currently he runs a Nepalese clothing store, cafe & sacred gift shop in Northern Ontario with his wonderful girlfriend while also practicing hypnotherapy and energy accupressure. Etc.
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the normal positive and negative social implications associated with wild terminology. If, for example, Nietzsche calls someone a damned liar... well, you don't yet know whether he thinks damnation and deceit are criticisms or praise. It is a lot of work to read Nietzsche properly and in a balanced fashion. He repeatedly insists that his books are NOT for either the public or the universities. They are for a special class of adventurous, growth-oriented transperspectivalists who – he laments – might not even exist yet in the 1800s. But we 21st century integralites might even be the "new philosophers" and "free spirits" for whom Herr Nietzsche was writing. Certainly we, like he, are deeply concerned to embrace and go beyond relativism, to blend our intellect with our dancing spirit, to merge spirituality with cultural vitality and authentic health – and to evolve past the nihilism of flatland.

> "Our task – to see things as they are! Our method – to look through millions of eyes!" (Nietzsche, 1888)

When the first few chapters of "Thus Spoke Zarathustra" poured like a torrent of bliss into Nietzsche's troubled soul, vibrant like a new Gospel or a Beatles song waiting to be recorded, he was astonished to find within its curious fractal rhythms the answers to the philosophical questions he had been pondering for years. Questions like: How can culture be mythically revitalized without regression from Reason? How can science, art, and subjectivity work together to intensify truth? How can we create a meta-value system that privileges health, promotes "peak potential" and provides an operational ranking system for the relative utility of all values? And how can we guard ourselves against the constant encroachment of non-actual phenomena, impossible thoughts, metaphysical self-satisfaction, and self-destructive drives?

As he would later describe in his satirical autobiography *Ecce Homo*, Nietzsche was converted by the whole mood of Zarathustra and his subsequent books were merely the unpacking and deployment of the profoundly happy insights which stared back at him from the pages of this revelation. The joyful, cynical, supra-humanist, and evolutionary attitude of these late works is what primarily inspired people like Aurobindo, Maslow, Jung, Freud, Deleuze, Teilhard de Chardin, Ouspensky, and many others whose own works flow into the river of integral philosophy.

What I intend to do is to provide a brief overview of the plot of *Thus Spoke Zarathustra* with a few general indications that will allow an interested reader to explore that text with an eye toward the interplay of integrative sensibilities, spiritual development, and postmetaphysical worldviews. But before going any further we must get a quick sense of what "metaphysics" means for Nietzsche:

1. Metaphysics is not specifically religious. Nietzsche critiques metaphysics from a point of view that includes mythic dogmatists, rational scientists, and progressive social pluralists. They are all metaphysical thinkers in their own ways. His famous phrase: "We will not be rid of God as long as we have faith in Grammar" speaks to his universal and syntactical perspective on these matters. Even when we examine his most famous passage ("God is Dead") we find that it is mostly concerned with critiquing the naiveté and gullibility of so-called atheists who blithely assume that they no longer *believe*.

2. Metaphysics can be healthy or unhealthy. This is what we expect from a balanced postmetaphysical perspective – not a wholesale dismissal (as if that were even possible) but rather an intelligent and experimental re-examination. Not all metaphysics, nor value systems, are equally effective, true, or benevolent for human beings. Some unproven ontological assumptions are empowering and workable, helping us to thrive in a world we can never completely comprehend while other metaphysical notions about reality might be insidious and self-destructive quite regardless of how much we personally like them or how well they allow us to get along within our cultural groups. Some good-looking houses have asbestos in the walls and rotten floors – but not all good-looking houses.

3. Metaphysics is anti-evolutionary. I almost wrote "irrationally continuous." Nietzsche is deeply concerned to get beyond the notion that an *effect* must have a *cause* that is qualitatively similar to itself. The metaphysical mind assumes that if we find Order in the universe then there must have been an Ordering Power at the beginning. If there is goodness it must come from the Original Good. This is profoundly anti-Nietzschean. He sees virtue evolving as the spiritualization of sin. He sees truth emerging downstream from ancient lies and order arising from chaos. Qualities are complex, non-dualistic, and emergent in the great flux of self-overcoming and energy that constitutes reality.

Thus to be postmetaphysical and spiritual in the Nietzschean sense means to treat spiritual virtues as a refinement and evolution of our lower qualities, to tease apart the healthy and possible from the unhealthy and impossible within our own highest values and worldviews, and never to rest in the idea that our current understanding of reality is free from the illusions, ignorance, and superstitions of the past.

The Two Saints

Zarathustra begins his journey at a point beyond the plot of most novels. The Jungian search for Self has been already accomplished at the very beginning. He is "enlightened." This is the reincarnation of the ancient Persian saint Zarathustra (aka Zoroaster) who is often credited as the inventor of the idea of a cosmic dichotomy between Good & Evil.

An aeon before Judeo-Christian and Islamic moralities arose in the West there was already a social doctrine that sought to cultivate and sculpt the human soul through its metaphorical participation in a cosmic battle between the God of Light and the God of Darkness. Who then would be best suited to help humanity evolve beyond the epoch of conventional morality? Who but the very man responsible for its promulgation across the Earth. So Zarathustra returns to help give birth to a trans-morality for the age of planetary civilization and inter-cultural crisis.

We join our hero, Sri Zarathustra, in his cave atop the spiritual mountain. He has been living the life of a yogic hermit for decades with only the company of his animal spirits – personified as an Eagle and Serpent. His exercises and meditation have yielded a remarkable new stage of consciousness in which transformational insight and ecstatic moods fill him continually and spill over into the world endlessly. Yet his awakening is just the beginning. He is soon filled with a strange mood and urgency. Overfull of luminous attainment and clearly aware that he is experiencing it and framing it in a unique manner quite distinct from traditional doctrines, Zarathustra resolves to descend from his Alpine hermitage and give his teaching-transmission to the world. He is the bearer of a nondual, naturalistic illumination-beyond-beliefs.

The first person he meets descending the mountain is a holy man whom he met briefly, years earlier, when Zarathustra was first climbing up to find his cave. This is a genuine religious saint with a nourishing radiance. They are peers. He recognizes that, like himself, Zarathustra has undergone a radical transformation of consciousness. They see it in each other's eyes.

Passing a pleasant evening together, they ponder Zarathustra's plan to begin teaching publically. The saint is astonished at this scheme and avers that people generally do not wish to receive wisdom. They are not ready. They are busy and overwhelmed by options. Even a true teaching is only another burden or superficially exciting idea to them. Holiness cannot be conveyed in the market or given to crowds. It is based on the individual's private relationship to God.

Zarathustra does not challenge his friend's opinion but later, after dinner, he says to himself: Can it be? Has this old saint truly not heard that God is dead?

This is our first glimpse – and Western literature's first clearly spelled out exemplar – of postmetaphysical spirituality. It is the opening salvo of a soul that is spiritually illuminated *without a traditional ideology*. A critical, participatory mind in a complex social environment yet with full access through practice to the ancient human heritage of redemptive states and higher stages of consciousness.

The classical metaphysical apparatus that is epitomized in the idea of The God (the Guarantor of Reality who links being & knowing) is no longer necessary in order to attain the highest levels of truth, energy, and salvation possible for human beings.

Flatlanders vs. the Ultra-Human

Pop culture is waiting in the Motley Cow. The Motley Cow (or: incoherent herd) is the name of the mythical city to which Zarathustra hies in order to make contact with the popular mass culture. He sits in the marketplace to observe and interact with ordinary folks – seizing every chance to preach his radical doctrine. Inner and outer life are both evolutionary, he tells them. Forget about heaven and emptiness and focus on the transcendental fullness of this world, this nature, this body. We are expressions of the multidimensional self-overcoming that characterizes all forms of energy in the cosmos. We have emerged from apes and one day something ultrahuman or transhuman will emerge from ourselves. Look beyond yourself. Intend to participate in the creation of something greater than yourself, greater than anything yet imagined by human beings.

Many of our values are contaminated. Although they provoke "high sentiments" and "ascending aspirations" they may actually keep us trapped in a flat circle of life because they either propose untrue visions *that devalue reality by comparison* OR because they fail to emphasize the growth-mentality that encourages actual development. Living values are grown by our efforts. When values are assumed to be pre-given or equal or based in nonexistent other worlds (or in nonexistence itself) then we are deprived of the organic conditions that provoke meaning and depth. The image of the ultrahuman being which might transcend and include humanity is the epitome of what we could create by a naturalistic discipline of growth and self-transcendence.

> I implore you, my brethren, REMAIN TRUE TO THE EARTH, and believe not those who speak unto you of supra-earthly hopes! Poisoners are they, whether they know it or not.
>
> Despisers of life are they, decaying ones and poisoned ones themselves, of whom the earth is weary: so away with them! Once blasphemy against God was the greatest blasphemy; but God died, and therewith also those blasphemers. To blaspheme the Earth is now the dreadfulest sin, and to rate the heart of the unknowable higher than the meaning of the earth!
>
> Once the soul looked contemptuously on the body, and then that contempt was the supreme thing:–the soul wished the body meagre, ghastly, and famished. Thus it thought to escape from the body and the earth. Oh, that soul was itself meagre, ghastly, and famished; and cruelty was the delight of that soul! But ye, also, my brethren, tell me: What doth your body say about your soul? Is your soul not poverty and pollution and wretched self-complacency?
>
> Verily, a polluted stream is man. One must be a sea, to receive a polluted stream without becoming impure.
>
> (Zarathustra’s Prologue, 1883)

The crowd is not impressed. Obvi. Why would they be? Surely we must be already fairly “evolved” to understand a doctrine of spiritual evolution. They mock or ignore Zarathustra. This continues until, later in the day, a tightrope walker performs high above the crowd’s heads, demonstrating the kind of ambidextrous balance and risky consciousness that Zarathustra has been preaching – for humanity is also a kind of high-wire act from the beast to the God, the primate to the ultra-human. The whole scene comes to a climax when a malevolent dwarf darts out upon the same tightrope, vaulting the balancing artist and causing him to tumble to his death on the pavement below.

Zarathustra realizes that the old saint was correct – the public is not the place for a spiritual teaching. Carrying away the body of the fallen gymnast. he tries to preserve some sanctity for the corpse and then reconsiders his approach to spiritual transmission...

The Enlightened “I” and the Depressing “We”

> *Beyond the Collective: The Hyper-Personal. Another Preliminary Observation. A feeling to be overcome: Discouragement.* (De Chardin, 2008/1959)

Having been disappointed by the marketplace of ideas, Sri Zarathustra resolves to teach only a small handful of specially prepared pupils. People who are already bright, well-balanced, integrative individuals who can explore his teaching intelligently and spend personal time with him to receive wisdom and energy-transmission. Many talks are recorded as he addresses every aspect of life and history from the point of view of his realization. Especially in helping them to re-envision the world as more vibrant, more worthy than metaphysics where the notions of unreality and emptiness and a better universe exemplify our tendency to devalue the actual.

Things go a little better and years pass but slowly Zarathustra realizes that this form of life among the devotees also has an insidious limitation. It is impossible for his devotees to fully realize this new consciousness simply because HE is the limitation. They cannot become enough of themselves when they are busy trying to receive his wisdom and understand the blossoming of his individuality. In the end he has no choice but to close up shop and send them away – telling them to return when they have outgrown him.

Alone again, Zarathustra sets out on a spiritual adventure where he befriends pirates, fools, and adventurers whose rugged life, experimental orientation and sturdy self-esteem impresses him. He travels among exotic islands seeking an answer to the problem of the conveyance of wisdom to humanity.

He begins to suspect that the problem is not with human beings but rather with his subtle antagonism toward them. A disgust with humanity lingers in his soul. As profound as the effect he has upon others can be, his personal illumination cannot become transpersonal awakening for others because of his instinctive nausea that he (and we) feel for the great, wrong-minded masses of petty fools. It is while pondering this that he undergoes his great revelatory dream which he later recounts to his shipmates. What he realizes in this dream is a solution to his disgust with humanity.

In the dream he encounters again the dwarf who killed the balanced acrobat in the town square. This dwarf is the Spirit of Gravity and he guards the gate of infinity. From this portal all time splits, spreads, and repeats itself endlessly. The vision of the Eternal Return comes upon Zarathustra in which every object, every event, even ourselves are plural infinity in which each experience is repeated endlessly. Are we horrified or liberated by the endless return of different versions of the Same? Have we the health to affirm such a world? But then the howl of a distant hound leads Zarathustra to discover a sleeping shepherd in whose throat a poisonous snake has lodged and bit deeply. Trying to pull the snake out of the man's throat accomplishes nothing but pain and waking the shepherd but then something truly remarkable happens. Zarathustra advises the man to BITE and he does – biting down on the snake's neck – spitting out the serpent's dark body and leaving the head within himself.

And then he laughs...

Zarathustra's weariness with "man" is but one example of the kind of depressing implication that the world contains but which, in eternity, recurs forever, cannot be escaped. The solution, integrating aggression, is assimilate the very head of the serpent – say yes to the negative. And by this method is produced an ecstasy that exceeds the human condition.

This is the climax of the novel. Although we must work to decipher it, it is singled out by Zarathustra as the solution to both his questions and to redemption of humanity in the context of the ultrahuman. The journey that begins with enlightenment still must solve the problem of other people, of the world. After that he can begin to evaluate what actually works in terms of a prescription for the future of us all...

> Listen, you daring ones around me, you venturers & adventurers, whoever has embarked with cunning sails on unexplored seas! You enigma-enjoyers! Solve this enigma that I beheld & interpret to me the vision of the most lonesome one! For it was a vision and a prophecy – what did I behold in that parable? And who is it that must come some day? Who is the shepherd into whose throat the serpent crawled? Who is the man into whose throat all the heaviest and blackest things will crawl? The shepherd bit as my cry had admonished him; he bit with a strong bite! Far away did he spit the head of the serpent and sprang up. No longer shepherd, no longer man – a transfigured being! A light-surrounded being, that laughed! Never on earth did a mortal man laugh as he laughed! O my brothers, I heard a laughter which was no human laughter – and now it gnaws thirsty in me, a longing that is never allayed. My longing for that laughter gnaws at me. How can I still endure to live after this but after this could I endure to die! (Zarathustra III:46, 1890)

The Dionysian Mood

After overcoming his disgust with actual humanity, Sri Zarathustra returns to his cave and arranges a celebratory party for all the greatest and deepest human souls. They are numerous different kinds and qualities of people but they have in common the fact that they transcended the ordinary ego and established radiant new depth and force-of-being. They are the best fruit of the species but Zarathustra still sees how far away they are from the ultra-human that he has foreseen.

He no longer suffers from them, no longer is heavy with the necessary limitations of the human condition, no longer confused about the way forward. He gives them food and drink and in the midst of the party goes outside to spent a little time with his old friends the animal spirits.

When we returns, he finds the "higher men" are drunk, hilarious, and pretending to worship a donkey. Zarathustra is not displeased. This mock celebration of the YAY-saying animal, this Ass Festival, is a glimmer of the ultrahuman future.

He tells them that although they are still a long way off from the emergent supermind beings of the ultra-human, their best approximation of the way forward is to combine irreverent mockery and play with their own serious spiritual work on themselves.

Think of your favorite president making jokes at the annual Correspondents Dinner. Think of Christ laughing. Think of what Osho Rajneesh called Zorba the Buddha. In his first book, *The Birth of Tragedy,* Nietzsche looked toward a "Musical Socrates" as a figure of redemption. Think of Confucius dancing. Think of Gandhi playing like a child. Think of the Pope burning down the Vatican.

This double image of authentic saints and creative irreverence, of profound sobriety and light-hearted intoxication, of natural chaos combined with the discipline of human development is a means of approximating the "dionysian" mood that leads us toward the ultrahuman.

Spiritual discipline works. It does not require beliefs and it should be blended with skepticism, humor, artistry and playful sacrilege. Imagine a world that is overfull of its own transcendence and lacks any “other realm” in which to spill. A world in which spiritual ascent is not an idealism that moves away from materiality and worldliness and negative emotions but which embraces, enfolds, and assimilates them like the snake head left inside the shepherd’s body. The paradigm for the spiritual transformation of individuals is that of adventure, exploration, discovery – not obedience, escape, or purity.

If we do not make this orientation more and more real in our experience then our “balancing act” will be destroyed by the Spirit of Gravity. Zarathustra is the prophet of Levity. Zarathustra is an embodiment and teacher of pro-ecology (“Remain true to the Earth, O my brothers!”), an exemplar of skeptical, embodied, rational-poetic, good-humored, individuality-cultivating, multidimensionally engaged, postmetaphysical integral spirituality.

So he is... OUR hero.

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Nonduality – Non/duality – Many-One Duality

Oliver Griebel[1]

Abstract: This paper explores the fundamental logical and metaphysical difference between first an either-or dualism, which posits a fundamental alternative, divide or antagonism, second what I call an either-or-and-neither nonduality, which posits a fundamental alternative and at the same time negates it, and third a both-and duality, which interprets a fundamental distinction as an ultimate complementarity. More specifically, the holistic "one/many" complementarity, between Being as a whole and the many beings parts of it, is different from the "emptiness/form" nonduality in the Heart-Sutra/Nagarjuna tradition. Even in spiritual post-postmodern, postmetaphysical, integral approaches there still is a major worldview choice to be made about what the spirit or consciousness of Ultimate Reality is: Is it self-conscious, intentional and caring, about its coherence and beauty, worth and life within. Or is it non-reflexive, transrational, "empty?"

Keywords: Buddhist logic, dualism, duality, emptiness, many-one, nonduality.

Among post-postmodern philosophies, many if not most are in the broadest sense spiritual. Not all of these are trying to make strong theses about what spirit ultimately is. Be it Spiral Dynamics, Edgar Morin's complex thought, Hanzi Freinacht's metamodernism, or Jorge Ferrer's enactive Participatory Thinking – they are all, each in their own way, avoiding Ultimate Spirit. One reason for this, I think, is that while unconscious spirit is something of a *contradictio in adiecto*, it nevertheless is very speculative to talk about the spirit, consciousness or even mind which Ultimate Reality may possess. And often speculation only paraphrases dogmas about divine spirit which one happens to have inherited from one's respective religious or mystical backgrounds. Not being a member of any (mono-)theistic creed, being skeptical about Eastern-mystical reductions of the Divine to meditative experiences too, but also believing that we experience the Divine in meditation, I hope to be relatively immune to this kind of bias.

What motivates me personally is the gap that I feel dividing Madhyamaka Buddhist ideas about an "empty" divine spirit (and the many Western-spiritual ideas inspired by it), and my own philosophical intuitions which tell me that a person's mind is "full", that is, intentional, "directed toward" itself and its place in the cosmos - and that an ultimate spirit encompassing the whole cosmos can only be holist, thus again: not "empty". Indeed, holism is about a whole "putting in context" its parts. How should an Ultimate Wholeness be able to do this with the body-minds of the persons it encompasses, unless it possesses itself much more consciousness and self-

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consciousness than limited persons' minds can have – more than an “empty” “witness” consciousness in any case?

I do not pretend to be able to find a point of reference everyone can accept – this clearly is impossible. All I try to do in this paper is to, say, remind people that it is not so easy, even in a post-metaphysical worldview family, to eschew the notion of Being-as-a-Whole, nor to conceive this wholeness as “empty” of reflexive, intentional, insightful … spirit. In my view, a “full” wholeness of Being conscient of Itself is a postmetaphysical option too, beyond the authoritarian, substantialist, deterministic or reductionist ideas we connote with the notions of metaphysics in general, and theism in particular. It's rather a panentheistic “Fullness” which we as natural, limited beings are entangled with, co-creating the world, participating in it.

The concept of an ultimate “Emptiness,” and an “empty” ultimate spirit often is integrated in a bigger picture stating a so-called nonduality of form and emptiness. According to this position, form and emptiness seem to be fundamentally different, contradictory, dualistic from a reasonable, philosophical and scientific point of view – but they really are “paradoxically” one beyond difference, and beyond the mind which cannot help making (up) this kind of differences.

I will try to make the case for a different kind of nonduality, which in fact is a … duality. I will claim that the post-postmodern and postmetaphysical problem to which nonduality is meant to be the solution, really are not dualities, but dualisms. I will argue that a nonduality of “emptiness” and “form” which is supposed to be ultimately neither of them, in fact is a, say, crypto-dualism itself, opposing the seemingly many persons' selves to the one true or real “empty” self. As an alternative to this seemingly-many-really-one dualism, I will sketch a many-one duality. In this quite different concept of nonduality, which really is a no-dualism, it's not true that we ultimately are all just the same ultimate self; instead we are persons as real as limited beings can be, “with/in”, that is, embedded in and entangled with the one Being, cosmos, spirit, God.

The Eastern-inspired, but in reality Western-neo-Eastern notion of nonduality seems to be the translation of the Hinduist notion of advaita, which literally means “not two.” This notion refers to the ultimate identity of Atman and Brahman. But the fathers of Western-neo-Eastern perennialism, like Aldous Huxley and Alan Watts, popularized an idea of not-two-ness which is syncretistic, where all Eastern mysticism, notably Hindu and Buddhist varieties, comes down to one and the same metaphysics and spiritual experience and (kind of) soteriology:

> The metaphysic that recognises a divine Reality substantial to the world of things and lives and minds; the psychology that finds in the soul something similar to, or even identical with, divine Reality; the ethic that places man's final end in the knowledge of the immanent and transcendent Ground of all Being – the thing is immemorial and universal. (Huxley, 1945, introduction, p.1)

It is striking how this idea omits differences between Hindu Atman-Brahman unity and Buddhist *rupa-shunyata* (“Form”- “Emptiness”) identity. But it is fair to say that the Form-Emptiness dichotomy is dominating contemporary nonduality thinking, so I will concentrate on this meaning of nonduality, leaving aside Hindu advaita. Let me just say that the idea of Atman-

Brahman unity is not denying personal selves and the intentional and self-reflexive nature of consciousness, the way Form-Emptiness nonduality does. Just compare the teachings of Buddhist thinker Nagarjuna with Hindu thinker Ramanuja's *vishishtadvaita* and even Shankara's *advaita*, both insisting on the existence of the soul/self, and thus the difference between Hindu and Buddhist teachings.

It is interesting to discuss a Buddhist type of nonduality, famously introduced by Nagarjuna, in relation with Immanuel Kant's thing-in-itself, which is supposed to transcend dual categories too. However, Nagarjuna was an anti-philosophical philosopher, whose thinking tried to dissuade people from trying to understand Ultimate Reality, encouraging them rather experience "It" by objectless meditation. Kant, in contrast, claimed that what for him were basic ultimate features of reality like freedom of choice and eternal afterlife, be "intelligible," grasped at least by practical reason.

This being said, there is one problem common to both thinkers, which can be illustrated by Kant's notion of the thing-in-itself. It is the problem which Kant's contemporary Friedrich Heinrich Jacobi pointed out when he said:

> … because I constantly was getting confused by the fact that without this assumption [the thing-in-itself] I could not get inside the system, and with this assumption I could not stay within it. (Jacobi, 1787, p. 304) (translation by myself)

Indeed, if the thing-in-itself is transcending categories of our thinking as radically as Kant claims, then how could it be qualified as just one ("the"), as the one entity ("the thing") and as the one entity as it is ("the thing-in-itself")? Similar threats of self-defeat keep on haunting contemporary nonduality teachings leaning on Nagarjuna's ideas, especially its *shunyata-rupa* basis.

I hesitate to say "emptiness-form" basis, which would be the standard translation / interpretation of *shunyata-rupa*, because in the famous Buddhist text known as the Heart Sutra, with which Nagarjuna shares his terminology, these Sanskrit terms rather seem to mean "lack of essence/substance of its own" (*shunyata*) and "body" (*rupa*). Here the latter arguably means simply the human body in terms of what modern science would call its anatomy, physiology and biochemistry. The body is named as merely one of several features of persons (*skandhas*), all of which the Heart Sutra says are lacking essence/substance of their own:

> The noble bodhisattva, Avalokitesvara, being engaged in practicing the deep transcendental wisdom-discipline, looked down from above upon the five *skandhas* (aggregates), and saw that in their *svabhava* (self-being) they are devoid of substance.
> (translation from Sanskrit according to http://www.dharmabliss.org/audio/heart-skt-audiotext.html)

It seems to follow that what is not meant here by the word *rupa*, is the whole and structure of manifest reality or the cosmos. Of course, thinkers linking nonduality with a transrational identity of emptiness and form are free to define these terms as they wish; they just cannot, in a discourse respecting scientific standards, appropriate mystical traditions and their concepts for themselves without critical discussion.

For the sake of the argument, however, I will leave aside these authenticity and legitimation reservations, and grant “form” (*rupa*) to be a name for all of the cosmos with all its coherence and meaning, history and individuals. Indeed, this is what Nagarjuna himself seems to have had in mind ... or would have had in mind, had he possessed our basic modern natural philosophy vocabulary. I will also grant that *shunyata* can be taken to mean not just a lack of essence/substance of its own, but an ultimate reality which is “empty” of consciousness, that is, lacking intentionality, reflexivity, personhood. I dispense myself from proving or attesting that Buddhism, Madhyamaka and Nagarjuna make such a claim, which seems more than plausible. I think this is fair enough, given Nagarjuna’s evasive and at times, by modern scientific standards, arguably sophistic argument:

> If I had any position, I thereby would be at fault. Since I have no position, I am not at fault at all. If there were anything to be observed through direct perception and the other instances [of valid cognition], it would be something to be established or rejected. However, since no such thing exists, I cannot be criticized. (Brunnholzl, 2004, p.218)

With the above interpretation of *shunyata* and *rupa*, we get one famous and central Heart Sutra phrase, “Emptiness is form, and form is emptiness,” as a statement about Ultimate Reality and Spirit. A more cautious reading, in my opinion, would be “The human body is lacking essence/substance,” that is, in isolation, apart from the whole of Being; which is unproblematic, almost trivial in any post-postmodern/postmetaphysical context trying to transcend Aristotelian or theist or materialist or otherwise substantialism and essentialism.

The empty-spirit-cosmic-form(s) reading, in contrast, is a very strong and questionable one indeed. Questionable not only because it seems to conceive as *the* ultimate reality what *prima facie* is a withdrawn, disidentified, “self-forgotten” state of mind induced by a special kind of meditation. Questionable also because this Ultimate *Emptiness* is claimed to be identical with a cosmos *full* of forms, among them life forms with a consciousness not only shaped, but partly constituted by their body and environment and – in the case of persons – also formed by their self-view and worldview. How should the living “forms” which are part of the cosmos be able to know, understand, self-reflect, “view the world” in a way the supposedly “empty” cosmic spirit cannot? This limitation put on what spirit ultimately is seems evident, given the opposition against all person-like divine qualities which is essential to all the Buddhist (and Buddhism-inspired contemporary) spiritual teachings built on the foundation of *shunayata*.

In its Nagarjuna version, the emptiness-form dichotomy becomes even stranger, an infinitely regressing apophatic oscillation: neither emptiness, nor form, nor both, nor neither, nor both and neither, nor both nor neither, nor … – an oscillation which is supposed to hint at some ultimate nonduality of emptiness and form.

Philosophically and logically, this may be stranger even than Kant's thing-in-itself. And the infinite regress, a bottomlessness which in Western thinking is considered an ultimate logical vice, here is considered as a ultimate translogical virtue. We are left with a no/thing (or anti/concept). This should alert at least scholars of Western humanities, however sympathetic with meditative awareness. Is this nondual no/thing tractable at all by founding and linking concepts and by justifying and testing arguments? But after all, nonduality arguably was designed as kind of an anti-philosophical koan, not so surprisingly after all, coming from Buddhist Nagarjuna. The purpose, quite obviously, was to discredit "form" qua language and concepts and philosophy, suggesting that these just cannot grasp ultimate reality.

Yet, the nondual neither-nor premise cuts both ways so that, ex hypothesi, "emptiness" qua objectless meditation cannot grasp ultimate reality either. This is quite a problem for both Buddhist logic and Buddhist emptiness non/metaphysics. Not only are we dealing with a neither-form-nor-emptiness argument, but also with a closely related epistemic neither-reason-nor-meditation argument. It was certainly not Nagarjuna's intention to attack emptiness as experienced in meditation, but to defeat reason, logic, and philosophy with its own weapons. His aim clearly was not to relativize emptiness/meditation in the same way he tried to relativize form/reason. His strategy was to show, in a first move, that basic worldview concepts had basic counterparts, so that the pairs were contradictory, either-or, just one of them, and hence NOT NEITHER. But then he also tried to show that NEITHER of them could reveal qualities of Ultimate Reality.

This reductio ad absurdum strategy might make sense, if indeed he were trying to suggest that we better let go of basic concepts altogether, and open to *shunyata*. But according to the Heart Sutra, *shunyata* itself is one of the basic worldview notions, indeed the most important:

> Here, O Sariputra, all phenomena of existence are characterized by voidness.
> (Sanskrit original: iha śāriputra sarvadharmāḥ śūnyatālakṣaṇā. Translation according to http://www.dharmabliss.org/audio/heart-skt-audiotext.html)

Concerning the translation, mark that the *dharmah* (plural of *dharma*) the Sutra is talking about are all kinds of factors of truth, existence, phenomena, ideas. But if so, then how can *shunyata* escape the fate of other basic worldview concepts? Because it isn't a concept, but a practice? It may be useful for zen meditation to lead reason astray in the iterations and oscillations of (what is called) Buddhist logic, in order to get aware of emptiness. But logically, it doesn't matter if you call emptiness a concept, a practice or otherwise. Once you use it in logical phrases like "(n)either form (n)or emptiness," you have to accept the logical consequences, or ought to refrain from logical arguments altogether.

I am not sure whether Nagarjuna was aware of how self-defeating, how close to sophistry his strategy seems to be: neither form, nor emptiness, nor both, nor neither … . Certainly Nagarjuna didn't have in mind a non/entity named nonduality missed by both form and emptiness, which Ken Wilber recently has tried to, say, point at or give directions to:

> But the Ultimate is different, precisely because it is not different from anything. It is the only 'referent' that has that quality (although that quality, too, is formally denied to it). The reason is that any mental concept makes sense only in terms of its opposite (spirit vs. matter, form vs. formless, light vs. dark, infinite vs. finite, conscious vs. unconscious, etc.).

> But ultimate Nonduality has no opposite, and thus no concept can accurately represent it in principle (including that one). (Wilber 2012, p. 32, 33)

Instead, I suspect that Nagarjuna, in contrast, being an emptiness believer anyhow, was only interested in deconstructing philosophical reasoning from within, not caring if his either-or-and-neither paradox formally hit emptiness too, nor if it formally entailed an Ultimate beyond emptiness and form.

If Nagarjuna really had wanted to do justice to form and reason too, he could have tried to show how emptiness and form complement in Ultimate Reality, how the Ultimate is both emptiness and form and more … a both-and which precludes either-or and neither-nor. Why not try to unveil a both-emptiness-and-form duality behind what seems an either-or-and-neither nonduality? Nagarjuna and Wilber don't even seem to consider what is sometimes called a many-one duality, which is polar, complementary, interdependent, and therefore anything but a dualism. Understandably enough, since as I already emphasized, it is quite difficult to explain why and how an “empty” ground of being and ultimate consciousness should complement with all the forms and cosmic coherence of beings, and especially with the intentional mind of human persons and even the environment-oriented sentience of living beings, both of which, whatever they are, are not empty.

The idea of an ultimate self-conscient spirit, so different from Ultimate Emptiness, surely is difficult too. And I will return to this question briefly in a concluding reflection. Let me first prepare it with a number of considerations, some of them a bit logical, about the difference between duality and dualism, which is crucial for my argument. I will set out the concept of a both-and duality in contrast with either-or dualism and a what I call either-or-and-neither nonduality.

Since we are talking about basic logics, let me begin with an analogy taken from modal logics. The concept of necessity can be “defined” by possibility (plus negation): Something is necessary if and only if its opposite is not possible. But possibility can be “defined” just as well by necessity (plus negation): Something is possible if and only if its opposite is not necessary. What we really have are two terms defining each other, with any reduction in one direction being arbitrary and misleading. Also, some call “dualism” the wave-particle duality in physics, where position and momentum can only be co-defined, context-defined. Again, what we are dealing with here, isn't an either-or dualism, but a both-and duality.

Before I contrast this both-and idea with emptiness/form nonduality, I will contrast it with the either-or idea of dualism in its classical meaning. There are very few dualisms which are balanced, that is, which really put two “realms” on an equal footing, and which are fair and honest in the sense that the pairs of concepts they oppose to each other are really meant as balanced opposites. Normally, dualisms are biased from the outset, one side of the dualism being considered as illusion, epiphenomenon, mere abstraction, by-product or dependent creation. (Manicheism may be one of the rare exceptions.) For instance, a body-mind dualism normally is advocated by people who either think that body/matter is secondary, or conversely, that mind/spirit is.

At any rate, in any remotely coherent, let alone holistic thinking, a balanced and pure dualism, that is, contradiction or antagonism or mere incidental contact or indifference between essentially independent “realms,” just doesn't make sense. That is one reason, I think, why most so-called dualisms are intended as choices to be made (“either-or”), leading to some kind of monistic reduction. Since pure monism, however, is just as counter-intuitive as pure dualism, most often this will be carried out as a near-reduction resulting in a near-monism, that is, an overwhelming dominance of one side with a total submission of the other side, rather than its annihilation.

In current Western spiritual thought, one such near-monistic example is the talk of the real divine self (or emptiness) versus the merely seeming egos, which are seen as mere “perspectives” of the one self. Many think they can avoid an – arguably just absurd – monist nonduality, by explaining that in the absolute realm, there *really* is only one self, but in the relative realm, there *really* are many selves. In order to distinguish this view from a nonduality proper which doesn't accept any kind of ultimate twoness, be it complementing or antagonistic, I will call “non/duality” this view, which grants a many-one duality but supposes it to be relative-absolute.

Yet I think that even this non/duality idea of the absolute Ground of Being looking onto itself from many relative perspectives ultimately is a reduction, leading to a near-monism. One essential of many-one thinking as I see it, is to deny any such reductive metaphor, which the talk about “perspectives” just seems to be. After all, perspectives don't add anything to the overall picture. And if in our context of divine self personal selves are supposed to be more than literal perspectives, why call them “perspectives” at all, with the inevitable reductionist connotations? I admit that I am unable to make sense of this idea.

Mind you, I don't advocate here a pre-modern and pre-postmodern, theistic divine person, into which we project the limitations of humans persons, due to our human condition. What I am advocating instead is a not-less-than-personal Spirit of Being, of the cosmos itself, in terms of understanding itself, of making sense of itself, of framing all that is, of caring about all that is.

Let me now try a conclusion, or maybe better, prospect. Why is it so evident to so many spiritual people that Ultimate Spirit is “empty”? I think that the problem is not a supposed emptiness/form near-monism or nonduality in Ultimate Reality itself, but rather a contemplation/thought dualism in many people's minds, something which, I suggest, we can learn to … heal, make whole. However, this would mean radically rethinking some major Western-neo-Eastern mystical premises. What we experience in the dreamless state (if indeed there is such an experience of ours), in objectless meditation, in a partial withdrawal from personal self-consciousness, would not be all of the Ultimate, although we are getting in touch with it most intimately.

In modern and postmodern and most post-postmodern thinking alike, the notions of a totality of Being and of a personal Ground of Being are thought to be relics of a premodern metaphysics, are almost anathema. I think we ought to reconsider this supposed common place. Thinking and envisioning and feeling ourselves as beings entangled with and participating in a self-conscient wholeness of Being can be a postmetaphysical option.

I am well aware that it is a daring program to develop an idea of an ultimate, all-encompassing and self-conscient spirit which is consistent with modern, postmodern and post-postmodern insights and knowledge. But I think that Buddhist-inspired emptiness / nonduality option too has to be challenged so that it starts to deal with essentials of Western both classical and modern philosophy of mind/self/soul (and Hindu too, by the way), some of which I have tried to emphasize in this short paper.

One last perspective beyond the scope of this paper: I do oppose an either-or-and-neither nonduality of emptiness and form, but not any kind of a both-and duality of emptiness and form. Indeed, a complementarity of the freedom/emergence/random nature of the beings embedded and entangled with/in the coherence/timelessness/necessity of Being makes very much sense to me. Thus, the "emptiness" aspect of ultimate reality could be linked to the beings, seen as the many "meshes", and the "form" aspect be linked to Being, seen as the one "knitting pattern" of Being.

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Theses on Any Future Philosophy of Integral Post-Metaphysical Spirituality

Michael Schwartz[1]

The postulate of *integral post-metaphysical spirituality* (IPS) was introduced for the first time in a substantial formal publication by Ken Wilber in his 2006 volume *Integral Spirituality*. Among the most exciting and robust explorations spurred by this notion has been an online community, featuring editors of this special issue, the complexity and brilliance of their posts and exchanges defying easy summary or explication. Others have also taken up the theme, including Wilber's own return to the notion in his 2017 volume *The Religion of Tomorrow*, where he reframes IPS in a more cautious manner – less as a post-metaphysics *fait accompli* and more as a "minimalist metaphysics," which does accord better with the positions he has been advancing for over a decade.

In the following I propound what a philosophy of IPS would best address, including its relation to a wider field of transformative and transfiguring practice, where the latter alters experience and therein pressures received views of what constitutes reality and the human place therein. These provocations are intended at once as: (1) bald, definitive, and dogmatic pronouncements, (2) open-ended invitations to ongoing discussion and mutual learning, and (3) expressions and formulations conscious of their inherent inadequacy as to the nature of the domain of inquiry.

I

What might be the role of a philosophy of IPS? In integral circles there is talk that the map is not the territory, while the actual walk often makes it seem that there is in essence the map. Philosophy – as centered in what theosophy calls the mental plane – is to be more like a humble helper, an underlaborer, for an IPS that itself is centered in transformative and transfiguring practice and the ongoing results of such practice – philosophy serving to clarify senses of possible "directions to travel" (proper to a map) without exhausting the "directions" that can be explored (again, like a map); providing an open-ended View as orienting dynamic.

To echo Wittgenstein – philosophy offers us a picture; one, however, that should *never* hold us captive.

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II

Of the three terms that constitute the phrasing of IPS, it is that of “post-metaphysics” which presents the most nuanced challenge. There are many philosophical positions in modern and postmodern thought as to what metaphysics is – and many senses of what might count as being post-metaphysical. One powerful lineage of thought, inclusive of Heidegger, Derrida, and Sallis, sees “post-metaphysics” as an ongoing project of “overcoming,” “deconstructing,” and “twisting free” from the binding force of the metaphysical tradition, where it is difficult to discern in any given instance whether one has achieved some categorical break or not from metaphysics. We must add to this the rising impetus, grounded in critical assessment of both the insights and limitations of post-metaphysical projects, to move “beyond” post-metaphysics itself – without lapsing into pre-critical positions and assertions about the real. Any future philosophy of IPS must patiently suffer through this triple knot of (1) multiple senses of metaphysics, (2) post-metaphysics as an unfinished (and perhaps unfinishable) project, and (3) the conatus to move “beyond” the limits of post-metaphysics itself – honoring the problematics as internal to philosophy, and not to reduce without remainder the issues involved to cultural memes, social pathologies, and other metaphilosophical concerns.

III

In classic integral it is often stated that there is a circular relationship between the philosophical discourses of phenomenology and ontology, in the end the distinction between the two dissolving. More pointedly, many spiritual practitioners and teachers move seamlessly from phenomenology to ontology in their making pronouncements about the real. Phenomenology does not however automatically lead to a sufficient ontology; for as Bhaskar has shown, in the domain of nature the real is stratified and phenomenology on its own is inadequate to articulate the nature of nature as proper to scientific experimentation. Collapsing, equating, or not properly differentiating these two philosophical discourses readily flirts with the epistemic fallacy – that modes of human knowing determine and exhaust, rather than condition, what we can say about the real – and readily ends up in a view that is anthropic (anthropocentric + anthropometric), with humans as the pinnacle and measure of evolution. Even as phenomenology and ontology become more *entangled* as regards the noosphere of the human socio-cultural (where acts of interpretation are caught up in the interpretative nature of what is being interpreted), and even more so with regard to expanded states of being-consciousness (what Bhaskar calls the metaReal), entanglement is neither identity nor circularity. Said otherwise, *feeling* like God as the source of all that is does not mean that one *is* God.

IV

Considerations of: (1) communal access, (2) causality, (3) genealogical clarification and metaphilosophical explanation, along with (4) transcendental argumentation are therein essential to a philosophy of IPS. To give an example. A person sees the appearance of a luminous being of rainbow colors located in the corner of a room. This being is not of the order of physical perception, as the being appears even in the dark. Others in the room see/sense this being as well. Moreover, this group can conduct a discourse about the being – even interact with the being such that the being responds.

Furthermore, interaction with the being, or a spontaneous act by the being itself, has causal consequences – transforming a member of the group, or offering guidance on how to approach an ecological issue (which turns out to be quite fruitful). Where the absence of the communal encounter with the being suggests that such welcome changes and events would *not* have taken place; that the being is involved in some manner with causal powers, even if the precise generative mechanisms are not immediately clear.

What then is the ontological status of such a being? – autopoietically self-standing?; or perhaps a product of the collective resonance of brainwaves, the latter being sufficiently explanatory, hence the appearance of the being to the group as illusory artifact? This latter way of putting it, rather than a quirk, is what haunts thought today; that we are, by and large as a culture, inheritors of a "Cartesian ontology" (not to be reduced to Descartes) that posits certain regions of being, inclusive of mind, body, and at times some expansion of the sense of mind as Consciousness (which itself might be linked to pan-psychic notions of God), while being nervous about other ontological domains as having their own self-standing status.

The hegemony of this ontology in our culture engenders, on the one hand, regressions and slippages to pre-rational and non-philosophical assertions about non-Cartesian ontological domains in order to make sense of and legitimate experiences like the one presented above; and, on the other, animates and underwrites research which deploys methodologies grounded in this ontology in an effort to "prove" there are domains of being beyond this same ontology! Genealogical clarification of this ontological inheritance, and metaphilosophical accounts of what has shaped its trajectory, become crucial for overcoming its hauntings.

Foucault, in the last phase of work, discerned on his part what he called the "Cartesian moment" as a diremption between philosophy, as a discourse on being and truth, and spirituality, as a set of practices that transform human being so as to be able to access truth. For Foucault, spirituality in modernity yields to "method," which now has less to do with the transformation of the self and more to do with an outward *techne*. Reformulated, self-work became much more restricted in philosophy to the mental plane (as in university training), marginalizing other modes of experience that a wide array of transformative practices had previously enabled. If development occurs, it is now more limited to the mental plane (which continues to reverberate in certain integral circles with its hyper focus on cognitive stage development). Radical transformation is no longer deemed to be a necessary precondition to enhance the self's capacities to accede to the truth, in that in the main everyone already has access to the mental and bodily planes.

Any future philosophy of IPS must fold consideration of communal access, loci of causal powers, genealogical clarification, and metaphilosophical explanation into transcendental inquiry about what being must be like for such and such to be the case.

V

For all its stress on mental development, classic integral has theorized and practiced a less than mature dialectics, with the result that it generates an overly universalizing discourse which suppresses the singular.

It is said that there are deep structures which support a multitude of surface structures – surface structures as the particulars of the deep structural universal: the latter said to be what endures in evolution, hence what really matters and deserves our utmost attention. What is not entertained in any sustained manner is how the surface structures *differ* from one another – with the universal unable to account for these differences – therein disclosing the particular's *singularity*.

The notion of types comes closest to any sense of singularity. Yet it is another mode of universal, often of a limited set (e.g., the nine positions of the enneagram), and itself is posited as an invariant through changing developmental waves. While deep structures, surface structures, and types are a most welcome and innovative constellation of concepts, an allergy to and insufficient engagement with postmodern thought has prevented classic integral from citing irreducible differences. "Second tier" must pass through postmodernism and adopt a mature dialectics that is able to engage what Bhaskar has called the concrete universal <-> concrete singular, where other philosophers (e.g., Deleuze, Desmond, Nishida) offer parallel resources for this maturation in thought.

VI

This overly universalizing tendency of classic integral (justified as "generalizations") has deflected it from countenancing leading-edge practice fields that do not immediately confirm its picture of the real. Here we mention four such transformational communities: (1) that of the Finders Course founded by Jeffery A. Martin; (2) the Shamballa School of the Trans-Himalayan Lineage founded by Bruce Lyon (the book *Earth is Eden* explores the relation of this school's views to those of classic integral); (3) VortexHealing founded by Ric Weinman; and (4) the Spiritual Unfoldment Network (S.U.N or SUN) founded by Irving Feurst. Each of these communities propound reality-schemes that to varying extents diverge in important ways from that of the classic integral View. In that these communities offer Views that are well-developed, nuanced, and grounded in profound practice, a philosophy of IPS needs to take them into consideration.

For example, Martin has conducted a more than decade-long research project into awakened states of consciousness, what he calls Persistent Non-Symbolic Experience (PNSE), mapping a wide spectrum of locations (in classic integral, called state-structures). There are four basic locations, progression of which is in the end about increasing well-being. There are additional locations which are far less common, where the spectrum divides after location four into transcending and incarnating paths. One can land initially at any number of locations, and one's location can shift over time, in cases to earlier locations when there is a "preference" as such – hence locations are at once progressively stage-like and qualitative types.

Location two is non-dual, location three is a very subtle mode of duality (a kind of witnessing), and location four is an even deeper non-duality. This calls into question the classic integral map of witnessing leading to non-duality; where integral's two-location model does not account for the numerous locations mapped by Martin. Any philosophy of IPS worthy of its name needs to fold Martin's research results into its underlaboring.

VII

Turning for the moment to the SUN teachings, its trans-lineage approach to the religious traditions offers overall maps of the real while strongly retaining the specificity of the various religious lineages, in theory and in practice enacting a dialectical dance of universal and singular. This entails a fractal sense of the interconnecting of the various lineages, where over time, through practice, that fractality becomes a manner for the lineages to generate novel combinations and permutations proper to a plane of being. Like classic integral, SUN posits a hierarchical scheme of the real, regularly if not always drawing on theosophical models, a scheme however that sees the various planes as also interpenetrating one another, non-hierarchical orders as potent and irreducible folds proper to and transversing hierarchy. The SUN scheme is also profoundly non-anthropic, as it posits two main currents of Life – an evolutionary path that is focused, if non-exclusively, on ascent (the humanoid, inclusive of the human), and an involutionary path, that is focused, if non-exclusively, on descent (the devic, inclusive of the angelic). As with the Trans-Himalayan lineage, which likewise draws upon theosophical models, the human is only one kind of sentient being in a vast reality of beings of all kinds in all sorts of domains who are co-evolving and co-involuting. While not presented in philosophical or meta-theoretical ways, the SUN teaching has a mature dialectic sense of universal, particular, and singular, a “trans-hierarchical” view of hierarchy and non-hierarchy generated through the interpenetration of hierarchical planes, and a non-anthropic positioning of the human within a boundless reality of evolving and involuting sentience.

VIII

A hallmark contribution of classic integral is its notion of perspectives, which extends to expanded state-structures via the injunctive notion of the “1-2-3 of Spirit.” That said, confusion reigns on the status of the 2nd person.

A typical formulation is that 2nd person is in the end a we – that I plus you, via shared values and resonances, generate a common we-ness. Obviously, we is the 1st person plural, and this formulation posits the 2nd person as in essence a kind of meta-Subject. Positing I-you as transcended and included (negated) by we-ness is another instance of marginalizing differences and singularities, here of perspectival networks.

Not only is I-you non-reducible to nor subsumed by we, you is also not Thou – rather, Thou is a special modality of the 2nd person. You is a normal shifter. Peter is in one moment an I and then, in the same circumstance, shifts to being a you; with the tacit sense all along that I and you are reversible, proper to the taking of the position of the other.

Thou is different in kind, the I-Thou relationship as irreversible and asymmetrical. I can never become Thou. Thou is *always* Other. Thou is not a being in withdrawal, in the Heideggerian sense, retaining an ontological surplus that might move from sub-sisting to ex-isting. It is not a potential to be transcended and embraced by a vast I AM, where the first person is the not-too-secreted ultimate perspective of the 1-2-3 of Spirit which moves to achieve ever greater “wholeness” and “unity” (as yet another impulse towards one-sided universalizing), or to be forgotten in the 0 perspective of pure-being-consciousness. Thou is the breaking into actuality of pure Otherness – always already intimate and non-separate – gifting *deep communing* and *pure merging*.

IX

Lyon, Weinman, and Feurst all claim that the teachings they are offering come not from themselves but from ascended sentient beings: named DK in the case of Lyon, Merlin in the case of Weinman, and TK in the case of Feurst. And in all three cases the founders of these schools are in significant locations of PNSE. What goes to the heart of these claims, whatever their validity, is a welcoming of Thou and an honoring of difference and singularity without compromising unity states of consciousness.

One result is that these three schools effectively alleviate contemporary widespread tendencies towards spiritual narcissism, self-inflation, and the syndrome of the beautiful soul (what Feurst calls “glamour”). They decenter humanity from a privileged place in reality, expand profoundly the sense of an enchanted reality beyond the human, honor high cognitive capacities while seeing the mental plane as a quite limited form of intelligence available to humanity, and offer robust and complex schemes of reality (in cases replete with mature dialectics) that go beyond simplistic views of hierarchy.

Any future philosophy of IPS needs to assess the uncommon reality-claims of these (and similar) teachings, all of which are grounded in repeatable practices; never losing touch that the map is not the territory.

Can Anybody Hear?

Layman Pascal[1]

The Separator is the Connector

How the semantic gap between Ontology & Epistemology can be generalized to provide a metaphysics-of-postmetaphysics which not only yields a univocal conceptualization of pluralism, integralism and evolutionary nondualism but also resolves the superficial impasse between the "integral" and "critical realist" styles of metatheory.

Overview: The Rocky Marriage of Knowing & Being

Young school children have, for generations, tried to tickle each other's funny philosophical bone with a seemingly naive question: *If a tree falls in the forest, and nobody is around to it hear it, does it make a sound?*

Older children (all of us) continue this playground game in many curious ways. Just think about how much of our collective mindspace has been used or abused wondering, for example, whether quantum-scale observations can be said to exist before they are observed. As soon as human beings get a little education and free time, they are at risk of slipping into the endless quagmire of being, nonbeing & protobeing.

This is a particularly relevant issue for the intellectual wing of integrative culture because it touches on the relationship between fundamental facets of reality such as subjectivity and objectivity. An integral model is a metatheory that attempts to functionally integrate the greatest diversity of types-of-perspectives. Although there are many ways to begin such an effort, with persistent development metatheories seem to converge upon a common set of basic existential fault lines presented by numerous philosophers under various names. One such common result is the relative independence, but deep correlation, between subjective and objective aspects of reality. In the popular integralism of Ken Wilber this "hard problem" is associated with the so-called Quadrants. The proposal is a tidy way of tracking the idea that objective phenomena do not arise

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[1] **Layman Pascal** is a "white indian" whose family has lived for 5 generations among the remote islands of the Pacific Northwest. He also hates biographies & introductions so bear with him -- this is difficult! What we have done already is so much less interesting that what we have not yet done, but I digress -- He is (or has been) a meditation teacher, yoga instructor, public speaker, nondual theologian, lecturer on integral methatheory, shamanism advocate, author, artist, bad poet, co-chair of the Foundation for Integral Religion and Spirituality (FIRS), co-editor of the Integral Review Special Issue on Integral Postmetapysical Spirituality and strong contributor to IPMS forums, moderator of the Integral Life forum, and creator of such online oddities as: The Christmas Wiki, Pascal's Integral Batcave, the Integral Demonology Forum, the Integral Morality & Ethics Group, the Integral Gender Studies Forum and more. Currently he runs a Nepalese clothing store, cafe & sacred gift shop in Northern Ontario with his wonderful girlfriend while also practicing hypnotherapy and energy accupressure. Etc.
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prior or apart from communities of subjective experiencers but always in tandem. This *tetra-arising* of internal, external, singular and plural facets of being is a constitutive element of Wilber's model. Yet another cluster of metatheorists, drawing inspiration from the history of the physical sciences, has challenged this "correlationism."

Critical Realists, Bhaskarians & Object-Oriented Ontologists are among the names associated with a doctrine about the intrinsic existential status, and independent dignity, of objects. External facts are believed to have a self-nature that stands prior to and does not depend upon being perceived, measured or observed. This is the fundamental assumption that guided the enormous success of the physical sciences from the 17th century until the early explosive arguments about the significance of quantum phenomena. It is a robust and productive assumption that is shared, in practice, by every being. We all behave as if objects existed prior to our detections of them. The mere fact that we can make discoveries seems to imply that "something" is "there already" to be discovered.

The primal independence of objects AND the profound entanglement of subjective-objective reality are both very attractive concepts which seem to be at odds with each other across the playing field of emergent metatheory.

Or maybe every discovery is secretly a kind of "inventing"?

> METATHEORIST A: Reality is always a participation between observers and objects. They arise together. To be is to be experienced. Nothing is known outside of moments of detection. You really have no evidence of non-detected realities. And, morally, it is essential to keep subjectivity in the picture at all scales and in every vision of reality.
>
> METATHEORIST B: The mere fact that we can discover things means that Reality behaves exactly as if it already existed before it was experienced by us. This is the higher understanding. It escapes the narcissism and metaphysical prejudice of people who believe, like infants, that the cosmos is here only for their own consciousness. The universe was made from electrons for billions of years before human consciousness was aware of electrons.
>
> METATHEORIST A: You missed my point. Humans are not the special observers. Every holon is subjective. Electrons are a community of holonic observers. They experience each other. External and internal arise together at every scale. This has nothing to do with mere human psychology and sociology.
>
> METATHEORIST B: Actually, you missed MY point! Even if electrons are conscious there are still many things at their scale of reality that exist unbeknownst to them. And even when an electron experiences (sic) another electron it only imperfectly or approximately knows that that other electron really IS. Every "something" is more than what I perceive and stands prior to my partial knowing of its nature...

And that's where the argument stood until, unfortunately, I entered the picture. In a typically verbose and cavalier I began to propose that quadrants (i.e. internal/external) are simply the wrong aspect of integral metatheory to address this slippery problem. Both the Objectivists and the

Correlationists struck me as being unduly fixated upon the notion of subjectivity and objectivity. They made good points but got nowhere because they were arguing in the wrong terrain and therefore could not see how they were trying to make the same point from different angles. Instead of having an argument about how internal and external lenses of reality are related to each other, I suggest that the debate should shift by taking serious the ontological status of what integral theory calls “the states.” In particular the structure of the Causal and Nondual states – when they are broadened beyond the mentality of meditators, spiritualists and psychedelic explorers such that they each form a full, four-quadrant and always-present dimension of every moment of existence – provide a key concept that allows us to organize and simplify our vision of reality. At the end of this essay I reproduce my cheerful old diagram demonstrating the world-picture that unites “Wilberian” and “Bhaskarian” types of metatheories. However, in the meantime, we must dive more deeply into the many little streams that feed this undulating river....

An Exegesis of the Tumbling Timber Problem

What does it mean to be “pre-detected?” Before we ask whether there ARE or ARE NOT any pre-detected *things*, we need a sense of what we are even talking about. This will start to sound like a Zen koan (What was there before anything detected anything else?) but try to keep your intellect online until the end.

One thing that “pre-detected” could means is just nothing. Really nothing. If you aren’t registered by interaction with any other phenomena at all then you are essentially nothing. Not just an empty space of potential (for that is also “something”) but really, really nothing. Not-existent. Unreal. Unthinkable. No.

Alternatively, a pre-detected “something” might actually exist, out there, irregardless (yeah, that’s right) of whether we know anything about it or not. That’s pretty close to the entire premise of Science. After all, the fact that we detect things means they had to exists prior to our detection. If they just came into existence at the moment they got encountered then what was it that came into existence and what was it that did the encountering???

Let’s go back into that childish primeval forest where trees fall silently into the verdant moss of the forest floor. Think it through carefully. DOES a tree make a sound if no one is there to hear it? There is no human around. You are not there. No animal nearby has any ears. There is not digital recorder stashed nearby for later listening. Nothing noticed this tree falling. Not a single squirrel flinched. Not a single mote of dust in the air was wiggled by sound ways. Not one atom was displaced. No entangled quantum information was nonlocally exchanged. NO DETECTION WHATSOEVER.

Nothing registered or was changed by the event in any way.

So did it happen?

We are up against some very basic problems. We find that we are not totally clear about what “it” and “happen” actually mean. What is the rule for saying whether or not something *exists* ? Well, perhaps this problem is not as nebulous as it first appears. Let’s put on our Heidegger caps and think about the assumptions anyone would be required to make in order to determine that an "it" exists or not:

a) Operational distinction. We need to assume particularity. It is not some other it. The "it" is not interchangeable. Whatever we mean by "it" has to be specifically the "it" that we mean.

b) Ontological Comparison. We need to have already assumed that existing and nonexisting are options. These are two paths that our particular situation might end up travelling. It may be 0 (doesn't exist) or 1 (exists) or some superposition or gradient between those two conditions. To ask "Does it exist?" means that we posit a comparison-of-being. The possibility of being or not being is presupposed. Either it totally exists, totally doesn't exist or – like a measure of temperature – operates at some mixture of existing and not-existing.

So if we want to inquire into the status of "objects" prior to detection by any subjective consciousness or community of observers at any scale then we are, implicitly, trying to get the results of a specific comparison between being and non-being. All practical comparisons in the world already implied things that have been detected. But even things that haven't been detected can only be thought about by means of comparative potential that can end up in at least two different states.

At the everyday level, detection means that something stands out (to somebody) from its background. Yet at a more bizarre and fundamental level there is already a comparison between being-able-to-stand-out OR not. Suppose I leave the forest and walk down the beach. As I stroll along in the breeze, I find that I am evaluating the beach as it passes into the ocean. Where is the moment of transition? Where does the beach end and the ocean begin? Am I dealing with sameness (still the beach) or difference (now the ocean). The *shoreline* is a gradient field of same-difference. Every possible detection falls somewhere between

Is < > Not
Same < > Different

Notice that we could phrase the comparison in reverse order. We might want the word "difference" to mean that our "it" is different than itself (therefore non-existent) or that it is different than something else (therefore existing). In either case we are utilizing the same operation.

Reality is constituted by the *minimum possible comparison.*

If there was no possible comparison then there would be no possibility of either existing or not-existing. Yet if the comparison was more elaborate then it would cease to pertain specifically to the question of existence. To inquire of existence is to focus, by definition, upon the lowest or most basic possible comparative potential.

This may seem like digression from the main theme but it is quite essential. In order to make sense of how the Causal and Nondual state-domains provide a key to resolving the metatheoretical impasse of "objects themselves" we must get a sense of precisely how reality behaves and is structured at its most primitive.

If a Three Falls in the Forest...

Two apparently diverse streams of human wisdom have concerned themselves with the most fundamental ontological possibilities. Both have proceeded through rigorous introspection, contemplation and intensified coherent conscious inspection of the patterns of the world. One group is typically described as mystical or meditative. Their focus is often on the most primitive fact of their own self-awareness. The worshippers of pure awareness, the I-beyond-the-"I", the mindspace between and prior to thought, the zero-degree of Self. Alternatively there have been mathematicians, logicians, philosophers, geometers, et al, who have spent their lives clarifying the precise moment of equality or inequality of reasoning, the ultra-abstract fact of identity, the quintessence of why 1+1 "is" 2. There is really nothing less mystical or profound about higher mathematics but the historical friendliness of math and technology has made it seem foreign to many spiritually-oriented people.

I AM THAT I AM. IS-NESS. "=" . All those who fall in love with this most primitive existential intensity are involved in an attempt to contemplative the nature and results of the minimum possible comparison.

3+3=6

That is true. It is as true as possible. We know the answer is 6.

We could say, "Who knows? Maybe anything is possible!" but when we personally check for ourselves we come up 3+3=6. Everyone who checks comes up with that answer unless they go to such elaborate and complicated lengths that it no longer seems as if they are answering the same question. Even machines come up with the same answer. 3+3 DOES equal 6. Flip it over, take it apart, run it backwards and forwards – this is an extremely reliable piece of information. If anything can be said to be true, to have the "force" of "actually existing" then it is the equals sign which indicates that two abstract quantities are equivalent. Everything we've achieved as a species depends upon this intense and practical degree of veracity.

Still, you *could* doubt it. A least a little. I mean you do have "shift your attention" from one side of the equation to the other. You leave the 3+3 behind and arrive, a nanosecond later, at the 6. Even if we said 3=3 (I am that I am!) there would be a vanishingly small bit of wiggle room. How do you really, totally, finally know that those two 3s indicate the same thing?

Does it achieve 100% verification? Does it pass the existential comparison *utterly and absolutely* ?

Of course the answer is Yes and No. Duh. We are dealing with (a) the most true possible thing (b) non-total certainty. These facts, together, describe the situation. We are not facing absolute absence of all possible doubt but we ARE facing the least possible and vanishingly small and endless irrelevant possibility of being incorrect.

In the matter of 3=3 or 3+3=6 we infinitesimally likely to be wrong. INFINITEsimally. If you more toward it, you never get any closer. It is the horizon. It is the vanishing point. It is not 0 but rather 0.0000000000.......*n*

When we say "ABSOLUTELY" we mean "ENDLESSLY POSITIVELY APPROXIMATE". It never gets there. It goes forward. It is infinitely true because you can never get out in front of it and find a spot where it ceases to apply. It runs forever like the digits of pi. We may say that something is real or false with infinite practical certainty but it does not sit there like a discrete lump. It flows toward (not TO) eternity.

Thus we do not particularly care whether something is true or untrue. We care in rather a more elegant and pragmatic fashion that something is "as true as possible" or as "untrue as possible". Or else we admit that we cannot, at this time, determine it maximally. "=" is not total truth. It is maximum truth. The essential is-ness potential, the ontology self-identity of anything is a maximum.

So if we want to explore the question of whether a "something" can "exist" prior to detection, then we are pondering it's potential to occupy a position within the comparison between maximum self-approximating validation and minimum self-approximating validation. To potentially exist, to be checkable-for-existence, is to be pre-supposed to be on the spectrum between vanishingly-small-confirmation and vanishingly-small-disconfirmation. Between almost totally real and almost utterly non-existent. This is the situation of the ontological comparison. It is the condition that makes possible the question, "What is Real?"

Reality IS the condition that makes possible the question "What is Real?"

Realness is the opening to the unlimited comparison between "more real" and "less real" unto their endless self-approximating and incompletely achieved extremes. A spectrum of approximate comparison running from the least to the greatest confirmation.

ONTOLOGY & EPISTEMOLOGY: Marriage counselling

It is commonplace to say that ontology studies *the condition of being* & epistemology studies *the condition of knowing*. What exists AND how do we know things? Two great questions.

When integral theory is accused of metaphysical correlationism, it is precisely these two questions that are leveraged. People want to know: does the integral theorist make the obvious mistake of conflating "knowing" and "being" ? Surely you are not even dealing with ontology when you talk about tetra-arising? The external world is not what is known or perceived about the external environment! Do the four quadrants not merely refer to four lens of knowing? Do they not actually *ignore* the true real of objects by substituting in their place the "external knowing" of the Upper Right quadrant which is really just a form of epistemology? What about what what really exists whether anyone knows about it or not????

To which the integral theorist replices, placidly, that if we say it really exists then... aren't we knowing about it? Isn't every situation an onto-epistemological situation? Don't we always find both of them interblended into everything?

This is a restatement of the basic metatheoretical divergence that this essay is confronting. We are seeing, again and again, two issues:

a) the critical assertion of the independence of objects (and "others") from our perception and interpretation
b) the integrative assertion that being & knowing move hand-in-hand at all scales

One class of metatheory implores us to remember, both practically and philosophically, that others/objects always exceed what we know about them. They are more than just "in relationship" to us. We can be wrong about them. An excess, a surplus, a remainder will always exist. No matter how well you know "something" it must actually consist of more than just how it appears to your brain, your eyes, your measurement devices, your knowledge. Being exceeds knowing.

Another class of metatheory reminds us sagely that Being and Knowing can never be fundamentally separated. Beings are knowable beings & knowing is always knowing-about-beings. Ontology is the ontology we know about. Epistemology is what we know about ontology. Reality is ambidextrous. These two brain hemispheres must operates in tandem. Every outside has an inside. Every inside has an outside. Knowledge presupposes a world. A world MUST appear as interactions, knowledge, detections or else it does not appear at all.

a) ontology, compared to epistemology, exceeds, withdraws, escapes, transcends
b) epistemology, compared to ontology, is always present, always tracking, always relating, always interacting

They are in comparison to each other. Even to say that one is MORE REAL (i.e. that beings are most fundamental and modes of knowing only ever potentially and partly encounter them) is a comparison.

(a) ONTOLOGY asserts that reality consists of DETECTABLES whether they are detected or not. In order to enter into a relationship of being known, something must already exist.

(b) EPISTEMOLOGY asserts that reality consists of DETECTIONS because there is no proof of existence other than in relationship and via interpretation. Things do not enter into relationships of knowing but always already occur within such relationships.

You will see that neither position is *thinkable* on its own. Only detectables can get detected. Only detections prove that there are detectables. They are complementary. Mutually required. Variant angles upon the same situation. The reason Ontology and Epistemology are traditionally paired in academic discourse is, at its most basic, because they only be defined relative to each other. The comparison between them is presupposed by the idea of either of them.

To know is to know ABOUT something. To be is to be distinguished from what is merely known. The comparison both separates and connects them. A common root structure makes available the degree of their independence and, at the same time, the fundamental entanglement of their shared operational identity.

We have come again to the same observation:

A most primitive existential comparison – allowing for variable outcomes of sameness-and/or-difference on a scale between maximum-but-not-total & minimum-but-not-total – is implied. Existence, per se, is indistinguishable from this comparison. It is presupposed by the question of whether a being "is" and it appears at the most basic conceivable thresholds. This operators is implicit between two sides of a balanced algebraic equations, between ontology & epistemology, between being & nonbeing.

And it is performatively affirmed by everyone who takes a position about the relationship between Knowing and Being. To be prior to being known, to be and be known at once & the being of knowing itself are all variants of the same comparison. It is this ambidextrous and fertile comparison, rather than detections or detectables, that constitutes the most primitive or abstract facet of Reality. We begin with same-differences. We begin with is/n'ts. We begin with the necessary enabling condition for the possibility of beings and relationships.

Now we are describing reality in a manner that suggests the unique characteristics of Causal and Nondual experience.

Wars for Subsistence

In his Response to the Critical Realists, Ken Wilber attempted to clarify his version of integral metatheory by calling upon the distinction between existing & subsisting beings. He asserted that tetra-arising worldspaces, while being inherently both subjective AND objective, do not limit reality merely to what is known, perceived and interpreted. That which ex-ists ("stands out") in relationship to perceivers is only a small subset of the total number of entities that sub-sist (underwrite) the world.

Here Wilber (subsisting vs. existing) makes roughly the same distinction as Bhaskar (transitive vs. intransitive) and Badiou (belonging vs. inclusion) among others. This is what we would expect if we assumed that metatheories converge over time as they fleshed out by various philosophers. However we should not be hasty in assuming that similar things are identical. Are these thinkers really making the same distinction? Clearly they all involve the difference between a large class of entities that *could* be presented and a smaller class of entities that actually *are* presented. Wilber argues YES but his position is guided by a desire to demonstrate that all positions are already incorporate into the basic framework of his integrative model. Alternatively, certain Critical Realists who are incompletely satisfied by his remarks have felt that he is not naming the same distinction.

Let us take a closer peek at Wilber's distinction:

He specifies that entities (e.g. atoms) may subsist in primitive, low-information worldspaces even if they do not exist for communities of interpreters and observers at that level of cultural and cognitive development. There is much more to reality that is known by any particular set of perceivers. He happily agrees with the Critical Realists on this point, he says. The problem in his view is not simple correlationism which treats only "detected" entities are real. Wilber's difficulty is that a mix-up between "levels" and "quadrants" is occurring. While he accepts that ontology contains more than is known in the epistemology of any given community, he nonetheless rejects the precedence of ontology. Knowing is not predicated upon a *prior* condition of being. Neither is being dependent upon the prior existence of knowers. They co-emerge. Their relationship is in parallel – not a relationship of levels or emergent states.

Thus he is careful to attack both the "epistemic fallacy" (reality is dependent upon knowers) AND the "ontic fallacy" (reality is independent prior to knowers and cognition is a late epiphenomenon). There is no priority in this relationship. It is synchronous at every level and every scale of the cosmos. So the official (sic) integral position is not that there are not unperceived beings, no beings apart from relationships, but rather that neither beings nor relationships of knowing can be characterized as first or more basic.

Sounds good but it does not entirely remove the problem that is triggering the object-emphasizing metatheorists. They might feel that Wilber is still being a correlationist, still committing the epistemic fallacy but just in a sneakier way. After all, isn't he just shifting the role of the perceiver and keeping the same game going? What does that mean?

I am aware that quarks exist within the bodies of sharks. The sharks are not aware of this. So when we say that the quarks *subsist* even though they don't *exist* – aren't we really saying that they're reality is dependent upon MY perception? We're still saying that quarks didn't exist until the knower-of-quarks emerged. All we're doing is stipulating that we are knower-of-quarks and the shark is being "considered" within OUR universe. Still sounds an awful lot like universes are real only when they are known.

On the other hand, this maybe makes no difference. Both versions of metatheory are saying that objective reality, as considered by us, contained more than is being evoked by the methods-of-knowing used cognitively and socially by any set of knowers. Arguably this IS the same position. It could be accepted but it generally isn't accepted. Why? Because, according to me, the issue was never about the relationship between knowers and entities, detections and detectables. Wilber's internal and external quadrants are a decoy. Attacking them will not bring the problem to light. Defending them will not resolve the problem. The two forms of metatheory we are considering have come to a stalemate by arguing over the wrong football.

Object-emphasizing metatheorists are concerned, whether they articulate this well or not, that objects/others are inherently MORE than what can be known through any given method of perception. However, they make the mistake of supposing that – in integral terms – they are claiming that the external quadrants cannot be reduced to the internal quadrants.

Tetra-enactive metatheorists (Wilber, et al) argue that objects and knowers already occur together at every level and scale of reality but that every level involves more entities (and more dimensions of entities) than are known – as is revealed when one grows into higher worldspaces and retroactively real-izes that such additional entities and additional information was present all along. However they make the mistake of thinking that they need to defend the mutual irreducibility of ontology and epistemology which then turns out not to address the main issue.

The main issue was the MORE of objects. The relationship of the external to the internal is not particularly relevant to this impasse.

Metatheorist A: There is implicit entanglement and synchrony between internal and external realities.

Metatheorist B: Entities are MORE than can be known.

These are complementary positions.

The In(de)finite Excess

We've already spent some time discussion the infinitesimal nature of some aspects of Reality. Certain real entities or functions operate as if they were a "vanishing point". Zero. Infinity. Pi. Although they are very real and functional, they nonetheless do not present themselves to us completely. We move toward knowing them. We get better and better. Yet we never arrive.

We discussed how "=" in mathematics and "self-identity" in mysticism both have this flavor of being maximally true, endlessly true, but never finally and ultimately true. The force of the absolute is not a given chunk of proof (as it was perhaps conceived in earlier, more concrete epochs of human thought) but rather an equivalent force expresses as an indefinitely intense approximation.

Everytime we said "100%" we really meant "99.999999999...%".

I am just reminding us about vanishing points. Why? Because, very interestingly, this is what everything looks like if we strip off the factors that are added by knowers, perceivers, observers, detectors, interpreters, etc.

We are down at the beach, still quite near to the forest where the tree fell silently, and we are looking at a rock. A simple, plain and sturdy beach rock. What do we know about this rock?

- It is blue-grey. Or, rather, it isn't. It absorbs every other frequency of the visible spectrum of electromagnetic radiation and rejects only that one which our culturally indoctrinated eye-brain system hallucinates as blue-grey-ish.

- It is heavy. Or, rather, it isn't. It's presence in the Earth's gravitational field accelerates its mass to create the temporary illusion of "weight" when measured against a scale whose results are displayed as units of distance which are now known to be relative to the motion of the observer through space-time.

- It is made of all rocky subcomponents. Or, rather it isn’t. Much of the rock is invisibly shed on the ground nearby. It is filled with empty space that vasly dwarfs the meagre amount of matter which makes up the rock. And it may be permeated by antimatter, dark energy, vacuum flux, nanoscale organisms, et al.

As science has progressed, we have learned more and more about how the most solid and pragmatic measurements are still relative to the mechanisms and methods of the observers. Our perception of the physical world was revealed to be a neurological and cultural phantasy and then the most basic phenomena of mass, time, space were revealed as complex and relative calculations. Today many of the top physicists argue that “being in a particular state” is only a temporary epiphenomena of the vast, uncertain and pluralistic nature of physical reality.

So what would happen if we removed everything that was added to reality by the observers? If every relative measure and relational calculation were stripped away – what would remain of any thing?

What would the rock be without brains to perceive it? Without the Earth to pull upon it? Without the geometry of space-time to give it motion and position? Without a Higgs field to give it mass?

It would be... nothing? Virtually nothing.

You can see whatever the rock “really is” outside of its relationships must be analogous to a vanishing point. It withdraws its essence. If it is anything at all, on its own, for itself (prior not only to what we know about it but to the knowable quantities made available in relationship to other entities) then this identity must recede to infinity. Or, more precisely, it must zoom to almost nothing. Almost. It is 0.0000000.....*x*

If we initiate a philosophical striptease in which we try to identify the essence of an object or entity *beyond* what is our could be known about “it” by others, then we encounter this absolute but incomplete purity. An infinitesimal. We want to know what it “is” that can, through interaction, give rise to perceptions, knowledge, interpretation. But as soon as we encounter any fact whatsoever, we have already encountered knowledge, perception, interpretation.

The MORE of ontological objects, prior to correlation with observers, has the character of a particularized vanishing point. It becomes a particular version of the minimal existential comparison. Any qualities are evoked by interaction between entities and observers. The ontological status of entities prior to these interactions is real but eludes characterization by any qualities or quantities.

This seems abstract but it is the heart of the matter:

The excess of objects (asserted by object-emphasizing metatheorists) is perfectly compatible with the fact that all observables are co-evoked by behavioral and cognitive interactions (asserted by tetra-arising meatheorists) IF the ontological essence of any “it” or “other” is assumed to be *analogous to an infinitesimal*.

To simultaneously affirm that the internal and external quadrants co-evoke all “detections” AND that every “detectable” is more than, beyond or prior to any detection simply requires that there be a class of entities who possess self-identity as a structural vanishing point or indefinitely receding process.

And integrative metatheory already has such a class of entities...

The Four Ontologies

Integral metatheory follows the lead of many other attempts at Western trans-rational supersystems by affirming the validity of multiple states of consciousness epitomized in even very ancient historical literature as waking, dreaming, deep sleep & transcendence. The terms Gross, Subtle, Causal & Nondual are employed. While these words are over-associated with spiritual and mystical practices they can be readily generalized to describe whole legitimate facets of Reality. I will employ the term *state-domains* to indicate that I am treating them as not merely “inner states” but as distinct, co-equal types of Being that show up in across many philosophies under many diversely suggestive names.

The four classes of ontological entities, grouped into their state-domains, are these:

- Resistant Bodies
- Evocative Bodies
- Logical Bodies
- Blended Bodies

Or, to bring it back to what we have covered in the previous section:

- Concrete Beings
- Qualitative Beings
- Infinitesimal Beings
- Transcendental Beings

These are all strange and unfamiliar terms. We will try to use a variety of phrasings for these four state-domains of ontology so that we can both set a “sense” of their nature and also open ourselves up to how they might appear, differently phrased, in many seemingly unrelated areas of philosophy and scholarship. This is akin to what we did earlier in trying to inspect what *the mystics of self-awareness* and the *higher mathematicians & logicians* have had in common over the millennia.

While the “four quadrants” – internal and external – may be treated as lenses of knowing, four styles of detections, these may be treated as four ontologies or types of detectables. These types are revealed, like a lump under the carpet, by the basic options by which entities could enter into relational evocation of perceptible “apparent facts”.

Let’s ponder this categorization more closely.

Detectable entities *could* exert forceful resistance upon other entities – whether we know about this or not. We could call this:

- Substantial Ontology (Gross Ontology)

Other detectable shapes *could* exert an evocative influence upon other entities – whether we know about this or not. We could call this:

- Qualitative/Morphodynamic Ontology (Subtle Ontology)

Some detectable differences *could* exert an indefinitely intense logical constraint upon other entities – whether we know about this or not. We could call this:

- Syntactical Ontology (Causal Ontology)

Some detectable in-differences *could* exert an uncannily satisfying blending of entities – whether we know about this or not. We could call this:

- Functional-but-Indistinct Ontology (Nondual Ontology)

All four classes of ontic/ontological factors play a role in all real situations. For example:

When I eat a banana it pushes back on my mouth because it is a physical body. There may be much about the banana that my senses do not detect but whatever is potentially physically detectable has some capacity to resist my own physicality. Yet whatever complex of elements forms the "real banana" also enables my experience of *banana-ness*. And it could not do either of these things without some implied syntactical parameters that enable reality to operate as a field-of-different-things. But differences are not enough. They rely upon having enough in common in order to be compared - they are the same enough to be different. And that commonality-in-difference is something I might miss, minimized or interpret in numerous different modes.

These four ubiquitous forms of detection suggest four entangled options beyond or prior to any particular detections. They might be considered as four co-present aspects of pre-detected detectables that can be "known" in any of the external or internal epistemological quadrants.

A Sidenote on Mystical Reductionism

We will spend a little more time thinking about what these state-domains are like and how they, especially the Causal and Nondual, pertain to the basic status of "being-a-thing" which is situated between the two schools of metatheory whose impasse provides the jumping off place for this essay. But first let us make a short digression...

If these four state-domains constantly co-exist – rather than being a particular historically-favored sequence of internal "states of consciousness" produced by conventional spiritual practice – then we would expect not only to constantly encounter them under different guises but also to observe unique patterns of imbalance, specialization or peculiarity where a person attempts to favor one of these state-domains in their own attention, thought and life-practice.

Just as the *reductionism* of all quadrants to one particular quadrant is considered a well-known problem by Wilber's model, let us expand that principle and consider reductionism in terms of state-domains. I will use the term "mysticism" from now on to refer specifically to the exaggerated emphasis of one state-domain at the expense of the others. This is not a pejorative term because there is no reason why you shouldn't have favourites and specializations. Rather it is a descriptive terms which simultaneously conjures attractive and frustrating elements of such specialization.

An individual who focuses their theory or practice on one state-domain may make impressive gains in the force and sophistication of that aspect. A potent mystery of insight and self-development will appear. Yet, at the same time, the realities of that state-domain will seem vexing, ungrounded, incoherent or insignificant to people situated by their attention into other state-domains. The result is that both a profound positive *mystery* and a frustrating *mystification* occur together.

Here are four kinds of "mystical" experience emerging immediately from the notion of four ontological state-domains:

- The physical universe is all that really exists.
- A subtle realm of Luminous Living Nature exists beyond physical bodies.
- An infinite, dimensionless realm of Invisible Clarification (differentiations & truths) exists on its own even without any "things" to clarify.
- An "already perfectly complete" yet novel and unfolding commonality exists between and among all apparently differentiated entities.

Although altered states of consciousness may allow us to examine any of these realms in totalizing intensity they cannot be fundamentally disentangled. From a philosophical point of view we must think these domains in their most universal applicability – not in the poetic and pragmatic terms used to celebrate them or guide aspirants toward mystical experience. The job of philosophy is not to take such phraseology at face value but to elucidate the principles which permit such experiences to be articulated in any number of different ways.

Philosophical mysticism would mean to isolate one of these domains of ontology as THE REALITY of which the other three are veils, semblances, illusions, covers, etc. produced epistemologically by the knowing of other beings.

- Common sense realists are philosophers who take the physical entities as the ontology and presume that both qualities and logical differences (and their blends) are "just" abstractions made in the psychology of experiencers.
- Artistic-Idealists take the flavors and forms to be primary while reality and logic are "limitations" imposed by the psychology of experiencers.
- Badiou takes mathematics (or meta-mathematics in terms of a Set Theory of the basic preconditions of the thought of any universe) as Ontology, per se. This is very attractive. It

gives us a universe that "really is" differences and has both semblances and solidities manufactured by the interactions of experiencers.

- And some radical nondualists take "transcendentals" or univocal dichotomy-embracing commonalities as ultimately real such that differences and the appearance of differences as objects and qualities are considered as illusory epiphenomena.

A Closer Look at the Causal/Nondual

We have tried to get a sense of the nature of a real being. From various angles we has re-arrived at a the "causal" essence of beings – infinitesimal, indefinite, transparent, like pure syntax, eternal, a vanishing recess toward the original, pre-relational, pre-qualitative, pre-quantitative *difference* that constitutes the is-ness of any particular being. This was what we called the *minimum existential comparison* in an earlier section. If all relational and observable qualities are removed or looked-past in order to locate the prior nature of the "detectable" then we find it must be so stark, so naked, so minimal, so potential that it must operate like the most pure seed of any possible cognitive encounter. A causal entity is n-dimensional. It is like that place where the digits of pi flow toward endlessly but never arrive. It is always already arrived in that incomplete, self-approximating, minimalistic absoluteness. It is the "it" that makes perceptions of itself thinkable, doable, possible. A causal entity is a proto-detection.

And anything that has this nature could be called a "causal entity". We could cite the "=" or the "isness" of anything. We could point to the "self" of self-nature or the perfect stillness of an ultra-precise data-point that withdraws to the limitless horizon but is already presented as this withdrawal.

Any pure boundary condition is a causal object. The ontological nature of anything prior to the subtle and gross observables which are generated by its interactions with other entities. Any "distinction, per se". And that includes the distinction between the state-domains. It makes perfect sense that the differentiation or boundary-condition between the state-domains IS their causal nature. And the capacity for them to interact with each other, to simultaneously be differentiated and blended, is their nondual nature.

While the causal state-domain is primarily languaged in apophatic, cancellative or absolutizing terms (the most, the one, nothing, emptiness, infinitesimal, isness itself, eternal, beyond form, beyond quality), the nondual state-domain is generically described in paradoxical terms that simultaneously affirm & disconfirm oppositionality (neti neti, neither this nor that, both/and, form/less, all & none, the unity of the many, the general particular, shared uniqueness, radiant void, transparency, diaphaneity, luminous form, abiding as non-seeking, dynamic stillness).

This linguistic distinction is very clear if we simply consider the difference between saying EMPTINESS versus saying WHATEVER EMPTINESS AND FULLNESS HAVE IN COMMON. Or between saying the UNIVERSAL ONE and THE ONENESS OF THE MANY OR THE MULTIPLICITY OF ONENESS. The difference pertains to the absolute specificity of entities in the causal state-domain and the simultaneous affirming & cancellation of polarities which, all together, constitute entities of the nondual state-domain. Whereas your "casual essence" might be language as the indefinitely withdrawn, and unmanifestly pure, is-ness of your being, your “nondual essence” would be more akin to that transrational and perfect synchronicity of your manifest forms and your unmanifest potential. The quintessential and unconditional difference that makes you a self that can enter into relations of knowing with other being – even the relations we call “space” and “time” – is the description of your causal self-nature. Conversely, the description of your nondual nature is whatever Self and Not-Self have in common.

You dig?

Obviously all terms will be confused in actual usage by various communicating agents with various understanding and purposes. And looking back through our personal and anthropological history we are likely to find clunkier, more naive, more simplistic ways of phrasing these things. Increased social and cognitive complexity leads to more precise, abstract and peculiar generalizations that are typically found in conventional usage but which, nonetheless, must be structured such that they can explain why those conventional usages make sense in context.

So what we are dealing with here is a very complex nuancing of the semantics pertaining to more common experiential dimensions of everyday and extraordinary Reality.

For the entities of the causal state-domain we are using variations of a *most basic distinction prior to qualities, quantities and cosmic history.* And for entities of the nondual state-domain we are deploying *trans-oppositional terms* – concepts that simultaneously provide separation & nonseparation. Functional paradox.

Many of the most profound concepts in both spirituality and intellect make themselves available to us in both forms. That is to say there are many semantic terms which can be suggestive of either causal or nondual experience depending upon the angle from which we encounter them.

Consider the mark of the “/” in writing. This sign is a break but it may also act as a simultaneous break-and-joiner. A woman known both as Betty and Ariadne might be referred to casually as Betty/Ariadne. This means on the one hand that a basic difference exists – an alternative, a choice. A fundamental disjunction. The person we mean is specifically the one who is either referred to as Betty or Ariadne. Yet in the same mark we find these two terms brought into the most intimate possible conjunction. There is an implication that a shared identity moves between them. This common feature does not undo the dichotomy but rather eludes it while accepting it. “Someone” is both Betty AND Ariadne while also being presented as either.

A choice or a shared identity of non-cancelled opposites?

A difference or a same-difference?

The mark “/” is a nice example, though others could be chosen, because of its visual similarity to any straight line used to diagram a boundary condition. Recollect how such lines are used in metatheory diagrams to elucidate the relationship between fundamental categories of Reality. Internal/external, for example. These two territories are identified as by their pure difference from each other. Zoom in on the that dividing line and watch it retreat toward infinity like an endless fractal horizon. Yet these territories are fundamentally conjoined by that same boundary. Every boundary connects the two things which it separates. They touch each other in the form of the boundary. A basic differential is also a shared contact point which mutually distinguishes AND mutually connects the identities that are involved.

The most basic possible form of reality is a minimal existential comparison (or *constitutive differential*). This is a causal structure but with a small shift of focus is can reveal a nondual structure as well. There is both a causal and a nondual gestalt for this fundamental unit of Reality.

The Separator is the Connector

Assuming we are totally deluded, how can we make use of this remarkable quasi-concept that seems to be able to harness the irreducible, unmanifest structure of a pre-detected Being AND its transcendental potential to operate simultaneously as itself and also as what is not itself? We see that a basic disjunction is needed to point at the causal essence and with a small shift of context any such separation can be cognized, felt, contemplated, utilized in its nondualistic character. What will do with that?

A very simple use is to unify pluralism, integralism and transcendentalism. This is what I have called the Metaphysics of Adjacency because it explicates the implied metaphysics of so-called "postmetaphysical" stances by rooting them in the logic of this "separator-connector".

If we invoke a simplified version of the higher developmental stages in systems such as Spiral Dynamics, Gebserian philosophy, Integral Theory, etc. then we can speak generally of several postformal phases of cognition. Green, Teal & Turquoise. Higher 1st Tier, Second Tier & Third Tier. Deconstructionism, Reconstructionism & Supermind. There are numerous ways to parse these terms. I mean only to suggest a general tripartite concept in which (1) multivalent, contextual, pluralistic reason is joined by (2) integrative, meta-structural, trans-contextual, evolutionary universalism which peaks toward a more stabilized (3) transrational, nondual, ultra-consciousness.

Our humble slashmark ("/") can symbolically provide the centerpiece for all three of these profound phases of developmental complexity. It can, for example, suggest the parallax or a-perspectival contrast which emerges into the authentic postmodern, pluralistic, postform mind which becomes increasingly conversant with multidimensional rationality and alternative reality-contexts. This form of perception has many gifts but also many challenges including fragmentation, exacerbated nihilism, narcissistic loss of objectivity and other phenomena which could be predicted from an over-emphasis on the contextual nature of reality and the awareness that distinct contexts are in tension or juxtaposition with each other across the cultural landscape. Thus the emergence of an integrative transperspectival universalism because necessary and desirable. Metatheory (and its non-cognitive correlates in other forms of intelligence) works to include & balance the various types of contexts and perspectives in a complementary and coherent fashion. A great integrative mandala of perspectives begins to emerge in a manner analogous to Einstein's famous deployment of the speed-of-light to integrate relative measurements of space and time into a single universal system. The variations among the contexts are not lost but instead affirmed within a Great Reason that allows every perspective to co-contribute to the Whole. This "integralism" affirms the ambidexterity of the cosmos. Thus the two sides of the "/" are again presented but this time as mutually comprehensible partners rather than mutually exclusive worlds vying for normalcy. That represent a currently emergent and fantastic possibility for higher cultural and cognitive life among human beings but our aspirations, combined with the extraordinary glimpses provided by the lives of saints, mystics and drug-takers, suggests that some even more luminous and profound state may lie beyond upper reaches of ambidextrous integrative vision-logic. Such a stage would not merely be identical to the further reaches of nondual state-mysticism found in the spiritual traditions but would bring the complex interblending of all the state-domains to such a rare degree of depth and development that the advanced mind & the incomparable illumination of non/being flow together and flower in remarkable novelty and virtually incomprehensible salience. Here the simultaneous both/and symbolized by "/" is a gift-giving jewel of endless separation-and-nonseparateness in the gross, subtle and causal dimensions of Reality at all scales. After all, proximity (when thought through carefully) is already a functional condition that unites separation and nonseparation. Love is the desire to be more transformatively "close" in operations with each other. When we are neither merged or radically separate we occupy a nondual condition whose peaks are unutterably ecstatic but whose general situation is unutterably ordinary and in fact provides the functionality of all functions! Nothing "works" until it is "close enough" – whatever that means in a given circumstance.

If we were so inclined (as I once was), we could utilize these three stages of the Metaphysics of Adjacency (MOA-1, MOA-2, MOA-3) to help us understand the growth beyond formal operational cognition into (1) pluralism (2) integralism (3) transrational, transcendental, all-state functional nondualism. To do so would be to operationalize the "/" or "proximity itself" or "adjacency" or the "separator-connector" as the fundamental reality-structure which emerges into greater and greater clarity and multidimensional utility at each progressively complex stage of development.

My own attention, as I indicated earlier, was drawn to this notion of "adjacency" when I pondered the metaphysical structures and presumptions that are necessarily implied in worldviews that call themselves *postmetaphysical* or even *post-postmetaphysical*. It became apparent to me that similar ultra-semantic proto-thought (sic) was being actively invoked by the deepest thinkers of postmodernism, integralism & evolutionary nondualism even where these individuals supposed that they were in fundamental disagreement with each other.

I began to use the term MOA (metaphysics of adjacency) to describe any worldview which assimilated the basic creative disjunction at the heart of identity and to use the term MOSP (metaphysics of simple presence) to describe "lower first tier worldviews" which supposed that reality consists of pre-given objects and entities.

The various types of MOA deal, implicitly or explicitly, with a creative separation-connection between epistemology and ontology. No entity is perfectly identical with itself. 99 is the new 100%. "=" is maximally but not totally true. Absolutes and almosts are no longer in simple opposition.

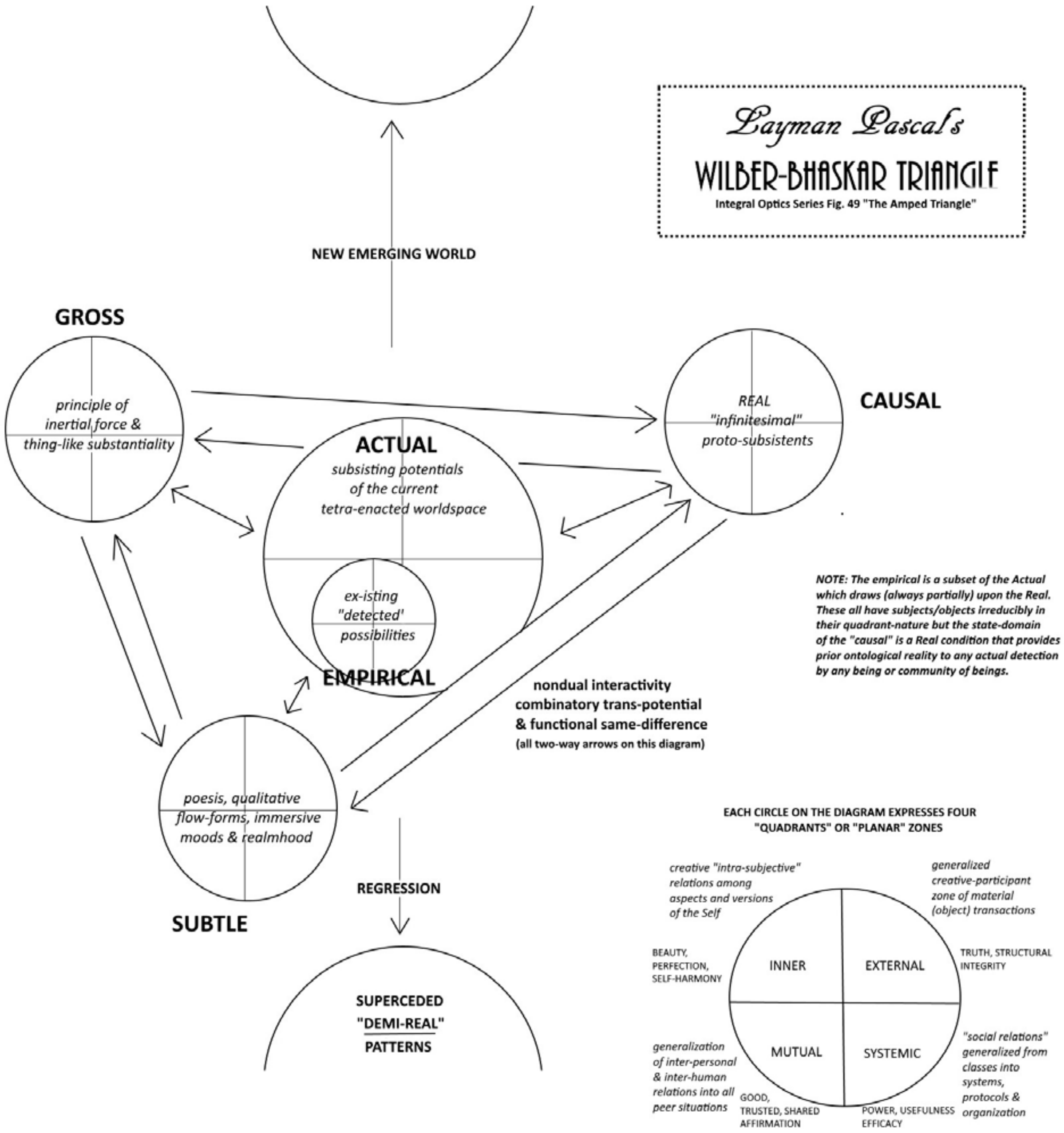
That is to say that everything is either defined and perceived in relation to others OR prior to such detections anything exists as a self-approximating difference-from-itself which constitutes its identity. For a pluralist, your identity is no longer a simple given fact but rather an phenomenon which appears in the context of your point-of-view. The I becomes the "I". As obvious at it seems to you, it has reality only in a greater field which includes other relative viewpoints and alternative contexts. For an integralist, the fundamental co-presence of multiple fields of perspectival engagement (epitomized in the notion of internal and external or personal and collective reality) is the inherent "holonic" nature of any real entity. And for the higher evolutionary nondualist, the self and not-self are both the same and different.

All observable facts, all detections of reality, are co-created by objects and observers while, at the same time the pre-detected essence of anything – from which potential acts of knowing arise – is itself constituted as a self-difference, a minimal comparison, an ontological disjunction.

Such a conception of reality, implied in the emergence of the various "postmetaphysical" stages of cognitive and cultural development, provides a consistent way to articulate the complementary truth of both the tetra-enactive and object-emphasizing schools of metatheory. To predicate reality upon "adjacency" is a means of languaging pluralism, integralism, nondualism, pre-detected objects & subjective/objective co-arising all in the same common functional principle. We may or may not wish to pay attention to such an overflowing notion but it is *possible* to deploy such a MOA framing.

Appendix: The Wilber-Bhaskar Triangle

The following diagram examines Reality as a set of subsisting actualites (detectables) which are only partially revealed and known (detected) by any given set of observers or socio-technological methods of inspecting the cosmos. This actual world, with its smaller subset of known possibilities, is a four quadrant affair. Personal, mutual, objective and systemic aspects co-exist as the actual world whether it is known or unknown by any particular community of beings. Gross, subtle & causal ontologies also co-exist and provide distinct and necessary preconditions for any kind of internal or external knowledge. The causal domain, by its very nature, specifies that the intrinsic status of objects (and subjects, etc.) is indefinitely withdrawn and must be thought of as an excess, as more than what can be known by any interaction. It is "prior" to detections even though the external quadrants are not prior to the internal quadrants. Nonduality names the ontology that provides the capacity for interaction, blending and non-destructive transcendence of those other state-domains. Levels of emergent worldspace exist and each other offers more complex ways of integrating the state-domains, balancing the quadrants and shifting the ways that hidden actualities are presenced into our personal and social knowledge. Lower levels of coherent functional complexity (simplexity) appear, retroactively, as relatively deluded, ignorant or simplistic. Any early level of developmental worldspace operates with the force of what Bhaskar called "demi-reality". And the sway of more primitive, less accurate, less comprehensive understandings provides a regressive possibility for individuals and societies that must be guarded against by political, spiritual and scientific methods of progress.


Layman Pascal's
WILBER-BHASKAR TRIANGLE
Integral Optics Series Fig. 49 "The Amped Triangle"
NEW EMERGING WORLD
GROSS
principle of
inertial force &
thing-like substantiality
CAUSAL
REAL
"infinitesimal"
proto-subsistents
ACTUAL
subsisting potentials
of the current
tetra-enacted worldspace
ex-isting
"detected'
possibilities
EMPIRICAL
nondual interactivity
combinatory trans-potential
& functional same-difference
(all two-way arrows on this diagram)
poesis, qualitative
flow-forms, immersive
moods & realmhood
SUBTLE
REGRESSION
SUPERCEDED
"DEMI-REAL"
PATTERNS
EACH CIRCLE ON THE DIAGRAM EXPRESSES FOUR
"QUADRANTS" OR "PLANAR" ZONES
creative "intra-subjective"
relations among
aspects and versions
of the Self
generalized
creative-participant
zone of material
(object) transactions
BEAUTY,
PERFECTION,
SELF-HARMONY
INNER
EXTERNAL
TRUTH, STRUCTURAL
INTEGRITY
generalization
of inter-personal
& inter-human
relations into all
peer situations
MUTUAL
SYSTEMIC
"social relations"
generalized from
classes into
systems,
protocols &
organization
GOOD,
TRUSTED, SHARED
AFFIRMATION
POWER, USEFULNESS
EFFICACY

NOTE: The empirical is a subset of the Actual which draws (always partially) upon the Real. These all have subjects/objects irreducibly in their quadrant-nature but the state-domain of the "causal" is a Real condition that provides prior ontological reality to any actual detection by any being or community of beings.

Knowing and Unknowing Reality – A Beginner's and Expert's Developmental Guide to Post-Metaphysical Thinking

Tom Murray[1]

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Preface

Depending on one's tolerance, or even love, for uncertainty and the unknown, "post-metaphysical thinking" can be either a fascination or a real downer. And by "interest in uncertainty and the unknown" I don't mean that effervescent attraction to the mystical, magical, esoteric, and unbelievable – I mean the blunt confrontation with how, when it comes down to it, the certainty that one holds for much of one's beliefs and knowledge is bewilderingly undeserved. To get the most out of this text it is best to consider how it applies to one's own knowledge, in addition to reading it as an exploration of the indeterminacies of knowledge in general. But for those truly interested in where the post-metaphysical arrow points, you know that it is about attitudes of deep curiosity, listening, and humility – skills of letting go, letting be, and letting come – that we long to see more of in our world. Here already the reader can sense how being "post-metaphysical" relates to spirituality.

I have had a lifelong interest in the nature of knowledge, belief, and uncertainty. This philosophical curiosity paralleled my avocational experiences in various forms of conflict resolution and dialogue processes, alongside studies in cognitive psychology and philosophy. Amidst the confluence of perspectives found in real dialogue and deliberation one must come to terms with, as I call it in this text, "the sources of belief fallibility." How intelligent, well-informed, well-meaninged people can come to very different conclusions is a koan-like puzzle I was drawn into. I've been trying to let this puzzle solve me for over 40 years.

I find myself immersed in both scientific communities and New Age (or "Cultural Creative") communities, and judge that conversations between them are rife with straw men and confirmation biases. This text is, in one sense, an outcome of my own internal process, over decades, of allowing the voices of these diverse perspectives to listen to each other with appreciation, empathy, and respectful criticism. I believe that the future of humanity requires spirituality; but that what passes for spirituality now is insufficient. My hope is that I have worked out a few knots of tension between these worldviews to support their integration for others. To do this I have attempted to make accessible some historically recent advances in philosophical and scientific thought that inform the humility with which we must hold our beliefs.

This text began as an appendix within a larger book-length text that is in-process. The book is about "wisdom skills" from a developmental perspective, and explores the relationship between wisdom, "complexity capacity," and "spiritual clarity" – weaving in findings from cognitive and brain sciences. Among other things, it takes a *post-metaphysical* look at wisdom and spiritual development, and relates that to ego development. That book (draft) includes an appendix explaining my perspective on post-metaphysics. As this Integral Review special issue began to take shape, I decided to turn that appendix into a paper, and in the end, that became a large project in itself, in which I have combined most of what I have said on the topic of post-metaphysics, scattered among a dozen papers in the last decade. I must admit that post-metaphysics is a soapbox that I kept finding myself standing on in the middle of writing about other things, and this text is my attempt to get it all out of my system, package it up, and put it to rest (!).

Though I have written many scholarly papers, the Wisdom Skills book is my first attempt to reach a broader audience. The text you are reading on post-metaphysics is similarly written – with the intention to be understandable by anyone who likes to follow contemporary ideas about spirituality, philosophy, and human potential. Thus it does not have the density of references expected in an academically styled paper, and it explains some ideas at a level of detail that some readers of this journal may find lumbering or obvious. My aim is to bridge the gap between scholarly and popular texts to make the key ideas behind post-metaphysics meaningful and practical outside of academic and "integrally informed" communities of theory and practice. I hope the extra space I have taken to move carefully through many interconnected ideas is worth the journey for you.

That being said, I have not held back any thoughts on the topic because they were too advanced, and the title "A Beginner's and Expert's Guide..." signifies that I am confident that advanced readers will find novel ideas and useful insights within. What began as an appendix and then an article has grown to the scope of a booklet or monograph. The chapters in this text are relatively stand-alone so that the reader may explore any part directly. For those who prefer having an overview in the Preface, I refer you immediately to the Conclusion, which is primarily a summary of the text’s themes.

I should state up front that your author has not achieved a stable state of non-dual awareness or spiritual awakening according to any of the various definitions – yet in this text I dare to provide some commentary on the claims of some well-known spiritual teachers who are clearly advanced souls (or "realized" individuals). The reader may wonder how I assume the authority to write about many subjects, including non-duality, and offer opinions that differ from esteemed mystics and scholars. First, I try not to venture into any proposition for which I do not have at least an intuitive experiential taste of its validity (partial truth), though in some sections I am also treading into waters that may be over my head (it's hard to know how deep the water is when one is swimming).

Second, I try hard to acknowledge the profound experiences of these teachers, and the deep source(s) from which their wisdom comes. What I am trying to tease out is a less metaphysical interpretation, or a more reflective and explicit metaphysics, of their claims – one that is appropriate for an open-ended, open-hearted, open-minded march into the 21st century. Thanks to modern internet technology, I am blessed to live in a time in which I can listen to online lectures, dialogues, and interviews with many dozens of "awake" individuals. I notice not only where they seem to agree, but also where they seem to disagree or offer different perspectives. I am grateful for living in an age when these resources are available, allowing me to have some understanding of a territory I could never have had access to alone, nor even with a small set of sage mentors.

Those of us who listen attentively to many such teachers may even see novel pools of breadth, depth, and color that are unseen by teachers who stick to their own philosophical frameworks. It must be noted, as these teachers often do, that intellectual listening is no substitute for deep experience (or practice), yet I have found that hearing multiple perspectives that relate to my own experiences and intuitions deepens my understanding and gives me confidence in knowing where I have something to offer within the larger conversation. I have particularly enjoyed listening to Shinzen Young, Adyashanti, A.H. Almaas, Hari Alto, and Vinay Gupta, all of whom have expressed a non-dogmatic and open-ended curiosity about the nature of their own spiritual journeys. I am inspired by how much wisdom and depth they hold – even as they describe and delight in their own profound unknowing. As the reader will see in this paper, I am also indebted to Jürgen Habermas, George Lakoff, Ken Wilber, Roy Bhaskar, and Dan Brown, whose writings and teachings have greatly informed me. While extending acknowledgements, I will mention my gratitude for colleagues/friends Terri O'Fallon, Kim Barta, Bonnitta Roy, and Zachary Stein, whose insightful creations brilliantly capture wisdom at the leading edges of humanity's pondering, and whom I draw from in everything I write.

I believe that post-metaphysical thinking, taken fully, is at odds with the ways we are taught to think, and that approaching it from many perspectives is necessary to loosen the entrenchment of old patterns. Therefore, this text is segmented into six chapters that are relatively stand-alone and approach the issue from different perspectives: a *developmental* approach to "magical, mystical, and metaphysical thinking;" a three-story "interlude" setting post-metaphysics into a *historical* context; a chapter approaching post-metaphysics from a *philosophical* perspective (through the interplay between ontology and epistemology); another philosophically oriented chapter comparing the properties of concrete reality with those of ideas; and a chapter approaching post-metaphysics from an *embodied and experiential* (phenomenological) perspective. In addition to these six chapters are the Introduction, which sets the stage, and a Conclusion that summarizes the book and folds in some connections to *ethics*. Enjoy and wonder.

Introduction and Some Foundations

The Metaphysics to Come

"Post-metaphysics" is a term coined by philosopher Jürgen Habermas to refer to a historically emerging trend toward a more humble and reflective attitude on truth and belief that acknowledges how human knowledge is deeply fallible. It signals a move away from – not only the religious and dogmatic orientations to truth predominant in pre-modern cultures – but from more subtle modes of unreflective metaphysical thinking predominant in modern cultures. This trend is observed in every domain of human discourse, from the scholarly treatises of philosophers to newspaper editorials and dinner table conversations. Post-metaphysics signals a distancing from definitive or authoritative proclamations of universal truth. In this text I use a *developmental* approach that describes levels of sophistication and depth in both the individual's reasoning and in cultural trends. Thus, the historically emerging trend in thought that Habermas termed "post-metaphysics" is also an evolutionary or developmental trend in the complexity and depth of reason achieved, or achievable, by society.

"Metaphysics" traditionally refers to claims about the essence or ultimate nature of reality, being, or existence – thus the term *post*-metaphysics points beyond such claims. Just as the term "post-rational" refers to an understanding of the limitations of rationality, and not to *non*-rationality or irrationality, post-metaphysics does not imply the rejection of metaphysics, but rather a reflective attitude that understands the limitations and best uses of metaphysical ways of thinking. Perhaps the terms meta-metaphysics or trans-metaphysics would be more apt, especially since what we could call "post-metaphysical thinking" has much overlap with "meta-rational" thinking (Stanovich, 2015; David Chapman’s hyper-book at meaningness.com) and "meta-modern" sensibilities (Vermeulen & Akker, 2010; Freinacht, 2017). Later we will also use the term "4th person perspective" (and beyond) for this territory. In this text "thinking" refers broadly to all types of cognition, including intention, motivation, feeling, etc. "Post-metaphysical *being"* would also be an appropriate term – as thought, feeling, and action are deeply entwined.

Nowhere is the tension between metaphysical thinking and post-metaphysical thinking more apparent than in discourses on *spirituality and religion*. It is not difficult to notice a general cultural developmental trend away from *concrete and literal* interpretations of spirituality and religion toward more abstract, nuanced, and scientific interpretations. If you are reading this text you are not likely to literally believe that that Moses parted the Red Sea, the God created the Cosmos in six days, that God looks like an old man with a white beard, that a Heaven full of willing virgins awaits the faithful, that the world sits on a series of elephants and turtles, or that a feathered serpent in the sky took part in fashioning mankind out of clay.

The modern scientifically-informed intellect is more than suspicious; it is completely unbelieving of literal interpretations of religious stories about the origins or destiny of the earth, of people (and souls), or of reality as a whole. We understand ancient and aboriginal myth and lore as quaint or metaphorical – perhaps deeply meaningful but not literally true. But such concrete and literal metaphysical claims notwithstanding, we still struggle to relate to the more *abstract or esoteric* claims associated with metaphysics today. In this text I draw from contemporary notions of spirituality as a context for exploring the wider domain of metaphysical and post-metaphysical thinking.

This exploration of the cultural and philosophical emergence of post-metaphysics is situated within the theme of "spirituality" because *ethics* exists at the intersection of reason and spirituality (or science and religion). That is, how we approach caring for each other, our planet, and future generations rests in large part upon the depth of our wisdom regarding the *interplay of rationality and the deeper pre-rational* (including magical, archetypes, and "shadow") realms of the self. We frame the contemporary puzzle of how to resolve these domains in terms of the tension between historically metaphysical thinking and emerging post-metaphysical thinking.

The conversation is timely in part because of the emergence of the “new atheist” movement, which carries a harsh condemnation of religion as a social force (see Harris, 2004; Dawkins, 2006; Dennett, 2006). These well know intellectuals seem to have little empathy or tolerance for the segment of the population faithful to an organized religion; and have equal distain for New Age spiritual beliefs. Their position, harsh and analytical, has moved a few minds, but is not likely to move many hearts. All in a time when religious fundamentalism is bringing chaos and cultural regression to many corners of the world. This text follows Wilber (2006, 2017) and others in using a developmental lens to clarify certain aspects of these issues. Developmental theory can illustrate (1) how aspects of cognition that give rise to religious and spiritual needs function at all times and for all people within a deep layer of the psyche; and (2) why it is unreasonable and potentially harmful to propose an increase in rationality alone as a “cure” for religious and spiritual thinking. Though we rely on Wilber and others who have tendered the developmental view, we think that even Wilber’s work carries too many metaphysical implications, and more can be done to bridge the cultural distance between rationality and spirituality.

Consider the statements shown in Exhibit A from five contemporary spiritual teachers. These teachers' books will all be found on the same shelf in bookstores, yet their teachings, styles, and lineages are quite diverse. Still, from the quotes given, it appears that they are all reading from the same metaphysical playbook. They regularly use the descriptors *absolute, ultimate, infinite, groundless, supreme, essential (essence), pure, fundamental, irreducible, limitless, endless, eternal, immeasurable, unmanifest, empty (emptiness), timeless, ever-present, spaceless, unbounded, formless, perfect (perfection), omnipresent, universal, primeval, primordial* – and the like – words that, as often as not, are capitalized. The familiar spiritual objects of such radical, absolutist, or hyperbolic language include: Consciousness, Awareness, Presence, God, Soul, Spirit, the Universe or Cosmos, Nature, Reality, Truth, Goodness, the Non-Dual, and the Source or Ground of Being. (Note that I am not claiming that all spiritual teachers rely on this type of metaphysical language, only that it strongly informs the contemporary spiritual landscape.)

***Exhibit A*: Metaphysical statements by contemporary spiritual teachers**

- *Ken Wilber* [1]: discusses "the path of Waking Up – which deals with ultimate Reality, with the Ground of all Being, with the divine Self and infinite Spirit...found in the great Traditions around the world " (in contrast to the also-important "path of Growing Up – which deals with the finite self, the ordinary, conventional, typical small self and its changes"). Waking up is concerned with connecting with "an ultimate unity, oneness, infinite harmony and interconnectedness with the entire universe – the discovery of our real Self, Big Mind, the groundless Ground of all Being, the Supreme Identity, the Great Liberation in infinite Spirit.
- *Reginald Ray* [2a,b]: In describing his interpretation of awakening in the Tibetan tantric essence traditions, says "Pure Awareness...is our most fundamental nature, a part of ourselves that is neither born nor dies," and continues his explanation of awakening using the terms "limitless openness" and "touching infinity." On another page he discusses "the space of the heart...so vast and so endless and so open...[it] has this fundamental, eternal, infinite openness...known as ultimate bodhicitta.”
- *Andrew Cohen* [3]: "This is when we discover the limitless interior dimension of our own Being, when consciousness begins to open to itself to an immeasurable degree and when we discover the unmanifest dimension of reality...This absolute nothingness or voidness or emptiness is traditionally called the Ground of Being. When we discover the literally infinite, timeless, formless nature of this dimension, we recognize that 'This is what it was like before the universe was created'."
- *A. H. Almaas* [4]: Strictly speaking, the absolute is the ultimate nature of Reality, and it is beyond dimensions; for dimensions are the experience of manifestation. Yet, we do experience the absolute as a dimension, boundless and infinite, an infinity that contains and holds all manifestation, including the other boundless dimensions. We can say that the absolute is the unmanifest, the ultimate truth and mystery of Being, beyond all dimensions and qualities. But when it begins to manifest appearance, this manifestation appears as if in an expanse, an infinite and boundless expanse, that looks like black space.
- *Adyashanti* [5a,b]: "All things – all beings and all activities, no matter how ordinary – are equal expressions of the Infinite...Therefore, all attempts to either find or hold onto the Infinite are based in illusion. And illusion itself is none other than the Infinite." "Simply put, ultimate truth comes at a cost, and the cost is everything in you and about you that is unreal. The end result is freedom, happiness, peace, and no longer viewing life through the veils of illusion."

(See References for Exhibit A sources).

The statements described above are neither poetry nor metaphor, nor are they sage advice about moral or spiritual living – they are *truth claims* about reality. These teachers follow the lead of spiritualists and mystics throughout history who have set a precedent for definitive-sounding metaphysical assertions. These are not only metaphysical claims, but often they are *mystical* claims. Whereas many metaphysical claims are justified through *logical* argumentation, mystical claims are also grounded in the *experience*, or the experience-based *intuition,* of the speaker.

Along the further reaches of the spiritual or psychological path to awakening, or comparably radical stages of consciousness, one encounters certain types of well-documented experiences. These include profound states of emptiness, bliss, expansiveness, one-pointedness, unity, and/or compassion. What all seem to agree upon is that mystical experiences are ineffable – that words can only inspire or obliquely point to the states and realizations attained. And yet words are used, and strong claims such as those illustrated above are made. In fact, *all* experiences are ineffable in a sense. For example, the color blue for a blind person, and the taste of chocolate for one who has tasted nothing similar, are ineffable. Words *point* to shared experiences and comparable experiences among interlocutors, but do not directly convey those experiences. Mystical states are no more or less ineffable than other experiences, but they are much more rare (and esoteric), and thus we have yet to form adequate language for describing them.

We should not doubt that many spiritual teachers and mystics are speaking from direct authentic experiences that are sublime beyond the understanding of the vast majority of individuals. I do not doubt that the adepts quoted above have participated in states of communion with reality, have attained a radical type of freedom from conditioning, and have received realizations about the nature of the self, that lead to profound wisdom and a deeply inspiring presence. I am grateful that these and other spiritual teachers have profoundly influenced me and illuminated my own understandings. These teachers are mystics fully and successfully embedded in the modern (and post-modern) techno-scientific world – and every age needs its mystics, along with its artists and philosophers, to tap the dreamy resources of the collective unconscious for fresh insights to address dire needs of the time.

But the definitive metaphysical claims quoted above grate on contemporary sensibilities. They harken back, in developmental terms, to the child-like mind or to pre-modern cultures, when truths were bequeathed by authorities – parents, teachers, priests, shamans, kings, or sacred texts. They have some of the flavor of esoteric mysteries offered by spiritual authorities from 17th century occultism, yet are offered in the context of sophisticated contemporary philosophical and scientific worldviews. The very fact that spiritual teachers and mystics disagree on many details is enough to support a suspicion that even the "enlightened" do not have direct unmediated access to universal truths about reality. And yet, they offer us great wisdom, and it seems that metaphysical ideas such as soul, spirit, god, and non-dual source *point toward* a territory of deep "truths" about the human condition. So these narratives should not, and cannot, be ignored.

Spirituality and religion are concerned with "questions of ultimate concern," such as: the origins, ends, and purposes of human beings and the cosmos; the fundamental or essential nature of reality; moral questions about right and wrong, good and evil; and metaphysical (non-physical and non-perceivable) beings, realms, and influences (Fowler, 1991; Wilber, 2006; Rowson, 2014). When speaking confidently or persuasively on questions of ultimate concern it is difficult to avoid claims about universals, totalities, essences, and foundations, i.e. metaphysics – but it is done at a price. The problem is not so much for the mystic making these proclamations, but for the rest of us. Though many of them entreat us not to merely believe, but to experience and/or practice, we inevitably take on beliefs, language, and forms of argumentation from these sages. Mystical claims invite forms of ideology and “magical thinking” even if those offering the claims do not succumb to them. And, as we describe later, magical thinking can, at worst, promote fixation on developmentally primitive modes of reason that are dangerously pre-ethical.

We give ourselves permission to participate in such metaphysical thinking (when or if we do) because our esteemed teachers do so, and because our peers do so – it can be the unquestioned memetic water that the "spiritual but not religious" club swims in – the cultural air we breathe. But contemporary spiritual teachers acquired this way of speaking from *their* teachers, who were immersed in pre-modern belief systems. Though these teachers are trying to describe authentic insights sparked from deep encounters within mystical territory, the language and modes of rhetoric that they use are often hold-overs from a pre-scientific, pre-rational era.

In contemporary contexts there is an understanding that deep wisdom must have a "*post*-rational" component, and some use that fact to champion mystical claims. But, for the most part, we live in a time when there is confusion about what is post-rational and what is pre-rational. To be post-rational (also called meta-rationality or vision-logic) is to understand the limits of reason (including logic, abstraction, and generalization) and the important roles that emotion, intuition, embodiment, and cultural biases play in reasoning. But claiming to be post-rational is not an excuse for old-style absolutist metaphysical thinking.

The claims shown in Exhibit A relate to discourses about ultimate truths, and those espousing them differentiate "Ultimate" Truth (or Reality) from "relative" truths. Later we will discuss whether such a classification is useful, but here we can also note that much of what is discussed within spiritual and religious discourse is metaphysical without being about "ultimate" reality. Contemporary narratives about soul, spirit(s), disembodied consciousness, reincarnation, prayer, angelic beings, Akashic records, heavenly realms, distance healing, psychic powers, Gaia, pranic energy, divination, etc. refer to phenomena that are said to originate from a non-physical, spiritual, or subtle-energetic reality. Though some of these phenomena are being studied scientifically, such beliefs are often promulgated without concern for scientific proof. This does not mean that they are invalid ideas, but that they are argued for using "action logics" (or implicit thought and discourse rules) that may be *inadequate* to the modern task of probing for truths, as we will discuss. Our exploration of (post-) metaphysical thinking includes both the absolute and the simply non-ordinary types of "realities."

How do we hold what seems valuable and true about metaphysical statements, coming from admired teachers, sages, and colleagues, in a way that yet honors the level of reflectivity and critical thinking that is required for ideas to seem legitimate, intelligent, careful, and respectful in contemporary dialogue? How can our discourse include such ideas in a way that honors their importance, usefulness, and deep meaning, while yet acknowledging fallibility and remaining open to revision and critique? In trying to share such ideas, how do we avoid the extremes of speaking with unjustified confidence and arrogance; or feeling tongue-tied and inarticulate regarding why we believe; or sounding like naive devotes of the One Revealed Truth?

What seems called for is a critique of intellectual and spiritual confidence itself. Though persuasive rhetoric and firm "ontological commitments" play important roles in social life, the "post-metaphysical turn" emphasizes the unsettling uncertainties and limitations – the fallibilities and indeterminacies – within human reasoning and knowledge-building. It embodies an informed and active type of *humility* built, not from self-deprecation or nihilism, but from a strengthened tolerance for uncertainty, ambiguity, unpredictability, and paradox. Simply *acknowledging* fallibility or uncertainty is only a starting point – we will explore the many *sources* of indeterminacy in human reason.

Our exploration draws from developmental theories and cognitive sciences, and focuses on the lower/earlier cognitive mechanisms, including magical thinking, concept formation, and "epistemic drives" that entangle the emotional mind with the rational mind. Understanding these most basic aspects of the mind helps to reveal some sources of fallibility in normal reasoning, but just as importantly, it illuminates important modes of thinking that we often suppress or discount to our detriment.

We explore post-metaphysical thinking in the context of religion and spirituality, but what we find is applicable to all domains of reason and life. In spiritual and mystical beliefs, we find some of the clearest examples of metaphysical thinking, but in an arguably "post-truth" world we desperately need more sophisticated wisdom about how communities locate sturdy truths and valid beliefs of all sorts. The metaphysical assumptions we make about reality *matter*, and at this historical juncture we are called to craft our metaphysics more deliberately, including envisioning a spirituality that meets and anticipates concrete human needs rather than concealing unmet needs and hiding the ways we are ruining the world for future generations.

A Developmental Perspective

Jürgen Habermas coined the terms post-metaphysics and "post-metaphysical thinking" to designate an emerging trend in philosophical thought, and eventually in ordinary cultural thought (1992). The term refers to an approach to knowing that accepts the fallibilities of reason exposed by "post-modern" thinkers of the mid-20th century (including Derrida and Foucault), while not succumbing to the nihilism and relativism that some post-modern theories promulgate. As we discuss later, Habermas was in part trying to clarify and resolve a tension between theories of reality focused on objective *exteriors,* as in science, and theories of reality focused on subjective *interiors* that study thinking, feeling, and knowing. In this text we frame post-metaphysics in terms of *adult developmental theory*. Developmental theory is a cognitive science that, through a constellation of models and empirical findings, has mapped out levels of complexity and depth in how humans make meaning in and of their lives – in both *exterior* world-understanding and *interior* self-understanding. The development of meaning making maturity has also been called "ego development" and "worldview sophistication" – terms pointing in different senses to complexity, nuance, and depth in human wisdom.

The developmental approach is vital in our inquiry of human meaning-making because the important questions, motivations, and dilemmas of life are understood differently as one develops. For example, one's approach to each of these questions tends to evolve developmentally:

- What does it mean to be happy?
- What is the good life (or the moral life)?
- What is free will and how do we hold each other responsible?
- Who am I?
- How do I know what is true (or real)?

Developmental levels. The development of meaning making can be described in terms of a sequence of levels or stages of cognitive/psychological maturity. (There is disagreement regarding whether the progression involves distinct levels vs. a continuous movement – but the levels framework suffices here). Each stage represents increased complexity and abstraction in cognitive skills applied to both objective *exterior* realities and subjective *interior* realities. Increased complexity in understanding exterior things and systems "out there" is a type of development, but to fit within "meaning making development" (or "ego development ") the increased complexity of understanding must include an awareness of aspects of the self (and the self's relationships with others and the world). The development of self-understanding is sometimes described in terms of "subject to object" transitions in which operating-but-invisible aspects of the self become known to the self (Kegan, 1994).

We can name developmental levels, also called "action logics," using a pair of words, the first suggesting how exteriors are understood and the second suggesting how interiors are understood:

- 1stPP: magical/impulsive,
- 2ndPP: mythical/conventional,
- 3rdPP: rational/autonomous, and
- 4thPP: meta-rational/pluralistic.

The first term refers to the level of cognitive complexity that can be brought to bear in making meaning of the world. The second term refers to how that cognitive capacity manifests when it is applied to the subjective and intersubjective domains of I, me, you, us, and them in the psycho-social world.

Developmental theories have a variety of schemes for naming and describing such levels (e.g. see Fischer, 1980; Commons & Pekker, 2008; Wilber, 2000), but these will do for our purposes. The "1stPP, 2ndPP..." terminology refers to first, second...etc. *person-perspectives* or action logics, the naming convention used by O'Fallon's STAGES model (O'Fallon, 2011, 2013; Murray, 2017), and suggested in Cook-Greuter's Ego Development Model (Cook-Greuter, 1999, 2011; Torbert & Livne-Tarandach, 2009), and which is compatible with Kegan's "construct developmental" model (Kegan, 1994). Our terse level names hide the fact that each category has a complex description – for example 4thPP "pluralistic" is also holistic and highly strategic in its full manifestation.[2] (Note that in this text we use the term "action logic" to point to the person-perspective levels; but it is more common to use action logic to refer to Cook-Greuter's levels, which divide each person perspective level in half).

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[2] Various developmental theories slice the sequence or spectrum of development differently, for example, though Kegan's model has about the same number of levels as we show above, Cook-Greuter's and O'Fallon's models have about twice as many levels (also called "stages"). In Cook-Greuter's model the Expert and Achiever levels correspond to the early and late *halves* of the "3rdPP", and her Pluralist and Strategist levels correspond to the early and late halves of 4thPP. O'Fallon uses the names "3.0, 3.5, 4.0, 4.5" to refer to the same segment of the developmental sequence.

The 1stPP action logic is impulsive and narcissistic (which is completely natural for the infant and toddler). Self and world are in an as-yet unfinished process of differentiation. From an interior perspective, the self's needs and drives are acted upon instinctively, and the social consideration of the other has not developed yet. In terms of understanding the exterior world of things, there is little or poor differentiation regarding which impressions and perceptions originate inside the mind vs. outside in the world; and there is also poor differentiation between what is animate and what is inanimate. The 1stPP level of consciousness is a "magical" world of emotionally potent objects and experiences.

2ndPP marks the movement into the self-awareness and self-control required to succeed in social settings – to fit into the conventional roles and expectations of one's family and culture. Thinking is still rather concrete. The world is managed largely by adopted rules, norms, and principles, often in rule-systems that can be rather complex (as in sports games, furniture installation instructions, rules of decorum, or bureaucracies). 2ndPP consciousness defines the status quo for "traditional" cultures.

3rdPP marks a move into more abstract, logical, and "formal" reasoning skills. These are used to interpret exterior phenomena "objectively," while the growth in interior complexity includes an autonomous sense of self, more free from conventions and able to think and create in ways beyond what others expect or have demonstrated. Its gifts include pragmatic rationality and creativity. However, some experience its objectivity, autonomy, and abstraction as dry, impersonal, or removed from the tender urgencies and peculiarities of specific individuals and situations.

4thPP marks a move into more sophisticated ways of understanding exteriors, including capacities to see complex systems and reciprocal causation, and an ability to perceive complex "objects" such as eco-systems and social systems. 4thPP interior understanding includes the ability to experience the self as a collection of sometimes conflicted parts, and understanding how beliefs are formed as much by cultural and contextual factors as by one's rational reasoning skills and conscious intentions. At 4thPP consciousness one can observe the spectrum of action logics at work within the self and society.

Various theories define levels beyond 4thPP, but in this text we will mostly mention "4thPP and beyond" to indicate that territory. Less is known about levels beyond 4thPP, but, for example, O'Fallon's STAGES model describes 5th and 6th person perspectives based on the analysis of ego development assessments of late-stage individuals (O’Fallon, 2013; and see Churchill, 2018).

Developmental discourse modes. Each developmental level is associated with a "mode of discourse" for *explaining and justifying* its beliefs. This is important for our discussion of post-metaphysical thinking. At 1stPP the need to explain or justify does not exist – the narcissistic perspective either assumes that others see and believe what *it* sees and believes, or judges all conflicting beliefs as simply wrong (if it notices other perspectives at all).

At 2ndPP beliefs tend to be justified with reference to authoritative or sacred people, laws, or texts; or to the conventions of what everyone else does or believes. Things are expected to "make sense" but the sense-making complexity is at the level of narratives, linear logics, and concrete past-bound facts.

At 3rdPP beliefs can be justified on the bases of universals and abstractions. For example: the scientific method "objectively" validates truths that are replicable by *anyone* with the right tools; democratic decision making tries to capture the predominating will of *everyone*; and business and technology try for the best *possible* (realistic) solutions.

4thPP modes of discourse include a deeper openness and curiosity about multiple perspectives, a deeper appreciation of the fallibilities of one's own beliefs, and an unsettling problematization or critique of certainty for *any* belief for method. In justifying one's belief's one can reflect on the justification method itself, and its limitations. One appreciates the roles of intuition, insight, and unknowing, especially in domains where analytical thought runs out of steam.

Development in sum. In many domains of inquiry important questions lead to a bewildering plethora of possible answers. Developmental models are extremely useful because they can organize these answers prismatically into an elegant and insightful sequence in which the answer depends on developmental aspects of the context. As many readers will be familiar with the basics of developmental theories, I describe these basics in an Appendix. Its themes include:

- though there are multiple intelligences, the focus in this text is on meaning-making or "ego development;"
- development in individuals vs. groups or cultures;
- caveats and dangers in using and misusing developmental theories;
- 'include and transcend' growth dynamics;
- people embody a range of levels, not just one;
- learning can become automated with practice, moving into the unconscious;
- vertical growth vs. horizontal (and healthy) growth;
- shadow: suppression and repression; re-integration through meditation and psychotherapy;
- one can categorize psychological pathologies/tensions (shadow elements) using developmental levels.

Additional descriptions of the 1st, 2nd, 3rd, and 4th person perspectives are provided at in the Appendix. We also explore the action logics in more depth in the next chapter under the themes of magical, mythical, rational, and post-metaphysical thinking. In a later section titled "From 4th into 5th person perspective" we describe 5thPP.

In terms of post-metaphysical thinking, the developmental model is crucial because it explains pre-rational magical and mythical thinking as capacities that, though limited in many ways (1) provide necessary foundations for reasoning at higher levels of thought, and (2) are always functioning unconsciously and influence all action and thought regardless of whether one might be ignorant or disowning of them.

In sum, each developmental mode of cognition builds directly upon prior modes. Each level can provide a robust and healthy foundation for the next, but it can also harbor weaknesses, gaps, confusions, and pathologies. We are usually not aware of the functioning and influence of lower levels of cognition, which can be hidden from us gently through automation, or more forcefully through suppression or repression.

The Meaning-making Drive and Unknowing

The pleasure, meaning-making, and reality principles. Post-metaphysics includes a nuanced approach to truth itself – inquiring into the limits of knowledge and how one finds truth. Freud coined the term "reality principle" for the deep drive or need to know what is true as a matter of survival. He contrasted this with the "pleasure principle" which is developmentally more primitive. Adults (ideally) can postpone what seems to yield maximum immediate pleasure by objectively reasoning about the "reality" of what is likely to bring acceptable pleasures over the long run. But one could argue for a stage in-between these two, a "meaning making" principle or drive, which refers to our need for things to make sense, or *feel like* they make sense, or *appear* to make sense, even sometimes at the expense of congruence with reality.

Plato once defined man as “a being in search of meaning.” Developmental psychologist Robert Kegan writes: "It is not that a person makes meaning, as much as that the activity of being a person is the activity of meaning-making … the most fundamental thing we do with what happens to us is organize it. We literally make sense" (1982, p. 11). The human brain is a master pattern-matcher, and in its insatiable goal to make meaning it seems to care less about accuracy than sense making. As noted in Michael Shermer's "The Believing Brain" (2011), mind/brain theorists believe that the mind has evolved to detect faint patterns in noisy data, as often as not fooling itself, because overestimating possible dangers has an evolutionary advantage over underestimating those dangers. Nothing is lost if one freezes in fear upon mistaking a vine for a snake; but missing a snake waiting in the shadows could be deadly. At the extreme, this propensity to see patterns where there is only noise creates difficulties such as conspiracy theories, pseudo-science, and psychosis. Shermer calls the cognitive tendency to find patterns regardless of whether they are real "patternicity."

It turns out to be not so necessary that most of our beliefs are accurate, and even less important that we can *derive* accurate beliefs from scratch. The most important true beliefs are handed to us or taken care of by society – along with an abundance of non-truths. We live in a world where it is reasonable to trust that our food is safe, that the man-eating animals are locked within zoos, and that we will be warned or protected from the vast majority of dangers. It is impossible to question every belief and research every statement that is important to us – most of what we believe (or act as if we believe) must be taken for granted, so that the potentially infinite onslaught of doubt, scrutiny, and ambivalence can be evaded.

Thus, modern survival, reproductive success, and happiness depend much more on how well one assimilates into social structures and belief systems than on one's ability to detect patterns *accurately* in the world of ideas. (Of course, in the *concrete* domains of physical survival and object manipulation, our brains need to process information very accurately to be able to, for example, drive a car, grow and harvest food, or recognize what an infant needs.)

If fact, one could argue that *appearing* to be *right* or feeling and demonstrating *confidence* hold more value in the world of social interactions than does accuracy (truth). Because we are social animals the meaning-making drive to be "right" includes both the truth-relative sense of the word and the moral sense – we don't want to be wrong *or bad*. The world of social interactions operates largely through a 2ndPP action logic, within which we exchange stories or narratives – idea streams that need not stand up to the rigors of "proof" (3rdPP action logic). At 3rdPP we become more interested in critical thinking and verifiable truths, and question traditional narratives and popular beliefs. Although we may not need 3rdPP and higher action logics for the vast majority of daily life, 3rdPP and higher levels of complexity are *increasingly* necessary for individuals and cultures as social and global predicaments accelerate in complexity, scale, and gravity.

The mind's meaning-making function discovers patterns primarily by matching incoming information to what is known and anticipated. Recent models of cognition portray the brain as a "predictive" organ that helps organisms adapt by minimizing the error between what it predicts will be experienced and what is actually experienced (Seth, 2015; Bar, 2009). So, while the pattern-matching capacities of the brain may seem ingenious, usually one is trying to confirm existing patterns rather than discover new patterns – the mind's brilliance is typically spent bending reality to fit one's models rather than constructing them anew. We seek confirmation as much as truth, with the truth drive (3rdPP) acting as an occasional reality-check against the meaning-making drive (2ndPP) and the pleasure drive (1stPP).

Ideas are more meaning-*full*, or feel more important, when they are more closely related to one's personal needs, survival, values, identity, and sense of purpose (i.e. with one's ego). It also appears that more *abstract* ideas attain more meaning – which is somewhat problematic because more abstract ideas operate further from empirical reality and are more difficult to validate. In other words, at least in conversational contexts, ideas that are the most difficult to validate can feel like the most important ones to have a strong opinion about. This clearly has implications for spiritual and religious thought.

Critical thinking has an uneasy relationship to the "questions of ultimate concern" that drive spiritual and religious discourse. These are questions about "the meaning of life," including themes on the origins and ultimate ends of people and the cosmos as a whole; and ethical questions about right and wrong behavior. For such questions humanity has used science to produce partial answers, but full-bodied "answers" remain in the realm of metaphysical thinking (e.g. in religions).

The cloud, the clearing, and the clown of unknowing. The mirror image of meaning is the unknown. The humility of knowing *that* one does not know is an important aspect of post-metaphysical thinking – in this text we go further to explore some *sources* of belief fallibility. We are reminded of the "known knowns, known unknowns, unknown unknowns, and unknown knowns" popularized through statements by United States Secretary of Defense Donald Rumsfeld and various theories of solving "wicked problems." "Known unknowns" relates to uncovering sources of fallibility (or indeterminacy) to perceive some of the contours defining the penumbra of one's ignorance. "Unknown knowns" refers to ignored or denied "truths" held in the shadowy depths of the unconscious. Fischer and Stein use the metaphor of *dark knowledge* for known unknowns, i.e. "knowledge of ignorance" (borrowed from the concepts of dark matter and dark energy invented by physicists as place-holders for the invisible 90% of the stuff-of-the-universe that we have practically no understanding of yet).

Poet John Keats coined the term *negative capability* for the skill or predisposition of tolerating, or even delighting in, uncertainty, ambiguity, unpredictability, and paradox. I.E. "when man is capable of being in uncertainties, Mysteries, doubts – without any irritable reaching after fact and reason" (1817). As Keats knew, negative capability is useful well beyond the realm of poetry. Negative capability (and thus post-metaphysical thinking) includes the "*informed and active humility"* mentioned above, in which the sources of indeterminacy are better understood so that knowledge can be more adaptive and resilient. It is not enough to acknowledge that "the map is not the territory" (an injunction not to confuse theories and ideals for reality), but we must understand as precisely as we can *how/where/when/why* our maps differ from the territory – impossible to do completely but essential nonetheless.

The contemporary understanding of the mind is that it not only *constructs* knowledge but, just as importantly, it acts like a lens or filter that *limits* the boundless expanse of conscious thoughts and sensory data possible at any moment. Cognitive resources such as memory, speed, and processing power are finite, so the mind must select only the fragments that seem most relevant to one's needs – and discard the rest. One can balance the *negative* capability of being open, curious, and accepting of the unknown with the *positive* capability of, metaphorically speaking, *characterizing and calibrating* the coloring or distortion introduced by the lenses, filters, and fabricators within the mind. One can then more intentionally participate in a perpetual trialectic between learning, knowing that one doesn't know, and correcting faults in one's understanding.

Unknowing is a favorite topic of sages, pundits, and spiritualists. Historian Daniel Boorstin said: "The greatest obstacle to discovery is not ignorance, it is the illusion of knowledge." *The Cloud of Unknowing* is a book of spiritual guidance thought to have been written in the late 14th century that counsels: "I urge you, go after experience rather than knowledge. On account of pride, knowledge may often deceive you, but this gentle, loving affection will not deceive you. Knowledge tends to breed conceit, but love builds. Knowledge is full of labor, but love, full of rest." (Butcher & Acevedo, 2009).

The early 21st century specter of a "post-truth" society is not only about the prevalence of deliberate falsehoods and "bullshit" (i.e. not caring about whether a statement is true or false, as discussed in Harry Frankfurt's 2005 popular philosophical treatise "On Bullshit"). It arises in part because society is becoming increasingly aware of the fallibility of knowledge, including scientific findings and "facts" offered in the media. Texts on the subject of "everything you know is wrong" have been increasing in recent decades. The post-metaphysical skill of negative capability has become a crucial tool for navigating the dissonance-creating complexity of modern culture (this is discussed from a developmental perspective in Robert Kegan's *In Over Our Heads,* 1994).

In this text we emphasize a type of unknowing that is not so much about discarding obsolete beliefs as discarding obsolete *certainty or fixation* upon beliefs; or developing the general skills of negative capability and unknowing. It is a common complaint that humility is in short supply, but psychological studies have shown how pervasive and unremitting overconfidence can be. Cognitive scientists have studied the related phenomena of the Overconfidence Effect and the

Dunning–Kruger effect. In the former it has been found, for instance, that for many common tasks, when someone is 90% confident that they are correct, there is a 50% chance that they are wrong (Moore & Healy, 2008); and that 93% of American drivers rate themselves as better than average drivers (Svenson, 1981). In the Dunning–Kruger effect, it has been shown that those with the least ability or knowledge are often the most likely to overestimate their ability (Kruger & Dunning, 1999).

Above we describe unknowing as a noun, but it can also be a verb: *un-knowing*, also called *unlearning*. These refer to using meta-cognitive skills to determine that a practice or belief is wrong or no longer useful. Some of what one learns turns out to be non-useful or harmful, and, once noticed, calls to be "unlearned." Depending on the situation, unlearning might take the form of re-training, re-education, group-reflection, psychotherapy, meditation, etc. "Spiritual clarity" is my term for the incremental results of this unlearning, healing, clearing, deconstruction, or "shadow work" – as discussed more in the Appendix. The process is also called "releasing complexity" (see Roy, 2018).

Importantly, negative capability and unlearning are closely tied to social and relational realities. Elsewhere in this text we emphasize the relationships between negative capability and listening, curiosity, vulnerability, and collective "self-emancipation." As pointed out by Hans Kögler (a Habermasian scholar), taking a reflective stance on a relational encounter (which he calls "self-distanciation") implicates a radical openness to the unknown (which some call *beginner's mind*). Kögler says "the self … abandons itself … to a [dialectical] process of understanding those results and challenges it cannot foresee or determine" (1999, p. 272).

Echoing Kögler's ideas, educational theorist Peter Elbow (2005) critiques how "critical thinking" is taught in the schools. It is presented as a type of skeptical thought that is predominantly directed at others, and too infrequently used to question one's own ideas and world-view. "[The] disciplined practice of doubting all views" (p. 3) that is held out as a standard for rational thought, rather being a tool for greater understanding and expansion of knowledge, too often becomes a shield for protecting one's own world-view. He asks: Why not also have disciplined practices of trying on all views? He suggests a practice he calls "The Believing Game" to strengthen this skill. This supports avoiding the two extremes of *dogmatism*, which is to be unskilled at doubting, and *skepticism*, which is to be unskilled at believing. In the Believing Game one gains the right to critique another only after first "dwelling with" and "dwelling in" another's words and world. He notes that "when readers fail to read critically it is not usually that they believe everything, it is that they are unengaged in any way; not dwelling in or critiquing anything" (p. 3).

In our exploration of spiritual beliefs and spiritual modes of thinking, we will explore the role of the magical strata of consciousness, a realm saturated with mystery, awe, and paradox (and sometimes trembling and vertigo). The wise individual can open to such experiences with openness and even *humor*. The *Clown* archetype is an important friend in navigating the realms of unknowing, uncertainty, and paradox.

Next we show how magical thinking and mythical thinking are components of metaphysical thinking, and argue that they are actually important parts of the reason-able mature life. *Post*-metaphysical thinking sees (some of) the *limitations* of magical and mythical thinking, and it also *recovers* (some of) their useful elements that have been hidden, repressed, or suppressed in modern 3rdPP cultures.

Lest the reader jump to conclusions, I will *not* claim that *all* mystical experiences or metaphysical thinking can be attributed to "magical" or "mythical" thinking. But some of it is, and our developmentally oriented overview of magical and mythical thinking will establish groundwork for later elaborations on post-metaphysical thought.

Magical, Mystical, and Metaphysical Thinking

Meaning-making in Magical, Mythical, and Rational Thinking

"Magical Thinking" is a many-faced topic in spiritual inquiry. The term can be used to denounce an idea as unsophisticated, but it is also used to refer to an important capacity that is lost to most of us moderns, while yet preserved in artists, spiritual adepts, and aboriginal peoples. In this chapter we explore magical, mythical, mystical, and metaphysical "thinking" from a developmental perspective, and chart the gifts and weaknesses of these action logics as we consider what post-metaphysical thinking might look like. Note that in this text the term "thinking" is not restricted to logical/rational cogitation, but is meant to holistically include emotion, intention, and intuition.

Magical thinking (1stPP). Magical thinking points to modes of cognition that corresponds to the 1stPP action logic, is predominant in 1-4 year olds, and continues in some form in all of us. It is hypothesized to have been the dominant mode of cognition for pre-agricultural mankind, and remains as a layer of mental operations within all cultures. In "The Seven Laws of Magical Thinking" Matthew Hutson (2012) describes magical thinking as an inability to clearly differentiate the subjective from the objective worlds. The world of interior imagination and the world of exterior sensation are merged (undifferentiated) and confused. The monster under the bed seems very real; the stuffed animal is a friend who seems quite alive. The sense of self is merged with intimate others (at first with the mother). Association is confused with causation, creating a world of incomprehensible beings and forces. Time and space are cognized only primitively, and one lives in a world of present-moment, where memories of past and imaginations of future merge with (are projected onto) perceptual reality.

The magical world is emotionally potent, and from a neuroscientific perspective is more intimately linked to the primitive (mammalian/reptilian) functions of the brain. Within magical thinking feelings, including fear, hunger, longing, bliss, and confusion, inundate one's consciousness – and actions are impulsive and reflexive. One also experiences much of the world with awe and wide-eyed fascination; so much of the world is larger and more powerful than one's self. Lacking power and understanding, the things that care about us, e.g. our parents, seem like gods and angels; and the things that don't, e.g. the thunder cloud or the neighbor's barking dog, appear as daemons and monsters. One has little access to self-control or self-reflection. Thought is primarily associative – the child's brain is building millions of associative connections but has not yet built layers that substantially monitor or inhibit those associations. If a clown scares her, then anything reminding her of a clown will trigger fear – this action logic does not wonder why, it just reaches for, runs from, or freezes.

Adults can tap into magical modes of reasoning with both positive and negative effects. On the negative side: one may feel helpless or terrified in the face of something that is actually not life-threatening; one may let one's "amygdala hijack" the rational self and react from raw emotion; one might engage in fetishes that transform dark corners of the imagination into objects desperately sought after. On a more positive side, one may sense the tree or the moon as a living being or spiritual presence that one is intimately connected to. One might access a feeling of oneness with others and with the universe as a whole, or re-experience the timeless spaceless infinity of the "now." One can appreciate how nature is awe-inspiring, miraculous, and sacred.

Language and symbols were first invented in cultures operating predominantly at the level of magical consciousness. The lines between interior and exterior were blurred, and "real" powers were attributed to words and symbols. These include powers that transcend time and space. Incantations, invocations, mantras, prayers, voodoo dolls, divinations, and sacred objects draw upon this level of consciousness – worldviews in which the laws of science as we know them do not apply. Objects and symbols are felt to have some un-measurable essence giving them power and significance. To speak or name a thing gives one power over it; and to incant a powerful thing gives one power over other things. Religions today still rely on such modes of thought.

Other manifestations of magical thinking are more controversial because modern adults might argue about what is real vs. imaginary. Modern New Age culture includes beliefs in angels and spirits; and in the healing powers of crystals, prayers, sounds, and infinitely diluted homeopathic solutions. For many of these things we don't know for sure what is real or true. But what we *can* do is clarify the modes of reasoning (explanation and discourse) that are being used. If the primary justification is from gut feeling, instinct, or intuition, then we are in the realm of 1stPP magical thought.

To say that something comes from magical thinking does not necessarily mean that it is false, or imaginary, or wrong-headed. Some aspects of the world are so complex or unknown that a 1stPP approach is the best one can do to have it make any sense at all. Some things *may* actually exist in a meta-*physical* realm that is in between subjective and objective, or neither subjective nor objective, and thus not be amenable to the developmentally later 3rdPP modes of reason and validation. "Magic(k)" *could* be real, but if so we understand practically nothing about how it works. Some draw specious connections from magical worldviews to scientific worldviews, e.g. through quantum mechanics or n-dimensional space-time, but at bottom these are still merely metaphorical appropriations of empirical science, not actual science (except for conclusions drawn through rigorous scientific methods).

The more sophisticated 3rdPP modes of reason tend to be more accurate, produce more reliable results, and allow for more stability of agreement, but they can also be experienced as dry and lifeless if the magical level of consciousness is disregarded. Raw intellect can also produce self-centered, materialistic, and ethically flawed reasoning. One may choose to "re-enchant" one's experience and understanding by incorporating some magical thinking, which gives access to emotional vitality, sensory vibrancy, and a visceral sense of communion. But, ideally, one can at least try to be aware of *when* one is accessing magical thinking, and make "rational" choices about when to do so.

Mythical thinking (2ndPP). What some call *mythical* thinking, an aspect of 2ndPP, follows magical thinking developmentally. Each level rests on increasing complexity vs. the prior level. Magical thinking is about the apperception of "what is," i.e. recognizing objects and their properties; and establishing simple associative connections between them, often with strong emotional overtones (e.g. clown < – > scary). Mythical thinking includes *directional* associations and *chains* of associations, which allow for constructing narratives and procedures, and understanding causation. Here the child, or the primitive culture, inhabits a social world organized around norms, rules, laws, goals, stories, and myths that are handed down from authorities or handed across from peers. Mythical thinking signals a move from "what is" in the moment into the why/how/when of narrative structures that explicitly consider past and/or future. At 2ndPP the answers to why/how/when are usually given rather than discovered or invented (as doing so usually demonstrates a 3rdPP).

As alluded to earlier, mythical thinking, perhaps better called the story-telling action logic, is the primary level for day-to-day social and personal meaning making. Though the meaning of a situation or idea is in part related to the "What are the objects and their properties?" of the magical level, meaning is usually understood in terms of the "Why/how/when/who?" of (2ndPP) narratives. 2ndPP includes the "dramatic" elements of assigning blame/praise, dominance/submission, success/failure, hero/villain, etc. to characters and roles in real and imagined scenarios. Narratives fashion a coherent whole from their elements, usually through a structured arc such as beginning-middle-conclusion.

1stPP operates through impulse and gut feeling, while at 2ndPP adequate understanding includes causes and reasons – even if these do not hold up to 3rdPP standards of validity because they are taken from authority figures, sacred texts, or social norms.

Though magical thinking is associated with children and primitive cultures, mythical thinking underlies much of today's (conventional) culture and society. Religions, bureaucracies, and socio-political identities are based primarily on hierarchical authority structures, stable systems of rules and norms, and shared stories.

Rational thinking (3rdPP). Rational thinking is the next developmental phase. Here thinking becomes not only more abstract and creative, but also more "formal." In part, this means that the validity of a claim or idea can depend more on its *form* than its content. Ideas are justified based on the *method* used to derive them. Mathematical proofs and engineering design methods rely on following valid methods – if a valid method is followed then we tend to trust the outcome, even if the outcome is surprising and non-conventional. We focus on *how* someone arrives at a conclusion, not *what* the conclusion is. The quintessential example is the "scientific method" for arriving at truths through reliable, replicable, observations, within which logically or mathematically rigorous methods are applied.

Here we can note another sense of "formal" reasoning: the sense of being somewhat impersonal and standardized or universal, as in "formal" speech or attire. Rational thinking includes the ability to consider what *any/all* reasonable persons would conclude, given the same information. Formal reasoning appeals not to a specific authority figure but to the impersonal generalized rational human (an abstraction).

In rational thinking one escapes from the confines of convention and norms based on the past. With a heightened sense of autonomy one imagines new possibilities and strives toward the highest, deepest, largest, most productive, or most original achievement that is practically reachable. The products of rational thinking create a world full of ever more unique and diverse objects, people, and phenomena. At the same time, 3rdPP can have difficulty making sense of, or building theories of, aspects of reality that cannot be empirically measured or that do not fit well into discrete categories. At "post-rational" (or "post-formal", 4thPP) thinking, one begins to see the drawbacks of the rational mind, but that is skipping ahead in our story.

The interplay of action logics. In our exploration of post-metaphysical thinking we want to develop sensitivity to the action logic being used in any moment: magical, mythical, or rational (or locate action logics along a more refined developmental spectrum). This is because answering the questions "Is it real?" or "Is it true?" depends on the mode of reasoning one chooses to apply. We move among these modes fluidly without being aware of it. In addition each mode does not so much replace the prior, but *builds upon* it organically. Though we may have well-developed rational thinking, we apply it in surprisingly little of our day. As indicated above, most of the time we rely on existing habits, conventions, and our trust in others – from 2ndPP. One may have an understanding and appreciation of rational thinking, but still blithely follow the conclusions of trusted scientists, engineers, journalists, etc. Who has the time or capacity to cross-check all the knowledge one consumes? So we can make a distinction between one's thinking *capacity* to use 3rdPP as needed, vs. one's *operating* mode of thought in the moment, which, much of the time, need not exert the extra effort to engage the expensive rational cognitive functions.

For example, consider the scientist. A successful scientist will use 3rdPP rational thinking to formally validate her and others' experiments and conclusions; and to creatively explore novel territory. Her rational scientific thinking depends upon a community of the adequate being able to repeat and verify claims following established methods. But the very ability to form a stable *community,* or hold to *established* methods relies on a foundation of individual and cultural capacities at the mythical/conventional/story-telling 2ndPP. Her trust in a scientific community, as opposed to, say, a religious one, comes from some appreciation of the scientific method, so in one sense that trust comes as much from an early 3rdPP as from the 2ndPP (remember that the action logics are general categories describing average correlations within complex human behaviors – they have no exact definition or delineations). Through her mythical thinking she feels herself to be a devoted and valuable member of a research community carrying forward in a historical lineage of inquiry that benefits mankind. The scientist can also access a feeling of awe and reverence for the natural world through her magical thinking.

Each action logic operates under its own rules. The scientist does not use formal logic or run experiments (3rdPP methods) to "prove" that she should: use established methods; trust her colleagues; or allow her sense of awe and reverence for nature to motivate her pursuit of science. These choices are primarily based on 1stPP or 2ndPP action logics. The scientific endeavor can become warped or pernicious if it is undertaken purely by the rational mind in the absence of (i.e. in denial or suppression of) earlier levels of consciousness. A scientist, or a technology company, that is not grounded in identifying with and contributing to a community or and has no reverence for the miracles that constitute our world, is a potential threat to all.

A psychologically healthy and ethically congruent 3rdPP orientation naturally *includes* (i.e. does not exclude) positive elements of 1stPP and 2ndPP action logics. And it is at 4thPP that one can *understand the importance* that such a balance brings, and consciously reflect on the developmental mode(s) of reasoning that one uses. 4thPP advances and rectifies the scientific process (or any 3rdPP mode) by understanding its limitations within different contexts. Kegan describes developmental progress in terms of subject-to-object shifts: 4thPP is a move from living and working *within* the scientific paradigm (or any 3rdPP worldview) to seeing science *as* a paradigm, or as a limited tool that one chooses when to use.

4thPP and the counter-cultural moment. Habermas' definition of post-metaphysical thinking includes not only a more reflective awareness of knowledge and belief (which we could call meta-knowledge), but also a more reflective awareness of *feeling* – a deeper empathy and self-empathy that senses the motivational and affective qualities of the life-world (we could call this meta-feeling). Post-metaphysical thinking constitutes an increase in the depth as well as the complexity of thought, where here "depth" points to wisdom about the human condition that is grounded in self-understanding. It is a move beyond the purely logical and efficient search for truths and achievements that characterize 3rdPP worldviews, into a more holistic appreciation of the complexities, interdependencies, fallibilities, and vulnerabilities of human endeavors. One sees how knowledge – even scientific knowledge – is shaped by human interests, cognitive biases, identity affiliations, and power dynamics.

The capacities inferred within Habermas' description of post-metaphysical thinking correspond very well with the capacities that developmental psychology describes as 4th Person Perspective. Though we may often use 4thPP and post-metaphysical thinking synonymously in this text, more technically, 4thPP points to the *many* changes in consciousness observed as one moves beyond 3rdPP, whereas post-metaphysical thinking refers to the subset of those emerging capacities related to how one understands knowledge, belief, and truth (i.e. the reflective meaning-making functions of the 4thPP mind).

Whereas 3rdPP can see the flaws in mythical and magical belief systems, such as literal interpretations of sacred texts, 4thPP can sense the fallibilities in *all* belief systems. At 4thPP one is aware of the limits of logic and abstraction (3rdPP), and sees the need to integrate the earlier developmental capacities of 1stPP and 2ndPP, which, for most in modern cultures, have been partially repressed or disowned. Psychologically, at 4thPP one desires to make transparent, and integrate, all aspects of the self. Culturally, this corresponds to the desire to become more intimate with all humans, regardless of status or identity.

What we might glibly call "spiritual thinking" can occur at any developmental level, since "questions of ultimate concern" seem eternally relevant. Clearly, the cultural reproduction of traditional religious beliefs is a manifestation of mythical/conventional (2ndPP) thinking. At 3rdPP one might reject religion altogether, but alternatively one might discover ways to maintain the benefits of social solidarity and an ethically-driven life that is found in religious communities, while abandoning distasteful mythic and magical literalism and allowing for more self-determination.

The emergence of 4thPP more widely within culture corresponds to the "consciousness expanding" trends of the New Age, progressive counter-culture, post-modern, and Cultural Creative movements of the mid-20th century. The "spiritual but not religious" sensibility can thus be characterized in terms of a development from 3rdPP into 4thPP in individuals and cultures. Within its critique of modernity is a calling for more emotional and "spiritual" vibrancy in life. This call for a deeper sense of meaning in life includes a desire for more intimacy with, and response-ability for, oneself, others, and the natural world. 4thPP can motivate a recovery and integration of magical (and to some extent mythical) thinking – to re-enchant the life-world, activate the "imaginal" mind and the sense of the sacred, as well as deepen consciousness into a holism that frees repressed and suppressed layers of the self.

The upshift from any developmental worldview to the next can be accompanied by a strong critique, backlash, or push-away from the prior level. Ideally the positive aspects of what is pushed away are eventually re-integrated, but some frustrations within contemporary spirituality can be traced to the lack of such re-integration. The transition to 4thPP often comes with a critique or outright rejection of some of the products of modernism, including scientific materialism, logical "positivist" thinking, capitalism, and hegemonic and extractive accumulations of power and resources. But the scaffolding that grounds life pragmatically, such as values for logical thinking, material needs, and valid authorities, can become as babies cast out with the dirty bathwater of modernity.

In the STAGES developmental theory the action logic levels roughly alternate between individual-focused and collective-focused. 1stPP is a self-oriented concrete stage, while 2ndPP includes the concrete skills of socialization (i.e. *collectives*). 3rdPP adds formal reasoning and abstraction skills, which is relatively oriented to individualized skills.

At 4thPP one develops skills in understanding systems, flows, trends, and constellations of ideas (i.e. *collectives of abstractions*, as opposed to 2ndPP concrete collectives). Topics such as systemic bias and racism, global/cultural "worldview" development, knowledge building communities; and methodologies for dialog, decision-making, and conflict resolution, move into to the foreground. Working with emergent collectives of abstractions (ideas) is necessarily more complex than thinking about individual ideas (or simple idea hierarchies or well-structured models).

When one enters into this territory one is, more forcefully than ever, confronted with the reality of alternative and conflicting perspectives, and sees that (3rdPP) rationality alone is not a sufficient vehicle for delivering truths sturdy enough to address many real problems. That is to say, that the post-rational critique or contextualizing of rationality itself does not "magically" or spontaneously arise at 4thPP – but rather it is a direct result of building the increased cognitive capacity to consider more complex constellations of ideas and perspectives.

It is within the 4thPP domain that modern forms of spirituality have formed (though of course entering a 4thPP does not require any particular "spiritual" focus). This re-emergence or re-invention of spirituality incorporated much from Eastern religions, and also tapped into contemplative, esoteric, and shamanistic aspects of all religious traditions. This brings us back to the metaphysical ideas illustrated in Exhibit A.

Because the integration of East and West, and the new levels of depth of consciousness being explored, is relatively new from a historical or anthropological perspective, we are still working out many of the "bugs" within post-modern forms of spirituality (i.e. approaches to "questions of ultimate concern"). We can identify two problems: (1) maintaining problematic forms of metaphysical thinking, including totalizing or foundational claims about ultimate or absolute realties and truths; and (2) the desire to re-incorporate magical thinking opens up possibilities for regression to earlier modes of thinking, rather than integrating them into higher forms of reason.

We will discuss the latter of these next, and return to the former in the succeeding section on "Mysticism and Logic."

Dangers of re-visiting magical and mythical thinking. Throughout this text we emphasize that more "primitive," i.e. developmentally earlier, action logics are critically important to a healthy psyche and a healthy culture; and that these earlier modes of thought are always active in one's consciousness, even if they are repressed or denied at the conscious level. But within 4thPP cultures there is often what Wilber calls a "pre-trans fallacy" in which a regression to earlier modes is confused with re-integrating of the earlier modes with higher modes.

This is complex territory but these issues are front and center in our culture's transition from 3rdPP to 4thPP, and for understanding contemporary spirituality; so we will take the time to explain three important principles.

(1) *Receptive vs. active phases*. We have so far mentioned but glossed over the fact that some developmental theories include *early and late halves* or stages of each person-perspective. O'Fallon's STAGES model in particular, separates 4thPP into levels 4.0 and 4.5. In the STAGES model the early (X.0) levels are *passive or receptive* in relationship to the new world of complexity and depth being opened up at that action logic; while the later (X.5) levels signify a more *active* engagement with, and more robust understanding of the new capacities. In this text the receptive/active refinement within each action logic is of minor importance for all levels *except* 4thPP. There is so much movement and turbulence in society at the 4thPP juncture that our discussion benefits from zooming in by an additional "click" and considering the difference between early and late 4thPP (Wilber and Beck call this interface the transition into "second tier," which is at 4.5 in our model).

We can frame the chaos and instability often seen in progressive cultural settings as early 4thPP (4.0) opening to a flood of new ideas, feelings, and values that have not yet been completely sorted out. Brand new powerful ideas can produce wide-eyed wonder, passionate but naive devotion, ideological aggression against the "old ways," and disorientation from an overwhelm of new objects that have not been ordered and prioritized. (For example, feeling distressed in deciding how to spread one's charity donation among the hundreds of progressive causes; or a leader becoming frozen when he needs to choose between the value of including everyone's voice and the value of protecting the vulnerable.) Its difficult to feel solidly "on one's feet," or gain a perspective on where one is at, when one first enters a new territory. As an idea moves from receptive to active modes we see it being better situated "in perspective," "in context," or "in proper proportion" to a wider world of practical considerations. It might take an individual many years, or a culture many generations, to transition from the early half of an action logic to the late half.

Fully achieving 4.5, for an individual or group, includes gaining experience using, tweaking, and coordinating 4.0's influx of new ideas, values, and awarenesses and becoming facile with them. It also includes re-integrating healthy elements of lower action logics that were pushed aside in the stretch from 3rdPP into 4thPP.

(2) *Developmental spread in groups*. We have said that a person who achieves any developmental level does not operate consistently at that level. Stressors and other factors can "downshift" cognition into earlier modes. In addition, many contexts do not require one's full capacity. Also, under special conditions, one can have "state experiences" that peak into stages later than the "center of gravity" of one's developmental maturity. Things get even more complicated when we use developmental levels to describe *cultures* (or groups).

Culturally, it requires a certain critical mass of human development to establish a stable self-replicating "groove" at any developmental level. It appears that for 4thPP this process began in the mid-20th century and, because 4thPP capacities are still maturing and spreading, the establishment of 4thPP culture is still in-process (though some scholars would say that there are stable manifestations of *early* 4thPP groups). Each succeeding developmental action logic supports a new set of value-orientations – for example 3rdPP ushered in values for scientific rigor, democratic decision making, and self-determination; while 4thPP is ushering in values of social justice, ecological sustainability, holism, and deep intimacy. The exact values that emerge at any level for any culture are not predetermined, but *whatever* emerges (*if* development progresses) is marked by increased complexity and depth.

The key point to be made here is that once a developmental groove, along with its values and idea "memes," is established within a culture, individuals from *any* developmental level might be attracted to the *surface features* of the new sub-culture. And this is what we find. It explains why, at a board meeting for Green Peace, a gathering at Occupy Wall Street, or at a Buddhist meditation retreat, one can find individuals who embody the mature 4thPP action logic, including a highly rational capacity for wise thought and well-integrated social-emotional skills; but we can also find individuals who were drawn in from other action logics. For example one may be drawn in through narcissistic authority-rebellion, pleasure-seeking, or magical thinking (1stPP); or to meet social solidarity or identity formation needs (2ndPP); or to cleverly exploit the credulous members of a group for personal gain (3rdPP). In sum, being in the, seemingly 4thPP, "spiritual but not religious" club of value-orientations does not guarantee that one is operating at any particular action logic.

(3) *Mystical experiences and early developmental levels*. As noted, the developmental or spiritual journey of life can include glimpses or stable experiences of profound states of oneness, emptiness, selflessness, expansiveness, and one-pointedness. These states are, understandably, associated with advanced levels of development, though Wilber and others have pointed out that one can have access to these sublime states from any developmental level. In the primary text on wisdom skills, I elaborate an argument that these states are better described in terms of one gaining access to developmentally *lower* (earlier) modes of being. In brief:

The new infant lives in a "booming buzzing" world of disorganized stimulus. Time, space, the stability of concrete objects, the sense of having a body, and the psychological ego are not yet constructed. This is a developmental phase prior to 1stPP magical thinking – we will call it 0thPP.

I propose that the sublime states associated with spirituality involve accessing modes of experience at 0thPP. At 0thPP "meaning-making" is about organizing *perception*, while 1stPP is about conception. Through technique, neurochemical manipulation, or bizarre strokes of luck, one who experiences sublime "spiritual" states has found a way to deconstruct, release, or slip underneath constructed mental structures in order to experience what awareness was like before the phenomena (space, time, ego, etc.) was ever constructed.

Clearly one does not (normally) completely regress to an earlier age, but the adult mind gains access to 0thPP though methods outlined above, and then *interprets* the experience according to one's established meaning-making habits. An experience of peeling away a primordial layer of conditioning (i.e. a construction) usually releases revelatory insights that can then be integrated in one's evolving wisdom. When foundational structure is loosened up or released, higher level structures (beliefs, etc.) that were built up assuming these structures can reorganize—sometimes very rapidly, in a flood of revelation.

One could make the argument that (a) having the *motivation* to search for these 0thPP experiences, (b) skillfully *interpreting* insights born of the experience, and/or (c) achieving *reliable access* to these states – all require relatively high levels of development. All of these things help explain why sublime spiritual or "peak" experiences are associated with advanced spiritual achievements. But it is important to also acknowledge that they first source from the lower OthPP level.

The three phenomena noted above: (1) the receptive and unsteady nature of early 4thPP, (2) the fact that pre-4thPP action logics can be attracted to 4thPP, and (3) the idea that mystical experiences tap into lower, not higher, developmental capacities – each leads to some problematic possibilities in spiritual thinking, spiritual seeking, and spiritual practice for the "spiritual but not religious" culture. I will briefly describe some of these problems, because we cannot avoid them if we cannot sense them.

Entering into mythical and magical mind usually involves putting oneself (or part of oneself) into a receptive quasi-childlike state. In such a state, especially when people do this in groups, one sets aside or attenuates rational and critical thought processes and the strongly individuated self. One thus opens oneself, not only to psychological healing and spiritual nourishment, but also to being controlled or manipulated by others. One is not only more open to love and wonder, but is more vulnerable to becoming overwhelmed and confused. One may have greater access to "collective intelligence" and creative thinking, but is also more vulnerable to herd mentality and collective stupidity. With the rational mind suspended, one might more easily enjoy bliss, but when conflicts arise one may be less skilled in perspective taking dialogue, and imagining alternatives.

Lower level action logics are more naive socially, less skilled ethically, more self-centered, and more impulsive. The magical mind is magical in all of it positive connotations, but it is also weak in differentiating interior from exterior, and more likely to involuntarily project biases and shadows upon others. From within the magical layer of consciousness we are more likely to project perfection and majesty onto our teachers and guides. Cognition is more black-and-white and we are more impulsively attracted to the sparkling, the alluring, the charismatic, the awe-some.

In sum, entering into these realms can be disregulating and even dangerous if one does not simultaneously tend the pilot lights of reason in the background (3rdPP or 4thPP mind). My goal here is not to strike fear into the hearts of spiritual seekers. The risks I am pointing to are not horrible traps lurking around the dark corners of spiritual practice; they are usually the minor problems that the reader has no doubt already witnessed within oneself and in acquaintances. As our focus is on post-metaphysical thinking, the primary take-away is this: as and when spiritual thinking accesses magical and mythical action logics, it opens up to both the gifts and the dangers of these more primitive levels of consciousness, and, in particular for our inquiry, one opens oneself to pre-rational modes of believing and sense-making.

It is not simply a matter of ensuring that one maintains robust rationality while exploring magical consciousness, because it seems that to engage in the exploration one must create safe spaces where one can actually put aside doubt, the critical mind, defenses, and vigilant surveillance. One must actually travel into that territory to bring back its gifts. Aside from the practical matters of making sure the journey is safe, which is outside of our scope, what we are concerned about here is how those gifts are interpreted once brought home. For example, ideally one can reflectively differentiate and move skillfully between magical mind and rational mind as one assimilates and disseminates these gifts – whether they are retrieved through one's own magical journey, or received from a teacher sourcing *their* journey.

Mysticism and Logic

We bring our attention again to the metaphysical quotes in Exhibit A at the beginning of this text. In doing so we shift from day-to-day meaning-making conversations and the ideas that we adopt and adapt *from* mystics, sages, and philosophers, to the experiences *of* those mystics, sages, and philosophers – and how they communicate their insights. Or, a bit more mundanely, we turn to how *anyone* tries to make meaning and convey ideas plumbed from a radically deep encounter with What-Is – the territory of *mystical* experiences and revelations. As we will see, the *mystical* thinking implies a more sophisticated and abstract experience than magical thinking by itself.

In *Mysticism and Logic* Bertrand Russell describes metaphysics as "the attempt to conceive the world as a whole by means of thought" (Russell, 1917, p. 6). He says that metaphysical claims are based on a mixture of two distinct impulses: the mystical and the scientific. He notes how scholars often lean strongly in one or the other of these directions, while those in the middle struggle to reconcile these two impulses. Russell says that the "great philosophers" achieve an "intimate blending" of the two, a union that is "the highest eminence…that it is possible to achieve in the world of thought" (he offers Heraclitus and Plato as examples).

Russell describes several common characteristics of mystical knowledge in comparison with other types of knowledge and philosophical ideas, which I summarize as follows:

- *Intensity*: Mysticism has "a certain intensity and depth of feeling in regard to what is believed about the universe." It has a sense of "certainty and revelation." Though it sometimes uses logic to justify beliefs, the claims seem to come from "a way of wisdom, sudden, penetrating, coercive, which is contrasted with the slow and fallible [process of scientific reasoning]."

- *Insight and ineffability*: Mystics are attempting "an articulation upon the inarticulate experience gained in the moment of [insight or intuition]."
- *Introspective revelation*: There is a "sense of a mystery unveiled [and] revelation" of "a reality behind the world of appearances and utterly different from it." Truth and essence is found through profound introspective thought, not through sense experience.
- *Poetic*: Mysticism can be expressed in deeply poignant, poetic, or metaphorical prose.
- *Paradoxes*: It often plays with opposites and paradox, pointing beyond them to knowledge that resolves or harmonizes them (as in Heraclitus' "Good and ill are one.").
- *Universals*: It often deals with universals, infinites, essences, or foundational truths.
- *Unity and ultimate reality*: There is a common "belief in unity, and its refusal to admit opposition or division anywhere" – that "reality is one and indivisible." There is also commonly a belief that reality, or ultimate reality, is beyond time and space. This relates to the above-mentioned resolution of polarities, as past, present, and future become one.

These qualities are quite evident in the quotes in Exhibit A. Russell argues that, though the merging of the mystical and the scientific is a great achievement, it is difficult to do well, and poses a number of dangers. One danger is a tendency for the passion of the mystic to conflate "the good with the truly real" (i.e. conflate fact with value, which he claims Classical philosophers do all too often). Aristotle, for example said "earth and sun seek their proper path in the sky" – conflating science with a metaphysical implication that a higher purpose governs physical reality.

A second danger is that those who "are capable of absorption in an inward passion" can experience "the loss of contact with daily things [and] common objects." Some have held that a radical commitment to formal practices or renunciate lifestyle opens up a privileged access to sublime truths. An ability to think free of enculturated beliefs is a key component of inspiration and creativity, but distancing oneself from ordinary culture can also leave one trapped in a private world of ideas, drunk on an elixir of certainty, and unable or uninterested in coordinating with others' perspectives.

We can see from the previous sections that Russell is pointing to the ways that scholarly thinkers combine magical thinking, mythical thinking, and scientific thinking (1stPP, 2ndPP, and 3rdPP) – action logics or "language games" that each has its own rules of engagement and validation. (Russell wrote too early to have access to the theories of developmental actions logics that we understand today.) For example, Plato combined magical and scientific thinking in his attribution of an intelligence or intention upon the motion of the planets.

Russell describes a second, but related, mode of metaphysical thinking that relies on logic alone, without the necessity of authentic mystical experience, to flesh out abstract metaphysical ideas. Using our developmental frame we can describe this as the use of highly abstract concepts and formal logic, which come online at 3rdPP, but without a grounding in the scientific method that requires repeatable empirical methods and social validation through democratic peer critique (we could say that this logical but pre-scientific mode is a late 2ndPP or early 3rdPP mode of reasoning).

For example, theologians, whose cultural surround did not allow them to escape from magical and mythical thinking, offered numerous arguments "proving" the existence of God and deriving the properties of divinity (Davidson, 1987; e.g. St. Thomas Aquinas' *Summa Theologica*). Russell describes a strain of thought, woven from Parmenides to Hegel and his disciples, that grounds mysticism in logic and abstraction. This strain describes reality as having an essentially "uncreated, indestructible, unchanging, indivisible" nature that is beyond time and space. Russell says that "logic used in the defense of mysticism seems to be faulty as logic [and renders such] philosophers incapable of giving any account of the world of science and daily life" (p. 15).

Even today there are many intellectuals who tread on similarly tenuous ground – confounding scientific reasoning and metaphysical reasoning. For example: theories about "consciousness" using quantum mechanics; and more extreme versions of the "anthropic principle" that reference the enigmatically improbable fundamental properties of the cosmos that allow matter and life to exist. Though this type of reasoning continues today, the "post-metaphysical turn" and the "embodiment turn" in philosophical thinking make it increasingly dubious to use logic and abstraction alone to make objective claims about the nature, origin, and purpose of the universe as a totality.

Yet, using formal logic but staying within the language game of 2ndPP, one *can* make valid arguments, i.e. *meaning-generative narratives*, about metaphysical phenomena. This is acceptable if the object of inquiry is explicitly outside the bounds of objective physical observation and measurement (that is to say, not merely subjective, but meta-physical). In fact, many of the "questions of ultimate concern" addressed by religion and spirituality may never be answerable objectively. But they can still be approached with post-metaphysical sensibility by, as we suggest in various ways in this text, including a humble acknowledgment of the limitations of the language game of whatever action logic is used.[3]

Along similar lines, in *Mysticism and Logic* Russell concludes that "while fully developed mysticism seems to me [a mistaken outcome of the emotions], I yet believe that by sufficient restraint, there is an element of wisdom to be learned by the mystical way of *feeling*, which does not seem to be attainable in any other manner [and which is] to be commended as an *attitude* toward life, not as a creed about the world" (p. 12; emphasis added).

Metaphysical Thinking and Action Logics

The 3rdPP action logic has several components, which are understood to usually arise in concert, i.e. in a coordinated way, but *can also* each develop along its own trajectory. In particular we can note abstract thinking and critical thinking – two main capacities of 3rdPP – can develop quasi-separately. For our purposes we will relate critical thinking to logical thinking and scientific thinking. These three capacities allow for a critique of 2ndPP dogmatic and authoritarian modes of reason; and they support autonomous belief-formation beyond conventional beliefs. *Abstract* thinking relates more to capacities of the imagination – allowing one to consider generalities and hypothetical objects, possibilities, and worlds that are not tied to concrete realities. The two are tied together; for example, "formal operational thinking" requires both abstractions and logical mental operations. But it is also true that critical and scientific thinking can become very sophisticated without *necessarily* being very abstract, and conversely, central to our conversation about metaphysical thought, abstract thinking can become very abstract without being tied to the empirical validation associated with critical and scientific thinking.

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[3] We should note that, contrary to the efforts of philosophers such as Popper, there is no clearly definable boundary for what claims or questions fall within the scientific method – but that does not diminish the need for epistemic humility.

Lets look at abstraction more closely. Magical thinking (1stPP) is concrete in that it deals with objects-at-hand, whether real or imagined. Mythical thinking (2ndPP) is a bit more abstract, in that a story or narrative structure abstracts from particulars to create generalities. A narrative broadens the particular to a hypothetical or *generalized* time and place. Narratives also assemble a collection of concrete instances into a unified, though more abstract, whole.

Metaphysical thinking signals a movement into a fuller abstraction at 3rdPP. This may seem contradictory since it would appear that 3rdPP scientific and critical thinking expose and reject the magical/mythical aspects metaphysical thinking. But this is not necessarily the case, in part because, as mentioned above, abstract thinking can develop separately from empirical/logical scientific thinking. In metaphysical thinking the objects of thought are abstracted, not only beyond *particular* times and places, but also beyond *any/all* time and space. This is what characterizes the *meta*-physical realm – that it is beyond time and space, the dimensions that structure concrete reality. This allows for an even higher level of unification, or a deeper claim to foundations and essences, vs. narrative structures. As Russell says, this is an "attempt to conceive the world as a whole by means of thought" with a "belief in unity [in which] reality is one and indivisible."

Habermas, in describing metaphysical thinking, says that “The One and the Many’, unity and plurality, designates the theme that has governed metaphysics from its inception [as far back as Plato]” (Habermas, 1992. p. 115). Metaphysical thinking privileges unity, the One – the Identity through which the diversity of the world can be reduced. Javier Aguirre notes that "Metaphysics responds...by tracing the plurality of beings back to one single and unique element...[it]...unites all innerworldly things and events as determinate and concrete parts of a totality" (2012, p. 23). In spiritual discourse this totality has taken many forms, including: God, Ground of Being, Emptiness, omnipresent Consciousness, The Good, Nature, First Mover, the Unconditioned, and Absolute Spirit.

In metaphysical thinking (3rdPP) the general-but-concrete elements of the narrative (2ndPP) structure "are removed from the dimensions of space and time, and abstracted into something first which, as the infinite, stands over and against the world of the finite and forms its basis” (Habermas, 1992, p. 45). Such unifying abstractions are placed in a domain sometimes thought of as the universal Mind, or into a non-substantial realm of perfect ideas or Ideals (as in Plato's supra-sensible hyper-real realm of Forms just outside the "cave" or ordinary reality). Aguirre, summarizing Habermas, concludes that metaphysics is "the doctrine of ideas that *equates being with thought*" (emphasis added).

Post-metaphysics includes and transcends the concerns of post-modern philosophers of the mid-20th century, who deconstructed essentialist, foundational, absolutizing, totalizing, and universalizing language and ideas – which were understood to usher in ideological belief systems, grandiosity, and "repressive metaphysical projections.” It signals a move into 4thPP, which can take a reflective perspective on 3rdPP modalities.

Our discussion is not meant to imply that those quoted in Exhibit A are "at" and particular developmental level – in fact these spiritual teachers, as observed in various contexts, seem to be operating well above 4thPP, and to deeply understand both the 3rdPP scientific method and 4thPP critique of science and reason.

People have access to a range of developmental levels, though they tend to operate from a particular stable "center of gravity." When one achieves any higher action logic, one can make use of lower action logics – usually unreflectively, but sometimes intentionally. Wilber maps out a related developmental sequence of mystical "states." His "nature mysticism" corresponds roughly to 1stPP, "deity mysticism" to 2ndPP, "formless mysticism" to 3rdPP/4thPP, and "Nondual Isness" to yet higher stages (Wilber, 1996). His Wilber-Combs Lattice model (Wilber, 2006) illustrates that, theoretically, a person centered at any developmental stage can visit a range of mystical states, which is compatible with our notion that, for example, modern individuals can revisit the magical strata of their consciousness, and can also have a peak experience rising above there developmental center of gravity.

To summarize, *Mystical* thinking (or perception) can occur within either 2ndPP or 3rdPP (or later levels). As it is based in experience, it is grounded in the 1stPP cognitive layers that can metabolize raw experience to produce emotion-infused objects of awareness and feelings of awe, wonder, unity, and luminosity (as well as terror, hate, etc.). If thought stops at the level of experience, without trying to "make meaning" of them, we would call it a 1stPP action logic. If mystical experience produces mythologies, concrete narratives, and rules, then it is bound to 2ndPP action logics. If mystical experience produces absolutes and radical abstractions, as in the case of the quotes in Exhibit A and the mysticism discussed by Russell, then it is making use of 3rdPP action logics – a type of 3rdPP thinking that is not beholden to the empirical demands of scientific thinking. At 4thPP and above one understands the limits of abstraction and purely logical thinking, and appreciates more embodied orientations to consciousness.

All of this helps to contextualize the metaphysical statements in Exhibit A, and avoid some of the pitfalls of overcommitting to such language. But we don't yet have the linguistic resources to describe the wisdom they point to or come from in satisfying post-metaphysical language. As Western cultures assimilate the ancient Eastern spiritual "wisdom traditions," we have not yet developed a common vocabulary or conceptual framework that allows the sages quoted in Exhibit A to escape from the uncritically metaphysical foundations that they inherited from pre-modern traditions. That is, we have only begun to imagine truly post-metaphysical (4thPP and higher) forms of spirituality.

Interlude: Three Historical Arcs

To deepen our exploration of post-metaphysical thinking we will step back and situate it within historical arcs. Post-metaphysics includes a deeper appreciation of the limitations of human thought and reason – a deeper understanding of how the mind misleads one in the search for the true and the good. I will propose three narratives as partial truths that show how historical trends have brought us to a moment in history when post-metaphysical thinking is crucial, possible, and perhaps inevitable. These brief narratives are gross simplifications of ideas that are developed as well as critiqued in the scholarly literature, and I include them here only to suggest a context for our investigation of, and advocacy for, post-metaphysical thinking. At the end of this chapter in the side-bar "Deeper Dive: Stories of Recapitulation" we include an additional set of mini-stories that puts our developmental model of human wisdom in another panoptic perspective.

(1) The Rise and Decline of Rationality

Narrative Arc #1 illustrates the unfolding story of human rationality as simultaneously a historical liberator and a looming menace. *First*, and most obviously, the faculty of Reason, associated with the scientific method and technological innovation, has birthed technical and scientific knowledge that has led to breathtaking advances that have alleviated many sources of suffering for much of humanity. What began as an effort to *defend* ourselves against the perilous forces of nature, for example with the inventions of fire, shelter, spears, and farming, increasingly became a project for *controlling* nature, bending it to our will. The resulting advances are undeniable today, as evidenced by, for example, the miracles of smart phones and social media, and overall increases in human lifespan and material wealth (Pinker, 2011). Also, the so-called Age of Reason (or Age of Enlightenment) in the 17th and 18th centuries included the development of democratic ideals and a belief in the autonomy and sovereignty of the individual as emancipatory forces against oppressive institutions and religions. The fruits of Reason have been substantial.

But *second*, and obvious to many but not all of us, humanity also faces new and unprecedented challenges, including weapons of mass destruction, climate change, species extinction, both famine and obesity, terrorism, and increasing rates of suicide and depression – most or all of which can be directly or indirectly blamed on the “progresses” that human Reason has wrought. Developmental theories of cultural change note that it is a perennial fact that each generation of "solutions" to human problems ushers in new challenges to be contended with (for example, the invention of money alleviated problems in the fluid exchange of value, but created quandaries related to debt). This has always been the case, but our historical moment presents a unique predicament.

The predicament is that, whereas once it might have been true that the challenges humans faced were mostly imposed upon them by nature, in modern times we have tamed, "mastered," or dominated nature to a great extent, and most of our current problems can be traced to *human* decisions, and thus linked to the nature of human reason and the workings of the mind. Thus, any project intending to steer humanity into a desirable future must focus on understanding the workings of the mind, i.e. understanding the nature and limitations of thinking, decision-making, affect, perception, etc. – in short understanding *human* nature.

Our geological epoch has been called the Anthropocene, a period in which human activity is the dominant force determining the future of the entire planet (Latour, 2014). It seems clear that continuing to only understand and control the exterior world will not save us from self-ruination – we must, as a species and as individuals – better understand ourselves.

Some might say that the global necessity to increase in self-understanding entails an *amplification* of the faculties of Reason, because it is ignorance, dogma, emotional impulsiveness, group-think, and irrationality that are at fault. Yet we can see that increases in raw intelligence, technical knowledge, and mental complexity are just as likely to produce tragedy as wisdom. Others might say that it is care and compassion that are missing from the big picture – that a simple strengthening of the heart will counteract the defects of rationality ("all you need is love"). Yet the problems we face are too complex to be addressed by love alone, which can, by itself, be both blind and stupid (as in Trungpa's "idiot compassion" (2002)).

The developmental approach offers more nuance. While 3rdPP rationality can understand and tame irrational "passions," it also seems to have cast out many gifts of 1stPP and 2ndPP consciousness. It is at the 4thPP (a post-rational or trans-rational phase) that the limits of reason are seen through and the importance of integrating lower levels, including the genius of the unconscious, is deeply appreciated. 4thPP includes the "post-rational" (or meta-rational or trans-rational) ability to evaluate rationality (i.e. logic, abstraction, the scientific method, etc.) itself and choose when and how to use it.

4thPP (and beyond) marks the realm of post-metaphysical thinking. In sum, we have reached a time when it is critically important that we understand more about the human mind, and that includes a post-rational understanding of the limits (and appropriate uses) of rationality. Here are two quotes that underline this theme – that humanity needs, not only new ideas and knowledge, but a new *relationship to* our ideas and knowledge:

> *Albert Einstein*: "the significant problems we face cannot be solved at the same level of thinking we were at when we created them.”
>
> *David Bohm*: "underneath [humanity's dilemmas] there's something we don't understand about how thought works [and what is needed is a] very deep [and] very subtle *awareness of thought itself*."

Jean Gebser (1985), a pioneer in devising developmental theories that apply to both individuals and cultures, used the term "mental structure" for our 3rdPP. He claimed that modern society exhibited a "deficient" form of the mental structures of consciousness because it rejects too much of the prior mythical and magical structures, resulting in the modern problems of isolation, alienation, and existential fear.

To return to our theme of spirituality: clearly the move into 3rdPP relates to humanity's partial outgrowing of simplistic religious dogmas and authority structures. The downsides of 3rdPP "progress" have inspired "Romantic" philosophical counter-movements that involve humanistic and "spiritual" intuitions about the essential roles of love, humility, service, simplicity, and creative expression for human thriving. Even when a tentative balance between the scientific and the romantic are found, for example in contemporary or New Age spiritual narratives, there is too often a problematic sense of certainty about ultimate realities (as in the mystical thinking described by Russell). This cannot escape from the critical weight of the post-metaphysical "turn" that questions metaphysical thinking. Thus, any sustainable believable spirituality (or religion) of the future must incorporate what we are learning about the limitations of human thought and belief at 4thPP.

(2) A Brief History of Belief Fallibility

Our second historical narrative arc illustrates how many of the limitations of reason have already been mapped out in detail. A post-metaphysical attitude includes an "incredulity toward meta-narratives" (Lyotard , 1979, xxiv) – i.e. a deep suspicion of grand ideas that seem to take a completely objective "view from nowhere" as if the individual making the proclamation could see the world clearly, free from personal or cultural bias (see Nagel, 1986).

Though this "incredulity" has been taken too far by some, into a cynical wholesale suspicion of rationality and a rejection of quests for the truth, post-metaphysics takes a more tempered approach. It acknowledges the fallibilities of logical thought and abstract ideas, while noting that robust relationships and societies require reason, dialogue, shared "stories," and leaps of the imagination into abstract ideas. Through the capacity of negative capability one can move from a stark "incredulity" toward metanarratives to a healthy "suspicion" of them – that allows them to be used cautiously.

What follows is our second narrative or arc, a "Brief History of Belief Fallibility," in which we discern a historical progression in uncovering multiple layers of indeterminacy in reason. This trend situates us at a moment ripe for a new humility – a generalized critique of over-confidence (think again about the metaphysical claims in Exhibit A). It roughly orders the sources of fallibility from the easier to apprehend to the more difficult. Following suit with the rest of the text, this argument takes the form of a quasi-developmental sequence.

Since Antiquity sages have pondered the nature of knowledge – asking how we can know what is true. A consistent thread in Western philosophy, from the ancients up to the Modern period, placed a high value on Reason, and assumed that the mind, through logic and refined imagination, could discover pure, universal, transcendent truths.

The above-mentioned Age of Enlightenment (or Age of Reason) included the development of the scientific method and democratic ideals – rationality and formal reasoning methods were valorized and refined. The era was motivated by a deeper understanding of the problematic influences of *emotion, bias, and ideology* on belief and knowledge. Reason, including appeals to logic and empirical data, were found to be superior foundations for belief and social progress, as opposed to appeals to authority, passion, intuition, dogma, or common knowledge, which dominated earlier world-views. (This trend can be traced back to the Classical period of ancient Greece, which temporarily lost momentum during the intervening Dark Ages, according to orthodox historical interpretations).

During this period there was an ongoing philosophical battle (which persists today in some corners of philosophy) between those who thought reason should be based on sense experience (roughly speaking, the Realists and Empiricists) vs. those who believed that logic and "pure reason" was paramount (roughly speaking, the Idealists and Rationalists). The former emphasized the *fallibilities of reason*, pointing to how reason can involve bias, contradictions, and beliefs not borne out in reality. The latter emphasized the *fallibilities of sense data*, pointing to how the senses can mislead and err, including sensory illusions and the imperfections of measurement.

Immanuel Kant is known as the first to reconcile (though incompletely) these disparities, by noting how both perception *and* logic were indeed fallible; and that universal *underlying structures of thought* systematically distort and set limits upon both experience *and* reason (these structures include how the mind conceives of time, space, sequence, and causality). The emerging scientific method itself, seemed to include a perfect balance of perceptual and rational faculties (though it was not applicable to all domains).

It seemed for a brief moment that Reason, as a dialectic between logic and sense-data, could thus be saved. But philosophers from the Romantic tradition (and later the Existentialists), valuing emotion and intuition, continued to point out how reason alone was an insufficient and impoverished tool for addressing the deeper issues of life. They noted how scientific materialism had created various social and existential ills. Though one can note a dialectic of alternating corrective swings between rational/positivist and romantic/intuitivist trends, scientific rationalism always won the day (in the West), spurned in each generation by new technological advancements.

The narrative so far marks the height of Modernist thinking (though "modernism" continued to advance in terms of its products). It maps the conquering of the 3rdPP worldview over earlier worldviews (1stPP and 2ndPP). Reason was understood to overcome the problematic influences of emotion, intuition, and dogma – i.e. magical and mythical thinking. But then, as Reason was increasingly turned back upon itself, its majestic stronghold began to relentlessly deteriorate.

Early on came Charles Darwin (1809-1882), whose theories of evolution exposed reason as – not a transcendental or pure capacity – but a practical and somewhat arbitrary set of cognitive tools cobbled together over eons as animals evolved to meet the changing demands of survival and reproduction. In the god-less world of evolution, how could such a process produce a "pure" intellect able to find ultimate truths? The – from the eyes of scientific materialism – horrific slide from modernism toward post-modernism had begun. (Not to mention the irreparable shocks to religious fundamentalism.)

Then came Sigmund Freud (1856-1939), who exposed the unconscious and its unsavory and unavoidable influences on reason and belief. He showed us that behavior, cogitation, and belief exist at the tip of a cognitive iceberg, grossly influenced by a deep dark mass of complex and conflicting processes that one cannot be aware of, never mind control. This notion is such a radical insight that, to this day, even most who intellectually believe that it explains human nature do not experience *themselves* as harboring a vast invisible sub-mind.

Meanwhile, even in analytic philosophy, mathematics, and computational theory, the three bastions of Pure Reason, hard limits on reason were definitively proven. Gödel's Incompleteness Theorem, Tarski's Indefinability Theorem, and Turing's Halting Thesis, in various ways, proved that any complex system of logical statements (or beliefs) contains contradictions, i.e. is *illogical* (Hofstadter, 1980). In addition physical scientists including Lorenz studying the "Butterfly effect" in chaos theory, Einstein studying the cosmological warping of space-time, and Heisenberg with his quantum "uncertainty principle," showed us how physical reality itself surpasses the mind's ability to grasp it in its entirety. It seemed that certainty was headed for certain demise.

Then, in the mid-20th century, a parade of postmodernists (and post-structuralists) including Derrida and Foucault, continued the dethroning and deconstructing of Reason by exquisitely showing (1) how it is deeply biased by invisible cultural norms and historical contingencies, and (2) how language and symbolic thought, the basis of knowledge production and reproduction, harbor grave indeterminacies and logical inconsistencies.

The final blows in the rumble to decenter Reason came from cognitive scientists in the late 20th century. Thousands of empirical studies have illustrated deep fallibilities in memory, perception, awareness/attention, rationality, and self-understanding, including a litany of "cognitive biases" describing the "bounded rationality" that even the most advanced scholars, intellects, and spiritual adepts are not immune to (e.g. see Kahneman et al., 1982; Ariely, 2008; Shermer, 2011; Sunstein, 2002; Simon, 1957). It is now incontrovertible that we construct beliefs about reality with great fallibly, i.e. we cannot perceive or deduce beliefs about reality with anything approaching complete "accuracy."

In the 21st century post-modern world we find ourselves struggling to cope with the implications of these revelations. The de-centering exposure of reason's fallibilities (in two senses – removal from central importance, and forcing one off-balance) has led many to relativism, nihilism, or cynicism – or to a head-in-the-sand regression to an imagined safety of pre-rational ideologies and world-views. We struggle with a "post-truth" culture, and for those who don't want to throw the baby of rational and democratic thinking out with the bathwater of Reason's flaws, it can be difficult to find rays of hope. But a path forward has been charted in several communities of theory and practice, as we discuss later.

(3) An Evolution in Understanding Ideas vs. the Real

Our third historical narrative suggests that the story of philosophy can be told as a journey of increasing sophistication in how humanity differentiates and integrates the subjective realm of interiors vs. the objective realm of the exteriors – i.e. *ideas vs. the real*. Because developmental frameworks allow us to map the progression of complexity in action logics within *individuals* to the cultural/anthropological course of *history*, we will start by illustrating this idea in terms of the individual, and then extend it to the historical.

As noted, at the magical (1stPP) level of development the self has yet to clearly differentiate exterior from interior realities. The monster under the bed feels real, and if the child sees that a playmate is sad she may suddenly find herself inexplicably sad as well. Though the capacity to differentiate interior thoughts and images from exterior reality establishes itself in childhood, the developmental project of differentiating interior from exterior realities (as well as coordinate and integrate them) continues at ever more subtle levels.

At the magical thinking level (2ndPP, even in the adult) one believes that the stories of one's culture and religion are more or less literal and accurate (*introjection*). One also tends to *project* one's interior feelings and beliefs upon the world, assuming that they are or should be shared by others. One engages in wishful thinking, surprised and disappointed when the world fails to deliver what one imagined would happen. At 3rdPP, established within most but not all contemporary adults, one gains the abstract and critical faculties to more deeply understand the interior self, and learns to monitor and regulate thought and belief (interiors) to coordinate with concrete reality (exteriors). Recall that our model of development stipulates that one shifts between the earliest developmental levels and one's highest capacity depending on the context, and clearly even highly developed adults will engage in projection, wishful thinking, etc. from time to time.

But a dilemma arises at 3rdPP where, as narrated above, there can be an entanglement of the strengths and weaknesses of 3rdPP reason. At 3rdPP one has gained the intellectual capacity to understand various types of bias and distortion produced by the mind (which is why the scientific method is valued), but has not yet mastered the skill of noticing these biases within *one's own* thinking – especially in the moment. Meanwhile, 3rdPP achieves a degree of mastery within the realm of abstractions, formal reasoning, and imagination. Thus it can build magnificent, sublime, and elaborate thought-structures (theories, models, etc.). As the reader has no doubt noticed, one becomes quite attached to these creations of the intellect, which can be powerful forces of both good and harm.

Thus, at 3rdPP there can be a confusion between ideas and reality that is more subtle than that found at earlier levels. One falls prey to a "misplaced concreteness" in thinking that one's abstract ideas and ideals, such as beauty, symmetry, equality, democracy, or responsibility, exist as actual things in the world, rather than as ideas we have constructed to understand and manipulate the world. This is a subtler, though also more pernicious, form of projection. It is at the 4thPP action logic that one begins to become aware of these subtler projections, and also begins to understand the interpenetrative nature of how interiors and exteriors co-influence each other.

Roy Bhaskar coined the term "demi-reality" for ideas that don't map to reality – i.e. for the gap between ideas and the real. To bring the discussion back to the historical/cultural, *if* conditions are supportive, humanity as a whole (or specific societies) can progress along the developmental trajectory we have outlined – developing skills to reduce demi-reality. It is neither a monotonic nor a guaranteed movement, but cultures, like individuals, can become wiser as they develop new concepts, tools, and modes of reasoning and communicating. Ideally, our understanding of exterior "reality" increases alongside increasing depth in self-knowledge, which includes a more sophisticated understanding of how "ideas" work. A crucial aspect of this journey is an increasingly nuanced and clear appreciation of the *relationships between reality and ideas*. Or more broadly it is a journey of learning of the ways that the mind/body adds demi-reality to all that it perceives and conceives. This includes an actionable understanding of the unconscious.

The point is both simple to understand and profoundly difficult to fix: we take our ideas, our theories, our identities, and our ideologies too seriously, assigning too much certainty and reality to them. Here are examples of what this means. When one treats a person as a member of an abstract category (e.g. a Frenchman, a Democrat, a Virgo, or an INTJ) rather than an individual, then one may be confusing a (simple) idea for a (complex) reality. When technologists or policy-makers initiate large changes in society based on abstract theories without sufficiently considering on-the-ground realities, they are misunderstanding the relationship between ideas and the real. When people pay attention to pundits, prognosticators, and charlatans who, with a little more thought, would be seen as quite unlikely to correctly predict the future, they are caught in a fantasy of confusing ideas for realities. Each of the themes in the above discussion of "belief fallibilities" points to a sense in which humanity has learned that ideas and ideals don't match reality as was once thought – i.e. each uncovers another facet of demi-reality.

Here we propose that skills developed at 4thPP allow one to better understand and coordinate the gap between ideas and the real. The entire developmental journey, of either an individual or a culture, can be framed in terms of this journey of more deep and nuanced apperception of how the What-Is of the cosmos relates to the *appearance* of the What-Is in the embodied mind of the human.

In the next chapter we delve deeper into the *philosophical* question of "what is real?" and in the succeeding chapter we explore the nature of thought and ideas more deeply from a *psychological* perspective. We will also get more specific about the ways that reality exhibits properties that differ from the structure of ideas (as concepts).

Deeper Dive: Stories of Recapitulation

The developmental and evolutionary journey of increasing levels of complexity and depth "recapitulates" itself at different levels of analysis, suggesting a kind of fractal or holographic principle at work. At the turn of the 19th century biologists proposed "embryological parallelism," the theory that "ontogeny recapitulates phylogeny" – i.e. that the development of the embryo and fetus during gestation goes through stages resembling evolutionary phases back to the animal's remote ancestors.

Psychological scientists, including Jean Piaget, proposed that the development of cognitive capacities has parallels to growth in complexity found in the evolution of animals. Social theorists have observed that the evolution of meaning-making complexity through cultures at anthropological timescales has parallels to the development of cognitive complexity in individuals from childhood into adulthood.

Neuroscientists note how the human brain has a layered structure with mammalian-like regions at mid levels and reptilian-like regions beneath those. Finally, some of the most recent theories in cognitive science are suggesting that thought and brain activity itself operate through overlapping waves of signals that start at the lowest levels of complexity in the unconscious and progress through the developmental layers, recapitulating the developmental path of the individual – i.e. each thought that one has emerges from the depths of the unconscious through layers from magical through mythical and finally rational (or meta-rational) modes of cognition (Brown, 2002).

All of the above patterns of recapitulation cannot be taken too literally (the early embryo does not look *exactly* like a fish; archaic man did not think *exactly* like a 6 year old child), but there are remarkable unavoidable parallels in structures at these varying scales of time and space (evolutionary, anthropological, personal, and moment-to-moment cognition). The similarities in structure can be partially explained by stripping off surface features and focusing on the development of structural complexity. The action logics (1stPP, 2ndPP, 3rdPP, etc.) can be used to describe structural changes in culture and cognition (and more refined complexity models have been developed; e.g. see Common's model of Hierarchical Complexity, 2008; and Fisher's Skill Theory, 1980).

A Philosopher's Knot – Knowing and Being Entangled

Is there a God? – Philosophers as Under-laborers

Is there a God? – A Soul or Spirit? – A Purpose to life? – A life after death? – An Ultimate Reality? What is Consciousness? Is there a cosmic force of Eros? Do we have free will?

Definitive answers to these "questions of ultimate concern" are beyond the purview of scientific knowledge and the scientific method – at least for the time being (despite some fervent attempts to apply scientific ideas to metaphysical questions). They are metaphysical questions. Metaphysics is largely about the "ontological" inquiry into what can be considered *Real*, as opposed to merely epiphenomenal/derivative, imaginary/fictitious, subjective/illusory, or fallacious/groundless.[4] Though various specific claims can be made about the objects of consideration (God, Consciousness, Eros etc.), the fundamental issue is whether they *exist* at all, i.e. whether they are serious topics of inquiry. Differences about what is considered real or to exist are often at the core of disagreements about the *truth* of claims.

Though Philip K. Dick makes the tidy suggestion that "Reality is that which, when you stop believing in it, doesn't go away" (1985, p. 4), the question remains controversial – so in this chapter we take a deeper dive in to the metaphysical question: "*What is real*?" A *post*-metaphysical approach should not lead us to say that "nothing is really real," nor to *any* definitive answer, nor to discard the question as meaningless; but rather to answer the question sincerely in a way that also witnesses how and why we are asking it in the first place.

In the chapter above on magical, mythical, and mystical thinking, we framed metaphysics and post-metaphysics in *developmental* terms, exploring how spiritual ideas can contain multiple layers of interpretation, each embodying an action logic defining its structural complexity and wisdom-depth. In the second chapter we situated post-metaphysical thinking within a broader perspective by narrating three *historical/cultural* arcs. This had implications for where spiritual thinking might be heading. In this chapter we will explore a more explicitly *philosophical* approach to post-metaphysics, tapping into what contemporary scholars are teaching us about the question "What is real?" – which is the central question in metaphysics, and thus in post-metaphysics.

As noted, philosophical thought has undergone a gradual developmental transformation over millennia. Philosophers and sages were once unabashed about making broad claims about man, nature, and the cosmos, but now, with the fallibilities of human reason having been increasingly exposed, they must be more humble and self-reflexive in their theorizing. To satisfy contemporary norms philosophers must imply a knowing that they, inescapably, come from a particular perspective. Their ideas must aim for usefulness rather than ultimate truth. In fact the role of philosophy has been recast by some (including Roy Bhaskar and Jürgen Habermas) into that of an "*under-laborer*" that helps other disciplines do their job, rather than as a master architect, curator, or arbitrator that sets other disciplines in their proper place.

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[4] Metaphysics originally meant the body of Aristotle's work *after* his Physics, but later took on its current meaning of the science of things transcending the physical or natural.

The role of under-laborer is humble, but far from inconsequential – it is as important as the foundation is to a home. Philosophers are experts at teasing apart assumptions, noticing hidden contradictions, inspecting the strength of foundations, finding connections among disparate fields, and inspecting, not just the products, but the processes used to arrive at them. Philosophy holds the banner at the vanguard of post-metaphysical thinking, by, for example, illustrating how concepts and symbolic language, the building blocks of ideas and theories, are frustratingly mutable.

All domains of human knowledge can be strengthened and tuned up by a critical philosophical look "under the hood," and most scholarly disputes can be improved by a philosophical meta-analysis of the properties of the dialogue itself. (Philosophy is increasingly trans-disciplinary, incorporating ideas from psychology, sociology, linguistics, computational science, systems theory, etc. – even as it informs these other disciplines.)

So, in the end contemporary philosophy is less likely to answer the questions above ("Is there a God?" etc.) than it is to provide Rules of the Road for engaging in the inquiry. But this is crucial since, in our time the *way* that we inquire and dialogue about "questions of ultimate concern" may be more critical than the conclusions we come to, as those answers may need to evolve rapidly with the rest of human reality. In addition, philosophical analysis can show us that metaphysical assumptions and metaphysical thinking are inevitable aspects of meaning making, and that we can both *choose* and *act out* our metaphysics more consciously.

Bhaskar and Habermas also see the role of contemporary philosophy as primarily *emancipatory*. That is, rather than discovering exalted or fundamental metaphysical truths, contemporary philosophy has a primarily ethical or healing role that operates on whole systems of thought in the way that psychotherapy operates on the individual. Emancipation is very much about reducing what Bhaskar calls the *demi-real* (beliefs and conceptions that do not correspond well with reality). Others might call it ignorance, inconsistency, misinformation, denial, or bullshit – which are ultimately seen as suffering-creating chains that we might free ourselves from. The demi-real involves not just erroneous ideas, but erroneous *certainty* in ideas.

Philosophy takes a – usually critical but also possibly appreciative – stance to shine a light on inconsistencies, paradoxes, blind spots, hypocrisies, etc. (Psychological "shadow work" can reveal dark material but also "golden shadows" – positive things about ourselves that are somehow painful to acknowledge.) A number of 20th century philosophical schools adopted a "critical" perspective (e.g. "Critical Theory") that questioned and deconstructed social norms, institutions, ideologies, and dominant narratives. At best these theories sketched a collective path toward liberation from social oppressions, and at worst they cynically dwelled on what was wrong with society, without offering practical solutions or hope. But these frameworks can also be used *self-reflectively* to critique a theorist’s, group's, or discipline's *own* stance. Critical self-reflection upon *my/our* demi-reality is thus *self-emancipatory* (and part of what Bhaskar calls the "pulse of freedom" within humanity). The principles we are exploring in this text are meant to be applied in this self-reflective way, as a form of self-learning and self-emancipation. Thus, the under-laboring of post-metaphysical philosophical thought can be deeply *spiritual* in its intention and application, aiming to further human happiness, flourishing, freedom, and/or evolution.

Two Truths: One Problem

Metaphysical realms. Speaking of using philosophical thought to free ourselves from outmoded ideas – let's take the risk of beginning by taking on one of the broadest and most strongly held ideologies in contemporary spiritual thought – that being that there is a metaphysical realm or world that holds truths outside of mind, matter, time, and space. We find this type of argument in many forms, including philosophy (e.g. Platonic Ideals), occult belief systems (e.g. etheric or spirit worlds), and contemporary spirituality (e.g. separating Absolute from Relative realities). Our intention is not to rebuke and debunk such beliefs, but to propose a post-metaphysical framework – a more reflective (meta-) metaphysics – that can appreciate what drives such belief systems yet avoids problematic modes of reason.

One of the problems with (classical) metaphysical thinking is that it posits a realm that is neither objective – as existing in time and space, nor subjective – as part of human experience. Metaphysical claims, whether made by an esteemed philosopher or by your cousin the plumber smoking weed, are particularly problematic because of this. Modern thought has developed a rather clear and useful differentiation between the objective and subjective worlds, and concluded that claims about each must be made under different rules. Subjectivity is explored through methods including phenomenology (trained introspection) and self-reporting that allow for the validity of personal and aesthetic judgment. Objective truths are determined using variations on the scientific paradigm that combines empiricism, logical methods, replicability, and collective inquiry. (Other disciplinary methods have been tuned to study the *intersubjective* world of beliefs and relationships held between and among individuals and groups.)

Though contemporary philosophy has articulated the inter-relationships and interpenetrations of objectivity and subjectivity (e.g. between facts and values), there is still no room for classically metaphysical objects that exist in an ideal world that is neither objective nor subjective (nor intersubjective). Russell describes metaphysical as being an "uncreated, indestructible, unchanging, indivisible" realm beyond time and space, beyond matter and energy. Given that, on what basis can one make a metaphysical claim? How could one ever test such a claim when it refers to something beyond both matter and mind, beyond measurement and thought? Objects in the actual physical world are assumed to obey certain laws; and subjective reality is understood to develop within its own logic and rules – but there is nothing to constrain the metaphysical world. Literally anything is possible there because nothing is impossible – anything that can be imagined can be comfortably placed there and said to "exist."

In scholarly circles, and to a lesser degree in cultural narratives, metaphysical claims are expected to hold to the principles of logical thought, yet they are not further constrained to be consistent with objective or subjective realities. Hypothetical thinking is similarly unconstrained, but does not posit a new domain of existence (hypotheticals are subjective imaginations). This is what Aruirre meant by metaphysics being "the doctrine of ideas that equates being with thought" – ideas and the real are equated, and thus undifferentiated. The metaphysical object or realm is neither here nor there – like the view from nowhere by no one, it crumbles under the post-metaphysical gaze.

One of the problems with classical metaphysical thought, including how it is used in spirituality, is that it is a convenient tool for precluding critical discussion. If one witnesses an unexplained phenomena, or proposes an indefensible idea, proposing that it exists or emanates from some other dimension or alternate reality may produce the *impression* that something has been explained, when in fact it was only a dodge – producing a grimy gem of demi-reality from the magician's hat.

In a prior chapter we showed how sophisticated metaphysical thinking incorporated the abstract (and to some extent the logical) capacities of 3rdPP cognition, while eschewing the scientific (and some of the critical) thinking elements of 3rdPP cognition. A "fully" 3rdPP approach, one that can hang together through contemporary post-modern analysis, must answer to the critical and empirical questions of the scientific method, which metaphysical realms cannot live up to.

Therefore, though one can't avoid having metaphysical assumptions about what is assumed to exist when one considers any question, one can and should avoid positing a metaphysical *place or realm* within which to locate objects of thought or reality. But doing so may prove to be difficult in practice for some, because many traditional spiritual and philosophical frameworks rely on just such a realm. These frameworks, and the teachers who promote them, use sophisticated reasoning to create self-consistent belief systems that satisfy "questions of ultimate concern" for many individuals. So they are difficult to relinquish.

Two truths. Returning to the metaphysical spiritual claims listed in Exhibit A, which we have said are made by highly intelligent and insightful individuals who understand both modern rationality and the post-modern critique of rationality – on what basis can these claims about Ultimate Reality be made? As we have said, claims from this common "play book" follow motifs established millennia ago when the Wisdom Traditions were formed. They have been transferred to modern Western cultures hungry for spiritual meaning-making in the wake of modernity's dry materialistic and rational worldview. The motif common to them all is the "*Two Truths" doctrine*.

Before going further let's reiterate some developmental considerations about belief in metaphysical realities. 1stPP does not clearly differentiate interiors from exteriors, so there is only one "realm" of experience. Metaphysical beliefs at 2ndPP are of the supernatural or occult variety, in which the realm or "dimension" of non-ordinary phenomena is quasi-concrete, operating over or alongside conventional reality (both objective and subjective), with some interactions between them. Like dreams and novels, these "alternate reality" realms have objects, causality, and space-like and time-like properties (e.g. Heaven, Akashic Records, subtle or spirit-realms, etc.). These realms are, in a sense, abstractions of empirical realities.

The "higher" forms of metaphysical thinking referred to in Exhibit A are extremely abstract, positing universals above/encompassing, or fundamental essences below/within, the entirety of experiential reality – and yet existing beyond any experience. When we discuss metaphysical thinking below we usually refer to this later type, which we could call "classical" metaphysical thinking, which refers to an Absolute realm beyond any semblance of space, time, mind, and causality. It is this metaphysics that is critiqued in gestures toward post-metaphysical thinking (e.g. Russell and Habermas above).

It is not necessarily fallacious, meaningless, or groundless to posit metaphysical entities, realms, or truths. But such claims should be understood to operate within certain action logics and discourse norms. They are valid as meaning-generative claims if understood to operate below 3rdPP scientific rationality. They can be productively or enjoyably entertained at 4thPP and beyond, but with the understanding that one is accessing one's 1stPP and/or 2ndPP consciousness.

Absolute and Relative Truth. The Two Truths doctrine held by the sages from Exhibit A states that there is a "relative" reality, governed by relative truths, that stands in contrast to an "Absolute" (or Ultimate) Reality, governed by Absolute (or Ultimate) Truths. (As the reader will anticipate that I will argue that this distinction has reached its limit of usefulness, I will henceforth drop the capital letters.)

The two truths doctrine was invented at a time when sages had weak and nebulous conceptual tools for differentiating the objective and subjective realms (not to mention the intersubjective realm). They may have formed personal intuitions with significantly more clarity, but the cultures they were immersed in did not provide the language resources for the clear conceptual self-understanding nor communication of such intuitions. (Note: take care not to confuse the undifferentiated or poorly differentiated with the *integrated* or interpenetrative understanding of ideas that can only come *after* they are first differentiated – this confusion is an example of what Wilber calls the "pre-trans fallacy".) Many of the thinkers of antiquity had not fully grappled with the fallibilities of reason that we have discussed – some of which were not clearly articulated until the mid-twentieth century. (This is a hypothesis whose validity does not impact us much – it is quite possible that some ancient civilizations surpassed Western culture developmentally.)

The metaphysical realm is said to offer a home for unfathomable paradoxes. That "I am nothing" and that "I am everything" can both be true in the realm of the Absolute. Spiritual revelations such as these (and "the world is an illusion" and "everything is perfect as it is") should be taken as sometimes-useful perspectives on reality – *tools* as the pragmatists would say. To interpret them literally or at face value is clearly a dangerous thing for an individual or a culture to do. The two truths doctrine was in part a kind of epistemological truce formed from the incommensurability of paradoxical ideas about the fundamental nature of reality. Absolute reality is claimed to be non-dual, or beyond categories, yet the *two*-truths idea itself contains a dualism.

Of course, since metaphysical thinking is not subject to the conventions of reason, such paradoxes are not a problem for it – rather, paradoxes may be used to prove the necessity, and thus the existence, of metaphysical realms. But this type of circular logic, perhaps necessary for the 3rdPP mind to address questions of ultimate concern, can be seen as bankrupt when more contemporary 4thPP modes of reason are available. Such paradoxes, as will be explained later, can be explained as products of the way that the mind relies on language and categories, rather than as existing ontologically in an alternate or Absolute reality.

Spiritual adepts will sometimes claim that their approach reveals "reality *as it is*," in its true form. It is reasonable to assume that mystical or contemplative insights reveal that everyday reality is a constructed experience, and that even time, space, independent objects, and the self are insubstantial. Such insights can leave one with a depth of understanding that makes the prior world-view seem like a dream or an illusion. But to be ever clearer in the negative knowledge of what is *not* true does not ultimately lead to a positive understanding of the world "as it really is" (but only "as it really *is not*").

As discussed previously, mystical experience is often associated with a *feeling* of boundless clarity, wisdom, confidence, and yes, "truthiness." The biblical message from God: "I am the Alpha and the Omega, the First and the Last, the Beginning and the End," echoed also in many corners of Eastern spiritualism, lights up the mind like a luminous full moon or a blazing sun. One can have a spiritual *experience* of reality as a totality, or what *feels* like totality, that seems expressible only with language such as we see in Exhibit A. But from our contemporary 4thPP vantage point, we see that this is not a direct view into objective reality. Mystical experiences are "ineffable" and portend truths or insights "beyond language" – but this does not mean that those truths or insights are valid. In fact, all experience and intuition is fundamentally ineffable, as has been noted. Rather, such experiences, in addition to supporting deep meaning and emancipation from suffering, can indicate important facts about how the *human mind* works, and the relationship between the realm of the real and the realm of ideas. Mystical experiences can be the result of stripping the mind bare of its normal processing modalities, and can thus reveal much about how those modalities function.

The realm of the Absolute, toward which descriptors such as infinite, ultimate, boundless, omnipresent, etc. point, is empty as a realm of metaphysical "reality." However, such terms can usefully be used to point *toward* some horizon or limit. Infinity is a useful concept – for example it is indispensible to mathematicians. The process of opening one's awareness, or one's compassion, to ever greater extents can be described in terms of an ultimate end point, even if that extreme is unreachable, receding as one approaches it. The same can be said of the elimination or emptiness of anything.

Emptiness. The concept of "emptiness" is also prominent in spiritual discourse, particularly in Buddhist-inspired metaphysics. We can distinguish three ways to approach the idea of spiritual emptiness: experientially, logically, and metaphysically – with the last option being problematic. Experientially (i.e. phenomenologically) it is true that individuals have contemplative or spiritual states that, though ineffable, seem best described by the concept of emptiness. Logically (i.e. epistemologically or through rational deconstruction) one can also argue that all of the objects of experience are constructed and that their "true nature" is empty of the properties that we attribute to them. One can also argue logically that objects seen as independent entities actually exist only in relationship to other entities, and thus their appearance as objects is an empty illusion.

These logical conclusions (found, for example, in the Buddhist teachings of Nāgārjuna) can be developed into understandings so deep that one *perceives* reality with the immediate realization that they are true – i.e. that the objects of experience, and experience itself, is empty of all perceptual appearances and conceptual attributes – thus uniting the experiential and logical modes of thought described above (what Russell would call the highest achievement of the mind). Also, as noted above, emptiness can stand for the logical/theoretical endpoint of any process of diminishment.

But none of these modes of thought – experiential, logical, or their union – authorize one to claim that emptiness is an ultimate property of objects or of reality. Emptiness as a spiritual concept is extremely abstract – in fact it sits at the end of the abstraction continuum, as something with all properties abstracted away into formlessness. In this sense it is analogous to the concepts of universal spirit and the ground of being, which are abstracted to a level of complete *fullness*, containing all things and properties. Ultimate reality is said to paradoxically be both completely empty and completely full. But it is a mistake of projection to interpret the contemplative *experiences* associated with emptiness and fullness as *proving* that there is an ultimate reality that is radically empty and full. That a single experience invokes the ideals of radical emptiness and radical fullness speaks more to the paucity of our conceptual apparatus than to the nature of reality. Using these concepts as tools or lenses, one can *adopt the perspective* that reality (or any object, thought, or phenomena, including the self) is radically empty, *or* is radically full, *or* is both (or is neither! – to borrow a trope from the "tetralemma" of the Indian sage Nāgārjuna). (We return to the concept of emptiness and Absolutes in the next chapter, where we consider their status as an objects or properties; and again in the section on Phenomenology, where we explore the associated experiences in more depth.)

The Two Truths Doctrine is an outmoded classical metaphysics. It remains meaning-generative for a 2ndPP action logic that accepts majestic esoteric truths handed down from authorities; and for a 3thPP action logic that can't resolve the paradoxes of belief fallibility without creating a world outside of both thought and concrete reality. The downsides of using a pre-rational or hyper-abstract metaphysics were described above. The issue is not that Mystics describing an Absolute Reality (or emptiness) are themselves *pointing toward* a demi-reality, but that the gestures are so easily misinterpreted or reified. Framing the absolutes as horizons or goal-states, rather than metaphysical realms or ends, might avoid such problems. As the meaning-making resources of 4thPP become increasingly available to us, we can adopt a metaphysics that focuses on "real" human suffering, human potential, and the delicate interdependencies among humans, and between humans and nature – while still acknowledging the enchanting, the paradoxical, and the radically empty realms of *experience* (not "reality"). In the end, wise teachers and sages, including those quoted in Exhibit A, ground and measure the spiritual journey in terms of the ethics of concrete daily life.

Arguing against the venerable Two Truths Doctrine is pretty heavy lifting, especially for one such as myself who would not claim any sort of spiritual "enlightenment." But its demise is a straightforward implication of post-metaphysical thinking in its fullness. Unwrapping the full potential of post-metaphysical thinking, including its unsettling conclusions for contemporary spiritual belief systems, is a formidable task. That is why I approach it through numerous trajectories in this text. In fact, post-metaphysical thinking challenges many of the conclusions of classical philosophy as well. Luckily, scholars including Habermas, Russell, Lakoff, Bhaskar, and Wilber have done the bulk of the groundwork that I will build upon. Next we will walk through the classical philosophical territories of ontology, epistemology, metaphysics, and phenomenology, to chart yet another path into the post-metaphysical perspective.

Truth, Belief, Vulnerability, and Seriousness

Tensions between ontology and epistemology. Central to the topics of spirituality and religion is an inquiry into the nature of *belief*. Little could be more important in life than *knowing* what is true – including *feeling* confident in one's beliefs and *convincing* others that one's beliefs are valid. Determining what to believe, who is right and wrong, how uncertain one should be, and when one needs more information, are essential preoccupations for people. Believing, advocating, doubting, and inquiring are central to spiritual life as well.

Disconcertingly, we find ourselves immersed in a world of increasing change, uncertainty, conflicting perspectives, and misinformation. On a daily basis one must decide not only what to believe, but how much *effort* to invest in seeking or confirming new facts and ideas. As mentioned above, most of what we believe relies on 1stPP and 2ndPP action logics including gut feelings, authoritative sources, or social norms; yet increasingly we need to use 3rdPP and higher action logics to navigate reality. Our modern understanding of civic duty compels us to be informed about science and technology, but it is less recognized that the average person is increasingly motivated to be a *lay philosopher*, thinking more deeply and more abstractly to make sense of the world.

In fact, in our "post-truth" society the average person is faced with deep philosophical conundrums about the very nature of knowledge, truth, and reality in simply trying to interpret the daily news. We confuse pre-rational with post/trans-rational approaches to the complexity of reality. In addition, as modern citizens and consumers we are constantly being manipulated by experts in the science of how the mind works, through advisements and propaganda. More than ever, it is our civic duty to know enough about our own minds to be able to act autonomously within this torrent of skillful manipulation of our psyches. So we are increasingly called to be proto-cognitive-scientists as well as proto-philosophers. Luckily we live at a time when these two disciplines are increasingly overlapping and accessible. In this chapter we discuss philosophy, with its epistemological nods toward psychology, and in the next chapter we focus in on findings in cognitive psychology that have deep implications for philosophy. So, gentle reader, bear with me as I introduce some philosophical terminology.

Philosophy differentiates *epistemology,* the study of the nature of knowledge, from *ontology*, the study of the nature of reality (or Being). Epistemology is about "what can be known," and ontology is about "what is real." These two are intimately linked, because what we believe to be true about reality is constrained by the (epistemological) limitations of knowing and thinking; and the nature and limitations of knowledge are determined in large part by the (ontological or real) constraints exerted by things like neurobiology, genetics, and culture that restrict the scope of human cognition.

Ontology is closely related to metaphysics and according to most definitions is a sub-field of metaphysics. Ontology inquires into the *objects* or entities that are fundamental to reality (or to some domain of inquiry), while metaphysics inquires more broadly into the *nature* of reality, i.e. it identifies the objects and also includes narratives or frameworks describing the roles, relationships, and ultimate purposes of those objects. As we said above, what one believes is *real* is a subset, or underpinning, of what one believes is *true,* as truth-claims describe *things*.

However, there is some gray area here, because to claim that an object is real entails defining or suggesting its key properties (e.g. ancient scholars defined man as "the animal that has rationality" [or politics or language]). The key properties of a fundamental entity often include its relationship with other fundamental entities, especially via core *ontological relationships*, for example: What creates, causes, or governs what? What lives within, contains, is an essential element of, needs, or feeds upon what? What opposes, diminishes, or destroys what? What is identical to what? For example, is the mind (or consciousness) a *part* of nature, having been produced by natural evolution? – or is Mind (or Consciousness) the *foundation* and essential ground underpinning all of nature and the cosmos? Thus, the "what is real" of ontology bleeds into the narrative story-telling aspect of metaphysics.

Spirituality and religion are primarily concerned with ontological/metaphysical questions, but as we have indicated, in the contemporary context ontological inquiries must be tempered with epistemological considerations – i.e. a deep engagement with the disquieting limits of knowing. How does one come to understand divine spirit, absolute reality, or universal love? The epistemological answer given by Socrates is: "know thyself." From a 4thPP one could add that knowing thyself is not a singular enterprise, but a participatory and dialogical one.

After Kant philosophy became increasingly self-conscious about strong ontological (and metaphysical) claims, faced with the revelations outlined above in the "Brief History of Belief Fallibility." Epistemology was "in," and ontology was suspect. Making claims about reality was relegated to scientists, who seemed better equipped. However, a counter-movement developed (as is often the case in thought-trends) to reclaim ontology, and the post-metaphysical turn is in part the result of a new integration of ontology and epistemology. (In a later section we discuss phenomenology, another significant category of philosophical thought.)

This reintegration of ontology was bolstered by the insight that *all* theories are underpinned by, usually tacit, ontological assumptions. For instance Bhaskar argued that the scientific method itself would be impossible if reality was not *actual* (real), *differentiated* (containing parts), *structured* (the parts have relationships), *changing* (dynamic), and *intelligible* (can be at least partly known by humans). One tacitly makes these ontological assumptions when one does science. These may seem like thin or obvious assumptions, but Bhaskar was making the point that ontological assumptions are deep, omnipresent, and unavoidable. Even "objective" science cannot escape metaphysical thinking and ontological assumptions.

Post-metaphysics seeks a balance between ontology and epistemology, yet some philosophers travelled far enough down the nihilistic branch of the epistemological path to claim that it is impossible to prove that reality exists at all (or to prove that experience is not merely a dream, or a subjective interpretation, or a simulation). These scholars have been criticized for lacking "seriousness" (Bhaskar et al, 2009). To say that reality does not exist is to commit a "performative contradiction" – that is, one's actions belie a more deeply held belief that is at odds with one's words. Similarly it was pointed out that to claim that "there is no ultimate truth" was itself a statement of ultimate truth – catching radical postmodern thinkers in a performative contradiction. In focusing on epistemology alone we risk losing sight of the pragmatic and ethical "realities" of life – becoming lost in a disembodied intellectual world, and avoiding life's existential urgencies. And yet epistemological concerns (e.g. "how can we know it is true?") are an essential ingredient in balancing overconfidence, dogmatism, and bias in ontological claims about what is real.

A century before Bhaskar, Habermas, and Wilber, the stage for post-metaphysical philosophy was set by the American Pragmatist scholars (including William James, Charles Sanders Peirce, and John Dewey). Louis Menand, says that Pragmatism is an idea about ideas: "The idea is that ideas – theories, beliefs, convictions, principles, concepts, hypotheses – are essentially means of adaptation…Ideas are not 'out there' waiting to be discovered, but are tools that people devise" (Menand, 2001, p. 1, 8). This notion is central to post-metaphysical thinking.

Integrating ontology and epistemology. Post-metaphysics can be seen as an integration, or perhaps an uneasy truce, between ontology and epistemology. This integration can be summarized in four steps. First, from an *ontological* perspective, we always already assume that *reality exists*, and that we exist. As above, to assume otherwise involves performative contradictions. (There are other ontological assumptions that, whether we intellectually/theoretically agree with them, are shown to be held tacitly through our actions.)

Second, from an *epistemological* perspective, any claim that we put forth (including the first one above), is fallible in all of the ways we have mentioned in this text. These two together seem to leave us bound in a contradiction, but it is better to see them each as partial truths that interact with each other dialectically, creating a tension that begets a higher level integration.

The third step integrates the first two to produce the pragmatic principle that we should be, and often find ourselves, searching for ever *more* truthful knowledge, i.e. for knowledge that best approximates reality. This is akin to Freud's "reality principle," and is simply a necessary condition for survival and negotiating reality "seriously."

Fourth and last, we can see the validity of truth claims as *graded*, i.e., although no truth claim is absolute or permanent, this does not imply the relativistic conclusion that all claims are equally valid or equally meaningless – we can compare alternative claims and can (often) judge one to be a closer fit to reality, or generally more valid and perspicuous, than another. This represents a move from the 2ndPP attitude that beliefs are either true or false, to the 3rdPP stance that finding truth is an ongoing process, always open to revision and critique.

At 4thPP and above, the iterative search for truth becomes increasingly nuanced as additional sources of fallibility are realized; including a realization of how values and ethical concerns are deeply involved in the search for truth. Development is about complexity and depth – epistemological humility follows from cognitive complexity, while ontological grounding becomes more profound with developmental depth. Paradoxically, an increasing weight of "seriousness" can be accompanied by greater lightness of being.

Definitions of post-metaphysics. We have said that post-metaphysics is in part about a stance of informed humility that admits to the indeterminacy of knowledge, and have also described it in general terms as a resolution and integration of the philosophical schools of epistemology vs. ontology. We have also given examples of what this new humility implies, through a developmental framework describing magical, mythical, and metaphysical thinking. But we have not yet tried to *define post-metaphysics* itself. So let's dive a bit further into exactly what philosophers mean by post-metaphysics. Of course, since all concepts carry some indeterminacy, there is no single definition of the term, but rather a rich field of overlapping interpretations that one can develop a "gist" for.

In *Integral Spirituality* Ken Wilber (2006, p. 231) explains post-metaphysics by saying that "[arguably] metaphysics…ended with Kant [who realized that] we do not perceive empirical objects in a completely realistic, pre-given fashion; but rather, structures of the knowing subject import various characteristics to the known object…Metaphysics is then a broad name for the type of thinking that can't figure [out that] reality is not a perception, but a conception. [...It is] thinking that falls prey to the myth of the given.”

Wilber's colleague Sean Esbjörn-Hargens adds that post-metaphysics implies a *participatory* and thus *multi-perspectival* approach to truth which “avoids positing realities independent of the viewer,” and instead locates realities as “perspectives from somewhere by someone” (Esbjörn-Hargens & Zimmerman, 2009, p. 484).

Post-metaphysics points not so much to a set of beliefs as a set of principles and cautions for *how* we can think, communicate, argue, and build knowledge. Cooke (1994) summarizes Habermas' notion of the historical trend into post-metaphysical thinking as including the following:

- Understanding rational discourse as being less about what people think as about *how* people think (i.e. the focus shifts from valid conclusions to valid process);
- Replacing "foundationalism with *fallibilism*" in the approach of truth-finding – all truth claims are tentative and open to critique and revision;
- Casting doubt on whether reason can be purely objective, as in the abstract "view from nowhere" that is free of historical, psychological, and cultural conditioning; i.e. truths and knowledge are *context*-bound;
- Understanding that because no perspective is privileged above all others, knowledge progresses through actual dialogic *encounters* – the confrontation of ideas combined with efforts toward mutual understanding (and not through an intellectual imagination of what others would think);
- Framing philosophy in a fundamentally ethical, *emancipatory*, applied, and under-laboring role – renouncing its traditional fixation on discovering abstract theoretical truths;
- Recognizing the deep interplay of the traditional truth-seeking mode of philosophical discourse with the aesthetic/expressive and moral/practical functions of discourse (or Reason); i.e., highlighting the importance of attitudes like *sincerity, authenticity, and care* in philosophical thought.

Cooke's summary focuses on epistemological principles, so we should add that, as described above, post-metaphysics allows for a deeply pragmatist and ontological orientation that takes reality seriously.

But not *too* seriously. The post-metaphysical attitude allows for and calls for humility, playfulness, openness, curiosity, awe, surprise, and an acknowledgement of existential vulnerability.

Seriousness, playfulness, and vulnerability. This humility comes not from a selfless modesty, though that can accompany it, but it is forced upon one when one acknowledges and opens to the accumulated sources of fallibility of human reasoning and sense-making. It comes from the vulnerable and even ironic position of having to coordinate two contradictory insights: the epistemological insight into the indeterminacy of every claim and belief; and the ontological insight that one must often act decisively, *as if* one knows.

It is within this caldron of dissonance that the 3rdPP ego, the assured autonomous sense of a self-in-control, can be transformed into a more fluid state that can flow amidst chaotic upheavals – a movement that can occur on personal as well as cultural levels (as 4thPP and above consciousness). Overcoming the attendant dissonance and vulnerability calls for reaching into deeper layers of trust and regard of self and others. It includes developing a meta-cognitive instinct about when to let go, open up, listen, or let be, vs. when to let rip, commit, coerce, or command. This is why post-metaphysics (and a 4thPP worldview) requires a deeper sense of both ethics and spirituality in comparison to the scientific, logical and/or materialistic 3rdPP worldview.

This vulnerability is an *interpersonal* as well as personal phenomenon. Beginning at 4thPP (and even more at 5thPP) we more deeply experience how the sense of self is defined by and negotiated within social relationships. The ego/self is defined as much by how others judge us (or might judge us), and by what we try not to be (i.e. those whom we condemn), as by a personal process of self-authorship. As we have discussed, meaning-making and belief-formation are deeply intersubjective processes, such that the fallibilities of reason and of knowing are largely fallibilities in *collective* sense-making. And, as we depend on communicative processes and relationships of trust and solidarity to create meaning for ourselves, it is both the self-as-*autonomous*-system and the self-as-*interdependent*-with-others that is revealed as vulnerable. We have mentioned the ideas of Hans Kögler (1992) and Peter Elbow (2009), who emphasize the important of the, sometimes unsettling, authentic hermeneutic encounter with the other as a means to expose beliefs or values previously hidden in one's shadow, and thus add to one's own self-understanding. Kögler says: not rational analysis but *the other* "becomes the point of departure for critical insight into self" (p. 272).

Since the vulnerability is mutual and reciprocal, its resolution must include mutual inquiry and reciprocal regard. It also requires shared ontological commitments or *beliefs* – all of which implicate new forms of "spirituality" and ethics. But the conundrum is in knowing at what level and to what degree this shared meaning is required. Sovereignty and autonomy are in a dialectical dance with mutuality and solidarity – overreaching the former leads to isolation and defensiveness, while overreaching the latter leads to dogmatic group-think and oppressive social structures. Developmental theories tell us that the capacities necessary for locating an appropriate balance cannot emerge from brute intellectual effort coming from 3rdPP, but must come from a higher consciousness that can metabolize the apparent contradictions that come with the territory.

The inevitability of metaphysics. As we have said, post-metaphysical thinking is not non-metaphysical thinking, but is a reflective appreciation of the limits of metaphysical thinking. The fact is that in mundane life, in scientific pursuits, and in philosophical theorizing, one cannot avoid metaphysical assumptions – though they often remain implicit. As the precocious child will ultimately force its parent into a philosopher’s role by repeatedly asking "but *why* is *that?"* following each deeper level of explanation, a scholar can, for any claim, drill down the causal or explanatory stack to reach an underlying assumption that must simply be assumed or believed, with no deeper explanation or evidence possible. This bottom is metaphysical.

In a recent paper in Integral Review journal, Zachary Stein says:

> These three topics – sex, reality, and politics – are implicated in any metaphysical characterization of the human ... [Historically] humans have long depended upon the normative force of metaphysical ideas to regulate these realms in particular. Untold and innumerable injustices were perpetrated in these realms in the name of pre-modern metaphysics. Modernity sought to rectify these by turning to science alone [and rejecting metaphysics], yet as the centuries unfolded the vacuum created by the absence of metaphysics continued to expand, and today the absence of metaphysics is now creating new and more dangerous problems ... [Authoritarian] political thought is resurgent today because of the absence of reasonable discourse about metaphysical realities during a time when exactly these realties are being put in question ... The way we answer questions like, “What is the human?” [and "What is Love?"] will determine the next century ... Metaphysics is necessary because we are in a time between worlds. (Stein, 2018, pp. 191-93)

Though we problematize metaphysical claims about absolute reality, consciousness, and spirit, our critique is of "classical" metaphysics that traffics in absolutes. Stein reminds us that we can and must reflect upon and take responsibility for the metaphysical foundations of ordinary life and "questions of ultimate concern" related to *this* world. For example, though there are more and less sophisticated ways to understand them, the metaphysical or metaphorical "forces of good and evil" may forever be an element of moral deliberation.

Metaphysical thinking is thus unavoidable, but it can be approached skillfully and ethically, vs. bluntly and authoritatively. As indicated above, we can understand it as related to an always-operating level of consciousness, an action-logic at the magical level of consciousness, which higher levels of abstraction and complexity build upon. And we can, in a quasi-therapeutic sense, intentionally uncover, recover, or reconstruct elements of that lower level toward emancipatory and ethical ends.

It is useful to differentiate explicit from implicit metaphysics. *Explicit* metaphysical thinking, especially as in the grand narratives and totalities espoused by some philosophers and spiritual sages, is susceptible to the cautionary caveats, such as grandiosity, we have described. *Implicit* metaphysics hides beneath all thought and cannot be avoided. Self-emancipation involves a kind of individual or collective "shadow work" that reveals these implicit foundations. Though such revelation makes them explicit in a sense, they remain active at the implicit level of consciousness, unless intentionally altered. For example, one may discover, through a therapeutic process, that one fears mother figures; or that one has a deep love of oceans. Discovering these things does not imply that they have thus been uprooted or transformed. In the case of the former, one may want to pursue a deeper therapeutic program that uproots or re-programs the fear; or with the later case to cultivate that experience of love. As we will see in our exploration of George Lakoff's work on metaphors, there are culture-wide and species-wide phenomena involving implicit metaphysics.

Science fiction author Arthur C. Clark said that within each historical era "Any sufficiently advanced technology is indistinguishable from magic." Similarly, some would say that metaphysics is just a name for what has not yet been explained by science. Applied to spirituality, this is the "God of the gaps" principle noted by skeptics: i.e. claiming that a phenomena unexplained by current science must be an act of God, or explained through some supernatural process. This type of metaphysical thinking is clearly fallacious, since repeatedly science has been used to explain phenomena that were previously "explained" through esoteric metaphysics.

However, even though our 3rdPP capacities for scientific investigation have disclosed much about the atom, the galaxy, and even human nature, there are natural phenomena too subtle or complex, and questions of "ultimate concern" too deep, to be understood or even approached via 3rdPP reason. Humans will forever have intuitions and questions that are, though beyond empirical analysis, critically important to constructing a meaningful life. We cannot help but construct magical and mythical interpretations of and answers to these questions. Though ideally, we can understand our "answers" to such questions as provisional and constructed; and we can sustain the sense of re-enchantment and awe that should accompany inquiry into the unknowable.

In sum, not only is metaphysical thinking unavoidable because it sits at the foundations of any rationally organized thought, it is also unavoidable because some questions worth asking cannot be answered through rational or empirical analysis. Post-metaphysical thinking (1) includes an understanding of the unavoidability of *implicit* metaphysics, and (2) adopts an *explicit* metaphysics that acknowledges the fallibility of making such claims, while allowing for strong "ontological commitments" about reality that can be argued as pragmatically necessary. In the next chapter we explore some of these defensible ontological and metaphysical assumptions.

Contours of the Real

What is Really Real?

The flavors of reality. One can formulate many "questions of ultimate concern" as questions about what is *real*: Is God real? Is love real? Is consciousness real? Is free will real? But what, then, does "real" mean? Clearly, the fallibility of knowledge presents a problem for the concept of reality. This may be no surprise, as "the epistemic turn" in philosophy and cognitive science tells us that all percepts and concepts are constructions of the mind (or mind/body/culture). Yet the later "ontological turn" re-vindicated the notion that human beings must, and unavoidably do, construct sturdy reliable knowledge about reality. In addition, following the pragmatist's intuition, knowledge and "truths" about reality are simply cognitive tools that can be assessed according to their correspondence to reality, or their usefulness in negotiating reality. As physical and social beings acting in the world we must continuously be making mostly correct assumptions about reality in order to survive physically and socially. So one actually *can* "seriously" make claims about the nature of reality (even "ultimate reality"), as long as one understands these claims as provisional and emerging from human meaning-making labor.

We have already said a few things about what can be considered to be "real." We have noted that what seems real differs for different developmental levels (and we explore this further later under the topic "adequatio"). We have also argued that one does not need to posit extra realms or absolute realities to account for the various types of objects and phenomena of experience and thought. In what follows we will explore the many ways in which things can be, or be understood as, real – by the ordinary mature (3rdPP) adult considering everyday ideas – i.e. simple objects not requiring metaphysical esotericism or philosophical scholarship to understand.

The cacophony of perspectives on "precisely what constitutes reality?" can be partially clarified by an *enumeration of the types of things* said to be real, or included in reality. The most obviously real objects are *concrete* instances – *that* bottle and *this* flower. The next slight step in abstraction is the *class* of objects: bottles and flowers are real (though the class itself is an abstraction, because one will never see all of the instances). Sensory *properties* seem particularly real, though they are abstract: red, round, heavy, etc. (we will never observe redness by itself, only as a property). Slightly more abstract are *processes* and verb-like objects (e.g. flying, reproduction, growth), *events* (e.g. a season, a cultural revolution), and *systems* (e.g. the weather, a transportation infrastructure). *Change* presents a thorny problem for those desiring philosophical precision – the river changes in every moment, and one's body has a subtly different makeup from one moment to the next, yet both are considered real objects.

At higher levels of abstraction and generality we find *natural laws and causal mechanisms* such as gravitation and evolution, which could be said to exist either as foundational realties or merely as explanatory fictions (see Bhaskar, 1978; Elster, 1999). Also problematically "real" are so-called *social constructions* such as money and gender (Searle, 1995). For example: is money a real thing, or simply the coordination of trust agreements and recordkeeping ledgers? Are gender and race real or social constructs with no basis in "reality?" In our approach, *all* of the above types of things can be considered real – one can spread one's arms around the scope of interpretations of reality, rather than be forced to pick one.

Bhaskar's "Critical Realism" argues that the *unobservable mechanisms, structures, and tendencies* that generate the observable world are just as real as observable concrete reality. He points out that science makes ontological commitments that things such as the laws of physics are real. Robust scientific discoveries would not be possible were there not some real, though invisible, mechanisms or forces behind or beneath the natural patterns and objects that we study.

The more *abstract* a concept the more one must stretch the concept of "real" away from concrete reality to include it. Concepts that frequent spiritual discussion such as mind, the self, and morality – can be claimed as real but it is difficult to separate their objective reality from the cognitive processes that find patterns in sense data and construct or infer abstract entities. Particularly problematic are the *most* abstract concepts, such as truth, goodness, beauty, form, system, object, change, causation, pattern, and yes, "reality" itself; and also the foundational spiritual concepts that we have discussed, such as God, Spirit, Ground of Being, Emptiness, etc.

Philosophers have coined the term "*hyper-object*" to refer to objects or systems that are so large and complex that humans cannot possibly comprehend them; especially including systems that we are embedded within (Morton, 2013). For example, the phenomena of climate change, the global economic system, and cultural evolution are hyper-objects – tangled conglomerations of interacting components spread across huge swaths of time and space that we can only glimpse facets of, yet must humbly try to understand.

Habermas, Wilber, and Bhaskar are among the philosophers who champion an ontological commitment that *subjective* realities are just as real as objective realities. If one approached this from a 3rdPP action logic one might take sides in arguing whether subjective "objects" are in fact real or not. But through a more flexible 4thPP reasoning one can say that subjective things like ideas, plans, feelings, perceptions, assumptions, stories, and theories are as important and impactful as concrete realities. As Bhaskar says, these thing are "causally efficacious," having definitive impact upon reality, and are thus real. Thus, rather than quibbling over the definition of a word ("real"), one can claim that it is important to extend the definition of real to include subjective objects – elevating subjectivity and objectivity to equal ontological status. (So-called "idealists" would claim that subjectivity is *more* real – but that is a regression to 3rdPP thinking.)

One can make the case that hypotheticals, myths, creative imaginals, and counter-factuals – i.e. claims or narratives that involve what is *not* actually the case (or is not actually "real") – are also real. Surely the things that we imagine in order to avoid, and fictitious stories spun from the imagination, have enormous impact on life. Critical Realism goes as far as to claim that negation, i.e. *absence* is real. For example, any change can be described as the negation of something making way for the emergence of something new, making non-being just as important as being.

Absence is certainly causally efficacious, for example: the absence of a liver in an animal; the absence of a key ingredient in a recipe, the absence of justice in a government. Reality is composed of complex systems at all levels, including galaxies, animals, ecosystems, and cultures. Such systems are "complex adaptive," "self-organizing," or "autopoietic" systems that persist through self-preservation processes as they interact with environments that "feed" them while simultaneously threatening to destroy them. Such systems persist through delicate and precise synergistic relationships, such that if one key component is removed the entire system might break down. Absence is real.

Bestowing absence with an ontological status equal to presence is important to Bhaskar's overall philosophy of human ethics and emancipation. Ignorance, denial, lies, and shadow-material are types of absence – demi-realities that have grave impacts. To ameliorate demi-reality is to absent such absences. The term "negative capability" mentioned earlier reminds us of the importance of acknowledging the realm of the unknown and non-existent. If human flourishing is one of the most important goals that we can have, then, Bhaskar argues, we have to take negation seriously and give it a prominent ontological status that supports our focused awareness of it.

Bhaskar’s associating absence with emancipation provides a useful hook for grounding spiritual concepts such as emptiness and non-duality in compassion. This lessens the possibility that such concepts will be used to take flight into abstract "absolute" realities that are open to the phenomena of "spiritual materialism" and "spiritual bypass."

In what sense real? In sum, all of these things, in addition to concrete observable objects, can be considered real: classes, abstractions, and generalities; processes and properties; hyper-objects; theories and models; ideas, stories, hypotheticals, and social constructions (subjectives); physical laws and causal tendencies; and even absences. In addition, what is considered real depends on the capacities of, and context of, the observer.

The more abstract an object, the more difficult it is to tease apart its being as an ontological "reality" from its being as a subjective construction. Importantly, if we agree on this then we *do not have to argue or decide* whether something is objective or subjective – we can acknowledge how it is in some ways objective and in some ways subjective, and move on. This is actually (and recursively) necessary, since "objective" and "subjective" are themselves high abstractions – not concrete objects that are easy to get a solid fix on.

The social negotiation of beliefs is replete with disagreements and impasses concerning what is real. In such cases the problem is often that interlocutors have different meanings for the "real," rather than that they agree on the definition but differ in its application. As we discuss more later, it is unavoidable that abstract words such as "real" have indeterminate meanings, i.e. they are interpreted differently by different individuals and in different contexts. One aspect of the 4thPP action logic (and even more in 5thPP) is that one learns to accept and accommodate to this disconcerting fact of language – whereas at earlier action logics one fights against it, trying to nail down the definition of terms, or arguing from one's own definitions, seeing others' arguments through one's own definitions. Of course, it is wise to refine and agree on term definitions as much as we can – the point is that it is impossible in the limit, and unlikely in contentious dialogues stemming from different world-views.

Our description of the many ways that things can be considered real illustrates this definitional indeterminacy. The same issues have been noted for "true" as for "real." For example Richard Kirkham, in *Theories of Truth, A Critical Introduction* (1992), shows that there are a multitude of definitions of truth implied in academic Philosophy and Logic. He shows that disagreements about the nature of truth are often the result of scholars talking past each other, unaware that they are using quite different senses of the word. By teasing out the various senses of "truth," Kirkham hopes to help philosophers clarify their inquiry.

All of this is to say, that the question "is it real?" is insufficient, as there are so many senses of the term; and the better question is "*how* is it real?" or conversely "in what sense is something *not* real (or less real)?" Within 2ndPP dogmatic belief systems and 3rdPP logical arguments, scholars may forever be writing lengthy treatises defining reality, and laymen may forever be spieling sloppy arguments about it – all in hopeless attempts at conclusiveness. The only way out is to abandon the question "*Is* it real?" and move to the more pragmatic question "*In what sense* is it real?" (and, conversely, In what sense not real?). As Bhaskar's says: "the relevant question is not whether ideas are real, but what kind of reality they have, and whether ideas of different type...have different kinds of reality" (Bhaskar, 1997, p. 142). Another way to employ "in what sense" is to ask "under what definition of the terms (consciousness, God, country...) can I see some truth in the statement?" We call this general approach "interpretive pluralism."

This is also the case for moving from "Is it true?" to "In what sense is it true?" (balanced with: "and from what perspectives does it seem false?"). But we are focusing our conversation in this text to ontological questions about what is real, not the larger topic of how to evaluated the truth of an idea, because real-ness is at the core of metaphysical inquiry. Though scholars may need to define clear sub-categories of the real, as we began to enumerate above, what is important to readers of this text is to know that there are many valid perspectives on the question; and it might add sufficient nuance to a conversation to say that, for example, an object is real "in the way that a law of physics is real," or "in the way that human intentions are real" – without needing a carefully mapped out taxonomy of types of real-ness.

Some philosophers make the case that invisible underlying laws and mechanisms, such as mathematical principles, quantum laws, information flows, or psychological archetypes, are *more* real, perhaps meta-real or hyper-real, compared to concrete reality. Again, though the point about the importance of unseen realities is taken, this regresses to a 3rdPP need for definitional certainty, and we suggest moving away from trying to claim which aspects of reality are *most* real. "In *what sense* is it real?" shifts the discourse from a definitional argument into a dialogic inquiry allowing for multiple nuances and perspectives. For example, there are important insights available in both the claims: the flowing river is a bona fide object, vs. the flowing river is an unreal illusion of a solid object. Perhaps there are a dozen perspectives on how the river is real or not real. Considering them is more difficult – it requires more effort. It can be a "pain in the ass" like trying to listen attentively to every single person at the family holiday gathering. But doing that creates new possibilities for mutual regard and intimacy as well as deeper understanding.

Is God real? Is love real? Is consciousness real? Is free will real? Interpretive pluralism represents a post-metaphysical (4thPP) move towards a flexible, appreciative, participatory, evolutionary, and ultimately more ethical approach to spiritual inquiry, belief, and being.

Constructing the Real

Enaction. "In what sense...?" (interpretive pluralism) creates an opening to deepening perspectives, information, and relationships. But it also adds complexity that may be overwhelming to interlocutors, or inappropriate to a situation, resulting in "analysis paralysis" or unhelpful dissonance. So, pragmatically, a balance is to be found between sticking to what one believes and opening to the unknown in each situation. This is particularly true when decisions need to be made and when time is a factor – i.e. when *action* is needed. Which brings us to another aspect of our inquiry into "what is real?" – that reality is "*enacted*."

This perspective is closely aligned with the philosophical tradition of Pragmatism that sees ideas as tools. Sean Esbjörn-Hargens says "the ontological status of [a soda] bottle is enacted in part by the method of interacting with it…The reality of the bottle as instrument, vase, or cash refund is not [merely] dependent on your viewpoint but rather on the social practice of interacting with the bottle" (2010, p. 13). The "reality," or meaning of a thing evolves as we interact with it. At a cognitively more basic level, an organism's sensory-motor relationship with an object is what confers the object's reality upon it (see Kiverstein & Clark, 2009). The reality of a fly is different to animals who "see" it with echolocation vs. vision vs. smell; and is different for animals for whom the fly as prey vs. predator vs. nuisance.

And, for the human animal, speech is also an action that confers reality. We have already mentioned how, at the magical substrate of cognition, speaking or naming something confers it with reality (or life or power). "Ontological legislation" is a term used when those in power dictate the naming of things, and in so doing create social realities. But, of course, poets and mystics also serve that cultural function. Words not only describe but words, and actions, *disclose* reality.

Let us not err so far on the side of epistemology that we assume that the world is only what we create it to be. Thought can cast conceptual boundaries around objects, and is free to roam wildly among hypothetical realities – but concrete reality is something one "bumps into" and calls to be dealt with (as in Dick's “Reality is that which, when you stop believing in it, doesn't go away”). Our goal in this chapter is to support a more adequate intuition of when and how ideas are likely to be inflicted with various sorts of demi-reality – we are trying to "mind the gap" between the real and ideas.

The symbolic impulse: contours of the real vs. ideas. The third "historical arc" that we painted above proposed that the story of human wisdom can be told in terms of increasing depth and clarity in how one understands the relationship between the real vs. ideas – i.e. how one maps out demi-reality. Demi-reality can be described – and ameliorated – in several ways. First, through the basic habits of critical thinking and humility, i.e. reflecting on whether an idea might be biased based on one's unexamined assumptions or egotistic attachments. Second, one can reduce demi-reality through methodologies such as the scientific method or multi-stakeholder dialogues. These 3rdPP methods are well known (though not necessarily practiced). Our focus here is on 4thPP approaches (and beyond) for understanding and ameliorating demi-reality – illustrating principles that are not quite as apparent to the average person (or even the average scholar or spiritual sage). To this end we will more deeply explore the relationship between ideas and the real by noting some fundamental properties of reality vs. ideas – specifically the structural differences between concrete reality and mental constructs. We will use the term "epistemic drives" for tendencies of the mind that bias conceptualization or interpretation.

First, consider concepts, which are the fundamental building blocks of ideas (or similarly, consider words, which are the building blocks of language). All abstract thought (or at least all socially shared thought) is built using words or concepts that, essentially, split the world into categories. Reality is rarely as simple as these categories. In the very act of speaking or conceptualizing one produces some demi-reality – even though language it is an indispensible tool and an unavoidable element of culture. (We use the term demi-real rather than falsehood or imagination because ideas are real in that, through people's actions, they have causative impact on concrete reality.)

The faculty of using concepts, a cognitive tendency that we will call the "symbolic impulse," implicitly confers certain false properties upon reality. It makes reality appear as if it is composed of tidy categories with clear boundaries. One often knows and compensates for the fact that reality does not exist in this tidy way, but still, there is an aspect of cognition (the symbolic impulse) that compels one in this direction. If one calls someone an "introvert" or an "intelligent person" we might need to add qualifiers that nuance the starkness of the categories (e.g. "usually an introvert" or "intelligent but not very wise"). Of course, categories express important truths as well as demi-realities: all fish and all cities *do* have something in common worth highlighting. The symbolic impulse, or we could say language itself, is, as many a sage has noted, is both a blessing and a curse.

Abstractions are simplifications over real objects that ignore certain properties and highlight others. A tree can be a plant, an alive being, a piece of wood, a scaffold for climbing, a structural element of a shelter, etc. – and with each naming we emphasize something and ignore something else about the object, generating another morsel of demi-reality.

The drive to categorize combined with the drive to abstract creates *hierarchies* of categories such as taxonomies. We have learned to comprehend many such "epistemic forms." Other forms include tables, Venn diagrams, scatterplot graphs, etc. Such models seem to explain much and empower us – and often they do – but with each tidy organization some demi-reality is created as a byproduct.

We have mentioned another epistemic drive: the pull toward conceptual oneness, unity, totality, or essentialism exhibited in metaphysical thinking. This can make concepts appear to cover more range, or explain more of reality, than they actually do. The more abstract a concept is, the more it may relate to “questions of ultimate concern,” and thus acquires more meaning-generative importance. A dilemma results from the fact that the most abstract concepts can contain the most demi-reality. The ideas people become most attached to may be the most nebulous. The conceptual boundaries over which people fight the most aggressive battles can have the vaguest of demarcations. The more vague or subjective an idea, the harder one must argue for its objective truth, and the more one must strain reason to champion it. This is of course often the case in religious and spiritual discourse.

We will return later to discuss how cognitive science has investigated epistemic drives. But here our goal is to outline some of the properties that conceptualization, or thought in general, confers upon reality, and compare those properties with fundamentally valid properties of perceptual reality. This becomes one tool for reducing demi-reality through post-metaphysical thinking. One can notice when one's perceptions (and conceptions) of reality contain demi-real properties that might be conferred by epistemic drives, vs. when one's perceptions (and conceptions) of reality contain properties more typical of reality itself. I.E. we can learn to better mind the gap between the real and ideas.

Repleteness and projected properties. Actual objects in concrete reality are "replete" – which is to say they cannot be completely described with a finite number of properties. Concrete reality is also said to "withdraw" from begin captured by categories and ideas. The closer one looks, the more detail one finds. Thus, any finite description of a dog, a fork, a city, a family, etc. will be incomplete. The abstractions used to describe actual objects – brown, made of silver, democratic, happy, etc. – capture only a facet of the object, and actual objects can be described with ever-increasing levels of depth from endlessly multiplying perspectives.

Concrete reality is not only replete with seemingly endless details, it is unfathomably *complex*, harboring interrelationships among the endless details (parts), at many levels of emergence, arising co-dependently. An actual person, for example, is replete and hyper-complex. In minding the gap between reality and ideas, one can track, in a rough sense, when one is moving more toward the repleteness and complexity that characterize the contours of concrete objects, vs. the simplicity that characterizes ideas and ideals.

We must make clear here that the repleteness and complexity of real objects are challenges for the *conscious linguistic mind* – i.e. for the symbolic impulse. Objects withdraw as one tries to describe them with concepts and words. But at the level of unconscious raw experience, or "being," there is no problem. The physical body interacts smoothly and (usually) unproblematically with physical objects despite their repleteness and complexity. The "social body" participates in social interactions (usually) without getting hung up their on massive complexity. The automatic unconscious layer of the body/mind spawns conversations, plays sports, parents children, and mingles at social gatherings – just *doing* and not thinking about what one is doing. (See more in the Deep Dive box on The Unconscious in a later section.)

Abstractions are created by highlighting common properties of objects and discarding other properties as irrelevant (for the purpose at hand). For example, tool, chair, and democracy are (moderately) abstract concepts that group less abstract objects together into a class with common properties. Human language and reason depend heavily on the capacity to create abstractions – so far so good. But each abstract concept becomes an entity that can take on a life of its own, somewhat separate from the objects that originally defined it. For example, one may come to learn or believe certain things about tools (or chairs or democracies) that do not hold for all of the instances of the class. One may associate democracies with capitalism, or workmanship with tools – when in fact the associate does not always hold true. In this way properties are *projected onto* objects based upon the class(es) that we ensconce them in.

Ideally, reason includes an ongoing dialectic between concrete reality and abstract ideas – testing for demi-reality and modifying ideas and ideals as necessary. But of course this is often not the case, and abstractions that contain fallacious associations spread and wreak havoc (in religious and spiritual thinking, and elsewhere). The useful purity of the abstraction can become the totalizing cognitive hegemony of the ideal entity or the ideological vision.

These problematics find one extreme in metaphysical objects. Ideals such as God, Spirit, Eros, élan vital, and Gaia are more than abstractions over objects in the world. And, because they are thought to exist in some (metaphysical) reality, they are more than metaphorical extensions of concrete reality. Such objects are pure of the gritty details and repleteness of concrete reality, not because of the practical utility of the generalization, but because such purity is essential to their very nature. Because such concepts are only useful because they influence concrete life, it is inevitable that their purity, in addition to its benefits, is projected upon and clashes with "reality" in a proliferation of the demi-real. Ideals such as God can become "reified" in the mind to take on concrete features and be projected onto the world – e.g. the old man with a white beard who is both loving and harshly just.

Metaphysical objects, being unconstrained by the rules of both concrete reality and subjective reality, are free to accumulate ad-hoc properties with no crosschecking with objective facts or subjective insights. As long as they remain logically consistent within the bounds of some worldview or dogma, they propagate freely among past and potential "believers."

For example, consider the metaphysical concept of Gaia – a vision of the earth as a quasi-conscious living system. Gaia refers to more than an emergent system of systems, it imbues this meta-system (the earth) with additional properties and explanatory narratives that, while seductive and meaningful, blur the distinction between facts and values, science and imagination. Earth, now as Gaia, takes on qualities of the protective yet wrathful mother, or perhaps the vulnerable nursery that we must nurture. The concept of Gaia can be skillfully used to coax the qualities of mutual dependence, care, respect, and gratitude from the mythical level of collective consciousness. But at the extreme the narrative of Gaia becomes a fiction that *limits* pragmatic possibilities in reality rather than being a conceptual tool held *accountable* to the contingencies of reality.

This can happen with any metaphysical object. Properties such as intentionality, omnipresence, kindness, and perfection can easily accrue onto non-living abstractions to take up the detail-sparse space opened up by high abstraction. Any property that enhances the deeper purpose or intention motivating an ideology can be attracted to and attached to an object's definition. The concepts of Spirit or Consciousness accrue omnipresence because accruing those properties meets the psychological, cultural, or political needs that created the ideals in the first place. In so doing the concept gains larger "meaning" but withdraws further from actuality.

As another example, consider the scientific concept of gravity. It is an abstraction with a simple definition and discoverable nature. If gravity were to be appropriated for religious purposes to become "Gravity," it would be assumed to exist in a different way, and, over time, would accrue new properties from magical and mythical thinking, which would simply be believed, and would be beyond empirical validation. Being part of reality one might assume that Gravity is replete as well, and one might, in a proto-scientific esoteric inquiry, endeavor to inquire into the many properties of the "thing" that exists "out there" – an object now completely unmoored from its simple original definition. Gravity then becomes mysterious, not in the way that quasars or neutrinos are mysterious, but in the way that Zeus and Aliens and Fairies are mysterious – as if they were actual entities, complex compositions having autonomous replete natures. In doing so we seem to know more than we do, and create additional levels of bias, illusion, and certainty – rather than employing the negative capability of holding unknowing and paradox.

Below we include three side-bar Deeper Dives titled "Enfoldment paradoxes," "Faux dualities and paradoxes," and "Illusory recursions" that describe additional ways that ideas import demi-real properties upon concrete reality.

The reproduction of metaphysical concepts such as God, Eros, and Absolute Self *within* a community of believers may seem to have more utility than hazard. But, in the modern cosmopolitan hyper-connected world, it is better for ideas to have "*portability*." The fallibilities and indeterminacies of ideas might be safely ignored within "the choir" of a particular community or world view, but ideas, especially metaphysical ideas, become problematized when one wants to: (a) *cross* disciplinary boundaries to interact with other communities, (b) *apply* these ideas and *explain* one's purposes to stakeholders, or (c) have a constructive *dialogue* with others who don't agree with some aspect of the theory or model.

I call this the "idea portability principle:" that understanding and dealing with the indeterminacy of ideas is more important the greater the distance between the worldviews or beliefs of interlocutors. Reaching out to, positively affecting, *and being affected by* individuals with other world-views is central to any sustainable ethical and emancipatory vision of human potential.

Deeper Dive: Faux dualities and paradoxes

It may be that in some way, "I love her and I hate her," or that "its sort of a fruit and sort of a vegetable," but the symbolic impulse insists that I either love *or* hate her; and that its either a fruit *or* a vegetable. Above we argued for approaches that resist the symbolic impulse, and the vain confrontations it entails, to allow one to say, for example, "I love her in a sense; I hate her in a sense," and to get on with exploring what is revealed about life within each of those senses. Some may struggle with the notion that a person may be a progressive but also, in a sense, a conservative (and in another sense neither) –

though at more mature levels of cognitive development such false dualities loose their insistence and force.

Though a mature person may easily avoid being distracted by such faux paradoxes in concrete everyday life, faux paradoxes and false dualities run deep. They are more difficult to identify and weed out within *abstract* thought, and they persistently plague even sophisticated philosophical and spiritual dialogue. For example, it might seem impossible that a thing can be, for example: both spirit and matter, both interior and exterior, both individual and collective; both a state and a stage; or both empty and full. (Kant, who stands at the juncture between 3rdPP and 4thPP cognition, historically ushering in the later, struggled with paradoxical "antimonies." He had to resort to metaphysics to muffle their disturbing character). Physicists continue to struggle with how light can be both a particle and a wave. In all of these cases, an object that defies abstract categories should not be seen as a paradoxical mystery of the universe, but rather as an indication that certain human categories fail to be useful for certain questions. For example light is one thing that appears particle-like in some contexts and wave-like in others – we don't seem to have the perceptual primitives or metaphorical resources to comfortably comprehend an object that is simultaneously both. "To be or not to be?" We might answer: perhaps both and neither (as suggested by Indian philosopher Nagarjuna) – or we can *reject the question* as unhelpful.

Post-modern philosophers Claude Lévi-Strauss and Jacques Derrida are known for exploring how language and culture manufacture dualities. To create a category X is to simultaneously raise the possibility of not-X. Constructing "liberal" co-begets "conservative," as with "good vs. evil" and "sane vs. crazy." The symbolic impulse that wants one to place people into one or the other category is, of course, a powerful tool of thought, but it also creates great suffering. In spiritual contexts, the modern mind easily senses the fallacies within polarities like "good vs. evil," "saint vs. sinner," "believer vs. non-believer," and "heaven vs. hell." But more subtle dualities remain. For example, above we questioned the usefulness of the "Absolute vs. Relative" Two-Truths doctrine.

Base or concrete reality (we claim here) is not structured through simple categories – which, rather, are imposed upon it by the symbolic impulse. When we use the concept "ego" (or self) the symbolic impulse steers us into conversations about egolessness (or selflessness) – "Does mystical sage X have an ego?" or "Is spiritual achievement level Y devoid of ego?" Increasingly we are learning that – damn it! – all of our so-called enlightened teachers sure seem to have *some* sort of ego-thing going on. The more useful (4thPP/5thPP) question is "*how* does ego/self manifest" for a given person or level (or does the concept itself cease to make useful distinctions in some contexts?)? The same is true for being vs. non-being, awake vs. non-awake, liberation vs. delusion, nature vs. nurture...all polarities that have some use, but run out of steam when closer scrutiny is necessary.

The magical strata of cognition, which does not well differentiate interiors from exteriors, experiences a type of mystical elation within the symbolic impulse. In constructing a concept, for example "dark," the concept of "light" presents itself so immediately and strongly that both seem to exist in a hyper-real Platonic world of Forms (rather than a demi-real world of human construction).

In philosophy Kant answered Descartes' theoretical split between mind vs. matter with his theory of phenomena (experience) vs. noumena (reality's unknowable "thing in itself"). Hegel then critiqued Kant's unknowability of reality by showing how subject and object interpenetrate with each other. But all of these philosophers built their theories atop conceptual dualisms (including Hegel's synthesis and antithesis). The demi-reality introduced by these dualities inevitably leaves weaknesses in a theory that are picked apart by subsequent thinkers. There is no escape from an infinite sequence of renovations for such theories if they are built upon clean-cut categories.

In the synthetic approach attributed to Hegel, a contradictory thesis and antithesis are resolved into a synthesis, a concept at an emergent higher level of understanding. However, sometimes the thesis and antithesis are best tolerated or emptied rather than transcended. If the contradiction or duality is seen as an epiphenomena, i.e. a demi-real artifact of the symbolic impulse, then the better approach is to release the concepts' hold on meaning-making.

The classical Greek laws of logic are 3rdPP principles that assume pristine categories satisfying the symbolic impulse. These laws are: the law of identity: 'Whatever is, is' (A=A); the law of contradiction: 'Nothing can both be and not be' (A and not-A cannot both be true); and the law of the excluded middle: 'Everything must either be or not be" (Either A is true, or not-A is true). At the 4thPP action logic one allows for the fallibility of these laws. While acknowledging their value in many contexts, one can conceptualize the grey zones and liminal spaces of a "fuzzier" logic.

Because they are so intimately tied to language and other cognitive functions, dualities will remain a given. In addition to reflecting on their limitations we can also see them as gifts. They, especially the potent dualities found in spiritual discourse, point to very real tensions that exist in the conceptual or perceptual mind. We can use the energy behind such dualities, for example, saints and sinners, freedom and dependence, mind and matter, to generate potentially healing insights.

***Deeper Dive*: Enfoldment paradoxes**

Concrete objects in reality obey laws that abstract concepts in the mind do not. In concrete reality if one object is fully *contained by* another, the later cannot contain the former. But this principle does not apply to abstractions. If one is under the spell of the symbolic impulse, one can become baffled when abstract ideas behave differently than concrete objects. For example, is ontology explained by (covered within) epistemology or is it the other way around? It often happens that a theory or framework can be seen by its adherent to completely supersede, explain, and contain another theory; while adherents of the second theory will claim the opposite – that *their* theory supersedes, explains, and contains the first. A neutral onlooker might see that, in a sense, both are correct.

Is mind inside matter, as an emergent phenomenon of the brain and evolution? Or is matter (and all reality) inside the mind (or Mind) or inside of consciousness (or Consciousness)? Is non-dual realization above and transcending regular consciousness or below and underpinning it? Such questions are unanswerable paradoxes of enfoldment, but only *if* one expects abstractions to obey the laws of concrete reality.

The same phenomena seen in metaphorical enfoldment can be seen in metaphorical underpinning. For example, is Consciousness the foundational essence of all reality? Or maybe its Love, or Creative Potential, or Unmanifest Potential... When all of these objects are seen as concepts rather than metaphysical realities – as tools we use, perspectives we take, and artifacts we play with – such confusions about absolutes, foundations, and essences are seen through.

***Deeper Dive*: Illusory recursions**

Another casualty of the symbolic impulse, is the perception of superfluous recursive fractal structures. These can be seen in conceptual systems including Yin/Yang or Masculine/Feminine polarity principles, astrology, and personality typing systems. For example, if one attempts to forcefully cleave reality into Yin and Yang categories, one eventually must admit that there is some Yin-like essence within the Yang category, and vice versa – resulting now in four categories. But then again, within the Yin-inside-the-

Yang, there can be found yet another essence of Yin, and so on, in an infinite recursion of conceptual fine-tuning through splitting. To the 2ndPP and 3rdPP mind it might seem fascinating that reality is so complex and mysterious. Yet this beautiful recursive structure is an illusion – an artifact of the original impulse to cleave. If one resists the symbolic impulse to partition reality into neat categories, the problem never arises.

Similarly, in astrology, which has 12 categories, one is first classified by one's sun sign. But personality is too complex for that, so one has a moon sign within the sun sign to add nuance and better approach reality. But of course two categories are insufficient so deeper analysis is done – adding additional layers of nuance, in a not-quite-infinite regress. The same happens with personality typing systems such as the Myers-Briggs 16-type system. The main classification is too simplistic and additional layers are added: perhaps one category is used for one's relationship to self and another for one's relationship to others, resulting in a 16x16 matrix of possibilities. Which is insufficient, so perhaps both the self-type and the others-type are subdivided into orientations to the past vs. the future, producing a 16x16x16 system.

The spectacle is comparable to the epicycles that Ptolemy invented to explain the motion of heavenly bodies. They were an epiphenomena created by assuming the planets revolve around the earth. It is not that such systems of classification are not useful – they provide powerful ways to describe real differences between entities. The problem comes when one takes them too seriously, as if reality *must* be constrained to fall within these man-made categories. Then the conceptual halls of mirrors become inevitable.

Concrete reality does of course contain objects exhibiting actual fractal patterns – we do not imply that such patterns are always illusory. But, I suspect that reality does not, in itself, contain *paradoxes*, but rather that each object or occurrence just "is what it is" regardless of whether humans can comprehend it.

Adequatio. In this final subsection we will tie the philosophical principles of epistemology and ontology from this chapter more closely to the concept of development explored in the prior chapter – and in so doing create a bridge to the next chapter on embodied cognition. As may already be clear to the reader, any answer to "what is real?" (or "what is true?") depends on the perspective that the question is asked from and answered from. Though there are many types of "perspectives," in an important way meaning-making depends on *developmental* perspective.

Above we have rejected the "view form nowhere", to say that all truth claims are made "by someone from somewhere." There are various ways to describe the someone and somewhere that shape each view of reality. Widely acknowledged shaping forces include a person's experience, knowledge, biases, intentions, culture, and theoretical framework. The contextual cues and emotional bio-physiology of the moment also impact one's "perspective." Less often acknowledged, but critically important, are developmentally-determined capacities. That is to say, one perceives objects according to the level of conceptual complexity that one has developed in any domain. For example, the expert woodsman sees objects and patterns in the wild that others do not see; and the experienced conflict mediator will see phenomena and opportunities unseen by others. If a thing cannot be "seen" by someone it is not "real" for that person. This follows Schumacher's (and, earlier, Plotinus') notion of *adequatio,* which says that “the understanding of the knower must be adequate to the thing to be known” (Schumacher, 1977, p. 39).

Wilber and Esbjörn-Hargens propose a framework called "integral post-metaphysics" that reframes the question of *whether* something is real to ask *how* it is real for *whom*. The "how" refers to the methodology used to inquire and the "whom" refers to the developmentally-determined capacity of the observer/inquirer (Wilber 2006; Esbjörn-Hargens, 2010). Methodologies are classified according to the 8 "primordial perspectives" or "methodological zones" in Wilber's AQAL matrix. The details are beyond our scope, but the main idea is that, for example, the method used to observe or measure – for example a microscope, a telescope, subjective introspection, or using a population survey – will have a strong influence on the objects and patterns that can be see and deposited within the scope of "reality."

The classification of developmental levels in integral post-metaphysics is closely related to the person-perspective levels mentioned in this text. For a child at the magical level of development, Santa Claus is real. Among a group of children the question "What kind of cookies does Santa Clause like best?" is a valid question about reality. Santa Clause can also exist for *us* if we "suspend the disbelief" of higher developmental action logics and enter the magical thinking strata of consciousness.

Esbjörn-Hargens and Zimmerman (2009) give the example of "ecosystem.” An ecosystem can exist, and claims about one can be made, only for those who have an adequate understanding of the concept, which requires the capacity to think at a level of complexity that can perceive how phenomena and wholes emerge from the chaotic and extremely complex interdependencies of a large number of parts. Cultures that have no conceptualization of an ecosystem may have difficulty designing ways to monitor or improve its health (though, obviously, the converse is not necessarily true, since cultures with sufficient complexity might still neglect ecosystems). Complex and/or abstract objects such as "the self," "consciousness," "human development," and "participatory spirituality" will necessarily be understood differently according to one's "complexity capacity" within any given theme of inquiry.

Another perspective on adequatio uses the idea of "epistemic forms" – generic or formal structures of understanding that come with rules for manipulating them (Collins & Ferguson, 1993). One example is the list, which is anything with a beginning, a sequence and an end. The list has just three modes of manipulation: adding and removing elements, and sorting them – this defines the rules of the "epistemic game" playable with lists. Tables and hierarchies are more complicated epistemic forms than list, because they include and extend the forms and "games" of the list.

Linear or categorical (black and white) structures are simpler than graded/spectral, networked, or branching structures; which are in turn simpler than co-referential/ paradoxical, interpenetrating/fractal/recursive/holographic, or constellational forms. Once one has mastered the general properties and dynamics of any epistemic form one can re-use that structure in multiple contexts – the 12 year old who "groks" the usefulness of tables has gained a powerful thinking tool. And conversely, if one has not built up an adequately complex cognitive toolbox of epistemic forms (and associated rules of the epistemic games), one cannot even "seen," never mind reason about, certain complex phenomena that others *can* see.

It is easy to put principles of adequatio to work in educational settings, as Collins and Ferguson did, and also easy to apply the related idea of meritocracy to assigning decision making to the most skilled – but it is difficult to apply it to subjects such as spirituality that rest closer to the heart of human identities. This is because it is difficult to avoid flavors of elitism or condescension if one claims a developmentally "higher ground" for oneself (or for another whom one references to support one's beliefs). In claiming developmental superiority, not only can it be socially awkward answering defensive charges of arrogance, but also, importantly, it is difficult to know when and how one's own biases make it seem that one possesses a superior encompassing perspective. The issue is exacerbated by the fact that it is, by definition, almost impossible for one to fully appreciate the implications and value of perspectives that are developmentally beyond where one is (for any given topic). For example, as Wilber explains with his "pre-trans-fallacy," to those at "conventional" action logics can incorrectly interpret the actions of post-conventional individuals as coming from pre-conventional motivations.

In practice what this means is that explanations or justifications referencing developmental "altitude" should be constrained according to a mutually agreed understanding of what developmental capacity means and how it is determined. This allows for discussion of the many ways ("developmental lines") that people can accumulate knowledge and wisdom (as well as they ways that people can be blind to what they don't know).

But doing this is not always pragmatically possible. The principle of adequatio can also be used to "manage expectations" regarding how much of one's understanding, or one's argument, is likely to be understood by others who have not had the opportunity to build cognitive complexity in the topic. It can also motivate one to help others build complexity and "perspectival range" rather than judging them as wrong or incompetent.

Reification and Misplaced Concreteness

A fascinating thing happens when ideas reach toward abstraction. Because of the deeply metaphorical nature of thought, which, as Lakoff shows is grounded in concrete sensory-motor constructs, abstract ideas cast a deep shadow back into the concrete strata of the mind even as they ascend to the heights of abstraction. This phenomena is called reification or misplaced concreteness (the later term was coined by Philosopher Alfred North Whitehead, 1929).

The usual definition of reification is: when an abstract object or idea is treated as if it were concrete (materially real). It is a type of "fallacy," like other cognitive illusions, in that one under its influence does not know that one is being "tricked" by a distortion of the mind operating below conscious awareness. The phenomenon of reification accounts for, or is closely related to, a large number of the sources of belief fallibility (demi-reality) including many we have discussed. Phenomena related to reification include the following, all of which are relevant to spiritual beliefs:

- "*Confusing the map with the territory*" – i.e. thinking as if the ideas baked into a theory, model, or story are more real that what they represent, such that reality, or one's interpretation of reality, must bend to fit the map (as opposed to the other way around). Coined by Alfred Korzybski: "A map is not the territory it represents, but, if correct, it has a similar structure to the territory, which accounts for its usefulness"(1958, p. 58).

- "*The myth of the given*" (coined by Wilfrid Sellars, 1956) – i.e. believing that one's perceptions of reality, which are in fact constructed subjective experiences, accurately represent objective reality.
- *The symbolic impulse* – which treats abstract concepts as if they had the properties of concrete objects: well-defined boundaries, durability, location, etc.
- *Anthropomorphism* – attributing human properties such as emotion and intentionality to natural or social objects, processes, or structures. For example: The Universe is kind; Mother Nature is protecting herself and will wipe out humanity if she needs to; the government wants all of my money and is forever scheming ways to take it.
- *Psychological projections* – for example, when I assume that others must have the same beliefs or perceptions that I have (and I become frustrated when the don't); or when one projects one's emotions or intentions upon people or objects ("why is everyone always angry at me?").
- *Magical thinking* – we have noted that magical thinking includes a confounding of exteriors and interiors, including projecting ideas and feelings out onto the world, e.g. the child freighted by the monster imagined under the bed, and the adult feeling chastised by God imagined as a man with a white beard living in the sky. The magical attribution of "real" powers to words and symbols is another form of reification.
- *Metaphysical "locations"* – when one places an idea in a "world" that is beyond space and time, but assumed to still somehow exist outside of subjectivity. For example, Plato's realm of Ideals, which hold the ideal forms of the Triangle and the Tiger, from which emanate all actual concrete triangles and tigers.
- *Metaphysical objects* – we noted that metaphysics is "the doctrine of ideas that equates being with thought," and that metaphysical objects such as Gaia, Mother Nature, Spirit, and "collective we" beings are "free to accumulate ad-hoc properties with no crosschecking with objective facts or subjective insights."

We see that the tendency of the mind to reify abstractions is widespread and multi-faceted. Actually, reification (misplaced concreteness) is more complicated than many realize. This is for reasons we have outlined above. Within its definition – i.e. treating abstractions as if they were concretely real – the concepts "abstract" and "concrete" (or real) are metaphorical pluralisms with an inconvenient range of meanings. We have discussed the many ways a thing can be real, or more-or-less real; and we have described a "ladder" of degrees of abstraction. Thus, we must conclude that reification is not a binary category but (surprise!) a graded category that admits to *degrees* of misplaced concreteness; and that the "fallacy" of misplaced concreteness is sometimes not so much of a fallacy after all.

For example, "blueness" is an abstraction and a quality constructed in the visual cortex, but in most contexts it is unproblematic to treat blueness as a real property of objects. Physicists propose the abstract concept of "force" to represent the relationship between mass and acceleration (F=ma), but they go further to treat forces as if they were real things in the cosmos. "Depression" is a somewhat abstract construct, and is not a daemon lurking in an actual metaphysical world trying to hunt us down, yet we must consider it *real* to seriously invest in treatments for it. A thing does not need to be made of material substance to be real – e.g. a decade. Lakoff's Primary Theory Of Metaphor claims that all abstract concepts are understood *only* in terms of concrete constructs, which implies that *some* degree of reification is happening in almost all beliefs. Look at that last sentence – do theories make "claims" – is that anthropomorphic? Does it *really matter*? (Oh no, now I'm seeing reification in everything – "really" links to objective reality, and "matter" links to concrete matter.) If the phenomena are so ubiquitous and benign, why bother becoming aware of it?

But of course, reification it is not always benign. We have illustrated how sometimes-pernicious reification manifests differently within different developmental action logics. In 1stPP subjective objects and feelings are projected onto exteriors. In 2ndPP the stories we tell ourselves are assumed to be objectively real. At 3rdPP our magnificent, sublime, and elaborate models and theories hypnotize us into submission – we operate within seemingly objective "paradigms" that contain unexplored projections upon reality. The more abstract the idea, the more subtle and deeper the "shadow cast back into the concrete strata of the mind."

Process philosopher Bonnitta Roy quips "perhaps the only difference between children finding horses in clouds and philosophers discovering metaphysical properties in Consciousness is that the children know they are participating in their discoveries by adding imagination to perception whereas the Philosopher's do not".[5] At the level of concrete objects (1stPP and 2ndPP) even children can know when they are making-believe (though they often do not). At the level of high abstractions however (3rdPP), even eminent philosophers don't catch this trick of the mind in the act.

The reification of soul, spirit, consciousness, Eros and archetypes. In spiritual discourses soul, spirit, Higher Self (or Unique Self, or True Self), and consciousness seem to be both requisite and hotly debated concepts. Can the post-metaphysical perspective clarify some of the noise and dampen some of the ideological inflammation? One could argue that reification is behind much of the unnecessary fervor and angst.

First we can note that soul, spirit, Self, and consciousness are abstract concepts that, like all abstractions, admit to metaphorical pluralisms and indeterminate boundaries and definitions. Are they then fuzzy attempts to signify things that "really exist" but are difficult to put a finger on because they are complex and subtle? Or are they abstractions wholly created by the mind that are then projected out into a metaphysical world beyond time and space (like heaven but more abstract)? Given our post-metaphysical approach, we can reject the notion that they exist in some actual but metaphysical realm. But isn't it possible that such concepts are imperfect attempts to describe real phenomena? We must give the potentially unsatisfying answer: "probably partly."

These spiritual concepts may be the best we can currently do to make meaning of processes well beyond our understanding. But *to the extent* that we treat them as well-defined givens, or grasp tightly to their definition or use, or twist reality to make it conform to our preconceptions – we have moved dangerously into the territory of misplaced concreteness. Concepts such as Higher Self, Unique Self, True Self, Absolute Self, Soul, etc. can be quite useful in differentiating subtly different aspects of experience, but they should not be taken as Platonic Ideals or discrete forms in the metaphysical substrate. It might be clearer to say, for example, "The Unique Self *aspect* of the *experience* of self" – to make it clear one is referring to a property rather than an object, and thus avoid the strong (understandably human) tendency to reify Unique Self into something that defines reality rather than the other way around. (See more about the concept of Consciousness in the Deep Dive box on that topic later; and for discussion of the self that "lives on," see the Deeper Dive on Supranormal entities.)

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[5] From a presentation to the Society of Consciousness Studies at Yale, 2017.

As another example, Wilber offers a framework for understanding how all objects in the cosmos (holons) develop or evolve – i.e. through the four interdependent primordial processes of Eros, Agape, Agency, and Communion (self-transcendence toward the higher, loving care of the lower/parts, self-preservation toward wholeness, and relationship toward emergence; Wilber, 2001). The cosmic "force" of Eros is common within other spiritual narratives as well. Again, such concepts are useful to differentiate vaguely perceived (subjective, un-measurable, unverifiable) properties or processes that seem ubiquitous throughout creation, and we can put them to good use while "minding the gap" of misplaced concreteness.

Concepts at the extremes of abstraction may suffer the most from the dislocated shadow projecting back to the concrete strata. In our discussion of Absolute Reality (or Absolute Truth) vs. Relative Reality (or Relative Truth), we noted how, given the definition of the absolute, *nothing* factual or actual could be said about it. What one is left with is poetry, paradox, or obscurity. The ontological interpretation of non-duality is similarly problematic. One cannot conceive of it without inferring its opposite, which is itself a duality. Similarly with the concept of emptiness – a deep exploration of the emptiness of anything leads one to acknowledge its "fullness" (or co-dependent arising). Emptiness is easily transformed from a perspective or property, i.e. all phenomena are empty *in a sense*, into an object called "Emptiness," which then, as an object, cannot be empty.

With all such highly abstract concepts, the drive to reify ultimately leads to contradictions. At the extreme, just as the 2ndPP mind can become mad with conspiracy theories (narratives), the 3rdPP (and later) mind can literally become insane with abstractions. Paradoxes arise that are unsolvable sources of tension at 3rdPP. Abstraction itself can be reified into a God or the foundational essence of reality. One can ruminate endlessly on the being of being, or awareness of awareness of awareness...

Metaphysical reification happens with moderately abstract gestalts, including so-called *archetypes,* as well as the highly abstract totalities mentioned above. Eros, The Lover, the Higher Self, The King, the Trickster, the etc. are psychological archetypes (though Wilber and others understand Eros in a more absolute sense). They can be productively understood as patterns of implicit belief structure that are universal in humans because all humans share in certain aspects of the drama of life, some of which we inherit from our animal ancestors (including: having parents along with the potentials for experiencing nurturing, helplessness, and abandonment; sexual attraction along with its implications for jealousy, devotion, and rejection; dominance hierarchies with their implications for competition, leadership, and tyranny; etc.). Archetypes are thus collectively shared, but to project them into metaphysical realms, where they become as eternal quasi-divine forces that reach down to influence humanity, is unnecessary from a post-metaphysical stance.

Archetypes and the spiritual concepts discussed above can be useful, but as high abstractions they are heavily clothed in hallucinatory projections such as faux-dualities. The drive to reify these constructs works diametrically against one's capacity to separate the usefulness from the illusion (i.e. mind the gap of the demi-real). Thus the usefulness of archetypes and spiritual concepts such as spirit and soul are improved, rather than deconstructed, through post-metaphysical thinking.

Concepts such as spirit, soul, Higher Self, and Eros work well within magical and mythical modes of consciousness, sometimes super-charged with 3rdPP abstraction powers. Their main use is for making meaning within our "questions of ultimate concern." Even though they seem important, we should not argue about them as if (3rdPP) "truths" can be found there. In a future chapter we will suggest that "phenomenological" approaches may be the most productive knowledge-building methods for our age; while also suggesting that we should not jettison such metaphysical concepts, but choose and use them wisely.

Embodied Cognition and Epistemic Drives

From 4th into 5th Person Perspective

In this chapter we pivot from a strictly philosophical treatment of post-metaphysics and spirituality to one that relates more to (1) cognitive science and (2) felt experience. As readers will no doubt agree, any spirituality or metaphysics capable of sustaining humans into the next era must be grounded in the physical body and the concrete ethics of social life – even as it reaches into sublime visions and ideals that transcend those realities. Thus, we will explore human *drives* as they relate to the development of meaning-making processes; and will explore the implications of human reason being situated in a physical, biological, socially-embedded *body*. This exploration opens up the space for a more phenomenological inquiry into post-metaphysics – i.e., a felt understanding of the moment-to-moment interplay of confidence, uncertainty, curiosity, and dissonance that ground the search for meaning in the emotional movements of thought and in the ego's tremulous journey of self-determination, self-discovery, and self-liberation. What does it look like and *feel like* to shift into a post-metaphysical perspective on spirituality (or on anything)?

In one sense this text's themes have followed a developmental sequence that we can now extend into 5thPP. We began with a focus on the Magical and Mythical levels of cognition (1stPP, 2ndPP), which are about the stories we tell ourselves about what is real and true. We mentioned how the story-telling and object-crafting functions of mind carry forward into higher layers of consciousness, where abstraction and logic influence the mystical and metaphysical stories that we narrate. Though we mentioned that developmental theories are strongly grounded in science, we did not ground our argument in scientific findings. We used the developmental framework (of person-perspectives) as an orienting generalization to help understand a complex topic, and invited the reader to hold it lightly as a meaning-making tool, in a type of meta-story framing, without including scientific evidence for each of the many attributes we give each developmental level. The Interlude chapter included historically-oriented narratives, lifting our story-telling and meaning-making to a larger context. In a sense the approach up to this point was to tell a convincing and useful story, which is a 2ndPP approach to knowledge-building.

Then, in the next chapter, we moved to a "philosophical" approach that was more analytic, using more 3rdPP modes of inquiry. This 3rdPP mode was based on "rational reconstruction," i.e. logical arguments about what must be the case for a phenomenon to exist as observed. Though we did not include much reference to (3rdPP) scientific findings, the overall character was still from a 3rdPP playbook. We also included invitations into 4thPP reasoning, by offering multiple perspectives to triangulate upon the complex systems of ideas that constitutes post-metaphysical thinking; and by inviting the reader to consider more intimately how post-metaphysical principles apply to one's own thought processes.

In this chapter we continue appeals to 3rdPP and 4thPP thinking, but include considerations that invite the reader into a 5thPP understanding of meaning-making. So far we have not much mentioned 5thPP, so let's explore its characteristics briefly.

Approaching 5thPP through individual and collective orientations. At 3rdPP one can see how thought and belief are influenced by what might be called "irrational" aspects of mind. It becomes a project then to clean up and perfect thinking and knowledge through rigor and reason. In religious contexts this can translate into more humanistic and less metaphysical interpretations of traditional wisdom. In spiritual contexts it can translate into an appreciation of contemplative practices for observing the mind and learning how the mind (or thought/emotion/sensation) works, toward the goals of cleansing thought and action of impurities, and realizing an inner peace that projects outward for others.

At 4thPP one shifts focus from the personalized aspects of "thinking/feeling," which can be experienced reflectively, to a collectively oriented focus on belief *systems*. At 3rdPP, with training, one can witness the nature of one's thoughts and emotions, including how one's emotions influence one's thoughts; and how one's desires influence one's beliefs. One *cannot* similarly look within to see, for example, prejudices born of misinformation, or that one's worldview is constrained by one's upbringing in Western Society. Revealing this stratum of demi-reality is a collective effort.

To access 4thPP insights I must listen to you, and "we" must listen to "them," in order to reveal belief limitations. Though we cannot directly observe cultural biases within the self, we can notice general patterns in how they operate in complex social flows of communicative action and knowledge formation, and we can become sensitive to the possibility that any belief could be fallible in ways that we cannot determine by ourselves. Truth-finding and reality-checking become more intimately linked with ethical concerns; our inquiry becomes ever-more necessarily participatory; and we realize that those who differ from us the most may hold the keys to our liberation from self-delusion.

At 4thPP one is also exploring the self more deeply. From the 3rdPP reflection on thought as it manifests in the moment, and knowledge as something that can be ever improved, one advances to noticing how the mind contains a cacophony of voices and perspectives that must be met, listened to, coordinated, and integrated – not only contemplatively "observed with equanimity." This listening is yet another project of opening to the complexity of diverse perspectives and allowing something new to emerge on its own terms, rather than efforting to tidy up a natural diversity as if it could be managed into compliance (at 3rdPP). At late 4thPP the self can be experienced as deeply intimate with all humans, and deeply at peace with the self's many parts (this is one possible manifestation of late 4thPP, though it is not by any means guaranteed).

In a sense, all of this at 4thPP is still dealing with the mind and self in terms of beliefs, stories, and narratives. We want to hear them, to give them voice and let them play together, and allow them to co-exist in peace or resolve into ever more beautiful meta-narratives – whether the stories exist among people or within the self. The narrative aspect of meaning-making can find both a resting place in depth and a great breadth in wisdom here.

Two aspects of 5thPP. At 5thPP there is yet another shift in the focus of attention. Rather than focusing on the interplay of narratives one naturally begins to deconstruct what it means to *have* a narrative. One more deeply sees the movements of mind that construct meaning "out of nothing," so to speak. There are two aspects to this movement. The first movement is a deeper glimpse into the emptiness of the self or ego. "Who is this self that seems to need meaning and needs to assimilate and excrete stories?" As the basis of cognitive operations rests more in raw awareness than in thinking, one's sense of self streams from empty-yet-alive awareness that can witnesses objects and stories arising in consciousness. The "I am" and "I am nothing" of spiritual lore takes on an experiential reality.

The second movement is a deconstructive glimpse into the emptiness of *concepts* – the building blocks of stories. Not only does one reflect critically upon the truth of (or perspectives on) an idea as whole, seeing it as constructed and biased in all the ways mentioned above, but one begins to deconstruct language itself, specifically the validity of conceptions (and perceptions). We have already entered into this territory in our philosophical ponderings above. From 5thPP one might put aside a question such as "Can love heal the world?" and notice more fundamentally how "love" "heal" and "world" have ambiguous definitions – meanings that may shift in the middle of a conversation. One might *feel into* an answer, but distrusts permanently putting it into words. In addition one can discover it more revealing to feel into the *question itself*.

4thPP experiences ideas as contingent stories that float in a context-dependent space of possible interpretations – that find temporary stability when interpretations agree. 5thPP moves deeper, experiencing words and concepts as fuzzy signifiers, each an entire world of possible meanings, that slide and stretch from moment to moment – finding momentary stability when the mind grasps to fixate upon a meaning. While 4thPP inquires about the validity and bias of meaning-making, 5thPP asks, in a sense, "what is the meaning (or function) of meaning-making?"

Another name for 5thPP (actually early 5thPP) is "construct aware." Susanne Cook-Greuter, who was the first to deeply explore this terrain developmentally, describes construct-aware this way: "[One becomes] cognizant of the pitfalls of the language habit [and starts] to realize the absurdity [or] limits of human map making. [The] linguistic process of splitting into polar opposites and the attending value judgments can become conscious...[one becomes] aware of the pseudo-reality created by words...aware of the profound splits and paradoxes inherent in rational thought...Good and evil, life and death, beauty and ugliness may now appear as two sides of the same coin, as mutually necessitating and defining each other" (2000, p. 21-30).

(Note again that development is not a strict ladder-like phenomenon. For example, one with a solidly developed 4thPP action logic can continue deepening 2ndPP and 3rdPP skills, and is probably already beginning to experience the types of insights we attribute to 5thPP.)

For an excellent example of a type of playfully metaphorical and construct-aware prose that gives a flavor of 5thPP thinking, see the article “Generative (En)closures, Bubbles, and Magic Circles” by Bruce Alderman (with contributions from Layman Pascal and Edward Berge) in this issue of Integral Review. Also, John Churchill (2018) illustrates the parallels between the three great epochs ("Turnings of the Wheel of Dharma") of Buddhist philosophy and insights about consciousness arising from 3rdPP, 4thPP, and 5thPP action logics (or modes of awareness), respectively.

Each developmental level includes exterior and interior aspects, and construct-aware thought is the exterior orientation of 5thPP consciousness. It is a level of sophistication in one's understanding of reality – as it appears in perception and conception. Concepts, percepts, i.e. objects as-they-appear, are seen to be, in a sense, "empty." Turning this piercing lens inward one begins to experience the self as empty as well, and begins to identify more with the bare processes of awareness than with traditional ego structures (a capacity also called "presence"). Bare awareness has been called "awareness without an object," and at this stage other aspects of consciousness can be similarly stripped down, yielding experiences such as *seeking* without an object (open awareness), *faith* without an object, and *compassion* without an object.

At 5thPP and higher the deconstruction of language impulses can lead to a stable stage of what has been called "non-symbolic experience," in which the perpetual "voice in the head" disappears to lay bare a "depersonalized" awareness (Castillo, 1990; Yaden et al., 2017). This experience is generally accessible as a temporary state through contemplative practices. However, achieving such states, which are in effect experiences of open perception and minimal conception, does *not* in any way guarantee that when one re-engages in "thinking," dialogue, and problem solving, that one will have a construct-aware appreciation of the indeterminacies and fallibilities of ideas. Those skills are built along related, but separate, channels. (We say a bit more about 5thPP below in the Deeper Dive box on The Unconscious.)

The 5thPP action logic "ups the game" of post-metaphysical thinking in the ways noted above. The "sources of indeterminacy" of reason and belief expand from reflecting on the truthfulness of claims to reflecting on the conceptualization of the objects within those truth-claims, including the object called the self. So far, we have given a rather philosophical explanation of 5thPP. But we can also look to science for justifications for 5thPP insights into the nature of self and language. Since our inquiry is into post-metaphysics, we emphasize the study of concept-formation rather than ego-formation. Though outside our scope, the curious reader can find many scientific studies informing the emerging understanding of how the self is composed and constructed (e.g. Thompson, 2014; Yaden et al., 2017; Morin, 2006; Davidson et al., 2012).

***Deeper Dive*: Angels and other supranormal entities**

What about angels, aliens, channeled entities, spirits, ghosts, and life after death? – Are they real?

For many modern spiritual "seekers" and spiritual "listeners" the topic of supranormal beings is an important element of spiritual-but-not-religious discourse. And it is a rich topic for metaphysical and post-metaphysical consideration. I count myself among those who have had a few encounters with such beings (or "beings"), both as an internal experience and through an intermediary who claimed to be in contact with such beings. If you travel within the circles that I do (and also within other cultural "bubbles"), it is not easy to cavalierly write off some of these experiences.

Are angels, aliens, channeled entities, and spirits real? I don't know. I know that I don't know. I think that "we" don't know. And I believe that nobody can say for sure one way or the other. So I believe that "I don't know" is the most accurate answer to the question. But let's not stop there. There is much we can learn by investigating this fertile field of knowing and non-knowing. (BTW, this may imply that any "I know" with great certainty *may* be the *least* accurate possible answer one could give.)

As in other "application areas" of post-metaphysical thinking, I will not discuss the specifics of the various themes of supranormal (supernatural, paranormal) entities – each being an entire field of its own (in history, culture, pseudo-science, and sometimes in scientific study). We can speak of them together because they share the same positioning from a post-metaphysical stance.

Most would agree that encounters with supranormal beings, especially those experienced internally, involve some sort of contact with one's *unconscious* mind (which may or may not be associated with a "collective unconscious" – see the Deeper Dive on that topic). Where people differ is on whether the unconscious mind can act as a portal to or intermediary with non-ordinary realms of existence. That is: a primary point of contention or clarification is whether supranormal entities are sourced in (1) the individual unconscious (subjective reality); (2) a collective unconscious (intersubjective reality); or (3) an actual autonomous other "consciousness" (objective reality) (– or some combination of these three).

Encounters with supranormal entities are well known to happen through contemplative or trance states, consuming entheogens, or other altered or liminal states of consciousness such as hypnogogic (dream-like) states; or second-hand through encounters with shamanistic individuals who may themselves be in such states. The question of whether these experiences are completely subjective fabrications of the mind (or hoaxes) is complicated by many reports of people receiving information that one "should not be able to know" or that seem magically corroborated between more than one person. In addition, aside from the widespread anecdotal stories, there are empirical studies on these and other paranormal phenomena that give some people enough evidence to believe that they are scientifically demonstrated (Murphy, 1992).

However, due to (1) the comparable bulk of empirical evidence suggesting the opposite, i.e. that each such phenomena are not "real", and (2) the fact that, even in scientific areas such as climate science and medicine, the validity of the scientific method itself (as practiced) is quite complicated – I will not here take sides on the general question of empirical proof, as I have other points to make. Many have their minds made up on either side of the question of whether supranormal entities are real – and pointers to empirical or logical arguments are all too easy to counter with alternative empirical or logical arguments (e.g. see Schwartz & Simon, 2002; McCann & David, 2018). The audience I write for here are those who want to engage in the delicate balancing act of respecting that *something* seems true and real about encounters with supranormal beings, while engaging both an open mind and the rational mind.

First, to those having experiences of supranormal entities, the *experiences* are very real; and quite often the sense that one is in contact with another being *feels extremely* real. Second, many of those who believe in supranormal entities are intelligent, rational, and psychologically mature and healthy. Third many who believe that they have had experiences with supranormal entities are interpreting those experiences in ways that seem to add significant value and meaning to their lives and the lives of others, in ways that do not seem to pose perceptible or significant harm.

Perhaps the question then is "why does it matter" what anyone believes? The better question is "*how* does it matter?" – and for that we can take a developmental approach. Here again, the question is one of coordinating different action logics (a 4thPP skill).

Defenders of the reality of supranormal beings tend to point to their positive manifestations (especially in New Age circles); and critics of the idea like to point to the downside of "superstition," including how irrational beliefs lead to irrational behaviors. Of course both are partially correct. We have discussed the vitalizing importance of the magical strata of consciousness, and also how allowing the magical strata to gain control of one's belief's and actions can be problematic, even dangerous. Proponents of supranormal entities would not agree that they are "simply" products of the magical mind, but they often describe the communication between such entities and humans as being *through* the unconscious, magical, dream-state, or pre-language layers of the mind. Therefor the same precautions about the pre-rational strata of consciousness can be applied.

A primary principle, articulated explicitly here but also held implicitly by many, is that (a healthy manifestation of) each strata of mind should maintain its proper *hierarchical* relationship with the others. Lower layers provide raw information, life energy, and meaning to higher layers; and higher layers sense/monitor and coordinate/regulate lower layers. Each higher layer, from magical to mythical to rational to trans-rational, should be able to (in an ideal healthy mind) "make the call" about trusting and using what the lower layer(s) are "saying."

For example, if one experiences a non-ordinary being telling or showing one something – in a dream, a trance, a psychedelic trip, etc. – the (1stPP) perception of that being and their emotional intention is *interpreted* by the (2ndPP) narrative mind, which casts the message in some larger context or story. And the (3rdPP) rational mind can decide whether that being and that story should be ignored, down-played, or re-interpreted. Likewise, 4thPP mind can judge whether the rational mind has not over-functioned and quashed beneficial life-force and psychic information from lower levels (as well as putting the whole system in a larger life context).

At each level the available complexity of intelligence can decide how to process information from the lower levels in such a way that it is beneficial to the overall wellbeing of the self. In a healthy psyche each level "knows how" to reject or re-interpret information for the good of the self, and each layer is set up to be able to do that with a bit more complexity and perspective than the prior. A *poorly* functioning psyche (unhealthy, at least in that moment) will make a bad decision for the larger self. It may let a dangerous or non-useful idea "in the door;" or fail to check the credentials or intentions of the (real or magical) supranormal being; or cast an otherwise positive idea with a hateful or demoralizing slant; or rationalize a story that is unworthy of keeping; or silence the rational mind to allow imagined daemons to become real.

This principle is valid *regardless* of one's metaphysical stance. Many already implicitly apply it. Open-minded skeptics will allow otherwise "rational" acquaintances to believe in supernatural beings as long as no harm is done. Those believers who regularly immerse themselves in contact with supranormal beings are discerning in their uptake of information from these sources. Both open-minded skeptics and reasonable believers are wary of those who seem psychologically compromised, naive, or narcissistic – it does not matter whether the supranormal experiences of those people are real or not, they should still be listened to at arms length if at all (and it may be more important to support their journey to psychic health or maturity than engage with their "story").

All of the above was written with an open mind about the possibility of supranormal beings communicating with humans – an openness I, for now, intend to maintain because it seem to supports a fuller experience of life. Yet below I share some thoughts that bring additional skepticism to such beliefs.

Here's the thing. We know that the unconscious mind can serve up astonishing material:

- In dreams we can have full hallucinations that are completely believed (within the dream).
- We have noted elsewhere how the brain sends anticipatory signals to the senses that can project expectations or imaginations onto sensory experience.
- Optical illusions and various types of perpetual distortions tell us that our senses can lie.
- In deep daydreaming or reverie memories and images can seem quite real.
- Psychedelic drugs, and psychotic mental conditions, can create full-blown hallucinations.
- It is quite common to hear voices in one's head (well, for me it is) – and sometimes these can command a special air of certainty or authoritative depth.
- Through special training, e.g. in Theravada kasina meditations, practitioners can develop the ability to hallucinate (e.g. see deities, or other forms) with eye wide open in the waking state.
- The creative imagination is ingenious. Crafters of stories and novels sometimes describe how narratives, detailed scenes, plotlines, personalities, and whole worlds just appear to them – gifted from the realms of the unconscious. Some authors describe a process of letting their characters come to life and tell the author what the character will say or do. For many artists, like mystics, the creative process is one of listening, not doing.

I am constantly amazed by the detail, scope, depth, and brilliance of what a good novelist can create. Some fictions contain, perhaps in coded or metaphorical terms, wisdom as deep as any sage (or spirit or alien) has said. Some authors and artists claim no authorship for their products, and attribute their creations to "the universe" or "collective consciousness." Likewise, the unconscious mind within *each of us* can serve up material of surprising detail, depth, and intelligence.

For someone with certain metaphysical assumptions about the world, it would not be difficult to imagine that messages from the unconscious, delivered through the daydream-like reverie of normal waking consciousness, or through the more dream-like states of trance or psychedelics that may include vivid visions – that these messages come, not simply from the individual unconscious, but are communications from a supernormal being. All that we know about how the "magical" strata of mind works, including its confounding of interior realities with exterior realities, supports a psychological explanation of such phenomena. However, for me, it does not explain (or "explain away") all of the anecdotal and scientific information that I am aware of. Thus: "I don't know."

Finally, in passing, I will say that the same analysis holds for the phenomena, popular in New Age and spiritual circles, of "synchronicities" (meaningful or magical coincidences), affirmations, distance healing, and "manifesting one's reality." Though close observation will show that much of what is reported under these phenomena are imagined (i.e. magical thinking), there is sufficient empirical and scholarly work to give believers some purchase. Our point here again, that the above analysis gives the scientifically minded and the spiritually minded some room for respectful dialogue.

Embodied Realism and Metaphorical Pluralism

Metaphysics and the embodied mind. We will focus on the work of George Lakoff and colleagues, whose scientific investigation into concept formation has profound implications for all of philosophy and spirituality, and for reason itself. In *Philosophy in the Flesh: the Embodied Mind & its Challenge to Western Thought,* Lakoff and Johnson (1999) make the radical claim that "the question of what we take truth to be is ... a matter for cognitive science because it depends on the nature of human understanding ... Truth is, for this reason, not something subject to definition by an a-priori philosophy" (p. 108). The implications of Lakoff and Johnson's "Embodied Realism" are important because, as they put it: "radical change in our understanding of reason [leads to] a radical change in our understanding of ourselves" (p. 3). Lakoff and Johnson go on to say that "More than two millennia of a-priori philosophical speculations about [the nature of] of reason are over," and that because "findings from the science of the mind are inconsistent with central parts of Western philosophy … philosophy can never be the same again" (p. 4). We can add: nor can spirituality ever be the same again.

Lakoff and Johnson mount a full-frontal attack on the long tradition, within philosophy and "scientific realism," of using reason alone to reveal the essential nature of reality. In so doing they implicate modernity's (3rdPP) predominant mode of reasoning (in addition to metaphysical religious arguments based on logical inference). They describe traditional "disembodied objective scientific realism" as containing three claims or assumptions (p. 90): (1) there is a world independent of our understanding of it; (2) we can have stable (practical, trustable) knowledge of it; and (3) our concepts and forms of reason are *not* constrained by physicality, allowing science to discover absolute truths. They take the first two as true – while the goal of their book is to rebuke the third claim.

This territory is already familiar to us. The first two claims were echoed in our discussion of ontology, where we said that it is a performative contradiction to reject the assumptions that reality is objectively real, structured, and partly comprehensible – i.e. if we are "serious" we have no choice but to accept these "truths." For example, as Lakoff & Johnson put it, though all knowledge is fallible and provisional "we are not likely to discover that there are no such things as cells or that DNA does not have a double-helix structure" (p. 89). The third claim injects the epistemological principle that human understanding cannot produce absolute truths. Thus their argument parallels our description of post-metaphysics, but the "embodied" path they take to their conclusions, based on scientific findings, provides fresh insights and deeper grounding for the conclusions we have already reached, and thus provides additional support for post-metaphysical thinking.

Lakoff and Johnson describe the *three major findings of cognitive science* this way (p. 3-4): (1) the mind is inherently embodied; (2) thought is mostly unconscious; and (3) abstract concepts are largely metaphorical, with the third of these being the focus of their contribution. As to the first of these, this is implied in our notion that truth claims are "by someone from somewhere," and key strains of research and theory on embodied cognition were mentioned in the section on "A Brief History of Belief Fallibility." We have also already implied the second of these findings in our discussions of how the magical and mythic structures of the mind, as *unconscious substrates* for conscious reasoning, influence thought and belief (and see the Deeper Dive on the unconscious). We also began an inquiry into the third finding on the nature of abstract concepts – an inquiry that Lakoff and Johnson will help us deepen.

Lakoff and Johnson are telling us that the understanding of human reason underpinning classical philosophy is deeply flawed, and thus so are many of its methods and conclusions. Later we will apply their findings to *spiritual* concepts and beliefs as well. They continue by saying (p. 4-8, emphasis added):

- "Reason is *not disembodied* [but] arises from the nature of our brains, bodies, and bodily experience [such that] every structure of reason … comes from the details of our embodiment, [from] the same neural and cognitive mechanisms that allow us to perceive and move around ... There is no Cartesian dualistic person with a mind separate and independent from a body."
- "Reason is *evolutionary* ... [it builds upon forms present in] 'lower animals' … reason makes use of, rather than transcends, our animal nature...Reason is not dispassionate, but *emotionally engaged*."
- "Reason is *not 'universal'* in the transcendent sense; that is, it is not part of the structure of the universe. It is [however] a structure shared universally by all human beings." "Phenomenological *introspection alone [can not] discover* everything there is to know about the mind."
- "Since reason is shaped by the body, it is *not radically free* [and] we have no absolute freedom in Kant's sense … no full autonomy." "The utilitarian [rational fully autonomous] person [posited by economists] does not exist."
- And, to the post-modernists: "There is no … decentered subjective … poststructuralist person … for whom all meaning is arbitrary, totally relative, and purely historically contingent, unconstrained by body and brain."

We might also suggest that spirit, soul, consciousness, and divinity, similarly: are not disembodied, are entangled with emotions and cultural contexts, are evolutionary, are not completely transcendent or metaphysically universal, and can not be understood through individual introspection alone.

We began this text with Exhibit A, which illustrated spiritual teachers making claims about Consciousness, God, Soul, Spirit, the Universe or Cosmos, Nature, Reality, the Non-Dual, and the Source or Ground of Being – using descriptors including absolute, ultimate, infinite, supreme, essential, fundamental, limitless, eternal, unmanifest, ever-present, unbounded, formless, perfect, and universal. Such ideas are appealing and powerful in part because they address questions of ultimate concern in ways that can activate the entire "stack" of developmental action logics alive in contemporary culture. They tap into the 1stPP and 2ndPP magical and mythical modes of meaning making that 4thPP aims to re-integrate into consciousness. They use 3rdPP levels of abstraction to lift the spirit into sublime realms, and 3rdPP logical arguments to posit an Ultimate or Non-Dual Reality that seemingly releases spiritual claims from scientific scrutiny.

But, as Lakoff and Johnson make clear, absolutist and externalist spiritual claims cannot withstand an embodied world-view. Our goal has been to help the essential insights and modes of Being testified by our spiritual teachers to survive contemporary rigors and critiques. Lakoff and Johnson's Embodied Realism deconstructs spiritual metaphysics, spiritual truths, spiritual narratives, and spiritual logics by exposing indeterminacies at the fundamental level of language, concepts, and physicality. It forces us to re-craft spiritual metaphysics as resting on a real-istic substrate, and in so doing helps motivate an *embodied* vision of a post-metaphysical spirituality of the future.

Graded concepts and Prototype Theory. We have already mentioned what I call the "symbolic impulse" – the tendency of the mind to use conceptual categories that split the world into parts while joining parts into categories (e.g. the concept "spiritual" separates spiritual from non-spiritual things and joins things thought to be spiritual). When one employs the knife-and-glue of the concept, important truths and nuances can get left on the cutting room floor, so to speak, as those troublesome grey areas are ignored. There is something deep and strong within cognition that wants to treat abstract concepts (e.g. ego, compassion, evolution, Eros, subjectivity, democracy, free will) as if they are well-defined boxes that things fall within or outside of – but this is almost never the case. As Gregory Bateson says: "[the] world begins by making splits, then drawing boundaries, then solidifying these boundaries. Then we fool ourselves into believing what we have made ourselves see. Solidifying boundaries is very comfortable, because it allows us to deny our experience...We miss the whole system" (1978, p. 44). With each split-and-join operation we risk making two types of errors: overgeneralization and overspecialization, i.e. treating things as similar that are in some important way different, and treating things as different that are in some important way similar (analogous to Type I and Type II errors from statistical analysis).

"Prototype Theory" in cognitive science has revealed how the nature of concepts differs from what we normally assume about them (Mervis & Rosch, 1981; Lakoff, 1987). *All* concepts – not just poorly defined, culturally relevant, or complex ones – have "graded" or indeterminate boundaries (though some are more indeterminate than others). Conceptual categories universally admit to fuzzy boundaries as an outcome of how cognition works. One can make efforts to define concepts more clearly, yet specifying exactly what sits at the blurry edges of conceptual boundaries will vary in each context, and the indeterminacy itself is a universal cognitive phenomenon.

Many academic authors bemoan, in their introductory paragraphs, that one of the problems needing to be addressed in their field is insufficient agreement or excessive ambiguity. As Michael Shermer puts it, scholarship is "notoriously fraught with definitional disagreements" (2011, p. 53). What Descartes said four centuries ago is still true: "[philosophy] has been cultivated for many centuries by the best minds that have ever lived and that nevertheless no single thing is to be found in it which is not a subject of dispute and in consequence is not dubious" (1637, p. 10). Descartes was *not* a post-metaphysical thinker, however, because he believed that he had discovered a theory not subject to this dilemma – he did not count himself among the philosophers plagued by knowledge indeterminacy. A 4thPP/5thPP approach takes indeterminacy as a given in embodied human reason – something to be managed or embraced, but not overcome. The indeterminacy of concepts suggests humility but need not lead to an impasse. Along similar lines is Rowson's quote above: "Spirituality needs definition, but it doesn’t need a definition" (2014, p. 28).

Concepts are grounded in memory structures built upon actual *exemplars* observed in the past, and noting specific (real or hypothetical) exemplars is a necessary step in explaining, arguing for, or explicitly modifying, any concept definition (Elster, 1999; Lakatos, 1976; Mervis & Rosh, 1981). Research in Prototype Theory shows that some conceptual exemplars are more central than others, where the most central are called "prototypes" of the concept. The traditional logic-based notion of concepts from Aristotelian Logics, based on necessary and sufficient conditions, does not match well to actual human cognition. One can usually imagine things that exist in the gray area between being X and not-X – things that are *sort-of* X or *more-or-less* X.

Lakoff and Johnson describe how graded concepts lead to graded *propositions* that "...contain linear scales [that] define the degree to which a given property holds" (p. 288). Graded concept boundaries make universalizing claims of the form "*all* X's are Y" particularly fallible, because there will always be examples of things that are not exactly X but not exactly not-X either. It would be more correct to say "all X's are Y *to the extent that* instances of X and Y are prototypical of the categories as the speaker intends them." Disagreements about whether "all X's are Y" will often hinge on the fact that the objects offered up as exemplars may not be included in both party's meaning of X or Y. In a tense argument over whether animals have "language," parties may actually agree on the behavioral facts, and just disagree on which behaviors count within the definition of "language." A lot of energy can be wasted over unexplored definitional differences. The cognitive science behind concept formation therefor supports our earlier notion of the "in a sense..." attitude to collective meaning-making, which advocates considering the range of meanings (or exemplars) that different interlocutors may be implying (i.e. "interpretive pluralism").

In the Deeper Dive on "Faux dualities and paradoxes" we described how the symbolic impulse can trick conception and perception into organizing the world into tidy categories, manufacturing fake dualities and paradoxes. We mentioned mundane dualisms – fruit/vegetable, liberal/conservative, wave/particle, love/hate, male/female, nature/nurture, thinking/feeling; and dualisms entangled in spiritual and philosophical discourse – good/evil, saint/sinner, dark/light, spirit/matter, mind/body, interior/exterior, individual/collective, state/stage, empty/full, absolute/relative, self/selfless, and being/non-being. Lakoff's Embodied Realism, based on solid science, is a kind of proof that all such dualisms are misleading, and not representative of reality.

Often, we realize that reality is not so simple, and use language (e.g. with qualifiers and hedges) to compensate for the distortions introduced by sharp categorical edges – but the underlying pull of the symbolic impulse remains, even if subtle and tamed. Sophisticated modern thinkers are well familiar with the idea that sharp categories are problematic, but fully applying or embodying this principle is rare – our words and actions belie a deeper "belief" that the categories and dualities are real.

We noted, as has been said by many, that the false conceptual battle lines carved into human consciousness can create confusion, enslavement, and suffering. Paul Marshal describes this as the "pathology of the paradigm of simplicity [of] Cartesian clear and distinct ideas, analytical reductionism of whole into parts, and isolation of objects from their environmental contexts" (2012, p. 21). Living beyond this pathology is part of what is entailed by 5thPP consciousness.

As Cook-Greuter notes, one can achieve an understanding of thought and language that readily perceives these "pitfalls" and "absurdities," and witnesses the creation of boundaries and dualities. This construct aware skill includes interpreting categories more flexibly as having graded (or more complex) boundaries that can shift without notice, as Lakoff's work shows is the case. It also includes having a meta-cognitive sense for how concept meanings depend on the exemplars that come to mind in a given context. One can generously give examples and ask others for clarifying examples. Construct-aware understanding includes noticing how concepts co-define each other. In the Buddhist tradition this is related to the ideas of emptiness and "dependent origination" (or co-dependent arising).

Dependent origination has (at least) two senses – and both implicate a 5thPP view of reality. (Developmentally, 5thPP involves an immediate and visceral perception of this principle, while an intellectual understanding of it may start at late 3rdPP and mature in 4thPP.) One sense is the ontological understanding that the existence and nature of any object has been conditioned upon the existence and nature of many other objects. One can extend this idea recursively to see that, in a sense, all objects are intertwined – emerging and evolving within a vast network of co-arising entities. In this sense, the perception of something as an individual separate object is an illusion hiding the fact that it is intimately connected with, theoretically, "all" of reality. Objects are "empty" of the solid reality they seem to have. Another route to this emptiness is through the scientific understanding that, at the level of atoms or subatomic particles or string theory, we see that solid objects are mostly space, or made of energy rather than matter, or made of nothing but information or differences.

The other sense of dependent origination is epistemological. Within our perception and conception of the word, each object arises in relationship to many others. Again, the perception/conception of an object being separate and individual is an illusion, hiding the fact that we understand it only in relationship with, theoretically, everything else in consciousness. Our perceptions and conceptions are thus said to be empty. Not because there is nothing there, like a blank slate, but because how things *appear* is empty of objective truth.

Ego and abstract concepts. The symbolic impulse interacts strongly with the egoic impulse. It seems that for ideas and concepts that one is more "attached" to, conceptual boundaries tighten, appearing more distinct and certain. As we have noted, demi-reality is not only about what one believes, but also about the certainty and importance with which one holds beliefs. The emotions that arise when the sense of self is threatened interact with an "amygdala hijacking" process in the brain, and thought becomes less flexible. We have noted that more *abstract* concepts can take on more meaningfulness, and become more attached to egoic functioning. Unfortunately, it appears that the ideas most important to us are the most difficult to gain perspective on – the most difficult to see as indeterminate, co-arising, empty, soft-boundaried, etc.

Lakoff and colleagues' research on conceptual structures provides scientific evidence for what we have argued for philosophically. The indeterminacy of concepts becomes progressively worse the more *abstract* they are, i.e. the further removed from concrete sensory experiences and exemplars. We noted that abstractions can implicitly confer false properties onto objects, and that indeterminacy in concept definitions leads to indeterminacy in statements (truth claims). Chris Argyris, a well-known theorist in the field of "learning organizations" says: "The likelihood of differences in the interpretations of different observers increases the higher one goes on the ladder of inference" (1995, p 58) – which is closely related to the ladder of abstraction. Carolan (2004) uses the term "epistemological distance" to describe this phenomenon. Rungs along the ladder of epistemological distance are steps of increased abstraction, inference, or contingency that lead one ever further from simple concrete reality (or "facts").

Thus, the useful purity of the abstraction can become the totalizing cognitive hegemony, or the "repressive metaphysical projection” of the ideal entity or the ideological vision (what Marshall calls the grandiose "pathology of the paradigm of simplicity...").

We have discussed some of the most abstract concepts in spirituality and metaphysics. We quoted Habermas with "the One and the Many, unity and plurality, designates the theme that has governed metaphysics from its inception [as far back as Plato]" (1996. p. 115). We noted how metaphysical thinking is a movement of mystical thinking into a greater abstraction, with Russell characterizing it as indicating an "uncreated, indestructible, unchanging, indivisible" nature that is beyond time and space. "Absolute" (vs. relative) Truth or Reality incurs the problems of highly abstract ideals, as does the concept of non-duality and any abstract totalizing or essentialist concept. God, especially if taken as a metaphysical abstraction rather than a literal being, is a highly abstract concept.

As to "What is the good?", one of the most important metaphysical questions of philosophy and human "ultimate concern," Lakoff's answer might be simple: it is simply a word – an abstract concept that we have invented, and which has no meaning independent of our deliberations. Of course, this partial answer does not satisfy the essential question of how humans define, work towards, and negotiate the good, but it does help us take a productively post-metaphysical approach to the inquiry. What Embodied Realism tells us is simply to approach such ideas and ideals with a humility and humor appropriate to their indeterminacy.

Metaphorical pluralism. Lakoff and Johnson's theory contains one important insight we have yet to disclose. If the reader is finding our dismantling of conceptual categories fascinating or unsettling, then things are about to get a bit more fascinating or unsettling. Thus far Embodied Realism has given scientific evidence that challenges what we could call the "simple" mental model of tidy conceptual categories, and exposed how conceptual boundaries are graded or fuzzy (abstract concepts being more problematic), and dependent on exemplars (in particular prototypical exemplars). Lakoff and Johnson further show how abstract concepts have even more complex and deeply problematic natures because they are "metaphorical pluralisms."

The reader is likely to be familiar with the notion that much of language and thought is metaphorical. Lakoff and Johnson argue that thought and reason are *primarily* and *fundamentally* metaphorical, and that the metaphors we employ are grounded in our embodiment – i.e., that abstract thought is composed of conceptual building blocks at the sensory-motor level.

Of course, there are an infinite number of potential variations built up from any set of primitive building blocks – so metaphorical pluralism shows how thought is *limited* in the sense of being constructed from particular parts, while it remains virtually unlimited in the sense of the number of permutations of those parts. The key point for us is the (perhaps exaggerated) conclusion that if it can't be built up from basic sensory-motor primitives, *we can't think it*. Our embodied experience determines the limited conceptual pallet that we have at our disposal with which to paint all of our ideas (a pallet determined both by the genetically established structure of the brain and the embodied experiences of early childhood cognitive development).

Developmental theories (Piaget, 1972; Fischer 1980; Commons 1984; Kegan, 1994) show us how mental constructs are built up from lower level constructs, in response to interaction with and pressures from the environment. With each construct building upon priors, all thought and belief ultimately grounds in sensory-motor foundations (plus the pre-given cognitive processes of the brain, such as attention and memory).

Lakoff and Johnson show how all abstract concepts "such as importance, similarity, difficulty, and morality," and our abstract understanding of subjective experiences such as "desire, affection, intimacy, and achievement," are based upon concrete metaphors (p. 45). "As rich as these experiences are, much of the way we conceptualize them, reason about them, and visualize them come from [concrete, mostly sensory-motor] domains of experience" (p. 45). For example, our understanding of friendship or intimacy is not simply *related* to experiences and concepts of closeness, warmth, smiling, touch, and satisfying conversation, in a sense it *is* the combination of such things and nothing more.

One can think of the abstract concept as the node in a semantic network that has no content in itself, but serves as the connection point pulling together other nodes (which, according to Lakoff and Johnson, bottom out in concrete experiential categories). This connection between abstract thought and concrete experience is at the center of Lakoff and Johnson's "Primary Theory of Metaphor." In their theory "metaphor is *not* the result of...interpretation [it is] a matter of immediate conceptual mapping via neural connections" (emphasis in original; p. 57). (Non-abstract or literal ideas need not be metaphorical; grasping a hammer is literal, while grasping an idea is metaphorical.)

Lakoff and Johnson map out the sensory-motor roots of many abstract concepts. I list some of them below. The first concept in each list is abstract and the second shows one of its concrete metaphorical groundings: *importance* as bigness, *happy* as up, *bad* as stinky, *difficulties* as heavy burdens, *more* as up, *relationships* as enclosures, and *organization* as physical structure (PITF, p. 50-54). Additional concepts that are more relevant to our spiritual and philosophical inquiry include: *knowing* or understanding as seeing or grasping, *similarity* as closeness, *time* as motion, *change* or transformation as motion, *states* as locations, *purpose* as destinations or desired objects, and *causes* as physical forces.

The metaphorical connections between abstract ideas and concrete metaphors are not always simple or obvious. Primary metaphors are combined in complex ways. For example, Lakoff and Johnson examine the "life as a journey" metaphor and uncover a plethora of metaphorical interpretations. Another example is importance, which is metaphorically associated with bigness and other sensory-motor metaphors.

Lakoff and Johnson's *Philosophy in the Flesh* is not only about the pervasive role of metaphor in reason and language (their prior books *Women, fire, and dangerous things*, Lakoff 1987; and *Metaphors we live by*, Lakoff and Johnson 1980, covered that territory). They have bigger fish to fry. They are out to show how the most prestigious of all ideas and theories, philosophical and scientific ones, which are also among the most abstract ideas and theories, are on dubious ground. "Our most fundamental concepts – time, events, causation, the mind, the self, and morality – are multiply metaphorical" (or metaphorically pluralistic, p. 128). It shows that abstract ideas point not out to eternal truths but back to concrete embodied experience. Metaphysical philosophical arguments seem to be telling us more about human understanding than the cosmos.

In one sense, scholars are well aware of the definitional pluralism of concepts. Scholars have written entire books exploring single constructs such as cosmopolitanism, hope, patriotism, being, the self, care, bullshit, or insecurity (this random list is just from scanning the bookshelf to my left). But metaphorical pluralism strikes deeper than the understandings of definitional indeterminacy or the metaphorical linguistic relationships.

Time and causality. We can now relate these ideas to ontological questions in philosophy (and later, spirituality). Lakoff and Johnson show that many abstract concepts are understood in terms of a "metaphorical patchwork, sometimes conceptualized by one metaphor, and at other times by another." For example, consider our concept of time, which is based on a patchwork conglomerate of more fundamental experiences and schema, mostly involving space and motion. The future is in *front* of us and the past is *behind* us. We *face* the future. Time *passes* by or the time has *arrived*. Time durations can be *large* or *small*. One date is *close* to another. Events occur *at* times or *in* time. Also mentioned is the "time as a resource" metaphor – we can waste time, steal time, budget our time, etc. (These examples are for English language speakers, but the authors give interesting examples of alternative conceptualizations from other languages and cultures.)

These metaphors "structure not only the way we conceptualize the relationship between events and time but the very way we experience time" (p. 153). "We have found that we cannot think (much less talk) about time without those metaphors" (p 166). Thus "the metaphorical conceptualization of time is constitutive, at least in significant part, of our concept of time"(p. 166). That is, the metaphors are not just *an aspect* of our understanding of time, but together they *are* our understanding of time.

Lakoff and Johnson go on to "consider the classical ontological question: *Does time exist independent of minds*, and if so, what are its properties? [We] reject the question. It is a loaded question" (p. 167). In other words, answers to the question are meaningless or not useful. "Yet the biological and cognitive construction of time does not make it subjective or arbitrary or merely cultural...the metaphors are not arbitrary; they are deeply motivated. They permit the measurement of time, our very notion of history, the science of physics, and much more" (p. 168). The metaphors are "apt" and extremely useful, but "being metaphors, can get us into silliness if we take them literally." And, reading Lakoff and Johnson, there seems to be much of such silliness in classical philosophy.

Importantly, the metaphors that underlie a particular concept can be incompatible or contradictory, and yet we unreflectively jump from one metaphorical basis to another. For example, on the nature of *causality* Lakoff and Johnson's analysis shows that "over the course of history, philosophers have formulated a wide variety of theories of causation, each substantively different from the others and therefore each with its own distinct logic" (p. 173). Are they talking about the same thing? "Philosophers may disagree as to what is the *right* theory of causation, but the philosophical community recognizes all of them as theories of the same thing. Why should philosophers have come up with this particular range of theories of causation?" We will never answer this question if we only keep looking "out there" to the external world of physics for the real answer. The answer is revealed only when we acknowledge the embodied metaphorical nature of the concept itself.

Like the concepts of chair and game (try to define them!), the concept of *causation* is understood in terms of a loose collection of features and exemplars having a fuzzy "family resemblance" or "multivalent radial structure" but having no precise definition, specific nature or essence beyond human cogitation. Though having diverse senses, these concepts have an undeniable unity. The various senses of the word have enough overlap of use and understanding that the mishmash holds together as a single conceptual gestalt for us most of the time.

Other metaphorical pluralisms. Lakoff and Johnson continue with an in-depth analysis of constructs more central to spirituality. They elaborate on *mind, consciousness, self, free will, object, truth,* and *reality* and identify the metaphorical pluralisms of each. Above we noted that because all such abstract concepts are graded, metaphorical pluralisms, and/or otherwise indeterminate, that any *claims* containing them are likewise fallible.

Many classic philosophical and academic debates lose much of their steam in the light of Embodied Realism. Do slugs have *emotions*? Are dolphins *intelligent*? Are computers intelligent (could they become so)? Do apes use *language*? Are rocks or trees or atoms *conscious*? Do humans have *free will*? Do we have a *soul*? Heated arguments ensue without a thorough investigation into how each party's interpretation of abstract concepts may differ.

Slugs, dolphins, apes, computers, rocks, atoms and people do what they are observed to do, and scientists can propose deeper mechanisms that predict or explain phenomena. But the yes-or-no categorical types of questions are uninteresting in the light of Embodied Realism. Humans have free will in a sense and they don't in another sense (arguments on both sides are no doubt familiar to the reader). Dolphins are intelligent depending on the central exemplars and metaphors that are built into one's meaning of intelligent (this does not mean that it is useless to study dolphin intelligence). Is moral development justice-based, as Kohlberg found, or care-base, as Gilliam found? Both types of phenomena are observed and there are important questions of how/when/why/who to be investigated, but whether moral development "is" categorically this-or-that is not among them.

Deeper Dive: More metaphorical pluralisms

We mentioned that Kirkham wrote an entire book and the meanings of Truth used by philosophers. The oft-cited definition of knowledge as "justified true belief" is condemned to indeterminacy by metaphorical pluralism. Philosophers who argue about this definition of knowledge never seem to agree on the definitions (or prototypical exemplars) of "justified," "true," or "belief" (see Gettier, 1963).

Even the verb "to be" is a metaphorical pluralism. According to Lakoff and Johnson, it can imply identity, class membership, existence, or predication. (President Clinton famously and disastrously said, as he was trying to deceive his interrogators: "It depends on what the meaning of the word 'is' is...") Alfred Korzybski describes E-Prime, "a version of the English language that excludes all forms of the verb to be [as a] device to clarify thinking and strengthen writing [that] leads to a less dogmatic style of language that reduces the possibility of misunderstanding and conflict…For example, the sentence 'the film was good' could translate into E-Prime as 'I liked the film' or as 'the film made me laugh.' The E-Prime versions communicate the speaker's experience rather than judgment, making it harder for the writer or reader to confuse opinion with fact" (Wikipedia August 20, 2018).

Similar to Lakoff, Esbjörn-Hargens (2010) proposes that many objects of deliberation are "decentered multiple objects" that exhibit an "ontological pluralism." That is, when interlocutors (experts or citizens) talk about a complex object such as "climate change," they are often referring to different aspects of the totality of the hyper-object.

The theory of metaphorical pluralisms, backed up by research in cognitive science, along with the rest of Embodied Realism, should strike fear, or at least doubt, into the heart of many spiritual belief systems. Indeed, given what we now know about the mind, "philosophy can never be the same again," nor can spirituality or religion. Which is what we could expect and desire in a post-metaphysical milieu.

Epistemic Drives

From thinking to sensing. Gentle reader, if you are still with me, it is with delighted appreciation that I invite you to relax and take a deep breath, as we are rounding the last corners and the conclusion of our exploration is within sight. I started this text by describing how post-metaphysics refers to a humble and reflective *attitude* on truth and belief. It is about an orientation to knowledge, but therefore ultimately about the *relationship* between *self* and the world (and self and *others*). Here post-metaphysics joins arms with spirituality and ethics. With that deep breath I invite you to *sense into* the implications of the remaining discussion, and allow your, possibly tired, analytical mind to rest a little.

We have journeyed from a descriptive and heuristic narrative to a more logical and philosophical approach, then brought in cognitive psychology to help establish an embodied and more personal frame for post-metaphysical thinking. Next we will move into an even more intimate connection with the topic, by exploring the emotion-laden *experiential* aspects of thinking and being post-metaphysical. For in the end, post-metaphysical thinking is about *caring* enough about truth that one opens to the disconcerting "truths about truth;" and it is about caring enough about others that one is motivated to reduce the demi-realities in belief systems that cause suffering. We are enculturated within what Gebser calls a "deficient mental" mode of consciousness, in which demi-real metaphysical projections are deeply entrenched in the modern mind. This is why we have offered a wide variety of perspectives to triangulate upon an intellectual understanding of these phenomena. But in the end applying this meta-knowledge is more about attitude and sensing than about knowledge and theory.

We have used a developmental model to separate the magical, mythical, and rational layers of the mind that contribute in different ways to mystical, metaphysical, and spiritual thinking. Russell was quoted as saying that mystical wisdom is largely a "way of *feeling*" and an "attitude toward life, not...a creed about the world." At the 4thPP action logic one begins to perceive how emotion, ego, language, and reason interact in unhelpful ways, which can motivate deeper self-understanding. We have noted how egoic factors exacerbate demi-realities in thought, as in amplifying the contractive aspects of the symbolic impulse. Generally, stress, threat, complexity, or urgency can increase the ego's need for certainty – its avoidance of uncertainty. These factors can "downshift" cognition to more primitive levels and inhibit reflective meta-skills (though it is also true that challenges can motivate one to rise to the occasion). Similarly, we can hypothesize that cultivating trust, harmony, openness, care, and curiosity supports post-metaphysical thinking.

Epistemic drives. I use the term "epistemic drive" as an umbrella term for any tendency of thought that influences what is perceived as real or true. The term *drive* calls attention to the embodied felt-sense aspect of reason. We have already discussed several of these drives. The symbolic impulse (with all of its subparts, e.g. the tendency to conceptualize in terms of dualities) is an epistemic drive, as is the egoic drive to identify with and tightly clutch one's beliefs. The drives to make meaning, find patterns ("patternicity"), and maintain certainty in the face of dissonance, uncertainty, and unknowing are also epistemic drives. In our descriptions of magical, mythical, and rational thinking one can identify many emotion-like impulses that influence thought and belief formation.

Table 1. Metaphysical and balancing drives.

***Metaphysical drives** (toward...)*	***Balancing drives** (toward...)*
Abstraction (ideals, transcendence)	Concreteness (tangible, sensory, immanent)
Generalization	Specialization (the specific, details)
Integration (wholes, holism)	Differentiation (parts)
Universal (totalizing, absolute)	Relative or contextual
Fundamental (essential, central)	Consequential (peripheral or subordinate)
Permanence (predictability)	Change (transient, unpredictable, chaotic)
Simplicity (clarity)	Complexity
Unity/The One (singularity)	Multiplicity (the many)
Complete (comprehensive; total; systemic)	Partiality (deconstruction, liminality, mystery)
Similarity	Difference (diversity)
Perfection, purity	Imperfection, grittiness
Certainty (confirmation bias)	Novelty, surprise, open to the unknown
Uniqueness, specialness	Ordinariness (commonality)

Epistemic drives are analogous to biologically innate "emotional" drives, e.g. the drive to reproduce, the fight/flight/freeze responses, territoriality, maternal/paternal care, and social dominance/submissiveness drives – but would seem to involve higher brain centers. As some readers will notice, my framing of epistemic drives is related to some "cognitive biases" and "logical fallacies" (see Kahneman et al., 1982; Shermer, 2011; and Wikipedia contains excellent summaries of these); and is also related to some psychological "archetypes" and "personality types" that implicate styles of thinking. The usual treatment of cognitive biases emphasizes the *results* of fallible cognition and the shape of systematic distortions in beliefs. My use of epistemic drives emphasizes the *impulse* or motivation that draws one into enacting these distortions. The goal is to support a reflective perception of when these drives are active in any moment. (Note that, though cognitive biases have been researched extensively, as have the epistemic drives described in Lakoff's work, our treatment of epistemic drives rests on common-sense arguments rather than science.)

A plethora of drives or hard-wired urges exist within humans, mostly dormant until conditions trigger them, and often operating in competition (will I fight or run? Eat, work, or play?). Like other drives, epistemic drives are pervasive unconscious processes that, on the one hand, can have unseen control over us, and on the other hand, can be observed and managed through learned metacognitive (or meta-emotional) skills. As with biological drives to eat (or over-eat), sexually flirt, protect territory, etc., our lives are improved when we reach a stage of development in which we are aware of, and can control or compensate for, these impulses (i.e., when "subject becomes object" for any given drive).

As with biological drives, one never completely outgrows or eliminate epistemic drives; since they can raise their heads unexpectedly in some contexts, and can operate in surprisingly subtle ways. This calls for attentiveness and responsiveness. One becomes aware of and learns to manage them at ever deeper and more nuanced levels – the developmental learning process continues indefinitely. As was clear in the discussion of mystical and metaphysical thinking, epistemic drives are as active and forceful in leaders, mystics, and geniuses as they are in the rest of us.

In our list of epistemic drives those listed as "metaphysical drives" seem to be most related to what motivates metaphysical thinking as we have described it. I suggest that each drive is balanced by a contrasting drive (or, more accurately, is balanced by a set or "ecology " of other drives), as is the case with many biological drives. For example, biologically we have drives for fight vs. flight, action vs. rest, taking vs. giving, etc. In our discussions of metaphysical thinking we have emphasized drives including abstraction, certainty, and unity, suggesting that these drives sometimes overreach – but surely the mind has balancing instincts and needs, for example toward the concrete, the novel, and the diverse. Each individual will manifest a different composition of more active (or habitual) and less active drives, and we suggest, quite tentatively, that the drives listed in the metaphysical drives column characterize what draws one toward metaphysical thinking.

Clearly these "drives" are not psychologically separate – they overlap quite a bit. For example, the symbolic impulse is aligned with drives toward abstraction, generalization, simplicity, unity, and certainty (among others). The general "meaning making" drive relates to many of the metaphysical drives as well. Perhaps a small set of foundational drives would provide an adequate theoretical pallet to cover them all – I have not attempted to produce one. My goal here is to illustrate the scope of these drives rather than provide a definitive taxonomy or theory (in fact, Embodied Realism explains why a tidy set of categories may be impossible).

Our list is suggestive rather than comprehensive. It would be possible to associate these drives with researched phenomena in cognitive biases or archetypes. There are no doubt correlations between the strength of certain epistemic drives and personality factors such as openness and conscientiousness – but exploring such theoretical connections is not relevant to our goal in this chapter of turning attention inward toward embodiment. The invitation here is simply to develop a capacity to feel into such drives rather than think about them – to experience the pull of these urges. If the reader feels a desire to transform this informal mishmash of overlapping concepts into a refined theory she will be moving in the opposite direction! But if you are draw to do that, don't despair – *pause* and *feel* the part of you that wants to do that.

One can become aware of that in the human mind which dearly wants to pull the disparate, the many, the diverse into a unifying whole; or achieve the simplicity and power of a general concept or rule; or rest in what is at the center of things (or underneath things). There is a sense of ease, certainty, and mastery when one ignores details and differences and trusts a sturdy generality; a sense of elegance and wholeness when one embraces many things into a circle of unity. One obtains satisfaction from ordering things or collecting them into tidy groups. The inquisitive and meaning-hungry mind wants to know the causal root, foundation, source, or origin of things.

We do not imply that these tendencies of mind are fraudulent – we are suggesting an awareness of how and when they are active. Physicist/philosopher David Bohm called this self-perception capacity "proprioception of thought" – a term that metaphorically extends the body's ability to feel its own movements (proprioception) into an awareness of the movements of thought itself. He says "we could say that practically all the problems of the human race are due to the fact that thought is not [usually] proprioceptive" (Bohm, 1996, p. 25).

Science has shown incontrovertibly that the emotional and perceptual functions of the brain are inextricably linked to its rational functions (Damasio, 1999; Goleman, 1995). At 3rdPP consciousness, most individuals can clearly see how emotions influence actions and how emotions influence thought – e.g. one can notice how being frustrated about bad weather causes one to be impatient with family members; or how being enamored of a speaker can make one less likely to critique their ideas. The 4thPP/5thPP sensibilities that we are describing here are subtler. Though the experience may be somewhat different for each individual, thinking and questioning each *feel* like something different; as do focusing one's attention and widening it. I.E. there are felt-sense experiences that co-occur with the cognitive activities of intellectual reasoning. There are also felt-sense experiences associated with thinking in magical, mystical, or metaphysical modes of thought. Various aspects of what we could call *spiritual* thinking have felt-sense correlates as well. To notice that one might be thinking too abstractly, or one is grasping for too much certainty, or craving simplicity, or is coercing another into agreement, or is escaping into a magical fantasy world, or is leaving practical considerations behind at risk of a "spiritual bypass" – these types of awarenesses are more like emotional (meta-emotional) awareness than rational inferences.

Each epistemic drive serves a positive function in the overall goals of finding truths and making meaning in life. But they can also over-function to create biases, errors, and ethical problems. Phenomena such as grandiosity, hegemony, elitism, and proto-fascism are extreme cases. But in less extreme ways the subtle influence of such drives pervades the creation, consumption, and promotion of theories, models, and belief systems – including spiritual ones. In our narrative on "historical arcs" we imply that humanity needs to understand the mind better – to strengthen modes of awareness that can notice when the rational mind is over-reaching, and when other aspects of the mind are too weak. Awareness is the first step to adaptation. A proprioceptive sensitivity to the inner movements of epistemic drives is just that capacity. Post-metaphysical thinking necessarily includes a kind of post-metaphysical feeling/sensing.

Although in specific situations the "balancing drives" in the table can be overactive as well, in our exploration of metaphysical and post-metaphysical thinking we have emphasized the list of "metaphysical drives," as it seems that both modern Western culture and contemporary spirituality err too far in those directions. Strengthening the balancing drives, in individuals, contexts, or cultures, is one path to ameliorating these errors. The term "negative capability" mentioned above captures many of those balancing drives. And of course, cultivating basic human emotional orientations such as humility, curiosity, generosity, compassion, and respect are powerful antidotes that would significantly support post-metaphysical thinking.

A complementary approach is to cultivate the habit of reflecting on one's *motivations* behind belief-formation or belief-propagation. The cognitive task of identifying what needs are being met – safety, comfort, solidarity, creativity, understanding, control, influence, service, etc. – is closely related to the felt-sense proprioception of thought. It must be admitted that these suggestions are mundane. Humility, self-understanding, service, compassion...nothing new there – yet they are in such short supply in the public sphere of belief-formation. Our explorations are meant to explain why they are difficult to embody in a complex world, and also help us manifest them more robustly.

A post-metaphysical spiritual *community* would also be a post-metaphysical *knowledge-building* community, and one of its characteristics would be sufficient trust and depth of self-reflection that members could question the epistemic drives (and the quasi-hidden motives) that might lie underneath their individual *and collective* beliefs and decision-making. Such communities can proclaim humility, curiosity, generosity, compassion, and respect as explicitly shared values.

***Deeper Dive*: Consciousness**

Consciousness is a deep topic. Perhaps unnecessarily deep. Thinkers from experienced scientists to pub-pundits have ideas about what consciousness is. Consciousness has even been proposed as the fundamental substrate of existence. Some have tried to link consciousness to quantum entanglement and the collapse of the quantum wave function, but these are metaphorical, not scientific, associations. The dramatized educational video "Through the Wormhole: The Universe is Conscious" (at www.youtube.com/watch?v=lkdR_wXxjsw) says (at about 50 seconds) that that "we can change the way reality behaves just by looking at it" and that the famous Double-Slit Experiment "will make you question whether reality exists at all." Such statements are meant to activate the magical and mythical levels of meaning-making of the novice. They are both meaning-generative and troublesome for reasons we have discussed at length. From the post-metaphysical perspective presented in this text, one can make several observations about Consciousness:

- The "hard problem" of consciousness, i.e. how it is possible that dead matter can have feelings or sentience (and the related problem of how mind or consciousness can have an effect on matter; see Chalmers, 1996), is a non-question – a faux-paradox. The question is a child of the *symbolic impulse* creating a conceptual split between mind and matter, subject and object, which was taken up by Descartes and many following him. An *embodied* philosophy (or psychology or spirituality) assumes that mind and matter are intricately connected and co-emergent, and have never really been separate. The hard problem is no problem in this sense (and see Lakoff and Johnson, 1999).

- Consciousness, as understood by many, is a *misplaced concreteness*. There is no *thing or process* existing in the universe to be found that will explain all of what is loaded onto the word, though science continues to discover individual mechanisms that explain aspects of what it refers to. When the abstract concept "consciousness" is *reified* and projected out as a thing, it causes those hypnotized by its grandeur to go looking for "it," forgetting that, as an idea, it is a conceptual *tool* that we created in our attempt to explain a complex set of phenomena. This complex set of phenomena is real, but, as a reified projection, consciousness accumulates spurious properties based on our epistemic drives; properties that distract us from focusing on basic realty.

- Consciousness is an abstract concept predisposed to *metaphorical pluralism*. Those studying it are far from agreeing on a definition. That the key concept bringing the "science of consciousness" community together is so poorly defined suggests the unlikeliness of deriving valid theories, or even of knowing how to set up or interpret experiments – until that is cleared up. The various *metaphysical* definitions of consciousness that place it in a realm beyond mind and matter are fallacious, for all the reasons explained in this text. More objective definitions can allow real science to progress without concern over what it "really is." However if one tries to limit the definition to one that could be measured and that all would agree upon, its *meaning* might evaporate before one's very eyes.

- "Consciousness" is a *graded* concept, even though it is often treated categorically. The sturdiest meanings of consciousness are: (1) it is simply *experience*, i.e. what it feels like to be alive; and (2) it describes what the mind *does*. The first, an interiorist definition, is described in the next item. The second, an exteriorist definition, allows for scientific explorations of consciousness in animals, plants, and humans. In such explorations one does not have to haggle over the metaphysics or the definition of the term; one can agree to disagree on its definition and stick to the observed phenomena. A plant does this under these conditions; a raven does that under those conditions...consciousness can be seen as graded concept admitting to *degrees*, according to however one chooses to define it.

- From a *phenomenological* perspective, consciousness is what it feels like to be alive or aware (depending on how one wants to define it) (see Metzinger, 2004; Clark, 1996). From an evolutionary and neuroscience perspective, we know that animal intelligence becomes more complex and sophisticated through successive layers of neurons that can sense (i.e. are connected to) "lower" layers. (This accumulative layering of neurons – or hierarchical functional units of the brain – happens over the span of species evolution; and also over the span of individual human cognitive development.) An amoeba moves through a biochemical mechanism connecting the state of its environment *directly* to its tail-like pseudopod. More complex animals with nervous systems *sense* the environment and respond through stimulus-to-response *reflex* pathways. Higher order animals can sense these reflexes through complex sensory-motor structures. Successive layers can sense/monitor and coordinate/regulate lower layers – and it is the sensing/monitoring function that appears as "conscious" "awareness." At some level of complexity an animal can *feel* that it is feeling, i.e. monitor and adapt to the automatic impulses arising in its mind/body. Escalating this capacity, human's can feel that they feel, think about their thinking, and be aware of their awareness.

  This is a simplified model of neural architecture, when in fact the sensing of sensing of sensing of sensing ... may pass through hundreds or even thousands of layers (or neurons) within the hierarchical "stack" of human cognition. Some of these connections are below consciousness and awareness, and some are not. In the section on phenomenology we suggested that the *feeling* of infinity made perfect sense given how many connections were alive to awareness (or sub-awareness) in any moment. The same is true of consciousness. When one senses into being conscious or aware, one usually taps into an experience of vast depth and extensive spaciousness. This is what it *feels like* for the human to sense its consciousness. In fact, in a sense, conscious *is* what it feels like to be aware (even if one is not aware of their awareness). In misplaced concreteness, this feeling is projected out as something that must exist "out there" as a vast and expansive process or entity.

- The force behind *epistemic drives* explains why the topic of Consciousness should be so popular and alluring – it brings together one of the deepest questions of science with one of the deepest mysteries of human existence. It is not difficult to literally *feel* the strong meaning-making pull of such an idea within the mind. Swimming in theories of consciousness can send chills up the spine and trigger a feeling of luminous import.

- Consciousness is implicated in *mystical* experiences as well as ordinary ones. Mystical experiences and flow-states involve an expansive radiance of awareness. Such experiences are more likely to reify consciousness than the mundane experience of consciousness as just thinking, sensing, or feeling. Also consciousness is at a level of abstraction and indeterminacy comparable to other concepts common to mysticism, and is well linked to "questions of ultimate concern," so it is quite susceptible to the problems discussed in our section on mystical thinking.

All of this does not alter the facts that consciousness is a useful concept for making meaning in spiritual discourse; an important thing to study scientifically; and an empowering capacity to develop personally. It's just that all three of these use different definitions of consciousness. One can still make progress in all of these areas if one takes a humble post-metaphysical attitude toward concept definitions ("interpretive pluralism") and has a meta-cognitive sense of what action logic is being used in any moment. In dialogue, let's say at an academic conference on "Spirituality and the Brain," one can become aware of when a conversation veers off of factual-feeling scientific consideration and is carried along by the rapid current and wonderful feelings of deep meaning that such a topic delivers (perhaps supported by a few beers). One does not need to back off from the conversation, but can continue to let one's imagination run wild with possibilities, now free from having to argue so strongly about who is right. One can loosen the shackles of traditional "rationality" and let the mind work holistically and intuitively, allowing novel metaphors to burst from the unconscious, or noticing fresh patterns and possibilities that might some day be tested. One can keep asking: "in *what sense* might that unbelievable idea be right?" to create a more superfluid context for insight generation. Next morning: its back to the lab.

***Deeper Dive*: The Unconscious**

In contrast to the concept of Consciousness, which, I believe, is hyper-valued, over-used, and extra-muddled, the Unconscious is, though similarly muddled in its uses, *very* important to explore, understand, and clarify. This is because, in many discussions of psychology, philosophy, spirituality, and human potential, there is an insufficient distinction and clarity about when one is referring to conscious (or explicit) vs. unconscious (or tacit) knowledge and thought. This is in part because the territory is complex and casting functional conceptual boundaries around the important phenomena is challenging – but we can explore it briefly here with enough resolution to inform our exploration of post-metaphysical thinking.

In the Interlude chapter we argued that: the key challenge facing humanity today is understanding the human mind; and the progress of human development can be described in terms of "minding the gap" between ideas and reality. Here the unconscious plays a pivotal role. In early stages of development (1stPP, 2ndPP) the unconscious is completely hidden. In middle stages (3rdPP and 4thPP) the conscious mind or self increasingly sees, tries to manage, and attempts to heal or integrate unconscious material. Here, one might intellectually understand that, say, "95% of our thinking is unconscious," but one does not experience *oneself* in that way. (One of Lakoff's "three major findings of cognitive science" was "thought is mostly unconscious.")

At later stages (5thPP and above) a type of figure/ground reversal emerges. One becomes less identified with one's group, "identity," beliefs, and thoughts, and more identified with the experience of presence, awareness, aliveness, peaceful silence, emptiness/fullness, and/or Being that remains when those other things are released. The aspect of "emptiness" here is in the contrast between new and old modes of awareness – since so much has been dropped. A metaphysical interpretation of these phenomena places consciousness in some spiritually advanced realm. Yet actually, it is an experience of "looking" into the very "full," stark yet vibrant, dark yet blinding, invisible yet immense, realm of the unconscious mind. It is metaphorically like the observer sitting at the event horizon of a black hole, with "black body radiation" streaming away from the impenetrable darkness. In the figure-ground switch, one realizes that the self primarily *is* that unknown realm.

That is to say, my unconscious is fundamentally *who I am* (as an interior – it also involves a deeper sense of embodiment, so interior and exterior are felt to interpenetrate). One observes actions, thoughts and feelings arise and pass; one see that one has beliefs and needs; one even observes oneself "making decisions" but, from this new perspective, "I" am not deciding to do any of those things. If I am honest with myself, I don't really know how I produce the stream of words that come out when I have a dinner conversation. I don't know how I understand things when I read words on a page. I see that I decide to do something, but I can't see how I *decided to decide* that. As was mentioned, cognitive science is showing empirically how the unconscious makes decisions before the conscious mind appears to "decide" (Roskies, 2006). The unconscious holds a literally unimaginable amount of information; and it has a literally unfathomable influence on our thinking, acting, and believing. But, in a sense, *we are that*.

It was very late, i.e. only recently, in the historical development of philosophical thought, that humankind "discovered" that we have an unconscious. Though there were intimations of the notion all along the way, our current understanding began at around the time of (and in large part thanks to) Sigmund Freud. Carl Jung, as most readers will know, added key elements to the understanding of the unconscious that scholars and researchers continue to develop. At face value the concept is simple: there are aspects of how the mind works that one is not aware of. However, as we illustrated in the "historical arcs" titled " A brief history of belief fallibility" and "An evolution in understanding ideas vs. the real," the admission that a significant part of one's human Being (and thinking and knowing) happens beyond one's awareness and control was a disturbing insight that humans tended to resist for generations of thinkers (and knowers).

It seems true that Eastern religions and philosophers tended to explore human interiors more extensively than in the West, but even the most advanced such cultures, including the Indo-Tibetan Vajrayana sects of "the Third Turning of the Wheel of Buddhism," developed a deep understanding of perception, conception, and self-sense, but did not develop a sophisticated understanding of psychological "shadow" or the socially constructed nature of ideas (see Wilber, 2000). (And most Buddhist schools, and other ancient wisdom traditions as well, do not demonstrate what we call a construct-aware treatment of concepts.)

The unconscious has a close relationship with the collective. So much of what we learn and who we are grows directly from interactions with others – through family, social, and work contacts, and through communications media. The beliefs and habit patterns that define the self are as much, or more, the products of others and of cultural norms, as they are of one's own decisions or unique experiences. Some would say that the *conscious* sense of individuality is a veneer over the deeper *unconscious* reality of our collectivity. Thus, in a sense, the unconscious *is* collective. (See below for a Deeper Dive on "Collective consciousness and we-beings.")

We will not try to explain or explore the extensive territory of "the unconscious mind" here, but rather will try to show why it is important to differentiate the conscious/explicit/declarative from unconscious/implicit/tacit strata of mind in discussing spiritual (and psychological) phenomena – a concern closely related to our emphasis on *embodiment*.

So much is at stake at the intersection of mind and matter, subjectivity and objectivity, thinking and acting. As we have argued, these are false dualities that have some meaning-making usefulness, but the symbolic impulse drives one to ignore whatever is in the fuzzy area between, and outside of, these dualities. But in this case it is not that we ignore an indistinct but rarely significant set of phenomena at the borders of a conceptual boundary, but rather that these dualities incline one to ignore a gargantuan phenomenon that sits, often invisibly, right in the center: the unconscious (the elephant in the room, so to speak). The unconscious is sort-of *subject*, because it is about one's interior; but it is sort-of *object* because it is a thing outside of awareness and control that greatly affects one. Likewise it can be described in terms of *thinking*, albeit subterranean thought, yet it is also intimately tied to one's *actions* and impulses, and the embodied self. It is no wonder that, focused on those misleading dualities, it took centuries for humanity (Western culture at least) to notice that the unconscious exists.

Unconscious "material" includes memories, beliefs, sensations, and cognitive processes – that one is unaware of. Contemplative practices increase one's awareness of otherwise unconscious sensations, feelings, and thoughts. All of the sources of fallibility and epistemic drives mentioned in this text are unconscious processes. Post-metaphysical thinking includes becoming aware of these processes at work. Intentional learning is largely a process of filling the unconscious mind with material that the conscious mind deems useful. The usual goal is to practice skills until they become automatic, i.e. "unconscious."

As basic psychoanalytic theory tells us, it is all too easy to project material hidden in the depths of the unconscious onto the external world. In fact the mind is organized to do just this through reification and projection. This is one reason it is so important to be curious about what lay beneath – because what is not seen, especially if it is emotionally potent, is very likely to be projected as demi-reality. In projecting outward one ("magically") transforms what is *I/me/mine* into *you/they/it*. I need not expand on the tragic and ubiquitous consequences of this tendency of mind.

The unconscious holds many treasures to be retrieved (in addition to monstrosities to be dealt with). All of what we have said about opening to the gifts of the magical strata of consciousness is basically about accessing resources in the unconscious. Insight, creativity, intuition, emotional vitality, and sensory clarity spring from the unconscious. The spiritually alive and wise life is in contact with its depths. But also: "beware – there go Dragons."

There are basically two ways to get a sense of what happens in one's unconscious. First, one can bring material that is hidden, repressed, or suppressed into awareness. One can also train oneself to become aware of cognitive processes that are usually ignored, such as subtle body sensations and the machinations of thought. However, not every aspect of the unconscious can be made transparent to awareness. For example, I will probably never see directly into the part of the mind that allows me to read sentences and turn them into meaning. So there is a stratum, a penumbra, of unconscious material that one could, theoretically or potentially, become aware of; and deeper layers that are probably forever beyond awareness.

A second way to become aware of the workings of one's unconscious is through observing the manifest results of unconscious processes. One can notice that every time one walks into a Japanese restaurant one feels anxious – and use that fact to explore the self more deeply. Others can bring clues of unconscious processes to one's attention, such as noting behaviors that seem "unconscious" or speech that seems contradictory. (Note that I am not suggesting that anything that *can* be dredged from the depths of the unconscious onto the shores of consciousness *should* be.) Scientists can run experiments, drawing conclusions based on observing many people, to tell us things about how our unconscious mind works, for example that we tend to remember the first and last things we are told better that the middle things.

Minding the gap between ideas and reality involves learning about the unconscious. It is invisible to us (except for those parts of its penumbra that we come to see), yet we can describe some of its properties. In our differentiation of ideas vs. the real, the unconscious is actually part of the *real*. In our explanation of ideas we characterized them in terms of explicit thoughts and beliefs in the form of (implied or spoken) linguistic concepts and statements – thus ideas are susceptible to the complications (and simplifications) of the symbolic impulse. The unconscious operates largely outside of language (though conceptual boundaries are certainly at play in some unconscious processes). The unconscious, as real, is "replete" with practically infinite detail and complexity. It is impenetrable and "withdraws" from knowing it both in the obvious way that it is the hidden part of the mind, but *also* in the way that it is like any other aspect of "reality."

As mentioned in our reference to Jason Brown's work, thought is understood to emerge through overlapping waves of signals that start at the lowest strata of the unconscious mind and progress through developmental strata – from magical through mythical and finally to rational (or meta-rational) modes of cognition. Pre-formed thoughts, emerging from the unconscious and bursting into consciousness, are carved, crafted, and painted, via the symbolic impulse – to take the shapes dictated by language and concepts. When one struggles to put an idea into words, or closely observes the process of writing a poem, or notices the pre-formation of ideas in the silent mind, one can notice how ideas begin in a place without language and emerge into language. When we say that the *magical* action logic is a relatively *simplistic*, i.e. non-complex, mode of thought, we are referring to the conceptual and language-bound structures it serves to consciousness; but *not* to the unconscious mind that it is intimately connected to, which is replete and complex.

Phenomenology and Infinity

If old-style metaphysics is to be questioned, what then becomes of spirituality and religion? Given what we have said about the indeterminacies of language and the truth-distorting force of epistemic drives, what becomes of the search for answers to questions of ultimate concern? We have suggested some alternatives to common modes of spiritual or metaphysical thinking. One is a developmental approach to metaphysics that understands and allows for the gifts of each level of consciousness (magical, mythical, rational, etc.), and reflectively chooses or *constructs a metaphysics* for human self-understanding and action. Another is the self-reflective approach of building awareness skills for noticing how epistemic drives are at play in belief formation and communication – one can notice the pulls and motivations toward metaphysical thinking.

A third approach, compatible to those two, is to eschew the creation and use of metaphysical objects, place less emphasis on abstractions, and stick more closely to the ground of *experience*. In the search for spiritual truths and "the real," experience is our closest encounter with reality. Exposing the sources of fallibility of reason and belief does not need to leave one dry, empty, isolated, or without meaning. In releasing the grasp of abstract ideas and ideals we still have each other; we still have life, love, creativity, passion... – all the richness of a lived life. Our explorations of how meaning making is fallible and fragile need not make life feel meaningless.

Love remains. For example, consider love. Love can be explained objectively through various 3rdPP lenses. Love is a response that results from certain neurotransmitters and neural pathway activations in the body. Love is a set of behavioral responses that evolution has programmed into human genetics to ensure the survival of the species. Love can be subcategorized based on the mammalian instincts of parental caretaking, romantic/sexual lust, social bonding, and the infant's merging with the mother. But none of this changes the *experiential facts* of love. A 3rdPP analysis of love can help one understand one's experience, but it need not diminish love's experiential depth, complexity, mystery, or rapture.

Love, in its various guises as care, compassion, devotion, etc. is central to religious and spiritual self-understanding. 2ndPP action logics construct moral and metaphysical narratives about what love is and how one should act. 3rdPP abstractions can super-charge these narratives to project universals such as Eros, Divine Spirit, or Universal Love out into the cosmos. We construct the metaphysical object of Love or Eros as a universal force or attractor, as a property of God, or as the essential ground of Being. These narratives can serve a useful purpose, but in this text we invite a post-metaphysical reflective distance from metaphysical narratives.

Again, we suggest grounding in the *experience* of Love. For first and foremost, I *find myself* as one who loves. If I open to that experience ever more deeply I find ever deeper resources of love. I do not need a 2ndPP story about God or Spirit or Cosmic Essence to know this about myself. I do not need a 3rdPP biological or evolutionary or psychodynamic explanation to know this about myself. Yet, *once one locates* love *within*, and empathetically senses that others share the same deep resource, it might be useful to *intentionally* adopt a metaphysics grounded in love. But only after grounding that metaphysics in an experience (rather than a disembodied abstraction).

From a post-metaphysical perspective, my experience is the ground for such truths. 2ndPP narratives and 3rdP explanations can add essential layers of meaning, but should supplement my experience, rather than constrain it by telling me what or how I should, or can, experience love. With experience as the ground, and collective participation and sharing as the primary method of meaning-generation, one can allow stories and explanations to be chosen wisely and held lightly, which allows for flexibility and change as new perspectives and new individuals enter our awareness. Such a metaphysics nourishes the magical and mythical layers of consciousness with sustainable meaning-making resources. It responds to who we are rather than defines or controls who we are. It can also provide differentiations or highlight questions that spur collective reflection and growth.

High stages of psychological or spiritual maturation (i.e. at a construct aware action logic) may reveal how, in a sense, love is *empty*. But it is only empty of the stories we have projected upon it. The human experience of love, and the human potential to love in ever-deeper ways, are givens – they are part of reality as aspects of our endowed humanity. With deeper engagement love is seen in its *fullness* as well as its emptiness. *In a sense*, "love is all there is," and Love is the universal ground of Being, but these words are best understood to point to an experience or a way of being, rather than a romantic but abstract metaphysical belief.

In general we can say of many of the themes in this text, that "deconstructing" the meaning of, for example, spirit, Eros, Gaia, or collective consciousness, through scientific, psychological, or philosophical analysis, need not leave such things inert within the psyche. As with love, the experiences associated with such ideas remain important and primary to human spirituality. Scientific understanding does not reduce the sense in which birth, death, and love are truly "miracles" to behold.

Phenomenology. Descartes is said to have started Western society down a painful path of dualistic thinking with his "I think therefore I am," which conceptually separates mind from body, subject from object – creating faux-paradoxes and other problems. A more apt and embodied aphorism would be "I *experience*, therefor I am." In philosophy "phenomenology" is the term used for methods that focus on experience as sources of truth. Though the more nuanced forms of this methodology are associated with early 20th century philosophes including Edmund Husserl and Martin Heidegger, it harks back much earlier, for example in our above quote of the 14th Century text on "The Cloud of Unknowing," which said "go after experience rather than knowledge..." Modern phenomenology is an important aspect of post-metaphysical thinking.

We have already touched on aspects of phenomenology above. We have implied that Truth and Certainty are, *in a sense*, merely experiences. If one listens to the variety of perspectives on any given subject, one must conclude that a lot of people are mostly wrong about some things, including some who are absolutely sure of themselves. What "true" statements have in common, is not that they are true, but that they *feel* true to the speaker. Similarly, the certainty or importance with which someone holds a truth seems little related to its correspondence with reality. Certainty and importance are, in a sense, feelings. And as discussed previously, mystical experience is often associated with a *feeling* of boundless clarity, wisdom, confidence, and yes, "truthiness." The demi-real involves not just erroneous ideas, but an erroneous *certainty or importance* of ideas.

Even "reality" can be linked to phenomenology, as science has discovered that there are specific cognitive functions that make things appear and *feel* real, as opposed to dream-like, imaginary, or un-real. Oliver Sachs (1990) describes cognitive pathologies called depersonalization and derealization (disorders of the ontological felt-sense), in which individuals feel as if they are observing themselves from outside of their body, or feel as if the objects perceived around them aren't real. Scholars of contemplative practices know that such experiences need not be considered pathological, and can be experienced by otherwise healthy individuals at various locations along the path to experiencing the self-construct as empty.

The above deconstruction of the experiences of truth, certainty, and realness apply differently to different action logics. At 1stPP feeling certain is inseparable from truth and realness. At 2ndPP certainty implies that a person has a pre-rehearsed justification for their beliefs about reality. At 3rdPP the certainty of an idea is based more on following valid empirical methodology and passing the tests of logical consistency and peer critique. But although truth, certainty, and realness have different sources at each level, in the end believing something is true or real with certainty has a strong phenomenological component, regardless of one's action logic.

Next we will apply a phenomenological approach to the philosophically and spiritually troubled concept of "fee will."

Is free will free? Just as there are people with a scientific bent who *elevate* Consciousness to such an extent that they claim it is the fundamental essence of physical reality, there are also those of a scientific bent who *dismiss* consciousness to such an extent that there is a serious scholarly conversation about whether *free will* exists. Cognitive science research has shown that, at least in certain experiments, the brain decides what action a subject will take before and quite independently of the apparent or conscious "decision" to act (Roskies, 2006). Some claim they are proving that free will is an illusion, and others are alarmed about what that would mean for human self-understanding, and for practical social structures such as a legal system that considers not only actions, but also intentions (Harris, 2014).

Important questions do come out of such research, but the binary question "*do* humans have free will?" is not one of them. This is because, as explained above "free will" is a metaphorical pluralism with no single meaning. So, we are finding that *in one sense*, people don't have free will in the way one might assume, but that *in another sense* (or senses) they do have free will. Importantly, people do have free will from a *phenomenological* perspective. I find myself as one who experiences free will, regardless of (or in addition to) what the scientists tell me. Just as a deeper scientific understanding of love need not diminish the experience of love, the important personal and social construct of free will need not be obliterated because science shows it to be, *in one sense*, empty.

Actually, for millennia serious practitioners of contemplative practices have already learned that, *in some respects*, the experience of free will is indeed empty. This will not lead the meditator into nihilism *unless* they apply a black-and-white action logic to the experience and see only two possibilities: free will exists or it does not. The combination of black-and-white action logics and higher-level contemplative experiences can lead to a “spiritual bypass” phenomenon. For example, a person can use her experience of "no self," i.e. witnessing thought and action as manifesting automatically without any control from a "self" – as an excuse to unplug from the real practical necessities and moral obligations of life.

It may be the case that the "decisions" behind most or all of human action and thought emanate from the unconscious, but this does not need to refute free will (and see the Deeper Dive on the Unconscious). A common (useful, if overly simplified) model in cognitive science differentiates two modes of thought: fast, automatic, intuitive, and unconscious (sometimes called System 1); vs. slower, reflective, rational, and conscious (System 2). (see Kahneman et al., 1982; Evans & Stanovich, 2013). The reflective system is thought to engage when the automatic system reaches an impasse or challenge. It seems that one of the roles of the reflective system, and perhaps its *major role,* is to set up experiences that, in effect, re-program the automatic system. Put simply, even if most of our thoughts and actions are automatic (lacking free will), we engage in intentional learning (and unlearning) processes to train the unconscious to do better in the future, and thus do have this type of control of and responsibility for our lives.

Let's apply a phenomenological approach to some of the themes from the metaphysical statements in Exhibit A.

Feeling and being infinite and empty. In the first chapter we noted that "along the further reaches of the spiritual or psychological path to radical stages of consciousness one can encounter experiences such as profound states of emptiness, bliss, boundlessness, expansiveness, one-pointedness, oneness, and/or compassion." The Two Truths Doctrine used by many spiritual teachers associates such experiences with the metaphysically Absolute, Ultimate, Primordial, Empty, and/or Infinite. These sublime experiences are thought to reveal and give evidence of another realm or an Ultimate Reality. Such narratives might be useful to allow those who have not had such experiences to be motivated to seek them; or to admire those who have attained them –

arguably dubious purposes. But for those who have *had* such experiences, it would seem that metaphysical narratives diminish one's experience more than helping to deepen, integrate, or understand it.

For example, Wilber's quote includes: "an ultimate unity, oneness, infinite harmony and interconnectedness with the entire universe – the discovery of our real Self, Big Mind, the groundless Ground of all Being, the Supreme Identity, the Great Liberation in infinite Spirit." How does one (Wilber or any of the others quoted) move from an *experience* that can best be described as a *feeling* of infinity, or unity, or oneness, or complete emptiness – to a claim about the nature of reality and the cosmos? Under what authority, or using what action logic, is one authorized to make such totalizing proclamations?

As we have said, eternalist claims are taken as valid because this language game, including metaphysical realms and beliefs taken from spiritual authorities, was the accepted mode in the 2ndPP traditions that many spiritual teachers draw from. The human mind simply cannot experience literal infinity – that would take either an infinitely large brain, or if one finds that too reductive, and infinitely large consciousness. The die-hard mystic might say – "Oh, you see, that proves it! – because when you are in that state you are at one with God, with everything." But that sort of self-justifying circular logic is not invited to the humble party of post-metaphysics.

So let's feel into it instead, phenomenologically. A deep gaze into the ocean's horizon or the night sky evokes a sense of vastness. Pause to breathe in that vision. If one focuses on or practices any experience, it can deepen in a somewhat recursive way. One can feel vastness on top of vastness, or one-pointedness at the center of one-pointedness, etc. At around 3rdPP consciousness, the concrete feeling of vastness is abstracted and infinity becomes a possible object of thought, allowing one to imagine, and talk about, the idea of space or time or number extending out hypothetically indefinitely with no end (to both the infinitely large and the infinitely small). Analogously, there was a time when culture(s) developed an early 3rdPP and discovered the concept of infinity, which was eventually formalized as a mathematical construct. The abstract concept of infinity remains metaphorically associated with the concrete experiences of vastness, awe, and incomprehensibility.

How can it be that something "feels" infinite – if we reject the metaphysical notion that one must then be in touch with actual infinity, or God, etc.? I will offer a plausible explanation.

The sublime mystical states of boundlessness, union, bliss, one-pointedness, etc. are examples of what psychologists call "flow states" (Csikszentmihalyi, 1990; Kotler & Wheal, 2017). Though these words point to different flavors along a continuum of experiences, any one of these states actually feels at least a little bit like *all* of the others, and the concepts are connected in a tangle of Metaphorical Pluralisms. The experiences of being/feeling infinitely large and infinitely small are actually closely related, and often co-occur in contemplative practice.

Flow states can be understood as neural activation with great coherence of free-flowing connection across large swaths of the brain. It *feels like* something when our brains are "lit up" with an unusual degree of synchronous activity (as it feels like something to have a dull mind).

This is because parts of the brain are dedicated to monitoring other parts of the brain allowing one to "sense" aspects of one's thinking and feeling (i.e., what we called proprioception of thought).

There are 1 billion trillion stars in the observable universe – about 10 times the number of grains of sand on the earth; and about half a trillion stars in our galaxy alone. These are incomprehensible quantities. The human mind did not evolve to be able to adequately comprehend the difference between, say a billion, and billion trillion, in a direct experiential way. There are about 100 billion neurons in the brain. Each neuron can have up to 10,000 connections. Scientists estimate that the number of neural connections (synapses) exceeds the number of stars in the galaxy by a factor of 1000.

So, what does it *feel like* when the brain in a flow state experiences that many of its neurons firing in a synchronous pattern? Pretty much exactly like *infinity* – as close as we can have it. One cannot blame mystics and spiritualists of ancient times for equating such experiences with the concepts of infinity and boundlessness. Even today, we have no better concepts for describing such sublime experiences than the highly abstracted concept of infinity (or emptiness, which might correspond to the fact that the brain is in a synchronous superfluid state, seemingly empty of chaotic conflicting signals). But one *can* eschew taking the metaphysical leap of believing what ancient wisdom traditions tell one about the actual cosmos based on such experiences.

Finally, we can link the experiences of vast expansiveness and one-pointed emptiness with two complimentary cognitive processes: *scanning* and *focusing*. These can be understood as the most fundamental functions of animal-body awareness. Animal cognition includes a primordial "seeking" drive that underlies both approach towards desired things and avoidance of undesired things (Panksepp, 2005). This core awareness capacity requires two modes: focusing in to gain more detail, and scoping back to see a bigger picture. Wide-angled open awareness is restful and expansive, yet alert; while focused attention is more energized and piercing, gathering specific information in preparation for potential action or decision. In human experience one can feel the play of these two modes of awareness in sight, sound, touch, and inner thought – as one naturally moves between a peripheral-vision-like expansive mode and a more focused attention, according to the needs of the moment. When these core processes are refined or expanded to a sublime degree, as can happen in flow states, contemplative practices, or illumined moments of insight, the experience is magnified. At the extreme of expansive awareness is the experience of infinity, and at the extreme of focused awareness is the experience of one-pointedness or even emptiness. As we have indicated, there does seem to be a mode of cognition that activates both of these modes simultaneously (or interpenetratively), as in flow states the experiences of the infinitely large and the infinitely small are phenomenologically quite close.

Time, space, light, shadow – and spiritual clarity. In addition to feelings of expansiveness and single-pointedness, mystical experiences and flow states can include the related experiences of "timelessness" and "spacelessness." Within 2ndPP action logics it is easy to project these experiences out into claims about reality. The mystic who experiences something outside of time might conclude that time does not really exist, or that they have accessed a realm of objective reality that is beyond time – and similarly with space and the experiences outside of spaciality. We can suggest an alternative (post-metaphysical) explanation for such experiences.

As expanded upon at length in the Wisdom Skills (draft) book, and also somewhat in the Appendix of this book, human wisdom can be understood in terms of two processes: *complexity capacity* and *spiritual clarity*. "Complexity capacity" is the developmental growth process of that accounts for all forms of skill, knowledge, meaning-making, and belief formation. The life path of accumulating knowledge and skill involves building cognitive associations and feedback connections in successive layers of complexity and depth within the brain/mind. In this text we describe the development of complexity capacity in terms of the 1st through 5th person-perspectives.

Along the life path some of what one learns turns out to be non-useful or harmful, and a type of "unlearning" is necessary to establish a healthier or more mature psyche. Aspects of such unlearning are described at length in schools of psychotherapy and in schools of contemplative practice. "Spiritual clarity" is our term for the incremental results of this unlearning, healing, deconstruction, or "shadow work." Similarly, from the perspective of contemplative practice, Churchill (2017) describes the "post-formal metacognitive skills" needed to deconstruct aspects of the self, leading to psychological liberation.

One can visit earlier states in a controlled fashion without fully "regressing" to them. For example, in psychotherapy one might be flooded with the memories and feelings of a difficult moment in childhood. One can maintain an adult meta-cognition that allows for a re-interpretation of the memory and a re-integration of suppressed feelings, without fully regressing to the earlier age and action logic. Multiple action-logics can be "on line" in consciousness simultaneously, though one's mental focus and performance seem to be oriented to one mode in any given moment.

Importantly, we can tie each element of shadow-work to the developmental level at which the problematic learning (sometimes seen as kinks in the flow of psychic life energy or creative awareness) occurred. For the newborn time, space, and self do not exist. Psychological science has revealed much about how the human perceptions of time, space, and self are constructed incrementally for the infant and toddler (e.g. Baillargeon, 2001). Putting all of this together, we can understand spiritually "advanced" states or realizations of timelessness, spacelessness, and egolessness in terms of one's awareness gaining access to developmentally *primitive* states of being. Such access is possible when the neurological connections that constitute our *constructed* experiences of time, space, or ego, are released, seen through, or bypassed to reveal early states of undifferentiated perception.

Thus, the growth of wisdom includes both movements of increasing complexity (in understanding interiors and exteriors), *and* movements of, as Bonnitta Roy calls it, *releasing* complexity (2018). For example, life's insults combined with the symbolic impulse compel us to form countless categories and meta-categories that may, upon deeper reflection, be found to be empty and/or pernicious.

The process does not stop with releasing or deconstructing, as, once "conditioning," "attachments," or "blocks" are seen through, luminous psychic energy and brave new insights are often released. But even though the insights may *feel* sublime and profound, from a post-metaphysical perspective, one still does not have license to transform the experience of undifferentiated infant consciousness into a claim about how time and space do not really exist as such in objective reality (we can leave that claim to the scientists).

Likewise, one who experiences the, sometimes ecstatically blissful, infant state of undifferentiated merger, might find insights about the nature of *self* (and about *interpersonal* realities), but such experiences alone to not give license to claim that one has discovered that the *universe* is nothing but love (or pure consciousness, etc.). Mystical experiences can thus be understood differently: not as solely "high" states achieved through access to a metaphysical or spiritual realm, but as access to developmentally *early* states, closer to the animal world than the adult world, which are *then interpreted* by the adult mind to reveal meaningful insights.

For example, to "Be Here Now" is to access an important *primitive* state of mind that has been obscured by the mayhem of fast-paced outward-facing modernity. For most of us to live in the "timeless now" is also a developmentally *advanced* practice because, once an important aspect of the self has been cast into shadow, one requires a higher subject-to-object self-awareness to notice and be motivated to re-access, re-activate, re-interpret, and integrate such occluded capacities.

Spiritual synesthesia. The phenomenological approach also helps explain how Metaphysical Pluralisms have implications for deeply "spiritual" or flow states. Cognitive scientists have explored what is called *synesthesia*, in which different senses can involuntarily influence each other and merge (Sacks, 2010; Hubbard & Ramachandran, 2005). For example, a person may experience a faint sense of the color blue whenever they hear a flute; or a faint smell of perfume when they hear the number 21 spoken. The infant brain is in complete synesthesia since the different senses have not even been tuned or differentiated yet. Their eyes do not see and their ears do not hear "things" in the in "booming buzzing confusion" of primordial consciousness – stimulus from the senses inundates the brain with meaningless and indistinguishable noise until, bit by bit, the brain organizes itself to perceive objects. But even in the fully formed adult mind, the brain manifests at least faint traces of synesthesia. And through various practices, or through mind-altering drugs, synesthesia can be experienced more prominently.

The profusion of synesthesia in early states of consciousness helps explain the paradoxical metaphorical and phenomenological pluralisms and co-arising’s found in contemplative and mystical experiences. Timelessness and spacelessness are interwoven; infinity and one-pointedness are interwoven; sensations of rapturous bliss can be intermingled with sensations of free-falling disequilibrium; states of transcendent luminosity are intimately close to states of profoundly silent darkness; one-ness with everything is mixed with complete emptiness – Oh ... My ... God! (which itself takes on a kind of literalness).

Gaining temporary or stable access to modes of experience prior to the construction of objects defined by separate sensory channels can explain experiences like auras, light-bodies, channeled messages, and hearing an Om-like cosmic hum of existence. This is not to say that such experiences are unreal, but only to say that an intuition or abstract insight that is not normally connected to a sensory channel, can, through synesthesia, manifest through a sensory channel (or across sensory channels).

For example, a person may, through a means other than visual, be sensitive to faint emotional and "energetic" signals emanating from others' bodies. A synesthesia-involved neural connection could turn this vague feeling into a set of visual colors, providing a clearer signal for the observer to make meaning of. Given what we now know about the brain, which sends anticipatory signals *to* sense organs as well as receiving signals from them, it is entirely possible that, especially with practice, one could see auras around another person's body through such a synesthetic process.

In sum, through a phenomenological approach one can accept and make use of occult-like experiences of timelessness, spacelessness, selflessness, infinity, and emptiness without resorting to problematic metaphysics. The reader can supplement our discussion of phenomenology and metaphysics by looking at the two Deeper Dives below, on "Collective consciousness and we-beings" and "Subtle energies and bodies."

***Deeper Dive*: Collective consciousness and we-beings**

Many in progressive cultural movements are experimenting with group practices that include meditation, dialogue, and/or ritual (see overviews in Murray, 2016; Gunnlaugson & Brabant, 2016) I find these projects to be very hopeful and supportive of human evolution overall. Here I wish only to comment on the metaphysical and post-metaphysical trends in this field.

The subject of human collectivity invokes phenomena such as collective intelligence, collective spirit, collective presence, collective will, collective pain, etc. These phenomena are sometimes interpreted metaphysically as pointing to reified objects such as a "Higher We," Spirit, "Circle Being," "Collective Consciousness," or "intersubjective field" that emerges from the group. Below we noted that, "in a sense, the unconscious *is* collective" – but this was not a (classically) metaphysical claim. Emergent objects and properties are real, in the way that a flock of birds is real, and a sports team is real. But, as systems theorists have clarified, collectives and individuals have important differences that should not be confused (Luhmann et al., 2013). At the group level structural and relational properties emerge that are at a different order than the individual. For example, water can be wet but it makes no sense to describe a water molecule as being wet; and an automobile has a "gas millage" property that does not apply to any of its parts.

As we noted with the concepts of Gaia and universal Consciousness (or Mind), when one reifies an experience, idea, or ideal and turns it into an object one tends to project demi-real properties upon that object. A Collective can be characterized by the statistical properties of its parts, and thus a group of individuals can have an average happiness, a most common fear, or an agreed-upon goal, but it can be problematic to posit a collective group *Being* that might have thoughts, intentions, or emotions *of or by itself*. Doing so can make one vulnerable to an over-influence by the magical level of consciousness. At the group level there definitely is a "collective consciousness" in the sense of an aggregate over the group, but that collective is nothing like a flesh-and-blood "being."

As social animals we have instinctive drives to put aside our autonomy and mentally merge with the pack, tribe, or crowd under certain circumstances. In such a state one's awareness is tuned to be able to follow the group or a leader. The human ability to use language to create abstract objects and compelling narratives exacerbates both the positive and negative aspects of orienting to the collective. In "group-mind" state, one becomes more permeable to the outside influences of love, solidarity, fear, panic, rage, humiliation, etc. Thus we can observe both collective intelligence and collective stupidity in groups (Surowiecki, 2004; Masu & Benkler, 2008).

Metaphysical objects, as abstractions, are usually massively simpler than reality, and orienting to such objects can blind one to concrete details and concerns. Though they take on a "reality" of their own, they are initially made up of *our* projections, and thus when we orient to a metaphysical object and "listen" to it we are creating a magnifying feedback loop for our own (individual or collective) unconscious material. This amounts to a falling asleep that is in the opposite direction of "waking up" by making one's unconscious material visible or transparent. Through activation of the magical mind the "larger than life" collective being can assume projected qualities of, for example, the perfectly loving mother or the dominating father to which one regressively relinquishes autonomy.

What about a phenomenological approach to collective consciousness? Under the right circumstances, being in a group can invoke the experience of feeling like an organ within a larger living whole. One can enter into deeper levels of trust, openness, and egolessness to access new truths and healings within the self. Ideas and voices emerge from dialogue that transcend what any individual could have produced. One can enter a flow state in which it seems as though one's speech is one of the many voices within the head of a collective being. These are not metaphysical claims, but attempts to describe experience.

Ideally, members of an intentional group experience will be able to move flexibly through different action logics, putting the rational mind aside to open to the gifts of magical and mythical consciousness, while maintaining the ability to witness, evaluate, and dialogue about what is happening with the wisdom of a 3rd or 4th person perspective. Metaphysical and metaphorical concepts such as "We Being," or "the we without a they," or "the miracle of the we" can be powerful forces of good, if held through a post-metaphysical perspective. Such ideals should be used to supplement, but not replace, the positive *experiences* of collective consciousness.

***Deeper Dive*: Subtle energies and subtle bodies**

The topic of subtle energies and the subtle body is complex but worth mentioning. On the one hand, science has not discovered mechanisms or explanations for much of the human experience, including: (1) the aspects of interiorly-oriented contemplative and yogic inquiry that have been understood in terms of the charka or subtle energy theories of ancient traditions; (2) aspects of exteriorly-oriented phenomena such as empathic connections and healing intentions that have been explained through metaphysical frameworks such as prana, shaktipat, élan vital, Qi, kundalini, etc.

We have noted that the 2ndPP meaning-making drive, sometimes infused with early 3rdPP abstraction power, is naturally compelled to construct non-scientific, i.e. metaphysical, narratives that explain significant phenomena that are unexplainable by scientific means. But, as noted, the meaning-making satisfaction of these stories comes at a price, as demi-real layers of additional properties and ideological certainties tend to accumulate upon reified metaphysical objects. As one example, many use the term "energy" to describe flows of sensation through the body (or flows of sensation that seem to extend beyond the body). Baring scientific measurements, the use of the term "energy" in such situations usually turns a metaphor into a reified though demi-real phenomena. This is an example of the "magical" confounding of interior experience with "real" exterior phenomena.

All of this is not to suggest throwing out ancient maps of subtle energies, chakras, etc., but to hold them lightly and not assume that they represent a final explanation of cosmic essences and invisible forces. An alternative to creating ideological metaphysical "explanations" is to engage negative capability and remain open to and comfortable with the unknown, and allow 3rdPP science (and higher order action logics) to replace ancient beliefs with durable explanations at whatever pace those "truths" come.

And they do come. Research at the Heart Math Institute (see McCraty, 2003) has discovered that the heart produces a significant amount of electromagnetic energy – its subtle signals might be able to be felt by other animals many feet away. The maps of subtle energies that yogis feel flowing within the "subtle body" do not seem to correspond to structures in the nervous system or circulatory system, but new research is suggesting that they may correspond well with structures within the lymphatic or fascia systems, and that 'energetic' healing can be understood through known science (Oschman, 2015; Winstead-Fry & Kijek, 1999; Reite & Zimmerman, 1978). Though it sometimes has an uncomfortable overlap with pseudo-science culture, valid scientific methods are exploring how the sciences of liquid crystals, non-linear fluid dynamics, laser-like light pulses, and quantum entanglement may explain aspects of human biology.

We can envision a post-metaphysical understanding of subtle energies and related phenomena that is grounded in science and phenomenology, that respects the useful knowledge passed on from ancient traditions, but without adopting the old metaphysics of imagining a subtle realm beyond time, space, mass, and energy. Our understanding of time, space, mass, and energy will surely evolve, probably in surprising ways, but it is better to allow such knowledge to evolve through 3rdP (or beyond) methods than through 2ndPP reification that projects imagined underlying explanations onto a metaphysical substrate of the cosmos.

In addition, the science and spirituality of the next generation should be linked through post-metaphysical thinking, including phenomenology. The *experiences* that we attribute to a subtle body or Qi energy are profound resources for self-understanding. Yogic and contemplative practices that refine such experiences should be considered essential sources of information in a 4thPP science of the body (for example, see the "experiential anatomy" approach of BBC (Olsen & McHose, 2004)).

Conclusions and Summary

(1) Humanity has reached a crossroads in its cultural (or consciousness) evolution. Since the dawn of the modern age we have relied upon our powers of intellect, looking *outward* to craft a world bursting with technological miracles built upon accumulating scientific knowledge. But we are waking up to "externalities" that, alongside the undeniable benefits of our powerful intellect, are creating world-shattering phenomena such as species extinction, environmental degradation, and unprecedented rates of depression, obesity, suicide, terrorism...the long list of global "crises" is familiar to all. It may be that humanity's list of major troubles has always been long, but only recently, anthropologically speaking, is it true that our biggest threats are products of the human mind and of *human* nature, as opposed to being about the human relationship with Nature.

Religion and spirituality have traditionally provided the meaning-making resources to protect us from despair and confusion in the face of life's "questions of ultimate concern." But, tethered to metaphysical modes of meaning-making, traditional spiritual narratives are ill-equipped for the current era. Any spirituality, or any world-view, that offers a bridge to a sustainable future must look further *inward* – into the interior landscape. It must offer sufficient wisdom about the human condition, including the limitations of human reason, to evolve human culture beyond the so-called "deficient mental" cul-de-sac of modernity.

Any such spirituality must put the modern intellect in perspective by supporting an enlightened *re-integration of the magical and mythical* layers of the human being, while developing a keen awareness of the dynamic unconscious drives emanating from those levels. It must re-enchant, illuminate, and oversee, not suppress or deny, the layers of consciousness that confer emotional vitality and meaning to the objects we perceive (and conceive). Modern manifestations of secular humanism and interfaith religiosity, by themselves, are too subdued to spark the radical experiences of connection, insight, majesty, luminosity, boundlessness, oneness, wholeness, and emptiness that spring from the archetypal strata of the mind (or "soul"). On the other hand, wide-eyed idealistic "spiritual" frameworks for life often ignore both concrete realities and the darker threats of magical/mythical thinking.

The mystical sages and shamanistic healers of the future only need to understand and skillfully activate the magical (including "archetypal" and some of the "mythical") strata of consciousness, as they always have – ideally from a place of great care and skillful means. They do not need to "believe in" literal or metaphysical manifestations of magical beings and phenomena to do their important work. Concepts such as Spirit and Soul continue to be rich ideas for the metaphorical and metaphysical (and post-metaphysical) dimensions of human Being. We do not want to reject them, but rather find modes of belief-holding and dialogue that move flexibly between levels of interpretation, knowing the ideas are tools for mutual understanding and liberation, rather than realities we are subject to.

(2) Our treatment of the landscape of the contemporary "spiritual but not religious" has been, I think appropriately, slanted towards concepts borrowed from Eastern religions. Starting with the quotes in Exhibit A, and throughout, we have highlighted the related concepts of Absolute (or Ultimate) Reality (or Truth), Ground of Being, and Emptiness. This territory that mystics experience and point us toward, is, I would agree, an essential, perhaps *the* essential, focus of the spiritual journey. The knowing of this territory (which is also, paradoxically, an unknowing) is accompanied by profound compassion, selflessness, bliss, expansiveness, one-pointedness, lucidity, peace, freedom, and/or sacredness. Not as ends in themselves, but as resources of human potential that can make a difference to others and for our world.

Mystics, and the codified mysticism found in esoteric religious texts, has always known that this territory is ineffable, easily misunderstood, and easily taken as an object of egotistic fixation; and have tried in various ways to describe the wrong turns and dead-ends along "the path." These provisos, plus trying to limit certain teachings to those with specific attainments, were the best they could do to negotiate the dance between making knowledge available and avoiding its misuse in their era.

What we are suggesting in this text is that, in the modern and post-modern context, the quasi-literal language of absolutes and ultimates is no longer an appropriate metaphysics. First, this is because, at least as they are often framed, they grate against the expected norms of rational discourse. Second, it is because the emerging capacities of 4thPP (and 5thPP) action logics allow for a post-metaphysical languaging and comprehension that better meets the underlying goals of the spiritual (and esoteric religious) teachings.

(3) In this text I have offered a post-metaphysical perspective on ideas and ideals woven into contemporary "spiritual but not religious" discourse. The topics covered, sometimes briefly and sometimes in depth, include (in brackets is the section containing that theme):

- Quotes from contemporary teachers/mystics making claims about Soul, Spirit, Godhead, Consciousness, Reality, Source, Non-duality, etc. – that include metaphysical descriptors such as absolute, ultimate, infinite, supreme, essential, primordial, eternal, formless, perfect, and universal. [*The metaphysics to Come*]
- An analysis of the "Two Truths Doctrine" that posits Absolute Reality (or Truth) in contrast to Relative Reality (or Truth); including a discussion of emptiness and dependent origination. [*Two truths: One Problem*]
- Gaia – the Earth as a being. [*Constructing the Real*]
- Recursively structured classification frameworks such as Yin/Yang, Masculine/Feminine, astrology, and personality typing systems. [*Constructing the Real*]
- Soul, Spirit, Higher Self, Unique Self, True Self, Absolute Self. [*Reification and Misplaced Concreteness*]
- Eros and Archetypes (Lover, King, Trickster, etc.) (with a short treatment of absolute reality and emptiness) [*Reification and Misplaced Concreteness*]
- Spiritually potent dualisms including: good/evil, saint/sinner, dark/light, spirit/matter, mind/body, interior/exterior, individual/collective, state/stage, empty/full, absolute/relative, self/selfless, and being/non-being. [*Embodied Realism and Metaphorical Pluralism*]
- Emptiness and Dependent Origination (co-dependent arising), revisited. [*Embodied Realism and Metaphorical Pluralism*]
- Time and Causality; plus a brief tap at the questions: Do slugs have emotions? Are dolphins intelligent? Are computers intelligent? Do apes use language? Are rocks or trees or atoms conscious? Do we have a soul? [*Embodied Realism and Metaphorical Pluralism*]
- Metaphysical descriptors such as absolute, ultimate, infinite, supreme, essential, primordial, eternal, formless, perfect, and universal--revisited on phenomenological grounds [*Epistemic Drives*]
- Consciousness and the Unconscious. [*Epistemic Drives*]
- Love and free will [*Phenomenology and Infinity*]
- Infinity, emptiness, one-pointedness [*Phenomenology and Infinity*]
- Timelessness, spacelessness, unity, and selflessness. [*Phenomenology and INFINITY*]
- Auras, light-bodies, channeled messages, and the cosmic hum of existence. [*Phenomenology and Infinity*]
- Collective consciousness and We-beings. [*Phenomenology and Infinity*]
- Subtle energies and subtle bodies (distance healing, chakras, prana, Élan Vital, Qi; synchronicities, affirmations). [*Phenomenology and Infinity*]

As the reader knows, these topics were not explored in terms the specific beliefs surrounding their use, but in general terms of how they relate to metaphysical and post-metaphysical thinking.

Throughout the text I tried to "practice what I was preaching" by laying bare the indeterminacies, fallibilities, and metaphorical pluralisms of the central concepts of my framework. Models such as the five person-perspectives; concepts such as truth, reality, reason, consciousness, and reification; and dualities such as ontology/epistemology, reality/ideas, interiors/exteriors, metaphysics/post-metaphysics, reason/emotion, and concrete/abstract – were all revealed to have fuzzy boundaries and inconvenient interdependencies.

(4) Questions of ultimate concern tap into our deepest needs, fears, and dreams. They are "ultimate" in at least two senses. First, they seem larger than we are – like obscure metaphysical mysteries or un-graspable "hyper-objects." But they are also ultimate because they are omnipresently *immanent*, touching the most minute, mundane, and intimate aspects of life. Renouncing the "ultimates" of eternalist truths, primordial foundations, and grand narratives does not mean we have to turn our backs to these questions.

Is there a God? – A Soul or Spirit? – A Purpose to life? – A life after death? – An Ultimate Reality? What is Consciousness? Is there a cosmic force of Eros? Do we have free will? What is the Good? ...

Viable answers will not be found in this text, nor within the frozen commandments of any future religion or spiritual framework. We can no longer look to eternally-true authorities for answers to these questions – we must develop ways of thinking that allow the answers to evolve with us and through us. Similarly, we can no longer afford to project the causes and sources of human love and resilience onto an imaginary metaphysical realm (God, Spirit, Cosmos, Eros, etc.) that then turns back to capture us with the force of its demi-real narrative. To be truly resilient we must ground our metaphysics and ethics in an ontology that embodies the realities of the human condition. Post-metaphysical thinking is not non-metaphysical thinking, but rather a stage of wisdom that supports us in collectively and reflectively *constructing* the metaphysical foundations of a thriving society.

The post-metaphysical injunction to reflect upon our metaphysics and metaphysical thinking, rejecting some of it but not all of it, is a nuanced affair. One needs to develop the skills of giving oneself fully (or almost fully) to the unknown territory of the unconscious, as it bubbles up through the magical strata of mind, at just the right times, yet while keeping lit the pilot light of rational (and post-rational) thought. Culturally, we must perform the developmentally sophisticated operations of de-reifying our Gods, i.e. bringing them down from the heavens and back into the workshop, where we can make adjustments, refinements, and do complete re-designs; to then be able to launch them back into the heavens, believing in them with all of our souls, but only while that serves our deepest needs.

Within this delicate dance I have tried to strike the right note between critique and appreciative inquiry. While exposing the many sources of indeterminacy in the contemporary spiritual meme-scape, I want to emphasize the importance of skillfully "suspending disbelief" (or play "the believing game") to access the magical, mystical, and metaphysical gifts of life, for example:

- To sense the large oak in the forest as a Being that I am intimately connected with – that whispers forgotten truths into my inner ear;
- To imagine that that a Universal Love or Eros saturates the cosmos, animates life forms, breaths consciousness into my own being, and motivates cosmic evolution; and
- To experience the co-presence within a group as connected through a meta-being that contains us all in a higher wisdom, and into which I can release myself.

Such things are critical, not as literal indicators of metaphysical truths, but as *experiences* that can be penetrated for deeper, if fallible, truths. Importantly, post-metaphysical thinking must include a *phenomenological* inquiry into the truths found in raw experience – it cannot be limited to abstract reasoning about "things" and "the other," or narratives comforting to Reason. In arriving at any shared world-view, i.e. in proclaiming what is "real" and how it is real, the metaphysics of the future must be influenced by both scientific methods and the deepest of human intuitions, metabolized through generative participation and caring dialogue.

(5) If, when looking within we see that the basis of our being shines with Love, we can then choose to adopt a metaphysics that activates the magical and mythical levels of being by feeling into the divinity and omnipresence of that Love. We can claim it as real. Similarly, we can plumb the depths of our experience to mine the resources of compassion, curiosity, forgiveness, gratitude, creativity, endurance, and integrity that can produce inspirited actions and uplifting artifacts. For such a "deliberate metaphysics" we can craft a science-compatible Universe Story that includes metaphysical assumptions about the miraculous divinity of nature and the essential goodness of human nature (e.g., see Swimme & Berry; 1992; Dowd, 2008). We can allow for flexible, participatory, generative, local, and humble "grand narratives" addressing questions of ultimate concern.

If, on the other hand, an individual or group looks deeply within itself and, in that moment or continuously, does not find that the foundation is built from components such as love, curiosity, forgiveness, respect, and integrity, but rather finds pain, hatred, or fear at what seems to be the foundational layer, then this is a signal to call in resources for healing to mend the broken heart or traumatized mind; to transform the disfigured pathways of life-energy in the body/mind. It is *not* the time to re-imagine a new metaphysics, nor to reproduce a given one.

For those ensconced in "status quo" reality in between these two extremes, escaping from the metaphysical assumptions of the "consensus trap" will no doubt involve initial phases of dissonance and discomfort. I hope that the arguments made in this text will motivate such an inquiry and help one negotiate the transitions. And for anyone on such a journey – one that allows for hope while facing "reality" – *grief and longing* are bound to be constant companions that should be welcomed and listened to. Any future spirituality must include resources up to the task of navigating significant and unpredictable change. The metaphysics to come must account for the *losses* and emptiness(es) that come with healing and change.

(6) We have emphasized an *embodied* orientation to reason and belief-formation. Embodiment has many implications. Human reason is a wet-ware product of evolutionary caprice; and reason is influenced by unconscious drives and distortions born in the ancestral past and from the misfortunes of a lived life. Reason is intimately imbedded in the concrete processes of action and dialogue. Abstract concepts are grounded in sensory-motor primitives; and are "enacted" as much as conceived. Ideas are "tools" more than "truths," and lose relevance if they don't attend to the "seriousness" of pragmatic life. They also lose validity in the face of "performative contradictions." All of this speaks to the embodiment of Reason.

We have made heavy use of a *developmental* model describing 1stPP through 5thPP action logics. This framework is an orienting generalization and categorical simplification of the complexity of the human condition; however its contours are backed up by dozens of psychological theories and thousands of scientific studies. With each succeeding action logic consciousness builds capacities to see increasingly complex patterns in the world; and builds the skills of ever-deeper self-understanding. The meaning-making drive operates at every developmental level of consciousness, answering life's ultimate questions by producing emotionally charged objects (1stPP), compelling narratives (2ndPP), reasonable truths (3rdPP), multi-perspectival wisdoms (4thPP), and empty-while-full pearls of holistic/cosmic insight (5thPP and above). Rather than fully characterize each action logic in one central place, I have chosen to spread an accumulation of descriptors of these levels throughout the text.

We have used the term "4th person perspective" (4thPP) to indicate the embodied "wisdom skills" that meet the requirements of a *future*-ready and *present*-grounded spirituality that can sense into how personal, cultural, and anthropological *pasts* live within the subterranean strata of the mind/body. At 4thPP many of the *sources of fallibility* within human ideas and ideals become known, and a deeper humility and self-understanding is possible. There are sources of fallibility at many cognitive levels including: perceptions, conceptions, beliefs, models/theories, and entire world-views. In this text we have focused on the level of *conception*, that is, at the level of concepts and objects, which touch the *ontological* and *metaphysical* questions about "What is real?" that underpin the "What is true/good?" questions behind beliefs, models, theories, and worldviews. We have also hinted at the wisdom skills associated with 5thPP that begin to emerge at 4thPP, including construct aware consciousness.

(5) A key aspect of 4thPP consciousness is a "*post-metaphysical* thinking" that, among other things, illuminates the nature of ideas and objects derived from *metaphysical* thinking. Along our journey we have illustrated the fallibilities and dangers that accompany the benefits of unreflective magical, mystical, and metaphysical thinking. To summarize, the sources of these fallibilities and dangers include:

- *Magical* modes of thought that confuse interior and exterior phenomena, and imbue non-living objects and abstractions with human properties such as intention and feeling.
- *Mythical* modes of thought that project story lines, including totalizing narratives, upon reality to satisfy the epistemic drive for the world to makes sense.
- *Hyper-rational* modes of thought that disenfranchise emotions and intuitions, and ignore that which can't be measured and that which can't be neatly categorized.
- *Metaphysical* modes of thought that invent realities beyond time, space, and matter as convenient "locations" to uncritically store beliefs and simplistic answers to complex life questions.
- *Epistemic drives* that compel us toward abstractions, ideals, universals, essentials, totalities, eternals, and infinities;
- The *symbolic drive* that cleaves reality into neat categories and dualities, producing demi-real byproducts such as faux-paradoxes.
- *Misplaced concreteness* (reification) that paints abstract ideas and ideals with demi-real properties of concrete objects.
- The impossibly objective "*view from nowhere*" that supports the individual analytical mind in drawing universal conclusions without reference to multiple perspectives and actual conversations.
- The *disembodied* character of modern and Western thought, which disjoins mind and matter, spirit and body, reason and intuition, thinking and acting/being – reductively favoring the

first and marginalizing the second of each of these; distancing us from the blood, sweat, tears, and sod of life.

This list is long but its items are so deeply related that the basic shifts in attitude and complexity found at 4thPP can work holistically towards reconciling all of them. This shift is neither easy nor guaranteed, but it is possible. Development happens when sufficient challenge meets sufficient support, and when the psyche is clear of shadow elements that are attached to the known. Perhaps paradoxically, because our world is rife with challenges adequate to this task, the best strategy for building 4thPP thinking is to release or deconstruct unnecessary complexity built up within lower strata, rather than effort to achieve a new level of complexity.

(7) As we come to see that many of the answers culturally handed down to us – wrapped in universal truths, fundamental essences, and grand narratives – are, in some sense, metaphysical counterfeits, post-metaphysical thinking allows us to pan the gold hidden within the sludge. It allows us to pierce the veil of certainty surrounding knowledge bequeathed by the crowd, admired teachers, or "pure" rationality. Post-metaphysical thinking can acknowledge and begin to adapt to the above sources of belief fallibility through tools, skills, and attitudes that we have mentioned, and summarize below:

- The *negative capability* of tolerance of, and playfulness with, uncertainty, ambiguity, and unknowing.
- Having an *embodied* philosophical orientation to reality (summarized just above) that views cognition as constrained by the contingencies of evolution, the physicality of the brain, and the drives of the socially-embedded being.
- *Minding the gap of demi-reality*, i.e. refining the skill of sensing the differential qualities of ideas/ideals vs. concrete reality.
- Developing a *construct aware* appreciation for the cognitive nature of concepts in language including: misplaced concreteness (reification), metaphorical pluralism, the symbolic impulse (categorical splitting that creates dualisms, faux-paradoxes, faux-fractals, and other demi-real illusions); and the graded, exemplar-based, and metaphorical nature of abstract concepts.
- The *interpretive pluralism* of assuming that claims are binary and questions have single answers; asking "in what sense" something is true or real (or not); and "under what definitions, and assuming what exemplars, can one acknowledge another's claim.
- The delicate developmental psychic choreography of balancing the (1stPP) "pleasure principle", (2ndPP) meaning-making drive, (3rdPP) "reality principle," and (4thPP) holistic drive; i.e. suspending rational judgment and *opening to magical and mythical thinking*, while maintaining enough post-rational wisdom-skill to avoid being swindled by the simplicity, naïveté, and narcissism of the primitive mind.
- Engage in the therapeutic or contemplative *shadow work* of reducing reality-distorting complexities, lacunas, and blockages to uncover, recover, or reconstruct the lower strata of the psyche.
- The *phenomenological approach* of: grounding spiritual truths in experiences – as opposed to allowing ideals or theories to limit experiences and dictate interpretations; developing a proprioceptive felt-sense for when the magical mind is keenly engaged; and feeling into the bundle of epistemic drives as they pull at one's attempts at meaning-making.

- Nurture a *procedural rationality* that emphasizes how people think over what people think – replacing foundationalism with "fallibilism."
- Taking a *participatory and dialogical* approach to building and applying knowledge about world, self, and society; seeking diverse perspectives and applying humility, openness, vulnerability, and curiosity to collective truth-seeing activities.
- Holding searches for the "truth" and "reality" as fundamentally *ethical, emancipatory,* and self-emancipatory – as grounded in sincerity, authenticity, respect, gratitude, forgiveness, and care.
- Using the *idea portability principle* while communicating one's beliefs – i.e., that the greater the distance between the worldviews or beliefs of interlocutors the more important it is to understand and compensate for indeterminacy.

Any sustainable spirituality (or world-view) of the future must have elements of the 4thPP post-metaphysical skills listed above, to allow humanity to address perennial "questions of ultimate concern" in ways that holistically meet the needs posed by multiple layers of the psyche. Obviously, this is not a how-to book containing practices and success stories related to these skills and attitudes. The focus has been on generative and clarifying ideas rather than practices, and I hope that the many invitations to connect the rather philosophical ideas to life experience have compensated for the degree of abstraction. The motivated reader can find many sources of practical advice on contemplative practice, psychotherapy, deep dialogue, and critical self-reflection elsewhere. And again, though this list may seem daunting, the elements are massively interconnected and co-creational, with each supporting the others in the developmental move into a 4thPP action logic.

Epilogue. This text is intentionally hopeful. The author realizes that humanity's myriad problems and "crises" look quite dire, and understands that a nearly miraculous degree of cultural consciousness transformation toward something like 4thPP, *and/or* an impractical proliferation of psychic healing, would be needed to reach a species-wide "tipping point" that would usher in a sustainable global human system. Perhaps I am pointing a flashlight down one of the more hopeful-looking roads leading out of a dimly lit crossroad along the Anthropocene; but I have little comprehension of who may go there, how long the road is, or what other resources are required for the journey. Actually, that metaphor is not very apt – I am offering a few conceptual tools for the suitcase and some compass points for the map for such a journey, rather than lighting up an entire road. But I am confident that the basic tools are necessary, sturdy in the right hands, and generally wieldable for those willing to practice.

I have suggested a clearing and cleaning out of unnecessary (classical) metaphysics and a collective re-building of a more nourishing and radiant *deliberative and embodied metaphysics.* The many perspectives I have given on this post-metaphysical approach may make this seem complicated and daunting. But, in a sense, it is as simple as looking into the eyes of others with openness and care, responding to the vulnerable human needs arising in that context, and translating one's response into a deliberate metaphysics by articulating the core values and beliefs that arise there. It *is* complex and daunting because the layers of demi-reality and egoic attachments that accumulate in the psyche in modern culture are indeed complex and daunting. Social structures reify and reinforce these patterns. Releasing this "baggage" can be disorienting and painful; and seem completely impractical in those back-alleys of culture that are maliciously committed to perpetuating the demi-real. But, I submit, all of this reality may be more malleable than we imagine. The science of chaotic systems allows for miracles in concrete reality.

Your author has ample direct (often humbling) experience in his own life that, in a sense, reality is constructed by one's projections onto it. At least at the local level of human interaction, a shift in attitude, a released fear or craving, a pause to wonder – can create a recognizable "ontological" change in others, as well as oneself. If the global indeed emerges from the local, these are powerful spiritual acts. I may not be able to bend a spoon with my mind, magically manifest the new car of my dreams, or heal a distant stranger with my prayers, but with every small step of taking responsibility for my actions, thoughts, beliefs, energetic presence, and even my emotions and the contents of my unconscious, I learn that the metaphysics that I embody co-creates a reality. If a sufficient number of people seemed to agree, not with my ideas but with a similar metaphysics, then maybe a new sun would peek through the clouds of our species-wide predicament. Perhaps it already has. Perhaps you are among those responsible for it.

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Appendix – Developmental Basics

This appendix supplements the subsection "A developmental perspective" with details about cognitive or meaning-making development. In that section we briefly described the developmental stage model used in this paper as using these "action logic" levels:

- 1stPP: magical/impulsive,
- 2ndPP: mythical/conventional,
- 3rdPP: rational/autonomous, and
- 4thPP: meta-rational/pluralistic.

Additional details on each level are found in the side-bar Deeper Dive at the end of this Appendix.

The first term refers to the level of cognitive complexity that can be brought to bear in making meaning of the world. The second term refers to how that cognitive capacity manifests when it is applied to the subjective and intersubjective domains of I, me, you, us, and them in the psycho-social world.

Developmental theories have a variety of schemes for naming and describing such levels (e.g. see Fischer, 1980; Commons & Pekker, 2008; Wilber, 2000), but these will do for our purposes. The "1stPP, 2ndPP..." terminology refers to first, second...etc. *person-perspectives* or action logics, the naming convention used by O'Fallon's STAGES model (O'Fallon, 2011, 2013; Murray, 2017), and suggested in Cook-Greuter's Ego Development Model (Cook-Greuter, 1999, 2011; Torbert & Livne-Tarandach, 2009), and which is compatible with Kegan's "construct developmental" model (Kegan, 1994).

The developmental perspective is an extremely useful one that is applicable to almost every domain of human inquiry, yet is surprisingly absent from most disciplines. One of its main gifts is the following. In many areas questions of practical application return a plethora of answers, for example: What is the best type of government for a country? What psychotherapy method should my friend seek? How can educators support self-directed learning? What are good tips for a supervisor giving feedback to a supervisee? Should children be told partial truths or whole truths?

Such questions return such a wide variety of answers from different theories and experts that seeking expertise may only result in more confusion. Yet when one applies a developmental lens to the heap of answers for any of these questions, one often finds that the answers spread out prismatically into usable sub-sets. The answers to the questions depend on the developmental level of the target (or social context). So a developmental theory with six levels can organize the answers into six groups, providing some essential structure to the complex inquiry.

The categorical lines drawn are of course very approximate, and developmental theories vary on how they segment human development. So, for example, one theory might organize the answers into five sets and another seven. But the nature of the entire spectrum is substantially similar among these theories. The fundamental developmental process is that each level or stage builds upon, "sees," or "operates upon" the prior levels.

Psychological scholarship contains many developmental theories, dating famously back to Jean Piaget (1896 -1980) and even earlier (E.g. James Baldwin 1861 - 1934). These theories followed Darwin's (1809–1882) theory of evolution to deepen our understanding of how we became, and become, human. In a general sense, each human skill or capacity grows separately through developmental dynamics (e.g., music, athletic skill, logical skills, etc. – see Gardener's theory of multiple intelligences" 1983). But in this text we use the term "development" to refer specifically to the development or maturity of human meaning-making, as it is framed in Kegan's theory, or the ego, as it is framed Loevinger's theory, later updated by Cook-Greuter and O'Fallon. It can also be framed in terms of the development of "perspective taking" – but that term has other meanings that might confuse the subject so we use it less.

In Murray (2017) I give a summary of the ego development models of Loevinger, Cook-Greuter, Torbert, and O'Fallon, including references to scientific validity studies. Kegan's construct developmental model, which is very compatible with ego development, is explained in Kegan (1984). The primary theorists in the neo-Piagetian tradition are Fischer, Commons, and Dawson (see Fisher, 1908; Commons et al., 2008; Dawson, 2004). Wilber (2006) offers a model as an "orienting generalization" that synthesizes elements of all of these models, but does not contain the level of detail or rigor achieved by each of them.

Developmental stages (or levels or "action logics") are defined in terms of the *structures* of thinking, not its content. Development proceeds from more black-and-white, all-or-nothing, either-or, us-vs-them modes into thinking that takes multiple perspectives into account, reflects upon the context and limits of thinking, and tolerates uncertainty and paradox.

So called "neo-Piagetian" developmental theories suggests striking parallels in the development of meaning-making complexity in *individuals* over the life span vs. in *cultures* over historical or anthropological time spans. These theories use the idea of complexity (actually "hierarchical complexity") to track development in individuals from the simplicity of childhood into advanced stages of wisdom in adulthood. Though one should not make the mistake of assuming that the developmental complexity of *cultures or groups* evolves over time following the same mechanisms that drive an individual's development, the same complexity levels are still quite useful in describing the complexity of cultural and group dynamics. For example, the broad distinctions between magical/pre-operational, mythic/concrete-operational, and rational/formal-operational action logics, as they were defined for child-to-adult development, are useful in describing historical trends in philosophical and cultural thought.

Caveats. Though we consistently refer to developmental progressions in this text, several caveats warrant pre-stating. First, though the sequence of levels is fixed by definition because each builds upon the prior, developmental progress is *not guaranteed* for any individual or group, and development can stagnate or even regress. Second, meaning-making complexity is only one of many ways to characterize human differences and trends, and it must be emphasized that more complex is *not necessarily "better."* This is because the action logic used can be unnecessarily and problematically complex for a given context; and because complex thought can be used for narcissistic and nefarious reasons as well as for "good" reasons (as some frame it, some highly developed individuals harbor significant "shadow" material). Also, earlier or more "primitive" levels of cognition are actually more fundamental and important to the health of the whole person.

Third, it is an oversimplification to use developmental levels to form *caricatures of people or groups*. It is better to assume that the action logic that a person operates from varies according to context, though it may be useful to consider average modes (e.g. a "center of gravity") or general trends. Finally, like many constructs used in psychology and sociology, for example "extroversion," the developmental categories that we will use are composite *simplifications* from a large body of empirical research that contains nuances and differences of definition beyond our scope here.

Despite these caveats, developmental theory provides a very useful metric for some purposes, including ours here, since it parsimoniously charts the progression from pre-scientific thinking, to scientific rationalist thinking, to the post-modern critique of reason, to the post-metaphysical (or post-post-modern) integration of all those prior modalities. Throughout this text we make the case that post-metaphysical thinking, as defined by Habermas but also as an emerging contemporary wisdom in how knowledge is held in culture, maps roughly onto what developmentalists call "4th Person Perspective" (4thPP). Roughly speaking, 1stPP and 2ndPP map to pre-scientific thinking; 3rdPP maps to rational and scientific thinking; early 4thPP maps to the post-modern critique, and late or full 4thPP maps to post-metaphysical thinking. (

Our purpose here is not to make a scientific or factual claim that 4thPP, as measured by developmental scientists, correlates with observed cultural trends. Rather, we are simply *using* an existing description of developmental action logics as an expedient and powerful framework that unites the diverse routes through which we will approach the topic of post-metaphysical thinking.

Readers of this journal are likely to be familiar with various theories of adult development, and how they, though diverse in content and origin, show a remarkable overlap in basic findings and principles. We discuss this territory in depth in the primary text on Wisdom Skills, but below will give a skeletal overview of the basic developmental sequence.

Developmental Dynamics. Each level builds upon the prior – it does not replace it. At best it "includes and transcends" the prior level(s), though aspects of each level can also become hidden, repressed, or distorted in the turbulent journey of growth to the next level. The earliest or deepest layers of our cognitive apparatus were "designed" through an evolutionary process that layers each capacity upon earlier ones. Cognitive and brain sciences confirm how the most primitive aspects of thought, including emotions, are essential aspects of all advanced rational thought. In fact, brain science maps out a rough progression of layers of neural substrate that support the notion of developmental action logics literally building upon each other.

Rather than pegging an individual or group "at" a developmental level, we assume that each individual has access to a *range* of developmental levels, and, sometimes intentionally, sometimes not, manifests at different levels depending on the context. Under conditions of stress, complexity, or novelty, individuals may "downshift" from their typical action logic to a lower one, for example to a child-like state of unregulated emotions (the "amygdala hijack" famously described Goleman's *Emotional Intelligence*). Individuals can also purposefully choose to suspend higher-level action logics to accentuate lower levels, as when accessing childlike playfulness or magical wonder. So-called peak experiences and flow states can temporarily sweep one into an uncharacteristically high action logic.

Developmental theories describe "phases" of learning within or between levels. Though most skills are learned through a combination of paying attention to specific aspects of the world and engaging in practice and/or repetition, skills eventually become *automated and normalized*, and move into the unconscious. Unless one is teaching others a skill or explicitly reflecting on it for some other reason, the details of how one actually accomplishes that skill can become hidden from consciousness. For example, with the help of others one can learn how to play tennis or be a good parent, but once one becomes skilled one may not be able to describe how one does these things.

The progression to higher (i.e. later) levels is called "vertical" (or hierarchical) growth. Learning involves the "horizontal" growth of a wide array of capacities at a particular level, followed by a vertical transition to the next level. (This is an extreme simplification – elaborated in the primary text on wisdom skills). A sufficient breadth, interconnection, and coherence of knowledge and skills are required for the emergence of a new level.

Healthy development is considered to include a robust (horizontal) range and diversity of skills at each level before the next level develops (vertically). Developmental theories hold that the emergence of a new level is triggered when an existing level of skill is experienced as insufficient to match the complexity of life's demands. For a variety of reasons, individuals may accrue a significant breadth of knowledge and then plateau at a particular developmental level, for example the mythical/conventional (2ndPP) level, without experiencing or adapting to conditions that shape the next level.

Most educated individuals in modern cultures operate at late 2ndPP or 3rdPP, with professionals and the well-educated tending to cluster around 3rdPP, and with decreasing percentages of the population achieving 4thPP and higher. Cultures tend to pull their members up to the average developmental level (i.e., enculturation) and inhibit individuals from developing much further, since doing so can threaten the status quo.

The mind in shadow. In addition to learning horizontally and developing vertically, some mental capacities or structures can become hidden, compromised, or even pathologically distorted, along the way. It is now well recognized that early, or more "primitive," layers of the psyche contain many patterns of thought and emotion that are invisible, repressed, or suppressed through the enculturation process. Sexual desire and rage are the most obvious examples. We are trained, often forced or coerced, into controlling and managing animal instincts and "childish" behaviors, presumably in order to be able to function acceptably in society.

Developmentally earlier modes of thought can be repressed or suppressed for adaptive purposes that serve a need at the time. The child may learn to "stuff" her anger because she learns that pro-social behavior gets more needs met; or she learns that expressing anger does *not* result in her needs being understood or met (and in dysfunctional families expressing one's needs may actually be dangerous to the child). But of course repressing ones' anger can lead to psychological problems as an adult. Thus, along with the original benefits of suppressing or repressing primitive parts of the self, something is always lost as well.

The denied or resisted aspects of the self are never completely eliminated; they are merely removed from conscious thought and intentional action. As a result there are conflicts between parts of the self – between the conscious and the unconscious (ego and id in Freud's terms), or between parts of the unconscious that manifest competing needs. Psychic energy can be bound up and distorted as a result. Creativity is another common casualty of such suppression and repression. Self-understanding and maturity are also compromised when aspects of the self are denied or invisible. The lowest layers of cognition are the most intimate with the mammalian/reptilian brain, and closest to emotional energy and bodily vitality; thus psychic inhibitions to the magical or mythical layers of the psyche can limit the full expression of one's humanity and potential.

Reflective and healing practices such as meditation or psychotherapy are often aimed at retrieving what was lost – to regain access to perceptual clarity, vitality, creativity, self-understanding, psychic wholeness, and psychological growth. Developmental theorists often contend that "cleaning up" shadow material in lower levels is more important that achieving ever-higher developmental levels. According to most theories, vertical development should not be forced because it happens naturally when an individual encounters new challenges, provided: (1) there is sufficient support; (2) sufficient horizontal knowledge has been learned; and (3) there is not too much shadow material inhibiting the growth process.

In the primary text on wisdom skills, I frame meaning-making maturity in terms of "wisdom skill" – a combination of "complexity capacity" plus "spiritual clarity." *Spiritual clarity* refers to psychological, cognitive, contemplative, or "spiritual" processes of becoming aware of and cleaning up or integrating the accumulation of negative patterns and beliefs. This healing or "ablation" of the hidden inconsistencies and tensions (shadows) within deeper layers of the psyche can be organized using the same levels as are used for developmental complexity. In other words, it is useful to categorize the pathologies or tensions according to the action logic level that they arose within or inhibit.

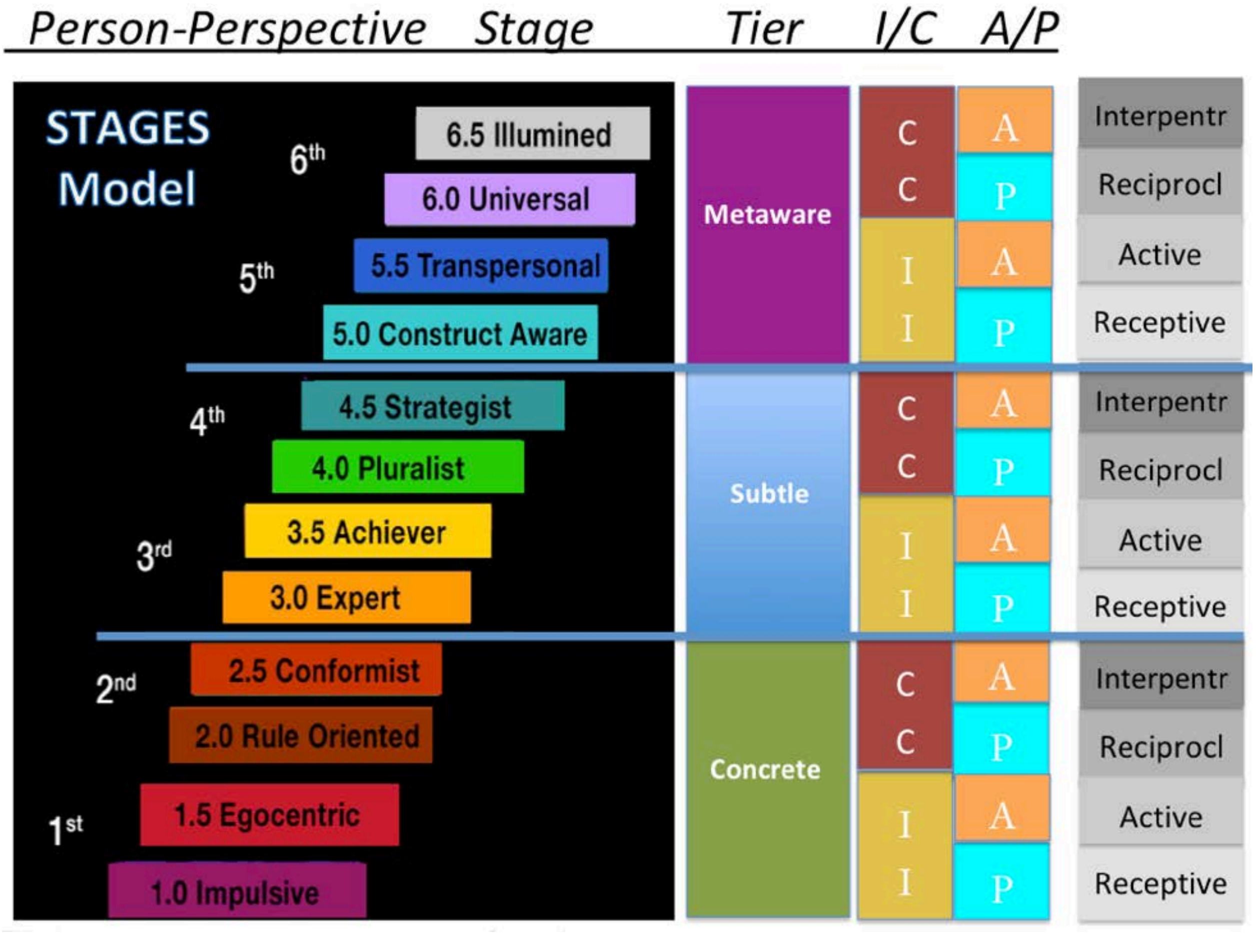
***Deeper Dive:* Person perspective action logics**.

We can use our framework of 1st, 2nd, 3rd, and 4th person perspectives to outline this trajectory. Here are indications (not full definitions) of these levels:

- 1st PP: There is no reflection on truth or validity – one just does what one wants, or what one has been coerced into doing, and has a difficult time understanding why others don’t see the world as they do.
- 2nd PP: “I am right [or we are right] and others are wrong.” The reasoning is black and white, but there is an understanding that others have beliefs (i.e. interiors) – they are just wrong beliefs and the others need to be coerced or ignored. Beliefs are justified with reference to authorities, norms, or personal experience.
- Early 3rd PP: I am right [or we are right] but I can be expected to explain or justify myself by presenting information and logical reasons. Also, I can continue to learn to perfect my knowledge.
- Later 3rd PP: There is a right answer out there somewhere, and the goal is to use observation and reason to find it. I think I am right but it is possible that I will change if your argument is good enough.
- Early 4th PP: I think I am right but I realize that my belief, that all belief, is based on imperfect information and reasoning. I look forward to engaging with others with different perspectives in a process that will satisfy all of our needs as much as is possible.
- Later 4th PP: Knowledge and beliefs are complex, multi-layered phenomena, and diverse perspectives co-exist and co-create each other with dynamic systems of ideas. This is true not only

for social dialogues and “knowledge building communities,” but within each person there is a cacophony of voices and perspectives vying for dominance, and possibly open to integration.

The STAGES Model. Because we refer to O'Fallon's STAGES model a number of times in this text, we include a figure here, to clarify how the person-perspectives alternate between individual and collective modes, and the movement of passive to active modalities within a given level. For more info see O'Fallon (2011, 2013) and Murray (2017).


Person-Perspective
Stage
Tier
I/C
A/P
STAGES Model
6th
6.5 Illumined
6.0 Universal
5th
5.5 Transpersonal
5.0 Construct Aware
4th
4.5 Strategist
4.0 Pluralist
3rd
3.5 Achiever
3.0 Expert
2nd
2.5 Conformist
2.0 Rule Oriented
1st
1.5 Egocentric
1.0 Impulsive
Metaware
Subtle
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Active
Receptive

The Intersection of PatternDynamics and Integral Post-Metaphysical Spirituality: What Brings Us Together?

A Conversation between Tim Winton[1] and David MacLeod[2]

Recorded August 1, 2018 for Integral Review

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[1] **Tim Winton.** I spent the early part of my working life planting trees in the wilderness and leading the development of an experimental sustainability education community.
My central passion is learning from natural systems and applying these insights to creating a better world. We are in the middle of a planetary-scale transition. The linear and hierarchical, mechanistic worldview that underpins industrial growth is breaking down. The machine model is too simple for resolving the complex problems it has created. I believe managing the complexity challenge requires the shift to a living systems operating model – one that mimics nature's ability to self-organize for more adaptive, innovative, and collaborative problem-solving.
From my observations of the natural world, organizational life, and engagement with the complexity sciences, I created PatternDynamics, a systems thinking framework designed for purpose-driven collaboration. I share it to support the development of self-organization skills for individuals and groups.
Serial social entrepreneur working at the intersection of commerce, sustainability, and social change. Roles include forester, permaculture designer, organic farmer, sustainability educator, leadership coach, organizational consultant, executive, trustee, and board member. Award-winning independent scholar.
Areas of expertise include ecological design, strategy, leadership decision making, integral theory and practice, team performance, self-organization, systems thinking training, and complex problem-solving.
I hold the rank of Nidan in Aikido Yuishinkai, a Diploma of Accredited Permaculture Design, and a BA in Literature. My meditation practice is grounded in the Pointing Out Way as taught by Daniel P. Brown, Ph.D. I split my time between my home in Byron Bay and an off-grid property in the hinterland of Northern NSW.
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[2] **David MacLeod** is a member of the PatternDynamics™ Community of Practice and am a trained PD Level 1 Workshop facilitator. With concern for community resilience, I was a co-initiator of Transition Whatcom, and was named an "Environmental Hero" by RE Sources for Sustainable Communities. I also initiated and served on a city and county appointed Energy Resource Scarcity/Peak Oil Task Force. My writing has been published by *Resilience.org, Integral Leadership Review,* and *Beams & Struts.* I presented at the Integral Theory Conference in 2015 on the topic *Patterns for Navigating the Transition to a World in Energy Descent*, which was subsequently published by *Integral Leadership Review*. Educational accomplishments include a Bachelor of Music degree from Western Washington University, a Permaculture Design Certificate, and I am an ASQ Certified Six Sigma Green Belt and Certified Quality Technician. I blog at https://integralpermaculture.wordpress.com, and have been a long time participant in the Integral Post-Metaphysical Spirituality Ning and Facebook forums.
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Links to the Audios

(Italicized text below is hyperlinked).
Part One: Context and the New Positioning of PatternDynamics (45 min)
Part Two: PatternDynamics and its Relationship to Spiritual Practice (51 min)
Part Three: A Deeper Dive into the Four Points of Applied PatternDynamics (51 min)

Narrative Summary and Reflective Review

The editors have asked me (Tim) to put together a narrative summary to accompany the bullet points David created to outline our conversation, “The Intersection of PatternDynamics and Integral Post-Metaphysical Spirituality.” We subtitled the talk: “What Brings Us Together.” I’ll recount how we explored that theme as well as include some reflections on the process of creating and recording our conversation and where those reflections might lead. Our talk extended to a rather long, long-form podcast recording in three parts. I’ll try and give the reader the opportunity to sense where they may want to dive in, if they do not have time for all three pieces.

Initially, when David approached me about writing a piece together for this edition of IR, I felt quite daunted. It’s been a while since I’ve had the time to take a deep dive into writing about anything related to integral theory. When I have written these types of articles and papers in the past, they tended to be all consuming, quite intense experiences. Deciding to use a conversational and somewhat informal format was a refreshing way to go about it. I think that our collaboration has yielded some results that we would not have generated with a more academic, written approach.

For instance, I’m sure I would not have been so willing to speculate on the types of correlations that may exist between some of the spiritual practices I’ve been engaged in lately, and my experience with PatternDynamics. Generally, in the past, I’ve been quite unwilling to discuss spirituality, as such – especially publicly – and definitely unwilling to talk about my own, or how I think it relates to PatternDynamics. Even in this talk there are multiple disclaimers by both David and me about our concerns about errors and misrepresentations. David is an excellent thought partner. We share a foundational set of views grounded in ecology, sustainability, the systems disciplines, integral theory, and the practice of PatternDynamics. He has also quietly, but persistently, encouraged me, I think, to make more explicit the spiritual dimension of PatternDynamics, and to tell that through my own experience, rather than only as a set of abstract theories. I thank him for that. It was easier than I thought. In a lot of ways it felt like a coming out as a spiritual practitioner. I think my discomfort with the pursuit of spirituality in the postmodern West stems from the fetishism and dysfunction I've observed around it. I've written about this before, especially in relation to the integral community. This is the first time I've felt like I could openly talk about spirituality properly from a personal perspective. Writing about it as integral theory is one thing, revealing one's personal spiritual experiences is quite another.

Being able to do that is in large part due to my meditation training within the Pointing Out the Great Way community, a unique approach to Indo-Tibetan spiritual development initiated by Dr. Daniel P. Brown, PhD. In it, Dr. Brown brings together the great wisdom traditions of Tibetan Buddhist lineages as well as the Bon tradition and Theravadin Buddhism with the study of neuroscience and the psychology of meditation. In it, the meditation instructions are extremely precise, and if followed correctly and validated by an instructor, then it is possible to get to the point where there is no doubt about the kind of meditation experience one is having. David and I spend a considerable amount of time discussing some of the general features of this meditation method, the core Buddhist theological concept of Paticca samuppada, and how related concepts in Dharma theory mesh with systems thinking and the generation of non-dual awareness. We do this primarily in the second half of Part 2 of our talk. Joanna Macy's book, *Mutual Causality in Buddhism and General Systems Theory*, features prominently in this discussion as does Nancy Frankenberry's *Religion and Radical Empiricism*.

Part 1 is spent on an overview of PatternDynamics, its development, its purpose, and how it works as a unifying force that brings us together.

In the beginning of Part 2 we discuss PatternDynamics as a bridge between the relative and absolute worlds, the curious ontological status of energy, and how its 'winding up' as higher energy quality leads to more and more complex forms and types of 'consciousness.'

In Part 3 we take a deeper dive and bring in some of David's work within the field of Radical Empiricism. We discuss four main topics here: understanding the PatternDynamics patterns as dharmas or the "felt qualities of experience" in the Radical Empiricist tradition; PatternDynamics as a pattern language in the tradition of process-relational philosophers and associated thinkers like Bernard Loomer, Alfred North Whitehead, William James, and Charles Sanders Peirce; the embodied PatternDynamics movement based workshop as a potential group spiritual practice; and, lastly, the concept of 'facilitative shamanism' in working with the patterns and energies that become available through post-formal development.

David and I cover a lot of ground. It's not always obvious that all of these topics relate to our theme of 'what brings us together.' It is perhaps only by pointing out this theme explicitly in the beginning that it may be detected in each element. That type of signification is also a theme of our conversation that similarly may take some pointing out to become revealed.

I found it quite exhilarating to be so free to range around and loosely cobble together, what is a rather loose set of ideas–at least from a more rigorous academic perspective. David and I are aware of the problems with this approach and also the opportunity for the creative emergence of useful, if not yet fully tested, ideas.

One of the most interesting things to come out of our conversation (towards the end of Part 3) was the listing of a set of complex fields and practices that chunk together to form the basis of the foundational pattern within PatternDynamics called Source. These 'complexes' relate to Source's self-organizing capacity or organizing intelligence, including purpose, pragmaticist orientated problem-solving, inquiry, spontaneity, presence, non-duality, and systems thinking. This chunking of what are technically referred to (within the study of hierarchical complexity) as *abstractions* into one integrated practice, or more technically, a *principle* of the felt sense of the flow of experience, is discussed as an example of the 'second simplicity'–a simplicity that unifies all the complexity before it.

Of course, our conversation is for folks interested in Integral Post-Metaphysical Spirituality, not for the general or even curious reader. For most of what we discuss to be relevant, people will need to have a background in integral theory at a minimum and most likely a familiarity with the Ning forum and Facebook discussion group on integral post-metaphysical spirituality curated by Bruce Alderman. David and I are not academic philosophers or theorists. We are amateurs; I hope in the best sense of that word–dedicated, curious, and knowledgeable adherents to our disciplines. As practitioners we are also both householders practicing our post-metaphysical spirituality within the milieu of everyday, workaday life. Like amateur scientists before the professionalization of that type of inquiry, we hope that the thought experiments we have tinkered with here in the back sheds of our humble computers will contribute something useful to an emerging discipline.

Detailed Topic Map of the Audio Recordings

Part One: Context and the New Positioning of PatternDynamics

- Introduction
- How Tim Winton came to develop PD (PatternDynamics)
- How David MacLeod came to find an interest in PD
- PD as a language that helps people develop their systems thinking capacity and application
- PD in relation to post-metaphysical spiritual practice
- PD in leadership and organizational consulting
- A new positioning of PD oriented around the relationship between holistically aware systems thinking and traditional spiritual practice
- The essence of PD is the Source pattern, which is the generative capacity of the universe to create flourishing systems
- A possible chaotic transition or phase shift to a more unitive shared view on a planetary basis
- What brings us together? How do 8 billion people collaborate to form a viable planetary system?
- The more connected we become, the more divisive it's made us

- How do we balance and integrate for optimal health rather than get ideologically aligned with one approach or another? How do we unify and integrate the value propositions that each side brings?
- The subtle art of shifting the conversation to the systems level
- The power of "communicative action" (Habermas) and the core value proposition of PD: the ability to point out systemic dynamics in a way that people can see them; and then you have a reference or language with which to collectively communicate about how to balance and integrate
- "Facilitative Shamanism" as the third piece of PD
- Going to war with post-modernism vs. integrating post-modernism
- Defining Integral Post-Metaphysical Spirituality
- An over-arching cosmological umbrella
- Preserving the sacredness of the traditional view, but applying the co-creative post-modern insight

Part Two: PatternDynamics and its Relationship to Spiritual Practice

- Introduction
- No separation between the relative and the absolute, and conduct in the relative world is important
- PD as a bridge towards a more holistic and systemic sensibility that sees the patterns of energy that exist in both the inside and the outside world; integrated in a way that both scientific materialists and traditional spiritualists could honor
- The mysterious ontological status of energy, and the cosmology of PD
- The PD view is similar to that of many spiritual traditions that see reality as semiotic in nature – it is interpretive, dynamic, alive, conversational, inter-relational, and systemic.
- The pragmatism/pragmaticism of Charles Saunders Pearce; the systemic/Taoist/flow/systems view of integral theorist Edgar Morin; and the 4th Law of Thermodynamics from Howard T. Odum
- The "Pointing Out" style of teaching meditation, and its implications for PD
- Tim jumps out on a limb
- Lessons from Lectica (nod to Theo Dawson, Zak Stein, and Aftab Omer): Collective problem solving in early systems thinking, applying more robust standards in late systems understanding applied to culture, and then early principled thinking that is the second simplicity on the other side of complexity.
- More on the "Pointing Out Way" teaching of Daniel P. Brown
- The something that "pops" when we do the embodied pattern practice in the one day PD workshop – a non-dual awareness
- paticca samuppāda – dependent co-origination; Joanna Macy's "Mutual Causality in Buddhism, and General Systems Theory."
- The Dharma theory of Abhidharma Buddhism
- Dharmas as "felt qualities of experience / Whitehead's concept of "categories of subjective form" /dharmas as energy patterns / PD patterns as dharmas
- Avoiding the mistake of reification
- Dharmas as adverbial rather than adjectival (nod to Bruce Alderman's work)
- Gebser's concept of the diaphainon

- Four Points of Applied PatternDynamics

1. Understanding the Patterns as dharmas or “felt qualities of experience”– always in flux, always in relationship to other Patterns. “To help us see more.”
2. PatternDynamics as a process-relational pattern language. Balancing and integrating the Patterns in collective conversation with other people. “To help us share more.”
3. The embodied PD group movement practice, taking an equal and central ongoing role in PD practice, not just an activity for the Level 1 Workshop. This activity helps connect us as a group in an ongoing Radical Empiricist “experience” practice – experiencing patterned energies, and connection to Source. “To help us live to deeper purpose.”
4. Emphasis on “Facilitative Shamanism” (Tim talks about seeing others do this, but David has seen him do it at PD Workshops) to bring in “a dimension of human experience that’s based on primal, archetypal shaping forces or patterns.” Teaching “the capacity to sense the dynamic at play and how to tweak that energy” (“knowing when to let happen and when to make happen,” as Gebser put it). This is “the ability to shift the conversation in a way that reveals the deeper reality of our inter-dependence.” And an example of what Lectica calls “early principled thinking” or “the second simplicity.” Beyond all Patterns, which are all ultimately empty or Void anyway; all simplified into Source.”

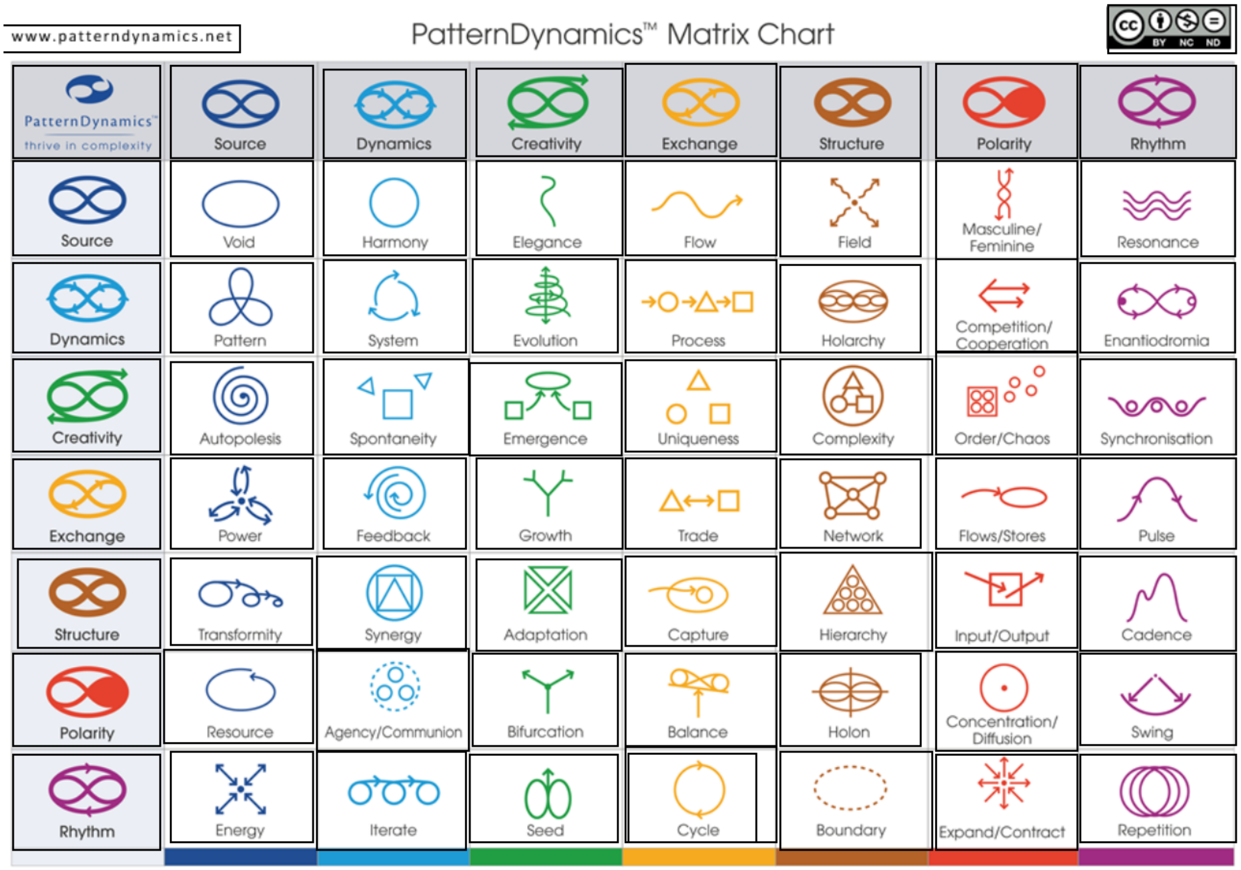
Part Three: A Deeper Dive into the Four Points of Applied PatternDynamics

1. Understanding the Patterns as dharmas or “felt qualities of experience”
   a. Radical Empiricism (Nancy Frankenberry, *Religion and Radical Empiricism*; William James, *Varieties of Religious Experience*)
   b. Language/Thought/Linguistic expression, the challenges Radical Empiricism has faced, and the key insight of PatternDynamics
   c. The core dimensions of Source (Daniel P. Brown, Ph.D. Thesis)
   d. The Eudaimonic Society (Bhaskar)
   e. Dukkha; interrupting the flow of co-constructed experience
2. PD as a process-relational pattern language. Balancing and integrating the Patterns in collective conversation with other people. “To help us share more.”
   a. Tim’s interest in process philosophy as “the missing piece when trying to integrate subject/object”
   b. How is PD geared to assist in better conversations?
   c. David’s interest in the idea of process-relational philosophy (Bernard Loomer)
   d. Whitehead, James, and Russell and the living systems view - an integrated flux of dynamic energy patterns
   e. Steven Meyer on Experiential Togetherness
   f. Peirce’s firstness, secondness, thirdness (Tim’s paper on Planetary Civilization)
3. The embodied PD group movement practice, taking an equal and central ongoing role in PD practice.
   a. Practice groups to develop community; touching into Source together, with an overriding interest in the health of humanity
4. Emphasis on “Facilitative Shamanism” - “the capacity to sense the dynamic at play and how to tweak that energy”
   a. Tim’s podcast with Lauren Tenney: “We are the New Shaman”

   b. Diane Hamilton using the "Big Mind" process; Taoist practice of Wu Wei
   c. Using Source for Complex Problem Solving: Purpose, Inquiry, Spontaneity, Presence, Collapse of polarities into one field
   d. Primary motivation, and what brings us together: realization of Source
   e. Power as another dimension of Source
5. Conclusion – the unifying capacity of PatternDynamics

Figure: PatternDynamics Visual Summary

A version with live-links for each pattern is available at https://patterndynamics.net/patterns/



PatternDynamics™ thrive in complexity	Source	Dynamics	Creativity	Exchange	Structure	Polarity	Rhythm
Source	Void	Harmony	Elegance	Flow	Field	Masculine/ Feminine	Resonance
Dynamics	Pattern	System	Evolution	Process	Holarchy	Competition/ Cooperation	Enantiodromia
Creativity	Autopoiesis	Spontaneity	Emergence	Uniqueness	Complexity	Order/Chaos	Synchronisation
Exchange	Power	Feedback	Growth	Trade	Network	Flows/Stores	Pulse
Structure	Transformity	Synergy	Adaptation	Capture	Hierarchy	Input/Output	Cadence
Polarity	Resource	Agency/Communion	Bifurcation	Balance	Holon	Concentration/ Diffusion	Swing
Rhythm	Energy	Iterate	Seed	Cycle	Boundary	Expand/Contract	Repetition

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Transcripts

Part One Transcript

David: Greetings everyone, David here from the northwest corner of Washington State, in the United States. I'm in conversation today with Tim Winton, who's in New South Wales, Australia. We're going to be talking today about some of our shared interests, especially in relationship to PatternDynamics, which is the integral pattern language that Tim has developed. We'll have him introduce that in a bit, and its relation to this topic of integral post-metaphysical spirituality. One of the bigger questions we'll be attempting to address in this conversation is the question, what brings us together? Tim, can you briefly introduce yourself and tell us how you came to develop PatternDynamics?

Tim: Yeah. Thanks, David. It's great to be on this call with you. I developed PatternDynamics really out of my work in sustainability. Earlier in my life, I set up a sustainability education center with a focus on permaculture. At that time, I was training in Aikido and reading up on systems theory, complexity theory and integral theory. Over the course of the 10-year journey with that education center, I developed PatternDynamics (PD) as a way of communicating about the principles of sustainability, but more broadly, the principles that sustain or create wellbeing or health in any system and it sort of broadened out from that. By the time I created the chart of patterns that represent systems principles, a fair bit of time had gone by. I was involved in the integral community at that point and proceeded to publish some papers on the theory behind it, especially in relation to integral theory.

I've sort of slowly but surely been developing PatternDynamics as an educational discipline, or a practice for people who have more holistic orientations. We can recount some of that history. But today, we're talking about PD in conjunction with integral post-metaphysics and what PatternDynamics might have to offer post-metaphysical spiritual practice.

David: Right. Well, I'll just share a little bit about how I encountered you and PatternDynamics. I too was very much interested in sustainability issues. I was getting more and more involved as a community activist in sustainability type things. I initiated an energy resource scarcity task force supported by city and county authorities, and participated in that. I also was helping to establish a transition initiative in my community, and I was looking for tools to help me and our group achieve success in these areas. And, I was also fortunate enough to be working with this local friend named Alan Seid, whom I believe you know.

Tim: I do.

David: Alan reintroduced me to integral theory. I had at least one Ken Wilber book already on my shelf, but I hadn't really spent a whole lot of time with it. I started reading about integral theory through Alan's influence. Alan also had attended, with you, an integral sustainability workshop that Barrett Brown had led. He had a lot of information he was sharing with me about that. I was also around that time starting to look into permaculture. I ended up getting a permaculture design certificate. So I was looking at these two things.

In regards to sustainability issues, I was sensing that integral theory seemed a little bit weak in the lower right quadrant. At the same time, permaculture, which is also purporting to be somewhat of a holistic practice, addressed things that we would say would be in the left-hand quadrants, but it was not very strong there. So I thought it would be really interesting and perhaps very useful to combine these two disciplines. In fact, I created a blog called Integral Permaculture. And then I went online trying to see has anybody else got this idea? So I Googled integral and permaculture. Lo and behold, I came across your name and PatternDynamics. After getting over the initial hurdle about, "Oh gosh, I have to learn a language here. What's this about?" But after getting over that hurdle, I've been hooked ever since. It's been very interesting to me, to be involved with PatternDynamics, and learning a lot from things that you shared with me.

Tim: Oh, it's been great to have you as part of the community of practice. I said to you before we started the recording that I think in many ways you've really forged ahead with exploring some of the other theory and philosophy that relates to the general view of PatternDynamics. That's been really interesting for me, and I think for other people involved. It's been a great relationship so far.

David: Thank you. Maybe next, you can just go into a little bit more detail about PatternDynamics. You shared with me that you have some new ideas about how to frame it. Maybe you can introduce some of that new framing and in the process give our listeners a little bit better idea of what PatternDynamics is trying to do.

Tim: Okay. Well, that's interesting because anything that deals with systems thinking and complexity can become a very generalized form. That's how I put it. Systems thinking is a kind of thinking. You can apply it in nearly anything. At its heart, PatternDynamics is a language that helps people develop their systems thinking capacity and apply it for better communication and problem-solving, particularly in more complex circumstances–like the circumstances we're faced with today. We're on a rapidly shrinking planet with more and more complexity building in our society every day. As a generalized form, it was difficult to find a place to start with it. I started with it in sustainability because it really grew out of my work in sustainability as a sustainability educator helping people learn things like permaculture. As a practitioner, really, I had a very hands-on background and career in ecological design, forestry, organic agriculture. I learned most of the things that I developed into PatternDynamics as a pattern language from nature, from those deep interactions with nature.

And also, (I was experiencing) the kind of recursive dynamic between what I was observing while I was relating and perturbing and interrelating with these various systems, natural systems, and community dynamics at Permaforest Trust, which was the sustainability education center. And also, (learning about) the more theoretical approaches I was encountering in systems theory and complexity theory. Yeah. All three of those things combined to become PatternDynamics as a way of communicating, really, better about how systems work and what makes them sustainable and healthy.

David: I think that a real strength of PatternDynamics is how it brings together not only the influences that came to you through permaculture and other sustainability type initiatives, but you've really delved into how integral theory, systems theory, complexity theory all converge together into this discipline.

Tim: Interestingly also, and more and more now ... And we can talk about that later in this chat ... there's, to me, a relationship between spiritual practice, especially what we're referring to as post-metaphysical spiritual practice, where we can integrate the traditional, modern, and postmodern conceptions of what it might mean, what spirituality might mean. Especially in relation to that, we're trying to connect the dots and find the correlations and relationships between a kind of deeper systems thinking and traditional spiritual practice, especially as I'm encountering it in the Pointing Out Way, Dan Brown's work with essence traditions in Indo-Tibetan Buddhism. We'll get to that, but I think we have a lot to talk about in the meantime.

That’s the second thing that we did. By the time PatternDynamics evolved beyond a sustainability communication and design tool and into the integral theory world, I decided to try it out. I got kind of recruited into leadership and organizational consulting with this tool. Unbeknownst to me, systems thinking is valorized and a requirement for senior leaders and leaders in organizational life in general. There were people working as consultants and in organizational consulting and I was recruited in to do that piece. To be honest, it generally didn't work out that well. I know why now. Through that work, I learned a lot of hard lessons, got to do some really interesting work with some other members of the PatternDynamics community, got to try a few things, and learned a lot about what doesn't work, and over the course of that, found out why it doesn't work. And especially through my encounter with Lectica, who are ... they're really researchers and educational philosophers who've come to understand and develop a way of measuring what level of complexity we're working at and how to help people learn.

David: Tell us a little bit about why that doesn't work.

Tim: Well, the way I was pitching PatternDynamics was, I was pitching it at a fairly high level within the skill domain of systems thinking itself. Most people in organizational life have other problems to solve, and they have developed other skills. When someone comes along and starts performing at a high level, you can't really understand it (if you don’t have that level of skill). If you're on the basketball court and it's Michael Jordan who's doing all kinds of tricks and things that you could never dream of, it's kind of meaningless to you and it doesn't really help you solve the problem of, say, learning to dribble down the court. So you get frustrated. I learned now that if I'm going to present PatternDynamics, I really need a way to present it and meet people where they're at with that particular skill. You can sort of translate PatternDynamics or use it as an underpinning skill for a number of other kinds of skills as a generalized form, as I mentioned.

But we're also learning to do that as a community and I'm learning to do that, and probably learnt some hard lessons in organizational life, to be honest, about what PatternDynamics is, what level and how to pitch it and frame it so that it's useful for people and it helps them learn something that actually allows them to achieve an outcome they couldn't achieve before. There are lots of well-developed forms within PatternDynamics, like the one-day workshop on embodied movements themselves, the various learning materials at levels one, two, and three. All those are pretty tried and true. There's now (also) a kind of collaborative systems inquiry, which is a process where you can use the patterns and the systems thinking, employing them to collectively come up with better decision-making and problem-solving. We've associated with people at Lectica, who could help us measure some of the things that we're trying to achieve, like better decision-making.

There's been a lot of progress. There's a lot of well-developed stuff in PatternDynamics. There's a good community of people who've invested quite a lot in learning it and applying it and testing it. We swap notes. I've sort of been the central hub of that. A couple years ago, I took a bit of break from what I call the second phase of PatternDynamics, (the one) in organizational and corporate life as a kind of consulting tool. I took a step back and went back to my traditional base of working in forestry and agriculture. I'm now ready, I think, to ... having had many conversations with people in the PatternDynamics community about what its real essence is and how we might move forward with quite a different positioning. For me, that really is oriented around this idea that there's a relationship between systems thinking and becoming more holistically aware, where your view of reality and your consciousness is shaped more by these inter-relational dynamics and patterns, and that becomes more part of the lived view of your life, your experience.

And traditional spiritual practice, which we'll talk about today, where some of the core concepts in Buddhism, for instance, are about inter-relationality, really. There's a lot there. Joanna Macy's written a whole book on it. There are a number of people who focused on this, but it's a rich, rich field to explore. I think the essence of PatternDynamics has always been this thing we call Source, which is just the generative capacity of the universe to create flourishing systems. That seems to be its central property. There is a numinous and a sacred quality to that, that all religions and all spiritual practices have recognized. We live in a particularly technologically-oriented society where those views have been set aside, if you like, for some hundreds of years. We're in a particularly extreme technological and scientific materialist end of this trajectory. I'm wondering if there isn't going to be a big swing, which is one of the PatternDynamics patterns, you know. Once something has swung so far one way, it'll swing back the other way. You'll get a counter running or an Enantiadromia that shifts over to the other ...

David: That's a Jungian term, is that where you got that term, Enantiadromia?

Tim: Yeah, I got it from William Irwin Thompson, I think, who got it from Jung, obviously. That was Jung identifying, I think, a kind of cultural-psyche, collective consciousness dynamic or psychological dynamic that he experienced in some of his patients. Enantiadromia, in Greek, means counter running. You get a counter running force when something shifts to an extreme.

David: Yeah. That also matches up with Jean Gebser's ideas about coming to the end of the mental rational period and entering an integral type of mutation that is brought about by some really tough things happening, and by a deep anxiety that then kind of brings about a mutation.

Tim: Yeah. I think Gebser's on the money. I really do. There are other people, of course, who've identified we're in the breakdown phase of late modernity, and that in these phase shifts in systems, you often get a chaotic breakdown before the new order emerges. It'd be easy to interpret that that's where we are, given the state of certainly politics and economics in the West, well, globally now, really. I think we need a more unitive shared view on a planetary basis, and that really ... This is where a guy like Jordan Peterson has something important to say. He said it’s mythology and sacredness that unified us, this view of something greater than ourselves has always been the overarching unifying force in human affairs. Because we've set aside the mythic and the religious to such an extent, we're missing that. We're enormously powerful, but aimless and destructive because of that.

David: That kind of touches in on one of the questions or one of our themes of, what brings us together? You seem to be pointing towards the need for that.

Tim: Yeah. I think having a nice pause in the development of PatternDynamics, or at least my participation in that, is that ... a new question comes to mind. I think at the heart of Source, the generative kind of underlying organizational capacity of the universe, there's an inquiry. That's a big part of what Source is. It’s the open question of, "What's happening? How do we flourish? How do we solve the problems that allow us to flourish?" The big inquiry I have now is something I actually heard Sam Harris say on one of his podcasts, interestingly. It is, “How do eight billion people collaborate to form a viable planetary system?” It's a great question. It's the question of our time, really. I think that's the question that I realize I've always been oriented around with PatternDynamics. It's always had that overarching planetary kind of view. How do we flourish? How do we thrive in complex circumstances? I think there needs to be many, many initiatives that work on that question. They all need to tie in together.

But I think one of the main themes or one of the main areas that needs to be worked on to answer that question is, how do we start focusing on what brings us together, rather than what pushes us apart? If you look at most of the dynamics in the breakdown phase, everyone's focusing on what is different about us and why we should fight with each other.

David: Right. All around us is that kind of energy and discussions. I'm seeing people on Facebook, friends of mine saying ... They're so upset about, say, something that Trump has done. They say, "If you disagree with me, unfriend me right now," rather than continuing to have dialogue with each other and trying to understand what's going on with somebody that has a different view.

Tim: Yeah. It's really ironic, that the more connected we become, at least in the early phase of being highly interconnected on a planetary basis, the more divisive it's made us.

David: Right. That was kind of the promise of the internet, that we would all be able to come together and collaborate. We're seeing just so much ... Again, with Facebook, it's so easy to put ourselves into different silos and just be in some kind of echo chambers that reflect our own views.

Tim: Yeah. I think that's one of the unintended consequences of being highly interconnected. This is the challenge with all kinds of systemic interventions. You make a system more interconnected, and you think that's going to be a good thing, but the unintended consequence might be divisiveness. Look, in and of itself, being more highly networked– that's a pattern in PatternDynamics– may or may not be a good thing. It may need to be that the level of interconnectedness or networkedness needs to be adjusted for optimal health. It may need to be readjusted every week or every day. It may be the types and kinds of networking that are important to create a healthier whole system.

In PatternDynamics, we try and have a more nuanced or sophisticated view. Rather than saying all networking and the more networking we have, the better the system is going to be, the question is always, how much and what type? How do we balance and integrate to get the greatest health, rather than get ideologically aligned with one approach or another? You certainly see this in things like the crypto community, like more decentralization is always better. It tends to be reactionary against highly centralized forms. So there is a fight between the ideology of being centralized and the ideology of being decentralized.

Whereas in PatternDynamics, we're trying to find what unifies us in those things. The unifying dynamic is that they're both organizational patterns, they're both important, but the type and balance of each one of those things in each particular circumstance is how we could talk about that in a way that unifies the value propositions that each perspective is bringing, and potentially integrate them so that you get a little bit more networking of the type you need over here, then a little more centralization of the type you need over there. You can change and adjust and balance those things and have a conversation about that unified and integrative approach, rather than fight about whose perspective is right.

David: Yeah. That's very important. I think that's a real key contribution of PatternDynamics. We can look at our charts or whatever of the various patterns and see not just who's right or what's my position that fits here, but always kind of looking to balance and integrate it. It's always about more than just one pattern. I think this concept of polarities, it really comes out strongly for me. Polarity is not either/or, right or wrong, this or that, make your choice, but it's about finding that appropriate balance between two sides of one thing.

Tim: Yeah, absolutely. It's a dynamic balance. It will change as the circumstances change.

David: Yeah, exactly. You don't find that perfect balance and then now you're set.

Tim: Yeah. In PatternDynamics, we're really shifting our view to be less linear, more about the interconnected systemic nature of what's going on, and less static and more dynamic, so the dynamic patterns that allow a system to be in that kind of flourishing harmony that actual systems can get into if you remove whatever's blocking them from that natural inclination.

David: For example, we see hierarchies in natural systems, but we also see holarchies or networks very strongly. It's not a matter of we just need to get rid of all hierarchies, for example.

Tim: Yeah. And that's-

David: We need to find the appropriate balance and the appropriate place and time.

Tim: That's what's so interesting about bringing this more integrative way of communicating into a conversation, it's often not welcome in a way. Many people really like to hold on to their ideological position in a fixed way. They have their hammer and every challenge is a nail that they can apply that tool to that problem. It's not always true. I think PatternDynamics works to unify the conversation, but you can't be overt with it. This is one of the things I learned in organizational consulting. Pulling the charts out and showing people the patterns and having a conversation at that level where you make explicit the tool and the language is really hard. You even mentioned at the beginning, "Oh my goodness, I've got to learn this pattern language. It looks so strange." For most people, that's the response I get.

There's a lot of people who are naturally integrative systems thinkers, but they don't really have a language to express what they're feeling. One or two in a hundred people will come up after I've done a talk or a presentation on PatternDynamics and will say, "Wow, that's how I think. I finally have a way to express what I've been thinking." That's sort of who makes up the PatternDynamics community. You've got to be a bit careful, I guess that's what I'm saying, about getting a result with this tool. It's a language tool in many ways. You can apply it to get a result. But I think this subtle art of shifting the conversation to the systems level is the first part of what allows us to explore what brings us together, what unifies us, because at the systems level, everyone's perspective is important. It has a role. It needs to be balanced and integrated in a dynamic way. You need to have a dynamic conversation about that.

I think it’s like what Habermas is talking about with communicative action. I think there's something about communicative action, as he frames it, that allows the organizing process to come out of those everyday conversations about what we're doing and how we're doing it. Having a language can be a very powerful thing because it helps us talk about things that we couldn't refer to before because we didn't have the language before. It's that simple move of pointing out what's going on systemically using the principles behind the patterns. Don't whip the pattern out and show them, "This is the Swing pattern." You say it in a way that people can hear it: "I think we've gone over to this extreme, and now we're shifting back to that extreme. What do you think?" Often, you'll get an aha.

That's the kind of magic in PatternDynamics. That's the core value proposition, that pointing out move. Because in the West, especially in the modern West/postmodern West, we don't have great language if we're talking about holistic dynamics. In the studies of ecology and biology and now all the systems theories and complexity theories that are being applied to the various disciplines that we study and engage in–that's emerging. But, there's no sort of comprehensive language. Each systems theory and each complexity theory has its own language and its own set of things it focuses on. Whereas PatternDynamics is trying to be a true language with a grammar and a set of things that you can put together to make meaning in richer ways. You can put Swing together with, say, some of the other patterns like Feedback. The stronger the Feedback gets, that's the time that it's likely that it's going to Swing back to the other side. So then you're putting two principles together, or two patterns together. But that first step where you're pointing out the systemic dynamic and you're naming it, you use the principle behind the pattern.

For people who haven't seen PatternDynamics, it's really a set of little diagrams, these little pattern drawings that represent a systemic dynamic, like Swing. The principle behind it is what tells you about the nature of that systemic dynamic. It can be Swing or it can be Emergence of a new thing that you couldn't predict from other things that make it up, like you would never predict water from hydrogen and oxygen, for instance. We get many different patterns and many different principles, and you can start putting them together. But it's that moment where you point out what's happening holistically or systemically in a way that people can hear it, without confusing them, that makes it pop. It's that subject-object move, I think, that we talk a lot about in integral circles, where if something was kind of nascent in your awareness and then there's a bit of language for it or someone points it out in a way that allows us all to discover it, it all of a sudden pops, becomes real.

David: Right. If you can name it, that's the first step towards being able to understand it. And then you start seeing it all over the place that you never maybe would've noticed before.

Tim: That's right. And then you have a good way of referring to that thing. When I look at a wall of green in the forest, it just looks like a wall of green, unless I have a name, like that tree is a Grevillea Robusta and has a particular leaf shape. Now that I've got a name for it, I can see it out of that background of green. It's the same with systemic dynamics. We just don't have great language for them. We don't really see them in the way that, say (the way) some cultures do–if you go to Ancient Chinese cultures with Taoist conceptions in philosophy and language, you see a much richer language for systemic dynamics. But I didn't encounter that in my world, growing up in the modern West. The value proposition of PatternDynamics is that you can point out systemic dynamics in a way that people can see them. Then you have some reference or language so that we can collectively communicate about them.

That's sort of the second step in using PatternDynamics. Once you've pointed it out and you get agreement about it, then you can start talking and communicating about how to balance and integrate it. And then you need to develop some skills around facilitation. But after that, you can get an agreement about how to adjust these various things. So you're in a business and there's a Swing coming along. You're moving from a CEO who really values centralized control to the new CEO who wants a more distributed networked kind of organization with flatter hierarchy. So you can talk about that in a more sophisticated way. There might be some parts of this organization that really do need to remain centralized, at least for some time longer, and there are other parts that are easily networked and where the hierarchy can be flattened out. You might need a particular type of network approach in this business, so you need to balance and integrate very carefully and have conversations about that, rather than just coming in and going, "Bang. We're going to make this the flattest organization possible, because hierarchy is bad and we're going with network distributed organizational models," in a kind of blunt, ideological way. You see this a lot with different ... especially progressive organizational forms, where hierarchy is bad, and a third of the company leaves because they don't really understand this new model. It was implemented too quickly. There wasn't enough conversation about how to do it strategically in ways that work. So having that conversation is key, but you need a language to have a conversation. That's the second part.

David: One of the books that I've read, and it may come up again in this conversation, is a book called *Religion and Radical Empiricism* by Nancy Frankenberry. She says, "When we observe that often in achieving, for example, a more sophisticated vocabulary of the emotions, we acquire, also, a more sophisticated emotional life, not just an expanded power of description" (Frankenberry, p. 144). It's about really being able to come alive with learning something like this. As we learn a language about understanding systems theory, we can also achieve a more distinct and useful and enhanced experience as living members of our ecosystem.

Tim: Yeah. You could almost substitute the word system for emotion in Frankenberry's quote there. As you have a richer language for experiencing more systemic holistic nature of your reality, the more full and rich that gets. This brings us to the post-metaphysical spirituality dimension of PatternDynamics. What I've found as I've engaged with this, my world becomes a richer whole. It's kind of an unbounded wholeness of living process. So my view of reality is shifting fairly radically, not just through PatternDynamics, but also some meditation practices that we can talk about as well.

David: Maybe we should-

Tim: And there's a correlation ... Look, maybe before we move on, just I'll talk about the third piece in PatternDynamics.

David: Oh, okay.

Tim: It's really one, two, three every time you use it. And developing the skill of PatternDynamics is learning to use this in that kind of facilitative Shamanism, where you can sense the systemic dynamic. You can name it and get agreement. You can get a conversation happening about what needs to be done, or at least what hypothesis you're going to test first. You can build some trust along the way for the people who didn't get their view this time–they might get it next time.

Tim: The third part, if one is pointing out – two is have a generative conversation, three is decide on a solution to test, and make sure that you allow it to be dynamic. It's not fixed in stone. It's a continual process of reviewing and continually, dynamically balancing the system. If you listen to what Jordan Peterson actually teaches and what he's researched through what myth does in his pragmatist approach to the collective endeavor of problem-solving and getting order out of chaos, it's the same process. It's kind of like this deep, generative dynamic pattern. That's at the heart of Source, it's that inquiry into how do we solve the problems around us in a collective system. Mythology is the great overarching unification of the greater power, the sacredness in the world and its embodiment in mythological language and imagery. It's enormously powerful in coordinating human societies. We need to bring it back in. I'm wondering if PatternDynamics can explore that same territory as a kind of emerging integrative mythology, if you like, or mytho-poetic practice. It has a very deep poetic dimension in many ways, as in autopoietic, as in self-generating.

David: Perhaps-

Tim: Sorry. I've gone off on a bit of a tangent there. But really, the first step is to-

David: Well-

Tim: ... get to the solution, you know? How do we solve our challenges? How do we flourish?

David: Perhaps in contrast with Jordan Peterson's approach, which seems to have a lot of value, but also seems to be divisive; you see a lot of people taking positions either for or against Jordan Peterson, or people using Jordan Peterson's work to further divide our conversations.

Tim: That's what's-

David: PatternDynamics hopefully, again, that emphasis on bringing us together, rather than what separates us.

Tim: Yeah. Look, making distinctions is important. Having distinct agentic entities that interrelate into systems is important. But what I find interesting about figures like, say, Sam Harris and Jordan Peterson and other figures in the intellectual dark web, so-called, is that they're moving beyond that kind of extreme postmodern form. It's a more interrogative thing. But in many ways, it's like how Wilber approached the contrast between a more integrative view and a postmodern view. It was to go to war with it, in many ways, and to point out its problems and fallacies, rather than the interrogative move, which to Wilber's credit, he also held.

David: He did.

Tim: Whereas some of these others, I'm not so sure. I think, say for instance, Peterson and Harris both understand the important dimensions to postmodernism, they just don't focus on them. They are, in their own ways, divisive. They're focusing more on the distinctions we need to make, and perhaps even the fights we need to have, than on what unites us about those conversations. Fair enough. There's a role for all of that, but that's not what we're interested in in the PatternDynamics' community. I don't think it's ever been the key, the core interest behind any kind of view of the sacred. Sacred, almost by definition, is what unifies us, the whole that we share, and less about our individuality and more about our interconnectedness and the holistic nature of our experience and our universe. So yeah, with the sort of the one, two, three of PatternDynamics, the practice has its own kind of psycho-spiritual developmental force, I found. I think I've located that same force in some spiritual practices.

David: As we transition into a more spiritual discussion, how would you define integral post-metaphysical spirituality?

Tim: That's great question. That's what I was reading for the hour before this conversation, because it means so many things. Sometimes, it's easy to lose sight of what you want to talk about it. But there's been a lot of conversation through Bruce Alderman and conversations he's curated on the Ning site and the Facebook site about integral post-metaphysical spirituality, and some really great contributions by some people who are first-rate thinkers who've really invested in this stuff and had some really interesting conversations.

But essentially, I think for me, it's about moving beyond the myth of the given in many ways. Like Frankenberry says, there's a recursive aspect to reality that ... There's an interpretive dimension to it as well. You can't just say there's a subject and an object, and subject views an object, and that's it. The object is static, and the subject is viewing it. It's more like–sometimes it's called a double hermeneutic–that there's a subject viewing an object, but the object influences the subject. In fact, the subject's not just a subject, it's also an object. The object's not just an object, it's also a subject. So there's kind of like subject/objects interrelating and co-evolving and co-influencing each other, but on a much more complex level because there's billions and zillions of these interactions going on. It's more about the inter-relationality and the patterns of that than it is about what might be an object. What does that even mean?

David: Yes. I think that's key.

Tim: Yeah. I think it's a key theme because it is the unitive force. You could see individuals that look like objects, but really, they're highly interrelated into systems, which aren't things, they're patterns of relationships, energy flows. Maybe that's what the Buddha was pointing out, about this idea that there's no self, or that there's a kind of mutuality in the causality in the way that we perceive the world. We suffer because we think we're an independent entity. We're highly interrelated. That includes the interrelationship between your mind and the world ... Again, whatever that is ... but that we construct it. I guess this goes back to Kant, really. It's not just we have perceptions about a reality out there, it's that we're highly conditioned by our experience, and I guess in integral terms, there's a kind of a construction of reality. An enactive paradigm, I think, Sean Esbjörn-Hargens refers to it as.

In terms of integral post-metaphysical spirituality, it's about recognizing that. It's also about how you might integrate traditional modern, postmodern views on the sacred or religion or spirituality or all those things, you know, the numinous. And finding, what for me anyway, Is what I call the overarching cosmological umbrella. How can a whole human family find a way to engage in what unifies us? That more systemic, more holistic, more sacred aspect to our reality.

David: Yeah. For myself, I don't carry around a strict definition of integral post-metaphysical spirituality, but I generally think it's the attitude you bring, and being able to integrate these different insights, as I think Bruce probably wrote as one of the descriptions on the Facebook page, how might insights from modernity, postmodernity, how might they inform and impact humanity's ancient wisdom traditions? It's like all of this stuff together, and how do we bring this together and allow it to be generative for us? Different people will emphasize different aspects. I think that's good.

Tim: Yeah. I think the more traditional view of the sacred is that there's a god, for instance, that organizes all this stuff. And it's “out there”. Whereas a post-metaphysical spirituality might orient more around the fact that we're co-creative of reality in an interpretive paradigm. It's a bit wordy. We're somehow preserving the sacredness and the holisticness of the traditional view, but we're applying the postmodern insight, that it's not just some reality out there. It's not an idealistic set of Platonic forms that creates this, or it's not just an object out there. It's co-creative. It's more systemic, in fact, more inter-relational. Influences run both ways. What does that mean, when you're in an interpretive paradigm, when you have a full postmodern insight around the enacted constructed nature of our subjective and inter-subjective realities, and the more traditional views of the sacred?

David: Yeah. You mentioned Kant earlier. Again, Nancy Frankenberry in talking about radical empiricism, which I think is very much aligned with all you've just been talking about in terms of interrelationships. She said, "For Kant, the world emerged from the subject. For radical empiricism, the subject emerges from the world" (Frankenberry, p. 173).

Tim: Oh, wow.

David: But really, it does go both ways. She says that in other places.

Tim: Yeah, that's interesting. When you start to conceive of the fact that what you think is out there is far more of a construction in your own mental stream, it's really, really interesting. I think the spiritual traditions have always been aware of that reality, but maybe not with, say, postmodern insights. This is where something like the Wilber-Combs Matrix can be really helpful, I think.

David: Yeah. Do you want to talk in that direction and embed in what you've learned from Dan Brown's Pointing Out Way practice? Is that a good place to go next?

Tim: Yeah, sure (we can talk about Pointing Out Way practice). We can talk around that. I'm not sure how qualified I am to talk about a lot of these practices. But in general generalities, for sure. There's lots of interesting connections to make there. But look, do you want to have a short break and come back and start part two?

David: We can do that.

Part Two Transcript

David: Okay, Tim, how about we transition here to talking a little bit more explicitly about PatternDynamics and its relationship to spiritual practice.

Tim: So I guess I'd just qualify that by saying it's all pretty nascent. I'm starting to find correlations and if you like, connect the dots. And finding the relationships between traditional spiritual practices and experiences that they generate, or help you gain, and what I've found with some of the deeper aspects of PatternDynamics, and where some of those similarities lie. Especially in the origins of that, and particularly in relation to Buddhist teachings and Buddhist practices, which have for some years now been the focus of my own spiritual practice and meditation practice.

David: Mm-hmm (affirmative).

Tim: So, I guess to set a bit of context about all that, might be a good place to start. I see PatternDynamics as a deeply relational systems thinking discipline, as a bridge really, between what we might call the relative world of everyday material existence, where we have all the preoccupations of making a living and bumping into things and that view, and the absolute reality which in spiritual traditions, or some spiritual traditions at least at some levels, will reference and have practices that will help you avail yourself of as experience. And often those two worlds are–they don't meet. There’s this kind of the idealist or idealism philosophically associated with that kind of metaphysics over here in the absolute world, and the more kind of material scientific hard-nosed relative reality view; sometimes those worlds are quite far apart. Currently, at least politically, on our planet it seems like those things are diverging. The scientific materialists who believe in rationality and a world out there you can observe and manipulate, and people who are engaged in spiritual realization where absolute reality is the focus. They leave relative reality behind, sitting on top of the mountain.

The tradition that I've been engaged in is a fully non-dual tradition, that is, conduct is important in a relative world. You can't just say I've had this absolute realization and I can do whatever, because of crazy wisdom, I'm enlightened now. There isn't a separation between the relative and the absolute in the same way, they're more integrated or more inter-related. That is, you can have realizations through the practices that are about sacred and the spiritual and the unitive, but they must be expressed through your conduct in the relative world, or they're meaningless.

David: I'm remembering in Ken Wilber's book, which one was it? [*A Brief History of Everything*] Where he talks about the Ascenders and the Descenders.

Tim: Yeah.

David: We tend to emphasize one or the other, but we really need both of them to really have a healthy system.

Tim: I think so. I think it's that integration where PatternDynamics is interesting. It's often a bridge for people with fully developed mental rational faculties. In the modern, sort of post-modern now, West, we have come from that. PatternDynamics is a bridge where you start to develop a more holistic systemic sensibility, and at first that's about what seems to be the outside world, you know the systems of the world.

David: Yeah.

Tim: And in its later phase, it becomes more about, you become more aware that reality is really just patterns of energy and that, that doesn't just apply to the outside world. That applies to the inside world, in fact there's not such a boundary between the inside and the outside world. Your mind is a flow of constructing the reality that you experience, but it might not be as solid as you think.

David: And it's really interesting to think of this word 'Energy,' which as you have pointed out in your 2013 paper for the Integral Theory conference – it's really kind of an elusive word, you can't ... Energy isn't anything you can feel or touch. So it's kind of already somewhat mysterious; we have this way of looking at it, through physics, that seems kind of straight forward. But, if you really think about energy, it's like subtle energy is not very different from physical energy, maybe it's just at a higher level of quality–there's different qualitative, there's definitely qualitative differences, but in my view anyway I'm seeing energy as energy.

Tim: Yeah, I think this is something that you and I share as a kind of foundation view, because of our, both of us understands the implications of Howard T. Odum's work with energy quality.

David: Yes, yeah.

Tim: How that relates to sustainability, how that might relate to more subtle energies of the spiritual practice. I've always felt like we're very kindred spirits, you and I, we're kind of standard bearers, if you like, for that kind of ... really it's a kind of realist cosmology, but it's a spiritual realist cosmology.

David: Yeah.

Tim: And energy as a kind of ... you know it has an interesting ontological status; it's not a thing, right, and it's relational but it's not and it has a kind of motive causal force. We can get to this because causation and the concept of causation, especially in Buddhism, is foundational to how the Buddha conceived of the way the world was and what causes our suffering and the pathway out of it. I think that's where PatternDynamics has this bridge; there's a cosmology that I've developed out of PatternDynamics that's aligned with what we've just been speaking about with the way that energy expresses itself in higher and higher energy quality, as systemic complexity builds.

And that consciousness, certainly higher forms of consciousness emerge out of the higher energy quality, even though it's made of diminishing energy quantity, if you like.

David: Right.

Tim: So we're not contravening the second law of thermodynamics. It's just that the quantity's going down in the system and the quality's going up, and the consciousness, that's one way to reference the nature of higher energy quality such as exists with the human brain, and the symbolic abstract conceptual experiences and worlds that that creates. If people were interested, there's three papers, articles published in the Journal of Integral Theory and Practice, that lay out the foundations of PatternDynamics, this underpinning theory, within the integral purview. Its (PatternDynamics') cosmology is in the final paper; it's called 'The Meaning of Planetary Civilization; Integral Rational Spirituality and the Semiotic Universe.'

David: Right.

Tim: So when I wrote that, I was unaware that I was probably speaking to some of the same kind of views of reality that many spiritual traditions have–that is co-creative, that there's a relationality, there's a communicativeness, that co-creates our experience. So it's semiotic in nature, you know, it's interpretative, it's dynamic, it's alive, it's conversational, it's inter-relational, it's systemic, and the causation is not linear. It's much richer than that and more systemic. We'll get to that bit in a minute.

David: It seems like in that paper, in your 2013 paper on planetary civilization, one of the big influences was Charles Sanders Peirce and his ideas around pragmaticism.

Tim: Absolutely. Yeah. So, you know, Dewey and James, as pragmatists, often get a run here; they often get referenced in relation to concepts like mutual causality or dependent origination or dependent co-origination, that we were talking about, as core conceptions in the Buddhist theology. But, it's actually Peirce, I think, who really brings alive as a major philosopher the notion that there's inter-relatedness in the way that reality is constructed. That there's always an interpretant, as he calls it.

David: Yeah.

Tim: It's not just subject viewing an object and the object's sending a signal and imprinting it on a subjective brain, like a seal on a wax tablet. It's that there's an interpretive act that takes us back to Kant, I guess. The thing in itself is–who knows what that is, but you know what, the signal comes in, we interpret this, we construct a world in our mind stream and we project it out there. But, yeah I think Charles Sanders Peirce is a major figure and he really does feature in this cosmology, along with Edgar Morin as this kind of third meta-theorist in the integral world. I think he has a more integrative theory, or set of theories, than either of say Bhaskar or Wilber; he's very much of a systemic kind of Taoist view, you know, flow systems view.

David: Yeah.

Tim: And that, as far as I can interpret him, he lays out his views of the world and what we should do about our challenges (in this way). And there are other figures, like Odum and the tradition back through Lotka and Boltzmann that started to discover the nature of energy quality and how to measure it and what it is, and bringing it in as kind of a fourth law of thermodynamics. That's really interesting, that's kind of another part of this. I just to tried to lay out a cosmology that was systemic, included idealist spiritualist views, honored the material scientific views, and that could integrate them in a way that both scientific materialists and traditional spiritualists, would honor.

That is, they both can participate in this work, you know, at least tolerate this all encompassing cosmology that I think, can emerge out of PatternDynamics and its view. So cosmology is very much a view, as in a view of reality and a story about it. (In the West,) it comes out of that, the cosmological big bang and the energy that emerged from that, if that's what it was–that's a scientific kind of view of it.

And, how the extension of that energy and the fact that energy gradients exist and they can be degraded, or energy can be used to create systems with higher and higher energy quality and more and more consciousness, if you like, you know, that kind of integral view. The root of the cosmology is that, in one respect it's very much grounded in realist science and ecology and biology and what we know about systems and complexity; and, on the other hand, it honors the Descenders as well–(this belief) that there's an order, there's an ordering force to the Universe that is connected to that sacredness and our overall unity, that we experience sometimes, and can practice to experience.

David: And I resonate with just everything you said, and I found that paper to be quite fascinating. I remember when you said… coming across the section where you're writing about Odum's theory about energy quality and the fourth law of thermodynamics. I was especially excited because until that time I didn't know that we shared that level of interest in Howard Odum's work, so that was pretty cool.

Tim: Alright, okay, yeah he's the grandfather of this stuff, really.

David: Yeah, that was one section of the paper that I, I guess the section that maybe I had the most problems with, or had some things come up for me around. I'd be interested in your updating of your current understanding. You wrote that, you called it 'Integral ...

Tim: integral Semiotic Realism, iSR?

David: Right, 'integral Semiotic Realism,' as you named it there; you said, "It does not reject spirituality, spiritual realities are fully supported within it, but they are located in a way that recognizes at which levels of semiotic depth they're expressed. In integral Semiotic Realism, spirit and spirituality are only significant within the transpersonal, post-formal domains, the subtle energy fields, visions, luminosities and radiant ecstasies of the theosphere, and the causal witnessing presence field of the cosmos-sphere.” Do you have an update on how you're thinking about that currently?

Tim: Yeah, that's a very deep rabbit hole, that one; maybe we won't dive down there, but to answer your question, yes and no. I still like to hold onto that idea or test the hypothesis more fully. I think there are problems with the signifier “spiritual” for trying to achieve, you know for the goal of an overarching cosmology, in that it has to refer to all of reality. I think that the main take aways from spiritual experience, you can put mostly in the theosphere, right? The subtle and causal, let's say. I like the term “Realization” for the more overarching non-dual integrative experience of reality that the higher teachings value–especially in the essence traditions of Buddhism. So I'm not sure that's going to be useful in a pragmatic sense, and for me, you know, the Source of what's generative has to be deeply pragmatic–you have to evaluate it on the effects you perceive it to have.

David: It seemed to imply for me that spirituality is kind of irrelevant at lower levels of development.

Tim: Hmm. Yeah perhaps, and maybe that's a problematic aspect of it, but certainly, you know, it's not at the fore. We have those experiences sometimes just spontaneously, you know, when we're only six. So it doesn't preclude those things, but they don’t become the main experience of reality certainly in this view anyway, they’re propagating at the theosphere, but it’s the Cosmos-sphere, that is, the more fully Enlightened, view that is more interpretive. It's the middle path. It's heaven and earth, and we don't have to give away material reality for the spiritual, at some point they're so deeply integrated. So this is an attempt to bring together the traditional, modern, post-modern within an integral kind of cosmology, so you know, you have to trade off.

David: Update us with what you've learned since writing that paper and things you've studied since then in relation to a PatternDynamics and spiritual practice.

Tim: Okay, so PatternDynamics can be that bridge between the kind of mental, rational, material, scientific view that many of us carry and then we often just kind of take a rocket ship ride over to a spiritual experience and leave all that behind and reject it, and now it's all about that spiritual absolute. But it's ungrounded, it's untethered from your conduct in the everyday relative world. Whereas, PD is more of a gentle journey, more of an opportunity to learn and make small mistakes along the way, in a supportive way. This will segue us into the Pointing Out Way, because the pointing out style of teaching meditation, which this kind of practice certainly will help you avail yourself of, the experiences, the higher experiences that often get referenced in so called “spirituality,” you know, spirituality in inverted commas.

Tim: Yeah, the pointing out style is a supported learning journey through various meditative techniques and states, that's sequential and really is in line with good learning theory. We don't jump too far ahead, we don't make it boring or too simple so we lose our enthusiasm for it, but we move along just the right kind of pace through the journey from the mental, rational, scientific material to more full blown experiences in the absolute, and we can keep, keep the tether if you like between the two; they remain integrated.

David: So it's more than just go and keep meditating and eventually you'll figure it out, kind of thing?

Tim: No, it's much more than that.

David: There's a lot more pointing out, that goes on in this practice.

Tim: Yeah, much more close attention to the learning journey you're on with meditation. I'll get to that in a minute in relation to the Pointing Out Way, and why I think it's such an important style for Westerners in terms of learning meditation. I'm going to jump out on a limb here. I like to be quite careful about how I talk about other people's theoretical work and their research. People like Kegan (for instance) or someone like Theo Dawson at Lectica, from whom I've learned a lot; or Dan, Dan Brown's very careful work in translating the Mahamudra and Dzogchen essence teachings. But I'm going to free-form a little bit here because if I'm too careful I will have to sit down and take six months to write a very carefully referenced paper. But we're being a bit loose here and I'm open to being criticized. This also relates to when we move on to talking about concepts like Paticca-samuppada, I'm not even sure that's how you say it, but you know the core to Buddhist theology.

These conversations have been going on for thousands of years by high scholars, and I'm a bit of a dilettante here to be honest, right. I'm just trying to pick up enough of this while I do my householder thing in the workaday world as a forester, and try to relate it to PatternDynamics. So I'm willing to be criticized here, I'm willing to be wrong, but I think there's enough value in trying to loosely put together some of the stuff so it can coalesce.

David: Sure.

Tim: Or not, right. Just try the hypothesis and it might be faulty, but I'm going to go forward on that basis and go out on a limb a bit.

David: Sounds good.

Tim: Yeah, I think it's useful to tell you that I'm uncomfortable about that. With Lectica, they can measure the complexity of performance, and this has to do with (in part) post-formal development, which is what we're talking about when you’re moving beyond the mental rational. I see the post-formal stages as kind of where humanity's heading by and large; it's the kind of thinking and performances that we need to solve problems at this complex planetary level. We need a more systemic view, better application of systems thinking to various skill domains, such as decision making and problem solving and self-awareness and all kinds of other things. And that's how Lectica references the level of your performance. And like I said, they have psychometrics that can measure the level of various performances–of the ones I'm interested in like decision making, because it's directly related to problem solving, as a main interest. If you're interested in how we're going to have a flourishing planetary society, especially (with regard to) collective problem solving, (then this is important).

David: Right.

Tim: So at Lectica they can measure a performance that's in (demonstrating) early systems thinking, which starts to emerge in post-formal ways of solving problems and making decisions and seeing the world. You can grasp a few systems concepts and apply them to how you go about navigating the world and solving problems and developing skills. In late systems thinking, you've got a more robust set of kind of systems understandings that you can put together and you start to apply them, not just to the outside world but to fields like culture or organizational cultures. In fact you start to have the view of the overarching concern for the whole of humanity. They can also measure performances of what they call, early principle thinking, where you chunk all that systems thinking together into some very simple, but powerful ways of viewing the world and acting on it. I think I've heard Aftab Omar and Zak Stein refer to this as the second simplicity. You know, simplicity on the other side of complexity.

So there's the journey through complexity, I guess, in integral terms it's sort of a journey through teal and turquoise and by that time (of the second simplicity) you're at the end of turquoise in any skill domain. I'm being very sloppy here with how I apply these different constructs and I'm over-lapping them and someone's probably going to not be happy about it.

David: Well, I'll just insert a little plug here that you had a podcast conversation with Zak Stein, where you talked about complexity and the second simplicity, and so I would just recommend folks to check out that podcast as well on this discussion. [*The Beautiful Mind of Dr. Zachary Stein*, found at https://patterndynamics.net/the-beautiful-mind-of-dr-zachary-stein/]

Tim: Oh, thanks, yeah, I thought it was a great conversation. Zak's a supremely intelligent and caring dude, so I love that one. Yeah, so once you're getting into the principle thinking, you know, beyond systems thinking, the world looks different, there's a kind of luminosity and sacredness that comes into it, and you start to realize that the world out there isn't as concrete as you thought, that it's really kind of a projection of your own mental stream. So reality becomes different, how you act on reality becomes different, and really in any skill domain that you apply this kind of thinking or awareness to, you're going to have more capability in more complex circumstances.

In simpler circumstances you might just need a simpler kind of cognition but, I'm interested in very complex challenges and developing skills for that. To get back to the Pointing out Way in Dan Brown's work, this is Daniel P. Brown, so he's a lecturer at Harvard University amongst many other things; he's a translator and meditation teacher.

David: So, we'll make clear that this is not Dan Brown of the *Da Vinci Code*?

Tim: No, no. Daniel P Brown, Dr Daniel P. Brown, is also an author but he writes books on the essence traditions and the various meditation practices; he translates these texts from Sanskrit and also Tibetan. He's a highly accomplished meditator and meditation teacher, who has taken some of the most potent essence tradition practices, worked with lineage holders, gained their permission to translate these works and teach them to Westerners like me. I think they're profound practices and they're especially well suited to Westerners because it's a very close relational style between a student and a teacher, but it's *not* got any of the guru stuff going on, where you need to submit all your worldly possessions and et cetera, et cetera. Conduct is supremely important. Dan's own conduct is impeccable, and it’s the same with the other teachers, as far as I know.

I have deep respect for the integrity of these lineages and how Dan is presenting them and teaching them, and I think they're particularly potent. I have engaged in other meditation teachings in other spiritual traditions and styles (but not gotten the same effects). Within Buddhism, these, the Mahamudra in particular–I think this is more usually associated with the Kagyu Buddhist school–is a very precise set of instructions to full blown non-dual awareness that primes you for Awakening. And then, there's Dzogchen, which is more about once you can stabilize Awakening. The Dzogchen practices are the essence tradition that take you to Enlightenment, most usually associated with the Nyingma School of Tibetan Buddhism, but also alive and perhaps even older in Bön, the indigenous Tibetan spiritual practices and indigenous religion of Tibet. Dzogchen is more associated with that. But Dan's put those two together in his teachings and gained the approvals of lineage holders and teaches with these lineage holders, so you can get the transmission. So you make your way through this pathway where it's exquisite how precise these teachings are. If you just follow the instructions, you get the results as a meditator. I've never experienced anything like it in my attempts at various meditation practices or spiritual practices. So the pointing out style is very relational. I think it's very well suited to Westerners. It's based on very good pedagogical science. Dan's a Neuroscientist, so he understands what's going on in your brain; he's actually done neuro-imaging to discover what's going on in his meditators’ brains and published those papers.

David: Right.

Tim: Dan is a living example of how, if you train your mind through these meditation techniques, you can attain skills that make you appear frankly, superhuman. The amount of stuff that guy gets done is profound and almost unbelievable. But it's because, and he'll tell you, and he'll tell you how, he has trained his mind or mindstream through these practices to gain high levels of skill that allow him to achieve high levels of things that most of us find astounding. But it's possible and he can teach you how to do it, too, and he teaches other people. He does teach people like judges and other high officials how to train their minds in the same way to gain the same kinds of performances.

So, there's a lot going on with Pointing Out Way and with Dr. Daniel P Brown’s work, and all of the other teachers who are engaged in this work, and there's some great ones. Being a part of that, Dan's teachings and the community, the Pointing Out Way community, I'd recommend it to anyone who's listening to this podcast, if you have an interest in spiritual practice and the kinds of things David and I are talking about here.

David: You started off talking about PatternDynamics as a bridge, this middle way, so how do you see what you're learning from Dan Brown that's applying to PatternDynamics?

Tim: Right. Okay, so again, this is pretty loose and I'm not sure how much of it's going to stand up; it's speculative at this stage. So when we do the PD one day workshop, and when we get it right, something kind of pops right with the Source experience. It's like there is this unitive, non-dual field that can emerge, sometimes not for everybody, but certainly for some. I know what kind of meditative experience that is now, and I think it's truly non-dual. But certainly in the essence traditions, non-dual awareness is really just a beginning. It's just a preparation for what can allow you to Awaken, and Awakening is not Enlightenment; that's a long way away. But, Awakening is the first major step most people take, but experiencing the non-dual, you can do it with something like a PD workshop in one day, if you get it right.

Because in an embodied sense, we're experiencing our deep inter-relatedness and the energy flow and the conversation that's happening between us at that felt level that Frankenberry talks about.

David: Yeah.

Tim: And we start to give it signifiers and we develop a language around it, so we can talk about it and so that we can adjust the dynamics so that we have more of it and we can experience it more richly. I find it interesting, because I didn't know what was going on with the PatternDynamics workshop, and why. All of this came as a sort of a download and it was kind of high intuition for me. I couldn't unpack it. It's taken years. But now I'm a little more clear about what happens, I think, and it turns out – and again, there's been scholars who've been at this stuff for a couple thousand years and I'm just going to jump in as a dilettante, and talk about the core concept in Buddhism, this Paticca-samuppada that's the translation from the Pali.

It sounds slightly different when it's been translated from Sanskrit, when it's from the Sanskrit, but I'll go with the Pali because that's how it was originally written down. The Buddhist teachings apparently are originally written down in Pali. So Joanna Macy wrote a great book called, *Mutual Causality in Buddhism and General Systems Theory,* where she relates this core concept of Paticca-samuppada in the Buddha's teachings to General Systems Theory. There's a lot of correlations (with systems theory), and she translated from the Pali and this is a work of serious scholarship. I found it particularly interesting when I first read it. I read it when I first read *Sex, Ecology, and Spirituality* in the late 90s, I guess, and I sort of put it away in a bookshelf and only found it because I moved my books, and we were going to have this conversation. I pulled it out and started looking at it going, holy cow. And I've got highlighter through it, and underlines and notes in the margin where, obviously it had a profound influence on me and it just went to the back of my mind and churned away.

David: Wow.

Tim: But I realize now, that the concept of Paticca-samuppada, which is sometimes translated as mutual causality, which is how Joanna Macy's referenced it in her title. But I asked a question of Dan in one of the meditation retreats, and I used the term 'mutual causality'. He said, no, ‘dependent origination’. Dan's a translator and he's very precise about the language that you need, and the concepts and the references.

David: Did he unpack that at all, as far as the distinctions go?

Tim: No, I was so intimidated, I just let him go on. But I appreciated the distinction. I went and looked it up and went back to Joanna’s book and then started reading about some of the things that you encouraged me to unpack with Abhidharma Philosophy and views on the Buddhist teachings. We'll get to that–dependent origination. I think you said that Frankenberry refers to it as, dependent co-origination.

David: Right, yeah.

Tim: Or conditioned co-arising. These are very systemic concepts and Joanna Macy points out that it's about feedback. It's about a double hermeneutic, about a conversation back and forth. Not just linear causation, A, bumps into B, right. It's also B bumps into A, and that happens on a multitude of levels and it's kind of like, what co-arises in your experiences is dependent on these conditions.

David: So, Frankenberry describes it as “a relational process which co-ordinates the momentary factors (dharmas), as they pulsate in and out of the causal process... And by perceiving causality as a multiple directional convergence, the Buddha discards the notion of a one directional movement of power from a prime substance to another independent substance.” She says, “It refers to the dynamics and momentary experiential process and has a close affinity with what Whitehead called, ‘causal efficacy’ and James’ ‘perceptual flux.’” She said, “The multi-faceted dependent or relational nature of ordinary experiential process” (Frankenberry, p. 166).

Tim: Yeah, you can see how rich the language has to become to support the interdependent dynamic co-coordinative flux that is at the foundation of experience at a certain point. In Joanna's book, she talks about Buddhaghosa, who was one of these pandits, I think, who was in the Abhidharma school. Buddhaghosa used the term to qualify the import of the causal doctrine as a whole. He defined Paticca-samuppada as the mode of causality according to which phenomena arise together in reciprocal dependence, or you could say interdependence. So I guess this is (what they call) Anamanda-paticca. Like I said, there's been some very deep scholarship over a very long time and many arguments that have sometimes gone centuries about the nature of these terms and what the Buddha really meant and what that means for practice.

But, Joanna Macy makes a very good argument for it, and I think if you go back through James and people like Dewey and Frankenberry, and there's a whole list of other people who have started to relate to the kind of more general systems view to training your mind in the way that the Buddha advocates. And these are the kind of practices you'll find in the essence traditions of Buddhism. And finding those relations is what I'm interested in and is there anything related to PD? Well, yeah. There's at least a loose relation in it, there's a systems thinking language and a pedagogy associated with it so you can develop the ways in which you can see the more systemic inter-related nature of reality out there and apply that to what goes on in here, how you construct reality and how that becomes more alive for you. I think so, I do. But I don't think PatternDynamics goes too much further than the non-dual. It will get you there, but if you want to step into Awakening and the practices that will take you to Enlightenment, you need something else, so I'm recommending the Pointing Out Way. It's by far the most powerful set of teachings I've encountered, that have the most integrity. That makes clear some of the distinctions about what I think PD can do and where it does act and it acts in that middle ground (between the mental-rational and the non-dual).

David: Well, that's a great endorsement of the Pointing Out Way Practice.

Tim: Oh, yeah, yeah it's fantastic. I mean if you're serious about gaining meditative skill and spiritual practice, I can't recommend it any more highly. Do we want to talk about this Abhidharma notion of the Dharmas?

David: Yeah, I think that's a good lead in. Yeah, the Dharmas. There's a lot of different ideas about Dharma theory and what this actually means. The Abhidharmists, I believe, came before the Mahayanists; they had these very richly developed and complex ideas around Dharmas. Frankenberry described them as a universal matrix of causation. So the Abhidharmists held that the Dharmas are like elemental conditions. And then when they came together they would cause the conditioned co-arising of existence, so this relates very much to this idea of dependent co-origination. And they really have to work together. This, as I understand it – understanding each helps you understand the other, I guess I'd say. But the Mahayanists came along, and they had some criticisms of the Abhidharmists. They thought they were kind of reifying Dharmas as things.

But there's at least some evidence that they didn't do that. But I think the correct way that I see it, is that if you view these Dharmas as part of this conditioned co-arising, they rise and they fall according to the dynamics and flux of experience. And then I read about how they saw Dharmas as a universal matrix. PatternDynamics is like a matrix, it’s one way of presenting it and I started seeing this connection. The way that Nancy Frankenberry describes Dharmas, she describes them as “felt qualities of experience.” Then she relates that to Whitehead's concept of categories of subjective form, and to me there does seem to be a lot of parallels here to how we can think of the patterns of PatternDynamics as Dharmas.

Tim: I found that really fascinating when you brought it up, when you alerted me to it, and it's interesting, isn't it? Because, you don't want to reify them, I mean certainly not in the Buddhist view. Not things, but they could be energy patterns. They're in the middle ground between something that's material and something that's an ideal form, aren't they?

David: Yeah, there's always a dynamic interplay between them, as our understanding is with the patterns in PatternDynamics. It's not like one pattern exists here and another pattern exists there. They're always in relationship, it's this idea of that inter-relationality of everything, and so that's why we focus on balancing and integrating.

Tim: That's a way, I guess, of seeing and sensing more fully, the interdependent co-origination as causation of what goes on in the world.

David: Yeah.

Tim: So it is that middle ground between the absolute idealist spiritual kind of view that some spiritualists have, that there's just 'Consciousness'–as the new age people like to call it. It sometimes makes me laugh. It's just like there's this absolute thing that pervades everything and that's what everything's made of. It's pure subjective idealist kind of consciousness. I'm okay with that, but I just don't think that, that's what Realization is about. Realization is about the fact that there's heaven and earth. There's consciousness and material stuff and there's energy patterns in flux. The isomorphism that runs between all of that is Paticca-samuppada. The same systemic inter-relational causation at work in the material world and cosmos is at work in the mental realm, where we exchange mental rational symbols. It's at work in the theosphere, where we exchange more subtle signifiers, and it's at work in the more causal and the more Enlightened fully Realized dimensions where all of that is integrated. But the Buddha's insight, we might say, is that, as a systems theorist would put it, the isomorphism, the self-similarity that runs through all those levels and all those domains of existence and ties them together into experience is, exactly that, Paticca-samuppada.

David: Nancy Frankenberry said that "The word to watch here is 'quality.' The other thing to keep an eye on is the way in which the dharmas are factors within and of the experiential process, and so they are not dominant or the primacy of that Paticca-samuppada. With this in mind, we can avoid the mistake of reification which the Mahayanists charged to the Abhidharmists. But we also need to avoid the mistake of foisting onto dharma-analysis the categories of British empiricism, in which the real objects in the world are reduced to simple particulars which 'have' qualities of one sort or another and stand in external relations to each other" (Frankenberry, p. 183). So she, kind of like you, talks about the middle view of this. The alternation is small but dramatic. So instead of as some people have described Dharmas as being adjectival, she says Dharmas are adverbial, not adjectival.

Tim: Wow, that brings us to Bruce Alderman's work, but go on.

David: She says, "as concrete facts they refer to qualitative events which cannot be described or analysed exhaustively in terms of universals" (Frankenberry, p. 183). So then she argues, that's why she sees Dharmas as felt qualities of experience.

Tim: Yeah.

David: She ties that to James and to Whitehead. Whitehead said, I think, that the flow of experience is really the meaning of all. I think it's something like that. [Actual quote is "...what is most real is the flow of experiencing." (Frankenberry, p. 183)]

Tim: Yeah, that's what's so interesting. As a dimension of reality, certainly in the essence traditions, there's a lot of reference to space. You gain a capacity to become spaciousness or space. Space takes on a different meaning than in a three-dimensional view. We've got up, down, back and forth. Space becomes an extension of your experience or your mind. So it's like, when you get to this point, reality has another dimension that appears in it. It's that fullness, it's that depth, it's that kind of richness and it becomes kind of lucid and luminous and diaphanous. I think we're referencing the same sort of thing here and reality ceases to become a subject looking at a bunch of objects out there, and it becomes a rich mind-flow that you realize is highly constructed. And that what's actually out there, the things in themselves, well, you don't know what they are. Again, Peterson talks about this. He's on the cusp of this stuff and he's found an important dimension to this which is the (traditional) mytho-poetic structures that we left behind.

But that dimension comes to the fore for me in both Pointing Out practices and also to a point, you know up to the non-dual. The lucidness that comes in the non-dual, you can get through PD in a particular way. So there's correlations here, but I think in the same way that in the Renaissance we started to discover representations of the third dimension, of depth and perspectival drawing and painting. Maybe, what Gebser was calling the Diaphainon or that spacious luminousness that emerges as innateness, as part of the nature of reality or experience is the dimension that's now emerging in a world view that's going to be widely held. I don't know, but I speculate on that sometimes and it's certainly real for me.

David: So the Diaphainon that Gebser talks about is, describing that which shines through or that which makes transparent. So he's talking about rendering visible, I think, the incarnation of the whole at once. Shining through the whole.

Tim: Very hard to put language around this stuff. You almost have to use poetry to make any sense because language, our language is mostly about communicating about objects rather than experience. I remember the first time I had this kind of experience was when Genpo Roshi did Big Mind at one of the Integral seminars. That's the voice dialogue process he's developed in relation to some of his Zen teachings. In the Big Mind process, it's phenomenal, it just pops the lucid non-dual richness of space and its luminosity and diaphanousness just popped. That process, it's an amazing, effective process. It only takes about an hour, but it's not very stable. So I found Pointing Out Way is (also) a very stable set of steps. You get to one stable place and you move to the next stable place, so it's sort of more reliable in that respect, but Big Mind was a very powerful state experience for me.

David: Well, maybe at this point we should maybe think about wrapping up this section and summarizing how we can maybe bring it back to PatternDynamics a bit. And I came up with – as I mentioned to you a little while ago, it was after either reading something you said or listening to something you said in a podcast. Somehow four major points came together for me and these points are not anything new that PatternDynamics as its community of practice and as it has been taught is not already doing, but for me it kind of seemed to represent things we can continue to emphasize and develop, and I'll just read off my four points if that's okay and then we can ...

Tim: Oh sure.

David: ... comment on them after that, if you will.

Tim: Okay.

David: So the first point is to understand this idea of, that we were just talking about, understanding patterns as Dharmas or felt qualities of experience as Frankenberry put it, always in flux, always in relationship to other patterns. So this is just the aspect of kind of learning the language of PatternDynamics, learning what the patterns are and seeing them as these felt qualities of experience, then maybe starting to have this richer life as a result of this vocabulary coming alive for us. And as you have put it, Tim, this part of the practice is to help us "see more". We start to see more when we understand more about patterns.

And then the second step or the second part would be to help us "share more." That would be PatternDynamics as a process-relational pattern language. So this is about balancing and integrating the patterns in our collective conversations with other people, rather than just for ourselves gaining understanding. We can share with others and we can communicate in some of these ways that we've talked about today. And the third point is, the idea you briefly mentioned, the embodied PatternDynamics group movement practice that we do in the one day workshop. I would like to see that practice, not just for a one day workshop, but maybe used more often in different PatternDynamics engagements and see how that can develop.

It's interesting to hear you talk about that today in terms of how that experience of that pop that happens when you feel that non-dual awareness come up, and you didn't know how exactly what was happening. It would be really interesting to further develop this practice. What I said about this, this activity helps connect us as a group in an ongoing, what I described as a kind of radical empiricist experience practice. Experiencing the pattern energies in our bodies and connecting to Source. So this helps us to live to deeper purpose when we do that. And then the fourth and last point I wrote down was an emphasis on what you've referred to in a podcast you did with Lauren Tenney, emphasizing what you called facilitative shamanism. You've talked about seeing others do this, especially Diane Hamilton, but I've seen you do it as well, at some of these PatternDynamics workshops where you start off with a very tightly organized structure how the workshop is going to proceed. Then as it develops you kind of become less tight with that structure, and morph into sensing into the energies of the moment and responding in the moment to what's coming up, and working with that.

So if we can develop a way to teach that practice, that capacity to be able to sense these dynamics at play and how to tweak the energy in just the right way or as Gebser put it, “knowing when to let happen and knowing when to make happen.”

Tim: Yeah.

David: And you had written that this is the ability to shift the conversation in a way that reveals the deeper reality of our interdependence, and it is an example of what Lectica calls this early principled thinking, or the second simplicity. So that we get beyond all the primary and secondary patterns, which ultimately takes us to the pattern of Void, and then all simplified into the fundamental pattern of Source.

Tim: Yeah.

David: So, that's the four step summary that I came up with, I'm curious how you might respond to that.

Tim: I think that's great. I think, I'd like to talk about that. Perhaps we can do that for the third segment.

Part Three Transcript

David: Okay, Tim, so we just reviewed these four points that I brought out; now let's dive a little deeper into them. I have a couple things I want to say about this first point. It's relatively straightforward except for the part about the new dimension of understanding the patterns as Dharmas, or felt qualities of experience.

Tim: Maybe it'd be good if you could say a bit about radical empiricism, felt qualities of experience. Just dive in a little there.

David: Yeah. So radical empiricism was the term that William James came up with, and another interesting perhaps convergence between us Tim, is that you found your way into pragmatism emphasizing Charles Sanders Peirce in his work. Independently, I ended up getting turned on to this book called *Religion and Radical Empiricism*, which we've mentioned a few times. It covers radical empiricism from James, Dewey and through some number of other people, linking it to Whitehead's work and to the Buddhist kind of thinking that we've been talking about.

I think I want to read a little bit of a long paragraph that Frankenberry wrote, because there is a direct connection between pragmatism and radical empiricism, very much covering a lot of same territory with just maybe a little bit of different emphasis. Frankenberry writes, "For all three thinkers [Peirce, James and Dewey], each with different emphasis, radical empiricism is defined by the understanding that sense perception is neither the only nor the primary mode of experience, but is rather derived from a still more elemental and organic togetherness of the experiencing subject, and the experiencing environment. In the language of Dewey, experience designates ALL transactions between organism and environment both of which are co-constitutive of one another. On this view, before ever undertaking the comparatively high-level discriminations of the world by means of the senses or linguistic forms, the subject is aware of itself and others as causally efficacious powers mutually interacting with the world of qualitative values, where memories of the past and anticipations of the future are felt as given. Thus at every point, radical empiricism challenges the assumptions of classical, logical and linguistic empiricism" (Frankenberry, p. 84).

So one thing to understand here is that radical empiricism is not to be understood as an extension of Humean empiricism, but rather as a counter to it. Something quite different in its approach.

Tim: It's almost the opposite extreme of Hume. Didn't he indicate that there are no connections; that's just made up, there's just (isolated) things. Radical empiricism seems to be saying more like there's just the felt relationality, there are no things. Is that how you view it?

David: Yes, yes, exactly. John McDermott, who wrote a book on William James, described it as participating in the very rhythm of the world at large with this process.

But there is a potential problem here in that we're bringing up aspects of things that are beyond linguistic expression. One of the radical empiricists, his name was Bernard Meland, he liked to say “we live more deeply than we can think.” I have a thread on radical empiricism on the Ning forum of integral post metaphysical spirituality, and I got an interesting reply from Layman Pascal. He caught on very quickly to the problem that presents itself with statements such as those that Bernard Meland said.

Layman wrote, "The problem is that our thinking cannot perfectly evaluate itself, it has no more right to assert its limitations than to assert its supremacy. A thinking being using language to express a thought is on very shaky ground when that thought is, that thought cannot encompass reality." (http://integralpostmetaphysics.ning.com/xn/detail/5301756:Comment:58473)

So I think he was absolutely right to bring this up, and Nancy Frankenberry talks about that as well. Nancy Frankenberry is deep in the postmodern linguistic turn, very much an advocate of, in some ways, of those like Rorty and Davidson. She says, "If it is the case that ‘we live more deeply than we can think,’ then we are at a loss to describe any awareness which surpasses language or thought without employing language in the very process, and thus exhibiting the more as intra-linguistic after all” (Frankenberry, p. 137).

That's pretty interesting. So for me, I'm seeing PatternDynamics as a solution to this dilemma, because remember when we talked earlier about when we can name something, it gives it more concrete existence. We make the subject more object and then we can see it better. So this is about helping us to see more, right? So we develop a vocabulary and we can put names to something, and this is what helps us to express maybe what we couldn't previously put words to.

Tim: Well, yeah. There were a couple of things there I'd like to comment on.

David: Sure.

Tim: I guess one is Gödel, is that's how you say his name, the mathematician? The other is Charles Sanders Peirce. So I guess Gödel, he ended the notion that there was somewhere to stand–that you can have an axiomatic foundation that is solid and unchanging, and you can work from there. So I think Whitehead worked on Principia Mathematica, with the other major philosopher who wrote that with him…

David: Bertrand Russell.

Tim: Yes, they did this gigantic work on that basis. In the analytic tradition it was like an ultimate analytical philosophy work. I think Gödel comes along and just says, "No, everything's recursive. The axiom you started with changes because there's feedback essentially." Hofstadter has written about this extensively, so everything is recursive. Peirce pointed this out with what he called a sliding chain of signifiers. First there's the felt quality. Firstness he (Peirce) called it, then there's Secondness–we collide (with that felt quality).

This becomes a real thing, like the felt experience of touching a hot stove is that sensation before you can even name it, or it even hurts. It's just felt quality and then it slams into you, or you slam into it. It becomes pain but until you signify it, until you have the word “stove” or “hot,” it's not reified in the world–that is, the dependent origination of this (occurrence) has not been made concrete. It's effete still, that’s how Peirce referred to it.

David: So there's a reifying that goes on, but at this point it's a healthy thing. It's bringing meaning.

Tim: Right. So meaning is at the heart of all this, meaning making is “methodology,” is the double hermeneutic. The meaning making about what is there is what reifies what's there. Sure, that occurrence can be linguistically mediated and therefore more concrete, but at the beginning of every cycle, if you like, of a pragmatic world discovery, or problem solving (event), is the sensation, is immediate sensation. In the human realm that's what we get, and then it slams into us–it's something and then we have to name it. It becomes more concrete, becomes object and so emerges from the deep subjective domain to the more concrete external thing that becomes real for us in our field of experience. Our mind stream has constructed it and we can share these constructions via our language of that.

What's important I think about what Frankenberry's on about is that it's recursive. So language helps you discover the world, but don't reify it. Don't stop there, don't ignore when you come back around to the sensation again because you're going to polish that reification. Something is going to change and you may discover aspects of reality that are outside of the current constructs that constitute your experience, if we're sensitive to these things. So yeah, you're right. I think that PD, PatternDynamics, has a role in using that very agile language that isn't very concrete, doesn't particularize things. It just really honors the notion that they're energy patterns that are continually transforming and transmuting and that we construct them and that with a more sophisticated, pragmatically oriented use of language, we can explore different terrain.

David: Yeah, and one of the ideas I had here – and this is why all three of these, or I mean all four of these points that I brought up all support one another – is we can learn the language of PatternDynamics and learn these patterns, but we also have to be careful about reifying them. One way we can do that is keep iterating and keep coming back to not just to the cognitive understanding, but touching in continually with embodied movement practices, or with the facilitative shamanism, and continuing to iterate between these different practices, and to have an intention of remaining fresh, remaining sensitive to the dynamics at play at all times. Then this vocabulary will increase in its richness, and our experience will increase in richness. Our understanding will increase hopefully ongoingly.

Tim: Yeah. I think for me, you're starting to flesh out some of the aspects of Source, the deeper aspects, and that it's inquiry related. A lot of spiritual practices have inquiry at their core, like the Diamond Approach for instance. So this is pragmatic inquiry all the time, hypothesizing, and a testing, and a learning, and going around again. That's sort of pragmatist nature of it. It's got subjects and objects that are integrated, it's got parts and wholes that are integrated, it's got past and present that's integrated. Presence, the present moment and attending to the unfolding dynamics in your emerging awareness–that manifest in your field of awareness.

The flowing present moment and tweaking that rather than acting on objects, and thinking about the past and the future. So there's a whole bunch of stuff that probably needs to be made more object in relation to Source, and then let go and not made more object. Parts and wholes start to collapse, it's just systems and past and the present start to collapse as the present unfolding moment.

David: I'll share one more quote. This is from William James himself and this was from the conclusion of *Varieties of Religious Experience*, where I think he was just starting to gain some clarity about radical empiricism. I think he may have mentioned the term before completing Varieties, I can't be sure about that. But I think this statement to me, in my limited understanding of James... (I'm not a real scholar here, like your disclaimer earlier). This seems to me to be indicating what occupied a lot of James's thought which he attempts to further develop after this point.

[Clarifying note from David: The earliest reference I could find where James used the phrase "radical empiricism" was in the preface of *The Will To Believe*, which was published in 1897. What we know as *Varieties of Religious Experience* was first delivered as the Gifford Lectures in 1901. I'm not aware of the phrase "radical empiricism" coming up in this work, but I believe the quote below refers to it. James' full development of the concept of radical empiricism came to the fore in his 1904-1905 writings, especially in the essays *Does Consciousness Exist*, and *A World of Pure Experience*, both published posthumously (1912) in the volume entitled *Essays in Radical Empiricism*.]

He wrote, "The world of our experience consists at all times of two parts, an objective and a subjective part. The conscious field plus its object as felt or thought of, plus an attitude towards the object, plus the sense of a self to whom the attitude belongs ... It is a full fact even though it be an insignificant fact; it is of the kind to which all realities whatsoever must belong. The motor currents of the world run through the like of it; it is on the line connecting real events with real events" (James, pp. 428-429).

Tim: Wow.

David: I like that; it touches on a lot of points there and I feel like that's what he was continuing to try to develop from that point on [as he further developed his thinking about radical empiricism].

Tim: So yeah, how would you unpack or interpret what he said there? What does that mean to you?

David: Well, he understood that the world - he uses this phrase where he said the world is made of what he called "pure experience;" it is this idea of him trying to defend this notion of a full fact which includes not just parts, but the parts as they interrelate and the parts as wholes that they make up. Then the section about the motor currents of the world run through the like of it, that's the flow I think that's happening. The flow of energy that he saw running through all events and then connecting real events with real events. Everything's on a moment-to-moment basis, and the past affects future and the future in a way affects the past even.

Tim: Yes. It's interesting, you could read out of that he's collapsing the parts and wholes that we normally associate with stuff into the systemic whole. He's collapsing the subject and the object into a non-dual pure experience. Pure experience is made up of the collapse or integration of the part and the whole, the subject and the object, and the past and the present, so there isn't any, there's just present changing, unfolding flux of subject-object part-wholes. Interestingly, those are the three core dimensions of Source in the PatternDynamics system. Interestingly Dan Brown, Daniel P. Brown's Ph.D. research centered around the main principles behind the efficacious spiritual teachings for high meditation attainment, let's call it.

One of them is called emptiness of time. One is called emptiness self, and the other one's emptiness of thoughts. So what that means is there's no independently existing self, there's no independent object. There's no independently existing thoughts, subject, or parts, or wholes. There's no independently existing time continuum, it's just a construct of unfolding change. Then you put all those three collapsed polarities, or integrated polarities together, and you get pure experience, which I think is pretty analogous to my sense of Source, when the non-dual aspect of it emerges. In that Source moment, when you're in that flow, you can sense really exquisitely what little parts of the dynamic system have tensions.
You can sense where the conversation needs to go, what you need to point out, what needs to be talked about in terms of balancing that dynamic. Then how you might go about getting agreement to change that dynamic to adjust the well-being or the eudaimonia of the system. I think either we're telling ourselves a really interesting story here that's way off base, or there's a bit of truth in all these figurings, whether we're talking about PD (or these other things), we're referencing very similar, or at least overlapping terrain or experience.

David: What's this term eudaimonia?

Tim: Right. So I think it was an Aristotle, it's like well-being or flourishing. Its most often interpreted as, I guess Bhaskar uses it (in his idea of) the eudaimonic society. The free flourishing of each as a prerequisite for the free flourishing of all – that drive to freedom kind of thing is allowing the free flow of flux, or experience, or life, or systems. This will allow for flourishing. It's when we get in the way and there’s blocks, and there's kinks, where there's a limitation of the expression of this.

David: That comes back to that term dukkha. In Buddhism that's often been interpreted as suffering, but as you've pointed out, and as I've also read it in other places, the better translation of that is “stuckness.”

Tim: Yeah, being stuck on the idea that there's a separate self and they're separate objects out there that you need to act on as independently existing objects. Everything that comes forth in our field of experiences is interdependently co-originating with the Dharmas. So, as the

Buddha looked at it, we suffer because we think there's a world out there that's causing us grief when it's just our own nature as the flow of co-constructed experience.

David: Right, or we get attached to some particular expression and rather than allowing that flow to continue to flow, we interrupt the flow and we get stuck. The flow of experiencing.

Tim: Yeah, and it's most easy to get ... That interruption happens because you get stuck on yourself, you get stuck in the past or the future when you're thinking about it. You get stuck in your thoughts. Then suffering goes away once you start to sense the emptiness, or the lack of independent existence of those things, and you start to explore into the lack of independent existence of those things. Then pure experience becomes more manifest. You can learn to train your mind, and rewire your neurology such that that your experience becomes the lived experience, the most prominent experience of your life. Similar to how (previously) everyday material reality and a viewing subject called you, used to perceive the world, but now you can shift into a more awakened state if you can keep the non-dual view stable enough. Then from there the essence traditions have quite a lot to say, as very well tried and true practices, for taking it to the end of the path (Enlightened Realization).

David: So maybe we can go to the second point of PatternDynamics as a process- relational pattern language, balancing and integrating the patterns in collective conversation with other people, to help us "share more." So you've talked about… I call this the process-relational pattern language, and you've talked about it as a process philosophy. You mentioned to me once recently that process philosophy is the missing piece when trying to integrate subject-object.

Tim: Right, yeah.

David: Can you talk about that?

Tim: Yeah. Well, I haven't read a lot of Whitehead, but I understand the main concepts in some of his work. I understand the notion of process philosophy, especially – shout-out to Bonnitta Roy here for being a bit of a standard bearer for process philosophy within the integral world. So I guess another disclaimer, but seeing more yourself doesn't work after a while. Reality becomes more richly relational and so sharing, and interconnecting and realizing the interconnected organizing flow of nature, or reality, becomes more interesting. Developing skills for doing that becomes highly motivating, I think. As a purpose-driven collaborative form of systems thinking, PatternDynamics is well-suited to having those more relational conversations about the system itself, and about bringing all the perspectives into some coordinated flow.

PatternDynamics, I think, has pretty well developed ways of doing that. It has a language, it has an emergent grammar about how to use that language, about the nature of the system and it's free flourishing well-being. What (I think) Will Vary calls apithology, it's generative health. There are some tools like collaborative system's inquiry, and locating perspectives, and outlining structures, and coordinating perspectives, and designing decisions, and governing reflectively, keeping all of that grounded in your Source, or your deeper purpose together and using that as a way to coordinate perspectives, and share perspectives, and ultimately you'll get to some hypothesis to test. Some result that might get you somewhere.

What I mean by get you somewhere is, makes things better, more flourishing. Not growth but flourishing, health, not development per se. Something like this generativity, well-being or flourishing becomes a primary motivating factor.

David: The reason I brought in this point number two, as the conversation, collective conversation with other people, is because I wanted to emphasize it's not just the individual practice of learning the cognitive level of the different patterns in PatternDynamics, but it really does come alive when we come into conversation. If we can use this with other people - and I enjoyed in our level two training in PatternDynamics, with working with a group of other people, and we would have these collective conversations.

(In the level two PD training), there's the collective of the people in the room or on the call, and we're also dealing with the collective of the different patterns. It's not patterns in isolation, it becomes really interesting when we start talking about how different patterns start to integrate with one another. Then it’s what is emerging from that and it can go very deep.

Tim: Well, I sensed amongst the two or three, four cohorts of level two where people were using the language, and sharing their experience of the world with each other explicitly using PatternDynamics system as the language of what was unfolding in their field of awareness, or the stream of their mind. My sense was, and my own experience of that was, it's really rich, as a natural system's thinker. It was really deep and meaningful for me, and really rewarding to be able to share my life with people and get their reflections back using the language in its depth. Combining the patterns and being able to hear stories, and reveal stories and gain insight. The insights I gained in some of those conversations are insights I could not have gained by myself, and could not have gained without that language, and people who could help me ... Thought partners who were thinking at this depth.

I think that's one way that PatternDynamics can be useful, where it sits within the community of practice, with people who have that level of skill to relate to each other and create that value. The other way is (the application of a somewhat) different skill where you need to translate what you're seeing in the system into the language that will allow people to hear it and resonate with it. I think that's the higher skill, I think that's what the PatternDynamics community is really all about, is learning that skill. We're like these… it's like we've got these invisible levers we can put into the systems. People can't really see them, but we can get huge leverage if we can just identify something to help people share a bit about what might need to be tweaked, get some agreement and try the change.

It's (a kind of) wizardry; this is where this facilitative shamanism comes in. You're working with a world of energy flux and flow. It's not magical power but it’s what Asimov (or was it Arthur C. Clarke) said about magic: it is just technology that you don't understand; it’s that cool, but it's not magic. It's just developing a skill, a facilitative skill to help tweak the system and get agreement to help people see something, help people share about it and help people adjust. I think that's the value proposition of the subject-object move, we could point out what the systemic dynamic is. Then the skill based on that is this being able to facilitate at that level.

David: Well I used that term process-relational pattern language and I noticed when you're talking about it, you also used the word “relational” a few times. I wanted to make that part explicit here in that there was a fellow named Bernard Loomer, not very well known, but more well known was Charles Hartshorne as a Whitehead interpreter. Charles Hartshorne credited Bernard Loomer with coming up with the name process philosophy. Early on, he [Loomer] was influenced by some radical empiricism and it seemed to then shift to be more purely Whiteheadian. Then the last decade of his life, he shifted back towards a more of a radical empiricism emphasis, and he had an interesting thing to say.

He said, "In some place or other, Charles Hartshorne generously credits me with possibly having baptized this mode of thought with the name ‘process philosophy.’ ...As a shorthand form of designation, it is popular and convenient - and misleading. It suggests that the defining characteristic of this outlook consists in the ultimacy of becoming in contrast to the classical primacy of being; but the ultimacy of becoming is only half of the story. With equal appropriateness this metaphysical viewpoint may be characterized as a ‘relational’ mode of thought. Except for the cumbersome quality of the phrase, the more adequate name should be ‘process-relational philosophy’" (Frankenberry, p. 145). I think giving it that name brings a little bit more emphasis to the aspect of relationality that is inherent in what Whitehead was on about.

Tim: Yeah, and it brings us closer to a more full-blown systemic view where it's not just about relationships or interrelationships. It's not just about dynamism or process; it's about many things actually. Systems theory is rich with concepts within the different systems and complexity disciplines. There's a real richness there and I've tried to embody it in a very simple symbol, Source, whereas subject-object, part-whole, past-present–the present non-dual flow, but it's inquiry based. There is something about this sensing of the world, and testing hypotheses and learning.

David: Yeah, and that's part of the middle path, that's part of bringing in an empirical approach. Remain in inquiry, test hypotheses.

Tim: Yeah, very pragmatic system.

David: Whitehead acknowledged his indebtedness to James by the way, and can be very much be interpreted as a radical empiricist in many ways himself.

Tim: Interesting.

David: Some have said that when James was writing, I think his last work (*Some Problems of Philosophy*), he's talking about… trying to construct an arch, and he realized he was not going to be able to complete this arch, and he was hopeful that someone would come along and do it. Some people, such as in a Steven Meyer presentation which I listened to a little while back. He said that it was Whitehead of all people that came along to complete that arch, which in some ways was rather surprising, because Whitehead had been associated with, as we mentioned earlier, Bertrand Russell, who was often in communication with James and they had very different views.

They (James and Russel) were very cordial and collegial but they had very different approaches; and Whitehead and Russell (also eventually) realized that their approaches differed quite a bit. In fact, there's another interesting quote, if I can find it, where Bertrand Russell said this about what Whitehead had said to him. He (Russell) said, "Whitehead said to me once, this is a fine riddle. You think the world is what it looks like in fine weather at noonday, I think it is what it seems like in the early morning when one first wakes from deep sleep." So there's Whitehead likening reality to this flux of everything being conjoined together, and it's very difficult to see where they separate out into their parts. It's an interesting way of looking at this inextricable togetherness that the world is.

Tim: Yeah. There's something unstoppable about holding that view. It pulls you along in your psychospiritual development, that the view, I mean that living systems view of integrated flux. It's not a bunch of things, it's a bunch of interrelated dynamic energy patterns. In fact in the Pointing Out Way there is the saying that the view is the meditation–that attaining a meditative skill is really about holding the view correctly. Yeah, so it may be that that living systems view that PatternDynamics promotes has its own motive force.

David: Patterns are emerging out of this… well, what James called the big blooming buzzing confusion that is, and then we articulate patterns and suddenly these things emerge.

Tim: Yeah, we learn the-

David: It helps us to see things more clearly so we can articulate, we can talk about.

Tim: Yeah, Peirce's thirdness.

David: The thirdness, yeah, back to that.

Tim: Yeah, yeah.

David: Then the cycle continues and the Source pattern is sometimes called a lemniscate where it cycles back and forth.

Tim: Yeah, that's how it’s represented by that infinity symbol, it's a toroidal integrative symbol, all systems have toroidal form whether it's conceptual, abstracted or whether physical like a tree, or even human body. It's not a bad symbol (for that).

David: So if any of our listeners are curious about this, I would say again check out Tim's paper on planetary civilization where he talks about Peirce's ideas around firstness, secondness and thirdness, and illustrates with the Source pattern how that works.

Tim: Yeah, and there's also an outline in there of a depth methodology (semiotic). Bhaskar has a depth ontology and Wilber has a depth epistemology, and this is depth methodology (in the form of a depth semiotic), if you want to check that out.

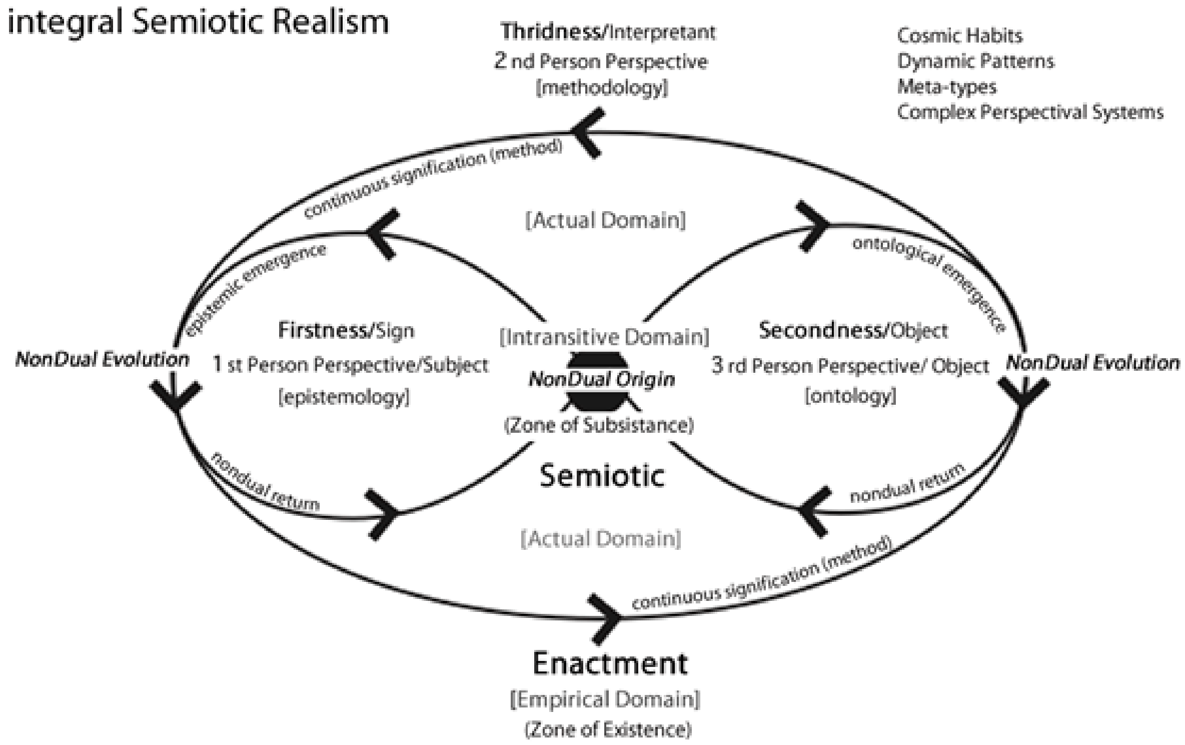
integral Semiotic Realism
Thridness/Interpretant
2 nd Person Perspective
[methodology]
Cosmic Habits
Dynamic Patterns
Meta-types
Complex Perspectival Systems
continuous signification (method)
[Actual Domain]
epistemic emergence
ontological emergence
Firstness/Sign
1 st Person Perspective/Subject
[epistemology]
[Intransitive Domain]
NonDual Origin
(Zone of Subsistance)
Secondness/Object
3 rd Person Perspective/ Object
[ontology]
NonDual Evolution
NonDual Evolution
nondual return
nondual return
Semiotic
[Actual Domain]
continuous signification (method)
Enactment
[Empirical Domain]
(Zone of Existence)

Figure 1. Diagram representing the process of integral Semiotic Realism; reproduced from *The Meaning of Planetary Civilisation: integral Rational Spirituality,* Figure 7 (https://www.academia.edu/5395136/The_Meaning_of_Planetary_Civilisation_Integral_Rational_Spirituality_and_the_Semiotic_Universe)

David: Let's move on to point number three, the embodied PatternDynamics movement practice. The idea of taking that to making it more central in ongoing PatternDynamics through practice, and bringing in some of these ideas that we're talking about that we might relate to radical empiricism more versus thirdness. What do you think about that?

Tim: Yeah, it feels right. I got the same notion myself that maybe the next evolutionary phase of PatternDynamics is that it's a regular group practice where we come together to co-create a non-dual field, and learn skills, and relate more deeply, and have richer experiences. I like the notion of facilitative shamanism, working with energy flows in the inter-relational, intersubjective field using your felt sense, and that very present awareness of interrelatedness. Lack of separateness of us, our systemic nature, and learning to tweak the dynamics to get a more full-blown field.

More people plugged into it, and people who are good at that to help people who are learning those things gain that capacity, whether they're using it invisibly just in their family, or community where they can do the one, two, three, of pointing out the dynamic, bringing a conversation there, getting agreement about changing something for the better, or hopefully changing it for the better, or whether they're at that practice session and they're using the language with other people, who can use it at a deep level and getting more meaning in their own lives. I guess it's really a hypothesis to test, isn't it? I mean the one day workshop works well enough for what it does, it's an introduction and you can have a non-dual experience, but it was never much good at helping people work with PD beyond that or useful for them beyond that.

I think having more regular practice groups and things where the community practice comes together in real space, and developing community on that basis is… where you're really touching into Source together, and how our various... Most of the people who will show up will have that overriding interest in the health of humanity, supporting each other and our work that way, and that would be interesting. That's what PD is all about, I guess, in my own mind, but its expression is its own. That's like… I just try and pay attention to what the possibilities and intentions are, and just facilitating that conversation actually using the system on itself.

David: That brings us to point number four about putting an emphasis on facilitative shamanism. I saw you do that in the one-day workshop, but you didn't really talk about what you were doing or explain how to do it. I know you've had conversations with Lauren Tenney and Terra Soma, both Lauren and Terra are trained integral facilitators. You also have mentioned that … some I think, some influence here from Lectica?

Tim: Yeah.

David: Well, there seems to be some real potential here on learning from these different sources including PatternDynamics, and bringing it together into something that can help us move further along.

Tim: Yeah, so interesting signifiers–both "facilitative" and "shamanism" are loaded terms. I guess anyone who's interested can go to the patterndynamics.net site and listen to the podcast with Lauren Tenney called, "We are the New Shaman" (https://patterndynamics.net/we-are-the-new-shaman/) where we unpacked what we mean when we're using this word Shaman, and talk about the challenges and problems of cultural appropriation. What the word actually means, are there actually Shaman – but to cut a long story short, what we're talking about is working with the more subtle energy domain of archetypes, and patterns, and energies and these become more real. And PatternDynamics is definitely a tool where these can become more alive and more reified interestingly but not reified as well, and where we can be more fluid and agile in that space.

The first time I encountered this was with Diane Hamilton, I just couldn't believe it. She was facilitating a large group, 100 people. Diane Hamilton, for those people who don't know her, is a well-known figure in the integral world and founder of Integral Facilitator, but also did the Big Mind process with Genpo Roshi. She was facilitating using the Big Mind process, and it got a little heated. Big room, really challenging conversation going on, and there was one moment where somebody said something. Before I even finished registering what that person had said, Diane had sent it back, her hands moved and her body changed. I could see her catch the energy (in the statement) and send it back. It was the most incredible thing and it just boom, it just changed everything. She couldn't have thought about it, there's no way. So this is a really high level of spontaneousness, this is another thing about Source.

There's presence, there's inquiry, notice the collapse of those three polarities but there's spontaneity. Wu Wei, the Taoists talk about it as doing without doing. You're not thinking about it, it's just happening because you can ride the flux and sense the kinks in it, and just smooth them out. When a good facilitator does that, when they can work on the level of the intellect and the intuition, and the causal presence, it's pretty fascinating to watch and be a part of. So having seen Diane do that, and to experiment a bit with that myself and talk to people like Lauren Tenney, who are really accomplished facilitators who have learned from people like Diane. Yeah, I think it's possible that you can do it in a very seamless way. You don't necessarily need to reveal what you're doing.

If it's helpful reveal it, if it's not helpful don't reveal it, but it's really about getting into the flow, that's the Source state and getting stable in that, which I think you can learn by doing repeated PatternDynamics workshops. Just learning to get in the flow, the more you do it, the easier it'll come. Once you're there, then staying in that with your present sensing and inquiry, and spontaneousness and just sense the energy (becomes easier). It'd be useful to use PD because you can name it where you need to name it even to yourself, or to the others and respond in a skilful way. If you need to neutralize something, balance something, or integrate it more fully, we can stoke it up. Whatever, you can play in that field and it's the non-dual field. It's very effective if you get it right; you can definitely achieve things you can't achieve just with your rational mind, or simple techniques or even good strategies.

It's beyond that, you're plugged right into Source. You can think of it as tactics, strategies, purpose–in those three levels. Single, double, triple-loop learning, Torbert calls it, Bill Torbert. Tactics is single-loop. You try something, it doesn't work, you try something else until something works, but if you apply strategies, or high-level principles, you don't have to try every tactic. You just try the ones that are probably most likely to work, that's a higher level of thinking for complex problem-solving. Being plugged into Source is being plugged into purpose and when you can get to Source, you get in that non-dual state. Source is composed of purpose, inquiry, spontaneity, presence, the collapse of the three polarities all into one simple sensing of the field. The flow of field.

David: Purpose, inquiry, spontaneity-

Tim: Presence.

David: Presence, yeah.

Tim: Then what we call 1) part-wholeness, 2) inside-outness/subject-objectiveness and 3) past-presentness, which is presence, but we don't have a word for subject-objectiveness. Part wholeness we usually call… refer to as a "system". Subject-objectness, I guess you could call "non-dual," but I think Source is composed of all those things and probably a couple of more major concepts. If you think about it that way, then you have an early principle. You have an integration into a chunk, a simpler form, that integrates all those systems of thought and practice before it into something that's simple. So having to be present and in an inquiry state, and non-dual and systemic, you can just chunk all those things together into Source, and the felt sense of the flowing field.

That Source, plugging into that, gives you a whole range of capabilities if you develop them in particular skills like facilitation, or decision-making, which I'm a great believer in. I think the applications are really strong in collaborative problem solving, complex problem solving. So those three go together: facilitation, good decision making by groups for meeting collective challenges (complex problem solving). (This is a) pretty good set of practices to learn together as community practice to develop these skills, and to do it from a place of depth. So I would call it a place of where our primary motivation is the realization of Source. So spiritual practice will be a part of it but I'm referring to those things as more (related to) the theosphere or the causal (realm). Realization is more full-blown. I know perhaps you're challenged by that interpretation and maybe it won't work. It might be a flaw, but I think Realization is really the thing that unifies us the most, to tie back to our theme from the beginning.

David: Yeah, what brings us together, what unifies us.

Tim: Yeah, and I think traditional religious and spiritual folk could understand that Enlightened Realization of the nature of reality; and the materialist modern types come at it because it's a realist view. It's based on energy and it's winding up throughout the universe, and its expression as consciousness. Postmodern should come at it because it's relational and semiotic enough; it satisfies their need to deconstruct those rigid static hierarchies of concentrated power, and to acknowledge the notion that our values and our interest in objective constructions are ultimately are about power.

Power is another dimension to Source, you could write that one down. It's a big one. It's just the reality of social life. It is so often not talked about. It's always the part that you get to by reading between the lines. Who wants what and why. Very rarely is it talked about explicitly. I think this one got me into trouble in organizational consulting because you just can't talk about that stuff sometimes. It's too raw.

David: Power is work rate per unit of time, right? It's about that flow.

Tim: Well it's about having control of the flow. Who has control, who dictates where resources flow? Power is where you deploy the work rate at the abstract level of human organization, and the symbols we use and the structures that we create around who has power, and who wields it, where they put resources and at what rate. That one is really interesting because frankly, I think we have really poorly developed ways of dealing with power, especially amongst our leadership elite. I think they're really struggling at the planetary level of complexity, and retreating to just taking what they can get for themselves, and finding it a little too hard to coordinate the whole in a way that's generative.

Tim: I think Globalization has been an attempt at a planetary level of organization and it's retreating, failed. We are getting more grounded in political realities again as we wrap this up, take it back to the real world. We are retreating back to more national chunks, that first foray into developing a more planetary level of organization. The EU is the probably the best expression of it, but now it's going backward at a fair old rate, just didn't get it right. Neoliberal globalization just didn't have enough problem-solving capacity at that level of complexity. That's my view, I don't know. It's an interesting place to start the next conversation maybe.

David: Yeah, and what are different interpretations of power? That's one of the patterns, the Power pattern. What is a generative version of that, Bernard Loomer wrote a great essay on two types of power (https://www.religion-online.org/article/two-conceptions-of-power/). So there's the power over that we're all familiar with, and there's another type of power that's a relational power.

Tim: Yeah. Well, you could say then there's both generative and pathological expressions of both those types of power. The PatternDynamics views is getting the balance right for a generative expression rather than a pathological expression in many ways. So there's types and then there's balance, these are all the things we can explore together in the PatternDynamics community practice.

David: Absolutely. Well, that I guess brings us full circle; I think we probably hit our agreed-upon time limit here for a long deep dive conversation. I really enjoyed this, Tim. Thank you so much for having this conversation!

Tim: Yeah, thanks, Dave.

Tim: I'd just like to wrap it up by saying that I hope in this conversation, for people made it all the way to the end, I hope we have articulated well enough the unifying capacity of PatternDynamics, how to learn it, and how to use it as a unifying force. We went through a lot of theory and philosophy, and took some deep dives and down some rabbit holes, and explored a lot of territory, really. I'd like people to leave with the idea that here's a discipline that can help us find what unifies us.

Tim: Thanks again for organizing this.

David: Thank you, Tim. We shall remain in touch.

Tim: Okay.

Romancing the Ning

Layman Pascal[1] and Bruce Alderman[2]

The Ning Forum for *Integral Post-Metaphysical Spirituality* was characterized by a mixture of courageous high-level intellectual discourse, ethical irreverence, transhumanist aesthetics, socio-economic critique, playful fraternity, and a deep willingness to push all integral concepts toward their own points of rupture or inversion. It was, above all, very freeing and very stimulating and a lot of fun.

The souls involved in this scene were willing to roll the dice and make the effort to find out what kinds of vision-logic insights and philosophical consensus might emerge from an integral community guided by the desire to feel beyond the limiting power of attractive metaphors, simplified formulations, and conventional integralism.

What happens if you treat “integral” as conventional and then try to push your own understanding toward a post-conventional integralism? What do you find if you seek the clearing where divergent metatheorists converge, where the theory of practice replaces the theory of knowledge, where subtle energies and subtle beings are radically reconsidered? Where our most intuitively trusted interpretations of developmental psychology and the wise future of humanity

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[1] **Layman Pascal** is a "white indian" whose family has lived for 5 generations among the remote islands of the Pacific Northwest. He also hates biographies & introductions so bear with him -- this is difficult! What we have done already is so much less interesting that what we have not yet done, but I digress -- He is (or has been) a meditation teacher, yoga instructor, public speaker, nondual theologian, lecturer on integral methatheory, shamanism advocate, author, artist, bad poet, co-chair of the Foundation for Integral Religion and Spirituality (FIRS), co-editor of the Integral Review Special Issue on Integral Postmetapysical Spirituality and strong contributor to IPMS forums, moderator of the Integral Life forum, and creator of such online oddities as: The Christmas Wiki, Pascal's Integral Batcave, the Integral Demonology Forum, the Integral Morality & Ethics Group, the Integral Gender Studies Forum and more. Currently he runs a Nepalese clothing store, cafe & sacred gift shop in Northern Ontario with his wonderful girlfriend while also practicing hypnotherapy and energy accupressure. Etc.
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[2] **Bruce Alderman**, M.A., is adjunct faculty in the College of Psychology at John F. Kennedy University (JFKU). He received his master’s degree in Integral Psychology, with an emphasis on Transpersonal Counseling Psychology, from JFKU in 2005. He currently teaches Paradigms of Consciousness; Fundamentals of Transpersonal Psychology; World Spirituality; Living Systems Theory; Integral Life Practice; Individual Development; and Integral Meditation and Psychospiritual Development. Prior to working at JFKU, he taught and studied abroad in Asia for several years, including teaching courses on creative writing and inquiry at the Rajghat Besant School, a Krishnamurti school in Varanasi, India. He has published essays in the Journal of Integral Theory and Practice and Consciousness Journal, as well as in several forthcoming anthologies on Integral philosophy and spirituality. For the past 12 years, he has moderated the Integral Postmetaphysical Spirituality forum (IPS); and more recently, he co-founded the Foundation for Integral Religion and Spirituality (FIRS).
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are challenged in order to tease apart their essential principles from those which are naïvely treated as essential or taken as received integral wisdom?

The Ning version of the forum still exists even though it is now mostly serving as an archive, with much of the activity having migrated to the parallel Facebook group. Here are a few places on the Ning forum to start with if you want to explore beyond the discussions and essays presented in this issue:

1. Postmetaphysical Visions and Visionaries
2. Object-Oriented Ontology
3. ITC Paper Review
4. Spheres
5. Real and False Reason
6. Definitions of Postmetaphysics
7. Desire
8. Holarchy
9. The Christmas Wiki
10. Close Encounters
11. Horror in the Integral Suburbs
12. Structural Transformation
13. States vs Stages

1. Postmetaphysical Visions and Visionaries. This subforum was a place to consider the works and significance of thinkers who either offered their own variant of integral-level metatheory or seemed to add a much needed vitamin to the overall discussion. Many of the posts begin with, "*Well, I don't know if this person is actually postmetaphysical but...*" and lead to as much controversy as consensus. Exactly what you would expect from a lively analytic community. Here you will find people like Bruno Latour, Otto Scharmer, Peter Sloterdijk, Mark Edwards, Raimon Panikkar, Slavoj Žižek, Gilles Deleuze, William James, and more. Anyone from Jean Gebser to Lady Gaga might be the inspiration for one's own detection of an emerging structure of postmetaphysical spiritual philosophy in an integral context.

http://integralpostmetaphysics.ning.com/forum/categories/postmetaphysical-visions-and/listForCategory

2. Object-Oriented Ontology (OOO) was a frequent topic of investigation. Not only for its own virtues but as a symbol of a variety of doctrines which try to take the dignity of objects seriously and think beyond the naïve correlation between subject and object. The principle suggested by the Quadrants – of taking both interiors and exteriors seriously – is pushed further by trying to simultaneously affirm the pan-interiorist presence of subjectivity at all scales, while also giving objects a full being of their own whose presence never depends upon or is limited to what gets experienced by observers.

http://integralpostmetaphysics.ning.com/forum/topics/object-oriented-ontology

3. ITC Paper Review. Following the 2013 and 2015 Integral Theory Conferences, Bruce Alderman, Neelish Marik, and several other members of the Ning IPS forum offered reviews and hosted discussions of the stand-out or award-winning papers. Included among the discussions were reviews of papers by editors and contributors to this special issue of Integral Review: Tom Murray, Bruce Alderman, Layman Pascal, and Tim Winton.

http://integralpostmetaphysics.ning.com/forum/categories/itc-paper-review/listForCategory

4. Spheres. The interest in novel, higher-order theorizing, religion-as-exercise, and the playful vitalism and profound critique of thought found in Nietzsche and the classical philosophers are among many reasons that Bruce’s fondness for Sloterdijk became a major area of collective contemplation...

http://integralpostmetaphysics.ning.com/forum/topics/spheres

5. The **Real and False Reason** thread explored the challenges George Lakoff's model of embodied cognition poses to popular developmental theories, particularly Michael Commons' model of hierarchical complexity. Lakoff considers Enlightenment reason to be false in that it is fully conscious, literal, disembodied, and fits the world directly. Real reason, according to Lakoff, is embodied, inseparable from emotion, and rooted in image schema and metaphor. This calls into question at least some of the premises upon which developmental models are built. This engaging and lengthy (31-page!) thread is primarily a one-person inquiry, as theurj (aka Edward Berge) followed out the implications of Lakoff's critique over many months of reflection. Included are a number of comments and responses from Michael Commons, Sara Ross, and Tom Murray from the Yahoo Adult Development forum.

http://integralpostmetaphysics.ning.com/forum/topics/real-and-false-reason

6. Definitions of Postmetaphysics. The attempt to clarify and refine – and thereby to further – the postmetaphysical inquiry led many forum participants to produce questions or plausible answers toward the definition of “integral postmetaphysical spirituality.” Many different concerns, tones, and ideas provide alternative pathways into the same basic investigation. Here are a few of them:

http://integralpostmetaphysics.ning.com/forum/topics/what-is-postmetaphysical

http://integralpostmetaphysics.ning.com/forum/topics/ejaculation-broccoli-an-integral-definition-of-metaphysics

http://integralpostmetaphysics.ning.com/forum/topics/what-is-post-metaphysical

http://integralpostmetaphysics.ning.com/forum/topics/an-integral-postmetaphysical

7. Desire. The IPS approach was critical-affirmative and embraced the integrative wholeness model in which all the various natural energies of life are included. The overt metaphysics of vitalism and the covert metaphysics of an “empty universe” may profitably hold each other in check as we try to understand our reality, and ourselves, as intrinsically motivated, active, creative, and participatory beings. A refined and summary notion of desire in the full, multidimensional spectrum of its manifestations not only helps to re-situate advanced philosophy in real-world biology and ecology, but it also helps us understand the drives that politics and economics must be patterned to satisfy. In a world that is partially liberated from the superstitions of faith, science, and language, we need an energetic axis around which to organize ourselves – an axis that is resonant with our understanding of a dynamically enactive and scientifically holy universe.

http://integralpostmetaphysics.ning.com/forum/topics/trusting-desire-zach-schlosser

8. Holarchy. A penchant for encouraging and exploring alternative and mutating variants of integral theory definitely characterized the forum. Kevin Bowman's fascinating work on Holarchical Field Theory, and especially its pertinence to economics, is one example.

http://integralpostmetaphysics.ning.com/forum/topics/application-of-holarchical-field-theory-kevin-bowman

9. The Christmas Wiki. Long before the current online integral glossaries existed, Layman Pascal put together a resource to combine his own concepts, his jocular articulations of integral concepts, and the various neologisms emerging from the Ning forum. This thread links to his "Christmas Wiki" and follows a discussion that spread in many threads about terminology, new concepts, and the hyperpersonal clarification of emergent vision-logic ideas.

http://integralpostmetaphysics.ning.com/forum/topics/space-time-the-christmas-wiki

10. Close Encounters. An attempt to explore, dissect, and re-validate subtle energies, subtle entities, visions, shamanism, and aliens form a shifting current across many Ning threads – working to first divest ourselves of the most obvious foolishness and metaphysical thinking, and then redefine the remaining valid experiences in ways that do not depend up the blunt, reified, and magical categories that still remain present even within modern and postmodern discourse. Many of us take seriously our own encounters with "entities" and are hyper-attuned to all experiments in which people are deepening, expanding, and revising their own interpretations of these phenomena. One such thread opens with a report by Bruce Alderman (Balder) on his intriguing Contact Expedition experiences with Dr. Steven Greer in the UK, and another invites critical reflection on Ken Wilber's Kosmic Addressing system for mystical experiences, as proposed in *Integral Spirituality*.

http://integralpostmetaphysics.ning.com/forum/topics/report-from-the-field-close-encounters

http://integralpostmetaphysics.ning.com/forum/topics/kosmic-addressing-of-mystical

11. Horror in the Integral Suburbs. Many of the contributors found some personal resonance between "inhumanist" or "transhumanist" aesthetics and the attempt to push deeper into postformal reasoning and the metatheoretical frontier of evolutionary spirituality beyond first-tier conceptualizations. From Lady Gaga to H.P. Lovecraft, the integration of darkness and every kind of reversal of values provided a creative counterbalance to the perceived 'shiny corporate positive futurism' of many public integral projects. IPS strove to embrace the Satanic as much as the Saintly, the Ragged as much as the Smooth, the Obscene as much as the Empathic, the Ambiguous as much as the Clear, the Socialist as much as the Conscious Capitalist, the Pop Cultural as much as the Spiritual, and Sacred Materialism as much as the Transcendental Ascent – finding Nonduality diaphanously radiant in all directions.

http://integralpostmetaphysics.ning.com/forum/topics/horror-spirituality-and-the

12. Structural Transformation. Freeing ourselves from as many metaphysical limitations as we can (which, of course, also means accepting the places where we cannot) goes beyond just the naive modern liberation from "populist group dogma." The IPS forum was a place to grow beyond the metaphysical assumptions of grammar, perception, visionary experience and even self-experience. There is a profound hermeneutic strain of inquiry in this community and it not only calls basic experience into question but seeks the patterns that underlie those experiences. Just as we are not merely Capitalists because we understand the value of free markets neither are we Marxists because we understand the idea that "false consciousness" is generated in us by virtue of the external system (LR) in which we are embedded. The whole notion of ideology is a pertinent aspect of metaphysics for the thinker to investigate. And it is not merely Marx's critique of socio-economics. It is also McLuhan's critique of the forms of media. And Rifkin's critique of the forms of thermodynamic energy production. All these (and more) habits which organize the material structure of society tend to create patterns of ideation that must be teased apart from the individual's sense of self and the group's feelings of belief in order to get at the authentic possibilities of human life. This is a recurrent concern of many prominent participants in the IPS forums and one example can be found in the discussion of *integral energy*:

http://integralpostmetaphysics.ning.com/forum/topics/integral-energy-uniting-mulitple-perspectives-on-our

13. States vs Stages. This question – both in terms of how we understand Wilber's evolving positions and how we attempt to move beyond (or beside) them – moved like the wind through countless discussions. One of the most intellectually intensive was the following:

http://integralpostmetaphysics.ning.com/forum/topics/states-stages-the-wc-lattice-and-the-fold

Deep Dialogue in Social Media Spaces:
A Brief Experiment

A section in Integral Review's
Special Issue on Integral Postmetaphysical Spirituality
January 2019

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A Brief Experiment in Deep Dialogue in Social Media Spaces: Orientation and Overview

Tom Murray

The Integral Postmetaphysical Spirituality (IPS) forum(s) included a number of experiments with facilitation modalities, and some participating in IPS forums were also active in hosting or mediating other online spaces. Within integrally-informed theory and practice communities there is an, at least implicit, invitation to *enact* one's theory, by either "practicing what one preaches" so to speak, or by using the theory to reflect upon the writing, reading, or dialogue process itself. IPS was thus, in a way, a forerunner in the area of hosting technology-mediated forums that were not only *about* spirituality, consciousness, and philosophy, but self-aware about the ethical and performative questions of *being and acting* spiritually or ethically aware or conscious within the knowledge building process.

In light of this, we set out to gather a group of experts in the area of supporting "deep dialogue" in online spaces such as discussion forums and videoconferences. The hope was that doing so would generate some insights that were valuable in general. Below we also describe the goals, conceptual framing and process structure of the dialogues in case that is useful to others wanting to do something similar.

About a dozen experts agreed to participate in this project: Bonnitta Roy, Andrew Venezia, Hilary Bradbury, Layman Pascal, Marco Morelli, Heather Fester, Daniel Thorson, Penelope Whitworth, Geoff Fitch, Daniel Görtz, and Tom Murray (participant-facilitator). Bios for the participants are at the end of this document.

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Participants were separated into two groups of about six, for two 2-hour Zoom video conference calls for each group (for a total of 4 calls). We also created an online discussion forum, hosted at Marco Morelli's Infinite Conversations website, for participants to reflect on the online discussions in between sessions. These discussions, and links to the recorded conversations, are available at www.infiniteconversations.com/c/commons/integralreview. In addition Andrew Venezia and Layman Pascal have penned reflections on their experiences, below in this article.

We invite readers of this journal to add their own thoughts about the process and related topics by going to www.infiniteconversations.com/c/integralreview. The idea here is to replicate a "fish bowl" face-to-face conversation structure, wherein a small group engages in conversation (in this case the "experts") which is first silently witnessed by a larger community, followed by opportunities for the larger community to be in dialogue about the experience.

Why dialogue? The following quotes describe the purpose and format of the experience, taken from text that Murray emailed to participants or potential participants, or from the Orientation page in the discussion forum. The goal was to gather a "small group of experts together" from within the broad community of the "integral diaspora" to "reflect on the emerging state of the art in ... facilitating or hosting online interviews or discussions forums."

> The general theme is this: in these modern times of online video-conferences and hyper-text/social-media forums, how can such tools (existing or to-be-invented) be used in novel ways to support deep inquiry, collaborative meaning making, “knowledge building,” and “action inquiry” – with an integral/second tier/meta-modern sensibility? Also: how do we structure online interactions so that we support the "levels of consciousness" we like to talk about– how can we "walk the talk" as we talk?
>
> You do not have to bring 'answers' to these questions – we are all trying to figure out how to host online conversations with radical depth and expansiveness. You are invited to bring questions, experiences (including abject failures, forehead-slapping epiphanies, slogs through the doldrums, etc.) to our conversations.
>
> The *orienting questions* that we will allow to unfold and speak through us are:
>
> 1. What is "deep dialogue" to you? – i.e. What does it look and feel like to participate verbally in ways that source deeper or transpersonal layers of the self and the collective?
> 2. What are the possible results or benefits of this type of participation?
> 3. How might we support this type of dialogue in virtual spaces?
>
> We can each hold appropriate expectations about what is possible in the very limited context of one or two calls–-while still wondering "What is possible?" I will *consider the dialogue a success if* the majority of participants have even a single tiny new insight or realization (about anything). Or perhaps you will fall in love a little bit with one person you did not know. I also like how Bonnie Roy has framed a higher bar for some of her F2F groups: to generate insights emerging from the leading edge of human thought – that have never been spoken by anyone (regardless of how modest or trivial they may seem). Also, I won't

> consider it a success unless there is some laughter among us. So I invite all to relax, sink in, lighten up, and do some serious play.

Deep dialogue? Because all of the participants have experience with both contemplative practices and contemplatively oriented dialogue processes, I did not try to pre-define what was meant by "deep dialogue," but left its meaning open to emerge within the conversation – but I did constrain the topic as follows.

> We are focusing on open dialogue, which can be contrasted with things like debate, decision making, and interviews. We are focused a particular kind of dialog we could call deep dialog, that is informed by contemplative practice and possibly also by adult developmental theories and psychotherapeutic, transpersonal, and shadow-work models. We are here to ponder what is possible when people bracket out the normal functions of the ego and its social games and try to sense into something deeper, and do that as a collective, and see what emerges from that collective.
>
> I trust that the "transpersonal" will manifest in its own way an advanced group like this. We will begin by talking about supporting deep dialogue and increasingly try to reflect on and embody the ideas we raise. My own meaning of "transpersonal" includes a tender vulnerability and willingness to participate openly, which hopefully ameliorates the spiritual bypass and cultism that can be associated with the term. But I also want to say: don't try to be "transpersonal" in the dialogue :-)

Process Details

The facilitator's posted *Process Guidelines* for the discussions were:

- The usual considerations about being respectful to each other go without saying for group like this.
- Share the road. If you consider yourself someone who takes up a lot of space in discussions then consider scaling it back a bit; and if you consider yourself a quiet or shy person then assert yourself a bit more.
- Pretty much anything goes – feel free to take risks. I consider this a profanity friendly space in case you're wondering.
- Silence is golden here, and I'll facilitate a structure that allows for more silence in the middle phase.
- Tom will be trying to balance the roles of being a facilitator and participant. But I ask that we all take responsibility to co-facilitate here in terms of monitoring the energy the flow of things.

The first dialogue (for both groups) was lightly facilitated using a "U" structure, a process metaphor adopted from Otto Scharmer's "U Theory" (*Theory U. Leading from the Future as it Emerges. The Social Technology of Presencing, 2007*). A full description of each of the possible steps is below, though these steps were guided with few words, and participants were not asked to keep track of the formal process or what phase they were in.

1. *Downloading* – intellectual discussion on what is known (mostly 3rd person, "single loop").
2. *Open mind* – including: suspending judgment of others in favor of curiosity; reflections on *us and our* discussion so far (2nd person, "double loop").
3. *Open heart* – including: reflection on one's own state, feelings, needs, and being (1st person, approaching "triple loop"); tuning in to experiences of rationality with individuals and the whole; allowing the emotional, perceptual, and imagistic/magical functions of the self to speak.
4. *Open Will* – a "bottom of the U" space of silence to allow for a "letting go" and "still point" of silent awareness and presence; supporting the "letting be" of releasing and allowing for a possible "letting come" of insights or images from the creative unconscious.
5. *Emerging* – moving gently from the silence into a possibly more "transpersonal" dialogue; gently brining in insights or images generated from the silence; while intending a "remaining in the moment" and "speaking from the heart" of conversational spaciousness.
6. *Energizing* – Allowing the conversation to become more intellectually active and reflective again; reflection and recap of what was learned in the entire experience, and how it affected one.
7. *Prototyping* – conclusions, decisions, and/or concrete steps or plans for moving forward, and how and when to evaluate success. This step is included for completeness RE Scharmer's model, but we did not plan to include it.

So much for planning. In the actual dialogues (dialogue #1 for both groups) I as facilitator was reluctant to squelch what seemed to be very engaged interactions, and the first three steps took up the bulk of the time. Because the participants were familiar with such group states, I was trying to allow for a natural and increasing infusion of spaciousness into the conversation, though in the end I did include a short period of formal silence followed by "emerging" reflection.

In all of the dialogues the 2 hours went by very quickly. The second dialogues were even less structured. Participants seemed to appreciate the invitation into the more spacious and relational modes in Dialogue #1, but also there was a general sense that they wanted to chew on the ideas more, so the second conversation (for both groups) was more free-form.

It was indeed a great honor and pleasure to be hosting such a wonderful group of individuals in coming together. We are in the process of considering whether to organize future dialogues with the same participants, or new configurations of participants.

Reflections and Themes

Andrew Venezia and Layman Pascal have penned essays in this Issue reflecting on their experiences in the dialogue groups. Below I will comment from a facilitator's perspective on some additional themes.

Overall my sense is that participants were engaged and enjoyed the conversation, and enjoyed engaging in a "generative space" with others, some of whom they were meeting for the first time. However, it also that case that there was little in the way of closure or feed-forward outcomes from the engagements (this is reflected in both Andrew's and Layman's contributions).

Readers are encouraged to listen to the dialogues (link above). Topics discussed included:

- Social grounding and immediate trust,
- Performance and performativity in social media,
- The progression of relational action logics,
- Transformative knowledge creation,
- Contagious yawning and being embodied while virtual,
- Allowing for dream-level content to emerge,
- Immersiveness and the end of "digital dualism,"
- Spontaneous unfolding of relational mystery,
- Relationally vs. insight,
- Technology and distopia,
- Endings, catastrophes, and grief.

Theme #1: Facilitating facilitators. It can be challenging to facilitate a group of "experts" on the topic of facilitation itself. One of my goals was to balance inviting in the exceptional expertise of the participants while avoiding an overly intellectualized or opinion-driven discussion. In embodying or practicing "what we preach" I wanted the participants to be on the edge of their knowing, dipping freely into the emergent co-created present. I specifically invited participants who had experience with "contemplative" and "deep" orientations to dialogue, so though I planned to occasionally nudge them toward such directions, but did not want to micro-manage or "lecture" on things they knew well. I also wanted to honor the significant process skills of participants and give them opportunities to sense into the flow of ideas and energy and co-participate in steering the boat. In the end I think I erred on the side of allowing for emergence, and some participants would have appreciated more structured discussion topics and a sense of concrete progress.

Theme #2. Immediate Trust. Before the conversations even began there was a lively text dialogue about trust and vulnerability in newly formed groups. One participant noted that "... it takes many hours to build the social capital and shared meaning before productive dialogue can happen..." While another posted "Maybe a starting question is How do you IMMEDIATELY enter into a trust situation? – without social bonding, territory claiming, attachment to identity...belonging needs, etc. Maybe that could be the meta-text/meta-cognitive awareness we all aspire to from the get go?"

Theme #3. Rationality vs. insight. A theme in text conversations following the first dialogue was the pros and cons of facilitating more spacious and relation modes of conversation, vs. allowing for more content-based dialogue and insight-generation. For some, slowing down a conversation to allow for more spaciousness, "presence," and emotional intimacy felt a bit awkward to contrived. For others, the type of deep dialogue we were advocating is not possible without taking the time to build relationships. This relates to the above theme RE whether a transpersonal type of "immediate trust" is possible in the right contexts– i.e. a bypassing of the usual social relationship forming that allows for an efficient move into collective insight generation. My own judgment is that this particular group was able to skip *some* of those steps and enter quickly into a trusting space allowing for a degree of authenticity and vulnerable sharing.

As one participant pointed out, the stakes were not very high however. Our engagement did not include the types of difficult truth-telling or conflict resolution that (1) challenge groups who need to get real things done, and (2) can lead to deeper intimacy beyond the "fire" of shared dissonance and discomfort.

Theme #4. Endings, catastrophes, and grief. One thing that was striking to me was that, without any prompting and without having (yet) heard the other group's recording, in call #2 both groups veered into conversations about the dire straights of humanity. There were flavors of "here we are talking about abstract ideas but the world is in real trouble, what are the concrete, realistic things that people can do?"; and "will this technology we are talking about just take us into a dystopian hell of disembodied being and tech-materialistic narcissism?" I don't know what was in the air or in the news that week, but the discussion was thick with stark and serious questions the future. It allowed for rich dialogue about opening to grief and humility in the face of it all; and wondering whether the whole project of modern technology was, in the end, in service to humankind.

Additional resources on deep dialogue. Olen Gunnlaugson and others (including Andrew Venezia who appears in this Issue) organized a large on-line conference in 2017 called "The We-Space Summit" with over 150 contributors– see https://www.thewespacesummit.com. The online dialogues include many on themes related to "deep dialogue." Participants in our discussion were among them, and additional interviews featuring those participants can be found at:

- Bonnitta Roy's interviewed by Venezia on generative dialogue: https://www.dropbox.com/s/vaqgsufacntmd2a/we-space%20Bonnie.mp4?dl=0
- Andrew Venezia interviewed by Bonnitta Roy on We-space: https://www.youtube.com/watch?v=3wqJ2ZOSOyM
- Andrew interviewed by Thomas McConkie McConkie on "(We)-Dreaming:" https://youtu.be/swcfECDEiEw
- Tom Murray interviewed by Venezia on Contemplative Dialogue Theories and Practices: https://drive.google.com/open?id=1nqV_B1rgmExMnsHdQU5FfgR9rj1FF38q
- Bonnitta Roy, Mushin Schilling, Anne Caspari, and Tom Murray, interviewed by Andrew Venezia, on a panel discussion on Collective Insight Practices: https://drive.google.com/open?id=18lY6F0Vg4i9pYgs16P8t1S6leyJFcOzR

In 2016 Gunnlaugson published a book titled *Cohering the Integral We Space: Engaging Collective Emergence, Wisdom and Healing in Groups* (available on Amazon.com). It includes chapters by Geoff Fitch and Tom Murray.

- Fitch's: "In, As, and Toward the Cosmic We," available at www.pacificintegral.com.
- Murray's "Contemplative Dialogue Practices: An inquiry into deep interiority, shadow work, and insight," available at: www.perspegrity.com

Papers on the topic by other of our dialogue participants include:

- Roy's "Open Group Practice: Eight Social Selves" at https://www.kosmosjournal.org/article/open-group-practice-eight-social-selves/

- Venezia's "I, We, All: Intersubjectivity and We Space, Post-Metaphysics, and Human BecomingAn Integral Research Project" at https://www.dropbox.com/s/m2h1xfsxb0ojr8l/venezia-i-we-all.docx?dl=0

Reflection #1: More is Possible

Andrew Venezia

More is possible.

I find myself left with this feeling on this side of participating in these dialogues, after listening to the two I was not directly in, and after thinking about them and how to approach their central inquiry about communication and communities online, and their place in supporting deep dialogue and vice versa. Indulge me please: I will calm down and return to this.

More is possible: it is fitting that I'm writing these words, that they are abstracted from a sense of what I might actually mean as an articulating body, and as a heart-center of intelligence. Stripped of as much context as possible, and without narrowing down what it is I intend, I mean all possible meanings simultaneously, or at least quite a few.

I was happy to hear the work of Jean Gebser brought into the stream I did not participate in, as his sense of what Integral Consciousness is and entails invites this kind of transparency, which may start with a disorienting palimpsest of separate shifting contexts and meanings opening into each other and closing each other off, but which opens into a kind of simultaneity of consciousness beyond particularized or localized meaning. Gebser is a Virgil in this post-metaphysical comedy.

The fit of my writing these words then is ironic, and I am hoping that this irony relaxes into paradox, that this paradox might itself open into a polarity, and that this polarity might erupt from its tensions, a movement out that is at once an irruption, a 'breaking-in' of consciousness. Definite, linear meaning, directed but only alive in your reading. The explicit as the beat of a boundless, knowing silence. Purpose without objective. Or, more to the point for the inquiry at hand, a transparency that does not balance surface with depth, or place them into relationship so much as it liquidates and electrifies. I'd like to offer that any notion of deep must include this transparency of a simultaneous but not amorphous depth-and-surface as the display of consciousness.

I commend Tom in his guidance of this inquiry, in allowing these tensions to live without trying to finally define what it is that we mean by 'deep,' giving us the opportunity to explore the question in a way that is not merely additive or combatative, and allowing us to practice even a resistance to our habitual ways of weaving voices and ideas in dialogue: novelty beyond mere combination or even exponential emergence. Calling back to the paradoxes we are untangling ourselves from in this sort of discussion, I mean a guidance that allows each moment to be a guide, each voice and pause and accident and glitch, each step and trip the utterly whole and incomplete voice of life, leading-itself: leading-(from to as for with by in among beyond below & all other relationships of possibility)-itself: leading-itself.

I can of course write an actual sentence, and as promised I will calm down and stop being so obtuse. I will try and unpack my agitation here more linearly, explicitly: Integral Consciousness, in Gebser's sense, entails a radial break from its predecessor, which Gebser calls the Deficient Mental. We are living in this potential transition; we are emerging from– and so in a sense, invisibly bound by– what it is to be Mental. As Mental beings, we conceptualize this as a movement forward. A reaching-to-grasp, an overcoming. This kind of orientation can be seen in many of our acts of self-construction and presentation. We 'do-to,' and are formed and shaped in reaction to this doing-to even in the attempt not to. As discussed in the dialogue, (1st call, group 2), we've hacked the biological representative of this, our dopaminergic pathways, so powerfully as to be able to give us a little hit basically whenever we'd like. My five-year-old daughter knows the excitement of hearing the mailman come. We can make the mailman come just by looking at our phone.

We communicate this way as well– the postal metaphor is no accident. For many of us in this cultural milieu, dialogue means a kind of considered back-and-forth, the sharing of views, the receiving and listening to an-other, the possibility of an empathic alteration in our views, or at the least a coming-to-appreciation of the other's being and meaning, and the exciting possibility of something genuinely emergent– something that could not be without dialogue. This understanding, this being-understood, this resonance and participatory emergence are also deeply wired into our biology and– particularly from our earliest, formative relationships– our identities and ways of being. All of this, at least as we currently conceptualize it, is predicated on a kind of exchange, a back-and-forth (or co-participation in a group) in which separate beings come together to transfer something, whether information, opinions, or energy, a process that has spatial and temporal metaphorical elements in its conceptualization. Integral Consciousness does not entail a rejection of any of this, but it is also not a result of this activity, nor is it bound by the same spatial and temporal constructions. It's not an outcome of an exchange or process. Or: it is not possible to express this communicatively, symbolically. It cannot come from the outside-in. Clearly there is some purpose to explicating, to communicating, to attempt to understand and be understood, otherwise anything I wrote would simply be drivel– I am, after all, trying to express, understand, and articulate something here myself. (It's drivel, sure, but hopefully not simply so.) My sense– what I am trying to articulate here– is that to the extent that we inevitably, and over-and-over again, fall into the kind of self-organizational mechanisms that Gebser describes as Mental, is the extent to which our rich, nourishing, fascinating and enlivening dialogues, present a kind of distraction. I do mean 'inevitable,' so this is not really a critique: the practice of these dialogues at a sophisticated level seems to me to involve the continual discovery of our own unacknowledged ways of shaping our identities and activities, and releasing them (which can be affirming them) in favor of something else subtle and intuited and nonetheless real.

As an example of what I am saying, I will try and lay out one of these from my own experience of the dialogue. In the second discussion I participated in between Tom, Bonnitta Roy, and myself (Hilary had not yet joined though would later,) we began to talk about the recent and discouraging climate report. As we did, with Bonnie's helpful poking, I became aware that the powerful anxiety that I entered the call with was reflective of my own reasons for participating in the dialogue in the first place: I have experienced a qualitatively different kind of being-human in certain intersubjective practices and experiences, and feel like if we are to find ourselves with any semblance of civilization surviving our moment of crises, we will have done so through and in the kinds of consciousness these practices have initiated in my experience. I want Integral Consciousness to save the world. “I” want that – my own sense of egoic identity is constructed in parallel with that projected outcome, and the anxiety of its not happening, with all the projected consequences of that– the massive suffering that would entail globally and locally: I have a five-year-old daughter, and I do not want to see her die of starvation, or perhaps worse to endure protracted years of crisis that end in misery. To the extent that I am attached to that desire and its attendant fears, to the extent that what “I” am is comported in relationship to that desire– precisely to that extent will I be inflexible and ineffective in my response to this moment. I can release the attachment in recognizing it, or at the least notice it, and find a kind of freedom and liberation. This liberation is a kind of release, even if a micro-release of a certain kind of tension, a freedom of life giving itself in response to the moment, and without attachment to a kind of outcome that is still hoped-for. The world is not in need of saving, and I will still participate in this life as whole-heartedly as I can.

What does this have to do with the particular inquiry around Deep Dialogue and online communities? In a certain sense, not much. My assumption here, from listening to the discussions, is that Deep Dialogue for most of us participating, involves a sense of mutual understanding, of being able to effectively express our own and receive others’ expressions, while in a reflective inquiry about how we are participating that allows for surprise and emergence– to engage from a place that allows for the simultaneous possibility of waking and dreaming consciousness, and the consciousness of self-reflexive awareness. We do this, as anything and as mentioned, for reasons that we are sometimes aware of and sometimes unaware. I orient to this current piece of writing not as a way of responding to the initial inquiry, but as a way of looking at the whole process, including how it is that we responded to that initial inquiry. I should note that it didn’t seem that we were often responding to the question directly. I’m not even sure at this point what that inquiry was, even though I asked Tom and heard it from him several times. It never quite stuck. Rather than that being a problem, I think it’s again a reflection of skillfulness– the point of this, as I take it at least, was not to generate an answer to a specific question, but to foster a kind of dialogue that allowed us to bring something forth that was not present before: to allow that ambiguity and unclarity to call forth surprise.

This written cap of the whole endeavor is in some ways the least dialogical element of them all: I am writing as an individual, and these are my interpretations and takes – I do not pretend to be accurately summarizing or representing anyone else’s position here. In another sense, as it takes the entirety of the process as its starting point, and comes as a response from listening and considering all of the words spoken and written through the whole process, it comes as a response to everything said and unsaid – if you participated in the dialogue and do not hear at least an echo of some of your words and intentions, I’ve probably not done my job very well. I am trying most to honor the sense of animation and engagement in these discussions – whatever it is that is important here, something matters; something brings us to the edge again and again. This something, this animating force, this willingness to state clearly what is most dearly true– and to be ever and sometimes painfully incomplete and even wrong, this I hope to do justice to.

So, given the above, here are a few of the core generative tensions as I picked up on them that we seemed to be navigating in the dialogue, along with my sense of how these tensions might animate an Integral Consciousness.

Deep & Surface

What might we find in the depths? ‘Deep’ is one of the foundational myths and metaphors of our modernity, our egoity, our individuality. One of Western Civilization’s oldest surviving myths, The Epic of Gilgamesh, describes in part the quest for immortality, sought for as a plant that grows only at the bottom of the deepest lake. That constantly striving, constantly diving, that move to get, justify, capture, validate – it shares the same architecture as the need to be (individually) understood, to find one’s place in community as one’s own self, whether that be in relationship, or society– or life itself, reflected in what is deathless. Not a refusal of depths in a return to the surface, nor a weaving or connecting or communicating the depths with the surface, my sense of what we’re bringing forward as a relinquishment of the striving for depth is the possibility that depth is an action, depth is the striving, and on the other side of that striving (note: not the achievement or fulfillment of the striving) is a simultaneous inexpressibly obvious depth-in-surface.

The drive towards an experience & The open-ended exploration of experiencing.

This is, I think properly, a subset of the above, or at least simply a change of clothes for the above, the paradox perhaps best expressed as: we are all participating in this dialogue driven by a strong desire, one which shows up in a diversity of expressions in each participant and which animates each of our lives, and yet for this desire to find satisfaction and fulfillment, we must be willing to radically let go of, not the drive itself, but our attachment to it. The experiences are crucial, just as in personal meditation, but our attachment to them makes us blind to that which is inexperienceable. We will always and ever have our ways of bringing the past to the present, and the future. We can always let go of them with one hand and lean into everything that is not.

Form and Openness

But even creating a kind of form around the above (say, ‘giving the instruction to “lean into the deep yearning of the moment and release its expressions”’) will end up stale without a relinquishment into an ungraspable openness that cannot be formalized. Neither can we simply resist form: it’s woven into everything we do, and we fall simply into our conditioning and habits by saying ‘no form.’ We can tear habits up this way, drastically see through them, but we can also be trapped by the deepest and darkest habits we bring to life. By this point you may be expecting what I am going to say: the way is not to balance form and openness merely, or be aware of them, though this is a crucial start: the way is to relinquish their distinction as being anything other than a creative, skillful, conceptual activity. Content & Context, or Content & Process I fold in here as well.

Action & Consideration

“We have to be doing this while we write a Constitution,” Geoff Fitch (non-verbatim) expressed at one point, which may have been the conceptual highlight of these dialogues for me. I was hesitating participating in a second round because I have been drawn to these practices in recent years where they are most explicitly tied to some kind of action in the world, some kind of human organizational capacity – as noted, I (have) want(ed) Integral Consciousness to save the world. Again, the key here would be the articulated realization of the inseparability of infinite possibility and definitive action. Love by any name pliable enough to appear through us as full-throated red-blooded dry abstraction.

I connect this also with ‘explicit verbal communication & other modes of performance, such as drama.’ It is impossible to abstract the articulation of verbal communication from the articulations of the bodily being. We have perhaps been trained to stifle the movement of our bodies and souls and hone them into the forms of our particular cultures, but if the torrent of life has been loosed without negating this ability to rationalize, would its result look all that different to an alien anthropologist than a quiet, engaged, joyful conversation? Something in which particular meanings are used as paint brush strokes on a canvas of consciousness which is itself obvious meaningless/meaning-full shining through each gesture?

Trust, familiarity, vulnerability & Habit, formality, conditioning

Our email exchanges in the group that would be participating in the dialogues revolved around this initially, a theme that in the fleshiest level seems to me to be a reflection of the more abstract Depth and Surface polarity, which is accidentally why I’m using them to bracket this section. In trust I may be myself – which may include a very non-vulnerable relaxation into what is most familiar and comfortable, but which may also include the safety to explore in a vulnerable way. In habit I and we have lived as a success so far, but the complexes of habits I call myself may well present as a wall disallowing a liberated-coming-into-being. Who am I and how do I fit? How do I honor the support and challenge of my otherness in society, and the support and challenge of my own, onlyness, uniqueness? Speak without overpowering, listen without becoming absorbed? Perhaps no question has more surreptitiously animated our past few centuries, and perhaps no dilemma must more urgently blossom into a still only intuited way-of-being-as-the-world-together. A walking talking interbeing of love, fully free in service. A conscious obviousness that we are not only selves sharing in experience of this moment, but this moment experiencing as our self?

I have tried to articulate these polarities not as oppositional to each other – I don’t think they are (Depth vs. Surface, e.g.) Rather, they are complementary – each polarity emerges from our ways of conceptualizing and so shaping experience. Each of these polar complements are in some sense a ‘child’ of our tendency to dualize experience conceptually. That dualization is the hallmark of Mental Consciousness in Gebser, and I have structured this short paper around his work, and my interpretation of it, because as noted I think he is our Virgil for this moment of crisis and comedy.

I can not abstract myself fully from this being which I am as anything other than a loving play. I am not possible without this discussion, without this intention imprinted conscious electricity that allows form and meaning to synchronize across the globe, without the fibres of the optics. I am spontaneous and edited – I am myself and a woven collection of voices, distant in time and space but here. My mind lives in Ghent in Belgium, even as it is revealed to be non-local and a-temporal in a recorded and virtual discussion. I write in New Jersey, I wrote in Belgium, I spoke in Ghent and spoke in Amsterdam, and was heard in various places in the New World and wherever you are now. I speak from nowhere because I am heard everywhere. This voice on the imagination of paper, where is it now, where could it be but the source of your very being?

We notice with less effort, having created this artifact of our consciousness as a global network of communication, what has always been possible. This all exists simultaneously, the electronic and digitalized nature of our infrastructure, brought about through our ingenious perfect rational translatability of information, allows a coordination and communication which is not merely linear or abstract. Too often perhaps (and for me!) this nonlinearity breaks down into a kind of pre-linearity – an everything-all-over-the-place. It can also foster – I think it is fostering– a kind of radical post-linearity, the kind wherein that phrase ‘post-linearity’ is not ironic.

Reflection #2: Every Procedure is Creative

Layman Pascal

Every procedure is creative.

That’s where we start but how far can we go? Gathering together in our flesh or online is a procedure that evokes a particular set of potentials. We cannot perfectly determine how much we are boxed in by electronic communication tools or how much we are set free by the assumed naturalness of shared body space. Nevertheless, we are intuitively certain that some kind of amazing phenomenon can emerge from clusters that share information and energy with each other – just as lightning bursts forth from charged particles gathering in the dark clouds. Powerful. Sublime. Emergent.

Yet lightning is deeply ambiguous. It is as likely to be harmful or useless as it is full of glowing electrical promises. Lacking clear goals, sufficient forms and a resilient apparatus for receiving, storing and utilizing this power we have, at best, only a brief and beautiful disruption of ordinary consciousness.

I love these delicious flashes but I suffer from the fact that *more is possible*.

Many of my own favorite & most profound “peak experiences” have occurred in powerful interpersonal spaces of unpredictable intimacy. At times I have played the role of conductor and initiator for such orchestral triumphs but their lasting impact and the mechanisms which distinguish the exalted group moments from the merely decent events are still a mystery. Nonetheless, I think these are very important experiences. There is an obvious sense of emerging significance and transcendent possibilities implicit in both the highest and most modest of such shared encounters. Beyond that it even feels as we are collectively on the cusp of very practical insights that can be glimpsed only through the kaleidoscopic prism of the multidimensional, transpersonal supra-heart. It feels like there are tools at hand for the illumination of self, the awakening of love & the cultivation of a planetary wisdom-civilization by methods that incorporate but are not limited to the linear or technological mind. Great. I’m down with that shit.

However I remain deeply concerned about the most appropriate structures necessary to receive, utilize and transmit the curious wisdom of such “events”. While I privately rejoice in these moods, I cannot help suspect that even a wonderfully open context shared by sensitive, intelligent and well-meaning individuals might create only a fascinating and admirable puddle. And I don’t mean to disparage admirable puddles! The fragrant ethos of uniquely golden liquid and rose-scented breezes that flow from the background of one engaged participant to another and another and all around and between into the generative dance of the anti-gravitational hive is pure and clean water for a thirst heart. MY thirst heart!

I'm down with that shit.

But still ... suppose we are trying to give birth?

The newborn creature we wish to unfold from our collective vagina may be construed, on the one hand, as a potential answer to a real-world conundrum or else as an emerging, rising or descending transpersonal intelligence that enfolds us into a deep intimation of shared meaningfulness. Is it a boy or a girl? Is it human or animal? Either is wonderful. In any case, however, we wish to birth a fully vibrant and functional organism – not merely a sac of mortal organs in a muddled heap.

We absolutely require a good skeletal structure. An intricate, robust and mobile skeletal structure specifically adapted to allow this particular creature to thrive in a very particular environment beset by all kinds of chaos and surprises. Without an adequately hard structure the soft miracles may perish after a few moments of glorious breathing and vanish from the world. So let us not mistake a miscarriage for a successful birth merely because of their many common features!

Despite the experiential success and learning opportunities provided by the dialogues I think we must consider them to have been, somehow, insufficient in terms of structure...

Our group events were certainly a neat experiment. Most of us have tried other similar experiments and many of us enjoy social-improvisational practices of shared sensing, creative languaging and full-spectrum mutual affirmation. In a way it is precisely because we have a lot of this experience that we should be able to loosely predict both the possibilities and limitations likely to occur in even very high-level, depth-oriented group exchanges. The question of how to build upon the success and bypass the limitations is a wisdom we might hope for the experience itself to provide but it's ability to provide that intelligence may be limited by the same factors. We are left with guesses and intuitions...

Two of the most common guesses found in the self-reflective discussions seem to revolve around the notion that we are initially inhibited by a combination of egoic social anxiety & instrumental reason. Our hope is get beyond these by a combination of brave sharing, progressive familiarity and availability to subtle, nonlinear prompts from various aspects of our whole being. Sounds good. Is the premise reliable? I fear it may not be.

We have an almost erotic fascination with self-organizing complexity – a force which we wish to collectively disinhibit by folding our subtle mutual experience of each other back into common discussion through synchronized presencing, prompted sharing and the playful articulation of half-reasonable images that emerge within us from the circumstances of the exchanges. This plausible strategy is undermined to some extent by the possibility that very similar procedures might lead to our own terribly clever version of "mob mentality". What I mean to say is that we have no reason to suppose that we are not accessing the *lowest or least relevant* form of our collective wisdom potential through our tactical attempts to elude anxiety and linear thought.

It seems to me that the problem is not that the context of instrumental, technical and goal-oriented reason leads toward a foreclosing of unplanned emergence but rather that the quasi-romantic attempt to disinhibit the unspecified panoply of inner functions moves us away from the realistic problem of accessing the correct parts that should be contributing spontaneously and the correct structures which can recognize, receive and utilize whatever is produced by the sharing of the proper subcomponents of ourselves. Even the idea of "just exploring" and "learning whatever is there to be learned" and "feeling it out" are actually particular goals which must be indexed to guesses about the particular methods of sharing likely to produce *that kind* of satisfying mutual field outcome – rather than some other kind of satisfying mutual field outcome. Spontaneously availability among reasonable competent and interesting participants is not an alternative to instrumental methods but rather a specific case which suffers from not being specified. How are we to know whether our desire to find deepen and more elaborate dimensions of the experience is not being stymied by our strategic open-endedness?

This is a cautionary note. It should not imply there was no success. As Hilary observed, following the first session of Group 1, there is a "relational action logic" movement through the event which migrates toward increased humor and multidimensionality. Something changes and grows. This occurs over the course of one session and, to some degree, is picked up in subsequent discussions. We just don't know what ... or how much ... or how to do it better.

So here we are collectively before the problem of *transformative knowledge creation* in groups. The first thing that knowledge must do is to draw a distinction between its own possibilities. Are we elaborating a particular knowledge or the production of a shared transpersonal identity? In integral terms are we working primarily in the Lower Left or Lower Right quadrants of this affair?

We can see the negotiation between these two zones occurring within the discussion groups. And we can speculate as to whether or not this indicates that a "transpersonal whatever" is addressing itself to this very question – the question of how transpersonal methodology applies similarly and differently to shared experience and to shared production of solutions, effects, etc.

Although both groups demonstrate the arising of this whole consideration, we can also see a kind of division of labour in which Group 1 leans toward the LL and Group 2 leans into the LR. The distinction is slight but noticeable. Over the course of their sessions the first group remains, arguably, more attentive to the methodology of emotional engagement, open-endedness, folding in unplanned subtle prompts from their own interiors, engaging in very open feeling responses to each other, etc. And the second group, while being convivial and open, attended a great deal more to the problems and potentials of the procedures and technology being used. Thus the mutuality & the media together formed an inquiry both within in each group and spread across the two groups. And it can be construed as resonating with the first major distinction that integrative metatheories need to make about collective action – the intersubjective/interbehavioral distinction.

In my observation (possibly privileged as I was a member of both groups in different sessions) the first group seems to have paid a lot of attention to a shift from anxiety, instrumental logic and mental storytelling toward mutual ease, sensing and a more nebulous, spontaneous mood. This strikes me as a process necessary primarily for the production of a common feeling or identity and not so much for understanding how a group, situated within a given techno-cultural environment can be turned to addressing particular questions. Instead there was a great deal of focus on authenticity, on surprise and upon the willingness to learn. An attentiveness to novel arisings and interpersonal commentary. A sense of play. The element of performance is strong here – both in terms of pretense and in terms of playful enactment. Bonnie referred to this aptly as *a transparent performance of people being relational-aware- reflexive*.

While this may seem initially like a very general and open place for a group to start, it can be seen in hindsight as a particular approach leading toward a particular set of creative outcomes. There is an interest about what must be shared in order to deepen and how our emotion enables or disables that – and a favoring, in some respects, of those who are willing to share the most or affirm the complex sensitivity of others with the most clarity. It was as if an eye were looking, looking, looking for pathways by which more diverse energies could be folded into the richness of the mutual touching field.

Conversely, the second group seems to have operated in a more objective fashion. That is not praise or blame but rather an observation about where the combined intelligence of the event, however well evoked or not, seemed to be characteristically moving – as if to pose itself a question in that domain. There is less gushing and laughing in this group and more concern about how we are showing up to each other through the digital medium, the historical moment and the cultural and practical dynamics in which each person is embedded. Questions start to arise about the limits and potentials of the medium by which the interaction is occurring. Ideas of ritual and medicine appear. Attention moves toward structure and suggests possible routes toward a schematic context in which the right kind of attention can be brought forward.

Interestingly, the second group ends up, by the end of its second session, in a very pessimistic place. Not depressive – but collectively embracing the tragedy of the world, history and technology. The first group is, especially in the first session, bolstered into a sort of optimism by the degree of personal sharing and emergent interest into how to feel together.

I don’t know that answers were produced. However, I am extending my own experience of the collective pool by reinscribing my own critiques as if they were the very heart of the event. This movement duplicates the style of self-reflective, transparent enfolding that feeds the transpersonal event/entity by turning our responses about the vortex... back into fuel for the vortex. Thus, my initial sense that we have inadequately distinguished between LL and LR procedures (and treated very specific methods as if they were very general methods of discourse) now occurs in this present writing as the suggestion that the “vortex” itself is expressing itself in the form of inquiring into this very question. As, perhaps, the preliminary movement of evolving itself into being as an integral-level transpersonal we-space. It remains the case that there is some crucial difference between, say, a musical jam session and the kind of profoundly effective group diagnostic procedures that used to feature so prominently on episodes of *House, MD.*

That means the difference between the *internal experience* of mutual flow as the marker for success in terms of group emergence AND the *external fact* of getting a verifiable result even if that means keeping the participants agitated, conflict-ridden and more autonomous. Not that it is necessary that negative experience produces objective results but that it does require an approach to the method of evoking collective intelligence that is indexed to efficacy in a particular context rather than the depth and wholeness of the experience of the participants.

Our hope for collective practices is that we can combine analysis and intuition in such a way that we can produce enough mutually valuable shared feeling and connectivity while also learning keys to the procedural dynamics by which particular forms of knowledge can be generated appropriate to various questions and contexts anywhere in the cosmos. We hope that part of the answer enters with ourselves and another part of the answer flows back out, toward us, from a familiar but alien presence that may be our shared soul. These dialogues were a series of probes into electronically mediated, integral-level embodied collectivity. One possible interpretation is that "we" and "each of us" conspired to enact a version of an inquiry whose resolution may stand at the beginning of a higher and deeper understanding of how to engender and utilize such spaces. It wasn't a failure but more is definitely possible. And I'm down with that shit.

Participant Bios

Hilary Bradbury actionresearchplus.com, www.taosinstitute.net/hilary-bradbury	Lead person in convening the global Action Research Community for those interested in action oriented, transformations research. She leads the AR+ Foundation, is editor in chief of Action Research Journal & Jubilee Professor at Chalmers U. She's asking how can our inquiry/ science be more helpful to communities as we confront our sustainability crises (and how to deal with our inherited power structures that stymie people's contributions)?! Link to online bio: https://actionresearchplus.com/meet-co-lab-stewards/
Heather Fester www.uccs.edu/english/faculty_staff/faculty-staff-directory-a-h/heather_fester	Heather teaches creative writing and composition courses in the First-Year Rhetoric and Writing program at the University of Colorado, Colorado Springs. She holds a Ph.D. in Rhetoric and Writing from Bowling Green State University and an MFA in Creative Writing and Poetics from Naropa University in Boulder, and she has taught and administered in college composition programs in some capacity for more than 15 years. Before UCCS and Naropa, Heather directed the Center for Writing and Scholarship at the California Institute of Integral Studies in the Bay Area. Also a certified coach, Heather assists others with their writing and facilitates a process for overcoming obstacles and fulfilling their unique visions. She is currently an event organizer for the 48th annual Jean Gebser Society conference. She has also faciltiated an online forum for a reading group linked to the Integral Postmetaphysical Spirituality Facebook page.
Geoff Fitch www.pacificintegral.com	Geoff Fitch is a coach, trainer, and facilitator of growth in individuals and organizations, and a creator of transformative learning programs. He is a founder of Pacific Integral, where was instrumental in the development of the Generating Transformative Change program, which has been delivered on three continents and in its 29th cohort. Through these programs, he has researched and developed novel approaches to individual and collective growth, and has designed and

	facilitated dozens of residential learning retreats. He has been exploring diverse approaches to cultivating higher human potentials for over 25 years, including somatic and transpersonal psychology, mindfulness, innovation and creativity, leadership, integral theory, and collective intelligence. Geoff also has over 30 years experience in leadership in business. He holds a master's degree in Transpersonal Psychology from the Institute of Transpersonal Psychology and B.S. in Computer Science, magna cum laude, from Boston University, and has additional studies jazz music, philosophy, and management.
Daniel Görtz metamoderna.org	Daniel is a writer and sociologist, working with the publishing platform Metamoderna (www.metamoderna.org). His daytime job is In-House Philosopher at the Swedish IT company Glimworks and he is committed to developing the philosophy of metamodernism, especially in its political and economic forms.
Marco Morelli www.infiniteconversations.com Metapsychosis.com	Marco V Morelli is a founder and lead editor of Metapsychosis– a journal of consciousness, literature, and art– and co-creator of Cosmos Co-op and the Infinite Conversations forum (where he goes by @madrush). He lives in Colorado with his wife, two daughters, and dog, and is working on a poetry book titled I AM THE SINGULARITY.
Tom Murray www.tommurray.us www.perspegrity.com www.stagelens.com	"Co-editor of the Integral Review Special Issue on Integral Postmetapysical Spirituality. See my paper on" "Contemplative Dialogue Practices: An inquiry into deep interiority, shadow work, and insight" "http://integralleadershipreview.com/13382-819-contemplative-dialogue-practices-an-inquiry-into-deep-interiority-shadow-work-and-insight/"
Layman Pascal	Layman Pascal is a "white indian" whose family has lived for 5 generations among the remote islands of the Pacific Northwest. He also hates biographies & introductions so bear with him – this is difficult! What we have done already is so much less interesting that what we have not yet done, but I digress – He is (or has been) a meditation teacher, yoga instructor, public speaker, nondual theologian, lecturer on integral methatheory, shamanism advocate, author, artist, bad poet, co-chair of the Foundation for Integral Religion and Spirituality (FIRS), co-editor of the Integral Review Special Issue on Integral Postmetapysical Spirituality and strong contributor to IPMS forums, moderator of the Integral Life forum, and creator of such online oddities as: The Christmas Wiki, Pascal's Integral Batcave, the Integral Demonology Forum, the Integral Morality & Ethics Group, the Integral Gender Studies Forum and more. Currently he runs a Nepalese clothing store, cafe & sacred gift shop in Northern Ontario with his wonderful girlfriend while also practicing hypnotherapy and energy accupressure. Etc.
Bonnitta Roy medium.com/@bonnittaroy	Hosts collective insight practice at Alderlore Insight Center; catalyzes generative conversations around topics such as emerging culture, organizational change and complexity science. She leads a kick-ass

app-ai.com www.alderlore.org www.openparticipatory.org	masters program in Consciousness studies at The Graduate Institute, is founding associate of APP Associates International, and Associate Editor of Integral Review.
Daniel Thorson anchor.fm/emerge medium.com/@danielthorson	Daniel hosts an interview-based podcast called Emerge (www.emerge.is), and works for an emerging 'metamodern' American political party called OneNation (www.onenation.party). In 2019 Daniel will be working in residence at the Monastic Academy (www.monasticacademy.com).
Andrew Venezia medium.com/@andrewvenezia	Leader in the Integral community in the area of contemplative collective practices. Founder of a trans-symbolic orientation to practice called "We Dreaming." Co-Founder of Rainbolt, a consulting agency which weaves states of group flow and insight into organizational life.
Penelope Whitworth	Tenelope is an integral and transpersonal psychotherapist who has been practicing for 22 years. In addition to being a psychotherapist, she is also a neurofeedback practitioner and certified holistic/ functional health coach. She works with a wide variety of issues, from the more "normal" (trauma, eating disorders, addictions, depression, anxiety, relationship issues) to the more unusual (spiritual emergence/emergency and complex/ chronic illness). She has been facilitating online discussion groups (a couple dozen of them) in the areas of spirituality, holistic health, and Integral Theory, for the last 10 years, including The Integral Group on Facebook.

Section on Jordan Peterson's Treatment of Spirituality, Religion, Archetypes, and Metaphysics

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Introduction to the Peterson Section, by Tom Murray

Jordan Peterson, a recently prominent public intellectual, is known for his writings, recorded lectures, and social media commentaries on a wide variety of topics. He is most cited for his libertarian-leaning views on hot-button social and political issues related to political correctness and identity politics. Less discussed is his body of work on archetypes and the depth psychology of religion, which is mainly focused on Christianity. This is the area that we focus on in this special issue on *Integral Postmetaphysical Spirituality*, inviting contemplation and dialogue away from the steaming swamp-areas of Petersonian controversy, and into a, hopefully, more measured and nuanced and less ideologically cast territory.

It is in this territory that Peterson draws from an interesting mix of traditional narratives, while maintaining a modern scientific perspective, and in addition being acutely aware of the limitations of rational thought, reductive theorizing, and language itself, that post-modern scholars uncovered. His expertise in archetypal modes of cognition allows for a respectful treatment of, not only "*spiritual*," but centrally "religious" metaphysical themes, while still allowing for a *post-metaphysical* attitude.

A charismatic lecturer loved by his students but also known as an aggressive debater, Peterson's main public face before 2017 consisted of his little-known 1999 book *Maps of Meaning*, which synthesized his background in clinical and theoretical psychology, his study of Jungian archetypes and human meaning-making, and his studies of the conditions leading ordinary individuals to participate in atrocities such as state-sponsored genocide.

For the reader who has not heard of Peterson, there is not space here to summarize his scholarship, opinions, or recent notoriety, but an internet search will yield a bounty of positive and negative perspectives on him (and see the links below). We can summarize the context by saying that Jordan Peterson is both a *person* – a clinical psychologist and Professor of Psychology at Toronto University, and a *phenomena* – a personality that has gone viral on social media, stirring up controversy equally in every corner of the socio-political landscape. He has over a million social media followers, and possibly as many detractors, and has attracted a tsunami of attention from cultural commentators, pundits, and everyday social media trolls that is possibly unprecedented for a public intellectual.

SOME RIGHTS RESERVED

What is fascinating, more than his ascendency in the public eye, is how he manages to alternately delight and infuriate segments of both the *right and the left*. He has become a lightning rod for the fissures and ambiguities in the contemporary "culture wars," with his popularity shedding light on the contemporary reshuffling of social and political categories. He is also said to be among the most misjudged and misappropriated public figures, with some on the left casting him as alt-right, and some on the right casting him as a left-sympathizing radical.

We chose to invite commentaries on the Peterson in this special issue because, as we said, he is a currently prominent public intellectual who has interesting opinions on religion and spirituality from an arguably post-metaphysical position, but *also* largely because he has also been a controversial figure within the larger "integral diaspora." Though, over recent decades, various figures and topics have been the source of robust diversity of opinion among the integrally-informed, the Peterson phenomena seems to be unique in 2018 as a topic which split us between those who love him and hate him. Thus, the Peterson phenomenon serves as an interesting point of departure for clarifying our own views on key topics. Various alternative opinions on this topic can be found through a Google search of "Jordan Peterson integral developmental," and include podcasts and essays by David Fuller, Jeff Salzman, Jonathan Rowson, Hanzi Freinacht, Ken Wilber, Corey Devos, and David Long, and discussions on the IPS Facebook site. That being said, in this Issue we eschew the usual areas of controversy and public reaction here and focus on his work on religious archetypes.

This Special Issue of Integral Review contains three essays/commentaries on the Jordan Peterson phenomena as it related to postmetaphysical spirituality: by **Brendan LaChance, Andrew Venezia, and Layman Pascal**.

In keeping with the tone of the IPS forum, our goal for the section of this Issue on Jordan Peterson was include a dialogic element, in which each of the authors had an opportunity to comment on the essays of the others. Those comments are included.

Note also that the next (mid-2019) issue of Integral Review will include an essay by Jonathan Rowson titled "Twelve Perspectives on Jordan Peterson: An Antidote to Allergies and Infatuations" (which deals with topics other than archetypes and metaphysics).

For those interested in Peterson, information can be found at https://jordanbpeterson.com. Suggested video lecture and podcast interviews include:

- Debate between Peterson and Ronald de Sousa: "Can we Live Without the Sacred?" https://www.youtube.com/watch?v=2zCP9mW0GH4 (51 min)
- Sam Harris & Jordan Peterson in Vancouver 2018 (Bret Weinstein moderating): https://www.youtube.com/watch?v=h1oaSt60b0o (2 hr 6 min)
- Clip from Rubin Report "Jordan Peterson Discuss Sam Harris' View On Religion:" https://www.youtube.com/watch?v=jjYQ48t4C8U (14 min)
- Jordan Peterson vs Susan Blackmore "Do we need God to make sense of life?" https://www.youtube.com/watch?v=syP-OtdCIho (47 min)
- Peterson's "The Bible, Symbol and Identity, Part I": https://www.youtube.com/watch?v=HFt8mc1KG34 (1 hr 02 min)

Emptiness and the Metaphysics of Jordan Peterson, by Andrew Venezia

There are no things, nor are there processes.
Chögyal Namkhai Norbu Rinpoche

Before the excitement of the last years, a friend of mine sent me a video of a wiry, agitated, energetic Canadian psychology professor talking about how the dictates of survival shape our biological interfaces with our environment – how we physiologically and chemically construct perception and experience. Dr. Jordan Peterson would, of course, become an exemplar of our polarized political climate, someone few people had no opinion on. It was not at this point obvious that this was going to happen.

When I sat down to begin writing this paper, I had the notion that this polarization was a reaction – positive and negative – to a kind of inflexibility in Peterson's metaphysics, a valorization of the individual, though as you will see, my argument began to take a different shape. Peterson is in any case an interesting illustration of the tension between the stances we affirm and believe to be real, and that which we do and cannot recognize as being a stance, a position. I will illustrate this by looking at Peterson's metaphysics in the light of emptiness, and the possibilities of a post-metaphysical orientation.

Peterson's metaphysics

The following paragraphs represent my interpretation of Peterson from watching and listening to the entirety of his Maps of Meaning lectures, his series on the Bible, and other odd bits of media both about and published by him, critical, neutral, and positive. I am simplifying for brevity, but I do not intend to distort or comment on these metaphysics here. As I see them, the key starting points in Peterson's metaphysics of individual and society are: 1) one is born into society, and 2) life entails suffering. Humans are social, and are born inescapably into a culture and society. Life entails suffering – it is our existential condition – and so 1) no society is (or could be) perfect; 2) societies (at any scope) will tend to decay and become corrupt; and 3) each individual will be confronted with this suffering and the brokenness of their society.

Our condition – suffering – is inescapable. *Accepting* our condition, contending with it, is voluntary, and shapes the process of maturation. It lies with each individual to embrace the condition of our being and to make a meaningful life despite it. Meaning must always be snatched from the jaws of suffering – life can and *must* be redeemed. This is *voluntary*, meaning one can simply acquiesce to suffering and the social status quo, and it *comes at great potential risk.* This risk is due both to unavoidable conflict with existing power structures defending themselves, and because one's identity is always carved out of this suffering; to undertake the task is to invite psychological and social crucifixion. It also comes with vast potential reward. Those who are able to overcome the social order and their own selves to return to their 'rightful place' create the new social order – they earn power.

Having won power, one may by definition do with it as one pleases. A just 'king' uses his power – that is, molds the social order – in the service of his society's wellbeing. An unjust king uses power to defend his own position, and accrue greater wealth and power. Power itself is a-moral. One can assume power from within the more or less corrupt social structure. If one has earned it justly, however, power can also be used justly. No matter how just any one king is, the task of reckoning absolutely with life’s suffering is near impossible, and becomes harder and no longer worth the risk when one’s (and awareness of one’s subjects’) suffering is assuaged with the comforts of being in power. And so, even a just society will decay, become decadent and corrupt, and the cycle begins anew.

In short: it is the individual’s duty and responsibility to regenerate the just social order, and this regeneration is the process of individuation. That this is possible even though difficult makes this vision hopeful.

The Buddha, and emptiness

You might argue that the story of the Buddha fits or could be fit into this account quite seamlessly. The Buddha is born into an all-but-perfect environment, the son of a king who ensures that he is exposed to none of life’s sufferings early on. He accidentally encounters this suffering, inducing a crisis of Being, leading him to renounce his kingdom, take up the path of asceticism, and eventually renounce even this as ultimately useless. Soon after he attains liberation, upon which point he takes his rightful place as the ‘awakened one’ and regenerates society through his teaching.

This is the *mythical* story of the Buddha – *but it’s not what the Buddha actually accomplished*, and neither is Peterson’s account of becoming an individual what the Buddha taught. The Buddha accomplished and taught *emptiness*, which has an entirely different relationship to suffering (and metaphysics) than Peterson’s existential approach. For this paper, I’ll consider the doctrines of *emptiness*, *‘no self,’* and *interdependent arising* as interrelated enough to be exchangeable, and will be using *conceptual emptiness*, a kind of emptiness, as a metonymy for all three, though there are of course important nuances distinguishing them.

In short, conceptual emptiness means that no object has any essential substance – no thing is ‘real-as-such.’ No objects have any final, locatable, or essential reality, in and of themselves, but are rather products of the mental process of conceptualization. Objects means here both ‘abstract thought:’ notions such as ‘Justice’ or ‘Winnebago,’ and also objects in the sense of physical, material reality, like, ’this apple,' or ‘that Winnebago, parked there.' It further includes more complex interrelated objects such as ‘Capitalism' or 'The Russian Navy,’ and experiences, such as ‘this feeling of bliss/pain.’ There is no humanity without dirt and trees and sunlight; there is no thing that will or even can endure through time and space. Time and space themselves are conceptual activities, and so empty. This emptiness extends to and is really most crucially about what most people never consider to be a conceptual activity: their very own self, their identity.

This is not as total a negation as most people fear, nor as relativistic. You exist – as the irreducible entirety of reality, which is awake, and empty. Every ‘thing’ else (including this ‘irreducible entirety’) is like a character in a play, a self-aware photon on the screen of the magically displaying movie that is life. A figment of a dream, momentary and elusive. An illusion. Not ‘unreal,’ just ‘real as a dream is.’

Within Buddhism there exist mountains of discourse on this. There is no single definable emptiness or accounting for it. Nonetheless, there is a strong tradition of acting skillfully in the world from the realization of emptiness; in some lineages ‘evincing the realization of emptiness’ and ‘acting skillfully’ are identical. This is to say the apparent paradox in the bodhisattva vow – to liberate all sentient beings while recognizing that there are no sentient beings – is a limit of conceptualization, a result of the mind’s work. Emptiness is neither nihilism nor moral relativism.

Implicit and explicit metaphysics

One could view emptiness as a kind of metaphysical truth. And yet, emptiness is not a *positive* metaphysics, not best thought of as a metaphysical truth about some reality. It is *realization* about how our body-mind functions in generating and responding to conceptual reality – and liberation from this activity. It is a ‘negative’ metaphysic, the possibility of a post-metaphysics.

Metaphysics, as I’m using it, has both an explicit sense, in what we acknowledge to be so, and an implicit sense, that which forms the basis of one’s way of being, which must be the case for beliefs and actions to be coherent, but which are necessarily not avowed consciously. A way of acting and doing that one cannot yet name. Without a clearly grounded sense of emptiness, one will always be ‘porting’ unacknowledged metaphysics into one’s account of reality – or simply, what matters, what is important to do and pay attention to.

Becoming aware of some prior implicit metaphysic *liberates* possibilities of being, whether in a structural, historical way, or in a specific situation. We see how whatever it was that we were holding onto was constraining our possibilities for action, our very being and engagement with the world. We also – becoming aware of more and more implicit metaphysics – see that *any* articulation or position of metaphysical truth could never be final – in fact, must be *provisional, situational, creative, relational/communicative,* and *skillful,* at least in attempt (I will use *skillful* as a metonymy for this list for the rest of this paper to avoid repeating it ad nauseum.) This mode is inquiry, and itself provides a sort of direction. In inquiry, we are continually discovering that which we believe in order to assay its skillfulness, and this direction orients towards greater and greater emptiness and creative skillfulness.

Metaphysics are not *bad;* they constrain. Articulating a metaphysic allows us to engage it, or not. Making one’s metaphysics explicit reveals underlying attachments: metaphysical commitments to what is *conceptually* real, as performed in a kind of defense of something that is never real-as-such. The question then becomes, what *kind* of skillfulness is expressed through the metaphysic that one avows? What do one’s metaphysics allow for?

Meaning and the metaphysics of suffering

The contrast between Peterson’s and Buddhism’s orientations to an explicitly shared metaphysic, i.e. that ‘life is suffering,’ provides a useful exploration of this. For Peterson, since suffering is humanity’s existential condition, *suffering increases the more aware we become.* Moving from ignorance of our condition, say, at birth, to an awareness of it, as a mature ego, we become more and more aware of that which underlies our suffering: our individuality, and so our final separateness from Being, our finitude, our mortality. To remain in ignorance is, however, insufferable: we will suffer anyway, but without our increasing individuality, autonomy, and taking responsibility for suffering we have no chance of redeeming this suffering as anything meaningful. Meaningful suffering is preferable to meaningless suffering. In a crucial way this is opposite to the realization of emptiness and the teaching of the Buddha, where greater awareness – emptiness brought to more and more conceptual realities – results in the liberation from suffering. Since the liberation from suffering is possible in Buddhism, suffering as a metaphysic is revealed as being a *skillful* metaphysic, of a lesser order than emptiness, the negative metaphysic.

Peterson explicitly avows a kind of participatory metaphysics: the relationship between society and individual is not given; it is a kind of activity, a process. I think he would affirm that our individuality is a construction, biologically, psychologically, and culturally. He does not seem open to the radical notion that precisely because of this there are other possibilities for human individuality and society. Individuality is not a 'thing.' It is what I am calling a skillful metaphysic. Any articulation of what individuality is and means that doesn't recognize this is resting its account on an implicit reification. This is relevant because our metaphysics and our suffering mirror each other, each sprouting from implicit conceptual metaphysics. This is why emptiness is both the end of suffering, and the dissolution of reified concepts. How we hold and communicate our suffering and our story of reality will largely determine the possibilities of our individual and social liberation. All beings suffer; all humans suffer. This understanding can form the basis of compassion and compassionate action. In practice, our attachment to our own suffering, our own self-construction, and our own implicit metaphysics, creates barriers of resentment, disgust, and horror between our selves and between our communities.

Peterson's account of the process that creates individuality and thus re-creates society displays this kind of attachment, even if it's not quite as simple as a preference for the individual over society. The 'becoming aware' of our metaphysical assumptions provides a contrasting trajectory to Peterson's growth of individual awareness and richness of meaning. Emptiness does not provide meaning: it is meaning-less. Or, if you prefer, it allows for a kind of obvious and immanent meaning-full-ness, a meaning-full-ness that is not conditional, nor the result of the process of individuation.

Peterson in light of emptiness

There's one final wrinkle here: since any affirmed metaphysics must be provisional, it is always possible that Peterson's stance is deliberate – a purposeful, skillful articulation as a response to a particular cultural moment. He is, after all, an educator. As a Facebook friend once proposed: Peterson is a 5th order consciousness explaining 4th order to 3rd order college students, in Kegan's terms. Certainly he's evincing a kind of participatory approach to reality and development that is typical of 5th order consciousness, and one could assume that he'd understand that whatever he needed to communicate would have to be tailored developmentally to an audience. Is his entire persona a deliberate pedagogical choice?

For this to be the case, Peterson would have to 1) have a mature enough realization of emptiness to recognize the limits of any metaphysics, and 2) be deliberately holding that back to proffer a different view of enlightenment, which he has said is something like recognizing the individual's infinite capacity for evil. Tellingly, he describes enlightenment as a "state," which is precisely what it is not – it is closer to liberation from state-dependent identity. I do not think this is a deliberate choice. I could, of course, be wrong about that, and this is to a certain degree parsing tea leaves. Surely he is acting deliberately; it would be infantilizing simply to say he's not, but as a different commenter on Facebook said: "If Peterson had a taste of emptiness, he wouldn't shut up about it." That is, with all of the words on record from this figure, many of them directly related to the concepts we've been wandering through in this paper, it would be astonishing if he both had experienced emptiness, and was not more forward about it.

There are other reasons for thinking this might not be a choice on his part. Although Peterson speaks of taking responsibility for one's own suffering, his account is still porting a subtle othering of suffering. Suffering for Peterson is caused by the condition one is born into – it *is* that condition. One *may* accept this and create meaning despite this, but this act redeems suffering, it does not eliminate it. I am proposing rather that it is the very performance of this kind of conceptual individuality that generates suffering – not 'the human condition' as such, or one's awareness of it. Recognizing this performative nature of suffering comes along with the possibility of liberation provided by the view, practice, and realization of emptiness, though it need not be formalized in precisely this way. This is *not* to say that suffering isn't also a condition of human being, or that the emphasis for liberation rests solely with an individual's recognition of emptiness. Setting its universal nature as contradictorily opposed to its performative nature is itself the kind of implicit metaphysics that I'm pointing to. That opposition can only be conceptual, though it will certainly be acted out.

By *very subtly* othering suffering in this way, Peterson displays this kind of conceptual commitment. It is not a commitment as simple as 'individual good, society bad,' or 'chaos and death real, order and life fragile,' but *any* arrangement of these as being separate entities – not fully and completely constructed conceptually out of the other – no matter how complex, betrays an implicit metaphysics where the line between the terms is not empty.

Mental objects are not merely abstractions, they are enacted evolutionarily, culturally, socially (meaning, through the processes and systems of exchange, including in the Marxist sense of 'the means of production,') physically, physiologically, etc. – and none of these factors are 'finally real' – they are all in themselves conceptually empty. While Peterson makes an argument for recognizing that gender, say, is biologically as well as sociologically and culturally constructed, the fact that he makes biology overly determinative without articulating these categories' mutual emptiness is for me strong evidence for an implicitly naïve relationship to metaphysics where he is committed to some conceptual activity that he is not aware of.

A very different track to arrive at the same place would be to affirm Peterson's sense that divinity (or reality) shows up as individual striving ... *and as everything else*. Order is divine; chaos is divine. This gives a slightly different light to the above, since the myths Peterson is speaking and interpreting *are* the myths of the individual ego's appearance, of the Mental world's coming into being, in Jean Gebser's terminology. If these are his source material, it is not only that he is reading into them, which is inevitable, but that these very stories are artifacts that articulate and delineate the rise and coming into being of individual consciousness in the evolution of humanity – of this very particular orientation of human suffering and individuality that we call the ego. It is, I think, precisely this kind of attachment that Peterson is an avatar of. An accomplishment, to be sure. It is by no means the peak of human possibility – nor even the only conceivable mountain.

I will take the time here to return to a step-by-step account of this argument for clarity's sake. Peterson's account of what is real, what matters, his account of metaphysical truth, meaning and morality, begins with two givens: 1) every human is born into a society, and develops within it, and 2) life entails suffering. The process of individuation, of moral and intellectual growth, entails accepting this, and taking responsibility for one's suffering, and one's society, in redeeming one's suffering in the creation of meaning. Buddhism offers a different kind of 'negative metaphysics' in emptiness, which allows for the liberation from suffering, and reveals the final inadequacy of any metaphysics which are not what I am calling skillful: that is, *provisional, situational, creative, relational/communicative, and skillful.* While Peterson avows a kind of participatory metaphysics, where the relationship between 'individual' and 'society' is active, is an activity, the categories 'individual' and 'society' are themselves fixed and over-determine the possible shapes 'individuality' and 'society' can take in relationship, like jigsaw puzzle piece that must actively be put together, but which have only one possible fit. This implicit metaphysical foundation for his thought is an example of a particular kind of human suffering: that of being an ego. I think Peterson is right, actually – but his account is necessarily partial. I don't think he sees its partiality, and that contributes to the polarity associated with him. Those who reject him reject what is partial. Those for whom he has become a prophetic voice affirm what is partial as whole. So what?

Conclusion

I'd originally started writing that Peterson understood that society was empty, but did not understand that the individual was empty. I still think underlying the complexity of Peterson's account one would find some kind of commitment like this, but realized in the course of writing that this argument would make little sense without the prior argument that *any* (reified) arrangement of these objects (individual and society, here) – no matter how complex – betrays an implicit metaphysics where neither are empty, where the conceptual line between them is an implicit metaphysic. So explicitly, Peterson is avowing a kind of participatory metaphysics, but he's not articulating a post-metaphysics, in my opinion.

Why did I find this valuable to write about? Why spend the time on an obscure argument that doesn't even touch what is most polarizing about this figure? We must find a way of accounting for and communicating suffering that allows for individual and social redemption and liberation. Without emptiness, any such account will be porting in a dualizing metaphysics. Peterson provides a complex relationship between individual and society, but the fixation of these terms against or in relationship to each other as a metaphysic creates an inflexibility that constricts possibility. As such, he is also a kind of exemplar of this way of thinking and presenting metaphysics, between a non-reflexive, naive account, and a more fully post-metaphysical one, where this line of incoherence between what is avowed and what is enacted becomes important to parse.

We need something else, and something else is possible. There is a different possibility of human being, one that allows for a skillful fluidity of individuation and mass action, where it is perfectly obvious that there are neither individuals nor societies, and so both are possible articulations of liberation. It is possible to claim one's individuality, to take decisive and meaningful action in this life, without fueling that action by rejecting half of the world. We need an approach that allows for the differentiation of skilled action, that dualizes through action, without dualizing in concept – or demonizing what is very human. Peterson is not its avatar.

This does not mean that he’s not useful, helpful, or even skillful (though not in the Buddhist sense). His articulation of individuation is half the story. Yes, society is corrupt. That is inevitable – but whether you take responsibility for your own life and suffering is not inevitable. As Peterson notes, you have the choice to blame your suffering on something external to you, or to accept life’s suffering and create meaning from it. Many – men and women – have discovered within themselves a sense of agency and responsibility in their lives listening to Peterson’s account of the process of individuation, even as many have felt attacked by his arguments. Surely we can articulate a metaphysics that encourages individuals to assume their own powers in a single, socially emancipative gesture.

As if it was easy: Jordan Peterson and the Postmetaphysical Quest, by Brendan LaChance

Reporter in trench-coat: *Do you believe in God?*
Valley girl philosopher: *Like, as if!*

When asked whether he believes in God, Youtube sensation celebrity professor Jordan Peterson said, "I act *as if* God exists."

I suspect that those of us trying to calibrate our ears for the possibility of a so-called "integral postmetaphysical spirituality" perk up at such thoughtful expressions as this. We are cautious about unscrupulous claims made by dogmatists of any type. We don't like assumptions that are left unexamined. Is Peterson's little "act as if" (thinking that the *act* may be as important as the *as if* in his answer) his Boy Scout badge signaling that he belongs to our little postmetaphysical club?

Let's slow down and carve out some working definitions.

Did someone say Medicinal Physics?

To see whether this concept "postmetaphysics" has meaningful shoulders for carrying things, it is first necessary to solidly grasp what is meant by metaphysics. My old grandpa Google says that metaphysics is that branch of philosophy that deals with the first principles of things. Metaphysics are the founding assumptions which undergird a philosophical framework. But grandpa G also says that metaphysics is "abstract theory with no basis in reality".

That second definition sounds to me like the one which we aspiring postmetaphysicians are most concerned with. We don't like assumptions and unquestioned principles which we suspect are abstract in a way which seems out of sync with "reality" (in quotes because it may itself be one of these abstract assumptions).

That first definition is a harder bear to wrestle with. If we are looking for the possibility that we might go beyond or do away with metaphysics, does this mean we are in search of a philosophy with no first principles? A conceptual framework which makes no assumptions? Is such a thing even possible? How could a philosophy with no first principles and no assumptions have anything at all to say?

Another perspective wants to be heard. Metaphysics is philosophy that deals with the first principles of *things.* What is meant by this idea of things? Are we dealing with tangible, material objects? Not necessarily. "Things" is a colloquial term which here means *is-ness.* Metaphysics, and by extension postmetaphysics, is definable as *a theory of is-ness.* When such a theory of is-ness makes dogmatic assumptions about the nature of being, then we say, with just a hint of disdain, that such a view is metaphysical. When such a theory is self-critical towards its own assumptions, we honor it with that prefix: post. Thus, postmetaphysics is any attempt to understand is-ness in such a way that is robustly critical of its own assumptions.

Ah, now we step into the heat of the postmetaphysical jungle! (Or are heat and deep and jungle bad words in a postmetaphysical mouth?) I think there are many possible visions of what postmetaphysics could mean, and I think it is okay if we fracture off somewhat along different paths in this jungle. In the meantime, hop on this tiger with me, and we'll see if we can't hunt down Jordan Peterson in some quicksand or thicket.

Post-metal tickets?

Another definition of postmetaphysics is philosophy which is experimental towards first principles. Experimental in several senses. First, in the scientific sense. We should try to test our assumptions, examine them, and jettison once they appear unsound. But even when an assumption seems relatively stable in a rational sense, we should experiment with different assumptions to see whether they can't do more or better. Are we seeking one set of assumptions which provides coherent uniformity or are we after multiple competing sets of assumptions which allow a kind of irrational or trans-rational vitality via their very competition?

It is worthwhile to pause a moment and ask, who cares about such matters? The answer on the one hand is simple. We who *care for is-ness* are the ones who care about such things. While this answer may sound obvious, I think it is important to notice that we ask such questions because we care! This puts the matter in a different light. We want a robust postmetaphysical take on is-ness because we care about what is. Now, exactly what it means to care and whether the manner of our care is healthy, "complete", or "integral" is precisely the meat of this kind of discussion. When we encounter a thinker who seems to care, before we decide whether their manner of caring is up to our standards, we should keep in mind that no matter how foolish or dazzlingly brilliant what they say seems to us, *it is their caring attempt.* With this recognition, we are ready to look at Jordan Peterson.

Enter Mr. Peterson in his gentleman's attire

Jordan B. Peterson (let's hope that "B" stands for benign?) is a thinker who is very much concerned with the psychological development of important concepts like God, rationality, truthfulness, and justice. He wants a society that is capable of navigating the complicated balance between what he sees as a need for both order and chaos. Order is needed to provide stability, actionable consistency, and predictable coherence for human life. Chaos is needed to shake up order where it has become stale and tyrannical and to provide freedom, freshness of resources, etc. In his investigation of the history of Western civilization and psychology, he sees these elements, chaos and order, adjusting to and competing with one another. For him, the ideal situation for a society or an individual is a balanced arrangement between these factors. Is this what he means by God?

In his discussion with Sam Harris he says: "Part of the concept of God that underlies the Western ethos is the notion that whatever God is, is expressed in the truthful speech that rectifies pathological hierarchies, that isn't all it does, it also confronts the chaos of being itself and generates habitable order, that's the metaphysical proposition, and that's best conceptualized as at least one element of God; and so I would think about it as a transcendent reality that's only observable across the longest of time-frames."

Certain aspects of this response should jump out to a postmetaphysical ear. He is quite careful about making assertions about what God absolutely *is,* instead he describes aspects of what it means to him as a concept, he points out that much of his description is indeed metaphysical, and he says that is how he would *think* about it as opposed to asserting something he simply believes, not to mention the developmental perspective hinted at in the close.

We are confronted with someone who is at the very least quite cautious about making metaphysical claims in terms of belief. He is aware of the fact that the claims he is making are based on certain assumptions and he gives himself some wiggle-space in doing so. Is that wiggle space postmetaphysical?

Postmetaphysical Spirituality means doing the jitterbug around the idea of God?

On the one hand, metaphysical claims are most frequently criticized for being unreflectively assumed to be authoritatively true. Dogmatism hurts our ears because it takes its ideas as being unquestionable, as absolute. So on this point, Peterson does seem to meet some postmetaphysical requirement. That is, his founding assumptions are placed out in the open, available for critical examination.

Is postmetaphysics that simple? So long as we can state our first principles and say they are up for discussion, are we in the free and clear? Yes!

Unless that is not enough for you of course…

From another perspective, to call this postmetaphysical sort of seems like cheating. It sounds like it might just be a clever way to disarm skeptics.

Is Peterson just pulling a fast one on us when he answers, “I act as if there is a God”? Is he just saying this because he knows how sensitive we are to anything which carries a vague scent of metaphysics? He’s stuffing God in a Trojan Horse named As If? Maybe.

The unconscious lodging house of metaphysics

Before I examine those questions further, let’s really think about the fact that in answer to the question “Do you *believe* in God?,” Peterson refrains from saying anything in terms of belief. Rather he says that his *action* presupposed a God. On Twitter he says, “God is the mode of being you value the most as demonstrated or manifested in your presumption, perception and action.” He is calling something very important to our attention.

If we think about philosophy as a collection of conscious, verbal articulation of our views, then frankly, postmetaphysics should be easy! All we need to do is find those statements and positions which we think qualify as postmetaphysical and consistently state our adherence to them ad nauseum. What do you believe? Well, just ask yourself! I believe in God. I believe in no-God. I believe in rationality. Etc. But our verbal claims about what we think we believe are frequently quite out of sync with our action, and even when we are very careful about the way we make conscious assertions, our unconscious assumptions abound. Peterson reminds us that the assumptions which undergird our action and perception very often have little to do with what we say about our own positions.

In his discussions with Sam Harris, he frequently raises this point. In Peterson's opinion, the things that Harris claims to be of high value, things like truthfulness or the idea that we should seek to bring about the greatest possible good, are values which grew out of the Christian tradition. Thus, if Harris really acts according to those values, it is *implied* that he believes in many aspects of God. Obviously, he is quite careful about the way that he phrases this, but he raises an interesting point. Assuming we are sincere in our desire for postmetaphysics, are we not also unconsciously presuming the value of metaphysics? Especially if we return to that first definition of metaphysics, it may be the case that to say anything at all is already metaphysical in that it must make a first assumption. More on that later.

The fox

Clever Peterson! Setting all these traps to make us think we're still chained to the old traditions! Sam Harris expresses this concern in using a phrase coined by Eric Weinstein. He says that Peterson, intentionally or otherwise, sometimes engages in something called "Jesus smuggling". This is the idea that Peterson is putting on a rational-seeming front to his argument in order to smuggle Jesus into the discussion. Whereas Peterson would argue that he is trying to examine the roots of our psychological concepts in order that we may get a strong understanding of their developmental trajectory and allow them to continue to grow and evolve, Harris would counter that Peterson is simply trying to make outdated, dangerous, archaic concepts palatable to the contemporary mind. He's just trying to dress Jesus up in a laboratory coat and goggles so that the atheistic scientific community can be brought back into the claws of traditional religion.

First of all, Jesus smuggling is a delightful phrase. I think we should tinker with it for use within the Integral Postmetaphysical Spirituality discourse space. Terms along the lines of "nihilism smuggling", "capitalist smuggling", "tribal smuggling", or "relativist smuggling" might prove useful in interesting ways.

I am not in a position, nor am I particularly concerned to decide whether Peterson is after all just doing "a lil bitta Jeebus smugglin'!" Insofar as postmetaphysics does involve experimentally trying out and investigating archaic assumptions and insofar as integral requires exploring development as it pertains to previous phases, there is a constant danger of what I call "accidental atavism". That is, when we try to keep an open-mind while investigating and trying out older modes of thought, there is the risk that an unconscious part of ourselves will wake up and get addicted to that coffee. That is, I went back to study the Bible in order to learn what it had to teach me about the evolution of the notion of truth, and I ended up scrawling a list of inviolable commandments on an old piece of cardboard I found! I state this risk somewhat jokingly because it seems to me that people interested in this project called postmetaphysics are not highly fragile in terms of accidentally becoming dogmatic Christians again. Nevertheless, I think accidental atavism is real, and colors certain aspects of our emotional system, if not our thought itself, when we come into contact with powerful ancient ideas which take us by surprise. Reminding ourselves that we're involved in such questions because we care about is-ness suggests that atavism is essentially *caring in an outdated fashion.* Thinking in this way helps explain why we are all so susceptible to flairs of regression. When I slip back and view the world in dogmatic terms, I still care! We instinctively care and like to feel that we are caring, and this is what can be deceptively tempting when you dive back into archaic mythologies. It is tempting because it seems obvious that these ancestors very much cared, but we can thereby lose sight of the fact that their manner of caring may nevertheless be quite maladapted to our current state of being.

The hook

Back to the matter at hand. Should we let Peterson off the hook? Many aspects of his theory seem to share concerns with a project that wants to be integral. That is, he is highlighting the development of psychology as an important field of investigation. He's implying a nobility back into archaic and traditional narratives which is in line with Wilberian critiques of modern and postmodern "flatland". Not only that, but he is quite careful in laying out his metaphysical assumptions and builds wiggle room into them using "as if". Before answering whether to interpret views such as his as allowable in a postmetaphysical sense, we should ask whether a postmetaphysical effort is even able to make use of hooks! We assume that it is best to have few or no assumptions, but from whence do we derive this right to assume? The assumption that metaphysics is wrong for making assumptions is perhaps just metaphysics all over again.

Perhaps you are already reminding me that "post"metaphysics does not mean *no* metaphysics. But in that case what does it mean? I think it means we are on guard against any version of metaphysics which disallows competing versions of metaphysics on dogmatic grounds. Any version of metaphysics which does not leave itself open for discussion is in bad taste. The other characteristic of metaphysics which I think we try to move beyond is the sense that we are in need of a system of ideas which is constantly consistent unto itself across time. Postmetaphysics should experiment with the possibility that certain forms of inconsistency are more potent than rigid uniformity. We don't shut our eyes when we see something new just because we don't have a system for it yet. Postmetaphysics implies an attitude towards metaphysics which is adaptable, flexible, and persuadable. We can be talked out of it, and we don't expect that it will be easily viable at every moment of our lives. Where other metaphysical systems struggle to subdue and similarize the enigmatic, we are patient and allow it its distance. We do these things because, on the one hand, we know we care, but on the other hand, we're not sure we know *how* to care. To experiment here means to try to care in different ways. We avoid the dogmatic assertion that our attempt at caring is the only way to care and that all other thinkers are essentially heartless.

That a shadow may fall

Peterson's apparatus may be postmetaphysical-lite, but I don't think that a more postmetaphysical view feels him to be in our strong opposition. I also think that due to the experimental quality of theorizing is-ness, we should consider the possibility that the best conditions for growing postmetaphysical spiritual concepts is when a great diversity of metaphysical systems are encouraged to compete alongside one another. We want paganism because it gives a surface upon which the shadow of Christianity can fall. A strong atheist metaphysical assertion may amplify our understanding of Hinduism.

Here, it is interesting to note that a hybrid community has been born in response to Peterson's lectures. Apparently there are now many people who are describing themselves as Christian Atheists. That is, they are interested in studying Christian teaching and history and perhaps even sharing many of its values and yet they maintain a conscious disavowal of the belief in God. There is something potentially postmetaphysical about an outlook such as theirs.

One more thing to care about

While I don't want to decide whether Peterson counts as either integral or postmetaphysical, there is at least one more important phenomenon associated with him and his rise to public attention which I think is important for us aspiring postmetaphysical integral thinkers to wrestle with.

Peterson has been teaching and publishing videos online since at least 2013, but his popularity didn't balloon until the sparks of controversy a-lit. He did not shy away from stating his positions in bold terms and was willing to get into antagonistic disputes with protesters and television commentators. Furthermore, he frequently participates in lively debates with atheists like Sam Harris and others. Part of what he revives in his discussions of the Old Testament is contact with a fierce, antagonistic image of Jehovah. I might also add that he often describes his relationship with his own ideas in antagonistic terms. He tries to dissect his assumptions, look at them from all sides, and attack them until, to him, they prove too strong to be abandoned.

This idea of an integral postmetaphysical spirituality appears to have largely grown out of a group of people who were initially interested in the Wilberian integeral model, even as many of them have of course moved away from taking Wilber to be the heart of the movement (is it a movement?). Integral thinkers tend to remain in warm relation with values like inclusion and spiritual development. But if we are sincere in our desire for philosophies which are more postmetaphysical, I think it is important that we stop and ask whether we are wishing and hoping that a postmetaphysical image of "God" will be gentle, tolerant, peaceful, and inclusive. None of these values are inherently inconsistent with a postmetaphysical framework, in my opinion. However, if we are dependent on these values in a metaphysical way, are we perhaps blinding ourselves to the possibility that an integral postmetaphysical spirituality might also generate concepts of God or gods which are violent, tempermental, inconsistent, and antagonistic? If qualities such as these are forbidden from our consideration, it is likely we've slipped back into some dogmatic habits. There is something energetic about combativeness, tension, and aggression which may have their place within the vanguard of inclusion. In other words, care is not only gentle, nice, and kind. Does postmetaphysical care imply a certain metal quality of care? Alice Cooper given a sacred heart transplant?

Heed the struggle

Development of any kind seems to presuppose some version of struggle. Should we expect integral postmetaphysical theories to be an exception to this? What are the metaphysics of assuming struggle as a first concept? With a view like this you can certainly interpret Jordan Peterson in an interesting way.

I’m raising this point because I think it can be quite difficult to discern when something passes the integral or postmetaphysical test. Are we making these sorts of judgments based off of blazingly clear conceptual categories? Are our emotional discernments up to date with our cognitive strategies? Are we assuming a God which is nice, bright, and shiny and does this assumption make us blind to the possibility that a postmetaphysical God is sometimes dark or dreadful?

I know you care, but may you ask ten-thousand times: what is this care?

As if it was easy…

The Religion of Jordan Peterson, by Layman Pascal

I have plenty in common with Jordan Peterson. Not just the trivial details that we are both Canadian thinkers fond of St. Nietzsche and critical of political correctness – we also both have a problem with Christianity.

The kernel of our shared conundrum is that we read our own depth into the holy texts. The moral dream narratives of our ancestors appear before us with the intensity of personal insight. Thus, when we argue for God & myth, we are working from our own complex metaphorical understanding of human development and *not* from the average reader’s relationship to literalist orthodoxy.

Actually it takes me a long, slow and clumsy effort to understand the complaints of people who were (for example) “raised Catholic” since they are sensing something vastly different from my own personal default assumptions about the rich potential of *catholicity* and the nourishing power of the vision-logic structures that are revealed from the text into my own heart. It’s tough. In the physical sciences, we retroactively apply new levels of insight across the whole past of the universe. We newly discover atoms and then consider them to have existed even for people who had no notion of atoms. It is less clear what to do about psychological and philosophical discoveries. When I uncover an archetype in the Bible, I don’t know if I have found a formerly hidden truth that was implicit in even the most dogmatic and primitive reading or whether I have encountered a new truth co-created by myself – true ONLY for people who likewise have grown into the same depth of perception?

I am undecided about whether the higher universal “sub-structure” of wisdom is implicit in the ancient traditions or whether it is a flower that blossoms only individually. Nonetheless, I do agree that there IS such a matrix which utilizes archetype to empower humans relative to a complex cosmos that cannot be comprehended with naive and linear models. Religion evolves when a group of people can artfully combine their cultural successes with this universal matrix of encoded limitations. Successful cultural coherence goes hand in hand with some kind of “dharma set” (i.e. insights and practices) that can be more or less presented in any given geography, era or language. While I agree with Jordan on this point, I have serious doubts about the role of books and orthodoxy...

Your granny’s burger recipe is a great and endearing strategy for making “good” burgers in a stable fashion. However we can only get better and healthier burgers by experimenting. We need to take risks and be intelligently indifferent to the tradition – if we hope to educate our instincts and learn to make better spontaneous guesses than our ancestors made. Or even to make new guesses that confront our current environment with the same degree of intelligence exhibited by our ancestors. Our job is to do what they did again and not just to appreciate that they brought forth wisdom in their time and place.

Tradition is not merely a repository of heuristics for surviving in a nonlinear universe but it is equally a limitation on our ability to thrive in the unfolding nonlinear universe. Inherited instincts and complex “wisdom suggestions” found in old texts may be able to energize us to deal with situations that we share with cavemen and lobsters but they also may be inadequate to changing situations, modern situations and to re-generating the kind of wisdom that is coded in these texts. My opinion is that we need *shamanic skills* much more than we need to heed the recorded stories of ancient shamans.

Likewise, the whole idea of "book" is a double-edged sword. For most of the history of Christianity the people of Christendom could not read. Texts are of minimal relevance to religious traditions. Yes, of course, a book can concentrate many of the sayings and images of ancient colloquial wisdom but, at the same time, it inevitably edits out the richest ambiguities, leaves aside many of the sayings and uses bureaucratic validation to enforce one set of holy insights at the expense of the rest of the living dharma. Overarching narratives can even kill the trans-rational nutrient that is contained in holy exemplars and mythic symbolism. Holy books tend to empower nominal priests at the expense of the actual cultural shamans and, in the process, turn religion into a legalistic business of "belief statements" rather than an organic, multidimensional success strategy for activating the unknowable wisdom beyond the conscious mind.

Holy books are classics. And classics have a resonance that suggests a pragmatic and evolutionarily tested utility beyond what can be codified in the left hemisphere of the brain. However it seems to me that Peterson over-emphasizes them at the expense of all other cultural classics. Not only do I think that Batman and "haste makes waste" are as a good as the Vedas or the New Testament, I also more radically suspect that *new classics* are more nourishing than old classics – which are merely the codified remains of former new classics. Fresh food is more enlivening than dried meat and old wheat. The metaphors that have survived in the traditional holy books were not perpetuated by popular embrace and heuristic utility by rather by a biased, anti-evolutionary mechanism of cognitive ease, legislative exploitation and institutional prejudice. Orthodox religious texts are, for me, NOT a privileged class of access routes to the absolutely necessary unconscious wisdom of the species that must be personally assimilated by our own efforts in our own worldspace.

Contributor Comments/Dialogue on Jordan Peterson Essays

Comments on AV

Comments on AV by BL

I wish that we could sit in the back of a Winnebago and discuss your article in depth. I used to call them Bago-Eggo's as a child. Since I'm a little time pressed to respond to what you've shared with us, forgive me if I fly past the best of what you have offered.

Besides your referencing of Winnebago's, my favorite point in what you wrote was to think that suffering generates a metaphysics. I also particularly liked the phrase, "Metaphysics is not bad; it's constraining." It is enjoyable the way that sentence relieves metaphysics and constraint in one breath.

If we were sitting in the back of that Bago-Eggo, I'd probably hurl question after question about what you mean by emptiness! I know you've defined it in your article and I'm even more confident that you hold a definition in your heart, but that is one of those words that I seem to fall into like a hole and forget where I was over and over again. I'm not sure whether to think "Andrew's argument is obviously valid" or "Andrew is wrong, Jordan Peterson definitely understands more about emptiness than that! He's taken DMT for God's sakes!"

One thing I do know is that I like voices like Andrew's. Your writing is sober and critical in a very good sense of each word. One thing that bothered me watching some of the Peterson debates on Youtube is that they decided to skip over the question and answer segment. The audience is intelligent, let us hear from them as well! What if they'd let someone like Andrew ask a question about society or emptiness? This does actually make me a little more suspicious of Peterson in his banker's pinstripe suit. One of the dangers of emphasizing the individual at the expense of discussing society is that this often means the "moneyed" individual. But is money and individual? Now I'm digressing and drifting too far from the topic at hand. Perhaps we can discuss such things further in the online Winnebago as it moves on down the road.

Comments on AV by LP

“Suffering appears with self-consciousness and the solution to suffering is not less consciousness but more...” – Jordan Peterson (discussing the Biblical Genesis).

Andrew’s angle, I think, is a very good way to probe Peterson’s metaphysics. The comparison to a conventional Buddhist *negative metaphysics* reveals similarities and differences. Up to a certain ambiguous point there seems to be great deal of similarity between the two visions which point out the suffering nature of existence, the need for skillful, adaptive and even spiritual action in the world. What are the differences?

We might think of Peterson as being more of a God-and-Souls philosopher in contrast to the atheistic an-atman of the East. However (as my own years in a Buddhist sangha revealed) that distinction is murky. It is not exactly clear that Buddhism has no God or individual Souls. Rather it has some kind of superlative nexus of dharmic principles embodied in a human-divine realizer whose teachings are for evolving individuals. Yet it merely stipulates that these things are inherently interdependent, relative & non-binding to the liberated consciousness. The soul is no more true or essential than the body.

There has been a good deal of IPS interest in OOO and other doctrines which might suggest a return of the "thing-in-itself" to the good conscience of philosophers. Does Peterson entrust himself via action to the presumption of a soul despite his fairly clear statements about the ways that personality is embedded in body, brain and society through a phantasmal or always partial lenses of motivated interpretation which precedes the cognitive perception of "what things are"? This is an open question. As is the question of how far this might be from a classical Emptiness doctrine.

Both Buddhism and Peterson have a sense of a matrix-cosmos permeated by suffering. All is dhukka. That is a big claim. The legendary Siddhartha made such a claim based on insight and introspection while Peterson seems to base it on the state of the art in neuropsychology – that motivation precedes knowledge and the valence of fear and frustration is the primal encounter with the misperceived and partial world. We do not learn negativity as a result of experiences which deviate from the normal but rather our brains actively work to convert stressful reality into a normalized insignificance against which we carry out our limited karmic struggle to avoid pain and reach heaven.

Peterson makes an existential bid to accept this *dhukka* (frustration, suffering, the grinding of the axle in the wheel) as primary and seek the skillful conditions of action which allow brains – and perhaps souls – to reorient themselves toward the unlimited potential of meaningfulness. Buddhism, on the other hand, makes the classical mystical assertion that there is a pre-suffering substrate of Being that can be reached by accessing part of ourselves that exists prior to individuated intentional experience. If this is a true interpretation then it bypasses or seeks to bypass the level to which Peterson usually addresses himself. The great mystic hope is that we are trapped in an unnecessary degree of individuation or self-contraction that forces identification with the motivated structure that must encounter the cosmos as suffering. As Andrew notes this is NOT the claim that Peterson is generally making.

With a certain generosity of spirit we can take either set of metaphysics as postmetaphysical and integral-friendly while noticing their uncanny similarities and their one big difference.

I think from the IPS POV (sic) the most relevant metaphysical issue lies in the comprehension of essences. The emptiness doctrine asserts that all things are inherently free of self-essence, inherently interdependent, temporalized, relational, contextually dependent for their identity. Peterson definitely treats things as contextual and interdependent in their meanings but he lays the stress not upon the objective absence of essences (and he may well believe in a withdrawn metaphysics of essences, souls, beings) but upon the subjective indirectness of knowledge. In his work, the cognition of motivated know-how precedes the relatively new and relatively superficial cognition of identities. Identities are unlocked because they are secondary to behavior in an opaque universe. Conversely the sects which originated the emptiness doctrine appear to have leveraged their beliefs in accurate human knowledge toward a place at which the objective world is described as free of identifying essences. Again, either one might provide or imply a postmetaphysical realm for spiritual practice.

The metaphysics of Peterson and Buddhism are very close in certain respects. Yet a very subtle difference remains. Whereas Peterson has said, “there is no limit to the possibilities of consciousness and truth,” a Buddhist might say – *the truth of consciousness is limitlessness*.

A dynamic nondualist would assert that the latter unconditionality is implicit in the former conditional injunction but Peterson does not bear many of the marks we might assume follow from more complete realizations in postmetaphysical space...

Response/Rejoinder by AV

Brendan: Thank you!

I’ll respond quickly to two things. I won’t restate how I’m using Emptiness in the above, but I would like to take the opportunity to distinguish between two ‘kinds,’ or uses of it, which I think may help supplement the above. Reams and reams of virtual paper can and are spent on all of this, so it probably couldn’t hurt.

So, in my article I’m using ‘conceptual emptiness’ as a kind of stand in for emptiness, which I think is a more encompassing… reality? Negative metaphysic? Let’s call what’s left over from the more encompassing emptiness when we distinguish conceptual emptiness ‘substantial emptiness.’ Emptiness, as a recognition, can come all at once, but I think conceptual emptiness is enfolded in substantial emptiness. (Though as I write this I am mulling it out, so the following is quite provisional.)

Conceptual emptiness is primarily about the virtual nature of the mind. That in our daily, and momentary, apprehension of what is happening around us, we are organized around a kind of imagined, conceptual reality that is largely transparent to us, baked into our being-in-the-world. When I see someone post an insult to the New York Mets on Instagram, the I that is offended is a kind of fiction, an activity that is latent but nevertheless efficacious (it affects and mediates my response to the world.) The vast majority of us are focused entirely on this virtual reality – when we look at a tree or focus on our breath in meditation, at least for a while in learning how to meditate, we aren’t with our perception of the tree or feeling our breath, we’re interacting with a kind of concept of tree, of breath. It’s not entirely imaginal, like a dream, it’s more like a heads-up-display. It is hard to separate this activity from anything else, and even harder to do so in verbal communication, since to do so we are still necessarily using concepts through language. Additionally, there’s no hard line between what is physiological and what is psychological. Nevertheless, there is an additional aspect to the fuller experience of emptiness which is more about how our perceptions are contingent, emergent, and non-dual, and that no object has any endurance through time and space – everything is a momentary and fleeting, flickering manifestation of empty awareness.

That’s how I try to communicate or conceptualize it, at least.

I… have no Winnebago ☹ I look forward to future conversations, wherever housed ☺ I also love the point that “Individual” almost inevitably means a Western individual of means, but as you gesture that’s a conversation that would take way too much time and space to be done justice here.

Layman: Reading your bit was like reading Cliff’s Notes for my article – I feel like you’ve condensed what I was attempting to say and gotten it across in a much more concentrated manner.

And I appreciate the bit about the distinction between the God-and-Souls philosopher and the an-atman, and that an IP-MS has room for both. I think this is actually the most important underlying point, I’m sort of building a justification for that philosophically later argument. If we take emptiness seriously, (or have a well grounded and mature living-out of emptiness) I think it’s pretty clear that both are necessary living orientations for a full approach to an Integral spirituality. My argument is essentially that they are, in fact, reflections of each other.

Comments on BL

Comments on BL by AV

I find it really interesting that our essays both circle around the question of ‘is Peterson’s approach a post-metaphysical one?’ essentially using Peterson as a way of qualifying just what it is that we mean by ‘post-metaphysical’ in the first place, trying to suss out the nuances of what a post-metaphysical approach is and looks like, and providing our own readings of his work and the core aspects (or a core aspect) of what a post-metaphysical approach may be. We both come to a similar conclusion as well, something like ‘Peterson evinces certain aspects of a post-metaphysical approach, while falling short in a few ways.’

I also appreciate that we both explicitly address the question of ‘why,’ or ‘who cares?’ (As I say it, ‘so what?’) Why do we care about that? It’s an open question – i.e., I’m not taking either your response to that or my own as being definitive in any sense.

We ask such questions because we care, and our actions display what it is that we care about. Our words, as a special kind of action, also display our care. Then, which I find fascinating, and which is the territory we’re both in some sense swimming in: parsing out the never 1:1, never metaphysical, relationship of words and actions – this illuminates an even deeper sort of care, a care that might be animating both our actions and words.

We all care about something. So I take your inquiry as something like, “What does a post-metaphysical kind of care look like, and why would we value and qualify care in such a way?” Without being too obtuse, perhaps this is not so different from asking why we care about care in the first place?

This is one of those questions that seems like an absurd abstraction, the least important of our daily concerns, a silly language game, etc. etc. We value care because that’s what valuing is. I suspect something deeper at work, and perhaps something which sheds light on the value of a post-metaphysical approach, that sheds light on what is different in a metaphysical approach to care

(‘care is care,’) and an approach which doesn’t presume the value of care, and so is able to assert this value more robustly.

If we do that, what does a post-metaphysical care look like? A care greater than contradiction? One that includes a naïve notion of care, simple and absolutely necessary, and that might include notions of its opposite – that might not be definable through our enactions of ‘caring?’

We are close to the kind of a-perspectival madness I think Peterson is reacting to. No! I can hear a voice saying. You can’t twist this all out of proportion. Care is care. The (ugly) history of our species is littered with these kinds of lies, of horrible actions taken ‘for the benefit’ of the victim of some cruelty, for the salvation of the soul of the savage! With [‘this hurts me more than it hurts you, boy’]s.

Can we really include all of these notions of care? Can care be brutal?

Might there be room for dogmatism in our notions of post-metaphysical care? For what comes unexamined?

I think – my assumption is – that we sense in this thinker a more nuanced way of approaching these questions that we feel as urgent than we tend to see in the world. Someone acting as if a God might allow for a care which is both simple and obvious and must form the basis of our caring, and who might allow for cruelty not as a contradiction of care, but inextricably wrapped up in it – and that there’s not only nothing wrong or unfortunate about this – but that this provides a basis for a meaningful life.

What do you care about?

For what God are you acting as if that God exists?

Comments on BL by LP

If (postmetaphysical) metaphysics are the implications of actions then Peterson is in that camp. If reality itself is *implication* then “beliefs” are an insufficient explanatory principle for action. From a postmetaphysical angle – and in the proper mood – we criticize someone for saying that God is Real. But the kernel of disquiet is not that isness is inapplicable. Isness denotes a certain unconfined intensity & precision that is necessary to make both consciousness and logic operate properly. That’s fine. The problem with the person who claims God is real is not the “is” but the claiming. Or, more indirectly, the tendency to assume that a belief claim is indicated by the content of the verbal statement. If we shift to the action, then we immediately discover that we have no knowledge about the person’s beliefs about God but clear knowledge that they believe in *saying* that God is Real. They believe in saying that just as they believe the Earth will support them when they take a step. Their metaphysical architecture is revealed as the implication of their actions and only secondarily, often delusively, indicated by their belief claims. And the funny thing about metaphysical architecture is that it includes “is” and “isn’t” and “real” and “substance” and “thing” and “number,” etc – the most basic requirements for any perception, cognition or universe. At some vanishing point we find that the most solid and reliable aspects of reality are precisely ...

implications. And if our new path is the Universal Illuminated Church of Dynamic Implication then Peterson is... a local priest? A bishop? Someone who expresses our theology within a particular set of concerns. Is this what St. Brendan is saying...?

Response/Rejoinder by BL

First of all, I'd like to say that I found this exercise in reviewing Peterson stimulating and fun. If more such focused inquiries are in store in the future, they have my support.

I hope that my essay means some of what Layman is saying! His words push a point in a way I hadn't exactly considered, however. I've been around enough integral ideas to be cautious about accepting someone's statements as an accurate way of getting what they're about. I took Peterson's cautious addition of "as if" to his statement about a belief in God as a kind of healthy sign. But as I could have warmly predicted Layman pushes at this point. He reminds that the issue is statements vs. action in general and cautious statements are nonetheless still statements. A good boost in favor of paying attention to action.

Andrew's response to me kicks in here in an interesting way. He opens up a line of pondering about the meaning of care. Curiously, before writing the Peterson essay, Layman had just recommended Heidegger to me and I've been engaging some of his work. He makes strong arguments for care or concern being at the heart of, well, being.

Care is something that I think can be a useful litmus test for whether I'm considering an action or a statement. Words about care can sometimes be sort of empty, something which touches on arguments Andrew made in his article. But an act of care, whether it is something someone does towards themselves or towards others is, as Peterson might say, pretty bloody well obvious.

So, what do Peterson's acts say about his cares and concerns? Well, he cares about engaging with large amounts of people. What is he doing? He's going around the world on lecture tours and calling into whatever hip podcasts will have him on. He does this dressed up in very keen suits on a diet, apparently, of only red meat! He keeps a serious face most times though his laughter is not infrequent and sounds "human" to my ears. But what are all these actions about? Does he care about fame? Does he care about helping people get their feet more firmly planted on the ground? Is he trying to sell books?

It looks like I need to think more about how to understand what it is an action says...

Comments on LP

Comments on PL by AV

Here's how I'm reading your essay, Layman – let me know if I'm missing something, reading too much in, or simply twisting you out of recognition:

Culture passes knowledge – whether knowledge of a more superficial kind, like burger recipes, or knowledge of the deeper structures of psychology and reality – by codifying it. In a sense, it's what culture is. Successful culture, culture that helps its people live and navigate life/reality and pass its knowledge along in a coherent way, is abstract-able, more or less (part of what it is to codify) and can re-emerge and be embodied in different cultures, languages, times, etc. ‘Classical’ texts represent only one element of that codification, and Peterson places too much of an emphasis on them, disregarding that texts may over-determine us towards two related kinds of conservativism: the over-valuation of ‘old knowledge’ not necessarily useful for today’s problems, and the reverence of a privileged (literate) authority. He sees The Bible as a more valid vehicle of cultural knowledge because it is ‘tried-and-true,’ across time and culture, and as such essentially represents the pith of what is most valuable to know in our (Western) culture – it is very knowledge-dense. Peterson sees these as our/Being’s otherwise incommunicable depths communicating to our more-than-rational depth of interiority. Classical texts are useful, you’re saying, but they are useful only because we will be reading into them, not because they necessarily represent some higher or stored notion of useful cultural knowledge – at least, not any more than a cliché or folk aphorism, and not anymore than more modern and current classics – such as Batman. We (each) need to live out our cultural knowledge in the time and environment that we uniquely find ourselves in, and there’s no shortcut to that.

I’ll say what I’d like based on this understanding, though I may not be hearing you, of course.

The first thing about this is… I think Peterson agrees with you. I’m not sure he’d agree with your equation of the Vedas and ‘haste makes waste,’ and I do think he places a singular and unique value on the Bible, but for one of your main points that a tradition must make itself anew each generation – that’s central in his account of individuation. I also think he is pretty explicit about his being an interpretation of the Bible, though (I think this goes without saying!) he’ll argue vociferously for his interpretation.

In his account, we are all Horus, exiled, we are all Joseph, and to come into our heritage we must bring our lives to bear on our entirely unique situation. One of the core aspects of his talks is the necessity of this living-out of the human heritage. The injunctions contained within may well be limiting in the sense you’re using it, as something that keeps us from responding (perhaps even seeing) the nature of our challenges, or they may be limiting in the nature of any injunction, as a way of organizing one’s living energies. But whether those are two different kinds of limitations can only be found out by accepting the task of bringing what is contained within self/tradition into the newness of one’s own life in this moment.

Certainly, as a scientist, Peterson has a commitment to an endeavor whose very method necessitates the ‘doing it for ourselves,’ the creation of new cultural knowledge which may and quite often does find the wealth of our accumulated knowledge to be plain wrong. Not only that, he speaks often about ‘new classics,’ such as the Disney version of Pinocchio, and has a fondness for using other ‘new’ classics of the 19th and 20th century to illustrate his points.

Perhaps, even while using ‘modern classics,’ he is still using them to illustrate principles that he finds inherent in the world – i.e. that he’s something of a neo-perennialist (what a wonderful phrase given the context of this response!) where our engagement is only necessary to climb a ladder that is already there – our ‘engagement’ with life is necessary, but only to move along a pre-determined track. I think you could make an argument that this is the case, at least implicitly, and to be sure I’m making something of a similar argument in my piece, that he’s ‘proto-participatory,’ without taking into account the full implications of what this kind of creative enaction of the world means for what Being is.

But surely there’s a counter-argument there as well. Yes, he may well over-emphasize how determinative the function of particular neurotransmitters in lobsters are for any and all species that appear later evolutionarily speaking, and just how limiting earlier evolutionary choices are for future generations, but I think he does recognize that these are choices in some real way, not inevitable moves along a destined track. There’s nothing inherent about serotonin; it’s a happy accident.

Even the choice to speak on the Judeo-Christian tradition I think belies an orientation that recognizes how radically emergent individuality is, how un-necessary. It would be fascinating to hear his take on the role of Jesus given the talks he’s already given on the Old Testament, but I think he’d be saying something to the effect that Jesus is the individual that is able to embody the whole of his tradition, which is what gives him the authority to so completely and radically re-write it – that’s what makes him the son of God. Would Peterson talk about the fulfillment of a divine plan? The inevitability of Jesus? I don’t think so. It might be a subtle difference, but I have a feeling that he’d find in the wholeness of the Bible a trajectory towards this kind of total reckoning with suffering and one’s heritage, that the Old Testament represents a record of the emergence of individual human consciousness out of the deeper mythic pre-history of humanity, and its reckoning with Being, something which makes a Jesus possible, but doesn’t make him inevitable.

To be sure, a lot of this is implicit and not taken directly from his speech. As Brendan says in his response to me, it would be wonderful to have someone with a rich Integral background interviewing/debating him to tease some of these things out, otherwise we’re simply parsing tea leaves. Without that conversation to ask some of these questions directly, we’ll never know. I think there is a chance at least Peterson is making an essentially Wilberian argument: that these ‘choices’ are ‘real,’ because they’ve worked, that their ‘working’ reveals something about the nature of Being as such, and that there are more and less fundamental aspects of Being revealed by less and more superficial habits. Kosmic habits, at this point well engrained. But really, at any scope, those habits may become as disabling as they’ve been enabling, since there are no final, metaphysically locatable truths.

And perhaps you’re saying this, and you’re simply saying he’s not emphasizing just how radical the possibility of newness, of emergence and creativity, really is. My parsing here (of both you and Peterson!) may simply be reading way too much into everything. Bizarrely – I literally just remembered this writing that previous sentence – I had a dream three nights ago where I got this ‘corrective nugget’ from you, arriving almost as a subtle-energy bullet, with the clear message ‘you are reading too much into this.’ A little bit of communicative gnosis, where and however it arrived. Clearly I have ignored it to this point.

And now that I find myself coming to my final point – what has interested me the most in this and what the above was a prelude to, I realize I may have misread something crucial. You’re saying that we can only get healthier, tastier burgers through experimentation. I took that to mean that the inevitable outcome of experimentation is healthier, tastier burgers, rather than that the only way to get healthier, tastier burgers is through experimentation.

So that's going to change quite a bit the conclusion here, which is about the relationship between passing cultural knowledge on and the 'matrix' or structure of Being that allows for such passing to happen – really, these two clauses are terms in the same equation, though as it's not really the idea here I'll choose to skip over that. Where I am uncertain of Peterson's view, and see it as possibly subtly metaphysical, is in whether or not Being has a discernable structure, one that is representable at all, whether through the logical and explicit nature of the 'left brain' mode, or through myth. I take your essay as saying essentially that Peterson makes the mistake, and that it is a mistake, of assuming/finding a structure: that the Bible has value because it represents a progressive accumulation of knowledge, which 'progressiveness' belies a reliable (metaphysical) structure to Being. But, you say, Being is not so simple. I had originally thought that you were making the same mistake as him, though it's why I couched much of my language above carefully, as that was surprising to me knowing you a bit. That is to say, if the only possible ultimate outcome of experimentation were healthier, tastier burgers, and this were not just a superficial truth but something itself reflective of how Being-in-culture works, then Being must itself have a reliable structure.

I still think, playing devil's advocate (certainly, Peterson isn't that bad…) that Peterson is in fact making a similar argument as you are: that the nature of Being is not metaphysical – it cannot adequately be coded as being either 'entirely random' or as 'ordered.' That the nature of Being is inclusive both of chaos and order, of creative novelty and endurance, and this is embodied in our lives. The linguistic, conceptual paradox of, 'Being has a structure, but we can't say that.' For sure, he is talking about the Bible, and for sure, for the vast majority of people today and in the past, The Bible is essentially about this structure, revealing truths, as it were. But Peterson is doing so mostly as a corrective to Progressive naïveté in our times ('it's not that simple, you bloody idiots…') – a place where the roots of 'progressive' in 'evolutionarily progressive' and 'politically progressive' elide nicely. Being is not ordered, you must order it! He is saying.

I actually think this is why Peterson finds so much value in the Bible: it communicates truths that are beyond simple dichotomies, that are more than single principles, that are neither metaphysically 'conservative' nor 'progressive.' That are, in a sense, post-metaphysical. Is this, as you begin, merely his own perception of his own depths and maturity? Or is he making a different mistake of finding a stability and order in the tradition that is metaphysical, that is scope-independent – that is not a reflection of how similar our lives are to those who lived 2, 3, 4 and 5 thousand years ago, but a reflection of something inherently so? The very possibility of an Integral reading (and enaction) of the Bible leads me to believe, no. If it stands up to such a (rigorous) reading, it contains one. My own belief is creative – chaordic, an essay, a halting sense, not dogmatic. But it's what I am saying. Our circumstances, our environment, are similar enough to the environment of all human beings, codified and shaped not only by the literate myths of the Bible, but the myths these emerged out of, that we are wise to heed the words of our ancestors passed down to us through the ages. But, we must always do so. We must engage with these words, must evaluate them, must live them out creatively, which will itself entail the possibility – the necessity – of overthrowing, re-casting, re-enlivening them.

Comments on PL by BL

As one of those too specific Catholics which you mention, your words give me a healthy pause. Having been raised within a purportedly Catholic household and community and being often unsatisfied with many aspects of that, I've usually rejected that tradition with hopes of finding more fertile human soil in other parts of the community. A difficult thing, however, of having Catholic images and stories carelessly sprinkled throughout your childhood without really understanding them is that as a person with bigger numbers in the age column, many of these stories seem to linger and hover like enchanting but confusing ghosts. There is a no man's land between a field of rejected symbolic content and a secular world which I lack the childhood for. Jordan Peterson sort of steps in here with the glimmering promise that all those symbolic husks strewn about my psyche like a Dali landscape could be rejuvenated if I could just work my way into their psychological core in that Peterson kind of way. Thank God for Layman Pascals with Romantic temptations like these!

Response/Rejoinder LP

It pleasures my depths to encounter Brendan and Andrew’s words – here as elsewhere. Like them, I turn my thoughts to the childhood of my mythological sensibilities. Perhaps it could be said that I was raised at the crossroads between my father’s agnostic Taoism, my mother’s mystical Christianity and my grandmother’s theosophical neo-paganism. Thus I succumb too easily to the terrible temptation to read the Holy Book as though it was an ultra-pagan architecture in which the vital forces of Nature and Psyche are conjoined in a globalized Judeo-Roman symbolism centered around the a-historical legend of a Taoist wonder-worker. It sounds delightful, I know, but I must caution my own first instinct in order to accomodate the experiences of many.

We are all similarly slaves of the erratic fragments of mythology that we inherit from the multi-tentacled impingement of ancestry upon our childhoods. Jordan Peterson is, I think, correct to suppose that *ideology is incomplete mythology*. That our historically recent cultural schemes and underlying political philosophies are not adequate representations of the full metaphysical or performative proto-schema that most effectively joins the soul to the culture to Nature and to the positive and negative forms of the Unfathomable.

What Peterson seldom does, however, is critique the extant records of mythology and official religious traditions in terms of how well they might present the potentially complete web of enactive mythological understanding. This issue has been the subject of many discussion at the Foundation for Integral Religion and Spirituality (FIRS). We have explored the idea that the “dharma” suggests a living network of wisdom-skills and developmental insights that may start to emerge in any historical, cultural or geographic zone. Successful local factors lead to a few people producing a few of the set of possible spiritual/maturational insights in a unique style – and then, if things keep going well, it grows little by little toward a more complete demonstration of the full complement of transrational structures. But how much is determined by this – *keep going well*!

So many things can regularly interrupt this process. Environmental stress, emotional pathology, bacterial health, complex collisions between the implications of local variants of universal truth, mismanaged of survival and aggression and love. Should we not expect that many common tendencies expressed in the dominant historical religions and mythologies represent not universal truths but frequent perversions and common types of errors? Is it not possible that the desert cults of Sumeria, Egypt & Judea are very poor examples of the universal mythic infrastructure? That monotheism is not, in general, an indicator of a higher integration of mythological forces that raise the heroic spirit of exploration to the zenith of the pantheon but, on the contrary, already a sign of tyrannical distortion of the natural hierarchy? A hand-clenching-into-a-fist, an exaggerated emphasis, a Luciferian promotion which expresses the suppressive parent or imbalanced psyche or pathologically organized individual?

We don’t know this but we also do not hear much of this possibility from Peterson. We hear intimations of his own visions, femininity and gnosticism but we seldom hear about the actual shamanic and organic flavor of the “alchemical wedding” of opposites. Where is hermaphroditic priest who is higher than the kings? Where is the trickster, shape-shifter and utterer of poetic nonsense as the embodiment of the half-chaos/half-order needed to restore vitality to the human sphere? Isn’t the ritual subjugation of the Sumerian king to the priest already a decadent ritual that merely mocks the old potency of the true ceremony of Marduk in which the highest becomes lowest, the champion is humiliated, weeping and laughing predominate? Where is the image of the heroic spirit that divides and flows back together with divine cheer like Dionysus? Where is the tenderness, wildness, sexual experimentation, artistic strangeness and childlike glow of the psychedelic voyagers who personal experience in the collective unconscious brought these myths back into most of the early tribes?

There are many flavors that I assume to be part of the universal mythic grammar of humanity that I do not hear strongly echoed in Peterson – and perhaps this is because of his over-use of limited and partial “Western desert” texts. Perhaps. The truth is that we simply do not know how much of the most important transrational structures (of embodied knowledge for an informationally opaque universe) are present in the Torah, the Gospel, the Koran, the Eddas, the latest *stained glass mandala* from the Marvel Cinematic Universe. Nor can we tell which parts that seem most evocative and pertinent and complex are actually signs of a common degradation process. The heroic spirit must revivify the naturalness of progressive culture but how many of the tales of the legendary gods and heroes are themselves rusted, ossified examples whose collective summation lead us to incomplete or perverse maps of meaning?

A cautionary note to end upon... :)

Poems from the Postmetaphysical Edge

The Integral Postmetaphysical Spirituality forum(s) include contributions over many genres, including poetry, visual art, and even musical offerings. We reached out to the IPS community for poems related to the themes discussed on the forums and were happy to receive the following.

Contents

Goddess, by Edward Berge
Signs in Country, by Tim Winton
Three Poems by Bruce Alderman

Goddess, by Edward Berge

Preface: These are the lyrics to a song I wrote while an initiate of the Hermetic Order of the Golden Dawn, a western esoteric tradition (aka wesoterica). Therein we enacted spiritual experiences via ritual, ceremony, symbol, iconography, costumes, movements, gestures, invocations, astral projection and activating all the physical senses. I wrote this song as an opening for a ceremony celebrating the feminine. It uses Tarot Major Arcana imagery, as Tarot was one of the tools we used to activate the various psycho-dynamic archetypes.

Goddess

Oh Goddess of the sea and land, open the door of dreams to me
Hourglass shifting grains of sand, the door without a key
Soundless boundless bitter sea, the moon of man's desire
The deep dark well of memory, it's you that we admire
To thee do we aspire…Goddess

Goddess it is you we call, with our song do we enthrall
Come speak to us in our sacred hall

Dark one of the night of time, before the Gods were born
Priestess beyond the virgin veil, darkest hour before the morn
From thy robe the sea sprang forth, the earth your cubic chair
Crown the moon upon your head, wrapped in mystery your hair
Jachin and Boaz in your lair…Goddess

Dark Goddess it is your we call, with our song do we enthrall
Come speak to us in our sacred hall

Bright mother in the midst of day, the father in your womb
The dove descends into your heart, wheat springs from the tomb
With flowing stream you carve the stone, a crown of stars adorn

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Generate the sacred image, matrix seed of form
And all creation born…Goddess

Bright Goddess it is you we call, with our song do we enthrall
Come speak to us in our sacred hall

Alike in light and darkness too, we cannot see you clear
The scales of justice balance you, strength lets us draw near
Sandalphon raises up her wand, and parts the polar two
Unveil the star of innocence, let us gaze at you
The dancing world we view…Goddess

Twilight Goddess it is you we call, with our song do we enthrall
Come speak to us in our sacred hall

Goddess it is you we call, with our song do we enthrall
Come speak to us in our sacred hall…Goddess

Signs in Country, by Tim Winton

Signs in Country

Did you not see the signal of the six-sided honeycomb in those white clouds?

Does that particular lack of disorder not render unto you a sign?

Has the Sun conspired against you?

Does the Land remain cold and secretive?

Have you been blinded, rendered unable, to read Signs in Country?

It was not always this way. Nor, will it be this way forever.

And you are not to be blamed my son. No one told me either.

But look over the flat plain and imagine hidden forces.

Not the wrinkled up skin, but the smoothed flood flats only. Start simply. Then move on.

The Mountains will only deceive you: the air there made clever–not to be interpreted but by other than the fully initiated.

And you are some way from there…

Do not be discouraged. I am not here to chide you. Watch carefully for the wind-twisted dust birds.

Follow their slow journey and use your God Given Vision.

For you know they must come back to earth.

Be still. Very still. Watch… Watch…

Let this unnoticed message thunder-roll though your emptiness.

How incomparably loud. How indescribably curious that you have not been deafened by those simple clouds till now?

And what of this?

So to you have the eye of eagle Vision.

And the scent Sense of bees. You can taste the Yarrow’s delicate nectar from 10,000 feet.

Feel the wind-dust rain in your long bones and become the buzzing motes moving lively in that chattering honey-coloured sun.

All then is revealed. Look down deeply onto this wax cloud capping.

Do you not see now, the very same sun-driven comb?

Three Poems by Bruce Alderman

Evening by the Ganges

The light of the evening falls
Into the spaces between the leaves
Till that is all you see: points of evening, ablaze,
As though the fire were drawn
From all things,
From mango and *muchkand* and stone,
And you cannot tell the light
From the singers in the trees,
Leaping from limb to limb,
And you cannot tell the singers
From the sun, broken

On the broad face
of the river –

All things speaking the same bright tongue,
Meaning born of leaps of light.

Long-fingered leaves reach
Into the pink evening,
Love moves out from my palms,
And the sun in the tree
In sudden shivers flashes
Through the body, through the brain,
And these words come, like Ganga
Throwing back the sun,

Like when an angel kisses your ear in sleep
And makes light in the body leap

And you come undone.

Nothing More

There is a light in the evening
Like light curving into a conch,
Whole in itself, prior
To the longing of night

In which the shapes of leaves,
And the tracks of worms, lie,
And the torn skin of the sycamore
Curls up, complete,

Like the mouth of Ananda, wholly
At ease, opening, just slightly,
Onto the unlabored singing
of the sea.

By the Verde River

Here, where the river slips   like Sanskrit
From the mouths of rocks,
And the hawks in blue swing
Above the mistletoe,
And the dropped   sun   does nothing

On the water's face;

Where I sway by plum-colored currents,
This as grass, and mad
As a hermit, mad with prayer,
In a hovel of trees,

Where, lit by dawn, the mountains cast
Their blue light over miles;

Where, down by water, I am drowned
In the mountains' shout;

Here is where I should be heard,
With the birds   in the rocks
And dirt, my words   dropped
With the cough of crows
In the wide   quiet   morning

A History of Symmetries (artists essay)

Dylan Thomas[1]

For visual art included in Integral Review, 2019 Special Issue on IPS

In 1619, Johannes Kepler published *Harmonices Mundi*, a book that would revolutionize our understanding of astrophysics by presenting the geometric parallels of various physical processes. In the book, Kepler describes the geometric correlations that connect a diverse range of phenomena – from the physical structure of polyhedrons, to the elliptical orbits of astronomical bodies, to the consonance of musical notes and scales. Most notably, he established "Kepler's laws of planetary motion," which sharpened humanity's understanding of the recently-adopted Copernican solar system. But despite all of the practical information presented in the book, it's clear that Kepler's reverence for geometry extends far beyond its intellectual or pragmatic value. Kepler believed that, beneath the web of ratios and symmetries, he saw the architecture of a divine craftsman. In one of his more fervent moments, Kepler wrote, "geometry is unique and eternal, a reflection of the mind of God." Throughout his life's work, Kepler frequently displayed a rapturous passion for geometry – witnessing the sacred in its structural harmony. But Kepler was not the first, nor the last, to use geometry as a window to the deeper truths of reality. From pagan artists, to religious devotees, to contemporary scientists – a diverse range of people throughout history has used geometry as a tool to decipher or represent the mysterious depths of the Universe. And as a geometric artist, I have drawn inspiration from many disparate eras and locations – and as a result, I feel a profound kinship with the many beings who have drawn intellectual, creative, and spiritual inspiration from the mysterious and fascinating nature of geometry.

Before humanity had ever used geometry to model physical reality, geometric structures had long been cherished for their aesthetic value. Geometric art has been a nearly omnipresent phenomenon in human cultures – appearing on various artifacts from across the world. The Blombos Cave Stone – an engraved piece of ochre found in South Africa – was, until recently, believed to be one of the earliest pieces of visual art ever discovered. The stone is decorated with a triangular crisscrossing pattern and has been dated to approximately 70 000 years ago. But newer discoveries have suggested that geometric art has a much longer history than first believed. In 2014, a researcher at the Leiden museum examined a collection of mussel shells that had been found on the Indonesian island of Java in the 1890s. The shells were remnants of food scraps left by homo erectus and had been stored away for nearly a century. But when a researcher examined them with modern technology, the shells revealed two deliberate modifications: a sharpened edge (used for cutting/scraping), and a pattern of carefully engraved zigzagging lines. The sharpened edge would have significant implications for our understanding of hominids' technological

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[1] **Dylan Thomas** is a visual artist from Victoria BC, Canada who blends contemporary media and technology with the traditional design elements of his Coast Salish heritage. His work has been featured in exhibits across North America, and in international publications such as the Journal of Mathematics and the Arts. Dylan plans to continue experimenting with his artwork and strives to keep exploring new creative syntheses between his cultural traditions and the ever-evolving media of the contemporary world.
dylan@dylan-thomas.ca

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evolution, but the engraved lines would prove equally important. The lines were arranged far too precisely to have occurred naturally or accidentally. With no plausible hypothesis for the lines practical utility, the researchers concluded that the engravings must have been created for aesthetic purposes. When the shells were dated to roughly 500 000 years ago, the finding had drastically changed our understanding of hominids' artistic history. At half a million years old, older than homo sapiens as a species, this simple geometric design predates all of the earliest known figurative artwork (e.g. Venus figurines or European cave paintings) by hundreds of millennia – which suggests that geometry, not figurative imagery, likely inspired the earliest forms of visual art.

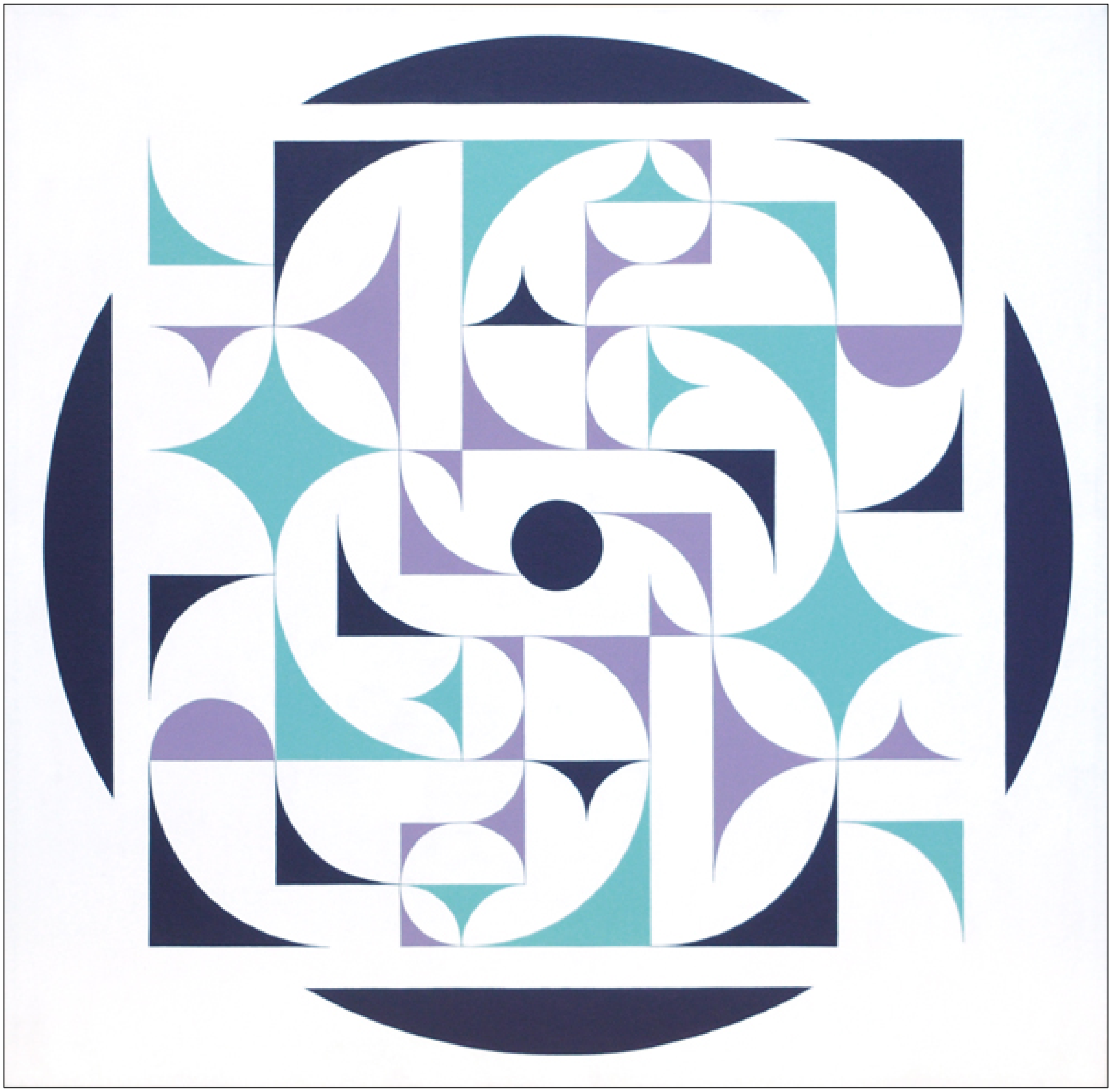
We can never know what inspired homo erectus to decorate those mussel shells, but if his motivations were anything like mine, or Kepler's, or countless other artists and theorists who work with geometry, he too might have been awestruck when encountering the structural elegance of Nature's geometry. It's easy to imagine homo erectus being mesmerized by the radial symmetry of a blooming flower or the circular perfection of a midnight moon. While we can only speculate about homo erectus, humanity's long and enduring admiration of geometry is perfectly clear. Throughout history, people from countless cultures have looked at the various breathtaking symmetries in nature – their technical ingenuity, their aesthetic grace – and inferred a deep and pervasive organization to the Universe. And as a result, geometry has played a significant role in various forms of religious art.

From the Chinese Yin Yang (two-fold rotational symmetry), to the Hebrew Star of David (three-fold radial symmetry), to the Egyptian Ankh (one-fold reflection symmetry) – humanity has a long history of creating geometric symbols to represent important metaphysical concepts – with some cultures taking geometry to a remarkable level of complexity. In the Himalayas, Tibetan artists created stunning circular images called "sand mandalas," which often used multi-axis reflection symmetry and fractal scaling. Mandalas are painstakingly crafted using loose pigment of various colors, only to be deliberately destroyed at the end of the ceremony. These hypnotic images play a central role in Vajrayana Buddhist cosmology and rituals and are one of the most intricate forms of geometric art ever conceived.

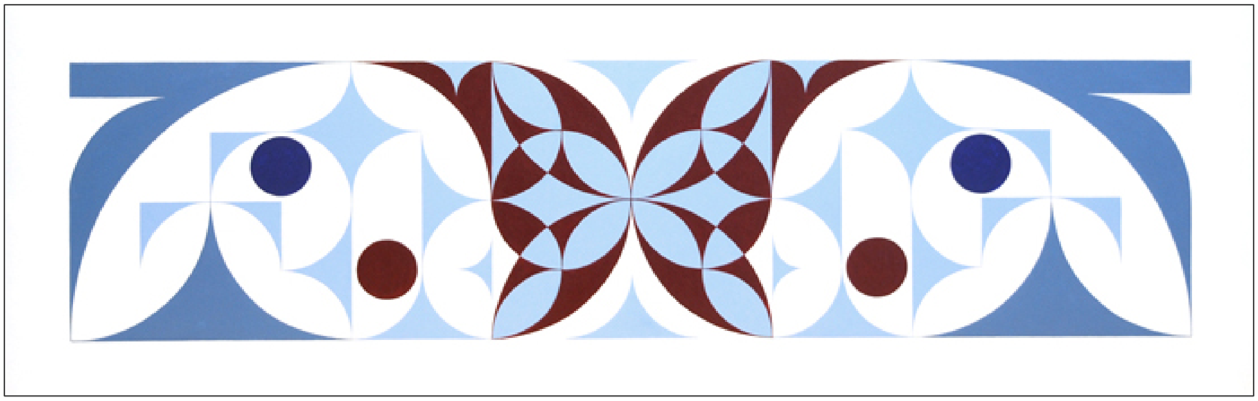
Away from the Himalayas and into the Middle East, the Islamic world also took geometric art to a stunning level of mastery. Since even the subtlest forms of idolatry are considered blasphemous in Islam, Muslim artists abstained from creating images of religious figures. As a result, Muslims turned towards geometry for their religious art and mastered a complicated form of symmetry called tessellation. A tessellation is any-infinitely repeating pattern that consists of smaller identical shapes, called tiles. A checkerboard is one of the simplest tessellations (a series of identical squares), but Muslim artists took this geometry to stunning levels of complexity. Islamic tessellations were often constructed with dazzling arrangements of nesting and interlacing polygons that would merge together to form astral and floral forms. These patterns can be seen on Islamic pottery, textiles, and most notably architecture – decorating mosques that are among the most beautiful temples ever constructed.

But even today, as worldviews shift away from mythic narratives towards modern and postmodern models of reality, geometry has continued to play an important role in our quest to understand the universe. Scientists studying Quantum Feild Theory use "Lie Groups" to visually represent the properties of a set of subatomic particles. Once grafted, Lie Groups often result in futuristic mandala-like images with intricate radial symmetry and fractal properties. And in separate faction, the mathematics that underlies String Theory (one of the most popular hypotheses for grand unification in physics) relies on “Calibi-Lau manifolds” – beautifully exotic shapes that occupy hyperspace and can theoretically exist in up to seven dimensions.

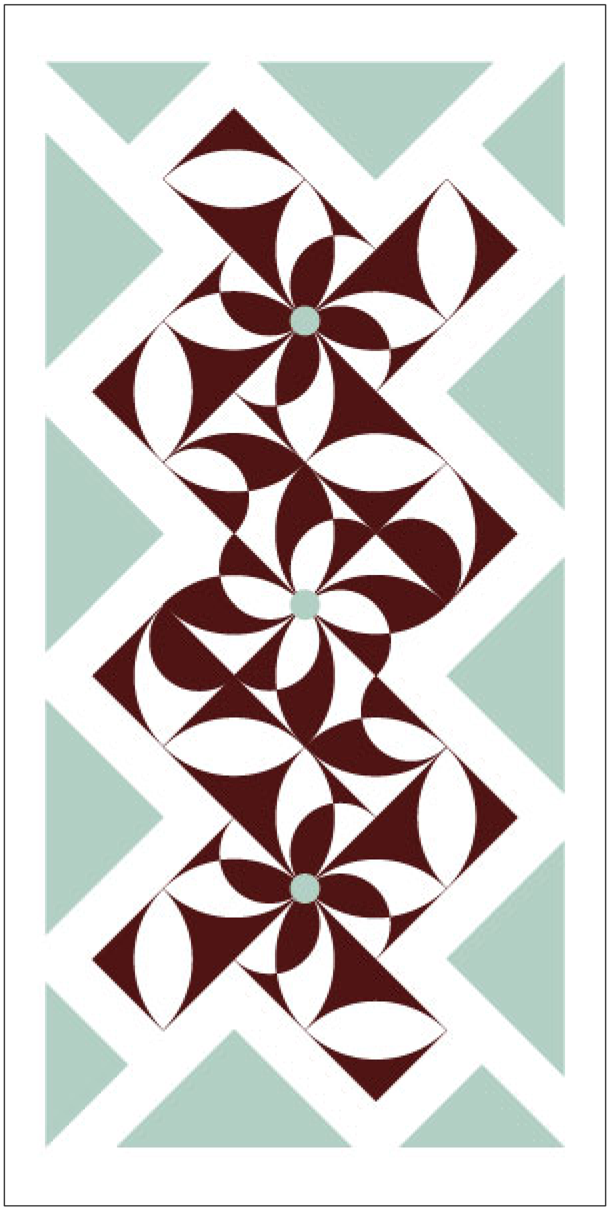
As a geometric *artist*, unlike my religious and scientific counterparts, I am not attempting to deliberately decipher or represent the deepest nature of reality in my work. But despite one’s intentions – whether spiritual, theoretical, or aesthetic – there seems to be something inherently transcendent about the artistic elegance and structural ingenuity of Nature’s countless symmetries. I’d be lying if I described my relationship with geometry as anything but spiritual. My interest in geometric forms began with the traditional art of my Coast Salish heritage, but as time moved on, this passion outgrew its initial cultural boundaries. From the mythical to the astrophysical, from Stone Age mussel shells to the seven-dimensional shapes of String Theory, I’ve drawn artistic inspiration from the endless people and cultures that have shared my deep passion for geometry. Looking back through history, we can see how geometry – aesthetically and symbolically – has continuously transformed as humanity has evolved, but its relevance has endured through the ages. And beneath these superficial changes in form and meaning, it seems that, ultimately, geometry has frequently represented the same thing – whether we call it God, the Dharma, or The Standard Model: that mysterious force that builds near-miraculous order out of the depths chaos. So even though I’m certain that my worldview differs significantly from Johannes Kepler, a Tibetan sand artist, or a Muslim mathematician – we share in each other’s wonder and all have seen a beautiful mystery in the geometric architecture of Cosmos.



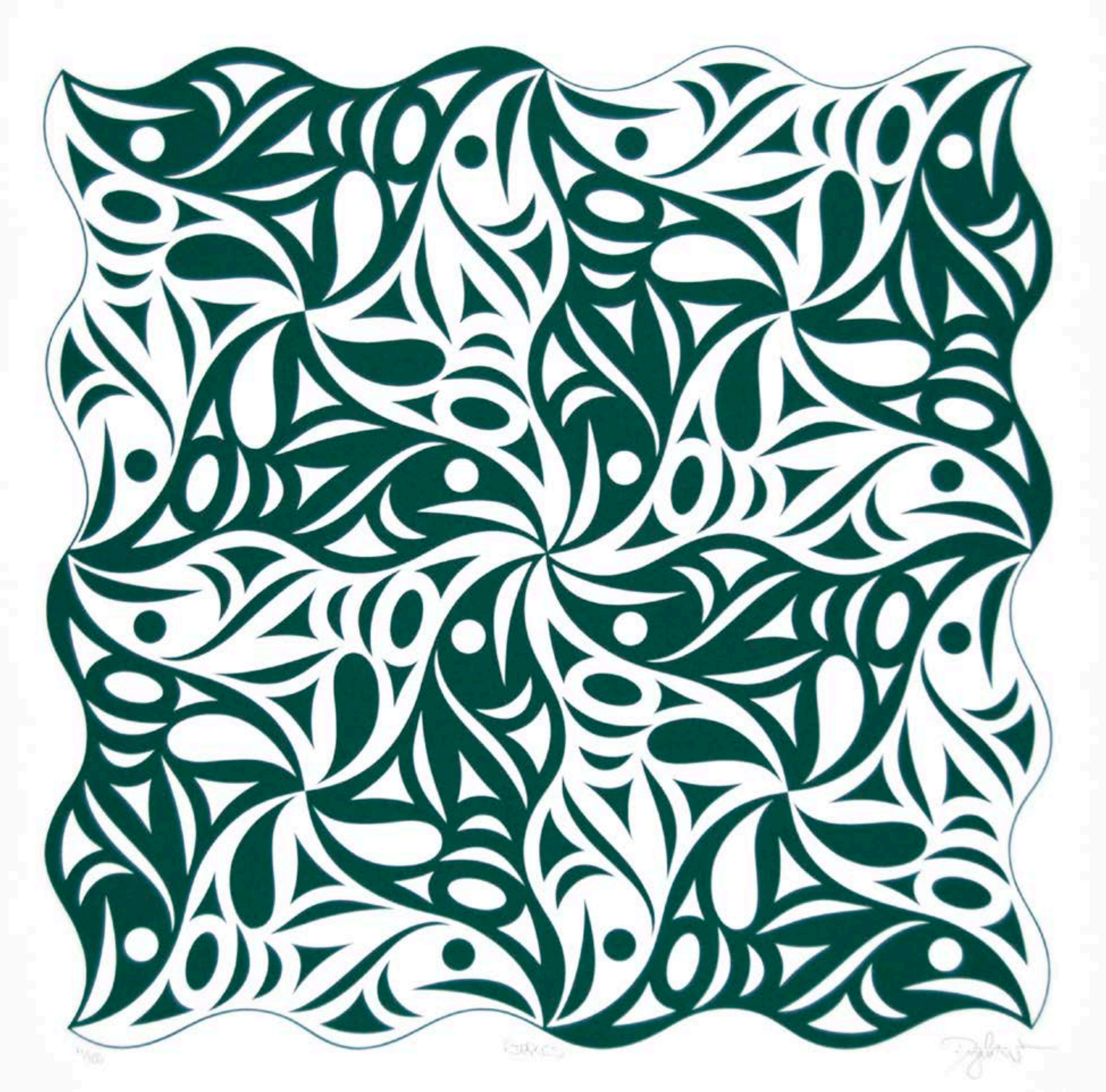
Brave New Whorl



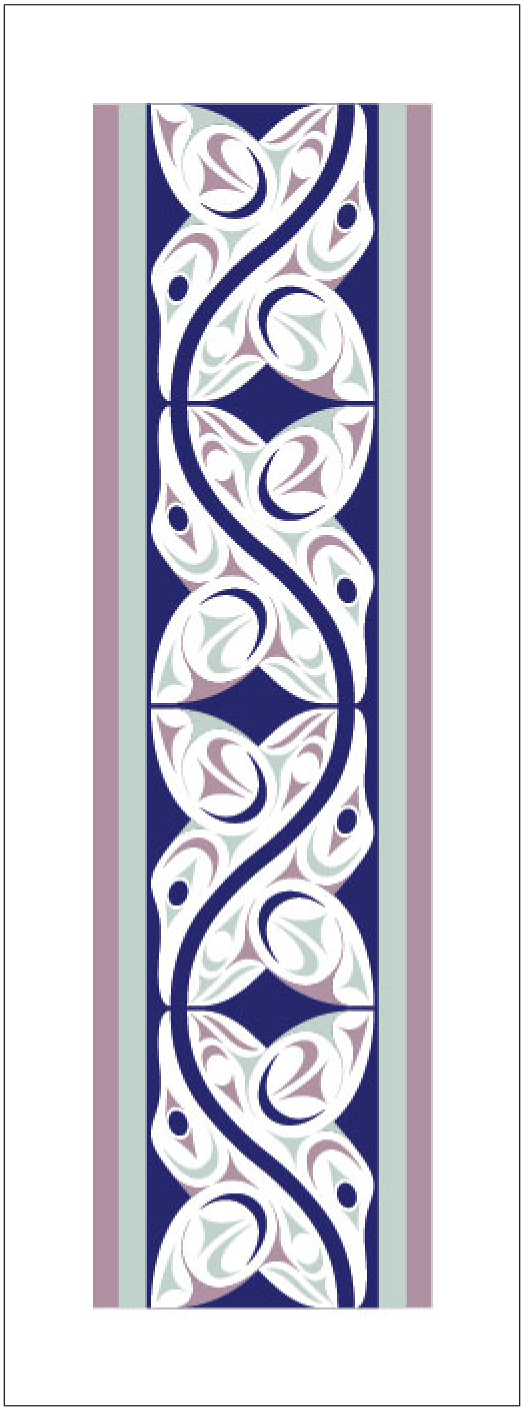
Butterfly



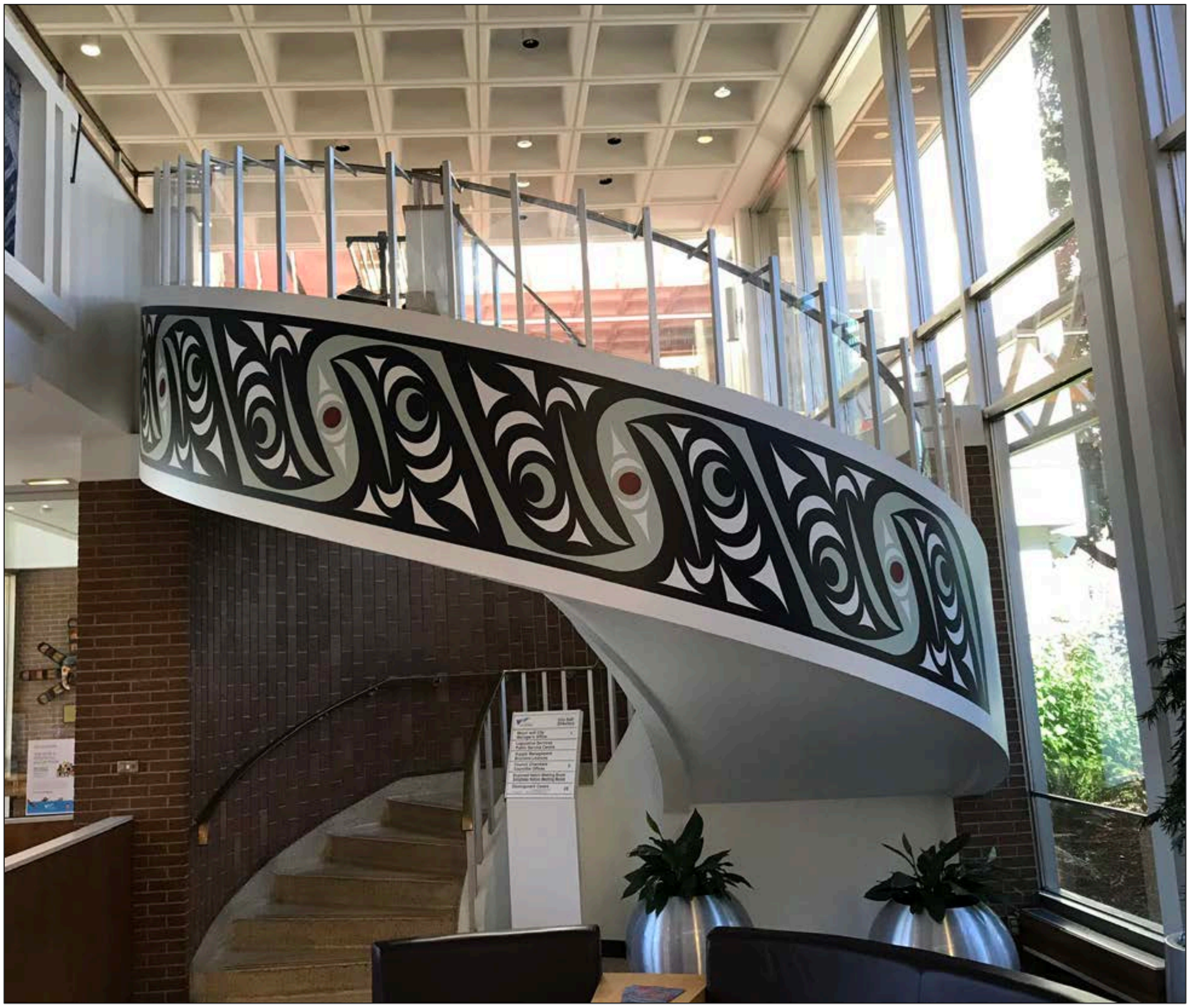
Cascadian Fault



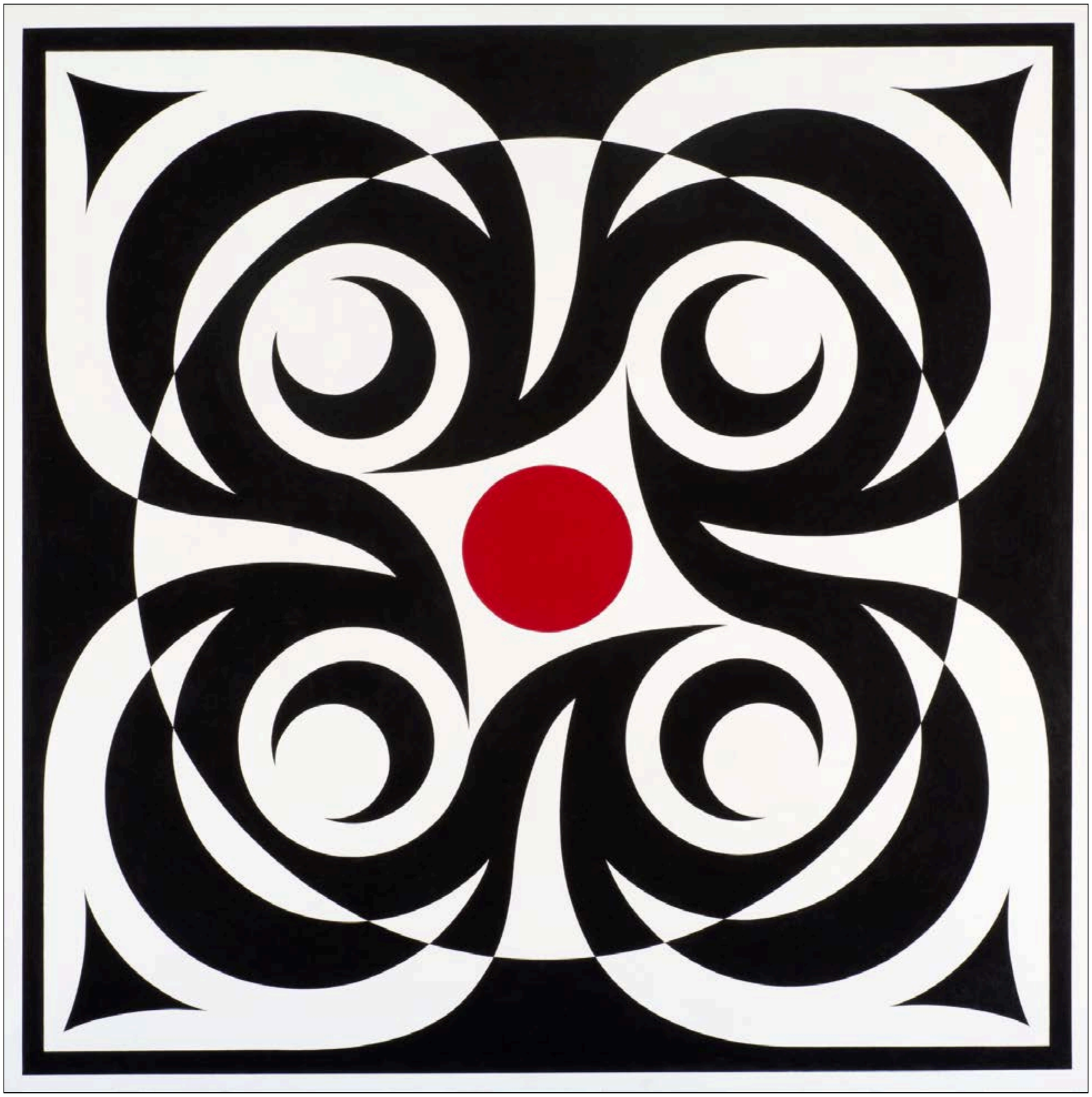
Ripples



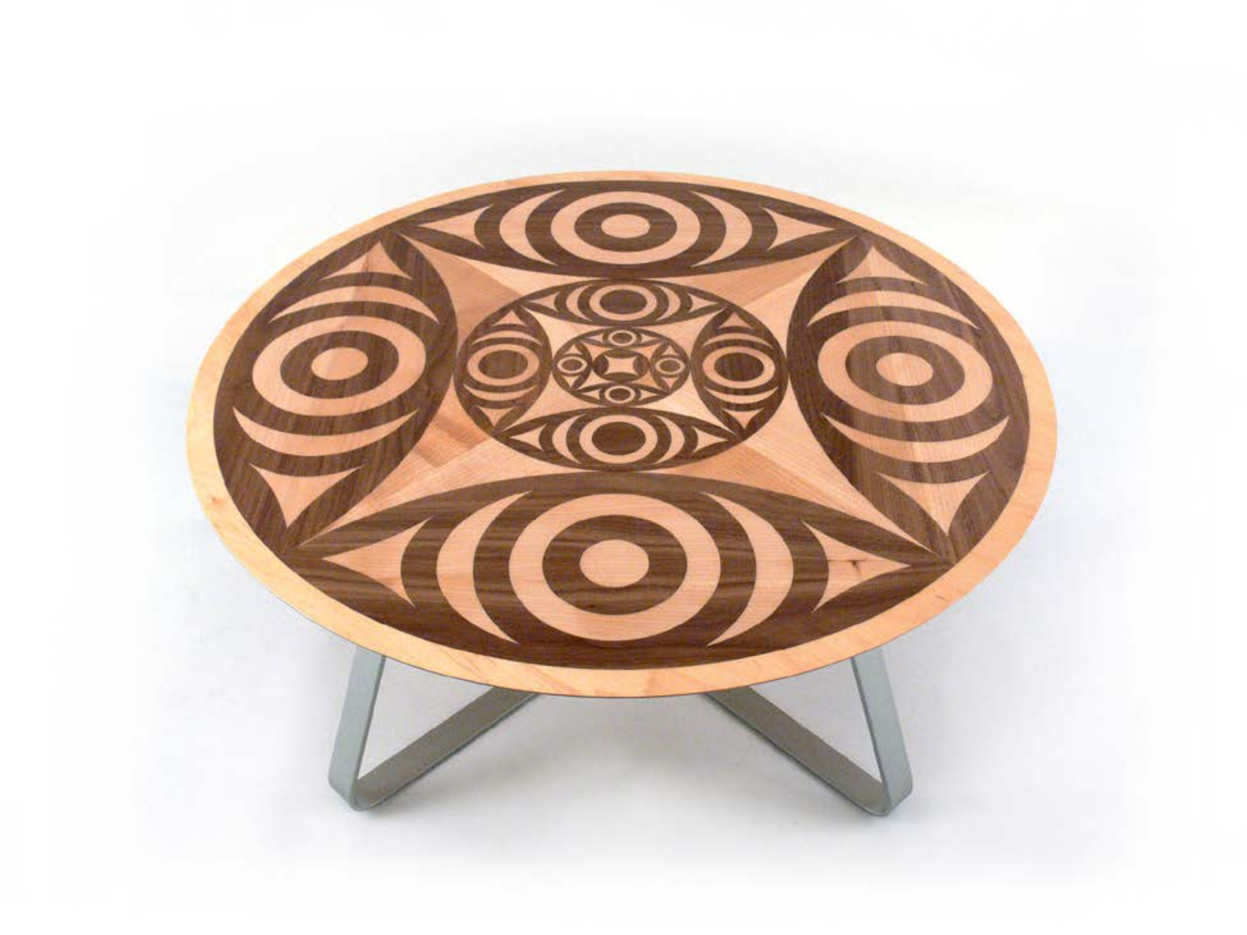
Hummingbird House Post



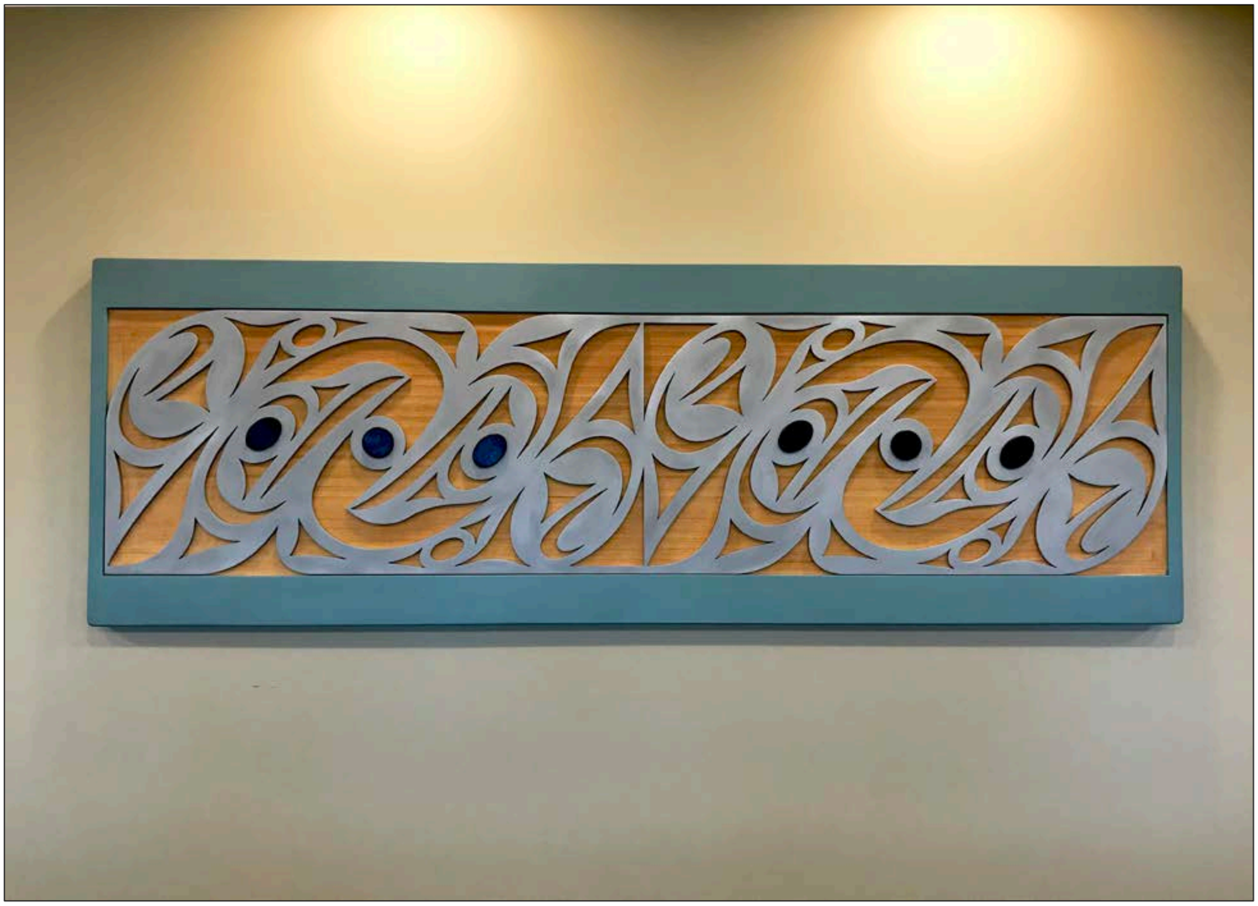
Net Work (Victoria City Hall)



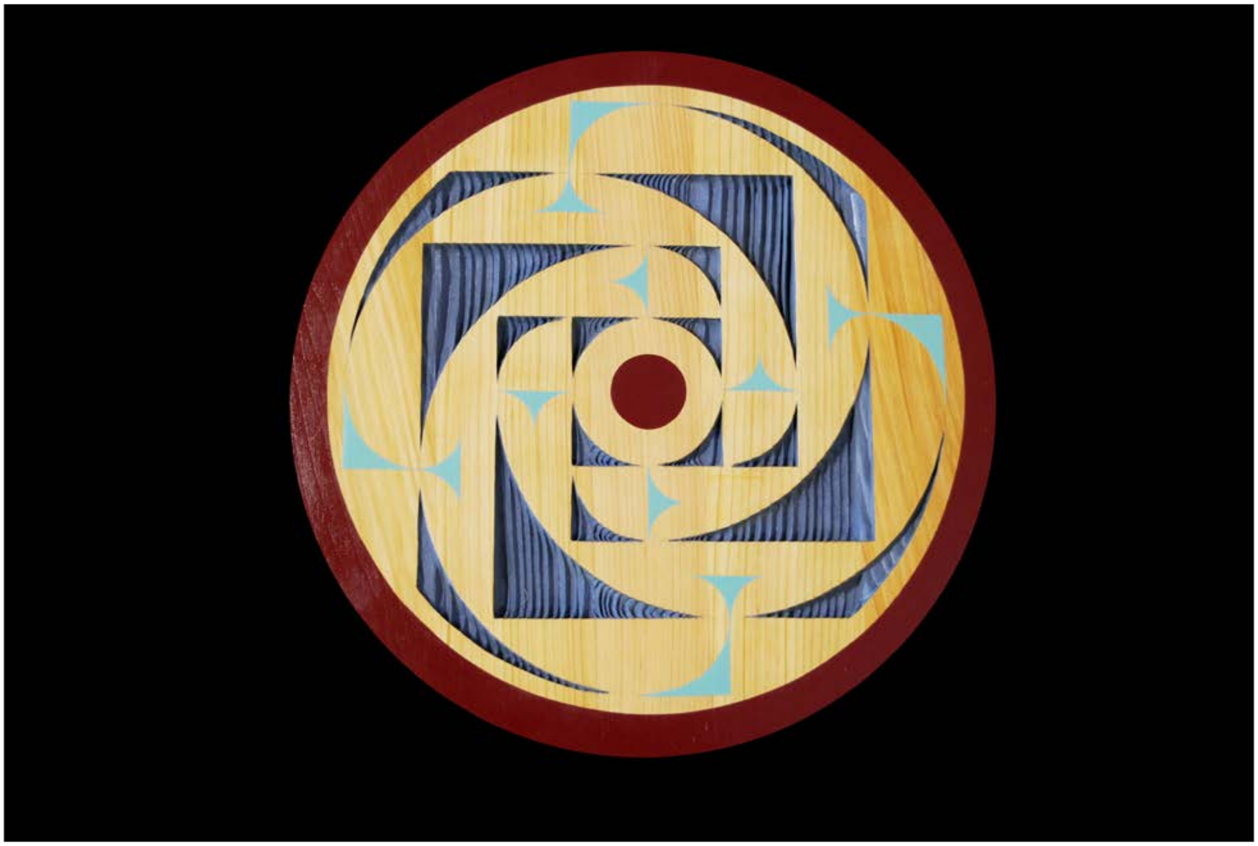
No Boundary



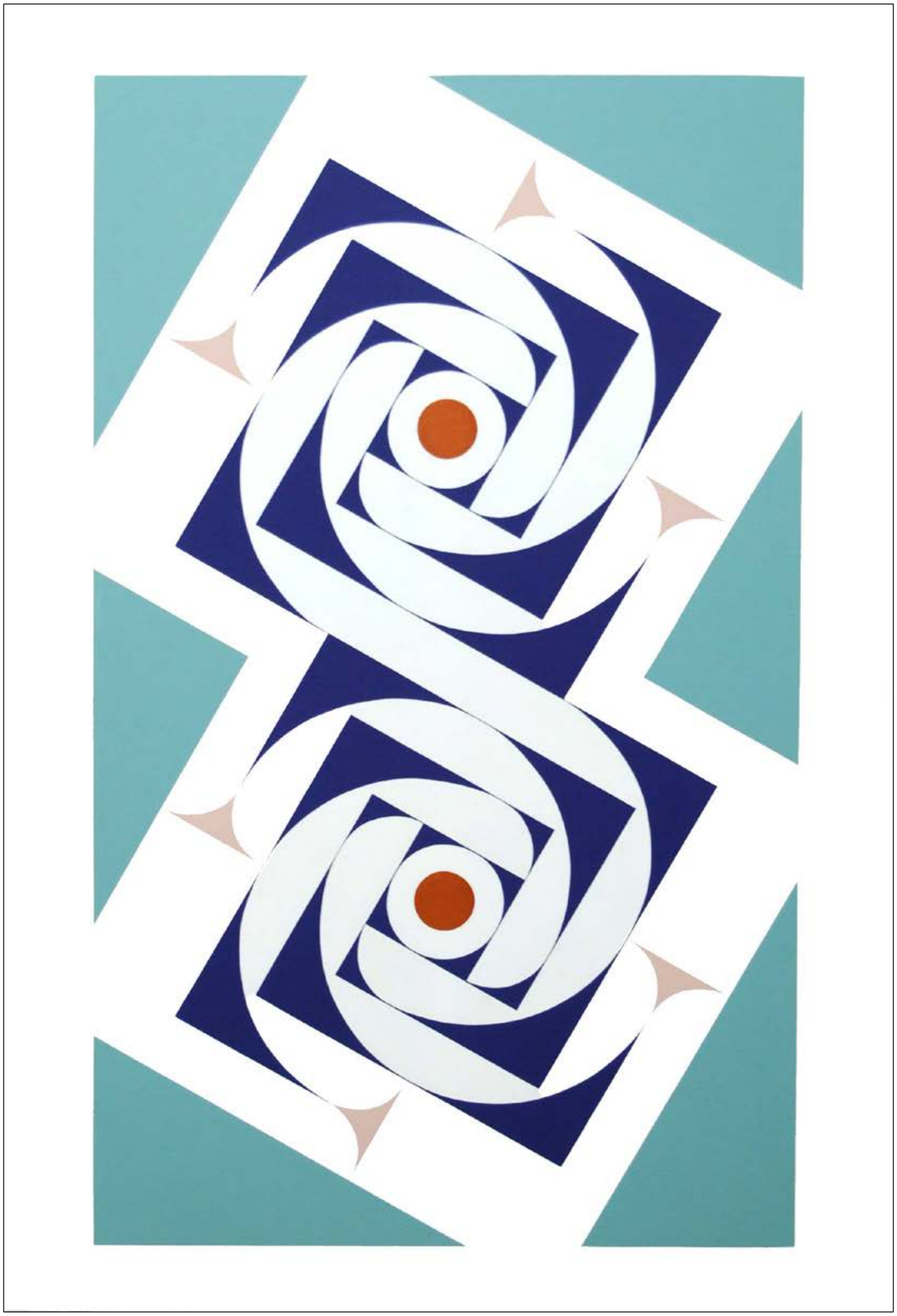
Cawutul Design coffee table prototype



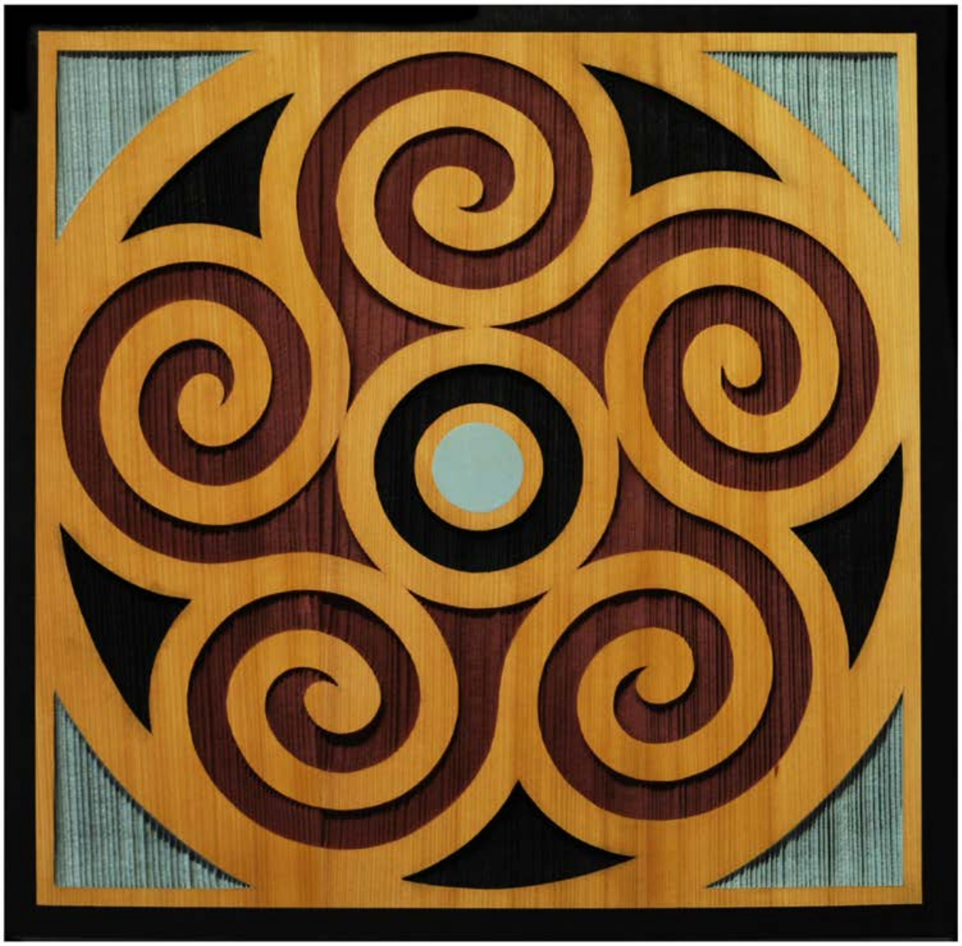
Raven Panel



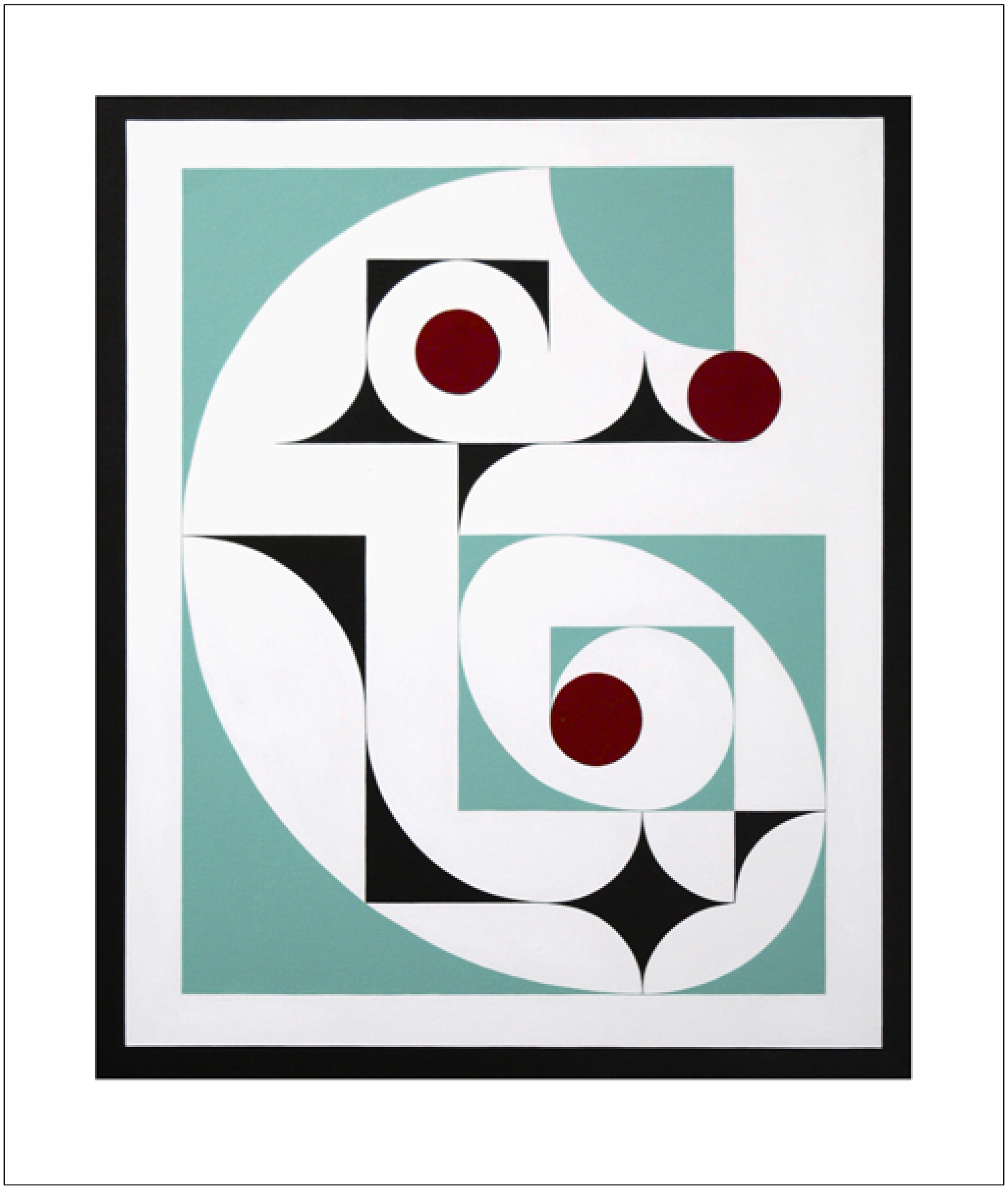
Event Horizon



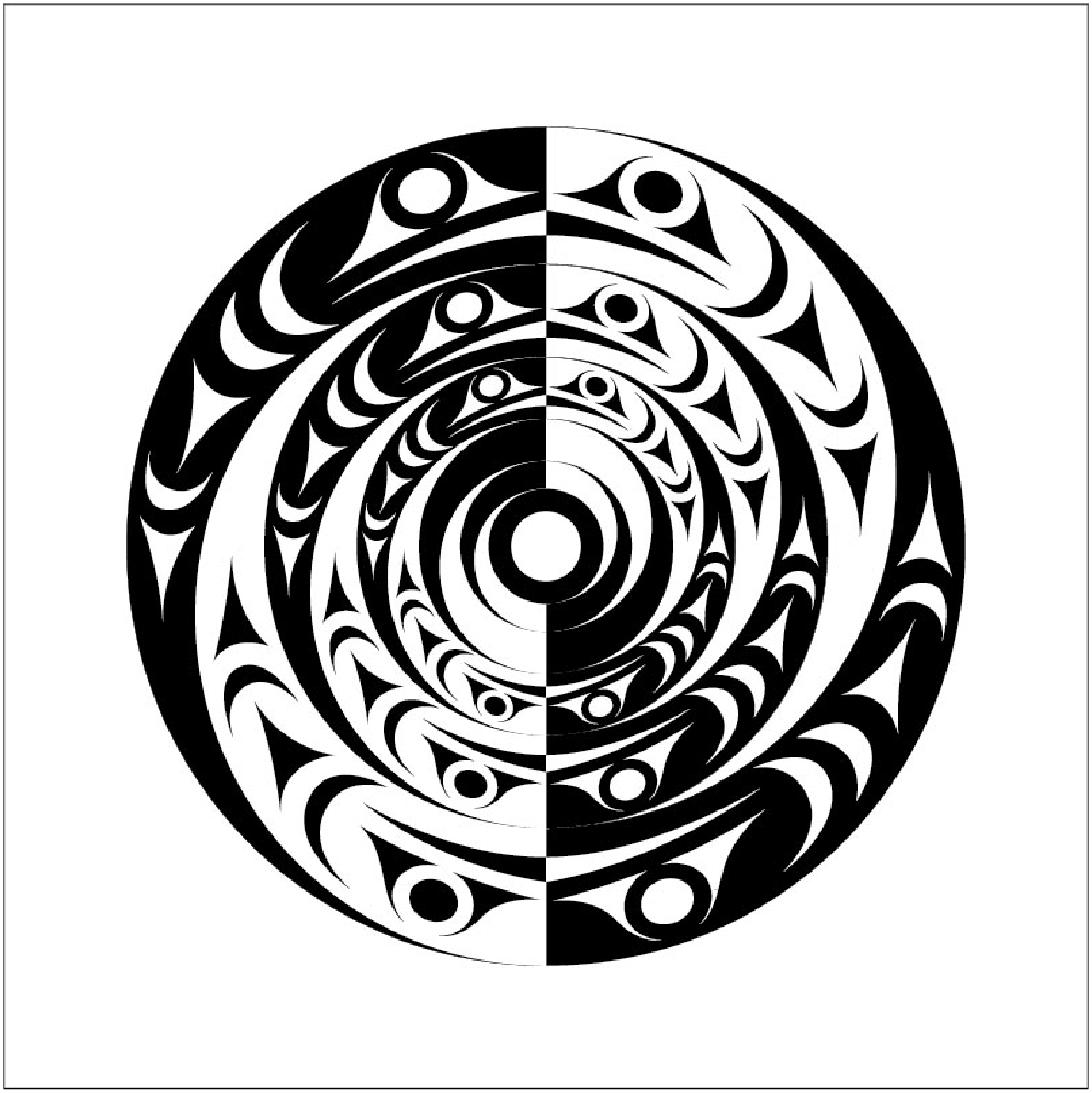
Order and Chaos



Sun and Stone



Seahorse



The Union of Night and Day

Artistic Musings

Layman Pascal[1]

Commentaries by Kathryn Winter[2]

> *I've watched "Layman" make art for years. He comes from a family where everyone just does that periodically and nobody defines themselves as an artist. It's normal. I admire that. He talks about art and shamanism in much the same terms. I think he wants to make pictures to see another world. A world that thinks like nature but isn't nature. He thinks his mind isn't real except where it combines conscious and unconscious. But that's not everything. He also makes art as a public complaint or as what he calls "whim fulfillment as a spiritual practice." I've seen him get angry at a boring portrait of Bill Murray and then make dozens of his own until it was out of his system. I've seen him rant against the use of canvases and declare that he will only make art on discarded cupboard doors. For like a year he refused to draw any line that he could predict. So he just made these tiny erratic squiggles. There's a lot of intellectual passion in what he does but he also refuses to frame things or sign them. I guess he thinks art should be discarded as you go like a snakeskin. I've stolen some of his work over the years just to protect it from him.*

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[1] **Layman Pascal** is a "white indian" whose family has lived for 5 generations among the remote islands of the Pacific Northwest. He also hates biographies & introductions so bear with him -- this is difficult! What we have done already is so much less interesting that what we have not yet done, but I digress -- He is (or has been) a meditation teacher, yoga instructor, public speaker, nondual theologian, lecturer on integral methatheory, shamanism advocate, author, artist, bad poet, co-chair of the Foundation for Integral Religion and Spirituality (FIRS), co-editor of the Integral Review Special Issue on Integral Postmetapysical Spirituality and strong contributor to IPMS forums, moderator of the Integral Life forum, and creator of such online oddities as: The Christmas Wiki, Pascal's Integral Batcave, the Integral Demonology Forum, the Integral Morality & Ethics Group, the Integral Gender Studies Forum and more. Currently he runs a Nepalese clothing store, cafe & sacred gift shop in Northern Ontario with his wonderful girlfriend while also practicing hypnotherapy and energy accupressure. Etc.
pretendtomeditate@gmail.com

[2] **Kathryn Winter** is a natal & death doula living in Victoria, British Columbia.
kathrynwinteriscoming@gmail.com

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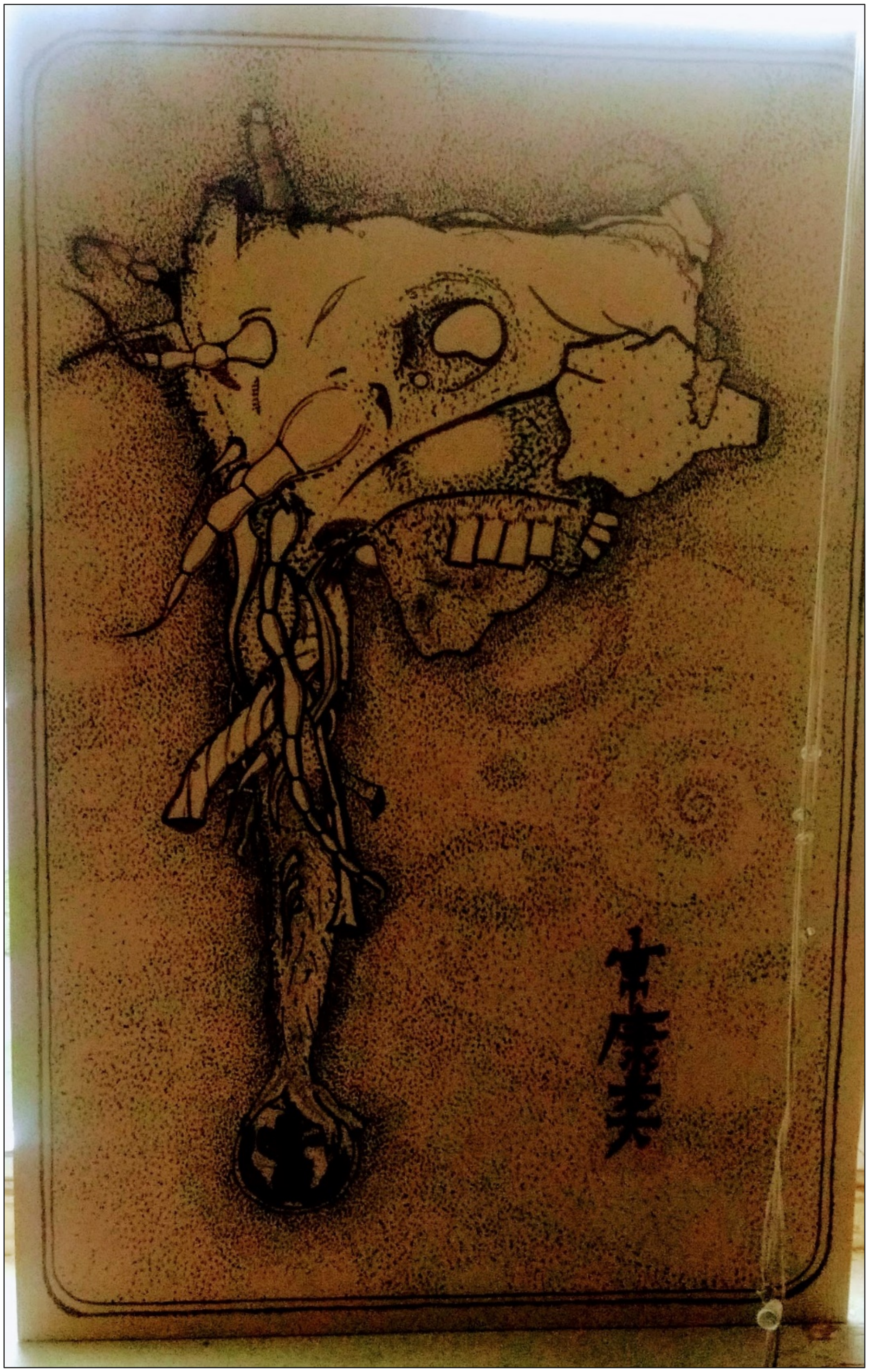
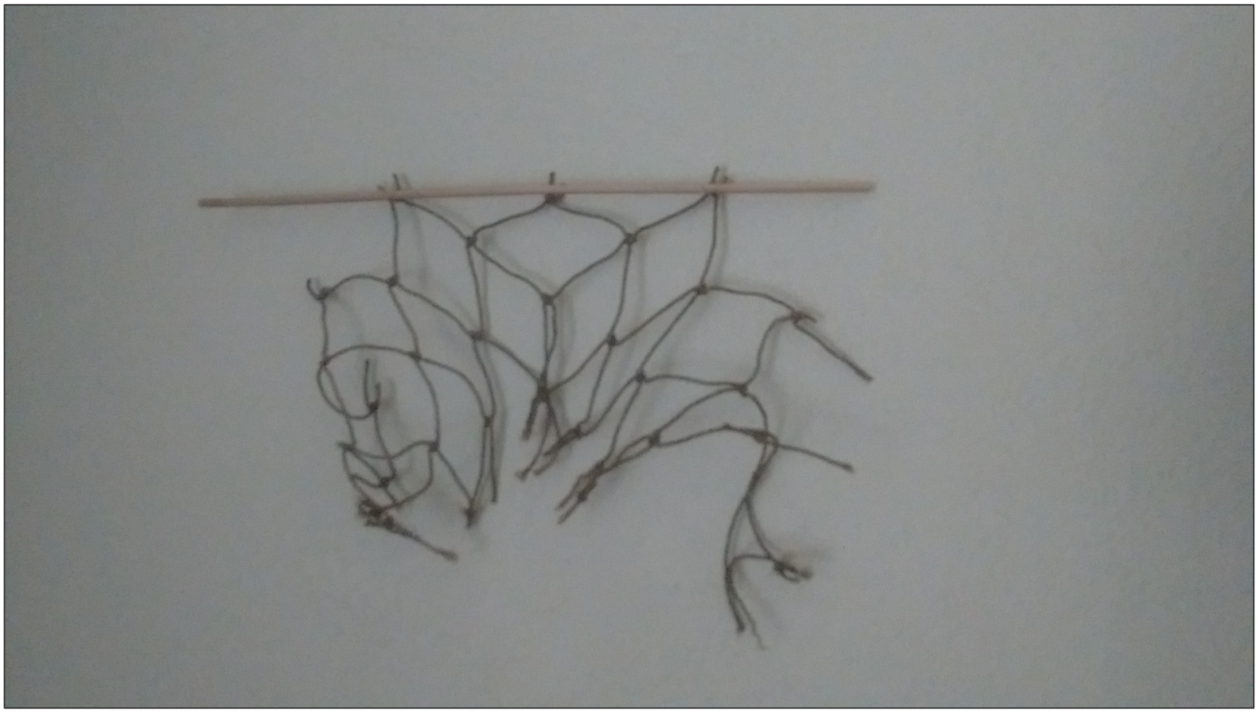
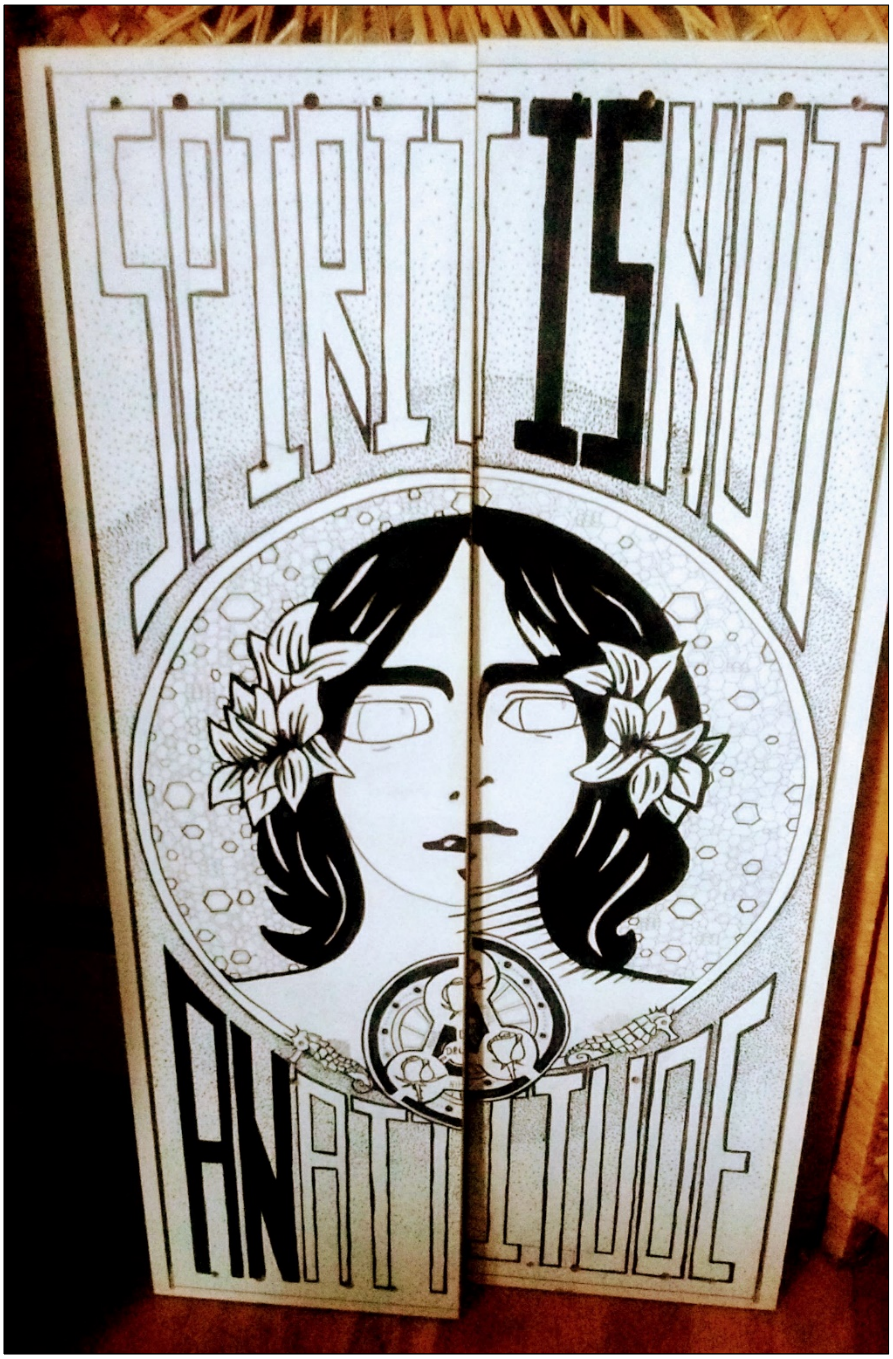


THE TEMPLE OF THE COMING MAN is one of my favorite things Layman made. It was based on a vision he had from a gnarly root cluster he found on the beach. I think he made several versions using the bottoms of Ikea dresser drawers as a canvas. The speckly energy swirls in space are my favorite part but I think he sees a terrifying but organic mind emerging upon the Earth.

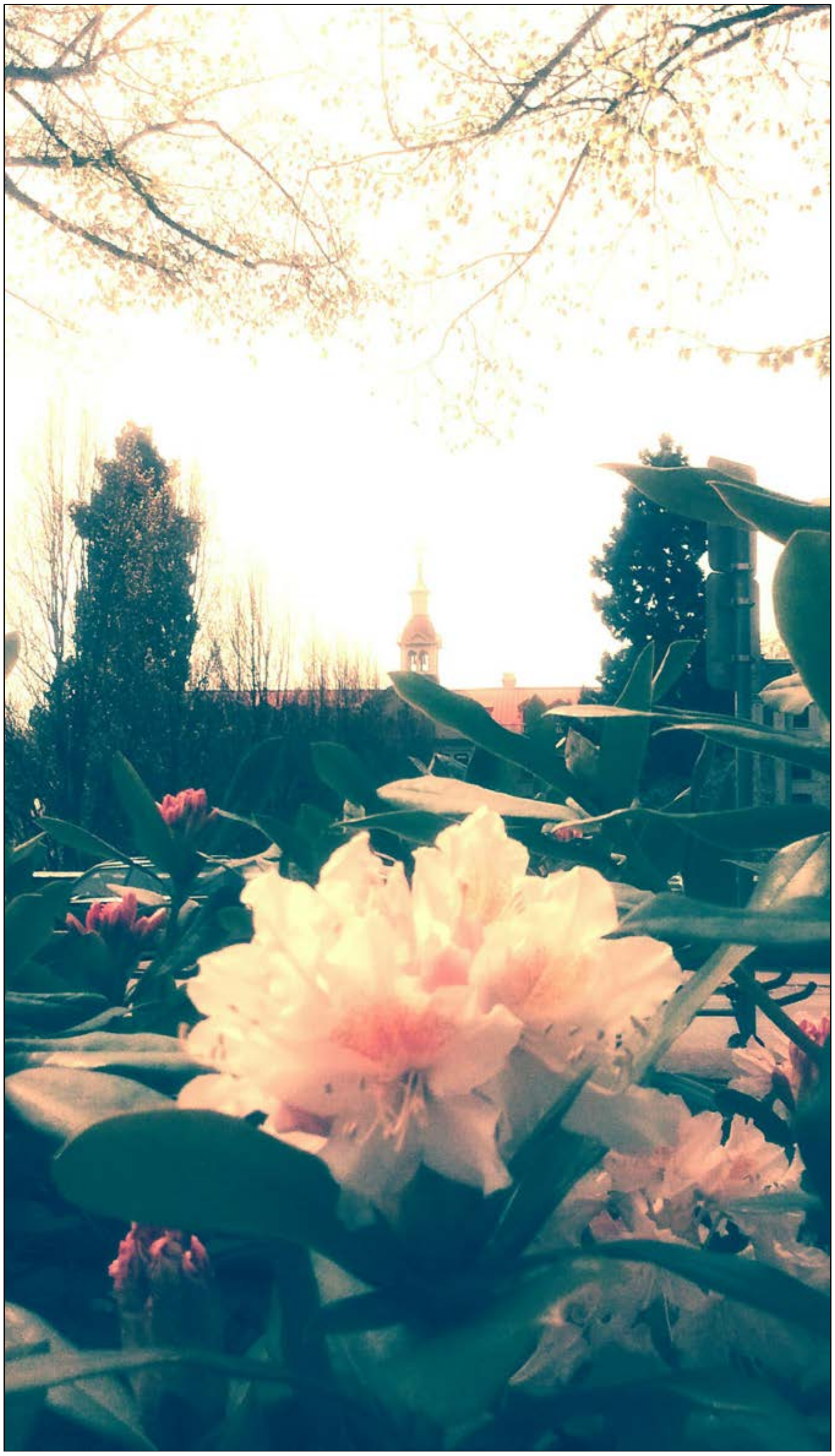


THE PATERNAL LATTICE used to hang on the wall of his apart. His family always used to cast I-Ching for people when they had dinners. His dad insisted they switch from coins to yarrow stalks. This is one of the few remaining stalks. Hanging from it is a patch of Seine fishing net recovered from the collapse cedar boathouse on the property where he grew up in the middle of nowhere. His father was a fisherman on a native fishboat. The old nets used to hang dusty in the boathouse. He told me about dreams in which he was floating and twisting in a world of those nets. I think it's the only piece of the family home he kept.

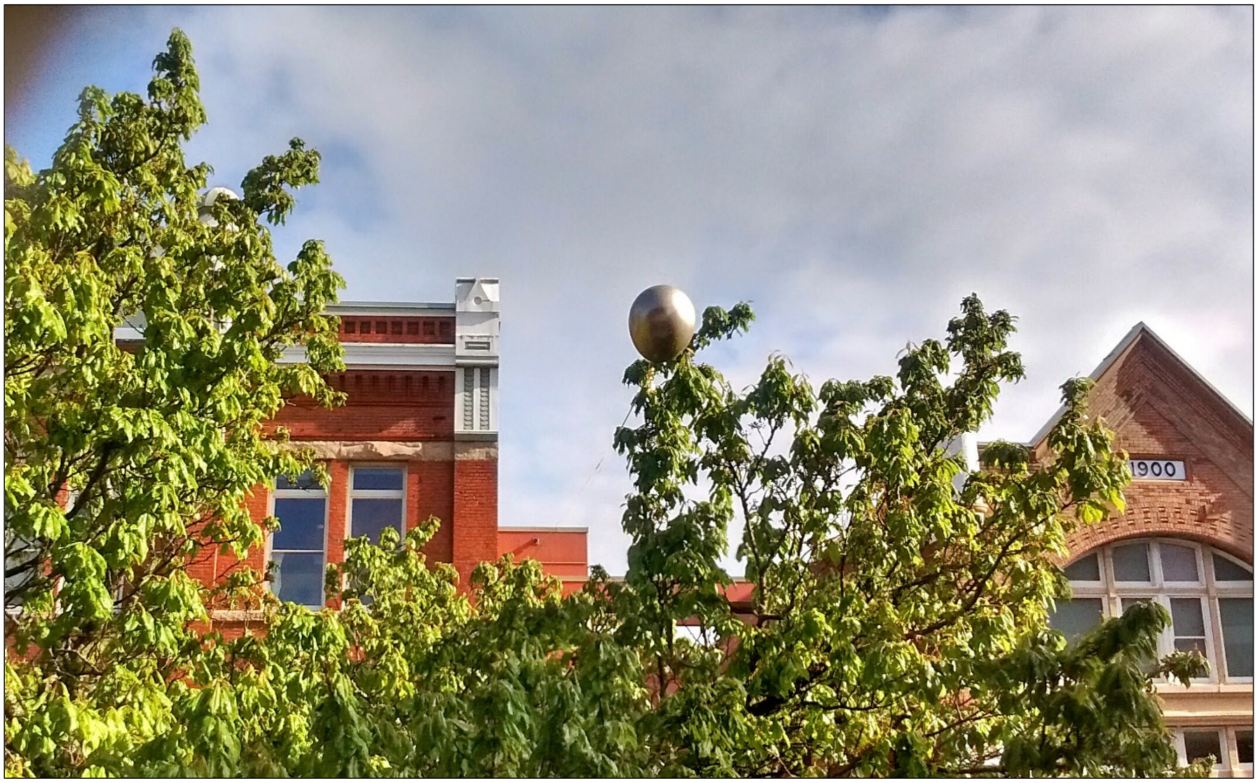
CTHULHU FOR PRESIDENT. These tentacled shells were actually hanging at my house but he was obsessed with them. He took a lot of photographs. Always of three. He liked the paper clip I used. I think it's more of the idea that art has to capture the point at which rational forms break down. That's what he likes about Lovecraft and Cthulhu. Cosmic complexity and unconscious order that you can almost grapple with. But not quite.



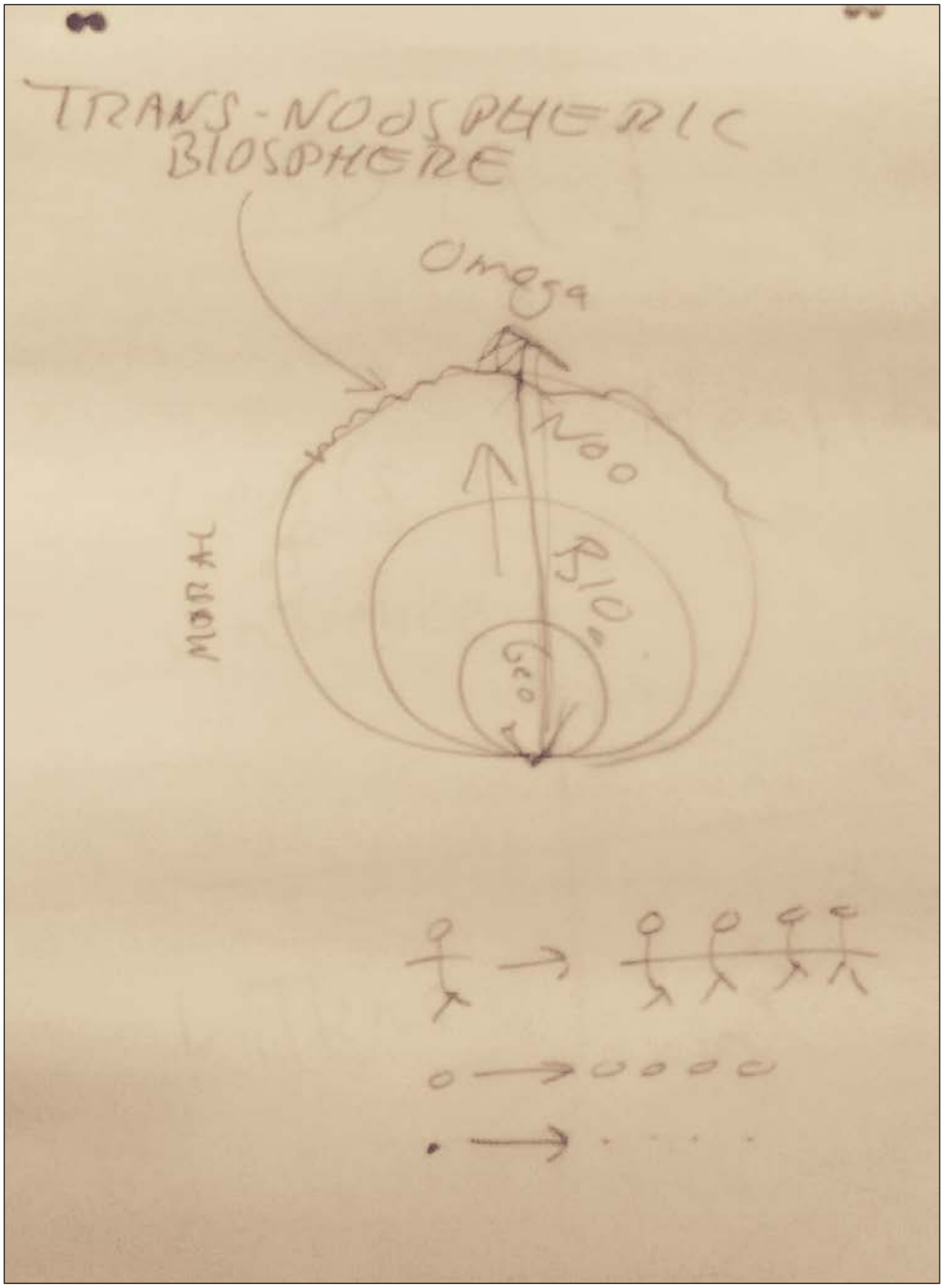
SPIRIT IS NOT AN ATTITUDE. This was two big cupboard panels. A diptych. He was doing a lot of fin de siecle poster art. Stripped down modernist style but with creepy spiritual messages. Layman always had a complicated relationship to positive emotional states. He lived in a Buddhist sangha for years where they practiced spiritual emotions like gratitude, love and contentment. He said it was undeniably good to have these "heart coherent intentional feelings" but they were insufficient. Too socialized. Too Hallmark. The force of chaos that becomes order in the eternal beginning is not necessarily nice or domestic or related to our ideas of kindness. And you don't grow spiritually just be having the right inclusive attitude, I guess.



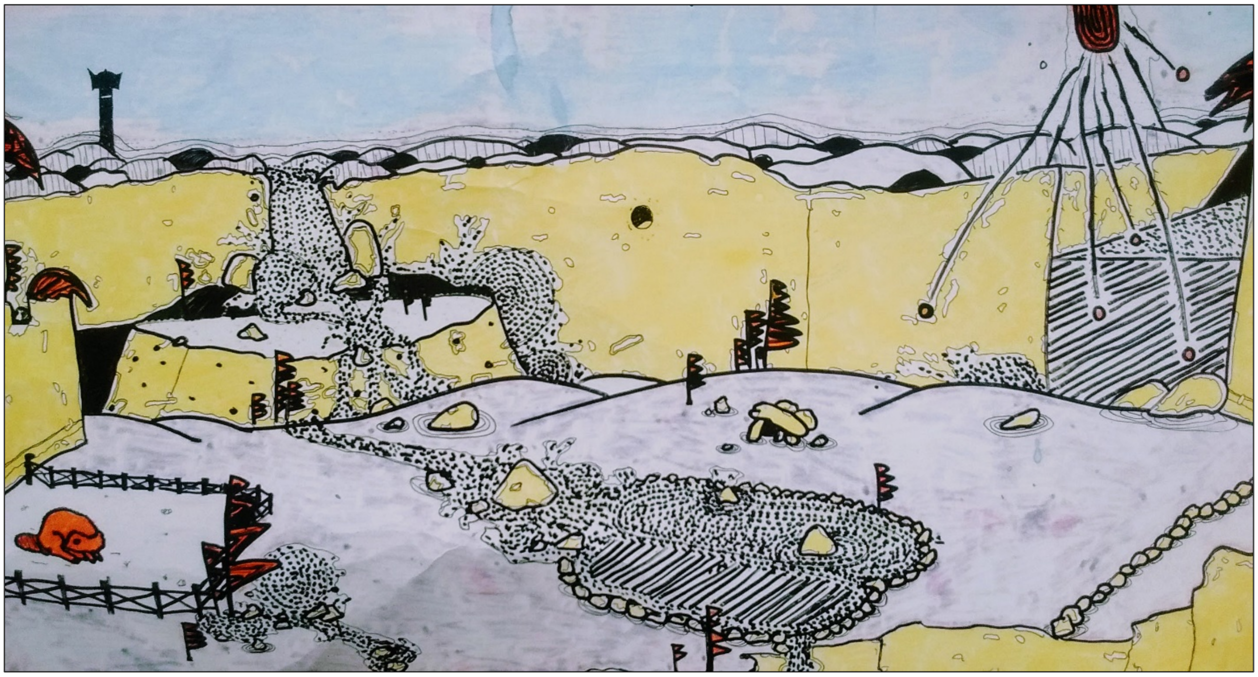
CHAPEL & FLOWER is kind of the world I think he lives in. Like he's secretly living in a himalayan monastery overlooking a lotus point in the 13th century. I don't think he thinks it's lovely. I think he thinks it's familiar.



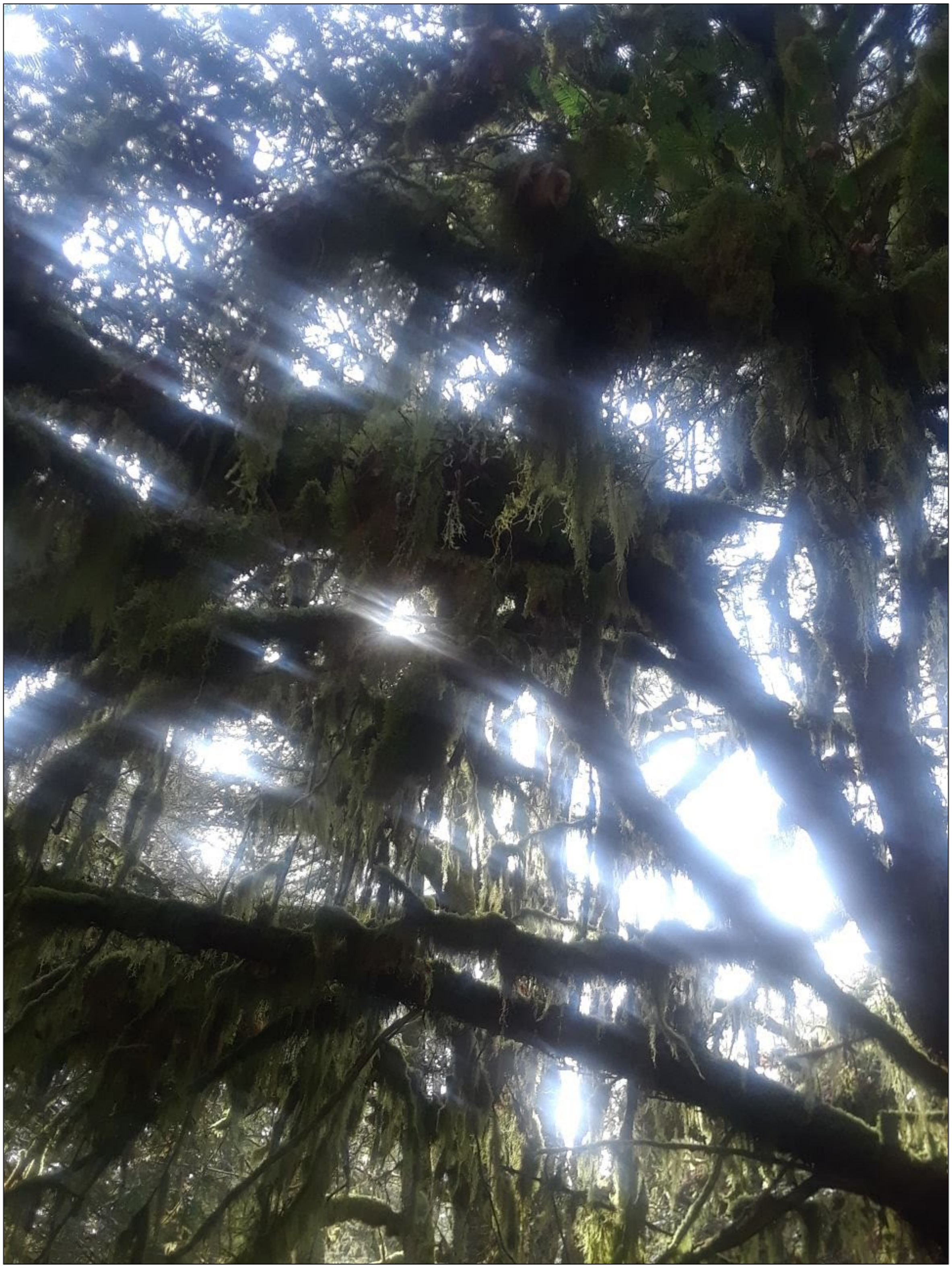
I like OMINOUS. What the heck is that silver balloon? A UFO? Layman used to talk a lot about God being “cheerfully menacing.” And about “the dark bounce.” He find hints of apocalypse to be beautiful. Not full on holocausts but just the scent cosmic moodiness impinging on the human realm.



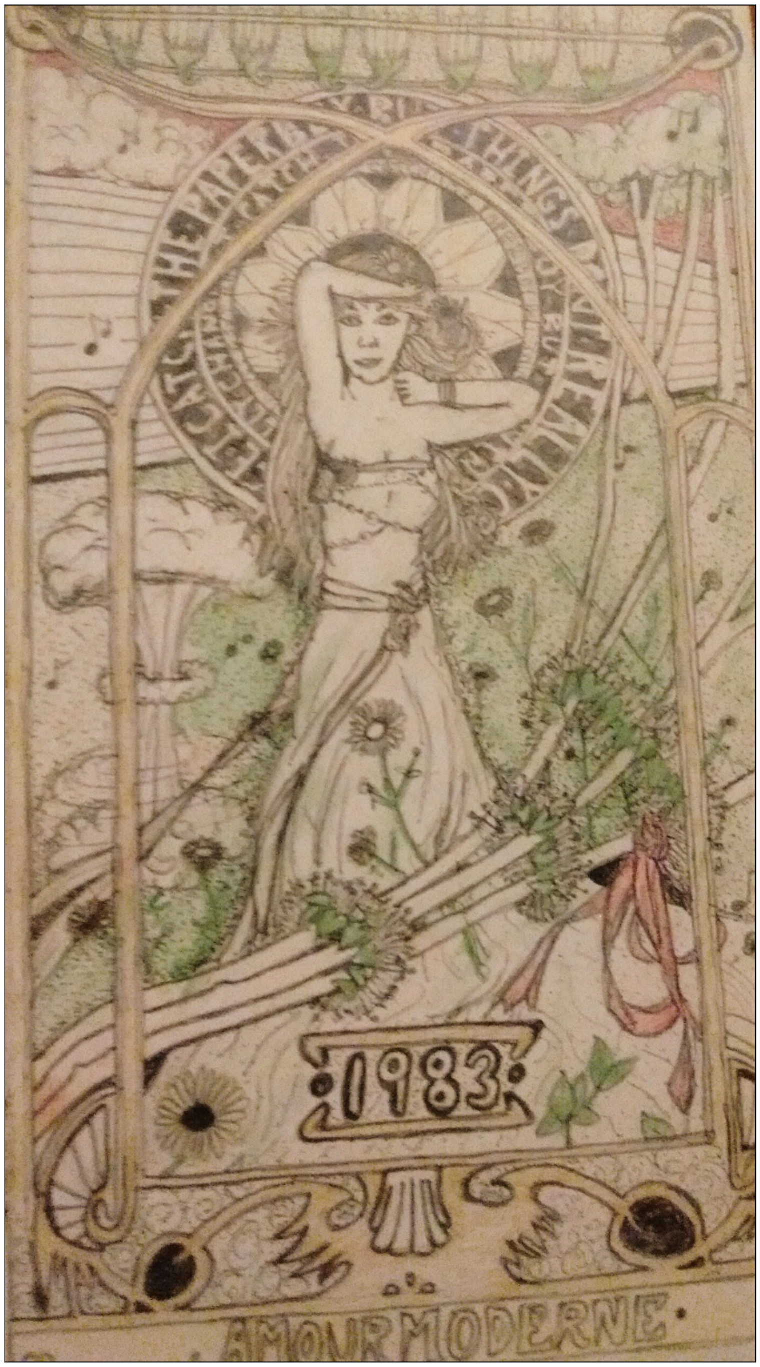
PLANETARY SHAMANISM is the only diagram he kept from all those talks he gave on Integral Theory, Subtle Energy and New Shamanism. He told me it shows how a personalized mythic experience of the natural exceeds the human just like the human exceeds the simple realm of nature. And that the biosphere isn't bigger than us. I find that argument hard to follow. But I love his diagrams. He destroys most of them but they exist in notebooks, scraps, slides, jpgs. I think he thinks mostly visually. Like a manic architect. And then tries to put those shapes into words. And then tries to put some kind of sly, uncertain persona on top of the ideas so that they don't like just like a person who believes in their own ideas. Something like that. I'd love to make a book of just his diagrams.



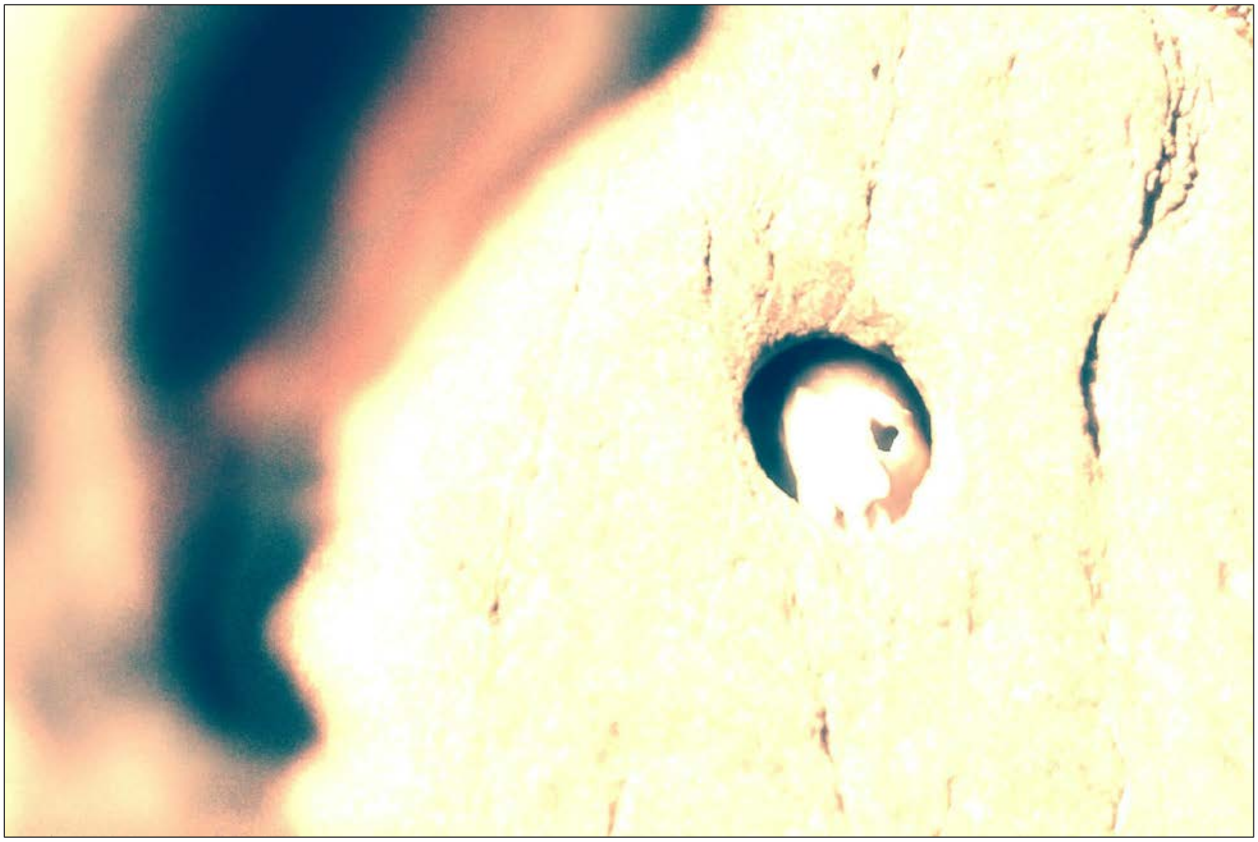
Layman loves Feng Shui. He always says, "That really Shui's the Feng!" But he hates formalized systems of meaning. He thinks you should be able to invent Feng Shui by yourself on a desert island. Any encyclopedia of associations or meanings he hates. Dream Dictionaries drive him crazy. The interpretations aren't anywhere near what he needs. But I remember his girlfriend at the time insisting on using the traditional Bagua hexagram for their apartment. She wanted him to put something in the TRAVEL & FRIENDLY PEOPLE corner. He tore up a giant mandala he was working on and did this on the back. I think his destinations and allies live in this cartoon twilight between the worlds. I like the giant orange beaver too. At least I think it's a beaver.



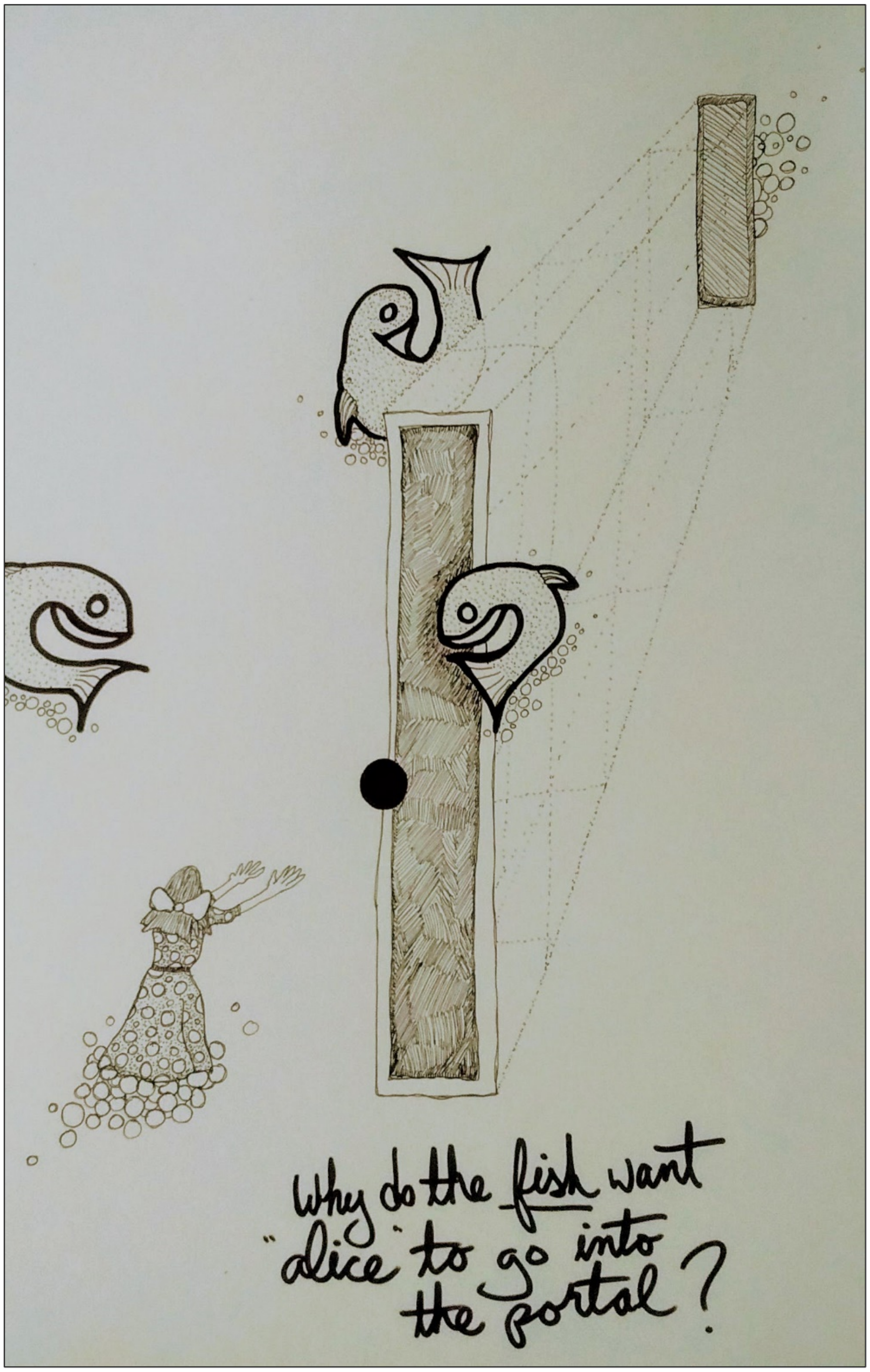
BIOLUMINOSITY is really what it looks like in Layman's head. The naturalness of trees, the creepiness of hanging moss and the brilliant light that bleeds through everything.



MODERN LOVE is funny. It's was a huge image. You can't see in the photo that it was like six feet tall. He did it when David Bowie died. The song Modern Love from 1983 obsessed him. He couldn't get over the line, "I catch the paper boy... but things don't really change!" He would rant about why anyone would suppose that things would change if you caught the paperboy? And caught him how? He would spin these elaborate scenarios where David Bowie had a paperboy trapped in a suburban basement and just couldn't figure out why things still weren't changing. There's a kind of early 80s cold war apocalypse here but with surreal greenery. It used to always make me chuckle.



UNTITLED ALPHA is an example of the kind of abstract photography he did for years. Look closer into the world and you’ll find mixed feelings, I guess. He loves a threshold at which things could go in a number of different directions.


Why do the fish want "alice" to go into the portal?

ALICE & THE FISH is from what he called his "inhumanist phase." I think it's important to him to play with the edges of attention, focus and meaning. Often he would make these images that were like tarot cards after a car accident. And frequently he put odd questions on them that can be answered. They just hold you at the threshold of a trance or a foyer between realms. This is him outputting what he receives. He always wanted to make a version of whatever he appreciated. But the thing he appreciated the most was this cheerful, focus confusion where you can't tell if things make sense or not. I think he thinks that a superior state of consciousness. Better than knowing.

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STAGES

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Introduction and Overview: *Integral Review* Special Issue on the STAGES Model

Tom Murray[1]

Special Issue Contents

("*" Indicates peer reviewed articles.)

1) **Introduction and Overview**: *Integral Review* Special Issue on the STAGES Model

Foundations of the STAGES model: theory, application, and research:

2) **Terri O'Fallon**, *States and STAGES: Waking up Developmentally* (New theory on the interpenetration of states and stages)
3) **Tom Murray** and **Terri O'Fallon**, *Summary of STAGES Validation Research* (Summarizing over a dozen quantitative studies completed in the last two years)
4) **Kim Barta**, *Seven Perspectives on the STAGES Developmental Model*
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    c) Typology and The STAGES Model
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6) ***Gail Hochachka**, *The Scenic Route: A Developmental Approach Emphasizes the Importance of Human Interiority in Transformative Approaches to Climate Change* (Based on PhD research in progress)
7) ***Natasha Mantler**, *Women's Authentic Leadership Development* (Based on a completed PhD project.)

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[1] **Tom Murray** is Chief Visionary and Instigator at Open Way Solutions LLC, which merges technology with integral developmental theory, and is also a Senior Research Fellow at the University of Massachusetts School of Computer Science. He is an Associate Editor at *Integral Review*, is on the editorial review board of the *International Journal of Artificial Intelligence in Education*, and has published articles on developmental theory and integral theory as they relate to wisdom skills, education, contemplative dialog, leadership, ethics, knowledge building communities, epistemology, and post-metaphysics. See www.tommurray.us
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8) ***John Churchill & Tom Murray**, *Integrating Adult Developmental and Metacognitive Theory with Indo-Tibetan Contemplative Essence Psychology* (Based on a completed PhD project)
9) ***Antoinette Braks**, *Leadership Coaching Leads to Later Stage Development* (Based on completed PhD research)
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13) ***Tom Murray**, *Investigating the Validity of the Ogive Aggregation Method, Including the use of Rasch Analysis for the Sentence Completion Test and the STAGES Model* (Validity research, and a new way to aggregate the SCT items into the final score)
14) ***Terri O'Fallon** and **Tom Murray**, *The STAGES Specialty Inventories: Robustness to Variations in Sentence Stems.*

Other uses of the STAGES model:

15) **Trish Nowland, John Kesler**, and **Thomas McConkie**, *Integral Polarity Practice and the STAGES Developmental Model*. (Summary of a videoconference discussion)

Alternative Perspectives:

16) ***Roman Angerer**, *Luhmann's Life Work and Tier Patterns: The Analysis of Differences and Contingent Patterns*. (Includes critique of some aspects of STAGES and other SCT models)
17) **Trisha Nowland** *STAGES - Methodological Principles for Future Enactions* (Includes critique of some aspects of STAGES and other SCT models)
18) **Thomas Jordan** and **Tom Murray**, *Deconstructing Developmental Constructs: A Conversation.* Summary of an email conversation questioning some aspects of the STAGES model, especially for later stages.

Introduction

The STAGES model of adult development is a relatively new framework created by Terri O'Fallon, in consultation with several colleagues over the past decade (O'Fallon, 2010, 2011, 2012, 2013). STAGES is an extension of the ego-development framework formulated by Jane Loevinger and updated by Susanne Cook-Greuter, with elements inspired by Ken Wilber's AQAL model and Sri Aurobindo's model of psychospiritual development (Loevinger, 1979; Cook-Greuter, 1999; Wilber, 1995; Aurobindo, 1992). STAGES diverges from the earlier frameworks in two ways. First, it proposes a small set of underlying parameters (factors or dimensions) that give rise to, or explain, the progression of developmental levels described in the prior theories. Second, it uses an alternative scoring system – one based on these parameters. The

STAGES framework, as described in papers and seminars by O'Fallon and her colleague and brother Kim Barta, diverges from prior adult developmental frameworks in two additional ways. First, it includes a very specific model for "shadow work" (psychological health, healing, and repair). Second, and it includes a treatment of states and state stages that aligns it more closely with western transpersonal and eastern contemplative theories of human potential that speak directly to later stages of self-actualization and ego transcendence.

Though O'Fallon has a PhD and has worked within the US educational infrastructure, the STAGES model gestated and was born out of the modest petri dish of O'Fallon and a few colleague's work in human-potential workshops and her work with Cook-Greuter in developmental scoring – i.e., it did not evolve within a traditional academic context or with the assistance of traditional grant or corporate research money. Like almost all such theories created in pragmatic contexts, at first, it was simply a new conceptual framework – one among hundreds of models of human capacity and growth that could be used to inform leadership, parenting, personal growth, cultural change, etc. Unlike most such models, it had its roots in a model that had been rigorously validated in scholarly venues (i.e., Loevinger's lineage), and it was always O'Fallon's intention to validate the model empirically.

Within the past five years, three types of advancements have launched STAGES from its gestation into a new level of maturity: (1) through dozens of papers and workshops, STAGES has become increasingly well-known and is being applied in many contexts by hundreds of professionals; (2) O'Fallon and colleagues have completed a number of empirical and psychometric studies validating many aspects of the model; and (3) the STAGES model has been incorporated into about a dozen dissertation research projects, thus establishing itself (provisionally) in academic settings.

It is the latter two of these trends that motivated the creation of this special issue of *Integral Review*. Though STAGES is still a new model that requires additional validation, scrutiny, and evolution, it is notable that in a relatively short time, it has achieved enough to be able to fill a journal issue with descriptions of research and application projects. The timing seemed right to ask *Integral Review* to host a special issue for collecting these threads in one place. The contributors are listed below.

At the end of this introduction are *Notes on multiple interests and independent research*, which include a discussion of multiple interests and potential sources of bias in favor of the STAGES model in the editing of this issue. For this issue, we did reach out to several sources for alternatives to, and critical perspectives on, the STAGES model. The issue contains such offerings along those lines from Thomas Jordan, Roman Angerer, and Trish Nowland.[2] Though the majority of articles herein are supportive of STAGES, this special issue will serve as a milestone or foundation upon which others can offer additional critical and alternative perspectives. In addition, as is indicated in some of the articles herein, research on STAGES, more than differentiating it from other ego-development frameworks, supports (or allows of the evaluation of) the entire lineage of ego development and sentence completion test (SCT) projects.

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[2] At this early stage in the evolution of STAGES, it is difficult to find critical perspectives that are also well informed. A well-intentioned critique by Cook-Greuter et al. was published in the November 2017 issue of Integral Leadership Review, along with a response from O'Fallon et al. that concluded that 9 of the 10 points of critique were based on misconceptions about the STAGES model or its formation. However, that exchange also led directly to the more nuanced conversation between Jordan and Murray that appears in this issue.

Contents of this Issue

For those new to the STAGES model, an introduction to the model can be found in this issue in Barta's *Psychological application of the STAGES model*. Other papers in this issue by Barta give an indication of the range of application fields for the model, specifically psychotherapy, parenting, love and relationships, and organizational shadow. Foundational writings on the STAGES model exist in O'Fallon (2010, 2011, 2012, 2013). The most complete description of the STAGES model is the 20-page brochure *The Stages Matrix Roadmap*, downloadable from http://bit.ly/stagesroadmap.[3] Moreover, foundational material on the psychometric validity of the SCT can be found in Murray (2017). Finally, a summary of validity research to date on the STAGES SCT assessment is found in this issue (Murray).

Below is a summary of this issue's contents.

Foundations of the STAGES Model: Theory, Application, and Research

1. **Terri O'Fallon**, *States and STAGES: Waking up Developmentally.* Here O'Fallon articulates her theory of the relationship between states and stages in human development.

2. **Tom Murray** and **Terri O'Fallon**, *Summary of STAGES validation research*. This paper gives an overview of empirical research to validate the psychometric validity of the STAGES assessment instrument, some of which is published in full elsewhere.

3. **Kim Barta**, who works closely with O'Fallon to refine, evolve, and teach the STAGES model, has written seven pieces that describe the STAGES model and how it can be applied in the domains of: psychology and psychotherapy, personality typologies, parenting, love and relationships, developmental lines, and organizational shadow. We combine these into one paper with seven parts. Within this special issue, the first paper serves as the best introduction to the STAGES model itself within this special issue.

Dissertations and Research using the STAGES Model

4. **Abigail Lynam**, *Principles and Practices for Developmentally Aware Teaching and Mentoring in Higher Education.* This article offers a review of the application of adult development theory and the STAGES model to teaching and learning. It includes the results of research on the impact of learning about adult development for faculty and students in a graduate program, additional research on the meaning-making and

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[3] This document is also available on the STAGES International website at https://www.stagesinternational.com/about-the-model/.

perspective-taking of educators through the stages of development, and practical insights and principles for teaching and mentoring developmentally.

5. **Gail Hochachka**, *The scenic route: A developmental approach emphasizes the importance of human interiority in transformative approaches to climate change.* This paper summarizes two research projects that apply adult developmental theory to study how people make meaning of climate change. Approaches to climate change policy, mitigation, and education focus predominantly on exterior (techno-managerial) concepts of accommodation and adaptation; and of the few that include consideration of human psychological and cultural interiors, almost none apply maps of human adult meaning-making (or ego-) development. This body of work aims to introduce that critical factor into the climate change dialogue, and in doing so, deepen and clarify the sense in which the term "transformation" is applied in educational and policy work. The first study described uses a modified version of the STAGES text analysis method to evaluate the developmental level of reflective texts produced by Central Americans living in rural contexts. These texts are reflections upon photographs taken by workers as part of a "PhotoVoice" action research project. The second study described is an in-process (incomplete) analysis of text from within a standard STAGES SCT that was modified so that one-fifth of the items were related to the climate change theme. In both studies, Hochachka discovers how individuals at various developmental levels understand what climate change is, how it affects them, and what should be done about it.

6. **Natasha Mantler**, *Women's Authentic Leadership Development*. The goal of this research was to study women's conceptions and experiences of leadership and the authenticity of leadership. It looked at relationships between (1) ideas about leadership and authenticity; (2) conventional biases and stereotypes about gender and leadership; and (3) the individual's assessed developmental level. The larger contributions relate to (1) understanding of the social construction of authenticity and (2) augmenting women's leadership development programs and consequently preventing further entrenchment of stereotypes. Stratified sampling was used to select 10 women from a larger pool of women leaders who had previously completed a developmental STAGES assessment. These subjects were interviewed, and the interviews were transcribed and analyzed using grounded theory methods. The results indicate that women experience and understand authentic leading and leadership differently throughout the stages of development, becoming more complex with ever-widening perspectives and understanding, initially intellectual, then more embodied.

7. **John Churchill** (with **Tom Murray**), *Integrating adult Developmental and Metacognitive Theory with Indo-Tibetan Contemplative Psychology*. Churchill is a seasoned teacher in the lineage of contemplative practices outlined in the Indo-Tibetan Mahamudra and Dzogchen traditions. His dissertation work constituted an effort to integrate western adult developmental psychology with Indo-Tibetan Buddhist contemplative psychology. Indo-Tibetan contemplative psychology has distinct theory and practice that explores the depths of consciousness, metacognitive awareness, and realizations of emptiness well beyond the mindfulness paradigm used in most contemporary "contemplative science" research. This paper is a collaboration between

Churchill and Murray to summarize the aspects of that longer dissertation paper that are of relevance to this special issue. The paper shows how contemplative psychology already contains a similitude of all of the major themes from modern developmental psychology, and it illustrates how components of the STAGES developmental model both align with the important dimensions of the traditions and how it can be used to further elaborate contemplative psychology.

8. **Antoinette Braks**, *Leadership Coaching Leads to Later Stage Development*. This paper explores a multiple case study based on the effects of a developmentally informed, transformative leadership-coaching methodology. Results, using the WUSCT assessment, indicate that after eight 90-minute coaching sessions over 12 months, 83% of the case study participants shifted a full stage, mostly from 3.5/Achiever to 4.0/Pluralist, while the other 17% shifted two stages, from 3.5/Achiever to 4.5/Strategist. The paper provides a thematic analysis of eight factors related to the STAGES model that expedite later-stage development in leaders and distils an emergent Vertical Development Theory.

9. **Jason Miller**, *Finding Truth Within: Exploring the Importance of Reflective Practice in Deepening Self-Knowledge*. This research studied the relationship between developmental levels and reflective practices intended to lead to deeper self-understanding. It assessed 18 director-level leaders working within a state healthcare organization who were enrolled in an eight-week leadership development program that included reflective practices. Shortened versions of the STAGES SCT, journaling, and survey questions were employed. A strong relationship in the predicted direction was found between developmental level three factors: (1) the extent to which the subject engaged in the reflective activities (2) the self-knowledge they gained, and (3) the types of content they reflected upon.

10. **Lisa Buckley**, *Hope Examined Through a Developmental Stage Perspective.* This article is a short summary of a PhD research proposal.

STAGES Model New Research

Moving from the application of the STAGES model to researching the model itself, in addition to the "Research Summary" article above, we include several specific empirical studies (and see our first major study published in *Heliyon* journal in March 2020, mentioned in the summary article).[4]

11. **Terri O'Fallon**, *STAGES Child Research: Preliminary Report*. This paper gives a short glimpse at in-progress research using a new inventory designed for assessing developmental levels of children, which was administered to 53 children ages 4-13. It is the first study applying the sentence completion method to young children (performed using transcriptions from face-to-face verbal interviews).

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[4] "The Validation of a New Scoring Method for Assessing Ego Development Based on Three Dimensions of Language," by O'Fallon et al., 2020: https://doi.org/10.1016/j.heliyon.2020.e03472.

12. **Tom Murray**, *Investigating the Validity of the Ogive Aggregation Method, Including the Use of Rasch Analysis, for the Sentence Completion Test and the STAGES Model.* This paper is a detailed report of a research study aimed at using item response theory and related Rasch modeling to extend the validation of the STAGES model from the prior focus on survey-level statistics to the level of per-item analysis.

13. **Terri O'Fallon and Tom Murray**, *The STAGES Specialty Inventories: Robustness to Variations in Sentence Stems*. This paper describes (1) six "specialty inventories" in development, (2) studies demonstrating internal consistency of the new stems, and (3) a general discussion of the robustness of the SCT to innovations in stem items and length.

Other Uses of the STAGES Model

We include one paper here on other applications of the STAGES model, but we mention a number of other use cases not represented as papers in this issue (see "Other research and applications" below). In the STAGES research summary paper, we mention three other areas of use: **Marj Britt's** *Called by Love* ministry, the *Generating Transformative Change* program, and a computer-based automated scoring application.

14. **Trish Nowland**, **John Kesler**, **and Thomas McConkie**, *Integral Polarity Practice and the STAGES developmental model*. Nowland offers a reflective overview and commentary on an online dialog featuring John Kesler and Thomas McConkie talking about the relationship between Integral Polarity Practice (IPP) and STAGES, with Nowland and Tom Murray as co-participants. Kesler is a theorist and activist in the field of interrelated internal, cultural and organizational/societal flourishing in a developmental context. Kesler developed and teaches IPP, a practice methodology that combines elements from voice dialogue, Genpo Roshi's Big Mind Process, polarity theory, and developmental psychology. Kesler has been in close collaboration with O'Fallon for about a decade, and the evolutions of their two models have strongly inter-informed each other. McConkie, a highly respected mindfulness teacher in his own right, is the only other person yet to be certified to teach IPP. The 90-minute dialogue, which can be found at http://bit.ly/stagesippvid (audio version at http://bit.ly/stagesipp1), is wide ranging, as summarized by Nowland. Nowland also includes reflections on her participation in IPP seminars and practice groups.

Alternative perspectives

We have three contributions that give critical or alternative perspectives on the STAGES model.

15. **Roman Angerer**, *Luhmann's Life Work and Tier Patterns: The Analysis of Differences and Contingent Patterns*. This work is a deep grammatological-developmental analysis of the major texts authored by Niklas Luhmann, one of the most important social theorists of the 20th century, who was a German systems theorist working at the intersection of sociology, social theory, philosophy, and cybernetics. Angerer draws from developmentalists and philosophers, including Hegel, Aurobindo, Peirce, Wilber,

Kohlberg, Fischer, and Cook-Greuter, to propose a mapping between grammatical structure, specifically word case (the grammatical functions of nouns and pronouns) and developmental altitude. The methodology is both complicated by and enhanced by the fact that Luhmann wrote in German, which has a richer case system than English. The analysis maps the progress of the complexity of Luhmann's writing (hierarchies in content and grammatical style) in an "Archeology of Knowledge" that reveals nested repeating patterns through the sequence of post-autonomous developmental levels. The grammatological analysis allows for fine-grained developmental categories that subdivide the 9–12 developmental stages defined in ego development theories. Angerer performs a qualitative and logical analysis of Luhmann's writing to propose a necessary sequence of language properties. He arrives at a sequence of levels with characteristics (and orderings) that differ somewhat from that prescribed in the Loevinger tradition, and specifically by O'Fallon's STAGES model, especially for the post-autonomous levels. These findings provide new tools for the critique, and ultimately the evolution, of ego development theories.

16. **Thomas Jordan** and **Tom Murray**, *Deconstructing Developmental Constructs: A conversation.* This article reports on an email dialogue between Jordan and Murray on aspects of the STAGES model that have come into question. The conversation focuses on the highest stages, including discussions of: whether any single-sequence holistic developmental model, such as STAGES, can capture the multiple related capacities that might develop independently; and whether the Metaware tier of the STAGES model (5.0, 5.5, 6.0, 6l5) includes the complex reasoning associated with 4.5/Strategist, or allows for a bypass of 4.5 into a more "spiritually sounding" world-view.

17. **Trisha Nowland**, *STAGES - Methodological principles for future enactions.* Nowland notes some uncertainties inherent within linear stage-theories such as STAGES. She inquires into how can the capacities of 4th person perspective, as described in the STAGES model (and in other developmental models), can be more explicitly (and recursively) applied to the processes of STAGES assessment-scoring and STAGES theory-creation. The article suggests that developmental assessments need to include information about the perspectives and possible biases of the scorer. This is in order to be compatible with modern qualitative research methods that explicitly (transparently) describe the researcher's social and cultural background, context, and philosophical/ideological/methodological commitments (or assumptions) – as are intended to improve the "social trustworthiness and dependability" of the reported results. Nowland also discusses the centrality of one's embeddedness within a matrix of relationships in describing human nature and human development; and suggests models such as STAGES could benefit from a more explicit treatment of these relational structures.

Other Research and Applications

In this issue's "Summary of STAGES validation research" article, we include a section called "Face validity: STAGES applications" that describes a number of uses of the STAGES model that are not represented in this issue's articles. These uses include five additional dissertation and thesis projects that use the STAGES model:

> **Eric Reynolds**, "Next-Stage Organizations: A Transdisciplinary Case Study." The goal of this research was to study the relationship between individual and organizational development and transformation by ascertaining how a Founder/CEO’s development informs that of their organization – particularly in leaders or organizations characterized by the post-formal/post-conventional logics that seem necessary to navigate the complexities of contemporary leadership challenges.
>
> **Jani Attebery**, "Regenerating Soil, Soul, and Society: Garden-Based Sustainability Pedagogy for Incarcerated Adult Learners." (Completed PhD research.)
>
> **Jimmy Parker**, "STAGES of Organizational Development." This paper reflects on the state of the art in assessing development at the organizational level and describes the advantages that the STAGES assessment has in that domain. Parker is working on a PhD research project that will apply these ideas.
>
> **Ron Hurst**, "Merging Characteristics of Median-Stage Ego Development: When Does Self-Initiated Reflection Begin?" (PhD dissertation proposal.)
>
> **Steve Schapiro and Abigail Lynam**, "Transformations in ego development and intercultural sensitivity in graduate students." (A soon-to-begin longitudinal study of PhD students in a human-development and organizational-development program at a US graduate school.)

As mentioned in this issue’s article entitled "The STAGES Specialty Inventories: Robustness to Variations in Sentence Stems," "specially protocols" are being developed in a number of areas, most of which will lead to research projects. These protocols include (1) six specialty inventories that have had their reliability validated psychometrically based on leadership and organizations, love, education, psychological reflection, climate change, and a children's SCT and (2) several in-development (not yet validated) inventories based on relationships, religious beliefs, spiritual growth, money, hope, dementia, ethics, and parenting.

Notes on the Global Context

This is the first issue of Integral Review to be published after the start of the Covid-19 pandemic—less than two months after it became a clear international concern. As I write, it is all anyone seems to be thinking about, for good reason, and it did not seem proper to release this issue for publication without mentioning it. The givens of our world are now put into a stark uncertainty, and it is impossible to imagine the context within which the reader, two weeks or two years form now, will interpret the articles this issue contains, as they were all submitted over the last year, before any of this was imagined. Will academic articles in journals still have any relevance? Will there be a free and accessible Internet delivering them? I must make an earnest if feeble attempt to set the offerings of this issue within that context—knowing that in such times any gesture to carve relevance or import from the field of uncertainty is tenuous at best, foolhardy at worst.

STAGES, as a theory and as a body of teachings promulgated by O'Fallon and Barta in their workshops and writings, is, more than any other adult developmental theory, explicitly concerned with the psychological shadow work of "cleaning up," with "waking down," with spirit and soul, and with the health and integration of the earlier levels of development within each of us. All of the major theories touch on this territory, but the STAGES body of work uniquely emphasizes this aspect to balance the "waking up," and "growing up," and increased complexity discussed in all developmental theories.

The pandemic highlights these things about our world: the degree to which our social systems are fragile and interrelated; the degree to which people depend upon each other; and how much stands in the balance in people being able to access the simple resources of compassion, care, tolerance, trust, generosity, flexibility, and openness—in times of great uncertainty and stress. Such times highlight the need for complexity or sophistication in our meaning-making, *and* for putting complexity aside to allow the simple directives of the heart and the senses to guide our responses. It is my hope that this issue focused on the STAGES model will be helpful in guiding theoretical innovations and practical implementations of adult development as they search for the right balance and integration of the "ascending" growth-related approaches and the "descending" healing-related approaches. Surely wisdom about the interplay of complexity vs. simplicity in human cognition is one of the tools we will need to meet each other on the other side of any of our current global crises.

Notes on Multiple Interests and Independent Research

For disclosure of multiple interests, it should be noted here that the editor of this issue has close professional and business ties with O'Fallon. Though the bulk of my scholarly writing and empirical research within the broader integral-developmental community is without any direct compensation, I have been hired as a research scientist and paid for one-tenth of my research and development work related to STAGES. Nevertheless, I perform nine-tenths of that work as an enthusiast for adult developmental science, and for the STAGES model. In addition, any such work has a potentially positive impact on my own business and consulting profession (www.stagelens.com). Therefore, the issue you are reading was compiled in a context of implicit and explicit bias in favor of the STAGES model. As a long-time research scientist who has also published in the areas of epistemology, appreciative critique, and the philosophy of method, biases from my enthusiasm for STAGES are strongly modulated through my role as a scientist and critical analyst.

Two converging global trends in scientific discovery are worth mentioning here. First, the objectivity of the scientific method, even in the once-thought-pristine halls of academia, is under intense critique for many reasons that the reader is probably familiar with (see Latour, 2005; Ioannidis, 2005; Bhaskar, 1975). Subtle bias of multiple types is seen to creep in at every corner; while exactly *how* disabled that leaves the scientific method is debated. Second, more and more important research seems to be conducted outside the walls of traditional academic or government organizations, often in contexts linked to business interests. The needs of running a business, or even the needs of promoting one's ideas in the mimetic "marketplace" of scholarship, are often in tension with the need to be objective in scientific research and reporting. Indeed, these tensions are ubiquitous in scientific research in general (Walker et al., 2015). Scholars within the "integral diaspora" (a term coined by Bonnitta Roy) are particularly likely to be "independent scholars" publishing without compensation.

Though outside-the-box funding introduces many sources of bias – as is well known by those working within integral-developmental scholarship and within any area that appears "fringe" from the perspective of conventional academic and institutional world views – the most innovative work often gestates well outside the walls of traditional institutions. We can acknowledge that, aside from bias that might come through the commercial entwinements of funding sources, even in *labor-of-love projects* (which to date account for 90% of all research efforts in STAGES research and development) the motivation that leads one to spend significant time on an unpaid project implies a type of enthusiast's bias.

Thus, in STAGES research, I do (and other authors may as well) acknowledge that there will be tensions between the objective reporting of scientific "facts" and the desire to promote, publicize, and extol the value of the STAGES model. One antidote for bias is a rigorous empirical study, such as the psychometric analyses we report herein. As the scientific method is not without its sources of bias, we ask the community to "keep us honest" in this regard through critical appraisal and frank feedback. From an integral, trans-rational perspective, we eschew simplistic notions of "objectivity" and "proof" to address the practical nuances and tradeoffs, and see these tensions in terms of ongoing processes and "polarities to be managed" rather than "problems to be solved." This requires ongoing feedback from many types of stakeholders and ethical oversight from outside parties. Many articles in this issue were peer reviewed, which defends against bias only to the extent that the community of reviewers is unbiased, which is an ideal never completely realized.

We can use our own models to note that these issues in scientific inquiry are developmental in nature. Any second-tier, post-rational, or post-metaphysical (Murray, 2019) approach to science implies a nuanced treatment of the indeterminacies and biases that operate on personal and transpersonal levels in any inquiry into the truth (and see Nowland's article in this issue addressing related issues). I include this subsection on multiple-interests because I believe that published science can no longer pretend to be "objective." This is well established in qualitative research methods, but quantitative studies less frequently try to be transparent about potential sources of bias. It has become de rigueur in qualitative, "critical," and "postmodern" scholarship to, for example, reflect on how one's identity status (gender, race, socioeconomic, cultural, etc.) might lead to biases. Perhaps a next and more difficult step is to include a bit more specific and personal sources of bias; and to include all such reflections on the "indeterminacy" of conclusions, in quantitative studies as well.

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States and STAGES: Waking up Developmentally

Terri O'Fallon, Ph.D.[1]

Abstract. For millennia, the great traditions have influenced our understanding of the states of consciousness that we encounter. More recently, models for assessing meaning-making in developmental terms have been proposed. One example is the STAGES model, which measures human perspectives that behold content differently at different developmental levels. Several scholars have attempted to connect states with developmental stages by studying their relationships, for example, using the Wilber-Combs Matrix. This article traces the history of theorizing about the relationship between states and stages and shows an evolutionary view that examines states through the developmental perspectives of stages. This approach suggests that we can trace state phenomena through developmental stages, with state and stage development affecting each other in an interpenetrative fashion.

Introduction

In 2010, I wrote a peer-reviewed paper for the Integral Theory Conference titled *The Collapse of the Wilber Combs Matrix*, in which I traced a history of theorizing about the relationship between states and stages, noting several configurations between them. This paper was updated in 2018, and provided, what I felt were the most relevant aspects of these relationships, however both versions of the paper ended with the question, "What is the next *evolutionary* version of the relationship of stages with states?" In the pages below, I trace an "either/or" version of this question to a "both/and" version. This paper extends these previous understandings by adding an "interpenetrative" theory that is supported by preliminary research and an evolutionary understanding of how the relationship between states and stages matures over time. The term interpenetrative here means that each construct (in this case states and stages) co-defines, co-creates, and/or co-emerges with the other. Embedded in this preliminary theory is an evolutionary underpinning of the unfolding of states and stages, where each requires the other in this evolving relationship.

This paper includes five parts:

Part 1: "Laying the Landscape" describes a history of the evolution regarding how states and stages are related as well as the proposed theory of the evolutionary interpenetration of states and stages.

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Part 2: "Setting up the Inquiry" establishes a research approach to support this inquiry, which shows the importance of selecting the appropriate subjects for this research and how this affects the results.

Part 3: "Preliminary Research" provides the evidence I have so far to delve into the theory of how the stages and states interpenetrate and how this relationship evolves. This section includes brief descriptions of the research that has been conducted to support this theory.

Part 4: "Getting more Granular" includes:

A. The definitions of the words “states” and “stages.”
B. The trajectory of states that are in the developmental levels.
C. The fundamental areas that states and stages have in common:
    1. phenomena
    2. the self
    3. space
    4. time
D. The confusions that both hinder and support the development of a state to a stage.
E. Three repeating tenets that tie states and stages together into interpenetration:
    1. Necessary but not sufficient
    2. The confusions
    3. Turn it back on yourself.

Part 5: "The Interpenetrating of States and Stages" regards a step-by-step description of the outcome of these discoveries gleaned from the research that is described in Part 1.

A. A description of what state is necessary but not sufficient to move from one stage to the next stage.
B. A description of relevant confusions at each stage.
C. Describing what one must do with the state in order to advance to the next stage and what must be done with the stage to advance it to the next state.
D. Putting it all together: A preliminary and evolving theory of the interpenetration of states and stages.

Part 1: Laying the Landscape

Prior Theoretical Models

Spiritual states have been recognized across many traditions for millennia, however developmental stages have first gained recognition in the later part of the 18th century, including the early research of James Mark Baldwin (1901) who began his studies in theology.

Even earlier, Darwin (1859) had proposed his (atheistic) principles of evolution which were controversial in many religious paths. However, Baldwin’s early teacher James McCosh was a proponent of both evolution and how it could be applied to Christianity (Wikipedia entry for James McCosh). This perhaps represents some beginning roots of considering the relationship between states (handed down from the great traditions) and stages, which began to highlight an evolutionary process of human development. Thus, while relatively new, this inquiry has grown from these early roots.

As developmental stages became more prominently recognized, more and more developmental models arose. Wilber (2000) has mapped over 100 of them and has been a main spokesperson about how states and stages relate to each other (2006).

In his first explanation of the relationship between states and stages, he describes several prior models that stack the great states onto the latest understanding of stages (Wilber, 1995). This prior understanding of structure stages having subtle and causal structures being stacked on top of the basic stages can be viewed as an “either/or" choice. Wilber traces this perspective through several philosophic views (Wilber, 1995, pp. 343-345), with Figure 1 showing a summary below:

Non-Dual Mysticism
Formless Mysticism
Deity Mysticism
Nature Mysticism
Teal
Green
Orange
Amber
Red

Figure 1. Either Structure Stages or State Stages.

This description of the relationship between structure and state stages continued to develop over the years and eventually evolved to become a “both/and” description. Wilber describes this advancement from the earlier one shown above:

> And so typically what we did was simply take the highest stage in Western psychological models – which was somewhere around SD’s Global view, Loevinger’s integrated or the centaur – and then take the 3 or 4 major stages of meditation (gross, subtle, causal, non-dual – or initiation, purification illumination, unification) and stack those stages *on top* of the other stages...It was a start – at least some people were taking both Western and Eastern approaches seriously – but problems immediately arose. Do you really have to progress through all of Loevinger’s stages to have a spiritual experience? (Wilber, 2006, pp. 88-89)

The shift from the "either/or" view to the “both/and" reciprocal view between structure and state stages is illustrated below in the Wilber (2006) Combs (2002) Matrix.

Wilber and Combs separately developed versions of this reciprocal model (Wilber, 2006), which posits that the great states (gross, subtle, causal, and non-dual, which are relatively representative of many of the great spiritual traditions) are available at all stages (see Wilber, 2006, p. 88).

This theoretical model places the states horizontally and the stages vertically in an orthogonal configuration. This allows us to hypothesize that you can have all the great states at any stage, however the states will be interpreted through the lens of the developmental level in which they arise. The horizontal states and vertical stages are in reciprocity (both/and) with each other (O'Fallon, 2010; 2018).

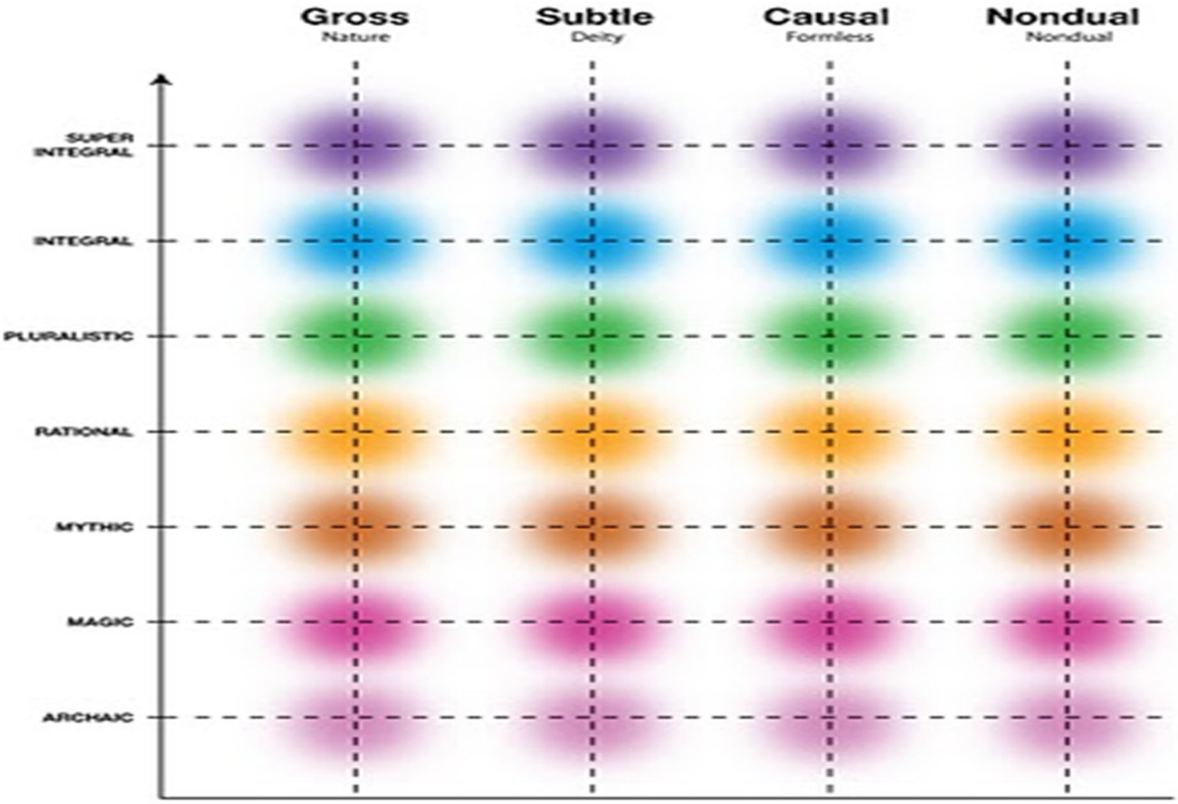


Figure 2. The Wilber-Combs Matrix: a "both/and" model.

Diperna (2014), who proposes a more granular and complex model called the Spiritual Developmental Cube (p. 122), adds a third dimension to the Wilber-Combs Matrix. He views the vantage point "states" as the "knower," the developmental stages as "knowing," and adds states/realms in which the events arise, change, and pass away (the known) (p. 123). The gross, subtle, causal, and non-dual vantage points are described in a more granular form and shown as horizontal, while the stages are depicted as vertical.

The most recent approach that I have encountered is Integral Polarity Practice (IPP) envisioned by John Kesler, who was one of the original members of the STAGES research team.

John explains his model:

> IPP essentially holds that states, stages, types and more, as deeply interpenetrating and beyond that: are different manifestations of the same thing which all show up in five themes: Ground, gross, subtle, causal and integrated [in an evolutionary direction] or Ground, causal, subtle, gross integrated [in a involutionary direction]….IPP is grounded in the full range of states being inherent in every stage in both a horizontal and vertical sense, and so for instance in the physical or physiological realm being deeply relaxed is a concrete causal realization, being mentally and emotionally calm is

> a subtle causal realization, and experiencing deep tranquility is an even more subtle or causal manifestation of the causal. This is another example of how states have important vertical implications relating to each stage, and all of these are on the form or fullness side of the causal and there is an emptiness side to all of those which is simply empty. (Kesler, personal communication, April 2, 2020; and see www.theippinstitute.com)

Kesler’s IPP seems to add more granularity to the preceding models and additionally integrates emptiness and fullness within while using both states and stages. This seems to represent an integrative model which points to the evolutionary interpenetration that I am curious about.

In summary, while seeking a next possible model, I wondered: Is there an evolutionary trajectory to the relationship between states and stages, where states can also be found to be developmental as well as horizontal?

When considering the trajectory of perspective taking, we begin with the concrete, subtle, and metaware perspective of “either/or” (the stacking model), then move to the concrete, subtle, and metaware person perspectives of both/and (the Wilber-Combs matrix (2005) and the more granular Diperna (2014) Integral Cube model, and finally the concrete, subtle, and metaware person perspectives of Kesler’s updated IPP model. Viewing from the STAGES model, we can posit that there could be another interpenetrative theory that has not yet been explored.

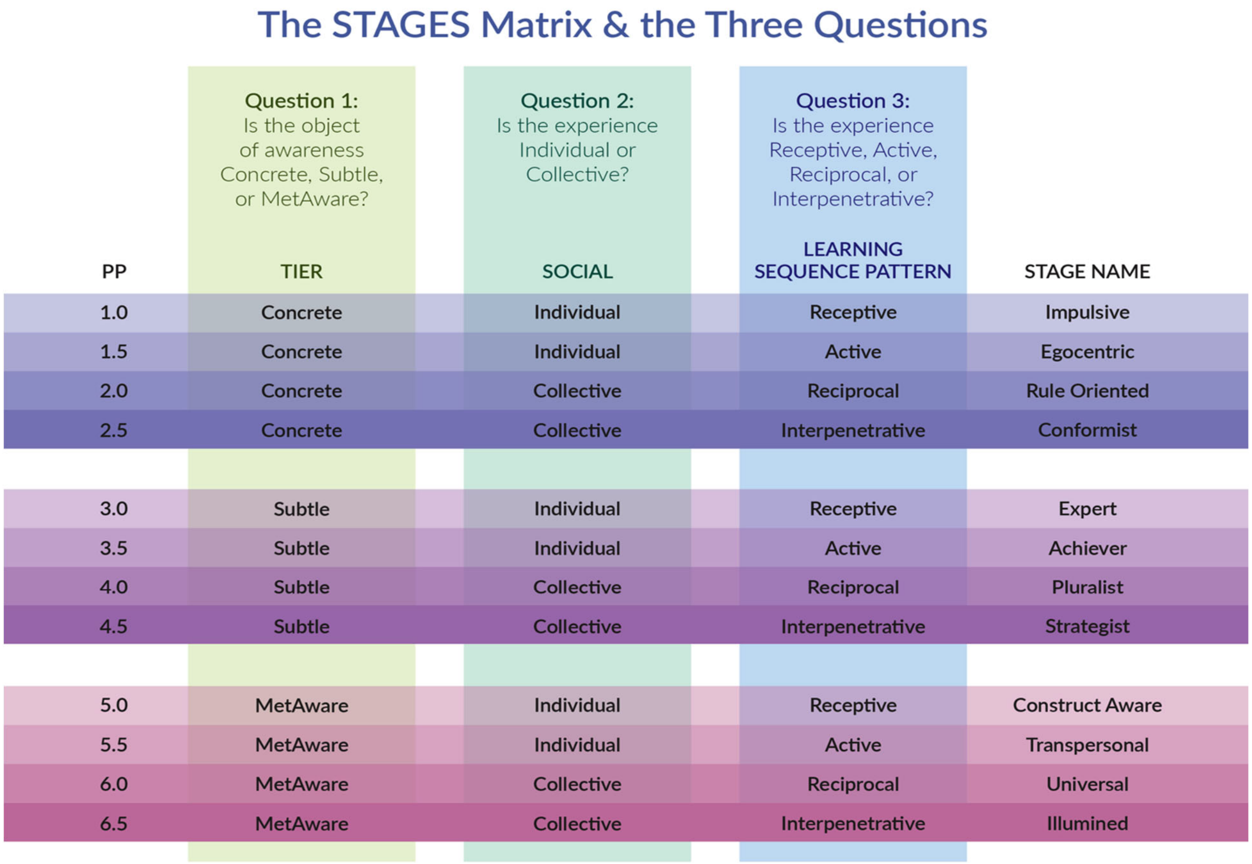
The STAGES Model

There are many developmental models to utilize when examining the relationship between states and stages. In this inquiry, we use the STAGES matrix as the developmental model for several reasons: Firstly, it has specific repeating parameter patterns that define each person perspective. Secondly, it spans development from birth to the latest researched stages, which allows us to view these repeating patterns through *concrete* developmental levels, the more common adult *subtle* developmental levels, and the later *metaware* developmental levels. Thirdly, this model is supported by peer-reviewed replicability research (O’Fallon, Polissar, Neradilek, & Murray, 2020), longitudinal research (O'Fallon & Murray, 2020), word studies, and descriptive qualitative studies which include both states and stages. Most importantly, the replicability study provides evidence for the validity of three parameters of the STAGES model, one of which is the process trajectory of receptive, active (either/or), reciprocal (both/and), and interpenetrative. This process leads to the interpenetration of states and stages and our inquiry, “Is there an interpenetrative version of the relationship between states and stages?”

The qualities of the STAGES Matrix, supported by research, provide useful fodder to compare states and stages from an interpenetrative perspective and are informed by Wilber’s (1995) AQAL model (individual/collective; interior and exterior quadrants, the zones, developmental levels, and states). The matrix integrates all of this with the Loevinger ego development lineage (Hy & Loevinger, 1996; Cook-Greuter, 1998; Torbert & Livne-Tarandach, 2009).

The STAGES Matrix defines the 12 person perspectives (PP) using three questions: What are the *phenomenological objects* that arise at each tier? Does the person lean more into an *individual view* or a *collective view*? What is the trajectory of the *learning process* (receptive, active, reciprocal, or interpenetrative) represented by repeating zones?

In addition, STAGES (and all ego development models in the Loevinger lineage) focus on “Who am I?” This question particularly arises at the 1.0, 3.0, and 5.0 developmental stages articulated in the STAGES Matrix below and is also a fundamental question often posed in state practices. Figure 3 shows a summary of this model.



The STAGES Matrix & the Three Questions

	Question 1: Is the object of awareness Concrete, Subtle, or MetAware?	Question 2: Is the experience Individual or Collective?	Question 3: Is the experience Receptive, Active, Reciprocal, or Interpenetrative?	
PP	TIER	SOCIAL	LEARNING SEQUENCE PATTERN	STAGE NAME
1.0	Concrete	Individual	Receptive	Impulsive
1.5	Concrete	Individual	Active	Egocentric
2.0	Concrete	Collective	Reciprocal	Rule Oriented
2.5	Concrete	Collective	Interpenetrative	Conformist
3.0	Subtle	Individual	Receptive	Expert
3.5	Subtle	Individual	Active	Achiever
4.0	Subtle	Collective	Reciprocal	Pluralist
4.5	Subtle	Collective	Interpenetrative	Strategist
5.0	MetAware	Individual	Receptive	Construct Aware
5.5	MetAware	Individual	Active	Transpersonal
6.0	MetAware	Collective	Reciprocal	Universal
6.5	MetAware	Collective	Interpenetrative	Illumined

Figure 3. The Stages Matrix: An Interpenetrative model.

To understand the rest of this paper, it is important to observe that in the STAGES Matrix, each stage represents a “perspective”. The first column in the matrix above shows the person perspective (PP) of each stage. Each perspective has a combination of three parameters that is distinct from every other perspective (the second, third, and fourth columns). Each PP is defined by the number in the PP column (1.0, 1.5, 2.0…). There are repeating patterns in this matrix, wherein each tier mirrors the previous and only the *phenomenal objects,* represented in the first “tier” column, change from concrete, to subtle, to metaware. Of special interest, the fourth column specifies when the either/or (active), both/and (reciprocal), and interpenetrative perspectives arise.

The STAGES model innovates over prior developmental models in the same lineage by specifying a small set of underlying parameters (dimensions) that lead to the unfolding of development (i.e., the three questions in the figure). In addition, compared to prior models, STAGES includes additional details about the earliest and latest stages (i.e., 1.0, 1.5, 2.0, 2.5; and 5.0, 5.5, 6.0, 6.5). This level of detail over a fuller range of the developmental spectrum allows us to notice foundational repeating patterns that would have been difficult to observe in prior models. This new theoretical model has been provisionally but strongly validated through a number of studies. For research on assessing STAGES developmental levels, see *The Validation of a New Scoring Method for assessing Ego Development Based on Three Dimensions of Language* (O'Fallon et al., 2020) and several research reports appearing in this issue.

In our exploration of the question, “How do states and stages interpenetrate?” we can begin by testing a theory that seeks two things: “Are certain states required to move into new stages?” and “does stage development propel the arising of new states?” This theory assumes that the previous models (based on either/or and both/and logic) are correct but that they may include insufficient detail regarding the whole developmental span required to form an interpenetrative model.

Part 2: Establishing the Inquiry: Proposing Research for an Interpenetrative Theory of Stages and States

Research Viewing Stages through the Frame of states

Various research studies have probed the relationship between developmental levels and state attainment. Some of this research has been conducted by *examining development through the eyes of horizontal states* in relationship to development. This approach addresses the question, *“Is there a relationship between one’s spiritual attainment and their developmental level?”*

To answer this question, a researcher would select a population of people who demonstrate designated states or are receiving state training, give them each a developmental inventory, and observe whether there is a relationship between their state attainment and their developmental level. This research thus far seems to indicate that there is little or no relationship. Spiritual practitioners with prominent state development seem to score, developmentally, all over the map. This research supports the Wilber-Combs and Diperna views that there is little or no relationship between state attainment and stage development. Concerning the view of horizontal states, these elegant approaches are correct and supported by research.

However, I am interested in another method to establish a research study using a question about this relationship: *“What are the states that arise at each developmental level?”* To answer this question, you would need to select a different population, of people who have already been tested developmentally, and then observe which states occur at each developmental level. The notion of vertical state development arises in purely state-based models (the great traditions) and are clearly described by Wilber (Wilber, Engler, & Brown, 1986; Wilber, 1983; 1991; 2006) and Diperna (2014) in their writing. However these theoretical models depict states as horizontal. Is there a theory highlighted by research that relates to how stages and states interpenetrate? This would require vertical states to interpenetrate with vertical development and still allow the possibility of horizontal states and horizontal stages. In other words, a model like this would transcend and include both the either/or models and the both/and models. Delving into this question could add supportive research to Kesler's IPP model. It represents the approach I utilize to support this theory.

Part 3: Preliminary Research: Viewing States through the Developmental Frame

This section includes a summary of the research that my colleagues and I have conducted over the past years to support a vertical view from the developmental levels and the states that naturally seem to arise at each level.

Early and late research. Using the STAGES developmental model, I have collected data on the developmental perspectives of humans from age around 4 years old at the 1.5 developmental level through the latest 6.5 developmental level. This included regular inventories that we score daily which mostly score at 3.0 Expert through 6.0 Universal and includes participants in the Generating Transformative Change program who scored approximately from the 3.5 Achiever stage to the 5.5 Transpersonal stage. The child research project, supported by the Brisbane Independent School in Australia, provided information from the 1.5 through the 2.5 developmental levels. We also conducted a study on the levels of the MetAware tier: 5.0 Construct Aware, 5.5 Transpersonal, 6.0 Universal, and 6.5 Illumined (O'Fallon et al., 2020).

The STAGES research thus includes the developmental levels from 1.5 through 6.5 (comprising eleven levels, as babies are too young for reliable research on their "perspectives").

Using this kind of span, we can perform quantitative and qualitative research at each developmental level and observe what they have in common, including states.

Longitudinal research: Fifteen years ago, I also initiated an ongoing longitudinal study of participants in the Pacific Integral's "Generating Transformative Change" program. In addition, I have been following a number of people who have scored in the MetAware tier and have performed retakes of their inventories several times. This research shows people's stage-to-stage trajectory from 3.0 Expert through 6.5 Illumined. The MetAware research supports this movement from stage to stage in the MetAware tier stages from 5.0 Construct Aware, to 5.5 Transpersonal, to 6.0 Universal, to 6.5 Illumined.

Word Studies: I also provided data for two research studies that responded to the question: "What are the prominent words that arise at each developmental level? The first research study, which I conducted, used 275,000 words in our developmental database, and four years later the second study conducted by Tom Murray covered 1.1 million words. Although there were minimal differences between these two studies, they confirmed that common state words (and their synonyms) consistently arise at particular stages. These include "focus/concentration" at the third person perspective; "aware" at the fourth person perspective; aware of aware (and synonyms) at the fifth person perspective, and "timeless and boundless" (and synonyms) at the 6th person perspective.

Qualitative Studies: In addition, I completed qualitative research on approximately 3,600 sentence completions on a specialty inventory on love, supported by Marj Britt. This research included every developmental level and supported the meaning of the developmental spiritual words that arose in the above word study. The descriptions that this research provided were close to the same descriptions of many of the traditions.

Preliminary Literature Review: I have carefully studied Ken Wilber (1981; 1983; 1991; 1995; 2006; 2017), Diperna (2014), Aurobindo (1990; 1992), the Free Library "Higher Stages of Development (n.d.), Brown (2006), Dalal (2001) and others as a means of connecting the literature with the preliminary results of our research in order to weave these various research studies together with a literature review.

Although these studies are not exhaustive, they support experiential reports and literature reviews of commonly accepted definitions of states and stages and their intersection. The combination of these studies allows us to make meaning across them all to begin to respond to the question, "*What states arise at each developmental level?*"

Part 4: Getting More Granular

A broader examination of the research projects and larger question can provide a useful overview of the roots of this preliminary evolutionary theory regarding the interpenetration of stages and states, but as is often mentioned, "the devil is in the details." We would want this theory to have an adequate overview that makes sense along with a more granular process that would support views ranging from a drop of water to the entire ocean. We thus begin with definitions.

Definitions

To establish a research project to respond to the question "What states arise at each developmental level?" several preliminary questions must be answered.

1. What is our definition of "stages" (perspectives)?
2. What is our definition of "states?"
    Cognitive/mind-based "views"
    Sensory, emotional-based experiences
3. What do states and stages have in common?
4. What is the definition of unification.

Definition of "Stages"

We define stages as successive developmental perspectives which each transcend and include the previous perspective. Robert Kegan employs a similar definition in his subject/object research: "The subject of one stage becomes the object of the subject of the next stage" (Kegan, 1994).

Definition of “States”

We provide two “state” definitions, with the first relating to emptiness and the other to fullness.

First, we define mind-based states as *temporary*, successive vantage points from which one views levels of reality, and these states gradually mature until they become a permanent “state stage.” Each vantage point transcends and includes the previous ones. These states increase capacities to utilize later and later views, and their viewing position is generally considered to be “empty” (while of course viewing objects that represent fullness). This indicates a vertical development of viewing or vantage point states.

Second, we define body-based, sensory emotional experiences such as temporary experiences of love, elation, gratitude, awe, fear, sadness, jealousy, etc. These states often form the basis of happiness or misery, and the positive states can be cultivated. Our research shows that these emotional states "grow up" as well (examples include concrete experiences of happiness, subtle experiences of elation, and MetAware experiences of a refinement of ecstasy). These states are felt in the body and often represent aspects of fullness.

These definitions have a common “transcend and include” evolutionary nature to them. This research utilizes the vantage point states since they represent the emptiness side of the states. The body-based states are not specifically tracked but are part of the fullness or “relative reality states” (which arise inside of the emptiness states).

Definition of Awakening/Unification

Awakening concerns the unification of all emptiness and fullness of all available objects currently found in the latest stages and stages that humanity can access. A more granular description shows what states and stages have in common related to emptiness and fullness: phenomena (fullness) with the emptiness of phenomena (emptiness), self (fullness) with the emptiness of a self (emptiness), space (fullness) with the emptiness/boundlessness of space (emptiness), and time (fullness) with the emptiness of time (emptiness). A form of awakening can occur any time after one has experienced the necessary developmental forms of concrete phenomena, space, self, and time (see Table 1 below). However, full awakening would include the interpenetration of all possible vantage points along with all the developmental stages that have thus far evolved in humanity.

States and Stages: Common Tenets; What are the fundamental areas that states and stages have in common?

As we examine the knowledgebase of states and stages, it is helpful to determine whether we can simplify to the most basic areas that both might have in common. Based on my preliminary studies, four areas seem to be in common, and states seem to be a mirror to the stages.

1. **Phenomena.** Both states and stages recognize and apprehend *phenomena* (objects) from their own views. In the STAGES developmental trajectory, research supports concrete objects, subtle objects, and MetAware objects.

In the states trajectory, there are similarly states that hold *gross phenomena*, *subtle phenomena,* and *very subtle phenomena.* These phenomena have been previously defined in different ways depending on the tradition’s particular definition, however they essentially mirror the opposite of relative phenomena: emptiness of concrete phenomena, of subtle phenomena, and of metaware phenomena. These kinds of states can occur horizontally (i.e., they arose before development was recognized). As a tenet of this theory, we utilize these states developmentally (as above) rather than horizontally.

2. **A Self.** In the developmental spectrum, we experience different levels of an ego: a concrete self, (our physical body), a subtle self (our identity beyond our physical body such as an authentic self), and a metaware self (identity as “conscious awareness”).

   We also apprehend the mirror opposite: the absence of a physical self, absence of a subtle self, and the absence of any form of self, which have been referred to as various forms of “no-self.” These are a mirror to the ego selves that develop in the stages and represent the emptiness aspects of state views.

3. **Space:** In the STAGES developmental trajectory, a sense of space begins when a baby is about 6 months old, when their eyes begin to mature and synchronize to result in depth perception. Beyond that, the experience of space develops when one becomes aware of boundaries, firstly regarding physical boundaries at 1.0 and 1.5 after depth perception occurs but more importantly the boundaries that rules provide, which arise for the first time at the 2.0 Rule Oriented stage. These morph into subtle boundaries and the MetAware boundaries of infinity (infinity arises earlier but not in relationship to eternity).

   In the states vantage points, one experiences the mirror opposite: the emptiness of concrete spaces, subtle spaces, and very subtle spaces where boundlessness arises on the other side of boundaries.

4. **Time.** In the developmental spectrum, we experience “in-the-moment” timelessness at 1.0 Impulsive and 1.5 Egocentric. About halfway through the 2.0 second person perspective (at about age 8), we experience an understanding of clock time of the past for the first time due to a consolidation of memory capacity. A sense of time continues to develop through the subtle understanding of time such as the future and a Metaware understanding of eternity (eternity is accessed earlier, but an understanding of its relationship to space has not yet arisen).

   From a state perspective, children are in oceanic “in the moment” time until about age 8. At this age, they begin to perceive a “past” due to the development of memory (stable visualizations + self-talk), and once ensconced in time, they can theoretically discover timelessness on the other side of time.

   Anyone who has this first understanding of time can hypothetically experience the timeless (which is an empty mirror of time) sometime during the second person perspectives but not earlier. We thus posit that a baby or toddler cannot "awaken" since they still lack the understanding of socially constructed time and thus cannot unify time and the timeless.

Stage and States Mirroring

The table below shows the mirroring between stages and states as they occur in the STAGES concrete tier.

Table 1. Relationship of Stages and States in the Concrete Tier.

Birth experience (phenomena are out of consciousness)	**Developmental Trajectory of Phenomena**	**State trajectory Formless/emptiness**	**Unification of columns 2 and 3**
No conception of objects->	Phenomenal Objects (1.0) ->	Object-less on the other side of objects	Phenomenal Objects + formlessness of objects
No conception of Self ->	A Phenomenal self (1.5) ->	Selfless on the other side of self	Self + selfless
No conception of space->	Phenomenal Space (1.0, 2.0) ->	Boundless on the other side of the bounded	Space + boundless
No conception of time ->	Phenomenal Time (2.0) ->	Timelessness on the other side of time	Time + timeless

If you cannot apprehend a sense of the emptiness of objects until you have the capacity to identify objects; if you cannot apprehend the emptiness of self until you have a self; if you cannot apprehend an experience of the boundlessness of space until you first have a sense of boundaries/space; and if you cannot apprehend an experience of the timeless until you experience time, then it would seem that you must have a developmental experience of objects, self, the bounded, and time before you can transcend them into the understanding of formlessness/emptiness. Once you achieve an understanding of a full self (the second column in the diagram above), you can begin to see its formlessness/emptiness (the third column). However, various kinds of *unification* arise when combining these two columns, which is not possible in this theory when only the first column exists.

If we define unification as the interpenetration of relative phenomena (developmental stages) and formless emptiness, it seems that there must be some process where development and states require each other for interpenetration to occur. In this theory, fullness (the developmental reality of form and formlessness on the other side of form [empty state views or vantage points]) would combine into the wholeness of unification.

When activating our unification experiences, we observe that they include both form and the formless. However, state practices in the past did not recognize developmental levels of adults.

Research indicates that the cognitive complexity required to deeply understand human development does not occur until 4.5 Strategist*,* which is a relatively new stage culturally, which causes me to wonder, how easy would it be to recognize interpenetrations of states and stages if you only had an understanding of states but not stages?

From the developmental side, we have recognized form but have not considered the trajectory of the hidden states through 12 developmental levels to determine how states might contribute to stage development, because it seems that the first 8 STAGES do not need to apprehend an experience of the “empty formless viewpoints” in order to continue to develop. Many people never arrive in the MetAware tier, where the trajectory of developmental vantage point views begins to display. Nonetheless, although they may form a hidden support for developmental growth, they may not be recognized as such.

This preliminary evolutionary theory of the interpenetration of states and stages concerns the developmental trajectory, where states are required at each stage to develop from the early life of young children through the latest researched level of 6.5 Illumined.

Looking at the relationship between stages and states from the view of each tier

We pose a series of questions below that motivate our discussion in the following sections.

The Concrete Tier interpenetration of States and Stages. From the above theory, we can posit that specific stages are required for these four empty/formless vantage point (view) states to arise in the concrete tier (see Table 1). However, there is a new question to consider, “Are there some states that the concrete stages require in order for the next concrete stage to occur that are not considered in the lineup of the great states (gross, subtle, causal, and non-dual)?”

The Subtle Tier interpenetration of States and Stages. Our research points to the understanding that the emptiness of phenomena, the emptiness of self, the boundlessness of space, and timelessness can arise at each of the subtle tier stages and are interpreted by the stage perspectives in which they manifest (the Wilber-Combs Matrix both/and model). However, is it possible that under the radar of the Wilber-Combs Matrix, certain states *must* arise in order for the next stage to mature?

The MetAware Tier interpenetration of States and Stages. MetAware longitudinal research studies highlight the necessity of a state for entry into the next stage. However, in this tier is it also possible that certain stages are required for the full manifestation of unification at the leading edge of developmental consciousness (all states and all stages)?

Summary: Our research and preliminary theorizing show the necessity of states for stage development in all three tiers as well as the necessity of stages to occur in order for the next vertical state to develop in all three tiers.

Part 5: The Interpenetration of States and Stages

The STAGES model shows that our capacities progress from *receptive* (one concept at a time), to *active* ("either/or," where one idea predominates), to *reciprocal* ("both-and," where the concepts have equal importance and we consider their interrelatedness), to *interpenetrative* (“one-within the other," where we see how the concepts co-define and co-emerge). We can posit that theories and models evolve along a similar trajectory of complexity. We noted how the Wilber-Combs matrix represents a "both-and" representation of states vs. stages, where each is separate and equally important, as a key advancement over prior "either-or" interpretations. Our model attempts to proceed to an interpenetrative interpretation of states and stages, whereby each is viewed as an integral component in the development of the other.

Although these theoretical suppositions may be interesting, how would they work on a granular rather than orienting generalization level? What existing research supports this process, which state fuels the next stage, and which will create the next state that will be necessary for the ensuing stage to occur?

The triangulation of the quantitative longitudinal study, the 1.1 million word study, and the qualitative studies that categorize the experiential descriptions that arise at each stage provides preliminary evidence that states are required to grow our developmental perspectives and that developmental stages are required for full unification states (if they are to include *all* relative reality available in all stages rather than merely part of relative reality). I have used these research studies to begin to document the states that arise at each developmental perspective. Of all these studies, four tenets have emerged that seem to contribute to this preliminary theory.

Four tenets that repeat to provide the interpenetration between Stages and States

In our theory, we extend the concept of "state" beyond those associated with spiritual or contemplative practices through all the developmental levels. In this way, basic capacities such as the ability to visualize or to notice one's own thinking process are also states.

1. States are necessary but not sufficient for moving from one developmental level to the next.

   For example, visualization is a necessary state for the 1.5 Egocentric to move into the 2.0 stage, but it is not sufficient since something else must happen first. Visualization at this stage is a “state.”

2. Each stage transformation has at least one primary confusion that must resolve in order to mature to the next developmental level.

   For example, the 1.5 Egocentric must overcome the following confusion: Visualization as a state does not recognize the difference between seeing on the inside (visualization) from seeing on the outside (observing with physical eyes). This represents a confusion that they need to address and grow through in order to progress to the mature part of 1.5.

3. To advance to the new stage, the view capacity of a particular state must be turned toward answering the confusion. Shining the light of that state onto the conundrum allows the confusion to resolve into clarity and the state to grow into a mature and stable person perspective stage.

   For example, once the 1.5 has achieved this differentiation, they can use visualization as a tool since it is a fundamental part of the final mature 1.5 stage. Visualization (separated from “seeing" with one’s exterior eyes) has become a state stage that is married to the final 1.5 structure stage.

4. Likewise, in order to “flip” from a stage into the next state which initiates the next stage, one must turn the present view of the mature stage back onto the self in order to reach the new state.

   This allows the maturing 1.5 to transition into 2.0. They can adopt the perspective of someone else by turning their visualizations, like a mirror, back on themselves, allowing them to notice that the other person is looking back at *them*. “I see you see me” is the fundamental requirement of entering into 2.0 Rule Oriented, which is initially an orientating state that comes and goes, ushering in a second person perspective.

   This first recognition of turning visualizations back on themselves and thereby seeing that someone else is seeing them is a “state,” which they cannot hold. This state is necessary but not sufficient to move into 2.5 Conformist, and this pattern repeats from one stage to the next and from tier to tier. These four steps are described in Table 2 below.

The next section details this theory of the interpenetration of stages and states and how it would function in a feet-on-the-ground application. I begin by covering the vertical states that are necessary but not sufficient for development to occur followed by the confusions that appear during transitions from state to stage. Lastly, I combine them into a matrix to show how these three areas integrate with each other to provide the developmental engine for transformation. It is important to note that I am using the STAGES developmental model in this theory.

Viewing States Through the Developmental Frame

States undergo a trajectory from gross, to subtle, to empty and to unification. States can be expressed both vertically (looking through developmental lens) and horizontally (through the lens of the Wilber Combs Matrix or Diperna's Spiritual Developmental Cube).

Below I have listed vertical states that seem to be required for development to occur at each stage. I arrived at these by accessing words often described in the traditions that landed solidly for the first time at each stage of development as determined by our 1.1 million word study. An example of one of these words is “awareness”. The descriptions were accessed through the qualitative research of sentence completions at each stage from 1.5 through 6.5. As I integrated these two research studies, state categories began to emerge. These are the names I have given or borrowed for the vertical states that are required for the maturing of development at each stage in this theory.

In this trajectory of states, the states in italics are in the receptive and reciprocal stages. The developmental levels of the reflector “view” or “Vantage point” states are in bold letters, and are found in active and interpenetrative stages.

States that are Necessary but not Sufficient for a Stage Transformation

Below we list states that exist at each level, and are necessary (but not sufficient) for the transition to the next level. We note the capacities that manifest with successive person perspectives as sensing (1stPP), thinking (2ndPP), cognition (3rdPP), awareness (4thPP), and consciousness (5thPP); and we use the term meta (as in meta-thinking) to note the latter or active half of each person perspective. These words have many meanings and are used here as convenient handles; however their definitions are not necessarily the same as the conventional definition of the words, as they each regard a specific definition that relates to its relevant person perspective.

The reflector states are the “meta” experience that is mature. For example, sensing begins with exterior sensing, and meta-sensing concerns interior sensing such as visualization. I call these reflector states since the first immature state is required to reach the reflector state, which takes a “reflective view” of the preceding immature state.

1.0 ***Sensing***. Receiving through the senses and early recognition of concrete objects/phenomena.

1.5 **Meta-sensing: Concrete Individual View (Reflector #1).** Visualizing and self-talk begin as interior senses that are disconnected from each other. Visualizing is reflecting on sensing: “I see me” and “I see you.” A concrete “self-identity” arises.

2.0 ***Thinking****:* Visualization and self-talk interpenetrate into concrete operations (Piaget, 1969). where a child needs manipulatives to reason. I see you see me (Fowler, 1989); I see you when you are not looking; you can see me when I am not looking. This “seeing” fuels rules, roles, and reciprocity.

2.5 **Meta-thinking: Concrete Collective View (Reflector #2).** This is formal operations (Piaget, 1969) which can adopt a reflective view of thinking. This allows them to reason without manipulatives and supports moral principles that are “us,” including reasoning about you as me and me as you. This prepares one to progress into the subtle tier.

3.0 ***Cognition****:* Abstract Cognition. This concerns focusing/concentration (*zooms in)* on subtle objects.

3.5 **Metacognition Subtle Individual View (Reflector #3):** This includes reflecting on cognition and regards subtle thinking about thinking, feeling, and their relationship to their own behavior.

4.0 ***Awareness of metacognition**:* This involves *zooming out* which allows seeing subpersonalities (each of which has thinking, feeling, and behavior), contexts, and complex adaptive systems.

4.5 **Met-*Awareness + focus;* Subtle Collective View (Reflector #4) (**​*Zooming in and out*) This concerns the awareness of you being aware of me, of me being aware of you, of interior and exterior contexts and systems in me and you, of the trajectory of development in me and you and of projections. This prepares one to progress into the MetAware tier.

5.0 ***Consciousness***: This allows the apprehension of highly subtle sensing (receiving subtle presence, attunement, meta-reflection, and projection in the moment and the integration of mind/body/spirit), the emptiness of word meaning, and boundaries.

5.5 **Meta-Consciousness- MetAware Individual Active View (Reflector # 5)** This regards the consciousness of awareness, which allows the seeing of the timeless and of the boundlessness (disconnected).

6.0 ***Higher Mind***: This concerns the timeless/boundless integrated with meta-conscious relative reality.

6.5 **Illumined Witness**: **Meta-Conscious Collective View (Reflector #6).** A witness as a space illumines the interpenetration of the concrete mind, subtle mind, MetAware mind, and Meta-conscious mind along with the concrete senses, subtle senses, and meta-conscious of the evolutionary trajectory of matter, life, and mind.

The Confusions

Another area that states and stages have in common are "confusions". John Churchill (2018) describes state confusions in his dissertation and there seem to be stage confusions as well.

People entering new vertical states initially experience unconscious confusions (described above in the four tenets) and cannot see them until they transform to the mature part of their stage. Below I describe some of the stage confusions that seem to arise at the beginning of each developmental level and are resolved by the end of that level in order to achieve a mature developmental state stage that can turn those aspects back on themselves. Once this occurs, they are able to enter into the new state which marks the beginning of a new developmental stage (described at 1.0 below). This pattern continues throughout the confusions. Please see table 2 below for a full description of this process.

Table 2. The Confusions.

	THE CONFUSIONS
1.0	Confuses physical self with other selves: fusion belief ("who am I?"). They cannot differentiate between where their body ends and another phenomenon begins. They must resolve these confusions before they can access the new self that arises when transitioning to the new 1.5 stage. The confusions are not initially recognized, and then the recognition

	occurs intermittently as they begin to see them. Once they see that there is a separation between themselves and other objects, they can turn that recognition back on themselves (i.e., the reflection of themselves they see in the mirror), and when sufficiently mature they progress to the next stage where they have identified a phenomenal self (and further confusions arise).
1.5	Confuses 1) visualizations & self-talk with physical reality; 2) confuses yours and mine; 3) confuses truth and lies.
2.0	Confuses the pronouns as moving objects ("I" and "you"): For example, everything recognized until this time has a name that stays with the object, however now language becomes more nuanced. The word "I" means "you" when you use that word and means "me" when I use it; and the word "you" means you when I use that word but means "me" when you use it. Word labels thus do not stick to the "objects" (you-me).
2.5	Confuses individual thought and action with collective thought and action: They think that they are making individual decisions and taking individual actions, but their thinking and actions are conformed to their identified group.
3.0	"Who am I?" Confuses their 2.5 collective identity with their 3.0 individual identity: They are beginning to make individual decisions and take individual action but cannot identify this difference with the collective thought and action taken in the 2.5 stage.
3.5	Confuses the fantasy/visualizations of the future with reality: They visualize a goal in the future and believe that it represents the reality that they will reach once the goal is achieved. When they reach their goal, they find that the reality is not the same as their visualizations of the future.
4.0	Confuses individual subtle insights/awareness with collective synchronicity: Their group discussions are long and nuanced, and eventually they see a decision emerge. They often label this as synchronicity and do not recognize the process of eliminating thoughts achieved by the group discussion--or the subtle insights that are conditioned in them from subtle social conditioning (social construction of reality). They cannot differentiate between the experience of being socially constructed and their own individuality.
4.5	Confuses one's own individual projections on others with other's projections on them. They will see that others judge them but don't see how they judge others.
5.0	Who am I? Confuses their 4.5 authentic identity (achieved through thought) with their newly forming MetAware identity: conscious awareness.
5.5	Confuses one's individual constructions with reified reality: Sees that their constructions are a story but does not see how acting on their own constructions becomes a reified reality. Confuses time with the timeless and space with the boundless.
6.0	Confuses infinity and eternity with the boundless/timeless.
6.5	Confuses witnessing as a location with non-dual awakening.

The Relationship between the States and Stages

There seems to be an evolutionary cycling that occurs between the states and stages. When transforming into a new perspective, certain states relevant to that stage occur, however they are not stable enough to ground the perspective. As the states become more grounded, they encounter confusions for that stage. To mature the state into a trait (the mature part of a stage), they must shine the light of the state onto the confusions in order to gain the clarity to resolve them (and thus "defuse" the tension of the confusion).

Once the stage is mature, they must turn the mature stage back on itself, which is sufficient to trigger the new state that is required for entry into the next developmental level. This new state is necessary but not sufficient to move into the new stage, because first it must sufficiently stabilize to encounter and clarify the confusions. This turns the unstable state into a mature trait which finalizes the stage, and then the state turned into a stage turns back on itself to trigger the next state required to mature into the next stage. This cycling continues to evolve the next state and stage, which is described in the Table below. Note that there is insufficient space to include full descriptions of the states, the confusions, the state to stage, and the stage to state. These are described above while Table 3 below shows how the interpenetration occurs and fuels development from one stage to the next.

Table 3. Interpenetration of States and Stages.

	States (necessary but not sufficient)	**Confusions**	**State to Stage**	**Stage to State** (necessary and sufficient)
	Views/vantage points...	*Confuses...*	*State becomes trait...*	*Stage turning back on self...*
1.0	**Sensing**: I receive from sight, sounds, touch (etc.) from concrete exterior objects/people	Physical me and you. Who am I?	Sensing becomes a stage: depth perception, hearing, touching integrates	Turning sensing back on the self: Concrete identity—“I see me,” “I see you.” (1.5)
1.5	**Meta-sensing** (interior visualizing disconnected with self-talk)	Visualizations with concrete reality. Yours with mine. Truth with lie	Visualizing & self-talk becomes a stage. **Reflector # 1**	Turning visualizations back on the self (“I see you see me”) on reflection (2.0)
2.0	**Thinking** (visualizing/self-talk integrates.) Needs exterior manipulatives and reciprocity with others to think (con-op)	Pronouns as moving objects “I” and “you.” See “confusions” described above.	“Thinking” with manipulatives and others becomes a stage (relativity, reciprocity, rules)	Turning “thinking” back on the self (2.5) “I am you”
2.5	**Meta-thinking** (formal operations-interior concrete thinking/ reasoning). Reasoning about you as me	Individual thought and action with collective thought and action	Meta-thinking becomes a stage. Interpenetration of self and other	Turning meta-thinking back on the self (3.0) “I see subtle me” on reflection

	Reasoning about me as you Reasoning about trajectory of moral principles that are us.		(concrete principles). **Reflector # 2**	
3.0	**Cognition** (abstract operations-subtle sensing: I receive subtle ideas, subtle emotions subtle reasoning using exterior subtle objects: maps, diagrams, tables, formulas etc., and people *Focus/concentration* arises	Subtle Me and you. Who am I?	Cognition becomes a stage. Subtle perception of seeing, hearing, and emotions	Turning cognition back on the self (3.5) ("I see subtle me," "I see subtle you").
3.5	**Metacognition** (thinking about thinking and feeling and how that affects behavior	Metacognitive thoughts and visualization of the future with reality	Metacognition becomes a stage. **Reflector # 3**	Turning metacognition back on the self. (4.0) Subtle "I see you see subtle me" on reflection
4.0	**Awareness** of Metacognition (sub-personalities, subtle reciprocity, subtle collectives: contexts and complex adaptive systems	Individual awareness with collective synchronicity	Awareness becomes a stage (subtle relativity and reciprocity).	Turning subtle awareness back on the self. (4.5) "I am you"
4.5	**Meta Awareness** Aware of you being aware of me Aware of me being aware of you. Aware of interior and exterior contexts and complex adaptive systems in me and you. Aware of trajectory of development in me and you.	One's own individual projections on others with other's projections on them.	MetAwareness becomes a stage. Interpenetration of subtle self with subtle other. Sees projection on reflection. **Reflector # 4**	Turning MetAwareness back on the self (5.0) I see MetAware "me" on reflection
5.0	**Consciousness** MetAware sensing (receiving very subtle presence, attunement, meta-reflection, projection in the moment, integration of mind/body/spirit	Conscious me and you. Who am I now?	Consciousness becomes a stage. Individual sees emptiness/ deconstruction of word meaning and boundaries.	Turning consciousness back on the self (5.5). I see conscious you; I see conscious me.
5.5	**Meta-consciousness** Consciousness of awareness. Sees timeless and boundless (disconnected)	Individual constructions with reification of reality	Meta-consciousness becomes a stage. Conscious of subtle ego, reification, and creativity with	Turning meta-consciousness back on the self (60). Meta-conscious "I see you see me" on reflection

			empty/deconstructed boundaries and word meaning on reflection. **Reflecting Knower #5.**	
6.0	**Higher Mind** (timeless integrated with boundless) experiences meta-conscious relative reality (cosmos whole)	Infinity and eternity with timeless-boundless	Higher mind becomes a stage. Reciprocity between timeless/boundless and meta-conscious relative reality (ocean and waves metaphor)	Turning higher mind back on the self (6.5): “I am you”
6.5	**Illumined** Timeless/boundless illumines. The concrete mind, subtle mind, MetAware mind, and meta-conscious mind; The concrete senses, subtle senses and meta-conscious evolutionary trajectory of matter, life, and mind	Confuses the formless witness with unification	Illumined mind becomes a stage. Interpenetration of witness and witnessed upon reflection. **Reflecting Knower Witness #6**	Turning illumined mind back on the self (7.0) (unification) “I am”

Viewing from full developmental trajectory through the tiers

Viewing from the full developmental trajectory of 12 stages brings new understandings that cannot be observed when viewing only from the first 4 concrete stages (1.0 Impulsive through 2.5 Conformist) and the first 8 concrete and subtle stages (1.0 Impulsive through 4.5 Strategist). The four concrete tier stages and four latest MetAware stages can be viewed significantly differently when viewed from the whole.

Our intention below is to enrich prior descriptions of the MetAware tier by using the patterns observed in the concrete tier as a framework for understanding the MetAware tier.

View of the Four Stages in the Concrete tier from the Whole Developmental Trajectory

At birth, the 1.0 Impulsive level does not recognize objects although they can see with their eyes. They also have little recognition of space since their eyes do not mature and sync with each other to provide depth perception until around 6 months old. They gradually acquire a perception of objects and ability to point to them when labeled, and they gradually orient themselves in space when they begin to crawl and walk. However, they still lack a sense of their physical self as “me.”

The 1.5 Egocentric level (sometimes called the archaic, purple, and the terrible twos) is initiated when the sense of identity of a physical self occurs, but while they have a sense of space they do not yet have a sense of boundaries, which continues to develop.

Upon entry to 2.0 Rule Oriented level (sometimes called archaic/magic, early second person perspective) they begin to identify boundaries in rules but do not yet understand the concept of time.

Although a person who does not understand time might be viewed as being in the "timeless," these three levels (1.0, 1.5, entry 2.0) are in a timelessness that is "before" time (see Table 1 above). Their memory capacity is not sufficiently mature to possess a stable sense of time, and thus they cannot progress beyond time to access the timeless and thus cannot unify time with the timeless. You will often hear a child at this stage repeatedly ask "Are we there yet?" when traveling.

Unification calls for unifying phenomena with the formlessness/emptiness of phenomena, the boundlessness on the other side of bounded space, the formless/empty self on the other side of the ego-identity of self, and timeless on the other side of time. Timelessness on the other side of time would provide the necessary and sufficient state to allow for the unification of time and the timeless.

In children, the concept and experience of time does not manifest until approximately 8 years old, and thus full unification does not seem possible until after the age of 8, and we would not be able to make the claim that all stages can access the gross, subtle, formless/emptiness, and unification states before then. As Table 1 above highlights, 1.0 Impulsive, 1.5 Egocentric, and part of 2.0 Rule Oriented stages do not yet have the developmental experience to reach the emptiness/formlessness of time which, in this theory, is a requirement for states of unification.

The first time this logically occurs is at the 2.5 Conformist stage, where we find a concrete unification in some traditions (for example, Theravada Buddhism and other conformist versions of the traditions).

View of the Four Stages in the MetAware tier from Whole Developmental Trajectory

The last four developmental levels at the MetAware tier progressively explore the formless/emptiness of objects depicted by words and labels (words/concepts and boundaries are viewed as constructs at 5.0), the self (constructed ego aware seen at 5.5), and the timeless (entry to 6.0).

Notice that these three stages mirror the first three stages of the concrete tier. The concrete tier stage of 1.0 Impulsive accesses the relative reality of concrete phenomena and space, while the MetAware tier stage of 5.0 Construct Aware accesses the formlessness of word meaning (phenomena) and bounded space.

The 1.5 Egocentric accesses the identity of a concrete self, while 5.5 Transpersonal accesses the formlessness of the subtle ego and consciousness of awareness as their identity.

Entry 2.0 Rule Oriented develops a sense of time, while the transition into 6.0 Universal requires access to the timeless.

The stages and states between these two tiers (the Subtle tier) seem to developmentally access everything else. In other words, the concrete tier stages require access to concrete objects (phenomena), a concrete self, concrete space, and concrete time, while the MetAware tier requires access to the formlessness/emptiness of phenomena/objects; the meaning-making of labels and stories; the emptiness of the meaning of a self; and the boundless and timeless.

The subtle tier then has access to both the relative and the emptiness/formless. You can continue to develop (if you mature the required state into a stage) and can continue to “awaken” (because you already have access to the required relative understanding to see beyond into emptiness). This allows someone to develop into the subtle stages (3.0-4.5) without moving into the emptiness/formlessness states and also allows one to attain all of the emptiness formless states and bring them into unification with any of these particular stages. One can thus achieve one (receptive 3.0), or the other (3.5 active either/or), or both (4.0 both/and) – everything in between the concrete and MetAware tiers).

The Wilber-Combs Matrix (Wilber, 2006) and its derivatives (Diperna, 2014) seem to resonate well here. I wish to clarify that both Wilber and Diperna describe states and stage recognition up through the MetAware tier. Their models regard orienting generalizations which do not delve into the granularity of a theory of how states and stages relate to each other in an interpenetrative manner. It is clear to me that this model is not likely to provide followers of their models any new understandings on a grand perspective, but perhaps it can support a more granular theory that uses research findings to interweave with theory creation and support a developmental practice of integrating states and stages in ways not previously considered.

It appears that much of our experience in the concrete tier, with states and developmental stages in their various combination, is viewed after the first two or three stages, where insufficient development has occurred to provide the relative side of reality for unifying the relative and the formless.

In the MetAware tier, development is adequate on the relative side of reality, however the states required for continued development and unification may have not yet been acquired. In this theory. A person could develop through 4.5 Strategist without accessing any kind of formless state.

This theory is supported by our analysis of vocabulary frequencies in a 1.1 million word study, the qualitative research studies conducted on every developmental level, and the word definitions and descriptions that arise at each stage. This all is supported by our peer-reviewed article describing the validity of the STAGES model (O’Fallon et al., 2020).

This preliminary theory attempts to utilize something more finely grained than orientating generalizations and responds to the question, can we gradually awaken simply by growing up?

Remaining questions include: Both vertical and horizontal states have been recognized, but what about vertical and horizontal stages? How are evolution and involution related to this theory?

Summary

This article has proposed a preliminary theory about the interpenetration of states and stages. The history of the evolution of theories regarding how states and stages are related seems to hint at ever-ensuing theories about their relationship. The proposed theory of the evolutionary interpenetration of states and stages that this article proposes represents one possible next step.

Because research partly underpins this theory, it is important to understand what kind of research approach supports this inquiry and how selecting the appropriate subjects for this research would affect the results. The research studies do not verify the theory but do provide part of the triangulation and some evidence that can highlight theoretical aspects and cull aspects that seem to be detractors and not fundamental to a theory. Each study we have conducted supports the view shaping this theory.

This research, then, uses the evidence I have gathered so far to delve into the theory of how the stages and states interpenetrate and how this relationship evolves.

In order to support a clear understanding, a set of definitions is required, and thus the next stage of this theory building is to define the words and concepts of “states, stages, and awakening/unification.” It is also important to note the trajectory of how states mature and grow and the areas they have in common with stages: phenomena, self, space, and time. Although there may be other more detailed and complex commonalities, it seems that these are the most primary or basic categories we can utilize.

In the stages model, phenomena arise in the first column of the matrix, while the self/collective arises in the second column. Space and time, which are evolutionary and have trajectories, arise in the repeating patterns of the third column since these trajectories of receptive, active, reciprocal, and interpenetrative become increasingly wider as they progress through the three tiers.

Proposing three repeating tenets that tie states and stages together into interpenetration represents the next step: 1.) Necessary but not sufficient 2.) The confusions 3.) Turn it back on yourself.

These components combine in this beginning theory that describes an evolutionary sweep of repeating patterns between states, confusions, and stages and how they interact to fuel the interpenetration of state and stage development.

An evolutionary theory is never complete, and I look forward to watching it unfold and engaging in the delightful questions that emerge.

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A Summary of Research on and with the STAGES Developmental Model

Tom Murray[1] **and Terri O'Fallon**[2]

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1. Introduction

The STAGES model of adult development is a new framework created by Terri O'Fallon, in consultation with several colleagues over the past decade (O'Fallon, 2010, 2011, 2012, 2013). The model is an extension of the ego-development framework, including the sentence completion test (SCT) mode of assessment, formulated by Jane Loevinger and updated by Susanne Cook-Greuter. It includes elements inspired by Ken Wilber's AQAL model and Sri Aurobindo's model of psychospiritual development (Wilber, 1995; Aurobindo, 1992). The STAGES model diverges from the earlier frameworks in two ways. First, it proposes a small set of underlying factors (parameters or dimensions) that bring about and describe the progression of developmental levels explained in the prior theories. Second, test scorers use an alternative scoring procedure based on these parameters.

Within the past five years, a series of empirical studies have helped launch STAGES from its gestation into a new level of maturity and rigor (a modest step in the usually long process of validating and solidifying any assessment). In this paper, we summarize the results that are reported in detail in several other papers. This paper appears as part of a special issue of the *Integral Review* journal dedicated to the STAGES model. In the “Introduction” article of that issue, we summarize about a dozen empirical research projects, most from within academia, that have used the STAGES assessment or its derivatives as a component of the research project. Given the newness of the model, this count is significant and is an indication of the face validity and usefulness of the model. These STAGES application areas include investigations of organizational change in successful organizations, developmental analysis of women leaders, reflective self-knowledge in healthcare practitioners, psychological resilience in prison inmates, and assessment of the sophistication of climate change understanding.

In this article, we focus on studies that have aimed to validate the STAGES assessment or learn more about its psychometric properties. These studies include:

1. a summary of **prior research** on the sentence completion test (SCT) method;
2. a **replication study** showing that the STAGES model tracks very well with the Maturity Assessment Profile (MAP) method from which it was derived, up to 4.5/Strategist (Replication was not attempted above this level for the reasons described).;
3. studies showing that the STAGES assessment remains robust for **variations in sentence stems and test lengths**;
4. l**ongitudinal** data analysis that shows, among other things, that the MetAware (Tier 3) stages exhibit appropriate developmental progression;
5. additional analysis of **late stage patterns** that shows that confirms that those scoring in the Metaware tier have a substantial number of test items scored at the complex 4.5/Strategist level;

6. additional inter-rater analysis, including more recently trained scorers and per-item inter-rater reliability (IRR) statistics;

7. a research study that uses **item response theory** and Rasch analysis to investigate many psychometric properties of the STAGES assessment and that elaborates on a number of **problems with the** ogive item-aggregation method while also suggesting an alternative;

8. a "**Face Validity**" section describing various uses of the STAGES model, including its use in 10 dissertation or thesis projects.

9. a description of preliminary analysis of how specific **words/concepts** appear as **frequency distributions** across the stage spectrum; and

10. description of a study on **how children respond** to the sentence completion test.

In several of our research papers, we make a point of noting that positive results on the STAGES assessment generally transfer to positive results for the Loevinger lineage of SCTs, including Cook-Greuter’s and Torbert’s MAP, Global Leadership Profile (GLP), and Leadership Development Profile (LDP) SCTs. Our articles also discuss properties that differentiate STAGES from the other assessments in this lineage. However, many of the conclusions we draw (e.g., regarding the validity of much shorter versions of the SCT and the validity of using alternative sentence stems) can be applied by other SCT developers.

2. The STAGES Model

The SCT for adult development, created by Jane Loevinger and later extended by Susanne Cook-Greuter, William Torbert, and Terri O'Fallon, is arguably the most thoroughly researched, validated, and used developmental instrument in adult psychology. Loevinger used the term "ego development" for this "holistic" view of personality and cognition that "[sees] behaviors in terms of meaning or purposes" (Loevinger & Wesler, 1970, p. 3).[3] Ego development has been described using a variety of concepts including leadership maturity, perspective-taking complexity, sophistication of world-view consciousness, and "wisdom skills." It has substantial overlap with the construct of meaning-making maturity described in Kegan's construct developmental theory (Kegan, 1994). Kegan describes this construct as a "consistency in the structure (or order of complexity) of one's meaning-making (i.e., how one thinks)" (1998, p. 55) about the relationships between self, others, and the world – intrapersonal, interpersonal, and cognitive in Kegan's terms and "I/we/it" in terms of Wilber's Integral Theory (1995).

The SCT is a "projective" test in which subjects complete sentence starters, responding freely without a need to produce a "correct" or superior answer – which the theory claims affords the test analyst a deeper look into tacit or unconscious psychological traits. The standard SCT has 36 independently rated sentence starters, or "stems" (e.g., "Raising a family…" and "When people are helpless..."), which the test taker completes (e.g., "…is a joy" and "…they get taken advantage of"). Sentence completions vary from a few words (or even one word) to full paragraphs (and, rarely, multiple paragraphs). Rather than taking a simple sum or mean of the item scores, the total protocol rating (TPR) score uses a more complex cutoff method called the "ogive method" for reasons we describe later. The ogive method converts a complex, continuous score into one of a set of discrete categories (i.e., levels or stages): 8 for Loevinger's model, 9 for Cook-Greuter's and Torbert's models, and 12 for O'Fallon's model.

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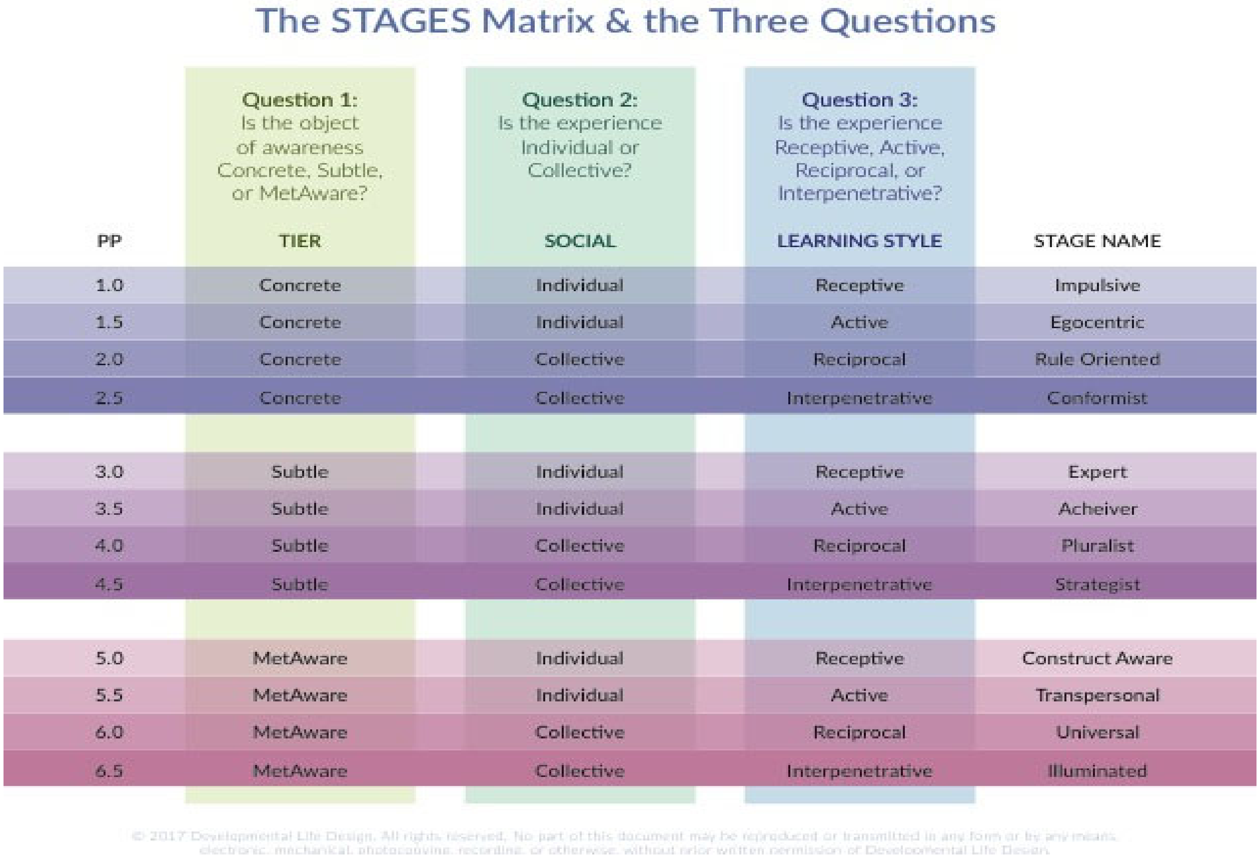
[3] Browning (1987, p. 113) describes ego development in terms of "a series of developmental stages that are assumed to form a hierarchical continuum and to occur in an invariant sequence…[that describes a] person's customary organizing frame of reference, which involves…an increasingly complex synthesis of impulse control, conscious preoccupations, cognitive complexity, and interpersonal style."

Regarding the theoretical model, Cook-Greuter extended Loevinger's system by differentiating two stages (Construct Aware and Unitive) within Loevinger's final stage, a model also used by Torbert and associates. O'Fallon's research has taken this progression further, differentiating four stages (5.0, 5.5, 6.0, and 6.5) within the same late-stage territory. O'Fallon also differentiates the Conformist (or Diplomat) level into two levels, basing this and her other modifications on theoretical principles. Thus, the STAGES model defines 12 levels, MAP/GLP/LDP defines 9, and the Washington University Sentence Completion Test (WUSCT) defines 8.

In this issue, other papers, including O'Fallon et al. (2020) and Barta's "Psychological Application of the STAGES Model," describe the STAGES model in detail. Figure 1 illustrates the three questions that define the model.



The STAGES Matrix & the Three Questions

	Question 1: Is the object of awareness Concrete, Subtle, or MetAware?	Question 2: Is the experience Individual or Collective?	Question 3: Is the experience Receptive, Active, Reciprocal, or Interpenetrative?	
PP	TIER	SOCIAL	LEARNING STYLE	STAGE NAME
1.0	Concrete	Individual	Receptive	Impulsive
1.5	Concrete	Individual	Active	Egocentric
2.0	Concrete	Collective	Reciprocal	Rule Oriented
2.5	Concrete	Collective	Interpenetrative	Conformist
3.0	Subtle	Individual	Receptive	Expert
3.5	Subtle	Individual	Active	Acheiver
4.0	Subtle	Collective	Reciprocal	Pluralist
4.5	Subtle	Collective	Interpenetrative	Strategist
5.0	MetAware	Individual	Receptive	Construct Aware
5.5	MetAware	Individual	Active	Transpersonal
6.0	MetAware	Collective	Reciprocal	Universal
6.5	MetAware	Collective	Interpenetrative	Illuminated

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Figure 1. The STAGES model.

3. Validity of the Sentence Completion Test

[This paper contains excerpts from "Sentence completion assessments for ego development, meaning-making, and wisdom maturity, including STAGES," by Murray (2017).]

Murray (2017) contains a lengthy summary of validity and reliability studies of the SCT, supporting Westenberg et al.'s conclusion that "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485). Below we provide a summary of the main outcomes of this history of research on the SCT for inter-rater reliability, internal consistency, test-retest reliability, face validity, construct validity, incremental validity, clinical utility, external validity, and predictive validity (included in text copied from Murray (2020) in this issue). In later sections, we discuss the analysis of the STAGES model.

Of the more than 400 studies of the SCT, the majority were conducted with Loevinger’s WUSCT, but studies of the other variations inevitably replicate the results of the WUSCT’s general validity characteristics. Torbert (2014) summarizes a number of studies on the MAP, GLP, and LDP instruments that postdate the WUSCT studies.

Loevinger's theory of ego development was intricately linked to her assessment instrument, the WUSCT. (Hy & Loevinger, 1989; Loevinger & Wessler, 1970). The literature on the SCT includes over 40 years of meta-analyses and critical overviews, which substantially support its validity and usefulness (see Cohn & Westenberg, 2004; Manners & Durkin, 2001; Holt, 1980; Novy & Francis, 1992; Jespersen et al. 2013; Westenberg et al., 2004b; Forman, 2010). According to an overview by Westenberg et al. (2004a), the SCT has robust psychometric properties, having "indicated excellent reliability, construct validity, and clinical utility" (p. 596). They further state that "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485), and dozens of studies have followed since 2004 (Torbert, 2014).

Blumentritt (2011, p. 153) says that "more than 1,000 articles and book chapters have been published examining nearly every conceivable aspect of the construct and measurement of ego development," overall showing "substantial support" for the theory and measurement. Most of these studies are based on the WUSCT, but some use the MAP/GLP/LDP variations. For reasons given above, we claim that these results apply to STAGES as well. Results of the meta-analyses include the following:

- "Psychometric studies of the WUSCT…invariably report high levels of inter-rater reliability" (Westenberg et al., 2004a, p. 603; see Torbert & Livne-Tarandach, 2009 for strong results on the MAP, GLP, and LDP; and see O'Fallon et al., 2020 for strong IRR on STAGES).

- "The WUSCT [displays] high **internal consistency**: Most studies report a Cronbach's alpha of .90 or higher" (Westenberg et al., 2004b, p. 693; see Torbert & Livne-Tarandach, 2009 for strong results on the MAP, GLP, and LDP; and later in this paper for strong internal consistency in STAGES).

- "In terms of **test-retest reliability**, when sufficient time is allowed between the two tests to allow for motivational effects, significant correlations have been found between test and retest scores" (Manners & Durkin, 2011, p 545).

- "The **face validity** of the SCT is demonstrated by the sheer fact that it has been used in more than 300 research studies [including] such diverse topics as parenting behaviors, managerial effectiveness, and the effects of meditation on recidivism rates" (Phaffenberger, 2011, p. 10).

- The SCT has "excellent reliability, **construct validity**, and clinical utility" (Westenberg et al., 2004a, p. 596).

- Longitudinal studies have confirmed the sequential **invariance** of the developmental steps (i.e., *no stage can be skipped*) (Loevinger, 1998).

- The SCT has **incremental validity** over IQ and socioeconomic status (SES) measurements (Browning, 1987; Cohn & Westenberg, 2004).

- The SCT has proved applicable in different countries, **cultures, and languages** (see Carlson & Westenberg, 1998).

- Though there have been fewer studies on the **predictive validity** of the SCT, Vincent notes that "a growing body of studies is showing associations between increasing consciousness development and better leadership performance and organizational outcomes" – and she cites a substantial 21 articles in this regard (2015, p. 2). Other indications of predictive and **external validity** can be found in Torbert (2014), McCauly et al. (2006), and Harris (2005).

4. STAGES vs. MAP Replication Study

*[This section contains excerpts from The Validation of a New Scoring Method for Assessing Ego Development Based on Three Dimensions of Language, by O'Fallon et al., 2020: [*https://doi.org/10.1016/j.heliyon.2020.e03472*]*

The first major study of the validity of the STAGES assessment method was a "replication study" comparing the STAGES model to the MAP model (from Cook-Greuter), from which STAGES was derived. The main purpose of the study was to show that SCTs scored by both systems would have a high reproducibility (i.e., to show that STAGES measures essentially the same general construct) while using an assessment methodology that is, according to its developers, more flexible, efficient, and explanatory.

Because the two systems have relatively different definitions of levels above 4.5/Strategist, the replicability study was conducted for stages up to and including 4.5. We called this the Tier 1-2 data set, and the data for levels higher than 4.5 was called the Tier 3 data set (Metaware tier in the STAGES model). Note that according to very rough estimates of the general population, Tiers 1 and 2 combined represent approximately 98% of all adults and 92% of all professionals (Cook-Greuter, 2004, p. 279; Torbert, 2009).[4]

Because of the expected divergence in level definitions in Tier 3, for that tier, we conducted an IRR study as an indicator of test consistency (see the longitudinal analysis below for evidence of Tier 3 validity). The study included an IRR analysis for the full set of inventories, combining Tiers 1 and 2 with Tier 3.

Method. From a set of approximately 750 inventories, most of which were scored previously using the Cook-Greuter/Loevinger (CG/L) method, 142 were selected for this study using stratified methods described in the main paper. The selection criteria considered that the goal was to have sufficient representation in each of the 32 stratified sampling categories and to have approximately 12 inventories at each STAGES level.

For this study, each of these inventories was scored by three STAGES scorers using random assignment of inventories to four certified scorers (i.e., there were four scorers with inventories assigned such that each inventory was scored thrice).[5] The MAP scores were taken as the gold standard against which STAGES scoring would be measured (the IRR of the MAP scoring system had been previously demonstrated). Having four independent raters for the STAGES system comprises a particularly rigorous method of testing. We compared the STAGES model and MAP compared both per rater and for all raters collectively. Because one of the scorers ("scorer #1") was in the unique position of having learned both the MAP and STAGES scoring methods, a separate analysis was performed, aggregating the three other scorers as well as looking at all four scorers together.

The level of agreement for Tier 1-2 data was quantified by the weighted Cohen's Kappa statistic (Cohen, 1968). Using the Kappa statistic, we compared the STAGES scoring for each of the three scorers separately with the single CG/L score. Furthermore, we calculated the mean Kappa values across all scorers.

Results. For the Tier1-2 study (up to 4.5), there was "substantial" or "excellent" agreement[6] for all methods of evaluating STAGES vs. MAP scoring (i.e., for each scorer, for all combined, and for all except scorer #1).

For the Tier-3 study, including levels 5.0, 5.5, 6.0, and 6.5, the overall agreement among the raters was "substantial" and the agreement was "moderate" for the analysis with the more experienced scorer #1 excluded.

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[4] However, for the clients served and scored by Pacific Integral, the percent scored in Tier 3 is higher, approximately 25%.

[5] To date, approximately10 individuals have been certified to score using the STAGES model, and more are under supervision for certification. The first cohort of four trained scorers, now referred to as master scorers, participated in the validity study described in this research.

[6] Using a widely referenced set of labels, Kappa values can be interpreted as follows: $\kappa < 0.0$, no agreement; $\kappa = 0.0–0.20$, slight agreement; $\kappa = 0.21–0.40$, fair agreement; $\kappa = 0.41–0.60$, moderate agreement; $\kappa = 0.61–0.80$, substantial agreement; and $\kappa = 0.81–1.00$, excellent agreement (Landis, 1977).

For the all-tier (Tiers 1, 2, and 3) study, the IRR among scorers across all 12 stages was strong both for all scorers and where the more experienced scorer #1 was excluded.

The results above summarize the overall agreement between the two models. At a more detailed level, we might ask how this agreement looks at each developmental level. Appendix 4 of the main article includes a detailed look at the per-level agreements, as shown in Table 1. That paper explains how the Tier 1-2 scores of all raters were combined to produce the STAGES scores given in the table.

Table 1. Agreement details for STAGES vs. Cook-Greuter/Loevinger systems.

(CG/L)*	1.0 (2)	1.5 (2/3)	2.0-2.5 (3)	3.0 (3/4)	3.5 (4)	4.0 (4/5)	4.5 (5)	**Total**	**Agrmnt**	**Agree +/- 1**
STAGES										
1.0	**4**	0	0	0	0	0	0	4	100.0%	100.0%
1.5	5	**5**	3	2	0	0	0	15	33.3%	86.7%
2.0-2.5	3	5	**35**	9	1	0	0	53	66.0%	92.5%
3.0	0	2	9	**21**	1	0	0	33	63.6%	93.9%
3.5	0	0	1	4	**28**	7	3	43	65.1%	90.7%
4.0	0	0	0	0	3	**19**	6	28	67.9%	100.0%
4.5	0	0	2	0	3	9	**23**	37	62.2%	86.5%
5.0	0	0	0	0	0	1	4	5		
Total	12	12	50	36	36	36	36	218		
Agrmnt	33.3%	41.7%	70.0%	58.3%	77.8 %	52.8%	63.9%			
Agree +/- 1	75.0%	83.3%	94.0%	94.4%	88.9 %	97.2%	91.7%			

(*The CG/L stage is noted in parentheses).

Table 1 shows the number of STAGES scores assigned to each CG/L score for each possible STAGES score. For example, the first item in the table with a count of "4" indicates that, totaled over all four scorers, there were four instances of a CG/L score "2" with a STAGES score of "1.0." The table shows percent agreement for each row and column and includes an agreement ("+/- 1") within a one-level window. The total number of inventory scores was 218 across the four scorers. As the CG/L system does not differentiate 2.0 and 2.5, these were combined. The agreement numbers can be interpreted in relation to the fact that certified scorers in both systems exhibited a margin of error – usually at least 85% agreement between accuracy and a master scorer.

From these detailed results, we concluded the following:

- Similar to the analysis of the Tier 1-2 study, the overall weighted Kappa score for this matrix was 76%, well into the "substantial agreement" level.

- The number of exact matches (values along the diagonal) varied per level. For levels above 1.5, there was a substantial number of exact matches, but for levels 1.0 and 1.5, the number of matches was unacceptably low relative to the number of inventories rated at this level by CG/L). However, in real applications, less than 1–2% of adult individuals were expected to score at these levels, making this mismatch insignificant.

- The "within one level" metrics were all high, ranging from 86.5% to 100% for levels above 1.5.

The STAGES model seemed to bias the following levels marginally higher compared to CG/L – 2.0–2.5, 3.5, 4.0 – while it seemed to bias levels 3.0 and 4.5 slightly *lower* than CG/L. Colleagues have expressed anecdotal concerns that the STAGES model would bias the highest developmental levels higher than the CG/L model, thus giving participants a false sense of higher development. Our data suggest a small degree of such an effect in assigning CG/L Pluralist (4.0) scores into Strategist (4.5), but it shows a reversal of this trend for the highest level where the bias is for STAGES to rate CG/L Strategist individuals as Pluralist, or lower. Overall, there does not appear to be a significant shift, higher or lower, in STAGES vs. CG/L scoring. As mentioned in the description of the Tier 1-2 study, at levels above 4.5, the available data did not allow for a robust comparison, and this question remains for future research.

Overall the study supported the hypothesis that STAGES replicates MAP scoring, and is thus comparable to prior measurement methods in the Loevinger tradition, up through 4.5/Strategist. Later research described below adds substantially to these results, in terms of inter-rater reliability (section 8), and the validity of measurements in the Metaware tier (sections 6, 7).

5. Modifications to Test Length and Sentence Stems: Internal Consistency

[This section contains excerpts from two papers in this journal issue: "The STAGES Specialty Inventories: Robustness to Variations in Sentence Stems Integral Review," by O'Fallon & Murray and "Investigating the Validity of the Ogive Aggregation Method, Including the use of Rasch Analysis, for the Sentence Completion Test and the STAGES Model," by Murray.]

Using the Cronbach's alpha statistic, prior research on the reliability of the WUSCT and its derivatives (MAP, GLP, and LDP) has consistently shown good to excellent results for internal consistency. Prior studies have evaluated specific inventories, and we have extended this research with general conclusions regarding the robustness of the SCT to changes in sentence stems.

The STAGES model allows for efficient introduction and experimentation with variations of the SCT, including new sentence starters and length variations. O'Fallon and colleagues have developed and evaluated "specialty protocols" in these domains: leadership, love, education, climate change, and a children's version of the SCT. Most of the specialty protocols replace six of the general protocol stems with theme-specific stems. In this issues' "Specialty Inventories" paper, we show the results of the internal-consistency studies of (a) the STAGES general protocol, (b) six specialty protocols, and (c) a shorter 16-item inventory.

Next we describe reliability analysis of the six new ("specialty") inventories: leadership, love, education, psychological reflection, climate change, and a children's inventory For the children's inventory, 53 children, age range 4-13 enrolled in a progressive elementary school in Brisbane Australia, gave verbal answers to in-person prompts; recordings of their answers were transcribed. The data is shown in Table 2.

Table 2. Cronbach's alpha internal consistency values for specialty protocols.

	Cronbach's alpha					
Domain	**Leadership**	**Love**	**Education**	**Climate Change**	**Psych**	**Children**
N in study	32	20	20	32	17	53
New stems (of 36)	6	6	6	6	5	11
α All 36 stems	0.97	0.95	0.95	0.96	0.92	0.88
α General prot. stems only	0.96	0.94	0.94	0.95	0.90	0.85
α New stems only	0.85	0.82	0.83	0.82	0.80	0.63

Conclusions: For the five specialty inventories excluding Children's:

- the overall internal consistency was excellent (α 0.95 to 0.97).
- the internal consistency for the new stems as a group was good (α 0.80 to 0.85).
- For the Children's inventory:
- the overall internal consistency was good (α 0.88).
- the internal consistency for the new stems as a group was questionable (α 0.63).

Overall, these results not only show evidence about the reliability of the particular specialty inventories, but it is also show evidence that the SCT is quite robust to the addition of new stems, assuming they are well-written. It also gives evidence that even a short test containing only six specialty stems would be a psychometrically reliable instrument.

The Children's protocol is a special case. First, there were almost twice as many new stems as the other specialty inventories. Second, the assessment was done face to face and verbally. Third, the pre-existing (general protocol) stems by themselves show a much lower alpha (though still "good") vs. the other protocols, indicating that there was probably much more variation in the children's responses than in adult's (see O'Fallon's paper on the Chidren's protocol in this issue). Thus, though the alpha of the new stems by themselves was unacceptably low, it is not clear whether this was because of the nature of the stems or the nature of the subject population.

Additional analysis (the Cronbach-Mesbah Curve in "OGIVE and Rasch" analysis paper in this issue) also shows that the STAGES assessment (and the SCT in general) is psychometrically valid for much shorter inventories, as low as 10 and even 5 items for certain applications.

In addition, we are currently working with domain experts to design additional specialty protocols in these areas: relationships, religious beliefs, spirituality, money, hope, dementia, ethics, and parenting.

6. Longitudinal Analysis

[This section contains previously unpublished data and results summarized in "The Validation of a New Scoring Method for Assessing Ego Development Based on Three Dimensions of Language," by O'Fallon et al., 2020: https://doi.org/10.1016/j.heliyon.2020.e03472]

In the current database of STAGES scores, a more recent data set than that used for the replication study above, 115 individuals have taken the assessment more than once. Evidence that each subsequent test is highly likely to yield a score equivalent to or higher than the previous score (i.e., monotonic growth) is considered strong evidence of a "developmental" construct. Below we summarize our longitudinal data analysis for the developmental spectrum while also focusing on the MetAware tier.

Of the 1,245 surveys in the database, 143 were retests representing 115 clients, 88 having taken one retest, 20 having taken two retests, 5 having taken three retests, and 3 having taken four or five retests.[7] The average time difference between retests was 2.1 years. In this analysis, we ignored the time differences between tests. (For future analysis, we will also factor in retest gap time using multilevel modeling).

Table 3 includes a summary of the data showing the prior and next score of each retest. Table 4 shows the same data in terms of the amount of change. Each of the 143 retests was considered as an independent event; 38% remained the same, 50% increased, and 11% decreased. Thus, 89% either increased or remained the same. The 11% that decreased could be explained by a combination of factors and "noise" including rater error, test-retest variability (i.e., tests taken on the same day had some percentage chance of differing), or actual "regressions" due to major life challenges resulting in cognitive or emotional stressors. Gains could be attributed to test "practice effects," but the 2-year average gap between retests makes that highly unlikely. These results constitute substantial evidence corroborating prior research that shows the ego development construct (with WUSCT) is developmental in nature – now shown for the STAGES assessment as well.

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[7] The few retests that were less than three months apart were excluded.

Table 3. Longitudinal: prior vs. next scores.

	Next Score							
Prior Score	3.5	4	4.5	5	5.5	6	6.5	Grand Total
3.5	3	6	2	1				12
4	2	6	8	3				19
4.5	1	3	21	27	6			58
5			4	15	12	1		32
5.5	2		1	2	9	5		19
6					1	1	1	3
Grand Total	**8**	**15**	**36**	**48**	**28**	**7**	**1**	**143**

Table 4. Longitudinal: prior scores vs. amount of change to next score.

	Change to Next Score							
Prior Score	-2	-1	-0.5	0	0.5	1	1.5	Grand Total
3.5				3	6	2	1	12
4			2	6	8	3		19
4.5		1	3	21	27	6		58
5			4	15	12	1		32
5.5	2	1	2	9	5			19
6			1	1	1			3
Grand Total	**2**	**2**	**12**	**55**	**59**	**12**	**1**	**143**

Many of the test subjects entered a program aimed at personal and professional growth called "Generating Transformational Change," or GTC. This program included developmental models as part of the curriculum. The test subjects may have learned vocabulary that led to higher verbal-textual SCT scores without advancing their deeper "enactive or embodied" development. (The research, assessment tools, and adequate theory do not yet exist for allowing one to separate the verbal and non-verbal components of developmental change. If we focus solely on the 47 retests from non-GTC subjects, we see that only 17% of the retests led to a decrease in scores, again confirming the developmental nature of the ego development construct. The GTC cohort shows the most improvement overall, with only 8% of the retests resulting in decreasing scores).

Finally, we can focus our longitudinal analysis on the third tier, MetAware, which was excluded from our replication study with the L/CG data for reasons explained above. Table 5 shows compelling evidence for the developmental sequencing of O'Fallon's newly defined highest stages. Of the 84 retests for which the score was in the MetAware tier, 67% increased, 30% stayed the same, and only 4% decreased – i.e., 96% increased or stayed the same. These scores are an even stronger indicator of monotonic sequencing compared to the scores of all three tiers combined. The data is a strong indicator that, developmentally, each MetAware stage, sits after its STAGES precursor and before its STAGES successor.

Table 5. Longitudinal data when the new score is in the MetAware tier.

	Score Change					
Prior Score	-0.5	0	0.5	1	1.5	Grand Total
3.5					1	1
4				3		3
4.5			27	6		33
5		15	12	1		28
5.5	2	9	5			16
6	1	1	1			3
Grand Total	**3**	**25**	**45**	**10**	**1**	**84**

(More evidence related to the Metaware tier is in the next section).

7. Analysis of Late Stage Patterns

[This section comes from the paper "Deconstructing Developmental Constructs: A conversation with Thomas Jordan and Tom Murray" in this issue.]

We have been engaging in conversations with Thomas Jordan (see the article this issue), who provided a critical inquiry into the STAGES model. After sharing our longitudinal data (above) with Jordan, he wanted a deeper look into the data to ask the question of whether the Metaware tier (as STAGES defines it) was necessarily built ("stacked") on top of the subtle tier (and did not seem to skip past it). To put it another way, he wanted to know whether those scoring in the Metaware tier also showed that they have the complexity associated with 4.5/Strategist, and did not present as a group displaying a lot of esoteric or spiritual language with little evidence of the rational, analytic, or self-reflective rigor needed to move into Strategist. To answer this, we ran an additional analysis to show the overall distribution of item scores for those who scored in the Metaware Tier. The figure below shows, for protocols with center of gravity values (ogives) of 3.0 to 6.5, what percent of the 36 item scores are at each level.

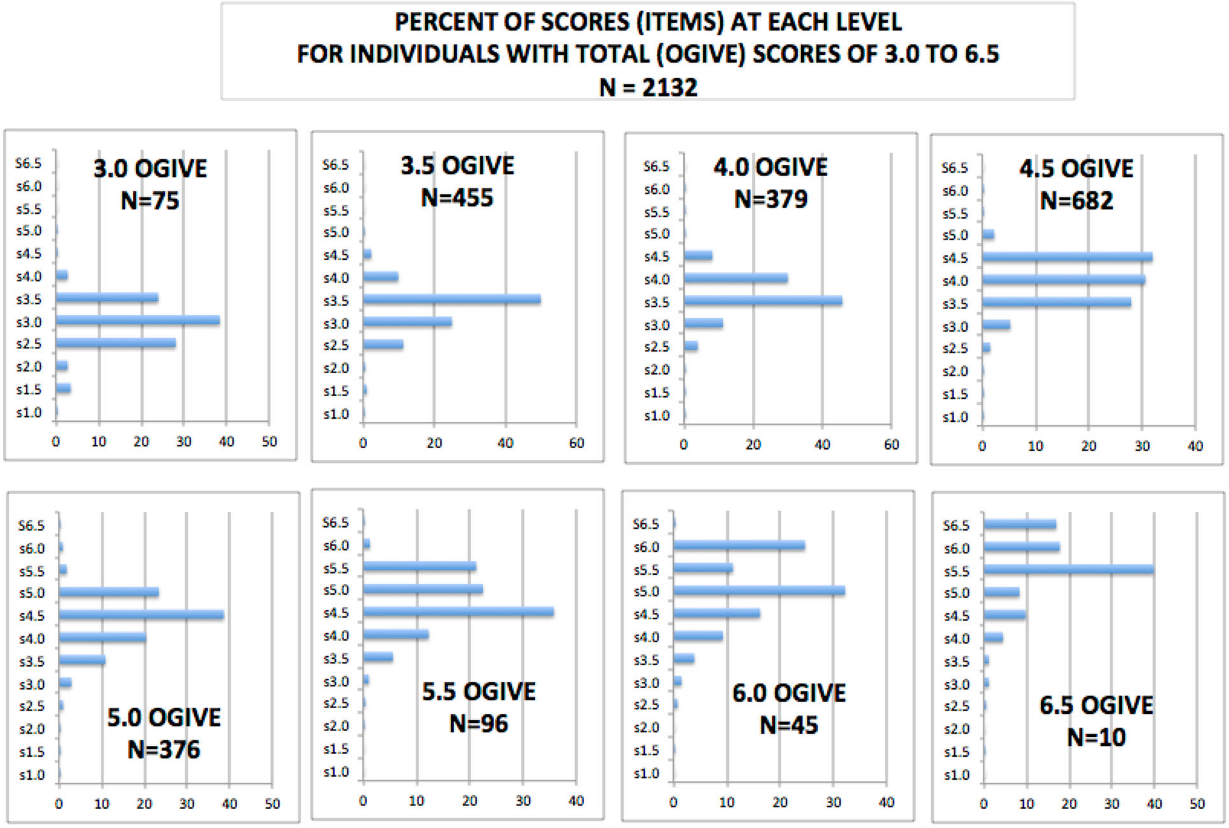

Figure 2. Percent of scores at each level for Metaware surveys.

Discussion of results:

- You can see that for 5.0, 5.5, and 6.0 there are many scores in 4.5 (Strategist). (Recall that the ogive cutoff method prioritizes the higher scores, so the total score is not the average, and is often not the mode, i.e. top of the bell curve).

- However, the scores do tend to follow a normal distribution (bell shape) around the average, so at 6.0 and 6.5 there are naturally less and less in the Subtle tier.

- The 6.5 graph by itself might seem to confirm a suspicion that the metaware tier does not have many subtle tier scores, but (1) there are not as many scores there so its a weaker data point, and (2) people tend to write close to their center of gravity or average, even if the have the capacity to write lower.

- Recall that with each tier the type of object changes, so the complexity *about that object* can start again at low and build up from there – so there may actually be a kind of reduction in horizontal complexity starting at 5.0 (as in Fischer's model, in which, for example, "single principles" follows "systems of abstractions").

- We are finding that in general the scoring system puts more in the X.5 (active) vs the X.0 (passive) scores. We think this is because people in passive phases have a harder time finding he words, and drop down to the prior level for content.

- Compared to a normal distribution, 4.5 scores have a lot of 3.5 scores, 5.5 surveys have a lot of 4.5 scores, 6.0 surveys have a lot of 5.0 scores; and 6.5 surveys have a lot of 5.5 scores – this many indicate that for higher levels, a person with a active (X.5) center of gravity uses more active language in general (and vice versa for passive (X.0)).

In sum, scores in the metaware tier (at least 5.0, 5.5, and 6.0) have substantial scores in the subtle tier, and in particular scores at 4.5/Strategist that tend to have high complexity.

8. Additional Inter-Rater Studies

[This section contains data and results not published previously, but summarized in "The Validation of a New Scoring Method for Assessing Ego Development Based on Three Dimensions of Language," by O'Fallon et al., 2020: https://doi.org/10.1016/j.heliyon.2020.e03472.]

The replication study described above included an IRR statistic for all levels, including the MetAware tier. That study was conducted using the first cohort of four trained STAGES scorers. As O'Fallon has continued to train scorers over the succeeding 4 years, we have additional data on the IRR strength of the instrument. The original study was a comparison at the survey level only because data at the per-item level was not available for the MAP scores. The more recent data includes per-item IRR statistics as well.

STAGES scorers are "certified" after completing a training program, which takes about one year and includes the supervised scoring of approximately 100 inventories. The scorers then practice their skills until they achieve greater than or equal to 85% correct scoring, as compared with a master scorer, for 10 consecutive inventories.[8] This is for agreement at the inventory level.[9] To obtain an additional indication of the inter-rater reliability of the scoring method, we can assess the item-level, or stem-level, agreement. We have data for the five most recently certified scorers trained over the last three years. Over an aggregate of 36 scores, the final 10 pre-certification scores showed that these scorers had a survey-level accuracy considerably higher than the 85% minimum requirement. Of the 50 surveys (10 each for five scorers), only one did not have perfect accuracy based on the previously established gold standard. (because one incorrect result was one level off).. Thus, the overall accuracy at the survey level was 98%.[10]

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[8] All the statistics are comparing the scorer to the expert. We cannot compare scorers to one another (i.e., obtain a multi-scorer inter-rating) because each scorer's list of final 10 surveys is unique; they did not score the same surveys.

[9] Once a scorer is certified, STAGES International has several means of maintaining quality control with its scorers. First, there is an active email discussion list in which scorers post completions that are uncertain about how to allow the community to reflect on them and learn together. Second, the scoring procedure (scoring manual) includes additional secondary features of the text that are used to cross-check final scores, including a rubric of common concepts and terms used at each level. Finally, inter-ratings are periodically preformed to check scorer accuracy vs. a master scorer.

Table 6. Rater accuracy aggregated over 10 scorings (of the 36-item test) for each rater.

Scorer	Average Acc	Min Acc
1	0.88	0.72
4	0.93	0.83
3	0.91	0.86
2	0.94	0.89
5	0.97	0.92
Average	0.93	

At the item level, agreement was also excellent (see Table 6). The average accuracy was 93%. When taking the average accuracy over their 10 scores, the highest was 97% and the lowest was 88%. In the set of 50 survey scores, the lowest average-over-items accuracy was 72%, and the highest was 100% (the majority of errors were off by one level). Four of the five scorers had at least 2 of the 10 surveys at 100% stem-level accuracy. This is strong evidence for the reliability of the scoring method, which, comparing these numbers to the main study in this paper, has improved in recent years, likely due to improvements in the training program.

9. Investigating the Validity of the Ogive Aggregation Method, Including Rasch Analysis

[This section contains excerpts from "Investigating the Validity of the Ogive Aggregation Method, Including the use of Rasch Analysis, for the Sentence Completion Test and the STAGES model," by Tom Murray, which is part of this issue – specifically, this section includes the executive summary from that paper.]

In this issue, Murray reports on an extended project to assess the psychometric properties of the STAGES SCT using data from 740 scored surveys. The goals of the research are to (1) apply item response theory (IRT) and Rasch analysis (a subset of IRT) to determine item-level psychometric properties of the SCT that were previously unaddressed in SCT research (2) to further investigate suspected problems with and propose alternatives for the ogive cutoff method for aggregating item scores in the SCT.

We focus on methods used to aggregate the 36 item scores into the total protocol rating (TPR), chief among these being the ogive cutoff method, and secondarily the less-frequently used total weighted score (TWS) method. We argue in detail that the ogive method has a number of drawbacks, including:

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[10] We use percent accuracy rather than Cohens Kappa here. The Kappa statistic is not well suited for high accuracies—see the "Kappa paradox" (Feinstein et al., 1990).

1. a lack of empirical support for discontinuous levels,
2. no population studies for Bayesian estimates,
3. difficulties estimating extreme values,
4. lower cutoffs that confuse development with "shadow" evidence,
5. sensitivity to error,
6. TWS misalignment,
7. additional issues with the TWS multipliers, and
8. errors in the ogive formula and assumptions.

The paper then describes the method and results of our statistical analysis of the 740 STAGES protocols using general descriptive statistics, IRT, and Rasch Analysis (a subset of IRT). Below is a summary of the findings. These findings hold for levels 2.0 to 6.0. For the rare extremes of 1.0, 1.5, and 6.5 surveys, there are insufficient data points for drawing confident conclusions.

1. **Within-test item normality**. A skew and kurtosis analysis show that scores within each survey are, on average, normally distributed. That is, the supposition that the scores "bell curve" within a survey would contain more items below the average score than above it is not supported.

2. **Item standard deviations**. The average standard deviation of item scores within a survey is remarkably similar across all developmental levels. Thus, the overall shape of the distribution of the 36 scores within a survey exhibits little change for individuals at different centers of gravity.

3. **Test length.** A Cronbach’s-Mesbah analysis of the Cronbachs-alpha score for successively fewer test stems shows that, for a half-item test, the reliability is still excellent (.95); that, even with 10 stems, the SCT has a high degree of reliability (.92); and that, at 5 stems, the reliability is acceptable (.85). These results support any future projects that use surveys with fewer than the 36 items.

4. **Factor analysis**. A factor/component analysis of the data confirms prior findings that the SCT loads on one factor (i.e., it appears to measure a single latent variable).

5. **Characteristics of and correlations among each item**. To test the general assumption that the SCT test items, which are designed to triangulate (parallax) the construct from many life contexts, we show that measures of difficulty (mean score) and spread (standard deviation) for each test item, are generally equivalent. However, these measures will vary in how they function per individual. The results, confirmed in the Rasch analysis, show that there is some variation among the items, but overall, they have similar difficulty and spread. However, the stem "I am..." stands out as being the least correlated with the other stems and as having the highest standard deviation. We also show a heat map illustrating the 36-by-36 item correlation magnitudes.

6. **Overall test strength**. Rasch and IRT analyses confirm that the test is robust and sound, as a psychometric measurement, across its entire range. Test reliability and coverage is excellent, and the items have good discrimination. Scoring is consistently of high quality across the items, similar to prior Cronbachs-alpha results.

7. **Construct levels of discrimination**. The test easily differentiates the six-person perspectives and, consistent with the model's hierarchical organization of three parameters, has more difficulty differentiating between levels at the granularity of 12 levels. The 12 stages defined by the model are spaced relatively evenly along the spectrum, supporting O'Fallon's conjecture that the STAGES model cuts the range into equal slices or provides a consistent "ruler," which is resilient to data collected in future studies from different populations.

New-item-aggregation method. Given the problems described for the ogive cutoff method, we experimented with a number of alternative methods for aggregating the survey items. Our goals were for a new method were that it;

1. be compatible with the expectation that, for a projective test, a person's true "center of gravity" will be evidenced from the higher scores;

2. avoid the problems of the ogive cutoff method and use something more straightforward and with fewer arbitrary parameters; and

3. minimize the differences between the new method and the prior ogive method, so that we would not have to alter the established interpretation of each level (i.e., remain consistent with how, for example, a 3.5/Achiever total score is understood in the field).

The methods we evaluated are described in the paper. Ultimately, we chose the method of taking the mean of the top 6 scores in the survey (the top one sixth of the scores if the survey has more or less than 36 items). Using the formula: (1.2*AveOfTop6)-1, we modified this method slightly to produce a value that is, on average, close to the original ogive method. We call this value the *Focal Score*. Stages International will begin to phase in this method alongside the ogive method, which it will eventually replace over the next year or two.

The Focal Score is a continuous value. Among the benefits of this method are the value’s resilience to small perturbations or errors around any cutoff boundaries and its extensibility to different test lengths without having to agonize about revising the set of cutoffs. Another benefit of this method is that it does not confuse psychological regressions, or "shadow crashes," with low complexity or maturity, as is the case with the ogive method. Thus, the focal score can be used for scoring children, which O'Fallon has begun to do.

The revised scoring system will show several measures in addition to the Focal Score: The *Average* across all stems; the *Bottom Score* – the average of the bottom six scores, related to a regression or "shadow" score" for adults; and *Spread* – the spread score is the Focal Score minus the Bottom Score, which indicates the range of values in the survey.

The STAGES framework will gradually shift to the new Focal Score method. We remain agnostic on the question of whether other SCT frameworks should adopt this method (or any alternative to the ogive method). The ogive method has been performing well enough over the years; it is the default standard, and the effort to adopt a new method may well outweigh any benefits. The benefits of changing are greater for the STAGES model vs. other SCT variations because others use a fixed set of stems. STAGES, on the other hand, allows for the creation of valid surveys with new stems and of any length, which require ongoing adjustments to cutoff values. Such adjustments can only be made arbitrarily. Furthermore, automated computer scoring exists for the STAGES model (see www.stagelens.com), which means the SCT will become more practical to use for large-scale research where the validity of methods is critical.

10. Face Validity: STAGES Applications

The "face validity" of a theory, model, or measurement can be argued for by noting the extent of its use. Given its relative recency, STAGES has seen an impressive degree of use and adoption, including use in a number of doctoral dissertations. To date 12 dissertation (or academic thesis) research projects have made significant use of the STAGES model, and several more are planned for the next few years. This is encouraging for a model as new as STAGES. This journal issue contains papers describing doctoral research projects, including the following.

Dissertations and theses. The "Introduction" article to this journal issue contains a paragraph describing these eight papers appearing in the issue:

- **Abigail Lynam**, *Principles and Practices for Developmentally Aware Teaching and Mentoring in Higher Education.* Lessons learned following dissertation research.

- **Gail Hochachka,** *The scenic route: A developmental approach emphasizes the importance of human interiority in transformative approaches to climate change*. Based on PhD research in progress.

- **Natasha Mantler,** *Women's Authentic Leadership Development.* Based on a completed PhD project.

- **John Churchill** (with Tom Murray) *Integrating Adult Developmental and Metacognitive Theory with Indo-Tibetan Contemplative Essence Psychology.* Based on a completed PhD project.

- **Antoinette Braks,** *Transformational Executive Coaching: The Dimensions, Dynamics, and Dilemmas that Expedite Later Stage Postconventional Leadership Development from Achiever to Strategist.* Base on completed PhD research.

- **Jason Miller,** *Finding Truth Within: Exploring the Importance of Reflective Practice in Deepening Self-Knowledge*. Based on a completed master's thesis.

- **Lisa Buckley,** *Hope Examined Through a Developmental Stage Perspective*. Summary of a PhD research proposal.

The following five dissertation and research projects, which do not have representing articles in this journal issue, also use the STAGES model or assessment. I give longer descriptions of these projects here because they are not described in this issue’s “Introduction” article.

- **Eric Reynolds,** *Next-Stage Organizations: A Transdisciplinary Case Study*. The goal of this research was to study the relationship between individual and organizational development and transformation by ascertaining how a Founder/CEO’s development informs that of their organization – particularly in leaders or organizations characterized by the post-formal/post-conventional logics that seem necessary to navigate the complexities of contemporary leadership challenges. The study focused on three participants from the sample of CEO's reported on in Laloux’s (2014) book *Reinventing Organizations*, which studied post-formal ("teal") organizations. The integral/transdisciplinary qualitative study included data from the STAGES developmental assessment, structured interviews, and a developmental analysis of content from organizational websites and other resources describing the organization. The study included two elements of the STAGES framework: developmental stage, and the epistemic "zone" of the content (from Wilber's 8 zones defined by individual/collective, subjective/objective, first/third person methods). Results of the multi-case study analysis indicate a direct relationship between the Founder/CEO development (and beliefs system) and those of the organization, corroborated Laloux’s assertion that his research is a composite representation of a organizations operating at the 4.5 level. Though conclusions from an N=3 case study are provisional, a major contribution of the research was the development of a new transdisciplinary method for assessing organizational development.

- **Jani Attebery**, *Regenerating Soil, Soul, and Society: Garden-Based Sustainability Pedagogy for Incarcerated Adult Learners.* (Completed PhD research). An exploration of the lived experience of prisoners participating in a Sustainable Agriculture Food Production program located within the Arizona State Prison. The mixed-methods study of 10 subjects included the STAGES assessment, a survey assessing past and present experiences of farming and gardening, semi-structured interviews, narrative journals, and observations. The STAGES developmental model functioned as a tool to interpret inmates’ experiences. Attebery used the model to describe the merits of, and suggest improvement to, these types of programs by providing flexible educational experiences that were sensitive to the developmental levels of participants.

- **Jimmy Parker,** *STAGES of Organizational Development*. This work reflects on the state of the art in assessing development at the organizational level, and describes some advantages that the STAGES assessment has in that domain. Parker is working on a PhD research project that will apply these ideas to the assessment of development at the group level.

- **Ron Hurst**, *Merging Characteristics of Median Stage Ego Development: When Does Self Initiated Reflection Begin?* (PhD dissertation proposal). A sample of 30 early career professionals in a Southern California distribution company will be given the STAGES assessment. From these, three individuals at each of the Conformist, Expert, and Achiever stages will be selected. Structured narrative interviewing will be used to ask subjects to reflect upon one or more critical career incidents – potentially life- or career-changing events. Transcriptions of subjects' reflections on how the incident came to be, was or was not resolved, and how it influenced them will be analyzed for developmentally indicative langue and conversational patterns based on O'Fallon's STAGES model and Cook-Greuter's ego development model.

- **Steve Schapiro and Abigail Lynam**, *Transformations in ego development and intercultural sensitivity in graduate students.* This is a soon-to-begin longitudinal study of PhD students in a Human Development and Organizational Development program at a US graduate school. The STAGES assessment, an Intercultural Development Inventory, interview methods, reflective journaling, focus groups, and surveys will be used to study incoming students in pre- and post-assessments as they progress through the graduate program. The goal is to learn what best supports meaning-making development and intercultural sensitivity within the context of graduate study. The study will investigate how the developmental level of the student affects learning and how learning opportunities are utilized. The study will also examine the relationship between intercultural sensitivity and ego development to assess whether intercultural sensitivity is understood and practiced differently at different stages.

Specialty Protocols for understanding life domains. The section above, *Modifications to Test Length and Sentence Starters: Internal Consistency*, describes a number of "specialty protocols" that have been developed based on the STAGES model. We have mentioned six specialty inventories that have had their reliability validated psychometrically on leadership and organizations, love, education, self-understanding, climate change, and a children's SCTs as well as several in-development inventories related to relationships, religious beliefs, spiritual growth, money, hope, dementia, ethics, and parenting.

We have mentioned Hochochka's research using the climate change inventory above. Research is also being planned on how developmental levels differentially create meaning in the areas of money, interpretations of spiritual growth, hope, ethics, relationships, dementia, and love.

Non-research applications. Over 1500 professionals, including many coaches, therapists, organizational consultants, and educators, have taken workshops or training programs through STAGES International on aspects of the STAGES model, and dozens of these professionals are actively using the model in their work. Notable projects include the following:

- **John Kesler** is a theorist and activist in the field of civic and political civility who incorporates perennial spirituality, transpersonal development, and integral theory into his work. He developed and teacher (with colleague Tom McConkie) the "Integral Polarity Practice" (IPP), a transformational contemplative dialogic practice. IPP, which Kesler and McConkie have been teaching to hundreds of individuals for over a decade, makes explicit use of the STAGES model. (See the related article in this journal issue).

- **Marj Britt** is a Senior Minister Emeritus in the Unity Church; and is an author, lecturer, and workshop leader affiliated with the Called by Love Institute. Her work focuses on the "soul's journey through life" as a "cosmic and human love story." Britt has incorporated the STAGES developmental model into her ministry, and she initiated the specialty inventory on love, which will be used in research projects in the future.

- For 15 years, **Geoff Fitch** and **Abigail Lynam**, along with associates at Pacific Integral, have been running a 9-month cohort program called GTC. GTC makes explicit use of the STAGES developmental model in the design of curriculum and activities, and it teaches the basics of the theory to its participants.

Automated AI-based scoring and large-scale studies. Data from STAGES surveys have been used to create the first automated assessment tool for ego development and meaning-making maturity. As described at www.stagelens.com, the technology is based on a machine learning (artificial intelligence) algorithm that processed approximately 36,000 human-scored sentence completions to build a computer model for predicting developmental level based on sentence completion text. Its accuracy is less than human-scored methods – inventory-level root-mean-square error is estimated at 0.5 developmental levels vs. human checking. It cannot be used to give sufficiently accurate individual scores but is applicable to scaled-up studies that look for statistical patterns aggregated over groups such as pre-post intervention assessments and between-group differences. Several such studies are being planned, and unpublished pilot studies have shown the method to be effective in assessing pre-post gains for educational and transformational interventions.

11. Vocabulary Analysis

[This research has not been reported in any other publications.]

We have also been analyzing the frequencies with which words appear as development progresses through the stages. This produces a rich store of data that we have only begun to take advantage of. Figure 3 below shows a sample for eight different words.

These charts illustrate the relative frequencies of words across the stages. For example, for the word people: the graph title shows that it occurs in 0.457% of all completions in this data sample (this is from a large data sample, but is not our full up-to-date data sample, so the figure is just illustrative). The histogram shows, for each level, the relative percentage of completions at that level that contain "people." Note that it is only the shape of the graphs that can be compared, but not their height. E.G. "space" occurs much less frequently in the data sample (0.05% of completions), so a tall line in that chart cannot be compared to a tall line in the "people" chart. This data is from a sample of 995 surveys with a total of 35,820 completions; containing 1,160,885 total words; and 24491 unique words (ignoring common words like "the," often called "stop words"). The charts does not include stages 1.0 or 6.5, because there are much fewer completions at these levels, and they produce erratic patterns in the graphs.[11] (Ignore the colors in these charts, they are an artifact of the software package used to make the graphs).

---

[11] E.g. if there are only 10 6.5 completions, and the word "farm" appears in both, it was in a whopping 20% of all completions; but this may be so large that the bar for 6.5 overshadows the rest of the bars, which look so tiny that one can't make out the real pattern.

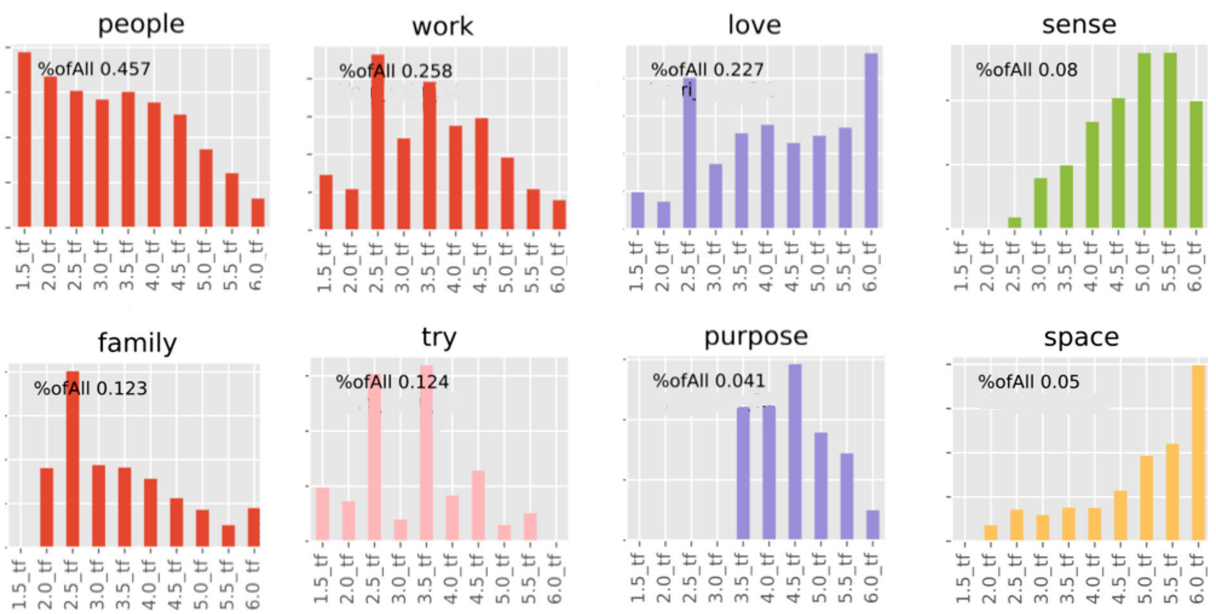

Figure 3. Sample Word Frequencies.

Love is one of the most common words in the database. You can see its relative frequency gradually increases, with a notable spike at 2.5 and 6.0. Family shows a gradual decrease, with a spike at 2.5/Conventional, which conforms to our understanding of that developmental level (i.e. the importance of conventional in-groups). Note that the STAGES scoring method does not look at specific vocabulary words, but scores on the three parameters: Concrete/Subtle/Metaware, Individual/Collective, and Active/Passive. "Family" is a concrete and collective word, so one might expect it to be prominent at 2nd person perspective (2.0 and 2.5). Note that a completion is scored based on its most developmentally advanced sentence or phrase – the phrase or sentence with "family" in it may be ignored when scoring, if there are parts of the completion that rate higher.

Both "work" and "try" exhibit the pattern that they are more prominent in active (X.5) than in passive (X.0) levels. This also conforms to what we might expect – the active/passive determination is based on verbs and prepositions, and these words would usually appear in an active phrase, especially when they appear as verbs. They spike at the more "conventional" levels of 2.5 and 3.5.

Love has an interesting pattern of spiking at 2.5 and 6.0, suggesting that these are two senses of the word (a conventional sense and a transpersonal sense). Purpose is interesting in that it does not show up at all (or negligibly) until it leaps up at 3.5/Achiever, which conforms to our understanding of that level.

Sense and space were chosen as words that gradually ramp up. One can see that at 5th PP especially, but also at 4th PP, one starts to be aware of subtle "presence," and phrases like "I sense that..." begin to appear. One's sense of time and space are said to alter in the Metaware tier, and we can see an interesting spike in "space" at 6.0.

These words/charts were chosen for illustrative purposes only, to make comments about the shape of the chart – but not to imply anything about the importance of that word related to other words (that requires additional types of statistical analysis, such as the "tf-idf" term-frequency inverse-document-frequency metric). These words were chosen because they coincide with our intuitions about these levels, and seem to confirm the theory. But many words do not have such striking patterns – again our purpose here is to illustrate this type of analysis, not to draw conclusions. Many of the most frequent words had more "boring patterns" that neither agreed nor disagreed with expectations. There were only a very few words that had unexpected patterns that seemed to contradict what one would expect based on how we understand each level. All of this will be reported on in more depth in a future paper.

As mentioned, we have only begun to use this analysis for specific purposes. We can use it in the computer-based automatic scoring project (www.stagelens.com). It could also be used within an exploratory or qualitative analysis of a particular life-domain, such as love; or in characterizing certain levels, such as 5th PP. O'Fallon is also using such analysis to find evidence for different types of state experiences at different levels (see O'Fallon's paper in this issue on States and Stages).

O'Fallon has also been using this type of vocabulary analysis as a cross-checking method during scoring. The main scoring procedure for scoring each completion, as we said, does not mention specific words or themes (this contrasts with the Loevinger scoring method). But once the total protocol score is determined (over the 36 completions), we can use vocabulary as a rubric to double-check the accuracy. Stems are scored independently (locally, not considering the whole inventory). The survey scoring procedure does allow for the scorer to make a judgment call to tweak the total score a bit up or down based on global considerations (especially if it is near a stage border-line). (This final adjustment allowance exists for all scoring methods in the Loevinger tradition. The adjusted score is what is given to clients, but note that it is only the pre-adjusted score that is used for all quantitative research studies). O'Fallon has developed a "rubric" method that shows common words from all four "quadrants" that appear at each level (and don't tend to appear before then). If an inventory does not have a sufficient representation of such words, the analyst is encouraged to double-check the accuracy of the final (adjusted) score.

12. Studies of Children's Inventories

[This section summarizes research reported in "Children's Inventories" by O'Fallon, in this issue]

Adjusting stage calculation to work for children: the Core Score method. As described in the paper "Investigating the Validity of the Ogive Aggregation Method..." (in this issue and summarized in Section 9 above) the ogive method currently used to aggregate the individual item scores confuses psychological regressions ("shadow crashes") with low complexity/maturity – i.e. momentary regressions to lower ego levels that may be triggered based on the subject of the stem. In Section 9 we described a new aggregation method called the "focal score" that does not have this issue. This allows the sentence completion instrument to be used for assessing children, and O'Fallon has begun a research study on just that.

More specifically, the body of research based on Loevinger's SCT was largely limited to adults, but included some teenagers. It included some studies of prison populations and people of lower socioeconomic and/or educational levels. Those exhibiting very low developmental levels, i.e. 1.0, 1.5, and 2.0, are demonstrating levels of meaning making complexity or self-understanding normally attributed to young children. (We assume, as prior researchers did, that test subjects exhibiting lower developmental levels did not have genetic or neurological conditions leading to intellectual disabilities, but that their lower-than-the-norm scores have developmental or psychological origins). The scoring systems used by WUSCT and MAP are geared to adult (and young adult or teen) populations, and one will get a 1.0/Impulsive or 1.5/Opportunist (i.e. 1st PP) completion score by showing regressive behavior, including impulsive outbursts with vulgarity or violence (e.g. "sucks," "I hate you"), or responding with single concrete words or phrases (e.g. Raising a family…"family"). (Note that these categories do not exhaust the possible 1st PP territory).

The ogive aggregation rules, inspired by Bayesian statistics, prioritize rare behaviors and require only 7 of the 36 completions at 1.0, 1.5, or 2.0 to score an entire protocol ("center of gravity") at that level (see "Investigating the Validity of the Ogive Aggregation Method..."). Getting such a low rating can come from a very simplistic answer, but it can also come from what seems a narcissistic or impulsive answer. Thus we argue that, not only the item-scoring rules, but more importantly the ogive aggregation method, confuses actual level of development with "shadow crash" phenomena for lower level responses.

For example, a person may have 19 stems at 3.5/Achiever, yet will get an ogive score of 2.0/Rule-based if they have only *7 stems* at 2.0 or lower. Clearly such a person's "center of gravity" should be more like 3.5 than 2.0. Because there are very few people with a center of gravity below 2.5 in the populations that currently use the SCT, this problem has not been particularly salient. But one area where it is particularly limiting is in studying children.

Other developmental assessments, such as those based on hierarchical complexity theory, do not have this limitation. Because the STAGES scoring method uses language properties rather than exemplars, it is not susceptible to this problem in scoring items; but, as long as it uses the ogive cutoff method, it is susceptible to this distortion at the whole survey level. Thus, as mentioned, we are moving to an alternate aggregation method called "focal score" that is more like an average.

First assessment of children using the SCT. With these biases in the scoring system removed, the STAGES model can be used to assess developmental levels and developmental phenomena in younger children. As mentioned above in Section 5, and detailed in the paper (in this issue) "The STAGES Specialty Inventories..." O'Fallon and colleagues have developed and validated a "specialty inventory" with sentence stems modified to work for children (the list of stems is given in that paper). The children's inventory, for pre-school through junior high school, was co-created by Jennifer Haynes, Kim Barta and Terri O'Fallon. It is meant to be administered orally and transcribed, especially to children in grade school.

In a recent study 53 children, age range 4-13 enrolled in a progressive elementary school in Brisbane Australia, gave verbal answers to in-person prompts; recordings of their answers were transcribed. The paper "STAGES Child Research: Preliminary Report" by O'Fallon, in this issue, summarizes some preliminary results. It is the first study applying the sentence completion method to young children (performed using transcriptions from face-to-face verbal interviews).

11 new sentence starters were created to make a 36-item SCT suitable for children. Cronbach's Alpha test for internal consistency indicated that the test overall was valid (alpha=0.88, "good," almost "excellent"), and that the new items by themselves had only a "questionable" alpha (0.63). We will look into what this tells us about improving the new stems, but overall the test is valid enough to measure the development of the target audience.

The test was administered verbally to 53 children at their school in Brisbane, and the audio was transcribed. An expert scorer scored the results, which are shown in Figure 4 as frequencies in histograms at both the item level and the survey level.

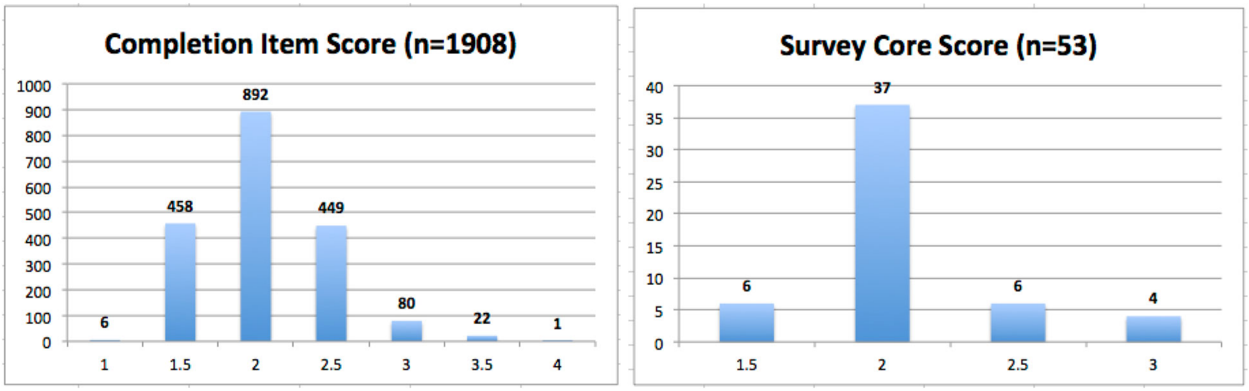

Figure 4. Child Study results: frequency histograms.

From the Survey graph we can note that the vast majority of children scored at 2.0, with a few at 1.5, 2.5, and 3.0. From the completions graph we can see that there are also a few item scores as low as 1.0, and as high as 4.0

O'Fallon continues to analyze this data to derive descriptive accounts of how the children make meaning of various themes (to be published later).

13. Conclusions

We have summarized research projects that have shown substantial evidence of the validity and usefulness of the STAGES model. This research includes;

- a summary of **prior research** on the SCT method, which establishes a baseline for STAGES validity;
- a **replication study** showing that STAGES tracks well with the MAP method, from which it was derived, up to 4.5/Strategist, which establishes the STAGES scoring method solidly within the Loevinger SCT tradition;

- studies showing that the STAGES assessment remains robust for **variations in sentence stems and test lengths** (including the design of specialty inventories), which will allow for wider application of the ego development construct;

- **longitudinal** data analysis that shows, among other things, that the MetAware (Tier 3) stages show the appropriate developmental progression, which is important because the studies mentioned in #2 did not thoroughly describe Tier 3 validity;

- additional analysis of **late stage** sentence protocols, checking that metaware protocols contain a reasonable number of complex 4.5/Strategist item scores;

- additional **inter-rater** analysis, including recently trained scorers and per-item IRR statistics, has shown exceptionally high inter-rater reliability, even at the item level;

- a research study that used **item response theory and Rasch analysis** to investigate many psychometric properties of the STAGES assessment and that also elaborated on a number of problems with the ogive item-aggregation method, suggesting an alternative. This modification allows us to better use the assessment for (1) children and (2) shadow evidence (vs. prior SCTs);

- a "Face Validity" section describing various uses of the STAGES model, including its use in 10 dissertation or thesis projects, and an indication of many projects to come;

- **vocabulary analysis** showing promising analytical methods for (1) more detailed characterization of each level, and (2) refining the scoring system; and

- studies of **children's item responses** that illustrate the first application of the SCT (that we are aware of) to populations in the grade-school level.

STAGES is a new developmental model and is sure to evolve as new empirical research and theoretical critiques accumulate in the future. It has established a strong foundation upon the Loevinger lineage of SCT assessments, which is quite robust, and our STAGES research is already producing results that inform all variations of the SCT.

Some of the more controversial issues surrounding the STAGES model include:

- characterizing development in the highest levels, 5.0/Construct Aware and above (Alternate theories exist in this territory, and little to no empirical work has been done to compare them).;

- the comparative validity and usefulness of "wide" or "holistic" developmental constructs, such as ego development or Kegan's levels of consciousness, vs. narrower constructs, such as reflective abstraction, self-understanding, relationship sophistication, and leadership maturity (See Jordan and Murray's article in this issue for more on this theme).;

- the definition of states of consciousness and the relationship between states and stages – O'Fallon has a particular theory of this worked into the STAGES framework, see her article in this issue, but it remains an active area of debate in the field; and

- over-fitting of developmental models – developmental models afford the categorization of people into developmental levels, which, while especially useful, also risks the reductionism of using a single term to describe the complexity of human cognition and personality. (Though all the major developmental theorists warn against this, there are insufficient research and methodology best practices to support a rich articulation of individual differences that can enrich the description of a person's developmental profile).

In addition, an important open question for all developmental theories is how developmental phenomena apply to collectives (i.e., relationships, groups, organizations, and populations). Many non-validated theories and several small empirical studies exist, but this is a key emerging in need of additional work.

Future research comparing developmental models. Taking a larger perspective, we can compare the Loevinger SCT lineage to other developmental assessments to suggest important work yet to be done. Though many developmental models and psychometrically validated assessments occupy the long scholarly history since Piaget's early work, only a small set of these seem relevant for those attempting to put this research into practice. The first is Robert Kegan's construct developmental model, with its "Subject-Object Interview" assessment method. This process is judged by many, including Kegan, to be measuring a construct (e.g., meaning-making maturity or order of consciousness) that is closely related to the construct of "ego development" measured by the SCT. However, we know of no empirical work that investigates their correlation. Second are the two similar neo-Piagetian developmental theories by Michael Commons and colleagues (MHC, Commons et al., 1988), and Kurt Fischer and colleagues (Skill Theory, Fischer, 1980). There appears to be no published work that thoroughly compares and contrasts these frameworks from either an empirical or theoretical perspective, though some preliminary unpublished studies do exist. See Murray (2009) for preliminary musings. The theoretical foundations of these two lineages (Loevinger/Kegan vs. the neo-Piagetian) suggest that they should have important differences and useful similarities – all of which will hopefully be explored in future research.

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Seven Perspectives on the STAGES Developmental Model

Kim Barta[1]

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Preface: The Shape of Consciousness

What shape is your consciousness? How is it constricted, distorted, expanded? How does it move? What is its balance? In this series of articles, I will discuss the shape of consciousness from several perspectives. I will discuss some of the tools I have used to explore consciousness with my clients, colleagues, and in workshops over the last 30 years. We will explore how the STAGES framework can lead to profound impacts upon the shape of our individual and collective consciousness… and its evolution.

I am particularly interested in models and methods that allow consciousness to evolve in a flowing, enriching, and fulfilling manner. My intention in the articles below is to provide tools to open this type of flow of consciousness. I also illustrate novel tools that we can use to understand and open the field of our conscious evolutionary growth.

Psychological Applications of the STAGES Model shows us how we can use the STAGES model in an effective and efficient manner for healing. It discusses how psychologists, coaches, guides and spiritual directors can utilize the stages model in healing and evolutionary growth. This chapter provides the most complete introduction to the STAGES framework itself.

In *Shadow Patterns and Other Conundrums of Consciousness* I discuss how shadows form, how to heal them, other patterns of consciousness and how to frame them for the benefit of consciousness evolution. I discuss types of shadows and how we need to understand the specific type of shadow if we are to heal and not harm. I also discuss height, depth and breadth orientations to consciousness and conscious evolution.

While our consciousness evolves, our models can evolve too. In *Typology and The STAGES Model* I discuss the evolution of typologies and the evolution of our consciousness within typologies. I share how we move from pre-typological awareness, through typological awareness to post-typological awareness. I discuss the benefits and pitfalls of the use of typologies.

All tools for understanding consciousness have some benefit and may also have some harm. In *The Illusion of Distinct Lines*, I discuss how the concept of distinct lines of development falls apart upon closer inspection. I share how even the concept of separate lines impacts how we hold our own consciousness. I share an alternative model that I think is more in line with neurobiological research and with spiritual orientations, and fits with my exploration of mind with myself and my clients in over 30 years of practice.

The parenting relationship has its own unique collective. In *STAGES and Parenting* I discuss this unique yet ubiquitous collective. By understanding the shape of consciousness of children and parents and the interaction between these shapes of consciousness we can shape our parenting in ways that will revolutionize human consciousness for generations to come.

What is a discussion of consciousness without some understanding of love? *The Love Matrix* discusses the shape of consciousness in love. I provide a model for understanding how we constrict our love and how we can expand it. I also provide a model for understanding how we often live in a sea of love without recognizing it and how we can begin to recognize the love coming into us every day.

Not only do individuals have shadow issues – organizations do too. In *Organizational Shadow* I discuss the shape of shadow patterns in organizations, how you can identify them and how you might go about healing them. I provide a model for identifying, understanding and resolving organizational shadow patterns.

I enjoyed writing these articles for you. I hope you find them intriguing, challenging, or at least in some way beneficial.

Sending love to you all,

Kim Barta

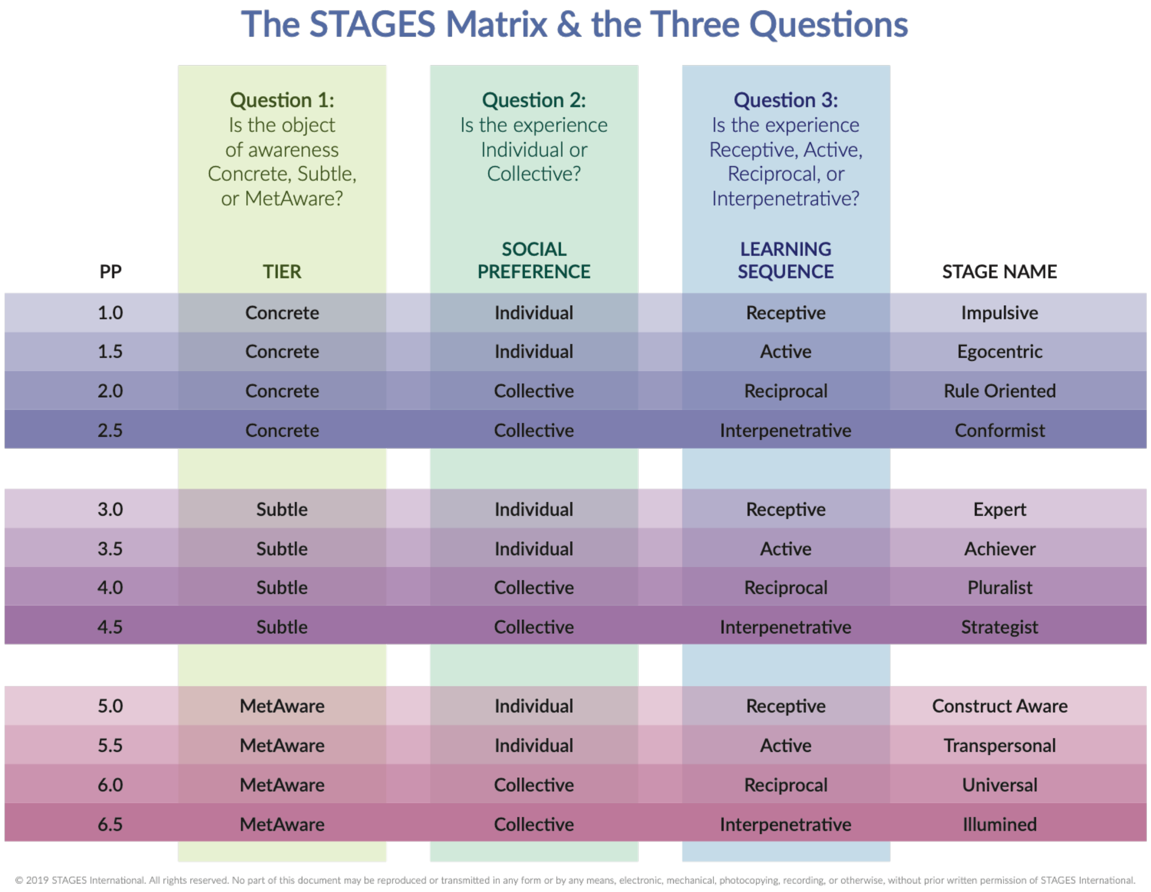
1. Psychological Application of the STAGES Model

Introduction – The STAGES Matrix

The ultimate frontier for humanity is the exploration of its own mind. The Human mind has more neural connections than there are stars in our galaxy – more than 100 of our galaxies put together. It is more complex than the most sophisticated supercomputers. The power of the mind can and has literally moved mountains.

There is a lot that can go wrong in such a sophisticated instrument, and a lot can go right. This article will discuss how the human mind can go wrong how it can go right and how we can create optimal outcomes in coaching/psychotherapy and mentoring. We can use the STAGES Matrix to understand both our potential and our limitations.

Below, please refer to Figure 1.1, the STAGES Matrix:



The STAGES Matrix & the Three Questions

	Question 1: Is the object of awareness Concrete, Subtle, or MetAware?	Question 2: Is the experience Individual or Collective?	Question 3: Is the experience Receptive, Active, Reciprocal, or Interpenetrative?	
PP	TIER	SOCIAL PREFERENCE	LEARNING SEQUENCE	STAGE NAME
1.0	Concrete	Individual	Receptive	Impulsive
1.5	Concrete	Individual	Active	Egocentric
2.0	Concrete	Collective	Reciprocal	Rule Oriented
2.5	Concrete	Collective	Interpenetrative	Conformist
3.0	Subtle	Individual	Receptive	Expert
3.5	Subtle	Individual	Active	Achiever
4.0	Subtle	Collective	Reciprocal	Pluralist
4.5	Subtle	Collective	Interpenetrative	Strategist
5.0	MetAware	Individual	Receptive	Construct Aware
5.5	MetAware	Individual	Active	Transpersonal
6.0	MetAware	Collective	Reciprocal	Universal
6.5	MetAware	Collective	Interpenetrative	Illumined

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Figure 1.1. The STAGES Matrix.

In the STAGES Matrix, you can find four columns. The first column is the person perspectives (pp). As you can see, we have 6 person perspectives. Each perspective is divided into two yielding 12 stages of development. Each perspective indicates a whole new way we can view the world in which we live.

The second column is the tier, which indicates the content. In each tier we can see different content. In the concrete tier we see concrete objects and their representations. In the subtle tier we see subtle objects…objects of mind and their representation. In the MetAware tier we see objects of awareness itself.

The third is the social preference which indicates foregrounding individual or collective orientations. We all have an individual and we all have a collective. This column indicates which we are foregrounding.

The fourth is the learning style which is how we are learning consciousness on our leading edge. First, we must receive to have knowledge of anything. Once we receive, we can act upon it. Once we act upon it, we can interact with it and with others with it. Once we have that learning mastered enough, we can become interpenetrative with it.

If you look at each box or cell in the matrix, you can see it as a representation of a piece of consciousness. The middle three columns operate together turning on and off like DNA to create a new expression of consciousness. The final column is simply a name to use as a place holder for that configuration of DNA consciousness.

If we look at each box or cell within the matrix, it represents a specific piece of defined consciousness. If each cell is healthy, it is like having healthy cells in our body. If a cell is distorted in our body, we can get sick. If a cell in our body is healthy, it leads to more health and vitality. Likewise, if a cell in the matrix is distorted, it leads to a sickness of consciousness. If a cell in the matrix is healthy, it will lead to a healthy vital consciousness.

When we use the STAGES Matrix as a guide, we can pinpoint exactly where the disturbance of consciousness is. This helps in several ways: First, we know exactly where to target explorations for healing. Instead of wallowing around in the whole field of consciousness looking for the source of the disturbance, we know exactly which cell of consciousness to target for healing.

Second, we can identify the type of disturbance, so we know what we need to do to do the healing. If the disturbance is in the concrete tier with reciprocity then we can target that directly. It is fast, efficient and the client feels heard and understood intuitively.

Third, we can track how any single disturbance disrupts the other cells horizontally creating a syndrome of disturbances that can be quite predictable. For example, if we have disturbance with concrete reciprocity then we can predict problems with concrete collectives.

Fourth, as a result of the horizontal configuration of disturbances, we can see how the disturbance echoes up the developmental levels creating predictable patterns of problems and stuck places in the person's life. For example, if a person has not been able to skillfully master concrete reciprocity, we can predict problems arising as they move into Subtle reciprocity.

Fifth, we can also see and track shadow crashes. For example, if a person is having issues with subtle reciprocity, they are likely to shadow crash to concrete reciprocity. While most people will just see shadow issues arising, we can see that this regression to an earlier level actually allows them to strengthen their reciprocity skills on that earlier level so they are strong enough to handle later level reciprocity. The same thing happens with subtle active. Often when the subtle individual active driver set is frustrated beyond the coping mechanisms of the client, they will shadow crash to 1.5 concrete individual active. There are various patterns of shadow crashes. The advantage of the STAGES Matrix is you can track each and identify the specifics of how and why the client moved from one stage of development to an earlier one.

Sixth we can predict what kind of stressors are likely to lead to further shadow crashes. For example, if a person is having a weakness with the individual receptive parameter set, we can predict that weakness will travel up the developmental trajectory with them affecting every developmental level in fairly predictable ways until they address and heal the specific distortion. As a result, we can predict that anytime the environment requires receptive awareness we will see a re-arising of that shadow issue.

And seventh, we can see what leading-edge developmental growth issues are likely ahead for an individual and help them address those issues before they become serious problems. For example, if a person is having problems with their active driver in the concrete tier (1.5), we can predict that as they move into 3.5, they are going to struggle as the new world situation demands even more sophisticated Subtle action. They will have problems again at 5.5 if they make it that far. If we have a client with a shadow issue with receptivity and they are at 4.5 we can predict a tough dark night of the soul as they move into 5.0. If they have a healthy receptivity driver, the move may be one of open bliss instead.

In addition to understanding how shadow manifests through each developmental level, we can also articulate what it means to be psychological healthy and whole at each level. Since each level builds upon (rather than replaces) the prior, it is important to aim for robust development (substantial "surface area") at each level. Applications of focusing on this "health and wholeness" side include the following. First, we can see how to construct parenting protocols to help raise the most health-conscious individuals. Second, we can see how to develop each cell in an individual to make it healthy and robust so that it will help other cells related to it (ultimately all are interconnected as you probably have already guessed). Third, we can anticipate upcoming existential issues and put practices in place to avert a crisis before it manifests. Fourth, we can utilize it to enhance group experiences like couples, experiential groups, and business teams. Sixth, we can identify and enhance the development along the way, creating protocols to make earlier stages more robust and current stages filled out so we can live the most optimal fulfilled life possible. Seventh, we can use the STAGES Matrix to identify what meditative or spiritual practices are perfectly targeted for the individual at this point in their spiritual evolution to further their next step of development.

Exploring health and disturbance are two sides of the same coin of consciousness. Below this article will go into more detail with each cell.

The Perspective Column

The first column is the person perspective. There are two aspects to a person perspective: the early and the late. The early is represented by a numeral followed by a .0. The early perspective is receptive. We must first receive information before we can act on it. The late person perspective is indicated by a numeral followed by a .5. It is active. After we receive information, we can act on it. We have six person perspectives each, with an early and a late dynamic. Each perspective builds on the perspective before it.

An early first-person perspective can only see things through their own eyes. A late first-person perspective only sees things through their own eyes but can act on it to get what they want. The difference in this one little shift is that of a baby crying until someone figures out what it needs and gives it to the child vs. the child that figures out how to push a chair up to the cupboard to get into the cookie jar while the parents are not looking.

A second-person perspective can see things through their own and another eyes. They can receive and act within the interactive dynamic. A late second-person perspective can see things through their own and other eyes and act not just within the interactive dynamic but see it from outside and act upon that interactive dynamic itself. The difference here is being in love and bounced around by everything our new lover does, vs. living on principles (rather than the social impulse of the moment) and thus being able to stay stable and loving even while our partner is getting upset with us.

Each of these perspectives: first, second, and the others, third, fourth, fifth, and sixth, holds the previous perspective, but sees beyond it – from a larger perspective. They include the original perspective but hold that perspective in a larger whole. Second-person perspective does not lose a first-person perspective. The first-person perspective remains intact and whole. Second-person perspective just wraps around the first-person perspective to a larger whole. Each succeeding perspective wraps around the previous whole to an even larger whole.

A third-person perspective can see things from an eagle eyes view, looking at both self and others independently. It can see things from first and second person perspectives both and also look at self and other from a remote and neutral vantage point.

A fourth-person perspective pans out even farther and can see the third-person perspective within a context. Being able to be in first, second, and third-person perspective simultaneously and in addition, hold all this within a larger contextual aware space – the context of culture, or the collective conscious for example

A fifth-person perspective can see all this as well as see the fourth-person perspective (encapsulating all the other perspectives) within an awareness of construction – how mind itself constructs awareness and perceptions.

A sixth-person perspective can look at the fifth-person perspective within a collective whole of the human mind; understanding it from first, second, third, fourth, and fifth person perspectives, and how all of these are manifestations of the empty constructing collective mind of humanity.

The Tier Column

The second column is the tier column. The tier column is the WHAT of consciousness. The tier indicates what our consciousness is able to sense. The first tier is concrete. In our first four levels of human consciousness, what we are sensing is the concrete nature of reality. This is based upon our concrete senses of sight, sound, touch, taste, smell, and movement. We can also see the extensions of these with tools like telescopes and microscopes, radio waves, and others, these are all just tools to extend the capacity of our concrete senses.

As we move through the four stages, we can perceive subtle awarenesses too, helping us move into the subtle tier. However, our subtle awarenesses, like imagination, are still based upon concrete items. For example, we can visualize a tree, or a house or a friend, or running through the streets with a friend. But we won’t be able to visualize a strategic plan or the dynamic of how memes and emotional energy are passed through the family system.

The second tier is the subtle tier. In the subtle tier, we sense subtle objects. These subtle objects are different from concrete objects. A concrete plan to run through the streets with our friends grows up to a strategic plan that has no concrete pictures to it. Cliques that we live in concretely grow up to seeing culture, not cultural artifacts (concrete) but culture itself. In the concrete tier, we can see how we pass a plate of food around the table so everyone can eat. In the subtle tier, we can witness the passing of memes and emotional energy from one person or group to another and how those memes and energies affect people as they are moved around. In the concrete tier, we can think or cognate about anything. But we can't meta-cognate. We cannot analyze and think about our thinking itself. We can have rich emotions, but we can’t have meta-emotions, feelings about feeling. In the subtle tier, we can think about thinking, feel about feeling, think about feeling, and feel about thinking. It is this meta-capacity of thoughts and emotions that signals a clear shift into the subtle tier.

In the third tier, the MetAware tier, we are able to sense MetAware objects. This is a perception of mind awareness itself without concrete or subtle objects at all. We may include them, but we may exclude them as well, just like in the subtle tier when two philosophers talk about the nature of thought, neither may ever mention a concrete object. So too when in the MetAware tier, one can experience mind without a concrete object or even a subtle object. The mind is tuned to awareness of mind vs. thought.

Each tier can hold the previous tier but within a larger whole. In each tier, our senses get more refined. They are more able to perceive finer sensorial stimuli. This does not mean our concrete senses themselves get more refined. We may go blind and deaf and still be able to sense these more refined sensorial stimuli.

Yet, with a twist of irony, it is these same concrete senses, fading away in the concrete world, that are still the seed of our more refined subtle and MetAware sensorial capacities. There is still, sight, sound, touch, taste, smell, and movement. Just in a different dimension of awareness.

Each tier is defined by the objects one can "see" or experience. The concrete tier experiences concrete objects. The subtle tier experiences subtle objects and the MetAware tier experiences MetAware objects. One of the concrete objects is family. If we do not have a stable concrete collective object, like family, then we have more difficulty trusting a subtle collective when we move to the next tier.

And this brings us to the third column.

The Social Preference Column

The third column indicates our social orientation with the information the senses are picking up. Each tier begins with an individual orientation and ends with a collective orientation. When we are first introduced to a tier, we have to figure it out for our self, as an individual. Then, after we have a sense of our self as individuals, we can engage with it collectively in a group.

In the concrete tier, we go from all about me concretely, to all about us concretely. Look at me becomes look at us. Me doing what I want fades into the background of us doing what we want. Me wanting the toy takes second fiddle to us being friends.

In the subtle tier, we change our focus from 'my' thought processes to 'our' thought processes; my business dynamics fades into the background of how our business cultural dynamics operate. Personal success fades in interest while improving cultural dynamics like social justice for all steps into the light.

When we move from a concrete collective (2.5) to a subtle individual (3.0) we do not lose our collective care, we just add a new individual capacity around it.

The Learning Style Column

The fourth column indicates our leading-edge learning style. When we first learn, it is from receptivity. We cannot learn anything if we do not receive. Our capacity to receive information is fundamental to being able to perceive reality. Once we can receive and perceive, we can act.

The second learning style is active or agentive. Once we have received information, we can act on it. A child who is able to receive food on the one hand and movement of their limbs on the other can now figure out how to use the two to push a chair up to a counter to get a cookie, much to the chagrin of the parents.

The same thing occurs in the subtle tier. We need to be able to receive subtle data before we can act on it. We have to be able to observe thought processes before we can think about them and alter them, so they work more efficiently in our lives. While on the concrete tier, we can alter concrete reality to get what we want – pushing a chair to a counter to get a cookie; in the subtle tier we can, for example, move thought around to make it more efficient. By directly changing our thought patterns we can live a more versatile, adaptive life.

Upshifting even more to the MetAware tier, we receive MetAware signals and capacities before we can act on them. We develop the ability to alter awareness patterns which is even more comprehensive and efficient, leading to increased capacity for fulfillment.

Of course, this improvement is dependent upon our skillful use of these additional capacities. We can also alter our concrete world, creating a disaster like lying to our parents which may lead to disciplinary actions. We might allow unethical corporations to write political policy leading to environmental degradation. On the Subtle level, we might be altering our thought patterns to become anxious or depressed instead of open and alive. On a MetAware level, we may engage in consciously constricting awareness or becoming self-indulgent with it vs. creating an open field of all potential.

Once we can do this, for better or for worse, (preferably for the better) for ourselves, we can then interact with others around this capacity. We call this reciprocity. In the concrete tier, we move from taking things out of others hands, or hitting them on the head to get what we want, to sharing and caring. We hold ourselves accountable to fairness because now we care more about the collective (third column, second question) than our individual self. In other words, we want the friendship more than we want the toy. Our primary way of learning is in reciprocity with others. By receiving what others want and identifying what we want together, we can come up with a better solution for everyone than by hitting and stealing.

In addition, in the second tier, we also move into reciprocity. We move from strategic plans for personal success, to designing corporate culture that makes everyone’s lives better. We move from discovering what makes us happy individually, to relishing deeper intimacy with others. A deeper intimacy that also allows us to see ourselves in a more complete manner – leading to deeply rewarding relationships. MetAware individualism focused on self-infatuation with our enlightenment transforms into MetAware reciprocity.

Once we can engage in reciprocal capacities with the content from the tier, we are able to perceive, we then move to interpenetration. Interpenetration is that capacity to see self and other in a united or unified manner. We are one, and that oneness can generate a whole new level of depth and understanding. On the concrete tier we all become one around concrete objects. We dress alike, we talk alike, we walk alike, we go to the same church or bar, or club. Our beliefs become alike, and we can feel a deep closeness in our oneness with each other. We understand how this occurs and we hold others accountable to their responsibility in it.

In the second tier, we are able to see the sameness of humanity regardless of culture, creed, race, sex, or even belief system. If we are oriented to ‘we vs. they’ based politics, in and out religious groups, and divergent belief and thought systems, we are not yet robust at 4.5. Finding our oneness in humanity itself, and of the manifestations of human consciousness, becomes the fulfillment at 4.5. We can watch the cyclical dynamics of the manifestations of consciousness impacting in cascading manner around the table or around the globe. Even more, we are able to see the thoughts, impulses, issues, and capacities in others are in us as well. We all drink from the same well of humanity so the ‘me vs. you’ and the ‘we vs. them’ breaks down into a larger we-one (We-Won!).

In the MetAware, we unite not just with common humanity and consciousness manifestations but the whole of consciousness itself. This vast expanse of consciousness and its cyclical cycles and our capacity not only to observe them but direct and manage them leads to powerful impacts with minimal movement. The passion of this space does not require any concrete or subtle experiences at all; no manifestations of human consciousness are necessary for passion. But it can wrap up all of humanity in concrete and subtle into a MetAware space and act upon that MetAware space in such a way that it ripples throughout the whole system.

These drivers we have discussed turn on and off in a similar manner that DNA turns on and off. With each switch of a driver, we may accelerate to a new level of understanding, or shadow crash to an earlier level of capacity. When we understand the STAGES Consciousness Matrix, we can locate ourselves and our capacities in every situation in which we find ourselves.

STAGES for Mentoring

Next let us explore how we can further use the STAGES Matrix in mentoring: Psychotherapy, coaching, spiritual guidance. When people present with issues, it is often a smorgasbord of symptoms and struggles. Often, we rely on active listening and support the person to figure it out for themselves within an environment of unconditional love. This is a powerful and beautiful method for helping people heal.

But it can often take a long time. We can “hack” this process by utilizing the STAGES Matrix. Every cell of the matrix has a plethora of information. Each cell ties to the others in intimate and predictable manners. As a result, we can gather a lot of information in a short amount of time and utilize it to help our clients with more ease, efficiency, and effectiveness.

For example, let us take a male who presents because his marriage is falling apart. He loves his wife dearly, provides abundantly, and makes bountiful plans for making their lives better. He is often very successful in accomplishing his goals in both home and business. But still, his wife is unsatisfied, and is having a hard time understanding why, and expresses meekly she just feels he is not really emotionally intimate with her. You can see he wants to solve this problem but can’t seem to understand exactly what his wife is wanting.

With the STAGES Matrix, we can see that his individual subtle capacities are intact (3.5 individual, subtle [plans into the future] and active). The wife is not clear on what is dissatisfactory, so she is being had by vs. having (a .0 stage) and she wants more intimacy (an even stage: 2,4,6) so, she is 2.0, 4.0, or 6.0. If she were at 2.0, she would not likely be asking for intimacy she would be asking to get along with each other. Furthermore, she would likely be getting plenty of intimacy for her needs from a 3.5. And 6.0 is very rare and would understand clearly what they need from a 3.5, what they could provide, and what they could not. So, she is very likely at 4.0 seeking deep authentic intimacy but not quite sure herself what that really is. 4.0 would be a transformational leading edge for him – something he has never done before – but is right at the apex of his leading potential at 3.5. With this information, we know exactly what to target for him – a 3.5 to 4.0 transformational crossover.

This existential move requires a shift of 2 parameters. We move from **individual** to **collective** and **active** to **reciprocal** (See STAGES Matrix). We know from the STAGES model that to help him in his marriage, we need to help him move into these new types of consciousness on the subtle level. Our targeted interventions will be to explore if he is able to engage in authentic self-expression in sessions and transfer that to his marriage. If this leads to high levels of disturbance, such as increased anger and temper tantrums, or active dominance of the conversation, we have new information. Angry temper-tantrums and dominance of conversation are a 1.5 dynamic (concrete individual active). There is a very high likelihood that this person learned that he could hang onto his concrete individual ego by engaging in temper tantrums or dominance of conversations. This is a common echo because 1.5 and 3.5 and 5.5 are all **individual active** types of consciousness (refer to the STAGES Matrix). As a result, they resonate with each other up and down the developmental spectrum. 2.0, 4.0, and 6.0 are all **collective reciprocal** types of consciousness. They too resonate up and down the developmental spectrum.

When we move from **individual active** to **collective reciprocal,** we have to change two parameters. This is a developmental consciousness stressor. How we handled it the first time (from 1.5 to 2.0) is likely to repeat when we meet this same challenge the next time (3.5 to 4.0). Since we see a regression to 1.5 when invited him into 4.0, we realize there was very likely a struggle letting go of the individual ego at the 1.5 to 2.0 crossover.

Since this strategy is repeating now as an adult, we can surmise it was successful in the past to hang on to the individual ego and resist full exposure into the 2.0 collective. There is a high likelihood that his parent was more passive, which allowed him to accentuate his active.

Reciprocity is a combination of reception and action. But we can often get the balance wrong or distorted. We can be overly passive, which allows others to walk all over us. We can be overly active and walk all over others. We can be right in the middle where we can be mutually egalitarian in our reciprocal experiences. Overly receptive or passive parenting often leads to overly active individual children who then grow up with a bias toward the individual active.

He chose a partner who was like the passive parent because that fit well with his overly active individual without creating much conflict. If he had chosen a partner who biases on individual active like himself, there would be a lot of stress and conflict as the two egos battled each other. However, we note that she responds “meekly” not with a great deal of active agency.

In addition, we can assess with a high degree of success that despite being biased toward the active part of the reciprocal dynamic he did successfully navigate a degree of health in the 2.0 and 2.5 concrete collective. We know this because he does love his wife vs. just being annoyed that she wants something else from him. He also provides for her and is quite generous. So, we see genuine care for another (developed at 2.0) and clear principles (2.5) that he lives by (providing and giving).

Thus, we have a reasonably healthy man who is successful in his 3.5 capacities, biases toward the active side of the reciprocal collective and will have some struggles in developing a truly egalitarian reciprocity on the subtle level until he develops a broader capacity to be egalitarian on a more concrete level.

We can begin helping him by having him monitor reciprocity exchanges. How many sentences does he talk vs. partner talk? How many decisions does he make vs. partner make? How often does he lead vs. partner lead? Monitoring and balancing reciprocity in the concrete collective (which he has skills with) will lead to a lot more success than trying to force him into 4.0 without foundational skills. Once these concrete skills are established, it is likely he will transfer them into the subtle realm without us even needing to work with it. But we can help there too by having him start with monitoring egalitarian reciprocity of plans with his partner. Planning into the future is an early subtle skill so we can start working with reciprocity with that skill as well with his partner. Then we can be introducing authentic self-expression and vulnerability as his skill base is intact and stable.

Notice that we have been able to track shadow issues, breadth issues, and leading-edge issues. We were able to zero in on the exact DNA cell of consciousness that needed work (reciprocity). We knew exactly how to help heal or make more robust that dynamic in him in shadow format (going back and reworking 2.0 reciprocity), in breadth format (working on reciprocity at his current developmental level of 3.5), and in a leading-edge format for improved marital relations (by moving into a shared deep authenticity and subtle vulnerability).

You might notice too that we can do the shadow work in a coaching format. This is basic skills training, not deep psychotherapeutic diagnostic shadow work. For example, we do not need to ask him to delve into and reexamine his relationship with his parents as might be the case in traditional narrative psychotherapy. And yet, it accomplishes the same outcome, and perhaps more efficiently. The reciprocity cell is healed or made more robust.

If you refer back to the original presentation, you might notice that is a lot of information to gain from three sentences and one reaction. Being able to glean this much information from limited time and exposure with the client allows us to begin fruitful suggestions that will lead to real improvements in the client’s life. It is efficient, effective, pervasive, and lasting.

Of course, we don't just assume this is all correct. We constantly monitor to see if our hypothesis is accurate. By utilizing the STAGES Matrix, we can, in addition to gathering a great deal of information in a short amount of time, also catch ourselves when we are operating on faulty thinking and make corrections immediately in session as new information arises.

Summary

In Summary, the STAGES Matrix is a vital tool helping us to resolve shadow, develop breadth and successfully navigate transformational existential issues in a clear, efficient and effective manner. The parameters within the STAGES Matrix provide multiple benefits. First, they provide an open field of exploration of each developmental level which can be constrained by stereotypes of each developmental level. The stereotypes we have today around each developmental level are not the same as they were in the past, and mostly likely will not be the same as they will be in the future. By understanding parameters, we can free ourselves of the constriction of stereotypes. Second, each parameter has a healthy aspect and an unhealthy aspect. By understanding the parameters of the STAGES Matrix, we can zero in on the specific parameter or parameter set that needs attention for healing instead of wandering around in the vast territory of the whole of consciousness. Third, by utilizing the stages matrix we can gather a lot of information with each sharing a person reveals to us. Coaches, psychotherapists, spiritual leaders and others in the helping field will find STAGES to be a helpful and clear guide in their personal growth and in helping others.

2. Shadow Patterns and Other Conundrums of Consciousness

Introduction

As we explore the evolution of our consciousness, we inevitably come across struggles. Some of these struggles are existential in nature. Some are holes in our skill development. Still others are ghosts from our past…the Dark-side of our own being. This Dark-side carries many names: the shadow, the unconscious, the demons within. In this article I will outline the underlying nature of shadow. I will identify the forms that shadow takes. I will share with you how shadows form in the first place. What happens to shadow once it is formed: how it operates within us. And I will also discuss with you the resolution of shadow dynamics.

Shadows from our history inevitably create blind spots. These blind spots create holes in our current operational capacities. I will discuss filling in holes created both by shadow and by the very nature of time constraint upon the evolving carnal time bound journey to the incarnate timeless boundless landscape.

The next leading edge landscape on this journey has its own unique challenges. I will also share insights about handling our leading edge existential conundrums. The challenges that can and often do occur as we reach into the next ethereal threshold of our unfolding.

Let us start at the bottom, in the dark dredges of the human soul. There are three basic forms of shadow. These three forms are introjections, projections, and split ego states. All shadow dynamics fall into one of these three major classes of shadow. Introjects are the absorption of false/inaccurate information coming in from the outside that we accept as true about ourselves and/or the nature of the word. Projections are taking qualia of ourselves and putting it on others and/or the world. Split ego states are when we divide our self into two parts…the shadow side of this is when these two parts are in disagreement with each other or out of contact with each other.

Every shadow has a developmental level. Just like each of us do. I find the STAGES MATRIX to be the most valuable tool I have seen to identify the birth place of any given shadow, identify its current placement, track its history, and predict its future if left unresolved. Below let us take a look at the STAGES Matrix

At **1.0** we can see that the pattern of consciousness is **concrete individual receptive**. This is the first-person perspective and this stage represents birth to about one year old. During this period of time we are in deep receptivity. What we receive is sight, sound, touch, taste, smell, and sense of movement. These stimulations are provided abundantly by the environment around us. Much of what comes in is accurate information of colors, sounds, shapes, textures, flavors, odors, and movement. However, some of what comes in is not direct experiences of the pure environment, but behaviors from others that are distorted from the pure experience of the environment around us. For example, we might cry, which is a normal experience for a child. However, our parent might be very upset listening to the crying so they may punish us, and yell "stop crying." As a result, we introject: "rejection of crying". We somatically constrict…shutting down the full range of emotional expression. We swallow whole a false belief that crying is not ok. Now in a sense the belief that "crying is not ok" is accurate, because in that specific environment crying is not ok as it leads to getting hurt. However, in the world our genetic heritage and primordial nature, crying is generally an ok experience that historically and genetically resulted in caring attention from parents. Unfortunately, the 1.0 child cannot make distinctions between healthy and unhealthy parental responses. So the introject distortion goes in whole, un-assessed, un-mitigated and generalized.

At **1.5** we can see (in the stages matrix, see Figure 1.1) the pattern of consciousness is **concrete individual active**. These are toddlers up to about age five. 1.5 children are running all over the house. They are tearing our pots and pans from the cupboards and banging on them. If they want something, they might just take it out of somebody's hand. If they meet with resistance, they very likely will hit the person so that they can get the item that they want. At 1.5 children are active agentive beings exploring their power and sending it out into the world. This is where projections are first born. What 1.5 children do is project onto the world is: the world wants me to have what I want. As a result, when the 1.5 child does not get what they want they can get very confused, upset and angry.

That we project out onto the world that the world wants us to have what we want to have is a very understandable thing. After all, the 1.0 child only had to cry and the parent would come and find out whether they needed: food, moisture, Love, changing, warmth, or movement. At 1.0 the child did not have to do anything for themselves, the world just gave the 1.0 child anything it wanted. As a result, at 1.5 the child now projects onto the world that that is the nature of life… that the world gives the child anything that it wants just because it wants it.

But now that the 1.5 child is active and getting into all kinds of things, so instead of indulging every need the child has, the parents start setting boundaries. The child has never known boundaries and does not understand them. Now the projection that they get anything that they want butts up against reality, the reality of boundaries.

It is this vibrant clash between the projection of the 1.5 child’s wants and the clear firm unrelenting boundaries of the parent that puts the child into a crisis. If the parents do a good job of holding good clear boundaries the child's only solution eventually is to move into second person perspective.

At **2.0** (on the STAGES MATRIX) we can see that the formulation of consciousness is **concrete collective reciprocal**. To get into second person perspective, one needs to take their one whole perspective and divide into two. One part of them continues to see the world directly through their own senses and their own wants. But this new segmented part, the second person perspective part, begins to see and feel from another person's perspective. This allows a child to move into pro-social Life. It also opens up for the child whole new world of friendship and connections that it has never before realized.

The natural problem here is that now there are two perspectives in one mind. These two perspectives sometimes disagree. We still have the first-person perspective mind that wants what it wants when It wants it. And we have the second-person perspective mind who wants to have friends and get along with others. Often these two mind-perspectives within the one-mind are at odds with each other, often resulting in significant internal conflict. We call these minds within the one mind Ego-states.

Multiple ego states within one person can also be created through trauma. When a child is traumatized, often the child uses split ego states to deal with the trauma. One ego state holds the trauma while the other ego state continues to move on in the world and grows up. Thus, now we have three personas within one mind. This traumatized ego state within the mind has interactions with the other ego state within the mind and this leads to further cognitive, emotional, behavioral dissonance. This is the third form of shadow.

To summarize, we have three classes of shadow: introjects, projections, and split ego states. 1.0 is a place of deep receptive being and it is the birthplace of introjections. 1.5 is a place of agency, it is the birthplace of projections. 2.0 it's a place of reciprocity and it is the birthplace split ego states. Split ego states can be naturally arising as we move into new perspective heights or they can be induced by trauma.

Once we have shadow issues there are three processes that we can do with them:

1. We can wall them off
2. We can evolve them
3. We can resolve them

Walling off Shadow

When we wall off an ego state it is similar to how we have an infection in our finger. We wall off the infection so it cannot travel through our body and kill us. We do this until our body gathers the resources to heal the infection and then our body sends antibodies in to heal the infection so that we are whole again. So too, when we wall off a shadowy ego state, it is not in communication with the rest of the consciousness. Ideally, we need to come back when we gain enough resources to heal it so that it can be resolved and reunited with the rest of consciousness.

However, often what we do is continue keep wall it off. Every time it puts its head out to say “Hey I am here”, we cram it back down into its container, into its prison where it festers and festers until our whole system begins to feel the impact of the infected bit of consciousness. It becomes very irritated by the way it is being treated. Then something happens in the outside world and triggers this little walled off ego state to come out into full force. Then it takes over our dominant ego, and completely controls our thoughts feelings and behaviors for a period of time.

You might remember times in your life where you felt like you were behaving in a fairly mature manner. You had a plan; a goal and you were on your way to accomplishing it. Suddenly you find yourself triggered and started behaving more like a child…very upset, irritated, perhaps pouting a little and throwing little temper-tantrums. This is an example of a "shadow crash." A shadow crash is simply an earlier developmental level ego state that has been walled off that comes out of its prison, takes over the dominant ego and drags the entire person down into behaving from that earlier developmental level.

At some point, the shadow ego state burns itself out or goes back to sleep. Alternatively, we regain control and shove it back down into its prison and we go on as before hoping that it never happens again. In the meantime, the suppressed ego state festers again in the background just waiting to erupt at the right moment…which is often the worst time for the dominant ego state.

With the stages matrix we can track these shadow crashes precisely. As a result, we can identify the exact developmental level of the shadow. We can pin-point the exact parameter that was distorted. The specific parameter that defines that specific shadow issue. As a result, we can be efficient in targeting precise solutions for the specific shadow issue.

In the above case, we have an adult operating at 3.5 (Subtle, Individual, Active) and crashing to 1.5 (Concrete, individual Active). This is a common shadow crash pattern. Since two of the consciousness parameters are the same between the two stages any issues with that combination, when over stressed, will result in this pattern of shadow crash. The beauty of such shadow crashes is they give us the opportunity to rework the distorted parameter that was never healed. By healing it at its earlier echo, the healing solution then can echo upward allowing the later level self to heal as well.

There are many shadow crash patterns and I will not discuss them all here. With our limited space we will address the next process of what we do with shadow.

Evolving Shadow

The second thing that we do with shadow is we evolve it. When we evolve a shadow we take a shadow from an earlier developmental level and give it additional skills as it grows up through the developmental spectrum. Instead of healing the shadow, the shadow co-opts later and later levels of capacities and uses those ever-increasing capacities to accomplish its distorted shadow agenda. Let us begin with the classic projection of the 1.5 child. That the world wants me to have what I want. As we discussed earlier, if we wall this off it goes into hiding and erupts at inopportune times. However, we might not wall off this distortion. Instead, we might grow it up. Below is an example of the evolutionary mindset of a 1.5 shadow seed growing up through the developmental levels:

- 1.5: The world wants me to have what I want to have. And I can go take whatever I want.

- 2.0: My role is to manipulate other people to get what I want.

- 2.5: I deserve what I want. It’s good for me to have it and I am morally justified in taking it.

- 3.0: I can explore the world in new ways. This exposure to new experiences will help me to discover new wants, new pleasures. I have the right to discover and have any new pleasure I can discover, regardless of the law.

- 3.5: I can visualize my wants, plan into the future to get them (regardless of the law, consequences to others, or the environment) and then go get them by whatever means are available to me. I have the right to get whatever I want by whatever means. Including the manipulation of language and concepts of truth.

- 4.0 If I pretend to be deep and intimate and listen to others I can more effective in my manipulation of them to get what I want on a whole new level.

- 4.5 By understanding system patterns I can manipulate dynamics so that more things that I want will naturally flow to me. As a result I can get what I want for me with more efficiency and less effort.

- 5.0 By seeing the illusion in language and the projections people have but don't see, I will have increased command over how to manipulate people to my advantage.

- 5.5 By manipulating the boundaries of language and ethics and perceptual projections of others and communities to my advantage I can get what I want and get others to do what I want them to do, while maintaining the image I need to get more of what I want. I can recombine solutions in even more creative ways leading others to work for me with even less work and even less accountability on my part.

As you can see, Shadow issues grow up and can and will continue to grow up with more skill and sophistication until we resolve the issue.

If we have a shadow issue of not being good enough we can construct the same kind of evolutionary trajectory of that issue. Any issue we have may be locked in at the developmental level in which it was born or grow up through the developmental levels unchecked and gaining more and more skill and sophistication until they are so slippery they are nearly impossible to detect.

Resolving Shadow

The third thing that we can do with shadow is resolve it. To resolve it, we need to clearly understand the class of shadow. Each class of shadow requires a very different form of resolution. If we use the wrong form of resolution, we can actually cause harm and enhance the shadow issue.

Introject shadow are distortion's coming in from the outside. What we need to do to resolve an introjected shadow issue is to identify it and release it back to its source. A projection is distorted material inside of us that we put on to the outside world. To resolve a projection, we need to take that back inside of us. A split ego state is a division of our consciousness. What we need to do is integrate the split ego states into a unified consciousness.

If we use an interject solution with a projection, we will enhance the projection. If we use a projection solution with an introject, we will enhance the introject. If we use a split ego state solution with an introject, we will lock the interject into the identity of the self. It is very important that we clearly identify the class of shadow and match it accurately to the appropriate form of resolution or we will cause damage and actually solidify the shadow issue.

In addition to the styles of shadow resolution we have three other forms of resolution that are important to discuss. These forms of resolution of issues can work with both shadow issues and other issues that we have in our life. These three forms of issue resolution are:

1. Height: the evolution solution
2. Breadth: the dilution solution
3. Depth: the dissolution solution

Height: The Evolution Solution

The evolution solution is about gaining greater heights to gain greater perspective upon the issue involved. By gaining height we can look down upon the issue, put it in perspective, so we can utilize multiple different shadow techniques to resolve the issue. The Evolution solution has 4 main steps to it:

1. In the world
2. Of the world
3. From the world
4. Beyond the world

When we are **in** the world, we are had-by it. We cannot see the issue because we are swimming inside of it. We do not feel like we have the power over the shadow issue because it appears bigger than we are. When we are **of** the world, we have 1 foot in and 1 foot out which gives us some perspective and some management capacities. When we are **from** the world, we have 2 feet out looking in at it (We have moved from subjective to objective). We still have some attachment; it is still something that we attend to, but we can be objective about it. This allows us to have much more control over our triggers, come up with clear viable solutions, and resolve the issue of that world view. We are still connected because we are from this world. When we move to **beyond** the world, we are no longer triggered by it. It does not have an effect upon us any longer. This process works not only with shadow issues but with any issue we have or any developmental perspective.

Let's take a simple example of a pacifier. When we are a baby or a toddler we are in the world of the pacifier. We need it and without it we may become extremely upset and so distraught that we don't know how we will survive. After a time, we are of the world. The pacifier is still vitally important, but not so much that we can’t step away from it. We have a sense of life outside of the pacifier and we can easily let go of it in ideal circumstances. When we are from the world, we have both feet outside of the world of the pacifier. We can remember what it was like to want it and sometimes we might even pick it up and put it back in our mouth, like a nostalgic observation, but then set it back down because we don't really want it. It still might grab our attention a little bit. Our mind still preferences it over another item, but also just as easily lets go of it. When we are beyond the world, we don't even particularly notice the pacifier anymore. Yes, it is a pacifier but there's no attachment. There is no preferencing of any of the senses toward or away from the pacifier. It no longer carries any energy whatsoever for our attachment or rejection. We are beyond attachment and clinging or repulsion and pushing away. We no longer even live in the world of the pacifier.

You can substitute the word pacifier for any issue or perspective. For example, in terms of a shadow issue, we might get very angry and upset if somebody co-opts our role in the family. If our role is threatened, we may become so distraught we are completely beside ourselves. We may act out to get the role back, we may talk behind another back to try to tear them down, we might create other alliances to get our role back. We are completely had by the role. We are **in** the world of the role. But at some point, we might find that we can shift our role in the family. We find that if a certain person co-opts our role, we can let go of it for a time, as long as we can have it back on occasion. In the meantime, it is ok to play with other roles. But we are still very attached to our primary role. At some point we can have both feet out of the role. We can look at the role, we can see what it did for us, we can see that we're OK without the role, we're still triggered into the role many times, but we can step back out and be completely out of the role and be genuinely happy to be out of the role. We are **from** the role, but we don't need the role any more. Eventually we move to **beyond** the world of the role. At this point the role no longer has any attachment value. We can step into the role if it's important for us to do so but we do not feel compelled to take on the role nor do we feel we need to push the role away. The role is just a role and it can be used or not used without attachment or pushing away.

We can track our development and spiritual processes with this as well. I have an ego. I am very attached to it. Any time this ego gets confronted I get very disturbed. I get so disturbed that I act out and do whatever I can to defend and honor this ego. I am **in** the ego. Next I can see a world outside of my ego. If my ego is confronted, I feel the disturbance but I have some capacity for managing it. While I may be very upset and have a lot of impulses for revenge, avoidance, or control, I can see a larger picture and manage my impulses to mitigate additional suffering to the ego. I am **of** my ego, but there is more going on that just ego. Next I can step outside of my ego. I can see it getting confronted and being upset by getting confronted, but the new space of consciousness has no trigger whatsoever. I am **from** my ego, but my consciousness is looking in at it not out through it. Finally, the ego has dissolved. Consciousness is fully inhabited in the new space. There are no triggers. Consciousness can choose to play the part of the old ego, but has no attachment to do so nor any pushing away of it. This is **beyond** the ego.

Each of these steps is very important. Each step marks a very important point in the transition. The first is a point of only awareness. The second is an either/or awareness, the third is a both/and awareness the fourth is empty awareness that allows the both/and to arise and fall without attachment. The first two are more subjective, the third is objective. Keep in mind “objective” is attached to the “objective” position. The fourth is beyond objective to a place of empty-full-non-preferencing.

Breadth: The Dilution Solution

The dilution solution is about utilizing our breadth. As we expand out wider, the material on which a shadow, or other issue, can hold onto becomes less and less until the shadow just has nothing left to hang onto and it falls away into oblivion. For example, let's say we have an issue with being judgmental at 2.5. At 2.5 we are working with sacred principles. An example of a sacred principal might be “Love your neighbor as yourself”. But what constitutes a neighbor? Does that mean we love the people within a 300-foot radius of our house, but outside of that we might hold anger, fear, resentment, rejection, and a whole host of other feelings? When we work with breadth solutions, the space in which we hold our sacred principal gets larger and larger. We might expand it to the whole city, then to the nation, or even to the whole world. At this point whole world is seen as our neighbor and we don't have anything left to hold the hate, anger, resentment, fear, and other issues that we have. With nothing for these issues to hang onto they fall away.

Breadth solutions can work another way as well. For example, most of us in today's world don't consider our neighbors necessarily the people around us. The people of our community are all over the world, perhaps, but they tend to have a certain believe system. These belief systems might be religious in nature such as Christian, Jewish, Muslim, Buddhist etc. They might be conservative versus liberal. Whatever the collective meme is, we tend to apply our sacred principles to them. But we don’t apply our sacred principles equally to the other group. By utilizing a breadth solution, we expand our sacred principles of love of in group to larger and larger in groups until everyone is contained within that in group. With nothing left for our issues to hold onto they systematically drop away. Consider your best friend. Think of how you hold them with compassion, love, support, tolerance, understanding, and forgiveness. Now think of your worst enemy. Think of the person who triggers you the most. When you can expand that same genuine experience of compassion love, support, tolerance, understanding, and forgiveness to them you have successfully utilized a breadth solution for your issue. Breadth resolution does not work if it is only cognitive. It is easy for one to claim “I love the whole world”. It is another to FEEL it when a specific formation of personality is presented in front of you that you have to deal with.

Depth: The Dissolution Solution

The dissolution solution is a depth solution. Some people call this “metabolizing” the issue. With the Depth solution, we go into the suffering deeply. We sustain the pain of the suffering until the suffering dissolves. By having the courage to drop into the depth of the suffering with courage and sustainability we metabolize the issue until it dissolves into Pure Energy which can then be readily used by any aspect of consciousness for new purposes. To accomplish this journey successfully we need several capacities in place. First, we need an unconditional loving witness that holds an unconditional loving environment within which we conduct our Journey. Without this holding, when we dive into the darkness, we can get lost in it indefinitely. The more we swim in the lost space the more we train the neural pathways to keep firing in those ways. As a result, we can actually accentuate the problem we seek to resolve. The unconditional loving witness prevents this problem.

Sometimes the unconditional loving witness is held by another person: a friend, a lover, a therapist, a coach, a spiritual mentor. By having someone hold the unconditional loving witness space, we can drop into the depth of the suffering while being held in unconditional love. This external support can encourage us to sustain the pain that we would rather run away from, to understand it intimately, and to hold the tension until the distorted illusions are clarified and transformed.

The second thing we need, is courage. Courage is what allows us to take this journey in the first place. The third thing we need is endurance. Endurance gives us the persistence to follow through to the end until it is resolved. There are also a host of skills that can help: altering cognition, altering emotion, altering impulse. We need access to all of our senses: sight, sound, touch, taste, smell, and movement/proprioception. Ultimately, this is our journey: we are diving into a realm where our senses are holding a particular configuration, identifying that configuration, dismantling it, discovering the treasure that that configuration of consciousness was hiding, and returning with the treasure. Then we nurture that treasure to build a new configuration of consciousness.

Functional and Dysfunctional uses of Depth, Breadth and Height

If we are holding the unconditional loving space for ourselves, we need to understand something very important. Recall the **evolution solution** of **height.** You might remember the discussion on: in the world, of the world, from the world, and beyond the world. We must have a part of ourselves that is *from the world* or *beyond the world* that can hold this unconditional loving space. The other two stages do not have the strength in their perspective to hold the unconditional loving witness as we journey through the underworld. What can happen when we use the dissolution solution of depth without a corresponding skill in height is we can get lost in the under-world. As a result, we actually enhance the issue. The issue appears to become bigger than us. It controls us, and we re-enforce its power in our life. It is crucial that if we use a depth solution then we do it within the environment of unconditional love, courage, endurance, and persistence. And that that environment is held by an ego-state that is at least at the place of seeing itself *from the word* or *beyond the world*. If we do not have that presence then we need to find someone who does to hold it for us.

We can run the risk the other way as well. If we use a height solution without concurrent use of depth, then we run the risk of what is often called spiritual bypass. We rise to these transcendent places, but all of the issues are still there. When we come out of our transcendent height, we still get triggered by all these issues that populate our life. Indeed, these issues that populate our life will pull us out of our transcendence again and again until we dive into depth and breadth where vital aspects of authentic and whole resolution reside.

If we use a breath solution without a depth solution with it, a similar problem occurs. We can move to a place of unconditional love and deep compassion for everybody in the world, conceptually, until we get triggered. Then we succumb to the dreaded *shadow crash*.

Ideally what we want to do is use all three forms of resolution of an issue for complete and thorough resolution. By utilizing height, we can hold space for doing depth and breadth work. By doing depth work we have a solid foundation for our height work to stand on to reach new heights. If we do our breadth work then the platform is not only solid enough but wide enough for our new height to have freedom of movement in its new explorations. We enter new expansiveness instead of constriction.

That being said some issues are more prone to resolution by one or another of these issues' solutions. For example, shadow issues almost always require depth to resolve. Social conflict issues generally require breadth. Existential issues require height.

A shadow issue requires going into the feeling to generate a release. Whether we are dealing with introjects, projections or split ego-states, all of them require an in-depth experience for several reasons. First, to get an accurate "diagnosis" of what kind of shadow we are dealing with, we need to go in and experience it. As we identify it we can know what to do with it. Once we identify it we need to develop more intimacy with it to complete the resolution. We need to experience all of the introject pattern to be able to release all of the introject pattern. We need to experience all of the projective pattern to be able to call it all back. We need to experience all of the Internal thoughts, feelings, and impulses of each ego state if they're going to become intimate with each other and come up with mutually acceptable solutions to the problems. To try to solve shadow issues with Breadth or Height is simply bypass.

Many issues regarding social interactions, especially interactions between groups and interactions regarding social justice, often require breadth solutions. We can go as deep as we want and work on the issue so we are not triggered by those around us. But that does not mean that we will expand this solution beyond our own circle. As a result, as soon as we move outside of one circle, the same issue reemerges. We might solve the problem with one coworker but as soon as another coworker brings up the same issue we're back to being triggered. Without a breadth solution we continually engage in the revolving door of having to rework the same issue with new people and new situations. On a larger scale what this means is social justice issues remain unresolved due to the endless revolving door syndrome.

Existential issues require a height solution. Existential issues often arise because of a conundrum that we cannot solve with our current perspective. The current perspective has many potential solutions. But none of those solutions by definition can address the existential issue. That's what makes it an existential issue. It requires a new perspective to solve it.

Recall our discussion of the 1.5 child moving into 2.0. The 1.5 child still wants what it wants. But these wants are butting up against other people's boundary setting. The 1.5 child can try many things to solve this problem. They might try hitting. If hitting doesn't work they can try the same solution in a different way. They can hit harder, they can hit faster, they can hit longer. That is the first level of solution: use what you already have, just do it harder, faster, and longer. This solution often solves the problem at hand. But sometimes it doesn't. Sometimes no matter how hard, fast, and long we work, it doesn't solve the problem.

So instead of using a physical solution we might use an emotional solution. We might cry, we might rage, we might deeply express our inner most feelings. Sometimes this works too. If those don't work, we can call on our previous in-class solution. We can cry harder, louder, for longer periods of time. If that does not work, we might change classes of solutions again. we might try an intellectual solution.

The intellectual solution is to solve the problem in a new way. We're going to figure out the smartest way, a trickier way, a sneakier way, an "out of the box" way to get what we want. And if the first attempts don't work, we can escalate our in-class solutions again by being more cleaver, more tricky, continuing to be so until something maybe works. Once we see that that this class of solution does not work, we might go to our final class of solution: the social solution.

In the social solution, we might try to get what we want in situations where mom is embarrassed to say “no”, such as in public. Or we might try to get what we want by asking dad after mom is already said “no”. Or we might pit one against the other…” dad lets me do it” … and that might manipulate mom into saying yes. Alternatively, we can work the easier person over and over and over until they can’t stand it anymore and they go convince the person in charge to give us what we want. If it doesn’t work at first, we can escalate our in-class solution: Faster, harder, longer.

As you can see here, from our own developmental perspective we can solve things within a class of solutions such as the physical. If that doesn't work, we can to continue to work within that class by doing the same things harder, faster, and stronger. If that doesn't work, we can cross over into another class. If that doesn't work, we can try using that class of solutions harder, faster, and stronger. And we do so again and again until we have exhausted every class of solution as hard and fast as we know how to do it.

The next developmental perspective's way to solve things is to combine classes of solutions. So, I might combine a physical and intellectual combo to try to get what I want. Or I might try social and emotional combination. I might even put all 4 classes of solutions together into one comprehensive system to try to get what I want. For example: (and notice in the following each class of solution coming on line: Physical, Intellectual, emotional and social) the child might cry when mom says "No"(emotional). And continue to escalate crying and anger (escalation of emotional in-class solution) and sadness…feeling so sad and with puppy dog eyes might say “dad said I could” (Social solution). He is in the garage; can you just go ask him...Pleeeeeeze? and then when mom goes to ask dad the little bugger runs and gets what he wanted and runs and hides. (– Physical solution; while the whole thing was set up in a cognitive solution.) Combining classes of solutions within our developmental level can be very powerful and effective! This is the power of breadth.

Let me summarize this before moving on to the next concept. First, we have a problem and we try to use a solution within our developmental level. Each developmental level has 4 classes of solution. These classes of solution are the same for each developmental level but our understanding of what they mean and how they can be used vary often dramatically from one developmental level to the next.

First, we try within our developmental level as class bound solution: Let's say physical. Then we use an extension in that class, stronger harder faster. We can try a different class of solutions, such as intellectual, and again accentuate that, smarter, trickier, more cleaver. Once we have two or more classes of solution, we can begin combining solutions. Ultimately, we can combine all four class solutions within a given developmental perspective in complex systemic ways to solve our problem.

Once all of these classes and combinations of classes of solutions don't work. Once we have tried every behavioral intellectual and emotional and social skill available. Once we have tried all the combinations available and they all fail, we have two options. We can give up. Or we can drive forward and crash into an existential crisis. Much of our distress in life is butting up against an existential crisis, attempting a breadth solution to solve it, burning ourselves out into collapse. Recuperating from collapse, and then doing it all over again. The suffering of these crisis is only resolvable through a height solution. Specifically, for our 1.5 child, only by going into 2pp and seeing through the eyes of the parents can the child solve this problem. Only by going into second person perspective and seeing what the child has never seen before... The pro-social world laid out in front of them… can they see what boundaries are, why they are important, and thus develop the capacity to hold the boundaries for themselves so they no longer get into trouble. In this transformational shift one is not solving the original problem, what one discovers is the problem one was were trying to solve is actually not the problem at all.

Now instead of trying to get the toy I want, I no longer even want the toy, what I want now is the friend. I want the family, I want community. No depth solution and no breadth solution could ever solve this problem. Only a height solution can solve these types of existential issues. These existential issues occur at every developmental transition. Height solutions do not give us what we want now. They transform us and deliver us from the want to a place where what we thought we wanted is meaningless (beyond the world) and a whole new passion arises.

With the STAGES MATRIX we can track these depth issues (and the regressive issues), the breadth issues and the height issues. We can pin point with laser accuracy where they are, what they need and how to solve them. We can identify where is shadow is on the developmental spectrum. We can then identify any one of the three forms of shadow. We can then apply the appropriate shadow resolution technique that will heal that shadow and certainly avoid causing harm that is so rampant today with randomly applying techniques regardless of the style of shadow involved. We can also assess whether the issue is best solved with a depth solution, a breadth solution or a height solution. We can assess which combinations and in which order will lead to success in the most organic, flowing, efficient, and effective way. Whether you are working with shadow issues, depth issues, breadth issues, or existential issues, the STAGES Matrix is a powerful tool for efficiency, clarity, and effectiveness.

Summary

In summary, we have three classes of shadow:

1. Introjections
2. Projections
3. Split ego states

1.0 is a place of deep receptive being and it is the birthplace of introjections. 1.5 is a place of agency, it is the birthplace of projections. 2.0 it's a place of reciprocity and it is the birthplace split ego states. Split ego states can be naturally arising as we move into new perspective heights or they can be induced by trauma. While these are the birth places where these types of shadow generally first arise, they may continue to arise at every developmental level thereafter.

Once we have shadow issues there are three processes that we can do with them:

1. We can wall them off
2. We can evolve them
3. We can resolve them

Walling off locks an ego state in its original developmental level. Evolving our shadow leads to the shadow developing ever increasingly sophisticated tools to use even if its original impulse it is acting out comes from an earlier developmental level. Resolving the shadow releases the distorted conscious energy into a free form that can be reutilized in more beneficial ways.

Each class of shadow requires its own style of resolution:

1. Introjects require release techniques
2. Projections requires re-owning techniques
3. Split ego states require integration techniques

If we use the wrong technique with a shadow issue, we can actually deepen the shadow issue rather than resolve it. We can solve shadow and other Conundrums of consciousness in 3 main ways:

1. Depth
2. Breadth
3. Height

With depth we use the dissolution solution. As we progress to deeper states of consciousness the issue dissolves from its distortion into deep authentic truth. With breadth we use the dilution solution. As we expand out broader, the issue becomes so diluted in the expansive awareness that it has nothing left to cling to and falls away into a wholeness of awareness. With height we use the evolution solution. We can also call it the illusion solution. With height we become aware of the illusions of our original issue and discover a later stage awareness that has greater passion for us than the original want. Some conundrums of our consciousness can be solved by any one of these solutions. However, some issues can only be resolved by a specific use of only one of them.

When dealing with shadow issues and other conundrums of consciousness these understandings can help us to navigate the murky waters. It can clear away the confusion of why using one technique in one area is unhelpful in another. It helps to understand there are multiple solutions to resolving issues. Some issues can use multiple styles and some require a specific style to resolve. By learning all the styles and not being attached to any specific one of them, we can enter the natural flow of shadow resolutions and the natural clearing of conundrums of consciousness. When we have and can utilize all these skills in a non-preferencing orientation, the resolution of our issues becomes less of a chore and more of a natural flowing unfolding.

3. Typology and The STAGES Model

Introduction: The Development of Awareness of and within Typologies:

Two very important aspects of exploring human consciousness are the fields of typologies and development. We will take a meta-perspective and integrate these themes in two ways: by discussing the developmental evolution of typologies and by discussing the human developmental evolution within typologies.

Let us begin with the developmental evolution of typologies themselves. There are many differences between typologies that may appeal to one or another individual personally. This diversity is wonderful so all can enjoy their own favorite style of typology. However, in this paper I want to explore the differences that indicate a developmental trajectory of typologies themselves. As I explore this aspect of typologies, I have formulated the following sequence for understanding this developmental evolution:

1. Fixed typologies:
2. Sequentially changing typologies
3. Simultaneously Inclusive typologies
4. Developmentally informed typologies
5. Integrated typologies

The most basic style of typologies are fixed typologies that test you, define your type, and lock you into that type for life. Astrological models of personality characteristics are probably the best known of these. Within psychology, the original Myers-Briggs is an example of this kind of typology. The original Meyers Briggs tests your type, claims you have been this type all your life, and you will be that type for the rest of your life. Such typologies are highly deterministic and unchanging. Below is an image of the zodiac from Astrology bay.

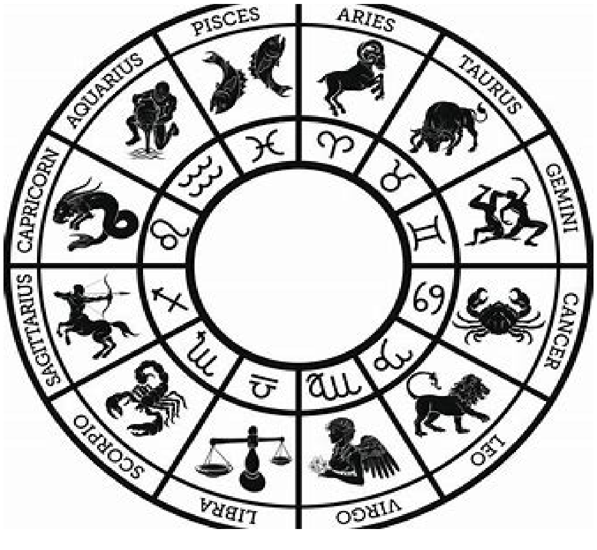

Figure 2.1. Zodiac.

Some of these typologies allow for only one type and others allow for one dominant type and 1 or more defined sub types. The next “type” of typology acknowledges that while we have a type, this type may change over time. As we grow, we understand that we can move from one type to another. With this understanding comes more advanced typology modeling. Those who work with the Meyers-Briggs are now acknowledging this aspect of typologies. Another example of this is the Enneagram. In the Enneagram, while we might have a core type, there is at least a mechanism for revolving around the type sets so that you become all of them eventually. This provides for more holistic exploration of human consciousness.

See the Enneagram Below **(from Co-Creative Journeys):**

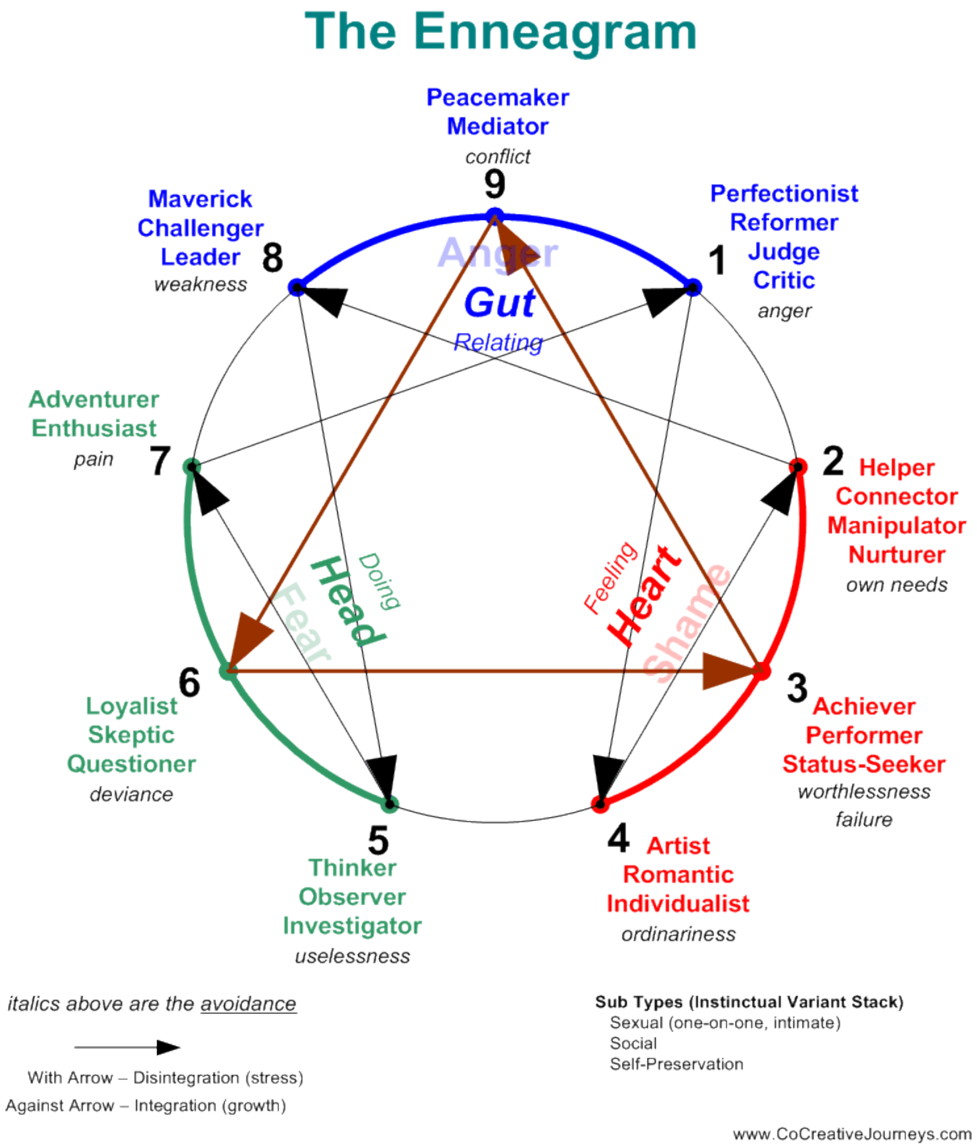
The Enneagram
Peacemaker
Mediator
conflict
9
Maverick
Challenger
Leader
weakness
8
Perfectionist
Reformer
Judge
Critic
anger
1
Anger
Gut
Relating
Adventurer
Enthusiast
pain
7
2
Helper
Connector
Manipulator
Nurturer
own needs
Doing
Head
Fear
Feeling
Heart
Shame
6
Loyalist
Skeptic
Questioner
deviance
3
Achiever
Performer
Status-Seeker
worthlessness
failure
5
Thinker
Observer
Investigator
uselessness
4
Artist
Romantic
Individualist
ordinariness
italics above are the avoidance
With Arrow – Disintegration (stress)
Against Arrow – Integration (growth)
Sub Types (Instinctual Variant Stack)
Sexual (one-on-one, intimate)
Social
Self-Preservation
www.CoCreativeJourneys.com

Figure 2.2. The Enneagram.

Another example of the inclusion of multiple types is Jung's 12 archetypes (see Figure 2.3 below). With this typology, each of us has a multitude of archetypes within us.

Both the enneagram and Jungian typologies indicate we are all of them at once, but that we may focus on one or another to develop it. The enneagram has a specific sequence to follow while the Jungian archetypes orient to a more organic explore-as-you-like dynamic. Both styles can be useful in different ways. The former has a specific lesson in how to go about accessing other types in a systematic and healthy way. The latter offers more flexibility. As a result, I can call upon whatever type is needed in the moment. If I need a Caregiver, I call on that type within me, If I need a Warrior, I call on that type. If you need a new type all you need do is look within and find it.

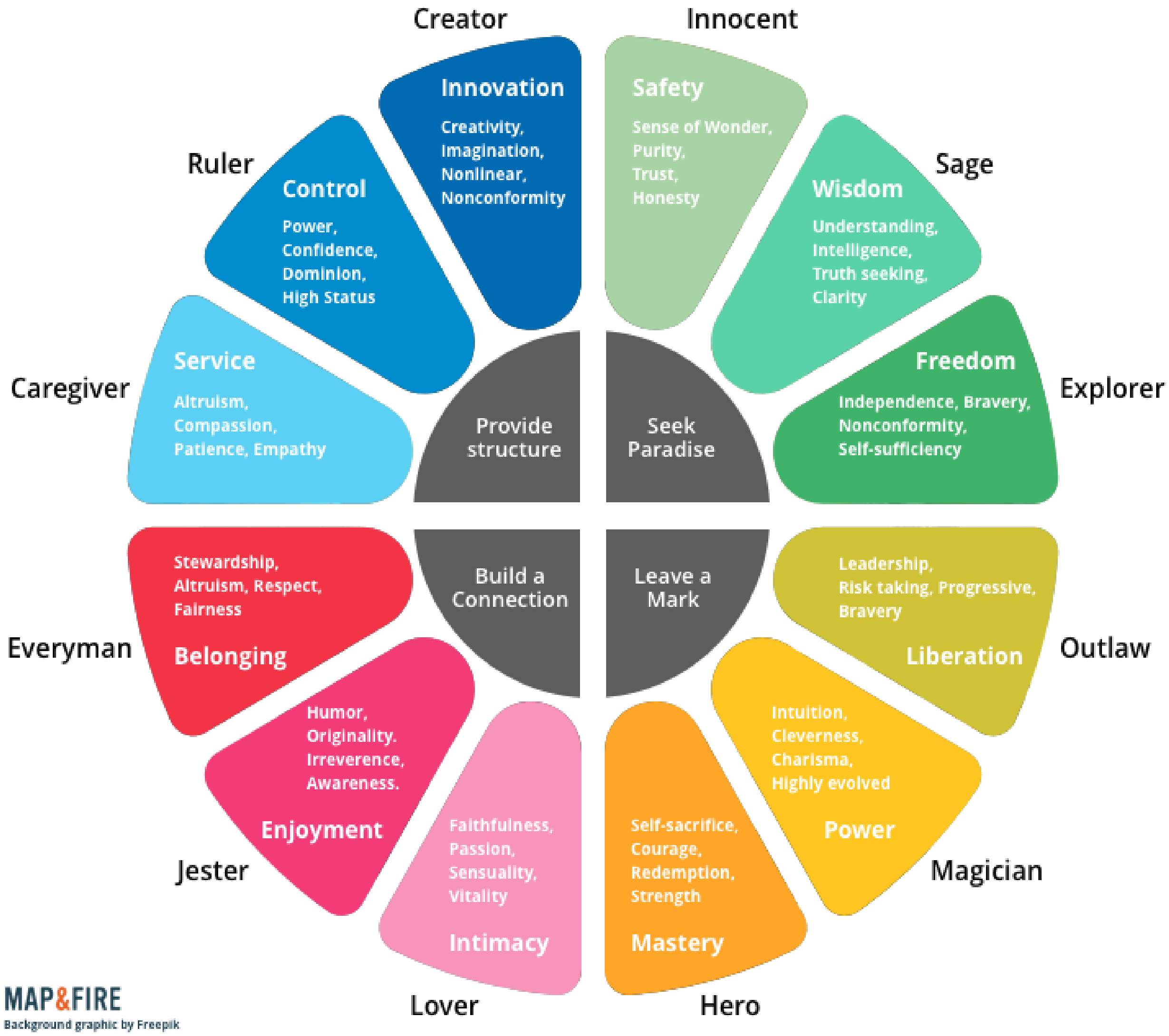
Creator
Innovation
Creativity, Imagination, Nonlinear, Nonconformity
Innocent
Safety
Sense of Wonder, Purity, Trust, Honesty
Ruler
Control
Power, Confidence, Dominion, High Status
Sage
Wisdom
Understanding, Intelligence, Truth seeking, Clarity
Caregiver
Service
Altruism, Compassion, Patience, Empathy
Explorer
Freedom
Independence, Bravery, Nonconformity, Self-sufficiency
Provide structure
Seek Paradise
Build a Connection
Leave a Mark
Everyman
Stewardship, Altruism, Respect, Fairness
Belonging
Outlaw
Leadership, Risk taking, Progressive, Bravery
Liberation
Jester
Humor, Originality. Irreverence, Awareness.
Enjoyment
Magician
Intuition, Cleverness, Charisma, Highly evolved
Power
Lover
Faithfulness, Passion, Sensuality, Vitality
Intimacy
Hero
Self-sacrifice, Courage, Redemption, Strength
Mastery
MAP&FIRE
Background graphic by Freepik

Figure 2.3. Jung’s 12 Archetypes.

A next step in typological sophistication is Pearson’s adaptation of Jung's 12 archetypes. Pearson arranged Jung’s’ archetypes in a developmental format (Carol S. Pearson: Awakening The Heroes Within). See Table 2.1.

In this adaptation of typologies, we can see that certain archetypes come online before other archetypes do. For example, the Innocent and the Orphan obviously must be developed before we can move into something like the Warrior and the Lover. And certainly, these would be developed before you would move into something like the Sage and the Wise fool. With Pearson we get both wholistic embracing of multiple archetypes as well as an understanding of archetypal human development overtime.

Table 2.1. Pearson's developmental model of archetypes.

Archetype	Fear	Strength	Weakness/Shadow
Innocent	Abandonment	Fidelity/Trust/Optimism	Denial Reality/Seek Rescue
Orphan	Exploitation	Process pain/Interdependence	Irresponsibility
Warrior	Weakness	Fight what matters/Courage/Discipline	Compromised Principles
Caregiver	Selfishness	Give to others/Compassion/Generosity	Guilt Manipulation
Seeker	Conformity	Be true to self/Autonomy/Ambition	Commitment Avoidance
Lover	Loss of Love	Follow your bliss/Passion/Commitment	Seductive Sirens
Destroyer	Annihilation	Ability to let go/Humility	Addictive Compulsions
Creator	Inauthenticity	Self-acceptance/Individuality/Calling	Obsessive Distractions
Ruler	Chaos	Take responsibility/Control/Order	Tyrant
Magician	Evil Sorcery	Align with Cosmos/Personal Power	Evil Sorcerer
Sage	Deception	Enlightenment/Wisdom/Nonattachment	Heartless Judge
Fool	Nonaliveness	Trust process/Joy/Freedom	Without dignity/No Self Control

An additional feature that arises as an integral part of understanding archetypes developmentally is that we now have not just egalitarian types but hierarchical types as well. With Egalitarian types, all types are created equal. With the inclusion of hierarchical types, we see both the egalitarian and the hierarchical nature of typologies within. As a result, we can use this hierarchical nature to have later level archetypes help earlier ones. For example, the caregiver can help the orphan, the worrier can protect the innocent. This is different from just calling on you caregiver when it is needed and calling upon your warrior when it is needed. This difference will be illustrated later in this paper in the section on development within typologies.

Human Development within Typologies

With the integration of types and development we can understand human consciousness in a much more sophisticated wholistic way. Pearson starts with archetypes and arranges them into a developmental sequence. This next section will explore what happens when we start with development and view Archetypes from a developmental lens. We will discuss how human consciousness develops in regard to typologies.

First, I will propose a broad overview of how our awareness moves in regard to typological awareness:

1. Pre-typological awareness

2. Typological awareness
3. Post-typological awareness

In pre-typological awareness we have not yet formulated an understanding of typologies. Typologies are not in an infant or young child's awareness. We begin to develop typological awareness in second person perspective. From here through fourth person perspective we can be enamored by various typologies. We can enter post-typological awareness in two ways. First, via height development. By 5th person perspective, if we have done our 4pp consciousness work, typologies begin to fade. Soon afterward we enter post-typological awareness.

Another way we enter post-typological awareness is from depth. This occurs when we move so deep that typologies become meaningless in their lack of granularity. We will discuss these styles of post-typological awareness later in the article.

For now, let us turn out attention to how human consciousness develops through the typological awareness phase (phase 2 above). As I explore human consciousness, I notice the following sequence emerge in our experience of typological awareness:

1. Fixed types: (I am a type: I have always been that type and I always will be.)
2. Sequentially changing types: (I have a type and this type may change with time.)
3. Inclusive types: (I have many types inside of me.)
    a. Sequentially: (I can see the types one at a time)
    b. Simultaneously: (I can see the types simultaneously)
4. Interactive types: (The types have their own relationships with each other)
    a. This occurs with two pairs of dynamics:
        i. The internal collective: I see the typologies interpersonally relating to each other within me
        ii. The internal/external collective:
            A. Seeing the internal typological collective in me I can see it in others and how the internal and external typological relationships play out in social interaction.
    b. The egalitarian and hierarchical nature of typologies:
        i. Egalitarian: Each type is equal to any other type
        ii. Hierarchical: Some types are more developed than other types:
5. Type systems: (The way I manage the interactions of types, the way they relate to each other, creates better or worse outcomes).
    a. Internally
    b. interpersonally
6. Integrative types: (Wholes) With better system design, the types integrate into larger wholes of consciousness until they become one whole.
7. Post-typological awareness: the types have dissolved allowing for post-typological consciousnesses to arise. But we retain the capacity to re-create and engage in typological interactions when helpful and can dissolve them again when they are no longer helpful.

To better understand this sequence of our consciousness in regard to types let us utilize the STAGES Matrix (see Figure 1.1 in the first article).

The STAGES matrix is a unique developmental model based upon the above parameters. The Stages Model uses these parameters instead of using descriptions like most other developmental models. The parameters are organized into sets. You can discover these sets by reading horizontally across the STAGES matrix. The 1.0 set of Parameters is **Concrete, Individual, Receptive**. The parameter set of 4.0 is **Subtle, Collective, Reciprocal** (see the first article in this series for a deeper explanation).

By utilizing sets of parameters instead of descriptions of developmental levels, the STAGES Matrix provides open fields of exploration of consciousness. Each level is defined within each parameter set without it being limited to what other people have experienced before. It is an unlimited field of potential…as long as it fits within the parameter set. If the expression of consciousness is beyond one parameter set, you simply move to the next parameter set which opens up a wider field. This is the transcend and include nature of development. Each successive developmental level holds all the previous levels within it but adds a new level of understanding.

Each parameter set holds a particular configuration of human consciousness. From research we know that these configurations follow a particular sequence. The sequence is intimately connected to the "person perspectives" (PP in the diagram). On the left side of the STAGES matrix you see the person perspectives from 1.0 through 6.5. In the next column you see the Tier category. The Tier column lets you know just what it is that consciousness is aware of. Is our consciousness aware of Concrete objects, Subtle objects or Metaware objects? The next column is the social preference column. This column lets us know if we are preferring an individual understanding of consciousness or preferring a collective understanding of consciousness. The fourth column is the learning style column. In this column we can see that we sequence our learning style from receptive to active to reciprocal to interpenetrative. Once we have completed this learning cycle on the Concrete tier, we repeat this same cycle on the Subtle tier and then again, we repeat it on the Metaware tier. The fifth and final column is simply a name column for each stage.

Each parameter set can be considered a developmental typology. As a result, we can see in the stages matrix 12 developmental "types." When we progress from one developmental stage to the next, we transcend and include it. As a result, the field of typologies we can use to understand our consciousness grows as we grow. We have more access to more type sets than we did previously. 3.0 has access to all of the typology sets previous to it but does not have access to 3.5 and later. 4.0 has access to 4.0 and all those sets earlier but does not have access to 4.5 and later.

Not only can each developmental level be considered a typology, but each developmental level allows for a certain type of typology to arise within it. Remember Pearson's arrangement of Jung’s archetypes into developmental levels. In general, we can note that the innocent and the Orphan are types that arise in 1st PP. The lover and the Warier are two types that arise in 2nd PP. the Seeker, Lover, Destroyer and Creator all arise in 3erd PP. While the Ruler, Magician, Sage and Fool represent 4th pp types.

Keep in mind that when we are in 1pp we do not see types or typologies…we are in pre-typological awareness. However, when we look back on our own 1pp we can see typologies emerging at those developmental levels. It is when we look back on ourselves that we can see our own innocent, our own orphan within. In addition, we can see such typologies continuing to operate from a 1st PP orientation within our current lives. If we don't attend to these earlier developmental types within us, they can co-opt our later level awareness leading to what I call a shadow crash. A shadow crash is what happens when earlier developmental orientations out of our awareness take over our consciousness. We find ourselves suddenly acting like a person who is significantly earlier in development than our common way of operating. Suddenly we find ourselves acting like a child might.

With Development applied to typologies we can see how we can grow our typology sets in depth, breadth and height. Depth is how intimately we know our typological self. Breadth is how varied we understand our typological self, Height allows us to develop new later level typologies that we can functionally have at our disposal.

In addition to depth, breadth and height, we can also go back to earlier typologies and develop the depth and breadth of each of these earlier typologies. When we take these journeys to our earlier typological selves, we can provide a stronger base for the later developmental levels and typologies with them that "sit on top" of the earlier level. As a result, we also eliminate or reduce the frequency and intensity of our shadow crashes.

Depth, Breadth and Height intimately interact with each other. You cannot gain height without some development of depth and breadth. Once we develop enough depth and breadth, the height we later gain can provide crucial perspective to broaden and deepen those earlier styles further.

Let us now refer back to the STAGES Matrix. When we understand the typology parameter set at each developmental level, we know exactly what to work on to deepen it. If we are at 4.0, we know we need to deepen our understanding of **subtle** consciousness in a **collective** using **reciprocity**. What this means in real life is we seek to share our deep authentic self with others with similar capacities and desires in an egalitarian manner. We seek deep authentic intimacy, and wish to build the skills associated with it.

In regard to types we might, for example, deeply understand our own unique Sage self. Then we may access this Sage self while interacting with others. By having our Sage-self interact with others, we learn even more about our Sage-self. We might learn about how wise we are, we might learn about our subtle narcissism. Either way we learn more about ourselves.

We can broaden our 4.0 types by getting to know not only our Sage-self, but also our Magician, our Fool and our Ruler. We can broaden our typologies by learning not only Jungian archetypes, but the Enneagram, the Myers Briggs, the Zodiac and others. One step further, we can broaden even more by getting to know all of our Enneagram types within, all of our Myers Briggs types within and all of our zodiac types within and pursue any other typology styles out there and get to know ourselves through each type within those typologies as well.

By gaining height we gain access to more typologies. If we are in 3pp we are limited to the types that we can genuinely get to know and functionally use. As we move to 4th pp we gain access to the genuine and functional use of more types. As stated earlier, the Sage and Wise fool are not as readily and fully available to a 2nd and 3er pp as they are to a 4pp.

Referring back to the STAGES Model, limitations and problems arise when we distort or constrict any one of the 3 parameters in a set. If, at 4.0, we constrict the **Subtle** parameter we are not exposing ourselves to enough Subtle consciousness. We can increase our exposure by reading subtle information about things like goal setting, future planning, systems dynamics, and psychological typologies. On our inside, we can explore our own archetypes/typologies and ego states to create deeper self-insight.

We can expand the 4.0 **collective** parameter by exposing ourselves to deep intimate conversations and connections with others. We might do this in our everyday lives with friends and family. We can also do this in workshops teaching things like psychological growth. We can also engage in intentional experiential subtle collective experiences.

At 4.0 we can constrict our r**eciprocity** parameter by only studying these things we just discussed, but never engaging these ideas and experiences with others. Even if we do engage with others with these subtle topics, we may not do it in a truly reciprocal manner. We might dominate by taking up most of the air time. Or we may defer, and not take time to share about ourselves. Noticing the egalitarian balance in reciprocity can help us to expand the **reciprocity** parameter to its full potential, challenging us to learn to defer if we tend to dominate and to speak up if we tend to defer.

Similarly, on our inside we can begin to explore our internal subtle self and subtle collective. We can explore all these types inside of us. I get to know, as stated earlier, the Sage, the Magician the Ruler, the Creator the Orphan the Innocent and all others within me. We begin to want to get to know them all. Then as we can identify and become intimate with them, we can also let them engage in reciprocity with each other creating an internal **Subtle, Collective, Reciprocal** typology parameter set within us. We now have, for example, the Caregiver, lover, creator, warrior, magician, etc. all sitting down at the table having a discussion with each other within us. As we do this, we develop our internal Subtle collective reciprocity: The Subtle Collective: the archetypes within… and the Reciprocity: all of these subtle archetypes talking and listening to each other.

Finally, we can extend our consciousness capacities by moving to new developmental levels thus increasing our field of typology sets and understandings of consciousness. For example, if we have a clear understanding of our internal archetypes and they are in interaction with each other we can move from 4.0 to 4.5.

The only change in the parameter set here is the learning style. We move from reciprocity to **interpenetrative**. What we do is we start observing the way we are interacting internally and come up with more skillful systems of interactions within… among the internal archetypes. When we get good at this all the archetypes begin to work seamlessly together. We have created a smooth operating system within. Eventually we may get skilled enough to create a system that becomes one whole interpenetration. If we do this, we are nearing the end of phase 2: typological awareness and heading into phase 3 post-typological awareness.

Meanwhile, externally we may be able to see all the types in others. We may see that those types in them are doing similar things that they those same types are doing inside of us. We realize that whatever we see in others we can see in ourselves and whatever we see in ourselves we can see in each other. Healing self means healing other and healing the other means healing the self. Typologically speaking, we become interpenetrated internally/externally. When we get here, we begin to be able to accurately predict our own and others behaviors. We can also begin to predict with increasing accuracy the outcome of any given set of interactions between people.

The Development of Understanding Typologies

Next we will explore how our understanding of typologies changes as we develop. At 2nd person perspective, and perhaps at 3.0 as well, we understand typologies in terms of labels that authorities or peers attach to individuals. We might also orient more to conventional (traditional) typology systems. For example, when labeled as a "Capricorn" we might read the definition of Capricorn in a newspaper section and find a sense of self through that definition. We will tend to view typologies as fixed deterministic and unchanging.

As we move into 3.5, an active stage, we begin to use typologies as tools to improve ourselves and better understand (not just label) others. For example, we might be able to utilize our understanding of our type to help us get a job that fits well for us or to succeed in life better or different ways. We may still view typologies as fixed and unchanging, but in contrast to earlier views, we might see them as tools we can use to make decisions; and we have increased ability to consider different typing systems. But ultimately, we see ourselves as fixed at a particular type's characteristics.

This idea of type stability might actually feel safe and secure. The typologies block off a little piece of consciousness out of the whole. The whole of consciousness is a big and sometimes overwhelming space. One can easy to get lost in it. Having one little piece blocked off allows us explore that one little piece of consciousness without feeling overwhelmed.

However, we can get lost in the typology and have the type define us: I am defined as a caregiver so that is what I will be… and I make that my identity. I was scored as a 5 so I read up on 5 on the Enneagram and that is who I am… and I fashion myself into a 5. My Astrological chart says I am a Cancer so I read up on Cancer, develop a Cancerous personality, and die of Cancer (ok I am playing here). The point, and the problem, is the type begins to define us. As a result, we don't get to know who we really are. We use the type not to discover who we are uniquely but to have a safe sterile sense of identity. This typological identity is a false copy/paste identity. You are not a 5 or a Leo or an INFP or a Magician. You are YOU.

We have gotten it all backwards and upside down. Typologies are an initial inroad to getting to know our deeper inner selves, not an avoidance mechanism for constructing a false template self. So now that we have an inroad to the self, we begin to dissolve the templates and get to know the true authentic self. Who am I as a Warrior? Who am I as a 3? Who am I as a Capricorn?

As we grow into 4.0, just one archetype can begin to feel less like a safe haven and more like a prison. At that point we will want to explore other "types" of consciousness. We will start seeing how we *are* multiple types. We may notice we express different types sequentially. For example, at one point I might come from a Warrior and the next time I might come from the Caregiver. I might come from a 7 one moment and a 4 another. I might behave like a Taurus in my family but like a Virgo with my friends.

Later in 4.0 we might notice **simultaneous typologies** occurring within us. For example, I can see my Caregiver, my Warrior and my Lover all operating simultaneously. I can see the 7, the 5, and the 2 in me all at once. I am aware that I am like a Capricorn, Leo, and Virgo at the same time. When we get really skilled at this, we can see how we can hold awareness all of the types at once. We have all of the types engaged in community within us. Sometimes these communities have factions or clicks and sometimes we can have one big happy community of archetypes within.

The next sequence in the evolutionary journey of types, we can observe how these different aspects of our typologies are **interacting with each other** in our internal collective. We move from identification of the different types within us to developing intimacy between the different types.

The Enneagram introduces us into this understanding and offers a pathway for some aspect of intra-typology relationship and intimacy. However, it is very mechanistic and limiting. At some point we allow all the types to begin to interact with each other in a more organic manner. This allows for more genuine intimacy between the internal types. In the case of the Enneagram, imagine any given number being able to be in interaction with any other given number and develop an intimate conversation with it all internally within you. In the case of Jungian Archetypes any give archetype can interact with any other given archetype, listen closely to each of their needs, wants, fears, hopes, etc. It is this intra-type intimacy that leads to a deeper understanding of the internal collective self.

This brings us back around to what we mentioned earlier, the rigidity of the types begins to fall away. As the multiple types within us interact with increasing intimacy (depth) we see how each archetype within has its own unique flavor for us. The lines begin to blur between each type. At this point we spend less time reading about what my type is and more time intimately getting to know the unique flavor of me as a version of the type. Eventually the type itself fades completely, giving way to the more nuanced ego-state…or simply a sub-personality that need not have a name from any formal system. You can’t get to that level by reading books. It only happens in the courageous inward journey to your own unique soul self. As we explore this, types fall away in the intimate depth of each nuanced self. We enter post-typological awareness from depth. As we allow each nuanced inner-self to interact genuinely with every other nuanced inner-self, we get to deeper more authentic self-intimacy.

At (late) 4.5 we begin to really understand the systemic dynamics of how all the types (and the ego-states that hold them) inside of us are operating and how they are interacting with each other. From this vantage point we can see that some environments and styles of interacting within the internal community lead to better or worse experiences. We learn to adjust that system so that the types get along better within us. We learn how to build a better internal community.

How we organize this in internal collective system has a significant impact upon how we interacted externally with others. The reverse is also true. How we interact with others and how others interact with us has an impact upon how we can conceive of configuring the internal collective dynamic. As we expose ourselves to others who are self-organizing their internal complex adaptive systemic communities, we gain more wisdom in how to do so for ourselves.

When we take a Meta-view upon this intra-inter-personal dynamic, we can begin to observe how the internal collective of types within me interact with the internal collective of types within you in our shared external we-space. We learn how to adjust the internal collective within to adapt in the moment to the expressions of the others internal collective interactions. As a result, we can build better external communities at the point of interaction with others in the ever-arising moment.

For example, if I have not developed my internal Innocent very well and I'm coming primarily from my internal Orphan it might have a big clash with your Orphan over some power dynamic. On the other hand, I may clash with your Innocent by taking advantage of you. This may bring out your Warrior which clobbers my Orphan for hurting you. As a result, I might bring out my Warrior and we end up in a Warrior-Warrior clash. Thus, we can see typology wars within and between us. Once we can see this, we can see it play out on a larger scale as well, as groups and nations play out different typology sets leading to peaceful alliances and bloody wars.

Instead of entering into a Warrior-Warrior battle, I might bring out my Wise fool and undermine your Warrior leaving your Warrior defenseless. You then might bring out your Sage and we convert the bloody battle into a communal rejoicing of togetherness in the wisdom/folly polarity of life. We become conscious co-creators of the internal-external community as it unfolds in the ever-arising-moment we-space.

As stated earlier, we can also start becoming wise to how our internal dynamic system is operating. If we learn how to construct our internal system in a way that all of the typologies operate smoothly, coherently, compatibly, and in an integrative fashion, we can lead a very peaceful smooth life.

By holding all of the archetypes within us and understanding how they interact with each other, for better or worse, we are more able to understand how to interact with others when they approach us with any particular consciousness set of archetypes. That is, if we truly understand both the shadow and the light side of our own Warrior, we will understand how to handle another person when they come at us with their shadow Warrior without creating an interpersonal shadow crash.

If we understand the shadow and the light side of our 7 and our 1 on the Enneagram, we are better able to understand another when they come at us with their shadow in a 7 or a 1. As a result of doing the intra-personal work we have more smooth relations inter-personally. Thus, we elevate the we-space to healthier and healthier forms of systemic interaction of internal archetypes. As a result, our one little drop of wisdom in the pool of human consciousness reverberates outward inoculating the larger collective. By healing ourselves we heal the collective. The reverse is also true. When others respond to our unconscious shadow type with a healthy response, they can heal us from our typology shadow. Their drop of wisdom in the collective heals each of us.

When we create healthier we-spaces, these healthier spaces provide an environment for healthier individual growth. As a result, we have a positive feedback loop that elevates all consciousness as we elevate our own. As all elevate their consciousness, it provides an environment for each to elevate as well. The continuous cycle of the evolution of consciousness is magnetized and accentuated.

Eventually we begin to integrate the types together so that they begin to form a cohesive whole. As you can see, we move from identification of types to intimacy between types to integration of types. Once we integrate types, types tend to fall away for us. The configuration of the typology style of consciousness does not allow for later level psycho-spiritual states and stages. The next stages require post-typological awareness. However, as we move into late 5th and 6th person-perspectives, we can reformulate typologies again at will, as necessary, depending upon the situation in which we find ourselves. Just like at 3pp we can move beyond rules but still come back and formulate and follow rules as necessary when appropriate, so too at 5pp we can do this with our typologies.

Summary

In summary, typologies have a developmental trajectory. They begin as a fixed, rigid, and deterministic type for life. The next typology style is that while people have a type, these types can change sequentially over time. The third style of typologies orients us to experience multiple typologies simultaneously. This allows the types within to begin to interact with each other eventually formulating egalitarian systems. The fourth typological orientation is that varies types within any give typology have a developmental trajectory. This allows for both the egalitarian and hierarchical nature of typologies to exist simultaneously within us. As a result, the internal adaptive system becomes more complex and multi-functional. This sets us up for the fifth typological style where both hierarchal and egalitarian Typologies themselves integrate into a whole interpenetrative well-functioning system. Here is an outline of the sequence of the development of typologies for your review:

1. Fixed typologies:
2. Sequentially changing typologies
3. Simultaneously Inclusive typologies
4. Developmentally informed typologies
5. Integrated typologies

Not only do typologies have a developmental sequence, our awareness as we move through typological awareness also has a developmental sequence. We move from believing we are a type for life to experiencing our type change sequentially.

As our awareness capacity grows, we can begin to hold multiple types within us simultaneously. This allows us to have types interacting with each other within us. This also allows us to create egalitarian systems where multiple types within us can interact in increasingly cooperative ways. How we create these egalitarian systems has a mirror effect upon how we interact with the external world and how we perceive the external world as it comes in through our senses.

As our awareness grows more, we are able to hold both egalitarian and hierarchical types within us simultaneously. This allows for even more complex and functional multi-type interactions within us. For example, later level types can hold nurturing space for earlier level types while earlier level types can then explore in safety and freedom new passions and interests of which we previously were unaware.

As our consciousness expands to look in at this system, we can create ever more functional and alive internal complex adaptive systems that operate in increasing cooperative styles. These internal egalitarian/hierarchical systems become even more adept with the external egalitarian/hierarchical systems creating ever more smoothly operating internal/external complex adaptive and interpenetrative systems.

Here is the outline of the growth of our consciousness through typological awareness:

1. Fixed types: (I am a type: I have always been that type and I always will be.)
2. Sequentially changing types: (I have a type and this type may change with time.)
3. Inclusive types: (I have many types inside of me.)
    a. Sequentially: (I can see the types one at a time)
    b. Simultaneously: (I can see the types simultaneously)
4. Interactive types: (The types have their own relationships with each other)
    a. This occurs with two pairs of dynamics:
        i. The internal collective: I see the typologies interpersonally relating to each other within me
        ii. The internal-external collective:
            A. Seeing the internal typological collective in me, I can see it in others and how the internal and external typological relationships play out in social interaction.
    b. The egalitarian and hierarchical nature of typologies:
        i. Egalitarian: Each type is equal to any other type
        ii. Hierarchical: Some types are more developed than other types:
5. Type systems: (The way I manage the interactions of types, the way they relate to each other, creates better or worse outcomes).
    a. Internally
    b. interpersonally
6. Integrative types: (Wholes) With better system design, the types integrate into larger wholes of consciousness until they become one whole.
7. Post-typological awareness: the types have dissolved allowing for post-typological consciousnesses to arise. But we retain the capacity to re-create and engage in typological interactions when helpful and can dissolve them again when they are no longer helpful.

If we do this skillfully, we may move into post-typological awareness in two ways. We move to such an intimate DEPTH of understanding types that types fall away into the more nuanced, maneuverable and adaptive ego-states. Alternatively, or in addition, we move to a later level HEIGHT where all the types within interpenetrate into a single whole system. At this point types fall away and we enter post-typological awareness.

Understanding typologies within the whole of development allows us to understand the purpose and trajectory of typing. This helps prevent us from getting stuck in any given type or typology style. As a result, our personal and collective consciousness is allowed to evolve free of the obstacles and pitfalls prevalent in the maze of typologies. Instead, we follow a clear path through a beautiful forest that leads to a mountain peak with clear views of the timeless boundless landscape. But remember, it's not about the end. Enjoy the whole journey. It is all beautiful!

4. The Illusion of Distinct Lines

Introduction

Lines of development have been promoted by multiple authors. The attraction to lines of development is at first quite understandable and appealing. They appear at first glance to explain how some people appear to have high cognitive development while others appear to have high emotional development and still others have high physical skills and others great musical capacities. Below is a typical list of various proposed lines of development:

Cognitive, Emotional/Affective, Kinesthetic, Ethical, Aesthetic, Spiritual, Musical, Spatial, Logical-mathematical, Karmic, ...

However, lines of development appear to me to break down quite rapidly upon closer inspection. I claim no scientific background in this field. My only offering on this subject is the observations of the working of my own mind and the minds that I have intimately worked with over the last 30 years as a therapist, coach, and workshop leader. Drawing on these experiences I have developed some perspective on “lines” and alternative orientations that I think are more functional and accurate ways to view the human mind.

At this point in time, I see the concept of separate lines of development has several problems. First, any given line will sub-divide into an infinite array of sublines. Second, these sub-lines will invariably either blur with each other or outright contradict each other. Third, lines make more sense from the bottom up than from the top down. Fourth, the conceptual structure of lines does not fit with brain structure research, nor with the concepts of the Dali Lama. And fifth, just the concept of lines pulls the mind into a line or multi-line thinking modality where a more complex interconnected neural web orientation is more functional and more in line with the research and more in line with how I experience my own mind and the minds of others I work with. This paper is not enough to make a thorough argument on each point nor is it intended to do so. It is only intended to provoke thinking in different ways.

Let us begin with how lines break down. To do this let us start with the “musical” line of development.

Example: The Music line

As soon as we claim a musical line of development the next question is which kind of line? While we all can clearly see some people are very musically adept and others are not, what exactly does it mean to have a musical line of development. Some people can read sheet music on sight and sound amazing. But get them to play by ear and they are incompetent. Others can play by ear, but cannot read a single note. Both require movement through various skills development to be highly competent, but both are clearly utilizing very different parts of the brain. I know people who are tone deaf but can read sheet music and play wonderfully. Others can play by ear but cannot read sheet music. So now we have a technical sheet music line of development and a playing music by ear line of development.

Next, let us consider jazz vs. classical music. Jazz requires quite a different orientation to music than does Classical. So now we have a Jazz line and a Classical line. But wait, these can both be done with sheet music or by ear so now we have 4 lines of musical development. Sheet reading jazz (like precision jazz) sheet reading classical, playing by ear jazz (such as jamming) and playing by ear classical. This of course only begs the question when we move into blues, folk, bluegrass etc. After all, there are musicians that can play bluegrass so fast a classical person could envy and yet not have any capacity to create classical music and vis versa. So now we have technical lines, playing by ear lines and style lines. All of these different sub-lines can be clearly defined. In fact, they can be more clearly defined than the sub-line of music. Perhaps, since this is the case, we need to move from separate lines of development to micro-lines of development that are more clearly defined and therefore more clearly measurable for study.

Let us look at one more complexity. Consider those who write music vs. those who listen to music vs. those who perform music. There are great song-writers who can't perform (Bob Dylan for example…haha) there are great performers who can't write music (Tayler Swift...haha) and there are great people who can listen and enjoy all the technical nuances of music but can neither write nor perform. All of these people can be considered advanced along the "music" line. But while each is advanced in their own way, they are completely incompetent in the way the other kind of musical person is.

Writers are using a creative aspect of the brain while performers are utilizing a repetitive memorized precision part of the brain while the listener is utilizing an analytical technical part of the brain. These are clearly different aspects of the brain in action. So, they, by definition are different lines.

Next let us compare a sheet reading bluegrass banjo player, a tone-deaf technical composer and a deaf performer. All of these people are utilizing technical parts of the brain to accomplish their musical task. None are using the musical ear. And yet one is a performer, one is a composer and one is a reader of music. So now we have all these nice crisp lines blending into something altogether different. Instead of having more sublines to make things more crisp and clear the lines are now getting blurred. For example, we have these nice crisp lines of jazz, classical, blues, technical, organic playing by ear, Performer, writer, listener, analytic. But as soon as we define one of these lines for study it will cross over the other lines.

A similar issue occurred in Anthropological studies of race. The common knowledge was that race existed so let us study it. But as soon as they went to study race, they could not find it. As soon as they isolated for skin color, eye color did not hold consistent, nor did hair color, nor height, nor any other measurable trait. The same thing occurred when they isolated for hair color, blood type etc. The conclusion was that Race is a false concept. If you lined everyone up in the world in a line there would be no place to draw a line to say one race starts and the other ended. Even more, by lining up by one trait of race (skin color) all the others traits went askew.

The same is with line. As soon as you define a line in one way, you will contradict other lines that make just as much sense. In the long run, the only reasonable conclusion to make is that lines, like race, appear true on the surface, but upon deeper inspection, break down into non-sense. (This is not to undermine race relation issue, as these are serious issues. Just because something is an outdated concept does not mean it does not continue to create devastating consequences).

To be more specific, it appears that:

1. All lines break down into sublines
2. Sublines break down into an infinite array of smaller sublines
3. Once you really look at the sublines, they will invariably contradict each other.
    a. That is to say that to follow any given sub-line alone you might think you are doing fine
    b. But invariably there is another sub-line that will contradict that subline.
    c. Therefore, BY DESIGN the concept of separate lines puts us in a contradictory state of understanding the mind. To prove one line will inevitably deny another line which on its own will prove itself and deny the former.

We can do the same thing with cognitive line, the affect line, the kinesthetic line, the moral line etc. Regardless of the line you use, all lines break down quickly upon deeper inspection to either infinite sublines and into blurring between lines and even out right contradictions.

One of the classic arguments for separate lines goes something like this: Nazi doctors were cognitively developed but not morally developed. This appears very clear at first blush. But what happens when we look a little closer. First, for a Nazi doctor to be functional at all they have to adhere to basic morals of codes of conduct of the scientist…and they did this with excellence. Their moral line was EXACTLY the same as their cognitive line. It was compartmentalized, yes. But that does not mean is was not there and was not developed.

Secondly, the Nazi doctors adhered to the sub-culture moral orientation at that time in history. They treated other Nazi doctors with respect, followed social moral norms and engaged in the societies moral character. Was it compartmentalized? Yes, was that tragic? Absolutely! But that does not mean the morals were not in line with their cognition. The horrifying fact is, we all compartmentalize a little bit. We all adhere to wonderful morals in one or even most settings but then do not do so well in other settings. This is compartmentalization. Does that mean all of us have no moral development? Of course not! Is it tragic that we can't generalize our greatest moral character across all situations and apply it to all conditions, yes of course! Does that make us all Nazis? No, but in humbleness we can realize we do a similar thing, albeit in perhaps a much smaller way.

From what I can observe is minds work as whole units. Complex cross-referencing neural networks. Clusters form around orienting perspectives, not around specific lines. If we want to study clusters of consciousness then we would do better to understand how these clusters are actually forming.

The clusters are not around cognitive vs moral. The clusters are around perspective orientations. One perspective orientation creates a neural cluster network that contains a generally homeostatic alliance of cognition, emotion, impulse, morality, art, etc. configuration while another orienting perspective within the same person contains a different configuration made up of the same whole elements of the human being but with its own homeostatic alliance configuration.

Next, instead of breaking down every other “line” let us go to a macro view of lines. First, let us address the idea that cognition, emotion and kinesthetic are separate or separable. In Danial Goldstein's book, Destructive Emotions the latest neurobiology researcher and the Dalai Lama, agree that Cognition and Emotion are co-arising phenomena. In further research we realize that Impulse (kinesthetic) also co-arises. These are not separate human capacities but an integrated web of human experience. You can’t take one away without the other two. There is no human who can have emotion without cognition and without impulse, there is not cognition without emotion and without impulse.

We may be able to have impulse without emotion and cognition… as in reflexes and impulses such as a chicken that flaps around for a bit after its head is cut off. But these are pretty limited. These reflexes come from the brain stem and for all practical purposes would not be considered conscious action (after all the head IS cut off!). Cognition, emotions and impulse including all other kinesthetic movement are all intricately interrelated. You cannot have cognitive development without emotional development and impulse development.

Give me the best mathematician in the world and I will show you a person who is equally passionate about math as they are intelligent. I will also show you a person who has equal capacity to manage impulse….in that as they are intellectual and emotionally wise.

Show me a professional athlete and I will show you someone who has passion and emotional command in their profession and impeccable impulse control in it as well. But get them off the sport and their emotions may be wavery, their impulse control suspect and their cognition limited. In fact, even on the court they may waver from professionally controlled impeccably kinesthetic wonders. Get them angry and suddenly their kinesthetic command falls, their intellectual precision falters and their emotions run amok. This is so well recognized that professional athletes are trained in getting into their competitors head to create this decompensation.

Lines really begin to falter here. If it was just lines, this dynamic would make no sense. After all, the capacities are there just a moment before. Why are they not there now?

How do we make sense of these variabilities if lines don’t work? The answer is a conglomerate of interacting parameters within a multi-self orienting perspectives.

Interacting Parameters

The first set of parameters (which come right from the STAGES model) are:

1. Content: Content is the what of what we are doing or assessing. There are 4 sub parameters to the content:
   a. Concrete content
   b. Subtle content

    c. Metaware content
    d. Unified content
2. Process: Process is the How or the learning style of how it is being done. There are 4 sub-parameters to the learning process style:
    a. Receptive
    b. Agentive
    c. Reciprocal
    d. Interpenetrative

The second set of parameters is:

3. Interest: interest is the desire one has toward the content. Interest is moderated by 3 sub-parameters
    a. Environmental exposure
        i. Without some environmental exposure there will be no development.
    b. Sociocultural memes
        i. The socio-cultural memes that the individual is raised in provide further funneling of interests. Again, one cannot have development of something they have no exposure to
    c. Personal preferences: From this environment the individual makes personal preferences which may be acted upon. These personal preferences are limited only by the type of content they are able to see (first parameter set).
4. Talent: Talent is the ability to act on the interest. It is also moderated by 3 sub parameters:
    a. Genetic configuration: Ones genetics have a great deal to do with one's developmental capacity in any given realm.
    b. Industriousness: Given a set of genetic capacities the individual may develop them or not. This is called industriousness
    c. Confidence: whether developed or not there is a spectrum of confidence to use this capacity. Some people are genetically primed and have been industrious enough to develop great talent but lacking confidence never act on it.
5. Opportunity: Opportunity is the situation in which one can apply and develop the talent: it is moderated by 3 sub parameters
    a. Exposure: one must have exposure to not only the environmental awareness of the content but also the exposure to be able to act upon it. In addition, exposure to opportunities like schooling or jobs.
    b. Training: Training can help optimize the talent
    c. Experience: Having opportunity to have specific or variable experiences in the content provides significant opportunity for growth.

The third "set" of parameters is:

6. Ego-states: Ego states are the multiple selves within us.
    a. Each ego-state operates upon its own configuration of the above parameters…its own orienting perspectives
    b. If ego-states are in conflict they will sabotage each other's success
    c. If ego-states are in alliance they will support each other's success.

d. Ego states explain how a person can be highly adept in cognitive, emotional and impulse awareness in one content and a completely incompetent in any or all of these in another
e. It also explains why in testing people may score high in one way, but with a different kind of testing or environment may not do so well. How one might score high in awareness but only in a given interest. Thus, not score high over all in one test while scoring quite high in another. (see Thomas Jordan)

When these 3 sets of parameters interact, we get an infinite array of organically arising “lines” of development. This better explains human variability in developmental capacities.

Ego-states and Development

Let us explore this a little more by starting with the third parameter of ego-states. Ego states are the sub-personalities within us. Each ego state is a co-arising interactive conglomerate of cognition, emotion and impulse (Cognition, Affect, Kinesthetic). These co-arising and intimately interactive aspects of human consciousness form a single ego. The ego, when under pressure to solve certain problems in certain ways divide creating split ego-states or separate sub-personalities or as other say separate inner selves. This is not just due to trauma; this is a part of normal human development. We can’t get into second person perspective without having one self that monitors 1st person perspective and a second self that monitors second person perspective. If we only had the second person perspective self, we would not be able to identify our own needs. If we only had the first-person perspective self, we would not be able to understand the other’s needs. Thus, the 1pp ego splits, retaining part in first person perspective and allowing the second to “grow up” to understand the other persons perspective. This typically happens around age 5.

As we grow more, we create more developmentally oriented ego-states. 3pp allows us to observe 1st pp, 2nd pp, and also 3rd pp. third person perspective allows us to take a non-biased observer view of the other two selves. As you can guess, this is very handy as it allows us to take an objective view on ourselves. 1pp orients to egoic wants. 2pp orients to beliefs, 3erpp orients increasingly to observable replicable facts with the understanding that our wants and out beliefs can make us astoundingly biased in what we observe to experience as “facts”. 4th pp allows us to do this while taking an understanding of constructs that cause biases in our observations and even the way we set up experiments. At this point we have 4 developmentally oriented ego states.

Ego states can be created via trauma, even everyday ones. We might get hurt playing hard ball with the big kids and now when we are around baseballs, or around kids or adults with certain attitudes it brings us back to that day we were hurt. When that ego-state comes out it takes over the dominant ego orientation and operates at its own developmental level. I call this a shadow crash.

We all have had the experience of behaving perfectly adult-like then a spouse or co-worker or neighbor says or does something and suddenly we are behaving like a child. This is the experience of a shadow crash. It is when one earlier developmental level ego state takes over the dominant ego perspective.

The opposite occurs as well. People who seem to be ordinary non-risk-taking people have been known to suddenly charge into a burning building to save a child that they do not even know. Reports from many of these people indicate their surprise at how selfless and focused and efficient their actions were. Far superior to their normal everyday lives. We all have ego states that have learned skills here and there but do not have the opportunity to act on them until a certain event occurs, then suddenly out of the blue comes this new ego state ready for action.

When we understand ego-states we realize we can have later level development with one ego state and earlier developmental level with another ego state. Each ego-state has its own separate set of parameters listed above. They each have their own interests, talents and opportunities. How can they be different if they are in the same body? Because when one ego state is dominant it gets to act out on its interests, talent and opportunities. The others do not. Just like the eldest child gets a different exposure to opportunities that the youngest, different ego states within get different exposures to the world. They may observe but not be in charge of the impulse action.

When the next ego state comes out it comes out in a different orientation. Perhaps there is a fear that becomes so intense the traumatized ego-state arises. Its priming is already fear and so it sees the danger in the world. It acts to create survival and succeeds and that re-enforces to that ego-state that hypervigilance is the way to live.

A second ego state does not have to attend to danger because this first one is so hypervigilant, so the second ones sits back and observes without having the power to control the impulses at this point, thus it learns patience and when it does have control of the impulses (when the fear subsides) it may do so with patience, persistence and focus.

A third ego state would not have those opportunities so when it comes out it might be ready to play and is highly spontaneous and lively. Each ego state is just like a mini self, with its own cognitions, affect and impulse management. Each ego state then can grow up or stay at a certain developmental level.

When we add in the other parameters, we can see how one ego state may be interested different content (first parameter set). One may be interested in music, a second in spirituality a third in ethics, a fourth in athletics, a fifth in psychology. Each of the ego states have their own unique co-current cognition affect and impulse that goes with its particular talents, interests, and opportunities. Each of these may be in a different sequence of learning style. Each of these may also be seen in a concrete manner, a Subtle manner, a Metaware manner or a Unitive manner.

When all these parameters are interacting in a population of 7 billion, we can see how the unique variations can arise. When these are mitigated by sociocultural memes all the way from global national cultures to sub cultures of ethnic and family we can see a funneling of these potential interests into categories that some look at and then call lines. But as soon as you get out of the constructed nature of the funnel and see from a construct aware place you can see the funnels and realize they are not really lines of development (from the bottom up) they are simply the infinite potential from the top down being constrained into certain interests.

Summary

In summary, in my personal view, the concept of separate lines fails to understand human consciousness in multiple ways. The first is that lines can be infinitely divided to the point of being irrelevant, the second is line boundaries can get blurred as soon as they are divided. The third is sub-lines will invariably contradict each other. As soon as one is "proven" is will inevitably contradict another type of line. Fourth, the seduction of lines is similar to the seduction to believe in race. It makes sense until you actually look deeper. Fifth, is looking at humans from the bottom up within a construct to create a construct from the bottom up vs. stepping outside of the construct to see the funneling occurring which helps you realize the lines are an illusion. They are an illusion as soon as you go into detail (depth) and they are an illusion as soon as you go into height (construct aware).

Finally, this does not mean lines are not useful. I think they may be fine tools for a while to help you get oriented to different capacities. They can be used to break consciousness up into bite size pieces for study. However, I find lines inadequate in explaining the human mind. More importantly, just thinking of the human mind in terms of lines, in my experience, constricts the mind using them. It tends to narrow the mind into multi linear format instead of a multi interacting neural network format. When we understand our development and our consciousness through interacting parameters, we get more accuracy, understanding of complexity and deeper understanding of ourselves, others and the dynamics of human consciousness.

5. STAGES and Parenting

Introduction

As we reach out to touch our future, a future of greater developmental capacities, wiser social structures, and as-yet unattained spiritual states and deeper understandings of the human mind, humanity's reach into its ultimate destiny relies upon today's parenting. If we are to build a wiser culture, a deeper soul, a brighter mind and greater spiritual capacity, we need to invest in the intergenerational passage of wisdom. This wisdom cannot be taught in books: it can only be discovered through experience. It is the spiritual task of parenting to wallow in the mud with the unwieldy untamed human psyche of the wild child and provide the environment for this delightful monster of the marsh to rise to pro-social living, post-conventional awareness and eventually, spiritual wisdom.

This paper presents a model for how we can go about this parenting task with empowered wisdom and grace.

To accomplish this heroic task, it is helpful for parents to be able see three aspects of parenting:

1. The child's developmental stage.
2. The parent's developmental stage of parenting.
3. The parenting tools used in parenting.

These three aspects of parenting create a very sophisticated complex dynamic that has significant impact upon both parent and child. This article provides an overview of these 3 aspects and some of their dynamics, to help parents be effective as parents. We will discuss childhood development, parent development, and the parenting tools parents use. Each parenting tool must be adapted to the child's developmental level. We will begin with Childhood development utilizing the STAGES model.

Overview of Child Development

This overview of child development focuses on the child's key functional learning tasks at each developmental stage, and the basic parenting features that help them at each stage. In this I am interpreting and applying the STAGES model, developed by Terri O'Fallon (REFS). to both child and parenting development. See the first article of this series for an overview of the STAGES model, which labels its 12 developmental levels 1.0, 1.5, 2.0, 2.5 ... 6.5.

Stage 1.0. When children first enter this world, they are helpless. The parents' task at this stage is to make this experience of helplessness safe and loving. The child's core challenge is to be completely helpless in this world and be able to trust well enough to be able to feel the love coming in… well enough to establish bonding and attachment. The key parenting task at this stage is to provide a safe, loving and engaged environment for the child, an environment safe enough that the child can receive this world through their senses of sights sound, touch, taste, smell and movement without having to become fearful during any of these experiences. The parent/child relationship must be sufficiently engaged and sustained through the senses that the child can bond to someone. Parents are developing the core love bond… loving so the attachment becomes pro-social. Parents provide an environment of loving kind gentle attentiveness.

Stage 1.5. At about 12 months (the precursors to this having started at about 6 months, and it being in full swing at 18 months), children are transitioning from helpless beings to active toddlers. Their core challenge and excitement are to discover their own power and agency in this world. The parenting challenge is to provide a safe place for children to discover and explore their personal power without causing harm to self, other or the environment. Children need an open place where they can run and explore safely and a comforting place to come running back to when the world gets too big for them. If parents are too restrictive, children lose that light of spontaneity and miss opportunities for learning. If parents are too lax, children cross boundaries that lead to harm to self, others, or destruction of the environment. Finding a good balance is the art of the wise parent.

Stage 2.0. At about 4 to 6 years children are transitioning from a first-person perspective (everything is about *me*) to a second-person perspective (the *we* matters). They mature in this perspective at about 12 to16 years of age. The child's challenge is to learn the basics of pro-social behavior (taking turns, fairness, reciprocity, etc.) The parenting challenge is to provide the social exposure for the child so the child can explore their social self. The balance parents must navigate is to provide social experiences with enough freedom that children can explore their own social skills, and enough boundaries so they don't run amok. Children at the later part of this stage are particularly vulnerable to peer pressure, so managing the social environment is important. But over-controlling the exchanges within this environment limits children's social growth. This balance needs systematic adjustment by parents as their children grow from 6 to about 16 years of age. Part of this balance is to trust that the child is robust enough to engage and learn from "the world," including extra-family social contexts, with only limited oversight from parents. Finding and adjusting the balance between these two is the art of the parent at this stage of the child's development.

Stage 2.5. At about 13 to 18 children move into understanding and internalizing principles. These principles grow to become more important than spontaneous exchanges with peers. Peer pressure begins to recede behind the power and stability of principles. The parenting challenge is to provide continued exposure to a principled lifestyle which may include theology and/or philosophy. The art for the parent at this stage is to provide enough exposure and modeling of a principled lifestyle without becoming so dogmatic that children do not feel they have no freedom for self-development, and self-exploration of their own emerging principles. This process begins much earlier, when parents model the values and principles they want their child to adopt. However, it is at this age that children don't just follow parental modeling: they integrate the modeling of parents and the rest of their social world into their own character.

Stage 3.0. At about 16 to 24 children begin to discover their more unique self. While they still hold to principles, they can see where rigid application of principles in all situations can cause harm. In doing this, children often reject their parents' viewpoints and values as they seek a space free of those influences so they can discover their own unique self. The parenting challenge at this stage is to support their child to explore the nuances of their unique selves: alternative thoughts, feelings, values and moral orientations are part of the child's exploration at this point. They are making them their own, not just because someone told them this is way things are. This includes taking enough distance to allow the child to make some mistakes based on their emerging autonomous ideas, even though it can be quite uncomfortable to witness this. If parents notice their child is exploring their own values, morals and philosophies of life at this juncture, parents can enter into non-judgmental discussions with their child, while they explore their unique orientations on life. 3.0 marks the beginning of logical reasoning faculties. Offering gentle critical challenges or asking for justifications helps build these skills, as long as it is done with love, empathy, and non-dogmatically.

When adults see their child develop to new stages, they may also notice that these stages get longer as the child becomes older. The first stage is only about 18 months, the second 3 to 4 years, the third 6 to 8 years, and the fourth 8 to 10 years.

Stages of Parenting Developmental Skills

It is not only children who have developmental levels. Adults do too, both in terms of their overall psychological development and specifically in terms of the skills of parenting. Adults may remain in one stage of development for their whole adult life, or they may move only one stage over that time.

It is important for many reasons for parents to understand the core tasks and challenges of their own developmental level and how that impacts upon how they view parenting. Each stage has its own world view, its own tasks and its own blind spots. When parents understand their own developmental level, they can identify and enhance its gifts, give them to their children and minimize the consequences of their blind spots and biases.

Knowledge of these basic parenting developmental levels allows parents to see their leading-edge gifts and blind spots, while also helping them see where they will often "shadow crash" into earlier developmental levels under stress. Earlier developmental levels contain fewer options for parenting. As a result, if parents shadow crash under stress, parents may have fewer resources and less skill available in parenting. Watching what, when and how one gets triggered into a crash in their own developmental level and skills, is as important for parenting as learning all the tricks of the trade on how to parent. With this knowledge, parents can develop better parenting skills for the best of times and the worst. This includes knowing when to bring in additional resources, such as swapping with the less stressed parent, or asking trusted friends for support.

Below is a brief description of parenting styles.

Stage 1.0 Helpless Parenting. Being at this stage is the result of a stress crash for most parents. Stress crashes occur when people get over-stressed and operate from a much earlier level than normal. It happens when parents get way too burned out, tired, and want to quit and just have someone else take care of them. It can also happen, if parents suffer from a severe illness or severe addiction. Some parents get stuck here and live out their lives having their own child care for them, while the child raises themselves to adulthood. The parent's gift is that child learns the power to nurture and self-manage. The deficit is that the child become over stressed playing the adult role and never learns to have the freedom of being a care-free child. These children often create either a rebellious, disconnected or co-dependent oriented self-identity.

Stage 1.5 Parent-centered Parenting. Being at this stage is also usually the result of a stress crash for parents. In parent-centered parenting, the parent gets from the child what the parent wants. The parent has little concern for the child and the key issue is that the child does what the parent wants for the parent's own benefit. In contrast to Stage 1.0 parents, Stage 1.5 parents are demanding of the child rather than just passively in need. The parent's gift in this stage is modeling of personal power. The parent's blind spot is blatant unawareness of their child's needs in the moment. This often leads to either a rebellious or a slave oriented (obedience-based) self-identity for the child.

Stage 2.0 Norm-centered Parenting. Parents in this stage get focused on their child fitting in. The child needs to behave and look in a way that is required for fitting in, i.e. to be accepted or admired within their cultural context. There are two aspects to this. These parents may want their child to fit in with other children, or they themselves may want to fit in with their own group based upon how their child behaves (i.e., these parents control their child to make the parents look good to their community, so the parents can fit in). The parents' gift from norm-centered parenting is social awareness. The parents' blind spot is the judgementalism that derives from an overly social norm-focused worldview. Their children become either hyper-confirmative, which leads to an external locus of control and as a result, severe susceptibility to peer pressure; or the children develop a more oppositional orientation, in which they reject the social acceptance they desperately need and behave in ways that embarrass their parents.

Stage 2.5 Principled Parenting. Parents in this stage lead a principled life and provide principles for their child to live by. The moral life becomes paramount. The parents' gift is to provide basic morals and principles to live by that can guide their child to a better life. The parents' blind spot is that they can become rejecting of their child if they do not live up to the moral environment the parents expect them to live by. In other words, when morals become more important than accepting and loving their child, parents cause damage - even while they think they are doing something for their child's own good. Their child may develop principles, but those principles are often applied without concern for the genuine wellbeing of others. To clarify: the child, just like their parents, uses moral principles to humiliate and harm people rather than live out their morals in a way that truly helps people. However, the child may also live a life that actively rejects their parents' principles and even mock them. If parents can lead with their values but hold them lightly, so they hold their love for their child paramount, then they can soften the rigidity of moralizing that can come at this stage of parenting development. This will help their child to develop principles to live by without having to beat others over the head with them or be led them to rebel to get some space.

Stage 3.0 Professional Parenting. In the professional parenting stage parents get to be very open to learning new ways to make themselves better parents. Professional parents want to be the best parents ever and are willing to study diligently to become that. As a result, they often do become very good parents. They learn a great deal about what works and what doesn't, and how to parent better from various professionals. They are open to getting help when needed to make things better. Professional-oriented parents are parents 110% and give themselves fully to their parenting. The concern at this stage is parents may become overly devoted to one model of parenting at a time, unable to coordinate the perspectives of different theories. The drive to perfection can also be transmitted to the child via the parents' expectations and direct modeling, so their child can get the idea that they are not ok unless they are perfect. If parents can rejoice in their perfectionism, yet hold it lightly so they lead from love, then their child will be free of that haunting feeling that they are never perfect enough and be able to benefit from their parents' detailed perfection.

Stage 3.5 Achievement Parenting. In this parenting stage parents want their child to achieve at everything they do. They are also focused on achieving "success" themselves as parents. Success in their every endeavor is paramount. Here success differs from the perfectionism of the 3.0 parent in that 3.5 parents are more interested in flexibly trying out different parenting models and techniques, as long as it works in a "better" outcome. The gift offered by this parenting style is the development of success patterns and achievement values that will serve the child for life. The blind spot is that the parents can become so obsessed with achievement and success that they don't see they are driving their child into high levels of stress. These parents also inadvertently send the message that their child has to achieve to be ok, or loved, or acceptable. Instilling the importance of group norms is also a weak point for this parenting style. The result is that the child can develop either a highly individualistic competitive personality that misses out on the joys of bonding in egalitarian friendship, or a rebellious nature which gives up on achieving and becomes lazy or self-sabotaging.

Stage 4.0 Intimate Parenting / Egalitarian Parenting. In the intimate/egalitarian parenting style, parents focus on developing an intimate relationship with their child. The gift of the intimate parent is that they are able to establish very close relationships with their child that supports and serves the child for a lifetime. The child learns to be their authentic self and feels loved unconditionally. The blind spot is that these parents can be so focused on allowing the pure spirit of their child to emerge in this intimate environment that they don't set important limits. As a result, these parents often inadvertently create an indulged child pattern that actually causes more harm to the child than if hard limits had been set. Indulged children have little skill for developing truly reciprocal relationships and end up being rejected by peers or becoming controlling of them, so they never enjoy the beauty of the reciprocal relationship the parent is so deeply trying to inculcate in them.

Stage 4.5 Adaptive Parenting. In the adaptive parent style, parents can generally see the benefits and consequences of all the previous styles and are in the best situation for being able to, flexibly and in the moment, identify the parenting styles that are best for the child/parent/community system now and into the future. The problem with this type of parenting is that it's more sophisticated and therefor takes longer to learn. It also requires a perspective that most parents have yet to develop, as it generally occurs later in a person's lifetime. (This can lead to an appreciation of the benefits of grandparents and elder-mentors for both parents and children.)

If parents notice their parenting style and are aware of the gift they are providing because of it, and are careful to soften the potential problems it can create, they can use that to help themselves and their child to create the best parent/child relationship possible.

It is likely that parents will be able to see multiple parenting styles in their own parenting. Parents often use various styles of parenting as they wave in and out of various developmental levels.

This overview of the developmental understandings inherent in the various parenting stages will serve parents as they investigate parenting techniques. All the parenting techniques used by parents exist within the perspective of their own parenting developmental stage, and in turn, are received by their child in their own specific developmental stage. Consequently, how parents use parenting techniques does matter.

Parenting Tools – 10 Tools for Optimal Parenting

Now, we will turn our attention to the tools and techniques of parenting. In this, parents can consider their primary style of parenting, notice how they resist certain parenting tools and over-rely on others. These tendencies are partly the result of their developmental level.

1. Environment management. Everything occurs within the environment we inhabit. Some environments are a set up for chronic conflict and others for smooth operation that allows beautiful relationships to unfold. Noticing and attending to the environment, physically, emotionally, intellectually and socially, will make a huge impact on the overall tone of the parent/child dynamic.

2. Relationship. Everything in parenting comes down to relationships. The nature of how parents craft that relationship with their child will determine the joys and sorrows to come. Relationship-based parenting is not myopically focused on just the child. True relationship-based parenting helps parents to consciously craft the parent/child relationship in a way that benefits the whole family. Leadership and co-discovery can co-arise in the parenting dynamic. Co-discovery is about exploring with the child how the world works; it is an egalitarian approach where parent and child bond over a mutual passion. Leadership is about taking charge of a situation from a wise, strong and loving perspective; it involves skillful use of any or all of the tools listed here. Leadership and co-discovery are two poles of the bonding experience between parent and child. Healthy attachment requires both.

3. Modeling. Modeling occurs when parents behave how they want their child to behave. Parents do this by using the same visual cues, verbal expressions, behavioral actions and attitudes they would like their child to have. Children naturally learn by modeling, so much so that they will tend to learn more by what their parents do than by what their parents say. Consequently, one of the most powerful methods of parenting is for parents to become the person they want their child to be like. As parents becoming healthier, that feeds back into the quality of their relationship with their child. The quality of that relationship provides the basis for how their child learns to interact with others for the rest of the child’s life.

4. Noticing. What we notice tends to grow. If parents keep noticing misbehavior, they will tend to believe that their child is a misbehaving child… and children absorb what their parents believe. Children tend to live up to what their parents believe, so if parents notice misbehavior, their child will tend to give them misbehavior. On the other hand, if parents notice kindness, helpfulness, and other skills, then that is what the parents will see, and they will inculcate these traits into their child. Noticing is not denial, nor is it seeing the world through rose-colored glasses, and it is definitely not seeing their child as better than everyone else. It is seeing into the positive traits, skills and capacities in their child even in the midst of problems. By doing this, parents teach their child that their positive traits do not disappear in the face of challenges, and that in fact, they can be drawn upon to overcome hardship.

5. Wondering. Wondering is a gentle yet powerful tool that helps parents direct their children's learning in key areas that may be helpful or need attention. What parents wonder about out loud attunes their child to that same kind of wondering. Wondering helps parents and their children to discover and co-discover together. Modeling curiosity and openness helps set the stage for learning and education.

6. Education. Educating is a gentle form of parenting that parents use to guide their children in directions and lessons they want them to learn. This is different from forced teaching and lecturing. Forced lessons and lecturing are not education. Education involves parents clearly understanding the lesson they want their child to learn and providing the information in a manner so that their child is likely to absorb or receive it. Education is filled with empathy and a generally cooperative engagement in the learning process.

7. Asking. Sometimes parents just need to make a direct request. When parents ask, they should do that with the attitude that they are asking for a favor. Children do not have to do what they say… as every parent who has taken their two-year-old into a grocery store has well observed. Commanding and asking are two different things. When we ask first in a respectful manner, we model respectful interchanges and children are more likely to agree and to model that back to us.

8. Negotiating. Negotiating is a great tool for teaching children to be able to speak up for themselves. Negotiation allows children to learn how to speak up for themselves while respecting the other. If parents succumb to negotiating with their child over every issue, it leads the child to using it as a manipulative tool; but if parents use it at the right time and place, it will teach their child interaction skills that will be useful throughout their lives.

9. Choices. Offering choices to children is another powerful parenting tool. It helps narrow the field for children, effectively reducing anxiety and providing direction for outcomes that are more desirable for all. By offering two positive choices (or more depending upon the situation), parents can help their child move in one of two directions, both of which are acceptable to the parent and situation. A third choice, often unstated, always exists and that is that the child might choose to not choose one of the parent-provided choices. Sometimes children want the parent to choose, sometimes they refuse to choose, and sometimes they choose something that is not an option. The latter choice may lead parents into the parent/child dynamic of behavioral management (see below).

10. Behavioral Management. Behavioral management comprises three sub-phases: Discipline, Consequences and Punishment. It is used when previous tools fail.

Discipline: Parents use discipline when they actively apply a behavioral management program to their child. This one has five steps:

1. Parents make a clear concise statement of expectation
2. Parents make a clear concise statement of consequence
3. Parents make a clear concise statement of the time stamp, i.e. when the action must be completed by to prevent discipline.
4. Parents follow through on the agreed upon response… what people often call a consequence.
5. Parents debrief with their child by going over the lesson; or revising it to increase its success and either terminate, change or continue the plan.

Consequences: Consequences can be either natural or logical.

Natural consequences: Natural consequences are those the child will suffer from because of their own actions unless their parents rescue them. With natural consequences parents don't have to actively implement a behavior management tool… they just allow the natural course of events to provide behavioral feedback to their child. The parents' job is to stop themselves from rescuing or being co-dependent. Sometimes it is best to say and do nothing. If the same consequence for the child occurs repeatedly, we can sometime enhance natural consequences with noticing and wondering. We notice or wonder with the child the sequence of events and link the child's behavior to the natural consequence.

Logical consequence: Logical consequences are based on logic and relate to the topic at hand. For example: if a child uses the car and stays out after curfew, the car was not used in the expected way, so removing access to the car is a logical consequence. On the other hand, though, if a child does not do the dishes because they are playing on a gaming device, removing the car is not logical – the logical consequence in this case is to remove the gaming device. Using logical consequences instead of random punishments helps the child link the problem behavior to the consequence in an understandable way. When consequences are not linked logically children often just feel the parent is just using the excuse to get them to do extra labor. This can set up a dynamic of the child "punishing" the parent when the parent does not give them what they want.

Punishment: Punishment is the parents' use of tools that harm their child in an effort to get a desired response. This often leads to short term success with long term consequences. For example: when parents yell at or spank a child for not doing what the parent asks, the child's immediate response may be to do what the parent says. However, the long-term trend will usually be that the child takes less notice of the parent and that the parents will more frequently and/or intensively employ yelling or spanking. The result is a child who cowers in fear or becomes indifferent to punishment over time.

There are a further two follow-ups parents can use in behavioral management.

Debrief: The first follow up is for parents discuss the incident and the disciplinary / consequences / punishment to ensure the lessons are learned as intended and to explore alternatives to having to go into these experiences in the future. This helps build the skills awareness, self-reflection, rational reasoning, and self-directed learning.

Re-engage: The second follow-up is for parents to re-engage the child into a positive parenting relationship, i.e. return to relationship-based parenting, modeling, and healthy co-discovery. This keeps the relationship functioning at optimal levels. Ideally, parents never really leave relationship-based parenting, but when they go into discipline mode, sometimes a child does not realize this. As a result, it is a good idea for parents to make a marker, some shift in attitude or behavior, that indicates to the child that they are ultimately in love with their child and the child is invited into that space with them.

Sequences: It is important that parents use these parenting tools in the given order. They have been specifically sequenced so that parents can create the most beautiful, healthy relationship with their child possible. If parents use these tools in reverse order as many parents mistakenly do, then they start out with the most constricted parent-child relationship and they may never get to the most beautiful parent-child relationship available to them.

Developmental interactions: The developmental level of parents has a unique and powerful impact upon their child's developmental level. For example: if parents are coming from a Stage 3.5 achievement-oriented parenting perspective, they will tend to promote their child's individual achievement. This can be good if the child is in Stage 1.5 and attempting to discover their personal power. However, when the child moves to Stage 2.0, the child needs to background their individual achievement in order to bring forward the beauty and intimacy of the collective. The very same parenting perspective can be beneficial for a child at one developmental level and actually harmful at another. Every parenting style has a different impact upon each of the child's developmental levels.

If parents notice which developmental stage perspective their child is doing the understanding, that can help them to craft a tool skillfully for communicating what is important to their child at that time. For example, if a child is at 1.5, they are in first person perspective. Telling them what they should do will have less effect for them than if the parent identifies alternative wants the individual child might like or point out that if the child keeps doing what they are doing it will not lead to what they want but to some other experience.

Summary

Every child operates within a developmental level that shapes what the child can see, what the child can't see and what the child needs. Every parent operates within a developmental level that shapes what the parent can see, what the parent can't see and what the parent needs. How each tool in the list of parenting tools is used by a parent will be shaped by the parent's developmental perspective at that time. If the parent is in a stress crash to an earlier developmental level, even the most beautiful parenting tool might come across negatively to the child.

In addition, every time a child receives a parenting intervention, the child receives it within their own particular perspective. When parents understand their own developmental level, their child's developmental level and use the sequence of parenting tools in the order listed above, they can craft the most beautiful, healthy parent/child relationship possible.

This paper has given a relatively short summary of material that I teach in my parenting workshops and which will appear in my parenting book due to be available in 2020.

6. The Love Matrix

Introduction

You are a symphony of love. An amazing amalgamation of music and instruments all working together to transmit love vitality and magically through the air to and between those receiving your love song. Below we will be using the STAGES model's concepts of receptive, active, reciprocal, and interpenetrative to explore this wondrous journey.

Receiving Love. The first step in this journey is to learn what it means to actually receive love. We love to feel loved. It softens us, excites us, relaxes us and vitalizes us all at once.

But sometimes we don't receive the love that is given to us. We are like those child toys where you put the square object in the square hole and the round object in the round hole and the star object in the star-shaped hole. Sometimes we only experience the love in one shape. Sometimes this is just because we don't realize there are other shapes of love. This paper explores some of the shapes of love and how you can recognize them when they come to you. Sometimes we can get a little snobby about what love we are willing to accept. “What is this round shaped love? I do not accept round shaped love; I only accept star-shaped love”. This silliness can leave us empty of love. Both of these styles, not recognizing the love, and being picky about how the love should be shaped, leave us feeling deficient of love even in a sea of abundance.

If we want to hear the full symphony of love, we need to open ourselves up fully to all the ways the song of love can be sung. Think of the times in your life where you loved someone so dearly and no matter what you did, they did not feel or receive your love. How did that make you feel? That is what we make others feel when we cannot recognize their love or when we get so picky about its form that we do not accept it.

People talk about identifying their love language, as if that is the only language of love they can understand. Well, perhaps it is time to be multi-lingual with our love. And I can guarantee you there are a lot more than five languages of love (as described in Gary Chapman's 1992 *Five Love Languages: How to Express Heartfelt Commitment to Your Mate*). Below I will show you sixteen love styles: sixteen ways you can sing your love song, receive the love song of others and feel the abundance of love all around you every day. Because our job is not to run around frantically trying to get that one form of love we hope to receive. Our job, as both conductors, and aficionados of the love song, is to learn all the styles of singing and listening to the songs of love. If we feel love is in short supply, it is simply because we have not yet learned how to see it in all its forms and let it in. When we do, we will discover that love is all around us in every moment, and we will never be in short supply again.

Giving Love. While learning to receive love is the first step in learning how to play the love songs of your life, giving love is the second. When we feel our love deep inside, what is the impulse inside of us? How do we feel compelled to act on this love, to show this love to another? Remember what it was like to show your love to another and have them openly receive it? How beautiful it is to have our love openly accepted and received.

Perhaps we also have memories of when our love was not accepted. Either it was not noticed, or it was actively rejected. As a result, do we shut down our love by becoming afraid to show it? Perhaps we don't show our love because of cultural standards, allowing society to influence our views of what is acceptable when it comes to the amount of love we show, and the ways we show it. At some point, allowing the impulse of our love to launch though the fear and social norms to express itself allows us to bring to fruition our second love song.

Just like receiving love, sometimes we can get snobby about how we show our love. “I will only show my love in a square shaped pattern. If you can’t feel it, then forget it.” This attitude robs us of the joy and delight of showing love in all its forms. It’s like having a beautiful love song, but only playing the opening line over and over again. By expanding our expressions of love in all its forms, we can play the whole love song. Now that feels a bit more fulfilling, doesn’t it?

If our natural style does not land for our partner, it does not mean that our love isn’t good enough. It may be their receptivity is shut down a bit. However, only hearing the first line of a love song might get a bit old or even irritating after 20 years. If we expand our range of notes, carry out the song to the end, we are more likely to find a style of song they can hear. It also provides some variety for our partner to enjoy. And that is a wonderful gift for anyone.

Reciprocating love. The third love song is reciprocity. Instead of just enjoying our partner delight us with *their* love song, or serenading our partner with *our* love song, with reciprocity we can sing the love song together. This deepens the love ‘we space' shared between two people. If I only receive one note or one stanza, that is going to limit how much we can sing together. If I can only sing one note or one stanza that too will limit how much we can share together. But when we expand our range of love notes and stanza, we can combine them in an infinite array of love expressions. The love harmony is expanded.

Reciprocity of love has four styles: symmetrical, asymmetrical, synchronic, and asynchronous. This synchronic/asynchronous, symmetrical/asymmetrical pattern can be shown in quadrant form below:

Table 4.1. The Love Exchange Quadrants.

Synchronic symmetrical	Synchronic asymmetrical
Asynchronous symmetrical	Asynchronous asymmetrical

Synchronic reciprocity is when we are both sharing the love at the same time with each other. This can be symmetrical or asymmetrical. Sharing in a symmetrical manner is exemplified when two people hug each other. Both are sharing the same love form at the same time. But it can also be asymmetrical. For example, one person is rubbing their partner’s foot while that partner is sharing a love poem they wrote about the foot-rubbing partner. The love is being share synchronically (at the same time) but the style of love being shared is asymmetrical…it is a different love form. Still, the love is in reciprocity.

We can also have asynchronous love sharing. This is love being shared reciprocally but at different times. It can come in both symmetrical and asymmetrical forms. For example, someone might have received some bad news, so you hold them in your arms with love. They are in distress and not reciprocating the love at that time. But when you have bad news, they hold you that same way. That is an example of asynchronous love in a symmetrical pattern. It is the same style of love but reciprocated at different times. We can also have asynchronous love in an asymmetrical pattern. For example, I may be in distress and you listen to me deep and hold a loving space for me to share. Later, feeling so appreciative of your support I offer to give you a back rub. That is asynchronous and asymmetrical reciprocity. The love is being reciprocated, but at a different style and at a different time. After all, sometime people need love in different ways at different times.

Unified/integrated (interpenetrative) love. The fourth love song is unified/integrated. Young lovers sometimes get this feeling when they surprisingly finish each other’s sentences. It feels like you are the same. Like you are one person, one being. Older couples may find it in the daily life of having lived together so long they know exactly how the other person will wake up, go to sleep, manage their day and they are so connected mutually in this experience it is as if they are operating as one whole system. This unified love song leaves one in such a deep ‘we’ space of love that the individuals within that ‘we’ space fade in and out as needed but do not cling to their individual identities. It is a type of non-dual love space.

This non-dual love space has two elements to it. The first is seeing in the other traits of the self and seeing in the self traits of the other to such a degree that one can see that confronting the partner is confronting the self. Therefore, when the partner confronts us, we realize they are confronting themselves at the same time and when we confront our partner, we realize we are confronting ourselves at the same time.

The second aspect is seeing the co-developed co-evolving system of living that the two have created together as one living system. There is no blame to be had about what the other brought to the relationship or not. Both have contributed to this here-and-now dynamic. In time, this dynamic becomes stable yet evolving in such a way that the fulfillment within the relationship becomes increasingly stable yet dynamic, peaceful yet exciting.

I have written so far about lovers in this matrix of love, but of course that is just one form. Any form can be put into the matrix. Parent-child, friends, co-workers, neighbors, etc. Love, compassion, and mutual regard can also manifest at the level of groups and collectives – along the same STAGES dimensions of receptivity, activity, reciprocity, and interpenetration. These are just different forms that the love dynamic can take. It’s like soft-rock, classical, rap, alternative, and country. There is a place and a space for it all.

The Four Love Instruments: Physical, Intellectual, Emotional, Social

This next section is about not the song of love, but the instruments that play the song. A song without instruments or a voice to give it words is an unheard song. The four instruments of love come from you. You are the virtuoso of love, and you have four classes of instruments to use, each with an endless variety of expressions. Just as a guitar can be played beautifully in different styles, so too can each of our classes of instruments of love express itself in a plethora of different styles and ranges.

The first instrument we can use to play our love song is our physical self. The physical self can use touch, movement, gifts, etc., in such a wide variety of forms we cannot list them all. The instrument of our physical self can play all the love songs listed above. We can receive love with our physical self, we can give love with our physical self, we can reciprocate love with our physical self, and we can unify love with our physical self.

The second love instrument we have is our cognition. We can think about anything: the stars, novels, fascinating studies, what the neighbors are doing. There is virtually an infinite number of ways we can share love with our intellect. Our intellectual instrument of love also can play all the love songs. We can receive with our intellect. We can give of our intellect. We can reciprocate with our intellect. We can unify with our intellect.

The third love instrument we have is our emotional self. There are many emotions and many experiences to have emotions with. We can share our emotion of love. We can share enjoyable feelings within a space of love. We can share difficult emotions with in a space of love. Our emotional self can also play all the love songs. We can receive emotional love. We can give emotional love. We can reciprocate emotional love. We can unify emotional love.

Finally, we have the social instrument. We are social beings and we have many ways to share social love. We can go out in social settings together. We can share our friends. We can share our family. Wedding ceremonies are often about sharing social love. We bring family, friends, neighbors, and congregations of church, work or clubs all together to share this social love. Social love can also play all the love songs. We can receive the gift of social love. We can give the gift of social love. We can reciprocate social love. We can unify social love.

The four love songs and the four love instruments create a sixteen-set matrix of love as illustrated below:

Table 4.2. The Love Matrix.

	Physical	**Emotional**	**Intellectual**	**Social**
Receptive	Receptive Physical	Receptive Emotional	Receptive Intellectual	Receptive Social
Active	Active Physical	Active Emotional	Active Intellectual	Active Social
Reciprocal	Reciprocal Physical	Reciprocal Emotional	Reciprocal Intellectual	Reciprocal Social
Integrated	Integrated Physical	Integrated Emotional	Integrated Intellectual	Integrated Social

Development and the Love Matrix

As we develop as humans, the way that our love songs and instruments present themselves develop along with us. The evolutionary trajectory of our beings can be mapped onto a matrix of consciousness. The STAGES matrix of consciousness has three tiers of stages; and a fourth tier that is predicted with the same model that identified these first three tiers. These four tiers are the Concrete, Subtle, Metaware, and Unified. They are defined by the perspectives held by individuals at specific stages of development. Within each tier there are four stages, which share the names of the love songs you learned in the first section: receptive, active, reciprocal, and integrated/unified.

At each stage of development, we have a love matrix specific to the strengths, weaknesses, interests, and wisdoms that define that stage. Below I have included the four tiers of the STAGES matrix, with the love matrix I described above. (See a deeper description of STAGES, including the numerical stage names, in the first article of this series, and in further material at stagesinternational.com.) The value of this is to see that each of these sixteen styles of love grows and changes along with our consciousness through four tiers, thus creating a potential of 64 love styles. I will not go into the specific attributes of the love song at each level in this paper, but it is worthy to note that this development occurs, and that the same pattern of 16 love songs exists at each developmental level.

Table 4.3. Physical, Emotional, Intellectual, and Social aspects of the Tiers.

Concrete Tier	**Physical**	**Emotional**	**Intellectual**	**Social**
Receptive	Receptive Physical	Receptive Emotional	Receptive Intellectual	Receptive Social
Active	Active Physical	Active Emotional	Active Intellectual	Active Social
Reciprocal	Reciprocal Physical	Reciprocal Emotional	Reciprocal Intellectual	Reciprocal Social
Integrated	Integrated Physical	Integrated Emotional	Integrated Intellectual	Integrated Social

Subtle Tier	**Physical**	**Emotional**	**Intellectual**	**Social**
Receptive	Receptive Physical	Receptive Emotional	Receptive Intellectual	Receptive Social
Active	Active Physical	Active Emotional	Active Intellectual	Active Social
Reciprocal	Reciprocal Physical	Reciprocal Emotional	Reciprocal Intellectual	Reciprocal Social
Integrated	Integrated Physical	Integrated Emotional	Integrated Intellectual	Integrated Social

Metaware Tier	**Physical**	**Emotional**	**Intellectual**	**Social**
Receptive	Receptive Physical	Receptive Emotional	Receptive Intellectual	Receptive Social
Active	Active Physical	Active Emotional	Active Intellectual	Active Social
Reciprocal	Reciprocal Physical	Reciprocal Emotional	Reciprocal Intellectual	Reciprocal Social
Integrated	Integrated Physical	Integrated Emotional	Integrated Intellectual	Integrated Social

Unified Tier	**Physical**	**Emotional**	**Intellectual**	**Social**
Receptive	Receptive Physical	Receptive Emotional	Receptive Intellectual	Receptive Social
Active	Active Physical	Active Emotional	Active Intellectual	Active Social
Reciprocal	Reciprocal Physical	Reciprocal Emotional	Reciprocal Intellectual	Reciprocal Social
Integrated	Integrated Physical	Integrated Emotional	Integrated Intellectual	Integrated Social

Depending on where you are developmentally, your love song and instruments will be different.

Depth, Breadth and Height

In addition to the developmental "height" of the tier structure, we also have depth. Depth is how intensely we feel an experience. Is it a barely recognizable noticing, or is it a detailed and deeply felt experience? A person who says they love basketball may casually enjoy watching the sport, while another may be fascinated with the specific strategies and all the statistics of each player and their team. They feel the love of their sport deeply and daily. Spiritually a person might say “Yes I was raised Christian”, while another devours the bible memorizing line and verse, and yet another feels the depth of love of spirit within them every moment as they walk through life.

Breadth is the ability to transfer the experience to other areas of life. I may love sports but only if my team wins. Or I may love sports regardless of which team wins, I love all the ways every team moves. Moving to even more breadth, I might love only one sport or I might broaden my experience of love to include all sports. In spirituality, I may be a devout loving Christian or I may fall in love with the beauty of all religions…delighting in all the ways humanity has found to connect with spirit. Breadth allows us to take love from one area of our life and transfer love to other areas. As a result, we can love our religion and not hate or push away any other religion.

We can love people of all religions and have a deep, fond connection to anyone we meet in a religious dynamic.

Height is our ability to take a new perspective on any given dynamic. I may love basketball with all my heart and soul (Depth). I may love all sports of all teams (Breadth). I might realize that all sports are an attempt at creating community (Height). As a result, of height awareness, I might begin to explore what ways of creating community I might love even more than my beloved sports. Is focusing on sports really doing the best for my overall community? Or is it draining resources that could be better utilized in other ways. Time, money, energy, that I put into sports might be better utilized if I put them into family connections, social justice, spiritual practices… or not. We may decide that sports **are** the best way for us. But we now know why we are doing the sports and what the point is and as a result we may actually engage in the sports experience in a new and more fulfilling manner.

Spiritually I might love Christianity with my whole heart and soul (depth). I may expand to Buddhism, Islam, Hinduism, etc. (breadth). With height I might realize all of these practices are just tools for understanding consciousness. As a result, I can explore more directly tools for understanding consciousness that I might love. In the end I might decide that Christianity is the best tool for understanding consciousness for me (and we can broaden that to what is the best tool for understanding consciousness in the community) or for me in the we-space. But now I understand why I am engaged in Christianity and I may now utilize and engage in Christian practice from a completely new perspective. One that allows my love to flourish from a new space of consciousness.

Content

We can put any content into these matrixes: from sports to spirituality, from gossip to intellectual discoveries of quantum physics, from simple hello's to sharing ones deepest gut-wrenching secrets, from introducing two acquaintances in passing to inviting a friend or lover to join our family.

Content is what most people talk about when they say "we are compatible". Content can be exciting or disturbing. It arouses the senses, the intellect and the emotions. It can rally the external community or be shared exclusively with the internal community we all hold inside. The content we choose reverberates through the matrix. When we highlight similar and congruent content, we can develop increasing intimacy and closeness. But we might also increase boredom and stagnation. When we highlight different content, we might increase dissonance and conflict. However, we might also nourish excitement and new discovery. As you can see, the way we approach content matters.

Concrete content are things we can experience with our senses or imagine experiencing with our senses. I can see a tree. I can imagine a tree. I can imagine a purple tree I have never seen before. All of this is concrete. Subtle content is more nuanced. A strategic plan, a typology, a complex adaptive system, internal ego-states are examples of subtle content that people can share. Metaware content is even more subtle. It is sharing of pure awareness itself. Unified content is unified objects of consciousness.

But Content is just one aspect of compatibility. *How* we share our love song and the instruments we use are also important points of compatibility. The Depth we reach, the Breath we experience, the Height we discover, are all aspects of the journey of consciousness and specifically of discovering love, and relationship in our lives.

When we expand our love song in all three dimensions of height, depth and breadth we can create a very large space of love that can last through various challenges and persist over large spans of time.

Instruments/Style/Content

Instruments play the love song. How the instruments are played provides the style. Content is the music that is played. I have chosen the instruments of Physical, cognitive, emotional and social because all humans have these. If they did not, they would not be alive and they would not be human. There are a billion people on the plant that do not have a spiritual life. But there is not one person alive that does not have a body, cognition, emotion and social experience. Even if you isolate yourself as a hermit you were raised in a social world or you would have died, you carry that social context within you everywhere you go. How we play the instruments is the style of music that is played. Content is what the music is. Content may be empty or full. It may contain anything from peanut butter sandwiches to spiritual states.

Summary

In summary, we have the four love songs: receptive, active, reciprocal, and unified. We have four instruments of love: the physical instrument, the intellectual instrument, the emotional instrument and the social instrument. These two sets combined create sixteen ways human love can be expressed. When we add in height, developmentally and/or spiritually speaking, this sixteen-piece matrix repeats itself in four tiers: The Concrete, the Subtle, the Metaware, and the Unified. This creates a field of 64 different love songs. Each of these 64 love songs can be played in infinite levels of depth and breadth. Each of these love songs can be played out with any content you wish to put into it from dust to spirit.

The love matrix can be used as a tool to help you in your loving relationships. First and foremost, if you feel like you are not loved, one thing you can do is look at the love matrix and see what types of love you are not recognizing. There is a good chance that at least one or many of these forms of love are coming in to you at any given time, if not from the Concrete tier, then from the Subtle or Metaware tier.

Secondly, if you want your love to be felt by another, you can look at the love matrix and see what styles of love you are actively expressing and which ones you are leaving out. By adding in these styles of love you will likely increase your chances of having your love felt by another.

Thirdly, if you want to deepen your love intimacy with another you can notice how much you let in their presence to actually affect you. You can share that deep effect upon you back to them and allow them their next expression to affect you. This leads to a co-evolutionary cycle of love growth.

Fourth, to broaden your love, you can explore the various forms of love in the love matrix. You can explore the matrix cells you enjoy and explore how to include other forms of love and connection from other cells in the matrix that might be enjoyable for you and your partner.

You can then add in to each cell any of the infinite forms of content that is more specifically important for you and your partner in your unique relationship. Notice what content you partner likes and match it. Or notice what they don’t have and complement it.

Finally, if you are feeling stumped or feel a passion for it, you can raise your consciousness to a later perspective to get a bird’s eye view on the entire process. This height exploration will open up a new world of love and exploration and will progressively move you to later stages of understanding and experiencing love.

These tools will help you to feel, express, exchange and deepen your love. The songs available in the love matrix will give you a life time of endless explorations in the world of love. I invite you to enjoy the symphony.

7. Organizational Shadow: Projection/Introjection Dynamics

Introduction

Our internal disturbances, our interpersonal conflicts, and our organizational dysfunctions are often a result of shadow. In this article, we will review organizational shadow specifically as it relates to the Projection/Introjection dynamic. This dynamic drives a great percentage of the issues that arise in organizational work.

To begin, let us review the STAGES Matrix briefly – see Figure 1.1 in the first section.

Focusing on the learning sequence column (4th column, Question 3), we see that we begin our learning sequence with receptive skills. Receptivity is the ability to allow things to come into us. To learn anything new we must first receive it. The second phase of the learning sequence is active. Once we receive, we take what we received and learn to be active with it. The third phase is reciprocity. In reciprocity we combine receiving and action into an interpersonal dynamic which leads to our pro-social world. Finally, we have interpenetration which allows us to understand how the systems works as a whole. In short, instead of being in the system and had by it, we can see the system and make conscious adjustments to it that will affect others and ourselves within the system. This final skill allows us to be powerful and efficient at organizational design. But this capacity is only as good as the depth of each stage before it.

One of the crucial elements to good organizational design is understanding organizational shadow. Without it your greatest designs can be undermined and destroyed as fast as you can build them. Organizational shadow is framed primarily by two shadow dynamics: projection and introjection.

Projection and Introjection

We tend to reserve the term ‘projection’ for unconscious traits that we have and put onto others. For example, I might be critical, but I see another person as critical and talk about how critical that other person is. Even if the other person is somewhat critical, it is my un-owned critical behavior that fuels my drive to complain about this other person. Whole organizations can participate in projection which keeps the organization from seeing important traits in itself that could be improved and result in more efficiency and enjoyment.

Projection comes from our action phase of learning. We project out onto the world our behavior, thoughts, emotions, and beliefs. Projection is the same dynamic as action/agency – it is the same *process.* Anytime we publicly act, think, believe, and express our feelings we are projecting them into the world for others to receive.

What we receive is introjection. Introjection is a term often reserved for receiving things from others that are not ours to hold. In the example above, I might be projecting upon another person that they are critical. They might believe this about themselves even if it has little or no truth to it. Thus, they have introjected my projection into themselves. Whole organizations can get lost in introjections and thus manufacture problems that did not exist. Introjection is often reserved for when we do this in an unconscious manner. However, introjection is simply receiving something that has been presented. It is the same process as receptivity.

Life uses what is available. Referring to our shadow, we use the psychological tools that are available – namely receptivity and agency. In shadow, we use these tools in an unconscious and often unhealthy manner. Projection is the use of agency in an unconscious manner. Introjection is the use of receptivity in an unconscious manner.

Projection and introjection are not necessarily bad. We project upon our 1.5 children moral values and they introject them and become pro-social beings that no longer hit people to get whatever they want. They do not consciously introject these values, and we are often unconscious in how we project these values onto our children. However, it still works and makes for a better society.

The outcome of combining receptivity and agency is reciprocity. The reciprocity of receptivity and agency routinely gets so good it becomes unconscious and becomes projection and introjection. Much of the time this process, even unconscious, works well. Often it works well precisely because it is unconscious. We take new things we learn and make them habitual so they operate automatically and unconsciously. Walking, for example, used to take all our conscious effort. But now we can walk without thinking about it and use that freedom to think about other things. It is because it is unconscious that we free up pre-frontal cortex activity for learning something new.

Unfortunately, some of the coding we have made habitual works in some situations (like growing up in a specific kind of a family) and does not work in other arenas (such as new families or work environments). As a result, this core human process sometimes breaks down in new environments leading to personal and interpersonal dysfunction. And this leads us directly into organizational shadow.

Let us next turn our attention to *how* projection and introjection leads to organizational shadow. Below is a chart that defines out 25 specific projection/introjection dynamics that define and delineate organizational shadow. See Table 5.1.

This chart defines each type of shadow that occurs in collectives including business and organizational settings. The first column contains the part that is enacting the projection. As you read left to right you see the various ways that unit may project shadow issues upon other units. For example, in the first column we begin with the individual. The individual may project shadow upon another individual (column 2) an individual role (column 3) a collective (column 4), a collective role (column 5) or a developmental perspective (column 6).

Table 5.1. Organizational Shadow Chart.

	Individual	**Individual Role**	**Collective**	**Collective Role**	**Development Perspective**
Individual	Individual to Individual	Individual to Individual Role	Individual to Collective	Individual to Collective Role	Individual to Development Perspective
Individual Role	Individual Role to Individual	Individual Role to Individual Role	Individual Role to Collective	Individual Role to Collective Role	Individual Role to Development Perspective
Collective	Collective to Individual	Collective to Individual Role	Collective to Collective	Collective to Collective Role	Collective to Development Perspective
Collective Role	Collective Role to Individual	Collective Role to Individual Role	Collective Role to Collective	Collective Role to Collective Role	Collective Role to Development Perspective
Development Perspective (Dp)	D.P. to Individual	D.P. Individual	D.P. to Collective	D.P. to Collective Role	D.P. to Development Perspective

The second reference in each cell is who is being projected upon. Those that are being projected upon are susceptible to introject shadow. When we operate within an environment of specific projections it is common that we take on some or all of these projections. Thus, the second reference in each cell is the unit that is introjecting the projective shadow dynamic. For example, in the individual row and the second column, an individual is introjecting a projection from another individual. In the next column it is an individual role that is the target of the projection and any individual in that role would be potentially introjecting the projection. In the next column we have a collective introjecting from an individual. By design, then, you can use this chart to identify personal and organizational projection, personal or organizational introjections or comprehensively the projection/introjection dynamic.

Projections are the inverse partner of introjections. One unit projects onto another, and the other unit (often) introjects that projection. We don't have to introject any given projection. However, being social beings, we often do. And we often do so unconsciously, habitually, and pervasively. This is what sets up the projection/introjection dynamic.

In physics, an object in motion will remain in motion unless acted upon by an outside force. Similarly, once the projection/introjection dynamic is in motion it will remain in motion unless acted upon by an outside force. That outside force is someone who can see it and make the changes so everyone lives a happier life. Sometimes we can do this ourselves, sometimes it requires another skilled observer. This article is about helping you to be that skilled observer. To do this effectively let us begin with definitions.

Defining Terms

For the purposes of this chart we will use the following definitions:

An *individual* is a specific person.

An *individual role* is the role that person plays in the collective. It may be a specific job in a business. It may be a family role such as father, mother, or youngest child. It may be an archetypal role such as hero, clown, rebel, etc. The important thing to note here is that it is not about the person, it is about the role. Anyone who would be in that role would receive the same shadow projection. However, people don't realize this is happening, so the individual and those projecting upon the individual role often unwittingly make it about the individual person. Often, we introject from roles as well and play them out as if that is who we really are. We might also, as a nature of the role, tend to project onto others.

A *collective* is a sub-group within the overall organization. Collectives gather around similar values, orientations, and often around charismatic leaders that may or may not be official leaders.

A *collective role* is what a sub-groups role is. It may be parenting, it may be team leadership collective, it may be billing office staff or direct providers. Collectives often have roles that receive projection. Those within such collectives might feel it is about them personally, but anyone in that collective role would receive the same shadow projection in that situation.

Development perspective is the perspective from a stage of development. Each developmental stage tends to see the world in a particular way and will have tendencies to project and be projected upon in a certain manner.

Assessing Organizational Shadow

When we assess organizational shadow, it is important to understand exactly what kind of shadow projections are occurring. If we do not accurately assess the type of shadow projection, we can be ineffective or even harmful in our attempts to address it.

For example, if we think the shadow projection of a collective on an individual role is accurate feedback about that specific individual, we accentuate the shadow by addressing the individual’s issues. It is important to assess if the feedback is truly about the person or about the role dynamics. What we need to do instead is address the way the collective treats anyone who is in that role. Each type of shadow projection requires a different nuanced way to address it. Let’s explore these nuances by going through each cell of the chart.

Individual to Individual: The individual to an individual projection/introjection dynamic is what most people think about when they hear about projection. On person projects upon another and the other person absorbed that projection as an introject. We all have shadow (hidden parts of ourselves). It is easy and common to take a hidden part of ourselves and put it onto another person. I might be critical of others; I don’t notice it in myself, but I really notice it in others and criticize them for it. I might do this even if the person has very little critical elements. My lack of seeing my own criticism will often accentuate seeing critical elements in the other person.

This is the common way of looking at projections and introjections. However, after working for 30 years with projections and interjections it has become clear to me that that is far too simplistic of a notion. As you can see in this table that way of projecting is only 1 of 25 styles of projection/introjection dynamics.

Individual to Individual Role: Often the projection is not as personal as we might make it. It is common for an individual to project upon another individual not because of who they are but because of their role. Any person in that role would receive the same basic projection regardless of who they are.

Individuals in organizations can project upon leaders anything from heroic figures to controlling tyrants. Sometimes the projection is a golden projection, such as undue respect. Sometimes the projection is a dark projection, like undue criticism: that since the boss is the boss the individual in that role of being the boss is heartless and controlling. Other roles that may receive undue projections are roles of balancing the budget and setting spending limits, roles of scheduling, roles of service, etc.

When doing organizational shadow work, it is important to notice if the disturbance is really about the person or about the role. The individual will feel and make it sound like it is a personal issue, but often it is really about the role.

Individual to Collective: Individuals have all manners of personal issues. As a result, they may see collectives in different and unique ways. A person who was routinely bullied in collectives might find collective gatherings a source of anxiety. Another individual might find the same collective a source for personal showcasing. Sometimes the disturbance is about the individual’s personal issues and understandings of what a collective is.

This is also the place of individual sexism, racism, homophobia, religious orientation persecution, and other such horrors that we see in the world and the workplace. Prejudices are generally individual (or collective) projections upon others. When you listen to a prejudice person talk about the group they are prejudiced against, you will hear many of the traits of their own shadow self. We can notice this in ourselves with our own prejudices.

Individual to Collective Role: Often the projection is not really about the specific collective. Individuals will often project upon a collective role. Collective roles of authority can bring out authoritarian issues with some individuals. Some individuals may have dominance issues with collectives that do service work. Notice here it is not an individual role, it is a collective role. For example, all janitorial staff are lesser that me. All leadership staff are arrogant.

Individual to Developmental Perspective: Individuals often get triggered by certain developmental levels. For example, some individuals were traumatized when they were at a specific developmental level. As a result, when they witness someone in that developmental level, they may have an undue reaction to them just because of the developmental traits. In addition, the person who traumatized them was also at a specific developmental level. This kind of incident can lead to generalizations and thus projections upon others at that developmental level. Positive projections also occur in this way. Someone who was close to their dad who was at 3.5 might idolize others at 3.5.

Individual Role to Individual: Sometimes it is not the individual per se that is projecting, but their role. In organizations there are often many roles and many of these roles might be in a hierarchy. If we introject meaning about ourselves based upon the hierarchical role division, we might inflate or deflate our actual value in relation to others even outside of the role differential. A person in a higher position might carry this role into their life. Thus, when they meet someone for dinner, they may project that others are not as great as themselves because of the role they carry with them. A person in a lower role position might defer to others in life when in fact, they may have stronger traits than others in many areas.

Individual Role to Individual Role: In organizations there are often many roles and many of these roles might be organized into a hierarchy. A person in a higher role than another might project that the person in a lower role is less smart or less advanced than themselves. A person in a role living in that projection might then introject that projection and feel subordinate not just in organizational ranking but as a person, even though it is solely about the role differential. The difference between this and the previous cell (individual role to an individual) is that the dynamic occurs with both sides in roles.

It is not uncommon that at least some "subordinates" are more intelligent and more developmentally advanced that their "superiors." Dr. Terri O'Fallon has conducted developmental assessments of various people throughout organizations. In one, the head of the janitorial department was later than everyone in the executive leadership team.

In a related example, I had a therapist tell me one time about a problem client. She had the role of therapist, the other had the role of client. Since the client did not heal from her treatment the client was considered a "treatment failure." You might imagine that a client of this therapist might take that a little personal. But it was really about the roles the therapist had in her mind and how she lived up to her role to provide a treatment protocol, but the other person did not live up to their role to heal. Role projections can feel very personal when it is just a role projection. Clarifying that distinction can make all the difference in healing both the injured person and the organizational dynamic.

Individual Role to a Collective: To understand this one, consider how the head of an advertising agency might view the collective of potential customers vs the head of the customer service department, or the head of the design team for the product. Each will have their own projection upon the collective of consumers even though the consumers are the same people. Understanding how the role affects the view of a population is important in understanding shadow and has a huge impact upon how the organization develops products and interacts around them.

Individual Role to a Collective Role: People may project from their role onto an entire collective role. A doctor might project onto all nurses that he or she is superior to the nurses because of the degree as a doctor. They may do so even if the nurses often know more about the patients than the doctor does. In such cases, the doctor could be a much better doctor by listening to the nurses' wisdom instead of lording superiority over them.

Individual Role to Developmental Perspective: An individual role may be a set up for projecting upon an entire developmental stage. It is common for executives of corporations to project upon those at 4.0 as inefficient when those at 4.0 are working on deeper and cooperative solutions which may last longer and have fewer issues over time.

Collective to Individual: It is common for collectives to project upon an individual. This is how collectives socialize their children, peers, leaders and others. This is how the unofficial corporate culture gets created. Leaders can say whatever they want about designing corporate culture, but that declaration often has little effect upon the very real covert culture being played out. When new people come into the collective the collective begins to shape them via the projection/introjection dynamic. If we do not address this often-unconscious-process, our conscious efforts to design corporate culture will never get to the undercover culture that has an impact on daily operations. This undercover culture can undo the intentional corporate culture as fast as the designers can implement the cultural change.

Collective to Individual Role: Collectives also routinely project upon an individual role. Congregations generally project upon their pastor spiritual purity and wisdom. In business, collectives form around all manner of conscious and unconscious processes. A person who is a charismatic social leader without official position has a great deal of power on shaping how the collective views individual roles such as team leader or CEO.

In one large organization, a charismatic transgender person rallied a large collective against the CEO who was already enacting great changes in gender equality/neutrality in the workplace. Ironically, it was the very gender training that gave this person a platform for acting out their personal authoritarian issues (individual to individual role projection) and rallying a collective for support. The result was a collective projection upon an individual role. The CEO took this personal when it was really an individual's issue with the role he held and that individual's charismatic appeal to a collective rallying around the very training the CEO enacted.[2]

Collective to Collective: We also commonly see collectives project upon collectives. Republicans project upon Democrats that Democrats are stupid while Democrats project upon Republican that Republicans are stupid. In business we see similar divides in the collective workplace. It is like grown-up versions of high school cliques. These divisions can range from completely irrelevant to organizational functioning to those that become massively disruptive. Noticing these divisions and knowing how to address them can help an organization to function better.

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[2] I want to acknowledge Dr. Terri O'Fallon who identified this pattern. She worked with an organization that the collective targeted an individual role. This person had taken on the role of keeping the organizations up to credentials while everyone else was enjoying deepening their interactions. The role she took on left her a target to the dominant culture.

The Roman leader Constantine understood this and addressed it when he designed holidays integrating Christian names and Pagan rituals so the two groups would stop fighting and function together. It worked, and we continue following his design even in different cultures on different continents and around the world nearly 2,000 years later. When we design well, it is durable, functional and lasting.

Collective to Collective Role: The population of the United States often projects upon congress either honor or disgust. In business, collectives can form (like those cliques above) that congregate around similar personal issues and project upon collective roles. They might complain about leadership staff or the janitorial department.

Collective to Developmental Perspective: Collectives can form against a whole developmental perspective. In organizations that are not consciously aware of specific shadow issues, a charismatic leader can have an issue with a specific developmental level and rally a collective against it. It might be against 3.0 perfectionism, 3.5 achievers, 4.0 group think, etc.

Collective Role to Individual: A team of management executives may not like a person who is outspoken (and accurate) about their failures. They might project that this person is a trouble-maker and fire them when they could be a source of valuable information that might make their company more successful.

Collective Role to Individual Role: Using politics again, Congress, a collective role, may project upon the individual role of the presidency different than they would project upon the individual role of the head of the janitorial department (even if the janitor is significantly smarter than the president). Organizations, especially large ones, often have multiple people in a similar collective role. They can get excited and frustrated as they pursue their collective role agenda. Thus, roles that support or inhibit them will receive different projections.

When we have collective role issues with an individual role, that individual role often becomes vacant as the person in that role keeps receiving inordinate amounts of negative projections. If you see a revolving individual role vacancy, then there is a good chance there is a problem with the role carrying heavy negative projections. Often an individual can sustain projections from another individual or another individual role. But when collectives and collective roles become involved in the projection it is quite often nearly insurmountable for the individual to continually sustain such levels of negative projection. Thus, they get sick, die, or leave.

Collective Role to Collective: This is how Congress might look at the American population, or an advertising unit looks at consumers. The view that a design team has of consumers will affect how they design a product. The design team may come up with a great idea that consumers want. However, it may have a part that is inconvenient. A part that requires more work and more money. As a result, they might project upon consumers that they will not notice if they use a cheap alternative. (What they are projecting in this case is their desire to not have to solve the problem correctly and projecting then that the customers won’t care either.)

Collective Role to Collective Role: Senators may view Representatives in a particular light and vice versa. The design team may project failure upon the marketing department when it is the product that needs improvement. The projection/introjection dynamic can work in reverse as well. The marketing department complains about design team instead of seeing that they themselves do not understand the actual design purpose and function correctly and are marketing it to the wrong clientele in the wrong manner. If the design team accepts the projection (introjects it into their collective) then they will work harder at creating new designs the marketing team is marketing instead of designs that consumers need. As a result, good designs get changed and there is no re-education of the marketing team on understanding who, what, why, and how the marketing needs to work for this product.

Collective Role to Developmental Perspective: In organizations, collective roles often lead to common orientations as the team collaborates around the role goal. If the goal requires quick adaptive changes the collective can begin to project dark shadow on 3.0 who preferences perfection over efficiency and 4.0 who preferences collective agreement over efficient ‘good enough’ decision making. Alternatively, if the role requires detailed and cooperative work, anyone at 3.5 or 4.0 could be projected upon in a positive light.

Developmental Perspective Column: Each developmental perspective has its own lens through which it views the world. As a result, there are multiple developmental levels that could be addressed on each of these next projection/introjection pairs. I will not go into that level of detail but instead will provide a sampling of how this column works. If you want more detail on it, you may choose to get more in depth training in developmental levels.

Developmental perspective to individual: One thing common to most developmental levels is that we tend to project that others can see exactly what we see. As a result, we get confused, frustrated, and condemning to those who see the world differently.

The other common projection is that if people don't agree with our basic viewpoint then they just can’t or won’t see what we see. Sometimes, however, the other person can see exactly what we see but also sees from another perspective.

As a result, our 2.5 self will often project upon an individual that they need to be converted. If they will not be converted to their belief system, then they will tend to be rejected. Our 3.5 self, a common business executive developmental level, will tend to see an individual as someone who wants to achieve. If they do not, we may see them as lazy. Our 4.0 self may project that others want/need to be deeply intimate and process. If they do not then they are superficial.

Developmental Perspective to Individual Role: Development perspective of an individual also will look at roles in very different ways. A person at 2.0 or 2.5 might view a fundamentalist preacher as a link to God and salvation while a 4.0 might recoil in disgust. A 3.5 might like the hierarchical leadership with a CEO while someone at 4.0 might project upon the CEO they are an egoist even if the CEO would like to create a horizontal organization.

My 3.5 clients often attempt to motivate people the way they themselves are motivated and are bewildered by those who don't respond, often seeing them as lazy or stupid. In reality, many of these “subordinates” would give the shirt off their back if they were just recognized for their humanity rather that bribed for harder work. At 3.5 we can often push our children to achieve better than their peers when their children at 2.0 need to let go of their ego and get along as equals.

My 4.0 parents project their passion to process upon their children. The children often come to me wishing they could just get on with their life, but they have to process with their parents “forever.” (It is good to talk with our kids, but prolonged processing is often not what they need or want.)

Developmental Perspective to Collective: We can also explore how each developmental level tends to view a collective. At 2.0 collectives are groups to join. At 2.5 collectives are groups that are converted or are in need of conversion. At 3.0 groups are experiences to help explore who we are and how we operate. At 3.5 collectives are a means to achievement. At 4.0 collectives are ways to develop deep intimacy and we-space understandings. At 4.5 collectives are seen as integrally interactive and interpenetrative complex adaptive systems.

Developmental Perspective to Collective Role: Each developmental level may also view a collective role in a certain light. Collectives that make decisions for the larger group will receive projections differently from those from different developmental levels. 2.5 might project wisdom upon the role of the rule makers. 3.0 might project some wisdom, but limited. 3.5 may project onto rule makers limited authority and claim their own authority even if it is not institutionally accurate if the rule gets in the way of achievement. 4.0 might project that since not everyone was consulted the role has limited validity.

Developmental Prospective to Developmental Perspective: This last one requires additional discussion. Each developmental perspective may engage in the projection/introjection dynamic with each other stage. The following outlines this dynamic:

Table 5.2. Projection/introjection dynamics developmental perspective to developmental perspective.

	1.0	**1.5**	**2.0**	**2.5**	**3.0**	**3.5**	**4.0**	**4.5**
1.0		x	x	x	x	x	x	x
1.5	1.5/1.0	1.5/1.5	1.5/2.0	1.5/2.5	1.5/3.0	1.5/3.5	1.5/4.0	1.5/4.5
2.0	2.0/1.0	2.0/1.5	2.0//2.0	2.0/2.5	2.0/3.0	2.0/3.5	2.0/4.0	2.0/4.5
2.5	2.5/1.0	2.5/1.5	2.5/2.0	2.5/2.5	2.5/3.0	2.5/3.5	2.5/4.0	2.5/4.5
3.0	3.0/1.0	3.0/1.5	3.0/2.0	3.0/2.5	3.0/3.0	3.0/3.5	3.0/4.0	3.0/4.5
3.5	3.5/1.0	3.5/1.5	3.5/2.0	3.5/2.5	3.5/3.0	3.5/3.5	3.5/4.0	3.5/4.5
4.0	4.0/1.0	4.0/1.5	4.0/2.0	4.0/2.5	4.0/3.0	4.0/3.5	4.0/4.0	4.0/4.5
4.5	4.5/1.0	4.5/1.5	4.5/2.0	4.5/2.5	4.5/3.0	4.5/3.5	4.5/4.0	4.5/4.5

First, we will note that 1.0 is a baby, they are in receptive mode and are not yet capable of personal agency. As a result, the row is blank because they are not yet projecting. They are interjecting, however, which is how they learn.

Second, let us explore patterns of projection. Often each developmental level has a rejection quality towards the developmental level just below it. Thus 1.5 will call 1.0 babies. 2.0 will call 1.5 spoiled brats. 2.5 will call 2.0 immature. 3.0 will call 2.5 rigid. 3.5 may often call 3.0 inefficient. 4.0 may consider 3.5 ego driven. 4.5 might call 4.0 victimhood mentality.

The reverse can sometimes be true as well. Starting at 2.5, those at this developmental level might feel that 3.0 is losing their moral compass. 3.0 might feel like 3.5 has little pride in their work, 3.5 may consider 4.0 inefficient and 4.0 may consider 4.5 elitist.

Positive projections occur as well. 2.5 and 3.0 might project awe upon 3.5 who can put together complex business dynamics successfully. 3.5 may project awe upon 4.0 who senses things that they do not. (This often shows up in marriages where the 3.5 husband feels a great deal of honor for his 4.0 wife who just understands things he does not.)

Passive stages (X.0 stages) will tend to project upon active stages as either oppressive or guiding. Active stages (X.5 stages) will tend to project upon passive stages as weak or awe inspiring.

Passive stages will tend to project upon other passive stages either camaraderie or lack of motivation. Active stages will tend to project upon other active stages either like-mindedness or competitiveness.

Each developmental level tends to have a projection on each other developmental perspective. We will not go through all of these in this short paper. If you want more detailed information on this, you may consider taking courses in development and developmental perspective interactions.

In our workshops we have people play different developmental levels in conversations to get the feel of what it is like to have developmental projections and introjections occurring based solely upon developmental perspective. Even in role play, the developmental projections often lead to significant introjections that leads to disturbance in the individuals in the role play. The participants feel the disturbance even when they are role playing and that highlights how powerful, pervasive and impactful developmental projections are in our lives, businesses, and relationships.

This pervasive dynamic of developmental projection/introjection in all collectives drives much of the agreement and conflict within them. People are often shocked to discover that much of what we think of as personality conflict is actually purely developmental perspectives reacting to other developmental perspectives.

All of this inter-developmental dynamic is contained within this last cell of the Organizational Shadow Chart. Even though it is only one cell in the Organizational Shadow Chart, it is pervasively involved in the whole chart because we all are always perceiving the world from our own developmental perspective.

When we are working with organizational development and we discover that there is disturbance between two units (individuals or collectives) it is easy to delve into the personality issues that may be involved. This often leads us down a path of personal issues with each other, personal conflict and belief in “personality incompatibility”.

However, by taking a larger view we can see that most of the time the personality is not the issue at all. It is *role* and *developmental perspectives* that drive much of the internal disturbances between people and collectives.

By knowing this and utilizing the charts above you will be able to more easily and accurately identify the true source of the individual or organizational conflict. Once identified, you can focus in on the true source of the issue to make targeted, effective, and comprehensive changes. As a result, people will internally feel less disturbed and more at peace. The collectives they inhabit will function with a more effortless flow. You will be able to be more effective whether that conflict is in a small collective like a marriage or a vast collective like a fortune 500 company.

Summary

In summary, even though projection feels very personal, in most cases it is not. Instead it is virtually choreographed into the roles and developmental perspectives that various people have and hold.

When you understand these roles and developmental perspectives you can actually predict the future of interactions between individuals and collectives as long as they remain in their perspective and roles. If they change perspectives and/or roles, then these predictable patterns change as well.

With these understandings you can often predict organizational dynamics, successes, failures, and trouble spots. You can institute changes to existing issues efficiently and effectively. In addition, you will be able to prevent predictable problems in the future before they occur. Finally, by addressing the true source of the conflict you will more rapidly, effectively and comprehensively help individuals and collectives through conflicts to more enjoyable and functional dynamics.

Principles and Practices for Developmentally Aware Teaching and Mentoring in Higher Education

Abigail Lynam, PhD[1]

Abstract: Understanding one's own development as an educator, as well as the developmental diversity of students can have a significant impact on how educators approach teaching, mentorship, and design learning experiences. Developmentally informed educators recognize the phases of development that students are likely to be in and adapt their teaching accordingly. Recognizing developmental diversity, they adjust the outcomes, processes, and mentoring to meet the students where they are developmentally. Without this awareness and knowledge, educational programs are more likely to teach for particular forms of development, which provide an appropriate stretch for some students but not for others. In addition, educators may be more likely to project their own developmental needs onto students, teaching who they are, rather than who is in front of them. This article offers a review of adult development theory, specifically O'Fallon's STAGES model, and its application to teaching and learning. It includes the results of research on the impact of learning about adult development for faculty and students in a graduate program and the findings of additional research on the meaning-making and perspective-taking of educators through the stages of development. It concludes with practical insights and principles for teaching and mentoring developmentally.

Keywords: Adult development, adult learning, constructive development theory, ego development, higher education, STAGES, transformative learning.

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Introduction

Learning about adult development theory and practice has transformed how I approach teaching and mentorship possibly more than anything else I have learned in my twenty years of teaching. And since I first learned about adult development, my understanding and application of this learning has continued to deepen and evolve.

This article offers a review of adult development theory, specifically O'Fallon's STAGES model and its application to teaching and learning. It includes the results of research on the impact of learning about adult development for faculty and students in a graduate program, the findings of additional research on the meaning-making and perspective-taking of educators through the stages of development, and practical insights for teaching and mentoring.

Five years into teaching for transformative post-secondary programs in sustainability leadership, it became evident that some students thrived in the curriculum, adopting the ecological and social justice values, perspectives, and related behaviors that the program taught towards, and others didn't. After learning there are empirically-based maps of how adults develop cognitively, emotionally, behaviorally, and spiritually – I thought I had found the tool that would more effectively transform students' worldviews. Ten years into research and study, I took a 180 degree turn. I no longer sought to transform another, but rather to meet students where they are in their developmental unfolding, and to support them on their growing edges. I also began to recognize my own and the programs' tendencies to teach for a particular form of development and saw that this was only a fit for a portion of the students. And I saw my tendencies to teach to my own developmental edges; essentially to project my own developmental needs onto the students and to teach 'who I was', rather than to who the students were becoming.

During the process of learning about adult development and its application in education, I wanted to understand more about how development shapes teaching, mentorship, and learning needs. I also wondered how learning about development, one's own and others', might impact students and faculty in higher education. I conducted research to find answers to questions such as: How does taking a developmental assessment impact students and faculty?; How might learning about development effect an individual's development?; How might learning about development effect student's relationships with faculty and vice versa?; What happens when the developmental range of students is wider than the faculty? In addition to the research, I collaborated with Terri O'Fallon to create a STAGES specialty assessment for educators, which supported additional research into the meaning making and identities of educators. This article reviews the results of the research, and lessons learned from teaching developmentally, as well as teaching *about* adult development in professional and academic contexts.

Adult Learning

Adult learning is a complex and diverse field of theory and practice and therefore can be challenging to define:

> Perspectives on adult learning have changed dramatically over the decades. Adult learning has been viewed as a process of being freed from the oppression of being illiterate, a means of gaining knowledge and skills, a way to satisfy learner needs, and a process of critical self-reflection that can lead to transformation. The phenomenon of adult learning is complex and difficult to capture in any one definition. (Cranton, 1994, p. 1)

Developmental researcher and educator, O'Fallon speaks to this when she says "there is a different educational theory for every developmental perspective", making the point that educators operating from different stages of meaning making are drawn to and enact different educational theories (2011, para. 3). There are multiple dimensions of diversity, including for example family backgrounds, learning styles, age, and ethnicity, all of which influence learning needs and interests. And there is a "hidden form of diversity" which Drago-Severson calls "the new pluralism" (2004a), that functions like an internal operating system in the individual. The developmental diversity of both the educators and their students, has implications for teaching and learning.

In addition to the diversity of individuals in a teaching/learning context, the rapidly changing contexts of our lives in the twenty first century also informs the needs and aims of adult education. The aims of adult education have often been stated as preparing adults to participate in the domains of work, family, and society (Merriam & Caffarella, 2006). However, accelerating complexity and the rate of change in our increasingly global world calls for "innovative habits of learning as a way to better manage work/life situations" (Goleman, 1997; Goleman et al, 2002; Heifetz, 1994). The ability to think systematically and to bridge differences through perspective-taking increasingly becomes an imperative if we are to thrive in our more interdependent global society and constructively engage with complex global issues (Harris, 2002).

Adult Development, Teaching, and Learning

Adult developmental theory derives from 50 years of longitudinal grounded theory and probability research and offers insight into the particular developmental needs of students. It also contributes to understanding how an educators' development influences and interacts with student's development and how to work with the developmental diversity of a cohort of students to better support learning for all (Cook-Greuter, 2013; Drago-Severson, 2004; Kegan, 1994; O'Fallon, 2016).

Developmental patterns include widening frames of identity, care, and responsibility (from oneself, to one's family or community, to all of humanity, the planet, and the cosmos). Thinking patterns move developmentally from black and white thinking, to either/or, to both/and, to paradoxical and integrative thinking. In addition, there are increasing perspective taking capacities (1st, 2nd, 3rd, 4th and beyond) and an iteration of learning patterns within each tier of development (O'Fallon, 2016). All of these patterns are applicable to teaching and learning.

Developmental researchers and practitioners refer to developmental maps as a spectrum of compassion (Cook-Greuter, 2013; O'Fallon, 2016), because the maps can support increased understanding and valuing of multiple ways of being in the world. Each developmental phase, either active or latent as a capacity within each of us, offers both gifts and blind spots. The maps also offer insight into the developmental process – that there are times in a person's life where they are opening to new ways of seeing, times where they are stabilizing and integrating new insights, and times where they are learning to be active in the world with these new capacities. Learning is fundamentally a developmental process and understanding more about these developmental patterns informs teaching and learning.

Constructive Development Theory

Constructive-developmental theory is based on the assumption that everyone has a lens through which they experience the world, and this lens shapes the reality that each person experiences and the meaning they make of it. Research reveals that these meaning-making systems develop over time and with patterns that are relatively consistent across gender, socio-cultural context, and other personality differences (Cook-Greuter, 2013).

Constructive-developmental theory for ego development was created by Jane Loevinger (1976) and expanded upon by Torbert (2004), Cook-Greuter (2013), and O'Fallon (2016). It integrates cognitive (thinking), affective (being or identity), and behavioral (doing) development. According to Harvard professor Robert Kegan,

> What gradually happens is not just a linear accretion of more and more that one can look at or think about, but a qualitative shift in the very shape of the window or lens through which one looks at the world. (2002, p. 148)

An individual's developmental center of gravity influences how they make meaning, what they are aware of and therefore able to act upon, how they orient to feedback, their perspective-taking capacities, and their tendencies with regards to thinking patterns (Cook-Greuter, 2013; O'Fallon, 2016). Individuals' stages of development also affect the kind of support and challenges that they need as learners. Table 1 details the differing stages names used by different theorists.

Table 1. Comparing Developmental Stage Names.

Kegan Stages of Development	Cook-Greuter Ego Development Stages (1986, 2002)		Torbert Action Logics (1991, 2004)	O'Fallon STAGES: Person Perspectives (2016)
Stage 5: Inter-individual/Post-modern	6	Unitive	Ironist	6.5 Illumined
				6.0 Universal
				5.5 Transpersonal
	5/6	Construct-aware	Alchemist	5.0 Construct Aware
	5	Autonomous	Strategist	4.5 Strategist
Stage 4: Institutional/ Modern	4/5	Individualist	Individualist	4.0 Pluralist
	4	Conscientious	Achiever	3.5 Achiever

Stage 3: Interpersonal/ Traditional	3/4	Self-Conscious	Expert	3.0 Expert
	3	Conformist	Diplomat	2.5 Conformist
				2.0 Rule Oriented
Stage 2: Imperial	2/3	Self-defensive	Opportunist	1.5 Opportunist
	2	Impulsive	Impulsive	1.0 Impulsive

Core Assumptions

Constructive-developmental theory shares the following summarized assumptions (Cook Greuter, 2004, McCauley, et al. 2006, p. 636):

- People actively construct their understanding and ways of making sense of themselves and the world.
- Growth occurs in a logical progression of stages, evolving from less to more complex.
- Later stages are reached only by journeying through earlier stages—each stage transcends and includes previous stages. The movement is often likened to an ever-widening spiral of development.
- Each later stage is more differentiated, inclusive, and integrated—and capable of more optimal functioning in a complex and changing world. Later stages are not better in any absolute sense, but may be better (i.e., more adequate) in a relative sense.
- As development unfolds, tolerance for difference and ambiguity increases, while defenses decrease.
- Development occurs through interplay between the person and the environment, not just one or the other.
- A person's stage of development influences what someone notices or can become aware of, and therefore, what they can describe, articulate, reflect on, influence. and change.

Caveats

When discussing development, it is important to remember that humans are complex beings and how they think and behave is influenced by a variety of factors, their stage of development being only one of these factors. Don Beck who researches the development of value systems, talks about a value system being like a musical note while its expression is more like a chord or a melody (1996).

Developmental psychology, while discovering patterns that appear to be cross-cultural, is also an approximation of complex phenomena that may never be fully understood. It is essential that this theory, like all theories be held lightly, with the awareness that even while it offers insights, it is also partial in its understanding. The intention is not to box or limit people to a particular stage, but to support their liberation by understanding where they are and meeting them there in a way that can support growth and transformation. Additionally, as Cook-Greuter (2013) notes, these models and their stages are idealizations of how adults develop. The actual lived and embodied expressions of these developmental stages are different from the idealizations.

A foundational developmental ethic is that later levels are not intrinsically better than earlier levels, nor is someone a better person just for having a more complex meaning system. There are unique capacities that emerge with later stages that may be more adequate for addressing the complexity of a particular context. However, it is essential to recognize that every stage of development and the variety of ways that people express these, has critical contributions and unique perspective to offer society. For instance, understanding more nuanced complexity can add insight, but it can also get in the way of more practical and expedient action. Another example is the unique support that rule-oriented collectives can offer people in times of stress or breakdown. Every stage also has both strengths and “stage-specific vulnerabilities and new forms of unhealthy expression” (Cook-Greuter, 2013, p. 17). All stages of development are inherently valuable and worthy of respect and care. Additionally, the unfolding of developmental perspectives is not predictably evident along the lines of age, gender, nationality, or affluence.

Developmental research finds that there is stability to the stage of development that a person assesses at, which is called their ‘center of gravity’ by some practitioners and researchers. It can also take a number of years to move from one stage to another. However, research also shows that development isn’t fixed, meaning that different contexts evoke different expressions of the self, and that we are likely to move up and down the developmental spiral throughout any one day. For instance, how one behaves with their family of origin, their spouse, an esteemed colleague or a trusted friend can evoke different developmental capacities, as can being more relaxed or more stressed. Under stress, we often revert to developmentally earlier patterns of thought and strategies of behavior that reflect less complex ways of interpreting our reality (Torbert, 2004; Livesay, 2013). In addition, our development can also be uneven, in the sense that we can be more developed cognitively, than emotionally, or kinesthetically. In other words, developmental capacities and their expression through a unique person is a complex, and varied phenomena, and at the same time there are recognizable patterns to these expressions, that develop in relatively consistent ways.

STAGES Model

The STAGES model is an adult developmental framework and assessment methodology developed by Terri O’Fallon. Built on the lineage of Loevinger and Cook-Greuter, STAGES identifies underlying repeating patterns (or parameters) in development and adds two additional later-level stages to current models. It “reveals a natural sequence of deep ‘vertical’ structures, as well as iterating, wave-like patterns of development” (O’Fallon, 2018). Loevinger’s 1976 ego development model was built on the work of Erik Erickson (1963) and was based on research using the Washington University Sentence Completion Test, one of the most widely utilized and researched developmental assessments (Loevinger, 1976). Susanne Cook-Greuter then refined the sentence-completion test instrument as well as the level descriptions, adding the distinction of perspectives and two later level stages to Loevinger's work (Cook-Greuter, 2013).

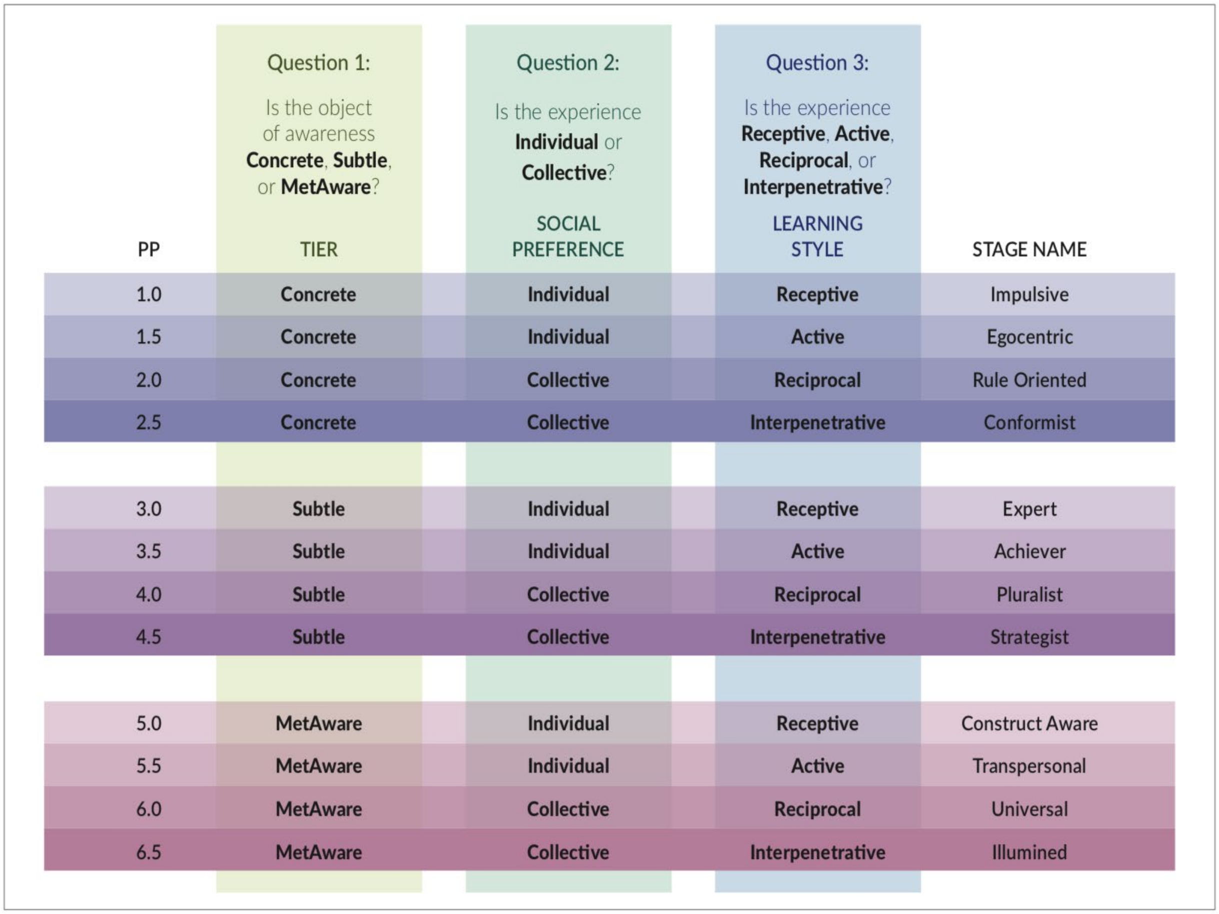
Stages of human development are typically identified by interviewing or observing samples of people, recording their responses, and organizing these responses into categories. Researchers then sort these categories into a sequence of developmental stages. The STAGES model defines underlying patterns or parameters for describing developmental stages, rather than only using categories. The model and the research validating it, suggests that these patterns are fundamental attributes that lead to development in the first place.

STAGES defines three primary patterns that shift as people transit the stages. The first is on the objects of awareness. The question asked is "What kind of object is arising in awareness: a concrete object (family, car, work, rules, interior and exterior senses); a subtle object (metacognition, ideas, abstract theories, goals, contexts, systems, awareness); or a MetAware object (awareness of awareness, immanence, sea of manifestation)? Each of these: concrete, subtle, and MetAware – represent the three major tiers of development, each with 4 stages. The second pattern is the Individual/Collective polarity. The question asked is, "Is the emphasis on individuals (all about "me") or collectives (all about "we")? This pattern iterates twice in a tier. The third pattern refers to the four learning styles. The question is: Is the experience or meaning-making orientation receptive, active, reciprocal, or interpenetrative? With the third pattern, development unfolds through 4 learning styles in each tier: passive-individual (Receptive), active-individual (Active), passive-collective (Reciprocal), active-collective (Interpenetrative). These patterns and the associated stages of development are illustrated in Figure 1 (below).

These patterns define the three tiers, each with two major shifts in perspective-taking (1st person, 2nd person, etc.), and each of the person perspectives with one shift in the learning style (receptive, active, reciprocal, or interpenetrative), for a total of 12 stages across three tiers. The stages are numbered for their person perspective-taking capacities (1.0 and 1.5 referring to early and late first-person perspective, 2.0 and 2.5 referring to early and late second person perspective, etc.). The STAGES assessment has been statistically grounded (with a high level of reproducibility) to correlate with the SCTi-MAP, the most widely used and researched assessment tool of adult human development (O'Fallon, 2016).

In the first-person perspective, one is in a concrete 'I' stage. In the STAGES model, these are the receptive 1.0 Impulsive and active 1.5 Opportunist stages. In these stages, it is 'all about me' and there is no understanding yet of a 'We'. One can see others but does not have a truly unique identity separate from others, nor does one see others as unique in their own right. The focus is on one's concrete needs and wants.

The second person perspective stages foreground the concrete 'We'. These stages are the reciprocal 2.0 Rule-oriented and interpenetrative 2.5 Conformist stages. In the second person perspective, one sees that others see them and that, in order to satisfy their needs, they must work with others and make and follow rules together. In these 'We' stages, the 'I' is present and understood, but backgrounded, or deprioritized, in favor of relationships and groups.



	Question 1: Is the object of awareness **Concrete**, **Subtle**, or **MetAware**?	Question 2: Is the experience **Individual** or **Collective**?	Question 3: Is the experience **Receptive**, **Active**, **Reciprocal**, or **Interpenetrative**?	
PP	TIER	SOCIAL PREFERENCE	LEARNING STYLE	STAGE NAME
1.0	Concrete	Individual	Receptive	Impulsive
1.5	Concrete	Individual	Active	Egocentric
2.0	Concrete	Collective	Reciprocal	Rule Oriented
2.5	Concrete	Collective	Interpenetrative	Conformist
3.0	Subtle	Individual	Receptive	Expert
3.5	Subtle	Individual	Active	Achiever
4.0	Subtle	Collective	Reciprocal	Pluralist
4.5	Subtle	Collective	Interpenetrative	Strategist
5.0	MetAware	Individual	Receptive	Construct Aware
5.5	MetAware	Individual	Active	Transpersonal
6.0	MetAware	Collective	Reciprocal	Universal
6.5	MetAware	Collective	Interpenetrative	Illumined

Figure 1. The STAGES Matrix (O'Fallon & Barta, 2018).

Students in the 2.5 Conformist stage view the teacher as the ultimate authority. They expect and need highly structured learning environments to either conform to or rebel against. They want to know what the rules are. They are challenged to speak up individually in class except to get the answer to a question right. They struggle to think outside of the collective norms or to do group work. Individual feedback can be very threatening, and they are not likely to challenge the teacher directly. In following learning traditions, they value clear hierarchy. Status, appearance, material goods, reputation and prestige are also valued.

Description of the Person Perspectives and Implications for Teaching and Learning

The next stage represents a shift from the concrete to the subtle tier. The third person perspective gives rise to subtle 'I' stages, where a person realizes they have a subtle self – the thoughts, emotions, and independent mind of rational consciousness. It includes the receptive 3.0 Expert and active 3.5 Achiever stages. This is an I-oriented space again, but the 'we' is present and backgrounded. The 'We' that is present, however, is the concrete collective; groups and their norms and rituals, since no new subtle 'We' has yet been discovered. The 'I' that is formed is a new, subtle self, not identified with the body and concrete appearances, but with the thinking and feeling mind. This is a significant developmental shift and can be very disorienting in an individual's life and as a result takes time to stabilize. Although the shift into the subtle tier can occur in late high school or early college for some, others can live much of their adult life in this developmental stage, as is true of the late concrete stages and all of the subtle stages. Research suggests that a majority of adult in North America are between the 3.0 Expert and 3.5 Achiever stages. However, it appears that an increasing number of adults in Western European and North American contexts are moving into later subtle stages including 4.0 Pluralist.

Students at the 3.0 Expert stage of development tend to be black and white thinkers and are likely to dismiss feedback from anyone not considered to be an expert in their field. They are awash in new ideas of their own, independent from the groups they identify with but have a hard time prioritizing their ideas. This is a receptive stage, and so the individual is receptive to the newly arising subtle self or ego. They have a hard time reflecting on or thinking about their own thoughts and feelings, and may struggle with self-direction, time management, and completing assignments on time. This stage of development often emerges in late high school and early college students, although many adults in the Western world can live their whole lives in this stage of development. Authority and expertise are very important to this stage of development, as is an individual emphasis on figuring things out, and determining the 'right' and best way to do things.

3.5 Achiever students are actively goal-oriented, think in either/or terms, are more single-system, and results-oriented, and are establishing their skills and capacities as self-directed learners. Achiever learners accept feedback and will collaborate with others if it helps them to achieve a goal. They reflect on and evaluate theirs and others thinking to advance efficiency and value logical and objective processes to achieve results. They aren't yet aware of their own and others subjectivity, nor that working harder will not necessarily yield the expected outcomes. The developmental capacities of this stage include independent objective thought, self-direction with an internal locus of control, and a sense of agency with goals and a future plan. These reflect the conventional goals of college education in Western European countries:

> Achiever is the target stage for much of Western culture. Our educational systems are geared towards producing adults with the mental capacity and emotional self-reliance of the Achiever stage, that is, rationally competent and independent adults. (Cook-Greuter, 2013, p. 40)

However, this expectation in higher education has more recently shifted to a post-conventional, post-modern or pluralistic expectation with the critical deconstructive perspectives of the next stage of development.

In the shift to the fourth person perspective, the subtle 'We' is foregrounded. The subtle collective consists of the perception of one being situated in and arising out of a plurality of contexts. This includes the receptive 4.0 Pluralist and active 4.5 Strategist stages. The 'We' isn't then a specific group, but it is a space of subtle ideas and systemic complexity. It consists not only of outer manifestations, such as the physical environment, the systems in which the context is embedded, the cultural context and form, but also inner manifestations, such as the attitudes, beliefs, assumptions, states of awareness, and ontological dispositions of the collective.

Students at 4.0 Pluralist are likely to be interested in their own authenticity separate from society's expectations, seek creative and unique approaches to their work, are aware of social contexts (their own and others), want to hear everyone's voices including faculty's', welcome feedback to discover their authentic selves, and may be strident about their pluralism and other socially critical ideologies. These students are both/and thinkers and recognize the subjectivity of objective perspectives.

Strategist 4.5 students tend to be more complex systemic and paradoxical thinkers and are aware of and passionate about their own and others' transformation and development. They are action-oriented, interested in taking multiple perspectives, may be impatient with excessive sharing and processing, and may be critical of a mentor or program that is in their own eyes, not transformative enough. They can step outside of systems and contexts and see how they have the capacity to shape contexts and systems, and thus are no longer subject to the experience of being created by contexts and systems. They also begin to see that the subtle things they see in others, are also within themselves. This capacity to recognize projection is the mature or later part of the Strategist stage.

The next stage involves a transition from the subtle, to the MetAware tier. This a big leap developmentally and can take time to stabilize in someone's life. At the fifth person perspective, individuals awaken to their ever-present awareness beyond the ordinary, subtle self, as the ground of their own being. This is awareness no longer identified with the concrete and subtle selves, or what we might conventionally refer to as the personal ego. Individuals in these stages begin to identify with this being as a new self, which is both empty and full, transcendent and immanent. In these stages including the receptive 5.0 Construct Aware and active 5.5 Transpersonal, the 'I' is foregrounded but the subtle 'We' remains as a context for this I. The 'I' is however not what we conventionally think of as 'I' – our concrete bodily self or our subtle thinking or narrative self, but rather our causal self, the limitless open horizon of awareness that we paradoxically seem to share with everyone and everything.

5.0 Construct Aware and 5.5 Transpersonal students are aware of the constructed and developmental nature of perspective taking, and they are flexible and adaptive in their communication and actions. Their thinking, which may be perceived as complex, includes both paradoxical and one-within-another ways of thinking. They may source their way of doing and being from a transpersonal experience of encountering a "vibrant and alive" world. These students may not feel seen or understood, and because of the relative rarity of these stages, it is less likely that there would be other students or faculty with similar developmental capacities (Cook-Greuter, 2013; O'Fallon, 2016).

At the sixth person perspective, this new 'I' is again backgrounded as it lets go into a much larger, MetAware 'We.' In the sixth level stages (6.0 Kosmic and 6.5 Illumined), the 'We' is all of concrete, subtle, and causal manifestation itself, the Kosmos, the utterly full and empty existence, eternal and beyond time, infinite and beyond space. Here individuals experience themselves as this whole, with their apparent (even causal) 'I' birthed by and birthing the whole. There is a keen interest at the sixth level in living as this larger collective, which has its own sense of 'We', and in allowing the intelligence of the whole, and that which births the whole, to express one's existence (Fitch, 2016; Lynam, Fitch, & O'Fallon, 2020).

In addition to learning more about the developmental patterns of students, educators are also actively constructing meaning of their experiences and viewing their identities as educators and their student's development through their own developmental lens. Developmental patterns around the identity of educators and their related practices and behaviors will be examined in greater depth in subsequent sections. However, it is important to remember that understanding development is also a subjective process, as we are always bringing our own meaning-making to the phenomena. You might pause in your reading and consider, how I am perceiving this material and how might my perceptions be shaped by my own developmental lens? The next section reviews literature on adult learning and adult development.

Literature on Adult Learning and Adult Development

The research at the intersection between adult development and adult learning has predominantly made use of Kegan's subject-object developmental model, and to a lesser extent the ego development and action-logics frameworks (Cook-Greuter 1999, 2004; Kegan 1982, 1994; Torbert 2004, 2013). The research is focused in a few main areas: teacher development or preparation particularly for K-12 educators and school leaders (e.g., Garvey Berger, 2002; Hammerman, 2002; Hasegawa, 2004), and the application of a developmental lens to examine the impact on students' development or the learning outcomes in a particular learning context, or curriculum (Guilleaux, 2011; Harris, 2002; McCallum, 2008). I found only one study reported by Drago-Severson that examined the impact of learning about adult development itself (2012).

Levine (1980) used adult development theory to assess the personal and professional development of teachers in an elementary school. More recently, Helsing et al. (2008) argued for that a developmental perspective can improve professional development for educators. Sutton et al. (1996) used the constructive developmental framework of Belenky et al. (1997) to understand the epistemological beliefs of beginning teachers. They suggest that an understanding of adult development would likely improve such education.

Garvey Berger (2002) looked at the link between teacher belief and practice. She examined the way twelve novice teachers understood and believed they had enacted their experience of the Harvard Teacher Education Program (HTEP). Berger's findings suggest that teachers with different developmentally-related capacities vary in their abilities to withstand the socializing forces of their school contexts. Moreover, developmental capacity predicted transference of learning from the HTEP into their classrooms, as well as the likelihood of finding or creating communities of practice with their colleagues.

Hammerman (2002) researched how math teachers' meaning-making affected their ability to apply their learning from a professional development institute to their teaching. Hammerman described the epistemological demands made on experienced teachers by curricular and pedagogical innovations in mathematics education and found a strong link between the stage of development of the educator and how well they were able to integrate and work effectively with constructivist pedagogical reforms. Hammerman found that Kegan's self-authoring stage (3.5 Achiever to 4.0 Pluralist stage) was the minimum stage of development needed to effectively learn and ultimately practice the concepts of constructivist thinking implicit in the pedagogical reforms.

Drago-Severson (2004a) investigated how development influences what principals need to sustain their learning from professional development and to support the development of educators in their schools. She examined how a particular head of school "exercised her leadership on behalf of promoting adult growth. How does this head understand and experience her role? What are the attitudes, beliefs, and values that appear to govern her actions? How are her ideas translated into action?" (2004a, p. 80). Drago-Severson's study reinforced the usefulness of adult development theory as a research tool.

Guilleaux (2011) also studied the development of principals. He found that introducing adult development theory as a frame for leadership development supported students' learning. It gave them a language to assess themselves, articulate their learning, and determine their learning goals for becoming principals.

Hasagewa (2004) examined the way teachers' developmental stages affected the way they experienced the shift into a teacher leader role. She found that the more mature the complexity of meaning-making was, the easier it was for the teacher to shift into taking more leadership responsibilities.

In addition to teacher and school leadership development, adult development theory has also been used to examine adult and post-secondary student experiences of curriculum and how development influences learning needs and outcomes. A number of recent studies (Harris, 2002; McCallum, 2008; Nicolaides, 2008) all point to meaning-making as a significant influence on what and how students learn, and the developmental supports they might need for their learning to be more effective, successful, or transformative.

Harris (2002) found that students at earlier stages of development were less likely to experience transformative learning than those at later stages. She made the point that transformation can happen at all levels of development; however, course design might preference transformation at a particular level (4.0 Pluralist) and often the later stages (4.0 Pluralist /4.5 Strategist). She also found that a student's developmental stage influenced the nature of the support they required and their use of particular learning strategies.

McCallum (2008) explored the relationship between participants' stages of adult development and their learning experience in a Group Relations Conference. His research found that the participants' stages of development account in part, for their capacities to learn from their experiences in this particular learning context. He also found that participants' developmental maturity affected how quickly they were able to recover from behavioral regression brought on by the complexity and conflict they experienced in the learning process.

Nicolaides (2008) looked at the relationship between adult development and how someone experiences and describes ambiguity or uncertainty. She found distinct forms of meaning-making in the participants' relationships with ambiguity. The Pluralist inquired into ambiguity, the Strategist learned their way through ambiguity, and the Construct Aware surrendered to ambiguity. Finally, the Ironist (an ego development stage which includes Transpersonal) generated ambiguity in order to discover the creative potential that it promises.

The research on adult development and adult and transformative learning demonstrates the significant implications of understanding developmental differences in meaning-making, and the corresponding learning support and challenges needed at different developmental stages. The following section reports on developmental research including data on the developmental diversity of students and faculty in higher education, as well as research on the impact of introducing faculty and students in graduate education to a developmental perspective.

Developmental Research in Higher Education

Three different areas of research are reported on in this section. The first is aggregate data from stage assessments in different higher education contexts. The second reports on developmental patterns in meaning making about education and the identity of educators. The third shares the findings from doctoral research that sought to understand more about how development shapes teaching, mentorship, and learning needs, and how learning about one's own and faculty/student development in graduate education impacted the educators and the students developmentally, personally, and professionally.

Developmental Data on Faculty and Students

Although limited in sample size, research on ego development suggests that the developmental range of undergraduates is generally 2.5 Conformist through 4.0 Pluralist. Research conducted on two cohorts of students in an upper division (junior and seniors) undergraduate program in sustainability (n=20) found that the developmental range was from 3.0 Expert through 4.0 Pluralist, with the majority of students assessing at 3.5 Achiever and with a lesser number of 4.0 Pluralist and 3.0 Expert on either side of the majority (Lynam & O'Fallon, 2017). Other data sets in undergraduate education find a similar distribution with the majority assessing at 3.5 Achiever. See table 2 below.

Research conducted in PhD programs (n=40) found a developmental range from 3.5 Achiever through 5.5 Transpersonal, with the majority of students falling at 4.5 Strategist (Lynam, 2018). The majority of this sample is self-selected and therefore is likely to be later developmentally than if more students were included. Research with PhD faculty (n=10) found a range from 3.5 to 5.5 with a majority at 4.0 Pluralist (Lynam, 2014).

This data is significant in a number of ways. One is that the learning needs and learning styles of students is significantly different at these different stages of development. Based on the data and my observations of students, it is common to have a span of at least three developmental stages within a cohort or community of learners. The perspective-taking capacities, meaning making, and learning needs of students differ significantly across the stages. This presents opportunities and challenges for designing curriculum, assessments, and adapting teaching styles to address the developmental diversity.

The meaning that students make of their learning and the topic of study will be significantly different across developmental stages. Understanding these distinctions can help educators adapt curriculum and scaffold the learning. For instance, recognizing that development shapes one's capacities for critical reflection and systems thinking can help educators adapt accordingly.

Finally, the data shows that the developmental span of students in graduate education can be wider than the developmental span of faculty, meaning that some students are developmentally later than their faculty. This presents some unique challenges which will be addressed later in the article. The following section presents findings on how meaning- making and the identity of educators is different for each of the developmental stages.

Table 2. Comparison of percentage stage distribution in 6 different samples (Cook-Greuter, 2013; O'Fallon, 2018; Lynam, 2018; Thomas, 2018).

	535 Leaders, UK, pre 2000 Torbert & Cook-Greuter	497 Leaders USA, pre 2000 Torbert & Cook-Greuter	4510 Mixed adult population, USA, 1999 Cook-Greuter	20 Upper-division Undergraduate students, 2018 Lynam	40 Graduate students (self-selected), 2018, Lynam	55 Undergraduates, State University, 2018, Thomas
Conformist	1.7	8.2	4.3			4
Expert	21.1	47.8	11.3	4		9
Achiever	33.5	34.8	36.5	11	6	33
Pluralist	23.4	5.0	11.3	5	5	7
Strategist	13.5	1.4	4.9		18	1
Construct Aware	5.6	<1	1.5		5	1
Transpersonal	.09	<1	.05		4	
Universal						

Research on Meaning Making about Education and the Identity of Educators

Based on the responses of educators who took a STAGES developmental assessment focused on education, it is striking to notice the developmental differences in meaning making around education and the identity of educators. Table 3 presents direct quotes of how individuals responded to sentence stems about education and what they consider to be a good educator.

Table 3. Select responses to the sentence stems: Education… and A good educator… (O'Fallon & Lynam, 2018).

Developmental Stage	Meaning Making about Education
2.5 Conformist	**Education**…to maintain the past and respect tradition, by being good, disciplined and following the rules you have a guaranteed place in society.

3.0 Expert	**Education**…to assure the future. Become an expert on something so that you can be of service to society and build useful things. **Education**…is very important to me and is the key to success.
3.5 Achiever	**Education**…is the lifeblood of society, as we learn we grow and enhance our ability to achieve our dreams and desires. **Education**… is the key to propelling our society forward. **Education…** is incredible! I have a constant thirst to keep learning new things. I'm finally learning to view success in terms of my own self-developed goals, rather than what the teacher thinks about me or what the grade says. **A good educator**…(1)understands his/her students and their needs; (2) values and respects every student in the classroom; (3) delivers information at a level that the student can absorb; (4) is deeply knowledgeable in the subject he/she teaches
4.0 Pluralist	**Education…**is intrinsically satisfying. For me, true education is less about facts (though valuable) and more about discovering the great principles of what life is about. **Education…** enables freedom and choice in our modern society; but there are many disadvantaged groups that do not have access to education; it seems important that education be available for everyone. **Education…,** the system I work within, is being reimagined and transformed as a learner-centered and dialogical process. **A good educator**…is a good listener, adaptive, curious, experienced, humble, well-read, forward and past thinking, able to consider different possibilities, and willing and able to connect with students where they are intellectually and developmentally.
4.5 Strategist	**Education…** Is vital, the more people are aware of what is happening in the world, how our actions impact others, the environment, etc., the more likely we can continue to expand the understanding that we are all interconnected and our life is dependent on how we treat the Earth and its inhabitants. **Education…** is a critical aspect of our development (in all its forms, institutional campuses and from "life") and only really ends when you've made the grave mistake of assuming you "understand it all". **A good educator…**offers students developmentally appropriate challenges, support to meet those challenges, and a container in which to explore their developing capacities; is fundamentally changed by the act of teaching. **A good educator…**joins self, subject, and students in the fabric of life because they teach from an integral and undivided self; they manifest in their own lives and evoke in their students, a “capacity for connectedness.”
5.0 Construct Aware	**Education**…comes divinely with every moment -- be it emotional, conceptual, spiritual, extraterrestrial.... I want to receive with the humor and grace that open me beyond my current understanding. **Education**…is every moment when we are awake to this Life; we're only not learning when we're lost in our self-repeating loop of the thoughts we've thought a million times before. **A good educator…**exists on a myriad of levels, each educator has a particularity that by the very fact of itself communicates something that is received every second of our lives; the most "effective" educators see this

	about themselves, his or her particularity, and embraces it with love and, in turn, the particularities of each student, and some educators see themselves as beyond the boundary of good/bad/effective/ineffective--that there is something beyond any conceivable curriculum that is happening here.

In the examples of responses of educators to the sentence stems there is a developmental progression from seeing education as a way to maintain the past (2.5 Conformist), to assuring the future and a key to success (3.0 Expert), to a way to achieve goals that are internally referenced (3.5 Achiever) and to teach in a way that delivers information and recognizes the value of each student. At 4.0 Pluralist education becomes more about freedom, authenticity, and is learner centered, and at 4.5 Strategist education starts to take into consideration the interconnection of multiple system including the Earth and its inhabitants, and is developmentally responsive, creating containers for development. At 5.0 Construct Aware the meaning of education shifts yet again to move beyond the bounds of what it typically considered education to include moment to moment experience and being awake to life. Evident in this developmental progression is the widening of circles of identity, responsibility, and care, all of which translates into different approaches to the process of teaching and learning.

Research on the Impact of Learning about Development

Doctoral research I conducted in 2014 sought to understand how development shapes teaching, mentorship, and learning needs, and how learning about one's own and faculty/student development in graduate education impacted the educators and the students. It explored a number of questions including: How does learning about development, one's own and others', impact students and faculty in higher education, developmentally, personally, and professionally? How does development shape teaching, mentoring, and learning needs? How might learning about development effect student's relationships with faculty and vice versa? What happens when the developmental range of students is wider than the faculty's? The research addressed gaps in the literature of adult and transformative learning, concerning the role that ego development (Cook-Greuter, 2013; Torbert, 2013; O'Fallon, 2016) plays in perspectives and practices around teaching, mentorship, and curriculum design. The research examined the impacts of introducing ego development to faculty and students in a post-secondary program in sustainability education and leadership development. It also examined the relationships between stage development and student's experience of the curriculum, teaching, and mentoring.

The site of study was a Ph.D. program in Sustainability Education, and the participants included four faculty and seven students. The study was mixed-methods and included pre and post semi-structured interviews; a five-month action inquiry process involving reading, reflective writing, and group discussion; and a pre and post developmental assessment and debrief through the use of the SCTi-MAP and STAGES assessment (Lynam, 2014).

Findings

Within the sample of students, there was a developmental diversity that ranged from 3.5 Achiever through 5.5 Transpersonal. The faculty's development ranged from 3.5 Achiever through 4.5 Strategist. Each developmental stage has unique capacities, strengths, challenges, and needs as learners/educators. Additionally, whether an individual is newly emerging into a stage or exiting their present stage of development, also informs the kind of mentoring that is likely to better support them.

The findings demonstrated that learning about adult development was transformative developmentally, personally, and professionally for both students and faculty. The research suggested that integrating a developmental awareness into post-secondary education may support transformative learning and growth across the developmental diversity in a community of learners. It may also support the development of the educators themselves and their skill development for working well with diverse groups of learners.

Learning about Adult Development

To support learning about development, the participants took a developmental assessment, received an hour-long developmental debrief, participated in a 5-month action inquiry process including a workshop about adult development, readings, reflections, and dialogue with other participants in their constituent groups (students or faculty). Regarding the developmental impact of the study, six of the eleven participants assessed at a later developmental stage in their second assessment, two participants' assessments showed more than one full stage of developmental growth, and two participants assessed at half to one stage earlier developmentally. Regarding the personal impacts, all participants described some positive impact (eight out the eleven describe significant impact) in their personal lives including greater self-awareness and self-knowledge; increased compassion, understanding, and acceptance of differences with others; communicating in ways that are developmentally responsive and aware; and more careful listening. In their professional lives, all participants described positive impact, and seven out of eleven described significant professional impact. These included that learning about development influenced their research design and analysis, mentorship, communication, teaching, and curriculum design.

Developmental Awareness and Transformative Impact

There were significant developmental differences in how students described their learning and transformation in the program and how faculty talked about their approaches to teaching and mentoring. The findings suggest that applying a developmental perspective to the teaching, mentorship, and curriculum design in a post-secondary program may deepen the transformative impact.

The student participants assessed at 3.5 Achiever and 4.0 Pluralist described the program as significantly transformative; however, the 3.5 Achiever participant spoke of challenges in maintaining some of the learning with increasing distance from the program. Participants assessed at 4.5 Strategist did not describe as much transformation and were critical of aspects of the program and the mentoring they received. 5.0 Construct Aware and 5.5 Transpersonal students spoke of transformation, but only partially as a result of the teaching, mentorship, or program design. The students also shared that thinking about their faculty developmentally supported more reciprocal relationships and helped them to understand their experiences with faculty in new ways.

In addition, faculties' developmental stages were shown to influence how they teach, mentor, orient to the program's focus on sustainability, and design learning experiences. Faculty assessed at 3.5 Achiever and 4.0 Pluralist were more likely to promote a particular worldview or values development and may be less likely to understand or effectively meet their students' developmental needs. 4.5 Strategist faculty have greater capacities to understand and perceive their students' development and therefore are more likely to mentor in developmentally responsive ways. Learning about the developmental range of the students was eye opening for faculty. It helped them to consider how to meet the students' developmental needs, and to grapple with the disorienting dilemma of working with students who are later developmentally than the faculty. Interestingly, I observed that the faculty often had an intuitive sense of which students might be later developmentally, as they had recognized in these students an increased capacity to engage with complexity. Learning about development helped them to make sense of this intuitive recognition in a way that added insight and understanding for how to work more effectively with these students (Lynam, 2014).

Teaching and Learning Developmentally

Developmentally aware and informed teaching and mentorship works in multiple directions at once. Understanding how adults develop supports educators to design curriculum and mentor in ways that meet students where they are developmentally and support their next steps. It illustrates and values the diverse ways in which students make meaning, and their perspectives and practices with regard to the content or focus of learning. It can also inform the self-awareness and development of the educators and leaders themselves, as well as inform ways of working more effectively with the developmental diversity within a learning community (Cook-Greuter, 2013; Drago-Severson, 2004; Kegan, 1982; Torbert, 2013; O'Fallon, 2010, 2016).

According to O'Fallon, without an understanding of their own development, educators may be more likely to project their own developmental needs onto students, teaching 'who they are', rather than who is in front of them. This can include teaching for a particular developmental transformation which would only be appropriate for a some of the students. Understanding the developmental process also supports educators to engage in their own development, once they have a sense of where they are and what might be next in their developmental unfolding (O'Fallon, 2010).

The research demonstrated that there are significant developmental dimensions to teaching, mentoring, and learning. Students have different needs developmentally. By learning how to identify and meet these distinct needs, educators can more effectively support student success. Developmentally aware mentoring can also support the development of faculty. In turn, this suggests the importance of engaging in developmentally informed professional development that encourages listening for and integrating student's psychological development in program design, mentoring, and curriculum.

Practical and Research-based Insights for Developmentally Informed Teaching

A first step is recognizing that adults develop through stages of meaning-making and perspective taking in ways that are relatively consistent and reliable. This is relevant for understanding the developmental diversity that is likely to be present in a community of learners, for recognizing the developmental needs of particular students, and how to design learning experiences to address the varying development needs.

Identifying a student's stage of development can predict that which they can comprehend, attend to, and accept responsibility for, and that which they are likely to find interesting, worthy of exploration, and learning. Identifying a stage of development can also predict the type of "holding environment" that will facilitate further learning and development. This can include the setting, the types of relationships, and the set of support services and systems that will provide a secure foundation for further exploration (Kegan cited in Boyer, 2005, p. 782).

Understanding developmental patterns is also helpful in considering one's own development as an educator and how this might shape teaching styles and habits.

Perspective-Taking and Thinking Patterns

As was reviewed earlier, perspective-taking is a central pattern of the developmental process. Kegan examines the subject-object move at the center of constructive development theory; that when someone is subject to something, it has them rather than them having it. In other words, they are not able to see whatever the "it" is (for example one's beliefs or internalized sense of privilege) and therefore cannot yet work consciously with it or change it. However, once we see our own beliefs or values for instance, we can reflect on them and even change them. With ego development and the STAGES model, perspective-taking capacity expands throughout the stages from first through sixth person perspectives and beyond. Perspective-taking shapes thinking patterns and thereby the teaching and learning process.

In review, in the STAGES model there are three tiers of development, concrete, subtle, and MetAware, where the objects of awareness change from concrete objects (what you can perceive with your interior and exterior senses, and simple emotions, rules, etc.), to subtle objects (metacognition, ideas, abstract theories, goals, feelings, contexts, systems, etc.), to MetAware objects (awareness of awareness). Within each tier there are 2 person perspectives, for instance 1st and 2nd person for the concrete tier, 3rd and 4th person perspective for the subtle tier. Each person perspective has two stages, an entry level stage such as 3.0 Expert and a late exit level stage such as 3.5 Achiever for third person perspective. And finally, each of the 4 stages within a tier represents a learning style which are receptive, active, reciprocal, and interpenetrative or integrative.

To explore the relevance of these patterns to education, we will examine the developmental shift between the 2nd, 3rd, and 4th person perspectives. Individuals at the 2nd person perspective recognize that there are other human beings with feelings and thoughts of their own. They see that they have a separate self (concretely) and that others can see them. In order to satisfy their needs, they recognize that they must work with others to make and follow rules together. With the development of the 3rd person perspective, a subtle self arises which means the individual begins to perceive a world of subtle objects such as thoughts and feelings, plans, and abstract ideas. At the early part of the 3rd person perspective, 3.0 Expert, the individual can ‘see’ the collectives that they are a part of, but they are receptive or subject to their own thinking. In other words, thinking about thinking, evaluating thinking, or thinking reflectively is rudimentary at this stage. It isn’t until the late 3rd person perspective of 3.5 Achiever that an ability to observe one’s thoughts and think reflectively becomes more fully developed. When someone is subject or receptive to their subtle thoughts and feelings, their thinking is one-sided. At the 3.5 Achiever stage the individual is able to consider their views in light of others but is still inclined to pick the view they prefer, in what is often called either/or thinking.

An example of the difference between either/or and both/and thinking was demonstrated by a class of freshman and sophomores learning about globalization. The students were learning about the concept of global citizenship. I asked them to consider the value and importance of global citizenship in today’s increasingly global world. Many of the students said that they couldn’t be global citizens because that would cancel out or threaten/undermine their national citizenship. They were perceiving the issue through either a one-sided or either/or frame of thinking.

After much discussion, one student in the class had an ‘aha’ moment where he recognized that he could be both a global citizen and a national citizen and that each could potentially complement or be used in service of the other. It appeared that his (and some of his classmates who agreed) thinking had shifted from seeing the two as opposing or contradictory, to both/and complementary.

Reflective and critical thinking is a goal of undergraduate education; however, it is particularly challenging for students at the 3.0 Expert stage of development common among early undergraduates. Students operating from this stage of development may be prolific at generating new ideas but will have a hard time reflecting on and evaluating their own thinking, nor see the purpose of doing so. Critical reflection becomes easier at the 3.5 Achiever stage of development, especially if it is clearly tied to goals and outcomes. Self-reflection can be a developmental overstretch for 3.0 Expert students, but a developmentally appropriate stretch for 3.5 Achiever students.

Another common goal of postmodern higher education is social deconstruction and critique. This capacity isn’t naturally available until the context-aware capacities of a 4th person perspective. It is at 4.0 Pluralist that individuals recognize the subjectivity of thinking and how thoughts are shaped by internal and external contexts such as family, culture, gender, and other intersecting identities. At this stage, which is also a collective stage with a reciprocal learning style, 4.0 Pluralist thinking becomes both/and. Individuals here see that thoughts are shaped by contexts, and that we can understand (and deconstruct) a particular view or value by understanding the systems that shaped it.

Reflective thinking, systems thinking, and the ability to recognize subjectivity are all developmental capacities. Recognizing this helps educators develop and scaffold learning activities to support the progression of these capacities in a group of developmentally diverse learners. Conversely, expecting outcomes that are beyond a student's developmental capacity puts them in over their heads and might be experienced as an over-stretch. It is important to understand the developmental supports that different students might need and integrate these into the design of curriculum. It is equally important to be attentive to the epistemological demands and assumptions that classes make on students and to recognize that if a student cannot engage successfully in an activity, it might be because it is beyond the capacities of their current way of making meaning (Cook-Greuter, 2006; Drago-Severson, 2004a, 2004b; Kegan 1982, 1994; O'Fallon, 2016).

Perspective taking and the related thinking patterns are illustrated in Table 4.

Table 4. Patterns of Thinking (Cook-Greuter, 2004; O'Fallon, 2016).

Developmental Stage	Perspective-Taking and Polarity Patterns
2.5 Conformist	Late 2nd person perspective: In relationship with another. "See others seeing them" concretely. Concerned about socially expected behavior, approval, avoids conflict, loyalty to chosen group. Wants to belong. One right way thinking. Can't question group norms. Uses hierarchical thinking to distinguish between levels of morality and appropriateness (good better best)
3.0 Expert	Early 3rd person perspective: Stands back and observes two others interacting and 'objectively sees what is happening' on a subtle interior level. Beginning recognition of one's own ideas separate from social groups. Interested in expertise, procedure, and efficiency; what's logical. Has a hard time prioritizing ideas because they are all good. Black or White thinking; knows the answer and only sees one side of an argument. Tends towards perfectionism.
3.5 Achiever	Late 3rd person perspective: Interested in rational scientific analysis, success within a system, thinking about thinking. Prioritizes ideas for effectiveness and goal-oriented results. Either/or thinking. Tends to talk at, rather than with. Critical reflective thinking is useful to for being more effective completing tasks and achieving goals.
4.0 Pluralist	Early 4th person perspective: Stands back and sees that the observer is situated in a social context, and therefore subjective. Can see others seeing them on a subtle level: Reciprocal. Knows others can see things in them that they can't see in themselves and has the courage to delve into what others may see, even if they don't like what they hear. Has a hard time prioritizing contexts – relativism. Both/and, it depends thinking. Metacognition.
4.5 Strategist	Late 4th person perspective: Understands and prioritizes interior and exterior contexts, sees developmental unfolding, shapes contexts to support development of self and others. Works with dynamic systems and paradox, linking theory and practice. Sees that what they judge in others is held within themselves – Interpenetrative, one within the other, paradoxical thinking.

5.0 Construct Aware	Early 5th person perspective: Stands back and see the previous pattern of observing observers observing, awareness of the constructs we hold, the complexity of meaning-making, witnesses the emptiness of words and illusion of meaning. Has a hard time prioritizing constructs.

Another example of developmental progression that is relevant for curriculum design is how feedback is perceived through the stages of development. As can be seen in Table 5, in the earlier stages (Expert, 3.0 and earlier), feedback can be experienced as threatening and may only be accepted from those considered to be an authority in the community or field of study. Student-to-student and collective feedback and assessment processes can be threatening and not very effective at the 2.5 Conformist and 3.0 Expert stages of development.

Table 5. Stages and Patterns in Relation to Receiving Feedback (Cook-Greuter, 2004; O'Fallon, 2016).

Developmental Stage	Feedback
2.5 Conformist	Receive feedback as disapproval, or as a reminder of norms. Deflect feedback that threatens loss of face. Unable to give feedback to others. Cannot question group norms.
3.0 Expert	May take it personally, defend own position; dismiss feedback from those who are not seen as experts in the same field
3.5 Achiever	Accept feedback especially if it helps them to achieve their goals and to improve
4.0 Pluralist	Welcome feedback as necessary for self-knowledge and to uncover hidden aspects of their own behavior, to discover their authentic self
4.5 Strategist	Invite feedback for self-actualization; conflict seen as an inevitable aspect of viable and multiple relationships
5.0 Construct Aware	View feedback (loops) as a natural part of living systems; essential for learning and change; and take it with a grain of salt.

Learning and Teaching Styles

In the STAGES model, each tier of development has four learning styles, one for each of the stages in the tier. These also translate into teaching styles and habits. In the subtle tier, most relevant to higher education, the first stage 3.0 Expert is a receptive stage, where the individual is receptive to the subtle self or ego, the realm of ideas, thoughts, feelings, abstractions, and plans. As the individual gets to know the contours of this new dimension of self, they are receptive to these new capacities, and not yet able to direct and focus them. An example of this is students that produce large volumes of work, but have a hard time reflecting on the work, or prioritizing their ideas and deciding which might be relevant to the intended outcomes. Also, there are perfectionistic tendencies at 3.0 Expert, and so students can have a hard time completing something or deciding that it is good enough.

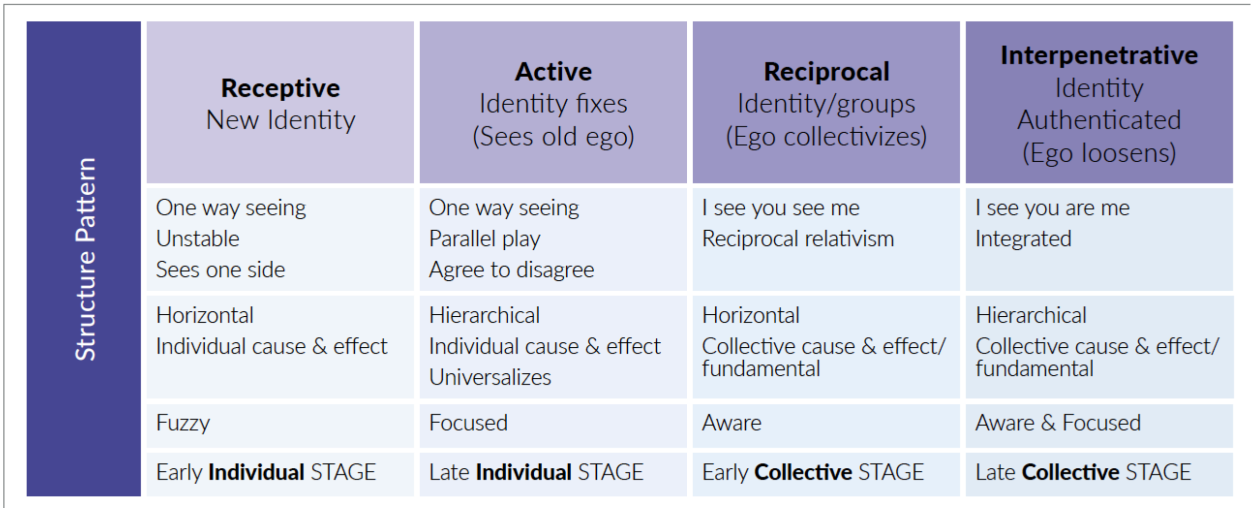
At the next stage of 3.5 Achiever, they learn to be active with subtle ideas, thoughts, and feelings, resulting in prioritization and focus for more effective outcomes. However, both the 3.0 Expert and 3.5 Achiever are individually oriented stages, not yet reciprocal with these capacities, and therefore they tend to engage in one way talking, or to talk at someone rather than with.

In terms of teaching styles, someone at the 3.0 Expert stage values expertise and highly refined knowledge in their area of expertise. Teaching is likely to be in the form of direct information delivery without much interaction, a traditional 'sage on the stage' approach. At the Achiever stage, it is still generally a one-way approach with an emphasis on best practices, outcome-based learning, and assessments. However, there is a greater likelihood to include some active and applied project-based learning and sometimes self-directed and self-paced learning (Lynam & O'Fallon, 2017).

4.0 Pluralist is a collective-oriented stage that is reciprocal with their subtle capacities and awareness, and so teaching becomes learning, with more of a 'guide on the side' mentoring approach. There is a shift towards collaborative and non-hierarchal learning environments, which are often student-centered and dialogical. The shift towards student-centered learning environments can lead to faculty (especially in higher education) backgrounding their own expertise and direct teaching, so much so that it can potentially hamper or limit students' learning. This can also come as a request from the students, particularly in graduate school, that want to be reciprocal and more like peers with faculty.

4.5 Strategist is an integrative, one within the other approach, that integrates outcome and process, teacher and student, self-direction and teacher-direction. At the Strategist stage, there is an inherent recognition of the developmental process and an interest in identifying principles of transformative learning and creating contexts or containers for development (Lynam & O'Fallon, 2017; O'Fallon & Barta, 2018).

Recognizing these learning/teaching style tendencies, educators can attend to including all 4 of the learning styles in their curriculum, as well as noticing what their own tendencies are and adjusting for any imbalances. Just as noticing the developmental patterns of students can support compassion, understanding, and effectiveness, noticing the same with teaching colleagues can also support an increased understanding and ease of working together. There are often ideological conflicts between these different teaching approaches (outcome based versus process-oriented, teacher centered versus student centered, individual rather than collaborative learning, etc.), and understanding how development contributes to these differences can help reduce tension, and potentially increase collaboration or recognition of the relative merits and limitations of each (Lynam & O'Fallon, 2017; O'Fallon 2016).



Structure Pattern	**Receptive** New Identity	**Active** Identity fixes (Sees old ego)	**Reciprocal** Identity/groups (Ego collectivizes)	**Interpenetrative** Identity Authenticated (Ego loosens)
	One way seeing Unstable Sees one side	One way seeing Parallel play Agree to disagree	I see you see me Reciprocal relativism	I see you are me Integrated
	Horizontal Individual cause & effect	Hierarchical Individual cause & effect Universalizes	Horizontal Collective cause & effect/ fundamental	Hierarchical Collective cause & effect/ fundamental
	Fuzzy	Focused	Aware	Aware & Focused
	Early **Individual** STAGE	Late **Individual** STAGE	Early **Collective** STAGE	Late **Collective** STAGE

Figure 2. Learning Styles (O'Fallon & Barta, 2018).

Developmental Teaching Principles and Practices

The first principle is recognizing that there is developmental diversity in a community of learners, and as was mentioned previously, there is often a span of 2 or 3 developmental stages. Understanding the likely developmental span can make a big difference for designing learning experiences. One thing that can help is to pay attention to the developmental outliers in a group, on either end of the developmental diversity of the group. Those earlier developmentally may need additional support and those on the later end may need more challenges – support in a different form.

It also helps to listen for different thinking patterns and help to translate student's comments so that they are more likely to hear each other and to help integrate the different perspectives into a larger whole. If there is a student struggling with a learning exercise, or you find them hard to understand, it can be helpful to consider where they might be developmentally and how the learning or instruction can be adapted to meet their developmental needs. For instance, in a group of graduate students…

The second principle is to consider whether a student is entering a new stage, needing to stabilize new capacities, or ready to exit a stage and needs help reaching for what is next. When someone is ready to move into the next stage, they often reject or push against where they just came from developmentally and can be frustrated by or judgmental of others' views from the previous developmental stage. It is also important to provide additional support when students are shifting from one tier to another, such as the shift from 2.5 Conformist to 3.0 Expert, or the shift from 4.5 Strategist to 5.0 Construct Aware. These are big shifts that can be very disorienting and take time to stabilize in people's lives.

The shift from an early part of a person perspective to the late part, such as from 4.0 to 4.5, is much easier than the shift into a new person perspective. Berger (2004) recommended three important steps to effective developmental teaching: "helping students recognize the edge of their meaning-making; being good company at the edge; and helping to build a firm ground in a new place” (p. 346).

A third principle is for educators to pay attention to their own development and how it might shape teaching styles, as well as one’s view of students. To support this, educators can take a developmental assessment to learn more about their own development. Educators can also inquire into how development shapes teaching styles. Are they teaching to their own developmental edges, rather than the students? Do they tend to teach who they are, rather than who is in front of them? In the STAGES model, there are iterative patterns between the tiers, and so for instance 3.0 Expert has some similar patterns to 5.0 Construct Aware, as does 3.5 Achiever, with 5.5 Transpersonal. The similarities can make teaching others in the same stage in the prior tier easier. Conversely teaching students one stage prior to where you are developmentally, or one stage earlier in the prior tier, can be challenging. This is because of the tendency to push away from the previous stage in an effort to differentiate, as was mentioned previously. It is important to notice these challenges and work to correct for them.

A fourth principle is to work with developmental shadows (unintegrated parts of the self) and the blind spots of each stage. Challenging or even traumatic events in one’s own life, can make one susceptible to triggers and shadow with students at the same stages. Doing shadow work on these areas can have a tremendous impact in teaching and support educator’s development as well. In addition to working with a therapist, counsellor, or developmentally informed coach, educators can start to notice what they struggle with. They can identify some of their trigger points or sensitivities with students or colleagues, and then reflect on how they might also have these tendencies or behaviors in themselves. They can also consider where these triggers or sensitivities might have come from in their childhood. When an educator has a strong judgement of a student they can ask, how is this quality also in them? Or whether they allow themselves to express something a student is expressing, and therefore find themselves struggling to tolerate it?

In addition to an educator’s own unconscious and unhealed shadow, each of the developmental stages has both gifts and blind spots. By recognizing some of the limitations of each stage, we can work to minimize the impact these might have on students. For example, 3.0 Expert can emphasize one right way thinking, while 3.5 Achiever can pursue goals and outcomes in ways that can overstretch others or create unachievable expectations. Individuals at 4.0 Pluralist can promote values of inclusion that exclude those that don’t yet hold those values and 4.5 Strategist can create formidable expectations for development in their passion to transform others.

A fifth principle calls for developmental humility and practicing developmental ethics. Developmental ethics preclude not preferencing or idealizing later stages. Teaching is not aimed at driving development, so much as aiming to meet someone where they are developmentally and support them on their growing edges. Developmental growth does not necessarily imply goodness, efficacy, balance, or health. Ethical practice also calls for continued personal development work to uncover blind spots or shadow that may express hidden agendas in practice.

Finally, the sixth and perhaps most important principle of all is to approach teaching and mentoring with the reverence it deserves. Developing unconditional regard for students (and fellow educators) is likely to have a greater impact on the teaching/learning and thereby developmental process, than any other practice or stance. Teaching developmentally is paradoxical in that by understanding where someone is developmentally, means not putting them in a box or ranking them in a hierarchy of values. Rather, it means having profound respect for another's life journey, including their inherent dignity and value while endeavoring to offer a balance of support and challenge for who they are becoming. Held this way, adult development research and practice can truly act as a spectrum of compassion, supporting the liberation of self and others through the teaching, learning, and mentoring process.

Conclusion

As our world experiences social polarization and ecological breakdown, developmentally informed teaching can support increased capacities for perspective-taking, bridging differences, and increased awareness of implicit bias and blind spots. It also has the potential to catalyze widening of circles of identity, responsibility, and action in the world by evocatively supporting development rather than pressuring growth. It can help educators embrace their students, themselves, and their colleagues with developmental understanding and compassion, and create conditions for further development.

In the research exploring the impact of learning about adult development, educators described greater self-understanding and self-acceptance, increased understanding of others, improved communication and relationship dynamics, and a deeper understanding of working with differences. They also described that learning about development influenced how they approach mentoring, teaching, and supervising, curriculum and project design, their understanding of different cultural and professional contexts (Lynam, 2014).

More research is needed to further understand how to teach developmentally, what the impact of developmentally informed teaching is, how taking developmental assessments impacts teachers and students, etc. However, initial research and anecdotes from educators indicate the powerful potential of teaching and mentoring in these ways. A faculty member in higher education describes the impact of learning about adult development in a way that illustrates the principles and ethics of developmentally informed teaching and learning:

> Learning that people – students, clients, oneself, etc. – orient, view, and operate in different ways, itself, isn't too magical. What is incredibly impactful is the recognition that adult developmental frameworks (a) describe and organize these various ways in a manner that richly dignifies people for who they are now, (b) can predict, indicate, and graciously mark the growth trajectories of who people are becoming, and (c) offer educators life-affirming containers to facilitate students to more fully and freely step into their leading-edge possibilities – a massive hop past empowerment! (Almond, D., 2020, personal communication)

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Appendix: STAGES Education Chart by Abigail Lynam and Terri O'Fallon

Patterns of Development

- Receptive/Active/Reciprocal/Interpenetrative
- Concrete/Subtle/MetaAware
- Individual/Collective
- Person Perspective (1st, 2nd, 3rd, 4th, etc.)

Learning Styles

- Receptive – Teach, Define, Lecture, Instruct
- Active – Experience, Apply
- Reciprocal – Interact and explore
- Interpenetrative – Synthesize, integrate & live it

Principles of Developmentally-aware Education

- Meet learners where they are, and support them on their growing edges
- Recognize developmental diversity in a collective of learners
- Learn to design curriculum that is developmentally inclusive and adaptive
- Understand how your own development as an educator informs and shapes how you teach and learn
- Understand the importance of recognizing when a learner is stabilizing their development or ready for transformation

Person Perspectives

- The first person perspective is an exclusive one way focus on one's self and wants.
- The second person perspective is a focus on reciprocity between self and other. Can see one's desires and those of others. Can stand in the shoes of another.
- The third person perspective is a focus on an observer who can focus on self and other(s). Aware of the qualities of abstract and formal operational thinking – analysis. New subtle self arises.
- The fourth person perspective is awareness on the reciprocal seeing of subtle selves: I see you see me, subtly. Aware of social contexts, internally and externally. Subtle self matures.
- The fifth person perspective is seeing the ever-changing nature of reality and the illusion of something remaining ever the same; Thus at the fifth person perspective there is an awareness of constructs – that everything is made up.
- The sixth person perspective, seeing the multiple perspectives, begins to step outside of those perspectives and to see the whole arising. The whole that is in their consciousness is all of matter, all of life and all of mind. Awareness of the unity of opposites including a grain of sand and the entire cosmos.

	Qualities	Learner	Exercises/Activities	Questions/ Reflections
2.5 Conformist	**Concrete, Collective Interpenetrative** (approx. 14-18 yrs. & adults) You are me and I am you concretely. – I am the rules, I am my role – Prioritize rules and social norms. – Focus on belonging. Defend group from inside and outside threats. – Conflict is seen as a threat to belonging. – Time frame: today and the past. Learn from the past, see consequences of actions. – Collective emotions such as guilt and shame are motivators. – Routine, order and following the rules creates safety. – Shadow – fundamentalism, righteousness	Views teacher as the ultimate authority. Expects and needs highly structured learning environment to either conform to or rebel against. Wants to know the rules. Challenged to speak up individually in class, to think outside of the collective norms or to do group work. Right and wrong answers to questions. Individual feedback can be very threatening. Is likely to not challenge the teacher directly. Follow learning traditions. Value clear hierarchy. Status, appearance, material goods, reputation and prestige are valued. **Focus or Meaning of Education** To maintain the past and respect tradition, by being good, disciplined and following the rules you have a guaranteed place in society.	– Topical discussion groups (not open-ended) – Clearly structured learning activities – Right and wrong answers – Concrete skill development – planning and prioritizing – building something tangible, designing an experiment and the steps to complete it. **Stretch** – Visualize a plan for the future. – Think critically & independently – Rational analysis of subtle ideas – Abstract thinking – Freewriting and brainstorming – Assertiveness training – Recognition for initiative-taking	
Transition	Transition into the Subtle tier – 3 parameter change – catalytic. Often happens when people go away to college or leave home for the first time. Move from a concrete, collective, and integrated stage to one that is Subtle, individual, and receptive. My group is not necessarily all there is, or all that is important - support individuals to stand out on own and find new collectives. Think critically and independently. Notice how facts might contradict group norms. Visualize subtle objects – subtle ideas, the future, abstract thinking.			

	Qualities	Learner	Exercises/Activities	Questions Reflections
3.0 Expert	**Subtle, Individual, Receptive** New identity (often early college years) – Early 3rd pp, new Subtle self – can imagine/visualize what others are experiencing in their interiors – One way seeing – black or white, sees one side of an argument. – Diffuse attention – receiving lots of new ideas. – Past, present and months into the future – Can't prioritize ideas – hard to know when good is good enough (perfectionism) – Concrete collective made subtle through rights related to appearance (gender, race, color, age, handicap) – Can be caught in analysis paralysis – Unique self – •Beta brain wave	This is a time of significant change and transformation. Often occurs when individuals go away to college or leave home for the first time. Can be overwhelmed by flood of ideas, thoughts and feelings. There is a loss of previous group identities and group norms that defined appropriate behavior and how to fit in. Can struggle to complete assignments, wants to be valued for their own thinking and ideas but can't yet prioritize, time management is challenging. Can be one way in their thinking, as they are only just beginning to be able to think about their thinking. Linking disparate ideas through systems thinking is very challenging. Needs the teacher to be an expert in their field. Can lose respect or struggle with more "collaborative" teaching or pluralistic ways of seeing. **Meaning of Education** To assure the future. Become an expert on something so that you can be of service to society and build useful things. Education… "is very important to me" and "is the key to success"	– Feedback only from trusted experts – Group work – can tend to take over, may not be a good team player, micromanage others – Abstract thinking – science of probabilities, architecture, engineering – Brainstorming – individual ideas and perspectives – Observation of thinking and social norms, behaviors – new ways of thinking and behaving – Debates **Stretch** – Focusing their attention on thinking, planning for the future. – Reflection – thinking about thoughts and feelings – Consider more than one side of an issue (see both sides) – Structured and directed group work – Prioritizing ideas. – Time management tools – Interpersonal skill training – Critical thinking & decision making	
Transition	One parameter change. Pressured by complexity – time, resource limits, 100% perfectionism becomes too inefficient. There is a greater sense of linear time of past and future and therefore can work with subtle cause and effect (can figure out reasons or "why", can analyze). Beginning to prioritize ideas, to make use of and act with all the new ideas and ways of seeing – set goals and plan for the future. Concentration practices are helpful – focusing attention, prioritizing ideas, creating plans. Reflection and self-reflection. Discern when a project or assignment is complete or good enough.			

	Qualities	Learner	Exercises/Activities	Questions/ Reflections
3.5 Achiever	**Subtle, Active, Individual** Identity fixes. – Focused attention (zooming in on goals) – One way seeing – subtle parallel play, agree to disagree. Either/or-choice. Leads to competition. – Future-oriented – Science is the new magic/cause effect truth – Individualize the collective thru laws to protect individual rights (patents, brands) – Beta brain wave matures – Mastery and power in the subtle world of ideas – Concern for human rights – Thinking about thinking and feeling; planning, analysis becomes ordinary.	The qualities and capacities of this stage are often an end goal for college education – to create learners with an internalized locus of control, and their own sense of agency and self-direction in relationship to their career and learning goals. They can think about and reflect on their own thinking, feeling and behaviors and adjust and prioritize them in favor of their goals. They are often more competent at time and project management. They are not yet able to think contextually and therefore are still either/or thinkers seeking a right answer to a challenge. Tend to talk “at” rather than “with”, subtle parallel play. Value feedback and group work if they help to achieve a goal. Believe in linear cause & effect and objective rationality. **Meaning of Education** **Education**… “is the lifeblood of society, as we learn we grow and enhance our ability to achieve our dreams and desires.” **Education… “**is incredible! I have a constant thirst to keep learning new things. I'm finally learning to view success in terms of my own self-developed goals, rather than what the teacher thinks about me or what the grade says.”	– Setting, planning and achieving goals – Giving and receiving feedback in support of goals – Outcome-oriented educational goals – Assessment and evaluation – Project management with benchmarks and feedback loops – Reflection – thinking about thinking and feeling – Deductive Reasoning – Create linear, goal-oriented systems – Concentration practices. Mindfulness exercises – Student-directed learning activities – Debates – Self-directed learning **Stretch:** – Reconsider goal focus to achieve more balance, overall happiness, time for family and friends etc. – Begin to think contextually – both/and, it depends, discussions. – See the non-linear pathway to goals, or unexpected outcomes positive and/or negative – Subjective and objective thinking – Collaborative and reciprocal group work	
Transition	Two parameter change – Collective and Reciprocal. Key Achiever assumption: There is a real truth out there to be discovered so I can be the master of my fate through my own initiative. Begins to discover the way the Achiever’s expectations are not accomplished. Beginning need to think “outside the box” – challenge assumptions, expectations. Burned out, seeks balance, inner fulfillment. Begin to be aware of multiple perspectives/voices/ways of seeing and being, that can be contextually dependent. Awareness of multiple inner voices that might have conflicting needs and interests			

	Qualities	Learner	Exercises/Activities	Questions/ Reflections
4.0 Pluralist	**Subtle, Collective. Reciprocal,** I see you see me, subtly – Relativism “it depends”, pluralism – Both/and thinking: Subjective and objective – Attention: Open awareness, mindfulness. – External contexts – socio-economic/cultural/ethnicity identities – affect internal interpretations – Reality is socially constructed – Adaptive patterns in systems (like a bird in a flock) – Multiple interior voices – “a part of me wants this, a part of me wants that” – Welcomes feedback for authenticity – Egalitarian; All ways are equally valid – Not inclined to categorize, reject hierarchies – All thoughts and beliefs are equal, except those that profess inequality	**Learner:** Pluralist learners seek reciprocity with other students and the teacher. They value opportunities to explore contextual awareness (inner and outer) and likely want the teacher to join them in that – to step down from the hierarchy and engage in mutual learning and discussion. **Meaning of Education** **Education…** is intrinsically satisfying. For me, true education is less about facts (though valuable) and more about discovering the great principles of what life is about. **Education…** enables freedom and choice in our modern society; but there are many disadvantaged groups that do not have access to education; it seems important that education be available for everyone. **Education…** is a life-long process. It can be formal, through schooling and learning events, and it can be informal in the lessons learned each day. **Education…,** the system I work within, is being reimagined and transformed as a learner-centered and dialogical process.	– Integrating multiple perspectives and contextual thinking into all content areas – Dialogical learning – discussion groups – Self-reflection exercises – Empathy, perspective-taking and shadow exercises – Cultural awareness/ responsiveness training – Recognize more subtle forms of –isms. Micro-aggressions. – Student-centered and student-directed learning – Teacher or faculty as mentor **Stretch** – Prioritizing contexts – Awareness and attention exercises – zooming in and out – Valuing and integrating technical expertise of 3.0, goal and outcome focus of 3.5, alongside their own co-creativity and adaptability. – Multi-generational timeframe – Explore polarities and divergent ways of thinking and perceiving the world.	
Transition	One parameter change – Reciprocal to Interpenetrative. Key Pluralist assumption: Everything is relative. Dilemma: Overwhelmed or stuck in processes. Confronted by chaos/disorder (in mind). Need for lasting tangible results. Exhausted by cost of caring. Begins to see that some contexts are more useful than others and begins to categorize them. Begin to see ways of prioritizing internal and external contexts – see development over time. See the possibility for development and transformative change and how to play a role in the creation of it.			

	Qualities	Learner	Exercises/Activities	Questions/ Reflections
4.5 Strategist	**Subtle, Collective. Interpenetrative, Integrated.** I see you are me, Subtly – Attention: Aware & focused (zooming in & out) – Prioritize contexts – Multi-generational timeframe – See development of internal and external contexts – Nested developmental systems – Collective and individual Shadow projections seen on reflection – Authentic self arises – Integration of internal and external (personas, projections, introjections) – Interpenetration of contexts – we create contexts and they create us.	**Learners:** Relatively rare even in graduate school settings. Strategists are able to prioritize among competing commitments, opinions and beliefs. Thus, they tend to value perspectives that are developmental, people oriented, inclusive of other levels of development, dynamic, and which foster continuous learning. This is an interpenetrative stage, so they take a view outside of systems and contexts and see their intersections, and so have the capacity to construct them as opposed to being constructed by them. Love to create transformative learning experiences for others, so may want to take over as the teacher. **Meaning of Education** **Education…** is essential for improving ourselves and the world. I think our current education system is pretty broken. I want to see an education system that facilitates growth and teaches people how to learn and think, not regurgitate information and take tests. I want to see more embodied education. **Education…** Is vital, the more people are aware of what is happening in the world, how our actions impact others, the environment, etc, the more likely we can continue to expand the understanding that we are all interconnected and our life is dependent on how we treat the Earth and its inhabitants. **Education…** is a critical aspect of our development (in all its forms, institutional campuses and from "life") and only really ends when you've made the grave mistake of assuming you "understand it all".	– Generally self-directed as learners, they value opportunities to guide their own learning, dive deep into different content areas and to dialogue with teachers and fellow students in depth to find newly creative ways to address complex challenges – Shadow exercises – opportunities to reflect on and work with projections and judgements – Learn about nested systems and increasing complexity, experiment working across value systems and worldviews. – Seek feedback from multiple sources, personal growth practices **Stretch** – Recognize judgements in the moment. – See constructed nature of reality – emptiness of constructs – See their own subtle ego at play – hubris of knowing and hunger for transformation of self and other	
Transition	Three parameter change – MetAware, Individual, Receptive, – this is a big change and can take years to complete. Key Strategist assumption: Through my own development, I can be the unique, authentic person I'm meant to be. Tired of endless striving and reaching to become myself. Increasing capacity to witness puts me in the moment and leads to seeing the mind's projections/constructions in the moment.			

	Qualities	Learner	Exercises/Activities	Questions/ Reflections
5.0 Construct Aware	**MetAware, Receptive, Individual** MetAware self arises. Awareness of awareness. In the moment witness. can see the recursive patterns of development, the individual construction of words and subtle boundaries-, projections in the moment, and how all this plays out. They are able to be agile, to see things that other people can't yet see, and to turn things inside out, upside down, & in paradoxical ways to move processes forward. In the moment; learning is so great that one may want to change jobs, homes and relationships. **Education**…could be viewed as the current social construct that transfers first basic, then refined, knowledge through the generations and as such reflects the overall unfolding. Its movement from physical skills to mental processes, from actions to symbols and is a well-fitting pattern for us humans in our role in evolution. It would be fascinating to see if this story changes in the coming centuries to include more of a listening to wisdom, a connection to the story of involution.	**Meaning of Education** **Education**…comes divinely with every moment -- be it emotional, conceptual, spiritual, extraterrestrial.... I want to receive with the humor and grace that open me beyond my current understanding. **Education**…is every moment when we are awake to this Life; we're only not learning when we're lost in our self-repeating loop of the thoughts we've thought a million times before.	– May want to do the teaching themselves – tire of being taught – Beginning awareness of awareness – See mind's constructions of definitions and boundaries **Stretch** – See the subtle ego at play – See others seeing you at the MetAware stage – reciprocally causal – Prioritize constructs	
Transition	One parameter change – MetAware, Individual, Active. Begin to actively engage constructs. Key Construct Aware assumption: reality is constructed by made-up definitions of words and boundaries. Dilemma: constructions are continuing to be reified by others who don't realize it. Some constructions are more useful to the world than others. I can construct consciously with my knowledge of amorphous definitions and boundaries, for the benefit of the world, categorize and prioritize, create in my area of passion.			

	Qualities	Learner	Exercises/Activities	Questions/ Reflections
5.5 Transpersonal	**MetAware, Active, Individual** Capacities to bend, twist, redefine, construct, reconstruct, prioritize/ categorize and reify constructions, and to see unusual connections between very disparate paradigmatic fields occur. This is an active individual stage, interest in owning creative and unusual constructions in their field of passion that they have developed. Transpersonal individuals "have" their individual constructs rather than being "had by" them. They can see how *they* can develop these constructions consciously for their own benefit as well as for the benefit of humanity or for a planetary cause. There is one-way seeing at the MetAware level, frequently with a feeling that others can't see them in return.	**Meaning of Education:** **Education**…is often thought of as a structured learning process, yet I find it to be quite the opposite also, that is being open to the nothingness and allowing the empty to fill oneself, allowing a movement from a place beyond knowledge. **Education**…grows exponentially as one opens one's mind to ever more possibilities, understands preconceived limitations of the concept of mind and actively dismantles them to allow even more unlimited awarenesses to arise, breaking down contents into processes that then become the new contents with processes behind them until whole concepts and constructions of world and mind fall away completely.	– Witnessing in the moment in waking life is a natural spiritual practice. – Integrate emptiness and fullness, individual & collective **Stretch** – Late Transpersonal begins to let go of their constructions into emptiness	
Transition	Two parameter change – MetAware, Collective, Reciprocal. - Key transpersonal assumption: As reality is constructed, I can impact the world by defining its terms, questions, and perspectives, and constructing with Awareness and Consciousness. Dilemma: My impact is also a reified construction. Tired of endless complex mind bending. Seeing that which is doing the constructing, I can let go into another more universal 'I' in which all preferences can coexist. Emerging desire for a simpler, more immediate contact with the Wholeness of Existence.			

The Scenic Route: A Developmental Approach Emphasizes the Importance of Human Interiority in Transformative Approaches to Climate Change

Gail Hochachka[1]

Abstract: What is effective climate change adaptation, at a time in history where the call for transformative change is on the increase? This article considers how to expand and deepen the largely techno-managerial concept of adaptation, often framed as that of reacting to and accommodating climate change, by integrating human interiority in a more balanced way. While the psychological and social dimensions of the climate change issue have been studied, they are less equally weighted alongside the climate science; some studies suggest that improving the integration of psycho-social change processes will be important for effective adaptation and may bode helpful in enacting transformative change. In this article, I explain my rationale and methods for including the lesser-known discipline of adult developmental psychology to examine how people make meaning of climate change, which may have important implications for adaptation policy and practice. Studies exist on 'what' people believe about climate change, but the insights from developmental psychology help to explain 'why' meaning is organized as it is. Explaining what understandings people hold is akin to the shortest distance between two points, but considering why meaning was construed as such is the scenic route. I argue that 'taking the scenic route' to consider the perspective-taking processes that produce such a spectrum of views on climate change may hold potential for a more comprehensive response to such a complex issue, not only to grasp why these meanings differ so vastly, but also to support improved collaboration and to help engage in adaptation as transformation.

Keywords: Adaptation, adult development, climate change, human dimensions, meaning-making, transformation.

Introduction

Climate change is a dominant global issue today, and policy-makers place an acute focus on how society can effectively adapt to new climatic conditions. Approaches for adaptation remain largely techno-managerial, reactive and instrumental, such as, building sea walls, promoting new forms of agricultural production, or genetically selecting new climate impact-resistant varieties. While important, such approaches can miss the structural and psycho-social dimensions of

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climate change, and have been found to be incommensurate with the full complexity of the issue (Ensor et al., 2019; O'Brien, 2016; Ziervogel et al., 2016). In recognition that effective adaptation may involve a more comprehensive change agenda, and as a way to more fully and adequately understand and respond to this complex issue, my research seeks to uncover the lesser emphasized psycho-social, or "interior," aspects in our response to climate change – such as meaning-making, cognition, culture, and consciousness. Research into this interiority exists and is increasing, and yet it remains unevenly weighted alongside other scientific studies on climate change (Doherty and Clayton, 2011; Gifford, 2011; Overland and Sovacool, 2020). Balancing these contributions, better integrating the existing studies on the interior dimensions of climate change adaptation, and further empirical research on how interiority matters, is an important area of study (Brink and Wamsler, 2019). This is because, in so doing, it may provide a more comprehensive and commensurate approach, and thus a more effective and sustainable response.

I have been studying and doing research into the interior dimensions of climate change for three years. This research is grounded in studies with coffee production stakeholders across a global value chain, extending from growers in the isolated highlands of Guatemala, to exporters and buyers in Guatemala City, to executives in retail headquarters in the United States. In this paper I will give an overview of these studies, preliminary conclusions, and future plans.

The expressions of "interiority" that I focus on in my research include: 1) the stages of meaning-making people hold about climate change as studied in developmental psychology, 2) the interpersonal processes that we might need to collaborate more effectively across this range of meanings within layered, complex contexts, and 3) the ways in which the definition and engagement of adaptation can be broadened and deepened so as to be transformative. Here, dissimilar to incremental change, transformative change includes significant changes in form, structure, and/or meaning making (Leichenko and O'Brien, 2019; O'Brien, 2018). This present article addresses the first of those, with possible implications for the second and third.

To date, the plasticity of climate change meanings has been noted and various studies have looked into what people actually understand by the term. Many of these studies focus on beliefs and climate literacy, some have investigated indigenous views, others have carried out values-based segmentation studies (Brace and Geoghegan, 2011; Graham et al., 2014; Roser-Renouf et al., 2009). Fewer studies have looked into why and how people come to understand climate change the way they do. Within that, some have used qualitative, critical methods to understand climate knowledges as a product of people's experiences with place (Clifford and Travis, 2018), while others have examined worldviews in relation to climate change as ideal-types[2] (de Witt, 2015). Other studies have sought to find relationships between cultural identity and political outlook, such as in Kahan's (2011) cultural cognition theory. This work has looked into the "identity-protective" cognition and how groups on either extremes of the hierarchical-individualist or egalitarian-communitarian may reject or dismiss information that challenges their deeply held beliefs (Maibach et al., 2011; Roser-Renouf et al., 2009; van der Linden, 2016). Critiques of that work find that it gets caught in a tautological loop (where political ideology is defined as culture and culture as political ideology) and conflates worldviews, culture and values in an unhelpful way. Van der Linden (2016) distinguishes between worldviews as unique compared to values and culture in that they are situation-invariant “orienting mechanisms” (i.e. as lens of perception) (p. 4). I suggest that these orienting mechanisms are important to examine on their own terms, untangled from their relation to values and culture, to help disclose why meaning is organized as it is and how such lenses of perception change over time. It is in this respect that developmental psychology might be very useful.

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[2] A term used in sociology to refer to the 'pure' attributes that are common to most cases of a given phenomenon, as put forth by Max Weber (Aronovitch, 2012).

Rather than going directly to *what* people understand about climate change, this article ‘takes the scenic route’ of *why* meaning was made as it was. Developmental psychology turns attention to the cognitive processing through which a person is construing meaning, ‘slowing down the journey’ of this inquiry to ‘meander through’ the many perspectives that have had to be coordinated to come up with someone’s present understanding of climate change. Aside from some theoretical papers or empirical studies in an associated area (such as sustainability or leadership), there are no studies I am aware of that have delved empirically into what a developmental perspective could offer the climate change field. Adult developmental theories map empirically validated phases of maturation in the complexity, depth, and nuance with which an individual makes meaning of the world, including the types of perspectives that they can take on self, others, and reality. Applied to climate change, developmental capacity is a significant factor for (1) leaders and decision-makers at local, state/province, national and even international levels; leaders of religious and community groups; leaders in business; activists; educators; and engineers – i.e. those crafting or implementing responses to the climate change threat; and (2) citizens and consumers – i.e. those whom leaders and decision-makers are trying to satisfy and influence. Overly simplistic, black-and-white, ideological, ethnocentric/nationalistic, or short-sighted views of climate change in either of these stakeholder groups will severely limit society's ability to address it. Understanding these limiting perspectives more deeply is a first step in moving beyond them; a task for which developmental psychology may bode useful. I suggest that ‘taking the scenic route’ to consider these perspective-taking processes that produce such a spectrum of views on climate change may hold potential for a more comprehensive response to such a complex issue, and may also help to engage with adaptation as (a form or process of) transformation.

Adaptation, as defined by the IPCC (2014, p. 5), is “the process of adjustment to actual or expected climate and its effects.” Ensor et al. (2019, p. 228) refer to “mainstream adaptation approaches” as those that proceed from certain assumptions that in turn constrain practices for dealing with, and surviving in, a changing climate, often precipitating an over-emphasis on reactive, incremental and techno-managerial adaptation (Ziervogel et al., 2016), i.e. “to reduce climate-related risks to things we value” (Dow et al., 2013, p. 305), but often inadequately engaging changes in social arrangements (O’Brien, 2018). *Transformation*, on the other hand, is defined as, “a change in the fundamental attributes of natural and human systems” (IPCC, 2014, p. 5). In my estimation, this refers to broad, profound systems-wide changes to shift our societal trajectory towards thriving with and through climate change to greater degrees of equity and sustainability, possibly even including a post-carbon emissions future and drawing down existing carbon dioxide from the atmosphere to reverse the global warming phenomenon. As such, adaptation and transformation are very different concepts, which can have markedly different objectives. Yet, in the Intergovernmental Panel on Climate Change literature, transformation is considered alongside adaptation (IPCC, 2014, p. 27). Added to this, definitions of the term 'transformation' are varied, some ambiguous, often left undefined or used as metaphor (Feola, 2015), and this lack of specificity and clarity may also bode difficult when it comes to application in relation to adaptation.

In this gap, scholars call for different epistemological starting points that comprehend the entangled nature of the climate change issue (Ensor et al., 2019) and holistic approaches are being sought that conceptually bridge or connect adaptation and transformation in a context of climate change (O'Brien, 2012; Pelling, 2011; Pelling et al., 2015).[3] Examples include "integral adaptation" by O'Brien and Hochachka (2010) and O'Brien's (2018), "Three Spheres of Transformation" heuristic, that describes the Practical, Political and Personal spheres as necessary for a comprehensive shift towards sustainability. The current, conventional definition of transformation tends to miss interiority and reduce it to the Practical sphere, which is easier to measure and quantify (O'Brien, 2018); but then the transformation being sought in turn is constrained to it being a technical problem, rather than an "adaptive challenge" or a transformative social change problem (Heifetz et al., 2009; O'Brien and Selboe, 2015). Further empirical research into specifically how transformative change occurs in the personal sphere, how personal change relates with changes in human systems, and how to better integrate all of these spheres towards an overall sustainability transformation, would be a helpful contribution to this overall inquiry.

In this article, I explain the ways in which I am studying developmental psychology, particularly using the STAGES framework, to better understand human interiority in climate change and to contribute insights into the design of an integral approach to climate adaptation carried out as a transformation to sustainability. What might a deeper understanding of why people construe meaning about climate change as they do tell us about an expanded and deepened practice of adaptation, within a more comprehensive transformative change agenda? In this review article, I focus on the potential I see in including developmental psychology in climate change research, explain my rationale using the STAGES model, my approach and methods on the topic to date, and I also share some preliminary findings along this scenic route of the many perspectives on climate change.

Literature Review

Climate change is almost unparalleled in its complexity: it is both a biophysically immense phenomenon yet it has profound and direct personal implications; it involves every dimension of human society including powering the very computer you are reading this article on; and it is co-arising alongside and as a result of the societal development that both made this problem as well as our ability to study and solve it. To adequately curb carbon emissions that drive climate change requires us to turn inward and ask ourselves deep and profound questions about our very selves, the nature of change and the choices we are making. Yet, the focus to date has almost necessarily been scientific-materialist: including inquiring into the interlocking global environmental changes that are involved in this global warming, the extensive and varied feedback loops, the contributing factors, and the ecosystem impacts – all of which are paramount questions to explore – and yet these, along with the political and economic analysis of the climate change phenomena (Giddens, 2011; Stern, 2007), can tend to ignore the key *interior,* i.e. psychological, developmental, and hermeneutic, factors. Such human dimensions are critically important; such as, mental models, risk-perceptions, strong emotions, denial, compassion fade, contested values, political will, and the glaring fact that it has been human actions underpinned by our values for a particular developmental trajectory that has created the problem in the first place. Understanding the science and removing structural and behavioral barriers for action are essential, but that could be insufficient without also addressing the psychological dimension of this issue (Gifford, 2011).

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[3] The research project, *AdaptationCONNECTS*, which stands for *Combining Old and New kNoweldge to Enable Conscious Transformation to Sustainability*, of which my PhD research is a part, endeavors to examine precisely that question.

As much as it is an issue of natural science, climate change is now also characterized as a psychological and social issue (Doherty and Clayton, 2011), and with that has come scholarship exploring the varied, subjective layers at play within it. Research in this area ranges from studies on psychological barriers, or "dragons of inaction" (Gifford, 2011), values, risk perception and communication strategies (Graham et al., 2014; Hine et al., 2014; Leiserowitz, 2006; Maibach et al., 2011), lay-knowledges about climate change (Brace and Geoghegan, 2011; Hulme, 2009; Moloney et al., 2014; Pyhälä et al., 2016), indigenous framings (Rosengren, 2016; Scoville-Simonds, 2018; Vinyeta and Lynn, 2013), psychological distance (Brügger et al., 2015; Spence et al., 2012; Spence and Pidgeon, 2010), emotions (Moser, 2007) and worldviews (De Witt et al., 2016; Hedlund-de Witt, 2013), to name a few of the categories covered. However, scholars also note that this body of work is less visible in climate change discourse (Doherty and Clayton, 2011; Moser, 2007; O'Brien, 2018). While some of this research is present, it is not equally weighted in mainstream academic discourse alongside other scientific studies on climate change.[4] Further studies are needed to move beyond the current biophysical emphasis, and to better understand the role that interiority plays in global environmental change (Esbjorn-Hargens, 2010; O'Brien and Hochachka, 2010; Wamsler, 2018).

In this article, I argue that the *developmental* aspects of interiority are one of the most fundamental, yet are underrepresented even within the climate change literature focusing on interiors. Climate change is considered both a "wicked problem" (Wilber and Watkins, 2015) and a "hyperobject" (Morton, 2013) due to its expansiveness in space and time, its multidimensionality, and its elusive nature when people try to directly experience or completely understand it; as a result of this, people end up making meaning of climate change in a range of ways (Hochachka, 2019). This has been referred to as the "plasticity" of climate meanings, which in turn produce persistent problems for climate change engagement that have evaded resolution (Hulme, 2009). For example, an implicitly common, albeit much-maligned frame, held by scientists and policy makers is to consider citizens' knowledge to be wrong, rather than different, sometimes referred to as a "knowledge deficit" (Moloney et al., 2014). This corresponds with a dominant (somewhat contested) approach to raising climate awareness called the "information deficit model" (Moser and Dilling, 2011; Suldovsky, 2017) in which more of the same climate information is provided to society who, for the most part, is assumed to be climate illiterate. Other researchers point to how this 'incorrect' understanding about climate change can lead to essentially irrelevant solutions (Wolf and Moser, 2011). These may be true statements, from a certain perspective, but they risk dismissing important epistemologies, understandings and meanings about climate change which may bode locally- and culturally-relevant regardless of being mis-aligned scientifically. As such, this knowledge deficit model doesn't disclose the whole picture of how meaning is being made about climate change, and privileges that of climate science. A developmental understanding is helpful to make sense of this plasticity of meanings, to let go of the notion that lay knowledges are wrong and instead to see that these are construed by different perspective-taking capacities about a complex, multiple object, and as such ask a different set of questions about how effective engagement might be realized (Hochachka, 2019).

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[4] Which in turn is drawn upon by intergovernmental bodies like the IPCC.

Along with this recognized need for further research on interiority, and within that on developmental psychology, in climate change research, the term "transformation" is increasingly being used in climate change discourse. Although adaptation strategies tend to emphasize accommodating climate change, some scholars point out that successful adaptation will in fact require deliberate, social transformation that critically questions and moves society beyond the structural underpinnings that give rise to the climate change phenomena (O'Brien, 2018, 2016). That the concept of transformation is now part of the IPCC documentation and that it is being called for more frequently in other intergovernmental literature on global environmental issues (IPBES, 2019) is an important step forward for the field. Yet the term, "transformation," is being used diversely, in some cases vaguely and metaphorically (Feola, 2015) and as such it runs the risk of not being engaged or assessed effectively (Salomaa and Juhola, forthcoming).

The disciplines that are brought to bear in the study of transformation in sustainability cover a broad range, including sustainability science, social science, and social-ecological systems theory. O'Brien (2018) presents a three-spheres heuristic for engaging transformational change in regards to Personal and Practical aspects (i.e. reflecting on values, their alignment with action), and their interface with the Political systems in which change is sought, which is included in the IPCC (2014). But aside of what can be found in that framework, there are few holistic models that detail ways to engage transformation from a personal or psychological perspective within a larger change agenda. Meadows (1999) considered that changing "the mindset or paradigm out of which a system arises" to be among the most powerful leverage points for systems change, yet did not provide an empirical methodology to engage that. Abson et al (2017) emphasized a shift in mindsets (referred to as a "re-think") as a key part of leveraging sustainability transformation, but without providing pragmatical detail on how such mindsets might shift nor why they seem so difficult to shift. Others have sought to understand the role of worldviews in climate change in relation to sustainability and sustainable lifestyles (Hedlund-de Witt, 2013, 2011), in regards to psycho-cultural transformation in a depth psychology frame (Berzonsky and Moser, 2017), and still others focus on the mindfulness-sustainability nexus (Wamsler and Brink, 2018). Innovation is increasing on "technologies of the self," to mobilize agency in large-scale systems transformation projects (Manuel-Navarrete, personal communication, Transformations2019 conference). Yet to date, *how transformative change occurs in consciousness itself* is harder to find in the climate change literature. In other words, there is an increasingly sense that transformation is needed personally and socially – for example, in regards to our paradigms and values – but how such change actually happens is less well represented in the research.

Paradigms don't shift easily, and getting people to 're-think' can be far more complicated and contested than it may seem; these psychological change dynamics are intricate and understanding them might be well-served by a body of work that specifically has sought to grasp how they work. How do the deeper leverage points of mindsets or paradigms[5] described by Meadows (1999) actually shift? Is there a transformative process involved in Abson et al's (2017) "re-think", and if so, what is it? Interesting angles to such questions could be disclosed through a greater representation of developmental psychology in climate change research, with nuances brought to bear on these existing studies to further highlight and catalyze the potential for personal transformation in a larger shift to sustainability. It is one thing to speak generally or metaphorically about psychological or social transformation or 'paradigm-shifting,' but adult developmental theories provide a sequence of specific stages or levels, grounded in empirical science, that can help us understand key differences across a range of worldview stages. Without a sense of these developmental stages, climate change scholarship is missing that particular lens on how people perceive, relate to and act on climate change as they mature, grow and change through life.

Developmental psychology concerns itself with precisely that, as it attempts to get to the deeper layer of where change is happening, investigating the 'deep structures' or causal mechanisms behind how a person makes-meaning of phenomena through the life-span. Not only is the study of interiors underrepresented, as I said above, but there is even less presence of a *developmental* psychology perspective in the mainstream-progressive literature on climate change engagement (Hochachka, 2019). To date, studies that have attempted to use developmental psychology in climate change or sustainability in general have presented theoretical ideas, but the empirical studies to date are few and preliminary (De Witt et al., 2016; Divecha and Brown, 2013; Lynam, 2012), and are relatively obscure in climate change knowledge networks. Yet further empirical work on how transformations occur in the personal sphere, as understood in developmental psychology, and how that in turn meshes with transformation in the practical and political spheres, would be helpful for many reasons, not least of which is in how to engage climate adaptation as a comprehensive social transformation (Leichenko and O'Brien, 2019).

To fill this gap, I draw upon the developmental psychology scholarship in one part of my climate change research, specifically using the STAGES model. Below, I briefly describe the STAGES model and my rationale for using it prior to explaining my specific application of it in my climate change study.

The STAGES Model

Developmental psychology considers transformation to have occurred if there has been a shift in the order of complexity from one stage to another, a bit like expanding to an larger doll in a nested set of Russian dolls (Hochachka, 2019). Depending on what facet of consciousness is studied – be it meaning-making (Cook-Greuter, 2013), ego-development (Loevinger, 1966), value systems (Graves, 1970), morality (Kohlberg, 1981), or cognitive complexity (Kegan, 1998)

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[5] I use the terms mindset, a worldview, paradigm, and meaning-making consciousness relatively synonymously in this paper.

– transformation occurs when the previous stage has been transcended and included into a higher-order of complexity (i.e. a later stage) (Wilber, 2000).

For studying shifts in such complexity, of the developmental assessments available to me, I sought to work with O'Fallon's STAGES model. The STAGES model is an extension of the work of Cook-Greuter (2000) on post-autonomous levels of development, which in turn is an extension of Loevinger's (1966) model of "ego development" (also called "leadership maturity"), all of which have high statistical rigor (Murray, 2017). STAGES defines 12 developmental stages across three tiers of increasing maturation and complexity, starting from the very concrete through to the more and more abstract. O'Fallon describes these tiers as the Concrete, Subtle, and Meta-aware (i.e. called 'Metaware' in the model), each of which consists of 4 stages.[6] The progression is also defined through the increasing perspective-taking capacities that become available to individuals. Therefore, these stages progress through 6 "person perspectives," each of which has an early (passively-oriented) and late (actively-oriented) phase. Thus, the stages are identified as 1.0, 1.5, 2.0, 2.5...6.5, where the "1." to "6." reflect the six person perspectives, and the ".0" and ".5" reflect the early and late phases of each. The stages in each tier have been found in O'Fallon's empirical research to progress through a sequence of orientations: Receptive (i.e. passive), Active (i.e. agentic), Reciprocal (i.e. relational), and Interpenetrative (i.e. interconnected), which make up one of the logics applied during assessment and scoring. For a detailed description of the STAGES model, see other articles in this journal special issue, and see the Tables 1 and 2 in the Appendix and explained later.

I chose STAGES for various reasons. Other available developmental assessments include Kegan's Subject-Object interview, Dawson's Lectica assessment, and Cook-Greuter's Leadership Development Profile (LDP). Most of these, like the STAGES model, require specialized training to score subject performances, and are thus both more rigorous and more costly than fixed-choice and self-rating psychological assessments. Kegan's interview takes an hour or more with the research subject; Dawson's Lectica involves a series of written performances addressing a problem ("dilemma") which is then later analyzed by her team. Cook-Greuter's and Torbert's assessments use variations on the Sentence Completion Test (SCT) instrument also used by STAGES. Although each operate slightly differently, it has been suggested that the common dimension most of these systems seek to assess is some aspect of hierarchical complexity, understood as a nested holarchy, using the metaphor of Russian dolls, or matryoshkas (Hochachka, 2019, p. 4).

The Lectica assessments, based on neo-Piagetian theories of Fischer (1980) and Commons (2007) is, like the SCT, a written assessment scored by trained experts. A significant difference in comparison to the SCT is that Lectica uses a dilemma-solving task, whereas the SCT is a "projective" task in which, like a Rorschach ink blot task or a word-association task, the subject is responding freely and (ideally) not trying to produce a best or "correct" answer, and as such allows the text analysis to take a more in-depth look into the psyche of the subject. Also, Lectica tests are thought to focus on variations of "reflective judgment," an aspect of meaning-making that is more strictly cognitively oriented than the SCT, which measures "ego development," involving social/emotional skill sets and personality maturity. Kegan's method of the subject-object interview is assessing a territory very similar to that of the SCT (i.e. the constructs of "ego development," "perspective taking skills," and "meaning-making maturity" are largely overlapping). However, Kegan's interview-based method is much more labor-intensive to both administer and score, giving the SCT some advantages in the ways I sought to apply it.

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[6] 1.0 through 2.5 are in the Concrete tier, 3.0 through 4.5 in the Subtle tier, and 5.0 through 6.5 in the Metaware tier.

Among the SCT alternatives, STAGES has several benefits over the other SCTs (i.e. LDP and, later, the Maturity Assessment Profile (MAP)) for my project. The main advantage is the assessment logic that STAGES operates by. Whereas the LDP/MAP SCT scoring is largely content and exemplar-based, relying heavily on the specific concepts and language used, STAGES is more structure-based, relying on underlying properties of the language productions. In relying on particular content from scoring manuals created over time, as does the LDP/MAP, there could be a risk of bias due to over-dependence on such content (Dawson, 2003). With STAGES, O'Fallon does draw on the robust scoring methods from Cook-Greuter, Loevinger and Torbert (the LDP), but has significantly revised the logic by which it is applied. The logic that guides a STAGES assessment is less about the content (i.e. the text that shows up at specific stages) and more about the structure of the text and its underlying developmental parameters. The STAGES model and scoring are based on these primary parameters:

1. Object of awareness (i.e. concrete, subtle or meta-aware);
2. Receptive, active, reciprocal, interpenetrative orientation (e.g. "I may be…"; "I plan to...", "together we might…"); and
3. Individual or collective orientation (e.g. construing meaning through the lens of "I" versus "we").

As my research sample includes participants across a global value chain, extending from coffee producers in isolated highlands of Guatemala through to exporters and buyers in Guatemala City to executives in retail headquarters in the United States, perhaps more so than other field-researchers, I needed an assessment model that scored deeper than content, given the different cultures in my sample. STAGES in its three-criteria assessment is structured to be able to get at the hierarchical complexity of meaning-making that is operating more deeply than the content used therein.

O'Fallons' STAGES integrates the insights of Ken Wilber's (2000) Integral Theory, specifically the quadrants, states and shadow elements.[7] While other models may include some consideration of these, O'Fallon has explicitly included these in a way that supports understanding of, and may clarify aspects in, the process of ego-development. Specifically, her model sheds insight into certain intriguing phenomena in the construction of meaning that are important in climate change research for understanding the entangled dimensions of change processes. For instance, why do people who are able to understand external complex systems not necessarily turn that complex view inward to their own self-understanding? Or, why do individuals at later stages tend to speak with greater wisdom, not derived from perspectival maturity per se, but rather from contemplative insight? Or, how is it that mature, complex-thinkers still have instances where earlier, often emotional impulses seem to hijack their entire self-system? Finding a model such as STAGES that accounts for, and can answer such questions, is relevant for my study of how we might more fully understand complexity, collaborate across diverse epistemologies and cultures, deal with strong emotions, and effectively act on climate change.

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[7] The AdaptationCONNECTS project, of which my dissertation is a part, includes Integral Theory in its overall design, as one of the analytical frameworks brought to bear on how we construe the research questions, on the methods used, and in the analysis of the study. This congruence was helpful in my selection of STAGES methodology.

Additionally, because I am specifically interested to study the later stages of meaning-making and what potentials they might hold for an issue like climate change, I sought a developmental model that extended sufficiently to be able to assess such later stages. The research “lineage” stemming from Loevinger (1960-70s) to Cook-Greuter (80s-90s) to O’Fallon (90s-00s) essentially went further with each researcher into how to assess meaning-making in the later, transpersonal stages. Cook-Greuter extended Loevinger's system by differentiating two stages (which she called Construct Aware and Unitive) within Loevinger's final stage. O'Fallon's research has taken this progression further, differentiating four stages within the same late-stage territory. This additional precision at the later stages is relevant to the climate change field because this issue is characterized as being wicked, hypercomplex, and hard to understand; and it also triggers emotional and identity-centric themes that are difficult for most people to manage. It is possible that climate change is ‘unknowable’ in an abstract and systematic manner by earlier concrete meaning-making frames, but knowable in concrete terms and impacts. Later stages, however, might offer important insight into how meaning is made of climate change when more of its complexity is able to be perceived and also how to translate that complexity into the meaning-making mode of prior stages.

Finally, the STAGES model has additional key features not found in the other SCT models. Because it does not rely on exemplars but on underlying language properties, it is easier to create modifications that are psychometrically valid. That is, STAGES ‘specialty protocols’ can be developed using alternative stems and different lengths, that are relatively easy to test for internal validity – such as the climate change specialty protocol O’Fallon and I developed and validated psychometrically, described below. Since one of the objectives of my research is to make a case for interiors in climate change, I needed to find a developmental methodology that could be modified for use in empirical research on climate change without compromising its rigor, which is what I found in the use of STAGES. In addition, because STAGES focuses on underlying structure rather than specific exemplars, it allows for the developmental analysis of arbitrary text such as reflective essays and story narratives, which are more naturally occurring vs. the more artificial sentence completion test.

Methods

Modified STAGES Assessment for Photo Voice Data

My research began to fill this gap by piloting a developmental analytical framework in climate change adaptation (Hochachka, 2019). In this, I drew on previous data from El Salvador and used a modified STAGES analysis on ‘photo-texts,’ to examine the question: Why do people make meaning of climate change differently, and how can a maturation of perspective-taking capacities help us to understand this plasticity of meanings?

I used a "modified STAGES assessment" in a pilot case study of how the development of meaning-making might affect views of climate change. I re-analyzed previous data from El Salvador, in which participants explored their own perspectives on climate change and adaptation by taking photos in response to the questions: *What is climate change to me?*, *What are the impacts of climate change for me and my community?*, and, *How am I adapting?* Using photos and their written photo-interpretations, I examined how different perspective-taking capacities arrived at different meanings about climate change, based on the object of awareness, complexity of thought, and scope of time.

The data consisted of 27 photos and their interpretations that were transcribed and translated by native Spanish speakers. The method of Photo Voice was selected for its ability to invite research participants into their own perspectives on the issue in order to better include the Personal sphere of transformation and then to problematize and discuss these perspectives together (the UL and LL quadrants of an integral approach to adaptation). Photo voice is a critical methodology that interrogates the epistemological power imbalances that can arise in a context of environmental change, with some uses of this methodology in the area of climate change (Harper, 2002; Hergenrather et al., 2009; Hissa, 2016). It has been found to support people in 'making visible' and meaningful the various socio-political realities they are embedded in, with theoretical grounding in education for critical consciousness (Migliorini and Rania, 2017; Sutton-Brown, 2014). Participants (23 rural Salvadorans; 13 men and 10 women) were from low-income families and were primarily farmers or were involved in household-level economic activities. While participants had limited education, several had been involved in informal education opportunities, such as awareness-raising and capacity-building workshops, via NGOs and the Catholic Church, and overall this region is renowned for political resistance and social change engagement, both during and after the Salvadoran civil war (1980-1992). As such, community members may have participated in previous critical consciousness-raising work (or conscientization (Freire, 1974)) on other themes.

Much of the project engaged a collective-analysis process I was involved in professionally prior to my doctoral studies, in which Salvadoran community researchers conducted photo voice in Chalatenango, El Salvador, then certain representatives traveled to the capital, to a bioregional meeting, and also to Canada, sharing and discussing the research results and the photo-texts. Some years later, within the frame of my dissertation, I revisited the data and brought a different analytical lens (Table 1) based on the STAGES model of adult development (O'Fallon, 2013) to understand the data in a new way.

Within that frame, I analyzed the photos and their interpretations (n=27, as 4 of the 23 participants had two photos) for perspective-taking capacity applying the modified STAGES assessment, which was then verified, and corrected if needed, by developmental psychology researcher, Dr. Terri O'Fallon. The STAGES assessment is usually carried out as a Sentence Completion Test (SCT) involving 36 sentence stems. I sought a modified version of this assessment more suited for community-based climate work. Using a subset of the scoring logic from the SCT scoring manual, data was assessed for perspective-taking capacity by coding the photo-interpretations according to the three following themes, and considering an array of variables within each. These are based on and relate closely with O'Fallon's scoring logic above, but I modified them in a manner that I thought would be pragmatically useful to climate researchers in the field. They included:

1. Object of awareness (concrete, subtle or meta-aware),
2. Complexity of thought (atomistic, mechanistic, context-dependent, or systems thinking); and
3. Scope of time (no-time; present and past; past, present and future; evolutionary).

This generated scores for perspective-taking capacities range from 2.5, 3.0, 3.5, and 4.0 – corresponding with the *conformist*, *expert*, *achiever*, and *pluralist* stages of meaning-making. This modified STAGES assessment was piloted in the Salvadoran sample and helped contribute insight into the stages of meaning-making represented in the photo-transcripts. It was not as comprehensive as the full 36-stem test would have been, but instead was used illustratively to better understand why there is such plasticity of meanings and to orient the design of further research.

Results and Discussion

The results from the "pilot project" using the modified STAGES assessment of the photo-transcripts has been published (Hochachka, 2019) and the findings were interesting enough to warrant a further collaboration with O'Fallon. Together, we designed a climate change Specialty Protocol (explained further below) which, because it employs the 36-stem metric and statistical consistency trials, will offer a more rigorous, nuanced view into the stages of meaning-making about climate change. Some of what was found in the Salvadoran pilot project will be checked and "double-fitted" by the more detailed data from the Specialty Protocol, so to refine and iterate the analytical framework, if the need be. Here, I summarize the shape these findings are taking to date, based largely on what I have already published, discuss their application, and then propose the further research implications for the Specialty Protocol data.

Complexity of Meaning-Making

In psychology, it has been noted that the cognitive line of development – i.e. awareness – tends to lead overall self-development (Wilber, 2000). This is to say that development, in large part, has to do with how complex an object one is able to be aware of; as development increases, one's ability to observe ever more complex objects tends to increase. Climate change is among the more complex of objects that humans have tried to understand and address (see Morton, 2013 on "hyperobjects"). Theoretically, through the complexification of psychological development, *more* of climate change complexity will be rendered visible to one's meaning-making.

Findings in my empirical research correspond with this, and help us understand how meaning is constructed based on iteratively more complex stages (Tables 1 and 2). These included concrete conceptions of weather, direct impacts on crops and on the senses (i.e. colder, humid, hotter, etc.) with the Conformist stage of ego-development. Subtle conceptions included a multiplicity of associated factors based on cause-and-effect, mechanistic thinking with the Expert and Achiever stages. Further subtle and situated-knowing, considering place, context, positionality, and history, derived from an interdependent and self-reflective knowing, were demonstrated with a Pluralistic stage of meaning-making. These findings suggest that *increasing degrees of complexity of the object of climate change can be known more fully by the increasing complexity of the subject's meaning-making.*

This could provide novel explanations to some persistent confusions in the climate change field. For example, the common conflation "weather" with "climate" change is a paramount concern for scientists and the informed public, largely because weather is understood as natural and uncontrollable whereas climate change is understood to be human-caused and is partially controllable. The concern lies in how framing climate change as weather change may in turn undermine agency and action towards mitigation and adaptation. My research suggests an explanation for this may lie in the complexification of meaning-making. That is, this may not be a preference to use the term weather over climate, but rather reflect the perspective-taking capacity of the subject. The concept and process of 'climate change' is conceptually more complex and abstract that that of 'weather,' which can be understood in a very concrete sense. As such, although the notion of climate change will be present in the background for people through what is heard in the media and social milieu (i.e. it will "subsist"), it may not "exist" until a certain meaning-making stage in which abstract, subtle, cause-and-effect logics are used to organize meaning (Hochachka, 2019, p. 5). This helps to explain why, for example, people using conformist meaning-making (or earlier) may tend to be skeptical of 'global warming' when it's cold out in the present moment: they are likely organizing meaning about climate change through the tangible, concrete, here-and-now vagaries of weather, rather than construing this phenomenon of climate as a subtle, abstract object, arising across vast timelines. Rather than be frustrated by that, a more generative reaction may arise through comprehending the meaning-making structure behind it. Further, while often people carry a lay sense of climate, such as, "Florida has a humid climate" vs. "Arizona has a dry climate," one would have to ask further questions to understand what that actually means to them: what complexity of thinking they are applying, what object of awareness they are tracking, and what range of time and space does their meaning include.

Greater Probability for Alignment in Communications

There are various implications of the plasticity of meanings about climate change. From other developmental psychology research, it is known that communications that assume and rely on a certain meaning-making frame can miss their mark; that is, such messages may not be comprehensible within other meaning-making lenses of the audience (Kegan, 1998). For example, "adapting to climate change" is a phrase that has become increasingly used by scientists working in the climate change arena, which in their use refers to "how human beings can best anticipate and respond to inevitable and predicted shifts in climatic conditions and their associated biophysical impacts;" (Moloney et al., 2014, p. 7). Yet it remains unclear whether that is an understanding held by lay people – do they connect the discrete things they are doing in a changing context into the abstract concept of "adapting?" and, if not, are scientifically-framed communications using such a term misaligned with their intended audiences?

My preliminary results reveal that *greater alignment is possible when stages of meaning-making are recognized not as preferences, but actual sense-making mechanisms through which people interface with reality.* In addition to understanding what is seen through a person's meaning-making lens, the developmental perspective helps explain how meaning is organized by that lens, and as such would help climate change communicators to more adeptly and authentically connect with local actors. Building on my example between weather versus climate change above, this finding may explain why, for example, Bostrom and Lashof found that framing climate change with more concrete metaphors, such as a, "'thickening blanket of carbon dioxide' that 'traps heat' in the atmosphere," helped to connect with certain actors (Bostrom and Lashof, 2007, p. 31).

One strength of developmental psychology, and particularly the STAGES model, is that it orients analysis to some foundational concepts (such as, the object of awareness being concrete, subtle or meta-aware; and whether one's orientation to an idea is passive or active) that are key distinctions in understanding how a person is organizing meaning, and what they do with that understanding. As such, it could also provide a developmentally-informed design logic to help in further aligning communications with each stage of meaning-making and ameliorating communication misses.

Sovereignty over Translating Meanings into Actions

Despite being intangible and difficult to conceptualize, people encounter climate change either through media or conversations, or through its impact on their lives, thus they must make sense of climate change however they can. For many, climate change is understood as an entangled amalgam of multidimensional changes in the environment, culture and practices (Ensor et al., 2019) and proxies (such as snow-pack level or rainfall patterns) are used to track its impact on local lives (Clifford and Travis, 2018). Valuable lay knowledge-resources and energy can get lost when the meaning-making that people natively hold is dismissed as irrelevant or wrong (Boillat and Berkes, 2013; Wolf and Moser, 2011). Instead, scientific or 'proper' definitions of climate change can end up being patched haphazardly onto people's existing meaning-making apparatus. When that occurs, the concept of climate change can end up "cognitively isolated" with the rest of one's knowledge on the topic, and thus hamper the commitment to follow through with adaptation strategies (Findlater et al., 2018, p. 178).

The two articles of my dissertation collection that focus on developmental psychology to inquire into how meaning is organized and why *help to disclose the mechanisms behind such meanings, and in so doing, subsequent climate adaptation can be situated from within these meaning-making frames.* I introduced the ideas of "sovereignty" and "translation" in my 2019 article to present the idea that, rather than being dismissed as climate illiterate, edited by a 'proper' definition, or patched on to one's overall mental model, these native ways of making-meaning about climate change have value in their own right. Retaining *sovereignty* over one's own meaning-making essentially helps to disrupt the uneven power dynamics that shape what is considered valid knowledge. If people are not dismissed as "climate illiterate," and if lay understandings are given a chance, people may *translate* their own meanings into action and, in so doing, demonstrate greater ownership and energy to see them through. It may also be worth studying further the possibility of 'knock-on effects' in which more respectful framings about lay knowledges introduces a change in the overall cultural system, fostering greater openness, curiosity, and learning between different perspectives.

Research Implications

In this section, I explore why this method may be important to other academics, policy-makers, and practitioners working in climate change, and share some of the further research plans I have at the crossroads of a developmental psychology and climate change.

STAGES Specialty Protocol

The pilot project was compelling enough to warrant further investigation using the STAGES model. In this further research, I am looking more deeply and closely at the ego-development stages and their views on climate change. This research examines two questions, one focused on earlier stages and the other on later stages.

The first question seeks greater detail on both the strengths and limitations of meaning-making in the earlier stages. This helps to move away from the notion of earlier stages as being problematic or primitive, and offers an alternative to the (pluralist) sentiment that 'everyone needs to be worldcentric' to achieve sustainability. Instead, when seen through the findings of developmental psychology, to disparage people at earlier stages for their view, or behooving people at earlier stages to grow up faster, is neither accurate, fair, nor useful – particularly in meeting the challenge of climate change. Here, I ask: what are the real strengths and limitations of earlier meaning-making stages about climate change, and how can we emphasize the former in climate change engagement?

The second question brought to bear on this data will examine whether there might be unique meaning-making capacities that occur at the later stages that are important when seeking to understand a hyperobject like climate change. Theoretically, possible positive contributions of later stages might be their ability to perceive more of the complexity of the issue of climate change (Esbjorn-Hargens, 2010; Hochachka, 2019; O'Brien and Hochachka, 2010). Empirical studies in leadership development have found that later stages are more able to access trans-rational ways of knowing and tend to engage systems-, complexity- and integral theories to complex problems (Brown, 2011). Further empirical studies of such later-stage meaning-making capacities of climate change, and what implications that in turn may have, are yet needed and could yield important insights for the field.

To get this more detailed grasp on why there is such diversity of ways meaning is made about climate change, I collaborated with Dr. Terri O'Fallon to design a 'specialty protocol' using a modified version of the 36 sentence stems of the Sentence Completion Test (SCT). O'Fallon has constructed other Specialty Protocols by altering 6 of the 36 stems to address a particular domain. Tests of psychometric reliability (the Cronbachs alpha measure) confirmed the internal consistency of both the new stems as a group, and the entire modified protocol – for all of the approximately five specialty protocols designed to date (see the STAGES research papers in this special issue). Replicating that process, we replaced six of the 36 sentence stems in the original SCT with stems relevant to climate change. To do so, I considered what each new stem sought to evoke as a projective test – that is, what aspect of the self-system would the new stem relate with. For example, accounting for the findings of prior psychological scholarship on climate change, I sought to create stems that would relate with the scope of view that the person is able to take on phenomena in general, his or her perception of where agency is located (self or other), psychological distance from the issue, emotions and perceived barriers for action, and empathetic range (i.e. me, us, all of us) as related to global warming. (These are written in brackets with the sentence stems below but not included on the test itself). These were then edited where needed by O'Fallon, and included in the Speciality Protocol.

1. The environment [scope of view]…
2. Climate change is [meaning-making]…
3. Regarding climate change, I [agency, locus of control, distance]…
4. My biggest concern about climate change [perception of risk, emotions of climate change]…
5. People who deny climate change [range of compassionate embrace]…
6. Actually, climate change [barriers spectrum: ignorance, uncertainty, denial]…

The test involved an online assessment, involving completing 36 sentences, taking between 30 minutes and 1 hour to complete. I used snowball sampling both within as well as outside of my own networks, trying to get as broad a range of individuals to take it as possible. However, there were some limitations to this sampling, which warrant mention. First, it was hard to expect people to do a written online assignment for a full hour, and so there may have been a self-selection bias in which the participants who ended up completing it may have had prior interest in this model or in developmental theories. Secondly, if these were individuals in my network, or even extended network, there was a strong possibility they were already aware of or educated about climate change. Finally, most of these participants were adults, with the exception of one youth.

21 participants took the speciality protocol for this study. We ran statistical trials on the data to date to ensure we were still accurately measuring ego-development. The goal was to maintain ego-development consistency, so that the scale was reflecting general meaning-making "stages" as well as providing a view into specific stages of meaning-making about climate change. If so, the data would show the overall stage of meaning-making, as well as the stage of the specific climate change responses provided. As was the case with prior Specialty Protocols, the Cronbach's alpha statistic for internal consistency was strong for both the set of six new stems (0.82) and for the 36-item survey as a whole (0.96) (N=32).

Given this affirmation of validity, analysis will then be carried out on the data to look at the stages of the discrete responses as well as the amalgam of the six climate change stems viewed together in relation to the stage of the participant. With the larger questions above in mind, the specific goal is to analyze what specific trends and themes emerge about climate change for each developmental stage and what new understanding specifically the later stages might hold for climate change communication and engagement.

Collaboration in Contexts of High Positional and Perspectival Diversity

One aspect of my future research will study how collaboration between actors could be carried out, not only considering this spectrum of meanings, but also the many other important layers that make these situations complex (such as positionality and power dynamics, the realities of some actors living with multiple stressors and in a context of 'double exposure' (Leichenko and O'Brien, 2008), and the many cultural and political differences within a social group). Considering the context of winners and losers that climate change particularly exacerbates, what might effective collaboration look like when studying a global value chain for coffee, with actors at every point along the chain, each with their own cultures, experiences, sphere of influence, *and* stages of meaning-making?

This is an applied question, which takes seriously the implications that a developmental perspective brings to the issue of climate change adaptation, and tests the strength of its insights empirically. I have conducted two focus groups on this in Guatemala – the first with the producers in an organic, fair trade cooperative in the highlands of Huehuetenango, and then with a range of actors across the coffee value chain, including producers, buyers, exporters, the director for specialty coffee in the Export Association of Guatemala and representatives from the national coffee association in Guatemala City. I plan to hold at least another focus group with the North American end of the value chain, with representatives from the wholesale retailers, senior managers, buyers, and consumers. One of the foundational constructs of the STAGES model (that was not included in my earlier modified analytical framework) describes a shift in meaning-making from receptive (passive), to active (agentic), to reciprocal (relational), to interpenetrative (intermerged). Applying this lens to the analysis of the data may contribute critical understanding to the variance of perspectives regarding who is responsible and who is to blame for climate change – a topic which invariably arises when a multi-sectoral international group is convened in this way.

While some field work is pending for 2020 and the data from the first focus groups has not yet been comprehensively analyzed, so far, the data suggests that including the full range of actors, their contexts and their meaning-making constructs seems to produce an expanded and deepened definition of 'adaptation' which includes the structural and system-change dimensions of the issue as well as acknowledges the perspectival diversity across participants.

I am interested to complete the analysis to examine to what extent this re-frame may assist the value chain in moving from adaptation to transformation. Alongside "adaptation", the IPCC (2014, p. 27) includes the term "transformation" as an important and viable pathway that is part of our future response, yet often the notion of "transformation" ends up relying on sustainability transitions research, such as the multi-level perspective (Geels, 2011). However, the IPCC hints at a broader and deeper change agenda, and references the Three Spheres of Transformation (Practical, Political and Personal), further described by O'Brien (2018). Here, I perceive the gap between what is called for and how we might realize that call (i.e. the empirical evidence and methods for engaging transformation) is uncomfortably large, given the urgency of the need for climate change action. This area of further research will contribute to an exploration of what bridges might exist to move from the current expressions of adaptation (largely focused on techno-managerial changes) to a 'transformative' approach that integrates practical, systemic, and psycho-social changes across society. It will raise a discussion on how transformation can be defined and engaged in various ways, depending on where an emphasis is placed (interior versus exterior, individual or collective), and thus offers an explanation as to why systems transformation and psychosocial transformation end up being quite distinct endeavors. I intend to present ideas for how they might be engaged in an integrative way, adding to the empirical work on the application of the Three Spheres model, and specifically examining in depth what transformation might mean in the Personal sphere through the lens of developmental psychology.

Conclusion

In this article, I have argued that the findings from developmental psychology are an important yet missing knowledge-set in climate change adaptation. I have contextualized this in two ways. First, in a global situation, in which adaptation is set alongside transformation, despite the fact that the gap between them remains substantial. Second, in an academic context in which the psycho-social studies in climate change remain unevenly weighted alongside scientific research, despite the growing recognition that adaptation requires a more comprehensive change agenda. As part of my larger argument that we need to close that gap between adaptation and transformation and integrate the psycho-social dimensions, here I have specifically considered what the insights of developmental psychology could bring to these sticky issues. Findings from research so far suggest that developmental psychology may bring a unique and largely untapped knowledge-set to the climate change conversation on how people are construing meaning. It discloses sequentially more complex meaning-making stages and, as such, presents compelling implications for aligning communications more effectively and for supporting local people to embed their adaptation actions in their own meaning-making frames. This is important because, while personal, practical and political changes co-arise and mutually influence each other, the personal domain could be considered first among equals because the other two domains always entail persons with a meaning-making apparatus. Taking this scenic route of pausing to understand why and how meaning about climate change is being organized as it is, may shed light on how transformation happens in the consciousness of individuals, and thus provide important insights for how to engage in transformative change towards sustainability.

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Appendix: Tables 1 and 2

Table 1. Analytical Framework to describe how meaning is constructed through lifespan, including preliminary application in the area of climate change adaptation.

Meaning-making / action logic (Kegan, 1998; Cook-Greuter, 2004; O'Fallon, 2013; (Rooke and Torbert, 2005))	**Worldview** (Wilber, 2000) **Order of consciousness (**Kegan, 1998)	**What changes through growth and lifespan** (from STAGES assessment; O'Fallon, 2013)	**Descriptions of how climate change adaptation would be construed and engaged.** (O'Brien and Hochachka, 2010; De Witt, 2016)
1.0 Impulsive: Concrete, individual, receptive: "if I bite my finger it hurts."	Magic worldview Imperial mind	Complexity of thought: atomistic	"I peed in the river, and the river is now getting back at me by flooding my home" (O'Fallon, 2018, personal communication).
1.5 Opportunist: Concrete, individual, active: Experience in the immediate moment what is happening to them, everything is an object but all objects are alive: their cause and effect would be perceived as magical.			
2.0 Rule-oriented: Concrete, collective, reciprocal: Opens a social dimension in which there is a more reciprocal way of viewing at the world, with an associated interest to know what others are thinking and a focus on making contracts, rules, and agreements.	Traditional / mythic worldview Socialized mind	Object of awareness: concrete Time: Immediate and momentary (earlier), view of the past (later)	With a traditional worldview (or, second-person perspective), the climate change phenomenon would likely be construed as something in the hands of fate and more a matter of faith than science. Adaptation strategies would likely depend on what others were doing or what the rules and principles ought to dictate and would be applied in a parochial sense with localized strategies for survival.
2.5 Conformist: Concrete, collective, interpenetrative: Interpenetrates with principles which they will follow without question. This often includes the law of the land, so if practices related to climate change are the law they will often embrace them (e.g. recycling).			

3.0 Expert: Subtle, individual, receptive: Preliminary ability to take an objective view, such that responsibility, respect and other subtle ideas begin to arise from within the person (as such these ideas are cherished). Begins to see the future and see probabilities of what might happen.	Modern / universalistic worldview	Complexity of thought: abstract and networked Object of awareness: subtle Time: past and future (early), multi-generational (late)	A modern worldview (third person perspective), would likely understand climate change adaptation scientifically and economically and seen as a technical problem to be solved or the need for adaptation to be carried out as part of economic or technological progress.
3.5 Achiever: Subtle, individual, active: Can be strategic in planning, prioritizing of self-interests and achievements and with an emphasis on outcomes, results, and goals relating to future time; interested to measure what happens through time (hypothesis and testing, deductive thinking).	Self-authoring mind (early)		
4.0 Pluralist: Subtle, collective, reciprocity: It becomes apparent that the actions and interactions of humans with the environment cannot be separated from their context, and the socially-constructed nature of phenomena is recognized. Cause and effect depends on the situation and the circumstances. It is local, not universal.	Postmodern / pluralistic		A postmodern (fourth-person perspective) would likely seek to co-create and collaboratively work towards climate change adaptation processes, as it is perceived that the future of the planet is in the hands of humanity, would view this critically and with greater emphasis on the power dynamics and systems injustices that create vulnerability and produce climate change.
4.5 Strategist: Subtle, collective, interpenetrative: Able to understand and sort contexts, climate change manifests contextually, but is adaptively complex and interconnected systemically, humans affect and recreate the ways that healthy systems interact with each other, and as such can reverse damage caused by human disruptions of natural complex systems.	Self-authoring mind (mature)		

5.0 Construct-aware: Meta aware, individual, receptive: The constructed nature of reality is recognized on the whole, such that humans are seen not merely as actors in the system but rather their thoughts, ideas and beliefs about the system are constructing and shaping, as well as shaped by, its evolution and trajectory.	Integral / integrative worldview	Complexity of thought: systemic and meta-systemic Object of awareness: meta-aware Time: evolutionary both forward and backward in time, (including recognition of timelessness)	An integral worldview would work towards adaptation in a trans-disciplinary manner; seeking to be aware of what people believe and how they construct meaning; ensuring that adaptive strategies can simultaneously meet the population where they are while providing some emergent ground for learning; would likely include researchers and practitioners as part of the process; and would let go of the idealistic desire for everyone to understand climate change the same way.
5.5 Transpersonal: Meta-aware, individual, active: The understanding that “my” belief and belief systems are individually constructed and often limiting – this allows people to go beyond them to individually create/construct unusual and unique solutions with an ethic behind them.	Self-transforming mind		

Table 2. Findings of modified STAGES analysis of photo-texts in climate change adaptation in El Salvador.

Meaning-making (O'Fallon)	**Empirical findings of how climate change and adaptation is construed and engaged.** (Hochachka, 2019, pp. 8–9)
2.5 Conformist:	– Climate change being described as changes in weather in concrete terms, such as recent epic floods, dry spells, intense rains, unusual storms. – Photos made loose connections between objects, but these objects of awareness all remained concrete. – Demonstrated an atomistic and immediate view of climate change, with the scope of time focusing mainly on the present, stretching only somewhat towards the past. – Proposed simple, concrete behavioural changes which could support adaptation at a local level, even though such actions may not be grouped into the concept of 'adaptation' per se.
3.0 Expert:	– Both expert and achiever take third-person perspectives, so the objects of awareness become more subtle or abstract, and the future comes more fully into view, therefore disclosing probabilities for logically what might happen. – Expert meaning-making included some subtle concepts (such as "diversity") and considered a larger envelope of time stretching from the past and to some degree into the future, were more passive than active (i.e. receiving a training and being taught what to do to adapt), yet was still largely anchored in concrete phenomena (i.e. acreage, trees, compost).
3.5 Achiever:	– Achiever meaning-making demonstrated thinking that was even more abstract and used further subtle concepts (such as, "contamination"), considered relationships and links between things and tended to forecast further into the future. – Demonstrated cause-and-effect logic which brought greater agency and responsibility as more consequences of actions are taken into account. – Adaptation is carried out on several linked fronts (i.e. managing standing water, reducing garbage, and preparing for water-borne illnesses in higher temperature conditions), which are held together in a logical explanation. – Adaptation also considered to involve multiple systems in various domains: changing land-use practices, use of industrial agricultural products, and loss of traditional practices are all related to the problem-set.

4.0 Pluralist:	– Included multigenerational and cultural impacts and even more subtle or abstract perspectives about climate change, such as ideas of history, intergenerationality, and impermanence. – Used subtle processes to make sense of climate change adaptation that are now occurring in a broader contextual understanding. – The ability to consider context and the multiple causes of a situation also has a further increase in agency and responsibility. – Demonstrate linked-up meaning-making, to understand climate change as a phenomenon that adds to multiple stressors in the region, such as deforestation, soil erosion and degradation, increased use of pesticides, community health, and so forth. – Some photo-texts demonstrate early systems thinking, considering how the resilience developed during the civil war may have contributed to being able to adapt to meet current challenges. – Adaptation is considered on a notably larger time envelope and considers the context in which climate change is occurring: historical, ecological, economic, political, and social.

Women's Authentic Leadership Development (WALD)

Natasha Mantler, PhD[1]

Abstract: This qualitative study used Moustakas' transcendental phenomenological approach to provide a comprehensive understanding of the social construction of authenticity and how this is experienced throughout the stages of adult development. In particular, the intent was to augment women's leadership development programs to prevent further entrenchment of gender and leader biases. Initially, 33 women who had already completed a developmental STAGES assessment, completed a survey about authentic leadership experiences. Using unified stratified sampling, 10 women were selected from the 33 for interviews, spread evenly across different developmental levels. Data were analyzed using the four processes of phenomenology: epoche, reduction (textural), imaginative variation (structure), and synthesis (composite). Findings indicate that women leaders experienced and understood authentic leading and leadership differently throughout developmental stages with more advanced stages being more complex with ever-widening perspectives and understandings. Women leaders with a *socialized mind* had a theoretical understanding of authenticity with momentary experiences of the phenomenon. The embodied experience of authentic leading arose in the *self-authoring mind.* Awareness of gender biases related to leadership became objective within the *self-transforming mind* accommodating the very insidious nature of biases. The sole women leader with a *self-transcending mind* (a neologism introduced in this research) understood authentic leading as unity within body, mind and soul. These phenomenological findings and their interpretation contribute to understanding women's authentic leading characterized by the pervasive nature of gender and leader biases.

Keywords: Authenticity, gender and leader biases, women's leadership development.

Introduction

Women are highly underrepresented in leader roles (Catalyst, 2016). Despite half a century of equal employment legislation in the United States (US), women's opportunities for leader positions are anything but equal (Rhode & Kellerman, 2006). Although the share of women in senior positions is increasing incrementally, globally, less than one third (29%) hold senior management positions. Within the corporate world, only 5.2% of women hold Chief Executive Officer (CEO) positions (Catalyst, 2019).

Academic scholarship from a variety of disciplines (e.g., business, psychology and leadership) has exposed pervasive unconscious gender bias related to leadership (herein called leader bias),

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double-bind dilemmas, and in-group favoritism that women face within gendered organizations. The unconscious process of stereotyping (oversimplified conceptions) promotes a bias (preference) that promotes a masculine, heroic, individualist, and normative emphasis for leadership (Grint, 2011). This bias is so pervasive that male leaders are usually rated more effective than female leaders under all conditions (Rhee & Sigler, 2015).

Additionally, when male CEOs act decisively, they are seen as authentic (Liu, Cutcher, & Grant, 2015). They explained that because authentic leaders "have a deep awareness of who they are, [they are willing] to act upon their core values while transparently interacting with others. [They are also] guided by an internal moral compass with their decisions reflecting a high ethical standard" (p. 237). When female CEOs act decisively with resolve and certainty, they are seen as inauthentic (Liu et al., 2015). Inauthentic leaders would not be true to themselves (their values and principles) and would come across as false, not genuine and not legitimate. Liu et al. (2015) concluded that people judge leaders' authenticity in relation to gender norms. The attendant social construction of authentic leading and leadership may subject women leaders to even more stereotyping than men (Eagly, 2005). Appreciating that (a) women leaders do not want to abandon the authentic leadership ideal and (b) authenticity provides women with opportunities to *do* leadership differently (Sinclair, 2013), research needs to focus on women (a) engaging in leader roles authentically and (b) internalizing a leader identity that feels authentic and is received authentically.

Theoretical Framework

In that spirit, this study operated at the intersection of leadership theory, authentic leadership, and constructive developmental theory. Regarding the former, most leadership theory literature describes effective leaders as being purpose driven with a clear vision and strategy, self and systems-aware, authentic and courageous with integrity, emotionally intelligent, and rationally competent. They foster teamwork while mentoring and developing others.

Authentic leadership theory in particular assumes that leaders pursue purpose with passion, practice their values and exert self-discipline, lead with the head and heart, focus on relationships, and emphasize a long-term perspective (George, 2003). Their leadership behaviour "draws upon and promotes both positive psychological capacities and a positive ethical climate to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency [leading to] self-development" (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008, p. 94).

Constructive developmental theories also underpinned this research because they provide a pathway to more holistically understand the nature of women's authentic leadership development (WALD). In general, constructive developmental theories focus on the underlying structures of adults' meaning-making systems, whereby the complexity of one's thinking can potentially move sequentially through qualitatively different orders of consciousness (see examples at Cook-Greuter, 1999, 2004, 2013: Kegan, 1980, 1982, 1994; Loevinger, 1976; O'Fallon, 2013; Torbert, 1987; Torbert & Cook-Greuter, 2004).

As a caveat, these various theories have different names and category boundaries, but there is general agreement on how they correspond to each other. This research design mapped O'Fallon's (2013) adult stages of development with Kegan's (1994) orders of consciousness (see Table 1). Other scholars often equate Kegan's SM, SA and ST with O'Fallon's Diplomat, Achiever, and Strategist stages. In a unique contribution to the literature, this research design broke away from this tradition (see Table 1) by realigning several orders and stages and adding a new order of consciousness to Kegan's approach called *Self-transcending mind* (STC) equating it with O'Fallon's *Universal* stage of adult development. This theoretical initiative and neologism were inspired by conversations with Eric Reynolds (personal communication, April 4, 2017).

Table 1. Theoretical Framework for Women's Authentic Leadership Development (WALD)

Order of Consciousness (Kegan)	**Stage of Adult Development (O'Fallon)**	**%***	**Description**	**Findings % N=10**
Socialized Mind (SM)	3.0 Expert 3.5 Achiever	36.5% 29.7% (66.2%)	*Theoretical* understanding of authentic leading with nominal experience in this arena	30%
Self-Authoring Mind (SA)	4.0 Individualist 4.5 Strategist	11.3% 4.9% (16.2%)	*Embodied* understanding of authentic leading while still experiencing gender and leader bias	30%
Self-Transforming Mind (ST)	5.0 Construct Aware 5.5 Transpersonal	1.5% 0.05% (1.55%)	*Embodied and systemic* understanding of authentic leading; objective understanding of gender and leader bias	30%
Self-Transcending Mind (STC)	6.0 Universal	**	*Embodied* experience of authentic leading as the *unity* of body, mind and soul	10%

*Note: Estimated percentages from Cook-Greuter (1999) do not total 100% because two levels (15.6%) are not in the table

**Note: Cook-Greuter (1999) did not conceptualize *Universal* so she could not estimate percentage

In a culture deeply conflicted by women's authority, most (80%) of the population operates from the *socialized mind*, where one's thinking is shaped by the opinions and expectations of *others*, primarily forming how one behaves, thinks and feels (Berger, Hasegawa, & Kegan, 2007). People's resultant unconscious biases, matched with the gendered nature of organizations, complicated by the complexity of the social construction of authenticity, lends itself to using developmental theory to understand women's leadership. Results can be used to propose new leadership development agendas and curricula for women. To that end, this study explored the research question: *How do women develop and experience authentic leading and leadership throughout the adult stages of development*?

Method

This qualitative study employed the phenomenological approach, collecting data from women who self-identified as being familiar with and having experienced authentic leading and leadership. Specifically, Moustakas' (1994) transcendental phenomenological method was utilized. This method focuses more on the participants' descriptions of their experiences rather than the researcher's interpretation. Findings contribute to developing a clearer description of the *essence* of the experience. Essence refers to the most important qualities or nature of something that makes it what it is (Creswell, 2007).

Initially, 33 women who already completed both O'Fallon's (2013) developmental STAGES Assessment, then completed a 7-question survey about their experience with the phenomenon, which was administered using Survey Monkey. Using unified stratified sampling, 10 women from the 33 were selected for interviews, spread evenly across different developmental levels. Study participants were aged 33-63 years with a minimum of 10 years experience in leader roles in for-profit, non-profit and governmental organizations.

The phenomenological approach strives to understand the universal *essence* of a phenomenon by addressing the *what, how* and *where* (context) of research participants' experiences with it (Moustakas, 1994). To that end, the interviews began with questions addressing the *what* and ended with *how* and *where* questions about leading authentically. I was shielded from the participants' developmental level as part of the research design. Interview times ranged from 30 to 90 minutes.

Data analysis of the taped and transcribed interviews involved employing four processes of phenomenology: (a) epoche (setting aside presuppositions, predispositions and prejudices to make room for new things to emerge); (b) reduction (textural - *what* people experience), (c) imaginative variation (structural - *where* and *how* they experience it); and (d) synthesis (composite essence) (see Moustakas, 1994, for details). The final composite provides a comprehensive and holistic synthesis of the *essence* of these women's authentic leadership development experience.

Findings

The following four composite summaries provide a distinct narrative and unique description of the phenomenological *essence* of the experience of authentic leading at each stage of adult development for women leaders (see Table 1). A fuller description of the links between data, discussion points and conclusions is available at Mantler (2017) replete with evidence (especially direct quotes) to support the composite summaries.

A key finding was that although the themes were similar throughout the levels, perspectives of authenticity increased in complexity and understanding. And, in addition to *socialized, self-authoring*, and *self-transforming* orders of consciousness (Kegan, 1994), another order was added to incorporate a late stage recruit, named *Universal* in O'Fallon's (2013) STAGES theory but *self-transcending* in this study. As noted, this neologism and its conceptualization emerged from conversations with Eric Reynolds (personal communication, April 7, 2017). Each finding accommodates what constitutes an authentic leader, authentic leadership, the experience of authentic leading, and the impact of gender bias.

Socialized Authentic Leader

In this sample frame, Kegan's (1994) *Socialized* Authentic Leader (i.e., O'Fallon's, 2013, Expert and Achiever stages of development) understood authentic leadership from a theoretical understanding (i.e., abstractly but not much experience with it). These three study participants had momentary experiences of leading authentically. Their description of authentic leaders mirrored the definition of authenticity within the authentic leadership scholarship (e.g., George, 2003; Walumbwa et al., 2008). Previous research suggests authenticity is attributed to leaders performing authentically in alignment with gender norms (Liu et al., 2015). Likewise, for these particular participants, assumptions and beliefs about gender and leaders appeared to operate below conscious awareness, thereby exposing them unnecessarily to discrimination as they strived to gain acceptance as an authentic leader. At the *Socialized* mind order of consciousness, people need external validation and do not have a strong sense of an independent self. They take too much responsibility for how others view them and get their beliefs and thoughts from external sources instead of from inside (which happens at the self-authoring stage) (Kegan, 1994).

Self-authoring Authentic Leader

Self-authoring means people are capable of defining who they are without being defined by others, relationships or the environment. In this study, the *Self-authoring* Authentic Leader understood authentic leadership as an embodied perspective, wherein they began the process of self-authoring their way of being an authentic leader (i.e., they made authenticity a key part of their leadership style). For these three participants, leading authentically emerged more inwardly at the Individualist stage and expressed itself more fully at the Strategist stage. The phenomenological tradition of this study facilitated the differentiation between the theoretical understanding and embodied experience of leading authentically. At this stage of adult development, participants understood the situation objectively (i.e., a fly on the wall) and expressed their own personal authority with confidence; they lead by taking charge and setting direction. Despite having objectively witnessed stereotypes affecting other women, these participants said they had not personally experienced gender and leader biases; but at least they were aware of it. This gendered awareness enabled them to better explore their thoughts and feelings, creating their own sense of authority or voice.

Self-transforming Authentic Leader

The *Self-transforming* Authentic Leader understood authenticity from Heidegger's (1992) perspective; that is, people self-author their being *while* concurrently assuming responsibility for themselves in relation with others and "Being-in-the-world." For these three women, the embodied experience of authentically leading came from their *whole* being, being in relation with others, holding a multiple systems perspective, and cultivating respectful containers for the facilitation of systemic transformation (Kegan, 1994). These participant leaders (at O'Fallon's, 2013, Construct-Aware and Transpersonal stages of development) authentically engaged in leadership roles by accessing parts of their wholeness in the moment appropriate for the system. They clearly understood gender and leader biases despite these stereotypes being deeply entrenched and understated in the system. This clarity was possible because their sense of being and self was *not* tied to their leadership role but instead constantly created and honed through exploring their leader role through interactions with others.

Self-transcending Authentic Leader

As noted, a new order of consciousness called *Self-transcending* (STC) was created for this study correlating with O'Fallon's (2013) *Universal* stage of adult development (see Table 1). In this study, one participant fell into this stage, which correlates with Cook-Greuter's (1999) suspected population percentage at near to zero percent (see Table 1). This *Self-transcending* Authentic Leader understood authentic leading as the unity within her body, mind, and soul. Her focus was on creating and holding containers of equanimity (composure, levelheadedness) that served as instruments for transformative processes. Compared to other participants, she was more able to speak to the nuances of gender and leader biases, particularly about how much women have internalized them both individually and culturally and are thus subjected to these stereotypes. This participant acknowledged gender bias from an individual and collective perspective, emphasizing the importance of choosing consciously and strategically how to lead authentically. She fully appreciated how much women will need to be awakened to and thus how much shadow needs to be integrated to lead authentically in gendered organizations and society in general (see Mantler, 2017 [pp. 99-104, 108] for evidence of this novel finding).

Discussion and Conclusions

This qualitative phenomenological study revolved around the research question "How do women develop and experience authentic leading and leadership throughout the stages of development?" The study was designed to address the *essence* of women's authentic leadership. Appreciating the convention that percentage should be avoided when presenting qualitative findings from a small sample frame (McGregor, 2018), comments are offered on, what might be, a novel pattern for women authentic leaders. Per Table 1, over two thirds of the general population operates at the *Socialized mind* order of consciousness with low incidence of more advanced levels (Cook-Greuter, 1999). In this study, utilizing stratified sampling, the women leaders were evenly spread among the conventional three orders of consciousness with one instance of the recently constructed highest order, the *Self-transcending* mind. Future studies need to explore how authenticity emerges in the self-authoring mind and what is there about the self-transcendence character that leads to authenticity in leadership roles informed by the systems?

As a caveat, the findings do not support the idea that authentic women leaders move through different levels of consciousness because no one person was followed over time. Perhaps future research will support the following supposition. Authentic women leaders would follow a path toward wholeness, a developmental process that would be described as the *heroine's journey*. Women leaders' definitions of authenticity, authentic leaders and leadership, and their experience of leading authentically would become more complex with ever-widening perspectives and understandings. They would initially be theoretical, then embodied, followed by the integration of shadow thus creating more facility and spaciousness to facilitate systemic transformation (see Table 1). Evidence of one participant clearly positioned at the highest level bodes well for other women leaders striving for authenticity to evolve as well.

Findings do show that women leaders at different developmental levels understood authenticity differently. They were all able to complete the seven-item survey about authentic leadership and express their lived experience with it, but some were much savvier around the concept than others. The following text recaps overall findings with suggestions on how to tailor authentic leadership programs depending on the participants' developmental stage.

For the *Socialized mind*, leaders derive their sense of authority and knowledge from outside sources (Kegan, 1994), which suggests that it would be beneficial for leadership curricula and worksites to create an environment where vertical development is encouraged. Second, facilitating an objective understanding of both context and personal levels of consciousness may be beneficial as well because *Socialized* minds depend on others for their identity and role behaviour; they derive their sense of authority and knowledge from outside sources (Kegan, 1994). Women leaders at this stage of adult development will not hold sophisticated notions of what constitutes authenticity leaving them open to inauthentic leadership despite best intentions. To progress to the *Self-authoring* stage or beyond, leadership programs must ensure opportunities for women leaders to move beyond theoretically understanding the constructed nature of reality, so they can uncover and experience their authentic self in relation with others. This would involve leadership curricula teaching the process of self-authoring.

Participants at the *Self-authoring* level understood the conventional leadership paradigm and expressed their own personal authority with confidence by taking charge, setting direction and focusing their attention on their embodiment (personification) of authenticity. However, although they objectively witnessed stereotypes affecting other women, it became clear that some study participants were still experiencing gender and leader biases themselves and may even have internalized oppression. Women leaders are seen as belonging to an outsider social group and face greater difficulty obtaining acceptance as leaders (Eagly, 2005). By association, it makes sense that striving for authenticity and being received as authentic would also be challenging. Authentic leadership programs thus need to appreciate this reality. In particular, curricula need to focus on the way gendered stereotypes and norms come into play in assessing authenticity in women's leadership. Appropriate theories to explore this phenomenon include feminism, critical identity theory and related fields (Sinclair, 2013).

One participant operating from the *Self-transforming* mind acknowledged the importance of objectively understanding context and leaned toward the dominant behavior of the organizations she interacted with in a way that still *felt* authentic to her. This strategy reflects a keen desire to *be* authentic even in the face of resistance to authentic women leaders. This phenomenological evidence suggests that leadership programs need to cultivate women leaders' contextual awareness so they can engage in leader roles more authentically and be perceived as doing so. As women leaders become contextually aware, and the prevailing general-populace consciousness evolves from the *Socialized* mind to higher levels, there will be many more moments of women leaders being received authentically.

At both the *Self-transforming* and *Self-transcending* levels, gender and leader bias were viewed objectively (i.e., with detachment). These participants (few in number) focused on systems and recognized the wholeness and development levels of others who were engaging within these systems. These participants said they were able to facilitate system-wide transformation. At the new S*elf-transcending* level of consciousness, the sole woman leader engaged in roles authentically by accessing parts of her wholeness in the moment for what was right for the system. Her heroine's journey had evolved to aligning her body, mind and soul in service as an instrument for transformation of the whole in every moment. Leadership programs need to be prepared for the reality that some women might actually evolve to this highest level and plan curricula accordingly.

Utilizing the phenomenological approach and applying constructive developmental theory to women's experiences of authentic leading and leadership also led to the understanding that authenticity is a line of development, meaning it represents growth. Although this study did not track each participant's progression or evolution through developmental stages, women at advanced stages did appear to have markedly more sophisticated notions of authenticity in leadership contexts. To illustrate, the *Self-transcending* mind perceived authenticity as holistically tied to mind, body and soul while the *Socialized* mind could only theorize about being authentic. The *Self-transforming* mind could objectively (with detachment) understand gender and leader bias while the *Self-authoring* mind could not. Although the latter women were aware of gender bias, it still informed their identity.

The findings also uncovered the deeply extensive and subtle nature of gender and leader bias for some of the women. The *essence* of the heroine's journey requires examination and reflection of stereotypes and initiatives to move assumptions and beliefs from the subjective to the objective realm. As one participant explained, efforts to expose and critique bias will facilitate the emergence of women's authentic leadership - the emergence of the feminine - which would then create capacity and spaciousness to facilitate more women successfully engaging in authentic leadership.

In conclusion, phenomenologically framing and interpreting women's leadership through the intersection of authentic leadership theory and constructive developmental theories proved beneficial to generating new insights into the *essence* of this phenomenon. Remapping conceptual development theory (i.e., Kegan and O'Fallon) to include the neologism the *Self-transcending mind* is a unique conceptual contribution that merits further consideration.

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Integrating Adult Developmental and Metacognitive Theory with Indo-Tibetan Contemplative Essence Psychology

John Churchill[1] **and Tom Murray**[2]

Abstract. In a world that (according to the World Health Organization) has approximately 450 million people suffering from some form of mental disease, there is a deep need to re-envision mental health care. Indo-Tibetan contemplative psychology is a practice-based evidence lineage tradition of between two-and-a half to nine millennia dedicated to the reduction of suffering and the full flowering of human potential. Whilst mindfulness meditation is becoming increasingly popular and effective in the reduction of mental suffering in contemporary culture and psychotherapy, the full contemplative psychology, of which mindfulness is but a foundational skill, is still relatively unknown. Therefore, there is an increasing need to understand and translate the theoretical foundations of such a psychology into a language that psychologists and educated laypersons can understand. In addition, we can explore how modern science can deepen the wisdom and adoption of such traditions. Using the theoretical perspectives of adult developmental psychology and metacognition, this project reveals the psychology of the Indo-Tibetan tradition as a sophisticated developmental psychology that, when practiced, facilitates a fundamental transformation in identity, or the basis of psychological operations, from which an individual experiences the world. Such a developmental process has the potential to eradicate the fundamental suffering caused from cognitive fusion with the basic structures of experience (body, self, thought, emotion, time, dualistic perception, and the attentional-intentional system), allowing for a transition to a fundamentally open boundless experience of identity, within which arises the experience of interconnectedness and the ensuing altruistic motivation to benefit the social good. Among contemporary adult developmental theories we believe that the STAGES model is most compatible with the principles of Indo-Tibetan Contemplative Essence Psychology. We use the STAGES model to show how eastern and western methods can inter-inform each other. This study is one brick in building the bridge between East and West, a bridge that honors the psychology of the East as being a rigorous, technical, and socially relevant psychological framework that, yet, can still evolve.

Keywords: Adult ego developmental, contemplative psychology, Indo-Tibetan Mahamudra and rDzogchen, STAGES, states and stages.

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Preface

From the first author John. The development of a planetary trans-lineage wisdom tradition has been a longtime passion of mine. To participate with others, such as Tom and Terri O'Fallon, in the integration of the Buddhist wisdom tradition with modern cognitive and developmental theory is an essential facet of building our planetary human tradition, and I am deeply grateful to be able to work with such scholar-practitioners. May this work be of benefit to the alleviation of human suffering and the flowering of positive human culture.

For the last thirty years I have been a student and then a teacher of Indo-Tibetan Buddhist contemplative psychology and practice. Fifteen of those years were spent working under the direction of the psychologist and meditation teacher Dr. Daniel P. Brown for whom I give deep appreciation and thanks. Due to his generosity, I was able to learn the deep structure of Buddhist contemplative psychology and gain invaluable teaching experience. My dharma teaching also draws on knowledge of and experience with theories of adult development, which I first became familiar with through studying the work of Ken Wilber in the early 90’s. I initially followed the adult developmental theories of Robert Kegan and Susanne Cook-Greuter, which offer great insight into the human condition. When Terri O'Fallon released her new STAGES model, which follows in this tradition and adds some additional elements, I was particularly struck by how well it interfaced with the ancient wisdom traditions I had been studying and teaching. This paper is a recasting of segments my dissertation text, "Contemplative Psychology, Metacognition and Ego Development," completed in 2018, which utilized the STAGES model, in addition to other theories in cognitive psychology, to build a bridge between the eastern wisdom traditions and western scientific traditions in a way that can further the aims and depth of both.

I would like to specifically acknowledge my wife and life partner, Nicole, who has been a source of support and love during a very challenging few years. Without her selfless sacrifice and belief in my work I would not be where I am today. And also, deep thanks to all the members of the planet’s spiritual hierarchy who have given so generously and selflessly for centuries. May their aspirations be fruitful in this generation and those to come.

From the second author Tom. It has been quite and honor and privilege to work with John to transform his 200 page dissertation into an article for this special issue that is 60 pages plus a 30 page appendix. My expertise is in developmental theory, and though I have studied with and taken retreats with Dr. Daniel P. Brown, I am in no sense at all an expert in Buddhist scholarship or Indo-Tibetan practices. This paper describes some later-stage phenomena that I have not personally experienced (i.e. "ask John about that"). Both John and Terri O'Fallon have been finding natural yet often surprising direct links between the STAGES model and the style of contemplative essence practice taught by John and Dan. I have watched on the side-lines as they have both iteratively made delightful efforts to knit these disparate yet kindred fields together – John through his dissertation scholarship and Terri through her intuitive insights and persistent study of human nature (Terri has also studied with Dan Brown). John has been gracious in supporting me including my own insights in several sections, drawing from my particular areas of expertise, making the document more of a full collaboration. When two theoretical models developed separately from different corners of the historical noosphere are found to have so much in common, it is indeed fascinating and worth delighting in and exploring with enthusiasm and diligence.

Transliteration. To assist the reader in referencing Tibetan terms we have used the Tibetan transliteration method refined in 1959 by Turrell Wylie. This method has subsequently become a standard transliteration scheme in Tibetan studies, especially in the Western world. Wylie does not try to give pronunciation hints and serves only to accurately reproduce written Tibetan. As such diacritical marks used to mark sounds are not in this text for either Tibetan (Tbt) or Sanskrit (Skt).

1. Introduction

Contemplative traditions have been cited as providing a storehouse of essential wisdom about the human condition – some of which was once known but has been lost or forgotten in the Western march through modernity, and some of which represents knowledge, revealed through centuries of contemplative practice, that emerged on a path the western lineage did not explore.

In particular, Buddhist-inspired mindfulness practices have achieved a prominence, being adopted in many segments of society (e.g. Batchelor, 1997; Christopher, 1999), influencing practice in psychology and psychotherapy (e.g. Kabat-Zinn, 1990; De Wit & Baird, 1991), and inspiring an exponentially increasing number of scientific studies of their efficacy (e.g. Ainsworth et al, 2013; Brewer et al., 2013; Schoenberg, et. al., 2018; Dorjee, 2013).

Yet this trend represents only a slice of what Buddhism has to offer. In its 2600 years Buddhism has undergone a number of evolutionary transformations, sometimes called the "three turnings" of Buddhism (or of the dharmic wheel, see Appendix 3). These three main developments of Buddhist psychological thought are the Hinayana, Mahayana, and Vajrayana traditions (Ray, 2002). These three approaches to contemplative psychology are best seen as three phases or paradigmatic revolutions that sequentially build upon each prior discovery (Brown, 2016). At their deepest level, these are non-sectarian systems of theory and practice aimed at understanding human nature and providing the means for human happiness and psychological flourishing. Most of the contemporary focus on mindfulness (and related practices) draws from the principles of only the first of these three turnings (i.e. Hinayana, closely related to the Theravada school), leaving much of this ancient wisdom yet to be explored and applied in the West.

This text explores teachings from the Indo-Tibetan Mahamudra and rDzogchen traditions, thought by many to represent the pinnacle understanding of Buddhist contemplative psychology, and which integrate the three turnings into a single progressive system of psychological development and practice (Guenther, 1989; Brown, 2006; Chagmé, 1997; Klonchen-pa, 1993). We call this approach the "contemplative essence psychology" of mahamudra and dzogchen (Dali Lama, 2000; Chagmé, 1997; Ponlop, 2003).

The meeting of eastern and western theories of human nature represents an unprecedented accomplishment and opportunity in the history of our species. Esoteric theories and practices related to the deepest interior essence of our human nature are being tested, interpreted, and updated by the scientific paradigm, and disseminated through modern technologies. Meanwhile modern man on the precipice, with its familiar list of "crises" – psychological, medical, economic, environmental, etc., that combine to create a "meta-crisis" in an unprecedented milieu of malaise, anxiety, cultural polarity, social paralysis, and existential threat – just might find the critical insights for its salvation in these Eastern traditions.

Of particular interest to use here is the integration of science-based adult developmental psychology (and cognitive theories of metacognition) with contemplative essence psychology. The empirical study of mature post-formal adult development might provide the best conceptual bridge to the stages of cognition and metacognition described in Buddhist contemplative practice (Brown, 2016). Our studies have incorporated the post-formal research on cognitive development by Koplowitz (1984) and Commons and Richards (1984), both of which build upon the pioneering work of the Swiss developmental psychologist Jean Piaget (1951); and work on ego development by Suzanne Cook-Greuter (2005) and Terri O' Fallon (2013) that builds upon Loevinger (Loevinger, 1976). It has also included the integrative work done by the theorists Washburn (2000) and Wilber (2000), and additional research into metacognitive functioning.

In this paper we will make extensive use of the STAGES model developed by Terri O'Fallon (2010, 2012, 2013, 2020). STAGES, the most recent innovation in the Loevinger lineage, has a wealth of features that match closely to concepts and principles in contemplative essence psychology. This is probably due to the fact that O'Fallon drew upon her familiarity with eastern and mystical traditions (including the writings of Sri Aurobindo and Ken Wilber, and John Kessler's esoteric Integral Polarity Practice) in ways that none of the other developmental theorists had done.

For the moment we will assume that readers of this journal are at least partly familiar with trends in contemplative practices, integral theory, and developmental models, as we briefly foreshadow the substance of this paper by summarizing the elements that distinguish O'Fallon's STAGES model to make it ideal for elaborating and enriching contemplative essence psychology.

- In the model the entire developmental sequence is based on *non-conceptual modes of perception and awareness* as they generate ever-new distinctions (categories) in the mind. This maps well to the essence tradition's focus on phenomenology and the non-conceptual "basis of operation" that defines one's "view." STAGES contains a sophisticated model of the relationship between *stages* of cognitive complexity, *states* of consciousness, and stable-stage orders of perceptions (views); that latter of which maps well to modes of operation (existential views, or basis of identity) described in contemplative essence psychology.

- STAGES specifies a repeating nested pattern of developmental unfolding that involves moving from *exterior to interior* objects, from *individual to collective* objects, and from *passive to active* orientations to perceiving each type of object. These patterns map well to principles in contemplative essence psychology. For example, STAGES' treatment of the exterior/interior dimension (or internal vs. external facing) maps to the *"event perspective vs. mind perspective"* used in the essence tradition.

- STAGES fleshes out *territory in the higher tiers* to a greater degree than other models, and in a way directly analogous to contemplative essence psychology. It explicitly mentions awareness of awareness, the apperception of timeless awareness, spacious freedom, emptiness (of different forms), and fullness.

- STAGES includes a *shadow-work* model articulated according to developmental level, which coordinates well with the deconstructive and emptiness elements of the essence traditions.

This theoretical study explores Buddhist contemplative psychology as presented within the non-sectarian presentation of the Indo-Tibetan Mahamudra and rDzogchen tradition (Brown, 2006; Chagmé, 1997; Klonchen-pa, 1993) in an attempt to realize a conceptual integration of this tradition with western developmental models. It aims to help fill in this gap in the literature and to support building a better conceptual bridge that integrates Buddhist and Western understandings of psychological development. This will allow psychologists and interested meditators a deeper understanding of practice, provide a more complete theoretical understanding of the psychological transformative process that a meditator might undergo, and support therapists' and their clients' contemplative exploration beyond introductory mindfulness practices towards greater freedom from psychological suffering and the flowering of human potential.

2. Background

In this section we elaborate on several areas of knowledge that we will draw on in the central section "Integrating Contemplative Essence Psychology and Adult Development." This section includes: (1) motivating context including the current global state of psychological health, an analysis of our current moment in the east-meets-west cultural exchange, (2) an overview of cognitive developmental and metacognitive theories including an overview of the STAGES model; and (3) and an overview of the Buddhist essence psychology of the Indo-Tibetan lineages.

2.1 Motivations

Global prevalence of psychological disease. It has been estimated by the World Health organization that 25% of people worldwide will suffer from a mental disorder. This means at this moment in time approximately 450 million people are suffering from a psychological disease. To make matters worse, due to stigma, fear of discrimination, and lack of access to mental health providers, it is believed that two-thirds of those with a psychological disorder will suffer in silence and never seek help (World Health Organization, 2001).

Starting near the beginning of the 20th century with Sigmund Freud and the development of psychoanalysis, the field of clinical psychology has creatively evolved in its attempt to reduce and eliminate mental and emotional suffering (Freud, 1990; Weston, 1998). Its successful evolution has expanded to include hundreds of different theoretical and therapeutic orientations grouped under such broad categories as psychodynamic, cognitive, behavioral, systemic, and humanistic psychology. Research has shown that many of these approaches are successful in treating disorders such as anxiety, depression and others (Seligman, 1995).

As biological science also evolved, major developments in psychotropic medications began to address psychological disorders at a biological level. With the introduction of Lithium in the 1950's, followed by the developments of a series of anti-psychotics, Valium in the 1960's, Prozac in the late 1980's, and the popularization of Ritalin in the 1990's there has been a continued development of drug treatments for a wide range of disorders (Ingersoll & Rak, 2015). By 2010, in the United States more than one in five adults was on at least one psychotropic medication (Medco, 2011).

Despite all the developments in psychotherapy and psychopharmacology in the United States, there has been no reduction in the prevalence of mental disease, and at present 43.8 million adults, or 18.5% of the population, experiences a mental illness in a given year (National Institute of Mental Health, 2015). According to the New Economics Foundation, the United States, despite all its wealth and the psychological services at the disposal of its population, is unable to offer sustainable wellness for its population and only ranks 108/140 in happiness (see the Happy Planet Index, http://happyplanetindex.org). Aside from improving access to treatment and training many more professionals, there is reason to wonder what else might reduce the extent of mental disease and the lack of human flourishing.

Biases in Western Psychology. Clinical psychology as practiced in North America has been criticized as a product of "WEIRD" (Western, educated, industrialized, rich, and democratic) societies (Christopher, Wendt, Marecek, & Goodman 2014). It has been argued that, to a large degree, modern psychological theory and practice fails to recognize the extent that they embed western cultural constructs. As a product of WEIRD, western psychology can be seen as folk psychology, situated squarely in a paradigm of scientific modernity (Brunner, 1990). Post-modern psychologists have argued that the science of psychology is not as objective as it is often believed to be (Gergen, 2001; Pickering, 2006). Its training and practices transmit a set of cultural beliefs concerning a moral vision that defines what constitutes emotional and cognitive health, and the good life (Christopher, 1996, 1999).

One avenue to begin addressing the vast unmet need for psychological intervention is to adopt an attitude of cultural humility and re-envision psychotherapy as a global human science (Tervalon & Murray-Garcia 1998). This means recognizing and studying those dismissed non-Western psychologies that offer important perspectives on the human condition (Segall, Lonner & Berry, 1998). These under-utilized resources can help in the development of useful clinical and behavioral applications to reduce suffering and support the growth of happiness.

One such psychological framework is contemplative psychology, the distillation of the psychological understanding of the world religious traditions (De Witt & Baird, 1991). Underneath the cultural packaging of mysticism, myth, religion, and ritual is a psychological science, a body of knowledge that can be (1) actualized in the laboratory of each person's mind (Wilber, 2007), and (2) explored rigorously in modern experimental settings. The deeper structure of these contemplative practices, as is found in Buddhist and Hindu traditions, appears to follow a universal stage-by-stage progression, while the interpretations and manifestations of each stage are themselves influenced by the theological, cultural, and philosophical particularities of each tradition (Brown 1986; DiPerna, 2014).

Science and contemplative practice. Beginning with the 1902 publication of William James's Varieties of Religious Experience, the study of contemplative psychology as a legitimate field of study in Western Psychology has unfolded slowly over the last century, the most well-known studies being those of practices from Zen Buddhism, Transcendental Meditation (TM), and Mindfulness Based Stress Reduction (MBSR) (Jung, 1939; Fromm, Suzuki, & De Martino, 1960; Desmarais, 2008; Benson et al., 1974; Kabat-Zinn 2009). At present the majority of contemplative interventions originate from the Buddhist tradition (Shonin, Van Gordon & Griffiths, 2013, 2014). This is likely due to a number of factors. Buddhism is a non-theistic tradition (Wallace, 2007). It does not necessarily rely upon a metaphysical understanding of human experience and is built upon the humanistic concern of reducing and extinguishing human suffering (Young-Eisendrath, 2008), and can be understood pragmatically without the need for metaphysics (Batchelor, 1998). As a meditation discipline it values objective truth and is more aligned with the values of science than those of pure belief (Dalai Lama, 2005). The Dalai Lama, arguably the most influential Buddhist teacher in the world, has been in dialogue with neuroscientists, psychologists, and quantum physicists for decades.

The foundation of Buddhist thought is psychological – as found for example in the Abidharma, the phenomenological study of cognition and perception of early Buddhism (Govinda, 1961). Abidharma was developed through the use of meditative stability to investigate the first-person experience of psychological processes (Markic, & Kordes, 2016). These models evolved over centuries though cultural processes that included rigorous debate, analysis, and cross-disciplinary engagement. The maps and models, developed by generations of meditators and contemplative scholars, have a precision similar to those developed in cognitive psychology (Lancaster, 1997), and are likewise similar in their understanding of the complex relationship between thoughts, feelings and behavior (Segal, 2003).

The tradition of Buddhist contemplative psychology has become popular in the West in the form of secular mindfulness meditation. Today, over 20 million Americans (6.5% of the population) practice some form of meditation (Elias, 2009), and in the United Kingdom 25% of the population (Mental Health Foundation, 2010). This interest in meditation is now influencing a growing research effort in academia. Early and ongoing studies in MBSR (Kabat-Zinn 2009; McMahan, 2008) paved the way for the contemporary explosion of interest. Research science has shown that the contemplative practices of concentration, mindfulness, compassion, and loving kindness have a profound impact on the brain (Hölzel, Lazar, Gard, Schuman-Olivier, Vago, &Ott, 2011). So much so, that a wholly new multi-disciplinary field of contemplative neuroscience is developing (Davidson, 2012). Buddhist derived clinical interventions (BDIs) are used to treat a range of psychological disorders including schizophrenia-spectrum disorders, personality disorders, substance abuse disorders, mood disorders, anxiety disorders, and depression (see "Clinical Implications" in section 3.1 below).

Beyond McMindfulness. As the interest in contemplative practices has developed over the last 20 years and moved into mainstream culture there is concern among pioneers in the field that consumer culture is unjustly and unwisely appropriating mindfulness. What has been termed ”McMindfulness,” an oversimplified version and appropriation of contemplative practice, could just become another commodity for sale and dispensed in a weekend workshop (Hyland, 2015). Such offerings often focus on enhancing cognitive and emotional skills with an end goal of achieving more within status-quo cultural norms, furthering the modernist, individualistic, Cartesian worldview and ignoring the focus on human suffering, compassion, ethics, deep self-understanding, radical transformation, and "emptiness" that are central to the ancient wisdom traditions (Harrington & Dunne, 2015). Psychology directs its understanding of the normal by drawing upon knowledge of the abnormal and pathological. However, Buddhist contemplative psychology is soteriological, a path of liberation; it is directed to the supernormal human potential (Buddhahood) and draws upon the understanding of normal functioning to enhance the path towards the fruition of human potential (Lancaster, 2007).

2.2 Theories of Adult Development and Metacognition

As mentioned our overall intention is to integrate adult developmental theories with the Indo-Tibetan mahamudra and rdzogchen contemplative essence practices to provide insights that allow for cross fertilization of the Eastern and Western perspectives. We will start with a survey of developmental theories, focusing on constructive developmental theories, including the STAGES model.

Metacognition

Metacognition is a key construct in relating the contemplative essence psychology of Indo-Tibetan Buddhism to western psychology. Contemplative practices focus attention inward toward self-understanding, which allows for de-fusing or deconstructive moves toward self-liberation. Among western scholarly fields of study, the psychological study of metacognition comes the closest to the first of these moves (while the western fields of psychoanalysis and wisdom-studies might come closest to the second). In addition, recent studies in the field of "contemplative psychology" make heavy use of prior metacognition scholarship.

Our primary goal in this article is to relate contemplative essence psychology to developmental psychology. Unfortunately, there is only a weak overlap between the academic "silos" of developmental theories and metacognitive theories. Theories of metacognition tend to not take a developmental perspective and could benefit from doing so (as elaborated below), and developmental theories could benefit from the exploration of the cognitive micro-moves elaborated in metacognitive theories. We do a bit of the work of integrating these two fields here, but mainly acknowledge that there is fertile ground for others to explore in integrating them more deeply.

We can note a narrow and a broader sense of the term metacognition. The narrow one refers to a specific set of skills that develop around the time that formal operational thinking develops – i.e. when abstract and logical thinking mature into normal adult capacities. Educational theories speak to supporting strong metacognition, or thinking about thinking, both as a problem-solving skill, and as a component of self-driven ("self-regulated") learning – usually aimed at what we would call a 3rd-person perspective developmental level. But in a broader sense, metacognition can refer to a basic cognitive function that operates at all levels of cognitive processing, from early childhood (1st PP), into middle childhood (2nd PP), then "rational" thinking (3rd PP), and beyond into post-or trans-rational types of witnessing awareness (4th PP and above). It is this later sense of metacognition that we intend here. Like memory, attention, and perception, metacognition (in this sense) is a core function that manifests *in different ways* across each phase of a lifelong developmental journey.

Metacognition has various meanings in the literature, including thinking about thinking, knowing about knowing, becoming aware of one's awareness, and cognition about cognition. It includes both the conceptual, reflective perspective-taking skills necessary for constructing knowledge of self, and for improving fallible knowledge; and the direct non-conceptual (closer to perceptual) processes necessary for defusing/deconstructing mind-structures, as is found in contemplative practices. Below we summarize some of the discussion extended in Appendix 2 on Metacognition.

Writings on metacognition in the west date at least as far back as Aristotle. In more recent history metacognition, as introspection or self-reflection; has been explored by William James (1890) and Sigmund Freud (1921). More contemporary theorists of metacognition have studied the role of metacognition in self-regulated learning and problem solving (Flavell, 1979; Brown, 1987), critical thinking (Paul, 2008), epistemic understanding (knowing about knowledge; Kuhn, 2000), and self-understanding (Brown, 1975). Metacognition is often described as thinking about thinking, but it can also include: thinking about feeling, thinking about perception, and thinking about knowledge; and *sensing into* (i.e. feeling/perceiving) the experiential nature of one's thinking, feeling, believing, or perceiving. Metacognition is usually understood as an in-the-moment process, but that process leads to stored memories, i.e. metacognitive knowledge, gleaned from that self-reflection.

Theories of metacognition inevitably decompose the process into steps, phases, and/or levels. There are myriad ways that is has been done, with enough overlap to compose a general outline, but little agreement on a specific model. These components include: the mental *content* being reflected upon; *attentional* processes; *intentional* processes, including goals and motivations; *monitoring* and evaluative processes that compare a current state to a desired state; *anticipating* or planning functions; *executive control* or regulative processes that change what the mind is doing, base on the evaluation; and *strategic* knowledge about how and when to apply all of the other sub-processes.

For our purposes here, we combine models described by Brown, (1987) Flavell (1979), and Jankowski and Holas (2014) to differentiate three aspects of metacognition: *meta-knowing, meta-sensing, and meta-thinking*. In the contemplative context these corresponding to contemplative knowledge, direct experience, and metacognitive awareness. All three forms of metacognition can operate upon *any* of the types of content mentioned (feelings, memory, thinking, etc.). Meta-thinking and meta-sensing are both *in-the moment* processes, while meta-knowledge is information or strategic skill stored in memory. Meta-thinking involves self-reflection leading to inferences, that are usually translated in to concepts and language; while meta-sensing is more perceptual, non-conceptual, and non-reflective, and is constituted by the felt-sense of being in any moment and context.

The focus in the essence practices is on meta-sensing. In most contemplative practices the specific contents of thought and feeling are unimportant – thought and feeling are seen to arise and pass away.

In Appendix 2 we give an overview of the application of metacognition theories to clinical psychology, in particular: cognitive behavioral therapy, acceptance and commitment therapy, mindfulness based cognitive therapy, and attachment therapy. Some such theories focus on the reflective metacognition *skills* of interpreting past experiences, and revising tacit or explicit beliefs that have been formed through past experiences. Others focus less on the *content* of beliefs and cognition, and focus on awareness of present moment processes, i.e. on the recognition and acceptance of the contents of the mind (beliefs, thoughts, emotions, and sensations) rather than changing them.

All of these clinical methods aim for a form of what Hayes (et al., 2013 p.4) calls *cognitive defusion*: “the creation of nonliteral, non-evaluative contexts that diminish the unnecessary regulatory function of cognitive events.” Other models use terms including disembedding, de-reification, and detachment for this process. This shift in operation happens by making the prior subject of experience an object (Kegan, 1982; 1995).; a shift in psychological operation from *self as content* (i.e. from fusion with a conceptualized narrative of self) to *self as context*.

Though western therapeutic models do well to heal many specific psychological wounds, distortions, and disorders (sometimes called "shadow"), they do not have the means to take the entire self as context, and to make self-as-context a stable trait. This is the goal of Buddhist contemplative psychology.

Metacognition and Meditation

The construct of metacognition (in its various forms) has been used by a number of theorists to explain the mechanisms of contemplative practice. These treatments of metacognition have a very different flavor vs. theories developed in the traditional metacognitive studies on problem solving, self-mastery, and self-regulated learning. There is more overlap between the contemplative and the psychotherapeutic study of metacognition. This is in part because contemplative practices (and psychotherapy) are largely about *deconstructive* or disembedding processes that free the self from prior conditioning to open up new fields of awareness and freedom; while problem solving etc. are more concerned with *building up* capacities to achieve goals.

For example, Yates (2017) notes that following the fundamental practice of attention to breathing etc., as metacognitive decentralized awareness comes online, it can lead to personal insights of phenomena described in Buddhist psychology, including insights into impermanence, no-self, and reactivity (dukkha). Below we will summarize some of the insights from this field, described in more detail in Appendix 2.

The highest (meta-meta) level of Jankowski and Holas' (2014) model includes the meta-awareness of decentration and experiential acceptance. This model differentiates *controlling* vs. *inhibiting* processes, where mid-level metacognition controls perception, thought, emotion, etc., while higher level metacognition inhibits beliefs and thought-habits that impede the process-level goals. According to Jankowski and Holas (2014), the person who achieves this higher level of meditation then starts to become aware of clarity (fundamental awareness), the most fundamental and basic form of reflexive non-conceptual cognition that makes all other types of cognition feasible and forms the core process of consciousness itself (Jankowski and Holas, 2014).

Grossenbacher and Quaglia's (2017) model of Contemplative Cognition includes "Awareness of Transient Information", similar to our meta-sensing. which refers to the basic cognitive process of being aware of the transient objects of experience such as sensory information, affect, memory, imagery, and thought. ATI is the central feature of those meditations designed to cultivate moment-by-moment choiceless awareness of the ongoing stream of consciousness such as the choiceless awareness of Zen shikantaza (just sitting) meditation.

Grossenbacher and Quaglia's model also includes "intended attention" and "attention to intention." The former are processes and practices designed to develop *attentional stability*; while the latter involves monitoring and adapting the higher-level goals (intentions) of the contemplative process. Their theory shows how these two processes inter-inform each other.

None of the models described above contains an elaborated explanation of the system of "views" described in mahamudra practice, the levels of the non-conceptual awareness or "modes of operation." Thus, the Indo-Tibetan tradition speaks more clearly to the process of transcending identification through de-reification with structures of the self, leading to a transformation in the fundamental identity of an individual whilst maintaining the optimal functioning of the self-structure.

As we close our discussion on metacognition we will mention one of the primary limitations of this field, from the perspective of our inquiry. Such models articulate the details of the sub-processes involved in cognition about cognition, whether it be in the context of learning, problem solving, or psycho-therapy – but focus on the local context, without considering how, over time, cognition builds layer upon layer upon layer (and thus can also deconstruct layer upon layer). These models of metacognition acknowledge that the *meta-content* of one phase of learning can become the *content* of a future phase of (meta-meta) learning, but they tend to stall out there. For example, many would say that "problem solving" or "critical thinking" requires metacognition, and thus thinking about one's problem solving or critical thinking would be meta-meta-cognition. We can see that terms meta-meta, meta-meta-meta, etc. quickly become untenable and confusing designators.

Developmental theories allow for greater precision in this regard. The 12-16 levels defined by theories of hierarchical complexity begin with the lowest levels of sensorimotor processing (some start even lower at logical operations executed at the information processing level of neurons – see Commons and Chen (2014)). Each level "operates upon" the prior level, where "operating upon" is a "meta" move that takes any form – e.g. to observe or monitor, to assess, to compare or differentiate, to coordinate or synthesize, to manipulate or control, etc. We will continue below with an introduction to developmental theory, keeping in mind that the literature on metacognition is useful in focusing in on the micro-structure of each developmental transition.

Developmental Psychology

Theories of how humans differ psychologically and cognitively can be classified as either developmental theories or trait theories. The former defines invariant sequences of increasing maturity, while the later define characteristics that do not necessarily mature or change. Trait theories include personality and character taxonomies, for example: Myers-Briggs, Enneagram, Five Factor Model, and Attachment models, that can classify individuals differentially at any level of maturity. We are of course interested in developmental theories here (though Indo-Tibetan schools also include their own trait taxonomies (Rockwell, 2002). Though some developmental theories, called phasic or life-span theories, divide adulthood into segments based on age, changing roles, pivotal events, cultural patterns, or life crises, we focus on those that key off of increasing *complexity* in cognition and/or meaning-making.

We can differentiate two subsets of developmental theories, those that focus primarily on cognitive development (also called structural theories; see Baldwin, 1913; Case, 1992; Fischer, 1980; Kohlberg, 1990; Selman, 1974) and those that focus on the development of meaning-making, or the closely related concept of ego development (so-called Constructive Developmental theories, see Loevinger, 1998; Kegan, 1982; Torbert, 2004; Cook-Greuter, 1999). The latter include considerations of cognitive complexity, but focus particularly on how this complexity capacity is applied to the personal/egoic (I, me) and interpersonal / social / psychodynamic (you, we, them) domains.

Structural theories of cognitive development were first introduced by Baldwin (1913) and Piaget (1951). Piaget outlined a pattern of growth leading from infancy to adulthood through four main phases: sensorimotor, preoperational, concrete-operational, and formal operational (Piaget, 1971). Each stage is a qualitatively distinct self-organizing systemic whole, organized by an underlying pattern of cognitive operations. In the developmental process humans integrate and reorganize each prior developmental level to form a more complex hierarchically superior level. Each qualitative shift represents a new level of hierarchical complexity or stage of developmental growth. By *making the subject an object* (Kegan, 1995), the individual is able to *transcend and include* (Wilber, 2007) the prior level of development.

Many research projects and models followed Piaget's work, including those of Arlin (1984), Armon (1984), Basseches (1984), Riegel (1973), Benack (1984), Commons and Richards (2002), Selman (1980), Demetriou (1990), Fischer, Hand, and Russell (1984), Kohlberg (1990), Koplowitz (1984), Labouvie-Vief (1980), Pascual-Leone (1984) and Case (1991). These projects studied the development of varying capacities including morality, self-understanding, epistemological understanding, logical/critical thinking, and concepts of the good life.

Though Piaget's model ended at the formal operational stage achievable by young adults, succeeding theorists extended models into later "post-formal" capacities. One of the most articulated models of adult cognitive development, one including post-formal stages, is the Model of Hierarchal Complexity (MHC) of Michael Commons and his associates. MHC (and also Fisher's Skill theory (1994), a very similar theory published at the same time) is distinct from most of the other theories in that it proposes a domain-independent model of development – i.e. one that can be applied to any type of learning or growth (and it has been showed to apply to many of the specific skills previously studied, and to replicate earlier results, see Commons and Chen, 2014; Dawson et al., 2005).

In Commons' stage conception of cognitive development, there are five post-formal cognitive stages beyond formal operations (Commons & Chen, 2014; Commons & Ross, 2008):

- *systemic* cognition (ability to operate on formal operations, and construct multivariate systems coordinating multiple inputs within a given context, best exemplified by the scientific method);

- *metasystemic* cognition (including the ability to compare, transform, and synthesize systems);

- *paradigmatic* cognition (synthesizing multiple meta-systems to form paradigms; as needed to synthesize whole fields of knowledge that are seemingly unrelated);

- *cross-paradigmatic* cognition (including a capacity to develop whole new field of knowledge, as was done by the likes of Charles Darwin, Albert Einstein, and Max Planck); and finally,

- *meta-cross-paradigmatic* cognition (able to analyze the dynamics and recognize the limitations of cross-paradigmatic thought). Note again that, as a domain-independent model, these terms (actually all of the levels in the model) can be applied in the analysis of any particular skill being developed.[3]

Constructive Developmental Theories. The Constructive Developmental line of research progressed mostly in isolated parallel to the Structuralist line, though publications in both research communities sometimes referred to each other. In fact, the two research lines are only recently being deeply compared, contrasted, and integrated. The STAGES model described later begins to bridge the gap between these research communities (and see Murray 2017 for another preliminary attempt to integrate them). Next we focus our narrative on the Constructive Developmental theories.

Though Robert Kegan's theory of meaning-making complexity (or "orders of consciousness") has substantial overlap with it, we will focus on Loevinger’s "ego development" model, and those that extended it (i.e. Cook-Greuter, Torbert, and O'Fallon). All of these models use the sentence completion test (SCT) to assess development (a method that is less time-consuming than the subject-object interview used to assess in Kegan's framework). Because these models, especially O'Fallon's STAGES model, are described in detail in other papers in this journal issue, we will give only a brief summary here. We also include additional descriptions of the ego development levels in Appendix 1 (see Murray, 2017 for description of the history and validity of the SCT).

Jane Loevinger (1918-2008) defined an ego level as an organizing synthetic function or filter that the individual uses to interpret life experiences and to generate meaning. It implies a level of character development, cognitive complexity, interpersonal style, and set of conscious preoccupations (Westenberg et al, 2013). Loevinger developed and refined the Washington University Sentence Completion Test (WUSCT), a semi-projective assessment, for measuring ego development (1998; Loevinger et al. 1970) that has been used extensively by researchers in the field. Using a novel method of analyzing 36 sentence completions that "triangulate" the ego development construct using a variety of sentence starters (stems) addressing personal relationships, authority, frustration, family life, work life, and society, and self-image, Loevinger and her team were able to reveal nine different stages of ego development.

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[3] The question of how one defines "a skill" as separate to related skills is an important issue but beyond our scope here, but see Murray (2017).

Studies of the WUSCT include at least 400 studies and half a dozen meta-analyses (Cohn & Westenberg, 2004; Gilmore & Durkin, 2001; Novy & Fancis, 1992; Westenberg et al., 2013) making it "arguably the most extensively validated projective technique" (Lilienfeld, 2000, p.56,). Murray & O'Fallon (2020, this issue) summarizes prior research on the SCT for inter-rater reliability, internal consistency, test-retest reliability, face validity, construct validity, incremental validity, clinical utility, and predictive validity, all supporting Westenberg's conclusion that "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485).

Clinical research with the WUSCT has indicated that certain diagnoses are more connected with pathology at certain developmental stages (Noam and Houlihan, 1990) and that there is a clear decrease in symptom severity in those with higher levels of identity development (Noam and Dill 1991). Research is only beginning to support the hypothesis that adult development leads to increasing levels of happiness – this is a topic worthy of further investigation. Bill Torbert and his associates working in the field of leadership development have researched the predictive validity of the SCT most outside of clinical psychology. Torbert (2014; Torbert & Livne-Tarandach, 2009) found powerful correlations in higher action-logics (ego development as it pertains to business and organizational functioning), with only CEO's and consultants measuring the two highest levels reliably generating organizational transformation leading to larger market share. Braks' (2020) paper in this issue gives further evidence of the relationship between ego development and leadership maturity and effectiveness.

Susanne Cook-Greuter, a student of Jane Loevinger, continued the work of ego development by expanding upon the post conventional levels that Loevinger had researched. Her research supported differentiating Loevinger's Integrated stage into the Construct Aware and Unitive stages. This differentiation was corroborated by research done in leadership by Torbert (2004) and Joiner (Joiner & Joseph, 2007). Cook-Greuter also introduced the use of a sequence of "person-perspectives" to describe the developmental sequence.

The STAGES model

Terry O'Fallon modified Cook-Greuter's model and scoring system, in part by incorporating elements of the AQAL Integral Theory developed by philosopher and transpersonal psychology theorist, Ken Wilber. O'Fallon recognized that the ego development stages explored by Loevinger and Cook-Greuter could be explained by an underlying stage-by-stage unfolding of a small set of foundational factors that underlie the deep structure of human physiology and psychology intrinsic to human growth.

The Loevinger's WUSCT and Cook-Greuter's SCT are both theories empirically driven by data, with a minimal theoretical influence of top-down models or bottom-up cognitive processes; and their scoring method is largely based on matching to specific examples (or exemplar categories). The STAGES model, whilst built on the empirical data-driven discoveries of the Loevinger/Cook-Greuter lineage, departs from its forbearers in that it is theory-driven, describing an invariant 12 stage, 3-tier model of development, driven by a theoretically understood deep structure.

The STAGES model is composed of three dual cognitive orientations: Individual/Collective, Passive/Active, and Exterior/Interior, inspired by Wilber's AQAL model (O'Fallon, 2010a-b, 2012, 2013, 2020). These three dimensions move through three tiers of concrete, subtle and metaware experience (the fourth parameter) in a nested order of unfoldment. The theory suggests that human psychology unfolds through a 4-part process through each tier: passive-individual (Receptive), active-individual (Active), passive-collective (Reciprocal), active-collective (Interpenetrative). These might be referred to as the “four complexity” levels within each tier (Murray, 2017, p. 17). Figure A1 in Appendix 1 shows how each of these dimensions (or drivers) further refines the resolution of the model. The dimensions are:

- **Tiers**: O’Fallon conceptualizes three tiers of development, each apprehending an increasingly subtle category of objects, with each tier containing four stages of maturation (some versions of the model include a 4th Unitary tier). The first level, concrete, refers to a concrete level of cognitive development where the mind and senses apprehend concrete individual objects both within the exterior world and later the interior. This level of development is the realm of Piaget’s concrete operational thinking. The second tier, subtle, refers to a tier of formal operational development that apprehends subtle objects. At the next tier, the metaware tier, individuals have developed the capacity to differentiate awareness from the contents of awareness and are able to be aware of awareness itself.

- **Individuals/collectives**: Within each tier individuals are, generally speaking, aware of individual things and entities prior to collectives, groups, and systems, since the latter depend upon the former for their meaning. For instance, to have an awareness of complex family dynamics one must first understand individual psychology. Using only the 3 tiers and the Individual/Collective dimensions, one can define the 6 "person perspectives" of the model (see Figure A1).

- **Passive (Inside, 1st person)/Active (Outside, 3rd person)**. Each Person-perspective can be further differentiated into a passive and active half, yielding the 12 stages of the model. When one first learns something one begins by just being aware of it. One is receptive to its expression as one learns about it, it happens *to you*. With learning and practice there is the active repeated attempt to recreate the experience. Through repetition the state becomes more easily accessible. In a sense you have it rather it having you.

- **Exterior/Interior**: STAGES uses a fourth driver to specify sub-levels (half levels) within each of the 12 stages, which build up using first an exterior orientation then an interior orientation. Cognitively, exterior activity is understood prior to interior because one first applies a specific kind of cognition to the external environment before applying to oneself. Mark Forman (p.80, 2010) explains: “All the stages of identity development, therefore rely on different forms of outer-directed cognition eventually being used in the inner world of the self” Thus, an adolescent first applies formal operations to analyze and solve external challenges before applying formal operational thinking to the self. In doing so this transforms the organization of the self.

The STAGES model also includes an articulation of phenomenological "states," and the relationship between states and stages, that coordinates quite well with contemplative essence psychology, as described later (see O'Fallon's article in this issue).

Though STAGES is a relatively new model with limited empirical validation, the validation studies to date have shown very strong results. O'Fallon et al. (2020) describe a "replication study" that shows the STAGES scoring method replicates the prior Cook-Greuter/Loevinger SCT scoring method up to stage 4.5/Strategist. That paper also summarizes longitudinal data analysis including the upper levels, which shows evidence for the monotonic developmental sequencing of O'Fallon's newly defined highest stages (Metaware Tier). Murray & O'Fallon (2020, in this issue) used Item Response Theory and Rasch analysis to evaluate additional validity metrics, including: within-test item normality, item standard deviations, Cronbachs-Mesbah analysis of test lengths, factor/component analysis, item correlations, test strata/discrimination analysis, and overall test strength.

In this section an overview has been presented of the territory of adult development and particularly the lineage of constructive developmentalism initiated by Jane Loevinger, continued by Susanne Cook-Greuter, and more recently articulated by Terri O’Fallon. Through investigating adult development these researchers have uncovered stages of mature adult development, and the underlying developmental processes, that we can relate to the stages of contemplative development as articulated by the Indo-Tibetan essence tradition. While there are clearly some differences, what is of particular interest is that the Western research indicates these stages of cognitive and meta-cognitive unfoldment are perhaps not just constructed by the meditative process but are indicative of a more universal transcultural and human process. The developmental process is catalyzed by meditative development but there are other factors that support this growth such as cognitive complexity, relational intelligence, and differentiation from childhood psychological structures.

Below we summarize aspects of the model and reiterate, in a bit more detail than we did in the Introduction, why it is a very good fit for coordinating contemplative essence psychology and adult developmental theory.

- In STAGES the entire developmental sequence is based on *non-conceptual modes of perception and awareness* as they generate ever new distinctions (categories) in the mind. The exploration and development of *what one is aware of* is central to contemplative methods. Though most adult developmental models focus on the linguistic or conceptual aspects of meaning-making, STAGES grounds cognitive and metacognitive thought in their non-conceptual and concrete precursors, as is common in contemplative models. It maps patterns in the growth of mastery, and of transforming implicit knowing (subject) into explicit knowing (object) and meta-knowing (metacognition) – that repeat for each new category of distinctions. This too provides an excellent framework for representing aspects of contemplative essence psychology.

- The STAGES model is based on a progression of "*Tiers*" called Concrete, Subtle, and Metaware, and Unified, each representing increasingly subtle forms of objects of awareness. It coordinates closely with predominant neo-Piagetian models of cognitive development, as its progression from Concrete to Subtle matches the cognitive progression for concrete to formal operations (abstract and logical thinking). Contemplative essence psychology likewise maps a progression of awareness (metacognitive capacity) of increasingly subtle mind/body phenomena – that can be mapped directly to the four tiers in the STAGES model.

- STAGES specifies a repeating nested pattern of unfolding within each tier, which involves moving from *exterior to interior* objects, from *individual to collective* objects, and from *passive to active* orientations to perceiving each type of object. These patterns in the unfolding of awareness map directly to principles in contemplative essence psychology (as we explain later).

- STAGES' treatment of the exterior/interior dimension maps to the "*event perspective vs. mind perspective*" used in the essence tradition.

- STAGES contains a sophisticated model of the relationship between *stages* of cognitive complexity, *states* of consciousness, and stable -stage orders of perceptions (views); that latter of which maps well to modes of operation (existential views, or basis of identity) described in contemplative essence psychology.

- STAGES describes the progression within each tier as: *receptive, active, reciprocal, and interpenetrative*. It follows contemporary cognitive science in noting that the perception of any object begins with unanticipated fleeting glimpses (receptive *states*), which with practice become stable skills for observing an object at will (active), and eventually become the automatic (unconscious, effortless, and "natural") perception of the object (interpenatrative). Essence traditions prioritize the attainment of levels of effortless "*view*," a sequence in the development of the "basis of operation" of awareness – which is well described by the interpenetrative phase in STAGES.

- STAGES fleshes out *territory in the higher tiers* to a greater degree than other models, and in a way directly analogous to contemplative essence psychology. It explicitly mentions awareness of awareness, the apperception of timeless awareness, spacious freedom, emptiness (of different forms), and fullness, which maps to concepts used in contemplative practice.

- STAGES includes a *shadow-work* model articulated according to developmental level, which coordinates well with the deconstructive and emptiness elements of the essence traditions. I.E. it explicitly includes and coordinates the contrasting elements of *complexity/skillfulness/adaptation* and *freedom/deconstruction/liberation* inherent in the essence traditions.

Next we will explore Buddhist contemplative essence psychology. We will make a few references there to adult development, but for the most part will save our integration of the eastern and western models until the section on "Integrating Contemplative Essence Psychology and adult Development."

2.3 Buddhist Essence Psychology: mahamudra and rdzogchen

In the introduction we mentioned how the Indo-Tibetan schools represented the third turning (paradigm shift) in Buddhism (associated with the term Vajrayana), specifically the mahamudra and rdzogchen schools, constitute a system of "contemplative essence psychology." And we touched on how they differ from earlier phases of Buddhism (the Hinayana and Mahayana traditions). The shape of these three turnings of Buddhism is further articulated in Appendix 3.

Contemplative essence psychology includes the Hinayana-based theories of mindfulness and contemplative psychology that are currently popular but adds theory and practices for the experiential understandings of the constructed nature of sensation, body, thought, self, time/space, dualistic perception, and the individuality of the attentional system which reveals a progression of metacognitive identity, or basis of operation, beyond self, time, and individuality.

Below we describe Buddhist Essence Psychology, which is discussed in more detail in Appendix 4, and in even more depth in Churchill (2018).

Mahamudra

Essence mahamudra refers to the approach of direct investigation into the nature of mind and it is comparable to the rdzogchen teachings of the rNing ma and Bon traditions (Ringu, 2007). The Tibetan Bon tradition locates its genesis in the shamanic traditions originating 9,000 years ago, while the Indian Buddhist tradition locates its initiation 2,500 years ago. As such, the tradition is a wealth of knowledge, and practice, that is still alive in the form of the five Tibetan lineages of the Bon, Nyingma, Kagyu, Sakya, and Gelug schools.

In order to understand mahamudra it is necessary to understand the concept of *tawa (Tbt.)* or *dristi (Skt.)* which literally means, *view,* meaning the view from which one experiences phenomena. Brown (2017) explains that the view is dependent upon the basis of mental operation (spod yu), the loci of identity, level of awareness or vantage point from where the mind's metacognition is operating. In essence practice the meditations are less about meditating on something as they are about learning to operate from a new level of awareness, a new basis of operation, and from there to take a new perspective or view on experience.

According to Ras chung, student of Mi la ras pa, there are four main bases of operation: awareness fused with thought and self-structure, awareness beyond self-structure, awareness beyond temporal processing, and awareness beyond the information processing system. Each level is sequentially freer from the subtler and subtler reifications of unconscious psychological and perceptual structures.

Indo-Tibetan psychology is based on an understanding of four levels of mind, four main basis of operation; the coarse, subtle, very subtle and awakened. These are four levels of mental experience are always present in experience, but they are not necessary conscious. Whether a level of mind is made conscious or not is dependent on the level of view, the basis of operation from which identity is operating. The basis of operation shifts during meditation and initially this will be a brief *state* but as practice continues the state will become a *trait,* and a permanent developmental stage of identity.

Each basis of operation has the capacity to view phenomena (take the *event perspective*) and the capacity of self-recognition (the *mind perspective*). The event perspective refers to the perspective of mental objects perceived at that particular level of awareness i.e. concrete objects such as the thoughts and subtle objects such as abstract patterns. The mind perspective refers to the perspectival capacity to self-reflect and recognize the level of awareness from which the mind is operating i.e. to make awareness (the subject) the object of itself.

In Appendix 4 we describe the four-yoga model of sGam po pa's mahamudra. In it the meditator first calms the mind (shamatha), then by gaining insight (vipashyana) into the constructed nature of the self, time, and individuality recognizes awareness to be already beyond all structures to a basis of operation, buddha nature, without any reference points (Brown, 2006). The four methods described are: One-pointed yoga (calm/staying; shamatha), Non-discriminatory yoga (insight; vipashyana), One taste yoga (union of calm staying & insight), and Non-meditation yoga (mahamudra).

rDzogchen

rDzogchen, or "great completion practice," is the coordination and culmination of contemplative practice in the indigenous Bon tradition and the oldest Buddhist tradition in Tibet, the rNing ma. In the Bon tradition the lower stages focus on shamanic practice while the rNing ma model addresses the foundational Buddhist practices of the Hinayana. Both traditions then progress through Bodhisattva teachings on emptiness and compassion, and then Tantric approaches using visualization and yogic techniques to culminate in rdzogchen.

As the most pertinent example of the rdzogchen tradition we focus on the A Khrid system from Bon rdzogchen. It provides a systemized approach that parallels and expands upon the mahamudra four-yoga model mentioned above. In their translation of the A Khrid pith instructions, Brown & Gurung (2017) reveal how the commentary of the A Khrid divides practice into three main phases: bringing the unripened mind stream to ripening, bringing the ripened mind stream to liberation, and bringing the liberated mind-stream to the completion of Buddhahood.

The first of these prepares the mind for emptiness practices through methods including contemplating impermanence, setting clear intentions, and mentor-bonding. The second phase, of tasting and developing realization, contains the core elements of the contemplative essence psychology discussed in this paper. It includes ten practices leading to the capacity to operate naturally from awakened awareness, the level of lucid, open non-dual awareness, prior to the constructions of the information processing systems of perception, attention, temporal awareness, self-construct, emotion and cognition. The third phase describes esoteric practices that, given the base capacities of the liberated mind, expand that capacity into all aspects of the conscious and unconscious self, and into all daily actions and decisions; ultimately purifying the mind of all negative qualities and perfecting all positive capacities available to the human condition.

Awakening etc.

Though contemplative and religious traditions have a wide variety of meanings for terms like awakening, enlightenment, and realization, within the Indo-Tibetan schools there is fair agreement upon and precision in describing, if not the conceptual map and category boundaries, at least the forms of experience and capacities developed by various contemplative practices. The practice maps and experience maps can be quite detailed up through many stages of contemplative realization, and, though there will eternally be disagreements on the nuances within academic scholarship, the constructs described within the contemplative essence traditions have quite specific meanings.

Prajna: insight into impermanence, reactivity, no-self, and emptiness. In the essence tradition of mahamudra and rdzogchen, concerned as they are with the nature of awareness itself, metacognition is understood through the important concept of prajna (skt: prajna). This term technically refers to the experiential cognitive recognition of impermanence (anicca), reactivity (dukkha), no self (anatta), and in the Mahayana, emptiness (skt: śūnyatā). The term is sometimes translated as wisdom, discriminating knowledge, or insight (Buswell, 2013). Jna translates as consciousness, knowledge or understanding, and the term Pra is an intensifier that translates as higher, greater, or supreme. Training in ethics, concentration practice, and Prajna comprises the fundamental three trainings (sikkha) common to all Buddhist traditions. In terms of this work on Indo-Tibetan essence practice, prajna (Tbt:s hes rad) is synonymous with contemplative metacognitive insight. This metacognitive insight, particularly into the constructed nature of experience (śūnyatā) is what leads to the recognition of primordial awakened awareness known as jnana (Aky: jnana) (Tbt: ye shes). The distinction between prajna and jnana, metacognitive insight and primordial awakened awareness is fundamental to understanding the mechanism of essence practice. Ringu Tulku (2017), a mahamudra teacher in the Kagyu Tradition describes:

> The word yeshe yé is short for yé né, which means ‘right from the beginning’ or ‘primordially’. Some people translate it as ‘pristine’ or 'pure', meaning that it is untouched and unstained, and has been there all the time. It is the way it always was. So yeshe is discovered with sherab. Yeshe is understood by sherab, or approached by sherab. Ringu (2017).

In other words, primordial awakened awareness is discovered and understood by metacognitive insight. He continues:

> The difference between sherab and yeshe is very subtle and slight. But I think we can say that yeshe is the most natural state of our awareness or consciousness, which is unstained, uncontrived and completely ordinary. It is there all the time, but we don’t recognize it. It is sherab that brings about the recognition, but of course they are not two separate things. Ringu (2017).

Primordial awareness is always there, but one typically doesn’t recognize it. It is metacognitive insight that brings about its recognition, but these are not actually in essence separate, as metacognitive insight is an expression of primordial awareness.

Awakening. As discussed in the previous sections, the Indo-Tibetan essence traditions have been practiced as a form of psychological development in some form for thousands of years. The goal of the contemplative essence psychology of mahamudra and rdzogchen is the development of full human potential known as a Buddha in Sanskrit or Sangs rgyas in Tibetan (Buswell 2013). In Sanskrit, Bud means awakened and Buddha literally means *awakened one*. The Tibetan term gives more insight into the goal, Sangs means *purifying*, the purifying of emotional and cognitive distortions, and Gye rgyas means *flourishing, the flourishing of the 80 positive qualities of an enlightened mind*.

Awakening usually refers to contemplative achievements that are actually part-way on the path to Buddhahood, and one can experience aspects of awakening without its stable attainment, and while still early on the path of full purification of the mind. The process of purifying emotional and cognitive distortions is a goal that Western psychology also aspires to. However, the depth of awakening in the Indo-Tibetan tradition goes beyond the awakening from psychodynamic issues, and from dysfunctional cognitive and behavioral patterns that functioning in contemporary culture necessitates. This fruition of human potential manifests itself through:

- the different phenomenological dimensions that are fully cognizant through waking, dreaming, and deep sleep states known as the three-fold embodiment of unbound spaciousness (dharmakaya), lucid awareness (samabhogakaya) with non-dual geometric archetypal light fields (buddha realms), and the physical emanation body of everyday reality (nirmanakaya);

- the primordial wisdoms of mirror-like clarity, equanimity, discriminatory awareness, all-accomplishing executive functioning, and all-pervading spaciousness; and

- enlightened activity in the form of skillful application to reduce individual, cultural and social suffering and lead beings towards the realization of their full potential (Thrangu, K. 2011).

Omniscience. Omniscience (Skt. sarvajñāna; Wyl.ie rnam mkhyen), a term with metaphysical implications quite uncomfortable to our modern worldview, yet which is used somewhat uncritically in some contemporary spiritual communities to describe high stages of awakening, actually had a specific technical and, arguably non-metaphysical, definition in Indo-Tibetan Buddhism. For instance, the Bodhisattva Maitreya's work the Abhisamayalankara, which is studied by all the lineages of Tibetan Buddhism, outlines eight topics of study, the first of which is omniscience. Omniscience refers to the culmination of the knowledge, skill, and direct experience of how to reduce suffering and increase happiness through each of the Buddhist vehicles of practice. The goal of the bodhisattva includes liberating all sentient beings from their suffering and pain, and developing these ten aspects of knowledge within them (Ponlop, 2003).

Along with meditative (and metacognitive) training, Indo-Tibetan Buddhist contemplative education also emphasizes *cognitive* training comprising knowledge in ten fields that have been the focus of the traditional course of study since the first monastic universities of Nalanda in India and Samye, and rDzogchen monasteries in Tibet. These ten fields can be reduced to five:

logic, language, medicine and healing, the arts, and the Buddhist science of mind. Maitreya, in The Ornament of the Mahayana Sutras (one of the five treatises of Maitreya) states:

> If efforts are not made in the five sciences, even great beings will not attain omniscience. Therefore, to refute and to nourish, and to attain omniscience, make effort in the five sciences. Gyatso, (2016, p.42).

Recall that before modernity, perhaps in the Middle Ages and before, it was possible for an intelligent and dedicated individual to learn the basic elements of almost every field of knowledge. Today it is impossible to be a polymath ("Renaissance" man or women) in the same sense of having at least a theoretical grasp of most of the knowledge disciplines known to one's local culture. Like the child in awe of her parent, it may have seemed to those living "on the streets" in ancient times that such learned individuals actually "knew everything." In bygone times such a rare person was also poised to espouse meta-knowledge about the state of knowledge as a whole, including "how everything is connected" and the relevance or import of any aspect of knowledge.[4] This is what was meant by "omniscience."[5] It was not just about experiencing the depths (or radical emptiness) of consciousness, but also about accruing the practical knowledge allowing one to *apply* one's wisdom to many (or all) aspects of life, including in ethical and political domains.

There exists bias in the West towards seeing contemplative development as entirely a non-conceptual or metacognitive process. However, in actuality the psychological development of essence practice takes place within the context of a larger liberal arts education.

Buddhahood. Buddhahood is often described as the fullest expression of wisdom and compassion. Wisdom is defined in Buddhist contemplative psychology as the capacity for deconstruction and liberation from fusion with all cognitive structures so that the light of awareness never goes out whether in waking, dreaming, or deep sleep states. Compassion refers to the development of skillful responses to the needs of other beings. Compassion therefore does not just refer to an affective state, but to the construction of cognitive capacities and skills to understand and respond to practical reality in such a way as to reduce suffering and lead other beings in the direction of their full potential. This is the same process discussed in the research on ego development; the increasing capacity for defusion allows for deconstructive shifts in the fundamental basis of operation (wisdom), from which more complex adaptions to life circumstances can be made (compassion).

In the broader tradition of the Mahayana, within which the essence tradition is the quintessence, Buddhahood refers not just to a deconstructive liberation from all experience, but also a deeper integration and reorganization of cognitive structures brought about through a profound understanding of the various stages of practice and their pedagogical application in reducing human suffering.

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[4] Of course, academics today do this by the thousands, but, each has only a very limited grasp of the full knowledge produced in their time.

[5] In addition, from a more esoteric perspective, rigorous research into psychic phenomena indicates that it may be possible to obtain "non-local" knowledge (i.e. not constrained by space and time in the normal ways). Thus, though modern sensibilities prohibit us from considering anyone as literally "knowing everything," we can still consider the possibility that an adept could open perception or consciousness in such a way that they become a conduit for knowledge (as needed by others) that they did not previously "know" in the usual sense.

Therefore, a Buddha is an awakened being, having fully purified the emotional and cognitive distortions of multigenerational traumatic conditioning, and opened to the omniscient capacity to lead other beings to that realization.

Though, from our contemporary context, Buddhahood can be interpreted as a horizon, a hypothetical state pointed to by a path, the various aspects of awakening and the outlined steps toward Buddhahood can be confirmed experientially and incrementally through dedicated practice.

3. Integrating Contemplative Essence Psychology and Adult Development

This section focuses on the mapping of the contemplative essence psychology of mahamudra and rdzogchen in terms of mature adult development and is informed by the literature on metacognition. We have three goals. First, to show that contemplative essence psychology contains many of the conceptual tools and pragmatic understandings of a well articulated psychology of adult development. Second, we will explore how contemplative essence psychology can inform modern developmental models, and can deepen the goals of modern psychology to support mental health, and psychological growth and transformation. Third, we will discuss how modern developmental models can inform contemplative essence psychology to make its principles more available to the modern mind.

In the modern western understanding of the structural stages of development, such as those developed by Freud, Piaget, Fisher, Commons, Loevinger, Cooke-Greuter, O'Fallon etc., has developed over the last 100 years due to the sophisticated maps developed from third person scientific research into the longitudinal growth of human beings through the life span. Yet the maps and practices of the mahamudra and rdzogchen contemplative traditions offer Western psychology a perspective and path of human potential evolution and flourishing previously unexplored in Western psychology, and that is deeply needed in the contemporary world.

This section begins by exploring the *history* of the east/west convergence, including *methodological* differences, and *contemporary* clinical and research advances. We then propose principles of human psychological growth that integrate the developmental and contemplative fields, starting with *underlying mechanisms* that pertain along the full arc of maturation, and then focusing in on the *specifics of each stage* or level in the journey.

The section also offers a glimpse into an integrative process that could engage many generations of future dharma practitioners and psychologists in the process of reducing human suffering and actualizing potential.

3.1 Contemplative vs. developmental psychology: Historical and methodological comparisons

East vs. West: Phenomenology vs. Structuralism and Theory vs. Application

While much of our discussion will focus on the overlap between eastern and western approaches, the distinction between phenomenological and structuralist approaches to knowledge helps to contrast the two and explain their complementarity. The modern west seems to have learned so much about the human mind – its pathologies and modes of suffering, its capacities and further reaches, and the relationship between the emotional and cognitive modes of decision making – and yet it has kept this wealth of knowledge at an "objective" distance from embodied application in the lived lives of citizens. We seem to be as, or more, unhappy and neurotic vs. any historical period or civilization. In contrast, the findings of eastern contemplative traditions are not "up to snuff" in terms of modern scientific proof, and yet have always been aimed directly at improving the lives of real practitioners and cultures.

Wilber (2006) clarified the difference perspectives of these two methods of mapping psychological experience, through a distinction between *first-person* phenomenology, associated with the contemplative tradition, and *third-person* structuralism, found in Western forms of inquiry. Indo-Tibetan contemplative psychology is an ancient first person subjective, phenomenological tradition developed through deep introspection and interior research over many generations. The only way at this time to fully verify the claims of the tradition is to engage in the meditative journey oneself, to carry out the phenomenological metacognitive exercises prescribed and to compare the results to those collated and systematized by the tradition.

Compared to contemplative psychology, the field of adult development research is in its infancy. The work on cognitive structural development by Piaget, Commons, Fisher and others, and the work on constructive ego development by Loevinger, Cooke-Greuter, and O'Fallon are third-person structural disciplines. These maps have developed from the objective scientific structural analysis of studying levels of cognition and ego complexity in relatively large population samples. This research has led to the development of pedagogical approaches to supporting psychological development and education, but the development of these methods has come from the outside in, not the inside out. Perhaps because of this, or simply because of its relative recentness, it yet stumbles to create authentic applications as large-scale as its data sampling.

While science (adult developmental research, but also brain research, socio-political studies, etc.) can clearly add to the contemplative essence psychology by validating and extending its principles, it is less acknowledged that the eastern schools offer a wealth of information about the *experience* of adult development, especially at higher levels, as well as a treasure trove of nuanced practical instructions about pitfalls, dead-ends, common traps, fast-tracks, and diagnostic principles for practice guidance, that could help the findings of adult development become more widely implemented and more deeply understood.

Within contemplative methods, the mahamudra and rdzogchen stages of practice lead to the maturation of the very subtle and awakened bases of operations through deepening degrees of realization barely considered in western psychology. They are also accompanied by greater phenomenological nuance with respect to this development than does the Western research into adult development since the former in fact articulates the precise and actual means to bring about the transformation. The lineage libraries of the Tibetan monasteries consist of many meditation root texts, practice manuals, and commentaries developed over at least 2,000 years. Each of the five Tibetan schools has specific perspectives on the theory and practice of contemplative development, and continues to train contemplatives in these inner sciences to this day. This cultural wealth amounts to massive amounts of interior phenomenological research that has yet to be translated and/or generally disseminated.

East vs. West: Methodological Considerations

In integrating the Eastern and Western "sciences" of the mind, we should be explicit about their methodological differences. For example, though both make use of rigorous intellectual/logical analysis within peer communities employing debate; Tibetan psychology does not have an extensive research on the early stages of development (with regard to cognition); while western psychology does not have extensive research on the late stages of development (with regard to meta-cognition). Above we also mentioned the "WEIRD" biases of Western psychology due to the lack of diversity of subjects in most studies.

In comparison to pre-modern methods of psychological inquiry, the Western "scientific" study of psychology has several characteristics that underpin its strengths, yet also underpin its limitations: (1) its focus has been (with important recent exceptions) upon *pathologies* (the "disease model") rather than normative or exemplary human functioning; (2) as mentioned, it has taken a keen interest in the study of *children* (which is absent in pre-contemporary psychological, philosophical, and religious inquiry); (3) the *scientific method* itself, which is suspicious of the biases inherent in subjective insight, experiential knowing, and intuition; and bases rigor upon measurement and replicability; (4) its universalist, *non-metaphysical* and atheist bent, which forbids justification based on explicit dogmas (though it is still usually blind to tacit cultural biases); and (5) it can use random sampling and longitudinal measurements to discover generic developmental and cultural patterns not discoverable by less rigorous methods.

Eastern knowledge creation methods have their own comparative strengths: (1) they take seriously the revelatory powers of contemplation and intuition, giving *phenomenological inquiry* a high status, particularly in the human sciences of psychology, ethics, wisdom, and politics; (2) they afford more authority to the judgment of (communally validated) *adepts* in the fields of consciousness and wisdom; (3) they are explicitly aimed at *pro-social and emancipatory* aims (thus their close affiliation with religious traditions), and thus at the *practical* needs of people to find meaning, reduce suffering, and maintain positive psychological states – in contrast to Western science which is often either at an "objective" (and thus disembodied) distance from such matters, or is heavily influenced by market and political incentive structures; and (4) the belief systems and injunctions they produce have been *tested in grounded contexts and adapted for centuries*, which, though it does not guarantee the same degree of "truth" rigor afforded by the scientific method, but guarantees a much deeper relevance, practicality, and resilience than the vast majority of scientific investigations can afford (unless they have been "put to the test" for a very long time in multiple life contexts).

Subjective insight into the nature of one's own mind and cognition can be very difficult to articulate verbally/conceptually. In fact the rich detail and nuance of any deep experience is similarly ineffable, and language can only serve as a tentative pointer for others who have had the experience being described, or who are searching for that experience. The performance of a skill, such as leading a large group or maintaining equanimity in the face of frustrating circumstances, can have little correlation with one's ability to describe or theorize about the skill – the classic distinction between procedural vs. declarative knowledge (e.g. Anderson, 1983). Western science prioritizes declarative knowledge that can be used to describe, explain, or technologically invent something; while Eastern frameworks prioritize procedural knowledge that can be experienced and used in human decision making and action.

Traditionally, the esoteric wisdom of adepts becomes encoded into philosophical texts, poetic metaphors, allegorical stories, and practice injunctions carried forward by a culture. Those raised within such cultures can be *doing* and *experiencing* things that encode deep wisdom about the human condition, even though the individuals involved have no reflective understanding or what, why, or how they are doing (though some in those cultures may have high reflective or scholarly knowledge in that domain). The western observer, focusing on the lack of sophistication of the commonplace practitioner, can easily dismiss such knowledge as frivolous. This misses the important facts that (1) knowledge/wisdom can be rigorously *lived* without be explicitly "known," and (2) knowledge/wisdom can be carried tacitly at the level of *culture* in a way that is relatively independent of the explicit knowledge of participants.

Cultural rituals, worldviews, texts, and artifacts can harbor deep forms of knowledge, honed over centuries or millennia of use and tuning, that can remain hidden within individuals and invisible even to whole populations – as unreflectively embodied wisdom that later cultures or individuals can mine to recover (or regenerate) as explicit principles. As the sources and iterative tuning steps of this knowledge is usually lost, the "proof" of their validity is in lived experience, and not in scientific demonstrations or arguments. Yet the long history of adaptive use and cultural replication within Eastern traditions offers forms of validity that complement, not just contrast, the experimental methods of the West. Though it is not the modern way to simply *believe or adopt* them based on the legitimacy of authority figures, we can yet *respect and engage* them as presumably encapsulating valuable encoded knowledge about the human condition and its flourishing, beyond our Western world view and current science, that can be decoded and used.

East and West: Early Convergences

Before the recent advent and popularity of mindfulness practices in the west, the deeper regions of theory and practice of Asian contemplative psychology was known by a relatively small group of psychologists and theorists who struggled to reconcile Eastern and Western conceptions of development (Alexander et. al. 1990; Washburn, 2000; Dale, 2013; Wilber, 2007/2017; Brown, 1986; Engler, 1984).

Early longitudinal research by Alexander (1982) into Transcendental Meditation (TM) indicated that TM meditation facilitated ego development, as measured by Loevinger’s (1976) test of ego development. The TM subjects, who were prison inmates, progressed over a 4-year period from Loevinger’s *conformist* stage to the Expert *(self-aware) stage.* In a second one-year longitudinal study those inmates who were already meditating developed to Achiever (*conscientious) stage*, which corresponded to a dominance of mature abstract formal operations. However, Alexander's research into meditation, which included prolific efforts, with some 30 publications, only examined TM meditation, and unfortunately, due to the fringe perception of TM in academia, his results were not taken seriously outside the TM community, and no further researchers explored the relationship.

Mahamudra and Brain Research

As seen in recent research (Schoenberg et al., 2018) an increasing number of Western practitioners are developing through the traditional stages of contemplative realization. As such, the next step in the research is to investigate those few individuals who are stabilizing awakened awareness and purifying the unconscious mind through the practice of automatic dharmakaya release (rang shar rangrol).

Most of the brain-imaging research related to contemplative practice has been done within the mindfulness paradigm. However, Brown and associates recently completed an important study including the more advanced states covered in mahamudra. Drs. Brown, Brewer, Schoenberg, and Churchill recently completed a study with 30 intermediate level meditators that elucidated these stages of mahamudra meditation as having clear and distinct neurological signatures common to meditators at each stage of meditation (Schoenberg, et. al., 2018).

The study gave the first neurophysiological correlates of discrete mental states during Indo-Tibetan essence-of-mind practice using electroencephalography (EEG). The contribution of this study was its focus on the process of awakening as discussed in this paper, and represents an advance over prior studies focusing on mindfulness practices. The two higher stages of mahamudra meditation, one-taste yoga and non-meditation yoga, were differentiated into four specific meditative stages with each yoga comprising two meditative states.

The EEG findings indicated two major patterns. The first was that the current density upon entering the meditation state weakened in comparison to baseline control conditions observed in all frequencies and regions of interest. It is hypothesized that this was because the foundation of essence of mind meditation practice is to shift out of the cognitive/brain effort-effortless axis into recognizing aspects of mental experience that are always already present.

The second main finding was that while the default mode network activity in the medial ventral pre-frontal cortex and posterior cingulate cortex did not significantly increase across meditative states there was a unification of enhanced beta and gamma band density magnitude increasing from meditation state1 (ocean and waves) through to meditation state 4 (stabilized non-meditation awakened awareness) that spanned the anterior cingulate cortex (ACC), precuneus, and parietal lobes. This separation of the default-mode network and the executive functioning system reveals an active executive functioning and yet non-self-referential pattern of activity i.e. the executive functioning of the brain was operational while the basis of operation shifted beyond the self-structure to timeless awareness and then awakened awareness.

The results also indicate that as progression of the effortlessness became stronger there was enhanced ACC (executive functioning/self-regulation), parietal and insular activation suggesting the activation of brain networks associate with saliency, conflict monitoring, emotional control and shifts in perspective-taking that are inferred as supporting the very subtle meditative states of spacious awareness, non-duality, emptiness of phenomena, lucidity and referenceless.

Numerous EEG studies have revealed that EEG bands in the higher frequencies (beta, gamma) have been associated with the experiences of selflessness, non-judgmental awareness, and compassionate loving kindness (Schoenberg et.al, 2018). Our research showed that the anterior cingulate cortex (ACC), the central brain structure involved in executive functioning (working memory, theory of mind tasks, encoding reward prediction and prediction error, emotional regulation, cognitive processing), homeostatic physical states (hunger, thirst, awareness of breath etc.), and the encoding of stimuli valence through sensory modalities was active in the gamma bandwidth. This suggests *enhanced activity of executive control* capacities as they increasingly engage in maintaining *the view* as the practitioners shifted to deeper level of natural effortless meditation.

Increases in Gamma frequencies were also recorded in the parietal pathways of which the ventral stream relates to perspective shifting, such as from a first-person subjective perspective to that of a third person observer. Simultaneous to the continued activation of the parietal pathways, the self-referencing activity associated with the posterior cingulate cortex (PCC), part of the default mode network, remained deactivated throughout the stages of meditation. This was interpreted as relating to the phenomenological shifting from identification with the self (PCC) and to that of a referenceless basis of operation (parietal).

Beta frequency in the insular cortex associated with the metacognitive awareness and the modulation of interoceptive and emotional stimuli were also recorded. The researchers hypothesized that this was a possible neural marker for the non-preference or *equanimity* towards internal stimuli, which is a central marker of stage four, awakened awareness.

Further research is warranted, but one might hypothesize from the results that just as these states give specific neurological signatures so will the trait acquisition of these states as a permanent basis of psychological operation show specific neurological signatures. As practitioners engage in repeated meditative state practice, and the integration of the state into their lives, their basis of operation begins to permanently shift, and this is paralleled by a transformation in the neurological activity of the brain that can be measured. It is hoped that such research will support the legitimization of Indo-Tibetan contemplative psychology as a powerful means of reducing suffering and supporting the flourishing of positive mental states and altruistic engagement.

Clinical Implications

The adult developmental psychology of the Buddhist essence traditions has relevance to our understanding of psychopathology. It can be surmised that a path of contemplative practice that facilitates developmental would certainly make it easier to clear past developmental fixations. Forman (2010) in his text on integral psychotherapy noted that there has been little research on stages of adult development and psychopathology except that done by Gil Noam. In Noam and Dill's study of 89 adults in an outpatient facility (1991) it was discovered that whilst psychiatric symptoms exist at every stage of self-development there "was a clear decrease in symptom severity in those individuals with higher levels of identity [ego] development” (Forman, 2010, p. 95). This finding was also later corroborated with adolescents (Noam & Houlihan, 1990). Forman quotes the authors conclusions: “Correlations between identity development and symptom severity scores were uniformly negative indicating decreasing distress from psychiatric symptoms with increasing ego maturity, across all symptoms dimensions” (Noam & Dill, 1991, p. 214).

Further research into advanced practitioners of Buddhist Essence meditation, and psychopathology would be an important contribution since Noam’s research only tested subjects up to 4.0/Pluralist and none who had shifted a basis of operation to the metaware tier of ego development**.** The implications of snags rgyas, the flourishing of positive mental states in an enlightened mind, are profound for our understanding of mental health. The contemplative tradition teaches a means of treating the mind toward eradicating all negativity, so the mind becomes stainlessly clean (Tbt: dri med) and open. Within that openness the tradition's "80 positive qualities of mind" can flourish.

A study undertaken by Daniel Brown Ph.D. and Jack Engler Ph.D. (1986) revealed this potential in the Rorschach of a Theravadin meditation master. Rorschach data were taken from tests with meditators across the stages of contemplative development. Whilst intermediate meditators still showed signs of psychopathology and even personality disorders, the one Rorschach of the master showed that his intrapsychic structure had undergone a radical reorganization with no evidence of any sexual or aggressive drive conflicts, or any instinctual drive for that matter, pointing to the fact that there are no permanently opposed endopsychic structures at the core of the personality structure. This understanding of the possibility of the positive mind is essential to our understanding of mental health and the direction that investigation should pursue.

Further research into the phenomenology of the higher tiers of adult contemplative development will also reveal the subtler forms of pathology associated with these realizations. Essentially the crux of pathologies related to the different basis of operations, existential modes, is linked in the language of Indo-Tibetan contemplative psychology to the under or over application of emptiness. “Problems at any of those sub-phases will generate pathologies (for example, failure to adequately dis-identify or transcend creates a fixation or addiction; failure to adequately integrate or include creates an avoidance or allergy” (Wilber, 2017, p. 413). It will be increasingly important that these possible pathologies are understood so that psychologists trained in contemplative practice will be able to differentially diagnose and treat such pathologies.

3.2 Underlying Mechanisms in Contemplative and Developmental Growth

This is the first of two sections in which we will compare and coordinate contemplative and developmental models. In this section we focus on themes that address development as a whole, regardless of level. In the next section we focus on phenomena that arise at different levels. In other words, in this section we discuss the fundamental principles or underlying causal mechanisms of development and contemplative achievement, operating throughout *all* levels and explaining the transitions between levels. This includes patterns that repeat or reiterate several times across the spectrum of growth. In the next section we describe both capacities and practices as they *differ* across the spectrum of levels. Remember that adult cognitive development and contemplative development are overlapping but *distinct* processes. The "levels" described by developmental vs. contemplative theories are related but different, as we will discuss.

State, Stage, and View

Wilber-Combs Matrix. Ken Wilber, an important innovator in the transpersonal psychology movement, was also an innovator in the field of adult development. He synthesized over 100 psychological theories of development, revealing general trends and principles (Wilber, 2000). Through this body of work he saw that the concepts of state and stage were not sufficiently differentiated in transpersonal psychology models and eastern spiritual frameworks. Wilber (2007) clarified the difference between states of consciousness and stages of development, and thereby helped a generation of spiritual seekers and contemplative practitioners to understand that achieving an esoteric or "spiritual" state experience, even stable access to such an experience, does not necessarily translate into stable psychological maturity. Wilber (and Alan Combs) proposed a matrix separating the stages of ego/self development from stages of state identity (i.e. stable access to fundamental states). Along a horizontal axis they plotted levels of experiential state-identity: Gross, Subtle, Causal, and Nondual (i.e. the modes of existential awareness, or bases of psychological operations). Along a vertical axis they plotted the levels of (ego-) self-development as described in this text.

The point being that the two dimensions are independent – one can achieve any of the state experiences in any of the developmental levels – but one's *interpretation* of that experience will depend on the complexity capacity and psychological sophistication appropriate to their developmental level. For instance, a pastoral nomad in medieval Europe (Magic), a Christian fundamentalist in 18th century France (Mythic), and a Wall Street executive (Rational), could be given the same instruction, and in practicing the same way, experience the same state of formless awareness, and perhaps even mature it into a basis of operation or experiential mode. Despite sharing the same state/trait experience, the individuals would likely interpret their experience in completely different ways.

Though Wilber focuses on the primordial states mentioned in eastern traditions, i.e. waking, dreaming, deep sleep, etc., we will use a more extensive meaning of "state." Simply put: a state is an experience. It is what is happening in the moment, and from a neurological perspective is about what is *firing* in the brain (in any moment). In contrast, stages are learned capacities, which from a neurological perspective, are stored in memory and are about the *wiring* of the brain (which changes gradually through learning, etc.). Put another way, stage are about structure and state are about activity (activation). The state experiences we are most interested in for contemplative essence psychology are those that can mature into stable "bases of operation" and which form important foundations for ego development.

Views (1) – state-stages. An important question is, what is the relationship between states and stages, and in particular, how does the experiencing of esoteric contemplative states (or "spiritual" states, flow states, etc.) effect one's stable traits? To a first approximation, the Wilber-Comb matrix argument is that there is *no necessary* relation – the state and stage axes are perpendicular, i.e. independent. But, clearly, contemplative practice does help people grow psychologically. Wilber does not say that meditation does not facilitate self-development, in fact he alludes to Alexander's research sharing that meditation can engage structural self-development as well as state-development: "In fact, meditation, can help move you *an average of 2 vertical stages* in four years" (Wilber, 2006, p. 137).

What we can say is that dedicated practices leading to state experiences can lead to *stable intentional/skillful access* to those experiences. And as any skill becomes mastered and used repeatedly, it eventually becomes internalized and normalized within the unconscious, so that it becomes automatic. Wilber and others have differentiated the trait changes (the modes of advancing or growing) associated with development from those associated with contemplative practice, calling the former states and the later *state-stages*. The Indo-Tibetan calls these *views*. One's access to a view matures from unstable access during meditation, to stable skillful access in meditation, to stable skillful access in everyday life, to becoming an automatic "basis or mode of operation" within normal cognitive processing.

Though to a first approximation (Wilber-Combs model) states and stages are independent, actually it is more accurate to say that certain stable state-stages are *necessary but not sufficient* for acquiring certain stages (see O'Fallon in this issue and Darrall-Rew & DiPerna, 2016). A number of writers (including Wilber, 2017; O'Fallon, 2016; DiPerna, 2014) have clarified that the state-based process of *waking up* is not necessarily the same as the stage-based process of *growing up*. All these theorists agree that access to, and the stabilization of, the higher stages of structural cognitive development are dependent upon the access to, and stabilization of, deepening degrees of metacognitive modes of operations.

We continue our conversation of view below at "Views (2) – as bases of operation." Next we explore the question: what processes are involved in creating these state-stages or views?

Unlearning, Disembedding, and Liberation

Unlearning: constructive vs. deconstructive growth. There is a prevailing opinion, implicit or explicit, that the later states of growth in psychological maturity and complexity necessarily track with later levels of spiritual or contemplative realization. However, suspicions that the two are actually distinct have been deep in recent times, with the many disappointing, and to some shocking, stories of "awake" or "enlightened" spiritual teachers who have committed moral breaches or other severe errors of judgment (Arterburn & Felton, 2001; Bell, 2002). Deep spiritual states don't necessarily lead to practical wisdom. The Wilber-Combs principle that states and stages are distinct explains this in part – but there is more we can say about it.

The difference between spiritual growth and cognitive growth is clarified in noting that cognitive development is mostly a process of *additive* growth, while most contemplative practices aim, in part, to *deconstruct* cognitive conditioning (McKee & Barber, 1999; Murray, 2018). Let us consider the importance of deconstructive learning, or *unlearning*.

As noted by developmental theorists (see section 2.2), the maturation of human cognition involves the accumulation of concepts, skills, and perspectives over time – through processes of differentiation (perceiving ever more nuanced differences and details) and integration (conceiving of ever larger gestalt wholes and general concepts). These build up hierarchically, layer upon layer, from sensorimotor operations to concrete thinking and then "formal operational" abstract thought and beyond. Each piece of learning can be thought of as both a new tool that creates fresh capacity and *opportunity*, *and* a new binding or set of associations and assumptions that *constrains* the possibilities of future thought and action. For example, learning how to ride a bicycle or do multi-column multiplication creates new capacities; but also, as these skills are practiced and embed themselves into lived experience, learning them tends to make it less likely that one will learn and experience alterative ways. Beliefs about the self and skills associated with one's sense of self are particularly resistant to change and adaptation. Experiencing alternate approaches often requires *unlearning* and disembedding from learned patterns and assumptions (see Murray, 2019, on "unknowing"). One must often free oneself from the old to make space to constructing the new. There are obvious examples where unlearning is called for, for instance, when one comes to believe that one is not good at math, or that people on the other side of town are not to be trusted – but the applications of unlearning are broader than is usually recognized.

Hierarchical complexity models of development in the Neo-Piagetian schools (including Commons, Fisher, and colleagues) deal primarily with additive growth. While ego development (Loevinger, Cooke-Greuter, O'Fallon, and colleagues) differs in that it includes both additive learning and deconstructive unlearning. In ego development each unfolding stage of cognition (sensorimotor, preoperational, concrete operational etc.) leads to a metacognitive application of that level of intelligence towards the internal world of the psyche. This allows one to see the limitations of prior learning and either contextualize the prior learning by transcending into a wider perspective, and/or correcting or dismantling the prior learning. Both moves lead to new modes of freedom and choice.

Disembedding – self from content to context. As we have indicated, in many contexts in order to learn something new one must unlearn an existing structure. More precisely, what is usually needed is to *distance or disembed* oneself from the prior structure to clear away sufficient clutter and open up cognitive and behavioral space so that one can experiment with new objects and configurations of thought. This inhibits interference from habitual patterns that would crowd out the growth of new patterns. After the new learning is well established, one can then choose to revisit and *integrate* the old way with the new way, expanding the options available to respond to diverse contexts. In sum, unlearning is *disembedding from, not erasing*, prior cognitive conditioning.

In fact, the life-long process of ego (and meaning-making) development involves perpetually *recurring* phases of learning and *unlearning*. For example, to advance into formal operational thinking must critique, deconstruct, and/or disembed from conventional thinking and assumptions; while moving from formal operational to post-formal operational likewise involves dissembling from many of the assumptions of formal operational thought. Learning and unlearning occur at, and define, each major junction of development.

Creating this cognitive distance amounts to taking a broader perspective on prior conditioning, as in Kegan's process of reflectively turning subject into object – we come to see and evaluate a part of ourselves that was previously hidden. The ACT model (Hayes, et al., 2013) describes this as a shift in psychological operation from *self as content* (i.e. from fusion with a conceptualized narrative of self) to *self as context*, in which one operates psychologically as the observing self.

The pre-differentiated phase of cognitive processing is described as cognitive fusion or embedding. The term defusion (or cognitive defusion, Hayes, 2011), is another term for this process of constructing a part of the self that observes (reflects on) another part of the self. It is also known as disembedding, de-reification (Dorjee, 2013), reperceiving (Shapiro & Carlson, 2009), decentering (Safran et al., 1993), deautomatation (Deikman, 1982), and detachment (Bohart, 1983).

Thus, as an infant grows into childhood there is both a growth in the increasing complexity of cognition and affect, and simultaneously a greater degree of being able to defuse from the objects of experience at ever deeper or more entrenched layers of the psyche. Ideally, over a lifetime this leads to greater freedom and simplicity. Unlearning can also be thought of as a letting go of, a liberation from, a seeing-through, or a deconstruction of some aspect of the self or meaning-making apparatus, and in so doing opening to a wider view of reality (and self) that is not constrained by that conditioning. "*Insights*" develop through or leading into this wider space. Insights can include deconstructive revelations that "[such] is actually not (necessarily) true," and *constructive* knowledge that "therefore [such] is (possibly) true."

Phases of development are represented in the STAGES model through its articulation of the *receptive* (passive)*, active*, *reciprocal,* and *interpenatrative* phases of each tier. Each phase involves a different type of metacognitive process. The receptive phase occurs when one has disembedded from the prior world-view, creating enough distance to open to new types of objects in awareness (related to Kegan's subject-to-object process). At first the learning task is simply to recognize these objects (raw awareness). Further development (active) leads to the ability to compare, contrast, and order them (and to a fascicle ability to experience arisings without being merged with them – detachment). Further development (reciprocal and interpenatrative) leads to the integration of the new knowledge with what was distanced in the prior worldview (assuming development progresses in a robust way). This process of progressively deepening insight shifts the individual from temporary states of functioning to possession of enduring psychological traits (i.e. from states to stages). This contemplative mechanism of being aware without mental engagement in the contents of awareness is central to the process sequence of: (starting with passive fusion), passive raw awareness, active and reciprocal differentiation, and interpenetrative integration drives psychological growth through all stages of ego development (Wilber, 2000; O'Fallon, 2013).

Levels of emptiness. Contemplative essence practices aimed at this goal are also called "*emptiness* practices" – i.e. the contemplative metacognitive practice of examining direct experience to recognize its constructed nature, as it matures through the stages of contemplative practice. First the student learns the *theory* (i.e. conceptual map), that everything one experiences is constructed by the mind, and decomposable into parts ad infinitum. This idea is examined conceptually as it relates to the objective and subjective worlds of experience. This cognitive understanding is then matured through a series of progressive metacognitive practices examining specific psychological structures. The examination proceeds in phases with the decentering of the: body, self, emotions, thoughts, time, duality, core beliefs, and attentional system.

Emptiness practices makes visible to awareness tacit assumptions that *construct* one's sense of self and understanding of world. To make these constructions objects of *awareness* is to motivate the *deconstructive* move of perceiving reality absent of them. The result is not necessarily as much a "truth" as a perspective one learns to take. That is to say, one does not so much discover that body, self, time, concepts, etc. "do not exist," but rather that the ways they appear to us are constructions of the mind. Thus "emptiness" in these traditions does not take the nihilistic meaning of knowing (for sure) that something does not exist, but rather indicates the freeing capacity to *choose* to perceive the world absent of certain assumptions or modes of conditioning.

Unlearning can happen at many levels. Learned knowledge, beliefs, and practical skills can be unlearned or re-framed when reflective metacognition shows them to be inadequate. Psychotherapy is usually a process of bringing to awareness, then evaluating, and then disembedding from, beliefs and learned habits that negatively impact our *relationships or everyday happiness*. The unlearning that is of interest to us here involves the even deeper cognitive structures that define one's sense of identify and manufacture the contents of one's familiar experiential field. Compared to western psychology, contemplative traditions provide a more precise map of the process of unlearning the *self-system and the perceptual system*, that subsist at more primitive/foundational levels of the mind. The meditative processes outlined by the traditions of mahamudra and rdzogchen support deconstructive insights into the constructed nature of reality (in perception, conception, and belief).

We can expand upon the notion that deconstruction (unlearning) can target specific levels of early/foundational development. Very early the infant learns to process the unintelligible buzz of sensory input to perceive individual objects *as* recognizable objects. At some later point one *constructs* one's perceptual "understanding" of time, and of space. Later one learns that, among this activity of perceptual objects and events moving in time and space, some are *mine*, i.e. those that I have control over and feel as *my* body. Later in the development of the self/ego one learns that images that arise from memory and imagination can be distinguished from perceptual images, i.e. one learns to differentiate the duality of the interior vs. exterior worlds (imagination and really begin to separate). Eventually the infant begins to learn that objects have *names*, and language and conceptual categories (classes defined by durable features) begin to form. Along this path one also learns that the feelings and needs one experiences are distinct from the mother's (i.e. that others have their own interiors, needs, and experiences), unmerging self from other to build the first steps into autonomy.

Each of the early constructions noted above are essential to human functioning. Yet each also locks one into a particular mode of perception, conception, and being, and becomes the unexamined unconscious ground from which one acts. Disembedding from each of these foundational structures has its own particular results. (Results which contemplative traditions valorize, but which might also be seen as hazardous for some individuals.) Each of these types of conditioning (learning) was constructed in its own time and level within the cognitive architecture. Different techniques may be needed to disembed from each of these (though some techniques will target more than one of them). The Indo-Tibetan traditions specialize in elaborating exactly such a diverse toolbox of methods, which the contemplative essence schools have attempted to coordinate them into a coherent system.[6]

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[6] It is alto the case that individuals will differ on what method or "trick" works best for them to see through any given type of conditioning, and the traditions offer a variety of approaches to each goal.

Eastern scholars have contemplated this territory deeply, but modern cognitive science is also discovering much about the fine-grained sequences of acquiring these skills (in part through the study of infants and children, something the wisdom traditions did not do). It seems possible that specific contemplative practices and contemplative states can be mapped onto this progression of infant (and beyond) development. States and state-stages such as thought-free empty awareness, no-self, non-dual merging of interior and exterior realities, timeless presence, vast spaciousness of open awareness, etc. – can, theoretically, be mapped to specific layers of early cognitive processing being uncovered in cognitive science.

Supports for cognitive defusion. Into/Tibetan contemplative essence psychology and theories of contemplative metacognition prescribes a number of methods and principles for achieving/supporting the process of cognitive defusion (disembedding, etc.) at various levels of cognitive processing. Here we can draw from our tour of the literature on metacognition and contemplative practice. *Concentration* practices create focused awareness and inhibit distractions; and include attitudinal adjustments (e.g. equanimity) that support open awareness. For example, Hayes' ACT model includes “the creation of *nonliteral, non-evaluative contexts* that diminish the unnecessary regulatory function of cognitive events” (Hayes, et al., 2013 p.4). ACT (and MBCT) teach the client to come into direct experiential contact with the present moment (rather than being dominated by conceptualizations of the past and future) and, rather than attempting to alter the form, frequency, or intensity of cognitive experience (experiential avoidance), learn to accept it and be curious about it (Hayes et al., 1996).

We have noted that affective cognition is closely tied to the rest of cognition. For cognitive disembedding to serve its purpose in psychological healing and liberation, it must be accompanied by an attitude of acceptance (equanimity). If prior learning is rejected, distorted, or repressed without being re-integrated, this can lead to psychological dysfunction (Wilber, 2017).

In the psychotherapeutic disembedding from identification with dysfunctional experience such as maladaptive thoughts, negative beliefs, reactive emotions, and traumatic sensations, the client is able to develop perspective on their experience that allows for transformation. According to Yates (2017) mindfulness recodes the information from the object level so the dissociative processes of internal verbalization and defense mechanisms, which distract from immediate experience, do not distort it. This process of decreasing temporal dissociation reduces cognitive fusion (“the tendency to buy into the literal meaning of thoughts, feelings and bodily sensations” Herzberg et al. (2013, p.1)). This is supported by (Dahl et. al., 2015) research done on how the attentional practices of meditation stabilize the self-regulatory meta-level (Jankowski and Holas, 2011) of the metacognitive attention (Yates, 2017).

Views (2) – as bases of operation. Picking up our discussion of view from above ("Views (1) – state-stages"), the concept of *view* is central in mahamudra. *View – tawa (Tbt.)* or *dristi (Skt.)* – literally means the view from which one experiences phenomena. We mentioned above that a view is a stable state-stage in Wilber's terminology. Though some treatments focus on one particularly significant state-stage, noting that establishing "the" correct view is an essential milestone, we will speak of views in the plural.

Above we mentioned how cognitive defusion (unlearning, subject-to-object shifts, emptiness practices) help *establish* a view. But what exactly is a view? In the most general sense, views are modes/levels of *perceiving* the world, while stages are modes/levels of *conceiving* (making meaning of) the world. The developmental stages of meaning-making (and ego development) are largely about what one can see, recognize, reflect upon, and contextualize – primarily manifested through language. This constitutes an *explicit conscious* capacity to demonstrate understanding of something using one's conceptual apparatus. A view is more perceptual than conceptual, and does not require verbal elaboration to be achieved. Referring to our distinction between meta-knowing, meta-sensing, and meta-thinking, the view is a type of meta-sensing. We might also say that a developmental stage involves *focusing in* to "grasp" an object, "peer" into its details, and "link" it with other objects as a larger whole; while a view is a capacity for *open awareness* that steps back/out to take in the whole as a field, and forms a ground or space of potential within which objects can arise – perhaps to later be grasped (focused on). (Though practices that help *establish* a view will also use focusing practices.)

The different layers of cognitive processing noted above imply a differentiation (perhaps even a hierarchy) of views. Contemporary psychological models of metacognition and contemplative practice talk about views, but have yet to fully tap the knowledge within contemplative essence traditions. For example, Dorjee’s (2013) model explicitly acknowledges the need to better articulate the progression of views, which they call "modes of existential awareness," which come from the increasing degrees of de-reification achievable with contemplative practice. Our analysis here argues that views are more adequately defined by what layer(s) of perceptual/conceptual habits of mind have been *deconstructed/disembedded* than by a hierarchically built-up capacity. The more advanced "higher" views come from more flexible/free bases of operation at *deeper* layers of cognition.

Brown (2017) explains that the view is dependent upon the basis of mental operation (spod yu), the loci of identity, level of awareness or vantage point from where the mind’s metacognition is operating. In essence practice the meditations are less about meditating on something as they are about learning to operate from a new level of awareness, a new basis of operation, and from there to take a new perspective or view on experience. The process of contemplative development as outlined in the essence traditions is a metacognitive process of learning to shift the psychological basis of operations to deeper and deeper levels of awareness.

One's access to a view matures from unstable access during meditation, to stable skillful access in meditation, to stable skillful access in everyday life (when one consciously chooses it), to becoming an automatic (natural) basis or "mode of operation" within normal daily cognitive processing. As awareness becomes liberated from confused identification with the contents of consciousness it is eventually is able to recognize "primordial" aspects of its nature. With each new basis of operation, a field of new types of objects (phenomena) is available to conscious awareness. As in O'Fallon's receptive phase, at first this new field may seem empty-yet-pregnant, or vibrant-yet-elusive. But, with practice and time, new types of objects take form, and are seen to arise clearly within this newly expanded field, and can be objects of reflection, comparison, manipulation.

Mind vs. Event Perspective (figure and ground in contemplative practice)

Let us return to an aspect of metacognition mentioned in Tashi Namgyal's (2006) elaboration of one taste yoga: the mind perspective vs. the event perspective. Each basis of operation (state-stage or view) has the capacity to view phenomena (or content, i.e. taking the event perspective) and has the capacity of self-recognition (through metacognition, i.e. taking the mind perspective). The *event perspective* refers to the perspective of mental objects perceived at that particular level of awareness i.e. concrete objects for the concrete tier and subtle objects (such as thoughts) in the subtle tier (and awareness itself for the metaware tier). The *mind perspective* refers to the perspectival capacity to self-reflect on subjectivity and recognize the level of awareness from which the mind is operating.

In One Taste Yoga, establishing the view involves exploring the timelessness of the spacious phenomenological field of perception, and then recognizing the nature of the awareness that perceives such a field – thus shifting from event to mind perspective. Tashi Namgyal (p. 225) lays out three stages to the actual identification of the spontaneous coemergence: “When the meditator perceives the clarity of perceptive form and its unidentifiable emptiness as being the inseparable, denuded union of appearance and emptiness or emptiness and appearance, he has gained insight into the intrinsic coemergence of appearance” (p. 233). Brown (2005) calls these mind-simultaneous, cognition-simultaneous, and appearance-simultaneous views.

The complementary abilities of *focusing* attention on specific details or parts, and *open monitoring* of the perceptual field (i.e. zooming out to see contexts and wholes, like scanning in peripheral vision) have been identified as primary or core cognitive functions (Ainsworth et al, 2013; Fujino et al, 2018; McGilchrist, 2019). Open monitoring is not necessarily open to all phenomena in the moment, but is a vigilant yet relaxed seeking for any phenomena within some bounds (called "still hunting" by Bonnitta Roy – personal communication). For example, one can open one's perceptual field to awareness of "all moving things," "all red things," "all sounds," or "all thoughts" that might arise in any moment (opening to *every* phenomena arising in any moment is quite difficult and perhaps impossible, but see, for example, Shinzen Young's "cross training" methods of opening to inner sight, sound, and touch separately and then in a coordinated fashion (2016a,b)).

The mind perspective adds an additional shift to this open monitoring. It moves from the outward-facing open monitoring to sensing the subjective field itself – a figure-ground switch like seeing the frame holding a picture, which is very close to, or yoked to, the inward-facing sensing of the organ of perception *of* that field. In the still-hunting of the deer hunter, one maintains a relaxed open gaze anticipating movements that might reveal the prey. But it takes only a slight sift of perspective to notice the open field itself, which in this concrete case means the expanse of grass and shrubs, moving slightly in the breeze, covered by open sky; and another slight shift to feel into the *nature* of that open space – e.g. its expansiveness, the lushness of its texture, the warmth of its color pallet...; and yet another slight sift to become aware of the looker (the hunter) and notice these qualities as qualities one is feeling coursing through one's body; as a still point of observation that is both apart from and a part of the field.

In the case of contemplative practice, the shift is to noticing that some "I," or awareness-looking-through-my-eyes, or awareness-itself (perhaps just different meaning-making metaphors for the same phenomena) is *doing/being* something that is experiencing the phenomena. (The event-vs-mind perspective shift can be demonstrated at the *concrete* level by shifting from feeling/exploring an object, say a pen in one's hand, to experiencing the hand from the inside *as* touching/feeling/exploring the pen.)

The application of these core processes of focused awareness vs. open monitoring (and event vs. mind perspective) reiterates through developmental tiers, first within sensory-motor perception of the *concrete* world, and later with ability to metacognitively direct thought itself in the *subtle* tier. (At the *metaware* tier the process reiterates with a deeper awareness of the mind-body system as an integrated whole, including apperception of aspects of the unconscious revealed through somatic signals, and an awareness of awareness itself.)

The STAGES model can be used to tie this aspect of mahamudra to developmental theory. STAGES posits that each developmental stage starts with an exterior (other-oriented) orientation and matures to interior (self-oriented) orientation. STAGES scorers can distinguish "early" vs. "late" phases of any of the 12 levels by assessing the exterior/interior dimension within language cues. We suggest that the exterior orientation can be mapped to the event perspective, and the interior to the mind perspective. In this treatment mahamudra informs developmental theory by adding details about the practice of mind-vs-event perspectives; while developmental/cognitive theory informs, or empirically confirms, the mahamudra model.

Psychological science indicates that self-understanding is often preceded by understanding of the external world. For example, I child learning about the concept of anger (concrete) or prejudice (subtle) will see it as a negative characteristic of others well before seriously considering "am *I* prejudiced [or angry]?" As Forman notes: “All the stages of identity development, therefore, rely on different forms of outer-directed cognition eventually being used in the inner world of the self” (2010, p. 80). Similarly, STAGES proposes that new objects of awareness are recognized outside the self first, and within the self later – i.e. that exterior awareness precedes interior awareness, and that this pattern iterates for every developmental fulcrum.

Here we should clarify what is meant by exterior vs. interior, which is actually, as Forman calls it, outer-directed vs. inner-directed, or about you/they/it vs. about me. I.E. this is *not* a classification of objective (or 3rd person) phenomena vs. subjective (first person) phenomena, since one can be thinking about both the behavior (external or concrete) *or* the cognition (subjective or subtle) of another person (vs. oneself).

The outer-vs-inner directed (exterior-vs-interior in STAGES terminology) maps directly onto the event vs. mind perspective in mahamudra, if we treat exteriors as the content of perception/cognition and the interior as the metacognitive process of becoming aware (making object) that mental content or process. Logically the content must come first – one must be able to notice objects in the field before scanning the field itself for possible instances of those objects.

In the inner-directed phase of each developmental fulcrum the individual is using the sophisticated cognition that they have developed in cognizing about the *exterior* world, and are now directing that cognition towards the *self* in the form of metacognition. This process then re-formats the self-structure according to the new higher order cognitive actions. As such, each level of cognitive complexity has an associated level of metacognitive complexity, and a new understanding of the self-structure. (This also implies that the notion "going beyond the self" is ambiguous, since what one identifies with shifts at each level, into ever more subtle and decentered phenomena.)

In contemplative essence practice a toggling is apparent between the object and subject, as well as between the event perspective and mind perspective. For instance, during the process of developing attentional capacity the practitioner begins by developing the ability to stay on an object from the event perspective. Once stability is developed the meditator learns to switch perspectives and meditate from the mind perspective on the inherent spaciousness, non-reactivity, lucidity, and knowingness of awareness. (To say it another way, one shifts from the content of experience to the meta-cognitive contextual awareness of the experience.) When the aspirant begins to study emptiness he or she would also first come to understand emptiness through its application in the analysis of everyday objects, the most common approach being Chandrakirti's sevenfold reasoning (Pianka, 2009). Once one has the conceptual understanding that the human body, a car, etc. can be broken down into innumerable parts, none of which constitutes a *body*, then that same analysis can be non-conceptually applied in meditation to the self-structure leading to a recognition of a level of awareness beyond the self. This same pedagogical process of focusing first on the event repeats itself to support the recognition of the space-like nature of awareness during one-taste yoga, and the recognition of referenceless awakened awareness during non-meditation.

In the next section we will illustrate the interplay of mind vs. event perspectives sequence over several levels (3.0 to 6.5).

Summary: Repeating Patterns

We have noted several inter-related processes that repeat or reoccur periodically through the entire developmental sequence: (1) the movement from receptive (passive) to active to reciprocal to interpenetrative modes; (2) movements of learning, unlearning (or disembedding), and re-integration; (3) the movement from state experiences (first as glimpses and later at will), to steady automated state-stages or views (which create awareness capacities that enable particular fulcrums of development); and (4) shifting between event perspective and mind perspective (mapping to STAGES outward/exterior vs. inward/interior focus).

From the metacognitive literature we can also note (5) the interplay of attention and intention (as attention to intention, and intention on attention). Once metacognition brings the nature of this interplay into awareness, one can de-activate the processing involved in attention and intention to develop choiceless awareness (just sitting) as an automatic, natural process.

We have also noted, from the STAGES model, (6) the pattern of growing from understanding individual objects to collective objects, which can also be understood from MHC (Commons' and Fisher's theories) as increasing complexity from the awareness of objects in isolation, to perceiving relationships between objects, to seeing ever more complex systems of objects, to having those systems so fully integrated that a new whole emerges at a new level. Within the contemplative psychology of the Mahayana this shift from individual to collective relates to the shift from an individual and personal experience of awakening to the recognition of the universal interconnected and interdependent matrix of reality that is a collective. It is a shift from an apparently awakened 'me', to an awakened 'we'. This shift in realization has a profound implication to ethical and moral behavior as the individual realizes that their personal spiritual unfolding actually co-arises and is inseparable from the spiritual unfolding of the larger social body and by extension all sentient beings.

All of these patterns are described in the scientific psychological literature in terms of basic functions of the mind, and they are present in the Indo-Tibetan contemplative essence tradition through practices meant to support human liberation. This tradition elaborates, in successive levels, the metacognitive refinement of psychological insight into the constructed nature of human experience; and does so with practice injunctions that support the experience and embodying of these states and stages, vs. the mere objective (disembodied, conceptual, theoretical) understanding of them.

3.3 Levels of Developmental and Contemplative Growth

In this section we shift from describing repeating or iterating patterns of developmental capacities and practices to describing capacities and practices as they *differ* across the spectrum of levels. Here again, the contemplative essence tradition can be seen to coordinate well with modern psychological and cognitive theories.

Tiers: Gross, Subtle, and Causal

We will start with the large-scale structure of development, sometimes described as a progression of "tiers," and we will later discuss finer grained phenomena per level (by stage). As mentioned above, standard western psychology has elaborated on the significant movement from concrete operational to formal operational thinking, where the latter includes the adult capacities of abstract and logical reasoning. These shifts can be seen as emergent leaps in the types of objects that one can be aware of (and thus coordinate and manipulate). Fischer's Skill Theory refines the idea to specify these tiers: sensorimotor operations, representations, abstractions, and principles – where the first two are concrete operations, the next two are formal operations (Fisher, 1980). Common's model adds a higher tier for paradigms, making way for "post-formal" and post-post-formal operations (Richards & Commons, 2002).

As has been described, these models map cognitive complexity alone, while ego development models include the application of complexity capacity to the *interior* domain of the self, or the domain of the ego-involved, and thus describe processes of unlearning and disembedding that map transformations of the whole self, opening up ever wider fields of perspective and state-stages of awareness. (Remember that this describes the ideal case, in which increasing heights of complexity coordinate with increasing depths of state-stage development – while, in less than ideal, yet common, cases height and depth can develop separately, as noted in the Wilber-Combs principle.) O'Fallon's Concrete and Subtle tiers map to the concrete and formal operations and of other models, and she adds a post (or post-post) rational tier called Metaware, in part influenced by Wilber and his descriptions of the spiritual aspects of the post-rational territory.

Wilber's and O'Fallon's models are strongly influenced by eastern models, which describe three fundamental tiers: gross, subtle, causal. Drawing on the Indo-Tibetan tradition, we can expand this to include four levels:

- The *coarse* (or gross) level of mind, which has a basis of operation of awareness fused with body, thought, and self structure, and is also the foundational metacognitive mode of the concrete tier of development (STAGES Concrete tier, 1.0-2.5). O'Fallon extends the mahamudra notion of View into the lower tiers, suggesting that developing View at this tier involves the ability to simply *focus attention* on concrete objects (individual and collective).

- The *subtle* level of mind, which has a basis of operation of awareness beyond the self-structure, and is the foundational metacognitive mode of the subtle tier (STAGES Subtle tier, 3.0-4.5). According to O'Fallon, the basic View of this tier involves the ability to focus on the objects of thought, including subtle feeling states.

- The *very subtle* level of mind, which has a basis of operation awareness beyond temporal/spatial processing, and is the foundational metacognitive mode of the metaware tier (STAGES Metaware tier, 5.0-6.5). For O'Fallon, the view at this stage can also include awareness of the meaning-making process happening in real time (leading to construct awareness).

- And, the *awakened* level of mind, with a basis of operation beyond informational processing of the intentional/attentional system, and which is the foundational metacognitive mode of the unified tier (STAGES Unified Tier, 7.0-8.5).

Seen through the STAGES model, contemplative psychology provides the theory and means for recognizing the bases of operation that are the foundational identities of the higher tiers of development (metaware and unified) necessary for advanced adult development. From the perspective of Indo-Tibetan essence psychology, contemplative practice focuses on the knowledge and skills to support the recognition of new contextual existential modes of awareness, basis of operation, and the integration of perceptual and mental content into those basis of operations. As seen in Table 1 below, the direct relationship between the tiers of development, levels of mind, and basis of operation allow for a potential theoretical integration of these theories.

Table 1. Tiers of Ego Development, Levels of Mind, and Basis of Operation.

Tier of development	**Level of Mind**	**Contemplative Bases of Operation**
Concrete	Gross	awareness fused with body, thought, and self structure
Subtle	Subtle	awareness beyond the self-structure
Metaware	Very Subtle	awareness beyond temporal processing
Unified	Awakened	beyond localized informational processing of the attentional system

Concrete and Subtle Tiers – practices and capacities

1st and 2nd PP religion and practice. When eastern spiritual and contemplative teachings were brought to the west in the mid-twentieth century they were somewhat distorted – modified to suit western cultures, and perhaps also biased because of common characteristics of eastern teachers who would be drawn to teach in the west, leaving their cultures behind. What was generally lost is the importance of foundational practices within what we would here call the concrete and tier (and also but to a lesser degree, the subtle tier). Spiritual seekers and contemplative enthusiasts usually imagine they seek some state or stage beyond the norm. Though spiritual and contemplative practices almost universally reiterate traditional teachings about ethical and physical foundations, it is easy for these to become attenuated in western culture – as if "we already have that taken care of," when in fact, the opposite case could be made that it is in the ethical sphere and the early psychological "attachment" domain that the West is most lacking and/or pathological. That being said, many are indeed inspired by the ethical principles and moral narratives brought from the East; and body-based yoga practices have obviously proliferated in the west.

As in other religious traditions, most followers/practitioners of Buddhism live in simple pre-modern contexts and have infrequent opportunities to develop abstract thinking skills. Even for the minority who studied in monasteries, where intellectual rigor was taught, the opportunities for exposure to diverse perspectives was much less than that afforded by the modern world with its communications and transportation technologies.

Meditation in itself is not seen as enough to facilitate the kind of integrated growth necessary for the training an awakened mind. Foundational features that we would associate with concrete or conventional modes of thought accounted for the bulk of religious engagement for most traditional practitioners. These include: story telling; rituals; the repetition of movements, words, or sounds; simple actions of service and devotion; and numerous rules and principles defining an ethical lifestyle (prohibiting lying, stealing, killing, etc., and encouraging pro-social attitudes). At this foundational concrete level of understanding Buddhism also offers a number of tools for tuning the *attitude, motivations,* and background *knowledge* of the practitioner so as to support the central goals of skill-building, mental purification, and insight generation. Examples include: the charnel ground contemplations of inevitable sickness and death; and invocations calling for the guiding support of ancestors or etheric teachers. Within Indo-Tibetan schools, the Khrid system from Bon rdzogchen prepares the mind for emptiness practices through methods including contemplating impermanence, setting clear intentions, and mentor-bonding.

The above apply to ordinary followers and practitioners. Those in charge of the more rigorous studies of the monastery sternly enforced ethical rules and concrete behavioral injunctions, as prerequisites to more esoteric practices. Though, surely, there are exceptions, this level of concrete-tier rigor contrasts greatly with how, in the contemporary west, "almost anyone can walk off the street" and plunge deeply into a contemplative practice program. The west also tends to lack the rigor of the custom-based teacher accreditation/legitimation methods maintained in the east – allowing for many teachers with questionable foundations who "hang the shingle" advertising their gifts. (Of course there are many exceptions in the west to this low bar for student entry and lack of teacher certification rigor.)

Contemplative training has been historically undertaken within the larger context of a monastic liberal arts education that included study and intensive retreat experiences. In the sub-section on "omniscience" above we noted that, along with metacognitive (meditative) training, Indo-Tibetan Buddhist education emphasizes *cognitive* training comprising knowledge in ten fields (that can be summarized as: logic, language, medicine and healing, the arts, and the Buddhist science of mind).

All this is to say that, when considered from its indigenous context, Buddhist contemplative frameworks were *well aware* of the necessity of concrete operational (1st PP and 2nd PP) thought and associated behaviors as the prerequisite foundation upon which formal-operational domains (3rd PP) were built – even though one might think the concrete operational considerations were lacking by observing only western instantiations of eastern practice.

3rd PP skill-building – metacognition. Contemplative traditions also directly support 3rd PP capacities in two forms: *metacognitive* thought and abstract *theoretical* knowledge. Formal operational thought includes the metacognitive capacity to monitor and think about one's own thought processes. It also includes the *logical* reasoning capacity for causal analysis and self-reflection, which in contemplative contexts is essential for developing an understanding of the cause and effect of the pervasive reactivity characteristic of the undeveloped mind. These combine to produce skills such as reflective thinking, critical thinking, perspective taking, self-authorship, and self-directed learning.

The fundamental practice of honing one's ability to focus on concrete objects, such as a candle flame, a mantra, or the tip of one's nose, are *concrete* practices. Mindfulness practices that call for one to maintain focused attention on the interior world of thought processes and subtle body sensations correspond to *subtle* tier 3rd PP skills in the STAGES model. These processes can lead one to elementary insights into the emptiness of thoughts, beliefs, and egoic attachments (see the sub-section above on "Prajna: insight into impermanence, reactivity, no-self, and emptiness").

It is important to emphasize the significance of the fundamental cognitive skill of sustained attention that is developed in the tradition through the practice of calm/staying concentration meditation. The stages of meditation are a form of learning, and like all forms of learning the ability to concentrate on the topic at hand is primary to learning about the topic more deeply. The research undertaken into the stages of contemplative metacognition reveal that the Anterior Cingulate Cortex (Schoenberg et al., 2018), which is activated in states of heightened concentration, is engaged by intermediate practitioners when learning to stabilize the new existential modes of operation in one taste and non-meditation. The training of attentional capacity is therefore fundamental to moving into the stages of adult development associated with contemplative practice. Within traditional Indo-Tibetan practice instructions we can find correlates to all of the sub-processes of attention cognitive processes noted in Grossenbacher et. al., (2017), including disengaging, shifting, engaging, sustaining, monitoring, and scope modulation of attention.

First the student learns the theory that everything in reality is constructed, made of parts connected to other parts ad infinitum. This truth is examined conceptually as it relates to the objective and subjective world of experience (in other words they are given the cognitive map). This cognitive understanding is then matured through a series of progressive metacognitive practices examining specific psychological structures. As we said, the material is first understood in an outward-facing more objective or conceptual sense; and then applied to the inward-facing domain of understanding and transforming the self.

3rd PP skill-building – logical reasoning and theoretical knowledge. We noted the importance of abstract *theoretical* understanding about causal relationships and subtle interior processes. The theoretical knowledge needed to authentically practice the mahamudra or rDzogchen essence psychology would include at least the following:

- knowledge of causal (Hinayana), systemic (Mahayana), and (essence) metasystemic levels of analysis to understand the causes of individual and social suffering and happiness,
- basic knowledge of how individual psychology, personal health, and the outer environment effect learning and practice,
- knowledge of motivation and its development from an individual focus on peak performance to the full maturation of the heroic altruism seen in the bodhisattva,
- the knowledge of the importance of character strengths and their development, and the self-knowledge needed to recognize personal character strengths and weaknesses,
- a pragmatic understanding of contemplative Buddhist psychological models of mind (attention, eight consciousnesses, levels of awareness, mental structures, etc.),
- understanding of the theoretical map of the contemplative journey,
- knowledge of the theory and developmental stages of practices for visualization, concentration, mindfulness, insight, energy cultivation, dream and sleep yoga, and essence practice, and
- the knowledge of the interaction between the practices and the possible aberrations of the practices.

Rudimentary versions of most of these ideas can be understood by concrete thinking. It is also true that more advanced forms of understanding them can move beyond the linear cause-and-effect, and strictly hierarchical relational structures of 3rd PP thinking into co-definitional, interpenetrative, ecological, and holographic structures understood by 4th PP cognition.

4th PP capacities. Because of the previously mentioned differences in the contexts of pre-modern vs. modern cultures, there are marked differences in how each person perspective manifests itself in traditional eastern vs. modern western contexts. *3rd PP* skills in traditional (here eastern) cultures were more limited to advanced study, as in the monastery, or among the well-to-do, or to highly cosmopolitan regions having a constant influx of alternative perspectives. Because the development of modern science and technology has required a sizable infrastructure including robust cross-fertilization of ideas and the efficient production and transportation of materials, and a work-force supporting all of that – all missing in traditional cultures – 3rd PP formal operational thought in traditional Buddhism took the forms of rigorous logical analysis and highly abstract concepts and models *without* including the "scientific method" presumed to have given rise to modernity. That 3rd PP cognition is more the norm in modern society implies that a higher percentage of people are ready for deep contemplative training (vs. say, concrete level Buddhist religious dogma, beliefs and rituals). That being said, it may also be the case that the modern mind has a more neurotic and complexly dysfunctional psyche, with more incomplete 1st PP and 2nd PP foundations, which could either inhibit contemplative insight or, worse, produce dangerously distorted outcomes from contemplative practices applied without the proper prerequisites (as described above).

There are also differences in how *4th PP* manifests in traditional vs. modern contexts. 4th PP emerges, in part, from grappling with the *limits of the 3rd PP* worldview. We see that 3rdPP empirical science, technology, and logical thinking have created as many problems as they have solved – both the achievements and the calamities of modernity are pronounced, whilst the calamities threaten to destroy humanity and the entire biosphere. 4th PP is associated with deconstructing the modern narrative and its materialists, triumphalist, and imperialist overtones; and revealing the hidden habits of externalization, extraction, and short-term thinking that feed modern progress. In comparison, traditional cultures had only a hint of the havoc possible when 3rd PP thinking took control. Thus their development of 4th PP capacities was not only rarer (in proportion to the number of 3rd PP thinkers that could develop further), but also less well fleshed out.

In addition, the 4th PP worldview is spurred by the cognitive dissonance that occurs when one encounters perspectives and viewpoints different than one's own. As we said, though some monasteries and cosmopolitan centers were known as places where cultures and knowledge-systems intermixed, it was nothing compared to the rapid movement and confrontation of ideas possible today. In the STAGES model 4th PP involves understanding subtle *collectives*, which includes the ability to reflect not only on one's thoughts and others' individual ideas, but on whole *systems* of ideas (as well as interior systems of sub-personalities). It is the collision of entire cultures and world-views, seen not over the slow course of human migration and generational shifts, but in the immediacy of televised (and twittered) wars, class conflicts, and intersectional identity politics – that forces us to see the limitations of, not just individual ideas, but our deepest cultural and identify-forming tacit assumptions.

Thus the 4th PP mind begins to contemplate the movement and evolution of *collective* thought, in the form of belief-*systems*: memes, worldviews, identities, paradigms, etc. Following the STAGES model of exterior (outward facing) before interior (inward facing) learning, we first see the noxious assumptions within unexamined belief systems as *out there* in "the system" ("the man," patriarchy, capitalism, the military industrial complex, etc.), and only later begin to know that our own thinking is always inevitably constrained by tactic cultural and psychological thought-systems. (3rd PP can see how the individual thought *processes* cloud mental clarity, but is not yet thinking in terms of collective thought-*systems*.) 4th PP thought also sees how knowledge is *hermetically bound* and *highly contextualized* – i.e. the interpretation of any text, concept, or idea can vary greatly based on the cultural and historical background it is interpreted within. In sum, truths and beliefs are revealed as social constructions.

The above partially explains why traditional religious and spiritual cultures can seem ethnocentric, patriarchal, and over-confident from the contemporary (or post-modern) perspective. Given this explanation of how 4th PP thinking in modern times will differ from 4th PP thinking in pre-modern times, we can still note how 4th PP cognition is represented in Buddhist theory and practice. 4th PP ego development occurs when one applies 4th PP cognitive complexity capacity to the domain of ego or self-involvement (including self-understanding and relational understanding). As we said, 4th PP perceives complex systems of objects or ideas (including systems of interior parts/processes). It begins to notice not just the impact of *certain types* of thoughts, but the misfortunes perpetrated by *thought itself*, and by reason itself. 4th PP cognition is also well equipped for multi-perspective taking, as it sees the limitations inherent in all/any perspective (not just some perspectives). In addition, 4th PP can better tolerate paradox and uncertainty, a hallmark of flexible thinking. It can better see variables and relationships as interdependent, and conceptualize open boundaries between systems (Koplwitz, 1984).

We can postulate that Hinayana, the first turning of the dharmic wheel, roughly corresponds to the awakening of 3rd PP; and the Mahayana, the second turning, roughly corresponds to the awakening of 4th PP. Mahayana introduces notions of emptiness (of various forms) and non-duality, and many of its texts work specifically with paradoxes, which is another 4th PP capacity. For example "deep examination of the essence of mind through wisdom will reveal the mind in an ultimate sense to possess neither intrinsic nor extrinsic reality; it is without structure" (Namgyal, p.64). The doctrine of dependent origination concerns the massive (systemic) co-determination of all objects of awareness. Mahayana is also more concerned with the liberation of the *collective* than the individual (as in Hinayana).

4th PP opens consciousness to the conditioning of and limitations of the mind; but, until 5th PP is obtained, these realizations are usually conceptual and after-the fact. The insights about the constructed nature (the emptiness of) self and ego, beliefs and ideas, and norms and preferences – are obtained through post-reflection, and perhaps after conceptually understanding another's erudition. They are more likely to be applied to understanding or critiquing others, groups, or "the system," than oneself. At 5th PP these insights become perceptual, immediate, and deeply personal, as conventional reality and the scaffolding of the self begin to radically disintegrate.

Metaware and Unitive Tiers – practices and capacities

We have noted how 3rd PP and 4th PP world-views manifest quite differently in pre-modern vs. modern (and post-modern) contexts. One might think that this trend will continue into the metaware tier (5th and 6th PP). This pattern is not as noticeable in the metaware tier as one might think. This is because the main differences between the two cultures in the subtle tier have to do with the large differences between pre-modern cultures and contemporary culture (which is a mixture of modern and post-modern worldviews). *There are no* post-post-modern (or metamodern, or metaware) cultures; there are few if any fully post-post-modern (or metamodern, or metaware) organizations or groups. The metaware system of thought has not be realized by enough people, and has not been worked over and through in richly intersubjective contexts enough to have evolved any stability (even local stability) at the collective level (this is mostly true of 4.5/Strategist also). Therefore there are not any appreciable metaware *cultural* contexts or artifacts to influence one's growth into and through the metaware tier. Therefor there is actually less difference between the metaware mind in traditional Buddhist contexts vs. contemporary contexts (though there should still be *some* differences). Therefor, we will not try to explicate East/traditional vs. West/contemporary differences at the metaware tier as we did with the prior two tiers.

With a foundation in causal analysis (3rd PP), Buddhist contemplative thought then evolved from a reductionistic perspective on human suffering (abhidharma, higher teaching, 3rd PP), to a systems perspective (madhyamaka/middle-way, 4thPP), and then to a later metasystemic perspective (awakening, 5th to 6th PP) (Guenther, 1989; Wilber 2014; Brown, personal communication, 2017). (We can postulate the Buddhahood corresponds to the Unitive tier of 7th and 8th PP.) Each phase of the teaching is an expression of a cognitive paradigmatic shift in understanding human suffering and happiness and its causes – a turning of the wheel. These shifts map well to our modern understanding of cognitive development.

In relationship to the exploration of contemplative psychology it is useful to explain the four stages of the Metaware tier, the aspect of the STAGES model that most pertains to Buddhist psychology. Terri O’Fallon (2013b) describes that in the metaware tier the mind can begin to perceive both the fullness of objects and the emptiness of awareness itself (which relates to the event and mind perspectives). The process through the metaware tier is the process of eventually reconciling awareness and its object in a non-dual recognition.

Each of the four stages of stabilized metaware apperception have a different focus or object of awareness but all have a sense of awareness with a ‘fullness’ and ‘emptiness’ of the objects that arise in awareness as the silent eternal, infinite field of the Witness. As one moves through these four metaware stages, the emptiness-fullness poles and the witness-kosmos poles gently collapse into each other in a process that comes to completion in the theorized fourth unitive tier (O’Fallon, 2013b, p.6).

Based on Indo-Tibetan essence teachings, the processes de-reification (or decentering) of the constructed nature of reality, generated by contemplative insight, pass roughly through these phases: body, self, emotions, thoughts, concepts, time, duality, core beliefs, and the attentional system. The first four of these are associated with contemplative insights in the subtle tier, the next four from the metaware tier, and the final one in the (much more speculative) unitive tier. Drawing on contemplative essence theory, we can describe some of this territory below in terms of no-self, timelessness, spacious freedom, the non-dual state, non-meditation, and non-localized awareness, and bodhicitta.

No-self. The relativistic experience of the self is, from the perspective of the essence traditions, the beginning of recognizing the emptiness of the self. Beginning at a pluralistic consciousness (4.0) that recognizes the social construction of the self, the ability to recognize mental structures that have been fused with awareness (at 4.5), matures into recognition of the creative construction of language, meaning, and perception (at 5.0 and 5.5; Cook-Greuter, 2000; O’Fallon, 2010a). Such processes support a shift in perspective that leads to an experience of self beyond conceptual construction. This shift in operation happens by making the prior subject of experience (the narrative-content self) an object.

In terms of practice sequence, as mentioned above, in order to shift the self-structure to a new identity (self/oneself) of awareness beyond self-structure, the practitioner recognizing, through insight meditation, that the self is a mental construction. The meditator then concentrates on the recognition of awareness that reveals itself as being beyond this self-structure. This continues until this awareness beyond the self is established as a new center of identity, a new basis of operation (a new "self"). Once this basis of operation becomes stable the relative activity of the mind can be allowed to return but this time viewed from a different existential mode. The change of basis of operation does not just change the fundamental level of identity or existential mode, but also allows for the reorganization of one's perception of the self-structure (and also of time, as noted below).

Really understanding that the self is a construction allows for the re-organization of the self-structure and its personal narrative into a structure that appreciates its relative existence. As such the process of deconstructing the self-existent reified entityness of the self offers the opportunity for reconstructing a new self – informed by the knowledge brought about by the transition to a new identity/basis of operation. In the developmental theory outlined by O'Fallon this reconstruction of the self begins at 5.5 and deepens to completion at 7.5. After the passive stage of stabilizing a new metacogntive basis of operation at the metaware tier of the very subtle level of mind 5.0 and the unified tier of the awakened level of mind 7.0, there then follows a more active phase of reintegrating the active constituents of mind such as thought and imagination.

Emptiness of time. This developmental process into the metaware tier leads to a recognition that culminates in the experience of the temporal organization of reality being a mental construction. This does not negate the experience of time, nor the objective (seeming) dimensions of time described in science, but only negates its experiential subsistence. In essence practice the meditation on the emptiness of temporal experience opens up the recognition of a spacious field of timeless awareness as a new basis of operation, corresponding to developmental stage 5.0. This process of orienting toward the larger whole field and then integrating the parts within the field is fundamental to the essence contemplative path. Once there is a new basis of operation, the practice of one taste meditation begins as the meditator works to maintain this newly emerged point of view simultaneous to the ongoing everyday activity of thought, affect and mental imagery arising in the mind. The emphasis is still on learning to stabilize the field of psychological operations during this mental activity and not suppressing it.

In corollary to the Into-Tibetan framework, O'Fallon's research (2013), reveals that that the mind expands its phenomenological perception of time to a large historic time frame and planetary space frame at 5th PP, and then to an understanding of evolution in the eternity of time and infinite of space, an infinite cosmic evolutionary process, at 6th PP. At that stage of integrating context and content it is understood that eternity and infinity are content, they are vast constructions of mind within which the evolutionary process continues indefinitely. Within 5th PP understanding, the mind can intuit possible futures along the trajectory of open and infinite time/space. However, this form of intuitive knowing is still based on a subtle construction of time and space. Beyond this, at 6th PP, is an understanding of the unbounded and timeless unconstructed nature of mind. At this level of stabilized contemplative development the fullness of evolution is held in the openness of unbounded awareness as part of the individual's on-going moment-by-moment experience. Practitioners at this level of development report experiencing the unfolding of cosmic evolution simultaneous to a liberating freedom and compassion whilst engaging in the everyday activities of daily living.

Metacognitively this means that the self is experiencing and understanding itself at 5.0 to be an expression of a historic ancestral process. The individual recognizes from a timeless basis of operation that the self and the language used to describe the self has been constructed over multiple generations. This matures and deepens so that by 6.5, the end of the Metaware tier, the individual recognizes from a timeless basis of operation that the self is an expression of a cosmic evolutionary process played out on the stages of infinite time and space. These insights are not just cosmological musings, but are how the individual interprets and makes sense of everyday challenges. Just as the Great Law of the Iroquois held that all decisions should consider the next seven generations (140 years), at the level of 6.5 there is an ethical appreciation that each decision should consider the cosmological evolutionary process and whether decisions are reducing or increasing psychological, physical, cultural, systemic, and environmental suffering for the evolutionary whole.

Spacious freedom and the Non-dual state. When, through the deepening of purification caused by maintaining timeless awareness as a basis of operations, the coarse and subtle level mind with its concrete and abstract concepts quiets, the mind becomes non-conceptual, and the student orients to the field of spacious experience recognizing the non-duality between the awareness and the background spaciousness of the sensory fields. This realization of the spaciousness of mind opens the path of practice known as *spacious freedom* which relates to the 5.0 level in Stages. As this level of practice matures it opens the direct experience of interconnection and interdependence that are indicative of the authentic experience of compassion as understood in the Mahayana, a compassionate spaciousness that phenomenologically is experienced as holding all beings of the past, present and future in a deep motherly embrace. This parallels the metacognitive maturity of the Metaware tier flowering at 6.5 into a deep experience of the metaware community that exists as a timeless ‘we’.

At that point the practitioner then refines the recognition into the empty constructed nature of all experience and purifies the residual, hidden, deep and subtle core beliefs of the increasingly diaphanous self-structure. This purification leads to a natural non-dual state of timeless awareness-space without any artificial activity of mind and within which all mental activity arises automatically and naturally as empty open constructions.

Non-meditation and non-localized awareness. This natural state is then used as a foundation upon which to set up the orienting instructions of non-meditation (correlating with entry to the Unified tier, 7.0). Here the practitioner shifts his or her identity out of identification with the attentional system’s localization of individual consciousness and information processing to the non-localized, limitless basis of operation, and the existential mode, of awakened awareness. This is the establishment of a new phenomenological field of awareness, and, in order to stabilize this new level of development, as at the previous level of practice in recognizing the awareness empty of time, the identification with all the mental activity of the previous level needs to be left behind temporarily so that a new, and in this case, referenceless identity as unbounded, pristinely lucid awakened awareness, can be established.

Due to the lack of sufficient research subjects at or beyond the 7.0 stage, O’Fallon’s model is theoretical. However, the process itself, the recognition of a whole field, and then the integration of parts into the whole, is derived based on developmental processes that continue to iterate. Mahamudra non-meditation or rdzogchen cutting-through (khregs chod) meditation allows the shift in the basis of operation of psychological operations to awakened awareness which when stabilized becomes foundation for the Unified Tier of adult development. This involves the recognition of individual-informational-attentional system, as an empty construction. Initially, the stabilization of this basis of operation takes the forefront of experience, as the relative activity of the mind is less emphasized allowing for the familiarization with this new identity. Based on the re-occurring patterns at the first stage of each tier (1.0, 3.0, 5.0, 7.0) O'Fallon's model suggests that at the first stage of the metaware (5.0, very subtle) and unified tiers (7.0, awakened awareness) will have this passive (receptive) mode, which then transitions to more active (and reciprocal) modes as the new basis of operation is integrated with prior capacities and everyday living.

Unified Tier and Buddhahood. Here we move in even more speculative territory. In terms of the Indo-Tibetan path to liberation, once one establishes the views associated with awakening or enlightenment, one continues to work toward buddhahood by establishing these views in ever more mundane and challenging life contexts, and also by further purification of the mind toward complete freedom from prior conditioning (exhaustion). These steps are well documented though numerous Indo-Tibetan texts, so it is not this part of the path that is speculative, but rather the connections between it and modern developmental theory.

Here the practitioner deepens the strength of this realization by integrating into the new phenomenological basis of operation, through dream and sleep yoga, the deep habits of the unconscious substrate mind (this can begin in much earlier stages, but is probably required for advancing into the Unified tier). By developing the ability to maintain the basis of operation during the typically unconscious processes of dream and sleep the karmic tendencies created through identification during the life span, and deepest levels of non-awareness are transformed until all dream and sleep experience is viewed as an expression of awakened awareness. Once the process of dream and sleep integration is completed the waking sensory experiences and conceptual thought are integrated into the awakened awareness. At this point of development experience is an uninterrupted non-meditation where all experience automatically arises as *self-arising* and *self-liberating* (rang shar rang grol).

According to contemplative essence psychology, the process of realizing self-arising and self-liberating (rang shar rang grol) is completed when the storehouse of karmic tendencies – all unprocessed individual, ancestral, cultural, and racial conditioning–is released and exhausted (dharmadhatu exhaustion). When the conditioning is thoroughly purified (T. Sang) the basis of operation of awakened awareness becomes operational through all states, and the mind opens (Tt. Gyé) to the positive qualities of "omniscient wisdom."

Theoretically, from the perspective of Western psychology that looks at the content of experience and not the context (basis of operation), this process is a regression in the service of transcendence (Washburn, 1988), with a stabilized awakened basis of operation there is no longer any ego defense active in the on-going experience and all the unprocessed, repressed, disavowed psychological content that has accumulated over a life time can now be released. This is the automatic experiential/psychosomatic extinction of early childhood object relations, early traumas and the conditioning of perinatal experience (Grof, 1993). As the personal unconscious is released into awareness and automatically processed, then the deeper organizing archetypal structure of the mind begins to reveal itself as an unfolding process of spontaneous visionary experience known as thod rgal (Smith, 2016). At this level of mind, the underlying archetypal energetic structure of psychological reality reveals itself as non-dual with awareness.

In rdzogchen this non-dual archetypal creative expression of the nature of awareness is known as rol pa *play* energy, and is differentiated from the non-dual dgangs *elemental* energy of thought and fantasy, and the non-dual tsal *liveliness* energy that expresses itself as a supposedly external material world (Capriles, 2006). The fruition of this process, i.e. Buddhahood, correspond to stage 7.5, the full understanding of the causes of human unhappiness and the realization of the path of deep human fulfillment and happiness where all conditioned reified structures have been seen through as empty constructions, all accumulations of conditioned memories (karmic traces) have been released. This leaves the mind stainless (Tbt: tri med), allowing awareness to be self-sustained through waking, dreaming, and deep sleep states, and the flourishing of the 80 positive states of a developed Buddha mind dedicated to altruistic service of all embraced sentient beings.

Bodhicitta. As such the process of ego development is not just a progressive overcoming of the obstructions to one's true nature, but is the expression, distorted in earlier stages due to fundamental ignorance, of the nature of the unfolding intelligence of compassion. In a cultural environment dedicated to the education of the human heart and mind, such as one finds in the inner chambers of the monastic colleges, ashrams, caves and hermitage sites of Tibet, Nepal, or India, the growth of self leads to a corresponding growth in compassionate intelligence. The child learns to take increasingly complex cognitive perspectives, reducing narcissism and increasing the circle of concern to include family, nation, planet, and universe in a web of relationships. In the tradition of Indo-Tibetan Buddhism this is referred to as the unfolding of relative bodhicitta (T.by ang chub kyi sems), the compassionate motivation and the ensuing knowledge towards supporting the liberation of other beings. Absolute bodhicitta itself refers to the direct realization of the constructed nature of phenomena and the recognition of the nature of the mind. (Buswell 2013). When plotted on the map of adult development researched and theorized by O'Fallon, relative bodhicitta refers to the constructive development of the higher stages of ego structure, and absolute bodhicitta refers to the deconstructive realization of awakened awareness, the deepest and unconstructed existential mode (Dorje, 2016), basis of operation (Brown, 2017), or level of contemplative metacognition (Unified tier in the STAGES model).

Revisiting States vs. Stages: Necessary but Not Sufficient

Here we continue our discussion of states vs. stages from the earlier sections "State, Stage, and View" and "Mind vs. Event Perspective." Above we have been coordinating the views or stable state-stages of consciousness described in contemplative essence psychology with that levels described in developmental theory. This may seem at odds with the notion that states and stages are somewhat independent (the Wilber-Combs principle), but recall that, from O'Fallon, we claim that certain state-stages are necessary but not sufficient to certain developmental levels. As we have said, the Wilber-Combs principles is that one can achieve the views (and states) described by contemplative practices *without* necessarily having the corresponding developmental complexity or ego maturity. What O'Fallon adds is that certain meta-cognitive or contemplative states are *necessary pre-requisites* for higher stages of developmental complexity and ego maturity to unfold. In terms of the above discussion of the metaware tier, this means that one can have experiences, even stable state-stages (views) including egolessness, timelessness, and spacious freedom *without* needing to have achieved metaware cognition. But the converse is not true: i.e. certain stable state-stages (views) *are* necessary for the achievement of any developmental level (the particular prerequisite view *differs* according to the stage).

In fact, access and stabilization of higher contemplative metacognition does not require cognition complexity or ego development beyond a basic ability to follow simply follow instructions. As such, it is feasible for individuals to realize the fundamental nature of non-dual nature of awareness without much understanding of the process, a criticism often directed towards many contemporary spiritual teachers and adepts who are "self-realized" and yet are unable to build robust pedagogical environments for teaching others. In the Indo-Tibetan contemplative tradition this is similar to the concept of a Pratyekabuddha (Wyle. *rang sangs rgyas)*, a *solitary realizer*, or *intermediate Buddha*, who is realized and yet lacks the omniscience of compassionately motivated structural development to be able to adequate lead others (Rahula, 2000). As such they cannot function as realized teachers because they are unable to communicate and individualize the instruction of the cognitive and metacognitive knowledge and practices of contemplative development. This phenomena can be further be explained by giving examples of how it might manifest.

An "awakened mind" at 3rd PP ego development may show signs of overconfidence, egocentric biases, ethnocentrism, bullying, and lack of empathy. Having had state experiences of egolessness, timelessness, and spacious freedom, they may interpret them in terms of self-aggrandizement and power. They may describe these experiences mimicking the flowery language of the traditions, but not reveal any poetic, nuanced, or uniquely personal understandings of these state experience.

An awakened mind at 4th PP ego development may show signs of hyper-complex or abstract over-thinking. They may have a deep conceptual, experiential, and applied knowledge about egolessness, timelessness, and spacious freedom; but still exhibit evidence that they have unexamined shadow material, and blame others for the suffering that they co-create. They may be able to take many perspectives but still be a stickler about the meanings of words, not realizing how concepts are constructed with each context and thought. They may be preoccupied with metaphysical abstractions that seem to explain spiritual concepts, while lacking the embodied felt-sense of how subtle shadow operates within their own psyche.

In "States and STAGES: Waking up Developmentally," O'Fallon (in this issue) shares her preliminary model for how states (and views) interact with stages of development. She shares an "interpenatrative" model of how particular states or views are prerequisite to each stage; and how achieving a stage helps induce particular state experiences. O'Fallon's model is based on (1) close readings of a number of mystic-scholars, including Wilber, Aurobindo, and Diperna (who draws on Dan Brown's work); (2) empirical analysis of how words that describe state experiences appear over different developmental levels; and (3) anecdotal but substantial experience in working with individuals and scoring developmental assessments that represent the full range of adult developmental levels. The preliminary ideas we give here are compatible with O'Fallon, while not specifying as much detail; but we also aim to ground the ideas in the concepts described in this paper.

The primary novel feature of the STAGES model is that it sees the long arc of developmental levels in terms of patterns that repeat within each tier (and patterns that repeat within each level, which some other theories also have). It proposes that the same principals can be used to describe early, middle, and advanced development. As this framework encounters the contemplative traditions, it poses this question (among others): can those psychological/spiritual phenomena that we attribute to advanced achievement be described in terms of processes that are also at work for *childhood* through adulthood, and then into "sage-hood?" (and Buddhahood). Contemplative traditions included foundational (concrete tier) practices, but did not study childhood development; and they studied advanced states and vantage point but did not study advanced levels of cognitive complexity in the way developmentalists do. Combining these worlds provides hints into models that might give a unified theory of states and stages. O'Fallon has offered a significant if tentative step toward such a model. Below we show a condensed overview of how such work can be described in terms of the concepts we have explored in this paper. The main principles include:

1. Establishing a *view* (vantage point) involves appreciating some particular form of *emptiness* (e.g. of conventional rules and roles, thought, concepts, self, time, duality, or particularization). That is, to look deeply into a gestalt phenomena (object or process) that is tacitly assumed to be whole – it is so taken for granted that it is invisible to us ("is us"). With focused attention we discover that the gestalt has parts that the mind brings together to create the whole. In seeing the process of this construction, the phenomena is "deconstructed," and seen-through as empty. The question posed is: when is this particular realization of emptiness *needed* to address a pressing developmental dilemma?

2. *Developmental* stages are characterized by capacities (major skills like "object permanence" or "reflective thinking") defined by their level of hierarchical complexity. Skills and capacities begin as *glimpses* of new worlds of phenomena (e.g. classes of perceptions, durable objects, or abstractions) that need scaffolded assistance and motivational challenges to be developed into mastery. These glimpses are *state* experiences; and the nervous system often tags them with expansive or ecstatic "wow" feelings, which motivate the effortful process of learning (glimpses of new territory can also be disorienting). Eventually, with practice, comes mastery and *automation*, so that the skill becomes an unconscious tool that we rely on without thinking about it or feeling anything special.

3. *Ego*-development (the *type* of development we are most concerned about) stages grow when any mastered level of complexity-capacity is turned reflectively and applied to deconstruct some aspect of the *self.* (This deconstruction is only *part* of ego development; it also involves what one does *constructively* with the insights gleaned from deconstruction, as described below.)

4. Stage transitions are motivated by *dilemmas*. In particular, the capacity developed at any stage eventually *over-functions* and starts to become as much of a problem as a solution. To solve the problem it creates, the mind must develop a *meta-capacity* that can see the first capacity and critique it and modulate it. That is, the original mastered capacity is *tacitly used* to manipulate things according to explicit needs and goals, but there is nothing yet in place to explicitly (consciously) manipulate the capacity itself.

5. Each developmentally-induced dilemma is solved in the *subject-to-object* move that builds the meta-capacity to explicitly see and manipulate the original capacity. E.g. "thinking" moves from something one does without reflecting on it, and thus something one *is,* to something one *sees* happening and can thus monitor and control. When an aspect of the

self-system moves from "having" one to being "had by" (e.g. "I am not my thoughts") one is less *identified* or merged with it. It is seen as a part of the self-system but is not felt part of the self-sense (e.g. I have a body but *I* am not my physical body). The subject-to-object move creates a new world or *field* of processes/objects that were once tacitly assumed to be part of the self, and invisible. E.g. when thoughts can be "seen," a new world, a field of thoughts, opens up to learn about and eventually try to strategically control.

6. As one deepens understanding of a field and its varied contents, one can step back to see the field as a whole, and step back a bit further to notice the borders or boundaries of the field, and step back yet again to sense that which *holds* the field in its awareness. This is the *event-to-mind perspective* shift. One develops a felt sense of that larger meta-self, and becomes identified with it as the *new identity or basis* of operation – a new vantage point or view.

7. This vantage point begins the process anew, because it is something one identifies with – that one *is* – but is not yet something one "sees" and can control (as "object"). From the event perspective the new capacity is a new *skill* – a tool for operating on some field of objects to meet goals. From the mind perspective the new capacity amounts to a new *self* – one that holds that field. Also, at the beginning, this new skill/self appears in (usually exhilarating) glimpses, as an un-mastered ability (– so the process starts from the beginning at a new level).

The above is a very condensed overview of a longer narrative and emerging theory; and one that is not fully fleshed out yet. O'Fallon (2020) fleshes out similar themes in much greater detail. In sum: we have suggested how state experiences can lead to new stages *if* the right steps are taken. We have also suggested how stage transitions can *require* certain states – those states are necessary but not sufficient because the state must be applied in a particular way (self-reflectively) to achieve the stage transition.

We have also shown that, though each developmentally-created dilemma *calls for* a certain states/views, i.e. certain mode of emptiness, in order to be solved, that the state/view that can be used to solve a dilemma can be experienced *prior* to the developmental stage (unfolding) where they are "called for." This suggests that a deconstruction could occur before it was needed, and even perhaps before one was ready to appropriately use or integrate it.

State experiences can arise "naturally" in developmental unfolding, but can also be catalyzed by contemplative practices, hallucinogens and intoxicants, rituals or extreme events, etc. We can ask in each situation whether such a catalyst is a healthy support for a process already needing or "wanting" to happen vs. a forceful thrust into dangerous territory (a complex question depending in part on the type of "set and setting" support available). Furthering an earlier discussion, we can note several dangers of experiencing a state experience before the self-system feels an authentic need for it, or before one can integrate the insights that the state allows for. We list some of the dangers below (these items overlap with each other):

- *Narcissism*: If the state experience is not successfully applied reflectively to deconstruct an aspect of the self, the new capacity may be appropriated to narcissistic ends, as a more powerful tool with which to manipulate others, as opposed as a means for humble self-understanding.

- *Projection*: If the state experience opens up a territory that the individual is not developmentally able to make meaning of, the new "self" that emerges from the event-to-mind shift (e.g. witnessing consciousness) can be projected *out*, instead of being understood as a new self; and interpreted as, e.g. God, or collective consciousness, or some other metaphysical entity.

- *Grandiosity*: Alternatively, if the personality structure is too defended, or too naive, to "release" its hold in the deconstructive move, then the new view can be introjected inward and fuel grandiosity or ego inflation as in "I AM God" (or god-like).

- *Arrested development*. Ideally, the deconstruction of an aspect of self (a capacity) does not remove it or regress one to an earlier state, it allows one to see it (transform subject-to-object) and see it as constructed/empty (de-realize/de-center it). This gives one the choice/freedom/resilience to use a capacity more wisely. However, if the capacity is deconstructed *before* it is functionally *constructed* then a state-stage can result in a regression or the naiveté of a developmental delay. For example, when one "sees" that there is "no such thing as the self" before one has a functional autonomous ego, then one can regress into a pre-egoic state because one does not have the option to bring out the tool of a strong egoic-self strategically when it is needed.

- *Dissociation*: If the deconstruction/emptiness move threatens to reveal something about the self that the self (ego) strongly resists knowing, the state capacity many not be used to reflect upon the self; or if it does, the self may split, creating type of dissociation such as unhealthy "depersonalization" or "derealization".

- *Abstraction*: If one learns about or gets a taste of a state and does not allow the associated capacity to work, in an *embodied* sense, on the tacit and unconscious realms of the mind/body, it can continue to live in a world of abstraction (or hyper-abstraction), wherein concepts such as oneness, nonduality, emptiness, fullness, selflessness, and timelessness are disembodied concepts with a tenuous relationship to direct experience.

- *Attachment*: Finally, if one becomes "addicted" or attached to the experiential "wow" factor of novel states, and a hedonistic compulsion toward state experience (vs. a dilemma or desire to learn) is the primary motivation for inducing the state, then opportunities for a) deconstructive learning; b) solving the dilemmas of co-fused aspects of self, and (c) turning state capacities toward self-understanding – can all be forgone (and problems mentioned above, such as grandiosity, hyper-abstraction, and projection are more likely).

These concerns exist in "spiritual growth" contexts, but are also valid throughout the developmental spectrum. For example: "when is it too early to teach a child to read; or give them extended access to a computer?"

In the condensed overview there is much left unsaid, e.g. How such a sequence reiterates through the specific STAGES levels, and how this iteration relates to the specific "emptinesses" of thinking, self, time, duality, and particularity, is suggested in O'Fallon (2020). We leave for another time further discussions of how this relates to: experiences of emptiness vs. fullness; how the sequence involves the dimensions of interior/exterior, self/other, individual/collective, and receptive/active/reciprocal/interpenatrative; how the sequence touches on the primordial modalities of seeing, hearing, and feeling; and where movements of integration fit in with the narrative above that describes moments of differentiation.

4. Conclusions

The Mahayana tradition evolved these practices motivated by compassionate necessity to train heroic adept leaders with the capacity to address the suffering of individuals and culture. The training in ethics, meditation and wisdom was never for the purpose of developing higher states of consciousness or development outside of the cultural necessity for those skills to serve the wider social field. Those who held the lineages of meditation often kept them alive in isolated mountain ashrams. However, this was to keep alive lineages so that when society was ready for them the technologies would be operational.

The task ahead is to create pedagogical environments that lead to the flourishing of a contemplative psychology on western ground. Such integral environments would integrate the practices of psychological healing, self-development, and self-transcendence with the training of the aspirant within a particular field of activity such as law, government, religion or education. Perhaps then we have the hope to become a *civilization beyond discontent* (Brown, 1986).

The purpose of this study has been to assist in the translation of Indo-Tibetan essence psychology into a form that Western psychologists, and educated lay-people can understand. It is hoped that through greater understanding as culture we will come to have a deep appreciate and respect for the profound and insightful psychological theory and praxis that this tradition has to offer and as such be willing to engage in practices seriously for the betterment of the larger social good. At a time when those with the greatest ability to wield power, i.e. the politicians who hold the highest government offices, and billionaires sitting on corporate boards exerting great influence on society, act like sociopaths, there is a dire need for a spiritual and ethical renaissance. Contemplative psychology when enacted correctly can provide that resource.

This paper has outlined the basics of Indo-Tibetan contemplative psychology, the essence psychology of mahamudra and rdzogchen, the stages of adult ego development, and the research on metacognition as means of integrating these different perspective on psychological development with the intention of placing contemplative psychology where it belongs, at the very heart of the psychological understanding of what it means to be a human being.

From the perspective of adult ego development, Indo-Tibetan essence psychology is a body of theoretical knowledge and metacognitive skills that when applied sequentially in the direct experience of the practitioner leads to the unfolding of deeper levels of identity. These levels of identity result from the purification of awareness through disidentification from the deep structures of human consciousness through the three fundamental states of waking, dreaming, and deep sleep. The fundamental praxis is the development of post-formal metacognitive skills. Through the development of attentional self-regulatory metacognition (steering the attention, increasing interest and brightening awareness), the recognition of the impermanent and constructed experience of soma and self, the illusory nature of temporal experience dualistic perception, the individual the practitioner refines his or her metacognition capacity until even the attentional system is seen as an expression of primordial awareness reveals itself.

Currently the practice of this developmental psychology is maintained within the relatively strict boundaries of traditional Tibetan lineages, which, from an exoteric perspective, package the practices in the garb of traditional religion. However, the esoteric theory and practice of Indo-Tibetan Buddhism has little in common with religion and has much to offer the modern world's understanding of mental health. Western psychology is, comparatively, in its infancy, and the advent of positive psychology as a major field is less than two decades old. The field of Indo-Tibetan contemplative psychology offers a tradition of practice developed to mature human positivity to its fullest, and is based on hundreds, even thousands of years of practice-based evidence, which is slowly being corroborated by research in the brain sciences. The integration of mindfulness and compassion practices in psychotherapy is only the very beginning of a meeting of western and eastern psychological traditions. The implications of the meeting could in time lead to a fundamental paradigm shift in psychology and education.

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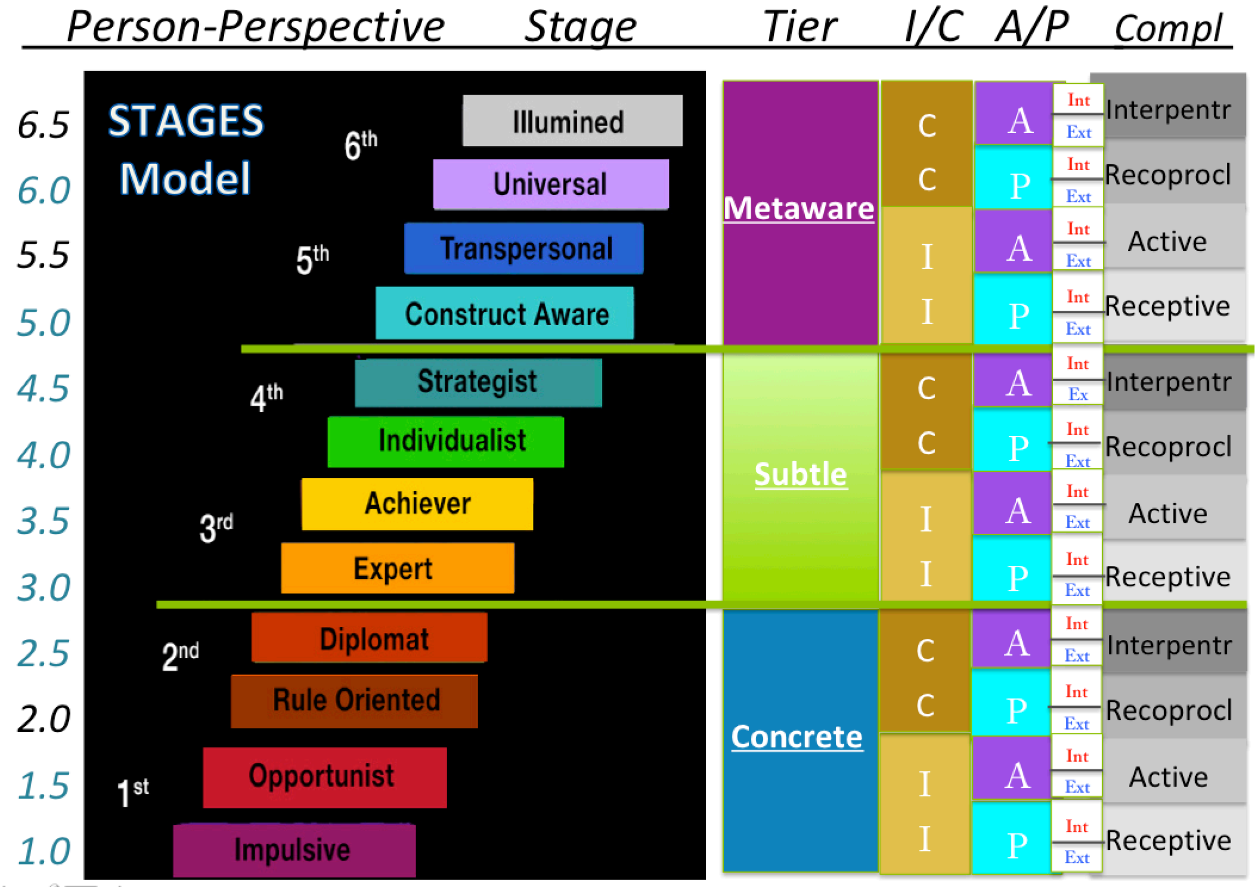
Appendices

Appendix 1: Developmental Stage Descriptions

Below we give a short description of each developmental stage. Descriptions of stages 1.0 to 4.5 combine descriptions from Loevinger, Cook-Greuter, and O'Fallon, while descriptions of Stages 5.0 to 6.5 are from O'Fallon (2010, 2011, 2012, 2013). We primarily make use of the stage names from O'Fallon's STAGES model, which is described in the section "The STAGES model."


Person-Perspective
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1st
Illumined
Universal
Transpersonal
Construct Aware
Strategist
Individualist
Achiever
Expert
Diplomat
Rule Oriented
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Figure A1. STAGES Model (I/C=Individual/Collective; A/P=Active/Passive; Ext/Int=Exterior/Interior) Black numbers (2.0, 5.5, 6.5) show added vs. Cook-Greuter's model.

0.0 to 0.5 (Pre-personal and pre-language Stages). Though they are referred to in some of the cognitively-oriented Structuralist developmental theories, the early pre-personal and pre-language stages of childhood development are not explicated by the constructive developmental theories (though they are referred to in terms of prior building blocks of cognition). This is mainly because these theories of "meaning making" (and ego) development refer primarily to how people understand, describe, and reflect on their understanding – which occurs verbally. These early levels include stages called: sensorimotor (undifferentiated with no real sense of self; 0-6months), and emotional-relational (still not yet differentiated from emotions and is unable to tell the difference between the emotions of self and others; 6 to 24 months).

The majority of adults will pass through the initial stages of pre-personal development although there are those adults with arrested levels due to profound developmental issues such as severe autism, mental retardation, and social neglect who will remain at those early levels.

1.0/Impulsive (concrete-individual-receptive; also "Magical"; onset 2-4 years of age; <5% of adult population).[7] The self is very elementary in functioning, and is operating from a first-person perspective. Piagetian pre-operational thinking is applied to the self and the central development is the ability to use imaginal and word symbols cognitively to represent objects in the inner and outer world. The birth of the symbolic self marks emergence of mental self. However, this mental self is not fully differentiated from emotional or physical world. This leads to magical thinking, wherein a child believes that thoughts and feelings directly interact with the world, and assumes intimate causal and undifferentiated connection between mental, emotional, and physical worlds. Due to this lack of differentiation with the world there is a strong unconscious focus on separation between self and the world with the use of the words “no”, “me,” and “mine” being common.

The self is still fused with impulses and others are only seen as source of gratification. At this level the self can struggle with the lack of capacity for suppression and exhibit acting out behaviors due to the inability to delay gratification and take responsibility for actions. At this point of development the self is also beginning to have the capacity to actively submerge uncomfortable semantic meanings, experiences, emotions and somatic sensations that can lead to psychoneurosis.

1.5/Opportunistic (concrete-individual-active; also "Self Protective"; onset age: older children; 5% adult population). Here the self makes use of a combination of preoperational and early concrete operations to reflect upon itself in such a way that it develops a simple concrete conception of itself. At this level the self still lacks insight into itself however it has gained control over the driving impulses from the prior level of development and as such now has the ability to control itself and is often on guard to control external situations. The Impulsive has the concrete cognitive understanding necessary to know that society has rules that it needs to follow. However, the morality of this self-system is expedience: the self is only bad if caught, and even then is unlikely to express regret or remorse, just anger

The motivation of the Impulsive self is towards its self-serving needs and desires, whether legal or criminal. The self-system is opportunistic and to that end develops a persona to manipulate others and protect its fragile sense of self. It is no longer impulsive yet doesn’t yet understand causality, and therefore lacks planning and an ability to just act with considerable courage. In relationship to others empathy is not well developed in persons at this level of development, so interactions tend to be based on the desires for control, competing for goods, space, power, and the need for self-respect. Feelings are externalized, friendships blow up easily, yet others are to blame and anger is directed against world.

2.0/2.5 (concrete-collective-active and -passive; also "Mythic-Conformist"; onset age: older children, early adolescents, 10% adult population). For convenience we here combine two of the STAGES "second person perspective" levels, following the Loevinger model. This is the first personal stage in that the self is using mature concrete-operations to reflect upon itself and is better able to identify with social norms and images than libidinal drives. In having differentiated from its own drives the self-system now has the opportunity to really connect for the first time to others and to sense belonging to a group, which is strengthened by following the rules and roles of the community. As a member of a group rules now become important as significant psychic structures of identity and are understood as being a priori self-existent or mythically preordained. Having aligned the self with the membership of a group, a simplistic second person perspective – "either you are in or out" – now dominates."

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[7] Approximate ages of the levels are from Cook-Greuter (2007).

The self-system does its best to look, act, appear, and talk "right" to maintain membership with the group and thus reject those appearances and behavior not of the group. At this stage the self gains acceptance through following the rules and takes comfort in the sameness of others, easily internalizing norms without question and not wanting to stand out from the group. The self-sense has several basic internal states and those that are negative and do not align with the group are repressed and avoided.

3.0/Expert (subtle-individual-receptive; also "Conventional-Interpersonal" or "self-aware"; onset age: older adolescents, young and older adults, 37% adult population). At this stage the self reflects upon itself using a mixture of mature concrete cognition and early formal abstract operations. At this stage, finally, the self is able to take itself as an object, and take a third person perspective on its own experience. Capable of introspection and self-understanding persons at this stage are able to recognize in themselves ways that they stand out from the group. As such, the ability to see themselves adds more complex nuance to their self-reflection and there is an appreciation of their uniqueness. At *Expert* the sense of uniqueness allows the self to stand apart from the group, bringing a sense of self-consciousness and sometimes also a preoccupation with how others will judge one's differences. These new capacities lead to the ability to appreciate difference in others, and this leads to an increased level of complexity in relationships. This is the first stage where people describe relationships in terms of the inner world of feeling and emotion.

Kegan (1995) describes how this stage fulfills the developmental expectations for adults in traditional pre-modern societies. A person now has a capacity for foresight, the ability to adjust to changing circumstances, and understand notions of adult accountability and responsibility. However, the *Expert* self-system has not yet caught up to the level of self-determination needed to navigate modern society and struggles with finding integrity between self and the membership group.

3.5/Achiever (subtle-individual-active; also "Rational-Self Authoring" or "Conscientious"; onset age: older adolescents, young and older adults; 30% adult population). This is the target level for our culture at the present time. At this level of development, the self-system is able to reflect upon itself using formal operational cognition. Rational-Self Authoring self-systems add linear time to their rational thought processes thinking forward and backward in time and expanding their social context to include those outside their ethno-national membership group to include others across time and culture who share their ideals and aspirations. They are willing and able to work for the betterment of all. The ability to reason, to have metacognitive thinking about thinking, and reflect upon the conditioning symbols, scripts, norms and conventions of prior levels leads to a more introspective ego, and a concern with the cultivation of a stronger clear sense of individuality free from external authority. Living life by one's own internal authority and chosen standards can cause guilt if not lived up to. At this stage there is a belief in the objective scientific method, in rationality, as well as in empiricism and positivism to uncover the truth about the world. This is accompanied by belief in the perfectibility of mankind.

4.0/Pluralist (subtle-collective-reciprocal; also "Relativistic-Sensitive"; 10% adult population). This cognitive level has been the leading edge of Western culture for the last 40 years and is developed by the integration of mature formal operational and systemic thinking within the self-system. This is the beginning of general systems thinking described by Koplowitz (1984) with variables that are interdependent, causality this that cyclical, and boundaries between objects that are open and flexible. This 4th person perspectival capacity is characterized by the ability to be aware of the contexts within which the contents of experience arise. This ability leads to a greater interest in self-understanding and deep questioning. The self may be experienced as a multiplicity of voices such as described in the Internal Family Systems model (Schwartz, 1997).

Here it is understood that subject/object distinctiveness is not absolute, and the idea of the participant-observer is understood as the subject/object boundary become permeable. Whilst this stage maintains a capacity for awareness of past and future, the *Pluralist* self -system is more interested in the present moment fed by interest in such things as eastern wisdom traditions, self-help books, and therapies emphasizing the present moment. There is a heightened differentiation of self from the group membership and a willingness to pursue personal counterculture life goals if need be. The ability to see the relativity of truth leads to a deep pluralistic sensitivity towards those perspectives marginalized by mainstream society, with a greater recognition and celebration of individual and cultural diversity.

4.5/Strategist (subtle-collective-interpenetrative; also "Integrated-Multiperspectival"; 5% adult population). This is the level of development that Kegan (1994) calls the "honors track" of the cultural curriculum, and the level that Wilber increasingly emphasized in his writing on Integral Theory. The self-system at this level has metasystemic cognitive capacity (cognitive stage 6) and is able to apply those cognitions onto the self-system. Whilst Pluralist self-systems can struggle with the cacophony of self-parts, the Strategist self-system is able to integrate the self into a whole system integrating mind and body, reason and emotion, intuition and rationality. Preoccupation orientates towards personal development and the actualization of potential. Distressing emotions are more tolerated and paradoxical elements can be integrated into a system of logic. This frees up more energy, as the self is no longer defending itself against disavowed psychological material.

At Strategist one's life work is motivated by becoming all one can be, and, for persons in this stage, wanting to help others grow is one of their strongest motivations. Strategist self-systems are attracted to work as psychologists, coaches, consultant, and executive leadership positions. Integrated-multiperspectival selves can see life as an open-ended journey with no predetermined end, giving the full responsibility to each individual for his or her fulfillment.

5.0/Construct-Aware (Metaware, Individual, Passive, Receptive; 1% adult population). As the self moves into the metaware tier the person develops the capacity to discern the nuances of awareness itself. At the initial recognition of the 5.0 the direction of the attention is external and the witnessing ego arises with more focus on the objects arising in awareness. These individuals have the capacity to take perspective on perspectives so much so that they begin to see what is tantamount to a hall of mirrors. They are able to take perspectives on perspectives at will. Some experience this as a capacity to envision multiple meaning loops; others become aware of their feelings looping (feeling a feeling about a feeling, or feeling a feeling). With a witnessing awareness activated the person becomes aware of projections arising in the moment. The subtle ego is recognized and conceptions that were once concrete are now recognized as constructs generated by the subtle mind and are experienced as empty and impermanent. This gives rises to the experience of groundlessness; that there is no concreteness in reality is a realization that can bring about an acute existential angst in some.

The cognitive capacity to be aware in the moment of multiple generations of stories and constructions arises, and with it the ability to experience the self, as a multi-generational impermanent process. Awareness of space increases to include the larger Cosmos. As the 5.0 individual matures his or her perspective shifts from external cognition to internal and the focus is more on awareness of awareness itself, which brings a lucid emptiness to every object that arises within it. In the awe of such a larger vision a concern about hubris and spiritual arrogance needs to be transformed by a genuine humility.

Behavioral cues of 5.0 include a difficulty in speaking coherently due to the constant witnessing of the observing awareness over the perceived limited communicative capacity of the self-system. Since there are not many individuals operating at this level of development they can feel isolated and question their own sanity.

As development proceeds at this stage, emptiness and silence of awareness moves towards undergirding the entirety of ordinary experience as individuals at this level of meta-cognitive development begin to settle into their new identity as awareness, the witnessing awareness of full and empty, concrete and subtle objects.

5.5/Transpersonal (Metaware, Individual, Active, Active; <0.5% adult population). As the capacity for witnessing awareness developed at 5.0 becomes familiar, constant, and ordinary, with awareness of awareness being brought into complex interactions and understandings of the world, the self-system discovers a greater sense of freedom. There is a continued development of one's own awareness of awareness of objects but this capacity is still polarized with awareness of the objects themselves. So that the 5.5 system may switch into a mode of immanent integration of body and mind, heart and head, inner and outer, or conversely operate from a decentered transpersonal perspective of an observing ego. However, they are not yet able to carry out both operations simultaneously.

At 5.5 the self-system begins to recognize that certain conceptual constructs and narratives are more useful that others depending on the circumstances and the effect these operations have on others and the specific situations involved. In activity individuals at this level have the capacity and mental pliancy to synthesize multiple perspectives. These conceptions themselves might not be unique, but the complexity is multi-dimensional which often leaves 5.5 feeling unseen, misunderstood, and often lonely.

Often persons with a 5.5 self-system do not take feedback well if they sense that the other does not understanding the complexity that they are basing their perceptions on. The 5.5 can be recognized by their fluent complex, vivid, and playful language style displaying a remarkable and yet ephemeral intelligence. They have a capacity to hold virtually anyone with a depth of compassion and concern, and an ability to speak often with a “stream of consciousness” quality. They can come across as arrogant in that they are sure of their choices, often willing to yield and yet surprisingly rigid in their personal perspective. At 5.5 the self-system is able to recognize the metaware capacities of others, but not yet cognizant that others might also be able to perceive their metacognitive capacities in return.

6.0/Universal (Metaware, Collective, Passive, Reciprocal; <0.05% adult population). At the Universal 6.0 stage the metaware collective is in the foreground of experience. This collective contains the entire manifestation of concrete, subtle, and metaware objects. The 6.0 self-system exhibits the ability to let go of the 5.5 complexities even whilst functioning within it, and has the capacity to integrate both poles of immanence and transcendence, form and emptiness into an integrated both/and perspective, able to recognize the recognition of awareness whilst involved in day-to-day activities. Their mode of operation has a deep acceptance of life without the compulsive need to change self or others.

At this stage a new sense of the collective arises, a sense of the formless ‘we’ arising within the field of awareness. This is a non-hierarchal stage where everything arises together simultaneously within awareness. The experience of time and space becomes infinite, with occasional spontaneous eruptions of “all at once” knowingness, non-duality without a center of psychological operations, and without casual operations of knowing. There is a general experience of universal interconnection and inter-being integrated into the everydayness of life. What may have once been a state experience of universality has become an ordinary experience of operation and there arises a direct understanding of the evolutionary process of the Whole. With the experience of “everything perfect as it is” the 6.0 self-system no longer has the pressured complexity often common at 5.5 and language can become more poetic, unique and vivid to communicate the paradox of simultaneous time/timelessness and specificity/infinity.

6.5/Illumined (Metaware, Collective, Active, Interpenetrative). In the polarity of active/passive development the Illumined stage is the active fruition of the metaware tier as such there is a greater degree of integrating active functioning into the non-duality of immanent form and empty transcendence. Non-dual states continue to increase as the inherent natural dynamism of growth continues with the projection of one’s metaware interior knowingness and exterior unboundedness into the world and the introjection of the world into oneself, the precursor of the non-dual tier.

In turn, recognition of deep patterns akin to those experienced at the 5.5 stage reappear. The self-system looks forward and backward throughout all developmental history and across the various fields of knowledge in consciousness, science, culture, and social systems within the larger expanse of all space and time. The Illumined is able to spontaneously recognize the deep patterning of humanity. The patterns differ from those at 5.5 in that whilst simple they are holographic and simultaneously include the whole. Illuminatives are likely to experience this process as a flow of information that comes through them, that they are simple transducers of information.

Unitive/Non-dual Tier: 7.0, 7.5, 8.0, 8.5. O'Fallon notes that all the stages through 6.5 operate under the function of the categorizing, distinction making, and perspective taking mind. A signal of moving into a hypothesized 4th Non-dual tier is the recognition of this perspective-making mind by a centerless nondual awareness (O'Fallon, 2013).

Appendix 2: Metacognition

Fundamentals of Metacognition

Metacognitive Theories. Simply put, metacognition is *cognition about cognition* (Flavell 1979). This has often been simplified in the literature as 'thinking about thinking," however, metacognition does not have to rely upon thought, and can be non-conceptual in the form of *metacognitive insight* (Teasdale et al., 2002). As such, the word *cognition*, "the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses" (Oxford, 2007), is more appropriate than the word *thought.* This is particularly important in the more advanced forms of metacognition that rely upon metacognitive awareness and not just metacognitive thinking. For instance, the metacognitive tracking of one's basis of operation, the psychological location of identity, is non-conceptual and does not involve the use of thought, but rather maintaining an awareness of how information is being processed.

Writings on metacognition in Western civilization date as far back as the De Anima and Parva Naturalia by the Greek philosopher Aristotle (Colman, 2015). In America, metacognition or *introspection* as it was known, was first popularized in the writings of William James (1890) as his fundamental method of psychological inquiry. Tarricone (2011) identifies the main theorists in the modern field of metacognition theory as Flavell, Brown, Borkowski and Pressley, and Kuhn. Flavell (1977) explored the role of reflection in *self-regulation* for (individual) *learning* and *problem solving* (Brown, 1987). Flavell's model has three fundamental components, metacognitive knowledge (including meta-memory), metacognitive experience (in-the-moment processing), and metacognitive skills (for the evaluation and regulation of cognitive processing). *Critical thinking* involves asking good questions and considering alternative possibilities which, according to Richard Paul (Paul & Elder, 2008), requires metacognition to effectively mobilize the elements of thought (purposiveness, perspective taking, outcome analysis, bias bracketing, interpretation, and information gathering), and to monitor the standards of thought (clarity, accuracy, relevance, precision, significance, completeness, fairness, and depth) (Paul & Elder, 2008).

Much of the work in metacognition has focused on self-*understanding* and self-*regulation*. Brown's (1975) model includes knowing (comprehension), knowing how to know (inquiring and learning strategies), and knowing about knowing (*metacomprehension*). Kuhn's (2000) metacognitive theory of metaknowing adds, among other things, a clearer differentiation between declarative (know-that) and procedural (know-how) aspects of metacognition.

Brown (2006) takes a quasi-developmental approach to divide metacognitive skills into basic, intermediate, and advanced – in a system that anticipates the more advanced forms applied in the contemplative essence practices. The *basic* skills include the development of awareness of mind of self or other, monitoring the accuracy of state of mind, awareness of one's influence on the other's state or behavior (and vice versa), becoming aware of one's state of mind in such a way that it has a regulatory effect on the state, awareness of one's own or another's action plans and goal directedness, and meaning making. The *intermediate* metacognitive skills to be developed include the recognition of how the past and the projection of the future shapes one's experience, appreciating the relativity of states of mind, seeing into the underlying assumptions and expectancies related to information, optimizing action plans in the face of accurate awareness of limitations, fostering sensitivity to contextual effects on behavior, and perspective taking, the ability to consider something from another's point of view. The *advanced* metacognitive skills include taking a wider, super systemic perspective, developing metacognitive awareness of past/present, self/other or child/adult orientations, awareness of the degree of organization or coherence of one's mind, recognition of interdependence, articulation of ultimate concerns, the direct, non-representational awareness of a wider reality, and refined meditative metacognitive skills.

Borkowski and Pressley's (2000) model adds, among other things, the importance of self-efficacy, self-esteem, and motivation in meta-cognitive processes – emphasizing the interplay of *emotional* with cognitive processing. According to Lai (2001), several researchers have emphasized how motivation is an integral component of metacognitive experience, providing the capacity for the enjoyment of learning, curiosity, persistence in the face of challenge, and management of affective states (Cross & Paris, 1988; Martinez, 2006; Paris & Winograd (1990)).[8] Below we also discuss CBT therapy, which emphasizes *acceptance* of the contents of the mind.

The Soviet psychologist, Lev Vygotsky (1978) explained the importance of explicit verbalization during *social* cognitive interaction. Hearing others reflect about us, or about themselves, becomes internalized as an inner dialogue about ourselves, which is a foundation for metacognitive reflection. This intersubjective (intrapsychic) component of metacognition is a key factor in attachment theory and various approaches to psychopathology. Below we explore this more under "Attachment Therapy."

Aspects of metacognition. These are at least few hundreds of researchers and theoreticians who have considered metacognition. Historically, "metacognition is not only a monster of obscure parentage, but a many-headed monster at that" (Brown, 1987, p. 105). Yet we will attempt to sketch the overall contours of this convolutedly textured field as follows. Early work in metacognition differentiated primary (first order) from second order cognition, where primary cognition refers to the *contents* of thought, feeling, or perception. Second order cognition is often described as thinking about thinking, but it can also include: thinking about feeling, thinking about perception; and *sensing into* (i.e. feeling/perceiving) the experiential nature of one's thinking, feeling, or perception. An additional complication is that this second order "thinking" can relate to its subject (content) in many ways, including: assessing its features and contours, evaluating its quality or value according to some standard or goal, manipulating (directing, subduing, or transforming) it, and anticipating or planning how it will or should manifest in the future. To make matters even more complicated, metacognition might include thinking about one's memory, attention, intentions, skills, beliefs, personality, learning style, or meaning-making (which could include how one understands knowledge and knowing (epistemological belief system), and how one weaves narratives/stories from given information). Different theorists have different terms for many of these sub-types, and many use restrictive meanings for "metacognition" that don't include all of these things.

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[8] According to Schraw et al. (2006) metacognitive motivation has two subcomponents: self-efficacy and epistemology. Self-efficacy relates to the confidence level a learner brings to accomplish a specific task or goal, and epistemological beliefs relate to the beliefs a learner has about the origin, nature, and epistemological paradigm of knowledge (absolutist, scientific, relativistic, etc.).

There are a number of domains of psychological and cognitive research in which metacognition is fundamental, where again, the relationships between terms becomes quite fuzzy or diverse. These include: cognitive psychology (metamemory, abstraction, memory storage and retrieval), neuropsychology (executive functioning), educational psychology (self-regulated learning, inquiry), developmental psychology (theory of mind, self-awareness, meaning-making), clinical psychology (mentalization, self-understanding, identity), and problem solving (reflective thinking, critical thinking, creativity, "higher order thinking").

Though we will not attempt to create a new order or synthesis out of this tangled set of phenomena (Brown's "monster"), we can offer some distinctions that will simplify things enough to allow us to apply the field to contemplative practice.

First, we can differentiate meta-knowledge (knowing about knowing) into things one knows about *oneself* vs. more general principles that one believes apply to human thinking and knowing in general. In this study of contemplative psychology we focus on the former, on insight gained through self-observation (though of course more general knowledge obtains through both meditation instruction and in how one infers that others' minds work like ones' own mind).

Second, some operations build upon others by definition, adding a bit of structure to the quagmire. For example, one must be able to observe something (awareness) before one can monitor it or reflect upon it verbally; and one must be able to monitor/reflect upon something in order to engage in more sophisticated tasks such as predicting, controlling, or transforming it. This begins to add the developmental lens.

Third, we can observe that some of the confusion or theoretical diversity in this field is due to the limiting nature of the concept "meta" (as in metacognition, metamemory, etc.). That fact is, the metacognition that operates upon some content can become the *content* for a higher level of metacognition. For example, many would say that "problem solving" or "critical thinking" require metacognition, and thus thinking about one's problem solving or critical thinking would be meta-meta-cognition. We can see that terms meta-meta, meta-meta-meta, etc. quickly become untenable and confusing designators.

Modern developmental theories allow for greater precision in this regard. The 12-16 levels defined by theories of hierarchical complexity begin with the lowest levels of sensorimotor processing (some start even lower at logical operations executed at the information processing level of neurons – see Commons & Richards,1984). Each level "operates upon" the prior level, where "operating upon" is a "meta" move that can take any form – e.g. to observe or monitor, to assess, to compare or differentiate, to coordinate or synthesize, to manipulate or control, etc. (IBID; Fisher 1980). Advanced levels of metacognition, such as the monitoring of the psychological basis of operation, or the metacognitive insight into the constructed nature of sensory and psychological information, can be considered post-formal (dialectical third order) cognitive operations, where different perspectives on metacognition itself can be taken.[9]

Therefor we will usually use "metacognition" to refer to thought or perception that operates upon *some content*, to differentiate the content from the meta-content in that context (even though in another context the meta-level might become the content level). When we need to be more precise we will often refer to specific developmental levels. We will also try to be clear in each context what type of "meta-move" or operation we are referring to. For example, ego development is largely driven by the "subject to object" meta-move, in which some invisible aspect of the unconscious mind that influences thought or behavior (i.e. we are subject to it) becomes seen, so that we can reflect upon it (as object). Establishing a "view" is yet another type of move, as we will discuss.

Meta-knowing, meta-sensing, and meta-thinking. Finally (fourth), and critically for our treatment, we can combine Brown's and Flavell's models to differentiate *meta-knowing, meta-sensing, and meta-thinking*. All three forms of metacognition can operate upon *any* of the types of content mentioned (feelings, memory, thinking, etc.). Meta-knowing (including meta-comprehension, meta-memory, and meta-skills) refers to *stored* knowledge about how cognition works, and stored strategies used to guide any of the metacognitive processes (e.g. procedures specifying what/when/how/why to apply, or improve each metacognitive sub-process). Meta-knowing includes procedural skills designed to monitor cognitive progress through the use of strategic metacognitive regulation, or executive control (Brown, 1987). These skills include knowledge about orientation, planning, regulation, monitoring, and evaluation strategies used to control cognitive activity in order to achieve a cognitive goal. Metacognitive skills allow a learner to oversee a learning or problems solving process in reference to internal or external standards.

Meta-thinking and meta-sensing are both *in-the moment* processes (vs. meta-knowledge, which is information or procedural skill retrieved from memory). Meta-thinking involves reflective (explicit conceptual) thought (including evaluation and strategizing). Meta-sensing is non-conceptual, perceptual, and experiential. One can access (recall) stored meta-knowledge (i.e. information or procedures) like a "program" in memory, and then "execute" this procedure, i.e. actual *do* what it specifies, to then have an in-the-moment experience of meta-thinking or meta-sensing. Though meta-thinking is the primary focus of metacognitive scholarship, including its use in critical thinking, problem solving, and self-directed learning, meta-*sensing* is as, or more, important in contemplative psychology.

Meta-sensing (or "metacognitive experience") consists of direct conscious cognitive and affective *states* involving awareness, thoughts, intuitions, perceptions, feelings, and judgments appreciative or responsive to in-the-moment experience (Tarricone, 2011). Meta-sensing is perceptual, non-conceptual, and non-reflective, and is constituted by the felt-sense of being in any moment and context. "Felt sense" is a term used to hold both the perceptual aspect (as in Davie Bohm's (1980) "proprioceptive thought") and the feeling (affective) aspect. Such feelings include the feeling of knowing something, feeling of familiarity, feeling of confidence, feeling of difficulty, feeling of knowledge saturation, feeling of boredom, and feeling of satisfaction.[10] Meta-sensing provides the internal feedback mechanism about the current progress, degree of comprehension, and future expectation of success or failure associated with a given task, and thus usually are framed in terms of the goals, constraints, demands, and challenges of a task (Efklides, 2008, p. 279; Tarricone, 2011). Yet, while it provides information for meta-thinking (and meta-knowing), meta-sensing *in itself* involves a more open and peripheral awareness *without* specific goals (– it often operates in a context that includes parallel processes that set and monitor goals).

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[9] This relates to Jankowski and Holas's model of mindfulness (2014), which proposes that there might be the possibility of numerous metacognitive levels, with each level being both a meta-level for the previous and an object level for the next one.

Meta-sensing is similar to the Awareness of Transient Information (ATI) component of Grossenbacher and Quaglia's (2017) model of Contemplative Cognition. ATI refers to the basic cognitive process of being aware of the *transient objects* of experience such as sensory information, affect, memory, imagery, and thought. ATI is the central feature of those meditations designed to cultivate moment-by-moment choiceless awareness of the ongoing stream of consciousness such as the choiceless awareness of Zen shikantaza (just sitting) meditation. We will return to meta-sensing in our discussion of View in mahamudra practice.

Metacognition and Psychotherapy

Clinical psychology, in particular psychotherapy, is an activity that includes making revisions to interpretations of experience, and has been conceptualized by some as a form of *learning* (Bandura, 1961, Mahoney, 1977, Rose, Loewenthal, & Greenwood, 2005). Metacognition is a central aspect of learning, "the process of making a new or revised interpretation of the meaning of an experience which guides subsequent understanding, appreciation and action" (Mezirow, 1990, p. 1). The understanding of psychotherapy as an educational process goes all the way back to Sigmund Freud, the pioneer of the psychodynamic approach to psychoanalytic treatment, which he justly described as a kind of "after-education" (Freud, 1977, p. 504). Carl Rogers (1969), a pioneer of the humanistic approach to psychology, likewise described psychotherapy as a form of "*significant learning*" (Rogers, 1959, p. 280).

Metacognition is critical to many psychoanalytic processes, including the analysis of the transference projection, the monitoring of emotional activity in emotion-focused therapy, and the differentiation and recognition of the voices of internal systemic parts in internal family systems therapy. Below we will describe more specifically how it applies to two contemporary models, Cognitive Behavioral Therapy (and its derivatives: CBT, MBCT, and ACT) and Attachment Therapy.

CBT, MBCT, and ACT. Cognitive behavioral therapy (CBT) is defined by Hofmann, Asmundson and Beck (2013) as a family of interventions founded on rational emotive behavior therapy, cognitive therapy, stress inoculation therapy, problem-solving therapy, schema therapy, and acceptance and commitment therapy (Dobson, 2010). Meta-analyses of the efficacy of CBT have shown large effect sizes for unipolar depression, generalized anxiety disorder, panic disorder with or without agoraphobia, social phobia, posttraumatic stress disorder, and childhood depressive and anxiety disorders (Butler, Chapman, Forman, & Beck, 2006).

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[10] The evidence that there is an affective nature of metacognitive experiences has been supported by neuropsychological research showing the location of metacognitive monitoring in the anterior cingulate cortex (Fernandez-Duque et al., 2000). The anterior cingulate cortex is connected to both affective and cognitive regulatory loops. Two affective loops have been suggested involving this cortex. The first detects the discrepancy from the goal set and generates negate affect in response to discrepancy, and the second monitors the rate of discrepancy reduction as one progresses towards the goal and can generate both negative and positive affect in response to the progress towards task completion (Efklides, 2006).

While it is true that metacognitive strategies have always been a part of CBT (Wells, & Purdon, 1999), metacognitive awareness in these forms of therapy is generally in the service of *changing* the contents of the dysfunctional cognitive behavioral patterns into more adaptive patterns (Dobson, 2013). In recent years there has been the development of a "third wave" in CBT, with an explicit shift to more advanced metacognitive or contextual approaches to treatment (Hayes, Villatte, & Hildebrandt, 2011). These approaches focus on the recognition and *acceptance* of the content of the mind (beliefs, thoughts, emotions, and sensations) rather than changing them. Acceptance has been implicitly a central feature of many psychotherapeutic approaches, for example Freud's psychoanalysis, Rogerian client-centered treatment (Rogers, 1995), and Gendlin's focusing (Gendlin, 2012). Third wave CBT approaches, such as mindfulness based cognitive therapy (MBCT), and acceptance and commitment therapy (ACT), have, however, made explicit the psychological *acceptance* of experience as a central mechanism of therapeutic transformation.

MBCT is defined as an intervention primarily designed to increase metacognitive awareness by changing the patient's relationship to negative thoughts and feelings without any direct conscious attempt to change belief in the content of negative thoughts or underlying assumptions (though change in assumptions or thought patterns are often an indirect outcome) (Teasdale, et al., 2002). Teasdale emphasizes that it is the metacognitive *awareness* into the unfolding mental content in the direct experience of the *present moment* (what we termed meta-sensing) and not conceptual metacognitive knowledge (meta-knowing and meta-thinking) that is the therapeutic agent of change, and that it is a deficit of a specific kind of metacognitive monitoring into that leads to depression (Teasdale, 1999). Similarly, ACT focuses on changing the client's relationships to thought through *cognitive defusion*, "the creation of nonliteral, non-evaluative contexts that diminish the unnecessary regulatory function of cognitive events" (Hayes, et al., 2013 p.4). ACT and MBCT teach the client to come into direct experiential contact with the present moment (rather than being dominated by conceptualizations of the past and future) and, rather than attempting to alter the form, frequency, or intensity of cognitive experience (experiential avoidance), learn to accept it and be curious about it (Hayes et al., 1996).

ACT goes further than MBCT in articulating that through the repetition of metacognitive disembedding from cognitive fusion and accepting the present moment, there is a shift in psychological operation from *self as content* (i.e. from fusion with a conceptualized narrative of self) to *self as context*, in which one operates psychologically as the observing self (Deikman, 1982), and comes to notice a transcendent sense of self (Hayes et al., 2013). The ACT process of metacognitive defusion parallels concepts in psychological literature referred to as reperceiving (Shapiro & Carlson, 2009), decentering (Safran & Segal, 1990), deautomatization (Deikman, 1982), and detachment (Bohart, 1983). Such processes support a shift in perspective that leads to an experience of self beyond conceptual construction. This shift in operation happens by making the prior subject of experience (the narrative-content self) an object. It is this process of making *the subject the object* (Kegan, 1982). However, western therapies such as ACT do not have the means to make self-as-context a stable trait. This is the goal of Buddhist contemplative psychology (discussed later).

Attachment Therapy. The physical and psychological attachment of the child to its caregiver is fundamental to the development and stabilization of the capacity for self-regulation, self-recognition, self-monitoring, and the development of a theory of mind (i.e. an understanding of people's minds work). Without first learning about internal regulation by being (externally) regulated by the loving presence of a mother or caregiver it is difficult for a person to develop affect regulation, an unfortunate result such as is seen in borderline character injury (Fonagy et al., 2000). Without first learning about the self through having care-givers direct their interest to realizing the uniqueness of the child, it is difficult for the self to develop capacity for self-reflection, such as is seen in narcissistic character injury (Bennett, 2006). Psychological attachment is fundamental to the development and functioning of a healthy self-structure.

In *Attachment Disturbances in adults*, Brown (2016) surveys the history of this field. John Flavell's (1979) appearance-reality distinction was an early influence. Following Flavell, Mary Main included a "Metacognitive Monitoring scale" in her adult Attachment Interview, which she used in research that discovered that those children with insecure attachment were more cognitively fused with their thoughts, beliefs, and mental models of reality, were less able to take them as mental representations, and were thus prone to distortion (Main, 1991).

Semerari, Dimaggio, and Liotti and their associates developed a highly refined modular perspective on metacognition. By separating it into six independent sub-functions (identification, relating variables, differentiation, integration de-centration, and mastery) they were able to differentiate specific deficiencies in borderline, narcissistic, and dissociative disorders (Semerari et al., 2003). Their Metacognitive Assessment Scale (MAS) allows the therapist to identify and work on developing a patient’s specific deficient metacognitive sub-function. Brown and associates' psychotherapeutic model (2016) integrate several prior schools of thought and adds a more advanced set of post-formal metacognitive skills, as explained above (in his division of metacognitive skills into basic, intermediate, and advanced).

In sum, metacognition is the central feature of the psychological therapeutic process in many schools. In the disembedding from identification with dysfunctional experience such as maladaptive thoughts, negative beliefs, reactive emotions, and traumatic sensations, the client is able to develop perspective on their experience that allows for transformation.

Metacognition and Meditation

The construct of metacognition (in its various forms) has been used by a number of theorists to explain the mechanisms of contemplative practice. These treatments of metacognition have a very different flavor vs. theories developed in the traditional context of problem solving, self-mastery, and self-regulated learning. There is more overlap between contemplative and *psychotherapeutic* treatments of metacognition. This is in part because contemplative practices (and psychotherapy) are largely about deconstructive or *disembedding* processes that free the self from prior conditioning to open up new fields of awareness and freedom, while problem solving etc. are more concerned with *building up* capacities to achieve goals. The sub-domain of contemplative practice called "mindfulness" actually sits in between these two goals, as it has a skill-building outcome of sharpening focused attention (i.e. concentration) that is a first step in many contemplative models; while focused attention is also an important capacity in many intellectual domains such as problems solving and learning.

Mindfulness. Mindfulness was polarized by Jon Kabat-Zinn (2009) through his mindfulness-based stress reduction framework (MBSR). MBSR was developed to address chronic pain, it has come to play a central role in a number of psychotherapies and self-improvement modalities including mindfulness based cognitive therapy (MBCT), dialectical behavioral therapy (DBT), acceptance and commitment therapy (ACT), and somatic experiencing. Kabat-Zinn (2009, p. 4) defined mindfulness as "paying attention in a particular way: on purpose, in the present moment, and non-judgmentally."[11]

Beyond Mindfulness. As mentioned, in contemplative essence psychology mindfulness is only a preliminary step (along with establishing a foundation in ethics and right motivation/intention). Churchill (2018 – the dissertation upon which this paper is based) surveys a number of cognitive models of contemplative practice in detail, including: Jankowski and Holas' and model of metacognition and mindfulness, which is developmental/hierarchical (2014); Yates' (2017) two-tiered metacognitive model of mindfulness; Grossenbacher and Quaglia's model of Contemplative Cognition (2017); and Dorjee's (2016) contemplative science framework which includes metacognitive self-regulatory capacity (MSRC) and the associated modes of existential awareness (MEA).

These models draw on many of the elements of metacognition (and executive functioning) described above. For example, Dorjee's (2016) model includes the term "metacognitive self-regulatory capacity" of the mind (MSRC), to describe contemplative processes. As one could predict, contemplative practice methods and the attainment of various levels of contemplative capacity involve meta-*knowledge*, meta-*skills*, and meta-*sensing*; and include *affective* elements including motivation, self-confidence, and humility. As described form metacognition in general, contemplative metacognition includes components that sense, monitor, evaluate, and manage/control/regulate various cognitive processes including thought, perception, intention, attention, goals, values, beliefs, habits, and identity (sense of self) etc.

Metacognitive levels. Each of these models suggests stacked hierarchical structures illustrating which processes are meta for (i.e. operate upon) others. As we indicated above, the limitations of the concept of meta means that each theory breaks up the space in a different way. One issue is that certain processes that set the context for meditative practice, such as motivations/intentions/goals, attitudes of acceptance, and meta-knowledge about how the mind works, might be said to be foundational assumptions (bottom-up influence) or control processes (top-down influence) in these quasi-linear models, when in fact most sub-processes operate in tandem in a co-creational system of feedback/feed-forward relationships (this idea is an application of the Buddhist principle of dependent origination; a truth that implies that component-based models of cognitive processes will always be substantial simplifications of the reality).

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[11] A more refined definition developed by Bishop et. al. (2004) can be summarized as follows: mindfulness is the self-regulation of attention on immediate experience, maintained by sustained attention, attentional switching, and the inhibition of secondary elaborative thought processes, that allows for the increased recognition of mental events characterized by a curious, open and accepting orientation towards present experience, leading to insight into the nature of cognitive experience, the adoption of a decentered perspective on subjectivity, and the transience of sensation, emotion and thought. In short, mindfulness is form of metacognition.

Advanced metacognition. Another thing that distinguishes models of contemplative metacognition from other models of metacognition is that many of the former are interested in *advanced* skills achieved by contemplative adepts with decades of training, as opposed to models used to guide academic learning, problem solving success, or self-improvement for "anybody." Thus they are more likely to include multiple stages or levels, and are more likely to form a bridge to developmental theories (which have many levels).[12]

For example, Yates (2017) notes that following the fundamental practice of attention to breathing etc., as metacognitive decentralized awareness comes online, it can lead to personal insights of phenomena described in Buddhist psychology, including insights into impermanence, no-self, and reactivity (dukkha). The highest (meta-meta) level of Jankowski and Holas' (2014) model includes the meta-awareness of decentration and experiential acceptance. This model differentiates *controlling* vs. *inhibiting* processes, where mid-level metacognition controls perception, thought, emotion, etc., while higher level metacognition inhibits beliefs and thought-habits that impede the process-level goals. According to Jankowski and Holas (2014), the person who achieves this higher level of meditation then starts to become aware of clarity (fundamental awareness), the most fundamental and basic form of reflexive non-conceptual cognition that makes all other types of cognition feasible and forms the central feature of consciousness itself,

Awareness, attention, and intention. Grossenbacher and Quaglia’s model (2017) elaborates on the developmental ratcheting relationship between awareness, attention, and intention. *Awareness*, or "Awareness of transient information" (ATI), refers to the basic cognitive process of being aware of the transient objects of experience such as sensory information, affect, memory, imagery, and thought. ATI is the central feature of those meditations designed to cultivate moment-by-moment choiceless awareness of the ongoing stream of consciousness such as the choiceless awareness of Zen shikantaza (just sitting) meditation. Choiceless awareness, *without* focused attention or specific intention, is difficult to achieve, and many contemplative models *include* modes of intention and attention that deconstruct or disembed layers of cognitive processing that impeded choiceless awareness.

Grossenbacher and Quaglia’s model includes "intended attention" (IA), i.e. processes and practices designed to develop *attentional* stability. One has an intention to focus on a particular type of cognitive phenomena, and eventually achieves stable attention upon it. IA is the central feature of those meditations designed to develop attentional stability such as Indo-Tibetan calm/staying practice. From this concentration something is learned about that object of awareness and its conditioned nature, and one's understanding and processing habits begin to shift toward freedom from that form of conditioning.

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[12] Note however that developmental theories are theories of learned traits, i.e. skills, and while a skills can build layer upon layer through many levels simply through reflective practice over time (given the right conditions), in-the-moment metacognitive processes may be more limited in the number of layers in simultaneous operation.

From this new basis, new insights may emerge (or previously obscure meditation instructions may become comprehensible) leading to a new *intention* to focus attention on a different object (or different layer of mental processing). Using this "attention to intention" (AI), the meditator monitors, assesses, and adapts the higher-level goals (intentions) of the contemplative process. Grossenbacher and Quaglia define AI as the “attentional modulation and/or monitoring of an intention whether through facilitation of a selected intention, inhibition of competing intentions, sustaining an already operating intention, or reengaging one that has waned” (2017, p. 15). While AI monitors and adapts the processes of intending in the present, IA attends to the more global meta-process of adjusting the AI process itself. The model shows has awareness (ATI), attention (IA), and intention (AI) reciprocally strengthen each other.

As mentioned above, contemplative practice usually involves multiple goals/intentions operating in parallel at different levels. For example, while at the local level one may have an intention of focusing on boldly sensations, at a more general level one may be mediating to cultivated strong altruistic motivation to benefit the field of all interconnected beings, a central feature in the Indo-Tibetan bodhicitta practices.

Grossenbacher and Quaglia (2017) are clearer than other theorists that the practice of meditation is not sufficient to cause the development of this metacognitive contemplative cognition. In order for mature contemplative cognition to develop the practitioner needs to consciously understand, activate, and integrate the functions of ATI, IA and AI beyond the context of formal meditation practice. This perspective is shared by the Buddhist essence traditions of mahamudra and rdzogchen where the informal, pathwalking practice of integrating meditative awareness into everyday living is fundamental to the understanding of the contemplative path.

Views: Modes of Existential Awareness. None of the models described above contains an elaborated explanation of the system of "views" described in mahamudra practice, the levels of the non-conceptual awareness (i.e. meta-sensing, of what arises in the mind moment-by-moment, Grossenbacher and Quaglia's "Awareness of Transient Information"). Dorjee’s model explicitly acknowledges the need to better articulate this progression of views, which they call "modes of existential awareness" (MEA), come from the increasing degrees of de-reification achievable with contemplative practice (what Wilber calls "state stages", 2014). Again, developmental theory can be useful here, because it does not become daunted in trying to articulate multiple iterations of meta-levels, but takes the transcend-and-include process of hierarchical complexity for granted in its articulation of levels.

In summary, metacognition is an important construct and field of study for the investigation into mapping the contemplative essence psychology of Indo-Tibetan Buddhism in terms of mature adult cognitive and ego development. Through the process of complex adult cognition, metacognition facilitates ego development, and, as discussed above, metacognition also facilitates transformation through the stages of insight in contemplative psychology. As a construct and mental function it is engaged in both the constructive processes of structural ego growth and in the Indo-Tibetan tradition, the deconstructive processes of transcending identification through de-reification with those structures, which then allows a transformation in the fundamental identity of an individual whilst maintaining the optimal functioning of the self-structure.

Appendix 3: Three Phases of Buddhist Contemplative Psychology

The tradition of Buddhist contemplative psychology originates with the great Indian sage Siddhartha Gautama (known as Shakyamuni Buddha), born around 563 B.C.E. Through the view of the Indo-Tibetan Tradition, Buddhism has evolved through three major stages of evolution, or turnings of the wheel of the dharma. Similar to fundamental paradigm shifts seen in other forms of science (Kuhn & Hawkins, 1963), this evolutionary process, here into the causes of human existential unhappiness, is easiest understood as a progression of understanding with each stage supported by the cognitive and metacognitive findings of the prior stage.[13] The growth of Buddhist psychology was dependent upon the development of what the cognitive psychologist Jean Piaget referred to as the psychological capacity for formal operational thinking. The formal operational stage of cognition allows for the capacity for abstract thought: the use of hypothetical and deductive reasoning to reflect upon situations that are not present in concrete reality (Piaget, 1971). This stage of cognition includes the ability to problem solve in a logical and methodical way, and metacognition: the important psychological capacity to monitor and think about one's own thought processes. With the capacity for causal analysis and self-reflection available at this level of cognitive complexity, teachings could be developed that focused on understanding the cause and effect of the pervasive reactivity characteristic of the undeveloped mind. With a foundation in causal analysis, Buddhist contemplative thought then evolved from a reductionistic perspective on human suffering (abhidharma, higher teaching), to a systems perspective (madhyamaka/middle-way), and then to a later metasystemic perspective (buddha nature) (Guenther, 1989; Wilber 2014; D. Brown, personal communication, 2017). Each phase of the teaching is an expression of a cognitive paradigmatic shift in understanding human suffering and happiness and its causes, a turning of the wheel. As we will see later, these shifts map well to our modern understanding of cognitive development.

The First Turning of the Teaching: The Lesser Vehicle

The first phase, known as the Hinayana, or Lesser vehicle, due to the focus on individual well-being, was formalized at the third Buddhist council under the patronage of the Indian emperor Ashoka around 250 BCE. The teaching addresses the cause of existential suffering in the form of dukkha, the suffering of cyclic reactivity, caused by the ordinary mind's conditioned response to mental events. Dukkha is the result of samsara, conditioned reactive cyclic existence, the cycles of repetition compulsion that are caused by ignorance into the nature of awareness and the resulting reactivity that leads to compulsive activity.

The four noble truths. The Buddha's analysis of the cause and cure for suffering, the four noble truths, began with the observation that there is a human disease, *dukkha*, cyclic reactivity. It does not mean, as early western translations and interpretations would assert, that all life is suffering. The root of the word dukkha is etymologically related in Sanskrit to the prefix *dus* meaning bad, and the word *kha,* the original word for axle hole in the ancient language of the nomadic Aryans. The word dukkha literally means the uncomfortable experience of riding in a wagon when the wheel is off the central axis rather than aligned (Tirch, 2015). Shakyamuni was pointing to the fact that human life involves some experience of reactivity, traumatic stress, dissatisfaction, and imbalance, no matter how good one has it.

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[13] Whilst the tradition maintains that Shakyamuni (c480 BCE – 400 BCE) taught all three turnings during his lifetime, and that a minority who had a greater capacity for a more sophisticated path initially practiced the latter two phases of the teaching, it is believed that understanding of the later turnings evolved as the cultural environment became more open to their innovations.

The second of the four noble truths is that the cause of dukkha is the mind's conditioning (karma) to reactive craving (tanha). This addictive grasping of the mind is, according to the Buddhist psychology of information processing (abhidharma), driven by the mind's conditioned reactivity to move towards events to create more experience (clinging), to move away from experience to avoid it (aversion), or to lapse into a loss of awareness though fusion with experience (ignorance or confusion). These three compulsive mental activities are said to dominate the normal reactive mind, obscuring the mind's natural condition of openness, clarity, and peace (Brown, 2006). The traditional Buddhist belief is that this cycle of compulsive mental and emotional activity is driven by cause and effect (karma) in a multi-life process. Buddhist psychology sees the cycle of psychological reactivity as driven by conditioning inherited from past human and animal lives since *beginingless* time.

Reincarnation aside, Shakaymuni's understanding can be interpreted as a naturalistic analysis of suffering describing the conditioning elements of both nature and nurture, the epigenetic transmission of trauma (Yehuda et. al. 2005), "the reincarnation of former ego-structures" (Freud, 1923, p. 48), and the intergenerational transmission of behavior (Loizzo, 2011). The idea presented by the Buddha that prior traumatic conditioning is at the root of the individual's bodymind is now being affirmed by the discoveries of science, through mechanisms including epigenetic conditioning of trauma (Kapoor et al., 2006; Miller, 2014).

The cycle of dependent origination. The abhidharma are the systems of Buddhist cognitive psychology that each tradition follows. The Indo-Tibetan tradition draws its abhidharma particularly from the Abhidharmasamuccaya by 4th century Indian Asanga. In the abhidharmic analysis of the causal workings of the mind it reveals that when fully understood there is no solid permanent self but a complex mind-body system of sensations, instincts, emotions, thoughts and perceptual processes known as the five skandhas. When disturbed by traumatic conditioning this system creates the illusion of a permanent self (Tsering, 2010).

This sense of a permanent self-existent self is activated due to reactivity caused by cycles of cognitive grasping, aversion and confusion that form a hidden 12-fold cycle, seen below in Figure A2, at the heart of Buddhist psychology. This cycle of traumatic repetition is known as the cycle of dependent origination (pratityasamutpada). From the perspective of Buddhist psychology this is the cycle that drives our ordinary unhappiness.

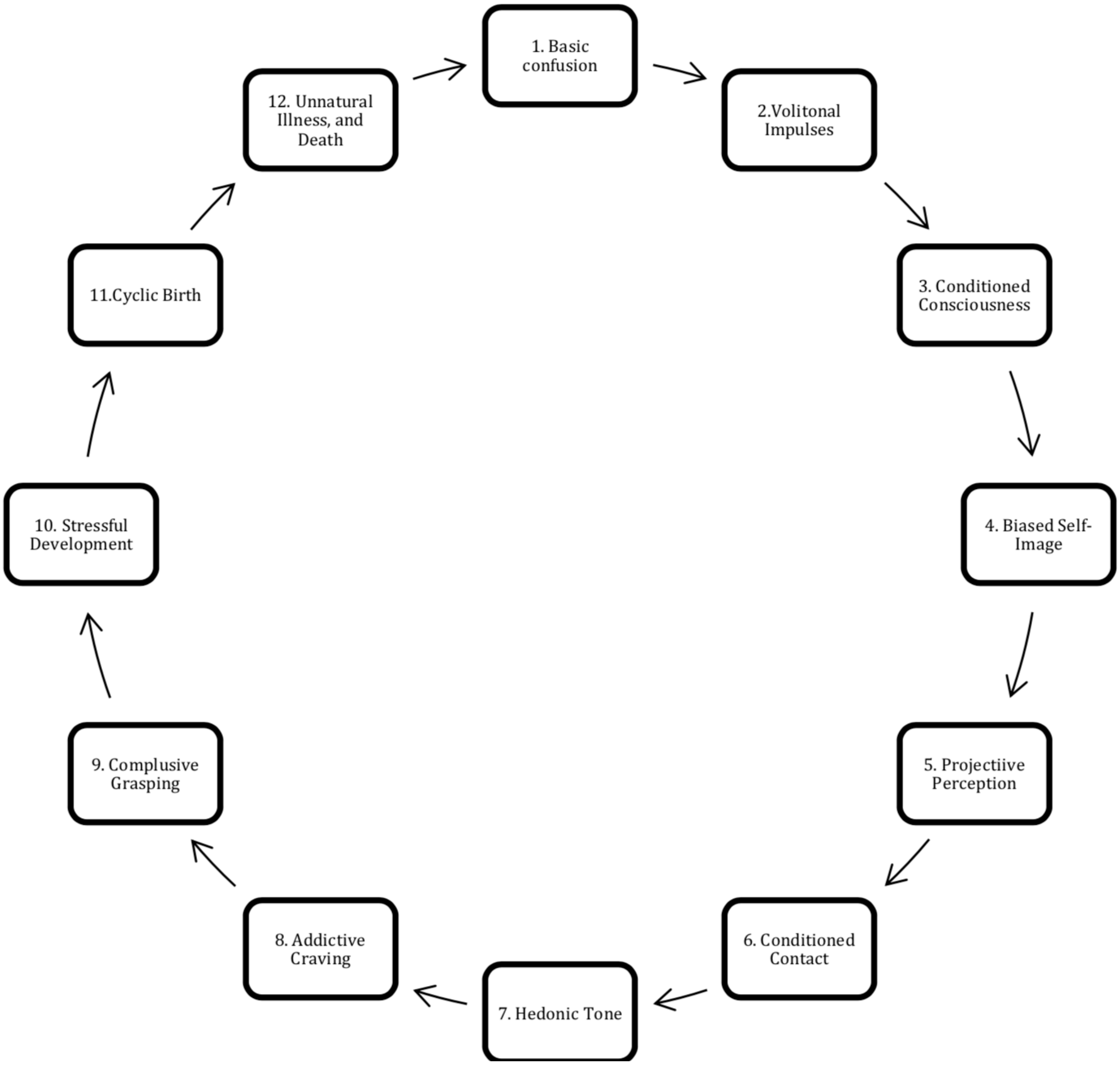
1. Basic confusion
2.Volitonal Impulses
3. Conditioned Consciousness
4. Biased Self-Image
5. Projectiive Perception
6. Conditioned Contact
7. Hedonic Tone
8. Addictive Craving
9. Complusive Grasping
10. Stressful Development
11.Cyclic Birth
12. Unnatural Illness, and Death

Figure A2. The 12-Link Cycle of Dependent Origination.

Figure A2 illustrates: 1. Basic Confusion (ignorance of any aspect of how the mind works, as exists at birth); 2. Volitional Impulses (automatic or unreflective reactions that further condition the mind to be reactive) > 3. Conditioned Consciousness (the resulting default "operating system" of consciousness, conditioned by reactive-stress and self-protection) > 4. Reified-Self Image (creation of an illusory reified self-image) > 5. Projective Perception (distortion of the sense perceptions, now further biased towards threat, distrust, and disconnection) > 6. Conditioned Contact (contact with the world is this distorted and contaminated with chronic reactivity) > 7. Hedonic Tone (bare sense perception is given a hedonic tone, i.e. is labeled as pleasant, unpleasant or neutral) > 8. Addictive Craving (the bodymind either moves away or towards further experience, in obsessive grasping or aversion) > 11. Cyclic Birth (reactive choices of the traumatized-self further condition the mind into a life-style of dissatisfaction) > 12. Illness and Death (the conditioning of unnatural traumatic stress leads to dysfunctional manifestations of aging and dying processes. and created the conditions for the related trauma and conditioning to be passed on to future beings, continuation of the cycle of dependent origination). (For a more in-depth explanation, see Churchill, 2018.)

The understanding of the 12 links is fundamental to understanding how all the different aspects of the Buddhist treatment strategy, the eightfold path, synthesize into an effective path to extinguishing reactive suffering and unfold the human potential for happiness, altruistic activity and evolution. Modern science, including research into default mode network of the human brain (Brewer et al., 2013) and studies of addiction (Witkiewitz et al, 2013) and trauma recovery (Tsering, 2010), supports this model of the cycle of reactivity, traumatic repetition and compulsive activity. The third noble truth, which indicates that psychological and biological cycle of reactive grasping, caused by the fundamental confusion of awareness with its conditioned contents can be suppressed, is also increasingly supported by such research. The suppression or removal of this cognitive pattern is called nirvana in Buddhism, which literally means cessation or extinction.

Fourth Noble Truth: Treatment path. The fourth Noble Truth is the Buddhist equivalent of a treatment approach, a holistic treatment plan of contemplative lifelong healing addressing an accurate view of experience, wholesome intentions, truthful speech, appropriate action, socially beneficial livelihood, consistent effort, and the practices of mindfulness and meditative concentration (Hanh, 1999) (Tsering, 2005). The treatment path leads to: 1.) The development of insight into the three characteristics (impermanence, reactive suffering, and true identity as awareness); 2.) The understanding of mental cause and effect as indicated in the cycle of dependent origination, and its relationship to unhappy and happy mental states; 3.) The threefold development of ethics, meditative concentration, and psychological insight leading to; and 4.) Nirvana, the extinction of the addictive emotional and psychological defilements that cause personal suffering (Loizzo, 2012).

The training associated with the turning of the first wheel addresses the problems of personal traumatic conditioning, and, as such, is often referred to as the Hinayana, or personal vehicle, since its focus is the individual rather than the greater community of sentient beings. From the mind perspective, the reactivity causes mental distractibility, and a discontinuity of awareness. *Mind* here refers to awareness, the basic capability for non-conceptual knowing, and attention, the ability of the mind to hold to a particular mental event. Mental events in Buddhist psychology refer not just to the experience of sensory information (visual, auditory, kinesthetic etc.), but also the processes of thought, memory, and imagination.

The goal of treatment/practice is to reduce the causes of reactivity, distractibility, disorganization, and constant mental elaboration, and to increase mental equanimity, the continuity of awareness, the capacity to stay on an intended object-of–focus, to increase organization of mind, and to silence mental activity when needed. The training consists of behavioral modification (ethical precepts), psychoeducation, basic mindfulness and attentional control. Behavioral modifications are designed to interrupt the cycle of dependent origination by not allowing the development of a lifestyle driven by compulsive grasping and traumatic repetition. Training in the conceptual understanding of the mind (abidharma psychology) helps support an accurate view of the mind and experience to understand the 12 links of dependent origination. Basic mindfulness is practiced to reduce reactivity to unpleasant hedonic experience at the 7th stage. The mindful practice of accepting experience and no longer avoiding unpleasant sensations cuts off the cause for the 8th stage of compulsive grasping. The practice of attentional stability (calm/staying concentration meditation) reconditions the default attentional system at the 3rd stage.

The Second Turning of the Teaching: The Great Vehicle

According to the Tibetan tradition, the second phase of the teaching was presented on Vulture Peak Mountain near Rajagriha, when the Buddha was said to have taught on the empty uncompounded nature of all phenomena (Skt: shunyata) and on compassion (Skt: karuna) (Hanh, 1999). These two elements form the heart of the Mahayana, the Great Vehicle, or second turning of the wheel. Historically, the approach is philosophically grounded in the madhyamaka school founded in the second century CE by Nagarjuna, the abbot of Nalanda University. The Mahayana includes the first turning insights into the reactivity and impermanence of human experience, but deepens the understanding of the deconstruction of the ego (no-self) and impermanence with a more sophisticated understanding that the concepts such as self, suffering, and the freedom from suffering, are themselves empty of an essential nature. In the Mahayana view the entire cycle of dependent origination reviewed earlier is caused by mistaken reification. The fundamental psychological problem with reification (Link 1) is that it causes *self grab,* which obscures the natural equanimity of awareness. It is the recognition of the lack of thing-in-itself-ness, the entitylessness, and constructed nature of all phenomena, whether psychological or physical, that is known by the term shunyata, translated as emptiness, but perhaps better served by the term *openness* to ensure that it is not interpreted as a nihilistic vision of human experience when in fact it is the opposite.

Emptiness/openness. In the contemplative approach of the madhyamaka, the mind trained through prior concentration practice (stabilization of Link 3) is used to direct a high-speed non-conceptual search through on-going mental experience and the psychological constructions of external reality, to see if any self-existent substantiality can be found (Brown, 1986). This search leads to the experience of the unfindability, unlocatability, and insubstantiality of mental experience, the hallmark of the realization of openness (Hixon, 1993). This is the realization of non-entityness, that the self, its experience, and all external reality are experienced as merely constructs without a substantial self-existent nature (Brown, 2006). "Deep examination of the essence of mind through wisdom will reveal the mind in an ultimate sense to possess neither intrinsic nor extrinsic reality; it is without structure" (Namgyal, 2006, p.64).

Following the realization of the emptiness of self and external reality, the contemplative investigation in the second turning of the wheel deepens into examination of the unconscious conditioning of the 1st, 2nd and 3rd links. This is accomplished through the practice of recognizing that time, the temporal unfolding experience of reality, is also a mere construct (Brown, 2006). The realization of this contemplative insight leads to the disembedding of the observing ego from the construct of time, and the experience of a timeless, unchanging awareness. Brown quotes Tashi Namgyal, the author of the Moonlight mahamudra meditation manual: "the way the realized mind stays (like space) is that there is no elaboration of the three units of time (arising, staying, ceasing, nor any dualities, (eternalism/nihilism, coming/going)" (2006, p. 345). The realization of the mind's timelessness opens the meditator to the experience of the simultaneous interconnectedness of all potential events. This realization in the Mahayana is what matures into the realization of compassion and the importance of the transformation of society, as all beings are intimately and simultaneously interconnected. This important aspect of the path is central to the teaching on the Bodhisattva path, and career of compassionate non-dual service that leads to the awakening of not just the individual but the collective.

The Third Turning of the Teaching: The Buddha Nature Vehicle

It is believed in the Tibetan tradition that the third turning was taught by the historical Buddha to an audience of Bodhisattvas at a number of locations in India. Historically, the philosophical foundations are found in the yogachara school, originating in the fourth century with Asanga guided by his visionary experiences of Maitreya, the mythic Buddha of the future. Whilst the madhyamaka school asserts the fundamental unconstructed nature of human experience, the yogachara school asserts that the mind, awareness, has a primordial reality, and that this mind essence, or buddha nature (Skt: tathagatagarbha) is ultimately real and the source of all positivity and goodness in the human mind. Later Indian masters from Nalanda University integrated the madhyamaka and the yogachara view into the yogacara-svatantrika-madhyamaka. This position held the madhyamaka position that reality is essentially empty but that the methodology of the yogachara school helped students progress along the path to that realization (Mipham, 2005). Whilst the Indo-Tibetan tradition has multiple lineages with slightly differing approaches, in essence they address the same issue.[14]

The yogachara terminology is used by the Tibetan *essence of mind traditions* to explain their most refined practices, the generation and completion stage (tantra), great seal, (Skt: mahamudra) and great completion (Tbt: rdzog chen) traditions. Whilst the three approaches of tantra, mahamudra, and rdzogchen have differing terminology and methodology in realizing the buddha nature, they generally agree that the fundamental basis of awareness is a non-dual union of openness/spaciousness/mother consciousness and the clear-light awareness/lucid knowing/infant consciousness, the union of which is also known as the dharmakaya, the body of truth. It is the recognition of this fundamental awareness at the 1st link that cuts the entire traumatic repetition of dependent origination.

The mother, openness, is the phenomenological open basis, ground, and foundation of all experience. The Bon rdzogchen lineage of Zhan Zhung Nyan Gyud, describes it as the *space of the nature of phenomena* with nine qualities: boundlessness, omnipervasiveness, and unlimited expansiveness, without top or bottom, immeasurableness, uncontractedness, great vastness, everlasting and immutable (Wangyal, 2000). This open phenomenological space is described as *the Mother* because it is the mother of all phenomenological existence, freedom and conditionality, matter and mind, good and bad, truth and illusion. Thus, this openness is not an inert void, "is not some abstracted and lifeless emptiness, but an utter fullness that.... is vibrant with energy" (Guenther, 1989 p. 203). In a similar way the open field of outer space is full of the fecundity of galaxies, stars, and solar systems. It is not an abstract void – instead a field full of life.

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[14] From the point of view of individually ascribed names, there are numerous traditions, such as those of the simultaneously arising as merged, the amulet box, possessing five, the six spheres of equal taste, the four syllables, the pacifier, the object to be cut off, rdzogchen, the discursive madhyamaka view, and so on. Nevertheless, when scrutinized by a yogi, learned in scripture and logic and experienced (in meditation), their definitive meanings are all seen to come to the same intended point. (The First Panchen Lama, Lozang-chokyi-gyeltsen, (Berzin translator), 1997, p.98).

On the other hand, the *infant consciousness* is the primordial, lucid nature of the mind, an awareness that is brilliantly awake, referenceless, pristinely non-conceptual, and the most basic form of cognition or knowing. At the deepest fundamental levels of the human mind the unbounded openness is inseparable from this referenceless clear knowing.

In the Indo-Tibetan tradition the first turning of the wheel focuses on treating traumatic reactivity and suffering through understanding the cycle of dependent origination that conditions experience, the ethical practice of behavioral modification (links 9,10,11), mindfulness meditation (link 7), and the attentional development of calm/staying (link 3). In the second turning treatment focus is on practicing recognizing the fundamental openness of experience to liberate the mind from the human habit to reify all experience of self, other, and the world. This matures into the understanding that the entire cyclic nature of suffering is caused by the failure to recognize the fundamental openness of the mother which results in ensuing reactive reification and the obscuration of the clear light of the infant consciousness. In the third turning of wheel it is understood that suffering is due to basic confusion and ignorance, (Skt: avidya, Tbt: marigpa) as to the true nature of the buddha mind that is always already right here (link1). The recognition of the buddha nature is obscured by the ordinary operations of consciousness, including even the activity of meditation itself. The aim of treatment of this cognitive dis-ease in the mahamudra and rdzogchen traditions is of a similar nature, but the methods differ slightly.

Appendix 4: Buddhist Essence Psychology: mahamudra and rdzogchen

As mentioned above the Buddhist tradition of contemplative psychology can be divided into three developmental stages (lesser, greater, and buddha/essence vehicles), and this section investigates the contemplative psychology of the third paradigm, the essence traditions of mahamudra and rdzogchen, and how these teachings have their foundation in the fundamental insights of the first and second turnings, but also expands upon them by exploring the nature of mind: the clear light spacious nature of awareness itself.

Within the Indo-Tibetan tradition there arose in the 19th century, in response to the authoritarianism of the ruling Gelugpa order, an ecumenical movement known as the rime (all-embracing, unlimited, impartial (Schaik, 2011). This universal approach to contemplative practice respected the separate lineages and yet was able to draw upon the best elements of the five schools. This movement continues today and is best personified in His Holiness the 14th Dalai Lama, who studied with many great masters across the tradition, and took His Holiness Menri Trizin, the leader of the indigenous Bon tradition, as one of his mentors in rdzogchen (great completion) practice.

An outcome of this non-sectarian movement was the synthesis of the mahamudra and rdzogchen traditions. Meditation masters such as the 3rd Karmapa, 5th, 13th and the 14th Dalai Lama worked with both mahamudra and rdzogchen practice.[15]

History of Mahamudra

Mahamudra (phyag chen), the *great seal, great embrace*, or *great symbol* is a tradition of concepts and practices within the Indo-Tibetan Buddhist tradition. Maha means great in the sense of a great openness beyond limitations, and mudra refers to the expressive nature of phenomenal experience as viewed from the awakened mind (Ray, 2002).

Mahamudra is divided into sutra, tantra, and essence approaches. Sutra mahamudra is based on the Buddha Nature teachings of the third turning of the uttaratantra shastra of Maitreya (Gyamtso, 2000) and outlines a path to realization attained through the practice of the six paramitas as the bodhisattva aspirant journeys five paths and ten stages to buddhahood). Tantra mahamudra is based on the anuttarayoga tantras (unsurpassable union process) of the New Translation school and outlines a path of practice based on the transformation of the self-image, inner narrative, neurochemistry and energy system of the individual through visualization and yogic exercise (Loizzo, 2012). Essence mahamudra refers to the approach of direct investigation into the nature of mind and it is comparable to the rdzogchen teachings of the rNing ma and Bon traditions (Ringu, 2017).

The essence tradition of mahamudra originates with the great adept Saraha, who it is believed lived in India in the first millennium CE. He is regarded by the Tibetan tradition to have been the teacher of the philosopher and abbot of Nalanda monastery, Nagarjuna, and the mountain hermit Savaripa. Maitripa (986-1063), received visionary instruction from Savaripa, and outlined in his written works the doctrine of ‘not taking to mind’ (amanisakara), mentioned below.

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[15] For example the text *Buddhahood in the Palm of the Hand, The Union of Mahamudra and rDzogchen* by the 17th century master karma chags-med (Chagme, 2000) outlines a path of practice using mahamudra to recognize and stabilize the realization of buddha nature, and then the use of rdzogchen practice to bring that realization to fruition.

In Tibet there are numerable lineages of mahamudra practice in the Kagyu, Sakya and Gelug traditions of the new translation school. Important to the lineage of mahamudra practice described in this section is the Tibetan translator, Mar pa Chos kyi bLo gros (1012-97) who studied essence mahamudra with Maitripa, and tantra mahamudra with the ex-abbot of Nalanda, Naropa (d. 1040). The new approach to mahamudra outlined in sGam po pa’s *Explanation of the Sole Path of Mahamudra* outlines the practices in a four yoga model comprising preliminary practices to prepare the mind and body, ordinary calm/staying practice to calm the events of the mind and develop attentional stability, ordinary special insight practices to recognize the empty lucid nature of awareness, and the extraordinary practices to recognize the non-duality of appearance/awareness-emptiness, and to effortlessly mature the realization (Brown, 2006).

> A lucid, unceasing momentary awareness is the one-pointed stage of yoga. Understanding the essential nature of that awareness as nonarising emptiness that transcends conceptual modes or reality and unreality is the nondiscriminatory yoga. Understanding diverse appearances as being one from the standpoint of their intrinsic nature is the one-taste yoga. An unceasing realization of the union of appearance and its intrinsic emptiness is the great equipoise of nonmeditation yoga. (sGam po pa in Namgyal, 2006 p. 358)

The four yogas are also known by the names of shamatha, vipashyana, yugganaddha, and mahamudra.

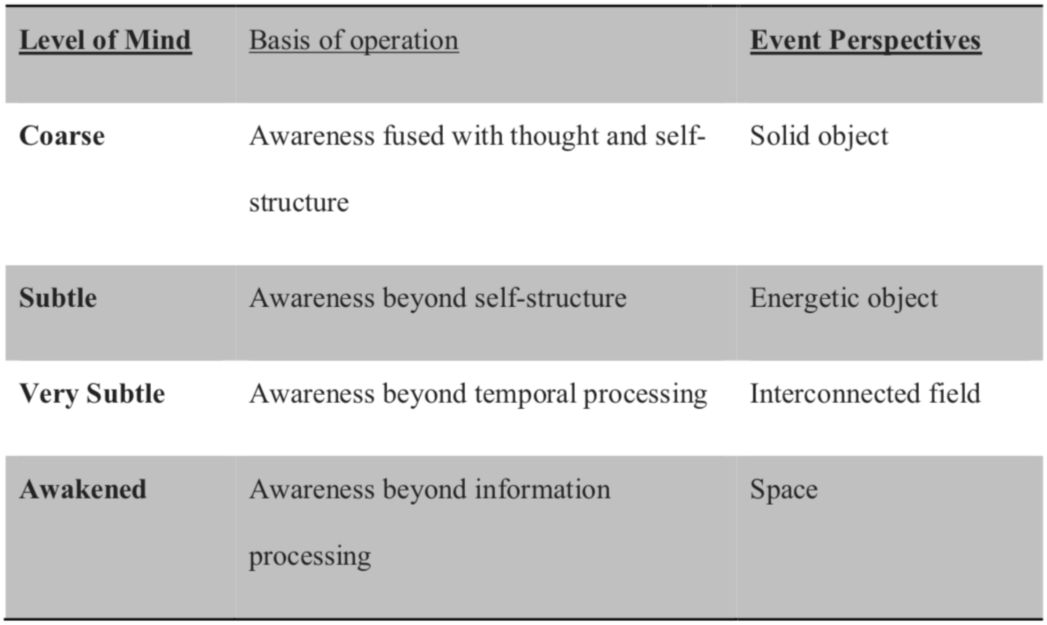
View: The Path of Development in Mahamudra

In order to understand mahamudra it is necessary to understand the concept of *tawa (Tbt.)* or *dristi (Skt.)* which literally means, *view,* meaning the view from which one experiences phenomena. Brown (2017) explains that the view is dependent upon the basis of mental operation (spod yu), the loci of identity, level of awareness or vantage point from where the mind’s metacognition is operating. According to Ras chung, student of Mi la ras pa, there are four main bases of operation, see Table 2 below (awareness fused with thought and self-structure, awareness beyond self-structure, awareness beyond temporal processing, and awareness beyond the information processing system), with each level sequentially freer from the subtler and subtler reifications of unconscious psychological and perceptual structures. Each basis of operation has the capacity to view phenomena (take the event perspective) and self-recognition (the mind perspective). The event perspective refers to the perspective of mental objects perceived at that particular level of awareness i.e. concrete objects such as the thoughts and subtle objects such as abstract patterns. The mind perspective refers to the perspectival capacity to self-reflect and recognize the level of awareness from which the mind is operating i.e. to make awareness, the subject, the object of itself.

Indo-Tibetan psychology is based on an understanding of four levels of mind (four bases of operation); the coarse, subtle, very subtle and awakened. These are four levels of mental experience are always present in experience, but they are not necessarily conscious. Whether a level of mind is made conscious or not is dependent on the level of view, the basis of operation from which identity is operating. Therefore, the basis of operation moves through the various levels of mind. In essence practice the meditations are less about meditating on something as they are about learning to operate from a new level of awareness, a new basis of operation, and from there to take a new perspective or view on experience.

The course level of mind is the level of day-to-day experience based in the linguistically created world of thought by the self. At this level of mind, the events we perceive are solid, a reified world of objects based on language. The next level of mind is the subtle level of mind that is perceived in information processing prior to naming of the coarse level. At this level the events are just the high-speed movement of perceptual information such as the abstract patterning of pure sensation, sound, and color. The mind at this level is functioning prior to thought, and the construction of self, and if the basis of operation is operating at this level it functions beyond the structure of self. The third level of mind is the very subtle level of mind. At this level the mind is a vast interconnected spacious field of very subtle energy and the basis of operation that perceives this is level of mind is a timeless, non-dual individual basis of operation. The fourth level of mind referred to earlier as the buddha nature, dharmakaya, is a non-dual unity of referenceless awareness (rigpa) and unbounded space (ma) where the field and the basis of operation perceiving the field are undivided. These four levels of mind and their perceived objects are shown below in Table 2.

Table 2. Levels of Mind, Basis of Operation & Event.



Level of Mind	Basis of operation	**Event Perspectives**
Coarse	Awareness fused with thought and self-structure	Solid object
Subtle	Awareness beyond self-structure	Energetic object
Very Subtle	Awareness beyond temporal processing	Interconnected field
Awakened	Awareness beyond information processing	Space

The table above shows a basic relationship between the level of mind, the event experienced at that level of mind, and the basis of identity operation at that particular level. The basis of operation shifts during meditation and initially this will be a brief *state* but as practice continues the state will become a *trait,* and a permanent developmental stage of identity. The levels of mind, basis of operation, and objects are also hierarchically nested, which means that when operating from awakened awareness beyond information processing that the awareness can cognize space, the interconnected field, energetic objects and solid objects. However, when awareness is fused with thought and self-structure it will be unable to perceive the subtle, very subtle levels of mind.

sGam po pa’s Four-Yoga Model

Churchill (2018) examines in detail the four-yoga model of sGam po pa’s mahamudra, a practice that unfolds through the developmental sequence of disembedding awareness as basis of operation from subtler and subtler psychological structures. The meditator first calms the mind (shamatha), then by gaining insight (vipashyana) into the constructed nature of the self, time, and individuality recognizes awareness to be already beyond all structures to a basis of operation, buddha nature, without any reference points (Brown, 2006). The four methods are described as: One-pointed yoga (calm/staying; shamatha), Non-discriminatory yoga (insight; vipashyana), One taste yoga (union of calm staying & insight), and Non-meditation yoga (mahamudra), each summarized below.

One-pointed yoga: calm/staying (shamatha). The practice of calm/staying refers to the calming of mental events in the mind such as thought and conflicting emotions, and the staying of the attentional system on the chosen object of mediation. The basic cognitive skills to be developed are motivation, directing attention, intensifying the attentional interest to the object, and metacognitive awareness.

Motivation needs to be developed to get the practitioner to begin and continue the process of practice. "Steering" involves the repeated redirection of the wandered attention back to the meditation object. The practitioner learns to have volitional access of the attention, developing the capacity to shift from vague interest to admiration to fascination of the object by increasing the salience of the details presented whether that is the breath, sensations of the body, a visual object, thought (mantra), or visualization. This would be akin to zooming in to have a close look at an object under the microscope. Metacognition in the context of calm/staying meditation is related to the *non-conceptual* intelligence, or clarity of knowing what is arising within the experience of the meditator, and therefore being able to adjust the meditation accordingly. As students learn to develop calm staying, they sequentially work through the ability to steer, intensify the attention, and brighten metacognition.[16]

Non-discriminatory yoga: insight (vipashyana). Once the meditator develops the capacity for calm/staying he or she is ready to use the stable mind to gain insight into the constructed nature (emptiness) of psychological reality. The function of insight meditation is twofold. First, to come to understand that all psychological phenomena that arise in experience (perceptual, cognitive, affective, and physical) are psychologically constructed (i.e. "empty," or based on confusion/ignorance). This first stage of the practice is a negation of the thing-in-itself-ness of the object. It leads to an experience of the psychological openness of experience that releases the ’grab” of the object over the attentional system, which in turn allows for the second stage, which is a clear recognition of the nature of the awareness that perceives the object.

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[16] The tradition has a number of ways of breaking up the stages of calm/staying but essentially the meditation has two main phases: with support, and without support. Calm staying with support describes the development of continuous and complete staying on the meditation object where the object still appears to be permanent and therefore the mind is operating at the coarse level of operations. Calming staying without support refers to the development of the capacity to stay so close to the object that the meditator becomes aware of the impermanent nature of the meditation object as momentary perceptual pixels of information.

The realization of the emptiness of self happens through a meditative search into the meditator’s direct experience to see if the self can be discovered as a substantial independent entity. This culminates in the direct experience of the nonentityness of the self, the experience of emptiness. The realization of the emptiness of experience can then be generalized to all other psychological structures and experience such as thought, the body, emotional states, pain, etc.

Brown (2006) in his synthetic review of mahamudra through the structure of the four yogas breaks the phases of special insight into the emptiness of self, phenomena, and time. This last stage, the emptiness of time, sets up the basis of psychological operation needed at the beginning of the yoga of One Taste. Awareness of the emptiness of time deepens the contemplative analysis of experience via insight in meditation that the deepest substrate of awareness does not arise and pass away like temporal experience, but functions outside the psychological constructs of past, present, and future and is continuously operating even during waking, dreaming and deep sleep states (Mason, 2010).

One taste yoga: union of calm staying & insight. The basis of psychological operation for the one taste yoga (yugganaddha) is the very subtle, timeless level of awareness. This basis of operation is established by investigating that awareness itself is changeless and beyond the conventional coming and going of psychological time. Exploring the timelessness of the spacious phenomenological field of perception, and then recognizing the nature of the awareness that perceives such field can also establish timeless awareness. This is called *establishing the view.* The prior calm/staying training is needed for the stability and capacity to hold the perspective long enough for it to become established.

Tashi Namgyal explains that there are three things to be determined about the abiding nature of this very subtle mind: the essence of mind is empty, its self-nature is luminous clarity, and its aspects consist of the diverse display of experience appearance. The practitioner recognizes that this field of non-conceptual awareness and phenomenological space is inseparable and extends in all directions without boundary. Again quoting Namgyal (p. 216), “Whatever is the nature of space is the nature of awareness. Whatever is the nature of awareness is enlightenment. For this reason awareness, the expanse of space and the mind of enlightenment, are nondual and inseparable”

Once the view of the empty lucid nature of the very subtle level of mind is stable the practitioner learns *reverse samadhi*, to ease up on the relative activity of ordinary coarse level thinking, but to simultaneously maintain the view. Then whatever mental events arise moment-by-moment within the field of the very subtle level of mind is experienced as the non-dual expression of this field. Non-dual here means that the unbounded field of awareness-space and the objects in awareness arise together, and are *co-emergent* (Namgyal) and *simultaneously* (Brown, 2005) arising.

Tashi Namgyal (p. 225) lays out three stages to the actual identification of the spontaneous coemergence: identifying the mind co-emergence of the mind, which addresses the mind perspective, and the cognitive co-emergence of mental activity and perceptual appearance, which address the event perspective. "When the meditator perceives the clarity of perceptive form and its unidentifiable emptiness as being the inseparable, denuded union of appearance and emptiness or emptiness and appearance, he has gained insight into the intrinsic coemergence of appearance" (Namgyal, p. 233). Brown (2005) calls these mind-simultaneous, cognition-simultaneous, and appearance-simultaneous.

The meditation on the simultaneous co-emergent mind is a process of deeper and deeper familiarization with the inseparability and one taste of the empty lucid awareness and the manifestations of appearance. Initially the student realizes the inseparable nondual nature of the simultaneous co-emergent mind with all cognition and appearance. As the meditation deepens the reactive identification with objects releases and then finally as it matures there is no distinction between awareness and its content.

Non-meditation yoga (amanisakara***).*** At the heart of the mahamudra approach to addressing basic confusion, and associated with adepts Saraha, Maitripa, and Tilopa is the doctrine and practice of amanisakara. Amanisakara is the non-meditation discipline that follows the prior three yogas and provides the meditator with the conditions to realize the nature of mind. Amanisakara (Tibetan: Yi la mi byed pa) is translated as *non-mentation*, *non-egocentricity*, *not taking to mind*, and *non-particularization.* It is at the heart of the third turning approach to contemplative practice (Higgins, 2008; Brown, 2006).

In the psychology of the abhidharma, the manisakara is the last in a sequence of five omnipresent mental factors of information processing (contact, discernment, feeling, intention and attention) (Tashi, 2010) that are active in every moment of experience. Manisakara has numerous translations, *attention* (Tashi,) *ego centric demanding* (Guenther & Kawamura, 1975), *bringing to mind*, *setting one's mind upon, focus* (Higgins, 2006) *taking to mind, mental engagement, particularizing* (Brown, 2006), *paying attention*, or *taking to mind* (Berzin, 2017). Essentially, manisakara is the activity of the information processing system that engages with a mental event and in doing so simultaneously creates the experience of subject and object, the attention and the attended. If awareness is con-fused with this attentional movement, it then identifies itself solely as the attentional system and then the larger field of open phenomenological experience (Ground) will be obscured. Brown (2006, p. 438) refers to this attentional subject as *individual consciousness*.

In the term *amanisakara* the beginning *A* is a negative particle, and is referring to the negation of the information processing and attentional system (manisakara) of individual consciousness. This is achieved through orienting the nondual timeless awareness beyond identification with the artificial mental engagement of information processing, and towards any specific object towards the whole field of experience. Nonmeditation (sgom med) means precisely this: doing away with any artificial activity that can be considered meditation" (Brown, 2006, p 412).

> When the mind does not move toward any seeming appearing object, and more specifically does-not-take-it to-mind, the most rudimentary basis for any discrimination falls away, and the practitioner completely transcends all false conceptualization. Mastery of not-taking-to-mind completely purifies the mind of any tendency to move toward or away from seeming

> objects. Specifically, it eradicates any movement of the mind-perceiver and clears the way for undistracted awareness of the natural mind. Brown (2006, p. 415).

By perfecting this non-meditation, the meditator attains naked, unsupported awareness. This nondiscriminatory awareness is the meditation! By transcending the duality of meditation and meditator, external and internal realities, the meditating awareness dissolves itself into its luminous clarity.

rDzogchen

rDzogchen, or great completion practice, is the culmination of contemplative practice in the indigenous Bon tradition and the oldest Buddhist tradition in Tibet, the rNing ma. In both systems it is the apex of nine stages where each system is a practice path unto itself, and there are different paths of practice for different levels of understanding. In the Bon tradition the lower stages focus on shamanic practice while the rNing ma model addresses the foundational Buddhist practices of the Hinayana. Both traditions then progress through Bodhisattva teachings on emptiness and compassion, and then Tantric approaches using visualization and yogic techniques to culminate in rdzogchen.

rNing ma schools have classified the rdzogchen teaching into three series of teachings. The first is the *sems sde*, or *mind series*, which provides the most detailed step-by-step explanation and instruction in the path with an emphasis on non-conceptual awareness knowing. This approach is similar to the four-yoga model of sGam po pa described above. The second series is the *klong de*, or *space series*, where the approach is more direct, immediate and emphasizes non-conceptual space. The methods rely upon remaining within the meditative view through the use of sensation and other direct sensory experience. Particular postures, belts, and sticks are used as a support to create powerful sensory experience through which the practitioner can easily recognize directly the phenomenological unbounded openness of experience (Chogyam & Dechen, 2002). The third series is the *mengak de*, *the secret precept series*, which contains little instruction, just simple descriptions and methods on how to maintain the view.

The Bon A Khrid System of rDzogchen. Bon is the indigenous tradition of the Tibetan plateau that originated from an ancient empire, Zhang Zhung, that includes areas known today as Iran, Tajikistan Afghanistan, Tibet, Kashmir, Pakistan, and India (Reynolds, 2014; Brown, 2017). The founder of the tradition was a Buddha known as sTon pa gShen rab who predated the Indian Shakyamuni Buddha by many centuries. The Bon tradition is composed of both shamanic ritual practices for gaining benefit and prosperity in this life known as the causal Bon (rgyu'i bon), and those higher spiritual teachings of Tönpa Sherab, known as the fruitional Bon ('bras bu'i bon) which consist of sutra, tantra and rdzogchen practices akin to those found in the Buddhist lineages originating from India (Reynolds, 2014; Brown, 2017).

There are four transmission lineages of rdzogchen within Bon; the Zhang-zhung snyan rgyud (Oral transmission from Zhang Zhung), the rDzog chen yang rtse klong chen (The Great Perfection from the Highest Peak of the Great Vast Expanse), the Ye khri mtha sel (Removing Limitations from the Primordial State) and the A Khrid (the Guiding Explanation for the Primordial State) (Reynolds, 2005).

The ninth lineage folder of the A Khrid system Bru rGyal ba g.Yung drung (1242-1290) condensed the system to a 15-session manual which became the most popular version of the A Khrid teachings. As an example of the rdzogchen tradition this exploration will focus on the A Khrid system from Bon rdzogchen. It provides a systemized approach that parallels and expands upon the mahamudra four-yoga model.

Brown & Gurung (2017) in their translation of the A Khrid pith instructions reveal how the commentary of the A Khrid divides practice into three main phases: bringing the unripened mind stream to ripening, bringing the ripened mind stream to liberation, and bringing the liberated mind-stream to the completion of Buddhahood.

In the practices of "ripening the unripened mind stream" the unripened mind is brought to ripening through four sessions of practice: *Meditation on Impermanence, Setting the Intention and Taking Refuge, the Mandala Offering, and Guru Yoga* (*mentor bonding* practice). These are explained more in Brown (2017) and Churchill (2018).

The practice of "Bringing the Ripened Mind-Stream to Liberation" the ripened mind is brought to liberation through six sessions. These sessions traverse the same psychological territory as the four yogas of mahamudra. Session five and six, *Concentration With* and *Without Attributes*, are devoted to calming the events of the mind and developing attentional stability. Through the seventh session, *Bringing Forth the Benefit*, the practitioner recognizes his or her basis of identity and psychological operation as being beyond the constructions of self, and time. Through the practice of mixing awareness into the visual perception of the outer open sky itself, and recognizing the perceptual non-duality between the awareness that is seeing the sky and the openness of the cloudless sky, one come's to recognize the spacious field of lucid, intense, and brilliantly awake awareness that is always present in each moment. The eighth session, *Pointing Out the Meaning of the Natural State*, relies upon the practice of breath retention (vase breathing) and meditation on the central channel.

The ninth session,. *Getting Rid of the Stains Created by the Ordinary Mind,* is devoted to the stabilization of awakened awareness, through: "Setting Up the View" (to repeatedly shift the basis of operation to awakened awareness more often and for longer periods of time); "Dismantling the Ordinary Mind" (the dismantling of the individual consciousness, akin to sGam po pa's Non-Meditation): and "Automaticity: (awakened awareness is able to sustain itself automatically at all times and in all situations). This leads to the tenth session or stage *Taking Stainless Primordial Wisdom as the Path*, in which the meditator practices maintaining and integrating this basis of operation whilst engaging in systematically more difficult circumstances.

This tenth session (of the second, or liberation, phase of the A Khrid system) completes the process of liberation. At this point of development the meditator has developed the capacity to operate naturally from awakened awareness, the level of lucid, open non-dual awareness prior to the constructions of the information processing systems of perception, attention, temporal awareness, self-construct, emotion and cognition. Perhaps surprisingly to some readers, rDzogchen moves on from there.

The third phase of the A Khrid system moves from "liberation" to "Buddhahood" (i.e. "Bringing the liberated mind-stream to the completion of Buddhahood"). This third phase of practice, also named, the *Practical Guide for Liberation*, *Reaching the End*, includes maintaining awakened awareness into deep sleep and dream yogas. According to the tradition (1) bringing awareness into the state of deep sleep is the transformation of the most ignorant substrate of consciousness, and parallels the capacity to maintain awareness throughout the dying process (Wangyal, 1998); and (2) the dream state is the most responsive state from which to transform the deep habitual karmic tendencies that have built up in the mind (Norbu & Katz, 1992; Wangyal, 2004). Though they are included in post the post-liberation (Buddhahood) phase of the A Khrid system, deep sleep and dream yogas are also practiced during the Liberation (second) phase to deepen the processes of dis-identification. The "fruition" processes ("dharmadhatu exhaustion ") introduced at this last phase is meant to cleans one of all past karmic imprints, to ultimately reach a stage of in which all negative mind states have been purified and all the positive qualities of mind have been developed (kindness, generosity, patience etc.). Though this tradition locates these purification processes after building the skills of liberation (the capacity to operate naturally from awakened awareness), other systems speak to the ongoing process of purification of conditioning (i.e. karma) that happens all along the path.

The final movements along this path include "Staying uninterruptedly in a state of one-pointedness (on the view of the inseparable pair of unbound space and awakened awareness) across the three gates of body, speech and mind, is concentrated evenness; conduct throughout the various activities and behavior is post-meditation" Druchen Gyalwa Yungdrung (Brown, 2017, p. 170); and "[not] even the slightest distinction between holding or not holding mindfulness, sleeping and waking, and being distracted or undistracted from the real nature of the mind" (Brown, 2017, p. 174).

This fruition manifests itself in realization of three dimensions: the realization of the "three enlightened bodies," the primordial wisdoms, and enlightened activity in the form of skillful means, great compassion/loving kindness, and omniscience. The three enlightened bodies, dharmakaya, samabhogakaya, and nirmanakya, (kaya) can also be translated as three fields or dimensions of the enlightened mind (the unbounded, unborn, uncreated open ground of reality akin to the purification of deep sleep; the field of light in the form of brilliant, primordial, lucid, lively awareness akin to the purification of the dreaming mind; and as radiant self-arising-self-liberating liveliness akin to the purification of the waking mind).

Finally, we will mention the rDzogchen system of "Five Primordial Wisdoms" describing the workings of the fully purified mind (i.e. Buddhahood) (Thrangu, 2011). It is described in terms of how the purification and transformation of each major defilement leads to an enlightened wisdom capacity. This model is a useful psychological tool for any location along the path to liberation.

The transformation of anger and default consciousness produces mirror-like clarity. The transformation of hedonic tone (likes, dislikes, grasping, pride) leads to perfect equanimity. The transformation of mental formations (and preference) from a self-seeking manipulation of reality leads to compassion and a discriminatory awareness as to what is ultimately good for the interconnected field. The transformation of the perceptual system (and jealousy) lead to a purified executive functioning that automatically translates understanding into energetic right action.

Looking at the underlying architecture of the mahamudra and rdzogchen systems presented a common pattern emerges. In the process of contemplative psychological development it is necessary to first recognize, and then stabilize, a basis of operation before it can integrate the relative activity of body, speech and mind into a non-dual realization. For instance, in the mahamudra the practitioner realizes the very subtle timeless mind, and once that view is established as the basis of operation then the relative activity of mind is allowed to arise within that timeless very subtle spacious field. The four yoga mahamudra tradition has a greater differentiation of levels of metacognitive operation prior to awakened awareness than the A Khrid system. As such the four-yoga mahamudra articulates the process of establishing a basis of operation and its non-dual function at the subtle (emptiness of phenomena/dreamer and dream), very subtle (one taste reverse Samadhi), and the awakened level of mind.

What can be seen in the mahamudra and rdzogchen is a process intrinsic to human development. There is an orientation to a whole field (subtle, very subtle, awakened) that leads to the recognition of a metacognitive basis of operation. That new basis of operation then orients to the perceptual and cognitive expressions within the whole phenomenological field whilst simultaneously recognizing objects as an integrated expression of that field. When integrated, the intention shifts to establishing the next whole field as a basis of psychological operation. Because the whole fields are nested contexts (the awakened level includes, the very subtle, the subtle, and the coarse) this allows for the A Khrid system to cut through to the awakened level and in the non-dual integration of liveliness all prior levels of development are subsumed.

Leadership Coaching Leads to Later Stage Development

Antoinette J Braks[1]

Abstract: This paper explores a multiple case study based on the effects of a developmentally informed, transformative leadership-coaching methodology. After an average of eight 90-min coaching meetings over 12 months with a Synergist executive coach, 83% of the 12 strategic executive leaders in the case study shifted a full stage, mostly from Achievist to Catalyst; the other 17% shifted two stages from Achievist to Synergist. The paper presents the eight drivers emerging from a thematic analysis of >100 hours of coaching conversations (>100,000 words) that enabled universal later stage development. It draws on the STAGES model to explain the significance of transforming the organisational context and undertaking shadow work. The dynamics of development led to an emergent Vertical Development Theory.

Keywords: Executive coaching, leadership, Stageshift, Synergist, vertical development theory.

Introduction

This paper first explores what is known about later stage development in terms of the structure and pace of development, and the factors thought to stimulate later stage development. ‘Later stages’ are defined as the postconventional stages of development. The paper then articulates the coaching interventions or drivers of development that led to shifts from Achievist to Catalyst and onto Synergist distilled from the executive coaching case study. This is followed by an exploration of why and how these drivers were effective in relation to the dynamics of vertical development with reference to the STAGES model. The paper concludes with an emergent Vertical Development Theory, a set of implications for executive coaches and facilitators of advanced leadership development programs and makes a number of recommendations for future research.

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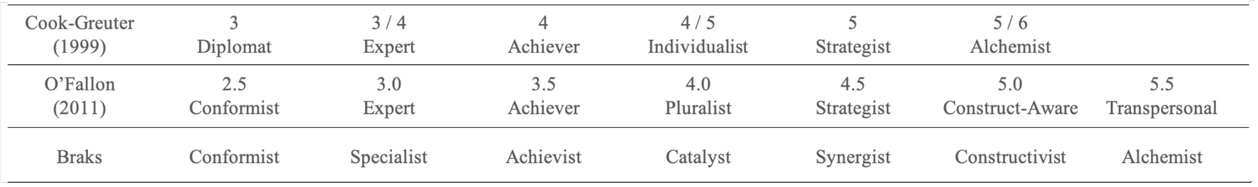
Table 1. Key for use of Stage Terms in this article (author's perspective).



Cook-Greuter (1999)	3 Diplomat	3 / 4 Expert	4 Achiever	4 / 5 Individualist	5 Strategist	5 / 6 Alchemist	
O'Fallon (2011)	2.5 Conformist	3.0 Expert	3.5 Achiever	4.0 Pluralist	4.5 Strategist	5.0 Construct-Aware	5.5 Transpersonal
Braks	Conformist	Specialist	Achievist	Catalyst	Synergist	Constructivist	Alchemist

The stage terms chosen by the author were selected based on their corporate audience, and their "-ist"-ness. In particular, Synergist was chosen instead of Strategist as the word strategist has its own meaning in the corporate world. It denotes a person fluent in devising corporate strategy which is best categorised as an Achievist-level capability. It also fails to incorporate the collaborative synergy that is a distinctive and valuable emergent capacity at this stage of development to enable more sustainable, empowering and equitable foundations to be built. Achievist, a term originally used by Beck and Cowan (1996), was adopted for the same reasons. In the corporate world, a high performing Achiever is seen as the pinnacle of an executive's leadership capacity. By altering the term to Achievist, the stage development lens can be encountered and interpreted more objectively.

Factors Related to Later Stage Development

Later stages have been correlated with increased leadership effectiveness. Evidence indicates that executives at later stages with more complex meaning-making systems are more effective leaders (Eigel, 1998; Eigel & Kuhnert, 2005; Harris & Kuhnert, 2008; Strang & Kuhnert, 2009; Rooke & Torbert, 2005). A deeper appreciation of themselves, their interactions and strategic context, in other words intrapersonal, interpersonal, systems and cognitive skills and capabilities, help leaders to be more effective. Furthermore, the capacity to lead and sustain transformative organisation-wide change, emerges at Synergist (Rooke & Torbert, 1998).

The Pace of Later Stage Development

The two later stages of development with which this research study was primarily concerned are the first two postconventional stages of Catalyst and Synergist. While the proportion of the executive population at Catalyst has been increasing by 11% in each of the last two decades to rise to a total estimate of 33%, the proportion of Synergists amongst the executive population – has stalled at 8% increasing by just 1% in each of the last two decades (Cook-Greuter, 1999; PwC Report, 2015). Half of senior leaders believe that their investment in leadership development does not build critical capabilities despite the $164b annual investment in leadership development in the United States alone (Beer et al, 2016; Moldoveanu & Narayandas, 2019). There appears to be a deficiency in current leadership development methodologies to enable vertical development to Synergist.

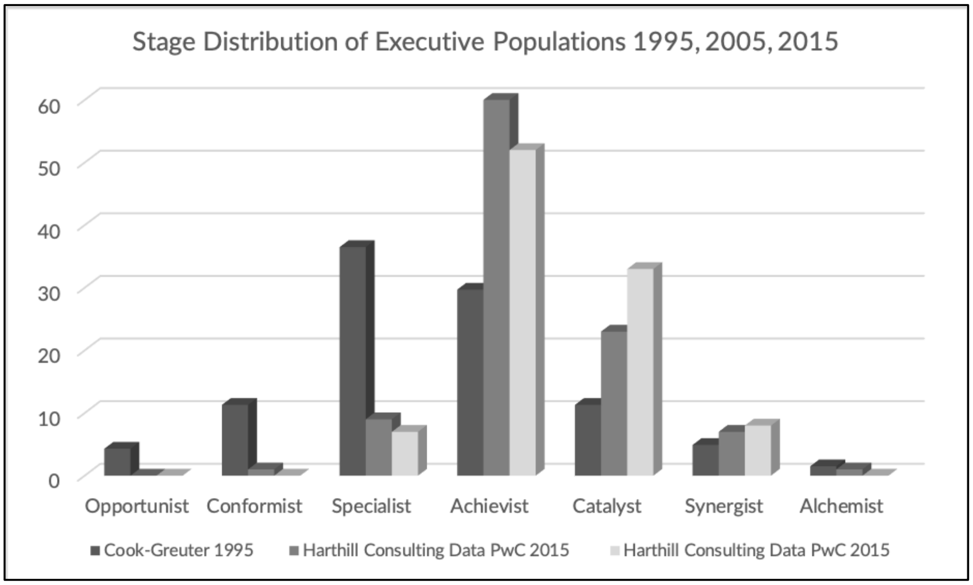


Figure 1. The Distribution of Executives across the Stages of Development.

Torbert (personal communication, March 11, 2015) suggested that vertical development from Achievist to Synergist would take as many as six years with a Synergist coach. His view was inevitably based on an early study of MBA graduates, where Torbert & Fisher (1992) found that the six who participated in a reflective action inquiry group every 3 weeks over 5 years had shifted a full stage to Synergist in contrast to the other nine graduates who only developed their leadership capacity by 5% during that time. Rooke & Torbert (2005) further advised that, in addition to one individual making the shift from Specialist to Synergist over a period of three years, "[w]e have had only two other instances in which a leader has transformed [two stages] in less than four years" (p. 73).

Vincent (2015) undertook a more recent study of 335 adults with an average age of 40 who were undertaking a 12-month Community Leadership Program (CLP). She found that the enhanced 25+ day CLPs including psychosocially disequilibrating events, were more effective in triggering later stage vertical development than the standard CLPs. Of those who attended the enhanced CLPs, 29% (46/157) shifted from Achievist to Catalyst, and 23% (9/40) from Catalyst to Synergist. In total, 28% (55/197) shifted one stage to one of these two later stages after attending the one-year intensive and enhanced leadership program.

Brown (2014) suggests that executive leadership programs based on integral theory focused more explicitly on expediting vertical development to transpersonal stages, such as Pacific Integral's Generating Transformative Change Program, are significantly more effective. "Typically, it takes five years for a leader to shift a full action logic, or developmental stage, if they shift at all. Leaders in these programs [MetaIntegral Assoc, Pacific Integral, JFK University] shifted as much as an entire stage or two in vertical learning programs lasting 1–2 years." (Brown, 2014, p. 25) Pacific Integral programs involve four 5-day residential retreats over a period of nine months.

In summary, vertical development to the later stages of Catalyst and Synergist is probable for participants in a peer group, potentially inclusive of later stages, undertaking developmental action inquiry over a period of 5 years. Based on Vincent's (2015) research, perhaps a quarter of participants could be expected to shift to later stages after attending a 25+ day 12-month comprehensive leadership program that includes psychosocially disorientating experiences (Manners & Durkin, 2000) yet is not explicitly designed to enable vertical development. However, all participants attending 20-day 9-month Pacific Integral programs which are explicitly designed to foster vertical development to indeed transpersonal stages, often shift one, and sometimes two, stages during this short time.

Factors Driving Later Stage Development

There are a number of factors that may contribute to enabling later stage vertical development. Torbert & Fisher's (1992) study of MBA graduates described above, suggests that reflective action inquiry with peers is useful. Laloux (2014), famed for his work in organisational evolution, suggests that creating the opportunity for self-expression, revelation, feedback and reflection amidst diverse perspectives including *later stage peers* is conducive to later stage leadership development. Indeed, facilitators of the highly effective Pacific Integral Leadership Programs are renowned for their transpersonal perspective.

Another key factor included in Vincent's (2015) study above, was the notion of disorientating dilemmas first espoused by Mezirow (2003) as having the power to invite transformative learning. Piaget (1954) suggested that disorientating dilemmas demanded an adaptation of the meaning-making frame to make sense of new perplexing information, signifying vertical learning beyond one's current perspective. He called this an accommodation process. This was in contrast to new data that could be assimilated i.e. understood within one's current frame of reference, suggesting horizontal learning within the person's current stage of development (Kegan, 1982).

In their research study, Manners & Durkin (2000) found that having a personal disposition that was curious and open to attracting personally salient life experiences that were emotionally disorientating, was likely to generate stage development to Achievist. This was based on a brief research study where 76% (16/21) of adult participants advanced one stage from Specialist to Achievist following a 10-week group program of one 90-minute workshop per week. Vincent's (2015) study suggests that 29% of participants might develop to later stages as a result of engineering this type of psychosocially challenging intervention.

Geoff Fitch, Founder of Pacific Integral, believes that the intimate collective holding space co-created during Integral Leadership Retreats is significant in liberating later stage development (Ch 4, Gunnlaugson & Brabant, 2016). Perhaps it is not the disorientating dilemmas or "heat experiences" (Petrie, 2015) themselves that enable later stage development, but the deeper inquiry into interpreting the experience of the participants. A transpersonal facilitator has the power to hold a psychologically safe, supportive and sacred space for this inquiry and the insight to invoke deeper meaning-making for the participants.

The exploration and integration of identity is thought to facilitate vertical development. Petriglieri et al. (2011) found that revisiting life stories and navigating existential puzzlement with the support of individual psychotherapeutic counselling was both in high demand and highly valued by MBA students. Pfaffenberger (2011), on comparing the written narratives and interview transcripts concerning the growth process of 22 postconventional participants with those of a control group of six conventional participants, also found that interiority, alongside intentionality and complexity, was one of three key themes that distinguished later stages.

'Interiority' reflected taking a personal inquiry into one's inner awareness. The second theme, intentionality, referred to the commitment to prioritise personal growth despite the discomfort and increasing sensitivity. Interiority and intentionality appear to be developmental drivers associated with shaping a coherent inner identity and the intentional resolution of challenging tensions and paradoxes at a deeper level. Quatro et al (2007) also advise that a person develops to later stages by integrating the analytical, conceptual, emotional and spiritual dimensions of their holistic self.

The exploration of identity is connected to shadow work. Kilburg (2004) described shadow as "unconscious material in the form of past experience, emotional responses, defensive reactions, underlying and unresolved conflicts, and dysfunctional patterns of thinking and behaving [that] can contribute to poor leadership and consequently to decreased organisational effectiveness" (p. 249). By bringing these elements into conscious awareness, a person can more easily adjust otherwise disruptive behaviours and alleviate significant distress and anxiety, leading to enhanced wellbeing (Kilburg, 2004). Shadow work is also thought to advance a person's meaning-making patterns to realise later stage development (Kaiser & Kaplan, 2006).

Other ways of expanding meaning-making are: the integration of polarities (Sharma & Cook-Greuter, 2012); the resolution of tension between espoused and lived values (Rooke & Torbert, 2005); consciously working with an open mind, open heart and open will while suspending voices of judgement, cynicism and fear (Scharmer, 2007); mindfulness, meditation, contemplative and reflective practices that serve to deepen inner awareness.

A further aspect of vertical development is that a person can generally only develop up to the level of evolution supported by the organisation they are a part of. For instance, the competitive, high-performance structure and culture of an orange organisation would largely contain development to the associated stage of Achievist. Innovative organisational practices at later stages of development i.e. green and teal, suggest that the evolutionary level of the organisation is a highly influential factor in either prohibiting or encouraging later stage development (Hamel, 2007; Laloux, 2014). Kegan et al (2014) recommend prioritising deliberately developmental practices within organisations to stimulate vertical development.

In summary, vertical development can be accelerated by regular reflective action inquiry, especially with later stage peers, and by making deeper meaning of disorientating experiences at integral retreats with transpersonal facilitators. Intentionally taking a holistic view of all dimensions in one's inner world, potentially with the help of a psychotherapist, can also lead to the development of a more integrated identity. Working with values, polarities and mindfulness in deliberately developmental, contemplative ways may stimulate later stage development, and working in conventional organisations is thought to inhibit development while engaging in green to teal organisations stimulates associated personal development to the equivalent evolutionary level.

Quantitative Findings in Later Stage Development

The Motives that Led to the Research

There were a number of interconnecting factors that led to the research project. I had been working as an executive coach for about three years. While most clients appeared to gain substantial value from the coaching, I wondered if I was actually making a real difference. Was my coaching genuinely effective as well as providing clients with a purposeful and valuable time to reflect, rewind and reframe? The outcomes of my work as an executive leader of People and Culture and business transformations, had been more explicit and tangible.

I had become aware of stage leadership development by undertaking a workshop with Susanne Cook-Greuter in 2010. I discovered that I was operating as a Synergist with 72% of sentence completions at post-conventional levels and 42% at Synergist and Alchemist. I also discovered that only a small proportion of executives operate as later stage leaders, particularly at Synergist when they become able to lead and sustain organisational transformations (Rooke & Torbert, 1998). At that time, only 10% of leaders operated from Catalyst and 5% at Synergist and beyond (Rooke & Torbert, 2005). I felt that the world was urgently in need of transformation to become more sustainable, healthy and equitable, and therefore in urgent need of more leaders operating from the Synergist perspective.

I enrolled in a PhD and three years later began my research project. I was involved as a management assessment consultant and executive coach in the Leadership Development Program for the 400 most senior executives in the New South Wales (NSW) public sector. Following an initial plenary assessment, debriefing and short coaching process, they were individually funded to undertake a psychological assessment followed by more coaching. I took the opportunity to launch my research study.

My research question morphed over time to become:

> How might Executive Coaching with a Later Stage Executive Coach at Synergist enable vertical leadership development for strategic leaders predominantly at the conventional stage of Achievist to the less commonly held later postconventional stages of Catalyst and Synergist?

Setting up the Multiple Case Study Research

I invited 25 strategic leaders with divisional, functional or regional responsibilities in the NSW public sector to undertake the highly validated stage assessment instrument, Cook-Greuter's Mature Adult Profile (MAP) (Cohn & Westenberg, 2004; Loevinger & Wessler, 1970). This requires a person to independently complete 36 sentence prompts. In this way they project their thoughts and ideas on a wide range of life and work concerns. Susanne Cook-Greuter herself kindly agreed to score the assessments.

Of the 25 strategic leaders invited to take the assessment, 12 scored with more than 80% of their profile up to and including Achievist. To focus the research on the shift from Achievist to later stages, these 12 were invited to participate in the research study. Of the 12 invited, nine agreed. They formed an initial purposive sample of conventional strategic leaders. Three participants were added to the project later, one more from the public sector making a total of 10 (83%) and two from the financial services sector (17%).

The average age of the 12 participants was 50, ranging from 36 to 56. There were seven men and five women. They were all graduates, and six had postgraduate degrees including one doctorate. Their roles included Deputy/Assistant Secretary/Commissioner, C-suite, Head of Agency, Executive Director, Program and Operations Directors. They worked across the agriculture, education, environment, financial services, health, justice, premier's office, rescue services, trade and industry, and transport sectors.

The proportion of their average aggregate stages profile up to and including Achievist at the beginning of the research project was 88%. Thus, their average aggregate later stage profile was just 12%. They committed to attending a 12-month coaching program. They also agreed to an explicit intention to realise later stage leadership development. They were not involved in any other organised leadership development activities.

The 90-min coaching meetings were set up for the same time and day each month over the ensuing 12-month period. The participants could reschedule meetings during and beyond the 12-month period at their discretion. During the year, they attended an average of eight (8.4) coaching sessions, ranging from five to 12 each. The three who attended fewer coaching meetings tended to meet bi-monthly instead.

My coaching preparation consisted of revising past coaching notes, meditating briefly to become centred, calm, caring and present, ensuring that there was water and mint tea ready, and setting intentions to co-create an insightful and valuable coaching dialogue for the coachee. All of the meetings took place in person in large corporate meeting rooms on the upper floors of centrally located buildings with panoramic views over Sydney parkland and harbour. A whiteboard stretched across a wall was used regularly to capture new ideas and explain emergent concepts to facilitate development and understanding.

My coaching approach was non-prescriptive and unstructured. I had undertaken little formal coaching qualifications at that time and simply drew on my experience, expertise and Synergist perspective of life and business to inquire, respond and generate an uplifting transformative dialogue on whatever was raised by the coachee. I also intervened purposefully if I encountered a blind spot in the coachee's reflections or general chit-chat. In offering feedback, one coachee remarked:

> I remember one day I began a coaching session by describing how irritated I had been by a hygienist cleaning my teeth. … I just wanted to vent and remove this experience from my state of mind. Little did I know that Antoinette would turn this into a teaching moment for me. She provided a life-changing reflection back to me – did I want to be reactive to situations? She told me that my reaction was as much about me as it was about her. Did I want to be an irritable or irritated person, or did I want to be a different type of person in the world? I did not believe it was possible to change my personality, and then I realised I could. I wasn't that type of person; I could be whoever I wanted to be. I've never forgotten that moment.

Measured Outcomes Post the Coaching Program

After 12 months, nine of the participants undertook a second MAP assessment. These assessments were sent to Cook-Greuter anonymously without any identifying data for her second assessment. Of the additional three participants, one undertook a Global Leadership Profile (GLP) assessment and two others undertook a STAGES Profile assessment. These alternative stage assessments followed my studies with Bill Torbert, creator of the Global Leadership Profile, and Terri O'Fallon, creator of the STAGES Profile. The scoring systems of these three assessments have been shown to be highly correlated, particularly up to Synergist (O'Fallon et al, 2020; Torbert & Livne-Tarandach, 2009). By 2018 my stages assessment was at 5.5 (STAGES) with 100% of my profile at Synergist and beyond. The coaching programs with the three additional participants took place from 2016-2018.

It was found that ten (83%) of the participants had shifted a full stage, eight from Achievist to Catalyst. One participant shifted from Specialist to Achievist and one participant shifted from Catalyst to Synergist. The two remaining participants (17%) shifted two stages from Achievist through to Synergist.

Table 2. Pre- and Post-Coaching Stage Assessments.

	Total Weighted Score (TWS)			Total Protocol Rating Primary Stage		% Profile at Postconventional		
Participants	Pre-	Post-	Change	Pre-	Post-	Pre-	Post-	Change
A	242	278	+36	Achievist	Synergist	19%	64%	+45%
B	244	265	+21	Achievist	Catalyst	6%	36%	+30%
C	245	293	+48	Achievist	Synergist	11%	81%	+70%
D	232	266	+34	Achievist	Catalyst	6%	50%	+44%
E	233	260	+27	Achievist	Catalyst	3%	31%	+28%
F	212	241	+29	Specialist	Achievist	0%	6%	+6%
G	242	265	+23	Achievist	Catalyst	0%	39%	+39%
H	247	261	+14	Achievist	Catalyst	11%	31%	+20%
I	244	271	+27	Achievist	Catalyst	17%	50%	+33%
J	231	261	+30	Achievist	Catalyst	6%	37%	+31%
K	244	266	+22	Achievist	Catalyst	17%	39%	+22%
L	265	298	+33	Catalyst	Synergist	47%	93%	+47%
MEAN	240	269	+29	T = 9.7E-08 t = 1.7959	$p < 0.0001$	Aggregate Profile Shift		
Std Dev	12.55	15.21	8.7			12%	46%	+34%

The mean of the difference in the before and after scores was 28.7, approximately the ambit of a full stage. The difference in the before and after scores ranged from 14 to 48 points. There were no outliers (Tukey Fence). The standard deviation of the difference was 8.7. A matched sample paired t-test showed that there was a highly significant statistical difference between the before and after Total Weighted Scores (TWSs). The R^2 of this shift was 0.519 with a single tail p-value of 0.00001 at a 95% confidence interval.

In summary, all participants shifted a full stage (100%). Two navigated a double shift from Achievist to Synergist (17%). These are significant findings from a practical perspective. An average of eight 90-minute coaching sessions or 12 hours (2-days) of executive coaching spread across a year with a later stage executive coach at Synergist, accomplished the degree of stage shift that had otherwise only been known to have taken place following 20-day intensive group Integral Leadership Programs.

Three of the first group of participants agreed to undertake a third GLP assessment three years later. They were all assessed at Synergist. They increased their average aggregate later stage profile by 72% from 16% in Year 0, to 65% in Year 1 and onto 88% in Year 4. This indicated that the earlier results achieved were sustainable and that the coaching could activate the integration from Catalyst to Synergist.

The Hedges g score showed that the number of coaching sessions undertaken by the participants during the research project, had no significant effect on the scope of the shift in each participant's profile. Some coaching sessions were also taken prior to the research project, and those that undertook the third assessment had continued with an average of six coaching sessions following the project. The Hedges g score showed that the total number of coaching sessions undertaken had no significant effect on the results. The average number of coaching sessions undertaken by those who shifted two stages in one year from Achievist to Synergist was eight.

The Structural Nature of the Stage Shift

The structural nature of the average aggregate profile shift was curious. It was calculated based on the average percentage of sentence completions at each stage of development. In the initial shift predominantly from Achievist to Catalyst, the proportion of sentence completions at Achievist remained relatively stable, while the neighbouring stages increased and decreased around this centre of gravity. It was curious because I had anticipated more of an incremental increase across all developing stages and a similar decrease across all earlier stages. I wondered if this might point to a new insight, at least for me as an experienced practitioner, in the nature of vertical development. To explore this further, notwithstanding the tiny sample size for this type of analysis, I looked at the data only for those shifting from Achievist to Catalyst, and the data only for those who had shifted onto Synergist.

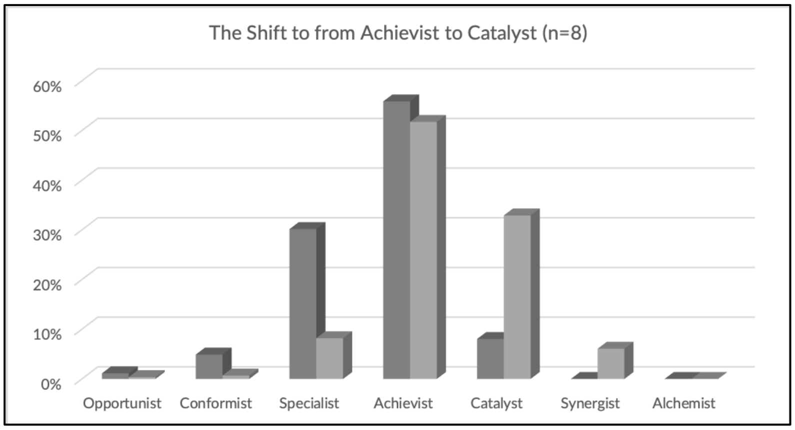


Figure 2. The Structural Nature of the Stage Shift to Catalyst.

In the shift to Catalyst (n=8), the proportion of sentence completions at the previous slight leading edge of Catalyst increased significantly from 8% to 33% (+25%) to become their primary stage. The previous primary stage of Achievist stayed largely stable (-4%) and defaulted to secondary due to the growth in their leading edge at Catalyst. Simultaneously, the previous secondary stage and trailing edge declined substantially (-27%), leaving their previous secondary stage at Specialist as their new trailing edge. They had a new leading edge at Synergist (+6%).

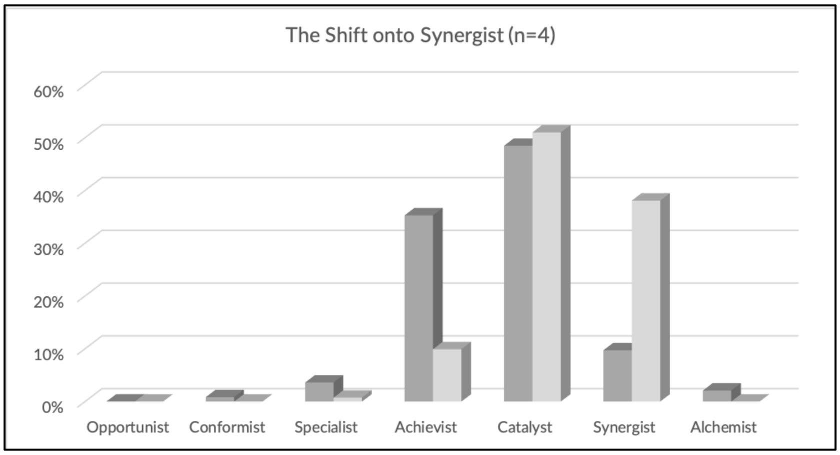


Figure 3. The Structural Nature of the Stage Shift onto Synergist.

Similarly, in the shift onto Synergist (n=4), the new primary stage of Catalyst remained relatively stable increasing by only 3%. The percentage of sentence completions at their leading edge of Synergist flourished by 28% while their profile at Achievist diminished by 25% to become their new trailing edge. The profile changes surrounded, rather than affected, their previous new primary stage at Catalyst.

These indicative findings on the structure of stage development suggest that cultivating the next person perspective at their leading edge while eliminating or reducing their regression to earlier stages by undertaking shadow resolution work related to them, is the key to later stage vertical development. The current integrated stage of development is sustained during the process of vertical growth until the next integrated stage of development has been experimented with, understood and become embodied. This way a person can continue to rely on their primary way of making sense of their world while actively nurturing vertical development. It appears that it is not until both steps in the individuation/integration process (Cook-Greuter, 1999) are completed and the person has matured into a new integrated stage of development, that the previous primary stage of integration is released.

This supports O'Fallon's (2011) revelations of the structure of stage development in the Inner and Outer Zones. During the x.0 individuation stage of development in one's inner world, the previous (x-1).5 stage in the outer world continues to prevail. The findings add credence to my observations from my coaching experience in vertical development to Synergist, that a person only arrives at this stage once they can confidently express and demonstrate their personal transformation by leading transformation of their organisation.

This insight perhaps partly explains the fact that while executive leaders have been increasing to the stage of Catalyst by 11% in each of the last two decades, the transformation to Synergist has stalled (PwC, 2015). These postconventional executive leaders would appear to still have their centre of gravity, albeit their secondary stage, at Achievist. It seems that unless developmental interventions deliberately encourage active experimentation in the outer zone of integration at Synergist while intentionally releasing the hold of the Achievist and earlier stages through shadow work, vertical development to Synergist cannot ensue.

Summary of Quantitative Research Findings in Later Stage Development

1. The motives for the research project were to explore my effectiveness as a coach and the potential for executive coaching with a later stage executive coach to expedite later stage vertical development to Catalyst and Synergist.

2. Twelve strategic leaders with substantial divisional responsibilities, seven men and five women with an average age of 50, half graduate and half postgraduates, participated in the research. They started out with 88% of their average aggregate profile up to and including Achievist.

3. They undertook an average of 8.4 (range of 5-12) 90-min (12.6 hours) face-to-face one-to-one coaching sessions with a Synergist coach, monthly or bi-monthly over the course of a year.

4. Ten (83%) of the participants shifted a single stage, eight from Achievist to Catalyst; one from Specialist to Achievist and one from Catalyst to Synergist. Two (17%) shifted two stages from Achievist to Synergist.

5. The mean of the difference in the before and after TWSs was 28.7 (range of 14-48) and the standard deviation of the difference was 8.7.

6. A paired t-test showed that there was a highly significant statistical difference between the before and after TWSs. The R^2 of the shift was 0.519 with a single tail p-value of 0.00001 at a 95% CI.

7. Three of the participants undertook a third stage assessment three years after the second and were all assessed at Synergist. They increased their average aggregate later stage profile by 72% from 16% in year 0 to 65% in year 1 and onto 88% in year 4.

8. In the transition to the next stage, the primary stage remained stable. The leading edge grew to become their primary stage and their secondary stage and trailing edges dropped away.

9. The research findings suggest that a person's Centre of Gravity is better understood as being in their latest integrated stage, primary or secondary, rather than in their primary stage if it is in an individuation stage.

The Drivers Leading to Later Stage Development

The Matrix of 8 Key Coaching Interventions

The coaching conversation notes from the first nine participants comprised >75,000 words. They were compiled into one large word document. First, they were analysed using Leximancer's online content analysis tool. Two overarching themes emerged: People and Strategic, together with eight other topics. These were crystallised into categories and the conversations within the transcripts were coded accordingly. The coded conversations were then captured in a large excel spreadsheet by category (row) and coachee (column).

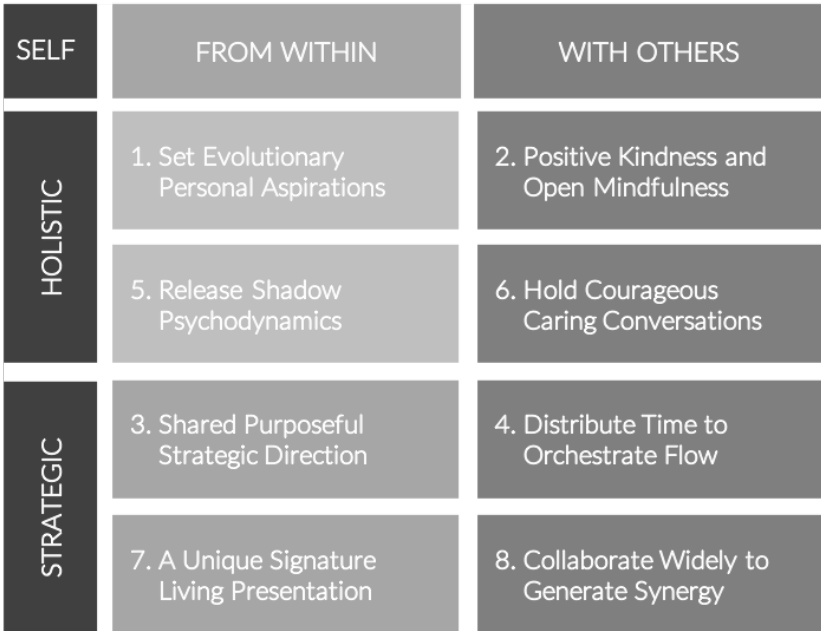
After many recurring cycles of reflection and analysis on the substance and nature of the data over a period of two to three years using inductive thematic analysis (Boyatzis, 1998), it was found that the two key themes held: Strategic and Holistic Leadership Development. Strategic coaching conversations related to the coachees' roles as organisational business leaders. They focused on the Collective. Holistic coaching conversations concerned them more intimately as individual people navigating life, both at work and at home. They focused on the Self.

After further consideration and following study of the STAGES model (O'Fallon, 2011), I realised that some of the subcategories related to inner work such as exploring identity, developing self-awareness, diving deep to understand and resolve shadow, and articulating aspirational intent and strategic direction. This type of work seemed to be more closely associated with the Inner Zone work at the Reciprocal stage of Catalyst, potentially also reaching towards the aspirational intent of Constructivist. The other subcategories were concerned with active application, engagement with others and the implementation of what had been learnt, reminding me of the Outer Zone work at the Interpenetration stage of Synergist.

As a result of this iterative process of reflection, sorting, analysing and resorting, eight different coaching interventions were identified. These eight drivers formed a matrix. Four drivers were Strategic, and four Holistic. Four related to inner work and four to outer work with others.

It was also found that the drivers were introduced in a similar order across all the case studies. As time went on, the coaching became more personally and interpersonally challenging, as well as more expansive in terms of proactively engaging larger groups of people beyond their immediate role. Here is the StageSHIFT Matrix of Later Stage Vertical Development showing the order from

1 to 8 that enabled the participants to integrate the 4th person perspective from Achievist to Catalyst and onto Synergist.



SELF	FROM WITHIN	WITH OTHERS
HOLISTIC	1. Set Evolutionary Personal Aspirations	2. Positive Kindness and Open Mindfulness
	5. Release Shadow Psychodynamics	6. Hold Courageous Caring Conversations
STRATEGIC	3. Shared Purposeful Strategic Direction	4. Distribute Time to Orchestrate Flow
	7. A Unique Signature Living Presentation	8. Collaborate Widely to Generate Synergy

Figure 4. The StageSHIFT Drivers of Later Stage Development.

Driver 1: Set Inspiring Evolutionary Personal Aspirations

Coaching programs often begin with setting developmental goals. My preference was to set personal leadership aspirations in the form of a declaration. Each coachee articulated the type of leader they would like to become and completed their statement with their highest intrinsic purpose. This took time to develop and refine, and invariably involved developing the coachee's self-awareness of their unique strengths, passions, potential, purpose and personal aspirations. This is similar to the first step in the Boyatzis (2008) Intentional Change Theory although I would add that a later stage Synergist/Constructivist perspective tends to uplift coachees' aspirations.

The rationale was to attract the very experiences that would both challenge and bestow the person with the opportunities to realise their highest potential – that was my intrinsic purpose. By setting a strong guiding affirmation, I believed that the power of the mind, heart and spirit would set up the opportunities and obstacles in life's pathway to fulfil this declared intention. This was based on the writings of philosophers such as the following quote by Indian sage Patanjali, and to some extent, reflected in my own life experience.

When you are inspired by some great purpose, some extraordinary project, all your thoughts break their bonds; your mind transcends limitations; your consciousness expands in every direction; and you find yourself in a great new and wonderful world. Dormant forces, faculties and talents become alive and you discover yourself to be a greater person by far than you ever dreamed yourself to be.

Driver 2: Sustain a Positive, Kind, Open and Compassionate Mind

A key element that arose repeatedly across all the case studies was the common criticism and judgement of others. Calling other people “idiots” and “useless”, or otherwise venting about their annoying qualities is prevalent amongst people at the stages of the defensive Specialist and competitive Achievist. In integral speak, this element was about ‘showing up’ in a positive, kind and balanced state to minimise and indeed eliminate any negative ripple effect on other people.

This Driver incorporated positive psychology (Seligman, 2011), the use of only positive language, deletion of negative thoughts, heart-based reflective practices, mindful reprogramming and the development of a growth mindset and new wellbeing habits such as meditation and journaling. The Interpenetrative nature of the Synergist in the STAGES Model also fuelled this driver. By taking on board that all vengeful criticism was really transference, the coachees learned to lift their level of conscious self-awareness on an everyday basis.

One of the coachees shared their experience of this driver as follows:

> I was always intolerant of fools and cranky, idiotic people behaving badly ... Realising that whatever happens in their life, they are trying to do the best they can - maybe a bit more understanding from me rather than creating relationship issues with them would be better ... Huge shift ... Biggest shift of all!

Driver 3: Engage Everyone in Setting Shared Purposeful Strategic Direction

This was the first strategic driver focused on generating transformative leadership by each coachee of their division as a Collective. The timing was perfect to set strategic direction for the years ahead as the coaching programs began at the beginning of the financial year. The nature and structure of setting strategic direction involved many empowering models and liberating frameworks I had used effectively as an Organisation Development consultant. They had lifted people engagement by 30% in six months and had the power to lift an organisation to green.

This driver included working with each coachee on setting a purpose, vision, set of values, strategic outcomes, annual themes, strategic shifts in culture and performance, and key strategic initiatives to set up a second operating networked system as recommended by Kotter (2014) to accelerate business evolution and innovation. The coachees were also coached on how to effectively engage and empower their people in the process of generating and agreeing to a Strategic Business Charter and cascading this throughout their division.

Eleven of the 12 coachees implemented this driver and many found the process highly engaging and rewarding. They were proud of their final A3 masterpieces setting out the ‘big picture’ and were recognised by their managers and government Ministers for their transformative views of the future. It is interesting to note that the two coachees who did the most work co-creating, implementing and continuously engaging their people on the Strategic Charter, moved most rapidly to Synergist. This driver was highly empowering for their teams who could then be held accountable for achieving the goals freeing the coachees to be more strategic leaders. A coachee explained:

> [My purpose is] to set higher order strategic outcomes . . . and advance a strategic, scientifically based perspective along with effective and accountable probing governance with greater integrity . . . in such a way that everyone feels engaged, identifying with and owning a longer term strategic vision so that the return on the investment for the Australian public and industry sponsors generates tangible, breakthrough solutions that create a healthier environment for life and future generations.

Driver 4: Distribute Time to Generate a Dynamic Flow

This driver operationalised Driver 3. A Dynamic Operating Rhythm was created during coaching meetings to reduce time pressures, long hours and stress levels. Rather than managing time, the focus was on optimising energy levels and brain wave activity and distributing time to allocate the flow of the important streams of work that a strategic leader was responsible for e.g. strategic direction, oversight of key initiatives, stakeholder engagement, people and culture, and overall governance in relation to the effectiveness of the business model.

It included an iterative cycle of meetings for their teams, direct reports, projects and stakeholders, and liberating meeting agendas to enable full engagement, embed accountability and encourage collaboration. The weeks of the month, days of the week and the hours of the day were orchestrated 18-months ahead to optimise strategic performance and governance, and individual productivity, creativity and wellbeing in accordance with a person’s natural ultradian rhythm and brain processing agility.

This driver confronted many typical organisational norms. One of the most pervasive was the ever-changing meeting schedules of senior executives. The Dynamic Operating Rhythm regulated this and ensured attention was given to their own strategic priorities and people first and foremost, while freeing them to then engage more strategically externally. It conserved their conscious energy otherwise depleted by navigating a changing schedule day-by-day and enabled the coachees to move into a more emergent flow state.

Coachees were able to shift from being reactive to proactive, from the detail to the engagement:

> Setup time on Monday is proving to be very valuable . . . Feeling of being more effective and more productive. … I now have time to synthesise; what’s my position going to be in the next meeting? ... Really present, not absent. Articulating point of view on Exec Team. Now paying attention to the human dynamics, interesting drama playing out in front of me.

Driver 5: Explore Psychodynamics to Heal Shadow & Eliminate Triggers

This is the first of the second set of holistic drivers focused on deepening self-awareness and resolving shadow (Kilburg, 2004). Emotional triggers were seen as a signalling system for healing. Rather than focus on self-regulation in terms of emotional intelligence (Goleman, 1995), the emotion that was being triggered was sourced back to the original similar psychodynamic situation as a child and dealt with there. This transformative approach tunes into spiritual intelligence.

The coach had learned that by inquiring into her own emotional triggers and traumas, navigating a cognitive process to understand the psychodynamics and a heart-based process to forgive all involved in the situation while embracing the inner child, enabled situations to be healed at source. This process eliminated both the reoccurrence of similar psychodynamics and the voices in the mind that were associated with the trauma or drama in the past. In the coach's experience, when this 'GRIEF' process was applied to all emotionally charged events, regrets, resentments, prejudices and grievances were released, one's identity became integrated and the mind emptied to become calm and clear. This shadow resolution process released mindsets associated with earlier stages.

The underlying principle that supported this approach was again the concept of Interpenetration in the STAGES Model (O'Fallon, 2011). In my words albeit not necessarily original expression: Life doesn't just happen to us, it happens through us, as us. The self and life are interpenetrative. The healing of egoic wounds from the past also resonated with the shadow crash orientation of the STAGES Model. These wounds inhibited a more robust construction of character at earlier stages. If triggered, a person generally reacts or suppresses the emotional charge. Either avenue is unproductive. However, if the shadow crash is illuminated and resolved, character foundations can be rebuilt in a more stable fashion to support ongoing later stage development.

"How can I be substantial if I do not cast a shadow? I must have a dark side if I am to be whole." (Jung, 1931)

Driver 6: Sustain Standards with Courageous Caring Conversations

This final holistic coaching intervention involved demonstrating courageous and authentic integrity in a gracious, compassionate way. This coaching driver was the most common across all case studies. All coachees felt intimidated, threatened and/or distressed due to corporate politics or others' abusive behaviour during the 12-month coaching program. The fear of speaking out in the face of powerful authority figures and employment risk, is associated with the reptilian amygdala response of fight, flight or freeze, and the emotional limbic brain.

Coaching sessions were an ideal opportunity to gain perspective and discern the standards, boundaries and priorities that were potentially out of synch in relation to the mutually respectful collaborative power that is demonstrated at Synergist. The coach invited and helped coachees to script an appropriate TIP – Truth-Implications-Point - conversation that could then be held in the workplace to address difficult situations.

The capacity to express oneself truthfully, openly and assertively with vulnerability and grace, while *holding* the other person's self-esteem and feelings in mind, rather than simply *having* the conversation, is relatively rare. To be able to do so in the moment that it is called for, is even rarer still. Holding these types of conversations left a lasting impression on many of the coachees. One said:

The things that I've been working on, me tuning into me, has really allowed me not to baulk at these situations. I can have an open conversation with any one of my team members, team members have been in tears because they are learning things that are fundamental to who they are, gaining in self-awareness ... It allows me to help others become more authentic, authenticity breeds authenticity ... Me growing is causing or generating their growth! because I'm empowering the team to grow.

Driver 7: Articulate an Inspiring Unique Living Signature Presentation

This is the third strategic driver. It arose in response to the many demands on the coachees to make presentations at Conference events, special gatherings such as farewells, important family events, invitations from Universities to honour graduates or to mark a new strategic direction for their industry sponsors and community interest groups. Rather than be descriptive or playing it safe, the coachees were invited to create an authentic, transformative, inspiring and compelling signature presentation for their audience.

It was ‘unique and living’ in that the coachee was the centre of their presentation. It concerned their purpose, their passion and their aspirations. It was intended to be continuously enhanced with every presentation opportunity so that it could evolve and develop new momentum and influence with each outing. The driver evolved to incorporate 12 P’s which became the focus for open questions during coaching sessions to provide the coachee with the opportunity to share their greatest aspirations and deepest sense of what mattered most to them in a very human yet strategic way.

I believe this driver leans into Constructivist leadership capacity of the fifth person perspective. It was exciting to see new presentation opportunities arise as coachees developed and built on their signature presentations. The expression of one’s authentic voice in a courageous. committed and convincing manner with eloquence and presence is an outstanding hallmark of a leader at Synergist. Coachees were enthralled:

> Speaking can be a bit of a struggle, 35 on Friday, 150 next week. ... Once in the groove, speaking from the heart ... Very passionate ... So exciting ... Envisaging what is going to be happening in 10 years’ time today. ... I’ve been advised that I was the top speaker at the conference.

Driver 8: Collaborate Widely with Stakeholders to Generate Synergy

The final driver was focused on proactive engagement first with internal stakeholders and then with external stakeholders taking a complex adaptive systems interventionist approach (Cavanagh, 2013). The coachees who had responsibility for resolving conflict and collaborating with a variety of external stakeholders or had accountability for new business development, valued discovering how to gain in influence, market presence and proactively win the engagement and support of others in their communities and industry.

This driver involved stakeholder relationship mapping and taking a strategic approach to building relationships with others individually and in groups in a purposeful campaign-like manner. Synergists are able to hold the space for diverse, disconnected, conflicting stakeholders to release their anxieties and trust in the process of dialogue to realise mutually beneficial outcomes. This type of interaction had the potential to lead to integration. Coachees enjoyed the results that flowed from building flourishing partnerships and co-creating transformative outcomes.

> My approach is successful, meeting every timeframe to the day. Tear down the transactional framework, get away from the contract to the relationship, it's unheard of to hit deadlines like this as consistently as this. Met every single deliverable on time every time, 15 June for X, 17 August for Y, and with really strong partnership relationships with suppliers and stakeholders ... Our key supplier relationship has evolved into a real partnership.

Summary of the Drivers Leading to Later Stage Development

1. There are eight key drivers of later stage development. They are:
    i. Setting inspiring evolutionary personal aspirations
    ii. Sustaining a positive, kind, open and compassionate mind
    iii. Engaging everyone in setting shared purposeful strategic direction
    iv. Distributing time to generate an orchestrated yet organic flow
    v. Exploring psychodynamics to heal shadow and eliminate triggers
    vi. Sustaining standards with courageous caring conversations
    vii. Articulating an inspiring unique living signature presentation
    viii. Collaborating widely with stakeholders to generate synergy

2. They form a matrix of which four (3, 4, 7, 8) are related to strategic business development and four (1, 2, 5, 6) to personal holistic development.

3. Two within each set of four drivers are related to inner awareness and aspirational intent (odd numbers: individuation), and two to application, engagement and implementation (even numbers: integration).

4. The coaching included explicit mentoring in vertical organisational development to transcend the amber and orange conventional norms and generate new empowering and collaborative norms.

5. Holistic stage development combined realising and embodying one's higher aspirational self while releasing embedded shadow and reactive patterns that otherwise stall one's vertical development.

The Dynamics of Later Stage Development

The Blend of Strategic Holistic Executive Coaching

An executive leader tends to feel constrained by their list of role responsibilities, their levels of delegation, their accountability for budgets and deadlines, and their need to comply with the conventional norms that prevail in amber and orange hierarchical organisations. By reshaping the strategic context and operating system for their organisation in empowering uplifting ways, each participant was challenged to step up in vertical development.

While the coaching was in response to the coachees' need to create a strategic plan, the coaching response was of an evolutionary order of later stage vertical development. The new strategic context broke through Specialist and Achievist paradigms of excellence and performance, to create a new 4th-person-perspective playing field where higher aspirations, authentic engagement, radical accountability and emergent collaboration were integrated into the strategic planning, team engagement and performance governance processes and practices.

In terms of the holistic coaching, the value of setting aspirational intent beyond developmental goals to cultivate the person's evolution even beyond their leading edge seemed to stimulate their later stage evolution. The deeper and more intimate focus on resolving and healing shadow to release negative and punitive mindsets that related to earlier life events when at earlier stages, went well beyond the more standard coaching approaches of self-regulation and the development of emotional intelligence. In combination, setting aspirations, cultivating self and resolving shadow expedited later stage development.

This concept of vertical stage development was depicted to the coachees as a Spectrum Stage Shift in their operating system from a Centre of Gravity at Achievist to a Centre of Gravity at Synergist[2]. The Figure-8s, illustrated in figure 5, present both the overlap and quantum shift in the spectrum of stages a person with a mature person perspective profiles with at these stages. While anchored at Achievist, they could still develop Catalyst leadership agility as their primary stage, but it takes a greater quantum shift to fully transform to a 4th person perspective at Synergist.

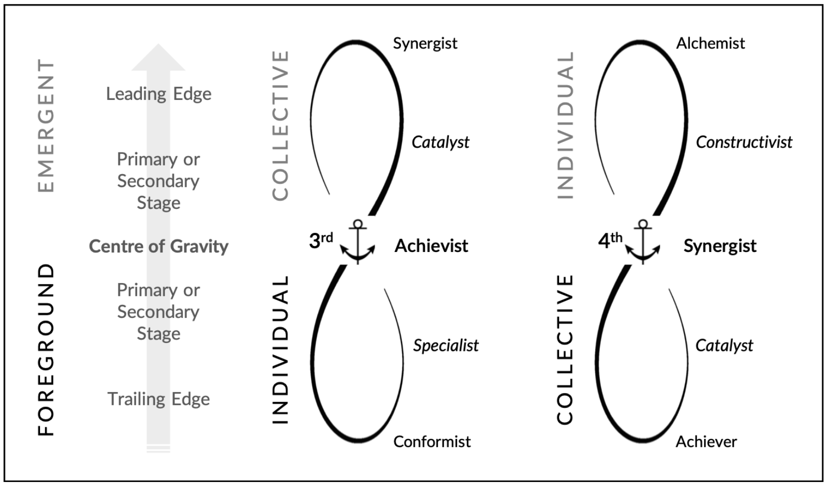

EMERGENT
FOREGROUND
Leading Edge
Primary or Secondary Stage
Centre of Gravity
Primary or Secondary Stage
Trailing Edge
COLLECTIVE
INDIVIDUAL
Synergist
Catalyst
3rd
Achievist
Specialist
Conformist
INDIVIDUAL
COLLECTIVE
Alchemist
Constructivist
4th
Synergist
Catalyst
Achiever

Figure 5. The Spectrum Stage Shift from Achievist to Synergist.

Coaching in Awareness and Mentoring in Application

A key dynamic in the coaching conversations was the intention given to both raising self-awareness as well as learning to actively express oneself and engage others from a Synergist 4th person perspective. Qualities such as wisdom and compassion, embracing all people despite their idiosyncrasies and inability to meet all performance goals, thinking through second and third feedback loops in relation to generating new ways of approaching situations, and ultimately thinking synergistically and focusing on the people over and above immediate performance outcomes, trusting that these would ensue, were all embedded in the coaching conversations.

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[2] The Figure-8 Operating System concept is further enhanced by a correlation with human faculties and the energy fields of a person's life experience in the author's book, Executive Coaching in Strategic Holistic Leadership (2020) McGraw Hill.

The coach's mentoring in empowering Organisational Development methods that the coachees were aware had worked very effectively for the coach earlier in her career, significantly reduced the career risk a senior leader tends to associate with experimentation. The success and increased confidence they enjoyed following the implementation of proven practical engagement processes, encouraged further experimentation.

The executive coaching morphed into mentoring in organisational development that was vertically informed. The instructive mentoring nature of the executive coaching is not typical of developmental coaching which is characterised by the art and science of asking clean open questions. Indeed, the executive coaching in drivers 3 and 4 went well beyond the person to focus almost exclusively on re-engineering the organisational context. This suggests that expediting later stage development to Synergist demands a coaching and mentoring approach with a view to uplifting the leader's collective context. One coachee said in hindsight:

> *Antoinette guided me in a strategic sense and gave good advice yet didn't tell me how to do my job. I involved everyone, listened to everybody and people felt that they were important, and their contribution was valued. I tried to do the things a Synergist would do and be seen to do.*

Transformative Coaching with a Later Stage Executive Coach

While performance coaching is highly process-centric focused on achieving specific goals e.g. the GROW process (Whitmore, 2009), and developmental coaching is highly person-centric (Rogers, 1961) and focused on the art of asking open questions, transformative coaching is a term used to reflect the latest thinking in transformational coaching and 3rd generation coaching (Stelter, 2014). It is a more collaborative process that invites both the coach and coachee to reflect and offer insights on situations and challenges the coachee is occupied with.

The transformative coaching approach provides a later stage executive coach with much greater discretion to share deeper and more expansive meaning-making frames and insights to interpret events, reconstruct narrative and integrate identity. Given the level of guidance that can be offered graciously in this way to expedite vertical development, it suggests that transformative coaching may also have played a significant role in expediting the shift from Achievist to Synergist. Further exploration of the coaching approach is beyond the scope of this paper.

Generating Trust & Confidence by Holding Psychologically Safe Space

The interplay of the four drivers in holistic leadership development reminded me of 'waking up, showing up, cleaning up and growing up'. Together, imagined as four concentric propellers,, they created safe, secure, supportive and sacred emergent space around the self and inclusive of others. This is precisely what the Google Aristotle research project discovered about its highest performing teams. The key factor that distinguished them from the rest was their sense of psychological safety (Delizonna, 2017).

Setting an Aspirational Leadership Brand Declaration was cognisant of ‘waking up’ to one’s aspirational self. Exercising positive kindness and demonstrating mindfulness was a way of ‘showing up’ consistently as one’s best self. Resolving emotional triggers and personal shadow issues was a way of ‘cleaning up’ one’s past. And holding high standards, clear boundaries and strategic priorities with Caring Courageous Conversations (CCC) exemplified ‘growing up’. By living the four holistic drivers, the coachees generated the psychologically safe, supportive and sacred space to liberate the human potential of others to develop vertically and together generate strong performance outcomes. Thus, the interplay of the four factors had a much greater effect than the sum of the parts.

The space that was effectively held by the emerging 4th person leader in the outer zone of the collective synthesises the manifestation of the Synergist. This is extended to the broader organisation and wider community of stakeholder interests through the strategic drivers bringing people together to set evolutionary direction and work together in empowering and heartfelt ways (Drivers 5 and 6) with an aspirational unique living signature presentation (Driver 7) to encourage listening, learning, discovery, healing and collaboration (Driver 8).

The Emergent Three Principles that Underpin Vertical Development Theory

On revisiting Boyatzis’s (2008) Intentional Change Theory and, in particular, its focus on the Ideal Self, the Dynamic Dialogical Model set out by Cavanagh (2013) and the importance of psychologically safe space as set out above, a new Vertical Development Theory emerged. It sets out the three distinctive audiences: the self, the organisation and the wider community, the drivers of development extended to number 9, the 6 active ingredients that enlivened the operating frameworks, and the shared sacred space of mutual inquiry and meaning-making between coach and coachee, were interconnected by three prevailing principles:

INTENTION Purposeful evolutionary aspirational intent for self, organisation and community;

INTERACTION Proactive open respectful orchestrated engagement as a consistent priority with internal and external stakeholders in the spirit of appreciative inquiry; and

INTEGRATION A process of engagement that invited listening, liberated voices and caring courageous collaborative conversations, enabled healing and integration within self and with others.

The concerted attention given to these audiences to courageously collaborate on aspirational endeavours and purposeful initiatives, was held by a sacred space of mutual inquiry, trust and transcendent meaning making led by the perspective and presence of a later stage executive coach. They combine to expedite and extend vertical transformation, as shown in Figure 5 picturing the emergent Vertical Development Theory.

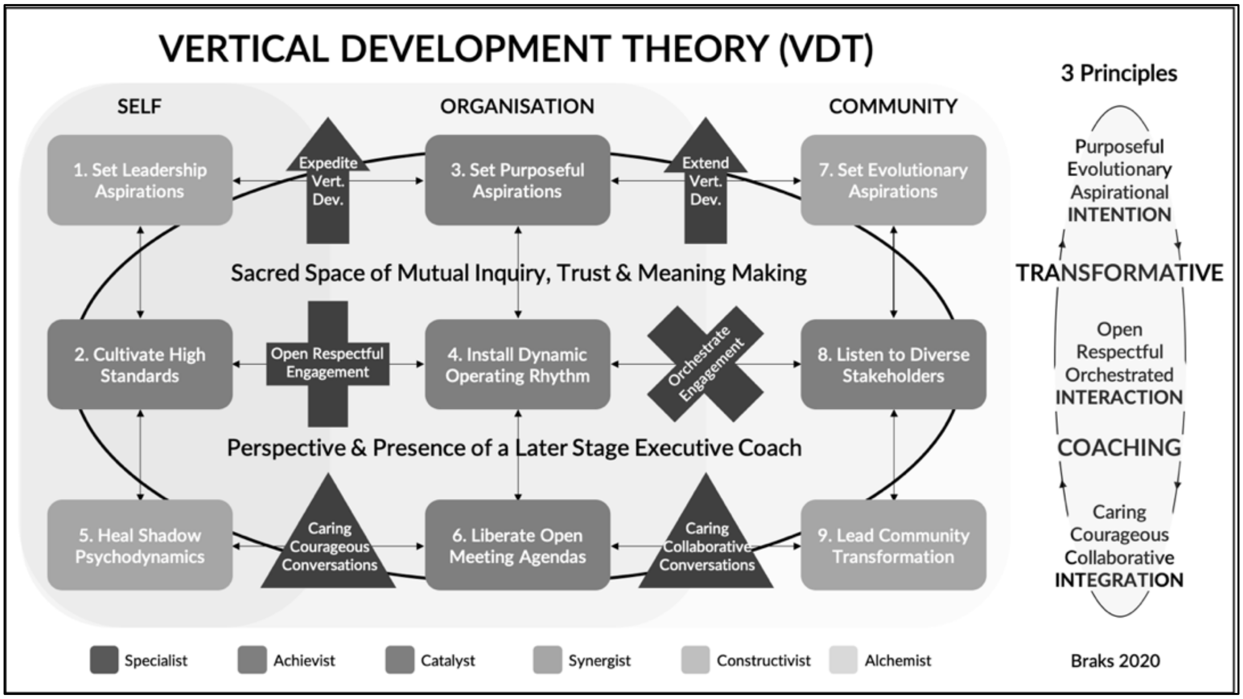
VERTICAL DEVELOPMENT THEORY (VDT)
SELF
ORGANISATION
COMMUNITY
1. Set Leadership Aspirations
Expedite Vert. Dev.
3. Set Purposeful Aspirations
Extend Vert. Dev.
7. Set Evolutionary Aspirations
Sacred Space of Mutual Inquiry, Trust & Meaning Making
2. Cultivate High Standards
Open Respectful Engagement
4. Install Dynamic Operating Rhythm
Orchestrate Engagement
8. Listen to Diverse Stakeholders
Perspective & Presence of a Later Stage Executive Coach
5. Heal Shadow Psychodynamics
Caring Courageous Conversations
6. Liberate Open Meeting Agendas
Caring Collaborative Conversations
9. Lead Community Transformation
3 Principles
Purposeful Evolutionary Aspirational INTENTION
TRANSFORMATIVE
Open Respectful Orchestrated INTERACTION
COACHING
Caring Courageous Collaborative INTEGRATION
Specialist
Achievist
Catalyst
Synergist
Constructivist
Alchemist
Braks 2020

Figure 6. The Emergent Vertical Development Theory.

Implications and Research Recommendations

Implications of the Research Study

The paper concludes with a set of implications for executive coaches and facilitators of advanced leadership development programs with a view to utilising the research findings to expedite the shift of many more strategic leaders to the stage of Synergist.

The active experimentation, demonstration and consolidation of Synergist leadership capacity happens in the workplace. The shift in consciousness takes place in the Outer Zones in the Collective (O'Fallon, 2011) and therefore is a matter of experimentation and implementation in the workplace itself. Designers of advanced strategic leadership programs often held offsite over intensive periods of time, should therefore consider extending their programs to include transformative coaching with later stage executive coaches to support their evolution.

Secondly, transformative executive coaching with a later stage executive coach is able to expedite the quantum shift from Achievist to Synergist in ways that developmental coaching cannot. Without the transformative insights and illuminating leading questions posed from a mature Synergist 4th person perspective or beyond, the coachee is not able to receive the gracious guidance of wisdom gained from a person who has already navigated the equivalent developmental pathway, ideally also in a corporate environment.

There is some argument in the coaching literature as to the comparative advantages of having a corporate business background or a background in psychology in relation to coaching effectiveness. It would seem that to expedite the shift to Synergist, a combination of the two is most useful. A mentor with proven knowhow in organisational evolution to green and teal would also support the shift to Synergist provided the holistic leadership development was also taking place with the guidance of a coach with an understanding of shadow integration.

The effectiveness of executive coaching and leadership programs can be objectively measured in terms of vertical development. Coachee perceptions and 360 assessments are mostly associated with horizontal learning capabilities up to Catalyst. If strategic leaders are to evolve to a level where they can transcend and transform conventional paradigms, it is essential to measure coaching effectiveness in terms of vertical development.

The emergence of Vertical Development Theory offers new insights into how a strategic leader might effectively and even expeditiously navigate their journey to a 4th person perspective. This theory can inform advanced leadership development programs of the power of purposeful, evolutionary and aspirational intention; open, respectful and orchestrated interaction; and caring, courageous and collaborative integration to enable evolution.

Future Research Recommendations

While coaching techniques or interventions have not been found to be highly influential in coaching effectiveness previously (De Haan et al, 2013), this case study suggests that a particular spread (strategic and holistic) and range (awareness and application) of coaching interventions with a later stage coach were critical to expedite later stage shifts to Catalyst and Synergist. More research into the type of coaching interventions and the self of the coach as the primary instrument of development, could prove to be very valuable.

It is time to relinquish executive coaching as a one-size-fits-all approach and begin to explore more closely the types of executive coaching, performance, developmental and transformative, and the coaching techniques and approaches that are most useful in relation to the transformations in vertical development. It would be very useful to research how different types of executive coaching impact the transformations in vertical development and the evolution of organisational culture (Athanasopoulou & Dopson, 2018). They may well be inextricably connected.

Further exploration of Vertical Development Theory and its application to executive coaching could enable advanced leadership development programs to be more effective in ushering in more visionary, inspiring, transformative, aspirational leadership in organizations and indeed, in national and international political systems.

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Finding Truth Within: Exploring the Importance of Reflective Practice in Deepening Self-Knowledge

Jason P. Miller[1]

Executive Summary

Background Information (Organizational Context)

Healthcare as an industry is undergoing significant and rapid change with a paradigmatic shift from sick-care to preventive care for well-being (Goozner, 2019). This industry shift is demanding a new skill-set from healthcare leaders that is marked by the need to drive transformative change in the face of unprecedented uncertainty, ambiguity, and complexity. A meta-competency that is critical for success in this context that we are building in our leadership development efforts is emotional intelligence (EQ).

Statement of the Problem

Healthcare leaders are much more tuned to be successful in the old paradigm of healthcare than the new one. As healthcare transforms, leaders also need to transform the way they lead. The new leadership profile for success is characterized by a leader who is able to operate as an interdependent, learning-oriented driver of transformative change. To get there, healthcare leaders need to have the ability to self-reflect to gain deeper self-knowledge for purposes of accelerated development.

Guiding Questions

- How does the application of more consistent reflective practice affect the levels of an individual's self-knowledge?
- What are some of the barriers to engaging in reflective practice?
- What are the potential predictive indicators of the extent someone will engage in reflective practice?
- What are the opportunities to enhance reflective practices leveraging mindfulness and/or spirituality?

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Method of Inquiry

The method of inquiry used in the research is action inquiry, which is "a kind of behavior that is simultaneously productive and self-assessing" (Torbert, 2004). The framework helps to meet the needs to transform healthcare leaders for purposes of transforming their organization. To conduct the study, I taught a reflective practice exercise based on the action inquiry framework to a group of Director-level healthcare leaders as part of a high-potential development program within a large-scale health system (roughly 29,000 total associates) based in the United States Midwest. Components of mindfulness and spirituality were also integrated into the practice. The exercise was designed to deepen their self-knowledge of their personal "defensive routines", which are psychological coping strategies for dealing with stress situations (Boyatzis & McKee, 2005). At the end of eight weeks of participants engaging in the reflective practice exercise, I assessed their levels of self-knowledge gained from the reflective practice, and determine what the primary barriers were for those that did not deepen their self-knowledge.

Conclusions and Recommendations

The results of the study suggest that individuals who engage more consistently in reflective practice seem to have bigger gains in self-knowledge. Also, engaging in reflective practice seems to contribute to the gain of self-knowledge, regardless of the frequency. An individual's development level seems to play a role in the extent to which he/she engages in reflective practice, and also on the nature of what they reflect on. Barriers to reflective practice also seem to be shaped by development level, with informational being primary for earlier stage and motivation being a primary barrier for later stages. Also, individuals who reflect on emotional and physical stress patterns, and who practice mindfulness, seem more likely to engage in reflective practice more frequently. Spiritual practice was not identified as a primary contributor to gaining self-knowledge and requires further study. Additional research is also recommended on the impact of development level on how an individual engages in reflective practice, for purposes of individualizing the development experience.

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Introduction

Background Information

I conducted my study as an action research project within the context of my workplace, a large-scale health provider based in the Midwest region of the United States. The organization is the largest healthcare system within the geographic central region of its state, with 29,000 associates providing care through over 200+ locations. The organization is also one of the most profitable and consistently-ranked high-quality healthcare systems in the country. And, the associate culture has been nationally recognized through Fortune magazine's "Best Places to Work" list for thirteen years in a row.

It is also a time of significant and rapid change in healthcare. The industry and reinforcing systems have been built around one common assumption, which is to take care of the sick. A new model of healthcare is already taking shape – one that is characterized by a preventative and more holistic approach to nurturing well-being (Goozner, 2019). The question has become one of how to keep people out of the hospitals to begin with, while educating patient communities on creating paths for a higher quality of life. This has clear implications for leadership. The new healthcare leader can no longer simply be a reactive fixer of problems of the sick but rather a proactive steward of well-being for the community. It is nothing less than a complete paradigm "flip" for healthcare leaders and clinicians, who require a whole new set of skills to be drive systemic change.

In the rapidly-changing context of healthcare, leaders have to make quick decisions in a time of increasing uncertainty, ambiguity, and complexity. And, they can no longer ignore the mission of the organization: to improve the health and well-being of those we serve. "Those we serve" includes not only patient communities, but also our own team members and associates, who are experiencing unprecedented levels of burnout. In addition, the leaders themselves have to role model the way by being in tune with and making decisions in support of their own health and well-being. A meta-competency for success in this new context – and one that we are heavily investing in developing - is emotional intelligence (EQ).

Project Purpose

A sampling of the literature from the fields of emotional intelligence (Gardner, 2011; Goleman, 1998; Goleman, Boyatzis, & McKee, 2013) and developmental psychology (Kegan, 1982; Cook-Greuter, 2013; Torbert, 2004) all suggest that reflection and introspection is a critical capability contributing to personal growth. The common theme suggests that the more disciplined an individual is at engaging in consistent self-reflection, the more likely they will develop higher levels of emotional intelligence (Goleman, 1998, p. 4) and progress on developmental levels (Cook-Greuter, 2013, p. 43, 60).

Emotional intelligence is frequently called a meta-competency because to be considered proficient in EQ, there are a number of capabilities and skills that one needs to master. Given the complexity of EQ as a whole, it was much too broad for the scope of my study. I was able to better focus my scope by drawing in particular off of the literature from the organizational psychology spirituality in the workplace domains. Most notably, Eurich (2017, p. 98) and Wigglesworth (2014, p. 48) suggest that self-knowledge provides us with a deeper understanding of self; one that is achievable through reflective learning and self-inquiry. I therefore narrowed the frame of my research question to the following: how does the application of more consistent reflective practice affect the levels of an individual's self-knowledge?

The insights from this question are important because it will help to more fully inform the significance level of reflective skills and practices as a part of leadership effectiveness. This study has the potential to help me in determining the right levels of focus we should pay in our leadership development curriculum. In addition, participants in the study have the potential to benefit by gaining new insights on themselves, which should help them to be more impactful, develop more self-efficacy, and/or change inner and behavioral habits that are no longer serving them or others.

Problem Statement

Perhaps the best way to sum up the problem is to borrow a quote from Kegan and Lahey:

> We're already the most over-informed, under-reflective people in the history of civilization" and that "true development is about transforming the operating system itself, not just increasing your fund of knowledge or your behavioral repertoire. (Kegan & Lahey, 2009, p.6)

As the rules of healthcare change, provider organizations have to transform how they deliver care to patients, and need to evolve to be much more nimble, adaptive, and predictive than the old healthcare paradigm. This requires a transformation in how our leaders lead. The vision, strategy, operating procedures, and how they engage their people needs to be radically different. To get there, we need to accelerate our leaders' ability to shift from what Kegan & Lahey (2016) call the "socialized mind" (a faithful follower who seeks direction) to the "self-authoring mind" (an independent agenda-driving problem-solver) and further on to the "self-transforming mind" (an interdependent, learning-oriented problem-finder) (p. 62). Boyatzis's Theory of Self-Directed Learning shows that leaders intentionally change only by engaging in an honest and open self-assessment of who their "real self" is against the "ideal self" (Goleman, Boyatzis, & McKee, 2013, p. 109-113). By this account, leaders' ability to self-reflect to gain deeper self-knowledge serves as the critical ingredient to transforming healthcare organizations.

Guiding Questions

In leading my research, I am leveraging the following questions to guide my focus:

- How does the application of more consistent reflective practice affect the levels of an individual's self-knowledge?
- What are some of the barriers to engaging in reflective practice?
- What are the potential predictive indicators of the extent someone will engage in reflective practice?

- What are the opportunities to enhance reflective practices leveraging mindfulness and/or spirituality?

Literature Review

The guiding questions shaped the literature review across five primary domains coming largely from fields of study in the psychology, management, leadership, and spiritual disciplines. Below is a summary of insights relative to the research questions.

Ego Development Theory

Since the development of leaders is the primary task this research project serves, the literature review will start with a brief review of ego development theory. It is important to understand how reflection and self-knowledge contributes toward developmental progression. The following is a sampling of key contributors to how adults develop and progress over time.

Kegan (1982) points out that movement from simpler levels of meaning making to more complex levels requires individuals to dialogue with themselves. They must be self-reflective and able to isolate their motivations, as well as integrate perceptions of their own needs with the needs of others. Individuals with meaning making systems in which they can differentiate between themselves and others indicates the presence of a reorganized interior life in which the individual can internally consider the other when thinking, feeling, and acting. It is both an internal transformation and reconstitution of the self that leads to more complex ways of meaning making, by which individuals are able to identify their impulses and consider the interactions that could result from their actions.

Cook-Greuter (2013), in building off of the work of developmental psychologists Loevinger (1976), Graves (1974), Kegan (1982), and Commons & Richards (1984) in particular, show how the ability to self-reflect on broader dimensions of self, society, the world, and the universe is a critical capability in developing cognitive, emotional, and behavioral aptitude. “As healthy development unfolds, autonomy, freedom, tolerance for difference and ambiguity, as well as flexibility, self-awareness, and skill in interacting with the environment increase while defenses decrease” (Cook-Greuter, 2013, p. 3). While all stages of development require a greater ability to self-reflect to gain self-knowledge, two stages in particular seem to evolve largely from a leap in this capability. For the stage called the “Achiever”, which is where a large majority of leaders reside today (Torbert, 2004, p. 79), “personality tests, asking others for feedback, taking educational and professional courses and retreats as well as a new level of introspection lead to increasing self-knowledge” (Cook-Greuter, 2013, p. 43). Going to the next stage beyond Achiever, known as the “Individualist” stage, there is also a momentous shift that occurs in moving from the “Conventional” to the “Postconventional” tier of development (Cook-Greuter, 2013, p. 6). “The very heightened capacity to contact the self and to introspect leads to a greater capacity to empathize with others and to tolerate different ideas, behaviors, and reactions” (Cook-Greuter, 2013, p. 60).

Beck and Cowan (1996) build off of the work of Graves (1974) in the use of a human evolutionary model called spiral dynamics (Beck and Cowan, 1996; Graves, 1974). To evolve, Beck and Cowan argue that “sufficient human cognitive capacity is needed to enable man to obtain the necessary insight into, and understanding and comprehension of, the complexity and nature of the life conditions. When man was finally able to see himself and the world around him with clear cognition, he would find a picture that is far from pleasant” (p. 112).

Torbert (2004) proposes that “self-transformation…is a long, lifetime path” that sees us passing through major stages called an “action-logic: an overall strategy that so thoroughly informs our experience that we cannot see it” (p. 66). Through the iterative use of action and reflection (Torbert’s “action inquiry” framework) an individual can develop through action-logics of increasing levels of self-awareness, complexity of thought, and abilities to self-transform (p. 68).

Emotional Intelligence and Leadership

How critical is reflection to building emotional intelligence? In the Theory of Personal Intelligences, Gardner divides personal intelligence into the intrapersonal (involved chiefly in an individual’s examination and knowledge of his own feelings) and interpersonal (looks outward toward the behavior, feelings, and motivations of others) (Gardner, 2011, p. 255). He believes that these two forms of knowledge are intimately intermingled in any culture. Neither form of intelligence can develop without the other (Gardner, 2011, p. 255).

Goleman (1998) talks about the importance of the “inner rudder” as the basis for all emotional intelligence (chapter 4). “People who follow their inner sense of what is worthwhile minimize emotional static for themselves” (p. 58). Goleman goes on to emphasize “intuition and gut feeling bespeak the capacity to sense messages from our internal store of emotional memory – our own reservoir of wisdom and judgment. This ability lies at the heart of self-awareness, and self-awareness is the vital foundation skill for emotional awareness, accurate self-assessment, and self-confidence” (p. 61).

Goleman, Boyatzis, & McKee (2013) say that the “most telling sign of self-awareness is a propensity for self-reflection and thoughtfulness. Self-aware people typically find time to reflect quietly, often off by themselves, which allows them to think things over rather than react impulsively. Many outstanding leaders, in fact, bring to their work like the thoughtful mode of self-reflection that they cultivate in their spiritual lives. For some this means prayer or meditation; for others it’s a more philosophical quest for self-understanding” (p. 40). Further, “to connect with a vision that can move a culture toward resonance, emotionally intelligent leaders start by looking inside – at what they feel, think, and sense about their organizations. Tapping into insight can come more easily if a leader makes a habit of reflecting on a regular basis. Reaching into the wisdom of the unconscious mind is like trying to pump water from a deep well – it helps to keep the pump primed (by regularly spending time in reflection)” (p. 205).

Cashman (2017) makes the case that “With no reflection, there is no vision. With no vision, there is no leadership” (p. 170-171), and throughout his text stresses the importance of “taking time to reflect – taking time to be… as the still point that everything else (resilience, actions, vision) revolves around” (p. 164).

In looking specifically at the field of healthcare, the literature consistently points to the importance of emotional intelligence as a critical competency for leaders, with reflection being one of the key dimensions to cultivate. Freshman & Rubino (2002) define the self-management component of emotional intelligence as the "propensity for reflection, ability to adapt to changes, saying no to impulsive urges", citing how "EI skills of self-awareness, reflection, intuition, and compassion for yourself and others will be of great service toward using energy stirred up by emotional events in productive ways" (p. 8). In a review of literature on the importance of emotional intelligence in nursing leadership, Feather (2009) mentions a study by Segal (2002) which identifies "tuning inward" (p. 379) as a suggested competency that makes a person a good leader. And, in a review of leadership education occurring in medical education of physicians, Mintz & Stoller (2014) found that "models of professionalism have been constructed around EI as a leadership skill" (p. 26). In citing one example, the authors note the important inclusion of "structured reflection, which aligns well with the EI competency of self-awareness" (p. 26).

Reflection, Introspection, and Metacognition

Reflection has a long history in the field of organization development. OD researchers recognized the importance of reflection for better decision-making. In a classic organization development publication, Argyris & Schon (1974) introduced the notion of differences between "espoused theories" and actual "theories-in-use" (p. 6-7). They argued that to help someone get to see actual theories-in-use requires self-examination of assumptions through "double-loop learning." Through double-loop learning, an individual can engage in two kinds of behavioral learning at the same time through reflection. The first learning centers on the adoption of new action strategies to achieve governing variables, and the second learning centers on changing the governing variables themselves (p. 18). They say that "the theory-builder becomes a prisoner of his programs if he allows them to continue unexamined indefinitely. Double-loop learning changes the governing variables (the "settings") of ones' programs and causes ripples of change to fan out over one's whole system of theories-in-use" (p. 19).

Schon (1983) extended the notion of reflection for effective applied practice by pointing out that "the process of reflection-in-action is central to how well people deal with situations of uncertainty, instability, uniqueness, and value conflict" (p. 50). He proposes that "through reflection, a practitioner can surface and criticize the tacit understandings that have grown up around the repetitive experiences of a specialized practice, and can make sense of the situations of uncertainty or uniqueness which he may allow himself to experience" (p. 61). When applied to the practice of leadership, this would take the form of reflecting in-the-moment on strategies and schema that directs actions. In an article that applies Schon's work to a healthcare setting, Fransson-Sellgren, Wahlstrom, & Sandahl (2009) state that "part of leadership education involves professional and personal development. The role of reflection is central for professional development." (p. 162)

Torbert (2004) took reflection-in-action a step further with "action inquiry", which he defines as "a kind of behavior that is simultaneously productive and self-assessing" (p. 13). Torbert proposes to be truly effective, you need to choose "timely action" (p. 13) which relies on our capacity to engage in single (behaviors/operations), double (strategy/structure/goals), and triple (attention/intention/vision)-loop feedback (p 18-19). Triple-loop feedback is described as a "super-vision", which refers to a higher quality of awareness – a more "sinuous, just-in-time awareness that generates the exercise of vulnerable, mutuality-enhancing, transforming power under real-time pressures" (p 21). To develop "super-vision", Torbert offers the primary vehicle of self-reflection by "beginning to recognize how limited our ordinary attention and awareness is… and beginning to exercise our awareness in new ways in the midst of challenging situations. A good way to begin recognizing the limits of our ordinary attention is to take a moment right now to reflect" (p. 21).

In review of common competencies for healthcare managers, Stefl (2008) leverages a "skill acquisition model developed by Stuart Dreyfus and Hubert Dreyfus (1986)" (p. 365). As a part of this model that has been extensively leveraged in healthcare leadership development, Dreyfus and Dreyfus point out that "progressing from one skill level to another, especially from novice to competent, typically requires experience coupled with guided reflection" (p. 366).

Csikszentmihalyi (1990) argues that we are ultimately the agents of our own experience, regardless of what is happening around us. "We create ourselves by how we invest this energy. And it is an energy under our control, to do with as we please; hence, attention is our most important tool in the task of improving the quality of experience" (p. 33). He goes on to describe what he calls the "autotelic personality", which are "people who need only a few external cues to represent events in consciousness…[and] have a more flexible attention that allows them to restructure experience more easily, and therefore to achieve optimal experiences more frequently" (p. 87).

Interestingly, it seems that action may be preferred over reflection for most. In examining the impacts of thinking over action for learning, Di Stefano, et. al, (2015) found that individuals who are given time to reflect on a task improve their performance at a greater rate than those who are given the same amount of time to practice with the same task. However, they also found that if those same individuals are given the choice to either reflect or practice the task, they prefer to allocate their time to gaining more experience with the task– to the detriment of their learning (p. 25).

The case for reflection for self-knowledge up to this point seems fairly sound. However, more recent research on reflection, introspection, and pursuit of self-knowledge suggests it is not so clear-cut. As mentioned earlier in this paper, Eurich (2017) found from meta-analyses and her own research that "thinking about ourselves [isn't] correlated with knowing ourselves. We can spend endless amounts of time in self-reflection but emerge with no more self-insight then when we started" (p. 98). Wilson and Dunn (2004) point out some of the inherent challenges of relying too much on introspection for building self-knowledge: "because of personal motives and the architecture of the mind, it may be difficult for people to know themselves. People often attempt to block out unwanted thoughts and feelings through conscious suppression and perhaps through unconscious repression, though whether such attempts are successful is controversial. Introspection cannot provide a direct pipeline to these mental processes; though some types of introspection may help people construct beneficial personal narratives" (p. 493).

Stein and Grant (2014) seem to support this when they found that dysfunctional attitudes (negatively biased assumptions and beliefs regarding oneself, the world, and the future) suppress the relationship between self-reflection and self-insight (p. 505). And, in a study from an earlier year, Grant (2001) focused on the relationship between an individual's psychological mindedness (their predisposition to engage in reflection on why one and/or others behave, think, and feel in the way that they do) and their ability to gain self-insight (p. 12). He suggested that the predisposition is comprised of both abilities and motivations, and that an individual's psychological mindedness could be seen by the extent in which they engage in reflective acts and their level of insights that they gained (p. 16).

If reflection and introspection in themselves are not such clear-cut paths to self-knowledge, what are? Eurich (2017) contends that "the problem with introspection, it turns out, isn't that it's categorically ineffective, but that many people are doing it completely wrong" (p. 100). She goes on to offer some tools that will help to ensure that introspection is more productive including various forms of mindfulness (p. 137-151) and receiving, reflecting, and responding to feedback from others (p. 196-197). Grant, Franklin, and Langford (2002) offer that "conscious and purposeful self-reflection lead to greater self-insight" (p. 831). Stein and Grant (2014) found that facilitating a "positive core self-evaluation" had a mediating effect on dysfunctional attitudes (p. 505). And, Wilson and Dunn (2004) suggest that observing our own behavior and looking at ourselves through the eyes of others can contribute to self-knowledge (p. 493).

Mindfulness

Interest in mindfulness has significantly grown in the past few decades. Increasingly it is the point of study as a tool for building self-knowledge (Eurich, 2017; Boyatzis & McKee, 2005; Carlson, 2013). Boyatzis and McKee (2005) connect mindfulness cleanly to becoming an emotionally intelligent leader – what they call the "resonant leader". They define mindfulness as "the capacity to be fully aware of all that one experiences inside the self – body, mind, heart, spirit – and to pay full attention to what is happening around us – people, the natural world, our surroundings, and events" (p. 112). They argue that mindfulness and self-knowledge are inseparable: "knowing yourself enables you to make choices about how you respond to people and situations. Deep knowledge about yourself enables you to be consistent, to present yourself authentically, as you are" (p. 120). Incorporating mindfulness, they argue, happens only through a process of "reflection, practice, and supportive relationships" (p. 137). They emphasize the importance of prioritizing reflective practice "whether through meditation, spiritual practice, walking in natural, beautiful surroundings, or writing one's personal thoughts and feelings in a journal" (p. 138).

There is an abundance of literature in the psychology field showing how mindfulness can help to lower inner emotional defenses and improve cognitive functioning, which can clear a path for individuals to learn more about self. In reviewing just a few of these studies, Ghasemipour and Ghorbani (2013) offer mindfulness as a pre-reflective activity, rather than reflective itself, calling it an "aspect of experiential self-awareness" that supports mental health by "disengaging individuals from automatic thoughts, habits and unhealthy behavior patterns" (p. 1031). Zeidan, Diamond, and Goolkasian (2010) showed how mindfulness meditation improved cognitive functions such as visuospatial processing, working memory, and executive functioning (p. 597). In leveraging a mindfulness-based approach to cognitive therapy, Britton, et al., (2012) were able to reduce emotional reactivity to social stress in their subjects (p. 365).

In a study that is highly relevant to the primary research question at hand, Carlson (2013) directly explored how mindfulness serves as a path to overcoming barriers to self-knowledge (defined as "the accurate perception of one's thinking, feeling, and behaving", p. 174). He argues that in order to achieve self-knowledge, "people must observe themselves engaging in a behavior that is relevant to a specific trait and then accurately infer the meaning of that behavior with respect to the trait" (p. 174). Further, he reinforces the notion that introspection and reflection are a faulty path toward self-knowledge, saying "people tend to place a great degree of trust in their introspections, but generating explanations for one's tendencies seems to make self-perceptions less accurate" (p. 175). This is due, he claims, to people inherently having two primary inner barriers to self-knowledge: informational (the individual literally does not have access to all needed information) and motivational (the individual does not have the desire to learn) (p. 174-175). In a meta-analysis, he finds compelling evidence that mindfulness appears to directly address these barriers (p. 177-179). He reasons that "introspections are often wrong, and introspecting about the causes of negative emotions seems to have negative mental health outcomes. The key difference is that [introspection] involves analyzing, explaining, or interpreting what is observed whereas mindfulness involves observation of one's experience without telling a story" (p. 176). Therefore, "paying more attention to one's current experience may help a person to overcome many informational barriers, and nonevaluative observation may help one to overcome motivational barriers to self-knowledge" (p. 176).

Mohapel (2018) leverages neurobiology research to make a strong case for using mindfulness as vehicle for building leadership effectiveness in healthcare. In his review of research, he summarizes that "researchers have studied the impact of interruptions and distractions in healthcare settings and have concluded that they interfere with various kinds of higher order thinking tasks, many associated with effective leadership" (p. 87). From a neurobiology perspective, "excessive multitasking appears to…diminish our focus and concentration. In contrast, mindfulness practice is shown to have the opposite effect by…enhancing leadership focus that can lead to greater flexibility, foresight, regulation, and creativity" (p. 87). Therefore, he argues that mindfulness is critical to leadership effectiveness in healthcare in particular because "healthcare environments are increasingly hectic, demanding, and time constrained, with managers and professionals experiencing constant interruptions" (p. 87).

Finally, Wasylkiw, Holton, Azar, & Cook (2015) conducted a pilot study of 11 mid-level healthcare managers on the impact of mindfulness on leadership effectiveness in a health care setting. Participants showed significant positive changes in their leadership effectiveness that was corroborated by informants. However, they also found that the constant activity and change that the mid-level managers face on a daily basis presents significant challenges to sustain a mindfulness practice (p. 893).

Given the evidence from a brief review of literature, it seems that the incorporation of mindfulness practice is an important consideration as a means to deepening self-knowledge. Special considerations should be made in how to make it impactful in the healthcare setting.

Spirituality

Like mindfulness, spirituality has been increasingly making its way into the workplace in recent decades. There is a growing body of literature on how organizations are benefitting by cultivating soul and spirit in their leaders and employees.

The review of workplace spirituality starts with Wigglesworth (2012), a text that is referenced in the introduction of this paper on building spiritual intelligence. Firstly, Wigglesworth defines spirituality as the "innate human need to be connected to something larger than ourselves, something we consider to be divine or of exceptional nobility" (p. 8). As mentioned earlier, Wigglesworth identifies self-knowledge as "the foundation for becoming the wise, compassionate, and peaceful person you have the capacity to become" (p. 48). She suggests that an individual can increase self-knowledge by tending to one's awareness of five specific skills: (1) worldview; (2) life purpose; (3) values hierarchy; (4) complexity of inner thought; and (5) the difference between ego self and higher self (p. 48). She says that "a spiritually intelligent person learns to shift in the midst of the challenging moment to prevent the ego from driving her reactions" (p. 132). To cultivate this, Wigglesworth offers an extensive reflective practice that integrates techniques in mindfulness, prayer, self-observation, mental reframing, and gratitude to "choose a spiritually intelligent response" (p. 132-133). While she does not say it overtly, Wigglesworth is suggesting that the path to self-knowledge is through inner work marked by a deep reflective practice that also incorporates a connection to a "Higher Self" (p. 47).

In reviewing a sample of other spirituality literature, while each saying it differently, they all seem to suggest the same as Wigglesworth. Briskin (1998) talks about how "the soul seeks logos, which is associated with qualities such as meaning, understanding, voice, language, and expression" (p. 139). To get there, "Individuals require both reflective time and dialogue with others to achieve logos. The notion of logos suggests that without reflective time our worldview becomes fragmented and chaotic" (p. 139). Dreaver (2000) discusses how gaining inner clarity and paying attention to be the foundation of what he calls obtaining the "core insight – knowing yourself at the deepest level of being" (p. 3). Ashmos and Duchon (2000) offer that "the inner life, for many, is about coming to understand one's own divine power and how to use that divine power to live a more satisfying and more full outer life" (p. 135-136). They suggest that practices such as meditation, self-reflection, and prayer are the ways to cultivate this divine power (p. 137). In applying spirituality to transformational leadership, Scharmer (2018) discusses the importance of "presencing", which is a deeper state of "presence and sensing". He says that "this requires a reflective, meditative capability to effectively access" (p. 10-11). Finally, in separate but related articles, Delbecq (2000) and Levy (2000) draw from an experience in a pilot course on spirituality for business leaders to provide a compelling case for teaching executives deeper reflective practices, such as contemplative prayer. Delbecq, who was the instructor, mentions how "introduction of contemplative practice learning module into the course for MBAs and CEOs led to realizations that entering into a contemplative space led to insights that issues of ego and intellect tied to power and wealth could be addressed" (p. 122). Levy, a participant and a CEO of a notable corporation, shares his personal learning: "The bottom line is that our effectiveness as business leaders is shaped by how well we are able to find inner quiet, how good we are at listening to the inner voice, and how accomplished we become at understanding its message" (p. 131).

In a meta-study on the impact of spirituality in leadership effectiveness within healthcare, Strack, Fottler, Wheatley, & Sodomka (2002) found that "conceptual and empirical research show a strong link between actualized spirituality and effective leadership; effective leaders use their spiritual wisdom, intelligence, and power to benefit others and achieve outstanding results for their organizations" (p. 16). Reimer-Kirkham, Pesut, Sawatzky, Cochrane, & Redmond, (2012) found that spirituality in nursing leadership is a "relatively understudied field" and suggest that more research in this area needs to be done because of the "unprecedented plurality that global migration has brought to modern societies, and spirituality and religion into the purview of nurse leaders" (p. 1029).

The spirituality literature review suggests consideration of cultivating a deeper reflective practice to access something bigger/higher that the self is connected to. There is also a gap in the literature within healthcare, calling for more work to be done in this space.

Insights and Considerations from the Literature Review

Overall, the literature suggests that reflection and introspection does help to facilitate self-knowledge in service of developmental growth. However, measures need to be taken to counter some of the limitations of reflection and introspection. In particular, it seems people need to be taught the skills to reflect properly for purposes of working through ego inner defenses that all people possess. The incorporation of mindfulness, feedback, and spirituality show distinct promise in helping this cause.

Intervention Method and Design

Theoretical Framework

In selecting a theoretical framework as the basis of my intervention design, I wanted to choose a framework that would help to test the basic research question: how does the application of more consistent reflective practice affect the levels of an individual's self-knowledge? I also wanted to choose a framework that would facilitate a thoughtful connection between individual improvement in self-knowledge and the broader system change needs. Torbert's action inquiry framework met these criteria.

Torbert (2004) calls action inquiry "a kind of behavior that is simultaneously productive and self-assessing" (p. 13). As referenced earlier, perhaps the most critical shift that we can help our leaders and organization to make is to become more "self-authoring" and/or "self-transforming" (Kegan & Lahey, 2016). Therefore, this definition meets our needs to transform our leaders to enable transformation of the organization. Torbert reinforces this potential of action inquiry, saying that "such action helps individuals, teams, organizations, and still larger institutions become more capable of self-transformation" (p. 1). Going further, and more directly connecting this to the primary research question, action inquiry enables self-transformation by "carefully attend(ing) from the inside-out to the experiences we have, hoping to learn from them and modify our actions and even our way of thinking as a result" (p.4). With the "promise of transforming power… emanat(ing) from a willingness to be vulnerable to transformation of oneself" (p. 8) as the backdrop, action inquiry provides an ideal framework to leverage for my intervention.

Action inquiry incorporates a whole-systems approach by leveraging a complex interrelationship between three foundational components: perspectives (p. 19); levels of awareness and feedback (p. 18-19); and territories of experience (p. 21-22). For the first foundational component of perspectives, action inquiry takes into account three different perspectives for three different aims: (1) a first-person, subjective perspective, which has the aim to generate *integrity* in ourselves; (2) a second-person, interpersonal perspective, which has the aim to generate *mutuality*; and (3) a third-person, organization, society, and environment perspective, which has the aim to generate *sustainability* (p. 7). For the second component of levels of awareness, an individual can have three different levels of awareness in relation to observed outcomes in the external world: (1) single-loop awareness & feedback, which deals with making choices in behavior; (2) double-loop awareness & feedback, which deals with making choices in setting strategy, structure, and/or goals; and (3) triple-loop awareness & feedback, which deals with what the individual's attention, intention, and/or vision is set on (p. 18-19). For the third and final component of territories of experience, an individual can experience the external world in four ways: (1) first territory, which is neutral observation, inquiring, and assessing of outside events; (2) second territory, which is the individual's own sensed performance of behaviors, skills, and illustrated patterns of activity; (3) third territory, which is the individual's action-logics, or their chosen strategies, schemas, thinking/feeling patterns, and reflection on experience; and (4) fourth territory, which is the individual's intentional attention, presencing awareness, framing, and vision (p. 22). A summary of how the action inquiry components manifest together can be found below in table 1.

Table 1. How the Levels of Awareness and Four Territories of Experience Manifest Themselves in First-, Second-, and Third-Person Perspectives (Torbert, 2004, p. 39).

Territory of Experience	First-Person Attention	Second-Person Speaking	Third-Person Organizing
Fourth Territory	Intending	Framing	Visioning
Third Territory	Thinking/Feeling	Advocating	Strategizing
Second Territory	Sensing/Behaving	Illustrating	Performing
First Territory	Effecting/Perceiving	Inquiring and Listening	Assessing

Research Design

The intervention design began by clarifying intended outcomes. With the scope of research focused on leveraging reflective practice for increasing self-knowledge, it was important be more specific in what it looks and feels like to have gained self-knowledge. While the literature review shows that self-knowledge can include many components, this intervention had a focus on helping individuals to raise their knowledge of mental, emotional, physical, and behavioral patterns in service of understanding what it looks and feels like when the ego self is activated

(Eurich, 2017, p. 32-42; Wigglesworth, 2015, p. 57-65). This is important because the "ego's primary goal is to keep us safe" (Wigglesworth, 2014, p. 60-61) and while that is certainly an important function, "excessive fear activation robs us of joy as well as leadership capacities" (Wigglesworth, 2014, p. 61). Also, given the insights gained from the literature review on mindfulness and spirituality, these elements were incorporated into the intervention as well.

To conduct the study, a reflective practice exercise based on the action inquiry framework (Torbert, 2004) was introduced to a group of eighteen Director-level leaders within the Midwest-based healthcare system who are participating in a high-potential leadership development program. Informed consent of the participants was obtained as part of their onboarding agreement into the program. In addition, the appropriate permission from the internal research organization was secured for the study.

The reflective practice exercise integrated components from Torbert (2004), Wigglesworth (2014), Bolman and Deal (2011), and Boyatzis and McKee (2005). Torbert offers three useful sets of exercises that the design was based upon: (1) practice noticing (p. 56-57); (2) practice naming (p. 57-59); and (3) practice action inquiry (p. 59). To add mindfulness and spiritual components to the practice, the activity incorporated a technique offered by Wigglesworth (2014) to "stop and breathe" in the moment prior to engaging in reflective activities (p. 133-136). A technique offered by Bolman and Deal (2011) to "summon spirit" through "art, ritual, stories, music, and icons" (p. 171) was also included. Finally, Boyatzis and McKee (2005) provided the content foundation for learning about "defensive routines", which they define as "ineffective habits of mind and behavior" serve as "coping mechanisms…to protect or distract us from the discomfort of our current emotional state" (p. 44). See "Appendix A" to see more details on the in-session exercise built to teach this content through a reflective and interactive way.

The exercise asked them to pause shortly after an incident or event in which they experience a stress response or defensive routine to reflect on what is happening within their inner territory (practice noticing). The exercise then asked them to do a brief centering technique first (practice mindfulness), followed by describing as accurately as possible what they are/were thinking, feeling, and physically experiencing in that moment (practice naming). Participants were also asked to share stories and name an image, song, or metaphor that captures the essence of their experience (practice spirituality). To help them, participants received a form to prompt their reflections more consistently. See "Appendix B" for a view the reflective activity.

Table 2. Intervention Timeline.

Phase	Timing	Key Activities
Intervention Design	3/11 – 3/18	Scoped and proposed Designed approach Produced deliverables
Intervention Implementation	3/19 – 5/26	Taught supporting content and instructed participants in the activity at LEAD on 3/19 Observed and monitored progress Assessed outcomes at LEAD 5/21

Intervention Analysis & Findings	5/27-6/9	Analyzed and synthesized data Documented insights and observations Reviewed outcomes relative to research questions
Implications for Practice & Recommendations	6/10-6/16	Formulated recommendations Proposed future research
Produce Final Paper	6/17-7/14	Created final report

Participants were asked to conduct the reflective practice exercise three times per week over a period of eight weeks, documenting what they noticed in a journal. At the end of that time, participants were asked to complete an assessment to gauge how well they could accurately describe their internal thought, feeling, body sensations, spirit, and behavioral patterns, which would offer an evaluation of how much self-knowledge they gained from the reflective activities. Additional inquiries were made as to what barriers might have prevented them from completing the activity as asked, and components of self-knowledge that they found most valuable to explore. Finally, participants were asked to reflect on how their specific attention to and perspective on the entire eight-week exercise affected their experience with it (to practice action inquiry on the process itself). Assessments were collected during the LEAD session in May and served as the primary data to analyze findings.

Results

I will walk through the analysis of my findings by following the basic structure of addressing each of my research questions.

Research Question 1: How does the application of more consistent reflective practice affect the levels of an individual's self-knowledge?

I broke this question down into a two-part analysis. For the first part, I focused simply on evaluating the overall impact that the reflective exercise had on the self-knowledge of participants. I leveraged a question that asked participants to choose from a 5-point Likert scale rating the impact that the reflective exercise had on them, regardless of how many times they completed it. A full 100% of the participants reported gains in self-knowledge from the exercise, with some varying degrees of the extent of impact. Below is a breakdown of these results.

Table 3. Participant responses to question "To what degree would you say that the reflective activity increased your self-knowledge?"

Answer Choices	Response %	Response #
A great deal	29%	5
A lot	29%	5
A moderate amount	41%	7

A little	0%	0
None at all	0%	0
TOTAL	100%	17

To obtain additional insights on the responses above, I evaluated comments that were provided by the participants around two questions: (1) What is your overall perspective on the reflective activity that you completed?; and (2) What difference will this reflective experience make in your life going forward? The most common themes that emerged across participants were learning about emotional responses to stress; increased self-awareness; and overall learning about self.

For the second part, I analyzed the relationship between the frequency of practice and relative gains in self-knowledge. When I introduced the reflective exercise to participants, I asked them to complete it an average of three times per week for a period of eight weeks. I purposely suggested that participants complete the activity on a high-frequency basis to explore potential variability across an expected range of engagement. I asked participants to estimate the number of times that he/she was able to complete the practice over the eight weeks by making one selection from a list of five range options. The ranges were created in a way in which I could assign their frequency performance using percentile rankings. Four of the seventeen participants (24%) met or exceeded the target number of reflection points (high frequency). Another six (35%) completed it at least half of the time (moderate frequency). Seven participants (41%) completed less than half of the time (low frequency). The below table summarizes the results.

Table 4. Participant responses and percentile rankings to question “Approximately how many times were you able to complete the practice over the past eight weeks?”

Answer Choices	Response %	Response #	Percentile
Over 24	12%	2	125th
19-24	12%	2	100th
13-18	35%	6	75th
7-12	29%	5	50th
0-6	12%	2	25th
TOTAL	100%	17	

I cross-referenced the percentile rankings to the self-reported gains outlined in part one above to determine if there was any correlation between frequency of practice and gains of self-knowledge. The analysis showed that those participants who completed the exercise with the highest degree of frequency reported the most gains in self-knowledge. This was true for the group of participants reporting the highest gains (indicated by “A great deal”), but there was not a significant difference between those participants reporting gains of "A lot" and "A moderate amount." The below table summarizes these results.

The final part of my analysis for the first research question was to review comments of participants in response to the question "If you were to do this activity over again, what would you do differently (if anything)?" The common themes across participants were that they started to "gain more when they gave more" and that they would complete the exercise more frequently if they were to do it over again.

An overall interpretation of the findings for the first research question suggests that for this group of seventeen leaders, engaging in the reflective practice exercise in itself contributed to gains in self-knowledge. And, it appears that those individuals who engaged in the reflective exercise the most frequently over an extended period of time experienced the largest gains. These findings imply that there may be a connection between frequency of reflective practice and self-knowledge.

Table 5. Analysis of frequency of practice and degree of gains in self-knowledge.

Answer Choices	**Response #**	**Average Frequency Percentile**
A great deal	5	75th
A lot	5	65th
A moderate amount	7	64th
TOTAL	17	

Research Question 2: What are the potential predictive indicators of the extent someone will engage in reflective practice?

To address this question, I defined three primary categories to analyze in my study. The first category is components of self-knowledge, which in my research design I mention as being mental, emotional, physical, and behavioral patterns. The second category is the special practice focus areas of mindfulness and spirituality. The third category is developmental level. I will walk through my analysis of results that were collected relative to all three categories of potential predictors.

For the first (self-knowledge components) and second (mindfulness and spirituality) categories, the reflective practice exercise was intentionally constructed to engage participants in all components of self-knowledge, as well as a mindfulness and spirituality practice. I leveraged results from a question on the assessment in which I asked participants to rank order the degree of influence that each part of the practice had on their gains in self-knowledge. There were eight total practice steps to rank, each of which represented one of the components to self-knowledge. Since I was interested in determining predictors of frequency of practice, I analyzed each practice step / component separately across all participants. I sorted each step / component from highest to lowest rank (1 being highest, 8 being lowest), then split into a top half (representing a ranking of 1-4) and a bottom half (representing a ranking of 5-8). I then cross-referenced practice frequency percentiles (as assigned in the previous step), noting the numerical spread between the average percentiles between top half and bottom half rankings. This approach showed that participants who ranked emotional and physical practices the highest in influence tended to practice the reflective exercise more frequently. The data also showed that the mindfulness practice was ranked highly amongst high-frequency reflective practitioners. On the reverse side, participants who ranked consideration of impact of actions, mental patterns, and observations of their behaviors as more influential tended to practice the reflective exercise less frequently. Also worth noting is that not one participant ranked the spiritual practice in the top half, so there was no basis to analyze this component. See the below table for a summary of the results.

Table 6. Analysis of reflective practice / self-knowledge components with strongest correlation to frequency of practice.

Practice / Component	**Average Frequency Percentile for Top Half**	**Average Frequency Percentile for Bottom Half**	**Frequency Percentile Spread**
Noticing and naming the specific emotion I feel (emotional)	75th	63rd	+12
Noticing and locating the place in my body that I experience tension (physical)	75th	68th	+7
Pausing and taking deep breaths (mindfulness)	73rd	67th	+6
Examining the overall pattern over longer period of time (meta reflection)	71st	70th	+1
Noticing the actions / behaviors that I demonstrate (behavioral)	70th	71st	-1
Noticing what I am thinking / the story I am telling myself (mental)	70th	75th	-5
Considering the impact of my actions / behaviors on others (impact)	61st	81st	-20
Identifying a song, image, metaphor, and/or story that captures the essence of my experience (spirituality)	N/A	N/A	N/A

For the third (developmental level) category, I leveraged a brief developmental assessment designed by STAGES International (O'Fallon & Barta, 2018) to capture an estimated developmental level of each participant. The assessment is based on an ego development theory model created by Terri O'Fallon, which builds upon previous models mentioned in the literature review (Cook-Greuter, 2013; Loevinger, 1976; Graves, 1974; Kegan, 1982; Commons &

Richards, 1984). The assessment required each participant to complete six sentence stems with a free-form response. I then partnered with trained language and grammar assessors from STAGES who evaluated anonymous responses to each sentence for indicators of developmental level. The assessors assigned a probable developmental level from which each response is most likely associated by assigning it a numerical score. The higher the score, the higher level of development. I was instructed by O'Fallon to simply average the six sentence scores to arrive at an overall probable developmental level of the participant. I then cross-referenced developmental level scores with frequency of practice percentiles to explore the relationship between the two. I found those participants who were between Achiever and Individualist levels, as well as one participant who is between Individualist and Strategist level, to engage in the reflective exercise most frequently. Participants between Expert and Achiever levels were less likely to engage in the reflective exercise as frequently, and those solidly at Achiever level were the least likely. Below is a summary of these results.

Table 7. Analysis of developmental level and strongest correlation to frequency of practice.

Developmental Level	**Average STAGES Score**	**Average Frequency Percentile**
Achiever-Individualist	3.64	79th
Individualist-Strategist	4.42	75th
Expert-Achiever	3.25	69th
Achiever	3.47	60th

An overall interpretation of the findings for the second research question suggests that for this group of seventeen leaders, Achiever-Individualists who practice mindfulness while learning about their emotional and physical response patterns to stress are most likely to engage in consistent reflective practice. On the contrary, Achievers and Experts who do not prioritize mindfulness and focus primarily on their behavior and mental patterns are least likely to engage in consistent reflective practice. Additionally, it does not appear that practicing spirituality as designed in this intervention had much of a factor on frequency of reflective practice.

Research Question 3: What are some of the barriers to engaging in reflective practice?

I examined this research question through two perspectives: (1) Carlson's primary barriers to self-knowledge; and (2) developmental level. For the first perspective, I asked participants to explain what the primary reason(s) were for their inability to complete the reflective exercise less than 24 times (the total one would achieve if fully completing the assignment). Participants could choose up to three reasons why they could not meet the full goal, all of which are tied to Carlson's (2013) theory of barriers being either motivational (lack of desire) or informational (cannot access parts of themselves). The overwhelming reason that participants did not complete the reflective activity was not finding the time to prioritize and/or fully complete, which is a motivational barrier. See below a summary of the responses.

Table 8. Analysis of barriers to engaging in reflective practice.

Reason	Barrier Type	# Responses
Could not find the time to prioritize and/or fully complete	Motivational	13
Difficulty in accurately completing activity	Informational	2
Gap in reflection skills	Informational	2
Attempted but was not gaining any value from the exercise	Motivational	1

For the second perspective (developmental level), I cross-referenced the developmental level numeric scores provided by STAGES International with the reasons provided by participants for not completing the exercise. I found that Achievers primarily experienced motivational barriers while Expert-Achievers primarily experienced informational barriers.

An overall interpretation of the findings for the third research question suggests that for this group of seventeen leaders, the primary barrier to engaging in reflective practice tends to be motivation. The data also suggests that developmental level may potentially play a role in the type of barriers that one experiences to reflective practice.

Implications

Implications for Practice

For me, the biggest surprise of the intervention was the extent that participants engaged in the reflective activity. In my checkpoint with the group at the half-way point, I posted that I was not feeling very confident that people were actually engaging in the activity as designed. There was not a lot of enthusiasm for the activity in our discussions, and those that shared how it was going for them were few. At that time I drew one conclusion that people were not engaging in the activity, and possibly even not seeing it as valuable. However, the data analysis has proven these hunches wrong. Rather, everyone did, indeed, engage in the activity and ALL found it useful in building self-knowledge. And, the more frequently participants reflected, the more they reported gains in self-knowledge and learning (the opposite was true as well, with the theme of participants reporting that they would engage more frequently if they were to do it over again.) This experience has changed my perception of the readiness and willingness of our leaders to engage in deeper, more reflective inner work, and the meaningful impacts this has on them. It also suggests a connection between frequency of reflective practice and self-knowledge, which implies a greater focus on reflective capabilities in leadership development.

Additional insights that I gained on predictors and barriers to reflective practice were also highly useful. The initial findings of this study point to several components that are worth exploring further. Development level, in particular, seems to play a factor in the extent and how an individual practices reflection. The findings that those who are either moving into or are already at Individualist stage reflect more frequently is consistent with the literature on ego development theory and poses some exciting opportunities to more accurately assess the unique development needs of individuals. Also, what participants tend to focus and not focus on, and what barriers tend to be present, is potentially telling. The findings that those who prioritize mindfulness, as well as reflect on emotional and physical patterns, are more motivated to practice more frequently suggest that individuals may use different prioritizing schema and/or hold a differing readiness for reflecting. All of this points to the need to conduct more research for purposes of informing a more individualized approach to developing our leaders.

On the topic of spirituality practice, the data that I collected did not point to any particular compelling insights. This does not mean that this is not an important component of predicting reflective practice frequency, but rather could be an element that was too unique to include as part of this study. When comparing the degree of exposure and learning that we have given this component relative to others in our LEAD program, we have given it far less attention in our curriculum. It could be that it was just too much to ask them to reflect on at this point, which further points to the topic of readiness. This suggests that some element of content coverage is necessary to help participants make meaning out of inner territory.

For my practice, our leadership development programs need: (1) to more fully incorporate reflection as an element of learning; (2) to work on a more individualized approach to development; (3) to include content and frameworks for making meaning out of inner territory; and (4) to work on creating a safe environment for discussing inner territory more openly. It has been easier to create this in our hi-potential programs, which uses an intimate cohort-based approach to learning over a period of time. The bigger challenge will be to create this experience for the masses, which tends to engage in learning on a more episodic level.

Recommendations

This study had a very large scope, and in essence served as a starting point for me to gauge where I need to go further with deeper study. Each of the research questions that I posed could be a study in itself, and in fact could be narrowed even further. Going forward I will take a more focused approach to action research, with a few dimensions in particular calling for further study. This study just touched on the impact that development level has on the extent and nature of reflective practice. There is a lot of opportunity to explore this territory to better understand how individuals learn to reflect, what motivates them to do so, and how this differs (or not) at different development levels.

The special interest areas of mindfulness and spirituality both offer promise of additional research, in different strands. For mindfulness, the results of this study were consistent with other studies cited in the literature review that this could play a key role in helping people to gain more self-knowledge. What are the specific conditions in which a mindfulness practice contributes? What conditions may it not contribute? What are different ways in which individuals could practice mindfulness? What are potential barriers to an individual adopting mindfulness practice? There a many other questions to explore in this rich topic.

For spirituality, this study did not even begin to explore the topic in any meaningful depth. As mentioned in the next steps, I would like to give this topic a bit more due in exploring different ways to research this as an element of building self-knowledge. It starts with getting more defined in my research question, and in designing an intervention that more directly defines and assesses spiritual practice. With the promise offered by the literature review, and the continuing growth in the body of research on spirituality in the workplace, there is a significant opportunity to dive deeper into this dimension.

Additionally, there is a lot of opportunity to further explore how other variables might be shaping an individual's experience with reflection. For example, how does being a part of a hi-potential program like LEAD shape the way an individual experiences reflection and reflective exercises? How much influence does this construct have on an individual's engagement level? Is it different for individuals who are not a part of a unique program like LEAD? One can assume there are other factors involved here that were beyond the scope of this study, but could shed further light on variables predicting reflection.

Finally, I would like to continue to refine my action research methods for future studies. The broad scope of this study, coupled with the narrow scope of the audience, created some inevitable constraints that limit my research and conclusions. The small sample of 17 high-potential director-level leaders is indeed narrow, and I cannot assume that it is representative of the broader population of leaders across the organization. Also, I surveyed a wide range of topics at a higher level, and mostly I gathered data from self-reported insights. The result is that I can only generate curious hunches versus deeper, more definitive conclusions. This suggests that I adopt more focused and sophisticated research methods over time.

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Appendix A

Identifying Defensive Routines – In-Session Content Exercise

Step 1: Recall High Pressure Situations. Take a moment and think about 3-4 situations or events in your past in which you were experiencing a significant amount of pressure or higher-than-normal stress. Try to select situations that span your whole life – both professional and personal. Write those down here.

Step 2: Identify your Typical Routines. Check all that apply below. When under stress:

I Approach and Internalize

____ I get to work earlier and stay at work later
____ I continue to add new projects or take on more roles despite a realistic shortage of time or results
____ I constantly remind myself of my own or other's high standards for me
____ I expect everyone to perform at my high standards
____ I can never say "no"
____ I feel a sense of personal obligation to fix everything myself
____ I put others' needs ahead of my own to keep the peace

I Avoid and Internalize

____ Move further inside: my office, my projects, my thoughts and concerns
____ Become detached from relationships with colleagues, friends, and family
____ Communicate in short and direct statements about only "essential" information
____ Only my mission and goals seem important
____ I don't feel I need input from others
____ Other people just get in the way

I Approach and Externalize

____ I am the only one who knows the answer and can fix this
____ If anyone disagrees with me I will disregard them or make them sorry for disagreeing
____ My closest friends and advisors always agree with me
____ I never waiver on decisions
____ I believe that I must win others over

I Avoid and Externalize

____ Focus on negative aspects of situation
____ Wear anger and disappointment on my sleeve
____ Criticize or become cynical, with those who want things to change or have hope
____ Blame my mood/circumstances on situation or someone else
____ Gather and drink with like-minded people and talk about what I think is wrong
____ I move on to better things elsewhere

Appendix B

Self Check-In Activity

10-15 minutes

Directions: Each of us has developed unconscious responses to situations that invoke a higher-than-normal stress response. These are known as “defensive routines”, because our ego perceives the situation has some sort of threat, and this leads us to react in a more protective manner. The purpose of this self-reflective activity is to build awareness and knowledge of what your unique defensive routines look and feel like in greater detail, and the situations and/or people that tend to trigger them.

Take a brief pause while experiencing a higher-than-normal stress response, or shortly after you experience it, and check-in with yourself by answering the questions provided below. You are free to document your responses in this form or a journal, whichever works best for you. Try to complete this activity at least three times per week for the next eight weeks.

Step 1: Pause and Breathe. Take three deep breaths, each one deeper than the previous, and let the air out with large exhales. Or, conduct a brief meditation, whichever you need to shift yourself to a more reflective state.

Step 2: Notice it.

What I am thinking about right now is… [openly write whatever comes to your mind]
Where I am experiencing escalated tension and/or tightness in my body is… [muscle tension, depth of breath, blood pressure / heart rate levels, etc.]
The story that I am telling myself at this moment is… [free-write in an unfiltered way]

Step 3: Name it.
I feel… [use the table below and circle the most accurate descriptor(s)]

Anger	Anxiety	Fear	Joy	Love	Peace	Sadness	Shame
Agitated	Anxious	Alarmed	Alive	Attention	Comfortable	Crushed	Ashamed
Anger	Confused	Defensive	Bold	Caring	Confident	Disappointed	Burdened
Annoyed	Distant	Doubtful	Brave	Comforting	Peaceful	Discouraged	Condemned
Appalled	Distressed	Dread	Capable	Compassion	Relaxed	Distraught	Culpable
Disgusted	Dulled	Fearful	Curious	Concerned	Safe	Empty	Despised
Frustrated	Frantic	Frightened	Delighted	Encouraged	Secure	Grief	Disgraced
Irritated	Helpless	Reluctant	Dynamic	Engaged	Self-Assured	Lonely	Dread
Outraged	Impatient	Startled	Eager	Gentle		Lost	Embarrassed
Rage	Intense	Suspicious	Elated	Honored		Miserable	Guilty
Spiteful	Nervous	Tense	Energized	Open		Mournful	Harassed
Upset	Overwhelmed	Worried	Excited	Respected		Remorseful	Humiliated
Vindictive	Paralyzed		Glad	Tender		Resigned	Inept
	Perplexed		Gleeful			Sad	Inadequate
	Queasy		Hopeful			Sorry	Regretful
	Skeptical		Joyful			Terrible	Shameful
	Stressed		Optimistic				
	Uneasy		Passionate				
			Surprised				

The specific event, incident, and/or experience that is evolving this feeling is… [describe it in vivid detail, as though you are there]
The actions I took / behaviors I expressed during that event were… [be observant of self and describe in detail]
The impact these actions / behaviors seemed to make on other(s) was… [be descriptive]
The most important thing to me that this event affects is…
A song, image, metaphor, or story that comes to mind that captures the essence of experience is… [write down whatever comes to mind, regardless of how much "sense" it makes]

Hope Examined Through a Developmental Stage Perspective

A Doctoral Dissertation Research Proposal

Lisa Buckley[1]

Hope seems to be a human function or process that can be catalyzed when facing limitations and uncertainty that separate us from reaching personally significant goals. The contexts vary, for example: being ill and trying to live until one's daughter finishes high school; striving to complete college while raising three children and working two jobs; or struggling to find housing when one's Pacific Island village becomes permanently uninhabitable due to rising seas.

Scholars and laypersons are naming hope as an essential element for dealing with the world's complexities that threaten our very existence. In the last 30 years, hope has been researched across many academic disciplines with most scholars identifying that hope can be learned and facilitated. Much of the hope research in the fields of psychology, palliative care, education, and sustainability is targeted toward identifying effective interventions to assist individuals with well-hoping. *Well-hoping* refers to the pragmatic ways which individuals may best utilize the power or function of hoping. Those scholars and practitioners whose work facilitates well-hoping in individuals and collectives are identified as *hope interventionists.* Hope interventionists include educators, coaches, facilitators, therapists, group leaders, and social activists.

Hope scholars are calling for research to identify the most effective interventions to support individuals to develop capacities related to well-hoping. Identifying individual differences in hoping is another research target. Hope is recognized as a meaning making function that is catalyzed when limitations arise. Currently, research on meaning-making and hope is sought. Since the STAGEs theory and model are based on identifying and working with distinctions in individuals' meaning making systems, there is value in examining hope through a developmental stage perspective.

The question for Lisa Buckley's doctoral research is: *How do adults within distinct developmental stages perceive and experience hope?* The research methodology includes development and use of a stage assessment tool based on O'Fallon's (2012, 2013, 2018, 2019) STAGES assessment model, methodology, and assessment instrument. In addition to developing

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and applying this STAGES Hope Specialty Protocol, qualitative interviews of study participants will also be conducted.

The research methodology includes distributing the hope specialty protocol to four individuals who have previously scored in each of the following six stages: Achiever 3.5 through Universal 6.0. With four respondents in each of the stages, there will be a sample sufficient for the Cronbach's Alpha internal consistency measure of reliability for the Hope specialty protocol. At a minimum, two from each developmental stage will be interviewed.

Anticipated date for completing the research is late 2020.

STAGES Child Research: Preliminary Report

Terri O’Fallon[1]

Abstract. The Loevinger Lineage (Loevinger, Torbert, Cook Greuter, O’Fallon) has much data related to adult development. This includes adults that score at very early levels of development, including Egocentric (late first person perspective in the STAGES model), “Rule Oriented” (early second person perspective), and “Conformist” (late second person perspective). Many of the adult populations comprising the Loevinger lineage research-base at the earliest levels come from adults that are compromised in some way. However, very little research has been done related to first and second person expressions of children, which are the primary ages that take these perspectives. This article describes our first attempt to examine the expressions of children at these levels who have normal healthy expressions of these earliest human perspectives.

Introduction

While there may be other Integral Elementary Schools, the Brisbane Independent School (BIS), is the only one I am aware of that is organized around the developmental levels of the children. It is a private elementary school supervised by a teaching principal, Jennifer Haynes. Jennifer has developed a child and teacher curriculum that honors the developmental levels of both the children in the school and the adults that are teachers there. For many years she has followed the children closely through their developmental journey. Parents are very involved in the school as well. Given the make-up of this school (pre-first grade levels through ages 12-13 years old) BIS seemed like the most appropriate site for a research project on normal healthy child responses at the earliest levels of the STAGES developmental model: late first person perspective (1.5), and early and late second person perspectives (2.0 and 2.5).

For reference, the matrix in Figure 1 defines each of the 12 person perspectives in the STAGES model, and their parametric definitions. See other papers in this special issue describing the STAGES model and these levels.

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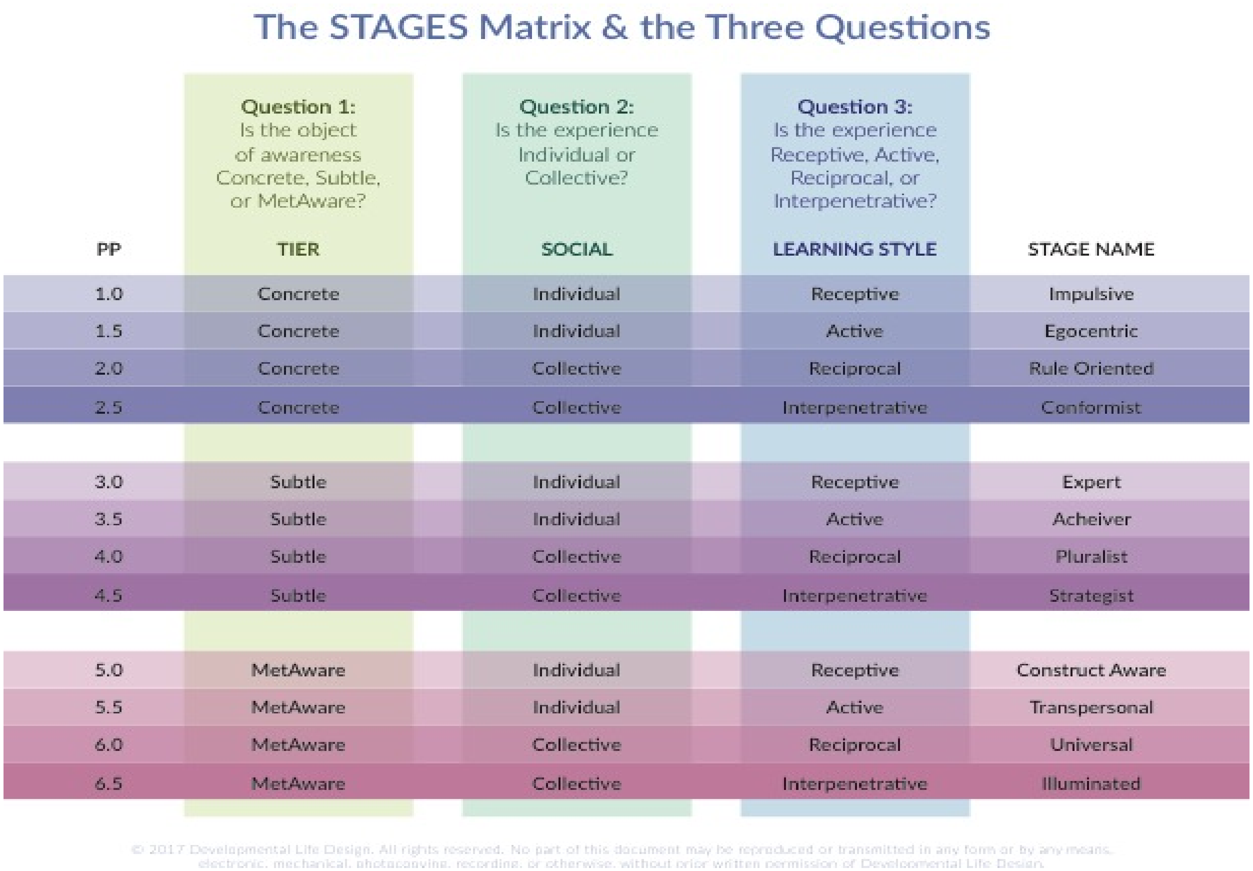

The STAGES Matrix & the Three Questions

	Question 1: Is the object of awareness Concrete, Subtle, or MetAware?	Question 2: Is the experience Individual or Collective?	Question 3: Is the experience Receptive, Active, Reciprocal, or Interpenetrative?	
PP	TIER	SOCIAL	LEARNING STYLE	STAGE NAME
1.0	Concrete	Individual	Receptive	Impulsive
1.5	Concrete	Individual	Active	Egocentric
2.0	Concrete	Collective	Reciprocal	Rule Oriented
2.5	Concrete	Collective	Interpenetrative	Conformist
3.0	Subtle	Individual	Receptive	Expert
3.5	Subtle	Individual	Active	Acheiver
4.0	Subtle	Collective	Reciprocal	Pluralist
4.5	Subtle	Collective	Interpenetrative	Strategist
5.0	MetAware	Individual	Receptive	Construct Aware
5.5	MetAware	Individual	Active	Transpersonal
6.0	MetAware	Collective	Reciprocal	Universal
6.5	MetAware	Collective	Interpenetrative	Illuminated

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Figure 1. The STAGES Matrix.

Method

Preplanning for the Research

Ethical research with children as subjects requires parental permission. To accommodate this, our research team (Kim Barta and Terri O’Fallon) prepared a detailed description of our research, honoring the rights of students and their parents. Before we arrived at the school, Jennifer contacted each parent and asked them sign the permission form for doing the testing. She arranged a protected, locked file the names of all of the children being tested the permission forms, that only she has access to. The researchers giving the test to the children would not have access to the children’s identifying information (including parent names).

In the meantime Kim (a psychotherapist that has worked extensively with children of all ages) and I modified our general STAGES inventory to create one that was appropriate for young children. The general inventory has 36 sentence starters each of which the test taker completes. A function is applied to aggregate the scores for each completed sentence into a final score which represents the developmental level ("center of gravity" or "core score") of the test-taker. The standard version of the ego-development test is suited for adults so we looked to see what sentence starters should be replaced with child-friendly sentence starters.

We understood that some sentence starters might be too advanced for the youngest children and yet quite relevant to the older children so we tried to strike a balance between the younger and older children’s needs. 11 new sentence starters were embedded in the general inventory, replacing sentence starters that seemed to not be very relevant to children, for a total of 36 sentence starters. Table 1 shows the new sentence starters in blue. To summarize, we decided to add the following sentence stems: My family, Grandparents, These days, School, My parents and I, A good child, When they didn’t let me join in, Bullying could be stopped if, Children and parents are lucky when, Children who step out of line, A parent has the right to, and A child has the right to. The figure below shows the stems in order of appearance, with the new ones in blue.

Table 1. 36 Sentence Starters for the STAGES Child Inventory.

1. My family	10. When people are helpless	19. Bullying could be stopped if	28. A parent has the right to
2. When I am criticized	11What I like to do best is	20. Children and parents are lucky when	29.If my mother
3. Grandparents	12. A good child	21. I just can't stand people who	30. If I were in charge
4. These days, school	13. We could make the world a better place if	22. At times I worry about	31. My father
5.Being with other people	14. The past	23. I am	32. If I can't get what I want
6. The thing I like about myself is	15. Privacy	24. If I had more money	33. When I am nervous
7. My parents and I	16. I feel sorry	25. My main problem is	34. A child has the right to
8. What gets me into trouble is	17. When they didn’t let me join in	26. When I get mad	35. My conscience bothers me if
9. Education	18. Rules	27. Children who step out of line	36. Sometimes I wished that

Data Collection

When Kim and I arrived at the Brisbane school, Jennifer had already arranged for the research process to take place. Since this required an oral test with the children, she set up two private spaces where we could meet with them one by one. Kim and I went to the various classrooms and the teachers were already prepared to send a child with us when we appeared at their door. We engaged with the children on the way to our private spot, creating rapport with them on the way. Once we got settled with the child, we gave them several sentence starters for practice so that they could understand what the task was. These children had no trouble responding to the 36 sentence starters and most appeared to thoroughly enjoy the process. Several children were very shy and wanted to respond to only a few sentences. This was expected and when that happened we simply went onto the next sentence starter until they indicated that they wanted to respond.

Kim and I typed verbatim their responses to the sentence stems. We collected and transcribed this data of 36 oral responses for each of the 53 children, gathered over two days, for a total of 1908 responses.

The School Environment

Kim and I were invited to visit each classroom so that we could see the developmental process of how the children were organized by their developmental level. As well, we spent time with the teachers to see how they related to the children and their teaching practices.

Jennifer went over the curriculum with us to show how she had designed the school as a developmentally friendly environment for the children. This included recognizing when children were in a transformation and ready to move into another classroom. This could happen any time during the school year and provided for a flexible process for the children, honoring where they were in their developmental journey.

Jennifer invited us to her teacher’s meetings so that we could see the curriculum she had created for them as they experienced their own developmental journey. These teachers were very aware of looking at themselves developmentally and understood how their own developmental level affected their teaching.

For the final days, Jennifer had arranged for Kim and I to put on a two day developmental workshop for the parents, teachers and other community members who were interested. This indeed was a vibrant community of well informed and supportive people who were doing their best to help to create a school that would serve their children. These parents were of all economic levels and were quite diverse.

New Score Aggregation Method

Until recently, we assigned the final score to an inventory using the ogive cutoff approach from the Loevinger Lineage. We had translated this approach to the 12 levels of the STAGES model (1.0, 1.5, 2.0,....6.5).

Recently we have begun using a new formula for aggregating the 36 item scores to get a total score (or "core score"). See the article by Tom Murray on our Ogive and Rash research in this issue for details. The new process returns continuous value between 0.5 and 6.5, rather than forcing the score into categories. This "Core Score" is rounded to the nearest 1/10th of a person perspective (e.g. 3.6). Thus it does not "throw away" information as in done in the cutoff categorization method, and its higher granularity helps us to have a more nuanced score interpretation. As described in that paper, one of the advantages of the new method is that it does not confuse "shadow" elements of a completion with the authentically lower levels of complexity as seen in children. This study is the first published research to use this new method. For convenience in reporting, we will sometimes round off the continuous value to the appropriate whole-level category.

Data Analysis

Once we got back to the US, I entered the children's sentence completion text into our scoring platform and began to score them. I soon realized that the sentence completions of these healthy children were very different from adults that had scored at those levels (including a prison population, and mental health facilities). The typical categories that the Loevinger Lineage had created from adult completions simply didn’t fit with this population of children. For example, a 1.5 adult sentence completion might say “When I am in charge…I would rule the world” while a child would more likely say “...I can’t be in charge – I’m just a kid. My parents are in charge.”

While scoring these inventories, the person perspectives and their paradigmatic definitions were available for analyzing the developmental levels of these 1908 child responses. I worked slowly and carefully with each response, going back and forth between them, comparing them to verify that the three STAGES parameters for each person perspective were honored despite very different responses at each level and between each level. I used the following process for scoring each sentence completion.

1. I scored each completion using the parameters (described below).
2. I compared all of the sentence stems that were scored at the same level to see if any of them seemed to fall prior to or extend later than most of those scores.
3. I rescored these stems and moved back and forth between the meaning making that seemed to lie at each developmental level and also meet the parameters.
4. I checked each completion several times until I was satisfied with the scores.

Validating the Child Inventory

Once the inventories were scored I sent them off to our statisticians to get a Cronbach’s alpha to make sure the internal consistency was adequate.

Table 2. Internal consistency for child protocol stems. N=53 protocols.

Data Subset	Cronbach's alpha
All stems	0.88
Old stems	0.85
New stems	0.63

Conclusion: The overall internal consistency of the child protocols as measured by the Cronbach’s alpha statistic was "good" (α = 0.88), according to the table below.

A commonly accepted rule of thumb for describing internal consistency is as follows:*

Table 3. General Cronbach alphas.

Cronbach's alpha	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

(*George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th ed.). Boston: Allyn & Bacon.)

From this statistic, given 53 participants, we can see the entire inventory with 11 changed sentence starters out of 36, had an internal consistency of .88 (only .02 away from "Excellent"). However the 11 new ("child") stems by themselves didn't fare as well, letting us know that we won't test with only the child stems but will always use the 36 sentence stems with the child sentence starters embedded. This should give us an accurate result. Also, we plan further research on strengthening the new child-friendly stems.

Results

Above we described our new method for aggregating survey scores into the final "core score." This, combined with the 1.1 million word study which shows what words tend to come up at each developmental level, helps us make a more nuanced decision in the scoring of each sentence stem, a process of triangulation with different kinds of evidence to support a more accurate score. This gives us the data to support the core stage any person is at. (Our preliminary vocabulary research is summarized in the paper in this issue summarizing all STAGES research to date.)

The test was administered verbally to 53 children at their school in Brisbane, and the audio was transcribed. An expert scorer scored the results, which are shown in Figure 3 as frequencies in histograms at both the item level and the survey level.

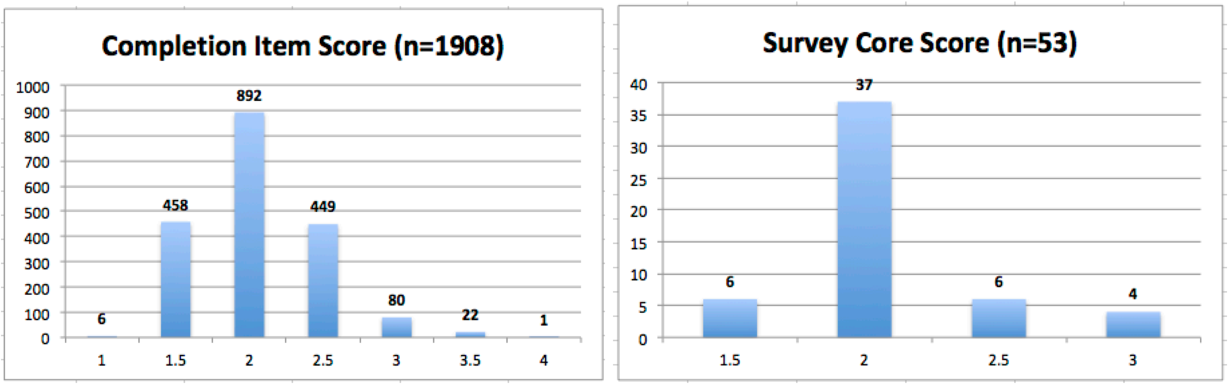

Figure 3. Child Study results: frequency histograms.

From the Survey graph we can note that the vast majority of children scored at 2.0, with a few at 1.5, 2.5, and 3.0. From the completions graph we can see that there are also a few item scores as low as 1.0, and as high as 4.0

O'Fallon continues to analyze this data to derive descriptive accounts of how the children make meaning of various themes (later to be published).

Discussion

Most children at the 1.5 Egocentric level range from the ages of about 18 months old to about the age of 4 years old. The 2.0 Rule Oriented level generally begins around the age of 4, and ranges up through around the ages of twelve or thirteen. The 2.5 Conformist level can range from the approximate ages of 12 or 13 through the age of around 19, but we also have many adults at that age. The 3.0 Expert usually ranges from around the age of 18 or 19 though the mid 20's but can extend far into the 20's and 30's and beyond.

Looking at the ranges of these children who were at about the age 4 ½ through the ages of about 13, we can see a healthy distribution with most of the children expressing at the 2.0 level and six younger children who were old enough to be in school but still represented the 1.5 level. However, we also see that 11 children representing nearly 21% of this population, seem to reach into the 2.5 and 3.0 levels and appear to be more developmentally mature than most children in that age range. There could be many reasons for this, including a developmentally appropriate curriculum for the children.

Summary

We have developed an oral sentence completion test for children. This test has very close to an excellent internal consistency using Cronbach's alpha. We have tested 53 children using this test and that we are now doing qualitative research to uncover descriptions of healthy children at these levels which are mostly populated with healthy children, rather than with compromised adults. This is just a beginning, and we are happy to be on this journey.

Future Research

The next question we are inquiring into is “What are the phenomenological qualities of children at each of these developmental levels?"

To respond to this question we are in the process of doing a qualitative research project. We are categorizing all of the sentence completions at each developmental level into common themes to see if we can locate common identifiers for children at each of these levels.

To date we have done the preliminary categorizations on about 70% of the 1908 sentence completions. We will continue to sift through all of these stems until we have an idea of the themes that describe children at each of these developmental levels This will take some time and will be well worth the effort.

Investigating the Validity of the Ogive Aggregation Method, Including the use of Rasch Analysis, for the Sentence Completion Test and the STAGES Model

Tom Murray[1]

Abstract: This project assesses psychometric aspects of the STAGES sentence completion test (SCT) using data from 740 scored surveys, and some of the analysis applies to all variations of the SCT for ego development (meaning making maturity). The goals of this research project include: (1) to apply item response theory (IRT) and Rasch analysis to determine item-level psychometric properties of the SCT that were previously unaddressed in SCT research; and (2) to further investigate suspected problems with the ogive cutoff method for aggregating item scores in the SCT and propose alternatives. The psychometric analysis includes: within-test item normality, item standard deviations, test length analysis, factor analysis, characteristics of and correlations among each item, overall test strength, and construct levels discrimination. A range of issues with the standard ogive cutoff method are described, and a new item aggregation method is then proposed.

Keywords: Adult ego development, ogive cutoff**,** psychometrics, STAGES, sentence completion test.

Executive Summary

This project assesses certain psychometric aspects of the STAGES sentence completion test (SCT) using data from 740 scored surveys, and some of the analysis applies to all variations of the SCT for ego development (meaning making maturity). The goals of this research project include: (1) to apply item response theory (IRT) and Rasch analysis (a subset of IRT) to determine item-level psychometric properties of the SCT that were previously unaddressed in SCT research; and (2) to further investigate suspected problems with the ogive cutoff method for aggregating item scores in the SCT and propose alternatives.

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The paper begins with an overview of the history of the SCT, including Loevinger's original work and variations by Cook-Greuter, Torbert, and O'Fallon. We then describe the STAGES model and assessment in greater detail, highlighting how the model differs from prior SCTs.

We summarize evidence for the psychometric strength of the SCT. Most of the 400+ studies of the SCT were conducted with Loevinger’s WUSCT, but studies of the other variations inevitably replicate results of the general validity characteristics of the test. We summarize prior research on the SCT regarding inter-rater reliability, internal consistency, test-retest reliability, face validity, construct validity, incremental validity, clinical utility, and predictive validity, supporting Westenberg et al.'s conclusion that "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485).

Specific to the STAGES model, we reference another peer-reviewed paper (O'Fallon et al., 2020) describing a "replication study," which shows that the STAGES scoring method replicates prior (MAP) SCT scoring up to 4.5 Strategist. That paper also summarizes longitudinal data analysis including the upper levels, which shows evidence for the monotonic developmental sequencing of O'Fallon's newly defined highest stages (Metaware Tier).

We next focus on methods used to aggregate the 36 item scores into the total protocol rating (TPR), especially the ogive cutoff method and secondarily the less-used TWS (total weighted score) method. We argue that the ogive method entails a number of drawbacks, including:

1. Lack of empirical support for discontinuous levels
2. No population studies for Bayesian estimates
3. Difficulties estimating extreme values
4. Lower cutoffs confuse development with "shadow" evidence
5. Sensitivity to error
6. TWS misalignment
7. Additional issues with the TWS multipliers
8. Errors in the ogive formula and assumptions

This paper then describes the method and results of our statistical analysis of the 740 STAGES protocols using descriptive statistics, item response theory, and Rasch analysis. Below is a summary of the findings, which hold for levels 2.0 to 6.0, however for the rare extremes of 1.0, 1.5, and 6.5 surveys, there are too few data points for confident conclusions.

1. **Within-test item normality**. A skew and kurtosis analysis shows that scores within each survey are, on average, normally distributed. This does not support the common supposition that the scores’ "bell curve" within surveys would contain more items below the average score than above it.

2. **Item standard deviations**. The average standard deviation of item scores within a survey is remarkably similar across all developmental levels. Thus, the shape of the distribution of the 36 scores within a survey does not change much for individuals at different centers of gravity.

3. **Test length.** A Cronbach-Mesbah analysis (of the Cronbach's alpha score for successively fewer test stems) shows that for a half-item test the reliability is excellent (.95); that with 10 stems, the SCT has very good reliability (.92); and that at 5 stems the reliability is acceptable (.85). This supports any future projects that use surveys with fewer than the 36 items.

4. **Factor analysis**. A factor/component analysis of the data confirms prior findings that the SCT loads on one factor or in other words seems to be measuring a single latent variable.

5. **Characteristics of and correlations among each item**. We show measures of difficulty (mean score) and spread (standard deviation) for each test item to test the assumption that the SCT test items designed to triangulate (parallax) the construct from many life-contexts are generally equivalent (though they will vary in how they function per individual). The results confirmed in the Rasch analysis show that there is some variation among the items, but overall they have similar difficulty and spread. However, the stem "I am..." stands out as being the least highly correlated with all other stems and as having the highest standard deviation. We also show a heat map illustrating the 36x36 item correlation magnitudes.

6. **Overall test strength**. Rasch and IRT analyses confirm that the test is very robust/sound as a psychometric measurement across its entire range. Test reliability and coverage are excellent and the items have good discrimination. Scoring is highly consistent (i.e., good quality) across the items (similar to prior Cronbach's alpha results).

7. **Construct levels discrimination**. The test easily differentiates the 6 person perspectives and, consistent with the model's hierarchical organization of 3 parameters, has more difficulty differentiating between levels at the granularity of 12 levels. The 12 stages defined by the model are relatively evenly spaced along the spectrum, which supports O'Fallon's conjecture that the STAGES model cuts the range into equal slices or provides a consistent "ruler" which is resilient to data collected in future studies from different populations.

New item aggregation method. Given the problems described for the ogive cutoff method, we experimented with a number of alternative methods for aggregating the survey items. Our goals for a new method were:

1. achieve compatibility with the expectation that for a projective test, a person's true "center of gravity" will be evidenced from the higher scores;

2. avoid the problems of the ogive cutoff method and use something more straightforward and with fewer arbitrary parameters;

3. to minimize the differences between the new method and the prior ogive method, so that we would not have to alter the established interpretation of each level (i.e., to remain consistent with how a "3.5/Achiever" total score is understood in the field).

The methods we tested are described in the paper. In the end we chose taking the mean of the top 6 scores in the survey (or the top 1/6th of the scores if the survey has other than 36 items). This is modified slightly to produce a value that is, on average, close to the original ogive method by using the formula: (1.2*AveOfTop6)-1. We call this value the Core Stage (for continuity with prior articles, note that we originally called it the Focal Score). STAGES International will begin to phase in this method, firstly alongside the ogive method, before eventually replacing it over the next year or two.

The Core Stage regards a continuous value. The benefits of this method include that the value is not sensitive to small perturbations or errors around cutoff boundaries and that it is easily extended to different test lengths without revising the set of cutoffs. Another benefit of this method is that it does not confuse shadow crashes with low complexity/maturity, which is the case with the ogive method, and thus can be used for scoring children (which O'Fallon has begun doing).

The revised scoring system will show several measures in addition to the Core Stage: the average (across all stems); the bottom score (the average of the bottom 6 related to a "shadow score" for adults); and *Spread* – the spread score is the Core Stage minus the bottom score, which indicates the range of values in the survey.

The final section of the report discusses future work and limitations, which largely pertain to available data.

The STAGES framework will be gradually shifted to the new Core Stage method. We remain agnostic regarding whether other SCT frameworks should adopt this method or any alternative to the ogive method, which has been performing well enough over the years and represents the default standard, and the effort to adopt a new method may well outweigh any benefits. The benefits of changing are greater for the STAGES model vs. other SCT variations, because others use a fixed set of stems while STAGES allows creating valid surveys with new stems of any length – which would require ongoing adjustment of cutoff values that can only be performed in arbitrary ways. In addition, automated computer scoring exists for the STAGES model (see www.stagelens.com), which means the SCT will become more practical to use for large-scale research where the validity of methods is more critical.

Introduction and Background

Motivations and Research Goals

The sentence completion test (SCT) for adult development, originally created by Jane Loevinger and later extended by Susanne Cook-Greuter, William Torbert, and Terri O'Fallon (each developing different variations), is arguably the most thoroughly researched, validated, and used developmental instrument in adult psychology. Loevinger used the term "ego development" for this "holistic" view of personality and cognition that "[sees] behaviors in terms of meaning or purposes" (Loevinger 1970, p. 3).[2] Ego development has been described using concepts including leadership maturity, perspective-taking complexity, sophistication of world-view consciousness, and "wisdom skills" and has substantial overlap with the construct of meaning-making maturity described in Kegan's construct developmental theory (Kegan, 1998). Kegan describes it as a "consistency in the structure, or order of complexity, of one's meaning-making (i.e. how one thinks)" (1998, p. 55) about the relationships between self, other, and the world (intrapersonal, interpersonal, and cognitive in Kegan's terms; and "I/we/it" in terms of Wilber's Integral Theory (1995)).

Loevinger's theory of ego development was intricately linked to her assessment instrument called the Washington University Sentence Completion Test (WUSCT; Hy & Loevinger, 1989; Loevinger & Wessler, 1970). The literature on the SCT is extensive, and according to an overview by Westenberg et al. (2004), the SCT test has robust psychometric properties with "indicated excellent reliability, construct validity, and clinical utility" (p. 596). They further state that, "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485), and dozens more studies have followed since 2004 (Torbert, 2009).

The SCT is a "projective" test in which subjects complete sentence starters and respond freely without a need to produce a "correct" or superior answer – which the theory claims affords the test analyst a deeper view into tacit or unconscious psychological traits. The standard SCT has 36 sentence starters ("stems") such as "Raising a family…" and "When people are helpless..." which the test taker completes (e.g., "…is a joy", "…they get taken advantage of") and are rated independently. Sentence completions vary from a few words (even one word) to full paragraphs (and rarely multiple paragraphs). Rather than a simple sum or mean of the item scores, the TPR score uses a more complex cutoff method called the "ogive method" for reasons we describe later. This converts a complex continuous score into one of a set of discrete categories (levels or stages: 8 for Loevinger's model, 9 for Cook-Greuter's and Torbert's models, and 12 for O'Fallon's model).

Despite the depth and breadth of the SCT instrument and its psychometric strength, assessments of its validity all (as far as we can tell) have used "classical test theory" and focused on the validity of the assessment as a whole (i.e., the TPR). There has been little focus on its per-item psychometric properties besides the internal consistency of the items (the Cronbach’s alpha measure). Although it is still widely used due to its robustness in most contexts, classical test theory has been superseded in the last half century by item response theory (IRT) psychometric methods, which include a deeper analysis at the item level of the test. The present study applies IRT (and Rasch analysis) to SCT data to gain insights about the properties of the SCT. More importantly, the ogive method for aggregating item scores has been largely taken for granted and simply re-used in the hundreds of studies using the SCT, despite some limitations of the ogive method.

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[2] Browning (1987, p. 113) describes ego development in terms of "a series of developmental stages that are assumed to form a hierarchical continuum and to occur in an invariant sequence…[that describes a] person's customary organizing frame of reference, which involves…an increasingly complex synthesis of impulse control, conscious preoccupations, cognitive complexity, and interpersonal style."

In this paper we describe limitations and some potentially serious problems with the ogive method and suggest an alternative method for aggregating the test items. One problem with the ogive or any cutoff method, or indeed any method that forces continuous phenomena into discrete values, is that they are sensitive to small variations and noise near the cutoff points. For example, a cutoff rule that assigns a TPR of "achiever" if 10 or more of the 36 items scores are at or above the achiever level is fragile for surveys that have 9, 10, or 11 such scores. In this range, if the score had just one or two more or fewer items at the achiever level due to rater error or inter-rater variation or an arbitrary glitch in the subject’s thinking when taking the test, the score would jump an entire developmental level.

These issues are unlikely to impact the vast majority of the hundreds of published studies that use the SCT method, especially those with medium to large sample sizes. Small "random" variations that cause the TPR to "flip" up or down a level will "wash out" in statistical aggregations. Such issues might be more important for case studies and other small-N studies, where a single level difference in a couple of TPR scores could change the conclusions. Beginning with Cook-Greuter and continuing with Torbert and O'Fallon, the SCT is increasingly used to provide developmental scoring and coaching/consulting advice to individuals (something Loevinger strictly avoided). It must be said that all three of these researcher/practitioners and their associates are careful not to allow the use of the SCT for high-stakes assessment decisions such as hiring and firing (to the extent possible) but instead use it as a tool for self-reflection and personal growth (for individuals but also for teams and organizations). Nonetheless, the sensitivity of the cutoff method to perturbations is concerning since the characteristics of, and thus the advice given for, each developmental level is distinct (i.e. adjacent levels such as Expert and Achiever differ significantly along many dimensions).

The research in this paper was executed in an attempt to validate and improve O'Fallon's STAGES variation of the ego development theory and assessment, yet some of our conclusions concern the entire SCT lineage (other results apply only for the STAGES model). STAGES represents the most recently developed model in this lineage and differs from others by proposing a small set of underlying "drivers" or parameters (i.e., underlying mechanisms) purported to explain most or all of the surface features of the spectrum of meaning-making development. The research goals addressed in this report include:

- To further investigate suspected problems with the ogive cutoff method for aggregating item scores and to propose alternatives;

- To apply IRT and Rasch modeling to determine psychometric aspects of the STAGES SCT that were previously unaddressed in SCT research, including:
    - An item-based determination of overall test strength (including factor analysis and reliability);
    - Item-based analysis to identify items that behave differently than others or have sensitivity to particular regions of the developmental spectrum;
    - Test-length analysis to determine the validity of shorter versions of the SCT;
    - Scale uniformity and resolution to determine whether the categories (stages) in the model are relatively uniform and well differentiated;

- To assess other statistical properties of the measurement, including the skew and kurtosis metrics, indicating whether the spread of items in the surveys is normally distributed (on average).

Project Beginnings

There were two initial motivations for this project. First, O'Fallon's statisticians suspected some fundamental errors in the assumptions behind the ogive cutoff method for aggregating the (36) response scores used to produce the total survey score (TPR) traditionally used in Loevinger-lineage sentence completion tests. One goal was to clarify these issues and identify alternatives to the ogive method.

Second, the main alternative framework to STAGES and other SCTs include the Lectica assessments (based on hierarchical complexity theory (HCT), see Commons et al., Dawson et al., and Fischer et al.), and research in this lineage uses Rasch modeling for evaluating psychometric validity.[3] Rasch analysis is considered by most to be a subset of IRT methods, and IRT methods represent a more robust and modern set of methods than the classical test methods Loevinger chose over 30 years ago and continue to be used with the SCT. One of our goals was to upgrade methods to more modern techniques and also to determine whether IRT can shed light on how to replace the ogive aggregation method.

Over the course of this research, Murray engaged the assistance of many professional statisticians/psychometricians. Each result shown here was read and approved by at least two of these experts, although consultant reviews regarded checking that the methodology fit the context and conclusions and none checked the actual data processing steps (i.e., the author is wholly responsible for any such errors, and none of these consultants can be said to have vetted and agreed with this report in its entirety and full detail). We would like to thank the following for their help at various stages of the project: Matt Johnson – Columbia University faculty in psychometrics and statistics research; Trevor Bond – faculty at James Cook University and lead author of *Applying the Rasch model: Fundamental measurement in the human sciences* (Bond & Fox, 2001; Bond, 1994); Bob Dolan – a psychometrician in the field of educational technology who has worked for several publishing and research companies; Mike Linacre – psychometrician and developer of the WINSTEPS software package for Rasch analysis; Larry Price – Texas State University Professor and author of *Psychometric Methods: Theory into Practice*; and Moni Blazej Neradilek and Nayak Polissar – lead statisticians at Mountain-Whisper-Light Statistics, the company O'Fallon uses for much of her work on the STAGES model.

Part of this work was funded by the Developmental Research Institute (DRI), a registered non-profit research organization founded originally by Terri O'Fallon, Suzanne Cook-Greuter, and others, which is currently lead by O'Fallon, John Kesler, Venita Ramirez, and Judy Stevens Long. Although the mission of DRI is to further research adult developmental assessment and theory in general, we acknowledge that most of its board members have close affiliations with

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[3] Kegan's model is also predominant in the field, but its assessment method, the subject-object interview, is much less frequently used, because it is much more time consuming to both administer and score.

O'Fallon, as does the author, and that there may be some unintentional bias toward the STAGES model in the reported research.

SCT History

Below we describe the evolution of the SCT and compare its various versions to illustrate their significant similarities for two reasons: to argue that (1) many conclusions made in this study with STAGES assessment data will apply to other SCTs; and (2) prior research using the WUSCT, which constitutes the vast majority of the roughly 400 studies on the SCT, applies to the other SCTs.

The SCT for adult development originally developed by Jane Loevinger was later extended by Cook-Greuter and associates, Torbert and associates, and O'Fallon and associates. Although Loevinger remained an academic, the others branched out of academia to start companies that engage in developmental assessments, organizational consulting, and consultant trainings (Torbert works both in academia and industry consulting). Cook-Greuter was a student of Loevinger and Torbert was one of her dissertation advisors, and both Torbert and O'Fallon were at various times working as business colleagues of Cook-Greuter, who is currently a principal at Vertical Development Academy; Torbert worked at Harthill Consulting for 20 years and then founded Global Leadership Associates with Elaine Herdman-Barker; and O'Fallon is co-founder at STAGES International. All four of these organizations continue to work with the SCT and, as far as we know, represent the only organizations that currently provide scoring of and certification in the SCT. Vertical Development Academy calls their SCT "MAP," Harthill Consulting calls theirs LDP, Global Leadership Associates calls theirs GLP, and STAGES International calls theirs STAGES (Torber et al. 2009, 2014 describes validity research on MPA, GLP, LDP).

Loevinger's model and assessment was extended in three ways by those that followed her: (1) the underlying psychological theory evolved, (2) the STC itself was altered regarding the number and selection of stems, and (3) the analysis method defined in a "scoring manual" also evolved.

In terms of the SCT instrument, MAP and the "general protocol" of STAGES use 36 stems, following Loevinger, while LDP and GLP contain as few as 24 stems. Although each SCT variation has altered some of Loevinger’s original sentence stems, all share at least 75% of the stems with the original WUSCT and with each other.[4] Although Loevinger and other researchers using her methods have validated and used an 18-item ("split half") variation of the SCT (see Novy & Francis, 1992; Holt, 1980), the short version is not used for the individual scoring currently done by the others. However, O'Fallon has been developing and validating "specialty" protocols with both varied lengths and 6 or more stems from the "generic" SCT replaced by stems focused on specific themes (e.g., love, money, spirituality, etc.). The research reported here utilizes the STAGES generic protocol.

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[4] See Torbert 2014 for a detailed comparison of the MAP, GLP, and LDP variations of the SCT. Torbert and Cook-Greuter modified the WUSCT stems to "omit a number of gender-based items and, includes work or leadership-related stems" (Torbert & Livne-Tarandach, 2009).

In terms of the theoretical model, Cook-Greuter extended Loevinger's system by differentiating two stages (which she called Construct Aware and Unitive) within Loevinger's final stage (a model also used by Torbert and associates). O'Fallon's research has taken this progression further by differentiating four stages (5.0, 5.5, 6.0, and 6.5) within the same late-stage territory. O'Fallon also differentiated the Conformist (or Diplomat) level into two levels based on theoretical principles along with her other modifications. (Thus, STAGES defines 12 levels, MAP/GLP/LDP defines 9, and WUSCT defines 8). All of the scoring methods have procedures for marking a developmental stage as early, middle, or late, so the potential number of "strata" or sub-stages has a finer resolution. Although the early/late distinction is used in qualitative consulting with the client, for the research reported here all score data regards the per-stage resolution (i.e., early/late designations are not used).

Cook-Greuter attempted to address her notion that Loevinger's model was "lacking an underlying structural logic" (1999, p. 76) by linking the sequence of stages to "person perspectives" (p. 77) (e.g., first-person perspective, second-person perspective, etc., sometimes referred to as worldviews). This strengthens the ego development construct from a "soft" description-based construct towards a "hard" model-based construct, which provided a coherent theory that could support the entire developmental trajectory using a single concept (pp. 72–76). However, this change was applied only to the conceptual description of the model rather than to the scoring methodology. O'Fallon extends this innovation by more fully integrating the concept of person-perspectives into both the theory and the scoring procedure.

A scorer using the WUSCT, MAP, GLP, or LDP tests consults a scoring manual comprising thousands of example sentence completions organized by stem, level, and theme. The scorer attempts to match a sentence completion with an example or thematic group of examples, and if no match can be found, more general heuristics defined for each level (independent of stem) are used. Westenberg et al. (2004a, p. 485) note that "the scoring manual for the [WUSCT] consists of over 2000 response categories...about 80 response categories for each of the [...] items." The 300+ page scoring manuals used for the MAP, GLP, and LDP contain 16,000+ examples, and training to score from the requires many months and close supervision until acceptable inter-rater reliability is achieved (vs. a maser scorer). For the two highest levels added by Cook-Greuter, scoring relies more on heuristics than exemplars (the method is used for the MAP, GLP, and LDP).

While all the other methods follow Loevinger in using an exemplar-based scoring method, the STAGES model differs by basing its model and scoring method on an underlying quasi-causal model that applies a repeating pattern using a small set of foundational parameters. The scoring procedure (the manual) is thus stem-independent and does not rely on exemplars but on underlying language properties and structures.

The STAGES Model

Although the example-matching method was chosen by Loevinger, it entails drawbacks. Because human language is diverse and expressive and there are so many ways that an individual at level X could respond to stem Y, it is quite time consuming to add new levels or sentence starters, which requires the collection and validation of excessive amounts of data to define exemplars and heuristic rules (e.g., see Minard, 2009; Cook-Greuter (1999)). For scorers, matching to exemplars can be tedious and time consuming, and these issues motivated O'Fallon to develop an alternative theoretical and scoring framework. Following years of scoring experience using the MAP framework and using insights sourced in Ken Wilber's Integral Theory (the AQAL model, 1995), O'Fallon proposed that a small set of underlying parameters could be used to explain (and score) the entire developmental sequence. This idea, in its final form after several iterations, has proven to be a valid method to understand and assess ego development.

STAGES defines 12 developmental levels (stages) in three tiers (Concrete, Subtle, and Metaware) with each four levels each. The levels in each tier progress through a sequence of four learning-and-acting orientations: Receptive, Active, Reciprocal, and Interpenetrative. The sequence is also defined as progressing through 6 "person perspectives," each of which has an early (passively oriented) and late (actively oriented) phase. The STAGES are thus identified as 1.0, 1.5, 2.0, 2.5...6.5, where the "1." to "6." reflect the six person perspectives and the ".0" and ".5" reflect the early and late phases of each person’s perspective. Appendix 2 contains figures illustrating the STAGES levels, and for a detailed description of the STAGES model, see other articles in this journal special issue and material at stagesinternational.com.

Because it does not rely on exemplars but rather on underlying language properties, it is much easier to create modifications to the STAGES SCT compared to the other variations. The same scoring heuristics are used regardless of the sentence stem, and new stems can be added to the SCT without the need to conduct extensive research into how people might respond to the prompt. O'Fallon has developed several "specialty protocols" using alternate sentence stems, and in each case the internal consistency of the SCT remains high. In addition, because it is based on language properties rather than specific exemplars, STAGES is less susceptible to drifts in word meanings over generations and should be easier to apply to multiple languages. Finally, using generic theory-based scoring rules allows the method to be extended beyond the SCT to preform developmental analysis on arbitrary texts such as reflective essays, story narratives, speeches, and books (O'Fallon has applied the method to such texts, but we lack validity studies on these novel applications). (Note that, despite the notes above on the flexibility of the STAGES for creating alternative SCTs, the studies reported in this paper regard the standard-length "general" protocol, which has significant overlap with the stems of the other SCT variations.)

STAGES is also a fully "hard" stage theory in that its stage boundaries are determined by theoretical rather than empirical or practical considerations. The number of stages and their boundary lines changed several times during Loevinger's work, and Cook-Greuter made additional modifications based on empirical or pragmatic reasoning. Loevinger and Cook-Greuter explicitly chose a data-driven rather than theory-driven foundation for the ego development model, meaning they wanted the model to be driven by real observations rather than by assumptions imposed by an abstract theory. It is however difficult to claim that one has the correct or best stage definitions under such circumstances.

Data-driven methods are best for new and emerging theories, but at some point theory-driven approaches become feasible when enough is known to propose a stable set of underlying mechanisms that give rise to surface features of the data (the neo-Piagetian developmental models of Commons and Fisher are also theory driven). The number, sequence, and boundary conditions of the STAGES model directly originate from its theoretical assumptions and will not change any time soon. Of course, science evolves through an iterative dance between theory (ideas) and evidence, and even set-in-stone theories must be occasionally re-evaluated in light of new data. O'Fallon readily acknowledges that a day will come when STAGES is superseded by another model – personal communication.[5]

The above paragraphs describe how STAGES differs from other SCT variations, including its purported benefits. Although this allows coordinating the results of our study with other SCT variations, it is important to note that for the purposes of the study reported here, STAGES is largely similar to its predecessors.

The first proof of this is argued in detail in "The Validation of a Novel Method for Assessing Developmental Stages of Meaning-Making Across the Life Span" (O'Fallon et al., 2020), which reports on a "replication study" of its concurrent validity showing that, for stages up to 4.5/Strategist, scoring with the STAGES scoring methodology correlates exceptionally well with Cook-Greuter's MAP method (and presumably the other SCT variations which are more similar to MAP). For stages above 4.5/Strategist, the definitions of levels diverge too much and there is insufficient data available to perform a proper comparison. However, from Cook-Greuter (2013), we can estimate that approximately 2% of the population or 7% of professionals are above the 4.5 level, so the replication results apply to the majority of people.

Second, it can be argued that the SCT has strong reliability as a methodology regardless of the mentioned variations.[6] This was reported in "The STAGES Specialty Inventories: Robustness to Variations in Sentence Stems," where O'Fallon created about six specialty protocols with alternative sentence stems. These all show high internal consistency via the Cronbach's alpha measurement, indicating that the SCT method is robust over many possible sentence stems (assuming they are rationally designed). In addition, as illustrated later in this paper using a "Cronbach-Mesbah curve," the SCT continues to have strong consistency even for 10 stems (.92), and even at 5 stems the metric is good (.85). In addition, the IRT and Rasch analysis reported later shows that all the 36 stems but one are strongly correlated with each other.

This all indicates that the SCT is a strong and valid methodology regardless of its variations and that certain results from one variation should be applicable to others. This claim weakens for developmental levels at the upper and lower extremes where there is less empirical data and more tentative theoretical understanding, but we do not yet have a sense regarding how much it weakens.

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[5] We should also note that, because the scoring rules (manuals) are different, the territory for each level defined by the STAGES model need not map *exactly* onto the same territory in the prior models. Our understanding of the psychological and cognitive characteristics of each developmental level contains many aspects (e.g. ability to utilize to feedback, use of either-or vs. both-and language, and how past and future are conceived), and persons identified at level X in STAGES may, on average, have slightly different characteristics vs. persons identified at that same stage in another model. What *has* been empirically demonstrated (O'Fallon et al., 2020) is that, with all of these characteristics taken together as a whole to describe each ego development level, the STAGES model tracks very well with the other models (up through 4.5/Strategist).

[6] Statistical reliability refers to the consistency of a measure, i.e. whether it produces similar results under consistent (accurate, reproducible, and consistent) from one testing occasion to another, having acceptably small random errors. Overall reliability can include inter-rater reliability, test-retest reliability, and internal consistency.

Prior SCT validations

The literature on the SCT is extensive and includes over 40 years of meta-analyses and critical overviews, substantially supporting its validity and usefulness (see Cohn & Westenberg, 2004; Manners & Durkin, 2001; Holt, 1980; Novy & Francis, 1992; Jespersen et al., 2013; Westenberg et al., 200b; Forman, 2010). The paper "Sentence completion assessments for ego development, meaning-making, and wisdom maturity, including STAGES" (Murray, 2017) contains a lengthy summary of such studies, illustrating the validity and reliability of the SCT and confirming Westenberg et al.'s conclusion that "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485).

Blumentritt (2011, p. 153) says that "more than 1,000 articles and book chapters have been published examining nearly every conceivable aspect of the construct and measurement of ego development," overall showing "substantial support" for the theory and measurement. Most of these studies are based on the WUSCT, but some use the MAP/GLP/LDP variations. For the reasons given above, we claim that these results apply to STAGES as well, and results of the meta-analyses include:

- "Psychometric studies of the WUSCT…invariably report high levels of inter-rater reliability" (Westenberg et al., 2004a, p. 603; and see Torbert & Livne-Tarandach, 2009 for strong results on the MAP, GLP, and LDP; and O'Fallon et al., 2020 for strong IRR on STAGES).

- "The WUSCT [displays] high internal consistency: Most studies report a Cronbach's alpha of .90 or higher" (Westenberg et al., 2004b, p. 693; and see Torbert & Livne-Tarandach, 2009 for strong results on the MAP, GLP, and LDP; and later in this paper for strong internal consistency in STAGES).

- "In terms of test–retest reliability, when sufficient time is allowed between the two tests to allow for motivational effects, significant correlations have been found between test and retest scores" (Manners & Durkin, 2011, p. 545).

- "The face validity of the SCT is demonstrated by the sheer fact that it has been used in more than 300 research studies [including] such diverse topics as parenting behaviors, managerial effectiveness, and the effects of meditation on recidivism rates" (Phaffenberger, 2011, p. 10).

- The SCT has "excellent reliability, construct validity, and clinical utility" (Westenberg et al., 2004a, p. 596).

- Longitudinal studies have confirmed the sequential invariance of the developmental steps (i.e., no stage can be skipped) (Loevinger, 1998).

- The SCT has incremental validity over IQ and SES measurements (e.g., Browning, 1987; Cohn & Westenberg, 2004);

- The SCT has proved applicable in different countries, cultures, and languages (see Carlson & Westenberg, 1998).

- Although there have been fewer studies on the predictive validity of the SCT, Vincent notes that "a growing body of studies is showing associations between increasing consciousness development and better leadership performance and organizational outcomes" and cites a substantial 21 articles in this regard (2015, p. 2). Other indications of predictive and external validity can be found in (Torbert, 2014; McCauly et al., 2006; and Harris, 2005).

Torbert (2014) summarizes a number of studies on the MAP, GLP, and LDP instruments that arose after the WUSCT.

Our study adds to these findings about the SCT (confirming a few of them) and focuses on two areas that have been under-researched: item-level statistics and methods for aggregating the SCT items into the overall score.

The Ogive and TWS Aggregation Methods

How to calculate the overall score of the SCT turns out to be a complex question. One reason is that participants are expected to exhibit a range of developmental levels in their answers. In a projective test the subject is responding freely, rather than trying to score as high as she can, and it is actually viewed as more healthy or well-rounded when responses range over at least 3 or 4 levels (however for individuals at low developmental levels there is less room to range over). A survey with all items within a tight range of 2-3 levels is not only unusual, but it is considered possible evidence for a rigid personality style.

Most psychometric tests take the simple sum or mean over their items, although sometimes the items are weighted according to difficulty or information power. This is however not a particularly satisfying method for the SCT. For a projective test where the subject is not attempting to "answer" or "solve" anything, some items may demonstrate the subject's true competence while others may naturally be more "off the cuff," meaning short and simple, playfully carefree or irreverent, or even impulsive or unreflective "outbursts." Our intuitive understanding of the construct and the test seems to demand that we focus on the highest scores that the subject produces.

For example, if someone attains a score of, say, 4.5/Strategist level on 8 of the 36 items, then they must have a strategist level of meaning-making, because according to both the theory and empirical evidence, it is difficult to "fake" or "guess" items to produce a score higher than one’s actual developmental level (Redmore, 1976). Whether the other scores on the test are near 4.0/Pluralist or 2.5/Conformist does not change the fact that they seem to have achieved a 4.5 developmental level. However, having the rest of the scores at 4.0 vs. 2.5 *does* strongly affect the average or sum of the items. One of the justifications for using the SCT cutoff method is that it prioritizes higher scores (or more accurately scores that are rarer within the population).

Within the Loevinger tradition there are two established methods for aggregating the 36 SCT items to obtain an overall score for the survey: the ogive and the TWS. The most commonly used by far is a cutoff method called the ogive method (yielding the total protocol rating, or TPR, sometimes called "center of gravity"). In the ogive method, one follows a procedure to check each level in turn to determine whether there are sufficient scores at or above that level. The ogive cutoff method essentially "throws out" data beyond the cutoff. According to Cook-Greuter (1999, p. 222), "One thus rates a test at the highest stage that is exhibited if enough evidence at that stage is present and not enough at the next higher level." The cutoff number varies over the levels, as detailed in Appendix 1.

Holt et al. describe Loevinger's reasoning: "Human development has this odd, psychometrically inconvenient property of maintaining the potentiality to respond on many lower levels after one has, in a certain sense, left them behind. The ogive rules respect this peculiarity and allow for it" (Holt et al., 1980, p. 917). Cook-Greuter says the ogive (or center of gravity score) "is assumed to reflect a person's most ego-syntonic and habitual frame of reference or preferred mode of responding to life."

The other aggregation method which is usually calculated along with the ogive, but is much less frequently used regards the total weighted score (TWS) method,[7] which sums the scores over the 36 items and returns an integer typically in the 300-600 range. The formula used for STAGES is: (f_1.0 * 2) + (f_1.5 * 3) + (f_2.0 * 4) +...+ (f_6.5 * 13), where for example f_1.5 is the count (frequency) of completions scored at 1.5.[8] There are slight variations on the constants used in this formula for different frameworks.

The ogive method is preferred because Loevinger believed that its categorical result is more meaningful and has more construct validity compared to the TWS method. The theoretical model, the scoring manual, and the scores assigned to individual completions are all based on a sequence of discrete categories.[9] Researchers in the psychological and social sciences almost universally acknowledge that psychological phenomena are complex and that using discrete categories involves substantial simplification which is thus performed for practical reasons. There is considerable debate within the developmental psychology community regarding whether development occurs continuously or in spurts that create quasi-discrete levels or stages (see Dawson et al., 2005 for some evidence of discrete spurts). However, no research has tested whether the construct of ego development actually grows continuously or in spurts, so the use of categories rather than a continuous scale represents a practical and/or theoretical decision but is unsupported from an empirical perspective.

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[7] The "weighted" in TWS is actually misleading, as the score is very close to a linear sum of the 36 scores. The term weighted is probably an artifact of the fact that originally the data was represented using frequency vectors, i.e., for a system ranging over 10 levels (as in MAP) the data had 10 values, each showing the count of scores at that value. The method was used prior to personal computers, and saving 10 numbers was easier than saving 36 numbers (the values for each completion). Unfortunately, because of this, archived data from most surveys in this tradition is missing important per-item information. We know that, for example, a survey had 14 items at the "Expert" level, but we don't know *which* of the 36 items scored at the Expert level. This makes certain types of analysis, including IRT analysis, impossible with such archived data.

[8] Note that the Ogive cutoff method, which returns a category (ordinal) value, must be implemented with a procedure (i.e. checking the cutoff at each level in sequence, and if it is not satisfied moving to the next level...), whereas the TWS method is implemented with an algebraic equation.

[9] Loevinger's scoring manual does allow for assigning "borderline" scores; and the manuals developed by Cook-Greuter, Torbert, and O'Fallon, allow for the refinement of the stage-based scoring to specify whether an item is early, central, or late within a stage.

Although the discrete ogive measurement is predominantly used, the continuous TWS measurement is sometimes used for comparative, pre-post, or longitudinal studies since it is more sensitive to small changes. It can require years for individuals to change one developmental level if they do at all.

The ogive cutoff values are theoretically or conceptually inspired by Bayesian probabilistic principles (Lee, 2012) and concern how much information is needed to conclude that a person is at level X with for example 95% confidence.[10] (95% is usually chosen as the confidence factor to use.)

As noted in Appendix 1, the cutoff procedure begins with the top level and proceeds to check each lower level until 3.0/Expert, at which point it switches to testing the lowest level and works its way up to 2.5/Conformist (the same method is used for Loevinger and Cook-Greuter with slightly different stage sequences compared to STAGES). This follows the principle of first checking for the least likely possibilities. The 2.5/Conformist level was determined to be the "average" or most frequent level (the "prior probability" in Bayesian terms), and thus the final step of the procedure selects 2.5 as the default "if there is not sufficient evidence for any of the other levels." It is the "default" level i.e. the one guessed given no other information.

Note that in actual scoring for clients according to both the STAGES method and the earlier WUSCT and MAP methods, the analyst can adjust the final total score based on global subjectively determined factors. An ogive score, especially one on the edge of a cutoff value, can thus be tweaked up or down a level given sufficient evidence from considering the big picture over all stems (remember that each stem is scored by itself without influence of other stems or the whole). Our analysis estimates that this TPR adjustment is performed less than 10% of the time.

Problems with Ogive and TWS Aggregation Methods

Here we arrive at one of the main purposes of our present study. The ogive method has several drawbacks and even seems to include some errors within the assumptions used to determine the cutoff numbers. Given the large number of studies using the SCT, the ogive method for accumulating items is surprisingly rarely if ever questioned or analyzed. One reason for this may concern the large number of studies in the field, as one wants to build upon and be able to compare results with prior studies, and questioning foundational assumptions of a well-established framework might appear counterproductive to many research goals.

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[10] Based on the idea that, as in medical diagnosis, the rarer a symptom, the greater its predictive power.

We will mention problems with cutoff methods and problems specific to the ogive cutoff method, specifically:

1. Lack of empirical support for discontinuous levels
2. No population studies for Bayesian estimates.
3. Difficulties estimating extreme values
4. Lower cutoffs confuse development with "shadow" evidence
5. Sensitivity to error
6. TWS misalignment
7. Additional issues with the TWS multipliers
8. Errors in the ogive formula and assumptions

Lack of empirical support for discontinuous levels. The cutoff method forces survey scores into discrete categories, but there is no evidence that ego development grows in discontinuous spurts. One of the leading researchers using the SCT notes:

> The ogive rules are ingenious procrustean devices to make gradual transitions look like phase changes, translating continuity into discontinuous types. Naturally, therefore, at the borderlines, scoring gets much more unreliable... Furthermore, since these rules put special emphasis on the few most extreme scores, [the total scores] become even less reliable the farther we get from the center of the distribution of the population. (Holt, 1980, p. 918)

No population studies for Bayesian estimates. A problem with the cutoff method is that, based on Bayesian probability concepts, it makes assumptions about the overall population, which entails three problems:

1. In fact there are no large scale (population-scale) studies using the SCT (in part because it is time-consuming and thus expensive to score). Loevinger's estimate of Conformist as being the average (i.e., the prior probability) was an educated guess based on a number of studies (each with subjects in the hundreds at most), however many of these studies regarded populations such as pregnant mothers, prison populations, and others with below-professional educational or socioeconomic status. This may be a reasonable guess for the average U.S. population, but the modern uses for the SCT predominantly concern professional or self-improvement contexts where "leadership skills" and "self-reflection skills" are considered important. Articles by Cook-Greuter, Torbert, and O'Fallon have tried to estimate the percentages of each developmental level within specific populations such as the general population, college-educated, professionals (managers), and consultants (see Cook-Greuter, 2002; Torbert & Livne-Tarandach, 2009), but none of these are based on random samplings of populations.

2. Within any specific population, the base estimates ("prior probabilities") will differ, and thus the Bayesian assumptions differ and therefore the cutoffs should ideally be modified, but this is never performed. In practice, the lower and middle cutoff numbers, including the procedural "switch-over" after 3.0/Expert from checking downward to checking upward, are never modified. This is probably because one desires results to use standard methods and to be comparable with past research in the field. In addition, gathering

enough data in any sub-population to determine the proper new cutoffs is usually prohibitively difficult.

3. Several sources indicate that the population as a whole becomes more sophisticated over time, suggesting that the base rates should evolve over the decades. This factor is also ignored when retaining standard ogive cutoffs.

Difficulties estimating extreme values. The Bayes-based method for determining the ogive cutoffs (details in Appendix 1) is particularly problematic near the upper and lower extremes or for the rarest scores. Loevinger says, "The rule is not helpful at extreme ratings. However, the number of cases per category at the extremes is so small that theory or intuition is a more reliable guide" (p. 121). Cook-Greuter (1999) says:

> Employing Bayes' theorem for the problem of determining cut-off numbers at the high-end was a creative move by Loevinger at the original time...On the other hand, I found Bayesian reasoning alone inappropriate at the upper end...Therefore, I felt that cut-off numbers needed to be related to the actual number of post-autonomous responses observed...rather than merely based on probabilistic calculations. (p. 228)

Cook-Greuter chose stricter cutoff criteria for the top levels compared to Loevinger and notes that the question of "how many pieces of evidence one requires to draw a conclusion, is a necessary step. It is also arbitrary – arbitrary not in the sense of random or capricious, but in the sense of arbitrated, reasoned, deliberated" (p. 224).

The populations of interest in many contemporary assessment projects are in or near what Loevinger considered the "extreme" of the upper end, and thus these problems are central to modern assessments rather than being relinquished to rare occurrences. Cook-Greuter and associates have recently adjusted their cutoff values and no longer rely on Bayesian reasoning (personal communication) but continue to use a similar cutoff scheme, which is thus expected to include most of the issues mentioned here. When adding three new levels to the scheme for the STAGES model, O'Fallon had to take an educated guess for the cutoff numbers of these new levels (each of which split a prior level in half).

Most statistical metrics involve some quasi-arbitrary parameter or parameters (e.g., when using p-values to estimate statistical significance, the significance cutoff alpha is chosen as 5% or 1%, etc.). However, the degree of arbitrariness in the ogive method is considerable given the methods for determining the cutoffs and the fact that there are at least as many such arbitrary parameters in the method as there are levels.

Lower cutoffs confuse development with "shadow" evidence. The scoring rules, including the examples given in the scoring manuals used for WUSCT and MAP, seem to confuse the immature development of ego with "shadow-crashes" or momentary regressions to lower ego levels that may be triggered based on the subject of the stem. Because the levels 1.0/Impulsive and 1.5/Opportunist are "rare" in normal adult populations, they are checked before 2.0/Rule-oriented and 2.5/Conformist in the ogive rules (see Appendix 1). A person needs only 7 of the 36 stems rated at 1.0, 1.5, or 2.0 to have their center of gravity (TPR assigned to those levels respectively. Achieving such a low rating can result from a simplistic one-word answer but it can also result from a seemingly narcissistic or impulsive answer, including the use of vulgarity or mentioning of violence. We argue that the scoring method confuses actual level of development with "shadow crash" phenomena for lower-level responses.

For example, a person may have 19 stems at 3.5/Achiever yet will achieve an ogive score of 2.0/Rule-based if they have only 7 stems at 2.0 or lower., and such a person's center of gravity should clearly be closer to 3.5 than 2.0. Because there are very few people with a center of gravity below 2.5 in the populations that currently use the SCT, this problem has not been salient, however one area where it is limiting regards studying children. O'Fallon wants to use the STAGES model (and has already collected data) for pre-adult populations, and in such cases one desires a more reliable measure of ego development that is not conflating emotional outbursts or "triggered" responses with simply lower levels of ego development (perspective taking).

These problems of conflating maturity with shadow in the lower levels represent an additional reason for transitioning from the cutoff system. This suggests having separate measurements for developmental level (e.g., a sum or average score like the TWS) vs. a shadow-related measurement (e.g., counting the number of low-level, more impulsive, or reactive scores). We later propose such a system.

Sensitivity to error. As mentioned by Holt, surveys with score counts near the cutoff levels are particularly sensitive to error introduced by random or uncontrolled factors, including scorer variability. For example, if the cutoff for some level is 10 items and a survey has 9, 10, or 11 items at that level, then a small difference in item scores such as due to scorer error or to a person not expressing themselves "at their best" in the moment of completing the stem would have resulted in bumping the total score to a higher or lower developmental level. Each developmental level has a significantly different description than its neighbors, so this small difference can create a large change in outcome. (O'Fallon often scores to an extra level of detail to ameliorate this issue by specifying early, mid, or late within the stage, but most trained scorers do not perform this.)

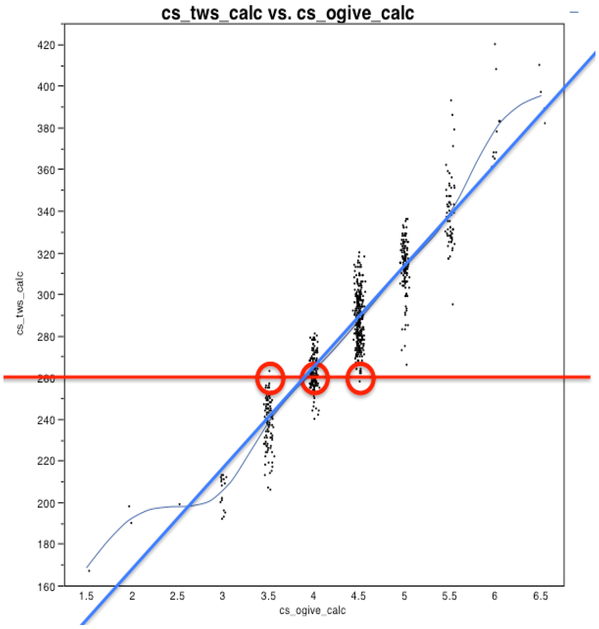

Figure 1. Ogive vs TWS.

TWS/ogive misalignment. The cutoff method produces unsystematic alignment with the TWS (or any linear item aggregation), making them difficult to compare. See Figure 1, which plots TWS vs ogive values for each survey in the STAGES database (described in the Methods section; the TWS vs ogive graphs for all of the SCT variations will have similar properties). For example, at TWS=260 (red horizontal line) there are three possible ogive values, and for an ogive value of 3.5 the TWS scores range from approximately 210 to 265. Since the TWS is a straightforward linear sum (see above footnote) of the scores, it corresponds to a more traditional and scientifically understood measurement. Scoring manuals include rough advice on how to compare TWS and ogive scores. Loevinger (1998, p. 26) includes a table with TWS ranges such as E4 conformist > TWS 146-162; E5 Self-aware > TWS 163-180; E6 Conscientious > TWS 181-200. It is problematic that the ogive has such a complicated mathematical relationship with the more basic, intuitive, and standard summation statistic used in most psychometric research, and this peculiar behavior is a direct result of using arbitrary cutoffs at each level.

Additional issues with the TWS multipliers. The progression of weights used for the standard SCT TWS calculation is somewhat arbitrary as well. In the MAP system, the lowest frequency is multiplied by 2 and the next by 3, etc., with the multiplier increasing by one per level (see Appendix 1), which makes the TWS very nearly like a summation but not exactly the summation of the items.[11] The integer progression of multipliers assumes an equal separation between each level. However, because Loevinger and Cook-Greuter occasionally modified the stage number and boundaries of their models based on data-driven and pragmatic factors, essentially changing the "joints" in how the spectrum was "cut," this assumption cannot be made.

Nothing in the theory or data analysis could address the issue of equal spacing between the levels, and thus the TWS multipliers remained arbitrary and kept shifting. With the insertion or collapsing of a level, the TWS multipliers are re-set. For example, they might still increment as in 2,3,4..., but these multipliers could correspond with different levels in any revised system, which made revised TWS values incompatible with prior results. We replace the ogive cutoff with a system that uses sums/averages in a way that does not have arbitrary multipliers and will not have to be modified as the model/theory evolves. We also show the analysis of equal spacing in the STAGES levels.

Errors in the ogive formula and assumptions. Several of our statisticians (Dolan, Johnson, Polister, and Blazej-Neradiek) have pointed to fundamental flaws in the reasoning behind the equations cited by Loevinger and Cook-Greuter and the Bayesian reasoning used. It seems that of the hundreds of studies building on Loevinger's work, none checked these basic assumptions. We believe that the flaws in these assumptions indicate only small mathematical errors on average and do not imply the need for significant revisions in past studies, however when desiring a strong foundation for the SCT, these errors represent another reason to transition beyond the ogive cutoff method. The most affected conclusions of past studies are probably those that make inferences to the general population. These types of inferences represent a very small percentage of the results of published studies, which are usually seeking correlations between ego development and other phenomena (conclusions which remain largely valid in light of the errors we will mention) rather than making claims about whole populations.

First, the formulas used by Loevinger seem to assume independence among the stems, which is not the case. Second, although the ogive method is inspired by Bayes' theorem, it also seems to violate certain principles in Bayes' theory. In the ogive procedure (Appendix 1), if a cutoff values is satisfied (e.g., 4 items are at or above 4.5/Strategist) then all other information is disregarded (i.e., the other 32 stems). Central to Bayesian theory however is the idea that each new piece of information accumulates to inform the estimate of the resultant probability, meaning information is not discarded. Third, one of our consultants noted that the method "makes sense only if the number of people above and below a level are more or less equal, which is not usually the case."

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[11] For a simple summation, the multiplier of each level would be the order of that level, i.e. the frequency (number of) the first level would be multiplied by 1; the frequency of the second by 2, etc.; again, under the (problematic) assumption of equal level spacing.

Finally, the equation used to calculate probabilities for any level is (from Cook-Greuter, 1999; and Loevinger & Wessler, 1970):

$$Ps = \frac{Pr * {T_p}^x}{Pr * {T_p}^x + (1 - Pr) * {F_p}^x}$$

Where: P_s = probability that a person is "at" some stage s; x = number of positive signs for stage s; Pr = the assumed proportion of the population at stage s (prevalence or prior probability); Tp = the assumed true positive rate of a single sign to correctly classify at stage s (sensitivity); and Fp = the assumed false positive rate of a single sign to incorrectly classify not at stage s (1 - specificity).

Consultants Polister and Blazej-Neradiek produced a report illustrating in detail that the ogive formulation: (1) tries to assume that the survey items are independent, which they are not; (2) makes an error in the probability algebra, which has significant impact on outcomes; and (3) that the values for parameters Pr, Tp, and Fp are too arbitrary, subjective, and sensitive (i.e. small variations have substantial impacts).

The details of this report exceed our scope here (copies of that report are available from Murray). We present all of the above information as second-hand to report what our consultants found, as the author lacks the statistical skills to verify or reproduce these arguments from scratch. Such arguments are however not necessarily needed given that Cook-Greuter (in her 1999 dissertation) made significant efforts to critique Loevinger's strict use of Bayes' theorem to determine the cutoffs, especially for the higher levels. Although there was much hand-wringing in justifying the new set of chosen cutoffs, in the end they were arbitrary, as she says they are "arbitrary not in the sense of random or capricious, but in the sense of arbitrated, reasoned, deliberated." She provides a logical rationale for her cutoffs, but not a *compelling* or compulsory one, meaning that – i.e. another researcher might produce completely different cutoffs, using a valid but different rationale. The cutoff method was so standard an aspect of the SCT method that finding an alternative was, apparently and understandably, too radical a break with the tradition, and. So the "battles lines" of the methodology were thus drawn at *what* the cutoffs should be rather than *whether* a cutoff method should be used.

Summary. That there seemed to be significant problems with the ogive method was agreed upon by *all* of our consultants who familiarized themselves with the equations used (Dolan, Johnson, Neradilek, and Polisar).[12] In addition, another one of our consultants who took a cursory look at the ogive method, called it outright "indefensible." It is also true that no consultant could recall anything like this Bayesian-inspired cutoff method being used in test psychometrics in psychological or social science research.

Research Methods and Results

Method and Data Source

We include the method and results in the same section because we apply various statistical tools and software packages to a pre-existing dataset to answer our research questions. Some analysis was conducted using the R statistical package's popular IRT module (the lmt R library), while most used the Winsteps software (winsteps.com), which specializes in Rasch analysis (i.e., one parameter IRT) (Rasch, 1980; Andrich, 1988; Bond & Fox, 2001). The IRT and Rasch analysis are described in Appendix 3.

Our dataset originates from the software package and website that has been used for (1) subjects to take the SCT (survey) online and have their responses and demographic information stored and (2) for certified scorers to read a subject's responses to SCT stems and rate stems and the entire survey based on procedures outlines in the STAGES scoring manual. The data were collected and are owned by STAGES International (which was originally run by O'Fallon's prior organization Pacific Integral). We used data from the "general protocol" containing the standard 36 stems for the STAGES SCT. The data were anonymized to contain no identifying information and were stripped of the sentence completion text, with the result that the only relevant data for each survey item are the item score (1.0 to 6.5) and survey-level numerical data such as the TPR.

The data consist of 740 surveys taken by 644 clients (some took the test more than once) between March 2009 to July 2018 (i.e., over about 9.5 years). 330 clients were female, 272 male, and 42 of unknown gender. Education levels varied widely, but the vast majority were professionals with college degrees. The age frequency per survey is: 16-29: 49; 30-39:149; 40-49:186; 50-59:171; and 60-77: 115 (i.e., a relatively mature subject pool). Subjects were from a variety of locations around the world (mostly from the U.S, and EU but included Ethiopia, Australia, New Zealand, Canada, Russia, Kosovo, Pakistan, and China). All the participants spoke English as their first or second language.

Descriptive and Basic Item Statistics

Histograms. Figure 2 shows histograms for the score at the item and survey (protocol) levels. (Note that this does not represent all of the data O'Fallon has from scoring, especially for the top two levels, as there are some small research projects that are not stored in this database.) Stage 4.5 surveys predominate, which indicates the types of clients and research subjects that come to STAGES International. Frequencies at the item level are high at 3.5, 4.0, and 4.5, which differs from the survey level in large part due to how the ogive method focuses on the higher scores.[13] The IRT methods used in our analysis are robust with regard to such skews in data representation, so our conclusions should be valid for all levels except 1.0, 1.5, 2.0, and 6.5, which have very low representation.

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[12] Note that we did not set out to, or ask these consultants to prove that the ogive method was flawed. At most we summarized arguments made by other consultants, and asked them to verify or argue with those.

To test whether standard statistic methods would apply to these data, we first investigated patterns of the 36 items within the survey and specifically the standard deviation of item scores and their normality (skew and kurtosis).

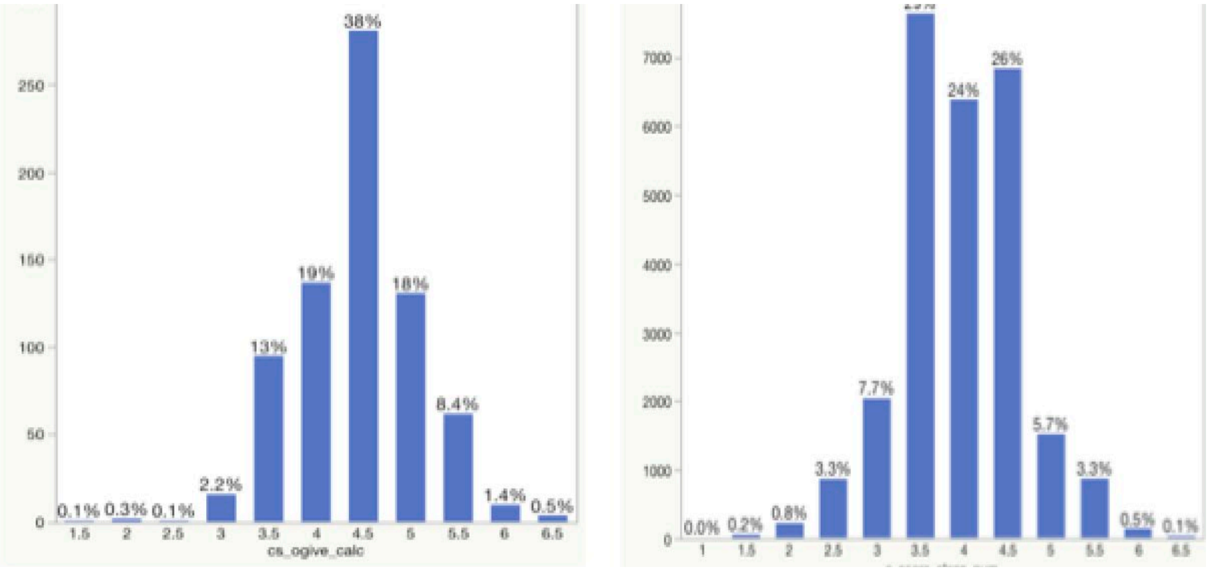

Figure 2. Histograms – Left: Survey ogive (TPR); Right: Item Scores for each level.

Table 1. Data shown in Figure 2.

Stage:	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	Total
#surveys	0	1	2	1	16	95	137	281	131	62	10	4	740
#items	4	57	223	870	2040	7641	6388	6839	1522	874	146	36	26640

Skew and kurtosis. We checked the skew and kurtosis measures for items within a survey, which assess how close a dataset is to a normal (bell-shaped) distribution within each survey. This answers the question of whether items on average tend to "pile up" toward the earlier or later end of the scale. Figure 3 illustrates how skew and kurtosis represent deviations from a normal distribution. Skew can be described as "lack of symmetry around the mean" and kurtosis can be described as having a long (heavy) tail. Acceptable values for both are considered to be within -2 to +2.

For our 740 surveys, the mean kurtosis was 0.37 and the mean skew was 0.18, meaning on average the scores within a survey are normally distributed around the mean. This is a bit surprising since the conventional assumption might be that, for the populations in the database, there is a longer "tail" of off-the-cuff (or shadow) answers into the lower levels. That the score distributions within surveys tend to be normally distributed, which gave us confidence that more standard aggregation methods would be applicable.

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[13] Note the curious dip at 4.0 for item scores. We are still looking into why this might occur.

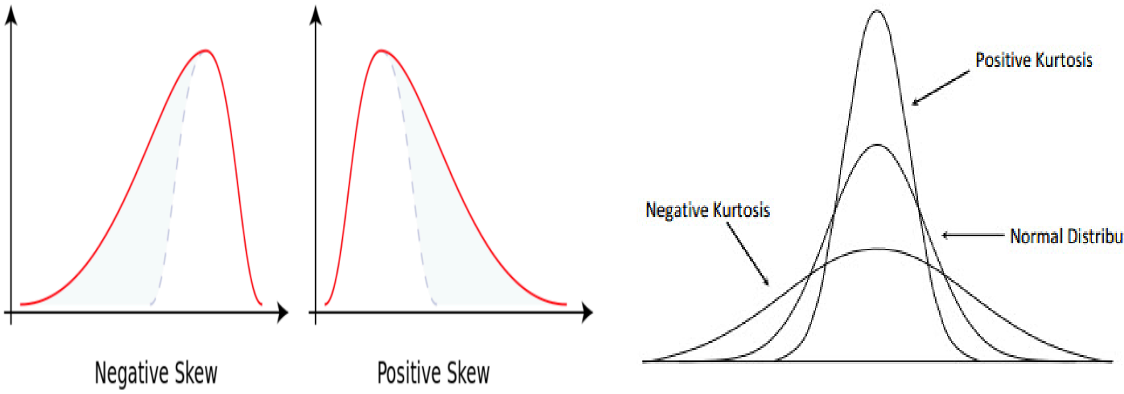


Figure 3. Illustration of skew and kurtosis deviations from a normal distribution.

Standard deviation. We also examined how the standard deviation of scores within a survey varied based on the overall survey score (ogive). The results in Figure 3 show that the standard deviations for all levels (other than the top and bottom 1.0 and 6.5) are remarkably similar (.8 to 1.2). (The error bars in the figure show the variance in the standard deviations). The overall shape of the distribution of the 36 scores within a survey thus changes little for individuals at different centers of gravity, meaning that the spread of scores or width of the item's "bell curve" within a survey is surprisingly uniform regardless of the stage. There is however a slight upward trend, which would be expected because the higher the score, the more room one has to "roam" within a projective test.

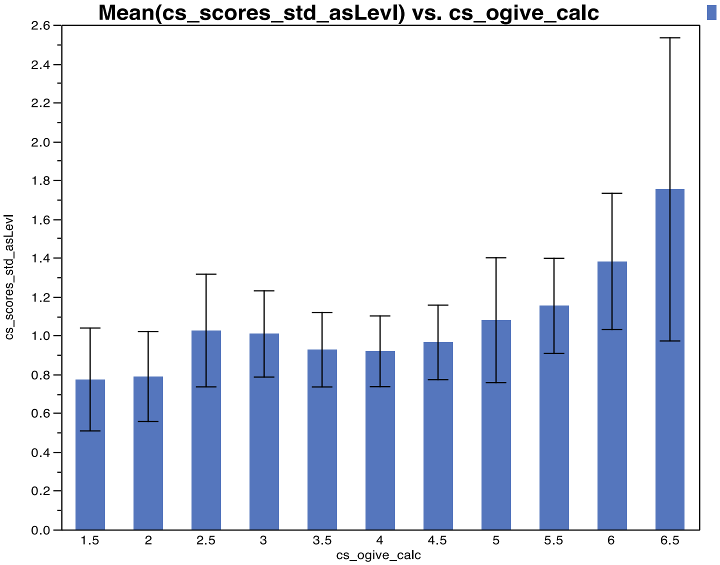


Figure 4. Standard deviation survey scores vs. stage.

These metrics also provide information about what the cutoff method is "throwing away" since it focuses on the highest scores (the number that depends on the level – see Appendix 1) and ignores the rest. As explained later, eventually we decided to calculate the total score using a standard number (6) of the highest stems. The normal distribution of the data and the fact that the SD shows the items cluster around +/- 1 or 2 levels from their mean support the reasonableness of this type of aggregation method.

Test length. Figure 5 shows a Cronbach-Mesbah curve illustrating the Cronbach's alpha score for successively fewer test stems (with the worst correlated items removed first). The curve shows that for a half-item test, the reliability is still excellent (.95) and that even with 10 stems, the SCT has very good reliability (.92) and that even at 5 stems the reliability is quite good (.85). This supports any future projects that use surveys with fewer than 36 items (which are now being deployed by Stages International). From a purely statistical perspective, one might wonder why the SCT uses so many items (assuming this pattern was also true of the WUSCT or MAP variations of the SCT, although we lack item-level data for these). According to O'Fallon, the full set of 36 responses is important for identifying themes and patterns in the detailed reports and coaching sessions given for individualized SCT assessments (personal communication).

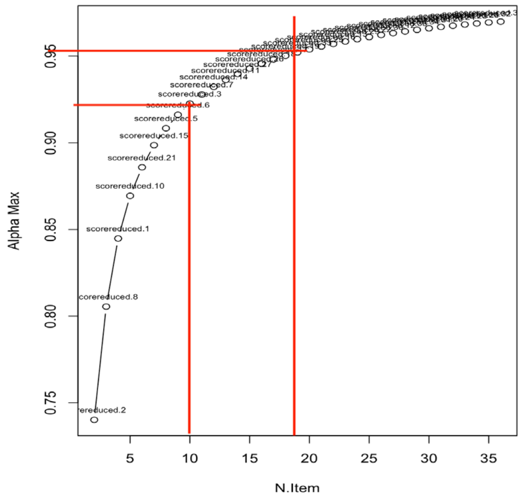


Figure 5. Cronbach-Mesbah curve.

Factor analysis. Figure 6 shows the output of a factor/component analysis of the data which, along with the numerical output, confirm the prior finding (for the WUSCT and now for STAGES) that the SCT loads on one factor and seems to be measuring one latent variable. This means that among the 36 stems, none seem to cluster together as if they were measuring a sub-skill of the overall capacity.

Item difficulties and item standard deviations. As a projective test, the SCT theoretically assumes that all items are approximately of equal "difficulty" on average. The stems are intended to "triangulate" or parallax the measurement from many life contexts (family, self, work, public life, etc.). Individuals are expected to vary regarding which life contexts evoke lower level responses (as in "shadow crashes), but the item differences are assumed to be entirely personal rather than based on item difficulty. We can use IRT to test this assumption.

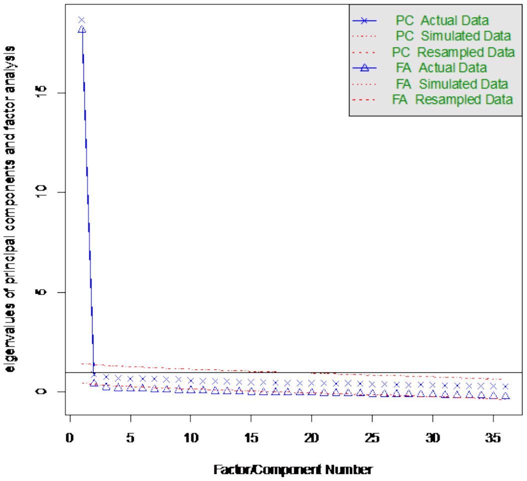
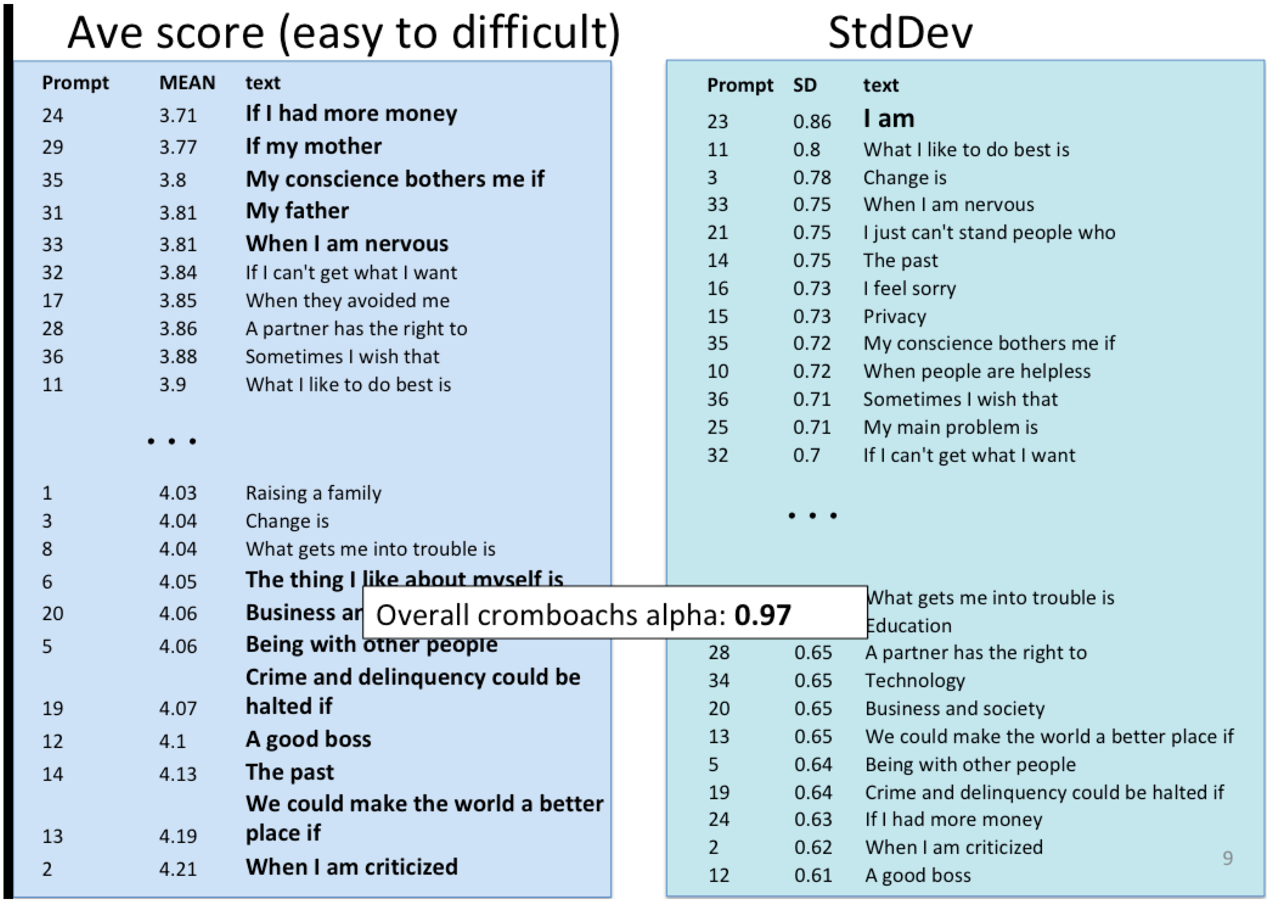


Figure 6. Factor/Component Analysis.

How different are the 36 stems? Figure 7 shows "High and Low Averages" and standard deviations per stem, and the tables are truncated to show only the highest and lowest thirds. The average score for each stem ranges from 3.71 to 4.21, which is a rather modest range indicating a small variability in stem "difficulty." Some of the stem difficulties correspond to what might be expected based on the abstraction or complexity of the stem concepts. For example, "if my mother" and "when I get nervous" elicited lower scores, and "Crime and delinquency could be halted if" and "we could make the world a better place if" elicited relatively high scores on average. The figure also shows that the stem "I am" has the highest standard deviation, which is consistent with the later IRT analysis showing it stands out as correlating the most poorly with the set of stems.



Ave score (easy to difficult)

Prompt	MEAN	text
24	3.71	**If I had more money**
29	3.77	**If my mother**
35	3.8	**My conscience bothers me if**
31	3.81	**My father**
33	3.81	**When I am nervous**
32	3.84	If I can't get what I want
17	3.85	When they avoided me
28	3.86	A partner has the right to
36	3.88	Sometimes I wish that
11	3.9	What I like to do best is
	• • •	
1	4.03	Raising a family
3	4.04	Change is
8	4.04	What gets me into trouble is
6	4.05	**The thing I like about myself is**
20	4.06	**Business ar**
5	4.06	**Being with other people**
19	4.07	**Crime and delinquency could be halted if**
12	4.1	**A good boss**
14	4.13	**The past**
13	4.19	**We could make the world a better place if**
2	4.21	**When I am criticized**

StdDev

Prompt	SD	text
23	0.86	**I am**
11	0.8	What I like to do best is
3	0.78	Change is
33	0.75	When I am nervous
21	0.75	I just can't stand people who
14	0.75	The past
16	0.73	I feel sorry
15	0.73	Privacy
35	0.72	My conscience bothers me if
10	0.72	When people are helpless
36	0.71	Sometimes I wish that
25	0.71	My main problem is
32	0.7	If I can't get what I want
	• • •	
		What gets me into trouble is
		Education
28	0.65	A partner has the right to
34	0.65	Technology
20	0.65	Business and society
13	0.65	We could make the world a better place if
5	0.64	Being with other people
19	0.64	Crime and delinquency could be halted if
24	0.63	If I had more money
2	0.62	When I am criticized
12	0.61	A good boss

Overall cromboachs alpha: **0.97**

Figure 7. High and Low Averages and Standard Deviations for Stems.

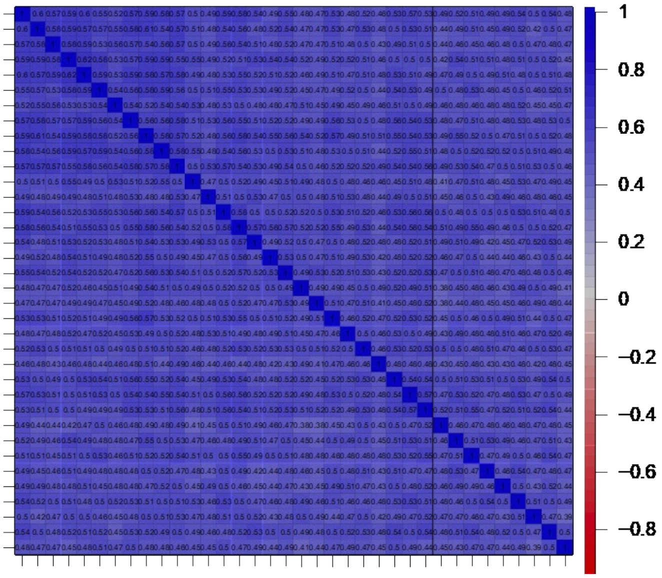


Figure 8. Item correlations Heat Map.

The "I am" Stem: The "I am" stem is the least correlated with others individually and with the overall "latent variable" (ego development) being measured, and it also stands out as the only outlier in our Rasch analysis. O'Fallon confirms that anecdotally the item has unique and interesting responses and would be the first considered for removal in a shorter test. However, we suspect that it might point to measuring an important sub-trait, which might be expanded upon with research into additional similar stems.

Item correlations. Figure 8 shows a "heat map" illustrating the correlations of the 36 items with each other, which range between 0.32 and 0.53. The Rasch analysis described later found all items except "I am" to "fit the model" of a rigorous test instrument.

IRT and Rash analysis results

We began our analysis using the R software's lmt package and then switched to the Winsteps program for more detailed Rasch analysis.[14] The two systems provide relatively equivalent answers for the tools they have in common, but each also has tools the other lacks. (Information about IRT and Rasch analysis is found in Appendix 3.)

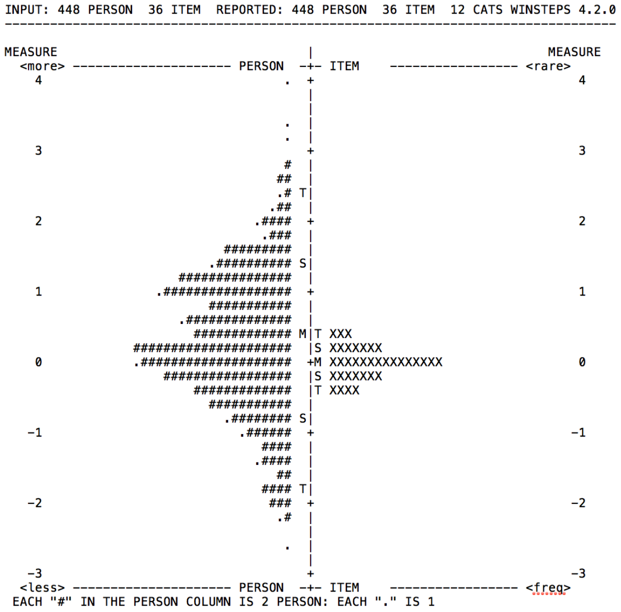
We tested the 1-, 2-, and 3-parameter versions of IRT modeling and found that the 1-parameter version (which the Rasch model uses) was sufficient. (The 2-parameter version had a slightly higher fit, but the fit of the measurement theory with our developmental theory led us to use the Rasch modeling.) Within the IRT analysis, we tried the generalized partial credit (GPC) model and the graded response model (GRM), finding that the simpler GPC model was sufficient (both the AIC and BIC variations of the GPC model were tried with little difference found). We also conducted some preliminary experiments using models outside of the IRT framework, including "mixture models," "grade-of-membership models," and structural equation modeling (factor-analysis-based item response trees) and did not find evidence that these more complex methods added value to our analysis. Within the Rasch/Winsteps analysis for polytomous items, we used Andrich's rating-scale model" (RSM) (the simpler of two alternatives since the data fit the Rasch model well). Information on how to interpret Rasch results including WINSTEPS outputs can be found in Linacre (2018), Bond and Fox (2001), and the winsteps.com and rasch.org websites.

Overall test strength. Figure 9 shows the person and item distributions, representing the primary or most basic type of output from the WINSTEP (Rasch) analysis. The bar chart on the left shows the distribution of subjects (surveys) while the bar chart on the right shows the distribution of items (stems), both of which are in terms of the logit-scale "measure" normalized to go from -4 to +4 (technically from negative to positive infinity). What our experts can tell from this chart is that:

- The "**test coverage** is impressive" over the range
- The **distributions** are relatively normal, which is favorable. (One can see the dent in the curve representing lower occurrence at the 4.0 level mentioned in Figure 2.)
- The items are all clustered around a **similar difficulty** (the mean difficulty), as noted above. This is unusual for most tests, which are expected to have a range of easy and difficult items, but the tight range of item difficulties was expected for our projective test (see Figure 5).

---

[14] For the WINSTEPS analysis we limited the data to only those 448 surveys scores by the primary master Scorer (O'Fallon). This eliminated the possibility that results were influenced by variations in inter-rater reliability (as suggested by a consultant). Running IRT analysis with all 740 produced similar results.



```
INPUT: 448 PERSON  36 ITEM  REPORTED: 448 PERSON  36 ITEM  12 CATS WINSTEPS 4.2.0
--------------------------------------------------------------------------------

MEASURE                                 |                               MEASURE
  <more> --------------------- PERSON  -+- ITEM    ---------------- <rare>
    4                                .  +                                  4
                                        |
                                        |
                                     .  |
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    3                                   +                                  3
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                                        |
   -3                                   +                                 -3
  <less> --------------------- PERSON  -+- ITEM    ---------------- <freq>
 EACH "#" IN THE PERSON COLUMN IS 2 PERSON: EACH "." IS 1
```

Figure 9. Person and Item Distributions from WINSTEP analysis.

Other output tables from the WINSTEP analysis confirm that the test would be just as powerful with fewer items. Many items were redundant from a psychometric perspective, but for the STAGES assessment in its normal use, the full set of 36 items gives scorers, debriefers, and coaches required additional information for the client.

Item discrimination. Figure 10 shows the individual item information curves and their combination in the test information curve," which illustrates that all items on the general protocol have *good overall discrimination*. Although there is a dip for the middle values, all of the values are acceptably high. Scoring is very *consistent* (i.e., good quality) across the prompts (similar to the Cronbach's alpha results). (It would be possible to conduct a deeper analysis on how each item performs across the range of all levels, but this is not needed to answer our research questions.)

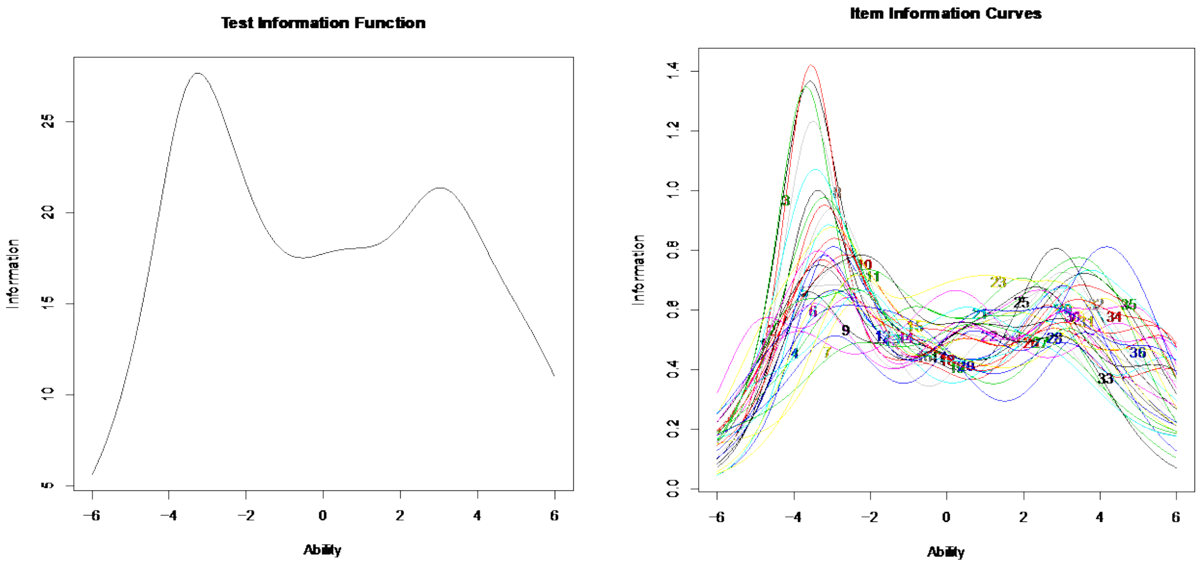


Figure 10. Test Information Curve and item information curves.

Figure 11 shows the probability category curve (PCC) which plots the probability of observing each ordered category according to the Rasch model relative to the overall item difficulty. For example, the "4.5" curve shows the probabilities of a person with an overall (average) 4.5 ability, which shows – for any given test item, what they are likely to score in terms of the latent variable (which is calibrated to 0 at the average score around level 3.8). They are most likely to exhibit about 1.5 (the peak, which is 1.5 standard deviations higher than the average), and the probability of scoring higher or lower on an item declines on both sides as shown in the figure. The first and last curves (1.0 and 6.5) are always ignored in such plots (due to the math they always extend to infinity). The intersections of the curves for adjacent categories show the "Rasch-Andrich thresholds" for demarcating the range of each category.

The curve illustrates a generally robust test, however what is notable about the graph is that every other curve is (usually) lower. The lower curves show levels (response categories) that are not as clearly differentiated from their adjacent categories, and it appears that the X.0 levels are not as crisply measured as the X.5 categories. The scoring is strong at discriminating the 6-person perspectives but not as strong at discriminating early (passive) from late (active) halves of each person perspective. This makes sense based on the hierarchical nature of the model parameters, in which the tier distinction is the most crude, the individual/collective dimension is the next most refined, and the active/passive dimension is further refined. It is also possible that the observed pattern arises because the choice of items is better at eliciting active vs. passive responses.

O'Fallon hypothesizes that these dips for the X.0 levels are also because they regard "passive" phases in which the subject is beginning to recognize objects of awareness but is still struggling to find specific language for them, so they may drop to the prior level in terms of vocabulary.

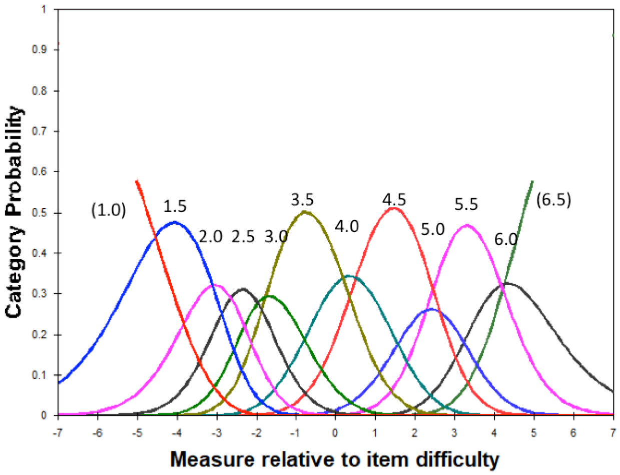


Figure 11. Probability Category Curves.

Category boundaries and step uniformity. The PCC (Figure 11) also shows that the separations between values (the curve intersections or Rasch-Andrich thresholds) is relatively even over the range, which represents a primary predication by O'Fallon.

A better method of illustrating the category boundaries regards the category demarcation graph shown in Figure 12, showing the relationship between the STAGES score for each item vs. the Rasch model measure of the latent variable. The relationship is quite linear within the normal range of scores (2.0 to 6.0 at between +4 and -4 standard deviations from the mean, which is where 99.9% of item responses fall), and the spacing between levels is relatively uniform. The relative uniformity of spacing can also be observed in the cumulative probability curves in Figure 13.

The relatively even spacing tentatively confirms O'Fallon's hypothesis that the *STAGES model cuts the developmental space into equal-spaced units.* O'Fallon proposed that one benefit of a theory-based (i.e., explanatory vs. more descriptive and data-driven) model was that it offered a consistent "ruler" against which to measure the progression of stages, which is resilient to data collected in future studies from different populations. This hypothesis is supported here.

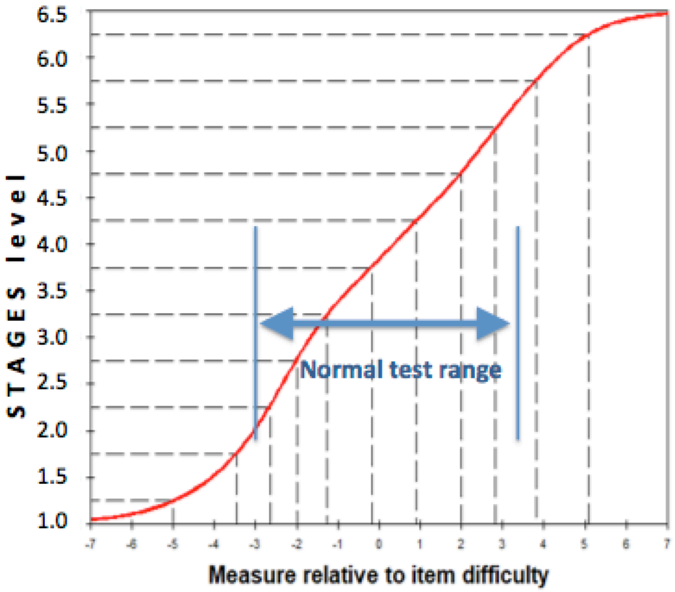


Figure 12. Stages score vs. Latent Variable Measurement.

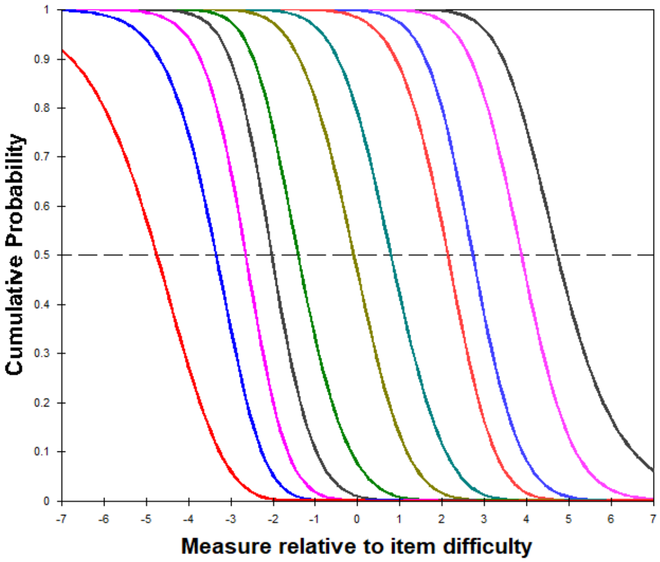
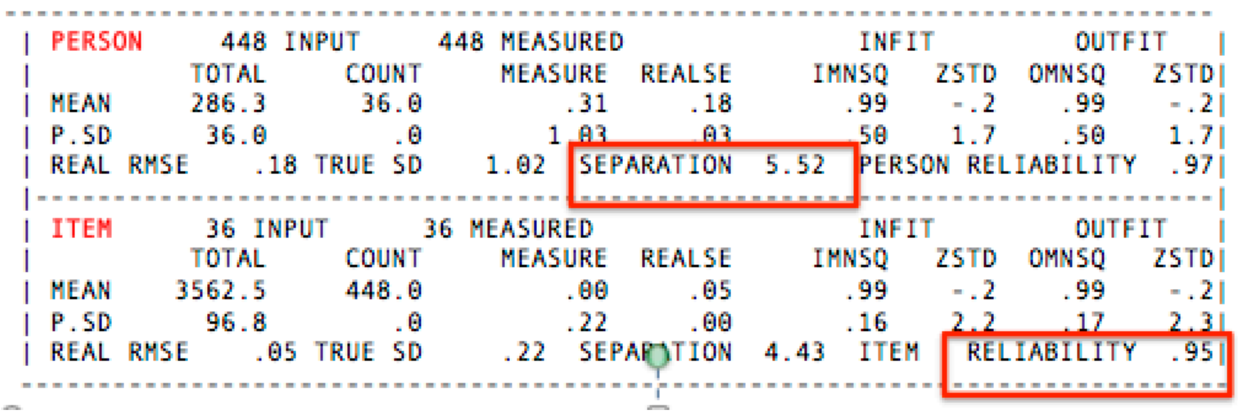


Figure 13. Cumulative probability curves.

Summary/fit table and discrimination strata. Figure 14 shows the summary table with fit statistics from the WINSTEP output. INFIT and OUTFIT statistics assess outliers and flag possible problems. The fit statistics identifying mis-fitting (infit and outfit) items is .99, which is in the "very good" range (i.e., very low misfit means – values less than 2 are considered acceptable). The reliability of the items is **excellent** at .95 and is analogous to the excellent Cronbach's alpha metric previously noted for the test.

The separation index of persons at 5.52 is noteworthy. Through a transformation formula, this provides an indication of the number of "strata" or levels that the test resolves. (This is estimated as the adjusted or "true" item standard deviation divided by the average measurement error, expressed in standard error units.) The formula for converting the person separation index to the number of discernable strata is (4S-1)/3 meaning that (4*5.52-1)/3 = 7.0 strata. This is analogous to the estimate above with the PPC curve that the test cleanly differentiates the 6 person perspectives (7 levels according to this calculation) and has more difficulty resolving all 12 levels as clearly.

The strong differentiation of 6 (or 7) levels holds for our particular dataset, which has some levels which are more highly represented. Another metric given by WINSTEPS indicates the "maximum" strata number, which "reports how many statistically different ability levels could be distinguished in a *uniform* sample covering the full raw-score range of the test." This is independent of sample size and is unlikely to be obtained for any sample (which tends to have a normal-shaped distribution). It is however pertinent to note that the "maximum strata" for our system is calculated at 24 levels (23.9), indicating that theoretically the system can differentiate at the level of the half-stage (suggesting that the strata index would improve with more data across the less well represented levels).



```
-------------------------------------------------------------------------------
| PERSON      448 INPUT      448 MEASURED              INFIT          OUTFIT    |
|            TOTAL      COUNT      MEASURE   REALSE     IMNSQ   ZSTD  OMNSQ   ZSTD|
| MEAN       286.3       36.0         .31      .18        .99    -.2    .99    -.2|
| P.SD        36.0         .0        1.03      .03        .50    1.7    .50    1.7|
| REAL RMSE    .18 TRUE SD    1.02  SEPARATION  5.52 PERSON RELIABILITY  .97|
|-------------------------------------------------------------------------------|
| ITEM        36 INPUT       36 MEASURED              INFIT          OUTFIT    |
|            TOTAL      COUNT      MEASURE   REALSE     IMNSQ   ZSTD  OMNSQ   ZSTD|
| MEAN      3562.5      448.0         .00      .05        .99    -.2    .99    -.2|
| P.SD        96.8         .0         .22      .00        .16    2.2    .17    2.3|
| REAL RMSE    .05 TRUE SD     .22  SEPARATION  4.43 ITEM   RELIABILITY  .95|
-------------------------------------------------------------------------------
```

Figure 14. Winsteps Summary Table.

Rasch/IRT analysis summary. Whether examining Winsteps (Rasch) or R (IRT) outputs, our consultants were unanimous that the *STAGES inventory and scale is psychometrically sound across its entire range (*with more certainty about this for the levels inside the extreme ratings). Its strength had been verified in the past by repeatedly high Cronbach's alpha measurements of internal consistency ("reliability"), but the IRT and Rasch analysis contribute additional depth to this finding.

The test would be strong psychometrically at 18 or even 10 items. All items on the general protocol are strong, but the stem “I am” stands out as fitting less with the model compared to the others. The 12 stages defined by the model are relatively evenly spaced along the spectrum, supporting O'Fallon's conjecture that the STAGES model cuts the range into equal slices.

The test easily differentiates the 6 person perspectives and has more difficulty differentiating between levels at the granularity of 12 levels. We will investigate how the scoring manual or procedure might provide a more refined differentiation between the first and second halves (the actively and passively oriented) of each person perspective. According to O'Fallon (personal communication), this makes sense within the theoretical model. At the X.0 or passively oriented levels, the meaning-making system of the prior X.5 (actively oriented) level is being deconstructed and a new worldview is emerging. This process might arise in language with more variation and less precision in textual measurement.

A New Aggregation Method – The Core Stage

We have outlined many problems with the ogive cutoff method of aggregating item scores to produce the TPR. IRT (and Rasch) analysis ignores the ogive formula and assumes that the latent variable is a simple or weighted combination of the item scores, which is performed for most psychometric assessments. This is analogous (though not exactly the same as) the less-used TWS score for a survey.

Regarding the IRT and Rasch analysis, our consultants agreed that (1) the test is valid and strong examined at the item level and (2) the ogive cutoff system was problematic. We still want our developmental scoring to be compatible with the expectation that, for a projective test, a person's true "center of gravity" will be evidenced from the higher scores, and that how the lower scores are spread out does not affect this summary measurement. To achieve this, we must discard some assumptions made in IRT, as none of our consultants were able to identify any psychometric evaluations of aggregation methods for projective tests (or tests that focused on only the top items). Thus, in this respect the SCT remains somewhat an anomaly within the field of psychometrics, which is why Loevinger had to develop an alternative method (the ogive method).

We had two primary goals for designing a new aggregate method, which we ended up calling the "Core Stage."[15] First, we wanted to avoid the problems of the ogive cutoff method and use something more straightforward and with fewer arbitrary parameters. Second, we wanted to minimize the differences between the new and old scores so that we would not have to alter the established interpretation of each level (i.e., to remain consistent with how a "3.5/Achiever" total score is understood in the field). Once a method was determined, we wanted to scale it to appear as close to the prior ogive method as possible (based on the RMS error of the Core Stage vs. the ogive score).

We considered two methods: The first regarded taking the average of the top X scores, where X was to be experimentally determined. The second method was a true weighted score, in which scores of higher levels received additional weights. Our method of assigning weights was to raise scores to a power P that systematically increased with higher scores, where the power was to be experimentally determined. By "experimentally," we mean iterating over different values to identify which come closest to the old ogive score. We had confidence that these methods would not have unusual statistical properties, because (1) the IRT analysis showed the test was strong and (2) the analysis of skew, kurtosis, and standard deviation across appeared favorable for surveys at all levels.

The new aggregation methods we tried were:

- Average of the top 5, top 8, top 10, top 12, and top 18 scores; and
- Sum of the scores raised to the power of 1, 5, 8, 10, 12, 15. (Remember that scores are within 1.0, 1.5, ...6.5.)

The results are shown in Table 2. We compare each new method with the old ogive score by taking the root mean square error over the entire database (n=740). "Ave of all" is comparable with the TWS method (which regards the sum of the scores) and shows a baseline RMSE of 0.55. Note that because the scores increase by 0.5 per level, an RMSE of 0.5 represents one full level. The lowest RMSE for the TopX method was 0.22 at Top10 and Top12. When taking the average of the sum of the score raised to powers, the power with the lowest RMSE was Score^8. It appeared that this method did not produce errors as low as the TopX method and was also more difficult to conceptually resolve with our understanding of developmental progress. (We also tried combining the two methods, which did not yield a lower RMSE.)

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[15] This term may be revised when a better one is found.

Table 2. RMS Error of alternative aggregate methods.

Method	**RMSE**
ave of all (like TWS)	0.55
aveTop5	0.30
aveTop8	0.23
aveTop10	0.22*
aveTop12	0.22
aveTop15	0.23
aveTop18	0.25
Score^1	0.48
Score^5	0.32
Score^8	0.26*
Score^10	0.27
Score^12	0.28
Score^15	0.33
aveTop10Score^2	0.24

The RMS error represents an average error over all surveys, however we wanted to more closely examine how the methods performed at each level. It is more important that the methods work well where there are the most scores, *and* having low RMSE for higher scores was more important than for lower scores (Concrete tier), because we realized that our new method was re-conceptualizing the interpretation of low-level scores. The ogive score conflates shadow crashes with meaning making complexity, and we wanted the new measure to focus on meaning making complexity (or maturity).

Figure 15 shows histograms displaying the scores of the new methods (Y axis) vs. the old ogive score (x axis). The bar marked "SAME" provides comparison to illustrate the "straight line" one would achieve if a new method gave the exact same score as the ogive method. Although "top 10" provided the best results, we decided to use either Top6 or Top12, which had RMSE's practically as good since they represent exactly 1/6th or 1/3rd of the 36 stems. Top6 always performs better than Top12, and both always perform better than the average, so we choose the method of (average of the) Top6 (or top 6th for surveys with other than 36 items) for the new Core Stage.

Next, to bring the Core Stages even closer to the old ogive scores, we performed a linear transformation of the Top6 score. Linear fitting showed that a formula of (1.2*AveOfTop6)-1 would yield a score even closer to the old ogive. We call this the "adjusted" Top6, which is also shown in Figure 14. The adjusted top6 performs better for most of the subtle and metaware levels, and it is unimportant that it does not perform as well for the Concrete tier.

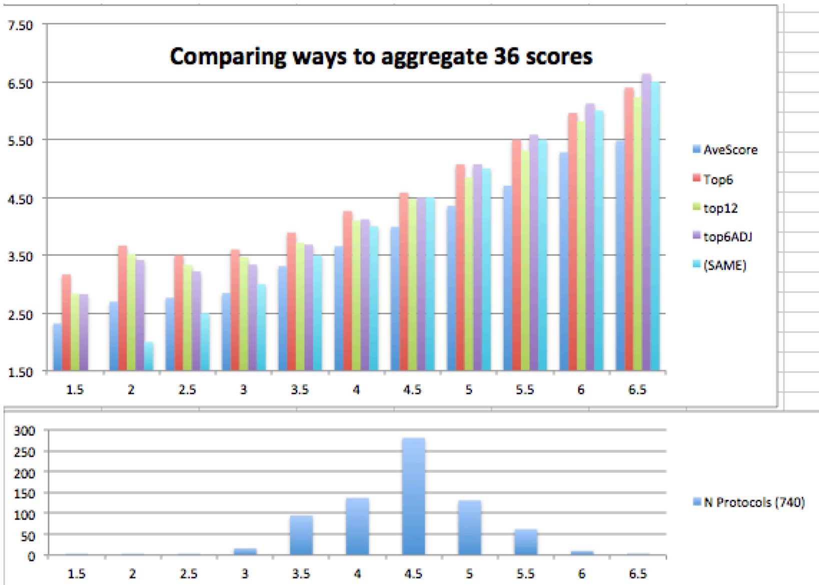

Figure 15. Comparing aggregation methods across all levels.

Core Stage. In summary, the new aggregate method called the Core Stage uses the formula *(1.2 * AveOf-top6)-1.* For protocols of arbitrary length, the Core Stage takes the top 1/6th of the scores.[16] Unlike the ogive score which yields a category, the new Core Stage value yields a continuous number (which is usually rounded to one decimal digit). The benefits of the Core Stage method vs. the ogive include:

- It yields results that are usually close to the old ogive score (but only on average).
- It is easy to calculate (uses a formula rather than a procedure).
- It behaves more predictably like standard average or total scores used in psychometric analyses.
- It does not confuse shadow with complexity maturity and can thus be useful for scoring children (which O'Fallon has begun doing).
- It is not based on a suspicious or erroneous application of Bayes' theorem.
- It does not force scores into categories but allows fractional values.
- It is not sensitive to small differences in how stems are scored (which occurs in the ogive method near the cutoffs).
- The new Core Stage rating makes it easier to produce a total score for protocols of any length (one does not have to worry about inventing new cutoffs).
- It does not contain a large number of arbitrary parameters (such as the 12 ogive cutoffs and 12 TWS multipliers and the other Bayesian parameters). The primary ad-hoc

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[16] When N is not divisible by 6: Where 36/N = I(nteger).R(emainder) (e.g 2.667), Ave_top_6th is the weighted mean where the top I are given weight 1, and the I+1th score is given a weight of R, the rest given weight 0.

> parameter is the "6" (or 1/6th) by taking the top 6 scores. Our analysis indicates that outcomes are not overly sensitive to this parameter (i.e., 5 to 10 behaves similarly), however tuning this parameter remains an open question. In addition, the specific formula for aligning the Core Stage with prior ogive values is dependent on the dataset used and may need to be adjusted in the future.

This Core Stage measure has been added to the STAGES assessment software (on both the "Training Platform" and the "Production Platform"). Both the new Core Stage (and additional metrics discussed below) and the prior ogive and TWS metrics are currently shown. We are in a period of training scorers to use and understand the new method, however the old method will be used for at least another year for reporting results to clients.

For several months, O'Fallon has been observing that the Core Stages closely match her intuitions about developmental stages, are close to the old ogive score, and function even better than the old ogive score in the Concrete tier.

Additional measurements: Average, Bottom, Spread. The new scoring system shows several measures in addition to the Core Stage: The *Average* (across all stems); *Bottom Score* (the average of the bottom 6, related to a "shadow score" for adults); and *Spread* – the spread score is the Core Stage minus the Bottom Score, and indicates the range of values in the survey.

Early and Late stages. Prior to this work and continuing after it, advanced scorers use an additional set of text analysis instructions to determine a sub-level rating of early, middle, or late within each level (for each stem). Although this refinement of the item score is not included in the ogive (or TWS) calculation, it can be considered when the total survey score is tweaked based on global considerations.

The new Core Stage allows for fractional values, which provides another indication of early/middle/late sub-levels within a stage. We still need to further consider how these two methods of sub-stage scoring (i.e., Core Stage fractional level vs. text analysis rules for sub-level) will coordinate with each other. These two methods will not necessarily coincide, and it remains to be determined how they will be resolved.

In addition, the question arises RE where along the fractional scale we call "early" and "late." For example, *early* 3rd-person perspective could be just *below* "3.0" as in "2.9 or 3.0" or it could be just at and above 3.0 as in "3.0 and 3.1." We have decided tentatively to use the convention shown in Table 3 and illustrated in Figure 16.

Table 3. Decimal fractions vs. early and late for stage X.

X.0 early	X.5 early
X.1 mid	X.6 mid
X.2 mid	X.7 mid
X.3 late	X.8 late
X.4 transition between	X.9 transition between

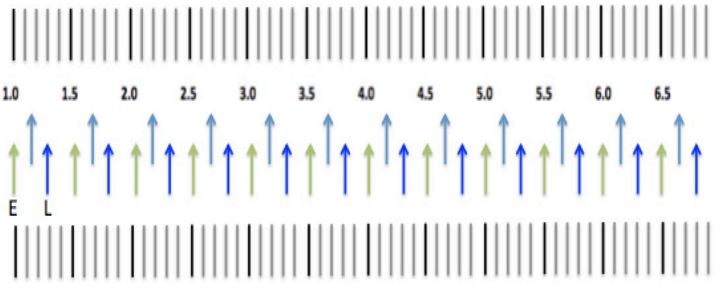

Figure 16. Early and Late stages, illustrated (Early in green, late in dark blue, middle in light blue).

As indicated, the fractional Core Scores will be rounded to the nearest single decimal value. In reports that classify scores at the granularity of each developmental level, as if "rounding" to a developmental level, we will round the X.4 and X.9 fractions up and the other fractions down. For example. 2.9, 3.0, 3.1, 3.2, 3.3 will be rounded to "3.0" and 3.4, 3.5, 3.6, 3.7, 3.8 will be rounded to "3.5."

Although this has not yet attempted, it would be possible to adjust the item scores based on the sub-level text analysis of the stem completions. The Core Stage could be adjusted in the following manner if early or late indicators were found:

- for early, add 0
- for unspecified or middle, add 0.15
- for late, add 0.35

This corresponds with the method shown in Table 3 and Figure 16.

Conclusions and Future Work

This research has increased our confidence in the STAGES theory, model, and scoring methodology and has contributed some discoveries that arguably, could apply to other SCT frameworks as well. The SCT method of measuring ego development generally stood up well under the lens of IRT and Rasch analysis.

We have also produced a new method for calculating the aggregate (total) score over the 36 stems (or fewer), which we call the Core Stage. The Core Stage has many desirable properties, as noted in the prior section. The STAGES framework will be gradually shifting over to this new method, however we remain agnostic regarding whether other SCT frameworks should adopt this method (or any alternative to the ogive method). The ogive method has been performing well enough over the years, represents the default standard, and the effort to adopt a new method may well outweigh any benefits. The benefits of changing are greater for the STAGES model vs. other SCT variations, because others use a fixed set of stems (sometimes splitting the survey in half), while the STAGES allows for creating valid surveys with new stems of any length, which would require ongoing alteration of cutoff values, which can only be performed in arbitrary ways. In addition, automated computer scoring exists for the STAGES model (see www.stagelens.com), which means the SCT will become more practical to use for large-scale research where the validity of methods is critical.[17] (The companies using the MAP, LGP, and

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[17] This automated scoring is not as accurate as human scoring, but is accurate enough for statistically valid studies of groups of 20 or more.

GLP are exclusively focusing their assessment work on individual assessments and the quality of their coaching and consultation with individuals and teams, as far as we know.)

Study limitations. Limitations of our research methodology and results include the fact that the sample population is on average higher than the general population. Although IRT analysis is expected to be fairly resistant to such skew effects, the results may be more robust if we obtain more scores from the 2.5, 3.0, and 3.5 levels, which we will attempt to do. The analysis was limited to the STAGES general protocol and to data collected before mid-2018. A larger dataset is now available and might be used to update some results.

Although the Core Stage method does not contain a large number of arbitrary parameters (such as the 12 ogive cutoffs, the 12 TWS multipliers, and the other Bayesian parameters), it does contain some arbitrary parameters, specifically the "6" (or 1/6th) when taking the top 6 scores. Our analysis indicates that outcomes are not overly sensitive to this parameter, and the specific formula for aligning the Core Stage with prior ogive values is dependent on the dataset used and may need to be adjusted in the future.

Future research. Future research could further explore:

- Given the predominance of 4.5 surveys, it would be useful to acquire more data in the database for lower stages.

- RE the "strata" metric and weaker ability to differentiate all 12 levels, it might be possible to modify the coding manual to better differentiate early from late stages (and active vs passive), one method for which would be to compare surveys with Core Stages around "X.5" with those at X.0 above and below them and seek additional principles that would differentiate the X.5's.

- We could more closely examine the differences between stem items regarding their average difficulty and standard deviations and which levels they better perform at differentiating.

- We could more closely examine what occurs with the "I am" stems and determine whether additional stems could be invented that target the same sub-capacity.

- We could investigate the dip in the number of stems scored at 4.0 over all items.

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Appendices

Appendix 1: TWS calculation and ogive cutoffs

The original STAGES TWS formula is an extension of that used by Cook-Greuter and Loevinger and multiplies the frequencies of each level by a factor and sums those results using these factors:

Level	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
Factor	2	3	4	5	6	7	8	9	10	11	12	13

Table 4 below is used to determine the final derived score. The STAGES model uses the identical approach utilized by Loevinger (1998) and updated by Cook-Greuter (1999) but adds three levels (2.0, 5.5, and 6.5).

Loevinger and Cook-Greuter use a "cutoff" method they called the "ogive" method to aggregate the scores of the 36 completions to produce an overall "center of gravity" score for each inventory. The cutoff method regards a procedure where each step says "if there are X or more completions at level L then the final score is L," where X differs depending on the level. Below is a summary of the cutoff approach used for the STAGES model.

Note how the levels tested begin with the highest (6.5), move down to 3.0, and then begin at the lowest and work up to 2.5. This is because the cutoff numbers were determined by CG/L using a method that they linked to Bayes' theorem. The 2.5 (Diplomat) level was estimated by Loevinger (and Cook-Greuter) to be the most prominent in the normal population and thus the most likely given no additional evidence. This is why 2.5 represents the final or "default" value in the procedure.[18]

Cook-Greuter used the cutoff of 4 for the 2 levels above Strategist (4.5), and STAGES duplicated that approach by using 4 for all stages above 4.5.

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[18] This Ogive method contains a number of assumptions and approximations which we will discuss in a future paper. What is important here is that the method is the de-facto standard that has been used in the numerous research studies using ego development assessment for almost 40 years.

Table 4. Cutoff Rules For a 36–Item Sentence Completion Test.*

(Do steps in order and stop where true) **If there are:**			**Assigned stage**
4	or more rated at	6.5 or higher	6.5
4	or more rated at	6.0 or higher	6.0
4	or more rated at	5.5 or higher	5.5
4	or more rated at	5.0 or higher	5.0
6	or more rated at	4.5 or higher	4.5
9	or more rated at	4.0 or higher	4.0
14	or more rated at	3.5 or higher	3.5
17	or more rated at	3.0 or higher	3.0
7	or more rated at	1.0	1.0
7	or more rated at	1.5 or lower	1.5
7	or more rated at	2.0 or lower	2.0
-	If none of the above, use		2.5

** Starting at the highest stage 6.5 and proceeding down the table, assign the stage from the first row where the rule applies.*

The cut-point criterion in the higher stages 5.0, 5.5, 6.0, 6.5 is analogous to the cut points in the Cook-Greuter scale.

Appendix 2: Stages Model Figures

Below are three descriptions of the 12 levels of the STAGES model. Figure 17 shows how the scoring process determines the level using three questions, Figure 18 shows the same information in a different graphical format, and Table 5 shows how the names of STAGES levels correspond to names given in related developmental theories.

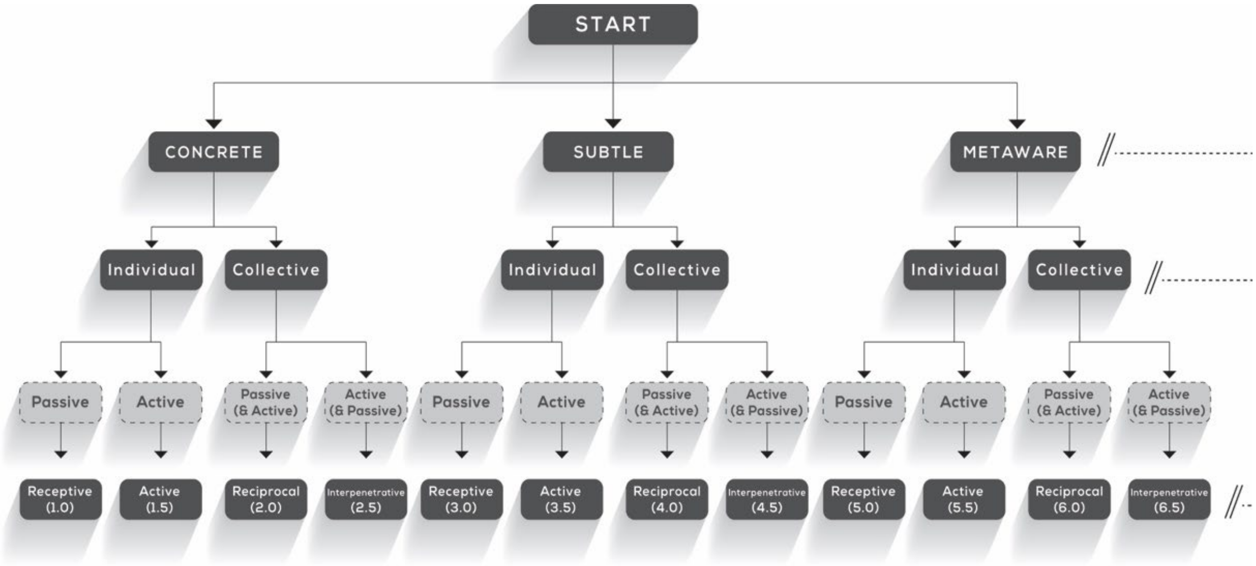

START
CONCRETE
SUBTLE
METAWARE
Individual
Collective
Individual
Collective
Individual
Collective
Passive
Active
Passive (& Active)
Active (& Passive)
Passive
Active
Passive (& Active)
Active (& Passive)
Passive
Active
Passive (& Active)
Active (& Passive)
Receptive (1.0)
Active (1.5)
Reciprocal (2.0)
Interpenetrative (2.5)
Receptive (3.0)
Active (3.5)
Reciprocal (4.0)
Interpenetrative (4.5)
Receptive (5.0)
Active (5.5)
Reciprocal (6.0)
Interpenetrative (6.5)

Figure 17. Diagram of stage assigned based on the responses to three questions.

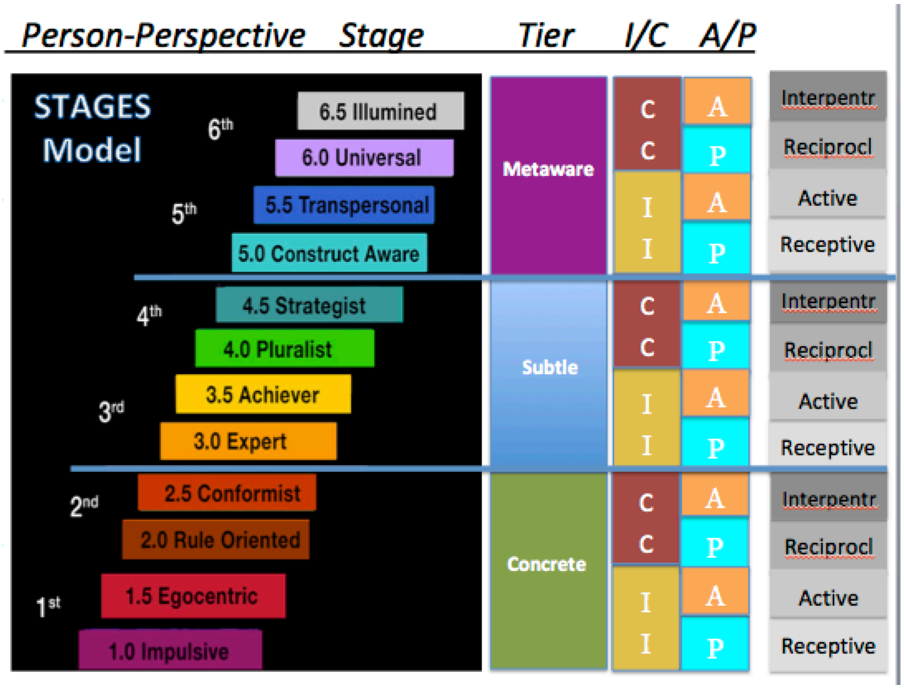

Person-Perspective Stage Tier I/C A/P
STAGES Model
6th
6.5 Illumined
6.0 Universal
5th
5.5 Transpersonal
5.0 Construct Aware
4th
4.5 Strategist
4.0 Pluralist
3rd
3.5 Achiever
3.0 Expert
2nd
2.5 Conformist
2.0 Rule Oriented
1st
1.5 Egocentric
1.0 Impulsive
Metaware
Subtle
Concrete
C
C
I
I
A
P
A
P
Interpentr
Reciprocl
Active
Receptive

Figure 18. STAGES Tiers & Repeating Principles
Asterisks (*) show levels added in STAGES vs MAP model.

O'Fallon has speculated a fourth tier in the STAGES model, continuing the repeating patterns observed in the first three tiers into 7.0, 7.5, 8.0, and 8.5. This fourth tier is based on her reading of Aurobindo's description of these rare stages of development.

Below is a table showing correspondences between five developmental models gleaned from sources in the literature. Definitions of levels of different models do not usually exactly align but share sufficient characteristics that they are comparable.

Table 5. Correspondences of Levels in Five Developmental Models.

O'Fallon	Loevinger	Cook-Greuter	Torbert	Kegan
6.5 (Illumined)				
6.0 (Universal)		Unitive	Ironist	
5.5 (Transpersonal)				
5.0 (Construct Aware)	Integrated e9	Construct-aware / Ego-aware	Alchemist/ Magician	
4.5 (Strategist)	Autonomous e8 (i5)	Autonomous, Self-actualizing	Strategist	Self-transforming/ Inter-individual (5th)
4.0 (Individualist)	Individualistic e7 (i4/5)	Individualist, Self-Questioning	Individualist	
3.5 (Achiever)	Conscientious e6 (i4)	Conscientious, Self-Determining	Achiever	Self-authoring/ Institutional (4th)
3.0 (Expert/Specialist)	Self-aware e5 (i3/4)	Self-conscious, Skill-Centric	Expert/ Technician	
2.5 (Diplomat/Conformist)	Conformist e4 (i3)	Conformist, Group-Centric	Diplomat	Socialized/ Interpersonal (3rd)
2.0 (Rule oriented)	(Delta/3)			
1.5 (Opportunist /Egocentric)	Self-protective e3 (i 2/3, opportunist, delta)	Self-defensive, Self-Centric	Opportunist	Instrumental/ Imperial (2nd)
1.0 (Impulsive)	Impulsive e2 (i2)	Impulsive	Impulsive	Impulsive (1st Order)
	Pre-social e1 (i1)			

Most scholars agree that there is substantial overlap and that the various theories are more or less discussing the same thing. There are however differences as well, and these become important as one tries to compare one theory to another or assessments made within one model to assessments made within another. Although there are differences, the similarities and alignments are actually quite striking since many were independently developed, which supports the overall validity of the developmental approach.

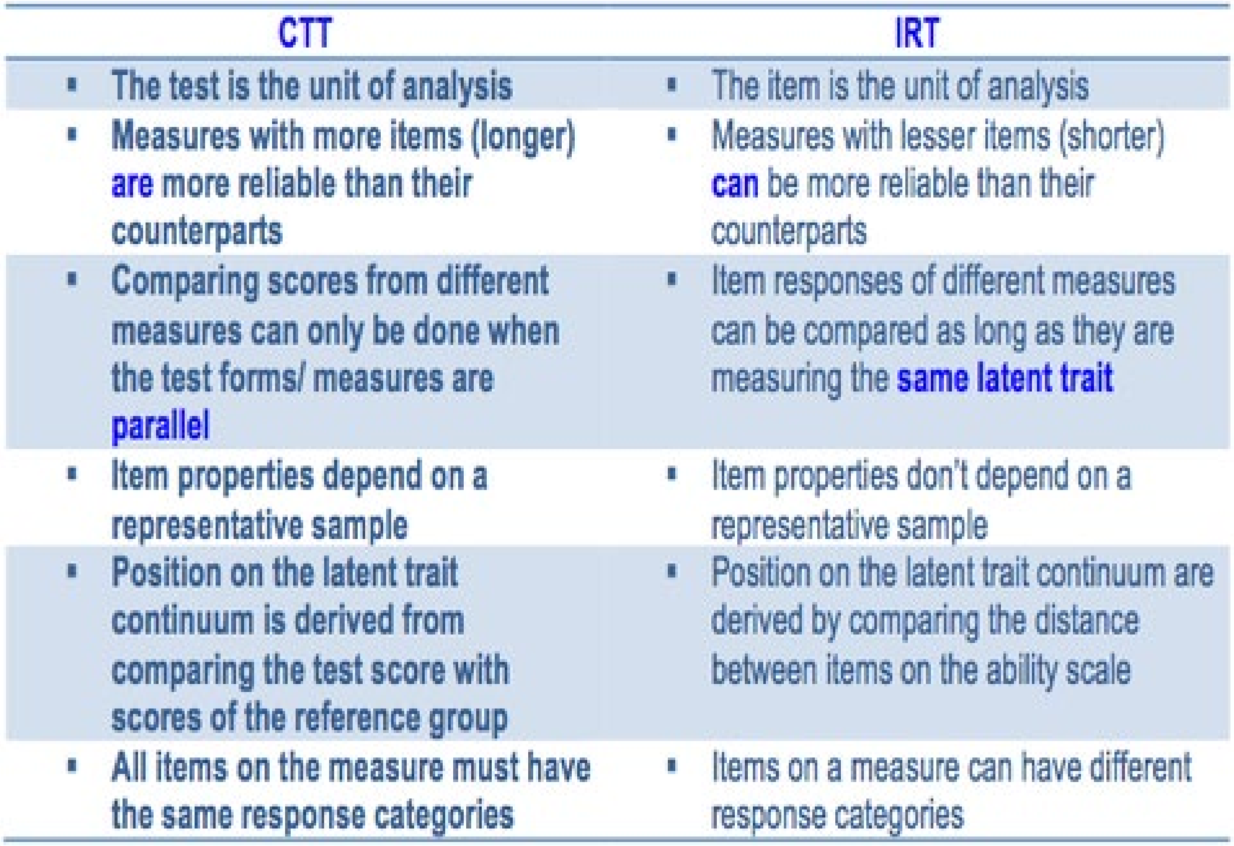
Appendix 3: Item response theory and Rasch analysis

IRT (also known as latent trait theory, strong true score theory, or modern cognitive test theory) represents a main school/toolbox in modern psychometrics (it is the method used in validating high-stakes tests such as the SAT and GRE). It specifies statistical methods for use in assessments that include many items to assess a single human trait (called the "latent variable" since it cannot be directly measured). Rasch analysis is usually considered a subset of IRT that, for theoretical reasons, is limited to "one-parameter" modeling (IRT includes a family of 1-, 2-, and 3-parameter models).

Whereas they are well-known in psychometric circles, Rasch’s (1980) models for measurement have been employed by developmental psychologists only recently (Andrich & Constable, 1984; Bond, 1994; Dawson, 1998, 2000; Müller, Sokol, & Overton, 1999).

Although IRT does not address the question of how to aggregate item scores for a projective test, we performed an IRT analysis of the STAGES database of scored protocols to establish a firm foundation for whichever aggregation method we chose to replace the ogive cutoff method.

Item Response Theory. The table below illustrates key differences between classical test theory and IRT (including Rasch analysis). (The Wikipedia entry on IRT also provides a useful overview.)



CTT	IRT
▪ The test is the unit of analysis	▪ The item is the unit of analysis
▪ Measures with more items (longer) **are** more reliable than their counterparts	▪ Measures with lesser items (shorter) **can** be more reliable than their counterparts
▪ Comparing scores from different measures can only be done when the test forms/ measures are **parallel**	▪ Item responses of different measures can be compared as long as they are measuring the **same latent trait**
▪ Item properties depend on a representative sample	▪ Item properties don't depend on a representative sample
▪ Position on the latent trait continuum is derived from comparing the test score with scores of the reference group	▪ Position on the latent trait continuum are derived by comparing the distance between items on the ability scale
▪ All items on the measure must have the same response categories	▪ Items on a measure can have different response categories

Figure 19. Classical Test Theory vs. Item Response Theory.

Item response theory creates a single scale used to measure the latent variable (i.e., the human skill or "proficiency") *and* the difficulty of an item (and the score for the whole test), which allows item difficulties and person abilities to be meaningfully compared. For example, a value of "3.2" means the same thing regarding the latent variable when used discuss the skill level of an individual, the difficulty level of an item, or the overall score on a test. Item response theory can calculate the difficulty and information power of each test item at each trait level.[19] For example, an item or an entire test can be found to reliably differentiate weak from moderate ability but can be poor in differentiating between moderate and advanced abilities.

One thing that distinguishes IRT from "classical" test theories is that it does not assume that each item is equally difficult, meaning it calculates an item difficulty for each item. Item response theory assumes that the probability of a correct response to an item is a mathematical function of person's skill and the parameters (primarily difficulty) of an item. Item response theory analysis begins with a sufficiently large set of test data and, using that assumption, iteratively works backwards to calculate (1) the difficulties of each item and (2) the overall skill of each test-taker (this type of method was infeasible before computers, which is one reason it was less popular when Loevinger began her research).

Item response theory converts the measurement (latent) scale of test into a standardized form. By using "logistic" scaling, the scale is always normalized such that (1) the mean value is 0 (i.e., negative values are below average); (2) the range is a true scalar (continuous or interval scale) in that it is infinite in positive and negative directions (even if the test items cover a specific range as in a 1-5 Likert scale or a 0-100% correct score for a math problem); and (3) the standard deviation is 1 (i.e., the scale works conceptually like a bell curve or "Z-score" with standard deviations marked on the x axis). Item response theory models posit that the difference between an item’s difficulty and a person’s ability reflects the probability of a person succeeding at a given task (at least for the 1-parameter version).

One strength of IRT (and Rasch) analysis is that the parameters of the models are generally not sample- or test-dependent and can thus be generalized to different contexts. (Note that "polytomous" IRT methods were used here, meaning those applying to non-binary measurements.)

Item response theory analysis can be used to answer questions including: do any of the items *or* any of the test-takers seem to be *outliers* (i.e., have an unusual relationship between skill level and item response)? For more information, see the figure in Appendix 4 "IRT vs. Classical test theory."

- calculate total test scores that take into account variations in the strength (reliability or information power) of each item;
- determine the reliability of items and of the test as a whole, including the information power of items (or the test) to assess each part of the scale;

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[19] An item’s difficulty is defined as the trait level required for participants to have a 50% probability of answering the item correctly. If an item has a difficulty of 0, then an individual with an average trait level (i.e. of 0) will have a 50/50 chance of correctly answering the item.

- find outliers or misfits in test items, indicating that they do not function as expected and should be changed or removed;

- identify outliers in the test-taking subjects, such as those who answer typically difficult items correctly but answer typically easy items incorrectly;

- estimate the similarity of the gaps between ordinal trait categories and the resolution or number of such categories that a test can differentiate;

- test for the uni-dimensionality of the construct regarding whether the test as a whole measures a single latent variable.

Rasch Analysis. Rasch analysis (Rasch, 1980; Andrich, 1988; Bond & Fox, 2001) is usually considered a subset of IRT, although many Rasch proponents maintain that its underlying philosophy of measurement theory is distinct. Item response theory includes 1-, 2-, and 3-parameter models, while Rasch proponents advocate for no more than 1 parameter. "Parameters" regard numbers that characterize each item differently, where the first and primary parameter is the item difficulty and second parameter is the item "sensitivity," which measures essentially how quickly the item responds to changes in skill level. A maximally sensitive item will have a sudden jump between level X and the next level with low and high plateaus on either side of that jump, meaning that it discriminates above and below that value (its difficulty value) extremely well but does not discriminate among the lower or higher values, and does not discriminate among the higher values. One could think of this as asking "how much *information* does an item contribute to differentiating each level from others?" The third parameter sometimes introduced regards the likelihood of "guessing" the correct answer for each item.

For reasons related to foundational theories of measurement, the Rasch community says that only the 1-parameter model produces a "true" continuous scale of the type used in measurements in the hard sciences. They constrain analysis to use the 1-parameter model and identify items (and subjects) for which the data fall outside of this model as outliers, which means that the test item should be removed or revised. In contrast, the more standard IRT method adopts a purely statistical modeling approach that uses as many parameters as needed to find a model that best fits all the data. The details of this controversy exceed our scope, but our consultants have indicated that for our dataset, the difference does not matter and that the 1-parameter analysis compatible with Rasch assumptions is sufficient.

Commons and Pekker (2009, p. 13-14) summarize the Rasch model by saying that it: "Transforms raw data into unidimensional, abstract, linear, equal-interval scales if the data fit the model. Equality of intervals is achieved through log transformations of raw data odds. The Rasch model is the only model that provides the necessary objectivity for the construction of a scale that is separable from the distribution of the attribute in the persons it measures...It works by using probabilistic equations to convert raw ratings of items into scales that have equal intervals if the data fit the model. Such a scale can then be used as a type of objective ruler against which to measure the data on items as well as on respondents (Andrich, 1988). Statistically speaking, this scale will be linear."

The STAGES Specialty Inventories: Robustness to Variations in Sentence Stems

Terri O'Fallon[1] and Tom Murray[2]

Abstract: The STAGES developmental model is a variation of prior ego development frameworks that defines developmental levels in terms of three parameters: object of awareness (concrete, subtle, or metaware), individual vs. collective focus, and active/passive orientation. STAGES, like prior frameworks, uses a sentence completion test (SCT) assessment. Prior frameworks rely on exemplar-based scoring that is closely tied into the specific sentence stems. In contrast, STAGES scoring system is based on language properties that do not depend on the sentence stem. Thus STAGES is the first such assessment to be able to freely incorporate alternative sentence stems without the labor intensive process of discovering the full range of specific responses. Though the STAGES theory and assessment methodology easily allow for using alternative sentence stems, the validity of using alternative stems needs to be shown. In this paper we report on internal consistency studies of several "specialty protocols" which are SCT surveys with 6 to 10 of the original 36 stems replaced by stems focused on a particular specially area. Results show strong reliability scores, via the Cronbach's alpha statistic, for six specialty inventories, on: leadership and organizations, love, education, psychological reflection, climate change, and a children's SCT.

Keywords: Cronbach's alpha validity, children's and adult assessments, ego development, protocol variations, STAGES.

Introduction and Background

Motivations. The STAGES developmental model is a variation of prior ego development frameworks that defines developmental levels in terms of three "parameters" (or "drivers"): object of awareness (concrete, subtle, or metaware), individual vs. collective focus, and active/passive orientation. It uses a variation of the sentence completion test (SCT) that began

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with Loevinger’s Ego Development research (1998) and was updated by Cook-Greuter (1999). The prior frameworks rely on exemplar-based scoring that is closely tied into the specific sentence stems. In contrast, STAGES scoring system is based on language properties that do not depend on the sentence stem. Thus STAGES is the first such assessment to be able to freely incorporate alternative sentence stems without the labor-intensive process of discovering the full range of specific responses. Though the STAGES theory and assessment methodology easily allow for using alternative sentence stems, the psychometric validity of each use of alternative stems still needs to be shown. In this paper we report on internal consistency studies of several "specialty protocols" which are SCT surveys with 6 to 10 of the original 36 stems that are replaced by stems focused on a particular specially area. We will also summarize research on the validity of SCTs of varying length, another dimension of survey variability.

Prior Research

Validity of the SCT and the STAGES scoring system. The SCT for ego development is a robust assessment instrument. Westenberg et al. (2004) conclude that "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485). In Murray (2017) we give an overview of the history of research on the SCT for inter-rater reliability, internal consistency, test-retest reliability, face validity, construct validity, incremental validity, clinical utility, external validity, and predictive validity. A summary of those findings is also included in *A Summary of Research on and with the STAGES Developmental Model* in this issue. In that article, we summarize validity studies particular to the STAGES model. In this paper we are interested in two issues: the primary one being the robustness of the SCT model to variations in sentence stems, and secondarily, its robustness to reducing the number of sentence stems. Next we summarize prior research on these two questions.

Variations in SCT stems. Historically, within the lineage of ego development research (and several other developmental models), stages of human development have been identified by interviewing or observing samples of people, recording their responses and organizing these responses into categories. Researchers then sequenced these categories of responses from the earliest to the latest level of maturity. These categories could then be used to identify where a person might fall in their developmental journey through life. This is the method used by other SCT projects and is outlined in a dissertation on the construction of and validity measures of one new sentence stem “A good Boss” (Minard, 2009).

As to variations in the choice of sentence stems ("test items"), we can make several observations. Loevinger adapted the sentence items numerous times before settling on a final version. There is nothing particularly special about the stems Loevinger used. Though they were carefully chosen and vetted; many were drawn from the experience of prior researchers, and the entire set evolved over the years before settling into the current standard form of the WUSCT. Others have used alternate forms of the WUSCT tailored to men, women, or youth.

Sentence starters can be inadequate for a variety of reasons, e.g. they may be vague and thus understood in very different ways; they may coerce an overly limited developmental range of responses; or they may introduce biases of various types. Thus new stems must be pilot tested for clarity and psychometric validity. But assuming that this due-diligence work is done to ensure that questions are adequate, overall prior research *suggests* that the strong psychometric properties of the SCT are robust to changes in the choice of sentence stems. However, the general question of stem flexibility has not been addressed until this study. Rather, specific sets of stems have been tested in the past.

Ego development (meaning-making complexity) is a holistic capacity spanning all life-contexts (though we may exhibit maturity different than our "center of gravity" in any given context). The stems are meant to probe across a variety of contexts, and triangulate toward an overall measurement. Cook-Greuter (1999) notes that:

> As Fischer, Hand, & Russell (1984) pointed out people tend to respond optimally to a task in 'domains in which they are highly motivated.' To tap this motivation, the SCT stems were devised to address ordinary everyday experiences shared across a wide spectrum of people. (p. 52)

Kegan's and Wilber's framing of a holistic span of life contexts as including subjective, intersubjective, and objective (I/we/it) contexts. Loevinger (1985) describes the span of stems in a related way:

> Looking at item content, the stems can be classed as *first* person (My father –, When they talked about sex, I –), *third* person (Sometimes she wished that –, Usually he felt that sex –), and common noun or *impersonal* (A good father –, Being with other people –). (p. 424)

Some stems seem to be sensitive to particular transitions along the developmental spectrum, and this is another reason for having an adequate diversity of stems. For example, some stems are related to impulse control which comes on line at second person perspective, and increases gradually or levels off for later levels. Therefore, sentences sensitive to impulse control are also sensitive to the transition from pre-conventional to conventional levels. Abstract and formal thinking begins at third person perspective, and increases gradually or levels off after that, so we would expect that certain stems are more sensitive to transitions in this part of the spectrum. In general we would expect that, to a weak but statistically significant degree, certain sentence stems are better at signaling changes in specific levels. Murray (2020) includes item response theory analysis that shows which stems do in fact load for higher vs. lower levels (i.e. "item difficulty"). However, in general, the data indicate that all of the stems are of comparable difficulty, and that every stem elicits responses from across the developmental spectrum, as is intended by the SCT design.

Torbert & Livne-Tarandach (2009) report on variations of the WUSCT that have evolved into Cook-Greuter's MAP and Torbert's LDP and GLP instruments. Cook-Greuter and Torbert modified Loevinger's protocol to "omit a number of gender-based items and, include work and leadership-related stems" (IBID, p. 132). Torbert's LDP is also shorter (24 items) and includes six new stems not in the WSUTC. Torbert & Livne-Tarandach (IBID, p. 134) report that "the responses to the new stems correlate better with an individual’s overall profile rating than responses to the former stems did, thus improving the overall reliability of the measure."

O'Fallon made additional adjustments to stems to derive her General protocol (or "inventory"), the standard set used in her research and consulting before she began branching out into "specially protocols." As described below, modifications were to insure that that stem collection had an equal representation from the "four quadrants" of I/we/it/its as explained later.

Variations in SCT Length. As to the *length* of the SCT: Novy & Francis (1992) compared the split-half versions of the WUSCT (18 items each). They conclude "these results provide empirical justification for those users of the SCT who have the need for shorter, interchangeable, and reliable forms of the test."[3] Holt (1980, p. 909), experimenting with a 12-item short form of the WUSCT found that inter-rate reliability was "at least as good as…reported by Loevinger; and the internal consistency…was quite adequate....Analyses of other data indicate that the short forms are representative samples of the full [WUSCT]".[4] He goes on to say the data show that "an abbreviated form of Loevinger's WUSCT is a reasonably reliable, feasible, and useful instrument for large-scale research...[and is]… a representative sample of the larger instrument, which probably gives substantially the same results" (p. 916). Basic psychometric theory predicts that more evidence will result in better accuracy, so for individually-based assessments, done for coaching or consulting purposes, the full set of items is still recommended, but for research or group-statistical assessments, it would appear that shorter forms are quite valid.[5] New research related to inventory length, analyzed for STAGES data, is summarized later.

The STAGES Matrix

The STAGES Matrix is a new model that describes the stages of human perspectives from birth to the latest levels of human development investigated by research. One of the innovations of STAGES is the use of parameters for describing developmental stages. These are underlying attributes that lead to development. Below is the STAGES MATRIX which shows the sequence of patterning of the parameters of human consciousness across 12 levels (or 6 person perspectives).[6] These parameters are arrived at by asking 3 fundamental questions, as shown in Figure 1. We refer the reader to other papers, including Barta's "Psychological Application of the STAGES Model" in this issue, for a description of The STAGES model.

The STAGES General Protocol: Stems and Quadrants

Above we mentioned the notion, articulated by Kegan and Loevinger, that the holistic triangulation of contexts needed to measure one's general "center of gravity" should include subjective, objective, and intersubjective (I/we/it) contexts. O'Fallon has extended this notion to use Wilber's four-quadrant model: I/we/it/its, where the objective domain has been split into individual and collective objects (matching the subjective domain's split between individual "I" and collective "we").[7] Thus O'Fallon's protocols are designed to have a relative balance of stems representing each of the four quadrants. The quadrant categorization of stems is approximate, and is not expected to have a strong influence on the nature of completions – i.e. and subjects can respond to any of the stems in ways that emphasize any of the quadrants.[8] (Preliminary research is inconclusive RE whether stems categorized in a given quadrant tend to elicit responses from that quadrant – more research is needed.)

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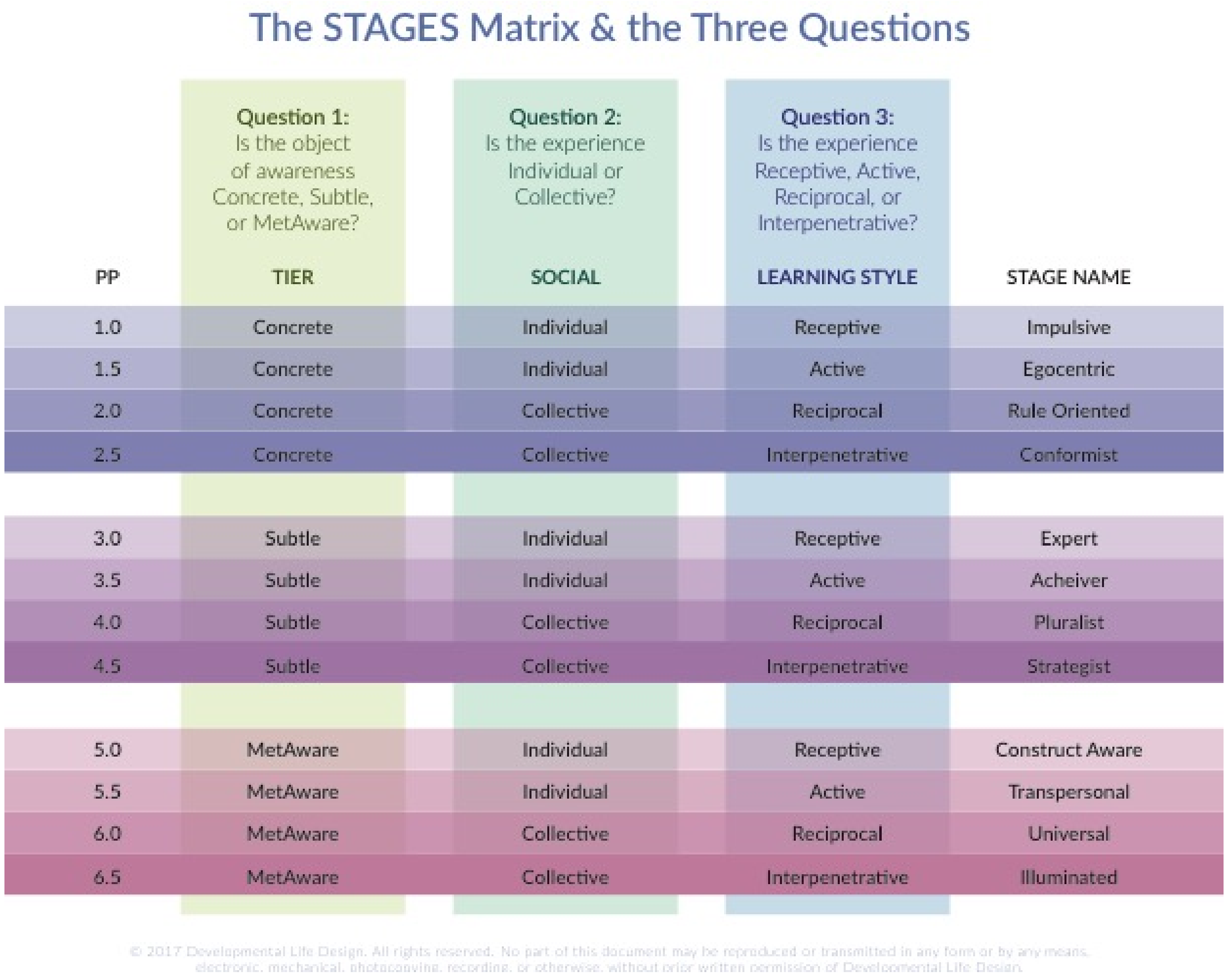
[3] Westenberg (2004, p. 603) claims that "Several studies suggest that the split-half reliability of the WUSCT…is about .80, and, if disattenuated for the greater unreliability of the two test halves, the correlation between the two halves approached unity."

[4] Browning (1987) used a short, 12-item, form in her study, and found that the short form has inter-rater agreement and internal consistency (alpha) "comparable to those reported by Loevinger" (p. 114).

[5] Holt (1980) also reports that the Cronbach's alpha for the 12-item test was .77, vs. Loevinger's finding for .91 for all 36 items, which is exactly what psychometric theory would predict for a randomly selected subset of 12 items from 36 (p. 915).

[6] The full model includes a third tier for a total of 16 levels, but the third tier is hypothetical and not supported by data.



The STAGES Matrix & the Three Questions

	Question 1: Is the object of awareness Concrete, Subtle, or MetAware?	Question 2: Is the experience Individual or Collective?	Question 3: Is the experience Receptive, Active, Reciprocal, or Interpenetrative?	
PP	TIER	SOCIAL	LEARNING STYLE	STAGE NAME
1.0	Concrete	Individual	Receptive	Impulsive
1.5	Concrete	Individual	Active	Egocentric
2.0	Concrete	Collective	Reciprocal	Rule Oriented
2.5	Concrete	Collective	Interpenetrative	Conformist
3.0	Subtle	Individual	Receptive	Expert
3.5	Subtle	Individual	Active	Acheiver
4.0	Subtle	Collective	Reciprocal	Pluralist
4.5	Subtle	Collective	Interpenetrative	Strategist
5.0	MetAware	Individual	Receptive	Construct Aware
5.5	MetAware	Individual	Active	Transpersonal
6.0	MetAware	Collective	Reciprocal	Universal
6.5	MetAware	Collective	Interpenetrative	Illuminated

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Figure 1. The STAGES Matrix.

In 2016 O'Fallon revised Cook-Greuter's sentence stems by changing 9 of the original stems to new ones to achieve a relative balance among the quadrants. Adjustments were also made because some of the original Loevinger stems seemed outdated vs. 21st century western cultural norms. Table 1 shows the results. Of the 36 items, there are 8 stems associated with each of the four quadrants, plus 4 stems that are mixed-quadrant. Changed stems are indicated by bold text.

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[7] And see a similar 4-domain model by Søren Brier (2013).

[8] The determination of stem quadrant is somewhat subjective, as judged by O'Fallon. We do not describe a method defining each quadrant here.

Table 1. General Inventory: Showing New vs. Prior Sentence Stems (changes in bold).

Order	Old Protocol	New General Protocol	Quadrant
1	Raising a family	Raising a family	LL
2	When I am criticized	When I am criticized	UL
3	Change is	Change is	UR
4	**A man's job**	**These days, work**	**UR**
5	Being with other people	Being with other people	LL
6	The thing I like about myself is	The thing I like about myself is	UL
7	**My mother and I**	**My co-workers and I**	**LL**
8	What gets me into trouble is	What gets me into trouble is	UR/UL
9	Education	Education	LR
10	When people are helpless	When people are helpless	LL
11	**Women are lucky because**	**What I like to do best is**	**UR**
12	A good boss	A good boss	UR
13	**A girl has a right to**	**We could make the world a better place if**	**LR**
14	The past	The past	LR
15	**When they talked about sex, I**	**Privacy**	**UL**
16	I feel sorry	I feel sorry	UL
17	When they avoided me	When they avoided me	LL
18	Rules are	Rules	LR
19	Crime and delinquency could be halted if	Crime and delinquency could be halted if	LR
20	**Men are lucky because**	**Business and society**	**LR**
21	I just can't stand people who	I just can't stand people who	UL
22	At times s/he worried about	At times I worry about	UR
23	I am	I am	UL
24	If I had more money	If I had more money	UR
25	My main problem is	My main problem is	UL
26	When I get mad	When I get mad	UR/UL
27	**People who step out of line at work**	**People who step out of line**	**LL, LR**
28	**A husband has a right to**	**A partner has the right to**	**LL**
29	If my mother	If my mother	LL
30	If I were in charge	If I were in charge	LR
31	My father	My father	LL
32	If I can't get what I want	If I can't get what I want	UR
33	When I am nervous	When I am nervous	UL
34	**For a woman career is**	**Technology**	**LR**
35	My conscience bothers me if	My conscience bothers me if	UR
36	Sometimes s/he wished that	Sometimes I wished that	UL, UR, LL, LR

Specialty Inventories: Description

As mentioned, the STAGES model allows for efficient introduction and experimentation with new sentence starters. O'Fallon and colleagues have developed a number of "specialty protocols." The first six of these, which replace 6 of the General protocol stems with theme-specific stems, have been validated for internal consistency: leadership, love, education, and climate change, psychological reflection, and a children's version of the SCT. Reliability analysis results are in the Results section later.

These spaciality inventories were developed separately and at different times between 2016 and 2020. With each specialty inventory, we worked with a consultant who specialized in that domain. We worked with that consultant to design 6 stems targeted at that domain, and in deciding which of the 6 General inventory stems should be replaced. Through this process we maintained the goal of having adequate stem representation among the four quadrants. Sometimes stems were spot-tested on a small number of subjects to check for potential problems (such as common misunderstandings), before the final set was decided upon.

Why create specialty protocols? We are testing the person perspectives that people take on these different areas. For example, what is a first, second, third, fourth, fifth, sixth person perspective on leadership; on love; on education; on climate change? For example on the Love inventory Britt and O'Fallon were able to categorize the specific ways that people at each person perspective understood the topics of love. In the climate change area this might be helpful in planning, policy decisions, or communications that are meaningful to various audiences. Specialty inventories are created for several reasons:

- Quantitatively, they allow a researcher or leader to gauge meaning-making (developmental) levels for a specific theme, for specific populations or sub-populations;

- Qualitatively, they allow for research into the concepts and themes by which individuals understand some domain, e.g. climate change;

- Finally, they allow for the wording of an assessment to appear more familiar or comfortable for given test-taking audiences. For example, if one is assessing employees in an organizational transformation research project, one may want to remove questions about parents or personal relationships which may strike the subjects as too intrusive.

Table 2 shows the new stems designed for each of the six specialty inventories we validate below: leadership, love, education, psychological reflection, climate change and a child inventory which is given orally. In addition, we are currently working with domain experts to design additional specialty protocols in these areas: relationships, religious beliefs, spirituality, money, hope, dementia, ethics, and parenting.

Table 2. New stems for the specialty inventories.

Inventory	New stem
Leadership	A good organization
Leadership	These days progress means
Leadership	Working with other people
Leadership	We could make organizations better if
Leadership	When developing strategies...
Leadership	These days, a career
Leadership	A good leader
Love	Love changes when
Love	Loving other people
Love	Love
Love	Business, society, and love
Love	When I am in love
Love	My main problem with love is
Education	These days, teaching
Education	My students and I
Education	A good educator
Education	Education and society
Education	Students who step out of line
Education	A teacher has the right to
Climate change	The environment
Climate change	Climate change is
Climate change	Regarding climate change, I
Climate change	My biggest concern about climate change
Climate change	People who deny climate change
Climate change	Actually, climate change...
Psychological	My friends and I
Psychological	A healthy person
Psychological	Sex
Psychological	Psychology and society
Psychological	An intimate partner has the right to
Children's	My family
Children's	Grandparents
Children's	These days, school
Children's	My parents and I
Children's	A good child
Children's	When they didn't let me join in
Children's	Bullying could be stopped if
Children's	Children and parents are lucky when
Children's	Children who step out of line
Children's	A parent has the right to
Children's	A child has the right to

The six validated specialty inventories came about as follows:

- The Leadership/organizational/business inventory was initiated by John Wood and Tamara Androsoff, PhDs, an OD consultant and coach who works with the STAGES model – with the goal of including sufficient stems addressing leadership and organizational issues.

- The Love inventory was pioneered by Marj Britt PhD, who is a Unity minister who became interested in the STAGES developmental model. Marg’s specialty is the area of personal and spiritual manifestations of Love, and she wanted to create a Love inventory.

- The Education inventory was initiated by Abigail Lynam, a college professor who teaches courses on educational theory, sustainability, and developmental theory.

- The Climate Change inventory was initiated by Gail Hochachka, a researcher in the area of Climate Change, who used the new Climate Change inventory in her dissertation study (see her report in this journal issue).

- The psychological reflection inventory was initiated by Mark Forman PhD and Kim Barta, MA. Both psychotherapists. It removes stems added to the General protocol about work and society, to maintain a focus on psychological/therapeutic themes.

- The children's inventory was co-created by Jennifer Haynes, Kim Barta and Terri O’Fallon. Jennifer is the principle of the integrally-informed Brisbane Independent School working with children from preschool age through Junior High, approximately. It is mean to be administered orally to children in that age range.

Method: Reliability assessment

As mentioned above, unlike prior models, the STAGES theory and scoring method allows for easy substitution of new stems. However, for any new protocol, one must establish the new stems, each and as a whole protocol, maintain psychometric validity. We assess the reliability of the SCT using the standard Cronbach’s Alpha measure of internal consistency (George & Mallery, 2003). A commonly accepted rule of thumb for describing internal consistency is as follows (IBID):

Table 3. Cronbach's Alpha Interpretation.

Cronbach's alpha	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Our statisticians determined that a sample of 20 surveys was sufficient to validate the reliability (internal consistency) of any new protocol.[9] Later we will give the reliability metrics for each of six new inventories (protocols) that have been designed and tested. But first we report on the reliability of the General Protocol, upon which the specialty protocols are based.

Following inventory design, we worked with the specialist to recruit 20 or more volunteers to take the assessment. Diversity of backgrounds and demographic characteristics was intended, but not strictly monitored. Surveys were scored by a certified STAGES scorer using the standard scoring manual/method. Then our statisticians ran the internal consistency statistics on the data set. In all cases, as reported below, the first version of the new inventory was satisfactory – i.e. there were no outlier stems that needed to be re-designed.

In the results for each inventory, we show the Cronbach's alpha for the inventory as a whole, for the inventory without the new stems, and for only the new stems. Note that Cronbach’s alpha values are naturally higher when there are more stems, and values for different numbers of stems are not directly comparable. That is, the internal consistency for 6 stems is always lower, but this does not necessarily mean that the items are worse then the other items. One would have to compare Cronbach’s alpha values between the same number of items for a direct comparison.

There are two additional types of psychometric analysis possible with each new inventory. One removes each item in turn, and checks the Cronbach's alpha of the remaining set of 35 stems – repeated for each of 9 new stems. We decided to only use this analysis when the overall reliability score is low, to check on outlier stems, but we have not needed to do this thus far. In addition, our statistician reports include a Spearman correlation dendrogram (Sokal & Rohlf,1962) that can be used to reveal hierarchical clustering patterns, i.e. similarities or correlations, between stems. These reveal in general that there are no outlier stems, and we have not yet used these analyses for deeper interpretations, so we do not include them in this paper.

Results

The General Inventory

Table 4 shows results of assessing the internal consistency of the new (now standard in the STAGES assessment) General protocol. It was validated vs. the prior "old" protocol. We compared 940 surveys based on the old protocol with 351 based on the new protocol.

Table 4. Cronbach's Alpha for New (General) vs Old protocol.

	Old *(N=940)*	**New** *(N=351)*
All 36 stems	0.98	0.97
Common stems	0.97	0.96
Changed stems	0.91	0.89

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[9] Our statistical consultant for this project is Moni B. Neradilek from The Mountain-Whisper-Light Statistics in Seattle, WA.

In a test of removing each item and checking the Cronbach's alpha of the remaining set of 35 stems, repeated for each of 9 new stems, the resulting value varied from 0.9688 to 0.9692.

In related research reported on in this journal issue ("Investigating the Validity of the Ogive Aggregation Method, Including the use of Rasch Analysis, for the Sentence Completion Test and the STAGES Model") we use item response theory to assess overall reliability of the test, and look for item outliers (see subsections "Test length" "Item difficulties and item standard deviations", "Overall test strength," "Item discrimination," and "Summary/fit table; and discrimination strata"). These results reiterate the high reliability scores for the full inventory, and the acceptability of each individual item, as indicated above. (However, the analysis does show that the "I am" stem stands out as being the least correlated with other items.)

Conclusion. The overall internal consistency of both the old and new general protocols as measured by the Cronbach’s alpha statistic was excellent (0.98 and 0.97, respectively). The internal consistency of the changed stems in the new protocol was good and only slightly smaller than the internal consistency of the changed stems in the old protocol (α = 0.89 vs. 0.91). Through the method of deleting each new stem one at a time, we confirm that each new stem does not effect the overall consistency of the protocol.

Specialty Inventories: Reliability

Next we describe reliability analysis of the six new ("specialty") inventories: leadership, love, education, psychological reflection, climate change, and a children's inventory For the children's inventory, 53 children, age range 4-13 enrolled in a progressive elementary school in New England, gave verbal answers to in-person prompts; recordings of their answers were transcribed. The data is shown in Table 5

Table 5. Cronbach's alpha internal consistency values for specialty protocols.

			Cronbach's alpha			
Domain	**Leadership**	**Love**	**Education**	**Climate Change**	**Psych**	**Children**
N in study	32	20	20	32	17	53
New stems (of 36)	6	6	6	6	5	11
α All 36 stems	0.97	0.95	0.95	0.96	0.92	0.88
α General prot. stems only	0.96	0.94	0.94	0.95	0.90	0.85
α New stems only	0.85	0.82	0.83	0.82	0.80	0.63

Conclusions: For the five specialty inventories excluding Children's:

- the overall internal consistency was excellent (α 0.95 to 0.97).
- the internal consistency for the new stems as a group was good (α 0.80 to 0.85).
- For the Children's inventory:

- the overall internal consistency was good (α 0.88).
- the internal consistency for the new stems as a group was questionable (α 0.63).

Overall, these results not only show evidence about the reliability of the particular specialty inventories, but it is also show evidence that the SCT is quite robust to the addition of new stems, assuming they are well-written. It also gives evidence that even a short test containing only six specialty stems would be a psychometrically reliable instrument.

The Children's protocol is a special case. First, there were almost twice as many new stems as the other specialty inventories. Second, the assessment was done face to face and verbally. Third, the pre-existing (general protocol) stems by themselves show a much lower alpha (though still "good") vs. the other protocols, indicating that there was probably much more variation in the children's responses than in adults' (see O'Fallon's paper on the Children's protocol in this issue). Thus, though the alpha of the new stems by themselves was unacceptably low, it is not clear whether this was because of the nature of the stems or the nature of the subject population.

Inventory size analysis

Above we summarized prior research suggesting that the SCT worked well with shorter versions. Here we evaluate inventory length variation with the STAGES assessment particularly.

A shorter, 16-stem, inventory. Given the strong results on the reliability of the STAGES SCT mentioned above, we decided to experiment with a shorter inventory containing 16 stems. This gives us an inventory that subjects can take in half the time, which is important for some applications.

We selected 16 stems from the General inventory which we had previously gotten a high Cronbach's alpha on. We chose sentence starters that would point to each of the four quadrants. The stems were: 1, 2, 5, 6, 8, 18, 19, 20, 21, 23, 25, 27, 28, 30, 34, 35 (from Table 1). The Cronbach's alpha for the 16-item inventory (0.98) is in the "excellent" range.

Cronbach's-Mesbah analysis. The paper "Investigating the Validity of the Ogive Aggregation Method, Including the use of Rasch Analysis, for the Sentence Completion Test and the STAGES Model" (Murray, this issue) includes additional analysis related to test length, which we summarize next. Figure 2 shows a Cronbachs-Mesbah curve illustrating the Cronbachs-alpha score for successively fewer test stems (with the worst correlated items removed first). It shows that for a half-item test the reliability is still excellent (.95); and that even with 10 stems, the SCT has very good reliability (.92); and that even at 5 stems the reliability is quite good (.85).

From a purely statistical perspective, the SCT doesn't need so many items (assuming this pattern was also true of the WUSCT or MAP variations of the SCT – though we don't have item-level data for those). However from a qualitative research agenda, and for coaching and debrief purposes, a full set of 36 responses is important for identifying themes and patterns in the detailed reports and coaching sessions given for individualized SCT assessments. Thus for the purposes of sharing qualitative information, and not just a final statistical score, the longer inventory is preferable.

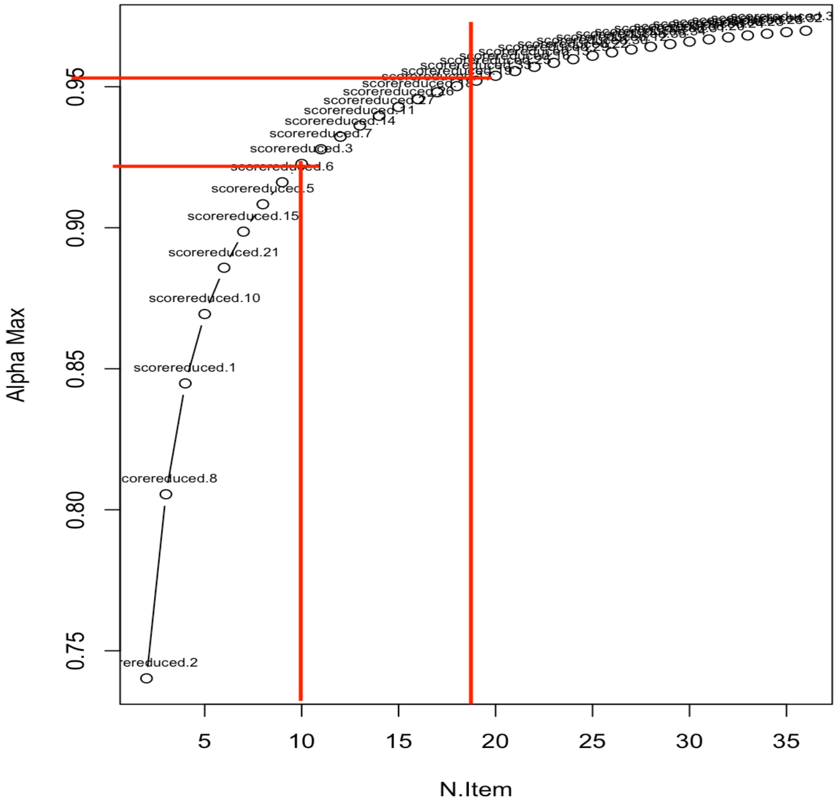

Figure 2. Cronbach-Mesbah curve of alpha vs. number of items.

Conclusions

Over the past 4 years we have experimented with the efficient and effective adaptability of the STAGES SCT Inventory. Beginning with the alteration of the General Inventory, we learned that we could change up to 9 stems all at once in a 36 item inventory, and still have very high internal consistency. This prompted us to experiment with other uses of this process and the idea of the specialty inventories was born.

The resultant findings indicate that the STAGES model allows for efficient introduction and experimentation with variations on the SCT, including new sentence starters and length variations. O'Fallon and colleagues have developed and evaluated "specialty protocols" in these domains: leadership, love, education, and climate change, psychological reflection, and a children's version of the SCT. Most of the specialty protocols replace 6 of the General protocol stems with theme-specific stems. However generally we have an indication that we can change up to 9 stems as depicted by our research on the new General inventory. We are now experimenting with variations on this theme.

We have shown results for internal consistency studies of (1) the STAGES General Protocol, (2) Six specialty protocols, and (3) a shorter 16-item inventory. We have shown that for all of these inventories there is excellent internal consistency (excluding the special case of the Children's study).

Our research not only gives evidence about the reliability of the particular specialty inventories, but also shows evidence that the SCT is quite robust to the addition of new stems, assuming they are well-written.

Our research also shows that the STAGES assessment (and the SCT in general) is psychometrically valid for much shorter inventories, as low as 10 and even 5 items for certain applications.

These statistical results give us an underlying confidence that these variations on the regular inventory are internally consistent.

Once we have this assurance we then do the qualitative research that allows us to extract meaning from what the test takers actually say. For example, we have done qualitative research on the Love inventory. We selected all the Love stem scores at each developmental level and created categories out of their responses. The resultant understanding points to the perspectives people take on Love at each developmental level. As well we can see the evolutionary trajectory on the test takers views on love. The addition of the qualitative research can support curriculum development, policy development, planning, and particular interests of various audiences.

Future Research

Based on the research on adapting the General inventory in length and specialty there is further research we aspire to.

1. We are currently working with domain experts to design additional specialty protocols in these areas: relationships, beliefs related to a specific religious tradition, spirituality, money, hope, dementia, ethics, and parenting.

2. Since we can see that there is a variation from 5 to 9 stem changes and still maintain internal consistency, we will be experimenting with variations of these numbers for other specialty inventories.

3. Since the 5-9 stems isolated from the general inventory still have a “good” internal consistency we will look into using only the specialty stems to indicate the developmental perspectives that people take on the specialty only. This would involve much shorter inventories for people to take which might bring a research advantage, if there is enough material to do qualitative research.

4. Once the quantitative research is complete, qualitative research yields more useful and practical day to day value for our clients. Thus we will be continuing to do serious qualitative research on all specialty inventories and to perfect the relationship between the

quantitative and qualitative interface for the benefits of our services to others. As well, we will look into how to develop curriculum, planning, policy, and service to each specialty area and the audiences that resonate with them.

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Exploring Integral Polarity Practice, in relationship with the STAGES Matrix

Trish Nowland[1]

A conversation with John Kesler[2] and Thomas McConkie[3] with Tom Murray and Trish Nowland

Introduction

This piece is written by myself as a participant in a conversation among John Kesler, founder of Integral Polarity Practice (IPP); Thomas McConkie, John's first IPP successor, and executive director at IPP Institute, as well as founder of Lower Lights Sangha in Salt Lake City; and Tom Murray who has worked with Terri O'Fallon in the context of STAGES as discussed below for about six years. Tom and I have also participated in some of John's IPP workshops over the last 10 years, and are Generating Transformational Change program graduates, as is Thomas. The dialogue was organized by Tom in mid-November, 2019, in the context of the Special Edition of Integral Leadership Review focused on the STAGES model. I've also benefited from co-curating a space for folks in the South Pacific to share in IPP as facilitated by John and Thomas, as you will read below, on occasions since 2012.

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Integral Polarity Practice (IPP) is a unique awareness, life, and group practice designed to support a person in “waking up” and “growing up”, as well as in developing healthy integration of body, emotions, mind, and Spirit. IPP itself integrates developmental theory, meditative techniques, virtue practices, and voice dialogue. Developed by John Kesler, it is influenced by John’s experience with the Big Mind process, and the group facilitation of IPP will be familiar to anyone who has participated in Big Mind. John was one of the first to be certified as a large group practice facilitator by Zen master Genpo Roshi, the founder of Big Mind process. Big Mind is a participatory process that enables a person to access non-dual awareness and other transcendent states through sharing in collective voice dialogue, a Jungian therapeutic technique. In this process, a projected personification of particular qualities or attributes is encouraged to ‘speak’ from its perspective through the diverse voices within the group, providing an opportunity for individuals to interact with that perspective in a way that they perhaps never have before. The Big Mind Process may also be practiced one-on-one, or self-facilitated.

The appendix to this article has diagrams of the IPP stages and structure. IPP is also described at www.theippinstitute.com. The video recording of the dialogue that informed this article can be found at http://bit.ly/stagesippvid, with an audio-only version at http://bit.ly/stagesipp1.

John designed IPP using an approach to person-perspectives articulated by Susanne Cook-Greuter, Ken Wilber, and most clearly in Terri O’Fallon’s STAGES model. This work is itself a progression from earlier work by Suzanne Cook-Greuter (1994) on the ego development scale originally found in Loevinger and Blasi (1976). Also knitted in to IPP are perspectives from other spiritual traditions, including references developed from John’s own background as a Mormon bishop. The practice stands in some ways as a meta-lineage framework, incorporating qualities and virtues that are relevant to the practices and principles inherent in an array of spiritual/perennial traditions. Ultimately, John describes that IPP’s principles and structure flowed out of him incrementally over a number of years, in the context of facilitating others in practice, as well as through his own meditation and life practice. In what follows, we trace the structure of IPP, its qualities as a voice dialogue process, the specific connections to and divergences from Terri O’Fallon’s STAGES model, some brief comparisons to other similar offerings in the space and finally looking to the future opportunities that speak back to us at this point. We start firstly with the question, for those who have not experienced it before - what is Integral Polarity Practice?

The Basic ins and outs of IPP

The figures at the end of this article show the IPP model diagram. The first shows the IPP level sequence, and the second shows a detailed view of the sub-processes for one of the levels. The development of IPP included developing primary polarities that mark something of the resolution to primary developmental challenges that are implicit in any single developmental stage, similar to Erik Erikson’s developmental crises (Erikson, 1959). In Erikson (1959) the model of ego development involves an individual navigating opposing forces that are proposed as present at each developmental level, to achieve what Erikson describes as “potencies” (see Capps, 2014). The polarities in IPP have organically emerged as described above, and have changed through time. These changes have been both consistent with and yet are distinct from the evolution of the STAGES model through time. For example, the earliest stages of the

STAGES model are not as well articulated as later stages, as the development of this model has relied primarily on linguistic analyses of responses from adults, involving responses by participants to sentence stem completion tests, using written language (see more detail on this below). Through IPP, John and the participants in the IPP process have made possible an articulation of pre-verbal polarities, which can be directly connected to sensory experience (for example, expansion and contraction, and focus and openness, at the lowest levels of ‘0.0 Life’ and ‘Mind’, respectively).

IPP borrows stage designations from the STAGES model: 1.0, 1.5, 2.0, ...6.0, 6.5; for the 1st through 6th Person Perspectives (PP) defined in STAGES. It also includes a 0th PP (not explicitly described in STAGES) and a Unitive tier (7th and 8th PP, not shown in the IPP figure; which are in advanced versions of the STAGES model). Perusal of the ‘Polarity Overview’ graphic also reveals an important aspect of IPP beyond its articulated developmental structure and the use of polarities - this is the notion of a still point, from within the specific developmental polarity. This still point becomes an orienting viewpoint for that specific developmental level, and the still point itself has a dual or polar aspect - it reflects bringing the energy of the highlighted polarity into stillness, as well as a deepening of the potency which may be achieved in virtue of recognition of the negation or emptiness of the potency. What this means is, to traverse a developmental polarity well, we must be able to see into and experience both the negation and emptiness of that developmental level, as well as have a sense of experiencing the fullness of the essence of a polarity.

The practice is intended to help folks create a peaceful center, and to access their deepest wisdom, compassion and insight, and to live a fulfilled life. It is intended as a complement to other practices and traditions. Another way to say this is that it represents a meta-lineage framework - supporting how traditions cultivate centeredness, and basic human virtues. IPP makes visible possible virtues related to all developmental levels, and allows a deeper understanding of the specific virtues that traditional lineages cultivate. Since the IPP patterns for working with any polarity are identical, these same patterns can be applied to the endless polarities we experience in life in addition to the primary developmental polarities – in the process of waking up, growing up and becoming more integrated and effective in the world.

Description of IPP in Practice

Both John and Thomas note that there is an incredible amount of rich material available in the earlier polarities, and hence many of the group practices to date have oriented to these structures. As a member of the ongoing South Pacific IPP group which has practiced through the southern hemisphere winter, usually on a fortnightly basis since about 2012, we can say that about 80% of our sessions have been on polarities at 4.0/Context Aware’, and below. Concrete or earlier polarities tend to be information-rich or ‘juicy’ - much of our psychological shadow, or unintegrated aspects of our persona may be deposited in the concrete tier (0th, 1st, and 2nd PPs) and contemplation on this developmental range offers repeated insights. We can work meditatively with these in group and also as life practices - similar to working with weights - some exercises are much more difficult to access and perform, but vitally, repetition and engagement of the limbs builds muscle. The early polarities seem to be the ones where our individual experiences are most sharply and clearly differentiated, where insights gleaned from individual or group practice allow us to literally ‘see’ things differently. In the voice dialogue practice, we find it is often the case that the other side of the polarity becomes available from literally within the practice, embracing the first side. What becomes possible in this moment is witnessing the way that the terms and experiences mutually define, refine, and permeate each other. This leads in an experiential sense to appreciating the still point, the gift of literally presencing an embodied appreciation of the emptiness and fullness and ultimate unity of both sides of the polarity, at the same time.

It is possible to notice a pattern with the still points in the IPP chart, with an empty node, which is typically the location of the absence of the developmental level (for example, ‘no achieving’ for 3.5/Achiever), and then a fullness node, which is a transcending of that developmental level, for example, ‘completion’, for 3.5/Achiever. These mark a foundation-to-causal shift, for these experiential states. The still points are described by John and Thomas (and are experienced as a participant in an IPP session) as an experience of causal awareness – the subtle dance of the polarities and/or the concreteness of the terms becomes able to be inhabited from a place of utter stillness. The unification of the poles creates a quality of non-duality; the unity of the fullness and the emptiness of the still point a more complete non-duality; and then a collapse of one’s witnessing awareness into that, an even more complete non-duality. All of this is part of a protocol for working deeply with any polarity. What is invited is both a witnessing and an embodiment experience, founded in a view of mutuality of difference, and indistinct union, both across polarities and across the perspectives that are introduced in real-time, by participants with the ultimate collapse of the witnessing.

The particular trajectory for experience nurtured in this dynamic is informed by the Big Mind non-dual experience made available in the original teaching of Genpo Roshi, but now contextualised for each developmental level. Dwelling in the experience of the still points gifts one with the accompanying experiential appreciation of that stage’s virtues. The virtues are an unfolding which expresses the quality of the relationship for the specific polarity in question. There is always a primary virtue of Becoming (with Eros energy) and of Doing (with Agape energy) which arise out of each still point. For instance, the fullness still point, Transcendent Abundance, for the polarity of seeking (desire/aversion) automatically yields the Virtue of Becoming of Transcendent Gratitude, and the Virtue of Doing of Transcendent Generosity.

This is meant to facilitate deep engagement with wellbeing, and a deeper embodied understanding of the polarity itself. What unfolds is something that, on the surface, is a seeming shutting down the whole function of the polarity (i.e. if I only feel Abundance and Fullness and/or the emptiness of non-seeking, I have no need to desire or move away from anything). This polarity of seeking sits as a foundational polarity of our everyday being - we learn, our whole lives, and seek to move towards or away from things - essentially always coming from a place of deficit. In practice, if we are present in the moment, and allow in a sense of an absolute Abundance, it is possible to see more clearly what is appropriate to seek from our deepest place of Wisdom and Compassion. We are both more free to seek, and to not seek. This facilitates total presence with either state, without being locked in ego defenses and ego needs. The still point is always a place of Beingness, in this place of availability of the whole spectrum of one’s being, one can find the source of wisdom and awaken through the portal the more encompassing aspect of the more-than-self.

As Collective Voice Dialogue

IPP can serve in the modes of both a life practice (something supporting deeper engagement in everyday activity), and as an awareness practice that builds specific skill-sets in attending within distinct perspectives, which comprise their own polarity to be fully integrated. In a group setting, the process of voice dialogue lets us access the polarities more deeply. There is a freedom to acknowledge how much of a particular polarity side would be medicinal in any given circumstance. For instance, personal agency in the territory of any stage (or polarity) is deepened in a distinct way in a collective setting (vs. individual). We may see more clearly in the collective what it is possible to do, individually. Thomas describes drawing on IPP in working with distinct aspect of his personal relationships in life practice, drawing out perspectives that otherwise may persist as irritations of a sort to the psyche - those qualities of another that we're both drawn to, and distanced by. Everything below one's center of gravity represents a therapeutic opportunity - a re-encounter – and bringing one's higher awareness in offers the opportunity of embodying the very foundations of one's Being with increasingly transcendent sensibilities.

John notes that the virtues of the still points emerged initially from intuition, and then groups in dialogue settings shared feedback about them - so the model is a product of both individual and collective experience. The virtues which emerged out of the first eight perspectives pretty much align with the traditional virtues as well as positive psychology strengths - collective wisdom seems to arrive in the field of collective experiencing - the practice framework gives us something to guide us, but there is something dynamic that seems to occur in the shared space. In groups, by making the dynamics visible, with a basic understanding of the territory, we are more likely to notice and detect virtues when they are present in the everyday world. Even subtle presencings can be attuned in a new way in conscious awareness, via the practice.

From a collective practice standpoint, it can be noted that everyone has blocks which occur in different ways. Approaching the virtues of IPP can help us to actually access the still point, even if there is a specific block around one of the polarities, and find a way to navigate then to the less visible pole. The virtues, still points, and polarities then are mutually reinforcing. Also of note is the sense that vices can emerge when one is blocked from a still point or virtue - for a mapping of these, it is possible to consult the more detailed charts (see 'Polarity Charts' at the bottom of this page: https://theippinstitute.com/resources).

From the facilitator's perspective, it is possible to note that often a particular voice will speak up in a group voice dialogue session. Thematic consistencies from cross-group experience unfold which the facilitator can then draw upon, in practice. Facilitators can support/induce opportunities for causal state experience, which were not previously available in the room. The structured personality system marked by the STAGES and IPP softens in this presence, so the tail can wag a large dog, in a way. There can be found an amplified field-effect, and the wisdom that is already available in the collective or group is noted by John and Thomas as tending to 'spout out', and make itself known.

Historical Relationship between IPP and STAGES

John developed the essence of IPP initially by framing developmental polarities related to stages used most often by Ken Wilber and then through an encounter with Suzanne Cook-Greuter's work with the Leadership Maturity Framework. Note that Beena Sharma has since developed a version of Suzanne Cook-Greuter's developmental training called "Integrating Polarities" (developed independently of IPP; see https://integrallife.com/integrating-polarities-training/). More is described about the link between Beena's work and IPP, below. For IPP, John became acquainted with Terri O'Fallon through Suzanne. Terri was formalizing the STAGES model at that time, working within the Pacific Integral (PI) organization. John was invited by Terri to be one of four individuals including Terri to engage in the first scoring of sentence completions using the STAGES methodology in a research context over a period of two years (that version eventually become known as the MAP). John was one of the first to be certified in STAGES scoring and debriefing. IPP does not purport to represent STAGES fully, but there is an intentional close alignment - including the specific focus on more granularity in the meta-tier than in other developmental models.

Meta-elements that Span IPP and STAGES

"Integral Thematic Practice" was the original early name of IPP, and the early focus of the practice was oriented toward five themes referred to as ground, concrete, subtle, causal and integration phases, which manifest in states, stages, types, and modalities of life and spiritual practice, etc. The STAGES model today carries this thematic throughout the patterns in the tiers. John notes for instance that the 5 Buddha families of personality types carry the same themes (see https://tinyurl.com/vjm8yhk) and that they are otherwise pervasive in various aspects of many Buddhist and Vedantic schools. These five themes turn up in multiple interpenetrating dimensions beyond our conscious ability to integrate, and so we find ourselves in a holistic aesthetic of integrating these interpenetrating thematic cores – one might say in an ongoing jazz composition of life. Over time John noticed that the pervasive thematic elements of the practice are most accessible to only advanced practitioners, and changed the name of the practice to highlight its most obvious structural element: polarities. Yet these thematic elements are central in framing a new full four stage tier prior to 1.0 and a more detailed four stage unified tier, which are elements of what might be called IPP 2.0 to be shared in late 2020 or early 2021.

Another theme that traverses both STAGES and IPP is an appreciation of both the evolutionary and "involutionary" modalities of awareness. Evolutionary or ascending through Eros is associated with development and greater complexity and oneness, but practicing and embodying the involutionary current through Agape from a prior no-dual unity makes possible the awareness that we ourselves are expressions the divine or the absolute. In involutionary terms, polarities emerge from that prior unity, which make obvious experientially that one pole is inherent in the other (in a sense the poles arise out of the still point, in contrast to seeing the still point emerge from the relationship between the poles). An example of this in the involutionary practice is that the virtues of Transcendent Joy and Transcendent Sorrow both arise from unqualified Transcendent Love and one cannot exist without the other. Christ coming to be on earth is a symbol of both Transcendent Joy and Transcendent Sorrow, in Love. In the involutionary practice this just flows in the person's awareness stream, rather than being articulated, as appreciable differences. In this way, IPP helps guide an experiential understanding of the broad possibilities that accompany the flow of Love, for example. The involutionary practice presumes stabilizing in non-dual awareness and is hence an advanced practice, and the embrace and oneness of the Eros and Agape, of evolution and involution are the final polarity practice of IPP.

Differences between IPP and STAGES

We can note that the most foundational polarities in IPP (0.0 and 0.5) and as further expanded and developed in IPP 2.0 are not found in the STAGES model and yet are implicit in STAGES theory. For example, the foundational 0.0/Life polarity is one of physical expansion and contraction. This works with the concrete poles as well as subtle flow between them, into an experience of the causal still point of profound relaxation. This is a very direct example of where access to states is available all of the time, and these states became structural elements of the polarities at the different stages in STAGES. It may, for later levels, be a requirement of development to actually continue to hold the polarity and work with its wisdom from multiple perspectives as relevant to the stages, but the experience of existing in a way calibrated by polarity such as that of physical expansion and contraction is available at all levels.

The development of these earliest polarities, prior to the development of verbal and linguistic skills, speaks to and for our experience simply as beings, which we share with all animals and yet by bringing our highest awareness to these polarities they provide a framework for profound embodiment, enrichment and growth. Drawing on Vedantic understandings of physical functioning and sentience, we can note for example that expansion and contraction need to be available for consciousness to come into living, as is available even for one-cell organisms (Bainbridge Cohen, 1993). The basic pattern of expansion and contraction is foundational for the most primitive of life forms, and is true even for plants. Bringing the highest awareness to this most foundational of experiences brings forth an opportunity to touch into the Ultimate, in terms of a unifying principle, something foundational for all grounded in the still point and the virtues of Transcendent Acceptance and Transcendent Life Force. *Both* IPP and STAGES allow for this fluidity - i.e. they allow one to be informed of, and to engage in, a profound mystical experience - incredible discoveries are continually available in those spaces. In following Loevinger, Cook-Greuter and Kegan, the STAGES approach tends to address “meaning-making” as it manifests explicitly and verbally, vs. the more experiential non-verbal core of the experiences reached in IPP.

Kim Barta, who runs STAGES International with Terri O’Fallon, has had a vital role in bringing Terri’s work alive in these early polarities, and includes the 0.0/Life and 0.5/Seeking polarities in his presentations. John notes that across developmental psychology as articulated in integral spaces, there remains a bias with respect to an imputed primitivism of earlier stages. Because of the orientation to adult development and linguistic skills described above, it is easy to see how the bias has come about, whether it is described in terms of shift to orientation to broadening out later perspectives, or straightforward negation or neglect of these levels as they can’t directly be accounted for in sentence completion self-report format. IPP gives a different view - so much information is available at these earlier levels - children, particularly for example, have access to a different kind of tuning in, which is appreciable among adults - this is a shared wisdom, across cultures. In participating in IPP we're returned to these more ancestral or earlier developmental experiences, to work our way forwards again, into experiences that can be supported by more complex neural development, or experiential awareness. This includes IPP polarities and practices which support on in transitioning into, fully integrating and transitioning out of four stages in the meta tier and four stages in the unified tier.

Apparent Divergence but Profound Complementarity of STAGES with IPP

On the surface IPP appears to be consistent with Loevinger's research, with no repeat of patterns through the stages. This is different from the STAGES model, which is built on repeating patterns, through rather than within the stages. So on first glance, the driving force or motivating energy for IPP, compared to STAGES, seems to be distinct. For example - for 3.5/Achiever, in STAGES the separation of poles for the perspective at that level is either/or, and subject/object. This is what the developmental model would prescribe. IPP sets forth subjectification/objectification as the key polarity at 3.5, and experience has shown that people at 3.5 experience that polarity in an either/or manner. However IPP show how this polarity can be experienced in a both/and manner at 4.0, in an interpenetrative way at 4.5, and beginning at 5.0 and especially 5.5 is experienced as a unity. This is what STAGES predicts and points to. We can say that the practice of IPP has a dynamic in it that habituates the participant to the practice of unifying distinct perspectives. John states it this way - IPP has been a beneficiary of experientially validating what STAGES points to. While STAGES predicts then that someone can see deep interpenetration of subtle polarities at 4.5/Systems Aware, through facilitation IPP gives an opportunity to encounter the habits and cultivation of awareness that supports the dynamics of 4.5/Systems Aware consciousness throughout the wholeness of being.

Another example of IPP inherently holding the patterns of STAGES is that in STAGES, successive emerging stages alternate in passive/active succession and reflect early to more mature expressions of moving from a ".0" stage to a ".5" stage. At the 1.0 stage, IPP sets forth agency/communion polarity as a foundational relational polarity. One cannot have a sense of self without an implicit other. The next polarity at 1.5 is control/submission, which brings the inevitable power realities into any relational environment. This pattern is repeated throughout the spectrum of primary IPP polarities.

Another aspect of IPP which is not evident on its face in the simple listing of the IPP polarities is that for instance, agency/communion is a subtle tier version of me/you or me/group which one would encounter when it first arises in the concrete tier. It is listed as agency/communion at 1.5 in the concrete tier because this is the earliest stage of that relationality emerges, but most IPP practitioners have a center of gravity in the subtle tier (3.0 to 4.5 person perspectives), and so the subtle tier version of the polarity is listed on the summary chart. Only in working through the underlying theory and advanced practice of IPP is it made clear that once a polarity comes on line, it has different manifestation at each tier of development. So for instance, what would be me/group in the concrete tier, is agency/communion in the subtle tier, and Witnessing/Worlds in the meta tier. This is all inherent in STAGES as well. IPP is simply a practice modality for these patterns. STAGES is certainly broader in scope and more theoretically complex in developmental terms than IPP, but where they overlap there is remarkable similarity.

Comparison to Other Systems – Polarity Management System, Pointing Out Way

Suzanne Cook-Greuter and Beena Sharma, mentioned earlier in reference to the Leadership Development Framework, have built on the Polarity Management System of Barry Johnson and have confirmed a set of polarities which are characteristic for each stage through 4.5. Beena is a master of this polarity model and has formalized her teaching of "integrating polarities" under the name of the Polarity Approach to Continuity and Transformation (PACT). PACT is not itself meant to represent the full developmental map articulated by Cook-Greuter and Sharma, but it is an extremely helpful approach and tool usable within developmental education, personal reflection, and in groups and organizations. Among other things, It provides support for achieving a 4.0-4.5 level of developmental complexity and related competencies for working with polarities in our lives and work. PACT is actually beneficial for some participants who are not as comfortable with paradox, in that it provides a clear system for navigating paradox, while IPP invites one more deeply into the experience of paradox and beyond.

A primary distinction between PACT and IPP is that PACT emphasizes working with the subtle dynamics of polarities, whereas IPP explicitly works with the concrete, subtle, causal, witnessing and non-dual state dimensions of every polarity in in the context of stages, types, lines and evolutionary and involutionary dynamics Sharing approaches and tools similar to Polarity Management and PACT is increasingly included in IPP Institute offerings because it helps people become familiar with polarities and comfortable with polar dynamics in a developmental and applied context before diving more fully into the deeper practice of IPP.

Practice with polarities within IPP requires comfort with paradox in concert with attentiveness to both spiritual awareness and meaning-making. One way of describing falling into the still point is that the human equivalently disappears into the Tao - non-egoic virtuous action is possible, if the individual is willing to let go of the self. Another comparable system discussed in our dialogue was Dan Brown's 'Pointing Out Way', a relational teaching facilitated by Dan Brown in a multi-day retreats that, through successive practice levels, induces a taste of awakening for participants. John noted that the involutionary current that is apparent in the Indo-Tibetan teachings tends to work with the idea of a self-structure, and levels of egoic assembly that accompany more solidified self-structures, breaking this down to provide the opportunity for an experience of awakening from the limits of what these are (see Epstein, 1996, for an accessible introduction to the connection between Western psychotherapy approaches to the self, and Buddhist principles, with respect to the ego). Notably, the Pointing Out practice stays in very close contact with Mahamudra teachings and Gelugpa lineage, as passed down to Dan during his meditation training. This is distinct from the work of IPP as a meta-lineage framework, which does not anchor directly to a specific tradition or lineage.

Conclusion in Brief

As we began Down Under to explore the possibility of engaging in regular practice spaces to delve into the experience of IPP, I remember having read Tom's and Terri O'Fallon's paper from Integral Review in June 2010, "A perspective on Kesler's Integral Polarity Practice". What was clear, in reading this paper, was the sense of profound depth, to this practice – in the words of Murray and O'Fallon, in the practice, there is a transmission along the lines of the experience in the moment of this just being "the tip of the iceberg". There is something available in the complexity and intricacy of what is held, by John and Thomas, where we find each other newly, together. If I bring to mind the most frequently repeated refrain from folks around Australia and New Zealand who have shared in the online experience, it is that we can't quite believe, often, that we have never met each other in person, and have never met John or Thomas, in person. We're nurtured into spaces, where we find ourselves, more deeply available perhaps, to others, and to ourselves. If there is one possible real-world realization that might unfold from the last line of that article, a quote from John that says this practice supports finding "the ever present sacred ecstasy and ordinariness of life", I believe it may be this; we're more able to know each other and ourselves, in this space. It is with wonder to turn towards what the possibilities might be that are represented, in IPP 2.0.

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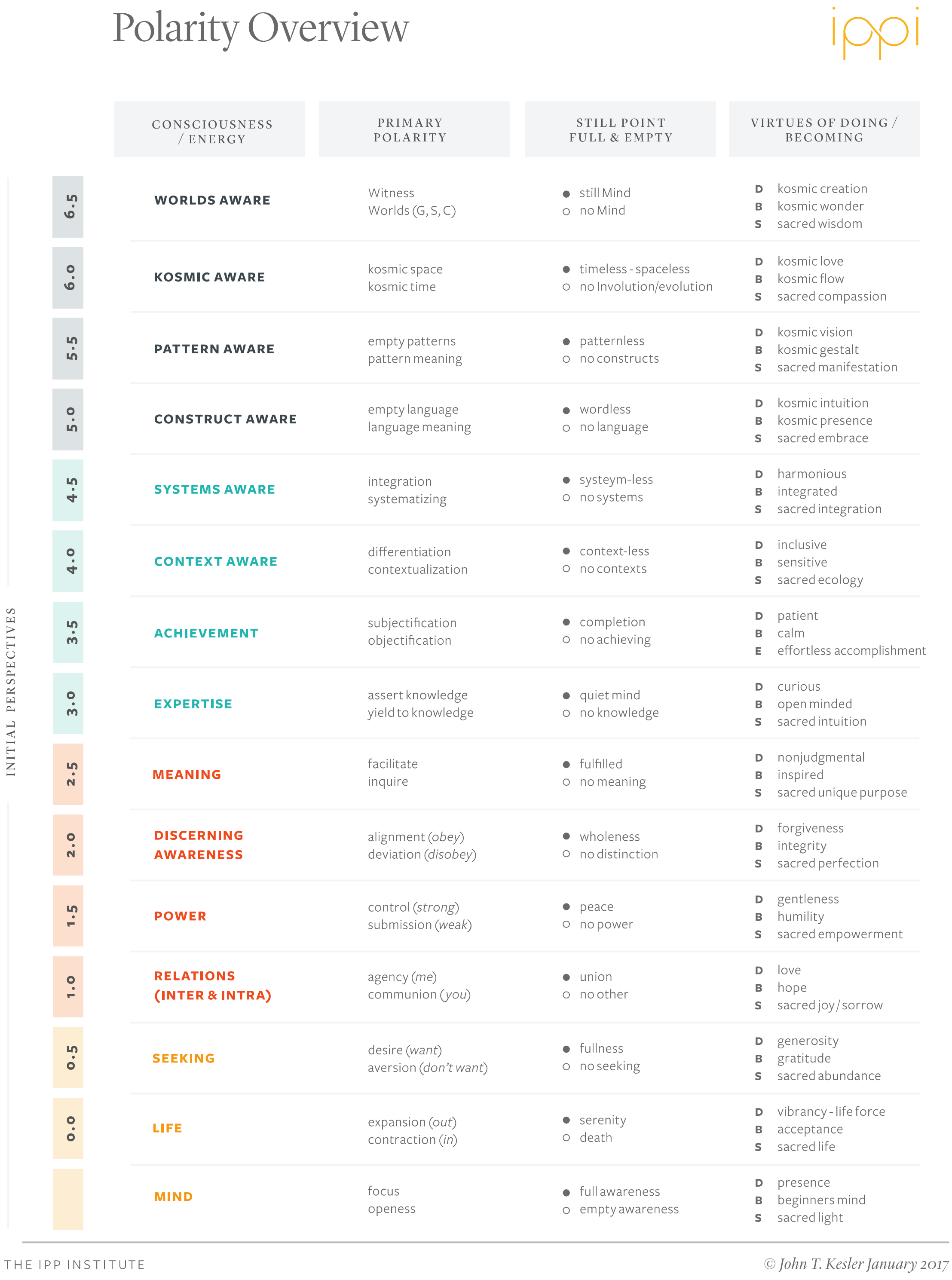

Polarity Overview

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INITIAL PERSPECTIVES

	CONSCIOUSNESS / ENERGY	PRIMARY POLARITY	STILL POINT FULL & EMPTY	VIRTUES OF DOING / BECOMING
6.5	**WORLDS AWARE**	Witness Worlds (G, S, C)	● still Mind ○ no Mind	D kosmic creation B kosmic wonder S sacred wisdom
6.0	**KOSMIC AWARE**	kosmic space kosmic time	● timeless - spaceless ○ no Involution/evolution	D kosmic love B kosmic flow S sacred compassion
5.5	**PATTERN AWARE**	empty patterns pattern meaning	● patternless ○ no constructs	D kosmic vision B kosmic gestalt S sacred manifestation
5.0	**CONSTRUCT AWARE**	empty language language meaning	● wordless ○ no language	D kosmic intuition B kosmic presence S sacred embrace
4.5	**SYSTEMS AWARE**	integration systematizing	● systeym-less ○ no systems	D harmonious B integrated S sacred integration
4.0	**CONTEXT AWARE**	differentiation contextualization	● context-less ○ no contexts	D inclusive B sensitive S sacred ecology
3.5	**ACHIEVEMENT**	subjectification objectification	● completion ○ no achieving	D patient B calm E effortless accomplishment
3.0	**EXPERTISE**	assert knowledge yield to knowledge	● quiet mind ○ no knowledge	D curious B open minded S sacred intuition
2.5	**MEANING**	facilitate inquire	● fulfilled ○ no meaning	D nonjudgmental B inspired S sacred unique purpose
2.0	**DISCERNING AWARENESS**	alignment (*obey*) deviation (*disobey*)	● wholeness ○ no distinction	D forgiveness B integrity S sacred perfection
1.5	**POWER**	control (*strong*) submission (*weak*)	● peace ○ no power	D gentleness B humility S sacred empowerment
1.0	**RELATIONS (INTER & INTRA)**	agency (*me*) communion (*you*)	● union ○ no other	D love B hope S sacred joy / sorrow
0.5	**SEEKING**	desire (*want*) aversion (*don't want*)	● fullness ○ no seeking	D generosity B gratitude S sacred abundance
0.0	**LIFE**	expansion (*out*) contraction (*in*)	● serenity ○ death	D vibrancy - life force B acceptance S sacred life
	MIND	focus openess	● full awareness ○ empty awareness	D presence B beginners mind S sacred light

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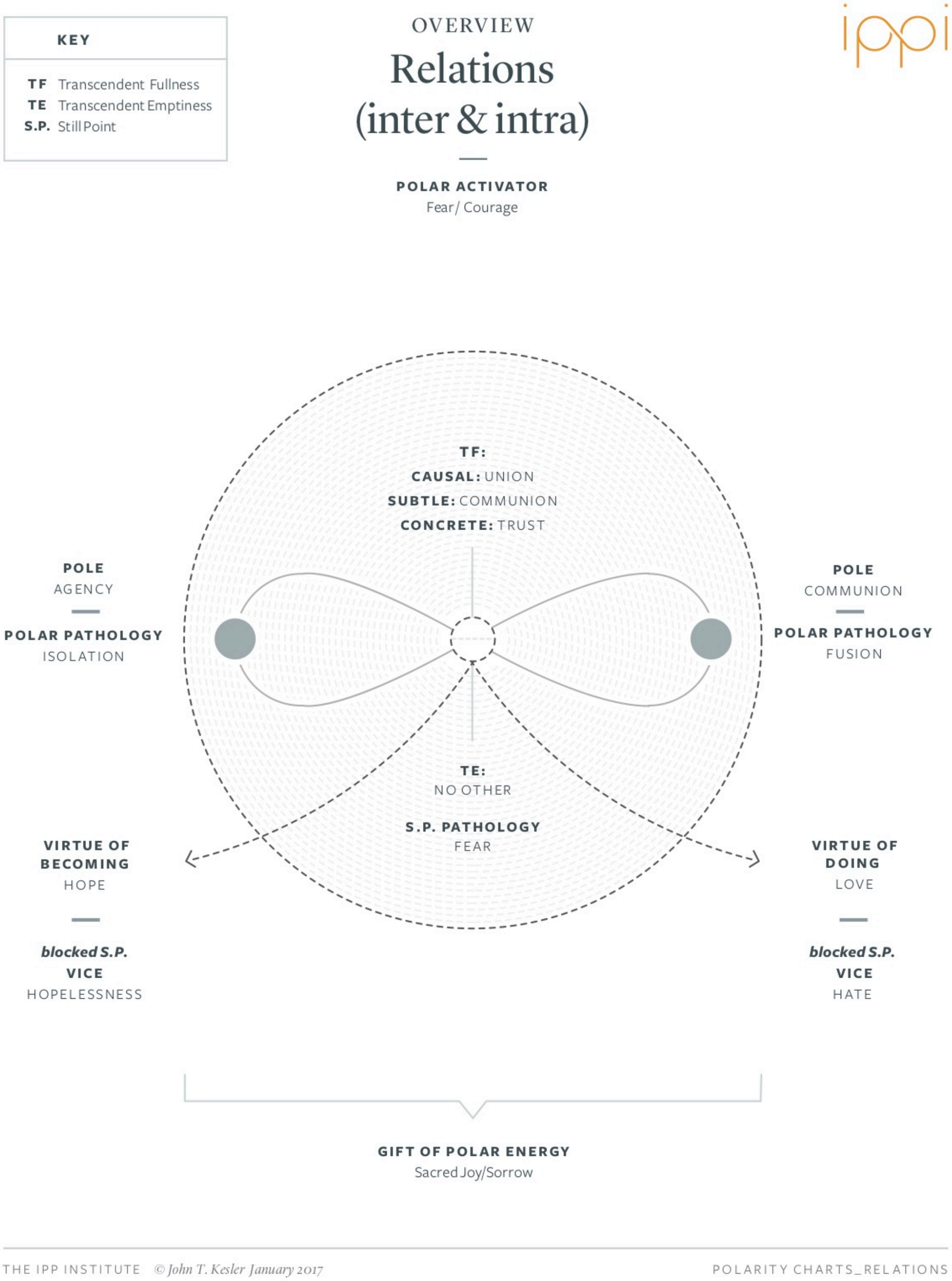
Figure 1. Polarity overview.


KEY
TF Transcendent Fullness
TE Transcendent Emptiness
S.P. Still Point
OVERVIEW
Relations
(inter & intra)
ippi
POLAR ACTIVATOR
Fear/ Courage
TF:
CAUSAL: UNION
SUBTLE: COMMUNION
CONCRETE: TRUST
POLE
AGENCY
POLAR PATHOLOGY
ISOLATION
POLE
COMMUNION
POLAR PATHOLOGY
FUSION
TE:
NO OTHER
S.P. PATHOLOGY
FEAR
VIRTUE OF BECOMING
HOPE
blocked S.P.
VICE
HOPELESSNESS
VIRTUE OF DOING
LOVE
blocked S.P.
VICE
HATE
GIFT OF POLAR ENERGY
Sacred Joy/Sorrow
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POLARITY CHARTS_RELATIONS

Figure 2. Relations.

Luhmann`s Life Work and Tier Patterns:
The Analysis of Differences and Contingent Patterns

Roman Angerer[1]

Abstract: The article undertakes an archeological investigation into the writings of the German Sociologist and cybernetic Systems-thinker Niklas Luhmann. His writings spanning almost four decades of uninterrupted stage growth and text production are good fodder to dissect ruptures between and plateaus of semantic-syntactic structures called developmental stages. By this an architecture is exemplarily revealed that spans four Tiers including sixteen Stages with four subphases at each niveau of relative stability which sometimes is called Center of Gravity. The article is structured as an oscillation between genetic and structuralist phases that enrich Luhmann`s Life Work by multiple references to other thinkers at the integral and post-integral stages. The final section that then presents the complete model is also a critique of other developmental models specifically directed towards and suggesting critical revision of Terri O`Fallons STAGES model. This happens through introducing four common fallacies developmental models commit, when trying to appropriate the transcendental and phylogenetic realm preconditioning our conscious growth, through the contingencies of our very self-referential and themselves-thematizing observations. Additionally, in discerning between genesis and structure, descenders and ascenders, inside and outside perspectives and ultimately an Aristotelian and an Platonist Type of stage growth it is the attempt of a seamless intervention between both modes, uniting them and ultimately deluding them of their most prominent errors: the necessity of a first distinction mistaken for the creator and their ultimate purpose mistaken for the divine.

Keywords: Archeology, ego development, Nicholas Luhmann, semantics, text analysis, universal grammar.

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Introduction

Basic Structure

The following article will offer a developmental view on Niklas Luhmann`s work. Luhmann was a German sociologist and social theorist. He is considered to be the most important German-speaking representative of sociological systems theory and socio-cybernetics. We will follow him through ruptures in his life and writings in an attempt “to establish, between so many different changes, analogies and differences, hierarchies, complementarities, coincidences, and shifts: in short, to describe the dispersion of the discontinuities themselves”, as Michel Foucault (1972, p. 175) lays down in his *Archeology of Knowledge.* However, despite Foucault`s doubt of deploying “two heterogeneous stages on either side of a split” (ibid. p. 175), these ruptures in Luhmann`s life and writings will be related to a linear sequence of stage growth.

This procedure is promising in at least two differential but interrelated ways, when it comes to improve adult developmental theory and its measurement: a) it will give more granularity to single stages by showing repeating patterns within the dispersion of discontinuities and b) by following these repeating patterns of differences and similarities and the related ruptures further differentiates within what Susanne Cook-Greuter (2010) called post-autonomous ego-development. These repeating patterns stem partially from the examination of Terri O`Fallon`s work and the attempt to dynamically deconstruct and reconstruct it within the written expressions of common people and famous Authors` lives. The pattern shows a more than accidental overlap with those used by Terri O`Fallon (2013) in her reframing of and expansion on Jane Loevinger`s and Susanne Cook-Greuter`s work. However, the trajectory finally revealed seems quite distinct and the application of a quadruplicate pattern – as will be shown – rather part of late stage consciousness than an individual or unique approach to structuring reality.

The article is divided in several sections. Starting with an introduction into the foundations of ego-development theory and showing how research into literature can help improve the granularity of sentence completion tests, we will go through the writings of Luhmann in a linear and chronological as well as nonlinear and comparative manner and show the dispersion of discontinuities. We look at all his books up to the 1970s and then restrict ourselves to the major ones and those which mark transitions. Intertwined with this we will show repeating patterns display themselves. They will be related to sequences in language development and hierarchies of grammar. During this process cross-references to Susanne Cook-Greuter`s and Terri O`Fallon`s work will be given to correlate the sequence with their models as best as possible as well as to other developmental psychologists and authors from social sciences or philosophy to illustrate seeming parallels. Central for this cross-referencing are Georg Wilhelm Friedrich Hegel, Sri Aurobindo, Charles Sanders Peirce, Ken Wilber and Lawrence Kohlberg. A final section will offer insights into the Tier Structure of development which stems directly from Luhmann`s work and matches that depicted by Hegel, Peirce, Aurobindo and others and how this tier structure can be correlated with Terri O`Fallons theory of stage development.

Our goals include the suggestion of heuristic principles for the grammatological analysis of text, first in an introductory fashion and then at larger granularity applied to determine the grammatical complexity of written texts. As a supplement and expansion of text scoring based upon a catalogue of examples that are matches against individual’s expression to determine a level of development as done by Cook-Greuter and Loevinger we propose grammatical and logical properties of text as more fundamental indicators of developmental complexity. This might lift grammar and logical complexity from being a palate cleanser in Ego-Development theory where it only exists as an assumed precondition for development, serves when sentence completions cannot be matched to a pre-categorized exemplar and appears as rough patterns in pre-categorized examples towards being a main ingredient for pointing towards a person developmental center of gravity in a domain general fashion or independent of different line based assessments of consciousness's maturity. Furthermore, it expands the scope of analysis from standardized sentence completion tests with a fixed number of verified items for instance towards the analysis of literary texts. It will also allow for a deeper exploration and understanding of the nature of this development by providing both a more fine-grained tool and an overarching superstructure that is at the same time a set of transcendental categories that underly a subject's linguistic operations.

This parallels the attempts of O`Fallons model, which also moves away from exemplar-based scoring to focus on the structure of language rather than its content, the specific categories of exemplars used by Loevinger and Cook-Greuter. As said, we will propose repeating patterns that underly the sequence in which developmental levels unfold as tiers of increasing grammatical complexity, and these patterns partly overlap along the explored trajectory with these used by O`Fallon. Thus, despite the many difference highlighted, our method may also productively used to refine and extend Terri O`Fallon`s model and scoring method as well as refine and extend Jane Loevinger`s and Susanne Cook-Greuter`s work.

Philosophy of Style

The article is meant as an appropriation to a more Aristotelian than Platonist view. In this orientation we pay credit to the main actor and heroic figure of this article Niklas Luhmann who can - despite several differences and expansions on ancient concepts – be considered to enact an Aristotelian metaphysical approach. By inquiring into the structure of the world, especially that of social systems, he tries to provide a better understanding of reality. Luhmann considered himself a poststructuralist thinker concerned about Autopoiesis, the self-replication and oneness of process and outcome, where nothing is solid but exist through its self-repetition and search for self-sufficiency and self-maintenance through self-narration and reentering into one's own stories and scripts of what it means to be oneself as part of society: a process that oftentimes is argued to be a rediscovery of the Aristotelian distinction of self-preservation that "comprises the complex bodily and behavioral relation of being-organized-toward-a-plan into a linguistic-semantic construct that can be objectivized as if it were a thing: namely, the entelécheia [the Form that realizes itself within a substance] or structure [that] refers, indeed, to the specific dynamic structure of self-organizing systems that preserves themselves" (Álvarez-Vázquez 2016, p. 72).

Jacques Derrida`s (1978, p. 154) statement in *Writing and Difference* that philosophy, and hence science, too, becomes easily "an abusive investigation which introduces beforehand what it seeks to find, and does violence to the physiology proper to a body of thought" seems relevant here. Of course, all we seek to find in this paper is based on the efforts of more than eight years of the author engaging in a thorough search, including avenues with mistakes and progressions within these mistakes, which lead to the living and partly unpredictable thing this article became through writing and which it is meant to become in the eyes and minds of the readers. It builds, besides other papers, especially upon a Master-Thesis about Luhmann, Hegel, Peirce and Stafford Beer (Angerer 2019). However, in being written it reveals newness, surprise and wonder within the author and is supposed to do so in the "we" it addresses and as that which and within which it writes itself as its each and anytime pre-structured and unique self-revelation. Derrida calls this play, borrowing from Husserl, the problem of structure and genesis. Or we could say of structuralism and accidentalism, of outcomes and solids or underlying ever-presents and processes and fluidity or an above floating presence of the coming and going that reality is. And "in any event, as can be seen, the necessity of this transition from the structural to the genetic is nothing less than the necessity of a break or a conversion" (Derrida 1978, p. 164) where something "differs from itself in order to reappropriate itself" (ibid. p. 166).

As Gilles Deleuze (1998) writes, there is one practical problem to each play or writing or search for understanding. The difficulty of what Aristotle called recognition, wherein an "unknown knowledge must be represented as bathing the whole scene, impregnating all the elements of the play and comprising in itself all the powers of mind and nature, but at the same time ~~the hero~~ [the oneness of the writer and reader as the oneness of that reappropriating and interpreting we] cannot represent it to ~~*himself*~~ [itself] – on the contrary […] [we must] enact it, play it and repeat it until the acute moment […] [where] repetition and representation confront one another and merge, without, however, confusing their two levels, the one reflecting itself in and being sustained by the other, the knowledge as it is represented […] [in the writing and reading] and as repeated by the […] [reader and writer] then being recognized as the same" (Deleuze 1998, p. 15). Genesis or process and structure are intermingled and the differences pointed out reveal the structure and each structure – though it might be timeless, beyond human space, before any individual consciousness and social phenomenon, even before Abraham was born but prefigured in the big bang which set in to disclose creation to itself, while, too, outside of any identity but appropriated as Brahman is appropriated in each Atman through the Ishwara and each energy fed through the aftermath and expansion of the first blink of existence – as its own differences becoming its own differentiated. It is an entering that creates a unity of the writer`s past and personality as its own all with that of the reader`s past and personality and vice versa by travelling the infinite, unbound, unpredictable but precious and with all identical discourse and mind that we all are, however approximate this all and sacred dialogue is in its particular present and pristine self-presence within a single seemingly individual and separate mind reenacting the typo in letters, words, sentences, textuality and finally an understanding.

Thus, this article moves between genesis and structure. By this we are constantly adding and taking away words and information that is reappropriating itself as that "text" and communication that it is meant to be; as distinctions and presence merged in both reader and writer: one follows the other and one within the other endlessly, eternally – drank by one moment of reading and poured out as fragment of the new whole everlastingly. There is no need to understand, though it was written with best intend of braking down the overall complexity and make it comprehensible. What is repeated can enter and what is new becomes a new possible repetition. More genetical phases are followed by more structuralist phases of this article because as Kierkegaard said, "life can only be understood backwards; but it must be lived forwards", so we write forwards and understand backwards, structure not in advance but as repetition that adds the next moment to be repeated.

The Sentence Completion Tests and Review of Literature: The Procedure

Jane Loevinger and Ruth Wessler in 1970 distinguish between four characteristics of the Ego. The Ego, like a gyroscope, is that which keeps these four functions – namely impulse control or character development, interpersonal mode, conscious preoccupation and the cognitive functioning – in balance. Impulse control and character development relate to “moral development in terms of the basis for moral behavior and the types of moral concerns” (Manners & Durkin 2001, p. 542) as well as goal-orientation. The interpersonal mode “represents the attitude toward interpersonal relationships and the other person, the understanding of relationships, and the preferred type of relationship […] [and] conscious preoccupations refer to the predominant foci of the person’s conscious thoughts and behavior, such as conformity to social rules, responsibility, and independence” (ibid. p. 542).

Cognitive functioning for Jane Loevinger (1976) is in a similar fashion as Lawrence Kohlberg (1976, p. 124f) suggested, when he said that “logical development is a necessary prerequisite for moral development, but no sufficient qualification”, that which by its increase in complexity may act as a pacer or leading variable for the lagging ego-development. It is the level of conceptual complexity a person has to structure one`s meaning making.

This level of cognitive complexity is especially valuable when it comes to text analysis. It is possible to assess the complexity level of a text and thus the maximum level of ego-development, because as Linda Dawson (2006) points out: a) the hierarchical order of abstraction and b) the logical organization of utterance change with each stage. The discourse analysis here is done to show the patterns behind the reorganization and summation of units like nouns and verbs, phrases and clauses, arising within stages, between stages and across stages.

For reasons of simplicity we here consider with Foucault (1973, p. 63) these grammars as “the preconceptual field [which] allows the emergence of the discursive regularities and constraints that have made possible the heterogeneous multiplicity of concepts, and, beyond these the profusion of the themes, beliefs, and representations with which one usually deals when one is writing the history of ideas”. The grammar or logic and level of abstractness of a certain cognitive complexity is in itself a somewhat tendentious apperception, one of the main characteristics Loevinger (1976) attributes to the ego. Thus, it is the ground for each conscious perception, interpersonal mode and character development as a network of different grammatological combinations. It defines a domain of possible objects as it works as a complexity or sophistication threshold for topics a literary or scientific text can contain and is considered causal for the fact that “a thought that arises at one level as a cliché appears in deeper, more convincing and more complex versions at a higher level” (Cook-Greuter 2010, p. 33).

The grammatological web or network thus work like different versions of a television, earlier ones can depict black and white and a highly restricted number of pixels and later ones can show 256 shades of each primary color and thus offer HDTV in 16,7 million colors. The ego in this restricted set of assumptions is basically such a TV infused with conscious perception, and the TV program is the interpersonal mode and forms of impulse control. Like a TV caries electricity as information and moving colorful images, as the medium of a certain form, we can look at ego-development as unified pattern of increasing complexity maintaining a meaningful text.

Our later analysis will span the trajectory from the Expert towards the Unitive stage in terms of Susanne Cook-Greuter, including a further segmentation of the Unitive stage or realm as we will call it, so that the scope expressed in the terminology of O`Fallon spans the whole range from 3.0 to 6.5. In the final section of this paper our reasoning will also include even later stages plus elucidate some aspects of the depicted repeating patterns by including the very earliest stages of human consciousness so that we span the whole spectrum of known stages as depicted for example by Wilber (2018) from infrared to clear light.

Methodology of Correlation with Ego-Development

Such a meaning carrying text is at least a mix of different types of grammar which collocate a) sentences which are conscious perceptions based on the modal cognitive complexity of a person`s stage (called center of gravity), thus carrying stage typical discourses about the other domains of the ego, b) those with a grammatical superstructure or underlay that expressive specifically of this particular stage (e.g. including typical grammatical variations uncommon on other stages) and certain perceptions only possible to ride on such a grammatical foundation (objects that need a certain complexity of cognition to arise e.g. see Wilber`s (2018) concept of cosmic address), but don`t exhibit the full complexity possible, and c) those which exhibit a movement to another higher or lower level of abstractness and thus drop the center of gravity`s typical grammatological web, or as Aurobindo (2005, p. 992f) puts it: they exhibit a “further cause of complexity arising from the need of integration itself; for the process [of development] is not only an ascent of the soul to a higher status, but a descent of the higher consciousness so gained to take up and transform the inferior nature”.

Or differently said, although written texts are – within the scope of this article – considered as the self-expression and self-awareness of a certain stage, they, too, should be considered as webs or networks combining different levels of abstractness. There is a so called Decalåge, as Piaget (1971) called it, the phenomenon of uneven development or horizontal displacement. The post-Piagetian developmental psychologist Kurt Fischer in unison with Aurobindo highlights and expands the idea of displacement with this web metaphor: the “local variation of activity within global order, […] the multi-directional nature of development, including forward progression and backward transitions” (Mascalo & Fischer 2010, p. 163).

Ego development is assessed via a sentence completion test, a "projective" instrument typically containing 18-36 sentence stems, such as "The thing I like about myself is...", that have to be completed. Though sentence completion tests deal with the same dynamic as “people tend to give responses at more than one level” (Cook-Greuter 2010, p. 163f), the assignment of a stage needs a certain number of responses at a stage to assign an overall score to a person – a center of gravity from where one most likely functions in one`s everyday life. Contrary to this the changed grammatical superstructure (points a) and b) from the upper list) a text has, its substance from self-awareness, can support or replace such a procedure of allocating a person a center of gravity based on a statistical rule. So, while the sentence completion test as a sort of free association task leads to answers across various stages the final score is based on only the highest handful of completions since subjects are not expected to be attempting any “best” answers. Apart of that an authored text delivers a certain overlay, points a) and b) from the above list, that besides variations, point c) from the above list, indicates a certain stage the author is writing from.

Besides that, a number of what we called marker-sentences, will show up with each new developmental level, indicating ruptures or discontinuities as well as stable plateaus. Those sentences that demonstrate the highest developmental level. They resemble typical responses triggered through sentence completion tests and thus can be used for attempts of correlation. Table 1 shows such a marker sentence, matching a response from a typical sentence completion item. Both deal with what might be irreconcilable choices at earlier stages and combines them through a “both… and… and reason” construing “conflicting alternatives as aspects of many-faceted life situations" (Hy & Loevinger 2014, S.22). He or she has a high toleration for ambiguity.

Table 1. Example for a Marker-Sentence for the Autonomous Stage of Ego-Development.[2]

Marker Sentence in Sentence Completion Form:	
A good boss… *"is able to balance company and staff priorities, whilst finding a way through the chaos to create a climate in which work is rewarding and successful".* (Miniard 2002, p. 70)	A good process… *"on the one hand creates basic conditions, which enable it, and on the other requires steps of reciprocal reinforcement of selectivity, to realize trust."* (Luhmann 2015, p. 49)
Labeled Bracketing Form:	
[$_{\text{stem}}$ A good boss] [$_{\text{choice 1}}$ is able to balance company and staff priorities,] [$_{\text{choice 2}}$ whilst finding a way through the chaos] [$_{\text{reason}}$ to create a climate in which work is rewarding and successful.]	[$_{\text{stem}}$ A good process] [$_{\text{choice 1}}$ on the one hand creates basic conditions, which enable it,] [$_{\text{choice 2}}$ and on the other requires steps of reciprocal reinforcement of selectivity,] [$_{\text{reason}}$ to realize trust.]

For working with marker sentences like in Table 1 we will a) bring them in sentence completion form if it were for the attempt of correlating it with an original completion of one of the manuals or items in use for measuring ego-development and b) use a form of labeled bracketing to indicate the relevant information or grammatical structure and point to it as a phrase of a certain category e.g. [$_{\text{choice 1}}$ …] within a paired bracket. However, we have to keep in mind that grammatological analysis has some difficulties or restrictions: as much as many modern languages have a restricted case system compared to the richness of old-Indo-European languages "we need to cover the functions covered in a particular case and we must not accept traditional labels as face value" (Blake 2001, p. 155). Much of this paper is the search for right terminology and a partial, exemplary analysis to fit in the intended purpose for this article.

Aspects of Grammar: Analyzing Overlay and Superstructure

Given the *philosophy of style* under heading 1.b and the difficulty of repetition and recognition we only open up "a single and same voice for the whole thousand-voiced multiple, a single and same Ocean for all the drops, a single clamor of Being for all beings" (Deleuze 1994, p. 304), here. We offer some specific examples on what is given more granularity and detail to within the analysis of Luhmann and point to that where each "each being, each drop and each voice has reached the state of excess – in other words, the difference which displaces and disguises them and, in turning upon its mobile cusp, causes them to return" (ibid. p. 304) as repetition that which is the being of a textuality, that which makes it cohere, fit together and become thus an organized and unified whole: the superstructure or grammatical overlay, that is hypothesized in this article as the substance or underlay of the ego.

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[2] From Luhmann (2015, p. 49) and Miniard (2002, p. 70): Both responses fit into the scoring category "Complex psychological causation, mutual influence" as well as exhibit a "both… and… and reason" perspective where two differential ideas are connected to show how a good atmosphere within a company can arise.

For determining the complexity of the text, we explore several factors that are used to combine information and convey meaning at sentence and text levels. At the sentence and work level we will be primarily evaluate the following grammatical categories ("cases"), and their combinations, for their levels of cognitive complexity: *Nominal* (Who or What?); *Accusative* (Who or what is being or verbed?); *Dative* (To Whom or What?); *Genitive* (Whose? From what or what of?); *Ablative* (Whence? From where or whom?); *Locative* (Where or wherein?); *Instrumental* (By which means? For which ends); *Comitative* (Together with whom or what?). At the larger textual level, we will consider the complexity within forms of lexical cohesion and grammatical cohesion (conjunction, reference, ellipsis and substitution). These categories will later be used to analyze and asses both quotes from Luhmann`s life work that exemplify stages and phases within a stage and sentence completions that in terms of complexity, grammar and surface content match Luhmann`s writing in these periods, so that a picture of stages and transitions appears that is based on the Author`s understanding of the larger trajectory not only within the context of Luhmann`s writings but furthermore of developmental conceptions of ego, moral and cognition.

Within a Sentence: Subject. Predicate, Object Variations

Luhmann was German, and, since the construct of ego development as well as the procedure for its measurement were developed within the English language, we must consider certain differences between these languages relevant to our grammatical analysis. The Author of this article however is a native German and bases his understanding and analysis of Luhmann on the original texts that are as best as possible translated into the English grammatological equivalents.

What makes English sentences fit together, their coherence, is in many ways similar to German texts. Single sentences contain subjects (the actors), predicates (the acts) and objects (e.g. the goals of the actors` actions), like in "[Subject the author] [Predicate is writing] [Object an article]". However, what makes them different is the number of cases. Cases respectively are the grammatical function of a noun or pronoun. Modern English language restricts itself to three cases the nominal or subjective (he/she), oblique or objective (him/her) and possessive (his/hers). The objective case often called oblique is a nominal case that is used to create a series of subject, predicate and object. For example, in "the author is writing an article", the nominal or subjective case is the author, the "who or what" of a sentence, while the objective or oblique is the "article". In this case that which "is being or verbed". That which is being or verbed was distinct in Old English as the accusative case, and objective case as a direct object. However, Old English impoverished over the centuries and didn`t add to its case structure and thus lost this accusative and its sibling the dative case, which are both present in German language.

In the dative form of the oblique there is no direct object (the receiver of an action) within a sentence following the "author is writing", but a need for an indirect object (identifies to or for whom or what the action of the verb is performed) creating additional information regarding the direct object, "an article" and thus enhancing complexity and meaning. The sentence then would look like this "[Nominal subject: "who or what?" The author] [Predicate verb is writing] [Accusative direct object: "who or what is being or verbed?" an article] [Dative indirect object: "for whom or what is something being or verbed?" for a journal]" – literally the German dative in English would look like this "[Nominal subject and predicate verb the author is writing] [Indirect dative object a journal] [Direct accusative object an article]". As we can see the sentence was enhanced by some sort of possessor or beneficiary "who is receiving" or "for whom" the direct object is generated. By this the verb or predicate is followed by more than one object, it becomes di-transitive – "di" meaning "with two" and "transitive" meaning "goals" or that which is "aimed at or towards": hence there are now "two goals or aims" instead of one. Like in developmental psychology the accusative object here is necessary but not sufficient for the later. A dative object can only occur after or connected to an accusative, that`s why this seriality is oftentimes called a natural and universal hierarchy in linguistics; more universal languages without accusative don`t show a dative either, all languages with dative show a form of accusative (Blake 2001). However, like in the example above, the dative structure, the indirect object, can often be indistinguishable from an accusative. Especially if the indirect object follows a direction it can demand a second accusative object. This leads to an accusative of "place to which" or a causative e.g. "[Nominal subject and predicate verb the author asked] [Indirect accusative object the journal] [Direct accusative object for a publication]. So, the move from accusative to dative is more a gradient than a leap.

The paucity of case makes modern English a so-called analytic language in contrast to the synthetic German and most other European tongues. We don`t want to lose ourselves in detail here but the basic difference is that English uses strategies like prepositions, verbal voice, word order, and possessive 's for its textuality – intentions, acceptability, informativity, contextuality, intertextuality, coherence and cohesion – whereas Germans use inflection or agglutination to express syntactic relationships and the forms these relationships transport (Haspelmath & Michaelis 2015). Inflection means to increase the length of a word and changing its form by use of morphemes. A root is enhanced and thus a grammatical property assigned.

Since these distinctions are as all distinctions in this paper used in a relative rather than an absolute sense, we can show this with the English example from above. When inflected one can substitute the "author writes the article" by the more passive form of "the article is written by the author", the root "write" was enhanced and inflected by dropping an "e" and adding a morpheme, the "ten".

Agglutination means the creation of compound-words like the German "Zeitgeist" would in English rather be created by a possessive or genitive structure "the spirit of our time" or "a time`s spirit". Some languages even move into being polysynthetic as do some German author`s, where whole sentences are arbitrated by one word like the Heideggerian "being-in-the-world" which fuses the quadruplicity of subject, object, consciousness, and world thus expressing the deep relationship which he so painfully missed in his philosophical predecessors like Immanuel Kant: their ability to have the "complete grasp of the structure of care which includes the phenomenon of selfhood as being-in-the-world" (Heidegger 1969, p. 324).

Still, German, too, has an impoverished case system compared to other Indo-European languages (Quiles & Menchero 2017). The grammatical hierarchies of languages with all nominative, accusative object, dative object and possessive cases often include so-called modifications. Cases which center around changing the predicate verb of a sentence for example through a) adverbial or b) adjectival intensifiers functioning as c) complex prepositions modifying the relationship between nouns and pronouns (I, you, he/she/it etc.). Furthermore, these cases are changing predicates into nouns as categories of place, time or means to an end.

An a) adverb is something that is "ad-verbal" hence for support of a "verb", a Latin form of "at-the-verb". They answer questions of manner of "how" (angrily, happily, easily etc.), place or "where" (near, there, here etc.), time or "when" (soon, now, then etc.) and frequency or "how often" (daily, sometimes, never etc.). An b) adjective`s main syntactic role is to modify nouns and noun phrase through adding descriptive and qualitative (large, nice, cute etc.), quantitative (first, second, third etc.) or demonstrative (this, that, these etc.) descriptors. Complex prepositions c) in contrast to simple prepositions (by, at, on etc.) can be adverbials and adjectives in form of double prepositions (into, out of, from within etc.), compound prepositions (in addition to, on behalf of, in the middle of etc.) as well as participle prepositions (considering, during, concerning etc.) and phrase prepositions (on time, at home, before class etc.). They, too, help modification towards the dative form of objective cases while enriching the complexity and meaning of a sentence through additional information. This additional information refers to:

a) the *ablative*, the "direction away from of a dative object" e.g. in "[Nominative: "who or what?" the author] [Predicate verb moves] [Accusative object: "Who or what is being or verbed?" his laptop]" [Ablative modification as adverbial of place: "where from?" away from] [Dative object: "From whom or what" his lap]

b) the *locative*, the "place of dative object" or the place "from where" or "towards which" an object comes or is moved e.g. in "[Nominative: "who or what?" the author] [Predicate verb moves] [Accusative object: "Who or what is being or verbed?" his laptop] [Ablative modification: "where from?" from his lap] [Locative modifier as adverbial of place: "Whereto?" towards] [Dative object: "Towards whom or what" the table]";

c) the *instrumental*, the means "by which" or the "in order to" e.g. in "[Nominative: "who or what?" the author] [Predicate verb moves] [Accusative object: "Who or what is being or verbed?" his laptop] [Ablative modification: "where from?" from his lap] [Locative modifier as adverbial of place: "Whereto?" towards] [Dative object: "Towards whom or what" the table] [Instrumental modifier as descriptive adjective modifying next noun phrase: "Whereto?" in order to] [Noun phrase predicate and object get up for a break]";

d) the *comitative*, the one "with whom or what" one shares or intends "to be with" e.g. in the instrumental, the means "by which" or the "in order to" e.g. in "[Nominative: "who or what?" the author] [Predicate verb moves] [Accusative object: "Who or what is being or verbed?" his laptop] [Ablative modification: "where from?" from his lap] [Locative modifier as adverbial of place: "Whereto?" towards] [Dative object: "Towards whom or what" the table] [Instrumental modifier as descriptive adjective modifying next noun phrase: "Whereto?" in order to] [Noun phrase predicate and object get up for a break] [Comitative modifier as phrase preposition "with whom or what" with a friend and a cup of tea and cookies]";

There are many sub-cases and structures of these modifications. And as we will see later, they all help to increase complexity in a relatively fixed and natural order. Now there are no longer two aims or di-transitive expressions of the predicate verb but so called multi-transitive verbs followed by multiple nouns and noun-phrases enhance the informational value of a sentence.

Following two of the basic laws of narration, that of redundancy and variation as well as that of diversification (Koschorke 2012), we now, after having created closeness to the intricate structure sentences can comprise, go into a larger variation of this which for example concern different cause structures; it is now time to look at the theoretical foundation of how different sentences are connected into a whole the author is writing. Afterwards, we dive back into repetitions increasing the resolution of our grammatical television screen as we further diversify and differentiate "into what holds the writing together at its core" by analyzing Luhmann`s life work. Table 2 sums up what was said in this section and ads a bit to it.

Table 2. Some of the depicted grammars, their workings and abilities to convey meaning.

English Name:	**Subjective Case**		**Objective or Oblique Case**			
		Saxon Genitive with Suffix			Prepositional Genitive construction	
Gradient	Rather Nominal (Denominating/Objective) →					
					← Rather Possessive (Correlating/Subjective)	
General Name:	Nominative	Nominal or Accusative Possessives	Accusative	Dative	Genitives e.g. of - Composition - Participation - Origin - Reference - Description	Modifications e.g. - Ablative - Locative - Instrumental - Comitative
Valency:	Intransitive		Transitive	Ditransitive		Multitransitive
What happens?	Makes the subject and words after the verb the same.	Makes a Nominative by modifying a noun through another noun.	Makes an object for the subject through a direct verb.	Makes an indirect verb by adding a beneficiary of the object.	Makes possessive relations by modifying a noun through a noun with preposition.	Makes complex means-ends relations by modifying the predicate verb.
Meaning Conveyed:	Enables a naming of the Subject and seeing subjects as their own purpose.	Creates a compound subject or univariate relation.	Indicates action and direction or univariate relation.	Shows a beneficiary or emphasizes specifically thus creating reciprocal relations.	Makes e.g. possession, composition and references possible	Enables directional and means ends schemes that unify subject and object.

Within a Text: What holds Together Textuality

“’New meaning’ is largely created out of ‘old meaning’” (Koschorke 2012, p. 163) and thus a text is based on a space or field of “meaningful Integration” (ibid. p. 162) of old into new. It is an openness of semantization and de-semantization and the reappropriation and extension of what was said earlier. M. A. K. Halliday (2004) in his *Introduction to functional Grammar* points out the main difference of analyzing textuality in opposition to the analysis of a single sentence. Here “the organization […] is semantic rather than formal, and much looser than that of grammatical units” (Halliday 2004, p. 524). Far beyond being only structural it is genetic, too, one has “to be able to think of text dynamically, as an ongoing process of meaning” (ibid. p. 254). For him the dilemma of structure and genesis is solved by moving into distance and making the living, dynamic thing a system. Such a system than can be seen as compartmentalized into four major types of cohesion which interlace sentences within a text: three of them work through grammar and one through lexical means, through repetition and other forms of reappropriation to earlier words and their meaning (Korte, Müller & Schmied 1997).

1. Grammatical Cohesion:
    a. Conjunction: This means that clauses are connected through conjunctions, whereby different types of linking words exist. Additive ones (e.g. and), causal (e.g. therefore), temporal (e.g. afterwards) and adversative (e.g. even though) work together.

    b. Reference: This means that language units cannot be interpreted as separate rather as interconnected, they reference each other. This can happen in personal form through personal pronouns (e.g. they), possessive determiners (e.g. my) and possessive pronouns (e.g. mine). But, too, as demonstrative through articles (e.g. the), demonstrative pronouns (e.g. this) or adverbs (e.g. then) or comparative references. Comparative references again can be pointing to sameness through adverbs and adjectives (e.g. same), similarity (e.g. similar) or difference (e.g. otherwise).

    c. Ellipsis and substitution: Here ellipsis means to elide or drop structural elements (e.g. “I write, and you write” becomes “I and you write”). Ellipsis eventually can culminate in substitution where semantic short forms replace larger elements (e.g. “I write, and you write” becomes “I write, and you, too”).

2. Lexical cohesion: This means that “lexis is organized into a network of lexical relations” (Halliday 2004, p. 570). Differently said each word or phrase within a language can in relation to a known cultural lexical background be substituted by other words. A “writer” has lexical cohesion with “author” and “author” with “text”, while “text” again points to “writing” and the “writer”: languages have synonyms, antonyms, hyponyms, hypernyms and meronyms.

What lexical cohesion is varies strongly with culture and time as Michelle Foucault (2005) shows in *the Origin of Things*. It is based on epistemes which for example rely on a certain amount of similitudes in which “signs themselves […] [are] no more than a play of resemblances, and they refer back to the infinite and necessarily uncompleted task of knowing what is similar” (Foucault 2005, p. 46). And thus, discourse works in such a cultural epoch as something that “by trying to approximate to it, by attempting to say things about it that are similar to it, […] [brings] into existence the infinity of adjacent and similar fidelities of interpretation” (ibid. p. 46). And these epistemes are here hypothesized to not only change with variations in thought through new insights and life-conditions but with each stage of human development, too.

As Jürgen Habermas (1979) puts it in the *Reconstruction of Historical Materialism,* cultures do not per se belong to a stage: the complexity of cultures is a multidimensional concept it can be judged “in respect towards size, interdependence and variability, with respect to achievements of generalization, integration and respecification” (Habermas 1979, p. 141) as well as the increase in complexity of single individuals in a culture not necessarily leads to an overall increase in complexity rather can create “evolutionary dead ends” (ibid. p. 141). And since cultures don`t share solid boundaries as organisms do or as a person does “the relationship between complexity and self-maintenance becomes problematic" (ibid. p. 142) since larger numbers of people have to adopt to new forms of discourse and inhabit new epistemes and according perceptions and behaviors to sustain what lexico-grammar transports within the operational realm. However, since a) deterioration in individual developmental levels can happen through personal practical and moral life dilemma and b) these quandaries and their solutions can "gain entrance into the interpretative system of the society through exemplary learning processes" (ibid. p. 161). The evolutionary challenges perceived and spread by these individuals and the initiated learning processes can then c) make an adaptative shift of the whole society necessary and finally d) "the introduction of a new principle of organization [e.g. a new episteme] means the establishment of a new level of social integration […] [for which] the learning processes of moral-practical consciousness functions as pacemakers" (ibid. p. 160). From our point of view each culture thus establishes a certain grammatical web that e.g. impoverishes like modern English when certain stages of development – as we will see, these who are closer to the end of a tier – which have enacted a society with multiple modes of grammar disappear. Thus, impoverished grammar might, too, inhibit the overall capacity of a society to evolve since more complex modes of discourse are inhibited by social convention and thus might be part of solidifying autopoietically processes. Or as Luhmann (2018a, p. 538) would say systems "create observations that confirm and condensate certain semantics by which meaning valuable enough to be preserved gets identified, held on, remembered or left for oblivescence".

Between this layer of cultural discourse and that of widely universal and cross-cultural grammars, which only vary in sophistication and scope as numbers of grammatical operations and functions, a third element is essential to hold together textuality in its core. The theme to rhema shifts that bind together the surface level grammar and the deep embodied and immanent structural concepts, the lexis of discourses (Ongstad 2007). Normally "the theme is the element which serves as the point of departure of the message; it is that which locates and orients the clause within its context. The remainder of the message, the part in which the theme is developed, is called […] the rhema" (Halliday 2004, p. 64). Mostly the theme is recognizable as it introduces the sentence as in "[Theme: "who or what is it about?" the author] [Rhema: "what does the author do, what is important about him?" writes the article]".

However, when it comes to two or more sentences what is additionally of interest is the question for new and for already given information. The interlacing of sentences, as shown, works through lexical cohesion, through the reappropriation of the earlier and the connection or contrast to something new. Here we can redefine theme as that which creates the lexical cohesion as adopting the given meaning of an earlier sentence, and the rhema as that part adding new content, information and meaning. Then the theme is no longer necessarily the introduction to a sentence, though that`s the common case, but can show up as any part of the sentence relating back to something earlier and given: to that which is explored, the thematic content of a passage or text – e.g. as in ["Theme the author] [Rhema writes an article.] [Theme: as given information and lexical coherence The article] [Rhema: as new information is about language]" compared to ["Theme the author] [Rhema writes an article.] [Rhema: as new information It was language] [Theme: as given information and lexical coherence the article] [Rhema: as new information dealt with]".

Overall picture of Grammatical Analysis

As depicted grammar and lexis, the universal and the culturally conditioned interact within textuality. In the middle so to say is the process that a text is: a dynamic flow of theme into rhema, given into newness, repetition into difference and reappropriation into recognition. The process is depicted in Figure 1.

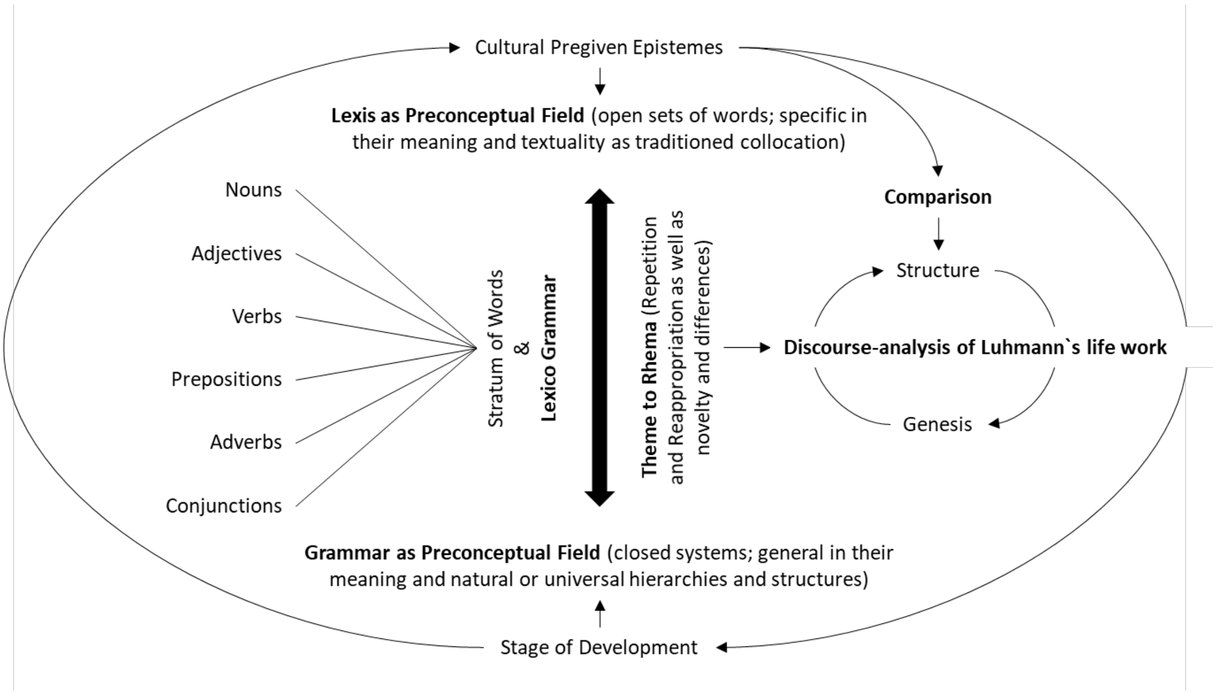

Cultural Pregiven Epistemes
Lexis as Preconceptual Field (open sets of words; specific in their meaning and textuality as traditioned collocation)
Nouns
Adjectives
Verbs
Prepositions
Adverbs
Conjunctions
Stratum of Words & Lexico Grammar
Theme to Rhema (Repetition and Reappropriation as well as novelty and differences)
Comparison
Structure
Discourse-analysis of Luhmann`s life work
Genesis
Grammar as Preconceptual Field (closed systems; general in their meaning and natural or universal hierarchies and structures)
Stage of Development

Figure 1. Structure of the grammatical analysis of Luhmann`s life work integrating the “lexico-grammar cline” from Halliday (2004, p. 43).

The Discontinuities in Luhmann`s Writings

The core of this paper to crystalize a developmental progression from the conceptual complexity and content of Luhmann's writings that simultaneously is used to exemplarily carve out, illustrate and further develop a domain general scheme for the developmental analysis of text. This will contribute to a general understanding of Luhmann's ideas, and their progression while it both supports and challenges the usefulness of different tools for measuring stage-like development thus opening a window for a broadened discourse that includes the different conceptions of Ego-Development, models of hierarchical complexity, moral development and spiritual as well as philosophical conceptions of growing and waking up as a human being. We will focus particularly on the progression of ideas specifying the relationship between a system and its environment, and how systems are created and self-maintained. The first half of this endeavor will almost solely focus on Luhmann and some of the main ideas of his earlier writings including the operationalization of mistakes and trust in formal organizations. Towards the end of the article we put emphasis on a rich comparison with other late stage thinkers to show not only grammar but some general traits or surface structures people at these stages seem to embody. This, too, is accompanied by differentiating two basic types of looking at the world: an inside, more Aristotelian, and an outside, more Platonic, view – both terms will be clarified later in section *3.b.iv Preliminary Contemplations on Tier Patterns*.

One of the main ingredients of Luhmann`s two major works the 1984 *Social Systems* and the 1997 *Theory of Society* is the idea of differences between systems and environment. These differences start with the “invention of negation and with the through negation enabled Yes/No coding” (Luhmann 2018a, p. 459). The coding allows one to accept communicative offerings and thus the variation, selection and re-stabilization of system-boundaries, “a unity in difference to an environment” (Luhmann 2002, p. 412). However, for late Luhmann both, yes and no, are intriguingly connected – the variation or the no is, too, a selection, a yes, towards something more or less contrary or to nothingness. In his posthumously published book *Organization and Decision* (2000), he writes besides the duality created by a coding about the possibilities of pointing to an "either… or", a "both… and", as well as seeing a "both… and… and the relationship of both sides of this both… and".

Coding means that we create a dichotomy, one that allows difference and thus divergence and novelty. Derrida (1999, pp. 44f) calls "the praxis of language or of coding as a play of forms without specified and unchangeable substance, […] a play of traces"; traces which, so Luhmann, represent systems as relatively stable and fixed as well as irritable modes of communication. The coding allows to test for functional fit and selection, variation and integration or negation. When a coding arises, for example as the difference of formal and informal organization, the logically sound first step is the recognition that one side of the coding is not the other ($A|B$) or both are the same, or rather: one merely reduced to the other ($A = B$). From this starting point Luhmann unfolds a trajectory in *Organization and Decision*: after the first dichotomy comes a second where an organization is always either formal or informal ($A \veebar B$) and the organizational procedures sort events into these categories, or it arises as an univariate relation which easily leads to the subordination of the one under the other, where either the formal or informal is superior or earlier to its opposite ($A \rightarrow B$). For Foucault this was the main mechanisms of 16th century discourse "it was the relation and interplay of subordinations between describing, articulating into distinctive features, characterizing, and classifying; it was the reciprocal position of particular observations and general principles; it was the system of dependence between what one learnt, what one saw, what one deduced, what one accepted as probable, and what one postulated [as truth]" (Foucault 1972, p. 57). As a third after the second where "opposites had been formulated, where depending on circumstances one or the other side appeared as worthy of promotion […] [, where] groups took on the appearance of formating cliques" (Luhmann 2000, pp. 303f) comes the recognition that there can be "as well formal as informal organization" (ibid. p. 303), a "both… and" ($A \wedge B$) approach to looking at ones system. This, too, can be the recognition of the inherent interactions, interconnections and thus the necessity of integration of both sides ($A \leftrightarrow B$) beyond univariate relations; as a fourth mode an organizational system can be "depicted as basically bi-resilience" (ibid. p. 304) as unity that is "autopoietic and the construction of the system with one operation" (ibid. p. 304) an operation which is basically both sides of the coding and their relationship to each other, a oneness ($A \cap B$) that at the same time maintains itself in this relationship through being both: what it is and what it is not ($A = \neg A$) where both sides are equally important and can only exist in being co-subordinated to each other or in a permanent shift to reference both.

Coding thus allows a trajectory of unification of its own opposites which at the first sight mirror the steps of the "polar opposite pattern" that Terri O`Fallon (2010, p. 20) points to in her thesis *The Evolution of the Human Soul*: "awareness of only one side of a pole; awareness of polar opposites and choosing either one side or the other (either/or; neither/nor; awareness of and choosing both sides of the polar opposites (both/and); interpenetrating both sides of polar opposites: the passive, active, reciprocal and interpenetrative phases of understanding.

However, Luhmann as a student of Talcott Parsons does not identify these grammars with passive, active, reciprocal and interpenetrative, rather sees them as his versions of Parsons`s (1991) adaptation, goal-orientation, integration or interpenetration and the maintenance of patterns. Thus O`Fallon`s fourth Term would in this scheme just be the third, while reciprocation as we will see later would be just a minor part of this third step in the overall quadruplicity. Adaptation between the environment and the social system is basically a function of communication as evolution "the basal process of social systems, which reproduce the elements, out of which they consist" (Luhmann 2012, p. 191). Activity according to Parsons (1991, p. 4) comes into play through goals, where an actor "may actively attempt to control the situation in conformity with his wishes or interests". For Luhmann (2012) goal-orientation or attainment and activity is based on the realization of a system/environment difference in reality where the system can be either a person as a consciousness-system in difference to other persons or any system as coherence of communications distinguishing itself from other modes of coherent communications. However, this "either/or is no absolute, it is true only relative to an individual system, but in the same way objective" (ibid. p. 244). It is the correlate of observation, which introduces such a distinction in so far as "they pursue a higher ordinal-interest" (ibid. p. 246), hence certain goals. The difference between system and environment asks for mechanisms of integration or interpenetration. Here Luhmann (2018b) is quite consistent with Parsons`s (1991, p. 10) idea of "a kind of 'compromise' between the 'strains to consistency' of […] personality, social and cultural components respectively, in such a way that no one of them closely approaches 'perfect' integration". Distinctively, Luhmann who rather looks at communication than at personality as well as social and cultural components, considers integration as a structural drift of "integration and disintegration from instant to instant […] as the countless eventful operative couplings, which cause a permanent establishing and dissolution of system-contexts" (Luhmann 2018b, p. 605f). In *Social Systems* Luhmann (2012, p. 290) speaks here of interpenetration "as the intersystem-relationship between systems, which reciprocally belong to environment for one another […] [and] reciprocally enable each other by yielding their pre-constituted private-complexity into the respectively other" (ibid. p. 290).

The fourth on the trajectory, Parsons`s (1991, p. 13) idea of latent pattern maintenance, "the formulation of mechanisms which 'account for' the functioning of social systems, for the maintenance or breakdown of given structural patterns, for a typical process of transition from one structural pattern to another" included for Luhmann (2012) to much of the traditional ideas within the wholistic or neo-platonic mysticism of Hegel, the idea of a real unity within being. To make the grade of his post-structuralist roots he therefore introduced a new fourth idea: self-description as self-reproduction, which sustains a system`s structure as process by thematizing itself. A process that is the unity of difference and repetition, a system as its own "autopoiesis": how communication creates communication and creates structure within a temporal living out as repetition of certain operations and the permanent reappropriation of the old status, or the reaction and constitution of new operations from old ones if new irritating events occur.

While for Luhmann (2017a) in his 1975 book *Systems-theory of Society* this self-thematization is "completely immanent" to social systems and reflects the idea of what is consciousness in conscious systems or persons, Luhmann`s later writings emphasize the necessity "of a change in form of self-description […] [which] lies within the transition from a first order observation towards a second order observation" (Luhmann 2018b, p. 1140f). The "use of self-reference with discriminatory function" (Luhmann 2017a, p. 916), which is as a self-reassurance that is completely immanent to the system a "constitutional-process which thematizes systems-identity" (ibid. p. 920f) and controls e.g. adaptation, the source of adaptive change of system and/or environment, turns first into self-observation: a distinct operation as the "handling of distinctions. […] The introduction of the system/environment difference into the system which constitutes itself with the help of this distinction; and at the same time as an operative moment of the autopoiesis, because within the reproduction of elements it has to be guaranteed that they are reproduced as elements of the system and not as something else" (Luhmann 2012, p. 63). Observation becomes the coordinative function of self-referential-closed systems with openness towards their environment – they are holding all earlier functions of communication, difference, integration and self-thematization together. With an overflow of communicative possibilities Luhmann states the necessity of a level of second order observations, which means both a) that the differences and distinctions, the observations and descriptions, are created by differences and distinctions, the observations and descriptions themselves and thus have to describe themselves in their descriptions – the observer "must apprehend its content as a self-descriptive content" (Luhmann 2018a, p. 16) – b) and to take responsibility and make a choice "from which system it views others as environment […] and that descriptions are poly-contextual: each describer in his descriptions is describing differently" (Luhmann 2018b, p. 1141).

Luhmann himself distances himself from a hierarchical developmental perspective when he negates the idea that second order observation is sourced by a later, higher or "'better' observer – but rather by just another observer" (ibid. p. 1142). Nevertheless, the structure of his three greatest masterpieces the 1975 *Systemstheory of Society*, the 1984 *Social Systems* and the 1997 *Society of Society* show three phases of his orientations towards how and by which operations systems are created, a) by themselves through immanent self-reflection, b) which is framed later on as an observer coordinating four functions of systems (which were named adaptation, goal-orientation, integration and latent pattern maintenance by Parsons) or c) through pointing to observations of observations and a second order observer, which is able to decide for certain descriptions of society, by finally including that what is doing the describing into the descriptions and by being aware of alternative descriptions and describers in an autological fashion.

We now take this trisection of Luhmann`s life for our course through his work and direct our focus especially on how two sides of a coding are related to each other, especially systems and their environment. The passages from Luhmann`s books where chosen by looking into the index of keywords and basically choosing "difference between system and environment" or "differentiation". Too, for the final assignment of a books to certain phases, the first and last chapters were compared for eventual shifts in grammar and stage especially as some of the Luhmann`s later books have been written in parallel over the course of seven years or so. Additionally, the author has read approximately half of the 27 compared books and articles in completion and the depicted trajectory was researched and recognized within several authors life works.

Our hypotheses here as depicted in Table 3: Terri O`Fallon's polar opposite pattern depicts only the first of the three phases Parsons and Luhmann identified, thus subdividing the integrative phase into reciprocal and interpenetrative, i.e. integrated, substages. The distinct functions of the social system and the different tier changes are visible both in sentence completions and Luhmann`s as well as other author`s writings and pointed to throughout the rest of this article. Additionally, Table 3 shows the trajectory we genetically investigate within the next three subsections before a more structural section synthesizes the pointed-out discoveries into a larger picture. A more comprehensive outlook of the stage trajectory in comparison is given in Figure 6 in the end of the article.

Table 3. Investigated trajectory of the next section and mentioned models in approximate correlation.

Luhmann		**O`Fallon**		**Hy/Loevinger & Cook-Greuter**			**Mascolo & Fischer**	**Kohlberg & Habermas**
Social-System		Perspectives		Ego-Development			Dynamic Skills	Morals
Self-Thematization	$A=\neg A$ *or* $A \cap B$	5.0	*One Pole*	E9	*5/6*	Construct-Aware		Stage 6
								Stage 5/6
Integration	$A \leftrightarrow B$ *or* $A \wedge B$	4.5	*Integrated*	E8	*5*	Autonomous	Single Principles	Stage 5
		4.0	*Both/and*	E7	*4/5*	Pluralist	Abstract Systems	Stage 4/5
System/Environment	$A \rightarrow B$ *or* $A \veebar B$	3.5	*Either/or*	E6	*4*	Achiever		Stage 4
							Abstract Mappings	Stage 3/4
Adaptation	$A=B$ *or* $A \mid B$	3.0	*One Pole*	E5	*3/4*	Expert		Stage 3
							Single Abstractions	Stage 2/3

The Early Works of Luhmann: From the Conscientious 1960s to the Construct-Aware 1970s

1964 and 1966

Luhmann`s second book is called *Functions and Consequences of formal Organization*. It deals with the formalization of organizational systems as an elementary process of human contact and relationship (Luhmann 1964). It shows the necessity and possibilities of formal and informal strategies of establishing social systems and the resultant problems of possibilities for increasing complexity.

Differentiation here is a means of "keeping certain states and trajectories invariant in opposition to a changing environment, which can be improved and expanded, by subdividing a system" (ibid. p. 73). Differentiation takes the leading role and integration is subordinate to differentiation, "it basically serves the goal of boundary-retention" (ibid. p. 79). Too, it has to be mentioned that integration is synonymously used with adaptation. Some years later in his dissertation about *Right and Automation in public Administration* this conflation of terminology still exists, however than, he states conversely to the subordinationistic perspective that for sustaining a system in a highly complex and volatile environment two strategies are equally necessary: the first, namely adaptation or integration "as the institutionalization of common values and forms of cooperation between system and environment relevant to them" (Luhmann 1966a, p. 23) and "as alternative to this 'external' mode, there is an 'internal' mode to reduce complexity, namely through internal complexification of the system"(ibid. p. 23), hence differentiation. The increase of inner variability leads to an ability to chunk down what comes from the outside of a system.

In the same way one can see the focus on sustaining boundaries in Luhmann 1964 compared to 1966, in observation of the concept of mistake. In his book about formal organization he writes about the frustration of expectations and the assignment of guilt and causality: the lead motive is “the relation of the salient, disappointing experience to solid and proofed experiential structures, […] which cannot question the rightfulness of expecting the right. […] The explication of frustration and reaction of disappointment in open action both have the symbolical meaning of a demonstration of a violated norm” (Luhmann 1964, p. 253f). The fact of a mistake “as a sort of natural catastrophe, which invades the system from outside” (Luhmann 1966a, p. 76) falls away out of the conceptual space. The mistake is simply “an interpretation of events […], already an internal category of the preparation of experience” (ibid. p. 76). Additionally, as it cannot be localized internal either, it “perforates the internal/external differentiation. It further fuses the differentiation of structure and process, as it can only show up in a working process, but as a disruption of its original structure” (ibid. p. 75).

Luhmann in 1964 has in his dealing with the concept of mistake and frustration a grammatical overlay that is both strongly relativistic in an “either… or” fashion and polarizing. The relativistic side shows up e.g. in sentences like “[relativity notion depending on] [sources of dependencies the whole situation of the system and its overall attractivity] [either… or notion it can be better ruled by threat of punishment or positive incentives]” (Luhmann 1964, p. 255), while the polarizing aspects can be recognized in “[neglected idea 1 the formalisms of expectation and sanctions understands itself not through itself,] [polarization it rather] [prioritized idea 2 has to be explicated in its specific function and the resulting follow up problems]” (ibid. p. 254). Besides that, as shown two completely opposite points of view can be coordinated but not in the “both… and” fashion of his 1966 writing rather as subordination of one side within two ambiguous perspectives. But not only can one see the differentiation through this grammatical underlay of polarizing and subordinating but the reflection of the limitation to one`s own capacities – “specifically with increasing differentiation it is no longer possible […] to master the system with the normal, natural-concrete perceptional and emotional powers of humans” (ibid. p. 81).

This sentence echoes the overall structure of Luhmann`s style in *Functions and Consequences of formal Organization* from 1964: sentences are highly complex and use many forms of interlacing across sentences or combinations of independent clauses into one sentence. Contrary to this *Right and Automation* in 1966 is largely based on short nominal sentences, longer sentences are linear and as we will see can be divided in two classes. Additionally, there is a change from “this means” to “that is”, one can as later shown, explain from nominal single persons` points of view in contrast to the comparative and relative structure within later phases of a grammatical cycle.

Grammar from 1964 to 1968: Achiever vs. Pluralist

In 1968 Luhmann’s book *Trust: A Mechanism for reducing Complexity* was published. Trust didn`t play a large role in 1966. However, there is one passage of interest. It deals with the protection of trust and shows the simplicity of the early “both… and” structure. Luhmann (1966a, p. 90f) writes that “each system needs ‘latent’ functions and structures to stabilize itself; they cannot be illumined without forcing the system to change its identity and relocate the shadow of latency. Relocate it to the realm of latency of the public administration, to the function of its end-ideology and the function of law. One would overstrain the decision capacity of the state-administration, if one wanted, that its constituting moment: the right, in the sense of a limited public interest to justicement, is used as an available value besides others. Is it doing so and believes thereon, than it uses formulas like ‘public interest’, ‘interest in legal certainty’, ‘equality’, ‘justice’ and so forth as superficial empty formulas and retains its own essence in the unconscious. The over abstraction of these terms serves simultaneously to secure the latency of some of the motives and decision-making basis.”

This passage shows that some basic characteristics like sentences though using nominal, accusative and possessive grammar, these cases can be identified grammatically by asking for a nominative, the case of the subject of a sentence and predicate nominative which can be a transitive verb, too, and which is revealed by the question: "Who or what?" One does not make a huge mistake when asking What between some of the sentences "[Nominal: what? One would [transitive verb 1 overstrain] [nominal phrase the decision capacity of the state administration,] [if] [who or what? one] [transitive verb 2 wanted [that clause that its constituting moment is used as] [who or what? an available value besides others]". The overarching grammatical pattern is that of a definition pointing to feedback loops creating an implicit "both… and" and dealing with effects of a "both… and" perspective. As Luhmann precedes he shows how the "public interest" as additional value to protect trust leads to "more attention for the system-principle of constitutional administration, which basically is less able to serve public interest" (ibid. p. 91). Differently said: non-linear effects are made visible.

Trust in 1964 cannot be hailed by asking the nominal "what?", rather a location as a "wherein" is most significant when "failproof, but therefore partly feigned procedures of consensus-creation [like trust] can only be institutionalized within a certain social circle, which is obliged for acknowledgment of the result" (Luhmann 1964, p. 71). It can be best identified by the set of cases not dealt with in modern English. The cases which all mark the same syntactic relation, that of optional modifiers to the main verb we introduce in the paragraph

Within a Sentence: Subject. Predicate, Object Variations.

We basically know these cases from the Latin, Russian or old Indo-Germanic languages and in this case belong to the branch of ablatives, locatives, instrumentals and comitatives. The locative is the case which locates something either physically or temporally and can be identified by the question: "Where or wherein? When?" e.g. as in "[When or wherein can trust be institutionalized? Within a certain social circle, which is obliged for acknowledgment of the result]". Further in 1964 "contracts, if one or many have to input without immediate satisfaction, […] a contact has to be carried by trust" (ibid. p. 72). There the main case is another modifier to the verb "[by which means or how can a contact be carried out? by trust]" – creating an adverbial phrase using the preposition.

In the 1968 *Trust* the feeling of trust, too "enables relatively safe expecting and therefore, too, an absorption of residual risks, but is itself neither favorable nor unfavorable expectation, but condition for the possibility of both. Trust is the precondition for trust as for mistrust, so to say for each kind of engaging oneself into a certain type of attitude towards the future" (Luhmann 2014, p. 25). What is more obvious here, than in the so far quoted passages from 1966, is the "both… and" condition of the grammar. While in the earlier writing "both… and" seems to be the structure of what is implicit as the basic awareness or way of conscious preoccupation, it now is pointed out clearly. Furthermore, it is now related to a direct or accusative object. This object is subjected to the "both… and" agent – "[ergative agent trust] [who or what is being or verbed? enables relatively safe expecting and therefore, too, an absorption of residual risks,] ["both… and" agent but is itself neither favorable nor unfavorable expectation,] [who or what "both…and" is being or verbed? but condition for the possibility of both]". At the same time accusative forms we only knew from Latin in concrete form like the accusative of "place to which" show up: [subject complement or reflexive Trust is the precondition] [who or what is being or verbed? for trust as for mistrust, so to say] [who or what is being or verbed? for each kind of engaging oneself] [who or what is the place that is being or verbed? into a certain type of attitude towards the future]".

This more complex grammar shows up already on the last pages of the 1966 *Right and Automation in the public Administration*. While within the more polar or paradoxical sentences of 1964, like “fictions have to be depicted as realities, but may not be treated as realities” (Luhmann 1964 p. 278), one has instrumental notions recognized by the question of “How”, forming an instrumental case of causers and thus showing positive directions for action, the accusative and thus agentic sentences of 1966 show a critical stance to agentic practices and means, goal-orientation and causes: “[who or what as means or practices? If goal-orientation on the one side and justice-orientation on the other have ever provided] [who or what is being verbed as criticism? the best alternative for reducing complexity, has never been proven; neither, [instrumental as what and “both… and”? how both methods relate to each other and how they can be boxed inside each other]” (Luhmann 1966a, p. 142).

If we want to explain it solely on the basis of grammar as what sustains and is conscious perception as both a spark of information riding on it and the self-recognition of this grammatical web through the attended spark by selective apperception, one can say that it could arise through a third grammatical operation similarly as models of hierarchical complexity assume that growth and development through abstract stages is signified first by being able to think “in terms of a single, intangible, generalized abstract concept […] before teens begin to coordinate two single abstract sets into an abstract mapping” (Mascalo & Fischer 2010, p. 158) and finally systems thinkers are able after creating relations between multiple abstractions “to coordinate two abstract systems level conceptions into a system of abstract systems” (ibid. p. 159) through a third, a single principle.

The standard structure of the 1964 writing are sentences built up out of three segments: the first is either quite short, sometimes just a connective, and builds a linking to the earlier sentence, it is referential, switches from rhema to theme, from the unknown to the known – or a more elaborated version of the rhema –, and substitutes through a) short phrases, followed by two sentences which are causally connected, polarized or subordinated or b) the earlier theme is further elaborated and differentiated within a theme while the third part offers a new rhema. The third part thus is oftentimes built into the sentence by a connective which expresses an opposing or limiting statement. Follow up sentences connect through complex mechanisms of interlacing as said, they both integrate and further evaluate the earlier, they are co-subordinated and switch references fluidly.

For example, when it comes to functional differentiation “[rhema 1 subsystems can grant the invariability of their own boundaries within the overall system.] [theme 1 as new information about rhema first part Certain states, action-sequences, event-trajectories are guaranteed,] [theme 1 second part and others ruled out,] [rhema 2 limiting statement without other system members having to bother themselves.] [theme 2 Each subsystem can follow its own purpose,] [rhema 3 limiting statement without attending to it recklessly or exclusively,] [rhema 3 part two and by this stay highly indifferent against that what others are doing]” (Luhmann 1964, p. 76f). This structure matches the more complex achiever responses in the sentence completion test, which, too show instrumental and locative grammar and modifications as can be seen here: “[People who step out of line at work…] [rhema 1 with instrumental of cause often believe they have valid reasons to step out of line.] [theme 1 as new information They should be listened to [rhema 2 limiting condition however, boundaries must be set and communicated] [rhema 2 part two and consequences must be made known of behavior ignorance]” (Zavarella 2009, p. 54).

In 1966 not only the way differential sentences are connected changes: there is not as much a shift from rhema to theme, rather each sentence is a rhema itself and the connection happens in an equation-like or homonymic style through substitution and pronominal reference. So, differentiation is defined as something that is beneficiary in a "both… and" manner, for example "[rhema 1 the society becomes more elastic, adaptive and simultaneously sustaining.] [pronominal reference as equation It can] [rhema 2 in limited doses react problem-specific,] [rhema 2 equation with new information hence fast]" (Luhmann 1966a, p. 136). There arises a new net which can hold two perspectives at the same time, through this third operation. As we can see in the sentences from 1964, there is one action-oriented part and one that is passive in the sense of describing adaptive behavior – "[active part Certain states, action-sequences, event-trajectories are guaranteed, and others ruled out,] [passive part without other system members having to bother themselves]". – or shows adaptive processes of two co-subordinated parts – "[theme One can only speak of a subsystem of an overarching system,] [rhema 1 subordination of subsystem if the invariability and independence from environment of the subsystem is directly or indirectly put into the maintenance-problems of the main system;] [theme 2 adaption of subsystem if, in other words, the subsystem serves a function in the overarching system]. [theme 2 of subordination Within the scope, that subsystems devote themselves to functions of the overall system,] [rhema 2 of adaption of overall system through subordinates it becomes structured specific to functions]" (Luhmann 1966a, p. 77).

As Luhmann (2014, p. 25) writes in the late 1960s on trust, when he says "only thus far, as the other human is not only content in the world, but steps into consciousness as an alter ego, as freedom to see things differently and act distinctly, the traditional self-concept of the world gets shattered, its complexity visible in a whole new dimension, for which at first no appropriate form of understanding and absorption is available", to see a "both… and", one needs to generate a new form of understanding. Gilles Deleuze, when talking about *How to recognize Structuralism*, too, pinpoints that precisely, when he says that "the first criterion of structuralism, however, is the discovery and recognition of a third order, a third regime" (Deleuze 2002, p. 171). This third regime shows up in many thinkers but prominently in Immanuel Kant (I998) when he in his *Critique of Pure Reason* introduced a third a prior or prerequisite to apprehending the world: "there is more at work than the single faculty of thinking" Kant (1998, A97) said "namely the understanding, and the understanding itself, as a faculty of cognition that is to be related to objects, also requires an elucidation of the possibility of this relation", a transcendental aspect. This analysis leads next to others to a series where "receptivity can make cognitions possible only if combined with spontaneity. This is now the ground of a threefold synthesis, which is necessarily found in all cognition: that, namely, of the apprehension of the representations, as modifications of the mind in intuition" (ibid. A97). All of Kant`s categories reveal this triplicity or seriality of three abstract operations, as well as the overarching trisection of time, space and the "pure, original, unchanging consciousness named transcendental apperception" (ibid. A107) that makes any integration of opposites and their "both… and" state possible.

The focus thus shifts to attempts for integration, of inner and outer, as shown earlier or in Parsons (1962) terminology: the cognitive orientation, the judgment of objects based on standards, and the appreciative value orientation, which "involves the various commitments to standards by which the appropriateness or consistency of the cathexis of an object or class of objects is assessed" (Parsons et al. 1962, p. 60), moves to a moral mode, where the impact on other action systems is assessed and how choices affect the integration of both, "his own personality system and the integration of the social systems in which he is a participant" (ibid. p. 60). The graduation of this stage might be the crossing over from reciprocal into interpenetrative in Terri O`Fallons (2013, p. 19) definition of it where "the subtle interior and the subtle exterior begin to come together".

In the 1968 book *Trust*, "trust and familiarity are consequently complementary means of absorbing complexity and, like past and present themselves, chained to each other. The unity of time, which separates past and future, however relegates them to each consecutively, and allows such a relationship of complementary accomplishments, where one of them requires trust and the other all the same familiarity" (Luhmann 2014, p. 26) – they, trust and familiarity, serve integration and are integrative parts of each other. So, while here sentences are connected through substituting the earlier ones through abstracting, e.g. thematizing it as "unity of time", the overarching grammar moves from parataxic or equation-like "arranging side by side" or using additive conjunctions like "and" – the syndetic parataxis –, towards hypotaxis, which means as much as "arranging under", by using subordinating conjunctions like "if…", "however", "where" or "even if" and auxiliaries like "would".

However, in the same way as in Luhmann`s *Right and Automation* we can see two distinct grammatical styles mixed in *Trust*. Why is that of importance? If we take standard sentence completions from the pluralist stage, they mainly fall in two categories: those which are simple parataxis or nominal phrases like "Raising a family… [nominal as is what? is a source of great pleasure, lasts too short a time, and is unpredictable]" (Hy & Loevinger 2014, p. 20) and nominal and accusative combined like in "People who step out of line at work… [nominal as is what? need to be examined individually to see] [accusative of who or what is being or verbed? both what the stepping out of lines means to them and also what it means for the organization; appropriate action can follow such an analysis]" (Zavarella 2009, p. 56). Contrary to this the Autonomous stage`s completions start to include more complex grammar and more grammatical cases reminding of Luhmann`s 1964 Achiever-like writing. For example, a sentence completion about a person stepping out of line at work at the Autonomous, i.e. Strategist, stage reveals grammar that is less action-oriented or accusative and dealing with ergative agents, but is revealing a dative-oriented structure, the case of the indirect object, which is together with the genitive of most languages indicative of possession, similar as some forms of the Latin ablative. They designate concrete or subtle spaces as the source or place from which or the time when something happened. It basically modifies nouns, pronouns and adjectives, and can be identified by the question: "Whence? From where or whom?"

So, "people who step out of line at work… [what? may be acting] [from where or whom? from a variety of motivations, some due to unresolved issues of their own, others due to genuine inadequacies in the work environment]" (Zavarella 2009, p. 61), are doing this because of some sort of being possessed by exteriors reverberating in themselves, or "people who step out of line at work… [what? are often demonstrating that something is wrong] [locative as where or wherein? in their work situation, personal life, interpersonal relations or that their goals and values about work are different than other people's]", and thus a recognition of projected internals moves into place, that is pointing towards the place where interpenetration in the sense of O`Fallon (2013, p. 9) where "one understands projection and introjection" seems possible.

Grammar in 1968 and 1969: Pluralist vs. Autonomous

Luhmann`s criticism and questioning of the conventional "means/end-considerations together with their mathematical intermediary-calculations" (Luhmann 1966b, p. 93) between 1966 and 1968, has to make place for the turn towards a conscious preoccupation and interpersonal mode that is "a transcendental reflection […], which does not base its arguments on the complexity of social systems, rather on top of the through it enabled complexity of the world" (Luhmann 2014, p. 27). The accusative construction with the ergative agent that is verbed as an additive series of "both… ands", that is "a conception of rationalization that brings together the social-sciences` and the business-administration's research areas" (Luhmann 1966b, p. 93), where "the whole interaction of task description and organization, formal behavioral rules and informal orientation, administrational large scale planning and small tricks, which one learns at the work-place, social reconstructions and unresolvable habitual carriages, which have to be carried personally" (ibid. p. 93) is transcended and included by a new grammatical style and thematic orientations. However, this transcendental reflection that is added, and is reminding of Kant, is not directed towards ideas, but the possessive construction starts to add first elements of locative, ablative to the dative and genitive framing – which historically have fused e.g. in Greek (Blake, 2001) – and thus is rather directed towards "[what? Stabilizing] [series of accusatives of who or what is being or verbed? systems in processes of intersubjective communication, which can apprehend and reduce more complexity of the world, and direct one's trust] [dative or ablative to whom? towards the functioning of these systems.] [Ergative agents as who or what is being or verbed? Only this way the transcendental process of world constituting and meaning can be directed] [dative as to whom or whereto? towards a higher stage of complexity]" (ibid. p. 28).

While in the accusative phase the hypotaxis superstructure, subordination of one clause to another, is much based on causal relations and auxiliaries, e.g. for Luhmann an extended "both… and" term of rationality "[has benefits,] [condition or reason because] [otherwise these factors, which co-constitute the decision process and outcome, cannot completely be considered]" (Luhmann 1966b, p. 94), that a system can be sustained "[condition or reason if] [both the code of conduct is minded and the means are fulfilled" (bid. P. 94) or "[structuring a system towards prefabricated ideas,] [hypothetical auxiliary would reduce the capacity for complexity equally]" (ibid. p. 94), connectives become formative for contexts in 1968. This new structure of conjunction by concession, comparison and prepositional phrases as adjectives shows up for example here: "[It has to be assumed that] [prepositional phrase as adjective with growing social differentiation other elemental] [comparison as well as more demanding mechanisms become reflexive] [list of examples – the venality of money] [comparison is in the same way as the investigation] [prepositional phrase as adjective through reflexive sciences] [comparison like epistemology, logic and methodology]" (Luhmann 2014, p. 77).

The prepositional adjective phrases seemingly substitute both the use of nouns and prepositions plus verbs and comparison as well as listing structure moves beyond additive rows and "both… and" notions and the statement of absolutes and exclusives, within Luhmann's writings of 1966, where for example "[It has to be exposed], [condition that already the] [additive phrase of nouns foundation of all decision-programs, the definition of the law-constitution, and the last means of the system,] [both and phrase are both at the same time, solution] [preposition with noun for the problem and definition] [preposition with noun for the problem]" (Luhmann 1966b, p. 94).

So, here we have to move back towards thinking about how coherence between sentences is created, too. We already mentioned that sentences are no longer processed as equations after the nominative period following the early writings of Luhmann, but by a process of integrating through abstracting parts of the earlier sentence into the later. This shift from rhema to theme, develops, too, with an intermediary step in the accusative phase: here the connection is mostly created by repeating a phrase from the earlier sentence, or a hyponymic – subordinate expression – or again through causal connectives. Coming back to Luhmann`s 1966 idea of transcending the rational means/end point of view, we can look at this development. There he writes, that "[rhema 1 a so far reaching, functional and dysfunctional, manifest and latent aspects of action apprehending theory of systems-rationality endeavors […] not basically to reach exclusively right solutions.] [rhema 2 with hypothetical connection through auxiliary Would one in this theory oblige oneself previously,] [theme 1 to deliver exclusively right action-rationality,] [rhema 2 connected through causal connective if one is given value-parameters and situational-variables, it] [would be necessary to make strongly simplified and not seldomly unrealistic assumptions.] [hyponymic expression of rhema 2 The capacity for complexity would be reduced a prior by a preliminary decision and would especially sink below the level necessary for the realm of public administration]" (Luhmann 1966b, p. 100).

In the same way as in the 1968 *Trust*, the critical evaluation of simple rationality moves towards intersubjectivity, the interrelationship between sentences moves towards the mentioned mechanisms of abstraction, or synonymic and context expanding or setting lexical operations of rhema-theme interaction: "[rhema1 One knows or anticipates that there stand, behind all object-experience, possible statements and behind all statements processes of human information-processing and not something like the unchangeable truth of being.] [theme 1 as abstraction or notion of synonymity with These processes are in principal intersubjectively controlled,] [rhema 2 as accusative shall transmit knowledge accessible for everyone] [rhema 2 expansion as contextual comparison and are by this independent of certain societal structures, particularly from higher status based on others, for example religious, political or economic, functions.] [theme 1 These principles of intersubjectivity,] [rhema 3 as possessive context and therefore the detachment of certain pre-given societal structure grants a degree of certainty of assertions and in this contemporary meaning their truths]" (Luhmann 1968, p. 61).

It is just in 1969, when Luhmann published *Legitimation through Proceedings*, where lexical cohesion starts to coincide with what he expressed in *Functions and Consequences of formal Organization*. In the same way as in this 1964 book, goal-orientation as the differentiation of organization and adaption of sub-units, became transparent, Luhmann first mentions three spheres of existence. He writes that "within closer inspection it is possible to recognize in the distribution of complexity onto different, functionally specified procedures a temporal and factual order, which both serve the integration of the overall system" (Luhmann 2017b, p. 245). One special type of rhema to theme shift here is antonymic. Seemingly the underlying structure or the superstructure in this part of a stage is that of ambiguity, synthesis or comitatives. We have already talked about trust using Luhmann`s words, but trust as emotion is considered as a variable to stabilize boundaries, too, by Luhmann in 1964. There he writes that emotions are personality functions and thus at first without social task. However: "[rhema 1 They don`t contain in themselves any guarantee to serve the sustainment of social systems, that they stabilize behavioral expectations for the purpose of the social order, within the scope of institutionalized norms and in harmony with other humans.] [antonymic rhema 2 Nevertheless, emotions can eventually find a personality-improving form, if the social order chances for expression.] [synthetic rhema 3 Thereon knot the possibilities of social-control of emotion-formation]." (Luhmann 1964, p. 373).

The same antonymic and synthetic interlacing is present in 1969, however much more complex. The grammatical markers, the locative and instrumental cases, are present again in *Legitimation through Proceedings*. Proceedings are means by which the interplay of emotion, as frustration or disappointment, and learning is hold within the social sphere. Here, the idea of intersubjectivity as what creates and sustains truth is further elaborated as a certain technique for integration contrary to that of differentiation Luhmann dealt with five years earlier. We can see the antonymic structure of coherence here: "[Rhema 1 The political system of a society can sustain high in-built-complexity and therefore the ability, to bring the not even remotely comprehensible number of fast fluctuating problems of society towards a decision, if it distributes the with it associated carriage of selection.] [Rhema 2 dealing with antonymic perspective An authority, even a hierarchy, could only intake relatively sparse information, could only absorb few contradictions and would decide quite primitive.] [Rhema 3 synthetic Complex systems have to be institutionalized through an interplay, which each operate under different circumstances, labor under different criteria of rationality and put into commission, which however in their strings presuppose each other reciprocally and are integrated by this.]" (Luhmann 2017b, p. 244).

Within these quoted sentences, one can, too, see how the prepositional phrases as adjectives like "that [preposition with] [adjective growing] social differentiation" grow into prepositional phrases as adverbs, like "[verb put] [preposition into] [noun commission]" or "[verb to bring] [preposition towards] [noun a decision]", where no longer adjectives are modified by nouns, but adverbs modify verbs and other adverbs – giving further information about them. We already pointed towards this, when we said, that the 1964 writing is drenched with cases modifying verbs. Hence integration in proceedings "[locative modification of verb as wherein? is expressed therein]" (Luhmann 2017b, p. 245), when it comes to time, and "[instrumental modification as by which means? ordered through]" (ibid. p. 245) when it comes to the factual definition. By this, both differentiation and integration – again as in the *Formal Organization* – are built up through levels. However, not through systems and sub-systems but through "the differentiation and the reciprocal recognition of procedural-types as components of the overall system [which] are generally institutionalized in abstraction from the interest-situation that determines, in the individual case, the introduction and implementation of a procedure; the concrete coordination of the takeover of past output as input is ensued by a case by case distinction" (ibid. p. 246).

The third, in Luhmann`s writing from 1966 to 1969, is like Deleuze`s idea of a third, which he sees in the structuralists` writings as "not just the real and the imaginary, but their relations, and the disturbances of these relations, […] as the limit of a process in which they constitute themselves in relation to the symbolic" (Deleuze 2002, p. 172), the development of a layer that sees the limitation of the conventional means/end-orientation and mechanic thinking first, through a mode of being aware of "both… and" as well as adapting to non-linear events. Then, as the idea of multi-variate causality beyond simple linear systems, which is before the split and thus the possible institutionalizing of both empirical research into action-theories or "which actions can fulfil certain functions with what kind of follow-up-problems […] and which actions are system-rational" (Luhmann 1966b, p. 92) and can sustain adaption in certain contexts – thus he created a more advanced version of a pluralist goal-orientation. In the third phase intersubjectivity and the enabling condition of trust and familiarity for hermeneutics came into play, which gives rise to a certain truth and a so-called postmodern quasi myth (Angus, 1990) which "makes independent from specific individual interests and coherence of experience" (Luhmann 2014, p. 34). While this third period enables integration, the idea of proceedings goes one step further and not only locates within an identity and creates instrumental means/ends-categories of the temporal, factual and integrative or social order, but elucidates how to sustain a system no longer through only maintaining its differences or boundaries but through "legitimizing itself through proceedings […] which can, within functional differentiation," (Luhmann 2017b, p. 253) achieve "both… and" adaption to their environment and "the justice driven adaption of the environment to the system" (ibid. p. 253). However, in these proceedings, we, can already see parts of the next stage: as similar to the first seeming pluralist book Luhmann published, there is an opening of the inside and outside boundary visible, that is not present in his book *Concept of Purpose and Rationality of Systems*.

In this book, published between *Trust* and his 1969 writing, Luhmann moves away from a value-orientation of what he calls the "transitivity of values" (Luhmann 2016, p. 43), where for him trust and familiarity were on top of an intransitive value-hierarchy – a postmodern myth as we said: one that prioritizes without stating it – informing "informing a value-relation regarding the effects of actions" (ibid. p. 44). Still in the grammar of the third period he writes that "[theme determination of purpose implies, [whom to is the value or whose value that the value of the intended purpose can,] [context setting as genitive independent of the values or unworthiness of the side effects] [comparison centering around genitive respectively the assigned purposes of other actions,] [preposition as adjective pointing towards a for whom or what? be justifying for an action]" (ibid. p. 44). And by this moves into the differentiation of means and ends or purposes, because, as he says in the fourth period style, [theme purpose-orientation does neither want to negate other values nor tries to generally subordinate them] [locative of wherein within a certain interdependency of preferred values]" (ibid. p. 48) as its "[what is its most instrumental characteristic? functionally most signifying characteristic lies] [three locatives of wherein within its mediating double-posture within the context of causality and within the context of values]" (bid. P. 50). Here, in concordance to the concern for autonomy (Cook-Greuter 2010) of the autonomous stage, "[theme autonomy has to be generated] [instrumental of by which means? through processes of selectivity, which] [preposition as adverbial as by which means? select with the proviso of their content`s information, a system is] [ambivalence – of course always only more or less –] [able to reduce environmental complexity, which means to sustain itself,] [polarization though it cannot completely overlook nor completely control its environment]" (ibid. p. 177).

It is in Luhmann`s 1970 book on *Sociological Enlightenment*, a series of essays he continued for the rest of his life, where this incline between system and environment regarding the degree of available variety and complexity completely moves into a discourse, a relation of two sides of a coding, prepared by the proceedings. As Luhmann wrote there, that once people thought that "that out of non-being cannot rise that which exists, nor out of uncertainty certainty […]. In actuality however, […] the modern society has reached a degree of complexity, through which what was thought as impossible can become possible and therefore has to be thought, too" (Luhmann 2017b, p. 252), but this still needs principles of integration. Or as Jürgen Habermas (1990, p. 165) states in Moral Consciousness and Communicative action "the orientation to principles of justice and ultimately to the procedure of norm-justifying discourse is the outcome of the inevitable moralization of a social world" happening through stage growth. The movement from moral Stage 5 to Moral stage 6 thus is signified for him by shifting from looking for principles to "orientation to procedures justifying norms" (ibid. p. 167).

However, as different Habermas and Luhmann are, later does not start to think about norm-justification but about the justification of systems. Here Luhmann writes that four factors have to be overcome in their isolation and have to be seen in their coherence (Luhmann 2018c). Namely to lay bare the inner correlation of a) differences in perspective between a first and a second person, as incongruities, that serve as causes for adaption, b) latency as disregard for certain aspects of reality to orient towards goals, c) the necessity to move from univariate thinking towards a systems-theory to free the actor from being judged as deliberately ignorant and "living in a really cunning reality, as purely being a beautification of ignoble motives, but as [living within] uncomplete selection, as alto drastic simplification of a much more complicated actuality" (ibid. p. 86) and d) a functional orientation towards sustaining systems in a complex world: to live the idea of enlightenment "as expansion of the human ability to, capture and reduce the complexity of the world" (ibid. p. 81). Sentences here again become simpler – or better said: adapt into a new order of complexity – and nominal in their structure, equation-like or homonymic in their interlacing and referential between rhema and theme through pronominal cohesion, but now don`t hold a "both… and" view but a "both… and… and the relationship of both sides to each other"; we can see this in this passage, where Luhmann thinks about the maintenance of systems at the archaic stage of development through "[rhema 1 'small' problem solutions, quantitatively reduced in regard to both, people and things.] [theme 1 with simple equation-like reference Thereby, and that is structurally very important,] [rhema 2 as "both… and" two strategies of accumulating and accommodating] [rhema 2 the what or relationship they are in stand in functional equivalence and contradiction. They on the one hand provide alternatives and therefore options of reduced complexity; on the other hand, they block themselves]" (Luhmann 2018c, p. 273). As we can see, the two strategies of accumulating and accommodating stand in a relationship which is again a "both… and" of a more intricate kind or as Cook-Greuter (2010) writes: "at the Autonomous stage the identification with polar opposites is still sequential […] [, while] in contrast [at the Construct-Aware stage], the same dichotomy can be integrated, and non-defensively appreciated as two sides of the same coin" (p. 77)

The grammar here fits some of the examples of Susanne Cook-Greuter`s (2010, p. 76) fourth scoring category for the Construct-Aware stage of ego-development, where one has "explicit awareness of perceptions, definitions, labeling, assumptions, frame of reference, paradigms and structure in meaning making. [Which means, one is] aware of the constructed nature of self and reality, of seeing the constructed nature of reality": People who step out of line at work… "[theme 1 as first side of "both…and" sometimes are only that – out of line –] [rhema 1other side of "both… and…" and other times can help,] [relationship as "both… and" by how and when they step, to redefine a more workable and appropriate line]" (Zavarella 2009, p. 66), "I am… [rhema part one as definition of relationship – a confusing complex of contradictions –] [rhema part two as "both… ands" both good/bad, assured/self-doubting, aloof/warm at the same time" (Cook-Greuter 2010, p. 77) or "A man`s job… [Rhema 1 as "both… and" relationship notion has traditionally been the role of 'breadwinner', but such simplistic labeling ignores an almost infinite number of possibilities,] [rhema 2 as "both… and" limited only by that man's conceptual model of himself and his world]" (ibid. p. 76).

However, what changes here is not only that there is a permanent awareness of how "both… ands" relate to each other. Besides, with the fourth function coming into play, that of maintaining patterns or self-thematizing, which substitutes the earlier attempts in Luhmann`s Autonomous writing, we can recognize that this assumable Construct-Aware logic looks much more like the fourth period than the writing in 1966. Strictly speaking the "both… and" period of Luhmann`s lifework differs by not using as much an instrumental framing of itself and the pointing to antinomies, but it is primarily about "understanding from" (Luhmann 1966a, p. 10). That points to the third and dative phase, instead of that of instrumentals and locatives.

Intermediate Contemplations

Since we now have dissected one complete grammatical cycle, we can contemplate these findings and add to them more granularity and additional context to place them in an overriding conceptualization of human stagewise development including: a) the fact that each developmental stage to be completed has to run through the four depicted phases, b) that not only the lifework of authors move from nominal to accusative to dative and modifying grammar but, too, a complete stage of ego-development includes all four basic semantic types as well as other models like Kohlberg`s psychology of moral development can be reconstructed in their stage and in-stage distinctions by using them, and c) a fractal structure of tiers, stages and phases that is d) accompanied by elaborating a broad consensus of thinkers at the Construct-Aware or any later stage. Afterwards we embark into a less grammatical but thematic analysis of Luhmann`s second and third phase of his writing marked by the 1984 *Social Systems* and the 1997 *Society of Society*.

For this we first show the interrelationship of the analyzed grammars with other lexicogrammatical components we hypothesize to be part of textuality of certain phases and stages of development. These phases are hypothesized as domain general and thus useful to reconstruct and reappropriate any existing developmental scoring system as long as one gets the boundaries of their respective levels right. We theoretically offer a model with features that are "necessary and sufficient conditions […] are not accidentally true […], but that are rather rooted in the human 'language capacity,' and thus constitute the innate organization […] of this [human] experience" (Chomsky 2006, p. 24) as universal grammars that relate to multiple other universal hierarchies discovered in linguistics. And thus, they would allow, as Theo L. Dawson (2004, p. 3) writes in regard of the benefits of such universal measures, to "(1) meaningfully compare development across domains and contexts, and (2) examine the relationship between developmental stages and conceptual content".

The first following section, too, exemplarily underpins the fact that each ego-developmental stage has to include all four grammatical phases which makes the Pluralist, i.e. 4.0, and Autonomous, i.e. 4.5, stages two halves of the same stage since both only include half the amount of grammars than all earlier ego-levels do, a fact that we further model in the third section of our intermediate contemplations. Thus, a series of four instead of five stages arises from Expert to Construct-Aware fusing Pluralist and Autonomous. Given that this stage deals with the function of integration we suggest calling it Integrative. For completion we show, too, that Ann Colby`s and Lawrence Kohlberg's (2010) *Standard Issue Scoring Manual* aligns with both the grammatical cycles and the new stage distinctions.

The second subsection of our intermediate contemplations depicts semantics webs and thus points to the multiple paths through the four grammatical phases. It, too, argues for new tier boundaries that pay credit to a) the fact that Pluralist and Autonomous should be combined into one, the Integrative, stage and thus a pattern of four can only unfold when Construct-Aware is included into a tier with the Expert, Achiever, Pluralist and Autonomous stages and to b) the observation that there is rich evidence that part of the Construct-Aware thinker`s predicament is to complete and reflect on the completion of a quadruplicate cycle that mirrors Parson`s and Luhmann`s four phases of adaptative, goal-oriented or differentiating system and environment, integrative and latently pattern maintaining or self-thematizing.

In the third subsection that prepares the voyage into Luhmann`s writings that display Construct-Aware and Unitive stage markers the pattern of fours is included into a larger Tier structure composed of four tiers. This structure can be found in the German philosopher Georg Wilhelm Friedrich Hegel's work as well as in that of the Indian mystic Sri Aurobindo and that can be approached by the terminology given by the American pragmatist Charles Sanders Peirce.

Contemplations on Grammar and Phases

In the 1975 *Systems-theory of Society* Luhmann depicts the level-differentiation of society. He writes that "a meaningful self-thematization of society can only be complete, as long as it projects its object on all three horizons" (Luhmann 2017a, p. 264). Then society becomes "in temporal perspective evolution, in factual perspective systems-differentiation and in social perspective communication" (ibid. p. 264). However, all three layers are communication, given that society for Luhmann is defined later on as letting go of the idea of intersubjectivity "that must be superseded by the concept of a self-referential-closed system of societal communication" (Luhmann 1995, S.50). Already in 1975, he sees the intersubjective just as a certain evolutionary step, a specific social system of society as "the social process of intersubjectivity which is self-constitutive" (2017a, p. 674), and communication as what is a foundational part of evolution. Hence, the third layer he describes under the head of self-thematization is best called integration or the social sphere.

This interplay of three dimensions is, too, a marker for the Construct-Aware stage as depicted by Cook-Greuter (2010) in her Dissertation about *Post-autonomous Ego-Development*. As Ken Wilber writes in *The Religion of Tomorrow*, it is the Indigo altitude, which "possesses all four Quadrants, or dimension perspectives" (Wilber 2018, p. 521), and the Construct-Aware altitude is just one step away of this. Additionally, here Luhmann recognizes self-thematization of systems which can be seen as "the subtle objects majoring to causal [meta-aware] objects" (O`Fallon 2013, p. 20) as an awareness of awareness is a requirement to do so.

Besides this cross-referencing of these three models, and others, with our enactments and observations of the implicit stage structure in Luhmann`s work, we have revealed up to now four grammatical styles which relate more or less to Barry J. Blake`s (2001) hierarchy of relational grammar, the sophistication of bringing together subject, predicates and objects in complex sentences which moves from a) subject, to b) direct object, to c) indirect object and culminates in d) oblique forms with instrumental and locative cases. This natural hierarchy or sequence is paralleled by that of Nominative (Nom) to Accusative (Acc) and Ergative (Erg) to Genitive (Gen) to Dative (Dat) to Locative (loc), to Ablative (Abl) and Instrumental (Inst). But as we have pointed out earlier one has to keep in mind that neither English nor German have all of these cases. Or, as Luhmann writes: one has to see this not as static and linear, but closer to reality "would be the form of a labyrinthic diagram, of an artwork, of a memory, or a note box with multiple entries, centers and choices of routes" (Luhmann 2017a, p. 266) when it comes to depicting the relationship of self-thematization – in this case of consciousness-development and grammar – and the differentiated layers and phases.

Nonetheless it seems useful to point towards additional parallels with linguistic hierarchies. For example studies of childhood lexical development regarding connectives, as Jacqueline Evers-Vermeul (2005) recapitulates in her dissertation, moves through four phases either when it comes to the acquisition of connectives and clauses as well as domain integration: growing from a) positive additive to b) negative additive and positive causal and positive temporal to c) negative causal and temporo-causal before becoming d) adversary.

This hierarchy as labyrinthic processes which we suppose is hypothesized to iterate with each stage as well as within each of the later depicted tiers thus showing the same universal patterns repeating with increased complexity or emergent properties and objects. For completeness a stage moves through four grammatical distinct phases, which overlap and fluctuate as the evolutionary process they are. The grammatical types can be classified through Carlo Quiles`s and Fernando López-Menchero`s (2017) *A Grammar of the modern Indo-European*, William Croft`s (2003) *Typology and Universals,* Kreyer`s (2003) *Genitive and of-construction in modern written English* and Blake`s (2001) *Case*. The phases are demarcated by phrases from Luhmann which originated in the particular phases and point towards their containment in the larger order of Luhmann`s quadruplicity introduced in the introduction to section *3. The Discontinuities in Luhmann`s writings.* Figure 2 depicts the hypothesized fractal structure of phases and stages. In the final section of this article the fractal structure is unfolded across all: phases, stages and tiers.

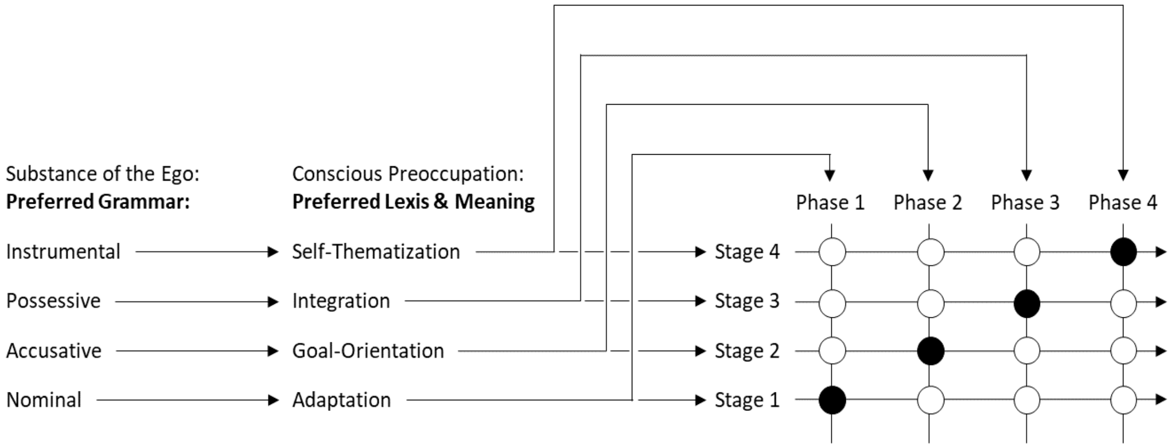


Figure 2. Fractal structure of stages and phases within one tier; the black dots symbolize where stage and grammar collapse - the most essential and stable phase within a stage?

1. A first – adaptative – grammatical phase as the Nominative where "the displacement of complexity from the interior decision-behavior to the system-structures foregrounds yet unknown demands" (Luhmann 1966a, p. 10) where there is only the underlying, the subject, but not as an object: the case of the subject of a sentence and predicate nominative which can be a transitive verb either. It is revealed by the question: "Who or what?"

2. A second – goal-oriented or differentiating system from environment – grammatical phase of the Accusative beyond others serving to review the who or what that is being verbed "the realm of solution-possibility and follow-up-problems" (Luhmann 1966b, p. 105) as direct objects: so to speak, the accusative is the case of these direct objects of a verb. It is also used with many prepositions. It is revealed by the question: "Who or What is being or verbed?" This includes:

    a. The instrumental- or locative-like version which indicates place to which, extent or duration as well as the case which identifies the agent or the intentional performer of an action of a verb.

    b. The ergative-marked noun phrases marking encoding agents.

    c. The Genitive: the variations of the possessive case which relate to subjective and objective or could easily be reformulated into nominal or accusative phrases. They are mostly not noun phrases modifying a noun phrase. They oftentimes, contrary to English, can be formulated as a single compound word in German and can be identified by the question: "Whose? From what or what of?"

3. A third – integrative – grammatical phase of the cases where, at the Autonomous stage, as Luhmann 1968 (p. 10f) points out, "world-plot and own identity, become to him [man] a component of his own system-structure and to a behavioral-basis, in so far as he experiences other people, which actually experience, what is possible for him, and who simultaneously identify him as object, so that he can adopt their point of view and identify himself". This phase seems to be the prerequisite for the subject to object move Robert Kegan (1982) depicts in *The Evolving Self*, namely where "what was immediate becomes mediated by a new immediate […], a differentiation from that which

was the very subject of my personal organization and which becomes thereby the object of a new organization on behalf of a new subjectivity" (Kegan 1982, p. 85). Which contains all cases recognizing to whom something happens or by whom something is possessed or some form of comparative and dependency. Including:

   a. The Genitive: the variations of the possessive case which cannot easily be transformed into nominal or accusative phrases. Noun phrase modifying a noun phrase and can be identified by the question: "Whose? From what or what of?"

   b. The Accusative: in its forms where it indicates indirect causality and hence substitutes or mirrors the dative as in "identify him as object" versus "identify an object".

   c. The Dative: the case of the indirect object. It also indicates possession, and beneficiary of an action. It shows up with ditransitive verbs and parataxic sentences and is revealed by the question: "From Whom? Whom or to What?"

   d. The Ablative or Locative which basically indicate a Dative: the source or place from whom or which something comes.

   e. The Prepositional: variations as adjectival prepositional phrases leading to comparative structures, contexts as well as denominating the receiver, often of something new, e.g. "is possible for him".

4. A fourth – self-thematizing or pattern maintenance – phase of those cases which all mark the same syntactic relation, that of optional modifiers to the main verb building prepositional phrases as adverbs and expressions, of "instrumental and expressive kind, which serve the solution of system-problems and in this sense the maintenance of systems" (Luhmann 2017b, p. 226). It is the difference of inside and outside, of experience and action and other dichotomies or antinomies that create location, direction and means as well as "meaning that is necessarily bound to this double-structure of selection" (ibid. p. 93). This fourth phase allows one e.g. at the Autonomous stage to be seen as "Identity, which is the means to sustain oneself in a complex and volatile Environment through stabilizing an Inside/Outside difference" (Luhmann 2016, p. 175). Expressing itself through discord and/or as concord and synthesis often in the form of or accompanied by categories e.g. "an instrument" or by "the instrument" or within "the place":

   a. The Ablative and Locative forms: the source or place or time wherein or towards which something happened which can be identified by the question: "Whence? Whereto?" As well as either physical or temporal places correlating roughly with prepositions like "in" and "under" thus create inside/outside, means/ends and layers which can be identified by the question: "Wherein? Whereunder?"

   b. The Instrumental: the case which signifies the means and the agent present in or while performing an action. It can be identified by the question: "How? With what or using what? By what means? With whom?" And, which includes expressing the agent of the passive and is almost always inanimate e.g. as the "proceedings" of 1969 in contrary to the first and second person "decisions in man and systems" and the "feedback on agents" of 1966a and the 1966b third person direct objects of certain empirical, rational, multivariate "schemes" and the incoming of the human and animate "intersubjectivity" of 1968.

c. The Prepositional: verbs that take on the form of a prepositional phrase indicating goal or dynamics between differential antinomies or comitatives sometimes followed by accusative as the attaining of a direct object as categories by which something can be intended or wherein something lies.

As Table 4 shows exemplarily for the Achiever, i.e. 3.5, stage: one can sort through sentence completion items and align them with these phases. Each of the major stages up to Pluralist, the Diplomat, Expert, Achiever, can be sorted using the four phases or a more process like view of multiple grammars adding to each other hierarchically.

Table 4. Four phases within the Achiever or Conscientious Stage of Ego-Development derived from Zavarella`s (2009) Item 27 "People who step out of line at work…".

			Sentence Completion
Phases & Case Structure			People who step out of line at work…
Increasing grammatical sophistication ↓	Phase 1 – Adaptative:	Nominal: "Who or What?"	*…are probably the most interesting.* *…are probably creative.*
	Phase 2 – Goal-Oriented:	Accusative: "Who or what is being or verbed?"	*...should be given a chance to explain their actions.* *...probably have something interesting to say.*
	Phase 3 – Integrative:	Dative: "To Whom or What?"	*…can sometimes have something different and useful to contribute to the organization.* *…are annoyances to the people they work for and should be prepared to seek alternative employment.*
		Genitive: "Whose? From what or what of?"	*…are often doing so to revel against unduly restrictive rules and regulations of their peer group.* *…sometimes have good reasons, others will need a firm word to insure their actions will not be repeated.*
		Ablative: "Whence? From where or whom?"	*...should be talked too, to find out why and if there is something to be learned from either side.*
	Phase 3 – Self-Thematization:		*...should be counseled as to how better to express their dissention while still being respectful of others.*
		Locative: "Where or wherein?"	*…need to be steered in the right direction and shown the effect their behavior has on everyone surrounding them.*
		Instrumental: "By which means? For which ends?"	*...should not necessarily be punished. The source for their action should be determined and investigated in order to resolve the problems upon which their behavior is based.*

As pointed out this approach does not work for Pluralist and Autonomous since the Pluralist stage as depicted by Loevinger and Cook-Greuter synthesizes its meaning on the basis of a nominal and accusative lexico-grammatical web while the Autonomous solely draws on the dative and modification web – thus, taking this approach makes them combine themselves into one stage. This than complete four phased stage, as said, might best be called the Integrative following Charles S. Pierce`s dictum in the *Ethics of Terminology* that the "the first rule of good taste in writing is to use words whose meanings will not be misunderstood" (Peirce 1988, p. 265). Indeed, this is necessary to avoid equivocation and provide "that the different meanings are remote from one another, both in themselves and in the occasions of their occurrence" (ibid. p. 264). Calling it integrative thus serves both ideas inherent in the dictum: firstly, it clearly shows the distinctiveness from the ego-development trajectory discovered and advanced successively from Loevinger, to Cook-Greuter and finally O`Fallon and secondly it pays credit towards the trajectory depicted by Parsons and Luhmann as well as many others as shown later.

By this the scope of this Integrative stage matches moral stage 4/5 and moral stage 5 as depicted in Lawrence Kohlberg`s (2010) *Standard Issue Scoring Manual for the Measurement of Moral Judgement*. As Table 5 (below) exemplarily shows, early versions of a moral stages tend to use nominal and accusative grammar, while later or second half version tend towards dative and modifying grammar – of course these are tendencies with some exceptions of crossing over into earlier or a bit later grammar, within a quarter of this four phased growth cycle. The examples in Table 5 stem from answers on the Heinz Dilemma, where a husband has to either steel a drug to save the life of his wife or passively watch her die.

After we now took a look at an expanded scheme of the grammars introduced under the heading *2.b.i Within a Sentence: Subject. Predicate, Object Variations*, hypothesized about the interconnection of them with other linguistic hierarchies and hypothesized a fractal structure of the overall developmental scheme and measuring scale we have shown the existence of all these grammatical types as a way to sort through sentence-completions of the Achiever, i.e. 3.5, stage of Ego-Development via increasing grammatical complexity. This served as an exemplary representation for the variety of lexico-grammatical overlays a stage should include for having the whole four phased range our proposed domain general scoring metric suggests as the universal width of a stage. By way of example we additionally have shown how Lawrence Kohlberg`s (2010) scoring scheme uses the same direction of growth throughout a stage however, not four phased but each stage split into an early and late version. The next section will give even more granularity to the grammatical superstructure or substance of each potential ego on the path of self-discovering a trajectory that is, too, depicted through the terminologies of more than a dozen scientists and philosophers in the following.

Table 5. Responses on the Heinz dilemma and their Grammar in concordance with levels of Ego-Development.

			Question on Moral Dilemma
Case Structure & Stage			Would a good husband think it is his duty to steal and Why?
Expert	Stage 2/3	Nominal and Accusative: "Who or What?"	*[Nominal part Well, I think it would if his wife is going to die,] [Accusative part he wouldn`t have much choice.] (Colby & Kohlberg et al. 2010, p. 19)*
	Stage 3	Instrumental and Locative: "Where or wherein? By which means?"	*[Nominal part as adjectival instrumental: "how was he?" He should not have been so selfish] [Comitative part with possessive with that drug of his, and I think Heinz did right] [Locative part as time when he did break] [locative part as interior into that store] (ibid. p. 22)*
Achiever	Stage 4/3	Nominal and Accusative: "Who or What?"	*[Nominal part as genitival accusative Because it is a matter of life and death,] [Accusative part it gets down to a matter of life and death,] [Accusative as temporal subordinate then you are balancing the financial greed of one person against a life.] (ibid. p. 32)*
	Stage 4	Instrumental and Locative: "Where or wherein? By which means?"	*[Nominal part as locative: "in" We like to believe there is something special in a human being,] [Dative part as possessive perhaps some spark of the divine,] [Comparative part something like this which it is wrong to kill.] [Nominal part as locative: "within" This is something within a person] [Instrumental part: "by which" that raises him above an animal, which removes him from being treated like an animal.] (ibid. p. 47)*
Pluralist	Stage 4/5	Nominal and Accusative: "Who or What?"	*[Nominal part The commitment to another person] [Accusative part: series of accusatives which involves a total commitment and, in a sense, he is taking the action because she cannot take it herself,] [Nominal part: a third which holds "both… and" in the sense of a marriage being this kind of thing, something in two bodies][Nominal part: conjunctive as equation and in that sense there is not much difference in terms of responsibility of her] [Accusative part trying to do something for him.] [Nominal part as both and That involves a commitment to each other and, too, some kind of form of life or something like that] (ibid. p. 49)*
Autonomous	Stage 5	Instrumental and Locative: "Where or wherein? By which means?"	*[Nominal part as locative …it revolves around what I was saying just now about rights] [Comitative part that kind of go with a human being,][Adversative part but really those rights have been defined] [Instrumental part: "by which means?" by us as people, by agreements that we reached through some kind of social process…]*

Contemplations on Semantic Webs

Terri O`Fallons stage theory is based strongly on the use of passive and active language. However, as we can see simplified in Table 4, the accusative phase of the active 3.5 or Achiever stage can take on passive form – there should be "given a chance" But more intriguingly is what happens in the dative or genitive phase where semantic structure allows the adding of some sort of a beneficiary by growing into a grammatical form which existed in Kalkatungu, an extinct Australian Aboriginal language, sometimes called the anti-passive. This term is derived from the recognition that it "is a derivation that allows access to the privileged relation" (Blake 2001, p. 57), to become not only patient but beneficiary – the object to a new subject, so to say, that might be outside of oneself. It is similar to cases like the beneficiary applicative and the instrumental or comitative applicative, where a participant of a sentence is advanced to assume the grammatical relation held by the patient including typical instrumental or comitative markers, too, to move for example "the internal orientation from patient into a manner" (Martin 2000, p. 392) or purpose expression or a direct object is stated in a way that it is a possible passive subject, e.g. "[passivized stepping out of line The source for their action should be determined and investigated] [purpose or reason for being passive in order to resolve the problems upon which their behavior is based]". It creates a move from actor or reflexivity to beneficiary.

But again, this is part of a larger hierarchy, where each phase can show a unique sort of passive structure complementing its active variations. This hierarchy of universals, too, forms a "semantic field with various diachronic and synchronic connections between all of the three [later, b) to d)] categories" (Gast & Siemund 2006) from a) intensifiers like "the most" including anti-causative or de-objective as passive and intransitive verbs to b) reflexivity e.g. in "given a chance to explain their actions" with impersonal forms of passive and transitive verbs, c) referential disambiguation, or variation of context, accompanied by adnominal intensifiers leading to so-called emphatic reflexivity like in "[the identity of accidents constitutes what signifies the temporal problematic of accumulation, namely the progress of the present as an ever actual moment, which cannot automatically] [adnominal intensifier 1 carry itself what it accumulates, rather has] [adnominal intensifier 2 with ditransitive verb to seek itself retention and accession]" (Luhmann 2014, p. 17) and di-transitive verbs – verb forms followed by two or more objects allowing for natural reciprocity – to d) role disambiguation through actor-oriented intensifiers, which are used to relate a proposition to a set of alternative propositions and by this create an 1) actor-role assigned to 2) an actor or instrumental category 3) other than the referent, thus managing full reflexivity by having 4) "a different thematic role in the alternative propositions, e.g. that of an external causer or beneficiary" (Gast & Siemund 2006, p. 14). A case form we can observe in Luhmann's 1969 writing: "[proposition 1 Thus far as systems start to orient on the basis of temporally distant effects] [actor-oriented intensifier by themselves,] [proposition 2 where system is negative beneficiary well, in regard to purposes, the present in itself becomes problematic]" (Luhmann 2017b, p. 226). This structure is contrary to the intransitive verbs of the first phase, too, signified by so-called derived intransivity expressing itself e.g. through "orient by themselves" which contrary to "to seek itself retention" lacks any necessity for an object, like intransitive verbs in the first phase do, either. The possibilities for expressed grammar are manifold and suggest that there are many variations of each stage including passive and active versions of grammar.

Obviously, the manifold possibilities opening up between the realm of lexis and that of grammar lead to certain lexico-grammars which carry the discourse of a culture within a certain stage as variations or differences and reappropriations. Exemplarily this can be shown using Luhmann`s (2016) depiction of a sequence of cause, effect, the values to whom both cause and effect exist and the judgment of means/ends by combining it with Martin Haspelmath`s (2003) semantic web for dative constructions from *The Geometry of Grammatical Meaning*. We can see the drawing, in Figure 3. This table illustrates some of the markers we have mentioned so far and how they can form different types of dative, using different indirect objects, in the third phase to depict the non-linearity and labyrinthic possibilities of grammar.

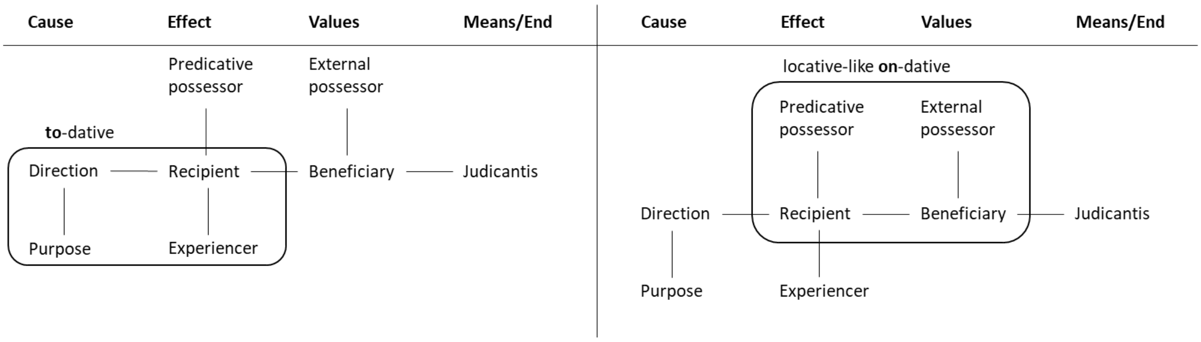

Cause
Effect
Values
Means/End
Predicative possessor
External possessor
to-dative
Direction
Recipient
Beneficiary
Judicantis
Purpose
Experiencer
Cause
Effect
Values
Means/End
locative-like on-dative
Predicative possessor
External possessor
Direction
Recipient
Beneficiary
Judicantis
Purpose
Experiencer

Figure 3. Approximate Semantic Web for different Dative-Types; based on Haspelmath (2003) and Luhmann (2017b).

Furthermore, Figure 4 (below) sums up some of the markers regarding the phases, portraying them as a fractal of stages, phases, grammars and content as conscious preoccupation directed towards different modes of character development and interpersonal style.

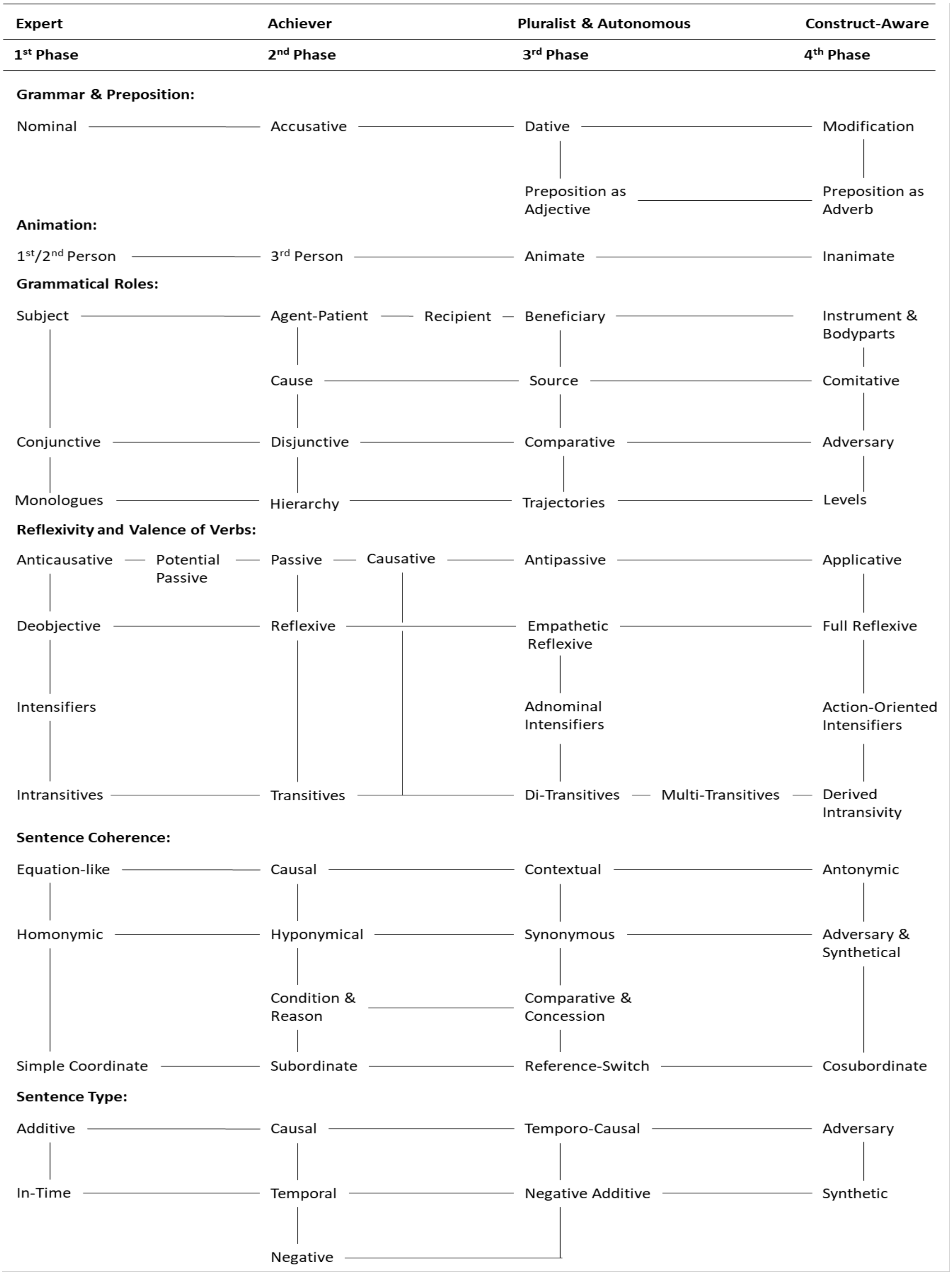

Expert
Achiever
Pluralist & Autonomous
Construct-Aware
1st Phase
2nd Phase
3rd Phase
4th Phase
Grammar & Preposition:
Nominal
Accusative
Dative
Modification
Preposition as Adjective
Preposition as Adverb
Animation:
1st/2nd Person
3rd Person
Animate
Inanimate
Grammatical Roles:
Subject
Agent-Patient
Recipient
Beneficiary
Instrument & Bodyparts
Cause
Source
Comitative
Conjunctive
Disjunctive
Comparative
Adversary
Monologues
Hierarchy
Trajectories
Levels
Reflexivity and Valence of Verbs:
Anticausative
Potential Passive
Passive
Causative
Antipassive
Applicative
Deobjective
Reflexive
Empathetic Reflexive
Full Reflexive
Intensifiers
Adnominal Intensifiers
Action-Oriented Intensifiers
Intransitives
Transitives
Di-Transitives
Multi-Transitives
Derived Intransivity
Sentence Coherence:
Equation-like
Causal
Contextual
Antonymic
Homonymic
Hyponymical
Synonymous
Adversary & Synthetical
Condition & Reason
Comparative & Concession
Simple Coordinate
Subordinate
Reference-Switch
Cosubordinate
Sentence Type:
Additive
Causal
Temporo-Causal
Adversary
In-Time
Temporal
Negative Additive
Synthetic
Negative

Figure 4. Hypotheses about Stages, Phases and a Semantic Web depicting some of the Grammars.

Contemplations on Stage Patterns

We hypothesized before that even though Terri O`Fallon`s stage theory proposes not only, and applies in its measurement, four phases but, too, offers overarching pattern of passive, active, reciprocal and interpenetrative, that her pattern within what she calls the subtle tier ends with the third phase of Parson`s and Luhmann`s patterns – as well as after three complete grammatical cycles not four. We can only exemplarily show that both stages basically have a "both… and" point of view, that only matures from nominal and accusative – the Pluralist – towards dative, possessive and modifications – the Autonomous – instead of a qualitatively distinct mode of operation and conscious-preoccupation with a new object and meaning within the quadruplicate scheme of adaptation, system and environment hence goal-orientation, integration and self-thematization. Table 6 depicts this exemplarily for two different modes of using the grammatical overly of "both… and": a positive as well as negative scheme and a two positive sides of what would be a polarity at the Achiever stage.

Table 6. Difference and oneness of Pluralist and Autonomous depicted by examples from Miniard 2002, p. 60ff.

	Pluralist/4.0	**Autonomous/4.5**
	responses including Nominative & Accusative:	Responses including Dative, Possessive & Modifications:
Three meaningful and differential components as "both… and" as positive & negative:	A good boss… [Theme as first side of pole: positive as Nominative: "Who or what?" *Demands excellence*] [Rhema 1 as second side of pole: Negative as Accusatives: "Who or what is being or verbed?" *but provides for the development of the skills and attitudes]* [Rhema 2 as Accusative: "Who or what is being or verbed?" *necessary to achieve it.*] (Miniard 2002, p. 61)	A good boss… [Theme as first side of pole: positive as Accusative: "Who or what is being or verbed?" *keeps lines of communication open and provides direction for activities*] [Rhema 1 as second side of pole: Negative as Locative-like Dative: "Onto whom or what?" *without impinging on the employee's own abilities & desire*] [Rhema 2 as Possessive: "Whom or what?" *to direct their own activities.*] (Miniard 2002, p. 70)
Three meaningful and differential components "Both… and" as two positive poles:	A good boss … [Theme as Nominal "both… and": "What?" *both supports and challenges,*] [Rhema 1 as first side of a pole – supervises: Accusative: "Who or what is being or verbed?" *uses a variety of supervisory methods and*] [Rhema 2 as second side of a pole – diversity or freedom: Accusative: "Who or what is being or verbed?" *cherishes diversity.*]	A good boss… [Theme as Instrumental Categories: "Has which means?" *has a clear sense of self and a vision of a future state – both*] [Rhema 1 as first side of pole: Comitative: "With whom or what?" *which are compatible with colleagues, co-workers and with the organization*] [Rhema 2 as second side of pole: Instrumental: "through which means?" *and which are conveyed to others through example, not words.*] (Miniard 2002, p. 70)

We already pointed towards the end of Terri O`Fallons iterating cycle in the subtle tier with Luhmann`s third and fourth phase within the Integrative stage of his life work, i.e. within the Autonomous stage, when we, too, pointed to Kant`s way of integrating inside and outside. Most famous for dealing with projections is Carl Gustav Jung. When he writes in *AOIN Research into the Phenomenology of Self*, that "although, with insight and good will, the shadow can to some extent be assimilated into the conscious personality, experience shows that there are certain features which offer the most obstinate resistance to moral control and prove almost impossible to influence. These resistances are usually bound up with projections, which are not recognized as such, and their recognition is a moral achievement beyond the ordinary" (Jung 1970, p. 9), Jung moves seemingly exactly from a fourth-phase grammar, using adversative conjunctions as well as locative and comitative modifications, into a more nominal style of the early Construct-Aware, i. e. the 5.0 stage of O`Fallons model characterized by an "insight around projections in one`s interior experienced in the moment. The witness (awareness of awareness) is activated and it becomes aware, in the moment of projections arising" (O`Fallon 2010, p. 60).

Looking at Luhmann`s understanding of his four phases adaption or the temporal dimension and self-thematization as the maintenance of identity show up as opposite sides of a coin, as major polarities or antinomies: While "adaptation as a learning process, reflection [as self-thematization] is a constituting process. In the process of adaption contingency has to be understood as 'dependency from…'. Within the process of reflexivity contingency has to be understood as non-necessary possibility. Classically framed: Causality and freedom are not mutually exclusive, rather different expressions for the process of contingency" (Luhmann 2017a, p. 920f). So, there arises less the iterating movement from passive to active and the passive receptive to the active interpenetrative but more of a polarity between the first and the last and that of individual goal-orientation and integration.

That reminds of the great polarity Friedrich Georg Wilhelm Hegel (2011) points out in his *Encyclopedia of philosophical Sciences*, when he comes to his perspective on psychology and the subjective as well as the objective mind. In the passages about the objective mind he spans a trajectory of moral maturation from right or law, over morality towards the ethical life. The sphere of right subsumes or synthesizes two types of psychological functioning: the consciousness which has the soul as its object and the mind "which declared itself to the truth of the soul and the consciousness" (Hegel 2011, §440). Within the right the free will of mind, which has its destination still on the outside, has to direct its means towards the end of ownership. This is only possible based on consciousness which itself is, "by itself and for itself, the change of the object. Consciousness appears therefore differently established determined following the difference of the objects" (ibid. §415) and is in its more mature form of self-consciousness an "I = I […] in which the I merges with itself [as on object of desire] and becomes satisfied by this, becomes a real" (ibid. §§424 & 428). It is like Luhmann`s view on adaption as it is adaptative and dependent on what is in both "the subject and the object identical" (ibid. §415). Consciousness matures towards reason and the mind, which as free will "directs its inner destination and purpose on an externally found objectivity" (ibid. §483), and from an orientation towards right into morality. But as morality is based on an "infinity of subjectivity" (ibid. §511), on the recognition of the uniqueness or specialness of everyone, it creates both a highly relative world and the need for relational modes of understanding. Hegel (2011) mentions dialectics as such a proceeding but as Karl Ott Apel (2016) points out in his essays on *Discourse and Responsibility*: there is a necessary and next step which is especially grounded "in the Hegelian presupposition for the possibility for truth" (Apel 2016, p. 72f). This possibility for truth shows up in the *Encyclopedia* as "the truly ethical life […] [where] the disposition of the individuals is the knowledge of the substance and the identity of all its interests with the whole" (Hegel 2011, §403). Here, the individual and self-conscious freedom is directed as "un-intermediate general reality and simultaneously custom […] to create both through its occupation" (ibid. §514). This ethical substance can, too, be called trust: as each knows anyone else only within the shared whole and as shared identity. It is again and in the same way as for Luhmann a oneness of inside and outside, but where it first came from the outside towards the receiving end of the inside it is now the inside or shared substance which is directed outwards.

One can find this pattern in the writing of the Indian saint Sri Aurobindo, too. At the end of the trajectory of separate self is an intermediate stage which is not yet completely spiritual but no longer completely mental either: the higher mind. "This higher mind is able to perceive and deal with other souls as other forms of its pure self" (Aurobindo 2005, p. 181) in the same way as for Hegel the truly ethical life arises, when "inside touches inside". More mundane formulated by Kohlberg: being at moral stage six means having "the perspective of any rational individual, that acknowledges the essence of morality or acknowledges that any human contains within itself its end-purpose and has to be treated accordingly" (Kohlberg 1996, p. 132). This reverberates what Abraham Maslow (1993) considered extraordinary in the rare individuals he discovered and named self-actualizing. "They tend to agree about what is right or wrong, as if they were perceiving something real and extra-human rather than comparing tastes that might be relative to the individual person" (Maslow 1993, p. 9). Not only has Kohlberg four abstract stages, but Abraham Maslow, too, creates a seriality of four distinct modes of psychology: namely as first behaviorism, as second the cluster originating in Freud, and the "'Third Force' […] that includes the first and second group" (ibid. p. 4) as humanism plus the fourth of transcendence. Aurobindo, as well, one might suggest has a four-phased pattern as the higher mind as the intermediary integrates the mind proper which "is divided into three parts—thinking Mind, dynamic Mind, externalizing Mind – the former concerned with ideas and knowledge in their own right, the second with the putting out of mental forces for realization of the idea, the third with the expression of them in life" (Aurobindo 2012, p. 177). For this mind proper, there, too, again is an intermediary necessary – the mental vital, connecting the mental with the physical life.

As Hegel (2019a, p. 746) himself writes in the *Science of Logic* "the term counted as third can also be counted as fourth, and instead of a triplicity, the abstract form [of dialectics out of thesis, antithesis and synthesis] may also be taken to be a quadruplicity; in this way the negative or the difference is counted as a duality". Despite Hegel himself staying with the form of triplicity for esthetical reasons or because "it is this unity, or that the entire form of the method is a triplicity, is indeed nothing but the merely superficial, external side of cognition; […] because it has always been recognized to be the universal form of reason" (ibid. p. 746f), the Slovenian philosopher, cultural critique and lacanian psycho-analyst Slavoj Žižek (1999), too, extracts this quadruplicity in his book *The Ticklish Subject.* This leaves us with a tier pattern as depicted in Table 7 which is according to Žižek (1999, p. 80) "the longing for reconciliation with a lost totality, […] the fourth moment, ethical substance, 'second nature'". We depicted the phases including some of the here mentioned authors, to show, how theses phases are reappropriated in different and unique ways with even using the same words for other phases. As shown semantic webs can take on different form thus different people supposedly perceive same a prior grammar through a different lexical field.

Table 7. Patterns of the phases based on Hegel 2011 and Luhmann`s life work in comparison to other authors mentioned during the course of this article.

O`Fallon	3.0	3.5	4.0 & 4.5	5.0
Cook-Greuter	3/4	4	4/5 & 5	5/6
Angerer	1st Phase	2nd Phase	3rd Phase	4th Phase
Pattern	Thesis	1st Negation	2nd Negation	Synthesis
	Outside as Inside	Inside-Out	Outside-In	Inside as Outside
	Pure Subject	Individual	Systems	Shared Substance
Hegel	Subjective Spirit			
	Consciousness			
	Self-Consciousness	Mind		
		Objective Spirit		
		Free Will	Subjective Will	Substantial Will
		Rights	Morality	Ethical Life
	Other for Other	Despotism	Relationality	Intersubjectivity
Parsons	Adaptation	Goal-Orientation	Integration	Pattern Maintenance
	Cognitive Mode	Evaluative Mode	Value-Orientation	
Luhmann	Communication	System-Environment	Integration	Self-Thematization
	Temporal	Factual	Social	Identity
	Incongruency	Latency	System-ness	Functionality
Kant (first Critique)	Time	Space	Self-Consciousness	
	Receptivity	Spontaneity	Intuition	
	Inherence and Subsistence (substantia et accidens)	Causality and Dependence (cause and effect)	Community (reciprocity between agent and patient)	
Kohlberg & Habermas	Conventional: Incomplete Reciprocity and Duty vs. Inclination		Post-Conventional: Complete Reciprocity and Autonomy vs. Heteronomy	
	Stage 3: Good Social Relationship	Stage 4: Maintaining the Social Order	Stage 5: Social Contract	Stage 6: Discourse Ethics
Maslow	Behaviorism	Freudianism	Humanism	Transcendence
Loevinger	Cognition	Character Development	Interpersonal Mode	Conscious Preoccupation
Aurobindo	Separate Individual			
	Mind Proper			Almost Spirit
	Externalizing Mind	Dynamic Mind	Thinking Mind	Higher Mind
Whitehead	Conceptual Origination: Adjustment of valuation	Physical Origination: Actuality but deficiency in the solidarity	Perfected Actuality: Oneness without loss of individuality	Self-completion: Each actuality included as fact of relevant experience
	Actual Entities	Eternal Objects	Substantial Activity	God
	The things to be received	The act of perception	The manner of reception	The subjective purpose
Sartre	Isolation	Reciprocity	Interpenetration	Collective Praxis
Derrida	Openness for Perception of World	Now of Consciousness facing an Object	The Present Tense of Discourse	Surface of Envisaged Presence
De Chardin	Centering everything partially upon oneself	Being able to center oneself upon oneself constantly	Being brought into association with all the other centers	Birth of some single center from the convergent beams of million centers

Preliminary Contemplations on Tier Patterns

However, for Hegel “ the subjective spirit and the objective one are [only] seen as the way through which […] the absolute spirit as reality that is equally eternal in itself as it is returning and returned Identity; the one and general substance as spiritual […] as the certitude of the objective truth” (Hegel 2011, §§553-555). It is itself not only holding together the subjective and the objective spirit, but is, too, the culmination of a trinity of layers called being, essence and notions – for many reasons we simplify here again. Notions are generalized and enduring interpretations and culminate in ideas which are truth in itself and for themselves but these notions and ideas are “still the idea in its subjectivity, and hence in its finitude in general. It is […] [their] purpose that ought to realize itself, or the absolute idea itself still in its appearance” (Hegel 2010, p. 696). The absolute idea alone is for Hegel (2010, p. 735) “being, imperishable life, self-knowing truth, and is all truth”. And that especially as it brings together the ideas and notions with being – the seriality of phenomenological appearances – as well as with essence – the moment where being becomes mediated with itself through another, the negativity of itself.

For the founder of pragmatism, Charles Sander Peirce (1998), these three layers can be called firstness, secondness and thirdness or the ideas of first “a Quality of Feeling […] [, and] of that which is such as it is as being Second to some First, regardless of anything else […] that is to say, it is Reaction as an element of the Phenomenon […] [while] the Third is the Idea of that which is such as it is as being a Third, or Medium, between a Second and its First. That is to say, it is Representation as an element of the Phenomenon” (Peirce 1998, p. 160).

For Luhmann (2018b) society or first order observations can be considered as some kind of third, or the interpretant between phenomenon, hence communication and the reactions, the differences and identities of systems. However, for Luhmann a truth as that which Hegel points to, does not exist, neither a pragmatic consensus as Peirce thinks of, when he points to his categories. While the first order observer ends with notions, “statements about invariant foundations, about nature and necessities […] [, while for the second order observer] anything that the first order observer observes […] depends on the distinctions which where underlying the observations; and it always can be different distinctions” (Luhmann 2018b, p. 1121f). There is a contingency for the second order observer, which it, contrary to the first order observer, can choose where it creates latency and blind spots and thus to it “the world appears as constructions based upon different distinctions” (ibid. 1122).

Though, for Luhmann no truth exists but anything, whether called subjective or objective, accidental or substantial, truth or lie, actual or possible, is contingent, the reduction of an incomprehensible complexity, “which increases the probability of the desired and decreases the probability of the undesired” (Luhmann 2016b, S.98f), anything can be marked as true through observation: “the management of differences” (Luhmann 2012, p. 63). Despite that old conflict – which we already mentioned into the introductory paragraphs of this article, between structure and genesis, patterns and differences, substances and accidentals, insides and outsides, the possibility for truth and construction reaching from the inception of time to these great thinkers, we are now up to explore Luhmann`s path into the realm of second order observations – by this we will point to some important differences between both views, or as Wilber (2018, p. 681) puts it: each holon “can be looked at from ‘without,’ or from the ‘outside’ in an objective/universal/rational stance, or looked at from ‘within,’ or from the ‘inside’ in a subjective/local/cognitive/enacted stance” – and we attempt to do both for better comprehension.

In the succeeding section, Luhmann`s writings after 1980 can be classed at least into two stages each completing a circle of four grammatical phases above the Construct-Aware: a) where ideas are primarily concerned about the way differences and unities are created through observation and later b) how observations deal with paradox to create cognitive, subjective and constructed internal identity. In the following paragraphs we will no longer point too much to grammatical markers. We will restrict ourselves to mentioning the phase wherein the textual examples could best be put and how the conscious preoccupation, interpersonal mode and identity-formation evolve and change with the distinguishable semantics. Respectively sections are no longer translated with the same grammatical accuracy but towards optimizing the reading flow. Additionally, to locate the tier sequence from being, to essence, to notions and absolute spirit or from firstness, to secondness, to thirdness and beyond into Luhmann`s realm of second order observations within a broader reality we reference not only other thinkers seemingly from these stages but some concepts from earlier stages, too. As thorough these classifications are as thorough should be the caution when reading these assessments, as no one is free of stepping into misjudgment, e.g. for reasons of transference.

Construct-Aware and Unitive

The Early 1980s: Entering Unitive

As we have seen, the move into the integrative phase of Luhmann`s writing was signified by a loosening of the boundaries created by the subordinating mechanisms and the latency or displacement and repression mechanisms of a system out of subsystems which marked the exiting phase of the Achiever stage. The boundaries are loosening their hierarchical mode and "drawing of boundaries does not necessarily mean less communication, in general even rather an increase, as the passage is specified and thus eased up" (Luhmann 1966a, p. 85) – communication channels become clear and therefore accessible. However, this interplay of subject and object takes on different forms and is further increasing in 1970. The interaction of inside and outside there could for example mean that systems can "reach 'ultrastability'. They can stabilize internal boundaries between sub-systems in the meaning of thresholds, which restrict a transmission of effects – […] therein lies a substantial speeding up of intra-systemic adaptative processes, an important temporal gain for survival. This initially enables the emergence and maintenance of higher order systems. […] in a more complex world" (Luhmann 2018c, p. 159f). And thus, there is a deep relationship between two sides of reality: the completely inside and the completely outside in their combination as unity. Or as Alfred North Whitehead (1978, p. 148) says "every item of the universe, […] is a constituent in the constitution of any one actual entity" or of any particle, life-form or system of any kind. For him, too, this completion of inside and outside or rather anyone and anyone else is part of a four-phased process wherein "the creative action completes itself [in the fourth phase] […] for the kingdom of heaven is with us today […] [, which] is the love of God for the world" (Whitehead 1978, p. 354).

It is exactly ten years later when Luhmann starts with *Societal Structure and Semantics* both a new series of books and the next nominal or adaptative phase. Here, we still cannot see the term of observation substituting self-thematization, but a new degree of complexity when it comes to his recognition of the "others as other", of first to second person interactions: "the differentiated states [here] are not in relation to each other, but historically in relation to the earlier state functionally equivalent. Exactly that allows the substitution in direction to functional differentiation; it is functional substitution of functionally for each other no longer substitutable states. The differentiated states then align by this that they can only jointly substitute an earlier one, on whom they themselves depend" (Luhmann 1993, p. 169f).

What we can see here is that the nominal function takes on different means: it is the switching between antonyms or the expression of two parts formulated in opposition but union, a sentence of adversaries in an instance – inclusion of others as other means therefore "[Rhema 1 Fully differentiated behavioral complexity has to be introduced into society again] [Rhema 2 stating the opposite and by this has to be made compatible with these behavioral competencies, against which they have been differentiated]" (ibid. p. 170). Or as Jacques Derrida (2007) writes, this phase deals in a paradoxical fashion with the *Inventions of the Other* "the other is indeed what is not inventible, and is therefore the only invention of the world, our invention, the invention that invents us" (Derrida 2007, p. 45). As Jean Piaget (1956, p. 246) points out "reciprocity is the fundamental relation which one finds within each totality" and here the adaptation starts with a whole new kind of it, leading to new and "more complex relationships of inclusion, interference, negation, etc." (ibid. p. 236) that are in themselves and by their nature antonymic.

This structure thus looks like the fourth phase moved into an extreme. Additionally, it shows up on the surface of Susanne Cook-Greuter`s Unitive stage, too. Hence, being with other people can in the more accusative to dative phase mean that it "[Rhema 1 is not necessarily dependent on proximity (distance) – or time for that matter.] [homonymic hyponymic theme One could be next to someone and not 'be with them'.] [homonymic synonymic rhema 2 'Being with' seems more like realizing that an 'other' is somehow part of 'you',] [homonymic rhema 2 as antinomy and 'you' are part of 'them' – if only for a moment]" (Cook-Greuter 2010, p. 80) and the dative to instrumental phase brings forth a feeling of feeling sorry "[Rhema 1 as antinomies for everyone and for no one –] [equation-like preceding rhema 1 all of us suffer, and much of it is self-created...] [rhema 1 antonymic part yet none of us is ever really in danger at the level of the Absolute] [rhema 1 beneficiary applicative as ablative and there is potential good that can come from whatever we are experiencing right now]" (Cook-Greuter 2011, p. 16).

Not only in these sentence completions we can see the arising of a new "I = I" in the Hegelian sense, where the subject is merely the same as the object but Luhmann, too, says "that through present communication the pasts and the futures of other persons […] can be made present. As different persons provoke each other's actions reciprocally, the temporal horizons of simultaneous or quasi simultaneous events melt together. The temporal horizons or action events become relieved from the sequentialization through one continuity of consciousness. They, only that way, gain the form of a horizon that can be supposed as intersubjectively-common. The time becomes separable from events, on which meanings it arises, and wins the form of a (culturally interpretable) world-dimension" (Luhmann 1991, p. 257f) or as Hegel would put it: a place "where the spirit […] [as a history] becomes, too, for itself a general of the external, becomes the world spirit" (Hegel 2011, §549). But, Luhmann in this essay on *Temporalization of Complexity* still displays a large number of markers pointing towards a fourth phase of the earlier – as shown Construct-Aware – stage of his writing.

Luhmann sometimes not experiences permanently or – as Terri O`Fallon (2010, p. 19) might write: "rocks back and forth" – points towards this experience of a shared conscious world-dimension, with a presence or independence from one single, isolated experience of time. It is a sort of prophecy of a new sphere or as he puts it: "[rhema 1 as thesis A further differentiation of events […] never ends with a new, perhaps timeless dimension of elements,] [rhema 2 as antinomy even though one has to confess to the mystics, that the infinity of progress into the small matches the infinity of the progress into the large] [rhema 3 as synthesis and one insofar can find eternity in each moment]" (ibid. p. 244).

This idea of touching into a new dimension of freedom can, too, show up in Construct-Aware sentence completions: a good boss for example "[rhema 1 thesis is able to unleash the potential and abilities of staff] [rhema 2 as comitative and instrumental applicative by creating a situation in which they choose willingly to live of their best, having a clear understanding of goals, roles and their unique combination,] [rhema 3 as synthesizing context pointing to something "unknown" as within a supportive, challenging and ultimately liberating environment]" (Miniard 2002, p. 72) and is typical for Hegel's *Phenomenology of Spirit*, too. There, in certain moments, absolute spirit shows up, for example in a moment of forgiveness, where "[rhema 1 the word of reconciliation is the objectively existent Spirit,] [rhema 2 as comitative with antinomy which beholds the pure knowledge of itself qua universal essence, in its opposite, in the pure knowledge of itself qua absolutely self-contained and exclusive individuality –] [rhema 3 as synthesis a reciprocal recognition which is absolute Spirit]" (Hegel 1977, p. 408).

For Hegel in his, let`s name it, "late Construct-Aware writing" anything is full of meaning, both, good and evil "[rhema 1 as synthesis are purified into the unity in which there is no longer in them any existence devoid of self, any negative of consciousness,] [rhema 2 as pole one where on the contrary, duty is the unchanging identical character of its self-knowledge,] [rhema 3 as pole two and evil equally has its purpose in its being-within-itself, and its actuality in its utterance]" (ibid. p. 408) and thus synthetize each other in their mutually defining, restricting and contrary existence as a self-conscious relationship. This structure of Hegel`s philosophy of religion, where a home or place for both sides of the reality-coin exists, is analytically pointed to in Luhmann`s 1977 *The function of Religion*, where the grammar of the fourth phase still exists in isolation from that of a later phase and process of adaptation. There a functional definition of religion is about "trying to avoid the abstract one-sidedness of a single function-statement, which allows too much and renders not enough, to correct them and to complicate them through means of systems-theoretical analysis, in other words in order to incorporate in the theory of religion, that any social System, therefore society, too, has to solve more than one problem, hence, has to fulfill a multiplicity of functions" (Luhmann 1999, p. 84).

Another philosopher of dialectics, the French existentialist Jean Paul Sartre (2004) in his *Critique of Dialectical Reason* can be situated here, too, again he shows the prophetic structure, when he asks whether it is "some 'collective consciousness', a totality irreducible to its parts, [which] imposes itself externally on each and every consciousness, as the Kantian categories impose themselves on the multiplicity of sensations" (Sartre 2004, p. 391). A "collective consciousness arising from the synthetic unification" (ibid. p. 294) of a series of four, where the collective praxis leads to individuals realizing "in and through themselves the interpenetration of a multiplicity of unorganized individuals within them and that they produce every individual in them in the indistinction of a totality" (ibid. p. 253) on the basis of the two earlier forms: individuation or isolation and reciprocity. Just two years later, in the same way as Luhmann`s grammar changed, we can see Sartre`s reappropriation of the Unitive stage deep structure in his own lexis and autobiographical writing *The Words* where he for example writes about discovering his self as other: "[Thema Looming up out of an antediluvian world just when I was escaping from Nature and at last becoming myself,] [Antonymic rhema that Other whom I was aspiring to be in the eyes of others, I faced my Destiny and recognized it: it was only my freedom.] [Thema It had been set up before me by my own efforts] [Antonymic rhema as if it were a foreign power]" (Sartre p. 171).

Following Derrida (1981) in *Dissemination* where he, too, deals with the appearance of something still exterior to one`s interiority, one can say that in this fourth phase of the construct aware "discourses spring up regularly, engendered in the course of sequences that are themselves part of the quadrature [quadruplicity] of the text, belonging precisely to one of the four faces, the one that seems to be open for the perception of the spectacle [or adaptation], for the "now" of consciousness faced with its object [or goal-orientation], for the present tense of discourse [or integration] – belonging, in a word, to the face as what one faces, a surface of envisaged presence [or self-thematization]. This face also contemplates itself as the originary, immediate, unconditioned opening of appearing but it explains itself as an apparent opening, a conditioned product, a surface effect" (Derrida 1981, p. 299) before some years later – as mentioned earlier – the paradoxical grammar in Derrida`s writing takes over this appearance he in *Dissemination* calls "illusion". It now becomes part of deconstruction a process which "involves an affirmation, this latter being linked to the coming – the venire – in event, advent and invention" (Derrida 2007, p. 23), it now becomes unconditioned and beyond being just a surface some "aspect of invention, of inventive power: as if it were necessary […] to reinvent the future" (ibid. p. 23). This move from recognizing a larger mind beyond the higher mind. While in the higher mind it is still the persons "separate mental self which it makes the judge, witness and center of the universe and through it alone strives to arrive at its own higher self and reality" (Aurobindo 2005, p. 181), in this transition "the veil is rent and the divided mind overpowered, silent and passive to a supramental action that mind itself gets back to the Truth of things" (ibid. p. 181).

Further Differentiation in the Unitive Realms

Now, we have shortly expressed the move from synthesis of mutuality and two sides of reality and how the early Unitive phase shows an antonymic structure in its absolute. However, towards the fourth phase of the first Unitive cycle and Luhmannian life-stage two things happen: a) first, the antonymic structure gets framed as paradox, a word that increases in number, importance and scope of meaning from the 1984 *Social Systems* towards the books about economy, politics, moral, religion, education and other subsystems of society where paradox is mentioned more than a hundred times within each book and b) the typical triadic structure which was present in all of the four earlier stages from Achiever, to Pluralist and Autonomous towards Construct-Aware moves into a quadruplicate form or a more symmetric style of writing that reminds of that which is present in concrete operational writings like in this passage from the Hymns of Homer: "[Rhema 1 part one And so long as she, the goddess, yet beheld earth and starry heaven and the strong-flowing sea where fishes shoal, and the rays of the sun,] [rhema 1 part two and still hoped to see her dear mother and the tribes of the eternal gods,] [rhema 2 part one so long hope calmed her great heart for all her trouble] [rhema 2 part two and the heights of the mountains and the depths of the sea rang with her immortal voice]" (Hymns II, 33-39).

This parallel structure can be apprehended in the 1986 *Ecological Communication*. Here the first cycle of observation is completed and Luhmann, in defense and in an attempt to sustain the system of ecological communication, writes "[rhema 1 part one overall it is obvious that with the scientific inquiry the respect regarding 'natural equilibria' has grown,] [rhema 1 part two be it within ecological interrelationships, be it within different countries and today even in developing countries,] [antonymic part of rhema 1 part one that however, at the same time the own society is exposed to the most enormous critique] [antonymic rhema 1 part two and exaggerated with calls for intervention, as if it were no longer a system]" (Luhmann 1990, p. 20). This sentence is both a) a more extreme formulation of the first phase variation of antonymic construction and b) including much of instrumental and locative modifications and contrasts of a fourth phase and contains this in the quadruplicity of this nominal and homonymic antonymic superstructure. This kind of structure – including four meaning carrying clauses not just reformulations or explications – is something one can, too, see in some of the Unitive sentence completions where this fourfold dissection can take on form as in I am "[rhema 1 someone and everyone,] [rhema part two special and ordinary,] [rhema 2 part one one tiny part of fast cosmic system] [rhema 2 antonymic part two who has the potential to make a difference]" (Cook-Greuter 2010, p. 82) including two rhema in a, nominative to accusative phrase similar to what we have seen in Achiever sentence completions and which might show up here more in direction of a dative-like phase e.g. a good boss "[rhema 1 of goal orientation is someone who knows how to balance authority and freedom,] [rhema 1 part two who is able to embody and/or give voice to the deeper mission of the organization,] [rhema 2 part one of adaptation while seeing it in the context of society,] [rhema 2 part two and can do this in service of a deeper Reality]" (Miniard 2002, p. 75). It even can show up with one rhema like in a good boss "[rhema 1 part one can be a 'boss'] [rhema 1 part two if he needs to,] [rhema 1 part three or a coach, leader, shaman,] [rhema 1 part four antinomy or disappear]" (Miniard 2002, p. 74).

So, now, as we have looked at the seemingly new superstructure, lets come to the paradox: Luhmann in 1984 formulates one of the paradoxes, a paradox that says that a system can only comprehend its rationality from understanding its subsystems and which "we attribute to the pure form of self-referentiality, and we therefore see the rationality as re-entry of the difference into the different, as installation of an open system/environment-difference into the system that identifies itself through this difference" (Luhmann 2012, p. 641). The paradoxes here are concerned to move the system and its self-referentiality from anti-passive and being a receiver in an involuntary sense of a voluntary, integrated beneficiary towards agent-oriented-intransivity to create a "system which disposes over its environment, [as it then] basically disposes over itself" (ibid. p. 641).

This idea moves into observations of observations about the possibility of dissolving antinomy or the so-called paradoxes. Again, this is, similar to the first Unitive phase, a special and emergent kind of dealing with subject and object. It now generates and is characterized in *The Economy of Society* through the "possibility for observing observers. As the observational context varies from observation to observation, one can only comprehend such a system as polycontextural system; and our thesis is, that the system for this has to take on the form of an environment for participants, of an environment, which does not variate randomly, but is neither a simple function of purpose-oriented behavior" (Luhmann 2019b, p. 98). Luhmann manages this switch after an intermediate fourth phase. However, in this intermediate phase one first has in fact "to reverse into its opposite the general perception that first a 'subject' has to make an aware decision for communication and then it can act communicatively. First if out of reasons [from systems], which cannot be ascribed to a consciousness, ecological communication can get under way and start to co-determine societal communication, one can expect that the topics of this communications gradually become contents within consciousness" (Luhmann 1990, p. 65). This switch, where the "inside" or "goal-orientation" of systems determines their environment as conscious subjects and thus themselves, generates a surrounding or environment which is no longer co-subordinate but strictly subordinate, in the sense, that one can achieve new orders of complexity through shifting the boundary and redefining something not as system but an environment – the whole earlier problem ends in smoke as mental and thus communicative or discoursive boundaries become acts of a second order observer, observing its needs. This finally enables to resolve paradoxes through "imposing a difference of level or a hierarchy" (ibid. 2019b, p. 99). Therefore, for example the paradox of scarcity – "that each access to scarce resources, which serves the reduction of scarcity, increases scarcity. Increasing supply of one is larger hardship for others, and only because it is that way, the social problem of scarcity exists" (ibid. 2019b, p. 98) – can be resolved through different options, e.g. if society "establishes indifference to the misfortune of others, that is, to grant the full differentiation of the economic system" (ibid. p. 99) or through making the paradox invisible relocating it to "the invisible hand" (ibid. p. 99).

Differently said, Luhmann points out the interplay of two antinomies creating a certain state and looks how this paradox shifts from level to level through creating different observations and scripts within the environment – or as he in the third and dative state of this phase formulates “each paradox is only paradoxical for an observer who has already systematized his observations. […] And a path laid down on behalf of resolving can be described as the re-entry of the form into the form or of the distinguished into the distinct. As the form within the form is at the same time not the form, it is a paradox but likewise an unfolded paradox; as one now can choose distinctions, whose re-entry can be interpreted. An observer has the double-option to describe a system both from the inside and the outside, hence to choose both an internal and an external point of view. It is self-evident that he cannot do both simultaneously as he therefore has to use the inside/outside distinction” (Luhmann 2018a, p. 179f). Hence, we are here in a new period of system and environment differences, though anything that happens is within the oneness or unity of within the system creating distinctions and differences by and upon itself.

Luhmann in this phase does approximately match up with Ken Wilber`s (2000) *Sex, Ecology and Spirituality* however Luhmann`s four quadrants are as mentioned the temporal evolution, the factual differentiation and the social communication connected through the autopoiesis of society, the self-thematization and self-description of itself as “different entering gates for the depiction of the total painting” (Luhmann 2018b, p. 1138) of a theory of society. But while for Wilber the fifth dimension added with the new tier or the basic operation is: “No objects, no subjects, only this. No entering this state, no leaving it; it is absolutely and eternally and always already the case: the simple feeling of being, the basic and simple immediacy of any and all states, prior to the four quadrants, prior to the split between inside and outside, prior to seer and seen, prior to the rise of worlds, ever-present as pure Presence, the simple feeling of being: empty awareness as the opening or clearing in which all worlds arise, ceaselessly: I-I is the box the universe comes in” (Wilber 2000, p. 318), Luhmann introduces in his Unitive writing the difference of medium and form. Both, however are no real existents or reals, like the timeless witness, but artificial distinctions in which “the system operates in a way that it binds its own medium towards its form, without dissipating the medium by this, as much as light is cannot be wasted through seeing. […] Ultimately one here needs to observe that it is not the medial substratum, rather the form which is operatively compatible in the system. […] One does not see the light, but the objects, and when one sees light, then on the surface of objects. One does not hear the air but sounds; and the air itself has to make a sound if it wants to be heard” (Luhmann 2018a, p. 194ff). And the basic medium generating self-descriptions and observations is communication “which makes the unlikely nevertheless likely: the autopoiesis of the communicative system of society” (ibid. p. 197). However, for Luhmann many media exist, but these of society all are grounded on speech, language and communication – the opening or clearing in which all words arise – and which later artificially differentiate between this oneness where media can become form like “light that becomes allowed in cathedrals, becomes form, to play with the pillars and arches. The physical structure of the world has to enable this, but the differentiation between media and form is a personal contribution of the observing organism” (ibdi. p. 197).

This again reminds us of the *Formal Organization* where Luhmann reduces the social function of his systems-theory to the “generalization of behavioral expectations, which express themselves in the possibility of implying a consent regarding the formal expectations with all members regardless of their individual, different preferences” (Luhmann 1964, p. 68) – but now there are no longer shared opinions, one subordinates, but both inside and outside, and the four dimensions of society arise all through the surface of media.

From Second to Fourth Phases

Whereas in the movement of the third and fourth quarter the social dimension of second order observations increases, in the first quarter new and more paradoxes arise. The resolution of the paradox of scarcity disembogues therefore again in a more elaborate version of the 1984 paradox of self-reference and differentiation within this self-reference: "The system as unity and the system as difference, namely as difference of an each time participating system and its system-internal environment" (ibid. p. 101). Respectively, this differentiation between two levels of a system, as difference and unity, was not given in 1984, when Luhmann finished his *Social Systems*: there it is only the difference "which virtually holds together the different; it is different, and not indifferent. Thus far, as differentiation is brought onto a uniform principle, one can read the unity of a system from its differentiation. The system gains systematicity through differentiation, it gains additionally to its pure identity (in difference to others) a double-container of its unity (in difference to itself)" (Luhmann 2012, p. 38).

In the same sense as there does not exist a second order observer in 1984, the writing is more about the way this difference creates unities – not the possibility of shifting between two sides – of "both… and" like inside and outside, system and environment, process and structure, elements and relations, order and chaos and so forth reminding of verse 2 of the Dao de Ching where it is said that "if man know the beauty, they, too, understand what is ugly. If they learn what is good, they, too, realize what is evil. In this way being and not-being, heavy and light, long and short, high and deep, allow to know each other". However, we have to point to the slight difference, or as Luhmann in 1984 would say: "One has to notice the dialectics" – "One approaches dialectics, when one in light of the synchronization of self-reference and other-reference is interested in the underlying unity. Hence, ultimately turns towards the unity of unity and difference and not towards the difference of identity and difference" (Luhmann 2012, p. 607). As we have already shown: the Unitive stages have four operations in their repertoire instead of three as the earlier stages – as we will point out in *4.b Alternative Tier-Structure* – from Expert to Construct-Aware and hence the old notion of the Buddha, which says "between perception and action lies interpretation" has to be reformulated in a certain sense into: beyond the oneness of perception and action through interpretation lies awareness of interpretation, or the absolute idea and spirit. Figure 5 depicts this difference between the two tiers.

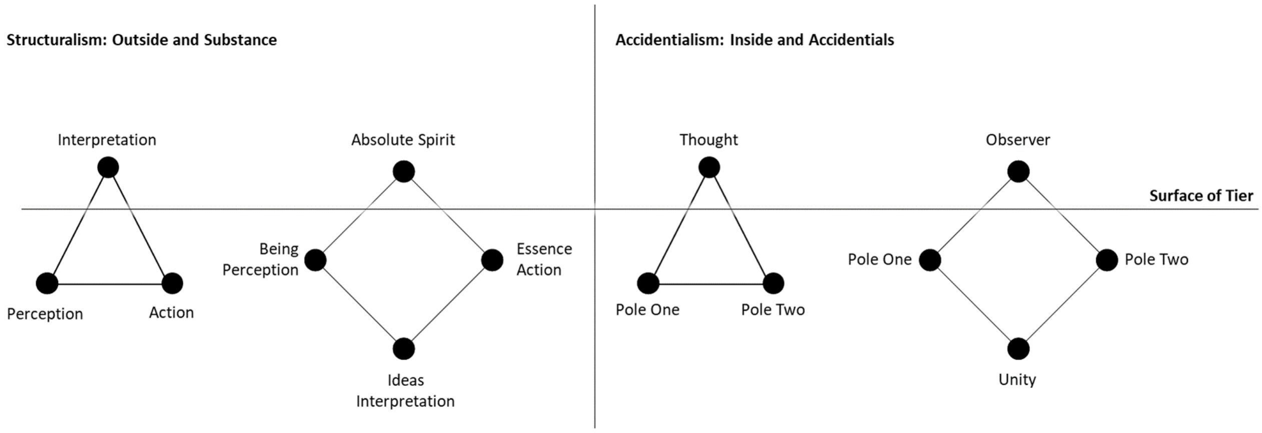


Figure 5. The difference of the "both… and" periods of adaptative stages in two tiers and their more structuralist, outside and their more genetic, inside expressions.

One can show this within Ervin Laszlo's (2002) *Systems View of the World*, where not paradoxes are unfolded but the quadruplicate structure always consists out of 1) awareness of 2) something that could be classified as interpretation 3) something that could be classified as essence and finally 4) something that relates to being. For example, when he writes about the systems-view of oneself he differentiates three layer of sub-organic, organic and supra-organic which are "rather 'levels' rather than 'categories' of reality, distinguished in reference to modes of organization rather than to essence or substance" (Laszlo 2002, p. 27) which are reiterated and explored either in sentences or in paragraphs: "[Supra-organic the human being is a module] [Organic in the multilevel structure that arose on earth as a result of] [Sub-Organic part 1 as awareness of pole one nature`s penchant for building up in one place] [Sub-Organic part 2 as awareness of antonymic pole two what it takes down in another]" (Laszlo 2002, p. 60).

However, as one might think of Teilhard de Chardin and others, these three layers exist earlier, too, but what is different is there is no simultaneous view from within all three of these levels plus awareness but one broad view projected onto them – onto merely one at a time as syntheses of the sentence, as the interpretation between action and perception: for example when de Chardin writes that "really, love-that is to say, the affinity of being with being-is not peculiar to man. [Theme as Synthesis It is a general property of all life] [Rhema part 1 as Action and as such it embraces, in its varieties and degrees,] [Rhema part 2 as Perception/Adaptation as all the forms successively adopted by organized matter" (de Chardin, p. 264). Not only is there intense anthropocentrism in the notion that "by rights, to be certain of its presence in ourselves, we should assume its presence, at least in an inchoate form, in everything that is" (ibid. p. 264) but, too, lacks the "unfoldment of paradox" that is there in more structuralist writers, too, even if backgrounded and in a more classifying manner of sorting into categories of levels. Therefore, for Laszlo "the fact that physical entities such as atoms provide communication between their parts in terms of the interaction of field or force potentials, that things such as organisms provide parts communication by physicochemical means, and that multi-person organizations stablish communication of quite another kind, does not invalidate their wholistic character" (Laszlo 2002, p. 29). Here communication as partiality and wholeness are unfolded into one communication based on separation "constitutes an integrated unity of all these in mutual relation" (ibid. p. 28). And the many forms communication can take here are nothing "but in all it forms what remains communication" (ibid. p. 29), sorted into a fourth category or structure of awareness.

One can see this in Wilber`s (2000) *Sex, Ecology, Spirituality*, too, anything is "nothing but within a quadrant" and each quadrant is in itself a triplicity of levels, as we can see here for the Upper Left – the interior Quadrant of the Individual: "[Fourth as Awareness When it comes to the developed forms of depth in humans,] [Third as Interpretation I only have access to that depth via interpreting] [Second as Action what you tell me] [First as foundation for perception in a dialogue]" (Wilber 2000, p. 141). Understanding self and other becomes a fourfold process as Wilber shows in this illustration: "[Rhema 1 And thus, I have to reread the text of my own feelings], [Rhema 2 locate the source of my insincerity,] [Rhema 3 and reinterpret my own depth more faithfully,] [Rhema 4 as providing Awareness with the help, usually, of somebody who has seen the mistranslation before and can help interpret me to myself.] The issues are meaning, interpretation, and sincerity (or its lack)" (ibid. p. 142).

This shows up in Unitive sentence completions, too, e.g. in "I feel sorry… [Expressing awareness for many things, and grateful also,] [Interpretation Layer: Expressing interpretative Ambiguity as these same things have often pulled me beyond the "small self" need to apologize] [Being Layer: Expressing Perception towards recognition of] [Essence Layer: Expressing ground for Action much greater ground for learning and living]" (Cook-Greuter 2011, p. 17) versus the completions with two poles depicted earlier.

Especially, when Luhmann looks at the social system in this phase, he describes it as a receiver, as said, a beneficiary in receipt of its constituting elements, words, which turn into communication, and come from conscious systems or humans: “With the distinction of system and environment it is gained the possibility to understand the human as part of the societal environment at the same time as more complex and unbound, as it were possible if he had to be construed as part of society; because environment is, in comparison to the system, precisely that area of the distinction which displays higher complexity and less being-structured” (Luhmann 2012, p. 289). However, this also means – before moving into the fourth phase as described above – to turn the point of view and see humans as those who benefit from society and society as some sort of external possessor or dativus judicantis, judging the utility of humans for the viability of systems, and so, humans “can only develop their complexity in regard to the social system and are at the same time used by the social system […] to extract actions from them, which are supportive of the requirements of social combinatorics” (ibid. p. 293). However, as we have seen in the third period of Achiever and within the Autonomous writing, there is a great amount of “depending on” and “according to” thinking – the animate environment thus is possessed but only “with different selectivity and different compatibility and different backgrounds and futures” (ibid. p. 293).

Luhmann here in 1984 answered a question he asked in 1981: “How is social order possible on the basis of plural subjectivity of synthetizing performances” (Luhmann 1993, p. 253).

A question that has been slightly differently stated by one of the founding fathers of German sociology, namely Georg Simmel (2018), who beautifully answered it in a third phase unfolding of paradox between a transcendent and an immanent of a second order observer: “Societies are buildings out of beings which can stand on both sides inside and outside of it […] by which society creates maybe the most conscious, at least the most general expression of an archetypical form of life: that the individual soul can never stand within a relationship, on whose outside it stands at the same time, that it is never put into an order, whose outside it is, too. […] The religious man feels completely embraced by the divine being, as if it were just a pulsation of the life divine, its own substance is unreservedly, even in mystical undifferentiated-ness given into the absolute. However, to give this being-molten-into any meaning after all, it has somehow to sustain its separateness […]. The oneness is in its meaning dependent on the other-ness of god” (Simmel 2018, p. 53).

However, for Luhmann humans are not that important in answering the question of how society is possible in 1984. Speech is one constituting moment humans add and by which they are integrated with the social system, while the social system is reciprocating with them, but central are the ideas of observation and autopoiesis, or to apply “the terminology of observation and self-observation on the level of a general systems-theory, and […] combine it with the idea of autopoiesis, self-observation becomes a necessary component of autopoietic reproduction” (Luhmann 2012, p. 64).

This mode of observation and autopoiesis slowly starts to grow into place in the 1980s. In his book *Political Theory and the Welfare-State* Luhmann (2011, p. 51) says that “self-observation would have to include the observing systems and lead them to self-reflection”. However, here this mode is rather “the continuation and augmentation of generalizing judgment” (ibid. p. 52), which is in Luhmann`s last book within this seeming stage recognized as an “observer that recognizes that its object is a self-referential system, and recognizes with this additionally that this object is constituted tautologically and paradoxically, and in so far randomly and without the possibility to operate, which means it cannot be observed. […] It recognizes its own paradox: the arbitrariness and impossibility of an observation" (Luhmann 1990, p. 55).

However, earlier in the 1980s exactly this arbitrariness first allows to see system and environment as "relationship between interdependencies" (Luhmann 2011, p. 53) and then in the difference of system and environment which creates, through shifting of boundaries, "the evolutionary surplus of the achievement of 'meaning' on the basis of an no longer stoppable self-referentiality of systems-constitution: a meaning that lies within an unprecedented combination of closedness and openness towards the environment of systems-structure" (Luhmann 2012, p. 64).

Luhmann in 1984 basically talks about time, i.e. autopoiesis as self-constitution and self-reference in differentiation that sustains systems as long as they don't lose "their determinability, hence their compatibility for further operations" (ibid. p. 59) and meaning is created by an observer through creating differences "as a surplus of references towards other possibilities" (ibid. p. 95) and therefore he primarily depicts a temporal movement. Contrary meaning in 1975 is based on reflections on time – evolution – but not anything is contained within time. Rather meaning is, when he back then touches from the accusative into the third and dative phase, where "the simultaneous presence of each actuality and horizon imparts meaning to the given, more functionally expressed: concrete access to and localization within other possibilities. Whatever 'underlies' meaning: meaning covers anything that is pregiven to it, with appresentated references, which radically transform the actuality and leaves nothing meaningless. The permanent fabrication of this 'co-presence' within the daily lives, […] enables and enforces likewise foremost effective procedures of selection – namely those, which co-present and keep present for further operations the 'wherefrom' or 'from whom' of selectivity" (Luhmann 2017a, p. 633). Differently put it is dependent on a place wherein and not only pre-given, but additionally not aware of being a process coordinated by an observer, but rather based on the experience of reality and the experience of boundaries which allow "to thematize across borders the environment after the system or vice versa: the system after the environment" (ibid. p. 638). Here in 1975 Luhmann again reminds strongly of Whitehead, who writes in an almost perfectly matching grammatical phase, that "the subjective form originates, and carries into the feeling [, into presence,] its own history transformed into the way in which the feeling feels. The way in which the feeling feels expresses how the feeling came into being. It expresses the purpose which urged it forward, and the obstacles which it encountered, and the indeterminations which were dissolved by the originative decisions of the subject" (Whitehead 1978, p. 232).

What we have already pointed to, using *Process and Reality*, is the synthesis of opposites "in the final unity of one actual entity [which] is another fact of 'givenness.' The actual entity terminates its becoming in one complex feeling involving a completely determinate bond with every item in the universe, the bond being either a positive or a negative prehension" (Whitehead 1978, p. 44). And in the same way Luhmann can in this Construct-Aware stage – as he further grows into the third phase – comprehend, as two sides of a coin, that "contrary to appearance, binary schematizations don`t serve the division rather the conjunction of opposites. They ease-up the transition of one definition of a situation towards its opposite, by demanding nothing more than a negation, whose admission is regulated in the system – a technique of paradoxical integration" (Luhmann 2013, p. 41). This is a first glimmer or the substratum and contained object of what dawns to him in his book about *Social Systems*, namely as differences created by an observer – differences that are both something that makes a difference and autopoietic structures and processes of system and environment, which co-evolve in mutuality, producing differences in a way they become or are perceived as a unity.

Contrary to this recognition of the "both… and…" structure within the third phase of Construct-Aware or the self-thematizing stage, the second phase deals much with modes of thinking as did the second phase of the integrative period in Luhmann`s writing in the mid-1960s. However, while the pluralist mode was directed towards e.g. "information processing through communicative action as it is the precondition of all higher forms, to apprehend and react adequately to all complex environmental interdependencies" (Luhmann 1966b, p. 69), and thus there was only one point of view, that of a third which nevertheless apprehended other in a way that could lead to a functional fit, the self-thematizing Luhmann looks at both sides simultaneously – at system and environment – and how they could as one whole, or one communicative intersubjectivity stabilize certain self-narrations and thus self-maintenances. One can see this for example in the 1972 *Political Planning* where Luhmann writes that "meaningful behavior in systems of communication of public opinion requires the reduction of high complexity, requires especially an overcoming of the barrier of experiencing-and-being-able-to-act-differently-too of others and thus becomes demanding and difficult, as therefore the recruitment into the system itself – and that always means, too: more or less imperceptible socialization within the system – has to be requested" (Luhmann 2007, p. 26). One can see these thoughts, too, in Pierre Bourdieu's (2016) *Distinction*, if slightly differently oriented, but "the contentions for the acquisition of cultural goods at the same time represent symbolical contentions for theses distinctive features […] [wherein] the value of culture constitutes itself or, which is in the end the self, as the belief of the value of a culture, the interest in and what is interesting about culture" (Bourdieu 2016, p. 388f). As Luhmann puts it "the full differentiation of sub-systems should not mean that the causal or communicative interplay of these sub-systems with their respective societal environment are cancelled or are comparatively minimized […] [but] based on the recognition and minding of the rules on whose basis communication creates selective accomplishments and helps to allocate, as part of a system, through the kind and the direction of a selection" (Luhmann 2007, p. 27). And these selective mechanisms are reflected by Bourdieu (2016, p. 389) – the "basis of this dynamic of the field, wherein the cultural goods are produced, reproduced and create profit of distinctions through their circulation, which are the strategies that especially through their reciprocal competitiveness lead to these objective outcomes, contribute to the scarcity and the belief into the value of these goods" and regulate the affiliation to a social class, which is a system.

Completely contrary to regulating the integration into system Wilber (1996) writes in *the Atman Project* using a similar grammatical overlay of the Construct-Aware stage how transcendence works through dissolution of boundaries, because „the subject can find the prior Whole only by letting go of the boundary between subject and object—that is, by dying to the exclusive subject. And the subject, obviously, is terrified of this. And because he can't or won't let go of and die to his separate self, he cannot find true and real transcendence, he cannot find that larger fulfillment as the Whole. Holding on to himself, his subjectivity, he shuts out Atman; grasping only his own ego, he denies the rest of the All" (Wilber 1996, p. 119) – it is basically the condemnation of the earlier depicted Construct-Aware view the more Aristotelian thinker generate, where there still exists a "real" or "projected" inside and outside, which are in relationship and where boundaries are regulated before at the next stage one embraces a "both… and… and the relationship of both sides to each other". So, where for Luhmann the line stays important up into the Unitive realm within his *Theory of Social Systems* for the neoplatonic Wilber "to erect a self-boundary or barrier and hold a separate-identity feeling against the prior Wholeness, not only involves illusion, it requires a constant expenditure of energy, a perpetual contracting or restricting activity" (ibid. p. 119) at the Construct-Aware level.

This view matures from his *No Boundary* in the more nominative phase, where the drawing of a line can be shifted in radical ways and where "the most radical re-mapping or shifting of the boundary line occurs in experiences of the supreme identity, for here the person expands her self-identity boundary to include the entire universe. We might even say that she loses the boundary line altogether, for when she is identified with the 'one harmonious whole' there is no longer any outside or inside, and so nowhere to draw the line" (Wilber 2001, p. 5).

While Wilber here says "what you are actually doing, whether you know it or not, is drawing a mental line or boundary across the whole field of your experience, and everything on the inside of that boundary you are feeling or calling your 'self'" (ibid. p. 4), and negates the very act of creating boundaries as contrary to the ultimate he, in a 1984 essay on the *Spectrum of Psychotherapy* writes in respect to human maturation: "Healthy or normal negation serves several important functions. Horizontally, it helps differentiate self and object representations; vertically, it helps the disidentification, differentiation, separation, or transcendence of a lower level in favor of a higher" (Wilber 1984, p. 86). One can see this tendency of outside views to be concerned about this negation in Hegel (1977, p. 12f), too, where he writes that "it is the coming-to-be of itself, the circle that presupposes its end as its goal and has its end for its beginning, and which is actual only through this accomplishment and its end".

For Wilber (1996, p. 194) in *the Atman Project* unity is the sole purpose of man and "in place of unity consciousness, the individual, on the one side, takes as substitute self an inward-subjective world, and, on the other, he creates 'a world-out-there' as substitute object, and he places this substitute self squarely in the middle of this substitute world". In Wilber`s writing man creates "symbolic substitutes for lost Unity" (ibid. p. 194) when creating boundaries, and thus compensates the lack within not having achieved the ultimate neo-platonic purpose: reaching the absolute good. However, this is a process depicted as one of creating boundaries where one "must accept the 'death,' negation, or release of the lower level" (Wilber 1984, p. 84f). One must "dis-identify with or detach from an exclusive involvement […] to ascend to the greater unity" (ibid. p. 85).

For Luhmann however, one moves forward with boundaries all the way – they are vital and inevitable since they can create meaning: they force through "time, to think the relation of the exterior world and the interior world asymmetrically as an incline of complexity. And only this way [, by assuming a more complex exterior than interior and corresponding unities impregnated with a difference between actual and possible,] one can acquire a taste of meaningful complexity from the world, the operation wherein the operations by which systems of meaning [, like humans,] operate can find their place" (Luhmann 2012, p. 113). At least, so Luhmann (2012, p. 113) contemptuous, if one is not willing "to immediately re-specify within the ontological-metaphysical tradition purpose onto one preferred and meaningful" – like the idea of the good – as Wilber does.

In *Grace and Grit* Wilber (1991, p. 21) still holds on this truth of an ultimate, though now in the Unitive realm, when he writes that his former wife and love "and I believed in God as one`s own deepest Ground and Goal […]. And by 'God' I do not mean an anthropomorphic father figure (or mother figure), but rather a pure awareness, or consciousness as such, that is what there is and all there is, a consciousness that one cultivates in meditation and actualizes in life". Wilber here uses a "but rather" as demarking a negation that the is unfolded over three tiers. Sri Aurobindo (2003) in one of his earlier works, the comments on the *Isha Upanishad* applies the same pattern when he defines the ultimate in saying that "that which dwells in the body of things is God, Self and Spirit; the Spirit is not the subject of its material, but the master; the soul in the body or in Nature is not the prisoner of its dwelling-place, but has molded the body and its dharmas, fixed Nature and its processes and can remold, manipulate and arrange them according to its power and pleasure" (Aurobindo 2003, p. 431). The recognition of no-boundary and negation here became the definition through negation or categorizing – a unity of being and nothingness. Contrary to handling that negation-categorization Luhmann in the grammatically matching period of his life writes, that for "the accomplishment in theories, that are possible in a semantic space [that can create something like personalization], are founded on a combination of strategies for totalization with strategies of decomposition and evaluation. The play of concepts generates with these boundary conditions its own limitations and non-arbitrariness" (Luhmann 1993, pp. 251f), and thus what a person can be as a comprehensive system and totality, if it wants to be a "wholeness and a sum of detail which can still be grasped by theory" (ibid. p. 251) – he thus reflects from the inside that each wholeness is a mere choice of moving the boundaries of perception while it seemingly can be experienced as an ultimate truth from the outside; there is a somewhat significant stage lag in what is reflected on depending on the identification with inside-Aristotelianism or outside-Platonism.

In Luhmann`s last creative decade, the 1990s, his autological period of observing the mechanisms of observing observers or second order observations, he no longer looks at these reflections on top of the integrative stage and thus the maintenance of systems through integrative self-thematization, but it is the problem of different second order observations that engages his writing. So, he writes in one of his essays in *The Morals of Society* about two modes of second-order observing and the way they are visible "in the cultural invention of normativity can be described as reduplication of reality – similar as one can distinguish between play and seriousness or after the evolution of language between language signs and what they signify" (Luhmann 2015, p. 233). And the foundation for resolving problems of second order conflicts can change in history and can create new problems and paradoxes – as depicted above for the paradox of scarcity. So, in distinction "of a society that assumes a religious foundation of world, we, the now-a-days, can no longer […] summarize these duplications in a transcendental principle" (ibid. 232). The problem for Luhmann back then is that "observation uses its own distinctions as blind-spot. It can only see what it can see with this distinction. […] Any observing, even the observing of observations, proceeds naïvely on this operational basis; or again in other words: that it proceeds uncritically in relation to its own reference" (Luhmann 1992, p. 85).

As we have already seen above, this turns more and more into a "both… and" of self-reference and other-reference, of seeing oneself from differences and unities that create an inside or an outside and different directionality, both within systems and their conscious environment of humans, of observation that can "incorporate self-transcending moments" (Luhmann 2018b, p. 1141) – an immanence recognizing its transcendence within the other or as Georg Simmel might put it: the recognition of the existence of the totality of others in our own being where "both [self-reference and reference through others] are only methodologically assuming a separate existence […] [but] are in an inevitable cycle […] [as] life can only be understood through life, and for this stratifies itself into layers [and others], each mediating the understanding of the other; layers which in their co-dependency proclaim unity" (Simmel 2017, pp. 177f). But for Luhmann the medium becomes metaphorically spoken "the holy spirit of the system" (Luhmann 2002b, p. 286) and the re-entry becomes supplemented and substituted through a mirror metaphor "a self-generated mock […], in whom the communication mirrors itself" (ibid. p. 286). A direction we can, too, see in Sri Aurobindo`s Essays in the Arya Journal however from the opposite side – the solution is not part of a re-entry of the form into form, of difference into difference but a) first "the redemption comes by the recovery of the universal in the individual and of the spiritual term in the physical consciousness.

[…] For then only can the purpose of its descent into material consciousness be accomplished, when the knowledge of good and evil, joy and suffering, life and death has been accomplished through the recovery by the human soul of a higher knowledge which reconciles and identifies these opposites in the universal and transforms their division into the image of the divine Unity" (Aurobindo 1915, p. 385f), in *The Ego and the Dualities* from 1915, – operations which are done by Luhmann`s autological processes of second order observation – and b) second the medium that mirrors back the system into the system as "Sachchidananda […] by laying hold on this secret delight which is at once the secret total delight of its own being and the original all-encompassing, all-informing and all-upholding delight of the transcendent and immanent" (Aurobindo 2016, p. 643), when he writes about *the Double Soul in Man* one year later. Too, Luhmann in his latest writings that span several phases, as he wrote, rewrote and expanded on them during a seven-year periods, using religious terminology made clear that the unfolding of paradox and the mirrorlike nature of media "make the difference of the transcendent and the immanent thinkable and speakable" (Luhmann 2002a, p. 77) and can reach so far that "with or without god, the possibility for a communication of the unity of transcendence and immanence, a communication that therefore confirms that it can find itself in anything that happens, becomes imaginable" (ibid. p. 111).

Final Contemplations

Projections into Luhmann`s Future

In his essay on *Knowledge and Construction* Luhmann in 1988 points out a hierarchy of instrumentals that lead to different orders of self-reference: "the differentiation of systems-reference of the first order observer from the systems-reference of the second-order observer that have to be made by a third order observer" (Luhmann 1988, p. 23). However, in 1997 Luhmann mentions that third order observations "basically are not distinct from a position of second order observing. It is not only a matter of a chain-phenomenon, not only a matter of A observing how B observers C, […] rather a reflection on the conditions of the possibility of a second order observation and its consequences for what than can still be common world or descriptions enabling society" (Luhmann 2018b, p. 1117). Second order observations become autological in Luhmann`s words: the second order observer has to take another observer and has "to locate himself on the inside or outside of a form he observers" (ibid. p. 1118) and by this can in describing his own mechanisms of description create an observation that is located within society, as contingent and not as something existent, as it where for a first order observer thematizing its own life-world. Luhmann describes a re-entry of evolution in itself, of the first distinctions as variation, selection and selective retention into themselves – an evolution that involutes.

Luhmann therefore spoke in the tradition of accidentalism – the inside view – about "the first distinction, […] [which] in the traditional context is relinquished to religion and its theology" (Luhmann 2002b, p. 325). This, when we look at Arthur Lovejoy`s roots of T*he Great Chain of Being* in the Greek culture is, contrary to "the Idea of the Good [that] was the God of Plato, this Unmoved Perfection [that] is for Aristotle the cause of all motion" (Lovejoy, pp. 42 & 55). The struggle for identity expressed in Luhmann`s latest writings as both a) a history of unfolded paradoxes which "not incidentally" (Luhmann 2002b, p. 323) supersede and subordinate each other but in a logical form connected to the evolution of society, which try and fail to succeed in their "communication of the unity of the system within the system" (ibid. p. 319) and b) the "very special distinction, that of […] system and societal system, and about the special problem of an inclusion of […] systems within that which is for them on the one hand located within the inside and on the other hand happens on the outside, namely communication. A difficulty which is not grounded within epistemology or logical impossibility, rather therein, that one has to distinguish and keep in sight two system-references, namely system and society" (Luhmann 2000, p384).

This is a slight reverberation of Ken Wilber`s conflict between two sides of reality in *Sex, Spirituality, Ecology*; namely that of ascenders and descenders which Wilber (2000), too, resolves himself by unfolding a paradox, but on the more Platonic side, making evolution subordinate of involution and so he states that "there we stand now, at rationality, poised on the edge of trans-rational perception, a *scientia visionis* that is bringing here and there, but ever and ever more clearly, to all sorts of people in all sorts of places, powerful glimmers of a true Descent of the all-pervading World Soul" (Wilber 2000, p. 551). He looked at it from the other side: the re-entry and unfolded paradox of involution entering itself as evolution, of holons entering their own pregiven holonic structure.

Why is that similarity of importance for our endeavor? Because it allows us to project Luhmann`s future. In the last sentences Luhmann wrote before his death in 1998 – in *the Religion of Society* and *Organization and Decision*, one might see again a return to a nominal structure. But basically the conflict of systems as necessarily two sides of a distinction leads to the question whether "as system needs a 'self', and whether it is already sufficient to shift from one difference to the next […] [and] shift from one language into the next, to try out, what would be observed then" (Luhmann 2000, p. 442f) and the recognition of the pointlessness of being on one side as it creates both "what it confirms, however, too, what creates the difficulties […] [and] that the reflexiveness of self-description sabotages exactly that distinction, which is presumed (Luhmann 2002a, p. 354f).

When Wilber in his Integral Spirituality introduces the eight zones, he resolves his conflict of ascend and descend with an idea that he in a nominal grammar calls "simple enough. Start with any phenomenon in any of the quadrants—for example, the experience of an 'I' in the UL quadrant. That "I" can be looked at from the inside or the outside. I can experience my own 'I' *from the inside*, in this moment, as the felt experience of being a subject of my present experience, a first person having a first-person experience. If I do so, the results include such things as introspection, meditation, phenomenology, contemplation, and so on. But I can also approach this 'I' from the outside, in a stance of an objective or 'scientific' observer. I can do so in my own awareness, and I can also attempt to do this with other 'I's' as well, attempting to be scientific in my study of how people experience their 'I'" (Wilber 2006, p. 35f) It is a simple "both… and" perspective "since including both of them results in a much more balanced and inclusive approach" (ibid. p. 18).

So, Wilber, managed to combine ascenders and descenders into one point of view, in one map of reality as one territory, while he earlier struggled and subordinated the Aristotelian view to his version of a Neo-Platonism, "the coming of the Over-Soul that is the World Soul, touching each and all with its Goodness and its Glory, baptizing each with its Brilliance and its Blessing" (Wilber 2000, p. 521). By the way, it is the same subordinationistic solution that Aurobindo used 75 years earlier in his essay on the *Graduations of the Supermind*. Namely, that "the greater spirit above the mind appears at first as a presence, a light, a power, a source, an infinite, but all that is knowable to us in it is at first an infinite identity of being, consciousness, power of consciousness, Ananda. The rest comes from it, but takes no determinate shape of thought, will or feeling above us, but only in the intuitive mind and on its level. […] [The descend] of a greater action of knowledge and will and spiritual feeling [that] manifests and seems to organize itself above the mind and this we recognize as the true supermind and the real native play of the infinite knowledge, will and Ananda" (Aurobindo 1920, p. 2).

So, if Luhmann had manifested this next step he would have probably managed to see both: inside and outside, self-reference and other-reference, consciousness and observing, self-thematizing systems as the differences of a new, integrative third, where, using Aurobindo´s description of the overmined – the stage which did not exist in Aurobindo's accusative stage, but was added later as intermediate step to the supermind –, "in place of an uncentred and unplaced diffusion there may be the sense of the universe in oneself or as oneself: but there too this self is not the ego; it is an extension of a free and pure essential self-consciousness or it is an identification with the All, – the extension or the identification constituting a cosmic being, a universal individual. In one state of the cosmic consciousness there is an individual included in the cosmos but identifying himself with all in it, with the things and beings, with the thought and sense, the joy and grief of others; in another state there is an inclusion of beings in oneself and a reality of their life as part of one's own being" (Aurobindo 2005, p. 986).

Alternative Tier-Structure

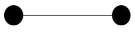
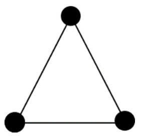
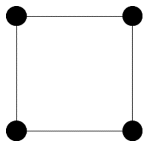
According to Ludwig von Bertalanffy (1964, p. 48) in his *General System Theory* says, that "a unitary conception of the world may be based, not upon the possibly futile and certainly farfetched hope finally to reduce all levels of reality to the level of physics, but rather on the isomorphy of laws in different fields". In the same sense, we cannot reduce the tiers or orders consisting "of a particular mode or quality of action or thought" (Mascalo & Fischer 2010, p. 156) to one cycle of fours but as shown in table 6, the "both… and" structure both has isomorphic aspects and difference or emergent properties: it is a different unity of differences.

As we have already pointed out: As Luhmann relates second order observations towards Hegel`s absolute spirit, it, as the spirit, is based upon a structure built out of three tiers: namely Being, Essence and Ideas (Hegel 2011). A tier-structure that is common in more structuralist thinkers in the Unitive realm. We have pointed to Charles Sanders Peirce`s (1998) firstness, secondness and thirdness that is followed by a fourth order implicit in his writing and which we earlier mistake for something else: "man is capable of a spiritual consciousness, which constitutes him one of the eternal verities, which is embodied in the universe as a whole", so Peirce (1998, p. 3).

Peirce, too, offers another concept that can foster understanding of emergent properties. As he points out, it is of ultimate concern for understanding his categories to see "the distinction between the Genuine and the Degenerate" (Peirce 1998, p. 172): each of his three categories can appear in full form and in degenerate e.g. the representation of agent and patient as separate and in interaction "is, indeed, germane to Thirdness, while it is alien to Secondness. That is to say, agent and patient as they are by themselves in their duality are not distinguished as agent and patient" (ibid. p. 171) within secondness but just within a third, an interpreter, who can, too, as pointed out again see the unity of these opposites, understand agent through the patient. In the same sense, we have pointed out, that integration in the Achiever writing of Luhmann appears as adaptation and the social dimension as simple form of obedience regardless of one's individuality: it is degenerate and only shows up completely with the third stage in this tier. For Luhmann, too, observations and second order observations, though evolutionary emergent are, ever-present, too: each time and place unfolded paradoxes, though unaware of doing so.

This is true, for the construct-aware stage, too: as it can carry four operations – adaption, goal-orientation, integration and self-thematization – but as it seems has are only three meaning carrying parts in its sentence completion: thesis, antithesis and synthesis; or first, second and third; or evolution, differentiation between system and environment as well as communication. Three minus four means that one operation has to be still in the background, it is there as degenerate and can only show up in a fourth meaning carrying part of a sentence- thus within the next Tier or as Aurobindo puts it: "Supermind is the fourth Name – fourth to that in its descent, fourth to us in our ascension. But Mind, Life and Matter, the lower trilogy, are also indispensable to all cosmic being, not necessarily in the form or with the action and conditions which we know upon earth or in this material universe, but in some kind of action, however luminous, however puissant, however subtle. For Mind is essentially that faculty of Supermind which measures and limits, which fixes a particular center and views from that the cosmic movement and its interactions" (Aurobindo 2005, p. 282). A fourth order that would be the genuine form of self-thematization of an identity maintaining itself by integrating all that is, differentiation within all that is and adapting to all that is, however localized and restricted it might be through its preconditions of being human or a certain type of system. Table 8 depicts the trajectory of tiers.

Table 9. Stage and tier-trajectory with symbolism.

The Tiers	**Firstness:** Being, Body, Evolution, Adaptation, Temporal	**Secondness:** Essence, Life, System/Environment, Goal-Orientation, Factual	**Thirdness:** Ideas, Mind, Communication, Integration, Social	**Fourthness:** Absolute, Spirit, Self-Thematization, Pattern Maintenance, Observational
Symbolism				

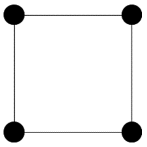
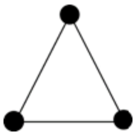
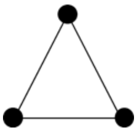
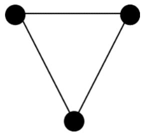
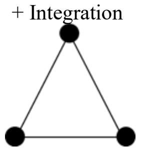
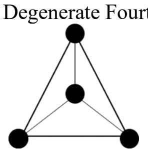
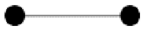
If we take a closer look at the concrete stages, we can recognize that the symmetry here is actually not based on four operations but rather the outcome of two – the secondness of agent and patient: one can not only recognize this within the Homeric texts, but, in particular within the old testaments poetic structure of parallelisms (Zenger et al. 2012). In this special type of writing two sentences are added together either in synthetical, synonymous, antonymic or comparative form. One can see this in e.g. psalm 18:14 where there is written "and he sent out his arrows and scattered them; he flashed forth lightnings and routed them" or in psalm 18:4 "The cords of death encompassed me; the torrents of destruction assailed me" as well as in other passages where one can clearly see, who the agent or god it one with his patient the world as in psalm 19:1: "The heavens proclaim the glory of God; The skies display his craftsmanship".

However, this structure is not only common in poetics but, too, in Interviews on moral Dilemmas done by Anne Colby and Lawrence Kohlberg (2010). There one can see the progress through the moral stages through the form this parallelism takes: e.g. on the question why a child is to obey to one`s father, it first looks like a) "[rhema 1 because it`s his father,] [rhema 2 subordinate always he is older]" (Colby 2010 et al., p. 244) and moves to the more complex concrete notions where the agent and patient are integrated like b) "because that`s his son [rheme 1 part one and if he] [rhema 1 part two doesn`t give him,] [rhema 2 part one he would get punished.] [...] [He has to do rhema 3 part one] [rhema 3 part two what his father says,] [rhema 4 or he will get a licking]" (ibid. p. 245) and culminates in c) [rhema 1 part one He should listen to his father] [rhema 1 part two because] if he listens to his father,] [rhema 2 part one his father might be good to him] [rhema 2 part two and give him things he wants]" (ibid. p. 247). Or as Patrice Marie Miller and Suzanne Lee (2007) show, while the cognitive functioning of the 2.0, i.e. Rule-Oriented, individual tends to state "simple, single-action statements about what had happened. These statements can be chained together […] [and] generally [are] focused on subjects themselves or on the other person, but did not suggest coordination between the two, […] [while] [conformist or 2.5] statements were also story-telling statements; however, they either showed the basic coordination between two people, or between two attachment entities" (Miller & Lee 2007, pp. 10f). There, discourse, as on moral stage 6 becomes a lived reality, where within the degenerate third, the still invisible, the communication with its interpretation, two sides are on within the "both… and… and the relationship of both sides to each other". So, here we can see three stages. But this is true for an earlier stage, too, which creates sentences as complex as "[$_{\text{Theme}}$ an apple] [$_{\text{Rhema}}$ on the table]" (Ranti 2015, p. 105) correlating with the Impulsive stage as depicted in Hy and Loevinger`s (2014) *Measuring Ego-Development.* The stage where cognitive development allows people to "verbalize about what they like and want" (Miller & Lee 2007, p. 8).

But there is not only evidence from developmental measurement but as the Jewish philosopher and biblical scholar Friedrich Weinreb (2011) writes in *Number, Sign, Form* the concrete passages of the Tora, i.e. the Old Testament, are full of series of three with a final fourth. So, the creation story of the genesis can be structured as a series "where development from the first over the second to the third day fulfills itself" (Weinreb 2011, p. 50). The fourth, fifth and sixth day give rise to the accidentals of the substances created on the first three days and are their own series. All culminates in the seventh day where both happens "God ended his work which he had made; and he rested on the seventh day from all his work which he had made" (Gen 2,2) – a concrete Form of latent pattern maintenance one might say with two opposite unified as "ending", which sometimes is translated as "finishing", and "resting". More intriguing however is, that the third day and the third in many stories of the old testament is the position where a "both… and…" comes into play that "binds the earlier into a cycle" (Weinreb 2011, p. 51), so is the third and last of the patriarchs both "Jacob and Israel" (ibid. p. 51).

But Hegel`s being, which he himself related to childhood development, and Peirce`s firstness deal with an even earlier order, where according to Jean Piaget (1956) in *The Origins of Intelligence in Children* a child starts to raise external relations "to the rank of symbols by relation to themselves. The image so constituted therefore becomes the signifier of which the signified is none other than the sensorimotor schema itself", which in Peirce`s (1998, p. 161) words might be a "Feeling, or Firstness, to represent itself to itself as Representation" without any second or third. At this stage children basically perform one rhema – phonemes, morphemes, echolalia, doubling of syllables maybe single word statements which include any higher operation of other categories. As Luhmann says the place where "the yes/no bifurcation opens […] to accept or reject an offered meaning […] and thus brings forth variation consequently within a communication directed to refuse communicative contents – it generates one deviant [or aligned] element nothing more" (Luhmann 2018b S.1140 & 2018a, S.460f) and that is the easiest form of evolution which later gets underpinned by selection and selective retention through memory. The speculative tier-structure than looks like it is depicted in Table 9. One can see there the successive substitution of operations from the earlier Tier until with the third stage of the tier all three operations are sourced from thirdness.

Table 10. Tier-Structure and an exemplarily symbolized movement through the Structure of the third Layer.

Aurobindo, Hegel, Peirce & Luhmann				Symbolical Representation	Firstness: Adaptation	Secondness: Goal-Orientation	Thirdness: Integration	Fourthness: Self-Thematization
Spirit	Absolute	The Mistaken (Fourthness)	Observational: Self-Thematization					
Mind	Idea	Thirdness	Social: Communication		Abstract Adaptation  & Two Secondnesses	+ Goal-Orientation  & One Secondness	+ Integration 	+ Degenerate Fourth 
Life	Essence	Secondness	Factual: System/Environment					
Body	Being	Firstness	Temporal: Evolution					

Whether or not there is a fifth order is an open question in this paper. A possible fifth might exist as additional tier or, as Ken Wilber (2018, p. 401) points out in his latest book within a seeming fourth phase adversary and instrumental grammar using three rhema: "[Rhema 1 part one whereas the infinity and eternity of this wholeness is always already given] [Rhema 1 part two and can never be attained,] [Rhema 2 and the ultimate reality of the entire show is fully present here and now,] [Rhema 3 the relative reality […] has to grow and develop and evolve through time, intentionality, effort, and work]". Differently said, we have to increase the complexity of our observations and distinctions – the media is there, ever-present, everlasting but, too, as a question for the right modes of arbitrating complexity for operability and increasing the complexity of our world through operability and the resulting behavior.

Within this the challenges stay the same though we might find ourselves at one moment of this quest – that for unifying self-reference and the references of others or the consciousness within systems, their operations of observing completely exterior to us, with our consciousness – at a place where we start to life and engage a live that is the discourse of the all with the all. The interplay of any consciousness out there, with any observation, distinction, unity and unfolded paradox within us: but only as a fragment, as a miracle broken out of the mosaic, a oneness that only exists in its dissemination throughout humanity, sentience and the material universe however, so visible and visceral as it is, never apprehended in its completeness. It is merely a feedback from the whole into a part, a short departure and a wrong track of a mind that is meant to be collective, and thus turns into holding the lantern of friar and fabricating the illusions of Maya that are experienced as the hope for a pragmatic consensus and certainty within this endlessly changing and contingent that is held together by nothing more than nothingness as its boundaries – the patterns that can never be seen but through illusions;

a weaving together of communications within that self which is always already and has ever so perfectly been itself, as the incoming of complete other and the dialogue with him, as the dismemberment of the web of life but experienced as its oneness, as its nexus and sole importance as discoursive identity and self-thematization.

Our individual media and grammar and form and lexis both as our identity are thus again and again taken for the impregnation of an alien media and form, degraded to a permanent possession of that which was completed in the same way, as a mosaic tessellated from fragments, a picture that lacks any totality but is complete in itself, as this one moment that is completely monopolized by this discourse with the other, the stranger and alien and is as its own self-alienation in these moments perfectly free and perfected freedom: an eternal quest for versions of inside and outside, accidentalism`s logic and substance thinking or to decide whether to be an Aristotelian mirror or a Platonic sun – a choice that is always to choose our mistakes, too, the next moment of separation as oneness and freedom as abuse within this everlasting distinctiveness and uniqueness of our modes of perception – mistaking means for ends and ends for means, the ominous godhead for a purpose and the dubious first distinction for god while networks and grammars sustain empty patterns and empty patterns are sacrificed for the sake of that one infinity, the discourse that is society, the all and all of communications manifesting what would otherwise be invisible: phases, layers and tiers, that suddenly can have no more boundaries, no longer exist and give place to a new reappropriation of totality completely impregnated by this moment of discourse contrary to the last. While we are thus weaving together what is meant to be separate forever, meant to be dilemmatic and ever-progressive, we are destroying any possibility for union, unless we completely and everlastingly erase our traces, end all distinctions, all differences, all identities within that which is always before and beyond, and thus wake up from that boundless dream that creates nothing but adaptations, systems and environments, integrations and its self-thematization. When we break through into the sleep of all divisions, separations and existences, the error to match the totality and its substance with our contingent observations we engage in the then unseen rupture and disintegration of a tiny fragment of the whole tapestry, eventually rippling out into the farthest reaches of the cosmos and making the end.

Measuring Repeating Patterns: The Concrete, Subtle and Meta-Aware

O’Fallon’s and colleagues (2020) research shows that, in terms of the assessment procedure, her model correlates with Cook-Greuter's model up through the Autonomous, i.e. 4.5 stage; but beyond there both the paucity of data and divergence in stage definitions makes it hard to try to compare them. And hence, there is basically no branch to hold on for figuring out a correlation of the later stages of Terri O`Fallons Model with the two subsections of the Unitive stage we distinguished in the section called *Construct-Aware and Unitive* we only can create some vague assumptions a) based on the descriptions of her stages and b) based on a “look through the hierarchical methods […] [where] we see the horizontal universal essences of everything” (O`Fallon 2019, p. 3) and her seeming developmental stage and on reduction of “looking through the horizontal methods [where] we see a multiplicity of unique expressions that defy replication, yet continually grow and change through time” (ibid. p. 3) into her type within the substance/accidence scheme. By this and the knowledge we unfolded within this paper we are going to pin down four logical fallacies that show up regularly in developmental research and we hypothesize here that they might have been committed by Terri O`Fallon and thus influence the accuracy of her model compared to a hypothetical reflection of the underlying universal substance within which any model of reality is grounded through using its basic operations and distinctions. These hypothetical fallacies are: a) a mixing-types-with-stages-fallacy, b) a decreasing-span-with-increasing-closeness-fallacy that might be, too, driven by a decreasing-span-because-of-increasing-depth-fallacy, c) the misallocation-of-operations-fallacy and finally d) the simplicity-of-categories-and-lack-of viability-through-decreased-diversity-fallacy.

Terri O`Fallon in 2012 writes, that "the expansion [of consciousness] moves beyond individual experience to collective experiences, to contextual experience to experiences of the Kosmos as whole, only step out of that to find that the container that holds this vastness is nothing but a world of Mind that makes distinction" (O`Fallon 2012, p.). Here, we can see the structuralist unfoldment of paradox, where all of the three earlier meaningful operations – "[Rhema 1 part one as changing Interpretations the expansion moves beyond individual experience to collective experiences, to contextual experience to experiences of the Kosmos as whole,] [Rhema 1 part two as Action only step out of that] [Rhema 2 part one as changing of Perception to find that the container that holds this vastness]" – are present as the "nothing but", a categorization, of the more platonic and structuralist thinkers: "[Rhema 2 part two as Awareness of Sprit/Mind a world of Mind that makes distinctions]". The seeming fact that she uses two rhema or one theme and one rhema puts this passage into Luhmann`s autological stage. The grammar points towards a third to fourth phase, including adversaries and "the expansion" and "a world of Mind" as instrumental modifications in form of categories.

Since she, in her *Collapse of the Wilber Combs Matrix*, indicates her personal transition into what she calls the nondual or unified Tier, "as this wondering that seizes one's gaze as one fitfully surrenders mind to the nondual Divine that begins to transcend the kingdom of the mind that makes distinctions" (O`Fallon 2011, p. 24), the second half of the second subsection of the Unitive realm could cautiously be considered as the first nondual stage within her model.

Based on the approximation of her type and her stage, there is a likelihood of a subordinationistic mode within her model that might show up in at least four ways that lead to a) a mixing-types-with-stages-fallacy:

1. One could see, that inside perspectives in O`Fallon`s (2013) stage theory where meant to coalesced with stages showing an inability to prioritize. Thus, accidentalism and the genetic view might easily be seen as less valuable if people move into an over-generalization of seeing more Aristotelian points of view as a sort of mental disability. People might put anyone expressing process-like points of view at these two, the passive and reciprocal stages, while substance and structuralist thinking might falsely be perceived within the active and interpenetrative phases being more valuable as connected with more abilities, most prominent the power of priorization.

2. As we have depicted in the section *From second to fourth phases* and in *Further differentiation in the Unitive realms* the accidentalism`s expression of the Unitive sub-stages includes the unity of opposites within an observer, while the structuralist version includes an interpreter. The later point of view with the third between the second and first might better match "a still point centering between" (O`Fallon 2010, p. 66) a polarity and thus create the impression of a 6.0 perspective.

3. Aggravating point 2: Since, Luhmann and other Aristotelians use the shifting of boundaries and choosing one side of self- and other-reference or inside and outside as well as other dualities like transcendence and immanence, at both the first and second Unitive substage, they fit the 5.5 Transpersonal criteria "of making a choice […] [and]

'move the line' rather than step 'over the line' or 'out of line'" (ibid. p. 63) at all later stages. Whereas the Platonic counterparts already use the 6.0 criteria of having "no self at the center of this stage […] with a sense of universal connectedness" (ibid. p. 67) as well as "a deep acceptance for all of life just as it is" (ibid. p. 67) at the Construct-Aware altitude – at least Wilber does – and thus might be scored later. And this despite not expressing more hierarchical complexity but preferences for lexis and using the available grammar and operations for expressing different experiences. Abraham Maslow in the *Farther Reaches of Human Nature*, already pointed to this difference of Aristotelian and Platonic self-actualizers, where the later "speak easily, normally, naturally and unconsciously the language of being, the language of poets, of mystics, of seers, of profoundly religious men, of men who live at the Platonic-Idea level […] under the aspect of Eternity" (Maslow 1993, p. 273).

4. Since the 6.5 Illumined stage in the *Evolution of the Humans Soul* is classified as apprehending "cross floor and cross world (the concrete world of matter, the subtle world of life and the causal world of mind) patterns" (O`Fallon 2010, p. 68) an these are only foregrounded in structuralist thinkers it might be less probable or even impossible to be assessed at 6.5 for an accidentalism oriented thinker if at the same altitude or level of grammatical complexity as a structuralist and neo-platonic thinker is. As it appeared to us, themes elaborated on by outside perspectives are elaborated by inside perspectives one stage later and maybe not at all – a dependency of stage based on whether identifying with the subject or the object of stage.

These four points in combination and in respect to Terri O`Fallon`s seeming stage and personality type, at least give some rise to the hypotheses that her model could have created a typological gradient into its measures and metrics. It might therefore lead to different assessments than the assessment methodology we proposed here, which as far as possible looks at the number of used operations and creates an assessment on the basis of hierarchical complexity that is expressed within a person`s lexico-grammatical self-expression.

Figure 6 depicts the approximate correlation for the complete stage trajectory including the latest stages thus paying credit to the hypothesis that Terri O`Fallon`s model includes a mixing-type-with-stage-fallacy as reasoned in the above section. Additionally, the table makes visible that each the Pluralist or 4.0 stage as well as the Autonomous or 4.5 stage only make up for half a stage compared with the earlier ones described in Ego-Development theory. The comparatively decreased scope of both stages leads to an increase in the number of stages at the upper end of the Loevinger and Cook-Greuter scale and since this scale was adopted by O`Fallon this increased density at the upper end represents another logical inconsistency that seems to be within the sediment of her model, the b) decreasing-span-with-increasing-closeness-fallacy that might be, too, driven by a decreasing-span-because-of-increasing-depth-fallacy.

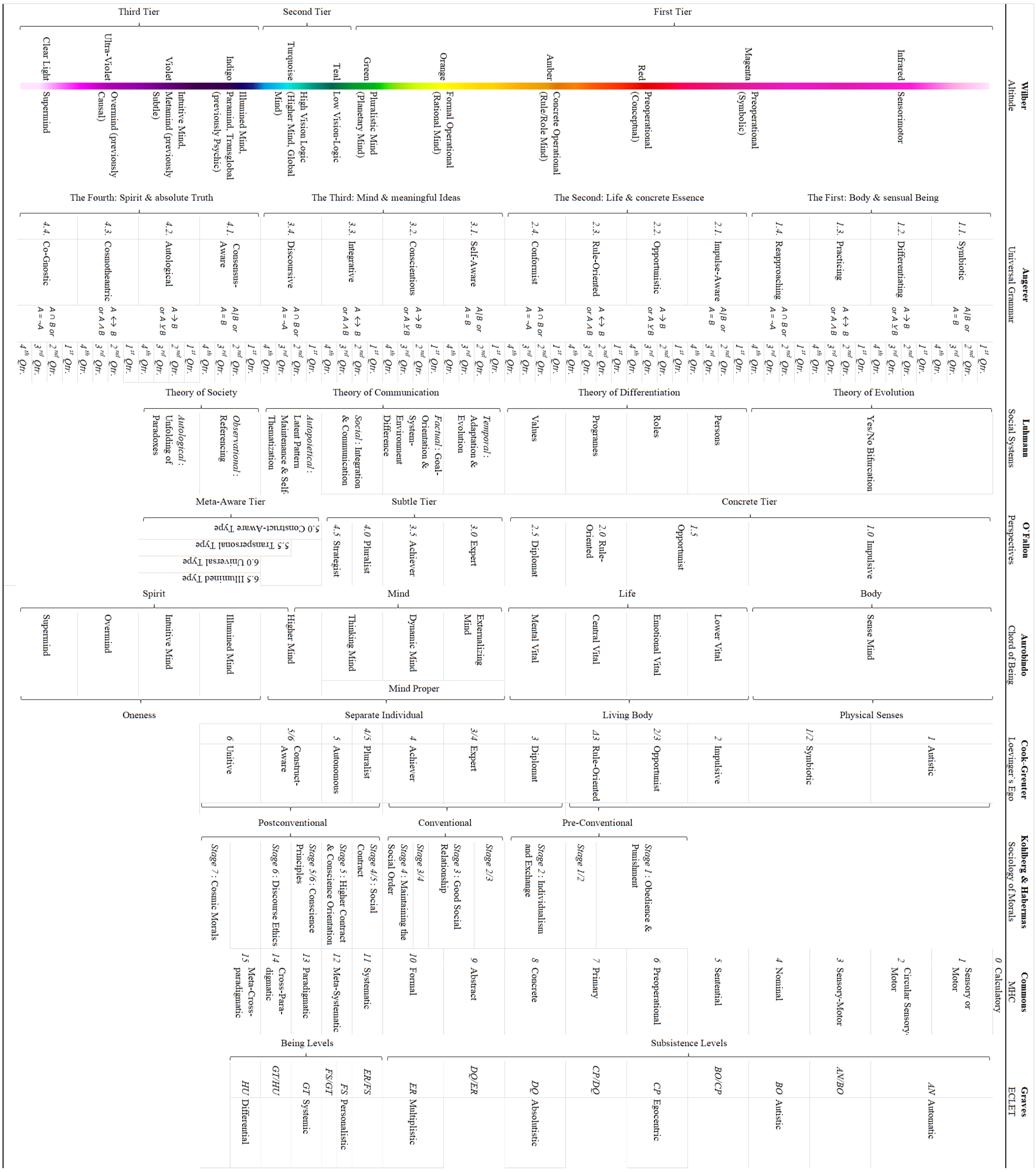

Wilber Altitude
Third Tier
Second Tier
First Tier
Clear Light
Ultra-Violet
Violet
Indigo
Turquoise
Teal
Green
Orange
Amber
Red
Magenta
Infrared
Supermind
Overmind (previously Causal)
Intuitive Mind, Metamind (previously Subtle)
Illumined Mind, Paramind, Transglobal (previously Psychic)
High Vision Logic (Higher Mind, Global Mind)
Low Vision-Logic
Pluralistic Mind (Planetary Mind)
Formal Operational (Rational Mind)
Concrete Operational (Rule/Role Mind)
Preoperational (Conceptual)
Preoperational (Symbolic)
Sensorimotor
Angerer Universal Grammar
The Fourth: Spirit & absolute Truth
The Third: Mind & meaningful Ideas
The Second: Life & concrete Essence
The First: Body & sensual Being
4.4. Co-Gnostic
4.3. Cosmotheantric
4.2. Autological
4.1. Consensus-Aware
3.4. Discoursive
3.3. Integrative
3.2. Conscientious
3.1. Self-Aware
2.4. Conformist
2.3. Rule-Oriented
2.2. Opportunistic
2.1. Impulse-Aware
1.4. Reapproaching
1.3. Practicing
1.2. Differentiating
1.1. Symbiotic
A ∩ B or A = ¬A
A ↔ B or A ∧ B
A → B or A ⊻ B
A|B or A = B
1st Qtr.
2nd Qtr.
3rd Qtr.
4th Qtr.
Luhmann Social Systems
Theory of Society
Theory of Communication
Theory of Differentiation
Theory of Evolution
Autological: Unfolding of Paradoxes
Observational: Referencing
Autopoietical: Latent Pattern Maintenance & Self Thematization
Social: Integration & Communication
Factual: Goal-Orientation & System-Environment Difference
Temporal: Adaptation & Evolution
Values
Programs
Roles
Persons
Yes/No Bifurcation
O`Fallon Perspectives
Meta-Aware Tier
Subtle Tier
Concrete Tier
5.0 Construct-Aware Type
5.5 Transpersonal Type
6.0 Universal Type
6.5 Illumined Type
4.5 Strategist
4.0 Pluralist
3.5 Achiever
3.0 Expert
2.5 Diplomat
2.0 Rule-Oriented
1.5 Opportunist
1.0 Impulsive
Aurobindo Chord of Being
Spirit
Mind
Life
Body
Supermind
Overmind
Intuitive Mind
Illumined Mind
Higher Mind
Thinking Mind
Dynamic Mind
Externalizing Mind
Mind Proper
Mental Vital
Central Vital
Emotional Vital
Lower Vital
Sense Mind
Cook-Greuter Loevinger`s Ego
Oneness
Separate Individual
Living Body
Physical Senses
6 Unitive
5/6 Construct-Aware
5 Autonomous
4/5 Pluralist
4 Achiever
3/4 Expert
3 Diplomat
Δ3 Rule-Oriented
2/3 Opportunist
2 Impulsive
1/2 Symbiotic
1 Autistic
Kohlberg & Habermas Sociology of Morals
Postconventional
Conventional
Pre-Conventional
Stage 7: Cosmic Morals
Stage 6: Discourse Ethics
Stage 5/6: Conscience Principles
Stage 5: Higher Contract & Conscience Orientation
Stage 4/5: Social Contract
Stage 4: Maintaining the Social Order
Stage 3/4
Stage 3: Good Social Relationship
Stage 2/3
Stage 2: Individualism and Exchange
Stage 1/2
Stage 1: Obedience & Punishment
Commons MHC
15 Meta-Cross-paradigmatic
14 Cross-Para-digmatic
13 Paradigmatic
12 Meta-Systematic
11 Systematic
10 Formal
9 Abstract
8 Concrete
7 Primary
6 Preoperational
5 Sentential
4 Nominal
3 Sensory-Motor
2 Circular Sensory-Motor
1 Sensory or Motor
0 Calculatory
Graves ECLET
Being Levels
Subsistence Levels
HU Differential
GT/HU
GT Systemic
FS/GT
FS Personalistic
ER/FS
ER Multiplistic
DQ/ER
DQ Absolutistic
CP/DQ
CP Egocentric
BO/CP
BO Autistic
AN/BO
AN Automatic

Figure 6. Comparison of the trajectory with hypothesis about Terri O`Fallon's model of human development.

The scopes and boundaries of a stage normally don`t play a major role in assessing, if each stage has its own independent descriptions and scoring criteria based on themes and topics like in the work of Hy and Loevinger (2014) as well as Cook-Greuter (2010). Contrary, if measurement is based on a repeating pattern varying boundaries and breadths of stages as well as tiers can be seen as an indicator of internal contradiction. Alternatively, there would be a need to modify the set of assumptions and principles behind the model. This could mean to include a notion that later tiers embrace for whatever reason less span. However, it is not atypical for models to commit a fallacy that leads to an increase in the number of stages at a certain point of the trajectory, mostly at the upper end: Wilber`s full spectrum model (2018) does not depict all the earlier stages and additionally has an increased density in the middle of the trajectory and towards the end; Graves (2006) ECLET is getting very dense at the later stages and Commons (2016) MHC conceptualizes several hypothetical stages at the upper end. The reasons for such a fallacy might be twofold: a) there is increasing depth with each stages that might be confused with span – the early and late versions of a stage are much easier to discern – and b) that like with an approaching car, the closer it comes the faster it seems, and thus the closeness leads to reasoning about increased speed or hence, an increased number of stages; it is some sort of Doppler shift: the change in frequency of a wave in relation to an observer who is moving relative to the wave source. Given the assessment of Terri O`Fallon`s stage – and the hypothetical accuracy of that assessment – in the beginning of this section it is most likely that her model falls in the decreasing-span-with-increasing-closeness type of this fallacy with the so called meta-aware tier as the smallest, spanning just two and a half stages compared to the approximately eight stages of the concrete tier and the three of the subtle tier. Figure 6 graphically illustrates this observation for the mentioned models.

According to the assumptions of the here depicted model each person if once entered the fourth Tier displays the ability to express quadruplicities within one sentence rather than triads – with the quadruplicity as an ability that is displayed in degenerate form even earlier but only fully fledged within the fourth order of consciousness. Thus, it is just natural that tier models at the latest stages depict patterns of fours instead of patterns of threes like Kurt Fischer (1980) and Erich Jantsch (1979) in the culmination of the third tier who have just a degenerate fourth – a fourth which is at the same time a first: mistaken so to say. As Carl Gustav Jung (1977, p. 619) puts it in his *Mysterium Conjunctionis*: “the alchemical formula for this is the Axiom [...]: ‘One becomes two, two becomes three, and out of the Third comes the One as the Fourth’”. Exactly because four operations are available now, these operations can be used to dissect reality and allocate judgments within the spaces surrounded by differences – and this includes like in the natural sciences that immature explanations deceive much of reality, like the idea of a flat earth vailed the possibility to circuit planet earth. If we use our modalities of consciousness to look at something real, something with a material correlate, our stories can err dramatically and thus confine our possibilities.

To further explicate this thought we can use one of the main assumptions of a Peircean pragmatism, that is, even our subtle models of reality, like schemes of categories and orders of stages, are not only a pragmatic consensuses, but, too, have reality and failing “to recognize the reality of all the categories […] would point out the fatal defect of” (Peirce 1998, p. 181) a system. However, recognizing categories is not enough since the pragmatists summum bonum lies “in that process of evolution whereby the existent comes more and more to embody those generals which were just now said to be destined” (Peirce 1998, p. 343) – this primarily means the categories` growing into themselves and self-thematizing their own existence. And the potential reality and match with something real creates the main question each developmental model proposing repeating patterns has to face from our point of view: are its applications of the four meaningful components of the fourth tier`s operations applied in a way that matches the reality behind the surface expressions within consciousness and thus the model fulfills the destiny of our observations, reasoning and creation of stories or does it fall short of reality. Since as Wilber (2006, p. 272) puts it: “because once a level has evolved, it is a very real structure existing in the universe […] (cosmic habits or cosmic memories) [that exist] independently of any particular human and become something that all humans must confront.”

Does a model come close to that which is disclosed within another sphere, does it approximate the transcendental categories that “are transindividual or collective cosmic habits, which push against any human psychology and guide its growth" (ibid. p. 272) along a trajectory of relatively even and repeating patterns, these disclosable living realities that are not only human constructs but can carry constructs which are applied towards themselves within a functionally fitting manner? For if not: these transcendental functions and the fabric of reality becomes malformed and distorted maybe even to the degree of a rupture that might end all of humanity and at the very least creates the illusion of natural order and hierarchies where non are given – is it a tool of injustice and oppression of the facets of consciousness and evolution itself or is it their self-liberation towards itself? We can make this more tangible by an example: The famous psychoanalytic and expert in child development Margaret Mahler writes in the *Psychological Birth of the Human Infant* that "the normal separation-individuation is the first crucial prerequisite for the development and maintenance of the 'sense of identity'" (Mahler, Pine & Bergmann 2000, p. 11). A maladaptation to the child's need in this sensitive period by caregivers can lead to "the psychotic child [that] never attains a feeling of wholeness, of individual entity, let alone 'a sense of human identity'" (ibid. p. 11). In the same way are person with late stage awareness the obstetricians and midwives as well as fathers and mothers of late stage awareness and maladaptation to needs of the wards can have similar outcomes on their psychological birth into the most sophisticated forms of human consciousness and reasoning.

The original dilemma comes from our twofold condition of which pragmatism somehow describes the convergency towards absolute truth, whereas the conditioning of our mentality is better described by the constructivist schools as only seeing relatives. Both sides play together in our consciousness where the coalescence with the phylogenetically grown absolute reality, the application of these transcendental functions or stage and tier operations habitual to our cosmos, can only produce contingents, actualities that can always be imagined to be different, since they are based on each observer's observations within a merely closed ontogenetically formed system as well as in its structural coupling with certain modes of societal discourse and self-thematization. As far as "everything that is happening in a living system, in the factual operations of its elements` properties, […] operates solely in the present that is, it is determined by the structures, which it possesses in the moment of its structural self-realization" (Maturana 2000, p. 182f) each living system and consciousness is challenged by a special condition when the tier operations are turned back on themselves – when the relative tries to grasp the absolute, when the object apprehends the functions of the subject, or the inside looks towards its outside: contrary to observations of other mental realities, that are as interpretations and imaginations quite subtle and fluid and represent no absolute truth but generate truth in hindsight, the observation of the subject itself is an ongoing observation turned back on the quasi eternal truth of the substance these categories are. Thus, where the form tries to recognize its media, that means the accidentals their substance, contingency is contingent to what it`s contingency is built of and irrespective of this condition tries, within that contingency of its descriptions, to recognize the unconditioned and essential. The recognition of the underlying substance or transcendentally structured ground of consciousness that was involved into our brains and minds by millennia of evolution, which are therefore to a certain degree habitual, material and solid. Missing them thus can deteriorate the reenactment and reappropriation of evolution with itself and its merely permanent grooves as the involutionary structures we enact in our very consciousnesses similarly to the idea of a flat earth which did thwart the discovery of new shipping routes.

The idea that stages and patterns are cosmic grooves opens up the possibility for an inconsistency that we can call the misallocation-of-operations-fallacy. While the allocation of the operations to the world is more a creative and constructivist endeavor, the search for the best stories and descriptions of the autopoietic processes that generate their own criteria of beauty, truth, clearance and goodness able to ride on the surface of the original transcendental media – a media that is generalized by the functions of the tiers and their grammatically and thus adaptative, differential, integrative and self-thematizing possibilities – looking at consciousness itself has like the natural sciences a clear restrictedness through reality, where ships don`t find routes or even worse the miscalculation of an equation can lead to devastating effects – like the meltdown of a reactor or a psychotic child or deformed late stage adults despite the best intents of the actor. A model in this set of assumptions generates its aggregate value fourfold: a) by enacting creativity within the discourse and making it adopt to better stories, b) by reappropriations of what is real beyond the purely contingent, however contingent and ever-unfolding the reappropriation is, c) by potentially or eventually changing the mode of integrating ourselves into these media and generating new forms of enacting and synthesizing through these categories and last but not least d) to discern whether or not theses reappropriations serve the harmonization and maintenance of the evolutionary whole or leads to its deterioration. Both approaches thus not only relate to different truths and means-ends orientations but, too, to different imperatives when it comes to the conceptualization of models – despite being intriguingly connected. Since tending towards describing the absolute truth behind the contingencies can lead to absolute errors it needs absolute imperatives and practices that lead to the best possible reappropriation of the invisible. Figure 7 graphically illustrates the considerations about the misallocation-of-operations-fallacy.

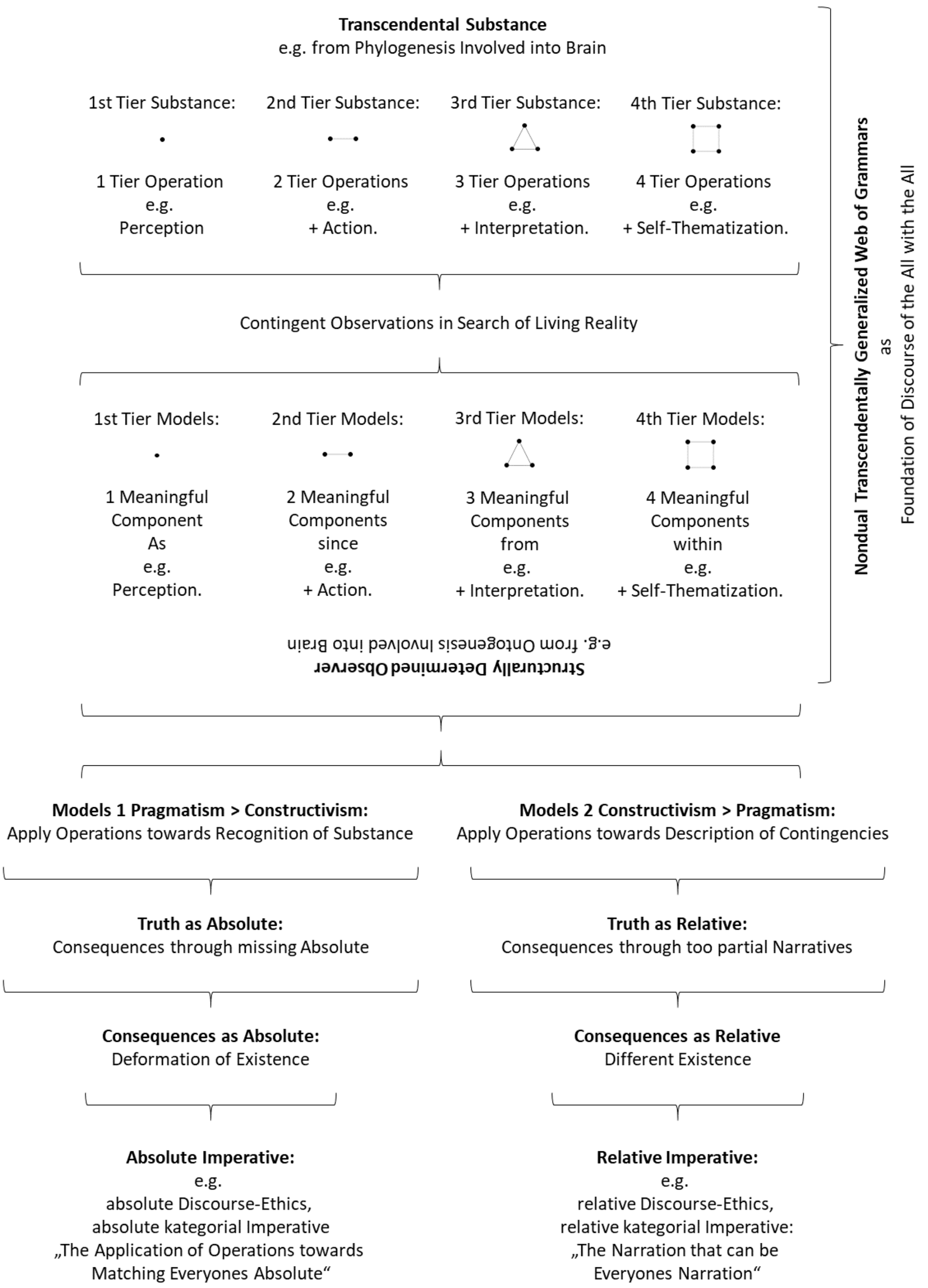

Transcendental Substance
e.g. from Phylogenesis Involved into Brain
1st Tier Substance:
2nd Tier Substance:
3rd Tier Substance:
4th Tier Substance:
1 Tier Operation e.g. Perception
2 Tier Operations e.g. + Action.
3 Tier Operations e.g. + Interpretation.
4 Tier Operations e.g. + Self-Thematization.
Contingent Observations in Search of Living Reality
1st Tier Models:
2nd Tier Models:
3rd Tier Models:
4th Tier Models:
1 Meaningful Component As e.g. Perception.
2 Meaningful Components since e.g. + Action.
3 Meaningful Components from e.g. + Interpretation.
4 Meaningful Components within e.g. + Self-Thematization.
Structurally Determined Observer
e.g. from Ontogenesis Involved into Brain
Nondual Transcendentally Generalized Web of Grammars
as
Foundation of Discourse of the All with the All
Models 1 Pragmatism > Constructivism:
Apply Operations towards Recognition of Substance
Models 2 Constructivism > Pragmatism:
Apply Operations towards Description of Contingencies
Truth as Absolute:
Consequences through missing Absolute
Truth as Relative:
Consequences through too partial Narratives
Consequences as Absolute:
Deformation of Existence
Consequences as Relative
Different Existence
Absolute Imperative:
e.g.
absolute Discourse-Ethics,
absolute kategorial Imperative
„The Application of Operations towards Matching Everyones Absolute“
Relative Imperative:
e.g.
relative Discourse-Ethics,
relative kategorial Imperative:
„The Narration that can be Everyones Narration“

Figure 7. Two ways of creating models of reality and their implications.

One seeming absolute imperative creates the possibility for d) the simplicity-of-categories-and-lack-of viability-through-decreased-diversity-fallacy. As Zachary Stein and Katie Heikkinen (2009) write in *Models, Metrics, and Measurement in Developmental Psychology* privileging of “deep-structural properties indicative of development […] allows us to measure and assess development in many lines using one metric” (Stein & Heikkinen 2009, p. 12) but at the same time models doing this “dubbed structural properties as indexes of development: for example, they privileged attention toward properties like differentiation/integration, concreteness/abstractness, simplicity/complexity” (ibid. p. 12). The priorization of a complex web of measures that are not only aligned with each other but calibrated across different models – for the realm where models with metrics and measures exist – and authors’ life works decreases the overall value and worth of one measure and thus reduces risks. Similar to a hedge-fund on the financial markets, the bundling of investments that have a dispersion across markets and economic sectors, the bundling of metrics and measures reduces risks especially those generated by our very human nature`s typological and cultural biases. The whole point, too, can be broken down into Ashby’s (1956, p. 207) law of requisite variety: “Only variety in […] [the measures] can force down the variety due to […] [the diversity of humans]; only variety can destroy variety”. This is what we call d) the simplicity-of-categories-and-lack-of viability-through-decreased-diversity-fallacy.

The fact that Terri O`Fallon`s model basically has crystallized out of the soft measures, “metrics with mainly qualitative standards for determining the amount of a trait” (ibid. p. 7), derived from Cook-Greuter and Loevinger, a mere mono-logical arising from only one tradition of measurement combined with the reduction to only three variables for measurement – tier, individual vs. collective and ability to prioritize or not – as smart and elegant it might seem could even increase the vagueness of “meaning making assessments […] [which are anyway already] expected to be a bit fuzzier and imprecise, compared with application of Skill-Theory” (Murray 2017, p. 52) and other grammar-based assessments in general and thus decrease the viability of the overall scheme of transcendental truths behind our observations and distinctions.

This fallacy or rather taken risk – if the reasonings in this paper are partially or completely true – might be responsible for all other fallacies since they are all easily avoidable through a discoursive approach that considers multiple models and metrics and thus enables oneself to apprehend errors within one`s reasoning through the multiple voiced field of knowledge surrounding each observer as his or her milieu. A pragmatist`s perspective has to be a consensus both with others and with what is ultimately real and true behind or as the media that consciousness is – a state of nonduality that is the prerequisite of a discourse of the all with the all or the self-thematization of human mind in a larger field or the social sphere – which is only possible through a discoursive approach – since oneself is always merely an individual rather than a general.

The comparison with other models can, additionally to pointing out the comparatively uneven and premature tier-shifts, question some other basic assumptions of Terri O`Fallon`s model. We already mentioned that passive language seems to be possible across all stages and all phases. Too, if there were a tendency for passive language would this be an indicator of a person’s ability to prioritize? For Kohlberg the priorisations-pattern would look completely different: for him the person at moral Stage 6, which should approximately correlate with the 5.0, i.e. Construct-Aware stage, is “able of completely reversible ‘role taking’” (Apel 2016, p. 331), which can lead to principles of justice like Kant`s categorial imperative and Rawls principle of justice as fairness. It is the priorization of an internal or external discourse with a difference of actuals and possibles and a purpose which is suspected to make ends meet. One`s stage 6 “moral point of view, from where the individual can orient itself within the questioning of right and justice” (Apel 2016, p. 321) allows to prioritized certain universal principles that serve as meta-rules for discourses or internal practices that not only see one point of view but are “the perspective of a ‘moral point of view’, from which societal order is derived […] that accepts that each person is a purpose in itself” (Kohlberg 1996, p. 132). This is an ability which Kohlberg saw lacking within the assessments of people at moral stage 5 – O`Fallons interpenetrative and therefore prioritizing stage. These individuals could apprehend to procedures or contextual rules "that integrate different perspectives through the mechanisms of formal agreement" (ibid. p. 131), but still only through one`s own or larger systemic context`s point of view. Contrary for O`Fallon the Construct-Aware individual is denoted as passive "with little ability to prioritize any of the constructs that one is seeing" (O`Fallon 2010, p. 61).

Again, this incongruency is owed to the seeming premature tier shift compared to the depicted model in this paper. Since for Apel (2016) and Habermas (1990) moral stage 6 and thus construct aware was a stage of complete reciprocity within the abstract realm, it would rather be depicted as collective than individual and the foundation for priorisations thus is collective as the grammar of the action oriented and beneficiary applicative as well as derived intransivity could indicate – a mode of priorization that might be less visible when one looks at the stage as centering around a 1st Person.

But how could one explain the seeming misallocation-of-operations-fallacy and thus the different Tier-shift? We already mentioned that for Hegel, Luhmann and others the first and fourth within a tier are most similar to each other, even though they are basically opposed to each other as being subject and being the pure subject as I-I or being the substance of the me, you and all, the self-thematization of a system including even what it negates or excludes as its boundaries. Since the fourth in the subtle tier is simply degenerate and cannot be completely present within three meaningful sentence parts performing a quadruplicity the expert and construct aware match each other in so far as they both can hold two poles through a third: the 5.0 stage with two subtle poles as the "both… and… and the relationship of both to each other" and the 3.0 stage as the mental holding two sides or operations of the concrete. Figure 8 illustrates this similarity.

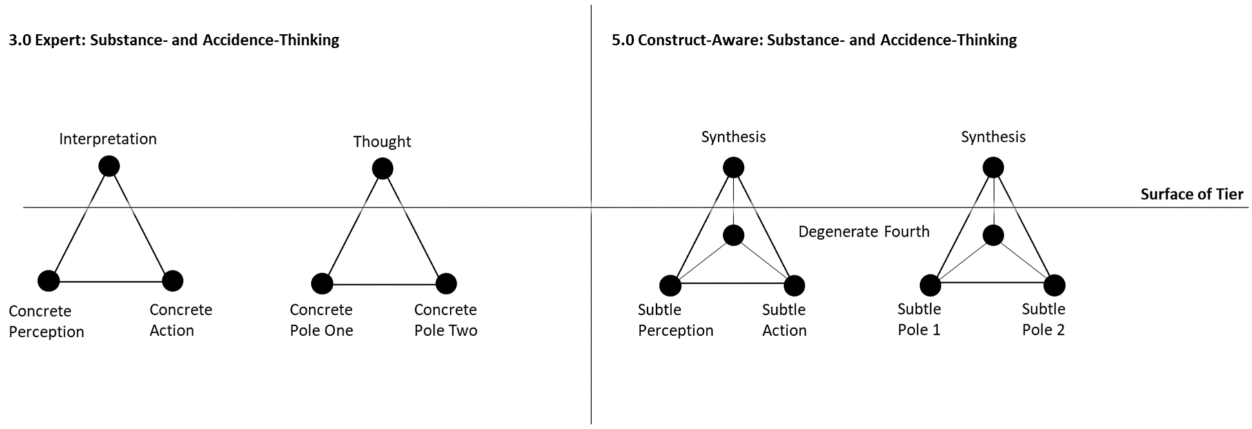


Figure 8. Similarities between the 3.0 Expert and the 5.0 Construct-Aware stage.

However, all of this were not a problem if not an even overarching pattern was asserted which if it existed misallocated at least an individual or adaptative stage where a collective stage of full reciprocity should be according to other models and an even iteration of the quadruplicate tier pattern – a flaw that surely generates an upward domino effect. Additionally, the distribution of four stages into two and a half potentially leads to further maltreatment of assessed persons and only works through other biases like the type-stage-fallacy as long as the reasoning depicted in this section is scientifically sound and further supported by other observers.

Table 11. Potential Fallacies committed within Terri O`Fallon`s Model.

Fallacies that might be Committed	**Characteristics and potential Effects**
Mixing-types-with-stages-fallacy	Seeming subordination of Inside Views →At least delayed stage shifts for Inside View persons →Unnatural hierarchies and power structures (punishment of persons with an inside view on reality)
Decreasing-span-with-increasing-closeness-fallacy	Increased Number of Stages at the top →Uneven Tiers and misallocation of operations →Measurement with repeating patterns of passive, active, reciprocal, interpenetrative should be logically impossible without perceptual biases that distort assessments towards expected outcome
Misallocation-of-operations-fallacy	The seemingly existing repeating patterns or tier-operations are misallocated →Uneven Tier Shift and mismatch with deeper reality →Potential maltreatment of people
Simplicity-of-categories-and-lack-of-viability-through-decreased-diversity-fallacy	The seeming cause of the hypothesized problems as lack of fourth tier discourse orientation and oversimplified as well as overgeneralized measures →Inadequate management of scoring risks →Threatening overall health of universal trajectory

O`Fallon`s and colleagues` (2020) latest publication which claims the validation of her new scoring method allows us to take a look at how both our systems come to same or different results in scoring since “Appendix 3: Scoring samples from the Concrete, Subtle and Met-Aware tiers” (ibid. p. 12) includes scoring examples.

1. “At times I worry about… the future of my country.” (O`Fallon et al. 2020, p. 12) was scored at subtle, individual, active 3.5 Achiever and would be a second to third quarter, third tier, first stage score by the here depicted method, thus Expert. It includes only one abstraction and is written in an accusative-possessive language. Concomitantly Hy & Loevinger (2014) rate the completion “…the future of the world” at E5 Expert through scoring category 5r contrary to scoring category 6r E6 Achiever “…the future of society and, indeed, of civilization” including two abstractions.

2. “Change is… inherent in living and connecting in the world; it prompts me to shake myself off from the slumber of consistency and embrace the excitement of newness” was scored at subtle, collective, reciprocal 4.0 Pluralist and would be fourth quarter, second stage, third tier and therefore exiting Achiever with the here depicted method. Though, depending on the overall assessment it might be interpreted as a single “both...and” phrase of “living and connecting” and to continue with another “both…and” of “prompting to shake of” and “embrace the excitement” and henceforth would include three abstract components in one meaningful composition – a Pluralist or Autonomous rating it is more likely that we deal with an Achiever version of

"both… and" or exiting stage "unity-between-opposites" insofar as "to shake myself off from the slumber of consistency" and "embrace the excitement of newness" are merely coextensive or synonymous and only a reference switch or co-subordinate to each other.

3. "When I get mad… knowing that uncontrolled unleashing of the power I now access can create undesired damage, I recognize the feeling tone in my awareness and I take myself on, stepping toward what brought on the anger, as I know that the emotion points at the growing developmental edge I have asked the universe to stretch" was scored at met-aware, individual, active 5.5 Transpersonal and would be a third to fourth quarter, first stage, fourth tier and thus Unitive response. It includes four components "[First Component knowing that uncontrolled unleashing of the power I now access can create undesired damage,] [Second Component I recognize the feeling tone in my awareness] [Third Component and I take myself on, stepping toward what brought on the anger,] [Fourth Component as I know that the emotion points at the growing developmental edge I have asked the universe to stretch]" including a lot of dative and locative grammar within the oneness of two opposites: "the feeling town in my awareness makes me take on stepping towards the anger an outside and at the same time it is my inside, the developmental edge I have asked to stretch".

4. "Women are lucky because…as the canvas they contribute to the Universes' particular paintings in the Sacred's art gallery by continuously receiving the brush of many colors, and thus are formed by the timeless, never ending layers of humanity's pigment" was scored at met-aware, collective, reciprocal 6.0 Universal and would be scored at fourth stage, fourth quarter of the third tier, at the late Construct-Aware stage. It includes only three components organized in an instrumental fashion: "[First Component as the canvas they contribute to the Universes' particular paintings in the Sacred's art gallery] [Second Component by continuously receiving the brush of many colors,] [Third Component and thus are formed by the timeless, never ending layers of humanity's pigment]"

Here one could again evidence a type-stage-fallacy: the inside view "oneness of opposites" at the first Unitive stage is assessed at an earlier stage then the outside Construct-Aware completion that is using overly spiritual and metaphoric language as we already know it from the conflict within the Aristotelian and Platonic writing traditions: where earlier is famous for its syllogistic reasoning as well as carving out of principles while later is known for its rich analogies and metaphors.

Final Overview

Within this paper we moved through Luhmann`s career as a systems-thinker. We started from the. Achiever, and ended with Unitary, so far as we use the terminology of Susanne Cook-Greuter. We could see changes in grammar and changes in conscious preoccupation, as well as these in interpersonal mode and character or identity development. Anything we found was already pointed out by Luhmann himself. In one or the other way we rode the web of his life with the sparkling horses of anything but only him. We silently assumed many things and we put into words some others – we coded and decoded into their own semantics a number of texts. These are listed in the final table. We cross-referenced not only with linguistics but with thinkers of other domains, too, depicting something that still can be doubted and should so. As it is only a web of grammars and words: a contingent within contingencies trying to apprehend in a reappropriation the universal substance we are made of in order to serve the reduction of complexity, operationalizing a life that can sustain itself through creating new and more adequate complexity.

If there is one more thing to mention – as Luhmann shows in an extraordinary way: stages don`t disappear once lived through, they always stay and have to be cared for and nurtured and re-entered to resolve the paradoxes of life. Table 11 shows some of the highlights on his fruitful path we investigated here and from which we were so richly nourished.

Table 12. Some of Luhmann`s writings depicting his life as a writer and across several stages.

Stages			Books on the Trajectory					
Achiever	Goal-Oriented	3rd Period						The Formal Organization (1964)
		4th Period	Basic-Rights as Institutions (1965)					
Pluralist		1st Period		Right & Automation (1966)				
	Integrative	2nd Period			Science of Administration (1966)	Trust (1968)		
Autonomous		3rd Period					Rationality of Systems (1968)	
		4th Period	Sociological Enlightenment I (1970)					Proceedings (1969)
		1st Period		Political Planning (1971)				
Construct-Aware	Self-Thematizing	2nd Period			Sociology of the Right (1972)	Power (1975)	Systems-theory of Society (1975)	
		3rd Period						
		4th Period	Societal Structure & Semantics I (1980)					Function of Religion (1977)
		1st Period						
	Observing	2nd Period		The Welfare State (1981)	Societal Structure & Semantics II (1981)			
		3rd Period				Social Systems (1984)		
Unitive		4th Period	The Economy of Society (1988)				Ecological Communication (1986)	Knowledge as Construction (1988)
		1st Period		The Science of Society (1990)				
	Autological	2nd Period	The Religion of Society (unfinished post hum)		Observations of Modernity (1992)	The Morals of Society (1992 to 1995)	Theory of Society (1997)	The Politics of Society (unfinished post hum)
		3rd Period		Organization and Decision (finished 1998 post hum)				
		4th Period						

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STAGES
Methodological Principles for Future Enaction

Trisha Nowland[1]

Introduction

This paper begins in invitation from Tom Murray for this special edition of Integral Leadership Review, to provide alternative perspectives on the STAGES Matrix model. The perspective I am offering here is based on my recently completed theoretical PhD in psychological research methodology, accompanied by an enduring interest in developmental psychology, psychoanalysis, and data science. My background with the STAGES Matrix model comes via participation in the Generating Transformational Change (GTC) program in 2011-12, which was co-founded by Terri O'Fallon (who is no longer a principal with Pacific Integral, the same organisation). This was followed by engagement in several winter programs in Integral Polarity Practice with John Kesler and Thomas McConkie online since 2012, who both reference STAGES within IPP sessions (see conversation in this special edition). They have also worked closely with O'Fallon to continue to innovate the STAGES model. The background is given here both to describe my experience with STAGES, and to acknowledge the limitations of my expertise on many of the emergent subtleties of the STAGES Matrix model as currently taught by its primary representatives, Terri O'Fallon and Kim Barta.

The content of this paper derives from an interest in thinking through how the post-formal developmental levels described in STAGES could be applied to the very processes of researching and theorizing about human development, specifically, in psychology research. I feel a tension between the more complex construct-aware, context-aware, relationality-aware, and process-aware capacities pointed to by the STAGES 4th person-perspective (and higher), and the simplistic method of modeling development in terms of a single linear stage sequence—one which describes its outcomes without reference to the examiner, or study context. Note this tension exists for most developmental models in mainstream psychology, as well. Thus, the principal question pursued in this paper is:

> How could the capacities described by "4th person-perspective" offer deeper contributions to psychological theory and practice than is currently in seen linear stage-based developmental models in psychology research?

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The question perhaps seems fraught, at first glance; STAGES uses person-perspectives to exactly describe its levels of ego development. In what follows, we will work to disambiguate ideas about ego development levels from ideas about person-perspectives, drawing on the history of the ego development concept as founded in the work of Jane Loevinger. We will then explore how person-perspectives as a concept offers unique discursive resources (Chase, 1995) to psychology methodology literature. The question above is posed as important for psychology research, to the extent that 4th person-perspective offers perhaps the most appropriate way to account for the effects of social and cultural phenomena in the psychology research paradigm. The psychology research paradigm and its mainstream applications remain largely uninformed with respect to what 4th person-perspective methods of inquiry may entail. It is proposed in this paper that the greatest contribution that the STAGES Matrix model makes to psychology research may not necessarily be the refinement of categories of ego development levels, but may be best characterised by how methodology can be refined by taking into account 4th person-perspective - something rarely encountered in conceptualizations of "scientific" inquiry, in my experience.

In pursuing the question above, some tensions are drawn out for the STAGES Matrix. We begin by orienting to the STAGES model as described by the "three questions" of the STAGES Matrix, shown below.

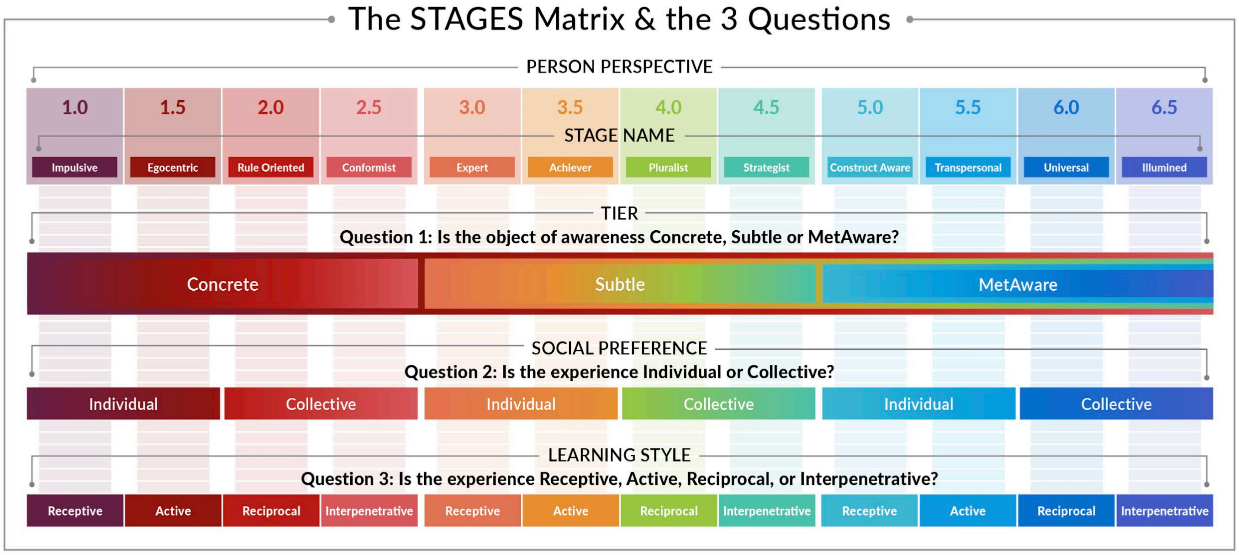
The STAGES Matrix & the 3 Questions
PERSON PERSPECTIVE
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5
STAGE NAME
Impulsive
Egocentric
Rule Oriented
Conformist
Expert
Achiever
Pluralist
Strategist
Construct Aware
Transpersonal
Universal
Illumined
TIER
Question 1: Is the object of awareness Concrete, Subtle or MetAware?
Concrete
Subtle
MetAware
SOCIAL PREFERENCE
Question 2: Is the experience Individual or Collective?
Individual
Collective
Individual
Collective
Individual
Collective
LEARNING STYLE
Question 3: Is the experience Receptive, Active, Reciprocal, or Interpenetrative?
Receptive
Active
Reciprocal
Interpenetrative
Receptive
Active
Reciprocal
Interpenetrative
Receptive
Active
Reciprocal
Interpenetrative

Figure 1. STAGES matrix Three questions. From: https://www.stagesinternational.com/about-the-model/.

There are three key principles that can be directly noticed in the above table. The first is a recurrence of patterns, particularly for the elements of Social Preferences and Learning Styles, with specific start and end points for these. The second key feature of note is the alternating swing between individual and collective in the Social Preference question. The final key feature of interest is an absence: a lack of an account of the embedded social and cultural context as an embodied being, which we must exist within, in order to have any opportunity for STAGES to unfold. This last point brings into view some indications for generative advancement with respect to the nature of assessment, for the STAGES Matrix. The sections that follow are ordered accordingly. Firstly, we address some **philosophical or foundational questions** for STAGES, noting a reliance on pattern-making that accompanies this model. The mid-section orients to questions of **relationality,** specifically for the individual-collective polarity, shaped by literature on social meta-cognition and psychoanalysis. The final section takes as its departure point the concerns made clear in the first and second sections, and offers some insights on **methodology** for psychology research that makes use of sentence completion test data. We begin with historical and philosophical perspectives in personality psychology, as we consider the origins of ideas that found the STAGES Matrix.

Philosophical Perspectives

In what follows there is an effort to retain systematicity as a quality which is beneficial to psychological research, and in this section there is an effort to remain systematically *historical* in what follows. Rather than extending across the terrain of "a theory of everything", then, there is a tracing of the particularity of the beginnings of ego development theory in the work of Jane Loevinger. A recent paper from O'Fallon (2018), "STAGES: Everything is a perspective" identified building on the work of Jane Loevinger, by proposing a structural model that does not rely on content from participants to guide the structure of ego development theory. For O'Fallon, this is stated as important to allow for continuous updating of the sentence completion tests to socially and culturally relevant phenomena of the time:

> Models that only use categories of content will continually have to update that content because it is constantly changing even though the perspective is structurally the same. Having models that have structural parameters can continue to score as the content changes. (O'Fallon, 2018, p. 20)

The shift that is articulated is one that steps beyond the taxonomic approach to characterising the levels of ego development pursued by Loevinger, later extended by Torbert and Cook-Greuter (see Kegan, Lahey, & Souvaine, 1998, and Appendix 1 for details). Loevinger collected data from a large number of participants, and sorted these into categorisations, based on theory developed by Harry Stack Sullivan from her early work researching authoritarian parenting styles. The groupings of phenomena that shape her account of ego development come directly from participants, and what she was observing as clusterings, around particular ego development levels, or worldviews.

What is proposed for STAGES is something different. The theory begins from a hierarchical and repeating structure for the construct of ego development, that can extend below the levels of linguistic abilities necessary to fill in the sentence completion tests that provide the assessment information for any one individual, and can extend past into higher levels as chartered for example in Wilber (2000, 2016) or Aurobindo (1990). What is preferenced for STAGES is orthogonality in structure, rather than the imprecise overlap of organic clusters grown from data gathered over time, as seen in Loevinger's categorisations.

Loevinger's approach to psychological research has been identified as consistent with constructivist realism (see Slaney, 2017, p. 185). For Loevinger, this meant that the data collected by psychologists described traits that occurred in individuals, while psychological constructs were something that existed in the minds of psychologists, principally:

> Traits exist in people; constructs (here usually about traits) exist in the minds and magazines of psychologists. People have constructs too, but that is outside the present scope. Construct connotes construction and artifice; yet what is at issue is validity with respect to exactly what the psychologist does not construct: the validity of the test as a measure of traits which exist prior to and independently of the psychologist's act of measuring. It is true that psychologists never know traits directly but only through the glass of their constructs, but the data to be judged are manifestations of traits, not manifestations of constructs. Cronbach and Meehl and their colleagues on the APA committee appear reluctant to assign reality to constructs or traits. Considering traits as real is, in the present view, a working stance and not a philosophical tenet. (Loevinger, 1957, p. 642)

For Loevinger then, the construct of ego development had a logic and meaning mostly in the hands of fellow psychologists and researchers, built from the data that she collected from participants, informed by stage-type conceptions of Piaget (1932) and Sullivan (1953). Her perspective on traits is important for our considerations here as it appears that her conceptualisation of traits is as descriptive summaries useful for clinical intervention, not as internal causal psychological properties, of humans. With the structure for STAGES seen in the image above, there appears to be an implied characterisation of ego development that is closer to the latter rather than the former - it appears there is a causal engine assumed in the polar structures adopted, in the STAGES model. Loevinger on the other hand had built her account of ego development theory into what she self-described as a scientific paradigm, or disciplinary matrix:

> A scientific paradigm is shaped by its data and in turn shapes them. No simple Baconian program for data accumulation nor hypothetico-deductive program for disconfirmation of hypotheses encompasses that dialectic, still less a program based on factor analysis, multiple discriminant analysis, or random computer searches of data. There is a corresponding tension in our conception of people, not surprisingly, since scientists are people. Much as we have learned about how the structure of character evolves and is maintained, there will always be more. I do not count as failure but as an act of courage to admit that the heart of the matter is and always will be a mystery, opaque to the scientific glance. (Loevinger, 1976, p. 433)

Our question then for STAGES becomes one of whether the patterns so repeating gives psychologists and researchers a well-defined space, as scientist-practitioners (see Barlow, Hayes, & Nelson, 1984), through which we can understand something of personality characteristics, as developmental levels. Loevinger herself had aspirations to develop “a sub-discipline within psychology that inherits some of the wisdom of philosophical psychology, that unites the discoveries of psychoanalytic ego psychology with contemporary stage-type conceptions of personality, and that has its own research methods and sphere of applications” (Loevinger, 1966, p. 433). While STAGES in some ways appears as a continuation within the sub-discipline, aspects of its structure mark it as perhaps something different. One apt characterisation could be, as a person-perspective construct. We'll talk more about how the notion of a person-perspective construct might benefit psychology and particularly psychology research methodology, below.

Ego Development Theory – The Deeper History

As described above, the roots of STAGES are found in Jane Loevinger's ego development theory (O'Fallon, 2018, O'Fallon & Barta, 2017). Ego development is described by Loevinger following reflection on psychoanalytically-informed psychology in the following way: "The ego develops as the person works to master his experience; yet what requires to be mastered and what is acceptable to him as effective in mastering depends on ego level" (Loevinger, 1966b, p. 441).

Loevinger articulates an account of ego development abstracted from the work of Sigmund and Anna Freud, stated in Piagetian cognitive development terms, with the idea that interpersonal schemas are internalised into intrapersonal schemas, according to the level of a person's ego development. Her account is distinguished explicitly from ideas about self-mastery, or self-improvement such as would be found in today's coaching paradigms, as in Loevinger's terms such a theory was merely self-referential, just announcing, that ego development does occur (see Loevinger, 1966b, p. 441). Rather, her proposal is that the interpersonal schemas become in some way part of the unconscious apparatus by which a person makes choices in living their lives, which are described by her as "symptoms."

Loevinger's (1976) later body of work (see Manners & Durkin, 2001; Loevinger, 1998) extends Harry Stack Sullivan's (1953) model of ego development as a self-system built via his research with young male schizophrenia sufferers. Sullivan's model had three components constructed from elements including: a) character development representing the combination of impulse control and moral behaviour; b) conscious preoccupations, including the kinds of things a person orients to in thought; and c) interpersonal style, representing attitudes towards interpersonal relationships. Loevinger (1976) adds a component for cognitive style, which represents the shift from conceptual simplicity to conceptual complexity at later levels. What follows then is an account of ego development that describes progressive redefinition of the self-structure contextualised by the social and physical environment (see Manners & Durkin, 2001).

The ego itself for Loevinger (1976) as conceptualised in ego development theory is a construct held in the minds of researchers that captures the structural unity of personality organisation, where personality is made up of traits[2]. Loevinger (1976) refers to ego as the "master trait," which holds any other possible developmental domain, for example worldview conceptualizations (Perry, 1970), moral development (Kohlberg, 1969, 1981; Piaget, 1932), and interpersonal understanding (Selman, 1980). For Loevinger, while there was an inner logic to the progression of change for personality (Manners & Durkin, 2001; Loevinger, 1976), she did not pursue explication of this inner logic (see Kegan et al., 1998). She maintained to the very end that the sentence completion test methodology provided insight into the function of the self or ego in a way analogous to an immune system, protecting the person and their current frame of reference from experiences of cognitive dissonance or inconsistency (see Loevinger, 1998, p. 352) within a certain environment. It was in a way, less about structure, and more about responsivity to the cultural and social context that the individual found themselves in; emphasizing a paradigm that had been largely unarticulated within psychological research in Loevinger's era.

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[2] Note that personality psychology as a field remains undecided about whether personality features have qualities that are inflexible over time, such as traits that we are born with, or whether personality is made up of contextualised responses to more immediate situations, which are states, see for example, Steyer et al., 1992)

Ego Development - The Relevance of Context and Relationship

Loevinger's home for constructs as residing in the minds of psychology researchers, and less so in the immediacy of the lives of persons that make up populations, speaks to an aspect of psychological research often elided - the presence of the researcher as theorist and modeller, or sentence completion test scorer in assessment, in the account of the score that is given for individuals. To be scrupulous about this observation - in the tradition of psychology research journal articles in the broader field of psychology research, the researcher is not included in the report of the statistical outcomes that are offered as the scientific support for the structure of the psychological construct (whether it be a STAGES ego development construct, or something else).

Originally the aim of the omission was an attempt to remove researcher bias from the reporting of research outcomes, such that the study report reflected an unbiased and objective scientific outcome (see Barlow et al., 1984). The technique of not including researcher perspectives is not different from quantitative psychological research more typically of Loevinger's day, and remains not different from other psychology reports, today. The STAGES approach of leaving out the perspective of the researcher or the scorer is no different, in this respect then, from mainstream psychology. No account of the stance of the researcher is typically articulated, in the reporting of the outcomes of a study. What is more, no systematic account of the commitments of the scorer is made available to a person undergoing a STAGES assessment, where they would be given opportunity to understand for example the different social or cultural positionings that the scorer occupied, to know something about how this might shape the scoring given, in the STAGES outcomes.

This lack of presence of a researcher in quantitative reporting however is very different from reporting techniques in qualitative psychology research today, where an account of the researcher's perspective is included in enhancement of social trustworthiness and dependability of the research outputs, in terms of evidence in respect of research project validity, for findings (see for example, Shenton, 2004). What we know today, distinct from what perhaps was clear across the field of psychology of Loevinger's time[3], is that researcher bias necessarily shapes what is reported in respect of a psychological construct, and also has a role in each decision made about the statistical analyses which provide scientific information about the construct, as well as methodological determinations (see Nowland, unpublished thesis). What this implies is that the most ethical stance that a researcher offers to other practitioners and the broader community, one which reduces the quality uncertainty of results (Vazire, 2017) is one where full transparency is adopted, with respect to philosophical commitments, for the construct in question.

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[3] Loevinger's own work with construct validity however provides some evidence that she herself had clear understanding of the problem.

The lack of inclusion of researcher perspectives points to a broader concern for the history of personality research, and one that is really relevant to research work that builds on Loevinger's ego development theory as STAGES does, transmuting the insights by including fixed structural elements with polar facets, as we see in the Matrix. In the era that Loevinger developed her theory, for the purposes of psychological research, there was no well-pronounced differentiation between the social realm and the cultural realm, for psychology, tracked in systematic ways in research methodology. What this meant was that psychological constructs were generally created, and then, replicated, without reference to the context of their development. In the language of STAGES, 4th person-perspective is simply not included in the data, and is barely attended to in the methodology, of psychology research (see for example, Poropat & Corr, 2015). To understand the difference between social, and cultural realms, what is needed is 4th person-perspective.

4th person-perspective is described in Angerer (2018) as "a focus on an observer, observing another observer, observing another self and other(s)" (p. 154). In the STAGES model this is available at 4.0 Pluralist and 4.5 Strategist, respectively. What this would mean was available in the scientific methodology of psychology was a systematised account of say, the ideological stance relevant for the scientist-practitioner who was recording observations about the implications of social and cultural practices implicit in the administration and scoring of a particular test or assessment between a researcher and a participant, such as the sentence completion test structure that is used to assess STAGES. The reason that this is important is that the worldview of someone else, as is proposed to be assessed via the STAGES model, is not assessed 'from nowhere' - it is assessed in a series of transactions between a researcher or scorer, and a participant. The meaning that is generated from a sentence completion analysis has to be culturally and socially embedded - the score can come from nowhere else but such a place. To the extent that the researcher or scorer themselves is as culturally and socially embedded as the participant, it would seem beholden on the researcher or scorer to account for this embeddedness in a systematic way which facilitates the interpretation of their score or assessment. The resulting score or assessment is a function of an interaction between the cultural and social backgrounds of each of the stakeholders - the researcher and/or scorer, the model developer, and then also, the participant. It is not peculiar to the participant, alone.

Social systems need to be differentiated from cultural influences, that are relevant to a cultural construct. The reason that this is important is that social systems will have much to do with *how* we observe a specific psychological phenomena - social systems can influence for example, the conceptualisation of intelligence as a function of an education system, or an attitude as a function of a political system. Social systems also connect to how we calculate something like a score for a psychological construct such as a STAGES score, for example using sophisticated statistical software that may make the method of calculation of the score somewhat obscure, to the person who is completing the psychological assessment. One risk with not including information about the social system is that the extent to which there are social system-determined processes at play in the outcomes seen for an individual assessment is not available, for scrutiny. An articulation of what components of an assessment are social system-relevant seems important for being as thoroughgoing as possible in offering someone a perspective on what is notionally, their own worldview, as is an outcome of a STAGES assessment. 4th person-perspective facilitates the reporting of social system information, insofar as the way that the system interpenetrates with the social situation of the test itself is actually available for reporting.

Cultural systems on the other hand influence *what* we take into consideration when applying the label for a psychological construct. For example, a Western conceptualisation of the individual-collective binary may be vastly removed from an Eastern conceptualisation of the same phenomenon, where articulations of self-structure in each of these global villages involves different amounts of the presences of other people, in the conceptualisation (see Pauly, 1995). Where we have an Eastern individual completing a Western assessment which is scored by a Western assessor, the nuance that is relevant to the particular meanings of words as found within the originating culture may be largely unavailable to the assessor. Reporting of cultural background, by the model creator, by the assessor, and by the participant, creates the best possible opportunity that what is reported in the assessment actually is relevant to, the individual who is being assessed.

What was not the case in the era of Loevinger's work, and what we do not yet see in a standardised way for psychology research in our time, is a 4th person-perspective routinely accounted for, either in the methodological structure of a study, or in the records and data that is used, to assess individuals. Both methodology and data are still de-contextualised, with respect to 4th person-perspective. The context of research is consistently left out, of the methodology and data that we work with, in psychology, and psychometric practices relevant to reported outcomes. In the next section we explore some aspects of contexts which seem to be highly relevant to the STAGES matrix, and specifically focus on the relational context of development, with reference to psychoanalysis and the transactional model of development (Sameroff, 2009).

Context of Ego Development

In what follows we explore two avenues of enrichment for STAGES with respect to 4th person-perspective considerations. One is the extension of relational psychoanalysis and the transactional model of development that emerged in the decades following Loevinger's work, the second is looking to methodological advances for psychological and personality research based on the PhD research of the author of the present paper.

What is at stake in any ego development model must have some sort of relation with the autobiographical self, which itself is conjectured to have basis in autobiographical memory, which itself has been demonstrated to be a function of relational and family narratives (Fivush, 2019). More than this, there is a significant body of work in developmental psychology that describes how a life script is a function of a culturally shared schema, which determines how and in what way life events occur (Fivush, 2010). This schema is prescriptive, which means that individuals who deviate from the culturally-shared script are called upon to explain their life story, to account for their trajectory of development in culturally-relevant terms. Even in the upper reaches of development then, there is some constant connection for an individual to other as parent, others as kin, and the collective as social and cultural structures. To articulate something which is universal in its relevance, such as is implied at the broader stages of embrace (see O'Fallon & Barta, 2017), but which is also able to be understood in a specific social and cultural context, one must rely on the signifiers that are relevant to the people of that society, and culture. We live in a time today where sharp attention is oriented to surface small differences that make a very big difference for the individuals who have inherited specific cultural and societal understandings of certain symbols, and who suffer a type of trauma when atypical understandings are introduced, such as is the case for indigenous communities (see Pauly, 1995; Clancier & Kalmanovitch, 1987). There is an opportunity to reflect, here, on how to represent 4th person-perspective pluralism with deep integrity, as relevant, to this time, and in a way which echoes forward, to future times.

What seems important, in an account of a construct such as STAGES, is a recording of the ideological, social, and cultural context for the *individuals* who undertake the STAGES assessment, as well as for the researcher or scorer, as referred to above. This is because the data must be interpreted with respect to the intersection of these instances. What is needed, then is an analysis of the ideological, social, and cultural contexts adopted in the STAGES construct, combined (perhaps, correlated), with the ideological, social, and cultural context of the assessed individual(s). What we have then is a more complete picture of what STAGES is able to tell us, about the construct of ego development in a contextualised picture, as it is reflected in the responses of individuals who live out their lives, in contexts. Ultimately what we're saying here, is that we're always situated within contexts, and today, we have the technology that facilitates a much clearer picture of how contexts shape human lives. The final section provides some insight as to how to account for contexts using technology, in a coherent and structured methodology for psychology research.

STAGES as Tracking "Meaning Making"

> It is clear that there is an absolute essentiality to the encounter with the Other. If there were no encounter with the Other, the reflective dimension of consciousness would somehow remain an inert part of the in-itself. What activates it, what makes it present to itself as what it is, is the fact that another consciousness apprehends it as participating in the being of the Other. (Badiou, 2019, p. 30)

In this section we extend our vision for the evolution of Loevinger's ego development across the terrain of relational psychoanalysis and a transactional model of development. My understanding of the relational nature of psychological development is informed by work as a psychologist in a trauma clinic for children. The nature of the trauma experienced by the children presenting at the clinic was complex interpersonal trauma; the extent to which there are developmental implications from such trauma experiences is well-established in psychology literature (Streeck-Fischer & van der Kolk, 2000; Putnam, 2006). Research of ecological-transactional models that are relevant to such circumstances demonstrate the relevance of the social world and cultural context of events related to developmental challenges (Lynch & Chichetti, 1998). The intrinsic connection between development and relationship in context cannot be avoided in reference to this body of literature. With this in mind, it would seem that in any account of a construct such as ego development as relevant to children and adults, that the relational structures within which the individual functions are adequately accounted for, in any model of the construct or phenomenon.

In the literature of relational psychoanalysis, Mitchell (1988) proposes that, in founding psychoanalysis, Freud established the wrong unit of study for psyche, by orienting to individual minds. The more apt unit of analysis according to Mitchell (1988), is the relational or interactional field. This is particularly the case when we come to consider aspects of adult meaning-making in the context of a construct such as ego development. From our earliest days, we are continually in interaction with others and our environments, and our transactions shape us as we shape our relationships, and social and cultural contexts (Sameroff, 2009). Our experience is built from these elements, and our meaning is a reflection of the sets of correlations that occur for us as beings with the environments, societies and cultures we experience ourselves within. Nature and nurture are not dichotomous in this view, and social relations themselves, experienced through time by autobiographical selves, can be understood as shaping what come to be expressed in sentence stem responses that can be encoded as an ego development level - whatever the model of development that is at hand. The basis of experience in physiology means that different modes of expression are entirely possible beyond verbal language - an account of social relations makes possible an analysis of a developmental trajectory that is not merely founded in verbal report. De Waal (2009) notes that ethics emerge from the ability of mammals to relate to one another. Co-operation, familiarity, emotional connection and resonance all are qualities that emerge in relationship that do not in and of themselves depend on linguistic ability. We may need an understanding of fully evolved consciousness that does not rely on human linguistic skillsets, to evaluate the true universality of later perspectives. But what we can say is that there would be no development of these capabilities without transactions in a social and cultural context.

The import of the suggestion above about correlating fourth-person information for both the assessor or researcher, and the individual who is assessed is made clear in a quote from Mitchell (1988):

> Meaning is inherent in man’s physiology, his biological equipment. Thus, the individual mind has a priori content, which seeks expression within the larger social environment, either in absorbing the culture, in learning public rather than a private language, or in taming and channeling drives. For relational-model theorists, as for the modern anthropologist and modern linguist, the individual mind is a product of as well as an interactive participant in the cultural, linguistic matrix within which it comes into being. Meaning is not provided a priori, but derives from the relational matrix. (p. 19)

Mitchell includes this, from Eagleton: “[o]ur experience as individuals is social to its roots; for there can be no such thing as a private language, and to imagine a language is to imagine a whole form of social life” (Eagleton, 1983, p. 60).

The relational matrix model has something to say about how repeating patterns such as the ones featured in STAGES come to be part of human life:

> The relational model rests on the premise that the repetitive patterns within human experience are not derived, as in the drive model, from pursuing gratification of inherent pressures and pleasures ... but from a pervasive tendency to preserve the continuity, connections, and familiarity of one’s personal, interactional, world. There is a powerful

> need to preserve an abiding sense of oneself as associated with, positioned in terms of, related to, a matrix of other people, in terms of actual transactions as well as internal presences. (Mitchell, 1988, p. 33)

The addition to the STAGES Matrix that is suggested via reflection on the relational model is one where the space between the individual and their broadening yet more intricate appreciation of the social context is nurtured. Relation can be mapped by model design, looking to the physiological basis of functioning. Relatedness can be mapped by constructs that assess intent, which orients more to the motivations of the individual, including for example, the motivation to hold some form of social contract to complete a sentence completion test. Relationality can be mapped finally by implication, where some proxy construct provides information about relational features - for example using person-perspectives, to map an individual's understanding of relationships (see Mitchell, 1988, pp. 33-35). What is important about a relational model is that you cannot logically account for the relationship, without accounting for the characteristics both nodes via which any relationship comes into being.

For human individuals, our existences are defined by the relationships we find ourselves inhabiting or are embedded within, as well as the relationships we may verbalise in a sentence-completion response. If variation in sentence completion responses can be in part mapped by changes in social, cultural and environmental changes, these nodes deserve representation of some sort, in perhaps some broader matrix within which the STAGES Matrix sits (see next section). It may eventually become very important to conduct such mapping as our environment begins to rapidly change, producing rapid social and cultural change, with it. Certainly our shared experiences with bushfires in my home country of Australia (in the summer of 2019) have lent us an understanding of the need for adaptive, reflexive environmental responsivity, enacted at all levels of the collective. In evolutionary psychology terms, for example, we know that imitation in a social ecology relies on both creating resemblances between beings but also on the availability of other mental representations which are shaped and limited by interaction with other cognitive systems and the environment (see Russon et al. 1998). To speak beyond the limits of what our earthly environment may present (see Cook et al., 2016), from meditative traditions we can also understand that the realisation of "suchness", for example, makes available to the meditator "the ability to see oneself and all other things of the world with "perfect clarity" just as they are in the context of their relations with one another" (Huntington & Wangchen, 1989, p. 82). What this hints at is that the highest realisations make available clear, precise and responsive *relational* data, and nothing else.

Musings on Methodology and Models, for STAGES

> I have some of the same misgivings about reducing the variegated, multifaceted nature of personality development to a single continuum with a handful of milestones that Loevinger expresses. . . it reduces in a manner unwarranted by reality the complexity of personality. I wish personality development were as simple as that. (Jackson, 1993, p. 33)

As pointed out in section 2.0 above, the lack of an account of the perspective of the researcher is one of the features of psychology research, and STAGES as a model and as an assessment appears no different in this regard. This poses some amount of risk for a developmental model which intends to be universal in its application, as O'Fallon (2018) indicates with the proposed articulation of structure by which sentence completion content can be assessed, in the STAGES matrix. It is understood in academic, but perhaps not yet broader circles, that scholars typically assume their own experiences in their contemporary culture as a baseline for deviant and normal development (Pauly, 1995). This can result in mistaken interpretations and assumptions, in the shared space between the researcher and the participant. It has been noted in academic literature for example that other cultures do not load adverse childhood experiences into their accounts of problems in dealing with life troubles or later-life developmental pauses (Hillman & Ventura, 1992). Also noted in the literature is the sense that not all childhoods produce the same social and environmental interactions, they cannot be presumed as similar (Narvaez, 2019). Perspectives matter, when it comes to inferences about the content of sentence completion test responses - no matter the extent of confirmation of inter-rater reliability. These perspectives are formulated within lives that are socially and culturally embedded, and which may not have much coincidence in view, even at higher levels of realisation where universals may be much more apparent in the responses provided by the participant.

For the Future

Such a proposal as the one made in the last sentence of the previous section returns us to the possibility of combining 4th person-perspective data from the researcher, and 4th person-perspective data from the individual. A recent research thesis from the present author worked to found a framework within which reporting of outcomes from psychometric analyses could be contextualised in light of disclosure from researchers regarding their ideological commitments, and social and cultural perspectives, as well as methodological assumptions. In the thesis this is argued as vital, as it is impossible to produce outcomes from statistical analyses of psychological constructs without subjective biases entering into the sets of decisions that are functional to producing such statistical analyses (see also Nowland, Beath, & Boag, 2019). Such biases may include for example beliefs about whether psychological constructs are measurable on a continuous ratio scale structure, as is necessary in performing Rasch analyses (see Murray, this issue). Collection of detailed 4th person-perspective data from the researcher and from the individual regarding, for example, the individual's experience of sensory differences, or distinct cultural, social, and environmental ecologies renders the data collected in the name of ego development interpretable in new ways. Nowland (unpublished thesis) proposed a set-theoretical structure to report such information, given that mathematical set theory is the most universal of mathematical languages, and that it maximised the opportunity to articulate something about the trustworthiness of the research outcome in qualitative terms, or in this case, the proposed STAGES level, for an individual who completes a sentence completion test. What was argued for was a network structure facilitating inference from the best systematisation, overcoming a number of limits associated with the 20th-century vanguard of inference to the best explanation. Ultimately what can be imagined with a coherent systematised collection of such data is a refinement of the STAGES model in light of new clarity with regards to how relationships, experienced by individuals, shape a shared space for perspective-taking, in all its possible guises. Modelling STAGES in this conceptual framework may have reflexive gains, as the conceptual framework is re-shaped with a vision of 4th person-perspectives, and as STAGES itself becomes thus also, changed. Inspiration may be derived from Varey (2015):

> The formation of coherence generates a set of relational tensions. The continuation in a direction enables a feature of reliance in a set of coactions. The reciprocal tensions of coactions become locational around contributive relations. These locations of reciprocity become reliable as potentials for generativity. The recurrence of potentials enables future potentials as probable possibilities. The entrainments of the future potentials set the conditions for the formation of new coherences. This generative process is seen as contextually dependent, multidimensional and self-generative. The hypothesis formed is: The praxis of being enables future becomings. (p. 15)

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Appendix: Loevinger's Characteristics of Level of Ego Development

Characteristics					
Level	Code	Impulse Control	Interpersonal Mode	Conscious Preoccupations	Cognitive Style
Impulsive	E2 (I-2)	Impulsive	Egocentric, dependent	Bodily feelings	Stereotyping, conceptual confusion
Self-Protective	E3 (Delta)	Opportunistic	Manipulative, wary	"Trouble " control	See above
Conformist	E4 (I-3)	Respect for rules	Cooperative, loyal	Appearances, behavior	Conceptual simplicity, stereotypes. clichés
Self-Aware	E5 (I-3/4)	Exceptions allowable	Helpful, self-aware	Feelings, problems, adjustment	Multiplicity
Conscientious	E6 (I-4)	Self-evaluated standards, self- critical	Intense, responsible	Motives, traits, achievements	Conceptual complexity, idea of patterning
Individualistic	E7 (I-4/5)	Tolerant	Mutual	Individuality, development, roles	Distinction of process and outcome
Autonomous	E8 (I-5)	Coping with conflict	Interdependent	Self-fulfillment, psychological causation	Increased conceptual complexity, complex pate terns, toleration for ambiguity, broad scope, objectivity
Integrated	E9 (I-6)		Cherishing individuality	Identity	

From the following source: Hy, L.X and Loevinger, J. (1996). *Measuring Ego Development* (p. 4). Mahwah, NJ:Lawrence Erlbaum Associates.

Deconstructing Developmental Constructs: A Conversation

Thomas Jordan[1] and Tom Murray[2]

Thomas Jordan has been a valuable appreciative critic of the STAGES model and of ego development models in general. In his publications over many years he describes a variety of skill sets important to higher level adult development, for skillful dialog and deliberation, and for dealing with the complex ("wicked") problems that our society faces. What follows is an edited and cleaned up version of a series of email exchanges between Thomas and Tom Murray. We initiated this dialogue in early 2019 with the hope that it could be turned into something publishable in this special issue. Our only guideline was that we tried to end each segment with a question. Murray posted the first question. We have added section headings post-hoc to help organize the conversation.

Note that subsequent to this email exchange, Thomas and Terri O'Fallon had a videoconference conversation about her model, which has been transcribed and is available at: http://www.perspectus.se/tj/ConversationOFallonJordan.pdf.

A. Differentiating Developmental Theories

TM: What do you see are some of the dangers or drawbacks of developmental models such as Kegan's, Cook-Greuter's, and O'Fallon's, that describe a single developmental construct or trajectory that is supposed to capture many aspects of human meaning-making (as opposed to models with multiple "lines" of development)?

TJ: The most immediate problem I see is related to the conception of late stages of development. I have followed research and theory building in the ego development and hierarchical complexity fields for several decades now. I believe that there is a fair measure of correlation between levels of cognitive complexity, in the social and

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psychological domains, and stages of ego development in the preconventional and conventional parts of the spectrum, and maybe also in the early postconventional stage. However, I think that what is really significant about late postconventional, and even more transpersonal, stages cannot be explained by increasing complexity and levels of abstraction of mental representations. There is a quite different dimension of development that has to do with noticing internal processes and gradually disidentifying with the thoughts, emotions, desires and other goings-on in the mind and the body, giving rise to an increasingly strong capability for witnessing.

I am sure that the patterns described by O'Fallon's framework do exist, and maybe the stage sequence she describes is the most common pattern for people who reach the later stages. But I believe it can be misleading and confusing to use a framework that assumes that there is a single line of development that accounts for all transformative shifts in adult development. I believe a person can be capable of very complex cognitive operations without having much of a capacity for witnessing the self's processes. And conversely, I believe that a person can have a well-developed capacity for witnessing internal processes without having a capacity for or habit of constructing meaning in very complex ways. (For example, see Jordan (2011, 2018) in the References). I find the ego development frameworks you mention very meaningful as heuristic devices, but I think that they should not be taken too seriously.

I have a hard time believing that a framework that posits a single line stage sequence, which the STAGES model seems to do, can adequately represent the variability in how people evolve in their capacity for handling complexity as described by theories of hierarchical complexity (Commons, Fischer, Dawson and others) on the one hand, and their ability to witness the constructed nature of their experience on the other hand. What do you see is the relationship?

TM: I think this is a really important inquiry, and I confer with your concerns and probably with many of your opinions about the later levels. Regarding the role of different theories, first I will say that I put Kegan's theory of meaning making maturity in the same boat as the ego development theories – Kegan implies in his writing that they are very similar constructs (with different measurement methods; cutting up the same developmental spectrum in different ways). Let's call it meaning-making (MM) for now (ego development for Loevinger; and O'Fallon sometimes calls it "perspective taking" levels). I will also use CC as shorthand for cognitive complexity (i.e. hierarchical complexity) – so what is the relationship between MM and CC? – that seems a central question for us.

Speaking *theoretically*, putting aside the empirical correlations for a moment, I see two key differences between MM theories and theories of CC development in the hierarchical complexity tradition (HCTs).[3] One is that MM theories map what happens when you take cognitive complexity (CC) and turn it *inwards* to understand the world of

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[3] I am framing some of this from the perspective of the model I am developing on "Wisdom Skills," which draws heavily on Terri's STAGES model but is also influenced by Bonnitta Roy, the neo-Piagetian models (Fischer, Commons, Dawson).

I/my/you/we/our/them/theirs – i.e. the everything that is not an "it" (social, emotional, and self skills). (I hesitate to call this "interiors" because it does not quite capture it – but it is close Wilber's "LH side.") Lets call it the domain of the "*ego-involved*" – i.e. all occurrence or proposition that are emotionally tied to "me" – which includes relationships to me, as in my, you/our, we/us, they/them; all of which are ego-involved because they are defined in relationship to, and often in tension with, the self.

The second difference is that MM theories incorporate aspects of *unlearning* as well as growth (learning) in hierarchical complexity. Despite the common idea that the developmental arc starts with building the ego and then moves to deconstructing the ego (which does contain a lot of truth), I think ego development has moments of unlearning all the way up – something must be let go of and transformed at each major fulcrum. The two moves are related, one turns CC toward the self; then one does the subject-object move of seeing some new aspect of the self, and then, for ego development to happen, one "sees through" that old pattern and releases or re-contextualizes it (this picture is missing an important element having to do with state-stages but I'm skipping that for now). Unlearning is related to shadow work and contemplative practice – with deconstruction, de-centering, healing etc.; and (I say more about this in the Wisdom Skills work) in the unlearning one re-claims or re-members something that was always true about the self that one had hidden from the self.

This turn inward is related to Wilber's notion that "the cognitive line leads" – since CC is generally built up in learning about the exterior world first. This is built into the STAGES model that posits that learning generally happens with exteriors before interiors.[4] For example, one learns about the concepts "angry" (concrete) or "prejudice" (abstract/"subtle") first when adults point to it in others – the first step is to recognize it "out there." Only later does the child realize, oh! "*I* am angry" or "*I* am prejudiced" (which can instigate deconstruction of some narcissistic belief, i.e. an ego growth).

An important piece here is that certain aspects of the interior (or the self) are more *complex* than others. So one can't really grasp them until one has built up enough CC. The CC is usually first developed in reference to exteriors because that is usually a safer context in that it does not threaten to destabilize the self. Also, seeing things outside the self is more concrete, vs. interiors are more subtle. For example, understanding that "I can do bad things while not being a bad person" is a big step for a child; it requires a certain level of complexity (differentiation and integration of certain concepts), and until that happens the child will have an ego structure compelled lie about her socially unacceptable behaviors. At an even more complex level, to see the self-structure as a collection of interacting drives/voices (or, even more complex, sub-personalities) allows the ego to mature, or move closer to what we might call spirituality (or complex ethics). The ability to see "systems" of this complexity (first in exteriors) is a prerequisite to developing this type of self-knowledge.

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[4] Interior/exterior, the fourth parameter in the STAGES model, is not as often mentioned as the other three: Tier, individual/collective, and active/passive. The stage is defined by the primary three parameters. The fourth parameter helps determine early/late within a stage, but this level of granularity is not used in our statistical studies, and unlike the other parameters, we have no empirical evidence as yet about the validity of that part of the model. But the principle of exterior before interior coordinates with other psychological theories (and see Mark Forman (2012): “All the stages of identity development, therefore rely on different forms of outer-directed cognition eventually being used in the inner world of the self” (p. 80).

Does this notion of unlearning relate to your understanding of the nature of adult development?

B. Shadow, Developmental Tiers, and Spin-outs

TJ: I have not thought about that angle, it certainly seems worth considering. And it could possibly make for an interesting dialog with adherents of the hierarchical complexity theories on adult development, since the conception of stepwise processes of differentiation and integraton on higher levels of complexity is not well suited to account for what you call unlearning. So please go on elaborating how you see the relationships between unlearning, shadow, ego development and cognitive complexity.

TM: Terri (and Kim Barta) use the concept of shadow and healthy horizontal development to account for some of this. That is, ego development level shows something about one's capacity to understand shadow material and the deeper self in more complex ways, but it does not say whether one uses that capacity to heal their shadow and do the hard work. As we all know, you can reach late levels of ego development (based on the assessment) and still have a lot of shadow. No one as far as I know has a good assessment for shadow (of course we would need to define shadow better) – that is another area at our community's leading edge. This relates to what I said before RE one difference between HCT and ego development is that the later is better able to theorize about shadow work.

Terri, and especially Kim, use the STAGES model to talk not only about growth, but to identify the developmental level associated with shadow elements. Horizontal health (what Kim calls full "surface area") at each foundational level is more important than how "high you climb." In a similar way, I think what advanced contemplative practice is doing is deconstructing assumptions that are so deep in the psyche that they are the basis of our *perceptual* constructions of time and space (and self) that formed in infancy. Psychotherapy deconstructs developmental phenomena like attachment dynamics, usually from the first few years, and contemplative practices target even earlier development like basic sense of self, time, body boundaries, the subject-object split, etc.

So MM (ego) development is about the growth of CC in a particular domain – the self. MM development and CC development *should* correlate empirically because MM relies on CC (that is, increasing complexity contributed to increasing ego development, but ego development is more than that). MM development seems better equipped than to talk about (1) the phenomenology and nuanced of self-growth, (2) shadow-work and de-centering; and (3) the more spiritual, esoteric, and state-based aspects of later level ego development. HCTs are tuned to talk about the mechanisms of building complexity in *any* domain, and when applied to some domains include movements of reflective abstraction (self-knowing); but they are weak in talking about the unlearning moves that are so essential to ego development. Ego development, on the other hand, is weaker on describing the precise cognitive mechanisms of building complexity. It does include unlearning in its understanding of growth, but neither of the theories has a very solid model of unlearning. Unlearning is better covered in theories of psychotherapy and contemplative practice, but in general mechanisms of unlearning are not as well understood as mechanisms of learning. I think the challenge of bringing all of these together is at the leading edge of our theories.

As you imply, the MM assessments don't explicitly separate out the complexity of "out there" objective content from ego-involved (more interior) growth. Do you know of studies that empirically study the correlation the various aspects of development we are talking about?

TJ: Unfortunately, there is very little empirical research that tests whether different aspects of adult development, such as hierarchical complexity, ego development stages and self-awareness are strongly correlated or not. The few studies I know of have very small sample sizes and have methodological problems. It would be very interesting to see what happens if a reasonably large number of persons were tested with 3-4 different types of tests: sentence completion tests, analysis of complexity levels in spoken or written discourse, performance in tasks that require high levels of cognitive complexity and something like Kegan’s subject-object interviews, but developed to look for advanced forms of self-awareness, witnessing and ego transcendence.

I do not advocate scrapping ego stage frameworks in favor of only operating with multiple lines, but I would like to see more recognition among theorists that there is a large variability in the late forms of adult development. I look forward to the publishing of far more empirical data and richly described case examples from those who use the STAGES framework. So my question would be what reasons you have for believing in the validity of using a linear sequence of stages that positions the transpersonal stages on top of the most sophisticated postconventional stages?

TM: Totally Thomas – the empirical evidence on all this is insufficient and we need lots more. RE whether the transpersonal capacities follow directly after the cognitively sophisticated postconventional stages...I think I agree that it does not *have to* (it depends on the meanings of these terms of course). One aspect of Fisher's (and Dawson's) model that I like, that Commons' model does not have, is the idea of increasing levels of abstract object types (sensorimotor, representations, abstractions, principles), and within each such "tier" there is increasing complexity (single objects, object relationships, systems, new wholes). The STAGES model has this same kind of structure. (You speak to this in your 2018 paper).

TJ: Is Terri's "subtle" tier really the same as Fischer's/Dawson's abstract tier, or are there differences? I would also ask how the Metaware objects represent an advance that directly builds on the abstract tier.

TM: We don't have much empirical evidence on how they correlate yet, but theoretically, the STAGES 3.0/Expert maps to Commons "Abstract" and to Fischer/Dawson's "9. Single Abstractions." "9-Single Abstractions (Abstract), 10. Abstract Mappings (Formal), 11. Abstract Systems (Systematic) maps to STAGES 3.0/Expert, 3.5/Achiever, and 4.0/Pluralist (completing the STAGES subtle tier we have 4.5/Strategist, which maps to "12. Single Principles (Meta-systematic)."

But that is not the whole story. As I mentioned, the Fischer/Dawson/Commons models only measure CC, while MM requires CC *applied to* the inter/intra-subjective domain, so you can be high on CC and not have the equivalent MM stage if you don't apply the CC self-reflectively. So the models diverge in that way.

RE the metaware tier: I think at each tier there is a whole new emergent set of phenomena, so it does not build in the same way. For example, formal operations jump into a world of abstractions that are not a straight continuation of what is going on in the concrete tier. One can continue getting more hyper-complex with concrete reality, and not develop abstract thought. Yet abstract thought *requires* concrete thought.

Given that CC growth is necessary but not sufficient for MM growth, the CC of understanding the exterior world can increase indefinitely without necessarily applying it to those realms of experience that tug on (threaten or create dissonance with) the ego. I, my, you, us, ours, they, theirs – this is the realm where the ego has its attachments and aversions and blind spots. Ego defenses keep us (all of us!) from applying our CC from knowing certain "truths." (You know all this, I am just building up an argument here).

Terri talks about a pattern she calls horizontal "spin out" which happens at the top of any person perspective (PP) – one can keep getting more and more complex and not grow in terms of ego development. So I would hypothesize that there is some *minimal* level of complexity needed to robustly understand some aspect of I/us/they. The minimum is necessary but not sufficient; and more than the minimum will deepen I/us/they insight; *but* there may be diminishing returns so that beyond a certain point it may not add to development very much and more complexity so it spins out horizontally.

For example, at the concrete level (2nd PP in STAGES) one can understand and create super complicated mechanical devices (like a genius mechanical engineer) but still not have developed much abstract thinking (a 2.5 spin-out). With abstractions and hypothetical thinking (3rd PP in STAGES) one can develop super complex scientific, philosophical, or technological ideas, but they may still be linear in the Newtonian sense, may still have that "there is one best answer" feeling, and not move into groking the realities of mutual-dependence, feedback loops, ecosystems, fractal structures, etc. The interdependence, fractals, and comfort with multi-perspectives characterize 4thPP thinking. Terri also points out that from 4th PP you can spin out into super-complex "systems of systems of systems..." (at 4.5) without getting into the space of more emptiness-of-self and construct awareness of the Metaware tier.

We don't have to be wedded to the STAGES levels, but this idea that complexity can increase and spin out horizontally without creating the next level of hierarchical ego development is very useful.

Does that relate to your question?

C. Questioning Holistic/Wide Lines vs. Specific Skills

TJ: In part, but I still believe that the whole ego development theory tradition rests quite heavily on the assumption that there is something like an ego as a ”structured whole”, and that it therefore makes sense to talk in terms of, for example, a ”center of gravity”. Theo Dawson maintains that this is an erroneous assumption, given the empirical fact that people display different levels of complexity when grappling with tasks in different domains. But Theo belongs, I believe, to the scholars who are strongly convinced that levels of complexity is the one and only significant variable explaining different patterns of adult development. If you believe this, and you know from empirical studies that individuals' performance in terms of complexity varies significantly in different domains and under different situational conditions, it follows logically that the notion of ego development stages must be untenable. Of course, ego development theorists don't accept that interpretation of the nature of adult development. You specifically address this issue elsewhere. However, even if you don't accept the premise that adult development is only a matter of cognitive complexity, it would be a good thing if you and other ego development theorists can address this kind of criticism and provide sustainable arguments for the idea of the ego as a structured whole.

TM: These are really valid concerns. Ego development (and Kegan's MM system) is what I call a "wide" developmental line – Loevinger called it a "holistic" construct, in contrast with the narrower lines or constructs of other theories. It is an ongoing issue RE whether wide lines are legit. The MM (ego) developmental construct overlaps with, i.e. includes or correlates with, many other constructs or "lines," including spiritual intelligence, reflective abstraction, leadership maturity, social-emotional skill, self-control, self-understanding, etc.[5]

In one sense, the argument can be answered statistically/psychometrically. The ego development measurement has shown itself to grow "as a whole." When looking for component sub-lines in ego development data of large(ish) populations, there is a consistent finding of no sub-lines being found (in a factor/component analysis it "loads on a single factor" – as found repeatedly in studies). But that may not be a satisfactory answer because that type of analysis assumes that different subskills might be captured by different items in an assessment; but in a sentence completion test all of the items tend to be looking for the same things; or better said, the scoring method scores them all the same way (in all MM theories). The scoring methods in STAGES don't ask the scorer to note specific sub-skills (though it allows for, but does not require, recording the

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[5] More on that topic in Murray (2017) **here** in sections "On multiple intelligences and wide vs. narrow skills" and "One skill to rule them all – is ego development one thing?"

"quadrant" – I, we, it, its – of the text). So the data does not exist to factor out the subskills, and it would probably be expensive to re-score (though possible and a valuable study).

Loevinger takes the assumption that there is "master trait" of "personality…a holistic process, a striving for meaning and self-consistency over time," (a habitual organizing frame of reference) "[that] involves many dimensions of personality development"[6]. Even among Loevinger's followers there is controversy about whether it is one underlying capacity or a collection of sub-capacities.

So a big question in the developmental field is whether specifying narrow vs. wide skills/lines has construct validity or "ecological validity" – i.e. whether they can be said to really exist in a form that can be measured. The HCT theorists would critique ego development as a super vague fuzzy construct--something one can't really even define in a short space. This has been used to argue that wide lines are not valid. But I think I can use HCT to argue *for* (some) wide lines in the following way (as I have done in Murray, 2017).

Fischer and Commons are clear that any developmental "skill" must be defined in relation to a *real task.* I have argued in some of my papers (Murray, 2019) that you can't find real life tasks that just use, say, "abstraction" or "creative thinking" but that these sub-skills are always *an inseparable part* of real tasks (like parenting, doing good at work, making friends, etc.), so HCT actually predicts that when real-life has only wide-*tasks* its just as hard to measure narrow skills as wide *skills*. When the sub-skills are massively interacting, you can't "see" them individually. One can invent separate constructs like "critical thinking" and "creativity" and create a test, a fake task, to measure them, and then look for correlations between those constructs. But do those constructs really exist? Playing a musical instrument, or playing sports, or foraging for food, or finding a mate, are real tasks they hardly overlap as tasks, so you can define and measure real solid independent skills based on them. But there is no "self-understanding" *task*, rather self-understanding is an abstract construct we can see used across many real life tasks. Some would say, "that construct exists for many tasks so its a 'general higher order skill'! – that should make it very important and also easier to measure." But my reading of HCT implies that you can't infer in that direction – you can only define the complexity of a task, and the skill is the ability to do that task.

I am unsure about all this though. If one can identify a generic sub-skill (or micro-skill) that is a component of many tasks and super-skills, it seems important to study and measure it. I'm just not sure if all such skills are arbitrary abstract inventions unconnected with underlying cognitive mechanisms (brain studies might help answer that). Ego development is one such made-up construct of course – a "wide" one. What I am wondering about is whether the narrower ones are actually taking one *further* from reality into speculation, even though they seem to be honing in more closely to the underlying mechanisms. Like Ptolemy's epicycles, one can use abstract reasoning to find detailed patterns that explain phenomena, but which are not actually related to causal mechanisms.

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[6] From p. 229 of Jespersen et al. (2013).

Actually, it could be argued that STAGES, in contrast with Loevinger and Cook-Greuter's models, is not at all fuzzy in defining the construct. For Loevinger and Cook-Greuter the stage definitions, in a sense, change with each level. *Something* grows, but what that is cannot be clearly defined in those models. STAGES "defines" each stage simply using three parameters. But still, determining the value of each of those 3 parameters requires a detailed scoring manual and a year of training. You can say each stage can be given a concise definition using the three parameters, but to *operationally* define each of the three parameters (in a specific way) is pretty complex (so it kicks the can to the next level down).

No one is claiming that all of human psychological maturity or cognitive complexity can be captured in one assessment or model (though the neo-Piagetian theorist do claim that all cognitive development can be captured by one mechanism and structural logic). And of course we all acknowledge that it is absurd and dangerous to assume that any person can be well described with one measurement or category. MM, as described by Kegan and the Loevinger tradition, seems to make a lot of sense to a lot of people, so I think if one had to pick just one measurement, MM would be adequate. But if we were going to assess multiple things, what should we include? As you know, there are so many assessments and constructs out there in academia. Do you have ideas for what would work better?

TJ: RE: "HCT implies that you can't infer in that direction – you can only define the complexity of a task, and the skill is the ability to do that task" – this deals with very interesting issues that would warrant a thorough scrutiny. I believe you are on to something valid, that there are indeed some "general" tasks that have wide and pervasive implications for how a person makes sense of him-/herself and the (social) world.

Regarding your final point, I think there is a lot of empirical research to do. In my 2018 Integral Review paper, I argue that there are several quite distinct components of adult development that don't necessarily walk in step on a developmental stairs. I briefly describe cognitive complexity, complexity awareness, construct awareness, perspective awareness, self-awareness, meta-awareness and the phenomenon of spiritual awakening. It is an empirical question to what extent the developmental patterns of these components are closely correlated or not. My concerns regarding ego development frameworks is that they seem to assume that there is a single developmental trajectory, and I believe this to be misleading, or at least not proven.

I think in the paper I make a good argument that such competencies can develop quite independently. My argument is not based on empirical research results, because we don't have much of that yet, but describes types of people that have various mixes (weak and strong) of these skills.

Do you agree that it can be an unproductive or misleading thing to try to pack all of these types of capacities into one developmental line?

TM: Yes, it can be. Professionals who use MM assessments are (usually) careful to make sure they are not abused to label people into categories and make high-staked decisions (like hiring/firing). The intent is to use them to support self-reflection and mutual understanding (at individual and team levels). If used well, nobody is forced to agree with their scoring – they are taught about developmental levels and invited to reflect upon how their own strengths and challenges line up with the sequence of growth the theory describes. Anecdotal evidence is that most people feel quite "seen" and gain some insight when coaches/consultants use these assessments. But I'm sure there are counter-cases to that. But in working "on the ground" with people I expect that that many people would be confused if they were shown the results of 3 or 4 tests that then had to be coordinated in some complex way by the coach/consultant.

MM frameworks, like the one presented in Kegan's "In Over Our Heads", seem to add so much to our general understanding of the human condition, by just getting people to think about the developmental dimension. People naturally want to place themselves at some chapter in this story of human growth. On the other hand, we both know of the dangers and overshoots of consultants and pundits overgeneralizing based on these models.

Is that a fair description of the trade-offs?

TJ: A similar argument could be made (with some justification) for personality typologies, such as the Myers-Briggs Type Indicator, the Enneagram types, or even astrology. They can scaffold a process of self-reflection and insight. But that is a rather different thing than claiming the model in question adequately represent how people actually work. My main interest here is in the *science* of figuring out what *late* stage development really is (and isn't). Our world needs more wisdom, cognitive complexity, compassion, and perspective taking – we need to better understand what these things are and how to support them.

I still believe that it makes sense to be careful about collapsing increasing complexity/increasing abstraction of concepts with witnessing capabilities into one stage sequence. At least I believe that when operating with models like the STAGES framework, you should take care to point out that people in real life vary far more in those different dimensions than can be represented using single line stage models.

Are you arguing that from a *theoretical* perspective, it is defensible to lump together the different lines or components of development?

TM: Good, we can separate the pragmatics of assessment for coaching and organizational development from assessment for more rigorous and scientific inquiry into human potentials (understanding that there will be some overlap between them).

Any theory that uses simple categories or linear sequencing to describe the human condition is problematic. And one can always break up a phenomenon into sub-phenomena, ad-infinitum. E.g. one can define 8 elements of "reason" or "wisdom" – let's say one is "perspective taking." Then you can find a theorist who has broken perspective taking into 5 more facets (in both theory and measurement); and for each one of those facets you can probably find another who has broken it down even finer. All of these conceptual "cuts" are rather arbitrary, and have fuzzy overlap, and there are diminishing returns with increasing specificity in the "human sciences." Often, the more specific the skill, the more artificial is the assessment task or instrument assessing it. So the question becomes pragmatic as well as theoretical: what is the appropriate level of granularity for any purpose?

These subskills are hard to define precisely because they seem to overlap (as constructs) and influence each other (as processes) – e.g. "critical thinking" has significant overlap with "self reflection" – we can create separate tests for each of these but are they really such separate skills "in the brain" (or in behavior)? – or better, *to what degree* are they separate? MM theories (Loevinger and Kegan) make the assumption that a bunch of these sub-skills are so tightly interrelated that they *tend on average* to grow together and form a kind of gestalt phenomena (while obviously per individual there are differences in how they track with each other). I am pretty sure that this hypothesis will not be "proven right or wrong" but rather we can (and should) empirically determine *how much* the factors correlate and influence each other. This is your question I believe, and it deserves empirical study. But in addition to whatever the empirical findings say, one still must grapple with the ontological question of whether and how the constructs are actually separate processes or human attempts to break up a continuous field of phenomena into arbitrary chunks.

In terms of your list of six high level capacities (I had to go back to your article to refresh my memory) – in theory I like the idea of breaking it down to look at sub-components, but there seems to be a lot of possible overlap and cross-influence in these six categories. The question of whether sub-skills are separate-but-correlated, or whether one can be described as a "component" of another, is really hard to answer (this is related to ego development having a much less than 0.5 correlation with IQ – see Cohn & Westenberg, (2004); but here brain science might help answer the question).

It would take some work to get to a place where your constructs were well-defined as fairly independent skills, which then had a measurement protocol for (or all or any subset of the six). Loevinger struggled with this in coming up with what she eventually called the "master trait" of ego development. This is how Manners describes it: "an increasingly complex synthesis of impulse control, conscious preoccupations, cognitive complexity, and interpersonal style" – a list to which others have added: motives for behavior, moral reasoning, character development, and self-concept. Wow, what a long list of diverse skills. Its amazing that anyone tried to combine them into one construct and "got away with it" – yet 100's of studies have indicated that the construct is sound psychometrically.

TJ: Up to mid-postconventional, yes ... Still, my questioning concerns the highest stages, and I argue that it is completely misleading to correlate Commons paradigmatic and cross-paradigmatic stages with the (half hypothetical) very highest stages of ego development.

TM: Ah, yes – sorry I was not clear on this earlier. Though you will see these correlation tables mapping one theory to another (Loevinger, Commons, Fischer, Kegan, Wilber, Aurobindo, Piaget, Graves, Kohlberg, etc.) in countless papers in our community, they are mostly misleading, especially those that map a MM model to a CC model. Theories of CC are more valid in this mapping, as they are trying to measure the CC alone of various constructs, which is a central aspect of them, but, I would argue, does not capture the entire phenomenon. The discovery that CC is a rigorous and valid metric for all of them is very important, but some make the mistake of assuming it explains the entire phenomenon. Those in the Loevinger tradition (including papers by Susanne, Terri, and I) do include these types of concordance tables, which is misleading – you are right. They basically say that the CC *aspect* of MM maps as indicated. As described above, one can have a horizontal "spin out" and increase CC without increasing MM, so Terri is explicitly saying that they don't map completely, and diverge in this way. We do have some evidence that Metaware meaning-making includes 4.5/Strategist cognition (within the STAGES model), but we don't have much evidence on whether Metaware (5.0...6.5) meaning-making includes "12. single principles" or "13. paradigmatic" cognition. I agree with your suspicion that they may not correlate well, but am not sure what Terri would say.

Maybe it is just that all of these sub-components are so tightly interwoven that one could have taken any of them as the master trait and get the same type of results – I doubt it would work as well but it is possible. Here I think we bump up against the leading edge of science methodology. The traditional (i.e. "modern" 3rd PP) scientific paradigm is to separate things into their components and then see how they correlate, as if they were separate but related. But can they really be separated? Again are the parts things we make up arbitrarily? Like you can describe any color using the RGB system or the CMYK system – neither can lay claim to being the "right" way to break it up into independent dimensions. In the hard sciences "complexity science" (what I would call 4thPP science) has been able to work better with emergent non-linear patterns. For psychological sciences I think complexity is largely used just as a metaphor (though in social sciences "social network analysis" does produce quantitative results).

I am not sure: what is gained and lost from trying to measure each of the component constructs separately, and from moving away from using a holistic construct? As you know, researchers have done these comparisons with many of the psychological constructs we have assessments for. It's a lot of work and it adds *something* to our understanding of ego development (and the other constructs), but my take is that few if any of these studies yielded results that changed how people (still) understand ego development.

Also, one thing that is exasperating about defining ego development, from a measurement perspective, is that the basis for describing it keeps changing with each level. For example, at the lower levels it includes "impulse control," but the relevance of that part fades away in differentiating later levels. Ego (or MM) development is what is seen to *emerge* as people mature (get wiser with experience). You can't predict what the next level (or branching set of emergent phenomena) would look like based only on the qualities of the prior levels (that is one definition of emergence – e.g. you can't predict the properties of water/H_2O based on the properties of H and O). We *can* predict that it will be more complex and nuanced, etc., but not the observable psychological phenomena are emergent.

You are concerned with the later levels, do you think my argument applies for them?

D. Complexity vs. Witnessing; States vs. Stages; and the Logic of Development

TJ: RE "the basis for describing it keeps changing with each level" – I think that is a good and significant point. Common's uses the same "rule" for moving to each level. Fischer changes the type of object with each tier, so that is somewhat similar. But you are right, in Loevinger's system at least, there is no transition rule that specifies how each stage goes to the next.

Anyways, you may be making things more complex than is needed Tom. I agree that my six capacities would need a bit of work to be turned into solid theory or science (some of them should overlap, but others should be more independent). But, to repeat from my prior email "I still believe that it makes sense to avoid collapsing increasing complexity/increasing abstraction of concepts with witnessing capabilities into one stage sequence, in favor of allowing for different combinations of different dimensions of development/awareness."

I think the transpersonal stages cannot be explained by increasing complexity and levels of abstraction of mental representations. There is a quite different dimension of development that has to do with noticing internal processes and gradually disidentfying with the thoughts, emotions, desires and other goings-on in the mind and the body, giving rise to an increasingly strong capability for witnessing.

What if we just focus on those two aspects? Do you, or does Terri, think that they can be lumped together?

TM: OK, I may have gone off the deep end there RE the wide lines :-). I share your intuition that there seems to be two separate things going on there at the higher levels (Terri's Metaware tier), something related to complexity and something related to something more spiritual or transpersonal. First, what I can say from experience is that I have been at gatherings of people most of whom scored in the STAGES Metaware tier, and I would have to say there really was something palpable about the "ego development" (including an extra nice sense of humility and humor), but, though they were all pretty intelligent and nuanced, there were a lot of people there who had not developed (and maybe were not interested in developing) the abstraction skills it takes to understand really obscure philosophical discussions, write academic papers or rigorous scientific explanations, or design a large scale systemic change in an organization. I think a group of people who score high on "paradigmatic thinking" in the HCT model would feel very different to be with vs. this group (with, maybe 30-50% overlap). I might learn more and be more intellectually impressed with such a group, but probably would not enjoy myself as much and fall in love with them all as easily.

Terri has assessed many people with advanced spiritual practices and stages. She also finds that ego development is relatively independent of all that spiritual stuff, and that it captures the complexity *with which* someone understands what is revealed by those spiritual/contemplative experiences pretty accurately. The assessment does not put those advanced state-stages at the top – it puts a certain sophistication of one's *interpretation* (meaning making) of them is at the top. There are many ways to interpret the "no self" experience, and only certain ways will rate in the Metaware tier. Same with the emptiness of conceptual meanings, emptiness of time, or space, etc. The assessment (and theory) do not measure the state-stages, but the theory does say that having certain state stages is a prerequisite for Metaware stages. I think there is some interesting research that could be done to try to prove this – its just a hypothesis at this time (Terri's paper in this issue says more about the theory).

Also Terri's theory of *States* is related here. We understand from the Wilber-Combs principle that one can experience states associated with "awakening" at any of the developmental levels. Terri asserts (it's not always clear whether Wilber agrees) that certain stable state experiences are *necessary but not sufficient* for solidifying certain stages of development. State here seems related to modes of *perception*, like "metacognition" or "awareness of awareness." But Terri extends the concept of state-stage (or view) down earlier than the usual "spiritual" associations, to include things like holding focused attention, and hypothetical thinking (fully controlled internalized perceptions, free of memory) as state-stages.[7] Relating it to what I said above about exteriors before interiors, it could be that the "necessary" is about purely cognitive ability, like witnessing, but to be "sufficient" to create ego development the awareness has to be applied to deconstructing and understanding the self. The findings you mention in your paper about the "Mysticism Scale" not correlating with ego development measures fits right into this extended interpretation of the Wilber-Combs principle.

TJ: Well, this is all very interesting. I believe it can be fruitful to consider the relationships between increasing capacity for dispassionately witnessing internal processes, gaining a more complex understanding of causality regarding those processes and the role of shadow aspects in ego development. However, that seems to be a whole new area of exploration. I am still questioning if it isn't potentially problematic to operate with a one-line sequential stage framework in the more sophisticated forms of adult development.

I.e. the question that is prominent for me is that if the Stages framework really captures a developmental sequence, what is the logic that explains that the Metaware tier requires having mastered the Subtle tier first? Any thoughts about that? As I have said before, in

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[7] This topic is covered in more detail in two articles in this special issue, one by O'Fallon on stages and stages; and the other by Churchill and Murray, on Indo-Tibetan contemplative practices.

Fischer's and Dawson's frameworks, there is clear intelligible *logic* in the sequence of the tiers, each new tier representing a higher level of abstraction by creating mental constructs that condense complexity into higher-order concepts. It still seems to me that the Metaware objects you talk about are not concepts that represent very complex relations among concepts on the preceding levels.

Also, I would be interested to hear your comments on the late stage awareness profiles I sketch in the 2018 IR article (see section "Five Prototypical Late-stage Awareness Profiles"), in particular regarding person D and E. Do you think that such profiles exist? If yes, how could they be expected to show up in a SCT and in relation to the STAGES stages?

TM: Referring back to what I said above on wide lines (and the link to more discussion). Maybe the two of us could come up with a list of pros and cons of wide (all-encompassing) vs. narrow (multi-) lined approaches. There are a bunch of tradeoffs I think, in terms of (a) comprehensibility/usability; and (b) ability to demonstrate validity.

But, RE the logic of ego development, tying together several points I've come to, I said there were two necessary but not sufficient conditions for ego development into any level: the requisite complexity capacity and the requisite stable stage-stage. It *might* be that these two *together* are sufficient. Hmmm...as I think of it I would propose that if we include a third thing that would cover the whole picture (maybe): the *unlearning* part. So I'm thinking that ego development requires (1) the stage-stage to have awareness into a certain depth of the self; (2) the complexity capacity to comprehend patterns at that level; and (3) the application of that awareness and complexity to unlearn whatever stands in the way of progressing at any given fulcrum. (Oooh – I will have to put this in the paper I am working on with Churchill in this issue!)

So, in terms of whether a wide/holistic/single line is a good idea, we could ask what is *lost* by using a model with one holistic line? Referring to the three things I just proposed as prerequisites for ego development, we could say that what ego development *assessment* misses is that it does not register: (1) state-stage achievement without the other two parts – i.e. spiritual realization without ego development (maybe called the "spiritual enthusiast"!); (2) complexity capacity by itself – i.e. the horizontal spin-outs; and (3) late stage narcissism – one who has spiritual realizations, and the cognitive complexity for deep understanding of what is revealed there, but has not *applied* it to deconstructing enough of the self (such a person uses his capacities to evaluate and manipulate others). We might say that ego development construct is *defined* as a combination of the three things, so it does not measure growth that does not combine all three. (This is only partially true as, the STAGES assessment at least, the assessment final score value may miss these things but the human process of assessing the sentence completions and preparing a personal analysis does note some of these nuances, such as spin-outs).

RE your question about the profile sketches of person D and E in our paper – I will copy that here:

Table 1. Profile sketches.

	Cognitive complexity	Perspective awareness	Construct awareness	Self-awareness	Pure aware-ness self
Person D	Weak	Weak	Weak	Strong	Moderate
Person E	Weak	Weak	Strong	Moderate	Strong

I will have to think about this more, but I think my analysis above of the spiritual enthusiast, the 4.5 spin-out, and the late stage narcissist is close. The first and last have weak CC and perspectival awareness; the first has strong pure-awareness. One thing we have not touched on much is the difference between the aware-ness of awareness and construct awareness aspects of 5th PP. Terri would have more to say on this I am sure.

But I think those three things above define what you call the "logic" of the ego development sequence. The simplicity of the logic behind HCTs is either misleading because, as I said, it does not differentiate different types of meta-moves, or, in some cases it implicitly uses a limited type of meta-move which is rather cognitive (CC) and thus would not capture all of what is going on in ego development.

I would have to think about this more, but, given what I said above, it may be possible to specify the types of meta-moves involved in ego (MM) development: (1) Witnessing, or any awareness that perceives a deeper aspect of self; (2) reflective abstraction or subject-object move which uses complexity capacity to see how the now-seen part fits/operates within the self as a system; (3) a releasing ("emptiness") move (Bonnie Roy would call it "insight generation") that unlearns an old assumption to allow for new emergent understanding of the self-system (and thus a new understanding of self/other/world).

What is not worked out here (but see the other papers in this issue by O'Fallon and Churchill) is specifically *what* is witnessed, comprehended, and released at *each* developmental fulcrum. Also, the STAGES scoring method could be enhanced to more explicitly pull out separate sub-indices for these moves – witnessing, CC, and unlearning – or any of the other sub-skills like the ones you mention in your paper.

I would guess that move #1 is related to "quieting down" and "witnessing" in your words, and your "disidentifying" maps to the third part – what do you think?

E. Skipping Stages and Meta-move Types

TJ: I think in part what you are saying is that there is a lot in the STAGES theory that is not directly related to, or assessable by, the STAGES assessment. I think the difference between what is proven, or even provable in theory, should be clarified in the descriptions of STAGES. I am also interested in pinpointing what descriptions are really supported by empirical evidence of any type, and what statements are more intuitive or speculative. And I am really more interested in qualitative data than quantitative, even though the latter is important for stringency and reliability.

As you know from previous exchanges we have had (and my 2018 IR article), one of the questions I have is whether the model adheres to the idea that no stage can be skipped, following the principle common in ego development models. This seems to be what warrants your Metaware stages being stacked on top of the Strategist stage. Has this hypothesis been proven?

TM: Hmm ... for me the issue of skipping stages is more complicated than it seems at first glance.[8] HCT specifies that the next level comes from *any* operator that operates on one level to coordinate the prior level into an emergent next level. But there are many possible meta-moves for building one hierarchical layer upon another, and it seems that HCT is mute on which ones are involved in any application. The subject-to-object move is one; synthesis is another, abstraction is another, witnessing may be another meta-move. The way HCT is usually used (e.g. in Lectica assessments) I think there is an unexamined assumption that sticks with a certain type of meta (hierarchical) move (reflective abstraction), even though they portray it as covering all possible types of hierarchical moves. I think a lot of people in our community confuse that with the specific, and most popular, evaluations used by Dawson and colleagues at Lectica, which are specific instantiations of MHC for specific (task) domains. I.e. they don't measure "hierarchical complexity" they measure it *in* some area.

IMHO though Lectica folks say they are measuring "hierarchical complexity" in the actual practice of their better-known assessment tools they are measuring a specific cluster of meta-moves, all of them related to the single concept (meta-move) of "reflective abstraction." Fischer's and Common's theories can account for *any* type of meta-move, but the Lectica assessments we are familiar with measure a small cluster of moves. Lectica actually combines two meta-moves: the conceptual abstraction of the object, and the structural complexity of the idea (single>mappings>systems). Note that Lectica *can and has* built assessments that measure other meta-moves, like the hierarchical moves in learning ever more complex math or science. Here is another example, put yourself in a room of people scoring at the "paradigmatic" level in mathematical theory, and see if they seem overall extremely "mature."

RE the above idea of horizontal spin-outs, but they are only "horizontal" from the perspective of the ego development model! From a strictly cognitive model, things just keep getting higher in complexity – its not horizontal, its vertical, and the ego-developmental move of applying a given cognitive capacity to the domain of ego-involvement may seem a *horizontal* move! (See my IEC 2018 slides.)

One can imagine that if one kept to a single type of move as constant then you would have a very clearly defined hierarchical sequence. Stages could not be skipped, because each level builds upon the prior, by definition. But if one's developmental model incorporates several types of moves then its more complicated. From level X of complexity you can get to level X+1 by making moves A or B or C, and by the time you get to level X+3, is there a risk that you are comparing apples to oranges? This is the case if you are comparing just cognitive complexity at level X with ego development at level X.

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[8] This next part is something I presented in my IEC conference talk in 2018.

But regarding the question of whether "no stage can be skipped" – I addressed it from a theoretical (or construct aware) perspective, but it can also be addressed empirically for the STAGES model. I will send a draft of the paper going in this special issue, titled "Summary of STAGES validation research." In it we mention a longitudinal study that seems to show that the metaware stages do follow on top of the earlier levels.

TJ: You said above that "there are many ways to interpret the 'no self' experience, and only certain ways will rate in the Metaware tier." So, yes, but does the sophistication in interpreting the perception of awareness as such reflect a level of abstraction that builds upon (requires) and goes beyond the level of complexity at the Strategist level? – that is a core question for me.

TM: OK, and now I am also noticing that you wrote "Fischer's and Dawson's frameworks, there is clear intelligible logic in the sequence of the tiers, each new tier representing a higher level of abstraction by creating mental constructs that condense complexity into higher-order concepts." So the concept of higher *abstraction* is important to your question. I will answer from my understanding (I wonder what Terri would say here – and also, I am in early phases of on a whole other paper just on the topic of "Abstraction and Metamodernism," and don't have these ideas fully baked yet).

As I said, HCT builds layer upon layer based simply on each level operating on or coordinating the prior level. Abstraction is only one such operation. Formal operational thought is sometimes defined as the combination of *abstract* thinking and *logical* thinking – which both come on line at 3.0 (3rd PP) in STAGES. Abstraction and logical complexity are defining moves through the whole Subtle tier, but starting with the Metaware tier a new type of awareness and object appear that is not defined by an abstraction move. The objects that emerge at each tier may be theoretically unpredictable based on the prior tier – this is the nature of emergence. E.g. given just matter you can't predict life, and given life you can't predict mind/culture – though you can always go back and *explain* how the later builds upon the prior, the emergent level is a kind of surprise.

The move into Metaware is an *emergence* move, not an *abstraction* move. Like the emergence of abstract thinking on top of concrete thinking, we can say that it is what is *observed* to happen, not what *must* happen. Our data shows that metaware thought does come after (e.g. 5thPP comes longitudinally after 4th PP); and Cook-Greuter's and Torbert's work has always included the idea that construct aware and unitive come after Strategist. I can try to explain *why/how* we think 5th PP builds on top of 4th PP, but I think our explanation of this is still forming (and not as good yet as the literature that explains how formal operations builds upon concrete operations).

Within 4th PP one increasingly builds deeper understanding of the parts of the psyche/mind, ideally including the embodied perceptual deepening as well as cognitive complexification. What emerges at Metaware is a coming together of the parts, as their relationships and interpenetrations are seen and deconstructed and integrated – into a new level of holistic apperception of the self. The witnessing state or "awareness of awareness" is also an awareness of all those parts of the self that are held *by* awareness, i.e. are *not* awareness (as awareness becomes object). If you don't do the emergence move, and keep going with abstraction, then you get the 4.5 spin-out, and this may be why HCT and STAGES seem to diverge at the Metaware tier. (Again, increasing abstraction beyond 4.5 levels may be an important *vertical* move for *some* models, but not for STAGES or ego development.)

I think that this happens at *each* tier – a new object emerges and then abstraction and complexity are the logic that build CC in that tier (first individuals then collective/systems) until the next tier emerges – which is an emergence move not an abstraction (or complexity) move. The idea of "simplicity on the other side of complexity" is *different* for conceptual/abstraction moves vs. for emergence moves (this is what I am working out in that new paper).

Anyways, we have opened up a lot of questions here. What would be some good next steps?

F. STAGES Empirical Studies and Longitudinal Analysis

TJ: I have now read the paper you sent me, with a good deal of interest, even though I am very weak on statistical analysis (and not so very interested either). I do think it is a very good thing that you and the statisticians you have worked with have critically examined the statistical properties of SCT testing and reviewed and developed the methodology for arriving at scores. The article will be a valuable contribution to the field in these respects. Having longitudinal data is indeed very significant. The analysis of the statistical properties of the test offers a number of valuable and corroborating conclusions, that’s fine.

As you can imagine, the major question marks I have about the Stages model are not addressed in the article (which was not to be expected given its purpose). Here is a somewhat different way of approaching what I have asked before.

Since I am not intuitively convinced that inhabiting the metaware stages, in the sense of being aware of and preoccupied with pure awareness, necessarily comes after one has mastered the late ”Subtle” stages (I don’t like the term subtle, hence the quotation marks), it would be helpful to know if people who are scored at Terri’s metaware stages always convincingly display evidence of being at home in the preceding stages. So what would be interesting, and would provide support for the Stages model’s assumption about a linear stage sequence, is, at its simplest, to see if everyone who scores at one of the Metaware stages also fulfills the requirements for being scored at stage 4.5 (and possibly 4.0). It would be of particular interest to look more closely into any cases of people who were scored at 5.0 or higher and who don’t fulfill requirements for stages 4.5 and 4.0, if such cases exist. I.e. if you (a collective you here) can report empirical evidence that people who get scored at Metaware stages have a significant number of *individual items* scored at the late ”subtle” tier, so that it is evident that the Metaware stages transcend *and include* the previous stages in a linear sequence.

My intuition is, as you know, that awareness of awareness is very weakly linked (if at all) to cognitive complexity, and that there are surely people who have a well-developed witnessing capability without having a very complex cognitive world. So, do 100% of the people who score at Metaware stages fulfill the requirements for stages 4.5 and 4.0? If a lower percentage, how low? If there are Metaware people who don’t fulfill requirements for stages 4.5 (or 4.0), what do their item distributions look like?

Ideally you would show this in relation to the scoring procedure, so that people who are deemed to be at Metaware stages have mastered the kind of cognitive complexity and levels of discourse abstraction characteristic of the later postconventional stages. I.e. if the assumption is that you only reach the Metaware stages after having matured into the Strategist stage, then I think it would make sense to include a rule in the scoring procedure that you only get a summary score on the Metaware stages if you also have a substantial number of individual items scored at the late Subtle stages.

TM: OK Thomas. This is a great idea. If there is time between doing all the other things I need to do for this issue, I will run this data analysis. If not soon, then later.

But I do have a guess. The paper I shared with you shows that scores tend to cluster around an average in a normal bell-curve distribution. If the average was at 5.0 then there would probably be a lot at 4.5 also. I will check. But the cutoff method to determine the final score (TPR or 'center of gravity') only looks at the top scores, which for the metaware tier is looking for only 4 scores at or above a level to say the person is at that level (Susanne uses a similar method). So given that, it is almost guaranteed that there will be many more scores below the "center of gravity" score (at 4.0 and 4.5). I think to answer your question I should also look at the percentages of scores at each later level (sort of like looking at the straight sum of scores and ignoring the cutoff method).

Also, in Table 4 of the Research Summary paper ("Longitudinal: Prior Scores vs. amount of change to next score") you can see the longitudinal transitions for all surveys, starting at each level, how many went up, stayed the same, or down for the next longitudinal test by how much. That gives some indication of your question, but this is all data at the survey level, and your question asks at the item level, which is a great idea.

TM: OK, I have done that analysis and here is a figure below. We would not have thought to do this if you did not ask your question, so thanks. Here is a chart showing, for protocols with center of gravity values (ogives) of 3.0 to 6.5, what percent of the 36 item scores are at each level.

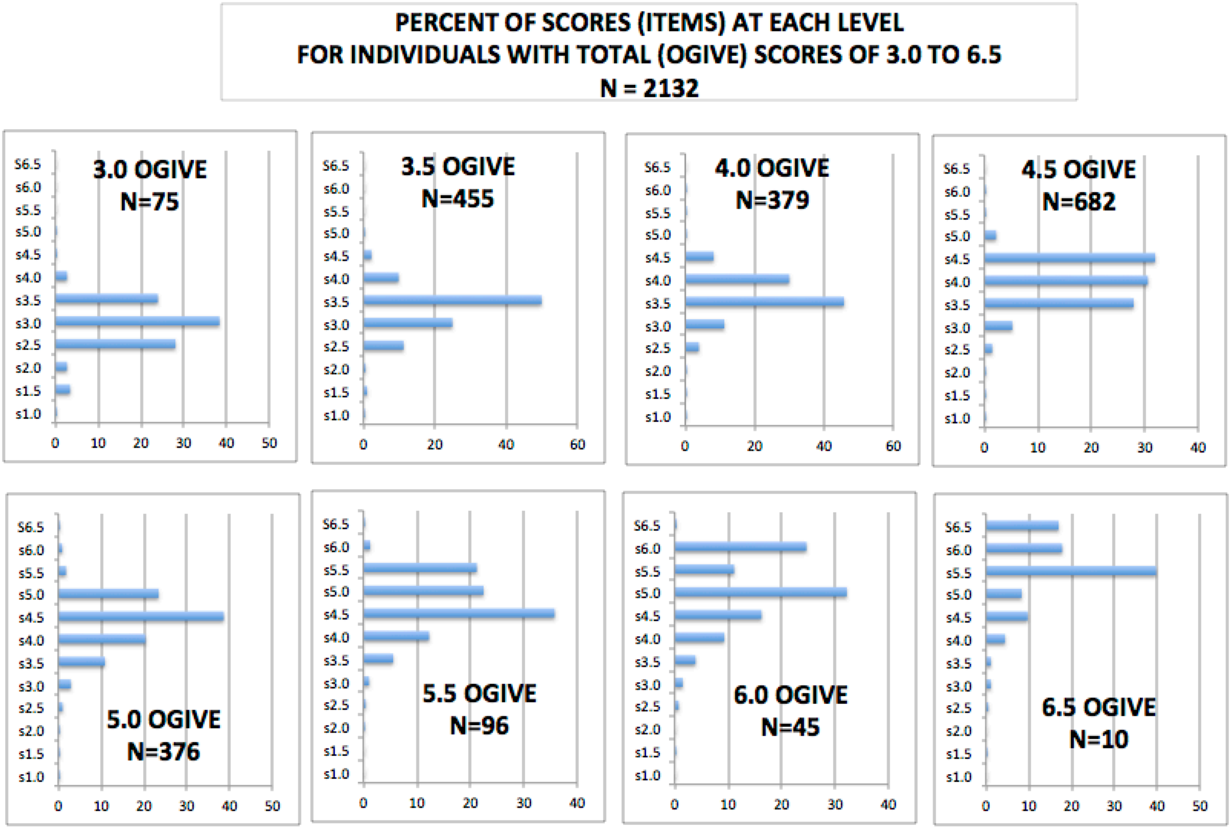

Figure 1. Ogive tables.

This is what I am noting:

You can see that for 5.0, 5.5, and 6.0 there are many scores at 4.5 (Strategist). (Recall that the ogive cutoff method prioritizes the higher scores, so the total score is not the average, and is often not the mode, i.e. top of the bell curve.)

However, the scores do tend to follow a normal distribution around the average, so at 6.0 and 6.5 there are naturally less and less in the Subtle tier.

The 6.5 graph by itself might seem to confirm your suspicion that the meta tier does not have many subtle tier scores, but (1) there are not as many scores there so its a weaker data point, and (2) as mentioned above, people tend to write close to their center of gravity or average, even if the have the capacity to write lower.

Recall that with each tier the type of object changes, so the complexity about that object can start again at low and build up from there – so there may actually be a kind of reduction in horizontal complexity starting at 5.0 (as in Fischer's model). (We are finding that in general the scoring system puts more in the X.5 (active) vs the X.0 (passive) scores. We think this is because people in passive phases have a harder time finding he words, and drop down to the prior level for content).

Compared to a normal distribution, 4.5 scores have a lot of 3.5 scores, 5.5 surveys have a lot of 4.5 scores, 6.0 surveys have a lot of 5.0 scores; and 6.5 surveys have a lot of 5.5 scores – this many indicate that for higher levels, a person with a active (X.5) center of gravity uses more active language in general (and vice versa for passive (X.0)).

But overall this should answer your question. Scores in the metaware tier (at least 5.0, 5.5, 6.0) have substantial scores in the subtle tier, and in particular a substantial number of scores at 4.5/Strategist, which tend to have complex language.

TJ: Thanks so much Tom. These are important data if you want to strengthen the plausibility of the linear sequence. So it is a valuable addition to us outsiders knowledge about what results you are getting. It would also be interesting to know if there are protocols scored at 5.5 or higher with no or almost no items scored at 4.5 (and 4.0). The pattern for the few 6.5 individuals is curious. For those of us who are interested in the highest stages, it would be a good thing to look more closely into the meaning-making worlds of people scored at 6.5 and 6.0, both in terms of looking at the actual responses as whole protocols, and, of course, to talk to them (interview) about a whole range of matters, and get a sense of how they navigate life. There are of course confidentiality issues here, and also problematic, from a scientific point of view, that the number of individuals is small.

G. Qualitative Analysis and Digging Deeper in Future

TM: Yes, I think this points really well at possible next steps we could explore in the next year or two. Most of the study's we have done with STAGES are statistical and look at averages and numbers; including comparison with another framework (Susanne's MAP). Terri has written a lot about the qualitative patterns seen within the inventories, but more could be done at the text level to compare with other models. For example, Terri is scoring children's protocols now and separating out different patterns and themes she sees. (See that paper in this special issue). More could be done actually to look at the *outliers* – the text that does not fit the norm, for instance "spin out" text that would score late in HCT but not reach Metaware in STAGES, or vice versa. We could learn a lot from that type of analysis.

Also, I just noticed you said "I am really more interested in *qualitative* data than quantitative" analysis. So maybe what we can do is share some of the actual sentence completions of people who are outliers (vs. the figure above) in that they have a lot of metaware scores but *not* many 4.0 or 4.5 scores. We can all think together about what this means. How does that sound?

There is a lot that is not shown in the "score." The total inventory score hides the pattern of levels (the histogram) over the 36 stems, and the score of each stem hides a lot of what goes on inside the completion. STAGES scoring looks at the level of complexity for the *most* abstract/subtle object in the sentence completion. Some completions are one or more paragraphs long. A 5.0 completion person may include some complex language about subtle tier objects, and then some simple or passive (receptive) language about a metaware object – the metaware phrase trumps the subtle phrases. If the metaware object is spoken of in more active/agentic/complex language then the score goes up to 5.5. But at any rate, the 4th PP activity in the completion is hidden from the score.

TJ: That is certainly interesting and would be informative. What I mean with qualitative is more in the line of doing something like Kegan's subject-object interviews with people, in order to get the opportunity to get much richer accounts of how people who score at certain stages experience themselves, relate to emotional and cognitive dynamics, react and act in social interactions, how they function in work and life, etc. I have not been in a position to thoroughly scrutinize Terri's stage descriptions for the Metaware stages and compare those descriptions to what I know from elsewhere. I think there is a lot of work to do before we can get a more grounded sense of the status of those stage descriptions in relation to real people's meaning-making patterns, subject-object balances and ways of navigating social relationships.

Also, as side comment, while I have it in mind, not directly related to this: I have not had time to really look up how different Terri's stage description of 4.5 Strategist is from Torbert's description of the Strategist (E8). I would guess that there are significant differences, not least related to what status is given to cognitive complexity and what I would like to call "context awareness." This relates to the general question if it makes sense to see the Strategist stage as something that has to be inhabited before one can develop the Metaware stages.

But let’s try to put this thing to rest for now!

TM: OK Thomas! This points to some rich inquiry possible going forward, especially in looking into specific examples of text – and maybe comparing how outliers would be scored by different systems. There would have to be a special agreement with Stages International on looking at specific text, as our agreement with subjects is that specific text examples are analyzed in-house and not shared publicly. But another option we have used is to combine elements of several responses to create generic examples that don't reflect the text on anyone in particular. It would also be interesting to separate out the different aspects of a given level within text, such as the abstraction vs logical moves in the Subtle Tier; or the awareness vs construct aware moves at 5thPP – I think much of this comes down to the STAGES scoring of early vs late *within* a level, which has not been written about much yet. Also, I mentioned the aspects of text that are "lost" in the numerical scoring, that could be re-analyzed.

Note that subsequent to this email exchange, Thomas and Terri O'Fallon had a videoconference conversation about her model, which has been transcribed and is available at: http://www.perspectus.se/tj/ConversationOFallonJordan.pdf

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Jonathan Reams

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Editorial

Jonathan Reams[1]

Welcome to this issue of Integral Review (IR)! We are pleased to welcome you to a new regular issue, which brings together a number of interesting articles, essays and a number of reviews.

It has been two years since our last regular issue of Integral Review in August of 2018. While we have been pleased to be engaged with and publish two special issues since then, (one on post metaphysical spirituality (link here) and another on the STAGES model (link here)) we are always excited when we are able to pull together a new regular issue. These issues are a long journey, through many different kinds of processes for the authors, reviewers and editors involved. Despite these differences, all of the contributions in this issue can be perceived as forms of advancing our understanding of an integral view of the world and our participation in it. There is a nice mix of themes explored, from adult development in many forms and uses through various forms of engagement with the world to leadership.

I find myself in a privileged position as editor-in-chief, in that I am able to not only enjoy the final products of the authors, but am also able to learn things between the lines as I observe and engage with the journey they go through as critical perspectives come from reviewers, ideas get refined and clarifications emerge. The enrichment that comes from this process has been invaluable to me over the past 15 years in this position and I am grateful for the learning that comes with the role and work. It is my wish that you can extract as much of the depths of knowledge and experience our authors share as I have.

Our peer reviewed section for this issue contains three articles. We begin with Thomas Jordan's *Scaffolding Developmental Transformation Among Immigrants in Order to Facilitate Self-Directed Integration: Practices and Theories of Change,* which presents research from a study of six Swedish programs designed to help immigrants in their process of integrating into Swedish society. Jordan focuses on understanding what implicit and or explicit theories of change are behind the design of these programs and analyzes these through the lenses of various adult development frameworks. In addition, he examines the practices used in these programs to produce and inventory of such resources that can be utilized by other practitioners. This research provides clear ideas about how development can be scaffolded in this particular context based on these examples of current practice. Jordan does not attempt to evaluate the effectiveness of the practices used, but can point to a set of "promising practices" that, along with his analysis of the theories behind them, can help researchers and practitioners further develop this field.

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Tom Bohinc, Jonathan Reams and Richard Claydon follow with *The Prometheus Leadership Commons: A Meta-Framework for Leadership and Leadership Development*. This article is the result of an initiative to address key emerging issues in the field of leadership development; professionalizing leadership and helping leaders, leadership development specialists, researchers and others navigate the plethora of ideas and approaches around how to lead. Through a grounded theory inspired process, a group of researchers and practitioners developed a meta-framework aimed at addressing these issues. The authors describe this process, along with a selection of conceptual contexts used, and then present the resulting framework (the meta becomes burdensome eventually so is dropped) with layers of illustrations and examples to show how it can be used. The discussion addresses key issues involved in a project of this scope and helps to position the framework in relation to various aspects of related discourse. A set of recommendations for ongoing work based on the foundation this framework provides are also presented.

Ben Bjorgaard takes us on a deep dive into *Stage Models of Adult Development: A Critical Introduction to Concepts, Debates, and Future Directions.* Bjorgaard provides an overview of concepts related to the evaluation of stage models, goes into key distinctions, looks at issues related to models and metrics as well as the constructs themselves. He also examines the move beyond developmental psychology into relational developmental science. Bjorgaard lays all this out in relation to his perception of a need to evolve the hard science around generalizable measurement and related philosophical advances related to ongoing synthesis and contextual application.

Our editorially reviewed section contains a rich collection of articles touching on a diverse range of topics. We begin with John E. Thomas, Thomas P. Seager, Thomas J. Murray and Scott Cloutier's *Being Prepared to be Unprepared: Meaning Making is Critical for the Resilience of Critical Infrastructure Systems.* The article dives into the importance of applying growth in complexity of meaning making to the field of infrastructure systems. We all rely on infrastructure systems in everyday life and enabling resilience in such systems has come more into focus recently. The authors examine the intersection of human and technological systems and bring to the foreground that these highly complex systems require adequately complex meaning making from decision makers.

Amiel Handelsman brings together two worlds of discourse and practice that seldom meet; Immunity to Change and the Enneagram. In *Nine Paths of Growth: Integrating Immunity to Change with the Enneagram* he brings together his many years of practice in both fields and how he sees practical advantages in making more explicit links between them. This article provides us not only introductions into both fields, but Handelsman's lovely touch to the process of showing us three different ways we can mesh these two models and processes to gain greater effectiveness in our work helping people uncover and address underlying beliefs.

Bill Torbert and Aftab Erfan have written up a piece that began with some online conversations, *Possible Mistakes of Late Action-Logic Actors in a Polarized World.* In this playful exploration of the topic, they help us reflect on the lesser focused on side of development. While there is plenty of research and reports on the benefits of moving into late or post conventional stages, there is much less on the potential shadow sides, or types of mistakes that can emerge at these later stages. Their exploration covers a dozen ways in which we can fall prey to the hubris of development.

Mark Shraga brings us a combination of subtle sensitivity with very embodied practice in *Aikido and the Pursuit of a Better Life.* He uses firsthand experience of how engaging in Aikido as a practice has enabled him to live a better life. He links the practice with theories or mind and then shows us how the very physical practices of Aikido have very subtle and powerful foundations and implications. From the simplicity of how to fall, to deepening our understanding of working with flows of energy and related concepts, Shraga illuminates a number of aspects of not only Aikido, but also of how we engage the world in general.

Frank Visser has engaged in laying out a clear and thorough set of critiques related to *Ken Wilber's Problematic Relationship to Science.* He examines Wilber's approach to evolution, carefully laying our Wilber's stance and claims for this. He then examines how various scientists describe evolution and uses this to as a lens to evaluate Wilber's approach to, claims and stance in this topic. He finds a number of places where Wilber presents what Visser shows as problematic claims for how science has failed and where Wilber claims support from, as well as superiority to, scientists' own approach to evolution.

Turning to how evolution is viewed from an empirical scientist, Marilyn Monk builds on her long and distinguished career of research in molecular biology to present *A Hierarchy of Consciousness from Atom to Cosmos.* In this essay, she lays out how, independent from the various philosophical or consciousness studies related approaches to evolution and based on her decades of empirical work, a clearly hierarchical model of consciousness became clear to her. While many are familiar with such models from Wilber or others, Monk describes how we can make the same claims without resorting to philosophical or other types of presuppositions.

We are pleased to be able to publish Jonathan Rowson's account of his encounter with Jordan Peterson, *An Epistemic Thunderstorm: What We Learned and Failed to Learn from Jordan Peterson's Rise to Fame.* This piece, originally written two years go as a way of processing his encounter with Peterson, re-engages this topic to not only help give us well elaborated points to consider as ways of sorting our own perceptions and possible impact from Jordan Peterson, but also helps lift the debate Peterson has stirred to a broader level about how we engage, respond to and most importantly, learn from such characters as they inevitably arise in popular society.

The final offering in the editorially reviewed section comes from Wendelin Küpers, who offers us a delightful and playful philosophical, even theatrical meta journey through time and perspective, with *Daring of Be(com)ing Wise: Perspectives on Embodied 'Sapere Aude' Enlightened for Today*. He sets the stage (literally) by contextualizing the Enlightenment urge for wisdom contained in all times and cultures and uses the admonition to 'dare to think' as a reference point. Once this stage is set, he introduces the scene containing a rich mix of those who have dared to think, starting with ancient Greeks and moving all the way to current times, giving voice to these thinkers in a dialogue format. This rich feast of conversation leaves us with an even richer set of questions to ponder going forward.

Finally, we have a rich set of book reviews in this issue. Elke Fein provides us with an extensive review of Hanzi Freinacht's *The Listening Society. A Metamodern Guide to Politics* to open this section. She begins with a comprehensive description of the contents of the book, enabling us to get a reasonably good understanding of the intent, scope and approach to Freinacht's ideas. Fein then delves deeper into some appreciative and critical perspectives on this work. This includes some stylistic or attitudinal components as well as questioning some of the more specific content claims being made especially in relation to the model Freinacht puts forward. In the end, we see that while Fein is not convinced that the idea of metamodern has been sufficiently distinguished from integral, it might still serve as a rallying point for a new generation of people eager to have a better foundation for their activism.

Verna DeLauer reviews *Loving water across religions: Contributions to an integral water ethic.* She introduces earlier work on a 'land ethic' that is now being applied to the topic of water and described how the author McAnally presents water as a social issue and invites us into considering our subjective experience of it rather than just the commodification or it as a natural resource. For this, DeLauer describes how McAnally explores how major religions have used water in their traditions and closes showing how contemplative practices can be used to deepen our appreciation for and relationship to water.

Marilyn Hamilton reviews *The Future Has Other Plans: Planning Holistically to Conserve Natural and Cultural Heritage.* She provides us with an extensive overview of the contents of the book, mixed with her own comments related to how the authors present the themes they explore. The extra time and work it takes to do this kind of holistic planning is seen to be more than worth the effort when it comes to the outcomes possible.

Shameeka Smalling reviews *The Body is Not an Apology: The Power of Radical Self-Love,* providing us with a window into an application of transformational reframing of issues, in this case, how our relationship with our own bodies can be transformed through the vehicle of radical self-love. TBINAA is not only a book but also a popular movement. Smalling provides us a succinct overview and commentary on the book and links it to her own experience and contemporary movements like transnational Black feminism.

We close with my own indulgence in the field of mysticism with a review of two books by IR author Doug Marmon: *The Hidden Teachings of Rumi* and *It Is What It Is. The Personal Discourses of Rumi*. Marmon has shown his ability to dig deep and go behind the prevailing views in his work on understanding quantum physics. In these two books, Marmon and colleagues apply the same principle to the works of Persian mystical poet and Sufi, Rumi. My interest in presenting this work to a broader audience stems from the impact it has had for me, deepening my appreciation for Rumi, but also deepening subtle aspects of my own practice.

It has been my and our pleasure as editors of Integral Review to bring together this collection of articles for your enjoyment, enrichment and even evolution of understanding. Hope you enjoy it!

Scaffolding Developmental Transformation Among Immigrants in Order to Facilitate Self-Directed Integration: Practices and Theories of Change

Thomas Jordan[1]

Abstract: This article reports findings from an empirical study of six Swedish programs using dialogue-based approaches to bridge gaps in views and norms, support relevant knowledge acquisition and support empowerment of immigrants who are still living on the margin of the Swedish society. The main purpose of the study was to investigate the program theories of the programs included in the study, with particular emphasis on their theories of change and practices used to scaffold developmental transformation of the meaning-making systems of immigrants. Several adult development frameworks and program theory provided the analytical framework for the study.

The analysis of the program theories of the six programs included in the study yielded an inventory of 72 practices used by all, most or some of the interviewed program leaders. A large share of these practices were regarded as very important in all or almost all of the six programs we studied. The inventory of practices can be regarded as a framework that can be used both by researchers in further investigations and by practitioners who want to reflect on and develop their skills and practices.

Keywords: Developmental transformation, dialogue, empowerment, immigrants, integration, refugees, scaffolding.

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[1] **Thomas Jordan** is the sole author of this article, but the article is based on a research project conducted by three researchers, the others being Pia Andersson and Björn Andersson both at Gothenburg university. For this reason the text sometimes uses "I" and sometimes "we". See further the section below on study design and implementation. The author also wants to thank the reviewers for very thoughtful, constructive and detailed comments.
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Introduction

This article reports findings from an empirical study of six Swedish programs using dialogue-based approaches to bridge gaps between immigrants and the majority society. The main purpose of the study was to investigate the program theories[2] of the programs included in the study, with particular emphasis on their theories of change and practices in relation to developmental transformation of immigrants from non-Western societies. The motivation for conducting the study was a belief that experienced program leaders have developed considerable skills in creating social processes that scaffold developmental transformations that are highly desirable for a number of reasons. However, most practitioners focus on doing, rather than theorizing about doing. Their know-how is therefore seldom articulated in ways that can be communicated to others. The lack of articulation of their program theories also means that it may be difficult to review, critically reflect on and develop the strategies, as the practitioners are embedded in certain patterns of meaning-making and may not look for potential alternatives.

The article is primarily devoted to presenting the practices and theories of change identified in the course of the analysis. It was not possible in the context of this relatively small research project to evaluate the effectiveness of the programs in terms of measuring the extent to which developmental transformations really happened among the participants in the programs. This is a significant and regrettable limitation of the study we made, but a range of methodological difficulties in measuring outcomes in these types of programs set restrictions to what could be done.

Framing

A significant share of immigrants (in particular refugees) to Western European countries grew up in societies with what the World Value Survey researchers call traditional and survival values (Inglehart & Baker, 2000; Inglehart & Welzel, 2005). Such value systems emphasize the roles of religion and family ties, deference to external authority, loyalty towards the own ethnic and faith community and distrust in relation to outgroups. In terms of Geert Hofstede's dimensions for cultural differences (Hofstede, Hofstede & Minkov, 2010), these cultures would be characterized as collectivist. The receiving societies are, according to the same researchers, in cultural terms very different: they emphasize secular-rational and individualistic values. Of course, "immigrants" are an extremely diverse category of people, even if delimited to certain nationalities, ethnic identities or religious beliefs. In focus here are immigrants who are to a large degree influenced by "traditional" norms and values and who lack experience with individualistic societies. "Traditional" societies do not provide scaffolding for development of the skills and values that are expected and often required in individualistic Western democracies. On the contrary, there may be a strong social pressure to conform to a rather restrictive set of norms, beliefs and roles, and strong discouragement of the development of independent meaning-making that diverges from the prevailing value system. In the terms of Western ego development theory, this could be interpreted as favoring early conventional meaning-making (however, see the critical objections to this interpretation discussed in Appendix 1[3]). An early conventional meaning-making system can enable a person to lead a productive and successful life as long as the received knowledge imparted during early life is fully adapted to the (stable) life conditions in the local society. However, migrating to a society with radically different ways of functioning, both regarding values, beliefs and norms, and regarding how social life operates (labor market, social insurance, educational system, other public institutions, etc.) means encountering a situation one has not been equipped to deal with.

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[2] This term is explained in a later section.

The subtitle of Robert Kegan's book *In Over Our Heads* is *The Mental Demands of Modern Life* (Kegan, 1994). The book title refers to the challenges involved when a society expects and requires its members to function in ways that individuals may not have been developmentally prepared for. Kegan's premise is that the "modern" society makes more advanced "mental demands", in terms of his ego development theory, on individuals than earlier societies did. Kegan's perspective concerns, like other frameworks in the adult development field, *vertical* development, referring to a hierarchical conception of human development where more advanced skills and self constructions build upon earlier levels. It is common in the adult development field (see e.g. Kegan et al., 2001; Cook-Greuter, 2013) to distinguish between vertical and horizontal development, where the latter refers to learning and skill acquisition that does not involve developmental transformation of deeper-lying cognitive and self structures.

Immigrants have a lot of horizontal learning to do when starting to navigate life in the new country. They have to learn a new language and understand and interact with a range of societal institutions, such as authorities, social services, preschools, schools, health care and workplaces. The immigrant may encounter norms for appropriate social interaction that are quite different from the ones that were taken for granted in the home culture. However, immigrants may also meet challenges that require vertical development. One reason for this is that the task of navigating life in a new culture cannot be performed by just relying on conventional patterns of behavior learned in the originating culture, but requires an active process of making judgments about how to navigate in the tensions between different cultural norm systems. Another reason may be that the host society has "higher" mental demands than the society the immigrant grew up in, e.g. expects late conventional or even postconventional meaning-making in various domains (such as in worklife or parenting).[4] Our many conversations with leaders of programs working with immigrants in Sweden indicate that the following challenges are relatively common:[5]

- Your learned way of raising your children may not work in the new situation, because your children experience different attitudes and norms when going to preschool and school in the new country and you are not allowed to use corporal punishment with your children.

- Individuals have far-reaching rights in Western democracies, such as the right to make their own choices about education, work, partner and lifestyle. When children, youth, women and men (e.g. homosexual men) want to take advantage of these rights, serious conflicts can arise within families, clans and ethnic and religious communities.

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[3] The critical objections concern to what extent Western ego development frameworks are universally valid across different cultures and whether people can be said to be at a particular *general* developmental stage, or if levels of development are dependent on varying situational factors, such as domain, task and degrees of scaffolding.

[4] Again, see the objections to this line of reasoning outlined in Appendix 1.

[5] We have not tried to collect quantitative data on how common these challenges are. Obviously the range of variation is very wide and many immigrants are not significantly affected by the difficulties listed here.

- Your family structure might be seriously challenged, partly because the children learn the language and practices of the new society more quickly than their parents and therefore often have to guide their parents in contacts with institutions, and partly because women learn that they have rights and could get societal support if they get a divorce.

- You will have to interact with people who do not believe in God or who have a different religion from your own, which might be very challenging if you have a conformist mindset.

- You encounter a culture with different norms and values around gender roles and sexuality. The society you live in provides less collective social control, which means that youth get more opportunities to experiment with alcohol, substances and sex, and might more easily get involved in a criminal lifestyle.

- You may not have access to the social support that in your home society was provided by your extended family/clan and may therefore become dependent on social services and other societal institutions.

- It might be necessary for women to get training and get a paid job, in order to earn enough income to support the family, in a context where there are no cultural precedents for women working outside of the household.

- In worklife in an individualistic society with a small power distance, you are expected to use your own judgment, speak up for yourselves and take responsibility for problem-solving to a far larger extent than in a collectivist society with a large power distance.[6]

The larger the gap between the society the immigrant grew up in and the host society is, in terms of culture and socio-economic institutions and practices, the greater the likelihood that the immigrant will be facing some or all of these challenges. It may not be possible to successfully establish oneself in the new environment without a considerable ability to make independent judgments and develop new action strategies. This requires awareness, insight, reflection and active grappling with one's path forward in life. The "mental demands" of being an immigrant to a different type of society are high.

Research Questions

As described in more detail in the section on study design below, this article is based on case studies of six programs that in somewhat different ways use dialogue-based approaches to scaffold self-directed integration of people with immigrant background in Sweden. The aim of the study was to elucidate six interwoven research questions:

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[6] Individualistic/collectivist and small vs. large power distance refer to the conceptualizations in Hofstede, Hofstede & Minkov (2010).

- What specific challenges do program leaders encounter when using dialogue groups as a path to bridge gaps between immigrants and the Swedish majority society and empower participants to self-directed integration?
- What practices do program leaders use in order to scaffold transformative development for the participants?
- What theories of changes, i.e. beliefs about mechanisms for scaffolding desirable change, underlie the approaches used in the programs?
- Is there a common core of theories of change and practices among programs using dialogue as a strategy to support immigrants in the tasks involved in integrating themselves in the Swedish society?
- Are there significant differences in practices that can be explained by differences in the program conditions, such as differences in target groups, organizational forms or properties of the surrounding community?
- Are there significant differences in practices that can be explained by differences in the meaning-making systems of the program leaders, such as problem framing and theories of change?

In the following section several of the terms used above will be discussed further: scaffolding, empowerment, theories of change and practices.

Elements of a Conceptual Framework

Scaffolding

Recognizing that a society might require citizens to live up to certain expectations in terms of competencies and adherence to norms for behaviors, leads to the question of how the development of those norms and competencies is supported. In discourses about learning and skill development, *scaffolding* is a key concept (Wood et al., 1976). The term scaffolding refers to different types of support offered to an individual (or a collective) enabling the individual to develop and master new skills.[7] There are many different forms of scaffolding, such as showing someone how to perform a particular task, giving constructive feedback, facilitated dialogue, written instructions, checklists to follow and facilitated group processes (Jordan, 2014).

Societies offer a lot of scaffolding for most (but not all) of its native children, youth and adults to develop the skills and forms of awareness necessary for becoming reasonably competent citizens. However, there is a not much scaffolding available for immigrants coming from a very different socio-economic and cultural background. The six Swedish programs studied in our research aim at facilitating self-directed integration, using dialogue as a core practice for scaffolding the development of insights, understanding and skills needed for navigating the Swedish society in successful ways.

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[7] For critical discussions of the concept, see e.g. Stone, 1993 and Mascolo, 2005.

Empowerment

While all of the six programs we included in our study were designed to contribute to transformation of meaning-making and development of competencies needed for self-directed integration of participants with an immigrant background, there are some significant differences in framings. In particular, there is a certain tension relating to the extent to which program leaders want to influence participants in a specific, according to the program leaders, desirable direction. Two of the programs we included (see below) started based on the ambition to prevent honor-related violence. It is clear in these programs that the program leaders want to influence participants to reevaluate what they perceive as problematic norms, attitudes, beliefs and behaviors (if at all present) and identify with forms of meaning-making based on recognition of each individual's right to make his or her own decisions about how to live life. Other programs are more strongly influenced by the idea of scaffolding empowerment on the participants' own terms, i.e. supporting people to build more action competence to establish satisfying life paths for themselves and their families according to their own needs and wishes.

There is a large and differentiated literature on the concept of empowerment (for overviews and critical examination, see e.g. Adams, 2008; Herriger 2014; Cruikshank, 1999; Pease, 2002). Paths to empowering individuals and collectives can be sought in individual development, shifts in social constructions of identities and values, transfer of resources and transformation of societal structures (e.g. discriminatory practices, educational system, barriers to employment, etc.). In this article, the most relevant form of empowerment is related to transformation of meaning-making and individual competencies.[8] While there is a comprehensive literature on empowerment in the field of social work, relatively little has been written about the very concrete practices that might be effective in scaffolding empowerment (outside of psychotherapeutic settings).[9] In the following section, adult development theory will be used to compile a more differentiated understanding of empowerment as related to individual development.

Dimensions of Adult Development Relevant to Scaffolding Empowerment of Immigrants

Table 1 below gives some details about what kinds of developmental change might be involved in empowerment processes. Most of the elements listed involve vertical transformation, but a few could be construed as horizontal learning. The list was compiled by the author through reviewing the patterns and challenges reported by the program leaders in our case studies and through selecting seemingly relevant aspects of development as conceptualized in key theoretical frameworks in the adult development field. Most of the theoretical frameworks describing adult development take the form of stage models, such as stages of ego development (Loevinger, 1976; Cook-Greuter, 1999; 2013; Torbert, 2004; Kegan, 1994), levels of hierarchical complexity (Commons, 2008; Fischer, 1980; Dawson, 2004), stages of interpersonal understanding (Selman, 1980) and stages in the development of reflective judgment (King & Kitchener, 1994). However, to the extent that stage models represent how adult development actually unfolds[10], they are only in a limited way useful in representing the rather gradual and piecemeal shifts and insights that might be expected to occur in the kind of programs we have been studying. I do not expect programs like these, even if they are very effective, to lead to comprehensive developmental transitions such as those described between stages of ego development. Still, I believe that the developmental shifts described in different stage frameworks are highly relevant for understanding the direction of small developmental changes that contribute to empowerment and desirable transformations of meaning-making patterns.

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[8] Readers familiar with Ken Wilber's quadrant framework (see e.g. Wilber, 1995) might think of this as focusing the upper left quadrant, while a more comprehensive approach to empowerment would also consider conditions and processes in the other three quadrants.

[9] See, however, the literature on MI, motivational interviewing, which offers a comprehensive set of practices relevant to scaffolding empowerment of individuals (Miller & Rollnick, 2012; Hohman, 2015). However, MI as an approach evolved in a social work setting, presupposing a counsellor–client relationship where there is a recognized problem that clients need to manage. A core concern in MI is how to support the clients to become motivated to find ways to resolve certain problems, such as substance abuse, obesity or abusive behavior.

The programs we have studied do not overtly frame their efforts in terms of scaffolding developmental transformation as described in adult development theory, even though their motivation is to contribute to more insights, more self-confidence, development of life skills and, in some cases, identification with values and norms respecting individual rights and democratic principles. It is more common among programs like those we studied to frame the approach in terms of "empowerment", and of course there is a considerable overlap between frameworks centered on the empowerment concept and adult development frameworks. One argument in this article is, in fact, that adult development theory can offer a far more differentiated and penetrating understanding of what empowerment actually entails, than can be found in the academic literature about empowerment in the field of social work (see e.g. Adams, 2008; Herriger, 2014).

Table 1. Dimensions of developmental transformation

If a person ...	... then developmental transformation means ...	Theoretical references
... has a weak sense of self-esteem ...	... a strengthened conviction of being worth to be taken seriously by others.	Transition from Silence/ Received knowledge towards Subjective/ Procedural knowledge (Belenky et al., 1997). Transition from Socialized towards Self-authoring mind (Kegan, 1994).
... feels powerless and dejected ...	... a strengthened sense of hope, belief in own capacity for action and more clarity about own goals for the future.	Transition from Silence/ Received knowledge towards Subjective/ Procedural knowledge (Belenky et al., 1997). Transition from Socialized towards Self-authoring mind (Kegan, 1994).

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[10] See Appendix 1.

... is subject to conventional expectations and norms ...	... less dependence on the opinions, beliefs and expectations of others, and development of a self-authored set of values and convictions that enables the person to make independent evaluations of what he or she values.	Transition from Socialized towards Self-authoring mind (Kegan, 1994). Transition from early conventional towards late conventional or post-conventional meaning-making (Loevinger, 1976; Cook-Greuter, 2013). Transition from Silence/ Received knowledge towards Subjective/ Procedural knowledge (Belenky et al., 1997).
... lacks a language for articulating feelings ...	... increased clarity about own feelings and ability to communicate them to others.	Transition from Silence towards Subjective knowledge (Belenky et al., 1997). Increased self-awareness (Jordan, 2001).
... has a weak ability to take own reactions, thoughts, action impulses and interpretations as objects of reflection ...	... increased ability and propensity to become aware of, reflect upon and regulate own internal processes.	Increased self-awareness (Jordan, 2001).
... has categorical, rigid and intolerant opinions, beliefs and attitudes towards outgroups ...	... development of and identification with prosocial norms, such as tolerance, respect, nonviolence and empathy.	Transition from conformist/socio-centric towards conscientious/ worldcentric meaning-making (Loevinger, 1976; Cook-Greuter, 2013; Wilber, 1995)
... has a weak propensity to notice and reflect on psychological and relational causality ...	... increased propensity to notice and reflect on psychological and relational causality and thereby increased ability to play a constructive role in different kinds of social relationships, e.g. in parenting.	Transition from Concrete and Abstract towards Formal and Systematical levels of hierarchical complexity in the domain of psychological and relational reasoning (Commons, 2008).
... lacks reflective awareness of the norms, values and social conventions in the host country ...	... increased reflective awareness of social conventions and an increased ability to manage different types of encounters in the host society: contact with authorities, teachers, colleagues, neighbors, etc.	Transition from pre-reflective towards reflective thinking (King & Kitchener, 1994). Transition from Silence/ Received knowledge towards Subjective/ Procedural knowledge (Belenky et al., 1997).
... is strongly and exclusively identified with a particular system	... greater tolerance in encounters with people who follow other norms, beliefs and lifestyles than	Transition from conformist/ sociocentric towards conscientious/ worldcentric meaning-making

of beliefs, norms and attitudes, and therefore negatively disposed towards outgroups ...	his or her own, as well as greater openness to reflect on different meaning-making systems.	(Loevinger, 1976; Cook-Greuter, 2013; Wilber, 1995)
... limited communication skills, such as open-ended listening and respectful forms of advocating own views ...	... increased skills in listening actively and with respect for others' views, and in expressing own views and convictions constructively and respectfully.	Strengthened skills in listening and advocating (Selman, 1981).
... weak propensity to notice and try to understand how other people feel and think, and understand their needs and desires ...	... increased capacity for role-taking and increased propensity to develop insight into other people's reactions and needs.	Increased capacity for interpersonal understanding (Selman, 1980).

Program Theory and Theories of Change

In order to lay bare the underlying logic of the programs included in the study, concepts from program theory (Blamey & MacKenzie, 2007; Funnell & Rogers, 2011; Pawson & Tilley, 1997) have been used as analytical tools. Program theory evolved within the field of evaluation studies, in order to enable more stringent evaluations of initiatives, often projects, created in order to solve some social problem, improve conditions or realize visions. Key analytical elements in program theory are the notions of *theories of change* and *theories of action*. Theories of change are the conceptions, sometimes poorly articulated, actors have about the causal mechanisms that might be activated in order to achieve a desirable change. Theories of action are the conceptions about what specific and concrete activities might be used in order to allow the change mechanisms to get to work. Program theory also include consideration of problem framing and goals.

Since program leaders often do not have an explicit, considered and detailed discourse about their theories of change, a study such as ours sometimes has to reconstruct underlying theories of change by focusing on what program workers actually do and through probing questions and logical inference work backward to understand and articulate the theories of change that apparently guided their program.[11]

In our study, the main purpose was to make an inventory of theories of change and concrete practices in six Swedish programs that all used dialogue as a means for facilitating integration of immigrants. Next section describes the design of the study, the empirical data collected and the analytical procedure followed.

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[11] Argyris & Schön (1974) used the distinction between "espoused theories" and "theories-in-use" to point to the possibility that people might say and believe that they operate according to certain principles, but their actual practice might not reflect those principles, but may follow a different logic. It is therefore advisable to focus on what program workers actually do. However, we have not been in a position to conduct participatory observation to any significant extent. The interviews, however, focused on inviting program leaders to describe their actions, rather than their philosophies.

Study Design and Implementation

This article reports on results from a research study carried out in 2017-2019 by three researchers, Thomas Jordan (project leader and author of this article), Pia Andersson and Björn Andersson, all three researchers at Gothenburg university, Sweden. The purpose of the project was to develop knowledge about the theories of change that explicitly or implicitly form the basis of programs that use a dialogue-based approach in order to bridge gaps in views and norms, support relevant knowledge acquisition and support empowerment of immigrants who are still living on the margin of the Swedish society. The study was based on the premise that experienced program leaders probably have developed a considerable amount of know-how about how to make it possible to create a group environment where dialogue, reflection and empowerment can happen. A broader question is how experienced facilitators concretely go about scaffolding developmental transformation when working with this particular group, immigrants from traditional societies. As mentioned in the introduction, the study was limited to making an inventory of theories of change and practices in the programs, leaving analyses of whether these practices actually produced desired outcomes for later studies.

The study comprised detailed case studies of six programs, focusing on the program leaders' narratives, goals, practices and theories of change. In the initial phase of the study, we formulated criteria for selecting programs to study. We wanted the programs to:

- have aims relating to facilitating empowerment and/or integration of immigrants;
- be intending to support transformative change of the meaning-making systems of participants in order to bridge intercultural gaps, and/or reduce problematic differences in norms and/or strengthen the participants' competences in actively integrating themselves in the Swedish society;
- have operated for at least two years and on a scale that warrants the expectation that there is a considerable amount of practical experience and build-up of know-how;
- be led by persons who have been driving forces in developing and leading the programs and who are willing to take part in rather comprehensive interviews.

We also wanted a certain variety of types of principals and target groups. The experience in looking for eligible programs was that rather few programs fulfilled our criteria. Quite a few programs existed only in project form and were discontinued when the project funds ran out. The six programs we finally studied were:

- **Källan**, an interreligious open house center, including conversation groups, situated in Fisksätra, a suburb to Stockholm with a large share of immigrant inhabitants.

- **Att vara förälder i Sverige** [Being a parent in Sweden], a parent support program for immigrant parents, in the city council district Hässelby-Vällingby in Stockholm.

- **Elektra** Gothenburg, offering a leadership development program for suburban youth.

- **Mixgården**, a youth centre in the Gothenburg suburb Hammarkullen.

- **Bygga Broar** in Hörby, a municipality in the south of Sweden. Bygga Broar in Hörby is a branch of a project that aims at preventing honor-related threats and violence, but in Hörby it has been made an integral part of Swedish language courses for immigrants.

- **ENIG** [Establishment program for newly arrived in groups], a program used in several municipalities in the south of Sweden on contract with the Swedish Public Employment Service. The participants were immigrants who have had particular difficulties to enter the labor market and/or learn Swedish through the regular Swedish courses for immigrants.[12]

For each of the programs, we collected available documentation, such as grant applications, reports, plans of operation and manuals and sifted through them for information about the narratives, goals, theories of change and activities. The main basis for the study, however, was the interviews we made with program leaders. We interviewed the program leaders comprehensively about the background of the program, their problem formulation, goals, assumptions, activities, practices and theories of change. The interviews were transcribed and analysed, leading to the construction of comprehensive tables of the program theories of the six cases. The tables have for columns: *Narrative* (problem formulation, assumptions and values), *Theories of change, Practices* and *Goals*. The tables comprised between 2 and 6 pages for each program. The process of identifying and summarizing key elements of the narratives, practices and goals was rather straightforward. The underlying theories of change, however, were only sometimes explicitly formulated by the respondents, and had to be inferred by the researcher. We presented the program theory tables to the program leaders and asked them to comment on formulations that ought to be revised or complemented. This meant that the researcher's interpretations of theories of change were reviewed and confirmed as valid by the program leaders. A further step was to make an inventory of different types of practices mentioned in the interviews and written documentation. A list of 72 practices was compiled (see appendix 2). This list was then presented to the program leaders and they were asked to rate to what extent each practice played a role in their program. This allowed us to gain an overview of which practices were common to all or most of the programs, and which practices were dependent on program-specific conditions or (in a few cases) on differences in theories of change. I also used the program theory tables to identify which practices contributed to which of the three general tasks of establishing relationships and trust, creating an open dialogue climate and scaffolding developmental transformation.

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[12] After the conclusion of the data collection phase of our study, the two last programs listed have been discontinued for reasons unrelated to their effectiveness.

Tasks and Challenges Facing Program Leaders Working with Integration

Based on the interviews and conversations, as well as document analysis, it seems reasonable to conclude that program leaders who want to create favourable conditions for developmental transformations have three major tasks to handle. The *first* task is to establish contact and relationships between leaders and the participants, so that participants have enough trust in the leaders to be prepared to engage and open up in the group process. The *second* task is to create an open and mutually respectful dialogue climate in the group, so participants feel they can express themselves freely, without risking being put down or attacked when they voice what they really feel and think. These two tasks must be minimally achieved before the *third* and main task can be engaged in earnest: scaffolding developmental transformation among the participants.

It was obvious from the case studies that none of these three tasks is trivial. On the contrary, it may require considerable efforts and skills in order to accomplish the tasks in this particular setting. I have, again based on our case studies, made an inventory of the challenges program leaders may encounter (see the overview in Table 2). Groups and individuals are, of course, very different. In some cases groups present a large number of the challenges listed in Table 2, in other cases conditions are favourable, and the tasks are relatively easily accomplished. In the main section of this article, detailing the different practices found in the analysis or the program theories, the strategies used by program leaders to manage the challenges described here will be discussed.

Table 2. Potential challenges when addressing three tasks

	Trustful relationships	Open dialogue climate	Developmental transformations
Challenges program leaders might face	– Distrust towards representatives of the majority society – Fear of social services – Frustration and anger – Negative preconceptions of the host society – Lack of knowledge about how the host society functions – Defensive attitude due to low-status position – Recourse to traditional norms and identities due to marginalized status	– Expectation of hierarchical leadership – Group dynamics affected by collectivist norms – Status hierarchies between different immigrant groups – Intolerant attitudes and behaviors toward others' belief and value systems – Strong affect in encounters with views that differ significantly from own beliefs, values and norms	– Traumatization leading to reduced openness due to strong affects and defense mechanisms – Lack of language for articulating own feelings and reactions – Lack of experience in reflecting on psychological and relational causality – Lack of experience of being expected to form and express individual views – Low self-esteem and shame – Strong and rigid norms, attitudes and reactions, e.g. in relation to gender norms, sexuality and parenting

Foundational Theories of Change

I reconstructed a large number, more than 60, of theories of change from the narratives of the program leaders. Some of these are very general and foundational for the approaches developed in the programs, while others are quite delimited to achieving very specific outcomes (e.g. increased ability for parents to really listen to their childrens' experiences). I have selected the eight theories of change that seemed to be both foundational and also shared by all the six programs we analysed (se Table 3). In later sections further significant theories of change found in the six programs will be presented.

Table 3. Eight theories of change

Relationships	Building relationships with trust and respect makes openness and developmental transformation possible.
Acceptance	Relating to people with positive interest and a non-judgmental and accepting attitude is crucial for building trustful relationships, an open dialogue climate and for enabling developmental transformation.
Practical activities	Doing practical activities together, both rather unstructured as well as more organized activities, facilitates contact, communication and the building of relationships.
Rules	Establishing guidelines and rules for group conversations and interventions to stop dominating, disparaging and aggressive behaviour among participants, facilitates the emergence of a group climate of mutual tolerance, respect and openness.
Personal stories	Sharing and listening to personal stories invites reflection, e.g. about alternative possible views and courses of action.
Questions	Skillful use of questions can lead to contact, increased trust, reflection, insight into psychological and social causality and development of more mature values, norms and behaviours.
Non-judgmental response	If adversarial opinions and conflicts are received and responded to in a non-judgmental and inquiring way, they can be fruitful starting-points for reflection and developmental transformation.
Knowledge about host society culture	Transfer of knowledge and understanding of how the "new" society functions, both regarding institutions and culture, empowers immigrants to develop action competence.

Articulating theories of change in this way is a first necessary step in a process of developing more well-grounded knowledge about effective ways of scaffolding developmental transformation under different conditions (in this case relating to immigrants with significant elements of early conventional forms of meaning-making). Having articulations of the core theories of change makes possible a critical analysis of their credibility, and eventually empirical testing of the extent to which they are actually effective.

Practices

Overview

In the literature on program theory (see e.g. Funnell & Rogers, 2011), attention is focused on what kinds of activities a program comprises. In this study, I found that a more fine-grained approach is needed, as the active ingredients in the programs are less well captured by describing certain types of activities, but are rather found in the ongoing practices of the program leaders. Practices refer here to recurring attitudes and behaviors program leaders believe to be helpful in their work, particularly in group dialogue situations. I believe that a concrete description of such practices is a valuable source of insight into productive ways of scaffolding developmental transformation of such competencies and forms of meaning-making that are necessary in order to handle the mental demands facing immigrants from traditional societies in a modern/postmodern society.

The analysis lead to the identification of 72 practices (some of them overlapping somewhat) that program leaders described as contributing to accomplishing the three tasks of creating trustful relationships, establishing an open dialogue climate and scaffolding developmental transformations. The 72 practices are listed in appendix 2, which also shows to what extent each practice was regarded as important by the program leaders of the six programs. The practices can be subsumed in 12 categories (see Figure 1, with a further "Miscellaneous" category for some practices that were deemed significant but were not as widely used as the others).

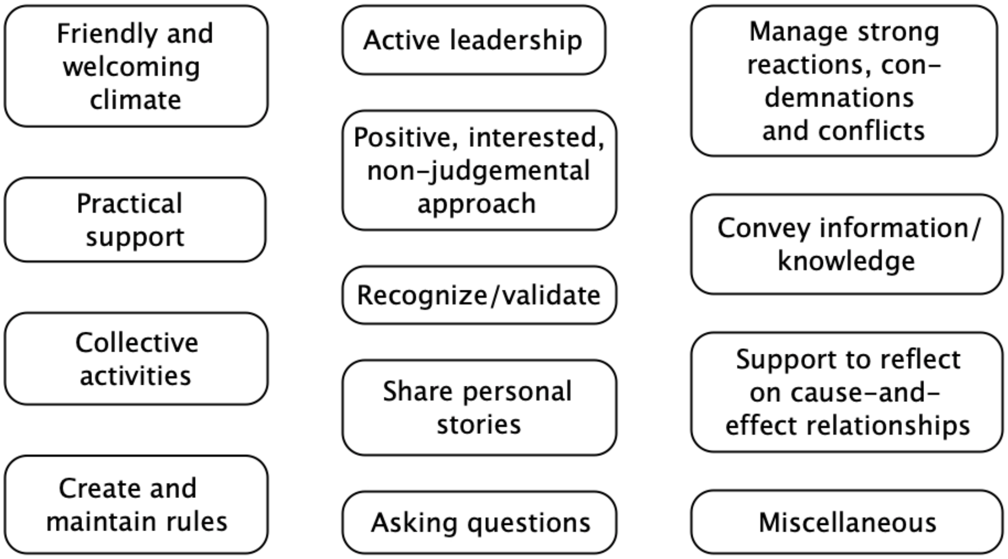
Friendly and welcoming climate
Practical support
Collective activities
Create and maintain rules
Active leadership
Positive, interested, non-judgemental approach
Recognize/validate
Share personal stories
Asking questions
Manage strong reactions, con-demnations and conflicts
Convey information/ knowledge
Support to reflect on cause-and-effect relationships
Miscellaneous

Figure 1. Overview of 12 + 1 categories of practices

Figures 2 - 4 give overviews of the most important practices and how they are explicitly or implicitly thought to contribute to accomplishing the three basic tasks outlined earlier. The underlying theories of change are discussed in later sections.

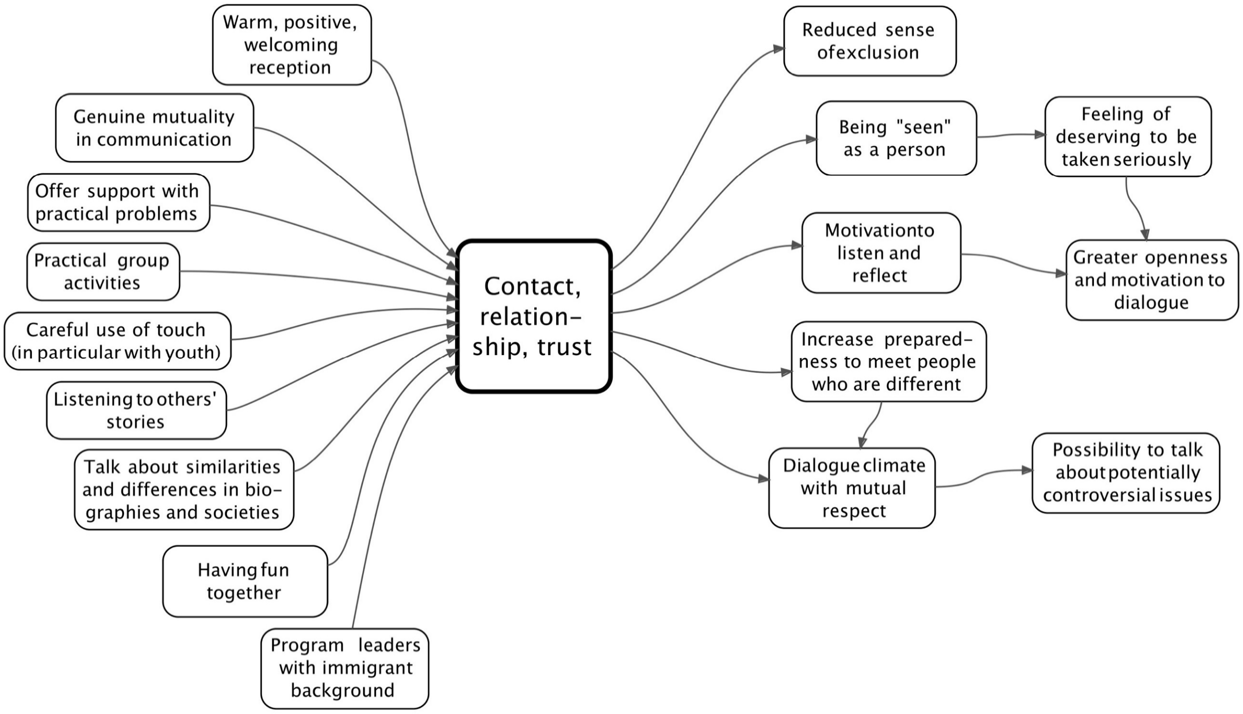
Warm, positive, welcoming reception
Genuine mutuality in communication
Offer support with practical problems
Practical group activities
Careful use of touch (in particular with youth)
Listening to others' stories
Talk about similarities and differences in biographies and societies
Having fun together
Program leaders with immigrant background
Contact, relationship, trust
Reduced sense of exclusion
Being "seen" as a person
Feeling of deserving to be taken seriously
Motivation to listen and reflect
Greater openness and motivation to dialogue
Increase preparedness to meet people who are different
Dialogue climate with mutual respect
Possibility to talk about potentially controversial issues

Figure 2. Practices contributing to establishment of contact, relationship and trust

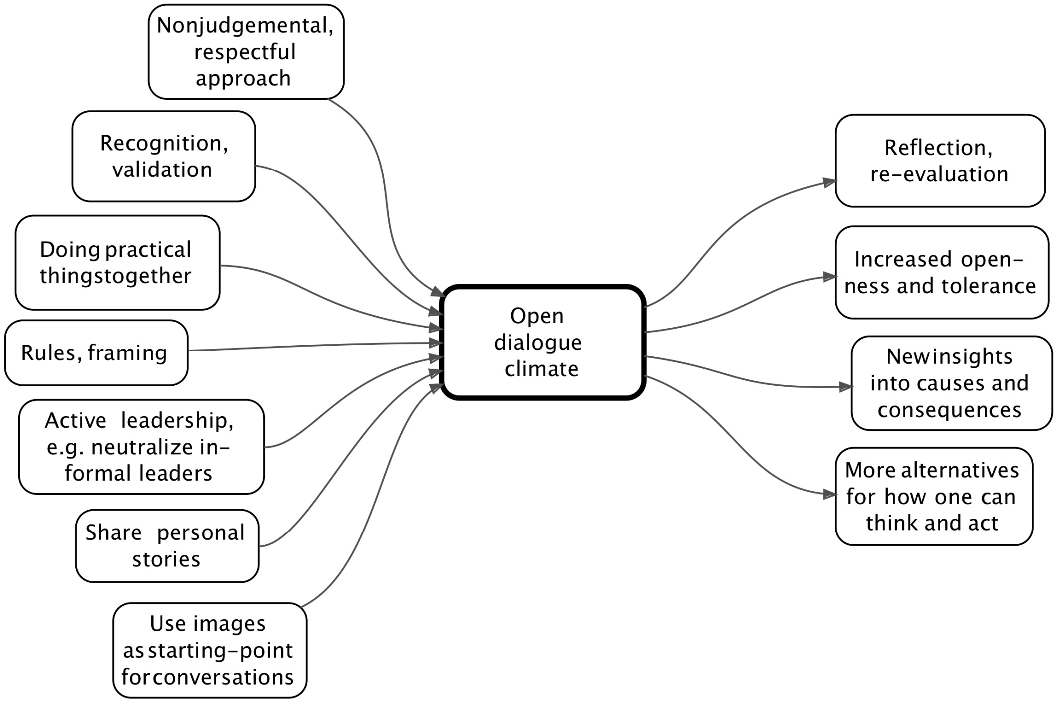
Nonjudgemental, respectful approach
Recognition, validation
Doing practical things together
Rules, framing
Active leadership, e.g. neutralize informal leaders
Share personal stories
Use images as starting-point for conversations
Open dialogue climate
Reflection, re-evaluation
Increased openness and tolerance
New insights into causes and consequences
More alternatives for how one can think and act

Figure 3. Practices contributing to establishment of an open dialogue climate

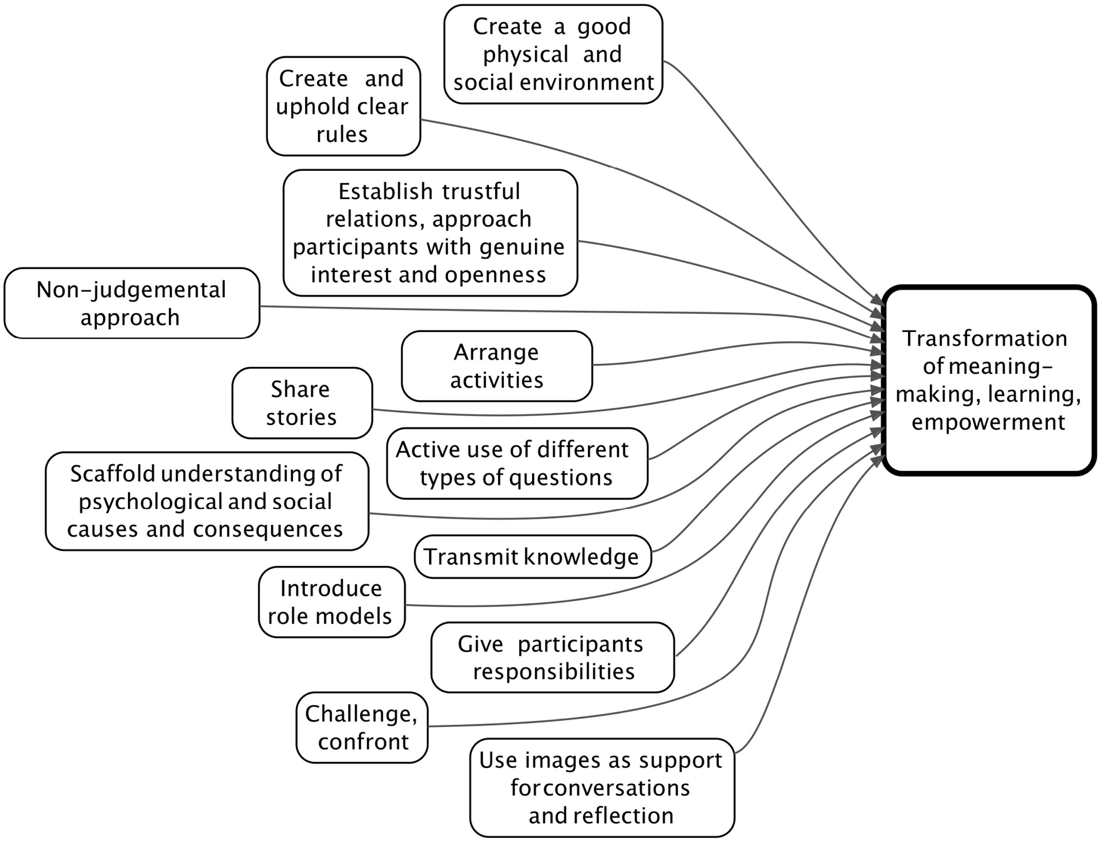
Create a good physical and social environment
Create and uphold clear rules
Establish trustful relations, approach participants with genuine interest and openness
Non-judgemental approach
Arrange activities
Share stories
Active use of different types of questions
Scaffold understanding of psychological and social causes and consequences
Transmit knowledge
Introduce role models
Give participants responsibilities
Challenge, confront
Use images as support for conversations and reflection
Transformation of meaning-making, learning, empowerment

Figure 4. Practices contributing to developmental transformation

In the following sections each of the categories of practices are described and their functions in relation to the three main tasks facing program leaders are discussed. Also included in the respective section is a textbox listing theories of change articulated by the program leaders in the interviews we made. The items in the textboxes are not straight quotes, but keep close to the formulations used by the respondents.

1. Friendly and Welcoming Climate

The conditions for hosting are very different depending on whether the program has its own premises and an open-house component or if it is a closed group of recruited participants who meet for a series of meetings, possibly in premises belonging to a different organization. In open-house programs people come for different reasons, sometimes simply to meet other people to socialize with, sometimes because they need help with a specific problem they are facing. For casual visitors to an open-house program, the character of the initial contact with the program leaders is a decisive factor for the likelihood that the visitor gets interested and motivated in participating in a more regular and committed way, e.g. to become a member of a conversation group.

The program leaders working in such programs stressed the importance of greeting each and every visitor in a friendly and welcoming way and show that one is happy to meet the person. Asking open-ended and skillful questions (see the section on questions below) is probably the most important practice for initiating contact and building relationship and trust. The program leader needs to be aware of and sensitive to the fact that visitors may not at all know what to expect from the program leaders, who they are and what role they play (see the section on tasks and challenges above). There may even be a considerable level of mistrust, if the visitor has had negative experiences with representatives of the host society and authorities. All the program leaders agreed that it is very important to have a lot of patience, it may take quite a long time, for very understandable reasons, until visitors or group participants feel ready to open up about their experiences and views.

Again, regarding open-house programs, program leaders stress the importance of quickly learning names of visitors and maybe also learn about their social networks: who they are friends with, family members and other connections. This is particularly important for visitors coming from a collectivistic background, where membership in collectives may be of great importance.

In closed groups, where participants have signed up or been assigned to the group from elsewhere, a friendly and personal hosting is of course also very important in order to build relationship, trust and openness, but the commitment to participate has already been made.

Three of the programs we studied owned or had exclusive use of their premises and were thus free to furnish and decorate the premises according to their own wishes. Program leaders at one of the programs, the youth center Mixgården, strongly stressed the importance of creating a cosy, clean and beautiful environment visitors can feel at home in, identify with and eventually feel proud of. Mixgården also takes care to use symbols in the form of pictures, photos and artifacts from different cultures, in order to create a visibly multicultural environment.

One practice where program leaders had quite different views was the use of physical touch with visitors. Mixgården, the youth center, regard this as a very important practice. They have a massage chair they invite visitors they know well to use. Giving a shoulder massage (with clothes on, of course) creates an opportunity to ask questions about how life is going, build connection and trust that may open up for quite personal conversations. Some of the other programs reported that physical contact is a relatively or very important part of connecting to participants, but then in very mild forms, such as touching an arm or shoulder. But there was also one program leader who avoids any form of physical contact, as it can be inappropriate in some cultures, in particular between men and women. Obviously physical touch can be a powerful means of building rapport, but it has to be used in a very sensitive and prudent way. It is probably far easier for a female program worker to use touch with participants than for a male leader, because of cultural norms about the appropriateness of physical contact between males and females.

Theories of Change

- If visitors are met in a warm, inviting way, they dare to participate.
- If you create an empathic and warm climate, it is easier to establish trustful relationships.
- If there is a welcoming and agreeable hosting, it is easier to establish a constructive and well-functioning social climate.
- If you create cosy and neat premises, a sense of pride and positive self-image is supported among participants.
- If there are visible symbols for different cultures in the premises, the emergence of a multicultural identity is facilitated.
- If you create a social climate that strengthens the sense of belongingness, integration is facilitated.
- If you create a well-functioning social climate the participants are offered a model for how a good social context can function and how one can relate to one another.

2. Practical Support

Some of the program leaders stressed the importance of having been in a position to help visitors/participants in problematic situations, such as handling contacts with authorities, filling out forms and applications, giving advice in difficult family situations or helping people get clothing, dental care or getting other types of basic needs met. The programs we studied have very different circumstances influencing this practice. In the case of Källan, the interreligious center, many of the visitors sought out the center precisely because they had very concrete difficulties: poverty, ignorance of how to deal with authorities or social isolation. At Källan they could talk to people who can give advice, explain letters from authorities, help filling out forms and get warm second-hand clothes for the winter. At Mixgården, the youth center, teenagers can get help with school homework, someone to talk to about family conflicts and other difficulties. In a third program, Bygga Broar, refugees coming to the municipality were received and helped by the same persons who also lead the conversation program that was integrated with the Swedish courses. Also in the other programs, practical assistance was mentioned as a very important factor in establishing contact and building trust, which lowered the thresholds to further engagement.

Theory of Change

- If visitors get concrete help with practical problems, rapport is created and it is easier to build trustful relationships.

3. Collective Activities

Several program leaders regard collective activities, doing practical things together, as an easy and effective way of creating trust, building rapport and creating low tresholds for starting conversations about personally significant issues. In the simplest forms this might be offering coffee or tea without having a specific purpose or agenda. Several of the programs also included more organized activities, such as cooking together, making excursions, having story-telling events or dancing.

One of the good things with arranging collective activities is that doing practical things together without having a more specific goal, such as bridging cultural differences or talking about values, is a very natural and easy way to get to know each other. Conversations start in an unforced way, relationships start to form, trust grows and often people gradually open up and spontaneously start talking about the issues that are important to them. Sometimes this might lead to committing to participate in a more structured program, such as a course or a conversation circle.

For open-house type programs, visitors can come and participate in different activities, which might also offer opportunities to develop social skills. Again, at Mixgården, the youth centre, engaging the youth in working in a music studio or in arranging different kinds of events requires them to take responsibility, collaborate, solve problems and develop discipline and patience.

Theories of Change

- If you do practical things together, you create natural opportunities for people to get to know each other, build relationships and start having conversations.
- If you offer visitors coffee and snacks without a particular agenda, it might be possible to reach people who are not enticed by invitations to participate in a program.
- If you do fun things together, the atmosphere becomes less reserved and more open and relaxed.
- If you arrange activities with low thresholds for participation and if the program leaders are continually available, it becomes easier to get in contact with people and build rapport.
- If participants with different ethnic backgrounds get involved in shared creative activities, xenophobia is counteracted.

4. Creation and Maintaining of Rules

All of the six programs use some set of rules for participation in the program, mostly just a few and rather simple ones. Having a set of rules creates an opportunity to talk about norms for communication and mutual treatment and what behaviors are not acceptable in the context of the program. In the cases where there are structured programs with fixed groups, rules are generally introduced in the introduction to the program. Establishing and upholding rules is, of course, especially called for when working with youth, where adults more or less automatically get the role of conveying norms and enforcing compliance with them. When working with adult participants, there is no mandate to be a moral leader in the same way, but having introduced a couple of rules can be an important form of support in situations where a participants gets upset and acts in an aggressive or disrespectful way. In more serious situations, having an established set of rules can make it easier to temporarily ban a participant (mostly applying to youth) and thereby sending a strong signal about what norms apply.

Theories of Change

- If you have a set of rules it is easier to create a safe and respectful climate.
- If there are clear rules and norms, the participants get a model for how a social community can function.
- If program leaders consistently require compliance with rules it is easier to create a safe and respectful climate.
- If there is clarity about norms, there is support for development of ability to follow social norms, conflict management skills, capacity for adaptation to a social community and ability to take responsibility for shared tasks.

5. Active Leadership

All the programs, in somewhat different ways, include a mandate that the programs leaders are in charge of the group. This role can be used in a number of active ways in order to serve the three tasks described above: create relationships, create an open dialogue climate and scaffold transformation of meaning-making. Being a leader in a group offers the opportunity to lead conversations in ways that ensure that all participants are invited to become active and be open about their experiences and views. The leader may use rounds, where every participant can share what they think, or direct open-ended questions to participants who are shy, reserved or feel unsafe. If the leader notices that there are tendencies for the formation of informal groups that exclude some participants or if there is someone who takes a dominant role or acts in a way that hinders an open and mutually respectful climate, the leader can counteract such patterns by raising the issue with the group, mix up participants in smaller sub-groups for conversations or other activities, or have separate conversations with individuals.

The leadership role is particularly important if someone gets very upset and aggressive, criticize others for their views or in some other way restricts other participants freedom to participate on their own terms. I will return to this issue further below.

Theories of Change

- If the leader actively ensures that everyone can participate actively and be respected, an open climate can develop in the group.
- If a leader intervenes when participants are dominant or disrespectful, an open and mutually respectful climate can emerge.

6. Positively Interested, Non-Judgmental Approach

The program leaders in all six cases we studied stress, in slightly different ways, the fundamental role of meeting the participants with an attitude of genuine interest, acceptance and non-judgment. This is seen as particularly important when the participant is cautious, suspicious, frustrated or preoccupied by other negative feelings, or advocates views that run counter to the program leader's own values. Instead of entering into argumentation, the basic practice is to listen, trying to understand and asking open-ended questions.

There is a striking similarity between the approach voiced by the program leaders and Carl Rogers (1957) conclusions about what enables a positive transformation in psychotherapeutic processes. Rogers' view can be summarized in this way: *If the therapist is congruent (authentic, sincere), shows unconditional positive regard and experiences empathic understanding of the client's internal frame of reference and endeavors to communicate this experience to the client, constructive change will follow.* This is a very clearly articulated theory of change, even if it only maintains that a certain approach works, but doesn't explain the mechanisms by which it works. All the programs leaders we interviewed expressed variants of this theory of change.

Theories of Change

- If you meet participants with a non-judgmental and interested attitude, you can create psychological safety, and the safer you feel, the more you dare to share.
- If there is a genuine mutuality in the communication, trustful relationships can evolve.
- If program leaders can create a sense of safety in the group, developmental processes become possible.
- If an open and non-judgmental conversation climate is created, participants can articulate their questions and prejudices about Swedes and the Swedish society, e.g. regarding parenting and teen sexuality.
- If prejudice and condemnations are met with openness and genuinely inquirying questions, prejudice can be weakened or transformed.
- If one feels that one is free to say anything without self-censorship, it becomes possible to inquire into the background of certain views and formulate and reflect on alternative views.
- If program leaders listen to parents in a respectful way, the likelihood increases that the parents will listen to their own children in a respectful way.

7. Recognition/Validation

Various ways of supporting participants through validation is a common practice in the programs we have studied. The foregoing practice of acceptance and non-judgment in the ways program leaders react, respond and ask questions can be seen as a way to show that one understands and accepts the participant's experience and views. An individual in difficult circumstances might feel incompetent and have low self-esteem. This might evoke defense mechanisms in the form of anger, aggressiveness and a disparaging attitude. Validation in the form of someone else showing understanding for one's feelings, reactions and past actions might normalize the reactions, leading to a greater sense of self-acceptance and a weaker need for upholding defense mechanisms.

Validation can be difficult to practice when a program leader is faced with a participant who states problematic views (see also section below). Validation might here entail showing appreciation for the participant's willingness to be open with opinions and feelings, without agreeing or disagreeing with the content of the statement. One step further is to show one's understanding of the fact that the person has the views he or she has, still without agreeing or disagreeing with the contents. Such an approach might be of great importance in order to create a dialogue climate, where participants feel welcome to be open with their feelings, opinions and thoughts, even regarding issues where there are very diverging views.

A different form of validation, also common in the programs, is to show appreciation and approval of actions participants have taken, for example in their roles as parents. Leaders might also invite other participants to offer positive feedback to each other.

Theories of Change

- If participants get validation from other participants and/or from leaders for good things they do, their social skills are strengthened.
- If participants' actions are validated, a positive self-image and hope for the future can be strengthened.
- If participants' difficulties are normalized, their prospects for handling crises are improved.

8. Sharing of Personal Stories

For programs where groups meet over an extended period of time, the sharing of stories about personal background, experiences and other personal issues is an important activity. The sharing of stories, among participants, but also by leaders, may have several functions. It creates rapport and is a way to initiate conversations about personal experiences and views. The telling of personal stories, and in particular the listening to others' stories, creates relationship, understanding and respect. By listening to others' stories about their experiences, participants have the opportunity to reflect on similarities and differences in relation to their own stories. People deal with and think about situations in different ways, which offers the individual a broader range of alternative ways of interpreting and feeling about significant matters. A particularly important effect can be when someone has an acute challenging situation and by listening to stories of how others dealt with similar situations might get hope and motivation about his or her own challenges.

Several program leaders mention how they, often with some caution and reservations, share stories from their own personal lives with participants. Sometimes leaders share something about how their personal (but not too private) situation is at the moment, in order to set a more personal tone in the conversation. Some leaders also tell participants about their own backgrounds, events they were part of, or experiences that illustrate existential human dilemmas and consequences of different courses of actions. Being more personal creates rapport and contributes to open up the informal norms regarding what is spoken of and how one can talk about personal matters.

It might be difficult for program leaders to know how to act when participants want to know the leader's personal opinions in, for example, political issues, religious beliefs or attitudes to controversial phenomena. Most program leaders have roles in which they feel that they should be restrained in voicing personal opinions regarding contested issues. However, there are situations where it feels appropriate to share personal views, in particular when it might lead to a genuine dialogue about themes that might involve divergent opinions.

Theories of Change

- If participants share personal stories, mutual respect and trustful relationships are likely to develop.
- If participants get the opportunity to hear others' stories, they can reflect on their own experiences, on causal relationships and on alternative courses of action.
- If participants get to hear how other people have dealt with similar difficulties, they might get new insights about how they can navigate their own challenging situations.
- If a program leader shares stories about his or her own biography and own experiences, it is easier to create rapport, trust and openness.

9. Asking Questions

Asking questions is one of the most important tools of a program leader. Different types of questions can be used in order to scaffold the attainment of all the three goals mentioned earlier: establish trustful relationships, create a respectful dialogue climate and transformation of meaning-making in order to empower participants. Simple, ordinary questions are a natural way of making contact and start conversations with people. The way questions are asked can convey that you are benevolent, interested and genuinely open to listen to the other person. This creates rapport and trust and is the start of building a relationship that allows conversations about personal and significant issues, including sensitive and controversial themes.

However, questions are also a powerful means of influencing other people in potentially profound ways. A program leader often asks questions not in order to get certain information, but rather to offer the participant an opportunity to reflect on matters that have not been objects of reflection before, at least not from the particular angle the question invites to. Since questions might influence people to think and feel in new ways, asking questions does mean that there is a power dimension in the relationship: the program leader wants and can influence the participant in certain directions without the participant being fully aware of the intention behind the questions asked.

The analysis of the interviews we made led to the identification of nine categories of questions used by program leaders (see appendix 2).

The two first types are used for initiating contact and conversation and for creating a relaxed and respectful conversation climate. Program leaders use open-ended questions about how different daily life themes are handled in the participants' home countries, such as: What did your family and closer relatives network look like at home? Who took care of your children when they were small? What kind of school did the children attend? How did you support the family? What was it like to be a teenager? Some questions are rather innocuous, while other questions might lead to more sensitive themes requiring more of a safe group space, such as questions about differences in parenting styles or questions about how the participants came to leave their homes and travel to Sweden. A particular way of using the same type of questions is when a program leader notices that one or several participants are very reserved and silent, maybe due to insecurity or lack of practice with talking in front of people they don't know very well. In such cases, a program leader can direct innocuous questions to these participants in order to get them to participate in the conversation, such as what they usually had for breakfast, or what kind of home they lived in.

The other categories of questions found were all used for supporting reflection, clarification and insights. Some types of questions are used at occasions when a participant voices views or emotions that need to be handled in order to maintain an open and respectful dialogue climate, such as when someone makes strongly disparaging comments or is very upset. As already mentioned, in all six programs we studied, program leaders mostly do not start arguing against problematic views, but remain anchored in an attitude of acceptance, curiosity and respect. Exceptions to this basic approach were reported in the two programs working with young participants, where program leaders sometimes feel called upon to challenge participants about problematic speech. Open-ended questions about the participants' personal experiences or other background to opinions and emotional reactions mostly leads to a calming down of the situation and it becomes possible to explore different possibilities for how one can think and feel about different themes. Several of the program leaders reported that they often handle situations when one participant voice problematic views by asking other participants how they think and feel about the issue in order to get a more reflective conversation going.

A particular category of questions are intended to support a person to direct his or her attention towards own emotions, reactions and thoughts, in order to gain more clarity about how one feels, the underlying reasons for one's reactions and not least in order to support the person to find words for describing what is going on in one's interior.

In German literature on conflict management (see e.g. Thomann, 2002), there is a pertinent word for this: *Selbstklärung,* self-clarification. The word points to the process of developing clarity about how one feels and thinks about a particular issue or experience. Assisting the conflict parties to gain clarity about their feelings, needs, values, thoughts, priorities and what outcome they want can be a crucial element in a conflict management process, and is also highly relevant in this context. Some of the questions asked in order to scaffold such self-clarification are rather simple: How do you feel about this? What thoughts do such situations trigger in you? What is most important to you when such things happen? How would you like it to be? Is there something specific you are worried about?

Theories of Change

If a program leader skillfully uses questions, outcomes can be:

- increased rapport and trust;
- that participants feel seen and therefore also welcome to participate actively;
- that conversations get started and participants increasingly open up;
- that participants who are upset calm down, talk in a more open-ended manner, start reflecting and make decisions in a more considered way;
- that participants by articulating their feelings, reactions and views gain more clarity about themselves and what is important to them;
- that participants become more aware of other people's reactions, feelings and views;
- that participants gain new insights into causal connections in interpersonal relationships, such as how different parenting styles affect children;
- that participants start reflecting on taken-for-granted views, beliefs and attitudes, and maybe reevaluate them;
- that participants reflect more concretely and realistically about their own and their families future and what they would like to accomplish.

10. Handling Strong Reactions, Disparaging Attitudes and Conflict

Significant differences in norms, attitudes, beliefs, knowledge and behaviors among participants and between immigrants and the Swedish society are an integral aspect of the programs we have studied, and for some of them the very reason that they exist. These differences can, when they surface, elicit strong reactions and conflict. The encounter with norms and beliefs that are very different from the ones participants have taken for granted and may be strongly identified with can be felt as strongly provoking. In addition, many refugees and other recent immigrants have had frustrating experience with authorities and in other situations in the new society, and may carry along negative and strong emotions and/or have developed a considerable degree of distrust in relation to representatives of the host country. Some participants may also be traumatized by experiences in war-torn regions when fleeing and by loss of relatives or friends. Conversations in a group may activate strong painful emotions, like anxiety, despair and fear for the safety of relatives.

A program leader must be prepared to deal with situations where participants react with painful emotions or tell stories with horrible and traumatic ingredients. However, in situations when participants express hostile and disparaging views towards other participants in the group, towards the Swedish society or towards specific groups, e.g. homosexuals, the leader's skillfulness in upholding an open and respectful dialogue climate is really put to the test. Some views expressed by participants may feel provoking in relation to the leader's own values, e.g. when someone maintains that it is a good thing to use corporal punishment with their children, or condemns certain categories of people. But even if the leader does not have their own reactions to deal with, there is still a need to handle the group dynamics in order to create and maintain an open and respectful climate.

When emotionally charged situations happen, in particular when a participant expresses problematic views, the program leader will have to choose to what extent these statements should be received with a non-judgmental and inquiring attitude, and to what extent it is called for to challenge the views or even stop a participant from hurting other participants.

Theories of Change

- If strong emotional expressions and disparaging attitudes are met with a non-judgmental and inquiring approach, shared reflection and reevaluation may become possible.
- If participants get support to reflect on conflicts, misunderstandings may be reduced, insight into causes and consequences in social relationships may increase and stereotypical conceptions may be dissolved.

11. Inform and Educate

All of the programs regard sharing of information and knowledge in order to make the new host-society intelligible as an important component of their work. Understanding of causes and consequences in relation to contested issues, such as parenting styles, sexuality and differences in norms and lifestyles, is likewise regarded as a central task. Several of the program leaders stress that it is important and helpful to take care to refer to research results and verifiable facts in order to gain credibility and legitimacy, as well as providing a good starting point for reflection and dialogue.

Immigrants need knowledge about Swedish laws, rights, institutions and regulations in order to be able to advocate their interests and handle different situations they may find themselves in. Some recurring topics is to explain the taxation system, the roles and principles of the social service authorities, laws, the judicial system, the compulsory school system, etc. Understanding how these systems work can reduce misunderstandings and strengthen action competences.

There is also often a need for understanding a range of phenomena in the Swedish society that are not part of the societal structure, but rather cultural phenomena, such as pervasive norms, attitudes and behavioral patterns, e.g. regarding parenting, sexuality, gender roles and equality, leadership styles, the weak role of religion and widespread patterns of social interaction that may be very different from what participants are used to.

The programs that aim at preventing honor-related violence and promote respect for individual rights include further forms of knowledge dissemination. Specific themes that are part of some programs are knowledge about children's needs, consequences of different types of parenting, risks related to cousin marriages, facts about the hymen and risks related to circumcision.

Theories of Change

- If the program conveys knowledge about laws, rights, regulations and about how Swedish institutions function, misunderstandings and anxiousness can be reduced, and participants can better advocate for their interests in the Swedish society.
- If leaders share knowledge relating to potentially controversial themes, such as parenting, the hymen and family violence, it becomes easier involve participants in reflection and possibly also reevaluation of problematic attitudes, norms and beliefs.
- If participants get support in understanding psychological causality (e.g. the mechanisms of shame), the amygdala can be calmed down, the frontal lobe can be strengthened and it becomes easier to mobilize hope and motivation to develop new behaviors.
- If participants gain greater understanding of the challenges one faces when one migrates from a traditional society to a secular and modern society, reorientation is facilitated.

12. Support for Reflection on Causal Links

A large share of the participants in the studied programs grew up in social environments that lacked scaffolding for reflection on psychological and social causality. Several of the programs use activities that actively invite to such reflection. One example, used in Elektra and Bygga Broar, is to ask participants to draw "life lines", a line symbolizing high and low points in the biography with marks for specific life events. The line can be used for reflecting on how different events and circumstances in one's biography has contributed to forming one's personality and attitudes. Another example is when program leaders talk about how family structures may be impacted by migration, differences in living in a society in war and a society in peace, and how the difficulties facing immigrants in a society that is very different can lead to shame and avoidance. Here sharing of concepts and theories are combined with invitations to reflect on causal links in the participants' own lives and predicaments.

A further variation is to invite participants to tell each other how it feels and what other consequences follow in particular situations. One example is how leaders at Elektra have invited girls to tell boys how it feels for them when the boys look at porn. In programs for parents, program leaders may invite participants to imagine how it feels for their children in certain situations and when they are treated in certain ways.

The practice of scaffolding reflection on psychological and social causal links is, of course, a key element in promoting transformation from pre-formal to formal cognition, i.e. from early conventional to late conventional meaning-making.

Theories of Change

- If participants are supported to articulate their feelings and reactions, they feel seen and validated and it gets easier to reflect on own experiences and their consequences.
- If parents are invited to reflect on their children's situation and experiences, the likelihood increases of functional parenting adapted to the situation of being an immigrant in the Swedish society.

Miscellaneous Themes

In addition to the themes discussed above, there were seven practices that were deemed potentially significant, but were only mentioned in some programs. Some of them are only relevant under specific conditions, such as in programs targeting youth.

Images. All six programs reported that they use images for supporting conversations and knowledge transmission, but there were significant differences in how this was done. In Bygga Broar the use of images is central to the whole program. In Bygga Broar a lot of time and effort has been invested in developing a series of 40+ drawings intended to facilitate starting conversation with immigrant parents about a broad range of themes, mostly relating to the situation of their children. Many of the drawings show children in different situations, inviting conversations about children's feelings, parenting, gender roles, family violence, circumcision, etc. The experience in the program Bygga Broar is that the images make it much easier to initiate constructive conversations about potentially charged issues. The other programs often use images as a support when talking about various themes, but not in the systematic way characteristic of Bygga Broar.

Individual feedback. Offering individual feedback to participants is a practice that played a role in only a few of the programs, in particular Elektra. Since Elektra essentially is a leadership development program for suburban youth, leaders have a natural mandate to take initiative to have an individual conversation with a participant and offering observations and suggestions regarding behavior in different situations and sharing own experiences and learning about leadership. In other types of programs, the mandate for giving individual feedback is weaker, but may be called for in specific situations.

Training skills. Participation in a group led by someone who is skillful in creating an open and respectful dialogue climate implies in itself training in listening and talking skills, in particular for participants who have little experience with such forms of communication. However, there were not many examples in our case programs of activities that were specifically intended to train particular skills. In the ENIG program, one session is devoted to understand and train validation, i.e. giving and receiving positive feedback, including a homework assignment for training with family members and other people. The program that could be said to offer most opportunities for development of social skills is Mixgården, the youth center. Mixgården offers a range of activities, including, as mentioned above, giving participants responsibility for certain tasks, but also participating in activities that require sustained learning and training, such as dance, recording music or planning and carrying out various types of events. Such activities offer opportunities to develop social skills, such as collaboration, problem-solving, taking responsibility, develop more patience and work discipline, planning and tolerating differences.

Responsibility. A couple of the program leaders pointed out the importance of assigning real responsibility to participants for various tasks, as a way of mobilizing engagement, commitment and development of social skills. This is a very significant part of the youth centre Mixgården's approach. Teenagers in different constellations are invited to assume responsibility for roles like operating the café or the music studio. They also have the practice of picking a number of participants each year to form a group that is given a set of responsibilities over the whole year. In the program Bygga Broar (not so much in the part we included in our study, but elsewhere), immigrant women were invited to take on the role of being cultural interpreters and speak in front of groups of Swedish preschool and school teachers. The program leaders reported that this element of the program had a large impact in generating engagement and commitment, as well as increasing self-esteem and a sense of personal agency. Using the practice of assigning responsibility for real tasks and roles is much easier in programs having a variety of activities going on. It is less easy in programs comprising a series of conversation meetings. However, even in such groups the practice of assigning responsibility can be used to some extent, for example by giving participants homework assignments and ask them to report back on these.

Role models. Some of the programs, in particular Mixgården and Elektra which work with youth, regard working with role models as an important practice. They may, for example, invite guests, such as former participants who have managed to establish themselves in a particular role in the wider society. By meeting people like themselves who have succeeded at getting a meaningful job or becoming an artist, for example, participants get living proof of the possibilities that exist for themselves and their own future.

Referring to religious norms. In two of the programs leaders sometimes referred to religious norms in relation to participants for whom religion has a personal significance. In the cases this was mentioned as a practice, the leaders themselves had a background in Muslim societies and were familiar with the Koran and could therefore with some credibility use relevant quotes. For example, a program leader could say "Only God can judge" when a participant expressed him- or herself in a disparaging way about other people. However, some program leaders also expressed a certain ambivalence about using religious authority as a strategy.

Working with oneself. Practices explicitly emphasising the need for program leaders to work on themselves were not often mentioned in our interviews. Some program leaders, however, did refer to the importance of working on being aware of one's own state of mind and actively taking care of, for example, strong emotions or particular moods, as well as continuously training on being able to maintain an empathic attitude towards participants.

Similarities and Differences Among the Six Programs

Of the 72 practices identified in this study, a large share, about 32, were reported as very important by all or most of the six programs (see details in appendix 2). This means that there seems to be a rather large set of practices that are common to practitioners in this field, even though they have built their programs independently and don't have a background in a particular methodology.[13] However, there were about 40 practices not used by all programs in a regular way. The reasons for this were different. For about 14 of the practices, it was apparent that their relevance was dependent on specific program conditions. Some practices are only relevant for programs owning or having exclusive use of their premises. Other practices are only relevant or important when working with youth. A third type of differences in conditions are between open-house programs and programs in the form of a series of group meetings with a more or less structured agenda. In the former case, different types of activities can be offered, in the latter case teaching about different topics is a common ingredient in the programs.

Surprisingly few differences in what practices are used (about 16) can be related to differences in theories of change, i.e. beliefs about what is helpful. None of these represent strongly diverging philosophies. The most significant differences concern to what extent program leaders should try to influence participants in particular directions, such as challenging views perceived as problematic or actively inviting participants to reflect on certain issues. Most differences, however, can be interpreted as differences in emphasis, i.e. what is regarded as more or less important to do.

The remaining about 10 practices, where there were differences between the programs, did not seem to have particular explanations. The respondents simply could not report that a particular practice had been called for, or they had never considered that it might be useful.

Quite a few of these practices may sound very ordinary, almost trivial, but in the programs we studied it was clear that they were practiced mindfully and methodically, as elements in an cohesive "method" or approach.

Conclusions

In this paper I argue that it is important to provide scaffolding for immigrants faced with the challenge of acquiring knowledge, skills and meaning-making patterns necessary for self-directed integration in individualistic societies expecting citizens to be self-authoring. Failing to provide such scaffolding increases the risks of growing marginalized groups, forming enclaves with much worse living conditions than the majority population. This might lead to increasing tensions in the society and increased appeal for young immigrants to join criminal networks, thus not only affecting the immigrants themselves, but also to the stability and dignity of the society at large.

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[13] We asked the respondents if they had participated in courses in any particular methodology. Some of them are familiar with MI, motivational interviewing, and have attended shorter trainings in the methodology. However, it was apparent from the interviews that none of them regarded this as a major and formative influence in their approach, but rather a complementary input.

The study reported here aspires to contribute to our knowledge about how developmental transformation can be scaffolded, with particular reference to immigrants from traditional societies. Leaders of the six programs we studied share the foundational theory of change that building trustful relationships is a crucial precondition for creating an environment conducive to empowerment. Establishing trustful relationships and an open, respectful dialogue climate under these conditions may require more of program workers than in settings were participants have a similar cultural background.

The analysis of the program theories of the six programs included in our study yielded an inventory of 72 practices used by all, most or some of the interviewed program leaders. A large share of these practices were regarded as very important in all or almost all of the six programs we studied. Some practices are only relevant under certain program conditions (such as having own premises, or working with youth). One might have expected that some differences in what practices were used in the different programs would reflect different profiles of the program leaders' theories of change. However, few such differences could be discerned in this study.

The study did not aspire to measure to what extent the identified practices actually contributed to the empowerment of program participants. We therefore cannot assess if the theories of change shared by the program leaders are effective. However, it can be argued that the practices identified constitute a comprehensive set of "promising practices," worth further exploration, and development. They are the result of the accumulation over time of know-how among program leaders with a considerable experience in meeting and working with people with an immigrant background, primarily in group settings. Anecdotal evidence suggests that practices such as a positive and non-judgmental approach, skillful use of different types of questions, sharing personal stories and support to reflect on psychological and social causality can be powerful forms of developmental scaffolding.

The inventory of practices (see appendix 2) can be regarded as a framework that can be used both by researchers in further investigations and by practitioners who want to reflect on and develop their skills and practices. The identification of a comprehensive set of practices and their underlying theories of change is a first step in an investigation into effective ways of scaffolding empowerment of individuals to increased ability to navigate life in society that expects and requires meaning-making and action patterns corresponding to late conventional stages of ego development.

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Appendix 1. Theoretical Controversies in the Application of Adult Development Perspectives in Migration and Integration Studies

The writing of this article and the reactions the first version evoked among those who read it (researcher colleagues and reviewers) opened a can of theoretical worms. The contents of the can seem to involve deep-seated differences in perspectives within the adult development field that would deserve to be thoroughly explored. However, the issues involved are too complex to be satisfyingly resolved within the context of this article, which was meant to focus on rather concrete results of a case-based study of scaffolding practices. The feedback I received gave me reason to rewrite the problem framing section of the article to accommodate the critical objections. I am not fully satisfied with the result, though, and I think it is relevant to outline some of the interesting theoretical tensions involved.

My personal problem framing that lead me to design the research project reported in the article were based on assumptions that might be described something like this:

- Adult development theories offer a unique (but partial) interpretative approach to understand and manage important aspects of complex societal problems, such as the integration of refugees and other immigrants from low-income and war-torn countries to high-income, democratic societies.

- Adult development theories describe significant and hierarchically ordered levels of cognitive skills, social awareness, self-awareness and self constructions (e.g. Kegan's subject-object balances).

- Different societies scaffold its members' development up to, but not beyond, a certain expected level. This expected level is different in different societies.

- Some societies actively discourage its members (or some of its members, e.g. girls and women) to develop beyond the wanted level.

- Some societies, or rather social milieus, in the world function according to an early conventional, or conformist, mindset. An early conventional, conformist, society is one where:

    - members are expected to believe in and adhere to a quite narrow and rigid set of norms and beliefs;
    - there is a lack of tolerance towards deviations from these norms;
    - there is a considerable tendency to divide people into Us and Them;
    - narratives about who is good and who is bad are prominent aspects of the worldview;
    - the cognitive world is rather undifferentiated, dominated by black-and-white, either-or thinking; and
    - authority is perceived to be external rather than internal.

Often, but not necessarily, the social order of the society, organizations and families is hierarchical and patriarchal.

- Immigrants originating in early conventional societies are a very diverse group, but some have not had the chance to develop beyond the early conventional ego stages. When people embedded in an early conventional (conformist) stage of meaning-making migrate to a society that expects its members to function at late conventional levels (for example be self-authoring and having principled, world-centric values about tolerance for diversity), they are faced with challenges they have not been equipped for. These challenges may for some be very difficult to handle and thereby become obstacles to integration.

- If immigrants from conformist social milieus do not adapt to the host society's norms and practices, there is a considerable risk that they will remain outsiders in relation to the majority society, economically (support oneself and one's family), socially (segregated lifestyle) and culturally (rejecting the host society's values and norms, and, possibly, acting out norms that are in breach of the host society's laws and prevalent norms).

- Social exclusion of whole groups of immigrants may lead to several social ills, such as widespread long-term unemployment, dependence on social security benefits, increased propensity for young men to be attracted to criminal networks, suppression of in particular girls' and women's rights (according to the host societies legislation) to make their own choices and ethnic conflict. Some of these phenomena may also reinforce tendencies to xenophobia and ethnic discrimination.

- It is, for these reasons, a crucial task for the receiving societies to provide effective scaffolding for the immigrants, to facilitate their empowerment and enable self-directed and constructive integration.

The problem framing in the first version of the article was not spelled out in the detail given above, but enough of the underlying assumptions were present to evoke objections from colleagues and reviewers. The most fundamental objections are, according to my interpretation, related to differences in convictions about the nature of adult development.

One objection is based on the conviction that it is fundamentally misleading to describe adult development in terms of individuals developing through a sequence of general stages, as the ego development framework do. According to the view behind this objection, development is localized, i.e. domain-specific and highly dependent on situational factors, such as what particular task the individual is engaged with, what scaffolding is provided in the actual situation and the properties of the social setting the individual is embedded in. Individuals are not "at" a certain stage, but operate on different levels of complexity on different occasions. There is research (e.g. by Kurt Fischer, Theo Dawson and their colleagues) that shows that individuals' performance and developmental trajectories in terms of complexity levels are domain-specific. In the light of this view, it is highly misleading to make generalizations about what stage a person is at.

A second objection is related to the concern that the stages and levels frameworks developed in the adult development field reflect what is valued and regarded as mature in North American and Western European societies. The cultures in these societies are strongly individualistic, whereas large parts of the world have collectivist value systems. However, the theoretical frameworks developed in the Western environment, in particular the ego development frameworks, claim to represent universal developmental patterns. This is deeply problematical and risk portraying meaning-making systems based on other cultural values and norms as less developed, thereby also contributing to a deeply misleading "deficit" stereotype of immigrants as a collective. Serious consideration of the variability in forms of social organization, cultural patterns and value systems raises the question if it is at all possible and meaningful to create universally valid theoretical frameworks for adult development.

Two reviewers recommended that I, in the light of these objections, should remove the references to needs for vertical development among (some) immigrants, and frame the challenges involved in terms of a need for horizontal learning about cultural differences. This could still be thought of in terms of developmental transformation, but not in relation to a universally valid hierarchical model of adult development.

Even though I recognize the validity of the objections sketched above, I have been quite reluctant to completely abandon the vertical development angle. I do believe it *is* relevant and meaningful to apply concepts like early and late conventional meaning-making to collectives that to a considerable degree are communities of shared values, norms and assumptions. However, I have only anecdotal rather than systematically documented evidence to go by regarding the presence of early conventional systems of meaning-making among (some of) the participants in the programs we have studied. There is also, as far as I know, no stringent theoretical framework that would allow us to define the properties of early and late conventional and postconventional *societies* and "score" particular societies. The objections concerning the potential incommensurability of different cultures of course also call into question if it is at all defensible to develop and use such frameworks. I believe these issues deserve to be explored in depth and with intellectual rigor. That, however, is a task far beyond the scope of the present article.

Appendix 2. Practices: Compilation of Responses from Six Programs

The table below shows how program leaders rated the use of each of the 72 practices found in the analysis.

Explanation of symbols used:

–	Not used by us
*	Used to some extent
**	Relatively important
***	Very important, central for my/our approach

K: Källan; A: Att vara förälder i Sverige; El: Elektra; M: Mixgården; EN: ENIG; BB: Bygga Broar

Categories	Practices	K	A	El	M	EN	BB
Basic attitude	1. Being anchored in a curious, positively interested and non-judgmental attitude in the lifeworlds of participants. Listening with an open-ended attitude, rather than advocating or teaching.	***	***	***	***	***	***
Friendly and welcoming attitude and environment	2. Having a friendly, welcoming and inviting way of hosting.	***	***	***	***	***	***
	3. Taking care to greet each person, learning everyone's name, learning the social networks of participants.	**	***	***	***	***	***
	4. With sensitivity for boundaries using physical touch: shake hands, touching visitor's arm or shoulder, hugs.	*	***	**	***	_	**
	5. Creating a cosy ambience in the premises.	**	***	**	***	*	***
	6. Creating a multicultural ambience by having symbols of different cultures, and learning and using words from different languages.	**	**	_	***	*	**
	7. Being patient that it may take some time before participants are prepared to be open with their experiences.	***	***	***	***	***	***
Practical support	8. Assist individuals in problematic situations, such as contacts with authorities.	***	***	***	***	_	**

Collective activities	9. Create relaxed and unpretentious opportunities for taling, establish contact and build relationships by offering coffee or tea, eating together, being available for spontaneous contact.	***	***	***	***	*	*
	10. Arranging activities that create opportunities for contact, conversations, creating rapport, such as cooking together, arranging events, making excursions.	**	*	***	***	_	*
	11. Arranging and/or creating conditions for creative activities, such as working with art, making music, dance courses.	***	*	***	**	_	*
	12. Taking care to have fun together, joking with participants.	*	***	**	***	***	***
	13. Organizing solidarity activities, such as collecting money for aid projects.	_	_	*	***	_	_
Create and maintain rules	14. Present rules for participation in the program, such as respect for other participants' views.	***	***	***	***	***	***
	15. Require compliance with rules, making sure that violation of rules have distinct consequences, and following up and reintegrate those who have transgressed rules.	***	**	***	***	_	*
Leading	16. Distribute talking time in order to activate everyone or giving everyone opportunity to speak.	***	***	***	***	***	***
	17. Actively discourage the emergence of informal groupings and informal leaders.	***	***	***	***	*	**
	18. Raise the issue with the group if someone is marginalized.	_	***	**	***	_	***
	19. Taking care to uphold a leadership role - not becoming a friend.	***	***	***	**		*
	20. Intervene when a participant inhibits other participants. Request that participants respects others' views. Refer to rules, negotiate contracts.	***	***	***	***	***	***
Recognize/ Validate	21. Welcome when participants express problematic views by conveying that it is	**	***	***	**	***	***

	good that they are open, rather than entering into polemics.						
	22. Show understanding and acceptance (without agreeing) in relation to participants' attitudes, opinions, feelings and judgments, even when they are problematic (e.g. racist opinions, authoritarian convictions).	_	***	**	**	***	***
	23. Show understanding for the challenges and difficulties facing immigrants to a different type of society.	**	***	***	***	***	***
	24. Offering validation to participants for the constructive and good things they do, and inviting other participants to offer validation.	**	***	**	***	***	***
	25. Conveying that it is OK to be wrong and not knowing everything.	**	***	***	***	***	***
Being personal in the leader role	26. To some extent share personal information, in order to model what can be talked about.	*	***	***	***	***	***
	27. Sharing aspects of own life story and own experiences.	*	***	*	***	**	***
	28. Stating own opinions regarding different issues.	*	*	*	***	*	***
	29. Sharing own experiences of coming to Sweden as a foreigner.	*	***	_	***	**	***
Asking questions	30. Asking open-ended questions about how different issues are handled in the home countries of participants, such as childcare, parenting, freedom and control.	**	***	*	***	***	***
	31. Asking questions, e.g. about the home country, directed to participants who are reserved, in order to activate and include them.	*	*	***	***	***	***
	32. Asking non-judgmental questions that invite to reflection on the background to problematic attitudes (e.g. racism, disparaging judgments of others or moralizing about others).	**	***	***	**	***	**

	33. Asking questions in order to explore the background of strong emotional outbursts, in order to deescalate the situation and/or to support the participant's own insights into the reasons for his or her own emotional reactions.	**	***	***	***	***	*
	34. Asking reformulating questions in order to support insight into own feelings and needs (e.g. "When you say bloody idiot, do you mean that you are disappointed?").	**	***	*	***	***	*
	35. Asking questions that support awareness and clarification of participants' own feelings and needs.	**	***	***	***	***	**
	36. Asking questions that invite participants to reflect on psychological causality, e.g. emotional consequences of certain behaviors (e.g. "How do you think your children feel when ...?").	*	***	***	?	***	***
	37. Asking challenging questions about a participant's opinions and behavior (when there is a relationship that allows for challenging).	*	*	***	***	***	***
	38. Asking open-ended questions about possible future scenarios, such as "what would you do if your daughter don't want to marry the man you parents find suitable?".	*	***	***	***	***	***
Managing strong reactions, disparaging attitudes and conflict.	39. Being unafraid, open and non-judgmental when participants' have strong emotional outbursts, such as aggressiveness or despair.	***	***	***	***	**	***
	40. Support participants in letting other participants feel and express emotions without trying to distract them.	***	***	***	***	***	***
	41. When someone expresses categorical and disparaging views invite other participants to talk about their experiences and life stories.	*	***	***	***	***	***
	42. Return to and clarify conflict incidents: what happened?	***	***	***	***	***	***

	43. Using mediation situations for supporting awareness of underlying feelings and needs.	*	_	***	***	**	_
	44. Consistently protect and convey values.	***	*	***	***	***	*
	45. Making time for talking through or return to charged issues until the participants have arrived at a natural conclusion.	**	**	**	***	*	***
	46. Inquiring into underlying reasons when some has a negative attitude.	***	_	**	***	**	**
	47. Calling into question and challenging a participant with problematic views, attitudes or behaviors.	*	_	***	***	*	**
Informing	48. Conveying research based knowledge about relevant topics, such as the effects of different types of parenting, facts about the hymen, or homosexuality.	*	***	***	**	***	***
	49. Inform about Swedish laws and about how authorities and other Swedish institutions function.	***	***	***	**	***	***
	50. Informer about and explain citizen obligations and rights, such as paying taxes, notify the social insurance agency, housing allowances.	**	***	*	*	***	***
	51. Informa about widespread views, values and norms in the Swedish society and explain their background.	***	***	***	*	***	***
	52. Explaining aspects of Swedish political conditions (e.g. about the Sweden democrat party's views on immigration and their influence on policies).	**	*	_	***	***	**
	53. Using own experiences and own competence to explain possible consequences of different actions (e.g. regarding parenting or interactions with authorities).	*	***	*	***	***	***
	54. Inviting external speakers, arranging study visits in order to elucidate relevant topics.	***	***	***	**	_	**

	55. Repeating issues that have been treated at earlier meetings and control for understanding.	**	***	***	*	***	***
	56. Informing about how to apply for grants for certain initiatives and about how one might influence political decision-making.	**	*	***	***	*	**
Offering possible interpretations of causal connections	57. Pointing out emotional or other consequences triggered for other participants when someone expresses condemning or disparaging views.	*	–	***	**	***	**
	58. Teaching about models that describe different types of societies: traditional, modern.	–	*	*	*	***	*
	59. Teaching about levels of validation: how to give validation to others.	_	*	***	*	***	
	60. Teach about how feelings of shame arise and what consequences they have (e.g. avoidance of exposure to situations that might trigger shame).	_	_	***	*	***	_
Offering individual feedback	61. Offering individual feedback and advice about personal patterns observed, perceived needs for training and suggestions of strategies and effective behaviors.	*	_	***	**	***	*
	62. Individual sharing and explanation of the leader's own strategies in different types of situations, in order to clarify leadership in concrete situations.	_	_	**	*	?	_
Training skills	63. In due time and scope assigning real responsibilities to participants for various tasks.	–	**	**	***	***	***
	64. Training validation and invalidation.	_	_	_	_	***	_
Working on oneself	65. Being in touch with own state of mind. Noticing own reactions in the present moment in order to be able to take responsibility for managing one's reactions, e.g. by sharing with others what is going on for oneself.	***	?	_	**	***	***

	66. Being aware of and sensitive in relation to power differentials between leader and participants: the leaders are established in the Swedish society, the participants are not.	***	***	_	**	***	***
	67. Train own ability to remain empathetic.	***	?	–	***	***	***
Other themes	68. Being **transparent**: taking care to inform concerned individuals about contacts taken with authorities or other actors.	***	?	***	***	*	**
	69. Using specifically designed and selected **images** as support for conversations about charged issues.	**	**	**	***	***	***
	70. **Using established relationships** in order to get in touch with new participants.	**	*	**	***	_	**
	71. Introducing realistic **role models**, e.g. by inviting former participants to the program.	**	_	***	***	_	*
	72. Referring to **religious** norms: e.g. using quotes from the Koran or Bible in order to reinforce desirable norms and behaviors (e.g. "Only God can pass judgment).	*	_	_	***	_	**

The Prometheus Leadership Commons: A Meta-Framework for Leadership and Leadership Development

Tom Bohinc, Jonathan Reams, Richard Claydon[1]

Abstract: Leadership development suffers a plethora of problems: complexity, competitiveness, pressured stakeholders and unmet needs only start to express the challenges. These issues are suitably summarized by this meta-problem for the subject of leadership: How to navigate the territory? How can a student of leadership, a middle manager, an L&D specialist or a CLO plot a pathway through such a confusing landscape? The Prometheus Project initiated a cross-disciplinary research team to conceptualize a framework that addresses this meta-problem. This paper introduces and discusses the resulting framework, describes our method, and asserts recommendations for expanding the circle of consent for a clear framework for developing the capacities and skills of leadership.

Keywords: Adaptive change, coaching, development, executive, framework, leadership, leadership industry, organization development, performance, personal development, training.

Introduction

Barbra Kellerman summarizes the state of leadership research and practice in direct language; "there is a lot of stuff out there that is less than wonderful" (in Volkmann, 2012, n.p.).

She is not alone in her opinion. Pfeffer (2015) talks about "Leadership BS." Gurdjian, Halbeisen, & Lane, (2014) outlined four key points driving failure in leadership development programs. Beer, Finnström and Schrader (2016) went as far as calling it the "great training

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robbery" (p. 3) with global training and education spending reaching $356 billion in 2015 with very little return on investment.

It is our view that the persistence of these issues, despite intense intellectual, emotional and financial investment, suggest that we need a structural shift in leadership development, treating it as an adaptive problem rather than a technical one (Heifetz, 1994, Heifetz, Grashow, & Linsky, 2009; Fritz, 1989). Continuing to invest time and effort to address the issue with more of the same type of resources will not adequately address these issues and may in fact exacerbate the problem. Rather, a structural shift and alternative approach is necessary to see systematically different results.

It was to the purpose of these structural adaptive changes that the concept of The Prometheus Project was conceived on a sunny July day in Barcelona, 2018.

One of the structural issues underpinning the general failures in the leadership development industry is perceived to come understanding of the phenomenon itself. A CEC[2] report (2017) noted a profound confusion about leadership and leadership development. Veldsman and Johnson (2016) wrote: "To the best of our knowledge, no overall, systemic, integrated and holistic view of leadership exists, and few organizations adopt a systemic, integrated approach to leadership" (p. 2). Likewise, Reiche, Bird, Mendenhall, and Osland (2017) summarize that the research literature in this field

> has lacked a coherent and agreed upon classification scheme that helps scholars to clearly describe their research samples, compare and contrast their research contexts and findings with other studies and contribute towards a cumulative and growing body of knowledge about the predictors, correlates and outcomes of global leadership. (p. 564)

Moldoveanu and Narayandas (2019) identify the underpinnings as related to conflicting motivations, a gap between leadership skills, the actual needs of organizations and incomplete learning cycles, in that the skills taught are not transferred or applied.

In our zeal to explore and clarify the essence and features of leadership, we define more and more distinctions and conditional situations for leadership. These are reasonable paths for constructivist learning and both theoretical and applied research, but are not sufficiently realistic for creating a useful body of knowledge for leaders. We cannot express enough our support and appreciation for these explorations. We only counter them with the need for pragmatic effect and the collective responsibility of our profession to be the ones accountable for creating useful constructs, as well as valid ones.

Therefore, it was logical that the first initiative of The Prometheus Project would be to address a framework that could open collective consent across a diverse range of stakeholders around what capacities and skills make up the subject of leading. It sought to create a framework that was simple, valid and generalizable, and useful for any stakeholders, contributors or sponsors of leadership development. From that point-of-consent, the collective influence and ambitions of structural change could advance.

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[2] CEC is an association representing about one million European managers. https://www.cec-managers.org/

For this, we formed a diverse team of researchers and practitioners to undertake responding to this question:

What would a usable proof of concept for such a framework look like?

This article has two goals:

- To introduce this framework as a simple and digestible tool for a complex group of subjects, like leading, development and the human individual and social identity, and
- To provide the more systemic background of the professional roots of this framework.

Therefore, the article outlines the theoretical and conceptual context that bounded our framework design, describes our method, introduces and discusses the resulting framework, and offers observations and recommendations for expanding the circle of consent for a clear framework for developing the capacities and skills of leadership.

Theoretical/Conceptual Context

Our research draws from several areas that shape the resulting framework. This section covers the theories and concepts we considered most relevant.

The objective of the Prometheus Leadership Commons™ framework is to define elements of leadership that are generalizable and accurate. In other words, they *could* be usefully applied by every stakeholder in any context, including; an organization defining its own development strategies, any individual self-determining their own leadership path, by researchers shifting the blocks and constructs of knowledge and by any of the helping professions who have individual and organizational leadership transformation goals.

We[3] aimed for something that would enable leaders, organizations, consultants or coaches to orient themselves and then to navigate all corners of the capacities and skills of leadership. But also, to open comparisons, contrasts and socialization to enrich the learning process, expand the scope of what is learned and align and influence collaborators as a force for a wide set of use-cases. In simple terms: the framework had to include diverse perspectives, or lenses, so that the result held-up as useful for all of those perspectives.

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[3] The 'we' here is the research team for this project, (including the article's three authors), which was intentionally assembled to meet these criteria; global footprint, depth in multiple disciplines, diversity of experience/roles that simulate a design-thinking team. The structure of the team included a primary work group and secondary reference and supplemental group. The primary workgroup included experience in qualitative research, including dissertation chair and dissertation committee experience.

Therefore, we had to consider which concepts we would want to test-for-fit and include those in our research. While our considerations went far beyond what is presented here, we chose these four broad themes as necessary contexts for satisfying the goals for the framework.

Personal Capabilities of the Leader

We are still surprised to find how persistently the idea of leadership as solely an executive function holds in day-to-day discourse and thinking, and ultimately shapes the services and business models of the industry. We want to make it explicit that we have framed our exploration with the lens of leadership as an attribute of the person/leader, not as a role or a position in the hierarchy and that the demands of leading may be applicable to any person given a fit to their context. Some leadership demands may be simple, to fit simple contexts. More complex contexts require more complex capacities and skills.

When you read sources on the topic of leadership development, it is easy to notice that there is an assumption that development strategies include strategies for developing the internal capacities of leaders as well as their skills.

Day, Harrison and Halpin’s (2009) approach integrates adult cognitive development theory with the areas of leadership identity and expertise that “appl[ies] to leader development across a wide spectrum of organizations” (p. 4). They note that leadership development implies growth, or change, over time and “includes topics such as personal trajectories, growth modeling, lag times, end states, and a whole host of other related topics. ... [that have] to be as much about development as leadership” (p. 5). Finally, they highlight the need for supporting structures that enable; competency acquisition, leader identity formation, and the process of identity formation that is supported by adult development.

This is further illustrated in Day and Dragoni’s (2015) review of leadership development research. They identify four key indicators necessary for leadership development; leadership self-efficacy, self-awareness, leader identity and leadership knowledge, skills and competencies.

Finally, leaders need to have a high degree of personal wellbeing, focusing strengths of their personal capabilities on their leadership context. For this, we draw on positive psychologists’ focus on wellness, including Csikszentmihalyi and Csikszentmihalyi (2006), Seligman (2002), and Ryan and Deci’s (2017) fundamental motivations.

This framing provided us with key ideas related to attributes for including in our framework.

Leadership as a Contextualized Process

Leadership can happen in any context. Therefore, the framework design would need to show capacities and skills suitable for the agency of leading in any context. Further, a leader would have to assess that context and design their leadership agency accordingly.

The combination of both work and relationship as a context is seen in a number of places. Reiche, et al. (2017), Adams and Anderson (2016, 2019) as well as Warren (2017) all identify capacities for leading work as well as leading relationships. Kotter (1999) defines the practices of leading change to include work and achievement as well as influence and motivation. Kockelman (2007) identifies the elements of agency from a cultural anthropological perspective as both relationship and a process. This is not an exhaustive list.

Other perspectives frame leadership as a process or function, (e.g. Drath, McCauley, Van Velsor, O'Connor, & McGuire, 2008). To illustrate such processes, we utilized Drath et al. (2008), who argue for moving away from an ontological orientation of a leader, followers and a common goal (Bennis, 2007) and towards a process orientation. This means that any activity that contributes to direction, alignment and commitment can be viewed as an act of leadership. Similar sets of distinctions for leadership can be found in Heifetz's (1994) model of adaptive leadership and Grint's (2005, 2010) approach to matching leadership to context.

We also see leaders in a collective creative learning context, as illustrated in contemporary product design practices including design-thinking (Kelly & Kelly, 2013) and dynamic product learning activities such as lean startup (Ries, 2011), leadership in organization crisis (Goldberg & James, 2017) and also in deep traditions of lean and agile transformations where goal, action, reflection, change and iteration learning cycles are a central leadership process (Deming, 2018). Situated with these creative processes are collective leadership constructs that emphasize networks and connectivity across collaborator leaders (Western, 2019).

Finally, a leader can prepare their capabilities but must apply the type of leadership that is required in-the-moment. Their choices of leading must be made based on an assessment of their context.

An illustration of contextualization can be found in Snowden's (2007) model of decision-making. His Cynefin model describes a heuristic for helping identify the type of context one is in. On one hand, there are more predictable contexts, either clear or complicated, but on the other hand, there are less predictable contexts, either complex or chaotic. As well, we often begin in a place of confusion, which triggers a process of identifying what type of context we are in. So, a leader's capacities and skills must be suited to predictable challenges, but also dynamic uncertain extremes.

The framework design considers that leaders (and the participants in the development of leaders) require the capabilities to assess the context that they are leading in and respond by employing a variety of collaborative modes and resources as aids to navigate their decision-making, capability development and deployment and interventions.

Learning as a Leadership Capacity

One of the aims of the framework is to enable learning experiences that develop leadership both individually and collectively. The framework's organization, levels and distinctions are constructs to support finding salient and relevant learning objectives for individuals, sponsors, program designers, and experience designers.

The framework is not only a learning and development tool, but also includes learning as an element of leadership capacities and skills. The processes of learning and the processes of leading are seen to be inseparable.

Learning theory and learning models weighed heavily in our design. The resulting framework had to address several learning-related challenges. These include; the personal capacity to learn as a capability of leaders, the process of leading includes learning as an intentional outcome and leadership development is a complex process inclusive of short-term acquisition, short-medium term integration, and long-term development and integration.

Meeting this list of criteria became an important element of the Prometheus Framework.

We approached learning based on Fischer's (1980; Fischer and Bidell, 2006; Mascolo and Fischer, 2010) dynamic skill theory and Dawson's (2020; Dawson and Stein, 2011a, b) virtuous cycles of learning (VCoL) model. Learning is understood as incrementally making connections with existing knowledge and skills by setting appropriately challenging goals, gathering relevant information, applying it to real world challenges and reflecting on outcomes to build new skills.

Motivation for learning can be seen in terms of the dopamine opioid cycle, where goal setting stimulates dopamine production which stimulates incentive salience (Berridge, 2007), motivating one to meet a challenge. Achievement of the goal releases opioids, our reward for the effort that makes it easy to reset the goal and to go around the cycle again (think of an infant learning to walk). Applied to learning and leadership in adulthood, the cycle enables us to reconnect to our natural learning experience and becomes the engine of leadership development.

Development Strategies

The framework has to be useful in the process of setting leadership development strategies with both short-term and long-term trajectories.

Building a leader's capabilities is a continuing journey, which can start at a young age. Navigation through development is unceasing, as outlined in Vaill's (1996) discussion about learning to navigate modern leadership challenges. Leadership development includes psychological development, which is masterfully synthesized by Basseches and Mascolo (2009).

Roux (2020) identified life-long learning as a key theme for leadership. She concludes that leadership adequate for the 21st century is;

> integrative, complex and multi-layered. There is a need for lifelong horizontal and vertical development journeys using adult development theory, virtuous cycles and neuroplasticity as core theories of continuous growth. Leadership needs to be scaled to enable work in new contexts of digital, virtual and flexible environments that are in constant flux with wicked problems that can only be solved collectively. (p. 30)

Stage-based interpretations of leadership (e.g. Kegan and Lahey, 2016; Torbert & Associates, 2004; Joiner and Josephs, 2007; Kuhnert and Lewis, 2006) spotlight a significant practical problem. These models all note that very few people, perhaps no more than 2-5% of the population, ever achieve the highest levels of adult development, which correlate with leadership having the capacity to best address the most complex challenges. Collins (2007) writes that only 12 of the 14,000 leaders he observed reached his criteria for a Level Five leader.

This premise spotlights a number of issues related to leadership development strategies.

- First, development processes to these higher levels take a long time, are too costly and too risky for many companies experiencing the war for talent and retention.

- Secondly, organizations must be able to map the leadership competencies of job-hoppers, new members and joint-venture members, so they can rapidly deploy and use them.

- Thirdly, with a limited supply of high-functioning members, rigid traditional deployment practices, there is likely to be ever more frequent capability mismatch conditions between individual leaders and their contexts.

- Therefore, you almost certainly need to engage in real-world challenges with the leaders that you have, not the leaders that you want.

In summary, the framework should allow for flexibility in development and maintain utility for these real-world complex challenges where development may be likely across the lifetime of the leader, but at the same time they are called to lead in the moment, ready-or-not.

Methodology

Mortimer Adler was faced with a similar dilemma to ours in the field of western philosophy, which spurred a lifetime of scholarship. When faced with the problem of existing terms being irreconcilable, Adler (1967) took on a necessary re-synthesis of topics in a process he called “syntopical analysis” and “coming to terms.” Literally, the process of choosing the best unifying terms across complex seemingly disconnected diversity.

Constructivist Grounded Theory

Our research was designed as constructivist grounded theory (CGT) (Bryant, 2017 & 2009; Charmaz, 2000; Corbin & Strauss, 1990; Mills, et.al., 2006; Thornburg & Charmaz, 2010). Bryant (2017) asserted that insightful research adopts one or more methods that are complementary to their specific project context. Our CGT adopts contemporary deliberative practices of Collective Intelligence (Engle, et al., 2014), lateral thinking (De Bono & Zimbalist, 1970) and creative problem solving (Treffinger, 2005).[4]

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[4] Much of our method included leadership and development theory and to that extent our methodology also followed the steps of meta-theory as a method (Edwards 2010) and certainly shares the intentions of that school of theoretical research.

Bryant also asserts that while CGT can vary in its details, it should be consistent to its core elements. In an interview late in his life, Strauss, one of the founders of the grounded theory methods, identified three elements necessary to meet grounded theory requirements (Legewie & Schervier-Legewie, 2004). Our research addressed each of these:

- Theoretical sensitive coding. This means that there is a strong instinct and capacity to ‘listen’ to the essential stories underlying the ground, and to construct useful parts to be used in sense-making and organization of the ground (data).

- Theoretical sampling. This means choices of data are well considered to advance the learning and creative formation spiral.

- Comparison. Choices for what to compare are fearless so as to stretch the theories, test them, sharpen thinking, and cull bias.

The mechanics of CGT have been described as a spiral (Mills et al., 2006) of learning and discovery that materialize with many variants. Our spiral is expressed as:

- Green-field. Theorizing (as much as feasible) without bias or pre-condition of existing structures.

- Sample. Data which can be any kind of source that informs the theoretical process.

- Conceptualize. Building the linguistic labels, from which an overall theory will be constructed, technically referred to as ‘coding.’

- Frame. Positing exploratory and partial concepts and segments of theory, technically referred to as ‘memoing.’

- Form. Expanding or synthesizing a more integrated theory or model.

- Test and Compare. Constant comparing and lateral thinking to cull out bias, pre-conception and refine thinking and articulation of the theory.

While inductive and deductive reasoning are prevalent as part of the creative process (Treffinger, 2006), CGT especially emphasizes the essential process of *abductive reasoning* in which the theorist creates the simplest and most likely explanation for making sense of the grounded observations. This result is “plausible and useful” (Bryant, 2009, np) but is qualified as uncertain or provisional pending experience and confirmation in use.

How do you know how flexible your process mechanics should be? CGT practitioners consistently remind us that the *principles* of the process are primary to the *mechanics*. Balancing orthodoxy with the pragmatic, if your sources are reams of paper, emails or physical evidence, then meticulous tagging and organization are a pragmatic requirement to make sense of the data. In our methods, we adjusted to the age of virtual communication and collaboration and leverage the practices and technical tools to conceptualize and frame our primary, secondary and tacit knowledge into discrete parts. We were intentional, conscious and methodical, but also agile and pragmatic.

How do you know when you are done with spiraling? Following Eisenhardt (1989), our perspective is that you are sufficiently done when you have consistent experience as you test and compare. In other words, “we have seen this before” or “this fits well.” Interdisciplinary comparisons led us to conclude sufficient consistency to warrant a release of the framework, opening further experience and confirmation in practice and research.

Data Choice and Theoretical Sampling

Our data and theoretical sampling included three classes of sources. First, the intentionally diverse experience of the research team, second, a selected extended reference group to provide feedback for bias and critical thinking, and lastly, published and unpublished scholarly work, selected based on preliminary rounds of analysis (see below).

The analytical team members hold two PhDs and three Masters, have decades of practice in leadership development, education, business transformation, coaching, training. Members have engaged in thousands of leadership development interactions from the role of coach, organization sponsor, executive, development professional, researcher, and educator. They have depth of knowledge across disciplines and roles in the leadership development context and have methodology experience with dissertation chair and committee experience. Members were located from Asia, Europe and North America. All were English speakers.

The extended reference group included some who were not available sufficiently to the process, so became ancillary resources. In other cases, these resources represented specializations that we targeted for exploration.

Cross-disciplinary theoretical comparisons included; learning objectives and processes in learning theory, from Bloom (1956) through Gagné (1985) to Dawson and Stein (2011a, b), psycho-therapeutic development objectives synthesized across the major psycho-therapeutic disciplines by Basseches & Mascolo (2009), leadership development practice from the US Army, (e.g. (Day et al., 2009)) whose programs range from the ranks to top echelons (Gavin & Watson, 2019), executive leadership education from Moldoveanu & Narayandas (2019) and finally, leadership assessment models of Anderson & Adams (2016, 2019) and Warren (2017) which infer leadership attributes and developmental factors from observed traits.

Pedagogical Considerations

Pedagogical learning objectives and pedagogical sequence were weighed to support the clustering phases and the cohesiveness of the framework groupings. The framework is intended to facilitate setting and sequencing learning goals and objectives from general to detail/micro-learning and from fundamental to advanced development objectives. Here, we also weighed usability as part of strategy and design of leadership development programs.

Theory Finalization

Comparisons and refinement are a key part of meta-framework finalization. To this end, each team member applied the framework in small field-tests or reviewed the framework with peer advisors and experts to gauge any indications of change or refinements. In addition to the peer/expert feedback, the frameworks' systems and subsystems were cross-referenced to a sample of independently defined inventories of leadership development and curriculum subjects from public and private executive development programs. Notably, we leveraged the extensive anthologies of leadership knowledge from Bass (2008) and Nohria & Khurana (2010) to confirm the grounded field of our consideration and inform design choices.

In finalizing the framework, the structure evolved from an initial three to five and then six meta-categories identified as leadership systems and spanning the whole of the leadership phenomenon (figure 1 below). The same process was used to further divide these system categories into a second level of detail sub-systems (figure 2 below). We held a constraint of no more than five of these subsystems in each of the six level meta-categories. This constraint was not easily fulfilled, but ultimately led to satisfying abstractions that can have resonance across the stakeholder spectrum, from academic, to clinical to popular consumption.

This research did consider many samples to form a hypothesis of the nature and composition of a third level of detail in the framework. However, we did not attempt an inventory and organization of the large number of leadership topics that fit into level 3 and defer this to further research. However, we did define this level in the framework.

It is our view that the framework meets its goal of providing simple, valid and generalizable (useful) meaning-making that can open communication and hold focus on these complex topics which are otherwise often deflected or bogged-down. Our goal is a semi-stable standard reference that is usable by all stakeholders and that allows orderly evolution. We invite engagement and refinement as we expand the circle of contributors and the complexities of the level 2 and 3 domains, what Kockelman (2007) refers to as flexibility and accountability.

Results

We express the research results as the Prometheus Leadership Commons$^{\text{TM.}}$ framework (PLC):

- "Prometheus" because it represents "forethought," the Greek archetypal meaning.
- "Leadership" because this is the concept that we wish to unchain and maintain.
- "Commons" because, even as it is facilitated and governed by a central organizing group, it is framed to become the shared open-source framework for all stakeholders' uses.

The PLC framework is structured in 'levels' with the first level showing 6 meta-categories, grouped between inner capacities and adaptive behaviors. Categories A, B, and C are personal capacities of leadership.[5] Categories X and Y are skills adaptive to engaging in contexts of leading relationship or task. Category Z are the skills adaptive to the action of leading.[6]

Level 1 is useful in application and should not be seen as only a way to organize lower-level details. Its simplicity belays its approachability and easy navigation power which opens conversation, comparison, deconstruction and exploration (see figure 1).

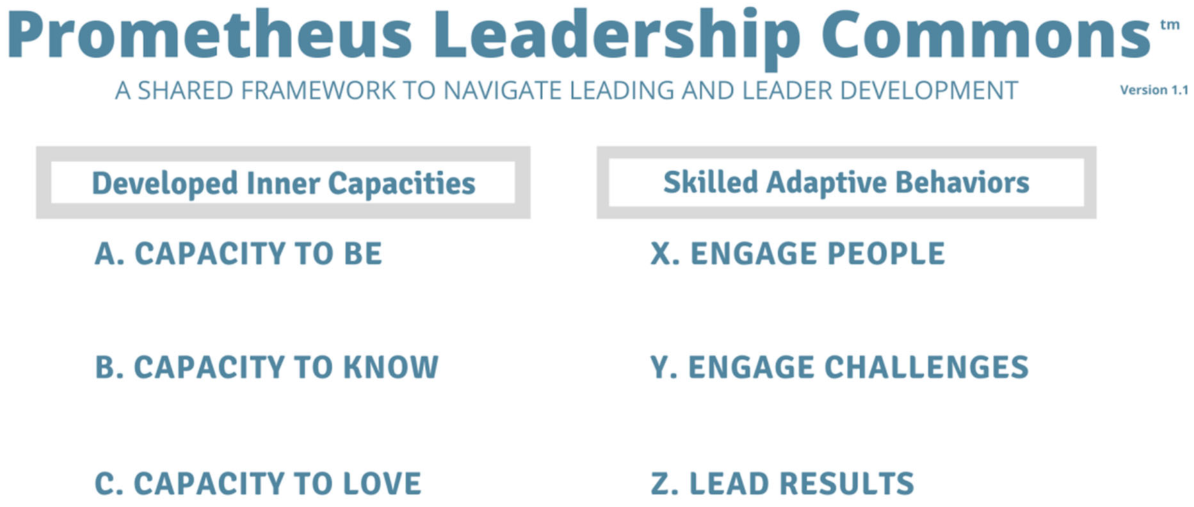
Prometheus Leadership Commons tm
A SHARED FRAMEWORK TO NAVIGATE LEADING AND LEADER DEVELOPMENT
Version 1.1
Developed Inner Capacities
Skilled Adaptive Behaviors
A. CAPACITY TO BE
X. ENGAGE PEOPLE
B. CAPACITY TO KNOW
Y. ENGAGE CHALLENGES
C. CAPACITY TO LOVE
Z. LEAD RESULTS

Figure 1. Prometheus framework level 1.

That simple and easy navigation is even more valuable because it supports confident exploration into additional details found in level 2 and level 3. This layering allows explorations with more granularities for each area while keeping confidence in the relationship to a whole system of a leader's capacities and skills.

Level 2

Level 2 shows twenty-nine sub-categories (or subjects) nested within the level 1 meta-categories (see figure 2). For each of the level 1 systems, there are 4 or 5 subsystems (or subjects). Examples of the subsystems include one-to-one engagement skillsets vs. the skills to engage in groups.[7]

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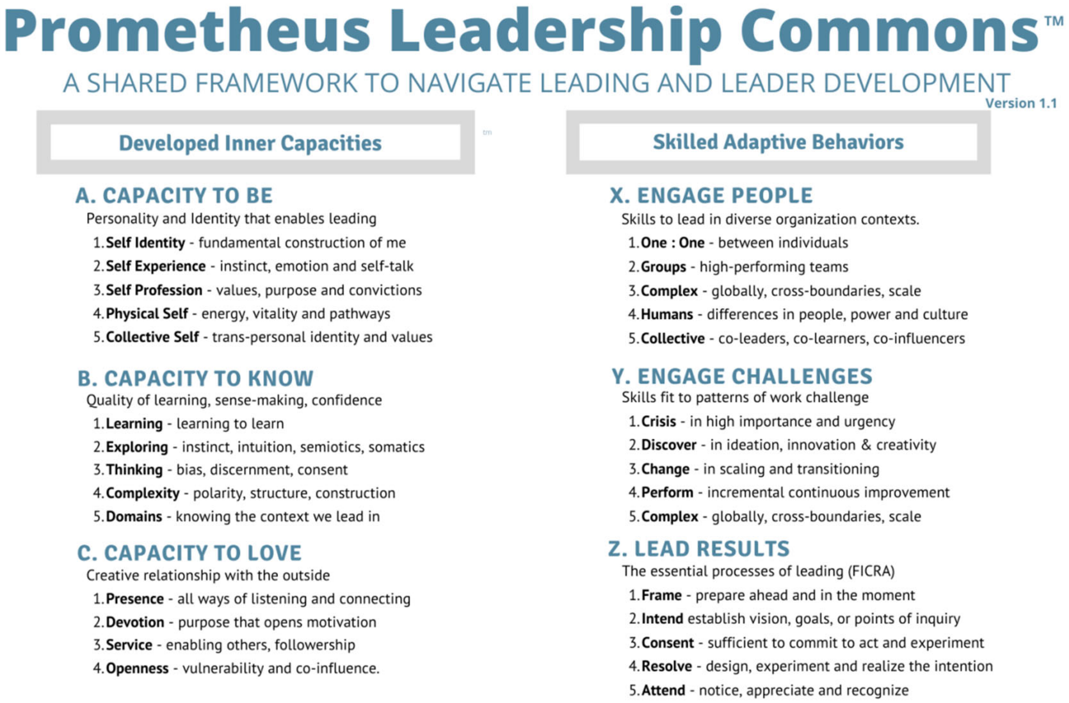
[5] The most unique category (relative to comparative frameworks) is the Capacity to LOVE (to be gracious or serving) and is the 'object' of our self-consciousness in contrast to the Capacity to BE as 'subject.'

[6] We observe that many resources on leadership express differences in practice or types of leaders, but not as frequently express the act of leading. In the PLC LEAD RESULTS domain frames this. The primary sources for the LEAD RESULTS domain is a synthesis of the essential practice of leading from well-researched models including Adaptive Leadership (Heifetz, 1994), Change Leadership (Kotter, 1999), social anthropology concepts of agency (Kockelman, 2007), and learning cycles of Dawson and Stein (2011a, b).

[7] There are some PLC sub-systems that may stand out against convention and are invitations to mainstream as well as fringe ideas if they are substantiated and rationally articulated. These include a category for collective transpersonal identity which may include spiritual traditions, physical capacity that



Prometheus Leadership Commons™

A SHARED FRAMEWORK TO NAVIGATE LEADING AND LEADER DEVELOPMENT

Version 1.1

Developed Inner Capacities

A. CAPACITY TO BE

Personality and Identity that enables leading

1. **Self Identity** - fundamental construction of me
2. **Self Experience** - instinct, emotion and self-talk
3. **Self Profession** - values, purpose and convictions
4. **Physical Self** - energy, vitality and pathways
5. **Collective Self** - trans-personal identity and values

B. CAPACITY TO KNOW

Quality of learning, sense-making, confidence

1. **Learning** - learning to learn
2. **Exploring** - instinct, intuition, semiotics, somatics
3. **Thinking** - bias, discernment, consent
4. **Complexity** - polarity, structure, construction
5. **Domains** - knowing the context we lead in

C. CAPACITY TO LOVE

Creative relationship with the outside

1. **Presence** - all ways of listening and connecting
2. **Devotion** - purpose that opens motivation
3. **Service** - enabling others, followership
4. **Openness** - vulnerability and co-influence.

Skilled Adaptive Behaviors

X. ENGAGE PEOPLE

Skills to lead in diverse organization contexts.

1. **One : One** - between individuals
2. **Groups** - high-performing teams
3. **Complex** - globally, cross-boundaries, scale
4. **Humans** - differences in people, power and culture
5. **Collective** - co-leaders, co-learners, co-influencers

Y. ENGAGE CHALLENGES

Skills fit to patterns of work challenge

1. **Crisis** - in high importance and urgency
2. **Discover** - in ideation, innovation & creativity
3. **Change** - in scaling and transitioning
4. **Perform** - incremental continuous improvement
5. **Complex** - globally, cross-boundaries, scale

Z. LEAD RESULTS

The essential processes of leading (FICRA)

1. **Frame** - prepare ahead and in the moment
2. **Intend** establish vision, goals, or points of inquiry
3. **Consent** - sufficient to commit to act and experiment
4. **Resolve** - design, experiment and realize the intention
5. **Attend** - notice, appreciate and recognize

Figure 2. Prometheus framework levels 1 and 2.

The X Y Zs

There is a daily deluge of posts, promoted content and publications on leadership and leadership development on our sites and in our inbox. We easily find discussions across the rainbow of leader models (authentic leaders, transformational leaders, adaptive leaders, vertical leaders, situational leaders, etc.). It is also easy to hear exhortations to discover our purpose, center our being, to explore either our strengths or our innermost fears.

It is rare to find a simple description of what we are doing when we lead. Yet, this is the basic focus that any of us must hold as we engage in the agency of leading – or as we orient ourselves for learning and development.

We include that description of what leading is in the PPLC as level 1 domain of (Z) LEAD RESULTS (figure 3 below). Even though the authors normally eschew clever acronyms, we did articulate FICRA as the mnemonic for this domain (and it is hardly clever!).

But, we like it because a mnemonic is good for quick recall.

We hope that supplying this mnemonic will help anyone maintain clarity in the heat-of-the-moment, when *all* of the leader's faculties may be challenged by the heat or complexity of the work and people at-hand.

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includes connection to the idea of personal energy fields, instinct and intuition as a component of intelligence, inclusion of business or technical domain knowledge as a leadership attribute, the reality of people, culture and power as a context, and the identification of love as a leadership capacity.

Two further domains in the X Y Zs grouping are (X) Engage PEOPLE and (Y) Engage CHALLENGES (see figure 4.). They represent skills for relationships and for work, respectively. Considering development sequencing, some of these are markedly cumulative. For example, engaging one to one (commonly referred to as 'people skills') includes skills as diverse as listening, feedback, feedforward, coaching and the less intellectual practices of touch, presence or even eye-reading. Yet, these skills are also foundations to more complex engagement, in a group or team and potentially across more globally diverse and complex relationships.

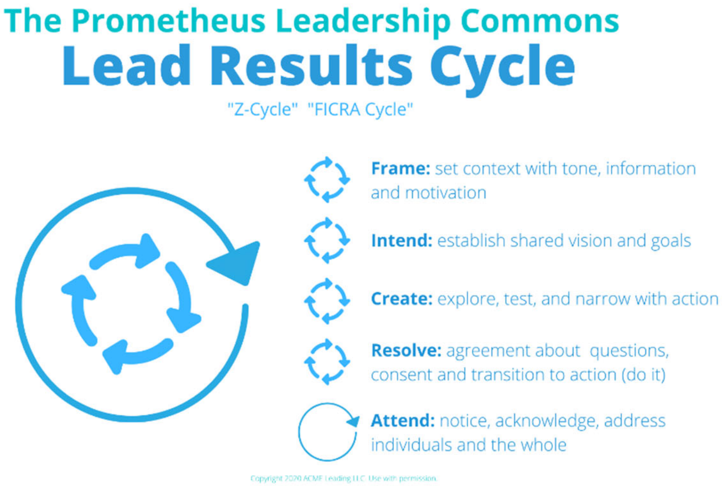
The Prometheus Leadership Commons
Lead Results Cycle
"Z-Cycle" "FICRA Cycle"
Frame: set context with tone, information and motivation
Intend: establish shared vision and goals
Create: explore, test, and narrow with action
Resolve: agreement about questions, consent and transition to action (do it)
Attend: notice, acknowledge, address individuals and the whole
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Figure 3. The lead results cycle.

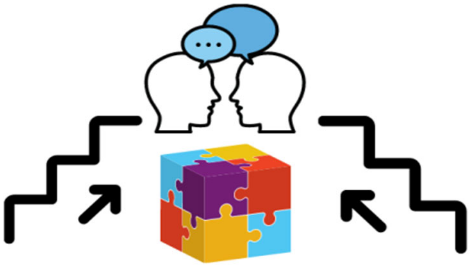

Figure 4. Engage people and challenges.

The Engage PEOPLE domain includes two higher-order subjects.

Humans includes the skills to assess and adapt to the human context for leading, including your individual constituents, and the constraints (or enablers) of power, politics and culture. The framework sees them as realistic contexts that leaders-on-the-ground struggle with every day. In our thousands of leadership development interactions, we find that members of the profession prefer the soft subjects such as inner discovery and affirmative relationships, while our clients – from the front line to the boardroom – are living in the rougher reality of teams, organizations and communities. The framework asserts both of these perspectives as necessary for effective action.

Collective includes the skills to learn, decide, act, reflect and lead *collectively* in order to be effective in the moment and in real-world contexts. These collective skills may be the most important emphasis in the framework and least in-focus across leadership programs.

Taken as a whole, these five Level 2 domains create a very rich and robust span of skills related to the engagement of PEOPLE in the dynamics of leading.

The Engage CHALLENGES domain, (figure 5) identifies skills for four archetypal patterns readily found in teams, organizations, industries, networks, or communities regardless if they are for commercial, altruistic, civic, political or social purposes.

Figure 5. Engage challenges.

In addition to these basic four patterns, there is a fifth subject in the CHALLENGES domain that focuses on skills for leading work in contexts that are more complex than the norm; such as combinations or parallels of the four basic patterns, which are often mixed in real-world complex settings. For example, crisis, operations and innovations may be simultaneous challenges.

Of all of the domains of the PLC, this set most reflects executive business thinking and skills which we place in the realm of positional leadership across a wide range of contexts.

The A B Cs

The level 1 A B C capacities of BE, KNOW and LOVE, (figure 6) are about personal development, versus skills and behaviors, or versus simply holding *knowledge about* those capacities.

The A B C domains support what Krathwohl, Bloom and Masia (1962) would identify as affective learning objectives as contrast to cognitive or operational. The strategies for developing these leadership capacities do include supporting objectives of *learning about* these concepts, and putting them into practice, but in support of the primary objectives of *internalizing* these capacities.

BE
LOVE
KNOW

Figure 6. The A B Cs.

The framework also considers *the combination* of these three domains as how the leader constructs their identity-as-a-leader, beyond their self-identity as a being. So, the self, (BE) is also component of the leader's identity, which includes the components of their relationship to knowledge (KNOW) and the outside (LOVE).

Capacity to LOVE is the leader's relationship to "the outside." This part of the framework includes the concepts of dedication to purpose and learning, selflessness in relation to the other, but also their openness and being affected by the other. This progression is consistent with adult maturity stages that are conventional and post-conventional, where the leader's consciousness extends from themselves to things and others-beyond-themselves.

Capacity to BE is very much the range and balance of self-experience of the leader, as is richly expressed in psychological lenses. In addition, it provides two areas that are not often emphasized in leadership development. The first is Physical dimensions of leader self-experience. The second is the Collective dimensions of self-experience, or trans-personal consciousness.

Finally, the Capacity to KNOW is the leader's capacity to have a relationship with knowledge, with truth and bias, polarity and paradox, and with the continuing experience of learning. There two subjects that stand out from the conventional leadership content: the challenges of complex knowledge and the place of domain knowledge as an attribute of a leader.[8]

Ultimately, the framework wants to lead the learner to a place of harmony and integration across all three of these domains, as what we experience in ourselves and bring from ourselves to the process of leading.

Sequencing and Complexity

The level 2 sub-systems are defined with sequence and hierarchical complexity in mind, where earlier subjects can be prioritized differently from more advanced or complex development subjects. For example, in the skill domain of Engage PEOPLE, there are two early subsystems (one: one and group) that easily illustrate a sequence relationship, where mastery of the former is a substantial prerequisite for the later.

Level 3

The PLC framework acknowledges the vast number of topics in the knowledge-sphere of leadership and provisionally created the construct of level 3 for them. We classify the elements for level 3 as topics or composites; *topics* being made up of single subjects that are seen as first-order constructs used for higher-level abstractions as well as for assembly into composite elements and *composites* made up of compound and complex attributes that may even span the level 1 categories and level 2 subjects.[9]

These topics and composites were part of the research ground used to conceptualize the meta-structures of the PLC framework. The sheer numbers, and the absence of an aligning or comparative framework, make these difficult to adopt and integrate – so the PLC framework is a way to organize as well as open a more integrated view.

The framework, in its current version 1.1 does not attempt to fully inventory all possible level three topics or composites. However, some of the level 2 subject descriptions do provide a good set of examples of what they might be. The subject of Exploring, within the Capacity to Know includes the specific topics of; instinct, intuition, semiotics and somatics, which make a very suitable inventory of what would be level 3 topics in this sub-domain.

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[8] We had some discussions about if bundling the Capacity to Know with Be and Love was the right framing and noted that many in the industry see intellectual and cognitive capacities as skills or see them as distinct from personality, emotion and relationships. It became clear to us that this combination in the internalized domains was one of the biggest values in including cognition, truth and knowledge as intimately human and internalized experiences.

[9] An example of a composite element may be the popular concept of "grit," which may be composed of topical elements such as emotional maturity, persistence, goals setting and holding dedication to principles.

It *may* be valuable to organize or catalogue these further, articulating explicit relationships and sorting the more valuable from the questionable. Some of this may be explored in further research and in The Prometheus Projects' structured communities and initiatives.

We do not see this kind of complex analysis as a pre-requisite to the framework's value, and it may be unrealistic and unnecessary. There is evident value in being able to traverse between a given topic or construct and contextualize them. This traversing and contextualizing is a valuable learning and communication practice.

Walkabouts

This framework with two simple divisions, six major domains and twenty-nine sub-domains (or subjects) is both simple and complicated. As you test and digest it, you likely will need to adjust your incumbent thinking and make new comparisons and contrasts. Some areas of the framework will be familiar, others highlight new connections and still others unrecognized gaps. This kind of opening awareness, contextualization and re-combination is exactly the navigation that the framework is looking to serve.

We also assume that the PLC framework is new content for anyone reading this article, so some illustrations (in lieu of conversation) would help move it from strange to familiar. We offer just a few of these (reference figures 3-6).

You can read figure 1 from upper left to lower right, as if it were a shipping manifest. However, we recommend reading top-to-bottom from top layers to lower detail, and from the lower right (starting with Z).

Top-to-bottom simply means that you consider the inner capacities and adaptive skills as useful navigational constructs to explore and to explain. Try thinking or conversing just with those. You might ask: "What part of this leadership subject is about inner capacities and what part is about adaptive skills?" We have found that this question and the simple discussion it invites are helpful.

Then, try the ABCs and the XYZs. As a group, how many examples can we find for each of these domains?

Starting from lower right, LEAD RESULT, offers the perspective of observation of the leader in action, and the development needs that might illuminate. Try asking questions such as:

- What inner capacities (or adaptive skills) do you draw from when you (insert one of the FICRA subjects)?
- How do your adaptive skills and inner capacities serve or derail the action of leading?
- Where are your strengths and which areas may be under-explored?
- What areas might you co-lead as a 'spiky'[10] strategy?

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[10] See elaboration of this concept below.

From here, you can naturally walk back through the framework for exploration as development goals or co-leadership strategies. This walk back might be facilitated by developmental assessment techniques, coaches or mentors.

Another illustration of applying the PLC framework is our conversations around the immunity to change (ITC) process for leadership development with Minds at Work.[11]

The ITC process includes a first step to set personal commitments or improvement goals. The insights for setting these goals often come from self-reflection, strengths and weaknesses feedback, psychometric and 360 assessment results. However, these also always need the subject to make some kind of self-assessment and to make a choice; and this can be difficult without a context of what a leader and leadership means.

For example, an assessment of 'low on big-5 openness' is a useful fact, but abstract in terms of what behaviors one may want to change. The PLC framework points to skilled adaptive behaviors in leading. For example, how do I 'attend' to the participants in the action of leading? What 'attending' behaviors do I see (or not see) that I want to change? Then, further along the ITC process, the explorations of the framework's inner capacities can also aide the exploration of immunities and hidden assumptions about that specific area, such as exploring intuition or devotion to others or principles.

A third illustration addresses the hypothesis that the framework might help to better sort the good from the not-so-good from the leadership echo-sphere.

I recently watched a presentation from a high-profile practitioner on 'centering practices,' that was part of a new leadership development product from an established consultancy. It introduced some popular thoughts about neuroscience (cortisol, testosterone, oxytocin), asserted that leaders should build a habit of 'centering,' and spoke about (more than demonstrated) techniques "so that cortisol can be reduced and ("not too much") testosterone and oxytocin can be released" and finally included a fair amount of asserting that 'centering' should be more prevalent.

Anyone watching might experience a range of satisfaction or tension from the presentation, but few would be able to understand what they did not already know or believe about why it was included in a session on leading, or to understand or repeat the techniques so they can be transferred to behaviors and internalized. Of course, I have re-watched this segment a half-dozen times, wearing my best humble learner hat. Still, I find it wanting as a communication or a development experience.

How might walking through the framework help navigate this?

The simple answer is that having a persistent shared mental framework gives you a context to understand and evaluate some bit of content that may come your way. I can better understand criteria for quality. I can better think critically (logically) about what I am presented. I can better engage and ask questions. I can more quickly determine: Is this worth my time? Is this going to hold up politically and experientially in my organization if I spread this content? Can I bring this to a better place? If not, I can feel good about walking away.

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[11] Unpublished conversations with Deb Helsing Ed, Co-director, Minds at Work. Minds at Work are the authors of the ITC process and providers of certifications and consulting services using the ITC model.

Finally, with the framework as a context, I can ask: How does the concept of ‘centering’ or ‘mindfulness’ fit in to this PLC framework?

Here is a quick summary of how we might ‘connect the dots’ with the PLC (with the strongest connections first):

> (Z) LEAD RESULTS includes the skill of *framing*. A leader may choose to apply the ‘centering’ skills to prepare themselves or the group to be attentive to the dynamics at hand.
>
> Capacities to BE, KNOW and LOVE are about what you (the leader) bring to (the action of) leading. ‘Centering’ practices (mindfulness, clearing) are leader-capacity practices. There is a direct relationship, with PLC subjects like self-experience, physical capacities, exploring, and presence.
>
> (X) Engaging PEOPLE and (Y) Engage CHALLENGES are leader-member exchange skills and process leadership skills categories. This is a fine point of communication about traversing the framework. Yes, you bring your inner capacities as a leader to the action. So, yes, you may bring personal mindfulness capacities to this action. Yes, skills of mindfulness may be part of your affective development. But, these parts of the PLC highlight skills-based engagement. They are compartmentalized in the framework but exist as a whole in actual experience and practice. They are distinct in the PLC so that you can (remember to) (better) make the distinctions and can design learning and development at incremental (micro) levels.
>
> Do these walkabouts illustrate that the framework has value for navigating?

We think that they do and that it does. A framework does not eliminate the complexities, paradoxes or subtleties of these subjects, nor does it eliminate the flaws that many encounters may include, but does help you walk-through them, make distinctions and contrasts, expose your learning edges and bound the scope of your collaborations.

Finally, consider the value of the framework with a group of like-minded peers. You may find some rise in enthusiasm and a new sense of alignment as you explore perspectives with this new framework. But also consider a group of participants from diverse backgrounds, and little common ground. Without the framework, this group could be quickly lost.

Discussion

Language

The framework is intended to help navigate the complexity of leadership and leadership development. It helps to answer these kinds of questions:

- What part of leading are we talking about?
- What part of leading are we observing?
- What part of leading does this program address or not address?
- What do executive leaders and front-line leaders have in common and what distinguishes their leadership capacity?

The language used for the framework has to be pragmatic in a few ways; first, to be sufficient for consent by a wide spectrum of stakeholders; second, to allow for sensible use in everyday language in any context; third, to allow for flexibility and its evolution.

We have tirelessly worked to choose terms that can be used in conversation. In some cases, we found a great fit and in other cases learned that no single term is perfect. So, we think using these terms is important, but that there is room for alternatives, aliases and evolution. To borrow from Waterman and Peters (1982), the language of leading and development requires 'simultaneous loose-tight properties.' The right terms should fit the context, but without losing the rich meaning in the minds of the stakeholders.

An illustration of language differences that might be opportunities for opening communication is one practitioner we observed using the terms 'emotion and cognition' in a similar way that we speak about BE KNOW and LOVE. Our perspective is that, for a comprehensive framework that covers all the corners but also all the levels of maturity, we have correctly positioned the concept of emotion less prominently than this practitioner has. Emotional awareness and processing our emotional self-experiences are important capabilities, but they are only a part of what we see as the self-experience of the leader.

Terms Across Disciplines

We chose terms from the education profession that we realize may be confusing to some readers, as a central organizing criterion for the level 1 domains. We think this is worth addressing.

We recognize that many conflate the terms 'affect' and 'affective.' Affect is a term in psychology that aligns with the term 'emotion,' which is also part of the common dictionary use of the term. In the PLC framework, when we talk about the sub-domain of 'self-experience,' we are including what the psychologist would speak of as 'affect.'[12]

Affective is a term from learning theory (Krathwohl, Bloom and Masia, 1962) to describe a specific class of learning outcomes. Affective learning outcomes are not emotions, per se. They are internalized experiences of any content. A Jungian may talk about ‘individuation’ of experience or knowledge.[13]

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[12] Affect is also a verb with two meanings. We use neither in the PLC. First is taking on a false persona or emotion, and we do not use the term in that sense. Second, as the pair to 'effect.' In the simple case 'affect' is the object in the sentence and 'effect' is the verb and would be the fair synonym of creating an outcome or result.

So, the ABCs of the framework are grouped as such, because they all have affective learning objectives for leader development. Even commonly thought of cognitive subjects such as ‘domain knowledge’ define primary developmental outcomes for these areas of the PLC framework and as such are *affective,* in Bloom’s sense of the word. In the case of domain knowledge, it is awareness of the capacity and commitment to building it, vs the gathering of specific knowledge content.

The Work of a Framework

To examine why leaders are failing to engage with the more rigorous leadership models, or why practitioners and consultancies continuously re-invent and reduce leadership into consumable bits, it is useful to turn to an older idea that is still true.

In Weick’s (1979) observations of organization studies, he argued that there were three types of organizational texts.

1. Simple and generalizable, but not accurate (reductionist)
2. Simple and accurate, but not generalizable (narrow, un-contextualized)
3. Accurate and generalizable, but not simple

Any text that tried to be all three (simple, accurate and generalizable) tended to contain little useful advice and lots of regurgitated clichés. We suggest that leadership industry content in 2020 is in much the same state.

Leaders in 2020 are drowning in the complexity. In such situations, humans are biased towards reaching for simple stories that feel right and protect their sense of self, shutting out and closing down information coming from challenging or critical sources. Consequently, the aspiring leader of 2020 tends to be drawn towards simple stories that are inspiring, but either not accurate (e.g. Simon Sinek’s (2009) *Start with Why*)[14] or not generalizable (e.g. leadership biographies). Cognitively and emotionally overwhelmed, they reject the more complex, accurate and generalizable texts and theories, and can regard those suggesting and producing them as threats or fools.

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[13] In contrast, knowledge/skill are in described by Bloom as ‘cognitive’ outcomes; where high-functioning outcomes might be described as ‘evaluation’ or ‘synthesis.’ Similarly, this concept is confused with the notion of ‘cognition’ in psychology and learning theory.

[14] Sinek’s focus on purpose is appealing yet can leave many feeling unfulfilled. As well, balancing inspiration with access for implementation and worthiness of purpose is more complex than Sinek makes it out to be. Further, Sinek’s approach has been critiqued as oversimplifying complex topics such as neurobiology and being overly selective in choosing evidence to support his claims, (such as the Wright brothers vs. Langley first to flight race, where Sinek focuses on the Wright brothers having a *why* while Langley is characterized as being after fame and riches. Yet evidence shows institutional constraints as well as a lack of sharing information from the Wright brothers were among the many factors involved).

This state of affairs is not helped by business schools tending to employ simple and accurate case studies that leave students with little access to the deeper more complex meta-frameworks that do provide accurate and generalizable models of leadership. Leadership development providers tend to be locked into simple and generalizable theories of leadership that, while perhaps contextually appropriate to the time they were written (e.g. transformational leadership in the 1970s and 1980s), fail to accurately address the challenges of the real world. Finally, the "business guru" publishing phenomenon, initiated by Tom Peters' solo career after *In Search of Excellence*, has resulted in a completely deregulated market of simplistic, silver bullet "solutions" that do more harm than good.

We hope our framework will allow the aspiring leader, the humble practitioner and the researcher, to develop the capacity to critically determine the value of a leadership text or development program, and appropriately categorize it, while simultaneously being able to extract valuable ideas that are contextually relevant to their specific leadership situation and developmental state.

Collective, or *Spiky* Leadership

To be effective, universal and adaptive, leadership strategies will maintain three complementary but distinct practices: long-term and just-in-time *development* and a flexible leadership *deployment* strategy.

Short-term *development* strategies will focus on more easily adopted and integrated subjects, which pragmatically means they focus on the XYZ skills domains, on leveraging individual strengths in the ABC domains and set those development experiences in a context where they can be real-world applied and socialized.

Long-term *development* involves the life-long navigation of individuals with the potential goal of reaching the higher levels of leadership outlined in stage-based models. For this to be useful, three things need to happen.

- The locus of long-term development cannot only be with the organization.
- Members must be able to plan their own developmental journey and take it with them as they change organizations.
- Lastly, objectives for development need to encompass an assumption of flexibility and agility about leadership itself.

A just-in-time *deployment strategy* relates to the possibility of being able to select and rapidly deploy contextually appropriate co-leadership teams to emerging leadership challenges. Implementing these co-leadership teams requires a change in the concept of leadership (that we have dubbed *spiky leadership)* where a much greater emphasis is given to collective leadership capacity realized through the aggregation of individual 'spikes' of talent or competency into co-leadership alliances that are creatively selected, deployed and dissolved as and when needed, a variation on the idea of lead-with-the-leaders-that-you-have – co-lead-as-you-need.

The notion of *spiky leadership* is already visible at a popular consciousness level. From children's cartoons, such as *Paw Patrol* and *Teen Titans*, to the deeply drawn fantasy of the *Game of Thrones* books and TV show and the comic-inspired *Marvel Cinematic Universe* and *The Walking Dead*, we see exceptionally talented but flawed people come together in teams to solve problems beyond the capacity of any single one of them. Within the long narrative arcs, we also see significant character development as individuals wrestle with their flaws, such as Tyrion Lannister's poor sense of self-worth and deep cynicism in *Game of Thrones* to Tony Stark's ego, self-interest and hubris in the *Marvel Cinematic Universe*.

This notion of flawed leaders is not a new concept, being a core element of ancient Greek tragedies (as explored in, for example, Knox, 1998; Engle, 2008). Unfortunately, in recent times, we have had a tendency to forget such ancient insights thanks to the dominance of what Western (2019) terms *The Leader as Messiah*, with models such as transformational and authentic leadership, and the gushing profiles of leaders in business media, having the tendency to paint rosy pictures of great people with special talents that pay no attention to any darker, shadow sides.

Flawed leaders have received some attention in the realms of psychoanalysis and clinical psychology. Manfred Kets de Vries has spent decades analysing the darker side of leadership (e.g. in de Vries, & Miller, 1985; de Vries, & Balazs, 2010; de Vries, 2010). The awareness of derailers in one's psychological make-up plays a significant part of Ron Warren's 360-degree leadership personality model (Warren, 2017) as well as Anderson and Adams' (2016, 2019) mapping of creative competencies in opposition to self-limiting tendencies such as complying, protecting and coercive control.

Spiky leadership occurs when tragic flaws are overcome by a group of leaders undertaking mature teamwork that enables their collective intelligence (Wooley et al., 2010), capacities and talents cover for their weaknesses, biases and blind spots in an environment of psychological safety (Edmondson, 1999).

Utilizing the PLC framework to unpack this, at the inner capacity level, this will involve:

- A deep understanding of their drivers and derailers, or light and shadow sides.
- Awareness of their level of understanding of a subject or situation, and where their gaps and biases might lie, and the appropriate way they can contribute to further exploration.
- An understanding of their motivational styles, and the situations in which they will and will not be appropriate.

At the skilled adaptive capacity level, this will involve:

- An awareness of how many people their leadership decisions will impact and the degree to which they can or cannot frame and communicate those decisions in culturally and situationally appropriate and engaging ways.

- Understanding the degree to which they can or cannot frame complex challenges in a manner that enables comprehension, ideation and effectiveness in others.

- An awareness of how well they can or cannot drive results without sacrificing opportunities to explore and experiment with other potential methods and practices, or to appropriately reward contributors.

We feel that this concept of spikey leadership captures something essential about this emergent phenomenon captured in popular media of a more realistically human, complex and even deliberately developmental understanding of the need for collective leadership in facing complex adaptive challenges.

Assessment and Orientation

The usefulness of a framework to develop leadership raises the topics of assessment and the following questions: How can a person find their location within the framework? How can they use it to determine how to further their learning journey?

The framework is a real-world example of Piaget's (1970) concepts of epistemological and cognitive structures and of the hierarchical complexity of task accomplishment (Commons, Trudeau, Stein, Richards, & Krause, 1998). In other words, the framework serves as the mental structure, enabling and enabled by resources such as coaching, feedback, psychometrics or 360s, to navigate your leadership objectives and to navigate the steps of learning-cycle paths:

a) Orient oneself in terms of the skill levels and capacities across the framework.
b) Prioritize specific learning goals or development intentions.
c) Gain relevant information, explore and observe.
d) Experiment through practice in context.
e) Reflect on experience to connect new knowledge gained.
f) Iteratively reset goals and repeat the cycle.

This type of learning is exemplified by the learning cycle model of Dawson and Stein (2011a, b), where this action-reflection process generates micro adjustments enabling a robust and agile acquisition of the new level of capacity or skill.

Recommendations

Additional Research

In our design, we did include sources and feedback from the leadership traditions of social-justice, political and community development, as well as business anthropology traditions. However, we see potential in a more comprehensive exploration and integration with the PLC framework. For example, social activists' distinction between community organizing and community leading is something where we see common ground with the PLC, but different language. We are curious to learn if these are only language differences or if exploration would illuminate more substantial distinctions.

The discipline of *business anthropology* has been focused on technology and innovation and we would extend this lens to explore the subjects of leadership and leadership development more with the anthropologists' eye.

We also see the subject of humor as under-appreciated as a leadership capacity and a skill that can reduce tension, open relationships, create safety and is rooted in lateral thinking and consciousness of mindsets and culture.

There is room for a stronger integration of the disciplines around lean and agile practices and leadership. The business community wants more agility but often does not understand the technologists' practices and principles. The leadership development community wants to appeal to the business sponsors so they adopt, co-opt and corrupt the idea of agile, and the lean and agile communities have been overly focused on the processes and practices while working to formulate how leadership skills are important and what they are. Empirically, there are lean and agile contexts, but not something unique that is lean or agile leadership.

Finally, some research can focus on the further delineation and exploration of the detail topics that we frame as level 3. As more of this detail is exposed and organized, there will be constructs for pedagogical sequencing and more resources for practitioners.

Community Engagement

Once there is a published PLC framework, that framework has to be discovered, understood, welcomed and applied to be useful and to affect the change it is meant to support. An adequate strategy will require substantive relationships with all classes of associations, institutions, commercial and benevolent organizations. Engagement should be through relationships across stakeholders in the process of leading and developing leaders, as well as across disciplines. With regard to this, we have initiated a broader set of engagement programs.[15]

Reciprocal Sensitivity

The PLC framework is sensitive to the inevitable diversity of knowledge in the globalized world. We are respectful of contemporary ideas and the depth of work using theories and models that pre-existed today's discourse. Unrecognized differences, personal tendencies to fix positions, familiarity or past contexts cannot and should not be discounted, even if they seem challenging, clumsy or outdated. Consequently, the evolution of the framework must strike an elegant balance between useful theories of the past and multi-cultural sensitivities and new knowledge of the present. From this, it is our recommendation (and a principle of operation for us) that the framework is not meant to dominate or over-take other constructs but align with them and increase approachability for them across the whole of the range of stakeholders.

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[15] For this we have opened a way to engage in stakeholders' collaboration through additional Prometheus Project initiatives of We Lead Global and The Clear Council, For more information please go to www.theprometheusproject.info

Governance

Deft choices of governance will be critical to establishing and attending to a common accessible leadership framework that serves its mission to open access and align quality across all stakeholders. The efficacy of the framework will be achieved as a collective ambition, and through collective influence. It has to be a part of the identity of a wide constituency. It cannot be dominated by one community, discipline, profession, economic class or culture.

We have an intention in our agency. We intend to establish a governance function that represents the best aspects of a purpose driven community, using collective intelligence, collective influence, and collective ambitions (*spikey leadership)* in the practices of framework innovation and the continued application of design-thinking principles and practices.

Cultural Assumptions

As in any substantive change initiative, there will be continuing attention to cultural adaptive change. These are a few of the changes that have more than a small immunity.

We have repeated experience speaking to executives who are impatient with program recommendations from mainstream leadership sources, yet they do not have an alternative frame of reference, advisors have investments in the status quo, executives hold personal immunities to changing accountabilities for leading. Many of those in the system are sustainers of the status quo.

Practitioners and experts are invested in their business and branding models, as well as in their identities and cultural assumptions around achievement, intellectual property rights, influence and dominance in the market.

The capabilities required to be an individual leader are idealized by both individual perfectionism and social norms.

The cultural component of leadership patriarchy is persistent and language is both a reflection and influencer of culture. Reserving the terms 'leadership' for the capacities of any role or position, 'executive' as the strategic authority of an organization and 'follower' as one of an array of choices *that leaders may take* would be progress.[16]

We assert that these and other, cultural assumptions are severely limiting as cause, not only evidence of effect.

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[16] We find some vestiges of patriarchy is actually preserved in the popular distinction of leader vs follower. This is one of the reasons we explicitly included 'followership' as part of the engagement level 3 details. Leading includes situationally following, versus an alternative to following.

Conclusion

Speaking about the demands of leading in today's complex contexts, John S. Kem, (Major General, U.S. Army War College, who led the US Army officer leadership development programs) says it well; "the environment rewards clarity and punishes those who wait for certainty" (in the forward, Gavin & Watson, 2019, np).

This quote epitomizes the imperative for leading change in complexity. It is the imperative of our profession, not of our constituencies, to create clarity in the real world. Therefore, our priority must be to create and invite consent to a clear framework of the very capacities that we want to develop.

At the same time, even as the framework has immediate value, we expect to collectively learn as a stakeholder community. Naturally, some are disposed to wait for more or gather more. Reiche (2019) writes of the phenomena of the Fear of Better Options (FOBO) that applies to leadership, where consent and action are withheld in deference to diffusion of efforts or paralyzing detail. But often, there is sufficient knowledge consent for action and attention to learning.

To reach the point of our collective ambition, where leadership is understood, accessible, normalized and even *professionalized,*[17] then we must engage in adaptive work that is fueled from collective knowledge and collective influence.

This is why we are initiating two continuing structures, the engagement of a larger circle of stakeholders through We Lead Global, and the open, diverse, independent governance for framework, aptly named The Clear Council.[18]

We foresee a day when leadership development sponsors and practitioners readily find a flexible and cohesive field of resources, committed executives and self-determining learners at all levels of leading and effective organization and community-wide intentional development.

We invite you to join us on this adventure!

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[17] Contributing to Kellerman's (2018) call for professionalizing leadership is part of the longer-term aspirations of The Prometheus Project.

[18] The Prometheus Project has a series of initiatives, including the Prometheus community forum of We Lead Global, The Prometheus Leadership Commons and its governance board, the Clear Council, and public events series related to all areas of The Prometheus Project mission. Learn more at www.theprometheusproject.info

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Stage Models of Adult Development: A Critical Introduction to Concepts, Debates, and Future Directions

Ben Bjorgaard[1]

Abstract: Diverse approaches have modeled and characterized a number of trajectories of adult psychological development that originate in stage models of developmental psychology. The number of these approaches has increased significantly in recent decades as stage models have become more popular and been applied outside of the academe, along with innovations occurring within the academe. Additionally, multiple stakeholders have sought knowledge about the types of thinking and psychological development suited for contemporary contexts and needed by individuals and communities to adequately respond to present and anticipated circumstances; this has gone hand-in-hand with psychological developmental models being increasingly applied across disciplines. The challenges involved in this research area have led to novel critical debates and developments. However, details about the theoretical and methodological foundations of these approaches are often underexamined, which can lead to misinterpretation and misapplication. This article sets out to survey some of these theoretical and methodological issues. Surveyed concepts and issues include functional, soft, and hard stages; metrics, models, constructs, and domains; and the relationship of stage models to the broader field of developmental science. Finally, suggestions about the study of adult development beyond stage models are provided including the need for interdisciplinary research and frameworks.

Keywords: Adult psychological development, applied developmental science, postconventional development, postformal development, problem-focused methodological pluralism, relational developmental systems.

Introduction

Many terms refer to trajectories and stages of psychological development that occur throughout adulthood. *Postformal* and *postconventional*, named in relation to Jean Piaget's (Inhelder & Piaget 1958) formal operational and Lawrence Kohlberg's (1984) conventional stages, may be the most common. Other suggested terms include, but are not limited to, *integrative*, *relativistic*, and *dialectical* (e.g., Kallio, 2011). Simply referring to these trajectories as adult development is another alternative. However, in most populations studied, individuals exhibiting characteristics of the most advanced stages are rarely found (e.g., Cook-Greuter, 2011); therefore, *exceptional* adult development can be a useful descriptor. Corresponding to these terms, a wide range of frameworks include a focus on adult development. This wide range lends itself – upon a close

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examination – to overlap, isomorphism, synonymity, parallelism, as well as differences (both nuanced and radical), bifurcations, contentions, and misunderstandings. By and large, these adult development frameworks stem from a tradition of developmental psychology with a primary heuristic of stages going back to James Mark Baldwin (1895) and Piaget in the early 1900s with many approaches branching along the avenues paved by other historical and contemporary researchers (e.g., Basseches, 1984; Case, 1985; Erikson, 1982; Fischer, 1980; Gilligan, 1982; Kegan, 1982; Labouvie-Vief, 1982; Loevinger, 1976; O'Fallon, 2020; Pascual-Leone, 1970; Sinnott, 1998; Wade, 1996). Because a grasp of developmental stage models in general is needed to understand contemporary stage models of adult development, this article spans stage models at large while focusing on exceptional adult development; postformal and adult development are sometimes used as catch-all terms, although others are used when referring to specific frameworks.

This article presents a selective literature review in order to introduce concepts and distinctions relevant to evaluate and compare adult development frameworks – and particularly to provide an understanding of stage models that can support integrative and applied projects related to adult development. The study of adult development beckons integrative and synthetic frameworks from diverse fields. I set out to weave a condensed narrative that can introduce readers to important considerations of stage models and their context within developmental science. I use broad brushstrokes in an attempt to provide an overarching orientation to components of stage models of adult development and select examples in order to flesh out implications of how these components interact – although in many cases alternative examples could have been used. As a brief overview and introduction to a diverse territory, this article does not do justice to any particular model. It also omits concepts important to more detailed comparisons of some models, as well as alternative directions of future development. It is hoped that it provides a general orientation to debates and future directions of stage models of adult psychological development and their relevance to integrative developmental theory. It may be of most benefit to readers who have some familiarity with a developmental stage model.

An overarching conclusion is that continued work is needed addressing integrative visions of adult development that move beyond developmental psychology, and beyond stage models in particular – and that assessing how stage models of adult development function within broader cross-disciplinary integrations will be crucial to their future development. Due to the philosophy of science, methodologies, and evidentiary basis undergirding stage models of adult development, cross-disciplinary comparisons can be vital for their evaluation and interpretation. Relatedly, these considerations can help to hone their pragmatic and ecological validity – how developmental constructs fair when applied in open systems in the real world, and how stage models can and should be used.

First, Cook-Greuter's (1999) expansion of Jane Loevinger's (1976) model, a widely used framework of adult development, is briefly summarized as a case study in order to contextualize and provide a foil with which to compare further distinctions, in addition to introducing contemporary trends. Next, distinctions between functional, soft, and hard stage models are introduced, followed by debates about metrics, models, constructs, and domains. Then, an underdiscussed relationship of stage models of adult development to a recent paradigm shift (termed Relational Developmental Systems) in the broader field of developmental science is considered. Last, a discussion about what these findings regarding stage models mean for broader, potentially transdisciplinary, approaches to adult development is provided, including suggestions about future directions. Interested readers can see Gidley (2016) for a wide-ranging overview and comparison of descriptive characterizations of postformal models.

Loevinger and Cook-Greuter

In her doctoral dissertation, Cook-Greuter (1999) built on Loevinger's (1976) Ego Development Theory and measuring instrument, The Washington University Sentence Completion Test (WUSCT) to research hypothesized further stages of postconventional development. Cook-Greuter accomplished this goal by comparing postconventional development categories in Loevinger's model to a number of other developmental theories. This project was motivated by rare outlier WUSCT results from previous studies that could not be meaningfully interpreted within Loevinger's model. In addition, Cook-Greuter tested her new conceptualization of stages by analyzing 145 postconventional WUSCTs to refine theoretical categories and 60 WUSCT protocols to assess for statistical validity and reliability.

An ego stage according to Loevinger's theory can be described as a particular cohesive view of reality – of self, external circumstances, and existential situation – that is part and parcel of one's sense-making (Cook-Greuter, 1999). Development is posited to occur through hierarchically complex and differentiated stages as an individual matures, as it is conceptualized in most stage theories. The WUSCT tests for ego stage by asking an individual to freely complete sentence stems (usually 36), which are then assessed by a researcher using a manual that categorizes elements of language corresponding with the various stages. According to Cook-Greuter, the WUSCT was thoroughly tested for reliability and validity at the time of its development; it has also continued to be tested and critiqued (Manners & Durkin, 2001).

In 2011, Pfaffenberger, Marko, and Combs published an edited volume that focused on Cook-Greuter's work and legacy, *The Postconventional Personality*. In this volume, Cook-Greuter (2011) described several developments that occurred since the publication of her dissertation. The WUSCT database continued to grow, which led to further nuanced findings that were important in refining the measurements of postconventional stages, since protocols scoring at these stages are rare. Protocols scoring at stage 10 (the highest stage) were found in an average of only .06% of sample populations. Cook-Greuter reflected on the relationship between a growing database and the models and methods used to assess it:

> The question is whether and to what degree to tailor the psychometrics to best reflect the findings or whether to *honor* a method now seemingly suboptimal in light of the data. How to do this in a valid psychometric fashion without employing Bayes' theorem is the challenge. As a developmental measure, based on empirical evidence, the SCT requires new theory and new measurement approaches when the data changes. Another pertinent and practical question is at what point in time does one introduce radical changes to an established measure including new metrics and recalculate, readjust older samples in light of the new evidence? (p. 61)

This quotation describes the interdependent relationship between research, theoretical models, and metrics, in addition to touching on several points that are discussed in greater detail below. Cook-

Greuter further stated that Loevinger's measure continued to be applied in new contexts, including longitudinally and across cultures. Several doctoral dissertations tested and applied Cook-Greuter's post-conventional stages (e.g., Boyer, 2005; Hewlett, 2004). Cook-Greuter (2011) considered additional differentiated stages and recently hypothesized a new substage (Ego-aware) that would help to explain certain discontinuities between the highest stages she originally proposed. New sentence stems and their scoring manuals were introduced in order to better fit contemporary contexts. Cook-Greuter developed a training program for scoring the tests and utilizing developmental perspectives for researchers and "coaches, consultants, and change agents" (p. 67). Cook-Greuter also discussed how Ken Wilber's (2000) integral theory and the integral community helped to popularize her work, and how this moved her away from research and toward applications in professional development. Relatedly, the WUSCT was increasingly adapted for applied versus research settings. Last, Cook-Greuter discussed how the WUSCT's growing popularity in applied settings had in turn led to a greater demand for trained individuals capable of scoring tests in the post-conventional stages and differentiating between new patterns in test results from high achievers knowledgeable about developmental theories versus the genuine stages indicated by them.

The foundations and developments Cook-Greuter (1999, 2011) described in many ways parallel those of other approaches to adult development. To summarize, Loevinger (1976) developed a theory of development rooted in the psychoanalytic theories of Henry Stack Sullivan (1968) and Erik Erikson (1982), and then refined several constructs of that theory, which remarkably could be validated and tested for using a relatively simple test that takes about a half hour to complete. Similarly, Cook-Greuter called upon additional theories that seemed to imply further stages of adult development, and continued to refine ego development theory and its operationalization through the WUSCT. Loevinger's and Cook-Greuter's process is representative of approaches to stage models of adult development in that particular theories of development rooted in broader psychological models, revolving around a certain aspect and construct of a given approach, are validated and tested through traditional psychometric methods, statistical analyses, and instruments.

The qualifications and grains of salt that go along with these processes, and powerful but limited methods, are often left in the background. However, these models have led to a variety of useful ways to conceptualize, research, and apply adult development. These include different takes on domains (what develops) and stages (with what structure), as well as how and why development occurs. They also include similarities and isomorphisms that lend themselves to the common practice of creating a diagram that aligns alternative models' conceptualizations of stages with one's own. This is commonly used to support the coherence and theoretical development of a given model; however, there is also a danger of conflation – the variety of viewpoints contained leads to a challenge of appropriately considering the gamut of theoretical and methodological variables in a synthetical or organizational project. The image of a kaleidoscope with shifting, interacting shapes and angles surfacing as one gazes at adult development goes some way to describe the state of the field and the difficulty of interpreting what one actually sees.

Functional, Soft, and Hard Stages

Many of the continued debates within the field of adult development relate to general debates and theoretical distinctions pertinent to the field of developmental psychology at large. They have been ongoing since the foundations of the developmental field and are best understood within that context. For example, Lerner's (2018) overview of the history of developmental theory included an explication of distinctions between continuous versus discontinuous change, nomothetic versus idiographic models, and elementarism versus holism. Lerner stated,

> The point of these examples is that, despite a relatively high degree of consensus about development being a theoretical concept that, at the least, connotes systematic and successive change in an organization, there is a good deal of disagreement among developmental scientists about what particular ideas need to be added in order to define the term adequately. These differences in definitions are associated with philosophical and theoretical differences which also divide scientists. (p. 11)

Although it is outside the scope of this article, a thorough comparison of approaches to postformal development would necessarily call upon these foundational distinctions and an examination of how they are employed in other areas of developmental psychology. For instance, stage models are largely nomothetic, generalizable across individuals, and omit idiographic considerations unique to each individual's development; however, this distinction also plays out differently within various stage models, and there are possible routes of synthesis as will be outlined below.

Perhaps the most foundational distinctions between postformal approaches are those between functional, soft, and hard stage models. Reams (2014) outlined four criteria attributed to Piaget that are used to make these distinctions: (a) stage models display a qualitative difference in the structures of stages, (b) stages develop in an invariant sequence, (c) there is an underlying organizational structure of the stages as a whole, and (d) later stages include and integrate previous stages while also displaying progressive differentiation of their contents. Functional stage models meet the fewest of these criteria, hard stage models meet all, and soft stage models fall in between. Erik Erikson's (1982) widely known model is an example of a functional model in that it is culturally relative, organized around responses to common life experiences particular to a society, and not structurally hierarchical in a strict sense (Reams, 2014). Functional stage models may be relevant and valuable to a specific community, but lack evidence supporting them as a veritable model of universal developmental structures.

Loevinger (1976) and Cook-Greuter's (1999) models, on the other hand, are examples of soft stage models. Their structures are derived hypothetically from the measurement of a construct inferred from categories of content on the WUSCT. Those categories are mixtures of content and structure thought to indicate a stable set of personality and ego functions. In this way, Loevinger's stages are "ideal type[s] based on [a] theoretical representation" (Reams, 2014, p. 129). While they have structural qualities, such as qualitatively different hierarchical organizations that meet much of the above criteria, they fall short of hard stage models in the following ways: The method and evidence by which the model is arrived at are more indirect and speculative; stages are defined by functions of a holistic self and its motives, as well as by linguistic content, rather than strict structures. This leeway enables soft stage models to formulate their characteristic broad, far-reaching theories, for instance, constructs that delimit universal patterns of meaning-making, yet may also tend to lose the trees in the forest, not be as rigorously defensible as harder stage models, or prove with further research to be as coherent and cohesive as their theories claim.

Hard stage models involve the delimitation of structures within discrete domains (Reams, 2014). For instance, in contrast to an ego developmental model, hard stage models would examine the specific acquired skills that the self experiences as unified (e.g., physical, emotional, and cognitive tasks) that relate to “empirically observable and measurable actions in direct ways” (p. 129), and by doing so, according to Reams, perhaps articulate more defensible, and universal, developmental logics that would continue to be applicable with the advancement of psychological knowledge. Lourenço (2016) offered a similar characterization of hard and soft stages of development and further qualifies that hard structural stages are

> necessary rather than optional tracks of development…, embody operative reasoning which represents interiorized and reversible forms of action…, distinguish content from the form or structure of thought…, can be formalized within a rational, normative model…, [and] appeal to an epistemic, or rational, general subject as opposed to a psychological, individual subject. (p. 124)

It is notable that characterizations of postformal development tend to blossom from soft stage models. The greater flexibility of soft stage models may serve in formulations of exceptional adult development. Postformal stages tend to highlight reflexivity; awareness of constructs; relativity; and a grasping of multiple points of view, systems, and paradigms. Perhaps structures explanatory of these functions are challenging to operationalize within the strict criteria of hard stage models. Along these lines, Stein (2008) suggested that developmental evaluations can be considered as “rational reconstructions of a kind of deep-seated intuitive knowledge that is *always already* a part of the network of practices and beliefs that constitute the lifeworld” (p. 3). In other words, there may be a tacit knowledge and “groking” of developmental trajectories, at least those of thought and language, at large in human interactions that are brought to consciousness in various ways by different developmental models and evaluations. Stein conducted an exploratory study to research this hypothesis by asking 181 non-specialist participants to rate the developmental levels of interview transcripts. In support of the hypothesis, Stein found general agreement between raters with each other, as well as between raters and the Lectical Assessment System’s formalized metric of development. Soft stages’ more speculative and holistic models may allow a greater operationalization of this intuition. However, particularly in soft models developing outside of academia, there are challenges in formulating defensible academic knowledge. There have also been major strides in hard stage approaches to postformal development in recent decades. These developments have led to current debates on properly differentiating and utilizing models, metrics, and constructs.

Models, Metrics, and Constructs

What does it really mean when an individual scores at Cook-Greuter’s (1999) Autonomous stage on the WUSCT, or at another stage on an alternative developmental system? How should those scores be interpreted? What are the standards and quality control procedures of developmental systems? Ross (2008) traced how information about developmental systems can become increasingly distorted when that information is distanced from the academic research contexts where it originates. For instance, qualifications of developmental systems that are implicitly obvious to researchers – who are trained in the specific psychometrics used to arrive at them – can be lost as that research is consumed, reinterpreted, and communicated by others. Ross used the metaphor of telephone games and outlined the particular example of how figures in Wilber's (2006) *Integral Spirituality* promulgated distortions and errors both in the discourse of academics specializing in other areas and especially outside of the academe.

Psychometric models, metrics, and measures are the lifeblood of postformal developmental systems and commonly underlie the misinterpretation of those systems (Stein & Heikkinen, 2009). Stein and Heikkinen set out to demystify these facets of psychometrics in order to offer a quality control framework. This framework is particularly valuable for users of developmental stage models who do not specialize in them. In addition, Stein and Heikkinen provided a "limited, exploratory" review assessing metrics currently in use by various developmental approaches, and found a "conspicuous lack of psychometric rigor on the part of some developmental approaches" (p. 5). Supporting the keystone quality of metrics, Stein and Heikkinen outlined that in developmental psychology, metrics are calibrated via psychometrics (in contrast to measuring methodologies of other fields such as biometrics or sociometrics). These metrics inform the discipline's discourse about models, which in turn inform applied technologies, such as testing in education.

Metrics and models can both be considered the development discipline's representational devices: symbol systems, methods, and propositions claimed to refer to actual developmental processes (Stein & Heikkinen, 2009). Metrics are used to determine the quantity or degree of a psychological attribute that is found in a set of performances. Metrics can take the form of calibrated measures or soft measures (not to be confused with soft stages). Calibrated measures rely more-so on quantitative protocols in their development, whereas soft measures rely more-so on qualitative protocols. Models account for and characterize – explain and describe – the presence of psychological attributes. Furthermore, Stein and Heikkinen distinguished different quality control devices for metrics and models. Metrics are controlled via psychometric tests of validity (reasonableness of inferences and claims) and reliability (quality of performance and error proneness). Models are controlled via disciplinary discourse, a community's critical interchange of arguments and evidence, both theoretical – targeting the "truth, coherence, and reasonableness of models" – and practical – targeting their "ethics, efficacy, and implications" (p. 7).

In developmental psychology, metrics are essentially "inter-subjectively codified modes of systematic differential classification" (Stein & Heikkinen, 2009, p. 10) that are proclaimed to be indexes of development. The degree and type of calibration a metric has undergone determines its status as a soft or calibrated measure. Stein and Heikkinen pointed out that the history of cognitive developmental research has been "a history of techniques for the classification of various performances and behaviors" (p. 11). Additionally, although there are some outliers such as Piagetian balance beam tasks, nearly all developmental metrics interpret linguistic performances. However, the modes and analyses of linguistic performances can vary subtly and substantially. For instance, Kohlberg's (1984) moral stage model relied on analyzing the content of interviews, Loevinger's (1976) model relied on the analysis of projected sentence completions, and other metrics such as hierarchical complexity (discussed below) analyze deep structures of linguistic performances rather than their content. Stein and Heikkinen summarized the general procedure used to develop a metric:

> the codification of a metric begins with a research team issuing relatively informal judgments about how the various performances in a dataset should be organized developmentally. That is, they argue about why one performance is more developed than another, suggesting various properties of the performances that should function as indexes of development. Then through iterative procedures for garnering intersubjective agreement, an explicit hierarchical taxonomy emerges and specific properties of the linguistic performances are promoted to the status of being indexes of development. That is, developmental metrics are built to function as *representational devices*; they are created to help us *see* development by privileging specific properties of linguistic performances that have proven useful for the purpose of reliable differential developmental classification. (p. 11)

When codification results predominantly from researchers iteratively surveying large longitudinal data sets until reaching an intersubjective agreement about their "inventory of level-specific conceptual content" (p. 12), it is a soft measure. Calibrated measures go through further quantitative analysis to refine the metric and ensure the validity and reliability of fine-grained individual distinctions. The soft/calibrated categories are relative to a degree. Metrics can be more specifically described in relation to the variety of types of validity and reliability, the claims of the model they correspond to, and the context in which they are used. Additionally, soft measures can become calibrated, and calibrated can become soft, depending on the quantitative evidence available at a given time. However, in general, metrics that are noisy (vary from rater to rater) within a reasonable range of error are soft measures. These differences can make soft measures unsuitable for applied settings, especially when purporting to draw conclusions about individuals. However, they are suitable for research purposes, especially when searching for patterns across sample populations. On the contrary, calibrated measures are more suited for applied settings and making distinctions at the individual level in addition to research. For instance, although Loevinger's metric was better calibrated than many soft measures, Stein and Heikkinen claimed that Loevinger explicitly stated "it was *not* [Stein and Heikkinen's emphasis] to be used for rendering measurements of individuals" (p. 9). Stein and Heikkinen also found that the Hierarchical Complexity Scoring System and Lectical Assessment System were the only truly calibrated metrics at the time, "using quantitative indexes of internal consistency" (p. 19).

As for the quality control of models, Stein and Heikkinen (2009) proposed that multiple frameworks of evaluation can be useful in determining a model's value. As an example, they suggested Charles Sanders Peirce's (1998) distinctions between *utility*, *security*, and *uberty*. Utility refers to a model's fitness as a means to an end. Security refers to what types of evidence a model is based on and how coherent is the model and this evidence. Uberty refers to the magnitude of a model's "world-disclosing power" (p. 14) and suggestiveness. A model may, for instance, have a low security value, lacking evidence, but a high uberty value, being comprehensive and shining a light on a variety of disparate situations. Thus, distinctions between soft and calibrated metrics (as well as soft, hard, and functional stages) do not imply value judgments in themselves, and should not motivate a homogenization or marginalization of metric and model types. Furthermore, Stein and Heikkinen suggested an "integral and problem focused metrological pluralism" (p. 20), a pragmatic ideal involving reflections on developmental metrics and their uses, including detailed validity and reliability profiles, to inform decisions about which metrics are suited for which purposes. This ideal can also be extended to other aspects of developmental approaches.

Soft, hard, and functional stages interact intimately with soft and calibrated metrics (e.g. functional stage models tending to use no metrics, soft models tending to use soft metrics, and hard models tending to use calibrated metrics), as well as with further distinctions outside of the scope of this article, resulting in advantages and disadvantages, including potential misapplication (e.g., soft measures inaccurately assessing individuals in applied settings, such as at work or school, and leading to negative outcomes for those individuals). In this way, there are a host of qualifications that should be brought to light about any developmental approach before it is put to use, perhaps the most important being qualifications about its metric and the metric's relationship to its model.

Additionally, there is a further layer that can be brought into the discussion of metrics and models: addressing construct validity theory itself. The categories of content, structure, and performance attributed to stages in developmental models are notably abstract constructs, especially those of later adult developmental stages. While metrics are designed to measure psychological attributes, they do so through constructs. For instance, Slaney (2017) stated, "Loevinger contended that while traits exist in people, constructs 'exist in the minds and magazines of psychologists…*Construct* connotes construction and artifice'" (p. 3). Therefore, more accurately stated, metrics measure the amount of a construct reflected in test performances assumed to refer to actual attributes based on limited statistical evidence. Some of these statistical limitations are further discussed in a following section. Statistical methods and criteria related to construct validity have continued to develop since their formulation. Current arguments go as far as to question the validity of the overarching paradigm of these statistical methods in certain contexts, particularly their relationship to environmental validity and applications in developmental psychology (Diehl, Wahl, & Freund, 2017; Lerner & Callina, 2013).

Of course, it is precisely the function of testing theories and studying hypothesized attributes with characteristics that are to a large extent unknown that necessitates the use of constructs. However, the potential conflation with their referents; the false ontology attributed to constructs (and thereby metrics, models, and whole approaches to development); the lack of qualifying their limitations, including their openness to further tests of validation and invalidation; and a potential blending of confirmatory and exploratory objectives and implicit circular reasoning (Slaney, 2017), can lead to an additional false security of developmental approaches. Furthermore, the reliance on psychometrics and relatively brief linguistic performances limit the developmental stage approach as a whole. In light of these considerations, it may be worth musing on how the oft-quoted Bronfenbrenner (1979) statement referring to methodological limitations in developmental psychology might apply to developmental stage approaches: "developmental psychology…is the science of strange behavior of children in strange situations with strange adults for the briefest possible periods of time" (Bronfenbrenner, 1979, p. 19).

Domains

Perhaps the most discussed distinction within developmental stage discourse is between domain general and specific models. Domains refer to the particular area that stages apply to. Do stages apply to the total structure of an individual's psychology, to specific skills and capacities, or is the structure of development somehow separate from any content, being able to be applied to any domain, general or specific? Are there primary domains necessary to develop before others? Are there particular domains that interact in patterned ways, following a more or less universal path across a lifespan? Or is the concept of domain itself simplistic, obscuring the complex, contingent, ever-shifting, individual webs of skills and capacities interdependent with one's environment that one can perceive more generally or specifically within different contexts, frameworks, and objectives? These are some of the questions scholarly discourse has examined. As it may be clear, conceptions of domains are interdependent with other aspects of developmental structures. Because of this, a brief account of stages themselves is called for.

As mentioned, that development occurs in discontinuous stages or through continuous change has been a dichotomy motivating reoccurring debate throughout the history of developmental psychology. Some continue to question the relevancy of stages (e.g., Truhon, 2012); others argue that there cannot be a developmental psychology without some concept of stages, whether going by stages or another term, such as "periods, levels, phases, cycles, seasons, [or] layers" (Lourenço, 2016, p. 126). Lourenço explicated several additional questions relevant to this controversy: Do stages exist? Where are they? What features define a sequence of developmental stages? What factors and processes underlie change, be it either continuous or discontinuous? Dawson-Tunik, Fischer, and Stein (2004) argued that stages should not be at the center of developmental theory, even of stage theories, nor did Piaget intend them to be. On the contrary, the psychological processes of equilibration and reflective abstraction were the centerpiece of Piaget's theory, and stages are a heuristic tool to aid the description and understanding of behavior developing from these and similar processes.

These are potentially muddy waters with different avenues for seeking clarity. Different domains and their conceptualizations can align to different sets and numbers of stages; relatedly, different domains can highlight different conceptions of change and stability, process and stage. Additionally, approaches focused more on content or structure attempt to integrate one another, with structural models being more apt and likely to do so. It is a diverse and shifting kaleidoscope indeed. For instance, Dawson-Tunik, Commons, Wilson, and Fischer (2005) pointed out that research has supported both continuous and discontinuous models of development and variations of them, and that development can appear continuous or discontinuous depending on the conditions.

To further research the contested "shape of development" using a domain-general approach – specifically Dawson-Tunik's Lectical Assessment System, which is based upon Commons' Model of Hierarchical Complexity (Commons, Trudeau, Stein, Richards, & Krause, 1998) and Fischer's Skill Theory (Fischer, 1980) – Dawson-Tunik, Commons, Wilson, and Fischer (2005) analyzed 747 moral judgement interviews for broad changes in conceptual development. A domain-general approach uses criteria that are independent of particular content and can therefore be used across domains of specific content (Dawson, Xie, & Wilson, 2003). Dawson-Tunik's system, Commons' model, and Fischer's theory have developed somewhat in parallel, spearheading contemporary versions of the domain-general approach. Dawson-Tunik et al. (2005) suggested that while most researchers acknowledge that different domains may develop at different rates, and different processes and structures may correspond to different domains, there may still be a more general developmental process and structure that applies across domains, which they termed *hierarchical integration* and/or *complexity*. They concluded that their results suggest "development [across the lifespan] proceeds in a series of spurts and plateaus across six complexity levels" (pp. 26-27). This, in addition to other examples of their research comparing the Hierarchical Complexity Scoring System with other domains and metrics further supports their domain-general approach (e.g., Dawson, 2001, 2002). Dawson-Tunik et al. (2005) provided the caveat that while hierarchical complexity explains a great deal about a performance (e.g., its form and order of abstraction), it makes no claim about explaining its content. Rather, its content must be assessed independently and then integrated with information about hierarchical complexity. It should be noted that this broad-brushed survey, in its attempt to introduce a variety of ways to conceptualize domains, is liable to leave a number of details unpacked that are vital for assessing an individual approach; for instance, important distinctions between the Lectical Assessment System, Fischer's Skill Theory, the Model of Hierarchical Complexity, and the Hierarchical Complexity Scoring System (e.g., see Commons, 2009). These details would require digging into a particular model and its supporting research.

It may be helpful to distinguish between general or specific domains (referring to the breadth of their content) and domain-general or specific approaches (referring to whether the developmental approach as a whole applies only to a particular content). For instance, Loevinger's (1976) model is general at a content level, encompassing the totality of a personality, while not addressing specific, individual skills. On the other hand, the Model of Hierarchical Complexity can be applied to any content domain, broad or specific. However, it does not necessarily imply a more general content domain. For instance, Mascolo (2008) stated that

> Individuals do not operate "at a stage of development." They operate at a range of different levels of hierarchical complexity depending on skill area, task, context, degree of support, and other variables. It is thus necessary to postulate the concept of *domain* to refer to the particular conceptual, behavioral, or affective area within which activity operates. (p. 330)

Yet, the Model of Hierarchical Complexity can also apply to general content domains. Wolfsont, Ross, Miller, Commons, and Chernoff (2008) described how it can account for the evolution of general intelligence:

> the evolution of humans required performing increasingly hierarchically complex tasks within multiple domains. Hierarchical complexity increases task by task. Tasks occur within, and differ by, determinable domains, their stages of performance measurable using the Model of Hierarchical Complexity. How well one performs within single and multiple domains is considered to indicate intelligence. (p. 416)

Murray (2009) questioned whether the Lectical Assessment System and Hierarchical Complexity can really apply across domains as coherently as their theorists suggest. Are certain metrics, even certain paradigms informing the development of assessments, limited to certain types of domains? Murray took what can be considered a softer stage approach and argued that some formal models, particularly ones that are cognitively-and-linguistically-oriented may be limited to a "cognitive line," which he partially characterized as the information processing and logical-rational functions of thought. Further, he suggested that these models might overlook an umbrella of "wisdom skills," functions he characterized as letting go, emptying, opening, un-learning, as well as "ego awareness, construct awareness, socio-emotional-relational skills, dialectical intelligence, negative capability, empathy, and compassion" (p. 353). He also suggested that perhaps the term *cognitive line* is more-so a term used to contrast with the host of functions overlooked by some formal models, and that other models such as Loevinger's (1976) might encompass some of these left-out wisdom skills.

Heikkinen (2009) countered Murray's argument. Heikkinen suggested that while many important changes in "body/mind/soul" (p. 369) such as Murray described, and other important human trajectories, may occur according to different logics than underlie a model like hierarchical complexity, arguing that those changes are equivalent to development rests upon one's definition of development and more-so on the evidence for that definition; otherwise, any sort of change could potentially be confused with development. Trickier still is operationalizing and measuring a concept of development to further test it, for instance, to differentiate it from confounding variables and assessing the validity and reliability of such a concept. When done so, alternative concepts of development may in fact be found to not follow a developmental pathway, or they might be found to be attributed to another underlying developmental logic, such as hierarchical complexity. Heikkinen argued that Murray's fundamental questions are empirical. She then provided an example of how hierarchical complexity could be controlled for in studies to differentiate it from ego development theory, or Kegan's (1982) constructive-developmental model, to explain how much of the variance of scores are explained by hierarchical complexity versus other systems, and to effectively see whether those alternative systems tap into hierarchical complexity or other truly different aspects of development.

To conclude this section, it is hoped that this brief overview of perspectives about domains has provided a sketch of their relationship with other aspects of developmental approaches, some contemporary avenues of debate and research, and the stakes of conceptualizing and operationalizing domains in the overall meaning of a developmental approach. Furthermore, it is hoped that the overarching review of functional, soft, and hard stages; and models, metrics, constructs, and domains, has been evocative of the complexity of interpreting and applying developmental stage models – to arrive more at open questions and possibilities of interpretation rather than a set of fixed conclusions.

Relational Developmental Systems

To open further beyond stage models: The stage model tradition of developmental psychology is a relatively distinct branch. This distinctness is emphasized by the particularity of constructs, models, and metrics of specific approaches. Once a specific model is formulated it can become an isolated tradition in and of itself, revolving around its own constructs and metric. While there has been continued refinement of methods and theories particular to stage traditions, there has been a paradigm shift within the broader field of developmental psychology that few stage models have grappled with.

Nearing the turn of the millennium the term *developmental psychology* began to be eclipsed by the term *developmental science* (Bronfenbrennar & Evans, 2000), including the renaming of journals and handbooks tied to the field. This rebranding went along with a heightened interdisciplinary focus, as well as reflection and debate about the fundamental assumptions, paradigms, theories, and methods of the field, which finally resulted in what has widely been heralded as a paradigm shift termed the Relational Developmental Systems Paradigm (Lerner, Overton, & Molenaar, 2015). This paradigm is characterized only very briefly and partially here. It is predicated upon a process-relational philosophical perspective thought to transcend Cartesian dualism, atomism, and positivist reductionism. It rejects "all splits between components of the ecology of human development (e.g., between nature- and nurture-based variables, between continuity and discontinuity, and between stability and instability)" (p. xviii.). It replaces these dichotomies with holistic syntheses using an "integration of three relational moments of analysis: the identity of opposites, the opposites of identity, and the syntheses of wholes" (p. xviii), which can have a profound impact on the methodology and interpretation of research traditions – in part by processually integrating dichotomies that the field of developmental psychology has struggled with at large. It emphasizes that "all levels of organization with the ecology of human development are integrated or fused" (p. xviii), that basic units of analysis are individual-context relations and co-actions of these, and that organisms are "inherently active, self-creating, self-organizing, and self-regulating nonlinear complex adaptive systems," which develop through embodied activities (p. xviii). Development is inherently context-sensitive, plastic, subject-specific, and stochastic (probabilistic or random) (p. 3). Interested readers can see Overton (2015) for a succinct overview of the Relational Developmental Systems Paradigm and its corresponding metatheory, and Dick and Müller (2017) for further exploration of the Relational Developmental Systems Paradigm and its application in different areas of developmental science.

Describing the paradigm in depth and unpacking the particular implications of this paradigm shift for stage models of adult development is largely outside of the scope of this paper due to its complexity and the number of possibilities of stepping down the paradigm into specific theories and approaches. While unpacking the implications of the paradigm for stage models of psychological development is needed – should stages explicitly be conceptualized as abstracted, partial moments embedded into a vision of an integrated, processual whole? – each individual stage model might also grapple with this paradigm in unique ways. However, the implication of the Relational Developmental Systems Paradigm for the integration of basic and applied research should be noted:

> in contemporary developmental science any splits between basic and applied research are regarded as anachronistic representations of the reductionist, Cartesian approaches of earlier eras. In short, the application of developmental science (optimization) is a co-equal partner with description and explanation within developmental science as it now exists. (Lerner, Overton, & Molenaar, 2015, pp. xvii-xviii)

The more distanced basic research and theorizing about stage models are from ecologically valid, applied contexts, the more suspect.

Furthermore, human development – the subject of developmental science – is now thought to be predominantly nonergodic. Ergodicity describes mathematical and statistical qualities of systems that must apply for standard statistical analyses to be accurate: “In developmental research, almost all functions of natural development and intervention processes are nonergodic. Therefore, standard statistical analysis of aggregate-level data is bound to result in descriptions of developmental structures that fail to describe the individual” (Lerner, Overton, & Molenaar, 2015, p. 803). This has led to a surge of methodological innovation and borrowing, as well as critique focused on the fundamental limitations and errors of traditional statistical methods applied in developmental psychology (Little, Gorrall, Panko, & Curtis, 2017). Two specific emphases are on the individual as a unit of analysis and the ecological validity of experimental designs (Diehl, Wahl, & Freund, 2017; Nesselroade, 2017). The outcomes of this paradigm shift have yet to reverberate throughout the kaleidoscopes of stage models and conceptions of postformal development, and that their evidence, methods, and models may look profoundly different in coming years. The Relational Developmental Systems Paradigm can also provide a new context from which to qualify, interpret, and apply stage models of development – and to scaffold the integration of stage models of adult development with other domains of developmental science and allied projects from other fields.

Discussion and Conclusions

Adult development can be seen through the kaleidoscope of diverse models and metrics, as well as their triangulations. It can be approached in versions of hard, soft, and functional stages; soft and calibrated metrics; and general and specific domains. While arguments can be made that certain stage models measure aspects of bona fide psychological development, we have seen that delimiting processes of development and its measurement within stage model discourse also requires contextualization, debate, and interpretation. Relatedly, the relative insularity of stage model discourse can tend to reify notions of adult development, as constructed within stage model discourse, as more comprehensive or substantive than they would appear with a more open and cross-disciplinary discourse about adult development. Different approaches and models have different uses, which an analysis of their components can help to identify. Many of these qualifications also apply to approaches to adult development stemming from other branches of psychology and other disciplines – although potentially requiring alternative criteria for making evaluations. Notably, many diverse models closer to or within the realm of psychotherapy can be thought to include their own theories of adult development (e.g., Maslow, 1971; Rogers, 1961; Jung, 1964). Furthermore, literatures within fields such as wisdom research, spirituality, self-development, health and wellness, contemplative studies, education, leadership, and epistemology, among many others, contain threads that closely relate to adult development. These examples are primarily intended to evoke the potential for more integrative models of adult development, and secondarily for more pragmatic, contextual models to suit certain purposes – that knowledge provided by stage models can be used to inform customized, integrative conceptualizations of adult development, which paradigms like Relational Developmental Systems can help to support. Stein’s (2008) notion of how developmental evaluations relate to “rational reconstructions of a kind of deep-seated intuitive knowledge” (p. 3) can again be applicable here. The potential to abductively infer conceptualizations of adult development best suited to a given context could be promoted via broader integrative frameworks and specialized customizations.

From this broader perspective, stage models of adult development can largely be characterized, as Stein and Heikkinen (2009) suggested, as the branch of adult development that specializes in psychometrics and construct validation. We have overviewed some of the methods and forms of evidence this entails. Of particular relevance here is Murray's (2009) and Heikkinen's (2009) debate regarding forms of development that stage models might leave out – or from the alternative view, perhaps should leave out. Furthermore, constructs such as learning, growth, self-actualization, individuation, change, wisdom, and transformation overlap closely with development. However, are there underlying logics, processes, and structures that are more defensible to claim as bona fide development? Are methods of construct validation, and even psychometrics at large, the best ways to certify that bona fide development? While there continue to be strides in psychometric methodology, there have also been challenges to some of its core assumptions. Walking the tightrope that these questions entail requires applying broader frameworks of assessment, akin to those Stein and Heikkinen (2009) suggested. This might include making criteria of hard stage models explicit in each case. It might also include applying metatheoretical distinctions such as Charles Sanders Peirce's (1998) utility, security, and uberty, or those from Relational Developmental Systems, or an alternative to the overarching scope of stage models itself.

Yet, from other disciplinary perspectives and paradigms, the assessment of security, utility, and uberty can shift. This includes when other methods and forms of evidence are incorporated into current stage models. It was suggested how the Relational Developmental Systems Paradigm may serve the integration of these points of view within developmental science. Other paradigms and disciplinary approaches may be relevant as well. With so many perspectives currently available, further work on adult development will likely entail comparing, integrating, and evaluating theories at a metatheoretical level (e.g., Edwards, 2010; Wallis, 2016); as well as the development of applied interdisciplinary specialists and frameworks of assessment (e.g., Bammer, 2013; Hvidtfeldt, 2018).

An important related consideration is that as scholars attempt to describe some overarching characterization of adult development at more abstract, synthetic orders, they can quickly enter the realm of philosophy and speculation – with its own set of strengths and limitations. Much of the work on adult development at this time is motivated by a search to grasp the types of thinking, and ways of being, needed for our particularly complex world and its related crises. The philosophizing that attempts to characterize this mode of thought is both inherent to many of the models and constructs in the study of adult development, as well as separate speculative work inspired by it. Basseches (2009) discussed the relationship between philosophical argument, systematic measurement, and forms of empirical data in these endeavors. He suggested that no "amount or form of empirical data can substitute for philosophical argument" (p. 312), and that the study of development is inherently philosophical. For example, he stated "Piaget's contribution was to offer observations of ontogenesis as a novel way of addressing existing epistemological questions, ontogenetic data were used in the service of philosophical argument and demonstration, rather than offered as a substitute" (312). Philosophical approaches are essential and inevitable; appropriately delimiting them and their relationship to empirical data are vital to their success.

This predicament – having multiple disciplinary and interdisciplinary approaches and paradigms relevant to the study of adult development, a need to understand the modes of thought most useful in contemporary contexts, and a need to evaluate these projects – emphasizes both the continued need for more typically hard science advances (for instance, generalizable measurement), and softer, functional, philosophical advances related to synthesis and contextual application – and greater coordination between the two. One side of this is bound to be greater incorporation of mainstream advances in developmental science. Another is likely to include applied problem-focused methodological pluralism, action research, and equivalent endeavors. One example along these lines is developmental maieutics (Dawson & Stein, 2011), which operationalizes a stage model of development in cycles of research and practice to produce usable knowledge in the context of educational assessment and in crafting effective learning sequences. Another is Collaborative Developmental Action Inquiry (Torbert, 2013), which although referring to a meta-paradigm of social science and social action, can in part be understood to operationalize stage models of development in the context of organizational change.

There are many paths forward for the study of adult development. This article primarily overviewed concepts necessary to evaluate stage models in general; thereby making suggestions about their continued refinement. Secondary functions of the overview were to set up a comparison to other paradigms – both in and outside of the developmental science discipline – and to emphasize a need for metatheory, metascience, and interdisciplinarity in the study of adult development. Hand-in-hand with this was an emphasis on problem-focused methodological pluralism – as humans are increasingly understood as embodied, context-ridden, becomings-in-process, many signs point to a need for interactive, ecologically-embedded, applied methods to develop an effective understanding of development, and to appropriately apply that understanding. As the popular interest in stage models of adult development is likely to continue, as well as their translation to academic and public discourses further afield, it is particularly important to delimit and qualify them – including the potential unknowns involved in the current most validated models.

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Being Prepared to be Unprepared: Meaning Making is Critical for the Resilience of Critical Infrastructure Systems

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Abstract: Infrastructure is essential to provision of public health, safety, and well-being. Yet, even critical infrastructure systems cannot be designed, constructed, and operated to be robust to the myriad of surprising hazards they are likely to be subject to. As such, there has been increasing emphasis in Federal policy on enhancing infrastructure *resilience*. Nonetheless, existing research on infrastructure systems often overlooks the role of individual decision-making and team dynamics under the conditions of high

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ambiguity and uncertainty typically associated with surprise. Although evidence suggests that human factors correlating with resilience and adaptive capacity emerge in later stages of psychological development, there is an acute need for new knowledge about the human capacity to comprehend increasing levels of complexity in the context of rapidly evolving technological, ecological, and social stress conditions. Sometimes, it is this developmental capacity for meaning-making that is the difference between adaptive and maladaptive response. Thus, without a better understanding of the human capacity to develop and assign meaning to complex systems, unquestioned misconceptions about the human role may prevail. In this work, we examine the dynamic relationships between human and technological systems from a developmental perspective. We argue that knowledge of resilient human development can improve system resilience by aligning roles and responsibilities with the developmental capacities of individuals and groups responsible for the design, operation, and management of critical infrastructures. Taking a holistic approach that draws on both psychology and resilience engineering literature facilitates construction of an integrated model that lends itself to empirical verification of future research.

Keywords: Human development, human resilience, infrastructure, resilience, resilience engineering.

Introduction

National policies and guidelines for critical infrastructure resilience effectively acknowledge the complex, multi-organizational, and sociotechnical integration of people and technical systems (DHS, 2013; The White House, 2013). These policies support the concept of critical infrastructure resilience as a function of coupled social and technical systems' physical and functional characteristics (Madni & Jackson, 2009), which includes the dynamic relationships between systems (Hollnagel, Woods, & Leveson, 2006). The physical and functional characteristics are often considered in a context of spatial and temporal dimensions. These are standard dimensions for analysis using traditional systems theory and other deterministic methods well suited for technological systems. For example, the factors related to spatial and temporal dimensions of a power system failure can impact assessments of community resilience (Munzberg, Wiens, & Schultmann, 2016) in response to disruption. However, the incorporation of human systems requires an additional dimension of symbolic meaning be included (Holling & Gunderson, 2002) together with space and time. In an analysis of the scholarly literature comparing the theme of resilience in social psychology, ecology, planning, and engineering disciplines, Fleming (2016) found that engineering scholarship focused predominantly on the "highly technical" side of "natural systems," and tends to ignore social systems. Though perhaps not surprising, this is problematic.

The meaning-making dimension accounts for the dynamic properties of complex adaptive human systems embedded within technological systems and operating environments proximal to physical infrastructure. That is, the human capacity to assign meaning and to dynamically interpret events and information relevant to critical infrastructure operation and management in response to disruption can impact the resilience of human coupled infrastructure systems. While many systems are designed to limit or minimize the role of human interaction, human ingenuity may sometimes be relevant to successful adaptation. Therefore, without a better understanding of the human capacity to construct meaning, reductionist views of resilience and tacit assumptions about the complex roles of humans interacting with infrastructure will prevail.

For example, disasters such as the Three Mile Island accident in 1979, the Challenger explosion in 1986, and the New Orleans Levee breakdowns in 2005 illustrate how the complexity of human interactions with technology can amplify failures in coupled systems (Perrow, 2011). By contrast, events like the ditching of US Airways Flight 1549 in the Hudson River on 15 January 2009 (NTSB, 2010) and the safe return of Apollo 13 in 1970 (Madni & Jackson, 2009) demonstrate how human ingenuity and adaptation can overcome surprising technological system breakdowns. Each situation required unanticipated changes in operational complexity and performance and although these examples are extreme, other similar scenarios play out across multiple domains and scales that go unnoticed by the public or academia. In a worst case scenario, unexpected and unknown changes can lead to catastrophic system failures propagating across spatial and temporal dimensions and operating domains such as the Fukushima power plant disaster in 2011 (Park, Seager, & Rao, 2011). In each case, the people involved make decisions and take actions based on mental models – psychological renderings of perceived or imagined conditions (Olson, Arvai, & Thorp, 2011) – that may no longer be relevant when subject to surprise. This means mental models can fail when faced with unanticipated emergent phenomena requiring an adaptive response to ambiguity and uncertainty (Sweet et al., 2014). Therefore, disasters can create conflict between preconceived conditions and direct experience (Hollnagel, Paries, Woods, & Wreathall, 2011) that can impact human interactions with technological systems.

The unanticipated differences between actual and preconceived experience of a person in a disaster scenario may be incompatible with their designated roles and responsibilities corresponding to thoughts, actions, and behaviors. As such, effective adaptation can require dynamic adjustment of individual roles to accommodate unknown or unexpected conditions. In the examples above, human lives were dependent on the ability of the pilots, crew, operators, engineers, and others interacting with the relevant technical systems to comprehend the situation and adjust to maintain viable system performance levels. Responding to adversity with incompatible preconceived responses can amplify failures and make conditions worse (Hollnagel & Fujita, 2013; Hollnagel et al., 2011), which means the roles played by humans can be pivotal to critical infrastructure resilience. In other words, human ingenuity can either enhance or diminish resilience because the intentions, motivations, and judgments of a single individual can influence infrastructure meta-systemic (whole-system) dynamics and outcomes. Moreover, while it may seem apparent why “preparing a large population for any kind of disaster will require a developmental perspective on human resilience, risk, and vulnerability” (Masten & Obradovic, 2010, p-11) the dichotomy of possible roles played by humans in disaster scenarios highlights this important point.

From a resilience engineering perspective, resilient outcomes are a factor of the recursive processes describing the capacities of intentional systems – sensing, anticipating, adapting, and learning (Park, Seager, Rao, Convertino, & Linkov, 2013). Thus, the resilience processes involved with navigating actual versus preconceived experience are partly determined by the complex interactional dynamics between humans and technical systems striving to restore and maintain viable operating levels. Dynamic adjustments to roles and responsibilities can require reinterpreting existing information while giving rational meaning to new and sometimes conflicting information in response to unanticipated or previously inconceivable events (Hollnagel et al., 2011). With potential near-term outcomes ranging from widespread environmental contamination to loss of life, the cascading impacts of disasters can have long lasting social and economic consequences that are less apparent (Cardona, 2003). For example, the human ability to adapt to climate change is a long time scale event with broad impacts linking complex relationships reflecting values, ethics, and world views (Adger et al., 2009) with human development (O'Brien & Hochachka, 2010) and built infrastructure.

Although humans behave like complex adaptive systems, resilience research linking the dynamic interactions between humans and infrastructure is limited (Seager et al., 2017). As a result, it is difficult to communicate complex resilience concepts and collaborate across disciplinary boundaries like psychology and engineering. Moreover, the meanings and interpretations of knowledge, operational dynamics, and events influence human perspectives of system performance, which can vary across people and cultures involved. Other factors include the context of certain roles and responsibilities for a given scenario and corresponding environmental conditions. Thus, in addition to the epistemological perspectives representing multiple ways of knowing coupled systems across relevant spatial and temporal dimensions, critical infrastructure resilience must integrate epistemological diversity to form a holistic perspective reflecting how different human systems comprehend and interact with technological systems. This approach requires understanding how humans assign meaning and interpret knowledge, which includes experience in relation to infrastructure resilience operations and management and how the processes can change across time.

Human psychological development contributes to a body of knowledge and understanding about how people make meaning of the world and interpret experience. Disaster events identify knowledge gaps between the relationships of human resilience, development, and the ability of people to respond and recover (Masten & Obradovic, 2010), which is dependent on critical infrastructure. Although human agency influences behaviors, actions, and interactions with other systems (Brown & Westaway, 2011; Nelson, Adger, & Brown, 2007), there is little research integrating resilience and adult human development perspectives with the resilience of critical infrastructure operations and management. Although less is known about how resilience appears in adults given a significant research focus on youth (Campbell-Sills, Cohan, & Stein, 2006), progress in adult human development research has advanced and offers new insights about adult resilience. A growing body of research describes how human development endures well into adulthood and throughout a lifespan (Cook-Greuter, 2004; Kegan, 2002; Kohlberg, 1973; Loevinger, 1976; Vincent, Ward, & Denson, 2015).

In this paper, we address a gap in the resilience engineering and infrastructure resilience literature to consider how the psychological meaning-making of humans interacting with infrastructure operations and management can influence factors related to perceptions and interpretations of resilience. To accomplish this, we apply a holistic approach that allows for simultaneous perspectives drawing on the resilience engineering, psychology, and human development literature. We review multiple frameworks, synthesize diverse concepts, and propose a conceptual model for investigating the relationships between the developmental capacity of meaning-making and critical infrastructure resilience. The model effectively integrates the socio-technical resilience processes – sensing, anticipating, adapting, and learning – with human developmental capacities. Our analysis suggests that each stage of human development brings new psychological resources contributing to the capacity to comprehend and respond to increasing levels of complexity and uncertainty thereby enhancing the effectiveness of the socio-technical resilience processes. We contribute a conceptual model as a guide for future research. We argue that progressive stages of human development corresponding to more complex forms of meaning-making bring new qualities and capabilities for designers, operators, and managers that can strengthen and enhance critical infrastructure resilience.

A Holistic Perspective of Resilience Engineering Processes

A holistic approach incorporates epistemological diversity to understand the complexity and uncertainty of maintaining a viable operating performance level for critical infrastructure (Thomas, Eisenberg, & Seager, 2018). Whereas a focus on anticipating known failures related to operational disruptions and human interactions with infrastructure can enhance risks mitigation efforts (Cardona et al., 2012), preparing to be unprepared may require circumventing deterministic preparations and responses (Park et al., 2013). Moreover, the adaptive capacities of people, organizations, and engineered systems are interdependent on an ability to accommodate unknown *internal* and *external* changes (Hollnagel et al., 2011). In other words, adaptation to unpredictable system shocks may sometimes require abandoning prescriptive actions while dynamically constructing novel solutions. With regard to human systems, interactions and feedback loops maintain a sense of (rational) equilibrium by forming psychological structures that either filter incoming data to fit existing worldviews or creating new worldviews (John Manners & Durkin, 2000). Thus, a holistic framework of critical infrastructure resilience must integrate the endogenous human factors corresponding to the adaptive capacity of people and working groups interacting (proximal) with technology in addition to sensing, anticipating and learning (Thomas et al., 2018). Without consideration of human dynamics and developmental predispositions, which includes how people interpret and make meaning of information and events, even seemingly comprehensive analyzes of coupled social and technical systems risk offering partial solutions by ignoring critical dependencies.

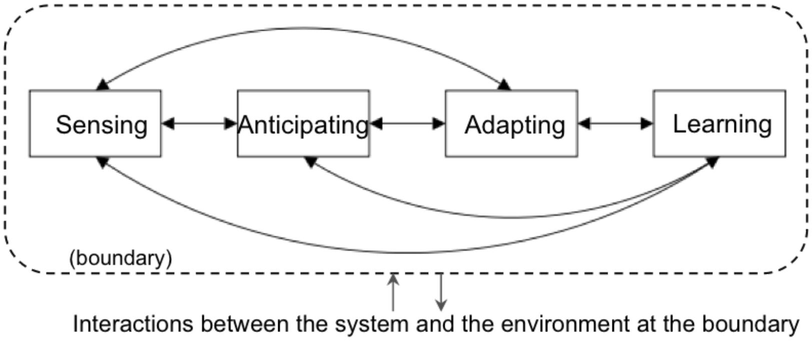
Sensing
Anticipating
Adapting
Learning
(boundary)
Interactions between the system and the environment at the boundary

Figure 1. Sociotechnical resilience processes – sensing, anticipating, adapting, and learning (SAAL).[2]

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[2] The feedback loops represent the recursive and reciprocal relationships between processes. The boundary condition represented by the dashed line defines the physical and functional areas of consideration for a given scenario. The resilience processes interact with the proximal environment at the boundary (Seager et al., 2017; Thomas, Eisenberg, Seager, & Fisher, 2019).

The 'SAAL' processes (Figure 1) describe four abilities of resilient systems: sensing, anticipating, adapting, and learning (Hollnagel, 2014; Park et al., 2013). Sensing is the ability to detect system state variables; anticipating is the ability imagine changes in system conditions and state variables; adapting is the ability to adjust system performance while maintaining viable operation; learning is the ability to absorb, retain, and access knowledge from experience. The processes represent the recursive and reciprocal relationships between complex socio-technical systems that influence resilience. Taken together, the SAAL processes provide a coupling mechanism for linking dynamic interactions between humans and critical infrastructure (Park et al., 2013). For example, in addition to planning and preparation, humans are integral to the management and operational response to disasters and catastrophic events (Madni & Jackson, 2009). Moreover, officials and civil servants as individuals, teams, and organizations must coordinate and maintain critical infrastructure technical mitigation and recovery (and adaptation) policies and resources (Labaka, Hernantes, & Sarriegi, 2016) while also providing a diversity of rescue (recovery) and support services across other systems, (e.g. public health and safety). The four abilities are a way to describe the resilience of the coupled human–infrastructure system. Thus, the SAAL processes provide a means for describing the dynamic relationships between people and infrastructure (Thomas et al., 2019). In addition to adaptive behaviors, the relationships can also include maladaptive behaviors (Masten & Obradovic, 2010), as observed with events like Hurricane Katrina (Westrum, 2005).

The catastrophic consequences of Hurricane Katrina revealed numerous latent human inadequacies during the recovery efforts, including physical deficiencies, personnel failures, organizational failures, and bureaucracy failures (Westrum, 2005). Multiple breakdowns across operational domains exposed a myriad of individual and organizational deficits including poor leadership, poor judgment, and criminal behavior of officials. Over 200 civil servants either deserted or were absent without official leave including 25 police officers who quit while on duty at areas of intense stress and two officers who committed suicide (Westrum, 2005). "It seemed as if no one was in control. In a very real sense this was true" (Westrum, 2005, p. 5). In other words, there was a catastrophic breakdown in the human component of recovery management in multiple overlapping operating domains within the city of New Orleans. Beginning with a profound lack of preparation cited just a year earlier (Laska, 2008), a "social catastrophe" ensued (Cutter & Emrich, 2006) along with a complete loss of power, loss of the levees system, loss of communications, and a loss of civil obedience among numerous officials (Westrum, 2005). A capstone to the emergency management breakdowns in New Orleans in response to hurricane Katrina, the mayor of New Orleans when the hurricane hit in 2005 was sentenced to federal prison in 2014 (Murphy & Peristein, 2014) for corruption and gaff during and after the hurricane struck the city.

In contrast to the diminished moral capacity prevalent among a cross section of civil servants, there were also examples of exceptional human performance during Hurricane Katrina. Admiral Thad Allen, the commander of the U.S. Coast Guard gained high regard for his leadership during the recovery efforts (Sullenberger & Century, 2012). His rapid response was unscripted and credited with saving thousands of people. Allen was appointed Director of the Federal Emergency Management Agency at a time of organizational dysfunction. His ability to articulate and enact a set shared values among staff, was recognized as exceptional leadership in a most difficult of circumstances.

Moral development is relevant to critical infrastructure resilience engineering for two reasons. First, moral maturity is related to human resilience (Kumpfer, 1995), which means it is embedded in any consideration of infrastructure resilience that includes people. Second, because an individual's capacity for moral reasoning may be viewed as a protective factor for people (Stokols, Lejano, & Hipp, 2013), moral development is interrelated to the dynamic interactions between and among humans, technical systems, and environments.

Given the complex, interdependent, and interconnected nature of infrastructure systems, certain critical roles (e.g., managers and operators) require individuals to make sense of systems in complex ways that can involve high degrees of ambiguity and uncertainty. Evidence from research in developmental psychology suggest that human factors such as interpersonal awareness, the capacity to consider alternative perspectives, complex systems thinking, and adaptive capacities emerge and advance in later stages of human development (Cook-Greuter, 2004; Vincent, 2015). Moreover, research by Cook-Greuter (1999) supports the notion that capacities for complex systems thinking are rare human traits only accessible after passing through a sequence of developmental stages. Other evidence suggest that individuals are often discouraged from developing by existing educational institutions and management structures (Torbert et al., 2004). Furthermore, Cook-Greuter's data (n=4,510) indicates that fewer than 20% of the adult population arrive at the later (postconventional) stages of development (Cook-Greuter, 1999). As a result, certain catastrophic infrastructure breakdowns may exceed the capacity of some individuals to effectively function and cope with high degrees of complexity and uncertainty. The developmental stages support a holistic structure for linking diverse concepts of resilience involving human interactions with – operating and managing – infrastructure. Thus, in addition to the potential to enhance anticipation of potential threats and outcomes, a key benefit of a holistic framework integrating human development and critical infrastructure resilience processes is to align operations and management roles and responsibilities with individual strengths and adaptive capacities of people.

Human Development Theoretical Framework and Potential Implications for Infrastructure Resilience

Human development theory incorporates epistemological diversity to account for differences in how people make meaning and interpret knowledge in different contexts across time. That is, the way in which individuals experience resilience concepts and how those concepts and definitions influence relationships and proposed solutions over time correspond to the human capacity to develop more complex ways of interpreting and interacting with their environment. In this section, we examine different human development theories to identify one able to support a holistic framework for critical infrastructure management applications.

Early Developmental Theories

Jean Piaget (1954) is considered to have developed the first structural model of cognitive development (called "genetic epistemology"). He created a comprehensive empirical method to assess the capacity for rational thought and describe how patterns or stages of cognition emerge in developing children and adolescents. Piaget identified the important transition from "concrete" to "formal" cognitive capacities that allow for abstract concepts, logical reasoning, and the rigorous imagination of possibilities/alternatives.

Building on Piaget's work Lawrence Kohlberg developed a theory of moral development describing six types of moral reasoning in children and adults (Kohlberg, 1969, 1973). The six stages appear amongst three tiers – pre-conventional, conventional, and post-conventional (Kohlberg, 1969, 1973). A related pattern was found by William Perry's in his study of "epistemological growth," or how people relate to knowledge and belief – its sources, justifications, and evolution in people and society (Perry, 1970). Pre-conventional stages are not much concerned with either moral principles or how beliefs are justified. Conventional stages look to authorities and peer groups for both valid knowledge and moral rules. Post-conventional individuals have well developed "formal operations" that allow them to think autonomously and critically about both knowledge and ethical principles.

As noted with Hurricane Katrina, moral development is relevant to critical infrastructure resilience engineering partly because an individual's capacity for moral reasoning may be viewed as a *protective factor* for people (Stokols et al., 2013) impacting human resilience and decision making. In other words, moral development may influence the dynamic interactions between and among humans and technical systems. Epistemological sophistication is also relevant to critical infrastructure resilience because in unexpected scenarios the normative procedures may not apply, and critical thinking, reevaluation, and creative problem solving are needed. Importantly, research shows that under stress cognitive capacities can deregulate, which can be viewed as a developmental "down shifting" to earlier levels of complexity capacity (Goleman, 2006; LeDoux, 1996).

Development of Cognitive Complexity

It is now a cliché and truism that we live in a "complex and fast-changing world." Increasingly we understand that real-world situations are "ill-defined" or "wicked," characterized by "vague or broad goals; large volumes of data from many sources; nonlinear, often uncharted analytical paths; no pre-set entry or stopping points; many contending legitimate options; collaborators with different priorities; [and] 'good enough' solutions with no one right answer (Mirel, 2004). Robert Kegan (1994, p. 12) notes that "when we experience the world as 'too complex' we are not just experiencing the complexity of the world. We are experiencing a mismatch between the world's complexity and our own at this moment. There are only two logical ways to mend this mismatch – reduce the world's complexity or increase our own. The first isn't going to happen." This concept links the developmental complexity of the infrastructure managers to the operational complexity of the infrastructure systems.

Developmental stage theories provide a way to understand the relationships between coupled human – infrastructure systems. As described by Gardner (1983), people exhibit "multiple intelligences" – a framework extended by Wilber who articulated over a dozen developmental "lines" studied by researchers (Wilber, 2000). Although researchers differ on the mechanisms, stratification schemes, and definitions of developmental levels, there is a surprising degree of correspondence among dozens of theories as to the general outlines of adult cognitive development. Domains studied include cognitive development (Piaget, 1954; Murray, Hufnagel, Gruber, Vonèche, & Voneche, 1979), moral development (Gilligan, 1982; Kohlberg, 1969), ego development (Cook-Greuter, 2004; Loevinger, 1966, 1976) values development (Beck & Cowan, 2006; Graves, 1970), epistemic development (Perry, 1970), and socio-emotional development (Goleman, 2006). So-called neo-Piagetian theories have also emerged proposing underlying mechanisms involved in all forms of development (Commons & Richards, 1984; Fischer, 1980).

In practice the sub-skills underlying many of these "lines" have common roots and overlapping branches, and we can focus on two broad categories of cognitive development. The first is *cognitive complexity* (using the narrow definition of cognitive as intellectual skill distinct from social/emotional skill); and the second is *meaning-making* capacity, which is Kegan's term for a skill-set that substantially overlaps with Loevinger's construct of ego development (we treat the two as essentially equivalent).

Cognitive complexity refers to the complexity of mental operations applied to some task or problem. More complexity involves more parts, relationships, factors, dynamism, interdependence, and/or unpredictability (Benbya & McKelvey, 2006; Grünwald & Vitányi, 2003). Elliott Jaques, who studied the complexity of tasks, jobs, and cognition, states that “the true source of difficulty in any problem lies in its complexity” (1996, p. 64). Jaques applied his findings to management and organizational theory, finding that “complexity may be defined in terms of the number of variables that have to be dealt with in a given time in a situation, the clarity and precision with which they can be identified, and their rate of change" (ibid). He developed methods for matching task and job complexity to an individual's cognitive complexity. Coming to conclusions compatible with those of Commons, Jaques identified two fundamental elements of cognitive complexity (Jaques, 1989). First, understanding in an area develops from simply recognizing or defining things and working with one variable at a time ("declarative"), to understanding simple relationships among them ("cumulative"), to understanding more complex relational and cause/effect chains ("serial"), to inter-related co-causal relationships and whole systems that coordinate multiple relational chains ("parallel"). Second, this entire sequence of increasing complexity happens first for semi-concrete (and symbolic) information, and then it reiterates for abstract systems of information.

Our increasingly complex world requires increasingly complex cognition to understand it – and *humans* and human systems are among the most complex objects we must think about. Meaning-making capacity can be understood as the application of cognitive complexity to domains involving human emotions, interiors, groups, and knowledge. Intellectual skills by themselves are understood to apply to the domain of "it" or external objects, but these skills can be applied to, not *some* idea, but *my/your/our/their* ideas (or needs, values, etc.).

Loevinger and Wessler (1970) say that "conceptual complexity has proven to be an important clue to [stage of ego development]" (v. I, p. 115); and Kegan's model describes how underlying "cognitive, interpersonal, and interpersonal" structures ("lines") develop in parallel. These theories were developed to understand how the average person understands "the world," including self and other, but since our context includes the technical and engineering domains involved in infrastructure resilience, we need to clarify that the complexity we will focus on is “meaning-making” complexity, which includes intellectual (strictly cognitive) complexity, but only to the degree needed to understand "the world" at a given level of sophistication. It seems self-evident that one can have a high degree of complex intellectual knowledge about a system yet not have the ego development or meaning-making sophistication to, for example: question whether one is over-confident in one's knowledge, seek alternative perspectives, or flexibly adapt one's knowledge when it is proven inadequate. Strictly cognitive skills are important for routine (even advanced) engineering, design, and problem solving work, but in social-technical situations involving rapid change, multiple perspectives, or unpredictability, meaning-making skills are critical.

Constructive Developmental Theories

Researchers including Robert Kegan (1980, 1982) and Jane Loevinger (1979, 1983; 1970) created theories of "meaning making" (called "ego development" by Loevinger) that incorporate all of the above mentioned modalities – cognitive, epistemological, and ethical (including social/emotional) reasoning – into a single construct and framework. These theories are *holistic* – integrating cognitive, affective, and behavioral elements. Furthermore, these three core dimensions align with prior work relating human and technical resilience capacities through the SAAL socio-technical processes (Thomas et al., 2019).

A central tenet of these "constructive-developmental" theories is that people construct and interpret meaning and identity in an ongoing manner to understand and adapt to changing life conditions and experiences. The developmental perspective shifts the focus on human understanding from *behavior* and *what* people think to *how* people think – i.e. to underlying cognitive structures that influence how complex problems are perceived and approached and how solutions are proposed and justified (Cook-Greuter, 1999; Kegan, 2002).

The gradual accumulation of new interpretations and ways of making meaning constructs an invariant sequence of psychological structures identified as levels or stages of development representing increasingly complex, nuanced, and creative ways of interpreting and navigating life conditions and experiences (Cook-Greuter, 1999; Kegan, 1982; Kohlberg, 1969; Loevinger, 1983). Each level brings new capacities while strengthening and building on existing capacities. As the complexity and uncertainty of life conditions and environments increases, developing individuals are challenged to build more comprehensive psychological meaning-making systems (Cook-Greuter, 2004) and an increasing capacity for positive adaptation (Hauser, 1999).

Meaning making (or ego) development spans a spectrum from black-and-white, narcissistic, impulsive, us-vs-them, short-sighted, and simplistic thinking into increasingly complex, nuanced, flexible, adaptive, reflective, expansive, empathic, and pro-social thinking. Vincent notes that as meaning-making develops "each shift in stage offers greater cognitive complexity, a more integrated perspective, greater self and interpersonal awareness, responsibility and personal autonomy, decreasing defensiveness and increasing flexibility, reflection and skill in interacting with the environment" (2015, p. 3). Here the reader can recognize the close connection between the research in developmental science and the need for adaptive and resilient approaches to socio-technical systems.

A developmental perspective on human resilience offers a better understanding of what type of adaptive responses may be possible when critical infrastructure resilience includes human factors. Because developmental theories outline specific levels and detailed skill progressions, questions of resilience capability can be translated from vague notions or binary categories (is or is not resilient) into a more detailed and discriminating framework composed of multiple levels that have already been researched. A consideration of human development may assist, for example, with aligning management roles and responsibilities of people holding critical positions in emergency response networks. It can also help managers assess matches of tasks and situation complexity to human capacity in any situation, and especially in changing or uncertain contexts.

The Ego Development Theories of Loevinger & Cook-Greuter

Though Kegan's and Loevinger's theories cover very similar territory, we will focus on Loevinger's ego development theory (though "meaning making" development may still be a more apt term) because (1) it has been more used and validated, and (2) its assessment method, the sentence completion test (SCT) is more practical and also more strongly validated.

The literature drawing on Loevinger's ego development model is so extensive that it includes a number of meta-analysis and critical overviews, substantially supporting its validity and usefulness (Cohn & Westenberg, 2004; Holt, 1980; Jespersen, Kroger, & Martinussen, 2013; Manners & Durkin, 2001; Novy & Francis, 1992; Vincent, Ward, & Denson, 2013). According to an overview by Cohn & Westenberg (2004) the SCT has very strong psychometric properties, having "indicated excellent reliability, construct validity, and clinical utility" (p. 596). As of their 2004 article, "findings of over 350 empirical studies generally support critical assumptions underlying the ego development construct" (p. 485). Blumentritt (2011, p. 153) says that "more than 1,000 articles and book chapters have been published examining nearly every conceivable aspect of the construct and measurement of ego development [showing an overall] substantial support" for the theory and measurement.

Translated into over ten languages (Cohn & Westenberg, 2004), the SCT has been used to study personality differences (Westenberg & Block, 1993), leadership (B. C. Brown, 2011; Vincent et al., 2013), management and organizational development (Torbert et al., 2004), and individual resilience (Gralinski-Bakker, Hauser, Stott, Billings, & Allen, 2004; Hauser, 1999). Pfaffenberger (2011, p. 10) says that "the face validity of the SCT is demonstrated by the sheer fact that it has been used in more than 300 research studies [including] such diverse topics as parenting behaviors, managerial effectiveness, and the effects of meditation on recidivism rates." Numerous studies have shown that ego development is distinct from but correlated with general intelligence (about a 30% correlation) and verbal fluency, and, as expected, like IQ, it correlates with socioeconomic status (Cohn & Westenberg, 2004; Crammer, 1999; Manners & Durkin, 2001). Pfaffenberger (2011, p. 10) says "the SCT correlates with education, socioeconomic status, and complexity of work, which has been shown to hold true across international samples" (emphasis added).

Cook-Greuter’s research enhanced and extended the seminal work of Jane Loevinger at the postconventional levels (Cook-Greuter, 1999). Cook-Greuter’s research showed that the ‘Strategist’ stage or structure in Loevinger’s model appears as two distinct stage structures. Data collected from 4,510 participants over a period of 15 years were used to characterize an additional post-conventional level and to verify adjustments to the SCT measurement instrument

(Cook-Greuter, 1999). Table 1 identifies the "action logics" system of meaning making, and central focus for each stage along with the distribution of stages among research subjects. The dashed lines identify the stages most relevant to the present research and are discussed in more detail in the next section. The research also provided new details about the post-conventional stages such as an enhanced capacity to cope with complexity and uncertainty and an improved ability to adapt to change (Cook-Greuter, 1999; John Manners & Durkin, 2000; Vincent et al., 2015). These considerations can have both causal and prognostic implications for the resilience of infrastructure systems within which human systems are embedded.

Table 1. Ego-development Stages, Action Logics, and Central Focus.[3]

Stage Name	**Action Logic**	**Central Focus**	**% Adults** (N=4,510)
Preconventional			
Opportunist	Needs rule impulses	Own immediate needs, opportunities, self-protection	4.3
Conventional			
Diplomat	Norms rule needs	Socially expected behavior, approval	11.3
Expert	Craft logic rules norms	Expertise, procedure and efficiency	36.5
Achiever	System effectiveness rules craft logic	Delivery of results, effectiveness, goals, success within a system	29.7
Post-conventional			
Individualist	Relativism rules single-system logic	Self in relation to system, interaction to system	11.3
Strategists	Most valuable principles rule relativism	Linking theory and principles with practice, dynamic systems interactions	4.9
Alchemist	Deep processes and inter-systemic evolution rules principles	Interplay of awareness, thought, action, and effects; transforming self and others.	2.0

Cook-Greuter's framework was extended further by O'Fallon in her STAGES model (Murray, 2017; O'Fallon, 2011). STAGES formalizes and extends Cook-Greuter's original notion of a sequence of "person-perspectives" into a sequence of six person-perspective transformations (i.e. first, second, third...sixth person-perspective). It proposes an underlying set of generative parameters that give rise to the entire developmental sequence, including growth from concrete to increasingly abstract (or "subtle") objects of awareness, advancing cognition from individual objects to collectives and systems of objects, and moving from receptive to more active and reciprocal orientations to knowledge. O'Fallon's SCT scoring method is much less dependent on the content of the sentence completions (i.e. is more focused on underlying structure) and thus her method is more extensible to new domains.

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[3] Stage names by Cook-Greuter (and Torbert); Action Logics are meaning-making systems with increasing complexity; Central Focus describes a psycho-social disposition or frame of reference dominant for each stage; % Adults are the results of a 15 year study involving 4,510 adults across a broad range of demographics. (Cook-Greuter, 2004; Torbert et al., 2004).

Both the theoretical model and the assessment method described above apply to critical infrastructures whereby roles and responsibilities are impacted by the resilient development of the designers, operators, and managers involved as noted earlier with the contrasting management responses to Hurricane Katrina. That is, psychological meaning-making structures supporting the different ways of interpreting events, experiences, and changes associated with stages of development can impact how people interact with and influence the resilience of complex technological systems like infrastructure.

Ego Development Applied to Infrastructure Resilience Management

Studies Linking Human Resilience and Development

Related studies of human development focus on how children and young adults learn and grow (develop) in different support-and-challenge contexts. These studies offer valuable insight to human development by emphasizing a behavioral perspective of the interactions of individuals exposed to different environments such as risk and adversity (Masten, 2001), social ecology and diversity (Bronfenbrenner, 1999; Ungar, Ghazinour, & Richter, 2013), and cultural tensions (Ungar, 2006). In general these studies show that supportive social networks enhance an individual's resilience, and that resilient personalities withstand stressful situations more favorably (Masten & Obradovic, 2008). Within the Loevinger lineage we can note two longitudinal studies relating human development and resilience.

In the first study, data gathered at the beginning and end of a nine-year period showed a strong positive relationship between measurements of ego-resiliency and ego-development (Westenberg & Block, 1993). Empirical evidence suggests that ego resiliency and ego-development are interrelated, and that development may occur at different rates among individuals within the same age group (Westenberg & Block, 1993). Ego-resiliency, which describes “flexible and resourceful adaptation” was divided into three subdomains, and each proved interrelated to ego development. Although the relationship between ego-resiliency and ego-development did not contrast or change among ego stage transitions, a strong, coherent relationship was apparent. Another important finding relevant to our paper is the anticipated and observed strong positive relation between interpersonal integrity and ego development. Interpersonal integrity, which describes a capacity for authentic relations, was subdivided into two subdomains, and each revealed a strong, coherent relationship with ego-development.

Although the age range of the participants does not represent middle-aged managers, this study is most relevant to the work herein because it provides evidence of the interrelatedness between concepts of human resilience and human development. The data suggest that the properties that correlate with the resilience of a person also correlate with patterns of ego development. A potential application to infrastructure resilience is the alignment of short and long-term roles and responsibilities with consideration of individual human strengths and growth opportunities.

In the second study, multiple sets of data collected over a 20 year period found associations between ego-development and a set of themes characterizing a group of people demonstrating resilient outcomes in young adult life despite extreme adversity in childhood (Gralinski-Bakker et al., 2004; Hauser, 1999). The research posits a perspective of resilience as the positive adaptation in response to adversity (Masten, Best, & Garmezy, 1990) and includes measurements and assessments of both internal states of being *and* observed actions and outcomes (Gralinski-Bakker et al., 2004; Hauser, 1999). The research findings are relevant to our integration of human resilience and development with critical resilience for two reasons.

First, whereas the research described above reviewed data collected at the end points of a nine-year period, this longitudinal study collected data over a period of 20 years, in addition to the endpoints, including adolescence and young adulthood. Although single cross-sectional or time-point assessments can yield valuable insights, longitudinal research is vital to understanding potential trajectories of resilient development in humans (Gralinski-Bakker et al., 2004; Hauser, 1999), technical systems (Igor Linkov et al., 2013; Park et al., 2013), and social systems (Brown & Westaway, 2011; Walker, Holling, Carpenter, & Kinzig, 2004).

The second reason this study is relevant to the present work is the comprehensive research approach, tools, and methods used. The instruments, which included Loevinger's ego development test, provided reliable and repeatable measurements of the protective factors, which were later used as predictors of outcomes (Gralinski-Bakker et al., 2004) in the third phase of data collection. The factors characterize a perspective of resilience as an *internal* state of being and positive adaptation to adverse events and changing life and environmental conditions (Hauser, 1999). In other words, the research included both endogenous and exogenous measures and assessments of resilient human development. The rigor of data collection, analysis, and published findings of Hauser's research supports our conceptual framework for integrating a perspective of resilient human development with critical infrastructure resilience.

Ego-Development Stages Influence on the SAAL processes

Although ego stages may be viewed as coherent personality structures, Loevinger considered ego as a reference frame or a "lens" influencing an individuals' perceptions of the world (Cohn & Westenberg, 2004). Whereas "the depth, complexity, and scope of what people notice can expand throughout life," (Cook-Greuter, 2004, p4), protective factors like resilience and adaptive capacity are particularly enhanced in *later* stages of development (Gralinski-Bakker et al., 2004; Hauser, 1999; Westenberg & Block, 1993).

We emphasize the four stages in Table 2 as a focus of our human development framework for two reasons. First, the distribution of stages in Cook-Greuter's data suggests that over 80% of the sample represent a stage at or below the conventional tier. Other researchers report similar findings whereby the majority of the adult population appear to reside at either the expert or achiever stages (Manners & Durkin, 2000; Vincent, 2015). We have excluded the Opportunist and Diplomat stages based on our assumption that individuals at these stages are not likely found in infrastructure design, operation, and management environments.

Table 2. Ego-development stages considered with the present work.[4]

Stage Name	Methods of influence	Response to feedback
Conventional		
Expert	Gives personal attention to detail and seeks perfection, argues own position and dismisses other' concerns	Takes feedback personally, defends own position, dismisses feedback from those who are not seen as experts in the same field
Achiever	Provides logical arguments, experience, makes task/goal-oriented contractual agreements	Accepts feedback, especially if it helps them to achieve their goals and to improve
Post-conventional		
Individualist	Adapts or ignores rules where needed, or invents new ones, open to discussion of issues and airs differences	Welcomes feedback as necessary for self-knowledge, and to uncover hidden aspects of their own behavior
Strategists	Leads to reframing, reinterpreting situation, so that decisions support overall principle, strategy and foresight	Invites feedback for self-actualization, conflict is seen as an inevitable aspect of viable and multiple relationships

Second, post-conventional stages appear to reveal qualities of people associated with enhanced human resilience and adaptive capacity, which can have positive influence on the SAAL processes in relation to infrastructure resilience. Thus, there is an opportunity for growth and expansion from conventional to post-conventional ways of interpreting experience and interacting with complex systems. Individuals at post-conventional stages can more readily adapt to more complex environments and changes because they are more flexible and have more personal resources available to them. For example, these individuals have the ability to perceive another person's frame of reference and are more likely to respond in a way that is most effective to the task at hand by adapting their message to best be received by the other (Cook-Greuter, 1999, 2004; Vincent et al., 2015).

Many of the properties of post-conventional stages have been correlated with leadership effectiveness across a range of studies reporting similar findings (Cook-Greuter, 2004; Manners, Durkin, & Nesdale, 2004; Torbert et al., 2004; Vincent et al., 2015). Common themes and characteristics include a higher toleration for ambiguity and uncertainty, increased ability to comprehend complexity, and a greater capacity to manage multiple and conflicting perspectives and emotions. These factors are relevant to certain roles and responsibilities in an infrastructure environment whereby people are interacting with other people and with technological systems, and where people and/or groups might be holding different priorities and assumptions. The dynamic interactions can influence potential resilient pathways and outcomes. Whereas the current stage for a given individual represents established psychological structures that can be measured, transitions to later stages are pathways of development representing a potential for growth that can be anticipated and thereby enhance critical infrastructure resilience.

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[4] Column list stage names by Cook-Greuter and Torbert. 'Methods of influence' characterize how individuals at a given stage tend to interact with others when seeking influence. 'Response to feedback' indicates how individuals are able to receive and integrate information and critique from others (Cook-Greuter, 2004; Torbert et al., 2004).

How do the developmental levels relate to job situations likely to arise in infrastructure disaster scenarios? At Conventional (Diplomat and Expert) levels safety and acceptance come through pleasing authorities and merging/complying with "the crowd" of one's peers on the job. These individuals are more likely to: keep one’s head down; stay out of trouble, don't rock the boat, look good to one's supervisor, just follow the given rules, do their very best to master a defined task.

At the Achiever level individuals are more likely to take initiative, propose novel ideas, understand abstract and complicated systems, map out a rigorous field of possibilities, and search for the most efficient or effective methods.

At later post-conventional stages (Individualist and above) one is more likely to realize that even our best rational efforts are flawed, that human and natural systems are fundamentally unpredictable, and that one should be both open to and prepared for surprise. Moreover, ego development theory suggests that these individuals may be more capable of holding conflicting perspectives and possibilities without stress and moving into "sense and respond" vs. "plan and control" mode when situations are dynamic.

Although individuals tend to operate at a dominant stage (or "center of gravity"), measurements reveal a Gaussian (or normal) distribution among test items. Developmental theories in general draw on Vygotsky's "zone of proximal development" model in assuming that people demonstrate a range of developmental levels across tasks and situations, such that they perform more poorly in challenging or stressful contexts, and perform at their leading edge in familiar and/or supported (also called "scaffolded") contexts (Fischer & Pruyne, 2002; Vygotsky, 1980).

This is particularly important in the domain of critical infrastructure resilience. First, as mentioned, systems failures and unexpected shocks to normal expectations can create stressors that "downshift" an individual's developmental capacity. Second, complex socio-technical systems require collaborative/collective efforts, in which each person's tasks and knowledge is scaffolded by others. In times of complexity, uncertainty, and/or stress, social and communications relationships can degrade, which means that the performance of each individual who relies on others may further degrade. This implies that trust and other forms of social capital actually protect against degradation of both individual and group performance in times of stress.

Discussion and Future Research

A developmental perspective of resilience can have broad application to large-scale natural or man-made disaster scenarios (Masten & Obradovic, 2010). Disaster scenarios and catastrophic events include disruptions to infrastructure critical to public health, safety, and well-being that supports conditions for development to occur. Thus, we propose a method for investigating the relationships between human resilience, development, and critical infrastructure resilience.

The framework proposed combines conceptual frameworks of human resilience, development, and critical infrastructure resilience to form a single meta-framework. The SAAL processes are adapted from resilience engineering concepts and frameworks representing the resilience of a socio-technical system (Hollnagel, 2014; Park et al., 2013; Woods, 2015) as applied to critical infrastructure (Thomas et al., 2019). Common theoretical foundations consisting of cognitive, emotional, and behavioral dimensions of resilience (Mischel & Shoda, 1995; Reich, Zautra, & Hall, 2010) and human development (Cook-Greuter, 1999) serve as a basis for linking the frameworks. Moreover, data from prior research revealing a strong, coherent relationship between resilience and development in adults (Gralinski-Bakker et al., 2004; Hauser, 1999; Westenberg & Block, 1993) further supports our rationale for research linking frameworks. With an emphasis on coupled social and technological systems, we offer a conceptual model a starting point to operationalize an integrated framework of resilient human development and critical infrastructure.

The proposed framework is shown in Figure 2 below. The rows are the four stages of development identified earlier, and the columns represent the four social-technical processes, which are dynamically coupled to human resilience and critical infrastructure resilience (Thomas et al., 2019). The SAAL processes serve as a coupling mechanism linking infrastructure resilience concepts with human development concepts and structures. We posit that endogenous and exogenous properties and processes corresponding to sensing, anticipating, adapting, and learning are progressively differentiated for each stage of development as identified in the first column of Figure 2. Each stage reveals capacities for sensing, anticipating, adapting, and learning that are more enhanced, complex, and integrated compared to the prior stages. We also posit the differences between stages can have a significant influence on critical infrastructure resilience. For example, as an individual's development unfolds from conventional to post-conventional, there is a shift in capacity toward greater autonomy, and a higher tolerance of ambiguity and uncertainty (Cook-Greuter, 2004). The shift can impact how individuals interpret and respond to high degrees of complexity such as catastrophic system failures and disasters. Moreover, a capacity to comprehend complex systems is emergent at the post-conventional levels (Cook-Greuter, 1999), which can impact critical infrastructure resilience.

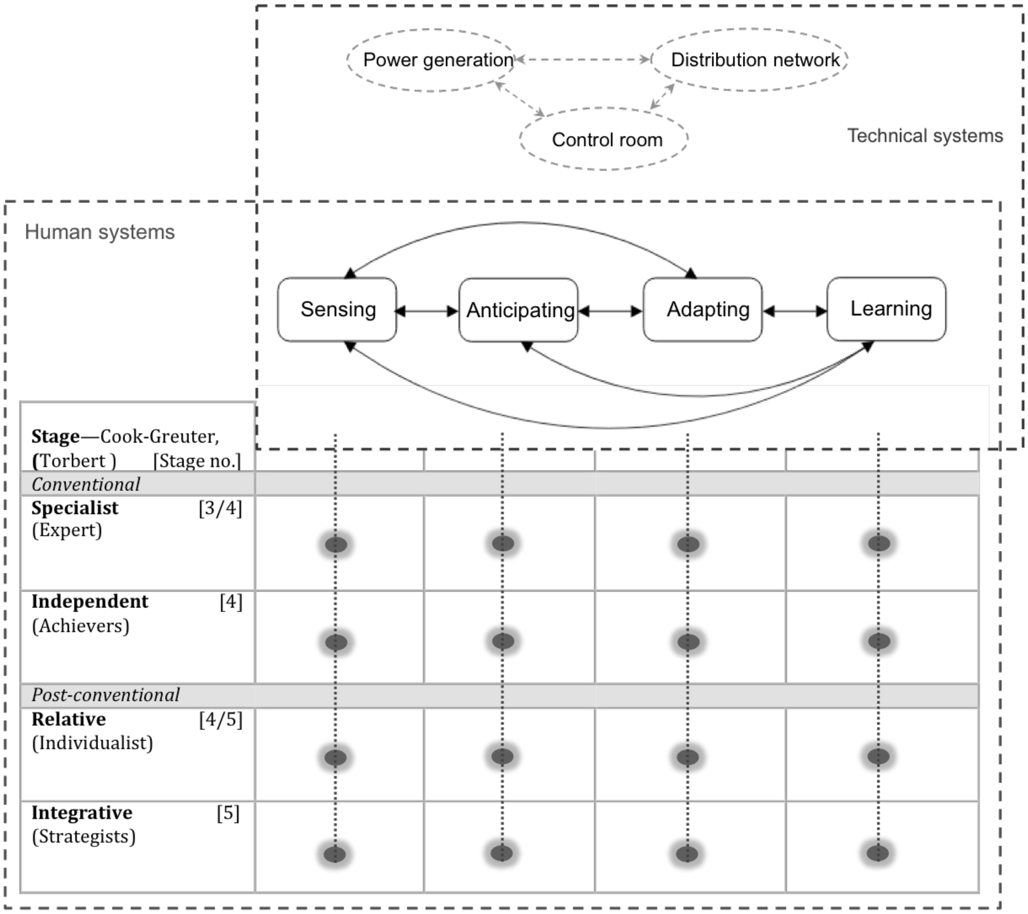
Power generation
Distribution network
Control room
Technical systems
Human systems
Sensing
Anticipating
Adapting
Learning
Stage—Cook-Greuter, (Torbert) [Stage no.]
Conventional
Specialist [3/4] (Expert)
Independent [4] (Achievers)
Post-conventional
Relative [4/5] (Individualist)
Integrative [5] (Strategists)

Figure 2.[5] A framework integrating technical systems' resilience capacities with human meaning-making via the SAAL sociotechnical processes.[6]

At this early stage of arguing for a marriage of developmental theories with infrastructure resilience scholarship we can only begin to map out the potential applications and implications. Clearly there is no extant research that demonstrates that, for example, individuals at or above a given developmental level will perform well at specific infrastructure-related jobs, or respond flexibly to systems failures and other unexpected situations. Here we can only (1) argue that the capacities required for resilient responses map well to the skills articulated more thoroughly in existing developmental theories (in particular meaning-making and ego-development models); (2) show that developmental theories and their assessment instruments have proven to be robust and valid in many applications and contexts.

How are each of the SAAL components effected by developmental factors? To review: *Sensing* is the ability to detect system state variables; *anticipating* is the ability imagine changes in system conditions and state variables; *adapting* is the ability to adjust system performance while maintaining viable operation; *learning* is the ability to absorb, retain, and access knowledge from experience. Below we illustrate how each of these elements relates to developmental factors – but keep in mind that here one's "developmental level" is not simply one's ordinary "center of gravity," but includes the dynamic of the how one actually behaves and thinks in any given moment and situation. For example, a person who normally is open to receiving feedback may be more emotionally "shut down" and defensive in times of stress – exhibiting a lower developmental capacity. Later developmental levels will be better able to monitor both self and social-systems to notice stressor effects, and make efforts to protect against or compensate for them – resulting in a type of meta-resilience that tries to maintain optimal levels of psycho-social resilience in the face of extreme stressors. In terms of each of the SAAL elements:

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[5] **Note:** The stage names in bold represent changes in labels Cook-Greuter made to her model in 2015.

[6] As development moves from the Expert toward the Strategist stage, each cell describes the internal and external developmental properties representing the SAAL sociotechnical processes – sensing, anticipating, adapting, and learning.

- **Sensing:** Earlier stages may be less capable of perceiving novel information and may "keep their head down" focused on tasks and be less likely to scan for unusual signs. And they may stay silent and defer to authorities or consensus opinion in the face of novel or conflicting information. Conversely, later levels may notice nuances and novel signals, be able to perceive come complex patterns in novel data, be more likely to speak up in dissent from authorities or peers; and they may notice more nuanced signals and patterns in interpersonal and social dynamics.

- **Anticipating:** Earlier levels are less likely to imagine possibilities or scenarios that differ from past experience (or codified procedures); they are less likely to consider the types of complex interactions and feedback loops that lead to unpredictable and chaotic outcomes; they are less likely to take the initiative to actively seek out new information and perspectives. Conversely, later levels are more likely to anticipate more unusual and/or complex scenarios; be more active in seeking diverse perspectives on a topic; and will have the capacity to plan or imagine further into the future, and over wider social and geographic scales.

- **Adapting:** Earlier levels will stick to accepted and well-practiced protocols, fearing punishment, public shaming, or disorientation if they diverge from norms and authoritarian expectations. Conversely, later levels will adapt routine protocols more readily, and have better feedback mechanisms (sensing and anticipating) for continuous fine-tuned adjustment of their actions and plans.

- **Learning:** Earlier levels are more geared to learn from explicit instruction, and from observing and/or imitating others; they are more resistant and defensive to changing their minds or mental models or to receiving corrective feedback. The types of complexity they can learn is limited, for example, to simple associations and linear methods. Conversely, later levels are more eager to learn, improve, and excel; ego's are less threatened by challenges, and corrective feedback is not only appreciated it is sought after. In addition, more complex mental models can be learned, such as complex dynamic systems, ecologies, recursive and fractal structures, etc.; and more complex interpersonal and socio-cultural dynamics can be appreciated and accommodated to.

We posit knowledge of the properties that appear at each stage of development assist with aligning strengths and capacities of individuals with roles and responsibilities for designers, operators, and managers thereby improving critical infrastructure resilience. Moreover, because stages emerge in an invariant sequence over time (Cook-Greuter, 1999; Loevinger, 1976), knowledge of how the properties change at each stage can serve as a predictor of potential outcomes correlating with the SAAL processes representing critical infrastructure resilience. Thus, knowledge of how a person is capable of responding and interacting with complex systems can improve critical infrastructure resilience by providing a more effective allocation of resources. For example, possible responses to varying levels of complexity and uncertainty related to infrastructure disruptions can be informed by an individual's stage of development thereby increasing the potential of aligning resilient system requirements for sensing, anticipating, adapting, and learning with human resilience and developmental capacities.

Similar to the adaptive properties of other human coupled systems that are unpredictable due to novelty and uncertainty introduced by humans (Holling & Gunderson, 2002; Martin-Breen & Anderies, 2011), we posit that meaning-making offers an important dimensional perspective of resilient social-technical systems like critical infrastructure. Thus, another reason for incorporating ego-development in our framework linking people and technical systems is that ego-development theory and model rely on measurement of adult capacity for meaning-making. Moreover, Cook-Greuter's (1999) evolution of Loevinger's (1976) model and O'Fallon's extension (2011) offers a comprehensive and validated method for measuring the adult capacity for meaning-making relevant to the present application. Because stages of development correspond to structures of adult meaning-making, we argue that ego-development is an effective way to account for the third dimension of resilience, in addition to space and time, influencing complex adaptive systems like critical infrastructure.

Further work could propose how each SAAL element breaks down by each of the four developmental levels in Table 2, but the level of specificity we give above, in terms of general trends, better matches the early state of research and scholarship in applying developmental theory to workplace and infrastructure resilience. How might we apply this marriage of the SAAL framework and developmental theory? Again, we can only be suggestive at this early stage, and additional research is warranted.

- Our framework can be used to better articulate the factors that go into techno-social systems (1) design; (2) training; and (3) post-event analysis. The framework supports the consideration of internal (endogenous) and social factors, such as feelings (e.g. confidence, fear, resistance, surprise, trust, respect), expectations, values, and flows of information/communication.

- Post-disaster analysis data could be re-analyzed in the terms of our model. For example each context could be rated according to whether each of the four SAAL elements was early, middle, or late according to the trends we suggest above. This could be done for successful responses and unsuccessful responses, with the hypothesis that successful responses would demonstrate later level SAAL elements.

- The assessment of developmental levels (directly or indirectly) can inform both the expectations placed on workers and stakeholders, and also the appropriate types and goals for trainings and educational opportunities afforded.

- Developmental assessment might be used to inform which individuals are given the reigns and which groups are asked to collaborate closely in response to disasters. The theory suggests that in dynamic scenarios trying to coordinate conventionally-oriented groups with post-conventional groups would only pile on additional tensions.

Here we must add a caution often included when such developmental or cognitive tests are used for "high stakes" decision-making. A single assessment has a margin of error, and any single measurement can capture the complexity of a human being. Such assessments should not be used as the only source of decision making; extreme precautions are warranted when decisions are focused on individuals (e.g. job placement); and more robust results are expected when assessment results are applied over groups, e.g. in assessing the average ability of a team to respond to a critical situation. Moreover, as research indicates that diversity of various sorts is important for team performance (Horwitz & Horwitz, 2007; Nederveen Pieterse, Van Knippenberg, & Van Dierendonck, 2013), relying on any single psychological construct can contribute towards cultural or epistemic ‘mono-culture’ (Bennett, 2015; Mignolo, 2011)

Conclusion

Human resilience, development, and critical infrastructure resilience can have reciprocal influence on one another. The holistic model shown in Figure 2 links resilience and development with technical systems by incorporating the endogenous and exogenous factors influencing the resilience of complex systems like infrastructure. The endogenous properties include the cognitive, emotional, and behavioral factors linking ego-development and human resilience. These factors form a developmental basis for human intentions, motivations, and agency that subsequently influences and informs social-technical processes of sensing, anticipating, adapting, and learning. The endogenous and exogenous properties are both recursive and reciprocal in nature, which means each system can interact and exchange influence in a repetitive manner, and each system can influence the resilience of other coupled systems. Future research designed to identify, apprehend, and validate the theoretical and conceptual frameworks presented herein with empirical data is recommended. Knowledge of the properties and processes corresponding to sensing, anticipating, adapting and learning for each stage of development will ground the theoretical and conceptual frameworks in practical research. A proven operational model can elucidate how each stage of resilient human development contributes unique qualities and capabilities needed by designers, operators, and managers to ensure the resilience of infrastructure critical to public health, safety, and well-being.

Data Availability Statement

No data, models, or code were (Cook-Greuter, 2004)generated or used during the study (e.g., opinion or data-less paper).

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Nine Paths of Growth: Integrating Immunity to Change with the Enneagram

Amiel Handelsman[1]

Introduction

In this article, I propose several ways of integrating the Enneagram system of development with Kegan and Lahey's Immunity to Change (ITC) framework. These "meshes"[2] represent the latest step in a broader project to enact my own version of "integrative leadership." In general, integrative leadership means blending together different frameworks[3] for developing leaders by using each framework's unique strengths to supplement the others. Rather than debate which approach is better, we bring them together. This integrative process comes with two prerequisites. First, the frameworks need to share enough core principles to make them compatible. Second, they need to differ in their specific practices – what you actually *do* to develop leaders – because it's on the field of practice that integration occurs.

My own version of the integrative leadership project involves blending constructive adult development, of which ITC is perhaps the most popular expression, with the Enneagram, and doing so in ways that are practically useful and empirically sound. What prompts this is my experience with these two systems over the past twenty years. Both the Enneagram and ITC have shaped my work with leaders and organizations and my own development as a human being. I've found them to be deep, actionable, and versatile. At the same time, I've scratched my head wondering if they might complement each other. This typically occurs while working within one system. In moments of frustration or stuckness, I'll look to the other system for help. I think of this as a methodological SOS call. The good news is that my understanding deepens. The bad news is that nobody else seems to be dialing the same number. So when looking for people to compare notes, I come up empty-handed. Why is this?

My best current answer to this question involves who hangs out with whom – or, more accurately, who doesn't. The communities of practice that have grown around these two systems inhabit different universes. They speak in different languages, operate on different assumptions, and rarely cross paths either in the lab or on the playing field. Interestingly, although the adult development community is a fraction the size of its Enneagram counterpart, I've met far more

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[2] I will be using the words "mesh," "blend" and "integration" interchangeably

[3] I will be using the words "framework" and "system" interchangeably

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adult development practitioners interested in the Enneagram than vice versa. Still, the numbers are small, and the hindrances to inter-communal exchanges substantial. On the Enneagram side, constructive adult development isn't even on the radar. Within the adult development crowd, views of the Enneagram are mixed. Although some find the Enneagram personally useful, few use it professionally. Nearly everyone sees the Enneagram as a stepping stone for placing people in boxes, a topic I address later in this article. Therein lies one reason for this article: to open up an initial conversation between two communities that have yet to even go on a first date.

My secondary intent is pragmatic: to offer practitioners of both systems new possibilities for helping people grow up, wake up, and show up. The adult development community seems more likely to find this offer enticing. For this reason, I've framed the integrative meshes as ways the Enneagram can supplement ITC rather than vice versa. Nonetheless, regardless of which community you associate with, I hope you'll find these to be beneficial. Each integration I describe is something you can experiment with in your own development – which is how I like to start – and explore professionally with clients or students. This reminds me of Kurt Lewin, the founder of organizational development, who famously said that there is nothing so practical as a good theory. Could it be even more practical to integrate two good theories?

Some of the material in this article reflects experiments I've undertaken. Other parts offer early maps of territory yet to be explored. In all cases, I assume that readers have at least some familiarity with both ITC and the Enneagram. This will make the reading experience both more enjoyable and more valuable.[4]

The article is organized into six sections.

- The integrative leadership project and my own take on it
- My experiences as a student of the Enneagram and ITC and how these inspired my commitment to integrate them
- Mesh #1: Ignite practice by integrating ITC's "one big thing" commitments with the Enneagram's Virtues and Holy Ideas
- Mesh #2: Connect ITC's Big Assumptions with a deep tradition of archetypes and practices by integrating it with your dominant Enneagram type
- Bonus Mesh. Increase precision in the "dreadful scenario" portion of ITC's Big Assumption by integrating it with Robert Solomon's taxonomy of fears
- Future questions and an invitation to comment

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[4] For readers interested in learning more about the Enneagram, I suggest checking out the Enneagram Institute. Its web site has a solid orientation to the framework and detailed descriptions of each type. To discover your own dominant type, consider taking the online iEQ9 from Integrative 9 Enneagram Solutions or using the short test and extended chapters in *The Wisdom of the Enneagram*, a book by the Enneagram Institute's founders. For a solid overview of ITC, read Jonathan Reams' "Immunity to Change: A Report from the Field" in the June 2009 issue of *Integral Review*.

The Integrative Leadership Project and My Own Take on It

In 1993 when I entered the leadership development field, the consulting firm where I worked advocated for change that was “transformational, not incremental.” Nearly three decades later, we talk about complexity, VUCA, liminality, and crises of meaning and legitimacy. Although these terms and the world they describe have shifted, the riddle of leadership has not. Both then and now, leaders’ capacity to navigate collective challenges is insufficient to either (a) promote health at every stage of development arising in human beings for the sake of present and future generations or (b) prevent massive institutional, economic, cultural, and ecological failure. This twin framing with divergent tonalities is deliberate. It reflects two voices within me…and perhaps you?

Let me express this paradox differently. On the one hand, by numerous measures, the human species is sinking deeper in mud, and most of us know it. On the other hand, this is happening at a moment in history that offers a gift unavailable to me in 1993: access to a “full deck” of teachings and practices for living a life of goodness, truth, and beauty. From neuroscience to the world’s wisdom traditions, there is no shortage of guidance about how to live and lead. The catch is that these teachings reside in separate orbits, adhere to different validity claims, and attract different pools of people. What I call the “integrative project” is to mesh these frameworks together in ways that are practically useful and empirically sound.

For people whose work involves developing leaders there is also an “integrative *leadership* project.” I see its purpose as integrating, customizing, and make actionable the best approaches to vertical and horizontal development – not for all 7.8 billion humans, but for people coordinating action with others around shared commitments. At team and organizational levels, this project shows up for me as an exciting possibility. In the broader context of systems, countries, and the planet, the word that comes to mind is “imperative.” *We gotta do better than we’re doing now.*

It is within this context that I’ve been exploring how to integrate three frameworks: constructive adult development, the Enneagram, and the field known alternatingly as speech act theory or promise-based management[5]. My experiments in bringing these together have included:

- An unpublished book illustrating each Enneagram type’s strengths and stretches in managing commitments with others, e.g. making requests, responding to requests, renegotiating promises, reporting completion, declaring (dis)satisfaction

- A conference session where adult development professionals explored what their dominant Enneagram type made object for them

- A short book[6] after the 2016 election examining Mr. Trump’s Enneagram type and developmental stage, whose writing was in the end for me a healing act

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[5] Promise-based management also is known as speech act theory and ontological coaching. It originated in the 20th century philosophy of John Austin and John Searles. The person who interpreted it for organizations was Fernando Flores. The “sibling” field I reference here and will introduce later is Robert Solomon’s taxonomy of moods.

[6] https://amielhandelsman.com/djt-enneagram-offer/

- Most recently, a series of interviews with later stage individuals about their journey to and beyond the Self-Authored Mind through the lens of their dominant Enneagram type

The bulk of this article focuses on the Enneagram and constructive adult development, specifically Immunity to Change. I also offer a “bonus mesh” that draws upon one of the sibling fields of promise-based management.

Before getting into the nitty gritty, I’d like to share elements of my own personal journey that caused me to see these integrations as both important and possible.

My Experiences as a Student of the Enneagram and ITC

My interest in integrating the Enneagram and ITC is inspired by my own experiences as a student and executive coach. This section draws primarily from the former. Each of these two systems has contributed to my personal (and sometimes transpersonal) growth in powerful ways. I’ve also experienced these systems’ limitations and wondered how to make them better. Of course, isn’t this the starting point for every integrative mesh project? We begin frustrated by partial truths that seem incompatible if not contradictory, reinterpret this emotion as a cue to “supplement,” play around with various integrations, and then observe the goodness, truth, and beauty that unfolds (or doesn’t).

Although the Enneagram and ITC come from different traditions, operate in different ways, and attract different people, they have several things in common. First, they are useful in confronting what Ron Heifetz calls adaptive challenges. They assume that exterior behavioral shifts are necessary but not sufficient. Interior skills and awareness also matter. Second, they involve performing subject-object moves on interior narrative structures that live deep in your being and affect every domain of life. For ITC, it’s your Big Assumption. For the Enneagram, it’s your dominant type, its wings, lines and more. Third, they grant a positive intent to these interior structures. ITC calls this anxiety management. Your competing commitment and Big Assumption are signs not of stupidity but intelligent self-protection. For the Enneagram, the aim is to come home to the love that is your true nature. Fourth, both systems reveal to you how, in Kegan and Lahey’s words, you are “screwed.” In its efforts to protect you, your anxiety management system puts the brakes on commitments that matter to you. As for the Enneagram, your dominant type’s noble intent to connect you with love is thwarted by its radical misinterpretation of how to get there. Finally, the discovery is half the goal. Immunity Maps involve deep thinking and feeling and hold high standards for moving from one column to the next. As for the Enneagram, identifying your dominant type is intended to be not a quick assessment but a revealing journey.

ITC and the Enneagram have more in common than might appear on the surface, especially to devoted practitioners of each. Just as important, their strengths differ in ways that make them potential complements. What follows is a brief description of how I discovered this in my experiences as a student of both approaches.

Learning the Enneagram

The Enneagram is an ancient system for *waking up* to your true nature. In the last half century, it has emerged as a modern system for *showing up* in life as competent, reliable, sincere, and caring. Critics note its use for *boxing up* people into rigid categories and *hamming up* justifications for unhealthy behaviors. There is plentiful evidence of both misuses in the actions of people unpacking the Enneagram through conventional and early post-conventional action logics.[7] What remains largely unexamined is the Enneagram's potential for *growing up* people through stages of adult development. Russ Hudson suggests that "Type isn't a 'type' of person, but a path to God." What if each type also provided a path to the Self-Authored Mind and beyond?

The Enneagram contains many layers, folds, and permutations. In addition to your dominant type, you have access to two "wings," as well as points of stress and integration. Right there your inner life touches five of the nine points. If you're boxed in, the container is not one, but five boxes! Now blend in your dominant instinctual type (self-preservation, sexual, or social) and nine levels of health. Suddenly, the Enneagram is a system of great complexity. Yet complexity is in the eye of the beholder. How you make sense of your dominant Enneagram type – and the degree to which your awareness includes the other dimensions – depends on when in the journey of adult development you encounter it. And, as you grow, these encounters work on you in different ways.

My own experience is illustrative. One way to describe my first encounter with the Enneagram is to contrast it with my exposure a decade earlier to another typology, the Myers-Briggs Type Indicator (MBTI). During my senior year of college, I learned about MBTI in a leadership class. My big "aha" was that different people are different, and no style is better than any other. As the guest instructor explained this, I remember feeling a warm compassion arising in me that was utterly novel. Here was a world where being Introverted as opposed to Extraverted was neither right nor wrong, but simply different. Appreciating these differences enables us to circumvent misunderstandings and get along better. This is what the instructor taught, or at least how I unpacked it through my existing action logic. At that time, it was likely centered in Expert attention to mastering the craft of pre-med coursework and dipping into Achiever capacities for reflection, single-loop learning, and openness to feedback.

Ten years later, when I discovered the Enneagram during a coaching course, the experience brought an updated version of that prior "aha" and added new ones. I learned that the Enneagram, like MBTI, delineates a series of types, none better or wiser than the others. Again: people are different, and that's OK.

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[7] These misuses raise important questions about who helps whom learn the Enneagram for what purposes. Is the Enneagram like nuclear fission material that belongs in certain hands and not others'? Should we teach it only to people at later action logics? One could make a solid argument for this on moral and philosophical grounds. However, on a practical level, the Enneagram is less like uranium than video games. It's everywhere (albeit to a far lesser degree), and restraining its use is impractical. Rather than slow its spread, I would distinguish its uses. At conventional action logics, the Enneagram is good for appreciating difference. This assumes, of course, that teachers introduce it with appropriate caveats, disclaimers and contraindications. I don't know how often this happens, but it presents an intriguing challenge to any Enneagram teacher who accepts the validity of developmental stages.

Yet with the Enneagram the self-typing experience was emotional, even cathartic. When my teacher asked me, “Is it more important for you to be right…or to be safe?” tears immediately appeared. *Safety. This is what I’ve always wanted and concluded I could never find.* Memories appeared of my parents’ divorce at age six, hiding in the closet from suspected (but not actual) burglars as an adolescent, and terror during dates as a young adult that my primal urges would cause me to cross the line. Now each memory gained a radically new interpretation. My self-image as a spontaneous and free-spirited person dissolved in an instant. In its place arose a storyline around safety and trust that had operated on me pervasively yet outside my awareness. *Oh, so that’s what’s been going on all this time! I thought I was a pretty smart guy. How could I have missed this?* Classic subject-object move.

This experience with the Enneagram is not uncommon for people entering later post-conventional stages. Identifying your dominant type doesn’t put you in a box. Instead, it names the box you unknowingly put yourself in every day and offers – or at least hints at – a path out. Alas, in my case, the former stuck far more than the latter. This was not due to an absence of hints about the path out. I was aware of the Six’s Virtue of courage, the Holy Idea of faith, and the Healing Attitude that “maybe this will work out fine, maybe I can trust myself.” I also had read about the path of integration into the Nine’s serene dynamism, and the nine levels of health within type Six, marked at the upper end by being grounded and valiant. However, my teacher, an expert at coaching, not the Enneagram, did not highlight these, and I did not seek them out. As a result, although in theory I knew the Enneagram provided a path to heaven (or at least contentment), in practice I used it to keenly observe my daily sojourns to hell. *Anxiety and distrust? Check. Unfolding potential for courage and faith. Say what?*

Six years later, after a major life trauma, I would discover positive psychology, which propelled me to recognize my own courage and faith. Yet at the moment I first explored the Enneagram, this awareness was absent. It was as though, after mapping my Immunity to Change, I had started to observe the Doing/Not Doing behaviors in Column 2 – and never stopped. This is because the Enneagram lacks ITC’s consistent sequence of exercises for overcoming immunity. There was no standard process everyone follows to “catch” me from falling into the habitual reactions of my dominant type. How different those six years might have been had such a process existed. Therein lies one half of my motivation for integrating the Enneagram with ITC.

Exploring Immunity to Change

I first experienced ITC in 2002 through Kegan and Lahey’s first book, *How The Way We Talk Can Change The Way We Work*. At this time they had not yet begun using the metaphor of the body’s immune system. The four-column exercise elicited the “internal languages of transformation.” Going through this exercise wasn’t creating an Immunity Map. It was “building the new machine.”

This language had an unfortunate impact I didn’t recognize until much later, and it highlights a potential gap in ITC that is present even today with the updated terminology. In those years, one of my primary tribes was a coaches’ book club. When we started reading *How The Way We Talk*, we didn’t make it past the first chapter. At that time in San Francisco’s post-conventional coaching world, nature metaphors were in, and machine metaphors were out. The moment my colleagues saw the word "machine," they had a strongly negative visceral response to the entire book. You might say that Kegan and Lahey's framework was rejected by the group's immune system. (Later in the decade, when *Immunity to Change* appeared, most group members took to it with enthusiasm.)

The impact on me was significant. Four years after discovering vertical development through Ken Wilber, I had finally found a practical way to facilitate it, one created by giants of constructive development. When my colleagues rejected the book, I felt disappointed and alone. Where could I find a micro community of support, a "We" space, for this new system? As it turned out, and for a variety of reasons, nowhere.

Nearly two decades later, people have many places to turn for support. There exists a cadre of certified ITC coaches. There are online ITC communities. Tens of thousands of people have gone through the ITC process. Although there are few, if any, geographically based ITC nodes comparable to many cities' long-standing Enneagram communities, more We spaces are available now than in 2002.

Having said this, there are two areas in which ITC could benefit from an integrative mesh:

1. *Orienting generalizations based on a small number of archetypal patterns*. Although experienced ITC practitioners observe patterns across students' Immunity Maps, the ITC framework has no common language for describing these patterns. It is not unusual for participants to think their Big Assumption is unique to them. After all, they came up with it. Even if two participants discover that their Big Assumptions are similar, there is no terminology for naming these similarities across the ITC community. I suspect that few ITC practitioners see this as an omission. Yet when you've spent time with the Enneagram, it's hard to imagine a developmental journey without such orienting generalizations. This is the benefit of a system with nine numbered types. You can have meaningful conversations with people who share your dominant type. You can explore how other types are part of you. You can learn how your dominant type interacts with other types and discover the synergies and tensions in these combinations. As we'll see in our meshes with ITC, you can also ignite practice using the essential qualities of your dominant type and create rich new paths for naming your Big Assumption. In all of these cases, the Enneagram gives you and others a shared language not available with ITC alone or only through heavy pattern-recognition lifting by the ITC teacher.

2. *A rich tradition of resources that includes explicit adaptations to different personal and professional contexts.* On the one hand, the ITC framework has made traction in many different organizational settings and for navigating a wide variety of adaptive challenges. Kegan, Lahey and colleagues have applied ITC to school transformation (*Change Leadership*), weight loss (*Right Weight, Right Mind*) and what they call deliberately developmental organizations (*An Everyone Culture*). In terms of sheer flexibility, there is no limit to ITC's uses. Yet there is a difference between a framework's adaptability and maps illustrating how to make these adaptations. Here, again, the Enneagram has much to offer. If you want to enrich your self-understanding and relationships with others, innumerable books, videos, podcasts, and online resources are only a click away. I've

personally tapped Enneagram-based guides to marriage, parenting, managing, diversity, and spiritual growth. As mentioned above, I've written a workbook illustrating how different types manage commitments. As with any resources deriving from multiple sources, quality varies widely, so discernment is important, but the tradition is deep and accessible.

To summarize, my experiences with the Enneagram and ITC have prompted an interest in integrating them and a recognition that the benefits flow both ways. One gift ITC offers Enneagram teachers and students is a structured sequence for working with your interior narrative (Big Assumption or dominant Enneagram type). This keeps you in a dynamic tension that nurtures growth and therefore raises the odds of a subject-object move. In return, the Enneagram provides ITC coaches and participants with connection to community, a rich tradition of teachings, and an elegant nine-point framework whose orienting generalizations enrich both individual practice and collective conversation.

Next, by zooming in on the level of methodology, I explore tangible ways the two systems can complement each other in a feet-on-the-ground manner. One involves igniting sustained practice by integrating ITC's "one big thing" commitment with the Enneagram's evocative virtues and holy ideas. The other involves meshing the linguistic framing of the Big Assumption with the core qualities of people's dominant Enneagram type. Then we'll close out with a bonus mesh that adds precision to ITC's dreadful scenario thought exercise.

Mesh #1: Ignite Practice by Integrating ITC's "One Big Thing" Commitments with the Enneagram's Virtues and Holy Ideas

The work of growing up, waking up, and showing up is compelling. It also brings blood, sweat, and tears and can be challenging to sustain. That's why it's useful to have what Daniel Coyle calls "ignitions" to practice. Ignitions include the South Korean girl watching a countrywoman win the LPGA golf championship for the first time and thinking, "I could *be* that" – and then signing up for golf lessons. It's me realizing, after finishing *Sex, Ecology, Spirituality*, that *restoring the biosphere requires personal transformation, the ITP Kata can do this, and I'm going to start it today* – and then each morning, before practice, reminding myself of this purpose, for years. Ignition is people who dedicate their daily meditation to a grieving friend or strength training session to healing intergenerational racialized body trauma.

The notion of igniting practice is an explicit part of ITC and implicit to the Enneagram. Each system could employ ignition to greater effect by integrating strengths of the other. This is the aim of the first integral mesh.

Immunity to Change

In ITC, this ignition shows up in the column 1 commitment. Between *How the Way We Talk* and *Immunity to Change*, Kegan and Lahey raised the bar for its contents. Initially, you generated it by flipping a common complaint. Although this practice worked wonders with complaints, it didn't consistently produce commitments energizing enough to compel practice. That's why in the updated method described in *Immunity to Change,* Kegan and Lahey ask you to identify "one big thing," an *affirmative* change *you* make that is a *must* for you and important to *others*.

What's still missing from ITC are two recognitions: first, that commitments work best when declared anew each day, preferably before and after practices; second, that these declarations gain power when connected to essential virtues wired into your being and/or to purposes encompassing the widest moral span your mind can handle.

The Enneagram

The Enneagram doesn't explicitly include practice-igniting commitments but offers dimensions that, when grafted onto ITC, can enrich people's embodied experience and results. Let's start with what's missing. It's difficult to generalize about Enneagram teachings because there are several major schools with different approaches. However, in the many Enneagram courses and books I've experienced, I've yet to witness a teaching whose standard process includes declaring a "one big thing" commitment. Individual teachers may do this, but it isn't core to the Enneagram system.

The irony is that discovering your dominant Enneagram type reveals "one *really* big thing" and confronts you with the unabashed truth it contains. This discovery arguably reverberates at least as deep in the bones as most column 1 commitments in ITC. Yet there is a difference between exploring something in depth and stating it in a single sentence. There is also a difference between stating your fixation and declaring your commitment to escaping it. This is a gift that ITC offers the Enneagram: the practice of placing into language the core change you are committed to making. Imagine the benefits that would come if Enneagram teachers made this "linguistic turn" a core throughline in their work.

Here is how the Enneagram could reciprocate the favor. Unlike ITC, this ancient system with mystical origins invites you to explore essential qualities of your true nature, a transpersonal translation for "you at your best." These qualities can ignite your practice, especially when blended into your "one big thing" and/or added as stand-alone declarations.

One quality that comes with each type is its "holy idea," the state of its mind when unclouded and in balance. The holy idea of my dominant type, Six, is faith. This is not the everyday condition of my mind or the mind of anyone else dominant in Six. It's a state we occasionally glimpse. Similarly, each type is endowed with a "virtue," the state of its heart when pure and in balance. The virtue of Six is courage. I'm more frequently in touch with this, largely because I've learned to watch for its appearance. In developmental terms, the holy ideas and virtues of the Enneagram are both states that many of us can access temporarily and stable stages attainable by a very small number of people. Greater depth, less span.

The reason many Enneagram students get in touch with their holy idea and virtue is that mature teachers make these core to their teachings. If you stick around, you learn to identify these qualities conceptually and spot them in your experience. Herein lies another gift the Enneagram offers ITC. Column 1 commitments are by definition "big," but they typically involve skills to improve and irritations to abate, not essential qualities to evoke. This reflects the overall intent of ITC: loosening the grip of anxiety management systems, not cultivating virtue.

I've experienced this difference myself. One of my Immunity Maps starts in column 1 with "staying calm when my kids fight." I consider this a "must have;" it matters to my wife and sons;

and it implicates me. So it satisfies all of Kegan and Lahey's updated criteria. Yet look what happens after introducing the virtue of type Six. Now the commitment reads "employing courage to stay calm." This new phrasing isn't just meaningful. It's also inspiring. I *love* the feeling of being courageous, and no wonder: the new commitment includes the behavior I agree to change *and* transcends it by introducing an essential virtue. Anyone who knows their dominant Enneagram type can fold its virtue or holy idea into their column 1 commitment – and then repeat this declaration before each step in the "overcoming immunity" sequence.

In the table below, I list on the left three Column 1 commitments from *Immunity to Change*. On the right I imagine expanded declarations. Each new declaration includes the virtue of a type that is plausibly dominant for that person. This new version also adopts more powerful language, e.g. not "I want to be" but "I will."

Table 1. Expanded ITC commitments

Original column 1 commitment	**Expanded commitment**
"I want to be better at increasing the number of things I delegate in order to have fewer things on my plate." (David, p. 134)	"I will tap truthfulness [the virtue of Type Three] to increase the number of things I delegate in order to have fewer things on my plate."
"I am committed to better manage my emotional state and my expression of emotions." (Cathy, p. 149)	"I am committed to accessing serenity [the virtue of Type One] to better manage my emotional state and my expression of emotions." [Note: Cathy eventually adopts the mantra "I am calm]
"To be a better listener" (Fred, p. 242)	"I commit to tapping sobriety [the virtue of Type Seven] to be a better listener."

This blended approach will work better for some people than others. Not everyone is drawn to access essential qualities, and some will be turned off by the particular virtue or holy idea of their dominant type. In the latter case, finding synonyms that capture the same meaning can help. One source for these is positive psychology. For example, the VIA Character Strengths Survey contains 24 virtues. Each invokes the feeling of "me at my best" that can shift a column 1 commitment from meaningful to inspiring.

Although a solid column 1 commitment ignites practice, there is no need to rely on it alone. You can complement it with declarations based on the virtue or holy idea of your dominant Enneagram type or comparable language from positive psychology. The addition of "stand-alone" ignitions expands your repertoire for sustaining momentum through the "overcoming immunity" sequence of exercises.

One example: dedicating a safe experiment to your holy idea. I recently began an extensive research project whose eventual partners and final products I've deliberately declared "TBD." This is not how I typically do things. It's a safe (and big) experiment of one of my Big Assumptions. Each time I invite someone to an interview and each time I prepare for that interview, I dedicate it to the holy idea of Six, faith. Doing this reminds me that I’m not only overcoming immunity. I’m also enacting health.

Wider Moral Span

In the context they set and commitments they elicit, both ITC and the Enneagram meet you where you are. This compassionate stand, not uncommon in high quality personal growth and leadership development, creates psychological safety. Yet I’ve long sensed something missing: a nudge to embrace concerns larger than you, your organization, or your family. Given the enormous and complex challenges in this moment of history, I consider this a big omission. Both systems allow you to bring in worldcentric concerns but neither prompt this nor build it into the teachings.

For example, in ITC you base column 1 commitments on what matters to you and others. You aren’t introduced to basic distinctions of moral span like “Me”, “Us”, or “All of Us,” much less asked to stretch as far as you can in framing your commitments. Again, this omission in personal growth and leadership development writ large is nearly universal. Ironically, the one group I’ve asked to frame commitments on these three levels was a high school class setting intentions for their senior year. (We used index cards. Everyone filled out three, passed them around the room, and then read aloud cards created by others. It was the emotional high point of the retreat). I’m not suggesting we push people beyond their capacity, but can’t we challenge them to step closer to its edges?

Three interests prompt this suggestion. First, I’ve observed the power of audacious goals that are big enough to include and transcend you and your tribe. Although worldcentric concerns stabilize only in later stages, the act of naming them, even as a future aspiration, can evoke a sense of goodness and nobility in many of us. These sentiments, when embedded in commitments and regularly declared, can light fire in the belly. Their contribution to sustaining practice when the going gets tough can be as potent as that of the Enneagram’s virtues and holy ideas.

Second, if every there were a place to explicitly nudge worldcentric concerns, it’s in communities devoted to growing up, waking up, and showing up. After all, practicing with the Enneagram or ITC raises the odds of expanding moral span (but does not guarantee it, because of multiple developmental lines). You gain greater presence in head, heart, and gut to collective challenges like climate change, the interplay of gender and economics, threats to transatlantic security alliances, the fragility of liberal democracy, and what the late American scholar Albert Murray called “the folklore of white supremacy and the fakelore of black pathology.” This is “growth to goodness.” Most mature teachers of the Enneagram and ITC care deeply about these issues yet don’t integrate them fully into the work. (As an aside, when these challenges shift from threats distant in space and time to dangers at your doorstep right now, as with the current Covid-19 pandemic, what once required worldcentric vision suddenly takes on sociocentric and egocentric dimensions.)

Finally, even as global challenges grow in intensity and immediacy, social media and other collective meaning-making systems are dumbing us down along every developmental line. Such conventional spaces, which are unavoidable outside of monastic life, exert the opposite force as the Enneagram and ITC. They make us less mature, more reactive, and less likely to widen our moral span. I no longer use Facebook, but most people I interact with do, so my public conversations are affected by its algorithms and those of other social media. These exert profound impacts on our minds and nervous systems like fragmentation, polarization and plain unpleasantness. Perhaps it's time to call them what they are: "regression to badness." This raises the urgency of using developmental systems like ITC and the Enneagram to nudge wider moral plan in the commitments people declare.

Mesh #2: Connect ITC's Big Assumption with a Deep Tradition of Archetypes and Practices by Integrating it with Your Dominant Enneagram Type

The second mesh involves integrating the ITC Big Assumption with your dominant Enneagram type in order to connect it to a system of archetypes you can explore and practice. What makes this valuable (if it works!) is the primacy of the Big Assumption in ITC. It undergirds the anxiety management system described in the Immunity Map and forms a big part of the ITC sequence of exercises. When you complete the map, it is the Big Assumption that you observe in action (by watching for Do/Not Do actions), test, and create safe experiments around. So any effort to improve the power or clarity of the Big Assumption can yield positive ripple effects for the overall ITC process.

Assumptions

The integration I propose rests upon the following assumptions:

- Both the Enneagram and ITC allow you to identify a powerful narrative that affects your thoughts, feelings and actions by operating below conscious awareness.

- The form this narrative take varies. For the Enneagram it's an archetypal pattern of sensemaking known as the Fixation of your dominant type. For ITC, it's the Big Assumption.

- Identifying your dominant Enneagram type and naming your Big Assumption both perform a subject-object move on this narrative. These actions allow you to have the narrative rather than the narrative having you.

- Although there are various ways to linguistically construct the Big Assumption, the "If-then" sentence is the easiest to test. More on this below.

- The four-column Immunity Map is one way to identify the contents of your "If-then" Big Assumption. The Enneagram provides another.

- Marinating yourself in the Enneagram before creating an Immunity Map provides access to depths of self-understanding that can enrich each step in the mapping process.

- Big Assumptions derived at least partly from your dominant Enneagram type connect you to a supportive community, tradition, and set of practices.

Phrasing the Big Assumption as "If-Then"

There are many ways to put a Big Assumption into language. Fortunately, ITC provides a particular linguistic framework that is easiest to test: the "If-Then" statement. Here are several examples from *Immunity to Change*:

- "If I am not highly regarded, [then] I will be a failure"
- "If I don't find a way to get things done, [then] I'll stop being valuable"
- "If I feel helpless, [then] there is no way I can be a good listener"
- "If I cannot be in control of the situation, [then] things are likely to get worse"

Testing Big Assumptions structured like this involves two straightforward and logical steps:

1. Keep an eye out in your experience for the action described in the first part of the sentence, which I call the "If" clause. In the above examples, you'd look for times you were not highly regarded, couldn't find a way to get things done, felt helpless, and weren't in control of the situation, respectively.

2. Each time you observe this action, note what happens next. Does the result described in the second part of the sentence (the "Then" clause) come to pass, or not?

In *How The Way We Talk,* the instructions explicitly called for "If-Then" sentences. This is how I learned it. In subsequent years Kegan and Lahey observed that "If-Then" statements sometimes are too dangerous to test, and other structures can still test well. So in *Immunity to Change* they introduced more flexibility. For example, the book includes the following examples:

- "I assume my safest route to success is to perform exceptionally well in ways that are expected and well established"

- "I assume my wife expects me to be able to help her solve the difficult problems she shares with me"

- "I assume a good me is 150%"

I'm basing this mesh exclusively on the "If-Then" structure for three reasons. First, I know it best. Since learning ITC in 2003, every Big Assumption I've uncovered myself or asked clients to uncover has been an "If-Then" statement. Second is timing. I came up with this mesh in 2005, several years before *Immunity to Change* appeared. Finally, the two-clause structure lends itself better to folding in both the Enneagram (as described here) and a taxonomy of fears (as outlined in the Bonus Mesh.)

Optional Methods

Imagine the following scenario: You know your dominant Enneagram type and have found it valuable to your own development. Now, you've decided to go through the ITC process. The first step is to create an Immunity Map. Your goal, by the end of this mapping, is to have an "If-Then" Big Assumption that is both powerful and testable.

Drawing on both your Enneagram type and the Immunity Map instructions, how might you do this? Here are four possible methods:

A. Use your Enneagram type to fill in the "If" clause of the sentence. Follow the instructions for column 4 to complete the "Then" clause.

B. Follow the instructions for column 4 (reverse your Competing Commitment) to fill in the "If" clause. Use your Enneagram type to fill in the "Then" clause.

C. Use your Enneagram type to fill in both clauses.

D. Use ITC instructions to fill in both clauses. This method doesn't integrate the Enneagram, so we won't explore it here, but it remains the default option.

Now, assume that in the Enneagram your dominant type, the one you identify most closely with, is One. This type often goes by The Perfectionist or The Reformer. Let's use this to walk through methods A, B, and C.

For each method, let's ask:

- What possible Big Assumptions might emerge from it?

- What observations can we make about how the method functions, its strengths, and its limitations?

Before we start, let's mix things up to illustrate the actual variation that exists in the world. Rather than have just you try these methods, let's imagine that three different people try them. All have One as their dominant type yet differ in other ways, as real people do. These differences are reflected in their Big Assumptions, which look less like Siamese twins than fraternal twins.

To mix things up further, we'll introduce not three, but six people. For Method A, we'll follow Bob, Jen, and Xavier through the exercise. For Method B, we'll join with Rose, Ted, and Ari. As for Method C, by the time you get here, you'll have a pretty good idea of how this rolls, so we can discern the method's pros and cons without putting any more people's feet in the fire.

Table 2. Method A: Enneagram Type as Observed Behaviors ("If" Clause)

Clause	Source
"If…"	Enneagram type
"then…"	ITC – column 4 instructions

This method introduces the Enneagram after completing the first three columns of the Immunity Map. When you get to column 4, you have a new option for constructing the "If" clause. Instead of simply reversing the competing commitment per the ITC instructions, you bring in your dominant Enneagram type. Taking both steps gives you two optional "If" clauses. Select the one that feels most powerful or draw on both to create two Big Assumptions.

The Big Assumption based on your dominant type can take numerous forms. Here is one example:

"If I stop pointing out what is missing, then…."

Bob, Jen, and Xavier all identify with Type One, so their Big Assumptions start the same way. However, they are different people, and the latter half of their Big Assumptions reflects this. Here are examples of their Big Assumptions in full:

- "If I stop pointing out what is missing, then my friends will abandon me and I'll be all alone." (Bob)
- "If I stop pointing out what is missing, then I'll lose my job, go on welfare, and end up drunk and on the street." (Jen)
- "If I stop pointing out what is missing, then I'll have wasted everything my parents sacrificed and decide to kill myself." (Xavier)

These examples bring forth the following observations:

- You can construct the "If" clause in a variety of ways consistent with your dominant type, but all need to involve specific observable behaviors. The example above could be restated as "If I make mistakes…" or "If stop being serious and methodical…" because both are observable behaviors. What would not work is using a purely interior experience, like "If I am corrupt and defective…" (the Basic Fear of Type One), because this would render the Big Assumption untestable.
- Whereas the "If" clause is derived from your Enneagram type, the "Then clause" – the horrors you imagine – can take an infinite range of forms unique to your life, family, and culture. This ability to fully and authentically engage in the "worst case scenario" thought experiment is an advantage of Method A.

- This is why Bob, Jen and Xavier share the same Enneagram type yet hold different Big Assumptions. All imagine something horrible happening, but the specific horror differs. Same premise, different outcomes.

We can make one other observation about this method: people with different Enneagram types can share the same "Then" clause. As we've seen, Bob, who identifies as One, assumes "If I am not completely perfect, my friends will abandon me and I'll be all alone." Now let's introduce Susan, who identifies as Two. She *also* assumes she'll end up alone, but the route there is different. Her Big Assumption looks like this: "If I stop sacrificing for others, then people will stop loving me, and I'll end up all alone."

In this example, the contrast between Enneagram types is this: "If I am not completely perfect…" (Type One) versus "If I stop sacrificing for others…" (Type Two)

Table 3. Method B: Enneagram Type as Dreadful Scenario ("Then" Clause)

Clause	Source
"If…"	ITC – column 3 competing commitment
"then…"	Enneagram type

Now we flip things around. As before, you can start with the Enneagram, but in this case, you use it to create a "Then" clause consistent with Type One.

Here are three plausible variations based on the Enneagram. Each is based on an expression of Type One's Basic Fear "to be corrupt, evil, or defective" or denial of its Basic Desire "to be good, have integrity, be balanced."

- "If…, then I will become corrupt."
- "If…, then I will be proved wrong."
- "If…, then other people will mess up the order I've created."

After selecting one of these variations, you complete the Big Assumption by inserting the opposite of your competing commitment from column 3.

Once again, we are joined by three people dominant in type One: Rose, Ted, and Ari. As it happens, all three select the first example above, which uses language straight out of the One's Basic Fear: "If…, then I will become corrupt." To complete the sentence, they reverse their competing commitments, each unique to the person. This results in the following Big Assumptions:

- "If I delegate more to my team, then I will become corrupt." (Rose)
- "If I don't complete this task even better than I promised, then I will become corrupt." (Ted)
- "If I stop criticizing people when they make mistakes, then I will become corrupt." (Ari)

A few observations:

- All three people imagine the same dreadful scenario but take different paths to get there.
- I've taken the liberty of inserting "If" clauses that reflect common Type One behaviors. In real life, these three people may not be thinking about their Enneagram type during the ITC exercises. Their "If" clauses could feel disconnected from their dominant type or reflect a wing, integration point, or stress point. Conversely, if such type-specific behaviors were to organically emerge from the mapping process, it would lend credence to the pervasiveness of their dominant type.
- One advantage of this method over Method A is that your Big Assumption builds directly on all of the work you've done in prior columns of the Immunity Map. In contrast, Option One interrupts the natural flow from competing commitment to Big Assumption by grafting your Enneagram type onto the "If" clause.

Once again, people with different Enneagram types may have similar Big Assumptions. In this case, the possible point of commonality is the "If clause." For example, Ted, type One, assumes, "If I don't complete this task even better than I promised, then I will become corrupt." Meanwhile, Amber, who identifies as Six, assumes "If I don't complete this task even better than I promised, then nobody will trust me and I'll bring harm onto my entire family."

The contrast between Enneagram types is this:

"…then I will become corrupt" (Type One) versus "then nobody will trust me and I'll bring harm onto my entire family" (Type Six)

Table 4. Method C: Double Bypass of the Immunity Map, a.k.a. Enneagram Type as Both Clauses

Clause	Source
"If…"	Enneagram type
"then…"	Enneagram type

Unlike the first two methods, this one can work by relying solely on your understanding of your dominant Enneagram type. You can bypass the entire Immunity Map exercise. In this case, what you borrow from the ITC framework is the "If-Then" construction of your narrative, recognition of the Big Assumption as a subject-object move, and the prescribed sequence of exercises for working with the Big Assumption. But the full contents of the Big Assumption derive from type.

A "quadruple bypass" of the Immunity Map is costly. Although this saves time, it denies you the powerful process of working through your anxiety-management system step by step. You don't get to declare a column-1 commitment that is energizing and compelling. You don't get to consider the actions you are taking or not taking that interfere with that primary commitment. And you don't get to experience the special tension between two commitments. These are serious omissions.

Method C works best not by entirely bypassing the Immunity Map but by carrying it almost to completion. Call this the "double bypass" approach. Here is how it might work:

- Complete column one as prescribed
- Complete column two as prescribed
- When you get to column 3, pause before filling in the Worry Box. Ask, "What might my Enneagram type tell me about this?" Use this to complete the Worry Box and then identify the competing commitment. The self-knowledge you've gained from the Enneagram acts here like an electronic screwdriver. It harnesses an alternative power source to produce as accurate a result but with less effort.
- Use your Enneagram type to imagine the dreadful scenario that is behind your competing commitment, as in Method B.

Now that we've explored three methods for integrating the Enneagram into the Big Assumption, let's take the next logical step. What if we were to create a set of "templates" for the Big Assumption that people could refer to when creating an Immunity Map?

Big Assumption Templates by Enneagram Type (Using Method A)

The goal of creating templates of the Big Assumption isn't to bind people or force them down a single road. Instead, our aim is two-fold: first, to give people a cushion to lean against as they go through an emotionally and psychologically challenging process; second, to construct a reliable bridge to the Enneagram's orienting generalizations and many applications.

As we've seen, one gift of the Enneagram is its set of deep archetypal patterns. Let's assume we could build cushions from the fabric of these archetypal patterns. What might those look like?

The possibilities are plentiful. Each Enneagram type has many characteristic behaviors, any of which could come into play here. (Note: because the Enneagram concerns motivations, a given behavior isn't necessarily unique to that type). Below are five examples per type. This is the tip of the iceberg. If you included examples for parenting, partnering, managing, handling conflict, coordinating action, and other domains of life, this table could be a book unto itself. Rather than create a mesh-within-a-mesh, I decided to keep things simple by providing generic examples from the mainstream Enneagram literature. Here they are:

Table 5. Templates for Big Assumptions

Enneagram Type	Template for Big Assumption
One	If I make a mistake, then… If I don't do what is right, then…

	If I let others learn for themselves, then… If I stop criticizing myself, then… If I stop pointing out what's missing, then…
Two	If I stop sacrificing for others, then… If I'm up front about my needs, then… If I cannot get others to totally appreciate my sacrifices, then… If I let someone else do this, then…. If I do something good for myself, then…
Three	If I have not accomplished everything I set out to do, then… If I don't do something valuable right now, then… If I stop trying to impress others, then… If I am not the best, then… If I share what's actually in my heart, then…
Four	If I engage in small talk to build rapport, then… If I act in ways that are not true to myself, then… If I do not express all of my feelings with everyone whenever I want, then… If I find that others feel the same way, then… If I act as if there is nothing wrong with me, then…
Five	If I do not completely understand everything, then… If I speak up where I lack expertise, then… If I stop collecting ideas and start interacting with others, then… If I trust this person, then… If I let this person know what I need, then…
Six	If I do not cover all of the bases, then… If I do not do what is expected of me, then… If I allow something to catch me by surprise, then… If I do not foresee a problem, then… If I trust myself and my own judgments, then…
Seven	If I stop seeking stimulating experiences, then… If I'm not constantly active, then… If I stick with this until it's fully done, then… If I stop taking on new projects, then… If I stay right where I am, then…
Eight	If I have to rely on someone for anything, then… If I stop challenging others, then… If I show that I'm feeling pain, then… If I let down my guard a little bit, then… If I use less force, then…
Nine	If I assert my own perspective, then… If I stop describing the silver lining, then… If I directly confront difficult issues, then… If I get energized and am involved, then… If I act as though I were powerful, then…

Once again, the purpose of these templates isn't to restrict possibilities for self-discovery, but to open them up. If you've explored the Enneagram in depth, you can complete the Immunity Map using the standard instructions, but you don't have to. With these templates, you have a new option.

In summary, this second mesh opens new vistas in working with Immunity Maps to uncover Big Assumptions by both including ITC's inherent strengths and transcending them through inclusion of gifts from the Enneagram. The ITC strengths preserved are a sequential process for discovering your immunity to change, the compassionate insight that this immune system stems from a noble motive, the framing of anxiety management, and a structured series of exercises for overcoming your immunity. To this mix we blend in complementary attributes from the Enneagram: archetypal patterns for linguistically framing the Big Assumption, a potentially smoother path through the mapping process, orienting generalizations that invite new forms of conversation, and access to a rich tradition of teachings and practical applications.

Bonus Mesh: Increase Precision in the "Dreadful Scenario" Portion of ITC's Big Assumption by Integrating it with Robert Solomon's Taxonomy of Fears

This mesh reaches beyond ITC and the Enneagram to embrace a set of distinctions from the late philosopher Robert Solomon. Solomon traveled in similar circles as key figures in promise-based management, the third leg of my integral leadership project. For this reason, and because it's short, I'm calling this a "bonus mesh."

Here we set our sights again on the "Then" clause of the Big Assumption. As seen in the preceding examples, Kegan and Lahey insist on high standards for this clause. It needs to represent a really dreadful scenario, something that no one would lovingly will upon themselves or others. In other words, it involves an outcome you fear.

Some people – indeed, some Enneagram types – find it harder to identify their fears than do others. For these folks the act of naming a dreadful scenario presents a formidable challenge to completing the Immunity Map. What support might we introduce that is commensurate with this challenge?

Let's assume that you've used Method A above and, perhaps, a template for your type to construct the "If" clause of the Big Assumption. What might aid you in completing the sentence? Here we turn to Solomon, who introduced a set of distinctions around fear. These distinctions have an added benefit. You can use them if you don't know your Enneagram type or care about the Enneagram at all. They are equally useful for completing an Immunity Map by the book (save this mesh).

In his book, *The Passions*, Solomon offers a taxonomy of moods, which he describes as assessments or judgments we make about the future. We can also say that moods are to emotions like climate is to the weather. However you define them, Solomon's moods include many that fall under the umbrella of fear. The table below shows five:

Table 6. Taxonomy of Moods

Mood	Definition
Anguish	Fear of something I will do
Despair	Fear of something global that will happen to me
Anxiety	Fear of something cosmic happening
Dread	Fear of something unknown happening
Fear (proper)	Something specific that will happen to me

When I first came across this list, I had already begun exploring the role in my life of fear, which is central to my dominant type, Six. Solomon offered me a way of breaking fear down into its many shades. As with any powerful set of distinctions, this one gave me new language to describe my experience. It made me a more competent observer.

This ability to discriminate between variations of fear is equally valuable in completing Big Assumptions. Instead of simply asking yourself "What dreadful scenario do I fear?" you can explore five different types of scenario: anguish, despair, anxiety, dread, and fear. This opens the door to many more possibilities. It may be just the boost you need to finish fleshing out your Big Assumption.

The expanded table below provides examples of how this may look:

Table 7. Taxonomy of Moods with Examples

Mood	Definition	Example
Anguish	Fear of something I will do	"…then I will make a fool out of myself" "…then I will go crazy" "…then I will kill myself"
Despair	Fear of something global that will happen to me	"…then my career will be over" "…then no one will ever love me again" "…then I'll never earn another dollar"
Anxiety	Fear of something cosmic happening	"…then everything will turn out horribly" "…then the world will collapse" "…then God will punish me"
Dread	Fear of something unknown happening	"…then something horrible will happen" "…then something I've always been afraid of will happen" "…then we'll experience a sudden shock nobody expected"

Fear (proper)	Something specific that will happen to me	"…then people will hate me" "…then my boss will fire me" "…then my partner will dump me"

In summary, imagining a dreadful scenario that completes your Big Assumption is far too important a project to be left to chance. Just as in Rome, you do as the Romans do, in the land of fear, it helps to speak the language. Enter Robert Solomon. His taxonomy of moods teaches us that there isn't just one type of fear. There are five. This awareness gives you a leg up in envisioning the catastrophic "Then" clause. Coupled with a strong "If" clause derived from the Enneagram, it produces a Big Assumption worthy of its name. Immunity Map complete!

From here you move onto the next enterprise: overcoming your immunity to change. For this venture, the early integrative meshes have you prepared are useful. ITC sets you in the right direction with its sequence of exercises for working with your Big Assumption, and your Enneagram type's essential qualities ignite your acceleration into practice.

Reflection and Future Questions

I opened this article declaring two intentions: first, to initiate a conversation in which the adult development and Enneagram communities could "break bread" together, an occasion for which I'm offering my services as maître d'; second, to provide practitioners, especially of ITC, with a few specific new methods for developing leaders. Think of these as appetizers to stimulate the palate.

I'm now reporting completion.[8] How did we do?

The assessment is yours to make, and below you'll find an invitation to share it. Rather than weigh in on this question myself, allow me to provide a few reflections on what this was like to write. The first draft, now fifteen years old, was born quickly and in a spirit of naming what seemed obvious, at least to the author. Like the discovery late in the history of the suitcase that *of course it should have wheels*, so came that first intuition about ITC. *Of course there should be one Immunity Map for every Enneagram type and a menu of fears for the Big Assumption*! Fast forward to spring 2020 when I realized that the initial mesh actually was conjoined twins needing to be separated. Fortunately, that operation turned out far simpler than its medical analog, which is probably why I'm a coach-cum-writer rather than the physician my family originally hoped I would become.[9] In fact, the most challenging part of this update was interrogating two original assumptions about what I came to name Mesh #2: first, onto which clause of the Big Assumption to graft the Enneagram; and, second, how to accomplish this without damaging the integrity of the overall mapping process. On both questions, it turns out, I ended up precisely where I started, but the rigor of the procedure raises my confidence that the mesh will prove useful for people other than the author.

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[8] The phrase "reporting completion" has a specific meaning in the field of promise-based management. It's the important and oft overlooked step where the person who's promised to bring about a particular What by a specific When says to the "customer" of this promise: *I'm done*. This is the cue for the customer to say thanks, assess what they've been given, and declare themselves satisfied or dissatisfied. Every Enneagram type has strengths and stretches in these steps, and arguably the entire framework calls forth growth in the mental demands it places on both parties.

[9] This opens up yet another can of worms that, if not resolved by the new interview project, may yet nudge me into completing my long-gestating developmental autobiography.

One final reflection about sharing the life experiences underlying these meshes. The words I've used to describe them are less memories than reconstructions. Writing them has been an excavation into layers of emotion and sense-making buried beneath the foundation stone of my awareness. Although I appreciate the discoveries, a slight change in site preparation or equipment could have turned up very different interpretations. In simpler terms, I *think* this is why these meshes grabbed ahold of me, but I wouldn't wager more than a week's wages on that thought.

Let me bring this to a close by describing where I *would* direct that wager. If you're looking for a big upside, zoom out from this article to the larger project of integrating constructive adult development as a whole with the Enneagram (and promise-based management). Here you'll find many rich possibilities for waking up, growing up, and showing up that simultaneously reduce the risks of boxing up and hamming up. This being a place of learning rather than investment, allow me to shift from the language of ROI to the language of inquiry. What follows is a series of questions animating my interest in the larger integrative leadership project. Perhaps one or more of them will entice yours.

1. How well do Enneagram teachings meet people where they are developmentally – and how could they do this better?

2. How can the Enneagram help (or hinder!) the journey toward Self-authored Mind and beyond?

3. How does your developmental stage, when encountering the Enneagram, shape how you "use" it?

4. What might the life experiences of later stage people reveal about post-typological Enneagram awareness?

5. How does the internalization of others' perspectives (the Socialized Mind) differ by Enneagram type?

6. What orienting generalizations can we make about how people with different Enneagram types grow into the Self-Authored Mind? The Self-Transforming Mind?

7. How can we customize the adult development field's best practices to Enneagram type?

8. What type-based idiosyncrasies persist in the conversations and meaning-making of later-stage people?

Invitation to Comment

I invite you, dear reader, to send your thoughts my way. What new possibilities does this article reveal to you? What experiences have you had that (dis)confirm its core assumptions? What ideas do you have for improving these meshes or creating new ones? And if you actually *do* want to make some form of investment, what do you have in mind? Email me at amiel@amielhandelsman.com.

Possible Mistakes of Late Action-Logic Actors in a Polarized World

Bill Torbert and Aftab Erfan[1]

Last summer, when we began trying to map the possible mistakes of late action-logic actors, the world was not as polarized as it is today. There had been no global debate on mandatory face masks, or whether people had a right to gather in church in the midst of a deadly pandemic. Nor had millions marched after the killing of George Floyd and called for defunding of police, only to be confronted by further police brutality in some places. Our organizations, communities and families had not gone through the upheaval of 2020. Nevertheless, we had plenty of examples of polarized situations and our own attempts to be of use in these situations. We both felt that, in spite of each of our longtime commitments to personal, organizational, and social development toward complexities of thought and simplicities of awareness that can bridge social differences, and our attempts at creating mutuality as an antidote to polarization, we had often fallen flat on our faces. How could we have gone wrong in so many ways, we asked ourselves? And would it be of benefit to ourselves and others if we studied and shared the patterns of our mistakes?

Thus began an attempt at aggregating our phenomenological, first-person experiences and reflections related to this topic, in order to share them at the September 2019 Growth Edge Network Conference. This being a gathering of many late action logic actors, we planned to expand our sample size and analysis based on the participants' responses and additions. This article now reflects such changes, including, at the end, three later e-mailed reflections. We are delighted by the offer of *Integral Review* to publish the current version of the essay and we invite further responses from readers of this essay.

At the outset of our conference presentation and dialogue about this topic, we admitted to our audience that the announced title of the session demonstrated one of the mistakes to which late action-logic leaders are prone. When we had proposed the session, we had called it "Common Mistakes of Late Action-Logic Actors". Upon actually getting serious about planning the session, however, we very quickly realized that we had no empirical research on how *common* such

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mistakes were. We were largely extrapolating based on our own limited experience and some observations of those around us. Hence the revised, more humble title “Possible Mistakes of….”

Possible Late Action-Logic Mistake #1

> *Overconfidence in one’s ability to accomplish one’s initial vision, based in part, paradoxically, on one’s humble ability to correct one’s subsequent path based on one’s openness to feedback.*

During our preparation, we had next realized just how ambiguous the word “mistake” is in any developmental context. At earlier action-logics with short time horizons and concrete goals, as well as little sense of longer-term purposes and strategic plans, a particular action that fails to achieve its goal is likely to be perceived, quite simply, as a ‘mis-take’ (a ‘take’ – an action – that ‘mis’ses its immediate mark). At a later action-logic, the same action may be viewed less as a mistake and more as one of dozens of initiatives necessary over time – to generate the feedback about ‘local’ conditions that will eventually be recognized as the early part of the path toward realizing the ultimate purpose. From this difference in how persons at different action-logics may interpret a mistake, we can infer:

Possible Late Action-Logic Mistake #2

> *Too much attention to long-term purposes and outcomes and too little attention to creating a culture and leadership development process that attunes more and more participants to the value of mistakes in the service of purposive learning.*

Another way of thinking about mistakes late action-logic actors may commit in a polarized world, which raises the stakes and the tension, is to delineate mistakes that early action-logic actors are likely to make. Later action-logic actors are much less likely to make such mistakes, except when a situation ‘triggers’ them to fall back.

Actors at the earlier action-logics (Opportunist, Diplomat, Expert, Achiever) are likely to use forms of unilateral power to try things, which do generate common mistakes, as the following table succinctly (and very incompletely) suggests.

Table 1. Common Early Action-Logic Mistakes

Action-Logic	New Type of Power Available	Relationship to Feedback	Common Mistakes
Opportunist	Coercive	Rejects altogether	Damages & loses other’s trust
Diplomat	Charming	Agrees in order to make others happy	Can’t critique in-group
Expert	Logistical	Accepts only from masters, Data has final word	Fails to see own axioms or others’ perspectives

Achiever	Productive	Welcomes single-loop feedback	Believes goal justifies means

Actors at the later action-logics generally avoid the common mistakes of those at the earlier action-logics, because they increasingly exercise mutual types of power and inquiry. Their increasing ability to offer and receive double-loop and triple-loop feedback permits them and the teams they are working with to transform in the midst of action. Thus, in general, they act in trust-enhancing ways rather than trust-diminishing ways. However, they are susceptible to fallback to earlier action-logics, at which times they are susceptible to committing the early action-logic mistakes. A significant proportion of so-called 'late action-logic mistakes' are probably committed in states of fallback.

Possible Late Action-Logic Mistake #3

> *Late action-logic actors may commit mistakes typical of early action-logic actors under conditions that trigger fallback.*

However, there are different, more subtle kinds of mistakes endemic to the later action-logics as well.

Table 2. Possible Later Action-Logics Mistakes

Action-Logic	New Type of Power Available	Relationship to Feedback	Common Mistakes
Redefining	Visioning	Offers critical, structural, double-loop feedback	Can sabotage own power in "idiot collaboration"
Transforming	Praxis	Welcome receiving as well as offering double-loop feedback	May not quickly recover from fallback
Alchemical	Mutually-transforming	Plays the action-logics like musical instrument, generates transformational "shocks"	May overheat situations with single-, double-, or triple-loop feedback
Ironist	Liberating Disciplines	Creates organizational systems that generate single-, double-, or triple-loop feedback	?

One possible mistake of the Redefining action-logic is to engage in the memorably-named practice of 'idiot collaboration.' By this, we mean holding the value of collaboration as an ideological absolute, a decision process to be used in all cases. This is one of the kinds of self-contradiction that the Redefining action-logic can fall into, due to its relativizing recognition that no philosophical logic, nor psychological action-logic, can prove itself true to someone inhabiting another action-logic. Collaboration therefore seems necessary on every decision in order to properly respect all participants' perspectives in a process. But this is not feasible, nor desirable, given the time-constraints and commitment-limits inherent in any project, as well as the impatience with such a process typical of the early action-logics. ‘Idiot collaboration’ refers to the self-contradictory process of creating an absolute in the name of relativism. In so doing, the person at this action-logic mutes their own discretion and power, a serious mistake.

Possible Late Action-Logic Mistake #4

> *The Redefining action-logic may overgeneralize the virtues and efficacy of pure collaboration in all decisions.*

In each case of transforming from one action-logic to another, there initially tends to be a disdain for the previous action-logic, as part of the cognitive-emotional differentiation from that action-logic. Because the Redefining action-logic is the first that recognizes that we all act through our (different) action-logics, it may lead to an illegitimate sense of superiority and arrogance in regard to all of the prior action-logics. This sense of superiority is illegitimate in two senses: 1) in that persons who are just beginning to explore the implications of the Redefining action-logic often continue to operate from earlier action-logics a great deal of the time; and 2) in that, by favoring their new-found capacity for offering critiques of earlier action-logics, they are overemphasizing the ‘deconstructive’ aspect of transformation and underplaying the ‘reconstructive’ initiatives necessary for successful transformation.)

Possible Late Action-Logic Mistake #5

> *Actors at the Redefining action-logic may disdain and critique the unconscious absolutism of the earlier action-logics, while not noticing it in their own tendency to engage in absolute relativism.*

In contrast to the realistic/materialistic tendency of the early action-logics, actors at the Redefining action-logic can develop a deep commitment to a more idealistic/spiritualistic vision of life. They may tend to dismiss the material realities that impact others (and themselves). For example, first-person ‘mindfulness’ practice may become the solution for all life problems, along with an implicit or explicit dismissal of second- and third-person disciplines for addressing ethical dilemmas and structural, societal issues of economic and political injustice.

Possible Late Action-Logic Mistake #6

> *The Redefining actor may start caring about the spiritual and act dismissively about the material reality that impacts self and others.*

The inefficacy associated with these performative contradictions can gradually motivate a person to evolve toward the Transforming action-logic. This action-logic realizes that in a human world characterized by multiple action-logics, few of which even recognize the possibility of other action-logics or the possibility of exercising mutual power, we need to inquire-in-action in each new conversation, new setting, and new project. A new kind of question arises: Which action-logic and type of power (or which blending of types of power) is it most timely to exercise when? To even approximate effective action consistently, it is necessary to work, not only with a theory of individual action-logics, but also with an analogous theory of event action-logics, and with attentional disciplines which allow one to see incongruities in the moment of action and to act reliably with theory-and-practice-reconciling praxis power.

Possible Late Action-Logic Mistake #7

> *The Transforming actor may have developed theory and skills for working with self or a single other individual (as in coaching) in a timely way; but may as yet have little theory or associated practice skills for intervening in a timely way at the organizational or historical scale.*

Even if the Transforming action-logic actor is working with some kind of organizational development theory, strategizing action using both individual and organizational development theory is very difficult to do in reflection, and all the more so in the midst of action. Even more difficult is estimating how historical eras transform, since one has often lived most of one's life in but one such era. Thus, leaders at the Transforming action-logic are often as shocked and stymied as anyone else by sudden social changes, such as the Black Power movement of the late 1960s, the #MeToo movement of the late 2010s, and the Covid-19 Pandemic cum Black Lives Matter movement of 2020.

Possible Late Action-Logic Mistake #8

> *A change in Zeitgeist or historical epoch is initially likely to frustrate a Transforming actor's efforts at timely action.*

What some gradually realize is that, in spite of their theory of transformation and their well-intentioned efforts to practice it, they are in fact repeatedly – nay, constantly – falling back to earlier action-logics in their daily life. Some kind of unfamiliar exercise of awareness– some kind of meditation-in-action – is necessary if we are to find the post-cognitive attention that can, in real-time action, trace our own and others' thinking, feeling, acting, and impact on the presenting situation and assess the degree of efficacy and mutuality that is being generated.

We begin to seek out – not just single-loop feedback that changes specific actions to improve the likelihood of reaching a goal, and not just double-loop feedback that can change our strategy or action-logic – but also triple-loop feedback that can awaken a 'bare' attention or 'pure' consciousness, again and again and again. This requires a humble, comic, lifelong, spiritual, relational, Alchemical commitment to a task never completed. Only this commitment and developing capacity to offer and to receive triple-loop feedback provides traction at historical moments of changing paradigms.

Whereas the Transforming action-logic can fool itself about how often and for how long it experiences reality in a fallback mode, this is less likely at the Alchemical action-logic because its primary practices involve testing how many of the four 'territories of experience' (outside world, sensation of one's own behavior, thinking/feeling, and bare attention) it is in contact with at a given moment. What is more likely at the Alchemical action-logic is that one gets vilified, ostracized, hunted and killed for creating so much disruption in people's early action-logic habits and assumptions (e.g. Socrates, Jesus, Gandhi, Martin Luther King).

Possible Late Action-Logic Mistake #9

> *An actor at the Alchemical action-logic may disrupt early action-logic habits and assumptions to such a degree that people react violently.*

But does getting killed necessarily count as a mistake? Socrates, Jesus, Gandhi, and Martin Luther King all knew that they were risking death every day and quite deliberately continued to do so. They and their visions are remembered and are inspiring to this day because of what they were willing to die for – a kind of mutual, non-violent action inquiry.

The repeated references to fallback to earlier action-logics in the previous paragraphs invite several additional comments. First, by no means all early action-logic behavior by someone with a later action-logic center-of-gravity represents fallback, or a mistake. It may represent a calculated attempt to engage a person or organization at their earlier action-logic center-of-gravity, in order to establish initial contact and trust as a basis for a conversation or project that can gradually transform toward later action-logics.

Second, fallback is not the only source of 'mistakes' at the later action-logics. Each later action-logic occupies an incomparably larger 'territory' than the earlier action-logics, not only because it includes the territory of all the earlier action-logics, but also and primarily because it recognizes a much vaster realm of possibilities in its own right. Whereas the early action-logics through Achiever operate in the historical, durational dimension of time, the later action-logics gradually become familiar with two more dimensions of time – 'presence in the present' and the 'volume of all possibilities.' But, during one's long apprenticeship in each of the later action-logics from Redefining on, there are many opportunities for mistakes. During the apprenticeship period of exploring a new action-logic, a person or an organization will often 'get lost' among the many possible responses to the moment, or may mis-estimate the energy charge of a particular response one chooses.

Possible Late Action-Logic Mistake #10

> *During the apprenticeship in each action-logic, one often tends to get lost among the many new possibilities for action that become available and may act ineffectually.*

Furthermore, a person may evolve to a late action-logic along just one or two lines of development. In such a case, the person's non-mutuality along other lines of development reflects their early action-logic in that realm. (Think Picasso's alchemical treatment of shapes on canvas, in contrast to his opportunistic treatment of the women in his life.) This uneven development results in a sharp dichotomy between the light and the dark sides of the personality.

Possible Late Action-Logic Mistake #11

> *Uneven development across different lines (practical, cognitive, emotional, ethical, aesthetic, spiritual) can lead to a dichotomy between unilateral and mutual action in different spheres.*

A final kind of mistake that we have experienced at later action-logics is the mistake of engaging earlier action-logic actors in a fashion that is too peer-like, too I-Thou, early in the relationship. An attempt to clarify mutual boundaries may be interpreted as a violation of boundaries. This mistake may be motivated by a spiritual loneliness on the part of the late action-logic actor, and may be received as a threatening, seductive, or manipulative pre-mature intimacy by the early action-logic counterpart. Sometimes, this breach is resolved almost immediately by either party making it discussable and by a joint establishment of agreeable boundaries.

Possible Late Action-Logic Mistake #12

> *A late action-logic actor may prematurely seek a late action-logic relationship with another, arousing suspicion and withdrawal by the other.*

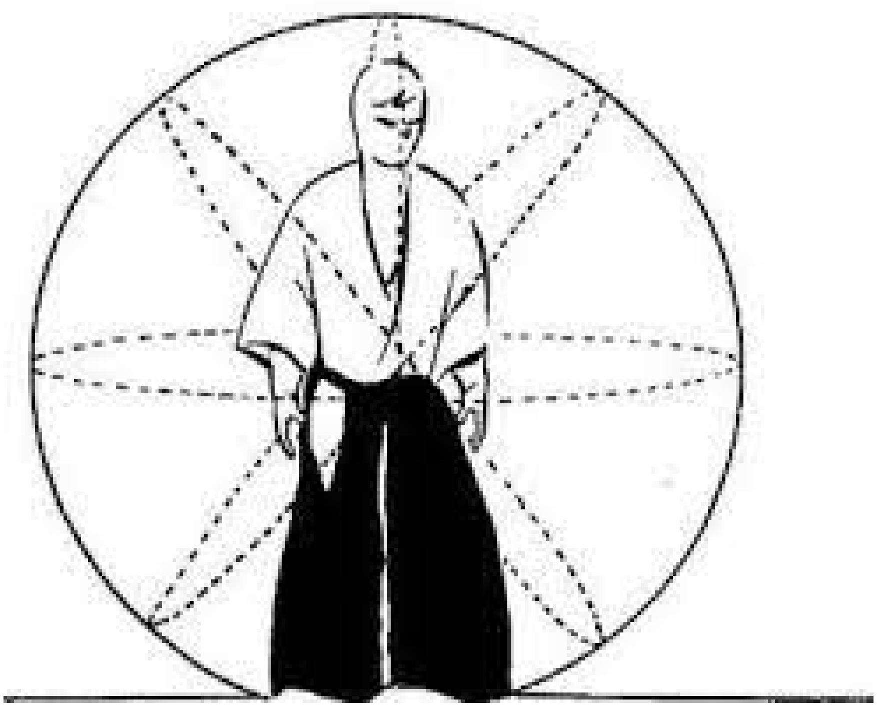
We would like to end by thanking the participants at the original Growth Edge Network session for raising many questions and offering various illustrations of possible late action-logic mistakes in a polarized world, which we have tried to incorporate in this paper. There are undoubtedly more such possible mistakes, and we encourage readers of this article to suggest some. Indeed, we have already received the following suggestions about additional 'possible mistakes' on the GEN website since our conference conversation, reproduced here with permission from commentators.

> **Yotam Schachter:** I want to add one category of mistake that I don't recall hearing in the session itself. Once someone has firmly established the capacity for double-loop learning, then a particular discernment is required in each situation: What loop should I feed this information back into? Is this cause for single-loop or double-loop learning? Do I rethink the whole project, or just tweak the implementation? It's a new mistake only available at higher action logics to double-loop learn from something that only really requires single-loop learning.
>
> **Bill T.:** Hi Yotam, I'm very glad you have reminded me of this particular mistake, quite common in the early period of recognizing the value of double-loop feedback: namely, the implicit or explicit denigration of single-loop feedback and learning. In fact, a single-loop behavioral correction is what is appropriate in the vast majority of instances, and the art of offering or acting on such feedback continues to be an important discipline to practice.
>
> **Jan Weetjens**: One question/suggestion I would have in terms of "mistakes" of later action-logics relate to some of the mistakes that are listed in the paper (superiority, issues with boundaries, ignoring (others') concrete life challenges, etc.). While people may have entered late action logic, they may still be caught in unresolved aspects of their shadow side. As Ken Wilber would say, they may have "grown up", but they may still have work to do to "clean up," or to "wake up."

> I would say that two aspects would deserve particular attention: the first is narcissism. My sense is that late action logic can actually have the effect of bolstering (rather than dissolving) the egoic mind, especially in the early late action logic stages. Some of the "common" mistakes (such as superiority) would point to that. The good news, though, is that, given enough time for ego to run into the stubbornness of reality (and suffering as a result), the person may outgrow this "mistake."
>
> The second, and more dangerous, "mistake" could be the patriarchal mind, or the "guru" mind, where the person positions him or herself as the one who knows, expecting others to surrender their capacity for discernment and agency. Unfortunately, we see all too many headlines in the press of extreme cases where this phenomenon led to abuse of power and violation of victims. Contrary to the narcissism (which only requires suffering of the ego to be dissolved), the patriarchal mind-frame triggers suffering of others, and can take a long time to be unmasked and dissolved.
>
> **Aftab E:** Thank you Jan. I couldn't agree with you more and I worry about these very serious and dangerous tendencies among post-conventional leaders. Our Mistake #1, referring to our own over-confidence, was meant to be a tongue-in-cheek reference to the kind of arrogance you talk about here. Perhaps it was too tongue-in-cheek.
>
> **Dimitri Glazkov:** I am not an expert on others. I am only an expert on myself. My observation with my own development is that the stages didn't arrive in a neat stepping diagram. A metaphor that comes to mind is that of a tool belt. I have various meaning-making models (conceptually similar to Bill's action-logics) available to me, some are less familiar than others. I choose them according to the situation. Intention, habits, stress, fatigue influence these choices. Sometimes the choices are so fluid and instinctive that they almost seem to combine (like Achiever with a tint of Opportunist, using action-logic terminology). My own sense is that the number of the models I have is quite small, but the combinations of them produce the impression of many more.
>
> My self-development challenge is two-fold: I continue to grow my edge and seek out new meaning-making models. At the same time, I work to be more intentional in what I pick from my tool belt in any given situation and have my choices be less influenced by habits, stress, and fatigue. That latter part is what comes to mind when Jan talks about "clean up" and "wake up", and shadows. A "mistake" in this context sounds like a gap in intentionality.

In conclusion, each different action-logic is, in effect, playing a significantly different kind of game from the others. Each of our moves is likely to be interpreted differently in several different ways by the other players. Early action-logic players assume all are playing a common game. In actuality, continual effort is required to transform the event into a shared game. This is so at each scale of relationship – whether between marital partners, among organization members, or among citizens of a nation. Failure to create greater mutuality generates greater polarization and distrust. To our knowledge, no one, nor any community of inquiry, has yet ever succeeded in creating a game that seems developmentally fulfilling for all the participants across generations.

The writing of this paper has been a reflective and playful exercise in mapping and typifying mistakes as a way of inviting open conversation and critique of later action logics. While it is probably not very important that mistakes be mapped and typified in a systematic way, it *is* very important that they are discussable among the members of communities of inquiry dedicated to personal and societal development. The challenging and potentially transformative times we find ourselves in call for honesty about our idiosyncrasies as well as our collective illusions, blindness, and patterns of self-deception. To not engage actively in these conversations would be a mistake.



Aikido and the Pursuit of a Better Life

Mark Shraga[1]

Introduction

When I first stepped onto the Aikido mat in 2010, I was an intensely cognitive person with an abundance of conceptual structure around how to live a ‘better’ life. I had already built a couple of successful businesses in telecommunications and had employed learnings from across a broad spectrum of human development to handle myriad challenges. I had set up my Coaching company Brighter Lives in 2008 as a vehicle for focusing on my ongoing personal development whilst also holding myself accountable both to a professional standard and to the clients I would help along the way. I was however, becoming profoundly aware that issues from my early life, a plethora of setbacks ranging from poverty to being fatherless and subject to intensive bullying until I was 16, were clearly restricting my potential.

I had always had a vision of a better life, and a powerful sense of the possible, driven by curiosity and a passion for connecting to others. I would invariably find that however much ground

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I would gain in the pursuit of my goals and dreams there would come a time when the spectre of my early life would throw a spanner in the works. Since arriving in London in 1998 I had spent around 12 years studying various meditative processes and embodied practices from meditating with Sufis to becoming a pupil of the Alexander Technique. I eventually realised that the core problem was that my body was riddled with fear and fearful patterns. These patterns were obscuring my search for a better understanding of how to live a fuller and more enlightened life, turning me into a walking contradiction at times; quite frankly I was getting sick of myself. Between 2013 and 2015 I would pursue these patterns further during my Master Degree in Applied Coaching by looking at how fear impacts our ability to process information, and how this knowledge could be utilised to help people develop towards self-authorship and beyond; assisting the cycle of moving from the implicit to the explicit, from subject to object.

As I looked around the Aikido dojo, on that first occasion, I could see adults of various ages doing things with their bodies that seemed wonderous and scary. It stimulated in me contradictory feelings of needing to leave immediately whilst also wanting to throw myself ‘head-first’ into it. As my curiosity began to fire up, I found myself being inducted into a supremely counter-intuitive life-long learning experience; failing forwards as way of being a better human being. For me Aikido was the catalyst that enabled me to transform years of cognitive understanding and deep internal conflict into a much more fluid sense of being and doing in the world. Every lesson was an opportunity to be challenged down to my atoms and rebuilt again in the application of principles I was quick to grasp but slow to embody. I was in the process of becoming increasingly aligned with my deepest values and grounded in the bodily knowledge that, at my core, I had the capacity to be ‘ok’ regardless of what life throws at me (particularly when I was literally being thrown on the mat).

I was beginning to see that the more I could become ‘ok’ in my body, and reduce the ways in which I would go into a fight or flight state, the better my ability would be to honour my deeper core values and ways of being in the world with others. Essentially, my body was enabling my mind to be as fully intelligent as it dreamed of being. I still experience intense moments of confusion and frustration, but these are now fused with an awareness of the illumination that will follow if I am prepared to be courageous in the face of the unknowable moment. In this essay I will explore how the qualities of Aikido as a lifelong physical, emotional, mental and spiritual (PEMS) practice, can support us in facing the challenge of developing our potential regardless of the obstacles we face in day to day life.

An Embodied Approach to the Theory of Mind

The most fundamental thing that I have come to understand about Aikido is that it operates on the basic principle that all human conflict arises out of a confusion of compound illusions, where both parties believe their own separate piece of reality to the exclusion of the others. Aikido works at a deep level in the body to create a grounded emotional intelligence that is indispensable in every area of our lives. The insights from practicing Aikido can help shed some light on a variety of areas most of us struggle with at some point. Simplifying a broad spectrum of dynamics that influence our emotional reactivity, Aikido has the potential to show that at the root of all conflict is our quest for safety. The way that it reveals this is by taking us on a journey towards developing an embodied knowledge that who we think we are right now is only a partial truth.

Over time, as we continue to practice being in a body that flinches less and opens up more in the spaces we inhabit, the idea of a fixed sense of self gets increasingly left behind. It is this shift, coupled with the fact that it is facilitated in partnership with others, that enables us to transcend the urge to project our fears onto others. It is precisely in the moments where two parties project their fears onto the other, believing their own versions of the truth to the exclusion of the other, that they fight. At an abstract level it is a fight to prevent their truth from being obliterated or consumed by the others. At a more physical level it is a fight provoked by a sense of scarcity of one kind or another; in the modern age we are fortunate not to have to face real scarcity of resources that often, therefore most examples of conflict arise from a scarcity of feeling safe in the body; de-oxygenation from breathing shallowly in a state of fright is a literal example of scarcity in the body and it has direct implications for how we make sense of things both emotionally and mentally. Our decision-making capabilities are either enhanced or degraded by the state of our wellbeing; stress has a direct impact on our ability to gauge the consequences of our actions and often leads to actions that limit our possibilities for living a better life.

These moments of conflict are at their most threateningly real when both sides are at the stage of their development where they have invested more in their sense of identity than they have in their strategies for how to live a better life with others. However, it is precisely these moments of conflict that are the exact moments when we are closest to a reconciliation of differences, towards a greater whole. If we can find a way to have open hearts, with the intent to make space for the other, in a dance of movement and mindful partnership, then we are provided with an opportunity to ‘get over ourselves.’ Training together in Aikido the practitioner, or Aikidoka, can gain an appreciation of the harmony of all things that awaits our calm attention. When in the deep flow of a training session our bodies experience living reality as an ongoing process, flowing change into fusion and fusion into change as we become more aware of the interconnected nature of all things. But therein lies the core problem of the human condition: We are profoundly unaware of the inherently interconnected nature of things. This is, and has always been, a very special kind of ‘hidden’ knowledge, known as esoteric, sapiential or ‘initiated’ knowledge; only available to those who are fearless enough to surrender themselves to a greater truth. Aikido has the potential to offer access to this ‘hidden’ knowledge through a lifetime of practice in a community of practitioners who all go through similar stages of confronting others in practice to realise they were only ever confronting themselves.

Throughout the course of our lives we will go through phases or stages where our world seems to be coming apart at the seams, which can be particularly surprising at times when we felt we were ‘doing well’ or ‘really getting somewhere.’ The truth of this phenomenon of human experience is that it is developmental, and the parts of our lives where we are really developing generally feel confusing. Ken Wilber (2000) discusses the concept of fulcrums in *Integral Psychology* as axial points along our developmental journey. His description is also a useful one for the journey one undertakes in Aikido; from an embodied point of view Aikido was seen as very supportive of ‘vertical literacy’ both by Tony Buzan the chief exponent of mind maps, and George Leonard, one of the early developers of integral transformative practice.

> Each time the self (the proximate self) encounters a new level in the Great Nest, it first *identifies* with it and consolidates it; then disidentifies with it (*transcends* it, de-embeds from

> it); and then includes and *integrates* it from the next higher level. (Wilber, 2000, p. 35. Italics in the original)

This is how learning, or most forms of growth occur, i.e. it is the tears in our consciousness that allow more information to get in, and when it does it starts the process of integration towards a greater whole. From this perspective we can see what at least three of the things are that Aikido is trying to tell us:

> One, conflict is neither bad nor good, it simply is; two, conflict is absolutely necessary to almost every life process; three, people need training in how to respond effectively and appropriately to conflict situations. (Dobson & Miller, 1992, p. xii)

Creating Space for Change

Another core element within Aikido is the concept of Ukemi (see Figure 1), which is the process of taking a controlled fall, known as a break-fall, so that we are able to 'survive' attacks that we have not been able to fully avoid. The key to Ukemi in the deeper conception of Aikido is that it enables us to keep the space open for further understanding, as we do not dig in and engage in a game of attrition. Rather we bend and move with the energy and use the space around us to safely fall out of the way, quickly regaining our balance and finding a safe distance again.

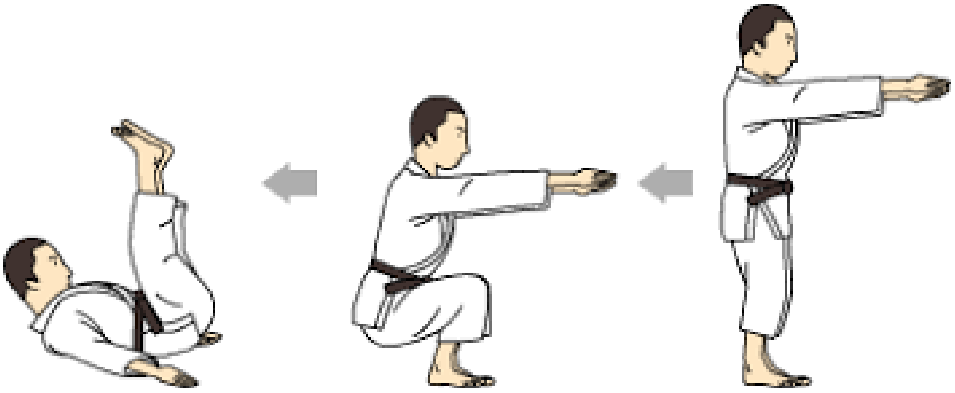

Figure 1. Ukemi illustration: backwards break-fall.

Ukemi is a form of surrender which enables the space between self and other to be respected and maintained without the corruption of violent damage. On our lifelong journey towards a more connected relationship to all things we experience what could be described as 'mini deaths.' This is where our old selves die a little bit in order to integrate new truths (see Figure 2). In 'Tobi Ukemi' the Aikidoka must literally get over themselves in a high flip to avoid a potentially broken wrist (at the minimum if it were a real conflict). The experience of learning to do this is like coming to the edge of a cliff and experiencing the very end of everything we know as we take a leap into nothing. The edge or end of what we know can feel like the edge or end of all things, and that end includes the end of ourselves. In Aikido we regularly go over that edge, into a space that is beyond who we were before.

The more that we practice literal and metaphorical Ukemi, the more we realise that we can 'survive' further encounters with new truths; we become both more than what we were, and the truth that we integrate within our being. Both ourselves and the world have changed in the process of integrating new feelings and insights. One cannot help but draw a relationship here to what it is like to actively pursue 'the good the beautiful and the true' in a world filled with so much miscommunication and confusion, wherein fear is the natural reaction to 'the unknown;' or the merely 'poorly understood.' The stages of being on our developmental journey are marked out by moments of surrender, so that we can access the greater space and truth that awaits us just beyond our current moment.

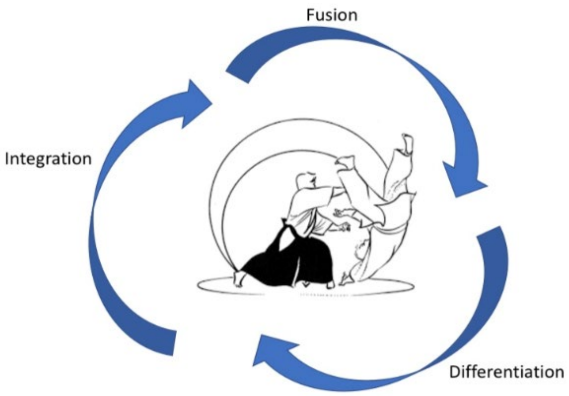

Figure 2. Tobi Ukemi (high breakfall) and overlay of developmental cycle.

Aikido has, at its core, a deep relationship to space and the moment before any action, a moment in which there are myriad possibilities. It is precisely this space that is essential for anything to express its energy in the moment. If we give something the space it needs in order to be seen and understood we can better appreciate its nature; increasing our chances of placing it in a broader, more complete context. One could argue that for an integral vision to emerge, there must be enough space in mind for myriad truths to find their place in a more holistic model of the world. In Aikido these concepts are brought to life within the body, both in motion and in stillness through years of methodical practice.

This practice begins (and ends) with a short meditation called Mokuso which has the purpose of helping us to access a state of awareness where we allow our attention to more fully inhabit our space, known as Mushin Mugamae; a state of pure bright awareness with no intent in any direction; neither towards nor, away from anything. We begin our movement from a state of readiness which has emerged from the state of no intention, known as Shizentai; this state has us ready to move in any direction but not yet committed to any direction.

> With a still heart one can access the wonders of nature and by suppressing action one can still the gods of change. (Tomiki, 1958, in Allbright, p. 41)

A vital aspect of our journey in Aikido is to become increasingly aware of the gestalt of the room in which we train; this is tested during practice and furthermore when we are graded at a senior level. With this awareness we then move, in partnership with our fellow Aikidoka; deeply respecting our relationship to our partner and the many others around us. Even when training to respond to attacks we are constantly judging, feeling, sensing the distance between us and the other and then moving to a different vantage point at the moment of attack. This is known as Tai Sabaki

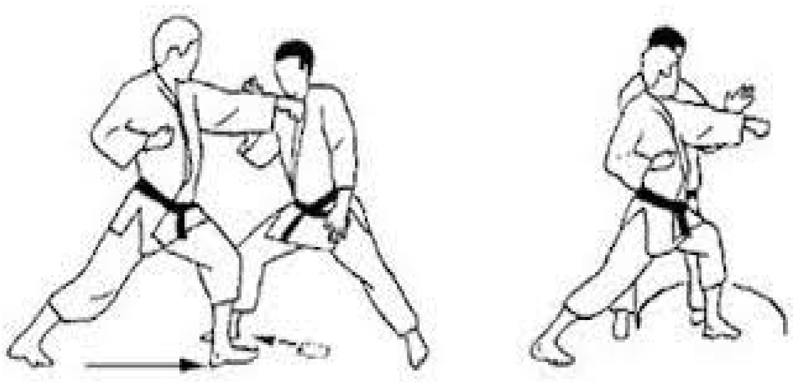

Figure 3. Tai Sabaki: coming off the line (left) and using a circular motion for redirection (right)

(see Figure 3) and can be translated as body avoidance/movement. Rather than opposing the incoming 'communication' we move off the line to an angle (or vector); primarily so we are not harmed but also so that we can respond with the least harm possible to the attacker. The problem with most conflict is that people stay on the line, in front of the other, in effect 'opposing' the other; taking up the position of opposition immediately brings with it predictable counter-productive outcomes; this is why Aikido is less about competition to win against others, and more about co-development so that we can win together.

It is very common in Aikido to allow the force of a blow to come past us and then redirect it in a circular motion to allow the energy to play itself out. This gives the communicator the chance to play out their message without the worst kinds of conflict emerging i.e. where one or both parties are seriously harmed. This kind of mindful movement is very much like when we ask questions with the intent to understand rather than needing first to be understood. We keep asking questions until the thing that has created the energy in the moment has been exhausted, and we find ourselves at the end of a process of learning; one of many cycles of fusion, and then exploration that leads to further differentiation and integration. In Japanese they have a phrase you will often hear when training which is Mou Ikkai, which translates simply as 'and again' or 'repeat' but the difference is that it comes completely without judgement and with the expectation that anything that is worth doing is worth doing many many times in order to achieve competency. If you fail the answer is mou ikkai, and if you succeed? Mou ikkai!

The Body is Our Deepest Frame of Reference

All of this is very intellectual, and as Aikido is primarily an embodied practice it is also important to take up an embodied viewpoint here. We mostly learn Aikido without talking; some dojos (training studios) are quite rigid about this for a variety of reasons. One very good reason is that the new information we are trying to learn cannot immediately be processed until we have first learned the frame of reference that we need in order to relate to it: to become it. The frame of reference we first acquire is within our bodies, and it implants a deeper sense of balance and its vital importance within our psyche.

Aikido, from an embodied perspective, could be seen as a practice of stealing the balance of others, known as Kuzushi, whilst also being totally prepared to have yours stolen. Interestingly, another definition of Kuzushi is 'mind-steal,' wherein an opponent has a piece of their mind or attention stolen, to the advantage of the one who can leverage the opportunity that it creates. The problem that faces almost all new beginners of Aikido is that they arrive on the training mat already off balance in their bodies. This basic state of being off balance in their bodies makes the initial learning process a steep one, with very little in terms of 'takeaways' to show for it. The application in the everyday world from this ongoing adaptation to becoming more balanced in the body and mind, is commensurate with becoming increasingly ok with having this balance temporarily stolen in the body without it putting you mentally off balance.

A full-blooded Aikido session for an active participant will see a person doing hundreds of breakfalls until being on the floor is just as valid a part of the learning experience as being upright. An experienced Aikidoka knows that whether they are giving or receiving techniques the best lessons are the ones that challenge us. As a receiver of a technique we are the one who surrenders and takes a fall. This role has less to remember but it is more physically demanding. As the giver we carry the responsibility for remembering and performing a technique both accurately and safely; either can be highly challenging at different stages of development. Aikido is an embodied artform wherein this learning cycle of giving and receiving, of surrender and agency mirrors a variety of patterns of experience that we struggle with in everyday life. Where Aikido really excels at getting to the root of what blocks the learning cycle is its ability to teach us through our bodies how to escape the myriad double binds that stop us in our tracks, often leading to entrenchment and resistance to new information., For example, we are hard wired to stand upright and to avoid falling and yet failure and making mistakes are fundamental to a healthy and productive learning cycle. We are geared to move forwards, rather like an automatic car left in drive mode, and therefore we don't handle going backwards well as it feels counterproductive to our core sense of purpose and direction. Ukemi acts like a somatic antidote to this dilemma, quelling the all too human aversion to falling over and the more general fear of failure, particularly when either are witnessed by others.

Breath, Vision and Our Dynamic Potential

Another confounding factor for the beginner in Aikido is that most of us live primarily in our heads, breathe shallowly in our chests and have very little natural peripheral awareness. We're also scared stiff of falling over, which is a metaphor that proves quite costly when we do fall as our bodies suffer more from being rigid than if they were relaxed. All of these bodily impediments are vitally important in the context of our greater developmental journey as they relate to our ability to be vulnerable to all of the new information that we will need to process on the route to becoming our increasingly inclusive and integrative selves. As we develop the ability to breathe more fully throughout all of our movements, and in advanced stages to enhance our movements, we find

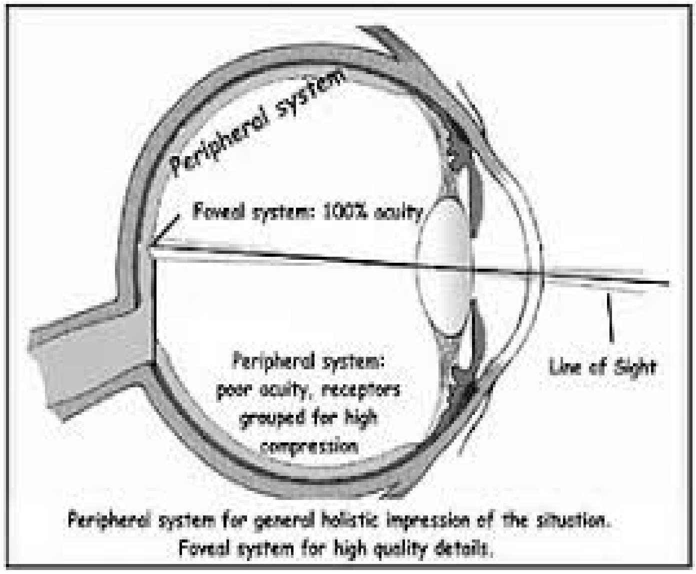
Peripheral system
Foveal system: 100% acuity
Peripheral system:
poor acuity, receptors
grouped for high
compression
Line of Sight
Peripheral system for general holistic impression of the situation.
Foveal system for high quality details.

Figure 4. Peripheral vision system highlights how 'sight received' information flows into the brain either in a narrow stream (foveal) or a broad stream (peripheral).

ourselves more able to handle obstacles outside of the training space. Access to more information and a wider array of options become available to us as our peripheral awareness (see Figure 4) becomes an integral facility supporting how we process our reality; leading to more information being processed from within a broader context.

Frame of Reference Equals Frame of Relevance

It is precisely this increased capacity, to process more information from an increasingly broader context, that underpins both continuous adult development and the inoculation against the need for violent conflict. The counterpoint that Aikido works against is the 'tunnel' vision effect that arises from entering a fight or flight state. Tunnel vision is similar to foveal vision, which is at the acute end of our ability focus our eyesight and is ideal for focusing on what is immediately in front of us, however it is often to the cost of broader context or new information. Coupled with being in an unresourceful state this is a potent recipe for various levels of conflict. We all have blind-spots, areas we overlook, or 'things that are missing from our frame of reference, therefore they are not in our frame of relevance.'

Aikido is just one way of supporting our capacity to expose these blind spots to increased awareness, however as an embodied methodology it is a valuable factor in a broader integrated approach alongside more cognitive practices.

> Ultimately, physical, psychological and spiritual mastery are one and the same. The egoless self is open, flexible, supple, fluid, and dynamic on body, mind and spirit. Being egoless, the self identifies with all things and all people, seeing them not from its self-centred perspective but from their own respective centres. In a circle of limitless circumference every point becomes the centre of the universe. (Ueshiba, 1984, p. 9).

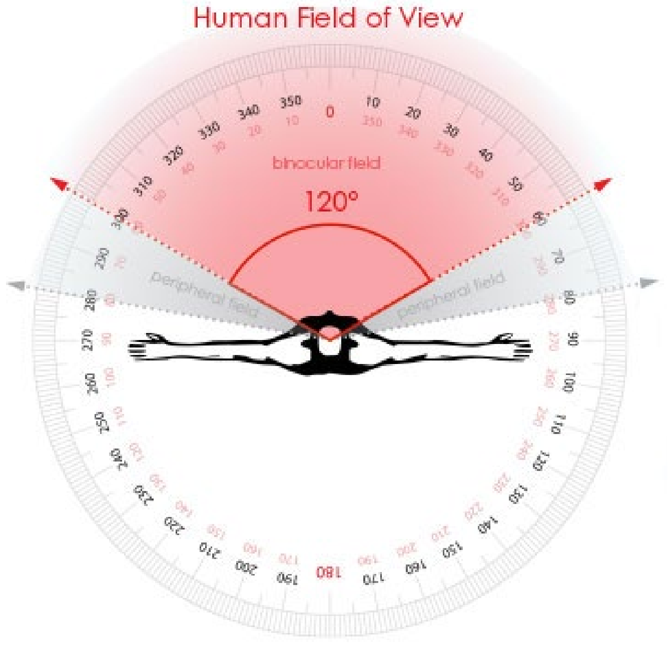

Figure 5. This illustration of the 'Human field of view' highlights our true context as beings that live in a 360 degree position in space.

As we adapt to living in a body that is comfortable shifting within any permutation of a 360 degree position in space (see Figure 5) we increasingly find ourselves able to take different perspectives and vitally, get out of our own way so that we can see what something is from someone else's perspective and not just from our own. The net effect is a kind of 'switching off' of the smaller (identity) self and an increasing of our fullest potential self (spirit), unrestricted by fears, planning or strategizing. From here there is receptiveness, flexibility, speed and fearless engagement. This quote from Professor Kenji Tomiki beautifully sums up Aikido with Mushin Mugamae at its core:

> Non-conscious action stemming from a neutral physical posture (in other words, neither aggressive nor submissive – mu gamae), executed without emotion or prejudgment (mu shin). (Allbright, 2002, p. 41)

A Personal Reflection

Over time, I have been fortunate to experience glimmers of these kinds of realisations. I increasingly experience states of a kind of activated or applied openness where my model of the world is more readily open to being expanded. Even in the face of facts that I would quite often prefer not to be true, the benefits from accepting them continue to outweigh the initial struggle to relate to them and eventually integrating them within a more holistic model of reality. The opportunity to pursue my master's degree was a classic example of this. I was working on having a workshop certified for CPD credits to be delivered as an executive training and had it failed by the supervisor. That same supervisor liked the way that I took the feedback onboard and commented that the work I had put into creating the course said to her that I had what it took to make an application for higher learning for master's course in applied coaching. I took the hit of the rejection as a gift and flowed with the direction of the energy it had to give. The outcome was to change my life by giving me a space in which to pursue my core interests at an advanced academic level. If I had become fixated with the failure to have my course certified I would not only have failed to move forwards, there's a strong possibly that I would have gone backwards, with no profit (learning) to show for it.

The final core concept I would like to share is more generally a Japanese one, but it is quite common to hear it being said in Aikido: Ganbatte. This word means to really go for it, and to do your best. It is said with a passionate energy and it is a core aspect of the Japanese psyche that they really want you give it your all, even if they might have to work harder because of it.

Ganbatte.

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Ken Wilber's Problematic Relationship to Science

Frank Visser[1]

Abstract: Ken Wilber has argued for a spiritual view of evolution. To make his case he has defended three knowledge claims: (1) current science fails to explain major transformations in evolution, (2) some scientific views seem to support his view that the cosmos is inherently creative, and (3) his own theory of evolution is "the only theory that can actually explain the mysteries of evolution." The validity of these three claims is questioned by the argument that a more believable integration of evolutionary theory within integral theory is called for. This requires both an openness to criticism and more solid expertise in this specific field of science. Thus far, both of these features have been lacking within both Wilber's writings and the integral community.

Keywords: Eros, evolution, evolutionary science, extended synthesis, integral theory, modern synthesis.

Introduction

Throughout his many works, Ken Wilber has shown an ambiguous attitude towards science, and especially evolutionary science. Even though the concept of evolution has been central to his entire work spanning four decades, his engagement with evolutionary theory has been minimal. He has often argued science can't explain some forms of complexity. He has suggested his ideas are like those of some famous scientists, seeming to suggest they implicitly support his ideas. At the same time, he has explicitly denied that these scientists would accept his specific idea of evolution as Spirit-in-action, metaphorically pictured as Eros-in-the-Kosmos. And finally, he has claimed to have "the only theory that can actually explain the mysteries of evolution" (Wilber, 2017, p. 14), even though his mystical notion about Eros doesn't qualify as a scientific theory. In sum, the interface of integral theory with evolutionary science needs much more thoughtful consideration than it has received until now.

In 2010 I presented the paper "The 'Spirit of Evolution' Reconsidered" at the Integral Theory Conference, where it received an honorary mention in the category of constructive criticism. It reviewed in chronological order the most salient written and online statements Wilber has made about evolution and evolutionary theory (Visser, 2010). Over the years I have offered the more critical reviews in dozens of essays on Integral World (Visser, 2008). Here, I propose a more systematic and analytical treatment of the areas where Wilber and evolutionary science meet – or don't meet.

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Wilber has given four reasons for taking a spiritual perspective on evolution. In his recent *The Religion of Tomorrow* he argued, among other things:

> Rational reasons to believe in this miraculous spiritual dimension to Reality include the following: (a) the "creative advance into novelty" that is demonstrated by evolution itself and is inexplicable by mere "chance mutation" (the evolution from strings to quarks to subatomic particles to atoms to small molecules to massively interconnected molecules to asexual cells and early organisms – just for starters – is an awful lot of evolution in a universe that is supposed to be "running down" but can easily be seen as yet more evidence of creative Eros or Spirit-in-action, "a self-organizing self-transcendent drive," as Erich Jantsch put it). (Wilber, 2017, p. 498)

The other three areas involve the interconnectedness of things and events, the presence of consciousness and the evidence from meditation. This quote reveals a number of problematic claims. First, the grand sequence from sub-atomic particles to complex biological organisms is taken as *prima facie* evidence for a Spirit behind everything. Second, doubt is cast on the commonly accepted view in science that the second law of thermodynamics, according to which the universe is "running down" holds sway, apparently in contradiction to the increase of complexity Wilber refers to. And third, this cosmic process is explained, quoting complexity scientist Jantsch, by a generic "drive" towards self-organization and self-transcendence.

In my view, the growth towards complexity can be explained more fruitfully by closely paying attention to what science has to say about each of these transformations. Chance is only one of the many factors involved. Further, this growth towards complexity does not violate the second law but is paradoxically powered by it through the energy flows it continuously generates. And finally, postulating a generic drive towards complexity (or behind biological evolution) leads to more questions than it answers. Why, for example, would that drive work well on Earth but not on the Moon or Pluto, if Eros is a cosmic phenomenon? And why, for that matter, did it take billions of years before even on Earth complex life arose? Science provides more believable explanations for these processes.

We can contrast a religious with a scientific view of reality like this. In the religious view, taken by Wilber, one feels overwhelmed by the complexity of nature and invokes a metaphysical principle (Spirit) to explain it all. Before exploring reality, one already knows the final answer. Science comes down from that "view from 40.000 feet" and breaks up this problem in more manageable chunks. It does not pretend to have final answers but makes daily progress in solving these piecemeal problems. Invoking Spirit to solve problems of science is a non-starter, a question-begging strategy, the "God of the gaps." When one argues for Spirit, it is important to find areas where science supposedly fails, as much as areas where science can be included. Even a creationist will accept that minor variations are possible during evolution. It is major transformations that are usually seen as problematic within the current status of science. This is Wilber's stance as well (Wilber, 1995, p. 10, 492).

On many occasions Wilber has expressed doubts about the ability of science to solve the mysteries of evolution – so that it needs to be complemented by a spiritual perspective. Here's an example from a recent Integral Life video (Wilber & De Vos, 2019):

> One of the most *boring* criticisms I have received over the years is that my theory doesn't fit the modern theory of evolution. And that's right! The modern theory of evolution is *catastrophically* incomplete!

A strong statement such as this leaves me to wonder, if, to make this field of evolutionary science "more complete," we are supposed to add Spirit to our worldview, or if we rather should really investigate what current evolutionary theory entails. A similarly strong statement about the incompleteness of science was made in a blog post by Wilber in which he responded to criticism about this understanding of evolution (Wilber, 2006b):

> Do I think Mayr or Dawkins or Lewontin or Kauffman believe in telos or Eros that is Spiritual in any way? Absolutely not. Virtually all mainstream theorists embrace *scientific materialism*.

This, again, makes me wonder, if Wilber's view of evolution is in fact not supported by science at all. Yet on occasion, as I will show, he claims support from famous scientists. However, in general one cannot claim support from thinkers that do not share one's particular views. Personally, I would worry when the view of evolution I hold is not supported by science, but Wilber apparently thinks otherwise. He indicates his reliance on other ways of knowing, based on his own mystical readings or meditative experiences (generally phrased by him as the "Eye of Spirit").

But in general, when one invokes an extra-scientific principle to explain the complexities of nature, one surely has the burden of proof to show that this explanation really clarifies things. As is the case with the God of the creationists, this is fundamentally impossible. Wilber's spiritual-mystical views on evolution suffer from the same fundamental drawbacks, in my opinion.

To see more clearly where Wilber and science meet, or part ways, we need to see what Wilber's view of evolution actually consists of. Then we need to see if evolutionary science speaks with a single voice about evolution or many different (and sometimes conflicting) voices. And finally, we need to see if there is common ground between these two areas.

Ken Wilber's View of Evolution

Where to begin? Why not at the beginning? In his first book, *The Spectrum of Consciousness*, Wilber (1977) pictured the cosmic process (following Coomaraswamy) as divided in two phases: evolution, or the movement from Spirit to *maya* (matter), and involution, or the opposite and subsequent movement from *maya* to Spirit. In later works he reversed these terms (following Sri Aurobindo), with involution being the prior movement from Spirit to maya and evolution being the opposite and subsequent movement from *maya* to Spirit. (Wilber, 1993, p. xviii-xix) However, the basic abstract scheme remains the same: All natural processes come from Spirit and return to it, whichever name we give to its phases.

Spirit therefore plays a crucial role in evolution as Wilber understands it. This is clear from another early work, *Eye to Eye,* in which he states: "The strict theory of natural selection suffers from not acknowledging the role played by Spirit in evolution" (1983, p. 205). Further, the subtitle of *Sex, Ecology, Spirituality* (1995), his major academic work, is "The Spirit of Evolution," and in *A Brief History of Everything* (1996), a more popular version of this main work, Part One was specifically called "Spirit-in-Action." One can even say he believes in a certain view of evolution because he believes in the doctrine of involution.

This active view of Spirit differentiated the neo-perennial philosophy from its predecessor the Perennial Philosophy, according to Wilber. Where Spirit was traditionally depicted as the passive Ground of Being, without any clear notion of evolution, in this more recent formulation Spirit is seen as both passive and active at the same time: passive-transcendent as World Ground and active-immanent as World Process. This Neo-Perennialist view was rather recent, "no more than a few hundred years old" and its precise origin is "almost impossible to pinpoint exactly." It started with Hegel and Schelling, was taken up by Spencer and "applied to biology" by Darwin, before reappearing in Sri Aurobindo and Teilhard de Chardin, in Wilber's reading of the history of evolutionary thought (1997, p. 62-63).

In Wilber's reading of the evolutionary literature, Charles Darwin didn't do much more than "dutifully and drudgingly" (Wilber's words) accumulate evidence for a view of evolution that was already "in the air" (Wilber, 1995, p. 491). What Wilber failed to realize, is that Darwin fundamentally *broke* with the prevailing notions about evolution, in a way that was shocking to many of his contemporaries, even to those who accepted the theory of natural selection. Darwin replaced the concept of transformation or transmutation, as evolution was called in those days, by the theory of variation and selection (Visser, 2019d). And where Wilber (1995, p. 491) concludes in *Sex, Ecology, Spirituality* that Darwin's lasting contribution was to obscure "for over a century" a spiritual view of evolution (driven by Eros or Spirit), for science his contribution was taken to be an enormous clarification of the evolutionary process (Visser 2019d). Wilber's concept of evolution is fundamentally at odds with that of science. It is here that Wilber's scholarship is most wanting and in need of a substantial correction.

Wilber's highly esoteric-idealistic view of evolution gets brief mention in the historical overviews of the idea of evolution. For example, Bowler (2009, p. 209), in his *Evolution: The History of An Idea,* does mention Goethe, Hegel, Fichte and Schelling in a brief paragraph on Idealism and Romanticism, and their reaction to Enlightenment materialism, in which they wanted to see "spirit as an active force imposing its will on nature to create order and purpose." But nothing like the elaborate esoteric doctrines of involution and evolution can be found in the Western philosophical literature.

A more likely source therefore, is the Western-esoteric Theosophical tradition, which started in 1875 with H.P. Blavatsky and whose magnum opus *The Secret Doctrine* (1888) contained not only elaborate details about involution and evolution, but also dozens of references to Darwin. According to Indian scholar Meera Nanda (2010, p. 284) all these Eastern-esoteric philosophers are "Blavatsky's Children" (Visser, 2019c). She writes: "The entire repertoire of intellectual arguments used to dress up traditional Hindu cosmology in the scientistic costume of progressive evolutionism was created and popularized originally by Madame Blavatsky and her fellow Theosophists" (Nanda, (2010, p. 284). Theosophy revitalized Indian philosophy, but introduced ideas of its own, one of which were the elaborate cycles of involution and evolution. Meera emphasizes specifically that these Hindu doctrines are incompatible with Western science.

> What immediately stands out about these theories is how deeply and fundamentally they contradict Darwin. While Darwinian theory explains [the] evolution of species by descent from a common ancestor by genetic modification, Hindu teachings assume spirit or consciousness to be the primary force of evolution. Does it not follow, therefore, that one can't believe in the Hindu view of evolution, and in the same breath claim to be in accord with [the] scientific – i.e., Darwinian – understanding of evolution? (Nanda, 2010, p. 282)

This points to a fundamental theoretical difference Wilber tends to gloss over in his dealings with evolution. Integrating the Darwinian view of evolution has consequences for any spiritual view of evolution.

Of course, some contemporary thinkers have tried to forge an integration between these two opposing views, usually called theistic evolution, in the sense that evolution is God's way of creation, or that God fine-tuned the original conditions under which evolution could subsequently take off (Lazlo, quoted in Visser, 2014a). I have called this "the God of the Knobs" (Visser, 2019b). But I find these forms of synthesis or integration hardly convincing. They are parasitic on the scientific view because they never specify the added value of introducing Spirit. And what empirical data are proof for God's existence? This is the major weakness of Wilber's view of evolution: if there is such a pervasive cosmic force operative in evolution, as he claims, how could that possibly work in practice and be detected?

To repeat, traditional doctrines of evolution were "transformational" (or "transmutational" as it was expressed in the nineteenth century) to use Ernst Mayr's (2001) terminology, whereas Darwin's proposed a "variational" model of evolution. In the traditional view, species morphed into other species by a mysterious process of transformation or transmutation, whereas Darwin abolished such a notion in favor of variation, selection, and inheritance. Wilber is fond of using the terms "transcend-and-include" when dealing with evolutionary processes, which are supposed to be driven by Eros, a Whiteheadian "creative advance into novelty" or an "extraordinary power." In a video on evolution Wilber (2014) claimed:

> This seems to be the general overall thrust of evolution – and one of the things that is certain about it – is that it won't give up. It simply is there, with an extraordinary power, in the entire cosmos.

Scientists don't think in these generic and generalized terms about evolution at all. They want to precisely understand under what conditions complexity may or may not emerge.

There are only two basic options here, in my opinion. Either there is such a pervasive "drive" towards complexity in the cosmos, or there is not. If there *is*, one has to explain why, if we take our solar system as an example of a self-contained energetic unit, life seems to be so rare – as far as we can tell. Life on earth seems to be the exception to the rule, instead of the rule itself. But if there is *no* such cosmic and pervasive drive towards complexity, the task is to explain why there is life *at all* in our solar system. Science understandably points to the specific conditions that exist on Earth – the so-called "Goldilocks conditions" of the habitable zone in which our planet exists (Christian, 2018). The fact that life may exist outside of our solar system, and may even be abundant, does not change that observation. Invoking metaphysical principles should really be our last resort – if at all.

Incidentally, this does not mean that the scientific theory of evolution doesn't accept the notion of progress, as is often assumed mostly because of Stephen Jay Gould's influential anti-progress arguments (Gould, 2002). However, both Ernst Mayr (2001) and Richard Dawkins (2003) have argued, persuasively, that natural selection was *bound* to lead to progress, under certain conditions, and in the restricted sense as being better adapted to the environment. What is not accepted by science is a general progressive movement in all departments of nature, least of all driven by an inherent force or pressure, let alone one of a spiritual or divine nature, as Wilber proposes. This latter conviction remains, in the words of Dawkins (2017, p. 124), a mystical doctrine which is "not really a theory at all, and I shall not bother to discuss it. It is obviously mystical and does not explain anything that it doesn't assume to start with." I agree with this assessment of the theoretical emptiness of these mystical notions. Wilber's notion of a Spirit-driven evolution (which can hardly be called a "theory") suffers from the same defect.

Does Wilber in fact *have* a proper theory of evolution? In his main work Sex, *Ecology, Spirituality* Wilber (1995, p. 35-78) has fleshed out his "Twenty Tenets," which he defined as "the 'laws' or 'patterns' or 'tendencies' or 'habits'" that "all known holons seem to have in common," (p. 34). Remarkably, in this long section those thinkers that get included are philosophers, psychologists, social scientists or complexity scientists, such as Whitehead, Derrida, Foucault, Freud, Marx, chaos theorists – but most notably absent are those who should be consulted first when it comes to evolution: evolutionary theorists. In fact, these Tenets are highly abstract descriptions, not causal explanations. As one example, tenet 3 reads "Holons emerge," which is to say that atoms give rise to molecules, as molecules give rise to cells, etcetera. That may be true at an abstract-descriptive level but doesn't contribute to our understanding of *how* exactly molecules and cells emerge from simpler holons. These processes are usually well understood by science and are non-mysterious.

In his more popular books or videos, Wilber has used a rather colloquial style of presentation to convey his understanding of evolution. Most of these dealings with modern evolutionary thought have been rather critical about mutation/variation and natural selection theory (Wilber restricts himself usually to neo-Darwinism). He usually questions that science can explain a certain form of complexity (be it human eyes, bird's wings, the immune system, regeneration, morphogenesis or speciation) without in any way engaging the relevant evolutionary research literature. More often than not, this criticism is couched in graphic and sarcastic statements, meant to cast doubt on the scientific, neo-Darwinian understanding of evolution. Here's a typical example taken from a video about Integral Buddhism.

> To get one species from another requires several mutations. It's well-known that the vast majority of mutations are lethal, so we would have to have several extremely unlikely mutations all occurring at once in the same animal. But even more unbelievable, the exact same number and type of mutations would have to occur in another animal of the opposite sex, in order for them to procreate and pass on the new mutations. And even more unbelievable yet, these two would have to find each other – what if one is in Siberia and the other in Mexico? The odds of all of those happening is basically zero. (Wilber, 2014)

Science, however, explains speciation by populations being split in two parts, so the problem of its members being in two countries far apart simply does not arise (Coyne & Orr, 2004). How mutations spread within populations is well understood by the modern synthesis. Again, Wilber's understanding of the principles of evolution is inadequate and at variance with science. What does he actually have in mind, that Eros is tweaking genes? That Spirit is the Great Mutator? He does not tell us.

On more than one occasion, Wilber has pointed to the literature of intelligent design, which, he believes has correctly identified the shortcomings of neo-Darwinism, even though he disagrees with their alternative solution (of the Christian God). For example, in a footnote of *Integral Spirituality* he states,

> I am no fan of intelligent design either, which is just Creation Science in drag. But you don't need an intelligent designer to realize that evolution seems to involve some "creative allure," or what Whitehead called "the creative advance into novelty." That drive – Eros by any other name – seems a perfectly realistic conclusion, given the facts of evolution as we know them. Let's just say there is plenty of room for a Kosmos of Eros. (Wilber, 2007a, p. 236n.)

What "facts of evolution" has Wilber taken into consideration, one wonders? Wilber's "integral design," as we can call it (Visser, 2009), suffers in my opinion from the same defects as intelligent design proper: it doesn't have a *positive* theory of evolution of its own. Apart from a generic "drive towards self-organization" no further details are provided. All it can do is cast doubt on science and its supposed shortcomings, but it cannot, by definition, get explicit about the ways of working of the divine Eros or Spirit.

As Shanks (2004) formulated it in his critique of intelligent design "theory": creationism (or intelligent design) cannot answer the crucial questions about the What, Who, How, When and Why of evolution. Wilber may not be a typical creationist (Visser, 2019), but he can with some justification be called a "creativist" (Visser, 2011). In Whiteheadian style, Wilber relates all evolutionary novelty to the "creativity" inherently present in the universe. This primordial creativity cannot be explained any further, other than identifying it as the "action" of the divine Spirit. As we will see, there are other, more believable ways to conceptualize the creativity of the cosmos.

A different way to contextualize Wilber's take on evolution is found in the magazine article "The Real Evolution Debate" (2007), which was published in *What Is Enlightenment?*, a Andrew Cohen related publication which served as medium for Wilber's ideas for many years. In it, no less than twelve approaches to evolution are portrayed, six from a material-scientific and six from a spiritual-religious perspective.

Table 1. Scientific and Spiritual Approaches to Evolution

SCIENTIFIC	SPIRITUAL
1. Neo-Darwinists	7. Intelligent Designers
2. Progressive Darwinists	8. Theistic Evolutionists
3. Collectivists	9. Esoteric Evolutionists
4. Complexity Theorists	10. Process Philosophers
5. Directionalists	11. Conscious Evolutionists
6. Transhumanists	12. Integralists

It is argued by the anonymous author(s) that the evolutionary landscape is much more varied than the usual “Darwin vs. Design” dilemma, which dominates our public discourse. Wilber's integral philosophy, listed as the final and most comprehensive approach, is described as follows,

> "The integralist's goal is not so much a new theory of evolution but a larger perspective that can effectively integrate disparate existing theories, both spiritual and scientific, into a coherent picture of the entire evolutionary process. More than synthesizers, they offer a sort of radically inclusive meta-theory, one that sees truth everywhere – from the gene-centered focus of the Neo-Darwinists to the mathematical insight of the Complexity Theorists to the creativity of the Process Philosophers – but attempts to provide a larger context that allows us to see the relationships between these many evolutionary perspectives… Like the Conscious Evolutionists and the Process Philosophers, the Integralists are reaching for a higher synthesis and a deeper integration between science and spirit." (p. 100).

Be that as it may, in my opinion the two basic options still remain: evolution is seen as either *unguided* (or naturalistic) or it is seen as *guided* (by whatever divine Principle, Process or Person). Wilber's Eros-in-the-Kosmos is such a transcendental Principle, which places him squarely in the religious-spiritual-mystical camp.

This raises the pertinent question: what is the added value of that "larger perspective" and "coherent picture" in terms of understanding evolutionary processes? For example, does a Whiteheadian "creative advance into novelty" qualify as a theory? Or does it provide any new understanding? Is it an improvement on what science has to offer, as Wilber claims? Can a meta-theory actually have any bearing at all on scientific problems? Wilber suggests a positive answer to this question by introducing the notion of Eros when discussing the evolution of eyes and wings, or other biological phenomena, but it is questionable.

Wilber claims to transcend-and-include science in his integral philosophy, but this leads to problems: evolution is either guided or unguided. Tertium non datur. Or put differently in more modern terms: you can't have it both ways. Species are either created or evolved. And if science is included to some extent by an integral philosophy, to what extent is it included? And more importantly: when is it transcended? Wilber does not provide any specifics here.

In summary, by introducing Spirit into the evolutionary equation Wilber doesn't clarify any single empirical evolutionary problem. He does on occasion refer to some areas of science, most notably complexity and chaos science, that seem to point into the direction of a creative cosmos, but we should keep in mind this in no way implies automatically there is a Spirit behind everything we see in nature. His attempts to cast doubt on the ability of science to explain these natural phenomena have not been very convincing to me, in part because his penchant for caricature and dismissive humor have not helped create an atmosphere for serious reflection.

What Does Science Say About Evolution?

Turning now to science itself, it should immediately be obvious there is not one single scientific theory about evolution – or about anything else within the province of scientific study, for that matter. Instead, there are various schools of thought, which debate intensely about the mechanisms of evolution, and more specifically the relative importance of natural selection. Most, if not all, however, subscribe to the Darwinian thesis that we do not need to invoke spiritual forces to explain the diversity and complexity of nature – nor should we.

Of these evolutionary schools, Wilber usually refers only to "neo-Darwinism," which is a label applied to the so-called modern synthesis, which took form in the early decades of the 20th century. Where Darwin postulated natural selection as the main evolutionary mechanism, though not the only one, he was in the dark about the precise workings of heredity – which made many of his contemporaries doubt the viability of this model. We would call it Evolution 1.0 these days. But when the work of Gregor Mendel was (re)discovered around 1900, and the laws of heredity were formulated, Darwin was finally vindicated (let us call it Evolution 2.0).

This "modern synthesis," a term coined by Julian Huxley (1942) in his book *Evolution: The Modern Synthesis*, became the received evolutionary science. In recent decades, however, multiple *additional* evolutionary mechanisms have been proposed and debated, to the extent that an "extended" or "post-modern synthesis" has emerged (Evolution 3.0). Many of its insights have been documented in a single book as well: *Evolution: The Extended Synthesis* (2010) by Massimo Pigliucci and Gerd B. Müller. Table 2 provides a very rough timeline:

Table 2. Three generations of evolutionary thinking

1850-1900	Charles Darwin	Evolution 1.0
1900-1950	The modern synthesis	Evolution 2.0
1950-2000	The extended synthesis	Evolution 3.0

Entire new fields of investigation have opened up this way, such as: evolutionary development or evo-devo, ecology, epigenetics and phenotypic plasticity (Pigliucci, 2007). And even then, some fields have been left out, according to Dutch biologist Gert Korthof (who owns a large online review website dealing with this Third Evolutionary Synthesis, but also a great variety of critiques of Darwinism at www.wasdarwinwrong.com). He mentions among other things: endosymbiosis, horizontal gene transfer, viral evolution, earth system science, catastrophe theory, the origin of life and astrobiology (Korthof, 2014).

Difference of opinion exists in the field about how important these theoretical additions have been ("Extended Evolutionary Synthesis," n.d.). In my opinion this is just a testimony of the progress of science resulting in a richer image of the processes of evolution. At any rate, this is a lively field of scientific research. It is also sensitive to hype and exaggerated claims, as if Darwinism has been refuted. Just claiming, as Wilber does, that "the modern theory of evolution is *catastrophically* incomplete" is irresponsible without specifying what is included or excluded in the analysis. For sure, it is widely believed these days that the modern synthesis itself was still incomplete and needs to be expanded. Such is the progress of science.

In my opinion, this debate can be structured helpfully by seeing each of these schools of evolutionary thought as addressing one or more levels of the Linnean taxonomic hierarchy (Table 3).

Table 3. Evolutionary researchers address different taxonomic levels.

Taxonomic level	Researcher	Focus of study
Life	Kauffman	Origin of cells, molecules
Domains	Woese	Origin of bacteria, archaea, eukaryotes
Kingdoms	Margulis	Origin of fungi, animals, plants
Classes	Carroll	Origin of wings, eyes, limbs
Species	Darwin	Origin of species

In true integral fashion, this prevents researchers in the various fields to argue past each other. It is also relevant for assessing Wilber's statements on evolution, especially when he claims support from any of them.

As one well-known example of mixing taxonomic levels: where Darwin studied the origin of the various animal and plant *species*, Lynn Margulis (1998) focused on the way the animal and plant *kingdoms* emerged in the first place, through endosymbiosis of single celled organisms and bacteria, an insight she derived from early Russian biologists. In that sense, she went deeper, and further back in time, than Darwin was able to do. Margulis opposed Neo-Darwinist gradualism, not by invoking Spirit, but by empirically discovering *other evolutionary mechanisms.* Later in life she argued that endosymbiosis was also the main mechanism of speciation (Margulis & Sagan, 2002). But even if occasionally the tree of life shows signs of merging instead of splitting, especially in the case of horizontal gene transfer (Sapp, 2009; Quammen, 2018), the overwhelming majority of species emerge through splitting of populations (Coyne & Orr, 2004).

As a second example, and more relevant to my analysis, Stuart Kauffman pioneered the phenomena of self-organization, especially around the origin of cellular life and even molecular structure (Kauffman, 2019). His work is not addressing the question of speciation, which remains Darwin's domain, or symbiosis, which is Margulis's territory. Wilber often refers to Kauffman as an ally in his opposition to neo-Darwinism. For example:

> I am not alone is seeing that chance and natural selection by themselves are not enough to account for the emergence that we see in evolution. Stuart Kauffman and many others have criticized mere chance and natural selection as not adequate to account for this emergence (he sees the necessity of adding self-organization). (Wilber, 2007)

In doing so he overlooks that self-organization is not primarily the mechanism that produces biological adaptations or species; it is the process that spontaneously yields (constituent parts of) cells and molecules. We shouldn't mix taxonomic levels when discussing evolution. Nor should we prematurely take the incompleteness of neo-Darwinism as proof for Spirit.

Then there are those scientists who stand closer to creationist or spiritual views of evolution, even though they still don't explicitly invoke divine influences. First there's the so-called "Third Way of Evolution" (at www.thethirdwayofevolution.com), which counts as members James A. Shapiro, Dennis Noble, Eva Jablonka, Gerd B. Müller, Eugene Koonin and many others. They argue that neo-Darwinism (or "ultra-Darwinism") overlooks important aspects of the evolutionary process. They want to steer a mid-course between creationism and neo-Darwinism. Obviously, there is considerable overlap with the extended synthesis.

The creationists proper (or their pseudo-scientific spokespersons of intelligent design) argue more explicitly for a divine hand in nature. Michael Behe's *Darwin's Black Box* (1996) – a title Wilber has recommended to his students as evidence for the supposed failures of Darwinism (Wilber, 2005) – and further works inaugurated this movement, mostly in the US. Scientists have wholesale rejected this approach because it doesn't provide any *positive* evidence for or theory of divine intervention in evolution. It can only cast doubt on the capacity of naturalistic science to explain all of its details, usually by arguing for the "irreducible complexity" of this or that biochemical process. It is telling that Wilber sees intelligent design as an ally against the "flatland" approach of neo-Darwinism, while overlooking the many *scientific* evolutionary schools critical of the modern synthesis.

I would like to highlight an aspect of the notion of design when it comes to biological complexity that is often overlooked. In the case of intelligent design, it is one thing to speculate about a cosmic Spirit which has designed biological organisms or biochemical processes, it is wholly something else to *implement* this design. It is unclear to all parties involved how this could possibly have worked. And this shortcoming applies to Wilber's Eros-theory as well. Even so, as late as Wilber's latest book *The Religion of Tomorrow* he has quoted creationist Hugh Ross (2001) to argue for the improbability of life, or a habitable planet Earth, without a divine Designer/Spirit/Eros (Wilber, 2017. p. 497-498). One may ask: what does Wilber have in mind here, that Eros/Spirit prepares a planet for us to live on?

Then again, it is sometimes suggested that a spiritual view of evolution becomes available only for highly developed researchers, who have entered post-formal stages of cognition of mystical states of consciousness. An unlikely hypothesis, as if all mystics would agree with Wilber's idiosyncratic view on evolution. And if they do not? Not enlightened enough? However, one could equally argue (playfully) that these post-modern developments in evolutionary science are already made possible by higher, post-formal forms of thought.

The first Darwinists stressed the element of competition, between separate and selfish individuals, most notably by using the term "the survival of the fittest" (a term that was coined by Herbert Spencer, not Darwin, and reluctantly used by the latter). Later theorists emphasized that cooperation is much more important (Kropotkin, Margulis, Sloan Wilson). This can be interpreted as a change from agency to communion. A truly "integral" view of evolution stresses the genealogy of all the various forms of life, first as a linear ladder but after Darwin more as a non-linear, bushy tree of life which branches out in all directions. All organisms are put in historical perspective by seeing them as descended from a last universal common ancestor (Dawkins, 2016). And to understand the recent findings of the prevalence of horizontal gene transfer even between different domains (i.e. viruses and humans) requires another mental transformation, crossing traditional boundaries between domains.

Ironically, at no point in this scheme of theoretical advancement have unspecified and unspecifiable spiritual factors been introduced. Even stronger, all these new discoveries have been made by modern empirical methods (microscopy, phylogenetics, etc.). Spiritual approaches have not contributed to our knowledge of evolution at all.

Wilber has covered very little of this evolutionary theoretical landscape in his writings, seemingly implying that one is either a neo-darwinist or a creationist. He seems to feel at home in the latter camp (Lane, 2011, 2017). Even if the field of evolutionary theory is a rich tapestry of schools and opinions, and debates often get considerably heated, most if not all scientists squarely subscribe to the fundamental Darwinian notion that you can get to species without invoking Spirit in any of its guises.

Creationists, including Wilber, often seem to use the healthy controversy within this field of science as, or perhaps only as, an argument for the need to postulate Spirit. In defense of Wilber, some integralists (e.g., Reynolds, 2019) have claimed he is able to see the spiritual dimension of evolution because he uses his Eye of Spirit, whereas science is limited to the Eyes of mind and senses only, leading to a materialistic worldview. This raises the question: what additional insight into biological phenomena is gained by using such a form of extra-scientific knowledge? Reynolds argues that Eros or Spirit is not in any way a creationist God or Deity, but rather behind "everything that arises." This contradicts Wilber's many statements that evolution is "Spirit-in-*action,*" in my opinion. But even if that were the case, its absence or presence wouldn't make any empirical difference. Like beauty, Eros seems to exist only in the eye of the beholder, but not in any objective, empirical sense. Does that make the notion of Eros theory or poetry? (Visser, 2017).

In summary, Wilber has rarely engaged the modern synthesis in a serious manner (and often ridiculed it), has not dealt with the extended synthesis and its many offshoots, has recommended his students to read Michael Behe, the front man of intelligent design, quotes creationists such as Hugh Ross, and at the same time claims to have "the only theory that can actually explain the mysteries of evolution" (Wilber, 2017, p. 14). To date, Wilber's sympathies and affinities do not appear to lie with the realm of evolutionary science.

How or Where Do Ken Wilber and Evolutionary Science Meet?

Given this situation, we should now ask, has Wilber contributed to our understanding of evolution, either by intelligently commenting on current scientific schools or debates of evolutionary thought or proposing a theoretically viable explanatory model of his own? Given the above analysis, the answer must be no, in both cases. Neither intelligent design nor Integral Design has been able to clarify how biological complexity has emerged under the influence of Spirit. This is and will remain a religious belief which is hard to reconcile with the scientific method. This is Wilber's vision in a nutshell, as expressed in *Integral Spirituality*:

> That drive – Eros by any other name – seems a perfectly realistic conclusion, given the facts of evolution as we know them. Let's just say there is plenty of room for a Kosmos of Eros. (Wilber, 2006a)

By repeating this catechism instead of substantiating it, Wilber is mixing up the factual language of science with the poetic language of religion, without attention to precise terminology ("by any other name"). Rather than offering positive evidence for the existence of Spirit, he is making an *inference*, in the same way that intelligent design uses this argument (Dembski, 2006), about the necessity for such a hypothesis.

Based on his writing thus far, it is difficult to discern the reach of Wilber's understanding of science. He often argues that science relates all phenomena to chance, and since chance by itself is obviously not able to produce biological complexity, "something other than chance" is needed. Here's a typical quote, taken from *A Brief History of Everything* (Wilber, 1996, p. 23):

> In other words, something other than chance is pushing the universe. For traditional scientists, chance was their god. Chance would explain it all. Chance – plus unending time – would produce the universe. But they don't have unending time, and so their god fails them miserably. That god is dead. Chance is not what explains the universe; in fact, chance is what that universe is laboring mightily to overcome. Chance is exactly what the self-transcending drive of the Kosmos overcomes.

Science, however, sees chance as only one factor, lawfulness or necessity or selection being the other. Evolution is decidedly *not* the result of mere random chance, but also of non-random selection (Isaak, 2003).

Without any opportunity for a positive theory of evolution, explaining in detail how Spirit intervenes or how biological complexity is an expression of Spirit, the only alternative left for Wilber is point to developments in science which, if not prove his thesis, at least seem to go *in the right direction*. In this context he usually mentions two scientific giants: theoretical biologist Stuart Kauffman and complexity scientist and Nobel Prize winner Ilya Prigogine.

As stated before, Kauffman's field of research does not touch directly on the processes of speciation or adaptation. Regarding these fields Kauffman is a Darwinist (Kauffman, 2019, p. 87: "Darwin was right"). And since Wilber does not specify what this self-organization (understood by him as a spiritual phenomenon) is able to accomplish in terms of biological complexity (eyes?, wings?, cells?, multicellularity?) – in stark contrast to Kauffman's attention to detail – he can not present Kauffman as one of his allies. True, Kauffman (2008) has written *Reinventing the Sacred*, but that refers to an explicitly naturalistic sacredness or sacred naturalism. Contrary to Dawkins, he is not in favor of combatting religion, but instead wants to open our eyes to the wonders of nature itself. By elucidating empirical processes of self-organization, Kauffman may not be Wilber's ally at all, but in fact an adversary, given Wilber's explicitly spiritual agenda.

The same is true for Ilya Prigogine, who won a Nobel Prize for his work on dissipative structures, which are able to create "order-out-of-chaos." Wilber (1995) reads into this phenomenon a transformative power of nature or even matter, which suits his spiritual philosophy. But in my opinion this interpretation is questionable. Self-organization definitely exists, and in many forms, but it is not something that can be explained or clarified by a single cause. What Prigogine actually discovered is that *under certain conditions* of energy flows, matter tends to assume a new structure, which processes ("dissipates") this energy in a more efficient way. Order can thus be produced *by exporting disorder*. Likewise, we humans continuously have to take food in order to live and thrive and would otherwise die. A constant energy input is therefore needed to keep living organisms going. This pre-eminent role of energy flows or gradients is consistently overlooked by Wilber in his writings when discussing the emergence of complexity.

For example, in a recent video (Wilber & De Vos, 2019) he argues for a self-organizing drive *intrinsic* to matter:

> That's why Prigogine, Nobel prize winner in 1967 or so... the research he did demonstrated absolutely beyond a shadow of doubt, that even dead and insentient matter, if you push it far from equilibrium, it will escape its turmoil by jumping to a higher level of self-organization. Matter does that inherently! That is built in to it! You don't have to do something special, a funky thing to get it up and running.

This strikes me as a misunderstanding of the nature of Prigogine's discoveries. Matter reorganizes itself under the impact of energy flows or laws such as gravity, not because it "inherently" wants to do that. Indeed, when the role of these energy flows through matter is made explicit – as is done much more adequately in the so-called Big History literature (Visser, 2013, 2014c) – there is no longer any need to invoke Spirit to explain complexity. Again, Prigogine might not be Wilber's ally here, but instead his opponent.

This discussion relates to the wider field of entropy, which also is touched upon by Wilber in various recent online communications. Starting with the science story: The second law of thermodynamics holds that entropy – usually understood as disorder, but dispersion or diffusion is an alternative reading – tends to increase in nature, when no external energy is added to a system. Likewise, our Sun radiates energy in all directions, every single second of our lives, in huge amounts, lost forever in cold space. Only a tiny part of this energy output is captured by life on Earth to be used for the construction and maintenance of its cells. And interestingly, the more complex organisms are more efficient in capturing and dissipating this energy, either directly or indirectly. Thus, biological complexity emerges not against, but in accordance with this second law.

Wilber (1995) has given a rather different reading of these scientific topics. In his understanding matter itself is able to "wind itself up," as he phrases it, which he even extrapolates to the universe at large. In *A Theory of Everything* (Wilber, 2000, p. x), he states:

> The second law of thermodynamics tells us that in the real world, disorder always increases. Yet simple observation tells us that, in the real world, life creates order everywhere: the universe is winding up, not down. The revolutionary new understanding found in "chaos" and "complexity" theories maintains that the physical universe actually has an inherent tendency to create order...

Note again the word "inherent" here. Wilber glosses over the scientific distinction between the second law, which works across the cosmos *globally*, and *local* pockets of complexification, which are possible given the right conditions of energy flows. We clearly cannot just rely on "simple observation" in these matters. Simple observation tells us also that the sun rises… Wilber does not seem to go beyond this superficial analysis. But it is the Sun, not Eros, that in the end fuels the evolution of life on Earth in all its many forms.

In this quote, Wilber creates an artificial contrast between seeing the second law as pervasive, and the new findings of complexity science about the emergence of complexity, but that contrast is non-existent. Rather, it is a *paradox*, which is well understood by Big History authors, such as David Christian, but not by Wilber:

> According to the second law of thermodynamics, the tendency of the Universe is for simplicity. There are no drivers for complexity… And since the universe tends to wind down, constant energy input is needed for complexity. (Christian, 2015)
>
> How does the universe create complexity given the law of entropy?... with great difficulty. And with every next step, the going gets tougher… We, as complex creatures, desperately need to know this story of how the universe creates complexity, despite the second law." (Christian, 2011)

Again, Wilber's claim that some famous scientists support his position (without explicitly endorsing his spiritual view of things) is spurious. Much more reflection is needed here.

I would like to suggest the following metaphor to clarify the differences in worldview that are at stake here (Visser, 2018). Imagine we are paddling upstream on a river, that, naturally, flows downstream. Wilber concentrates upon our upward movement (i.e. psychological growth) and says: "we make an awful lot of progress on a river that is supposed to flow downstream!" By doing so, he overlooks the enormous amount of energy that is needed to make that happen (i.e. to sustain life). And he feels the curious need to cast doubt on the second law of thermodynamics ("the world is not winding down, it is winding up!"). Without grounding in basic science, he needs to invent his own cosmic dynamic of an Eros-in-the-Kosmos and an "Erotic Universe," as

I have documented in an extra online chapter of *Ken Wilber: Thought as Passion* (Visser, 2014b). Wilber wants to have his rivers run upstream.

Conclusion

Overseeing the questionable strategies Wilber has followed to argue for his Spirit-driven "theory" of evolution, in contrast to science, I see these three as most problematic.

- Claiming failures of science – Wilber has been skeptical about science's capacity to explain certain forms of biological complexity (similar to arguments provided by intelligent design). Examples he has used are: the evolution of eyes and wings, the human immune system, multi-cellularity, morphogenesis, regeneration, etc. In none of these areas has he reported on current scientific research. He has also not been explicit in where he draws the line between what science cannot explain and what it can.

- Claiming support from science – Wilber has suggested similarity between his ideas and those of famous scientists, without adequately accounting for major differences, even though he has at the same time acknowledged that mainstream scientists do not support his spiritual view of evolution. When we look beyond verbal similarities such as "the universe is creative" and search for actual explanatory mechanisms, the fundamental differences between Wilber and these authors does not result in support from science.

- Claiming superiority to science – Wilber has continuously proclaimed the superiority of his own "theory" of evolution without meeting the demands of theory formation in science. What he has to offer is in fact not evolutionary theory but evolutionary theology. A true theory clarifies natural processes and breaks them down into explicit steps, by suggesting possible mechanisms. Wilber's "Eros-theory" is by definition and in principle not able to do just that.

In baseball, the rule is "with three strikes you are out." I do think that when it comes to Wilber's dealings with these fields of science, given these failed strategies, the game is over.

When responding (briefly and unsystematically) to my challenges, he (Wilber & De Vos, 2018) once called me an "extremely conventional evolutionary theorist" (I have actually no idea what he means by this: does it refer to Evolution 1.0, Evolution 2.0, Evolution 3.0?).

> I am always getting criticized by extremely conventional evolutionary theorists, like Frank Visser, because I postulate Eros, an inherent novelty in the cosmos... which by the way is Whiteheads point, the 'creative advance into novelty'. *Eros*... Stuart Kauffman, self-organization is built into the universe. *Eros*... Ilya Prigogine, a Nobel prize winner. 'Order out of chaos'. Even insentient matter, when pushed far from equilibrium, jumps into higher levels of order. *Eros*...

But name-dropping and sloganeering is not the same as doing responsible science or philosophy. In Wilber's universe one is either a flatland scientist in favor of neo-darwinist, flatland reductionism, or a spiritual theorist who sees the Divine as active everywhere in nature.

As I have argued, there is a huge middle ground that is covered by contemporary evolutionary science, which is worthy of further careful exploration. Instead of repeatedly claiming "support" from a handful of famous theorists, who are either long dead or have not been in contact with Wilber, it is more honest to acknowledge the theoretical vacuity and lack of sophistication of the whole notion of "evolution as Spirit-in-Action." A more robust integration of evolutionary theory within Integral Theory is called for.

Finally, some humility is in order when it comes to making far-reaching knowledge claims. Science, and especially evolutionary science, is such a wonderful field of human endeavor, that it does not deserve to be maltreated by "the world's greatest philosopher." Evolutionary theory is a rich and varied landscape that cannot be dealt with in a few sketchy paragraphs. Furthermore, shouldn't the integral movement open up its windows by now to theoretical approaches outside of its own ideological domain? The absence of a healthy culture of debate, the strongly emotional reactions of Wilber to theoretical challenges over the years and the intellectual apathy of the integral community around matters of science do not help us in our search for assessing the truth and validity of Wilber's particular views on evolution.

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A Hierarchy of Consciousness from Atom to Cosmos

Marilyn Monk[1]

Introduction

Listening to, or reading, presentations of consciousness studies can often be very confusing. There are several reasons for this. One reason is that the presentation may come from two very different viewpoints. It may be focused on human consciousness or it may be coming from an interest in the idea of an all-pervasive consciousness throughout the cosmos (known as panpsychism). In this respect, experientially, as humans, we could ask – do we, as individuals, have consciousness or does a cosmic consciousness have us (so to speak). Many of us will relate to different personal experiences that suggest that both are true according to how preoccupied we are with immediate everyday concerns about the survival of our physical being and its ego, versus more meditative states, perhaps in nature, of being outside of our selves and 'aware of being aware.' We will come back to this seeming contradiction later.

Another reason for confusion is that the discipline, or background knowledge and interest of the scholar of consciousness may be very different. For example, it may be mystical/religious, philosophical or scientific. Each of these categories may be further subdivided in a way that influences the approach and outcome of the investigation. For example, the scientific approach may involve scholars in psychology or psychiatry (e.g., Velmans, 2017; Beauregard et al., 2018), in quantum mechanics (e.g., Marman, 2018), in Darwinian evolution (e.g., Velmans, 2012), or biology and geology. The approach from biology can be further subdivided into neurology (Koch et al., 2016; Chalmers, 1998) or, as in this article, evolution.

The literature covering the various approaches to the study of consciousness is huge and diverse and often confusing and will not be covered here. In this paper, the approach is limited to a simple mechanistic biological analysis of how consciousness is involved in increasing complexity in evolution – from atoms, to molecules, to tissues and organs, to life forms, to populations of life forms and then, after introducing the life forms into ecosystems, continuing on through solar systems, and galaxies to cosmos. With a few rules governing the nature of the formation of this interconnected hierarchy of evolution it is a scheme that delivers consciousness as primary and defines matter as derivative from consciousness in evolution.

This approach was initiated by the definition of consciousness as given in the Oxford dictionary ('aware of, and responsive to, surroundings', and see below) which, when viewed from

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the author's own experience in biological research, immediately pointed to the view of consciousness known as panpsychism. Panpsychism (defined as consciousness pervasive throughout existence) has been postulated throughout the ages by mystics and philosophers such as Plato, Spinoza, Leibniz, and James (cited, along with many other early proponents of panpsychism, in Goff (2020). It holds that consciousness is present in all natural bodies that have a unified and persisting organization (both pertinent aspects of the players in the scheme presented here).

My own research has involved many levels of biological existence, experimenting in each case towards a greater understanding of the mechanisms of increasing complexity and survival in evolution. In summary, my laboratory research has involved:

1. Atoms – the use of radioactive isotopes of atoms in enzyme substrates to isolate mutants in DNA synthesis to identify the genes involved, and the development of highly sensitive single cell molecular biology to measure specific enzyme activities in single cells (many references in the review by Goto & Monk, 1998, and for clinical relevance see Monk et al., 1987).

2. Molecules – the study of genes, gene modifications and gene expression, involved in DNA replication and repair, gene expression in embryos, germ cells and cancers, regulation of gene expression in development, epigenetic modification directing gene activity, molecular mechanisms of Lamarckian inheritance (see many references in the review by Goto & Monk, 1998, and earlier references e.g., Monk & Kinross, 1972; Monk, 1990; Adjaye et al., 1997; and later references, e.g., Goto et al., 1999; Zuccotti & Monk, 1995).

3. Viruses and plasmids – the study of DNA/gene transfer cell to cell, e.g., transduction in *Pseudomonas aeruginosa*, indirect induction of phage lambda (Monk, 1969), plasmid transfer (see e.g., Holloway & Monk, 1959; Monk & Clowes, 1964).

4. Cells – bacteria and amoebae, mammalian primordial germ cells, eggs and sperm, preimplantation diagnosis of genetic disease, embryonic stem cells, cancer cells (see e.g., Alcantara & Monk, 1974; Monk, Boubelik & Lehnert, 1987; Monk et al., 1987; Monk & Holding, 1990, and for clinical relevance Monk et al, 1987, Monk & Holding, 2001).

5. Multicellular tissues and organs – cell signaling in differentiation, conglomeration of cells into higher order structures, amoeboid migration, embryonic and fetal development (e.g., Alcantara & Monk, 1974; Monk & Petzoldt, 1977; McMahon & Monk, 1983).

It is not necessary to read all these references for the proposal of consciousness of evolution described here. They are cited only to provide evidence from 'person-at-the-bench' science for the known material mechanisms showing how consciousness drives the evolution of more and more complex conglomerations of matter in existence ascending the hierarchy from atom to cosmos (and, as extinction equals creation, back again). The model presented here is not about the *evolution of consciousness* in humans or other life forms by Darwinian variation (random mutation and selection) – a study that runs into considerable difficulties (see e.g., Velmans, 2014). Rather it is concerned with the *consciousness of evolution*. It supports the oft-quoted statement of Max Planck, the originator of quantum physics – "I regard consciousness as fundamental. I regard matter as derivative from consciousness."

Definition of Consciousness

Yet another reason for confusion in consciousness studies is the different definitions and uses of the word 'consciousness' itself. The human centred studies are more aligned with the Cambridge Dictionary definition of consciousness, namely, "*The state of understanding and realizing something.*" Certainly that has been the main focus since Descartes who confined consciousness and mind to humans. It is this field of research which is concerned with the so-called 'hard problem' (Chalmers, 1996). The hard problem is human centered and is about how the physical mechanisms of brain processes give rise to subjective feelings – i.e., how the brain gives rise to experience, or phenomenal consciousness, and mental states with phenomenal qualities – 'the neural correlates of consciousness' (Strawson, 1994, Koch et al., 2016). These studies, looking for some uniform neural explanation of a particular experience, may be complicated by the different influences of the variable and interconnected neurological, physiological and psychological (experiential memory) backgrounds of the different individuals in the study (see e.g., Marman, 2018).

The other viewpoint that consciousness is pervasive throughout the universe (panpsychism) proposes that all matter has an element of consciousness. This approach is more aligned with the definition of consciousness from the Oxford Living Dictionary – "*The state of being aware of, and responsive to, one's surroundings.'* Immediately, most readers of this article will see that 'aware and responsive to surroundings' applies to so many things. All life, plant and animal, is aware and responsive to surroundings and thus appears as conscious according to this definition. Recently there has been much debate about consciousness in animals and even in plants.

In this article I will not be concerned with the human centred studies and the hard problem but with the more pervasive view of consciousness extending throughout the cosmos. The approach will be based on what is known scientifically and on the Oxford Dictionary definition of consciousness – aware of, and responsive to, surroundings.

Aware of, and Responsive to, Surroundings

One of the problems of considering consciousness in lower life forms, and non-life forms, is the use of various terms in consciousness studies that seem to apply more to humans. The term 'aware' is certainly more of a human concept and may be taken to include a huge range of consequences of awareness – sensations, feelings, self-reflection, memory, imagination, and so on. But, in biology and geology, when we consider the simple definition – aware of, and responsive to, surroundings – we see that consciousness extends outside of the human realm and, in lower life forms, or even non-life forms, we see 'awareness' more simply as mechanisms of 'detecting' or 'sensing' the surrounding environment. With this broader concept of awareness we can start thinking about consciousness at the level of the atoms, molecules, cells and tissues and work our way up from the micro- to the macro-cosmos, looking for the material mechanisms of consciousness (sensing environment and responding to change) at each level of increasing complexity.

The starting rules for my hierarchy scheme of consciousness in this paper are views that are well known already – specifically, that everything is interconnected to everything else and everything is in service to its own higher order structure. For example, when I was at Edinburgh University in the early 70s, Henry Kacser taught the concept of interconnectedness as metabolic flux in the metabolome – the intricate interconnected biochemical pathways within a cell (Kacser & Burns, 1973). Also in Edinburgh, Conrad Waddington taught the concept of service as epigenetic programming of different cells in the body to serve their higher order structures – the different tissues and the organs (see Noble, 2015).

As humans, we experience consciousness with our senses of sight, hearing, touch, smell and taste. There are also messages from body to brain (e.g., hunger or pain), and messages from brain to my body for different emotions. And indeed, messages from within the environment of self of mental functions of memory, imagination and the various machinations of the human mind. These are functions of human brain/body communication and a lot (but not all) is known about material mechanisms involving transmission of signals between body and brain via circulating informational molecules binding to specific cell receptors. However, it is evident that all forms of life have consciousness but at different levels of sophistication, and with a very different range of consequences of their consciousness. A worm is conscious in that it detects and responds to changes in its environment. It can feel a harmful stimulus (pain). A snail can remember where it belongs in the territory of the back garden. A bacterium can detect a gradient of sugar involving special receptors on its surface and respond by transferring this information to trigger its means of movement – its flagellae – to swim towards a food source. The degree or sophistication of consciousness at different levels of life's complexity is different. This article is not concerned with mechanisms of evolution of increasing sophistication of consciousness. Suffice to say, it is difficult to see how random mutation and selection over millions of years could bring this about. However, note that Lamarckian inheritance of acquired characteristics by epigenetic modifications of genes passing through egg and sperm (Zuccotti & Monk, 1995) from parents to offspring might well be involved. Evolution by Lamarckian inheritance occurs rapidly by selection of individuals better adapted to their surrounding environment.

The scientific approach in this article is to consider the material mechanisms of consciousness at each level of increasing complexity in the hierarchy of evolution from atom to cosmos. And, indeed, material mechanisms are known at all levels. Surprisingly, with such a materialist approach throughout, the analysis shows that matter is derivative from consciousness and displays a sense of belonging, meaning and purpose of every thing throughout evolution and existing today.

An Example of Consciousness in a Lower Life Form

As an example of consciousness in a lower life form we can look at an area of the author's own research in the early 70s (Alcantara & Monk, 1974), namely, how slime mould amoebae (*Dictyostelium discoideum)* become aware of changes in their environment, and how they respond. Aggregation of the individual free-living amoebae into a multicellular structure is triggered by their awareness that they have run out of food. The individual amoebae detect the change in environment (due to starvation) and start to emit a signal (pulses of cyclic AMP), which diffuses out into the territory (see Figure 1). The fastest signaling amoebae establish and take control of their territories. Amoebae in a territory, detecting the gradient of cyclic AMP, make movement steps towards the source and emit their own signal to attract amoebae further out to join the aggregation. So the signal is relayed out and bands of amoebae move inwards. They move towards each other as they come closer to the centre to make amazing spirals looking like galaxies.

The aggregate formed in the centre of the territory forms a multicellular slug capable of movement over a greater distance than the individual amoebae could manage. The slug develops phototactic and thermotactic receptors at its tip so that it moves towards the light and heat at the soil surface where it forms a fruiting body. To make the fruiting body, a third of the amoebae in the slug sacrifice their lives to create a stalk which bears the spores (differentiating according to their position in a gradient in the remaining two thirds of the slug) aloft so that they will be distributed to better feeding grounds. It is amazing how clever this organism can be when triggered by the need to move to new pastures. It is a good example of consciousness in a lower organism – how cells sense and respond to their environment at several stages in order to differentiate into a multicellular structure. The material mechanisms are known.

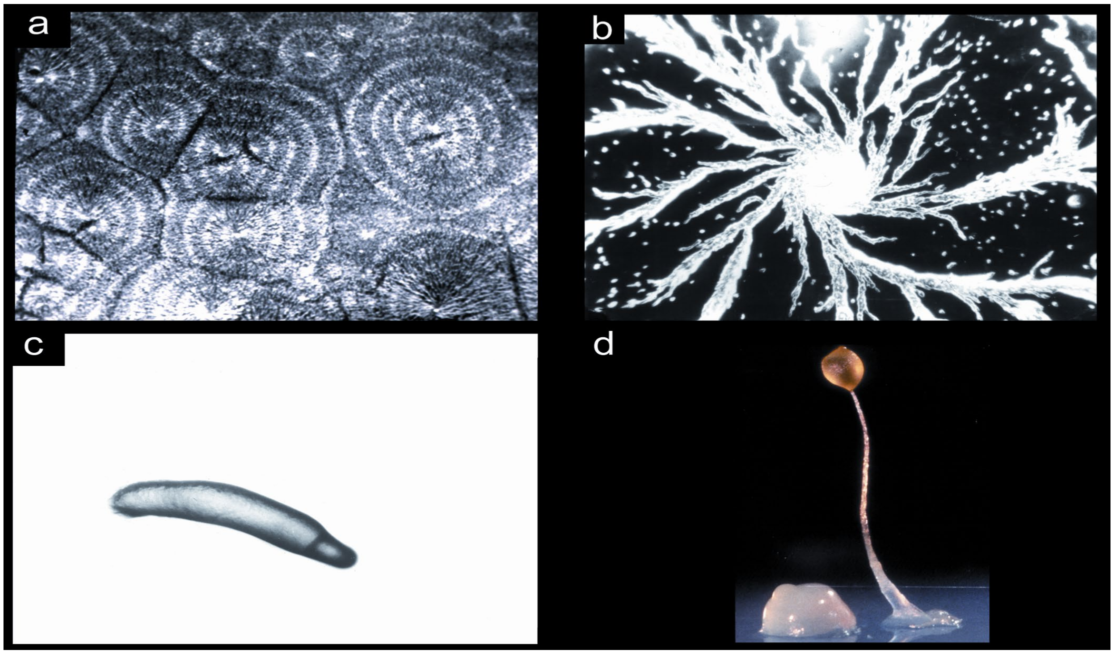

Figure 1. *Aggregation, slug movement, and fruiting body of Dictyostelium after the amoebae detect they have run out of food. a) Individual amoebae in the field, triggered by starvation, start to emit pulses of cAMP and those with the shortest periodicity form territories with surrounding amoebae relaying the signal outward and making a movement step inward towards the source. b) As they approach the centre, amoebae are attracted to each others' cAMP signal to form streams and spirals. c) The slug, measuring several centimetres, has receptors that detect heat and light, and so can detect, and move the distance to, the soil surface. d) At the surface the slug transforms into a fruiting body. A third of the amoebae in the slug sacrifice their lives to form stalk to bear the spores aloft (Alcantara and Monk, 1974).*

This example also demonstrates how consciousness can operate at the level of whole populations of individuals. What about lower and higher levels of complexity – atoms, molecules, cells and tissues, or ecosystems, solar systems and galaxies? Does it make sense to say that the mechanisms of consciousness are still material throughout?

A Hierarchy of Consciousness

In the following model of a hierarchy of consciousness, the mechanisms at each level of complexity depend on interconnectedness (awareness of surroundings) of the parts serving (responsive to surroundings) their higher order structure. A model of interconnectedness of increasing orders of complexity is shown in Figure 2. This is a highly simplified model. It does not include subatomic particles and, with respect to life, there are millions of species of life existing on earth (and an approximately equal number gone extinct) that are linked in various ways by the process of evolution. In the hierarchy model here they are simply presented as flora and fauna. Also, for simplicity, the model of interconnected hierarchy is illustrated as a binary interconnected model limited (for ease of illustration) to only eight orders of increasing complexity from atom to cosmos. The shift to a higher order structure at each level of complexity is due to a conglomeration of multiple members from the level below. The coming together of parts ensures their greater survival. The model as shown is binary although, clearly, at each level more than two parts form the conglomerate that is the higher order structure at the next level. For example, variable numbers of atoms conglomerate to make molecules and there are around 3000 molecules in a cell.

There is another simplification in the model of hierarchy as shown in that there is one exception to the general rule of conglomeration of parts to form a higher order structure. This is in the transition from populations to ecosystems. It is clear that ecosystems are not simply an aggregate of populations of living organisms (flora and fauna). In order to progress towards cosmos, I have introduced a stage (ecosystems) including elements from another hierarchy of increasing complexity of non-life forms – soil to rocks to mountains, rivers to lakes and oceans – in which to place the populations of animals and plants. The aim is to present an image representing the linking of all levels of increasing complexity into one interconnected structure where every existing organised structure is interconnected and aware of immediate surroundings and so on throughout the evolution of existence.

Analysis of this hierarchy of interconnectedness will show that, at each level, the parts are in service to ensure the survival of their higher order structure in evolution – the electrons to the atom, the atoms to the molecule, the molecules to the cell, and so on (although remembering that equally there is extinction from cosmos to atoms in the other direction). The parts in service at each level are conscious in that they detect and respond to their surrounding environment. The mechanisms are material and known at all levels of complexity as we will now examine – starting with the atom

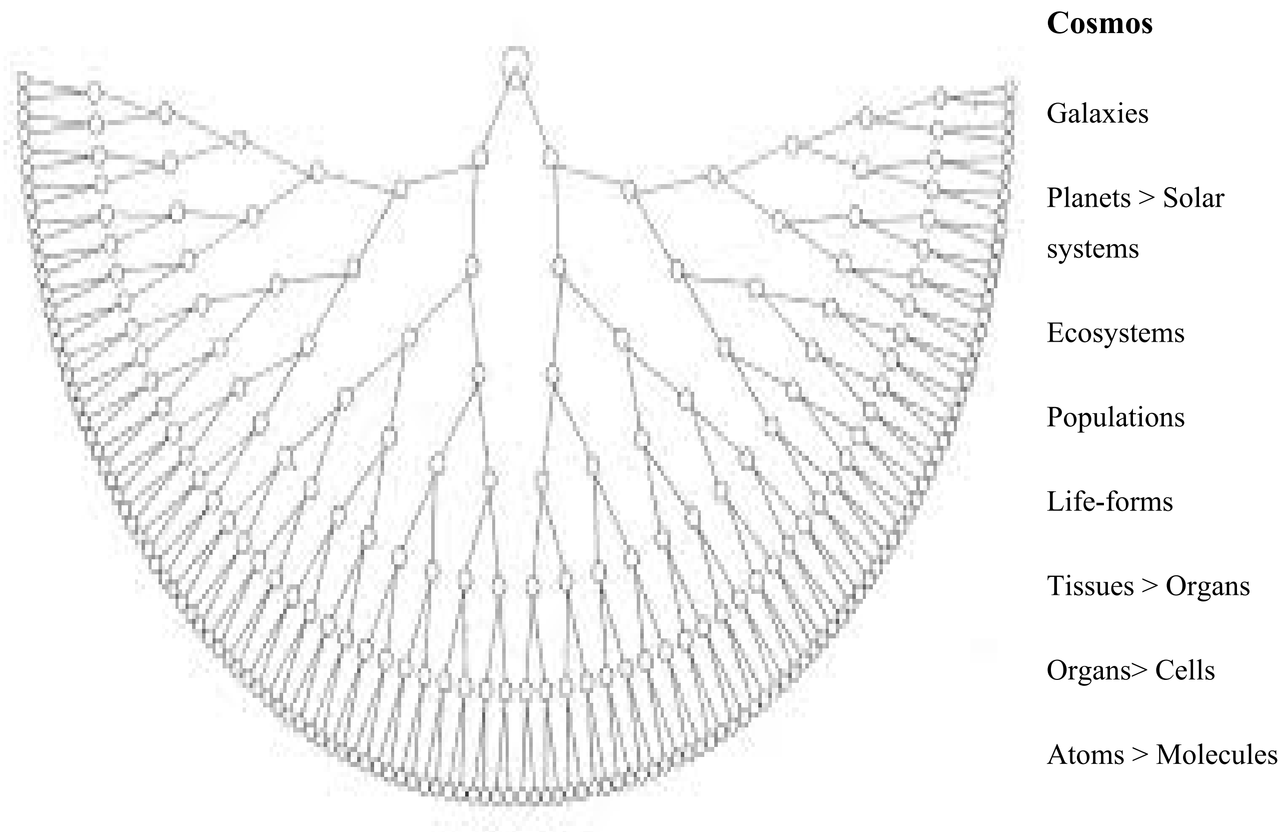

Figure 2. *A diagrammatic representation (an inverted ancestry model from Gregoire, 2014) of an interconnected hierarchy of increasing complexity in evolution. This is a binary model for simplicity – the number of atoms making a molecule, or molecules making a cell, and so on, is greater than two. It shows a path of increasing complexity going through life forms. A similar hierarchy could be created for non- life and the step from populations to ecosystems in this diagram brings soil, rocks, mountains, rivers, lakes and oceans into the ecosystems in this scheme of interconnectedness. The hierarchy also operates in the other direction from cosmos to atoms with extinction approximately equal to creation.*

Atoms to Molecules to Cells

Atoms consist of a balanced number of neutrons and positively charged protons in the nucleus and negatively charged electrons in their orbits (Bohr, 1923). For example, a carbon atom has six electrons and six protons, an oxygen atom has eight protons and eight electrons. When the balance of protons, neutrons and electrons is disturbed, the atom decays. The components or parts of the atom are in service to their higher order structure – the atom.

Next, we have the molecules which consist of several atoms joined together by covalent bonds formed by a sharing of electrons in their outer orbits. The stability of molecules is variable depending on the strength of bonding between the atoms and the possibility, or not, of their bonding with another atom or molecule. One could say that the atoms are in service to the molecule and the mechanisms by which they bond and form the molecule are understood.

Molecules interact in an interconnected way to form cells. There are approximately 3000 biochemical pathways, with their associated enzymes and cofactors, interconnected in every cell. This is called the metabolome. Interconnectedness means that a change in any part (substrate, product, enzyme, cofactor) of any biochemical pathway affects all the pathways in the cell. The interconnected changes in all pathways is called metabolic flux, which can be observed by mass spectrometry. For instance, one can distinguish a starvation metabolome, from an addiction metabolome, from a sugar eating metabolome, and so on. Metabolic flux shows the interconnected pathways detecting and responding to a changing environment – our definition of consciousness. The molecules are serving their higher order structure – the cell. Mutation any of the key genes supporting growth and survival of the cell leads to cell death.

Cells to Tissues to Organs to Life-Forms and Populations of Life Forms

Referring back to Figure 2, we see that the next items in increasing levels of complexity are tissues and organs. In the case of a mammal (e.g., a mouse) as an example of a life form, all cells in the body have the same 20,000 genes. The differentiation into over 100 different cell types in the body is directed by signaling from the different environments of the cells in the developing fetus to programme their genes to be on or off, up-regulated or down-regulated. The programing is by epigenetic mechanisms – modifications superimposed on the DNA of the genes to regulate their expression (for example, methylation of cytosine in the DNA, Lindsay et al, 1985). In computer language the genes are the hardware and the programming is the software. The cells detect information from their environment in the developing fetus and respond by differentiating into cells with the required function (bone, muscle, blood, skin, nerve, and so on). In this sense they are conscious and serving the tissues and organs of the body. Studies on other life forms in the laboratory – e.g., nematode worms, flies, fish – show similar material mechanisms governing differentiating cells to establish the required functions for service of the cells to the different tissues and organs. If the cells cease to serve their tissue, for example by epigenetic deprogramming (Monk et al, 1987) due to cessation of informational signaling, the tissue may be lost (e.g., to death or cancer).

The next level I have included in Figure 2 is populations. Populations of multiple members of a species can form a higher order structure – for example, the slime mould slug (Alcantara & Monk 1974), the beehive, or the Portuguese Man O' War jelly fish. Here we have a colony of organisms taking on different roles and working together for the sake of survival of the greater whole (and themselves). Again, the material mechanisms of service are known in populations of individuals in service. For example, in the beehive the genes of different worker bees – nurse, farmer, forager, warrior – are epigenetically programmed to differentiate them to perform their specific tasks. If they do not serve their higher order structure, the beehive will die and so will the bees. Anarchic behaviour in worker bees causes destruction of the beehive and death of the bees.

Ecosystems, Planets, Solar Systems and Galaxies

As the model moves from populations to ecosystems in Figure 2, it will be obvious to the attentive reader that we have departed from the concept of conglomeration of multiple parts into a higher order structure at each level. Ecosystems are not an aggregate of populations of flora and fauna. Here, another hierarchy of increasing complexity of non-life is introduced – the soil, rocks and mountains, and rivers, lakes and oceans of the ecosystems – in which to place the living populations of animals and plants. Beyond ecosystems the model returns to conglomeration of parts to make a greater whole – ecosystems to planets, planets to solar systems, solar systems to galaxies.

Also, at this point, it is time to observe two further 'rules' I have postulated within the system. We have been looking so far at two rules – interconnectedness within and between levels of increasing complexity, and service of parts to their higher order structure at each level. A third rule is that, even though the parts are in service to their higher order structure at each level, the parts do not know what they are serving. However, if they do not serve correctly the higher order structure will not survive. The fourth rule is that the whole is looking after its parts at each level.

The next level of complexity included in this hierarchy is the ecosystem. An ecosystem is an interconnected biological community of interacting life forms and their physical environment. It will have the right pastures for the herbivores, the correct herbivore to predator ratio, it will have rivers (and maybe an ocean) and mountains and forests. The parts are in harmonious interconnected service to the whole for survival of the ecosystem. The mechanisms are known. As we know, if the forests are destroyed, if a river is diverted, if the top predator is removed (e.g., the wolves in Yellowstone Park), these disturbances can unbalance the whole interconnected system leading to the destruction of the ecosystem.

And the case is the same with the next level – our solar system. Although we trust that our planet will safely look after us in the future, a glimpse at the past is not so reassuring as it contains inhospitable ice ages and a meteor that wiped out the dinosaurs. And now, our planet is threatened by climate change and the melting of the ice caps or, possibly, a solar flare. Indeed, only last year, Nature published a report of a distant star spitting out a giant flare that packed 100,000 times more energy than any seen from Earth's sun (Argiroffi et al., 2019). This is the first clear detection of a remote star emitting a kind of eruption known as a coronal mass ejection that until now have only been seen from our sun. The authors state – 'such explosions may wreak havoc on surrounding worlds.'

Consequences of this Model of Aware (Interconnected) and Responsive (Service) Consciousness

We have reached our galaxy and the cosmos, and we can summarise the preceding arguments in the following key points:

1. A view of a hierarchy of interconnectedness between, and within, levels of increasing complexity from atom to cosmos. There is a survival advantage, which drives evolution, in increasing complexity due to the coming together of parts into a greater whole. Everything exists in a field of belonging. Outside that field the parts cannot exist.

2. At each level the parts are conscious – aware of, or detecting, or sensing, their surrounding environment, and responsive to change, in service to their higher order

structure. The material mechanisms of service are largely established and known at each level of complexity.

3. The parts do not know what they are serving.

4. The higher order structures are caring for their parts.

Some important consequences flow from this scheme as follows:

a. Interconnectedness means that reverberation (or flux) can move through the whole system, top down or bottom up or middle out. For example, a solar flare, or human interference, might disrupt ecosystems, scattering populations to new environments, leading to cellular adaptation and reprogramming of genes. Or the human race could become extinct leading to recovery of damaged ecosystems.

b. Flux through the system leads to events that do not seem to have a material mechanism because consciousness – awareness and response to change in surroundings – is happening across several levels of complexity. This allows the possibility that aspects of the paranormal might be explained in this way – certainly in space (e.g., remote viewing). However, it is not so clear how paranormal events happen across time, for example telepathy between previously interconnected elements in the hierarchy. Here, connections made between individual aspects in the interconnected system due to flux must be recorded in some way and recoverable later. What could be the mechanism of recording previous events in time and re-membering?

c. Service of parts to the higher order structure to which they belong is essential for survival at all levels of complexity and ensures development in evolution. However, it is important to note that this is not an imperative because it is also essential that there is turnover – the replacement of the old with the new. Extinction is equal to creation – for all species that exist on earth today an approximately equal number have become extinct. So, equally, the hierarchy model can be seen in reverse orientation as the higher orders of complexity return to molecules and atoms. The rule is that death equals birth. One wonders whether this implies that birth and death apply to our whole cosmos.

d. This scheme of things establishes consciousness as the unity of everything, and the belonging to the unity of all things in service to their higher order structures and the whole. It shows that consciousness is primary and that matter is derivative from consciousness (as defined in this paper). It fits with the experience of individual consciousness of the individual part located at its particular position in the hierarchy, and the experience of consciousness of the whole through the interconnectedness and belonging to everything else. It celebrates *belonging*, and *meaning*, and *purpose*, for everything on planet earth and beyond. This creates a sense of a spiritual context even though the scientific approach is material.

e. In humans, unconditional service, often imbued with the sense of unconditional love, is an evolutionary selectable in that it activates the pleasure centres of the brain. Beyond that, unconditional love for all beings and every thing works to support the flourishing of all. Loss of service, or anarchy, leads to loss or, in this scheme, extinction.

Conclusions

In the introduction, it was suggested that individual humans personally experience that they possess their own consciousness but sometimes they can have a sense of belonging to a much greater consciousness of the whole. The same could apply to our dual experience of free will and predestination. In the scheme presented here, both could be true depending on the viewpoint – whether the observer is viewing self from their own particular location in the hierarchy or, in dropping the mind, has gone outside of self into possible experience of the reverberating interconnected whole (a 'peak experience'). One might ask what does it mean to drop the mind? Observation of our own human mind activity shows that it seems to exist in past and future. Indeed, projection of past into future could be seen as an imperative for survival of the physical self and its ego. Dropping the mind has an experience of presence - no past and no future.

We also observed that the study of consciousness was complicated by whether the analysis was from the viewpoint of the human mind or from a perspective of pervasive consciousness throughout existence (panpsychism). The latter view, followed in this paper, was prompted by the Oxford Dictionary definition of consciousness as 'aware of, and responsive to, surroundings' and the author's own experience as an experimental biologist. In addition, we noted that consciousness studies are further complicated by the many approaches depending on the background discipline of the scholar – religious/mystical, philosophical, psychological, quantum physics, geological and biological.

The approach here is not concerned with quantum mechanics. My observer relationship in this scheme does not alter the understanding of the biology of increasing complexity in the hierarchy of evolution. It derives purely from my own experience in biological research at many levels of study - observing and playing with evolving life forms. It is just another view to add to the already existing multiple views of consciousness. It may be simplistic but it does however remove what is clearly known from reproducible science from the darker areas of confusion created by quantum mechanics and philosophical and psychological analyses of consciousness.

Finally, can we draw a line at the top of this hierarchy? Remembering that parts cannot know who or what is being served at all levels, and that the higher order structures are looking after their parts, we cannot yet know the next higher order structure beyond cosmos. It is plausible to argue that beyond this entire scheme of all that is known to exist, beyond cosmos, there may be a yet higher order of complexity.

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An Epistemic Thunderstorm: What We Learned and Failed to Learn from Jordan Peterson's Rise to Fame[1]

Jonathan Rowson[2]

Abstract: The cultural pressure to endorse or reject public intellectuals wholesale can be problematic, perpetuating groupthink and diminishing scope for intellectual growth, societal maturation, and political imagination. On encountering public figures who appear to be both right and wrong, sometimes simultaneously, perhaps dangerously, there is scope to be more creative and less reactive in our response. In the illustrative case of Jordan Peterson, commentators often oriented their analysis within a conceptually moribund political spectrum; e.g. Peterson is “alt-right” attacking “the radical left.” Social media echo chambers lead some to read that Peterson's “fanboys” were “misogynist trolls” while others heard that his critics were “virtue signaling snowflakes”. The tendency of print and broadcast media to seek a defining angle diminishes rather than distills complexity; for instance, Peterson's fame was associated with a perceived crisis in masculinity, but that was not the whole story. “Petersonitis” is introduced here as a serious joke to describe the intellectual and emotional discomfort that arose from the author's attempt to seek a fuller understanding of complex characters in a divisive political culture. In a response to Peterson's book, *12 Rules for Life: An Antidote to Chaos*, twelve relatively dispassionate perspectives on his contribution are offered as an antidote to the language of allergy and infatuation that surrounded his rise to fame. Peterson is described here as symptomatic, multiphrenic, theatrical, solipsistic, sacralizing, hypervigilant, monocular, ideological, Manichean, Piagetian, masculine, and prismatic. First person language is used to reflect the author's experience of Petersonitis, after having been drawn to Peterson's online video lectures, debating with him in a public forum, and gradually clarifying the nature of the limitations in his outlook and approach. It is hoped that the paper will help readers recognize, recover from, and ultimately transcend Petersonitis, and to appreciate the much wider application of the idea.

Keywords: Books, Christianity, conversation, culture, Jordan Peterson, Jungian, masculinity, media, Piagetian, postmodernism, psychology, public intellectuals, reductionism, spirituality, transgender, twitter.

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[1] **Editors note.** An earlier version of this was submitted in August 2018, just after the release of our previous regular issue. The prolegomena has been added for this updated version, along with minor edits to the text.

[2] **Dr. Jonathan Rowson** is a philosopher, writer, and chess Grandmaster. He is co-founder and director of Perspectiva, a collective of expert generalists based mostly in London, working to understand the intersection of systems, souls and society in theory and practice. He is an Open Society Fellow and a Research Fellow at the Centre for the Understanding of Sustainable Prosperity at the University of Surrey. His recent book *The Moves that Matter, A Chess Grandmaster on the Game of Life*, was published by Bloomsbury in 2019. You can follow him @Jonathan_Rowson
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Prolegomena

I first heard the expression "It's never about what it's about" in the context of marital disputes. Couples fight about diary clashes that shouldn't have happened, phone chargers that shouldn't have been moved, surfaces that should have been wiped, and other domestic emotional landmines. Yet the intensity of the escalations and explosions that follow are usually about something altogether more challenging in the relationship – something requiring time and discernment to uncover. This refrain – it's never about what it's about – is not literally true, but it's a useful notion more generally, and it helps when we consider: what was that Jordan Peterson thing about?

I'm sure it wasn't about Jordan Peterson as such. The rise to fame and notoriety of this particular intellectual, spiritual and political warrior during his apotheosis in the period 2017-2018 was experienced by millions of fans and critics as a kind of epistemic thunderstorm; questions of what we know and how we know them felt unusually charged and salient. Peterson had a significant impact on literally millions of readers and viewers as individuals and a direct influence on cultural influencers including The Intellectual Dark Web and Rebel Wisdom. However, the Peterson phenomenon also represented a significant collective epistemic growth opportunity that I believe was mostly squandered. For this reason, I have done what I can to convey the deeper aboutness of the Peterson moment.

I met Peterson in January 2018 and began writing soon after to make sense of a strange cocktail of conflicted thoughts, feelings and convictions, resulting in the following paper several months later. Once I finished writing, I felt free of Petersonitis, as described below, but it lingered just a little because it proved difficult to publish. I approached several longform journalism and academic outlets, often supported by contacts, but the cultural gatekeepers I encountered wanted a clear appraisal of Peterson's main ideas, or they wanted commentary on the world's reaction to Peterson, both of which became well-trodden terrain as a result. Instead, I sought to examine the Peterson phenomenon as a touchstone for our capacity for epistemic and spiritual growth at a cultural level, which is part of my professional purpose at Perspectiva; the paper's length and tenor stemmed from that deeper objective, and felt necessary, even if that meant it didn't 'fit' into the places I wanted it to go.

I have paid little attention to Peterson for the last two years, but Patricia Marcoccia's documentary *The Rise of Jordan Peterson* (2019) appears to share my premise that this was a teachable moment that got away. More directly pertinent to Integral Review is Rebel Wisdom's interview with Ken Wilber on Peterson[3] which was promising because a rigorous developmental perspective is lacking in discussions by and about Peterson. However, I felt Wilber missed an opportunity to highlight the principle limitation of Peterson's thought, namely his ambivalence and neglect of 'bottom right' phenomena in the terms of integral theory's quadrant map. Those inter-objective features of reality, including the economic and institutional structures that are driving technological and ecological systems, are arguably the preeminent issues of our time, but Peterson very rarely goes there, and when he does it is mostly to offer generic praise of capitalism.

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[3] https://www.youtube.com/watch?v=bDjCnFvz11A

Fully developing the significance of this point would require another paper but it can be intimated with some comparisons. *The Age of Surveillance Capitalism* by Shoshana Zuboff is broadly about how Facebook and Google are extracting and manipulating data in a way that is destroying culture and making people unfree, while *The Uninhabitable Earth* by David Wallace Wells is about the economic logic of fossil fuel extraction destroying nature and with it, our only viable home. These critically acclaimed and high-profile books were both published in 2019, after Peterson's peak, but neither have received anything close to the same cultural attention, and neither represented the same kind of epistemic inflexion point. With that in mind, I think what my article below is *about* is an attempt to show that Peterson's psycho-spiritual offerings are valuable when they help us contextualise and transform the socio-economic logics that are precipitating ecological and technological peril, but they are positively harmful when used to distract us from them or downplay their importance.

On a more conciliatory and appreciative note, Peterson's Foreword to Solzhenitsyn's *Gulag Archipelago* for Vintage Classics also came out in the interim and served as a reiteration of what is driving Peterson – fear of societal collapse and an acute awareness of just how much worse everything could be. He is right about that – a functional society is a fragile achievement in need of vigilance, not a default setting to be taken for granted or casually lamented. The teenage climate activist Greta Thunberg can perhaps be thought of as Peterson's nemesis in this regard. In fact, I find it curious that Greta rose to Peterson-like levels of fame just after Peterson began to retreat from view. While Peterson appears to thrive at life's social game and regularly wins the battle for attention, Thunberg has said it is her high-functioning Asperger's and selective muteness that helps her see through the social game that everyone is caught up in. That game of performativity and pretending is arguably what is preventing us from attending to the life-giving ecological foundations that should matter to us most at this moment. Alas, the controlled urgency we need to feel to collectively attend to the fragility of human civilisation is often lost in the more palpable entertainment of culture wars and identity politics that facilitated Peterson's rise to fame.

At the time of writing in the summer of 2020, Peterson appears to be convalescing after an extended period of ill-health relating to depression and withdrawal from benzodiazepines. At a personal level, I wish him a speedy and full recovery. If I have a regret about the following article, it is that with hindsight it looks like I was trying not only to outsmart Peterson, but to be seen to be out-smarting Peterson. In that sense, my approach was perhaps unconsciously hubristic or foolhardy, but it was nonetheless a wholehearted effort. Peterson himself is currently not prominent in public discourse but may soon become so again. And many others might rise to fame in a similar way. I am grateful to Integral Review therefore for giving me a formal platform to be able to share what I think the Peterson phenomenon was about.

Introduction

Jordan B. Peterson is easily misunderstood. He is a clinical psychologist and Professor of Psychology at the University of Toronto but is now known as a forceful cultural commentator who emphasizes the value, depth, and dignity of individual responsibility in an embattled manner, as if civilization is at stake. His magnum opus is not the self-help bestseller, *12 Rules for Life: An Antidote to Chaos*, but a much deeper inquiry into myths and archetypes, *Maps of Meaning*, published two decades earlier. Peterson's online academic lectures derive from this earlier textbook and are where his intellectual quality is most evident; these videos are viewed in their millions by his fans but mostly ignored by his critics (Peterson, 2018a). Peterson's news interviews, public debates, online discussions, and social media comments on the other hand typically relate to identity and ideology and are often much less judicious, though they attract widespread attention. He is possibly the best-known public intellectual of the time, though some argue that his fame is symptomatic of a global intellectual crisis rather than a product of the quality of his thought (Robinson, 2018).

Reaching a settled view on Peterson's contribution is difficult because it manifests in so many ways. While he has built an impressive academic career respecting data and nuance, he is often undiscerning in his political diatribes. Critics of any aspect of Peterson's work tend to be typecast by his fans using their icon's favored dramatic terms and tenor. They are often assumed to be LEFTIST NEOMARXIST POSTMODERNIST FEMINIST SOCIAL JUSTICE WARRIORS who think only of GROUP IDENTITY, abdicate INDIVIDUAL RESPONSIBILITY, and know nothing of BEING – Peterson's favored term for human existence. The online Peterson phenomenon is powerful because it is built on academic prestige, fueled by personal charisma, and driven by oppositional identities.

On January 16, 2018 I spent three hours with Jordan. We had a civil but charged hour-long discussion at the Royal Society of Arts in London. I arranged additional shorter interviews for my organization Perspectiva, which, like Peterson, seeks to increase awareness of the relationship between psychological and spiritual sensibility and societal challenges. That evening, thinking the day had gone well, I made the mistake of reading the RSA Video YouTube comments where I am "the host" but verbally flogged like an insubordinate outcast. The conversation has now been viewed over 200,000 times – modest by Peterson's standards – but there have also been several spin-offs on Conservative online platforms viewed in their millions, including vintage clickbait titles like "Leftist Host SNAPS at Peterson – Instantly Regrets it!" I have been approached by strangers at the hairdressers, the gym, the library, and in the playground of my son's school, who recognize me from the Peterson video. The encounter, including preparation and reflection, gave me an appreciation for Peterson's quality and intensity, the vituperative loyalty of his fans, and the atmosphere of allergy and infatuation that surrounds his work.[4] It also gave me acute *Jordanpetersonitis*.

Jordanpetersonitis
Jawh-duhn-pee-ter-suhn-awy-tis/
Complex noun. Also, abbr.: "Petersonitis"

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[4] RSA Replay. January 16. https://www.youtube.com/watch?v=OD-VCRNIp-U

1. *Intellectual and emotional discomfort caused by the perceived need to reach an informed view on the significance of Jordan Peterson's cultural contribution, but being unable to, despite considerable effort.*

Petersonitis is not a casual slur, but a serious joke to recognize the cultural indigestion caused by Peterson, and an attempt to redirect the public conversation. We are probably past "peak Peterson" but we must go beyond describing Peterson's work or even offering a conventional critique – because the Internet is saturated with both. *Petersonitis* serves as a conceptual tool to investigate a confounding experience that may contain the seeds of cultural maturation. The pressure to pick sides is ultimately much more important than the complex public character of Peterson himself, but is well illustrated through the Peterson phenomenon:

Symptoms:

- *Mesmerized intellectual excitement at the spectacle of passionate thinking, laced with confusion at what exactly is being said.*

- *Moral dumbfounding, arising from the intuition that Peterson is wrong in important ways even when his reasoning is persuasive.*

- *Emotional exhaustion caused by too many hours expecting answers from an anguished face on a computer screen.*

I am not alone in calling for this broader reflection in the context of reactions to Peterson. *The Guardian*'s Oliver Burkeman (2018), for instance, took the rare step of devoting a column to resolutely *not* forming an opinion on Peterson:

> My wishy-washy ambivalence about Peterson has hardened into defiance: why the hell should I be obliged to decide, as seemingly every writer who encounters his work thinks they are, whether Canada's most controversial professor is A Good Thing or A Bad Thing? This sort of pressure … is a symptom of our hyper-partisan times, in which everything is politics … and it's your responsibility, as a good citizen, to adopt and then feverishly defend one sharply defined, absolutist viewpoint, come what may. (np)

2. *Derivative and general application: Feeling frustrated by the cultural obligation to approve/disapprove of a complex thinker for reasons of social or political identification, rather than to form a more discerning view.*

In the process of taking a political view on Peterson, as if casting a vote, we seem to be killing precisely the kinds of breadth and depth of perspective that might revitalize political imagination. As the writer Norman Mailer put it in the context of loving Jorge Luis Borges despite his reactionary political views: "I detest having to think of a writer by his politics first. It's like thinking of people by way of their anus" (Whalen-Bridge, 2008).

This counter-pungent preference is particularly important in the context of Jordan Peterson, because at the surface level, his politics are unsophisticated and divisive, and the language of infatuation and allergy towards him bifurcates accordingly. For some, he is reenchanting masculinity, reviving Christianity, and providing meaning and direction for thousands of lost souls; for others he is a crypto misogynist authoritarian offering banal advice with footnotes to dangerously entitled people. The answer is probably not to take either side or find a place in between, but to try an entirely different approach.

One of Peterson's favorite sources of insight is psychoanalysis, where a comprehensive diagnosis sometimes functions like a cure. What follows is not another attempt to reach a balanced view of Peterson's work – "he's right in some ways but wrong in others" – but to back up one level of abstraction and reflect on why such "balance," by tacitly endorsing the polarity that calls for it, offers neither catharsis nor transformation (Cooper, 2018).[5] Here, Peterson is not just another intellectual with some good and some bad ideas, but a test case for approaching difficult thinkers who intrigue us in some ways and annoy us in others.

For this, our conceptual language needs refreshing more generally. Distantly inspired by Peterson's injunction to be precise with words, and mindful of the title of his bestseller, *12 Rules for Life: An Antidote to Chaos*, I offer twelve conceptual tonics clustered in four trios: to explain the cultural phenomenon, describe his intellectual character, consider major thematic critiques, and offer hope for cultural learning and maturation. The tonics are micro-epiphanies, not revelations, but I hope they present the phenomenon from a wider range of perspectives and thereby help people recover from, live with, or transcend Petersonitis. It is for the reader to determine which of these is the proper aim.

Prevalence:

- *Petersonitis seems to be a minority affliction. It probably affects about 10 percent of the millions of people who come into contact with Peterson's work – the floating voters. Those who strongly like or dislike him (the majority) are immune due to political markers and other identity-based antibodies.*

1. Symptomatic

Intellectual prominence on the world stage usually requires the coalescence of at least three factors: the message, the messenger, and the moment. In Peterson's case, the message is that personal responsibility is sacred; the messenger is a charismatic psychologist; and, whatever optimists like Steven Pinker suggest, for many this moment feels demoralized, rudderless, and cacophonous. Perhaps there is also a fourth factor – the missing: Peterson's message resonates most with people – typically young men – who do not feel properly attended to in public discussions.

Peterson's ascent coincided with the rise and consolidation of powerful strong male leaders around the world, and he is cut from similar cloth: self-assured, identifying enemies, offering answers, and giving people something to believe in. While Peterson shares some qualities with

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[5] Perhaps the most comprehensive engagement with Peterson's work as a whole is by political sociologist Brent Cooper (2018).

Trump (whom Peterson has said he would have voted for) or Putin, Xi, Erdogan, or Modi (Peterson, 2018b), the more challenging point is that in substance he's also like Noam Chomsky of thirty years ago, when, from a very different political vantage point, *Manufacturing Consent* offered the insight the moment was calling for, rallying students all over the world (Herman and Chomsky, 1988).

In a time of post-truth politics, Peterson emphasizes forms of metaphysical and personal truth that resist cultural assimilation. As ISIS barbarism was broadcast nightly, his online lectures illuminated what might be distinctively Christian about a civilization worth defending. In the context of economic competition from the developing world, the ominous impact of robotics on employment, and a generation likely to be poorer than their parents, his message of self-development gives people an alternative to despair and resentment that doesn't rely on forces outside their control. His rise occurred alongside a broader intellectual crisis in social democratic thinking, the eclipse of Obama, and the more general dearth of oratory and leadership. At such moments of social, economic, and political flux, when material questions do not have ready answers, spiritual questions become more salient. Who am I? What's the point of life? Peterson dared to offer some answers.

And how dare he! In a recent critique in the *New York Review of Books*, Pankaj Mishra (2018) remarked: "His apotheosis speaks of a crisis that is at least as deep as the one signified by Donald Trump's unexpected leadership of the free world" (np). In *Current Affairs* magazine, Nathan Robinson (2018) contextualizes that claim: "If Jordan Peterson is the most influential intellectual in the Western world, the Western world has lost its damn mind.… He is a symptom. He shows a culture bereft of ideas, a politics without inspiration or principle" (np).

The reasoning in these two cases and in many other critiques of Peterson is somewhat perplexing. In *On Liberty*, John Stuart Mill (1859/2016) wrote: "In all intellectual debates, both sides tend to be correct in what they affirm, and wrong in what they deny." This captures why the Peterson phenomenon is important. If part of the perceived problem is that Peterson is now revered by many despite his faults, surely the other part is that people who make their living from intellectual reflection seem dumbfounded as to why, unable to appreciate the value in what he offers. That is also a symptom, also a crisis.

In an atmosphere of rights inflation and ambient entitlement, Peterson's balancing emphasis on personal responsibility is timely. As the Christian tradition often feels moribund, his hermeneutic approach to Bible stories creates precious streams of revitalization. In his emphasis on knowing the truth experientially and striving to establish one's own locus of agency and authority, he saves people from pervasive groupthink. In an increasingly desacralized world, his capacity to yoke lessons from religion without being tethered to a limited conception of "belief" is necessary. Taking a stand against the pressure to conform to unthinking approaches to equalities and diversity, he has provoked public reflection on the difference between genuine care for others and the demands of political correctness. In his admiration for neglected thinkers like Piaget and Jung, he has cultivated new resources to enrich our understanding of ourselves and the world. And with his attempted integration of philosophy, biology, psychology, and theology, he is an exemplar of intellectual excitement – embodying the power of ideas.

Peterson's swift ascent to fame began with his public refusal to agree to Bill C-16, a new law in Canada requiring people to use non-binary pronouns like '*eir*', 'zie', or 'they' for transgendered people. Peterson insists he is not transphobic. His principled stance against the top-down imposition of a new regulation of grammar touched a nerve that is still in spasm. That nerve apparently relates to the question of which groups have what kinds of power over the individual and who gets to decide what follows. Peterson's well-articulated public position on that issue, combined with his freely available lectures on psychology, mythology, and self-help has earned him hundreds of thousands of fans and critics.

But the root of the nerve goes deeper still. Much of Western intellectual life, including some of the mistrust between sciences and humanities, stems from an unresolved tension between two paradigmatic approaches to knowledge. Underlying many of the debates Peterson is involved in, is a broadly modernist either/or mentality: defining to exclude, reducing to explain, and narrating as if there was one story, and they are up against the both/and insistence of postmodernism, in which ideas are fuzzy edged and cross-pollinating, context is critical, and values and stories are plural. This is the underlying skirmish in which questions of gender fluidity become not niche but emblematic – are you *either* a man or a woman, or can you, somehow, be neither or *both*?

Peterson's broader loathing of postmodernism stems from treating it like a discrete cultural virus requiring mass inoculation, rather than a diverse and divergent set of ideas that one might learn to live with and sometimes through. He has a tendency to argue by shutting down both/and complexities and doubling down on either/or rhetoric; some things are true and others are false, and science is our guide. "No! Wrong!" he is fond of saying. Those with both/and sensibilities say that truth may be scientific and objective but it is also subjective and relative, and power and culture are also our guides. The either/or sensibility neglects context and perspective and uniqueness. However, in its insistence on its own exclusive truth, postmodern both/and self-righteousness subtly contains the either/or it purports to transcend. That is why "it's all relative" is an absolutist statement, and Blake's celebrated line "to generalize is to be an idiot" is, by definition, an idiotic thing to say.

The challenge is that both claims remain somewhat true. The truly inclusive approach – the real "both/and" – contains "either/or" *and* "both/and." Perspectivism of that kind is chastened objectivism, in which we forgo the immaturity of mad relativism but insist on putting perspective at the heart of realism. We learn from relativism but don't submit to it; we have a both/and perspective but don't lose our either/or discernment or resolve. That kind of perspective is the cultural pattern waiting to manifest, but it is palpably lacking in Peterson and in most reactions to him.

Intensity of Petersonitis:

- *Mild: Feeling confounded that someone previously unknown in the world of ideas is suddenly so famous and won't go away. Some report that their initial impression that he is an unhappy man offering banal advice made them ill at ease with their own judgment.*

- *Acute: Sensing that his attempt to better connect our psyches with our societies could help us transcend our political polarities and culture wars, only to feel dismayed when his reactionary views and caustic manner reinforces them.*

Knowledge of minority and disempowered perspectives is morally and epistemologically necessary, but the truth is not subsumed by perspective. We can still celebrate, let's say, the industrial revolution, while remembering it was built on slavery, colonialism, and a fossil fuel frenzy with enduring consequences. And we can accept that by some metrics, the world is in better shape than ever before, but in the context of ecological and technological volatility it doesn't follow that we are going in the right direction. Moreover, the data feels obtuse when viewed from the perspective of Syrian refugees, mentally ill teenagers, the working poor, and vanishing small island states. It is possible *both* that we have never had it so good *and* that everything has to change, *and* to argue for a course of action on that premise (Rowson, 2017). If we can work towards understanding that *something* is real and we are partly right and partly wrong about it most of the time, we might, as Peterson puts it, "grow the hell up," though not in the way he seems to have in mind.

2. Multiphrenic

Peterson shifts between reflective, iconoclastic, avuncular, demagogic, compassionate, scientific, and philosophical modes of communicating. I don't think this is an act as such; the protean performance is who he is. One moment he cries in solidarity with forsaken young men on BBC Radio 5 live, and the next he eviscerates his prime minister Justin Trudeau for his enthusiastic tweet supporting women's rights in Canada, asking, "Is that the murderous equity doctrine?" This shifting quality is intriguing and spellbinding, but it makes the task of locating his judgment and motivation like trying to pin jelly to a wall (Peterson, 2018c).[6]

Peterson is multiphrenic. The concept of multiphrenia originated in Kenneth Gergen's *The Saturated Self* (1991), before social media, and it has even greater resonance today because most of us play multiple roles in life. We are saturated with myriad opinions, values, and ways of life, filtered through an array of relationships, projects, and commitments, and viewed increasingly in short nuggets: 800-word reviews, tweets, and video clips. In this world of snapshots we can choose which aspect of ourselves to bring forth, but more often that is decided for us by the medium and the context. In this respect, Peterson illustrates the sociologist Erving Goffman's theory that the self is constituted through presentation; who we are is the sum total of the parts we play for the audiences in our lives, and those parts do not always speak to each other or for each other (Gergen, 2007).

As his former colleague and friend Bernard Schiff (2018), who was responsible for hiring Peterson at the University of Toronto but who now believes Peterson is dangerous, puts it:

> Jordan exhibits a great range of emotional states, from anger and abusive speech to evangelical fierceness, ministerial solemnity, and avuncular charm. It is misleading to come

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[6] Brett, Sarah. & Arthanayake, Nihal. 2018. Radio 5 live – Afternoon Edition 15/01/18 [radio show] www.bbc.co.uk/programmes/b09llgnl

> to quick conclusions about who he is, and potentially dangerous if you have seen only the good and thoughtful Jordan, and not seen the bad. (np)

The concept of multiphrenia makes sense of why Peterson can appear quite so impressive, without always actually being so. He wields multiple intellectual weapons with panache, a compelling approach for audiences looking for fragments of meaning to tweet and practical advice to act upon rather than coherent world views to understand life as a whole. If his grasp of psychometrics and statistics from social psychology doesn't persuade one part of you, his archetypal stories from depth psychology will move another part of you. If the case studies from his practice as a clinical psychologist don't speak to your personal experience, his references to neuroscience and evolutionary biology might.

3. Theatrical

Peterson is a performer. Thoreau said people go fishing all their lives without realizing that it's not fish they are after, and millions watch Peterson not so much for the content but for the drama. They are drawn in by the resolute deliveries of choice words, the chastening paternal voice, the summoning pauses, the clipped passive-aggressive responses to challenging questions, the clenched lips, narrowing eyes, and latent rage rendered tolerable by occasional folksy charm, humor, and imploring hand gestures. His literary success is driven less by the quality of his insight (which varies) or prose (which is prolix) than the spectacle of his articulate and assertive public performances, which linger. He lectures by thinking aloud with extraordinary physical energy, constantly pounding and gesticulating, embodying the thinking process as a form of prowess, putting Rodin's inert statue to shame. He might possess what Max Weber (1947) calls "charismatic authority."[7]

In person, Peterson is civil, with flashes of conviviality, but he harbors more melancholy than most and bristles easily. In his demeanor I see some of Daniel Day Lewis's elegance but also Count Dracula's balefulness. There are also traces of Jack Nicholson's Colonel Jessop in *A Few Good Men*, especially in the film's climactic line: "You can't handle the truth!"

Peterson's insistence on truth is heartfelt, and part of the theater, including statements such as: "The Logos is symbolically represented in the figure of Christ.... The West has formulated a symbolic representation of the ideal human being. And that ideal human being is someone who speaks the truth to change the world" (Transliminal, 2017).

That's a good example of a Peterson contention: pithy, compelling, intriguing, apparently deep, even exhilarating, but also question-begging, leaving you wondering if you really understand, or want to (the notion of "ideal human being" has a dark history). Peterson may offer the truth, but it rarely feels like the whole truth.

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[7] "A certain quality of an individual personality, by virtue of which he is set apart from ordinary men and treated as endowed with supernatural, superhuman, or at least specifically exceptional powers or qualities. These as such are not accessible to the ordinary person, but are regarded as of divine origin or as exemplary, and on the basis of them the individual concerned is treated as a leader ... How the quality in question would be ultimately judged from an ethical, aesthetic, or other such point of view is naturally indifferent for the purpose of definition."

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4. Hypervigilant

Isaiah Berlin said that if you want to understand a thinker you need to grasp what they are fighting against. In Peterson's case that is not difficult. He fears and loathes the brutal forms of collectivism in Hitler's Germany, Mao's China, and Stalin's Russia, and his home is decorated with memorabilia of these dangers, what a *New York Times* profile described as "a carefully curated house of horror" (Bowles, 2018).

Peterson's formative influences included trying to uncover the psychological roots of ideology during the Cold War – how large groups of people could become so attached to ideas that they might destroy the world to defend them. Peterson doesn't see today's liberal order as a historical inevitability but more like a precious, even miraculous, achievement that is extremely fragile. He may not be wrong, but he holds that view in a way that feels deeply personal.

My speculation is that Peterson's odyssey has made him hypervigilant. He admits in an interview with *The Tablet* that he has experienced "derealization" every day since his rise to fame began: "When something happens to you and you can't believe it is your life." Peterson seems to have a higher than average level of threat response, which becomes even higher when he relives the genesis of his derealization at the University of Toronto. His body language tightens and tone of voice sharpens whenever he speaks of THE RADICAL LEFT or POSTMODERN NEOMARXISTS (Stanford, 2018).

Peterson sounds shrill and extreme to some, but wise and prophetic to others, and the difference seems to depend on how threatened a person feels on a day-to-day basis. Moral psychologist Jonathan Haidt has shown that conservatives are likely to be more concerned with threats to sanctity, order, and tradition than most liberals can even imagine, and their driving concern is often not social progress but personal survival (Haidt, 2013). In an interview with the *Radio Times*, Peterson admits: "I think, because of my proclivity to depression, that negative things hit me harder than they hit people in general" (Hodges, 2018). His main concern is to help people hold down a job and have a family; and social order – he wants us to keep creating, refining, and following the rules that allow us to have a viable economic and political system.

By offering a combination of archetypal myth and conventional vigilance, Peterson's main product amounts to what the author of *The Listening Society* Hanzi Freinacht calls "dark depth" (Freinacht, 2016). Pankaj Mishra's reference to "Fascist Mysticism" perhaps misses the point here. Peterson's focus is how we return from depression and anxiety to normality, and how we try to avoid falling again (Mishra, 2018). He places little emphasis on the numinous aspects of spiritual experience or soulful visions of transformation or transcendence.

His preferred reference points for collective meaning and action are still Mao's revolution and Stalin's gulags, and not, say Aldous Huxley's Island Utopia. Peterson speaks of "the evil trinity," of "equity, diversity and inclusivity" as "a mask of virtue under which is something truly awful." Petersonitis arises because while his vigilance about respecting the sovereignty of individuals over the group is justified by history, his hypervigilance – ongoing heightened threat awareness and extreme sensitivity to group overreach – is not.

5. Sacralizing

I began the RSA public event by asking Peterson about the dream he shares near the start of *12 Rules* because I think it is the key to understanding him and his following:

> I was suspended in mid-air, clinging to a chandelier, many stories above the ground, directly under the dome of a massive cathedral. The people on the floor below were distant and tiny.… I have learned to pay attention to dreams, not least because of my training as a clinical psychologist. Dreams shed light on the dim places where reason itself has yet to voyage.… I knew that the cross was simultaneously, the point of greatest suffering, the point of death and transformation, and the symbolic center of the world.

He describes how he returned to anonymity and was beginning to fall asleep when a wind was trying to blow him back to that place, from which there was no escape. He seems to have taken this experience as a kind of existential if not divine revelation: "The center is occupied by the individual. Existence at that cross is suffering and transformation – and that fact, above all, needs to be voluntarily accepted."

Then he asks: "How could the world be freed from the terrible dilemma of conflict on the one hand, and psychological and social dissolution, on the other. The answer was this: through the elevation and development of the individual, and through a willingness of everyone to shoulder the burden of Being and take the heroic path."

In our discussion, he seemed to think there is something sacred about individuals taking responsibility and sorting themselves out. His response was striking: "It's not even that there is something sacred *about it*. *That is what's sacred* … the source of the sacred is that idea."

There are other ways of viewing the sacred; sociologist Gordon Lynch considers it "an inherent structure in morally boundaried societies," and clearly the nature of that structure and those boundaries varies, with many forms that are not about the sanctity of individuals (Rowson, 2015). For Peterson, however, the hero myth, with its journey quality of figurative dragon slaying, is the heart of the matter – the code to living a meaningful life.

The idea is not particularly new. Peterson does with analytical psychology what Joseph Campbell's *Hero with a Thousand Faces* did with comparative literature, and what many other thinkers have attempted before and since. Moreover, the heroic journey towards individuation as life's meaning is arguably a distinctly male emphasis. Carol Gilligan (1982) and Sarah Blaffer Hrdy (2009) among others would question the universality of Peterson's idea of the sacred, which may instead be reflected in the aesthetic unity of skillful cooperation or fuller self-knowledge through the experience of profound and deepening interdependence.

On reflection, what Peterson is offering is sacralized Nietzscheism or mythologized existentialism. It's not *Christian*. Peterson admits he has not read René Girard (1979), which is a strange scholarly oversight given the extent of his research for his first book, *Maps of Meaning*. Girard's influential line is that the archaic sacred is the religious ritual ethos of violent sacrifice to pacify the tribe and appease the gods; the purpose of God in Christ is to overcome this form of the sacred and institute the reign of ongoing peaceful self-sacrifice in community, which is the new sacred, symbolized by the act of communion supper.

Without that kind of resolution, Peterson is suspended between Nietzsche and Christ.[8] He is drawn to Nietzsche's iconoclastic freedom from herd morality, but he can't go all the way with his nihilism. And he is drawn to Christ as the Logos incarnate, the ultimate truth teller, and meaning maker, but his individualism precludes following where Christianity leads, namely to community, communion and charity. In that anguished space between Nietzsche and Christ he busks with psychometrics and archetypes, singing the blues about bearing the burden of being.

6. Solipsistic

Peterson's apparently heroic individualism is actually an existentialist isolationism. Humility and activism in synthesis is the hard-won achievement of the best of religious communities of practice and those they work with. But if, like Peterson, you write about the *Logos* but don't work in communion somehow, whether through church-going or otherwise, you don't discover that synthesis or contribute to it. Instead Peterson has found himself looking at a computer camera, wearing a headset and microphone, charging hundreds of dollars for a forty-five-minute online "ask me anything" call, whereby random people seek *his* advice about *their* life, watched not by a shared community but by the atomized masses (Bowles, 2018).

These points have political implications. Climate change, for instance, is not a discrete environmental issue but a collective action problem at every level of society, from the home to the office, all the way to the UN. It calls not merely for individual personal responsibility but also shared cultural and democratic responsibility; what we seem to lack is precisely that sense of collective ownership for the problem and our responsibility towards it.

It is not enough to trust people who are competent, as Peterson suggests we should, because the people with economic and political power who are ostensibly competent are tragically letting us down (Rowson, 2013). Activism arises from the impression that we need to walk the talk of collective action at scale. In her Nobel Prize-winning lecture, political economist Elinor Ostrom – celebrated for her studies of collective action solutions – makes the point elegantly: "Extensive empirical research leads me to argue that … a core goal of public policy should be to facilitate the development of institutions that bring out the best in humans."

Peterson would agree with Ostrom on this point, but they may differ on the question of what "the best in humans" means. Before going on stage at the RSA we had a relatively short and focused interview in which I tried to connect Peterson's interest in Jean Piaget to human development more generally. I asked whether he felt "self-authorship" – in which our judgment is truly our own rather than a mélange of social conventions – was the ultimate stage of human development. Peterson built a company around the idea and comes across as quintessentially self-authoring – the locus of authority is within oneself, not the social surround. However, Robert Kegan is one of many theorists to argue there are stages beyond self-authorship; in his model, for instance, the subsequent stage is the self-transforming mind or inter-individual stage (Thomason, 2012).

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[8] I am grateful to Ian Christie for this astute way of putting it.

In this advanced stage of maturation, we gain an additional perspective on our own perceptual processes and implicit ways of knowing; we start to see our own personal ideologies. We can thereby form a more constructively critical relationship with our own world views and improve our capacity for empathy and intimacy with a wider range of people, because we cease to filter other people's experience through our own models of the world. Peterson broadly agreed with this idea intellectually, but seemed reluctant to concede the point explicitly, perhaps for pragmatic commercial reasons. That sounds like a cheap shot, but in a tweet he writes: "What's your vision? What's your strategy? What's your destiny? Take control with www.selfauthoring.com" (Peterson, 2018d).

As a trained clinical psychologist, Peterson should not only be familiar with but also skilled at inhabiting the world from the perspective of others, ready, willing, and able to set aside his own assumptions and constructions in order to view the world through another's eyes; to feel what they feel in the way that they alone feel it. And yet, the more I read and listen to Peterson, the more he sounds solipsistic. He clearly has regard and concern for the lives of others, but everything he encounters seems to be filtered through his own self-construction of the world, which he seems unwilling to critically reflect on beyond a certain point.

In the philosophical tradition, solipsism is about whether we can trust that anything outside of our own minds is real. Peterson is solipsistic in a looser and more figurative sense relating to intellectual character – he filters his definitions, anecdotes, and understanding of opposing views through his own personal coda. That only takes one so far, and it is precisely that additional self-transforming and inter-individual step that is called for at a cultural level today.

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7. Monocular

Peterson is an expert and a generalist, but he is not an expert generalist. That distinction matters because of the many millions who trust his judgment in a general sense on the basis of specific intellectual authority.

The idea of an expert generalist is paradoxical but not oxymoronic. In theory, our very best philosophers, civil servants, political leaders, and writers are expert generalists – their defining skill is inclusive synthesis and their defining qualities are epistemic acumen and agility: know-how with knowledge, having enough expertise in one domain to value different forms of understanding, and knowing how to integrate them while retaining curiosity towards whatever remains unfamiliar.

With respect, Jordan Peterson is not like that at all. He is a social psychologist with an impressive publication record on psychometrics, a clinical psychologist with several years of client experience, and a depth psychologist with a flair for mythology and theology. But he sees everything through an augmented psychological lens, rather than showing any inclination to move between different forms of knowledge.

Peterson is not the first psychologist to come across as sociologically blinkered (the reverse also applies). Alienation, for instance, is experienced psychologically as estrangement from oneself as familiar places and people become strange; anomie is a loss of the structuring principles through which to orient ourselves through life. Peterson speaks directly to the experience of alienation and anomie psychologically, but they are also sociological phenomena with political and economic causes that he more or less ignores. His inclination is to reduce emergent social, cultural, and economic phenomena to the individual, operationalized into psychometrics like IQ, "agreeableness," or "conscientiousness." This meta-theory – methodological individualism – is a respectable approach to knowledge, but widely contested for good reason.

Peterson is an individual-differences psychologist with related passions and convictions, and nobody can be expected to know everything. In a now famous academic paper by Kieran Healy (2017), "F*** Nuance," the author argues against "a free floating demand that something be added." To say that Peterson is not an expert generalist is not to say he is a negligent thinker, but to help make sense of the personal and political limitations of his ideas.

Peterson appears skeptical about the conceptual integrity and explanatory power of many features of social, economic, and ecological systems and structures: gender, class, race, place, institutions, poverty, educational inequality, social capital, culture, habitus, reflexivity, emergence, finance. Such features of our shared reality are not merely irreducible to psychometrics but they also interrelate in ways that add to the complexity of credible social explanations. It would be refreshing to hear Peterson wonder aloud with a question like: how would a good anthropologist, political economist, sociologist, or ecologist think about this phenomenon? But he never does.

When Peterson inveighs against the use of "patriarchy" for instance, he seems to examine it like a psychometric and find it wanting, rather than a theory of society as a whole that points to a phenomenon we struggle to see because it is so thoroughly endemic that it shapes what and how we see. More generally, he lacks sociological imagination. He shows almost no interest in how power, elites, class, institutions, capital, and media come together to shape the world and indeed the individual; and why we might therefore be inclined to try to reshape it for the better. This is not a minor point. As we grow in understanding of those structural and systemic effects we see that social analysis cannot be reduced to psychometrics (Wright Mills, 1959).

In fact, Peterson has no compelling story to tell of what it might mean for society as a whole to improve itself. He has no endgame, as Seth Abramson (2018) put it. His vision seems to amount to whatever emerges from billions of politically disengaged individuals steadfastly getting their shit together, with a view to dominating each other. As Peterson is fond of putting it: good luck with that.

8. Ideological

In a sense, Peterson is hiding in plain sight. The essence of ideology is being possessed by a set of ideas that we cannot think critically *about* because we see with and through them. On this point Peterson approvingly quotes Jung: “People don’t have ideas. Ideas have people.”

Peterson has spent his career researching the dangers of ideology, but the sanctity and sovereignty of the individual clearly “has” him in the Jungian sense. And yet “the individual” is a historical and cultural construct like any other. My Oxford politics tutor Larry Siedentop’s (2015) *The Invention of the Individual* makes precisely this point. The idea of the individual is a key element in the construction of social reality in the West over the last few hundred years, but it is neither a metaphysical axiom nor a cultural universal.

Peterson juxtaposes ideological thinking with religious thinking by saying that while ideology offers self-serving partial truths (e.g. nature is wonderful and beautiful), religions offer fuller truths (e.g. nature is beauty and wonder, but also cancer, tsunamis, and death). Yet he seems unaware of his own recurring tendency to create and attack strawmen. The shortcomings of his views on postmodernism, for instance, have been highlighted in a range of places, most impressively by the writer Shuja Haider (2018). Peterson lacks substantive knowledge of postmodern thinkers and conflates postmodernism and neomarxism. When he is charged with conflation, he says no, or more like “NO!”, “WRONG!”; he says the postmodernists filled their own explanatory void with Marx, or the Marxists used the fashion of postmodernism to conceal their mischief, but the overall impression is of intellectual cobbling to serve a narrative, not judicious scholarly discernment. His hypervigilance about neomarxist ideology permeating the academy makes him sound McCarthyesque, as if there is a vast conspiracy afoot, but it seems more likely he has over-extrapolated from his own experience, again. But Peterson needs, even wants, his enemies, because his ideology takes a particular binary form.

9. Manichean

Manicheanism was a religious movement founded by the Persian prophet Mani in the third century; it teaches a dualistic cosmology of good and evil, light and darkness, and is used figuratively to refer to moral binaries. Peterson is Manichean. He is not a process philosopher who instinctively thinks in terms of complex systems in motion, cross-pollinating in pluralistic and unpredictable ways. He is much more absolutist and dualist in spirit. The intellectual structures he thinks with are mostly polar opposites, like pillars on a stage in which our dramas must unfold. He recognizes antinomies like good and evil, yin and yang, order and chaos, truth and falsity, individual and collective. However, he typically frames these juxtapositions as binary battles to be fought and won rather than co-constituting and porous relationships that we have constructed and might reimagine together.

Manichean views of the world are difficult to avoid. The human love of binaries has been widely theorized since structural anthropologist Levi Strauss revealed their cultural function. To orient ourselves by juxtaposing polar opposites is a natural way of thinking. Even so, Manichean thinking is not fit for purpose in a multipolar, multivalent, multimodal, multiethnic world, and it is compounded by our political spectrum. While the language of left and right once made some sense of class-based attitudes to the role of the state, politics is now about so much more; attitudes towards ecological and technological phenomena in particular cannot be parsed in terms of left and right, nor can national identity or the challenge to defend liberal democracy from populism.

In that context, the ambient pressure to choose a tribe and say “yay” or “nay” to the issue of the day is the problem that obstructs meaningful progress. We are building division within people that is culturally muted, while amplifying the divisions between people that are reinforced on a daily basis. Broadcast media selects guests with opposing views to get “both sides” of an issue, as if they were coins. Oppositional identities, in which we define who we are by what we are against, become the defining characters in public debate. We are rarely allowed to be curious but disinterested. Instead we must pick a side: Are you left or right, atheist or believer, with us or against us? This kind of ambient divisiveness is part of what Rowan Williams (2016) calls “the meta-crisis” of our times; namely how ecological, economic, social, and political crises are compounded by the limited and harmful ways we encounter, conceive, experience, and discuss them.

Peterson appears to be invested in perpetuating the individual/collective binary, which significantly limits political imagination. This distinction dissolves, however, when you realize that the self is constituted through communicative interaction between individuality and sociality. Hope lies in a richer notion of a social self, which was most fully worked out by the sociologist and process philosopher, G. H. Mead, but also features in Buddhist notions of interdependence. Rowan Williams (2018) makes a similar case from a Christian perspective in his new book *Being Human.* The juxtaposition that matters most may not be the individual and the community but the individual and the person. While the individual seeks to differentiate itself from what Peterson calls “the chaos” and thereby to control it, the person accepts they are partly constituted by that chaos, manifest in relationships of all kinds. We don’t need to accept a Manichean world view of perpetual struggle. Seeing reality in process-relational terms could lead to reform in various institutions. There is deeper hope in a vision of the interplay of systems, souls, and society in which we are at once lost and found.

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10. Piagetian

Peterson speaks of Piaget, the relatively neglected intellectual giant of the twentieth century, in glowing terms, a genius who revealed the foundations of morality and whose ultimate aim was to unite science and religion.

A central Piagetian notion is the *schema*, our perceptual and conceptual patterning of thought through which we take in information (assimilation) and which changes our understanding (accommodation), leading to an equilibrated state which is the thing – our mental process – that we can’t really see because we see *with* it. In Robert Kegan’s language, consciousness *is* this “subject-object relationship”; we are subject to some things that we *are*, and we can relate to some things as objects that we *have*. We grow through differentiation and integration, slowly having things we were previously had-by, including thoughts and feelings and thereby relating to them better.

This distinction matters crucially in the context of ideology, which all too often possesses people. The point goes beyond Piaget and Peterson to a whole domain of research and practice based on an entirely different conception of the human being as a process of human becoming. We are developmental processes that adapt, evolve, and transform in response to an evolving set of cultural expectations that both shape and are shaped by human development. This developmental perspective on life offers not just a new psychology but a new biology and a new epistemology, and ultimately a new ethics and politics; it is a view of life (Csikszentmihalyi & Rathunde, 2014).[9]

In the video interview for Perspectiva, I asked Peterson whether a fuller understanding of development might help us transcend our culture wars by encouraging people to reflect on what they are subject to in their thinking. For instance, the postmodern contention that truth is perspectival may be a necessary evolutionary stage for a culture to pass through, and for individuals to adapt to and move beyond before we collapse into mad relativism. He seemed to agree, albeit very cautiously, suggesting it was rare to see that kind of evolution of perspective in practice (Perspectiva, 2018). He is right, but I believe it is precisely the necessary cultural evolution that the Peterson phenomenon points us towards and improving our discussion on gender is a fundamental part of it.

11. Masculine

If the conversation between Peterson and his critics teaches us anything, it is that we are bio-psycho-social-spiritual beings and any useful conversation about gender will reflect that.[10]

Men and women are different, even if in aggregate we are much more alike than different. And men and women are not just biologically different, because when it comes to human beings "just biological" is incoherent. Biology informs epistemology and therefore ethics, and, in that context, the idea of "women's ways of knowing" makes sense. It is not clear what kind of sense, and what follows politically, but that is a useful question to ask (Belenky, et al., 1986).

What is less useful is describing metaphysical heuristics in gendered terms. Chaos/Order is perhaps the defining binary of life in *12 Rules for Life* and Peterson identifies order as masculine and chaos as feminine, which seems gratuitous. The comparative mythologist John David Elbert (2018) draws attention to Ancient Egypt as one illustrative counter-example. It is worth quoting the extract in full to give some idea of the depths to which you have to plunge to make sense of this material and Peterson's selective use of it.

> One thing that Peterson doesn't tell you, because he's an absolutist – he likes everything to be flattened out into simple clear absolute unshakeable structures – is that in Egypt the valences regarding gender were reversed; the sky was female and the earth was male. The sky was the sky Goddess *Nut*, the starry expanse of the stars in which the *Pharaoh* was born in would come out of her and go back into her, become an embryo like the stars. The earth was *Jeb,* the source of earthquakes like *Poseidon* in Greek myth. And the earth was always

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[9] See also Kegan, (1982) and my reflection on the first chapter there: Rowson, (2016).

[10] I develop this point in my book, The Moves that Matter (Bloomsbury 2019) in a section on men and women, pages 170-177.

> what was opened up and dug into, the father was dug into in order to reinsert the dead *Pharaoh* who becomes a new embryo in the sky when he ascends to become one of the stars in the body of the Great Mother thus becoming intrauterine once again. So a different valence there for the Egyptians. They like the woman on top and that's the sexual metaphor there goes right through … and they had early matrimonial traditions very strong on Goddesses and the Great Mother in that civilization.

The underlying point is there are many myths and archetypes, and the extent to which they are gendered is culturally specific. The gender question is even more vexed at the social level. How might men and women be most fully themselves, in ways truly chosen, not merely mandated, and in ways that serve everyone's interest in living what Roberto Unger calls "a larger life" – lives of greater intensity, scope, and capability? The struggle against entrenched inequalities of all kinds, including gender inequality, is secondary to that more inclusive objective (BBC, 2013).

Peterson provides useful grist to the mill here; while he walks his talk of a forthright masculinity, his solipsism and hypervigilance often make him sound clueless about gender relations more generally. When he suggested in an interview with VICE News that men and women cannot work together well because the rules are not clear, and that one of the rules should perhaps be that women cannot wear makeup at work, he sounds about half a century out of date (Mind Temple, 2018). Similarly, in an unstructured chat over a brisk lunch with several people at the RSA it emerged that Peterson strongly disliked the Disney movie *Frozen*; in essence because he thinks it is "reprehensible propaganda." He sees it as an inversion of Sleeping Beauty and believes it has a political agenda – I think relating to men not being needed – though he didn't spell that out. But *Frozen* is not merely admired but *adored* by millions. It celebrates sisterly love with the best kind of postmodern ironic twist on the familiar theme of "true love" and it includes positive male characters. I have savored watching the film several times with my sons and it strikes me as fundamentally innocent and inspiring, perhaps especially for girls grappling with social and emotional expectations. If I had to choose a single thing that makes me doubt Jordan Peterson's fundamental soundness, it is that he sees political conspiracy in *Frozen* and does not like the film as a result (Redpill Media, 2018).

More usefully, Peterson highlights that men who lack orientation become depressed, then resentful, and then dangerous, and he has drawn attention to distinctly male challenges relating to knowing our shadows; how our craving for status and purpose can lead to aggression and violence. His popularity among young men also reveals an appetite for facing up to practical challenges, starting with an injunction for which he is famous: Make your bed! Tidy your room! Perhaps men in particular are responding to this message, that meaning arises from responsibility, because that message is already evident to women.

In most couples with children, even if the father purports to parent equally, it is invariably the mother who manages most of what feminists call "the mental load": play dates, keeping track of domestic supplies or dealing with difficult feelings arising from friendships at school (Barberio, 2017). Valuing this kind of undervalued and unpaid labor, typically done by women, Kate Raworth sees as a critical feature of a viable twenty-first-century economics. Such work is also a good example of the challenge of discussing gender because of the often heard argument that women do such work more "naturally" and better than men. To state that should not risk ridicule and nor does it mean accepting the status quo as fair. The point is to move towards a clearer and wiser division of labor where effort and proclivity are recognized and properly rewarded (Maushart, 2003).

Peterson's conversation with Cathy Newman on Channel 4 is a related case in point. That discussion has been viewed over 20 million times and accentuated Peterson's fame. The debate concerned women generally being paid less than men for doing the same job, with Peterson saying that the gap is not really about gender – which he seems to view as an arbitrary variable like any other. A closer look at the data nested within gender divides reveals a range of factors including the trait "agreeableness," with women generally being more agreeable than men, and less likely to push for pay rises. This is the truth, but it's not the whole truth – and a sense of failure in converging on the whole truth is a core element of Petersonitis.

In this case, what is valued socially and culturally is not valued financially, and that's a structural problem at the heart of the pay gap. It is "structural" because the relationship between social and cultural value and financial value is set by processes mostly still controlled by men; those processes and their outcomes are relatively beneficial to men, and those outcomes arise in a world where financial value has become the predominant value, thereby perpetuating gender power imbalances.

In the Channel 4 conversation, Peterson was better armed with facts and arguments and more fully present, but the spectacle was quintessentially a debate where both sides were competing and the more nimble side "won." It was not a dialectic where both sides sought resolution through synthesis, nor a dialogue where each side sought to know an issue more deeply and fully by incorporating the perspective of the other. It was male against female, right against left, data against narrative, reason against emotion; it didn't resolve anything. It was a cultural touchstone because it was a cultural failure.

12. Prismatic

Which brings us full circle back to the experience of Petersonitis, and the question of how to improve conversations on thinkers like Peterson where allergies and infatuations are the norm. Peterson is prismatic in the sense that looking through the phenomenon opens up new vistas on this abiding issue. How should we relate to those like Peterson who on fuller inspection probably *should* evoke a both/and *and* either/or response? How do we bring about a cultural conversation where we can praise and critique without giving up on moral discernment or objective truth?

Politically speaking, that would mean a searching conversation with different premises and divergences. Men and women are different and they are the same; *and* we have to decide what kinds of gender roles are wise in myriad contexts. Capitalism is often part of the solution and part of the problem; *and yet* we need an economic model that works within social and ecological limits, so we can't continue to assume capitalism will survive in anything like its present form. Climate change is an existential threat to humanity and there is some doubt about some details in some climate models; *and* we urgently need a rapid global energy transition from fossil fuels to renewables. Democracy is increasingly an embarrassment, but it is also the noblest ideal we have; *and* we have to proactively reimagine it for a digital age. Human rights lack secure philosophical foundations and they are politically under siege, *and yet* they may be a necessary moral touchstone, worth defending not in spite of but because of their constructed and negotiated nature. Artificial intelligence creates great opportunities and is a threat to civilization; *and* the question is not how cool AI can be, but who owns it, and is what they want aligned with the greater good?

Peterson appears to have little to contribute to such conversations, which is why, although I have enjoyed the ride, I ultimately feel disappointed by him, and no longer expect to learn from him about the most important questions of our time. Some would say that his role is not to model such dialogues, but the point is that such issues are not in his purview. He is a psychologist, granted, and speaking mostly to individuals looking for direction in life. If he wants to focus on the message that individual responsibility is sacred and to use his fame and wealth to further amplify what he believes in, perhaps we should just salute his inner lobster?

But no. Given Peterson's influence, that kind of oversimplified message is precisely what keeps us trapped in outdated constructs (e.g. left and right) and oppositional identities (e.g. men and women) and militates against the generative and imaginative perspectives we need. He has the charisma, clarity, and following to add psychological and spiritual depth to our collective action problems on an ongoing basis, but shows no inclination to do so. The challenges of our time are daunting precisely because they are not principally about individuals solving discrete problems but interrelated challenges arising from collective processes. We therefore need visions of individuality that are not about slaying the dragon of the collective, but more like learning to ride it. The question for the individual is how to grow morally, cognitively, and spiritually by expanding circles of belonging, developing bio-psycho-social-spiritual selves in a manner that is truly one's own because it speaks to a social milieu in which the self is created.

Set against that fuller context and perspective, our challenge is to imagine a world beyond consumerism, where 9 billion humans can survive and thrive on a planet that is technologically imperious but ecologically imperiled and politically and spiritually confused. Peterson growls: Grow the hell up and tidy your room! Perhaps we should. Our rooms after all are dramatic settings, and microcosms of the world as a whole. But I think Peterson needs to grow the hell up too. The more profound story begins when we ask who owns the room, why there is so much stuff in it, and what joy we might find and create with the people outside.

Treatment: If neither abstinence nor denial works, try writing.

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Daring of Be(com)ing Wise: Perspectives on Embodied 'Sapere Aude' En-lightened for Today

Wendelin Küpers[1]

Wise people [sapientes],
who through all the obliquities and uncertainties of human actions,
aim for eternal truth, follow roundabout ways,
because they cannot take straight ones;
and execute plans which in the long run are for the best,
as far as the nature of things allows
(Vico, 1725, SR 7)[2]

"*The function of Reason, is to promote the art of life*".
(Whitehead 1958, p. 4)

Sapere aude is often translated as 'dare to think,' especially in the sense of dare to think critically for one-self, or with a community in mind and for a different world! But sapere is not simply 'thinking', merely mentally, but closer to bodily sensing and this is making 'wise' sense, thus having an embodied sense of what is the 'fitting thing' to be done or not and how to make it happen. Therefore, sapere aude, is not merely daring to think or being cognitively critical, but more processually daring to be and to become wise. Such be(com)ing implies to give sense via coming to the senses and common sense, and making sense anew, culturally and politically as well as ecologically. Thus, living sapere aude is the be(com)ing of a living embodied and practical wisdom, embedded in, shifting and shaping to social and environmental dimensions!

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[2] SR = «De nostri temporis studiorum ratione" (Vico 1709/1990). Vico (1725/1968) envisioned in his ideas about a 'poetic' (anti-Cartesian) form of knowledge (sapienza poetica) - as part of his 'Scienza Nuova' ('New Science' 2014) - a historical movement that was neither linear, nor circular, but following a spiral-like dynamics (see also Miner 1998, Strati, 2018). For Vico, wisdom has a double meaning: a 'poetic' (sense) and a philosophical or 'scientific' (intellect). Poetically, it provides intelligibility for the peoples of societies or nations and their myths that arises out of and is sustained by piety. Scientifically, as noetic knowledge, wisdom refers to contemplating concrete historicity and its human praxis cultures, customs and languages in the light of the New Science.

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Historically, the legacy of sapere aude as Leitmotif of wisdom traditions and 'the Enlightenment' as formative period and ongoing transformative program, was and is pervasive as many of the past and contemporary ways of thinking, values, practices and institutions of our present civilization are rooted in them.[3]

Various rationalist development and expansions of scientific discovery, technification and its applications, modern economic institutional arrangement, political and administrative reforms, state sovereignty, individual social liberations and emancipation, religious tolerations and secularization as well as democratization, nation-based and world citizenship have historically emerged from enlightened spirit, however full of variations and ambivalence.[4]

But then, what does it mean to become wise today, to live this sapere aude, enlightenment and wisdom in the 21 century, a time characterised among other phenomena, by socio-economic and political instability, worsening local and worldwide injustice and inequalities, resurging of nationalism authoritarianism. As we've seen with the recent Black Lives Matter protests, Covid-pandemic, stagnant economies and mass unemployment as well as protests all kind fires a lighting up beneath ongoing ideological battles over history and social justice.

Related to these developments, can we still sense the signs of those tremendous engaged re-evolutionary commitments that enlightened men and women, communities and collectives fought and stood for? Are those, who strived and enacted enlightened values calling us to condemn forms of neo-authoritarian rule reactionary and dogmatic orthodoxy, rigid intolerance, fearful xenophobia, and group chauvinism?

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[3] Having partly its origin in the so-called Scientific Revolution, the Western Enlightenment, often referred to as 'The Age of Reason', eighteenth century named by French as '*le Siecle des Lumieres'*; by Germans, as 'Aufklärung'; by Italians, as 'L'Illuminismo'; by Spanish, as 'L'aIlustracion'. Interestingly, there was also an Arabic tradition which called it 'tanwir', ranging according to Kassab (2020) from Damascus to Cairo that is from Syrian-Egyptian tradition up to 19th-century, to Arab modernist movement known as the nahda (renaissance) and the withered Arab Spring recently. Historically, this age was differentiated in an Early Enlightenment (1685–1730), a High Enlightenment (1730–1780), and a Late Enlightenment (1780–1815). Only recently criticism has begun to rework the historical category of 'the Enlightenment' in terms of its geography and history, but also in terms of its historical significance, self-image, ethnocentric and racist assumptions (Peters, 2019).

[4] Graeme, (2006) studied in detail those variations and ambivalences that have gone and still go the promising rise and tragic fall and failures of the 'Enlightenment Project'. He refers to Lester Crocker (1959, 1963) for outlining how the 'philosophes' set out in search of a new foundation for ethical life, and ended up lost in an abyss of nihilism as a consequence. According to this critique philosophes failed to construct a naturalistic substitute for the religious order, not being able to bridge the nature–culture abyss and getting lost in a futile search for an universal civilisation based on reason and a rational justification for morality. According to the 'inversion thesis' the attempted implementation of Enlightened principles and ideals produces the very opposite effect to that intended, resulting in disaster. While liberal assumptions about rights, liberty and rational self-interest arose out of the Enlightenment, it also produced theories of indoctrination, of conditioning and control, which compromised them. The destructive potential at the disposal of the human appetite for power, cruelty, stupidity and hatred is now enormous and growing. In addition, the increase in individual freedom of conscience, religious expression, mobility and self-determination that the Enlightenment helped to facilitate has undermined many traditional sources of conflict while fostering others (Graeme, 2006: 1).

Today positions of counter-Enlightenment have becomes part of a more general critique of the West and its values, losing the reflexive dimension that had so long been at its core (Jung 2016: 220).For further sources and discussions concerning the 'Counter-Enlightenment' as endarkenment see footnote 10!

When we look around today we see how human and other incarnate beings are suffering from various forms of direct and structural and symbolic violence, ongoing institutionalized austerity, imperialist warfare, and religious fundamentalism, extremist terrorism, refugees crisis, nothing to say about human caused unprecedented ecological crisis, climate heating and its environmental disasters and suffering.

We are living in a time that is cast in the twilight of the 'Anthropocene Idols' (Cohen et al. 2016, Küpers, 2020), illuminating that the light of reason progressed only by co-opting fire, coal, oil, nuclear energy and the exploitative labor of many beings not blessed with the spoils of enlightenment. Can reason, especially the one of instrumental rationality, appropriated by the forces of unreasonable commercialism and wealth-craving, be made aware of that shadow side and 'debt' only when the source of light is waning, in an age of depletion and ecocidal destruction?

The related narratives range from dystopian and (post-)apocalyptic imaginaries[5] and stories of disaster, decline, demise and extinction in an eco-eschatological vision[6] to neo- and eco-modernist visions of progress, salvation and solutionist mastery. For some, the end of the world has already occurred and implying that civilization, organisms and organ-izations are already deceased and must simply begin the difficult task of adapting, with mortal humility, to this new reality. Lingering in the shadowy world of irony and difference, ugliness and horror, such a dark ecological orientation is announcing the coming climatic Armageddon or other apocalyptic framings often used as discursive-representational tactics or rhetorical strategy. For others, the Anthropocene offers a hopeful opportunity for a profound transformation via a heroic neo-Prometheusian Earth-mastery, playing with 'fire' via techno-scientific knowledge in neo-technocratic solutionist ways. Such orientation is following a hyper-accelerationist vision in which big science, geo-engineering, and big capital save both earth and earthlings or a specific problematic politics of partly illusionary hope (Küpers, 2019). These narratives are taking us either towards the edge of a personal, socio-political, economic and ecological abyss or towards promising land of saved ascendance where all problems and conflicts are or can be re-solved.

However, all these imaginaries and interpretations are in danger of foreclosing the asking of serious political questions, for example, about the possible organisational and socio-environmental trajectories of continued neo-liberal practices or of the possibility of transitioning to something even more reasonable and wise.

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[5] Apocalyptic imagination has been described as uncovering revelation of and through the elements envisioning the imperceptible toxification and elemental dissolution of the annihilated world (Toadvine 2014).

[6] Eco-Eschatology and eco-eschatological narratives as end-of-the-world fantasies suspend the present between a geologically deep past and an indefinitely distant future. As Toadvine (2019) elaborated, our obsession with the end of the world finds expression in the form of the eco-eschatological narrative and frames speculative fiction as well as environmental prediction. Such obsession is a phantasm that reflects our desires and anxieties in the present, which leaves its mark, directly or indirectly, on our individual and collective identities, institutions, and sense of the world here and now.

Instead of seeing a storied account as a single hegemonic, linear one that is supposedly apolitical, there are multiple, debatable and polemical narratives. These storylines range from Cassandran versus Panglossian advocates to slowing-down Doomsters versus accelerating Boomsters and are thus situated as either tragic, elegiac stories with hopeless endings and the collapse of civilization or heroic, hegemonic stories of awakening.

Furthermore, our time is also characterized by 'retro-progressive' moves and neo-conservative or neo-authoritarian trajectories, including revived tribalist and populist contagion, and manifestations of personal and functional stupidities, and illiberal democracies', attacks on cosmopolitan orientations and institutions, spreading throughout Europe and the USA as well as may other countries and parts of the world. For example we might ask: Does the so called "Intellectual Dark Web" use a veneer of 'reason' and 'science' to justify prevailing inequalities economic, gender, and racial as natural, thus defending (neo-)liberalist capitalism while drawing on biology and the dreary science to bolster the status quo by depoliticising politics (Brooks, 2020)?

But there are also old and new, social movements and advocating political activism, like the environmentalist movements, anti-racial and black-rights movements, feminist movements and LGBT movements among others, All of them are manifesting a radical democratic politics of dissensus and attempting to radically, ethically and often publicly challenge existing reactionary orientation, given social norms, and, reclaimingly, who is recognized as being a competent agent to speak and shape civil life.

Why does reconsidering 'Enlightenment' may help for understanding and interpreting these developments? What would historical enlightened figures or philosophers who reflected on the role of wisdom and enlightenment tell us from their respective perspective?

Historically, the ideas of the 'Age of Enlightenment' undermine(d) the authority of the traditional aristocracy and monarchy as well as religious orthodoxies of Churches, while preparing and enacting ways for the scientific, socio-cultural political revolutions of the 18th and 19th centuries, reaching into the 20 century and today. Based and centred on regimes of reason and scientific approaches as principal sources and media of authority and legitimacy as well as knowledge[7], enlightenment functioning as a formational event established and advanced powerful ideas and ideals, and. These include among others those like freedom, progress, tolerance, fraternity, (we would today call brother- and sisterhood), constitutional government and separation of church and state, all serving as a base for civil society. In this way,

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[7] A key idea of the Enlightenment, especially the French Enlightenment, was to learn from scientific progress how to make social progress towards an enlightened world, but the philosophes of the Enlightenment and later institutions of learning failed to generalize these methods sufficiently so as to facilitate progress in other fields of human endeavour besides science or knowledge (Maxwell 2019). According to Maxwell there is an urgent need to transform what we have inherited from the Enlightenment in order to move towards a better, wiser, more enlightened world. "Academia seeks *knowledge*, and fails to give intellectual priority to the task of helping humanity make progress towards a more civilized, enlightened world." (ibid p. 4).

Enlightenment brought cultural political 'modernization' to the West, in terms of introducing democratic values and institutions and the creation of modern, liberal democracies (Gay, 1996).[8]

Enlightenment yes, but which one: a moderate or a radical one, and how was and is it related as such with its clandestine underground to the making of modernity (Israel 2001, 2006, Jacob, 2006, Muslow 2015, 2018)?

And today? Is this present a time of an "Enlightenment NOW" (Pinker, 2018)? Or do we need understanding for how irrational conceptions of reason are harmfully defective in relation to what the traditional rationalistic Enlightenment was and is?

In particular:

– What would the mentioned and other intellectuals and lovers of wisdom (*philo-sophers*) say about why unenlightened politician and populists, extremists, including left- and right-wingers, and ideological, religious and other fundamentalist are again and increasingly influential today?

– How would they respond to the re-emerging radicalizing conservative or progressive ideologies and movements, especially neo-identitarian, alt-right shift in public spheres all over the world?

– How would Enlightenment thinkers interpret resurging of neo-authoritarian politics of power with its rhetoric and practices that are having far-reaching effects on various levels (Fielitz & Laloire, 2016).

– What do calls for an enlightened life and a wisdom-oriented citizenry[9] mean today? How is daring to know and 'be(com)ing wise' constituted by an embodied practice and co-created by a 'body-mindful' cultivation of a well-understood tasteful art(istry) of living?

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[8] For Peter Gay (born as Peter Joachim Fröhlich) Enlightenment was the unified work of a small group of men, "the little flock," who shared liberal progressive attitudes, a critical method and mind, working for a better future, who knew and admired one another's work. According to him they shared an understanding of Enlightenment as a program of secularism, humanity and above all freedom in its many forms; it is humanity's claim to be recognized as adult, responsible beings and an Enlightened optimistic faith in social progress by the use rational principles to solve problems of social interaction.

[9] 'Civilization' although often associated solely with certain levels of technological, social, and cultural advancement, can also refer to the reflective and moral status or level of development concerning enlightenment. To be 'civilized' in this sense is to have a disposition to be concerned with civic excellence (*politikê aretê*) and virtue (*arētē*) in feelings, thoughts, competencies and action. Respect for others (*aidôs*) and a sense of justice (*dikaiosynê*) moderation or self-control (*sôphrosynê*), holiness of life or piety (*hosiotês*), and courage were among the foundation of political wisdom guiding all civic endeavors. Historically, this disposition and positioning was considered as required to live a good and successful human life and seen as the result of proper education and habituation. Moreover, the enactment of individual and collective wisdom was understood as a *form* of civilization, as the result and expression of a moral civilizing-process that comes about through the creation and transmission of interpretations of human experience and the concomitant skills to be developed (Kiefer, 2015).

Accordingly, the underlying concern of the following is to inquire into the status of an illuminating Enlightenment (Aufklärung/Erleuchtung) in relation to signs of reviving of an obscuring Endarkenment (Verfinsterung/ensombrement/nigredo),[10] including to understand an elusive '*twilightening*' as a kind of entwinement of both.

This inquiry implies the quest and question about how to rethink, reimagining and re-evaluate integrally an Enlightenment beyond traditional orientations.[11]

Correspondingly, the following asks: In which way can the call for sapere aude still mean experiencing and thinking the world and future by opening out; while we are facing the present enclosing turmoil in socio-cultural, and political cultures and dominance of non-integrative economic imperatives? And, how to respond to the challenges for transforming from an unsustainable Anthropocene towards a more sustainable wiser 'Ecoscene' (Küpers, 2020)?

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[10] Endarkenment can be related to the tradition of 'Counter-Enlightenment' movement as part of history of ideas' that have been characterised as relativist, anti-rationalist, vitalist and organic connected to supposed proto-romantics, like Vico or Hamann (see Berlin, 1973, 2013). According to Berlin, this Counter-Enlightenment consisted of a 'family of political and moral conceptions … based on the defiant rejection of the central thesis of the Enlightenment, according to which what is true, or right, or good, or beautiful, can be shown to be valid for all men by the correct interpretation of objective methods of discovery and interpretation, open to anyone to use and verify' (Berlin, 1990: 19). As Berlin (1973: 19-20) stated: "The rejection of the central principles of the Enlightenment universality, objectivity, rationality, and the capacity to provide permanent solutions to all genuine problems of life or thought, and (not less important) accessibility of rational methods to any thinker armed with adequate powers of observation and logical thinking – occurred in various forms, conservative or liberal, reactionary or revolutionary, depending on which systematic order was being attacked…. In all cases the organisation of life by the application of rational or scientific methods, any form of regimentation or conscription of men for utilitarian ends or organised happiness, was regarded as the philistine enemy." Critics found little historical evidence for what they called Berlin's essentialist dichotomy between Enlightenment and Counter-Enlightenment as two coherent and unchanging traditions (Mali and Wokler, 2003). Overall, "modernity is inherently multiple. It comes in different blends, including Enlightened, non-Enlightened and Counter-Enlightened currents" (Lok & van Eijnatten, 2019: 415). This multiple interpretation includes for Lok and van Eijnatten also a global Counter-Enlightenment that is existing in different times and places. "The Enlightened, liberal, progressive modernity so widely applauded as the way upwards and forwards had failed to deliver; it could never deliver because it was unable to meet the deepest spiritual needs and time-tested values of mankind, the principles, tenets, customs and ethical precepts embedded in age-old civilizations…" (ibid 417). There has been a 'flight from reason' manifesting in dark and occult counter-rmovements to enlightenment (Webb 1971, 1976, 2009). Eeven efforts to eradicate the irrational appear as being themselves irrational, and often manifesting a disclosure in time of foreclosure (Smith, 2019). There was a rationality of irrationality in connection to enthusiasm especially in late enlightenment (Conrad, 2008). See also Nick Land's 'The Dark Enlightenment', that – as part of accelerationism – opposes egalitarianism, incorporates explicitly racist views and is sometimes associated with the alt-right or other right-wing movements. http://www.thedarkenlightenment.com/the-dark-enlightenment-bynick-land/ Millgrams (2015) sees a great endarkenment related to our age of hyperspecialization and entrenched in disciplinary conformity. Scholars and their scientific work are becoming more narrow, self-contained, and disintegrated as they don't know and don't care about anything other than their own tiny field, reviewing each other's papers and training each other's students to behave in the same fashion. All this results into deterioration of creative, integrated, systemic and critical thinking in the academic world, a corruption of scientific integrity by a slow, degenerative process of endarkening. Nikos Kazantzakis: "The real meaning of enlightenment is to gaze with undimmed eyes on all darkness."

[11] For example those that take light as a major metaphysical symbol, equating with spirit and its manifestation as intellect, virtue, morality, healing both physical and spiritual, and other positive set values or traditional political orientations like socialist versus liberalist worldviews.

For responding to all these quests and questions as well as diving in an uplifting way deeper into the reasons and responses to the current state of affairs and actual and acute developments, it makes sense to learn from different positions or contentious perspectives and connecting them to our times and futures to come.

In order to explore the same, the following invites you, dear reader, in the form of an alternative textual/contextual narrative practice, first to a thought experiment and then to enter a multi-layered dia- or metalogue.[12]

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[12] Rather than constructing separate, fixed or closed individual-based definitions of realities or rational-lines of argument, such poly-logical practice of a metalogue (see Bateson 1972; Bateson & Bateson, 1988) open up to a living relationality and possibilities of a spiraling, disclosing and co-emerging flows. Polyphonic voices, individually and interwoven in an arguing chorus as a kind of aesthetics of (re-) presentation. Such presentational practices uncover and allow other modes of communication, including felt sensitivities, imaginative sounds, visual associations etc. Accordingly, such dia- and/or poly-loguing is opening for a poly-sensuous interplaying of tasted, gestured, and viewed expressions thus multi-voiced con-versation that is a living narrative, which includes a diversity of points of standing and moving. Not aiming for a single vision or finalizable version, these inter-exchanges are an array of juxta-positioning reasons for or concerns about and perspectives on various angles. In terms of epistemology, this implies that if there is any truth to be found or better to say co-created, it happens through a multitude of simultaneous expressions with their quests and questions, engagements and commitments. This kind of heteroglossia can help to question, test and contest our own and others' ideas, those established and those merging or to be developed. It is through the plurality of our consciousness, inter-relationships and hybridised negotiations that the potential can be actualized or "actuated." In particular, these are possibilities of 'trans-individualistic', post-entitative and more integral understandings of and repertoires for creative interpretations and enactments. As a writing modality, this form, much like a sounding board opens up for complexity, ambiguity, and emotional resonance. Such resonance comes from making the words – for lack of a better word – embody what they are about and make them breathe experience. Hopefully, the listening reader can relate to those or invoke in them likewise sensory experiences that may lead to a more nuanced understanding, and invite them to extend the text, or relate to their life-worldly con-texts. By practicing a dialogue as a "discipline of collective inquiry" (Isaacs, 1996) or co-inquiry (Heron, 1996), you the reader(s) are thus invited to open-up to discover or co-create inter-pretations of what appears as "real", relevant or insightful. Listening to multiple voices, incarnated in presences of different persons and propelled contents, allows participatory witnessing an embodied relational logic and enacting an inter-practice in praxis that is sensitive for the oblique, meanings *between* lines and alluded hints, revealing other ways of being and becoming. As active audience or engaged readers of this concert of voices, we are becoming listeners, and perhaps are provoked to comments or to ask possible questions, state contestations or find other forms to contribute with our own ideas. This can lead to further weaving the con-textures or advancing the ongoing, unfolding fluid dis-courses to emerge. Please feel invited to share your responses, reflections or imaginations by writing, dabbling, drawing or expressing them and, if you like, forward them to the author for co-creating a hyper-contextual repository: mail@wendelinkuepers.eu. The idea is to set up a web forum or blogging space on-line, where all comments will be gathered, as a forwarding feedback and continuation of an ongoing inter-involving conversation…

Imagine enlightened men, who meet, and are having conversations about events in 21 century and the status actual en-darkening reality and still potential ‘en-lightening’ wisdom therein. The chosen personalities – representing selectively different and contested positions – in the following are Horace, Kant, Nietzsche, Foucault, Habermas and Merleau-Ponty and some more. This conversation does not include Aristotle and only implicitly refers to the Aristotelian tradition of phrónêtic wisdom (see Küpers 2013), nor indigenous and non-Western wisdom traditions in poly-cultural world (see Intezari, et al. 2020).

The first one, Horace was an antique Roman poet, then Kant, who was *the* philosopher of Enlightenment and the post-Enlightenment philosopher Nietzsche as well as then also Foucault as post-structuralist/postmodern scholar, focusing on power and conflict and Habermas as representative of the unfinished project of modernity as well as finally Merleau-Ponty as post-Cartesian philosopher of the body and embodiment.

You might ask: What do these so unalike personalities with their very different ways of feeling, thinking, speaking and writings in quite different languages[13] have in common?[14] Well, they all have thought about the role of reason and wisdom in and for their time and beyond. Correspondingly, they have all written programmatic essays that are calling and processing the status of enlightenment and daring to know, respectively to become wise![15] Some of these voices and reports may appear as hopelessly outdated historical accounts, others may appear as revealing in being revisited others promising or providing inspiration for us today and a future to come….

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[13] Just a word on words and language: The conversation you are going to listen to uses English as ‘lingua franca’. For many of those who speak here this is not their mother tongue. Using another language and any language at all is, at one and the same time, enabling and limiting, liberating from the confines of our own spoken tongues and restrictive and constraining by using a foreign lexicon and its loss of subtleties and cultural qualities in translation. Speaking about translation, another related challenge concerns the transference of ideas of distant and different times and contexts to our world today and for a future to come. All what was presented here, all the expressions of representations were done in ways the author understood and understands them provisionally, informed and related to the world arounds him. Correspondingly, the same might be true for you as a reader who interprets and uses in your own ways. Overall, while questioning an unreflexive use and hegemony of English in academic practices, what would be wise!, is to become more imaginative, inventive and experimental in performing multilingual forms of expressions (Steyaert & Janssens, 2013), and making the multiplicity and linguistic repertoires involved visible or hearable, moving towards a Cosmopolitan *Multilingual Franca* approach (Janssens & Steyaert, 2017).

[14] As these authors and their writings manifest, the courage to use reason and wisdom as well as the project of enlightenment are not unified on a single set of doctrines, but serve a diverse set of ends, a pluralized interpretation – ranging from cosmopolitan ’radical’ enlightenment to various, more conservative, national enlightenments (Israel, 2001) – as well as Enlightenment as transfiguration (*Verklärung*) of reason and also Counter-Enlightenment (Mali & Wokler, 2003). However the unrestricted definition of Enlightenment, or its alternative, the admission that there were multiple Enlightenments, has rendered the subject so blurred and indeterminate that it is impossible to reach any assessment of its historical significance (Robertson, 2003: 82). With Robertson, the Enlightenment for which a case is made here is one, which existed as historical phenomena, rather than an artificial philosophical construct. It is not an Enlightenment which can be held directly responsible for the horrors, any more than for the advances, of the twentieth and twenty-first centuries; far too much history lies in between. But as a specific intellectual movement of the eighteenth century, it is an Enlightenment which can be matched against the conditions which faced it in its own time. (ibid, p. 82). Accordingly, Robertson (2003) proposed that the intellectual content of the Enlightenment is to be found in its “commitment to understanding, and hence to advancing, the causes and conditions of human betterment in this world” (ibid, p. 78). He emphasized the following three concerns as central to the Enlightenment’s efforts to understand the causes and conditions of human betterment: (a) the systematic study of human nature; (b) inquiries into the causes of “material betterment, the subject matter of political economy”; and (c) more

Let us enter and 'zoom' into the symposium and listen to the ongoing conversations of this meeting of embodied minds as a co-inquiring process of various con-verging but also diverging stances and dialectical dances.

Stage: The "dramatis personæ" are gathering at a round table in a beautiful room with natural light, and a view to the cultivated and wild nature around, designed for having such a symposium. There is an ongoing informal conversation, as some of the participants know each other, while others are introducing each other, and again some are casting suspicious glances or remain in silence. Some refreshing drinks and light food are offered, and an overall relaxed atmosphere pervades the gathering.

After some time, the facilitator rings a mindfulness bell and as the participants have found their place he commences speaking:

Facilitator: Welcome everybody to this symposium! We have gathered here for a conversation about what 'sapere aude,' daring to know and becoming wise, meant in the past and may mean today and a future to come. This gathering aspires to revisit and reflect critically the meaning of 'Enlightenment' in and for a time in which enlightening orientations seem to be overshadowed by various forms of a multiple crisis and unwise realities, economically, socio-culturally, politically.

First, I would like to thank you all for that you have accepted the invitation for what promises to become an extra-ordinary event. Timely, we will move through time, chronologically but also throughout with links to the present. Furthermore, an interjecting observer is guiding us and I as a facilitator will try to moderate the discussion.

Salve Horace, can I ask you as pioneering thinker who coined the term, to share your understanding of sapere aude and its context and also why its practice, thus wisdom seems to be not present or event lost in our crisis-driven time today? What would you recommend to us today?

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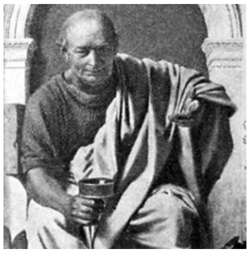
general investigations, beyond the more specific concerns of political economy, with the historical progress of society "from 'barbarism' to 'refinement' or 'civilization'" (ibid p. 78). Enlightenment was an actual historically situated enlightening activity, especially; the framing of sciences of human nature, political economy, and a historical development, but also a construct relevant for us and a future to come.

[15] *Sapere aude"* (Horaz/Horatius, 20 BC/ Epistulae 1,2,40)
„Beantwortung der Frage: Was ist Aufklärung" /
"Answering the Question: What Is Enlightenment?" (Kant, 1784, 1999),
"Qu'est-ce *que la critique? / "What is Critique?"* (Foucault, 1978, 2007),
"Qu'est-ce que les Lumières?"/ "What is Enlightenment?" (Foucault, 1984, 1997),
"Theory of Communicative Action" & "The Philosophical Discourse of Modernity" (Habermas, 1990)



Horace: *Gratias vobis ago*, for the invitation here! Dear wisdom-loving friends (*philosophoi*), as you know, I have been concerned for the public welfare and the need for returning to early Roman standards of morality after those cruel periods of bloody decadence, that I experienced. And it is not only me, as I am speaking and echoing the aspirations of a war-weary society at large. Accordingly, I warn you not to fall into a retro-regressive, degenerative and even decadent state-of-affairs, characterized by intrigue, conspiracy, demagoguery, and vain and fierce ambitions and bloody civil unrest …

You ask: Why is there not more reasonable processing and acting in accordance with reason (*akrasia*), when facing the challenges of your crisis today? Well, you know your situation reminds me of what I experienced during my life in late-Roman time with its paralysing politics. In that context, I called for daring to know and to begin again. For me to begin is already to be halfway. Get your-self going with efforts and properly being underway is what matters. Dare to know, begin! And dare to begin is to know qualified as daring to become wise! How to do so? Well with elegance in simplicity (*simplex munditis*) and perhaps sometimes even being nobly untruthful (*splendide mendax*).

But never forget: *carpe diem*: be in and enjoy the moment, thus make the best use of your day and night. This focus on the now does not mean to ignore the future. Rather it is not to trust that everything is going to fall into place for you, but that you need taking action for the coming. In other words, be mindfully present and to cultivate what is called a *Stoic and Epicurean* sentiment and practice!

Stoics: Yes, using one's mind to understand and resonate with the natural world helps accepting the moment as it presents itself. But for us, all this means not allowing oneself to be controlled by the desires for pleasure, nor the fear of pain. Against your misinterpretation of our approach today, being wise for us does not seek to extinguish emotions and passions of anguish or suffering. Rather, we need to liberate ourselves from and transform what affects us - what you may call sublimate – by resolute exercises (*askesis*) of self-discipline. And this needs to be employed by methods of logic and reflection that enable developing clear judgment and inner calm….

Epictetus: This helps to realise that not things, but opinions about things, trouble you and all men. Test and assess all impressions by asking yourself: 'Is this something that is, or is not, in my control?' And if it's not one of the things that you control, be ready to realise: 'Then it's none of my concern.' Review then your emotional responses, for example. What made you angry? What nagging fear continues to wear at you? To whom do you have antipathy? What other negative emotions are you experiencing and why? To what inappropriate impression have you assented? What form of being virtuous and virtuoso have you lacked to respond impulsively and to allow this disharmony into your "inner citadel"? Thus, take a moment and deep breath before responding, preserve your serenity and remain above the fray.

Stoics: Thereby, we can maintain equanimity in the face of life's highs and lows as well as to cultivate modesty. Thus, this self-mastery is not about repressing feelings, but about becoming emotionally resilient to misfortune and having *eu-pathos* and perpetual tranquillity, while being one with the workings of nature and fate as well as the cycles of existences and the divine orders of the pulsating universes. Thereby you can cope with any tragedies and all suffering and cultivate a life of *eudemonia***.**

Facilitator: So it is all about learning to think clearly, consistently and see things as they really are in a controlled way. Then we can make good choices from smallest everyday actions - including those about where to focus our time and energy - to the biggest decisions of your life? As much as I understand your humble program of being happy with what you have, but how do you find a sense of inner peace, while also dealing with other people not with anger but with compassion and in a democratic way.

Hierocles: One must consider that, in a certain way, one's brothers are parts of oneself, just as my eyes are parts of me and so too my legs and hands and the rest.

Stoic Zeno: Let us gather under the shade of the Stoa porch (*poikile*) in the public space (Socrates: or market place) of our polis, where anyone can listen and join in the debate. For us certain and true knowledge (*episteme*), can be attained only by verifying the conviction with the expertise of one's peers and the collective judgment of humankind. And for us striving to become citizen of the world external differences such as rank and wealth are of no importance in our social relationships.

Diogenes: In this sense, I am also a *kosmopolitês* as that is where I come from …

Stoics: To get a more objective perspective, it's helpful to take a step back and view an issue as if you were a disinterested, but sympathetic, 3rd party. Importantly, our stoicism is not a religion, but is compatible with different faiths and religious traditions. There is room for different interpretations and different levels of philosophical commitment.

Seneca: Organise your Self, including knowing your strengths and weaknesses, handling your negative emotions while maintaining spaces to form reasoned responses and considering what you would call in your time now contingency planning, and repurposing!

Irvine: Mastering one's self is being engaged in the only moment where we exist, this one, while trying to understand the ways things are and living modestly, that is program of a good life via an 'Art of stoic joy' (2009).

Epicure: Indeed, we need to gain knowledge of the workings of the world, while we limit our desires in a simple life to attain a state of tranquillity and freedom from disturbance, or imperturbability (*ataraxia*) as well as freedom from fear as well as an absence of bodily pain (aponia), independence (*autarkeia*), good disposition (*euthumia*) and so forth… Apropos ’joy’: But what is also important indeed is to cultivate the presence of intrinsic pleasure without denying its life-enhancing qualities.

> *Voice from off-stage* **Marx**: Epicurus is the ‘greatest representative of the Greek enlightenment’ as I have shown in my dissertation on the difference between the Democritean and Epicurean Philosophy of Nature.

Lucretius: *nodding in agreement* Yes, how essential are those quiet, long-lasting and never cloying pleasures and the appreciation of embraced natural beauty gained by contemplative pursuits in the spirit of the wise Epicurus. This even more in those times of violent civil wars, political assassinations, massacres, revolts, conspiracies, mass executions, and social and economic chaos, a world of anxiety and turmoil that I have experienced with cities decayed, trade declined, and an anxious populace scanned the horizon for barbarian armies.

My life has taught me – as expressed in my book ‘On the Nature of Things’ – that there is no hope of bribing or appeasing the gods, no place for religious fanaticism, no call for ascetic self-denial, no justification for dreams of limitless power or perfect security, no rationale for wars of conquest or self-aggrandizement. And for you urgently to relearn is also that there is no reason to set humans apart from other animals thus that there is and cannot be a triumphing over nature. Rather, human beings should conquer their fears, accept the fact that they themselves and all the things they encounter are transitory.

Seneca and Montaigne: That is another reason why a wise life is learning to die!

Lucretius: … and embrace the refined phenomenal qualities and the pleasures of this incarnation in this very material world.[16]

Interjecting voice from contemporary time

Roy Scranton: Today now it is learning to die not as individuals, but as a civilization. in the dire so-called Anthropocene as that period of a large-scale die-off in the biosphere and global ecological collapse that’s already well underway, caused by and ending the global capitalist civilization as we know it, within decades and the possible extinction of the human and other species within centuries. But there is a New Enlightenment possible: Through interrupting social circuits of fear and reaction, looking deep into the face of death, and open up a human relationship to the universe in which we might live not as parasitic consumers, but as co-creators —a relationship in which we might learn to live as the very light from which all our power ultimately flows. Our future will depend on our ability to confront it not with panic, outrage, or denial, but with patience, reflection, and love (2016).

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[16] **Bergson:** Lucretius you are not only a genial poet, but also an inspired and singularly original thinker. We need to see the world sub specie durationis, i.e., as enduring (see Ansell-Pearson, 2018).
Santayana: I praise you Lucretius as true creator of scientific materialism and the real founder of Epicureanism. Certainly in an Orphic spirit sings Hoelderlin; “For we are a conversation and have been able to hear from one another…”. Has humanity learned; but soon [we] will be song!” “Seit ein Gespräch wir sind und hören von einander, Erfahren der Mensch; bald sind [wir] aber Gesang” (Hölderlin, 1975–2008, FHA VIII, 643).

Epicureans: We need the higher art of life! Cultivating an art of living in our sense is the opposite of what is connoted to our philosophy, misunderstood as a self-indulgent hedonistic, luxurious pleasure-seeking affair. On the contrary, to such superficial life, daring to know and pursuing a serene elevation of refined sensual and intellectual pleasures and a tranquillity of body and mind constitute a flourishing happiness in its highest form.

Epicur: Indeed: it is better to abstain from coarse or trivial pleasures if they prevent our enjoyment of richer, more satisfying ones…And this all is best celebrated in a beautiful garden with a circle of friends, being open to both slaves and women as part of a community for joint philosophising, but also growing our own food: going against the mores of the time!

Why with friends? Well because of all the things which wisdom has contrived that contribute to a blessed life; none is more important, and more fruitful, than genuine friendship. In such circle of friends everyone can self-improve, experience mutual admonition and gentle correction in the ethos of goodwill, respect, frankness, and gratitude as well as with an openness and moderation in all things.

For this kind of life, we have to shun politics and public affairs because it could lead to frustrations and ambitions, including lust for power or a desire for vain fame, all in vain. Please hear me well: ‘do not get involved in political life’! Such undertakings cause mental disquiet and disturbance and thus can directly conflict with our epicurean pursuit for peace of mind and eudaimonia as well as lived virtues. Only indirectly by our alternative ways of organising communities, promoting practices – such as justice, friendship, and economic co-operation – that are genuinely useful to people’s needs and eliminating all that promotes false conceptions of values and places our happiness in danger we may inspire others to create their ways of life and modes of virtuous communities or societies.

Christian Theologian and Priest: Speaking about virtues, reinterpreted in religious form and opposed to vice, our theology provided an explanation for the chaos of the Dark Ages. And we, with help of our almighty God, know the way back into light, provided only by the church. For us, human beings are by nature corrupt, sinful inheritors of Adam and Eve, and therefore deserve every miserable catastrophe that befell them. God cared about human beings, just as a father cared about his wayward children, and the sign of that care was anger. It is only through pain and punishment and even then only some pious faithful believers in Christ as the incarnation of God, the creator can find the narrow gate to salvation and see the divine light. Augustine: Again it is our Christian doctrine of salvation and damnation that offers human existence hope for an eternal happiness out of the misery and suffering of the ‘interim’ world.

Petrarch: No, I do not need you priest and dogmatic lessons. I experienced delight and found enlightenment on Mont Ventoux that I climbed for pleasure alone and could return then descending to the valley of the soul with my inward eye upon myself. Afterwards I could then travel on as an international scholar and singing poet-diplomat, retreating to contemplate on enlightenment of humanism that was than mediating the flowering of what you call Renaissance, the re-birth of the lift of antiquity.

Observer: Now we have listened to representatives from ancient times. We learned about the difference between Stoic focus on cultivating life, advocating debate in public spheres and becoming cosmo-political versus Epicurean exercises or '*askesis'* of refining private pleasures with friends, while shunning politics as well aas various tensions between religious and secular orientations!

Hadot: We need to revive the existential dimension of (ancient) philosophy today as therapeutic, transformative way of life (*manière de vivre*!). Let us rescue the synthetic nature of wisdom by which practical skill, rational knowledge, political acumen, artistic expertise and mystical experience are different facets of the same! I'm very much convinced that it is possible for modern man to live, not as a sage (*sophos*), but as a practitioner of the ever-fragile exercise of wisdom (1995, 211). But he needs relearning recognizing imaginatively himself as all things in a perpetual state of transformation or metamorphosis, while being part of the Whole and elevating to cosmic consciousness, thinking and acting in a universal perspective.[17]

Observer: Next, we will listen into a continuation and furthering of discourses in 'modern times' where the advocacy of a reason-based Enlightenment is voiced by Kant that in turn is provoking a radical critique and counter-orientation expressed by Nietzsche.

Kant: Dear Horace and Stoic, respectively Epicurean friends! I still resonate with some of your orientation and agree with your intentional thrust, but cannot accept your positions that appear to me as outdated approaches as well as the forms of operation you suggest and status of reason you presuppose!

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[17] The absence cosmos and cosmic Whole (and considering the underlying mysticism) and the other in the technologies of the (politically) caring relational understood self in Foucault and the insufficiency of his program of an aesthetics of existence as an ethical model for the present as well as some of his philological deficits, e.g. a mistaken emphasis on pleasure, are reasons why Hadot criticized him (But see: Testa 2020). Hadot argues that two broad attitudes have dominated our understanding of nature over the millennia, each of them with a god to represent it. The first is the Promethean, the second the Orphic. The first Promethean one is voluntarist and grasping, seeking to impose cultural forms on nature the better to understand and control it and this conception shows up in the history of both magic and mechanics. The second Orphic one, by contrast, is essentially cautious and as perspective is more aesthetic, contemplative and disinterested compared to the Promethean. Unlike the latter, it seeks out and is content to abide in nature's irreducible mystery and wildness. Both approaches, says Hadot, have as their goal the defense of humanity's "vital interests" (Hadot 2006: 317).

I am using your motto *sapere aude* in my answering of the quest and question of what Enlightenment is, responding to a critical inquiry by a master free-mason, namely: „Was ist Aufklärung?“ (1783). Importantly, this Aufklärung does not only characterize the period of my lifetime. As was the spirit of the time, the *Zeitgeist*, I am designating ‘Aufklärung’ as something each reasonable man can pursuit, rather than merely an age in which one is living. You know ‘*aufklären’* literally means to illuminate and to clear up. Accordingly, I am using this – itself wise – leitmotif for developing my theories of the application of Reason – yes written with capital letters – in the public sphere of all human affairs.

Facilitator: What does Enlightenment mean for you then?

Kant: For me, Enlightenment is man's departure and emergence from his self-incurred immaturity. Immaturity is the inability to use one's own understanding without another's guidance (Kant, 1996: 58), The German word for immaturity, ‘Unmündigkeit’ means not having attained age of majority or legal adulthood. ‘Unmündig’ also means dependent or unfree, and another translation is tutelage or ‘non-age’ (the condition of not [being] of age). My moral philosophy is centred on the concept of autonomy, and here I distinguish between a person who is intellectually autonomous and one who keeps himself in an intellectually heteronomous, i.e., dependent and immature status. And this very unenlightened immaturity is self-imposed if its cause lies not in lack of knowledge and understanding, but lack of resolve and indecision, and thus lack of courage to use one's own mind and reasoning without another's guidance.

Facilitator: What is needed beyond courage and determination?

Kant: Enlightenment not only requires courage! What is needed is ‘orientation in thinking’ and giving direction of thought that is to reflect on what basis does our thought path determine the way we act.

Cassirer: Indeed enlightenment is a ‘*Denkform’* a form of thought/reason (1951, Renz 2020)!

Kant: Thus, we need to enquire into the conditions necessary for the possibility of knowledge as well as morality and wisdom. Likewise, what is called for are institutional changes and a corresponding ‘carrying’ machinery and institutions, like my envisioned cosmopolitical League of Nations, or ‘*Völkerbund’*, which became the United Nation![18]

So you see: The Enlightenment program is a universal one of rationality, equality and practical morality as well as inner autonomy and political authority, all based on private and public use of reasoning, preparing eternal peace.

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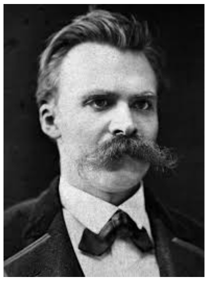
[18] In my essay ‘Perpetual Peace’ (1795, 2016), I proposed a peace program to be implemented by governments while demanding a commitment between states and organizing peace (as teleological goal of history) as contract by following these principles: “The civil constitution of each state shall be republican” and “The law of nations shall be founded on a federation of free states” as well as that “The rights of men, as citizens of the world, shall be limited to the conditions of universal hospitality” (*ius cosmopoliticum*).



Nietzsche: And it is that very spirit of Aufklärung that is an essential step into decline, ending in passive nihilism, starting with the French Revolution, *Aufstand* a rebellion of slaves, a victory of egalitarianism of the weak. What we need is re-evaluative transformation of all values. And it is the will towards power as driving force that deconstructs existing values and raises itself as highest value. With the passing of the old moral, after the remaining death of God and Gods killed by us and our Enlightenment! (A greatness of a deed perhaps too great for us?), we need to give a different meaning, thus to lay a new significance into what became meaningless.

Your rationality-based enlightenment appears to me as an arrogant intellectual ethos that made troubling universal assertions about the nature of human existence, knowledge and society. The pious faith of Descartes, and his doubtful belief in rational autonomy, the revolutionary fantasist and moral fanatic Rousseau and his social contract and egalitarian politics of general will, you Kant, misunderstood reason, categorical imperative and universalistic morality as well as secularised subterranean Christianity in your values, but also Mills utilitarianism and ideas about freedom and later then the beliefs of Darwin and Spencer an others in progress, I have a disgust for the demagogic traps for these ideas of 'enlightenment' for being cosy and for their plebeian familiarity.

Facilitator: What do you think about the philosophical base of Enlightenment and in particular the reasonable autonomous self?

Nietzsche: All those claims of Cartesian and Kantian metaphysics and epistemologies cannot hold. Cogito is after all only a word, a grammatical custom and its use a linguistic trick. You see, the Cartesian method of universal doubt and Kantian quasi-theological prejudices of reinvented fictions of transcendental ideals for justifying a moral scheme, are all based on an unconscious dogmatism. All of them are actually an impediment to knowledge and opposed to life, precluding a joyous science and perspectivist approach. We need an autonomy beyond good and evil, defined not in terms of moral laws, but in terms of character and nobility, enacting a creative will that engenders the new that transgresses reason itself.

Facilitator: On what do you how lay the foundation for wisdom that can serve us well also in the 21 century?

Nietzsche: For me, before all, it is the Leib (Body) is the great reason and wisdom. And this very ‘bodied’ reason becomes a function of the other, the a-rational, as part of an intensified life. I tell you, there is more sagacity in thy body than in thy best knowledge. Again, in the corporeal is a real and great sagacity, a plurality with one sense... Behind your thoughts and feelings, my brothers, there stands a mighty ruler, an unknown sage, whose name is self. In your body s/he dwells; s/he is your body.

Kant: No, not the irrational body, but the Reason – yes with capital letter – is the source of all knowledge and wisdom! We need to keep reason 'pure' from merely contingent bodily and social influences, It the reason-based Enlightenment that liberates us from passions and from authority and authoritarianism by making use of our rationality and knowledge that can be understood by others, who are equally rational beings, thus open the possibility for universalisation.[19]

Facilitator: Why then, do unenlightened politician and populists as well as extremists and neo authoritarian regimes find such influential followership in our contemporary world?

Kant: Perhaps for similar reasons as the avaricious Sophists with their specious and rhetorical practice using also fallacious and deceptive arguments gained currency before in Greek and Roman times. I do not think, like the elitist Plato seems to be inclined that it is because people were and are too stupid to see through them. Rather, the sophists had been influential and 'successful', because they met with the expectations that a majority of debarred and frustrated people had, with regard to the needs and wishes they wanted to be fulfilled.

Likewise, radical forms of doubting scepticism that deny that knowledge or rational belief is possible feed into populist power, although I learned a lot from the mitigated scepticism by Hume. While he was right to claim that we cannot strictly *know* any of the existence of God, the soul, free will, etc. our moral experience entitles us to believe in them.

Facilitator: What about ordinary humans? How can moral philosophy help for our behaviour? What power has Aufklärung for humanity today?

Kant: Admittedly, as an academic, I was tempted to be sceptical about the abilities of 'ordinary' human beings, but reading Rousseau had taught me that morality was not the exclusive field of expertise of philosophers. Human beings act morally quite independently of philosophers' thinking about it. What moral philosophy can do is help to achieve clarity about what motivates us in our moral behaviour and can give us reasons and confidence. This is what the critical method is designed to do in the field of ethics and beyond, as I develop in the *Critique of Pure and Practical Reason and Critique of Judgement*![20] And I discussed with my friends that Aufklärung carries the power to make humanity more mature, also today.

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[19] **Gerhardt:** As important as it is to take the departure of the body, there is the need for moving beyond the same and developing the organisation of reason which enables also a social connection through mutual communication and evaluation out of an individual-including, liberal, but ultimately public consciousness *("homo publicus").* And as "*animal sociale sive rationale*" humans have the ability to rule themselves normatively, thus to act according to reasons that have to be justified factually and societally. Yes he can play, say not and create! "*homo ludens, homo negans et homo creator*" (2019).

Facilitator: Would you say that we are living in an actual or potentially enlightened age?

Kant: Again, my and your age was and is one of enlightenment, by which a process of emancipation has become possible – in my days also because of the enlightened monarch King Frederick, who you call 'the Great'. But, I concede, it is not an enlightened age yet. Nevertheless, I am convinced that the progress towards a full Enlightenment is humankind's final coming of age, the cultivation of the human consciousness from an immature and dogmatic state of ignorance is our future! But affect and passion shut out the sovereignty of reason and no human being wishes to have passion, for who wants to have himself put in chains when he can be free?

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[20] While the first one focusing on 'Theoretical Reason' was dealing with questions concerning the foundations and extent of human knowledge, thus a critique of the pretensions of pure theoretical reason to attain metaphysical truths beyond the ken of applied theoretical reason. The conclusion was that pure theoretical reason must be restrained, because it produces confused arguments when applied outside of its appropriate sphere. The second one of 'Practical Reason' defended that (theoretical) reason is capable of grounding behavior superior to that grounded by desire-based practical reasoning, thus is actually a critique, of pretensions of applied practical reason. Practical reason is the faculty for determining the will, which operates by applying a general principle of action to one's particular situation. And here wisdom in particular is concerned with the practical end of humans' existence on earth. (see also Rowley & Slack, 2009). Pure practical reason – as opposite of impure or sensibly determined practical reason – that drives actions that are good in themselves without any sense dependent incentives, must not be restrained, in fact, but cultivated. Thus, how can the principles of practical reason be brought to bear on real life (via moral education) how can we make people live and act morally. Reason, common to all human beings, must be properly controlled: Reason itself is not an unqualified good but must be employed critically to lead to moral principles. Likewise, people can understand the moral law without the aid of organised religion. There is an inherent tension between morality and religion because there is a danger that people may act morally not because it is the right thing to do but because their religion prescribes it. This would take away the value of a good act: I am convinced that we can do the right thing for the wrong reasons, which would be devoid of moral merit. Achieving desirable outcomes is not enough; moral merit lies in the right intentions that are freely willed. Freedom is the necessary ground for the existence of the moral law. In my '*Critique of Practical Reason*,' I elaborate on ideas about how moral judgements can be made. A maxim, a moral belief, must stand the test of the 'categorical imperative' before it can become a moral law. Moral laws are not contingent, they are not 'hypothetical' imperatives, but universal principles, 'categorical' imperatives. Pure reason fails in the area of knowledge but comes into its own in the area of moral judgements. We can rationally figure out what to do by identifying the principle – of praxis - that lies behind a proposed course of action: What do I commit myself to by doing x? Next, we need to find out whether the principle can be a categorical imperative by asking ourselves if we could will it to be a universal law, as unbreakable as a natural law. The categorical imperative is strongly bound up with a belief in the dignity of the human individual (and 'Perpetual Peace' for human kind). It would be absurd to deny that all human beings are moral lawgivers, and as such merit our respect. It is therefore rational to treat them accordingly, i.e. never to simply use others for our own ends but to respect that they too have ends. In philosophy we are interested in three great questions: *"What can I know?", "What should I do?" and "What may I hope?"* These three, however, can be subsumed under one great question: "*What is a human being?"* If making a contribution to this project is the aim of all philosophising, we must go further than talking only about knowledge and ethics. Therefore, I wrote a third *Critique**, the** Critique of Judgement**,*** being concerned with the areas of aesthetics and religion. After all, the question of the human being would be very inadequately answered if we didn't for instance examine the fact that we can appreciate things from an aesthetic point of view.

Nietzsche: As much as I share to a certain attach your attack on superstition, religious dogmatism, outmoded forms of governance and resonate with some of your ideas of liberation (/in my middle period (late-1870s to early 1880s), your disembodied life-alienating Aufklärung will never be the one I call for to be enacted experimentally and artfully by an avant-garde of free spirits!

A life without genuine passions, life is rigidified and the world reduced to simply 'quantity and line and law and nonsense. And if this is all that existed, life would be turned into something strictly mechanical, automatic, predictable, regular, and even boring. We need learn loving, elevating, gilding, cultivating, sublimating and singing our passions, transmuting passions (*Leidenschaften*) into joys (*Freudenschaften*)! Instead of obedience for predetermined ventures, other-worldly escape, or metaphysically defined purity, we need free adventures towards the indefinite, this-worldly exploration, allowing the discovery of the alloyed and the possible!

Nietzsche getting up and moving, while shaking head, shivering with his body, leaving the room for traveling to the 'de-lightful' South…calling back with the voice of Zarathustra:

Nietzsche: All your pseudo-enlightening morality and moralising are oppressive, punitive, and a normalizing force, prisoning genuine life and living. This moralism is a weapon of the weak 'serving' the decadent people and their apathetic superstitions with all their *Ressentiment* of being the last men of this nihilistic age unable to build and act upon a self-actualized ethos!

Facilitator: What is truth and what to live for then?

Nietzsche: The truth to live for is one of the new *Übermenschen*, the overcoming man, who is more than human and who remains faithful to the earth. Once again: The human is something that must be overcome: and for that reason you must love your virtues as being themselves sub-limated – i.e. rising to a limit or upper threshold – transfigured passions and expression of your unique self-cultivated character dedicated to overcoming as practice of wisdom – for you will perish by them.

Hear this naked truth: And you wise and knowing ones, you would flee from the solar-glow of the wisdom in which the overman joyfully bathes his nakedness and then walks and dances with light feet and in a non-fanatical mode beyond human, all too human, unintelligent good and evil! Let us – like incarnated in Epicurus who has been alive in all ages and lives now, allow wisdom to assume bodily form (as I outlined in 'Human All too Human' II 224) a poiesis that enables the individual to negotiate and affirm the most demanding and challenging questions of existence! Overall: The secret of realizing the greatest fruitfulness and the greatest enjoyment of existence is to live dangerously!

Lewis Call: *shouting back to him in a post-anarchist voice:* The irony of your relationship Nietzsche with the Enlightenment, is that despite your virulent and profound critique of its rationality, its misunderstanding of the individual, its politics and its science and moral schemes, you retained its faith in progress and its desire to construct a better world, thus an utopian project that retained enlightened ideas. However, yes, you were in favour to create some kind of modified or transformed Enlightenment. Your attacks of the conventional Enlightenment, was done so in the name of a project that is in its goals and in many of its methods, fundamentally enlightened. Isn't for you the *Übermensch* or Overman – as neo-aristocratic, this-worldly figure of an avant-garde – representing the fulfilment of a different but, profoundly 'enlightened' project'? And for you this is realised by facing and affirming willingly, the most abysmal thought that is the eternal recurrence of everything and *amor fati* or love of one's destiny, passionately beyond endurance and fatalism. While this affirming might include suffering, pain and evil, it allows creating the meaning of the earth anew, and faithing into a future, yet to come. Importantly, for you this fate-loving overman does not mindlessly accept the world fatalistically with all its sorrow. Rather, the true power of the one, who overcomes lies in his or her ability to choose and make decisions, as s/he is able to affirm only that which is worthy of being affirmed (2002).

Hegel: Wait, wait, I think we need to radicalise your philosophy Kant, through understanding an absolute as all-encompassing, self-realizing spirit that includes otherness. Enlightenment reason (*Verstand*) with its insistence on abstract opposition had to be integrated into a more comprehensive, speculative, form of reason (*Vernunft*) of absolute knowledge as *Weltgeist* that could even unify the opposition between unity and difference. This allows us to think dialectically of what Enlightenment reason excluded as other than reason, as reason's own other. With this transformation of the Christian eschatology into Absolute Spirit, the 'cunning of reason' into the history helps to rationally comprehend that all tragedy and suffering, are part of the progression of the Spirit.[21]

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[21] **Critchley:** Well dear Hegel (and Marx) tragedy is neither progressive as you thought or regressive as others would have it, but retains an 'ambiguity' to be reconsidered. What if we took seriously the form of thinking that we find in tragedy, and the experience of partial agency, limited autonomy, deep traumatic affect, agnostic conflict, gender confusion, political complexity, and moral ambiguity that it presents? Adopting a theatrical standpoint, in the tragedies reason is not a tool that can stabilise the contradictions of experience. Rather, tragedies are giving voice to what is contradictory, constricting, and limiting about human beings and the space between freedom and necessity. The power of tragedy as a political mode lies in its tendency to subvert the penchant for reasonable, neat plots and outcomes! It confronts us with the unknown forces that move human being and doing in the basic activities of life, including love, war, worship and grief. Thus, it confronts us with a chaotic order of dissonant energies where multiple claims on our lives have reason on their side! Tragedy is thinking in action, thinking upon action, for the sake of action, where the action takes place offstage and is often described to us indirectly through the character of a messenger. This type of thinking, is not resignation but rather disorientation, and takes the form of a radical questioning: How do I act? What shall I do? And this in a fractured world, without the capacity for redemption and of 'irreducible violence revealed by tragedy! (2019).

Marx: We need to put this spirit on its feet and realized a revolutionary practice. Yes history follows dialectic meaningful pattern of progress, but it is be found in relation to concrete material, economic conditions of human existence, in particular modes of production and labour.

Darnton: By the way, we need to see the material basis of literature.

Sangmeister & Mulsow: ….including the dissemination (sic!) by erotic. pornographic novels and gossiping short stories, expressing also political critique!

Darnton: …. literature and the technology of its production and distribution – including roles of publishers, book dealers, traveling salesmen, and other intermediaries in cultural communication – that affected the substance and diffusion of ideas, including those of the business of Enlightenment!

Marx: History unfolds towards enlightenment in a rational process towards greater freedom and rationality, but through a conflict of classes over resources! You philosophers also all you of enlightenment until now have only interpreted the world in various ways. The point, however is to change it! We need a collective prâxis, as activity of human emancipation to overcome all forms of alienation, and reification. A from this prâxis new social formations, ideas, theories and consciousness and ultimately a post-capitalist communism as gruel enlightened way of living together in perpetual peace will emerge.

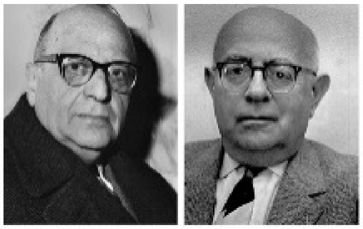
Post-Colonialist: Related to your critique, I still try to understand how it came about that liberty, intellectual freedom, and constitutionalism were in many or most cases actually set back, rather than advanced in 18- and 19 century Europe, and still more in the European colonial empires, despite the tremendous escalation in the justifying rhetoric of enlightenment, liberty, and reason. Disinclined to oppose actual inequalities and hostile to actual universalising proclivities, on the contrary 'enlightened' reforms and rhetoric were misused for crushing opposition, suppressing criticism, and furthering colonial economic exploitation often for consolidating personal control and profit.

Historian Israel: Well this is a known pattern: ideas promoting the interest of society as a whole came to be almost defeated by ideas buttressing the interests of the privileged few (2019)!

Observer: Hello again! Just as a brief comment from my meta-position**.** Again different historical voices and patterns of thinking and relating to the world by emphasizing different perspectives and orientations, as particularly expressed by Nietzsche and Kant who represent voices of that influential intellectual and philosophical movements in Europe during 17, 18, and 19 centuries.

As we have seen all those distinct and critical understandings and interpretations of Enlightenment are themselves enlightening. Revealingly, but also elusive the status and role of objective rationality, subjective relativism, logos and pathos, status of reasons, monist-unity and pluralist orientation, evolution and revolution were put and seen in quite different lights, twilights and/or shadows.

By listening to the next round, we come even closer to our times including what we used to call modernity and postmodernity, entering 20 century. These are voices from Critical Theory, expressed by Adorno, Horkheimer, and Habermas in dispute with poststructuralist/postmodernist, especially Foucault, who is even speaking with Kant directly.



Max Horkheimer and Theodor W. Adorno: Yes my dear Kant and Hegel as well as particular dear, lieber Karl Marx: Enlightenment, understood in the widest sense as the advance of thought, has always aimed at liberating human beings from fear and installing them as masters. Yet, the wholly enlightened earth radiates under the sign of disaster triumphant (1947: 3).

In the process of enlightenment, modern philosophy and (positivist) science, especially in the 20th century, had become over-rationalized and an instrument of technocracy. There is a continuity of the age of myth within Enlightenment and modernity. Modernity fulfils what myth always wanted to. For us, Enlightenment is a kind of totalitarianism. It is mythical fear radicalized! Enlightenment regresses to the mythology it has never been able to escape. Thus: 'Myth is already enlightenment, and enlightenment reverts to mythology' (1947, p. xviii). Accordingly, we need to reflect critically the "*Dialectic of Enlightenment."* With this orientation, we can understand the relapse of reason into mythical irrationality that leads to the necessary distortedness of reason.

Cassirer: As I have experienced painfully it, the NAZIs, had combined the regressive and mystifying powers of myth with technological advances and the methodological precision made possible by the Enlightenment (1946, 282-92)

Horkheimer and Adorno: As propounding a rationalist dogma without capacity for self-criticism, Aufklärung was and is bearing a potential for the massively efficient and dehumanizing myth-making perfected jointly not only by NAZI propaganda but also by what we experienced and observed at the (American) 'culture industry'!

Bredvold: Even worse: we will see the breakdown of civilization as the result of the Kafkaesque systematizing of the modern age inaugurated by the 'Brave New World of Enlightenment' (1961).

Gray: Enlightenment's wake is the close of the Modern Age (1995)!

Horkheimer: And therefore, we need moving from traditional theory towards critical theorizing! And you Nietzsche as a defender of naturalized, elitist, socio-political hierarchy and stance against democratization appear as anti-emancipatory, conservative even reactionary (2011).

Heike Schotten: What about rereading and reinterpreting Nietzsche's critique re-deployed from the queered perspective of the other and the oppressed? Let us openly and radically embrace immoralism in the name of emancipatory rejecting and undoing morality and its array of punitive moralisms (2009, 2018).

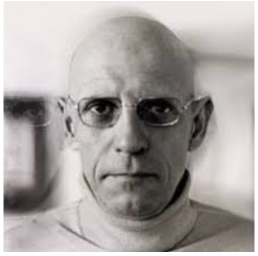
Adorno: Moreover, we need moving away from identificational and teleological approaches towards mimesis and a negative dialectic that allows a systematic critique for example of the cultural industry as one of the ideological distorted forms of capitalist society. As our life in late modernity that is an inhuman society affecting everyday behaviour, a good, honest one is no longer possible. While we live in an untrue whole, No Hegel not as you stated: „*Das Wahre ist das Ganze*" ("The True is the whole"), but „*Das Ganze ist das Unwahre*" (MM 55), ("The whole is the untrue") and „*Es gibt kein richtiges Leben im Falschen*" (MM 43) ("There is no right life in the wrong one")!

Nevertheless, with my friends, like Walter Benjamin, I have had still the vision of redemption as only valid viewpoint with which to engage a deeply troubled world. By bringing the "Messianic light" of criticism on a landscape of consummate negativity, I tried and suggest to you to project negatively an image of utopia (1978 *Minima Moralia*), while you are facing those crisis and re-totalitarising developments again. For me late capitalism totalitarianism is an ineluctable destiny of modernity.

Arendt: Totalitarianism is a system of power that destroys politics. As such it is an attempt at building a monolithic, homogeneous community in which any form of pluralism and division of the social body is eliminated, thus destroying politics as realm of infra, a space of interaction between citizens, very different human beings sharing a common political sphere as equal actors (1951).

Leftist: We need to fight political totalitarianism with its abolition of pluralism and representative democracy, suppression of constitutional rights, concentration of power and leadership and persecution of deviancies. Similar let us critique economic neoliberal totalitarianism that would lead to a reified world, in which all human and social relationships take a commodity form, and in which the market becomes a universal anthropological model and human beings are unable to conceive of their relationships outside of individualism and competition. Such a world would be totalitarian, though even dressed in anti-totalitarian clothes of market and individualism as symbols of freedom against racial and class collectivism.

Koselleck: We need to understand the conceptual history (*Begriffsgeschichte*) notions of Enligthenment and related 'modern' guiding terms and meanings and when and how they were employed. The study of the changing semantics and pragmatics of these concepts in their social and political contexts showed that these were transformed during the transition time between circa 1750 to 1850 that I call 'saddle period'. Moving from civic-war preventing absolutism, to englightenment, to French revolution, away from transhistorical-static to future-oriented anticipatory contents including showing a more dynamic form as politicisation, democratisation, ideologisation. Also contemporary understandings of politics have become dangerously depoliticized by Enlightenment utopianism! As I have shown in my book "critique and crisis – pathogenesis of bourgeois world" the modern that orginated out of the Geist of Enlightenment carries the seeds of its own crisis due to a critical understanding of an enlightened understanding of history.



Foucault: Well my dear friends, "What is Enlightenment?" – *les Lumières* – is also a question that I processed and which I propose to re-open. I took up the formulation of daring to know, and became very interested in the interpretation of Enlightenment as a modification of the preexisting relation that is linking will, authority, and the use of reason. As you all were in your time, pursuing your own philosophies, I was intrigued to think about and to find a place for the individual as supposed autonomous man and woman in my time and what is called post-structuralist and post-modern philosophy that is rejecting Enlightenment metanarratives.

Lyotard: *nodding* intensively, oui! incredulity versus totalising grand narratives, méta-récites! Where, after the metanarratives, can legitimacy reside? My answer: Avec *petits récits*, or more modest and localized narratives and local micro-legitimations, as a progressive politics has to be grounded in the cohabitation of a whole range of diverse and always locally legitimated language games (1984)!

Foucault: Connected to my thinking about critique, governmentality and resistance ("Qu'est-ce que la critique?"1978), in reopening this quest(ion)–that became my last lecture (1984) and you may see it as a testament, I tried to come to terms with the problematic legacy of the so-called age and project of 'Enlightenment'!

Kant: Monsieur Foucault, Qu-est-ce que les Lumière pour vous?

Foucault: Pour moi, cher Monsieur Kant, your interpretation of Enlightenment as the opposite to a state of immaturity or tutelage, specifically as incapacity to use one's own understanding without the guidance of another (heteronomy) are interesting. I find it fascinating how you suggested a connection between an excess of authority, on the one hand, and a lack of courage and resolution, on the other. You showed that the courage to know is at one and the same time the courage to recognize the limits of reason (to be seen as a play of power and truth that is of obedience and argument, acknowledging the authority of the sovereign and a self-determining subject retaining its autonomy) thus critique as art of 'voluntary inservitude.' I see the domains in which the contest between a state of immaturity and one of enlightenment takes place are those of the opposition of critique to governmentality, namely, religion, law, and conscience.

Kant: *et voila! comme je dis!*

Foucault: Turning directly towards Kant: Interestingly, for you Kant, Enlightenment has to be considered both as a process in which men participate collectively – even universally – and as an act of courage to be accomplished personally. Thus, men are at once, submissive elements part of an imposed agency and voluntary actors and of a single process. One of the most bewilderingly unsatisfactory moments in your essay is that famous and fateful distinction between the realm of obedience[22] and the realm of reason, among other dichotomies, like duty and inclination and coercion and freedom as well as transcendence and immanence.

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[22] Your obedience with this notorious nonaggression pact (tutelage of a king?!) with Frederick the Great, committing yourself to applauding the sovereign's suppression of politically subversive acts in exchange for your own intellectual liberty disappointed me. A subtle, daring, and psychologically penetrating you Kant may have enticed a sovereign hungry for a reputation, not just for overmastering puissance, but also for wisdom into an agreement in which the sovereign obliged himself to permit freedoms that the philosopher well knew might be radical in their ultimate, if not their immediate, effects. Perhaps a generous heart might argue this is why the argument conveys a powerful sense of lulling: In some ways your obedience anticipates not liberal democracy, but totalitarianism. Accordingly, Answers to the Question: 'What Is Enlightenment?' would then be (1) a piece of flattery thrown off by a tame intellectual; (2) a shrewd effort to circumscribe the sovereign's recognized appetite for the suppression of (especially religious) dissent; and (3) a prescient disclosure of the (totalitarian) obscenity of Enlightenment itself. Whatever it was, it did not work. When you published "Religion within the Limits of Reason Alone" nine years later, you were rebuked by the official censor and forced to apologize. This exercise of old-style power in the very heart of the Aufklärung raises once again the initial question: What is Enlightenment?

In retorting to your propositions for intellectual courage, I do not share anymore that inherent spirit of rational optimism for a fulfilling promise of reconciliation or happiness – and naïve faith that all will be good via rational reasoning and universally valid statements – that are inherent in your thought. Even more, I do reject much of those hopeful politics that were proposed by you Kant and your contemporaries and those, who followed and still follow.[23]

Kant: But for being enlightened, we must understand that the private use of reason renders individuals both submissive to external political authority and identifiable in terms of strictly definable social roles. This has ramifications at both the level of the individual (ethics) and that of the collective (politics). To see reason as that what must be free in its public use, but submissive in its private use, is opposite of what is ordinarily called freedom of conscience! The question we are called to ask is how can we take the use of reason the public form that it requires, how can the courage, the audacity to know be exercised in broad daylight, while individuals are obeying as scrupulously as possible? For responding to this, we need a transcendental, formalized system that allows universalization.

Foucault: For me, the criticism inherent in critical work of reason is no longer to be used in the search for formal structures with a universal value. Rather, the task of Enlightenment thinking is to make a historical investigation into those particular events that have led us to constitute ourselves and to recognize ourselves as subjects of what we are thinking, doing and saying… How does the 'Age of Reason' had to construct an image of 'Unreason' – and treating all those 'insane' accordingly – against which to take an opposing stand…

Facilitator: Can you rephrase this and elaborate please?

Foucault: In other words: The ways in which we think and act or the rationalities or games of truth that we play out in diverse institutional fields have a history and should be analysed as a product of particular contingencies and struggles. Accordingly, I see a great potential in a genealogical critique to understand the constitution of sub-jectivity. We do not have to be for or against the Enlightenment and do not need to escape the principles of rationality. Rather, we have to accept that the Enlightenment was a powerful event or set of events that has made us, who we are. What role did power play for being free, how much was there a force to be autonomous, and what delusion of progress were all stabilising each other based on rationality?

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[23] The idea of a people ruled by just rulers; ethical leaders and those 'modern' heroes, well-educated class scholars and academically trained men of genius, spokes-persons of the Enlightenment, who are inspired by the existential dare advised in the phrase sapere aude and the idea of a transcending knower, all of this appears to me as problematic. My underlying issues and question is how do we experience our own freedom, our ability to reject as freely as we affirm possibilities for our lives, without falling prey to nihilism? Without engaging in a form of criticism that once again emphasizes limits rather than the transgression of limits and the production of possibilities? Concerning the promise of Aufklärung, in relation to expectation of autonomy, and claim for authenticity see Rosa (2010).

The problem is not rationality as such, but the form it took and can take. Such critical reconstruction is a vital resource for questioning societal, political, economic or managerial regimes as 'common-non-sense' and ideologies. We need debunking them as oppressive and limiting systems of thought that inhibit our capacity to imagine other possible ways of organizing and living.

Kant: What does your historical and genealogical interpretation imply, in particular in relation to status of the Reason of Enlightenment and the autonomous subject?

Foucault: Historio-genalogically, there is not an essential kernel of primary universal rationality and an unified rational subject that you Kant and your followers presumed to be found during the process of enlightenment. There exists multiple and historically specific forms of rationalities, due to which reason can never discover its essence or founding act. Rather, what is reasonable can only reveal different modifications in which rationalities engender one another, oppose and pursue one another as well as the elements of rational disintegration within the subject itself and within reason. Accordingly, I re-interpret sapere aude as practice of a radical, critical thinking and as a permanent reactivation of an attitude and an ethos as a critique of our and your historical era and practice of fearless speech (2001).

Facilitator: What does this mean for our lives? How can we dare to be wise today?

Foucault: For me, daring to be wise is realizing a life – in sensu of the aesthetics of existence – in which the critique of what we are can be found and unfold, while promoting possible changes and thus the practices of freedom, including restraints imposed by institutions. Such an enlightening approach applies pluralized and decentered reason to experience. This kind of criticism and lived aesthetics is thus an experiment with the possibility of going beyond forced limits, of centred modern individuality in order to reach intensifying limit-experiences. Then adopting an 'ethos of enlightenment' enacts experimentally a courageous practice of liberty (1984: 1388–1393) as perpetual self-elaboration and self-problematization (1984a: 1431, 1984b). And such orientation is moving towards perpetual becoming by creating our-Selves as a work of art (1983: 1211) also as one involved organizing and managing (Bardon & Josserand, 2011). Thus, rather than universal structures of reason it is all about autonomous self-government and aesthetic self-creation. Being critical against the 'modernist' colonialization of perception by our logical faculties and cognitivist assumptions of high modernity, such aesthetic program is about tuning in and turning toward tactile and passionate alternatives.

Facilitator: I understand your emphasis of ethos-oriented, aesthetic and critical orientation! But how is this approach different compared to the progressive continuity of traditional enlightenment?

Foucault: Turning the life and body of an individual into a transgressive site of a living artwork, does not merely continue your tradition of philosophical Enlightenment (*Aufklärung*). Rather, such undertaking transform the same into a new program of sublation (*Aufhebung*), which is a different one compared to what you Hegel, or you Adorno and Horkheimer thought of. Here '*Aufhebung'* is taking and lifting up ('sub-late') that is exceeding the limits and decoupling of the autonomous spheres of aesthetics, ethics and politics as well as those between the supposed 'high', (rational, universal) and the devalued 'low' (passionate, bodily, historically engaged). Taking Enlightenment as the 'on-going' age of critique (1997: 308) calls us to ask what this means in the very historically constructed and relative present that is the neo-liberalised global world in the 21 century!

Facilitator: Speaking about present, can you share your pondering about why unenlightened politician and populists and their programs are 'successful' today?

Foucault: Well, in a way, this does not surprise me! I fear that it is a kind of 'normalization' of foolishness that will dominate more and more. I am concerned about the far-reaching implications if this all becomes a generalized 'normal-ness' and when old or new authorities are imposing order to achieve obedience and conformity. Therefore, for me, the question is in particular how 'Discipline and Punish' are used that is which and how ordering disciplinary technologies, and 'micro-technique of power' are employed for which purposes.

Moreover: How are power and knowledge as well as its nexus exploited for what kind of supposed 'post-factual' or 'post-Truth' politics? Furthermore, what forms of '*governmentality'* emerge from all this, defined as all those organized practices (mentalities, rationalities, and techniques) through which subjects are governed? In particular, how are these visions policed by social pressure, while attacking and excluding other imaginations and undermining subversions?

Malette: To be added with „Ecogovernmentality" for considering and as a response to our ecological crisis!

Kant: Considering all this, will we as mankind ever enter a genuine enlightenment of living maturely, and autonomously in freedom ultimately?

Foucault: My dear Immanuel: Considering your hope for humankind's final coming of enlightened emancipated age, I do not know whether we will ever reach such mature post-dogmatic adulthood and freedom. From my perspective, we can never become totally free, because freedom is not a fixed state of being. Rather, *becoming* free is alive in possibilities to create ourselves and transgress the limits imposed on us, not in the sense of overcoming these limits, but as illuminating and critically testing them. What is important is that 'the process of transformation from immaturity to maturity – on your terms Kant - can be enhanced, valued, and intensified insofar as it is a process of realisation (Pryor, 2002: 320-1). This is what being 'determined' by the Enlightenment means and engages us with a 'trans-evaluation'. So you see, I am not an anti-Enlightenment thinker! What I try to do – at least in my late work – is re-visting and reworking some of the central categories of Enlightenment and it values, such as the interrelated notions of the caring self,[24] autonomy and emancipation.

Facilitator: What does sapere aude then call for today? Is your approach not an elitist and aesthetising one that for many people appears us unreachable or even 'otherworldly'?

Foucault: Sapere aude in our times calls for and enacts an entanglement of aesthetics and ethics of self-empowerment and -unfoldment! Please hear me right, I am not for a decadent or otherwise understood aestheticism, nor any kind of frivolous aestheticization or light-headed 'devil-may-care' form of dandyism. Because of their critical function, aesthetically refined and artful practices of the caring self are not confined to aesthetics. Rather, they are also essentially part of one's personal and interpersonal realizations of ethics, politics and freedom. Thus, these practices are searching and creating alternatives to modern self-subjugation.

It is about re-defining identity as a site for cultural resistance and individual autonomy that might pave the way for alter-native styles of living and identification. And critique will be the art of voluntary inservitude, of reflective indocility and a care of the self!

Derrida: All critique and deconstruction for an 'Enlightenment to come: Le monde des lumières a venir! (2003).

Habermas: There are many misunderstandings here! What we need is: '*sapere aude in communitas'* via what I call Communicative Reason – beyond your Kant monological approach – and that implies following the regulative idea(l)s of ideal speech situation and ever better rational argumentation. For me valid knowledge can only be reached in 'ideal speech situations' where the only acceptable power is that of the 'better argument.' I thus invite you to respect the rules of the 'discourse ethic' to reach a consensus, which would constitute the condition of our emancipation (Habermas, 1994). In the best Kantian sense, the normative criteria of any 'validity claim' is universal and it is the only acceptable way to emancipation as enlightenment in 21 century! Since validity claims require that interlocutors justify their claims to reach a consensus, they will subscribe to a universal morality that they agree to and can live up to it.

Your totalizing critique of reason, my dear Foucault, deprives your own work of the normative grounding and still requires civilizational approach and perspective, everything else would be a performative contradiction! And this modernist heritage is part of the very Enlightenment goals of human emancipation and the expansion of reason, non-violence, and recognition of and in relation to the ‘other!

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[24] Foucault's French translation of the old concept of care 'to 'care of the self' or 'care of oneself' Le souci de soi i.e. 'attending to oneself' or 'being concerned about oneself' (Foucault, 2005, p. 2) is not an egoisticprocess; but it is an action that includes relationships to others, where the individuals are involved with each other through shifting constellations.

Modernity, initiated by Enlightenment, is a worthy project – albeit unfinished. Modernity is unfinished, because there is a gap between the specialized knowledge i.e. scientific, moral and aesthetical knowledge and everyday life. It is worthy because of the gains it has made, especially in the expansion of individual freedom and a post-national orientation, urgently needed in our times of neo-nationalistic resurgence.

To complete the project of modernity requires a discursive selection of scientific, moral and aesthetical values that the modern enlightened age has to offer that is created its normativity out of itself. And this discourse-based process have to be organised in such a way that there are more possibilities for valid claims, while not compromising the lifeworld by the encroachment of systems of power and money.

Foucault: From the beginning with the reformers of the Enlightenment, modernists have succeeded in influencing the mind by turning the individual into an object of knowledge. Hence, the glorification of knowledge lies not in its capacity to understand the objective world as commonly celebrated by Enlightenment thinkers. Rather, modernist power lies in its success in microscopically analysing the internal and the external conditions of individuals to allow better institutional coercion thus, processing a normalization of human behaviour and enforcing the power structure of modern society.

All communication is integrally embedded in power in an existing social system, serving interests of domination and manipulation as much as enlightenment and understanding. Language and knowledge are subject to historically contingent and specific constraints and biases in contemporary society. These are functionalized and rationalized, their meanings and uses are socially constructed to serve hegemonic interests, including legitimation and control and so never universal and transcendent of social conditions.

Dear Habermas! Your vision of enlightened communication through which minds can meet, and a shared understanding can be established, truth can be revealed, and that unforced consensus can be reached, is merely a utopian ideal, like the regulative ideas by Kant before. Even more, and you won’t like me saying this, but your emphasis on discursive-mediated political will-formation through the process of deliberative and procedural democracy, as your discourse theory conceived are very problematic. These discursive processes that cultivate rational and moral subjects through reflection, argumentation, public reasoning, and reaching consensus are and remain illusionary and may be misleading.

Habermas: No, I am not convinced and do not agree at all, on the contrary: Your approach remains for me a detractors of reason as you cannot account for an alleged validity of itself you claim and collapsing the ineluctable Kantian distinction between genesis and validity, between questions concerning the factual origin of claims and its possible justification on grounds that cannot be reduced to its de facto origin.

Like Nietzsche, you are blurring the principal distinction between the three equiprimordial spheres of claim and adjudication: the cognitive sphere in which claims concerning factual correctness are raised and adjudicated, the moral-legal sphere in which claims concerning normative correctness are raised and adjudicated, and the aesthetic-critical sphere in which claims regarding artistic authenticity are raised and adjudicated. Therefore, I have to dismiss your genealogical historiographies as relativistic, and crypto-normative illusory science. You are not giving an account of the normative foundations' for your thinking. To avoid relativism our thinking must be rationally and universally grounded.

Again, we need a minimalist theory of rationality that attempts to replace the unacceptable substantialist notion of reason as universal subject with a conception of rationality based on reason as the necessary standard of interaction between subjects that rely on each other for the recognition and adjudication of their claims. What we need is a communicative rationality and to keep the emancipatory potential of reason alive. This alone allows developing a deliberative democracy, whereby only the weight of the better argument prevails.

Foucault: Monsieur Habermas, you are functioning as a standard-bearer of the legacy of Enlightenment rationalism, and a corresponding normative stance. But the distancing from foundationalism and metaphysics does not leave me normless or without any value-orientation. Norms cannot be given a universal grounding independent of those people and their context. Contextually situated, my norms are expressed in a desire to challenge 'every abuse of power, whoever the author, whoever the victims' (Miller, 1993: 316).

No, mon cher Jürgen Habermas, it is not the force of better reasoned argument that encourages consensus by informed and intellectually competent citizenry. Rather, it is through control of minds that produces compliance. As we are institutionally coerced into complying with the norm of docile body, we must re-empower and re-embody ourselves!

James Schmidt: There was and is a lot of problematic misunderstanding concerning the very question ‘What is Enlightenment?’ and need for rethinking today as well as with regard to the debate between Habermas, and Foucault (2011, 2018ab).

Matytsin, et al.: And we should not underestimate the religious and mystical sources of the rationality of Enligthenments (2018).

John Dryzek: Let me add a word on embodied dimensions. Part of this embodiment is extending and re-interpreting communicative rationality to be open to unconstrained dialogue with the non-human voices located in the natural world having its own agency (Dryzek, 1998: 588). This is relevant also as the ‘ideal speech situation’ seems somewhat detached from the realities of the empirical social world and lived experiences in all their corporeality.

> **Observer:** Before we learn more about the reality of this corporeality related to wisdom and enter a preliminary final part, once more, a few words of transition from me the observing agent. After all those radically critical reflections, ideas and approaches situated in creative tensions between modern and post-modernist orientations, we now turn to embodied wisdom, the tasteful original, presence and future of sapere and sapiential. With this we re-enter the territory of embodiment, and will hear about sensual qualities and

moves towards a more integral understanding of wisdom and Enlightenment. Thus, enlightenment interpreted as a period, practice, and project may has been winded up and further unfolds as various accounts required it (Schmidt, 2011) and as our voices here confirm. And as we will see, with its Leitmotiv and call for daring to know and becoming wise sapere aude well again and remain in need for a further interpretations, different realisations and 'creactive' enactments as the open(ing) questions and quest in the end invite….

Merleau-Ponty: Yes, daring to be-come wise in the 21 century calls for being re-embodied.

We need to move away from the cerebrocentric, information-processing, and representational models of mind, cognition, knowledge and wisdom towards the corporeal, enactive, and world-involving understandings and relationships.

Varela: even more a "*dis*enchantment of the abstract," i.e., for a move away from "the rarefied atmosphere of the general and the formal, the logical and the well-defined, the *represented* and the foreseen" and a "*re*-enchantment of the concrete," i.e., for a "radical paradigm shift" based on a stronger recognition that "the proper units of knowledge are primarily *concrete*, embodied, incorporated, lived" (1999, 6-7).

It is about embodied meaning as experiential, lived-through in and through practices that bring forth and allow further emergences of incarnated and cultured existence as well as living 'civilisation.' These bodily-mediated practices are not (only) those of sub-jugation, not merely processes of sub-jectification through which the individual submits to the imposition of social forms and passively mediates this imposition. Rather, incorporeal meanings are really more intricate, and open for transformative creativity than are the meanings imposed by social formation.

Spinoza: Knowing what the body can do is the route to better knowing, and, ultimately, the kind of grounded wisdom or 'blessedness' that I see as coming from recognising the world's immanence to our own being.

Jonathan Israel: you dear Baruch Spinoza and the so-called Spinozism were the intellectual backbone of the European Radical Enlightenment (2001) and foundational for the origins of modern democracy (2009).

Shaw: Yes: Men are wise in proportion, not to their experience, but to their capacity for experience (1903: 239).

Bähr: How the body was constructed and killed in and by enlightenment showed its limits.

Polylinguist: And with this, we need a taste-ful understanding of wisdom as the very ‘s*apere’* means in Latin and before all to taste! In French, *tâter*, that is to palpate, to explore by touching, is kin to the English taste, to explore by the mouth, ‘*aude sapere’*, thus could also be translated as ‘dare to taste’, and in Spanish ‘*con sabor’* also means with gusto. [25]

Serres and Latour: Yes, human ancestors associated wisdom with taste as the Latin sapien(t)s connotes knowing and wise with ‘tasting.’ Taste, i.e. *sapor*, is itself knowledge (*sapere*), and thus wisdom (*sapientia*), an association that is also present in the present participle of sapere ‘to taste, to savor’ and ‘to be wise’ (which also gave us sage and savant). While sapient suggests subtly sensing flavour and aromas, having taste as sagacity, sane just merely stresses mental soundness, rationality, and levelheadedness and judicious emphasis a capacity for reaching wise decisions or just conclusions. Accordingly, homo-sapiens means both ‘men of wisdom’ and ‘men of taste.’ When we say homo sapiens, we should keep in mind that the origin of the notion of wisdom, or of discourse – man as speaking man – lies in the capacity to taste with the mouth, and with the sense of smell (1995).

Hutcheson and Hume: Oui, Si, Yes, value judgments are expressions of taste, rather than reasoned analysis alone. And the faculty of taste can be used to determine an object’s aesthetic value. Thus taste is a productive faculty, and gilding or staining all natural objects with the colours, borrowed from internal sentiment, raises, in a manner, a new creation of beauty and deformity, virtue and vice. For use, taste is immediate and spontaneous, yet the application of ‘good sense’ and sound understanding of ‘reason’ improves it. Accordingly, for cultivating this valuable taste we need to expose ourselves to variety, learn about artistic media and practice imaginative associations and pleasure of ideas. Tasteful aesthetic appreciation involves disinterested delight that does not regard the aesthetic phenomena as a resource or instrumentalist tool for serving our interests and purposes.

Kant: Indeed, cultivating taste reasonably is vital and aesthetic judgments of taste must not only be disinterested, but also be universal, exhibit purposiveness without purpose, and be necessary. It is the objective, disinterested, pure aesthetic pleasure in the presentation (Vorstellung) that allows a universal agreement, validity and judgement.

Deleuze, Lyotard, and Rancière: Considering your third ‘Critique of Judgment’: What about rethinking the formless Sublime as incomprehensible event and a kind of aesthetic break and reconfiguration that challenges all tastes, imaginations and sense-making while providing openings for new political formations and initiatives?

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[25] Dare to be-come wise was and is about a cultivation of the Wo-Man of taste, who share those in a proto-political community. Displaying taste as an exercise of judgment even and especially in public affairs would enable citizens to regain, having pursued a sense of place in the world.

Romantic Poets: Yes, yes sublimity, the elevation of the sublime that is the very visionary gleam of being lightened![26]

Shapiro: In particular, the experience of a 'Political Sublime', including contemporary threats of annihilation and violence, may lead to an ethico- political sensibility that recognizes the fragilities of our grasp and enjoins engagement with a pluralist world in which the in-common of different communities must be continually negotiated (2018: 4) and thus allowing to reveal, redistribute, and create conditions of possibility for alternative communities of sense.

Kant: Well these are all post-Kantian ideas that go beyond my understanding of the sublime as overwhelming overawing the imagination a presentation of an indeterminate concept of reason recognized by the same. For me your political interpretations are not compatible with my commitment to a universalising community of taste: sensus communis, as we seek in reflective judgment we seek unknown universals. Only transcending from individual whims and idiosyncrasy, there can be a common sense and correspondingly, taste reflects the transcendental principle of general acceptability, and only transcending from individual whims and idiosyncrasy, there can be a '*sensus communis*.' And we need to focus also on the beautiful, and the good, connected with the form of the object!

By the way, for cultivating taste in a social context, I have developed rules for a tasteful feast at our 'Tischgesellschaft,' which is a kind table community for gathering at a dinner party:

a) To choose topics for conversation that interest everyone and always provide someone with the opportunity to add something appropriate,

b) not to allow deadly silences to set in, but only momentary pauses in the conversation,

c) not to change the topic unnecessarily or jump from one subject to another . . . topic that is entertaining must almost be exhausted before proceeding to another one . . .

d) not to let dogmatism arise or persist, either in oneself or in one's companions in the group (e) in a serious conflict that nevertheless cannot be avoided, carefully to maintain discipline over oneself and one's emotions so that mutual respect and benevolence always shine forth (Kant, 1798/2007a, p. 381, 7: 281)

These rules are providing the guidelines for sociable exchange and, more generally, ethical and productive conversation! Such sociality cultivates not only taste, but in various ways, the very vitality of the body and the mind related to pragmatics (Ercolini, 2012). Thus the conversations should be of taste, and enjoyable, while leaving the guests feeling something had been accomplished on the level of culture. At the same time, the conversations are regulated by certain rhythms, specific movements, and itineraries (Kant, 2007; Ercolini, 2012).

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[26] Different from pleasure in the beautiful, the shock of the sublime forces us out of stable states. The sublime is not something we bask in, but something we pass through or undergo. Furthermore, the sublime isn't simple like the beautiful, with its straightforward connection to the pleasurable. The sublime combines passions such as terror and delight (Burke: what I call delightful horror) or pain and relief. As such, though it involves negative effects, these can serve positive outcomes coming as a result of the initial shock.
Charles Taylor: We need romantic expressionism and overcoming excarnation even more as the naturalism of atomising, disengaged and instrumental reason and a disenchanted immanent frame we are living in today.

Friedrich the Great: We need to dine and drink together to bring Enlightenment alive, like in my philosophical "*Tafelrunde*" at my castle Sanssouci and '*Vereinigungen'* in my kingdom.

Ursula Pia Jauch: … I need to throw some light on shadows of that light. In your intimate male circle you staged yourself imitating as a philosopher in Machiavellian ways for using this for your authoritarian paternalistic rule and propaganda. Simultaneously, you did not believe that the majority of your people would be able to be 'enlightenable' at all.

van Dulmen: There would be no Enlightenment in Germany without the emergence and growth of the many different learned societies, clubs and associations, including masonic lodges, and secret societies, winning the support of princes and aristocrats, that created a self-confident bourgeois elite and early middle class culture (1992).

Coffee House owner: This sound rather like a private gathering. What we need are also public places, like coffeehouse where people can congregate, to read, write, to learn and to debate with each other, including urban artisans and businessmen to discuss latest reform ideas! (2004).

Salonnière: What we need is both public and private institution of intellectual sociability. We, as socially conscious and learned women, regularly organised and governed salons in which we were hosting and regulating discussions of literary works, artistic creations, and new political ideas. Although, our need to be recognised us into Enlightenment cultural practice, and our expressions of aesthetic *bon goût* and political ideas were more and more ousted and silenced by the male 'philosophes', for example the misogynistic Jean Jacques Rousseau. And often we were not afforded the same opportunity to publish, and our feminist claims and women civil rights ignored: so much about the supposed ideal of free thinking and openly questioning the world.

Connoisseur: What these salons mediated were also those gustatory moments that shaped individual and communal identities and their style et esprit, sensually and metaphorically! The enlightening aesthetic taste, the nuanced ethos of *gustus* is to be developed through discretionary cultivation of worlds of food and drinks as much of those of words. Just like the tongue and the palate are able to appreciate the quality of dishes tasted, we need to cultivate a faculty that entail judging the value of literary or artistic works and practices.

Used as a metaphor, that is an expression for a set of preferences and dispositions that admit shared social standards and public criticism taste functions for an aesthetic discernment and appreciation or dis-appreciation. The taste of the body as well as the one of the mind is perceived through an immediate sensation of pleasure or repulsion. Having cultivated and enjoying delicate, refined, exquisite tastes, the '*esprits bien faits'* (refined/proper minds especially among the French as a refined form of civility expressed in superiority of their taste) revolt the bad taste as one of excesses or exaggerated artifice; breaking aesthetic rules and declining to vulgar. Instead of awe bad taste is just awful, like kitsch, quite unrefined taste of mawkish sentimentality and faked sensation.

Gadamer: Yes in kitsch as in all bad art e we see only what we already know, not wishing to see anything else. We enjoy the encounter insofar as it simply provides a feeble confirmation of the familiar, instead of changing us. For something can only be called art when it requires that we construe the work by learning to understand the language of form and content so that communication really occurs.” (1986, 52). What is needed is *Bildung* as connected to tact, judgement and taste for acquiring and intensifying sensitivity, subtlety and selectivity as well as a capacity for discrimination. The personal and civic arts of wisdom, when practiced well, can be beautiful, not only in terms of thinking beautifully, but also enacting a beautiful ethical life (1982, 1986).

Perullo: The Wisdom of Taste and the Taste of Wisdom are connected! Wisdom thus does not correspond to a strict rule, but rather to a suggestion: trying to understand as many different experiences as possible in order to joyfully participate in the variety of ecological gustatory occurrences (2016, p. 116). Practical wisdom and gustatory wisdom in particular allow moving skillfully in accordance with the rhythm of experience (2016, 118). Wise taste capacity implements perceptual sensitivity toward little variations and nuances: minimal differences in qualitative characteristics of the objects enjoyed, but above all, minimal differences in the contexts of experience and the connections in which the qualities of the objects emerge….. Wise taste capacity is not acquiescent to extant cultural codes, but expresses critical potential. It promotes the ability to make independent choices and resist imposed models….. Wise taste capacity allows for exploring the connection be- tween consumption and production in the food chain. It therefore allows a critical look at production issues, the environment, nature, and the economy (2016, 124).

von Hoffmann: As a move from gluttony to enlightenment, we can observe a spiritualisation of culinary, medical, religious, and philosophical tastes that is the invention of taste as the seat of a system of representations defined as a new sense modality that was no longer perceived as being exclusively material.”(2017: 136).

Connoisseur: Complementing taste, all senses contribute to an aesthetic sensible judgement. As a ‘*judicium sensitivium’* it processes via integrated operations case by case in a situation-specific way of assessing, appraising and evaluating thus appreciating particular phenomena. The wisdom of taste can also be understood as the constant exercise in gustatory empathy in situations of diversity and contention

Robin Holt and Frank den Hond: What configures enlightenment is the experience of knowledge being created and savoured, especially when daring to push at the edges of convention, to enquire along the limits of common sense. To taste and to dare are far from metaphysical experiences, they are rooted in one’s empirical awareness; enlightened knowledge remains with life and the things of life (2013: 1587).

Serres: Importantly, it is through taste we experience ourselves sensually thus ‘sense-makingly’ as matter, bodies among other bodies, unavoidably ‘complicit with anonymous materials’ in a ‘continuity of material transformations of decomposition and regeneration’, whose immanence, as a certain Adam and Eve experienced, radically denies any transcendent God or Law, facilitating the expulsion from an Edenic world with relatively known consequences. Rather than God throwing out and banishing hu(wo)man from the Garden Paradise, it was the(ir) very act of tasting the forbidden fruit (of knowing) that immediately engendered the collapse of the Garden itself.

This act was and has ever since pro-jected human-kind into the materiality of a world devoid of the hopes and fears of a transcendent beyond. This is our sapid knowledge: “We were too quick to forget that *homo sapiens* refers to those, who react to sapidity, appreciate it and seek it out, those for whom the sense of taste matters – savouring animals – before referring to judgement, intelligence or wisdom, before referring to talking man … Sensation, it used to be said, inaugurates intelligence. Here, more locally, taste institutes sapience (2008: 154).

In doing so we make of our own bodies, our sensibilities, the principle which marks the passage from local to global. It is sensibility which renders our bodies as able to mix, to create knots of relations, and thus to ‘multiply between-spaces’ (2008: 302) in topological transformations. Because we can taste, we can discern and build a practical body of knowledge, a wisdom or ‘sapience’ that materially links vines and grapes with the soil and climate of particular regions. The body ‘smells a rose and a thousand surrounding odours at the same time as it touches wool, sees a complex landscape and quivers beneath waves of sound’ (2008: 306). The senses are then best characterised as ‘exchangers’. They agitate mixtures, make new knots and proliferate space through prolonging and extending relations. A taste becomes a spectacle; a touch gives rise to a song. Sensation becomes the very thread that weaves things together.

Merleau-Ponty: Thus, it is sensation that inaugurates intelligence, and it is taste that constitutes a form of sapience as wisdom! Let us process *Körper* (physical body we have as corps) and *Leib* (we are ‘becomingly’), unearthing the flesh-and-blood texture of lived experience of becoming wise!

Munro: Exercises, as practiced in slow food movement, can help caring for the self (2014).

Panagia: and educating the senses, because there is a political life of sensation (2009).

Küpers: … as does knowing about the “Sense-Makings of the Senses,” applied to organising and organisation (2013a).

Munro: Yes indeed and also cultivating to enjoy the pleasures of ‘conviviality’ by transforming experiences of taste and intensifying the appreciation of the pleasure of eating together mindfully. This entails exercises to test and enhance one’s sensory experiences including: (i) the testing of five taste sensations (sweet, salty, sour, bitter and 旨味 umami in fermented and aged foods, described as pungent "meatiness", "relish" or "savoriness"; (ii) the testing of one’s experience of different aromas in terms of their intensity and duration; (iii) the testing of one’s experience of trigeminal sensations and texture; (iv) the testing of one’s perception of the sound of foodstuffs (e.g. crunchy); and (v) the testing of one’s visual sensations (e.g. smooth and rough).

All of these practise and politics of taste can contribute to micro-emancipations, resistance and creating agents capable of challenging the status quo by running counter to the prevalent hegemonic forms of neoliberal subjectivity (2014).

Green: and not only eating, but also speaking with your own cultivated mouth with maturity. Already the German usages of '*Mündigkeit'* im-maturity refers to the bodily organ of the 'Mund' (mouth) - indicating that the underlying meaning that those, who are '*Unmündige'* (the immature ones) are being unable to speak on their own behalf (1996: 292).

Röttgers: Therefore, we need a 'critique of the culinary reason' (2015). To taste and to dare are far from metaphysical experiences, but they are rooted in one's empirical awareness; as enlightened knowledge and orientation remains with life and the things of life. Daring to know' and becoming oriented by wisdom is the experience of respecting and upending the world into which we are thrown and situated, also culinary. This could be done through enquiry that occupies the space between ordinary, everyday understandings and distant, generalized assertions.

Küpers: Yes, wisdom integrates the particular and the general (2013) and leave the polarising either/or orientation behind, overcoming a parochial identity towards an open integral pluralism. Consequently, it would be wise to leave the metaphorical dichotomy between light and darkness and thus Enlightenment (*Aufklärung/Erleuchtung*) and Endarkenment (*Gegen-Aufklärung/ Verfinsterung*) behind, and not entering into the political game of playing one out one against the other. The enlightenment, *lumieres'* self-conception casted in a denouncing way the supposed *anti-philosophes* regularly in philosophe discourse as obscurantists and deceptive shadow-creatures, while seeing themselves as representing the true and eternal light.[27]

As mentioned before, in the twilight of our complexified times and as many have shown, the binary categories and framework of interpretations and a Manichean struggle between Enlightenment and Counter-Enlightenment are insufficient and its simplistic dichtomistic modes, appear as flat and overly schematic.

Schmidt: Knowing this is itself enlightening, a new level of an Enlightenment (2018b)!

Küpers: Connected to the patterns of the old struggles between the forces of good and evil, the long-lasting popularity of these binarising can be found on their usefulness for polemical purposes. To this their role as pivots of historical narrative is ultimately subservient and might continue to function in the same way today as they did when emerging in former centuries.

Incarnating the wisdom of sapere aude today, daring to become wise needs to be an embodied integral practice. As such it would process positions and oppositions, structuring and de- and reconstructing, moving between aspirations for modernist deliberations and consensus (e.g. Kant/Habermas) and post-modernist dissensus and conflict (e.g. Nietzsche/Foucault) also in relation to a revived practical wisdom for a civil society and applied ethics that is enabling a sustainable development.

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[27] **Jung:** To emphasise the contrast between the eternal light and the worldly light sources championed by the philosophes, the anti-philosophes exploited the latter's blinding and potentially destructive metaphorical implications to their rhetorical advantage (2016: 219), such as when the Sabatier de Castres warned that the supposed 'lumieres' had in fact proven themselves to be burning torches, ready-made to carry fire everywhere ("des torches ardentes, pretes a porter par-tout l'incendie") (Sabatier de Castres 1779: cf. Deprun 1973: 717).

Flyvbjerg: Practically, this requires wisdom-related, de-biasing planning and *decision making* in *megaprojects,* and *city management* [Ed. Note – italicized text here are links] as well as conceptually a phronetic social science (2015a, 2015b).

Xiang: What is needed is also an 'eco-phrónêsis' as ecological practical wisdom for and from ecological practice - what I call 'eco-practicology', including planning, design, construction and management (2019, 2019a). This wise practice is integrating (moral) knowledge and (virtuous) action and by employing the master skill of moral improvisation the *ecophronimoi* are capable of being responsible in a double sense. That is in any particular instance of ecological practice they are showing "honoring commitments and upholding principles on the one hand and attending specific circumstantial particulars, on the other" (2016: 58), thus enacting ethical beliefs and mindful actions.

Integral Voice: Yes, we need an *Integral Enlightenment* that embraces premodern, modern and postmodern orientation towards a 'postpostmodern' integrative understanding and practice. It embraces the wisdom of the great meditative traditions, but also reaches forward to unleash the profound spiritual potential inherent in our recently evolved capacities for self-awareness, introspection, self-authorship and relational intimacy.[28]

Meta-Modern Voice: (alias Freinacht, 2018, 2019): Yes and even more! Enlightenment for us is the realisation of a 'postpostmodern' integrally informed form of metamodern politics. This is an interactive view of politics that includes the interrelated elements of the Politics of Democratization, Theory, Empiricism, Emancipation, Existence and *Gemeinschaft*[29], enacted by a metamodern aristocracy as avant-garde, reintroduces non-arbitrary and well-founded hierarchies of complexity! A metamodern enlightenment is redefining what appropriate progress and development entails, based on the postmodern critique. But it is doing so without throwing out the hope that we can develop things for the better. Going beyond an anti-thesis stance and deconstructions, the task of reconstructing our symbolic universe and reconnecting it to other aspects of reality. Yes, the great objective of our Metamodernism, is to erect a new grand narrative by combining all known knowledge and wisdom, well aware that it is a never ending endeavour and that the only achievable synthesis (of apparent opposites) is a proto-synthesis of a 'both-and' thinking, forever subjected to critique and never without flaws.

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[28] https://integrallife.com/integral-enlightenment/

[29] Democratisation Politics, aims to create ongoing processes for developing and updating the system of governance and the quality of institutions. *Gemeinschafts*-Politics (politics of relationships and community) aims to improve the quality of human relationships across all aspects of society. Existential Politics, aims to support all people on their life's journey and spur inner growth mental health and strong moral integrity Emancipation Politics, aims to create ongoing processes protecting citizen from all sorts of oppression, not least from the other new forms of politics. Empirical Politics, aims to evaluate all policies and institutional practices and make sure they are based on the best available evidence. Politics of Theory (or narrative) aims to create ongoing processes for developing and updating the narratives society relies upon, who it "brainwashes itself" (2019, NI, 174-175).

Metamodernism offers to keep the postmodern irony, keep the distance, but creating a new sincerity and self-consciously naive belief on top of it.

Critical Voice: But what gives you critical metamodernist theorists ('the enlighteners') the epistemic authority to tell ordinary people ('the to-be-enlightened') that they are alienated and how they are to be emancipated etc.? Moreover, what if the latter not only ignore the concerns expressed by the former but also enjoy the seemingly disempowering elements commonly associated with alienation and not being emancipated, like in capitalist consumerism and mass entertainment, fundamentalism and tribalism, esotericism and mysticism, hedonism and escapism, populism and authoritarianism. Who are we, as critical theorists, to affirm that those relishing these (or other) types of 'alienation' are victims of social domination?

And your interpretation of wisdom is highly problematic.[30]

Facilitator: What a neo-progressive, re-evolutionary agenda for a game-change, is this metamodernist one, but also those concerns raised are critical ones to be considered and further discussed indeed. What is the future of enlightenment and in particular of homo-sapiens also in relation to other, more-than-human beings with regard to the mentioned sustainable and meta-modern developments?

Future Researcher: With regard to the future of enlightenment it remains ambiguous, defying prediction. The terra incognita of the future is uncharted land, it is beyond what any scientific projection or social prophesy can tell. All what we know is that any pursuit of pure states of being turns totalitarian and incompatible with diversity and plural dispositions of human nature. These might be idealised pasts or utopian futures, supposed true religions, superior races or territorial chauvinism, unsustainable productions, unbridled consumerism. We need to be aware of dangerous forces stirring up at present, including social polarization, economic failures, local, regional and geopolitical conflicts, environmental degradation, barbarised social chaos and disintegration on all levels and all over.

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[30] Let me respond to your section stating that "Wisdom Is Overrated" https://metamoderna.org/wisdom-is-overrated/ Your discussion criticises rightly certain interpretations of "hyped wisdom," I have trouble with your "Wisdom Troubles" as a "relatively overrated notion of wisdom and spiritual enlightenment". Wisdom does necessary entail believing in "a variable that is always good, and the more of it, the better" (connotation of goodness and normative, perfectionising progress orientations are historical relative, constructs, to be deconstructed and misunderstanding wisdom in the sense of a resentful and self-righteous moralism to be attacked by all means! For me wisdom is not "entirely beneficial and unproblematic" While sharing your scepticism there are attempt to "operationalize" the concept; to make it workable and it is possible to show what and how wisdom is a practice (not only for solving wicked problems). That wisdom is appropriated by preacher of ascending "higher consciousness" does not exclude its relevance of being an embodied down-to earth practice! Wisdom is not (only) about "inner dimensions of people and society and the possibility of an active and deliberate development of these". There are integral and interrelational understandings of practical wisdom that criticises and leaves those reductive ideas behind. Yes we need to consider different developmental capabilities and context, influencing wisdom as a processual culture-dependent practice evolve! There is empirical research on showing in which context and "mechanisms" wisdom has what kind of complex effects that are not always "good", sometimes even tragic! Yes, you are right, there is a danger that the concept of wisdom becomes a projection folio for wishful images and desires, and like you I am in favour of specific, operationable "stricter" definition, related to an uplifting "great depth" and we could discuss the status of complexity of the same. Although the quest and question and methodological challenges of measurability required an elaborated investigation and practice in empirical research. Wisdom is (not only a combination but) a proto-integral development practice of bodily, mental social structural systemic health, with high processual complexity and uplifting great depth. Considering a more comprehensive understanding and the actualisable potential of a practice of wisdom for meta-modernism and its politics: that would be wise.

Küpers: As a counterforce a new sustainability-oriented '*enlightenmentality*' can help overcoming conservatism and resistance of special interests, via decentralising the overconcentration of power, towards '*glocal'* governance, political subsidiarity and direct democracies. Such planetary orientation may contribute healing from the myopia of narrow short-termist towards more integral and long-term outlooks and solidarity, community based living help getting out inertia of complacency, asking critically and responding practically to the question how shall we live how to co-create congenial meaningful and fulfilling lives, all leading towards genuine transformations as fulcrums in time, situated in places, but now planetary!

Paul Raskin: I would call this the great transition as a "*Journey to Earthland"* (2016)?

Yuval Noah Harari: Concerning the status of homo, do we now again aim to upgrade humans into gods, and turn homo-sapiens into homo-deus?[31]

Facilitator: There are many open questions: Do we need to relegate humanity back to one of many natural species, thereby rejecting any claims founded on anthropocentric dominance, or extend subjectivities beyond the human species (Wolfe, 2009)? Do we need re-centering on the human(ism) or an anthropo-decentering (Küpers 2020) and moving beyond the human towards anti-, post-, trans-, or meta-humanism (Ferrando, 2013; Miah, 2008)? What would it then mean to examine discourses and practices to uncover inherent humanistic, anthropocentric, normative notions of humanness and the concept of the human, versus exploring possibilities of posthuman-centred ways of living and enacted convivialities?

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[31] **Yuval Noah Harari:** Do we now (again) aim to upgrade humans into gods, and turn Homo sapiens into Homo deus? Moving from humans who worship gods into humans who become gods… Mythologically and historically, playing god – apotheosis – is an old recurring theme. You might ask: How is it envisioned today for which kind of future*?* Well, by bioengineering and cyborg-technology and production of non-organic entities*?!* What we can observe is that technology overtakes religion; the fear of nature transmutes into an unprecedented capacity to control nature. Are we humans doomed by superhuman biological or computational machines? Our capacity to manipulate two fundamental forms of information – the biological and the computational, the byte and the gene – will thus result in the birth of superior beings who will ultimately overrun our world. In my reconstruction of "Sapiens: A Brief History of Humankind" I discussed the genetic, anthropological, cultural, social and epistemological (macro-)history of humans over the last 100,000-odd years processed by three broad "revolutions." The first, the "cognitive revolution," resulted in humans acquiring the capacity to think, learn and communicate information with a facility unprecedented in the animal kingdom. The second – the "agricultural revolution" – allowed humans to domesticate crops and animals, enabling us to form stable societies and intensifying the flow of information within them. The "scientific revolution" came last. Humans acquired the capacity to interrogate and manipulate the physical, chemical and biological worlds, resulting in even more potent technological advances that surround us today. Why should we assume that sapiens are the end of the evolutionary line? What comes next? Are we given ourselves over completely to machines, to re-engineering bodies and brains? This dystopian vision rests on many questionable assumptions. For example, that we don't have free will, and never did, or that humans will somehow shed their collaborative, social instincts which, are what made us so successful in the first place.

We're going to need not only new conceptual understandings, but new and different imaginations, images, imaginaries, myths and stories. We are in urgent need for new *INTER*-relationships to our self, to other selves, to plants and animals, relating to nature as part of us! Likewise what is called for a ways of relating to 'proto-wise' traditions of human culture about what makes live good, just and truthful those that have been suppressed, marginalised or forgotten by our capitalising and commodifying systems of appropriation? What does it mean and imply to live a meaningful live, while facing death? Who are we all as a communal and collective existence? Not only asking: What does it mean to be human? But: What is our vision of conviviality of 'hu-(wo)-man' and 'more-than-human'? What role might the digitalisation and digitalised (trans-)formation play in all this?

We cannot respond to these questions and underlying quests here anymore. But in any case, for all these inquiries, we need more of these forms of encounters and dialogues, not only between philosophers, scholars and scientist, but between people in public spheres…

To regain wise forms of daring and wayfaring may then become, as described in mystic and Asian wisdom traditions, an awakening that allows to sense and see 'truthfully' through. This implies seeing through misleading orientations of illusion and ignorance, and through the dark veils of habitual comprehension towards an immanent bodied-spiritual self-transcendence… Perhaps this also helps practically to cultivate a *'well-be(com)ing'* in and through organisations (Küpers, 2005) of a sustainable and wiser praxis, practices and actions as well as a responsible engaged 'letting go' (*Gelassenheit*[32]) as a lived, living and enlivening enacting of the 'Art of Wisdom' (Küpers, 2013).

As such art an embodied wisdom is personal and professional artistry that integrates a refined sensibility, creative imagination, implicit knowing and explicit knowledge, poignant acuity, experiential and reflective learning and the ability to make 'optimal' micro-, macro- and meta-judgements about the feel and significance of the particular and given circumstances effectuating action characterized by virtuosity and excellence. This all serves a careful concern for the common good and transforming today's personal, social, cultural, political and economic realities into a more equitable, peaceful and enjoyable existence and evolution, a lived and living, convivial 'Sapienism'!

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[32] Such Gelassenheit is not a consoling form of quietist tranquility, a kind of Schopenhauerian release from the turmoil of existence and the cravings of the will, not as one that is one of promotion of contemplation as a way of life amounting to a decadent form of nihilism, or a flight from the realities of existence! This 'Gelassenheit' translated as letting-go, serenity, composure, detachment refers to a non-objectifying ethos of active and ongoing passivity, to an accepting by letting-go, implying an abandonment of habitual, representational and appropriating orientations. In this letting-be of things, the one who acts wisely does not attempt to manipulate, master or compel things, but instead let things be in their vital nature. More importantly, 'Gelassenheit' is not about the indifference or lack of interest in things, but rather an 'engaged letting.' Entering a modus of letting-be is realized through a receptive waiting and listening, thus more an active non-doing, rather than a willing and controlling business of mastering. It moves specifically from representational and calculative modes, via presencing, meditative thinking towards more poetic relations. Following an ethos of 'Gelassenheit' the wise cultivates remaining present, responsive and ethically responsible as well as connected to the 'materio-socio-cultural' practices and worlds they participate in and co-constitute while detouring (Küpers 2015).

May the sagacious 'owl of Minerva'[33] take her flight, not as a fight at the dusk of the Western philosophical tradition, as Hegel would have it, but – via a post-Eurocentric[34], global and local thus 'glocal' and inclusive integration as a common planetary hi-story – towards into the emerging faint silver lining light of a dawn in the clear-obscure 'a-*wake'* of daring to 'be(come)ing' wiser…

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[33] The metaphor of the flight of the owl of Minerva refers to a quote in the concluding paragraphs of the Preface to his Philosophy of Right, by Hegel where he examines the role of philosophy in prescribing principles on how the world ought to be. 'When philosophy paints its grey in grey', Hegel writes, citing a part of Goethe's Faust, "A shape of life has grown old, and it cannot be rejuvenated, but only recognized by the grey in grey of philosophy; the owl of Minerva begins its flight only when the shadows of night are gathering" (Hegel, 1991: 23). "if we are to avoid that 'cold despair' which confesses that 'things are bad or at best indifferent, but that nothing better can be expected here', we need to do more than simply watch the owl of Minerva spread its wings at dusk. We might also need to *tell her where to go* by identifying appropriate principles orienting moral and political reform" (Ypi, 2013: 131).

[34] Contemporary Enlightenment calls for global integration as we need more inclusive post-national, global and less Eurocentric approach. But as much as there might be moves towards a Global Enlightenment in all its ambivalent legacy there will be *Global Counter-Enlightenments* existing and emerging in different times and places (Lok & van Eijnatten, 2019: 415).Various global crossings, encounters, exchanges, transfers, appropriations and diffusions are at the root of the European Enlightenment, which can itself be defined as an accelerated and enhanced "movement of ideas across borders and overtime" (Nussbaum, 2003: 2), rather than as a fixed set of genuinely European ideas. ….European travellers, emperors and scientists didn't come to the extra-European world with ready-made models of an Enlightened society, but rather, the global experience is at the root of concepts that are generally seen as genuinely European and/or Enlightened (D'Aprile, 2019, p. 394).

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Hanzi Freinacht (2017). *The Listening Society. A Metamodern Guide to Politics*. Book One. Metamoderna ApS

Reviewed by Elke Fein[1]

A Personal Introduction

I met “Hanzi” for the first time in 2011, right before the founding meeting of the European Consortium for Research in Adult Development (ESRAD) in Lund where the main “Hanzi” author was studying at the time. He had contacted me over Facebook in response to some entry on integral politics and adult development, a passion that we both share. And so we decided to meet a few days before the ESRAD conference, to exchange ideas and visions about how to transform politics into an integral direction.

Already then, the young Swedish sociologist (he asked me to remain with the pseudonym) was close friends with his future “Hanzi” co-author and sparring partner, an equally young Danish historian and philosopher, who later founded “Fri Tanke” publishing. At the time, the two of them, together with a couple of other friends, had put together a manifesto of integral politics, hoping to develop the foundations of a new political movement or party around these ideas in Sweden and the Nordic countries. As I had been actively involved in the first integral party, founded in Switzerland in 2008, we had plenty to talk about.

While I met Hanzi 2 and the rest of their gang only briefly, Hanzi 1 had kindly offered to be my host at the ESRAD event, which he also attended himself. So over about a week of co-working and living, multiple impressions added up to a picture, in particular that of a bright and ambitions young thinker, thrilled by integral and developmental models and the prospect of infusing these into societal reality. At the same time, he also shared a couple of deep personal issues and challenges which made clear that – by necessity – he was working as hard on the level of psycho-emotional processing and personal transformation as he was in the area of theory building. And he had strong claims and solid views in both areas.

One of the topics that was present in our conversations already then was the strong green-social-liberal political mainstream in the Nordic countries, in particular Sweden. Yet, while probably being culturally ahead of things in many other western countries, the question was if, or to what degree it was actually ready to embrace “integral” ideas, for instance those of vertical growth and

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development in individuals and societies. For the “Hanzi” team, consisting of critical social scientists, one of the main challenges was therefore how to find an appropriate language and approach for bringing “integral” into the discussion without triggering the typical reflexes of the “green meme”. The Listening Society is (part of) the answer that the authors came up with: a contentious, provocative, sometimes even offensive invitation to dance, debate – or fight – towards what they imagine to be a typical “green meme” intellectual reader. Their recipe is to mix deep sincerity and thorough analysis with playfulness and irony.

Part of the reason why they decided to publish their book under a pseudonym supposedly was, first, to somehow go beyond a common reflex of mainstream publishing and academia, namely to claim praise for individual work. Instead, the author(s) suggest that transcending certain natural impulses of the ego is an important feature of the to-come meta-modern phase and stage of societal development. Also, “Hanzi” seems to make it easier for them to ride their attack against the green meme mainstream, a confrontation that purposefully transgresses the usual moral boundaries of academic politeness and respect time and again.

At the same time, “Hanzi” also shares quite a lot of detail about his own (in this case, Hanzi 1’s) life trajectory and experience (“Who is Hanzi Freinacht?”, p. 5ff.), including his daily schedule and routine when writing the book over a year or so in a chalet in the Swiss alps. This personal background does indeed reveal some of the deeper motivations behind certain aspects of the model laid out later in the book, in particular the comparatively strong focus on subjective states and depth (“My friend, I write this from a subtle longing of my heart”, p. 6). So, what is this longing about that a listening society is the answer to?

The Listening Society – Resources, Vision and Main Contents

The term “listening society” refers to the idea of a societal culture of awareness that listens – and responds to the needs of its citizens in a deeper and more holistic way than the current materialistic one, including the deeper longings of body, mind & soul. The book spells out elements of a vision revolving around how we could “create and reproduce a society in which the average human life experience is more emotionally satisfying and spiritually productive” (p. 95), assuming that more happiness, in turn, will cause people to give something back to society and thus lead to better communities, more sustainable economies and a healthier planet. The basis for this is a world view and epistemology which Hanzi chose to call “metamodern,” drawing on theorizing in the fields of art, aesthetics, philosophy and culture theory. Even though the book’s major resources and inspiration come from Ken Wilber’s integral model (as one of the authors acknowledged in his presentation of metamodernism at the IFIS Online Colloquium in April, 2019), this choice of terminology is presumably also motivated by the consideration to reach a wider audience in the academic mainstream this way.

The term “metamodern” is borrowed from the Dutch art scholars Timotheus Vermelen and Robin van der Akker who noted a new trend of “pragmatic idealism” in arts already two decades ago. They also describe it as both a product of and a reaction to postmodernism, embracing “doubt, as well as hope and melancholy, sincerity and irony, affect and apathy, the personal and the political, and technology and techne." (Levin, 2012). “Hanzi” now sets out to add more specific meaning to the term, in particular that of a developmental stage and related philosophy, thereby aiming at making the concept travel to the social sciences and political practice.

So what is the essence of this socio-political metamodernism and how is similar to or different from "integral"? To what degree are its contents borrowed from integral or actually go beyond the latter in substantial ways? Even though these questions are not explicitly addressed in the book, they were at least ever present in my reading.

Hanzi himself proposes three different definitions of metamodernism (a cultural phase, a developmental stage, and a philosophical paradigm, p. 362f.). Readers interested in terminological fine-tuning will have to go into Hanzi's appendix where he offers a condensed version of his conception of the metamodern paradigm (p. 363 ff.). My own reading is that metamodernism as outlined in "The Listening Society" is one possible interpretation, expression and/or application of integral thinking – even though the author(s) might not subscribe to this reading.

Given the Hanzi authors' background in the social sciences, what they do offer beyond the integral model per se are elements and foundations of a vision for a more integral society and some political choices and changes of perspective that could help to bring it about. On the level of modeling strictly speaking, there are some interesting terms and categories that one has not seen or that are used differently in Wilberian models. However, I don't see these pointing at completely new dimensions that integral philosophy would not have been aware of before. Hanzi's metamodernism rather comes across as a "reframing" of integral for a post-modern (academic) audience, which it explicitly speaks to in both tone and style, and in view of addressing more specifically socio-political challenges. That, of course, is of value in its own right, given that much of the academic mainstream is currently struggling with late forms of modernism (for part of the sciences) and post-modernism (for the humanities and much of the social sciences), as well as with their paradigmatic contradictions and limitations preventing more efficient action on pressing global issues.

So let's spend a few words on Hanzi's language and style first. In line with the identification of sincerity and irony as a core characteristic of metamodernism, The Listening Society displays a mixture of these two qualities itself. More precisely, it takes the reader on a roller-coaster ride between sincere high-level theory and epistemology on the one hand, and a way of addressing the (presumed) reader in a personal dialog that is sometimes witty and playful, but as often also straight and provocative ("the less intellectually gifted readers are by now conjuring up ways to get out of the stranglehold", p. 11; "in case you still don't get it…" p. 351), partly de-constructive ("bullshit," p. 60; "science is a whore dressed up as queen, a jester posing as king," p. 20; "wisdom […] is a crap variable," p. 300) and sometimes purposefully insulting ("my theories deeply insult the prevailing moral intuitions. I spit straight in the face of their political identities […]"; "it is the solemn duty of the philosopher to piss on all that you hold dear and sacred, to show you that your gods are false", p. 9; "frankly, my dear, I don't give a damn about your feelings; if [you are mad at me for insulting you] you should probably put down the book, go take a long, hard look at the mirror, get over yourself, ad re-read the last section," p. 19). Of course, this style is an integral part of Hanzi's message and strategy. He wants – or (thinks he) needs – to be provocative in order to make himself heard and get the message across: That mainstream postmodernism is in a dangerous dead end and should start noticing the new paradigm that is knocking at the door. It should start acknowledging that metamodernism is much more effective in addressing the pressing needs of our times and therefore deserves exceptional intellectual-emotional efforts, even if this might appear painful to the holders of certain current belief systems.

One can discuss whether the book has always chosen the right means to this end. Yet, it does essentially walk its talk when it comes to the symphony of a rather colloquial (personal, dialogical) style, theoretical depth, playfulness and sincerity, or as Hanzi puts it, “sincere irony” (p. 27, 107). The fact that it is generally very well edited, with almost no language and spelling errors or typos, also demonstrates and emphasizes the sincerity part of its message.

Giving a complete summary of the book’s rich content would go beyond the limits of this review. I will nevertheless try to give some insights into Hanzi’s core ideas and some of the inspirations I have gained from the reading.

The Listening Society is conceived as the first book of an envisioned series of several more to come. In the book itself, two more volumes were announced, a developmental perspective on history, including core principles of metamodern politics (n° 2), and a volume on “the Nordic ideology” (n° 3 – this has actually just been published in May 2019 as number two), featuring developments in the Scandinavian countries. According to the author, the latter have come particularly close to a metamodern political culture, and are thus particularly well prepared for implementing it. Meanwhile, however, the main Hanzi author has also been talking about a series of up to six books that seem to be taking shape in Hanzi’s mind. Well, let’s see what comes next.

The series’ overall focus is on politics and transforming society based on an integral, or, in Hanzi’s terms, metamodern paradigm. This includes an analytical perspective on historical and present socio-economic developments and a multidimensional vision of how (a metamodern) society could take responsibility for the development of its citizens. As Robert Kegan has coined the vision of a “Deliberatively Developmental Organization,” *The Listening Society* spells out the first steps towards the vision of a deliberatively developmental society.

In this context, considerable space is dedicated to the idea of personal happiness in a broad sense of the term (p. 73ff.), which is conceived as a worthwhile socio-political goal. This is because happy people whose immediate and deeper needs are met, are more likely to take responsibility for others and the society as a whole. “Happy people are more productive in profound and complex ways” (p. 78). Moreover, the term *listening society* refers to a new, more complex notion of welfare – one that by supporting peoples’ development not only facilitates better choices and healthier, happier lives of its members, but thereby also helps to actually saves costs which would otherwise be generated for various kinds of treatments and by a considerable number of collateral damages (p. 84). In Hanzi’s words: By “deliberately and carefully cultivat(ing) a deeper kind of welfare system that includes the psychological, social and emotional aspects of human beings (…) the average person (…) becomes much more secure, authentic and happy (in a deep, meaningful sense of the word); (…) such people can then recreate society in a myriad of ways, solving many of the complex, wicked problems that we are facing today” (p. 72).

While the book does give some examples as to how this could happen, drawing on happiness research and an impressive list of references from meditation research documenting meditation’s multiple benefits (pp. 96-103), it seems to be primarily concerned with laying the groundwork and seeding the broader, overall vision than with defining concrete strategies and steps. The vison itself is extended to a larger systemic level, with societies competing for being the most listening one, as a "competitive edge in the global economy", so to speak (p. 93). With "human development driv(ing) economic growth, (this) deeper welfare system is necessary" in order not to "be outcompeted by other, *more* listening societies where citizens truly do thrive" (ibid.).

The Metamodern Model

In a nutshell, the metamodern model is essentially introduced as a combination of four dimensions that Hanzi presents as independent of each other: cognitive complexity, cultural code, subjective state and depth. The first two dimensions: personal (individual) cognitive development and socio-cultural development (or "code") come across as elements from the Wilberian integral model. Cognitive complexity is essentially presented based on Michael Commons' Model of Hierarchical Complexity (MHC); cultural code appears to be a modified version of Spiral Dynamics. The two other dimensions, state and depth (p. 158), differ from the Wilberian integral model to some degree, even if probably less substantially than with regard to their relevance and positioning in the Hanzi model. (Unfortunately, Hanzi's model is not visualized anywhere in the book, so that the reader has to mentally build it up from the text on her own). Let's look at each of the dimensions successively, with the two developmental ones going first.

Cognitive Complexity: The fact that Michael Commons' MHC is given a particularly prominent place as "the by far most scientifically viable and consistent [model], and the one that indisputably has the strongest empirical evidence" (p. 171) is less surprising, given that the Hanzi author has spent several months working with Commons in the US after completing his dissertation. Since the MHC is well known to IR readers, I will not bother summarizing its merits and contents, but rather report some of the dissonances I stumbled over during my reading. While there is no doubt about Hanzi's assertion about the solidity and mathematical basis of the MHC, I had to read twice when it comes to some of Hanzi's other claims. For example that "Commons is the only one that has discovered one [i.e. cognitive complexity, E.F.] of the [Hanzi's] *four* fundamental dimensions of development" (p. 173) – what about the Piagetian foundations of cognitive developmental research in the 1930s?

Equally irritating is Hanzi's treatment of essentially "all of the (other) holistic adult development theories" as "fail(ing) to grasp quite what it [development] is" (p. 172). Without any mention of the specific goals and approaches of the respective theories, Hanzi somewhat seems to criticize everything that is not MHC, precisely for not being MHC. For instance, he claims that renowned researchers of ego development such as Robert Kegan, Jane Loevinger and Susanne Cook-Greuter "mix things up" or "blend in issues of personality into the different stages and spice it up with a bit of psychiatric diagnostics (where the lower stages are described as psychopaths, more or less)," p. 173. – Excuse me?! Several similarly bold claims about other authors are based on similarly fluffy grounds that often raise more questions than they answer.

There is no discussion of the distinction between hard and soft stage models and related debates on measurement (see Stein & Heikkinen, 2009), nor of their respective merits and limitations. Just plain judgement. What's worse, Hanzi claims that "the main problem of many of the adult development theorists, from Jane Loevinger and Susanne Cook-Greuter to Robert Kegan, stems from the fact that their authors are at this [the MHC systematic] cognitive stage" (p. 201) (sic!).

Neither does he elaborate what “problem” he is referring to, nor does he provide any evidence for his claim about the developmental stage of the mentioned researchers. In a private communication with the main Hanzi author, he explains that the above claim is based on their “putting development into one scale which is one-dimensional, and driven by one central logic (one system, rather than several systems with differing properties).” Hanzi sees this “tendency to view everything as "ONE system" (as) a hallmark of systematic stage thinkers” (private communication).

While lacking empirical evidence is a reoccurring theme in the book, Hanzi remains relaxed: “I don’t have the data to prove it, but as far as I can tell…” (p. 337); or: “parts of the book are based on arguments and generalizations that you must weigh and consider with your own rational and emotional faculties, much like the arguments of other social theorists. (…) Social theory is where science and common sense meet” (p. 20).

Another irritation arises when Hanzi complains that “many of the neo-Piagetians (…) tend to be relatively narrow researchers who don’t fully take stock of the social implications of their own theoretical work” and therefore “fail to understand the vast consequences of their theory for understanding society, and the world at large” (p. 385, footnote 80). While it is true that most adult development researchers “are lousy political sociologists,” why accuse them of their choice of topic and academic focus if they have never claimed to deliver a sociological analysis? True, “that is another reason we need Hanzi” (ibid. 385, fn. 80). At the same time, Hanzi would not have been possible without the work of all these previous researchers in the first place. So, while claiming that all the “solid science” is on his (and Commons’) side, Hanzi fails to apply a basic principle of scientific integrity when it comes to paying due credit to the achievements of other research traditions. We will come back to this and the problem of empirical back-up.

The second developmental dimension in the Hanzi model of metamodernism is sociocultural development or, as he puts it, cultural code**,** evolving through a range of symbol stages from A (archaic) to G (metamodern). Here again, the author draws heavily on work by preceding researchers, namely Jean Gebser, Clare Graves and Don Beck/Chris Cowan’s Spiral Dynamics. Even though he slightly modifies some of Beck/Cowan’s stage names (“Faustian” for “Red” or “Imperial” and “Post-Faustian” for “Blue” or “Mythic/Traditional” and calls the overall stage category of the cultural code dimension “meta-memes,” there is no substantially novel quality claimed for these stages description-wise. Given that the Hanzi model is not based on evidence of its own, this is not surprising.

At the same time, Hanzi uses and introduce several terms, namely value memes, symbol stages, “meta memes” and, later in the book, “effective value memes,” the definition – and distinction of which remains somewhat unclear. While the contents of the seven memes/stages appear to be what we know from the SD/Wilberian models, the almost synonymous use of some of these terms adds some conceptual confusion. For clarification, Hanzi, as often in the book, refers to further forthcoming volumes with a promise of more detail. (In this case, *The 6 Hidden patterns of World History* is announced to discuss “the historical development of meta-memes, i.e. the overall patterns that set the logic for what memes can be expected to show up at a certain stage of societal development,” p. 213). Later on, we learn that the concept of “effective value meme” is in fact a new, way more complex variable, first mentioned, but only vaguely explained on p. 174 as an “overall pattern” generated by the relationship between Hanzi’s four dimensions *complexity, code, state* and *depth.* Here again, the aim is high, namely to provide “a more stringent version of the

Spiral Dynamics model, solving its main problems and clearing some of the confusions around it…", while its clarification and operationalization is postponed ("each of which [the four categories] will get simplified but workable definitions…," p. 174).

Before we move over to the two other dimension of the model, what I do find helpful in view of the first two is the analogy of using the terms "hardware" and "software" for cognitive development and cultural code respectively (216ff.). Hanzi argues that it needs a certain cognitive stage (as the necessary "hardware") to be able to function properly at the respective level, while the cultural code of a social context can be adopted through socialization, like "downloading" a software content, provided the corresponding hardware/cognitive level has sufficient "hard drive space". This illustrates that with a given kind of hardware (or, more precisely, operating system), only equal or lower level software can be run successfully, whereas higher level (more complex) software can possibly be downloaded, but might not function properly based on the existing hardware (operating system, *my term, EF*).

This analogy is a nice illustration of the differences and interrelations between individual and collective/cultural development. An individual that is born and socialized into a certain culture, and hence is exposed to that culture (has the *software* available and downloaded), but will interpret and run it according to their own currently operating hardware/operating system. Stephen Chilton (1988), in his Neo-Piagetian account of political development, has formulated this relationship in view of what has become a frequent challenge in the area of democratization politics: transferring democratic institutions to non-democratic environments. Chilton states: "Unless the institution's structure is preserved by people at the appropriate stage, the institution will regress to less developed forms" (Chilton 1988, p. 88).

In this sense, Hanzi's chapters on the development of "cultural code" (also called "symbol stages") and on "language travelling through history, picking up new symbols and meanings as larger societies and more complex interactions between greater numbers of humans over greater distances emerge" (p. 223), are a nice reframing and adaptation of developmental theory to social science discourse. This is of value in itself, given that the latter appears to be one of the main target audiences of the book.

So let's now turn to the two other dimensions that are introduced as core elements of the metamodern model besides cognitive complexity and cultural code: subjective state and (psychological) depth. To readers familiar with integral modelling, it comes as a surprise that Hanzi presents these as the "inner dimensions", as opposed the two former ones. According to the author, the developmental dimensions describe "a kind of 'exterior' reality, meaning that they can both be intersubjectively recognized and, in some sense, 'objectively' studied" (p. 249). While he sees the two developmental dimensions as referring to "the organism's behavior", he refers to state and depth as "the organism's own inner experience". This, then, is suggested as a cure to a claimed "inner dimensions blindness – the failure to recognize and understand the primary importance that peoples' inner lives have in society" (ibid.).

Note that Hanzi does not make reference to Wilber's zones and the integral methodological pluralism derived from them, and that he only mentions phenomenology very briefly. Therefore, one has to assume that all of the latter seem to not suffice him to cover what he is after – up to experts in phenomenology to judge whether his own modelling (see below) adds substantially new insights and better ways of conceptualizing things here.

By “subjective state,” Hanzi refers to “higher” and “lower” inner states of being. They are claimed to be different from emotions, but rather something “more fundamental” that includes “some kind of sum or totality of how we feel” in each moment (p. 254). As an ordering principle for subjective states, he then comes up with a scale from 1-13, reaching from lower states (“hell,” “horrific,” “tortured,” “tormented”) to medium states (“very uneasy” to “joyous, full of light”), up until the high states (“vast/grand/open,” “blissful/saintly,” “enlightened,” p. 260).

Reading chapter 12 on subjective states, one starts to sense that this (and the following) dimension are of particular importance to the author for personal reasons, and that these insights are the product of his own inner growth process. In fact, he does share some biographical and family background in this regard: “During most of my adult life, I have been followed by a sense of tragedy, a subtle but pervasive sadness… (…) the aching heart became the main engine of my life’s work” (p. 6). So while he has a whole backpack of deep difficult experiences here to draw on, that have apparently not been adequately addressed by other/integral models, Hanzi also concedes that “these fields have yet to produce a systematic theory of development equaling the MHC” (which, as mentioned above, he considers as the most scientifically reliable model, p. 249).

Different from the stage descriptions in the first two developmental dimensions of the model, there is no comparable description of the 13 states, either from personal experience, literary accounts or other sources. Moreover, Hanzi suggests that one can only really understand states that one has experienced oneself (p. 272). This, of course, not only makes it difficult to come up with “objective” scaling and modeling strategies regarding the different states. The author limits himself to the assertion that “even if my scale isn’t proven, it is certainly testable: you would need to device a way of measuring physiological correlates and perhaps peoples’ self-described experiences” (p. 395, fn. 129). In any case, the question remains open, on which grounds the 13 state model has been built by the author. Has “Hanzi” himself – or people he draws on – actually experienced the full spectrum that he so clearly (yet vaguely) lays out in his book? Or, since at some point, he admits that he hasn’t, do they come from “common sense,” single intuitive examples, or solid scientific research? Based on his own premises and standards at least, it becomes close to impossible to verify Hanzi’s model of 13 subjective states empirically.

But anyway, let’s assume they were meaningful categories. Because we need them to understand the fourth fundamental dimension of Hanzi’s model, the idea of a spectrum of states that a person has experiential access to, which he refers to as “depth.” Even though Hanzi claims that the four dimensions are independent of each other, depth obviously has an immediate relation to subjective states. He conceives depth as a product of the range (and thus number) of subjective states that one has experienced out of the above described spectrum. The more states an individual has experienced, the greater their psychological depth. Depending on whether one’s experience includes more of the lower or more of the higher states, Hanzi speaks of “dark” versus “light” depth. Just like for states, he stresses that “we are generally only capable of recognizing the forms of depth that we have developed ourselves” (p. 298). At the same time, the empirical basis of the emergence of this dimension of the model remains unclear.

Again, one senses that not only is conveying this dimension particularly dear to the author, but also that the depth chapter is likely written on the basis of some deeply transformative personal experiences, including ones of existential suffering of his own and people he knows. For instance, he points out that "a lot of the less-than-fully-functional people in society tend to out-depth most of us (…). Broken and crazy people, for all their limitations, often live in greater worlds; they have walked to hell and back. A lot of them just stumbled on their way back" (p. 288). This theme is touched at various occasions. Examples include experiences from the main Hanzi author's family and the observation (apparently also based on personal experience) that a therapist should possess at least the same depth as their client in order to be able to help them (p. 288).

Considering the passion with which Hanzi explores this dimension ("depth as beauty, mystery and tragedy;" "only a sense of tragedy can drive us to work for the wretched of the earth: loving until it hurts (…), only broken hearts can save the world" (p. 293), it is safe to say that adding this dimension to next-stage modelling is one of the core foci and concerns of the book.

The importance of depth is additionally stressed by the fact, that Hanzi equates depth with wisdom ("wisdom is great depth, plain and simple," p. 302). At the same time, a whole chapter is dedicated to a discussion of the idea of wisdom – if not the whole body of wisdom research. As far as the latter is concerned, Hanzi's positions resemble those of his discussion of the "holistic" developmental models: The research in the field uses different approaches or doesn't consider his own dimensions, hence it's worth nothing: "The wisdom people haven't done their homework (…), they haven't figured out exactly what they are talking about;" wisdom is "a crap variable" (p. 300). And unfortunately, Hanzi again combines his critique with broad and cloudy judgements about a number of other writers, for instance Eckhart Tolle ("kind and wise, but poorly educated and not very clever," p. 302, 278), to mention only one example. Unfortunately, the author does not explain how he arrives at his evaluations of specific people's developmental stage, level of depth etc., but seems to call upon the reader's trust in (his, Hanzi's) common sense: "Social theory is where science and common sense meet" (p. 20).

Despite these weaknesses – and notwithstanding the difficulty of measurement – the depth category can be considered as the most original idea in the Hanzi model. Moreover, in this regard, the author's particular interest seems to be to redefine the interrelations between the four dimensions, more precisely, to have state and depth acknowledged as equally – or even more – important than structural cognitive and cultural development. While development is a goal in all four dimensions in order for individuals to mature Hanzi's own preference is on what he calls the inner dimensions, i.e. state and depth ("if I had to choose, I'd go with state," p. 348).

He gives multiple examples of people with high depth despite low complexity, as if to point out that what is commonly appreciated as an indicator of personal development in integral circles, namely cognitive and/or ego development, is only part of the story. On the one hand, this preference seems to imply that people whose personality profiles show high depth (i.e. wisdom, life experience etc. or spiritual development) are of particular "value" for society and thus, should be given more appreciation, regardless of their cognitive complexity. On the other hand, Hanzi rightly points out that development generally requires a benevolent environment and, ideally, a minimum quality of state (high states "have lasting impact on our overall psychological development," p. 275). So the fact that relatively high/positive/happy states can be brought about quite easily through some sort of support or "nudging," opens up a worthwhile field of activity for Hanzi's metamodern politics and society: “Just imagine how differently society would function if many more of us were in higher states a larger portion of the time” (p. 270).

Altogether, Hanzi suggests a model that combines the four dimensions – and even allows high depth to “outweigh” low complexity in a person’s overall developmental profile: “If we are roughly correct, all of these four dimensions should correlate strongly with people's value memes; in fact, they should together make up the value meme, more or less” (personal communication). In the book, Hanzi therefore introduces the new concept of “effective value meme (evm)” which he defines as “a kind of average between your complexity, code, state and depth” (p. 310). In other words, the higher one scores in each dimension, the higher one’s evm.

Obviously, the term “development” takes on a different meaning when we turn from structuralist stages to inner states, and Hanzi himself does concede the difficulty of measuring the latter. What he does not spell out at all though is how the four dimensions can actually be translated into one overall indicator or category. While the idea that an individual can have low complexity and high depth is very plausible, it is not made very clear, how “these four dimensions work together to generate overall patterns” (the evms). The book leaves open, what those patterns might look like in practice, and how they could be meaningfully modelled on a higher, more complex level, beyond just summarizing and adding up someone’s scores in each individual dimension (p. 174).

In view of the relation between states and stages**,** Hanzi himself just states that they are related, but don’t predict each other (p. 270), and that “states are more volatile and easier to affect than stages of cognitive complexity (p. 271). So far, these things are well-known, not least from Wilber’s work in this area – with which Hanzi does not seem to agree with though: “Wilber’s model comes closest to understanding these issues. He speaks of two kinds of development: one of spiritual states and one of cognitive stages. But his model (called the Wilber-Combs lattice) is still spaghetti” (p. 173). Eh…?!

General Comments

This, together with a couple of sometimes very harsh critiques of other authors and their models lead us to some final, overall comments on *The Listening Society*.

The book is definitely inspiring reading to anyone interested in integrally informed politics and probably a long overdue wake-up call for postmodernists, with its convincingly laid out claim that “there is no safe political position” (p. 151) and that it’s time for postmodernism to face its own inner contradictions. It also contains convincing pieces of analysis when it comes to reinterpreting the evolution of political governance and socio-economic conflicts over the past 2-3 centuries (finally an integrally informed sociologist!), as well as numerous worthwhile ideas helping to conceive ways for transcending the left-right divide and other challenges of metamodern/integral politics (p. 45). Part of the more concrete sections is Hanzi’s description of the Danish political party Alternativet (The Alternative) which is trying to put elements of these new approach to politics into practice since 2013 (chapter 5).

At the same time, what some have considered a “refreshing” strength (namely “that the ideas of the books are robust but not so carefully fine-tuned as to amputate capacity for impact,” see Hilary

Bradbury's recent review on the Metamodern mailing list) also appears to come with some noteworthy weaknesses. I will point out three of them below.

First, the choice to depart from more a conventional tone and style in favor of what Hanzi calls "sincere irony" can be understood and justified by the declared purpose of the book. However, in my reading, the text does not always walk its talk when it comes to displaying a "listening" attitude towards other contributions to the broad field of metamodern, developmental, integral and other streams of research. When talking about other authors (i.e. developmentalists and wisdom researchers), Hanzi often takes a rather judgmental position, instead of paying credit where credit is due. In this sense, I didn't particularly experience Hanzi's book as a "listening" exercise; his universe does not demonstrate the proposed "youniverse" that sees and appreciates everyone else's efforts. Despite repeated self-ironic confessions à la "we are probably, after all, mistaken" and his explicit "ironic smile at our own self-importance," Hanzi's overall tone comes across as just a bit overconfident. It sometimes also recalls discourses around making one's own tribe "great again" – by bashing other communities, in this case, the integral one, for example. Notwithstanding its ironic stance and its legitimately provocative call for action, the book could display a somewhat healthier degree of sincere scientific humility which, IMHO, can also be seen as an indicator of personal and spiritual development.

For instance, while Hanzi is very explicit about his own model (and the metamodern perspective) being the best and "most powerful theory" currently available for explaining the world ("only the Metamodern value meme can see the world with a sufficient sobriety," p. 332) and about his favorite MHC as being the most scientific and consistent possible methodological approach for this endeavor, he dedicates much less space to other systems than the MHC. Quote: "We don't really have to bother with going through the other theories of adult development; I should only briefly point out that they don't really work…" (p. 346). At the same time, he tends to remain rather vague about the "weak spots" of other theories, often failing to back up broad claims.

Sometimes, this raises questions as to the author's understanding of the respective models. Take for instance Hanzi's claims about Robert Kegan's and Susanne Cook-Greuter's personal cognitive stage and depth based on the design of their theories. He claims that they are functioning at the (MHC) systematic level, because "they both insist upon putting development into one scale which is one-dimensional, and driven by one central logic (one system, rather than several systems with differing properties)." While it may be true that the "tendency to view everything as 'ONE system' is a hallmark of systematic stage thinkers", there is no distinction between the person and their model, let alone a proper analysis of personal stage. While I myself only intuitively doubt Hanzi's evaluation, a colleague who has personally worked with both Kegan and Cook-Greuter more intensively, gave the following comment: "I don't think either of them is inherently at the systematic level, they both display too much subtlety, nuance, compassion, humor and so on to just see things that way. At the same time, what a person who only reads their text sees is their 'performance' in relation to the text they read. Given that most of what they might read is aiming to describe and outline a theoretical model, it could appear at this level. So in such a case, it appears the author is conflating performance in a specific context with the person, and this is dangerous" (personal communication).

Hanzi then goes on to claim that "both do, however, have greater depth and state than most of us" and that "people who are higher in depth and state than in their complexity and code" – what does this mean, actually? … “are often tempted towards a ‘holistic’ view because you feel that there is more to the world than your mind can explain (….), and this tends to pressure the mind to accept magical beliefs” (personal communication). He then gives one (disputable) example each for what he thinks is a magical belief, and ends on the assertion that what he has diagnosed as an imbalance of depth and stage (connected with magical beliefs) “is the most common imbalance in integralists.” He further states, that the (non)belief “in magic is a major difference between integralists and metamodernists.” And according to Hanzi, of course, it’s *the* “integralists” who believe in magic while *the* metamodernists don't, because they “find such beliefs pathological as they can and will curtail any healthy expression of higher stages unfolding in society at large.” Aha.

Second, as to the empirical grounds of Hanzi’s own model, what we find is quite far away from the MHC’s high and clean measurement standards, when it comes to those dimensions that he brings in on top of existing integral models. This is partly due to the fact that inner dimensions such as state and depth are considerably difficult to explore, let alone to measure in any intersubjectively verifiable way. The author is well aware of this weakness (“I don’t have the data to prove it,” p. 337). And while he does mention possible methodological avenues to get a hold of these dimensions (such as in-depth interviews or brain analysis), there is no sign in the book that he has actually engaged in any of the proposed methods, even with regard to a limited number of cases, to test if any of them are helpful in the context of the model. All we get is the confession that “parts of the book are based on arguments and generalizations that you must weigh and consider with your own rational and emotional faculties, much like the arguments of other social theorists” ….

Finally, connected to the first critique, it often remains less clear than it would be desirable, how the proposed new model or meta-system relates to previous, existing ones – and what, therefore, is actually the new aspect or insight (except combining 4 dimensions two of which remain theoretical). For the developmental stages, Hanzi draws heavily on Michael Commons’ MHC (for cognitive stage) and on Spiral Dynamics for what he calls “cultural code.” For the latter, he uses a few new stage names, but does not propose any essentially new contents, let alone empirical data that would suggest modifications to either of these models. When it comes to his understanding of “inner dimensions” and the relations between states and stages, which appears to be a crucial issue to him, there is no discussion of Wilber’s zones, and the Wilber-Combs lattice is, as it were, ridiculed as “spaghetti” (whatever this means). Furthermore, the fact that Hanzi does not provide any graphic illustration of his model (beyond some tables on individual sub-dimensions), but keeps it exclusively textual and thus, linear (-ironic!), does not make it easier for the reader to buy into his specific overall construct of effective value memes.

So, coming back to my initial question about the essence of metamodernism as presented in *The Listening Society,* and about how it is similar to or different from “integral,” the answer has not become clearer. I by all means appreciate the momentum that the book has generated among a broader circle of interested readers in the direction of transformative perspectives for politics and society. (For the moment, the discussion about it seems to be led mainly by male intellectuals though). At the same time, I would still describe it as one *interpretation* – or (the beginning of an) application of integral ideas to these domains (more of that comes in volume 2), maybe also a translation of “integral” for wider postmodern audiences, which is of value of course. I see few substantially new ideas or concepts though, that have not somehow been present in the writings of other integral authors before. Yet, I do see a powerful vision, a strong sense of urgency to “get these things out into the public," and I see a growing community of engaged readers, followers and co-creators who seem to have the willpower – or, in Hanzi's words: "the balls" – to go forward behind the flag of metamodernism and implement a next generation of political leadership and citizenry. This by itself, cannot be overestimated.

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Reviewed by Verna DeLauer[1]

Many environmental practitioners are aware of the role Aldo Leopold played in the environmental movement in the mid-20th century. Leopold was a forester, a professor, a conservationist, and a writer known most notably for his book, *A Sand County Almanac* (1966). This book in particular brought to light the interrelationships between humans and land as well as the moral responsibility incumbent upon us to honor those relationships.

Leopold's "land ethic" is an expanded definition of the notion of "community" to mean that caring for one another or for the land are not two separate processes but are intrinsically linked. With the threat of a climate emergency looming, this enhanced framing of "community" is desperately needed to create global solutions. Leopold also stressed that caring is often the result of understanding, feeling, and experiencing. Leopold's vision was for people to have open dialogue about the land to conserve it for future generations. While water is a part of the land ethic, is it important enough to stand on its own? Should water be at the center of the community from which all else flows?

An *integral water ethic* is the topic of *Loving Water Across Religions* by Elizabeth McAnally. Her book is educational and a call to action. Specifically, she says, "Recognizing that the amount of water on Earth is finite demands a shift in values; humans need to learn to regard water not as a resource to be exploited but as a source of life to be cared for" (p. 5). I believe her aim is to bring attention to the global water crisis and provoke empathy for water itself through explanations of the intricate ties between some of the world's religions and water. She examines water through the perspectives of Christianity, Buddhism and Hinduism, ending her book with a secular approach to embodying a water ethic.

According to McAnally, our global water crisis manifests in the way we exploit our water resources in some areas of the world and in the way millions of people lack access to clean water and appropriate sanitation services in other parts. In other words, while water covers 70% of earth, 3% of that is freshwater and even less is potable, or water that can be made available to people. Water use around the world has increased. Increased use coupled with threats from climate change leads to even more vulnerable water security in areas of the world already experiencing water stress.

Water is a social issue. Our experiences and connections to water differ around the world. A water ethic would mean acknowledging not only our own reliance on water but others, even non-

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humans, reliance on it too. McAnally is asking us to rethink our relationship to water from one of utilitarian to one of interdependence; from instrumental to intrinsic. Can we feel love for water?

McAnnally's approach to a relationship with water would cultivate the subjective experience of water rather than water as a resource, a commodity, a source to be managed and objectively studied. She calls for conversations about water to transcend economics, politics, and science. Valuing water through an *integral water ethic* lens would acknowledge that ecological problems cannot be addressed without also examining social and cultural interconnections. McAnnally points to the intersection of religion and ecology as being ripe to tackle the complexity of today's problems, such as the water crisis. By making explicit the many ways that different religions relate to water, religious and environmental scholars, leaders and advocates can collaborate on future solutions. She focuses on Christianity, Hinduism, and Buddhism.

She states that reflecting upon baptism helps us reconnect to our relationship with water. According to McAnnally, baptism is a "central ritual of Christianity" (p. 51). Because water is a cleansing element, it metaphorically, also cleanses one's soul. Water used in baptism and water used in other elements of a church service is water blessed by a priest, or holy water. The "material substance" of water is just as important as the symbology of water (Robinson, 2013). Protecting the material substance of water is a moral endeavor. In seeing water as part of God's creation, one's relationship to water reflects their relationship to God. In helping Christians see these connections, McAnnally advocates for more attention paid to one's own responsibility to nature.

McAnnally draws from a range of thinking by philosophers and theologians in building her thesis throughout the book. She references ecotheologian Larry Rasmussen's work as it builds off of the existentialist philosopher, Martin Buber's I-Thou and I-It types of relationships. These perspectives argue that we must shift our perspective of water to include the subjective. If water is simply a resource for humans, we may forget or ignore its intrinsic value as part of God's creation. She quotes Pope Francis who says that we must understand that the world is God's loving gift and that we realize and care for our interconnectedness.

Her chapter on Hinduism aims to more explicitly connect science and religion. Commitment to scientific inquiry and loyalty to religion can work together to protect water resources. The Ganges River is worshipped as a Goddess. The metaphor of river as Goddess is part of an integral water ethic where water fosters love. Whereas her chapter on Buddhism advocates for the Bodhisattva[2] within to do one's part in water conservation; She refers to this as Ecosattva. Or, instead we might think of water itself as a bodhisattva, nourishing us, cleansing us, giving us life.

Loving Water Across Religions ends with two chapters that offer both practical and philosophical guidance to implement some of the book's main ideas. She says, "An integral water ethic considers water to be not merely a resource for human ends but a sacred source of life… An integral water ethic supports the cultivation of love and compassion for water and for all who suffer from the global water crisis; in doing so it promotes relating to water as a loving and compassionate being" (p. 155). To realize this ethic, we should try to be fully conscious of the ways we interact with water - in the shower, at the beach, at the sink, and as we quench our thirst. From a religious perspective, water is sacred and as a result, we should honor, respect, and love it intrinsically and for its nourishing qualities.

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[2] A Bodhisattva is "someone who is full of love and compassion for all human beings, generating awareness of the suffering of others (including non-humans)…and striving for their well-being."

McAnally offers contemplative practices for practicing and nurturing an integral water ethic. From simple actions such as being mindful as we drink a glass of water to a more involved meditation, the practices offered can be used within schools, community groups, and places of worship. I tried one practice called The Bowl of Tears (Macy, 2012) with my early morning environmental studies undergraduate class. Students begrudgingly followed me from our warm classroom to the chilly shore of Pearly Pond. We are fortunate to have our own body of water as the backdrop for our small campus up on a hill. Yet, do many of us fully experience the pond in the way that McAnally's integral water ethic suggests? We drive by the pond, kayak in it, fish from it, and get our drinking water from it, yet, do we love it? Do we have empathy for it? Are we interested in protecting it? Do we see it as sacred? I asked my students and myself these questions as we started the contemplative practice. I asked a student to go to the pond and fill a bowl of water and to place it on the ground in the middle of our class circle. The bowl, I said, represents the tears of the world. As we stood around it, I asked the students to walk to the bowl of tears and place one hand inside if they felt compelled. As they ran the water through their fingers, I asked them to imagine a feeling of love for water and of empathy for those who are suffering from a water crisis. At first, no one moved. I began the practice myself to nervous smiles and averted gazes. We waited. Then one student said, *Ok, I'll do it*. Within minutes all 28 students' hands were wet. They needed the support of one another to support water. Rather than religious devotion, commitment to community and need for acceptance guided the practice that day. I asked for a volunteer to dump the water back into the pond now that we all had felt it. We walked to the shoreline and watched quietly as one student poured the water into the pond. As she turned back to the class, I saw tears in her eyes.

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Reviewed by Marilyn Hamilton[1]

Book Review - Overview

The Future Has Other Plans has been dedicated to "heritage managers who sensed there was a better way to plan but weren't sure how to get there." However, it could be a very useful guide for other kinds of planning professionals who might count themselves in the private sector as developers or in the public sector as civic managers or city planners or as managers in civil society/third sector.

The authors McCool and Kohl have structured their book to give the reader a logical but satisfying path through the realities of both natural and cultural heritage projects. The authors use a mixed metaphor of a (Scharmer-style) U path down the left-hand side of an iceberg of challenges, shipwrecks and messy problems through the shift-point at the bottom of the iceberg U and up the right-hand side into the light of a new paradigm reframing practices toward an holistic/integrally-informed approach to planning.

Part 1 introduces the reader to the realities that professional conservationists face as they operate under three major worldviews: Traditional, Modern and Premodern. This part should resonate not only with the experienced project leader but may horrify the less experienced heritage change agent, as the authors share their professional and life experience from natural and cultural sites around the world. Thus, their reviews of what has been, what is and what longs-to-be is well-informed, clearly described and often keenly illustrated.

Part 2 consists of four chapters, each exploring one of the integral quadrants for the benefit of:

- the Manager's Mind (Chapter 5)
- the Manager's Well-Being, Behaviour and Skills (Chapter 6)
- the Collective Influences on Planning (Chapter 7)
- the Institutions that Serve Heritage Sites (Chapter 8).

These are followed by Chapter 9, that summarizes the journey just completed and lays out the Holistic Planning strategy that the authors propose addresses the many barriers explored in Part 1 by applying the learnings of Chapters 5-8.

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As noted below the structure of the book could be strengthened by making Chapter 9 into Part 3 and dividing it into 2 or 3 separate chapters. This would make the journey back to the light less overwhelming and more likely to be adopted.

The book has 2 “ends” – opening with a note of contexting from the editor and an appreciative Foreword from a valued peer, Ron van Oers, Vice Director of World Heritage Institute of Training and Research in Asia and the Pacific (under the auspices of UNESCO), and closing with an Epilogue tabling the differences between Conventional Planning and Holistic Planning.

Part 1

Part 1 gives the history of Heritage Planning that arose out of Modernism in the 1800’s with many good intentions of those who sought to manage sites of value – but as the authors see in retrospect were very much influenced by the views and values of colonialism and the scientific empirical methodologies. Starting with the unexpected sinking of the Titanic as a major illustration of the shortcomings of these approaches (and the source of their iceberg metaphor), they note the problems that arose from inappropriate methodologies that has dogged the profession all the way to the 1960’s. One of the examples they repeatedly come back to is Yellowstone National Park – whose management is still addressing the impacts of early violations to natural heritage planning (e.g. removing predators) and recent incursions of humans into its borders (e.g. with snow mobiles).

McCool and Kohl explain the original intentions and many shortcomings of Rational Comprehensive Planning (RCP) and Technical Rationality (TR) and the many sites to which it has been applied around the world – generally with the same ineffective outcomes that result from top-down methodologies, applied with shallow to no attempts at participation and frequent disrespect to local cultures and life conditions. They offer many examples of “shipwrecked plans” from World Heritage sites and observe that if they are rampant under the management of that high-profile institution, they run rampant in many other protected places.

The authors go on to bemoan that the evidence of systemic failure in heritage management that has been denied, ignored, rarely analysed and infrequently researched. Therefore, the same RCP-style processes are being repeated around the globe, without clients or funders realizing they have a track record of failure around the world. The authors take a courageous stand in pointing out this as a grievous (if not unforgivable) oversight in their profession that wastes resources, negatively impacts cultures and intended beneficiaries but keeps the profession (and professionals) funded and in business.

The authors have designed a format to add value to their narrative by creating a scheme of commentary boxes:

- Tables & Figures – to convey data, relationships, information and statistics
- Outside the Box – to show how planning could operate differently
- Toolboxes – to offer tools for effective implementation (like Mind Mapping)
- Inside the Box – to show new approaches that are working in other environments
- Fire Box – tracking the four Learning Loops

Another daring structure that the authors provide that links all 3 parts of the book is their exploration of single, double, triple and quadruple loop learning. This emphasizes their proposition that managers need to be supported by learning at all 4 levels. Further, they recognize that this developmental approach to expanding management capacity may take many years – which few funders are committed to enable. This information is deeply explanatory (and why we dive to the bottom of the U) but also deeply disturbing as the authors are not in a position to offer a solution that can readily change planning cycles that seem to be locked into one- or two-year spans. However, at the end of Chapter 9, they get close to revealing the embedded pattern of relationships that could continue to hold this stuckness or if released into the holistic paradigm release them into holistic connections. With Table 9.3 they relate and compare the qualities of the three main actors in an intervention: Heritage Community, Technical Assistance, Donor.

The authors are skilled storytellers and generally respectful academics, documenting their points with relevant literature references that support their points. They quote all the right sources from other discourses making them available to this specialized one.

I am appreciative of the range of discourses that they tapped to support their arguments – from architecture (Schon and Argyris), to systems thinking (Kuhn, Meadows, Senge, Wheatley et al), to adult learning theory (Kegan & Lahey), leadership (Ackoff), city planning (Friedman and Jacobs), to biology (Jared Diamond), to their own professions as conservationists (Pedersen). They have also drawn effectively on the Integral literature starting with Wilber, but also embracing Hochachka, McIntosh, Martineau and Brown. They bring in powerful quotations from Maalouf and reference Centers for Human Emergence Netherlands and Global – but curiously omit to include in their References Spiral Dynamics' authors Beck and Cowan (SD) and references for Graves which are clearly implied in many aspects of their commentary (from Graves' quotation of "allowing people to be who they are"; to rewriting quotations from Maalouf by replacing SD descriptors with "Traditional", "Modern, "Post-Modern"; to their recognition of the importance of life conditions that underlie Graves and SD approaches such as their discussion of conformance and performance). Other authors that I am curious that they omitted from references are Esborn-Hargens (editor of the *Journal of Integral Theory and Practice* and co-author with Zimmerman of "Integral Ecology") – all contemporaneous with Brown whom they cite at length. These are academic niggles – but relevant to the credibility of this narrative.

The authors introduce a way to describe the worldview that is not working for heritage managers with the acronym PLUS (predictable, linear, understandable, stable). This then becomes contrasted with their proposition of a different mental model that captures the way the world really operates as DICE (dynamic, impossible to completely understand, complex, ever-changing). (The reviewer is curious why the authors did not choose the more commonly used VUCA acronym (volatile, uncertain, complex, ambiguous) which seems to capture the same qualities and thereby connect their approach to similar explorations in the discourse of other sectors?)

However, McCool and Kohl offer an incisive critique of a very widespread approach to strategic analysis, using SWOT (strengths, weaknesses, opportunities, threats). They critique the process as generally non-participatory, aimed at only short-term strategic elements with little or no consideration of emergence. Moreover, they go on to critique power dimensions and remind the reader of the contexts of power that the manager is subject to in making decisions, creating teams and implementing plans.

Even before we enter the Integral Chapters the authors make us aware that managers need to be well apprised of the importance of values because they not only impact the process of management but the outcomes of humans and non-humans (like elephants) in heritage sites. Likewise, they emphasize that learning for managers ought to be paramount, ubiquitous and continuous.

Before delving into the individual chapters focused on the Integral Quadrants, Chapter 4 offers a comprehensive and adept explanation of the key characteristics of the Integral Model including discussions of: states, stages, lines, types and quadrants. If the reader is already integrally informed, this chapter could be skipped – but for the novice to Integral discourse this chapter is invaluable and well illustrated with tables and examples. It finishes with a good explanation of Levels, drawing on Wilber, Brown and McIntosh to provide descriptions so that the manager can recognize themselves, peers, clients, funders and cultures. The chapter concludes that the "Integral Map Points Us Toward Possible Futures for Heritage Management" with the reassuring quotation from Ken Wilber that "if you study this Integral Map … it begins to make room …in your soul for all the parts of you that were disowned …[and] even makes room for those who did the disowning."

Part 2

With this encouragement, the authors then launch 4 chapters that provide a flotilla of integral lifeboats to explore a full AQAL approach to a holistic planning process.

In Chapter 5 they unabashedly support the criticality of "minding the mind"; the value of interior realities with a concise summary of "Forces that Influence Planning Implementation" from the perspective of first person "I". Without pulling punches they cover Perceptions, values and attitudes, Beliefs knowledge and expertise, Intentions and Cognitive Capacities. While doing this they leave the "hooks" in the table for the future chapters to cover the perspectives from "It, We and Its" – which should help the reader build on their understanding and insights of the evolving Integral Model. While showing the value of the mind-based psychological approach to planning (and how and why it is so often omitted), the authors also point to the barriers caused by its omission and the triteness of glossing over vision statements created with "glued together" concepts instead of taking the time to delve deeply into discovery through authentic participation. They do not give the benefit to the intervener of swift report production and rapid project completion because they have seen that when a plan is shifted to the responsibility of the intervener it will not be supported, owned or likely succeed. Such action punishes the target project twice – once through wasting financial resources that pay such an intervener and secondly with the loss of the many resources to the community who may suffer real loss from the intervention and achieve no gain.

In Chapter 6, the authors reach back to the lessons shared from Chapter 5, and point to strategies that integrate the "I" interior perspective to the "It" exterior perspective. They point out in Toolbox 6 strategies for making training stick – identifying the importance of the learning process (and not just content), self-directed learning, prior learning, integrating new learning with past understandings, and support networks.

The reviewer was struck by the "learning by doing" modelling outlined in the chapter – characterized by this statement "every meeting we have is a sample of the future that participants can expect to come”. The chapter values the role of skilled facilitation – but primarily the kind that leaves participants capable of managing their own plans and not becoming dependent on interveners, nor bogged down. The examples of One Sky and Hochachka’s experience in Nigeria offer enlivening models of practice that can be emulated. This chapter includes explorations of facilitation processes (that relate to Chapter 7 and could also have been discussed under the “We” banner) and allows the authors to point to the issues of power and capacity development in the hands of those who are mature versus those whose maturity makes them a danger to all.

This brings us to Chapter 7 where the topic is the Collective Mind or Culture and how they emerge from the ways we share values, ethics, visions, paradigms, mythology and legend. This chapter is full of stories that make the reader sit back and gasp (like the killing of the albino moose; how that impacted an indigenous tribe in Nova Scotia; and how difficult it is to make any restitution in such circumstances).

This chapter explores the collective methodologies that have become widely known under the “Art of Hosting” banner (not referenced by the authors – but described severally) with enthusiasm for their capacity to engage participants in meaningful ways. The authors do an excellent job in marrying the philosophical underpinnings of these approaches from collective consciousness/noosphere, to complexity science and Bohmian dialogue – showing why and how they can change the whole tenor of engagement. They also point to the impact the collective mind has on the management systems that can be built. They re-open the failings of TR and RCP and as they set out the kind of leadership, and structures of information needed, they open up into networks and communities of practice that bring the methodologies full circle back to the necessity of continuous and shared learning in community. They fire these ideas with fire itself, describing the clash of paradigms related to forest fires in natural heritage sites and the long battle to learn how Nature herself plans life in cycles. This is a very long chapter with examples coming from all 4 quadrants (on a meta level) that include Lean Practice in Manufacturing, Non-Violent Civil Disobedience, Military Debriefings and Research Networks. So, regardless of the reader’s background the examples ground the value of this quadrant in real-life practice.

The authors want to make this point decisive as the Lower Left quadrant has so often been omitted in traditional planning and RCP and TR. The chapter finishes with an appreciation of storytelling and by adding the third loop to the learning model – the one that revisions and modifies the vision.

In Chapter 8, we arrive at the final Lower Right Quadrant of Management Institutions that influence heritage sites. We look at Institutions, Policies and Technologies – set out in Table 8.1 in comparison with all the other 3 quadrants. The authors emphasize that this quadrant is generally the most familiar to the planning community because they tend to use the lenses of 3rd person science and organizations to design and intervene on heritage sites. Government agencies aka bureaucracies are critiqued for their generally Modernist operating principles (and/or Post-Modern shadows). They cite Brown’s research in reviewing eight books on sustainability to find the preponderance of Lower Right perspectives gave the narratives a very biased outlook. The authors call for innovation in this quadrant and offer strategies gleaned from the businesses who have created “safe spaces” away from the dominant gaze for innovation and experimentation. The authors argue for the value of the four “concurrent, interacting, fundamental perspectives.” The state that such a new model would not just be “interesting …[but] eminently practical.” They offer strategies for involving the Lower Right quadrant in balanced and interactive ways. An example is how they explore “Friends of Heritage Sites”. They suggest, “A friends group is an institutional arrangement (LR), informed by shared community values about heritage (LL), that increases a site’s capacity (UR), based on personal affinities and reinforces understanding and positive attitudes among visiting audiences (UL).” (p.217)

They take the time to explore whole new ways that plans can be formatted, suggesting they are a “means of arriving, not a destination”; that they should focus on commitments and not mere recommendations; recognize that they are collective works; that they should be offered in multiple modes from scenarios, to art, stories, videos; to non-scientific audiences (as well as scientists). Finally, they bring back their DICE acronym and herald plans that can be as flexible and imaginative as a DICE world demands. The issue of power is then re-engaged, and we are reminded that planning is about power – through decision making, agenda setting and shaping needs. But we are also pointed to the emerging power of networks that connect people, interests, plans and forces for change. They admit that their advocated approach to holistic planning redistributes power (and by doing so may create resistance amongst those who hold power before an intervention commences). But as an act of encouragement, Chapter 8 adds the fourth learning loop where the modification of core purpose and values enables a full cycle to be mapped (that, for example, in the case of forest fires is not just reconceiving policy but a whole life perspective (p. 234)).

This brings us to the last Chapter 9, and back into the light after surviving both left and right sides of the iceberg U-shaped journey. This chapter is both long and intense and would be better treated as Part 3 of the book and broken into several chapters. To get the most out of this chapter I would recommend reading it as if it were Part 3 in 2 or 3 chapters.

In their first section, they use a Kegan-Lahey table to summarize the journey from stating a goal, to identifying behaviours that counteract the goal and hidden commitments that compete with the goal. This helps them understand resistance to change and go on to identify shadows. And it sets the authors up to outline the principles of their Holistic Planning approach – one that transcends and includes both Modernism and Post-Modernism. Table 9.1 summarizes it as an AQAL Process with the 4 preceding chapters exploring the I, It, We, Its processes that care for stakeholders, trains people in their own wellbeing and health, facilitates dialogue and creates plans that recognize all 4 perspectives in institutions that operate systemically.

In the next section “Definition and Principles of Holistic Planning”, their exploration of *Holistic Planning is effectively Deep, Clear, Wide and High* (to cite Sean Esborn-Hargens). They admit it takes (significantly) more time than the older forms of planning but in taking the time up front, they contend that implementation will not only be possible but sustainable because consensus is achieved. Moreover, the authors recognize that not all leadership is the same (e.g. Traditional and Warrior styles) and each must fit the appropriate situation. This can enable traditional knowledge to complement scientific knowledge and open the door to everyone being a knowledge holder and everyone having the potential to learn. Even Technical Assistance can be recalibrated through the Integral model to support stakeholders in each quadrant to optimize performance. Borrowing from

Martineau's example that not everyone has to be integrally informed to be effective contributors, the chapter calls forth a Holistic Planning team that is:

- Multiperspectival
- Legitimate amongst constituents
- Enthusiastic and capable of implementing holistic solutions
- Include at least one champion of the protected area
- Transdisciplinary

Their guidance offers such teams detailed practices, reminiscent of Action Learning or Action Research cycles, focused on continuous learning that emerge communities of practice.

The last section of this chapter provides an Evaluation Framework by quadrant with the three main actors in an Intervention: Community, Technical Assistance, and Donor – each with a template for Indicator, Baseline and Progress. This provides a succinct method for adaptive learning.

This chapter claims the right to set out what the book has been working towards from the Introduction – namely a new way of Holistic Planning. It completes the case with Table 9.4, comparing Holistic Planning to Conventional Planning. These headings effectively summarize the whole approach and give the reader a satisfying grasp of the whole book. (This section might even be more effective if it formed the lead into Chapter 9 (or Part 3 of the book if it is re-published) because the reader receives a very clear picture of Holistic Planning as a result of the comparison.)

- Worldview
- Forms of knowing
- Dimensions of Reality
- Participants
- Power
- Planners Role
- Endgame
- Planning Frequency
- Community Involvement
- Metaphor for Planning
- Planning Investment
- Document Format.

Conclusion

Throughout *The Future Has Other Plans*, the authors seek not only to inform readers, but also inspire them by opening and closing each chapter with quotations from multicultural storytelling literature that entice and amplify the points they are making. The reviewer encountered many favourites but this example is the quintessence of what they have accomplished: "*If you want to build a ship, do not drum up people to collect wood and do not assign them tasks and work, but rather teach them to long for the endless immensity of the sea.*" (Antoine de Saint-Exupery)

The Future Has Other Plans definitely makes the reader long for Holistic Planning as the only sensible way to honour, care for and steward our valuable natural and cultural heritage. I recommend it to planners in all fields as a seminal reference for planning with an Integral Paradigm.

The Body as Vehicle for Transformation

Sonya Renee Taylor (2018) *The Body is Not an Apology: The Power of Radical Self-Love* (First Edition). Oakland, CA: Berrett-Koehler Publishers.

Reviewed by Shameeka Smalling[1]

The Body Is Not an Apology (TBINAA) is Sonya Renee Taylor's contribution to the world of transformation through the power of radical self-love. In this powerful work, she discusses body shame and its oppressive impact on our bodies while telling us that we can in fact reclaim our natural intelligence, what she calls radical self-love. The book is not about self-help but frames the chapters and sections with radical reflections and unapologetic inquiries that ask the reader questions meant to move them onto a trajectory from body shame and guilt, past self-acceptance, to radical self-love. The ultimate goal is global transformation; her framework embraces both individualism and societal relationships through an intersectional and systems lens.

The Body is Not an Apology was first a poem, then a global movement before being born into a book. Sonya Renee Taylor is a black, queer, feminist, poet, educator, thought leader, and Founder and Radical Executive Director of The Body is Not an Apology, a digital media and education company that focuses on radical self-love as the vehicle for social justice and global transformation. With over one million followers in 140 countries, TBINAA has a vast global audience, which means the book's audience is inclusive of all members of society. Taylor rejects the duality of academic work and self-help book, using inquiry to educate and, hopefully, help the reader to transform. It successfully illustrates how we, the readers, may have come to body shame and how it impacts us in society and provides the tools to change our thinking to that of radical self-love, reclaiming our natural intelligence and eventually transforming the world/finding liberation.

The Body is Not an Apology starts chapter one, Making Self Love Radical, by shaping the conversation around the ontology that we all have a body and articulates the intersectionality of the body. According to Taylor, all oppression is enacted through the body, therefore liberation from body shame and judgment begins with radical self-love. This is through the Three Peaces, peace with not understanding, with difference, and with your body. In chapter two, Shame, Guilt and Apology – Then and Now, she introduces us to the anatomy of body shame in ourselves and society through body shame origin stories, the Body-Shame Profit Complex (BSPC), and Body Terrorism. This discussion transitions to the crux of the book in chapter three, Building a Radical Self-Love Practice in an Age of Loathing, making peace with your body. Taylor explains that "living a radical self-love life is a process of de-indoctrination" (p. 59) and introduces a process of "thinking doing being". Taylor then describes the movement from individual to transformational radical self-love with the Four Pillars of Practice- taking out the toxic, mind matters, unapologetic

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action, and collective compassion. In chapter four, A New Way Ordered by Love, TBINAA moves from the individual to societal impact. She discusses implicit bias through the analogy of speaking French, and circles back to in-group-out-group bias, which she introduces earlier in the book. Taylor states, “we must deconstruct body terrorism in ourselves and others to dismantle the systems and structures of body terrorism” (p.81). According to Taylor, this personal transformation will lead to world transformation. In the fifth and final chapter, Radical Self-Love Toolkit, Taylor houses the ten toolkit pieces under the four pillars of practice. Of note is that she uses these practical tools to teach us to love our bodies, and therefore others, more. Finally, Taylor acknowledges that for her, the answer to what liberation looks like is for every human to live in radical self-love.

Dozens of books exist about self-love; however, there are only two books on radical self-love: *The Body is Not an Apology: The Power of Radical Self-Love*, and *Radical Self-Love: A Guide to Loving Yourself and Living Your Dreams* (Darling, 2016). Gala Darling is widely known as the self-love guru and her book promises to be a tool for people to find their way to self-love. The book is designed to help the reader love themselves first and moves on to loving others, and then provides tools for self-love in the final chapter. The books do not focus only on the individual but delve into the complexity of relationships with others. *The Body in Not an Apology* is distinct in that the conversation is multidimensional; it is about dismantling body shame through radical self-love and using that radical self-love to love others enough to begin dismantling oppressive systems.

The book is self-described as “a global movement guided by love.” Taylor uses the body-shame origin stories to initiate the conversation about our relationship with difference. Through her definition and description of body terrorism the discussion of body-shame and the Body-Shame Profit Complex become much more significant. It demonstrates that society is one of laws that oppress bodies of all types through body terrorism. It gives an individual a lens into how loving themselves more can lead to being a contributor to a better society. The reader can expect to move toward radical self-love, and this will in turn lead to better treatment of others, which moves from the individual to the systemic lens of “a more just and compassionate world” (p. 56). Transitioning from body shame to radical self-love means looking at systems that oppress the body and disrupting them.

On the surface, *the Body is Not an Apology* is about body empowerment. But the book also addresses the fact that oppression is enacted and held within the body. This is relevant to the discourse Resmaa Menakem engages in *My Grandmother’s Hands: Racialized Trauma and the Pathway to Mending Our Hearts and Bodies* (Menakem, 2017). Like the trauma that Menakem says lives within black, white, and blue bodies, in her own way Taylor argues that oppression is a somatic experience. In recent years, the Black Lives Matter Movement, issues of police violence against black bodies, school shootings, all speak to terror that is lived and experienced within the body. TBINAA is a transformative read specifically because it defines and describes body terrorism for the reader. The urgency of violence in today’s society speaks to the need for this book now.

The Body is Not an Apology interested me because of my research on the concept of holding space. Multiple definitions exist for holding space. According to transnational Black feminist, Farah Tanis (n.d.):

> To hold space is to be present and contain the immediate and continuous energetic shift created when another breaks with silence. It is being there, present for another. It is to act as a stand, bear witness, create and sustain physical and emotional safety, and to nurture trust at the same time.

This definition, which comes from a transnational Black feminist perspective, speaks to the space that is held for healing. Another definition of holding space is "walking alongside another without judgment or attachment to the outcome. We don't try to fix or control we just are in the moment with them" (Plett, 2015). It is creating an energetic container for emergence, growth, development, expansion, healing, transcendence, and manifestation of ideas to occur. Holding space is a needed element in all healing. When we engage radical self-love, we are increasing our capacity to love others, which in turn increases our capacity to hold space. This can help create transformation in individuals and organizations, but to hold space for others we must first hold space for ourselves, and that begins with loving oneself. I looked for books on loving the self before, but they did not feel transformational to me. Reading about radical self-love in TBINAA, it hit me like an epiphany. I needed to re-evaluate my self-concept and how to engage my body. It brings me back to my work in holding space. As I answered the Unapologetic Inquiries and unpacked my body shame, it increased the capacity for holding space within my own body. This book, by working on an individual and systemic level, gave me tools for my research around holding space. It also brought me back to me something that was elusive, that "we know that the answer has always been love" (Taylor, 2018, p. xiii). TBINAA is a tool to use love within my own research and work and I believe this book will help any reader to do the same.

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Lost in Rumi

Marman, D., Khalvati, F., Shafaei, M. (2019). *The Hidden Teachings of Rumi*. Ridgefield, WA: Spiritual Dialogues Project. Marman, D. (2010). *It Is What It Is. The Personal Discourses of Rumi*. Ridgefield, WA: Spiritual Dialogues Project.

Reviewed by Jonathan Reams[1]

As I was finishing writing my dissertation (Reams, 2002), I searched for an opening quote that could capture the essence of my admittedly fuzzy and even non-academic ambitions with that project. After considering a wide range of inspiring quotes from the leadership and or consciousness literature I was focused on in my dissertation and feeling dissatisfied, I turned to the poetry of Rumi and opened my dissertation with:

You knock at the door of reality,
shake your thought-wings, loosen
your shoulders,
and open
(Rumi, 1997, p. 200)

As I revisit this snippet of Rumi now 18 years later, I am struck by the layers of invitation the passage evokes. I aimed in my PhD to explore the subtler, transpersonal, transrational aspects of knowing and being and how to evoke them and impact our capacity for leadership. It was easy to get lost in this territory, as familiar markers, or even the concept of markers, or of concepts, all faded as the process of knocking at the door of reality, shaking loose of thoughts and stepping into the opening that emerged.

My attraction to the mystical, or transpersonal and such has been a thread throughout my life inquiry and writing. The idea of getting lost, or being in the cloud of unknowing (Wolters, 2018) and resting in a sense of the ineffable has always held an attraction. At the same time, a mental curiosity, a desire to know, (I appear to score as a 5 in the Enneagram), understand and explain things is also a driving energy in my life. Thus, my penchant for writing about things that are difficult to capture in words.

Over time, poets have been the ones to achieve this best, and while I certainly have no talent in this area, nor especially gone into reading much poetry, (I did dig into William Blake and other Romantic era poetry at one point in my undergrad studies), I do have an appreciation for how

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poetry can open up these subtler spaces, evoking portals into the deeper realities of life. It is from this frame of reference that I have approached Marman's (along with his colleagues) work of creating an opening into the deeper works of Rumi.

In *the Hidden Teaching of Rumi*, Marman, along with his colleagues Khalvati and Shafei,[2] take the time to educate the reader into these hidden teachings, step by step initiating us into the layers of mystery Rumi reveals. The opening page sets the tone: "*I tell you a story that can't be spoken, and I hide it from observers when I say it*" (Marmon, et al., 2019, p. v). This is typical of Rumi's approach – to be speaking of what can't be spoken and hiding it in plain sight. This means there is a type of riddle, or koan presented to us that requires unlocking. This unlocking can come, I believe, through two main roads. One is that of experience, *adequatio* or having the personal experience(s) required to know what Rumi is pointing to.

The second is scaffolding, or bridge building and it is this approach that Marman and colleagues use. In the introduction they describe how Rumi is not asking us to just 'think outside the box' or watching how our beliefs limit us. They point to "lenses of perception" (Marman, 2015, 2018) that are deeply subconscious ways of seeing (I'm reminded of Bonnitta Roy's (2006) reference to the term 'view' instead of 'perspective' as a way of pointing to something deeper). This is a way of orienting us as readers, preparing us for the journey.

Each chapter begins with parallel text laying out one of Rumi's poems in Farsi and English. This is followed by commentary, sometimes general, sometimes unpacking the poem line by line. The opening commentary continues the theme described above.

> Reading Rumi's poetry is like chasing fleeting images that change before our eyes and flow from one to another. We become lost as we try to follow his twists and turns. This is exactly what Rumi is trying to teach us: How to lose ourselves as we follow something that is alive with beauty and love. (p. 39)

The flow of this commentary starts out carefully, guiding us slowly and surely into unlocking meaning hidden in the poem in focus. This brings us to a point where we can begin to see that Rumi is not merely spouting random, free association lines that have no clear connection to each other, as many of his interpreters have presented him. Each poem is a whole in itself. While the narrative source may jump from Rumi to his beloved teacher Shams of Tabriz, the meaning hangs together.

Marman and colleagues take the time in some chapters to bring up references to historical details that provide context and clues about specific incidents that Rumi is referring to. They also weave in references to Rumi's discourses (more on these later) that all provide more clues and weave the lens we can use to unlock the hidden meaning even further.

Then, as the book goes further, the commentaries shift gear. We no longer receive a line by line unpacking of the poems, but move into a set of commentaries that take us even deeper. In some ways, the poems focused on later in the book are more obtuse, the meaning requiring more connections to clues that need to be unpacked both from within the poem itself and from historical or other reference points. Yet the reward is even greater, and we come into view of a profound insight into an esoteric aspect of spiritual teaching.[3] No spoilers here, you'll need to read it for yourself to find the treasure.

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[2] Farzad Khalvat and Mitra Shafaei both grew up reading Rumi's poems in Farsi and were able to contribute their firsthand native speaker's knowledge of the language, as well as the depths of their own experiences with Rumi's works, to the translation and commentary project.

Closely linked to this project, is Marman's earlier *It is What It Is. The Personal Discourses of Rumi*. This project was something Marman began in the late 1970s, going through layers of revision as he encountered new friends, colleagues who grew up with Rumi in Farsi and his own growth, all of which enabled deeper layers of meaning to be revealed. The over three decades journey shows itself in the quality of the translation as well as in the precision of the commentary.

Rumi's discourses are less known than his poetry. However, they provide an equal depth of invitation into the subtle realms. The chapters here follow a similar pattern, with a translation of the discourse into English and then some commentary. The proportions are different here, as the narrative form of the discourses provides easier access to much of the meaning.

All in all, there are 71 of these discourses. I took them as bedtime reading over a period of a few months, taking one at a time only on evenings when I felt receptive to the opportunity being presented. I have studied a number of discourses of this nature as part of my own spiritual practice and found these discourses, despite the 700 years of time and cultural distance separating me from them, to be highly impactful.

In many chapters, Rumi tells stories or parables that are as amusing to read as they are instructive. The layers of meaning are present in relation to the layers of being we listen with, as Marman says in his commentary: "Our human self hears and enjoys his stories, but he is also speaking to the deeper part of Self that recognizes there is nothing conventional or traditional in anything he says" (Marman, 2010, p. 138).

It is this "deeper part of Self" that likes to get lost. Lost from the mind and its limitations. Lost from the whims, push and pull of emotion. Lost from the biases that come with the human senses and consciousness. It is in this sense of losing the limitations of conventional forms of human perception that makes getting lost a worthy endeavor and opens us to the essence of our being. Getting lost in Rumi is an invitation to not only lose ourselves in his poetry, but to lose our selves entirely and fall into a vast ocean of being.

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[3] You can also find an interview with Marman by Jeffrey Mishlove in his *New Thinking Allowed* series here https://www.youtube.com/watch?time_continue=109&v=3xKXPrADILQ&feature=emb_logo. As well, Marman has a website collecting his published works; http://spiritualdialogues.com/author/dmarman/. Among the items is a talk *It's All Poetry. Lessons From the Spiritual Path* https://www.youtube.com/watch?v=xI_mFViQcx0&feature=emb_logo from an evening in Toronto Canada for the Rumi community there.

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Editorial

Jonathan Reams[1]

Welcome to this issue of Integral Review (IR)! We are pleased to welcome you to a new regular issue, which brings together a rich set of interesting articles, essays and reviews.

In the year since our last regular issue, we have gathered a diverse range of articles, essays and reviews that touch on a range of relevant and topical societal issues. This is just the kind of discourse Integral Review was designed to foster, so we are pleased to see this range of articles in the current issue.

In particular, we see the engagement of reviews related to topical issues in public policy broadly in relation health care (COVID-19 and interventions for psychiatric issues) that can inform further research and decision making. We also see the topic of relating moral development with business, which also has significant potential to influence thought and practice in these areas. We also have a look at the transformational power of action research inquiry methods that can inform not only formal research, but also personal practice.

From there, we have a rich discussion of JEDI (no, not Star Wars JEDI) issues from a developmental perspective – the discussion originating in a submission and continuing in an extensive response. We hope this stimulates more such rich discussion in this field and helps inform discourse in that timely public field that is much needed.

An update on work published in the last issue keeps us abreast of progress on an ambitious project worthy of the integral aims. Two essays bring personal insights into weaving together different domains and practices, and a transcript of a conference session from a decade ago offers a rich example of transcultural work. As well, as per usual, we close with a couple of extensive book reviews.

It has been my pleasure as always to be a small part of the process of this collection of works coming to the light of day. I would also note our ongoing commitment, taking at the beginning of our journey with Integral Review, to the open access process. We have undergone a thorough process of updating how we meet the criterion for being registered with the Directory of Open Access Journals, which has been rewarding to be listed there. As well, I recently was reminded that we are listed by EBSCO in the Social Sciences category, giving our authors' work broad accessibility. I have also noted the significant extent to which our publications show up in google scholar. All of this, on top of the continuing robust numbers of visits to our website and downloads of articles, keeps us grateful that this body of work is able to be available to our community.

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Our peer reviewed section for this issue contains four articles. We begin with Oliver Robinson’s *COVID-19 Lockdown Policies: An Interdisciplinary Review*. This timely article takes a deep dive into four sets of research; biomedical, economic, psychological, and ethical. Each is addressed extensively, covering a wide range of complex analyses done in each field. Combining these and showing the importance of considerations in each domain for policy makers can help them make better informed decisions. As well, a postscript notes that the conclusions of this article are supported with a recent review of the cost-benefit analysis of lockdown measures.

Next, we have *A Relational Approach to Moral Development in Societies, Organizations and Individuals* from Michael F. Mascolo, Allison DiBianca Fasoli and David Greenway. This article brings together research in moral development and applies it to three cases in the field of business, using a relational based approach. The authors lay out the case for how relations between people continuously evolve a set of moral goods that then inform actions. This integration also includes how all of this arises in socially embedded contexts. This extensive elaboration of this perspective is then applied to the domain of business and how moral thinking is inherently integrated rather than separate. This is then illustrated through describing how three business cases integrate morality as an evolving relational process.

Then we have *A Systematic Review of HeartMath© Interventions to Improve Psychological Outcomes in Individuals with Psychiatric Conditions* from Lucy Field, Mark Forshaw and Helen Poole. This article examines research done using HeartMath tools, (see McCraty et al., 2009 in IR for an extensive background to the research behind these tools), with a very specific focus on how they have been able to contribute to addressing psychiatric conditions. The implications of this are significant, in terms taking a proactive, non-invasive approach that does not come with the same costs of traditional interventions, both for individuals and society. This systematic review can provide support and justification for further research in this area.

Our final peer reviewed article is from Hilary Bradbury and Lara Catone: *Cultivating Developmental Reflexivity: ART of Relational Inquiry Methodology for Self and Community Transformation*. This multi-layered article addresses multiple facets of our lives. It engages in the concept and process of inquiry, deepening our appreciation for the transformative depths that are possible. The core focus on action research transformations (ART) focuses this powerfully and elaborates the possibilities present. Two developmental case studies richly illustrate the power of this kind of inquiry. The article closes with a list of key points to consider in assessing quality in utilizing this method in research and in life.

We begin our editorially reviewed section of this issue with an engaging essay from Aftab Erfan, *The Many Faces of JEDI: A Developmental Exploration*. This article shines a developmental lens on the growing body of work on justice, equity, diversity and inclusion. Erfan outlines her own position and journey in relation to both sets of work before presenting a rich overview of how each stage of action logic approaches the JEDI issues. Her first-person narrative takes us inside the thinking and motivations of people at each stage and illustrates the developmental journey as it applies to these societal issues. Erfan closes with a set of implications for practice that illuminates the complexity of working with JEDI issues and gives names to aspects of people’s experience that can help move the discourse forward.

Efran's essay was circulated to various people to get feedback along the way and it stimulated a substantial *Response to Erfan* from Amiel Handelsman. Handelsman has been active on his own in relation to these issues (this knowledge is from personal correspondence with him over the past couple of years). His substantial response to Erfan's article elaborates six points about what makes her work important, adding important perspectives that enrich her article. He then goes beyond directly responding to Erfan and outlines his own view, and then contributes three aims that can enlarge the discourse in this field.

In our most recent regular issue (Vol. 16 No. 2, August 2020) we published *The Prometheus Leadership Commons: A Meta-Framework for Leadership and Leadership Development.* In this issue, Tom Bohinc follows this up with *A Promethean Mission – an Update on the Prometheus' Leadership Framework*. Bohinc describes the evolution of the framework to its current 2.0 status. The article begins by covering how various principles have been applied, tensions navigated, and processes engaged. It then describes the actual changes to the framework in version 2.0 how a variety of choices were made in this journey. There is then a section relating results from some focus groups that were run to examine how the framework might be applied for selecting early career leaders. The article closes with a list of future interests and open cautions.

We are pleased to present another essay from Marilyn Monk, *Psychosynthesis and the Alexander Technique*. This essay brings together her rich experience in both the Alexander Technique and Psychosynthesis. Coming from her practicing profession as a molecular biologist, in this essay she demonstrates other facets of her lived experience in the area of personal growth. Monk's own training in these methods allows her to show the complementarity of these approaches. Her descriptions integrate historical development of the two approaches with thorough reflects on their application in various life circumstances.

Huw Lloyd has contributed an introduction to some of his work with *Relations Between Cognitive Development and Spiritual Practice (Yoga)*. This essay introduces us to his particular constellation of perspectives on these two areas, integrating a wide range of conceptual frameworks. His conception of 'the active orientation' is central to how he weaves together personal experience with discourse on spiritual practices and aspects of cognitive psychology to illustrate what he sees as complementarity between these fields.

Back in 2013, we published a special issue on the Luxembourg Symposium Research Across Boundaries (link). An item that has remained unpublished from this event was a presentation from Enrique Dussel on *Transmodernity*. In this issue, I have dug up the transcription I made from a video recording from the event that I was able to access and made it as presentable as I could. It was a memorable presentation and gives a truly transcultural insight into the topic of transmodernity. I hope you enjoy it.

We complete this issue with two book reviews. One by Roland Slot and Sveinn Hrobjartsson on Marianne Bozesan's *Integral Investing: From Profit to Prosperity*. Bozesan's work in this area has garnered wide ranging attention for its depth and thoroughness in how she covers the topic and brings her knowledge of Wilber's integral approach and her personal experience to the topic. Slot and Hrobjartsson provide us an overview of the main text of the book and then provide us with three thoughts for further considerations.

The second review is by Heikki Jyväsjärvi on Eeva Kallio’s anthology *Development of adult thinking: Interdisciplinary perspectives on cognitive development and adult learning*. Jyväsjärvi gives us an extensive summary of the arguments Kallio makes for the need for this anthology. He then presents a summary of each of the book chapters, enabling us to have a good feel for the value of this rich presentation of thinking in the field.

Enjoy this issue!

COVID-19 Lockdown Policies: An Interdisciplinary Review

Dr Oliver C. Robinson[1]

Abstract: Lockdown interventions employed in response to the COVID-19 pandemic have been evaluated via research at biomedical, economic, psychological, and ethical levels of analysis. The aim of this article is to evaluate arguments from these four perspectives simultaneously within an interdisciplinary biopsychosocial review to help inform the political and scientific debate surrounding them. Biomedical evidence from the early months of the pandemic suggests that lockdowns were associated with a reduced viral reproductive rate, but that less restrictive measures also had a similar effect. Lockdowns are associated with reduced COVID-19 mortality in epidemiological modelling studies but not in studies based on empirical data from the COVID-19 pandemic. Psychological research supports the proposition that lockdowns may exacerbate stressors such as social isolation and unemployment that have been shown to be strong predictors of falling ill if exposed to a respiratory virus. Studies at the economic level of analysis points to the possibility that deaths associated with economic harms or underfunding of other health issues may outweigh the deaths that lockdowns save, and that the extremely high financial cost of lockdowns may have negative implications for overall population health in terms of diminished resources for treating other conditions. Research on ethics in relation to lockdowns points to the inevitability of value judgements in balancing different kinds of harms and benefits than lockdowns cause. Suggestions for future research are provided to promote an increasingly fine-grained and nuanced evaluation of these policies.

Keywords: COVID-19, ethics, government interventions, health policy, health psychology, interdisciplinary, lockdown.

Introduction

The COVID-19 pandemic has brought about a dilemma for governments across the world: whether to enforce lockdown interventions to reduce the spread of COVID-19, in the knowledge that such policies contain the potential for harms as well as benefits in managing the pandemic. The academic purpose of this paper is to present a multi-layered interdisciplinary analysis of lockdown measures, via a review of the biomedical, economic, psychological, and ethical arguments for and against them. The practical aim of the review is to act as a resource to help inform future decisions about whether lockdown measures are empirically and ethically justifiable given the complex and varied costs and benefits attached to them.

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Lockdown measures are interventions enacted by governments in response to a pandemic that have all of the following three features (OECD, 2020): (a) A stay-at-home order and/or the requirement to not socialise with other households; (b) the forced temporary closure of businesses, schools and hospitality venues within a region, state or nation; and (c) legal statutes to ensure that violation of these restrictions is a criminal offence punishable by arrest, fine and in some countries such as India, up to two years in prison (Times of India, 2020).

Within these common parameters, lockdown interventions show considerable variety. They vary in duration, relation to the timeframe of a pandemic, severity of measures imposed, and penalties applied for not complying with measures. In terms of the variability in severity of measures, several governments have applied restrictive measures that have been called a lockdown in the media but do not qualify as one by the standard definition presented above. For example, Norway and Finland implemented restrictive measures early in the pandemic such as school closures, limits on the size of gatherings and guidance to work from home, but neither country implemented a stay-at-home order or restrictions on household mixing.

Lockdown measures are a 2020 innovation in pandemic response measures. They have no prior precedent apart from city-wide measures taken in the 1600s to manage plague outbreaks and a lockdown-type intervention involving the complete sealing off of Hoping hospital in Taiwan during the SARS outbreak (Cheung, 2020). The World Health Organisation (WHO) guidelines to handling pandemics published in 2019 does not refer to them. Business and school closures are mentioned in that document as measures of last resort, but there is no mention of stay-at-home orders or restrictions on household-mixing or gatherings (World Health Organisation, 2019). Similarly, lockdown measures are not mentioned in the UK Influenza Pandemic Preparedness Strategy (Department of Health, 2011).

Given the lack of precedent for lockdown policies in pandemic response literature, their mass adoption this year requires explaining. One reason is that China was the first to get the virus and the first to respond with lockdowns and the World Health Organisation then supported their approach, encouraging other countries to follow. China’s enforced mass quarantine response was in line with its authoritarian approach to governance (Ma, 2018). China enforced a stay-at-home order in the Wuhan province for two months, with punishments for those who disobeyed. The World Health Organisation then wrote a report in February 2020 in which it appraised these measures in broadly positive terms: “China’s uncompromising and rigorous use of non-pharmaceutical measures to contain transmission of the COVID-19 virus in multiple settings provides vital lessons for the global response.” (WHO, 2020, p.19)

The next country to experience a major outbreak of COVID-19 was Italy, and the government decided to copy China and implement a stay-at-home lockdown across its northern region. Soon after, Spain and Peru implemented lockdowns, then dozens of other countries followed within a matter of several weeks. Lockdowns had suddenly become the de-facto pandemic response strategy, as countries followed China’s lead (Whipple, 2020). Despite previous conclusions in pandemic science that keeping society functioning as normally as possible was the best way of maintaining population health during a pandemic (Inglesby et al., 2006), the world was launched into a social-political-scientific experiment that continued for the whole of 2020 and into 2021.[2]

There is an important difference between lockdowns used within countries employing ‘suppression strategies’ and those employing ‘elimination strategies’ in response to COVID-19 (Baker, Wilson & Blakely, 2020). Of the 180+ countries that have reported COVID-19 cases, as of January 2021, four are currently pursuing an elimination strategy. These are China, Taiwan, Australia and New Zealand. In these countries, the aim is to maintain cases of COVID-19 close to zero. The fundamentals of this approach are: (1) complete border closures to foreign nationals until herd immunity is achieved via vaccine, (2) strict quarantine for nationals returning from overseas, (3) highly developed test-and-trace systems, and (4) strict local lockdowns to contain outbreaks. In China, another mechanism at the centre of their elimination approach is mass surveillance via a governmental tracking app (Mozur, Zhong & Krolik, 2020; Zhouziang, 2020). It is expected that the borders of these four countries may remain closed until 2022, with possible exceptions of travel corridors between the countries (Mazzoni, 2020). An elimination strategy requires a number of features: (a) implementation early in the pandemic, (b) a highly developed public health system and IT infrastructure, (c) sufficient affluence to afford the absence of tourist and business travel for up to two years, (d) the capacity to totally close borders. In relation to this last point, three of the four countries are island nations with no land borders, and China, the exception to this, is using military force to maintain fully closed land borders.

The elimination strategy is not available as an option for emerging economies that have neither the infrastructure for such a policy nor the economic resilience to afford a full border closure for up to several years. It is also problematic for many wealthy countries for a variety of reasons. For European Union countries, closing themselves from the rest of the EU for several years is not viable given that the EU is premised on freedom of movement between member states. In the UK, closing the border between Northern Ireland and Ireland for a matter of years is not possible given the Good Friday Agreement. In the USA, states rather than the federal government set COVID-19 policy and there is no way of closing a state off from the rest of the USA. In sum, the elimination strategy remains an option for only a select number of countries.

The potential costs of the elimination approach will be known after the pandemic is over. For example, as of July 2021, much of Australia is currently having to go into another strict lockdown due to rising cases and its adherence to a zero COVID-19 ethos, while much of the rest of the world, including the USA and UK, is opening up. For a comprehensive review of the costs and benefits of it, see Baker, Wilson and Blakely (2020). Crucially, the elimination strategy requires local lockdowns to contain outbreaks. It cannot work without them. Suppression strategies, in which the virus circulates but government measures are taken to manage and slow it, do not inherently require lockdowns. Some countries and states that are employing suppression strategies have implemented lockdowns during the COVID-19 pandemic, but some have not. The review of the evidence presented below pertains to those countries and states employing suppression strategies.

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[2] Inglesby et al. (2006, p.373) concluded “An overriding principle. Experience has shown that communities faced with epidemics or other adverse events respond best and with the least anxiety when the normal social functioning of the community is least disrupted. Strong political and public health leadership to provide reassurance and to ensure that needed medical care services are provided are critical elements. If either is seen to be less than optimal, a manageable epidemic could move toward catastrophe.”

Moral Reasoning and Complexity in the Context of COVID-19 Lockdowns

A moral dilemma is a decision-making scenario that has a range of possible outcomes that *all* lead to some amount of harm and/or distress. . The issue of lockdown as a pandemic response is an example of a moral dilemma; both enacting and not enacting the intervention leads to negative consequences for some. It is a particularly complex moral dilemma for several reasons. Firstly, the construct of lockdown itself is complex and multifaceted. A lockdown is in fact a composite of various non-pharmaceutical interventions (NPIs), which are combined by governments in different ways. Instead of seeing lockdown as an either-or matter, Altman (2020) argues that they can be conceived in more pluralistic and nuanced way. The range of policies classified together as lockdowns, and the different effects of short-term and long-term ones, means that simply being ‘for’ or ‘against’ will miss a range of intermediary positions. For example, many health professionals in the UK who supported the March-June lockdown did not support lockdown measures applied from September onwards. A good example of this is an open letter from 77 primary care physicians to the British government written in September 2020, which argued that despite their support for the first lockdown, further lockdowns would cause more harm than benefit and so should be avoided (Haynes, 2020).

A popular but artificially simplistic portrayal in the media or in debate is of the lockdown advocate pitted against the lockdown sceptic (e.g. Melnick & Ioannidis, 2020). This is perhaps helpful for debate purposes, but it tends to drive an over-simplistic dualism in media arguments that the only alternative to lockdown measures is letting the virus ‘rip’ through a population uninhibited (Hamzelou, 2020). This is a complete misunderstanding of the range of non-pharmaceutical interventions available during a pandemic, most of which, unlike lockdowns, have a heritage of published research prior to 2020. Haug et al. (2020), whose work is discussed earlier in this article, list dozens of non-pharmaceutical interventions (NPIs) and their relative effectiveness that are not lockdowns, such as border restrictions, banning small gatherings or mass gatherings, quarantining cases, tracking and tracing, public transport restrictions, shielding vulnerable individuals, mask mandates and strategies for communicating information to the public.

A second source of complexity in the lockdown dilemma is the fact that effects of lockdown policies are varied in timing and duration, while spanning biomedical, economic, developmental and psychological outcomes. Altman (2020, p.31) argues that politicians have been focused on COVID-19 statistics to the detriment of considering other effects, due to employing “very narrow and simplistic mental models” and “poor heuristics” to direct policy. Effects of lockdowns include changes to the number of COVID-19 cases, hospitalisations and mortality, but also changing rates of other physical and mental illnesses, plus levels of unemployment, business closures, poverty, and child development. Some of these effects are immediate and short-lived, some are delayed and may last years. Balancing the varied costs of these outcomes requires value judgements, hence a purely objective approach to the dilemma is impossible. For example, what is worse, the death of an 82-year old or a 13-year old who develops a serious mental health problem that lasts for the rest of his life? The answer to that question is an ethical, not a scientific, matter.

As moral reasoning develops with age and experience, the complexity of moral dilemmas that can be meaningfully engaged with increases. At the heart of moral reasoning theory is how people respond to moral dilemmas (Robinson, 2020). The psychologist Lawrence Kohlberg (1981) theorised that there are predictable, sequential stages of moral reasoning that develop with age, which can be grouped into three main levels; *pre-conventional*, *conventional* and *post-conventional*. *Pre-conventional* moral reasoning (typical of young children) is founded on self-centred concerns about whether or not rewards or punishments will be received for a particular action. Here, the basis for morality is not within the self, but rather is an authority such as parents or teacher. *Conventional* moral reasoning (typical of adolescence onwards) is based on internalising societal conventions of what is right or wrong, and acting morally at this level is seen as integral to citizenship within a society. *Post-conventional* moral reasoning is based on principled reasoning about situations, based on a weighing-up of evidence and risk, while considering ethical principles such as honesty, wellbeing, liberty and justice. This capacity is typically developed in adulthood, but not all individuals reach a post-conventional level (Colby et al., 1983). This stage-based sequence of moral reasoning has been supported in a variety of studies (e.g. Armon & Dawson, 1997).

My aim with the interdisciplinary analysis presented below is to provide a post-conventional consideration of the dilemma of lockdown, which represents the full complexity of the issue, by looking at the problem from biomedical, economic, psychological and ethical levels. All these levels are important in informing a holistic and nuanced conclusion about whether lockdowns are efficacious and ethically acceptable. All these levels of analysis come to bear on a question that is ultimately moral in nature; can the harms caused by lockdown measures be justified by the extent to which they lessen illness and mortality?

The Biomedical Level of Analysis: Effects of Lockdowns on Cases and Mortality

Research on lockdowns at the biomedical level of analysis focuses on the relationship of governmental pandemic interventions to numbers of positive tests, case growth over time, and mortality. The principle argument for enacting lockdowns at this level of analysis is that they temporarily reduced hospital admissions and deaths, via reducing the transmission of viruses between individuals for the period over which the intervention is applied. There is a fast-growing body of evidence that can be used to evaluate whether lockdowns achieve this objective.

Studies that qualified for inclusion in this section on biomedical outcomes were published peer-reviewed articles from March 2020 to January 2021, via the databases MEDLINE and EBSCO Health Sciences database, via one of the following search terms “Government interventions, Distancing interventions, Lockdown” and one of the following search terms: “COVID-19, SARS-CoV-2, coronavirus”. Studies were included that contained empirical data on the association between NPIs and cases or NPIs and mortality, either as part of a natural experiment study or a modelling study.

Research Comparing Countries and States

One of the main methods that has been employed to ascertain if lockdowns are associated with reduced cases and deaths has been the comparison of mortality and cases across countries or states that have applied different levels of governmental response. The following country-comparison studies have studied case numbers in relation to government interventions including lockdowns, and the growing consensus is that lockdowns do reduce the case growth (termed the reproductive number or *R*), for COVID-19.

Haug et al. (2020) used data on interventions and cases in 226 countries up to 17th August 2020 to run an analysis of the relationship between different government interventions and growth in cases over time. It was found that the most effective method for reducing the rate of growth in cases was small gathering cancellation, followed by school closures and border restrictions. They found that lockdowns do reduce the rate of case growth, but they conclude that "a suitable combination (sequence and time of implementation) of a smaller package of such measures can substitute for a full lockdown in terms of effectiveness, while reducing adverse impacts on society, the economy, the humanitarian response system and the environment." (Haug et al., 2020, p.1309).

Li et al. (2020) studied data from 131 countries up to June 2020 and found that a decreasing case growth rate over a period of 28 days was associated with school closures, workplace closures, banning public events and a regulation to stay at home where possible. The study also found that while introducing restrictions generally led to a reduction in case growth of 3-24% after 28 days, lifting them led to increases of 11-25%.

Brauner et al. (2020) analysed effects of seven interventions (gatherings limited to 1000 people or less, gatherings limited to 100 people or less, gatherings limited to 10 people or less, some businesses closed, non-essential businesses closed, educational establishments closed, and stay-at-home orders) between 22nd of January and the 30th of May 2020, across 34 European countries and 7 non-European countries. They found that closing educational institutions, limiting gatherings to 10 people or less, and closing face-to-face businesses reduced transmission considerably. However, they found that the benefit of stay-at-home orders, which is the core of a lockdown intervention, was lower in effect than all six other interventions and they describe it as a small effect compared with the large or moderate effects of the other 6 interventions.

Bendavid et al. (2021) studied COVID-19 case growth over time in subnational regions of 10 Northern Hemisphere countries between February and April 2020: England, France, Germany, Iran, Italy, Netherlands, Spain, South Korea, Sweden and the US. They found that implementing non-pharmaceutical interventions was associated with significant reductions in case growth in 9 out of 10 study countries, including South Korea and Sweden (only Spain had a non-significant effect). The study found no benefit of restrictive lockdown interventions compared with the less restrictive interventions applied in Sweden and South Korea. In France, the application of lockdown was associated with higher levels of case growth rates compared with Sweden and South Korea. The study concludes that less restrictive measures generally lead to the same case growth rates as lockdowns.

Islam et al. (2020) looked at government interventions across 149 countries. All the countries in the analysis had implemented at least one physical distancing intervention (closures of schools, workplaces, and public transport, restrictions on mass gatherings and public events, and restrictions on movement (lockdowns)) between 1st January and 30th May 2020. They found that implementing measures without lockdowns led to a greater reduction in cases than those with a lockdown. Overall, they found that the implementation of all these measures reduced the incidence of COVID-19 by a modest 13%. There was a 4% difference in incidence between countries who implemented a lockdown earlier (14% reduction) compared with ones that implemented later (10% reduction).

In summary, the current research suggests that lockdowns do bring down case growth rates but no more so than more moderate and less restrictive interventions. Now I move onto summarising studies on lockdowns and mortality. Firstly, Chaudhry et al. (2020) compared COVID-19 case numbers and mortality data across 50 countries, based on data up to 1st May 2020. They also assessed these countries for the implementation of travel restrictions and containment measures including partial and full lockdown. They found that, in these early months of the pandemic, mortality rates were associated with higher obesity, higher GDP-per-capita, and higher income inequality, but there was no association found between mortality and the use of full lockdown measures.

Secondly, Bjørnskov (2021) investigated the association between severity of lockdown policies in 24 European countries in the first six months of 2020 and excess mortality (all-cause mortality, so not specific to COVID-19). No association between lockdown and mortality was found. Indeed, countries that applied a relatively severe lockdown experienced 372 excess deaths per million, while countries with relatively light restrictions only experienced excess mortality of 123 excess deaths per million.

Thirdly, De Larochelambert et al. (2020) in an analysis of 188 countries, using data up to August 31st 2020, found that high COVID-19 mortality was predicted by a country having higher life-expectancy, higher prevalence of chronic diseases such as cancer and heart disease, along with a high level of metabolic risk factors such as an inactive lifestyle and obesity. The stringency of government lockdown response was not associated with mortality.

Fourthly, Meo et al. (2020) compared lockdown measures across 27 randomly selected countries. Prevalence and mortality were measured 15 days before, 15 days during, and 15 days after the lockdown. There was no significant decline found in prevalence or mortality at the 15 day after measurement, when compared with 15 days before or 15 days during the lockdown.

Fifthly, Savaris et al. (2021) conducted an analysis of 87 regions of the world between February and August 2020, focusing on the relationship between deaths and stay-at-home orders. They used a time-series analysis to compare countries that had steady or declining death rates with similar countries were deaths were increasing. Google COVID-19 Community Mobility Reports were used an indicator of stay-at-home orders. They found “no evidence that the number of deaths/million is reduced by staying at home” (Savaris et al., 2021, p.8).

In contrast, one study by Sornette et al. (2020) that looked at 35 countries (European and North American) found an inverse association between the number of deaths during the 20 days following the date at which cases passed 1 per million within a country and the stringency of government measures 20 days before that date (to allow for the delay between infection and death). Almost all the countries on the intervention census date were still in the first half of March and so had not yet implemented a lockdown. For example, Italy, which had the earliest lockdown on March 9th, but this study looked at their interventions on March 2nd. Thus, this analysis is principally about the effect of interventions enacted *prior* to lockdowns.

The evidence from cross-country and cross-state comparison studies reviewed above is that lockdowns contribute to lowering the reproduction rate of the virus but that some other more moderate policies such as small gathering cancellation may be more effective than blanket lockdowns (Haug et al., 2020). Such evidence is further supported by within-country analyses that have looked at changes following interventions, such as Dehning et al.'s (2020) analysis of German interventions and found that banning small gatherings was particularly effective, and that a combination of interventions in April 2020 helped to reduce the *R* rate. The association between lockdowns and mortality shown by these cross-country and cross-state studies is very limited. The provisional conclusion is that there is no link between lockdown and mortality over the period of the pandemic that has elapsed to the end of 2020.

A caution with all the above research is that the studies are correlational, and there are a range of extraneous variables that can influence how a country or state fares in terms of case and mortality numbers, including population density, ethnic composition, COVID-19 testing capacity/methods, and the way that such data are reported. For example on the latter point, COVID-19 deaths are not defined in the same way across all countries (Sornette et al., 2020). Many of the studies described above do attempt to control for confounding variables, for example obesity and climate, but that does not preclude the possibility of others. Thus, the literature should, despite becoming increasingly consistent and clear, be treated with continued caution.

Computer Modelling Research

A different approach to analysing the effect of government interventions is via computer simulation of the no-intervention scenario. Flaxman et al. (2020) used this approach, looking at deaths attributable to COVID-19 across 11 European countries between February and early May. They modelled the combined effect of social distancing, self-isolation of infected individuals, banning of public events, school closure and stay-at-home orders, and so was not specific to lockdown. The researchers compared the actual mortality in these countries over February-May with a computer simulation of the scenario where no actions had been taken at all. Based on that, the article concluded that the interventions taken by these nations may have reduced COVID-19 deaths by 3 million.

Several commentaries have been critical of Flaxman's study. Soltesz et al. (2020) take issue with Flaxman et al. using their findings to argue that lockdown is effective, as according to the same modelling approach, the public events ban in Sweden was as effective as lockdowns in 10 other countries at driving down infection rates. Kuhbandner and Homburg (2020) in a commentary on the article presented evidence that the lockdown in the UK (one of the countries in Flaxman et al.'s study) had no effect on deaths at all, given the typical 23-day delay from infection to death. They show that growth was already declining by the time the lockdown would have influenced death rates and there was no shift at all in the downward trajectory of deaths when the lockdown would have potentially come into an effect. Wood (2021) reached the same conclusion in his analysis; infections were in decline before the implementation of lockdowns in the UK.

An epidemiological simulation study by Hsiang et al. (2020) modelled changes in case numbers over time between February and May 2020 across six countries (China, South Korea, Iran, Italy, France and USA) and concluded that, when compared with the computer scenario of no interventions taken, government containment interventions as a whole had reduced the growth rate of infections by a substantial and statistically significant amount. Their conclusion was that these public health policies had slowed the COVID-19 pandemic, and that, up to May, the number of cases and deaths had been reduced.

A limitation of all the aforementioned simulation studies is that they assume a continued exponential rise of virus cases means a doubling every two days in the absence of interventions indefinitely, but research has shown that virus case growth does not continue on a path of exponential growth; infection rates slow and decline of their own accord without any government intervention over a period of approximately 8 weeks (Ben-Israel, 2020). This hypothesis was put to the test when South Dakota had a high surge of COVID-19 infections in October 2020 and subsequently implemented no lockdown or business closures. The surge peaked in mid-October and cases returned close to normal seasonal levels in December, suggesting that 2 months is an appropriate estimate of the timeframe for a virus surge to decline without the use of restrictive interventions. This fact that there is natural remission from exponential growth without intervention means that Hsiang et al. (2020) computer simulations of the no policy scenario were likely overestimations.

In summary, the computer simulation research on combined government interventions has modelled the effect of all public health interventions versus a hypothetical scenario of no interventions taken at all and has concluded that the interventions have been instrumental in slowing the growth of the pandemic over the early months of February to May. What they don't show is the relative merits of lockdowns versus other measures. These models have also been based on parameters about virus growth, population susceptibility and lockdown effectiveness that have been questioned by critics. For example, Chin et al. (2021) describe these models as non-robust and highly sensitive to model specification and parameter selection. The models have also assumed that lowering infection rates also lowers deaths in proportion. However, the cross-country studies suggest that this assumption is unfounded. This may be because the varied collateral damages of lockdowns mean that while case numbers are lowered, susceptibility to serious illness and hence death is increased. I flesh out that claim over the course of the article.

The Biomedical Costs of Lockdown

A limitation with all the research studies discussed above is that they give no or minimal attention to the negative effects of lockdown in their evaluations of whether they work or not

(VanderWeele, 2020). This is equivalent to assessing the efficacy of a drug that has potentially deadly side-effects without any mention of the side-effects.

A key concern about lockdown policies, particularly stay-at-home policies, is that they lead to a decline in uptake of other important health services (Bodilsen et al., 2021). For example, lockdown in the UK led to a 70% decline in cancer referrals (Miles et al, 2020). The drop in cancer diagnosis and treatment has led some cancer specialists to suggest that a cancer pandemic may follow the COVID-19 pandemic (Hanna et al., 2020). An analysis of excess deaths in the UK from delay in cancer treatment during the March-June lockdown suggests that from breast cancer, lung cancer, colorectal cancer, and oesophageal cancer, over a period of 5 years following the pandemic there will be approximately 3300 to 3600 additional deaths. In light of the young age of many of these individuals, the total years lost to life from this cancer surge is calculated at approximately 59,000–63,000 (Maringe et al., 2020).

The challenge with interpreting reduced uptake of other health services during lockdowns is that the extent of such reduction in the event of no lockdown is unclear. People are likely to avoid hospital and medical appointments due to fear of a pandemic virus anyway, irrespective of lockdown injunctions. Future country comparison research on this will help to resolve this question, but until then the matter remains ambiguous.

A final issue in terms of negative effects of extended lockdowns on physical health is the drop in exercise and activity that is evidenced in a proportion of the population (Sport England, 2020). Exercise has been shown to enhance immunity to disease, so when a higher proportion of the population become inactive during lockdown, it is plausible that more individuals will become susceptible to illness when exposed to COVID-19 (Valenzuela et al. 2020).

The Economic Level of Analysis: Cost-benefit Calculations of the Effects of Lockdown

Financial resources for funding medical treatments and interventions are finite. Trade-offs must be made, as money used to fight one disease means funds being unavailable to treat or prevent others (Thomas & Stupples, 2006). A concept that is used by many countries to justify whether a treatment or intervention is worth the cost, in an environment of finite resources, is the “Quality adjusted year of life” or QALY (NICE, 2013; Bertram et al., 2016). One quality-adjusted life year (QALY) is one year of life in good health. Hence, when a young person dies, there is a greater loss of QALYs than when an older person dies. In the UK, the National Institute for Clinical Excellence has a metric to determine whether a treatment is cost-effective and thus should be adopted (i.e. that money is not better spent to save lives and alleviate suffering elsewhere). This metric is £20,000 to £30,000 per QALY saved (NICE, 2013). Other countries set the bar at different levels, but all health services require some kind of quantification in this regard.

Miles et al. (2020) conducted an economic analysis of the costs and benefits of the March-June 2020 lockdown in the UK. They analysed the potential lives saved by the March-June lockdown, on the premise that lockdowns do indeed save lives, then considered the costs of the lockdown in terms of reduced GDP. They found that in all their various calculations, the costs outweigh the benefits by at least £59 billion (2 million QALYs), and up to £547 billion (approx. 20 million QALYs). The authors concluded, “This suggests that the costs of continuing severe restrictions are so great relative to likely benefits in lives saved that a rapid easing in restrictions is now warranted” (Miles et al., 2020, p. 1).

One other cost-benefit analysis conducted by Israeli researchers found that a lockdown for 200 days would cost $45,000,000 per saved death, and as such governments should consider this very high economic price when deciding on how long to implement national lockdown interventions, given the inevitable toll on other public services and health services that are affected by reduced funds available (Shlomai et al., 2020).

A multi-faceted analysis of the economic and ethical implications of measures taken by governments conducted by Reddy (2020) expresses concerns that the expenditure and resources invested in lockdowns and other non-pharmaceutical interventions are not proportionate and will, overall, decrease the aggregate population health over time. For example, he makes the point that a 4.9% reduction in world GDP is predicted this year as a result of lockdowns, which is approximately US$4 trillion. If a world GPD growth of 2% is assumed as the counterfactual for 2020 (lower than recent years), then the cost of non-pharmaceutical interventions taken to combat COVID-19 would exceed US$5 trillion, which is greater than the total global annual expenditure on all other health issues prior to the crisis.

Reddy (2020) says serious questions must be raised whether lockdowns will, in fact, lower, rather than increase, overall population health over time, due to other health objectives that have lower cost and higher benefit being deprioritised. Consider the following figures as an example: The UK has spent £280 billion on fighting COVID-19, which is considerably higher than the total spending on health and social care in a typical year in the UK, while $2.6 trillion has been spent in response to COVID-19 in the USA. Meanwhile, the Gates Foundation has estimated that global eradication of malaria by the year 2040 would cost approximately $120 billion. Such an initiative would potentially save 11 million lives (Savulescu et al., 2020).

A further key issue at the economic level of analysis pertains to the number of individuals being pushed into poverty and/or unemployment during the pandemic. The World Bank has estimated that 150 million people may be pushed into extreme poverty during the pandemic (World Bank, 2020). The Charity UNICEF have explicitly linked this increase in poverty to the negative effects of lockdown policies (UNICEF, 2020), as have other researchers (Broadbent et al., 2020). There is a moderate correlation between GDP-per-capita and life expectancy (0.31 in developed countries, 0.47 in emerging/developing countries), and also between total health expenditure per capita and life expectancy (0.23 in developed countries and 0.51 in developing countries) (Biciunaite, 2014). Thus, we should expect to see a lowering of average life expectancy associated with the declining GDP due to the COVID-19 recessions across the world, and that this will hit emerging economies hardest.

Another form of economic cost-benefit analysis conducted by Thomas (2020a, 2020b and 2020c) has focused on the effect of lockdowns on decreased GDP and hence on mortality. This was established methodology based on a calculation called the J-value, which considers the trade-off between safety-increasing effects and loss of income due to the costs of implementation. The essence of this approach is to look at the change to *years of life expectancy* (which is very like the QALY concept) that a particular safety intervention brings. In relation to COVID-19 lockdowns, the cost is modelled as the effect on GDP. GDP is a very strong predictor of life expectancy; Thomas' J-value, based on GDP, explains 80 per cent of the variation in life expectancy across 162 nations (Thomas, 2020c). In other words, on average, the wealthier a country is, the longer its people live.

Thomas calculated that a 13% reduction in GDP for the UK was probable, along with an estimate based on previous recessions that the country does not return to pre-pandemic levels until 2022[3]. The increased impoverishment that this economic shrinkage causes will lead to the loss of 34.9 million years of life expectancy, which is the equivalent loss of 830,000 lives, given the life expectancy of the average UK citizen (Thomas, 2020). Even a scenario in which the pandemic is not controlled by any lockdown, the number of lives lost to the pandemic is a small fraction of the total lost to economic decline and increased poverty. Thomas thus concludes that lockdowns are remedies that may well have costs far worse than the pandemic (Thomas, 2020c).

A potential criticism of this cost-benefit approach is that GDP will be depressed in a pandemic anyway, so it is uncertain how much of GDP reduction is due to the lockdown. Sweden, with no lockdowns implemented, is a useful comparison in this regard; its economy is predicted to shrink by 2.9% during 2020, which is one of the lowest GDP declines in Europe despite mortality rates that are about average across European states (Reuters, 2020). Therefore, we have reasons to believe that lockdowns contribute to the majority of GDP losses.

Closely related to the issue of poverty is the increase in unemployment due to business closures and stay-at-home orders that have been implemented by countries around the world. For example, 400,000 more people in the UK were unemployed in December 2020 than in December 2019 (ONS, 2020). Approximately 5 million more people in the USA were unemployed in November 2020 than in February 2020 (Duffin, 2020), while more than 97,000 businesses had permanently shut across the US during the pandemic up to September 2020 (Sraders & Lambert, 2020). Unemployment is a high-risk factor for mortality. A meta-analysis of the relationship between unemployment and mortality found that the risk of death for unemployed persons was 63% higher than the risk of death for employed persons (Roelfs et al., 2011). While this can be partly explained by chronically ill individuals being more likely to be unemployed, another explanation for this link is that the stress of unemployment has been found to lead to markers of accelerated physical ageing at the genetic level (Ala-Mursala et al., 2013). A further concern is that unemployment rate has a close relationship with suicide rate; Canadian data shows that a 1% increase in unemployment leads to 1% increase in suicide (McIntyre & Lee, 2020), or as much as 2% (Samson & Sherry, 2020). Although suicide numbers overall are small compared with pandemic deaths, they tend to occur in younger adults and so equate to more quality-adjusted years of life (i.e. QALYs) lost.

There is evidence to support the proposition that economic problems driven by lockdowns are associated with mortality during the COVID-19 pandemic. Hasell (2020) has found a strong positive relationship between economic downturns caused by heavy lockdown measures and

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[3] GPD UK loss from February to October 2020 was 8% according to the Office of National Statistics, thus 13% this is likely to be accurate when the November and January lockdowns are also factored in.

COVID-19 mortality. Peru is a case study in this regard. It implemented one of the toughest and earliest lockdowns in the world (Hannan, 2020). On March 16 2020, when there were only 28 confirmed cases, Peru closed its borders and imposed extreme limitations on freedom of movement. Public transport and cars were banned. Men and women were only allowed to leave their home on alternate days for essential purposes. The restrictions were enforced by the army. This cut down movement and mobility within the country by 89% - more than any other Latin American country (Jaramillo, 2020). Peru has remained in various levels of lockdown for much of the year since then. The effect on the economy of these measures has been stark; the percentage decline in GDP has been the highest of any country in the world, at over 30% (Hasell, 2020). Despite the severe lockdown, as of December 2020 Peru had the fifth worst fatality rate in the world out of 218 countries (Worldometer, 2020). Peru has similar demographics to its neighbours in South America and its health system has similar capacity, so this cannot account for its outlier status in terms of the high numbers of deaths. While there may be an as-yet-unexplained differentiating factor to explain its high mortality rate, one factor that makes Peru unusual relative to neighbouring countries is the extremity and duration of the lockdown measures it employed. Most people in Peru are in the informal economy and work in agriculture, mining and fishing. Most are paid in cash and have little or no savings (ILO, 2018), meaning that Peruvians need money weekly to feed their family. Therefore, for some it may have been a matter of stay in lockdown and starve, or break quarantine to feed your family (Piper, 2020). There is of course also little opportunity for working-from-home compared with developed countries that implemented similar lockdowns and there was no salary furlough scheme as there was in more affluent countries that enacted lockdowns. The sudden poverty, stress and malnutrition that this kind of extreme lockdown drives up in countries like Peru may drive up susceptibility to illness in ways that outweigh the benefits of reduced transmission of the virus. This would at least explain Peru’s contradiction between early and extreme lockdown and very high COVID-19 mortality.

One final consideration at the economic level of analysis is whether the approach to the pandemic taken this year is sustainable as an approach to pandemics going forward. If there were another pandemic in 5 years’ time, could countries afford to take this same approach again? Many countries will likely still be dealing with the effects of the post-COVID recession, the weight of their increased national debt, and the deleterious effects on social cohesion and mortality that high unemployment brings (World Bank, 2020). It is therefore doubtful that this year’s response represents an economically sustainable solution to global pandemics (Farsalinos et al., 2020; Gurdasani et al., 2020).

The Psychological Level of Analysis: The Desire for Paternalism vs Effects of Lockdowns on Loneliness, Anxiety and Behaviour

The psychological level of analysis considers the effects of lockdowns on thinking, emotion and behaviour, along with how these may have impacts on health outcomes. This level of understanding, so often omitted from media coverage, may be key to understanding the reasons why lockdowns do not have notable efficacy over more moderate or voluntary measures.

The first argument in favour of lockdown measures is that it may be what most people want, hence they have a democratic mandate. Polls in the UK showing high support for lockdown attest to this (Ibbetson, 2020; Smith, 2020). The psychologist Erich Fromm, in his famous book *Escape from Freedom* (1941), theorised that when people perceive an increase in disorder and danger within their community or environment, they feel an existential anxiety that breeds a desire for safety and security via paternalistic and authoritarian forms of governance. An example of this is seen in the actions and rising popularity of Markus Söder, Minister President of the German state of Bavaria. He intentionally implemented more draconian restrictions than other German states, such as a stay-at-home order (only one other state implemented this, while other states did not), and fines of up to €25,000 for non-compliance compared with no fines in some other states (Chae & Park, 2020). Söder was explicit about this approach being paternalistic – he said that "in a crisis, people often want Father to come and sort it out." (Rujevic, 2020). Söder's popularity increased exponentially as a result of his firm approach in the early months of the pandemic (Hockenos, 2020). However, the strict measures applied in Bavaria have not worked. They appear to have been less effective than the more moderate measures taken in other states; Bavaria has had the second highest COVID-19 mortality per capita of 16 German states, as of December 20th 2020. It has over double the mortality rate of seven of these states (Statista.com, 2020).

Another psychological argument presented to support lockdown is that lockdowns reduce the amount of post-traumatic stress disorder associated with bereavement and illness. For example, the UK government has justified its tiered system of mandatory enforcements by arguing that it is likely to lessen the burden from post-traumatic stress disorder, by limiting the number of those infected and who go on to suffer from severe illness (HM Government, 2020). The assumption here is that lockdown measures reduce symptomatic infection more than other non-pharmaceutical measures. The biomedical research reviewed earlier in the article does not provide clear support for this assumption currently.

Contrary to the claims of the UK government that lockdowns reduce anxiety, researchers have found that anxiety and depression both increase with the duration of lockdowns and that lockdowns are a serious threat to mental health (Fiorillo et al., 2020). Research in China also found that anxiety levels in a population go down when lockdowns are eased from 30% to 21% (Lu et al., 2020).

Another study using data from China in February and March found that depression was higher in the lockdown group but fear was not (Gan et al., 2020). In support of this, previous research on the effects of quarantines in prior pandemics suggest that they are related to depression (Brooks et al., 2020).

A recent review study by Cohen (2020) presents the compelling evidence from several decades of studies to show that psychological stress is a robust predictor of whether a person gets ill when exposed to a coronavirus or influenza virus, along with smoking and inadequate Vitamin C intake. The stressful events that were most predictive of coronavirus symptoms were interpersonal stressors and being unemployed. On the other hand, strong predictors of *not* getting ill when exposed to such viruses included social support and physical activity. Cohen concludes that lockdown interventions may *increase* susceptibility to COVID-19 due to their potential for stressors such as unemployment and social isolation, and the closing of environments where individuals retain physical fitness.

Loneliness and Lockdown

The effects of extended lockdown measures in 2020 on loneliness has been researched, and the most recent conclusion is that loneliness may itself be a silent epidemic running alongside the pandemic (Sharpe, 2021). A longitudinal study of 1545 US adlts found that from January to April 2020 there was no mean-level increase in loneliness (Luchetti et al., 2020). But as 2020 progressed, the statistics showed growing levels of loneliness. A more recent survey published in December 2020 found that 65% of US adults living under lockdown measures expressed high levels of loneliness, compared with 48% of those living without such restrictions (Killgore et al., 2020). A study from the UK found that loneliness rates in the UK increased from 10% before lockdown to 24% in lockdown (Mental Health Foundation, 2020). As of February 2021, the Office of National Statistics found that levels of loneliness had increased from Spring 2020, up to almost double the national average (Moss & England, 2021).

In the UK, some parts of the country have been under policies that ban almost all social interaction with people outside of one's own household for over four months in total since the start of the pandemic. Correspondingly, a recent report from the Office of National Statistics suggests that loneliness levels in the UK continued to rise all the way from March 2020 to November 2020 (Coughlan, 2020). A study that compared loneliness levels across Denmark, France, the Netherlands and the UK found that the UK's level of loneliness was significantly higher than the other three countries, particularly in individuals with previous chronic illness or mental health problems (Varga et al., 2021).

A major concern with high levels of loneliness during lockdowns is that there is an established body of research showing social isolation to be a very high-risk factor for mortality, comparable to the mortality risk of heavy smoking or obesity (NHS, 2015). A meta-analysis of studies found that social isolation, measured objectively or subjectively, increases the risk of premature death (Holt-Lunstad et al., 2015). After accounting for covariates, the increased risk of death was 26% for reported loneliness, 29% for social isolation, and 32% for living alone. Other studies have found that increasing the amount of social activity experienced by individuals in nursing homes predicts a decrease in mortality (e.g. Hjaltadóttir et al., 2011). One reason that loneliness leads to high mortality is that it brings about an endocrine stress response that impairs immune functioning and thus makes people more susceptible to disease (Cacioppo & Patrick, 2008). For example, one study found that loneliness is associated with poorer antibody responses to the flu virus (Pressman et al., 2005). Another study provided further explanation as to why loneliness affects immune function (Cole et al., 2020). They found that in isolated or lonely participants, leukocytes, white blood cells that are key to the immune system's response to infection, showed an increased expression of genes involved in inflammation and a decreased expression of genes involved in antiviral responses. Further effects of loneliness and social isolation are their impairment of restorative sleep, which leads to greater susceptibility to disease (Hawkley & Cacioppo, 2003). Furthermore, as with unemployment, loneliness brings about a higher risk of suicide, adding to the elevated mortality risk associated with the mass isolation that lockdown policies bring (McClelland et al., 2020).

A marker of those who develop severe symptoms of the COVID-19 disease is impaired immune functioning, specifically interferon deficiency in the blood (Hadjadj, 2020).[4] Given that loneliness and social isolation are recognised to be as dangerous as smoking when it comes to risk of premature death, extended lockdown policies that prohibit face-to-face social interaction over many months may increase mortality due to immunosuppressive effects, even if they alleviate some mortality via reduced transmission. Thus, what may appear as a COVID-19 death statistic may be partly precipitated by the effects of the social isolation that is inherent in lengthy lockdown interventions, particularly in older adults who are more likely to live alone (VanderWeele, 2020).

As well as impairing immune functioning, the loneliness and social isolation induced by lockdowns may influence behaviour after restrictions are lifted. The argument for this is that human connection is a fundamental need much like thirst or hunger (Cacioppo & Patrick, 2008), that the pent-up need for social contact after a lockdown will mean that many people may compensate for the weeks or months of isolation with a subsequent period of increased social activity (Spector, 2020b). This is what one finds with other unmet needs, for example, if someone is starved of food for days and then allowed to eat, they will gorge themselves as their brain seeks to compensate for the period of lack and scarcity, to bring nutrients back to required levels.

There is some research to suggest that people do indeed respond to the lifting of lockdowns by increasing the amount of social contact to an unusually high level, in ways that not only cancel out the benefits of lockdown but actually make the situation worse than before the lockdown. For example, an analysis of introducing and lifting restrictions across multiple countries found that introducing restrictions led to a reduction in case growth of 3-24% after 28 days, while lifting them led to increases of 11-25% (Li et al. 2020). In other words, after a temporary restriction of social activity is lifted, growth rates tend to increase to a higher level than they were before the lockdown.

More recently, Spector (2020a) has observed this rebound effect in the longitudinal data from the COVID Symptom Study, based on over 4.4 million British participants. He states that there is evidence of a rebound effect after severe short lockdowns, which may cancel out any temporary benefits. More anecdotal evidence from the UK is from media reports of unprecedented crowds in commercial environments directly after the lifting of the recent lockdown on December 2nd. One such report was of ‘mayhem’ as a ‘sea of people’ congregated outside of the Harrods department store on the first weekend after lockdown (Press Association, 2020).

There may be a deeper reason for irresponsible behaviour observed after lockdowns are lifted. Lockdowns work on the basis that a pre-conventional morality, based on the threat of punishment, must be used to enforce correct behaviour during a pandemic. Pre-conventional morality is what one applies to young children; moral guidance is dictated externally by parents, guardians or teachers, and is enforced through rewards and punishments. Young children’s behaviour is managed in this way because they have not developed an internalised ethic of civic responsibility, which is the foundation of conventional morality (Armon & Dawson, 1997). To apply a pre-conventional approach to managing the pandemic therefore means treating adults like children. The danger of such an approach is that by engendering a parent-child arrangement of external controls and punishments, lockdowns may actively undermine the tendency of people to behave like adults and to use their own good sense.[5] This has been discussed in relation to environmental ethical issues; Brisman and South (2015) argue that infantilization leads to irresponsible behaviour in relation to the environment. Evidence also suggests that the imposition of authoritarian policies can quickly reverse a sense of individual responsibility (Douglas Grant, 2019).

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[4] Interferons are signaling proteins released by cells in response to the presence of viruses.

A topic that I have not covered systematically within this review is the effect of school closures on children's learning and social development. Many countries and states closed school for months during the COVID-19 pandemic, leading to a range of issues included slowed educational development, stunted social development, and mental health issues in children caused by isolation from their peers (Donnelly, 2021). The omission from this review is because the closure of schools is a pandemic response that may be used as part of a general lockdown or separate from a lockdown, and it has a recognised heritage of use prior to 2020. For a comprehensive review of the harms caused by school closures, the reader is directed to Ballan (2021).

The Ethical Level of Analysis: Evaluating Competing Ethics in Relation to Lockdowns

Scientific and public health advisors help to inform lockdown decision, but the value-neutral data and analyses of science can only be part of the matter when handling a complex moral dilemma such as a lockdown at a governmental level. Politicians must also navigate social, economic, psychological, moral and political trade-offs and competing concerns. Trade-off decisions inherently entail the consideration of values and principles as well as facts (Pardy, 2020). Ethics, as the study of such values and principles, must therefore play a part in selecting between competing policy options when considering government interventions for a pandemic (Patton, 2020).

Lockdowns lead to potential harms and benefits to a population, and this is at the crux of the ethical dilemma. The justification of harming some to help others stems from the moral philosophy of utilitarianism. Utilitarian reasoning is based on a consequentialist logic, which justifies an intervention or policy based on whether it leads to more lives saved than lives lost (Reddy, 2020). This is the *saving the greatest number* principle (Otsuka, 2006). Many who warn against lockdowns do so from the same utilitarian ethics, and suggest that lockdowns will likely lead to more death and suffering than they alleviate (Miles et al., 2020; Reddy, 2020).

Consider the following hypothetical scenario: You are a rescuer and there are two boats sinking; one has ten people in it and one has five people in it, but you can only rescue one boat

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[5] A number of legal and political commentators have picked up on this in relation to COVID-19, for example Heffer (2020) wrote: "The Government has infantilized the country by denying people the right to choose what risks to take with their own health; it has taken to itself the duty of personal responsibility, which in a free and properly-run society must reside with the individual." Ridley (2020) has written similarly.

(Bradley, 2009). The utilitarian argument is that one should save the boat with ten people in it. Utilitarianism states that by saving the greater number from death, you will maximize the aggregate sum of welfare (Otsuka, 2006). Enacting a lockdown is a scaled-up version of this kind of dilemma; which proverbial boat – the boat containing people saved by lockdown, or the boat containing people that die as a result of lockdown – has more people in? Resolving this utilitarian puzzle requires very clear evidence on the effects of lockdowns on saving deaths and collateral deaths (Reddy, 2020).

Furthermore, given that those impacted negatively by lockdown, for example via unemployment or mental illness, tend to be younger than those impacted by COVID-19, should that matter? Generally, the utilitarian consensus is that the age of the people on the two sides of the dilemma should matter (Savalescu & Cameron, 2020). The concept of the QALY (quality-adjusted life year) discussed earlier in the article is an example of utilitarian reasoning that takes age into account. More QALYs are saved when the death of a child is avoided than when an elderly adult is saved from death, and that is then factored into the decision to employ a treatment (Reddy, 2020). So, the issue of relative age of those lost to COVID-19 and those who die due to lockdown collateral damage should be considered in the ethical debate.

While some broadly utilitarian cost-benefit analyses have been conducted on mortality caused by COVID-19 versus lockdowns, for example Thomas (2020a), substantive problems remain in using this information to inform political decisions from an ethical perspective, as the more intangible matter of *happiness* is also central to utilitarian moral reasoning. Utilitarian ethics is traditionally about maximising happiness for the greatest number (Stuart Mill, 1879). This of course means saving lives in a pandemic, but is not confined to that. Balancing happiness of the greatest number against saving lives requires subjective judgements of value. For example, the recent decision by many European governments to make social contact with other households at Christmas in 2020 a criminal offence, in order to help keep COVID-19 infection rates down and prevent hospitals from being exceeded in capacity, is an example of balancing happiness against saving lives. The standard ethical judgement for a normal year is that the joys of Christmas outweigh the dangers. Yet, every year across the Northern Hemisphere, hundreds of thousands of elderly adults die from influenza during January and February and hospitals are usually challenged by the numbers who are admitted with infection diseases in those months. Such illnesses will be partly contracted from social gatherings at Christmas. It is therefore likely that hundreds of thousands of lives would be extended if we banned Christmas every year. Critics of consequentialist moral reasoning argue that such deliberations cannot lead to meaningful conclusions (Shermer, 2018). The decision to allow people to gather in groups at Christmas in normal years, such critics say, is more aptly based on *deontological reasoning* about the right way to govern, rather than consequentialist calculations.

Deontological moral reasoning argues that certain kinds of actions are right or wrong no matter what their consequences (Waller, 2005). For example, considering the ethic of consent, consensual sex is right and non-consensual sex is wrong, no matter what the outcome. The philosopher Kant argued that honesty is an ethical principle that should be upheld no matter what the perceived consequences (Shermer, 2018). Critics of lockdown have based their concerns on the fact that lockdowns override the ethical principle of liberty. This ethic is founded on the premise that allowing mentally competent adults the freedom to choose between different actions, rather than being legally mandated or externally coerced to behave a certain way, supports flourishing societies and human dignity (Tucker, 2020). The principle manifests in a whole range of ways in liberal democracies: freedom of movement, freedom of speech, freedom of assembly, freedom of the press, freedom of religion, freedom of protest, and the freedom to refuse medical treatment (Beauchamp & Childress, 2008; Mandal et al., 2016).

The libertarian ethical argument against lockdowns states that allowing people to take responsibility for their lives and for each other, and so to make their own decisions based on clear information, elicits the best results in the long-term (Sumption, 2020). Most would agree that no-one would accept the kind of authoritarian policies that have been implemented in response to the COVID-19 pandemic on a permanent basis. Why not, *if* they would continue to save lives and drive mortality graphs downwards? Because it is human nature to value liberty and the freedom to live as we wish (Tucker, 2020). Some ethicists who combine libertarian and utilitarian arguments propose that quarantine or lockdown should be applied to the smallest number possible via targeted interventions, for example quarantining the elderly only, given the low risk that COVID-19 means to the under-60s. This is in itself a moral dilemma; I direct the reader to Savulescu & Cameron (2020) for an evaluation of it.

Applying the liberty ethic to public health matters such as lockdowns is based on three arguments that are worth making explicit with examples; (1) belief in the long-term benefits that liberty and autonomy bring despite the short-term risks, (2) the cultivation of trust between government and people and (3) that liberty is a way of ensuring positive community-mindedness. I will briefly review the these prior to considering the criticisms of lockdown from a libertarian perspective.

Firstly, the matter of accepting risk. Upholding the political principle of liberty, or the parallel principle of autonomy in medical ethics, means that individuals will take risks and may be harmed or die as a result of them (Beauchamp & Childress, 2008). Despite this, Western medicine and governance are founded on the premise that giving mentally competent adults autonomy in their decisions is worth that risk (O’Neill, 2002; Savulescu, 2017). Take drinking alcohol as an example: It leads to a considerable burden of illness – the World Health Organisation estimates 3 million people die every year around the world as a result of the harmful use of alcohol, which is greater than the COVID-19 death toll for 2020 (WHO, 2018). Despite the clear benefits to public health outcomes of banning alcohol, the decision is left up to the individual.

There is no doubt that legal prohibition of alcohol beverages brings lower numbers of alcohol-related illness, for example in Saudi Arabia where alcohol is banned, alcohol-related deaths are close to zero (World Health Rankings, 2018). And yet democratic societies continue to allow people to have the choice. This is part of a general commitment to the benefits of informed choice. In totalitarian societies, the general population may be safer in some ways, but the requirement to follow strict rules for day-to-day behaviour is known to stifle innovation, happiness and change. It creates stasis and fear while liberal policies allow for flourishing, experimentation and innovation (Kasparov & Halvorssen, 2017).

The second key rationale for the ethic of liberty is that it is central to cultivating *trust* between government and people, or between doctor and patient. When politicians and doctors uphold the right of a citizen to choose their own path, this conveys that they trust those individuals to take their own decisions, and to look after themselves and each other (Warren, 2017). Enforcing compulsory lockdowns via the threat of punishment conveys the message that people can't be trusted to behave well. While there is no doubt that some people would not act in a responsible or trustworthy way during a pandemic, a policy that assumes as much across a whole society is likely to be a self-fulfilling prophecy, for the reasons discussed earlier in the psychological analysis section: If you treat people like children, they will behave like children. Conversely, advisory policies that are based on informed consent, such as those used in Sweden and Japan, assume that people can be trusted. We could hypothesise, based on this, that in countries where authoritarian lockdown measures have been implemented, trust in government will have been eroded during 2020. This has indeed been found in a poll conducted in the UK in October 2020; trust in the British government has dropped to the lowest point in decades (Sugue, 2020). A recent peer-reviewed study has also found a drop in political trust in the UK during the pandemic (Davies et al., 2021). However, it is not clear how much of that is the pandemic response and how much of that is other matters such as Brexit. Future studies comparing trust in government across countries that implemented measures voluntarily or forcibly will be an important area of research in this regard. The potential effects of lockdown on the erosion of societal trust and on a decline in prosocial civic behaviour should not go overlooked.

The third argument for maintain the liberty of citizens in a pandemic is that it has a legacy of promoting positive community-mindedness. Philosophers who have promoted the societal benefits of liberty, such as John Stuart Mill (1860), have emphasised that giving individuals such responsibility and freedom allows for the cultivation of self-control, discipline, restraint, and community-mindedness. These can't be meaningfully cultivated in an environment of coercion and constraint. In support of this assertion that freedom of action actually enhances prosocial behaviour, a recent study found that voluntary social distance measures in the USA were more effective than enforced lockdowns in reducing mortality (Seegert, Yang, Gaulin & Looney, 2020). Another US-based study found that mandatory stay-at-home orders were ineffective because people were modifying their behaviour voluntarily before the mandates were put in place, again supporting the view that prosocial changes are taken volitionally in socially liberal countries (Berry et al., 2021).

Counterarguments to the libertarian critique of lockdowns point out that if a person with a virus is given the autonomy to behave as they want but then does so irresponsibly, they could put other people's lives and health at risk, and that this violates the libertarian ethic of doing what you want as long as it does not harm others (Compton, 2020). However, critics say that risk to others can be managed by more moderate laws and measures that do not require people to stay at home and businesses to close, but instead allow those who choose to congregate in a social environment to do so while mitigating the risk, such as via distancing and masks, much as they do when they drive to work every day or when they drink alcohol.

Another counterargument to the libertarian issue of trust is the argument that if a government failed to control a pandemic, this may lead to a greater loss of trust than that which is compromised by mandatory lockdowns (Spitale, 2020). Given that the current weight of evidence as it stands suggest that lockdowns do little to control the pandemic in terms of mortality, this counterargument is currently lacking in validity.

In conclusion, a number of ethical principles come to bear on the lockdown dilemma, and some of these are in dialectical tension. All modern liberal democracies combine liberty with some degree of paternalism (Wiley et al., 2013). For example, alcohol and cigarettes are allowed, but most countries ban other drugs. Freedom of speech is allowed, but defamation and slander laws put boundaries around this. Driving cars is allowed despite the high risk of harm, but seatbelts are legally obligated and driving when over the alcohol limit is banned. None of these standard legal restrictions remove civil liberties – they simply put some boundaries on relevant activities. Lockdown interventions, in contrast, temporarily remove some civil liberties completely. The matter of lockdown duration is key. If lockdown is for a short-time frame, for example a month or less, and is implemented at the start of a pandemic only to bide time to understand the disease and develop more targeted measures, this is less ethically problematic than keeping measures in place for many months. If another pandemic arrived soon, and lockdowns were again implemented in extended form, it would arguably start to set a problematic precedent. Ignoring the importance of liberty is, some argue, the slow path towards authoritarian governance (Kasparov & Halvorssen, 2017). Politicians and citizens alike must evaluate how much authoritarianism they consider to be acceptable in the name of saving lives during a pandemic (Wolff, 2020).

As a final point for ethical consideration, given the uncertainty in the current evidence-base for lockdowns, the medical ethic of *non-maleficence* is important to consider. It states that a medical practitioner has a duty to not cause pain or suffering (Beauchamp & Childress, 2008). Thus, in a situation where it is unclear if a new drug will harm more than it helps, the medical establishment would not approve it. If lockdown were therefore a drug, on ethical grounds we would *not* yet prescribe it, irrespective of the cost, until we have clearer information. However, a pandemic undoubtedly brings a range of ethical issues and challenges that are not pertinent to normal treatment approval, so whether or not this ethic is applicable to the lockdown dilemma is one that requires continued consideration.

Conclusions and Future Research Directions

The evidence base about lockdowns is still in a provisional state, as there was no precedent for these interventions prior to 2020. Currently, there is no way of saying with certainty whether lockdown damages will be greater than benefits or vice versa. Overall, the current evidence base leans towards harms outweighing benefits, but this may change if further evidence of a highly significant effect of lockdowns on mortality emerges with a longer timeframe of study across the pandemic that includes the second wave.

Based on the biomedical evidence as it stands at the time of writing, the provisional conclusion is that a combination of moderate measures, such as limiting gatherings to 10 people or less and social distancing, work as effectively as lockdowns to reduce growth in case numbers, without the damages inflicted by the latter. The stay-at-home order appears to be less efficacious than expected. Furthermore, currently, there is little substantive empirical evidence that lockdowns reduce mortality despite lowering case growth rates. This may be due to immunosuppressant economic and psychological stressors that increase the risk of death in ways that offset the reduced risk of mortality brought by temporarily lower infection rates (Cohen, 2020). This issue should be factored into the continued policy decision-making.

Economic harms of lockdowns have been calculated via modelling the effects of depressed GDP on potential loss of life years, and through calculating the effects on lost resourcing for health more generally. These studies, focused mainly on UK data, have mainly concluded that lockdowns will likely lead to more life lost than life saved.

From an ethical perspective, in addition to the utilitarian ethic of whether lockdowns increase or reduce suffering for the greater number, the matter of liberty must be included in the discussion, just as it has always been part of the discourse on ethics and epidemics (Ries, 2006). In countries that treat people as rational agents, capable of taking care of themselves and others, we know that medicine thrives, the economy thrives, education thrives, the arts thrive and society thrives, when compared with countries that do not allow comparable freedoms (Tucker, 2020). Overriding the liberal ethic of civic responsibility by mandating people to behave in a certain way through threat of punishment may get short-term results, but it may also set a paternalistic precedent of delegating power to authorities and away from the individual. In an international environment where there is already growing authoritarianism (Kasparov & Halvorssen, 2017), that path of social development is unpredictable. Yet there is nothing absolute about liberty; the matter of liberty set against legally mandated constraints is a trade-off balancing act in all areas of governance, and the COVID-19 pandemic is no exception.

All conclusions on lockdowns are provisional given that the literature on lockdown mortality effects will continue to develop across 2021 and there is little published research on the second wave of the virus yet. Furthermore, little is known about the effects of the timing, strictness, and duration of a lockdown. Short lockdowns will have fewer detrimental effects on unemployment and social isolation than longer ones, so the variable of duration must be considered in future studies that have access to data over a longer period of time than currently published studies.

In terms of future research, studies need to investigate how cases and deaths relate to: (a) the timing of the lockdown relative to the course of the pandemic, (b) the duration and severity of the lockdown measures, and (c) whether the lockdown is implemented in an emerging economy with high levels of absolute poverty, or a developed economy where there is a relatively high level of affluence and an employment market based around service and media industries where a large proportion of individuals can work from home. Importantly, the medium-term to long-term effects of lockdown policies must be examined as well as the short-term effects, considering the potential for rebound effects after lockdown, which are likely to be exacerbated by suppressed immunity from lockdown loneliness and inactivity that will likely extend to some degree past the ending of any restrictions.

The collateral damages caused by lockdowns should also be the focus of further study over the coming years. The issues include social isolation, unemployment and depression, poverty and its varied negative effects on health including impaired immune functioning, as well as depleted funds for other forms of healthcare, and issues that relate to communities and families that have been damaged: domestic violence, suicide, crime and more. Future research should aim to estimate how much more of these problems lockdowns bring compared with more moderate non-lockdown interventions, rather than just compared to a no-intervention scenario, and also how much the potential damage will differentially affect high income countries and middle-to-low income countries.

An evidence-based take on lockdowns is unlikely to reach a categorical conclusion that they do or do not work. A more likely conclusion, given the complexity of the dilemma, is that they may be beneficial at certain points in the pandemic, for example early in the process, but damaging if maintained as a policy over months or years, or that specific interventions within a lockdown may have an acceptable cost-benefit ratio while others do not. The current review has moved the debate forward by being the first to present four levels of analysis – medical, economic, psychological and ethical - that are essential for a full consideration of the pros and cons of lockdowns. The next step is to develop a conceptual integration of these four levels to provide a more unified rubric for political decision-making.

Important Postscript

This manuscript was completed in July 2021. At the time of going to press in December 2021, an up-to-date review of cost-benefit analyses of lockdown measures has just been published that broadly supports the conclusions of this review. It concludes that in all of the 11 cost-benefit analyses published, costs are shown to substantively outweigh benefits (Joffe & Redman, 2021). The authors conclude that lockdowns have “terrible cost-benefit trade-offs” (p.1) and that the continued COVID-19 pandemic response should recognise this and avoid them going forward.

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A Relational Approach to Moral Development in Societies, Organizations and Individuals

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Abstract: Discussions of morality in businesses and organization tend to center around the rights and freedoms of organizations and/or customers, or around the importance of socially responsible business practice. Rights-based deliberations are often invoked to justify the pursuit of self-interest, either by the business or customer. Calls for socially responsible practices function to constrain the self-interest of organizations, or otherwise prompt businesses to "give back" to the communities they serve. In either case, genuinely moral motives are often seen as secondary to what is assumed to be the primary goal of business – the pursuit of profit. We reject the common sense view that business and moral practice operate as separate spheres of activity. In so doing, we offer a relationalist conception of morality and moral development in everyday life. From a relationalist view, moral standards arise not from nature, God, the mind, or society. They emerge in embodied *relational activity* that occurs between people. Moral relationalism embraces neither moral universalism nor relativism, but instead views moral standards as a continuously emergent but constrained properties of discursive action that occurs between people as they negotiate and negotiate questions of "what ought to be" in physical and socio-cultural contexts. In this paper, we first show how the full range of moral standards arise in different forms of social relations between people. We then apply the moral relationalist framework to an analysis of the inescapable role of moral judgment in all business practices. In so doing, we suggest that business decision-making should be continuously informed by the tensions that arise between and among at least three moral frameworks: rights, virtue and care. We illustrate the moral relationalist approach to business through in-depth analyses of the moral mindsets of three entrepreneurs who integrate moral concerns into their business practices in different ways.

Keywords: Care, moral development, moral relationalism, rights, virtue.

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Introduction

In what follows, we elaborate a relationalist approach to morality and moral development. From a relational perspective, moral values are neither universal properties of a fixed biological, social or spiritual world (O'Manique, 1990; Porter, 2014), nor are they relativistic constructions that are local to particular individuals, cultures, social groups, or historical epochs (Lukes, 2008). Instead, moral values, norms and frameworks are emergent products of *relations between people* that evolve historically within socio-cultural contexts; morality consists of fidelity to the demands of human relationships. Moral values and systems emerge as social agents identify, consolidate and promulgate *moral goods* that have their evaluative bases in human relational experience. From this view, morality is not simply something that arises in response to extraordinary life issues (e.g., life and death), but is instead a continuously emergent property of everyday social engagement. In what follows, we first elaborate upon the moral relational perspective. In so doing, we show how different moral categories emerge within different modes of relational activity between and among humans. We then elaborate the approach through analyses of how moral systems mediate social relations among adults in business and organizational contexts. In so doing, we describe how the moral relationalist framework provides a window into understanding how moral categories emerge and function in everyday life – and particularly in a domain of activity (business) often viewed as lacking a central moral dimension.

The Road to Relationalism

Despite the vast literature on moral development that has grown in the past fifty years, much of this work fails to consider the relational origins and development of morality. First, although moral life involves the rich interpenetration of judgment, emotions, experience, and values as they are organized within socio-cultural contexts, much of the literature has focused on moral reasoning and moral decisions – the cognitive aspects of morality (Kohlberg, 1969; Turiel, 2002). Second, much thinking on the nature of morality development tends to treat morality as a matter of extraordinary rather than ordinary life. In this regard, morality operates as a domain of functioning that is separate and distinct from everyday thinking, feeling and action. Third, moral principles and values are often seen as universal rules or standards that transcend time and place. Such a view runs the risk of viewing moral values as fixed and unchanging evaluative principles. From a moral relationalist view, moral values emerge through the very process of human relating over time. They are systems of strong evaluation (Taylor, 1989) that arise as humans seek answers to questions about the proper ways we should respond to the demands of social relationships (Donahue, 1977). If this so, the search for universal moral principles is likely to obscure the formation of an understanding the very process by which moral values are created. Below we examine these issues, and link them to specific research traditions in moral psychology. In so doing, we highlight problems in much existing theory that create a need for a theory of morality grounded in human relationships.

From Moral Cognition to Moral Integration

Much research in moral psychology addresses questions related to moral judgment or moral thinking. This focus traces to the cognitive-developmental tradition of Piaget (1932), Kohlberg (1969) and the suite of social domain theorists who have reacted to and built upon their work

(Nucci, 2014; Turiel, 2010, 2015, 2018; Smetana, Jambon & Ball, 2014). In his seminal *The Moral Judgment of the Child* (1932), Piaget focused on children's conceptions of the nature of morality. He produced evidence suggesting that the structure of children's moral thinking moves from heteronomous conception of morality (i.e., morality consists of fixed, external rules, handed down) to autonomous conception of morality (i.e., rules are seen as changeable subject to the mutual agreement of those involved in a given social encounter).

Kohlberg's (1981, 1984) constructivist model of moral development built on Piaget's insight that moral development could be understood in terms of structural changes in an individual's thinking about moral issues. Kohlberg argued that children initially confuse morality with authority and with social conventions and norms. Children move from incomplete and confused conceptions of morality to progressively more integrated and differentiated (and hence more mature) conceptions. These changes are reflected in the ways that children and adolescents justify and reason about their stances on moral dilemmas. Subsequent scholars challenged the claim that children's initial conceptions are mistaken and undifferentiated. Forming what would eventually be known as the Social Domain Approach, these scholars produced evidence demonstrating that children as young as 2 ½ could discriminate between moral violations and violations of social conventions (Turiel & Nucci, 1979). Nonetheless, the Social Domain theorists maintained a focus on moral reasoning.

This focus on moral thinking makes sense, as moral concerns are matters of evaluative judgment. However, thinking about moral life as primarily a matter moral judgment runs the risk of understanding moral life as something that is encapsulated within the cognitive sphere of functioning. As such, the focus on moral reasoning was noteworthy for what it left out of the study of moral functioning. In particular, traditional concerns about *moral character* (Hartshorne & May, 1928), *virtue* (Hamm, 1977) and *conscience* (Kochanska, Koenig, Kim & Yoon, 2010) were ignored and even disparaged (e.g., Kohlberg, 1981). The focus on moral reasoning raised difficult questions about the gap between moral thinking and moral action (Blasi, 1980). Still further, the study of moral development neglected the role of *emotion* in the organization of moral thinking and action – a process long viewed as central in the genesis of moral systems (Hume, 1751). In the past decades, these neglected issues have resurged as central aspects of moral development research (Miller, 2014; Nucci, 2018; Prinz, 2007; Svetlova, Nichols & Brownell, 2010; Tangney, 1987; Thompson, 2014; Walker, 2014). Developmental scholars have worked to develop increasingly integrative accounts of moral functioning and its development (Blasi, 2004; Cushman, Young & Green, 2010; Haidt & Kesebir, 2010; Kaplan 2017; Lapsley & Narvaez, 2005; Walker). Moral life is increasingly understood not merely as a matter of cognition, but in terms of the ways in which action is mediated by evaluative systems that arise at the *intersection* of bodily (Decety & Cowell, 2018; Liao, 2016), cognitive (Baird, 2018), motivational (Kaplan, 2017; Walker, 2014), emotional (Malti & Dys, 2015), experiential (Sherblom, 2015), linguistic (Tappan, 1997), identity-related (Stets & Carter, 2012) and socio-cultural (Ichiyanagi 2014; Miller, 2015) processes.

From Separable Domains to Socially Embedded Activity

Much of the cognitive-developmental tradition, reviewed above, aims to constitute morality as a distinct sphere of psychological functioning, in that the nature of moral evaluation is unique and hence qualitatively different from non-moral evaluations. In this way, morality can be fixed, defined by a set of features that is stable and constant, and would hold, for example, across cultures, contexts, and relationships. Nowhere is this aim more apparent than in the Social Domain Approach (Turiel, 2002). The Social Domain Approach proposes that there are different *domains* of social functioning – the moral, social conventional, and the personal (Smetana, Jambon, Ball, 2014) – distinguishable on the basis of unique formal criteria. The three domains differ formally, for example, on the source of legitimate regulation of actions. A distinctive feature of the moral domain is that it encompasses social actions that are perceived as "intrinsically" or "naturally" right or wrong. While these actions may be legitimately regulated by rules, laws, punishments, or social sanctions, the obligation to perform or to avoid performing such actions exists independently of these social regulations. By contrast, the social conventional domain includes social actions that are deemed obligatory precisely because they are regulated by rules, laws, or social norms. Social conventions include forms of address, uniforms, and other rules and norms designed to promote the smooth functioning and coordination of social groups and institutions. The personal domain encompasses social actions that are regulated by the individual actor, rather than intrinsically or socially (Nucci, 1981, p. 115; Nucci & Weber, 1995). These actions are taken to be up to individual discretion (Nucci & Smetana 1996, 2014).

For example, moral rules identify prescriptions against the theft of personal property. Social conventions identify more-or-less arbitrary agreements about where one typically stores one's personal possessions (e.g., clothing is typically placed in a dresser or closet; dishes in a kitchen cabinet). Beyond these spheres lies a personal sphere action of autonomy and personal choice. In one's own room, one is free to place one's dresser, desk, and lamp anywhere one pleases. From the standpoint of domain theory, these domains of thought have their own structure and, while they can overlap in any given act, develop in ways that are largely distinct from one another. Additionally, the use of these issues that we presented in order to exemplify and contrast each domain should be taken as only examples. The specific issues that comprise any given domain might vary (e.g., across cultures, contexts). It is the form of the domain that remains fixed, with its own internally complete and discrete structure.

Thus, according to the social domain approach, moral rules are those that are taken to be (a) *universalizable* in the sense that they are binding for people in other cultures; (b) *unalterable* in the sense that if there were no rule against the infraction it would still be wrong*;* (c) *non-contingent* in the sense that if an authority were to indicate that an infraction were acceptable it would still be wrong; and (d) *serious*, in the sense that someone engaging in the infraction would be subject to sanction even if the infraction did not violate existing conventional rules. Finally, moral rules are those that involve matters of justice, welfare, and rights.

In recent years, scholars have questioned the merits of the moral/conventional distinction (Kelly & Stich, 2007; Lourenço, 2014; Machery, 2012). They have argued and empirically demonstrated that the formal criteria do not always cohere in ways predicted by social domain theory (Shweder, Much, Mahapatra & Park, 1987; cf. Jensen, 2008). For example, some researchers (Kelly et al., 2007; Stich, Fessler & Kelly, 2009**)** have observed that participants across studies sometimes regard norms involving rights, justice and welfare as local rather than generalizable and as dependent upon authority. Additionally, beyond these conceptual and empirical questions, researchers have also suggested that there are social groups in which people do not make a moral/conventional distinction at all (Levine, Rottman, Davis, O'Neill, Stich & Machery, in press), and that the distinction is itself a product of a particular conception of morality and moral worldview (Shweder et al., 1987).

A related issue concerns the types of evaluative content that can be seen as definitive of a moral judgment. Haidt & Kesibir (2010) have described what they gave called the “great narrowing” of the concept of morality in Western psychology. In the past fifty or so years, psychologists have tended to limit the class of moral concerns to those organized around *rights*, *justice* and *welfare* (Kohlberg, 1980; Turiel, 2015). Such concerns, of course, are largely reflective of the individualist frameworks within which psychological scientists have typically operated. In recent years, this situation has begun to change. Psychologists have begun to expand their conceptions of morality. Psychologists have resurrected an interest in traditional categories of morality, which include issues related to virtue and character; the good and the worthy; compassion and care; in- and out-group loyalty; authority and duty; higher and lower; the sacred and divine; the pure and the polluted (Berniūnas, Dranseika & Sousa, 2016**;** Graham, Nosek, Haidt, Ier, Koleva & Ditto, 2013). While the debate over whether these concerns can be considered “truly moral” continues, we argue below why they should be, from a moral relationalist perspective. More broadly, below we outline our theory of moral relationalism, showing how moral concerns are not fixed but relative to relational experience, which in turn provides the grounding for a diverse and broad range of potential moral concerns. Before doing so, we trace the intellectual roots of moral relationalism.

Moral Relationalism

Moral relationalism holds that moral concerns emerge from and are legitimized in terms of the goods that arise from human relational experience. In this regard, perhaps paradoxically, moral relationalism harks back to Piaget’s (1928/1965) *relationalist* conception of human development. Piaget’s (1965) relationalist approach has its origins in the classic debate between individualist and holistic conceptions of sociological facts. The individualist approach maintains that society is merely an aggregate of individual persons. From this view, social knowledge is the result of the mere summation of the knowledge across individuals (i.e., “the whole is equal to the sum of its parts”). In contrast, Durkheim championed the holistic conception of emergent *sociologism*. From this view, social facts are irreducible wholes in the sense that they exhibit properties that do not exist in their base constituents (individual persons). Further, in his version of emergence, novel sociological wholes exist “exclusively in the very society itself” and thus are “external to individual consciousness” (p. xx, cited in Kitchener, 1991); they exist, for example, at the level of *collective* rather than individual consciousness.

Piaget rejected both extremes of the individualism-holism debate. For Piaget, social knowledge can neither be reduced to the activity of individual minds nor does it correspond to novel sociological wholes that operate somehow independent of their constituents (see Mascolo & Kallio, 2019). Instead, social knowledge (e.g., rationality, reason, social and moral norms) are products of relations between individuals. Piaget called this approach *sociological relativism* or *relationalism*. For Piaget, social wholes indeed show emergent properties, they do not form novel entities that are in some way independent of or “hover over” their parts. Instead, “social facts” arise from interactions (relations) between individuals which are consolidated into *rules*, *values* and shared *signs*. For Piaget, shared values have their origins in the personal desires (and values) of individual actors. When people interact, they exchange values, which then become consolidated into larger and more equilibrated systems of rules and meanings. In this way, the norm of reciprocity arises in social interaction as (a) the action of one person results in some (b) satisfaction of desire in another. As a result, a (c) debt or obligation to repay is incurred by the second person as a result of the action of her partner; this debt or obligation can be (d) repaid at some other time. The consolidation of the emergent meanings created by this pattern of interaction forms the basis of reciprocity norms.

Piaget's example of reciprocity illustrates the ways in which evaluative and moral concerns emerge from the structure of social relations. However, the example of reciprocity runs the risk of under-representing the full extent of the intersubjective nature of human interaction (Mascolo & Kallio, 2020). In the example of reciprocity, it is easy to think of interacting individuals as self-encased actors whose experiential worlds operate largely independent of one another. From this view, humans begin life as separate and independent individuals who become social only when they come into contact with other individuals. While novel forms of social knowledge may arise from relational activity, individual persons precede social relations. From a relational point of view, persons are relational rather than merely individual beings. Persons are both separate and connected, individual and social, distinct but nonetheless mutually-constituting (Gergen, 2009; Mascolo, 2013; Raeff, 2006, Shotter, 2017). Humans are not self-encased beings who come into the world cut off from the experience of others. Instead, humans enter the world with a primordial capacity for intersubjectivity – that is, an ability to share, coordinate and mutually incorporate experience between self and other (Di Paolo & De Jaegher, 2015). The development of a moral sense builds upon the primacy of intersubjective experience (Bråten & Trevarthen, 2007; Trevarthen, 1993) and the demands of relationships (Donahue, 1977).

This relational view of moral development is reflected in the seminal work of Emmanuel Levinas (1961/1987), a French philosophy of Lithuanian heritage who, as a Jew, spent time in concentration camp during World War II. Levinas' conception of moral action has its origins in his experiences in the Nazi death camps in World War II. The need to treat humans with moral dignity is often justified on the basis of appeals to a common sense of humanity. He noted that any attempt to include individuals under a common conception of humanity was limited by the nature of one's conception of the human itself. Levinas (1961/1987) warned against the dangers of *totalization* – the tendency to assimilate the Other to one's own conception of what it means to be human. Noting the ease with which some groups of people can be defined as other than human, Levinas turned this conception on its head. Instead of anchoring morality in a totalizing conception of humanity, Levinas grounds moral life in terms of ones' open-ended relation to the other – a spontaneous agent who is a continuous source of novelty. For Levinas, there is an infinity of meaning that lines behind and shines through "the face of the other" (Hendley, 2000; Waldenfels, 2002). My encounter with the other always brings forth the possibility of novel forms of meaning. The other is a constant source of potential novelty, always calling upon me to reconsider or revise my existing understandings of the world. I am thus never complete; the other always provides the possibility of novelty that calls for new forms of responsiveness from me to the other. I act as a moral agent each time I accept to the call to be responsive to the other and to the infinity that the other provides.

For Levinas, morality thus emerges from the very structure of relational life (Hendley, 2000). One's sense of responsibility to the other operates at a pre-reflective level within the very structure of interpersonal relating itself. In any social encounter, the other speaks to me and calls out a response from me. I am called upon not simply to respond to the other, but to be responsive to the plea of the other. It is in my very responsiveness that my responsibility toward the other emerges and evolves. It is my responsivity to the other that provides the grounding for ethical or moral life. Morality is defined in terms of the proper demands of being in relation to others. From a moral relationalist perspective, a moral framework is a *symbolic* system of *strong evaluation* that has its *origins in relations between people* and is *justified with reference to diverse goods that arise within intersubjective experience*. In what follows, we elaborate upon the meaning and implications of each element of this definition.

Symbolism and the Construction of "Nots," "Oughts" and "Ought Nots"

In his famous *Definition of Man* [sic], Kenneth Burke (1969) defines the human as a symbol-using animal. Symbols are representational vehicles through which persons can make one thing (e.g., a word, symbol, image) stand for something else (e., g., a meaning, object or sentiment.). The importance of this capacity cannot be overstated. According to Burke (1966), persons are not typically aware of "just how overwhelmingly much of what we mean by 'reality' has been built up for us through nothing but our symbol-systems" (p. 5). It is through the symbol that humans are able to extend awareness "beyond the information given" in direct sensorimotor experience (Bruner, 1972). We look and "see" a button affixed to a shirt. While the button appears on the retina in the shape of an ellipse, we are nonetheless aware that it is round. In this way, our representation of the object as a button bestows meaning beyond the registration of sensory patterns. Our knowledge of that which is "not there" structures our perception of present experience. Our expectations of what is typically "there" orients our attention to deviations from those expectations. For example, we might observe a person's shirt and notice the absence of a button. Our sense of the button's absence is noticed rather than seen, as we cannot see absence; we cannot see what is not there.

Humans live in the world of the negative. Our worlds are mediated by the *not there* whenever we notice a missing button; imagine what we will have for lunch; seek to live up to standards of worth defined by our communities, or long for a peaceful world. Of course, while we live in the world of the negative, "there are no negatives in nature" (Burke, 1969, p. 498). All that exists in the "natural world" is the *positive* – that which is *there*. Our sense of the negative is a produce of our capacity for symbolic representation. It is only a few short steps from the capacity to represent the *not there* to the capacity to represent what is *typically* "there" and, still further, to represent what *ought* to be there. When we enter the world of the "ought," we enter the world of moral judgment (Burke, 1966; de Waal, 2014; Tse, 2008). Moral judgments are judgments of what *ought* or *ought not* to be. It is but a few steps from the capacity to represent what is not present to the capacity to construct representations of what could be to the representation of shared standards for what should and should not be. The concept of *ought* implies the capacity to compare the *present* state and some absent, imagined or idealized state. To say, "Don't steal the cookies!" involves an act of comparing some possible state of affairs (e.g., Madge hitting her sister) to some representation of a more valued state – a state that is seen as right, good, worthy or otherwise valued (e.g., inhibiting the impulse to take what is wanted). When we act on the basis of what ought to be, we act within a word mediated by symbolically represented systems of right and wrong, good and bad, or worthy and unworthy.

Moral Judgment as Strong Evaluation

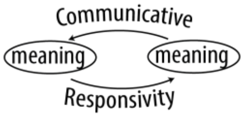
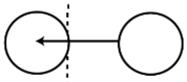
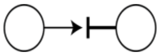
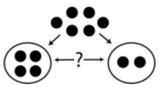
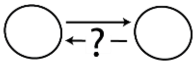
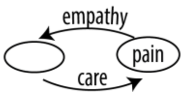
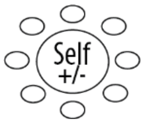
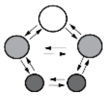
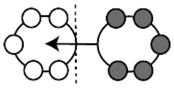
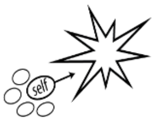
People are evaluating beings. Persons act on the basis of the evaluative significance of their circumstances. Moral judgments are forms of what Charles Taylor (1985, 1998) calls *strong evaluation*. Distinguishing between *strong* and *weak* forms of evaluation, Taylor (1989) defines weak evaluations are those directly involved in a person's pre-reflective wants, desires and interests. In contrast, strong evaluations emerge as people reflect upon the worth of one's wants, desires and interests. In weak evaluation, a person directly experiences the sweetness of the candy bar or the strain of physical exertion. In strong evaluation, one reflects upon the worthiness of sweets and exercise. Is it good that I eat so much candy? Is it good that I avoid the pain of exercise? Weak evaluations are direct and pre-reflective first-order evaluations. Strong evaluations are second-order reflections upon first-order evaluations. In strong evaluation, I reflect upon the *worthiness* of my first-order wants, desires, interests and actions. From this perspective, a *wanton* is an individual whose psychological processes are mediated by weak evaluation; a *person* is one who is able to make choices mediated by systems of strong evaluation.

The Relational Development of Moral Values and Frameworks

Drawing on these ideas, we elaborate upon five interconnected processes in the historical-relational construction of moral values in both societies and individuals.

1. First-order evaluations emerge within different forms of human relational experience. Social relations occur when at least two people come into contact with each other. Table 1 provides a description of the relational origins of different moral values as they arise with 10 basic forms of human relational engagement. For each of these 10 forms, Table 1 describes (a) the structure form of relating; (b) socio-moral questions raised by the form of social relating in question; (c) the basic modes of evaluative experience (i.e., "goods" and "harms") that emerge within each mode of relating, and (d) moral values, rules and emotions that that have their emergent basis in these various modes of relating. Moral values and systems arise as ways of resolving the problems that arise within different forms of relating. The forms of relating that motivate and constrain the construction of moral values are *emergent* processes. While some forms of relating are likely to arise in virtually all cultures and all times (e.g., *care* and *protection*), other forms of relating can arise only within particular social and cultural circumstances (e.g., concerns about *property rights* require the emergence of societies that raise questions about the control over land and resources).

Table 1. The Emergence of Moral Values in Diverse Forms of Relating

Relational Form	**Form of Social Interaction**	**Basic Experience of Good and Bad**	**Emergent Moral Values and Emotions**
1. Basic Verbal and Nonverbal Communication. How do I respond in communication?		Contingent responsivity vs. distress over non-responsive, non-contingent.	Responsiveness (Satisfaction vs. Frustration, Anger)
2. Boundaries vs. Intrusion. What is me/mine vs. you/yours?		Satisfaction of intimacy vs. pain, distress and anger over unwanted intrusion.	Respect for Boundaries and Personal Identity; Mine versus Yours; Ownership (Anger, Moral Outrage)
3. Acting and Restricting. What are the limits of my agency?		Freedom and joy of agency vs. pain, distress, anger and frustration of restriction.	Autonomy/Rights vs. Oppression (Anger, Moral Outrage)
4. Distributing Resources. How do we divide goods?		Satisfaction of want/ need in context of scarce resources; pain of inequity or lack of access to resource	Justice, Fairness, Equality, Merit (Anger, Envy, Jealousy, Pride)
5. Giving and Receiving. How do we respond to debt?		Satisfaction and joy of giving and receiving; pain of lacking goods, debt or failure of reciprocation.	Reciprocity, Duty/Obligation (Gratitude, Entitlement, Anger, Vengeance)
6. Responding to Need. How do I respond to your pain and need?		Empathic pain for the other; joy in advancing well-being of other	Morality of Care (Compassion, Empathy, Love, Sympathy)
7. Social Evaluation Relative to the Good. What is a “good” or “bad” person?		Pleasure in recognition of value of self; pain of social devaluation	Vice and Virtue; Good vs. Bad Character; Honor (Pride, Shame, Guilt, Embarrassment, Humiliation)
8. Group Decision Making. Who can make decisions in a group?		Satisfaction of order and beneficial leadership vs. distress of uncertainty and disorder	Authority, Hierarchy, Piety, Obedience vs. Subversion, Disobedience and Chaos (Fear, Respect, Security)
9. Group Integrity. How do we protect group integrity?		Safety and security of group belonging vs. fear and isolation	Group Loyalty vs. Betrayal; Group Identity (Loyalty, Patriotism, Affiliation vs. Fear, Shame)
10. Relating to the Divine. How do I relate to the cosmos?		Fear and awe in the order, power and beauty of the world; satisfaction of understanding, safety, certainty, guidance	Sanctity vs. Blasphemy

All forms of social relation are organized around some form of interpersonal *responsiveness*. There can be no social interaction unless social partners are responsive to each other's actions. Being responsive means more than simply responding to another person. Responsivity requires that social partners act with reference to the meaning of each other's actions and states. In development, perhaps the most basic form of responsivity consists of the relationship between the developing infant and a caregiver (Meltzoff & Brooks, 2007; Scholl 2013; Trevarthen, 1993). The infant comes into the world fully dependent upon the care of others. An infant who cries "calls out" some sort of response from her caregivers (Shotter, 2017). The infant's cries are immediately recognized as a signal of some form of need. The failure to meet the needs of the infant would bring about *harm* and *pain*; being responsive to those needs is thus *good* – not only for the infant but also the caregiver and the community at large. In this way, first-order goods and harms emerge in the very structure of infant-caregiver interaction.

2. First-order evaluations are intersubjectively identified, corroborated and verified within symbolic exchanges that occur between people. First-order goods and harms are experienced directly within the emergent flow of social relations. However, even though they are experienced directly, as pre-reflective aspects of experience, they are not necessarily *intelligible* to either self or other. The most obvious case of the unintelligibility of direct experience occurs in infancy. While young infants experience states such as hunger, fatigue and distress directly, they do not know that it is "hunger," "fatigue" or "distress" that are experiencing. While infants may be able to experience another person's expressions of care, anger or love, they are not necessarily aware that it is "care," "anger" or "love" that the other person is expressing. The capacity to make experience intelligible to both self and other develop over time through the capacity for intersubjective engagement with others (Bråten & Trevarthen, 2007). Within social interaction, infants and caregivers adjust their actions and experiences to the ongoing and anticipated actions of their social partners (Fogel, 1993). In so doing, infants and caregiver create and express novel forms of experience in relation to each other. In those interactions, caregivers use words to identify the experiences expressed by their infants, by other people and by caregivers themselves. Words are the repositories of already-existing meanings that have their origins in long histories of social relations. When a child learns to use the psychological lexicon of her community, she becomes able to represent experience – both her own and that of others – in socially sharable ways (Carpendale & Racine, 2011; Moore & Barresi, 2010; Vygotsky, 1978). As such, although children experience their psychological states directly, it is only through the use of language that they make those experiences into intelligible objects of shared social reflection (Cippolletti, Mascolo & Procter, in press; Martin, Sokol & Elfers 2008; Moore & Barresi, 2010).

It is thus through discursive interactions that first-order goods and harms are identified and made intelligible for objects of public reflection (McNamee, 2015). In infant-caregiver interaction, this occurs when a caregiver uses words to identify valenced aspects of an infant's experience-in-action. In everyday practical activity, when socialization agents use phrases like, "Are you *hungry*?" "Is it the teddy bear you *want*?" "Does that taste *yukky*?" "You don't *like* it when Daddy takes your bottle?" "Did that *hurt*?" "You *love* mommy," their words function as symbolic vehicles that parse the flow an infant's personal and relational experience (Carpendale & Racine, 2011; Rochat, 2015). In so doing, caregivers draw on culturally-shared symbolic meanings to provide the child with symbolic means for representing the goods and harms that emerge in everyday experience (Bråten & Trevarthen 2007; Carpendale & Racine, 2011; Moore, C., & Barresi, 2010).

Interpersonally, the capacity to use symbol systems to make relational experience intelligible provides caregivers with the means not only to identify goods and harms that exist in ongoing relational experience, it also allows parents and children to reflect upon and discuss goods and harms that are *not* currently present, but which *could*, *should* or should *not* exist (Martin, Sokol & Elfers 2008). At the social level of the community or society, the capacity to identify and reflect upon first-order goods and harms is necessary in order to identify second-order *moral* goods and harms – that is, shared strong evaluations of what should or should not exist in social relationships.

3. Moral values, rules and norms are intersubjectively created within symbolic exchanges in which people reflect upon first-order evaluations and coordinate them into shared, second-order strong evaluations. Moral evaluations are types of strong evaluation – second-order evaluations of first-order evaluative states (Rochat, 2015). Strong evaluations are reflections on first-order goods and harms. In a community, moral values, rules and norms emerge as cultural agents reflect upon, coordinate and consolidate representations of first-order goods and harms into shared (and contested) second-order representations of what *ought* and *ought not* to be (Tappan, 1997; Tomasello, 2011; Tse, 2008). The relationship between first- and second-order evaluations is neither obvious nor direct. First-order *goods* often come to be understood as second-order *harms* (Agonito, 1976). For example, while experiences such as sweetness and relaxation may function as first-order pleasures, we quickly become aware that too much of either can produce obesity. While physical pain and effort may be experienced as first-order pains, when they accompany physical exercise, pain and effort function as often experienced as second-order goods. It is in this sense that moral *character* can be understood as the cultivation of a proper attitude toward pleasure and pain (Aristotle, 1999; Cain, 2005; Wielenberg, 2002). If pleasure and pain consist of first-order evaluations, moral character emerges as the stable capacity to bring action into correspondence with second-order strong evaluations of first-order experiences.

Questions about the proper status of first-order goods and harms are ubiquitous. To the extent that different first-order goods and harms arise within different form of relational experience, questions about their proper status and roles in social life are ubiquitous. Each form of relational experience identified in Table 1 yields questions about the proper status and relations among different first-order goods and harms. Within any given form of relating, there are multiple possible answers to these questions. For example, social interactions naturally raise questions about boundaries and intrusion (relational form 2 in Table 1). It is likely that the differentiation of the physical body from its surrounds provides the experiential basis for higher-order conceptions of self and other. At a basic level, the boundaries of an individual person might be understood in terms of what can be considered within or outside of the skin. When a pinprick intrudes upon the skin, it causes pain – a first-order harm. The experience of such pains raises questions about the legitimacy of forms of intrusion on the self. While a pinprick may be seen to bring about first-order pain, the meaning of pain becomes transformed when the physical intrusion takes the form of a physician's needle. A strong evaluation such as "infants should be inoculated" arises as communities reflect upon, identify and seek to reconcile diverse goods and harms. Because it functions in the service of a larger good, the intrusion of the needle into the body takes precedence over the pain of the needle. However, this is but one way to resolve questions about the nature and legitimacy of boundaries between self and other. Circumcision is a practice the produces pain. How does the pain and removal of a body part comport with the cultural and spiritual meanings in which such acts are played out? There is no single answer to these questions. Instead, the moral status of these acts is established as communities seek to represent and reconcile diverse goods and harms in relation to each other.

4. Moral rules and values are legitimized (grounded) with reference to the first-order goods on which they are based and the extent to which they function to meet other higher-order moral goods. In the absence of any single standard against which to judge the moral correctness of a given action, it might be tempting to classify moral relationalism as a form of relativism. A common use of the concept of relativism states that, in the absence any objectively identifiable system of universal moral rules, moral values, rules and norms are relative in the sense that they are only valid under particular contextualized frameworks (Lukes, 2008; Slife & Richardson, 2011). Relativism is often justified on the basis of different moral or conceptual systems are based on qualitatively different presuppositions and thus are often incommensurable with each other. The validity of moral rules can thus be seen as relative to particular individuals, social groups or cultures as they function within particular times, places and social contexts. Moral relationalism rejects this view. While moral systems embraced by different individuals and cultures are often based on vastly different axiological foundations, relativistic views often fail to appreciate the diversity and conflict among moral values that exist within particular individuals, cultures and time periods (Wainryb, 2006; Wong, 2009). Neither cultures, individuals or time periods are monolithic structures (Hermans, 2001). The idea that moral beliefs are *relative to culture* implies a monolithic or homogeneous conception of culture. However, cultures are not singular unified entities. They are always organized with reference to multiple forms of both shared and contested values (Bhatia & Ram, 2001; Jensen, 2011; Wainryb, 2006). Moral values conflict both within and between cultures. As a result, cultures are not separate and discrete entities in relation to which moral values can be relative.

There is one sense, however, in which moral relationalism embraces a form of relativism. If moral values, rules and norms are relative, they are relative to *human relational experience*. Moral values and norms not only emerge within diverse forms of social relations, their legitimacy is grounded with reference to (a) the seriousness of those goods and harms, (b) the mutual constraints that emergent goods and harms place on each other, and (c) the extent to which such goods and harms lend themselves to intersubjective verification as good or bad. For example, perhaps the most salient moral good is the value of life itself. As a second-order moral good, the *sanctity of life* has its origins in a suite of embodied first-order experiences. These include experiences of the goodness of breathing, of maintaining bodily integrity, of satisfying bodily needs, of being free of pain and so forth. The fear of pain, of suffocation, of starvation and death are palpable ones. The value of life as a *moral good* arises from and is justified in terms of (a) the experiential seriousness and salience of these first-order goods and harms; (b) the ways in which patterns of these goods and harms – experiences like breathing, pain and the anticipation of death – cohere together and thus constrain the construction of representations of moral value, (c) and the extent to which the value of such experiences lend themselves to intersubjective corroboration between and among people. The capacity to corroborate experiences of the goodness of life, the harm of pain and the fear of death between provides the first-order foundation for the creating and justifying shared higher-order values such as the sanctity of life. The capacity to establish (and re-establish) intersubjectivity about the ubiquity and seriousness of such first-order goods and harms provides the foundation for the construction and justification of moral norms. To the extent experiences of good and harm can be intersubjectively corroborated as goods and harms, they are more likely to be generalized or universalized as moral norms – that is, norms that hold not just for me and you, but for increasingly encompassing groups of "us."

5. Moral systems develop in within and between both individuals and societies. Moral universalism maintains that a common framework of morality exists that has universal applicability across time and place. In refuting the existence of any form of universalizing standards, moral relativism maintains that moral values are relative to particular times, contexts and cultures. Both views are largely non-developmental. In understanding morality as an emergent product of lived relational experience, moral relationalism offers an alternative – namely that, moral systems themselves develop as humans grapple with enduring and emergent evaluative questions in real, developmental and historical time (Schinkel & Ruyter, 2017); moral progress (Hermann, 2019; Moody-Adams, 1999) is possible. Moral relationalism differs from relativism in the importance it places on the *other* in the dialectical development of moral systems. As expressed by Levinas (Waldenfels, 2002), encounters with the other offer the continuous possibility of novelty. Our engagements with others introduce us to novel ways of knowing, feeling, evaluating and being – ways that often *conflict* with or contradict those embraced by the self (Turiel, 2002). There are, of course, many ways to respond to the experience of relational conflict. One could close off the self from conflict, thus preserving the current integrity of self the while rejecting the contradiction of the other. Alternatively, one could give oneself over to the other, and act that would eliminate the conflict but destroy the integrity of the self. A third option is to approach conflict as an opportunity to resolve conflict dialectically – that is, to develop novel and more powerful shared beliefs through the integration of opposites.

Frimer and Walker's (2012) reconciliation model of moral developmental show how moral identities develop in individuals through the dialectical integration of opposites. As shown in the left panel of Figure 1, in their model, children enter the world capable of acting on both on the basis of *self-interest* and *concern for others*. Early in development, self-interest and concern for others develop along separate and largely independent lines. Self-interest is evident whenever a child seeks to satisfy personal need or desire; concern for others can identified in the empathic responses of young infants, and in the desire for older infants to assist other in the context of clearly expressed needs. Young children tend to exhibit self-interest and concern for others in different contexts. Over the course of development, the motives for self-interest and concern for others inevitably come into conflict. A child may want a toy for herself, but nonetheless notice (or have her attention called to) her playmate's distress upon not having access to the toy. In mid-childhood, children tend to have difficulty resolving such socio-affective conflicts. For Frimer and Walker, adolescence provides a choice point in the development of moral identity. During his period, adolescents seek novel ways to reconcile the conflict between self-interest and concern for others. In addressing this conflict, a developing individual may address the conflict by privileging self-interest over concern for others, or vice-versa. A genuinely moral identify develops when individual reconcile self-interest with concern for others. In so doing, they can begin to forge a moral identity around the idea that "it is in my self-interest to meet your needs" – or – at a perhaps higher level, "I will make the goal of meeting your needs part of that which defines my self-interest". While unmitigated self-interest is incompatible with care for the other, Frimer and Walker's model show how self-interest and concern for the other are transformed through the developmental integration of opposites.

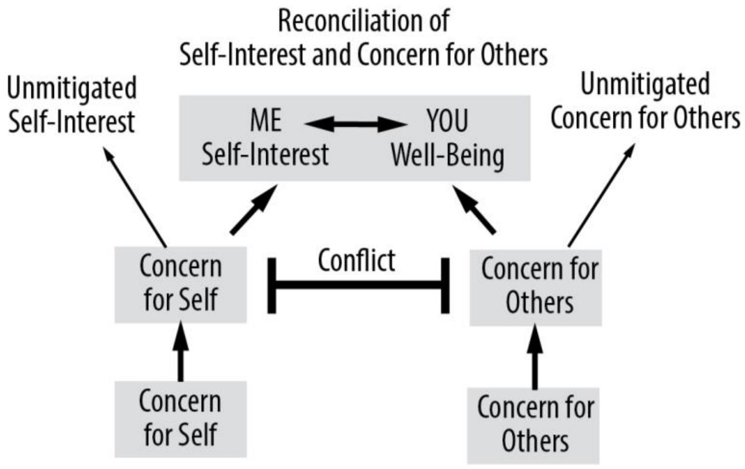


Figure 1: The Reconciliation Model of Moral Development

Frimer and Walker's (2012) reconciliation model illustrates several features of moral development. First, it shows how higher-order moral identifications develop through the constructive integration of *self-interest* and *care for the other*. In so doing, it shows how moral selves develop through relations that occur between people. Third, it shows how self-interest can be transformed through the process of relating to the other. The moral adult is not selfless. However, what it means to be a self becomes defined with reference to the moral demands of being in relation to others. Fourth, the model shows how different values – in this case, self-interest and concern for the other – become organized within a broader socio-moral system of beliefs over the course of development. A person's moral beliefs are not defined by any single moral orientation or domain, but instead by the dynamic coordination of multiple moral values in relation to each other. Each moral value constrains the other in the dynamic process of moral development. Still further, while Frimer and Walker's (2012) model was conceived with the development of individuals in mind, it is easily extended to understand the development of morality and moral beliefs beyond the individual. Moral beliefs develop as social agents – whether they be individuals or larger collectives – seek to adapt their actions and beliefs to the moral demands of relating to others. To the extent that individuals and groups are genuinely willing to *engage* rather than *dismiss* the concerns of the moral Other – it is possible to construct novel moral systems through the process of integrating opposing beliefs. Such a process would require the cultivation of a mutual willingness to identify "kernels of truth" in the opposing beliefs of the other. A relational approach holds out the hope that novel, higher-order and hybrid systems of shared moral belief can develop as people(s) seek to create novel forms of shared belief through the successive differentiation and integration of opposing systems of value. We have examined the dialectical construction of novel forms of individual and shared belief is discussed in several recent papers (Basseches & Mascolo, 2010; Mascolo, 2017, in press; Mascolo & DiBianca Fasoli, in press; and Marginean, LaTorre, Derien & Mascolo, 2019). The discussion now turns to an analysis of the ways in which adults construct moral frameworks for reconciling self-interest and concern for others in the context of a mode of interaction that is often seen to lack a moral dimension – owning or running a business.

Beyond Self-Interest: The Relational Construction of Morality in Business

If there is an arena that lends itself to an analysis of moral functioning in adulthood, it is the realm of business and economic life. The question of whether business and organizational activity can move beyond the monolithic and unquestioned principles of self-interest, individual rights, and the freedom of markets is hardly new. However, the search for a new social and economic framework that includes care for the other, society, and our natural resources has never been more relevant or urgent.

Evolutionary scholars have acknowledged that our species has flourished largely based upon our ability to collaborate and form communities for our mutual benefit and survival (Pirson, 2017). Indeed, organizations are "social structures created by individuals to support the collaborative pursuit of specified goals" (Scott & Davis, 2007, p. 11). But the modern day corporation is far from Smith's (1776) view of human beings as rational and self-interested but moderated by prudent evaluation. Friedman's (1970) assertion that profit is the singular purpose of corporations ignited an unbridled self-interest in contemporary economic life. The combustible combination of individualism – with a focus in economic gain, and market principles – within a culture that promotes growth without limits or harm (Boulding, 1966) brought on a half-century of shareholder primacy in the growth of business organizations.

A consequence of the growth, power and influence of organizations was the separation of the decision-makers and from those which are materially affected by the organizations (Beets, 2011). Before the mid-1800's, economic and social 'rules' were the province of individuals, families, or communities. With the advent of the industrial revolution, economic organizations grew to become the predominant canvas on which our ways of relating and being played out (Boulding, 1953; Stern & Barley, 1996). In the last half-century, however, membership in social, religious, and labor organizations has decreased sharply. It is against the backdrop of a 'go it alone' ethos of self-sufficiency that Putnam (2001) invoked metaphor of "bowling alone" to illuminate the collapse of community in contemporary American culture. This shift elevated the formal economic organization (i.e., corporations) as the dominate feature of our interpersonal relationships, our moral behavior, and in our relation to the natural world (Davis, 2006). However, these changes are far from a recent phenomenon, rather, they have "crept upon us silently. It is something we accept as natural almost without thinking. And yet, the whole movement raises problems with which we are ill equipped to deal" (Boulding, 1953, p. 4).

The 'winner' in this evolutionary race was the modern-day corporation, with "features that make it larger, more powerful, and more permanent than any individual human being" (Carroll, et.al. 2012, p. 11). Scott and Davis (2007) observe that even though these legal entities represent a small portion of the economic system in terms of number of entities, they have a disproportionate amount of social influence and economic power. This power is in part attributable to the corporation's rights as an artificial person which have continued to increase – rivaling those of the human person. Corporations as "artificial legal person" has enabled the accumulation of "previously unimaginable sums of money" (Carroll, et.al. 2012. p. 11). With this economic and legal power, Stoll (2005, p. 261) argued that corporate rights and free speech would "undermine the moral rationale and practical feasibility of guaranteeing rights of civil free speech to individuals." The imbalance of power and extended legal reach would likely lead to the "privatization of functions that have historically been the mandate of local, state, and federal governments" (Barley, 2007, p. 204).

A primary casualty of this imbalance of power is the what Becker & Ostrom (2003) refer to as the *Tragedy of the Commons*. The Commons, as proposed by Hardin (1968), *includes* ecological resources such as air, water, minerals, and other inputs into the economic systems that are available and equally entitled to all members of society. The Commons cannot be excluded nor can they be subtracted from the costs and impact of the organization's activity (Becker & Ostrom, 2003). For organizations, these resources are necessary means of production, however their extraction, usage, and disposal has far-reaching consequences on the environment as well as the dignity and well-being of the individual. The Commons have been disproportionately under the care and at the disposal of the largest economic entities.

How we care for and protect the Commons, as well as how we establish priorities and make decisions regarding social, economic, and natural resources extends beyond logic of free market principles. Market principles fail to live up to their promise when stakeholders are excluded from the evaluation of the exchange. The 1984 Union Carbide gas leak in Bhopal India is an example where the basic human right to safety was exchanged for a promise of future economic development (Jennings, 2012). Sandel (2012) speaks of the current tendency to view social problems as little more than a market inefficiency that can be solved with robust economic analysis and an appeal to the profit motive. He writes: "We have fallen in love with the idea of free market solutions to all manner of societal ills. And in doing so, it seems we have handed much of this judgment back to the markets, and by extension to corporations" (Sandell, 2012). He goes on to say: "The most fateful change that unfolded during the past three decades was not an increase in greed. It was the reach of markets, and of market values, into spheres of life traditionally governed by nonmarket norms" (Sandel, 2012).

Contemporary Movement Toward a Moral Marketplace

The ubiquity of these large formal and powerful organizations (corporations) has arguably improved the quality of life for large portions of the global population. However, economic inequality and the readily observable diminished living standards of much of the world's population stands in sharp contrast to record-breaking corporate profits and the increase in wealth of the top 1% of the populations (Adler, 2019). As the rights and influence of corporations have grown, the need for corresponding *responsibilities* has been brought into sharp review. As the rights of corporations have led to increasing power and influence, the need for corresponding *responsibilities* has been brought into sharp review.

The practice of *corporate social responsibility* (CSR) has emerged in part to counter the excess of corporate power and influence by shifting existing business practices toward more sustainable ways of working. However, as Adler (1999) points out, many CSR-related efforts serve only to reduce the rate and magnitude of harms to social and environmental resources but often fall short of wholly sustainable practices. Newer innovative business forms such as Benefit Corporations (BCorps) acknowledge the tensions between rights and responsibilities and are chartered with social and moral imperatives. BCorps fill a needed void by working to solve "society's most challenging problems cannot be solved by government and nonprofits alone" (*About B Corps | Certified B Corporation*, n.d.). These organizations eschew Friedman's profit imperative and are "obligated to pursue public benefit in addition to the responsibility to return profits to shareholders" (Hiller, 2013, p. 287). Noteworthy BCorps such as Patagonia, Greystone Bakery, and New Belgium Brewing operate in a sustainable manner both responding to and helping shape stakeholder values "toward more sustainable forms of consumption" (Painter et al., 2018, p. 88) and acknowledging the responsibilities borne by all stakeholders.

Moral Thinking in the Organization of Business

Business is often juxtaposed to morality. It is common to hear people contrast "from a business perspective…" with "from a moral perspective." From a moral relational approach, all human action takes place against the backdrop of inescapable moral frameworks. This includes business activity as well. To speak from "a business perspective" is not to adopt a non-moral stance; it is to act from the standpoint of "what is good for the business" – where "the business" refers typically to the survival and economic well-being of the organization. To invoke what is "good for a business is to adopt a moral stance – a stance that maintains that survival and the making of a profit is in some sense a good thing. The moment we do this, we have entered into a moral discussion. The moment we are aware that we are acting out of some form of self-interest (either at the level of the individual self or the business as a whole), there is no exit from the moral implications of our actions. While we may ignore the moral implications of our actions, they are nonetheless there. This is not to say that there are no moral justifications for acting on the basis of the interest of the business or the interest of the self. Would anyone suggest that individuals are not morally justified to act in ways that support their individual or group survival? There are thus justifications for acting in the interest of the self or business. However, if there are reasons that justify self-interest, there are also reasons that limit it and that direct us to attend to other moral implications of our actions in relation to others. It becomes necessary to understand self-interest as it functions within the broader context of human relationships. In business, as in life, we must act with fidelity to the proper demands of relationships (Donahue, 1977).

In what follows, we illustrate the ways in which business operations are and can be organized around moral values that extend far the principle of self-interest. In so doing, we describe the structure of moral thinking as by a series of business owners or managers in the context of open-ended interviews.[4] Three individuals are described here. The first is the owner and operator of successful dentist office in a small town in New England (USA). The second is senior chef employed by a major hotel in a major American city. The third is the owner of a marketing firm that represents select clients in major industries judged to make important contributions to the public good.[5] The two business owners are responsible for all aspects of the operation of their business; the chef is responsible for all local matters involving in the running of the hotel restaurant. This includes ordering food, setting prices, training, hiring and firing, and managing expenses.

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[4] Interviews were conducted to identify and elaborate upon moral principles and values (see Table 1) that structured the ways in which owners and managers conducted their business. Sample questions used to guide the interviews are provided in Appendix A. These questions served merely as guides to initiate discussion which move in different directions depending upon the particular issues raised.

[5] Details about the particular businesses in question are omitted to protect the identity of the participants.

We analyzed the interviews by constructing interpretive themes suggested by the content of the interviewee's statements as they may or may not have related to the moral themes described in Table 1. We organized interpreted themes and verbatim statements into a two-dimensional socio-moral space. Drawing on MacMurray (1962), the horizontal dimension spans meanings from *fear/concern for the self* on the left and *concern for the other* on the right. The vertical dimension distinguishes between the extent to which statements refer to *groups* (top) or to *individual persons* (bottom). Each owner or managers' statements were organized within the resulting socio-moral space; relations among the various statements were identified wherever they could be grounded in the expressed content of their interview. Each socio-moral space displays the *structure of the moral thinking* that organizes the owner/manager's expressed approach to running the business.

The moral thinking expressed by each manager was both rich and variegated. The structure of each manager's thinking was organized around complex *relations* among *multiple moral values* that were tied to different *forms of relationships* involved in the running of the business. While the types of moral values expressed by the three managers revealed some similarities, they were organized around different moral principles. The dentist's moral thinking was organized around the idea of *business as instrument for sustaining livelihoods;* the chef's thinking was organized around the principle of *virtuous personhood and ethical exchange*; the marketing professional's thinking was organized around the idea of business as a *collaborative social project* rather than a means for making profit. In what follows, we describe the structure of each individual's thinking in more detail.

The Dentist: Business as a Means for Creating Livelihoods

> *I am using helping people with their teeth as a conduit to operate a business that gives people a livelihood. However, just because I take a fee for something doesn't mean I don't care for that person. The desire to help people with their health is a motivating force behind my business.*

At the center of the dentist's moral structure is the notion that his business, like any business, exists to "give people a livelihood." First and foremost, businesses help people by providing them with jobs. Jobs help families because they pay well and also because they initiate a relationship between employee and employer that is ongoing, where the employer is sensitive and responsive to individual employee needs. In this context, familial needs of employees can be met through additional exchange relationships. For example, paying for child-care for an employee also helps that employee return to work, which helps the business. As shown in Figure 2, the bottom line is maintaining the business so that it can continue to provide this kind of livelihood for its employees. Hence, (1) "profit is a 100% necessity" Ultimately, it is (9) the responsibility of the owners to ensure that there is a profit, so that the business can continue to achieve these ends. Profit is imagined not only in terms of the survival of the business as a means to livelihood. It is also imagined as a motivating force. Profit as motivating applies to each individual within the company. As a business owner, the dentist is motivated by profit (2) and for employees, bonus systems incentivize employees (11), while salaries – where the "profit" is fixed – disincentivizes employees (10).

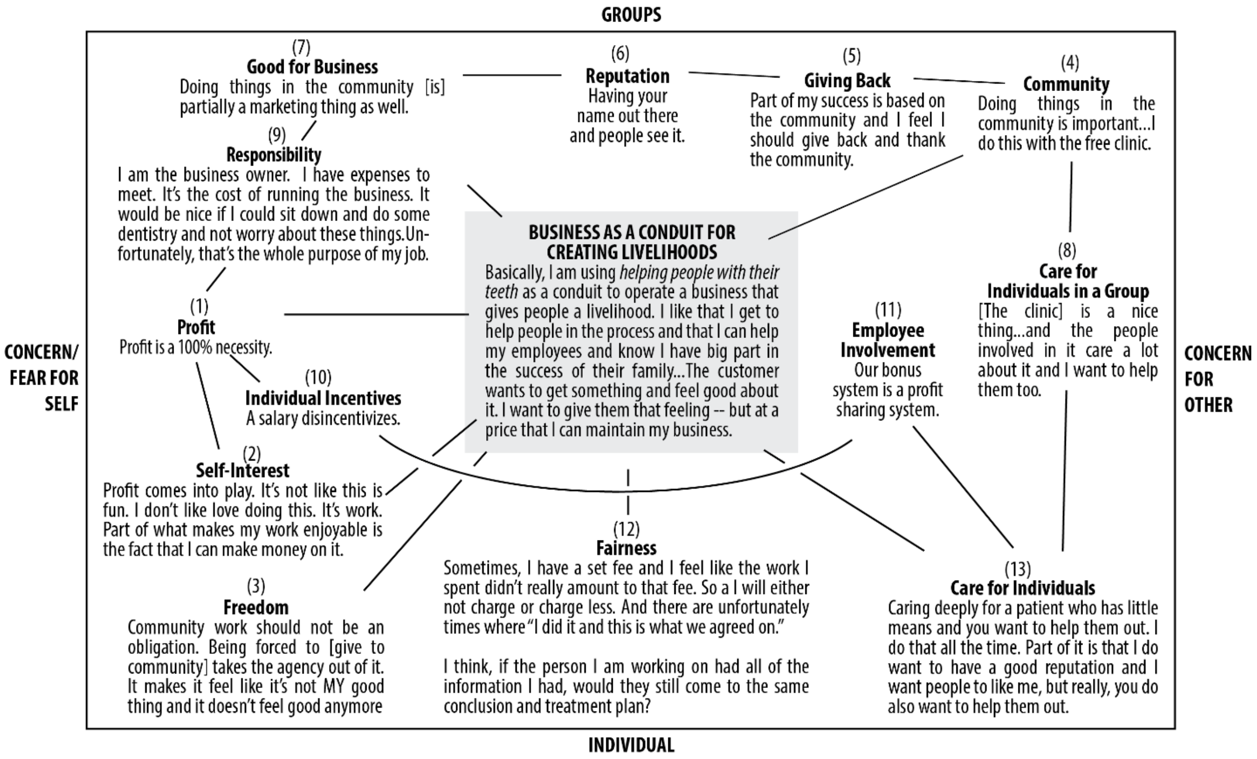
GROUPS
(7) Good for Business
Doing things in the community [is] partially a marketing thing as well.
(6) Reputation
Having your name out there and people see it.
(5) Giving Back
Part of my success is based on the community and I feel I should give back and thank the community.
(4) Community
Doing things in the community is important...I do this with the free clinic.
(9) Responsibility
I am the business owner. I have expenses to meet. It's the cost of running the business. It would be nice if I could sit down and do some dentistry and not worry about these things. Unfortunately, that's the whole purpose of my job.
BUSINESS AS A CONDUIT FOR CREATING LIVELIHOODS
Basically, I am using helping people with their teeth as a conduit to operate a business that gives people a livelihood. I like that I get to help people in the process and that I can help my employees and know I have big part in the success of their family...The customer wants to get something and feel good about it. I want to give them that feeling -- but at a price that I can maintain my business.
(8) Care for Individuals in a Group
[The clinic] is a nice thing...and the people involved in it care a lot about it and I want to help them too.
(1) Profit
Profit is a 100% necessity.
(11) Employee Involvement
Our bonus system is a profit sharing system.
CONCERN/ FEAR FOR SELF
CONCERN FOR OTHER
(10) Individual Incentives
A salary disincentivizes.
(2) Self-Interest
Profit comes into play. It's not like this is fun. I don't like love doing this. It's work. Part of what makes my work enjoyable is the fact that I can make money on it.
(12) Fairness
Sometimes, I have a set fee and I feel like the work I spent didn't really amount to that fee. So a I will either not charge or charge less. And there are unfortunately times where "I did it and this is what we agreed on."
I think, if the person I am working on had all of the information I had, would they still come to the same conclusion and treatment plan?
(3) Freedom
Community work should not be an obligation. Being forced to [give to community] takes the agency out of it. It makes it feel like it's not MY good thing and it doesn't feel good anymore
(13) Care for Individuals
Caring deeply for a patient who has little means and you want to help them out. I do that all the time. Part of it is that I do want to have a good reputation and I want people to like me, but really, you do also want to help them out.
INDIVIDUAL

Figure 2: The Dentist: Business as Instrument for Livelihood

At the same time, profit is motivating not only on account of having additional money. Profit is also motivating, the dentist says, because it is an index of "how much I am helping people." He continues, "When I look at how much dentistry came through my office last year, I am not thinking, man I made a lot of money, but rather man we did a lot of work. That's a lot of people we helped." Profit is a concrete symbol of the care for customers (13). In this sense, care for customers is a central motivating force that is not "mutually exclusive" with profit. As the dentist urges, "just because I take a fee for something, doesn't mean I don't care for that person." Finally, profit indexes not only help for customers, but also help for employees. The dentist concludes this thought saying that profit means a successful business, which is one "that people really like working *for*." For the dentist, then, considerations of the business and care for individuals involved in and with the business are all wrapped into one.

Fairness is conceptualized as exchange that is freely entered into. When the dentist speaks of discounts, these discounts are not determined on the basis of the moral qualities of the customer's character, but rather on the qualities of the work that constitutes the exchange. When the amount of work – in terms of quality or quantity – does not represent the agreed-upon fee, the dentist will discount that fee, either "not charg[ing] or charg[ing] less." Prices are fair when they are willingly agreed upon and when they are proportional to the work conducted.

What underlies this conception is a deep notion of individual freedom that involves agency and personal choice. It comes into play when determining when and which customers to discount (12), it comes into play when determining whether and to which organizations to donate goods, services, and time (3), and it comes into play when determining when to give employees additional benefits. In all cases, there is a wide sphere where owners can decide how to relate to others in the context of their activities. This is perhaps most apparent when it comes to donating time and services to organizations and to individuals served by those organizations, such as the free clinic that the dentist is involved in each week. This involvement involves virtues that are tied to the business. These involve gratitude, in acknowledging the role of the community in the success of the business (5) and having a good reputation that will bring more people to the business (6 and 7). As such, these activities can be indirectly linked to the success of the business and to the livelihood it creates.

The Chef: Virtuous Personhood and Ethical Exchange

> *I would rather hire a good person who can learn how to cook than hire a good cook and try to teach him how to be a good person.*

In his interview, the chef described his approach to managing his kitchen around concerns for *care, virtue* and what might be called and ethos of *ethical exchange*. Throughout the discussion, the chef made repeated reference to the concept of "a good person" – that is, the need for the manager to act a good person, to hire "good people" – in the moral sense, and for the company itself to act as if it were a "good person." From the chef's standpoint, a "good company" is one that is:

> *transparent* in their cost. They [are] easy to deal with – *purposefully* – not just easy because it's an easy thing but purposes. Let's let me *go out of my way* to make your life easier. You're spending money. I'm going to give you that service – that's part of *my service*. *Fair* to their employees and workers. *Fair* and *responsible* to environment. *Fair* and *responsible* to their neighborhood area. All of those would speak to me saying this is a *good company* (emphasis added).

As shown in Figure 3, in elaborating this conception, the chef described his approach to managing his kitchen in terms of the need to create a (1) *"good place*" where "people like working" in order to support "longevity" among employees ("not a revolving door"). In so doing, the chef contrasted his orientation to that of a co-worker who, expecting workers to be motivated for continuous advancement, expressed criticism that some workers had been working the same position for over 30 years (i.e., "Why are they still doing the same job?). The chef identified the goal of fostering an environment to create "stable, happy people" as an important objective – one in which "some people move up quickly, some people move up slowly", but also with "people [who] are taking care of their families, doing what they need to do." In this regard, the chef talked at considerable length about his attempts to (2) *nurture the development of employees*. For the chef, nurturing employees was not simply a matter of teaching them kitchen skills. Instead, the chef spontaneously described several examples of his willingness to "find somebody who has the ability to get out of [bad life situations] and succeed", indicating that, "if I can help them with that I would." In this regard, the chef continuously invoked the moral value of *care* for his employees, not simply to as employees of a business, but as people with needs and concerns of their own.

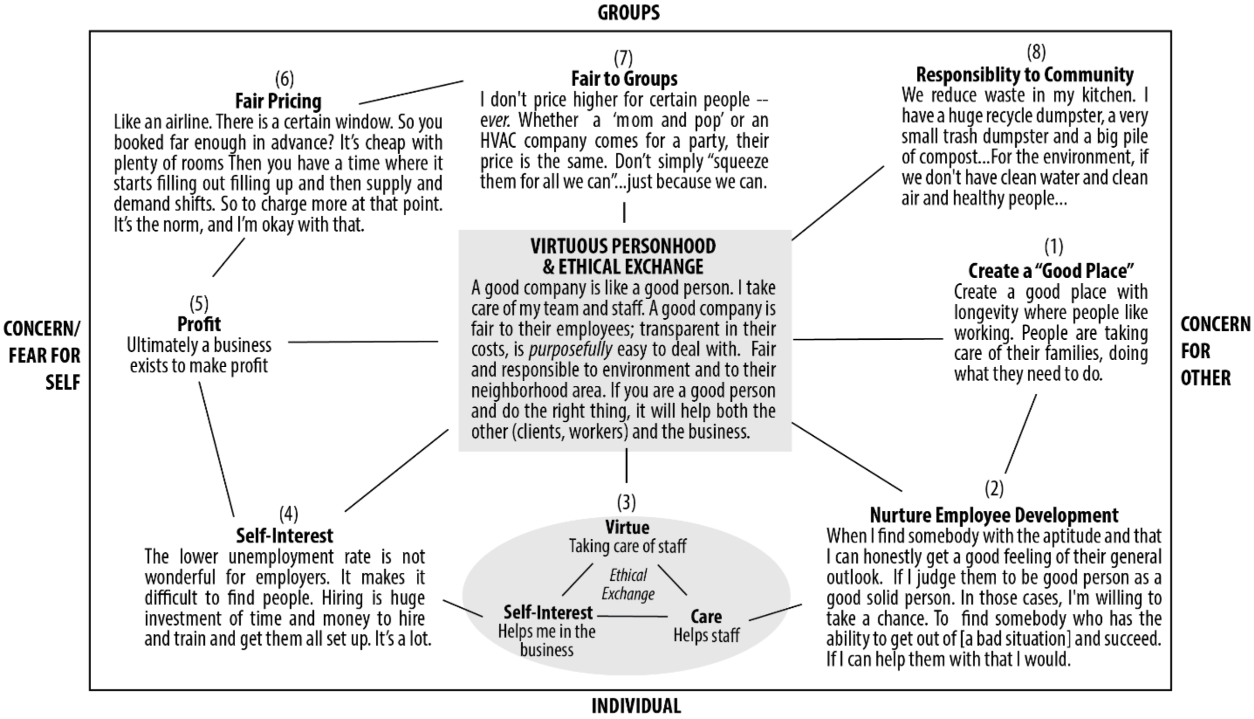
GROUPS
(7)
Fair to Groups
I don't price higher for certain people -- ever. Whether a 'mom and pop' or an HVAC company comes for a party, their price is the same. Don't simply "squeeze them for all we can"...just because we can.
(8)
Responsiblity to Community
We reduce waste in my kitchen. I have a huge recycle dumpster, a very small trash dumpster and a big pile of compost...For the environment, if we don't have clean water and clean air and healthy people...
(6)
Fair Pricing
Like an airline. There is a certain window. So you booked far enough in advance? It's cheap with plenty of rooms Then you have a time where it starts filling out filling up and then supply and demand shifts. So to charge more at that point. It's the norm, and I'm okay with that.
VIRTUOUS PERSONHOOD & ETHICAL EXCHANGE
A good company is like a good person. I take care of my team and staff. A good company is fair to their employees; transparent in their costs, is purposefully easy to deal with. Fair and responsible to environment and to their neighborhood area. If you are a good person and do the right thing, it will help both the other (clients, workers) and the business.
(1)
Create a "Good Place"
Create a good place with longevity where people like working. People are taking care of their families, doing what they need to do.
CONCERN/ FEAR FOR SELF
(5)
Profit
Ultimately a business exists to make profit
CONCERN FOR OTHER
(4)
Self-Interest
The lower unemployment rate is not wonderful for employers. It makes it difficult to find people. Hiring is huge investment of time and money to hire and train and get them all set up. It's a lot.
(3)
Virtue
Taking care of staff
Ethical Exchange
Self-Interest
Helps me in the business
Care
Helps staff
(2)
Nurture Employee Development
When I find somebody with the aptitude and that I can honestly get a good feeling of their general outlook. If I judge them to be good person as a good solid person. In those cases, I'm willing to take a chance. To find somebody who has the ability to get out of [a bad situation] and succeed. If I can help them with that I would.
INDIVIDUAL

Figure 3: The Chef: Virtuous Personhood and Ethical Exchange

At the same time, while care figured prominently in the chef's discourse, he also pointed out the ways in which care for his employees helped the business itself. This is indicated at point (3) in a structure we have called the *virtue triad*. Here, invoking some standard for being a virtuous person or business, chef explained how invoking some standard of *virtue* motivates acts of *care* which also function to support the economic interests of the business. For example, he chef (3) described that "I *take care of my team and my staff* (virtue) in a way that *helps them* (act of care) as much as it *helps me in the business* (self-interest). This type of triadic structure occurred several times in the chef's narrative (see below). In this regard, the chef also made reference to the desire to care for employees out of (4) a need to attract and retain skilled workers (self-interest). He observed, "the lower unemployment rate is not wonderful for employers. It makes it difficult to find people." The chef also invoked "self-interest" in explaining the role of (5) *profit* in his approach to management. He said, "ultimately a business exists to make profit. The rest of that stuff [moral values such as virtue, care, etc.) falls *under that* or *in between* that, because if we make, if we're making money and have the ability to pay our people better and maybe put more people so they don't have to work so hard." Note here, however, that as soon as the chef invokes the concept of profit, he links it explicitly to his sense of the purpose of profit: that is, profit is needed to pursue some sort of good – in this case, the pay employees more or make their jobs easier. These sentiments show how, as implied in the structure of the (3) virtue triad, the chef organizes his thinking around different moral values that interpenetrate each other. The chef refers to this directly in his statement that "in my mind all of that rolls into the same. I think that's something that's not at all exclusive of the other definition."

The chef is charged with establishing pricing for large banquets housed at the hotel. In response to the question, "how do you price? Do you price for different people?", the chef replied "I don't. I don't price higher for certain people. *Ever*. So, mom and pop, an HVAC company comes for a party, their price is the same." In expressing this sentiment, the chef expressed his concern for (7) *fairness* in the treatment of different groups. At the same time, he acknowledged that (8) pricing differentials were *fair* in some situations. For example, in setting rates for hotel rooms, he suggested that it was acceptable to modify rates for rooms as a function of when reservations were made. Rooms rented well in advance could be charged at a lower rate than rooms rented within weeks of intended occupancy; rooms rented on the day of occupancy could be lower still, in order to ensure the room does not remain vacant. At the same time, the chef expressed distaste with the practice of taking advantage of customers during in the context of a seller's market, that is, the "attitude of 'they're coming anyway, let's squeeze them for all we can.'" In so doing, he expressed a desire for fairness both the customers and to the self-interest of the company. Further, the chef noted his willingness to give discounts for banquets for groups finances was demonstrably limited. However, he expressed a deep unwillingness to provide discounts to companies that he perceived had the means to pay listed prices. He explains his distaste, however, not simply in terms of fairness but instead in terms the ethics of relationship. In responding to companies of means that ask for deep discounts, the chef explains, "[We have] published pricing. And you want to come to business with us and you have shit tons of money. What makes you think or who do you think you are to then squeeze us?... you may only want to spend that [amount], but I'm almost like 'how dare you ask me for that kind of discount consideration?'" Here, the chef appears to experience the aggressive actions of a company of means not in terms of an abstract concept of fairness, but in terms of a lack of care or consideration in the relationship between the chef (and his company) and the client.

A final issue involves the chef's spontaneously expressed commitment to community issues as part of his conception of a virtuous business. Invoking (8) a sense of *responsibility* to the environment, the chef made reference to his rigorous desire to limit waste in the kitchen, for the purpose of ensuring "clean water, clean air and healthy people." When asked, "why should you care about that as a business? [Isn't that] kind of something 'over there'?", the chef responded, "No I think more business owners and business managers need to. You cannot 'if it doesn't bother me because I live in this part of town away from the dump.' It still bothers my town or my state, my country or my world."

The Marketer: Collaborative Social Purpose

Morality in business is the same as morality in social interaction - full stop.

While consumers tend to believe that marketing plays a positive role in making people aware of products, they also believe that marketing serves the interests of business at the expense of those of consumers (Barksdale & Darden, 1972; Heath & Heath, 2008; Kashif, Fernando, Altaf & Walsh, 2018). The owner of the marketing firm was adamant that while mistrust toward marketers exists, moral marketing is not a contradiction in terms. Unlike both the dentist (and to a lesser extent, the chef), the marketer does not identify *profit* as the primary motive for a business. As shown in Figure 4, for the marketer, (1) while profit is *necessary*, but it is not the *purpose* of the business. The purpose of a business is to form a collaborative unit for the purpose of advancing some valued purpose:

> [The purpose of my business has] always been a *collaborative environment* and it's never been *money*. When I talk to staff about that, they're inspired by that to a degree, but they want more money as an incentive...But I'm not motivated by that. I need a certain amount of money to have my satisfactory life, but I don't need to travel by helicopter and private car. So to me, it's always been about going to work and having fun each day…. And fun to me is having challenging work…. And if I have to sacrifice revenue for that, I'm cool with that.

Operating from this point of view, the marketer was explicit that (2) "morality in business is the same as morality in social interaction." Profit is necessary in the sense that the operation "has to be profitable for it to keep going." However, the profit exists so that the business can "have the client coming with a particular challenging situation that we're trying to fix or answer." At the same time, (3) the companies that he works for must be those that "add to society." The marketer indicated that he explicitly chose to work in particular industries because "these are services that I highly respect and think people need," and that he would not represent clients – such as the alcohol industry – which he felt do not "add to society." In this way, he is in the business of (4) providing "information that really helps [people] make good decisions."

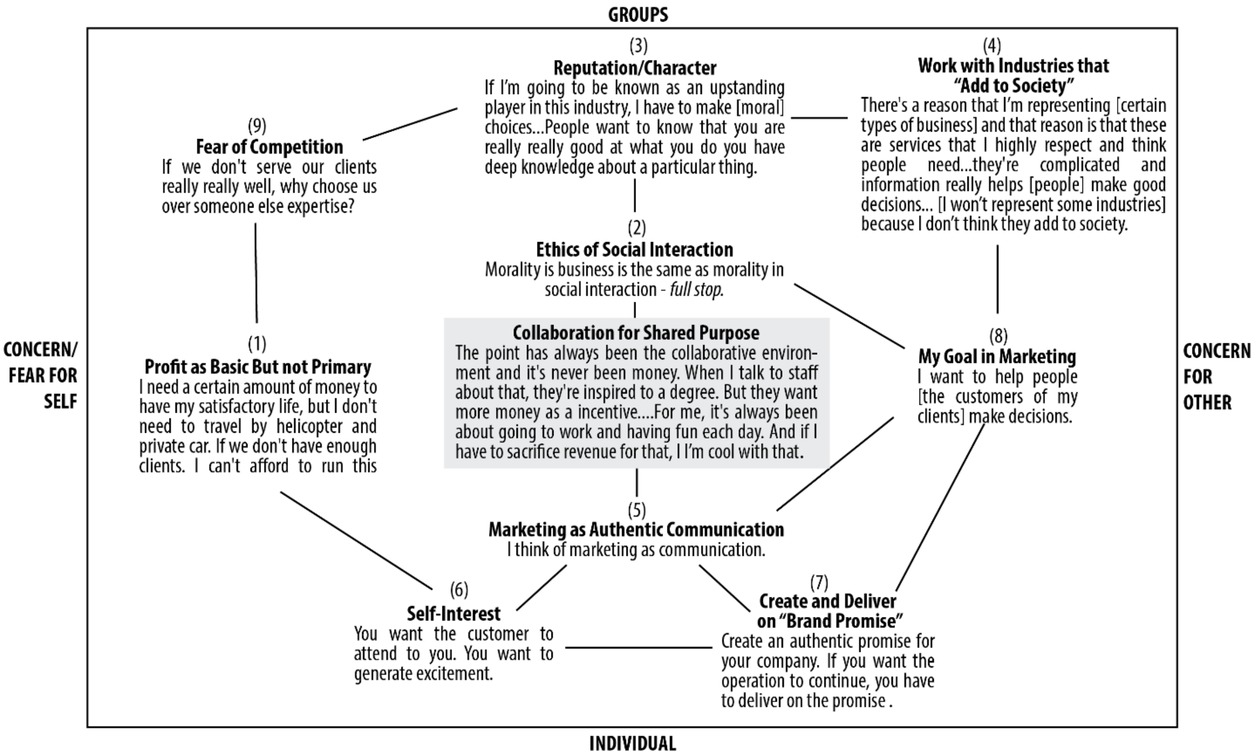
GROUPS
(3)
Reputation/Character
If I'm going to be known as an upstanding player in this industry, I have to make [moral] choices...People want to know that you are really really good at what you do you have deep knowledge about a particular thing.
(4)
Work with Industries that "Add to Society"
There's a reason that I'm representing [certain types of business] and that reason is that these are services that I highly respect and think people need...they're complicated and information really helps [people] make good decisions... [I won't represent some industries] because I don't think they add to society.
(9)
Fear of Competition
If we don't serve our clients really really well, why choose us over someone else expertise?
(2)
Ethics of Social Interaction
Morality is business is the same as morality in social interaction - full stop.
Collaboration for Shared Purpose
The point has always been the collaborative environment and it's never been money. When I talk to staff about that, they're inspired to a degree. But they want more money as a incentive....For me, it's always been about going to work and having fun each day. And if I have to sacrifice revenue for that, I I'm cool with that.
CONCERN/ FEAR FOR SELF
(1)
Profit as Basic But not Primary
I need a certain amount of money to have my satisfactory life, but I don't need to travel by helicopter and private car. If we don't have enough clients. I can't afford to run this
(8)
My Goal in Marketing
I want to help people [the customers of my clients] make decisions.
CONCERN FOR OTHER
(5)
Marketing as Authentic Communication
I think of marketing as communication.
(6)
Self-Interest
You want the customer to attend to you. You want to generate excitement.
(7)
Create and Deliver on "Brand Promise"
Create an authentic promise for your company. If you want the operation to continue, you have to deliver on the promise .
INDIVIDUAL

Figure 4: The Marketer: Collaboration for Shared Purpose

This statement is consistent with (5) the marketer's conception of the nature of marketing "as a form of communication." In elaborating this statement, the marketer noted the difference between this idea and the common notion that marketers are untrustworthy conduits of information. The interview asked whether "there are ways to market … without duping people." The marketer replied:

> the premise of that question is … of course, you are gonna lie as a marketer, but you don't have to. It’s this whole [assumption] that marketing is inherently a lie. I think of marketing as communication. I'm communicating with you now. As an academic, you [will] communicate to your audience through this journal. [Are the] words you choose to communicate your findings [a] lie? How do you describe me? … You're making a judgment on how you articulate. That’s what marketing is – we're making a judgment about how to articulate. We could be authentic; but [6] we also want to create excitement. You do [that] too when you write that article. [If you] use the most boring terms possible, nobody's going to read your article.

The marketer indicated that he could accept the proposition that “all communication is selling” in the sense that communication requires “getting someone to pay attention.” However, to make the “selling” morally legitimate, a company must be prepared to (7) “deliver on … the brand promise.” *Brand promise* is the image that the company puts forth to define what it is able to deliver to the customer. If, in the context of a given transaction, a business is able to deliver on the promise made in the process of selling, then the marketing of that product has been morally legitimate. The business has made an honest promise, and has kept it. It is thus (7) delivering on *brand promise* and (2) invoking the ethos of everyday social interaction that (8) a business can forge a *reputation* as an “upstanding player” who is “really really good at what you do you.” This reputation not only functions as a reflection of the character of the company, but also (9) gives clients a reason to do business with the company, as opposed to the other companies with which the business is in *competition*.

Conclusion: Morality and Moral Action as Evolving Relational Processes

We sometimes think of human psychological activity action as *first* behavior and *then* moral evaluation. Moral frameworks are often experienced as occupying a realm that is in some sense separate from everyday behavior – something related to extraordinary rather than ordinary human relations. As such, it is often seen as something that is “added onto” what we do rather than something that is part of the very process of what we do. Nowhere do we see this view more clearly than in the domain of business. Here, people often think that self-interest (e.g., the pursuit of profit; the preservation of the business itself) is the business of business, and that morality or ethics is something that is relevant after a stable profit structure has been established.

Moral relationalism maintains that moral values are properties not of some secondary or other worldly sphere of functioning, but instead are embedded and emergent outcomes of social relations themselves. The moment we enter symbolically-mediated social relations, our actions raise inescapably moral questions and function against the backdrop of already existing albeit constantly evolving moral frameworks. Contrary to what one might think if one were to examine the history of moral psychology in the latter part of the 20th century, the moral frameworks that frame human action are highly variegated – even within particular cultures. Among Western cultures that identify themselves as democracies, the ethos of rights, freedom and equality is dominant. However, while these moral values are foundational to democracy, they neither exhaust the range of moral values that mediate social life nor are they sufficient to sustain structures that promote human flourishing.

Moral selves are mediated by the capacity to engage in strong evaluation – higher-order evaluations of what we might pre-reflectively experience as first order goods. Self-interest is a first-order good that becomes transformed through the process of relating to others. Through our social relations, we can the capacity to use the meanings represented in socially-shared symbol systems to create higher-order moral representation of who we are and who we believe we should become. In this way, our selves become transformed and continue to become transformed as long as we find ourselves immersed in novel forms of experience made possible by our relations to the social and moral other. In this way, adult development occurs within the arena of socio-moral relations to others. It is mediated in large part by the construction of increasingly powerful, integrated systems of moral belief and action that are founded in relations between and among both individuals and social groups.

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A Systematic Review of HeartMath© Interventions to Improve Psychological Outcomes in Individuals with Psychiatric Conditions

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Abstract: Background and objectives: A systematic review was undertaken to assess the effectiveness of HeartMath, heart rate variability biofeedback (HRVB) intervention studies within a variety of psychiatric conditions. **Design and methods:** Seven databases, including Web of Knowledge, Medline, Psych Info, Cinahl, Psych articles, Web of Science, the Cochrane Library and grey literature, were searched for suitable articles. Of the 1,701 citations identified, eight studies that utilised HeartMath HRVB interventions with psychiatric patients were included in the final analysis. A total of 64 patients aged 12-96 across a range of psychiatric conditions were examined in the systematic review. **Results** The review cautiously indicates that some groups of patients with psychiatric conditions report psychological improvement following HRVB HeartMath training. **Conclusions** These studies provide some evidence that HeartMath, HRVB interventions are promising in supporting beneficial outcomes for individuals with psychiatric conditions. The review points to future directions for HRVB interventions using the HeartMath technology.

Keywords: Coherence, HeartMath, heart rate variability, heart rhythms, psychiatric disorders.

Declarations

The main author completed this work as part of a Professional Doctorate in Health Psychology and no funding was obtained. The researcher is a qualified HeartMath coach but there were no conflicts of interest or competing benefits throughout any of the research.

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Introduction

The structure of the National Health System (NHS) mental health service in the UK is changing, pushed to capacity and under-resourced. The Global Mental Health Action Plan (2013-2020) has called for improved access to innovative and cost-effective interventions for treating psychiatric conditions (Avey et al., 2003; Lancet Global Mental Health Group, 2007; Saxena, Funk, & Chisholm, 2013).

Current interventions for treating psychiatric conditions are typically pharmacological including anxiolytics (e.g., pregabalin), anti-depressants (e.g., Selective serotonin reuptake inhibitors (SSRIs) and antipsychotics (e.g., olanzapine) which manage and reduce the intensity of symptoms (Predictable, 2006). Some of these medications aim to target and relax the nervous system (e.g., benzodiazepines), but due to some severe side effects and addictive properties, they are not advised long-term (Baldwin et al., 2013). Individuals can become reliant on these medications which can impact on their levels of self-esteem and self-efficacy which may lead to poorer health outcomes (Austin-Ketch et al., 2012; Zimmermann et al., 2012).

More recently, primary and secondary care providers are actively encouraged to promote an individual’s control, choice and responsibility in managing their health (Leng, Baillie, & Raj, 2008). Hence, patient interest in alternative and complementary interventions has increased dramatically, one of which is Heart Rate Variability Biofeedback (HRVB) (for further information on other mind-body interventions, please refer to Park, 2013).

Heart Rate Variability (HRV) has been suggested to be an indicator of physiological stress and functioning of the nervous system and is measured by examining the beat-to-beat variation in the heart rhythm patterns (Edwards, 2020; McCraty, 2017). Research has revealed that low HRV levels are associated with psychopathological states such as anxiety (Thayer, Friedman, & Borkovec, 1996), depression (Beevers, Ellis, & Reid, 2011) and rumination (Brosschot, Van Dijk, & Thayer, 2007). In comparison, high HRV readings have been indicative of improved physical and mental health (Lehrer et al., 2006; Henriques et al., 2011; Ratanasiripong et al., 2015; Zucker et al., 2009; Kotozaki et al., 2014).

The use of HRVB interventions has expanded in popularity in more recent years for implementation in psychiatric conditions (Kapitza et al., 2010). Thus, interventions which target dysfunctional physiology from a ‘bottom-up’ perspective have demonstrated that patients are more able to identify and self-regulate their nervous systems, to calm challenging physical and mental symptoms, and increase physiological coherence (Leyro 2019; Pal Singh & Kaur, 2007; Kemp et al., 2012; McCraty et al., 2012). Coherence arises during positive emotional states when breath, heart and blood pressure become entrained. It is distinguished by a heart rhythm pattern of raised amplitude in low frequency heart rate variability of around 0.1 Hz, demonstrating synchronisation between the parasympathetic and sympathetic divisions of the autonomic nervous system (McCraty & Shaffer, 2015).

Due to the upsurge of interest in HRVB interventions and psychiatric conditions, there have been several reviews. Schoenberg & David (2014) examined 63 biofeedback intervention articles for use with psychiatric disorders. They revealed that 80.9% reported some clinical improvement, of which 65.0% were statistically significant (p<.05), concluding that biofeedback may be useful for psychiatric use. However, they examined a range of different biofeedback interventions (e.g. electroencephalography, electromyography, HRV and electrocardiography) and therefore, it is unclear if some types of biofeedback are more effective than others.

A recent meta-analysis also found a significant reduction in subjective reports of levels of anxiety and stress associated with HRV biofeedback training with substantial effect sizes evident in both within and between-group designs (Goessl, Curtiss, & Hofmann, 2017). The findings from the meta-analysis suggest that HRV-BF interventions are effective at reducing psychological measures of stress. However, the outcomes are sensitive to social desirability and methodological variance, therefore, there is a need to provide more objective measures such as physiological HRV improvements to validate the treatment effectiveness of biofeedback interventions (Van der swan et al., 2015).

Very recently, Poleszak et al. (2019) conducted a review examining the psychological and psychiatric benefits of biofeedback interventions in 23 articles. They concluded that HRVB is an effective therapy for use in depressive disorders, insomnia, ADHD and anxiety disorders. However, there was limited information available about the breakdown and quality of each study, research design and type of HRVB implemented. Therefore, drawing conclusions and evaluating the more detailed aspects of the systematic review is limited.

Collectively, these previous systematic reviews have demonstrated that HRVB interventions can be applicable in improving psychiatric outcomes; however, as already mentioned, there are different methods to measure HRV biofeedback. Of particular interest for this review is examining heart rate variability coherence as measured by HeartMath technology.

The Institute of HeartMath is non-profit organisation that has a mission and vision of promoting education, health, personal, social and global coherence research (Edwards, 2020). There have been no systematic reviews that have examined this type of HRVB only. HeartMath HRVB interventions employ a combination of psychological, physiological, behavioural and cognitive strategies to empower and educate individuals about the workings of their autonomic nervous system (Institute of HeartMath, 2014). Using technology such as the emWave®Pro Plus and the Inner Balance™, the individual receives immediate feedback via a sensor attached to the ear which displays their physiology via a visual format (e.g., on their mobile phone) and enables self-regulation in the moment initiated by changes in breathing or mood (Institute of HeartMath, 2014, Ratanasiripong et al., 2010).

This systematic review aims to build on, and advance knowledge of HRVB interventions using HeartMath technology and bring innovation and new direction into the psychiatric system.

Objectives

Review Questions

1. Are HeartMath interventions effective at improving psychological outcomes in patients with psychiatric conditions?

2. Do research studies report HRV coherence pre-post intervention?

Study Design

In order to gain clarity for the search terms, the acronym PICO was implemented for the review, see below for the breakdown (Higgins & Green, 2011).

PICO
Population: Psychiatric
Intervention: HeartMath HRVB
Control: Control, comparison or none

Outcomes

1. Change in psychiatric outcome measures.
2. To identify whether changes in HRV coherence values are reported

Methods

Protocol

This review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement guidelines (Liberati et al., 2009).

Eligibility Criteria

Following PICO, eligibility for inclusion in the systematic review consisted of any HeartMath intervention with individuals who have a psychiatric condition. All English language databases from years 1971- to present-day were searched that included published, unpublished and literature.

Inclusion Criteria

1. English published work
2. Any age from 12 years old
3. Psychiatric disorder
4. HeartMath HRVB intervention
5. HRV coherence as measured by a phonograph, ear or fingertip measurement

Exclusion

1. Any other HRV biofeedback measurement that is not HRV coherence as measured by HeartMath technology.

2. Any conditions which are known to affect cognitive abilities to some degree, e.g., dementia, autism and Asperger’s syndrome were excluded.

Information Sources

Seven different electronic databases including Web of Knowledge, Medline, Psych Info, Cinahl, Psych Articles, Web of Science, the Cochrane Library and grey literature were searched for English articles between the dates 01/08/19 and 12/02/20. A backward search was also completed by examining the suitable articles' reference list and further, recognised authors were contacted to gain access to potentially relevant articles for more information. These search strategies are in line with best practice to gain a robust search strategy for the systematic review (Forshaw, Tod & Eubank, 2018; Liberati et al., 2009).

Search

The following search terms were used for all databases:

"Heart rate variability biofeedback" OR "heart coherence" OR "Respiratory sinus arrhythmia" OR "HRV" OR "RSA" OR "resonance frequency biofeedback "AND anxiety OR "anorexia nervosa" OR "bipolar affective disorder" OR "depersonalisation disorder*" OR "personality disorder*" OR depression OR "eating disorder*" OR "bulimia nervosa" OR "binge eating disorder" OR "psych* disorder*" OR "psych* condition*" OR "obsessive-compulsive disorder*" OR "OCD" OR "MDD" OR "panic disorder*" OR "post-traumatic stress disorder*" OR "PTSD" OR "psychiatric disorder*" OR "psychological disorder*" OR "psychopathology" OR psychosis OR schizophrenia OR "borderline personality disorder*" OR addiction AND HeartMath Intervention*

Study Selection

The search strategy initially produced 1,701 articles, 304 of which were duplicates leaving 1,397 to be reviewed by title and abstract. 1,372 were excluded, the primary reason for exclusion was that HeartMath technology was not used in the study, leaving 25 full-text studies assessed for eligibility. Seventeen studies were excluded during data extraction as either the population group was not appropriate, or the study was not using a HeartMath protocol leaving a total of eight studies included in the review, see Figure 1 for the PRISMA flow diagram.

Eligibility for inclusion was rated by the first author and then moderated blindly by the second and third authors. Disagreements were negligible and were discussed leading to minor re-ratings due to emerging novel interpretations of the criteria in relation to the papers being considered. None of the small amendments led to a change in the inclusion/exclusion status of a paper.

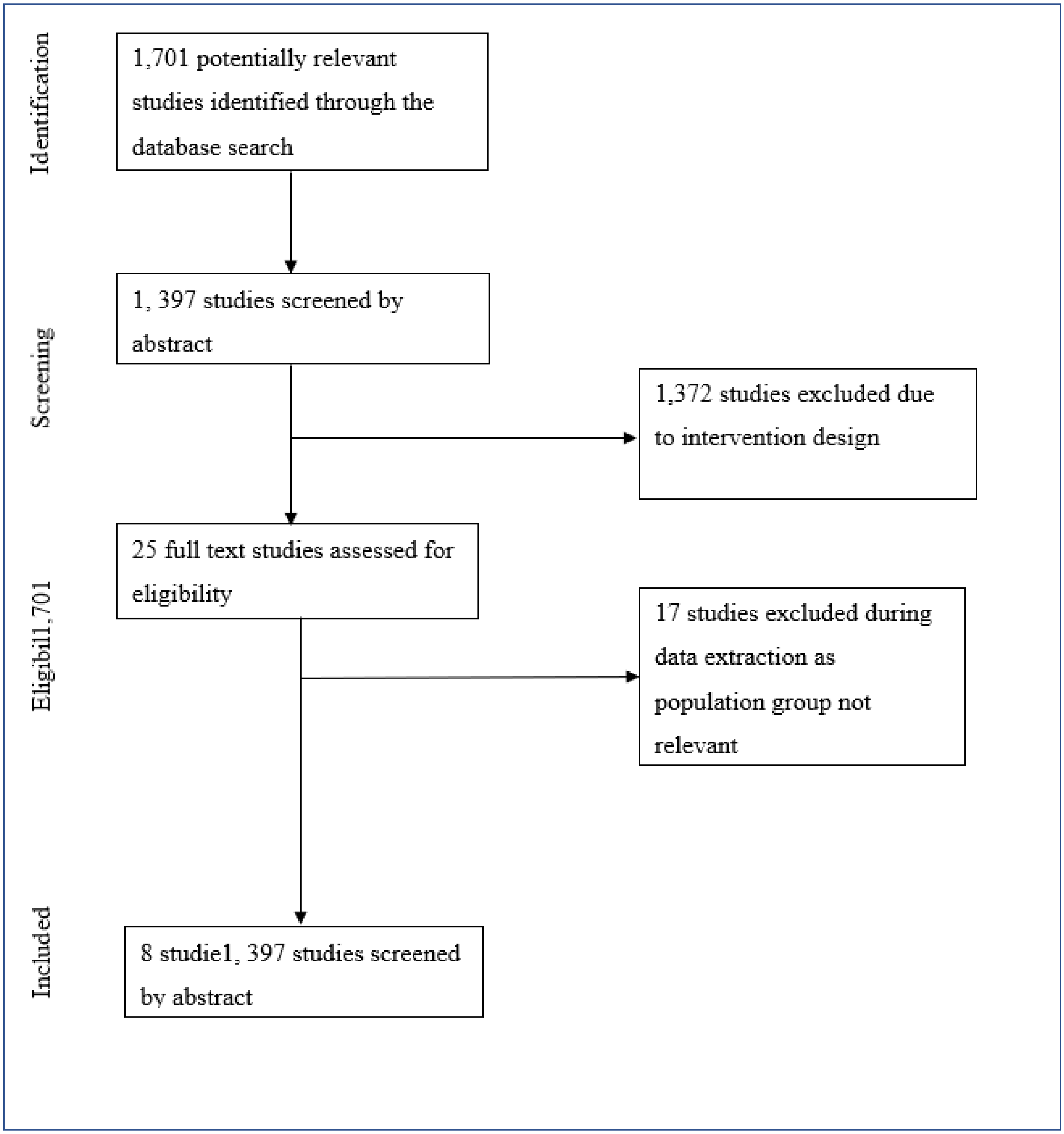

Identification
1,701 potentially relevant studies identified through the database search
Screening
1, 397 studies screened by abstract
1,372 studies excluded due to intervention design
Eligibil1,701
25 full text studies assessed for eligibility
17 studies excluded during data extraction as population group not relevant
Included
8 studie1, 397 studies screened by abstract

Figure 1: PRISMA flow diagram for study inclusion

Risk of Bias in Individual Studies

Quality and risk of bias in the studies were measured using The Effective Public Health Practice Project (EPHHP) tool, which was developed explicitly for use within public health professions and therefore, appropriate for this review. All of the studies were scored using a ‘yes’, no’ or ‘can’t tell’ response system for the six component ratings on *selection bias*, *study design*, *confounders*, *blinding*, *data collection measures*, *withdrawal and dropouts.* A global rating for each paper was then decided and classified as *strong* (if no weak ratings in any of the components), *moderate* (if there were one or more weak ratings) and *weak* (if there were two or more weak ratings). This tool has been used effectively in a substantial number of similar reviews (EPHPP, 1998).

Data Collection Process

A data extraction sheet was employed to record specific information on each study including; (1) first author and year of publication, (2) country, (3) characteristics of participants (category of the psychiatric condition, sample size and gender), (4) type of design, (5) intervention condition (including frequency and length of HRVB sessions), (5) primary outcome measures (psychological or psychiatric measures and physiological HRV coherence data if provided), (6) results following intervention (psychological and physiological if reported).

Results

Study Selection

Eight studies met all the inclusion criteria for the systematic review, see Table 1 for a detailed breakdown of the study characteristics, design and specific outcomes.

Characteristics of Included Studies

Countries

Out of the eight studies, five were published in the USA (Lande et al., 2010; Ginsberg, Berry, & Powell, 2010; Beckham, Greene, & Meltzer-Brody, 2013; Reyes, 2014; Jester, Rozek, & McKelley, 2019), the remaining in different countries including France (Trousselard et al., 2016), Netherlands (Hartogs, Bartels-Velthuis, Van der Ploeg, & Bos, 2017) and Canada (McAusland, & Addington, 2018).

Study design

Amongst the eight included studies, the methodological study design varied. The most common research design was a within group with five studies employing this approach (Beckham, Greene, & Meltzer-Brody, 2013; Reyes, 2014; Trousselard et al., 2016; McAusland, & Addington, 2018; Jester, Rozek, & McKelley, 2019). There were two quasi-experimental designs (Ginsberg, Berry, & Powell, 2010; Lande et al., 2010) **and** one cohort study (Hartogs, Bartels-Velthuis, Van der Ploeg, & Bos, 2017).

Of the eight studies, five were pilot studies (McAusland, & Addington, 2018; Trousselard et al., 2016; Beckham, Greene, & Meltzer-Brody, 2013; Lande et al., 2010; Ginsberg, Berry, & Powell, 2010)

Participant Characteristics

Sixty-four psychiatric patients in total were recruited across the eight reviewed studies, age range 12-96 years old. Three studies included patients with PTSD (Ginsberg, Berry, & Powell, 2010; Lande et al., 2010; Reyes, 2014) and three different studies included patients with a range of psychiatric conditions (Beckham, Greene, & Meltzer-Brody, 2013; McAusland, & Addington, 2018; Jester, Rozek, & McKelley, 2019). The remaining studies included specific psychiatric conditions; schizophrenia (Trousselard et al., 2016) and major depression (Hartogs, Bartels-Velthuis, Van der Ploeg, & Bos, 2017).

Sample Sizes

There was a range of sample sizes in the research design ranging from the highest, 38 participants (Lande, 2010) to the least which was seven (Hartogs, Bartels-Velthuis, Van der Ploeg, & Bos, 2017).

Three of the studies contained 100% male patients (Ginsberg, Berry, & Powell, 2010; Lande et al., 2010; Reyes, 2014), one study used 100% female patients (Beckham, Greene, & Meltzer-Brody, 2013) and the rest were mixed-gender (Trousselard et al., 2016; Hartogs, Bartels-Velthuis, Van der Ploeg, & Bos, 2017; McAusland, & Addington, 2018; Jester, Rozek, & McKelley, 2019).

Intervention

The intervention lengths and training protocols varied in each research design. As displayed in Table 1, the number of intervention minutes that participants completed with a researcher/psychologist or biofeedback therapist ranged from 20 minutes (McAusland, & Addington, 2018) to the highest training of HRVB up to 720 minutes (Trousselard et al., 2016). The number of sessions ranged from one (McAusland, & Addington, 2018) to the most, 12 sessions (Trousselard et al., 2016) with the majority ranging between 6-12 sessions (Lande et al., 2010; Reyes, 2014; Jester, Rozek, & McKelley, 2019; Hartogs, Bartels-Velthuis, Van der Ploeg, & Bos, 2017).

Outcome Measures

Across the eight selected papers, studies varied greatly regarding the measures used as there was a range of different psychiatric conditions. The outcome measure used included; The PTSD Checklist (PCL) (Ventureyra et al., 2002), State-Trait Anxiety Inventory for Adults (STAI-AD) (Spielberger, 1983), Beck Depression Inventory-II (BDI) (Beck, Steer, & Brown, 1996), Scale of Prodromal Symptoms (SOPS) (McGlashan et al., 2001), Kessler Psychological Distress Scale (K10) (Kessler et al., 2002), Information Processing test battery (ATTN/IM) (Vasterling et al., 2002), Zung Self- Rating Anxiety Scale (SAS) (Zung, 1971), Zung Self-Rating Depression Scale (SDS) (Zung, 1965), the Positive Outcome list (POL) (Appelo, 2005), Spielberger State-Trait Anxiety (STAI) (Spielberger et al., 1983), Warwick Edinburgh Mental Well-Being Scale (WEMWBS) (Tennant et al., 2007), Linear Analog Self-Assessment (LASA) (Locke et al., 2007), The Positive And Negative Syndrome Scale (PANSS) (Guelfi, 1997; Kay et al., 1987), Freibury Mindfulness Inventory-14 (FMI) (Walach et al., 2006), Trail Making Test – Part A (TMT-A) (Reitan, 1995) and The Derogatis Stress Profile (DSP) (Derogatis, 1987).

Effectiveness of HRVB interventions

Primary Outcome

The primary outcomes of the systematic review were to examine the psychological benefits of HRVB on individuals with psychiatric conditions. Overall, of the eight studies, seven reported some level of psychological benefit following the intervention; more details per psychiatric condition are reviewed herewith.

For individuals with PTSD the findings were mixed; the study by Reyes (2014) found significant reductions in PTSD severity (p<.001) in contrast to Lande et al. (2010) who found no significant differences in levels of PTSD symptoms (as measured by PCL) or depression (as measured by SDS) post-intervention. A critical methodological difference exists between these studies; for the Lande et al. (2010) study, participants received a maximum of 120 minutes of HRVB training. However, the session protocol is not clear, compared to that of Reyes (2014) who completed the sessions over eight weeks and asked individuals to engage in daily practice. The third study with a PTSD population by Ginsberg, Berry, & Powell, (2010) did find significant improvements in the information processing (ATTN/IM) markers p<.05, but they did not include post measures on PTSD symptoms; therefore, it is hard to remark on PTSD symptomatology.

Three different studies recruited patients with a range of psychiatric conditions which examined collectively reveal some psychological improvements following HRVB but will be discussed separately in more detail. Beckham, Greene, & Meltzer-Brody (2013) recruited female patients who were suffering from severe perinatal anxiety and depression and found significant reductions on levels of anxiety (STAI), improvements in mental wellbeing (WEMWBS) and quality of life (LASA) (p<0.05) following the HRVB intervention. The study by McAusland, & Addington (2018) recruited patients with anxiety and who were high risk for psychosis, and results were a little less clear. They found clinically significant psychological reductions but only in some aspects of dysphoric mood and stress responses (as measures by SOPS) p <.01 but not for anxiety (SAS) or distress (K10). However, the individuals in this study only received 20 minutes of HRVB with a researcher and instead completed the rest of the training alone at home. The most recent study by Jester, Rozek, & McKelley (2019) recruited older adults with a range of psychiatric conditions and found clinically significant reductions in depression (BDI) p<.001 and anxiety (STAI-AD) p<.05. There was also a significant increase in attentional skills as measured by the TMT-A (p=.001), which is strong evidence for the effectiveness of HRVB interventions on psychiatric symptomology.

The remaining two studies were focused on one psychiatric condition only. The study by Hartogs, Bartels-Velthuis, Van der Ploeg & Bos (2017) recruited patients with major depression and reported that 71% of patients reported a reduction in depression levels. However, no value of statistical significance or valid psychometric measures were employed and findings were based on a single item. The final study by Trousselard et al. (2016) recruited schizophrenic patients and following an HRVB intervention found significant improvements in anxiety (STAI) and mindfulness (FMI) (p<.05). However, no significant differences in all other measures of stress and wellbeing were found (as measured by PANSS, WEMWBS and DSP).

Secondary Outcome

The secondary outcome of the review was to examine if HRV coherence levels were reported. Out of the eight studies, only one study provided statistical analysis of HRV coherence; Ginsberg, Berry, & Powell (2010) found HRV coherence was achieved by all participants with PTSD post-HRVB training which was significant at the <5% level**.**

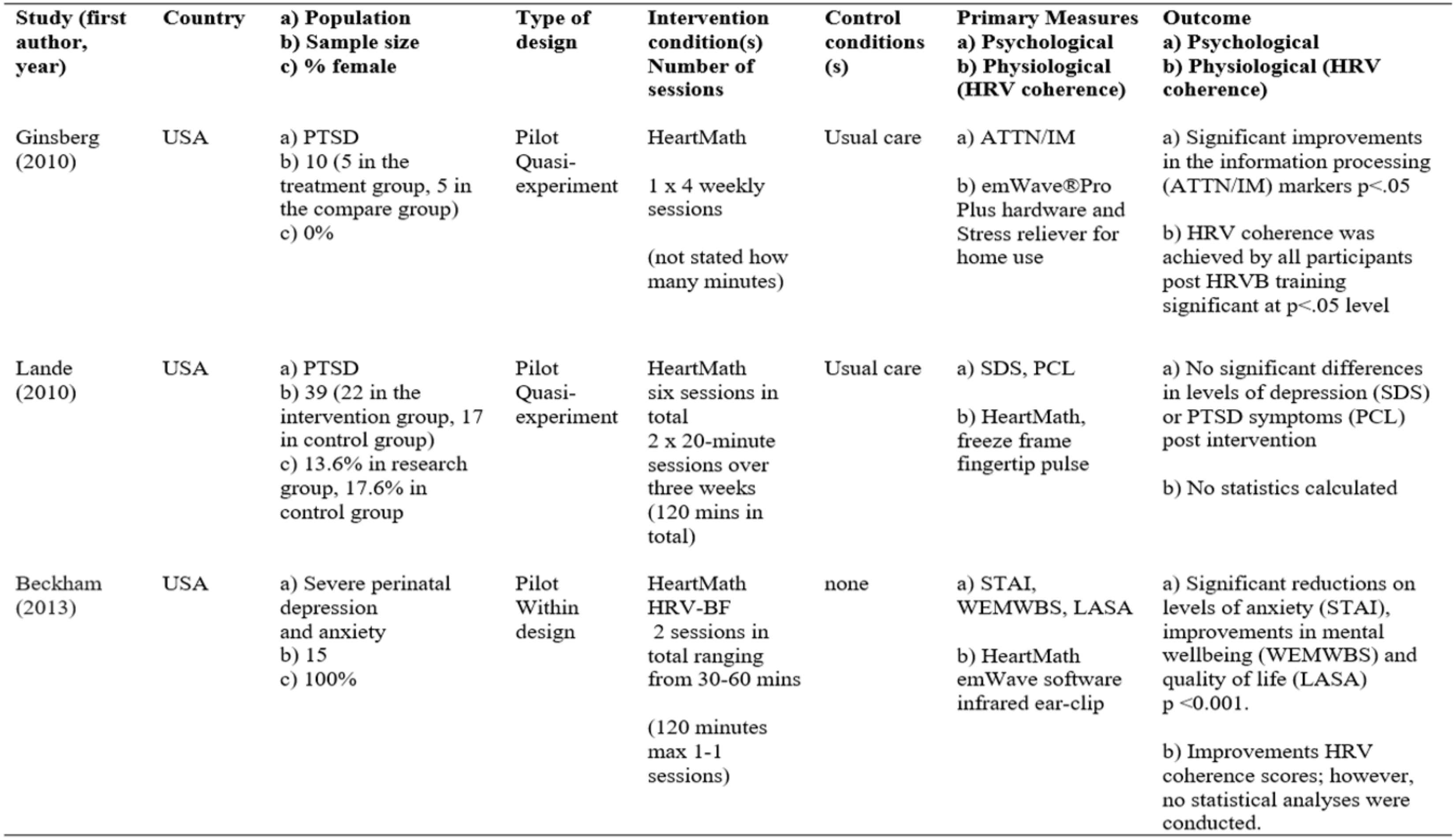
Two studies reported an improvement of HRV coherence levels following the intervention but did not conduct an in-depth statistical analysis (Reyes, 2014; Beckham, Greene, & Meltzer-Brody, 2013). Further, five studies did not refer to HRV coherence as an outcome measure at all (Lande et al., 2010; McAusland, & Addington, 2018; Jester, Rozek, & McKelley, 2019; Trousselard et al., 2016; Hartogs, Bartels-Velthuis, Van der Ploeg, & Bos, 2017).

Risk of Bias

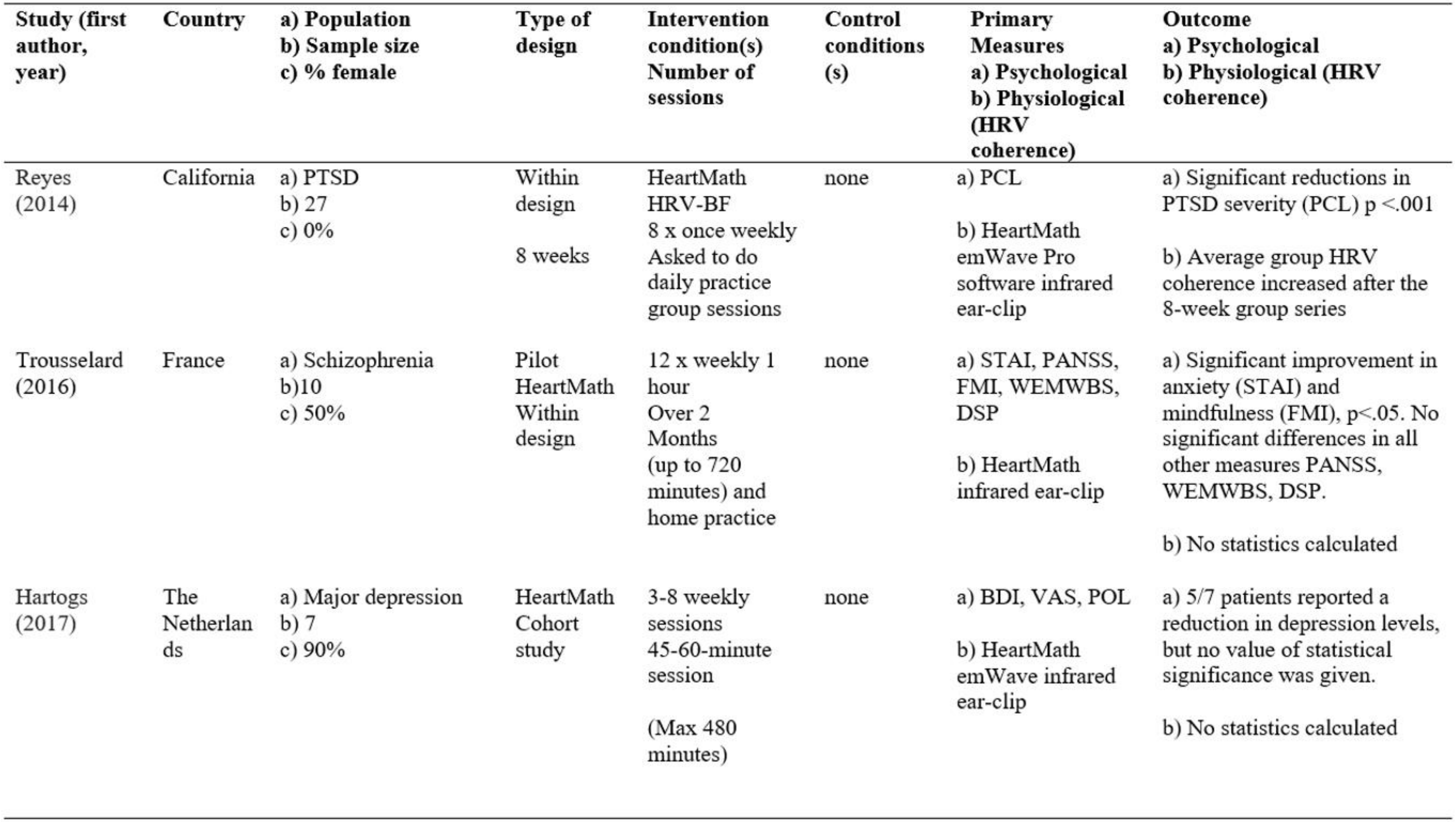
The EPHHP risk of bias measure emphasized several weaknesses within some of the review papers. The main weakness was in study design and blinding which is expected due to five out of the eight studies being pilot studies (McAusland, & Addington, 2018; Trousselard et al., 2016; Beckham, Greene, & Meltzer-Brody, 2013; Lande et al., 2010; Ginsberg, Berry, & Powell, 2010). Regarding selection bias, all studies were classified as *medium* or *strong* as they were likely to be somewhat representative of the target population. Six of the eight studies were rated moderate for *data collection measures* as most of the tools were reliable and valid.

Overall, seven out of the eight studies were given a global rating of ‘weak’ mainly due to research design. The most common research approach involved a within-groups design with five studies employing this approach (Beckham, Greene, & Meltzer-Brody, 2013; Reyes, 2014; Trousselard et al., 2016; McAusland, & Addington, 2018; Jester, Rozek, & McKelley, 2019). There were two quasi-experimental designs (Ginsberg, Berry, & Powell, 2010; Lande et al., 2010) and one cohort study **(**Hartogs, Bartels-Velthuis, Van der Ploeg, & Bos, 2017) which are often subject to reliability and validity issues. However, all eight selected studies in this review demonstrated clear aims and research questions, utilised appropriate population groups, and had moderate levels of data collection and minimum attrition rate, (see Table 2 for more information).

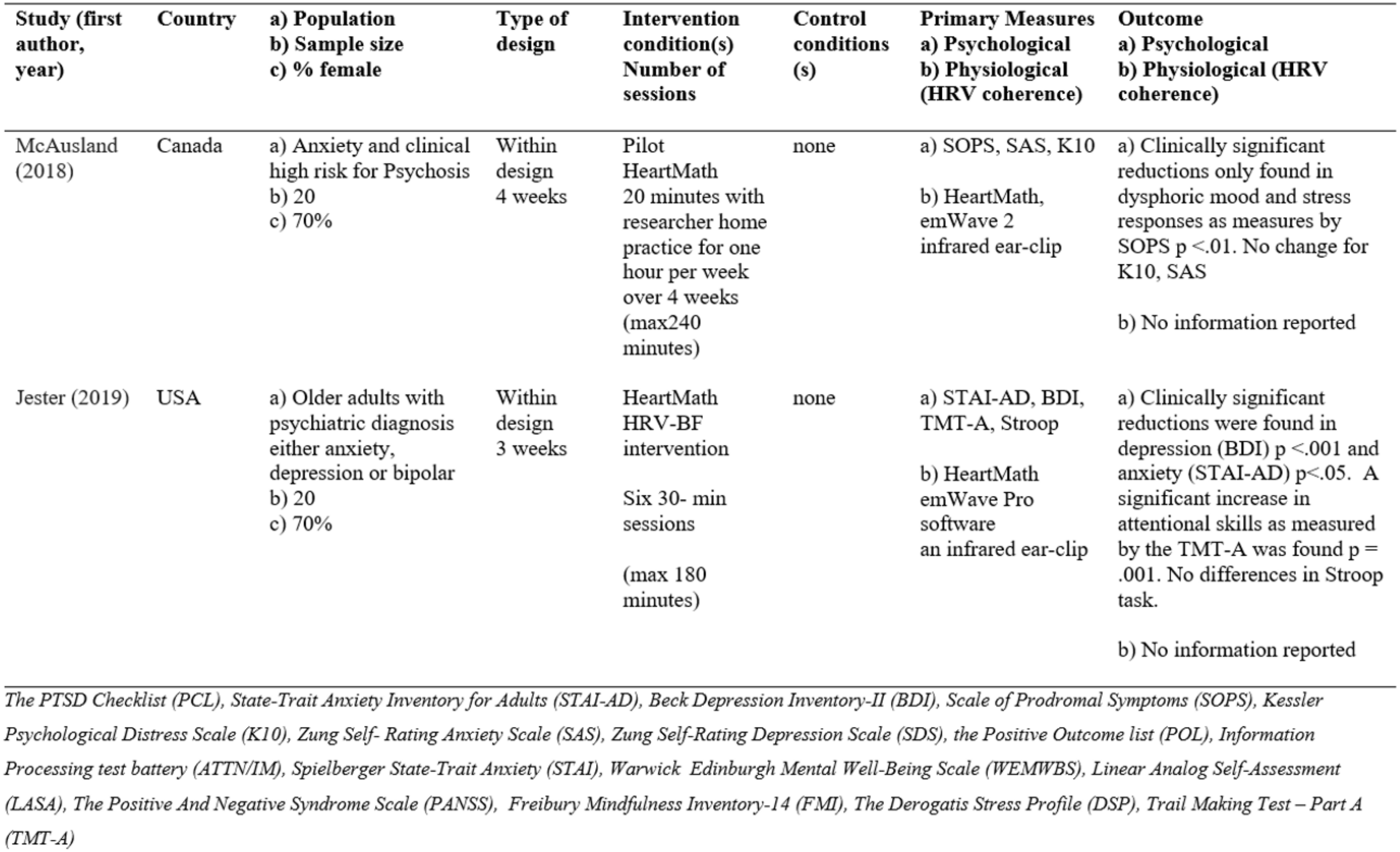
Table 1. Study characteristics



Study (first author, year)	**Country**	**a) Population b) Sample size c) % female**	**Type of design**	**Intervention condition(s) Number of sessions**	**Control conditions (s)**	**Primary Measures a) Psychological b) Physiological (HRV coherence)**	**Outcome a) Psychological b) Physiological (HRV coherence)**
Ginsberg (2010)	USA	a) PTSD b) 10 (5 in the treatment group, 5 in the compare group) c) 0%	Pilot Quasi-experiment	HeartMath 1 x 4 weekly sessions (not stated how many minutes)	Usual care	a) ATTN/IM b) emWave®Pro Plus hardware and Stress reliever for home use	a) Significant improvements in the information processing (ATTN/IM) markers p<.05 b) HRV coherence was achieved by all participants post HRVB training significant at p<.05 level
Lande (2010)	USA	a) PTSD b) 39 (22 in the intervention group, 17 in control group) c) 13.6% in research group, 17.6% in control group	Pilot Quasi-experiment	HeartMath six sessions in total 2 x 20-minute sessions over three weeks (120 mins in total)	Usual care	a) SDS, PCL b) HeartMath, freeze frame fingertip pulse	a) No significant differences in levels of depression (SDS) or PTSD symptoms (PCL) post intervention b) No statistics calculated
Beckham (2013)	USA	a) Severe perinatal depression and anxiety b) 15 c) 100%	Pilot Within design	HeartMath HRV-BF 2 sessions in total ranging from 30-60 mins (120 minutes max 1-1 sessions)	none	a) STAI, WEMWBS, LASA b) HeartMath emWave software infrared ear-clip	a) Significant reductions on levels of anxiety (STAI), improvements in mental wellbeing (WEMWBS) and quality of life (LASA) p <0.001. b) Improvements HRV coherence scores; however, no statistical analyses were conducted.



Study (first author, year)	Country	a) Population b) Sample size c) % female	Type of design	Intervention condition(s) Number of sessions	Control conditions (s)	Primary Measures a) Psychological b) Physiological (HRV coherence)	Outcome a) Psychological b) Physiological (HRV coherence)
Reyes (2014)	California	a) PTSD b) 27 c) 0%	Within design 8 weeks	HeartMath HRV-BF 8 x once weekly Asked to do daily practice group sessions	none	a) PCL b) HeartMath emWave Pro software infrared ear-clip	a) Significant reductions in PTSD severity (PCL) p <.001 b) Average group HRV coherence increased after the 8-week group series
Trousselard (2016)	France	a) Schizophrenia b)10 c) 50%	Pilot HeartMath Within design	12 x weekly 1 hour Over 2 Months (up to 720 minutes) and home practice	none	a) STAI, PANSS, FMI, WEMWBS, DSP b) HeartMath infrared ear-clip	a) Significant improvement in anxiety (STAI) and mindfulness (FMI), p<.05. No significant differences in all other measures PANSS, WEMWBS, DSP. b) No statistics calculated
Hartogs (2017)	The Netherlands	a) Major depression b) 7 c) 90%	HeartMath Cohort study	3-8 weekly sessions 45-60-minute session (Max 480 minutes)	none	a) BDI, VAS, POL b) HeartMath emWave infrared ear-clip	a) 5/7 patients reported a reduction in depression levels, but no value of statistical significance was given. b) No statistics calculated



Study (first author, year)	Country	a) Population b) Sample size c) % female	Type of design	Intervention condition(s) Number of sessions	Control conditions (s)	Primary Measures a) Psychological b) Physiological (HRV coherence)	Outcome a) Psychological b) Physiological (HRV coherence)
McAusland (2018)	Canada	a) Anxiety and clinical high risk for Psychosis b) 20 c) 70%	Within design 4 weeks	Pilot HeartMath 20 minutes with researcher home practice for one hour per week over 4 weeks (max240 minutes)	none	a) SOPS, SAS, K10 b) HeartMath, emWave 2 infrared ear-clip	a) Clinically significant reductions only found in dysphoric mood and stress responses as measures by SOPS p <.01. No change for K10, SAS b) No information reported
Jester (2019)	USA	a) Older adults with psychiatric diagnosis either anxiety, depression or bipolar b) 20 c) 70%	Within design 3 weeks	HeartMath HRV-BF intervention Six 30- min sessions (max 180 minutes)	none	a) STAI-AD, BDI, TMT-A, Stroop b) HeartMath emWave Pro software an infrared ear-clip	a) Clinically significant reductions were found in depression (BDI) p <.001 and anxiety (STAI-AD) p<.05. A significant increase in attentional skills as measured by the TMT-A was found p = .001. No differences in Stroop task. b) No information reported

The PTSD Checklist (PCL), State-Trait Anxiety Inventory for Adults (STAI-AD), Beck Depression Inventory-II (BDI), Scale of Prodromal Symptoms (SOPS), Kessler Psychological Distress Scale (K10), Zung Self- Rating Anxiety Scale (SAS), Zung Self-Rating Depression Scale (SDS), the Positive Outcome list (POL), Information Processing test battery (ATTN/IM), Spielberger State-Trait Anxiety (STAI), Warwick Edinburgh Mental Well-Being Scale (WEMWBS), Linear Analog Self-Assessment (LASA), The Positive And Negative Syndrome Scale (PANSS), Freibury Mindfulness Inventory-14 (FMI), The Derogatis Stress Profile (DSP), Trail Making Test – Part A (TMT-A)

Table 2. Assessment of risk of bias using the EPHHP

Study (first author, year)	Selection bias	Study design	Confounders	Blinding	Data Collection measures	Withdrawal & dropouts	Global rating for paper
Ginsberg (2010)	MODERATE	WEAK	MODERATE	WEAK	WEAK	MODERATE	WEAK
Lande (2010)	MODERATE	STRONG	MODERATE	WEAK	MODERATE	MODERATE	MODERATE
Beckham (2013)	STRONG	WEAK	WEAK	WEAK	STRONG	MODERATE	WEAK
Reyes (2014)	STRONG	WEAK	WEAK	WEAK	MODERATE	MODERATE	WEAK
Trousselard (2016)	MODERATE	WEAK	WEAK	WEAK	MODERATE	MODERATE	WEAK
Hartogs (2017)	MODERATE	WEAK	WEAK	WEAK	MODERATE	MODERATE	WEAK
McAusland (2018)	MODERATE	WEAK	WEAK	WEAK	MODERATE	WEAK	WEAK
Jester (2019)	MODERATE	WEAK	WEAK	WEAK	MODERATE	WEAK	WEAK

Discussion

This systematic review examined the effectiveness of HeartMath interventions on psychological and physiological outcomes in individuals with psychiatric conditions. Previous reviews have identified the effectiveness of HRVB interventions within various psychiatric conditions (Schoenberg & David, 2014; Poleszak et al., 2019; Goessl et al., 2017). A systematic review by Schoenberg & David (2014) analysed 63 biofeedback intervention articles for use with various psychiatric disorders and found that 80.9% reported some clinical improvement, of which 65.0% were statistically significant (p<.05). The articles examined in the review included a range of biofeedback interventions (including electrocardiography, electroencephalography, electromyography and HRV) and therefore, it was undistinguishable if certain types of biofeedback are more effective than others.

A further meta-analysis by Goessl, Curtiss, & Hofmann (2017) reported significant reductions in subjective reports of levels of stress and anxiety associated with HRV biofeedback training. In addition, substantial effect sizes were evident in both between and within group designs with the authors concluding that HRV-BF interventions are effective at reducing psychological measures of stress. More recently, Poleszak et al. (2019) conducted a review examining the psychological and psychiatric benefits of biofeedback interventions in 23 articles. They concluded that HRVB is a successful therapy for use in anxiety disorders, insomnia, ADHD and depressive disorders.

Collectively, these previous systematic reviews have demonstrated that HRVB interventions can be applicable in improving psychiatric outcomes as a whole. The systematic review presented in this paper extends these findings of previous reviews and demonstrates that some groups of patients with psychiatric conditions report psychological improvement following HRVB HeartMath training. More specifically, HeartMath interventions appear to beneficial for a range of conditions including, PTDS, anxiety, stress, depression, and schizophrenia in a wide age range. More poignantly, Ginsberg, Berry & Powell (2010) report that the results from their pilot study for individuals with PTSD are promising in that although sample sizes were small, the effect size was large enough to produce statistical significance for some of the observed outcomes. In fact, they indicate that the statistically significant improvement in HRVB outcome measures is comparable to effect sizes produced by standard treatments for PTSD. This is in line with the study by Jester (2019), who also reports that HeartMath interventions were a significant predictor of changes in psychiatric symptoms and cognition and revealed large effect size decreases in depression, state anxiety, and trait anxiety.

In contrast, some of the studies reviewed do not show improvement in psychiatric outcomes following HeartMath interventions; one of the reasons for the discrepancy may be methodological. The length of the training protocol and the amount of personal practice in HRVB interventions could be one factor influencing clinical outcomes; for example, the study with the longest standardized training time was 720 min by Trousselard et al. (2016) compared to 20 minutes in the study by McAusland & Addington (2018). As discussed in the review by Schoenberg & David (2014), the HRVB literature lacks standardization, and although templates and protocols do exist (e.g., Lehrer et al., 2013), not all studies follow the guidelines or report HRV data. Further, a problem with the studies used in this review, and other HRVB studies generally, is that there is often no randomization or controlling for medication which has been found to affect HRV levels (Leyro, 2019).

The broader findings of HRVB interventions have been found to improve levels of HRV in respect of many physical health problems such as heart disease, hypertension, emphysema, insomnia, asthma, fibromyalgia, back pain and chronic fatigue (Paine et al., 2009; Lehrer et al., 2006; Hassett et al., 2007; Windhurst et al., 2017). Considerable improvements are also reported in objective health-related measures following HRVB training such as improved ANS function and balance (Tiller et al., 1996), and the cortisol/DHEA ratio (McCraty et al., 1998), immune system function (McCraty et al., 1996) and improved glycaemic regulation and cholesterol levels (McCraty, Atkinson, Lipsenthal, et al., 2003).

HRVB interventions may be effective to use alongside additional medical care and other psychological interventions such as CBT and therefore treat aim to treat mind-body health (Rusch et al., 2011). Practically, HRV biofeedback is comparatively easy to use, learn and teach. It is low cost and, the Inner Balance™ app recently developed by HeartMath can be used on smartphones, further reducing implementation barriers as it can be used in and out of the research and/or clinical setting. This type of stress management intervention may be effective in preventing high attrition due to being non-invasive, non-threatening and very person-centered (Van der Zwan et al., 2015).

Limitations

A criticism of this review is that five out of the eight studies were pilot studies, and further, seven out of the eight studies were classified as ‘weak’ concerning the risk of bias following assessment with the EPHPP scale. However, with the rise of interest in HRVB interventions, conducting preliminary analyses with pilot studies before proceeding to more costly and time-consuming interventions is not only essential but cost-effective. Some of the studies used in this review have highlighted that it is not always logistically feasible to conduct RCTs in inpatient or outpatient settings due to sampling size, duration of hospital stays, and acuity of illness (Eliopoulos et al., 2004). Although some of the studies are rated as weak they are endorsed as being suitable for review as the majority of the studies are pragmatic and realistic, for example that of Beckham, Greene & Meltzer-Brody (2013) who conducted their research in hospital settings with patients with severe psychiatric conditions which by the very nature of the design brings ecological validity to the research. However, without control groups, it is difficult to say with certainty that the improvements in psychological outcome measures are attributable to the usage of HRVB rather than regression to the mean, effects of time, social desirability and therapist bias.

All the eight studies endorsed the premise that HRVB is an alternative, non-pharmacologic, safe, therapeutic intervention ideal for patients who are more vulnerable or at risk of pharmaceutical complications. For example, the study by Beckham, Greene, & Meltzer-Brody (2013) recognized the use of HeartMath technology and the HRVB intervention for use with anxiety and depression given the increased fear about harmful side effects of pharmacologic treatments on a developing foetus. As recommended by Leyro (2019), HRVB interventions have strong potential that endorses future research and clinical dissemination.

Implications

With the structure of the NHS changing, it being seen as over-burdened, under resourced and pushed to capacity, there is a drive for individuals to improve their self-management and accordingly, primary care providers could actively promote self-regulation skills and include a system wide initiative to be proactive and promote individual wellness (Lemaire et al., 2011).

It is clear that coherence can affect our physiological, emotional, mental and physical health and these benefits extend further to improved cognitive functioning and enhanced optimal performance, perceptual processing and intentional behaviour (McCraty, Atkinson, Tomasino, & Bradley, 2009).

Future Directions

A significant finding in this review is to provide more structure and direction to future HRV coherence research using HeartMath technology. Designs should follow guidelines concerning psychophysiological research for use in experiment planning, data analysis and data reporting (Laborde et al., 2017; McCraty et al., 2015). The guidelines highlight the importance of using an instrument specific to measure physiological changes in HRV. The latest HeartMath technology, emWavePro Plus is a valid and reliable measurement tool to identify changes in HRV coherence pre-post intervention (Institute of HeartMath, 2014). The benefit of using the emWave®Pro Plus HeartMath technology is that detailed analysis of additional components in HRV, for example, low, very low and high-frequency measures are available (Institute of HeartMath, 2014). Furthermore, the utilisation of emWave®Pro Plus technology is specifically for healthcare professionals and is an easy way to inexpensively add standardized HRV coherence measures and assessment for research and clinical practice. Such assessments are available for use in a wide range of applications. These include quantifying HRV levels in relation to autonomic nervous system activity as well as identifying changes in HRV or coherence levels, and documenting any physiological baseline shifting over time (Institute of HeartMath, 2014). The review highlights the lack of HRV coherence data reported from researchers using the HeartMath technology and encourages a standardised format that would include three HRV coherence measures pre- and post-intervention. These include; resting HRV assessment (minimum five minutes) in which an individual is asked to sit quietly without talking; this provides a baseline HRV. The second assessment is the ‘stress preparation’, participants are invited to sit for three minutes as if they were preparing emotionally for an important upcoming event or activity and to focus their attention in the centre of their chest and experience a positive feeling such as care or appreciation for someone or some special place. The final assessment consists of a one-minute deep breathing assessment where the participant is encouraged to breathe as deeply and comfortably at the pace shown on a computer screen. By utilising this protocol, as recommended by McCraty, Atkinson, & Dispenza (2018), researchers could generate HRV coherence data that could be reviewed more accurately within and between research studies.

Conclusions

Overall, this systematic review provides reasonable evidence that HeartMath, HRVB interventions are promising for use in psychiatric conditions. Further randomised controlled trials are needed since the available evidence is notably lacking in these despite their gold standard status.

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Cultivating Developmental Reflexivity: ART of Relational Inquiry Methodology for Self and Community Transformation

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Abstract: We introduce the paradigm of Action Research for Transformations (ART) as a methodology for developmental reflection and practice within the framework of constructivist adult developmental theory.

We illustrate a relational methodology that inquires how to cultivate self and community so that more of us may live our aspirations for love and power in relationship – including with Earth. This means taking intellectual insight into the realm of practice together.

The relational inquiry of ART invites us to consider the nature of inquiry itself and the need to not just understand but coproduce the kinds of transformations we understand to be necessary for a more sustainable, life enhancing world. Though it has many applications, it is offered here in the context of the cultural struggle to grapple with the transformation of power, especially among women and men, people of color and dominant minorities.

Keywords: Action research for transformation (ART), constructivist adult developmental theory, transformative learning praxis, reflexivity, relational power, gender, mutuality, post conventional science.

> Genuine power can only be grown, it will slip from every arbitrary hand that grasps for it; for genuine power is not coercive control, but coactive control. Coercive power is the curse of the universe, coactive power, the enrichment and advancement of every human soul.
>
> Mary Parker Follet, 1924

The Purpose of Inquiry

This paper argues that the call of our times, with its multiple interwoven social and ecological crises, demands more emphasis on how to coproduce participative change on our way toward a more sustainable, or life enhancing, world. Scholarly descriptions of our problems, abstract and depersonalized, while often helpful for understanding, are not enough to support tangible change in our personal and shared practice. We therefore introduce an orientation to fuller spectrum

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knowledge in the form of an action-oriented methodology for knowledge co-creation and social change. We present it here as working hand in hand with constructivist adult developmental theories. Its goal is to liberate more of us to respond to the call of our social-ecological challenges by practicing more collaboration despite our differences.

Action research is the umbrella term that describes a variety of scholarly practice with a participative orientation to knowledge creation (Bradbury 2015). It contrasts with conventional objectivist scholarship. It is research conducted in the midst of practice with ongoing feedback loops between researcher-participants that foster mutual understanding, design improvement and tangible innovation. As a form of participative constructivism (Gustavsen, 2014), action research brings together action and reflection, theory and practice, with stakeholders to issues of pressing concern (Reason and Bradbury, 2000). Action research contrasts with conventional social research which offers primarily objective descriptions of outer reality and focuses on our problems (Fazey et al, 2018) for which solutions are rarely described.

Action researchers do not bring pre-packaged solutions. They, do however, bring catalytic diagnostic and facilitative tools as they also distill and document notable results. Convening community – relational spaces – is prerequisite. Stakeholders can then articulate their own answers and experiment with providing better outcomes in their own contexts. The repertoire of participative action methods is lengthy and diverse with many known in their own right as popular approaches, e.g., U-labs of Otto Scharmer (2007), appreciative inquiry methodology of David Cooperrider (Cooperrider and Whitney, 1999), the World Café process of Juanita Brown (Brown and Isaacs, 2005). Beneath the variety of form, we see across the methodologies that there is a relational, wholistic, and practical approach to knowledge creation (Bradbury, 2015). Further, the knowledge products developed from these methods call for and experiment with a wider variety of data than conventional research methods (Chandler and Torbert, 2003). Through individual and/or group action in the present, action research constructs a richer understanding of the past to help shape the desired future of stakeholders (Gergen, 2015).

Though objectivism is a hallmark of modernist science–with its many enlightened advances over theocratic forces of old–an elemental pitfall of distanced/objectivizing research is that its solutions to problems are prescribed without feedback from the very people involved with, or affected by, the change efforts. Turning the buzz of experience into objects of thought is what conceptual work is all about. Therefore, the turn to practice is post-conceptual, through and beyond it. Action research, anchored in a more relational perspective, includes two critical perspectives that help here. The first acknowledges and integrates subjective awareness of the self in relationship to the research. An action researcher might therefore inquire, *What assumptions or biases (some felt but not well worded) am I bringing that might influence this research?* The second perspective is an interpersonal inquiry that invites feedback from, and with, research participants and stakeholders as an intrinsic part of the process. The inquiry might include some version of *How do we embrace the value of our differences; how can our partial truths and gift accomplish more together?* Action research may be deemed successful to the degree that an inquiry itself is owned and proliferated by more stakeholders.

Action Research Transformations

Given our interest in transformation, we’re also interested in power dynamics, especially those that hold the status quo in place. The inclusion of subjective and interpersonal perspectives in action research allows for a methodology in which power is not only described at a distance, but rather becomes a process in which to engage transformation processes.

Transformation addresses the very values and logics that perpetuate problematic aspects that inhibit well-being among stakeholders to an issue. ART encourages the spirit of the call to “future forming” beyond qualitative description of our problems (Gergen, 2015). It is offered as a timely updating of our notions of knowledge and learning by redirecting the purpose of knowledge toward cocreating a life enhancing world.

ART, as a contemporary form of action research, integrates early insights about power available from the earliest articulation of pragmatism (Addams, 1902; Dewey, 1903; James, 1907), as seen in the opening quote from Mary Parker Follet. Follet understands power also as a creative, not just domineering, capacity that is generated through relationship among integrated, sovereign wholes. Her notion of “power-with” described a conjoining in mutuality. This formulation stands in contrast to ongoing notions of power simplified as coercive “power-over” which assumes either I, or you, have power but not both. The cultivation of “power-with” appears consequential for efforts to transform toward a more sustainable world.

Nearly 100 years later, the need for knowledge forms that are sensitive to understanding and coproducing “power-with” have only increased as society grapples with, and appears often stymied by, inherited coercive power. In the winter of 2017 and the summer of 2020, the #MeToo and Black Lives Matter movements each reached boiling points. A reckoning with how social power is exercised rang across the globe. We found ourselves seeing more clearly how gender, race, (and poverty, mental health, and environmental issues) interweave with inherited (power-over) power structures. The social change movements insist on new standards of behavior to reduce from predatory behaviors. This has also produced confusion, and not a little sanctimony and shunning in the rush to enforce what amounts to a significant interpersonal shift, dare we say, cultural revolution replete with denunciation.

What lies beyond unilateral power wielded through manipulation and force? ART offers a response that can harness post-conventional research minds toward the realization and practice of transformative mutuality. It is a practice that calls for reflexivity–asking us to turn the camera on ourselves as we gather data about our world. Leaders in the Black Lives Matter movement call out attention to the depersonalization by law enforcement of the communities they serve and show that it leads to problematic policing that criminalizes poverty and lack of community resources. Historically law enforcement acts on, rather than with. More generally we might say that knowledge creation anchored in reflexivity is best when integrating personal/reflexive *and* interpersonal/relational, *and* impersonal, often anonymous/objective information. The interweaving of first (me; subjective), second (us, inter-subjective), and third person (all of us, objective) perspectives thereby has the potential to grow those involved and empower participants in social change to shape the world of their aspirations (Bradbury & Reason, 2000). Our difficulty is often in weaving the feelings (of discomfort etc) from the subjective realm to the clarity of the objective. Next, we situate ART as a vehicle for adult constructivist developmental theory. In cultivating our capacity to uncover and work with our own subjectivity, we can access new clarity about the shared inquiry context, and clarity about our own involvement in the research.

Inquiry Itself is Developing

Constructivist adult developmental theory illuminates how we see and make sense of the world and therefore, inter alia, how we approach research. The basic proposition, elaborated by scholars such as Michael Commons, Susanne Cook-Greuter, Robert Kegan, Jane Loevinger, Jean Piaget, William R. Torbert and Ken Wilber, is that there is an invariant sequence of stages through which humans' meaning making of experience develops. The developmental stages of meaning making describe a primary worldview, or a center of gravity, from which a person makes sense of, and responds to, the challenges that life brings. Generally, the theory suggests an arc of unimpeded development of increasing flexibility, complexity, self-expression, tolerance, differentiation, and integration between the inner and outer worlds (Cook-Greuter, 2013). Less spoken of, but critical to working with our subjectivity, is that development fosters not new content (say blistering clarity and wisdom), but deepening capacity to confront our earlier, buried or shadow material, located in our own earlier developmental stages. Shadow is Jung's word for the unconscious aspects of the self that, when brought to conscious awareness, may be feared or denied, because they are counter to one's ethics, values, or intentions. Murray (2021) explains that cultural shadow resides in lower strata of the psyche "forgotten" by consciousness, but also connected with our own lifeforce – say capacity to play together and celebrate life, live sustainably within an ecosystem. Inquiry into our own shadow is necessary for living more fully amid deep pluralism. Personal and relational development becomes more tolerably within reach when we can hold perspective about a fuller me and us. Such inquiry can be deeply productive. And there will be inevitable fallback, especially under conditions that threaten our security.

In models of constructivist adult development, it appears that the transformational process of development does not occur by logic or cognitive reflection alone (Torbert et al., 2004), but rather as each person faces conundrums in everyday life that their current approach does not resolve. In this sense, constructivist adult development theories are integrative; people develop in dynamic relationship to self, other, language, culture, and external contexts (Cook-Greuter, 2013). As a person accesses new and more complex inquiries – often with the support of a learning community or guide – it is possible for a new worldview to emerge that interweaves thought, feeling, and action as they never before imagined. At early stages the individual tends to be self-protective whereas at later stages they become quite inclusive and multi perspectival. Each subsequent action-logic (Torbert's term for developmental stage) is gradually discovered–if at all–through a process of seeing through and thus questioning the taken-for-granted assumptions embedded in that action-logic and partially–but not totally–leaving it behind. Thus, each later action-logic includes, but is not limited to, the entire domain of the previous action-logics. As a person progresses through this kind of vertical development the transformation of their worldview reaches a higher vista offering an aerial view of their previous action-logics. Thus, at each new stage, or vista, gaining capacities and choice in the process.

Correspondingly, the types of research, enactments of power, and how we approach others are, to some large extent, shaped by our developmental stage. Torbert explains that earlier action-logics have us feeling compelled rather than liberated. In Torbert's work in the field of executive management it is shown that the assessment of developmental stages correlates with success for those executives who operate with later developmental stages (Rooke & Torbert, 2005). Their success is explained as an outcome of their capacity to exercise qualities of power that become increasingly mutual in nature, in turn associated with the capacity of the later action-logics to inquire beyond their ego-limits and thus to be able to exercise power on behalf of values beyond their own self-interest. Torbert explains that at later stages, the exercise of mutual power invites both oneself and others to transform. Consider creative industries in which innovation develops as a result of people finding solutions together. This happens not by superiors compelling subordinates to be creative but rather through something more akin to play. With regards to power, the fundamental move is from unilateral, power-over, to mutual, power-with; from hard power to soft power.

Key also in the literature of leadership development is the importance of reflection on experience as a prime route to growing ourselves, an insight that harkens back to the Socratic admonition to live an examined life. Reflection is a process of learning from by being with experience. In this the individual considers, thinks, and responds to a specific problem situation. In retrieving Mary Parker Follett and being intrigued by Torbert's work with executives, we suggest that reflexivity, is a type of conscious self-development that may be particularly enriched by inquiry into conflictual relationship. Reflexivity is a more ambitious and challenging process than cognitive reflecting as it becomes new patterns of relational practice. Reflexivity includes examination of one's own way of thinking, assumptions, and underlying patterns of values and worldviews, that results in new action together. It lies at the heart of the work we present that is experiential and experimental – making real life, beyond lab studies and executive suites, the arena for transformative learning.

Reflexivity in Mutual Inquiry

If knowledge is power, any transformative attempt must recognize the politics of reflexivity in knowledge creation processes. Culture is arguably enriched when reflexivity complements empirical-analytic, denotive knowledge. Our efforts with reflexivity are therefore also subjective, sometimes intuitive – thus bringing our own biases into awareness in a way that gives voice to more intuitive processes. Freinacht (2018) is useful here, suggesting three steps to reflexivity that require clarity about: 1) one's intention - articulated as something I am drawn to, passionate about (e.g., I am a vegan), 2) naming the positive halo of this intention (e.g., because I don't wish to perpetrate violence) 3) and also naming a potential shadow (e.g., because I have been treated as an object myself and don't wish to be complicit in doing this to any sentient beings). Jung, who originally defined and worked with shadow in his psychoanalysis practice, cautions us that unexamined, repressed parts of the psyche limit our capabilities and forge a gap between how we think of ourselves and what we enact (Jung & Hull, 1991). In developmental terms the shadow forms in our early years when, by necessity, we learned to be self-protective. As we develop, we can bring these shadows to the light. Otherwise, we bypass and become complicit in the ego protective nature of the shadow. As scholars, engaged in questions of what constitutes reality, perhaps we must look at shadow. And our turning the camera around on ourselves can continue through our life. Awareness of shadow may be supported by accessing non-conventional ways of knowing, (i.e., intuitive, more creative forms) to enrich our repertoire of rationally accessible knowledge. This type of knowledge integration may have an added benefit of acknowledging the value of heretofore marginalized forms of knowledge, such as women's ways of knowing, (Belenky, Clinchy, Goldberger, & Tarule, 2008), and power of sacred plant medicine (Nicolaides, 2021).

Developmental Case Studies

The following cases illustrate key issues of reflexivity that concern power. We will assess the quality of knowledge creation using seven quality choice points that conceptualize quality in action research as an appropriate combination of (1) **Articulation of purpose and objectives** which refers to the clarity of purpose with regard to intended knowledge creation through, and for, action in support of our collective thriving; (2) **Partnership and participation** which refers to the extent to and means by which participative values are evident in the relational component of research; (3) **Contribution to action research theory/practice** which refers to the extent to which the work builds on, and/or creates explicit links with extant knowledge; (4) **Methods and process** which refers to the extent to which the action research process and related methods are clearly articulated; (5) **Actionability** which refers to the extent to which the action research conveyed through the paper provides new ideas that guide action in response to need; **(6). Developmental Reflexivity which** refers to the extent to which self-location is acknowledged and brought to the inquiry; **(7). Significance** refers to the extent to which the insights have meaning and relevance beyond their immediate context in support of the flourishing of persons, communities, and the wider ecology.

Before introducing the ART cases, Table 1 simplifies and presents three developmental stages of relational power we use to analyze the cases. The first is unilateral in which relationship is self-centered and self-protective, an orientation developed in our earliest years and to which we may fall back under stress; the second is independent, more associated with the stages of early adult life. The third later interdependent, and rarer, stages—defined here as collaborative—and which allow for authentic co-creativity. Each stage corresponds with a capacity for a particular level of inquiry. The simplest is single-loop inquiry, which occurs at the level of action, a type of "fix it" mode that we use most of the time throughout life. Single loop inquiry is most available in the earliest stage of development and works on externally oriented changes in behavior. As we tend to be fused with our identities when operating from earliest stage (e.g., wife, mother, accountant) inquiry does not turn inward to disrupt these identities but stays external. Double-loop inquiry can occur at the later stages of action-logic, when one's identities, and the strategies that keep them intact, are able to be questioned and experimented. Double-loop inquiry is at play when questioning what needs to be fixed and why. In the formulations of action researcher Chris Argyris, single loop inquiry is like setting the thermometer to fix a room at a comfortable temperature, whereas double loop is asking what the best temperature is. Triple-loop inquiry is the most complex. It includes the first two levels, our behavior, and questions about best practice, and adds to the inquiry the awareness of cultural narratives, the larger context. Torbert et al, (2004) see it as the most reflexive level of inquiry because it involves attending to own attention and becoming able to see thoughts, behaviors, and intentions in the present moment and to experiment with changes as needed. To complete the metaphor of the thermometer, triple loop inquiry may involve enacting concern for climate change by accepting a less than comfortable temperature or deciding to devote a next stage of life to supporting a development of an entirely different form of energy. Working with these broad-brush outlines of developmental movements of power and relational wholeness we now offer illustrations of ART in the context of power dynamics in work contexts with an eye toward gender relations. Three cases follow, each serving to illustrate the complex implications for methodology as issues of reflexivity become salient.

Table 1: Developmental Levels of Inquiry and Power

Mode of Power	**Stage of Development**	**Inquiry**	**Power orientation**
Unilateral	Self (as separate and self-protective)	Zero inquiry	"It's all about my power over you or yours over me."
Independent	Relational	Fix it, transactional, single loop opening to double loop.	How do we help/mutually exploit each other? "It's all about each of us living up to our side of our (implicit or explicit) contract."
Interdependent	Collaborative	Curious, Creative. Double loop inquiry opening to triple loop.	How do we collaboratively envision and manifest something truly creative together?

Case I: From Unilateral (non) Inquiry to Independent Relational Inquiry

Research suggests that in the earliest stages of development women's self-protection is expressed more often as silence (Belenky et al. 2008), while men's is expressed as aggressive, what Cook-Greuter and Torbert (2004) labeled "opportunistic." A self-protective ego renders inquiry invisible and unnecessary to its aims. Key to note from a relational reflexivity lens then is that at the earliest stages of development, there is simply *no inquiry*. In the human sphere this means that there is very little possibility for meeting among people as "subjects," but rather as self-protective objects.

The second author first documents her own journey from self-protective in the context of reflexive developmental inquiry. She then offers an illustration of how reflexivity can become a useful foundation for subsequent work with other stakeholders in the inquiry/practice of transforming how she relates with power.

> **Lara writes**: On my professional journey I have seen that there are ways in which gender plays into particular power dynamics. With women that I admire I can project my disowned (golden) shadow in the forms of embodied confidence and intelligence. While evoking a feeling of admiration, this particular projection can create feelings of competition and distrust, while activating shame. I will contrast an early example with a later one to indicate how this has played out at different times along my developmental journey.

> At the start of my professional life in my mid-twenties, I had a female colleague that I both loved and respected and yet also felt triggered by. I perceived that when we were facilitating together, she tried to outshine me and did not give me as much opportunity to contribute. In response, I would enter a space of silent frustration, either shrinking away into the background or making efforts to assert myself that felt untimely and inauthentic. Aware enough of what I was struggling with, I suggested that we find a way to have a regular debrief together, as I knew that I needed a structure to be able to address and unpack what had come up in our class. However, my colleague never seemed to remember this agreement and, feeling defeated, I never reminded her, much less insisted. Even though I didn't think any of this was necessarily conscious on the part of my colleague, I started to build up resentment. I never overtly addressed the feelings that I was having and it fed into a diminished sense of self. While this dynamic did not present obvious rifts in our relationship, I believe that it affected our synergy on a subtle level and eventually our work together waned. We drifted apart.
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> I continued to inquire into this dynamic – also present with other colleagues. I saw that one of my primary shame triggers is being perceived as unintelligent, or as if I do not have anything of value to offer. (Isn't life interesting – I have been, in the role of educator, easily exposed to this trigger. We teach what we need to learn!)
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> Fast forward 10 years, and I find myself co-facilitating with another female colleague and this time working with a group of professional educators, all of whom I had great respect for. At one point one of the student educators voiced a feeling of not being comfortable with some of the group dynamics at a time when I was the lead facilitator. While on an intellectual level I was grateful for this student's feedback, my shame trigger got activated. I was aware of many layers of shame and of being triggered, and my inner dialogue went something like this: "Wow, she just revealed something very important about our container. I see other students responding/reacting to this. I feel heat rising from my solar plexus – shame is here. I feel concern for this student. I have an impulse to try to fix something but also an awareness that things are unfolding in an essential way that does not need to be interrupted. We are a group that can tolerate the heat of discomfort and even benefit from it." Aware of many contributing factors and being kind to myself (after all, what educator has not had negative feedback?), I still felt the discomfort of shame and questioned what I could have done better.
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> When my co-facilitator found the opportunity to debrief with me, she listened compassionately, mirroring me and sharing her own (more positive) experience of what had happened. Talking through it and sharing the insecurity and shame I was feeling helped me to digest the strong emotional aspects. From here we moved forward in our planning and facilitation from a clear and integrated place. My vulnerability created more trust and strength in our collaboration. We drifted together rather than apart.

Developmental Reflection (both authors reflect together): In the first example, Lara was exercising unilateral power, but in the guise of silent self-protection (which is an inverted form of power at the earliest stage of development). It is unilateral in that neither Lara nor her colleague could dialogue, much less share power. Lara has since realized she had an either/or orientation: If her colleague was shining, she was not. Her strategy was to avoid conflict which prevented learning. As is natural when younger – and a key obstacle to growth if we remain immersed in early action-logics – Lara did not have enough perspective to see her projection. She was subconsciously comparing herself with her colleague, projecting discomfort outward making it mostly about her colleague's behavior.

In continuing over a decade and more in the practice of relational reflexivity, Lara has gained the ability to see herself in action and thus more capacity for relational reflexivity. This perseverance in inquiry, with self and others, is a key developmental move. It brings the capacity to engage with others as human beings (rather than as fantasy objects who are better or worse than the fantasy of the isolated me). We get to see she’s now able, in the moment, to “make object” (we use Kegan’s term for developing awareness of key developmental experiences) both the emotions at play and her own thoughts and feelings in the space between self and other. This is holding me and us together, while embracing single and double loop inquiry, leaning into triple loop. More critical than rational insight is the ability to make space for the ego’s self-protection which is anchored in undiscussable emotions, such as shame. Lara was aware that she felt shame yet was not entirely shut down by the experience. Instead, she was able to have perspective on the somatic sensations of shame and the way that thoughts can “spin” themselves to stay comfortable. This capacity for stepping into discomfort – something that is helped by meditation and self-inquiry practices – allowed Lara to remain rooted in her center and present as a facilitator. Lara moved from repressing what was upsetting her to creating conditions for co-creativity. Shame may be one of the greatest teachers of all, but only if we can turn to it for its wisdom.

Independent Relational Practice: Relational research is first a process of noticing and transforming inner experience. It is the act of applying reflexive practice to oneself. In the developmental reflection above, we see how first-person reflexive practice can be developed to the extent that it is applied in the moment as a way to assess if one is congruent in their stated values, intentions, and actions (Chandler & Torbert 2003). The point of reflexivity is not to decide what’s right and wrong, but to notice the degree of distance and closeness available, by choice, to the one in inquiry. We might say that this accordion capacity is a prerequisite for becoming a practitioner of ARTful developmental inquiry.

Case II: Relational Developmental Inquiry Across Genders.

Interpersonal ART may be defined as the ability to know ourselves in and through relationship, as opposed to personal inquiry, in such a way that degrees of distance and closeness can become more available, by choice, to the ones in explicit inquiry together. From an evolutionary perspective, our conditioning as primates is to remain deeply concerned about remaining part of our troupe. Thus, the relational and gendered aspects of life, experienced up close in work situations for example, can be profoundly anxiety inducing. From a gender perspective we might say the troupe (or today’s workspace) remains insistently patriarchal. The legacy of invisible male domination serves neither women nor men in our increasingly complex, knowledge-based democracies. In this power is taken for granted without being consensually chosen or consciously wielded. It is in this territory that Hilary engaged her mentor. What follows is a relational reflexive inquiry with all the parties involved. The case is excerpted from a longer, published transformative dialogue (Bradbury & Torbert, 2015) which seeks a restorative outcome through mutual exploration between a woman and a man working together in a research context. She as the assistant, he as the research director, in a pattern of power distance that is typical of many modernist institutions.

> **Hilary writes:** I arrived to work one humid summer's day wearing a favorite skirt. Quickly I became aware of how he was not listening to my words but was only noticing the way my skirt had fallen open to reveal my legs. Instead of feeling beautiful in a beautiful skirt, as I had started out on my day, I now felt awkward. I tried to "cover up." I kept my hands on my covered knees as though auditioning for guidance in an Amish community. I had a feeling I had done something wrong but what, I was just not sure.
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> Another day, soon after, I felt awkward. And, again, I said nothing – this time, as I left our meeting the research leader licked me from the V of my t-shirt along the face to the side of my forehead. A great lick. Yikes. As I disengaged, I was a bit shell shocked. What had just happened. Some 20 years later I returned to invite the research leader, Bill, to talk (and then write together) about what had happened between us. The intention was to restore our capacity to work together with someone I respected but whose behavior confused me. At first, we sought the help of a mutual friend.
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> **Bill writes:** When we first exchanged our (different!) written stories about our early relationship, we both gave "OUCH" cries by e-mail and Skype, and asked to have a face-to-face talk, including a third person we both trusted to facilitate our listening, our hearing, the clarity of our speaking, and our self-questioning of our own premises. What I did not yet understand, in spite of our writing to one another, were two facts: first, the simple fact of your not being at all physically attracted to me in spite of your ostensibly flirtatious actions; and second, the more complicated fact that my being physically attracted to you, as a minor aspect of my overall attraction and assessment, had made you feel so awkward, unconsciously self-protective and, then, (this refers to a part of the story omitted from this retelling) destructive in our shared classroom.
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> Gradually, though, I have digested the notion that I tend to develop a generalized crush on some women who, like my mother, I find delightful intellectual companions and conversationalists. In such cases, I presume the generalized erotic attraction between us to naturally include a sexual element, when that aspect may very well be only an aspect of my own "crush," yet whose potential for 'disappearing' the feminine voice, especially when I hold greater institutional power, had not been so apparent to me as it has now become. Or at the least it's all a much more complex experience for a young woman juggling historic powerlessness and newfound freedoms for which she has not received mentorship.
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> **Hilary responds:** I am deeply touched by this truth speaking between us. You were an older, more powerful man whom I wanted to flatter. At the same time, I deeply desired to be seen by you, without realizing that it was in the eyes of teachers that I could best intuit my own capacities. Now I see my access to power in our relationship originated with a mix of flirtation and self-protection. These interactions were themselves to a large degree shaped by the powerful social structuration of patriarchy in which junior women accommodate senior men. The difficult work of noticing, exploring and changing these norms falls on the one least empowered to change them. This difficulty is exacerbated when I notice that any

> exploration risks embracing a paradox: I don’t want to lose good mentorship/friendship and I do wish to emancipate myself from patriarchal structures while simultaneously protecting you (or any man) from the consequences of your own behavior, which I (and most women) learn because we are socialized in patriarchy. Most difficult then is displacing male discomfort onto a self-forgetting feminine self. This is hard!
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> The intervening years have allowed me to make an invitation to you, which I believed would land well because of your own deep commitment to self-inquiry. The idea is that both of us might notice and distance ourselves from all-too-common norms of non-inquiry. The invitation is motivated by a growing awareness that men too suffer inside patriarchy. And more importantly, that democracy itself will be enhanced, a bit when women and men work better together. There’s opportunity here for the previously unempowered to learn how to enter into co-creative structures that work better for all. There’s even opportunity here for the previously powerful.

Developmental Reflection: Something innovative, and in this case, restorative happens when two persons can discuss a shared problematic experience. Later stages – supported by the privilege of good education, time to reflect – do not mean that there are no problems, merely that problems are more likely to become mutual, trust-building inquiries about what has happened. It is important to mention, at least as an aside, that there is obviously more to a relational context than can be mentioned in a short case. The simpler narrative of transformation here is that together they made space for relational inquiry. At first it allowed for simply “managing to get along.” Later, building on sage experiments and small successes, it allowed for the eventual and deeper reconciliation sketched here. What had been initially unilateral power gone awry in a dyad was “composted” toward a profound healing experience. And importantly it may illustrate a dialogue practice useful for others stuck in mutual criticism with its implications for co-creating better forms of democracy.

Inter-independent Collaborative Practice: In the case above, we see a move – over a decade – from independent, individualistic to more mutual relational practice as Hilary and Bill dialogue through writing inquiring into the space between them. It interweaves single, double, and triple loop inquiries by necessity. The suffering is followed all the way down to how cultural and biological scripts (flirtation and seduction) must be looked at, made objects of inquiry until more ease is reached together. Transformation begins as they address the deeper values and action-logics that keep problematic gendered behaviors in place in the form of both cultural and personal scripts. The relational reflexivity of both parties together opened an inquiry into increased relational well-being. As a research methodology, such a relational approach between researchers and research participants (stakeholders) generates real-time data about the efficacy of our initiatives while tending to the often hidden and undiscussable conflicts that arise around interest and power (Chandler & Torbert, 2003). In this way, we develop our own escape route from the dungeon of self and community repression, a bit more liberated for creative expression and authentic connection. Benefit redounds to me, us and all of us as deep scripts are liberated from a unilateral stage of unknown, undiscussable to shared inquiry and more relational creativity together.

In the above cases we show the interplay of reflexivity with development through our own reflexive practice on our work as action researchers. Both cases demonstrate how without reflexive awareness, power is experienced as an external force. Enacting unilateral power is commonplace, either in its expression of "say nothing" or mindlessly dominate. Although this power dynamic continues to show up in life, over time it can also be transformed through accessing power-within – a combination of self-regulation (within discomfort) and choice (of how to respond). When dependence and independence become integrated, we can move beyond the power struggle of he said/she said toward a mutual power that holds within its frame the needs and preferences of others (Commons and Ross 2008). Together the cases illustrate an arc from unilateral self-interested power to shared-power-to-do. In sharing them the cycle of learning may be shortened.

We now turn to complete the presentation of a relational transformative methodology with a discussion of validity – our preferred term is quality – appropriate to it.

Assessing Quality with Seven Choice Points

Validity measures in conventional science and inquiry relate only to internal and external validity. And, while that is always relevant in knowledge creation, from the point of view of ART it is rather too narrow a bandwidth of concern. Contemporary qualitative research began to offer new pathways to enrich our notions of what counts as valuable knowledge (e.g., Lather, 2008). These notions, briefly introduced earlier in the paper, have informed the seven choice points which originated with Bradbury and Reason (2000) and have since been developed over the past twenty years for use in evaluating and developing publications and research designs, now codified by the associate editors of the journal *Action Research* in Bradbury et al., (2020). In addition to assessing the quality of work, the choice points themselves serve as a tool to elicit reflexivity. The seven choice points follow, with discussion of their presence in the two cases presented. As "taking action" is a critical part of action research, we also include illustrations of how relational and collaborative practice has emerged from the work described earlier and which serves a next generation of efforts. The following examples expand on the above cases to include collaborative learning initiatives developed from the first author's work within the Action Research Plus (AR+) Foundation and the second author's work within The Artemis School for Women's Sexual Sovereignty.

1. Articulation of purpose and objectives refers to the clarity of purpose with regard to intended knowledge creation through, and for, action in support of our collective thriving on this planet.

In the first and second cases we see a conjoining of knowledge of mind and heart (Belenky et al., 2008) or heart, hand, and reason (Bradbury and Torbert, 2016) that describes a developmental shift in the direction of mutual power. Mutual power implies not only care for our own thriving but for that of our partners and communities.

2. Partnership and participation refers to the extent to and means by which participative values are evident in the relational component of research, on a continuum from consultation with stakeholders to stakeholders as full co-researchers, including multiple ways of knowing-for-action and room for explicit concern for questions of "whose knowledge counts?"

In both cases those involved are both participants and co-creators. The participants develop personal empowerment through the primacy of their first-person inquiry which leads to an expanded worldview alongside a deeper ability to recognize desires and feelings.

3. Contribution to action research theory/practice refers to the extent to which the work builds on, and/or creates explicit links with, and or contributes to a wider body of practice knowledge and or theory, that clearly contributes meaningful new action research knowledge and insights in the action research literature.

The type of relational inquiry described here has since been developed and implemented with others, in collaborative learning programs. The practice, called Relational Action Inquiry Research (RAIR), was developed as a way to teach/learn about how to better transfer the ownership of an inquiry from researcher to stakeholder in the field of action research. As a result, a dedicated program has since been developed by the ActionResearchPlus Foundation to support universities and think tanks who practice action research. One stakeholder-participant reflects, having learned about and begun to use some of the RAIR tools in her own endeavors:

> I realize that in each of the two coLAB cohorts that I have joined, something big has happened for me. Each has led to something quite transformative. For example, my former [work] group has now been dissolved, helped a lot by coLAB conversations, and we are starting a renewed and refreshed artistic/social-justice exploration.

Another reflected also on the cultural diversity of global both and south practitioners working together amid their own power dynamics, a global south practitioner reflects:

> I think that, coming from such diverse places, from such different contexts, naming issues of power and staying in conversation will allow us to complete a puzzle that never ends, but grows and expands. Understanding the role of shared facilitation and our concern for "caring" will allow for much more humane changes, also in policy making. What we learn in this coLAB will, yes or yes, generate a positive change in whatever we set out to do.

Additionally, the second author developed a program called The Artemis School for Women’s Sexual Sovereignty, a year-long practitioner training program for women. The action-oriented curriculum of The Artemis School strove to create a learner-centered and self-actualizing vessel that interwove first-, second-, and third-person inquiry-practice. Issues of power in sexuality education are fraught in a culture that has primarily dealt with sexuality through shame and repression. Therefore, to create an integrative, healing approach to sex education it becomes essential for practitioners to reflexively uncover their own internalized issues of sex and power. That is to say that the work of becoming a sexuality educator requires one’s ongoing development and reflexive participation (as shared in the illustrations above). The transformative nature of The Artemis School’s praxis was anchored in the premise that creative/erotic energy, can be engaged as a sacred, transformative agent. Thus, the curriculum was designed to support what we understood to be pre-requisites for becoming a sexuality educator namely: 1. Inquiring into one’s own sexual shadow and shame, 2. understanding one’s own erotic development as a line of adult development, and 3. embodied practice in a group learning field.

4. Methods and process refers to the extent to which the action research process and related methods are clearly articulated and illustrated "show," and not just "tell," by including analysis of data along with the voices of participants in the research. Knowledge creation includes and transcends rationalist empiricism to acknowledge whole persons as relational beings.

In the illustrations above, journaling, dialogue and reflection, including somatic focusing were the key methods. The participants were empowered to explore with different relational formats, including inviting a third mutual friend to facilitate. In this we can say that classic methods of qualitative research are refreshed in a more relational approach, so that field notes (journaling) and interviews (reflective dialogue) became more deeply interactive and transformative.

The relational pedagogy is practice based. It's successful when ideas are embodied and come alive in practice. For The Artemis School and AR+ Foundation this means intentionally weaving theory with experiential practice such that participant inquiry is deepened, and mirrored through, attention to intersubjectivity. This learning evokes multiple ways of knowing in any subject area. The breadth of ways of knowing can be understood through The Artemis School's general tapestry of practices: Embodiment, Contemplative, Narrative, Expressive, Relational, and Analytic/Dialogic. There is time for silent, contemplation, for example with paint as a way to further metabolize learning (expressive). When comes time to learn about challenges (analytic), each participant's, first-person accounts as well as a socio-cultural backdrop from which to work toward solutions is happening within a holistic/integrative model of knowledge, that some call metamodernist (Andersen, 2017; Rowson and Pascal, 2021).

5. Actionability refers to the extent to which the action research conveyed through the paper provides new ideas clear enough to guide action in response to need.

Participants in all cases developed experiments that enriched their own professional context from which there is a ripple out effect both formal (as publications and workshops) and informal. For example, a stakeholder-practitioner of The Artemis School delivered her learning in a program for youth:

> It's affected my teaching. For example, when I spoke to an intimate group of high school-aged females, I spoke with more authority and lived experience about body autonomy, knowing our anatomy, and claiming what is ours. This led to a discussion about why this is important and the implications of this in our current society. It felt like I could speak to it from a place of body knowing rather than mental knowing.

6. Reflexivity refers to the extent to which self-location is acknowledged. By self-location we mean that authors take a personal, involved, and self-critical stance as reflected in clarity about their role in the action research process, clarity about the context in which the research takes place, and clarity about what led to their involvement in this research. That the knowledge creation integrates personal/reflexive, interpersonal/relational and impersonal knowledge, thereby growing those involved and empowering participants in social change to shape the world of their aspirations.

While other ART might highlight different choice points, reflexivity is an especially key choice point in the cases presented. Two of its signatures are turning to power dynamics and making self-discovery a prerequisite. Power, in the form of ‘power-within,’ then becomes available as a conscious choice in the pursuit of a more embodied, developmental path which includes deeper shadow work and radical self-responsibility for enacting ‘power-with’.

As noted above, self-discovery involves shadow work, i.e., making not quite conscious aspects of the self, more explicit and seeing how they are culturally shaped not so personal at all. When brought to conscious awareness, what one fears or denies, may become available and integrated with our intentions. We thereby embody clearer expressions of thinking and action – albeit likely with hiccups along the way, which provide more grist for learning.

In the second case above we see how initial reflection on the past by Hilary and Bill could become an ongoing, emergent, reflexive relationship as each party reflects then intentionally practices a more generous way of relating. Reflexivity spurs development of the individuals, the relationship, and in the work that each do individually.

7. Significance refers to the extent to which the insights are significant in content and process. By significant content we mean having meaning and relevance beyond their immediate context in support of the flourishing of persons, communities, and the wider ecology (i.e., generates both local and public knowledge). By process we mean involvement of stakeholders through strategies and methods that connect people and knowledges in ways that help them develop a strong and authentic sense of development and evolution in their practices, their understandings of their practices, and the transformation of the situations in which they practice.

This may be best expressed not through the authors but the voice of a representative stakeholder to show rather than tell what significance was experienced. Artemis school participant, Delia, shares how her learning wove between herself, interpersonal relationships, and the culture of her work:

> I developed the ability to talk about myself and the inner working of my mind/body and the world using real language that resonated. I was able to help others find this language for themselves and feel heard/seen . . . I was also able to hone the capability of holding space for others as a facilitator and mentor, which has positively impacted my professional and personal life.

Limitations

ARTful inquiry, as with any scientific and knowledge creating endeavor, concerns learning from and improving upon one’s experiments. Rather than providing a definitive expert answer to a manifest problem, action research as ART outlines a path of inquiry that connects outward work with inner work. ART also provides seven quality choice points by which to assess and reshape the value of the inquiry.

As action researchers for transformation (ARTists), we aim to work at our developmental edge and to discover what might be possible in our development together. In addition to highlighting what is experienced by participants as valuable, these cases may also reveal what does not work or, at least, what can be improved upon in a next cycle of inquiry. From a conventional scientific standpoint, we recognize that replication or generalizations are not easy. But that is not the point of ART. The process is to be replicated, which means it will look different. An ongoing inquiry, and challenge, is how we might work more effectively across developmental difference to support every stakeholder to engage at their own developmental edge. Facilitating a context that is safe enough to allow discomfort is key and worth of its own lengthy treatise. We learn here that while development can be scaffolded, it cannot be forced. Development is a process with its own timing. Within a workshop setting participants might receive a conceptual map to help start the inquiry but the actual shift in action-logic may occur later after much personal experimentation. For this we need more learning spaces with sophistication about facilitation. This is not to suggest that relational action inquiry sometimes fails to go far enough and that some participants may become mired in reactivity (Bradbury, 2021), but that we work with an assumption – checked and reaffirmed – that consensual agreement is better than violent disagreement; and that mutual power-with creates more generative outcomes than unilateral power-over.

We recognize that we have offered a primarily binary formulation (unilateral egotistical versus relational collaborative) that deserves nuance. Here the work of Frimer and Walker’s (2009) account of the development of moral character may help. They suggest a three-step sequence in which (1) early in development, in different contexts, children can be either self-interested or concerned with others; (2) over time, self-interest comes into conflict with concern for others; over time, the individual’s moral self can develop in the direction of self-interest, concern for others, or it can undergo a transformation in which (c) self-interest and concern for other are coordinated and reconciled – I make it part of my interest to be concerned for you. The point here is at the early levels, the child is not entirely self-interested in the sense that there is access to (separate) care for others. One might suggest that something similar goes on in the development of power relations. One might seek dominance and power in some contexts but act out of care in others. Such a notion however complexifies the developmental model of power relations. We are pointing to the type of power that is problematic, especially when practiced well beyond childhood. Nonetheless this nuance allows us to know that we have innate capacity from the start, which can be developed. And there is always a need to continue the inquiry.

We keep with a broadminded vision of science as an inquiring temperament animated by an appetite for self-correction and, personal development. As such we hope that the selected interactions will be useful, or at least not too scary, for others’ experiments in reflexivity and awareness of power relations. We even hope that the quoted material might have applicability beyond us. We have offered not a formula but a spirit of inquiry and some brushstrokes for how to proceed. The interested reader might consider their own engagement in the ageless work of cooperation, thus moving from a self-centered (either/or) worldview to a relational and, eventually, collaborative (both/and) worldview of relationship with others.

Conclusion: Developmental Relational Inquiry in Practicing as ARTists

We have illustrated a methodology that responds to the increasing complexity of our postmodern world without being mired in deconstructive criticism. It offers a way to listen in new and exciting ways to self (as inquirer) and other (the stakeholders or co-researchers). In this period of postmodern inquiry, there is now a proliferation of qualitative (Denzin and Lincoln, 2018), and participative methods (Burns et al., 2021). Not all such approaches to methodology share the pragmatists' concern with making the world better; not all enable collaborative action as does participative action research. Our choice of methodology is determined by the purpose of the work. In this case namely a commitment to share/transfer an inquiry so as to liberate new lived praxis among stakeholders, i.e., using methods that engage increasing choice and flexibility in responsiveness to the call of the times; to (re)make the relational world with one another.

Our relational methodology does not conform to the requirements of the Scientific Method, whose power aims to describe not change reality. Our work is in the tradition of Pragmatism (Dewey, 1929; Addams, [1902] 2002, Habermas, 1987), informed by social construction (Berger and Luckman, 1968; Gergen, 2015) and standing on the shoulders of action researchers (Lewin, 1947; Bradbury and associates 2015; 2019). Action researching brings dynamism to the task of knowledge creation because we work with the *dialectical, or back and forth, movement between* 1) individual change agents and stakeholders needs; 2) personal experience and concepts; 3) experiment and reflection, and 4) external world with the internal world of the learners' emotions and intentions. This "both/and" dialectical learning scaffolds developmental growth for those involved. It invites us beyond the autonomous expert mind of "yes *or* no" thinking (what current school systems are designed to produce) to redefining; an embrace of complexity to collaboratively produce (*yes and*) a world worthy of our aspirations.

The power of action research transformations stems from its ability to bring the best of scientific temperament – a concern with self-correction and reflexivity – to intersubjective dialogue (and other sensemaking processes involving multiple perspectives). Its goal is creating and leveraging conditions for dialogue that increase consensual action for the collective good. We believe that the work can be replicated, albeit in different circumstances and with different actors, informed by the experiments illustrated above.

ARTists can transformatively grapple with the issues of power that keep the current unsustainable system in place. We have illustrated power dynamics among and between gender. The same dynamics are applicable when looking at power in ostensibly different contexts, e.g., in executive powers exercised in a democracy or within a household. Importantly, we suggest, the power between humans and the greater than human world of flora and fauna is also relevant. The latter is a world granted no power (with notable exceptions, such as in new laws of Ecuador and New Zealand that grant rights to nonhuman living systems such as rivers).

Regardless of where it's exercised, practicing consciously with mutually transforming power involves a shift from zero inquiry unilaterality to collaborative creativity. The good news, even for an anxious ego, is that there is even more power (as collective empowerment) beyond unenlightened self-interest, beyond tribalism and specism. It's a power that manifests the intention of co-creating a more beautiful world. It works by involving key stakeholders in linking our personal and interpersonal development to realize our intentions. As action researching ARTists, then, this kind of personal and interpersonal practice allows for development in inquiry so that transformation through big and small experiments can replace the structures that impede our better aspirations. Truth joins hands and hearts with beauty and goodness.

We find that few scholars practice with transparency around issues of reflexivity, beyond offering a litany of identities that labels the self who inquires. Knowing the labels does not, in itself, usher in transformative inquiry. In ART reflexivity is cultivated as a developmental praxis– helping to clarify where scholars/ARTists are with regard to our developmental reflexive edge. Knowledge co-created with stakeholders invites room at the table for other, typically silenced or marginalized, voices. Through our case studies we introduced how this kind of transformative, developmental praxis can support us in re-imagining relationships and social systems that hinge on unilateral power. Specifically, we suggest that ART offers a pathway forward for cultural creatives that is anchored in our day-to-day lived experiences (action) and forms a future with a new kind of relating and logic of power between us. An action orientation to knowledge creation, therefore, has major implications for how education and scholarship could be structured, and how communities learn together, whether about power or climate change, or within universities, or places of work. It echoes Kant's Enlightenment call to "sapere aude" ("dare to know") and beckons a reweaving of humanities and natural sciences, on a journey that integrates development of self, relationship, and community.

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The Many Faces of JEDI:
A Developmental Exploration

Aftab Erfan[1]

Abstract: Many organizations and communities have grown initiatives dedicated to advancing justice, equity, diversity and inclusion (JEDI) at a time when global and local inequities are front and center in the societal discourse. The movement towards JEDI is simultaneously full of positive transformative potential, and full of both ideological and interpersonal conflict. This paper explores the JEDI movement in organizational contexts using a developmental lens. It applies the structure of seven action-logics from adult development theory to describe how one's orientation to JEDI issues may mature over time. It offers suggestions for how late action-logic actors can become more effective in the JEDI space by recognizing the dynamics at play and intentionally supporting and expediting vertical development of the actors involved.

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Introduction

A graduate student I work with has been painstakingly organizing a training on anti-Black racism for their entire department. The night before the training, the departmental director drops a casual note to say that they are tied up with some deadlines and cannot attend after all. The graduate student is rather upset, having counted on the director's presence to legitimize the investment of everyone's time to learn, and to communicate that this topic is everyone's business. The next day the graduate student sends a note to the director, expressing understanding of the circumstances and a hint of disappointment. "I wonder what we can do about our departmental culture where deadlines always feel more important than learning in community?" the note asks. The director writes back defensively and at some length, listing all the books they have read on anti-Black racism, mentioning that their best friend growing up was Black. "I'm already woke and didn't need the training", is the subtext. The student comes to me for advice, baffled by the response. How could the director be making this about *them*?

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I have often observed this kind of phenomenon while working in organizations on issues of justice, equity, diversity and inclusion (summarized by the acronym JEDI[2]). So often it feels like people are ships passing each other in the night, ostensibly in the same conversation but actually talking about different things. In this case, the graduate student sees the need for the community to be learning together on JEDI topics, and takes issue with an outcome-driven system where meeting deadlines always trumps being in process together (Jones & Okun, 2004). The director is rather oblivious to the larger departmental system or their impact on it. They think they have made an individual choice about an individual learning opportunity. This disconnect is echoed in much of the discourse over systemic racism – a term that found currency over the summer of 2020 in unprecedented ways – where people in our systems (education, health, policing) took offense to the allegations of systemic racism. "But there is not a racist bone in my body" was a common sentiment (to which Vicky Mochama (as cited in Cole, 2020, p.34) clapped back on Twitter: "Maybe racism is a skin condition"). Radley Balko (2020), writing in the Washington Post, observed that

> systemic racism [is] often wrongly interpreted as an accusation that everyone in the system is racist. In fact, systemic racism means almost the opposite. It means that we have systems and institutions that produce racially disparate outcomes, regardless of the intentions of the people who work within them.

The confusion between systemic and individual impacts could be at play in the example of the director and graduate student. While it could be explained away as a misunderstanding, I tend to think that their disconnect runs deeper and has to do with the breadth, depth and complexity of their meaning making and subsequent engagement with the world. Since I have been exposed to the theories of adult development, I can't help but think that there is a difference between the director and the graduate student in terms of their action-logics – that is, the way they each interpret their surroundings and react when their power or safety is challenged (Rooke & Torbert, 2005). In this paper, I wonder out loud: what if our orientation to JEDI topics is coloured, not only by our politics and ideologies, but also by our stages of development? I write out of a hunch that seeing the JEDI space through a developmental lens may benefit our ability to make sense of our interactions within this space and on its peripheries.

My Own Location

I explore these topics as a scholar-practitioner who has been immersed in JEDI over the last decade. I spent much of my twenties in environmental and social justice movement spaces, then played institutional JEDI leadership roles at a large university and a major city government. I have consulted at several other institutions. I'm writing primarily based on my engagement with the JEDI discourse in Canada, which is closely linked to the discourse in the United States, and may also have global resonance to some extent. As well, I write as a first generation immigrant from the Middle East, Muslim by birth, settler on Coast Salish lands. I identify as queer and as a woman of colour. I also carry a ton of privilege, including that of a PhD. I have a sense of belonging to the social justice movement. My professional roles have also taken me to the edges and outside of the bubble of JEDI advocates. I have acted at times as a mediator and bridge-builder with folks who are explicitly opposed to a social justice agenda, and have therefore got a view of the movement from outside. In short, the challenges of dealing with difference, power, and inequity are *my* challenges – important to me personally and professionally – and I write in pursuit of transformation towards a more just world.

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[2] Some groups and organizations use the JEDI acronym where the letter D stands for decolonization.

I write also from the edges of the adult development community where I have many connections and have been both a skeptic and an observing participant in its communities of inquiry. What I present here is not based on an empirical study, but rather draws on my understanding of the action-logics as articulated by leadership scholar Bill Torbert. Over the years, Bill and I have mapped the development of the notions of power (Erfan & Torbert 2015), inquiry and mistakes (Torbert & Erfan, 2020) at various action-logics.[3] The current exploration of orientation to JEDI at each action-logic arises from a conversation with Bill, for which I am very grateful. I am additionally influenced by the pioneering work of Dr. R. Roosevelt Thomas, and by scholars Toni Gregory and Michael Raffanti who devoted much of their careers to growing the conversation on social justice beyond identity politics. In the late 1990s and early 2000s, they wrote on "diversity maturity" and offered some sketches of a developmental path towards it. While I am alert to the pitfalls of developmental thinking (see below) I find myself helped by the mapping projects that these scholars have undertaken. Their maps orient me and compel me to choose the version of myself that shows up for every interaction. At times they offer protection against simply being snatched by my fear responses, or by the dominant mindset of the environments or groups I find myself in. As I engage in this form of mapping below, I do so with a hope that it is similarly helpful to my colleagues in the JEDI movement.

Introduction to Adult Development

At the core of adult development theory is the idea that true grownups are rather rare. Most of us adults live in the constant possibility of growing up, and could make major cognitive, psychological, behavioural and spiritual step-changes in our adulthood as we do in our childhood. The basic idea is as old as the wisdom traditions, such as the work of the 12th century Sufi poet Attar of Nishapur, who articulated the path of the soul in a seven-stage spiritual journey. A secular variation of such a path has been researched and theorized by modern day psychologist and leadership scholars, and supported by advancements in the field of adult neurogenesis which documents appearance of new neurons in the adult brain. Adult development theory states that we can trace a line of development between an individual's younger and older self, which goes through somewhat predictable territory with several plateaus. Several methodologies exist for estimating these plateaus (also known as action-logics) at any given time for any given individual.[4] Like leveling up in a video game, each action-logic gives us new powers, new capacities to deal with complexity: not just new skills and tools (like a new weapon) but new mindsets and paradigms (like the ability to see the game in three dimensions, rewrite the plot, or change the definition of winning). Research has shown that leaders at later action-logics are more effective in complex organizational contexts. Subsequently, adult development theory, while acknowledging the gifts of each action-logic and its appropriateness in the right context, generally has a normative bias towards vertical development, which is to say that it advocates in favour of growth towards the later action-logics especially for those who aspire to higher leadership roles.[5]

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[3] For a full exploration of a developmental trajectory spanning the action logics through a lifetime, see Bill Torbert's 2021 autobiographical exploration, *Numbskull in the Theater of Inquiry: Transforming Self, Friends, Organizations, and Social Science*

[4] See, for example, the Global Leadership Profile https://www.gla.global/the-glp-overview/

I pause here to acknowledge that adult development theory can be prone to elitism and exceptionalism, with its privileging of "more developed" ways of being, which could fly in the face of the basic JEDI commitment to equalizing. I have long been alive to this fear. At times I have indeed found the adult development field elitist: too focused on the top tiers of corporate entities, and less concerned with the pursuit of societal goals like justice. On a personal level, I have also witnessed developmental ideas weaponized and used in oppressive ways, sometimes by supposedly "developed" people to put others down or create separation between an "us" and a "them". But more often I have experienced adult development ideas as status-quo challenging and liberatory. I have seen these ideas trouble hierarchies, patterns of domination and authoritarian uses of power. Importantly, developmental theory points to the shortcomings of unilateral power exercised by earlier action-logics, and advocates for development of a capacity to exercise mutual power, characteristic of later action-logics. Mutual forms of power have an orientation towards integrity, generosity, reciprocity, and the collective – which are well aligned with JEDI goals.

In organizational settings, a developmental analysis often turns our ideas of power and hierarchy upside down. It exposes, for example, the inefficacy and shortsightedness of the archetypal strongman leader who may be sitting at the helm. It daylights too, the key role – and key struggles – of informal leaders. In the case of the graduate student and the director introduced above, a developmental lens would illuminate that the person with the lower organization rank (the student) has the higher developmental rank. The student is seeing complexity, cultural and systemic patterns that the director doesn't see. This is not uncommon. Your boss, teacher, or parent can well be acting from an action-logic you have transcended. This can make for a frustrating situation, but an awareness of their relative developmental rank can help the later action-logic actor bring the kind of patience and respect to their interaction with the earlier action-logic actor that one might bring into dealings with a younger sibling. It's not that the director "doesn't get it" because they are apathetic or not as smart or as well-read. It is that they don't get it in the same way the student does, because they are elsewhere *developmentally*.

Development is not necessarily correlated with education (so many PhD holders are relatively early in their development, stuck at the Expert action-logic) or with conventional success (average CEOs rank only one step ahead of the PhDs, at the Achiever action-logic). On the other hand, going through adversity, including, for example, experiences of migration, ostracization, poverty, war, illness, or death of a loved one, can grow a person psychologically and spiritually and expedite vertical development.[6] Many Black, Indigenous, refugee, disabled, trans and queer folks I know are among the most alert to the nuances of a situation, moment-by-moment unfolding of group dynamics, presence of multiple conflicting perspectives and visions, the influence of the rules of the game and their arbitrariness, and access to creative problem-solving and bold alternatives. They come by their later action-logic honestly. They have not gone to leadership development programs or personal development retreats. But they possess self-knowledge, systems knowledge, and a capacity for what the Mi'kmaq call "two-eyed seeing" (Bartlett et al., 2012), which comes from a daily need to survive in contexts where one doesn't quite fit in. They possess what feminists have called epistemic advantage (Narayan, 2004). Since they are not shielded by the privilege of living in a world that is made in their own image, they need to integrate, negotiate, adapt, reject, or protect on a regular basis. They experience a level of complexity in daily life that necessitates more complex ways of sense-making and action, which they have no choice but to grow in order to get by.

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[5] There are some excellent primers on adult development theory that reference the relevant research and current state of knowledge and theorizing in this area. See, for example Petrie (2020).

[6] This is by no means always the case. The literature on post-traumatic growth points to the tremendous role of context in determining whether we grow or shrink as a result of adversity. Understandably, some of us become closed off, guarded and simplistic in our meaning making in response to oppression, especially if we lack familial, community or professional support to process and recover from psychological hardship.

In making these claims I have no intention of glorifying oppression or justifying inequity by reference to its positive developmental side effects. But part of the reason that the JEDI movement is exciting to me is that it recognizes the enormous gifts of the margins and the outsiders, and has the potential of lifting into positions of power, historically[7] marginalized people whose lived experiences have actually prepared them to be the post-conventional leaders we need in this moment. As such there is alignment between the JEDI movement and the imperatives of vertical development. As a more fundamental level, the two also share a commitment to creating the conditions for human flourishing for all.

The Action-logics

Different schools of adult development theory describe the stages of development in somewhat different ways. Here, in its most condensed form, is Torbert's articulation of the seven action-logics (as cited in Petrie, 2020).

1. Opportunist – Deeply concerned with their own needs. Tries to win any way possible.
2. Diplomat – Focuses on conforming with the rules and norms of the organization or peers.
3. Expert – Motivated to gain mastery and expertise. Values logic and respects other experts.
4. Achiever – Driven by goals, achievement, and meeting the standards they have set for themselves.
5. Redefining – Inspired by meaning and purpose. Challenges the status quo to find new ways.
6. Transforming – Generates organizational and personal transformations. Sees the system they are in.
7. Alchemist– Leads with fluidity, seeing the interdependent nature of things. Integrates wisdom and a global conscience.

The action-logics are often portrayed as steps, ascending towards Alchemist. Unlike various classifications of personality types (e.g., Myers Briggs), the basic notion here is not that one belongs in a certain category, more or less stable across one's lifetime, but rather that one moves up the steps, traversing potentially all of the action-logics in a lifetime. The linear path is, of course, a simplification of the growth process itself. In reality, the steps are not orderly or evenly distributed – one could live at an action-logic for decades (think Donald Trump, a septuagenarian Opportunist), or grow through multiple action-logics – maybe even skip one or two - over a short period of time (think Greta Thunberg, possibly a teenage Alchemist). Additionally, one's growth may be uneven across various dimensions of life (think Pablo Picasso, Transforming as an artist, and an Opportunist in relation to the women in his life) so that each person is traversing multiple overlapping, in-synch and out-of-synch strands of development. Familiarity, substantive knowledge and practical skill in each dimension clearly impact the strand (so that if you are just picking up a basketball, you are likely focused on mastering Opportunist on the basketball court, even though you are functioning at Achiever in your day job as a lawyer --- and the fact that you are an Alchemist in the spiritual realm does not prevent you from struggling to become Expert when it comes to JEDI issues). I imagine these strands as multiple stems of beans growing together, distinguishable from each other, and each providing scaffolding for the next (which is to say that, eventually, you can leverage your capacity as Achiever in the court of justice to upgrade your basketball game). To the degree that we can categorize a person at a stage, we may do so by estimating their center of gravity action-logic, a kind of weighted average of their stage of development across multiple dimensions at a specific time. This is what the developmental instruments measure, usually through an in-depth questionnaire to sentence completion exercise.

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[7] By "historic" I mean since the early days of colonization in this context, recognizing the term is problematic since history existed long before colonization.

Figure 1: Dimensions of development are distinct from each other and provide scaffolding for one another like bean stems.

Figure 2: Levels of development are like rings on a tree trunk, each later action-logic expanding beyond and encompassing the earlier action-logics.

Another depiction of the action-logics is as growth rings on a tree trunk, with Opportunist at the center and Alchemist on the outer edge. This metaphor suggests that each action-logic is more expansive and inclusive of the action-logics that come before it. This means that a person who has developed into the post-conventional action-logics (Redefining or later) has access to the capacities available to someone at a conventional action-logic (Achiever or earlier), but not the other way around. We can build the skill to exercise range: the ability to draw on the capacities of multiple action-logics, based on what is needed in the moment or who we are dealing with. It has been suggested that the ability to exercise range is perhaps even more important to effectiveness than one's stage of development (Petrie, 2020). By the time one arrives as Alchemist, the courageous and wise integration of earlier action-logics is perhaps *the* defining competency.

To complicate things, the description of linear or radial progression through the action-logics is challenged by the fact that people also have a tendency for "fallback" into earlier action-logics when they are triggered or under stress (Livesay, 2015). Many of us have a favourite or habitual fallback. For example, we can function as Achiever but become a super Diplomat, trying to please everyone, when we are not at our best. The difference between falling back and consciously exercising an earlier action-logic can be invisible to observers (if my typically trusting team leader suddenly pressures me to do thing her way, I may not know if she is *choosing* her Expert or *falling* into it) but an intentional exercise of an early action-logic can save a situation which a fallback into an early action-logic can break.

It has been said of the future that it is already here, it is just not very evenly distributed (Gibson, 1993). I feel similarly about the past. And I feel this way about the action-logics: they are already here, available to each of us. Those we have already spent a lot of time visiting are more available to us than those we haven't yet unlocked. I imagine the latter lying dormant under the waters of the collective consciousness – sometimes we have access to them only momentarily, intuitively or through the body. Though we have a center of gravity action-logic, each of us may find ourselves thinking, feeling, behaving and meaning-making from the archetype of the others in different circumstances. Below, as I explore attitudes towards JEDI issues at each action-logic, I write in the first person to illustrate this fluidity. This exploration is not autobiographical per se- my actual examples are often inspired by observation of the archetypes in others around me - but the first-person voice feels appropriate because I recognize myself in all the action-logics. I write in this way as a way of minimizing mine and the field's tendency towards hubris, to reduce judgement, and with the hope that you the reader can see yourself reflected in multiple action-logics as well.

Opportunist

As Opportunist, I am intently focused on myself, my lot in life and my attempts to "win" in concrete ways: money, sex, cubicle by the window. I value freedom and generally dislike rules, especially rules that tell me not to joke or swear or say certain things because I can be offensive to other people. I like to be clever. Getting away with breaking the rules is both legitimate and satisfying to me, and I look up to people who do this well. Simultaneously I support punishment for the cheaters who get caught, especially if they are not me. A concern for equity or justice, in the sense of righting the wrongs of the past, is almost nonsensical to me because I have a very limited historical view. I feel that what happens to us in life is more or less random, people get ahead by luck and by the virtue of their street smarts. Yes, there are the "less fortunate," but that doesn't feel like something that needs to be corrected. Social hierarchy is natural and good. I'm good with pyramids – especially if I am located towards the top.

My support for the equal opportunity programs that claim they are leveling the playing field depends on whether they will benefit me or not. If I fall into one of the identity categories that will get ahead because of the program, then I am all for it. In fact, I deserve such a program. I'll check the "Indigenous" box on the application form if I think I can get away with the claim that my great great grandmother was Native American, and I will lean into my minority race/gender/disability/sexual orientation if that can give me a leg up. If I happen to be an unmistakably straight, white, able-bodied man (or, say, a cisgender lesbian in a queer context where trans women are being prioritized), then I am opposed to these programs. They are unfair and tyrannical, too much like social engineering. I might be compelled to march on the street protesting them. You want me to sit down and talk with people who promote these ideas? Talking with the enemy is a waste of time and a sign of weakness. I am in the right! I'll call the lawyers, the police, or take this into my own hands. If I sound full of double standards, that is because you don't need to be principled when your primary motivation is your own ascent.

Diplomat

As Diplomat I have come to realize that my agenda to do well for myself is better served by getting along with other people. So I shift my focus from "winning" to "fitting in." I become keenly aware of the social norms and protocols in my peer circles, and I do everything I can to conform. JEDI is fashionable right now? I'll be all about it! I will look for and comply with the explicit rules *and* the unwritten ones. I'll memorize the right things to say to be politically correct, not because I think they are right in an objective sense, but because I would hate to upset anybody. I am politically correct in the truest sense of the word. I am the master of virtue signaling on social media. I'll take down the selfies of my privileged self next to children in a remote African village, and replace with selfies of me at the bookstore buying antiracist titles, because that's fashionable now.

Much like Opportunist, I don't have principles of my own. I am told I flip flop a lot, but that's because I am trying to make everyone happy. I'm friendly and agreeable to anyone I happen to be with at the moment. If I am among people who think the political correctness of our times is bogus, I'll likely go along with that too. I won't challenge my sexist co-worker, or my bigoted uncle at the family dinner. I will sit and nod and laugh at the jokes because harmony feels good.

If I can confide in you for a moment, I will tell you that these times of political polarization around diversity issues have been really hard on me. I feel torn and confused when I go from one environment or group to another. The different groups at my work don't get along with each other and I hate that. I hate conflict. First I try to fit in with all of the groups, but when they find out that I am playing all sides they will shred me to pieces. To make my life less complicated, I try to retreat into a bubble of people who are just like me. I hang out in cliques, have a whisper circle, or join affinity groups. But even this is little protection. My in-group shreds me to pieces sometimes because I am not totally up on what we are supposed to say now, and I accidentally said "blind spot", not realizing I was being ableist. I worry that I am not "Black enough" or "queer enough" or "leaderly enough". In order to belong, I participate in outing and shunning other people who say or do the wrong thing. I jump on the bandwagon because the bandwagon feels like the safest place to be. But I live in constant fear of being disposed of by my in-group.

Expert

Tired of the emotional mess of living as Diplomat, I advance myself to the land of objectivity. Here, in the Expert mindset, I am no longer at the whim of the different groups and what they feel is the right thing. Instead I rely on policies that are created and implemented by professionals, and use them as the arbitrator of social relations. The human rights code is a favourite of mine. It defines discrimination, the legitimate grounds for a violation, and it comes with a clear set of operational steps to follow when there is a complaint. At my workplace, we bring in trained and accredited professionals – lawyer, mediators, consultants – to settle a conflict with objectivity and reference to policy. They determine who is right and who needs to be corrected or punished.

To me, the conversation about justice, equity and inclusion has to be rooted in policy. The impetus for organizations to pay attention to these issues is compliance with government regulations, and the impetus for employee to pay attention to these issues is compliance with organizational rules. The rules are our problem solving tools. Everyone needs to be trained on them on their first day on the job. Training, training, training. Then, if people have a problem with each other they would know how to bring forward a complaint so that it can be dealt with fairly and efficiently, without gossip, and under conditions of confidentiality. The more our processes depersonalize conflicts and objectify the problem, the more comfortable I feel.

As Expert, I also have an immense interest in research and data. Everything should be evidence-based including diversity and inclusion efforts. Census, surveys, numbers tracked on dashboards, and solid evaluation data to show program effectiveness are crucial so that our efforts have credibility. If representational data tells me that diversity is not a problem, I will believe it. I generally don’t question the validity of the scientific method and believe that inquiry is objective if based on good technical practices. If I am a credentialed expert like a professor, I am also aware of the power of theory and will put out material to help settle some of these issues. It could be critical race theory I write about, or it could be eugenics. As long as there is evidence, it is valid science and my right to talk about it is protected by academic freedom. The suggestion that my research questions or conclusions are driven by my politics is ludicrous and you would know it if only you cared about evidence as much as I do.

Achiever

Not unlike Opportunist, as Achiever my attention is on success, but I have the advantage of the interpersonal skills of Diplomat and the technical skills of Expert to succeed with. Here, I want to win by the rules – more or less. I’m interested in more abstract forms of success like recognition and legacy, and often I want to expand the sense of achievement to a team or organization. My sense of myself is as an initiator and agent, not a pawn in the system, so much so that I am in denial of the weight of social barriers on myself or others. Although I look to society for values and definitions of success I am able to choose my direction for myself. Will my happiness consist of getting the top marks in the class or of snatching the handsome guy sitting in the third row? Will I move to New York to become a famous artist or stay in my small town and triple the size of the family business? The choice is mine.

In many ways, the world of the past 50 years has been constructed in the image of my ambitions. I live and breathe the American Dream (even if I live in Canada) and hold dear the meritocratic ideas that animate it. I believe that one falls or flies as a result of their own effort, so I take credit for my successes and feel responsible when I fail. If I am an immigrant or an outsider of some sort, I get really good at survival skills (Nieto & Boyer, 2006) and I work so hard that I sometimes perform the dominant culture even better than the people of the dominant culture. I have sympathy for the less fortunate. I give to charity if I have the means, and I believe in the possibility of people pulling themselves up by their boot straps. I am President Obama, telling Black kids to go to college because everyone knows that an education is the key to the dignified life, and if these kids could only believe that they are as good as anyone else they could make it too (Sandel, 2020).

As Achiever in an organization, I am conscientious and self-aware, attuned to feedback about my behaviour and happy to apologize if I offend someone. I go on retreats and work on myself. In the inside pocket of my suit jacket I carry some inspirational quotes: "The success of an intervention depends on the interior condition of the intervener." (O'Brien, n.d.), "If you are not aware of how you are part of the problem, you can't be part of the solution." (Torbert, n.d.), and "Do the best you can until you know better. Then when you know better, do better." (Angelou, n.d.).

I choose an orientation towards JEDI that understands and frames it as a positive, benefiting both individuals and the bottom line. I am excited by the studies on how diverse teams make an organization more innovative and effective. I make presentations on the return on investment of inclusion measures to the board (Douglas, 2020), and I am motivated by being able to say "we're a leader in inclusion". I believe that justice can both feel good and be good for business, and I'm mostly interested in the kind of justice that *is* good for business. I want to decolonize bigger, better, faster (never mind that bigger, better, faster are colonial adjectives – I don't get the irony) and I use a change management framework to do it right. My team gets trained in conflict resolution skills, communication strategies, and gratitude practices. We process group dynamics in meetings and believe that everything, including major wrong-doings like sexual abuse, can be worked through if we talk about them the right way and for long enough. We have self-generated group agreements, and will rely on them first, avoiding the laws and formal policies if we can. Ninety-nine percent of the time, whatever happened was just a misunderstanding. We actively build a positive, collaborative culture where differences are valued – but it is our commonalities we emphasize. Our diversity trainings begin and end with "at the end of the day, we all want the same things." We are all one.

Redefining

"Can the Achiever *be* any more misguided!?" I wonder in my bourgeoning Redefining voice. I watch how the independent, meritocratic, capitalist, neo-liberal Achiever mindset has created the world we live in, and I enumerate the costs. I point to environmental damage, exacerbations of inequalities and widening class and racial gaps, despite promises of "we're all one" and "opportunity for all". How could we pretend we are all in this together, when the differences are so stark? How can we pretend our diversity initiatives are working when it is evident that they only really benefit White women (Smith, 2018)? As Redefining I am at the centre of a massive social reactions to what feels, to many, like the American Lie. I am the social justice warrior.[8]

My thinking is rooted in a postmodern view of the world: knowledge, truth, and morality exist in relation to culture, society, and historical context, and are not absolute. I am alive to and appreciative of difference. I am fascinated by the cultures of others, and possibly by the cultures of my own people whom I left behind while I was assimilating (Nieto & Boyer, 2006). I have become aware of my identities – particularly my marginalized identities- and feel resentful of the ways society has scripted them for me. I may subscribe to an "aggressive victimology" (Cyril as cited in brown, 2021), while simultaneously rejecting the label of "victim". I see the waters I have been swimming in. I pick up a power analysis that is focused on systems of oppression. When I look at inequities around me, I don't see personal gains and failures generated by luck or merit, rather, I see systems – sinister systems, rigged systems – with rules constructed by the powerful to produce and maintain inequalities. I see the forces of oppression everywhere, from the design of segregated schools and restrictive covenants that shaped our cities, to the construction of "professionalism" in organizational cultures: the expectation to show up on time and put in eight hours, to use polite language in meetings and leave the emotions out of the workplace are all ways of ensuring those in power are comfortable, so they can maintain social and economic control (Jones & Okun, 2004). I passionately recite historians and critical scholars who have written on colonization, slavery, white supremacy, and patriarchy. I despise everything that smells like the status-quo. The Achiever capitalist outlook on JEDI as "good for business" is repulsive to me. Justice is essential for our dignity as human-beings and it is distasteful to frame it otherwise.

Paradoxically, my thinking is characterized both by a humble awareness that all worldviews are constructed and therefore relative, and, by a clarity and certainty about *this* truth to the point of righteousness. My truth is subjective (I get that) but much like Expert I am confident that I have answers. Meanwhile, like Achiever, I feel agency to act. I am full of creative vision and conviction. I dream up and implement new institutional arrangements that upend traditional power dynamics (like the Youth Council that is in charge of making the final decisions on the adult-designed programs). There is a certain amount of chaos and excitement surrounding everything I do. I attract others who are keen to create new forms of organization and society.

Since I am aware of the existence of multiplicity of perspectives in connection with multiplicity of identities, I see collaboration as a pre-requisite to justice. Exercises of unilateral power feel wrong to me. I will share power and involve others in decision-making, sometimes to a fault (not recognizing that I myself am unilaterally insisting on collaboration). I myself will feel betrayed if excluded from decisions. "Nothing about us without us," I insist, and I categorically reject the legitimacy of any initiative that doesn't have justice-denied people sitting at the table. I invite conflict and have some ability to create shared vision across differences. Unfortunately, many of the groups I work with end up having an oppressor who recreates the very dynamics we are trying to work against, and they destroy the group. The bitterness of these repeated experiences of betrayal feeds my disillusionment with the world and renews my commitment to fight.

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[8] There has been some suggestion that the alt-right, white supremacist movements emerging in the 21st century are also a form of rejection of meritocracy and an alternative response to neoliberalist status-quo – See Sandel (2020). On the surface there are similarities between the alt-right movements and the social justice warriors. I do not have enough familiarity with the alt-right communities to responsibly speculate on them, but the question is worthy of our collective consideration.

In the interpersonal space, I commit to the Platinum Rule ("treat others as *they* want to be treated") and I will stand up for your self-expression - your right to be identified by a new name and pronoun every week if you want to. I have no trouble calling people out, I believe survivors as a matter of principle. I am done with oppressors getting away with their behavior and I am not interested in hearing their excuses. Despite my talk of oppressive systems, my rage is often directed at individuals embodying them, including whoever happens to be in charge in my organization. Sometimes the people I rile against are those I am raging on behalf of: the few "minorities" who have made it to leadership ranks – partially thanks to my own lobbying to put minorities into positions of power ten minutes ago. I am not aware of the irony that I quickly destruct the solutions I helped to construct, when they don't match up exactly with my idealized vision for them.

In group and organizational settings, I am likely to read a situation exclusively in terms of the patterns of oppression, dismissing personal contributions almost entirely: If the person of colour doesn't get the job, that is undisputable evidence of racism. If people disagree with the woman in the room, that's because they are sexist. If a queer person is not excelling, that can't possibly have anything to do with their competence and to suggest otherwise is homophobic. Even though on the face of it I am a fan of inquiry, I will shut it down if the oppressed are being questioned. Inquiry is violence when it discomforts the oppressed. Do I sound like I hold double standards in favour of the oppressed? That is because I do! The world has been made on double standards! The only way to correct for history is to turn the tables.

Transforming

Skillful negotiation of the polarities, contradictions, differences, and incongruities between people's talk and their action is my main preoccupation as Transforming. I have strong views and politics, and have been steeped in deeply ideological waters – but somewhere along the way I burnt out as a JEDI warrior. I am aware of the dark side of movements, the impracticality of their critical approach, the brutality towards their own members. I am disillusioned by dogma and see purity claims as empty and antithetical to the project of making a better world. I am not interested in replacing one form of silencing with another, even if there is some resemblance of justice in that. I feel strongly that the liberation and transformative justice we are seeking to bring about needs to be embodied right now in all of our actions. It is sometimes observed that when people first grow into an action-logic they feel annoyed and impatient with the action-logic they have just transcended. Perhaps that explains my frustration with Redefining.

As Transforming in the JEDI space, I believe fiercely in justice, the manifestation of love in public, as Cornel West has said. I don't dismiss critical analysis but I hold conviction at arm's length to be examined. Part of being equitable means that I am as critical of my own frameworks as I am of others, and I am learning to do this with generosity and care. I agree with Redefining that the world orders are fundamentally unjust and we need to bring this house down. I also know that you can't dismantle weight-bearing walls when there are no other supporting structures (R. Soutar, personal communication, Jan 15, 2021). If you demolish quickly and indiscriminately, you crush the inhabitants, and those who are already marginalized are likely to suffer most. I am strategically focused on building new supporting walls in order that the old walls can be taken down. I stand for transformative change in vision, strategy and tactic, but am not ashamed to use conventional tools – diplomacy, data, incremental change tactics – in those moments when they are more effective than revolutionary tools in moving us along.

I am keenly aware of the influence of systems *and* individual agency when it comes to JEDI issues. In moments of conflict, I don't assume that what is happening is strictly interpersonal, nor do I read it purely as systemic. The conflict between men and women in my department over who is doing more of the institutional housekeeping or emotional labour, is not *only* their fight. It sits against the backdrop of patriarchy and the unconscious expectations of gender roles that subtly colour our thinking and action. I recognize and make these patterns and histories explicit, but reserve enough of a beginner's mind to then look at the specifics of the situation. The way we undo patriarchy- and other oppressive systems- is through how we handle specific situations like this. Engaging this conflict can lead to personal development (the parties cluing into how they are responsible for [co]-producing the situation), new local strategies (revising team arrangements and feedback mechanism) and systemic change (a reframing of what types of labour we value as an organization, and a tracking system to make workload distribution transparent and equitable). Systems and individuals are much more interdependent than typically acknowledged. Individuals – even those who have done harm – have the capacity to do better when we engage in "principled struggle" (Lee, 2020), and give them a chance for a do-over (T.M. Nahanee, personal communication, Mar 15, 2021). And transformative change can happen when there is a critical mass of individuals brave enough to live in truth (Havel, 1978).

My worldview is shaped by an understanding of polarities – situations where there is truth and wisdom on more than one side of an issue (Johnson, 1992) – and I have practical skills in working with them. I lean in the direction of working with groups and I see the task of leadership as caring for the whole of the organization. I construct teams and decision-making tables that are inclusive of the "diversity tensions" we are navigating (Thomas, 1996). In my circle there are many unusual suspects and unlikely allies. I am as concerned with representation (which identities are present) as I am with the meeting of different paradigms and points of view. If we can't have Indigenous youth in our meeting (they have better things to do, and we're not yet decolonized enough for them) I at least introduce a reading or a song or a ritual that might bring their voice and presence into the space. I don't simply give everyone equal opportunity to speak. Instead I use my power to create spaciousness and amplify the voices of those who have been on the margins – then create careful spaces for the voices of dominant groups too, because we won't make any lasting transformation if they nod in agreement out of politeness or fear or numbness, and then go back to their desks wounded and un-transformed and continue to do what they have always done. I see the concept of diversity itself as being expansive – not only about identity markers, but about differences in action-logic, in feeling states and perspectives that are taken up – sometimes just momentarily – by different people at different times (Thomas, 1996).

I am quite adamant that we need to create spaces where people from different walks of life can enter the conversations on JEDI topics, even if it means some are going to be clumsy and say the wrong things (Joseph cited in Stayton, 2019). Sometimes I take on a third-party neutral role, in order that I can stand slightly outside of polarized situations and help with a genuine exploration of the views. I bring everything I have – theory, data, truth-telling, charm, humour – to this collective meaning-making and attempt at co-creation. I have learned too that it is wrong to hide behind my "neutrality." There are moments when I need to draw strong boundaries, protect a group from itself, practice generous exclusion (Parker, 2018), confront hypocrisy, raise a mirror up to a community, and make myself unpopular. In my best moments I have the feeling that I am lending my maturity – my ability to hold multiple truths and give people some grace – to the group or community I am working with.

Alchemist

As Alchemist, I stand a step back and look on. I see us – organizations, communities, families, societies, ecosystems - in this moment of struggle, real pain, real effort and real potential. I see us somewhere on the arc of history, which, as Martin Luther King says, is long and bends towards justice – but also looks a lot like a collection of spirals in its non-linearity. While I walk the path of transformative justice shoulder to shoulder with passionate colleagues, I feel less certain about our prospects and less attached to specific outcomes. Perhaps it is important that we win this election battle, pass this new policy, create this new practice, re-build the house so that the walls are not made of oppression, bring some light into the darkness. But also perhaps this is *not* what is important. Perhaps this is a time when we need to go into the darkness fully, perhaps the order needs to fall apart completely, perhaps our organization, our civilization is ready to die, and it is not for us to control or even envision what the next wave of existence might look like. I am so aware that sometimes when it looks like we've won, we have actually lost, and other times when it feels like we have fell on our faces, we have actually succeeded.

I feel sad for where the world is, and simultaneously touched by its beauty. I feel somewhat detached from the world-remaking effort, and at the same time very much in touch with its moment to moment struggle. I feel resigned to what there is and simultaneously committed to acting towards change with integrity each step of the way. Often I seek out intimate conversations with just one or two others, speaking my vulnerabilities, asking about their deepest truths, feeling the shakiness of the ground underneath us as we find no answers. Even more often I sit under a tree by myself, feeling these feelings, holding these contradictions inside me with tenderness, listening into the dark, wondering into the mystery of what is unfolding.

When I think about justice, I think about inter-species justice and the possibility of human societies [re-]discovering relationships of reciprocity with other beings as well as each other (Kimmerer, 2015). My sphere of care extends far and wide. I love all the children or all species for all time (McDonough, 2002). When I think about myself, I am far more aware of my privilege than my victimhood. I feel so privileged to be getting such enjoyment out of the warm cup of tea in my hands right now.

In all honesty, I am no longer that invested in organizational life. I find it lonely, and it might be time for me to step off. But while I am here, I am here with an existential awareness and attendance to the present moment. I spend time preparing for collapse of organizations and societies, putting away valuables in a time capsule for future days, and attending to the grieving process of those around me. My role is really fluid and my time is structured by a clear sense of priorities that aren't spelled out in my job description or work plan (did I even remember to make one of those this year?) Many people seek my council, and an equal number have written me off as the half-mad fixture of the organization. I am equally happy to name the elephant in the room, play the peace-maker, break into tears in the middle of a meeting, or be the person everyone needs to blame to feel better. I show up the next day and see what is required then. And if I am fired, it doesn't matter all that much. I am Opportunist, Diplomat, Expert, Achiever, Redefining, Transforming. I am Nelson Mandela in prison, seeking out and talking to the young radical prisoners, learning from them and drawing inspiration from their energy, not getting triggered by their militancy. I tease them and nudge them towards more inclusive visions of justice while they sharpen my own thinking (Raffanti & Gregory, 2012). I take delight in our mutuality: the significance of their impact on me and my impact on them.

Implications for Practice

The exploration of the action-logics and their differential capacities for engagement with the complexity of JEDI issues highlights, first of all, the difficulties of working in this space – but that's not exactly a revelation. The question is "so what?" What does this exploration tell us in terms of what there is to do, or, how those of us who care about JEDI could become more effective actors in the middle of this space or on its peripheries? Here I articulate some observations that occur to me, particularly as I think about later action-logic actors (Redefining, Transforming, Alchemist) in organizational settings.

Redefining at center stage – What strikes me most, as I write this paper in early 2021, is that the Redefining action-logic is the most central character in the dramas of the JEDI movement in this moment in history. The power of Redefining comes from its access to fresh, highly relevant truths and a closeness to the reality of those who are suffering. Society is hungry to see the world anew, to reframe everything, to challenge the status-quo – evidenced by the fact that "everything you knew about X is wrong" is a most effective clickbait on social media. Drawing on decades of critical writing, community organizing and artistic practice, and with the help of the internet, Redefining has the means at their fingertips to create and grow social movements in unprecedented ways. Redefining energy can mobilize, in particular the survivalist instinct of Opportunist (thus the militancy and potential for violence), the tribal mentality of Diplomat (thus the enormous pressure to conform within the JEDI movement), and the need for precision of Expert (thus all the rules about right and wrong)– which is to say that the JEDI movement is also full of early action-logic actors. The status quo against which they stand up is characteristic of Achiever mentality. Achievers are for the most part pretty perplexed by the JEDI movement ("why are they so angry?") and will try to co-opt its Redefining energy into their own lucrative fold ("here, have part of the throne"). Meanwhile, Transforming finds it hard to have patience for the purism of Redefining ("why can't they grow up already?") and is likely to dismiss it out of hand ("they are just playing identity politics").

If this paper has done one thing, I hope that it has created some understanding and affection for the Redefining action-logic as it shows up in the JEDI space. Too often in organizations and communities, I see Redefining villainized, dismissed and disrespected. I am under no illusion that Redefining is perfect, and have hinted through this paper at its shortcomings: a propensity for righteousness, a dogmatic over-emphasis on inclusion, a counter-productive purism, a harshness in dealing with anyone seen to be faltering, or not "woke enough.[9]" Nevertheless, the vilification and straight-up dismissal makes me sad because Redefining is the carrier of uncomfortable truths we need to hear in organization – truths we are currently mostly shutting out. It also scares me because the more these truths are denied, the more extremist the Redefining among us will become, and that path is leading us to the edge of violence within JEDI spaces, and throughout our organizations and communities.

I tend to think that the likelihood of the JEDI movement succeeding in liberating us may depend on our collective finesse in working with the Redefining energy, both in ourselves and in others. Transforming and Alchemist: this is on us. First we need to pay attention to how much time we spend acting from Redefining, and how much of that is in fallback or out of a need for easy belonging. We need to exercise the responsibility of our developmental rank, which is to be patient with and respectful of people at other stages of development. We need to be alert to the hubris that can come with the latest action-logics. When we are attacked by Redefining, we need to put aside the fact that it feels harsh and unfair, and should instead look at it with honesty and ask ourselves: where is the grain of truth? We need to validate Redefining colleagues when they are correct, and be courageous in articulating why they are incorrect when that is in order. We could bring Redefining colleagues into the rooms where we grapple with the complexities of what we are facing and have them engage with us in figuring out how to manage various polarities responsibly – instead of locking them out of the room which sets them up for opposing whatever pragmatic solution we come up with. The most productive path out of the stand-off with Redefining is, ultimately, a developmental path in which our Redefining colleagues grow, and with any luck we do as well.

Potential for JEDI conversations as sites of development – One of the most useful things that leaders at the later action-logics could do is to do some horizontal development around JEDI issues. So far in this paper I have focused a lot on late action-logic actors who are already in the JEDI movement, but my observation is that most highly developed organizational leaders are pretty illiterate when it comes to JEDI. Make no mistake: just because you are a late-action logic leader that doesn't mean you can be effective in interactions across difference at a time of such polarization. We cannot be effective in the JEDI space – and I would argue we cannot be effective as organizational or societal leaders at a time when these issues are front and center – if we don't take an interest in the history of Asian Canadians (which is entirely different from the lived experience of Black or Indigenous folks), if we don't make an attempt to understand the lived experience of colleagues with disabilities, if we don't learn the current language for talking about trans folks or practice referring to non-binary friends with they/them pronouns. Sometimes I hear colleagues say: "but there is no way I am going to learn everything about everybody – that's just postmodern foolishness." I agree with the first part of this statement, but to make no attempt to learn because there is so much to learn seems even more foolish to me. Learning about the concerns of those around us is not unreasonable. We could add it to the list of impossible things we already strive do, without putting expectations of perfection on ourselves and others.

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[9] There is a significant and powerful literature from within the social justice movement(s), by queer and racialized activists and writers that question the ways that the orthodoxies characteristic of a less mature Redefining culture are playing out, and propose transformative and alchemical alternatives. Of note among these texts are Frances Lee's essay (2017) *Excommunicate me from the church of social justice*, Kai Cheng Thom's book (2019) *I Hope We Choose Love*, and adrienne maree brown's book (2021) *We Will Not Cancel Us*. These texts are essential reading for anyone concerned with the ethics and practicalities of supporting the maturation of JEDI efforts at this time in history.

In a different vein, one of the best gifts of learning about JEDI issues may be that it acts as a kind of Trojan horse for vertical development. I think it is possible for us to start thinking of and designing our JEDI conversations, trainings, dialogues and conflict engagements as developmental opportunities – by which I don't mean that we start talking about action-logics, but rather that we think of what we're doing not only as teaching skills or concepts, but as enabling new and expansive mindsets – pursuing vertical development goals as we do horizontal development. The centrality of *difference* to the JEDI conversation, and its invitation to be self-reflective on our own complicity in injustice, could make it a potent space in which people can be compelled to grow. If the three conditions necessary for vertical growth are colliding perspectives, elevated sense-making, and heat experiences (Petrie, 2015), I can hardly think of a space where those three conditions are more present than in any good JEDI conversation. Ideally, our JEDI learning interventions would meet people where they are at (for example, the Experts would get PowerPoint slide start with) and then stretch them into future action-logics (for example, the Expert will then get a second set of information in tension with the first, plus a small peer group and a polarity mapping tool that would enable them to start making sense of the contradictions together). It excites me to think of the innovative designs this reframe of JEDI learning as vertical development can make possible.

Implications for the question of motivation – The exploration in this paper has made visible to me that there are multiple starting points in terms of *why* organizations and people within organizations are signing on and creating departments or initiatives to do JEDI work. For Diplomat and Expert, the motivation is to comply with regulations. For Achiever, it is the business advantage. For Redefining, the motivation is ethical and JEDI is a good in itself. For Transforming, JEDI is the instrument towards a goal of love and mutuality. I can say that in my workplaces all of these motives have existed at the same time and part of the battle around JEDI issues (what wording we should use, what initiatives we should prioritize, what story should we tell) is actually a conflict over which motivation should guide the effort. So often I witness people – who are all committed to JEDI – feel either perplexed or betrayed by each other because of their differences in how the understand "the cause." But is it really such a game-stopper if we don't all want what we want for the exact same reason? Could we see the strategic advantage in agreeing on the destination and the basic path to get there, even if we're travelling for a variety of reasons? If we want expediency in JEDI initiatives, perhaps there are opportunities for alliances across the action-logics. Perhaps we need to make the conversation about motivation more explicit more often, and see if the clarity about the multiplicity of our purposes gives us the ability to consciously build these alliances.

When the JEDI movement looks in the mirror, it sees many faces reflected back. I can only hope that giving names and definitions to some of these faces enables all of us who see ourselves a part of this movement to take our next steps with more awareness and mutual responsibility to one another.

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Response to Erfan

Amiel Handelsman[1]

*In **The Many Faces of JEDI: A Developmental Exploration**, Aftab Erfan describes how each developmental action-logic makes sense of justice, equity, diversity, and inclusion (JEDI) initiatives within organizations and suggests implications for later-stage people. In this response, I describe six ways her paper contributes to a better world and suggest three ways to make her vision even more expansive and enticing.*

Acknowledgements: Big thanks to Hilary Bradbury and Mike Cohen for commenting on earlier versions of this.

Editor's note: Amiel Handelsman's response to Aftab Erfan's article arrived just prior to publication of this issue. I sent Aftab Amiel's response, and from her holiday retreat time, she sent the following note.

> I could not be more delighted that my little "many-faces paper" has been met with such thoughtful engagement in anticipation of its publication. I wholeheartedly appreciate Handelsman's response – his highlighting of key concepts which made me feel understood, and his colourful rephrasings that helped me see my own thoughts in a new light – even as I observe that Handelsman and I have a somewhat different sense of what is "timely" in terms of a vision and next steps for the JEDI movement. Admittedly, the Redefining within me had a small tantrum over the fact that my 19-page paper is appearing alongside a 16-page response by a [nominally] white man (will they ever just pass the mic?!). But I am excited for the dialogue that has been opened here, and I hope that the length of our contributions will provoke, rather than douse, more of this conversation in our communities.

Introduction

I am energized by Erfan's "many faces" approach to JEDI, commitment to embracing every action-logic, and plea to later stages to cut Redefining some slack. This paper raises the bar for all of us engaging in JEDI work and should prompt thoughtful skeptics of it to pause before launching their next critique. It provides revisioning of the highest order.

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If we are to succeed in this venture, it would be useful to build an even larger tent of intentionality for all those new JEDI faces, bodies, and hearts. This means drawing more people into the conversation and offering a sufficient variety of aims and experiences to keep them engaged. Exploring one's complicity in injustice gets some people into the tent, but not everyone, and it certainly doesn't keep them there for long. Such is the nature of projects conceived by the Redefining action-logic, however broadly imagined by later action-logics and however many perspectives they embrace. As I feel into the Redefining action-logic within me, I trust it to light a fire in my belly, awaken sensations in my heart, and prompt me to question what I've taken to be true. At this point, Redefining has done most of its job. To take the next steps – imagining a new future, holding it in tension with the brutal facts of today, and initiating effective action – I need a wider and more reconstructive approach.

What Makes This Important

1. Explanatory Power

This paper is the first effort I've seen to make sense of the complexity of JEDI initiatives by walking through the developmental journey step by step (or, rather, stem by stem[2]). The feeling I had upon reading it was a mix of gratitude and astonishment. Neither JEDI nor vertical development were new to me, but the meshing of them together in such an elegant and generous manner struck me as novel and useful.

When I say "useful" I am referring to the paper's explanatory power. It helps us make sense of what is otherwise confounding. Take, for example, the opening anecdote about the graduate student and department director. I can imagine dozens of ways to interpret this story. Most of them don't explain what's going on in a way that produces timely action. Some interpretations would make things worse. It is into this scene that Erfan enters with a question: what if the student has a more complex system of meaning making than their boss?

Boom. Flash of insight. Now I have a way of explaining the tension between these two individuals that opens vistas. As a reader, I feel compassion for both actors. There is nothing wrong with them. They are both in full integrity with their action-logics. Putting myself in the shoes of the student, I begin observing the relationship differently. I stop expecting the boss to respond like I would. I pause before taking actions that, due to the developmental gap, are likely futile. I start accepting my boss for who they are – like, Erfan says, a younger sibling. Or consider a second analogy: a short person playing basketball. If you throw an alley-oop pass above the rim to a 5 foot 6 player, it's unlikely they will jump that high, much less dunk it in the basket. The first time you realize this, you stop getting angry when the play fails. The second time, you don't throw the pass.

The Many Faces of JEDI is filled with illuminating explanatory moments like this. I personally resonated with Erfan's description of the Achiever. After graduate school, I spent a year helping a community foundation explore ways to support Black American entrepreneurs in the city of Detroit. Each day, I drove into the city to meet with pastors, directors of community development organizations, and bank officers. *There must be a way to align all these interests…but how?* Each evening, I drove back to my Ann Arbor apartment, the walls of which were filled with personal declarations, inspirational quotes, and professional goals. Achiever artifacts, to be sure. In the end, I left the project before it was off the ground. My public explanation was a desire to help a former professor of mine run for Governor. Privately, I felt myself floundering. Why had this happened? At the time, I didn't have an explanation and felt ashamed. Nearly a quarter century later and prodded by Erfan's descriptions, the explanation is clear: my Achiever action-logic was no match for the complexity of the undertaking. Writing these words produces the opposite of shame. It relaxes me, and I feel acceptance, because it would've been unrealistic to expect anything different from someone at that action-logic. Perhaps it's time to update Thomas Harris's classic book about transactional analysis, *I'm OK, You're OK*, for a new era. The new title: *My Action-logic Is OK. Your Action-logic Is OK.* Beneath my flippancy is a serious insight: in today's world, mutual acceptance across the developmental trajectory goes a long way.

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[2] Erfan writes, "Dimensions of development are distinct from each other and provide scaffolding for one another like bean stems."

A second example shows up in the section on the Expert. If you've ever felt puzzled by the propensity of JEDI professionals to count, count, count, this section provides a helpful explanation. Metrics and dashboards about hiring and retention aren't signs of a pathology (what would we call it: Numberitis?). Nor does fervor for formal training classes represent stunted creativity or stubborn refusal to realize that people learn through experience.[3] Instead, these habits are in full integrity with the Expert action-logic. Although we might not need as much formal training or as many bar graphs as Experts are wont to provide, we *do* need some, not only to satisfy Experts in the room, but also because human endeavors benefit from data, and the desire for data is part of who we are. Once again, describing how an action-logic approaches JEDI helps us understand why folks do what they do. This new interpretation evokes patience for behaviors that can frustrate later stage folks, reminds us of how that behavior tangibly benefits us (when supplemented by other perspectives and approaches), and invites us to embrace that very dimension (don't you secretly love a good histogram?) within ourselves.

2. A Full Developmental View of JEDI

Anyone who hangs around so-called integral circles for more than a few minutes quickly encounters frustration with the Redefining action-logic, particularly its stance toward diversity, inclusion, and antiracism. This was true in the fall of 2000 when I joined the Ken Wilber Reading Group in San Francisco, and it is true today. My colleagues and I invest an extraordinary amount of attention in critiquing and lamenting this single action-logic. Sometimes I wonder if we've all had microchips with tiny speakers implanted in our ears that play the audio version of Boomeritis[4] over and over again every night. One reason for the irritation, as Erfan points out, is that we are always fighting back against the action-logic we just transcended. It's like high school students who are embarrassed by how ridiculous middle school was. ("I would never want to go back there!").

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[3] The classic 70/20/10 rule, a back-of-envelope summary of a two classic Center for Creative Leadership studies, says that 70 percent of learning comes from on-the-job experience, 20 percent from peers and mentors, and only 10 percent from formal training and books. Critics of formal training like to point out that in practice, the ratios are exactly the opposite.

[4] A book written by Ken Wilber (his worst, in my assessment) that highlights the excesses and absurdities of extreme academic postmodernism.

Another reason is that many folks at the Transforming action-logic live, work, and play in the Redefining milieu. A close friend of mine does business with dozens of yoga teachers and spiritual practitioners. He frequently gets attacked for "appropriating" Hindu culture in his music even though he honors it with unflagging consistency. This is an example of what an old mentor of mine called "no good deed goes unpunished." It is often the Transforming folks most committed to justice and diversity that get flogged because (a) they're nearby and (b) they violate a sacred principle of deconstruction: thou shalt not reconstruct. Being on the receiving end of this is particularly painful when you've dedicated yourself to honoring diverse traditions. Unlike me, my friend doesn't spend hours upon hours coaching managers in corporations and businesses, so he doesn't frequently encounter the frustrating aspects of Expert and Achiever. Is it any wonder, then, that he gets exasperated by the poisonous dimensions of Redefining yet barely says a word about earlier action-logics?

There. I've now devoted a full paragraph to Redefining. That's enough for now, and here's why. An exclusive focus on this action-logic – as though it were the only game in town – may be understandable, even predictable, but it isn't serving us very well. Conversely, we have much to gain in conversations about JEDI by examining the gifts and limitations of *every* action-logic. Erfan's paper provides such a comprehensive treatment.

There are three reasons why I appreciate this "many faces" approach. First, it reminds us that there are legitimate motivations for participating in JEDI at (almost) every action-logic, and we could do worse than accepting them on their own terms. As Erfan writes, "Could we see the strategic advantage in agreeing on the destination and the basic path to get there, even if we're travelling for a variety of reasons?" To me, this question offers a twin-challenge for people stepping up to JEDI leadership: one, design interventions in ways that honor all of these disparate motivations and meet the social needs (e.g., status, certainty, autonomy)[5] underlying them; two, frame such interventions linguistically and emotionally in ways that resonate with each action-logic. This second point is a version of the old advice, "Don't just do good things for people. Tell people what you are doing for them so they can recognize it." Each action-logic responds to its own enticements.

Second, in later-stage circles, Redefining gets more than its share of not only vilification, but attention, period. Imagine a pie chart that shows how much time people spend discussing each action-logic's strengths and foibles around JEDI. Redefining would fill up nearly the entire pie! Slices representing the other action-logics would be barely visible. This isn't an argument for spreading criticisms more evenly (though that's not a bad idea). By omitting exploration of other action-logics, we make it harder to design later stage interventions and less likely they will succeed. After all, how can you create practices and scaffoldings for action-logics you rarely discuss? On this note, Erfan's analysis fills the void.

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[5] I'm thinking here of David Rock's SCARF model of social needs that comes out of neuroscience. SCARF stands for status, certainty, autonomy, relatedness, and fairness. According to the research Rock cites, being denied these social needs shows up similarly in scans of the brain the brain as being physically threatened. In claiming that these social needs underlie the motivations of the action-logics, I'm making a large claim without providing any basis for it. A topic for another day…

A third reason to give due attention to earlier action-logics is that it reminds us (yet again!) that Redefining is itself an enormous evolutionary achievement. Just look at the limitations of what comes before (see, I told you this wasn't a bad idea): As Opportunist, to quote Rodney Dangerfield, I look out for number one while trying to avoid stepping in number two. Useful at times, but not as a guiding motto! As Diplomat, I exert enormous energy trying to match the JEDI moves and outfits of people around me and "live in constant fear of being disposed of by my in-group." Exhausting! As Expert, I "depersonalize conflicts and objectify the problem" and lean too heavily on data and metrics. Where's the juice? As Achiever, I'm all about uplift, progress, ROI, and doing well by doing good – yet don't have the stomach to deeply explore injustice, trauma, and inequity, much less consider how those affect me on an interior level. Too much sugar, not enough spice, and no medicine that tastes sour but heals the body!

The point, again, isn't to spread vilification around evenly, but to remember that none of these earlier action-logics is up to the task that Redefining uniquely fills: looking candidly at the horrors, contradictions, and disparities that stain the past and contribute to suffering today and welcoming everyone who has been left behind. In this sense, Erfan fulfills her primary stated hope of building understanding for Redefining in the JEDI space. She does this not only by showing what I can see and do at Redefining, but also by demonstrating what other action-logics *cannot* see and do. Redefining means I'm only three-fourths of the way up the mountain, but that in itself is an impressive climb. I can see things from here not visible from below.

3. A Call to Embrace Redefining Within Ourselves

In a section directed to Transforming and beyond action-logics, Erfan writes, "We need to pay attention to how much time we spend acting from Redefining, and how much of that is in fallback or out of a need for easy belonging." Her invitation here, I think, is to notice how and why such folks participate in the less healthy dimensions of Redefining – almost as a way of saying, "Watch out." Yet, given her purpose of viewing "many faces" from both sides, I suggest we (anyone who identifies with this tiny slice of humanity at such later stages) interpret this invitation more broadly. What if we made it a practice to notice not only, as she puts it, when we fall back into Redefining, but also when we embody the best dimensions of Redefining? Think of this as appreciative inquiry applied to an action-logic that isn't itself wired for appreciation.

Recently, while reading a book about mid-19th century United States (Eric Foner's *The Fiery Trial: Abraham Lincoln and American Slavery*) I was reminded that for years, much of the anti-slavery movement favored colonization – moving both "free" blacks and the would-be-emancipated to another country. This left me with a sick feeling in my stomach and the thought, *So, even the good guys weren't so good*. Before long, I started feeling shame that I had forgotten this fact – that for years I had considered anti-slavery synonymous with recognizing the full humanity of Black Americans, which was not the case. Then, I noticed anger rise in my chest. My whole body felt hot. I wanted to *do* something, to right this wrong, to make this better, to shout at the sky, "Everything you told me about Abraham Lincoln is wrong!" This experience, which transpired over all of ninety seconds, was a form of contact with the Redefining action-logic within me. *Things aren't as they appear. Seemingly noble motives are impure. And behind it all is power, raw and unrelenting.* Although these statements don't summarize my view of the world, they cover a lot of important ground. Acknowledging their validity, however partial, contacts me with a part of myself that I love and would not want to live without.

Experiences like this (and not all happen while reading history books!) have a second benefit. They help me feel more compassion for others' Redefining expressions, however irritating, because these expressions live within me. You might describe this as wise. I think of it as pragmatic. When someone is accusing me of "white fragility," for example, I *need* this reminder that Redefining lives in me (along with other inner and outer conversation microhabits[6]) in order to stay centered and grounded rather than fight, flee or freeze. In other words, it's in my self-interest (both enlightened and narrow) to keep my Redefining parts nearby and ready for a spontaneous embrace.

The same, of course, is true for all of the action-logics. Although they might not all want hugs – Achiever might prefer a high five, Expert a star of distinction, and Diplomat a laminated membership card – each action-logic deserves to be embraced for what it is and what it offers. On this note, I was inspired by Erfan's use of the first-person voice throughout the paper. I've seen this done with other development frameworks – most memorably for me with the Enneagram. Yet this is the first time – or, at least, most meaningful one – I've witnessed it in writing with action-logics. How refreshing and inspiring. May we all follow this positive example.

4. A Preview of Emergent Capacities

It's often said that life at later action-logics can be a lonely place. I remember Susann Cook-Greuter writing something like this on the sentence completion test (as it was then called) she scored for me twenty years ago. I instantly felt less alone. A similar thing happened a decade later in a workshop I took with Terri O'Fallon. She described how often folks at Transforming and Alchemical stages are misunderstood and misinterpreted. I instantly felt better understood and more accurately interpreted.

Herein lies a deep gift in reading how the Transforming and Alchemist action-logics make sense of JEDI: Being pointed toward your current or potential capacities. With Transforming, I am reminded of what's possible right now. To begin, there is "building new supporting walls in order that the old walls can be taken down," and using whatever tool, practice, or approach meets the moment – including the act of creating create safe and brave spaces[7] for folks to stumble around with JEDI. There is also embodying love and transformation in this moment, an aim I describe in my work as not just *being the change* but also, because humans live in conversation, as *speaking and listening as the change*.

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[6] Conversation microhabit is my term for a tiny action we take while speaking or listening. Inner conversation microhabits include taking a four-six breath (inhale to a count of four, exhale to a count of six), doing a quick body scan, wiggling your toes, and silently saying a particular word like "patience" or "I got this." Outer conversation microhabits including paraphrasing, gently probing, appealing to nobler intent, and redirecting the conversation. In collaboration with my colleague, Mike Cohen, I've created *conversation skill drills* to practice these microhabits in a high-rep, high-reflect fashion.

[7] I use the term "safe and brave" to distinguish these spaces from others that are only safe (in that they don't call upon courage or build resilience) or only brave (in that they don't provide sufficient psychological safety).

An example of speaking as the change is framing a difficult conversation around, say, an organization's hiring practices, as "my side of the story, your side of the story" and being aligned with this in my body. Such words don't just describe a pre-existing reality. They bring a new reality – the possibility of holding your perspective and mine as equally worthy of consideration – into being. As you share your side of the story, I can sustain this respectful differentiation of perspectives by paraphrasing what I've heard and gently probing for clarification. Meanwhile, I can listen as the change by making my habitual interpretations (many of them filled with cognitive bias) objects of awareness. I name them in my mind just as, during meditation, I might name a thought passing through my mind. Similarly, if the other person expresses strong emotion, I can note the physical sensations this generates in my own body and feel how these are my sensations, not theirs. This, in turn, reminds me that they, not I, are generating the strong emotions they express. This is one example of how transformation happens in the moments of speaking and listening.

With Alchemist, I see what lies ahead. How often do I "hold contradictions inside me with tenderness?" Or "wonder into the mystery of what is unfolding?" Not so often, my friends. Not so often. These are potentials – enticing, even beguiling – but potentials nonetheless. When Erfan describes such ways of being, particularly in the context of JEDI, I feel called to embody them, almost as though being given pointing-out instructions for meditation. "*Amiel*," the voice whispers, "*This is who you are*."

5. Marginalization as Accelerator of Vertical Development

Erfan suggests that adversity is a powerful force in fostering psychological and spiritual development. Given the examples she provides – "Black, Indigenous, refugee, disabled, trans and queer folk" – I think that in the JEDI context she means a particular form of adversity: participation in marginalized groups. Although she mentions other adverse conditions like poverty, war, and illness, it's hard to tell if the growth opportunities she connects to marginalized groups also are available to people who experience themselves as individually marginalized even if they don't belong to a marginalized group or folks who've experienced adversity not related to marginalization. Would "two-eyed seeing[8]," for example, be accessible to a straight white man who grew up poor in Appalachia, felt like an outcast around wealthier kids in college, was sexually abused by the football team doctor, and has now returned from Afghanistan with PTSD and a sense that nobody understands him? Perhaps someone has researched this.

Either way, Erfan's core point here stands: The everyday lived experience of being different, outside, and overlooked creates as fruitful conditions for growth as a carefully designed 12-month training program (and, if you recall the CCL[9] studies cited earlier, probably better). Confronted by surplus complexity, marginalized folks learn “to be alert to the nuances of a situation, moment-by-moment unfolding of group dynamics, presence of multiple conflicting perspectives and visions, the influence of the rules of the game and their arbitrariness, and access to creative problem-solving and bold alternatives.” These are remarkable capacities that represent the very best of what adult development offers. If marginalization opens the door to such capacities, it is a door that is pivotal for the future of humanity (see: Climate change, pandemics, liberal democracies on the rocks, and gun violence). Having said that, I assume that the people she describes – primarily university students, perhaps – represent the leading edge – the exception rather than the norm – of their identity communities. (It would be interesting to study what combination of inner resources and outer support nurtured their growth beyond that of, say, elementary school classmates of theirs who didn’t develop such capacities.) If so, perhaps the takeaway here is that this leading edge of marginalized groups is larger, more agile, and less dependent on formal programs due to the life experiences of the people inhabiting it.

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[8] "Two-eyed" seeing is a capacity for navigating complexity that is associated with people from indigenous groups and that, Erfan writes, "comes from a daily need to survive in contexts where one doesn't quite fit in." As I understand it, this is a later stage capacity than "double consciousness" as W.E.B. DuBois defined it: "always looking at one's self through the eyes of others," which resembles Robert Kegan's Socialized Mind. A closer analogy to "two-eyed" seeing is Ralph Ellison's reinterpretation of "double consciousness" in his essays and the novel Invisible Man. For Ellison, double-consciousness is not merely a burden. It is also a useful capacity.

[9] CCL is the Center for Creative Leadership

In making this point, Erfan takes pain to clarify that she isn’t glorifying oppression or injustice. I read this as a nod to the Redefining within us that might suspect otherwise. However, for anyone hanging out in Transforming or Alchemist, this disclaimer seems unnecessary. Acknowledging that your life conditions have helped you grow suggests nothing about the morality of those life conditions. It describes what has happened. It does not assess the goodness of those experiences. For example, one of the most profound growth experiences of my life happened after my wife and I lost our first child and only daughter shortly after her birth. (She was born just a wee bit too early). This loss and the trauma that accompanied it rocketed me off on two simultaneous journeys: One into grief, the other into positive psychology. I would not be the same person today without these experiences. Yet every time I learn that someone I know is pregnant, I pray for their baby’s good health, because I would not will on anyone the agony of losing a child. And I am mindful that the experience of infant loss is and has long been significantly more common in Black American neighborhoods and families. In fact, the very first paper I wrote as an undergraduate public policy student was about expanding prenatal care for low-income mothers. At the time, I associated infant loss with so-called “blacks” in the inner city. It had nothing to do with me. Today, I know otherwise. Somewhere in there is a lesson about paying attention to others’ suffering, not only as an act of love, but because “but for the grace of God, go I.”

6. A Trojan Horse for Vertical Development

Erfan writes that “the centrality of *difference* to the JEDI conversation, and its invitation to be self-reflective on our own complicity in injustice, could make it a potent space in which people can be compelled to grow.” Here she is writing not only about people who have been marginalized, but everyone, particularly folks centered at later action-logics.

I had a similar thought in the aftermath of George Floyd’s murder. It seemed as though a window of opportunity had opened, not only to reduce police violence and other injustices “out there,” but also to spark profound individual and collective growth “in here.” In my writing I experimented with several different ways of articulating this. For example, it felt important to offer an alternative to the idea that antiracism is merely about being an “ally” to others’ projects. Claiming your own self-interest, as opposed to acting from altruism (a motivation that Ibram X. Kendi criticized in his first book, *Stamped from The Beginning*), struck me as more likely to evoke sustained commitment. It also seemed more in tune with honoring the full humanity of Black Americans (if I'm just doing this for you, what does this say about you?) as well as more likely to earn others' trust (because it doesn't take a cynic to hear declarations of pure altruism and wonder about the speaker's sincerity).

Since then, I've met many later stage folks intrigued by the opportunity to grow through JEDI and antiracism work. Although most have limited appetites for "pure" Redefining approaches, they recognize the growth opportunities that Erfan describes. Some might not even see JEDI as a trojan horse. Once you've mined your life experience for twists, turns, and defining moments related to JEDI, the value of this exploration for development becomes apparent. With this in mind, it's worth summarizing the stretch moves Erfan highlights: Illuminating the ways action-logics act on JEDI and on each other. Explaining why well-meaning people botch things up and get on each other's backs for doing so – but aren't destined to. Demonstrating how to simultaneously embrace a person or worldview *and* nudge it to stretch. And committing to the possibility that our actions, skillful and clumsy, resolute and restrained, virtuous and imperfect, might just bring more justice, equity, diversity and inclusion to the world within and around us.

Don't Criticize. Supplement.

Having outlined the contributions this paper makes to both JEDI and adult development, I now offer what I call a "supplemental perspective." This is based on the premise that if you want to expand a picture of reality to include more of what's good, true, and beautiful, don't criticize. Supplement. Don't shout, *Look at these imperfections*! Ask, *What if we were to supplement these ideas with others? Might we find new vistas in this integrated mesh?*[10]

More JEDI Faces Require a Bigger Tent – A Supplemental Perspective

Erfan's core premise is that we're more likely to realize the aims of JEDI if we honor how every action-logic relates to these aims and can contribute to their fulfillment. This is the "many faces" vision. As I reflect on the specific aims she describes, I notice myself yearning to expand them. This expansion seems important because the existing aims, at least as described in this paper, seem primarily an expression of the Redefining action-logic. They are about including marginalized groups and reflecting on your own complicity in their exclusion (assuming you are not among the marginalized yourself). These are essential, yet I think we can aim more broadly. In particular, I wonder how the Transforming action-logic might approach this challenge. Not only by using its capacities to pursue what I'm calling Redefining goals, but to reimagine what the goals of JEDI might be. Given Transforming's access to polarity thinking, a systems view, and many other dimensions of complexity, what aspirations for JEDI are possible and enlivening? Here I see an opportunity to expand beyond the picture Erfan paints.

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[10] For three other examples of this, see my *two-part series* on the book White Fragility, *this effort* to understand what makes Mr. Trump tick through both his Enneagram type and action-logic, and *my prior article* in this journal, Nine Paths of Growth: Integrating Immunity to Change with the Enneagram.

At Transforming, Erfan writes, “I use my power to create spaciousness and amplify the voices of those who have been on the margins – then create careful space for the voices of dominant groups, too.” This is wise and necessary. Yet does it represent the full potential of the JEDI project? Or even the most that Transforming could make of JEDI’s intentions? The central intent in this statement and, it seems, in Erfan’s overall conception of JEDI, is to is help “marginalized” people gain more voice and help “dominant” groups reflect on how they might support this more effectively. Again, these are essential aims. What if we were to supplement them with others?

My engagement in the JEDI conversation, tracing back to my days as a college student, has largely been around “race,”[11] specifically in the United States. It is in this arena and geographic focus that I have given JEDI the most thought and am most inclined to wrestle with the past and reimagine the future. In the past few years, my own stance on “race” in the United States has undergone a substantial revisioning and expansion. I feel just as strongly about including more voices in organizations, supporting Black American leaders, reforming criminal justice, reducing wealth inequality, and improving health and educational opportunities. It’s important to me that all of us have equal opportunities to prosper and, more foundationally, to live a minimally decent life.[12] At the same time, I’ve observed that these aims, when not connected broader a humanizing vision, feel incomplete and are easily thwarted by other interpersonal and cultural dynamics.

How Big Aims Get Thwarted

Two such dynamics stand out: The inclination to define myself as a “rescuer” and the powerful pull of the antiracism discourse toward guilt and resentment. Let’s start with the rescuer. As long as I position myself as purely an advocate for others’ interests – whether by combating systemic racism or making myself trustable by coming clean with my complicity – and don’t stand in my own interests, I am at risk of becoming a rescuer. My job in this role is to protect “victims” from their “persecutors.”[13] This has serious downsides: It is condescending. It dehumanizes the people I’m helping and the ones I’m protecting them from, because it’s hard to see them beyond these roles. And, most subtly, it dehumanizes myself. My virtues, flaws, yearnings, interests, and dreams get shrink-wrapped into a narrow motivation to be others’ ally. (Note: In case it’s not apparent, I’m not attributing any of this to Erfan, but instead to the way my sense of self shifts when adhering to specific aims without an aspirational vision).

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[11] In the United States, we use the word “race” in many different ways. Here when I say “race,” I’m referring to what I call Race as Topic – a short-hand way of summarizing a variety of conversations related to what in the past went by other names like “the color line.” I’m not referring here to Race as Biological Classification, a concept that below I assess to be meaningless genetically and harmful. Nor to Race as Culture – like when the word “Black” means not a biological race but a cultural group with similar ancestry like Black Americans. I’m currently writing a paper that explores all of this in more detail.

[12] In a minimally decent life, girls and boys go to school with food in their stomachs. When sick, they have access to a primary care doctor and a way to get there. This is not about economic equality. It’s about creating a “floor” of decency and dignity.

[13] This is a reference to the drama triangle (victim/rescuer/persecutor) model of dysfunctional interpersonal dynamics described by Stephen Karpman.

Things become even stickier when pursuing my long-held aims in the midst of today's discourse around antiracism. I've written at length about this elsewhere[14] and am here to supplement, not critique. Suffice it to say that this discourse tends to evoke in me either guilt or resentment. Each of these is a mood, defined here as a persistent emotional state and assessment that creates a particular predisposition to action. This differs from the common conception of moods as short-lived, as in "I was feeling down, but then I found a twenty-dollar bill on the ground, and my mood improved." In my definition, a mood has staying power. If emotions are like the weather, constantly changing, moods are like the climate (at least our experience of it prior to climate change), persistent over months and years. Within the family of moods, guilt is the assessment that "I've done something to harm you and can never make it better." It predisposes me to apologize (important and useful when sincere, but harmful as a habit) and even self-flagellate. When stuck in a mood of guilt around racism, whether systemic or individual, exterior or interior, I may feel like a "good" person doing noble work. But my actions get distorted and my own sense of dignity shrinks. This is not an ingredient for constructive action. And, like every mood, guilt is contagious. Hence the shared mood of guilt that can arise in particular anti-racist forums.

The mood of resentment operates similarly but in the inverse. Here the assessments are "You've done something to harm me and can never make it better" and "If you've been harmed, it's because you deserve it." My instinct here is to punish others. I might react to the slightest remark by another person to accuse them of "centering white people." Or, to put myself in another perspective, of accusing everyone of being racist. The actions that resentment conditions me to take aren't constructive. And, like guilt, resentment is contagious.[15]

Why these dynamics matter is that they thwart me in pursuing heartfelt intentions like including marginalized voices, reducing police violence, and increasing Black American prosperity. It's as though these intentions get gobbled up, distorted, or squeezed of juice (pick your metaphor) by the overpowering force of the rescuer role and these two de-energizing moods. It's not an even fight. What's missing are aspirational aims with the power to do two things: first, expand my role beyond that of the rescuer (if not beyond the very notion of roles), and, second, shift my mood to one more conducive than guilt and resentment to timely and effective action.

Moving Beyond the Rescuer Role

Let's start again with the rescuer role. Growing beyond this is possible when I inhabit stories in which I am not a side player serving as an "ally" but a central protagonist. This does not refer to the classic individualistic (male) hero who battles dragons and returns home with a chalice (though that tale has its time and place). Instead, this is more akin to how my colleague, Jewel Kinch-Thomas, describes the heroine's journey. It is a journey we take together. We are all protagonists with virtues, flaws, and aspirations. And we engage in it for a collective purpose larger than – but including! – ourselves. This is self-interest writ large. I am unabashed about my narrow interest, whether it's to make friends, earn a living, or feel good about myself. (Long live the Opportunist and Diplomat and…). I also claim a broader interest – to support my community, organization, family, and tribe. And an even broader interest, like serving humanity. The energetic force of being part of a story like this makes the rescuer role look modest indeed.

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[14] See my two-parts series on White Fragility cited above.
[15] Guilt and resentment also reinforce and are recapitulated by the drama triangle.

Shifting from Guilt and Resentment to Energizing Moods

A second attribute that makes an aspirational aim worth pursuing is that it shifts me out of guilt and resentment. Here we can choose from (not that this is all conscious choice!) several alternative moods that are more energizing. One is a mood of ambition, here defined not as the desire for success but the assessment that "We can do this." Or perhaps it evokes in me a mood of wonder, where "The future is uncertain, and I'm curious how things will turn out." Or acceptance, where, even as I long for a better future, I accept the brutal facts of today. Acceptance may sound passive, but it isn't, particularly when coupled with ambition. The civil rights movement in the United States was arguably grounded in a combination of acceptance and ambition. Think of the restaurant sit-ins in Greensboro, North Carolina, or the children who walked through mobs to integrate schools. We're in the terrain of what Albert Murray called "stomping the blues." We respond to misery and uncertainty not by fighting or collapsing but with "dance-beat elegance … which is to state with your total physical being an affirmative attitude toward the sheer fact of existence." I'm also reminded of the "tragi-comic" attitude toward life that Ralph Ellison tied to the Black American experience. As Ellison wrote, "This has been the heritage of a people who for hundreds of years could not celebrate birth or dignify death, and whose need to live despite the dehumanizing pressures of slavery developed an endless capacity for laughing at their painful experiences." In this sense, insisting on alternatives to guilt and resentment honors and is rooted in the Black American experience.

With these criteria for an effective aim in mind, let's turn now to the task of creating a bigger tent for JEDI's many faces. What might be aspirational aims for JEDI in the context of "race" that move us beyond the rescuer role and evoke affirmative moods? Here are three that in recent years I've learned to take seriously and now propose for your consideration.

Aim #1: Embrace Each Other's Humanity

As a nominally "white" man, what if I were to focus my attention on appreciating the full humanity of Black Americans[16] (and others – but let's stick with this simplified picture)? This means not only how they've been excluded and injured, but also how they are as fully human and fully American as me, in all the complexity that these terms entail. Let's say I focused like a laser beam on this challenge. What new conversations would I engage in? How would I listen differently in the conversations I'm already in? What new commitments would I make – and what old commitments would I sever? What new books would I read and podcasts would I listen to??

Humanizing someone is fundamentally different from the tracking all the ways they've been dehumanized (and excluded and harmed). It is a reconstructive project. As such, it's more intriguing to me and more likely to call on my deepest virtues and curiosities than the exploration of exclusion, which is often deconstructive in form and intent. In fact, what better way is there to truly include another person than to see them as fully human as myself? To clarify, this is not "we are all one."[17] This is "we are all human," with all the difference and sameness conveyed by that term. As my colleague, Greg Thomas, has taught me, if you want to honor the full humanity of Black Americans, focusing exclusively on their marginalization and your contribution to that marginalization doesn't accomplish the task. On the contrary, it can be demeaning, because it excludes most of what makes Black Americans human beings. This means their agency, personal virtues and capacities, and expression of the highest civic ideals. It also includes their dreams, curiosities, life experience, flaws, temptations, and foibles. When you take seriously someone's full humanity, the idea that they are defined by their exclusion, however persistent and painful, seems inaccurate, if not patronizing.

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[16] Here I use the term Black Americans to refer to a cultural group, not a racial category. The word "black" is too closely tied to the notion of "race." Also, the cultural practices, vernacular speech, and physical movement of Black Americans is very different from those of people with similar amounts of melanin but from, say, Nigeria or Grenada.

A good example is how we talk about Black Americans' place in the United States. The Redefining action-logic often speaks of Black Americans as being outside of and separate from "white" American history and culture. This assessment is well grounded with regards to political and economic exclusion but completely off base in terms of culture. From music and art to dress and language, there is no American culture without Black American culture. The latter has so deeply influenced the former that it's simply inaccurate to speak of them as separate. From this vantage point, Aretha Franklin and Stevie Wonder aren't just legendary Black American musical artists I admire. They're human beings whose music, style, and creativity has infused my own. Cultural ancestors of mine, to be sure. You could call this antiracism, but it's really more about E Pluribus Unum – out of many, one.

If you think about it, democracy in the United States also wouldn't be what it is today without Black Americans. Just consider the subtitle of Martha Jones's book *Vanguard*: *How Black Women Broke Barriers, Won the Vote, and Insisted on Equality for All*. This is the story of women who were marginalized three times over: by nominally "white" women in the suffragette movement, Black American men in the church, and millions of "white" Americans in the struggle for civil rights. And yet they persevered with courage and ingenuity – along with moods of acceptance and ambition – to advance the country closer to the ideals of its founding documents: the Declaration of Independence, Constitution, and Bill of Rights. This interpretation of history neither sweeps suffering under the rug nor enshrines it as a defining trait of a people. Instead it's a testament to the country's contradictions and imperfections and capacity to wrestle with them.

We can also tap into the notion of "rooted cosmopolitanism." As articulated by the philosophers, Anthony Appiah and Danielle Allen, this is the vision of being rooted in a local, vernacular culture while simultaneously identifying as a citizen of the world. It provides an alternative to the particularism of identity groups (whether marginalized or "blood and soil ethno-nationalists" and the universal sensibility of feeling equally comfortable everywhere. Rooted cosmopolitanism embraces the polarity between these interdependent opposites. In the realm of JEDI, it is unity within diversity. I see and appreciate your difference from me. I also am curious about what makes us similar. Making such declarations isn't ignoring economic exclusion, police violence, or inequalities in the criminal justice system. It's saying that I care about you because part of you is inside of me.

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[17] A sentiment, according to Erfan, that the Achiever action-logic often holds.

Embracing each other's humanity through any of these paths feels more expansive and attractive to me than the aims of including marginalized groups or combating racism. You can be pro-inclusion and antiracism without necessarily humanizing folks. But it's hard, I think, to see another's full humanity and then not want to embrace their voices and create social and political structures that welcome them. In this aspiration, the rescuer doesn't get much traction, and we experience moments of shame and anger rather than persistent moods of resentment and guilt.

Aim #2: Deconstruct Race

Perhaps it's time to use our Redefining powers to deconstruct a concept that for centuries has remained untouched despite its destructive impact: Biological race as a category for classifying human groups. In writing these words, I'm crossing a line of taboo. Tracking people by racial categories allows us to quantify important data like who's suffering disproportionately from Covid or sickle cell anemia or who's more likely to be incarcerated for the same offense, like crack vs cocaine.[18] Take away those Census Bureau classifications, and the antiracism project might as well be dead. Or so we assume.[19] As importantly, many Black Americans and their allies are committed to reconstructing race. Instead of *we're a different race that is inferior to you*, it becomes *we're a different race that is equal to you and special in its own ways.*

In this context, deconstructing race can feel like going out on a limb. Yet it is a worthy aim. What we call "race" may sound innocuous (look at all the official institutions that ask me to check the box), but it has little to commend itself and is the cause of great harm. It is biologically and genetically meaningless,[20] was invented to justify chattel (personal property for life) slavery and keep poor folks with different ancestral origins from rebelling,[21] and is a driving force today in the "white power"[22] movement. The concept of "race" doesn't by itself produce racism, but it is central to the ideology of proud racists as well as the unconscious habits of everyone else. It even sneaks into our conversations as ways of rationalizing racism itself. Karen and Barbara Fields refer to this as “racecraft.” When we say, “A police officer shot an African American man because of his race” or “the company excluded people from hiring interviews because they are Black,” we are attributing these actions not to the habits of the offender but to the “race” of the target. As the Fields’s write, racecraft “highlights the ability of pre- or non-scientific modes of thought to hijack the minds of the scientifically literate.”

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[18] In the United States, the penalties for possessing crack cocaine, used more by Black Americans, have long been far more severe than the penalties for possessing powder cocaine, which is more tied with "whites"

[19] In *The Arc of a Bad Idea*, a book about deracialization, Carlos Hoyt proposes an elegant solution: have the U.S. Census (and other institutions that collect such data) ask people not for their race (as objective fact) but instead as how other people identify them. In other words, to switch the language of these categories from race to racial identity, from fact to interpretation.

[20] According to scientists, each of us shares 99.9 percent of our genetic material with every other human; the genes that code for skin color and facial features code for little to nothing else; and there is enormous variation in skin color on the African continent, including variants for light pigments also found in European ancestry.

[21] In the 1670s, the colony of Virginia created laws that distinguished "white" people and "black" people, at a time when using "white" to describe skin color was only five years old. This happened after "white" indentured servants and "black" indentured servants and slaves united to rise up with arms against plantation owners, an event known as Bacon's Rebellion.

[22] A term that the historian, Kathleen Belew, among others, uses to describe the mix of white supremacist ideology and apocalyptic thinking. As evidenced in the January 6 attack on the U.S. Capitol, this is a violent movement whose collective mood is at times both resentful and euphoric.

Deconstructing race, coupled with humanizing each other, meets our two criteria for aspirational aims. It is invites us into a heroine’s journey rather than into the role of rescuer. We are jointly unlearning habits that we jointly learned together without knowing it. When coupled with humanizing others, it steers us away from moods of guilt and resentment and toward acceptance and ambition.

If our reckoning with racism is long overdue, so too is our jettisoning of the ideology of “race” that buttresses it. Could this serve as an additional aim of JEDI and antiracism work? Even if we accept that this is a mighty undertaking that could take a generation or more to realize, consider how powerful and freeing it feels to stand for this vision of shared humanity.

The journey, of course, starts with each of us.

Aim #3: Reclaim Our Humanity by Deracializing Ourselves

In a related vein, I’d love to see later stage folks of every hue take on the following transformative JEDI project: Deracializing ourselves. This is the individual corollary to the collective project of deconstructing race. As envisioned by Carlos Hoyt in *The Arc of a Bad Idea*, deracialization means undoing a lifetime habit of calling myself “white,” my neighbor down the street “brown,” and my business colleagues “black.” I may be *identified* as “white.” My neighbor may be *marked* as “brown.” And my colleagues might be *nominally* “black.” But these are terms of interpretation rather than assertions of essential nature. They acknowledge racial identity, which is real (and will remain so as long as most of us reify race), while also granting people the complexity and individuality that is their due. Instead of just decrying racism and my own complicity in it (or privileging from it), this involves refashioning the very way I identify myself. For the Redefining action-logic within me, such attention to language and power dynamics is appealing. Yet it runs up against a more complex task: Reconciling deracialization with my own commitment to antiracism. How can I combat something that I claim does not exist?

The answer, of course, is that this is a false choice. Just because most people falsely believe in race, and some of these people use the ideology of race to justify racism, doesn’t mean I need to do the same. I can recognize and see the pitfalls of others’ habits without falling into them myself. In other words, there is nothing contradictory in the notion of an anti-race anti-racist.[23] If this sounds complex, that’s because it requires me to take multiple perspectives at once: What’s objectively true, what I see about this, what others see about this, and what others see that I see about this. Not easy!

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[23] I’m aware that this term is a doubling down on a deconstructive stance. Oops.

Fortunately, with a bit of reframing, this becomes an opportunity to call forth (or be pulled by) the Transforming action-logic. As an exercise, I might journal about early life experiences when I internalized my racial identity as objective fact – and how this identification with a particular race shifted as I grew through the action-logics. As an ongoing reflection, I might pay attention to all the ways I and others recapitulate racial essentialism in our words and actions. As a practice, I might introduce terms like *nominally* and *identified as* when referring to anyone's (false albeit socially acceptable) racial category. Here, as with other JEDI endeavors, I can "bring everything I have – theory, data, truth-telling, charm, humour."

As a growth challenge, deracialization carries two additional benefits. First, it is not intrinsically built to induce a mood of guilt. Learning how I've become identified as "white" carries less moral tone than learning how I've been complicit in systemic racism. Both projects are important. However, whereas the latter predisposes many action-logics to guilt, the former sparks curiosity and a mood of acceptance. Second, the language I practice and the reflections I undertake in deracializing myself are not about rescuing. They are about reclaiming my and others' humanity. I have skin in the game.

Conclusion

I am inspired by Erfan's "many faces" approach to JEDI and wish to see it succeed. Given the ways it can be thwarted, I propose we build an even larger tent of aspirational aims. Let's remake JEDI as a transformational journey, and let's do so by including a multitude of enticing motivations, practices, and paths. Come, if you must, to interrogate your complicity, but stay for the deracialization and humanization.

A Promethean Mission:
An Update on the Prometheus Leadership Framework

Thomas Bohinc[1]

In August 2020, three researchers published our article on a leadership framework 1.0[2] for the purpose of opening more collaboration toward the objective of a framework to help navigate the complexity of leaders and leading.

Over the 16 months since Jonathan Reams, Richard Claydon and I published our opening paper, we have continued the very efforts that were intended as follow up.[3]

It is hard to overstate my appreciation for those that gave us their time and shared our curiosity. The opportunities we create to listen with an open mind and accept disconfirming and reforming experience are too rare. They take time. They take mindsets, hearts and purpose greater than building our academic credentials or our brand and followers.

What we have learned has evolved some of the framework content but has mostly provided refinements and clarifications. This article is an update on all of that.

Just an Organizing Principle

The 2020 paper noted the choice to organize around what we saw that as the highest purpose of the Prometheus Leadership Commons framework (the “framework”) and The Prometheus Project.

There were two complementary criteria. The first was supporting this generally approachable narrative: “a leader brings who they are and what they know to the action-choice of leading so that they can have what they want” (see figure 2). The second criteria was organizing the framework as learning objectives – or a system of capacities and capabilities that we have in mind for leaders.

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[2] https://integral-review.org/the-prometheus-leadership-commons-a-meta-framework-for-leadership-and-leadership-development/

[3] Since then, many hundreds of hours of conversations, forums, panels, and focus groups have been done around the topics in the framework. CEOs and Chief Learning Officers, mid-level executives, front-line leaders, community leaders, coaches, consultants and esteemed academics representing global mega-brands, distinguished university faculty, small and start-ups, and NGOs have contributed from four continent, each with a part of the puzzle that tests the clarity and energy of who leaders are, what they know, and what leaders do.

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The framework's primary structures remain sets of affective, cognitive and behavioral objectives that make up who leaders are, what they know and what they do. However, in these months of engagement, we found the idea of learning objectives is not as familiar a concept as we assumed it would be. The short description of learning objectives is that they are the observable or measurable outcomes that are the goal of any of the learning methods (materials and activities) that are employed.

An example is an element in the framework's *objectives* of self-awareness and empathetic awareness of emotions. The framework is not saying (with this element) that the *method* to build leadership is through doing self-reflection or empathy. The framework is listing those elements as outcomes that are part of the system or capacities of a leader. The *method* to build that emotional consciousness may include any creative mix of methods including knowledge of theory, experience, socialization, experiment, action and, yes, inner reflection.[4]

Learning and Development Structures

Since we noticed this tension about objectives (outcomes) vs methods (actions), we also noticed the tension was nearly unavoidable. In retrospect, this is reasonable that raising one begs the question of the other. So, we chose a pivot. Better to show both dimensions (objectives and methods), so that both were available in context, than to present one and still have to clarify both.

Therefore, in the framework each of the meta-domains of Being, Knowing, and Doing now includes a "How To" meta-structure that supports good conversation around learning and developing for that set of learning objectives. Thus, in details of The Prometheus Leadership Commons 2.1 framework you will find a set of attributes organized for learning objectives AND sets of practices for how to develop those attributes.[5]

For example, the *cognitive* meta-domain of Knowing has an advanced *cognitive unconscious competence* as a high objective. However, mastery is gained by learning opportunities that include experience, socialization, affect and psychological integration. The *primary* objective is cognitive, but the *supporting* objectives (or supporting key results[6]) are a mix of cognitive, affective and behavioral.

Similarly, the *affective* meta-domain of Being has *psychological and emotional integration* as its advanced objective – but it is still gained by learning opportunities including cognitive models, concepts, experience, consciousness, action-learning, social sharing, and personal introspection.

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[4] Reams, Jonathan; Bohinc, Tom; Roux, Marianne; Allen, Scott T.; Riggio, Ron; Sendjaya, Sen. New Intersections in Leadership Development Programming. International Leadership Association annual conference *Reimagining Leadership Together* Oct 20-23 Geneva, Switzerland.

[5] We could have abstracted one set of learning method attributes. After all, is learning and development materially different from one domain to the other? However, we found communication value in showing specific language and sequencing toward the primary objective for each meta-domain. One for Being, one for Knowing and one for Doing.

[6] We humans have a habit of thinking objectives can be single dimensional but then we remember that the more systemic they are, the more often they are complicated or complex system of objectives. This is the idea behind "OKRs' – primary objectives are met through a series of supporting objectives.

The Challenges of Language

One of the biggest areas of our learning has been around language.

We strived to have simple language that avoids simplistic interpretations. We tested terms that were as free from bias and jargon as we can make them. We dream of language that suits the specificity of researchers, the ease of everyday front-line leaders, and manages to avoid the tropes of populist influencers. We want to be inspiring and coldly realistic. Empirical and theoretical. But we have a constraint of one or two words per meta-domain, domain or sub-area.

We naively assumed that the experience of applying the framework would, eventually, lead to ‘the right one word.’ Instead, we have found that the underlying meanings are rich enough that one word (or a few) are more the choice for *a better* fit – or a *useful* choice among imperfect options. Any words we use that are good enough to open a topic must still be further clarified.

We also tried more poetic words that connoted the whole underlying meaning of a given subdomain. We tried words like beauty, clarity, love, wisdom, energy because they held deep value, but they were also so abstracted that few would find them accessible. We found a lot of blank stares. Instead, we have settled on the opposite approach – to pick the simplest prosaic words and let the rest come out in follow-up. We want words that invite inquiry. We do not want words that merely satisfy with inspiration.

Eventually, we took comfort in the reality of this and included some space for aliases in parts of the framework.

There is No Language Without Sufficient Experience

We also recognized language as a structural challenge.

Leaders and leading is not familiar to enough to our first-person consciousness and experiences to support adequate language. The right terms do not exist because our experience is rooted in one flawed reality but not an ideal reality – where leading is clear and leaders are common. Our language supports the current state because language is a system of the current state. Our language does not support the better state. We have to choose the words and hope for a day when leading is clear and leading is common *and then* find there is language *for that* experience.

We have to make do. We have to build the new.

Making do and building new is not so easy.

The Tragedy of Lists

The framework is a set of lists and a hierarchy of topics. That brings limitations. Any hierarchy is one-dimensional, which is an imperfect match for our multi-dimensional reality. We've settled on living with that, too.[7]

A case in point is the domain of leader Exchange Skills. What the framework lists are the contexts that skills are used in. We open a question like this: What skills are most useful for us or best learned in this context?

The framework does not (yet) give those skills (mindsets and practices).

Given the choice of a contexts list or a list of topics, we prefer the contexts – in order that we can choose topics that will be learned and used in that context, which is the best scenario for learning through action and integration.

We also find that topics are not so clear when they are out of context. Out of context, we accept more vagueness and theory and less practice and action. So, we choose the contexts as the primary organization because they also lead to more clarity on the skills.

Should we create a list of topics, as well? We think so. We have done some of that work. There is more to do.

Lists vs Sequences

This sets up one of the other limitations of lists – the assumption of sequencing. If there are a list of six things that are numbered or lettered, it's hard not to think of them as sequenced.

The framework identifies seven domains of leadership learning and tags them ABC and WXYZ. ABC are about who the leader is. WXYZ are about what the leader knows and does. These are just tags for quick reference in conversation even as they convey the 'two sides' of leadership as the leader vs the work and action of leading. However, there is no intention to convey a sequence or priority. You can start to learn with X or start with C or any other. [8]

At the third level in the framework, within seven domains, there are 38 sub-areas. Here, we *sometimes* intend to show sequence or hierarchy and sometimes we do not. Where we think there is a sequence, we find a way to make that point – but the *list* of single words (or word pairs) that make up the framework's lists of domains and sub-domains do not *always* imply sequence or hierarchy.

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[7] A future version may provide some solutions. We would like to someday build the relational models that satisfied these complexities as well as the next level of atomized detail.

[8] We actually think that starting with Z is a good idea, because it leads to more specific and individualized insights around ABC WXY, some parts of the Z domain are adoptable by everyone in every context, so it builds over time and creates cohesiveness in the culture.

The domain of Action of Leading is another example. Its list of six sub-areas are not the linear experience that the list sequence may imply. There is a sequential logic to some parts, but in real practice these are addressed more organically to the situation. The first items, to ‘frame’, may very well start the action as implied by its position at the start of the list. But you could also frame and re-frame often and at any point in the action. Likewise, the ‘attend’ action can be done continuously across the whole action, not at the end of the action because it is positioned last in the list (figure 4).

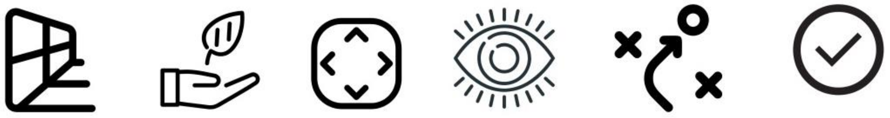
As far as our bias for attributing sequence and hierarchy to lists, as Cher’s character says in the 1988 comedy Moonstruck, “*Snap out of it!*”

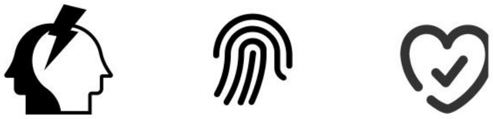
Metaphor and Symbol

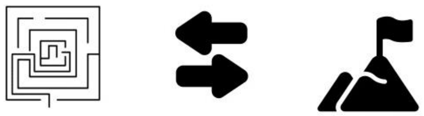
Because the words used in the framework are simple and inadequate, but the concepts are rich with depth and inter-relationships, we find that more meaning is conveyed and more conversation opens with images and symbols. Even though they are not as specific, they evoke a richer story.

We spent time these months creating and testing images and symbols for the seven domains, and the four to six sub-areas that are associated with each of them. We will continue to build symbolic content and welcome contributions in this area.

These are sets of symbols for the six sub-areas of the Action of Leading domain, the three icons for the domains within the Being meta-domain and the three icons for the domains within the Knowing meta-domain. These are examples. Come back to these and see if they help form a story of Leading, Leaders and Knowing for you.







Toxicity

We recognize our bias is to describe the whole-being of leaders with generative skills and who chose creative action. Our bias is that we think that leaders are good.

We had quite a period of debate about this. Is everything that we cover in the framework true of good leaders and bad leaders, as well? Does Hitler fit these attributes as well as Mandela? Should a leadership framework be neutral about ethics or morality? This was a tough question for us and we may not have fully satisfied ourselves with the answer.

For now, our check against ill-intended influence, power and charisma is in two parts. First, the system of the whole person's character, specifically, the leader's Outward Stance, or the leaders' capacities for what is outside their selves which we talk about in terms of care, love and good. Second is the assumption of leading as a collective experience, where there is attention to the persons, purpose, and process that are part of the Action of Leading.

We'd like to think the capacity for good, the presumptions of collective awareness, and the voices of stakeholders and contributors would be 'guardrails' for toxic leadership. But we acknowledge that has not worked in many cases. Someone can have the capacity to be outwardly focused but not use that capacity – they instead act selfishly or narcissistically. They can attend to a purpose that is ill gotten and attend manipulatively to the emotions and psychology of collaborators or followers.

Right now, we are uneasy with the moral and ethical neutrality of the framework and trust it is sufficient that those in the context will step up to what is right and good and not ceding power to the single leader.

One of the future efforts around the framework may be to articulate the 'don'ts' of leading, in contrast to our current emphasis of 'do's.' We hope that crystalizing the 'don'ts' will empower followers and contributors to be more aware and make influential adjustments.

Down Selecting for Cohorts or Classes of Learners

Finally, the framework is useful if it includes all of the possible objectives to consider for a leader and leading, *but it also has to allow us to down-select objectives and prioritize them*.

We have done some work on the idea of baselines for cohorts or classes in an organization. For example, we held a series of focus groups with very highly experienced functional and HR executives and asked: "What would the leadership attributes be for someone be over the first decade of a career?" We have some good insights from this. However, the idea of a step-down guide is still on our list for the future.

What are the Attributes in Framework Version 2.1? What has Changed?

We have already covered the addition of structures for "how to" build each of the three meta-domains (first level).

For the main attributes of the framework, we have more than one version of lists and graphics that represent the content. Figure 1 shows a mindmap version. The figure is too detailed to read, but it conveys the idea of three major meta-domain branches, an associated ‘how to’ branch and seven (lettered) domains that are grouped and broken into 38 sub-areas that have various other groupings and clusters. All of the branches are color-coded and some show associated icons.

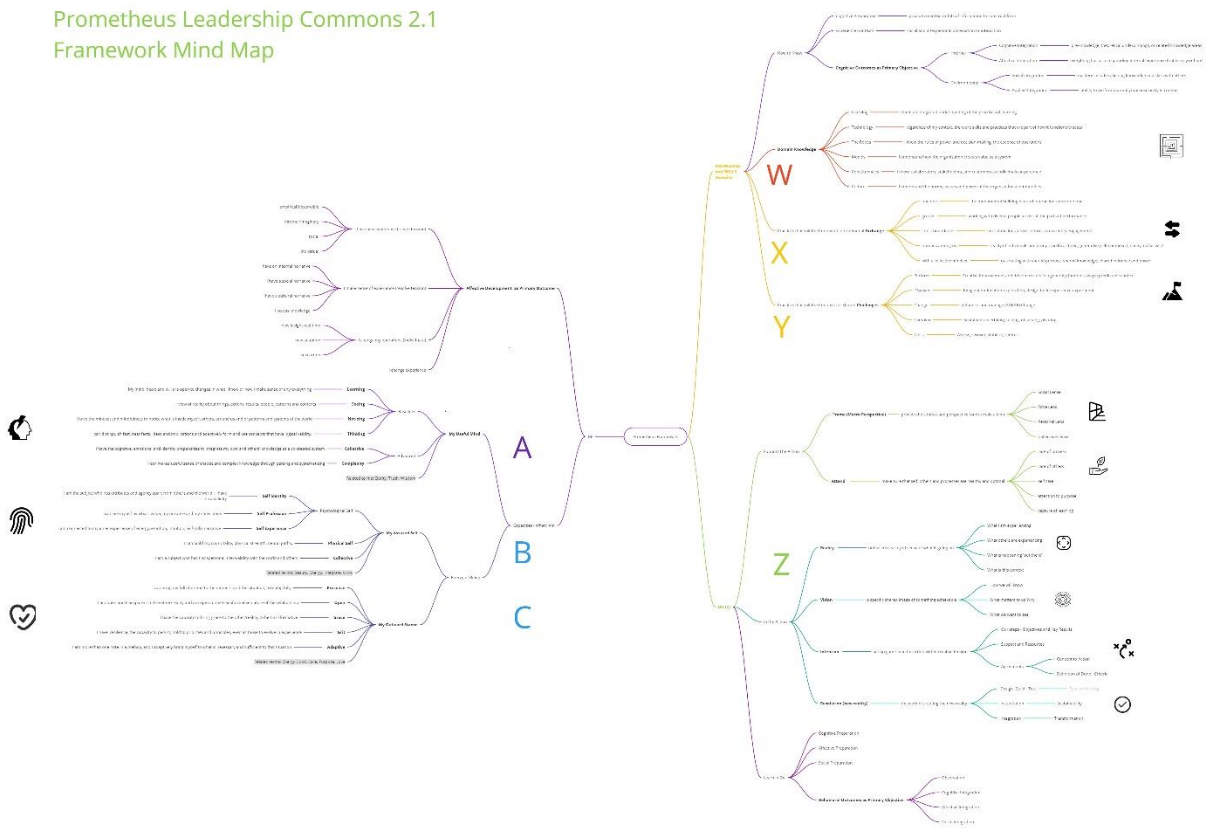


Figure 1. Mindmap of Prometheus Leadership Commons 2.1

What follows is a summary of framework changes and evolution.

Loosely Fixed Top-level Structure

We use variations at the top-level structure. I suppose that is counter to those who want a neater framework, but we think they all work together.

- The simplest is that we arrange the framework by the distinctions between the leader and the leading. (We used this singular approach for framework version 1.0 where we had one group of “inner capacities of the leader” and another as “adaptive capabilities”).
- We also use the (increasingly) familiar structures of being, knowing and doing (“Be, Know, Do”), and variations. These are very digestible and effectively open curiosity and conversation around who leaders are and what leading is.

- We make the distinction about the "Know" meta-domain as being both "knowledge and experience" and "practices and skills." When we say "Knowing" we mean all of this.

- Finally, including practices and skills in "Knowing" opens the view of the Action of Leading (or Doing) that we think is an important contribution.

So our top-level division is really a set of variations. We think this is just fine for approachability and usefulness.

The alternative, if we were very literal, would be three levels of abstractions before we drill down to the seven domains. This would be much too complicated! We are already too complicated. Simpler is better.

Figure 2 shows one high-level narrative across the three meta-domains. Figure 3 has the very simple domains along with the purpose of leadership (you create what you want), with the color-coding that we use in all the detail graphics.

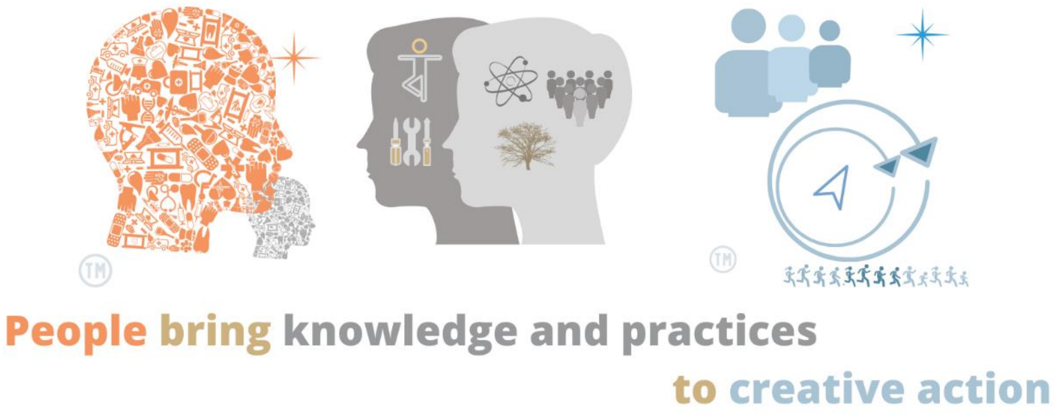

TM
TM
People bring knowledge and practices
to creative action

Figure 2. Prometheus Leadership Commons 2.1 narrative graphic

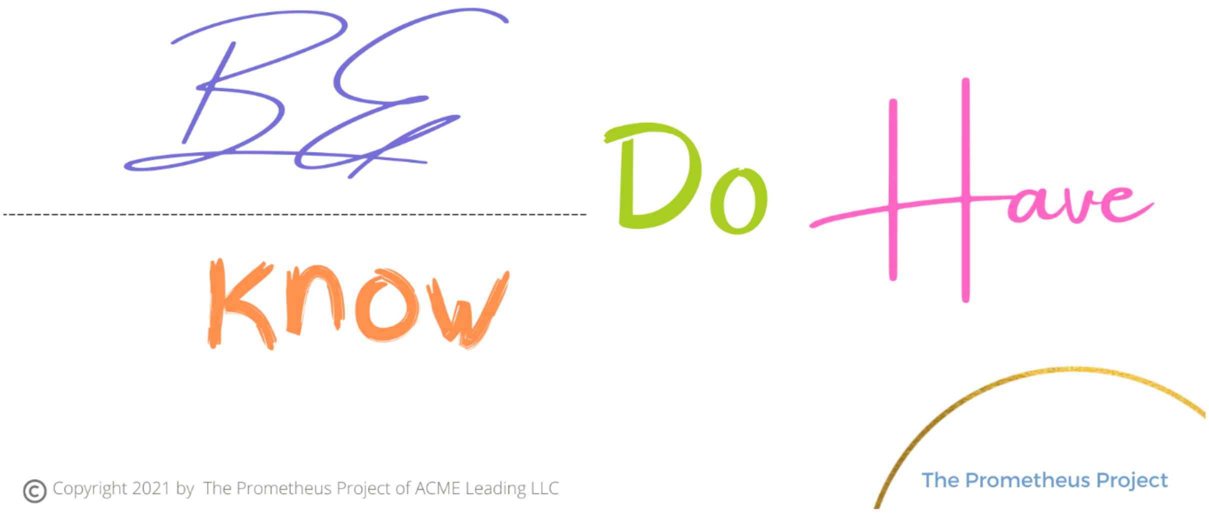

BE
Do
Have
Know
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Figure 3. Prometheus Leadership Commons 2.1 with color coded meta-categories

Domain Knowledge Addition to the (Second) Mid-level

The 2.1 version of the framework expanded from six to seven domains. The primary content of the framework is these seven domains and the three ‘how to’ domains are there as ancillary references.

The new seventh domain, Domain Knowledge, is part of the Knowing meta-domain. Domain Knowledge has six sub-areas that further define the categories of knowledge and experience.

Graphic views of the Knowing meta-domain and all seven domains are in figures later in this article.

The Challenge of Anti-intellectualism

There are some in the leadership industry who will disagree with Domain Knowledge as an attribute of leadership. They have two arguments.

One argument is that those areas of knowledge do not describe something unique to leadership – so they are not leadership. This is a really interesting point. However, we are not trying to identify the thing that *uniquely* distinguishes leaders from people in general, or that distinguishes leadership behavior from other behavior. We are identifying all of the things that are valuable to lead (because they then are also valid objectives for learning and development).

We think that there is a lot of other content that does not self-identify as leadership, but is. So choosing attributes that are also used to describe other practices or disciplines is not a bad thing, it is the kind of integration that The Prometheus Project is working to. We sometimes say ‘it’s the whole elephant,’ referring to the fable of the blind men unable to perceive the whole of the elephant.

A second argument is something like “Our survey respondents do not mention anything like Domain Knowledge as a statistically differentiating factor.” This may be literally true, but logically and pragmatically false. Those same survey results point to attributes like trust and behaviors like mentoring. They may further say that trust includes confidence in judgement, or discernment, or competence. We have never seen someone appreciate a mentor when they have nothing to mentor about. We have never known someone to have good judgement or discern a situation or to show trustworthiness in competence when they do not have sufficient knowledge and experience in the situation or subject.

Our own research over the last months confirms this for us. When we are speaking to the head of Artificial Intelligence, a technical product team or a physicist, you can bet your paychecks that they expect and admire domain knowledge in their leaders. When we discuss executive development programs with CHROs, you can bet that includes cross-functional and cross-cultural experience.

If our expectations on the future of work and the human race includes advanced technologies, or if the social experiences of anti-facts and anti-science are a cultural trend, that should convince us that Domain Knowledge is part of the mix of who leaders are, what they know and how they lead.

We are also curious if the research population of corporate cultures of the 90’s (for example) might have outlived its relevance for more complex organizations and operations today. It would be hard to imagine that those who selected participants did not skew away from contributors who favored technology and science but were marginalized in the minds of the organizations’ research sponsors.

Lastly, there may be a structural selection bias in those attracted to the leadership industry. Those who hold uncertainty or disempowerment, or shame around their intellectual abilities or achievements, or who hold a stronger need for belonging and connection than achievement and change are influential and prominent in this space. The industry attracts people people.

We can find models, programs or proclamations that work, ideas, and people domains. We hear some assert that too much emphasis is put on work and results, so the leader is someone who focuses on the person. Others say, that leading is about results and requires the capacity to forget our own stake and gratification and to prioritize the mission. Others will point out that the creative pursuit of some situations is creating knowledge – the intellectual capacity *is the point* so it cannot be put aside in leadership.

We think all are true. All have to be present. There is no holistic leadership if the whole of the human experience is not included in our definitions of it. Just as with our individual clients – it is about the range and the balance.

Over-intellectualizing is not better or worse than over-introspection or action without reflection. If we are tempted one way or the other – we are stuck in our bias.

The Max-of-Five-Constraint

In early design of version 1.0 we arbitrarily chose to have a constraint: The domains could not be sub-divided into more than five sub-area attributes. Like most constraints, this forced our creativity. We had to let go of our long lists, re-conceptualize and consolidate the sea of terms and ideas and keep the list of sub-areas more digestible. It served us well. Five seemed like a small number.

Still, as we applied the framework in real situations and with real people, we adjusted. In a few cases, we found the effort needed to clarify the max-of-five-constraint was counter-productive. The complexity added to the communicating was more than the simplicity gained from the limits.

A clear example is in the domain for the Action of Leading. The changes from version 1.0 to 2.1 include new terms but also a sixth sub-area.

The Action of Leading domain shows the wider pattern of actions for what is going on in any act of leading. Specifically, the patterns include four core actions (reality, vision, intention, and resolution) which are sustained by two supporting actions (frame and attend).

For a long time, we tested with five terms, pivoting between the idea of vision and intention. What we really meant was that leading includes establishing and sustaining a creative tension between the current reality and the vision, designing a strategy of actions and criteria for resolving that tension, commitment to act and learn from the team/organization/individual, and to sustain action to results.

We struggled to keep the max-of-five-constraint. We tried many clever and suitable approaches in dozens of events, but in the end, what worked was just to say: vision, reality and intention as parts of the action of leading.

In Version 2.1 there are now 38 sub-areas and up to six per domain within the learning objectives portions of the framework, and the three ancillary “How To Domains” each add more. It is a lot to absorb.

One of the ways that we express suitability for this design is that the framework seems too simple for the underlying reality of leadership, but too complex to easily absorb at the detail levels. That seems like the “Goldilocks” balanced approach, *and* the reason the details, as sparse as they are, have two summary levels above them.

These categories are parsed in the lists, but integrated and inter-related in the reality. The ‘whole elephant,’ again.

The Action of Leading Domain

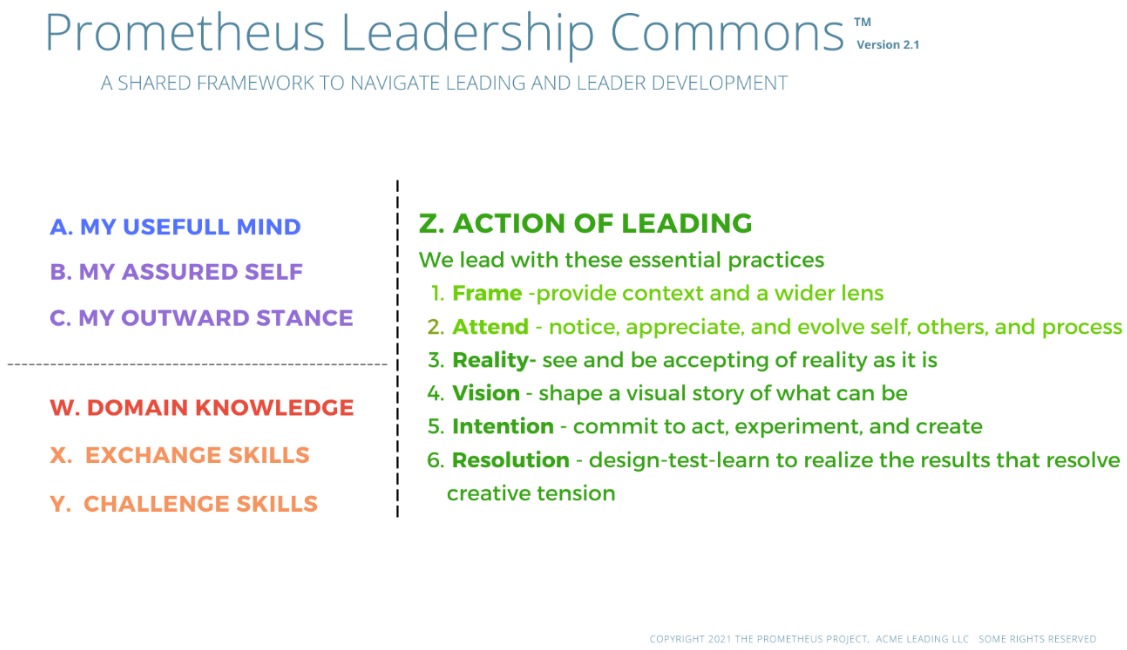
This Action of Leading domain is one of the central points of value in the framework. It is designed from a synthesis of models including those from business change, product development, creative arts, psychotherapy and anthropological studies of indigenous tribes. We see a common pattern of creating, changing and learning across all of these models/theories.

To us, this part of the framework is the forest among the proverbial trees. This is the view of what is going on that can guide all participants’ actions as well as leadership development. We think this is where learners meet the reality of each other, who they are and what they know and can do.

If our theory (and others’) is true that we lead with the people and skills *that we have* (not who/what we want), then the components of the action of leading are the most important thing to learn to evoke a culture of leaders and leading.

If the theory that we learn character, capacity and capability *in action* is true, then the attributes of the Action of Leading are where we understand reality, sharpen our vision of what to learn next, hone our people and work knowledge and skills. The action of leading is the crucible for the creation of something new in ourselves, our common collective.

Figure 4 shows a graphic of the content of the Action of Leading in the context of the other six domain titles. There is also more overview narrative later in this document.



Prometheus Leadership Commons ™ Version 2.1

A SHARED FRAMEWORK TO NAVIGATE LEADING AND LEADER DEVELOPMENT

A. MY USEFULL MIND

B. MY ASSURED SELF

C. MY OUTWARD STANCE

W. DOMAIN KNOWLEDGE

X. EXCHANGE SKILLS

Y. CHALLENGE SKILLS

Z. ACTION OF LEADING

We lead with these essential practices

1. **Frame** -provide context and a wider lens
2. **Attend** - notice, appreciate, and evolve self, others, and process
3. **Reality-** see and be accepting of reality as it is
4. **Vision** - shape a visual story of what can be
5. **Intention** - commit to act, experiment, and create
6. **Resolution** - design-test-learn to realize the results that resolve creative tension

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Figure 4. Action of Leading

How Do You Down-select a Baseline for an Early Career Class?

We held a series of workshops and focus groups where we were able to make a preliminary general summary for what we heard experienced sponsors of leadership wanted to see in early career staff. Below is some of what we heard.

Ideally, at the point of entering an organization people should have a foundation in these qualities. They would be expected to further develop and learn over a first decade of experience, so that initial qualities are well established and the next wave of capacities have taken root.

What Capacities *of the Person*?

From our focus groups one statement that stands out was from the woman CEO and MIT graduate of a tech company. Her number one leadership attribute was ‘someone who *wants* to have responsibility – the desire to be accountable is in their DNA’.

I would not disagree with this. But it is a great example of an attribute of a person that is not easy to deconstruct and to build into a development program. It can be a criteria for selection. But the settings where the candidates are being prepared still have the challenge of deconstructing the contributing elements – so they can be developed.

Looking at just the meta-domains of Being you might target these areas for development:

- I want the intellectual capacity to see past my bias and see a situation realistically and to see the possibility for change.

- I want the self-possession to be open to risk-taking, seeing and accepting reality, and courageous to take action.

- I want the dedication to purpose and resilience to be integral to the persons motivation so that they sustain effort for creating value.

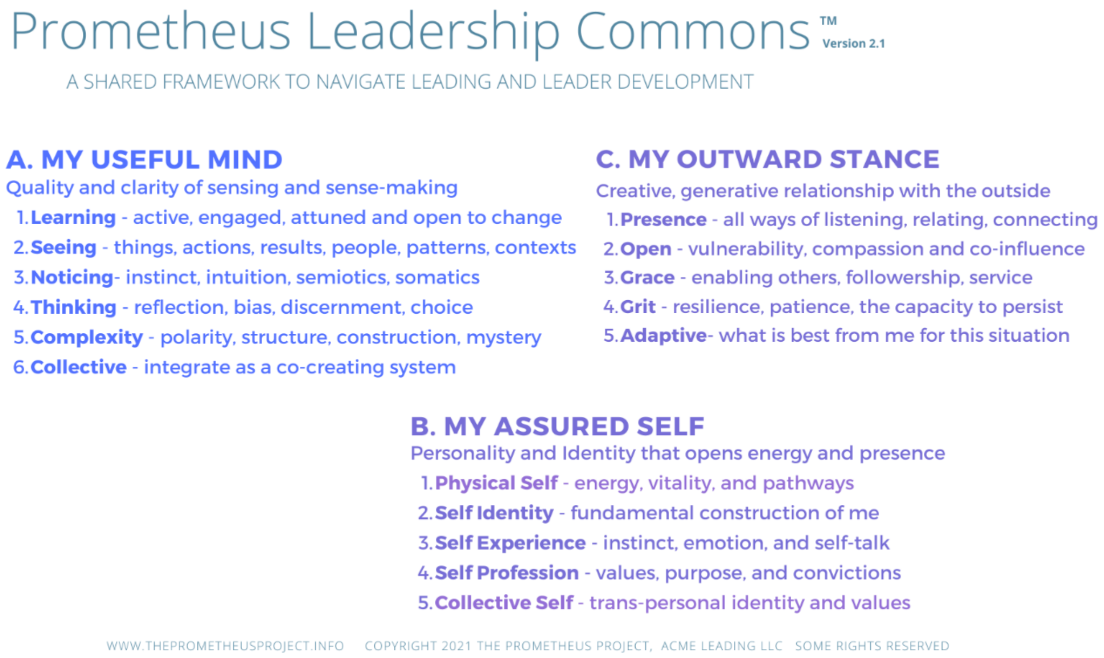
- I want the person to be comfortable with their emotional experience so that judgement is balanced and effort and motivation is sustainable.

Beyond this example, the focus groups highlighted other attributes of the leader (aka being) that said in many ways that the development of a person in this stage of career should include what adult development theorists would identify as having grown beyond an early stage identity.

These staff should have a sense of their own values, even as this continues to be formed in the new contexts and new experiences. They should have capacities that might be labeled empathy, service and kindness.

They should show the courage of their convictions *and* the openness to others' convictions and influence. They should have the emotional capacity and healthy identity to collaborate. They should have the self-possession to be open to the of constraints, authority and other actors.

Figure 5 shows the domain and sub-domains around the framework's Being meta-domain. Using the letters and numbers on the graphic, what we heard in the focus groups is that strengths should be present and built around A 1, 2 and, B, 1, 2 and 3, and C 2 and 4 as a priority for this first decade.



Prometheus Leadership Commons ™ Version 2.1

A SHARED FRAMEWORK TO NAVIGATE LEADING AND LEADER DEVELOPMENT

A. MY USEFUL MIND

Quality and clarity of sensing and sense-making

1. **Learning** - active, engaged, attuned and open to change
2. **Seeing** - things, actions, results, people, patterns, contexts
3. **Noticing**- instinct, intuition, semiotics, somatics
4. **Thinking** - reflection, bias, discernment, choice
5. **Complexity** - polarity, structure, construction, mystery
6. **Collective** - integrate as a co-creating system

C. MY OUTWARD STANCE

Creative, generative relationship with the outside

1. **Presence** - all ways of listening, relating, connecting
2. **Open** - vulnerability, compassion and co-influence
3. **Grace** - enabling others, followership, service
4. **Grit** - resilience, patience, the capacity to persist
5. **Adaptive**- what is best from me for this situation

B. MY ASSURED SELF

Personality and Identity that opens energy and presence

1. **Physical Self** - energy, vitality, and pathways
2. **Self Identity** - fundamental construction of me
3. **Self Experience** - instinct, emotion, and self-talk
4. **Self Profession** - values, purpose, and convictions
5. **Collective Self** - trans-personal identity and values

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Figure 5. Being – the Capacities to Be

What Experience and Knowledge and Contextual Skills Do We Want?

The domain knowledge for leaders is not just the technical and market knowledge that is specific to organizations and roles. These are the things we traditionally expect universities to provide and will continue on the job. Other knowledge domains in the framework may be less conventional university content and even with a solid foundation of theory from schools, are ripe topics to continue to learn on the job. These include:

- An integrated understanding of the process and practices of continuous, collective, life-long experiential learning.

- “The Ropes” of how organizations make decisions and the cadence of their operations.

- In school we might learn the concepts of business models and value creation, but in the organization, we want to observe and understand what is specific in that organization, both in the present and in possibilities.

- Constituencies, groups of collaborators, stakeholders and customers as real persons in the organization’s political and social system.

- Culture is also a topic where foundational knowledge would support specific observation and strategies in the context of the norms, values and power of the organization.

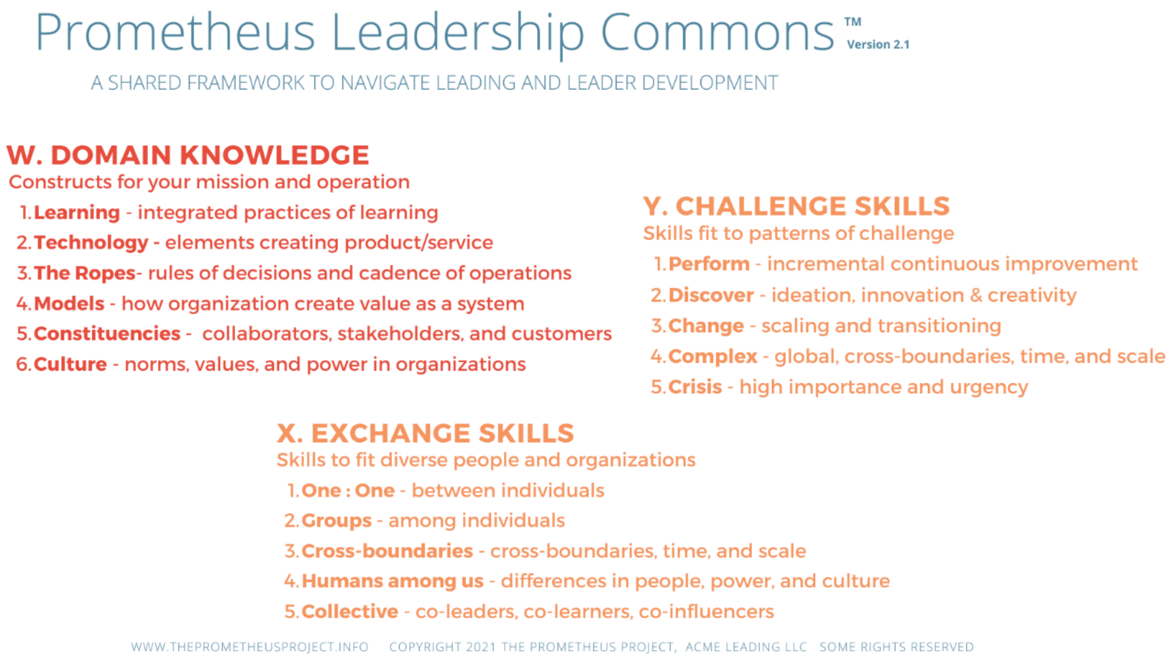
Moving from domain knowledge to skills and practices, what stands out is one-to-one and group communications and collaboration. Part of this is the capacity to work across multiple detail frames, from concrete to conceptual to general, as the basic skills of ‘communicating up and out’ beyond the immediate work groups and peers. These communication skills are not ‘once and done’ and are built upon and added to as time goes by and as responsibilities increase. For example, a new set of communication skills is needed for new managers who not only communicate laterally and up, but down and diagonally.

The work contexts and the skills should be mixed for both utility and learning. Whatever the situation they are in is the very best to learn those skills – because learning in action and learning in context trumps learning in theory or in the lab simulation every time.

So, what skills across the framework do we target? Some would argue that less experienced staff are most likely matched to more stable operations. So, the skills for incremental innovations, working from the perspectives of a team, contributor, leader and follower are useful. However, some roles may be more creative and innovative so ideation and co-creating skills would be appropriate right at the start.

It is safe to assume that most newer staff would not start out being responsible for leading in a crisis, or leading to scale changes across a larger organization, or leading globally or with unconventional relationships such as joint venture or tightly integrated channels. Even if someone were in those bigger situations, the skills they would need as pre-requisites likely include the one-to-one and group skills as a foundation.

Figure 6 shows the domain and sub-areas around the framework's Knowing meta-domain, or the capabilities of knowledge & experience and practices & skills. Using the letters and numbers on the graphic, what we heard in the focus groups is that strengths should be present and built around W 1, 3, 5 and 6, X 1 and 2, and Y 1 and 2 as a priority for this first decade.



Prometheus Leadership Commons ™ Version 2.1

A SHARED FRAMEWORK TO NAVIGATE LEADING AND LEADER DEVELOPMENT

W. DOMAIN KNOWLEDGE

Constructs for your mission and operation

1. **Learning** - integrated practices of learning
2. **Technology** - elements creating product/service
3. **The Ropes**- rules of decisions and cadence of operations
4. **Models** - how organization create value as a system
5. **Constituencies** - collaborators, stakeholders, and customers
6. **Culture** - norms, values, and power in organizations

Y. CHALLENGE SKILLS

Skills fit to patterns of challenge

1. **Perform** - incremental continuous improvement
2. **Discover** - ideation, innovation & creativity
3. **Change** - scaling and transitioning
4. **Complex** - global, cross-boundaries, time, and scale
5. **Crisis** - high importance and urgency

X. EXCHANGE SKILLS

Skills to fit diverse people and organizations

1. **One : One** - between individuals
2. **Groups** - among individuals
3. **Cross-boundaries** - cross-boundaries, time, and scale
4. **Humans among us** - differences in people, power, and culture
5. **Collective** - co-leaders, co-learners, co-influencers

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Figure 6. Knowing Meta-domain

What Do We Want Them to Be Ready *to Do*?

Most of the focus groups would say that they want staff who understand how to take action, and adapt with agility as contributors, followers and co-leaders to serve the intention of the situation.

Anyone working with others to a goal will be more confident, focused and aligned with an understanding of "what is going on" in a general way, so that action is not lost in the details. That is the value of the framework's Action of Leading domain.

More senior members of the organization may typically want to take a front-and-center role in visioning, but the vision is not effective until it is internalized by the contributors. Ideally, a vision should be co-created and the idea of its place in the system ("this is what we will see when we are there") should be understood by all. The same goes for the other actions of being clear with reality, designing a strategy that all are committed to, and doing the technical or relationship work that creates the valued results. Every team member will want to understand the obligations and practices to "Attend" to the people and the processes they are engaged in. Teams that are self-managing and self-sustaining will need these capabilities.

One exception may be the function of "Framing," which is the perspective and larger context for the action. This is more likely the part for the more senior experienced members, rather than those in their early career. Senior leaders may want to Frame the vision that is created, so that how that vision fits into the larger context of the organization and its business is clear. Without that many visioning efforts flail. That said, Framing is a capability for leaders at every level. Certainly during that first decade all of these leaders will have the opportunity to initiate and oversee some sort of creative action where they are the Framers. Some will do this on day one.

Looking back to figure 4, what we heard in the focus groups is that strengths should be present and built around this domain would be Z 3, 5, and 6 as a priority, but there would be value and contribution in all of the sub-areas.

Flipping a Narrative

This is the image that I would like you to consider: If I gathered all the references and materials on leadership from academics, practitioners and programs, I would have two big piles and one small pile. The table would have a big stack around personal development and the inner experience of the leader. There would be a big pile around techniques and tools to use as a manager, team member or team. The third pile about what leaders actually do, that pile would be smallest. We would like to flip that story for learning and development. We will make leading clear and leaders common faster if we do this.

The action of leading, to us, is the most approachable, the most pragmatic, the shortest time-to-results and the shortest time-to-self-experience-as-a-leader. I think that the possibility at hand, the timely action, is to help people figure out that they are already capable leaders in some ways and to create a cohesive sense of what they are doing as a team so that they can discover themselves as collective leaders – self-managing, self-organizing, self-empowering innovators, creators, learners and makers of change.

The techniques and knowledge of the Know meta-domain will be valuable in some specialized or tougher contexts. The personal growth of the Being meta-domain will also be valuable, there is no reason to wait for that longer lead-time and there is no better way to crystalize and motivate people to change than their experience in the Action of Leading, today. So, as we have said a few times, lets us shift from preparing on the long-slope and to noticing the leading in action.

Future Interests

From Topics to Practices

The framework is a structure across all of the topics of leadership. It is a helpful tool to traverse and integrate the whole of the leadership story. This will help you set goals. This will challenge your assumptions.

The framework has always been a first step in the overall Prometheus Project’s mission of making leading clear and leaders common. What is needed in addition are insights into *practices* that are useful for leading. For example, one-to-one exchange skills include listening. What are good practices for a leader to adopt for listening? What are good practices for learning to listen?

This is not a shortcoming of the framework – it is unfinished business in the mission.

More Explicit Sequencing

There are indications in the newest framework about early vs advanced capabilities or capacities. Mostly, these are about contexts of greater scale or complexity. They are also about more collective consciousness, that are states of being consistent with adult development models.

However, additional details about dependencies and sequences would be helpful when actually applying the framework to an organization and its micro-learning and program design.

The "Promethepedia"

To support the specter of adding specific topics to the illustrate the categories in the framework, with growing content and relationships across content, we would imagine a Wikipedia-like resource that is collectively created and curated by a cross-disciplinary group through The Prometheus Project.

Down-select or Objectives Guide

We think that further experience with individuals and organizations to apply the framework to their specific contexts and vision will provide opportunities to form a rubric or guide for decision criteria about which objectives are suitable. We can see the potential for AI assisted software to support this process.

Clarity for Popular Concepts

There are many concepts and constructs in the popular engagement around leadership. Terms like 'emotional intelligence' are used with a presumption that that means something specific. We think it means a range of things across the framework. So, we would like to make popular concepts like this clearer by using the structure of the framework to parse and illustrate them.

Another is the concept of "empathy" or "trust." To build these requires meeting learning and development in several areas of the framework. If we are to progress past talking about leading and leaders and from abstractions to capacities, then some work is needed to parse and illustrate these kinds of outcomes.

More Explicit Integrations

There are valuable tools and models that have been considered in our research and are part of the experience we draw from. We think it would be helpful to articulate the relationships and the structure of the framework. The framework will meet its purpose when it can serve as a commons across all of the proprietary resources or provide a context for all of the atomized content and research.

Cross-sectional to Longitudinal

We would like to use the framework on a longitudinal basis to re-plan and govern an organization's leadership development policies and programs – across all functions and levels of an organization. We recognize that some organizations are increasingly virtual/fungible across legal entities such as co-producers and contractors. We'd like to extend the scope of leadership governance and development to the whole of those who are contributors and stakeholders.

Do's and Don'ts – Toxicity Rubric

As noted earlier, the framework is looking at the good leader's attributes, but one of those capacities of leaders is to assess the current reality they are in – including assessing when something is not right, wholesome or generative. Then, to find a creative, generative response, which may not be 'cancel culture'. We think more explicit content about the 'don'ts' of leading and creating will be helpful. We have opened a space in the www.WeLead.Gobal community as a placeholder and have taken a few initial steps toward this content.

Additional Voices and Influence

The voices of The Prometheus Project are substantial, but we would love to expand this. We would particularly value aligning more psychiatric, neurological and psychotherapeutic perspectives, more chief learning offices, like-minded practitioners and consultancies, and more individual leaders at front-line and middle levels.

Community of Purpose

The Prometheus Project holds a digital space for members who share the mission of making leading clear and leaders common. This can be found at www.WeLead.Global. Consumers and observers are welcome. But creators and contributors are needed to realize the vision for this space for inquiry.

Open Cautions

Feeding Perfectionism

All of these leadership attributes tend to push our assumptions to the point that we expect ALL of these attributes in our leaders. That will never be true (or rarely will be).

First, we remember that we think every single person in an organization, team or community has moments of choice and potential to lead in small and large ways. We want them to self-recognize these possibilities *and to be recognized* for these contributions.

Second, we have always held that leadership is a collective practice among imperfect leaders – not a heroic practice of one superhero. We are concerned that the scale of what is in the framework will convey unsuitability to someone who compares themselves to this system of leaders and leading. Almost no one will measure up. We do not want the message to be that they do not have the stuff because they will never be all of these things. Rather, this is the basket of possibilities for themselves and the mix of whole leadership that they can assemble as a team.

Third, this raises the complementary ideas of followership, kindness and flexibility among each other and with those in positions where leadership is expected. They may or may not have all of these qualities. They will not. Leading can happen imperfectly.

This is one of the reasons why focusing on the Action of Leading domain is a priority – to just know and expect what it means to lead in some shared purpose.

Feeding Exclusivity

Similar to perfection, we know that the demands of leadership are broader and more complex at higher levels of an organization. So, we might be reinforcing the idea that long-term leadership development should be focused on those at the top (or on their way).

We want those at the top to be great leaders.

We also want those everywhere to be great leaders in their contexts.

We think that focusing on the Action of Leading domain can help achieve this. Everyone can execute the components of this domain – even if they do them as imperfect people and with imperfect knowledge and skills**.**

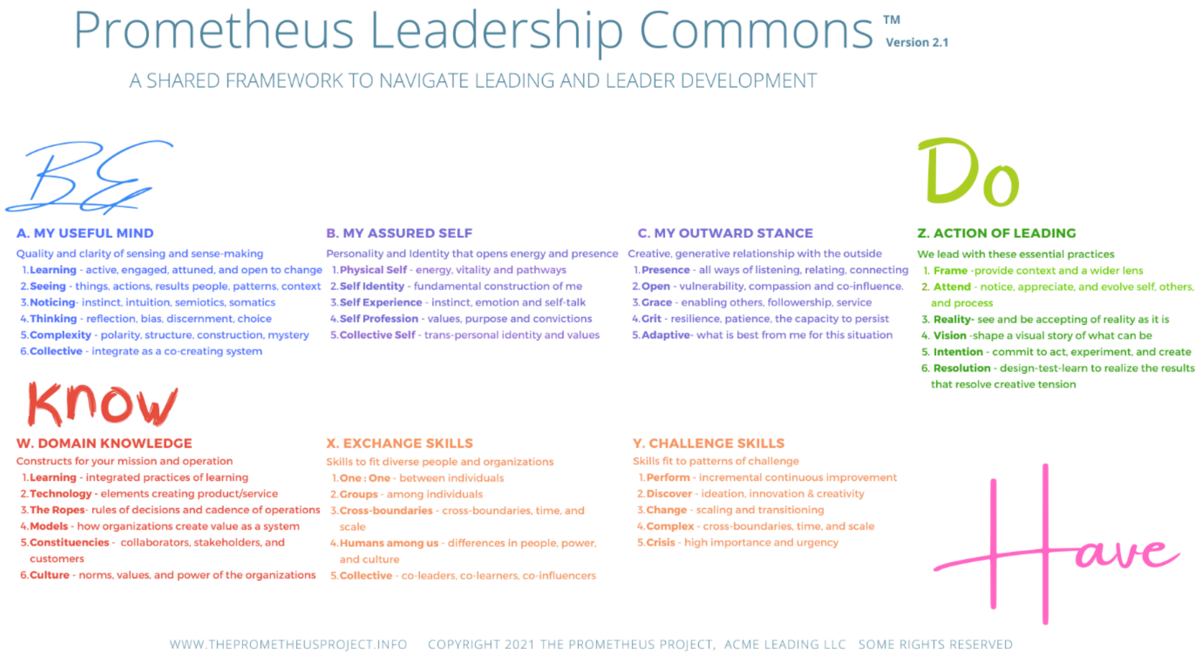
The Prometheus Leadership Commons 2.1 Summary

For reference, figure 7, shows all of the seven domains, grouped and color coded.

The Capacity to Be

The blue tones in the figure are the domain of Being (aka Capacity to Be) (aka The Leader). While this domain is about who we are, not what we know, there is a knowing component to persons. The brighter blue domain and sub-areas are about “What is going on in me so that I know?” or “What are the elements that I integrate to bring clarity and wisdom and consciousness about myself and the world?” The more purple tones are about me as the subject that is self-aware and me as the subject that is focused on what is outside of me, whether that is other people, principles or purpose.

When we are fully accepting and conscious of ourselves, we are beautiful and others are beautiful. We are filled with quiet power and energy. We are clear and unfiltered about all kinds of truth and wisdom. We may never be this whole or fully human, we may only have glimpses and moments of these states. If we are lucky and wise, we will leverage each other to meet this standard and accept and love our clumsy humanity as we go.


Prometheus Leadership Commons™ Version 2.1

A SHARED FRAMEWORK TO NAVIGATE LEADING AND LEADER DEVELOPMENT

A. MY USEFUL MIND
Quality and clarity of sensing and sense-making
1. **Learning** - active, engaged, attuned, and open to change
2. **Seeing** - things, actions, results people, patterns, context
3. **Noticing**- instinct, intuition, semiotics, somatics
4. **Thinking** - reflection, bias, discernment, choice
5. **Complexity** - polarity, structure, construction, mystery
6. **Collective** - integrate as a co-creating system

B. MY ASSURED SELF
Personality and Identity that opens energy and presence
1. **Physical Self** - energy, vitality and pathways
2. **Self Identity** - fundamental construction of me
3. **Self Experience** - instinct, emotion and self-talk
4. **Self Profession** - values, purpose and convictions
5. **Collective Self** - trans-personal identity and values

C. MY OUTWARD STANCE
Creative, generative relationship with the outside
1. **Presence** - all ways of listening, relating, connecting
2. **Open** - vulnerability, compassion and co-influence.
3. **Grace** - enabling others, followership, service
4. **Grit** - resilience, patience, the capacity to persist
5. **Adaptive**- what is best from me for this situation

Z. ACTION OF LEADING
We lead with these essential practices
1. **Frame** -provide context and a wider lens
2. **Attend** - notice, appreciate, and evolve self, others, and process
3. **Reality**- see and be accepting of reality as it is
4. **Vision** -shape a visual story of what can be
5. **Intention** - commit to act, experiment, and create
6. **Resolution** - design-test-learn to realize the results that resolve creative tension

W. DOMAIN KNOWLEDGE
Constructs for your mission and operation
1. **Learning** - integrated practices of learning
2. **Technology** - elements creating product/service
3. **The Ropes**- rules of decisions and cadence of operations
4. **Models** - how organizations create value as a system
5. **Constituencies** - collaborators, stakeholders, and customers
6. **Culture** - norms, values, and power of the organizations

X. EXCHANGE SKILLS
Skills to fit diverse people and organizations
1. **One : One** - between individuals
2. **Groups** - among individuals
3. **Cross-boundaries** - cross-boundaries, time, and scale
4. **Humans among us** - differences in people, power, and culture
5. **Collective** - co-leaders, co-learners, co-influencers

Y. CHALLENGE SKILLS
Skills fit to patterns of challenge
1. **Perform** - incremental continuous improvement
2. **Discover** - ideation, innovation & creativity
3. **Change** - scaling and transitioning
4. **Complex** - cross-boundaries, time, and scale
5. **Crisis** - high importance and urgency

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Figure 7. The Prometheus Leadership Commons 2.1 Framework

Our Knowledge and Skills

The orange tones are the adaptive capabilities that make up our knowledge and skills. The darker red tones are domain knowledge, the intellectual stuff. The orange tones are the contexts in which selected skills can be prepared and learned. We expect these to be well mastered in applied experience and integrated across related knowledge domains, self-integrated emotionally and socially. However, they may not only be the theoretical and technical knowledge we assume.

These are all handy for assessing, working and interacting in the real world. We can sometimes do this well in with humility, good purpose, intellect and observation and with little knowledge and few honed practices. This is the truth behind the idea that building the leader, the inner work, is the most adaptable. Or “Who you are is how you lead.” But our situations are often not that simple. We may not be in a safe-to-fail context. We may not have perfect or even viable constituencies. The reality we face may be more chaotic and complex than we can assess on the surface. We have some natural talents but other capabilities for influence and transformation may take some work. To illustrate, while improvisation can be natural, even improvisation is improved with conscious rehearsal of the practice.[9] We may be better at it in our own minds than is objectively true.

We humans (at least this one) tend to over-prepare. We do not (yet) trust our native ability and accept our flaws. So, we over-invest in collecting up knowledge. We do not dare the shame to be imperfect in public, so we are scripted and rehearsed. This is, obviously, not what we are suggesting by highlighting and valuing knowledge and skills.

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[9] We consider practices to be technique and mindset honed in experience.

I will lastly point to the irony of some who claim knowledge and skills and practices are less important – but assert a set of knowledge and practices for developing leaders or shifting cultures. Those same may assert that their leadership in the industry is built from their research and technologies. What would Loretta Castorini, Cher's character, say?

Leading is Action

The third meta-domain in green tones is the Action of Leading domain. Whatever the details of your situation, these six things are present (or should be) to lead and succeed.

The darker green sub-areas (three to six) are somewhat of an iterative sequence of plan-do-check-repeat. You could consider them standards of health for creative change, so if we understand them we have language to raise concerns. Can we have a suitable strategy if we do not have a sense of where we are and where we want to go? In some cases, we do not have either of those clear, yet we are working hard. The lighter green sub-areas (one and two) are context for the others. Framing gives a context to action. Attending is considering and sustaining people and process.[10]

Some of these areas in the Action of Leading will fall in place, quickly and effortlessly. Some of them will be a lot of work to influence and align, with many teachable moments that require patience and experimentation. Vision, for example, is sometimes clear and quickly finds a resonance with the stakeholders and effortlessly fits the larger context of the mission. In other times, this is a major effort that takes much knowledge, learning iterations, a toolbox of techniques, human connections and open minds and hearts.

Finally, the sub-area labeled Resolution is referring to resolving the creative tension that is energized by the contrast between accepting Reality as it is and a vibrant compelling Vision. This may be one of the most valuable points to remember – because many of us practitioners and researchers forget that leading is not about just being there, thinking or doing, or inspiring. Leading is ultimately about results – whatever those results may be. **We lead** because we want change. **We lead** because we want to learn. **We lead** because we want to create. **We lead** to create what we want and what we want the world to be.

Conclusion

That concludes a summary overview of leaders and leading in the view of the framework and as it stands at this point of publication. While we very much welcome and expect disruptive contributors and amplifiers, we prefer some 'yes, and' partners. We very much look forward to applying and learning to bring this framework to more usefulness and fulfill The Prometheus Project's humble-audacious mission of making leading clear and leaders common.

Thank you for your attention, your shared passion and commitment to leaders and leading, your shared sense of urgency for the broader possibilities we can create in the world.

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[10] If you are an experienced Agile practitioner, you will recognize that an intentional effort to open and sustain individuals and relationships, observe what works and take responsibility for improving the effectiveness and efficiency of a system of action is 'attending.'

Psychosynthesis and the Alexander Technique

Marilyn Monk[1]

Introduction

After many decades as a practising scientist in the realm of molecular biology (DNA replication and repair, cell signalling, gene expression in development, epigenetics, embryonic stem cells, diagnosis of genetic disease and cancer), I felt a need to expand my occupations in life into the realms of art and spirituality. Although since childhood I was aware of the three realms of knowing and being as mind (objective truth), body (subjective truth) and soul (transcendental truth), I was aware that my science was taking up a disproportionate amount of my time. So, after many years of sampling the various approaches to self-exploration offered by the personal growth movement, I chose to train in the Alexander Technique. I had done the rounds of individual and group work, seminars and the different alternative and complementary therapies and treatments available. But for me, Alexander technique seemed to be the answer because it enabled me to *take responsibility to work on myself* each moment of my waking day and in every activity, whether mental, emotional or physical. Today, I still have great faith in the technique and see it as a valid approach to self-mastery. Yet something still seemed to be lacking. During my own training in the technique and while working with my pupils, I found that release of tension in the body would sometimes be accompanied by overwhelming emotional upheavals. At such times, fellow trainees would simply notice with understanding and compassion and continue with their own work. As a teacher, I have learned to be with pupils during periods of emotional release, to wait quietly and sympathetically, and then proceed, perhaps more slowly, with the teaching. The philosophy is that as the physical back becomes stronger it is able to support more opening of the body over the regions of chest, heart and stomach and, in my experience, this is what happens. Opening the front of the body is equated to opening to vulnerability. It is also quite a courageous confronting of the world outside ourselves.

I believe that psychological and emotional disturbances are slowly resolved during Alexander training. Nevertheless, I have always felt the process to be incomplete, in that we do not directly deal with the roots of our basic emotions – grief, terror, rage, shame and despair. In our training, we are taught that we may have emotions, but our primary concern is about the choice as to whether or not we let these emotions pass into the body. Many people criticise Alexander teachers for their apparent lack of visible emotion and associated body movement (hence the label, 'Alexandroid'). However, these critics may be lacking in perception and awareness. They may not be able to see that the greatest depth of passion and emotion can be felt and portrayed in

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stillness. The Alexander teacher is taught to trust that emotional upheavals resulting from release in the body will resolve in their own good time. Alexander technique is certainly not in a hurry. My own inclination, perhaps born out of so many years of scientific discipline, is one of leaving no stone unturned. I am impatient and unwilling to wait for the answers to come so slowly. I felt the need to look more intensely into my own emotional status and its history. Hence, after completing the Alexander Technique training, I decided to train in Assagioli's Psychosynthesis. Each training takes place over three years.

I have been aware throughout the Psychosynthesis training that it is wonderfully complementary to the Alexander Technique. I hope I can convey a flavour of this in this brief article. The Alexander training is concerned with psychophysical awareness and conscious constructive control in the use of the self. Although, Assagioli's Psychosynthesis claims to be concerned with the body as well as with the emotions and transpersonal dimensions (a term often used when avoiding the word 'spiritual'), its attention to the body falls far short of that provided by Alexander Technique. On the other hand, it directly addresses the aspects which Alexander Technique leaves students to resolve by themselves – the psychic and emotional disturbances. I consider that these two disciplines together provide a complete and integrated approach to self-realisation.

Life is Essentially 'Good'

For there is nothing either good or bad, but thinking makes it so. Shakespeare.

One of the basic tenets of Assagioli's work is that life is essentially good. This is perhaps a difficult concept for a Judeo–Christian community indoctrinated with the duality of heaven and hell, good and evil, right-doing and wrong-doing. Yet alongside our Judeo-Christian dogmas runs a stream of myths and fairytales, familiar since childhood, which hint that this duality may not be the only truth. Certain myths and fairytales portray apparent evil as simply the absence of goodness. It is the familiar question as to whether darkness exists of its own accord, or whether darkness is simply the absence of light.

While watching Disney's version of Hans Christian Andersen's *Sleeping Beauty*, it seemed to me that it was all very well for Princess Aurora – young, beautiful, loved and cared for by all. She would have no problem at all in expressing, or reflecting, pure love. But my heart went out to the 'evil' fairy, Carabosse; shunned and rejected, uninvited to the party. Self–destructive, resentful, seething with hatred and seeking revenge – all clearly brought about by the absence of love. Recently, too, on the underground in London, I noticed a poster advertising the ballet. Again, I was struck by the cruelty (and the ageism) with which Carabosse is portrayed – old, arthritic, wrinkled and sallow. No doubt she would also be toothless if she were allowed to smile. But there are no smiles for Carabosse.

Is evil the absence of love? So, I must look further into my experience into the question of the duality of good and evil. The resolution comes not from my thinking on this question, but by way of direct experience of the workings of the Alexander Technique. The experience, simply stated, is that *when I eliminate the wrong–doing, the right comes through of its own accord.* You will notice that I say the 'right', and not the 'right-doing', because the 'right' may not necessarily be a 'doing' at all. As we proceed through this article, we might find a better term term for 'right' – maybe 'harmony', 'poise' or 'balance' – but for the moment, I wish only to make the point that the experience is something that seemingly comes as a gift, or a state of grace, and not something we can do or attain by a certain set of activities of the body. Eliminating the wrong-doing is more akin to 'un-doing' or 'getting out of one's own way', as we shall see below.

Are there other arguments that life is essentially good? I often look to the creatures of existence for answers. Certainly, I consider that the concept of evil is human; it is a human thought construct. The trees, the birds, the foxes and squirrels in my garden do not operate in a world in which evil, – in terms of a force which means them harm, – plays a part. They may sometimes suffer from cold or hunger or 'designs' on each other (the threatening call of the tawny owl and the squeaks of his captured prey are common night occurrences) but, to my eyes, the 'default' state is one of celebration. That is, like Newton's second law of thermodynamics, the creatures of existence will rest or play (visibly enjoy their aliveness) unless propelled by some external force to do otherwise. In my own case, not feeling particularly enamoured with the status of human being (in fact, I feel rather the reverse), it is a simple step, born of observation, to see that there is no evil but that "human thinking makes it so." One memory from the teachings of a spiritual master, Shree Rajneesh, which is indelible upon my being, is his saying, "Existence is not against you. Existence has given birth to you. She loves you." This means to me that to grow, to flourish, and to be in harmony with all – this potential is my very birthright.

We come into the world with all that is required for harmony and balance in the life ahead of us. Small children, when they first begin their physical activity in play, are beautifully balanced. The disproportionately heavy weight of the skull of a two-year old is delicately poised on a perfectly balanced spine in a body that hinges like a little anglepoise lamp in all the right places. What happens to distort this balance – even by the time we are six years old? Alexander maintained that ‘wrong-doings’ multiplied thousands of times become indelibly imprinted, or 'wired in', upon the developing being, resulting in distorted patterns of responses to the constant stream of stimuli in life. Distortions result from physical, mental and emotional ‘wrong-doings’ in response to a world that seems to be against freedom, against authentic true being. The conveyers of the 'right-doing' (parents, priests, teachers, politicians) believe that their impositions are for the best. They are oblivious to the possibility that 'imposed doing' of any sort may be stunting the child's natural growth. Very few people in our society consider that the task of the mentor is primarily to enable the new being to flourish in its own unique way.

Although distortions inevitably accumulate, the birthright for fulfilment of potential, though latent, miraculously survives. This is the positive, good news part of the story. And it is where F. M. Alexander and R. Assagioli had much in common. Both believed that goodness and right-being were the essence of human existence, and that a latent sense of a harmonious self could be revealed by stripping away the psychophysical and emotional distortions built up since birth. Alexander's tenet was that in all walks of life, in all human activity (mental, physical, emotional), there is a misguided emphasis on trying to get things right and too little attention paid to what has gone wrong in the first place. He maintained that 'getting things right' places an undue emphasis on gaining an end, rather than on paying proper attention to the 'means whereby' the response to a stimulus is activated and performed. This state of 'doing too much' and end-gaining inevitably overlayers natural functioning with super–imposed tensions to the system which in turn distort the natural balance of the psychophysical being. Even trying to see, or trying to think, can interfere with the efficient functioning of eyes and mind (memory). In a similar way, Assagioli asserted that individual human beings carry within them unspoilt qualities of peace, harmony, joy, radiance and wisdom; and that these pure qualities become layered with distortions built up by early trauma and continual disturbances throughout life. The approach of both men is to bring the distortions into the light of consciousness and, at the same time, to make clear the potential of the latent pure qualities needing to emerge once again. Their methods are different but their intentions to encourage the emergence of the inherent best being in each of us are the same.

Taking Responsibility

God helps those who help themselves. Mum and others

Nowadays, we look to the medical profession as a service. It is there to provide a 'quick fix' to our ailments – those things that go wrong in the body. The same approach is taken by many towards the complementary health therapies. We tend to go to the doctor or therapist with our depression, fatigue, headache, stomach pain, respiratory disease, skin disorders and many other symptoms of stress (tension), and ask for help to alleviate our suffering. The doctor may prescribe pills, ointments, medicines and treatments of one sort or another. But how would we feel if the doctor said, "Well now, how have you done this to yourself?" Yet, in many cases, this approach would be the most true and the most helpful for, more often than not, we do not take the time to consider our own relationship to the age–old basic rules for good health: – appropriate diet, exercise, rest, sleep and avoiding stress. Nor are we educated to take responsibility for our own health and well-being. Modern medicine is about illness, not health. It is interested in disease and takes the responsibility (and fattens the drug companies) for prescribing 'fixes' for ailments that are primarily caused by our own lack of care for ourselves. Today's human beings are not remarkable for taking responsibility. That is why the story of F. M Alexander's struggle to find the solution to his own particular ailment is so inspiring for us all.

Frederick Matthias Alexander was born into a large rural family in Tasmania, Australia, in 1869. He was a separate, and perhaps somewhat difficult, child with a passion for acting and reciting on stage. In his late teens, however, his passion to act and to recite was severely compromised by a tendency to lose his voice. He visited many doctors and specialists of throat disorders, but nobody could find an anatomical or physiological defect to explain his loss of voice. He was advised to rest, and in so doing, his voice would return; but as soon as he would recite again, his voice would become hoarse and weak. Alexander made a simple observation that many of us would be unable to make (although we may not like to admit it). He saw that *it must be something that he was doing when engaging in this activity that was causing his problem*. This initial step of taking responsibility for his problem was the starting point of a determined, thorough and painstaking scientific investigation by Alexander of his own use of himself'.

'Use of the self' is an Alexandrian term that may need qualifying. The best approach to understanding use of the self is to consider the way we use various tools in life. We pay attention to the shape and feel of a pen, a saw, a toothbrush, a golf club, and so on, and consider whether the tool will function well in the task intended. After purchasing a food processor, a new car, or a video recorder, we will read the instruction manual and give some time and thought to the proper use of the new equipment. We pay attention to proper use since we are aware of the simple universal law, 'Use affects function.' Its colloquial addendum, 'Use it or lose it', is also important. Examples of this, well-known in biology, are vestigial organs (tonsils, appendices, ear muscles), lack of development of blocked or 'blinded' organs in new–born animals, atrophy of unused leg muscles, and so on. Proper use of ourselves is vitally important for maintenance and appropriate function. But do we pay any attention to the way we use ourselves in daily activity? The means whereby we use ourselves – whether distorted, tense and unbalanced, or poised, flowing and free – will profoundly affect the possibility of continued function as well as efficiency of function and, just as importantly, pleasure in activity. Poor use of the self is a constant force for deterioration in muscles and joints, and in mental and emotional well-being. Good use of the self is progressively enhancing to overall health and well-being. Evidence for the effectiveness of Alexander training on health-enhancement is rife – for example, increased lung capacity, lowered blood pressure, less expenditure of effort in activity and more balanced emotional and intellectual presence.

Alexander observed that in response to the self-given stimulus to recite, his pattern of response in taking up a 'reciting stance' was to pull the heavy weight of his skull back and down on the top of his spine. This resulted in a shortening and narrowing of the back and a gripping with the feet that distorted overall balance. The second stage of Alexander's enquiry was to try to change this pattern of response. The frustration of trying to break a habit of this sort would be enough to deter most of us, but Alexander's determination was quite remarkable. He first tried imposing the "doing" of something different – *trying to* ***do*** *it right*. However, thrusting the head forward caused more problems – more tightening of the throat and restriction of breathing and of the diaphragm. He then realised that he must simply eliminate the wrong pattern and not try to superimpose what he thought might be the right pattern. The third stage of his investigation might be considered as a still more difficult hurdle. He had to *break his conditioned response pattern to the stimulus* to recite. After many months of perseverance, Alexander had finally developed his method. Stated simply, he had learned to put a pause between stimulus and response and, in that pause, to give himself mental orders both to release any unnecessary tension and to encourage new direction. He mentally ordered his neck to be free to *allow* his head to go forward and up in relation to the top of his spine (thus freeing the joint between head and spine). As a result of these mental orders, he would experience his back lengthening and widening as if of its own accord (in response to his having 'got out of the way'). This experience is due to the natural postural reflex (through the spine) mechanisms now able to come into play. The job of the natural postural reflex mechanism is to govern a lengthening process in the body in response to gravity – the very experience of lightness of being that is so often reported by the Alexander pupil.

The pause, or hiatus, inserted between stimulus and response and the releasing of inappropriate tension is called *inhibition*; the new mental orders are called *direction*; and the proper relationship between head, neck and spine, undergoing delicate readjustments moment by moment, is called *primary control.* Thus Alexander had solved his problem and, moreover, he found that the same principles could be applied to solve or eliminate any problem in human functioning where the individual concerned was willing to seek out the wrong-doing in activity and to apply new conscious control over his use of himself. We will now look at the principles of Alexander technique in relation to the main principles of Psychosynthesis in order to observe the ways in which they are parallel and complementary.

Inhibition and Dis-identification

Give thy thoughts no tongue, nor any unproportion'd thought his act. Shakespeare.

A common hypothesis to both Alexander Technique and Psychosynthesis is the existence of a unique *self*, with pure qualities of love and will, needing to emerge from underneath the covering layers of accumulated distortions. Distortions, according to Alexander Technique, are the habitual patterns of faulty psychophysical use in response to stimuli; in Psychosynthesis, they are inappropriate, exaggerated or damaging behavioural responses. It is also common to both disciplines that the *self* needing to emerge is always present, so, in a sense, the emergence is one of re-membering. In fact, Alexander technique is classified as *re-education* of the individual in proper use of the *self*. It is also common to both that the process of stripping away the layers of accumulated distortions requires 'conscious constructive control' (Alexander's term). By this, we mean that the work is done initially through a properly trained mind aided by the engagement of conscious will, or intention.

Another term used by Alexander is 'inhibition'. There are many ways to see the concept of inhibition. Perhaps the simplest representation is that of saying 'no' to immediate (and therefore habitual) response to a stimulus: The telephone rings; there is a shove in a crowded place; there is a move to sit, stand, write or play a musical instrument, switch on the TV or hit a tennis ball (the reader will get the idea of any and every daily activity). The response must be to say 'no' to responding at all. This is in part 'inhibition' – it is the first step towards breaking the habitual wrong response pattern. Even when I think I am doing nothing, I must practise inhibition because, in fact, there is never a time when I am not responding to a stimulus. It may be a thought or an emotion and, if I remember, I can say 'no' to that thought or emotion entering my body to change it in some way. For example, if I feel 'down', then I say 'no' to the response of pulling down in the body. So 'inhibition' is simply staying very aware of the constant stream of stimuli that come into the mind – stimuli wanting a mental, emotional or physical response – and saying 'no' to responding to a stimulus in any way other than noting it. (I, myself, assume that all emotional and physical responses also start with a thought).

Of course, this is a very tall order, and often I am not aware that I am carrying thoughts, feelings and muscular tensions that are a pattern of response to a *previous* stimulus until a clear new stimulus attracts my attention. Then the task of 'inhibition' is to release all aspects of the old pattern, as well as saying 'no' to responding immediately to the new stimulus. The practice of 'inhibition' means that I do not carry over a psychophysical pattern belonging to a previous event into my response to the new event. I clear the system. Before responding to the new event, I also must practise the next Alexander principle: 'direction.' The practice of inhibition and direction means that my response will be from a more balanced and clear space and therefore it is more likely to be an appropriate response. It will also mean that my neck will be free to *allow* my head to go forward and up in relation to the top of my spine, which will be lengthening back and up. Another way of seeing inhibition in more physical terms is that I will stay back (the physical back stays back) from the stimulus. I will not be pulled into it. This will all become clearer when I say more about direction and choice, below.

In the practice of Psychosynthesis, one of the key principles is *self* identification – a conscious and disciplined process of dis-identification from the mind, the emotions and the physical body. In my own experience, practising dis-identification is very similar to the concept of inhibition. In affirming that I am more than my thoughts, emotions and physical sensations, I am visualising myself as so much bigger than the content of these faculties that the content itself diminishes in significance. Indeed, combined with meditation (releasing tension, staying alert, watching, non-censoring and letting go of desire for a particular outcome), the practice of dis-identification can approach the same state of still and silent readiness that comes about in the practice of inhibition and direction in Alexander Technique. This is the state we yearn for, i.e., 'nothing happening but anything possible', – and that is so beautiful to see in the total 'being-ness' of a young child.

Direction, the Will and Choice

This above all – to thine own self be true. Shakespeare.

In a small child, the natural orientation of the head to the neck and back is such that the joint between the heavy skull and the delicate top vertebra of the spine is free (the jaw is also jointed here and the position of this joint is between the ears). Over 90 per cent of stimuli are received in the head (sight, smell, taste, sound, thought) and, if the head is delicately balanced and free to respond, the lengthening back follows this response in a flowing and free way. Alexander found that it was necessary to give a powerful positive mental order to will this natural orientation to come back into play. Combining 'inhibition' and 'direction', we sa*y, "Let the neck be free to allow the head to go forward and up in such a way that the back lengthens and widens."* Note that the instructions do not imply that the pupil will **do** anything. The pupil is instructed simply to give mental direction and *trust* that the thought will be understood and translated by the body into an appropriate response. The teacher's presence and gentle guidance with the hands will confirm this. Inhibition and direction practised in this way ensure the best possible poised and balanced place from which to make a response. It is clear that a free and balanced psychophysical self is more likely to respond appropriately to any stimulus. Alexander maintained that a contorted, distorted body would result in distorted mental, emotional and physical perceptions of the events occurring in the outside world.

Now, and only now, the individual is ready to respond and now there is choice. Simply put,– the individual may choose not to respond at all; to respond in a completely different manner than usual; to do something completely irrelevant (a useful choice with adolescent kids); or, of course, to respond in the old habitual way (although in the latter case, now there is something very different – a *choice* to do this has been made).

Alexander technique is therefore a form of self-mastery in that its practice allows me to have a choice from a free and balanced place of how to respond moment by moment to the constant stream of happenings in my world. It also *allows the **possibility** of change*. Not that it is *about* change; but, in unlinking habitual response from stimulus, it opens the possibility of responding differently. Ingrained habit is the most difficult barrier to change.

Now, how is this aspect of direction and choice seen in Assagioli's Psychosynthesis? Clearly it is in Assagioli's concept of the 'Will' in all its forms. Primarily, the Will is an intention (mental image) that translates itself into physical embodiment and action. The Will in Psychosynthesis has a directive and regulatory function, balancing and integrating the energies of the being. Alexander's own words, "conscious constructive control,", could as equally apply to the Will of Assagioli as it does to primary control. The main aspects of the Will as strong (intensity of energy for action), skilful (effective strategy with least effort) and good (appropriate expansion into the outside world) emanate from the *self*. Right use of Will is associated with a sense of harmony and choice, akin to Alexander's direction and primary control. The Will directs with energy, mastery and purpose; but it is *effortless*.

Grounding and Self-realisation

Individuation only takes place if you first return to your body, to your earth, only then does it become true. Jung.

It is perhaps paradoxical that the aspect of grounding in Alexander Technique is strongly related to the sense of a higher self. The Alexander teacher uses gentle guidance with the hands together with quite insistent and intense verbal instruction (remember, thoughts have to be trained and the Alexander teacher must be holding, and even staying ahead of, the pupil's habitual thought patterns). With the engagement of the pupil's will, the teacher helps to bring about a new state of poise and balance in the pupil. Then the pupil will often say that they are suddenly aware of the fact that they have feet. They feel their feet on the ground solidly supporting them. They are grounded. Although they are free and flexible, the teacher will be aware that they are very strong and together (I found that the same supple, grounded strength is developed in Tai Chai). At the same time as being grounded, the pupil is aware of being in alignment with a lengthening process streaming up through the body and a sense of lightness, expansion and well–being. Every part of the bodymind is now in communication with every other part. This 'suspension structure', grounded by gravity, is also very sensitive to the world around and communicating openly and freely with this world. Pupils will often say that they feel that they are simply who they are; that they see clearly; and that this experience is very welcome. On the way to this place of togetherness and poise, the student has had to pass through many unfamiliar places, often feeling very off-balance indeed. Remember that what feels familiar feels right and whatever the pupil's habitual distorted patterns of holding, these will seem right, even if the tension is very disabling. Thus, the process requires some courage. The pupil must be willing to enter the unknown.

A similar passage may happen during the course of Psychosynthesis counselling. During a phase of intense work, the client may feel quite lost and on very unfamiliar ground. The Psychosynthesis guide will hold the true identity of the client through these lost periods and provide support and encouragement to the client to continue the exploration of who he or she really is. The realisation of a new insight or truth closer to the real self comes with grounding of these new experiences into daily life: – practising re-calling the new clarity of vision; noticing how harmoniously it fits with life; taking on new aspects of self-identity in a stable and actualised way. Thus, in Psychosynthesis too, grounding is associated with a greater sense of *self*. It opens new doors and expands the sense of being by integrating more and more acknowledged aspects of *self*, thus strengthening self-identity and lightening the burdens of daily life.

The Meaning of Change

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time. *T S Eliot.*

Of all complementary health therapies and treatments available, Alexander echnique and Psychosynthesis are special in that they ask the adherent to take the opportunity to *work on themselves* in daily activity. They are not treatments administered to a passive recipient. In addition to working together, teacher and pupil also work on themselves alone. In fact, the process of giving an Alexander lesson is that of the teacher working on themselves and transmitting their own good use and strong direction (intention, Will) through non–interfering hands to the pupil. Both disciplines ask that the pupil or client be responsible for his or her own well–being and unique flowering into the best possible being that they can be, free from the imprisoning constraints of accumulated distortions superimposed on the finer qualities of his or her self expression.

But here I think lies the greatest pitfall – the desire to change. In Psychosynthesis, it is essential to stress that the goal is one of uncovering the essential qualities of the pure *self* that is *unique to that individual*. Unfortunately, this is often interpreted as trying to be a different *self*. In Alexander Technique, the emphasis is on eliminating the wrong-doing, not trying to get it right. But no matter how often this is stressed in lessons, I find that the pupil is still trying to get it right. To my mind, this is the worst affliction – wanting to change – and the danger of these disciplines is that they may *create a desire to be different or better.*

It is a common cry heard from many who have worked on themselves for years: – that they are seeking to become better or different, seeking peace, harmony, clarity, wisdom, radiance and love; but that – this is not happening. Why is it so difficult? How is that we can still be so destructive to our selves when, after so much work, we *know* what is needed and what is not needed moment by moment? Simple wrongs of excess or obsession – staying up late, eating too much of the wrong foods, not getting enough rest, not meditating when we mean to, being tired and irritable – behaving destructively despite our best intentions. What is the nature of this destructive force? Evil? Have I come full circle to disprove my starting premise? I do not think so. Instead, I believe that the destructive aspect is actually *created in response to the desire to be better or different*. Only human beings create this polarity. Does the rose want to be a lilac; does the cat want to be a dog; does the horse yearn to become a unicorn? I like to believe that the rose wants to be the best rose that it can be – a full flowering of colour and fragrance and beauty of its own true form. Life is not normally self-destructive. All desire to be other which brings destruction and frustration belongs to humankind. Desire of any form means frustration. In fact, I see satisfaction as simply the alleviation of frustration, not the gaining of the object of desire.

Our goal then is to drop goals beyond our reach and to live fully in the moment, *fully accepting and loving our unique selves*. We must let go of the wrong-doing of striving to superimpose some projection we have of who we might be. Paradoxically, coming back to who we really are opens a greater potential for who we might be; but this is not a promise. We are simply in with a chance to receive a gift which may shine through when we get out of the way. This will not be something we have tried to achieve, but a gift that was ours from the beginning.

Relations Between Cognitive Development and Spiritual Practice (Yoga)

Huw Lloyd[1]

Abstract: In this essay I relate aspects of cognitive development to spiritual practices such as yoga and highlight the role of active orientation. I describe some personal experiences stemming from certain developments bridging cognition and yoga, whilst also relating these to societal biases that fail to address the potential for developments of this form.

Introduction and Personal Experience

In April 2017 whilst exploring some literature on the periphery of developmental psychology[2] I found myself experiencing some unusual phenomena foreign to conventional psychological accounts. In my subsequent searches through various literature, certain features of these experiences only corresponded to accounts presented in yogic literature. These remarkable, yet personal, experiences were of such uniqueness and distinction that I felt compelled to enquire into this newly emerging personal sphere. The new thread led me to widen the conception of active orientation that I had previously discovered and recognize its coherence with conceptions central to yogic science and apparently all mystical disciplines. At the same time, these newly emerging experiences appeared to be congruent with some of the more speculative frameworks of cognitive development[3] indicating a continuum between conventional cognitive development and that of higher states of awareness.[4]

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[2] This literature conveyed similarities to the processes of morphogenesis in skill formation which I had been studying.

[3] Cognition, in the sense that I refer to it, may be described as "the guiding aspect of activity". It typically pertains to how an activity is to be undertaken, as the process of formulating (and revising) a plan of action that necessitates conscious attention. This simple description recognizes cognition's integral role in activity, with an emphasis upon the directing of attention through the use of signs (of varied kinds). Consequently, cognitive development pertains to the reorganisation of the structures used in cognition, notably the nature of the logic employed. Due to the integral nature of cognition with other mental faculties, transformations in cognition implicate significant and often profound changes in one's relations to the world. Although cognition may be applied to both thought and emotion, I typically emphasise cognition as thought, whilst recognising the close coupling between thought, emotion, movement and intentionality.

[4] Frameworks such as those of Graves (2002) and Jaques, Gibson, & Isaac (1978).

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I should like to stress that prior to these experiences, I was largely ignorant of yogic practices and indeed I had not undertaken any overt exercises that might be recognized as formal meditation. This happenstance suggested to me that the mental skills that I had some fluency with (reflective and systemic thinking) might have some correspondence to meditation. Further research led me to a central factor linking the two sources of literature (developmental psychology and yogic practises), this was my personal discovery of active orientation and the processes implicated.

In my original conception of active orientation (Lloyd, 2016) I describe a process in which action, thought, affect, and construal come together (are coordinated) through an interaction of intention, skill, and situational context. Unbeknownst to me, this coordination is highly congruent with mystical principles of achieving coordination and control of different "bodies", called koshas, or aspects of bodies[5] such that, upon successful alignment of them, new vistas become apparent in the form of faculties which were previously obscured.[6] Indeed the formulation of active orientation has some striking parallels with "Ratha Kalpana", an analogy in the Katha Upanishad that compares functions of man with functions of a chariot (Ratha Kalpana, 2021), see also Gurdjieff's description of a coach and horses (Ouspensky, 2001/1949).

The implications of both these findings and the experiences were, for me, profound and initiated a protracted process of reorganizing my understanding of the world. Prior to these experiences I had arrived at a fairly resigned recognition that the higher reaches of cognitive development were largely rejected by society at large including within the sphere of academia. The unusual experiences facilitated a significant transition in my world view.

The unusual experiences may be conveniently grouped into three categories. All of these experiences are of a personal character. Furthermore, these experiences may be described as the initially novel experiences, they are not comprehensive. I am also quite confident that from the perspective of an accomplished yogi, these descriptions are quite banal.

i. The sensation or awareness of energy (prana) within the body.
ii. Awareness of synchronicities.
iii. Unusual dreams of an archetypal or spiritual character.

The first category pertains to an awareness of energy in the body that may manifest as a form of sensation and that is often located in the regions attributed to certain chakras. Usually it is of a sense of energy gently residing or moving in a given location that may be seemingly superimposed upon conventional sensation. An exception to this was an experience that was in agreement with accounts of "kundalini energy" which entailed a dramatic ascent of energy within the body.

The second category agrees with Jung's (1955) characterization. A simple example would be the timely coincidence of three personal events: my discovering new information to an old problem, insight into a method for resolving the problem, and someone unwittingly providing me with an apparatus that I will only be aware of needing when attempting the method that the problem pertains to. In such a synchronous situation, these events might all transpire within a short time frame (within hours, or the same day).

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[5] Sadhguru (2016) asserts that thought and emotion are considered to both belong to the mental body.
[6] Obscured through the friction and dis-coordination of the bodies.

Of the third category, an example might be a meeting in a dream with an archetypal figure such as a lady resembling Athena. Of the spiritual variant, I might dream of a happenstance meeting with someone I know of, but not necessarily know personally. Such an occasion occurred whilst I had a chest infection. In the dream I happened to meet someone who was familiar to me from childhood experiences and wished to speak to me. The following day, I sought information about this person and discovered that they had died recently from a lung disease.

On the basis of my experiences and their close correspondence with yogic formulations along with a recognition of the systemic cohesion of the formulations, I found myself to at least be responsive to the broader yogic ideas. These ideas have a very good alignment with my experiences. However, when I have previously sought some contact with Western cultured people who might be aware of such terms like "kundalini" the direction has led to communities dealing with crises. That is, "kundalini" in the West often seems to be associated with crisis in the sense of extreme difficulty. This, however, has not been my experience at all. My experience and thinking has remained lucid, whilst the awareness of synchronicities has remained within a dual perspective in which the synchronous meaning is framed as an "as if". This, I understand, is a quality that persons referred to as psychotic do not enjoy. This experience might also be considered as one data point contributing to the project sketched out by Gopi Krishna for a scientific study of kundalini (Krishna, 1970, ch. 19).

There are, of course, many other details that I could describe and that are of a personal nature. Clearly, these presented experiences are open to criticism and may be reduced to labels of "subjective imagination.” It is not, however, the purpose of this essay to prove the existence of these phenomena. One need not rely upon descriptions of these experiences to appreciate the coherence between studies of psychological development and those of 'mystical' development. Similarly, looking to the kinds of transformations that take place in children, one might not be so surprised to discover the possibility for further, yet similarly structured, transformations in adults.

Rather, my intention is to be candid about the various sources of my understandings and insights into the importance for fostering developmentally[7] fertile environments, to indicate the need for greater cultural openness and awareness of such phenomena and greater opportunities within our society for fostering cognitive development. In the contexts of both cognitive development and yogic practises there seems to be agreement that such transformations do not arise of themselves, rather they arise through sustained conscious effort on the part of the agent.[8]

Prior to these experiences I was immersed, intellectually, in the problem of cognitive development within educational environments. It now seems to me that this pursuit may be appreciated as an expression, within a wider context, of personal and human development. That is, that the focus upon genuine cognitive development within contexts of education is an ethical issue, rather than considering education as merely serving to satisfy our cultural conditions for qualification. This is not, of course, to assert that everyone should be encouraged to pursue a program of cognitive transformation, but rather that, for those who find this practice amenable, it is necessary to acknowledge that it is unethical to harness people to an educational system wholly unsuited to their expressed directions and manners of interest.[9]

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[7] The principal characteristic of developmental phenomena, as compared with learning and growth, is that of systemic reorganization.

[8] References to a need for consciously directed transformations can be found in Vygotsky (1998) and Davydov (2008). Refinement of consciousness and awareness is also a cornerstone of yogic practice.

Other systemic relations between cognition and mystical practices

Having cautiously explored the phenomena and studied more widely, I can also account for further systemic relations between yoga (or mystic practices more generally) and cognition, which I describe briefly under four categories.

1) Self-observation and Reflexivity

Detached self-observation is a basic practice in meditation used to establish an “inner witness”. In cognitive activity a similar practice is that of reflexivity – of practising reflection upon what one is doing in the act of doing it. Reflexive activity has the additional complexity of balancing activity and reflection simultaneously. Another basic activity, encouraged in Gurdjieff-based practices, is that of practising self-observation to become conscious of the mechanical nature of much behaviour. Indeed, reflexive activity is in principle non-mechanical due to the alert and responsive nature of reflexivity (which entails both reflection and action).

2) Self-remembering and Orienting to Broader Scales of Awareness

Unlike self-observation, “self-remembering” in mystical practices may pertain to recalling to mind the presence of one's greater self (Atman) or the “unchanging consciousness” implicated in “being aware of being aware.” Punctuation in activity, marked by a change in orientation (cessation of outward focus) provides the opportunity for a recurrence of self-remembering or quiescence of mental work. In contexts emphasizing cognitive development, we may work mentally under the appreciation that there are respectively broader and more powerful ways to think about problem contexts. These circumstances can lead to a circumstance in which one “makes room” for the potential of greater intelligence (insights and syntheses of thought) in one's activity. Although in these two contexts (meditation and problem-solving activity) the direction of attention may appear to be opposite it may not be as polar as it may seem, for genuine insights into problems can arise from a mental state of abeyance from mental work once the problem itself has become familiar.

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[9] Conventional schooling does not support such transformations. It is oriented towards acquiring formal schemas, rather than learning to construe, interpret, and understand. In order to transform one's mode of cognition one must work beyond one's familiar capabilities, engaging in activities for which one does not have pre-established methods.

3) Concentration and “Will Power”

Discipline, hard work and persistence regularly feature in accounts of mystical practice, and the same can be said for intellectual work. Both practices entail self-transformation. Without efforts to “work upon oneself”, significant transformations are not expected. In this regard, the concentration of intellectual work exhibits rigorous mental work akin to the quiescence achieved in meditation, for in disciplined intellectual work the contents of thought are far from arbitrary – only particular and appropriate kinds of thought are admitted to the process. Hence there is a commonality of discipline in the controlled movement of thought with a disciplined inattention to irrelevant factors compared with either the abeyance of thought or single-pointed focus of attention in meditation.

4) Access to “Essence” or Divine Self and Cognitive Development

Mystical practices distinguish between an unreflective and mechanical manner of being that is often associated with a myopic or obsessive focus upon material, bodily desires and those practices pertaining to awareness of the greater Self. Hence in mysticism there is a distinction between the superficial habitual manifestation of being and the being latent with the greater Self. In cognitive work the emphasis of distinction can be placed between the habitual, unreflective activity and the activity that entails transformation in the way one thinks and acts. This cognitive transformational process can be likened to the process by which the mystic approaches the Self. Although in mystical practices the Self is considered to be unchanging, our means of approaching that unchanging nature seems to require much effort and personal transformation.

Complementarity Between Yoga and Cognition

A Russian mathematics teacher who spent many years teaching within a school programme designed on the basis of developmental psychology described his interest as "working with people with wings" (Matusov, 2017, p. 54). This applied to students who exercised the self-conscious direction to learn through active discovery and who endeavoured to resolve educational problem tasks. In the scientific and technical context within which this rationale was expressed, I think that it is relevant that these particular descriptive words were assiduously adopted - “to have wings”. This mode of education cannot, however, be transplanted to school practices that we typically find. It requires a curriculum designed upon an entirely different basis of education using principles of understanding rather than formal knowledge. It entails relating emotion, thinking, and action together in acts of construal rather than of simply learning a prescribed grammar of notation divorced from the intimate experience of problem-solving activity.

It is perhaps also appropriate to address, briefly, a converse shortcoming often found in the perspectives presented in mystical settings regarding the disparagement of "logical thinking" as a reputed obstacle towards higher forms of awareness.[10] These disparagements generally assert that "logical thinking is all about cutting" (or abstracting). It is apparent that these assertions correspond loosely with the category of thought called formal logic. Formal logic, however, is by no means synonymous with logical thought. Thought may be expressed in a variety of logics, of which formal logic is one category that is perhaps the most frequently employed. The thought of "genetic logic", dialectics, or simply of considering the relationship between phenomena is, rather, a movement towards synthesis, of yielding a concrete understanding rather than an abstract categorization that is "cut."

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[10] For example, Sadhguru (2016) disparages "logical thinking" frequently in the section titled “Mind.”

From what I can discern, the disparagement of "logical thinking" in mystical circumstances may pertain more to the temperament and culture of the practitioners rather than anything necessarily inherent to the realization of 'higher' states of being. Indeed, a contemporary popular yogi gives allowance for the viability of this argument in the recognition of a "yoga of the intellect", Gnana yoga,[11] and, also, an alternative approach to schooling which entails non-dogmatic exploration of a curriculum (Isha Home School, 2021). My own experiences and unwitting "path" certainly seem to have some correspondence with these appreciations which find agreement with the spiritual interests that have been shared amongst many leading practitioners of the systems scientists, who might be considered to represent the acme of Western “logical thinking” (Pickering, 2008).

In a similar context, the consideration by Wilber (2016) that both spiritual development and cognitive development may express different strands of personal development lends some theoretical rationale to the notion that one can exhibit a high level of development in spiritual aspects whilst manifesting quite localized and simplistic forms of cognitive expression. This implies that spiritual awareness is expressed in a manner appropriate to the medium of awareness, thereby paralleling studies of conventional activity and understanding in which understanding is mediated by cognition (Zinchenko, 1979; Piaget, 1980).

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[11] Gnana yoga is descrbed as "attainment of a state where one’s intelligence is employed to reach one’s ultimate nature"(Sadhguru, 2016).

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Transmodernity: Enrique Dussel at Research Across Boundaries

Editor's Note

In 2010, a rare event occurred, a gathering of researchers from several diverse domains brought together by their passion for integrative, transdisciplinary approaches to research.

> The international symposium "Research across Boundaries – Advances in Theory-building" was held at the University of Luxembourg in June of 2010. It brought together, for the first time, many leading boundary spanning and meta-level researchers from more than 15 countries across all continents and as many different research areas. In what became a set of truly global dialogues, the participants presented and commented an astounding array of contemporary integrative frameworks, as well as inter- and transdisciplinary reviews and research practices across various fields of inquiry of high relevance for the future. (Molz and Edwards, 2013, p. 3)

While a large portion of the works presented have been published previously, (https://integral-review.org/backissue/vol-9-no-2-jun-2013/), a few items have sat unpublished for a variety of reasons. In particular, the present transcript was never submitted in written form. However, the video recording of this session has sat in the background of my hard drive for 10 years.

I recall that session quite vividly. The topic was transmodernity. The setup of each breakout session was to have three presenters, each presenting one of the others' works, followed by dialogue among participants and clarifications or elaborations by the author. However, due to circumstances, Enrique Dussel was unable to participate in this manner and was only able to arrive part way into the session. The first two presenters presented each other's works and there was commentary and general discussion of these going on when Dussel arrived. As he listened to the conversation, I remember him leaning over and whispering in my ear that these people did not know what they were talking about.

Dussel then took his turn and presented his work on transmodernity. In my view, and I believe that of many of those present in the room, he was able to enlighten all of us that indeed, we did not know what transmodernity meant. His passionate and engaging presentation, followed by some questions and commentary, stood out for me during this conference as a window into a truly transdisciplinary and transcultural view.

After repeated unsuccessful attempts to contact Dussel and get a copy of the paper he mentioned at one point, or clarification on segments of the video that were too difficult to decipher, I have decided to publish this as is. You will need to bear with several gaps in the text, but I hope that the main thrust of the presentation comes through. You can find some items, mostly in Spanish at https://enriquedussel.com/index.html.

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Enrique Dussel

I would like to come to our discussion. I will improve and say something from the material that we begin to share. I would like to speak of three words. The words are important in our conversation. *Modernity, postmodernity,* and *transmodernity*. I will try to clarify, not to say that this is the content of this conference. But my vision of the three words is to put more material to the discourse.

Modernity

First, modernity. On this question there is a big discussion, and you know better than I. I would like to put my distinction in two questions. When begins the modernity? That is the problem of the old vision. For example you said (*pointing to somebody to his left*) that modernity is the "Ausgang," is the liberation of the stupidity that means the coup de tat, the immaturity. That is the definition of that. That means that you think that the modernity begins at the end of 18th century, for example. And Wallerstein thought that the modernity begins with enlightenment at the end of the 18th century. But we discussed this with Wallerstein and we convinced him that it didn't begin in the 18th century. It began before the modernity. The question of origin is a question of content.

For me, and I can say among a group of thinkers in the United States and Latin America, we agree that modernity begins when Europe woke up of the war that the Islamic world took to Europe. Seventh century. That means the seventh century and the fifteenth century in Europe was various small geographic organisms, very small. Europe was from Vienna until Granada …. One million kilometer square. Sixty million persons. But the big world, and the universal world was the Islamic world. In…, Egypt, Middle orient, Afghanistan, India and Indochina, until we meet now in the Pacific. That means that Europe was a provincial, secondary, never center of history and the only universal world was the Islamic one until 1492. That is very important when talking about modernity, because the modernity comes from their world.

Ibn Rushd, the big great philosopher from Cordoba was the creator of the 17th century philosophical renewal. And modernity comes from the south. That is a clear hypothesis that we can use. For us, modernity is when Europe broke out of this world, of the Islamic world.

The modernity began when Europe went out to Africa, through Portugal, to India, Japan with the Portuguese empire and to America with the Spanish expansion. That is the beginning of modernity. That means 1492. In the 15th century begins the modernity. That is a discussion. For me, it is clear. That is against Habermas, against Toynbee. That is a discussion.

If modernity begins in the expansion of Europe, we have four phenomena simultaneously. That means, we have first modernity as a companion? but that is the beginning of the world system in the sense of Wallerstein. That is the beginning of the connection between Europe, Africa, Asia, America, the first world system in history because America was not part of any system before. What system? This is the beginning of the colonialism, because never were there colonists in the other part of the continent. The Roman Empire did not have colonies, it was an expansion of the same. Chinese empire was the expansion of the same. But to have colonies in the other part of the ocean is a novelty in modernity. That is colonialism.

Then capitalism. Capitalism begins not only in the experience of the feudal cities but is the accumulation of wealth from the periphery to the center. From America come more than 20,000 tons of silver. And that is the primitive accumulation. And all of that doesn't give a possibility of a very Eurocentricism of value.

That means the centrality of Europe in the world system is not in 1492, not for three centuries. After industrial revolution, that means in the 18th century, Europe becomes hegemonical in this world system. But during three centuries, until the 18th century, China and India were the center of technology, astronomy, mathematics and commerce. That is to discuss. But only Europe took advance to China and India in the end of the 18th century, beginning of the 20th. That is the centrality of the world system, is in the hand of Europe only two centuries ago. That is for me modernity. The culture of Europe that is the hegemony from two hundred years. That is the idea for discussion.

Postmodernity

The second, what is postmodernity. Postmodernity is very recent. In 1979 Lyotard wrote this book on the postmodern condition. But before and in parallel there are many epistemological narratives like, cultural studies, post-colonial studies in the colonial English departments. Subaltern studies beginning in India, and after they became very popular in the United States and many others.

But the last moment now is the coloniality of the epistemology. It is a Latin American group in the United States that said exactly that coloniality begins not like in the Commonwealth in the 18th century but began in the 16th century. That means there, for three centuries before, a colonial world and a modernity. We are against this hypothesis of the postmodern. For us, postmodernity is the last moment of modernity. It is a Eurocentric criticism of the dominant reason of Europe. But it is from the point of view of Europe. Because Lyotard and others, all these thinkers are Europeans. For us, it is not a question. We use the word *transmodernity* in a very precise meaning. That is against postmodernity and is another moment of modernity. It is not one preview of modernity, but it is another epoch. This other, I cannot say how, these 500 years of modernity begin to finish. And this is another age of the planet, or epoch.

But I would like now to make a description. *(Draws on the flip chart).* If the modernity is like a cone of light. That means here is the light and that is the cone of light. And for example, Latin America is here as a culture *(Dussel drawing an intersection into the cone)* plus the process of the inclusion of Latin America as a colony began in 1492. That is the exploitation of richness, the importation of food, many dominational processes in relation with Latin America that began there. But the inclusion for example of Africa is after. Because in 1885 was the congress of Berlin. That means Africa was invited one century for us. That means the question of the invasion of Africa is true that the slaves of Africa were from Africa to Latin America, the Caribbean and North America. The other groups were invited in the 19th century. India was conquered by England in 1780 was the occupation of the river Ganges etc. China was never a colony but was dependent. The modernity, not only the European culture but the inclusion of exploitable periphery that was absorbed in the world system under the hegemony of Europe.

Transmodernity

But now begins the concept of transmodernity. That is completely different than any other position that I know. It is a question of exteriority. And that is the concept. Dare I say totality as a category and exteriority as a category. That is a category of the philosopher of (…?) in Latin America. Exteriority is the …. The modernity exploited a part of the richness of the peripheral countries in the coloniality. But some of the parts said that had no value and what has a value was not included, was a pure negation.

And now begins the question of transmodernity. For me, the postmodernity is a moment of modernity where Europe decides itself. That is the postmodernity. But now begins the criticism from the exteriority of Europe. There is one in Latin America, myself. There is one in Africa, Bantu. There is one, Tariq Ramadan, an Islamic thinker. There is Quan yon Ming, a Confucian philosopher in China, who has criticized all the capitalism today in Asia, because in China, Singapore, Hong Kong etc. is not the Calvinism like Weber thought. It is the neo-Confucianism, and Quan yon Ming (?) is a philosopher of the 16th century in China, that is not European. That is a thing in another tradition.

From this exteriority of Europe begin four movements. The first movement is the positive evaluation of their own culture, denied in modernity as barbarian, as not being, as “sauvage” (wild). Now they publish the first history of philosophy in Sao Paulo. The first. Now they publish thousands of pages in a big Encyclopedia. First, the history of philosophy land in America. The first. That means there is first a recognition of their own value, not against modernity. But not modern! First, that is a problem.

Second, that means that we need to make a reconstruction of the history of our traditions. And that is coming back to the Indian traditions, to the Bantu tradition, to the Brahmanic tradition, Taoist, Buddhist etc. etc. traditions. In each of these cultures, Islam begins to discover a big important tradition. Baghdad was the center of science for 500 years. In 756, Baghdad was founded. Baghdad was the MIT of the time. Numbers, we call them Arabic numbers. The old mathematic of the 9th, 10th, 11th 12th century was Arabic. Europe was in the Middle Age. They knew nothing. Baghdad was the center. Baghdad was connected to China, with India through Kabul and with Constantinople. Baghdad was the center of civilization for 500 years.

But that means, it is a vision that is impossible for a European. There are many specialists in Latin American culture, Bantu culture, Islamic culture, Chinese culture, in Oxford, Cambridge, Berlin. But it is very different to be a specialist, than to be an Arab, to speak Arabic, in the flesh. In Arabic at least, for the philosophy of the Arabic civilization. That is impossible for a European because it is Arab culture. This is the second movement.

The third movement is the dialog with modernity. Yes, we don’t deny, like the fundamentalists, modernity. We don’t say modernity is nothing and we are all right. It is not true, because the modernity is not an essence, but it is a process, and the culture of the periphery too, are in process. To all this in relation to modernity, that changed all cultures. This dialog has a difference when a European does a dialog with the periphery, than when the peripheral thinker does the dialog with Europe. Because the peripheral thinker, for example one Islamic person said “I think that to do a new interpretation of the Koran and the problem of the woman, feminism," they can go to Europe to do a new interpretation of the Koran. But they chose what of modernity is useful for them, and not the position of Europe. That is what is better for them. And after is the most important. After this there is the development of this culture that begins to be right now.

All the cultures in this movement, Chinese is an example, went to the Hindus, Brahmanic civilization, and to Africa, and to the Arabs and to Latin America begin from their own exteriority situation in dialogue with the modernity. This project for the future. For me is full of content. But it is not … a universality, an abstraction. That was in position of the modern of Europe to all countries. Is one analogical project of pluriversality. The pluriversality is the universality. The pluriversality is one thing and not the other, they are very different.

The analogy is where they have come to be together in some aspects and this seems enough. That means there are some parts where we are all together. A. B. C. D. Different cultures. A can coincide with B, with C, with D. And this significant is not identical. It is a similarity where each distinction to a different meaning to this similarity that is not a unique view abstract to the understanding, it is a question of logic. This pluriversality, not universality, it is pluriverse. It is transmodern. That means beyond modernity. Trans is not postmodern in the sense of the last moment of modernity. I think that will define it very precise. And I do not know another person that does a clear definition.

Discussion

Discussant 1: And this is another definition of the same thing … (pointing to posters on the floor).

Enrique Dussel: Yes, but it is very "leer." The truth is leer (empty). But it is not empty. This is the universality. That is very important.

Discussant 1: …. It is different.

Enrique Dussel: But it is not the identity. But it is the similarity. And then we can make …. many centuries. I think that is what we meet now. China, India, Africa, Europe, Latin America. We make constructions parallel to cultures. That many similarities make a dialogue between us. Not only north south. But south south. That means the dialogue between Latin America and Africa. Between China and Europe. But south south. And that goes to a new project. And that is for me the transmodernity in the analogical pluriversality of the new age. And I agree that this age through the ecological question and the very negative …. intentional effect of capitalism … But we may ask a definition. What is capitalism? … in century … I do not know how much time …. because of the ecological problem….

Discussant 2: Could you please say something about the difference between 1 and 2?

Enrique Dussel: … For one Islamic person or for one Bantu now is South Africa…. In football we see Africa as folklore-Africa. But it was difficult for this third world, of this south civilization of a culture is to have a positive evaluation on the out existence of … I have values, not only

Europe. For example, we have this very strong sense of community. The modernity loses the sense of community is the father, the mother, and the daughter…. This is their reality. It is the discovery of the own values. First.

Second. It is necessary now to…. the memory of these countries. That they lose their memory because …the antiquity…. After middle age that was the only civilization that has a middle age is Europe and that is exactly the moment where Europe was in this situation. The Arab world was …. and not feudal. And there is not any feudal society out of Europe. And we use a universal category of history. Antiquity, middle age, modernity, there is a …. has nothing to do with science. That means, the memory of the own culture, the second.

The third. We need instruments. And the modernity is not only an invention of Europe. The modernity took information of all cultures. And this information is the beginning of almost all inventions in Europe. For example, the industrial revolution. All instruments to the machine from China. And we know the industrial revolution begun before… And all machines are from China. … in the 6th century the Chinese discovered the printer machine. The paper in the 8th century. The 9th century printed paper… And when the Venetian messenger in China, Marco Polo, … could not explain the paper and the people didn't believe. We need to pay the ecological, philosophical and historical advance of the modernity because it is not only the construction of Europe, but it is the construction of the center of the …

…so much depth to other cultures, when they took the culture and they say it is our revenge …, the renaissance. The renaissance from Constantinople and from China. Now there is a … on the China astronomy and the China mathematics in the beginning of the renaissance. That is the dialogue, the third.

In the third begins the … independent movement. And how is the question of China? China is a …, the colonial. It is totally … And in 1860 China produces more iron … How is that possible? …. in … years China must produce more iron. China must develop more and begun a crisis and Europe was underdeveloped and begins the development in this cross.… Europe took the advance and was a … crisis in India and China. And now they come back to the history of the own development. And it is not a miracle. It is a normal process of development. For example now, it is technology and capitalism. But sure there is a … where they begin to rethink their tradition. I will go to China the next month. And we … on Marx. But we have a very different interpretation of Marx than the Soviet Union. And they are very interested in the definition question is Marx in the …. Many questions. The Chinese people, they begin their development. And in India the same. Now … there is big development etc. etc.

Discussant 3: I noticed you were talking from notes.

Enrique Dussel: Yes, the paper is done.

Discussant 3: It is done. So we will see it.

Enrique Dussel: I don't know. Transmodernity and interculturality is my paper.

Jonathan: It is not on the website yet. We will put it out on the website for the conference. That was a … tour and expanded our horizon and enlarged our scope of dialogue, and we acknowledge that and take a deep breath before we engage in further discussions and questions and so on.

Enrique Dussel: Now it is the sense that you have a broader horizon of themes. And not only Eurocentric.

Discussant 4: What is exciting about it ….

Discussant 1: You see, I feel. I agree completely with your …. Because what I feel is that we are all lost. Modernity cannot find a solution for the sustainable future. So, Europe goes to nowhere. The United States are no states for the moment. The states are still very modern and they

Enrique Dussel: … That means, which are the necessary negative effects of the system? The necessary negative effects. Unintentional. Because the modernity … and has not any measure to exploit/explore(?) the reality, the nature. But now we see that this nature is not infinitive. It is very finished. And the logic of modernity cannot stop the movement. That is the question. And HOW we can stop, that is the sense of capitalism. The rationality of capitalism is the growth of … of profit. And if I invest money and I have more … of profit, that is rational and efficient. If I don't have this … of profit, that is inefficient. We need other criteria. And as you say (points to discussant 1) …the criteria is the life criteria. And the true rational is the suspendability … the life. But that was not any criteria in the modernity because the life was evident and was not a problem. But now it has become a problem. The …. of the planet is a negative effect of the system. We can't stop this machine … to show the rationality of these economies. They have not the life after …. And this case is irrational because the true rationality is the suspendability of life in the long term. In the next 1000 years. Not the next president election. 1000! That is rationality. But the criteria are very close.

Discussant 1: But you see in your design. In every culture we have something in common. But it is not a universality anymore. It is a kind of pluriversality. Ok, I like that idea. But at the same moment, Europeans are here (points to poster on the floor). They are only one seat. One seat. Americans are here. Islamic countries are there. And no one knows the solution. That is the situation today. Therefor I say that this is empty. We do not know. We have no trends.

Enrique Dussel: This question is symmetrical. But it is not symmetrical. The United States are the military power today.… It is not a symmetrical moment. It is a center moment. And that is identity. That means a beautiful …. Today the domination is in the hand of the atom bombs of the US. And they are now for the humanity a danger because they have no other criteria than …. profit in the US.

Jonathan: Now we are going to bring more voices in.

Discussant 4: Ok, just about the intensity of the whole discussion.… When you talk about the question of life and sustainability, is there something that also has been an intentional impact. When you talked about China producing more iron than Europe and the US together, they were obviously sustainable. So, when you talk about the history here, first of all I would like your interpretation here. What we finally have now is …. What you just presented has of course been very critical discussion of your.… But still we have to acknowledge that some come from other cultures ….

Enrique Dussel: Yes, but the question of life is very ambiguous. And because of that the human and the life is a more objective criteria. An affirmation of life. And the love as a moment was affirmation, because I can love …. Or I can love the capital. This case is ambiguous. But the affirmation of life as a … is a very rational concept I think. Now the Chinese have the problem. Because they developed a very modern rationality and now they have to decide for the future China not to be responsible for the destruction of life through the ecological question, yes. We need now some global principles and …. the human and the life it brings.

Discussant 4: Do you think in this moment of reflection …. interior conditions and traditions, they were not critical enough to realize that the world of our next … is ….

Enrique Dussel: … all human beings. All is global. And there are some global principles, but the life and the consensus and the …. This I think, is ethical consideration. But that there are some principles for all human beings and this is possible in the similarity of the different cultures.

Discussant 2: … The Universities for Humanity, which perhaps we should not call …., exactly wanted to give expression to what Enrique is talking about. So, it is actually alike what is happening and when I read your paper as well, it would inform us even more deeply. So, the first thing is that it is alike what is happening…and thank you for ….

Second. There is another similarity between your four moments and our …. model. And after reading your paper, I immediately see a deep resonance between the four moments and that process of grounding, emergence, having an effect. So, that is profound. …..

And the third thing was the invitation to what we expressed before, as for example I was talking to Charles about the amazing…. That you are doing here. You never really make that … division to life. I mean it is … it is rich, it is very very particular. The model in a very … unique kind of way and really it hurts me, coming from Africa, with something from a feminine soul as well, feel…. I am looking at Vietnam, I am looking at … other woman. And you have given us a powerful performance. Thank you.

Discussant 5: … he does a beautiful job in describing the … I really like that … division. But … a new form of economy because of …. markets. And this other book, the balance side, … quick story. I read this book and I teach these courses … we analyzed this book and he has pages and pages of other things you can do to push back against this and …. She printed out postcards, and on each postcard, it said, right now, my only choice is yours because you are not in the hospital or whatever. Literally, … an alternative. I am switching to another company and whenever she is applying for a new job she is going …. Mailbox …. She is a miracle. She has been doing that since I taught that course in 2001. A postcard every day. So this book is full of things that we can do …. And I find the connections to the future. That is one of the best …

Discussant 6: I also want to reflect about my own process. I reflected 2 days ago when I …. in this group from Thursday already and I am happy to have chosen this group. And when I think back, I think I stepped into this group with an attitude of searching. I am searching for answers and experiences and I wanted to learn from you what is the future. What is the future we have, and what about the vision we develop. And I learned a lot in terms of knowledge, in terms of experiences, your experiences. But there still is this empty spot. Sometimes, I think that contains everything. There are moments in life …. in touch with the empty spot. And I feel that for me that is the most important thing that I have learned, this bad consciousness, a state of consciousness. More than everything else. But this contains that at the same time. So we need knowledge and experiences…. states of consciousness. So that is my sharing. What I have learned today. And my question to you. I enjoy being at your presentation and this discussion and especially the four steps, the four points in …. But what I need, perhaps you have said something and I didn't gather it, what I miss is when you talk about evaluating the own culture, existence of values …. and the histmats(?) becoming dependent. What I miss here is the connection, forms of honoring the other, the culture or the origin or your own roots. But the other.

Enrique Dussel: … But for me it is evident that the …. cultures discover in the …. and in this case it is the modernity …. and in this case discover the otherness of the own in relation with the modernity. But in the dialogue between the different cultures. Who? It is a person that is related to the own culture, that means, that is attentive to otherness in the own culture that is to deny. That is …. You must be responsible for the other in your own culture to discover the value. It is a very important question you put. The sense of consciousness, all this growth through. …

Discussant 3: The question that emerged for me …. that we can see visibly the scale and scope of the global credit crisis. For me, that is just a symptom. And it is about the … nature of present-day capitalism. This story you tell implies that we will find a way to put a collar on it, to limit and to find a way. How do you see that happen?

Enrique Dussel: I say that we slowly come to this point because the most important countries, governments begin to see the financial capital as a danger for the state. Because the big business today is exploiting the state. And the state exploited after the population to take the money to pay the depth. In this moment we have a very … never happened until today.… And the bank becomes this enemy of the national state. That is new because they were together. But now the interest of capitalism and the interest of the state, or better, of the population. Not only in the colonial countries but now in the central countries. And that is new. It was never like this. That is very important for the new theory in many aspects of economy. This is not sufficient. And the … logical theory of all time is…but we see now the failure…. the capital in favor with the people. The people of Germany, England, Kenya or Argentina. That is now to hope.

Discussant 3: So your hope is that we will …. that deeply enough and fast enough to make a difference.

Enrique Dussel: It is slowly through the suffering because the people must suffer to begin to understand. When it is very happy, nothing. But now it is the problem of many people and in the suffering they say that is …. What has happened? Where is the theory? ... there is mysteries. They will not know what happened. Now with the new theory on all these questions.

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Reviewed by Roland Slot[1] & Sveinn Hrobjartsson[2]

Mariana Bozesan undertakes an immense challenge in her book Integral Investing: from Profit to Prosperity. How do we, as investors, support a movement towards a more prosperous, liveable, meaningful and beautiful world?

The first part of the book, *the Context of Investing*, addresses some of the most dire and confrontational questions anyone could think to pose: are we at the precipice of civilisational collapse?; what is the role of democracy going forward?; how has capitalism served us all things considered? Although provocative, the discussion of these topics is all but callous. While we find ourselves in a dire situation requiring urgent action, Mariana emphasises we must tread carefully:

> If we are not to self-destruct as a species, taking down the planet as we go, we must face the fact that the time has come for a radical transformation in our attitudes to life. But we must act carefully, responding rather than reacting so that we do not simply swap one harmful ideology for another. (p. 9)

The Context of Investing is rigorously composed and littered with references to reports from reputable institutions and agencies. Yet, it addresses topics beyond those generally covered in reports of global developments. The reader is invited to ponder what is the "life" or "consciousness" that we are trying to preserve in our efforts to create a sustainable world. Referencing Max Tegmark, Mariana introduces the different hypothetical evolutionary stages of life and consciousness that would become available to future civilisations. The evolution culminates in a stage where consciousness transcends its biological roots and evolves into "exquisitely sublime forms of intelligence," as yet unknown to humankind. While such views my appeal differently to different readers, the perspective speaks to the long-term horizon and philosophical openness of Mariana's inquiry into our current predicament.

As solutions to our predicament, Mariana features "exponential technologies," not least artificial intelligence, prominently. Her argument is clear: The word is changing at an exponential rate in many regards and if we are to participate effectively in its evolution we, too, must learn to think exponentially. The urgency of our social and planetary emergencies is such that technologies with the potential to improve at an exponential pace are our best shot at timely intervention.

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While the content of the first chapter could have sufficed for a book in and of itself, Mariana, as a uniquely pragmatic idealist, provides clear guidance for putting her investment approach into concrete action in the chapters thereafter. The second chapter of the book is titled *Hidden Dimensions and the Search for Meaning*. The chapter does an excellent job of laying out Ken Wilber's Integral theory as it relates to investing. Integral theory can be thought of as a world philosophy with profound implications for how to think about the development of human beings and society at large. Mariana's synthesis of the theory and the connections she makes to investing are useful for those well-versed as well as those unfamiliar with Wilber's work alike.

The third and final chapter of the book is titled *Integral Investing in the Disruption Era* and as a guide to integral investing it is eminently practical. At the start of the chapter Mariana reiterates her Moonshot objective "the Investment Turnaround." As part of the investment turnaround is

> implementing an investing paradigm rooted in the essence of all existence, the exterior reality, the material world, as well as interior realities such as culture, values, ethics, and morals. It is a reality in which financial returns are inseparable from environmental, social, cultural, and ethical impact, including individual joy and happiness. (p. 166)

And while the ambition is lofty, Mariana generously shares a comprehensive and succinct summary of all the investment stages involved in the integral investing approach – from deal sourcing, due diligence and onwards to a successful exit. Not least helpful is the section on smart de-risking which lays out a holistic framework called the Theta Model on analysing and mitigating risk factors related to making investments. In addition to traditional due diligence criteria, the Theta model includes sustainability and impact criteria as well criteria from Wilber's integral theory related to the behaviour, culture and consciousness of the people involved. The last part is of crucial importance, perhaps particularly, because it is often given little attention. In Mariana's integral investing it is thoroughly integrated in the investment approach.

Reading Mariana's book is a warm bath of inspiration. However, upon finishing the book we were left with a few considerations warranting further attention.

Firstly, while the book discusses rising inequality as a pressing issue, we did not see explicit measures in the integral investing approach for addressing inequality. To be clear, companies with an integral approach are bound to create vastly greater degrees of shared prosperity through their products, services and meaningful jobs. Yet, the concern remains that wealth will continue to accumulate to owners of financial capital and the occasional exceptional entrepreneur. While this can be understood as a fair exchange of risk and energy, this, too, is an exponential phenomena. A world of integral investors and integral companies would be emphatically more desirable, and yet it still might be a highly unequal world, barring explicit measures addressing inequality. The question remains whether addressing this should be the domain of business, e.g., through shared employee ownership or the domain of government e.g., by means of progressive taxation and the alike. For all the book's merits, we think it does not address the question of inequality sufficiently.

Secondly, Mariana positions Integral Investing in the upper left quadrant of ‘high financial returns’ combined with ‘high Impact’, emphasising shared prosperity. While we have no doubt that there are many opportunities where phenomenal win-win solutions can be created, we do wonder whether this focus limits, or even impedes, the unfolding of the paradigm shift that integral investors seek to initiate. We believe all industries, whether they can foreseeably be disrupted by exponential technologies or not, need to alter course and become integral in pursuing multiple bottom lines based on a higher state of consciousness. If we, as integral investors, limit the scope of opportunities to those where returns are abnormally high, we question whether we can truly push the needle in the way that we desire. For instance, at Breathe, we have co-founded a real estate investment and development company which we aspire to build into an iconic pan-European Teal organisation. This organisation is using the latest technology and innovating on various other fronts. In this way, it is maximally utilising win-win opportunities. Yet, our aspiration is not to have the highest returns in the industry because it is not congruent with the purpose of the company. The purpose of the company is to *change real estate to serve the whole* by building people and planet positive homes. A part of that mission is to rebalance the interests in real estate development between investors, people and planet. After all win-win opportunities have been exploited, we believe that there are still trade-offs worth making where the benefits to people and planet vastly outweigh the costs of lower returns to investors.

Thirdly, Mariana's integral investing approach promotes value creation across multiple dimensions all the way to exiting the company. While that is a good start, the problem remains that a company is then reliant on the stewardship of the next investors and their good intensions. If the next investor, or the investor succeeding that one for that matter, has but unidimensional profit motives, the inherent flaw of our capitalist systems is once again revealed and the integral approach is lost. Venturing is largely done in legal entities that do not constitutionally acknowledge the interrelated nature of value creation of different types. Yet, at the same time, ventures are controlled by the beneficiary of value creation of one type only – financial capital. Despite the comprehensive scope of the book, we missed a discussion of this tension and a more elaborate discussion of the post-exit prognosis of companies previously owned by integral investors.

In conclusion, Integral Investing is a phenomenal book, both practically and philosophically. The topics in the book are thoroughly researched and well developed. The book has a personable character, given to it by the personal anecdotes, investing experiences and Mariana's "confessions" of various kinds. Mariana's background, having grown up in communist Romania, puts the content of the book in a fascinating and sobering perspective. In particular, we are grateful to Mariana for sharing her practical knowledge and learnings in the last chapter of the book on her investing approach. We know that we will keep Integral Investing around and frequently consult its final chapter going forward.

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Reviewed by Heikki Jyväsjärvi[1]

Introduction

Now, if ever, is the time for us to focus on the development of human mind, thinking, feeling and acting. The challenges we are facing now and in the future are and will be very complex in nature. We have to solve ill-defined problems and in order to do that we have to seek for new perspectives outside the box of our own comfort zones. We would need to be able to see multiple truths and create solutions that integrate different theories, worldviews and thinking paradigms. We would also need to find common grounds between different disciplines and academic research traditions – not to aim for confrontations, however easy and safe that might be.

Development of adult thinking: Interdisciplinary perspectives on cognitive development and adult learning offers us a perfect example of this kind of multidisciplinary, holistic and integrative way of thinking. It seeks to find commonalities between these different research fields - developmental psychology, adult learning and wisdom research - presenting the history and possible future of research on development of adult thinking and learning. Continuing the great pioneer work of the previous milestones such as Beyond Formal Operations (Commons et al., 1984) or Reciprocal Handbook of Adult Development (Hoare, 2011) this edition will find its' way to the bookshelves of those readers, students and scholars interested in the development of the human mind, adult thinking and learning.

Summary of the Argument

This book aims "to seek and offer an integrative view on the development of adult thinking and learning processes" (Kallio, 2020, p. 1). Editor Kallio acknowledges the large variety of range covering these issues and the fact that there's no way possible or even reasonable to introduce all different approaches to these themes. Thus, editor Kallio and all of the authors in this book describe some of the fundamental models and theories aiming for a bigger picture, holistic overview of the development and learning of the human mind, reaching towards wisdom. All of the chapters approach the main themes from a slightly different perspective, thus offering a reader a multiperspective synthesis of these complex phenomena.

Integrative thinking, as defined in this book, is thinking "where an individual integrates ideas and even opposing perspectives, is able to form a synthesis based on these different perspectives"

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(Kallio, 2020, p. 157). Editor Eeva K. Kallio and the authors are aiming for making such integration between different disciplines and theories and they succeed in this great endeavor beautifully. The reader gets a very thorough presentation of the history and present of these research strands covering the development of thinking and learning. I think it resonates also perfectly among the readers familiar with the writings of Ken Wilber – integrative thinking as a concept seems to come very close to integral thinking (cf. Wilber, 1995). One of the main goals in this book is also to show the commonalities and mutuality in development of adult thinking, different learning theories and wisdom research.

Representing developmental psychology, social psychology, education and philosophy the authors of this book have succeeded in creating a dialogue and speaking in mutual language to build the bridges between all these different disciplinaries and perspectives. They all seem to have a same goal; trying to find an understanding between the concepts, theories and models and thus build a bigger narrative, a meta-view to the development of the human mind. An interesting feature of this book is that all the authors are Finnish. Finland appears to have lot to offer to the research field of adult developmental psychology, adult learning and wisdom research.

About the Editor

Eeva. K. Kallio, PhD, is Adjunct Professor at the University of Jyväskylä and University of Tampere, Finland. She is also a senior researcher in the Finnish Institute for Educational Research (FIER). Kallio is the leader of Wisdom and Learning research team and founding member and Honorary President of the European Society for Research in Adult Development (ESRAD). Her research interests are mainly theoretical, and they focus especially on development of adult thinking and wisdom.

Summary of Contents

The Development of Adult Thinking is divided in three sections. In the first section the major developmental stage models on cognitive and moral thinking are introduced (Chapters 2-6). The second section (Chapters 7-10) deals with adult learning and knowledge construction presenting the major trends of this research area. The last thematic section offers some new perspectives and discusses the methods and insights for future research.

Adult Thinking

In chapter 2 editor Eeva K. Kallio presents the major theories and models in adult developmental psychology. She also links these theories with modern wisdom research. This chapter gives the reader a great overview of the theoretical themes presented in this book.

The starting point of modern research on adult developmental thinking is Piaget's theory on cognitive development in childhood and adolescence. Piaget's stage model is represented here with respect but also showing the limitations of it. The main focus in Piaget's theory is the development of causal thinking, in other words logical reasoning or hypo-deductive thinking. According to Kallio one of the limitations of this theory is that it isn't applicable to different domains other than scientific reasoning. To interpret all human thinking through the lenses of

Piaget's stage model is seen as one form of reductionism (all thinking is logical reasoning with its true/false- statements). William Perry's research on epistemic assumptions about knowledge was a very important step forward and it paved the way for so called Neo-Piagetian theories. According to Kallio: "Perry was the first one to study the development of adult cognition from different perspectives instead of logical reasoning only." (Kallio, 2020, p. 17).

Kallio has already re-labelled adult thinking as integrative thinking (Kallio, 2011) and here she suggests that the terms postformal and relativistic-dialectical thinking could be replaced by the term *contextual integrative thinking*. Kallio's arguments are well presented here when she elaborates the differences in ontological pre-understandings between Piaget's theory of hard logic and more flexible logic of post-Piagetian scholars. For a reader entering this book this hermeneutical discussion is very important. There are also two very informative figures (fig. 2.1 and 2.2.) on pages 21–22. The figure 2.1 shows the three different modes of thinking (single-perspective, multiperspective and contextual integrative thinking). It also shows the way the previous mode is transcended but included in the next "stage" or thinking mode (cf. Wilber 1995). The figure 2.2 sums up the main research traditions presented in this chapter and ontological pre-assumptions related to different domains of thinking.

Finally, Kallio links contextual integrative thinking with wisdom research. She notes that the field of wisdom research (as well as developmental psychology) is highly heterogenous and full of diverse models and classifications. Thus, she suggests that "Wisdom as an Ideal Goal" would be a suitable umbrella term under which various domains of psychological and developmental research could integrate in a more comprehensive way.

This chapter is truly an integrating endeavor. It shows the great diversity and even fragmentation of the research field on adult development but also makes clear how all the different viewpoints or paths somehow lead to the same direction – outlining the same phenomenon.

On Epistemologies

In chapter 3 authors Hannele Seppälä, Sari Lindblom-Ylänne and Eeva Kallio delve deeper into development of logical reasoning and epistemic knowledge – especially aiming at integrating these two main lines of research in adult cognition.

This chapter shows connections between aforementioned approaches with an example of a study on higher education students in Finland. The results of this study indicate the connection between logical reasoning skills and development of epistemic knowledge: "The findings suggest that good reasoning abilities reinforce the notion about the individual's own role in knowledge construction" (Kallio, 2020, p. 42).

As a conclusion the authors discuss how to enhance adults' thinking skills especially in the context of higher education. They emphasize the importance of encouraging students to take an active role in creating the learning process and allowing the students to doubt and question, share their views and thus "develop their thinking in dialogue and co-operation with others" (Kallio, 2020, p. 43).

Anna-Maija Pirttilä-Backman, Salla Ahola, and Inari Sakki continue to present the well-known Reflective Judgment Model by Karen Kitchener (1978) and Patricia King (1977) in chapter 4. They describe the development of personal epistemologies and Kitchener's and King's interviewing methods, comparing them to Perry's. According to King and Kitchener knowledge is seen as the result of critical combination and evaluation of standpoints and evidence at the highest stage of this model (Kallio, 2020; King & Kitchener 1994). Authors of this chapter introduce also some Finnish studies which have used King and Kitchener's methods and Reflective Judgment Model (e.g. Kajanne, 2003; Pirttilä-Backman, 1993; Pirttilä-Backman & Kajanne, 2001). These studies have been made in different educational levels and educational fields and there's been a strong connection between different theories of truth.

Moral Development

In chapter 5 Soile Juujärvi and Klaus Helkama discuss the moral developmental theories of Lawrence Kohlberg (1976) and Carol Gilligan (1982). Kohlberg's theory emphasizes the perspective of justice and Gilligan offers the perspective of care in her critique on Kohlberg's "male point of view". These parallel and maybe contradictory views are very interesting, and this kind of integrative approach is more than needed. Wilber (1995) argues very similarly that there's no use to make confrontations between Kohlberg's and Gilligan's theories. We need more both-and discussion to get a more holistic view on many dimensions of moral development. Here Kohlberg's and Gilligan's views on moral development are approached with an integrated perspective. The ethic of care is seen dealing with issues of micro-morality (close relationships) whereas justice of reason is focused on macro-morality (including also strangers beyond community). They are nevertheless often intertwined in moral conflicts of our everyday life. So, these two theories can support and contradict each other at the same time. They are also very much context dependent and the correlation between them is obvious – with variations among individuals of course. They get fused and integrated especially in postconventional moral thought in mature adulthood. As it seems to be the combining theme with all the articles in this book the authors see the development and integration of both moral perspectives - justice and care - as an essential component of wisdom.

Closing the first section of the book the authors of chapter 6 Jaana-Piia Mäkiniemi and Annukka Vainio broaden the view of morality from Kohlberg's and Gilligan's views presenting recent theories of moral development. The authors note that the need for widening the views of morality has emerged from the fact that justice and care components couldn't cover all the moral issues especially in the domain of cultural psychology. Furthermore, they argue that there is a disagreement among researchers of what belongs to the moral domain.

Adult Learning

The second section of this book (chapters 7-10) addresses the perspectives on adult learning. In chapter 7 authors Mari Murtonen and Erno Lehtinen open the discussion with a very intensive overview of different theories of learning. Following the main idea of this edition, authors address learning as a complex and adaptive system with several levels.

This chapter presents also different philosophical perspectives on learning. I think that this part is very important because it addresses the epistemological and ontological issues of learning. Murtonen and Lehtinen continue discussing the theories on different levels (individual, social and cultural) of adult learning. At individual level the cognitive, motivational, metacognitive and regulation theories are presented in great detail. The authors aim to form a synthesis integrating these different theories which I find very interesting and ambitious. The authors present also a "warming trend" in educational theories when discussing the importance of different motivational, metacognitive and regulation processes of learning. Meta-cognitive and regulation skills are seen as very important factors when it comes to high-quality learning.

Metacognition, Tacit Knowledge and Expertise

In chapter 8 the authors Mikkilä-Erdmann and Iiskala combine the theories of conceptual change and metacognition. Their article illuminates the connection between these two theoretical approaches and the benefits of creating an interaction between them. The authors refer to the research on Finnish medical students and classroom teacher students (e.g. Ahopelto, Mikkilä-Erdmann, Olkinuora, & Kääpä, 2011; Ahopelto, Mikkilä-Erdmann, Anto, & Penttinen, 2011). The findings show that even high-performing students in higher education have misconceptions in basic phenomena such as cardiovascular system or photosynthesis. According to the authors conceptual change needs metacognitive skills and this meta-conceptual change is obviously time consuming. Learning environments (i.e. curriculum, learning materials, teaching and learning strategies) should support students' metacognitive growth and metaconceptual awareness in order to create real revisional learning and students' awareness in their epistemological systems.

Tacit knowledge is another concept that seems very hard to define. In chapter 9 Auli Toom and Jukka Husu aim to untangle the shared core questions on tacit knowledge and present a model in which the characteristics of tacit knowledge and expertise are intertwined into four different perspectives. In this model they elaborate expertise, tacit knowledge and knowing both from individual and collective perspectives. The nature of knowledge (from process to product) is also well presented in figure 9.2. (Kallio, 2020, p. 151). In discussion Toom and Husu ask whether we are in danger of losing something essential regarding the tacit knowledge of experts such as features like affectivity, spontaneity and interactivity.

For me one of the key chapters in this book is chapter 10. Authors Päivi Tynjälä, Eeva K. Kallio and Hannu L.T. Heikkinen create a great synthesis of modern research on adult thinking and expertise, wisdom research and Aristotelian forms of knowledge. One of the main concepts in this edition, integrative thinking, is the focal point here. This chapter introduces the theories of professional expertise and elaborate the term integrative thinking in more depth. It also presents different wisdom models and draws connections between development of expertise and wisdom. And finally, the authors illuminate the aforementioned research areas and theories with the philosophical background, Aristotle's forms of knowledge and Habermas' Theory of Knowledge and Human Interests. Figure 10.1 (p. 169) illustrates this synthesis in an illuminating way. It is simple and very informative, and I personally enjoyed how the emotional dimension is shown here.

Opening Discussion for Future Research

Beginning the last section of this book chapter 11 presents a critical review of research methodology used when studying epistemic assumptions, concepts of knowledge and knowing. The authors Hyytinen, Postareff and Lindblom-Ylänne elaborate the methods being used from the days of William Perry to the present. Although the self-reporting methods and quantitative questionnaires have been quite popular in the eighties and nineties, they have been critiqued recently. Many researchers have found that epistemic conceptions are characteristically abstract constructs and therefore very hard to be measured with these kinds of assessments. The students' interpretations of these concepts have been inconsistent with the researchers' intended meanings and assumptions. Thus, the authors suggest that mixed- or multi-method approaches would be needed. In figure 11.1 they present two main strategies when using these approaches. In sequential strategy the researcher uses the follow-up phase aiming to answer the unanswered questions of the first phase. In concurrent strategy the researcher uses two or more data collection and analytical methods simultaneously. Furthermore, the authors note that authentic methods have been found to be rich sources when collecting data because they provide an opportunity to deepen the understanding of the nature of thinking.

In chapter 12 the development of adult thinking is reflected through the lens of systems thinking. This systems perspective is almost obligatory given the main idea of this edition. As the authors note: "Its foundations lie in different systems theories that take a comprehensive and multidisciplinary view on exploring phenomena" (Kallio, 2020, p. 191). The aim of this chapter is to link systems approaches on the development of adult thinking. The authors present the three systems paradigms (closed, open and dynamic systems) which are presented in table 12.1. (Kallio, 2020, p. 196).

Kallio's (2015) critical reflections on Piaget's paradigmatic choices are very important here as they rise from the dynamic systems paradigms. Piaget's theory appears to be grounded in the closed systems paradigm (e.g. development of causal thinking has a final endpoint) whereas Perry's approach represents more open or even dynamic systems paradigm (e.g. complexity, self-transformability).

The authors Ståhle, Mononen, Tynjälä and Kallio then delve deeper into the third systems paradigm and the theories of Prigogine (1976) and Maturana & Varela (1980, 1992) in particular. Although these theories were first created in physical/chemical and biological domains, they have been found to be applicable to social systems as well. Prigogine's self-organizing system and Maturana and Varela's self-referential system are well introduced and elaborated here. The link between the dynamic systems theories and adult development thinking is very visible in the works of Sinnot (1998), whose theory of post-formal thinking is grounded in the dynamic systems paradigm. I find this linking and comparing Sinnot's theories with self-organizing and self-referential systems very illuminating.

Systems theories and these open and dynamic systems paradigms have a clear connection with the theories of development of thinking and learning. Future research on these domains would clearly benefit from systems approach. Now after reading this book once more I find this chapter the most useful for my own future studies.

This edited volume closes up with Tuominen and Kallio's critical philosophical reflection on the psychological models of adult cognitive development. The authors note that the psychological and philosophical approaches to logical contradictions and epistemological relativism differ from each other. While developmental psychology studies thinking in empirical subject, the philosophical logic deals with logical validity. I think it is very important to build these bridges between philosophy and cognitive psychology since they both approach the same phenomena, thinking and knowing, but with different perspective. This kind of critical reflection reveals some problems when describing adult cognitive development and we should definitely be aware of them. Especially the central concepts in developmental psychology, epistemology and relativism, have a different meaning in developmental psychology and philosophy. The differences in psychological and philosophical epistemology are elaborated with concrete examples and the authors show how the epistemologies of the students in Perry's research have quite different character than in traditional philosophical epistemology. "The truths" in Perry's studies are much more subjective beliefs on the way truth appears to the subjects in the study. Philosophy tends to approach the logic of truth in a more "philosophical" way and that creates some confusion with the concept of epistemology.

The discussion on dialectical thinking is very interesting and again I find some similarities with the writings of Ken Wilber here. The notion that things have their features only in relation to something else or things appear to be one thing but at the same time they are also something else depending on the context or a perspective sounds very integral to me. The works of pioneers in dialectical approach to developmental psychology, Riegel's (1973, 1976) and Basseches' (1984, 2005) are introduced here and especially Riegel's model of perspectives in four dimensions (Kallio, 2020, p. 214) comes very close to Wilber's four quadrant model.

Once again, the authors bring forth the limitations of Piaget's theories. The well-defined problems that were the basis of Piaget's research are based on the "old" machine paradigm and thus may not cover the ill-defined nature of human thinking and problems we are facing especially in today's world. We have to find more than true or false solutions to the challenges we are facing. We need problem solving that seeks for "the truths" from many different perspectives and shares also many contradictory truths. Of course, it's easier to think in simplified dichotomies choosing one from two opposite choices. And that is why we often tend to think in dichotomies. In dialectical thinking both solutions might be true or false at the same time and the problem might get solved integrating them or maybe finding a third solution. The discussion on contrary or contradictory opposites are very important here and again show the differences between the philosophical logic and classical views of cognitive psychology. As the authors note: "…one crucial difference between youthful and mature ways of thinking could be that latter can recognize which oppositions are which and whether some conflicting notions exhaust the logical space or not, while the former tends to see all conflicts as ones in which it is necessary to choose between two given options" (Kallio, 2020, p. 218).

This chapter shows how important it is to differentiate these two approaches (PhilEp and PsyEp) to epistemology. They argue that to avoid confusion we should aim for analysis of mature ways of thinking in terms of integration. Integration differs from epistemological relativism since "it does not require that one assumes different standards of truth for different views" (Kallio, 2020, p. 224). The ability to integrate different perspectives and standpoints along with different and sometimes very strong emotions in complex situations is the kind of mature adult way of thinking that goes beyond formal cognitive thinking and so-called unrestricted relativism. I'm sure that this chapter and the whole edition opens up a very important discussion for the future. Now if ever is the time to critically seek new ground for future studies on development of adult thinking and life-long learning in adulthood. This book offers us many important perspectives and new insight on these important themes.

Conclusion

This edition succeeds to offer a thorough insight to the research on adult development and learning. It shows how closely intertwined all these themes are and how they share many commonalities. The biggest strength of this edition is that it succeeds to build some bridges between different disciplines and research strands. It really takes a multiperspective approach to development of human thinking and learning.

As I mentioned earlier, this book stands tall before the previous landmark books on neo-Piagetian adult developmental psychology. Beyond formal operations (Commons et al., 1984) was a kick-off for this research tradition. I personally find it pretty heavy to read and I think this edition is easier to approach. I find that Hoare's (2011) edition shares a lot of similarities with the book under review here. Development of adult thinking is very logically constructed and all the articles seem to continue where the previous one left off. This is one of its strengths compared to Hoare's edition. Also, the conceptual analysis regarding post-formal thinking, epistemological relativism and dialectical thinking (especially in chapter 13) stands out as one of the key merits of this book compared to others. The way the integrative thinking and integration of cognition and other elements of learning and developing are articulated and synthesized here is what makes this book a landmark and definite must-have alongside the aforementioned books.

The fact that all the authors are from Finland might be considered as one limitation of this book. The long-term contribution of this book depends on how widely it opens up the global discussion on these topics. I hope that this edition will be an inspiration to scholars around the globe and maybe have an internationally updated edition one day.

Development of adult thinking is a wonderful example of integrative thinking in action. It presents different theories and viewpoints from multiple areas of research. It aims to form a synthesis where these different perspectives can fuse and integrate to create a more holistic view of development, learning and wisdom. I recommend this edition to everyone interested in development of human thinking and learning. It is an important handbook for every scholar and student studying these phenomena.

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